



Appendix E

RF Test Data for 5.8GWIFI(Conducted Measurement)

Product Name: wireless video extender

Trade Mark: MiraBox

Test Model: HSV8113W

Environmental Conditions

Temperature:	18.6° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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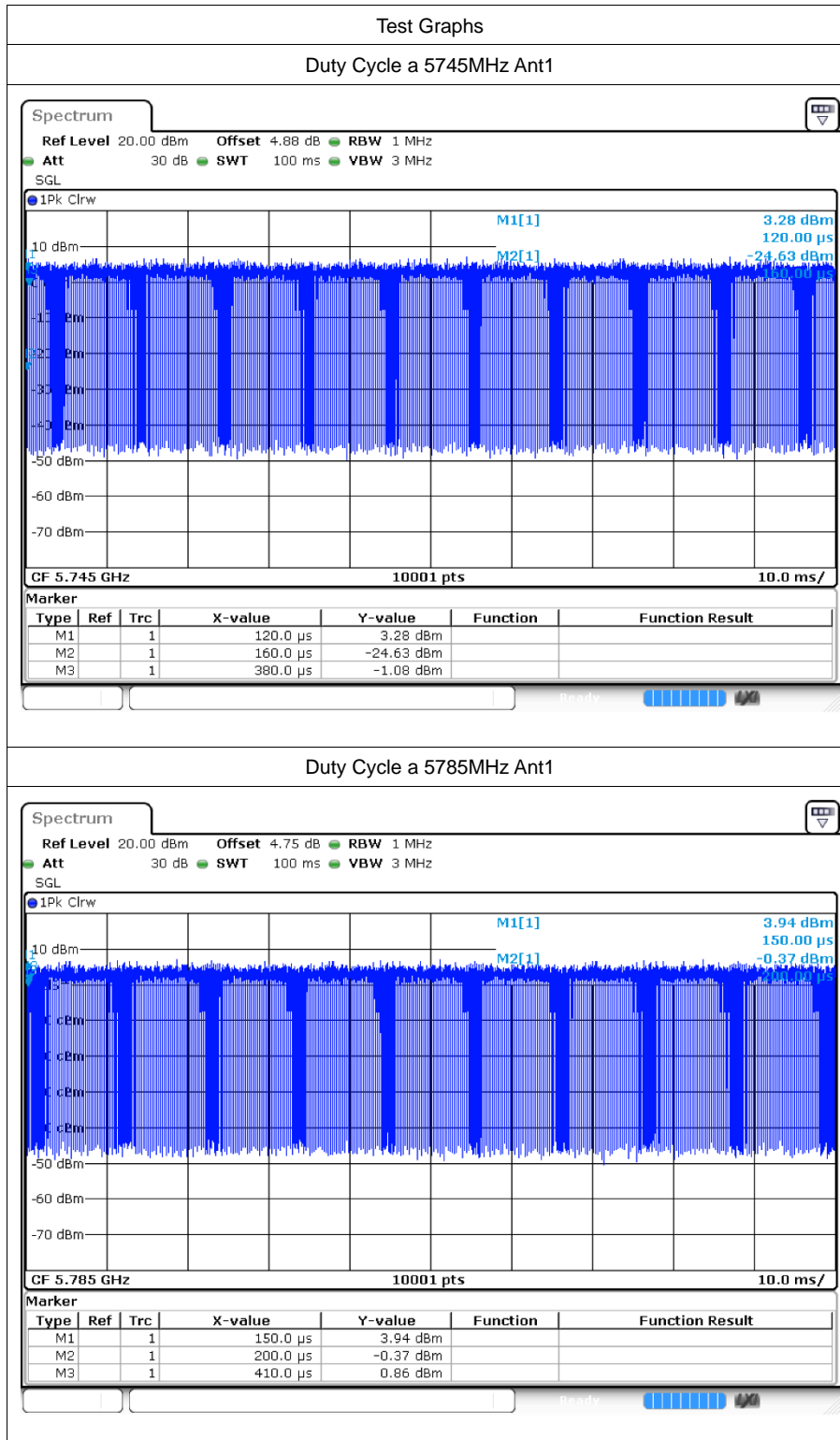


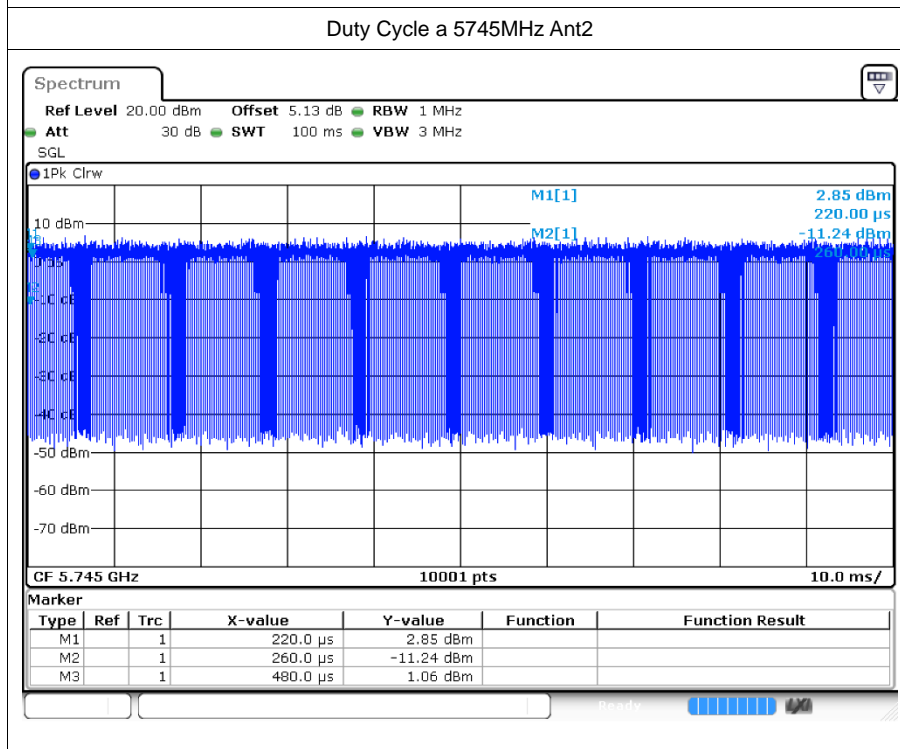
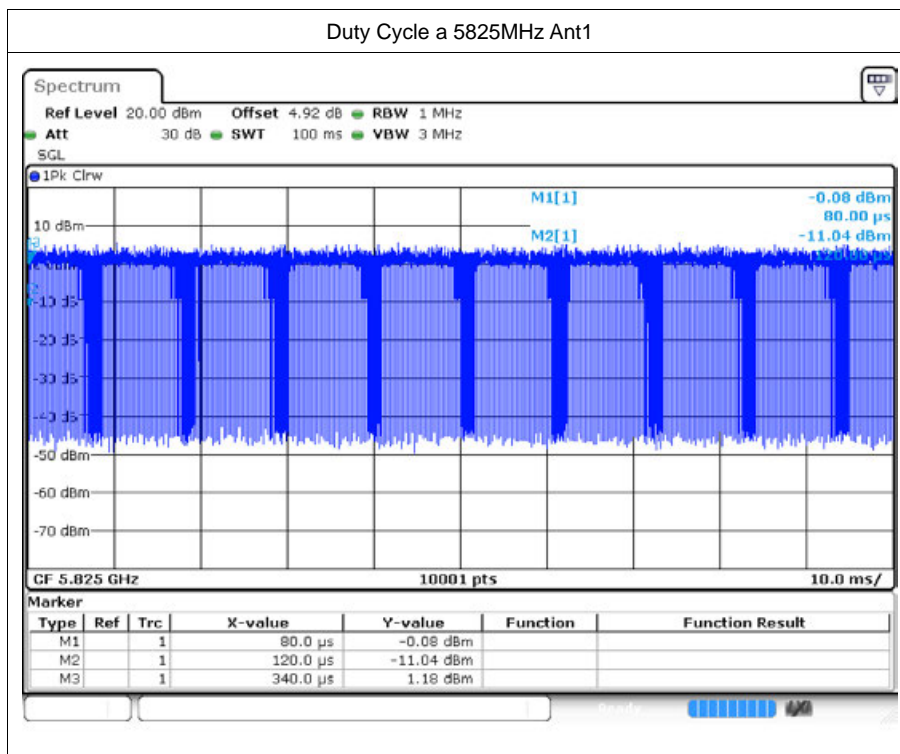
1 Duty Cycle

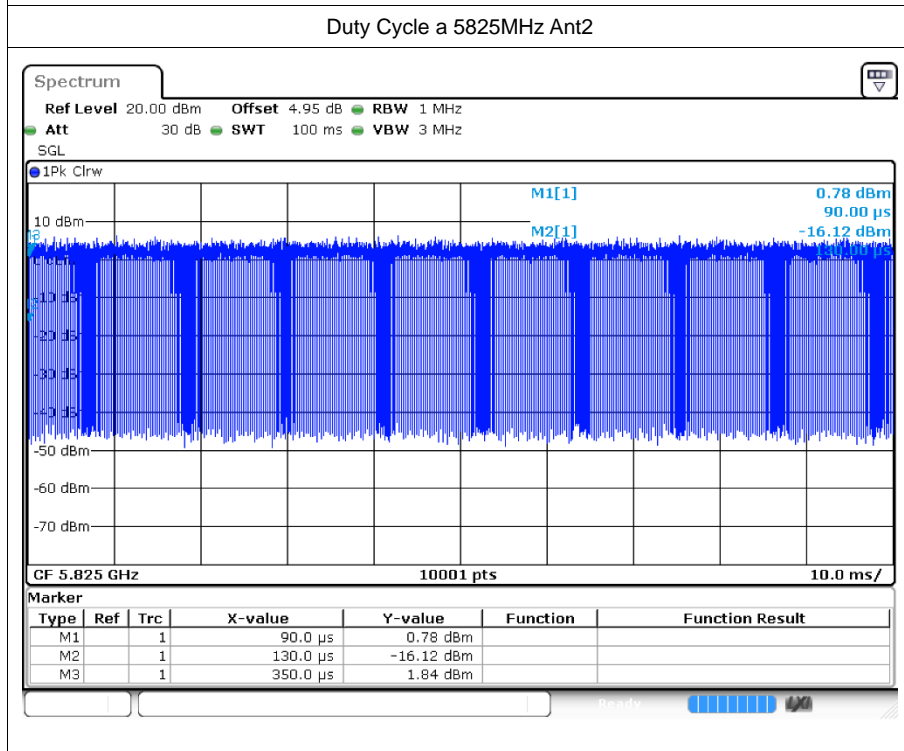
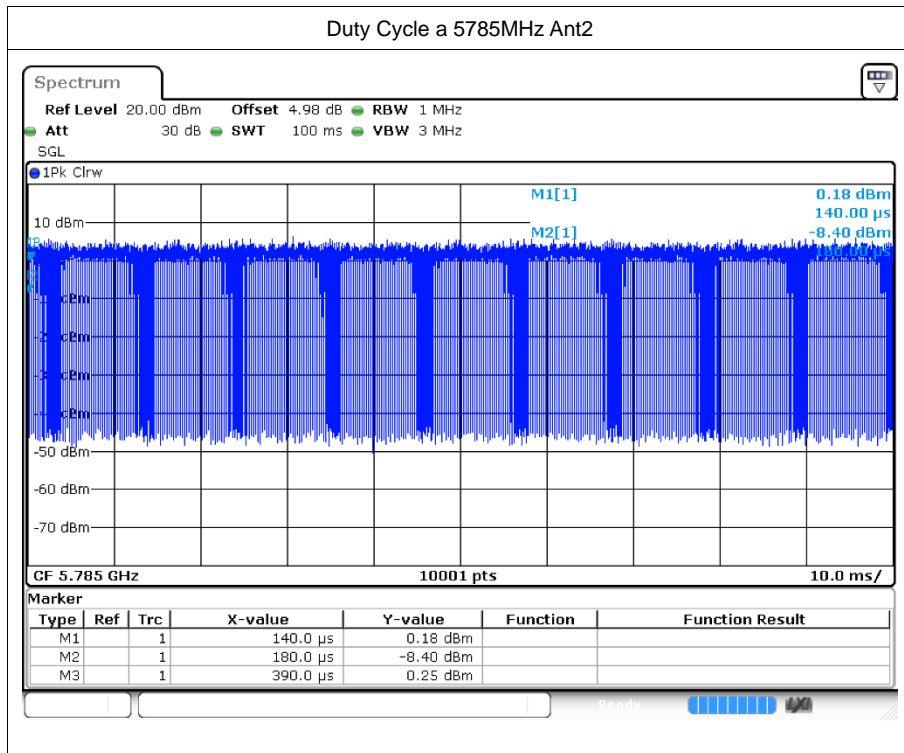
1.1 Test Result

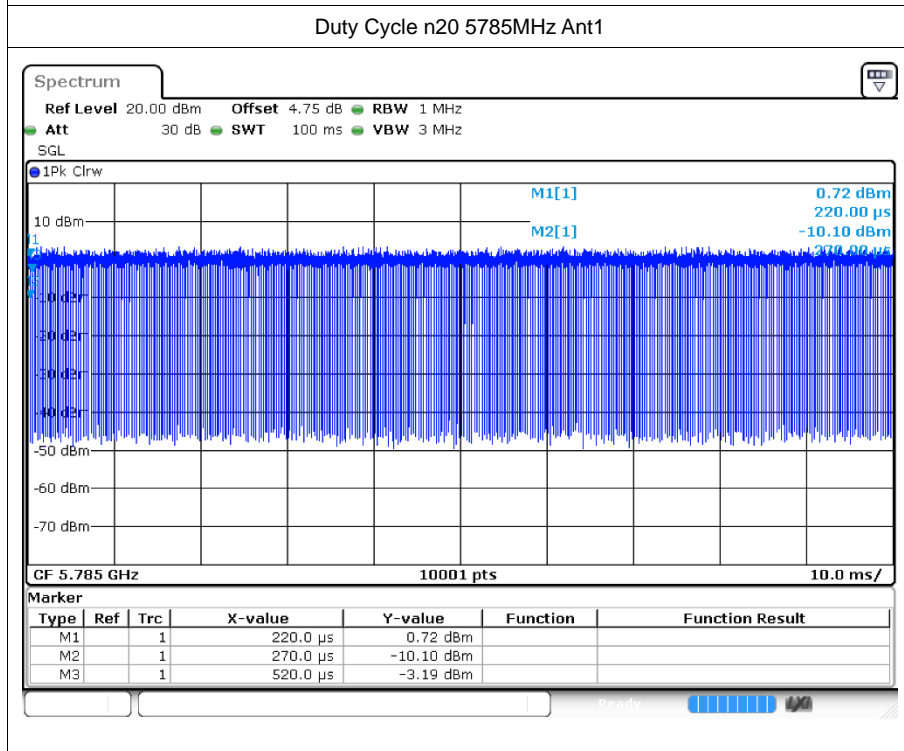
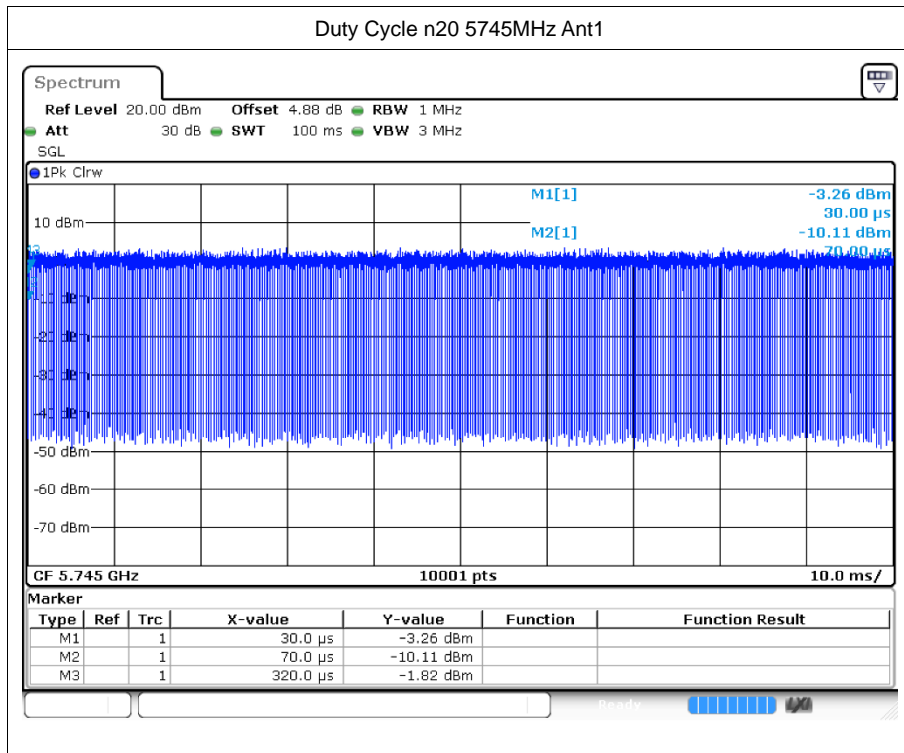
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5745	Ant1	86.9	0.61	4.55
a	5785	Ant1	86.94	0.61	4.76
a	5825	Ant1	86.89	0.61	4.55
a	5745	Ant2	86.92	0.61	4.55
a	5785	Ant2	86.94	0.61	4.76
a	5825	Ant2	86.92	0.61	4.55
n20	5745	Ant1	88.09	0.55	4
n20	5785	Ant1	88.11	0.55	4
n20	5825	Ant1	88.13	0.55	4
n20	5745	Ant2	88.16	0.55	4.17
n20	5785	Ant2	88.2	0.55	4.17
n20	5825	Ant2	83.74	0.77	5.88
n40	5755	Ant1	88.12	0.55	4.17
n40	5795	Ant1	86.56	0.63	4.17
n40	5755	Ant2	87.12	0.6	4
n40	5795	Ant2	87.2	0.59	4

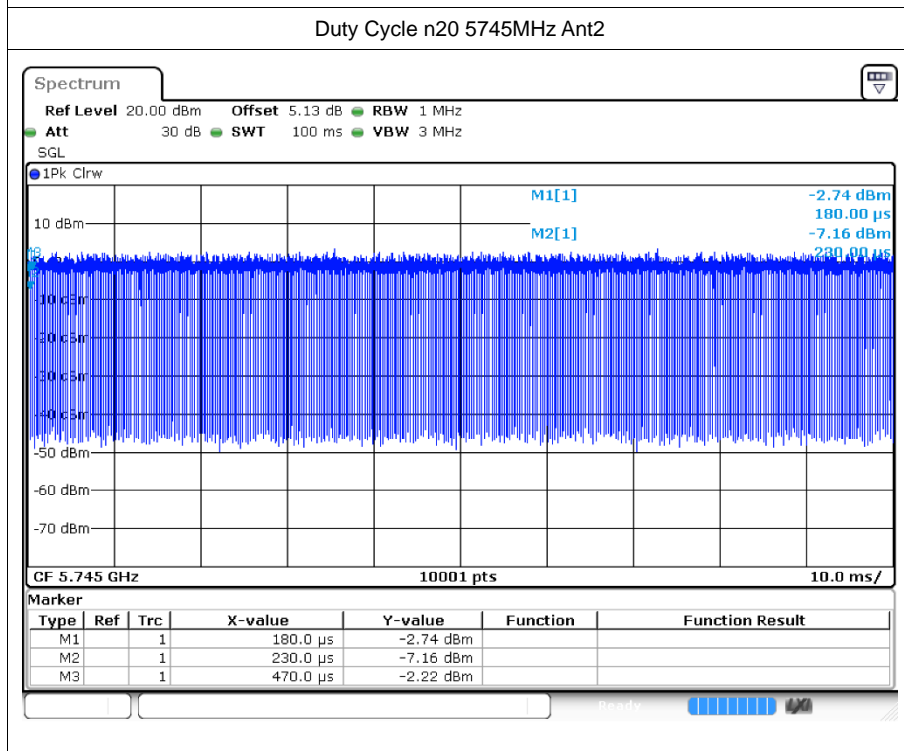
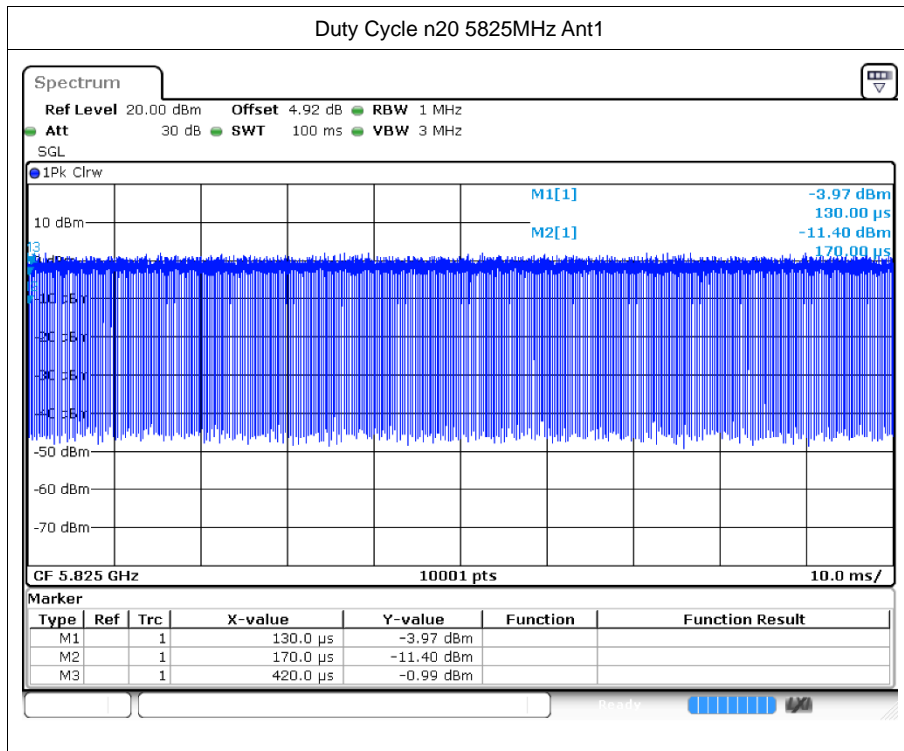
1.2 Test Graphs

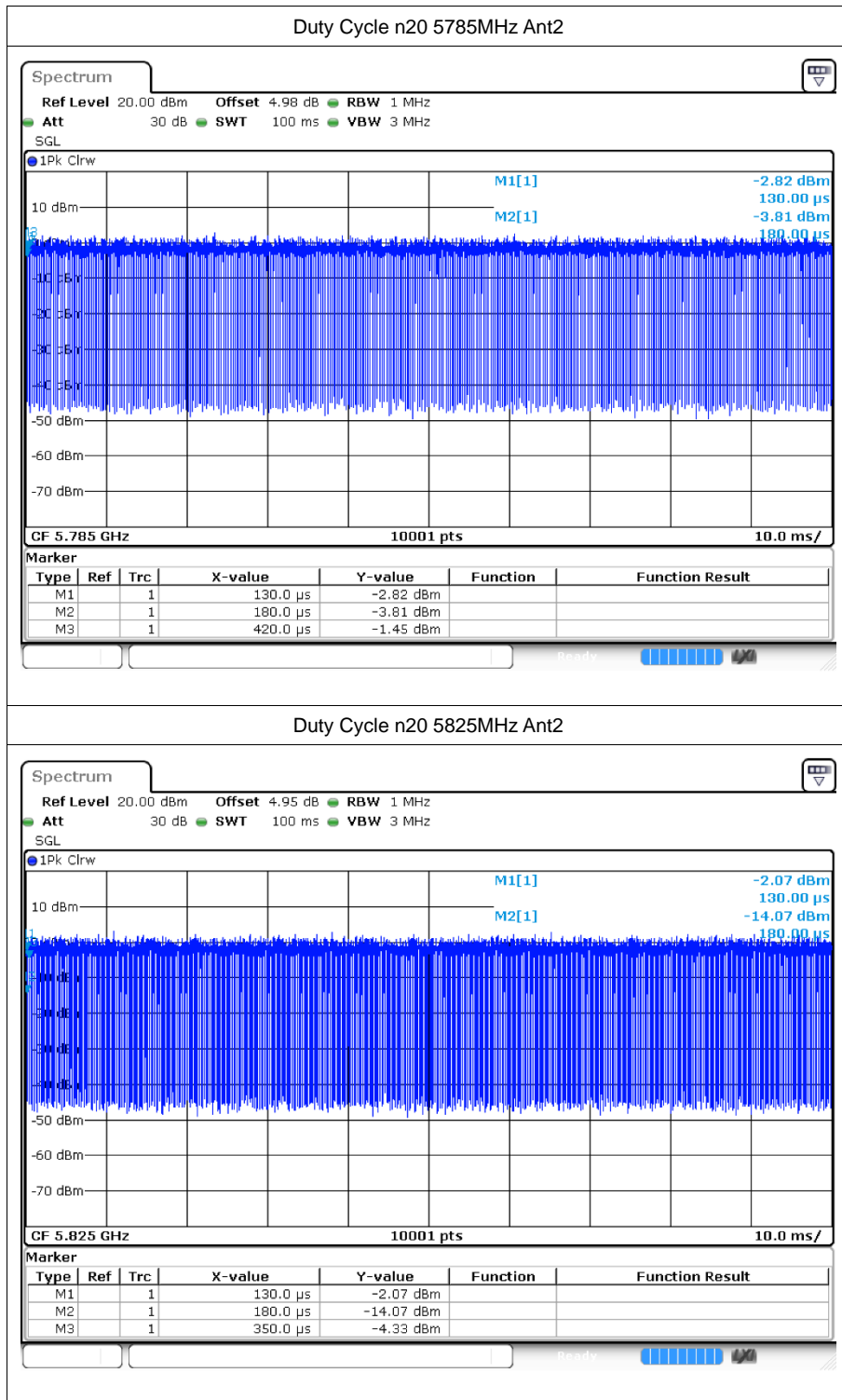


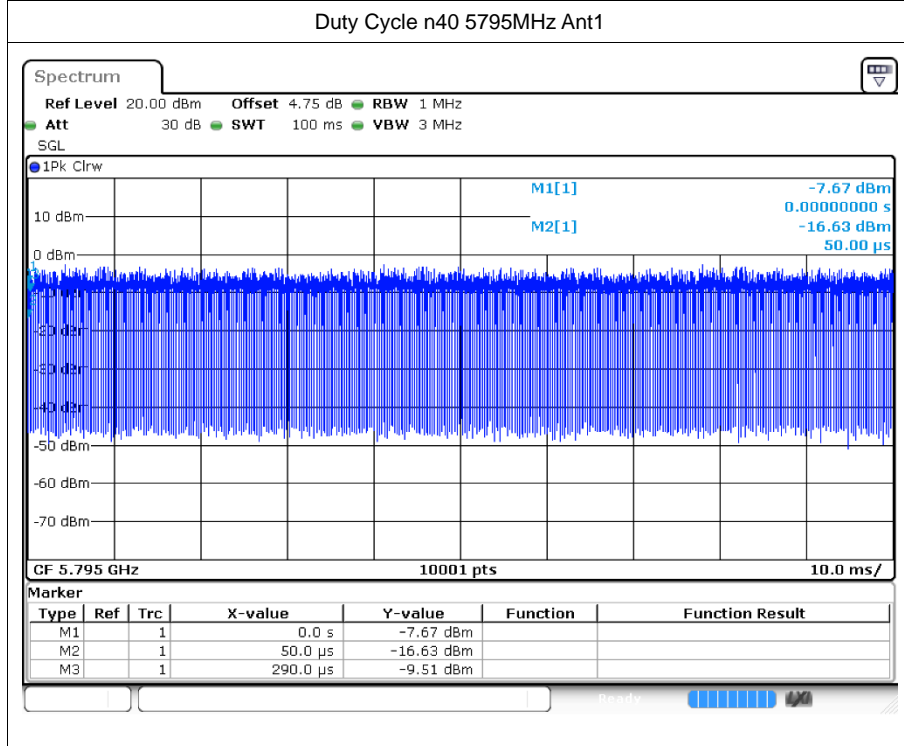
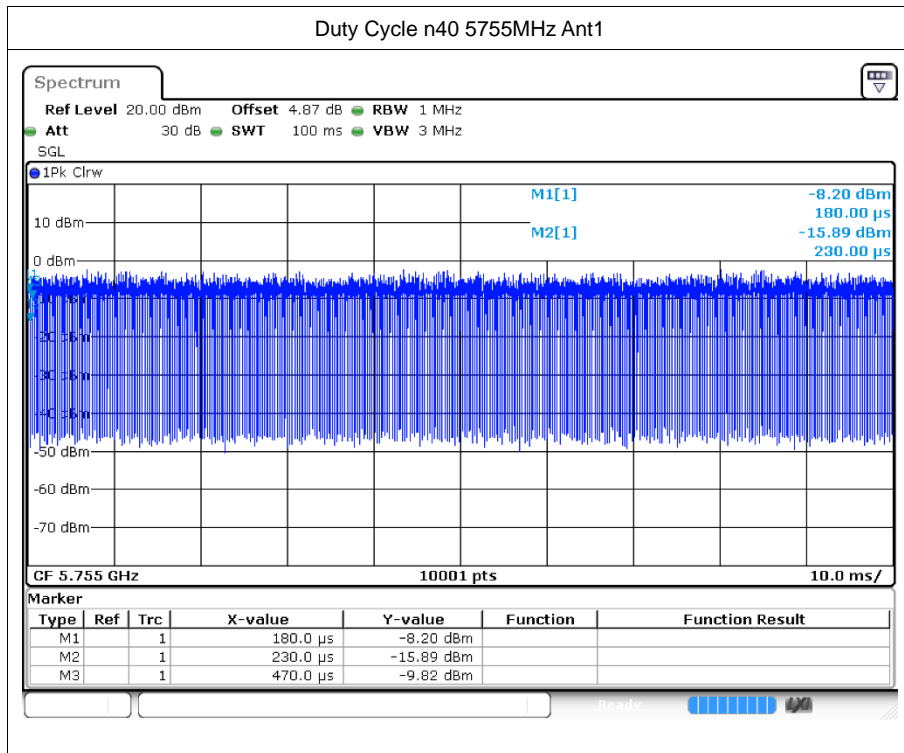


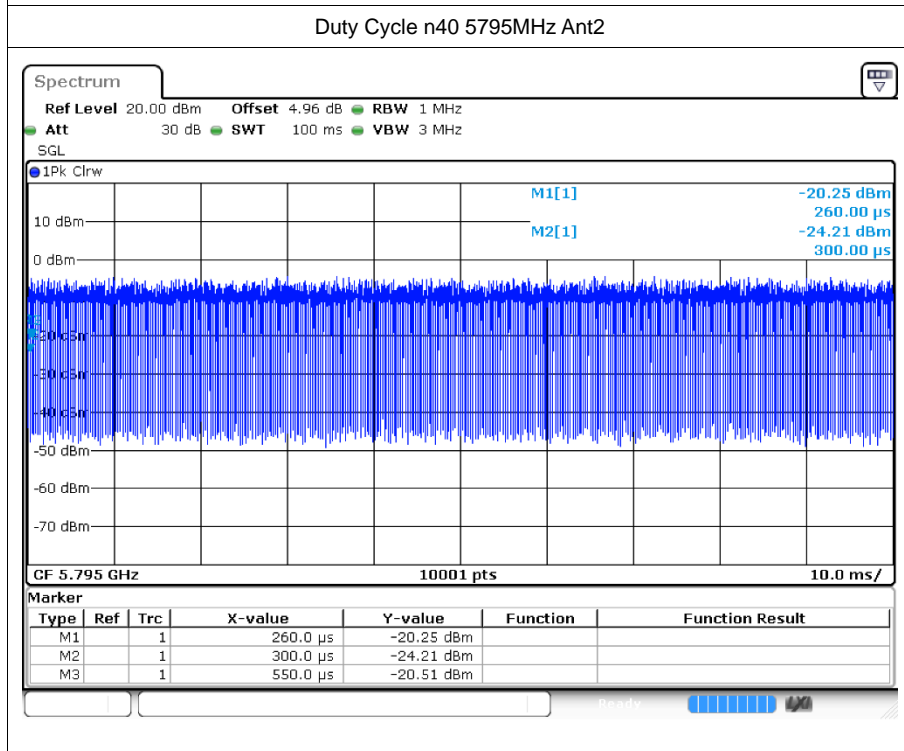
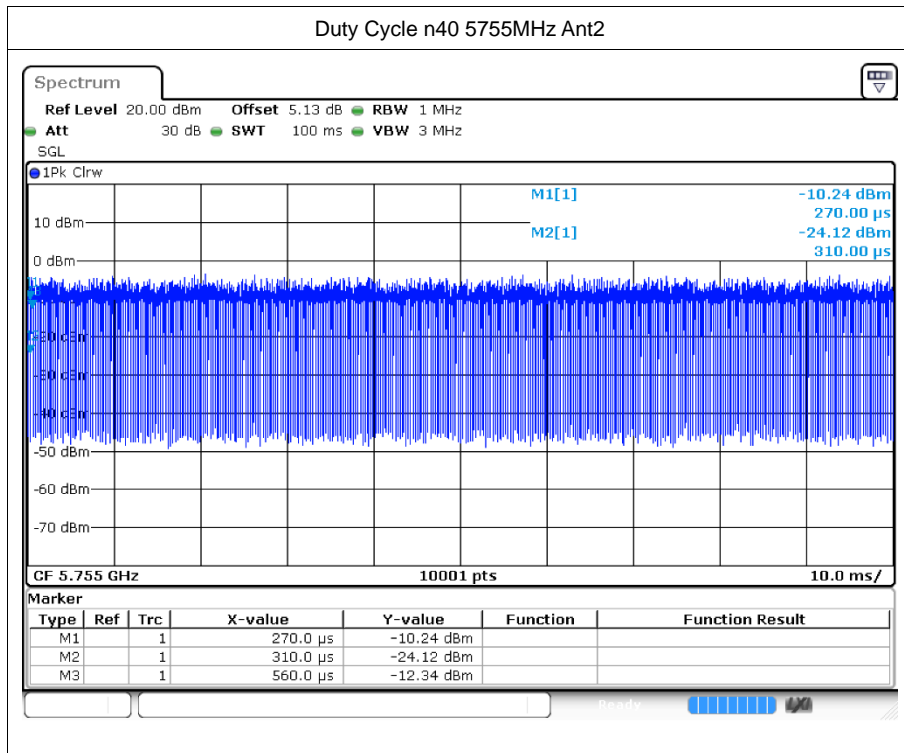














2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	13.44	0.61	14.05	30	Pass
a	5785	Ant1	13.52	0.61	14.13	30	Pass
a	5825	Ant1	11.92	0.61	12.53	30	Pass
a	5745	Ant2	12.99	0.61	13.6	30	Pass
a	5785	Ant2	12.39	0.61	13	30	Pass
a	5825	Ant2	12.65	0.61	13.26	30	Pass
n20	5745	Ant1	10.53	0.55	11.08	30	Pass
n20	5745	Ant2	10.06	0.55	10.61	30	Pass
n20	5745	Sum	13.31	0.55	13.86	30	Pass
n20	5785	Ant1	10.66	0.55	11.21	30	Pass
n20	5785	Ant2	9.32	0.55	9.87	30	Pass
n20	5785	Sum	13.05	0.55	13.6	30	Pass
n20	5825	Ant1	9.21	0.55	9.76	30	Pass
n20	5825	Ant2	9.7	0.77	10.47	30	Pass
n20	5825	Sum	12.47	0.77	13.24	30	Pass
n40	5755	Ant1	9.97	0.55	10.52	30	Pass
n40	5755	Ant2	8.87	0.6	9.47	30	Pass
n40	5755	Sum	12.47	0.6	13.07	30	Pass
n40	5795	Ant1	9.67	0.63	10.3	30	Pass
n40	5795	Ant2	8.27	0.59	8.86	30	Pass
n40	5795	Sum	12.04	0.59	12.63	30	Pass

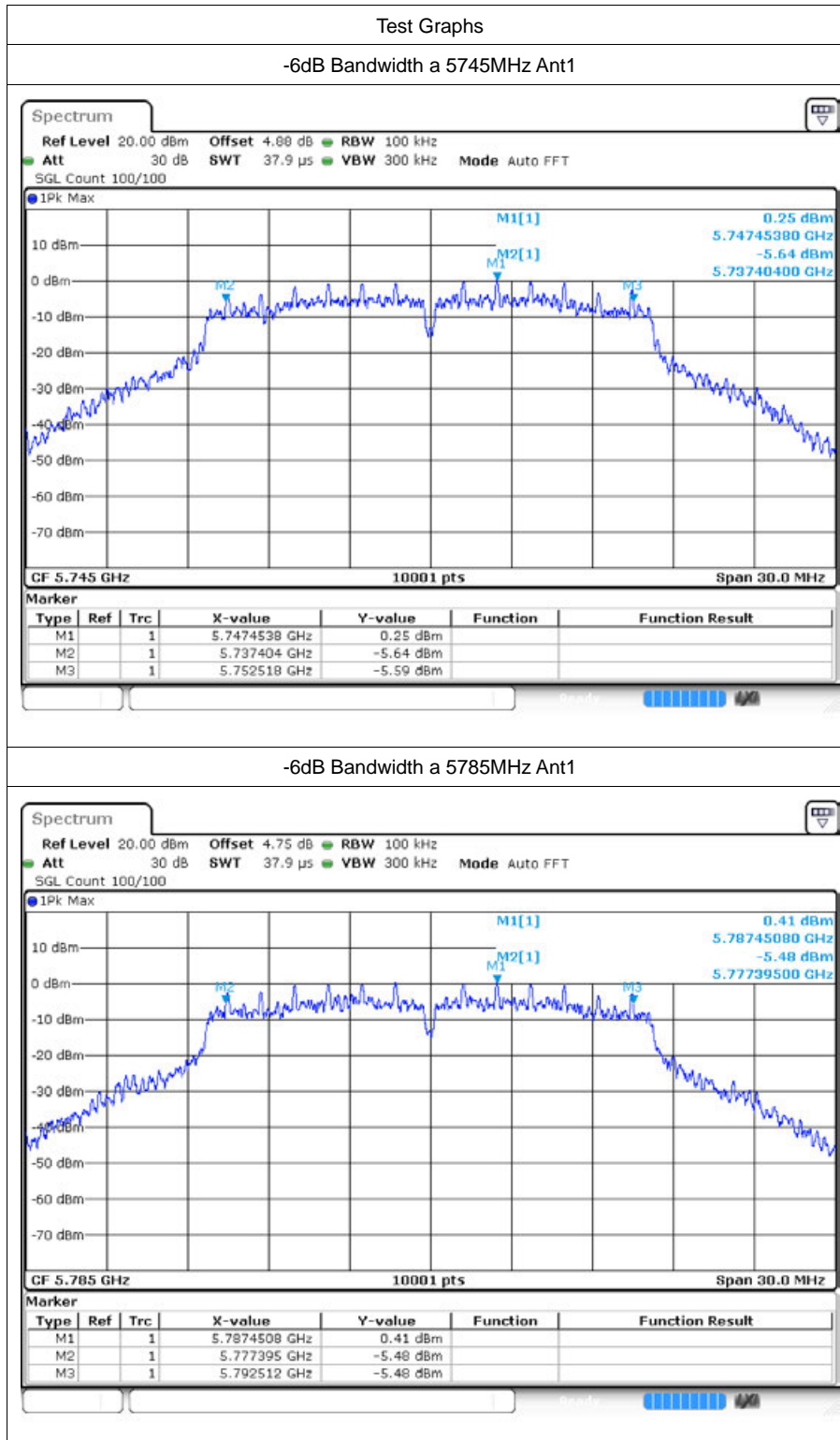


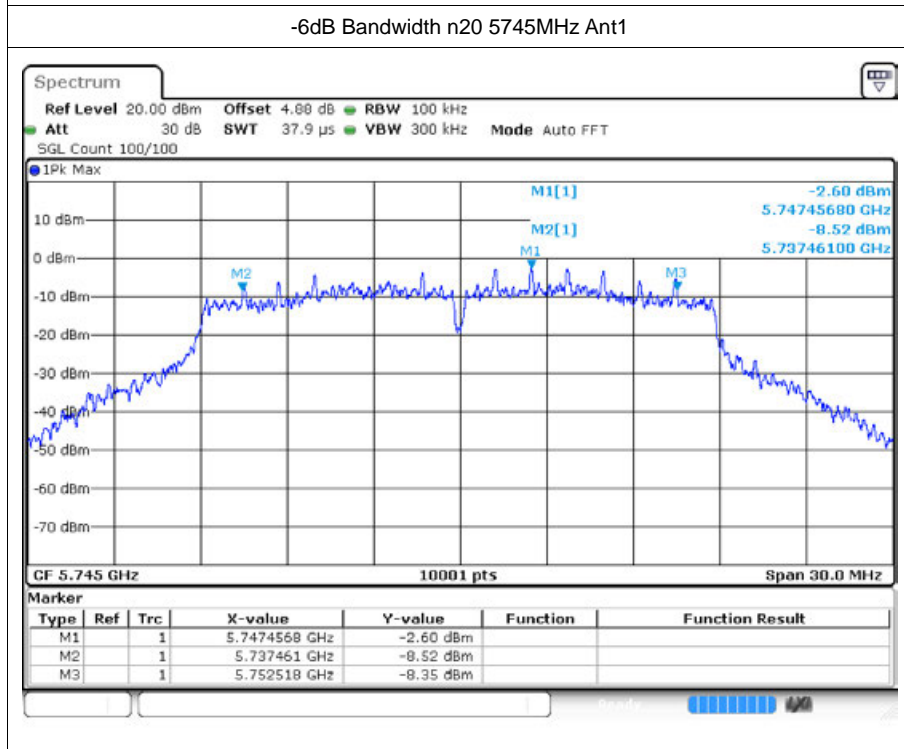
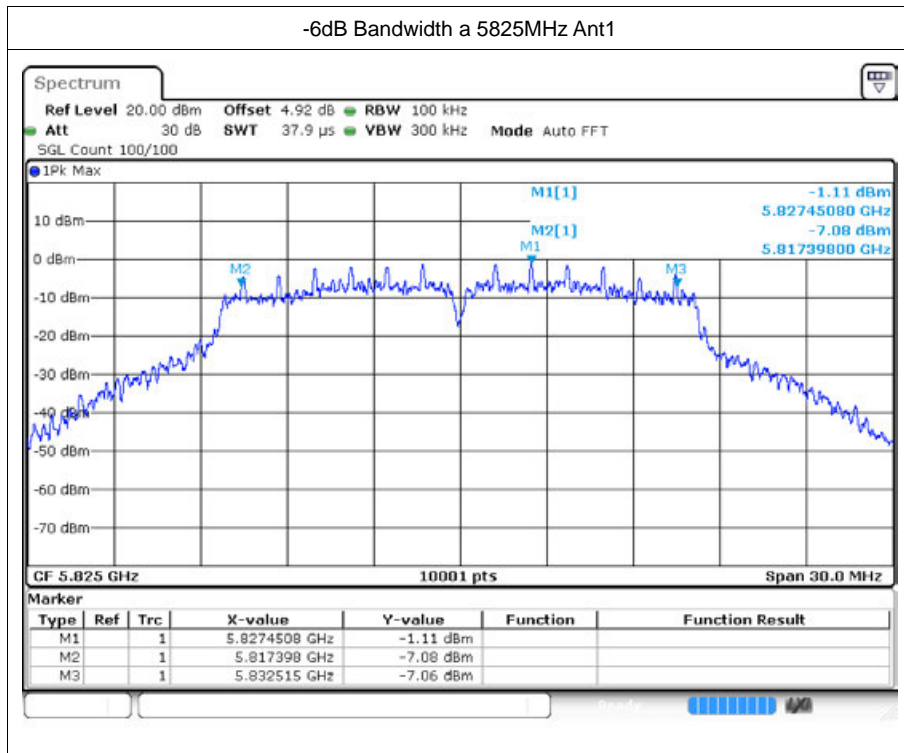
3 -6dB Bandwidth

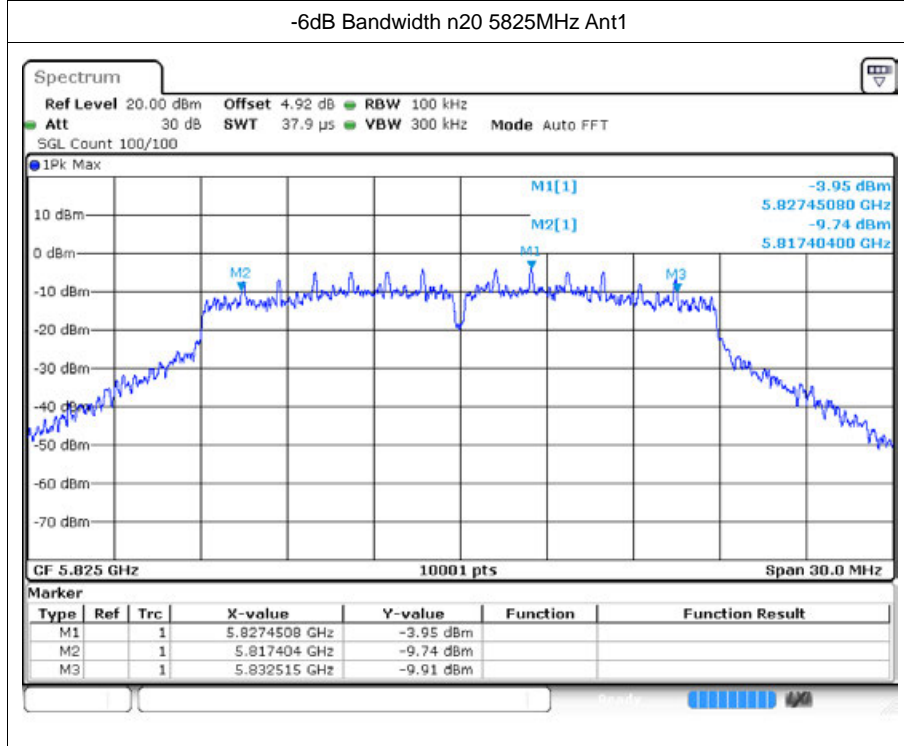
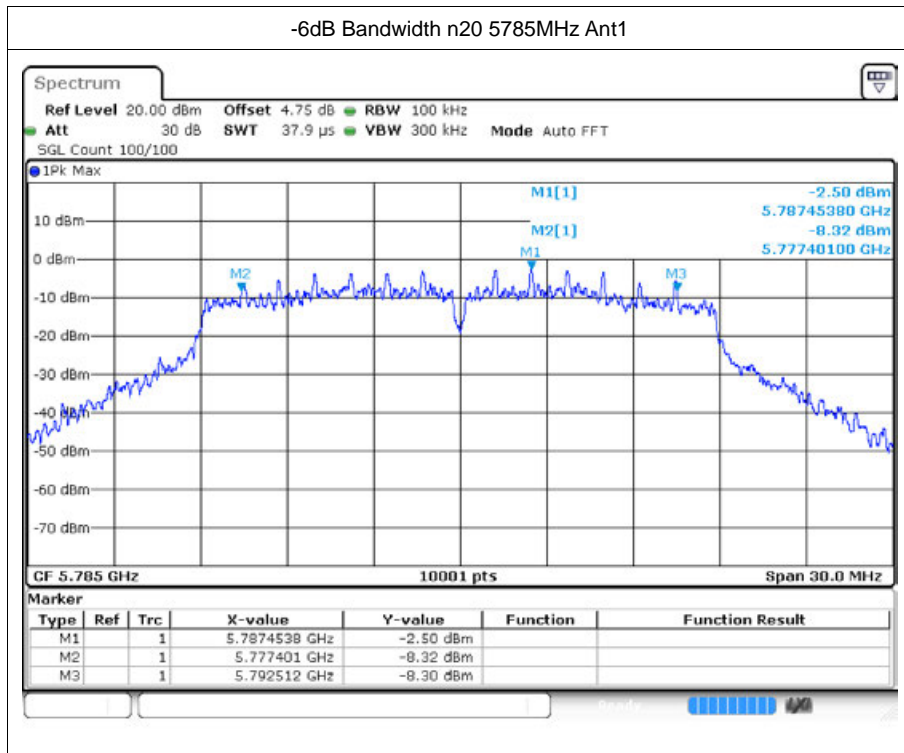
3.1 Test Result

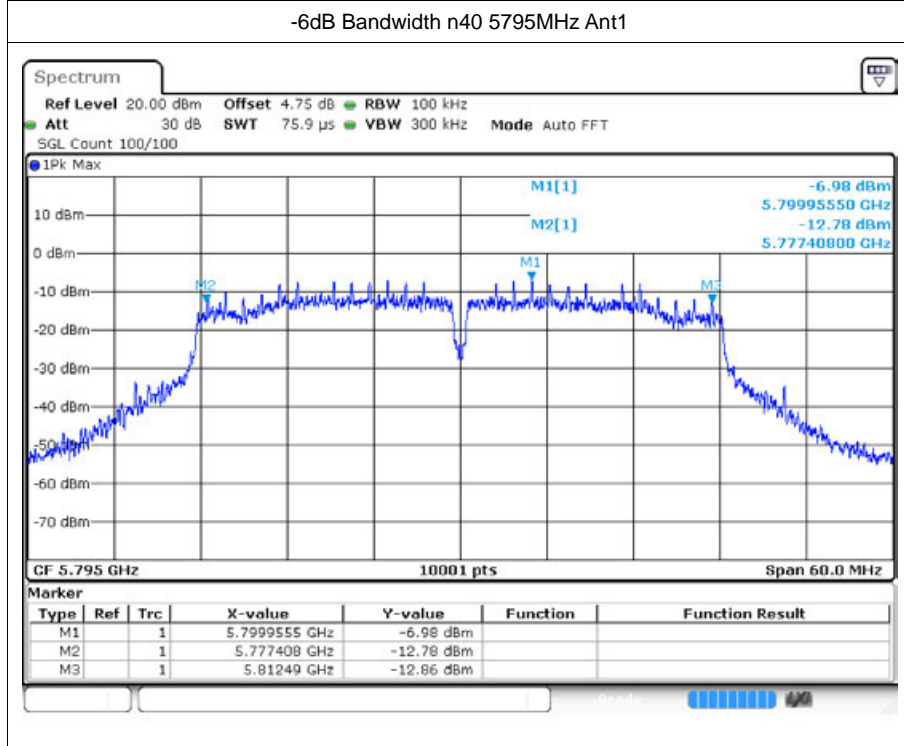
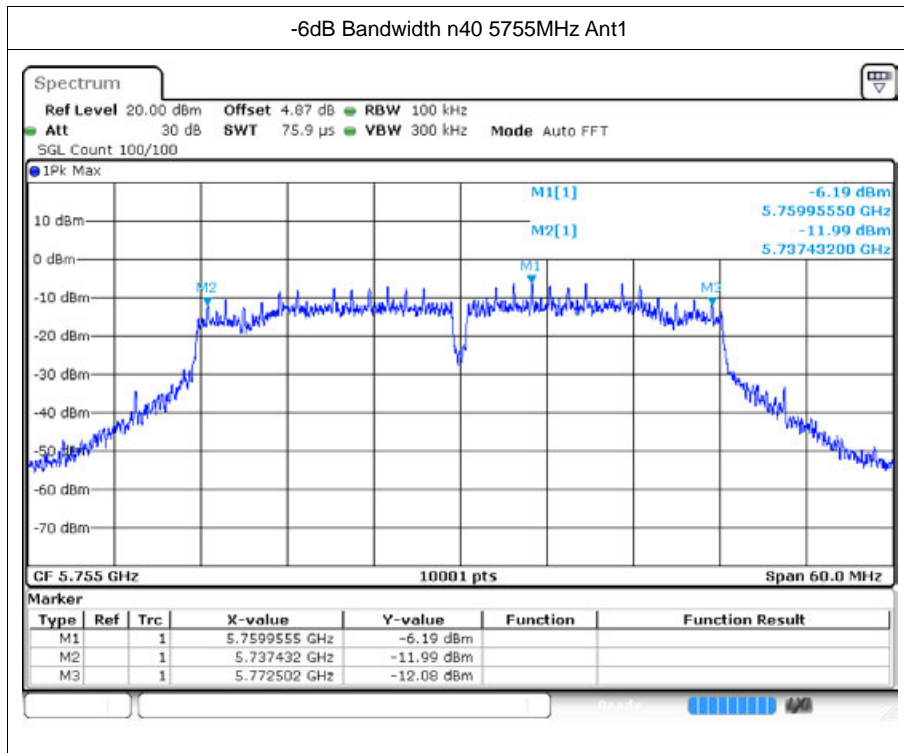
Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
a	5745	Ant1	15.114	0.5	Pass
a	5785	Ant1	15.117	0.5	Pass
a	5825	Ant1	15.117	0.5	Pass
n20	5745	Ant1	15.057	0.5	Pass
n20	5785	Ant1	15.111	0.5	Pass
n20	5825	Ant1	15.111	0.5	Pass
n40	5755	Ant1	35.07	0.5	Pass
n40	5795	Ant1	35.082	0.5	Pass
a	5745	Ant2	15.108	0.5	Pass
a	5785	Ant2	15.12	0.5	Pass
a	5825	Ant2	15.135	0.5	Pass
n20	5745	Ant2	15.078	0.5	Pass
n20	5785	Ant2	15.108	0.5	Pass
n20	5825	Ant2	15.114	0.5	Pass
n40	5755	Ant2	35.106	0.5	Pass
n40	5795	Ant2	35.07	0.5	Pass

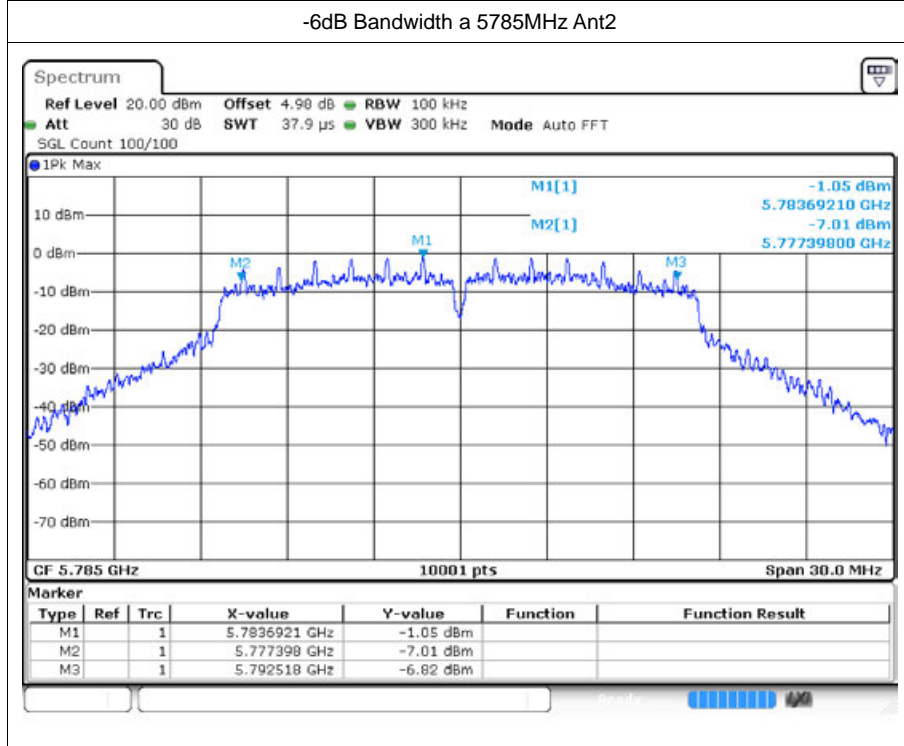
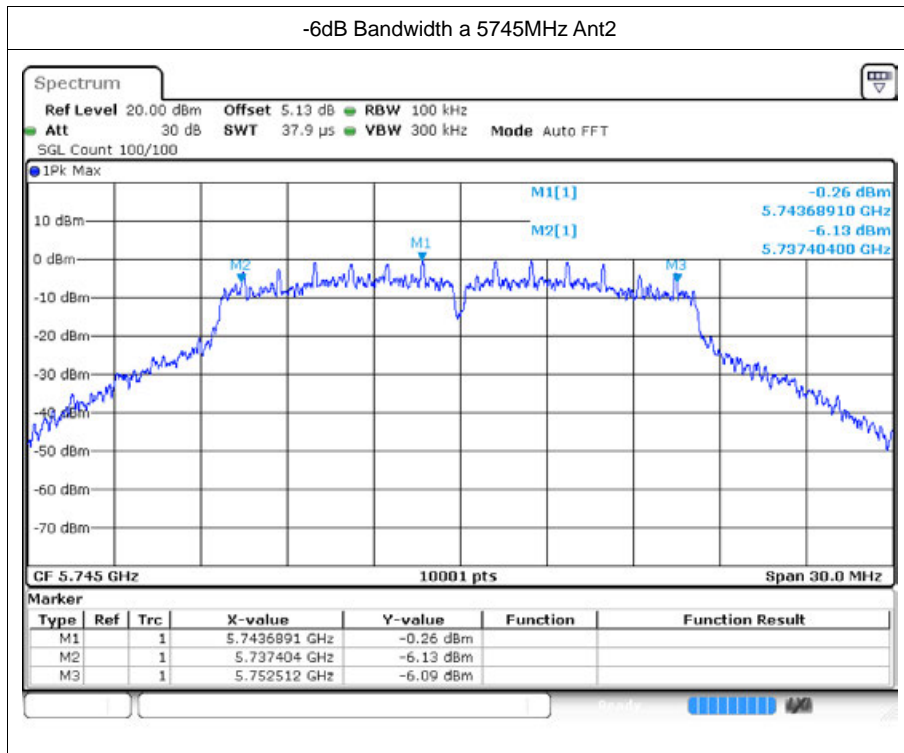
3.2 Test Graphs

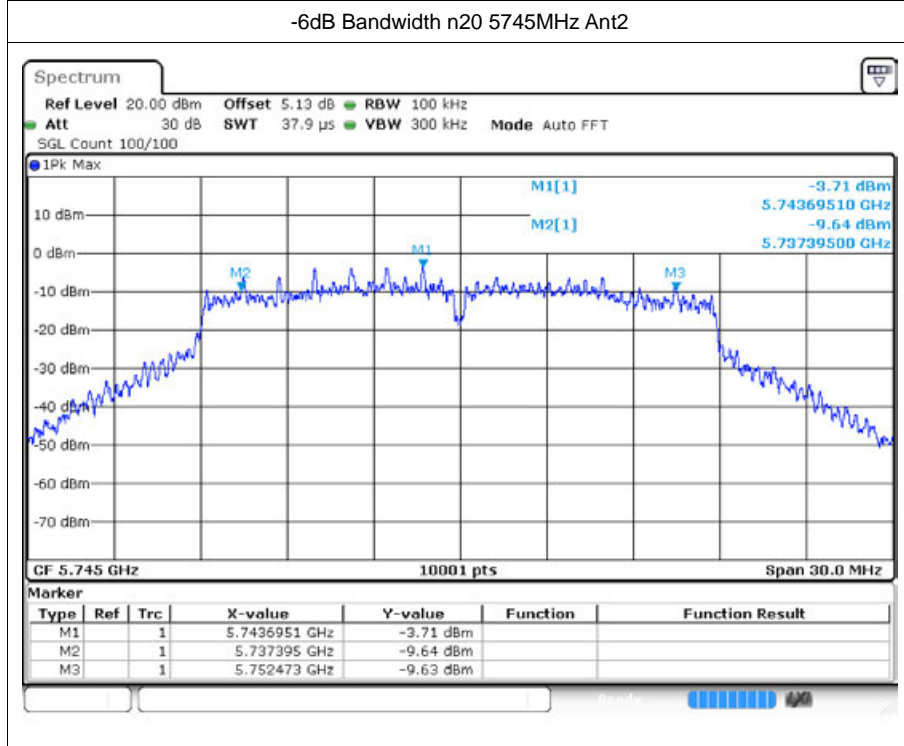
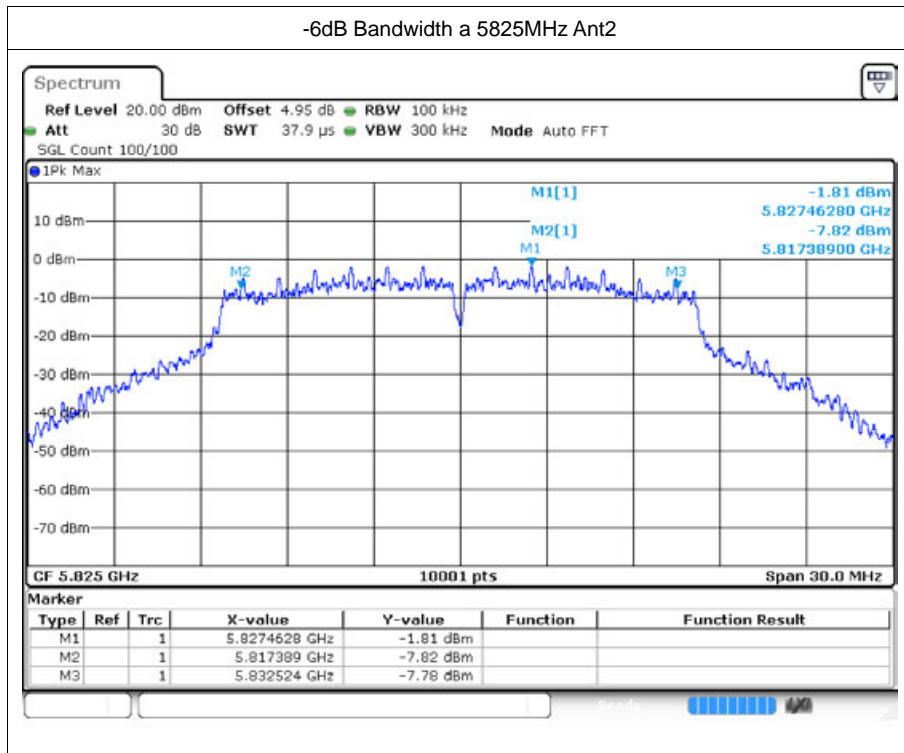


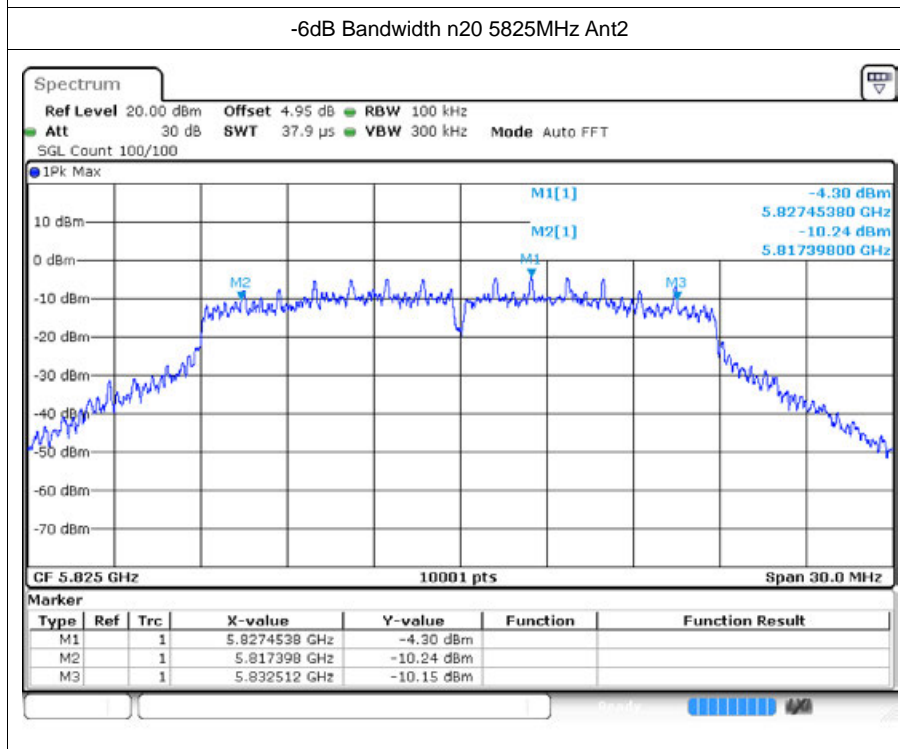
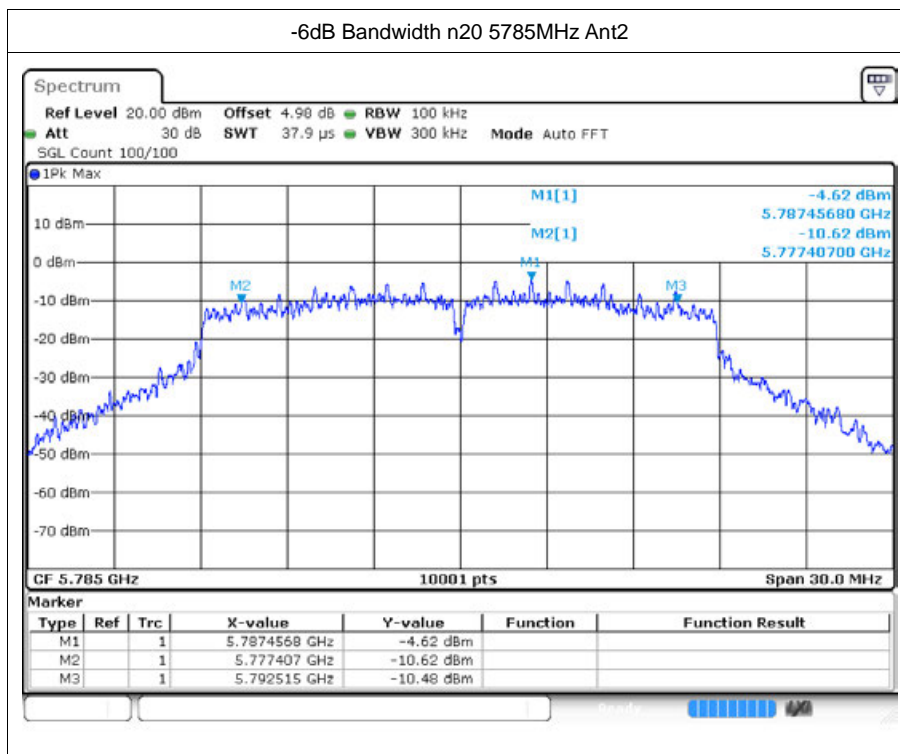


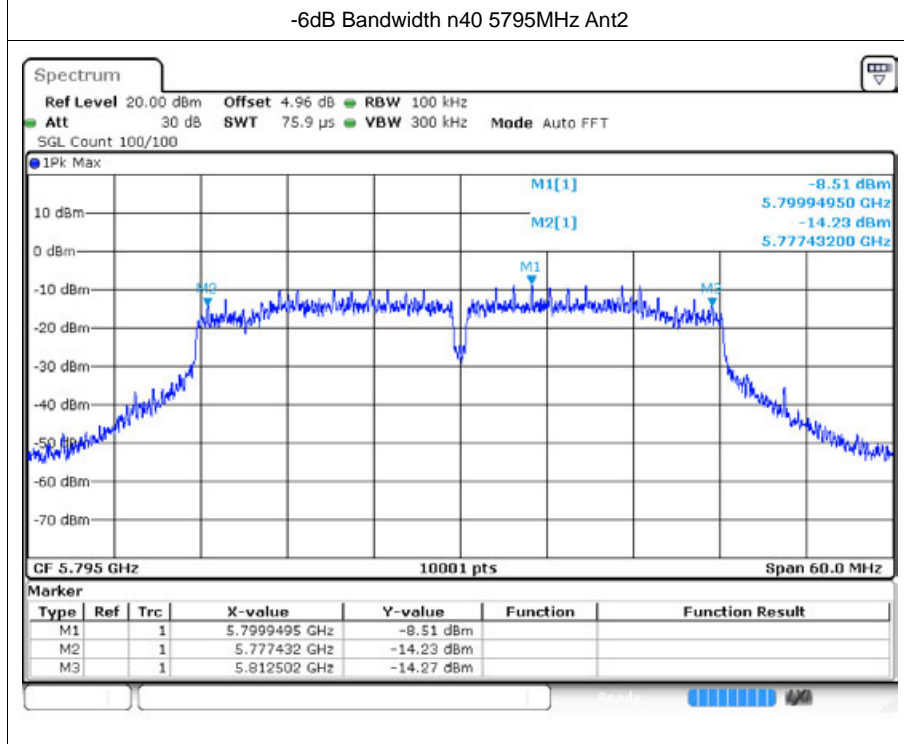
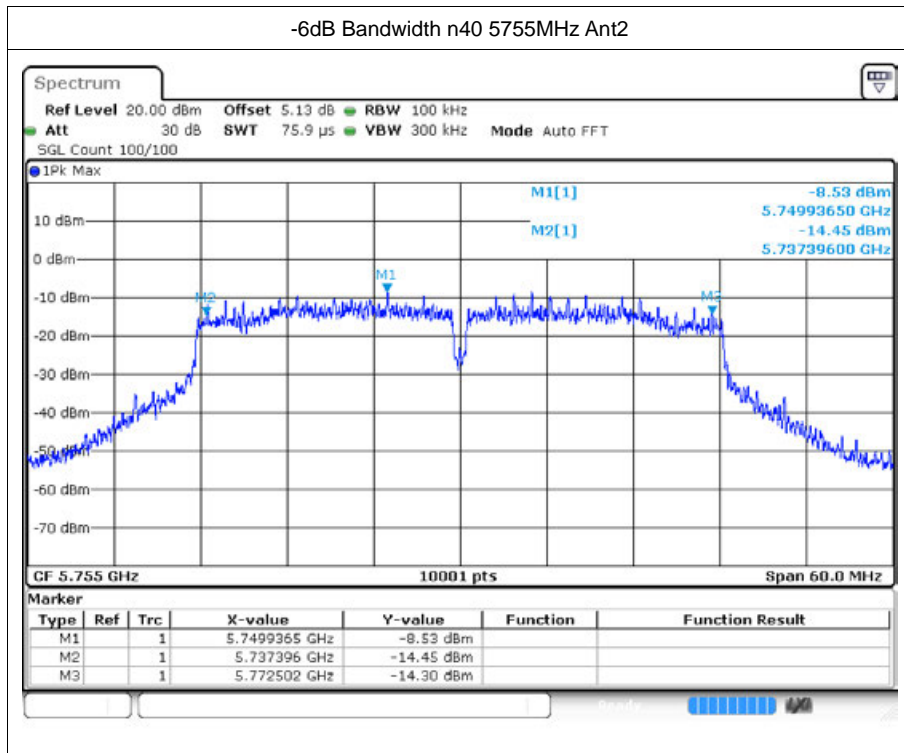












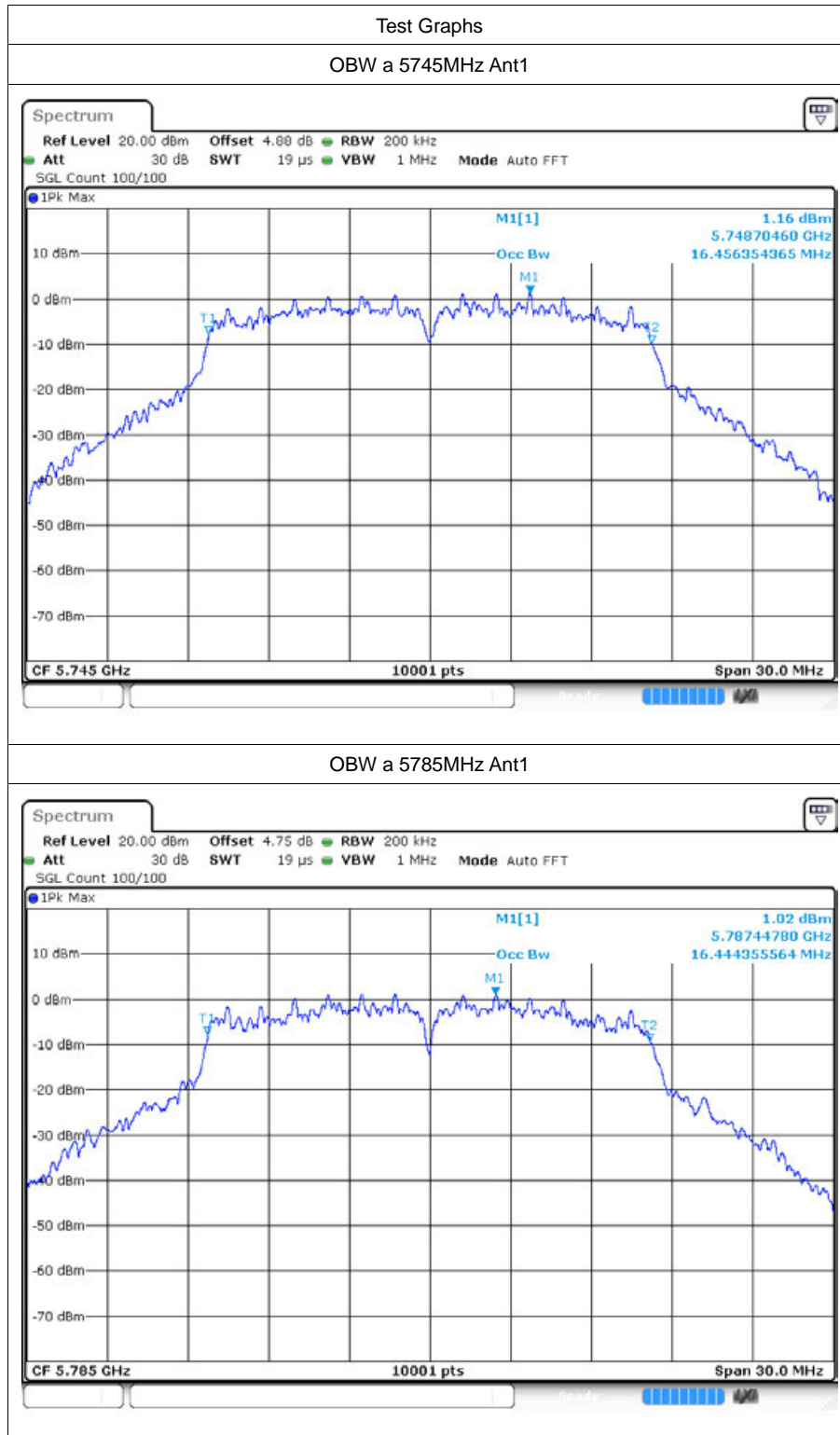


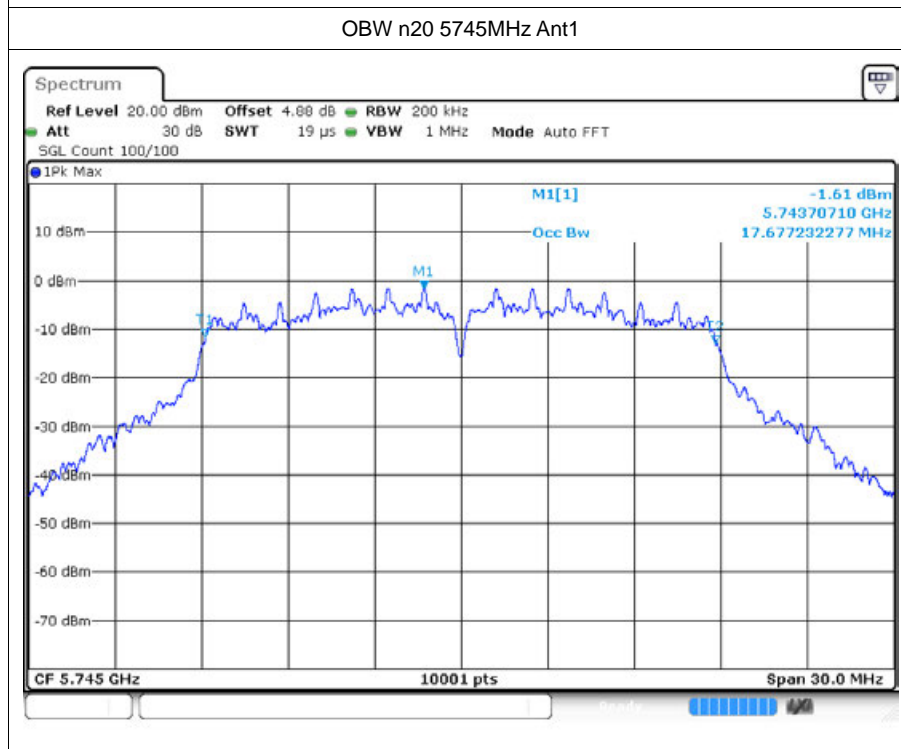
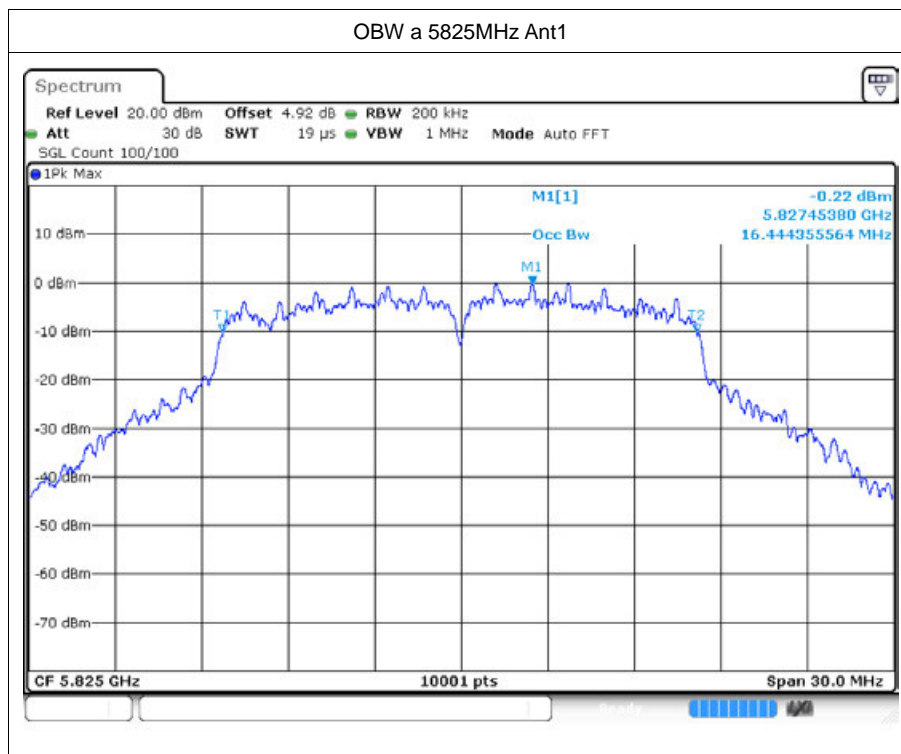
4 Occupied Channel Bandwidth

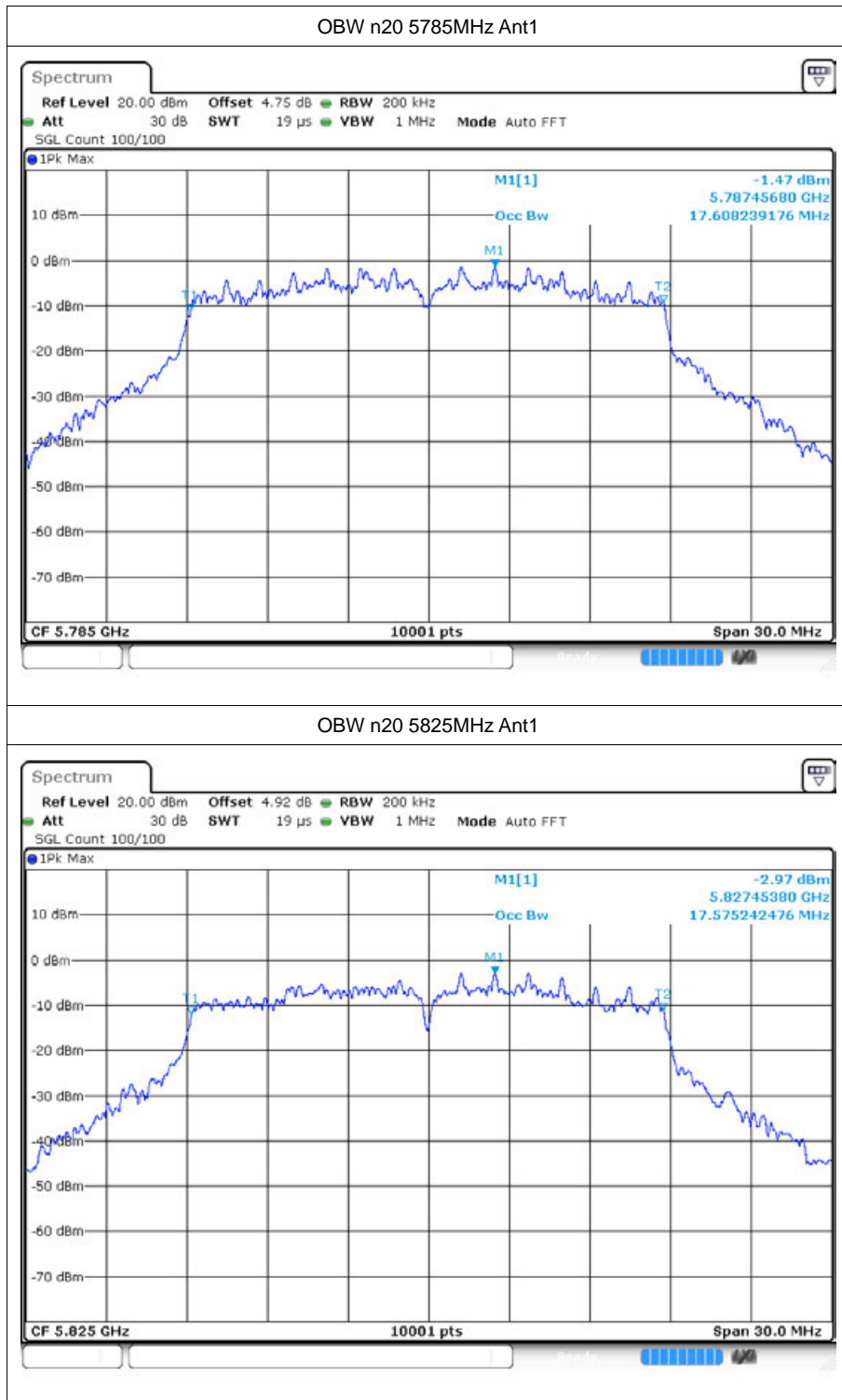
4.1 Test Result

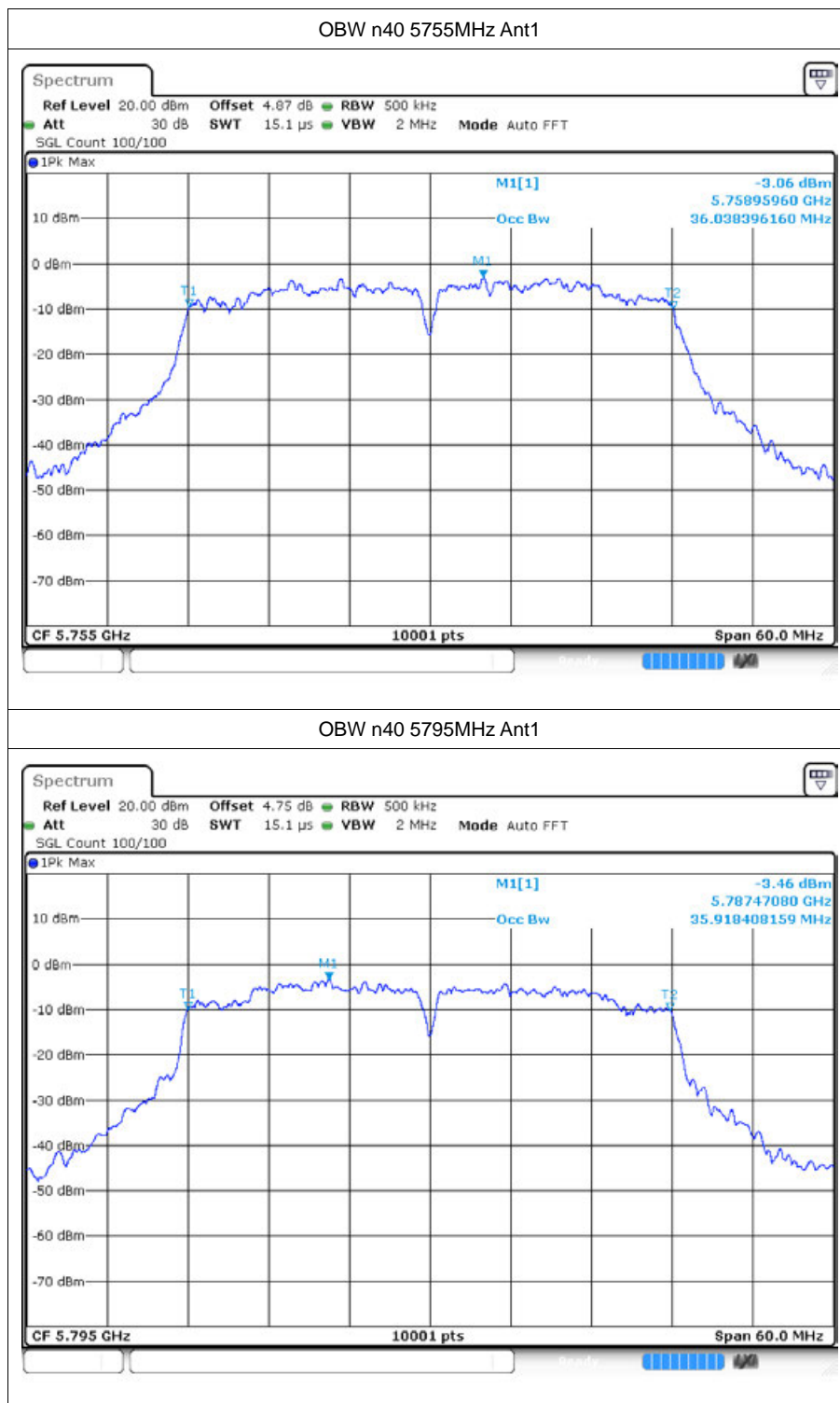
Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
a	5745	Ant1	16.456
a	5785	Ant1	16.444
a	5825	Ant1	16.444
n20	5745	Ant1	17.677
n20	5785	Ant1	17.608
n20	5825	Ant1	17.575
n40	5755	Ant1	36.038
n40	5795	Ant1	35.918
a	5745	Ant2	16.387
a	5785	Ant2	16.417
a	5825	Ant2	16.435
n20	5745	Ant2	17.662
n20	5785	Ant2	17.575
n20	5825	Ant2	17.605
n40	5755	Ant2	36.14
n40	5795	Ant2	36.29

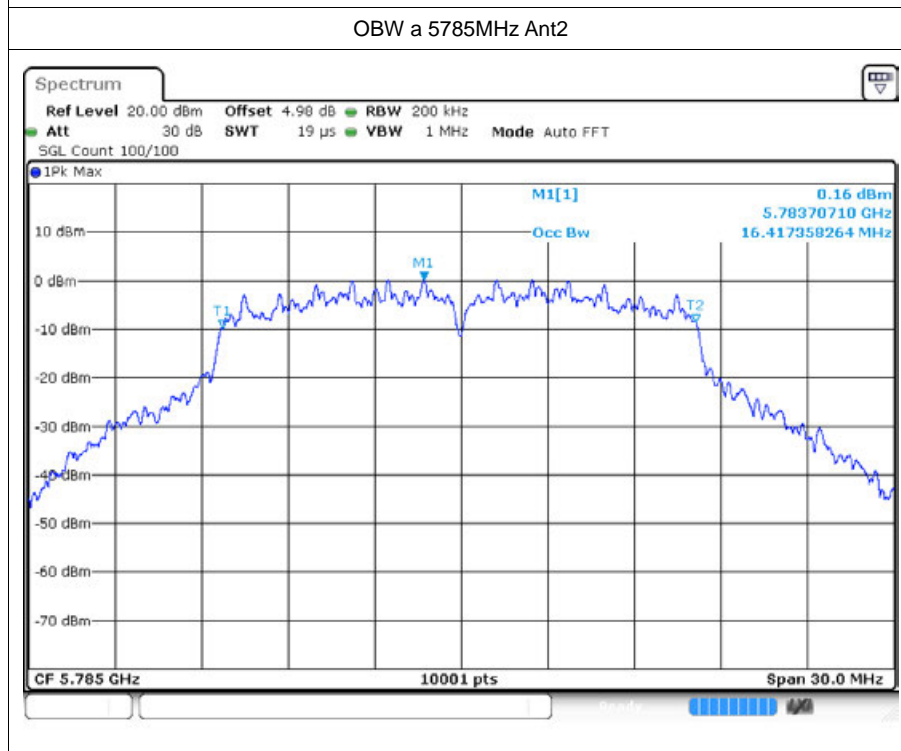
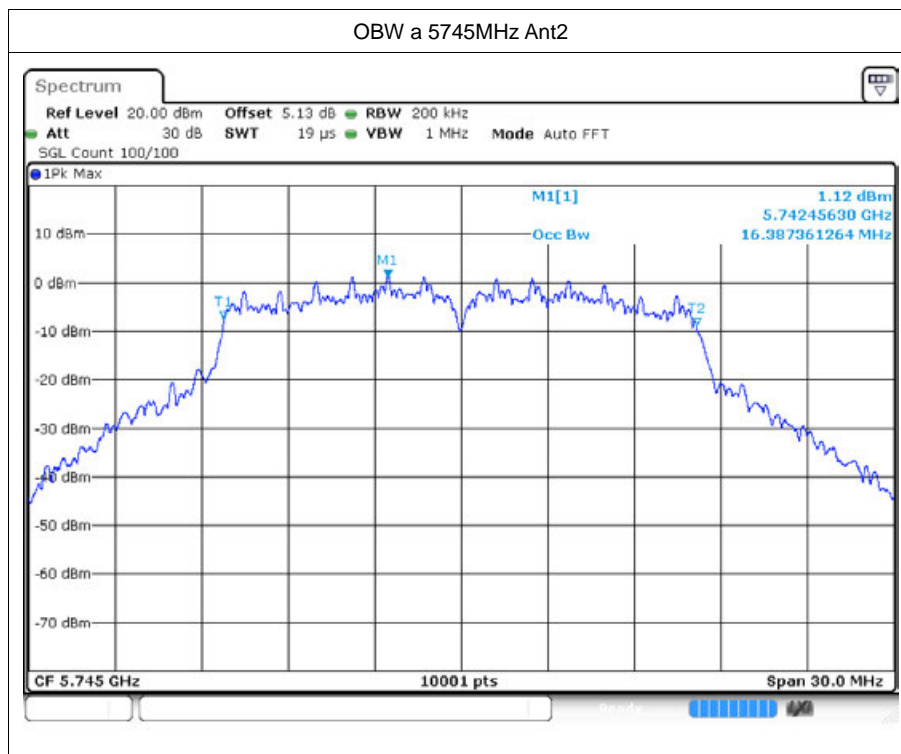
4.2 Test Graphs

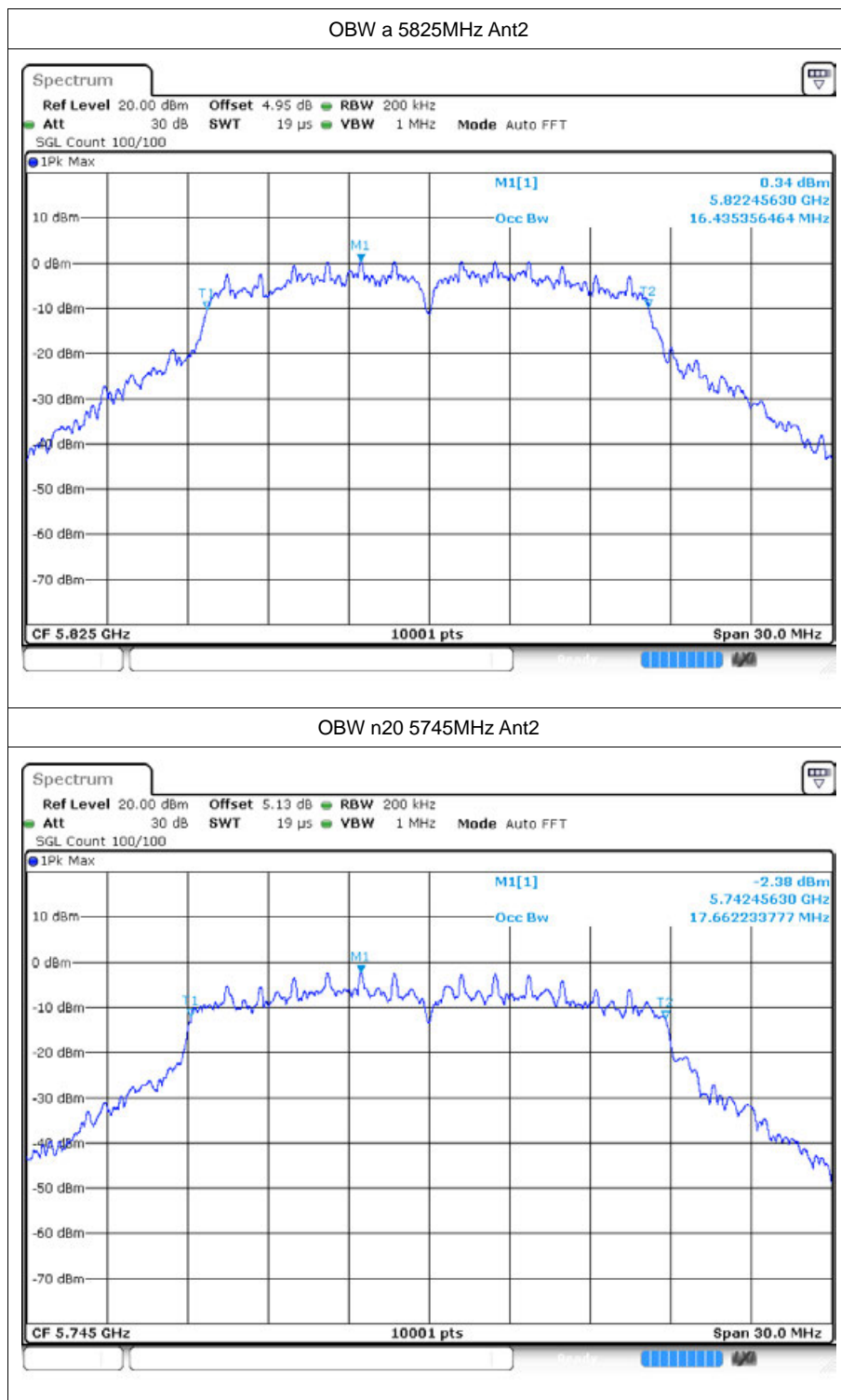


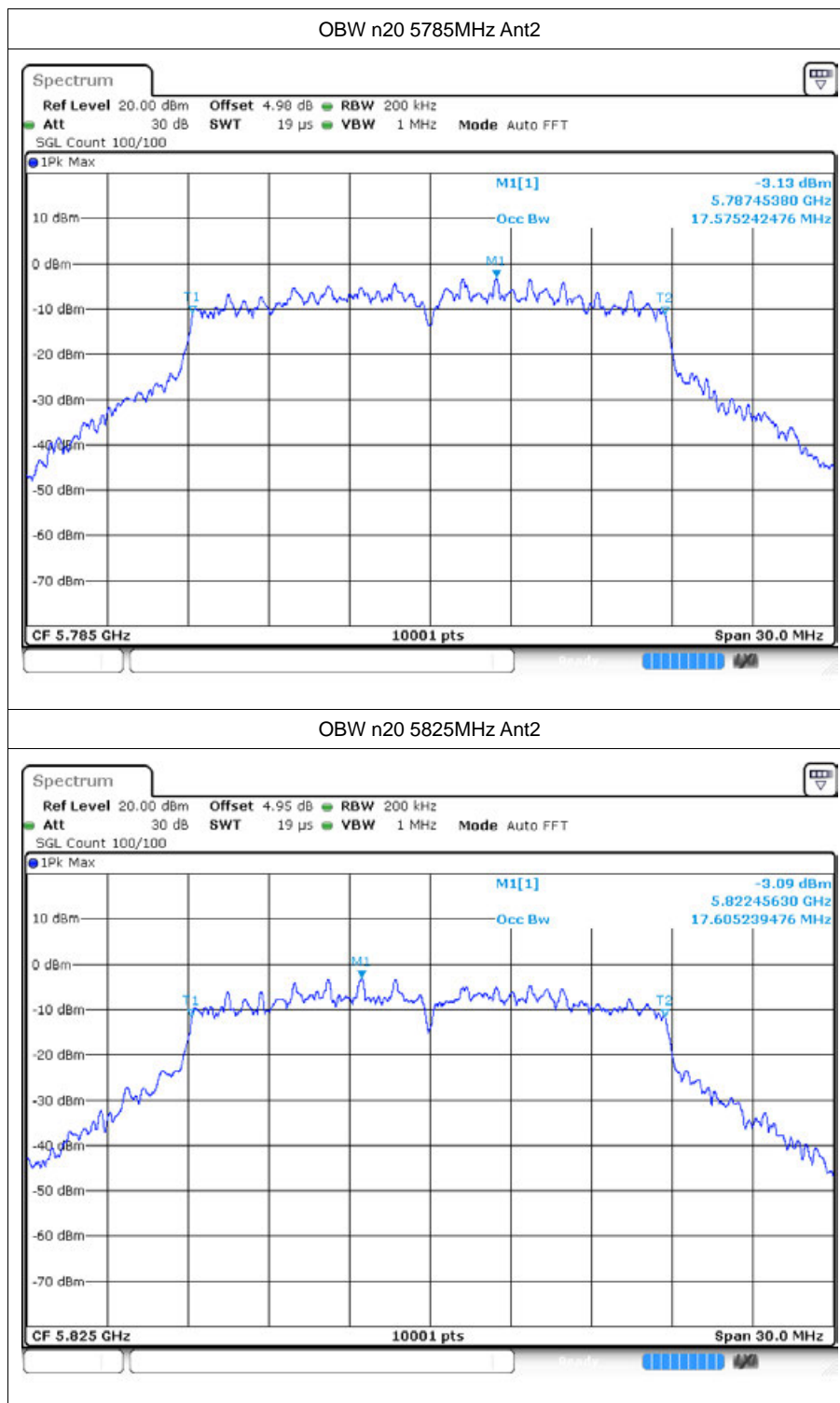


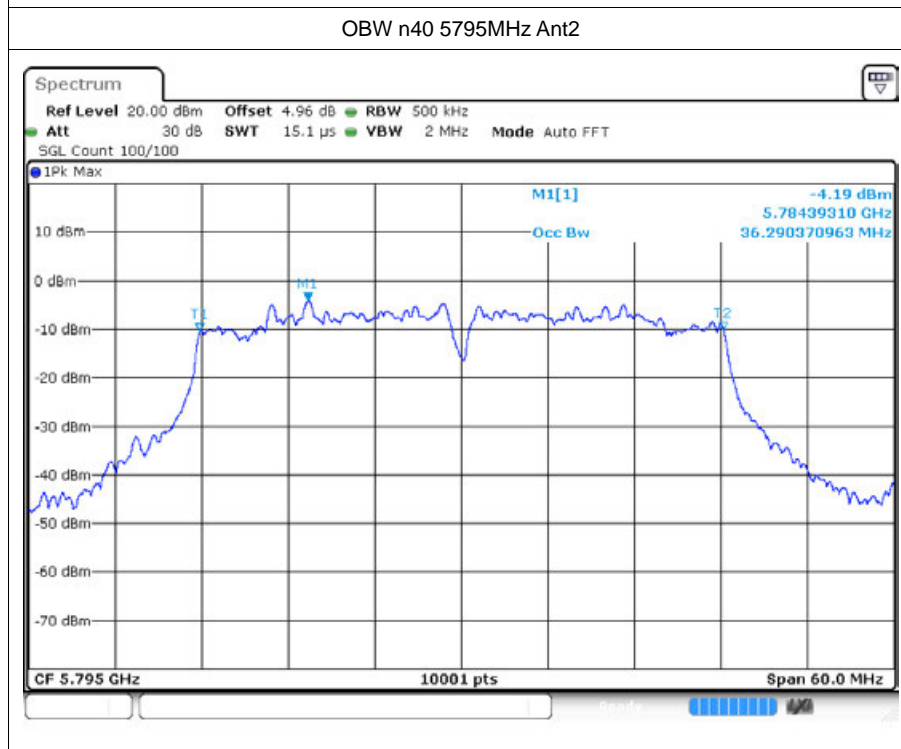
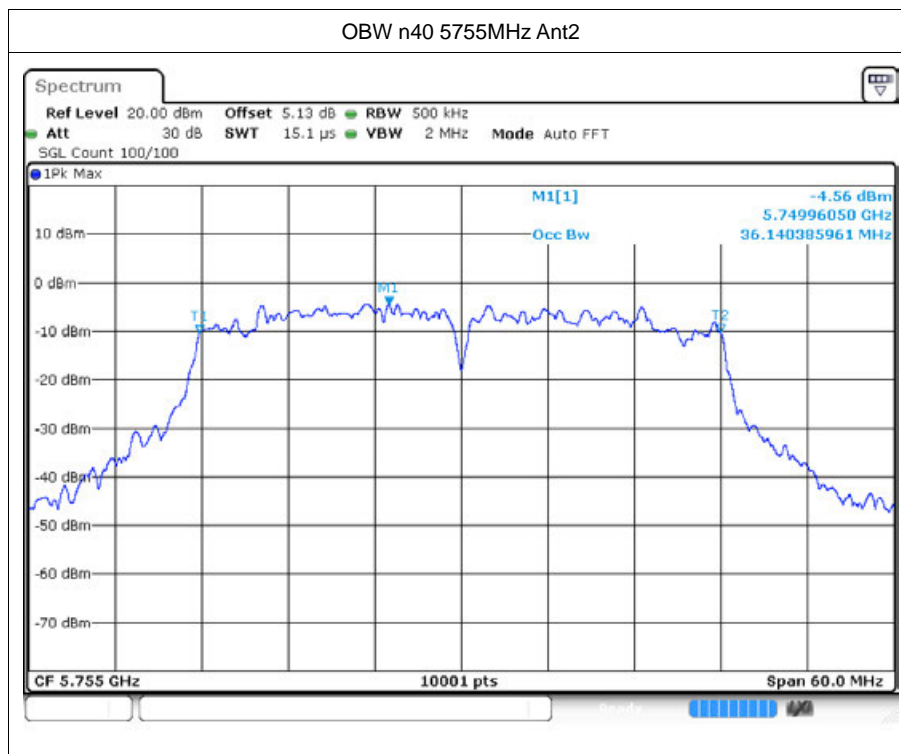










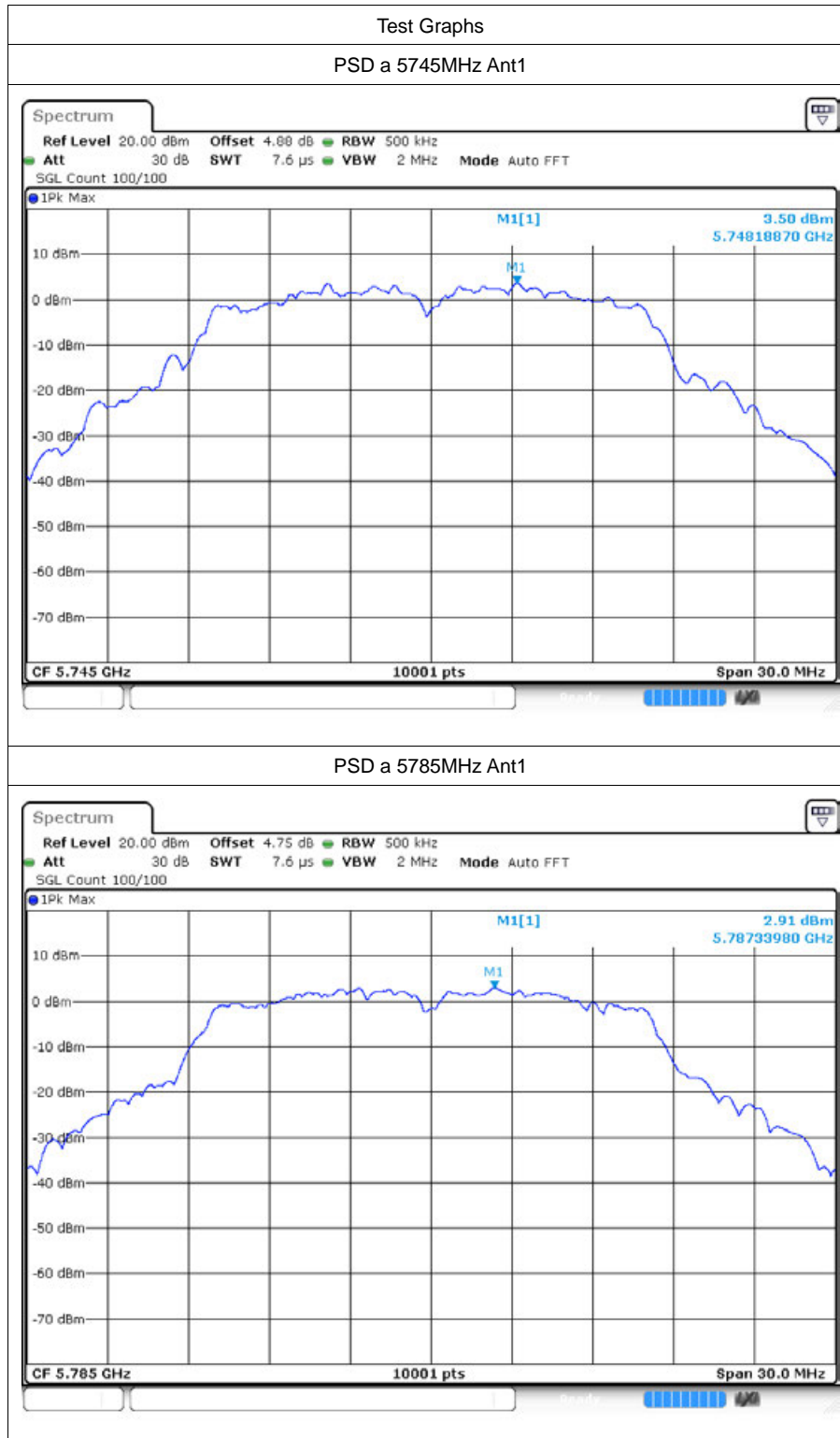


5 Maximum Power Spectral Density Level

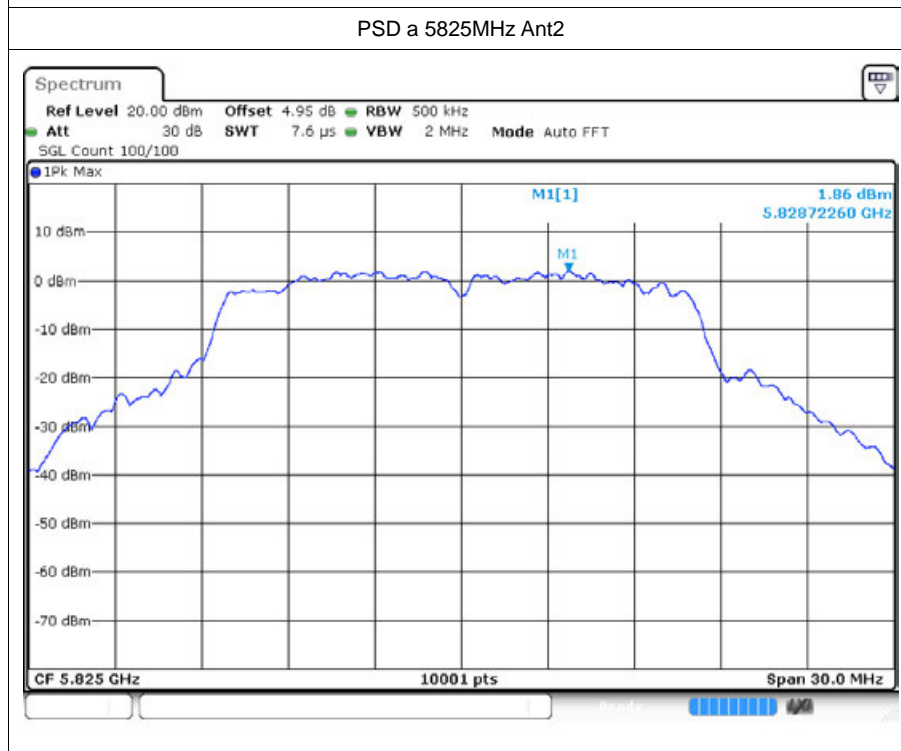
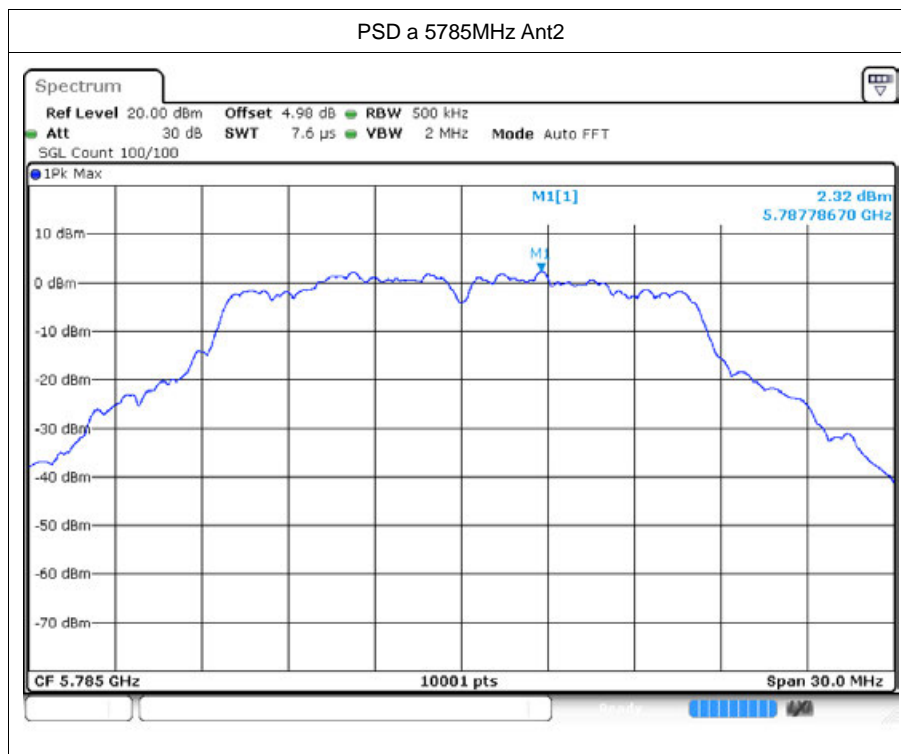
5.1 Test Result

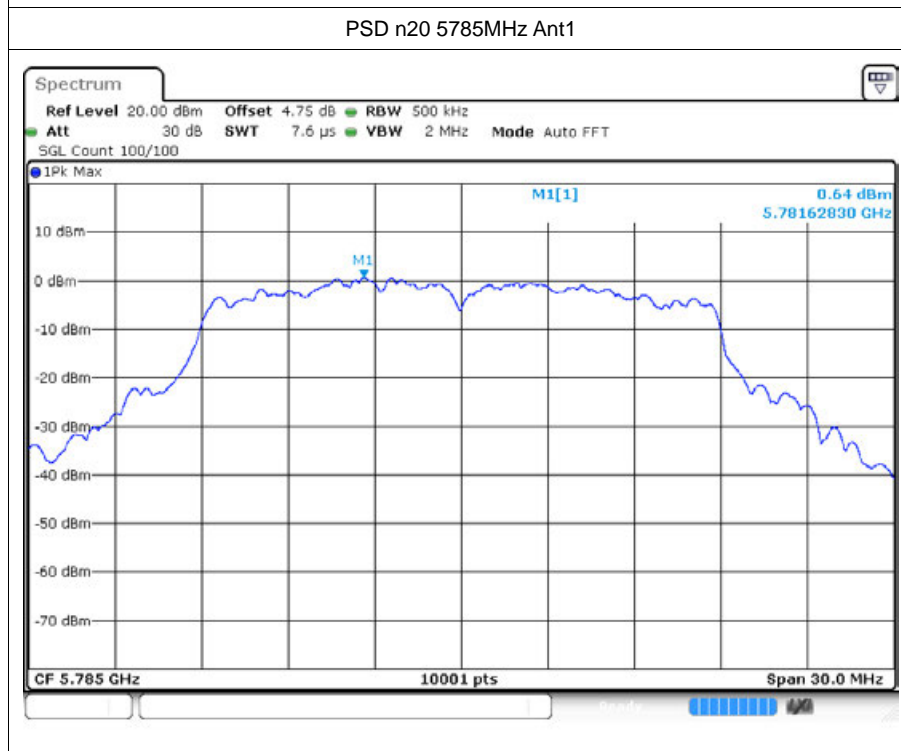
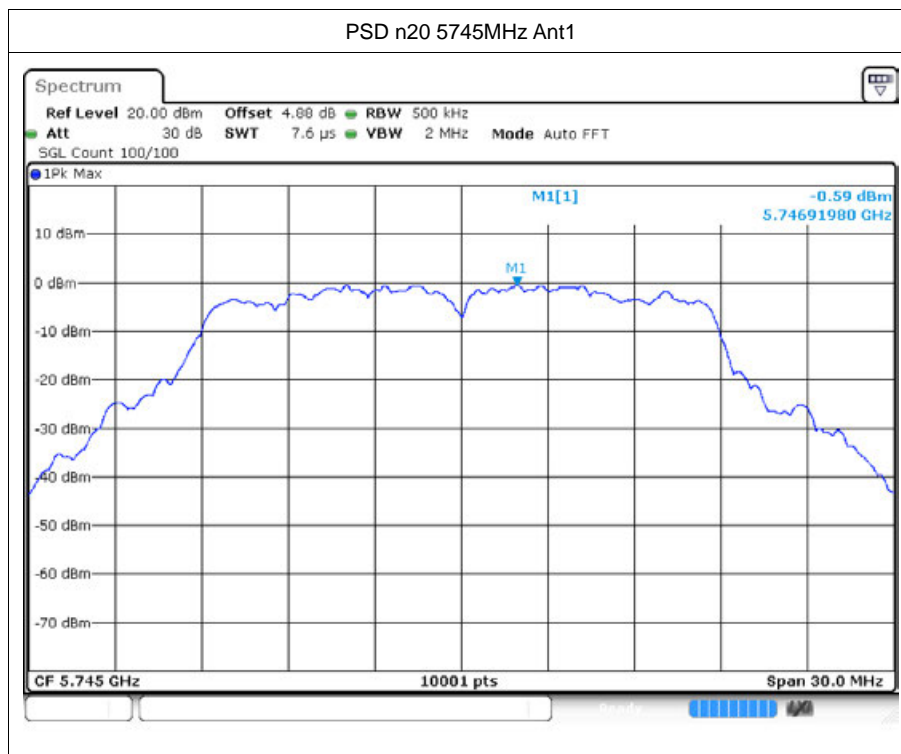
Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	3.5	0.61	4.11	30	Pass
a	5785	Ant1	2.91	0.61	3.52	30	Pass
a	5825	Ant1	1.68	0.61	2.29	30	Pass
a	5745	Ant2	2.28	0.61	2.89	30	Pass
a	5785	Ant2	2.32	0.61	2.93	30	Pass
a	5825	Ant2	1.86	0.61	2.47	30	Pass
n20	5745	Ant1	-0.59	0.55	-0.04	30	Pass
n20	5745	Ant2	0.42	0.55	0.97	30	Pass
n20	5745	Sum	2.95	0.55	3.5	30	Pass
n20	5785	Ant1	0.64	0.55	1.19	30	Pass
n20	5785	Ant2	0.33	0.55	0.88	30	Pass
n20	5785	Sum	3.5	0.55	4.05	30	Pass
n20	5825	Ant1	-1.23	0.55	-0.68	30	Pass
n20	5825	Ant2	0.92	0.77	1.69	30	Pass
n20	5825	Sum	2.99	0.77	3.76	30	Pass
n40	5755	Ant1	-3.01	0.55	-2.46	30	Pass
n40	5755	Ant2	-4.11	0.6	-3.51	30	Pass
n40	5755	Sum	-0.51	0.6	0.09	30	Pass
n40	5795	Ant1	-3.69	0.63	-3.06	30	Pass
n40	5795	Ant2	-3.91	0.59	-3.32	30	Pass
n40	5795	Sum	-0.79	0.59	-0.2	30	Pass

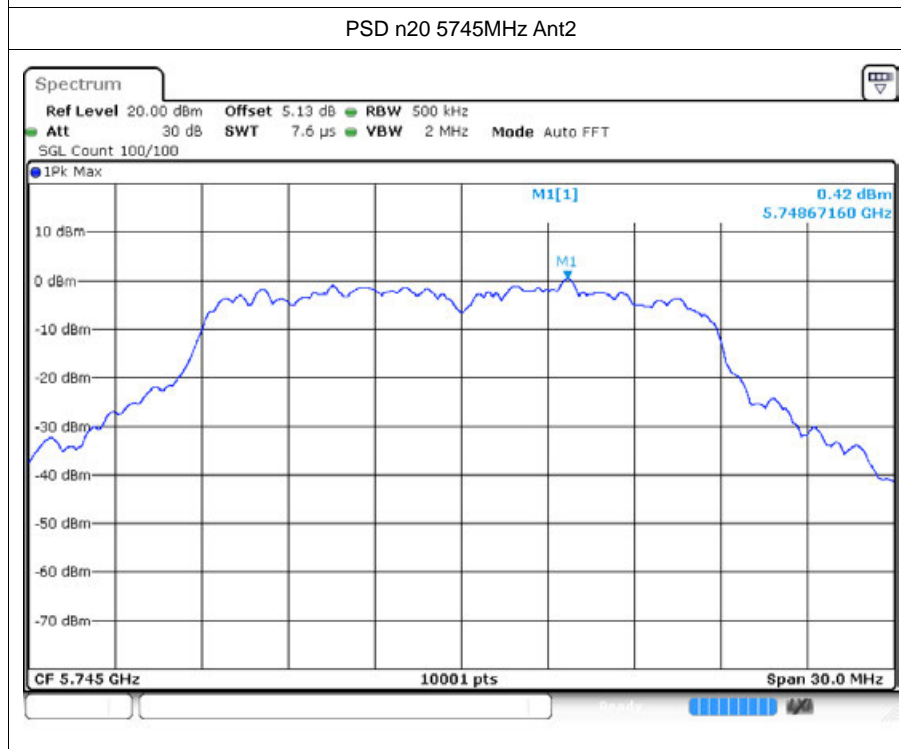
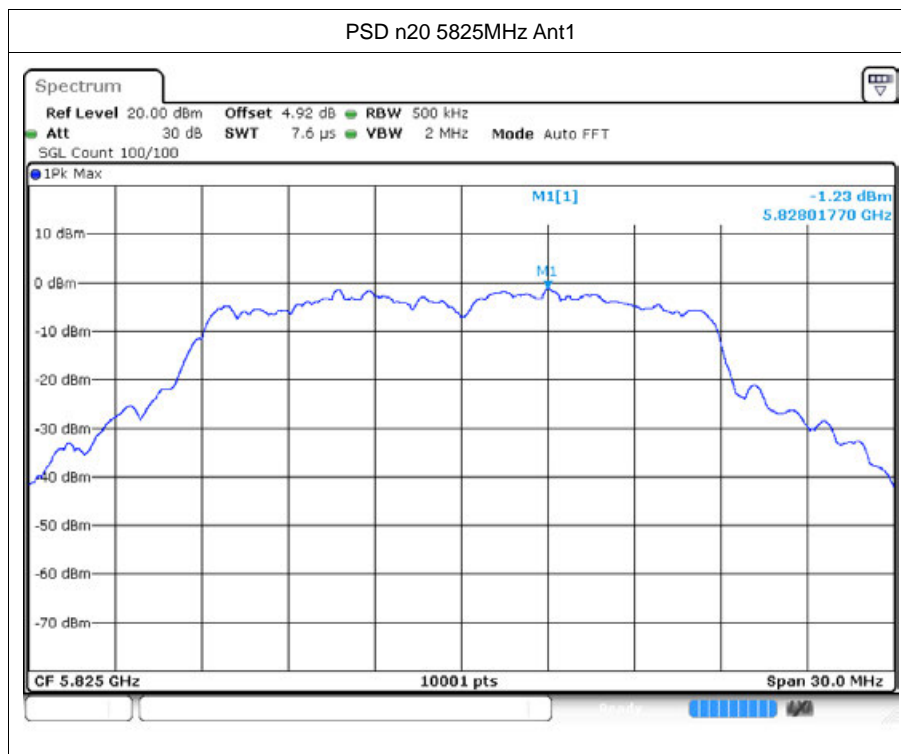
5.2 Test Graphs

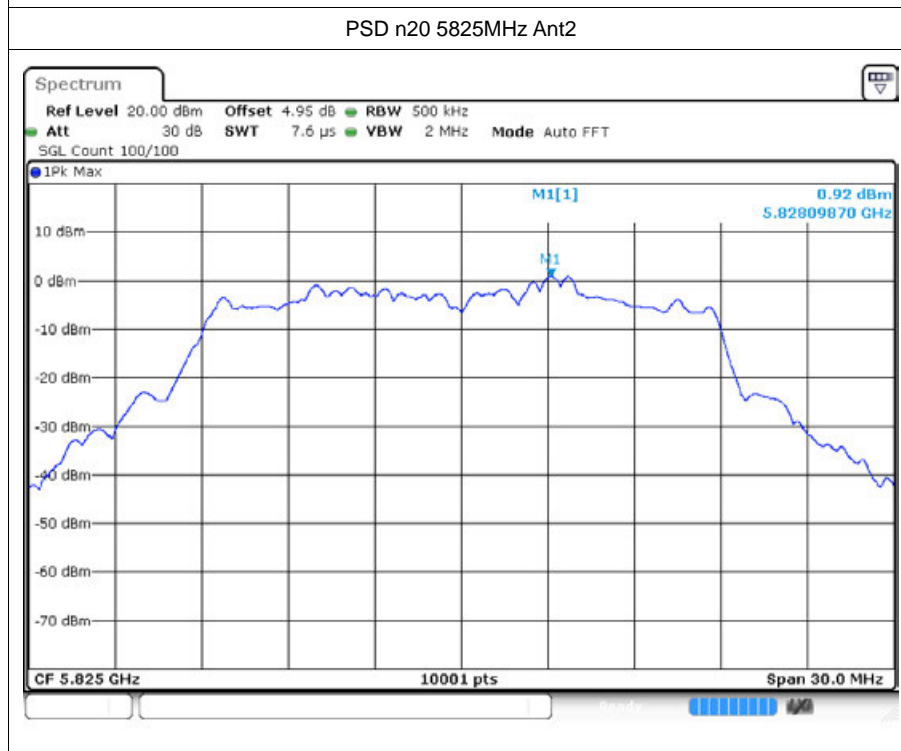
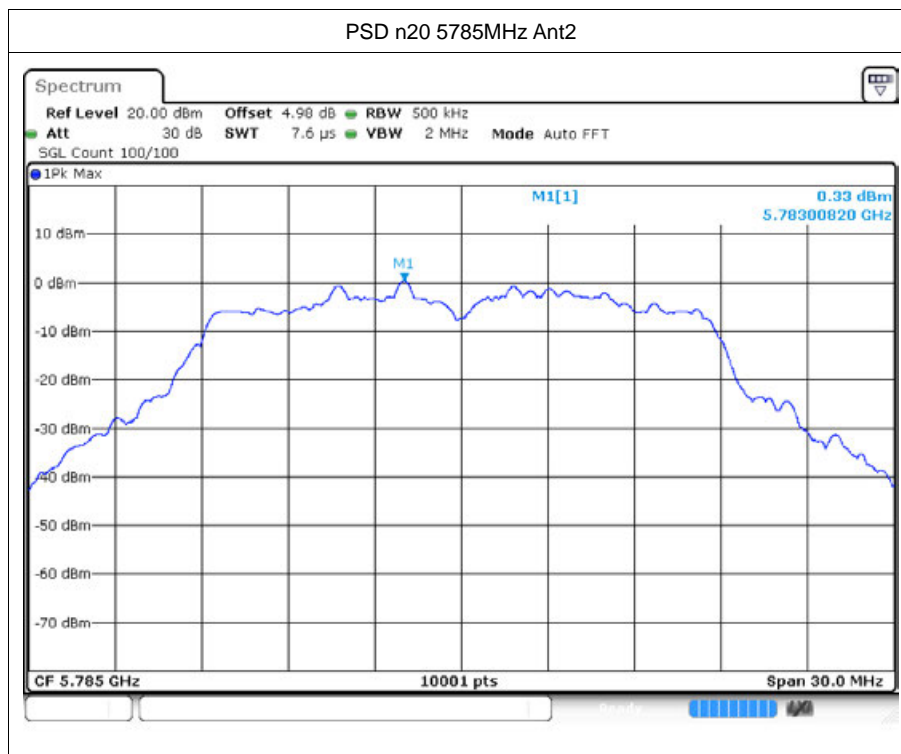


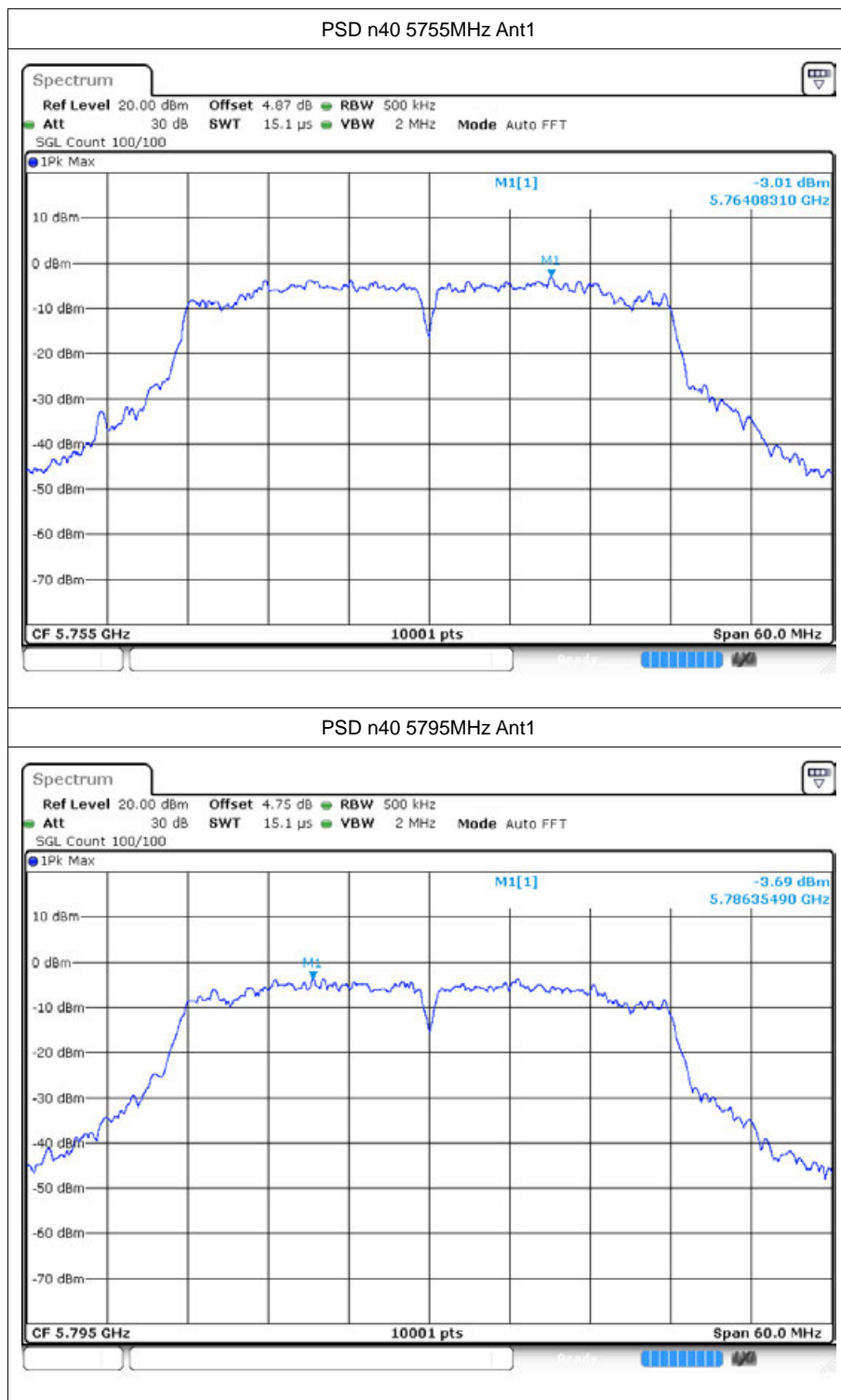


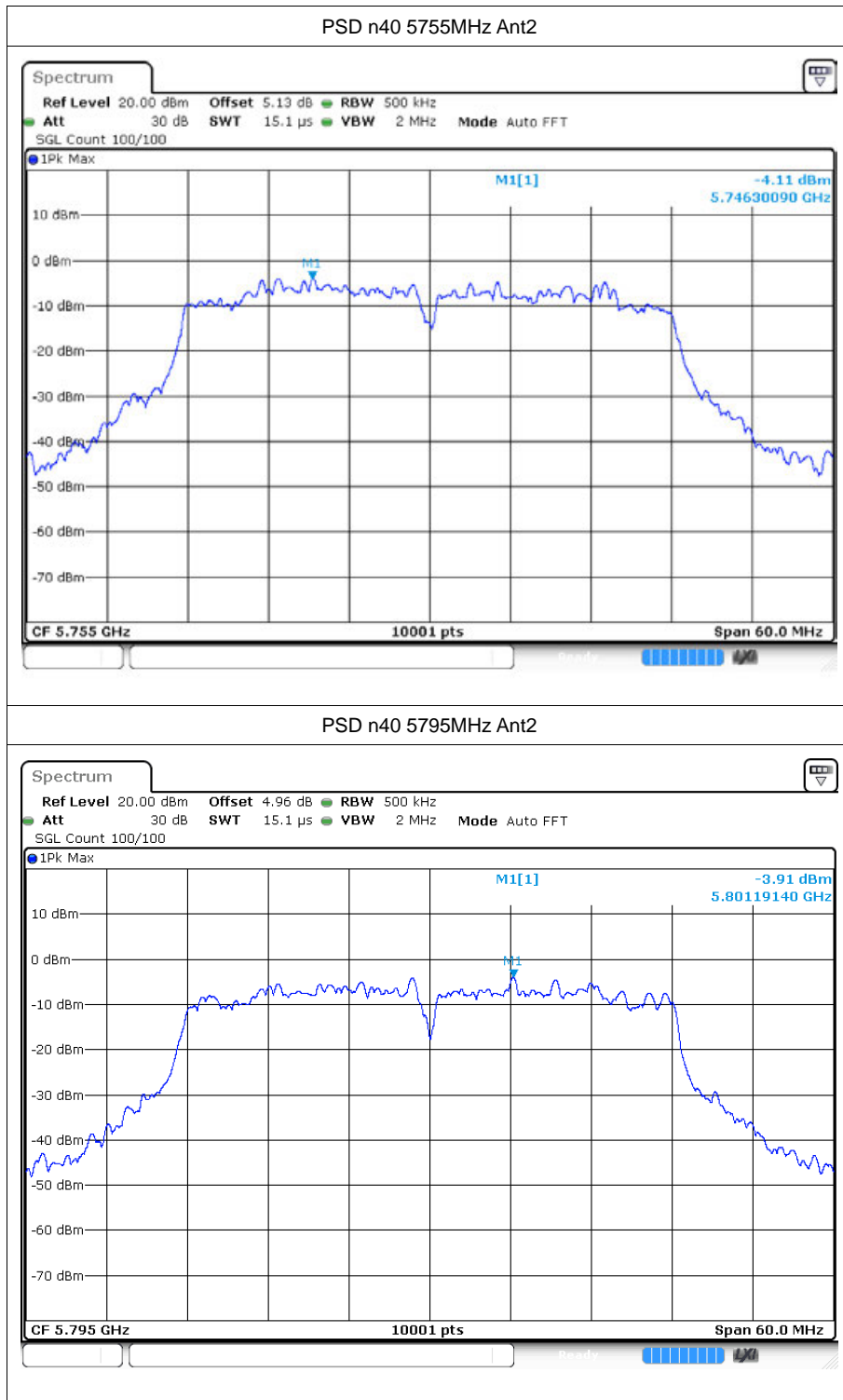












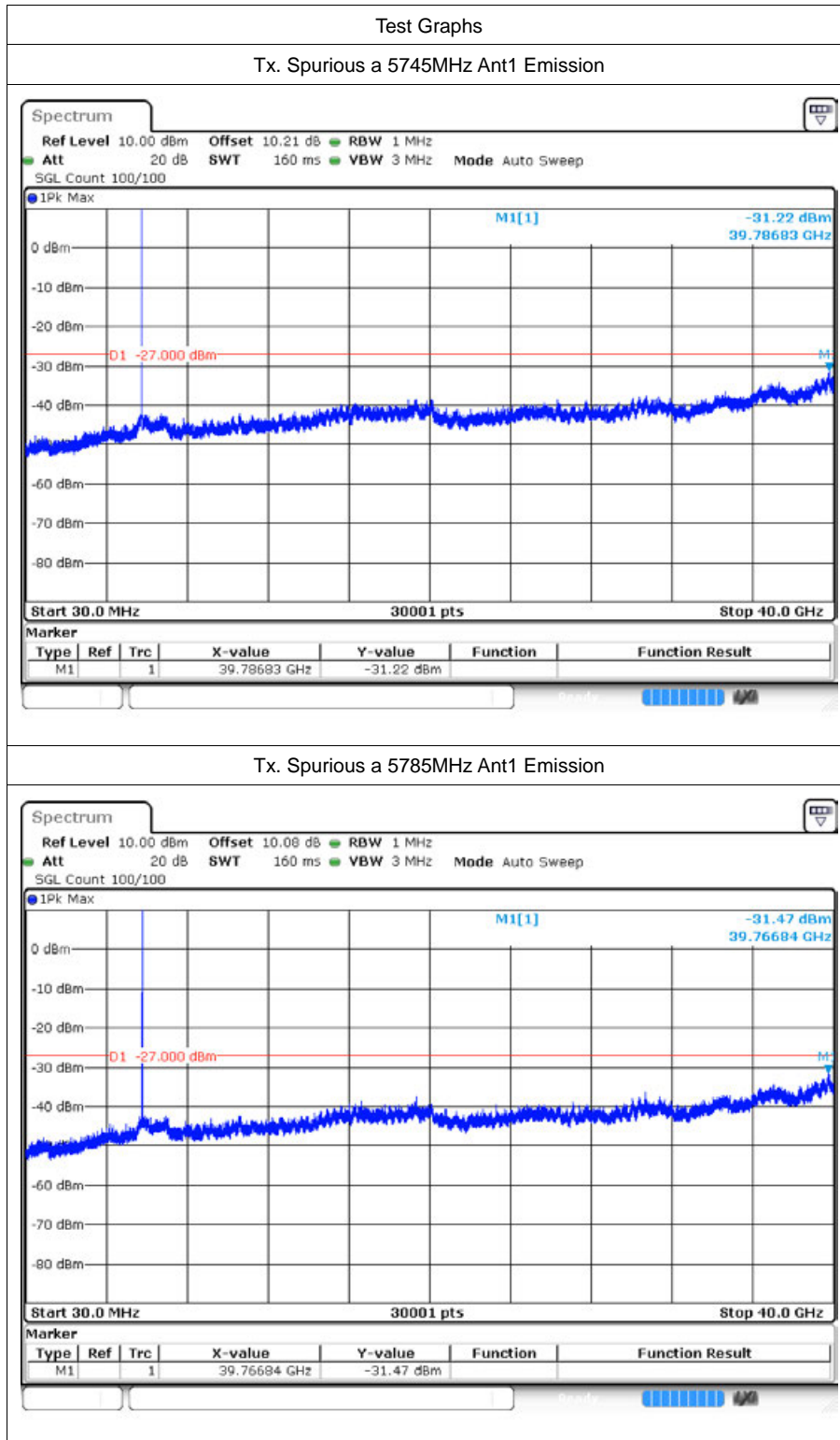


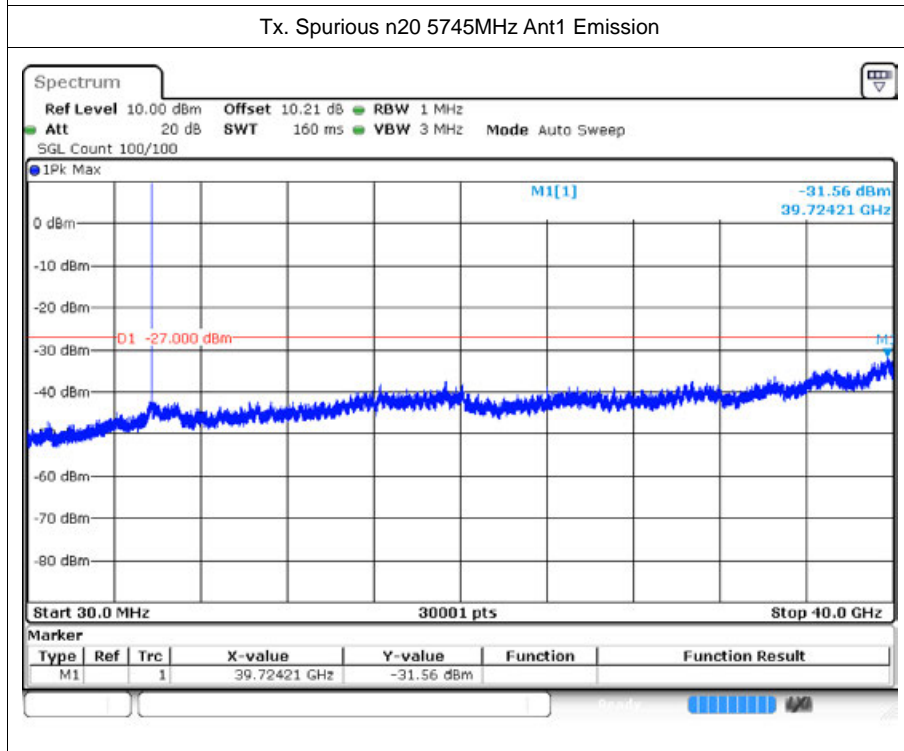
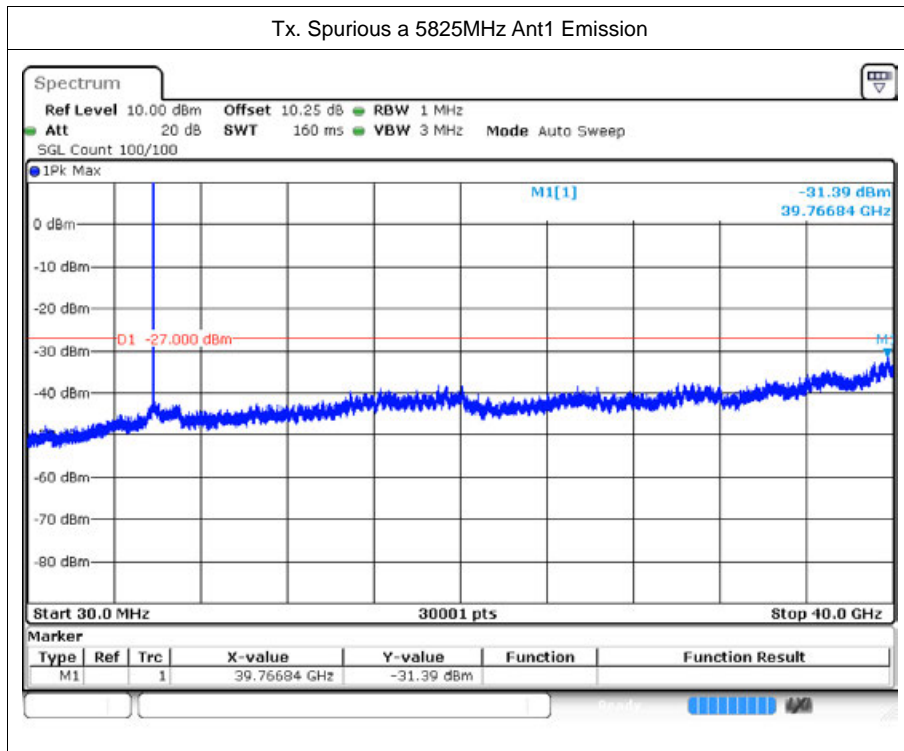
6 Conducted RF Spurious Emission

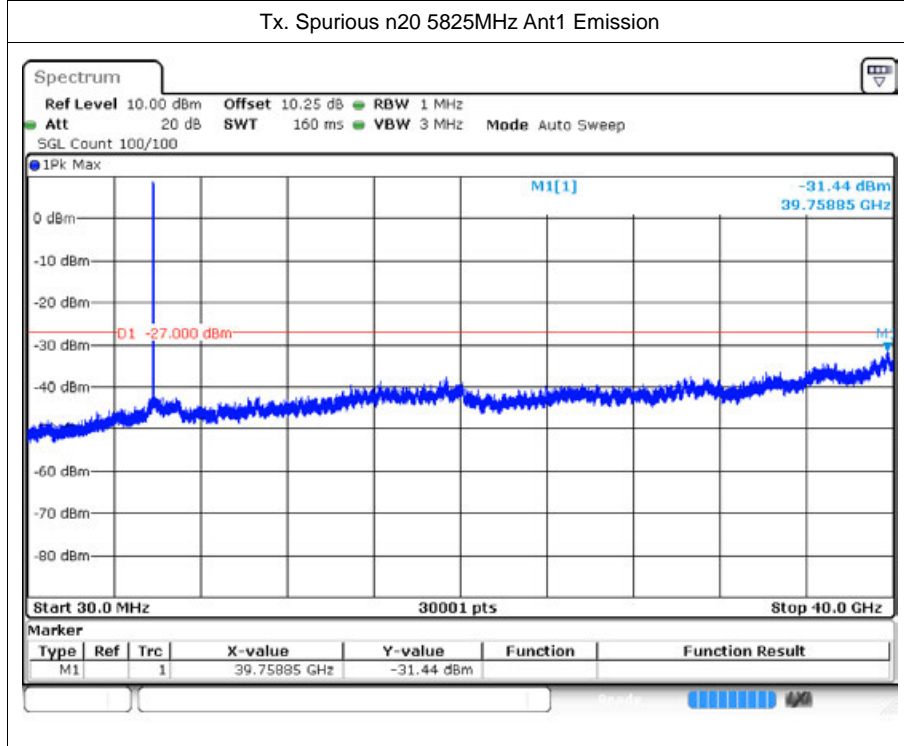
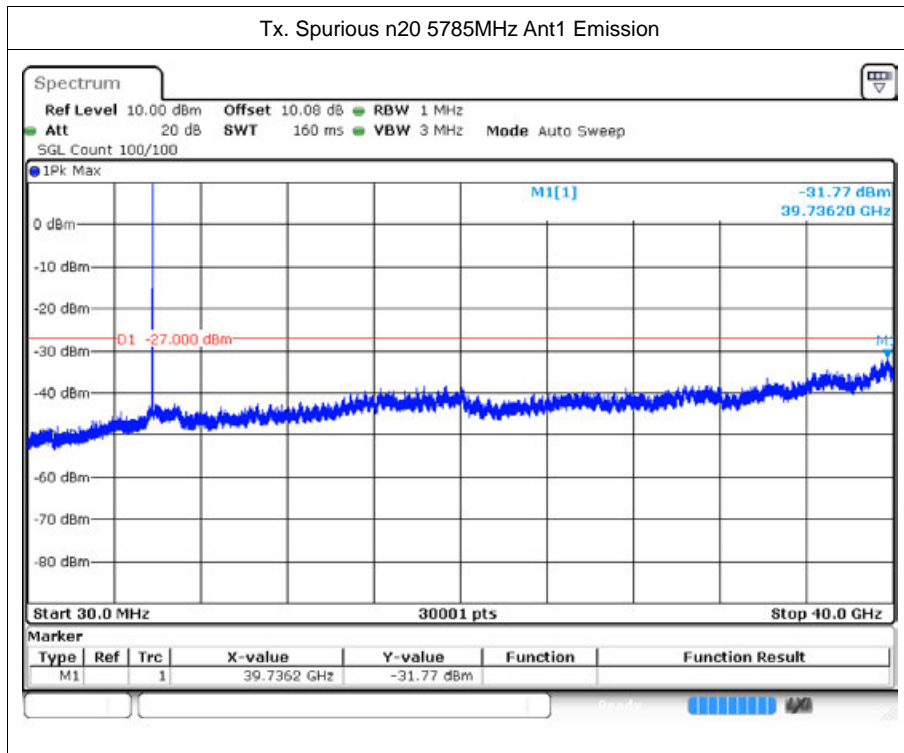
6.1 Test Result

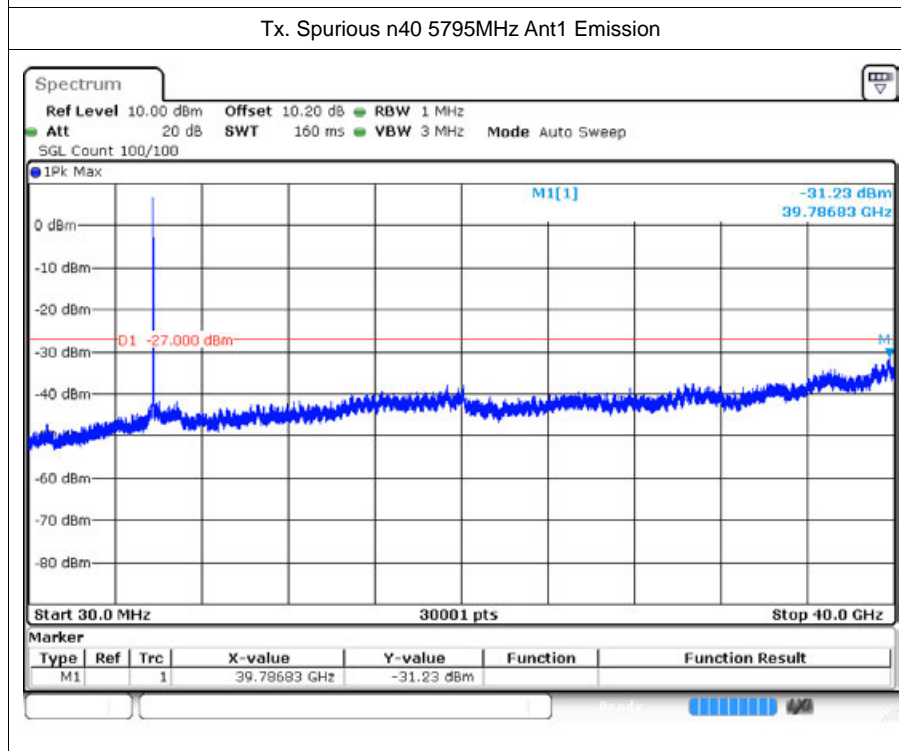
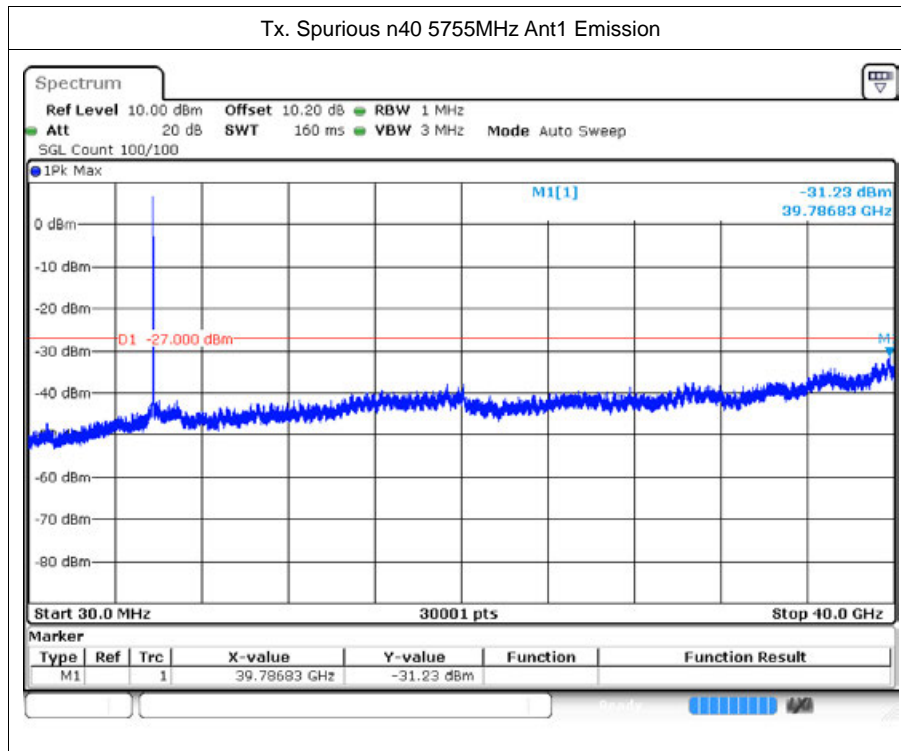
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
a	5745	Ant1	-31.22	-27	Pass
a	5785	Ant1	-31.46	-27	Pass
a	5825	Ant1	-31.38	-27	Pass
n20	5745	Ant1	-31.55	-27	Pass
n20	5785	Ant1	-31.77	-27	Pass
n20	5825	Ant1	-31.44	-27	Pass
n40	5755	Ant1	-31.22	-27	Pass
n40	5795	Ant1	-31.49	-27	Pass
a	5745	Ant2	-31.63	-27	Pass
a	5785	Ant2	-30.98	-27	Pass
a	5825	Ant2	-31.73	-27	Pass
n20	5745	Ant2	-30.77	-27	Pass
n20	5785	Ant2	-31.28	-27	Pass
n20	5825	Ant2	-31.22	-27	Pass
n40	5755	Ant2	-31.59	-27	Pass
n40	5795	Ant2	-31.79	-27	Pass

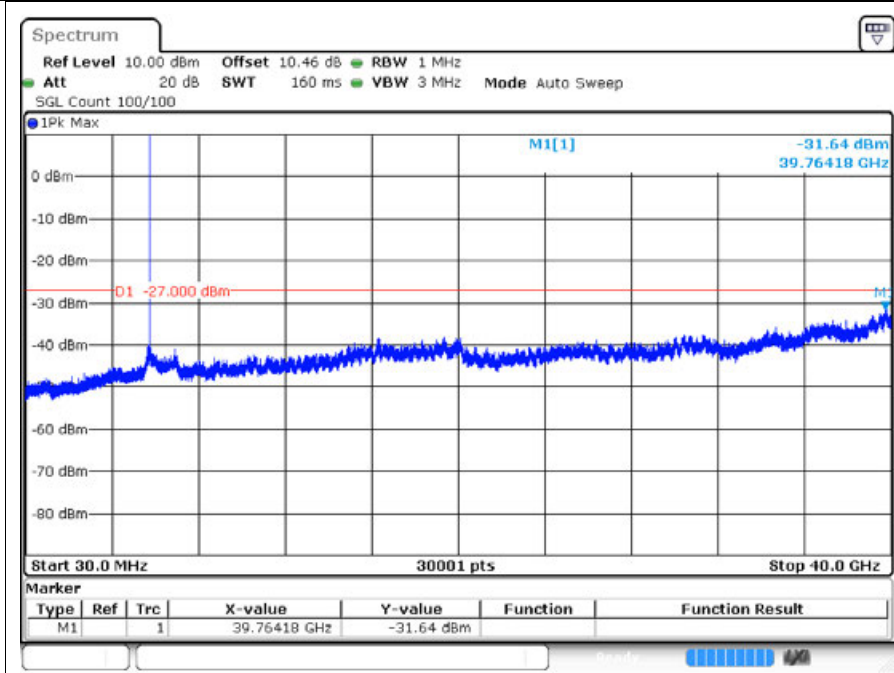
6.2 Test Graphs



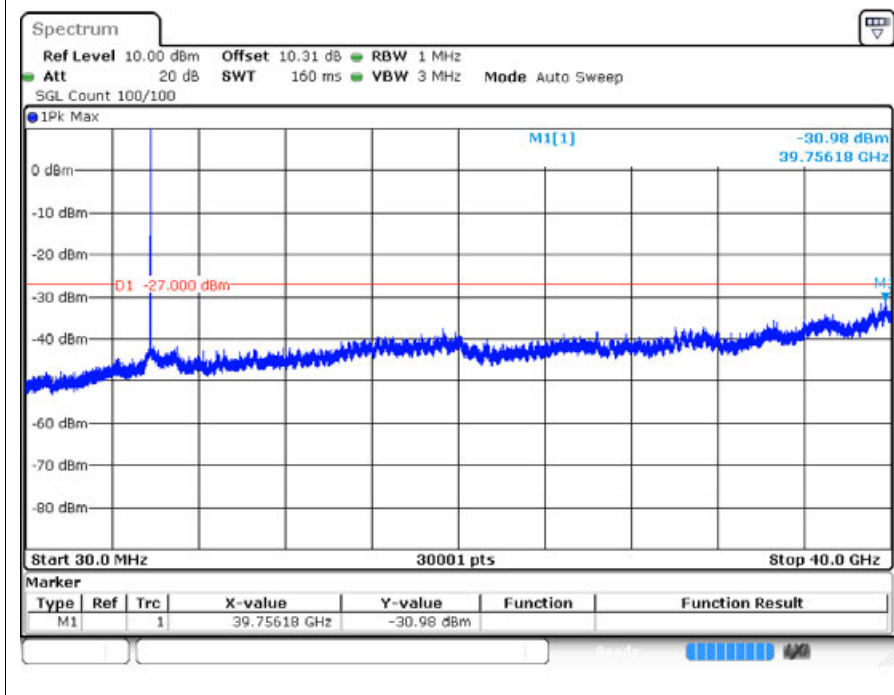


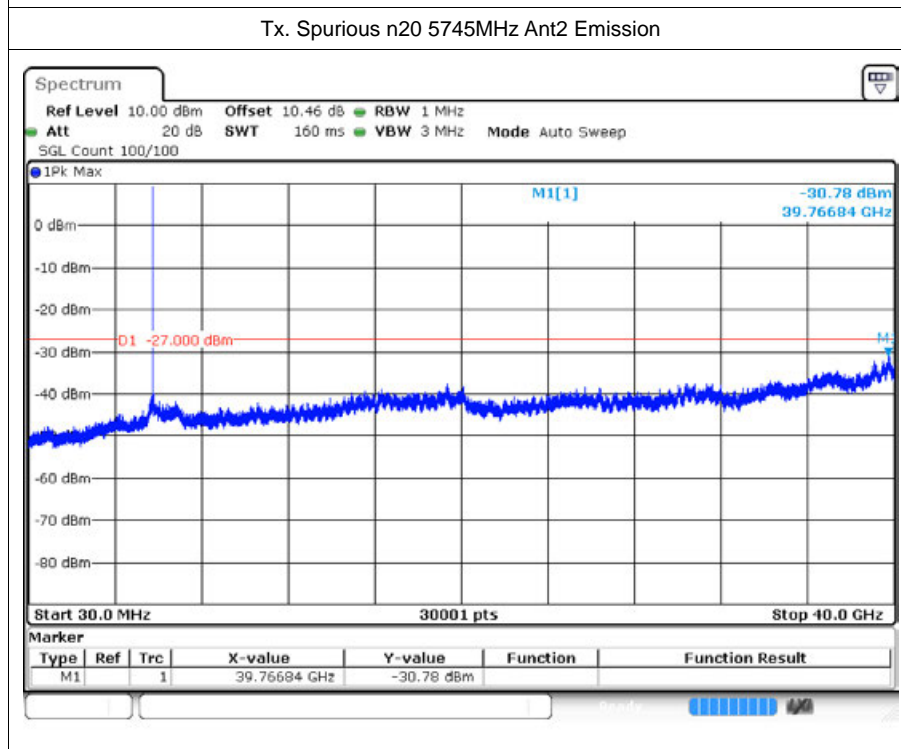
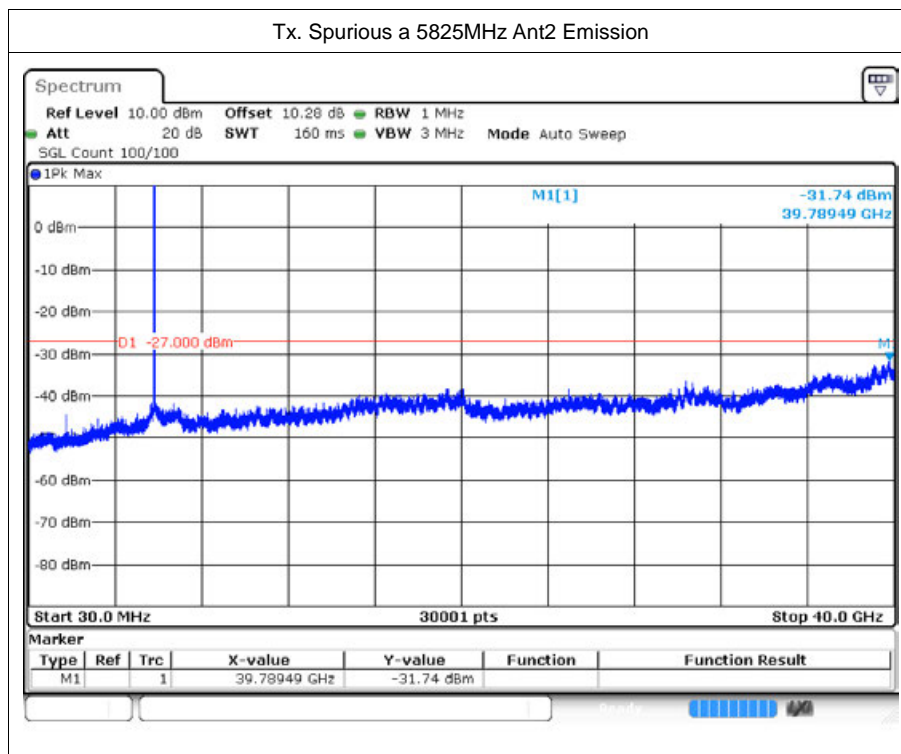


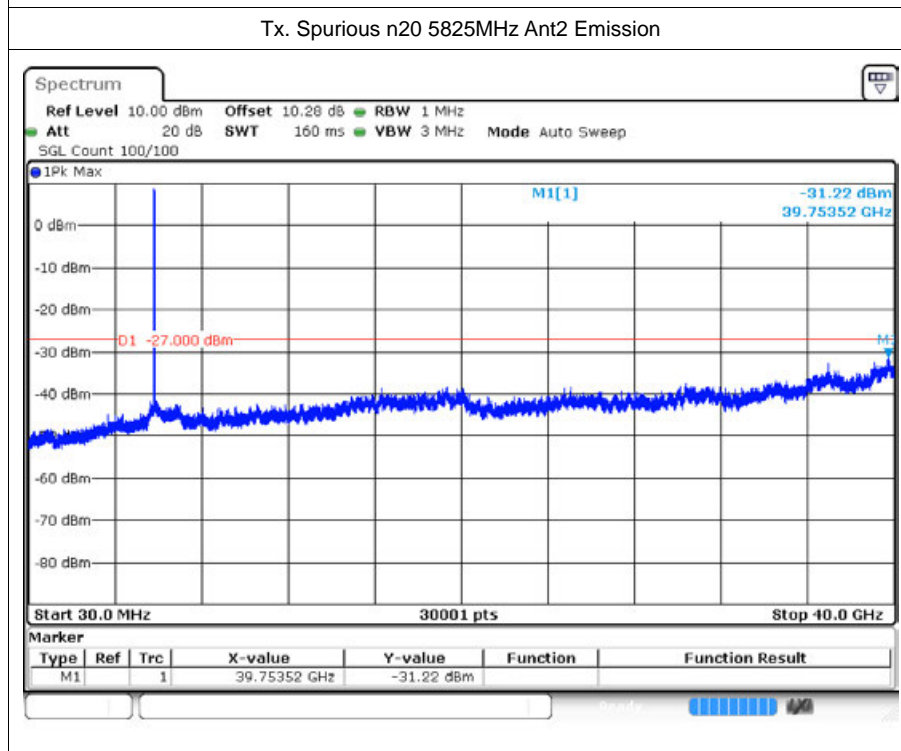
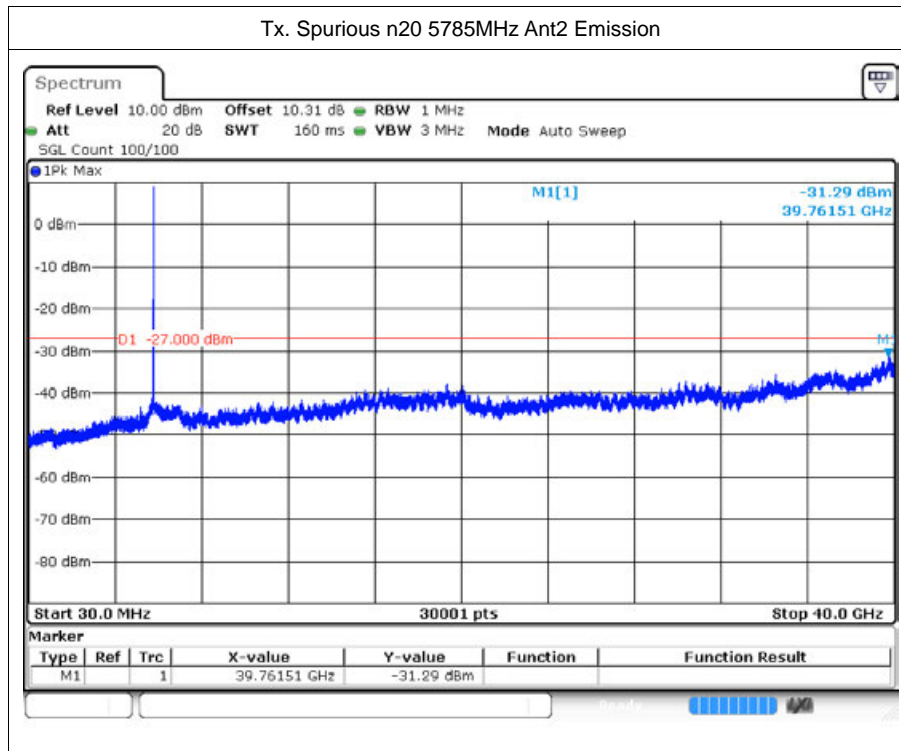


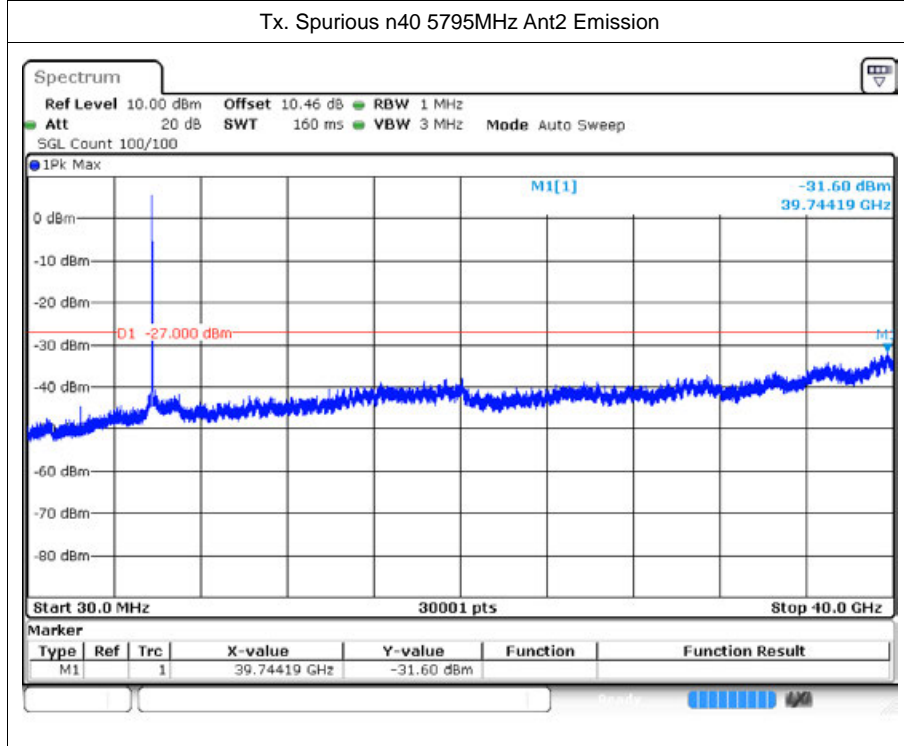
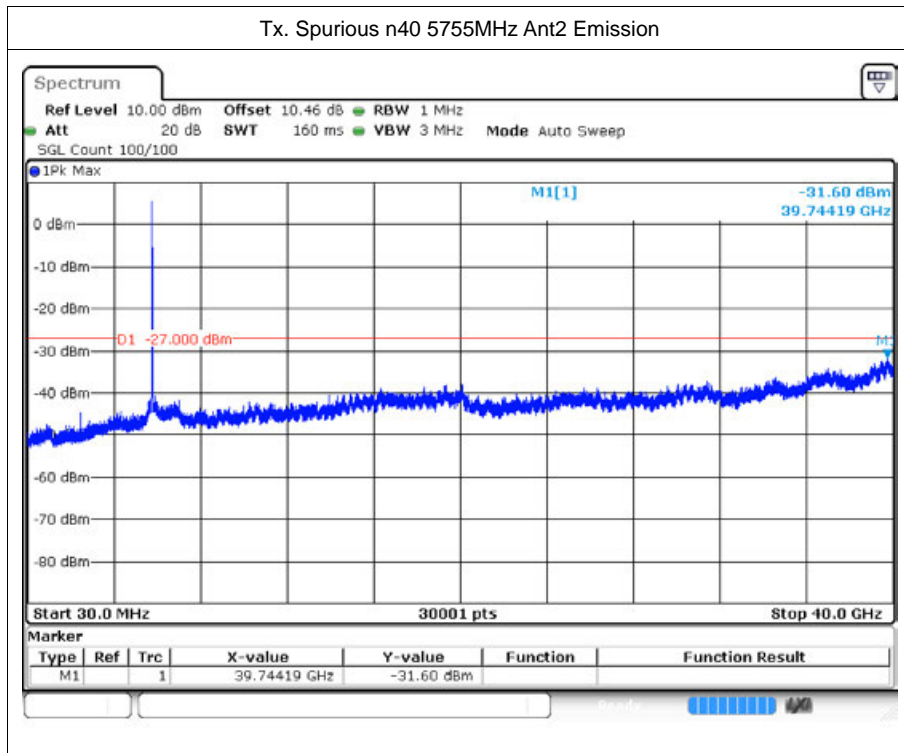


Tx. Spurious a 5785MHz Ant2 Emission











7 Restrict Band

7.1 Test Result

Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
a	5745	Ant1	5650	-39.03	5.33	-33.7	Peak	-27	Pass
a	5745	Ant1	5650	-45.42	5.33	-40.09	Average	-27	Pass
a	5745	Ant1	5700	-35.98	5.33	-30.65	Peak	10	Pass
a	5745	Ant1	5700	-46.44	5.33	-41.11	Average	10	Pass
a	5745	Ant1	5720	-36.81	5.33	-31.48	Peak	15.6	Pass
a	5745	Ant1	5720	-46.21	5.33	-40.88	Average	15.6	Pass
a	5745	Ant1	5725	-38.69	5.33	-33.36	Peak	27	Pass
a	5745	Ant1	5725	-46.1	5.33	-40.77	Average	27	Pass
a	5825	Ant1	5850	-37.29	5.33	-31.96	Peak	27	Pass
a	5825	Ant1	5850	-45.72	5.33	-40.39	Average	27	Pass
a	5825	Ant1	5855	-38.19	5.33	-32.86	Peak	15.6	Pass
a	5825	Ant1	5855	-45.41	5.33	-40.08	Average	15.6	Pass
a	5825	Ant1	5875	-38.58	5.33	-33.25	Peak	10	Pass
a	5825	Ant1	5875	-45.12	5.33	-39.79	Average	10	Pass
a	5825	Ant1	5925	-36.13	5.33	-30.8	Peak	-27	Pass
a	5825	Ant1	5925	-45.55	5.33	-40.22	Average	-27	Pass
n20	5745	Ant1	5650	-38.18	5.33	-32.85	Peak	-27	Pass
n20	5745	Ant1	5650	-46.4	5.33	-41.07	Average	-27	Pass
n20	5745	Ant1	5700	-36.23	5.33	-30.9	Peak	10	Pass
n20	5745	Ant1	5700	-46.16	5.33	-40.83	Average	10	Pass
n20	5745	Ant1	5720	-38.11	5.33	-32.78	Peak	15.6	Pass
n20	5745	Ant1	5720	-46.55	5.33	-41.22	Average	15.6	Pass
n20	5745	Ant1	5725	-37.53	5.33	-32.2	Peak	27	Pass
n20	5745	Ant1	5725	-45.71	5.33	-40.38	Average	27	Pass
n20	5825	Ant1	5850	-37.85	5.33	-32.52	Peak	27	Pass
n20	5825	Ant1	5850	-45.89	5.33	-40.56	Average	27	Pass
n20	5825	Ant1	5855	-37.97	5.33	-32.64	Peak	15.6	Pass
n20	5825	Ant1	5855	-45.88	5.33	-40.55	Average	15.6	Pass
n20	5825	Ant1	5875	-36.44	5.33	-31.11	Peak	10	Pass
n20	5825	Ant1	5875	-45.4	5.33	-40.07	Average	10	Pass
n20	5825	Ant1	5925	-38.09	5.33	-32.76	Peak	-27	Pass
n20	5825	Ant1	5925	-45.67	5.33	-40.34	Average	-27	Pass
n40	5755	Ant1	5650	-37.85	5.33	-32.52	Peak	-27	Pass
n40	5755	Ant1	5650	-46.43	5.33	-41.1	Average	-27	Pass
n40	5755	Ant1	5700	-36.86	5.33	-31.53	Peak	10	Pass
n40	5755	Ant1	5700	-45.71	5.33	-40.38	Average	10	Pass



n40	5755	Ant1	5720	-38.54	5.33	-33.21	Peak	15.6	Pass
n40	5755	Ant1	5720	-46.26	5.33	-40.93	Average	15.6	Pass
n40	5755	Ant1	5725	-38.45	5.33	-33.12	Peak	27	Pass
n40	5755	Ant1	5725	-45.79	5.33	-40.46	Average	27	Pass
n40	5795	Ant1	5850	-37.37	5.33	-32.04	Peak	27	Pass
n40	5795	Ant1	5850	-45.85	5.33	-40.52	Average	27	Pass
n40	5795	Ant1	5855	-37.38	5.33	-32.05	Peak	15.6	Pass
n40	5795	Ant1	5855	-45.26	5.33	-39.93	Average	15.6	Pass
n40	5795	Ant1	5875	-36.63	5.33	-31.3	Peak	10	Pass
n40	5795	Ant1	5875	-45.07	5.33	-39.74	Average	10	Pass
n40	5795	Ant1	5925	-36.25	5.33	-30.92	Peak	-27	Pass
n40	5795	Ant1	5925	-44.98	5.33	-39.65	Average	-27	Pass
a	5745	Ant2	5650	-39.51	5.33	-34.18	Peak	-27	Pass
a	5745	Ant2	5650	-45.78	5.33	-40.45	Average	-27	Pass
a	5745	Ant2	5700	-35.21	5.33	-29.88	Peak	10	Pass
a	5745	Ant2	5700	-46.06	5.33	-40.73	Average	10	Pass
a	5745	Ant2	5720	-36	5.33	-30.67	Peak	15.6	Pass
a	5745	Ant2	5720	-45.58	5.33	-40.25	Average	15.6	Pass
a	5745	Ant2	5725	-37.59	5.33	-32.26	Peak	27	Pass
a	5745	Ant2	5725	-45.15	5.33	-39.82	Average	27	Pass
a	5825	Ant2	5850	-38.51	5.33	-33.18	Peak	27	Pass
a	5825	Ant2	5850	-45.74	5.33	-40.41	Average	27	Pass
a	5825	Ant2	5855	-36.72	5.33	-31.39	Peak	15.6	Pass
a	5825	Ant2	5855	-44.99	5.33	-39.66	Average	15.6	Pass
a	5825	Ant2	5875	-36.57	5.33	-31.24	Peak	10	Pass
a	5825	Ant2	5875	-45.26	5.33	-39.93	Average	10	Pass
a	5825	Ant2	5925	-35.21	5.33	-29.88	Peak	-27	Pass
a	5825	Ant2	5925	-45.4	5.33	-40.07	Average	-27	Pass
n20	5745	Ant2	5650	-38.54	5.33	-33.21	Peak	-27	Pass
n20	5745	Ant2	5650	-45.89	5.33	-40.56	Average	-27	Pass
n20	5745	Ant2	5700	-36.78	5.33	-31.45	Peak	10	Pass
n20	5745	Ant2	5700	-45.69	5.33	-40.36	Average	10	Pass
n20	5745	Ant2	5720	-36.3	5.33	-30.97	Peak	15.6	Pass
n20	5745	Ant2	5720	-46.14	5.33	-40.81	Average	15.6	Pass
n20	5745	Ant2	5725	-38.06	5.33	-32.73	Peak	27	Pass
n20	5745	Ant2	5725	-45.31	5.33	-39.98	Average	27	Pass
n20	5825	Ant2	5850	-36.01	5.33	-30.68	Peak	27	Pass
n20	5825	Ant2	5850	-45.19	5.33	-39.86	Average	27	Pass
n20	5825	Ant2	5855	-37.4	5.33	-32.07	Peak	15.6	Pass
n20	5825	Ant2	5855	-45.14	5.33	-39.81	Average	15.6	Pass
n20	5825	Ant2	5875	-36.7	5.33	-31.37	Peak	10	Pass
n20	5825	Ant2	5875	-44.81	5.33	-39.48	Average	10	Pass
n20	5825	Ant2	5925	-37.4	5.33	-32.07	Peak	-27	Pass



n20	5825	Ant2	5925	-44.01	5.33	-38.68	Average	-27	Pass
n40	5755	Ant2	5650	-37.45	5.33	-32.12	Peak	-27	Pass
n40	5755	Ant2	5650	-46.06	5.33	-40.73	Average	-27	Pass
n40	5755	Ant2	5700	-35.82	5.33	-30.49	Peak	10	Pass
n40	5755	Ant2	5700	-45.58	5.33	-40.25	Average	10	Pass
n40	5755	Ant2	5720	-38.56	5.33	-33.23	Peak	15.6	Pass
n40	5755	Ant2	5720	-45.93	5.33	-40.6	Average	15.6	Pass
n40	5755	Ant2	5725	-35.67	5.33	-30.34	Peak	27	Pass
n40	5755	Ant2	5725	-45.02	5.33	-39.69	Average	27	Pass
n40	5795	Ant2	5850	-38.22	5.33	-32.89	Peak	27	Pass
n40	5795	Ant2	5850	-45.8	5.33	-40.47	Average	27	Pass
n40	5795	Ant2	5855	-37.43	5.33	-32.1	Peak	15.6	Pass
n40	5795	Ant2	5855	-45.1	5.33	-39.77	Average	15.6	Pass
n40	5795	Ant2	5875	-36.82	5.33	-31.49	Peak	10	Pass
n40	5795	Ant2	5875	-44.93	5.33	-39.6	Average	10	Pass
n40	5795	Ant2	5925	-37.2	5.33	-31.87	Peak	-27	Pass
n40	5795	Ant2	5925	-45.01	5.33	-39.68	Average	-27	Pass

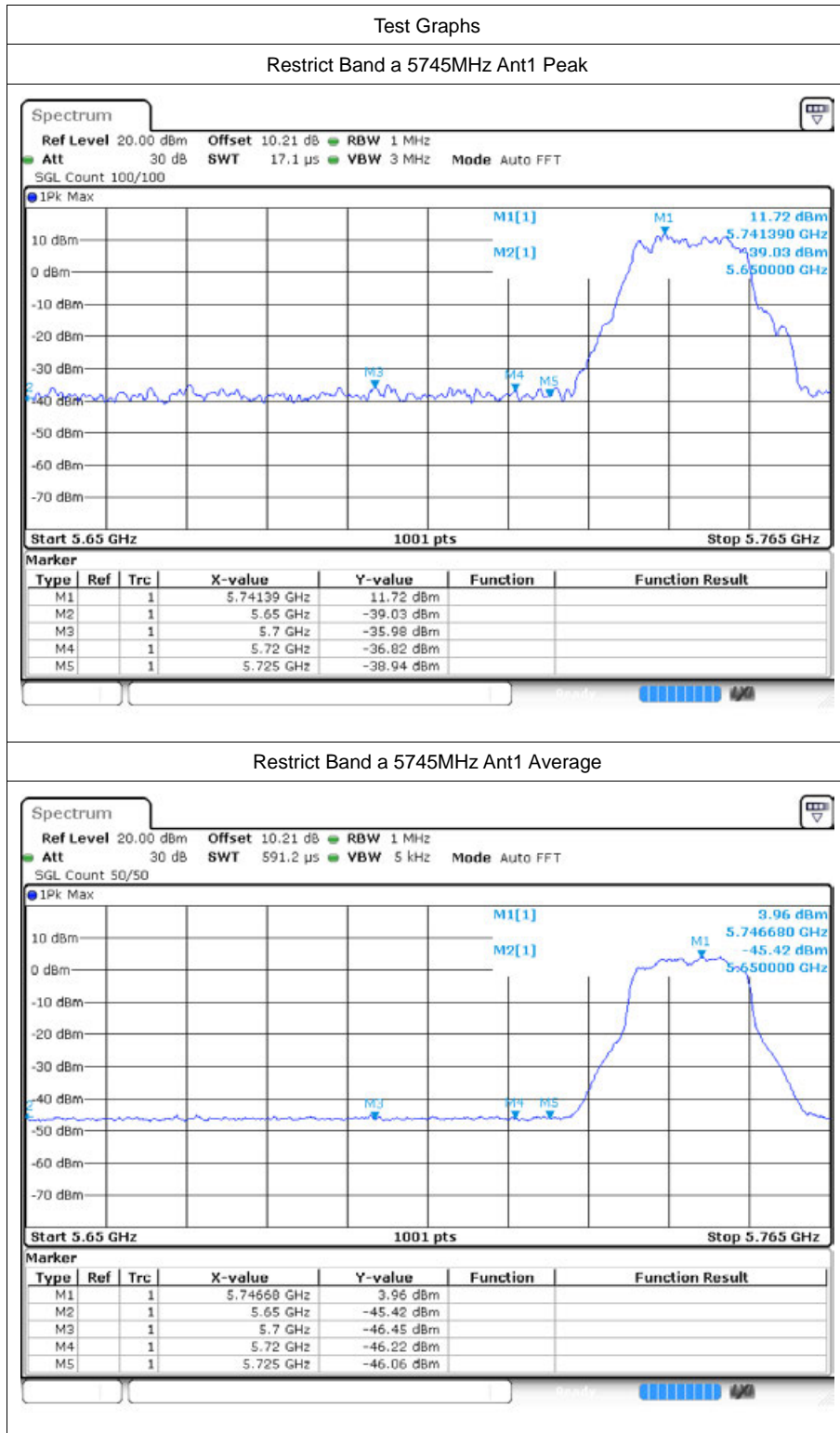
Combined Ant 1 and Ant 2

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)			Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
			ANT1	ANT2	SUM					
11N20	149	5650.0	-38.18	-38.54	-35.35	8.34	-27.01	Peak	-27.0	Pass
		5650.0	-46.4	-45.89	-43.13	8.34	-34.79	Average	-27.0	Pass
		5700.0	-36.23	-36.78	-33.49	8.34	-25.15	Peak	10	Pass
		5700.0	-46.16	-45.69	-42.91	8.34	-34.57	Average	10	Pass
		5720.0	-38.11	-36.3	-34.10	8.34	-25.76	Peak	15.6	Pass
		5720.0	-46.55	-46.14	-43.33	8.34	-34.99	Average	15.6	Pass
		5725.0	-37.53	-38.06	-34.78	8.34	-26.44	Peak	27.0	Pass
		5725.0	-45.71	-45.31	-42.50	8.34	-34.16	Average	27.0	Pass
	165	5850.0	-37.85	-36.01	-33.82	8.34	-25.48	Peak	27.0	Pass
		5850.0	-45.89	-45.19	-42.52	8.34	-34.18	Average	27.0	Pass
		5855.0	-37.97	-37.4	-34.67	8.34	-26.33	Peak	15.6	Pass
		5855.0	-45.88	-45.14	-42.48	8.34	-34.14	Average	15.6	Pass
		5875.0	-36.44	-36.7	-33.56	8.34	-25.22	Peak	10	Pass
		5875.0	-45.4	-44.81	-42.08	8.34	-33.74	Average	10	Pass
		5925.0	-38.09	-37.4	-34.72	8.34	-27.38	Peak	-27.0	Pass
		5925.0	-45.67	-44.01	-41.75	8.34	-33.41	Average	-27.0	Pass
11N40	151	5650.0	-37.85	-37.45	-34.64	8.34	-27.30	Peak	-27.0	Pass
		5650.0	-46.43	-46.06	-43.23	8.34	-34.89	Average	-27.0	Pass



		5700.0	-36.86	-35.82	-33.30	8.34	-24.96	Peak	10	Pass
		5700.0	-45.71	-45.58	-42.63	8.34	-34.29	Average	10	Pass
		5720.0	-38.54	-38.56	-35.54	8.34	-27.2	Peak	15.6	Pass
		5720.0	-46.26	-45.93	-43.08	8.34	-34.74	Average	15.6	Pass
		5725.0	-38.45	-35.67	-33.83	8.34	-25.49	Peak	27.0	Pass
		5725.0	-45.79	-45.02	-42.38	8.34	-34.04	Average	27.0	Pass
	159	5850.0	-37.37	-38.22	-34.76	8.34	-26.42	Peak	27.0	Pass
		5850.0	-45.85	-45.8	-42.81	8.34	-34.47	Average	27.0	Pass
		5855.0	-37.38	-37.43	-34.39	8.34	-26.05	Peak	15.6	Pass
		5855.0	-45.26	-45.1	-42.17	8.34	-33.83	Average	15.6	Pass
		5875.0	-36.63	-36.82	-33.71	8.34	-25.37	Peak	10	Pass
		5875.0	-45.07	-44.93	-41.99	8.34	-33.65	Average	10	Pass
		5925.0	-36.25	-37.2	-33.69	8.34	-27.35	Peak	-27.0	Pass
		5925.0	-44.98	-45.01	-41.98	8.34	-33.64	Average	-27.0	Pass

7.2 Test Graphs



Restrict Band a 5745MHz Ant1 Average

