



6 Frequency Stability

6.1 Test Result

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20C 102V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
20C 120V	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
20C 138V	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
-20C 120V	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
-10C 120V	a	5180	Ant1	5179.92	-80000	-15.44	25	Pass
0C 120V	a	5180	Ant1	5179.96	-40000	-7.72	25	Pass
10C 120V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
30C 120V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
40C 120V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
50C 120V	a	5180	Ant1	5179.94	-60000	-11.58	25	Pass
20C 102V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 120V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 138V	a	5200	Ant1	5199.92	-80000	-15.38	25	Pass
-20C 120V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
-10C 120V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
0C 120V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
10C 120V	a	5200	Ant1	5199.94	-60000	-11.54	25	Pass
30C 120V	a	5200	Ant1	5199.92	-80000	-15.38	25	Pass
40C 120V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 102V	a	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 102V	a	5240	Ant1	5239.92	-80000	-15.27	25	Pass
20C 120V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
20C 138V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
-20C 120V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
-10C 120V	a	5240	Ant1	5239.94	-60000	-11.45	25	Pass
0C 120V	a	5240	Ant1	5239.92	-80000	-15.27	25	Pass
10C 120V	a	5240	Ant1	5239.92	-80000	-15.27	25	Pass
30C 120V	a	5240	Ant1	5239.94	-60000	-11.45	25	Pass
40C 120V	a	5240	Ant1	5239.94	-60000	-11.45	25	Pass
50C 120V	a	5240	Ant1	5239.96	-40000	-7.63	25	Pass
20C 102V	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
20C 120V	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
20C 138V	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
-20C 120V	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
-10C 120V	n20	5180	Ant1	5179.98	-20000	-3.86	25	Pass



0C 120V	n20	5180	Ant1	5179.94	-60000	-11.58	25	Pass
10C 120V	n20	5180	Ant1	5179.94	-60000	-11.58	25	Pass
30C 120V	n20	5180	Ant1	5179.94	-60000	-11.58	25	Pass
40C 120V	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
50C 120V	n20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
20C 102V	n20	5200	Ant1	5199.94	-60000	-11.54	25	Pass
20C 120V	n20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 138V	n20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
-20C 120V	n20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
-10C 120V	n20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
0C 120V	n20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
10C 120V	n20	5200	Ant1	5199.94	-60000	-11.54	25	Pass
30C 120V	n20	5200	Ant1	5199.92	-80000	-15.38	25	Pass
40C 120V	n20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
50C 120V	n20	5200	Ant1	5199.94	-60000	-11.54	25	Pass
20C 102V	n20	5240	Ant1	5239.96	-40000	-7.63	25	Pass
20C 120V	n20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
20C 138V	n20	5240	Ant1	5239.92	-80000	-15.27	25	Pass
-20C 120V	n20	5240	Ant1	5239.96	-40000	-7.63	25	Pass
-10C 120V	n20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
0C 120V	n20	5240	Ant1	5239.96	-40000	-7.63	25	Pass
10C 120V	n20	5240	Ant1	5239.96	-40000	-7.63	25	Pass
30C 120V	n20	5240	Ant1	5239.92	-80000	-15.27	25	Pass
40C 120V	n20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
50C 120V	n20	5240	Ant1	5239.96	-40000	-7.63	25	Pass
20C 102V	n40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
20C 120V	n40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
20C 138V	n40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
-20C 120V	n40	5190	Ant1	5190	0	0	25	Pass
-10C 120V	n40	5190	Ant1	5189.92	-80000	-15.41	25	Pass
0C 120V	n40	5190	Ant1	5190.12	-80000	-15.41	25	Pass
10C 120V	n40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
30C 120V	n40	5190	Ant1	5189.92	-80000	-15.41	25	Pass
40C 120V	n40	5190	Ant1	5189.88	-120000	-23.12	25	Pass
50C 120V	n40	5190	Ant1	5189.92	-80000	-15.41	25	Pass
20C 102V	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
20C 120V	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
20C 138V	n40	5230	Ant1	5229.92	-80000	-15.3	25	Pass
-20C 120V	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
-10C 120V	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
0C 120V	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
10C 120V	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
30C 120V	n40	5230	Ant1	5229.92	-80000	-15.3	25	Pass



40C 120V	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
50C 120V	n40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
20C 102V	ac20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
20C 120V	ac20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
20C 138V	ac20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
-20C 120V	ac20	5180	Ant1	5179.98	-20000	-3.86	25	Pass
-10C 120V	ac20	5180	Ant1	5179.96	-40000	-7.72	25	Pass
0C 120V	ac20	5180	Ant1	5179.94	-60000	-11.58	25	Pass
10C 120V	ac20	5180	Ant1	5179.94	-60000	-11.58	25	Pass
30C 120V	ac20	5180	Ant1	5179.94	-60000	-11.58	25	Pass
40C 120V	ac20	5180	Ant1	5179.94	-60000	-11.58	25	Pass
50C 120V	ac20	5180	Ant1	5179.94	-60000	-11.58	25	Pass
20C 102V	ac20	5200	Ant1	5199.92	-80000	-15.38	25	Pass
20C 120V	ac20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 138V	ac20	5200	Ant1	5199.94	-60000	-11.54	25	Pass
-20C 120V	ac20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
-10C 120V	ac20	5200	Ant1	5199.94	-60000	-11.54	25	Pass
0C 120V	ac20	5200	Ant1	5199.94	-60000	-11.54	25	Pass
10C 120V	ac20	5200	Ant1	5199.94	-60000	-11.54	25	Pass
30C 120V	ac20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
40C 120V	ac20	5200	Ant1	5199.94	-60000	-11.54	25	Pass
50C 120V	ac20	5200	Ant1	5199.96	-40000	-7.69	25	Pass
20C 102V	ac20	5240	Ant1	5239.96	-40000	-7.63	25	Pass
20C 120V	ac20	5240	Ant1	5239.92	-80000	-15.27	25	Pass
20C 138V	ac20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
-20C 120V	ac20	5240	Ant1	5239.92	-80000	-15.27	25	Pass
-10C 120V	ac20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
0C 120V	ac20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
10C 120V	ac20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
30C 120V	ac20	5240	Ant1	5239.92	-80000	-15.27	25	Pass
40C 120V	ac20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
50C 120V	ac20	5240	Ant1	5239.94	-60000	-11.45	25	Pass
20C 102V	ac40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
20C 120V	ac40	5190	Ant1	5190.28	-40000	-7.71	25	Pass
20C 138V	ac40	5190	Ant1	5190	0	0	25	Pass
-20C 120V	ac40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
-10C 120V	ac40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
0C 120V	ac40	5190	Ant1	5190	0	0	25	Pass
10C 120V	ac40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
30C 120V	ac40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
40C 120V	ac40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
50C 120V	ac40	5190	Ant1	5189.96	-40000	-7.71	25	Pass
20C 102V	ac40	5230	Ant1	5229.92	-80000	-15.3	25	Pass



20C 120V	ac40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
20C 138V	ac40	5230	Ant1	5229.92	-80000	-15.3	25	Pass
-20C 120V	ac40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
-10C 120V	ac40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
0C 120V	ac40	5230	Ant1	5229.92	-80000	-15.3	25	Pass
10C 120V	ac40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
30C 120V	ac40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
40C 120V	ac40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
50C 120V	ac40	5230	Ant1	5229.96	-40000	-7.65	25	Pass
20C 102V	ac80	5210	Ant1	5209.92	-80000	-15.36	25	Pass
20C 120V	ac80	5210	Ant1	5210	0	0	25	Pass
20C 138V	ac80	5210	Ant1	5209.92	-80000	-15.36	25	Pass
-20C 120V	ac80	5210	Ant1	5210	0	0	25	Pass
-10C 120V	ac80	5210	Ant1	5209.92	-80000	-15.36	25	Pass
0C 120V	ac80	5210	Ant1	5210	0	0	25	Pass
10C 120V	ac80	5210	Ant1	5210.48	0	0	25	Pass
30C 120V	ac80	5210	Ant1	5210	0	0	25	Pass
40C 120V	ac80	5210	Ant1	5210	0	0	25	Pass
50C 120V	ac80	5210	Ant1	5210	0	0	25	Pass

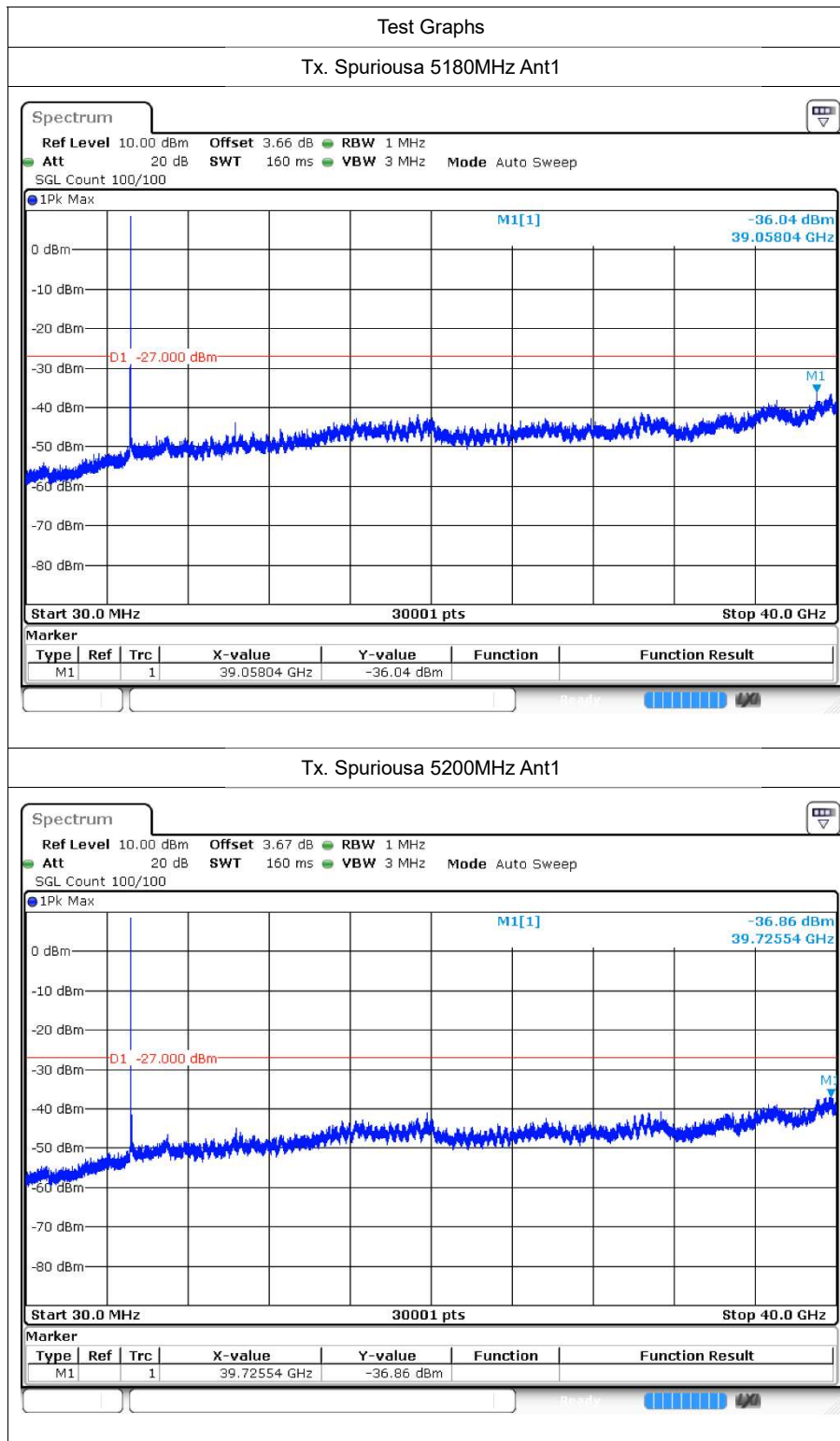


7 Conducted RF Spurious Emission

7.1 Test Result

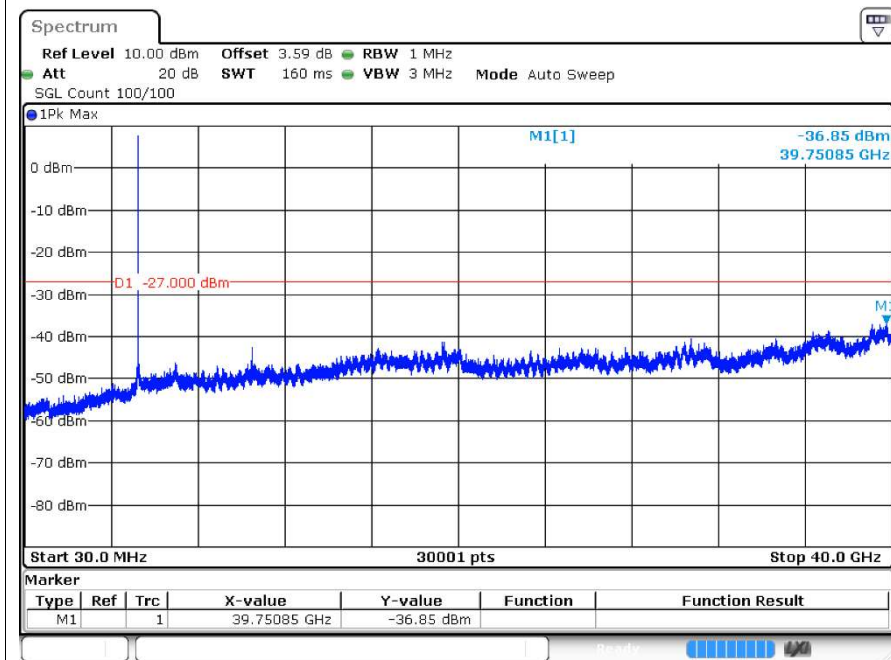
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
a	5180	Ant1	-36.04	-27	Pass
a	5200	Ant1	-36.85	-27	Pass
a	5240	Ant1	-36.84	-27	Pass
n20	5180	Ant1	-37.19	-27	Pass
n20	5200	Ant1	-36.19	-27	Pass
n20	5240	Ant1	-36.73	-27	Pass
n40	5190	Ant1	-37.28	-27	Pass
n40	5230	Ant1	-35.9	-27	Pass
ac20	5180	Ant1	-36.35	-27	Pass
ac20	5200	Ant1	-35.74	-27	Pass
ac20	5240	Ant1	-36.3	-27	Pass
ac40	5190	Ant1	-36.72	-27	Pass
ac40	5230	Ant1	-36.67	-27	Pass
ac80	5210	Ant1	-36.91	-27	Pass

7.2 Test Graphs

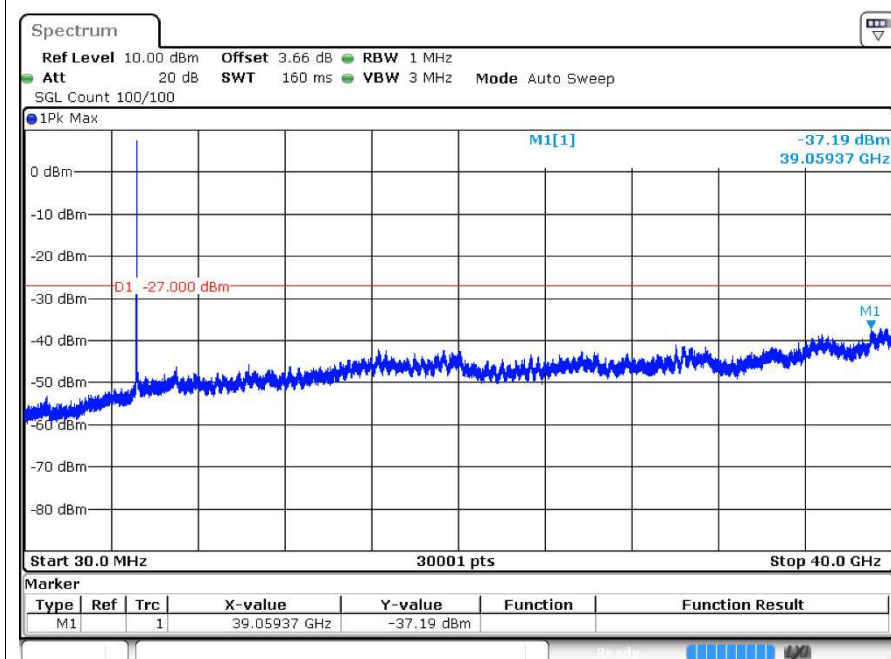




Tx. Spuriousa 5240MHz Ant1

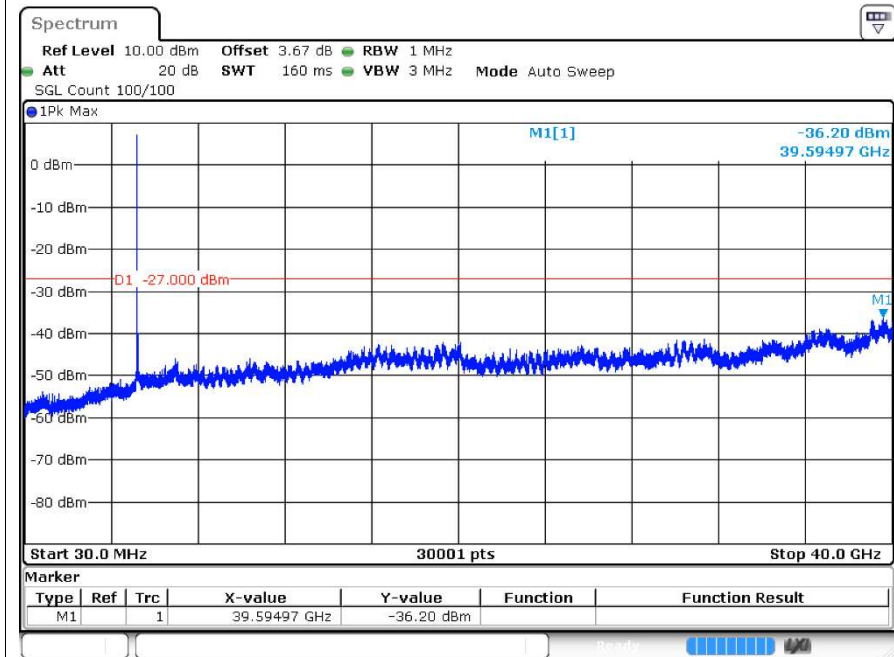


Tx. Spurious n20 5180MHz Ant1

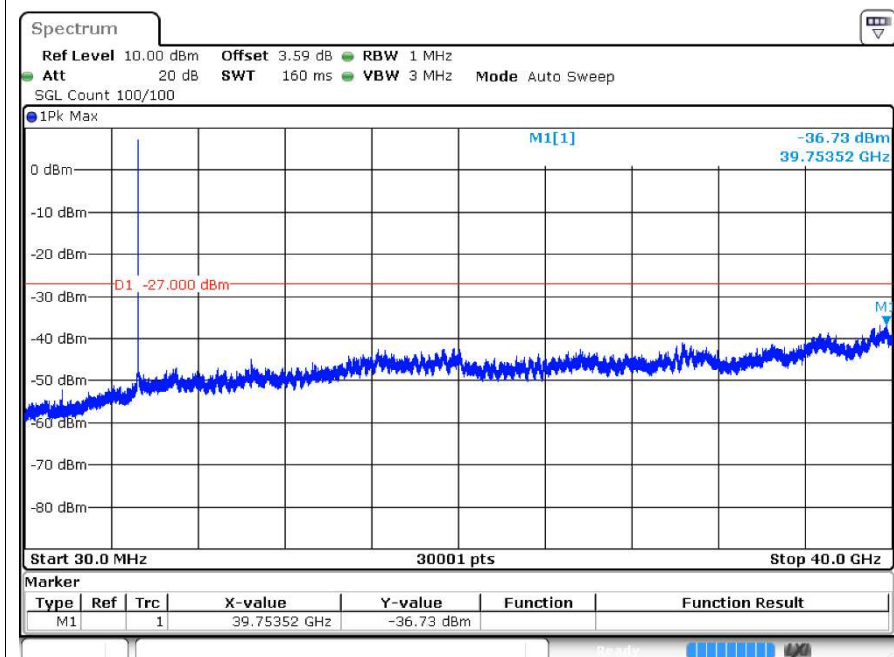


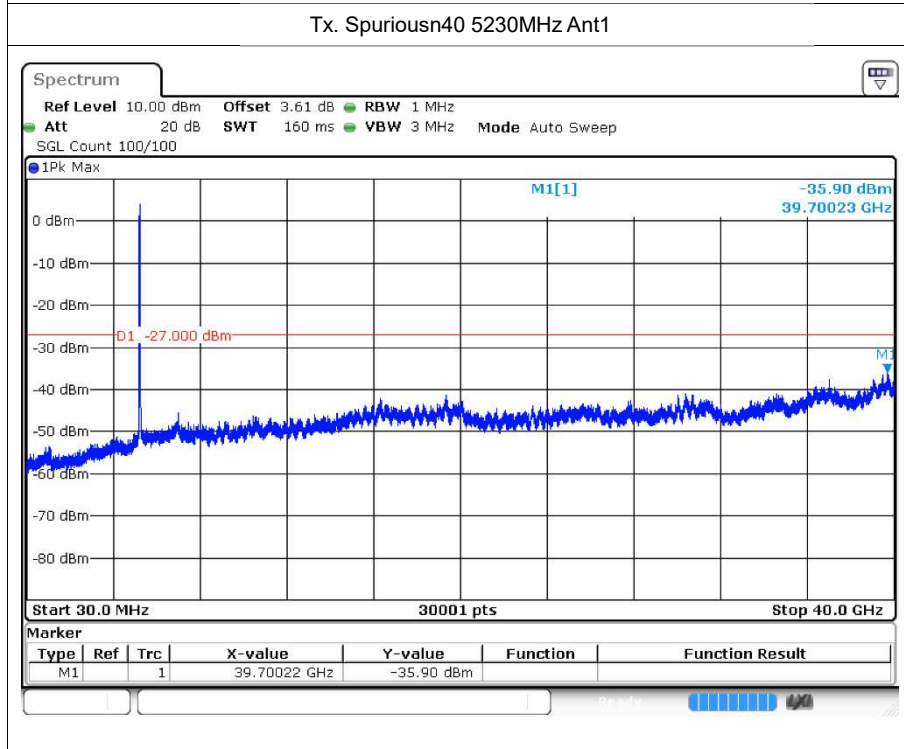
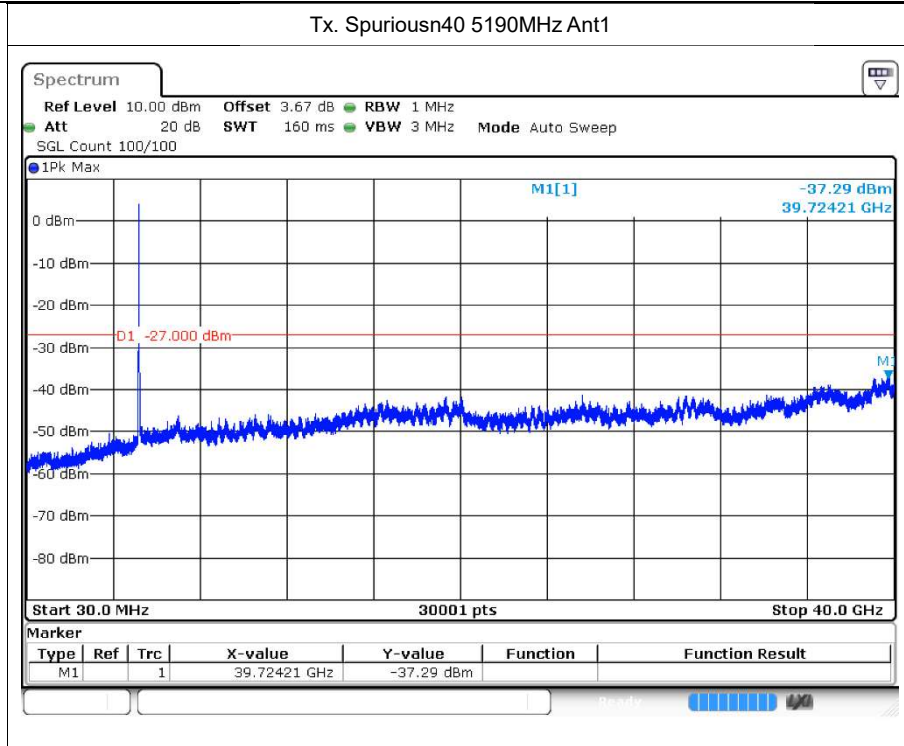


Tx. Spurious n20 5200MHz Ant1



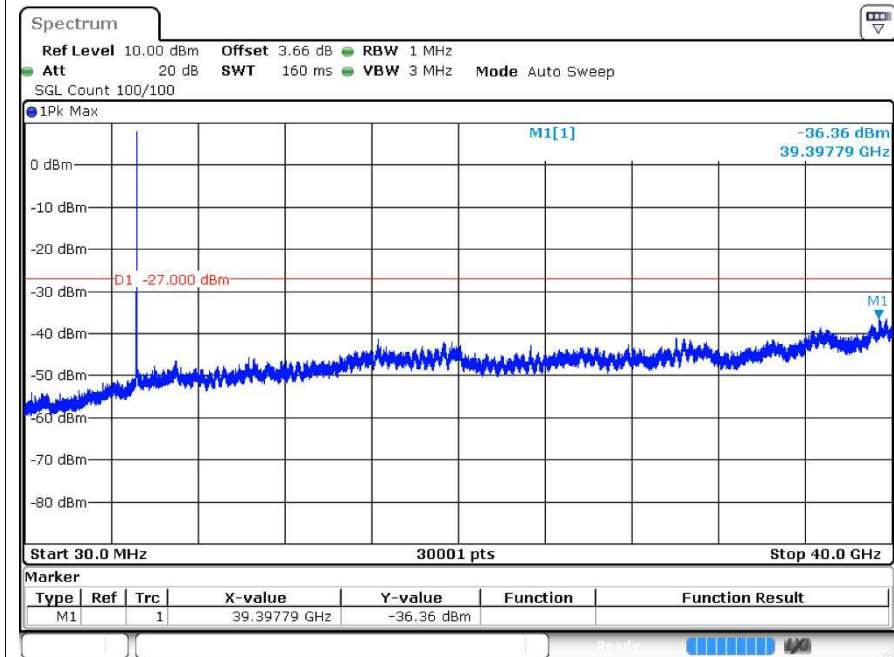
Tx. Spurious n20 5240MHz Ant1



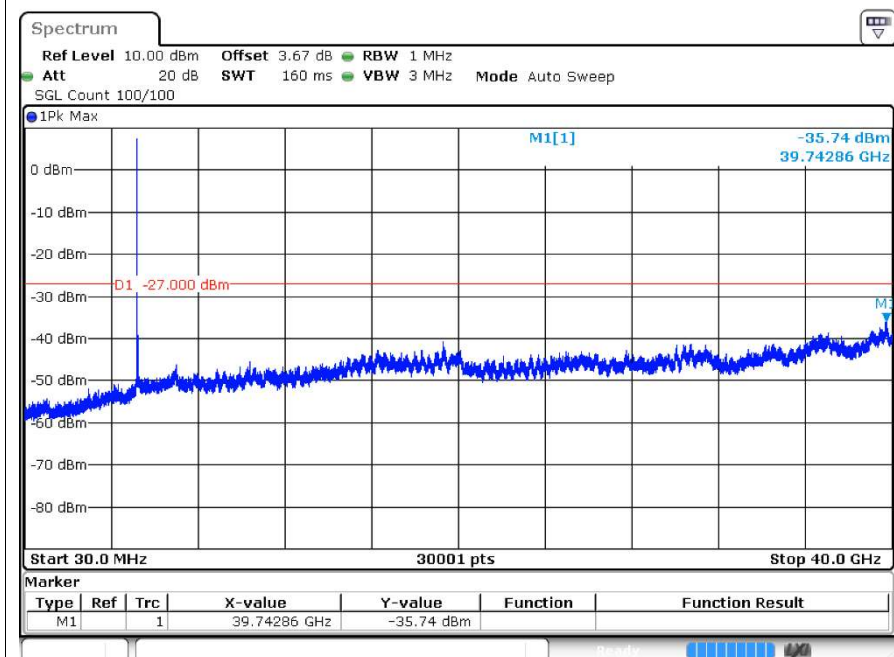




Tx. Spurious ac20 5180MHz Ant1

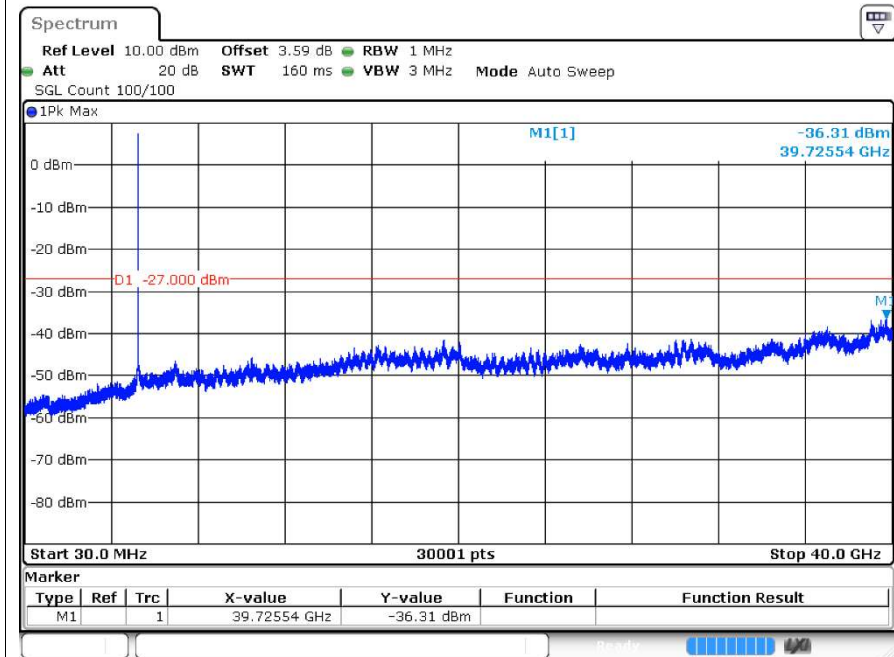


Tx. Spurious ac20 5200MHz Ant1

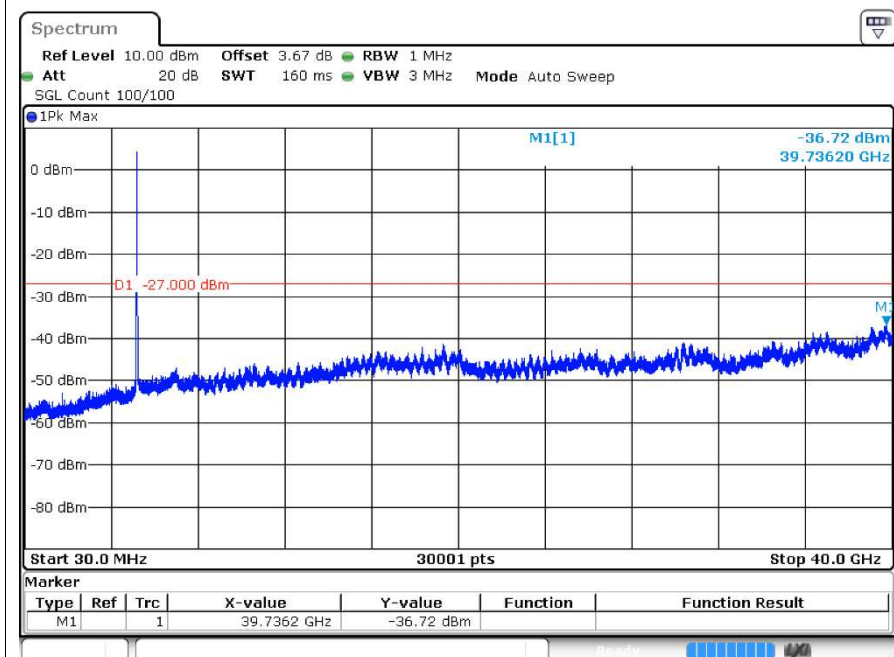


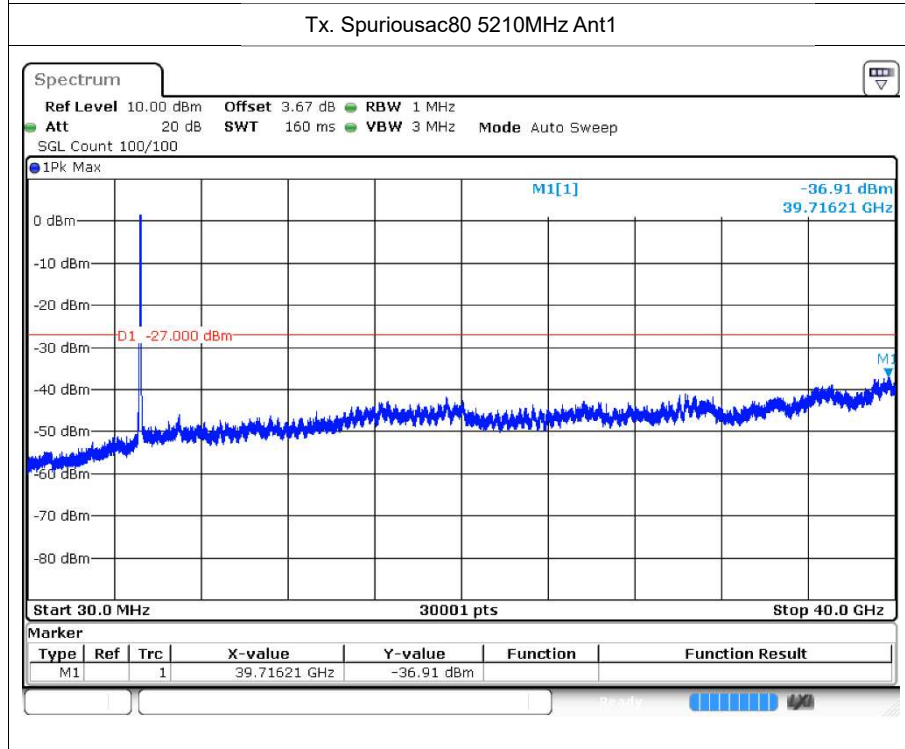
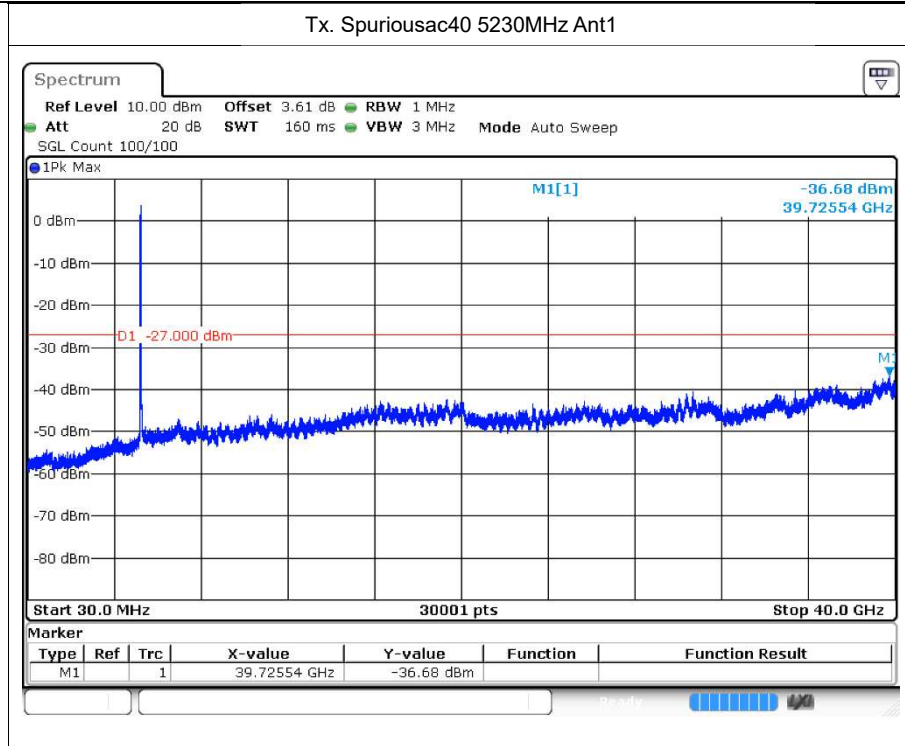


Tx. Spurious ac20 5240MHz Ant1



Tx. Spuriousac40 5190MHz Ant1







8 Restrict Band

8.1 Test Result

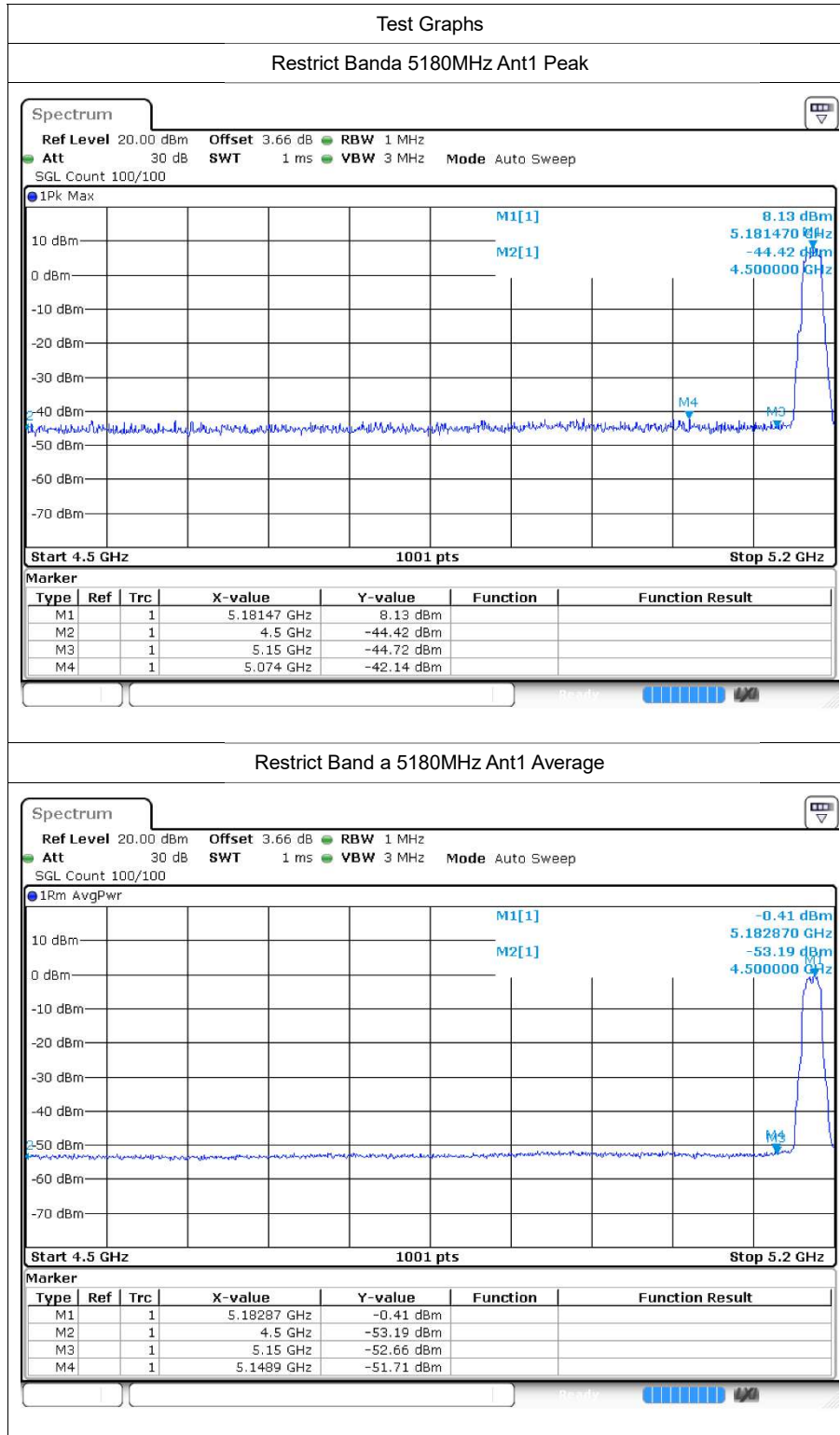
Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
a	5180	Ant1	4500	-44.42	2	-	52.81	Peak	68.2	Pass
a	5180	Ant1	4500	-53.19	2	0.61	44.65	Average	54	Pass
a	5180	Ant1	5074	-42.13	2	-	55.1	Peak	68.2	Pass
a	5180	Ant1	5148.9	-51.7	2	0.61	46.14	Average	54	Pass
a	5180	Ant1	5150	-44.72	2	-	52.51	Peak	68.2	Pass
a	5180	Ant1	5150	-52.66	2	0.61	45.18	Average	54	Pass
a	5240	Ant1	5350	-44.04	2	-	53.19	Peak	68.2	Pass
a	5240	Ant1	5350	-52.63	2	0.61	45.21	Average	54	Pass
a	5240	Ant1	5448.24	-40.03	2	-	57.2	Peak	68.2	Pass
a	5240	Ant1	5448	-49.87	2	0.61	47.97	Average	54	Pass
a	5240	Ant1	5460	-45.1	2	-	52.13	Peak	68.2	Pass
a	5240	Ant1	5460	-52.06	2	0.61	45.78	Average	54	Pass
n20	5180	Ant1	4500	-45.64	2	-	51.59	Peak	68.2	Pass
n20	5180	Ant1	4500	-53.37	2	0.57	44.43	Average	54	Pass
n20	5180	Ant1	4760.4	-42.14	2	-	55.09	Peak	68.2	Pass
n20	5180	Ant1	5145.4	-51.98	2	0.57	45.82	Average	54	Pass
n20	5180	Ant1	5150	-44.37	2	-	52.86	Peak	68.2	Pass
n20	5180	Ant1	5150	-52.57	2	0.57	45.23	Average	54	Pass
n20	5240	Ant1	5350	-46.33	2	-	50.9	Peak	68.2	Pass
n20	5240	Ant1	5350	-52.14	2	0.57	45.66	Average	54	Pass
n20	5240	Ant1	5451.84	-42.06	2	-	55.17	Peak	68.2	Pass
n20	5240	Ant1	5447.76	-50.19	2	0.57	47.61	Average	54	Pass
n20	5240	Ant1	5460	-45.15	2	-	52.08	Peak	68.2	Pass
n20	5240	Ant1	5460	-51.31	2	0.57	46.49	Average	54	Pass
n40	5190	Ant1	4500	-45.58	2	-	51.65	Peak	68.2	Pass
n40	5190	Ant1	4500	-53.14	2	0.55	44.64	Average	54	Pass
n40	5190	Ant1	4970.85	-41.59	2	-	55.64	Peak	68.2	Pass
n40	5190	Ant1	5146.78	-51.69	2	0.55	46.09	Average	54	Pass
n40	5190	Ant1	5150	-45.07	2	-	52.16	Peak	68.2	Pass
n40	5190	Ant1	5150	-52.64	2	0.55	45.14	Average	54	Pass
n40	5230	Ant1	5350	-43.3	2	-	53.93	Peak	68.2	Pass
n40	5230	Ant1	5350	-51.95	2	0.55	45.83	Average	54	Pass
n40	5230	Ant1	5429.22	-40.83	2	-	56.4	Peak	68.2	Pass
n40	5230	Ant1	5447.85	-49.91	2	0.55	47.87	Average	54	Pass
n40	5230	Ant1	5460	-43.83	2	-	53.4	Peak	68.2	Pass



n40	5230	Ant1	5460	-51.3	2	0.55	46.48	Average	54	Pass
ac20	5180	Ant1	4500	-45.17	2	-	52.06	Peak	68.2	Pass
ac20	5180	Ant1	4500	-53.12	2	0.59	44.7	Average	54	Pass
ac20	5180	Ant1	4984.4	-41.84	2	-	55.39	Peak	68.2	Pass
ac20	5180	Ant1	5148.9	-51.51	2	0.59	46.31	Average	54	Pass
ac20	5180	Ant1	5150	-45.34	2	-	51.89	Peak	68.2	Pass
ac20	5180	Ant1	5150	-52.39	2	0.59	45.43	Average	54	Pass
ac20	5240	Ant1	5350	-42.97	2	-	54.26	Peak	68.2	Pass
ac20	5240	Ant1	5350	-52.93	2	0.6	44.9	Average	54	Pass
ac20	5240	Ant1	5446.56	-42.33	2	-	54.9	Peak	68.2	Pass
ac20	5240	Ant1	5450.88	-49.82	2	0.6	48.01	Average	54	Pass
ac20	5240	Ant1	5460	-44.58	2	-	52.65	Peak	68.2	Pass
ac20	5240	Ant1	5460	-52.35	2	0.6	45.48	Average	54	Pass
ac40	5190	Ant1	4500	-44.92	2	-	52.31	Peak	68.2	Pass
ac40	5190	Ant1	4500	-53.44	2	0.6	44.39	Average	54	Pass
ac40	5190	Ant1	5079.62	-41.58	2	-	55.65	Peak	68.2	Pass
ac40	5190	Ant1	5148.24	-51.51	2	0.6	46.32	Average	54	Pass
ac40	5190	Ant1	5150	-44.83	2	-	52.4	Peak	68.2	Pass
ac40	5190	Ant1	5150	-52.1	2	0.6	45.73	Average	54	Pass
ac40	5230	Ant1	5350	-45.13	2	-	52.1	Peak	68.2	Pass
ac40	5230	Ant1	5350	-52.37	2	0.61	45.47	Average	54	Pass
ac40	5230	Ant1	5456.49	-40.98	2	-	56.25	Peak	68.2	Pass
ac40	5230	Ant1	5447.31	-49.68	2	0.61	48.16	Average	54	Pass
ac40	5230	Ant1	5460	-45.39	2	-	51.84	Peak	68.2	Pass
ac40	5230	Ant1	5460	-51.5	2	0.61	46.34	Average	54	Pass
ac80	5210	Ant1	4500	-44.31	2	-	52.92	Peak	68.2	Pass
ac80	5210	Ant1	4500	-53.39	2	0.58	44.42	Average	54	Pass
ac80	5210	Ant1	5144.64	-41.46	2	-	55.77	Peak	68.2	Pass
ac80	5210	Ant1	5143.85	-51.29	2	0.58	46.52	Average	54	Pass
ac80	5210	Ant1	5150	-42.88	2	-	54.35	Peak	68.2	Pass
ac80	5210	Ant1	5150	-52.16	2	0.58	45.65	Average	54	Pass

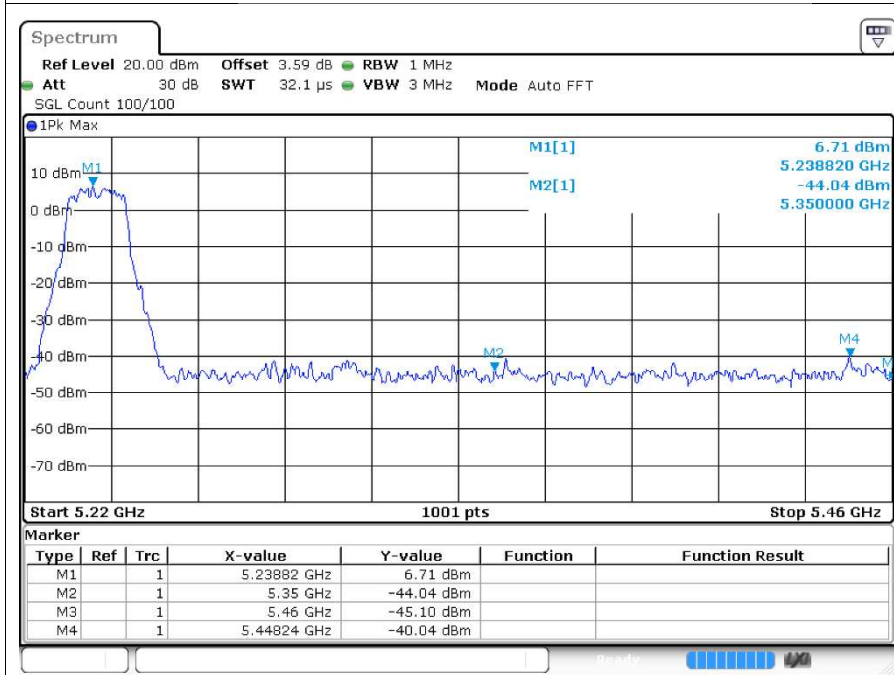


8.2 Test Graphs





Restrict Banda 5240MHz Ant1 Peak



Restrict Band a 5240MHz Ant1 Average

