



# 11.3. APPENDIX C: DUTY CYCLE 11.3.1. Test Result

Test Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)	Final setting For VBW (kHz)
11AX20	0.31	0.34	0.9118	91.18	0.40	3.23	4
11AX40	0.30	0.33	0.9091	90.91	0.41	3.33	4
11AX80	0.29	0.32	0.9063	90.63	0.43	3.45	4
11AX160	0.29	0.33	0.8788	87.88	0.56	3.45	4

Note:

Duty Cycle Correction Factor=10log (1/x).

Where: x is Duty Cycle (Linear)

Where: T is On Time

If that calculated VBW is not available on the analyzer then the next higher value should be used. Note: All the modes had been tested, but only the worst data was recorded in the report.



## 11.3.2. Test Graphs







Note: All the modes had been tested, but only the worst data was recorded in the report.



# 11.4. APPENDIX D: MAXIMUM AVERAGE CONDUCTED OUTPUT POWER

Mode	Frequency (MHz)		Conducted (dBm)		Directional gain	EIRP (dBm)	EIRP Limit
	(101112)	ANT5	ANT6	Total	(dBi)	(dbiii)	(dBm)
	5955	7.95	8.29	11.13	5.51	16.64	30.00
	6175	7.16	7.59	10.39	5.51	15.90	30.00
	6415	7.72	8.08	10.91	5.51	16.42	30.00
	6435	7.92	8.29	11.12	5.51	16.63	30.00
	6475	7.98	8.19	11.10	5.51	16.61	30.00
802.11ax HE20	6515	8.10	8.13	11.13	5.51	16.64	30.00
002.11ax11220	6535	7.59	7.93	10.77	5.51	16.28	30.00
	6715	7.47	7.50	10.50	5.51	16.01	30.00
	6855	7.34	7.61	10.49	5.51	16.00	30.00
	6875	7.33	7.56	10.46	5.51	15.97	30.00
	7015	7.67	7.69	10.69	5.51	16.20	30.00
	7115	7.95	7.66	10.82	5.51	16.33	30.00
	5965	10.57	10.54	13.57	5.51	19.08	30.00
	6125	10.70	10.59	13.66	5.51	19.17	30.00
	6405	10.82	10.92	13.88	5.51	19.39	30.00
802.11ax HE40	6445	10.46	9.90	13.20	5.51	18.71	30.00
	6485	10.94	11.01	13.99	5.51	19.50	30.00
	6525	10.64	10.66	13.66	5.51	19.17	30.00
	6725	10.62	10.86	13.75	5.51	19.26	30.00
	6845	10.65	10.76	13.72	5.51	19.23	30.00
	6885	10.41	10.43	13.43	5.51	18.94	30.00
	7005	10.87	10.97	13.93	5.51	19.44	30.00
	7085	10.54	10.47	13.52	5.51	19.03	30.00
	5985	12.75	12.82	15.80	5.51	21.31	30.00
	6145	13.56	13.14	16.37	5.51	21.88	30.00
	6385	13.61	13.71	16.67	5.51	22.18	30.00
	6465	13.38	13.16	16.28	5.51	21.79	30.00
802.11ax HE80	6545	13.44	13.07	16.27	5.51	21.78	30.00
	6705	13.20	13.17	16.20	5.51	21.71	30.00
	6865	13.64	13.47	16.57	5.51	22.08	30.00
	6945	13.47	13.40	16.45	5.51	21.96	30.00
	7025	13.65	13.54	16.61	5.51	22.12	30.00
	6025	16.54	16.36	19.46	5.51	24.97	30.00
	6185	16.80	16.54	19.68	5.51	25.19	30.00
802.11ax HE160	6345	16.83	16.53	19.69	5.51	25.20	30.00
	6505	16.61	16.20	19.42	5.51	24.93	30.00
	6665	16.99	16.52	19.77	5.51	25.28	30.00

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



6825	17.04	16.56	19.82	5.51	25.33	30.00
6985	16.63	16.15	19.41	5.51	24.92	30.00

Note: All the modes had been tested, but only the worst data was recorded in the report.



#### 11.5. APPENDIX E: MAXIMUM POWER SPECTRAL DENSITY 11.5.1. Test Result

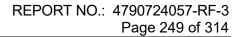
Mode	Frequency	PSD (dBm/MHz)			Directional gain		EIRP Limit	
	(MHz)	ANT5	ANT6	Total	(dBi)	(dBm/MHz)	(dBm/MHz)	
	5955	-3.83	-3.53	-0.67	5.51	4.84	5.00	
	6175	-4.12	-4.23	-1.16	5.51	4.35	5.00	
	6415	-4.07	-3.81	-0.93	5.51	4.58	5.00	
	6435	-3.88	-3.51	-0.68	5.51	4.83	5.00	
	6475	-3.8	-3.56	-0.67	5.51	4.84	5.00	
802.11ax HE20	6515	-3.72	-3.56	-0.63	5.51	4.88	5.00	
002.11AX 11E20	6535	-4.32	-3.81	-1.05	5.51	4.46	5.00	
	6715	-4.28	-4.26	-1.26	5.51	4.25	5.00	
	6855	-4.56	-4.13	-1.33	5.51	4.18	5.00	
	6875	-4.5	-4.11	-1.29	5.51	4.22	5.00	
	7015	-4.2	-4.24	-1.21	5.51	4.30	5.00	
	7115	-4.06	-4.06	-1.05	5.51	4.46	5.00	
	5965	-3.92	-4.17	-1.03	5.51	4.48	5.00	
	6125	-3.94	-3.92	-0.92	5.51	4.59	5.00	
	6405	-3.72	-3.8	-0.75	5.51	4.76	5.00	
	6445	-4.1	-4.62	-1.34	5.51	4.17	5.00	
	6485	-3.86	-3.58	-0.71	5.51	4.80	5.00	
802.11ax HE40	6525	-4.1	-3.87	-0.97	5.51	4.54	5.00	
	6725	-4.19	-3.78	-0.97	5.51	4.54	5.00	
	6845	-3.91	-4	-0.94	5.51	4.57	5.00	
	6885	-4.17	-4.37	-1.26	5.51	4.25	5.00	
	7005	-3.71	-3.67	-0.68	5.51	4.83	5.00	
	7085	-4.02	-4.09	-1.04	5.51	4.47	5.00	
	5985	-4.32	-4.39	-1.34	5.51	4.17	5.00	
	6145	-4.09	-4.39	-1.23	5.51	4.28	5.00	
	6385	-4.01	-3.85	-0.92	5.51	4.59	5.00	
802.11ax HE80	6465	-3.81	-4.2	-0.99	5.51	4.52	5.00	
	6545	-4.13	-4.27	-1.19	5.51	4.32	5.00	
	6705	-4.1	-4.2	-1.14	5.51	4.37	5.00	
	6865	-3.83	-4.1	-0.95	5.51	4.56	5.00	
	6945	-3.94	-4.09	-1.00	5.51	4.51	5.00	
	7025	-3.79	-4.02	-0.89	5.51	4.62	5.00	
	6025	-4.28	-4.21	-1.23	5.51	4.28	5.00	
	6185	-3.75	-4.21	-0.96	5.51	4.55	5.00	
802.11ax HE160	6345	-3.63	-4.07	-0.83	5.51	4.68	5.00	
	6505	-3.68	-4.29	-0.96	5.51	4.55	5.00	

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch FORM NO: 10-SL-F0035 This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



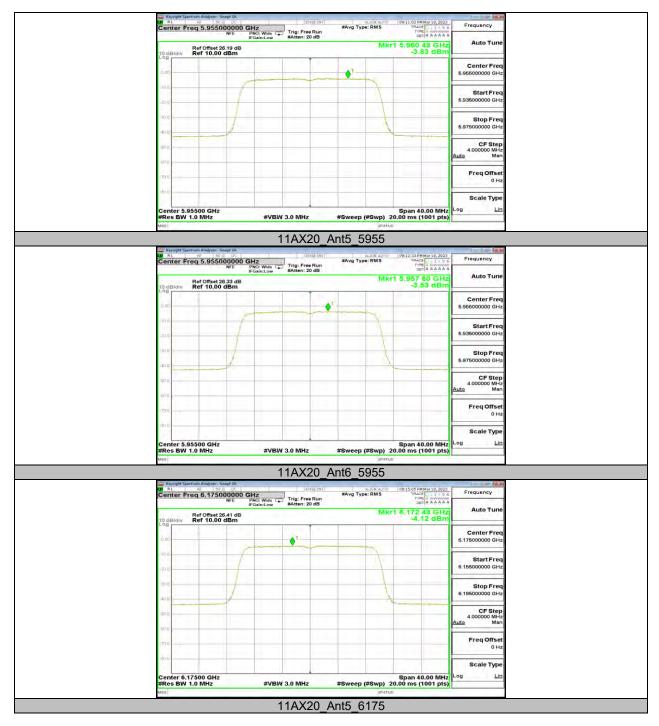
6665	-3.85	-4.08	-0.95	5.51	4.56	5.00
6825	-3.57	-3.96	-0.75	5.51	4.76	5.00
6985	-3.68	-4.06	-0.86	5.51	4.65	5.00

Note: The Duty Cycle Factor and RBW Factor is compensated in the graph. Note: All the modes had been tested, but only the worst data was recorded in the report.

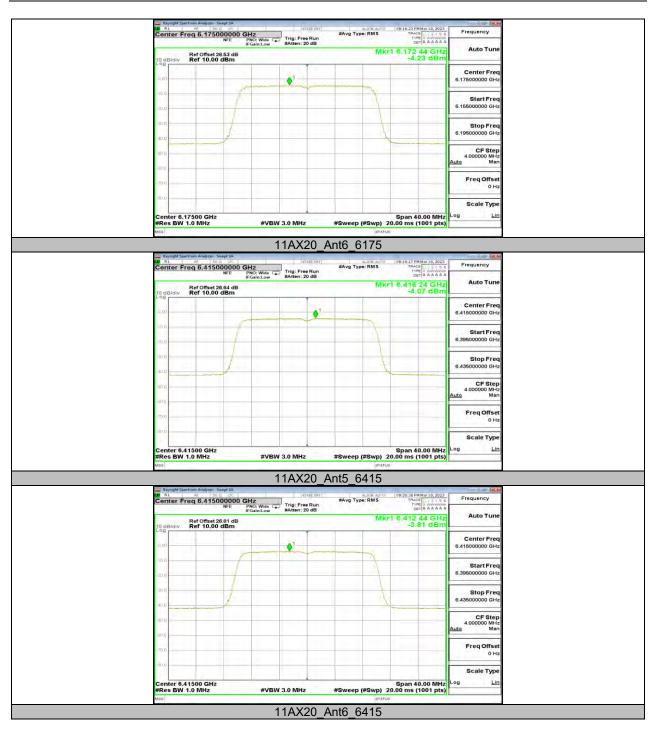




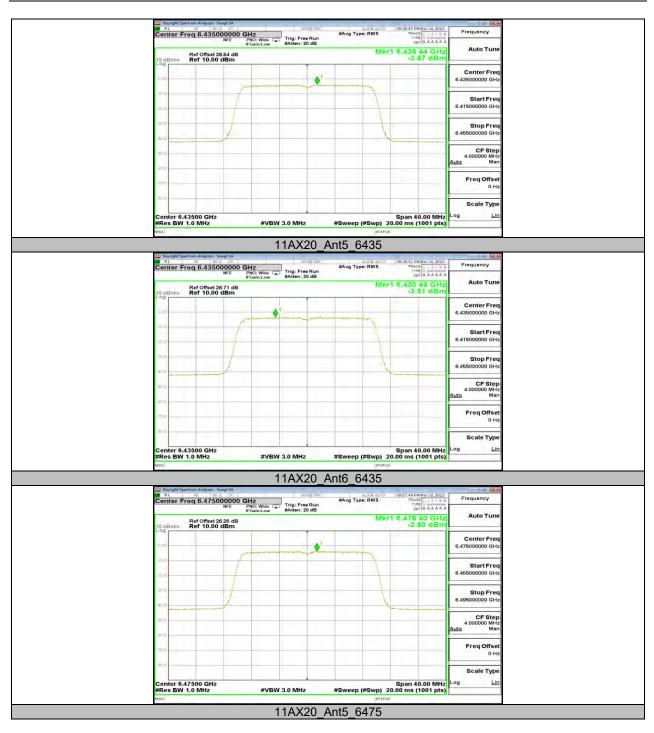
## 11.5.2. Test Graphs



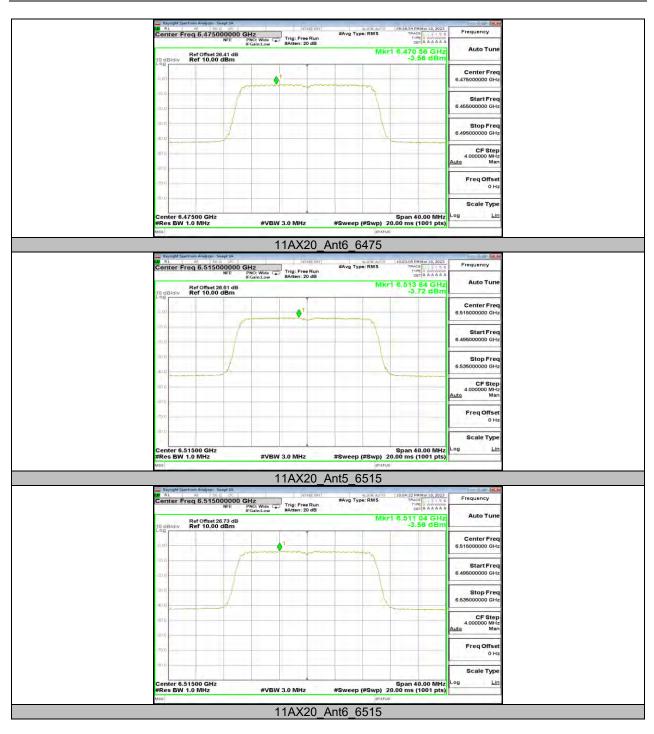




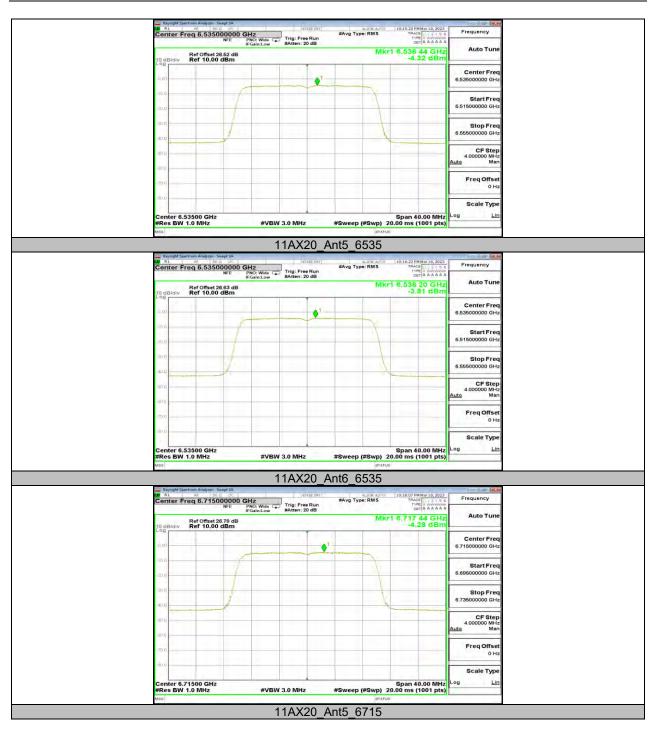




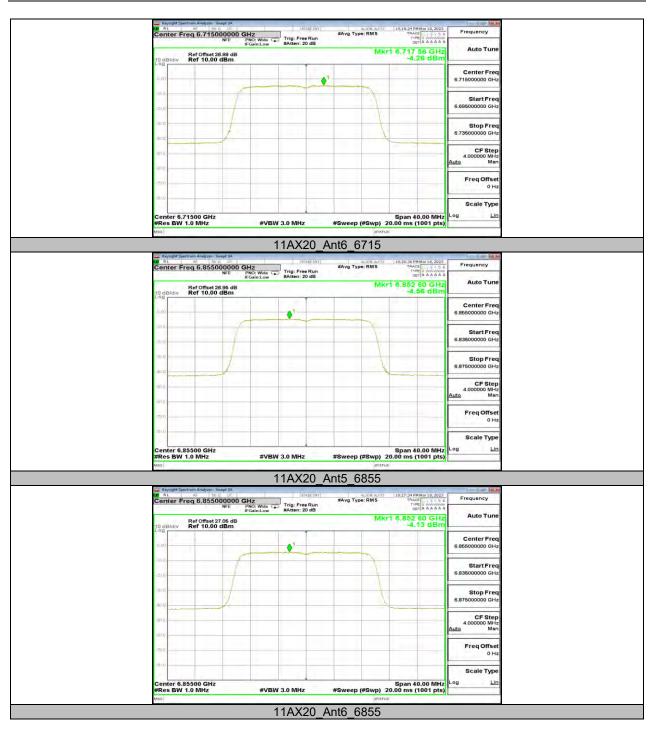




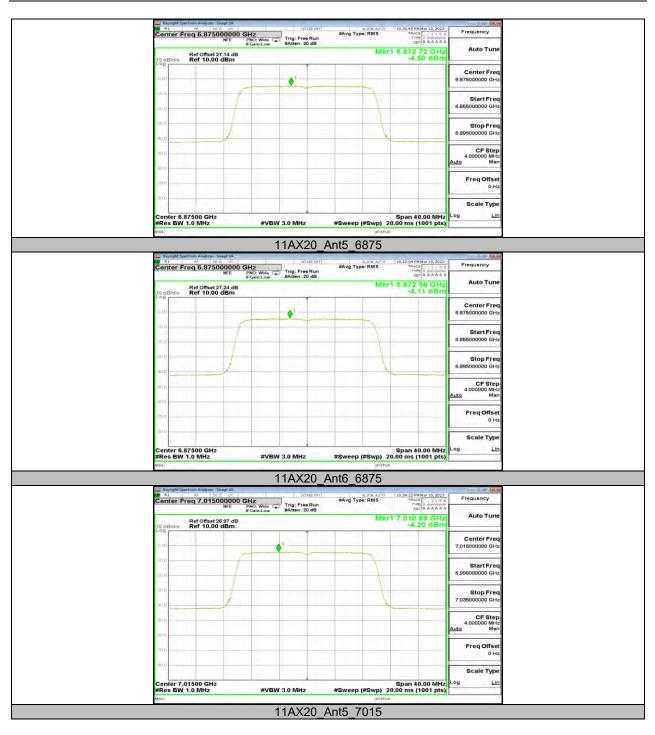




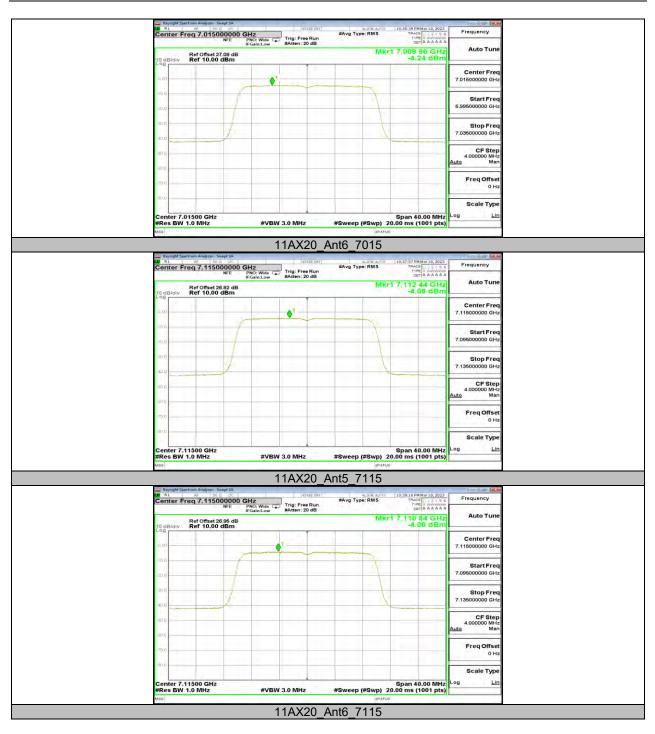




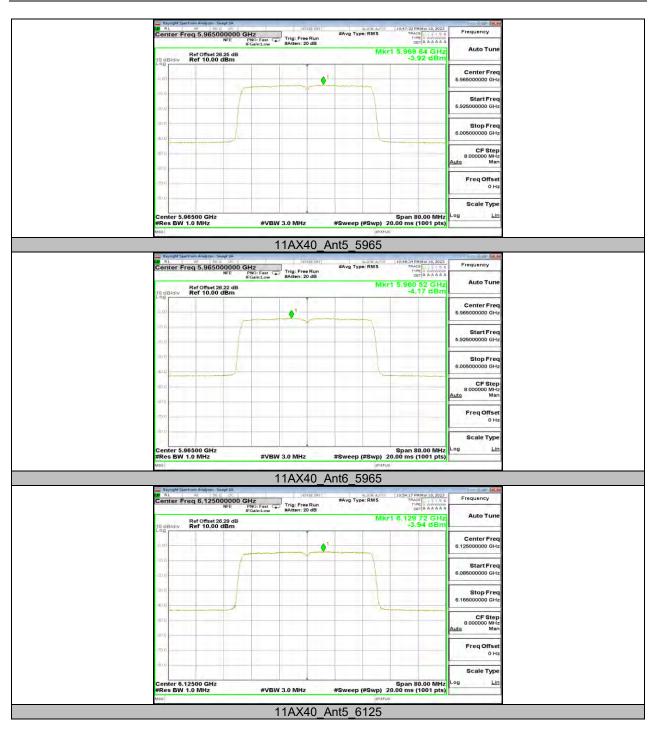




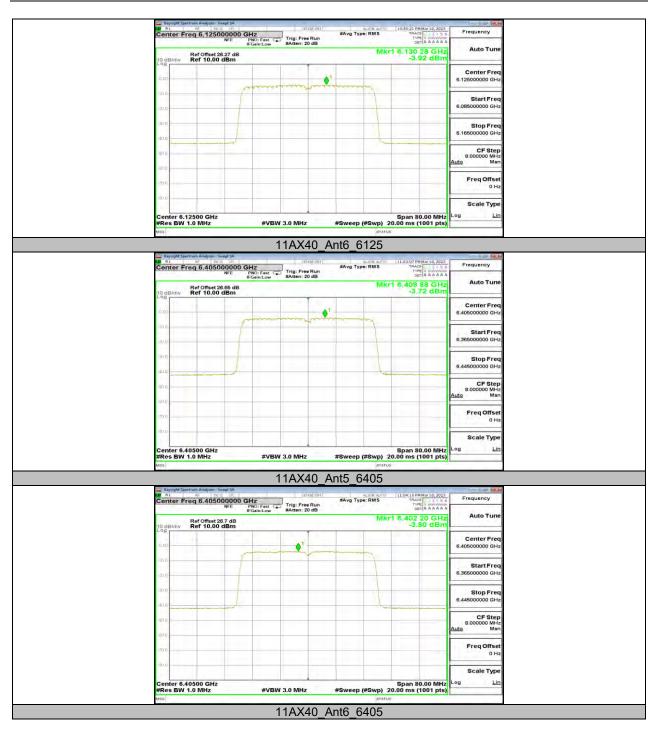




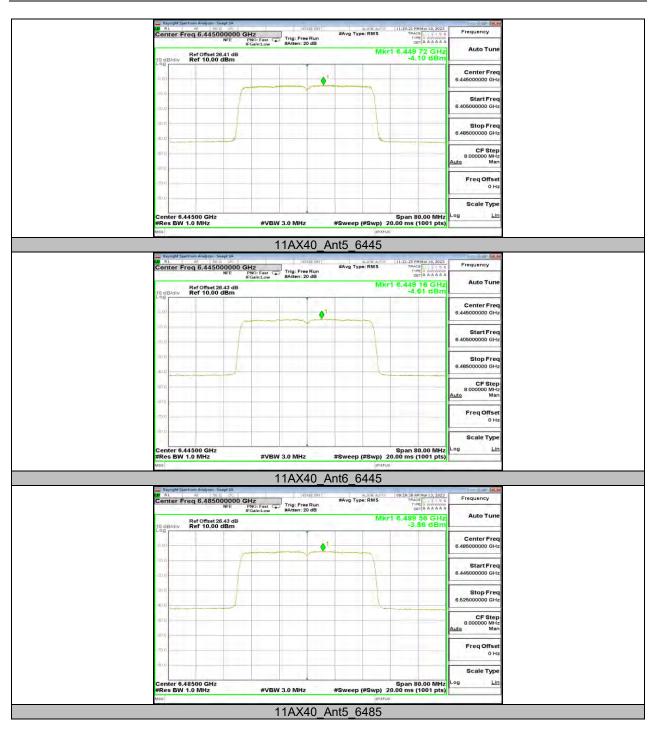




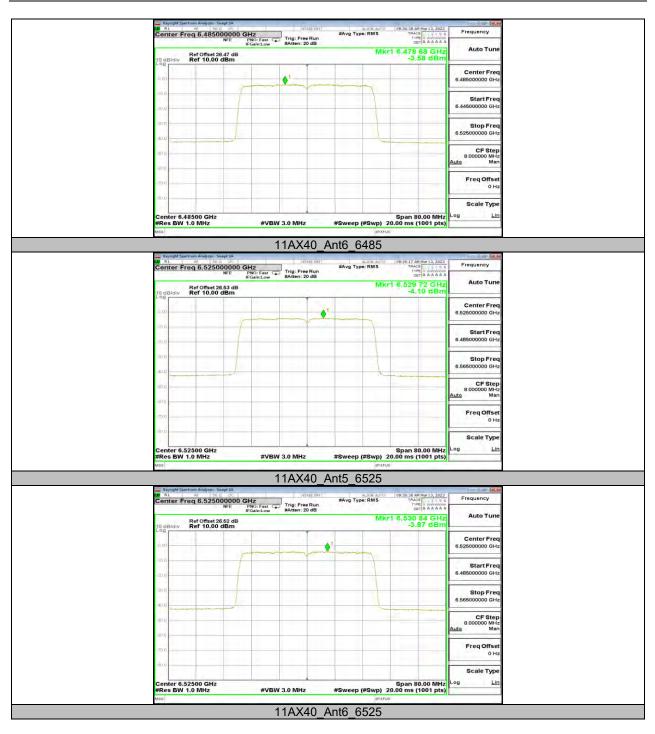




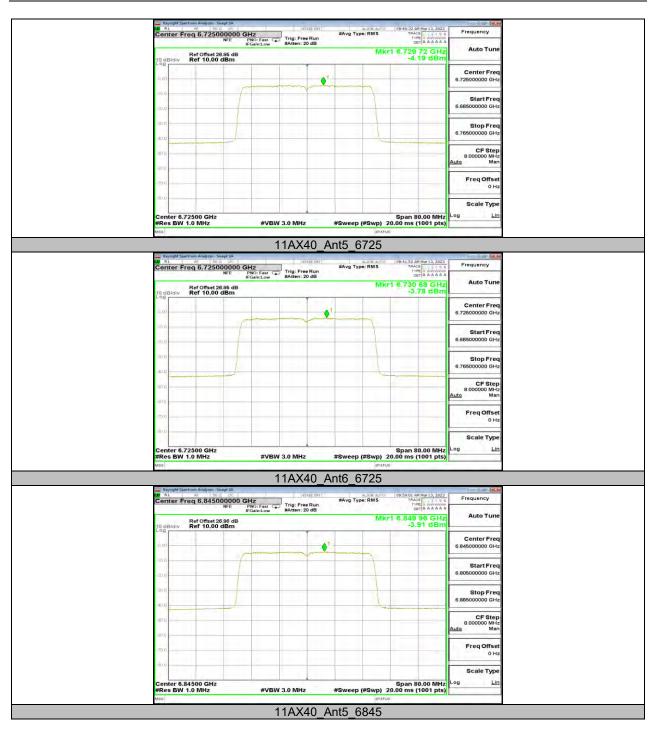




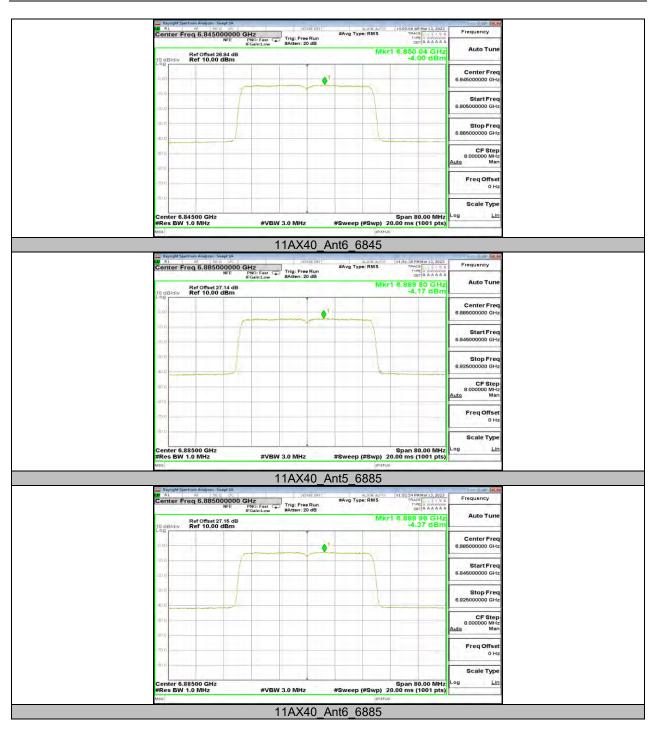








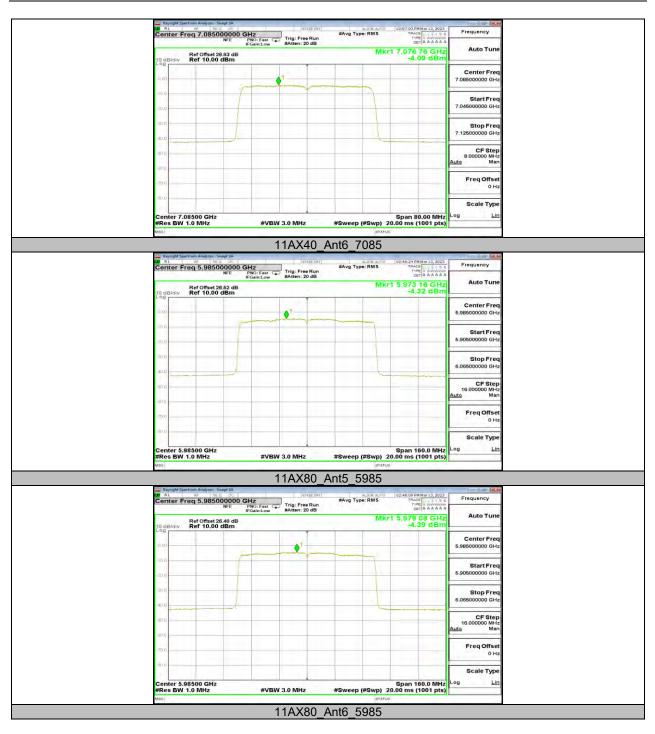




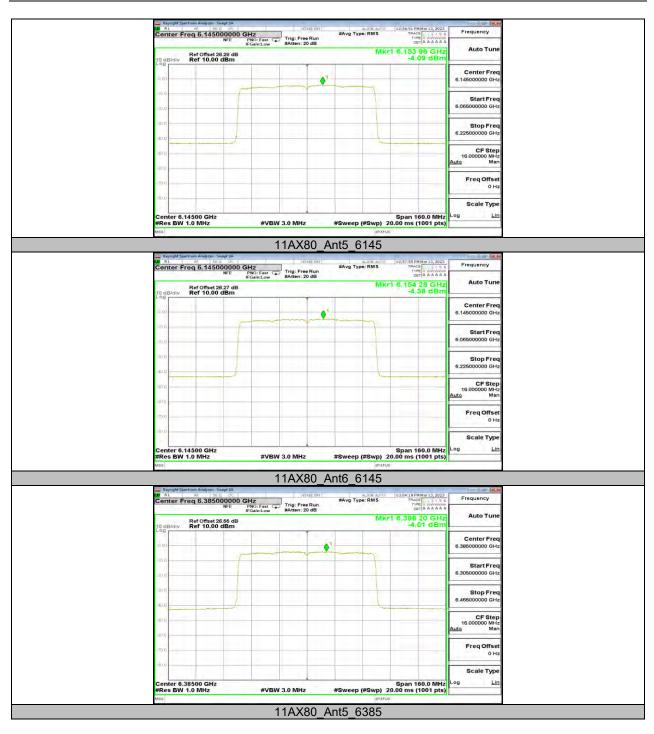








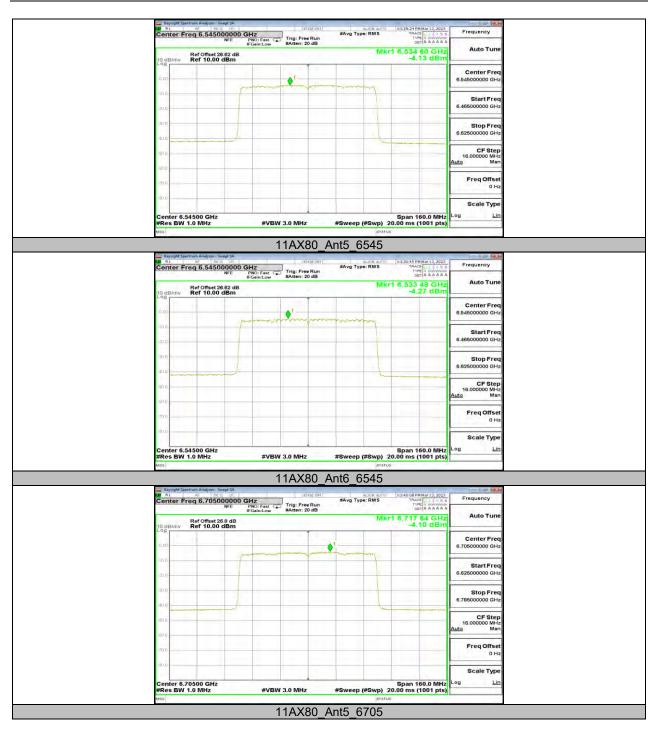




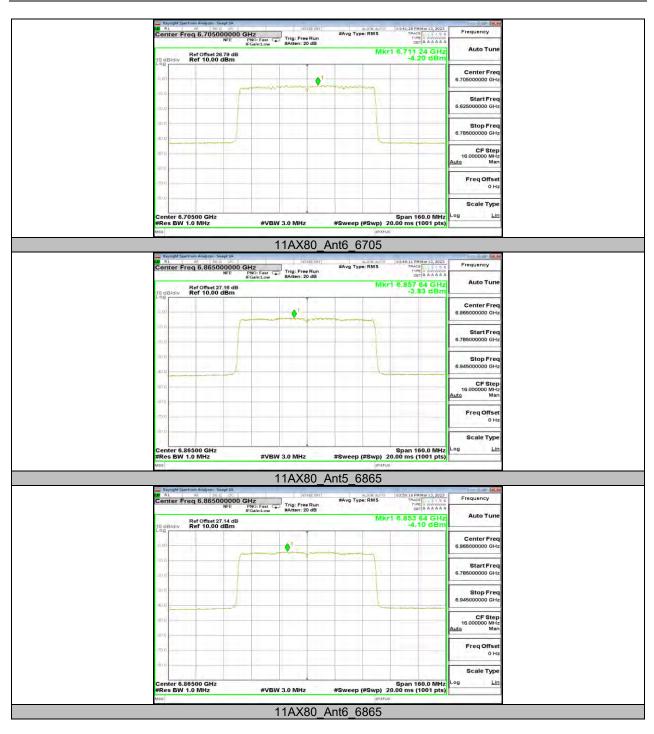












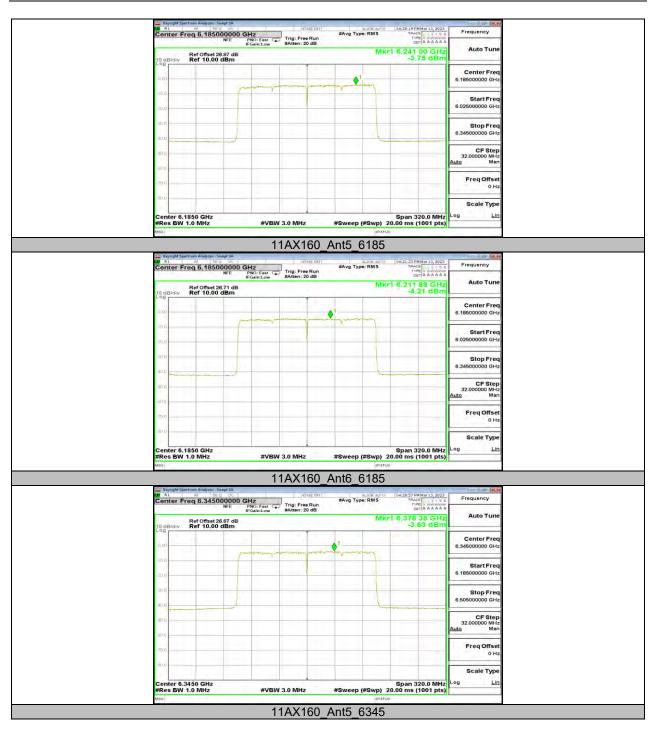








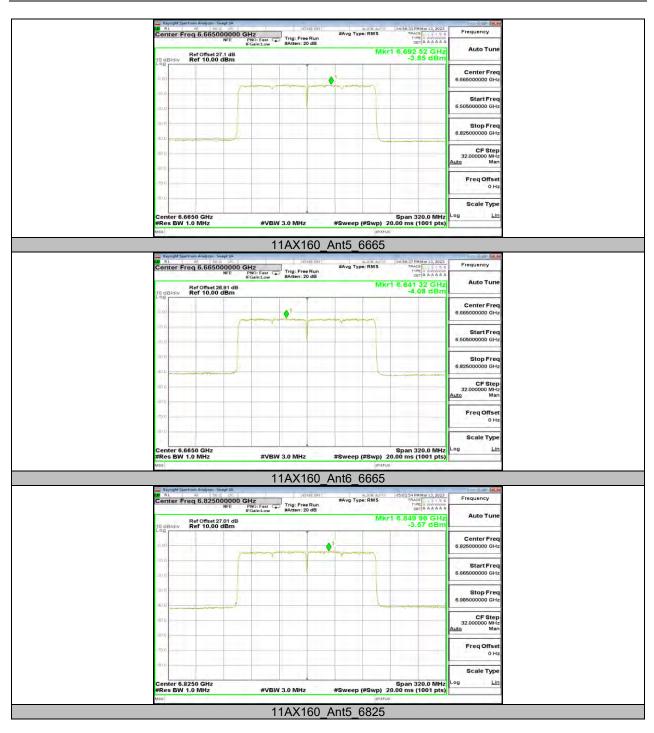
















Note: All the modes had been tested, but only the worst data was recorded in the report.



# 11.6. APPENDIX F: INBAND EMISSIONS

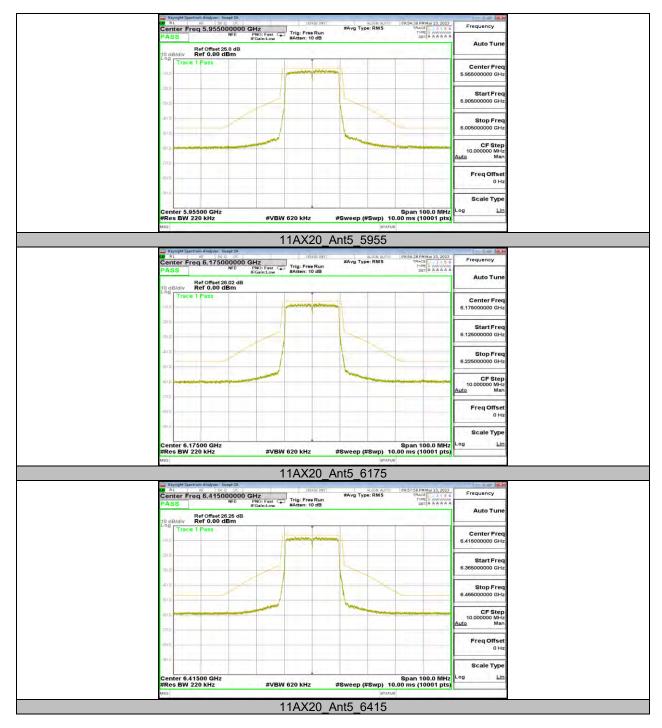
## 11.6.1. Test Result

Test Mode	Antenna	Frequency[MHz]	Result	Limit	Verdict
		5955	See test graph	See test graph	PASS
		6175	See test graph	See test graph	PASS
		6415	See test graph	See test graph	PASS
		6435	See test graph	See test graph	PASS
		6475	See test graph	See test graph	PASS
11AX20	Ant5	6515	See test graph	See test graph	PASS
TIAA20	Ano	6535	See test graph	See test graph	PASS
		6715	See test graph	See test graph	PASS
		6855	See test graph	See test graph	PASS
		6875	See test graph	See test graph	PASS
		7015	See test graph	See test graph	PASS
		7115	See test graph	See test graph	PASS
		5965	See test graph	See test graph	PASS
		6125	See test graph	See test graph	PASS
		6405	See test graph	See test graph	PASS
		6445	See test graph	See test graph	PASS
	Ant5	6485	See test graph	See test graph	PASS
11AX40		6525	See test graph	See test graph	PASS
		6725	See test graph	See test graph	PASS
		6845	See test graph	See test graph	PASS
		6885	See test graph	See test graph	PASS
		7005	See test graph	See test graph	PASS
		7085	See test graph	See test graph	PASS
		5985	See test graph	See test graph	PASS
		6145	See test graph	See test graph	PASS
		6385	See test graph	See test graph	PASS
	Ant5	6465	See test graph	See test graph	PASS
11AX80		6545	See test graph	See test graph	PASS
		6705	See test graph	See test graph	PASS
		6865	See test graph	See test graph	PASS
		6945	See test graph	See test graph	PASS
		7025	See test graph	See test graph	PASS
		6025	See test graph	See test graph	PASS
		6185	See test graph	See test graph	PASS
		6345	See test graph	See test graph	PASS
11AX160	Ant5	6505	See test graph	See test graph	PASS
		6665	See test graph	See test graph	PASS
		6825	See test graph	See test graph	PASS
		6985	See test graph	See test graph	PASS

Note: All the modes had been tested, but only the worst data was recorded in the report.

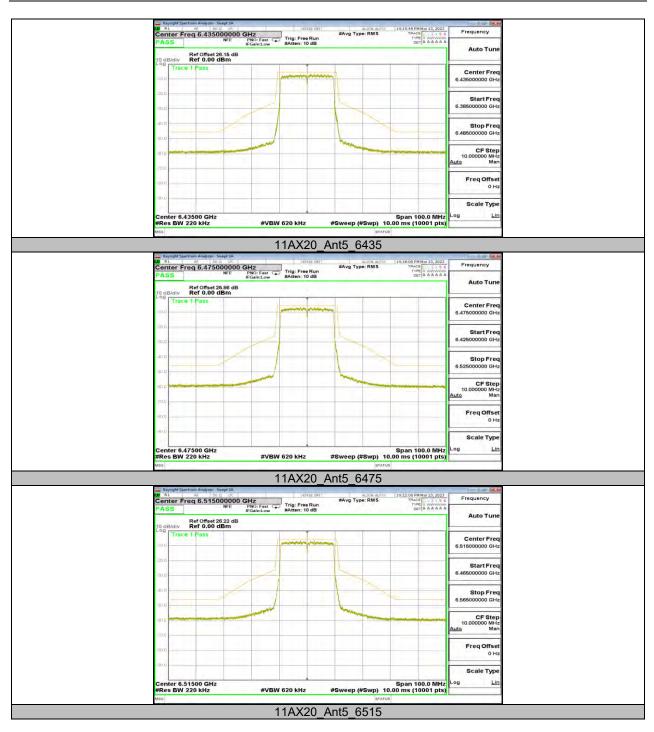


### 11.6.2. Test Graphs

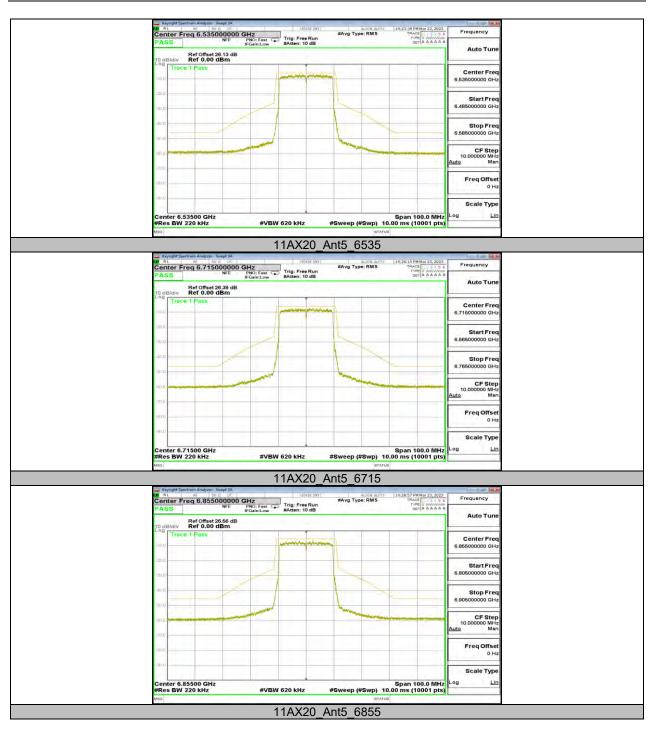


UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch FORM NO: 10-SL-F0035 This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.

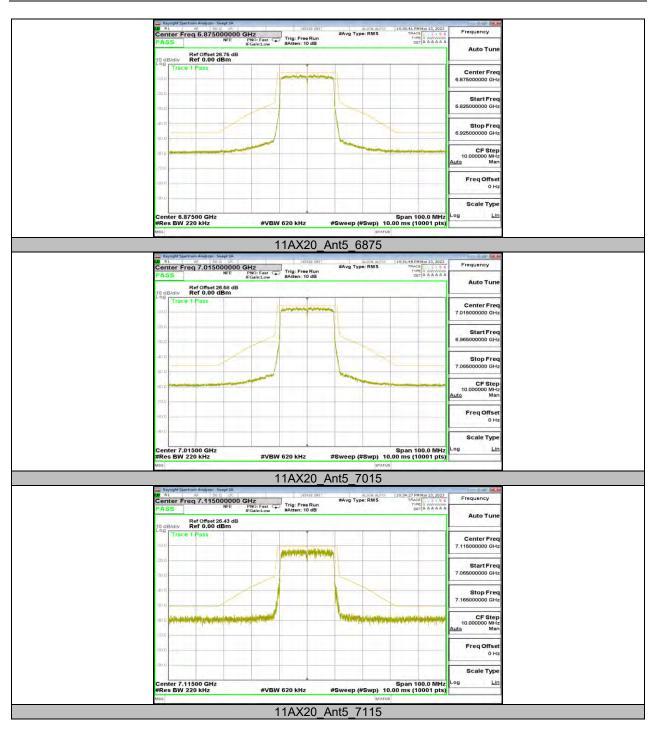




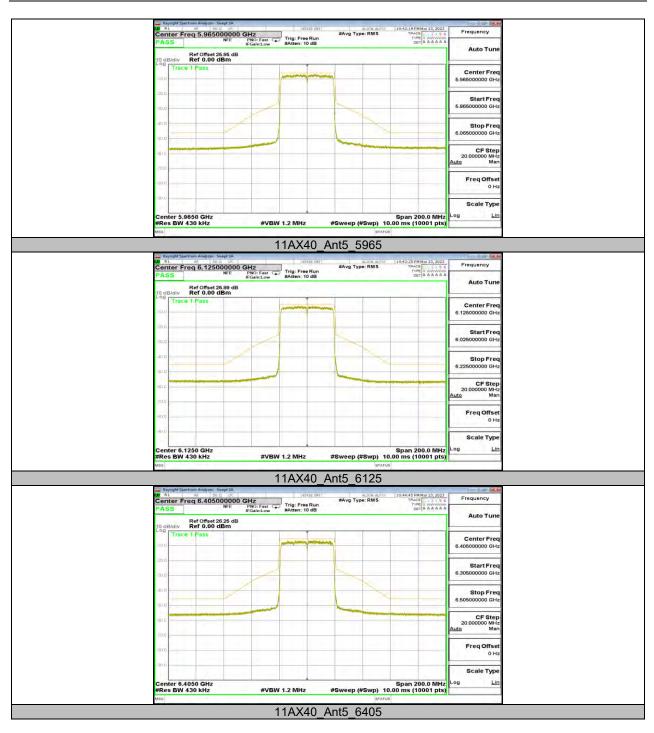




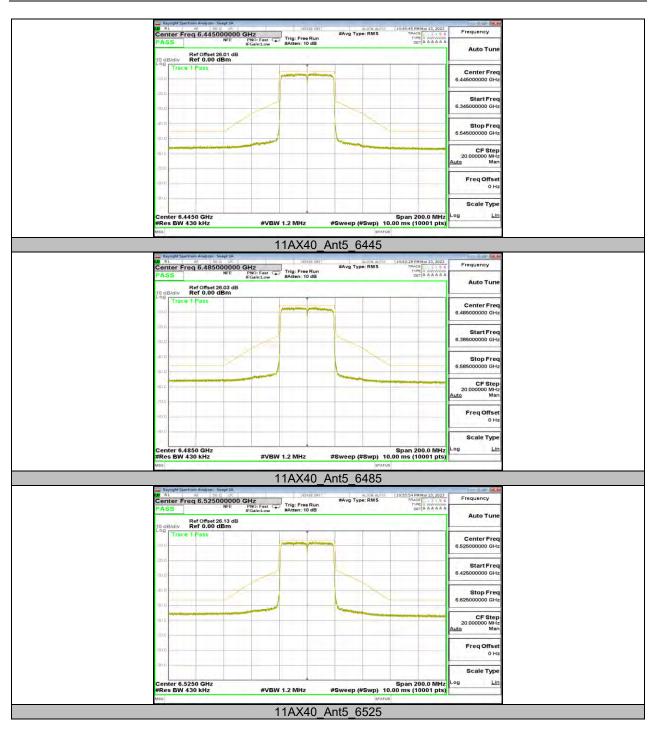




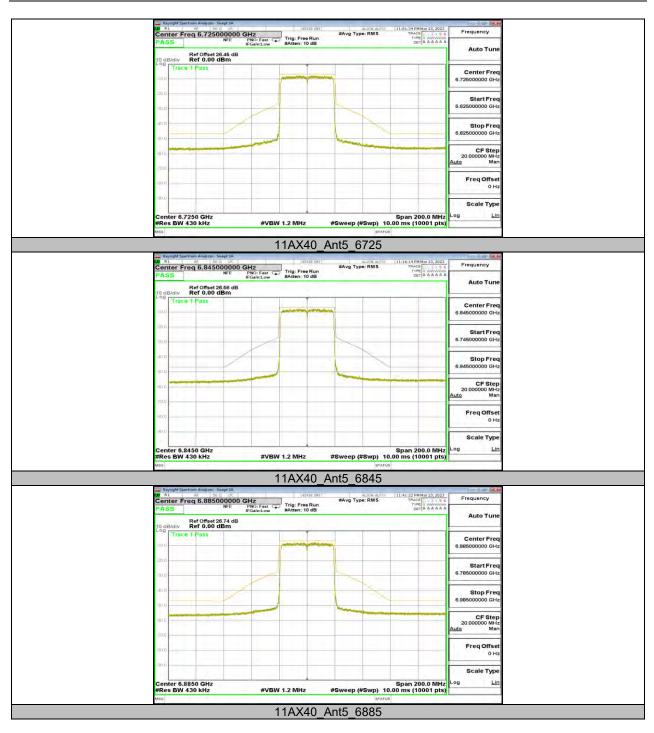




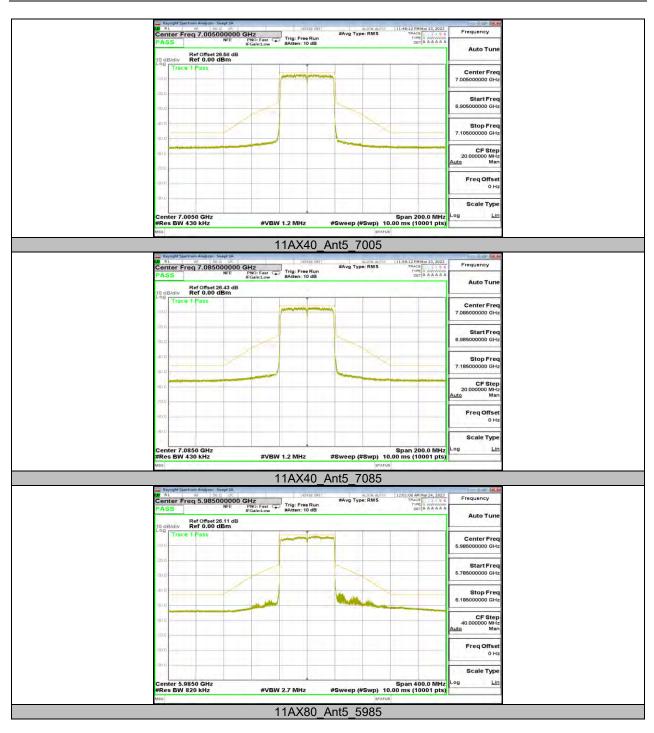




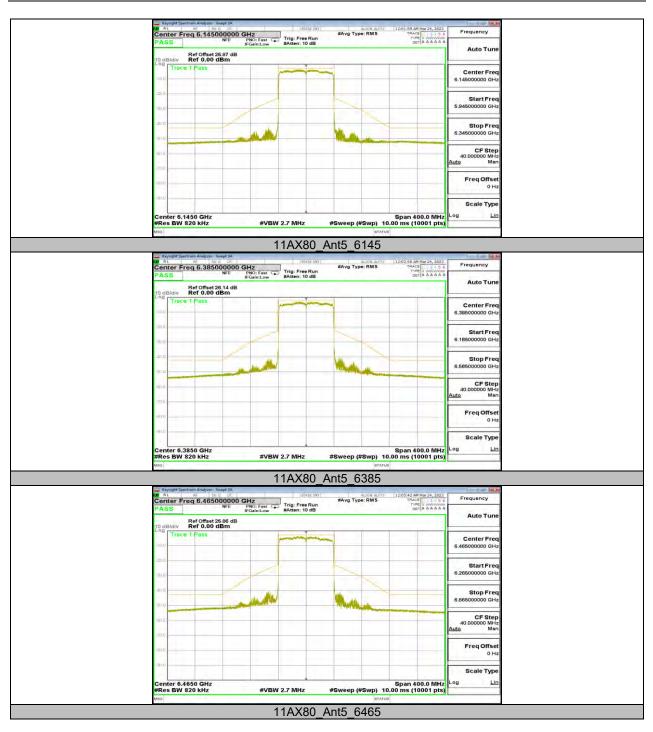




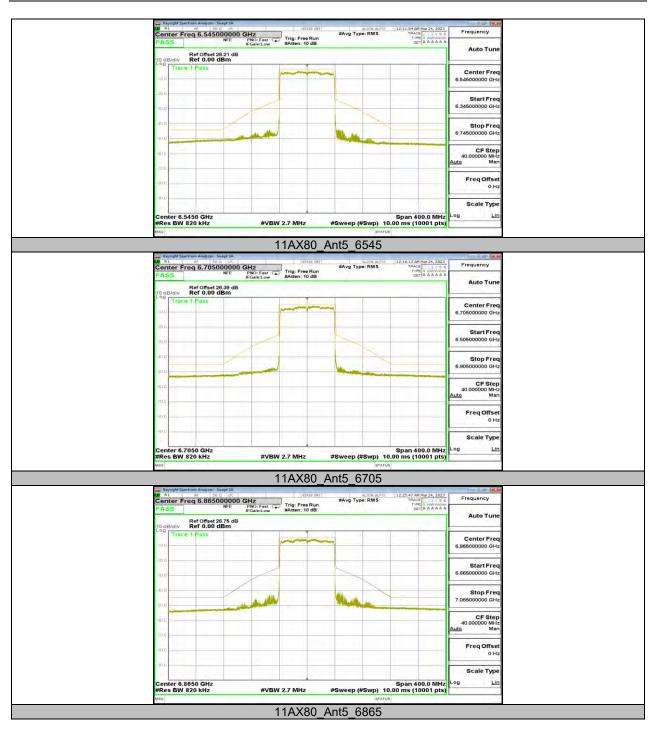




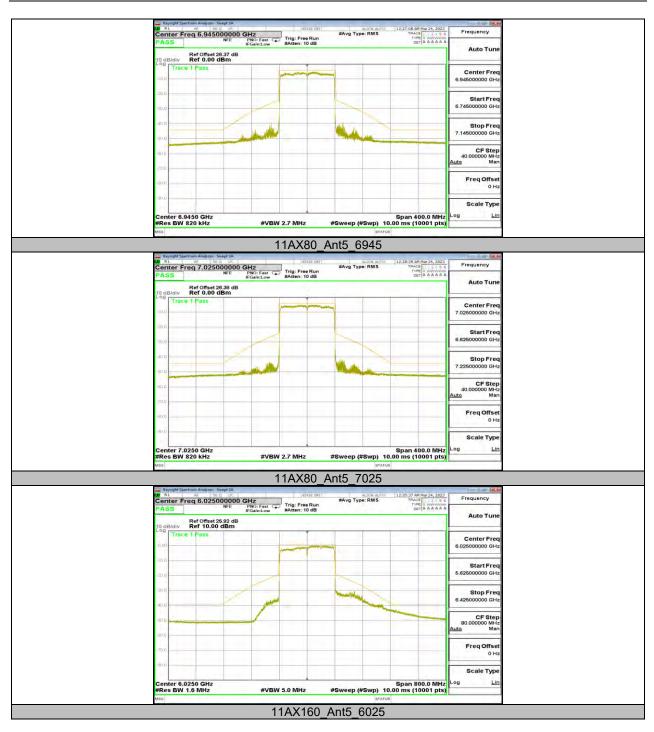




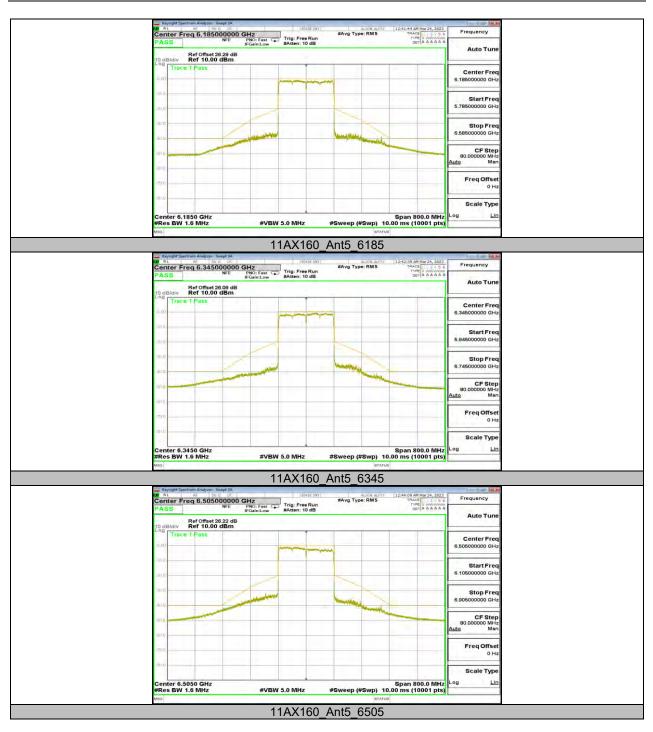
















Note: All the modes had been tested, but only the worst data was recorded in the report.



# **11.7. APPENDIX G: CONTENTION BASED PROTOCOL**

### 11.7.1. Test Result

Test Mode	Antenna	EUT Frequency	AWGN Frequency	Injected AWGN Power	Minimum Antenna Gain	Path Loss	Adjusted Power Result	Limit	UT Tx Status
mode		[MHz]	[MHz]	[dBm]	[dBi]	[dB]	[dBm]	[dBm]	(Note1)
				-69.44	2.5	2	-70.00	-59.5	ON
		5955	5955	-61.67	2.5	2	-62.11	-59.5	Minimal
				-60.47	2.5	2	-59.79	-59.5	OFF
				-69.76	2.5	2	-70.00	-59.5	ON
		6435	6435	-61.13	2.5	2	-61.88	-59.5	Minimal
	A pt1			-60.22	2.5	2	-59.74	-59.5	OFF
11AX20MIMO	Ant1			-69.65	2.5	2	-70.00	-59.5	ON
		6535	6535	-61.72	2.5	2	-61.98	-59.5	Minimal
				-60.33	2.5	2	-59.93	-59.5	OFF
				-69.12	2.5	2	-70.00	-59.5	ON
		7015	7015	-61.87	2.5	2	-62.12	-59.5	Minimal
				-60.11	2.5	2	-59.72	-59.5	OFF
		6185	6110	-69.23	2.5	2	-70.00	-59.5	ON
				-61.24	2.5	2	-62.01	-59.5	Minimal
				-60.66	2.5	2	-59.73	-59.5	OFF
			6185	-69.76	2.5	2	-70.00	-59.5	ON
				-61.54	2.5	2	-61.89	-59.5	Minimal
				-60.22	2.5	2	-59.86	-59.5	OFF
			6260	-69.97	2.5	2	-70.00	-59.5	ON
				-61.57	2.5	2	-62.12	-59.5	Minimal
				-60.22	2.5	2	-59.76	-59.5	OFF
			6430	-69.12	2.5	2	-70.00	-59.5	ON
				-61.78	2.5	2	-62.11	-59.5	Minimal
				-60.02	2.5	2	-59.74	-59.5	OFF
11AX160MIMO	Ant1			-69.22	2.5	2	-70.00	-59.5	ON
		6505	6505	-61.65	2.5	2	-62.13	-59.5	Minimal
				-60.36	2.5	2	-59.80	-59.5	OFF
				-69.76	2.5	2	-70.00	-59.5	ON
			6580	-61.33	2.5	2	-62.15	-59.5	Minimal
				-60.19	2.5	2	-59.86	-59.5	OFF
				-69.22	2.5	2	-70.00	-59.5	ON
			6590	-61.46	2.5	2	-61.88	-59.5	Minimal
		000		-60.23	2.5	2	-59.80	-59.5	OFF
		6665		-69.12	2.5	2	-70.00	-59.5	ON
			6665	-61.44	2.5	2	-62.03	-59.5	Minimal
				-60.57	2.5	2	-59.98	-59.5	OFF

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



								1
			-69.22	2.5	2	-70.00	-59.5	ON
		6740	-61.12	2.5	2	-62.11	-59.5	Minimal
			-60.22	2.5	2	-59.77	-59.5	OFF
		6910	-69.76	2.5	2	-70.00	-59.5	ON
			-61.57	2.5	2	-62.12	-59.5	Minimal
			-60.23	2.5	2	-59.94	-59.5	OFF
		6985	-69.98	2.5	2	-70.00	-59.5	ON
	6985		-61.68	2.5	2	-62.18	-59.5	Minimal
			-60.77	2.5	2	-59.80	-59.5	OFF
		7060	-69.55	2.5	2	-70.00	-59.5	ON
			-61.87	2.5	2	-62.05	-59.5	Minimal
			-60.13	2.5	2	-59.70	-59.5	OFF

Note: The -62 dBm threshold is referenced to a 0 dBi antenna gain according to KDB987594 D02 U-NII 6 GHz EMC Measurement, as the antenna gain of the EUT is the 2.5 dBi (Please refer to page 16 for the detail about antenna), so threshold shall be -59.5 dBm, the power level -59.5 dBm was used for all tests.

Test Mode	Antenna	Frequency [MHz]	Interference Frequency [MHz]		Test Number [n]	Number Detected [n]	Result [%]	Limit [%]	Verdict
		5955	Center	5955	10	10	100	90	PASS
11AX20MIMO	Ant1	6435	Center	6435	10	10	100	90	PASS
TAAZOIVIIIVIO	Anti	6535	Center	6535	10	10	100	90	PASS
		7015	Center	7015	10	10	100	90	PASS
	Ant1	6185 6505	Low	6110	10	10	100	90	PASS
			Center	6185	10	10	100	90	PASS
			High	6260	10	10	100	90	PASS
			Low	6430	10	10	100	90	PASS
			Center	6505	10	10	100	90	PASS
11AX160MIMO			High	6580	10	10	100	90	PASS
			Low	6590	10	10	100	90	PASS
		6665	Center	6665	10	10	100	90	PASS
			High	6740	10	10	100	90	PASS
			Low	6910	10	10	100	90	PASS
		6985	Center	6985	10	10	100	90	PASS
			High	7060	10	10	100	90	PASS



Test	Antenna	Frequency	Interfere	Interference Frequency		ls	Verdict
Mode	Antenna	[MHz]		[MHz]	Time	Detected	verdict
			Center	5955	1	Yes	PASS
			Center	5955	2	Yes	PASS
			Center	5955	3	Yes	PASS
			Center	5955	4	Yes	PASS
		5955	Center	5955	5	Yes	PASS
		5955	Center	5955	6	Yes	PASS
			Center	5955	7	Yes	PASS
			Center	5955	8	Yes	PASS
			Center	5955	9	Yes	PASS
			Center	5955	10	Yes	PASS
			Center	6435	1	Yes	PASS
			Center	6435	2	Yes	PASS
			Center	6435	3	Yes	PASS
			Center	6435	4	Yes	PASS
		6435	Center	6435	5	Yes	PASS
	Ant1	0433	Center	6435	6	Yes	PASS
			Center	6435	7	Yes	PASS
			Center	6435	8	Yes	PASS
			Center	6435	9	Yes	PASS
11AX20MIMO			Center	6435	10	Yes	PASS
			Center	6535	1	Yes	PASS
			Center	6535	2	Yes	PASS
			Center	6535	3	Yes	PASS
		6535	Center	6535	4	Yes	PASS
			Center	6535	5	Yes	PASS
		0000	Center	6535	6	Yes	PASS
			Center	6535	7	Yes	PASS
			Center	6535	8	Yes	PASS
			Center	6535	9	Yes	PASS
			Center	6535	10	Yes	PASS
			Center	7015	1	Yes	PASS
			Center	7015	2	Yes	PASS
			Center	7015	3	Yes	PASS
			Center	7015	4	Yes	PASS
		7015	Center	7015	5	Yes	PASS
		1010	Center	7015	6	Yes	PASS
			Center	7015	7	Yes	PASS
			Center	7015	8	Yes	PASS
			Center	7015	9	Yes	PASS
			Center	7015	10	Yes	PASS



Test	Antonno	Frequency	Interferer	nce Frequency	Test	ls	Vordiot
Mode	Antenna	[MHz]		[MHz]	Time	Detected	Verdict
			Low	6110	1	Yes	PASS
			Low	6110	2	Yes	PASS
			Low	6110	3	Yes	PASS
			Low	6110	4	Yes	PASS
			Low	6110	5	Yes	PASS
			Low	6110	6	Yes	PASS
			Low	6110	7	Yes	PASS
			Low	6110	8	Yes	PASS
			Low	6110	9	Yes	PASS
			Low	6110	10	Yes	PASS
			Center	6185	1	Yes	PASS
			Center	6185	2	Yes	PASS
			Center	6185	3	Yes	PASS
			Center	6185	4	Yes	PASS
		0405	Center	6185	5	Yes	PASS
		6185	Center	6185	6	Yes	PASS
			Center	6185	7	Yes	PASS
			Center	6185	8	Yes	PASS
			Center	6185	9	Yes	PASS
			Center	6185	10	Yes	PASS
			High	6260	1	Yes	PASS
			High	6260	2	Yes	PASS
	Ant1		High	6260	3	Yes	PASS
			High	6260	4	Yes	PASS
			High	6260	5	Yes	PASS
			High	6260	6	Yes	PASS
			High	6260	7	Yes	PASS
			High	6260	8	Yes	PASS
			High	6260	9	Yes	PASS
11AX160MIMO			High	6260	10	Yes	PASS
			Low	6430	1	Yes	PASS
			Low	6430	2	Yes	PASS
			Low	6430	3	Yes	PASS
			Low	6430	4	Yes	PASS
			Low	6430	5	Yes	PASS
			Low	6430	6	Yes	PASS
			Low	6430	7	Yes	PASS
			Low	6430	8	Yes	PASS
			Low	6430	9	Yes	PASS
			Low	6430	10	Yes	PASS
			Center	6505	1	Yes	PASS
			Center	6505	2	Yes	PASS
			Center	6505	3	Yes	PASS
			Center	6505	4	Yes	PASS
		6505	Center	6505	5	Yes	PASS
		-	Center	6505	6	Yes	PASS
			Center	6505	7	Yes	PASS
			Center	6505	8	Yes	PASS
			Center	6505	9	Yes	PASS
			Center	6505	10	Yes	PASS
			High	6580	1	Yes	PASS
			High	6580	2	Yes	PASS
			High	6580	3	Yes	PASS
			High	6580	4	Yes	PASS
			High	6580	5	Yes	PASS
			High	6580	6	Yes	PASS
			High	6580	7	Yes	PASS
			High	6580	8	Yes	PASS
			High	6580	9	Yes	PASS
	<u> </u>		riigii	0000	9	163	1700

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



		High	6580	10	Yes	PASS
		Low	6590	1	Yes	PASS
		Low	6590	2	Yes	PASS
		Low	6590	3	Yes	PASS
		Low	6590	4	Yes	PASS
		Low	6590	5	Yes	PASS
		Low	6590	6	Yes	PASS
		Low	6590	7	Yes	PASS
		Low	6590	8	Yes	PASS
		Low	6590	9	Yes	PASS
		-	6590	10	Yes	PASS
		Low	6665	1	Yes	PASS
		Center		2		
		Center	6665		Yes	PASS
		Center	6665	3	Yes	PASS
		Center	6665	4	Yes	PASS
	6665	Center	6665	5	Yes	PASS
		Center	6665	6	Yes	PASS
		Center	6665	7	Yes	PASS
		Center	6665	8	Yes	PASS
		Center	6665	9	Yes	PASS
		Center	6665	10	Yes	PASS
		High	6740	1	Yes	PASS
		High	6740	2	Yes	PASS
		High	6740	3	Yes	PASS
		High	6740	4	Yes	PASS
		High	6740	5	Yes	PASS
		High	6740	6	Yes	PASS
		High	6740	7	Yes	PASS
		High	6740	8	Yes	PASS
		High	6740	9	Yes	PASS
		High	6740	10	Yes	PASS
		Low	6910	1	Yes	PASS
		Low	6910	2	Yes	PASS
		Low	6910	3	Yes	PASS
		Low	6910	4	Yes	PASS
		Low	6910	5	Yes	PASS
		Low	6910	6	Yes	PASS
		Low	6910	7	Yes	PASS
		Low	6910	8	Yes	PASS
		Low	6910	9	Yes	PASS
		Low	6910	10	Yes	PASS
		Center	6985	1	Yes	PASS
		Center	6985	2	Yes	PASS
		Center	6985	3	Yes	PASS
		Center	6985	4	Yes	PASS
		Center	6985	5	Yes	PASS
	6985	Center	6985	6	Yes	PASS
		Center	6985	7	Yes	PASS
		Center	6985	8	Yes	PASS
		Center	6985	9	Yes	PASS
		Center	6985	10	Yes	PASS
		High	7060	1	Yes	PASS
		High	7060	2	Yes	PASS
		High	7060	3	Yes	PASS
		High	7060	4	Yes	PASS
			7060	5	Yes	PASS
		High				
		High	7060	6	Yes	PASS
		High	7060	7	Yes	PASS
		High	7060	8	Yes	PASS
		High	7060	9	Yes	PASS
		High	7060	10	Yes	PASS

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



### 11.7.1. Test Graphs

