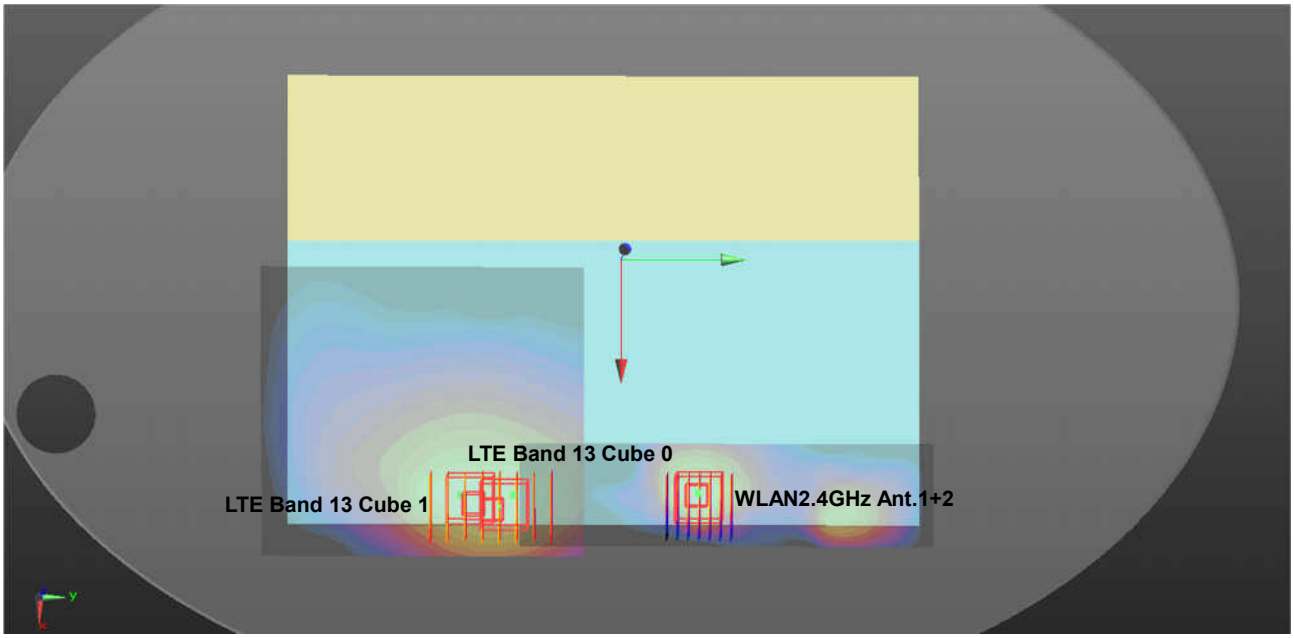
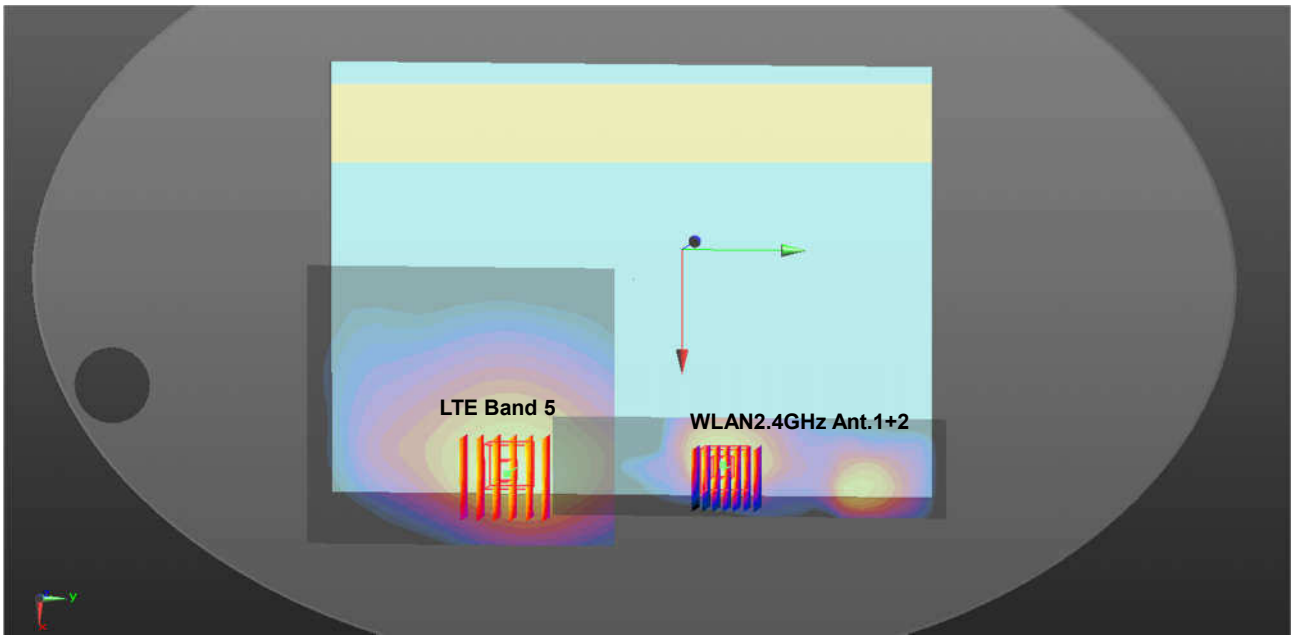
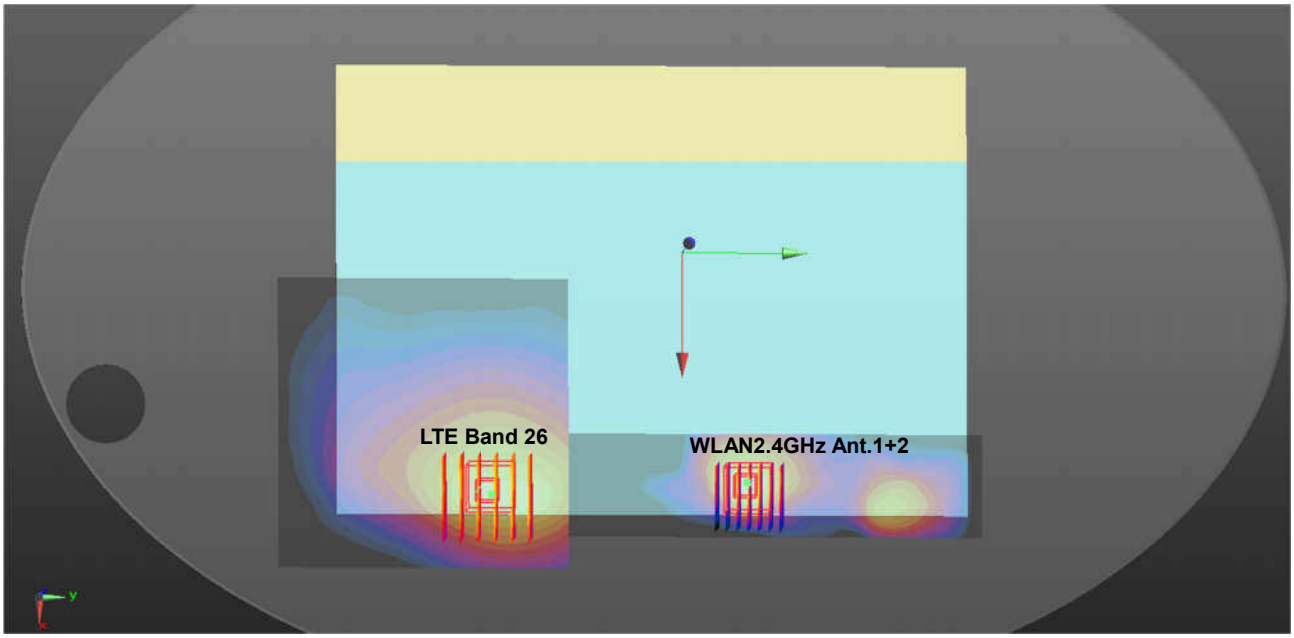
Case #26	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 13 Cube 0	Bottom Face	0.848	0	9.85	-5	-0.34	91.1	1.92	0.03	Not required
	WLAN2.4GHz Ant 1+2		1.070	0	9.18	4.08	-0.22				
	LTE Band 13 Cube 1		0.802	0	9.16	-5.15	-0.31	92.3	1.87	0.03	Not required
	WLAN2.4GHz Ant 1+2		1.070	0	9.18	4.08	-0.22				



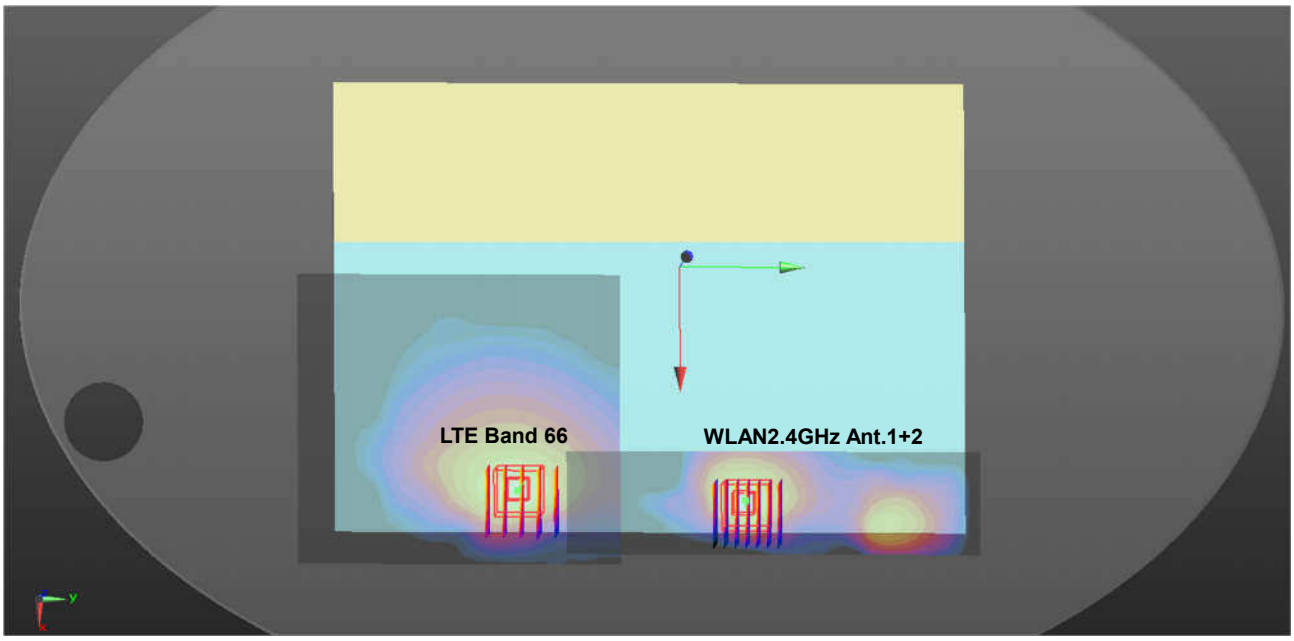
Case #27	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Bottom Face	0.874	0	9.45	-6.63	-0.3	107.1	1.94	0.02	Not required
	WLAN2.4GHz Ant 1+2		1.070	0	9.18	4.08	-0.22				



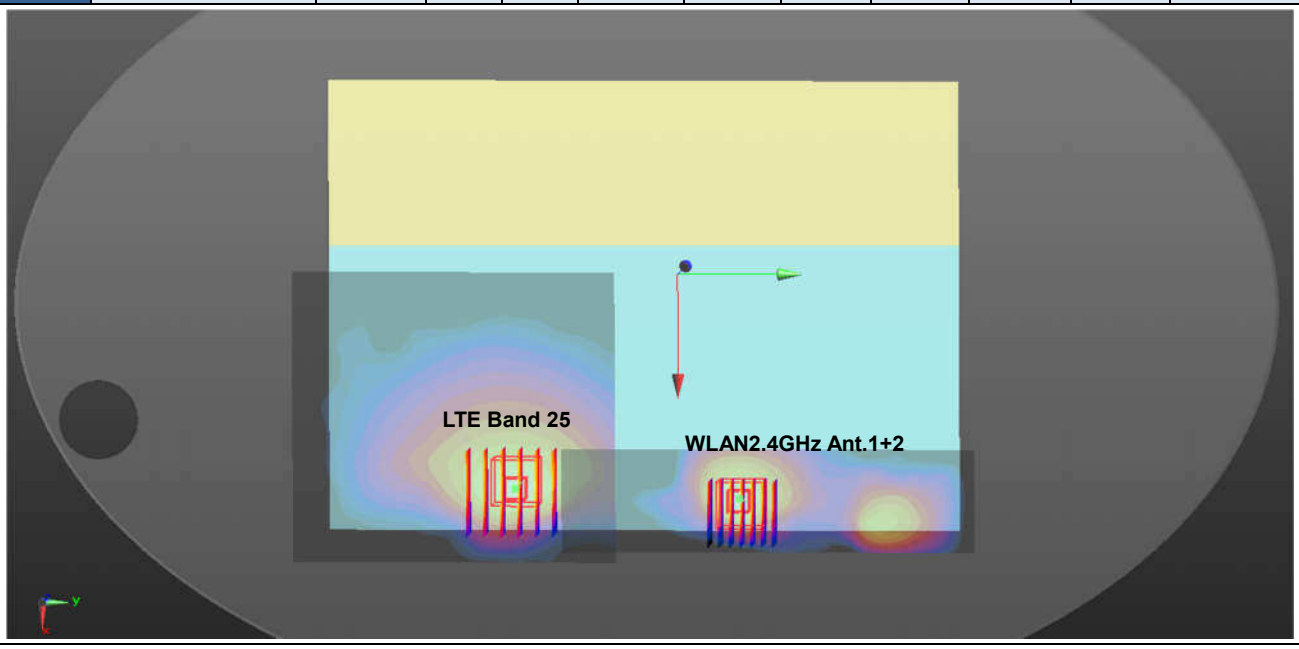
Case #28	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Bottom Face	0.731	0	9.45	-8.14	-0.4	122.2	1.80	0.02	Not required
	WLAN2.4GHz Ant 1+2		1.070	0	9.18	4.08	-0.22				



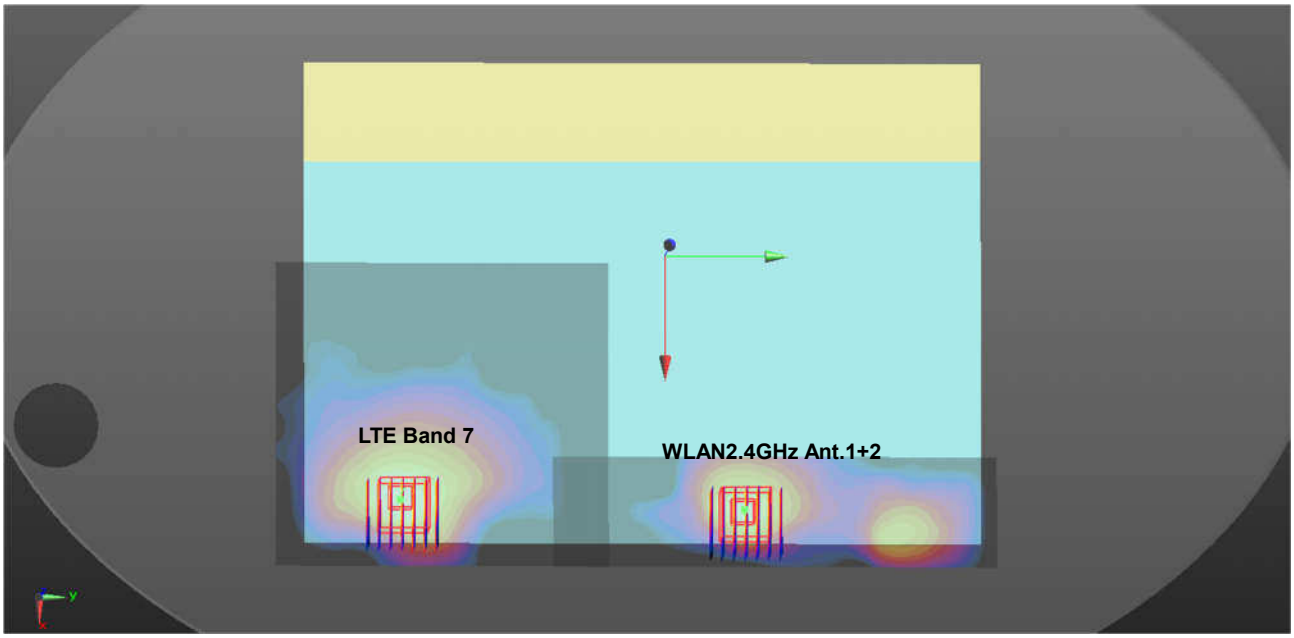
Case #29	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Bottom Face	0.869	0	8.77	-6.52	-0.39	106.1	1.94	0.03	Not required
	WLAN2.4GHz Ant 1+2		1.070	0	9.18	4.08	-0.22				



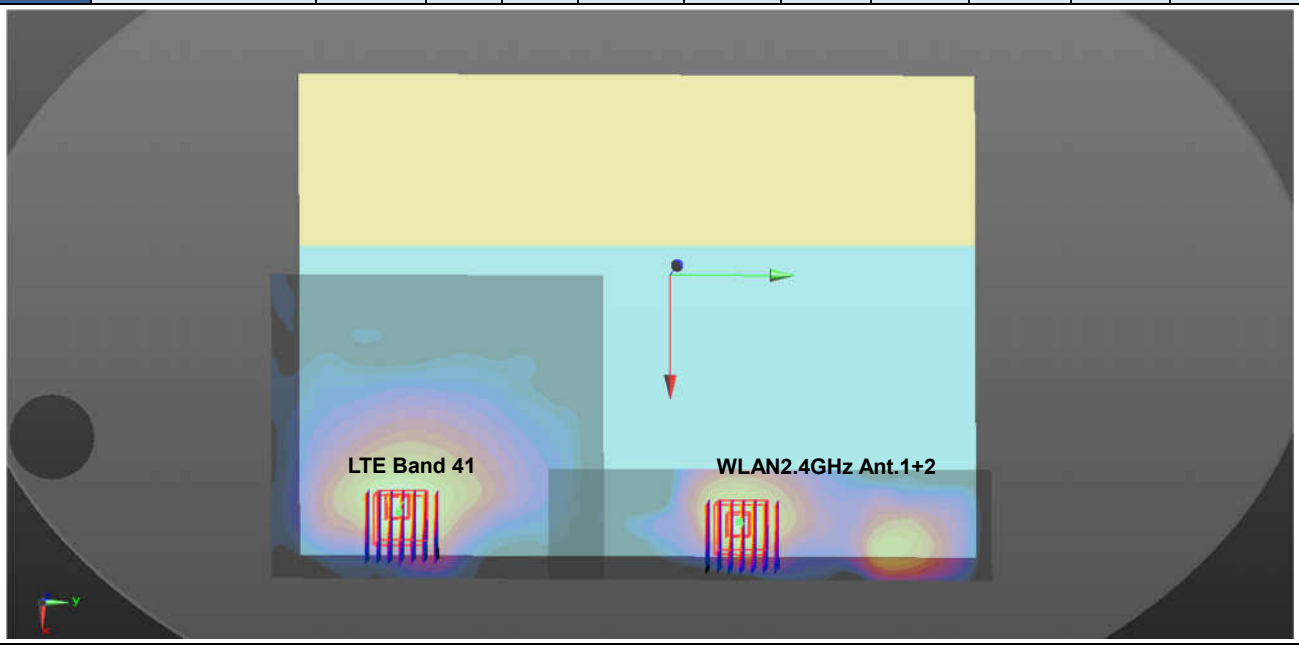
Case #30	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom Face	0.992	0	8.77	-6.21	-0.4	103.0	2.06	0.03	Not required
	WLAN2.4GHz Ant 1+2		1.070	0	9.18	4.08	-0.22				



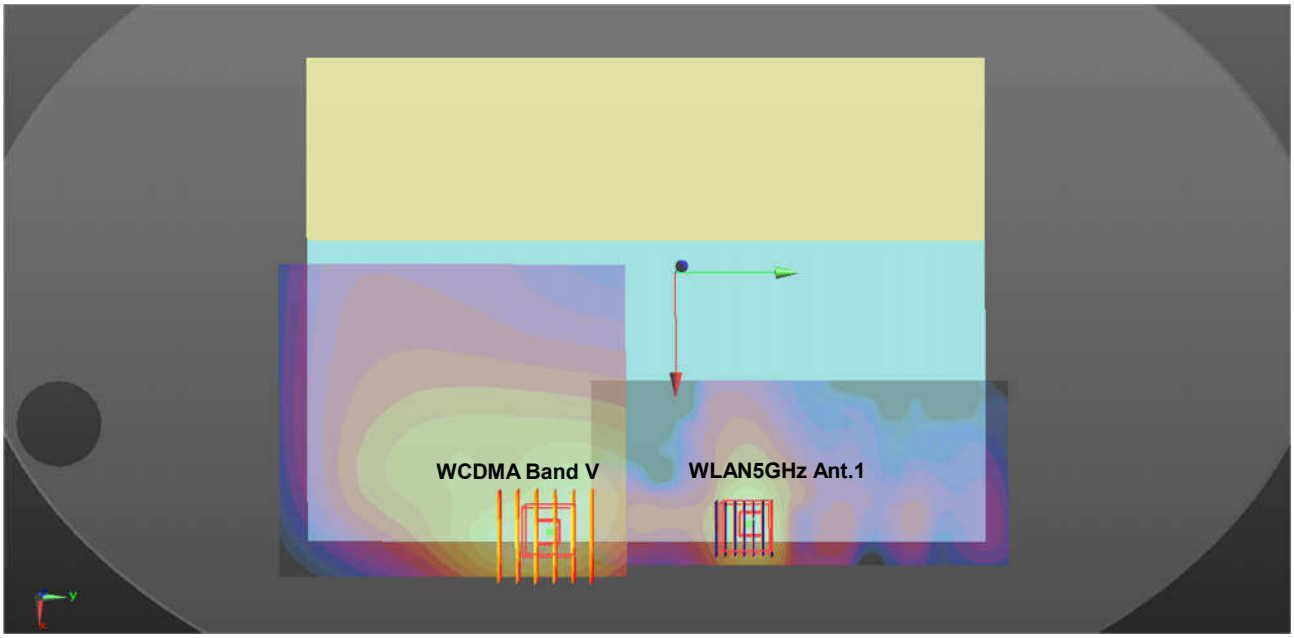
Case #31	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom Face	1.116	0	8.72	-10.9	-0.27	149.9	2.19	0.02	Not required
	WLAN2.4GHz Ant 1+2		1.070	0	9.18	4.08	-0.22				



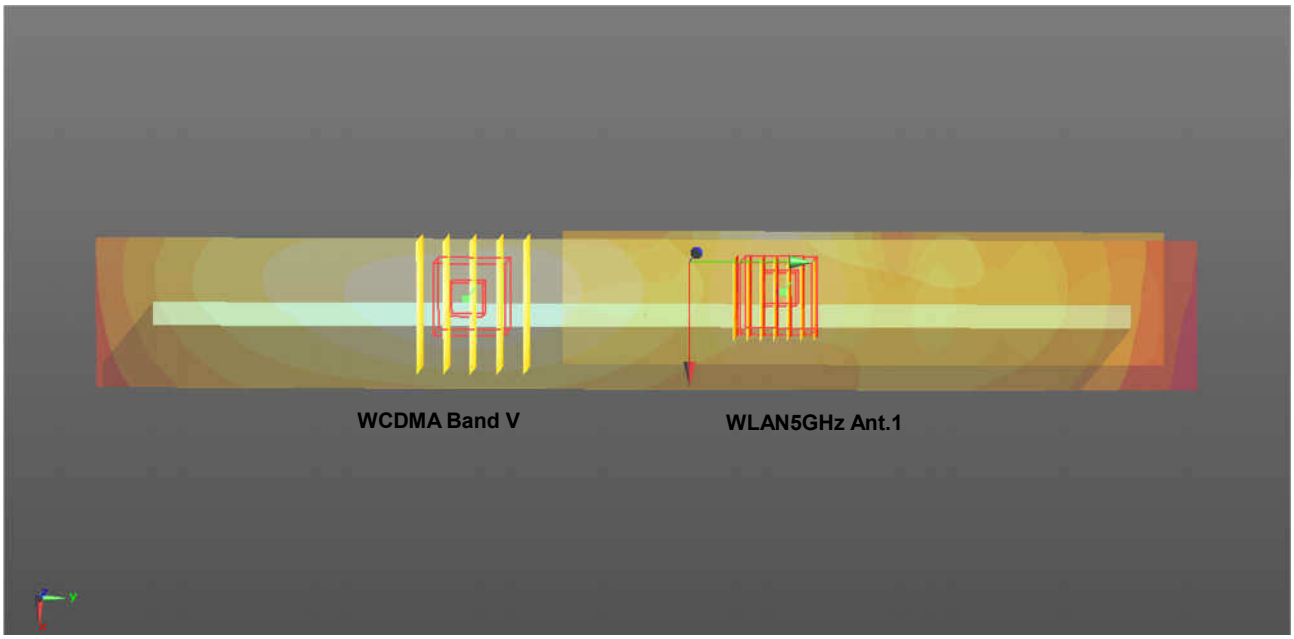
Case #32	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41	Bottom Face	0.939	0	8.52	-10.78	-0.36	148.8	2.01	0.02	Not required
	WLAN2.4GHz Ant 1+2		1.070	0	9.18	4.08	-0.22				



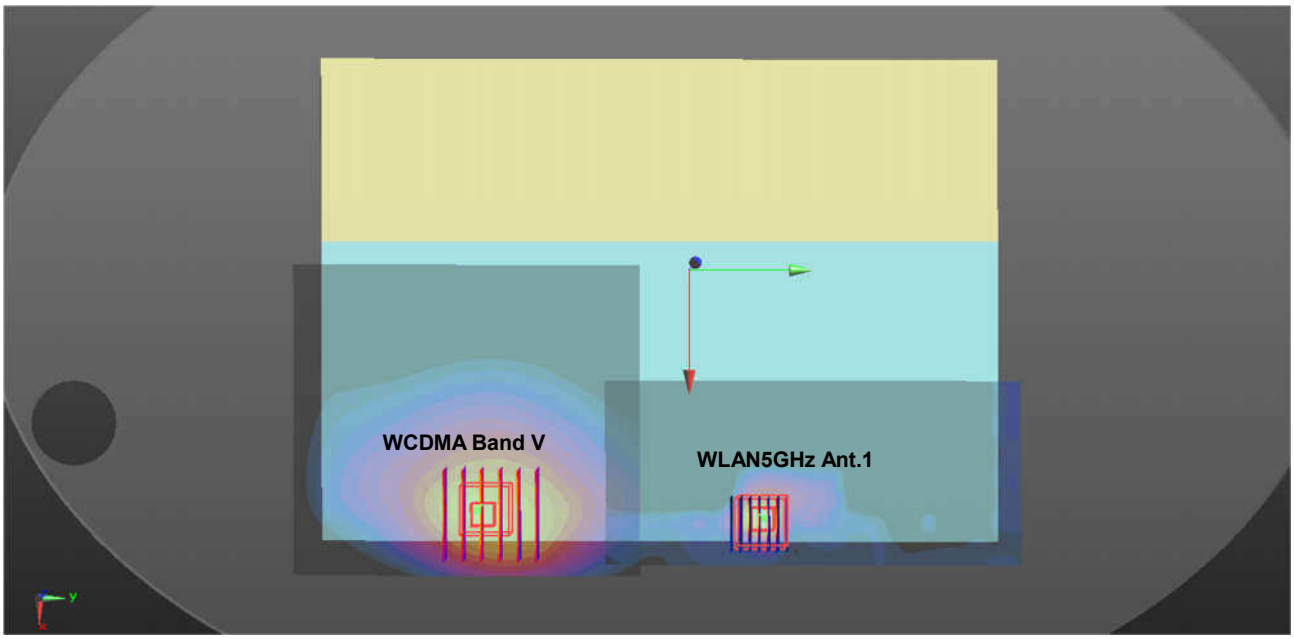
Case #33	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band V	Bottom Face	0.948	11	9.95	-4.36	-0.44	87.7	1.65	0.02	Not required
	WLAN5GHz Ant 1		0.705	11	9.68	4.4	-0.3				



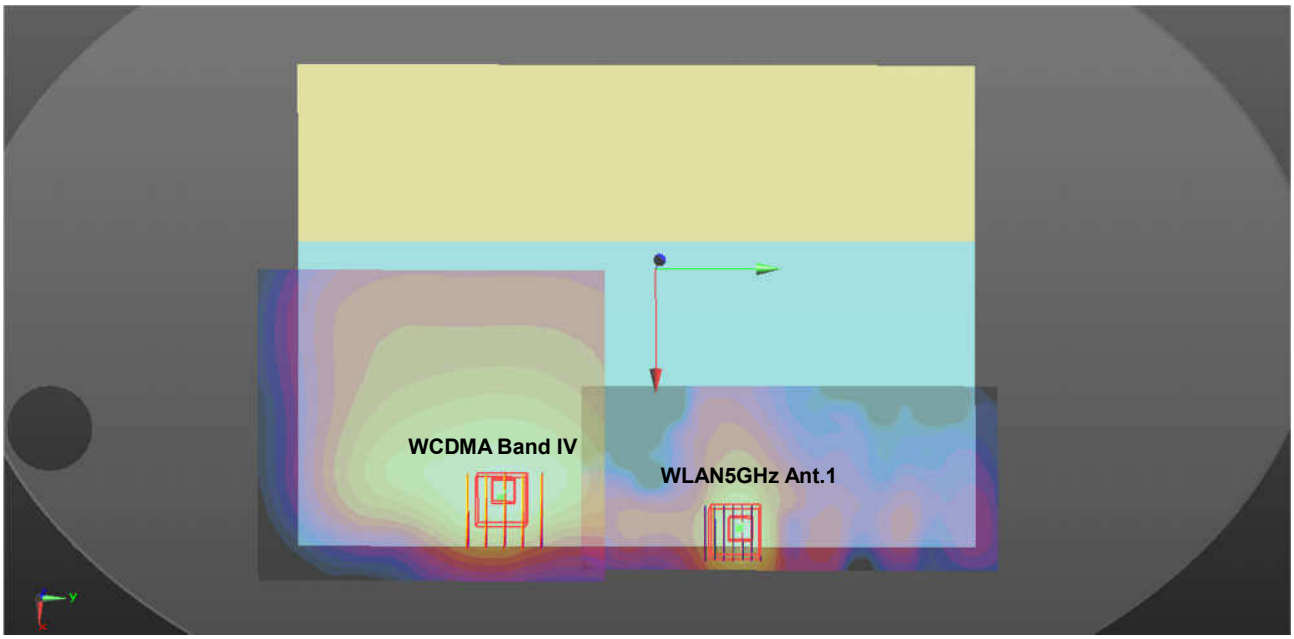
Case #34	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band V	Edge 1	1.150	11	-0.39	-5.46	-0.47	95.9	1.76	0.02	Not required
	WLAN5GHz Ant 1		0.606	11	-0.72	4.12	-0.42				



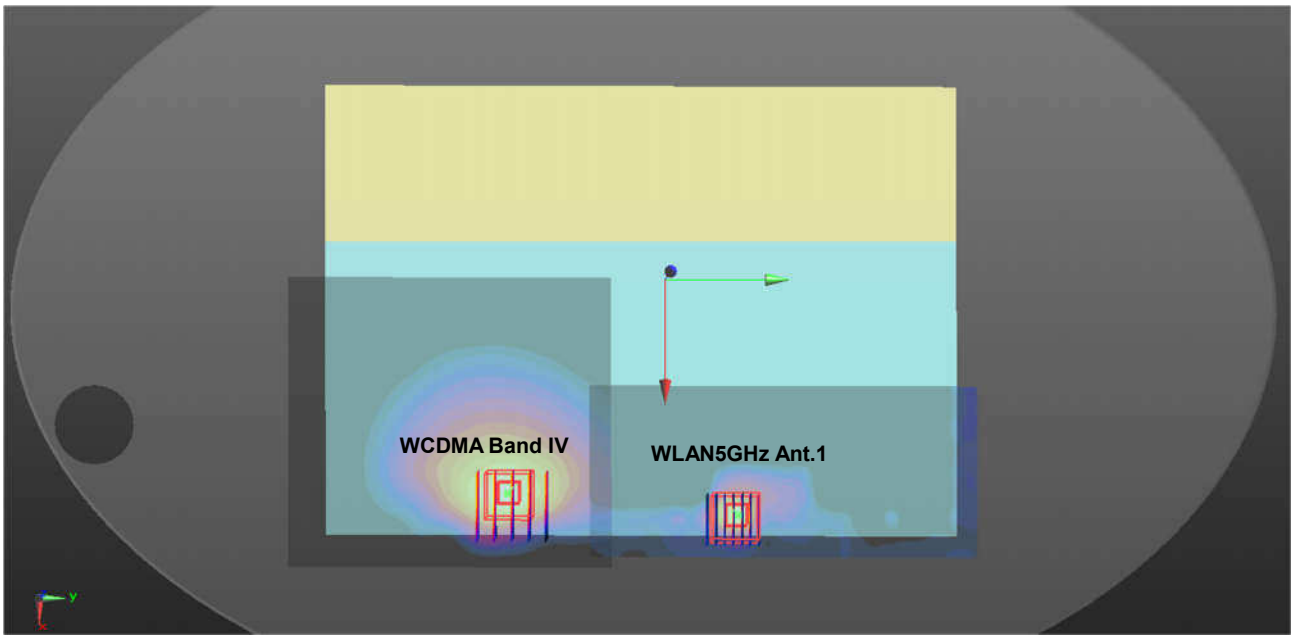
Case #35	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band V	Bottom Face	0.711	0	9.53	-7.95	-0.4	122.1	1.64	0.02	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



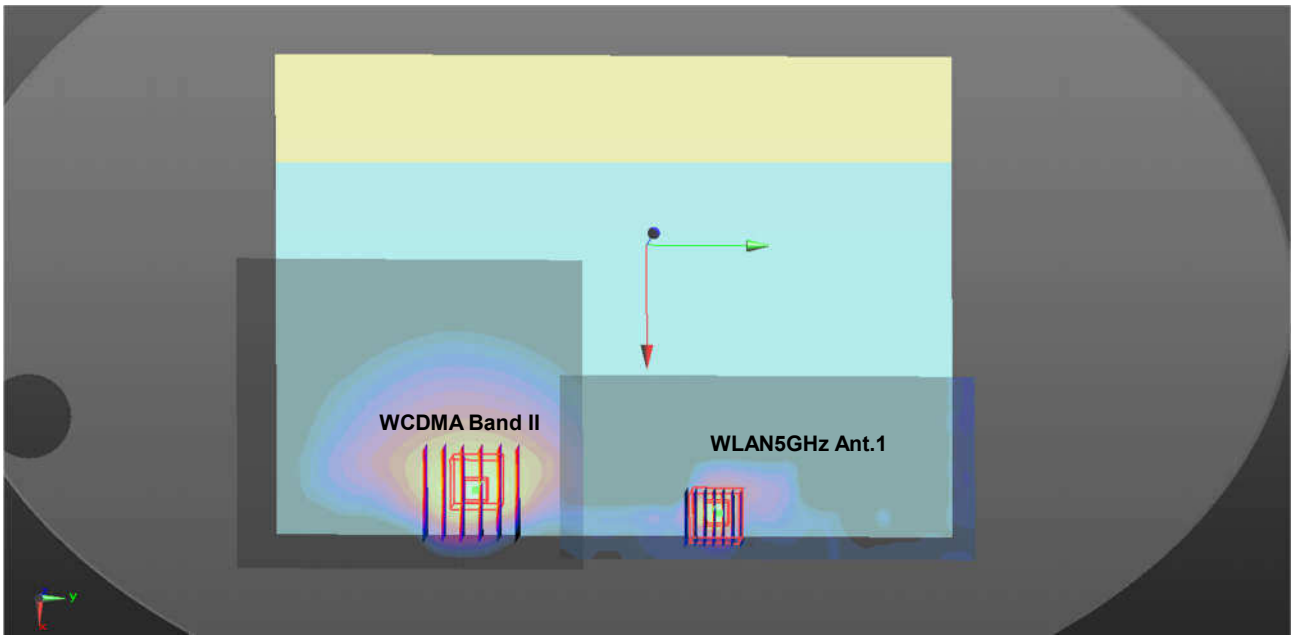
Case #36	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band IV	Bottom Face	1.092	11	8.14	-6.06	-0.44	105.7	1.80	0.02	Not required
	WLAN5GHz Ant 1		0.705	11	9.68	4.4	-0.3				



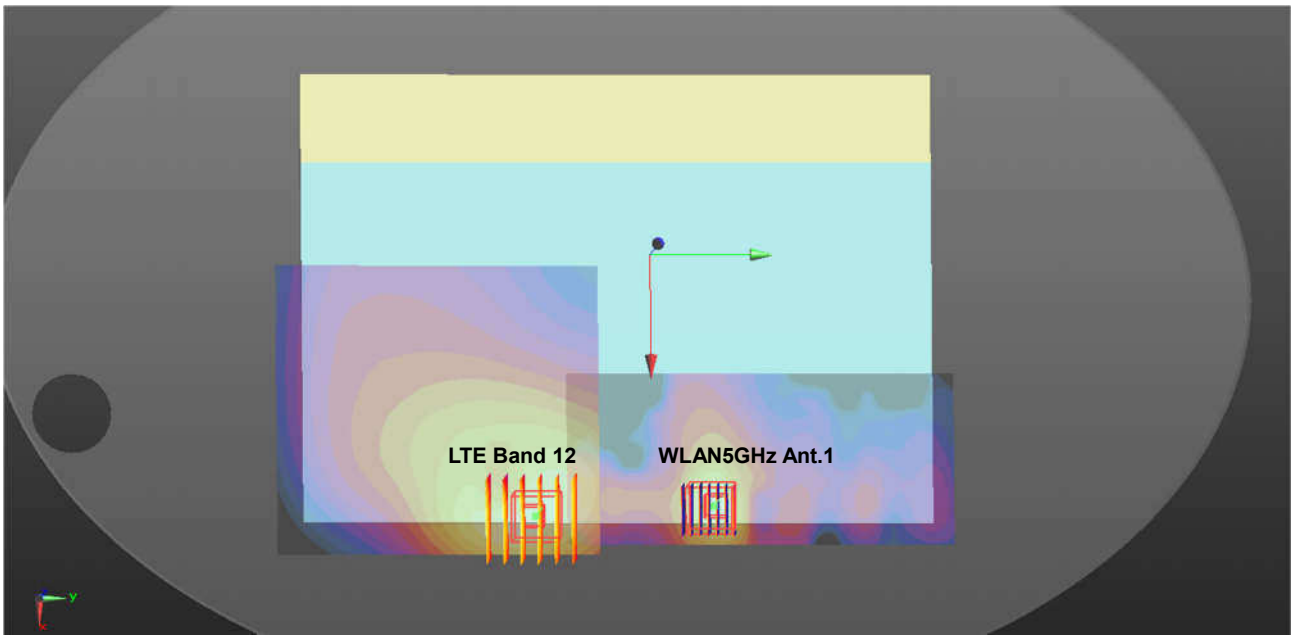
Case #37	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band IV	Bottom Face	1.054	0	8.77	-6.52	-0.38	108.1	1.98	0.03	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



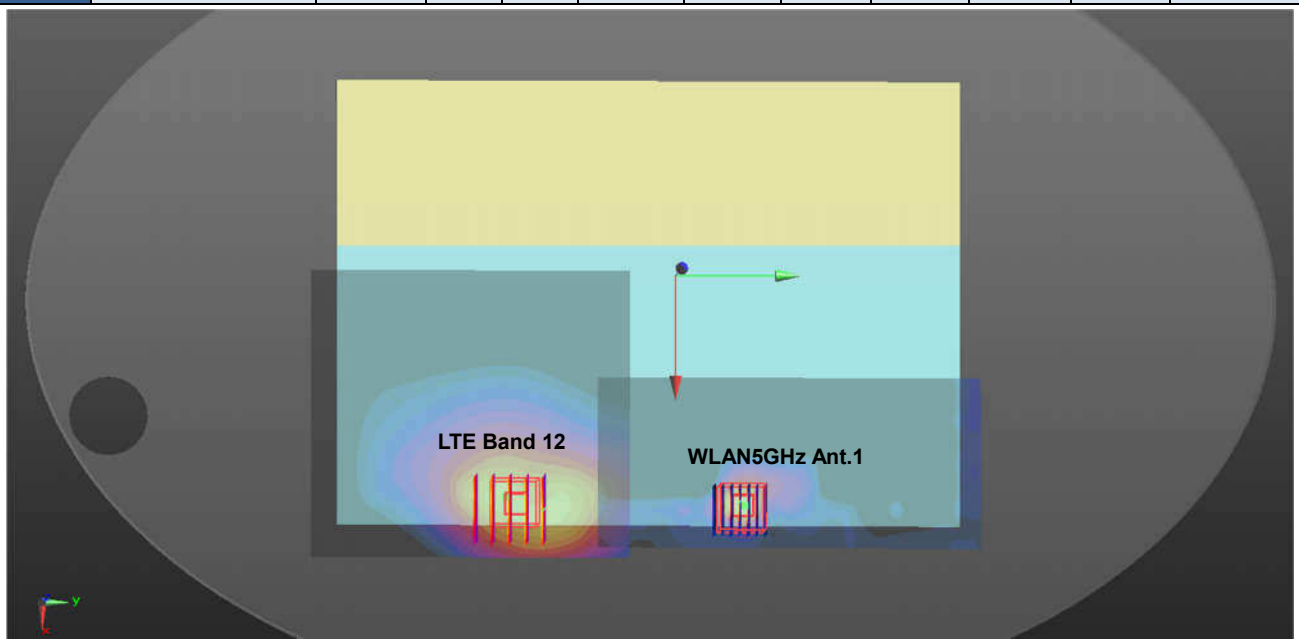
Case #38	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band II	Bottom Face	1.122	0	8.77	-6.21	-0.4	105.0	2.05	0.03	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



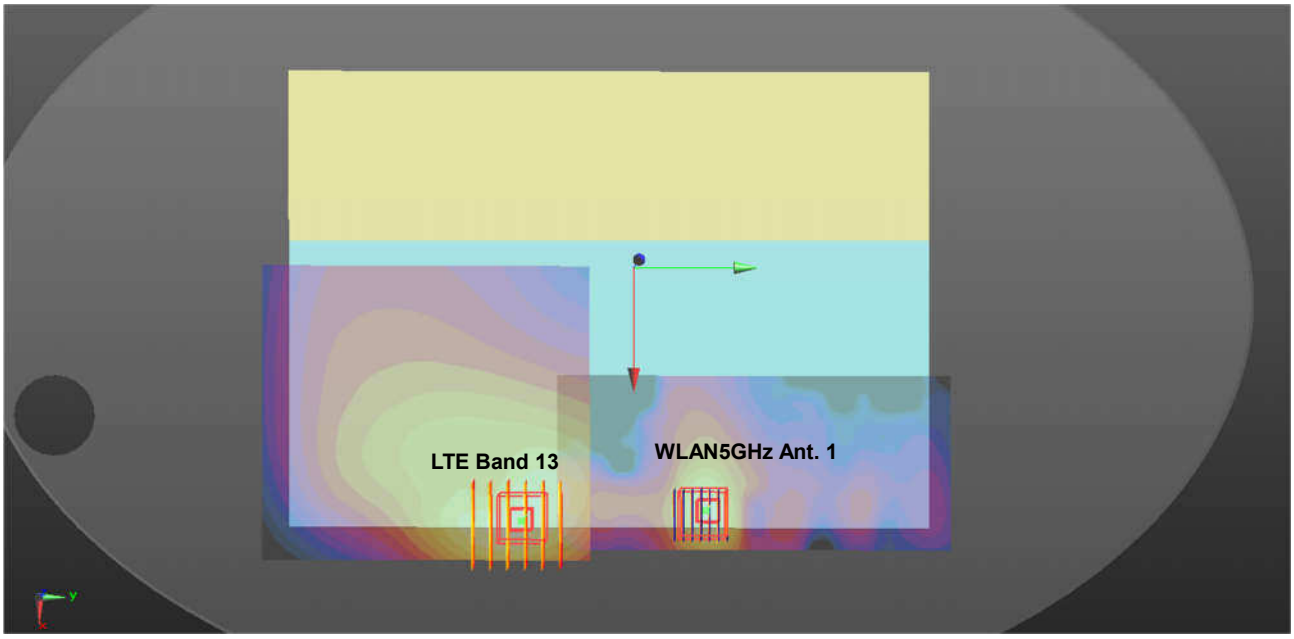
Case #39	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom Face	0.895	11	10.1	-4.06	-0.43	84.7	1.60	0.02	Not required
	WLAN5GHz Ant 1		0.705	11	9.68	4.4	-0.3				



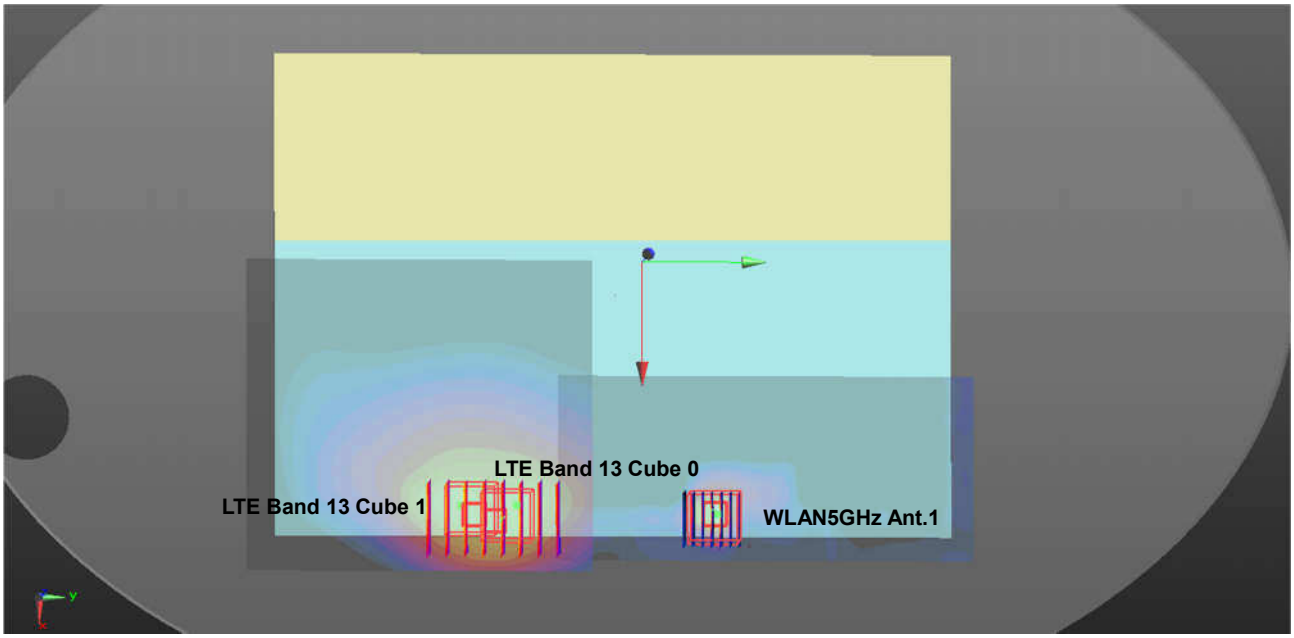
Case #40	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom Face	0.763	0	9.85	-5.15	-0.4	94.2	1.69	0.02	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



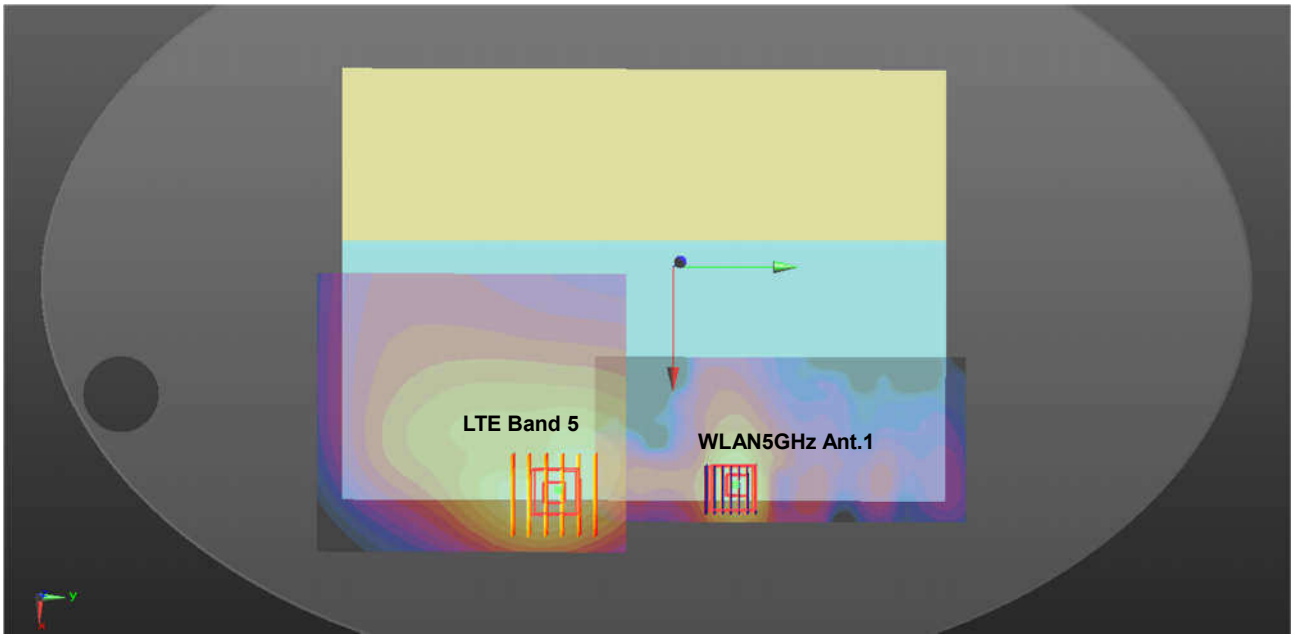
Case #41	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 13	Bottom Face	0.958	11	9.94	-4.05	-0.44	84.6	1.66	0.03	Not required
	WLAN5GHz Ant 1		0.705	11	9.68	4.4	-0.3				



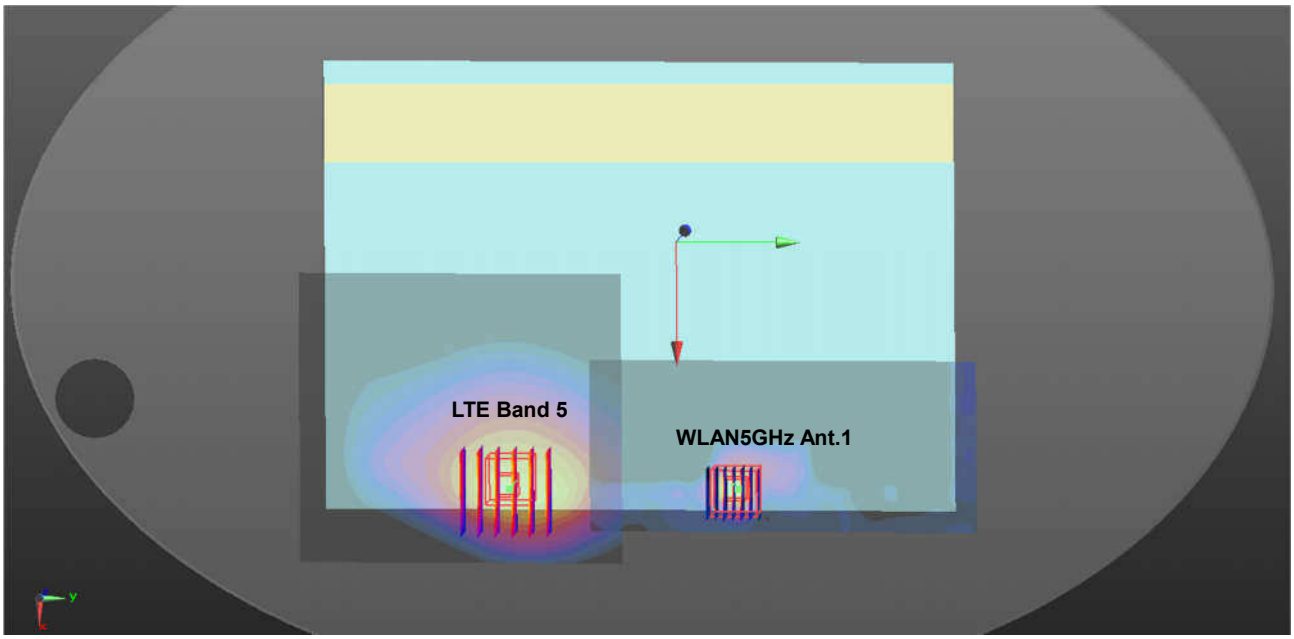
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case #42	LTE Band 13 Cube 0	Bottom Face	0.848	0	9.85	-5	-0.34	92.65	1.77	0.03	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				
	LTE Band 13 Cube 1		0.802	0	9.16	-5.15	-0.31	94.19	1.73	0.02	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



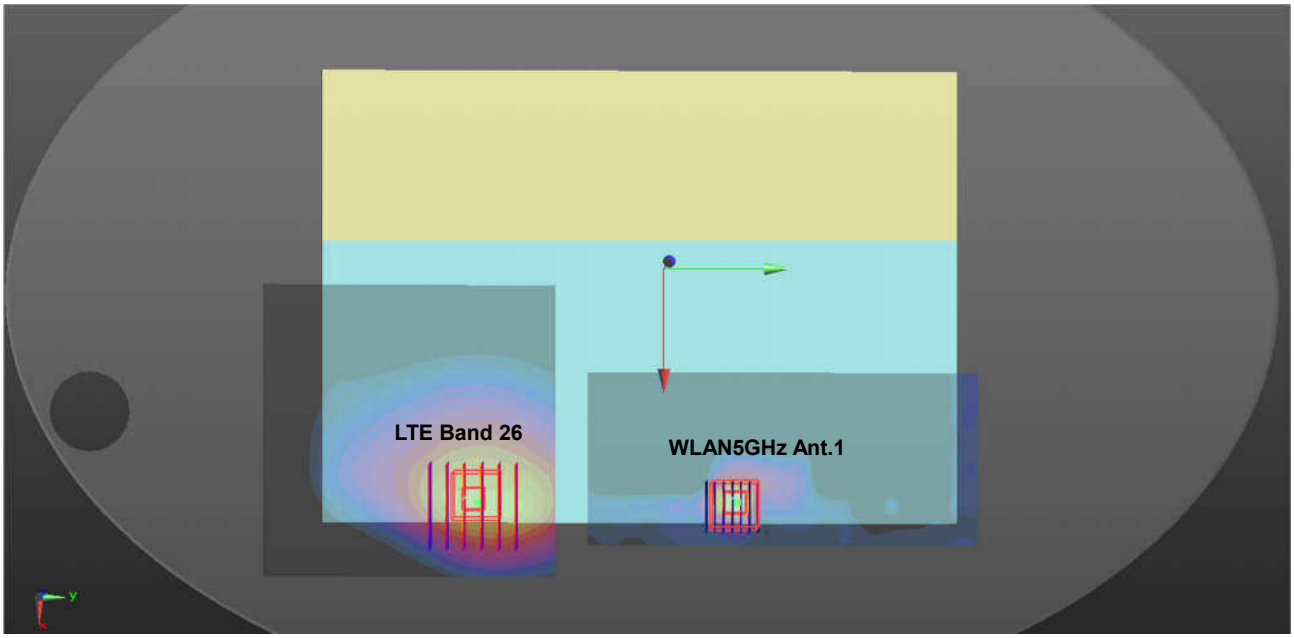
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case #43	LTE Band 5	Bottom Face	0.912	11	10.06	-4.36	-0.34	87.7	1.62	0.02	Not required
	WLAN5GHz Ant 1		0.705	11	9.68	4.4	-0.3				



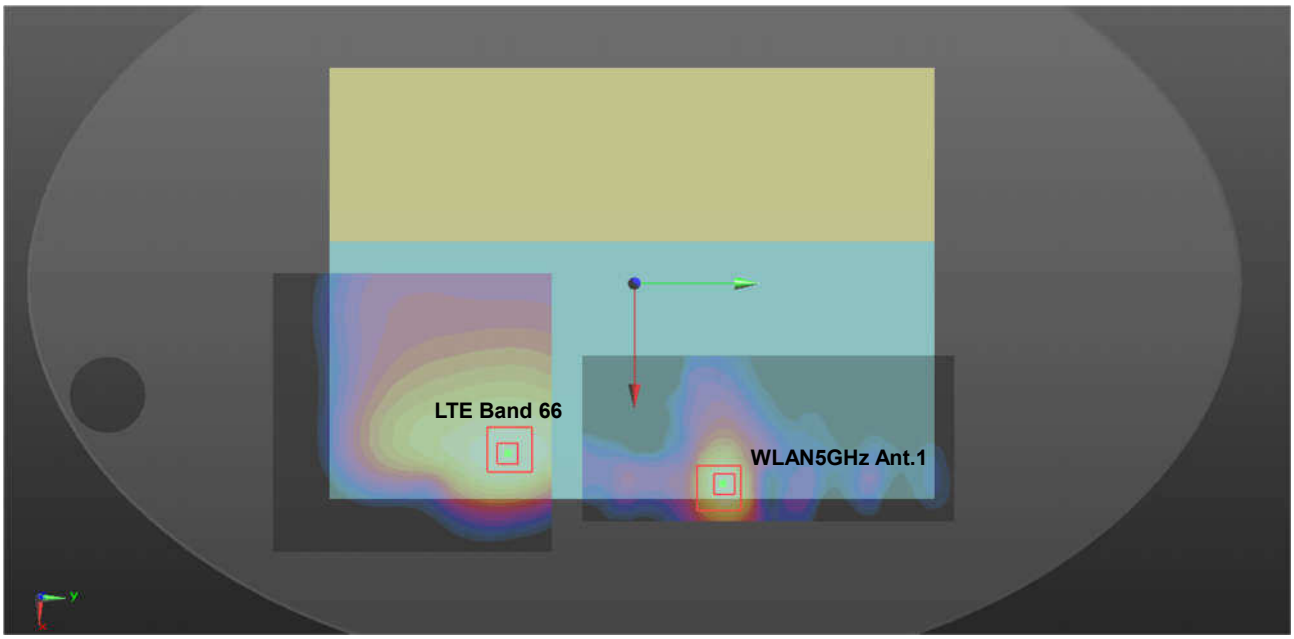
Case #44	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Bottom Face	0.874	0	9.45	-6.63	-0.3	108.9	1.80	0.02	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



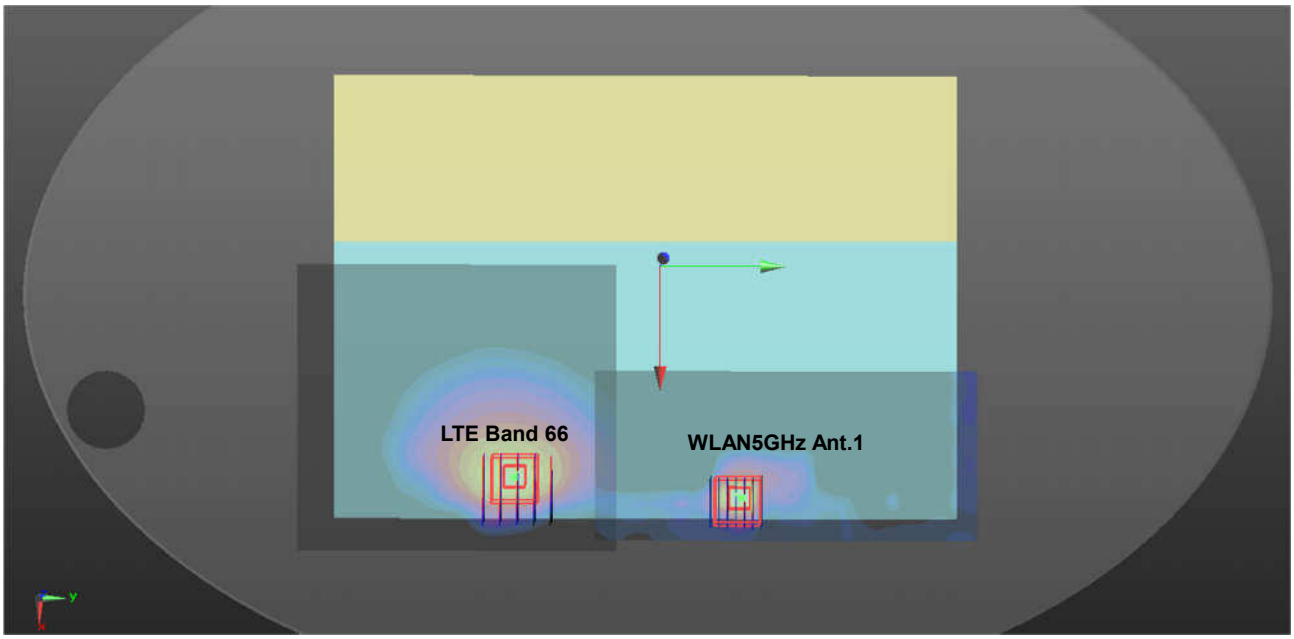
Case #45	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Bottom Face	0.731	0	9.45	-8.14	-0.4	124.0	1.66	0.02	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



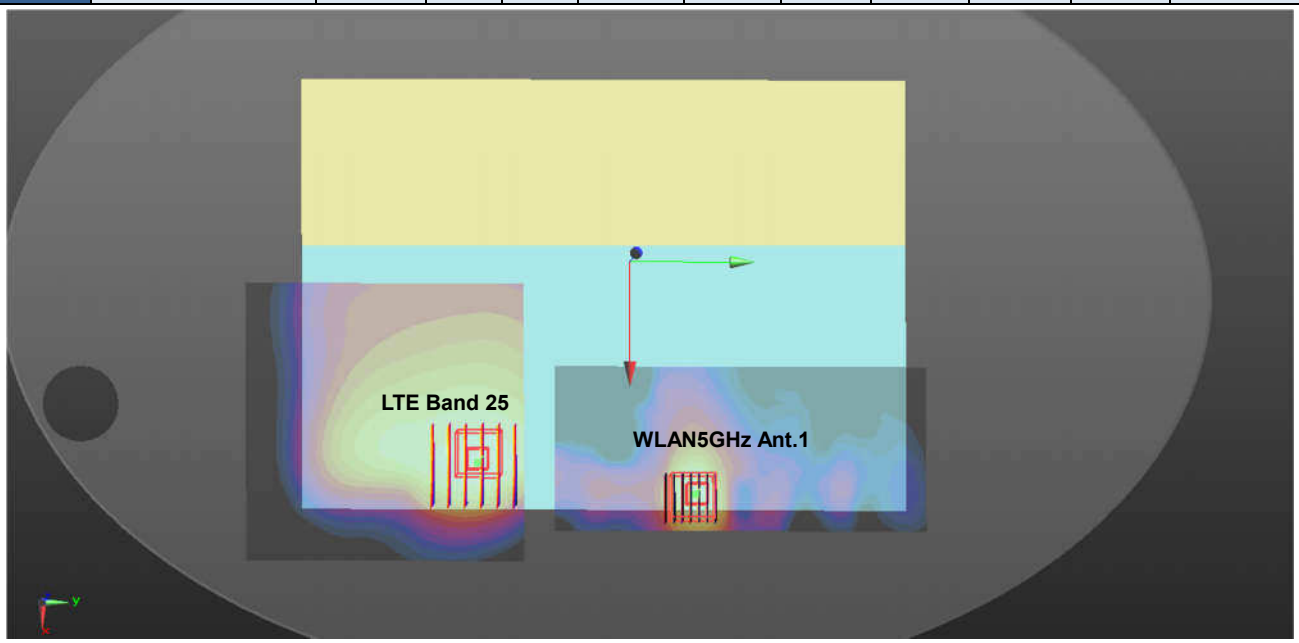
Case #46	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Bottom Face	1.091	11	8.42	-6.32	-0.44	107.9	1.80	0.02	Not required
	WLAN5GHz Ant 1		0.705	11	9.68	4.4	-0.3				



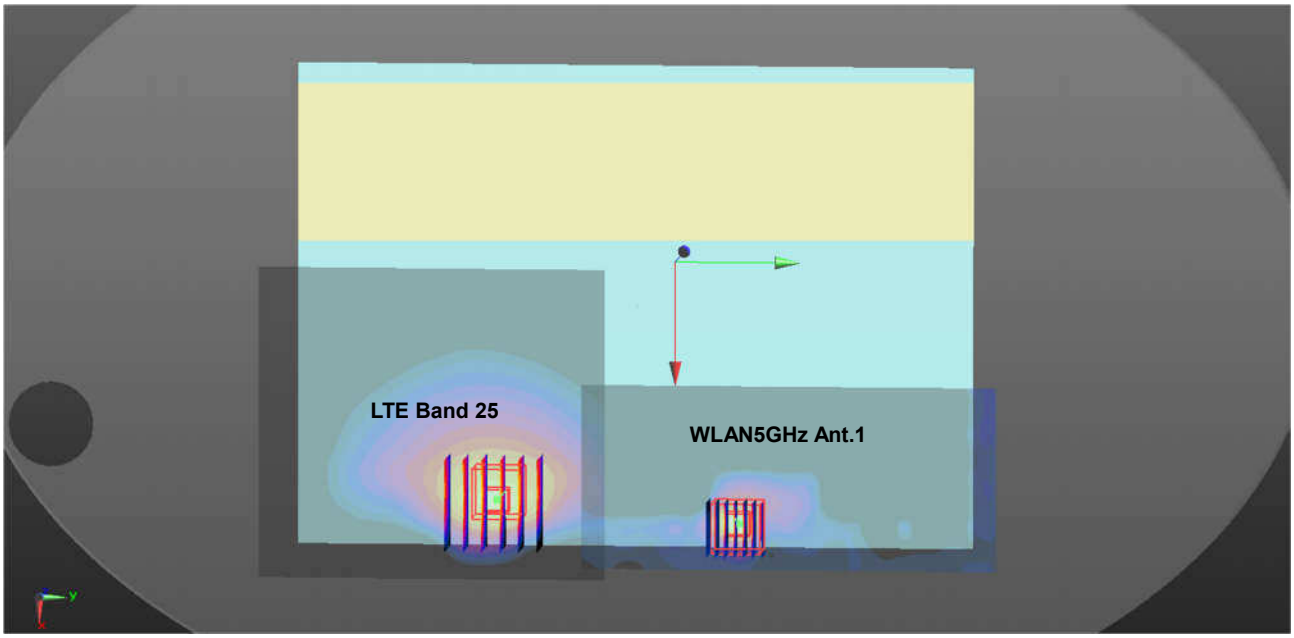
Case #47	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Bottom Face	0.869	0	8.77	-6.52	-0.39	108.1	1.79	0.02	Not required
	WLAN5G Ant 1		0.925	0	9.56	4.26	-0.21				



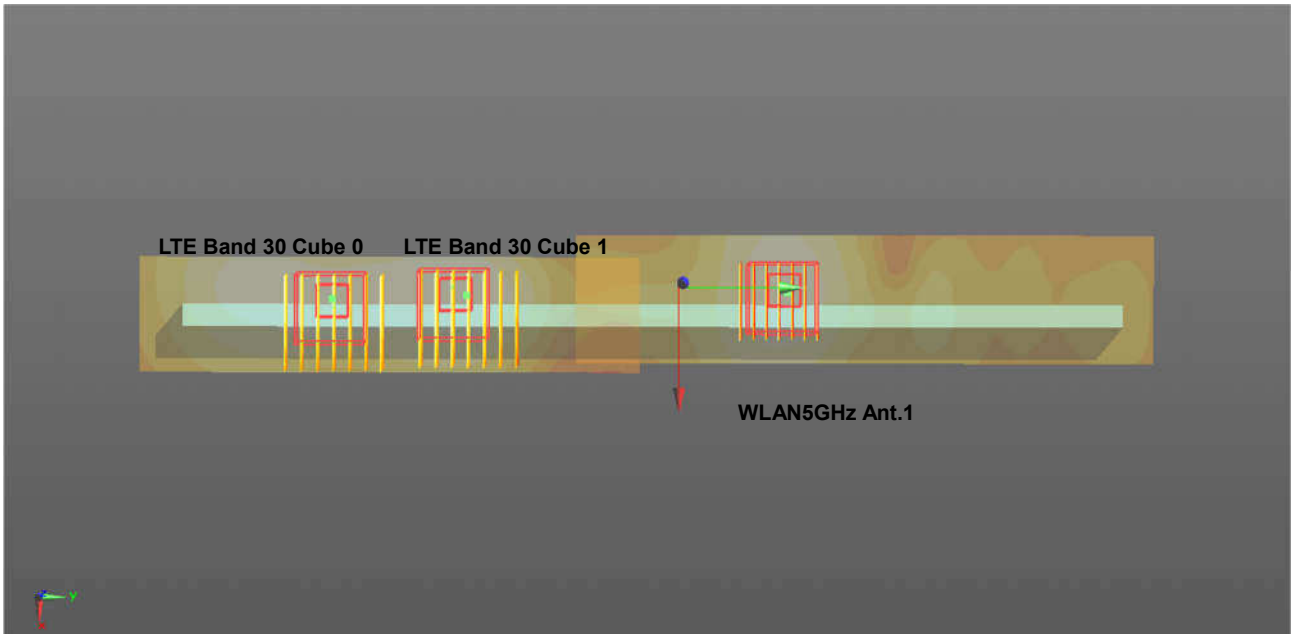
Case #48	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom Face	0.915	11	8.26	-6.47	-0.43	109.6	1.62	0.02	Not required
	WLAN5GHz Ant 1		0.705	11	9.68	4.4	-0.3				



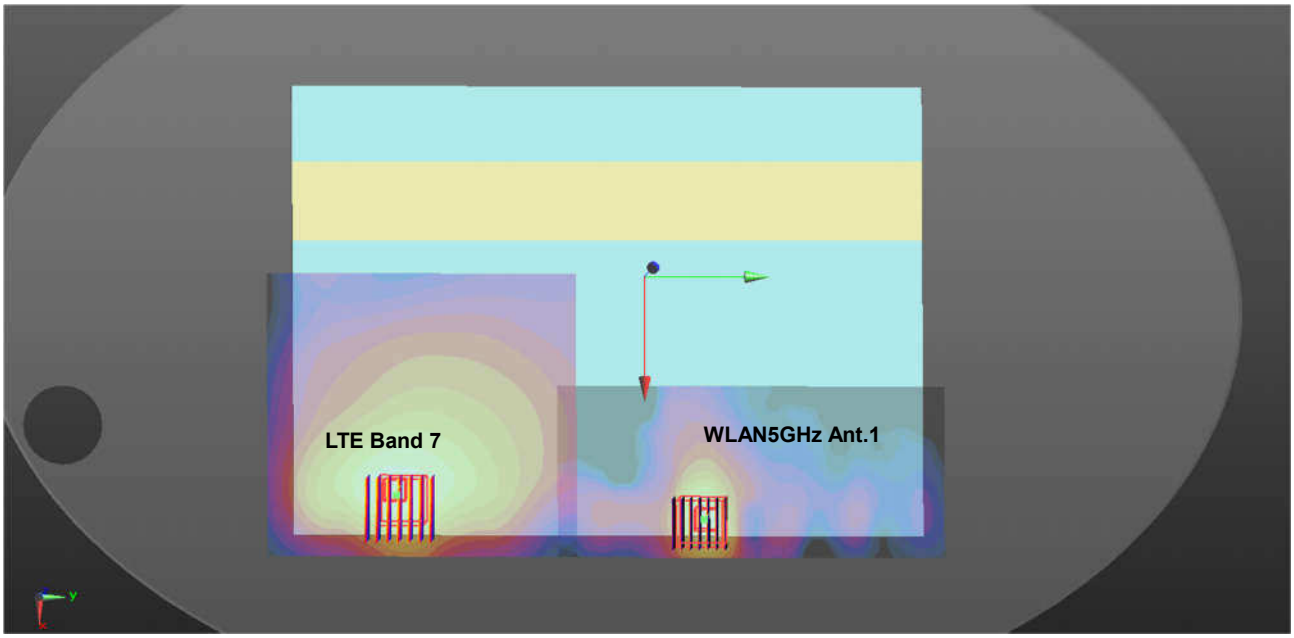
Case #49	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom Face	0.992	0	8.77	-6.21	-0.4	105.0	1.92	0.03	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



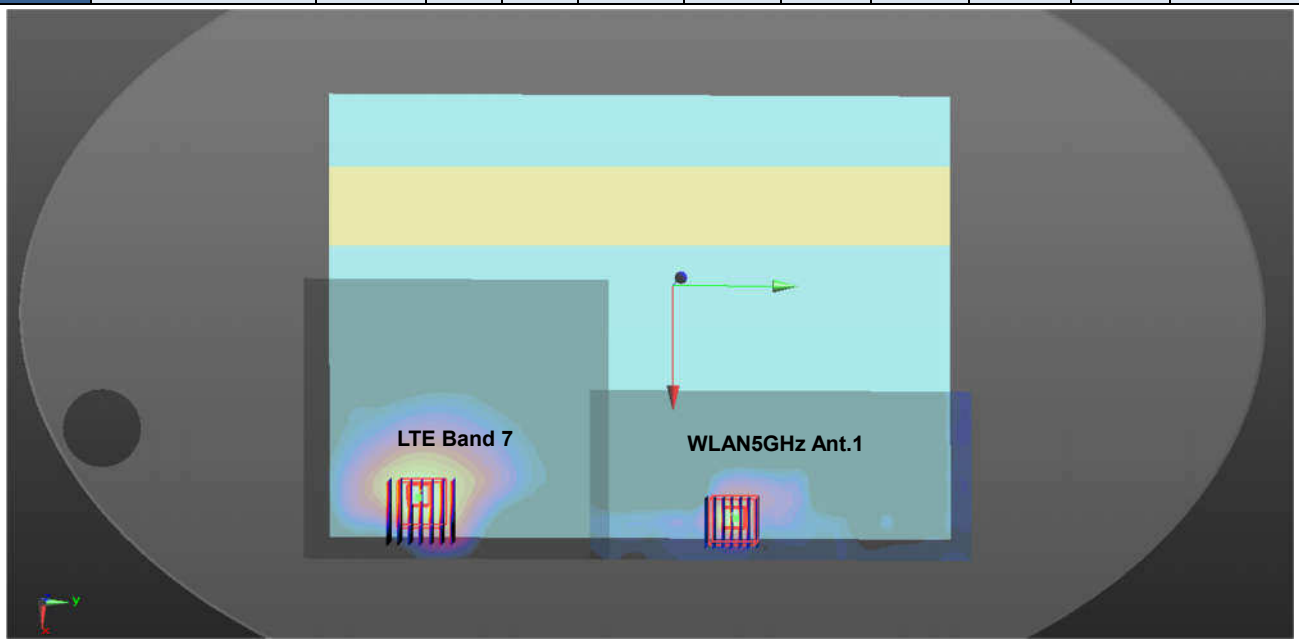
Case #50	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30 Cube 0	Edge 1	1.192	11	-0.38	-10	-0.39	141.2	1.80	0.02	Not required
	WLAN5GHz Ant 1		0.606	11	-0.72	4.12	-0.42				
	LTE Band 30 Cube 1		0.876	11	-0.6	-6.3	-0.42	104.2	1.48	0.02	Not required
	WLAN5GHz Ant 1		0.606	11	-0.72	4.12	-0.42				



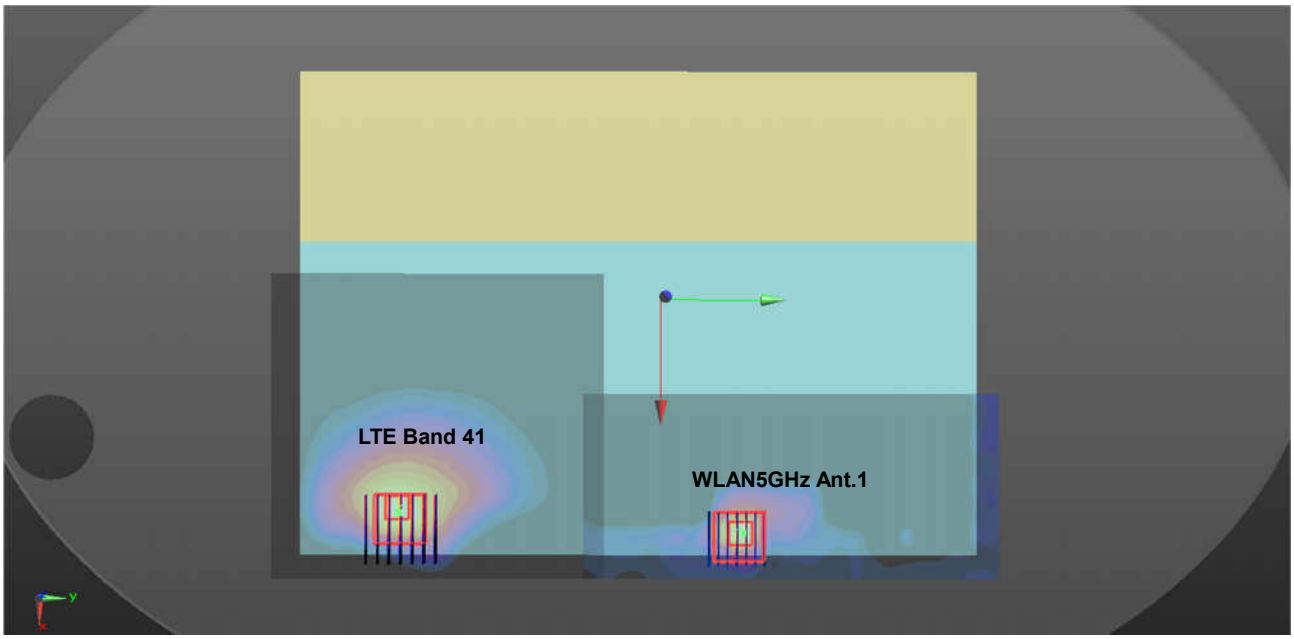
Case #51	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom Face	0.953	11	8.52	-10.3	-0.4	147.5	1.66	0.01	Not required
	WLAN5GHz Ant 1		0.705	11	9.68	4.4	-0.3				



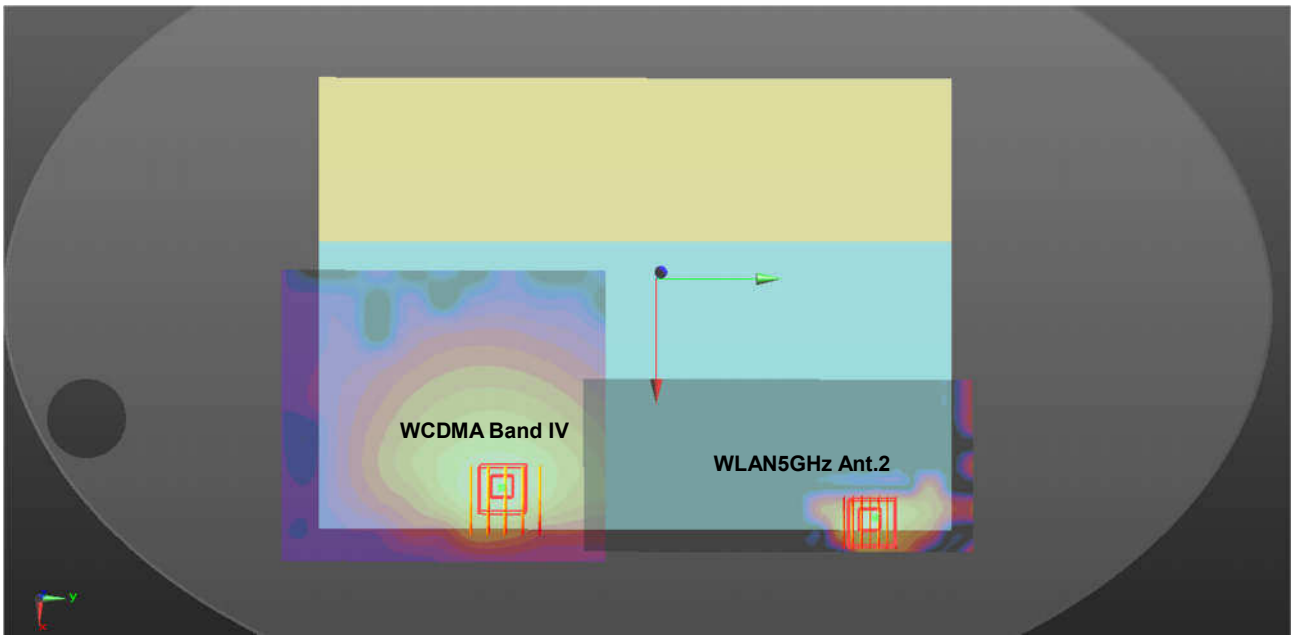
Case #52	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom Face	1.116	0	8.72	-10.9	-0.27	151.8	2.04	0.02	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



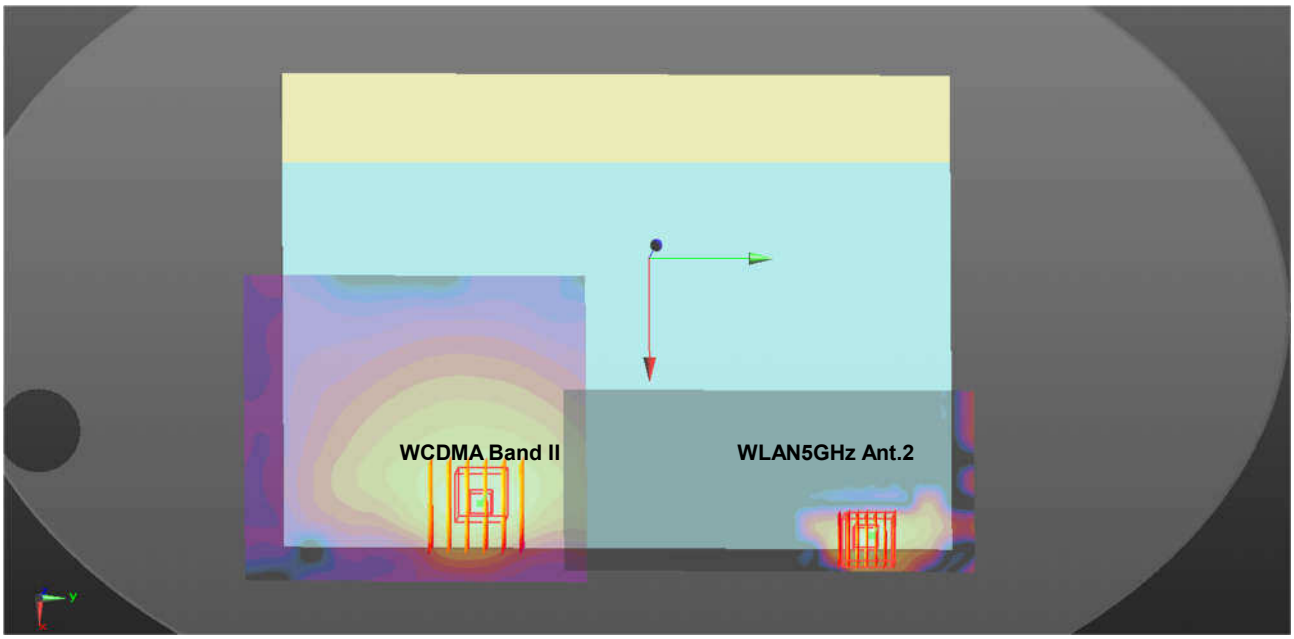
Case #53	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41	Bottom Face	0.939	0	8.52	-10.78	-0.36	150.8	1.86	0.02	Not required
	WLAN5GHz Ant 1		0.925	0	9.56	4.26	-0.21				



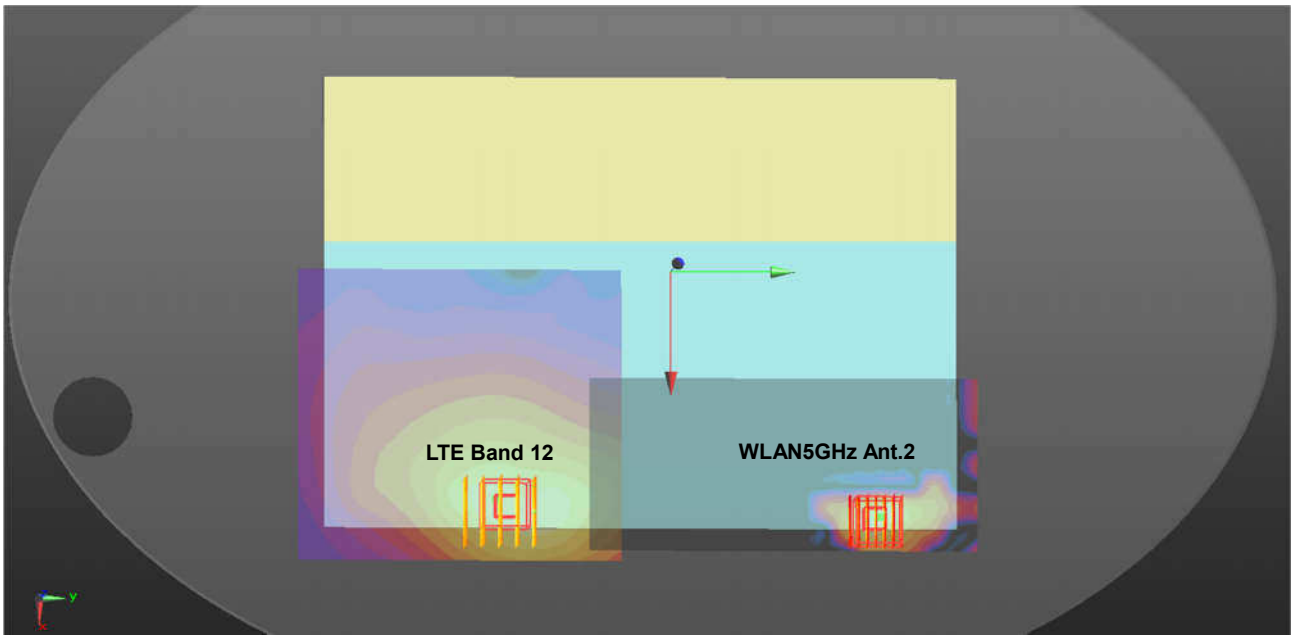
Case #54	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band IV	Bottom Face	1.054	0	8.77	-6.52	-0.38	178.1	1.92	0.01	Not required
	WLAN5G Ant 2		0.862	0	9.8	11.26	-0.22				



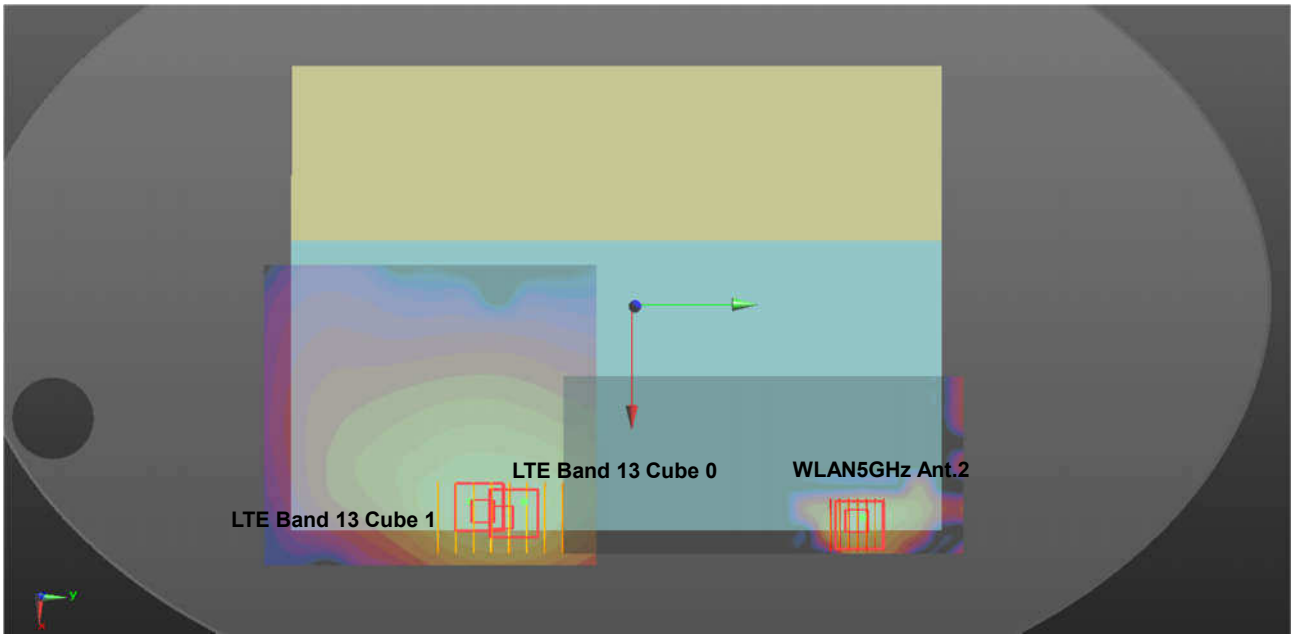
Case #55	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band II	Bottom Face	1.122	0	8.77	-6.21	-0.4	175.0	1.98	0.02	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				



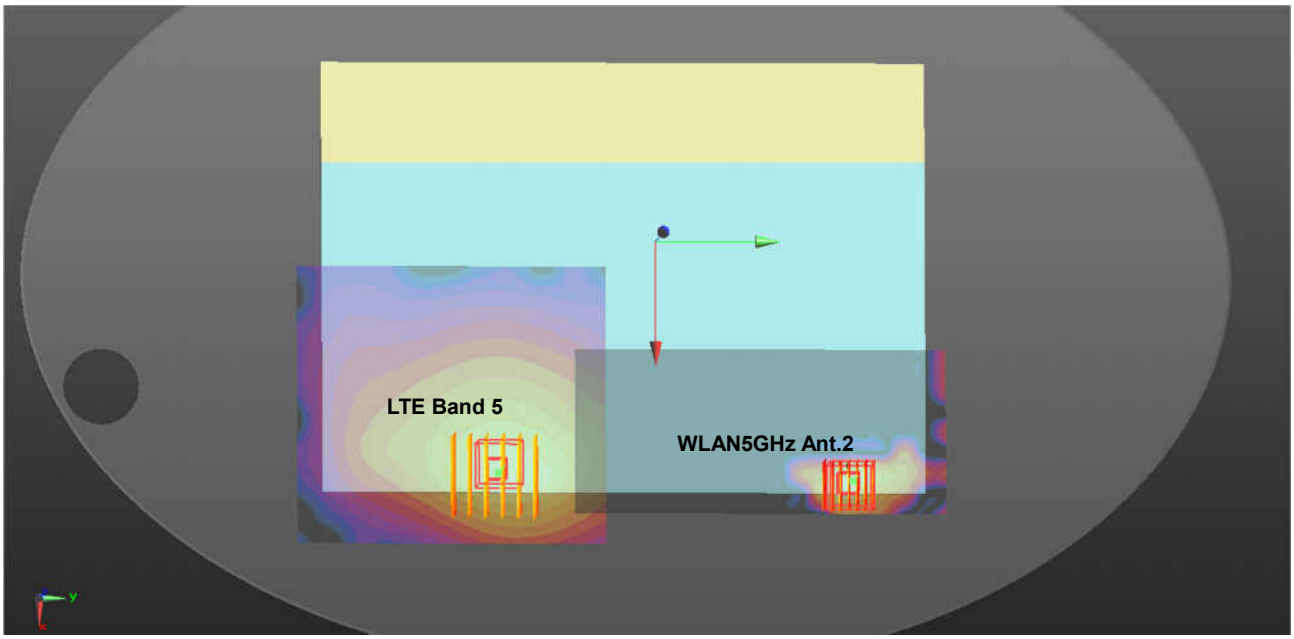
Case #56	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom Face	0.763	0	9.85	-5.15	-0.4	164.1	1.63	0.01	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				



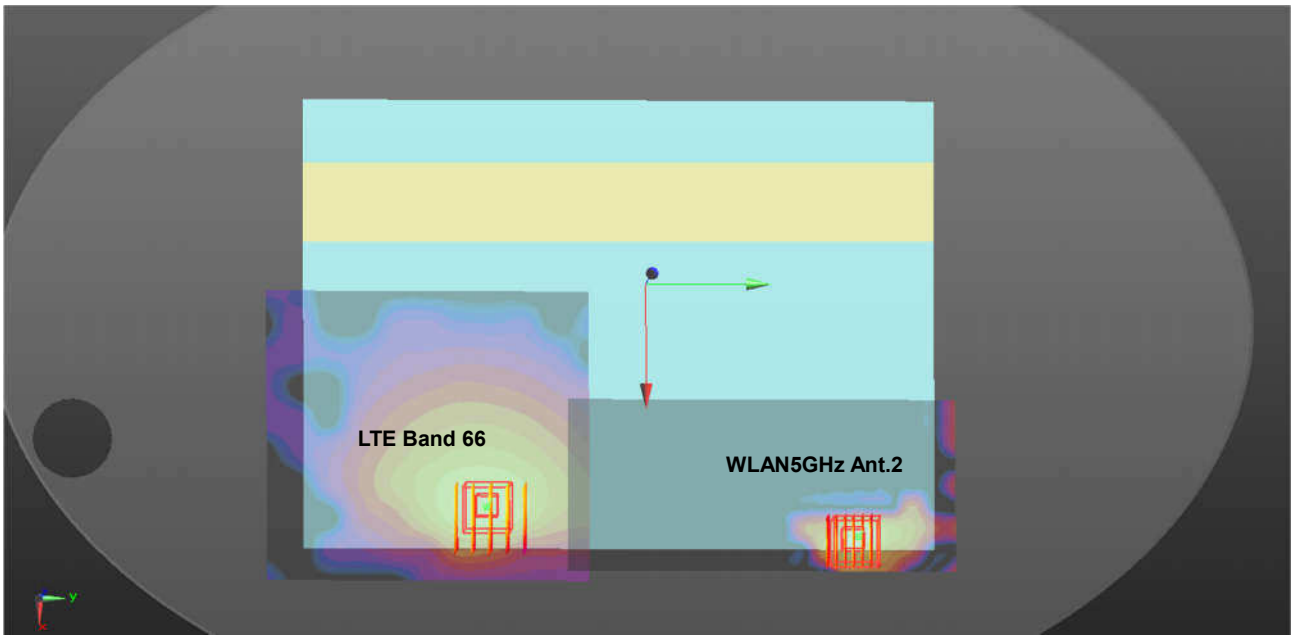
Case #57	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 13 Cube 0	Bottom Face	0.848	0	9.85	-5	-0.34	162.6	1.71	0.01	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				
	LTE Band 13 Cube 1		0.802	0	9.16	-5.15	-0.31	164.23	1.66	0.01	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				



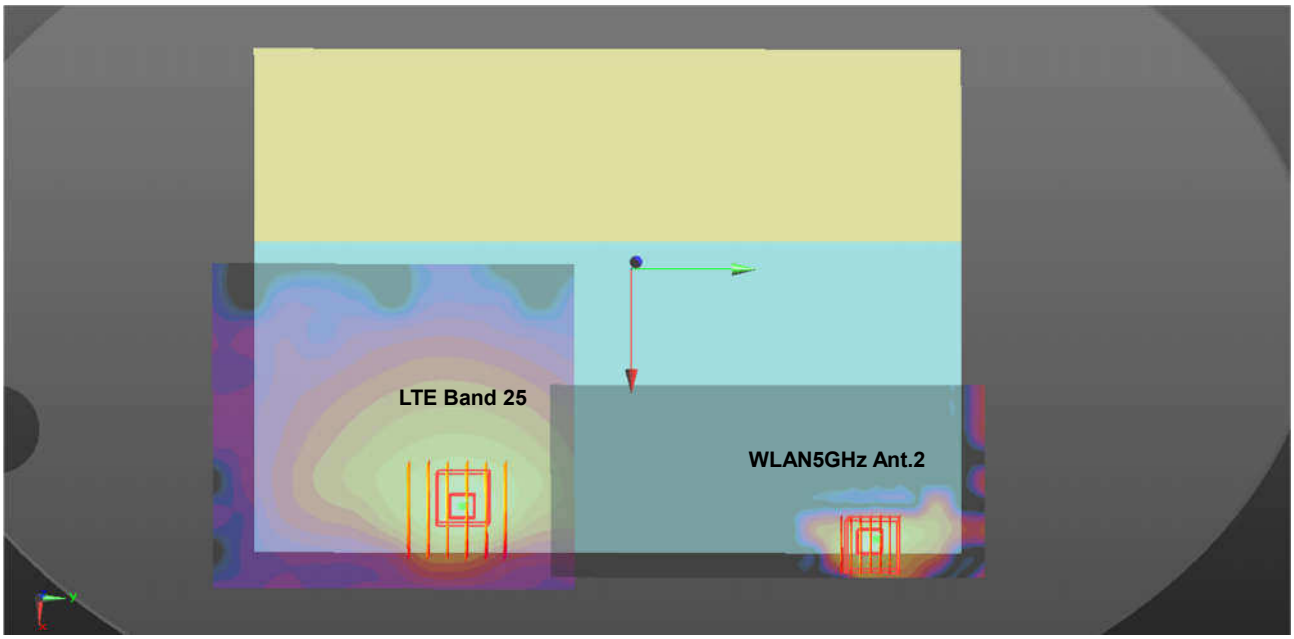
Case #58	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Bottom Face	0.874	0	9.45	-6.63	-0.3	178.9	1.74	0.01	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				



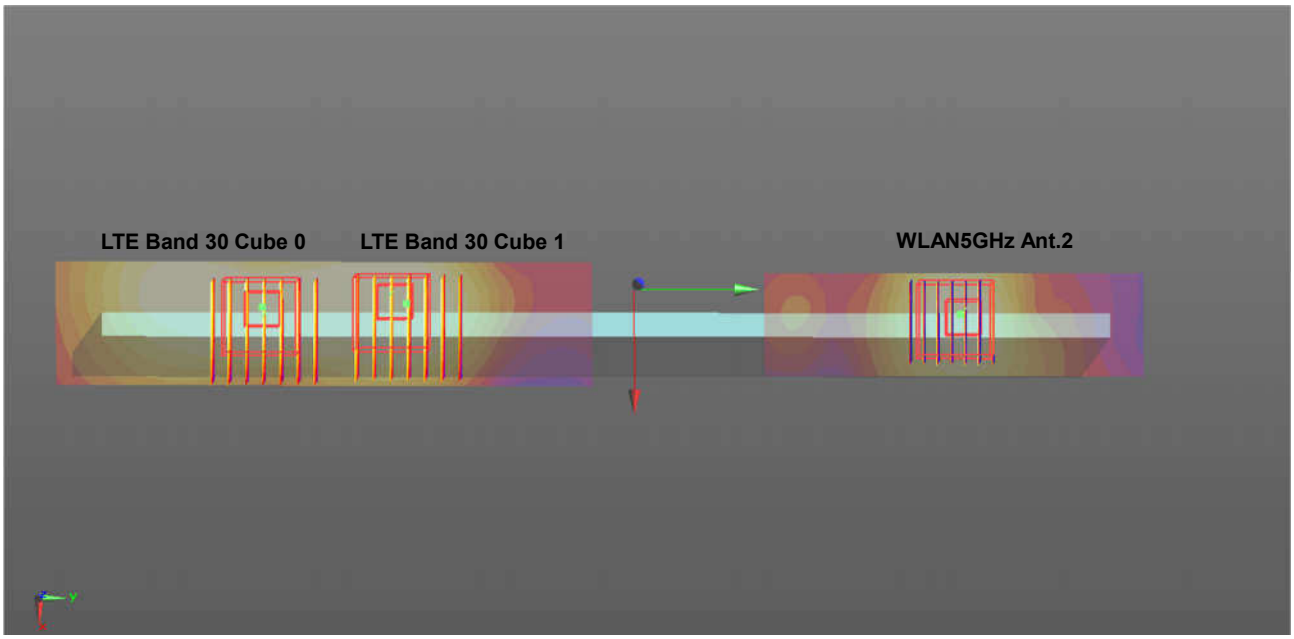
Case #59	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Bottom Face	0.869	0	8.77	-6.52	-0.39	178.1	1.73	0.01	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				



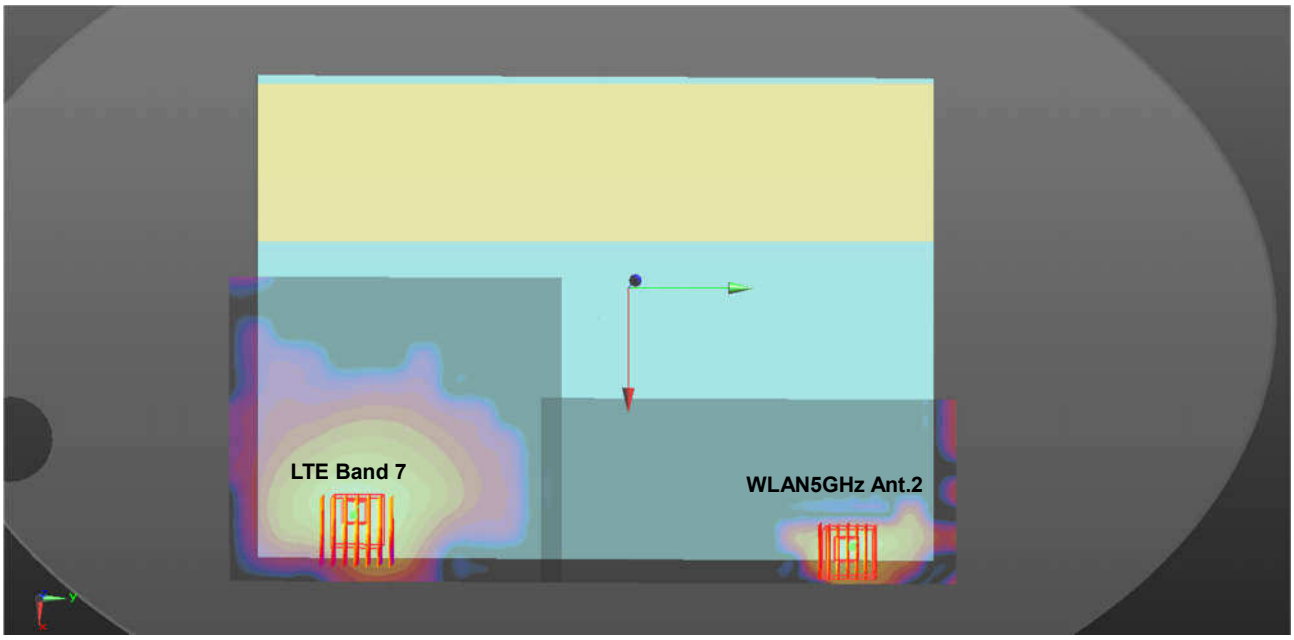
Case #60	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom Face	0.992	0	8.77	-6.21	-0.4	175.0	1.85	0.01	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				



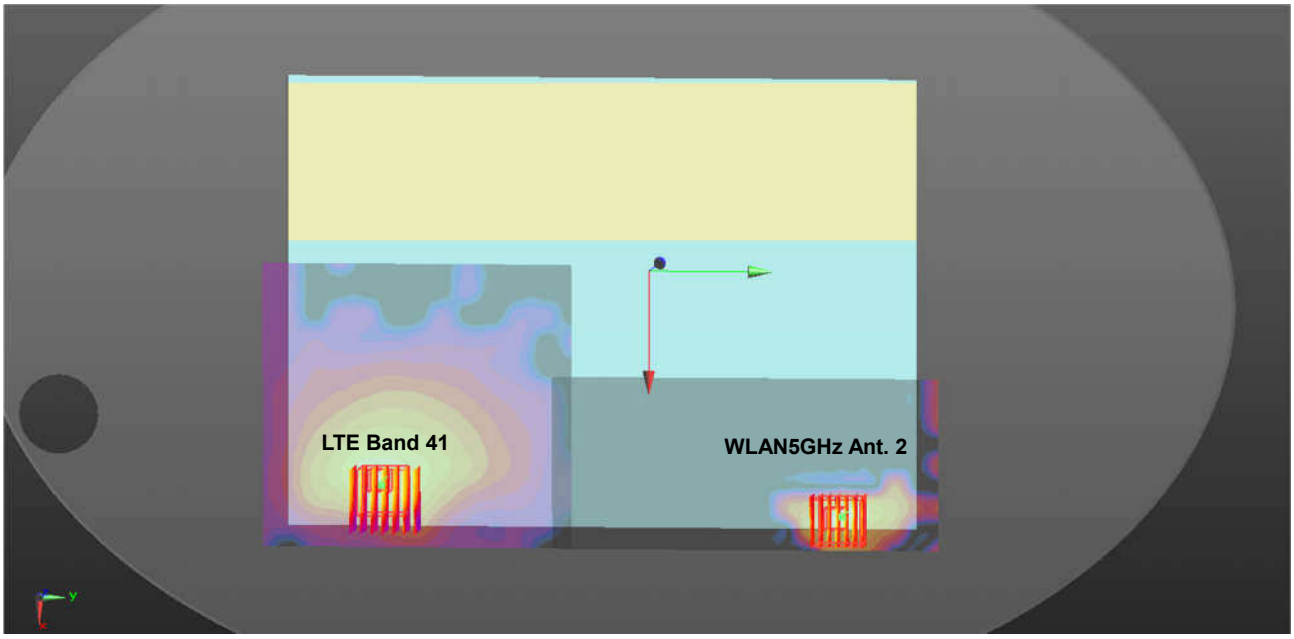
Case #61	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 30 Cube 0	Edge 1	1.192	11	-0.38	-10	-0.39	203.0	1.61	0.01	Not required
	WLAN5GHz Ant 2		0.418	11	-0.24	10.3	-0.38				
	LTE Band 30 Cube 1		0.876	11	-0.6	-6.3	-0.42	166.0	1.29	0.01	Not required
	WLAN5GHz Ant 2		0.418	11	-0.24	10.3	-0.38				



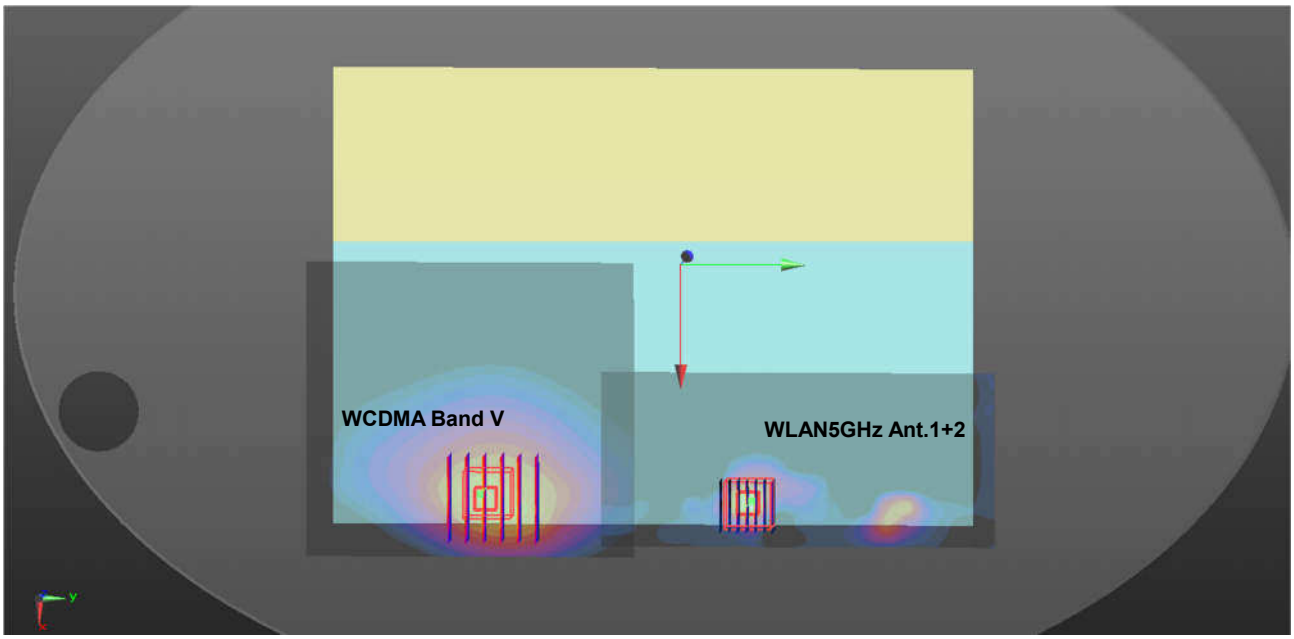
Case #62	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom Face	1.116	0	8.72	-10.9	-0.27	221.9	1.98	0.01	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				



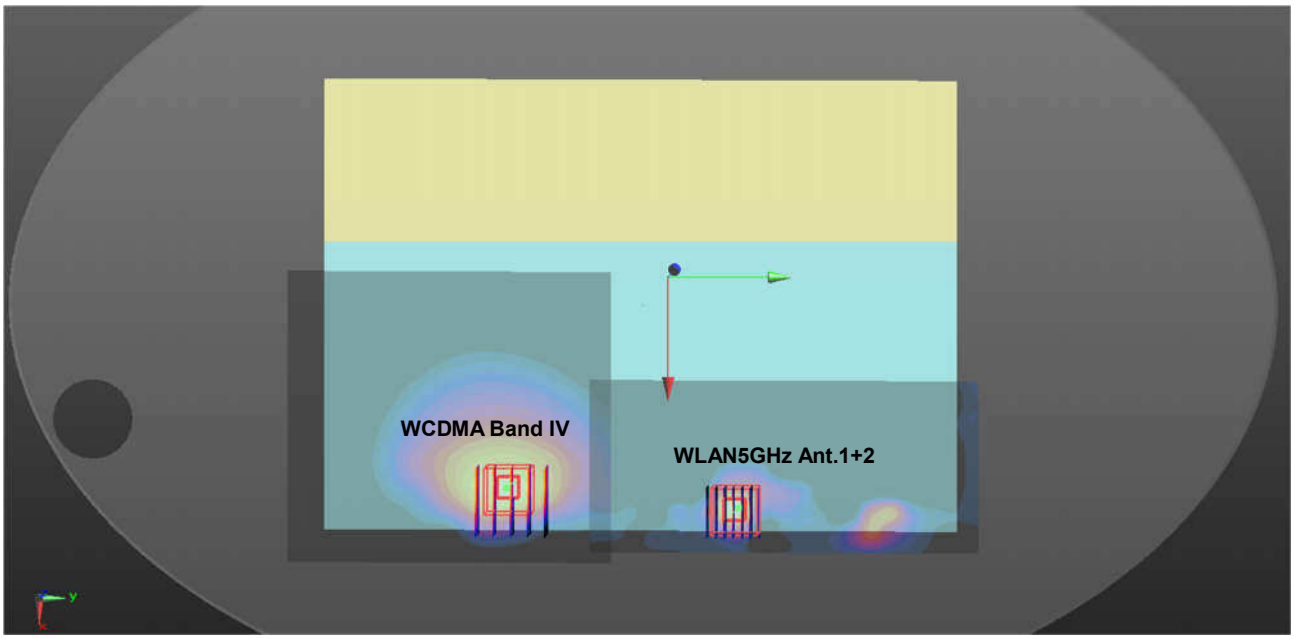
Case #63	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41	Bottom Face	0.939	0	8.52	-10.78	-0.36	220.8	1.80	0.01	Not required
	WLAN5GHz Ant 2		0.862	0	9.8	11.26	-0.22				



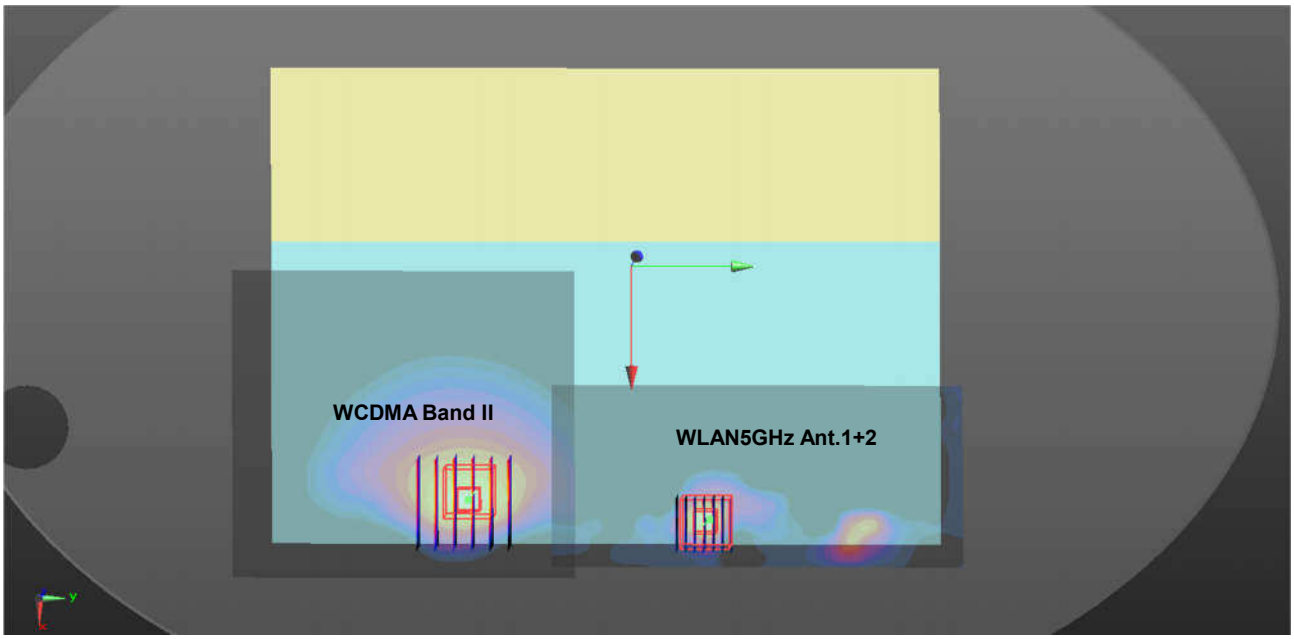
Case #64	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band V	Bottom Face	0.711	0	9.53	-7.95	-0.4	121.3	1.75	0.02	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



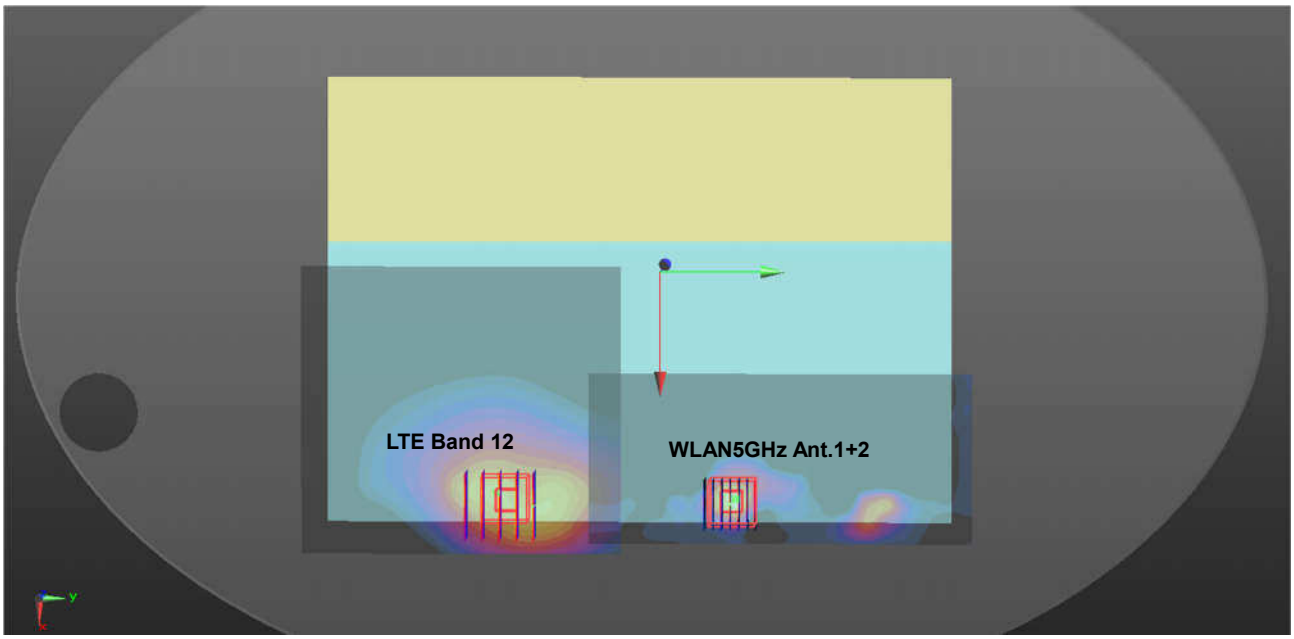
Case #65	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band IV	Bottom Face	1.054	0	8.77	-6.52	-0.38	107.3	2.09	0.03	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



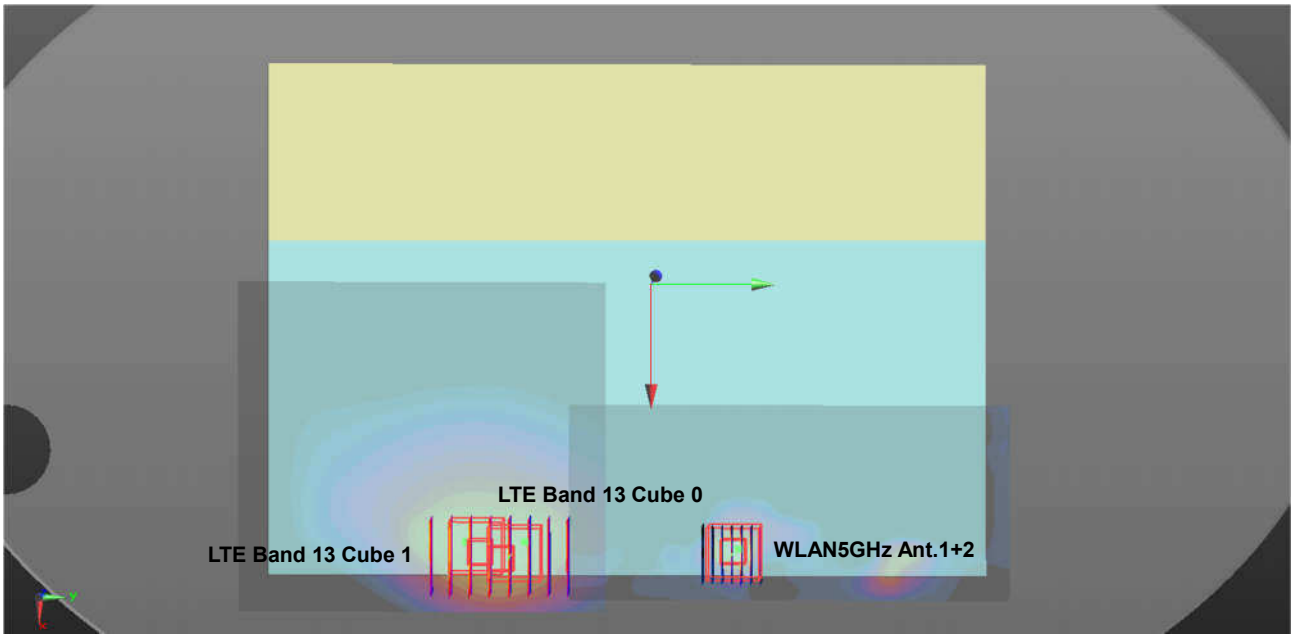
Case #66	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band II	Bottom Face	1.122	0	8.77	-6.21	-0.4	104.2	2.16	0.03	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



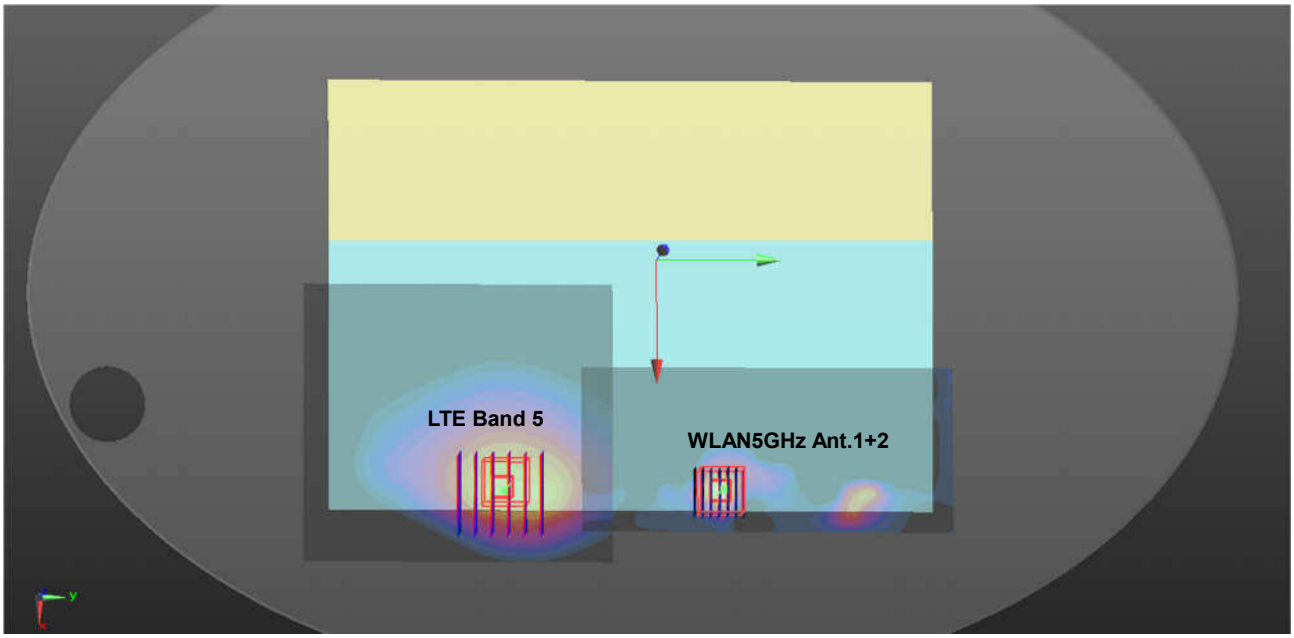
Case #67	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom Face	0.763	0	9.85	-5.15	-0.4	93.4	1.80	0.03	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



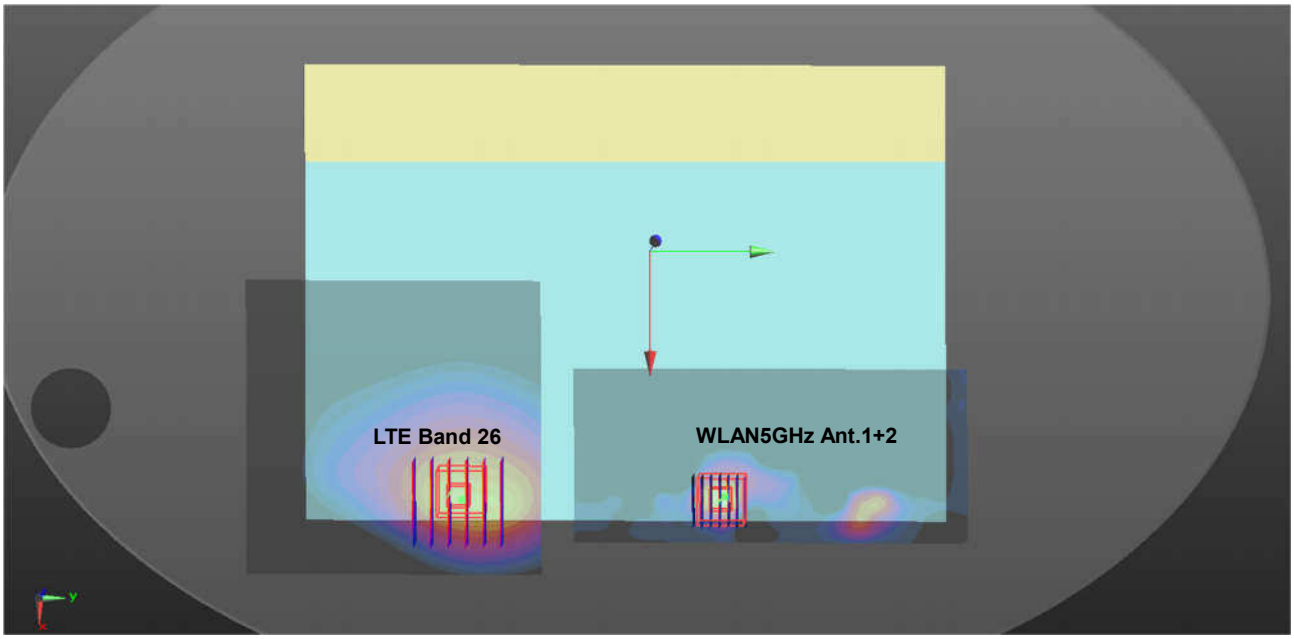
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case #68	LTE Band 13 Cube 0	Bottom Face	0.848	0	9.85	-5	-0.34	91.9	1.88	0.03	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				
	LTE Band 13 Cube 1		0.802	0	9.16	-5.15	-0.31	93.38	1.84	0.03	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



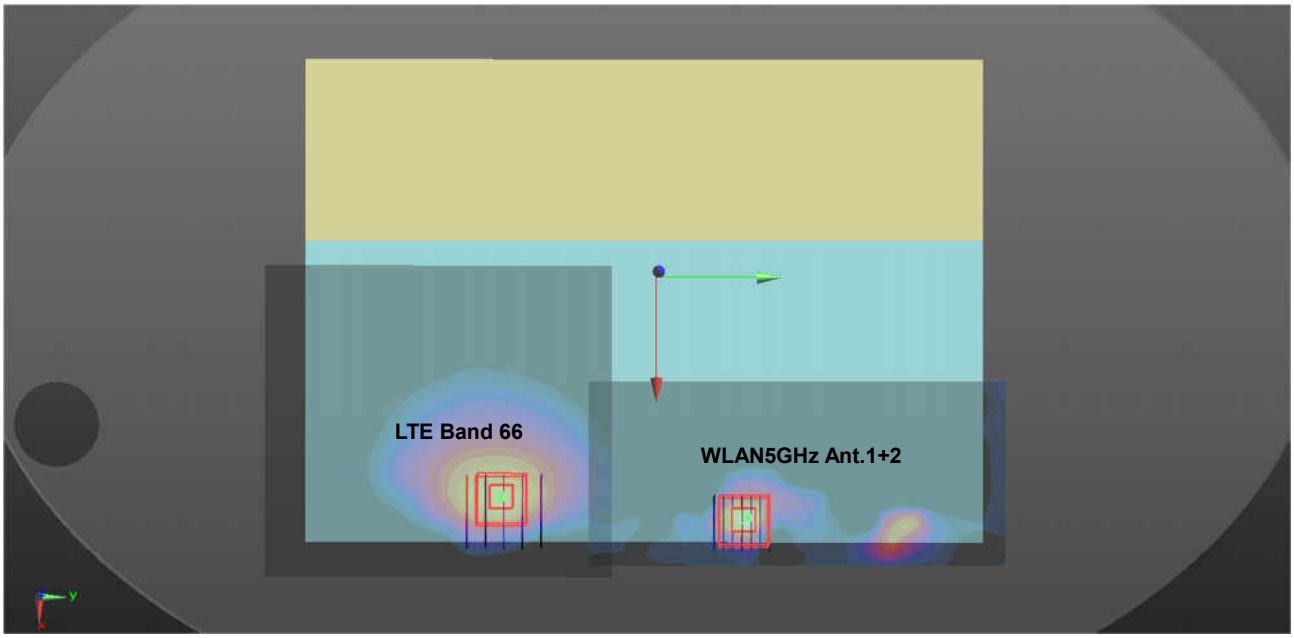
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case #69	LTE Band 5	Bottom Face	0.874	0	9.45	-6.63	-0.3	108.1	1.91	0.02	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



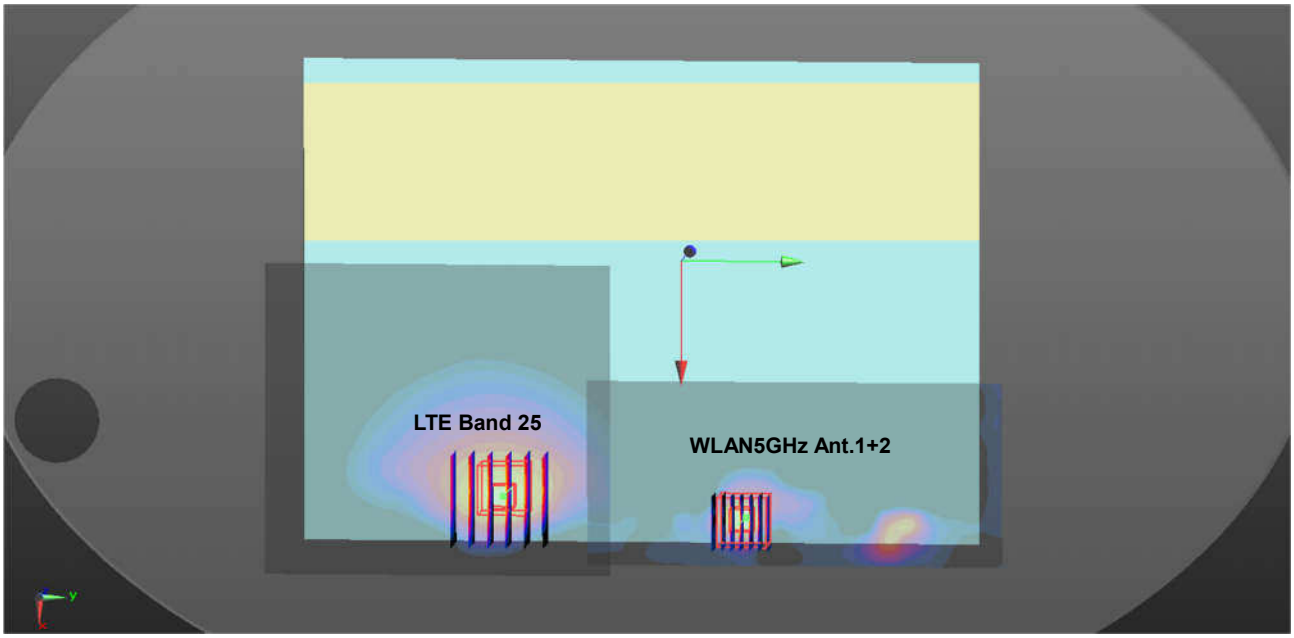
Case #70	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 26	Bottom Face	0.731	0	9.45	-8.14	-0.4	123.2	1.77	0.02	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



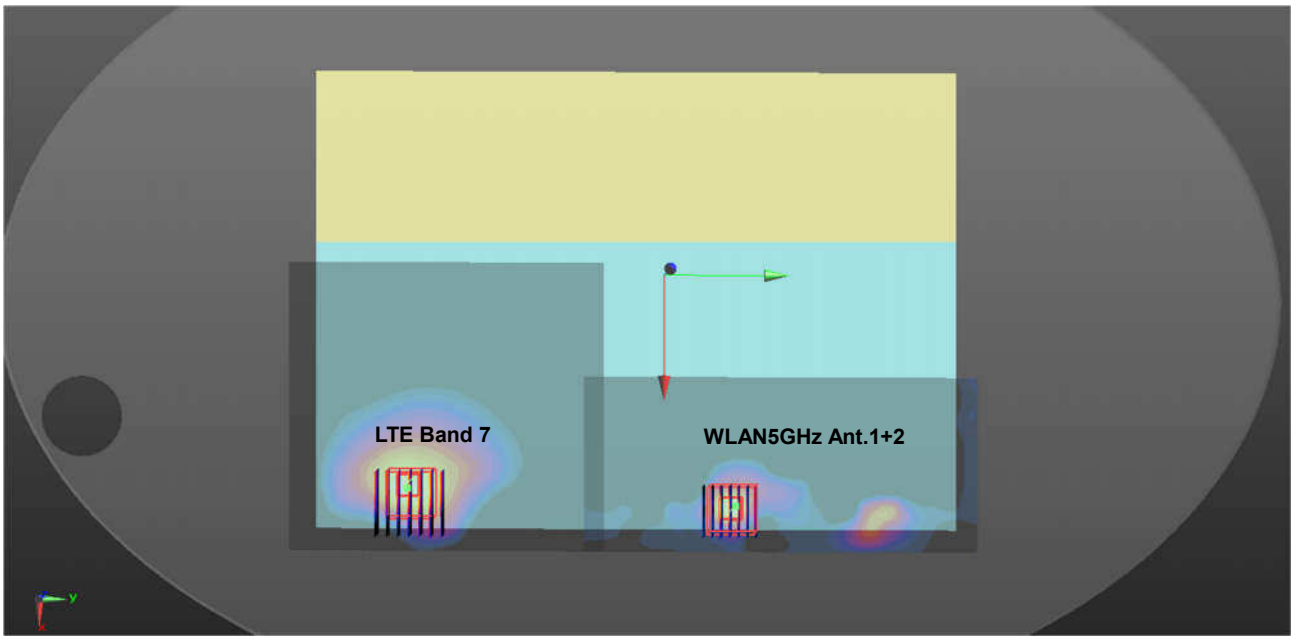
Case #71	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 66	Bottom Face	0.869	0	8.77	-6.52	-0.39	107.3	1.90	0.02	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



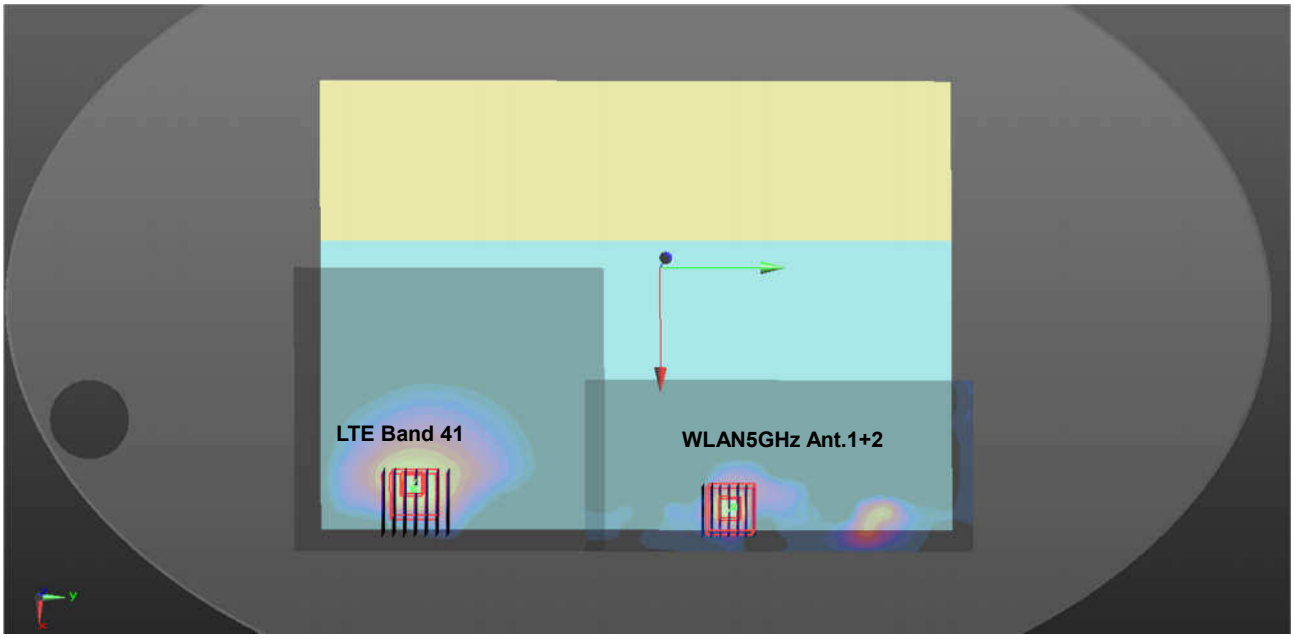
Case #72	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom Face	0.992	0	8.77	-6.21	-0.4	104.2	2.03	0.03	Not required
	WLAN5G Ant1+2		1.035	0	9.54	4.18	-0.21				



Case #73	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom Face	1.116	0	8.72	-10.9	-0.27	151.0	2.15	0.02	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



Case #74	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (cm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41	Bottom Face	0.939	0	8.52	-10.78	-0.36	150.0	1.97	0.02	Not required
	WLAN5GHz Ant1+2		1.035	0	9.54	4.18	-0.21				



Test Engineer： Kat Yin

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 248227 D01 v02r02, “SAR Guidance for IEEE 802.11 (WiFi) Transmitters”, Oct 2015.

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

Appendix A. Plots of System Performance Check

The plots are shown as follows.

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/9

System Check_Body_750MHz_20180209

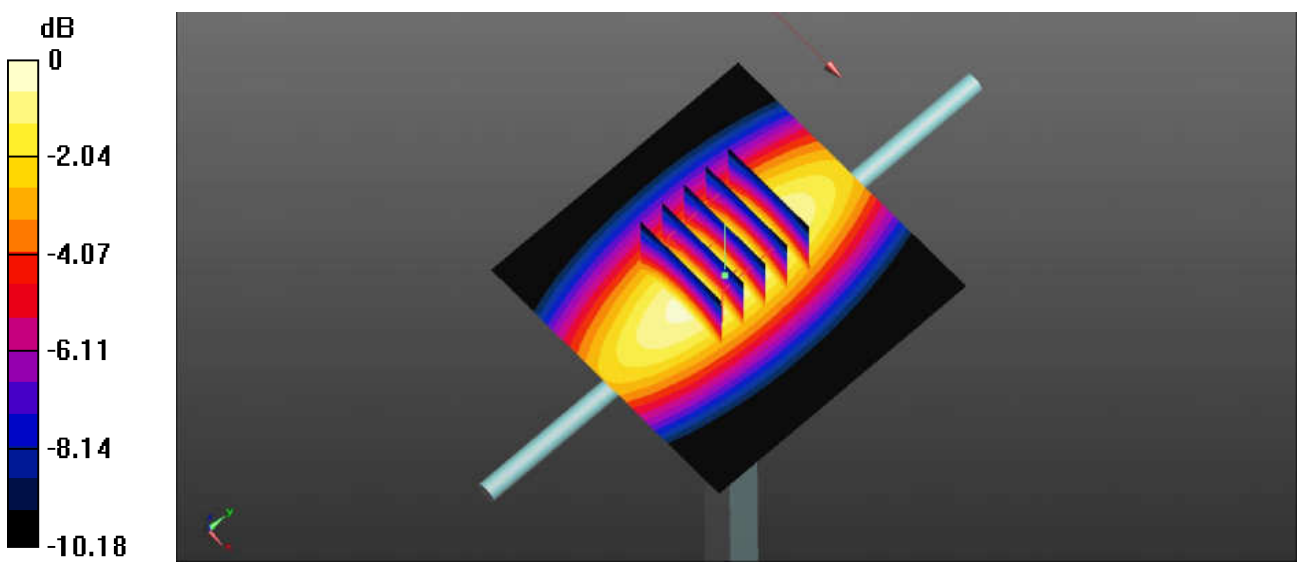
DUT: D750V3_SN:1078

Communication System: UID 0, CW; Frequency: 750 MHz;Duty Cycle: 1:1
Medium: MSL_750_Medium parameters used: f = 750 MHz; σ = 0.959 S/m; ε_r = 56.956; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(10.65, 10.65, 10.65); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.17 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 50.94 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 3.62 W/kg
SAR(1 g) = 2.27 W/kg; SAR(10 g) = 1.57 W/kg
Maximum value of SAR (measured) = 3.20 W/kg



0 dB = 3.20 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/10

System Check_Body_835MHz_20180210

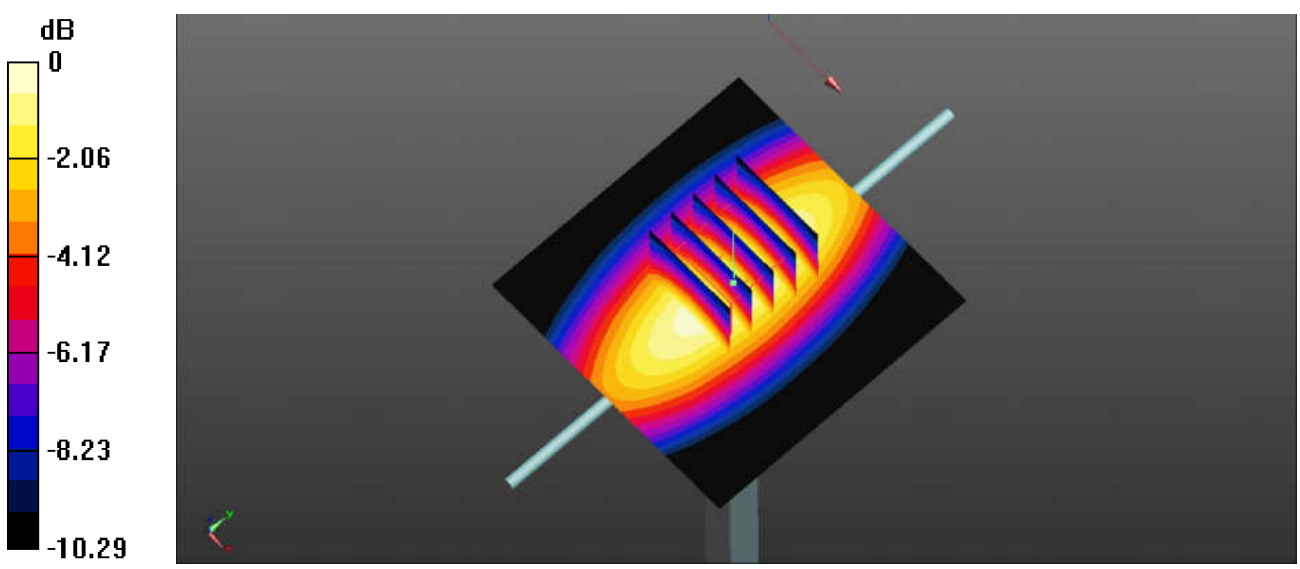
DUT: D835V2_SN:4d120

Communication System: UID 0, CW; Frequency: 835 MHz;Duty Cycle: 1:1
Medium: MSL_835_Medium parameters used: f = 835 MHz; σ = 0.999 S/m; ε_r = 55.505; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(10.33, 10.33, 10.33); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.52 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 52.80 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.96 W/kg
SAR(1 g) = 2.57 W/kg; SAR(10 g) = 1.77 W/kg
Maximum value of SAR (measured) = 3.54 W/kg



0 dB = 3.54 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/6

System Check_Body_1750MHz_20180206

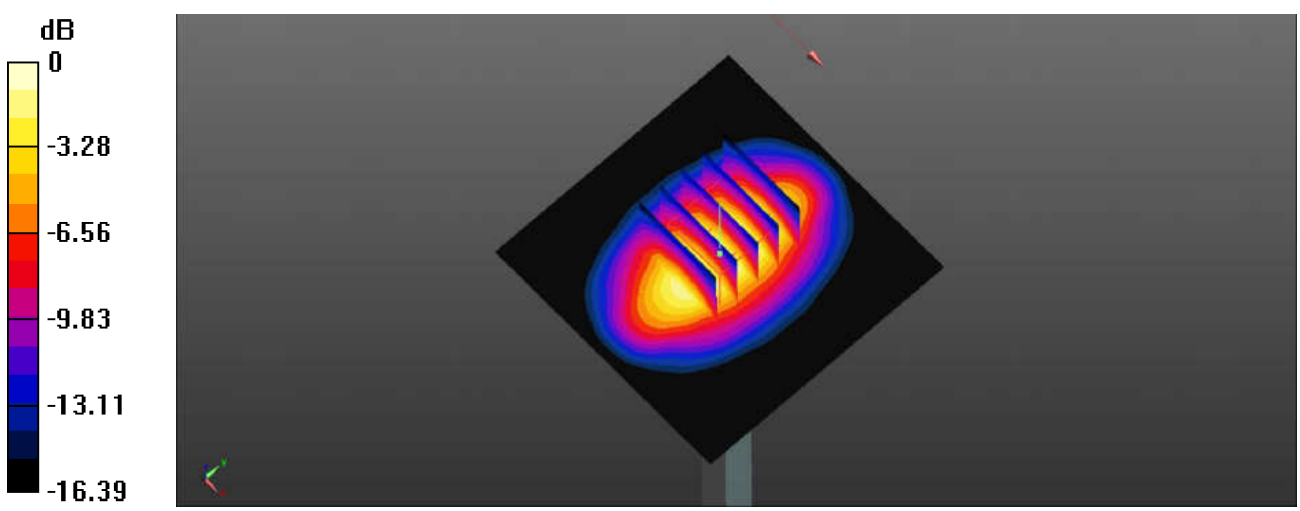
DUT: D1750V2_SN:1023

Communication System: UID 0, CW; Frequency: 1750 MHz;Duty Cycle: 1:1
Medium: MSL_1750_Medium parameters used: f = 1750 MHz; σ = 1.514 S/m; ε_r = 53.694; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(8.71, 8.71, 8.71); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 14.1 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 94.58 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 16.5 W/kg
SAR(1 g) = 9.49 W/kg; SAR(10 g) = 5.11 W/kg
Maximum value of SAR (measured) = 14.0 W/kg



0 dB = 14.0 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/8

System Check_Body_1900MHz_20180208

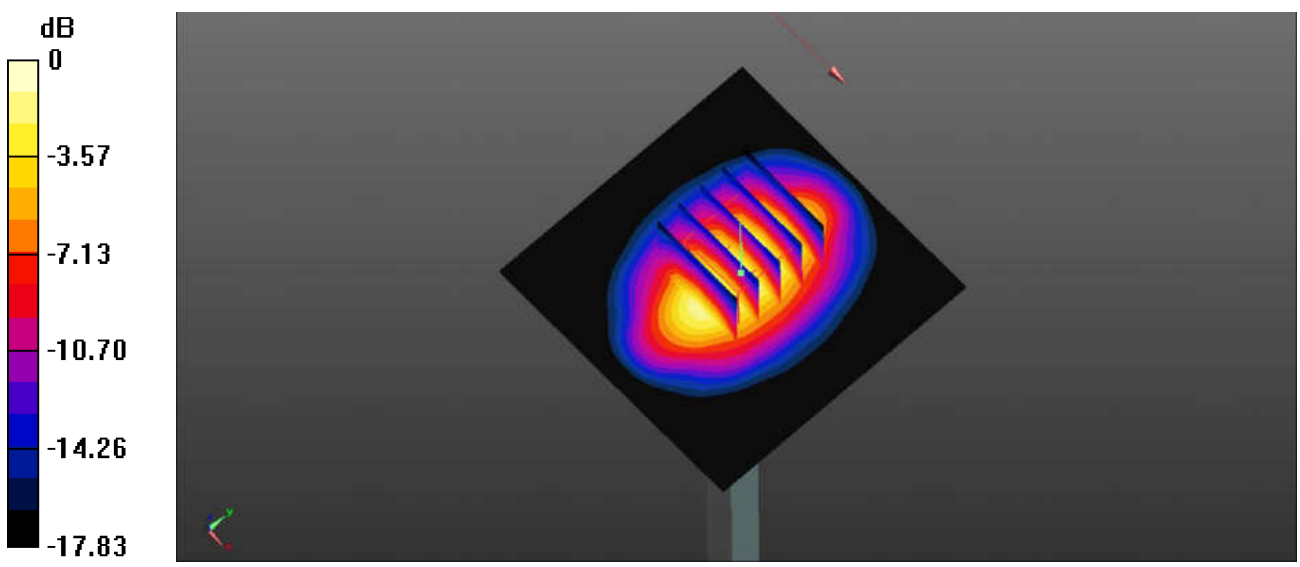
DUT: D1900V2_SN:5d142

Communication System: UID 0, CW; Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: MSL_1900_Medium parameters used: f = 1900 MHz; σ = 1.561 S/m; ε_r = 53.103; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(8.3, 8.3, 8.3); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 15.9 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 85.24 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 18.9 W/kg
SAR(1 g) = 10.4 W/kg; SAR(10 g) = 5.39 W/kg
Maximum value of SAR (measured) = 15.9 W/kg



0 dB = 15.9 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/7

System Check_Body_2300MHz_20180207

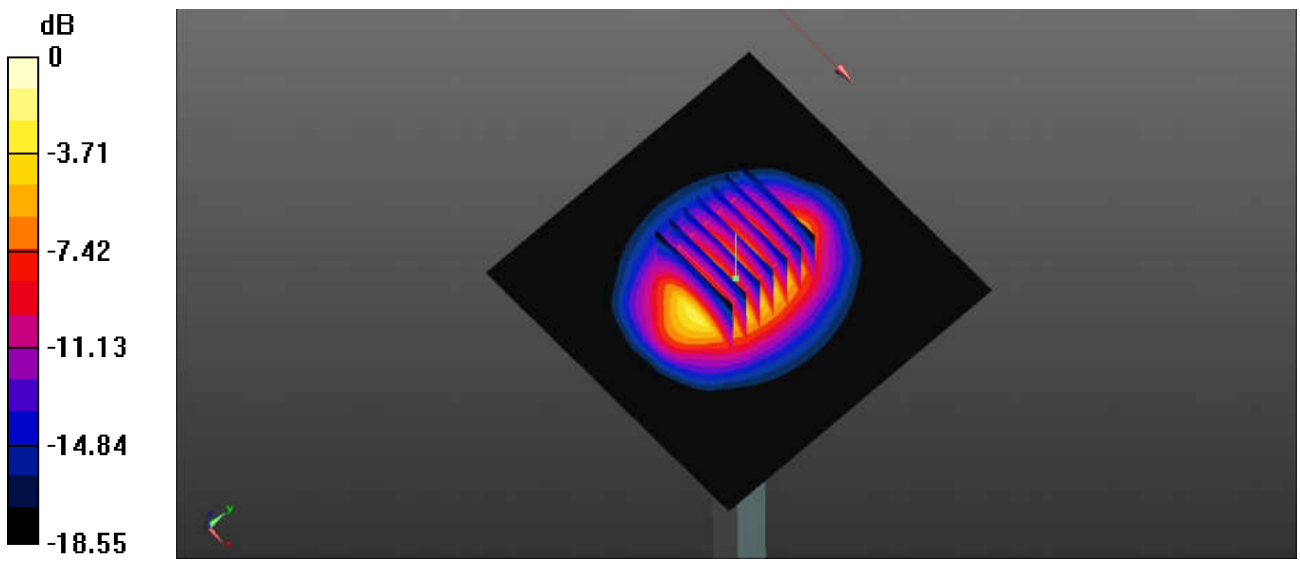
DUT: D2300V2_SN:1055

Communication System: UID 0, CW (0); Frequency: 2300 MHz;Duty Cycle: 1:1
Medium: MSL_2300_Medium parameters used: f = 2300 MHz; σ = 1.766 S/m; ε_r = 53.03; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(8.1, 8.1, 8.1); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- 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) = 19.0 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.77 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 22.9 W/kg
SAR(1 g) = 12.1 W/kg; SAR(10 g) = 5.93 W/kg
Maximum value of SAR (measured) = 19.2 W/kg



0 dB = 19.2 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/10

System Check_Body_2450MHz_20180310

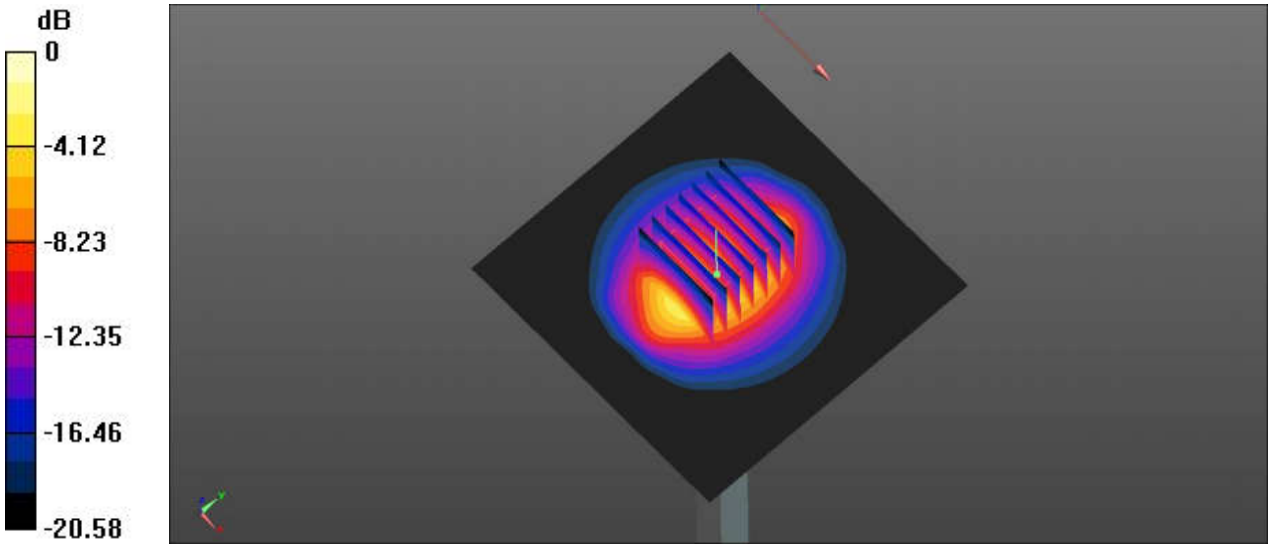
DUT: D2450V2_SN:908

Communication System: UID 0, CW; Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: MSL_2450_Medium parameters used: f = 2450 MHz; σ = 1.964 S/m; ε_r = 52.5; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- 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) = 21.6 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.13 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 26.4 W/kg
SAR(1 g) = 13.3 W/kg; SAR(10 g) = 6.27 W/kg
Maximum value of SAR (measured) = 21.8 W/kg



0 dB = 21.8 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/7

System Check_Body_2600MHz_20180207

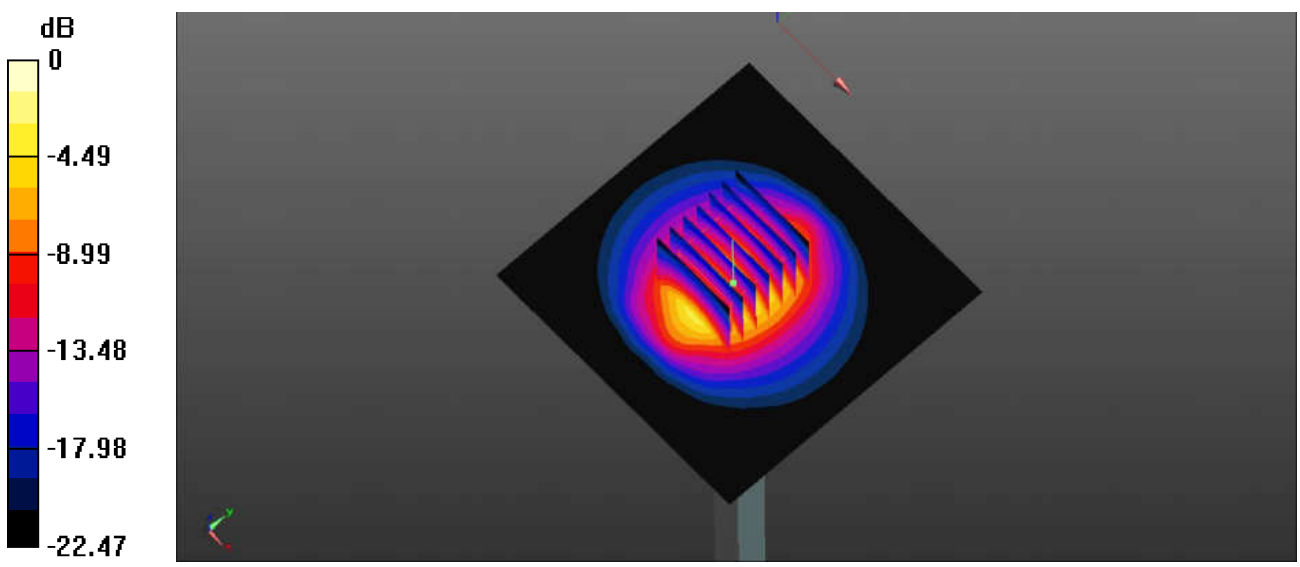
DUT: D2600V2_SN:1112

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: MSL_2600_Medium parameters used: f = 2600 MHz; σ = 2.171 S/m; ε_r = 51.943; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(7.71, 7.71, 7.71); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- 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) = 24.3 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 85.83 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 30.5 W/kg
SAR(1 g) = 14.1 W/kg; SAR(10 g) = 6.29 W/kg
Maximum value of SAR (measured) = 24.4 W/kg



0 dB = 24.4 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/11

System Check_Body_5200MHz_20180311

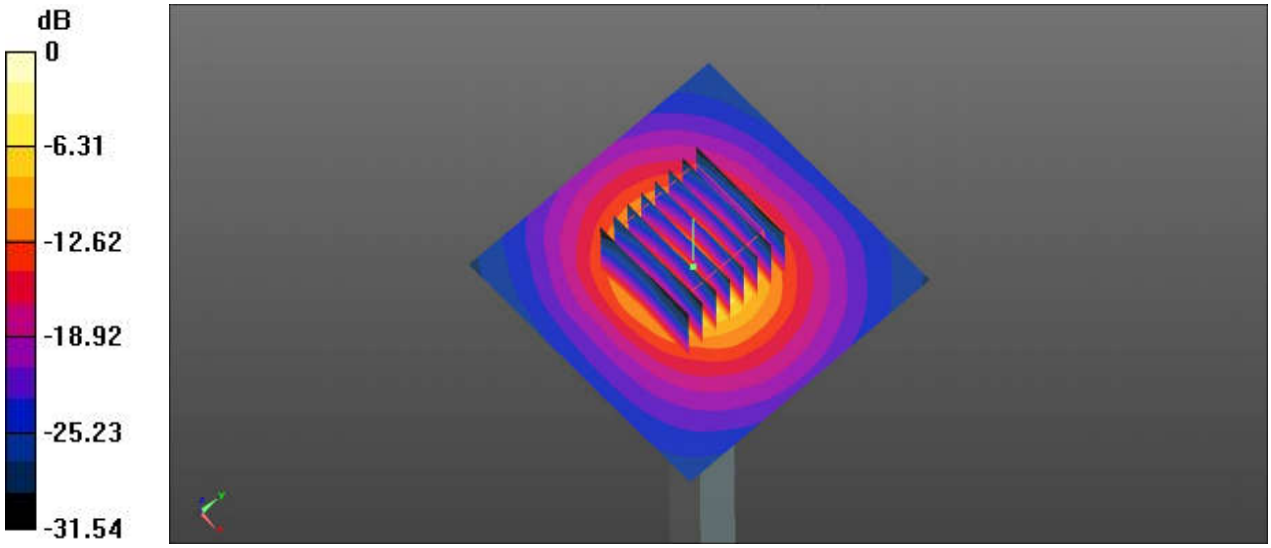
DUT: D5GHzV2_SN:1128

Communication System: UID 0, CW (0); Frequency: 5200 MHz;Duty Cycle: 1:1
Medium: MSL_5200_Medium parameters used: f = 5200 MHz; σ = 5.251 S/m; ε_r = 49.528; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(5.41, 5.41, 5.41); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- 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) = 16.0 W/kg

Pin=100mw/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 38.23 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 28.6 W/kg
SAR(1 g) = 6.88 W/kg; SAR(10 g) = 1.91 W/kg
Maximum value of SAR (measured) = 16.5 W/kg



0 dB = 16.5 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/11

System Check_Body_5300MHz_20180311

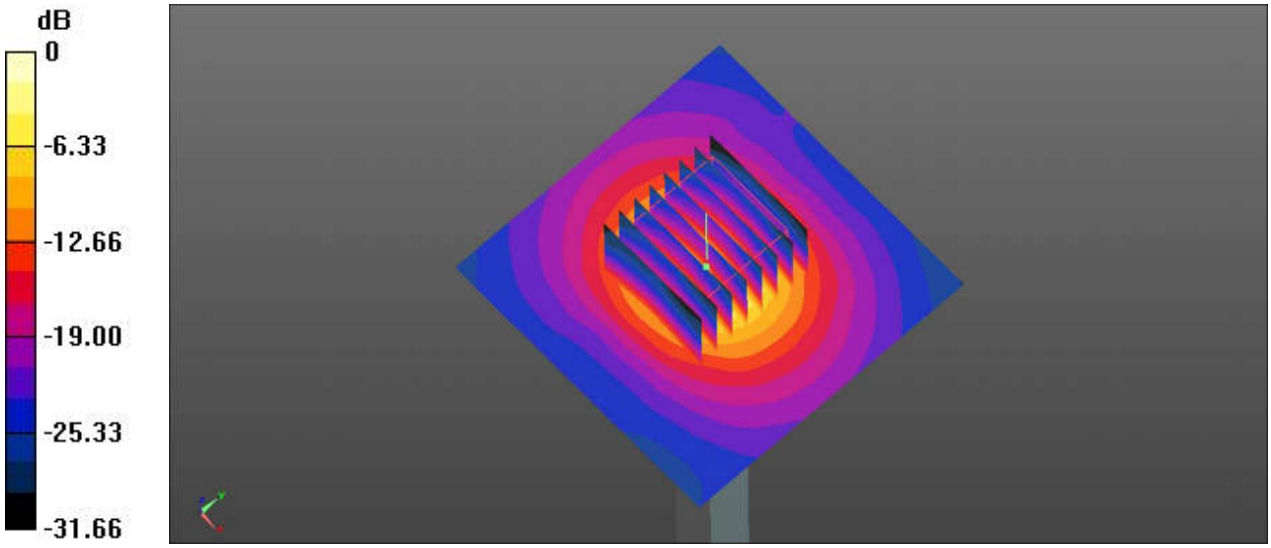
DUT: D5GHzV2_SN:1128

Communication System: UID 0, CW (0); Frequency: 5300 MHz;Duty Cycle: 1:1
Medium: MSL_5300_Medium parameters used: f = 5300 MHz; σ = 5.377 S/m; ε_r = 49.382; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(5.2, 5.2, 5.2); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- 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) = 18.3 W/kg

Pin=100mw/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 41.18 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 30.9 W/kg
SAR(1 g) = 7.71 W/kg; SAR(10 g) = 2.18 W/kg
Maximum value of SAR (measured) = 18.2 W/kg



0 dB = 18.2 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/11

System Check_Body_5500MHz_20180311

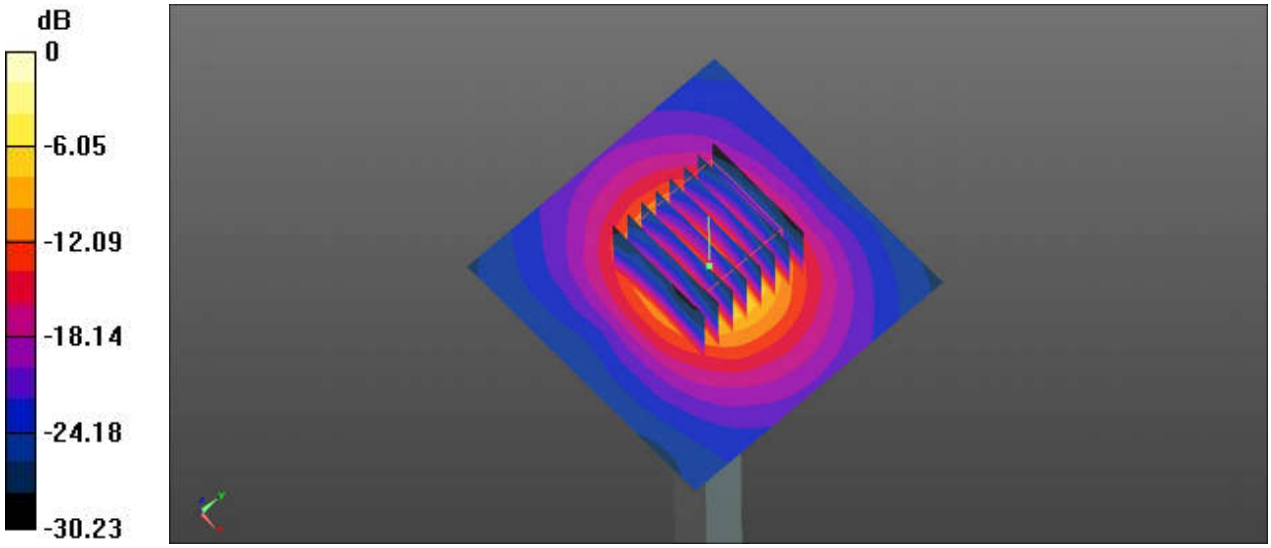
DUT: D5GHzV2_SN:1128

Communication System: UID 0, CW (0); Frequency: 5500 MHz;Duty Cycle: 1:1
Medium: MSL_5500_Medium parameters used: f = 5500 MHz; σ = 5.63 S/m; ε_r = 49.098; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.62, 4.62, 4.62); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- 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 = 41.22 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 31.9 W/kg
SAR(1 g) = 8.18 W/kg; SAR(10 g) = 2.33 W/kg
Maximum value of SAR (measured) = 20.1 W/kg



0 dB = 20.1 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/11

System Check_Body_5600MHz_20180311

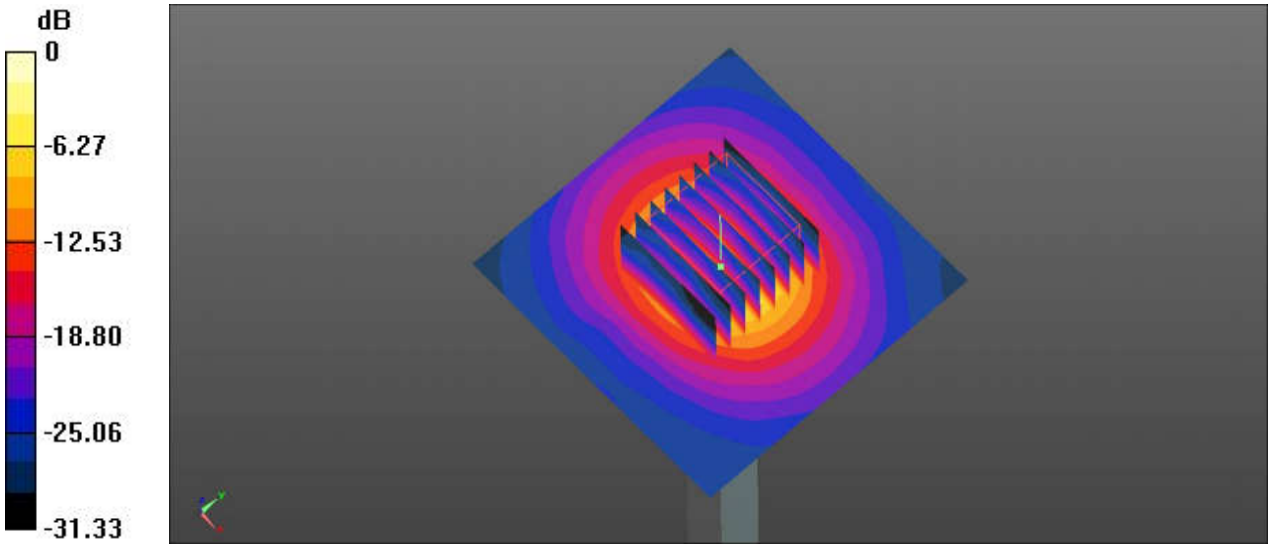
DUT: D5GHzV2_SN:1128

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: MSL_5600_Medium parameters used: f = 5600 MHz; σ = 5.767 S/m; ε_r = 48.953; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.51, 4.51, 4.51); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- 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) = 20.1 W/kg

Pin=100mw/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 41.31 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 34.3 W/kg
SAR(1 g) = 8.44 W/kg; SAR(10 g) = 2.41 W/kg
Maximum value of SAR (measured) = 21.2 W/kg



0 dB = 21.2 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/11

System Check_Body_5800MHz_20180311

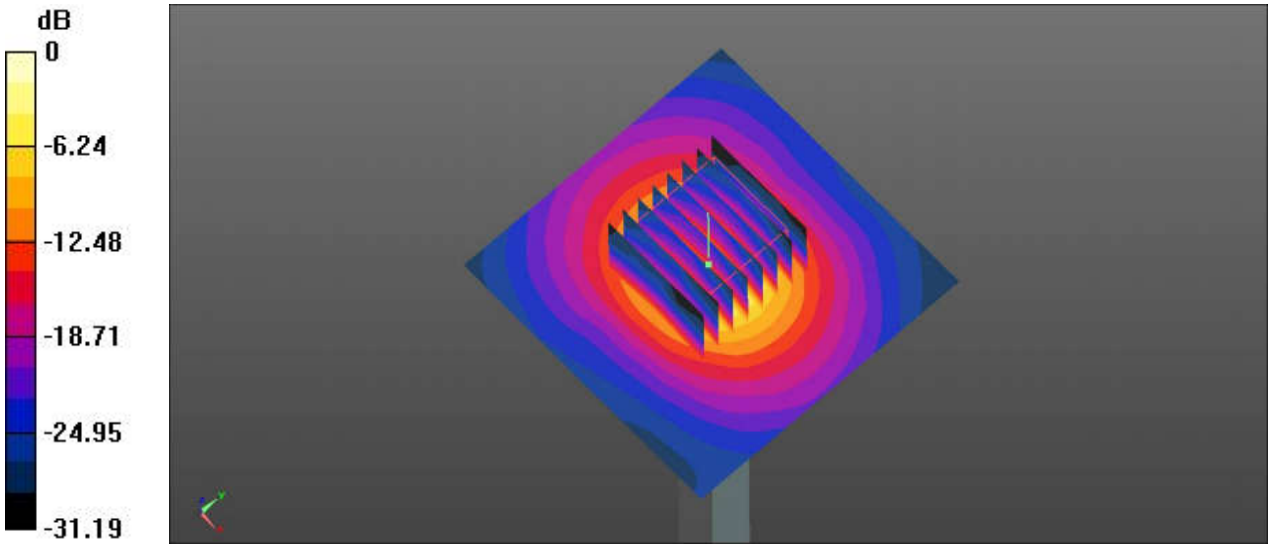
DUT: D5GHzV2_SN:1128

Communication System: UID 0, CW (0); Frequency: 5800 MHz;Duty Cycle: 1:1
Medium: MSL_5800_Medium parameters used: f = 5800 MHz; σ = 6.038 S/m; ε_r = 48.684; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.64, 4.64, 4.64); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- 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) = 18.0 W/kg

Pin=100mw/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 37.93 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 31.4 W/kg
SAR(1 g) = 7.37 W/kg; SAR(10 g) = 2.09 W/kg
Maximum value of SAR (measured) = 18.0 W/kg



0 dB = 18.0 W/kg

Appendix B. Plots of High SAR Measurement

The plots are shown as follows.

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/10

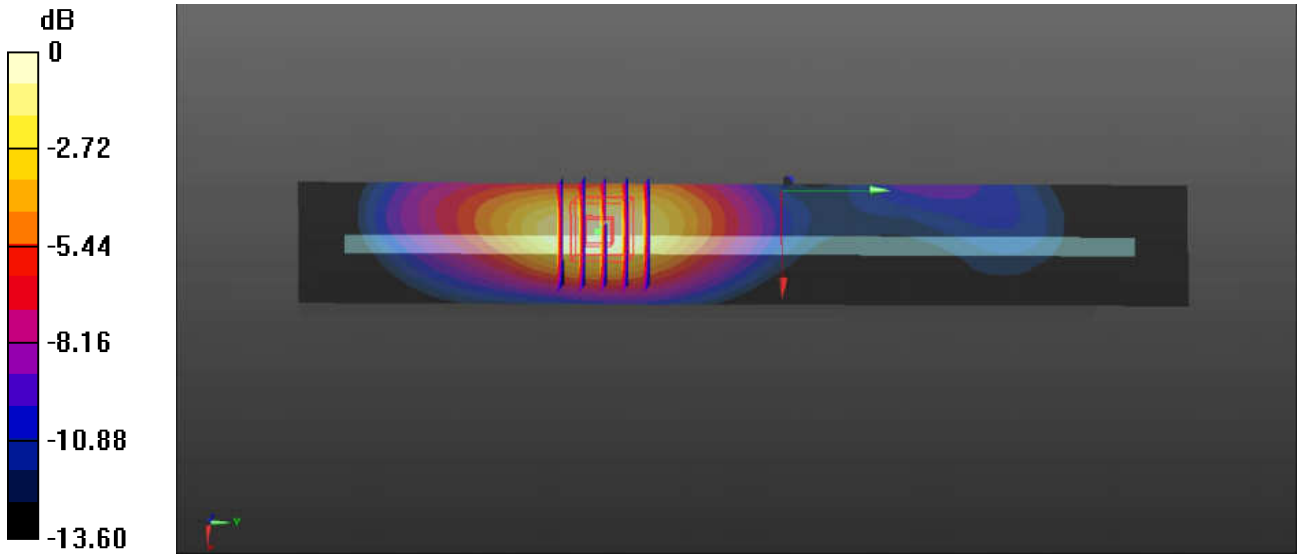
#01-WCDMA Band V_RMC 12.2Kbps_Edge 1_11mm_Ch4233_Sensor off

Communication System: UID 0, WCDMA (0); Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium: MSL_835_Medium parameters used: f = 846.6 MHz; σ = 1.009 S/m; ε_r = 55.426; ρ = 1000kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(10.33, 10.33, 10.33); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch4233/Area Scan (31x221x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.38 W/kg

Ch4233/Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 13.21 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 0.972 W/kg; SAR(10 g) = 0.590 W/kg
Maximum value of SAR (measured) = 1.41 W/kg



0 dB = 1.41 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/6

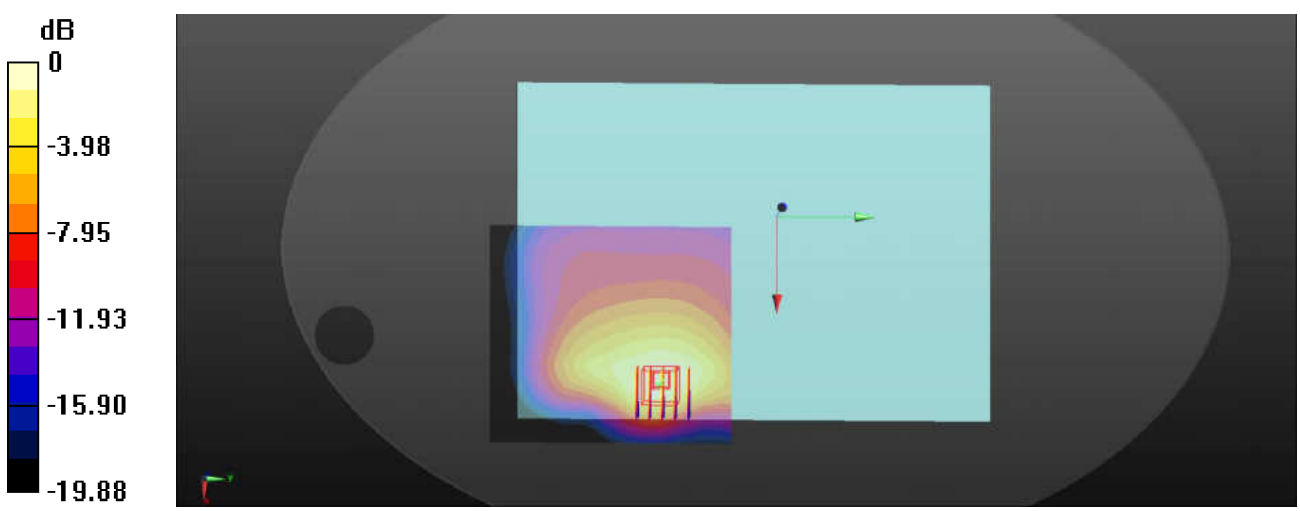
#02-WCDMA Band IV_RMC 12.2Kbps_Bottom Face_11mm_Ch1312_Sensor off

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 = 1.476 S/m; ε_r = 53.811; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(8.71, 8.71, 8.71); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch1312/Area Scan (91x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.36 W/kg

Ch1312/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.580 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1 g) = 0.919 W/kg; SAR(10 g) = 0.526 W/kg
Maximum value of SAR (measured) = 1.29 W/kg



0 dB = 1.29 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/8

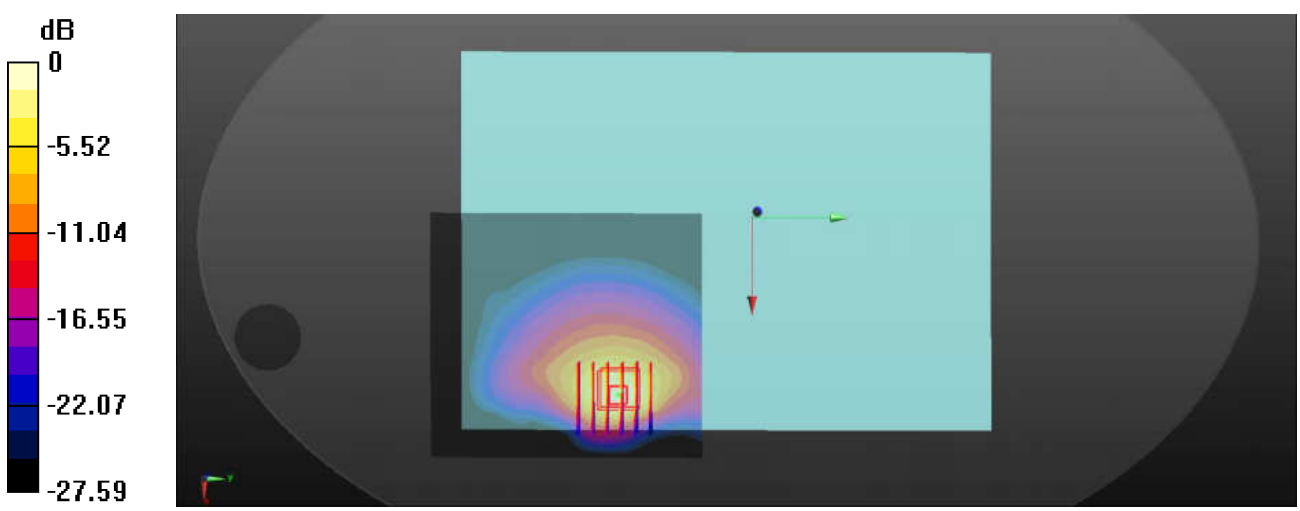
#03-WCDMA Band II_RMC 12.2Kbps_Bottom Face_0mm_Ch9538_Sensor on

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 = 1.57 S/m; ε_r = 53.081; ρ = 1000kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(8.3, 8.3, 8.3); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch9538/Area Scan (91x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.97 W/kg

Ch9538/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0.8680 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 2.25 W/kg
SAR(1 g) = 0.964 W/kg; SAR(10 g) = 0.451 W/kg
Maximum value of SAR (measured) = 1.66 W/kg



0 dB = 1.66 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/9

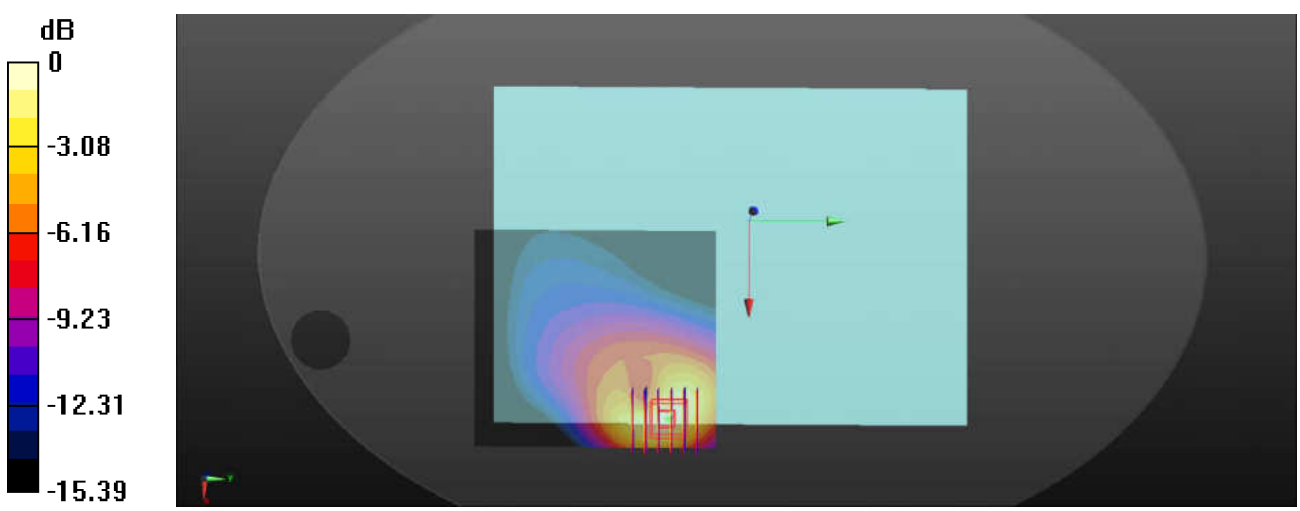
#04-LTE Band 12_10M_QPSK_1RB_0offset_Bottom Face_11mm_Ch23095_Sensor off

Communication System: UID 0, FDD-LTE (0); Frequency: 707.5 MHz;Duty Cycle: 1:1
Medium: MSL_750_Medium parameters used: f = 707.5 MHz; σ = 0.932 S/m; ε_r = 57.365; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(10.65, 10.65, 10.65); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch23095/Area Scan (91x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.21 W/kg

Ch23095/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.477 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 0.851 W/kg; SAR(10 g) = 0.506 W/kg
Maximum value of SAR (measured) = 1.25 W/kg



0 dB = 1.25 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/9

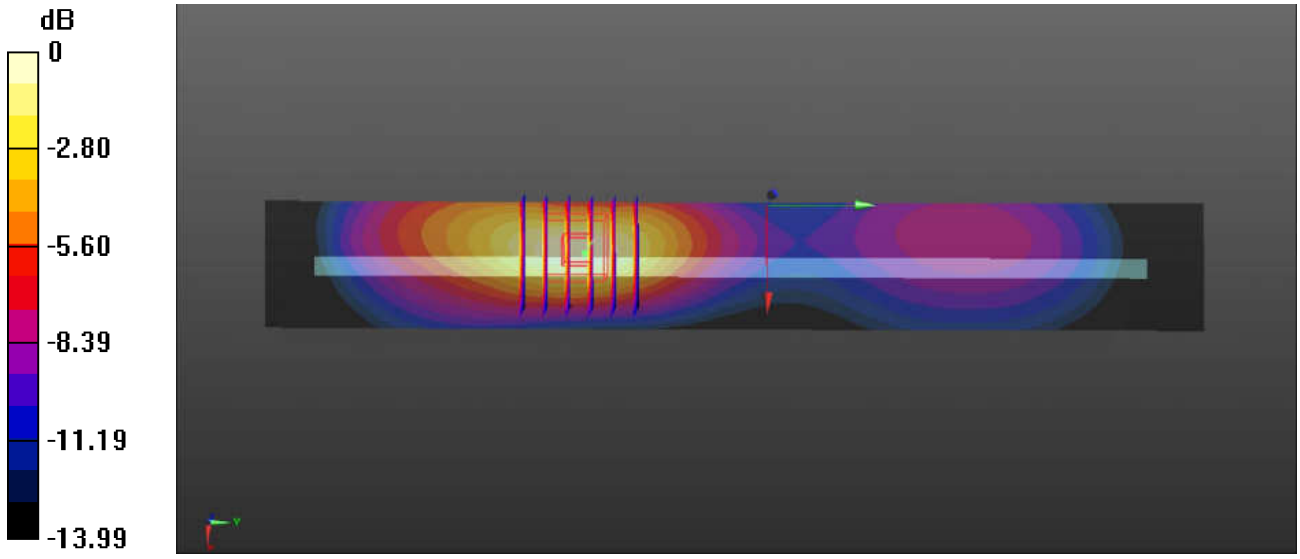
#05-LTE Band 13_10M_QPSK_1RB_25offset_Edge 1_11mm_Ch23230_Sensor off

Communication System: UID 0, FDD-LTE (0); Frequency: 782 MHz;Duty Cycle: 1:1
Medium: MSL_750_Medium parameters used: f = 782 MHz; σ = 0.997 S/m; ε_r = 56.56; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.8 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(10.65, 10.65, 10.65); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch23230/Area Scan (31x221x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.27 W/kg

Ch23230/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.77 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 0.893 W/kg; SAR(10 g) = 0.537 W/kg
Maximum value of SAR (measured) = 1.29 W/kg



0 dB = 1.29 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/10

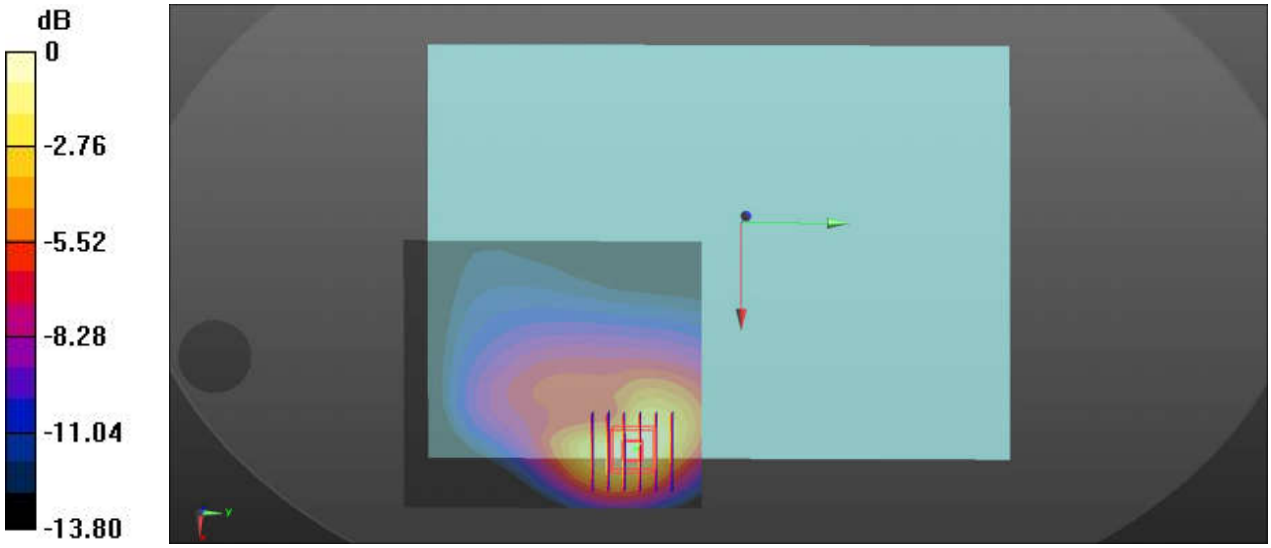
#06-LTE Band 5_10M_QPSK_1RB_0offset_Bottom Face_11mm_Ch20525_Sensor off

Communication System: UID 0, FDD-LTE (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: MSL_835_Medium parameters used: f = 836.5 MHz; σ = 1.001 S/m; ε_r = 55.497; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(10.33, 10.33, 10.33); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch20525/Area Scan (91x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.28 W/kg

Ch20525/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.784 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.51 W/kg
SAR(1 g) = 0.869 W/kg; SAR(10 g) = 0.527 W/kg
Maximum value of SAR (measured) = 1.26 W/kg



0 dB = 1.26 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/10

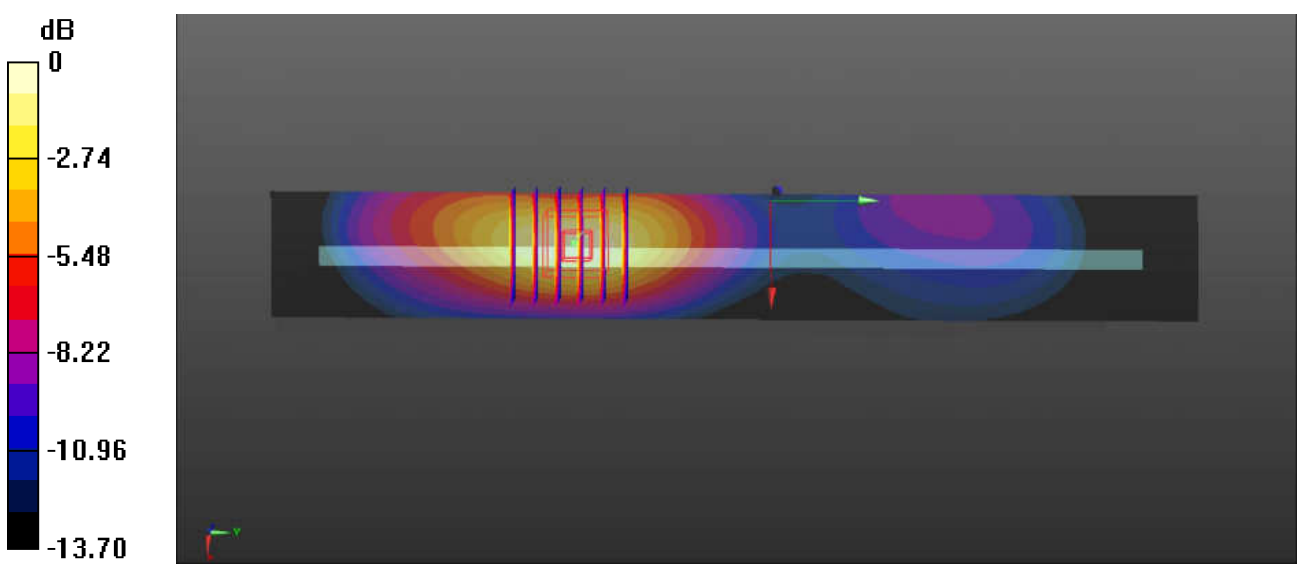
#07-LTE Band 26_15M_QPSK_1RB_0offset_Edge 1_11mm_Ch26865_Sensor off

Communication System: UID 0, FDD-LTE (0); Frequency: 831.5 MHz;Duty Cycle: 1:1
Medium: MSL_835_Medium parameters used: f = 831.5 MHz; σ = 0.996 S/m; ε_r = 55.526; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(10.33, 10.33, 10.33); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch26865/Area Scan (31x221x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.845 W/kg

Ch26865/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.500 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.05 W/kg
SAR(1 g) = 0.612 W/kg; SAR(10 g) = 0.373 W/kg
Maximum value of SAR (measured) = 0.868 W/kg



0 dB = 0.868 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/6

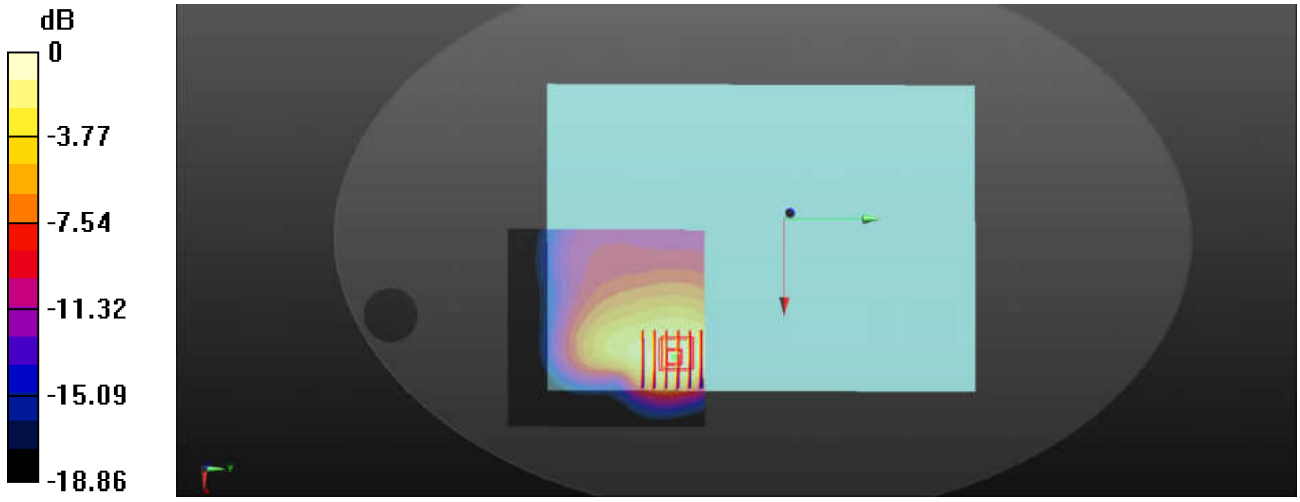
#08-LTE Band 66_20M_QPSK_1RB_0offset_Bottom Face_11mm_Ch132322_Sensor off

Communication System: UID 0, FDD-LTE (0); Frequency: 1745 MHz;Duty Cycle: 1:1
Medium: MSL_1750_Medium parameters used: f = 1745 MHz; σ = 1.509 S/m; ε_r = 53.712; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(8.71, 8.71, 8.71); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch132322/Area Scan (91x91x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Ch132322/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.592 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.990 W/kg; SAR(10 g) = 0.609 W/kg
Maximum value of SAR (measured) = 1.37 W/kg



0 dB = 1.37 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/8

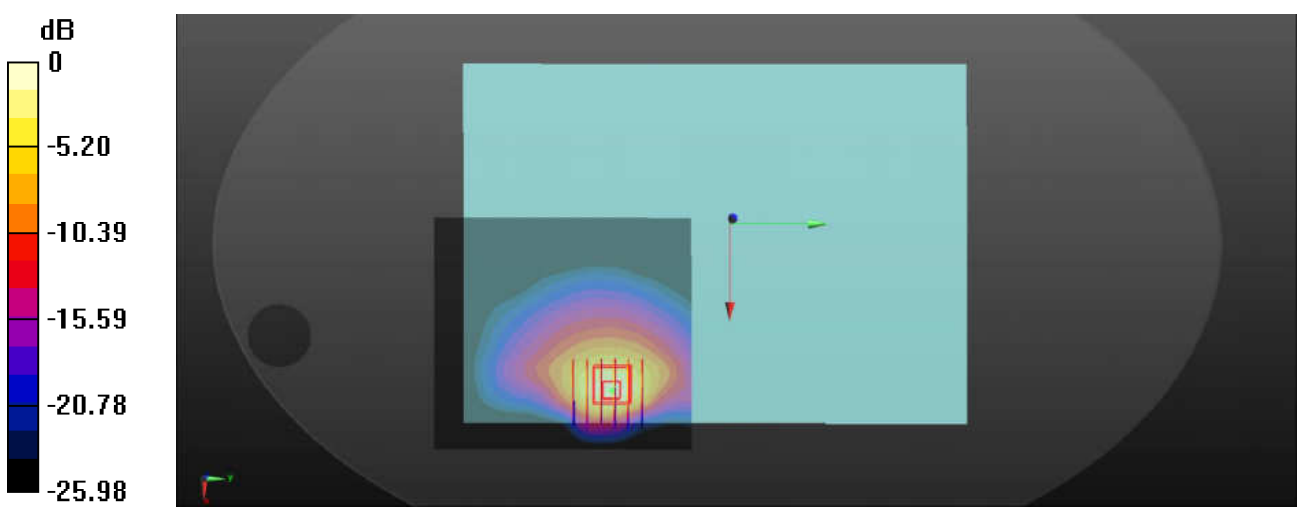
#09-LTE Band 25_20M_QPSK_100RB_0offset_Bottom Face_0mm_Ch26590_Sensor on

Communication System: UID 0, FDD-LTE (0); Frequency: 1905 MHz;Duty Cycle: 1:1
Medium: MSL_1900_Medium parameters used: f = 1905 MHz; σ = 1.567 S/m; ε_r = 53.089; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature ：22.3 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(8.3, 8.3, 8.3); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch26590/Area Scan (91x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Ch26590/Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0.8280 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.71 W/kg
SAR(1 g) = 0.729 W/kg; SAR(10 g) = 0.341 W/kg
Maximum value of SAR (measured) = 1.26 W/kg



0 dB = 1.26 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/7

#10-LTE Band 30_10M_QPSK_1RB_0offset_Edge 1_11mm_Ch27710_Sensor off

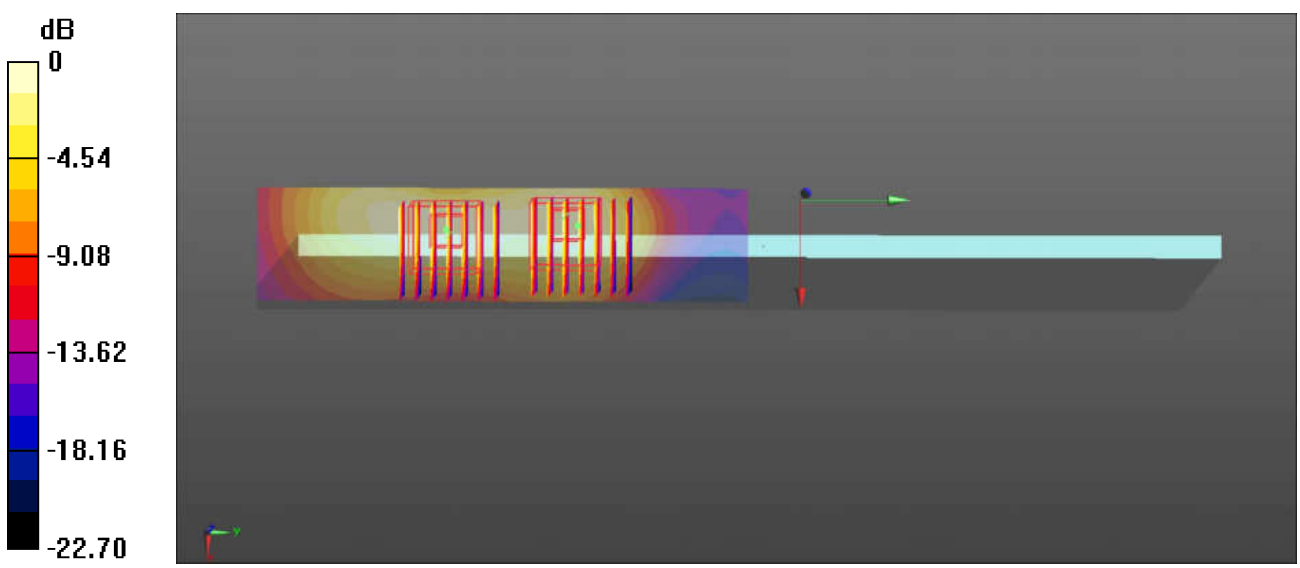
Communication System: UID 0, FDD-LTE (0); Frequency: 2310 MHz;Duty Cycle: 1:1
Medium: MSL_2300_Medium parameters used: f = 2310 MHz; σ = 1.779 S/m; ε_r = 52.995; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(8.1, 8.1, 8.1); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch27710/Area Scan (31x131x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.81 W/kg

Ch27710/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.872 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 2.30 W/kg
SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.511 W/kg
Maximum value of SAR (measured) = 1.77 W/kg

Ch27710/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.872 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.823 W/kg; SAR(10 g) = 0.433 W/kg
Maximum value of SAR (measured) = 1.21 W/kg



0 dB = 1.21 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/7

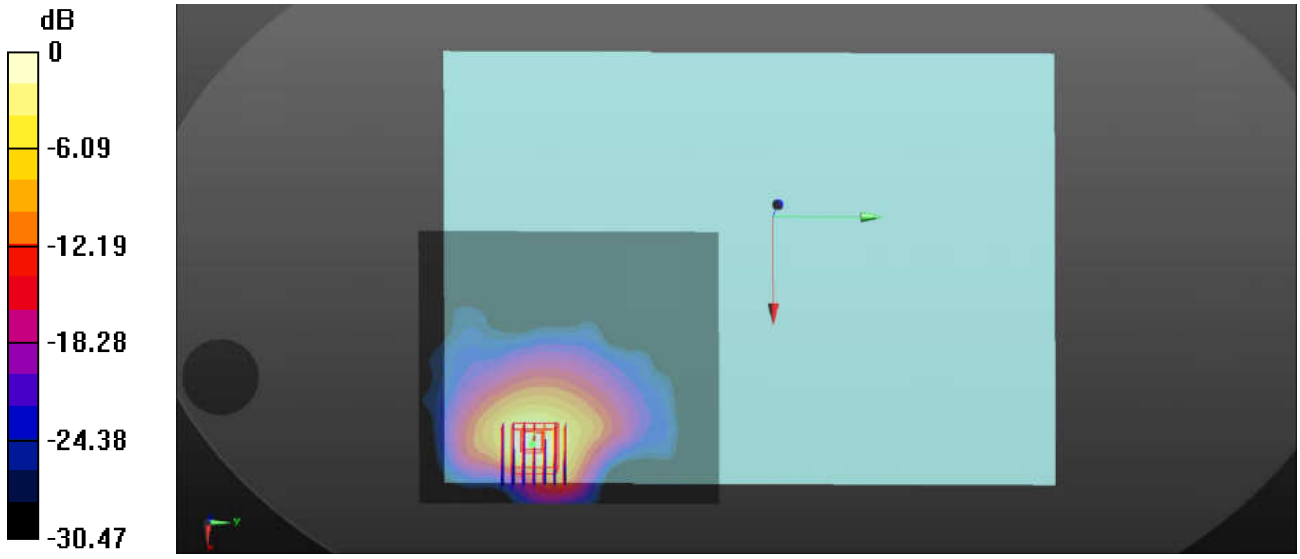
#11-LTE Band 7_20M_QPSK_1RB_0offset_Bottom Face_0mm_Ch21350_Sensor on

Communication System: UID 0, FDD-LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium: MSL_2600_Medium parameters used: f = 2560 MHz; σ = 2.116 S/m; ε_r = 52.095; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(7.71, 7.71, 7.71); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch21350/Area Scan (111x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 2.17 W/kg

Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.6990 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 2.56 W/kg
SAR(1 g) = 0.990 W/kg; SAR(10 g) = 0.354 W/kg
Maximum value of SAR (measured) = 1.79 W/kg



0 dB = 1.79 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/2/7

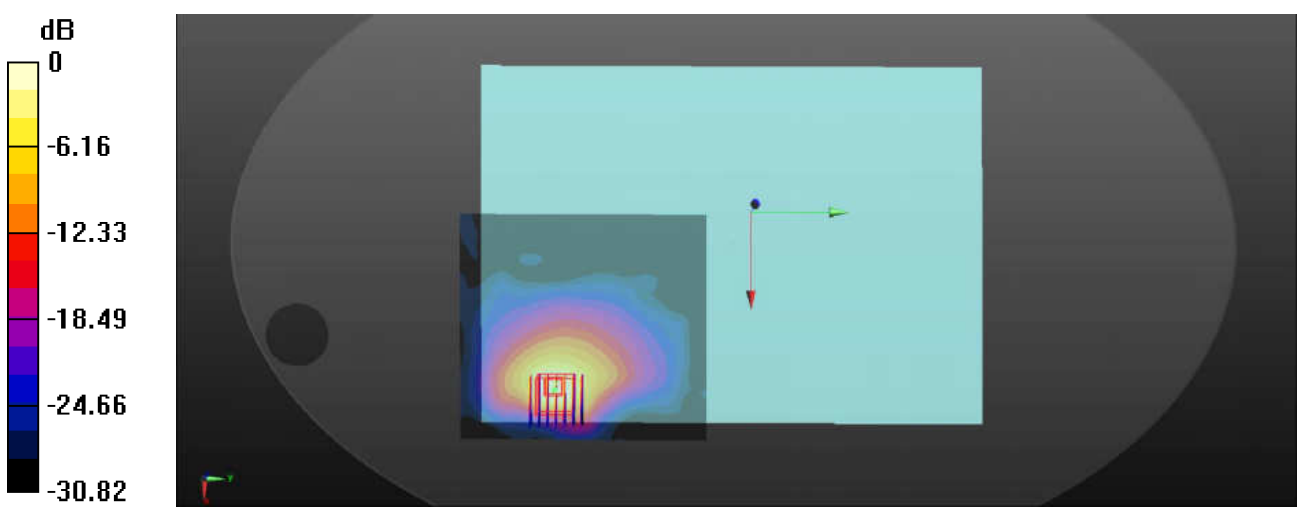
#12-LTE Band 41_20M_QPSK_100RB_0offset_Bottom Face_0mm_Ch41490_Sensor on

Communication System: UID 0, TDD-LTE (0); Frequency: 2680 MHz;Duty Cycle: 1:1.59
Medium: MSL_2600_Medium parameters used: f = 2680 MHz; σ = 2.282 S/m; ε_r = 51.641; ρ = 1000 kg/m^3
Ambient Temperature：23.6 ℃; Liquid Temperature ：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(7.71, 7.71, 7.71); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch41490/Area Scan (111x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.77 W/kg

Ch41490/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.8960 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 2.07 W/kg
SAR(1 g) = 0.796 W/kg; SAR(10 g) = 0.265 W/kg
Maximum value of SAR (measured) = 1.47 W/kg



0 dB = 1.47 W/kg

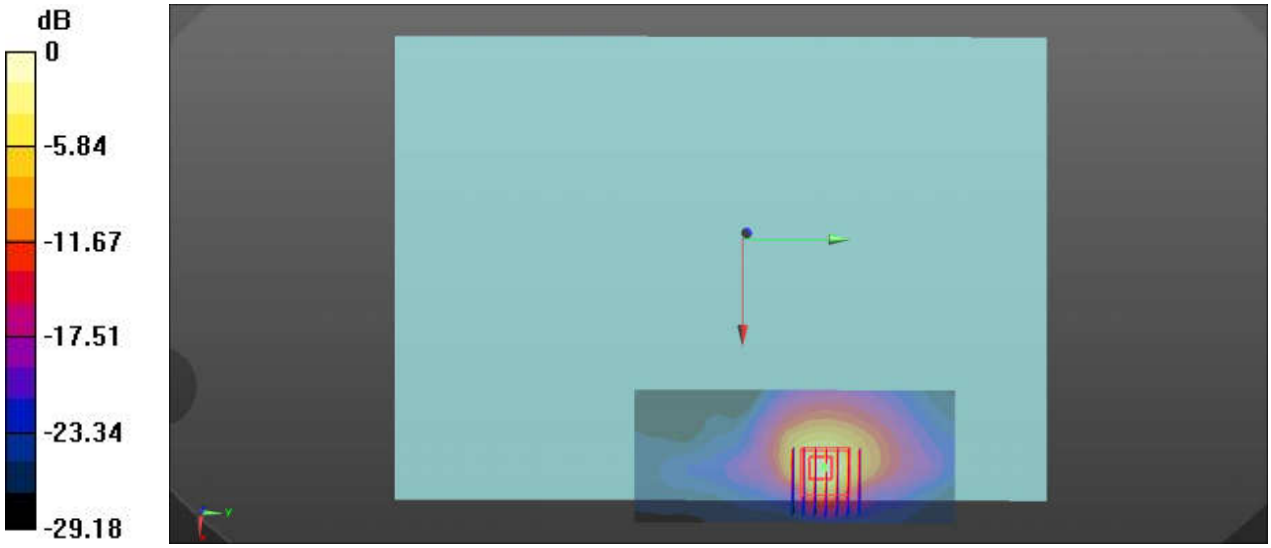
#13-WLAN2.4GHz_802.11b 1Mbps_Bottom Face_0mm_Ch11_Ant 1_Sensor on

Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1
Medium: MSL_2450_Medium parameters used: f = 2462 MHz; σ = 1.98 S/m; ε_r = 52.456; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch11/Area Scan (51x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.82 W/kg

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.268 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 2.31 W/kg
SAR(1 g) = 0.825 W/kg; SAR(10 g) = 0.275 W/kg
Maximum value of SAR (measured) = 1.56 W/kg



0 dB = 1.56 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/10

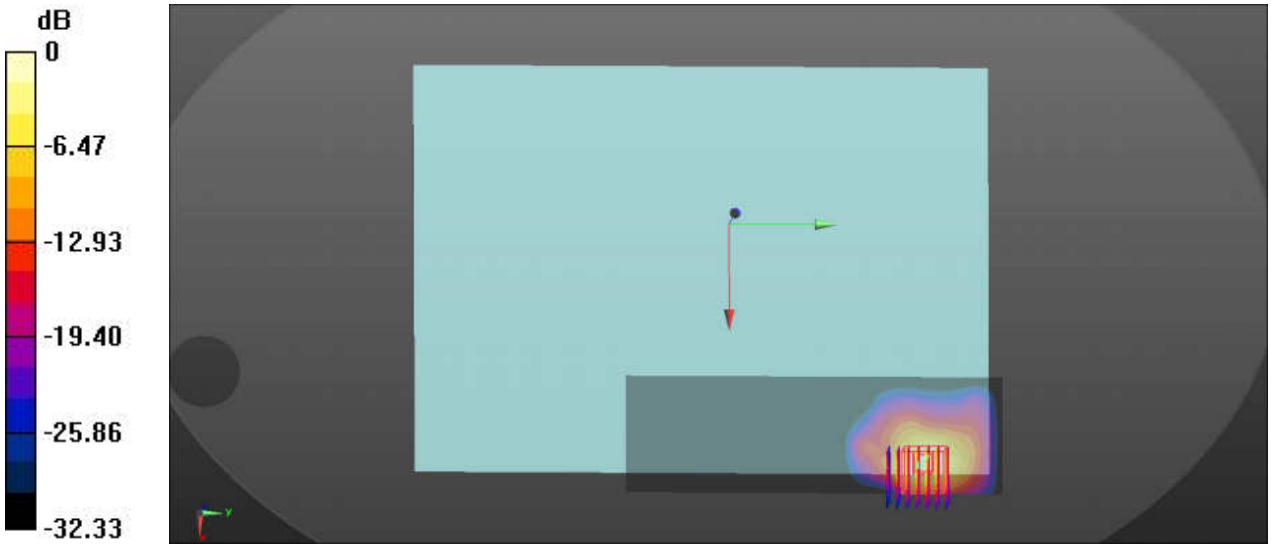
#14-WLAN2.4GHz_802.11b 1Mbps_Bottom Face_0mm_Ch6_Ant 2_Sensor on

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: MSL_2450_Medium parameters used: f = 2437 MHz; σ = 1.946 S/m; ε_r = 52.547; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch6/Area Scan (51x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.85 W/kg

Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.5750 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 2.17 W/kg
SAR(1 g) = 0.866 W/kg; SAR(10 g) = 0.294 W/kg
Maximum value of SAR (measured) = 1.62 W/kg



0 dB = 1.62 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/10

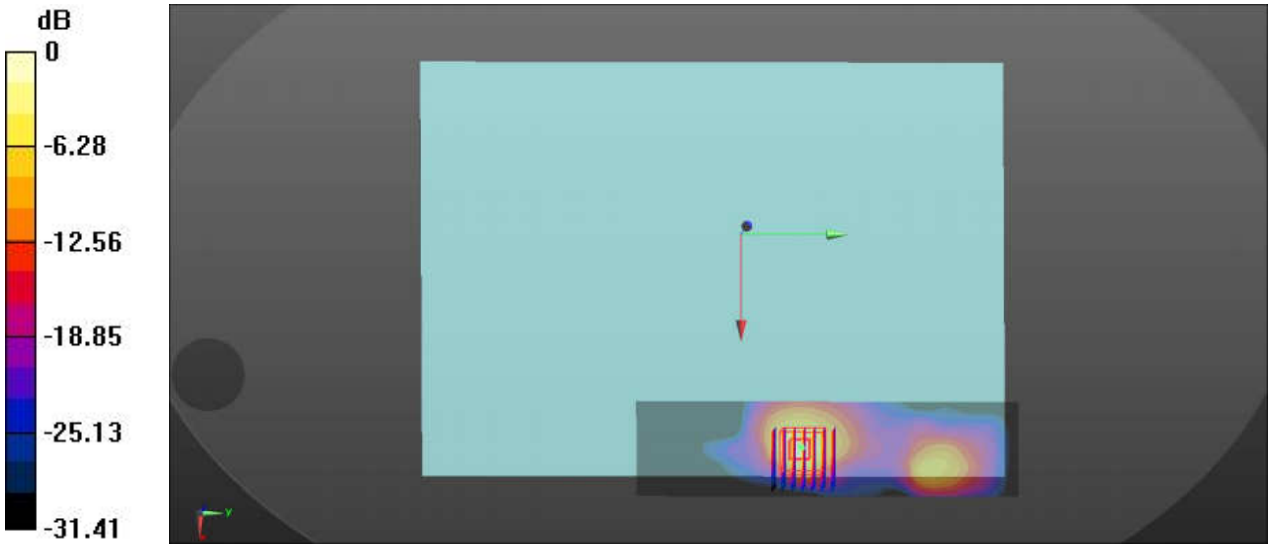
#15-WLAN2.4GHz_802.11n HT20 MCS0_Bottom Face_0mm_Ch11_Ant 1+2_Sensor on

Communication System: UID 0, 802.11b (0); Frequency: 2462 MHz;Duty Cycle: 1:1.056
Medium: MSL_2450_Medium parameters used: f = 2462 MHz; σ = 1.98 S/m; ε_r = 52.456; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch11/Area Scan (41x161x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.65 W/kg

Ch11/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.2120 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 2.43 W/kg
SAR(1 g) = 0.841 W/kg; SAR(10 g) = 0.278 W/kg
Maximum value of SAR (measured) = 1.70 W/kg



0 dB = 1.70 W/kg

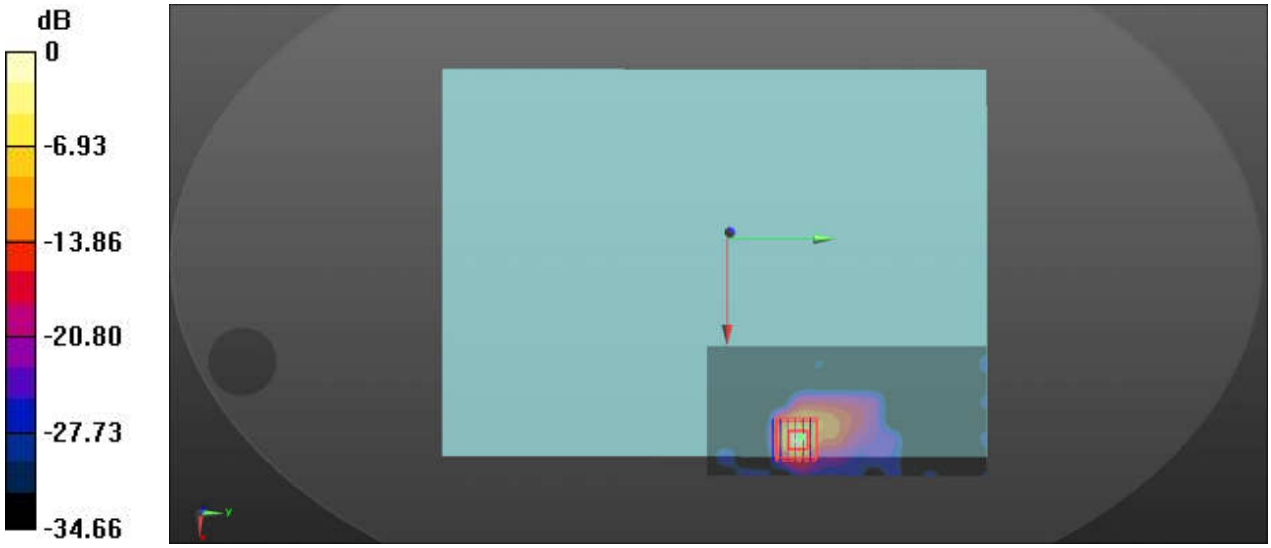
#16_WLAN5.3GHz_802.11a 6Mbps_Bottom Face_0mm_Ch64_Ant 1_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5320 MHz;Duty Cycle: 1:1.048
Medium: MSL_5300_Medium parameters used: f = 5320 MHz; σ = 5.436 S/m; ε_r = 49.383; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(5.2, 5.2, 5.2); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch64/Area Scan (71x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.28 W/kg

Ch64/Zoom Scan (7x7x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.273 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 5.41 W/kg
SAR(1 g) = 0.735 W/kg; SAR(10 g) = 0.135 W/kg
Maximum value of SAR (measured) = 2.42 W/kg



0 dB = 2.42 W/kg

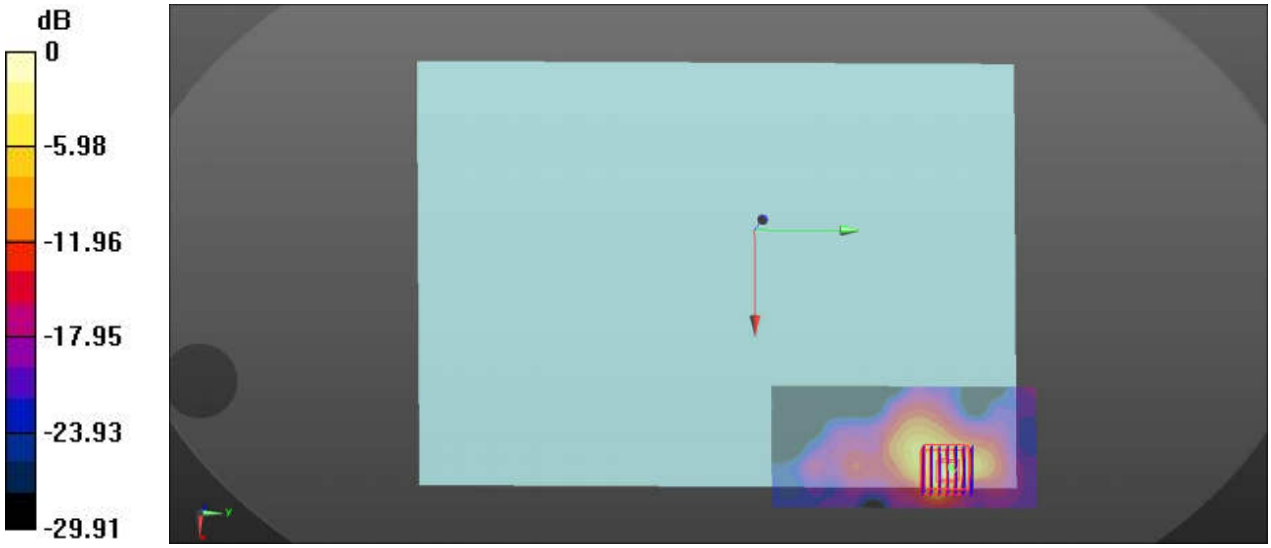
#17_WLAN5.3GHz_802.11a 6Mbps_Bottom Face_0mm_Ch64_Ant 2_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5320 MHz;Duty Cycle: 1:1.051
Medium: MSL_5300_Medium parameters used: f = 5320 MHz; σ = 5.436 S/m; ε_r = 49.383; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(5.2, 5.2, 5.2); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch64/Area Scan (61x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.67 W/kg

Ch64/Zoom Scan (7x7x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.219 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 4.00 W/kg
SAR(1 g) = 0.545 W/kg; SAR(10 g) = 0.156 W/kg
Maximum value of SAR (measured) = 1.63 W/kg



0 dB = 1.63 W/kg

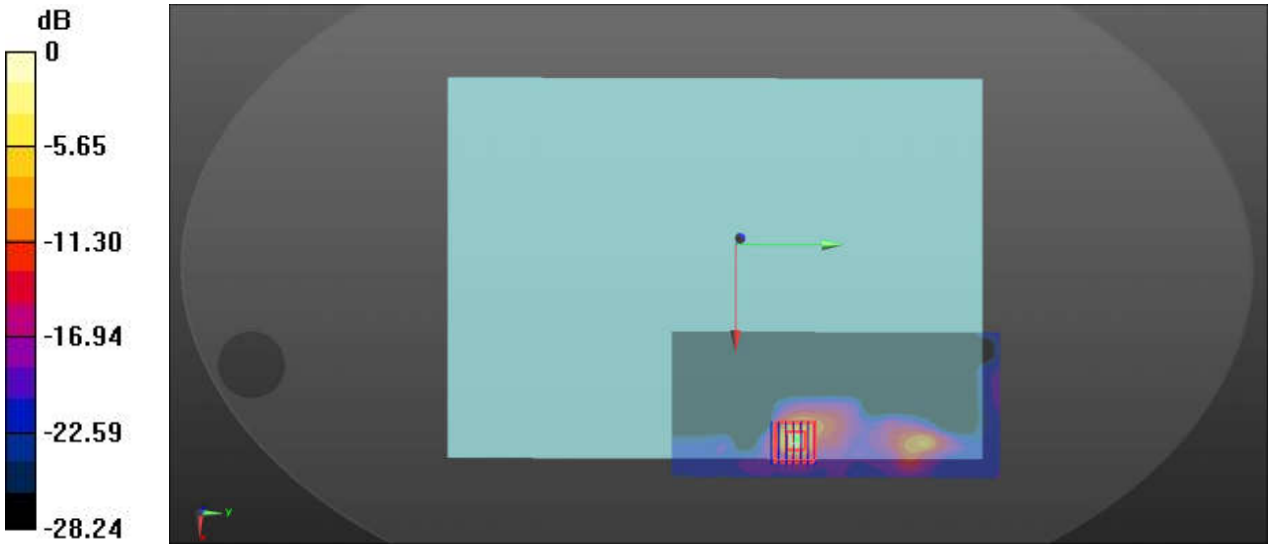
#18_WLAN5.3GHz_802.11n-HT20 MCS0_Bottom Face_0mm_Ch64_Ant 1+2_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5320 MHz;Duty Cycle: 1:1.055
Medium: MSL_5300_Medium parameters used: f = 5320 MHz; σ = 5.436 S/m; ε_r = 49.383; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(5.2, 5.2, 5.2); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch64/Area Scan (81x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.89 W/kg

Ch64/Zoom Scan (7x7x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.374 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 4.82 W/kg
SAR(1 g) = 0.641 W/kg; SAR(10 g) = 0.121 W/kg
Maximum value of SAR (measured) = 1.90 W/kg



0 dB = 1.90 W/kg

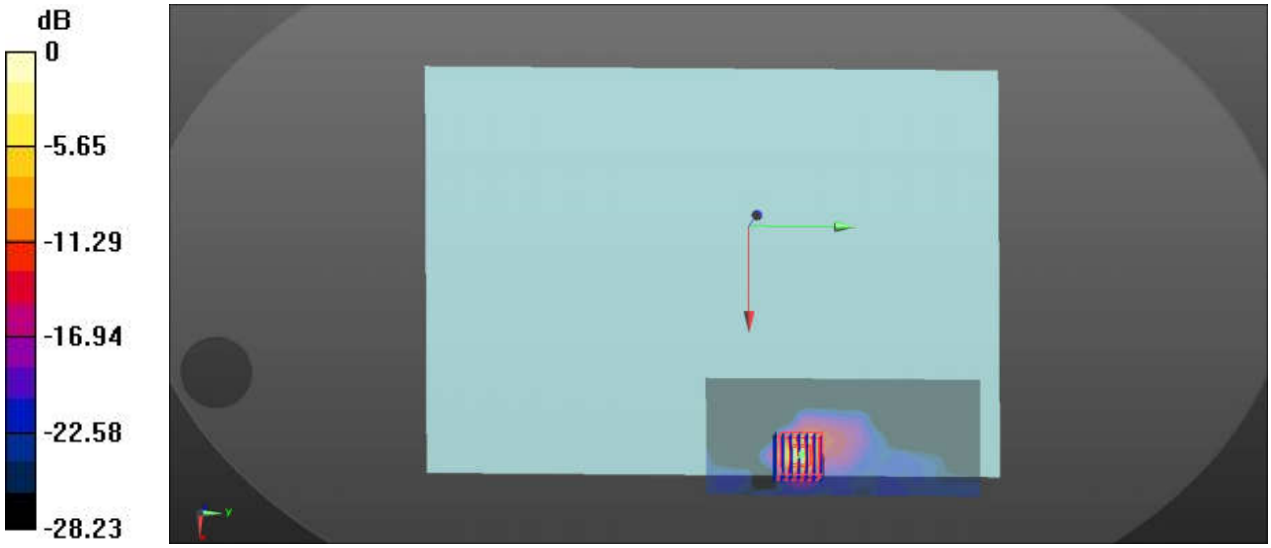
#19_WLAN5.5GHz_802.11a 6Mbps_Bottom Face_0mm_Ch100_Ant 1_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5500 MHz;Duty Cycle: 1:1.048
Medium: MSL_5500_Medium parameters used: f = 5500 MHz; σ = 5.63 S/m; ε_r = 49.098; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.62, 4.62, 4.62); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch100/Area Scan (61x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.02 W/kg

Ch100/Zoom Scan (7x7x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.207 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 5.31 W/kg
SAR(1 g) = 0.665 W/kg; SAR(10 g) = 0.118 W/kg
Maximum value of SAR (measured) = 2.01 W/kg



0 dB = 2.01 W/kg

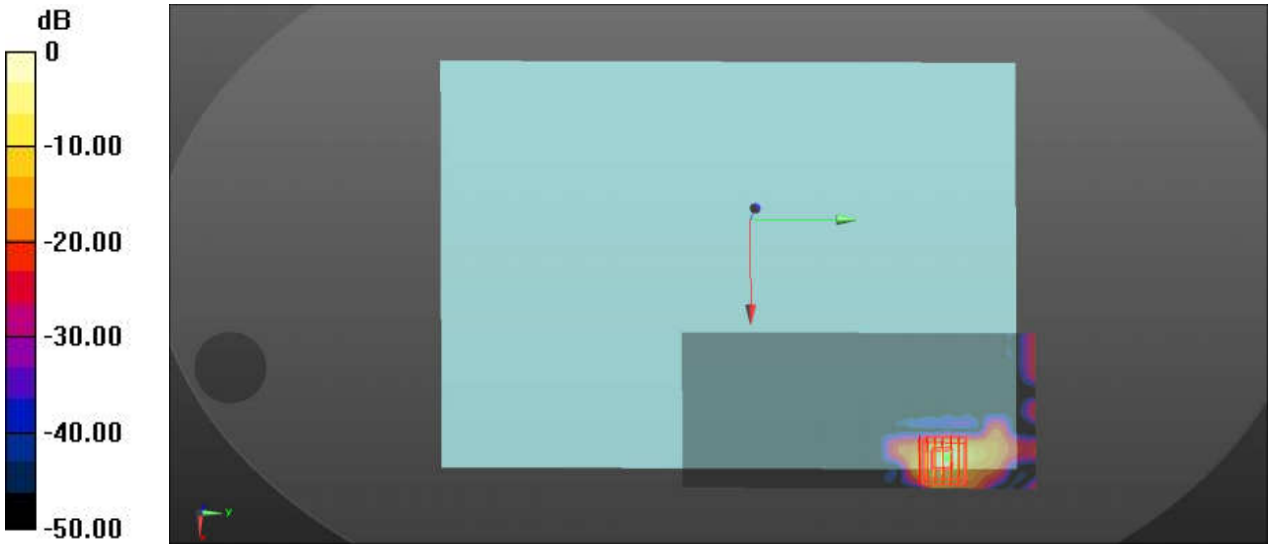
#20-WLAN5.5GHz_802.11a 6Mbps_Bottom Face_0mm_Ch116_Ant 2_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5580 MHz;Duty Cycle: 1:1.051
Medium: MSL_5500_Medium parameters used: f = 5580 MHz; σ = 5.738 S/m; ε_r = 49.082; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.62, 4.62, 4.62); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch116/Area Scan (81x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.91 W/kg

Ch116/Zoom Scan (7x7x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.040 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 5.26 W/kg
SAR(1 g) = 0.760 W/kg; SAR(10 g) = 0.174 W/kg
Maximum value of SAR (measured) = 2.56 W/kg



0 dB = 2.56 W/kg

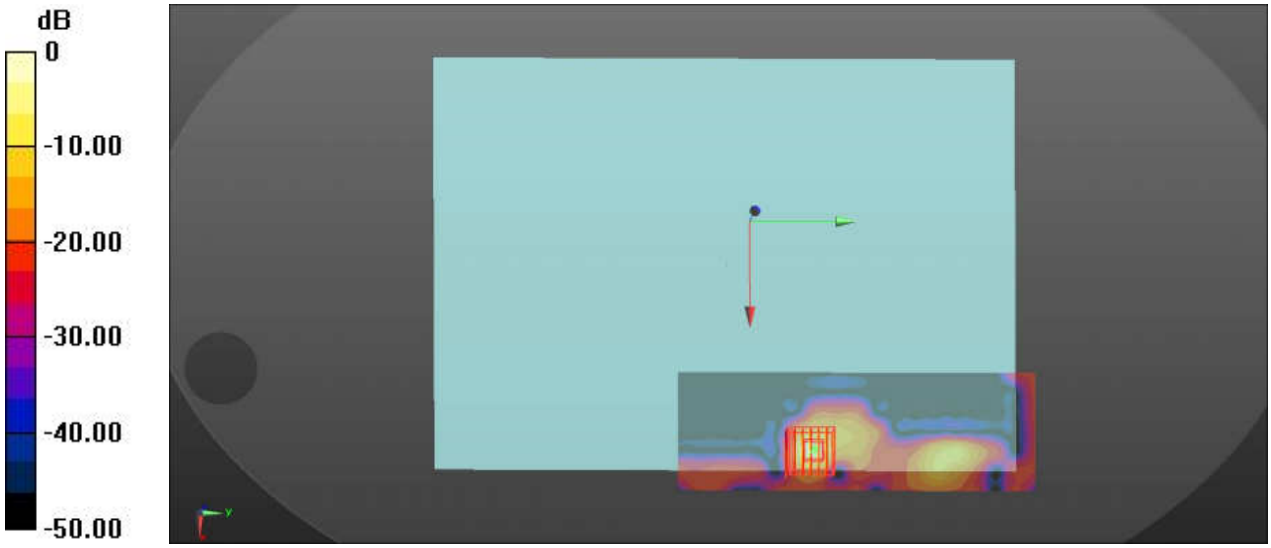
#21_WLAN5.5GHz_802.11n-HT20 MCS0_Bottom Face_0mm_Ch100_Ant 1+2_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5500 MHz;Duty Cycle: 1:1.055
Medium: MSL_5500_Medium parameters used: f = 5500 MHz; σ = 5.63 S/m; ε_r = 49.098; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.62, 4.62, 4.62); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch100/Area Scan (61x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.01 W/kg

Ch100/Zoom Scan (7x7x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.446 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 5.16 W/kg
SAR(1 g) = 0.651 W/kg; SAR(10 g) = 0.117 W/kg
Maximum value of SAR (measured) = 1.96 W/kg



0 dB = 1.96 W/kg

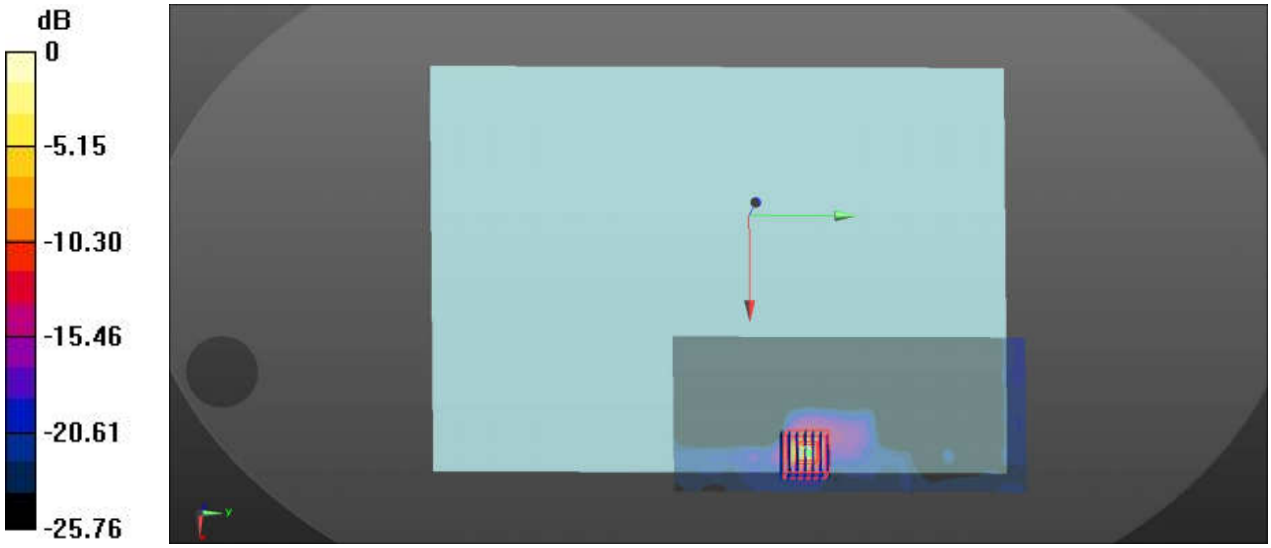
#22-WLAN5.8GHz_802.11a 6Mbps_Bottom Face_0mm_Ch149_Ant 1_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5745 MHz;Duty Cycle: 1:1.048
Medium: MSL_5500_Medium parameters used: f = 5745 MHz; σ = 6.017 S/m; ε_r = 48.844; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.64, 4.64, 4.64); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch149/Area Scan (81x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.08 W/kg

Ch149/Zoom Scan (7x7x16)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.384 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 5.37 W/kg
SAR(1 g) = 0.676 W/kg; SAR(10 g) = 0.122 W/kg
Maximum value of SAR (measured) = 2.30 W/kg



0 dB = 2.30 W/kg

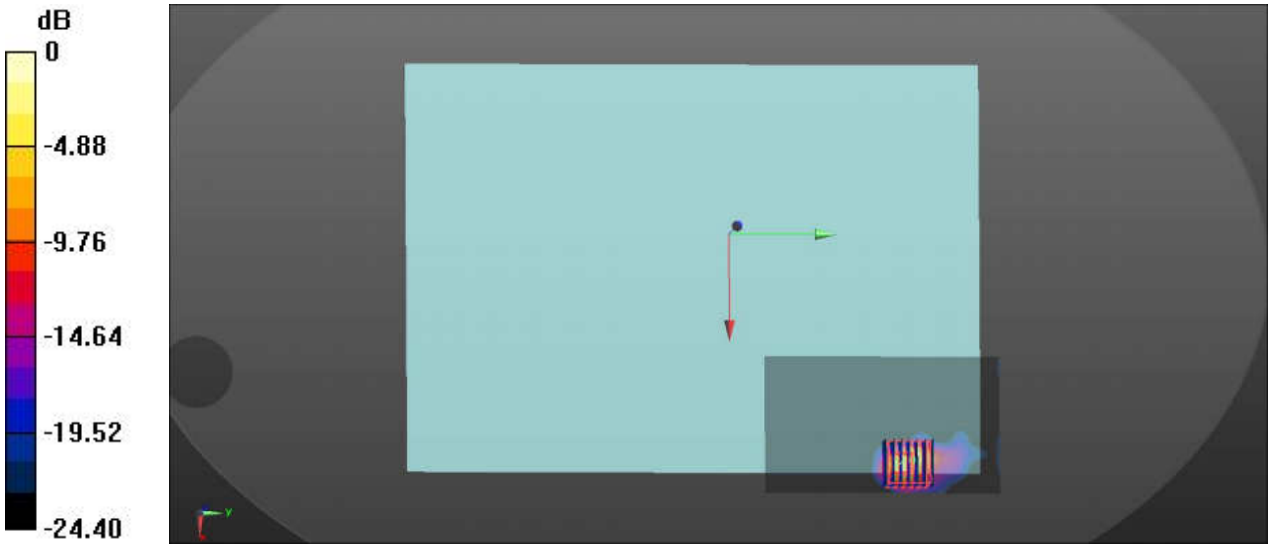
#23-WLAN5.8GHz_802.11a 6Mbps_Bottom Face_0mm_Ch157_Ant 2_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5785 MHz;Duty Cycle: 1:1.051
Medium: MSL_5800_Medium parameters used: f = 5785 MHz; σ = 6.019 S/m; ε_r = 48.792; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.64, 4.64, 4.64); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch157/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.53 W/kg

Ch157/Zoom Scan (7x7x6)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.090 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 5.17 W/kg
SAR(1 g) = 0.641 W/kg; SAR(10 g) = 0.139 W/kg
Maximum value of SAR (measured) = 2.10 W/kg



0 dB = 2.10 W/kg

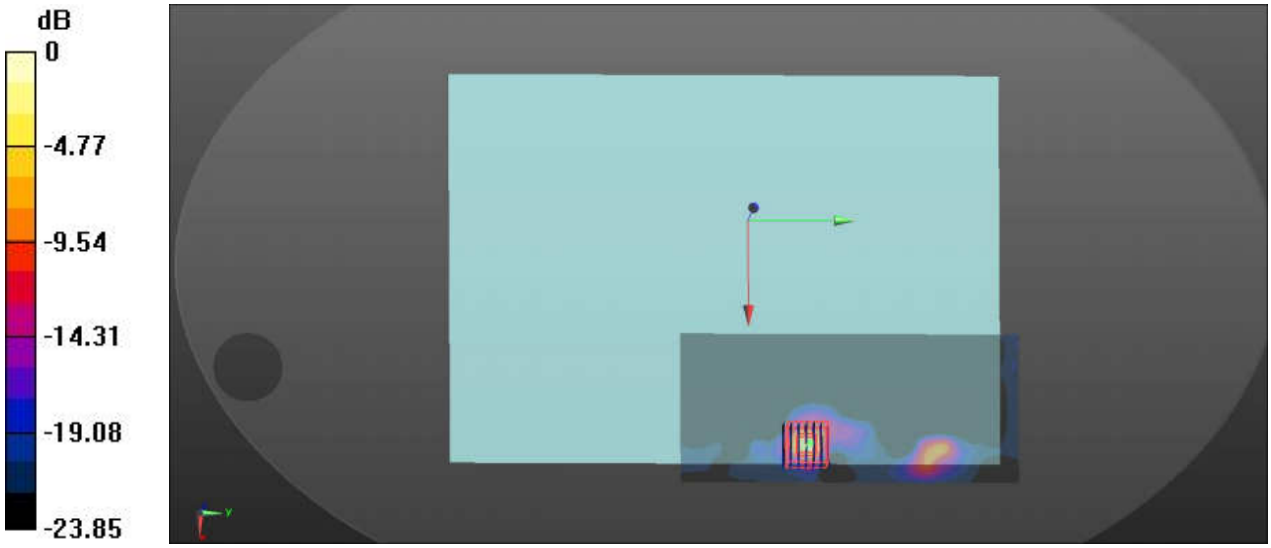
#24-WLAN5.8GHz_802.11n-HT20 MCS0_Bottom Face_0mm_Ch157_Ant 1+2_Sensor on

Communication System: UID 0, 802.11a (0); Frequency: 5785 MHz;Duty Cycle: 1:1.055
Medium: MSL_5800_Medium parameters used: f = 5785 MHz; σ = 6.019 S/m; ε_r = 48.792; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(4.64, 4.64, 4.64); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch157/Area Scan (81x181x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.39 W/kg

Ch157/Zoom Scan (7x7x6)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.353 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 6.02 W/kg
SAR(1 g) = 0.774 W/kg; SAR(10 g) = 0.143 W/kg
Maximum value of SAR (measured) = 2.52 W/kg



0 dB = 2.52 W/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2018/3/10

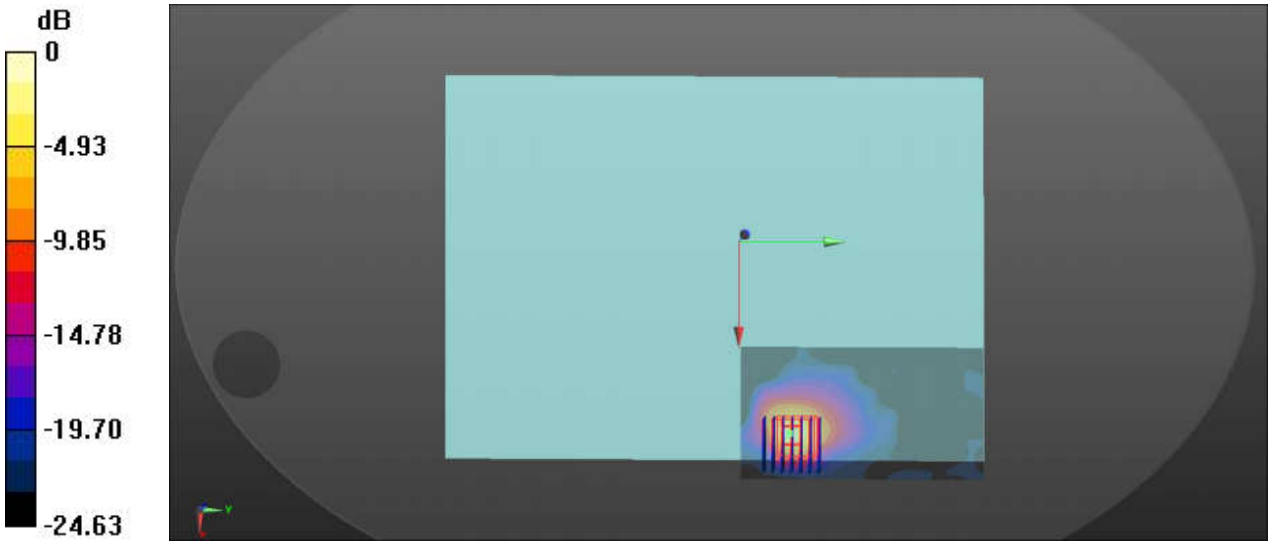
#25_Bluetooth_1Mbps_Bottom Face_0mm_Ch78

Communication System: UID 0, Bluetooth (0); Frequency: 2480 MHz;Duty Cycle: 1:1.301
Medium: MSL_2450_Medium parameters used: f = 2480 MHz; σ = 2.003 S/m; ε_r = 52.392; ρ = 1000 kg/m^3
Ambient Temperature：23.5 ℃; Liquid Temperature：22.5 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3935; ConvF(7.99, 7.99, 7.99); Calibrated: 2017/12/14;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1358; Calibrated: 2017/10/24
- Phantom: ELI v5.0; Type: QDOVA002AA; Serial: TP:1201
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch78/Area Scan (61x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.458 W/kg

Ch78/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.051 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.618 W/kg
SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.073 W/kg
Maximum value of SAR (measured) = 0.448 W/kg



0 dB = 0.448 W/kg

Appendix C. DASY Calibration Certificate

The DASY calibration certificates are shown as follows.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **Auden**

Certificate No: D750V3-1078_Jun17

CALIBRATION CERTIFICATE

Object	D750V3 - SN:1078
Calibration procedure(s)	QA CAL-05.v9 Calibration procedure for dipole validation kits above 700 MHz
Calibration date:	June 20, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
Reference Probe EX3DV4	SN: 7349	31-May-17 (No. EX3-7349_May17)	May-18
DAE4	SN: 601	28-Mar-17 (No. DAE4-601_Mar17)	Mar-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by:	Leif Klysner	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: June 27, 2017

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.2 ± 6 %	0.91 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.14 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**8.39 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.39 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**5.47 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Body TSL parameters	22.0 °C	55.5	0.96 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	54.8 ± 6 %	0.97 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.19 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**8.67 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.44 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**5.71 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	55.5 Ω + 0.0 jΩ
Return Loss	- 25.6 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	51.0 Ω - 2.5 jΩ
Return Loss	- 31.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.034 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	November 15, 2012

DASY5 Validation Report for Head TSL

Date: 20.06.2017

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1078

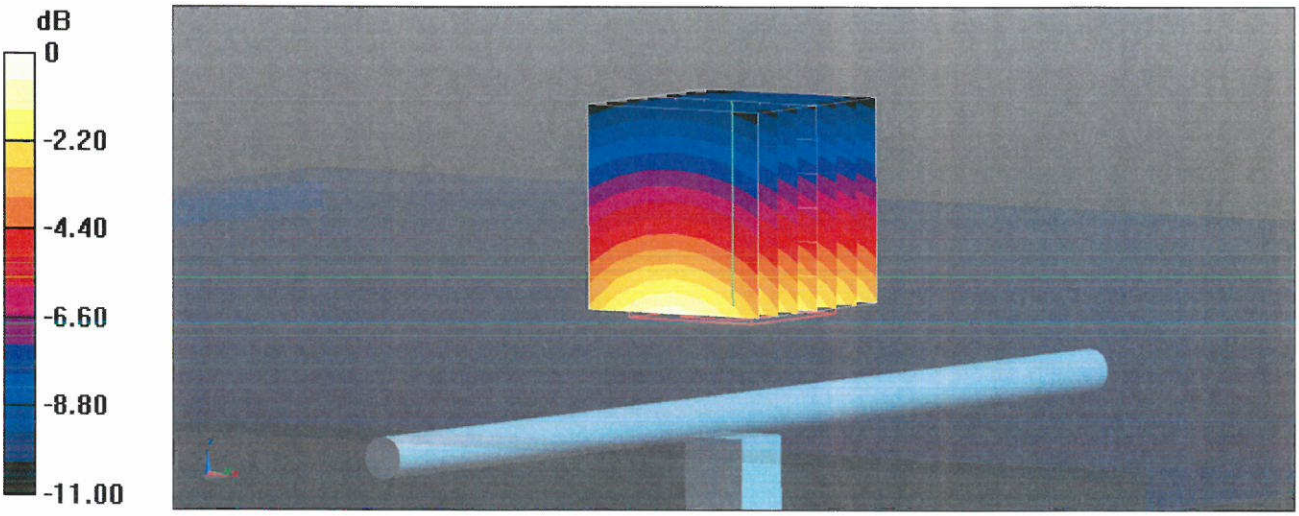
Communication System: UID 0 - CW; Frequency: 750 MHz
Medium parameters used: f = 750 MHz; σ = 0.91 S/m; ε_r = 41.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

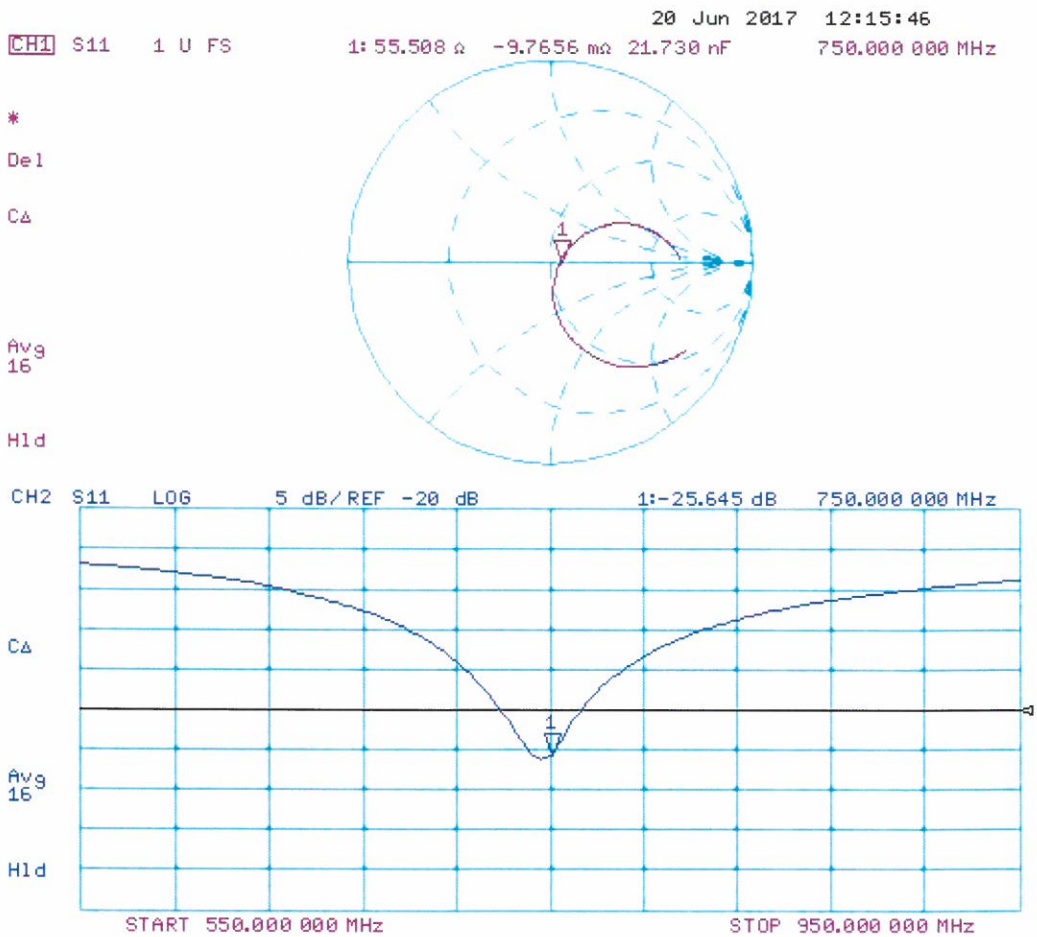
DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(10.49, 10.49, 10.49); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 59.13 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.27 W/kg
SAR(1 g) = 2.14 W/kg; SAR(10 g) = 1.39 W/kg
Maximum value of SAR (measured) = 2.89 W/kg



0 dB = 2.89 W/kg = 4.61 dBW/kg

Impedance Measurement Plot for Head TSL