



## Appendix E

### RF Test Data for 5.8GWIFI(Conducted Measurement)

Product Name: projector

Trade Mark: HAPPRUN

Test Model: JQ820

#### Environmental Conditions

Temperature:	25.4° C
Relative Humidity:	52.5%
ATM Pressure:	100.0 kPa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung



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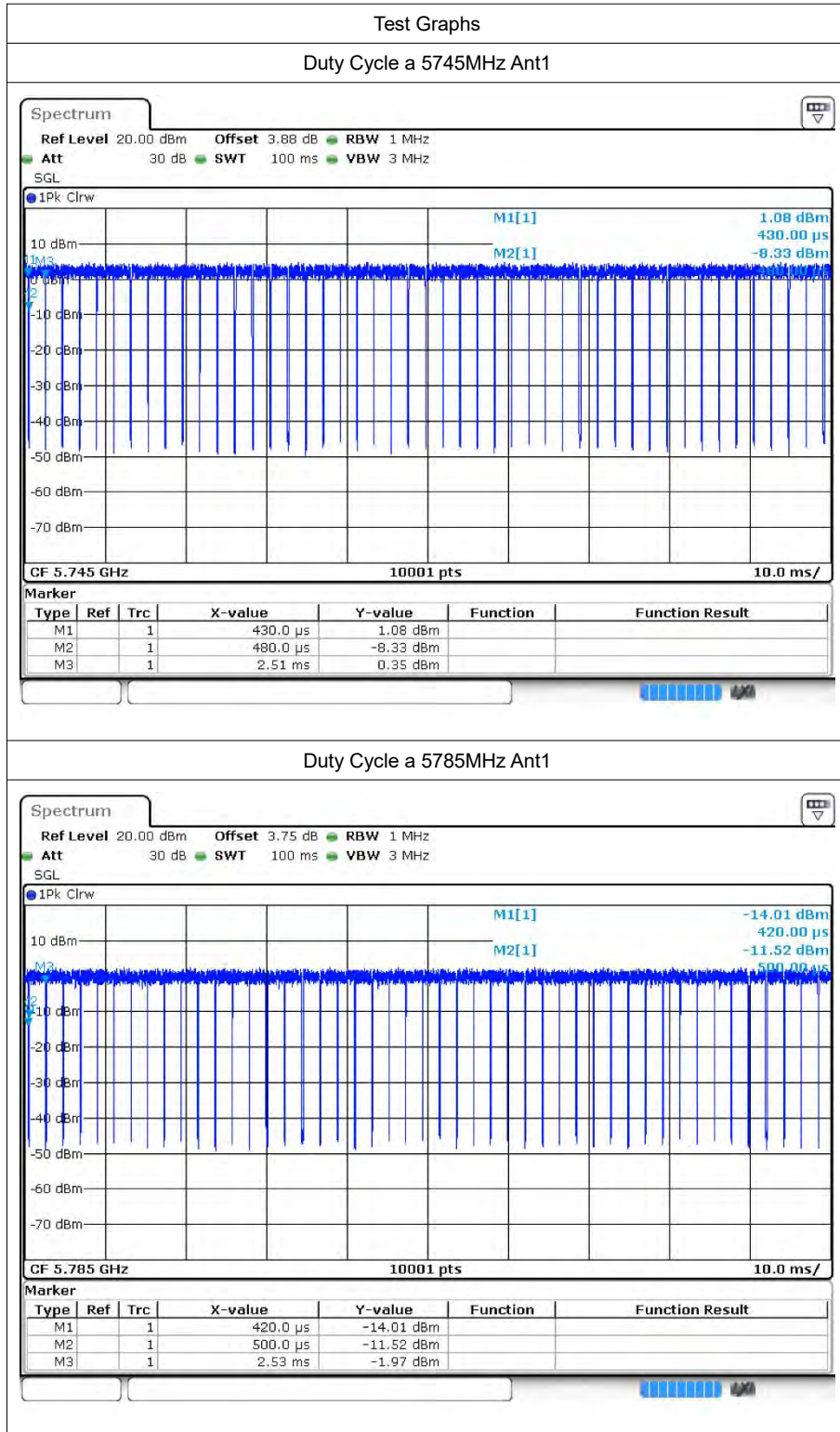
# 1 Duty Cycle

## 1.1 Test Result

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5745	Ant1	95.21	0.21	0.49
a	5785	Ant1	95.84	0.18	0.49
a	5825	Ant1	95.33	0.21	0.49
n20	5745	Ant1	94.82	0.23	0.53
n20	5785	Ant1	95.57	0.2	0.53
n20	5825	Ant1	95.6	0.2	0.53
n40	5755	Ant1	90.22	0.45	1.06
n40	5795	Ant1	89.34	0.49	1.06
ac20	5745	Ant1	95.62	0.19	0.52
ac20	5785	Ant1	95.62	0.19	0.53
ac20	5825	Ant1	94.59	0.24	0.53
ac40	5755	Ant1	90.09	0.45	1.08
ac40	5795	Ant1	90.41	0.44	1.08
ax20	5745	Ant1	90.25	0.45	0.69
ax20	5785	Ant1	93.06	0.31	0.69
ax20	5825	Ant1	91.38	0.39	0.68
ax40	5755	Ant1	82.9	0.81	1.33
ax40	5795	Ant1	87.76	0.57	1.33

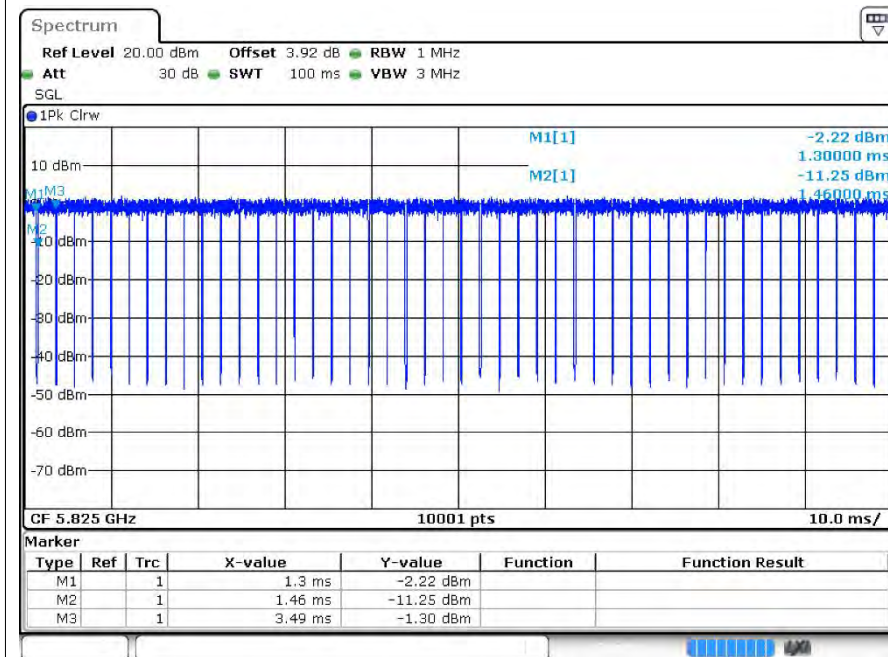


### 1.2 Test Graphs

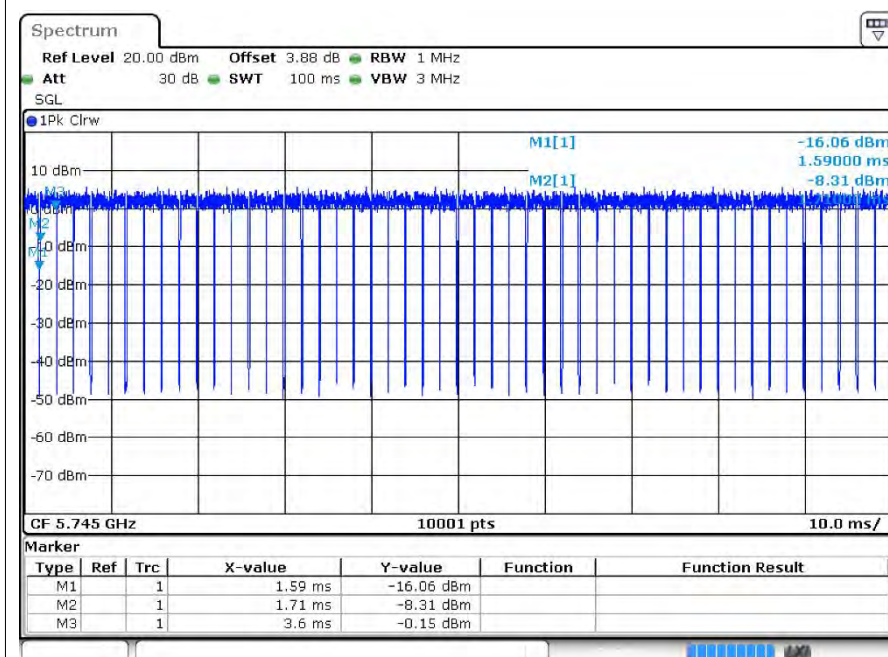




Duty Cycle a 5825MHz Ant1

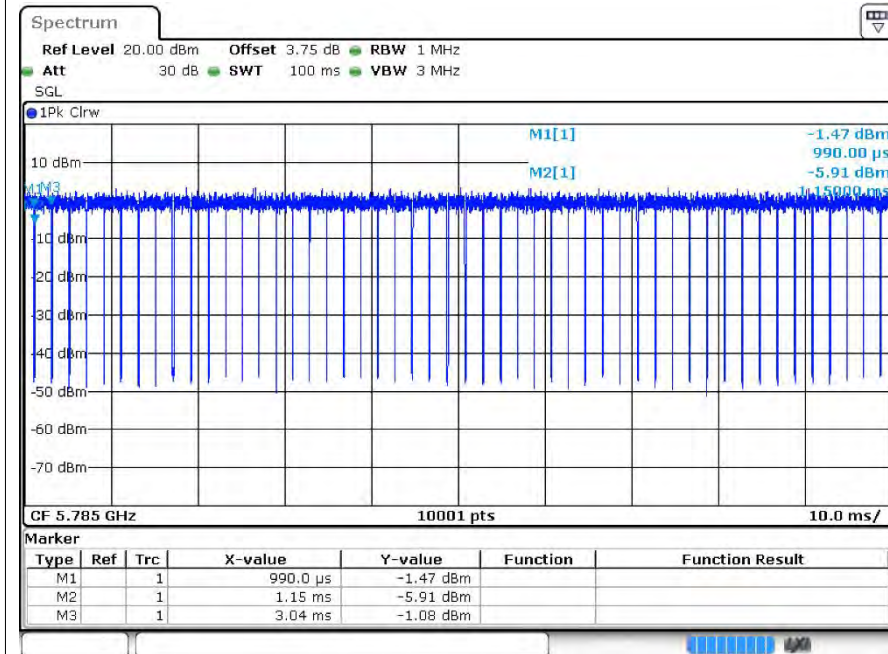


Duty Cycle n20 5745MHz Ant1

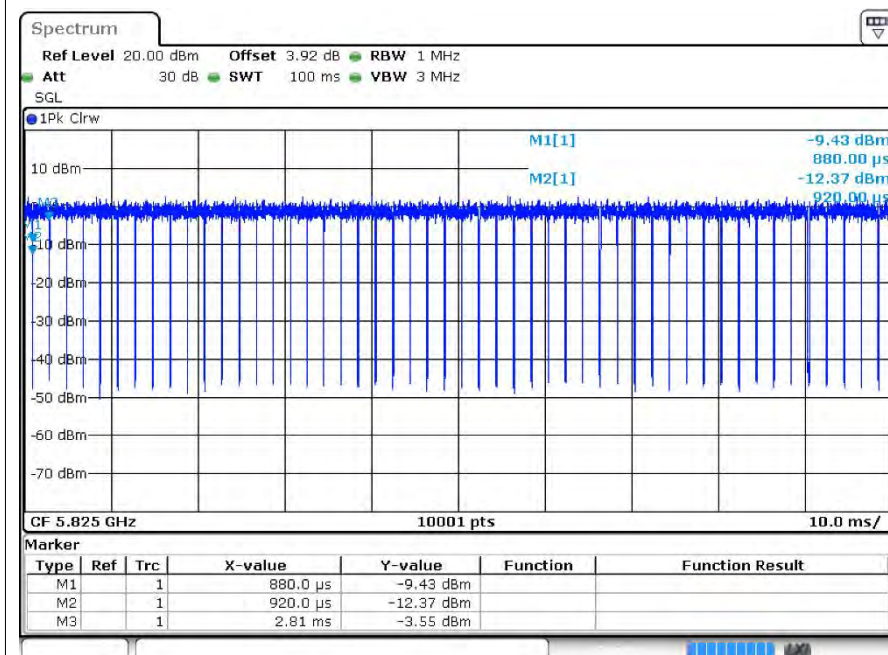


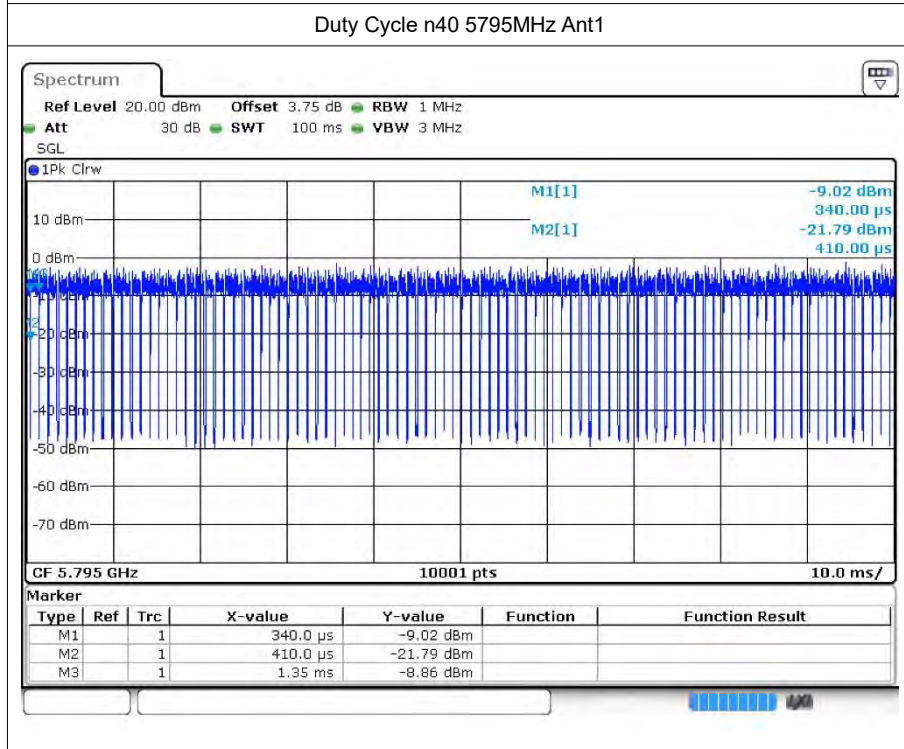
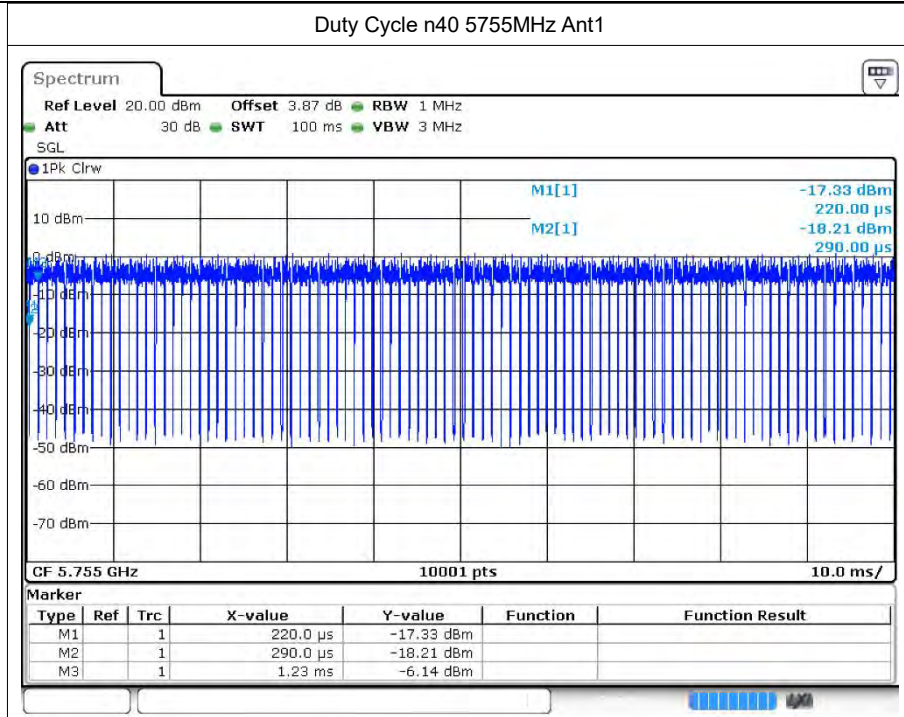


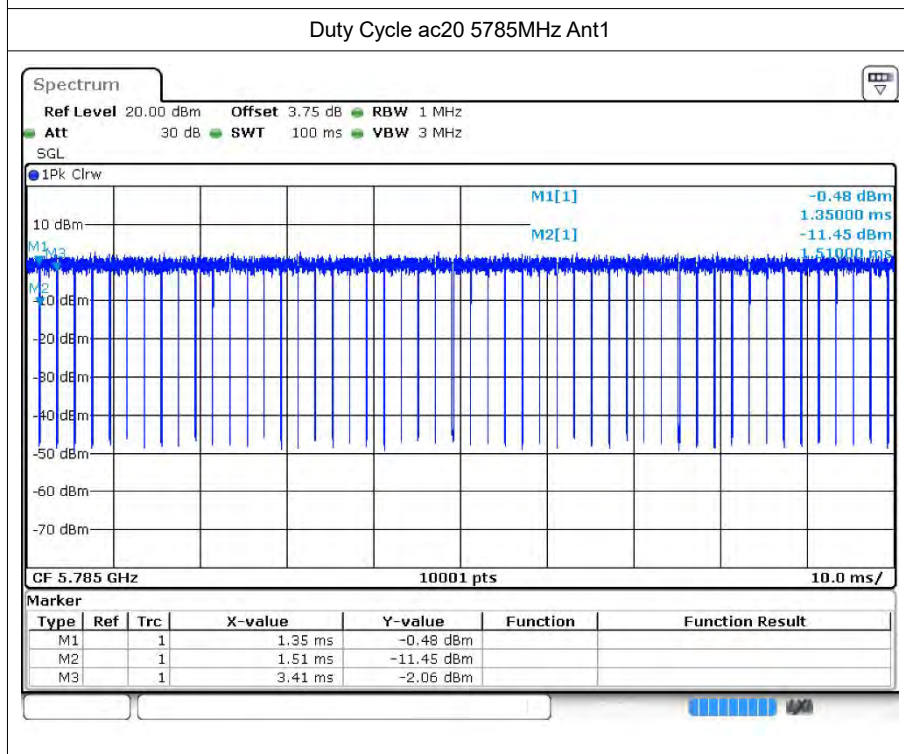
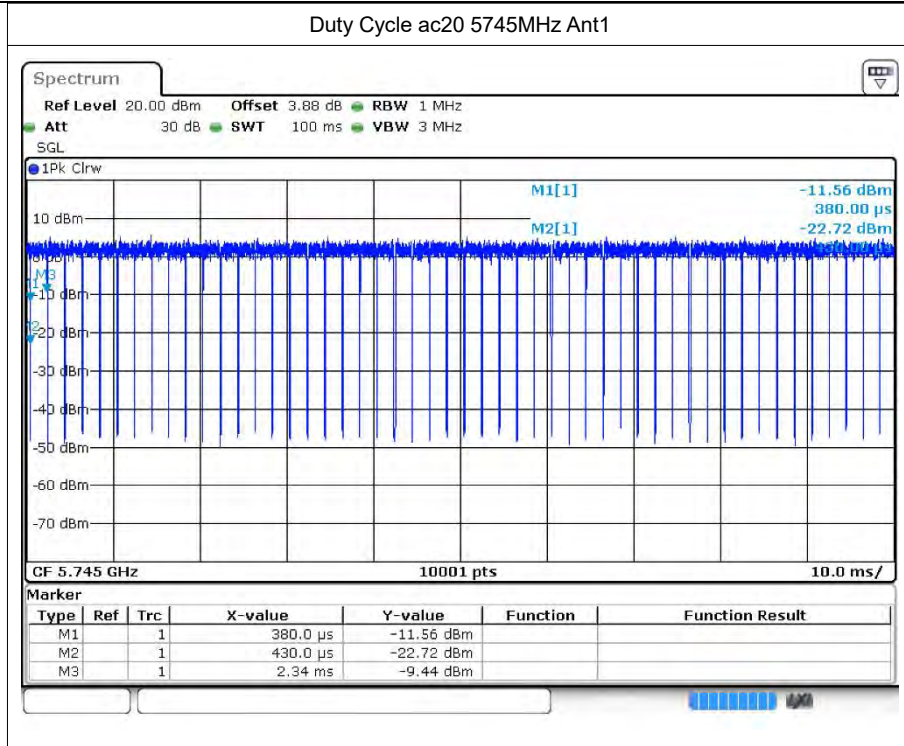
Duty Cycle n20 5785MHz Ant1



Duty Cycle n20 5825MHz Ant1

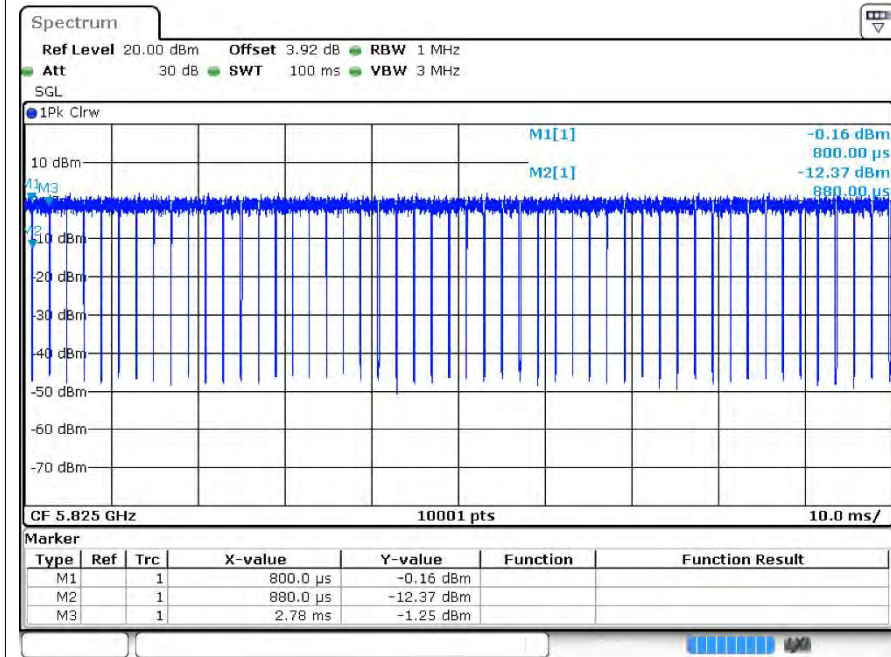




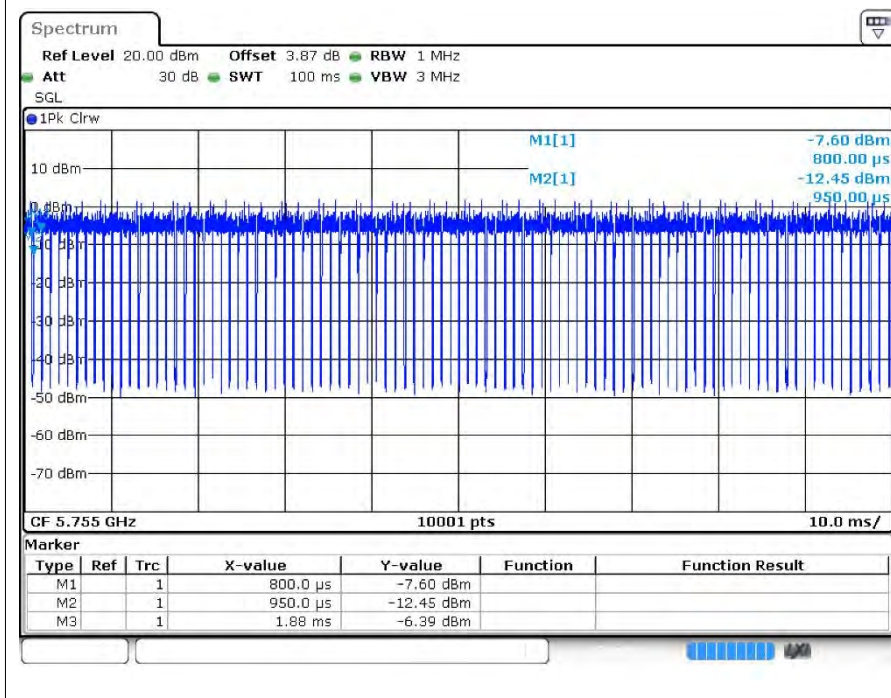


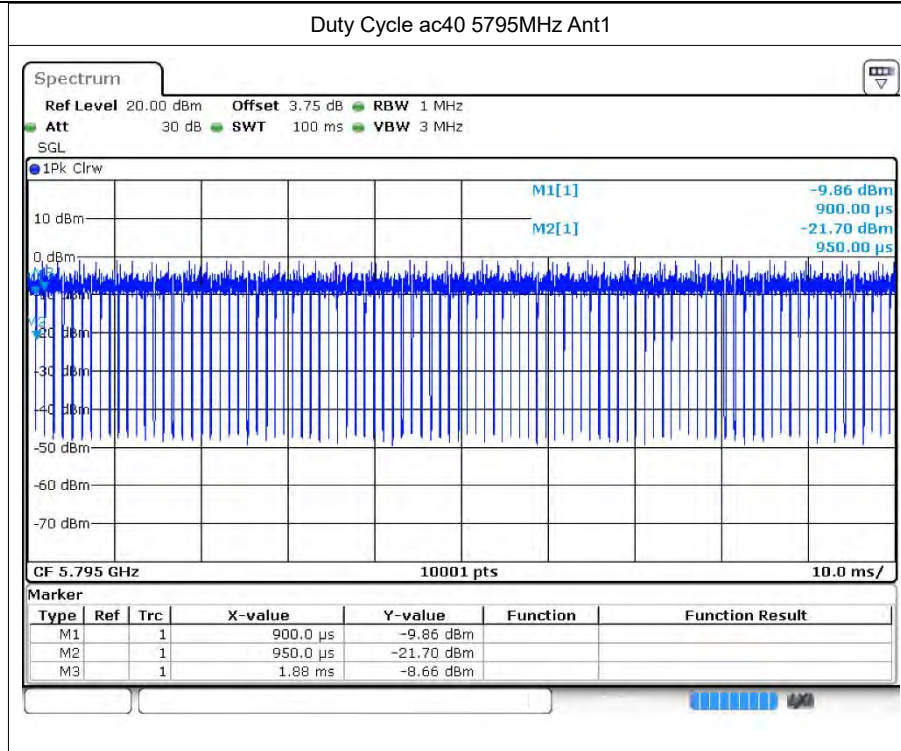


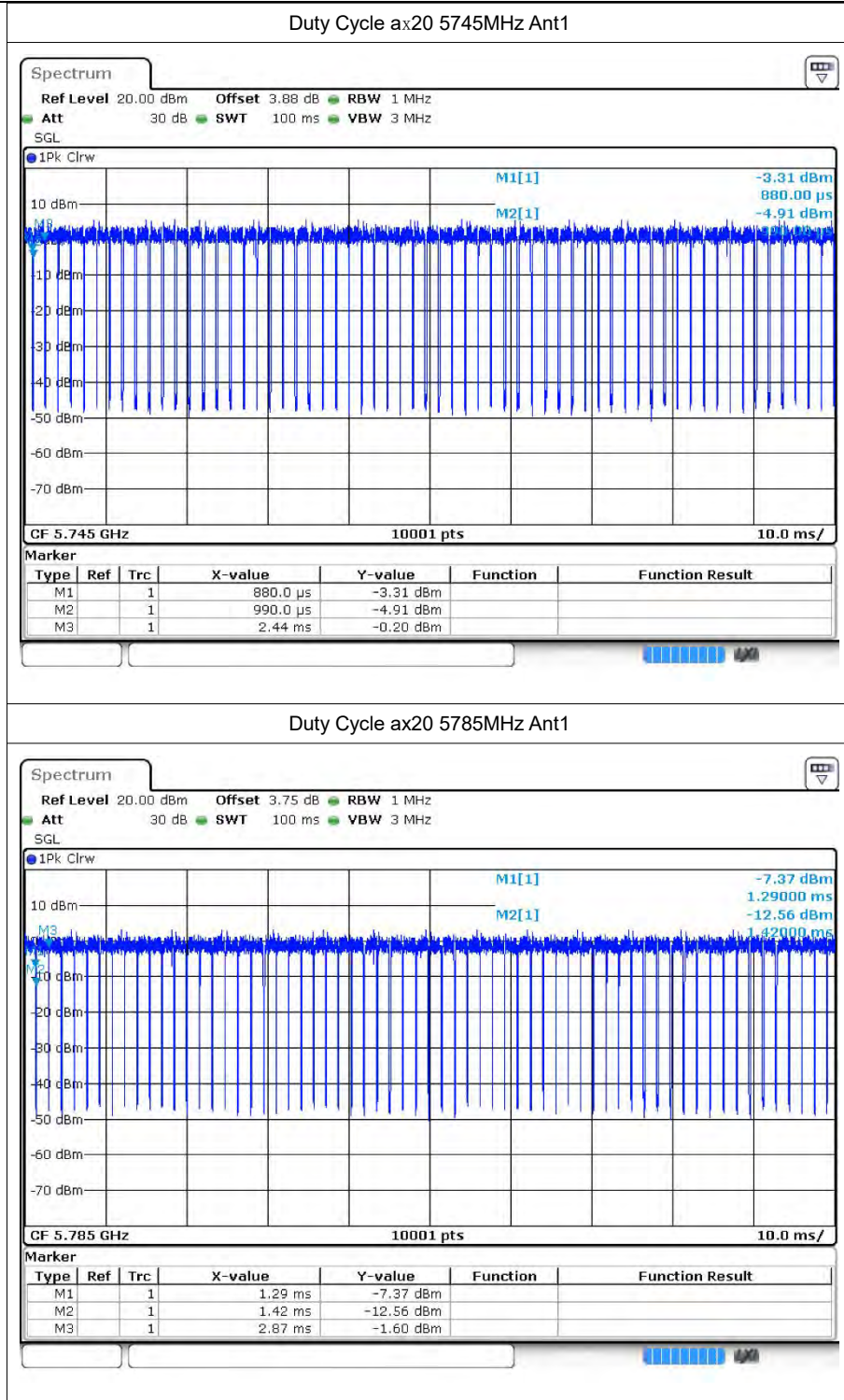
Duty Cycle ac20 5825MHz Ant1

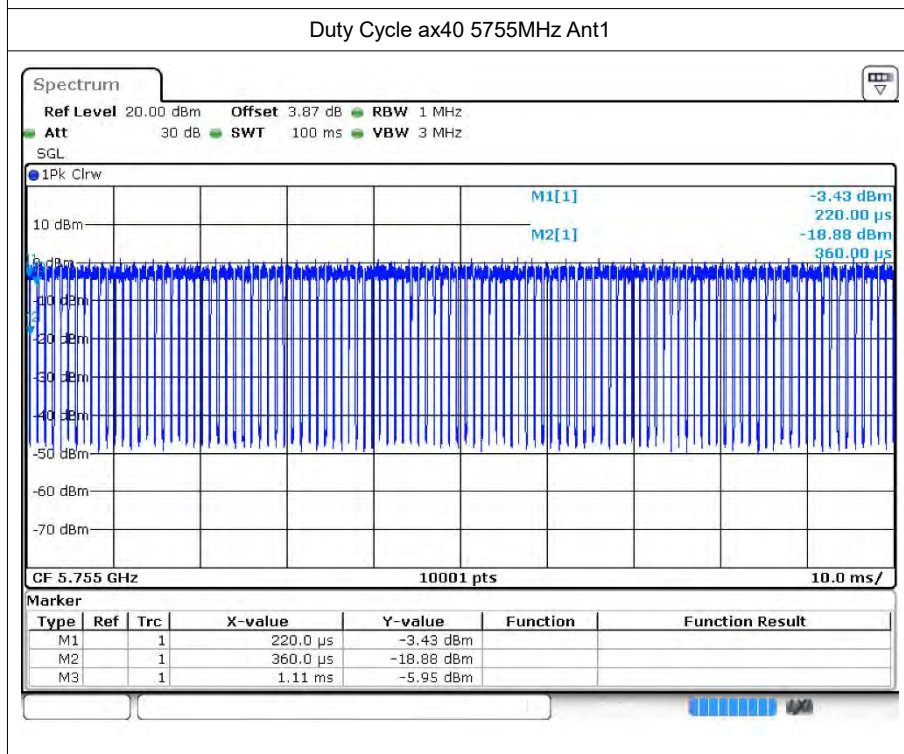
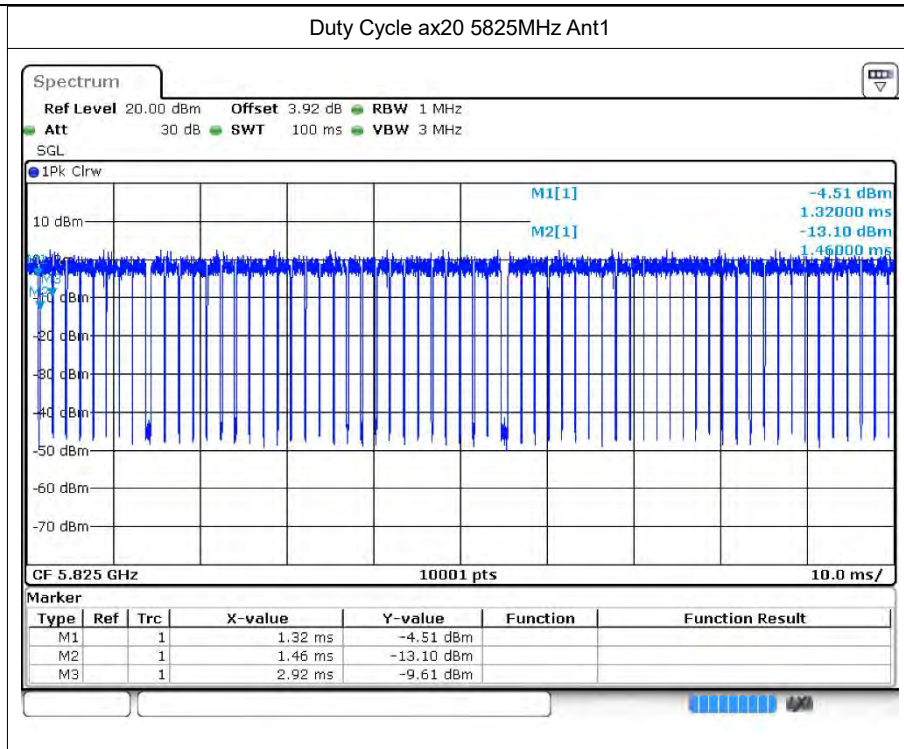


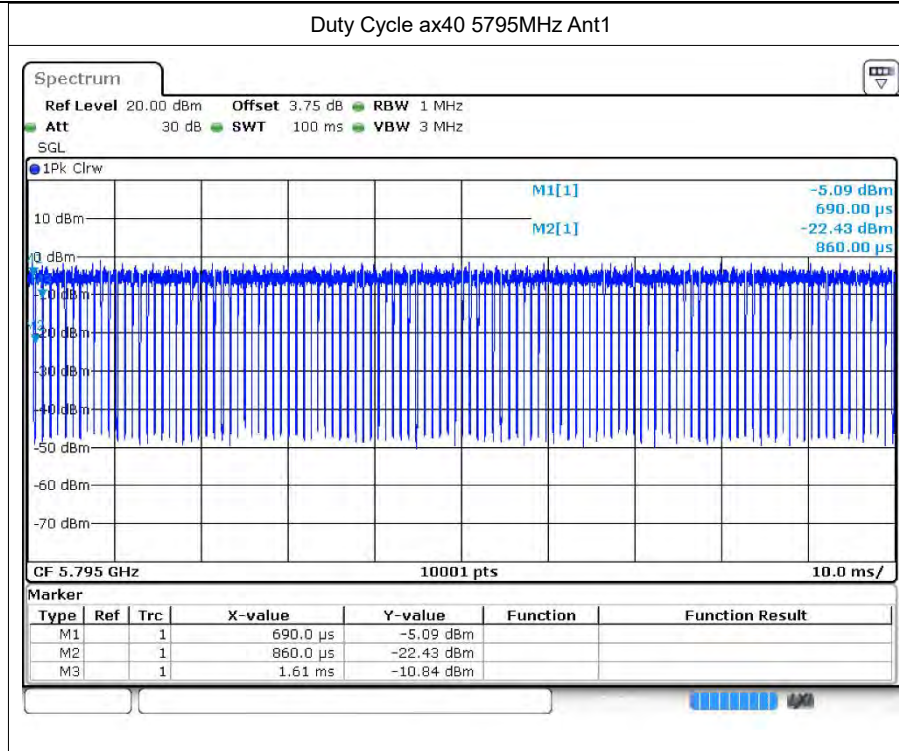
Duty Cycle ac40 5755MHz Ant1











## 2 Maximum Conducted Output Power

### 2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	13.1	30	Pass
a	5785	Ant1	10.54	30	Pass
a	5825	Ant1	9.92	30	Pass
n20	5745	Ant1	13.09	30	Pass
n20	5785	Ant1	10.38	30	Pass
n20	5825	Ant1	9.72	30	Pass
n40	5755	Ant1	13.14	30	Pass
n40	5795	Ant1	9.88	30	Pass
ac20	5745	Ant1	12.57	30	Pass
ac20	5785	Ant1	10.32	30	Pass
ac20	5825	Ant1	9.65	30	Pass
ac40	5755	Ant1	12.31	30	Pass
ac40	5795	Ant1	9.99	30	Pass
ax20	5745	Ant1	12.92	30	Pass
ax20	5785	Ant1	10.39	30	Pass
ax20	5825	Ant1	9.68	30	Pass
ax40	5755	Ant1	12.55	30	Pass
ax40	5795	Ant1	9.84	30	Pass

Note:

The duty factor has been compensated into the result.



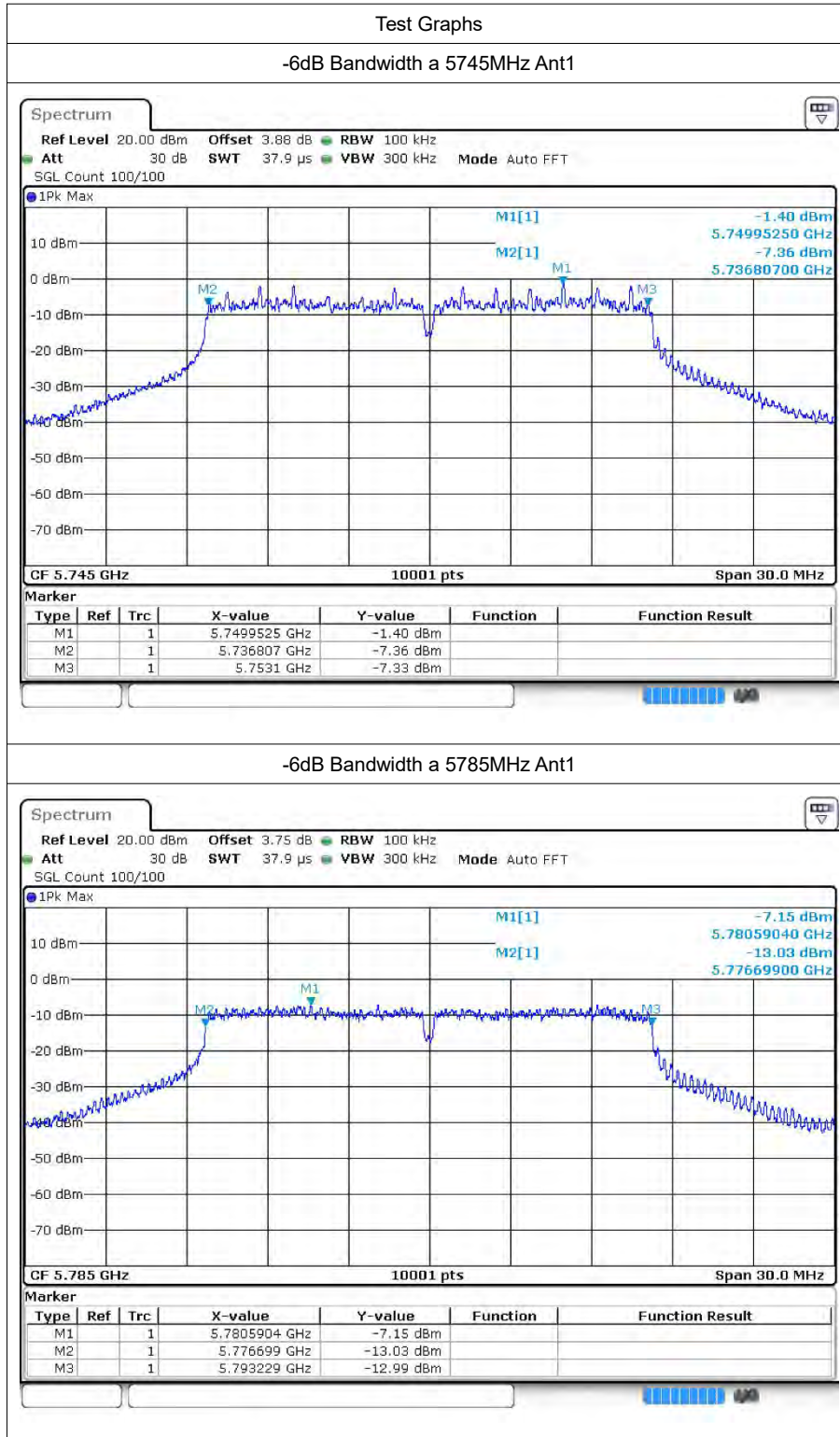
### 3 -6dB Bandwidth

#### 3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
a	5745	Ant1	16.293	0.5	Pass
a	5785	Ant1	16.53	0.5	Pass
a	5825	Ant1	16.335	0.5	Pass
n20	5745	Ant1	17.559	0.5	Pass
n20	5785	Ant1	17.595	0.5	Pass
n20	5825	Ant1	16.905	0.5	Pass
n40	5755	Ant1	35.316	0.5	Pass
n40	5795	Ant1	36.318	0.5	Pass
ac20	5745	Ant1	17.712	0.5	Pass
ac20	5785	Ant1	17.553	0.5	Pass
ac20	5825	Ant1	17.718	0.5	Pass
ac40	5755	Ant1	36.306	0.5	Pass
ac40	5795	Ant1	35.7	0.5	Pass
ax20	5745	Ant1	18.555	0.5	Pass
ax20	5785	Ant1	19.092	0.5	Pass
ax20	5825	Ant1	19.071	0.5	Pass
ax40	5755	Ant1	37.14	0.5	Pass
ax40	5795	Ant1	37.776	0.5	Pass



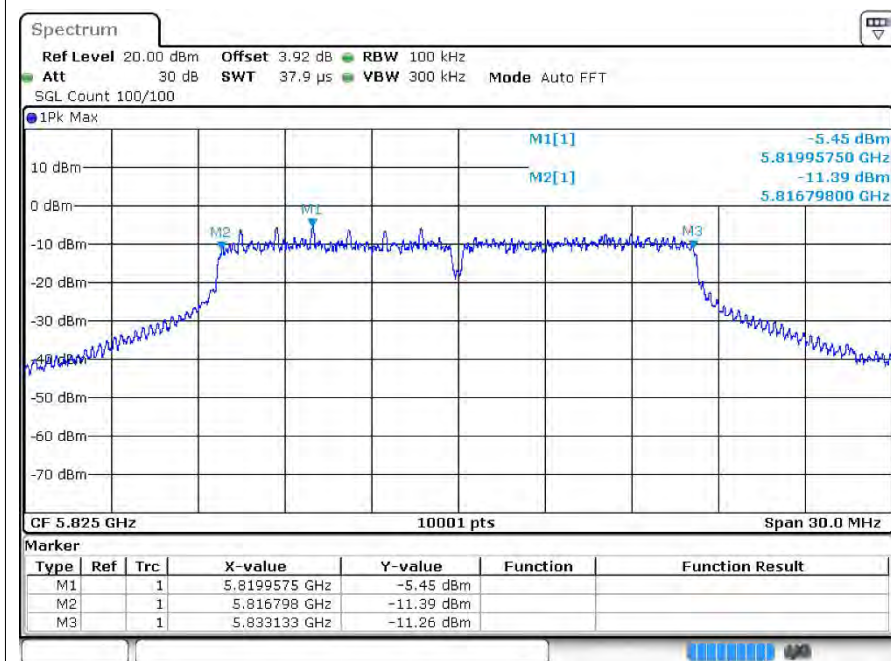
### 3.2 Test Graphs



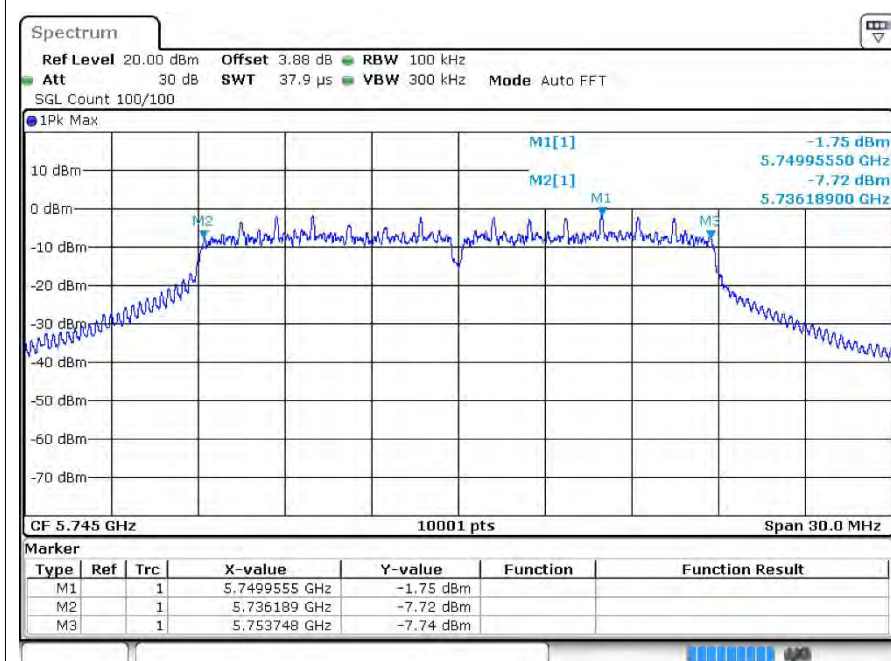




-6dB Bandwidth a 5825MHz Ant1

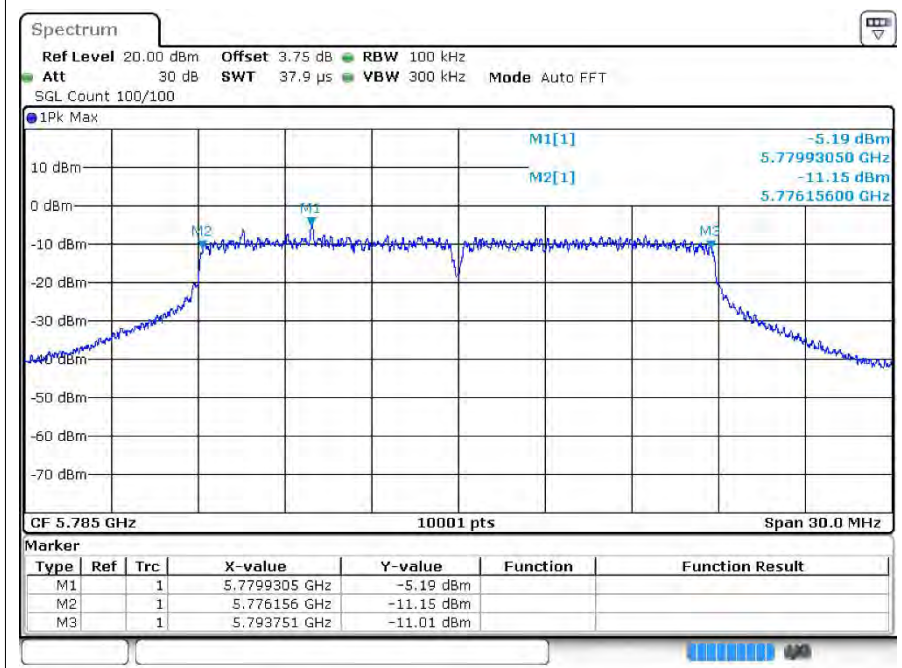


-6dB Bandwidth n20 5745MHz Ant1

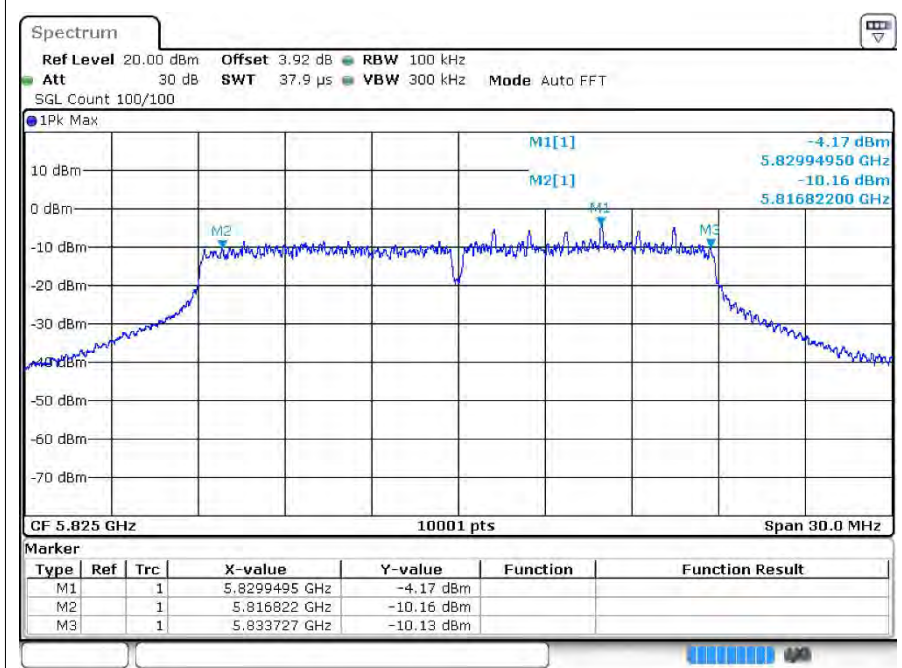




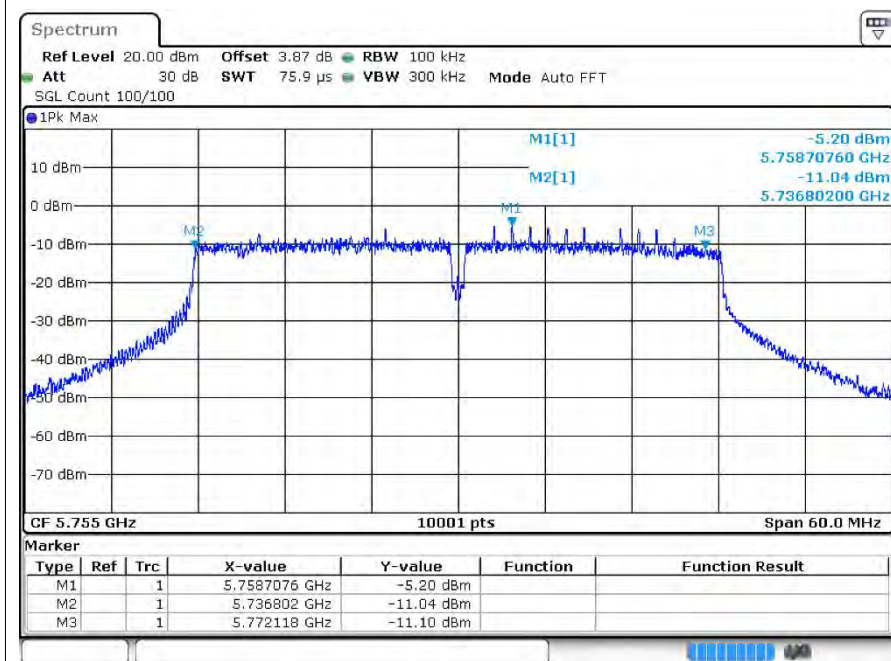
-6dB Bandwidth n20 5785MHz Ant1



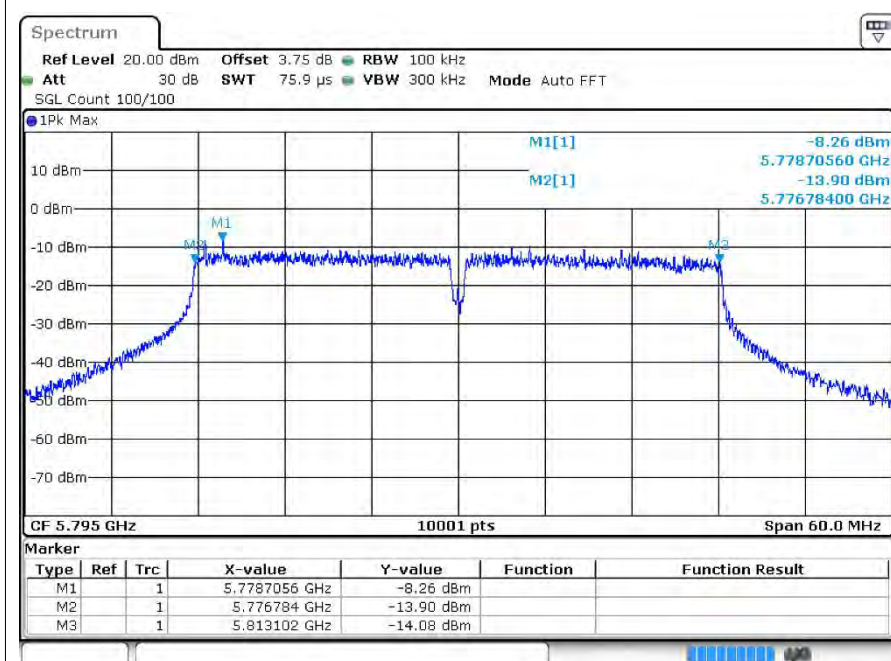
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-6dB Bandwidth n40 5755MHz Ant1

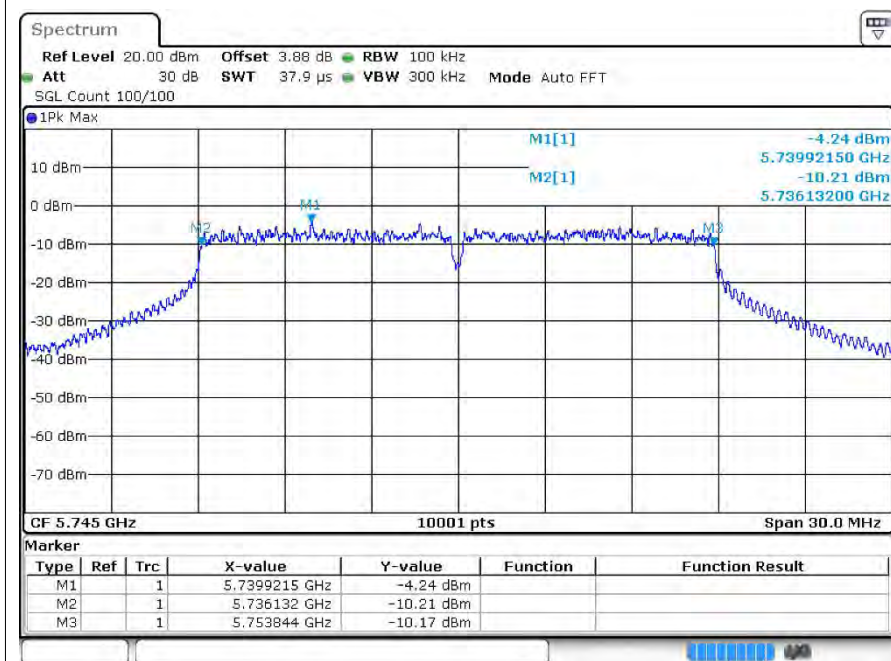


-6dB Bandwidth n40 5795MHz Ant1

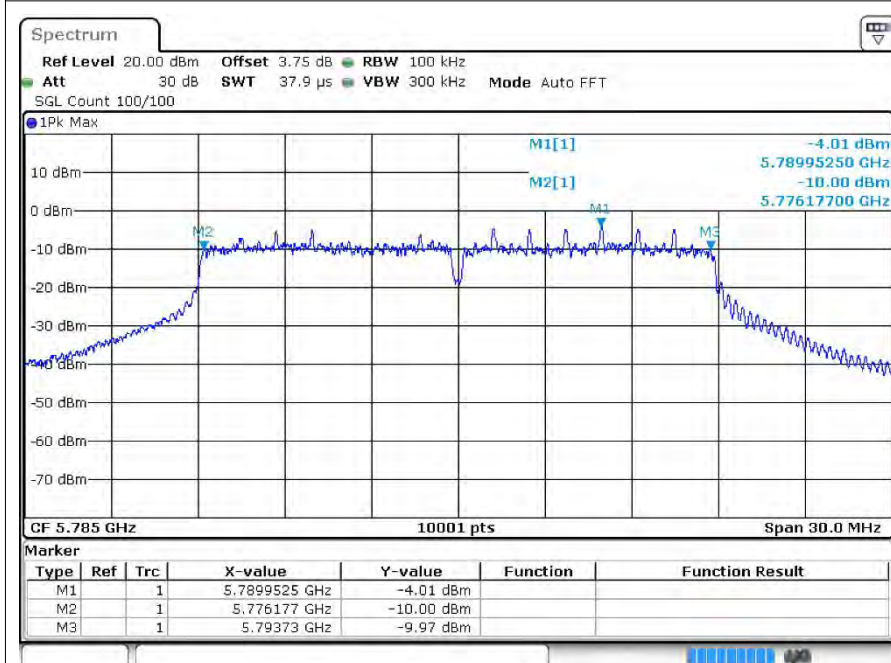




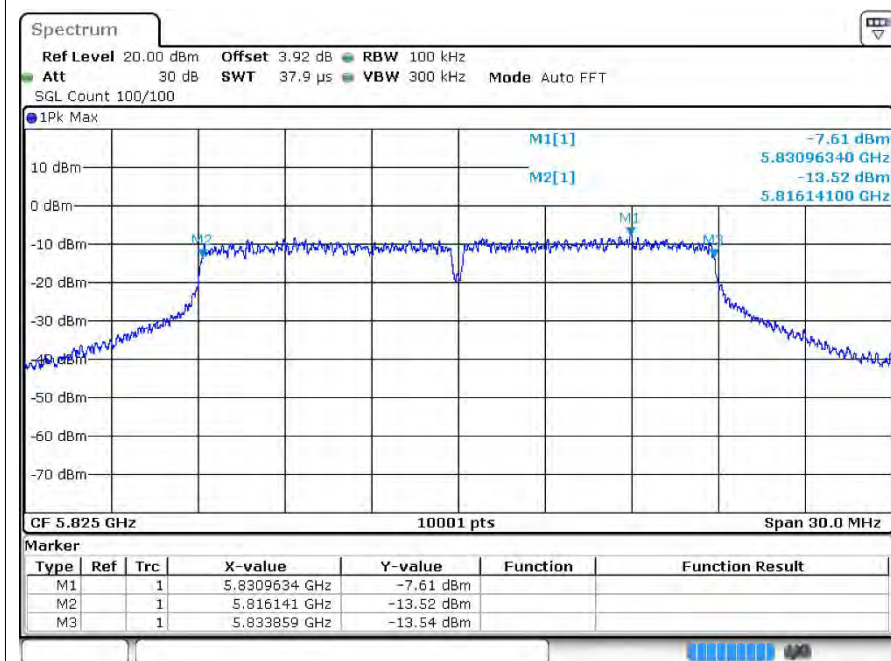
-6dB Bandwidth ac20 5745MHz Ant1



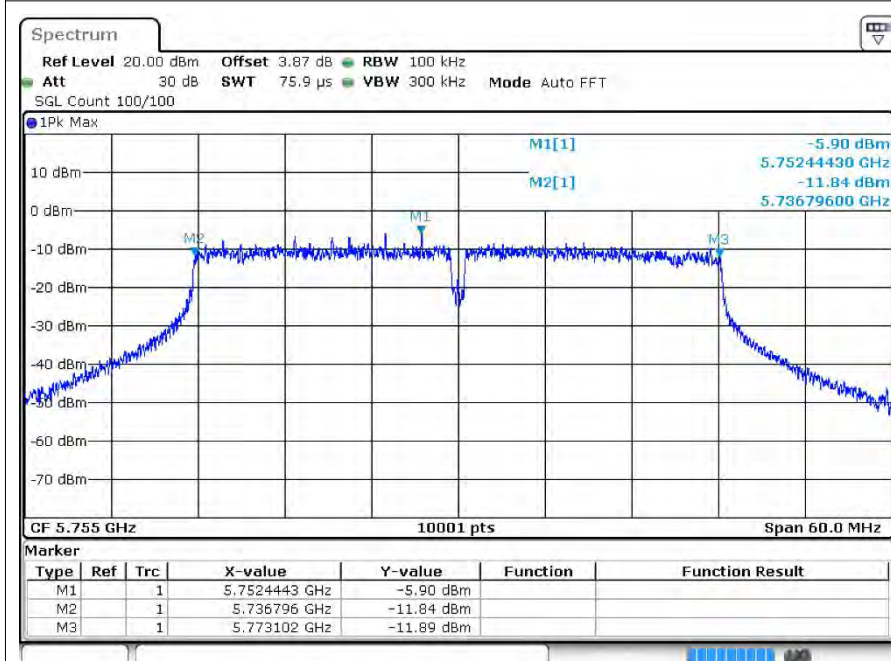
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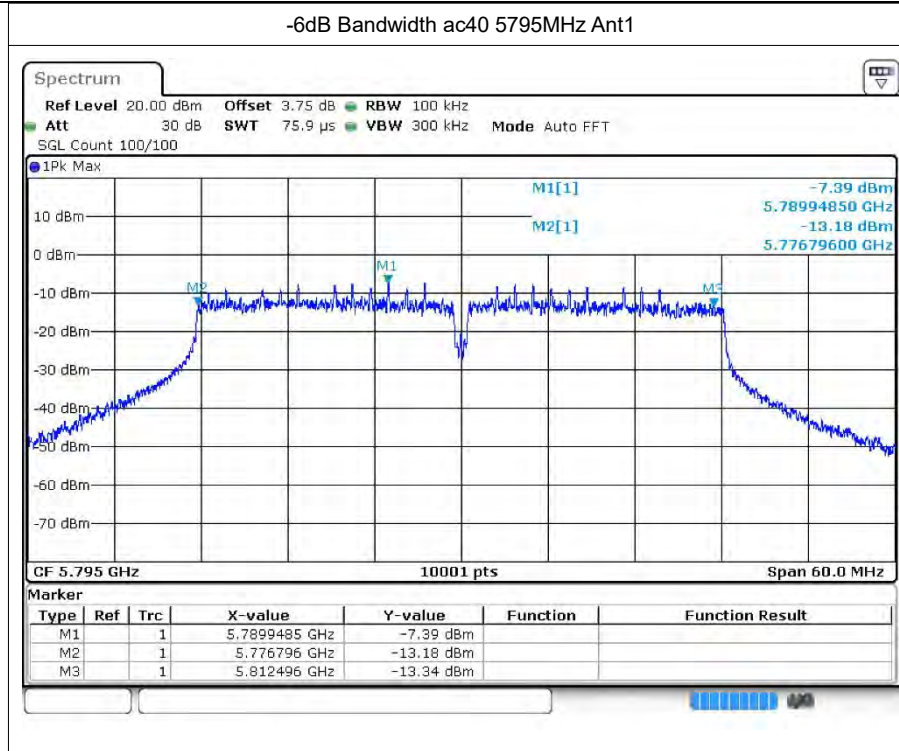


-6dB Bandwidth ac20 5825MHz Ant1

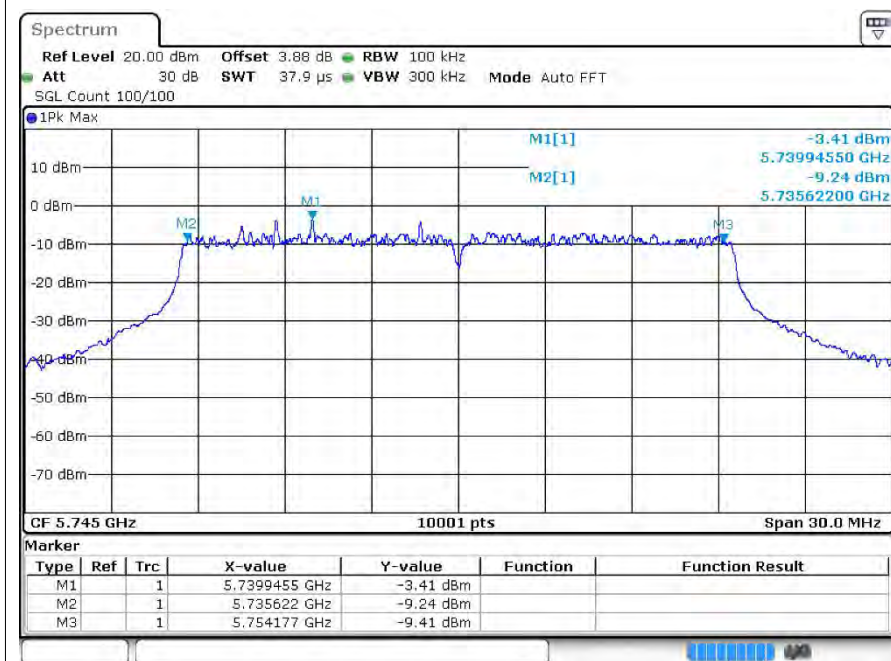


-6dB Bandwidth ac40 5755MHz Ant1

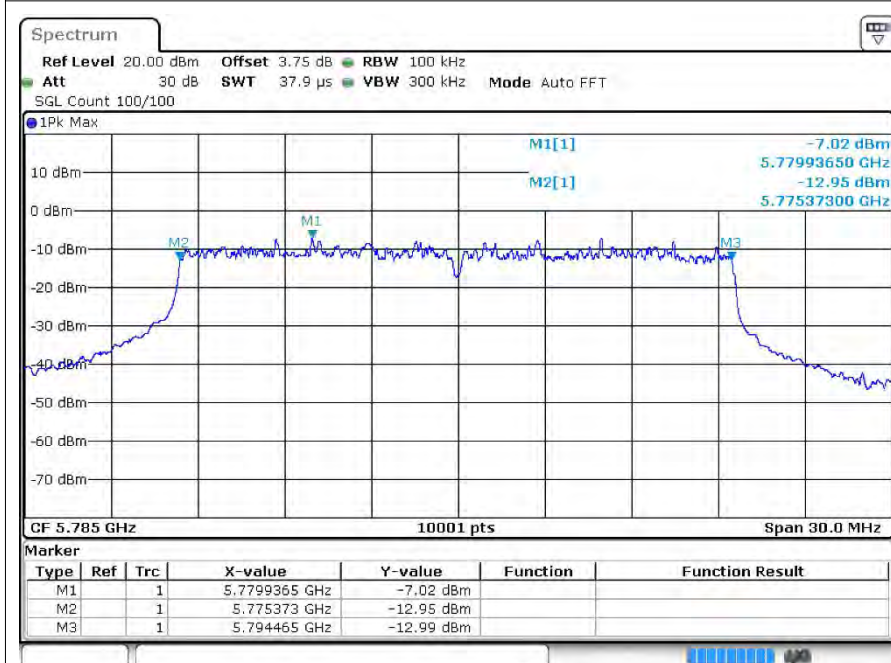




-6dB Bandwidth ax20 5745MHz Ant1

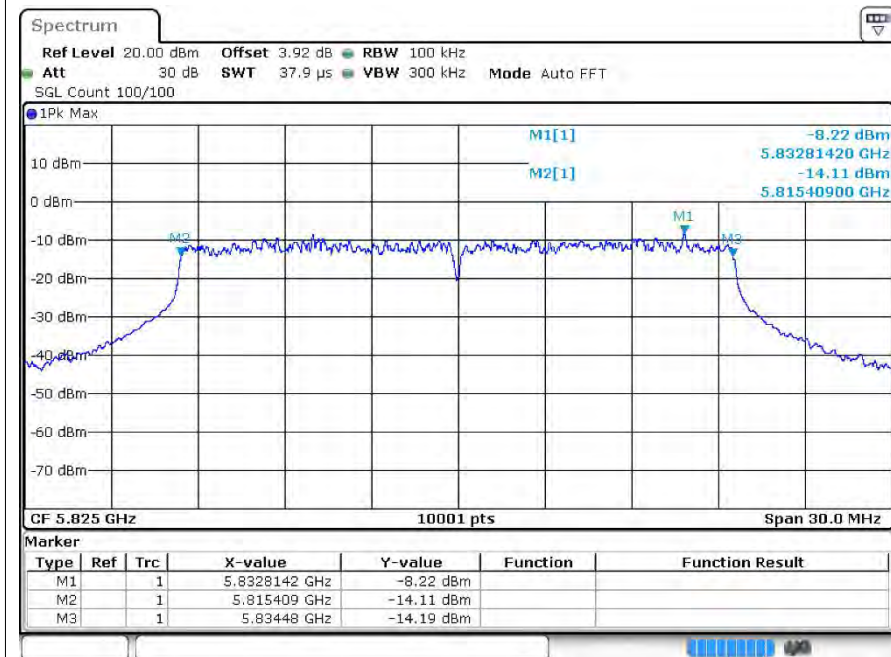


-6dB Bandwidth ax20 5785MHz Ant1

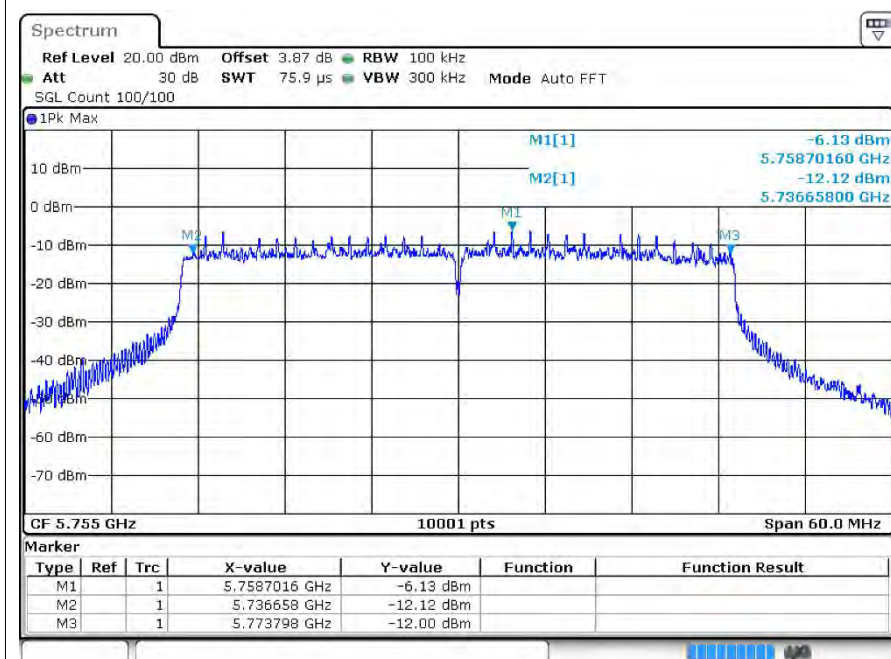




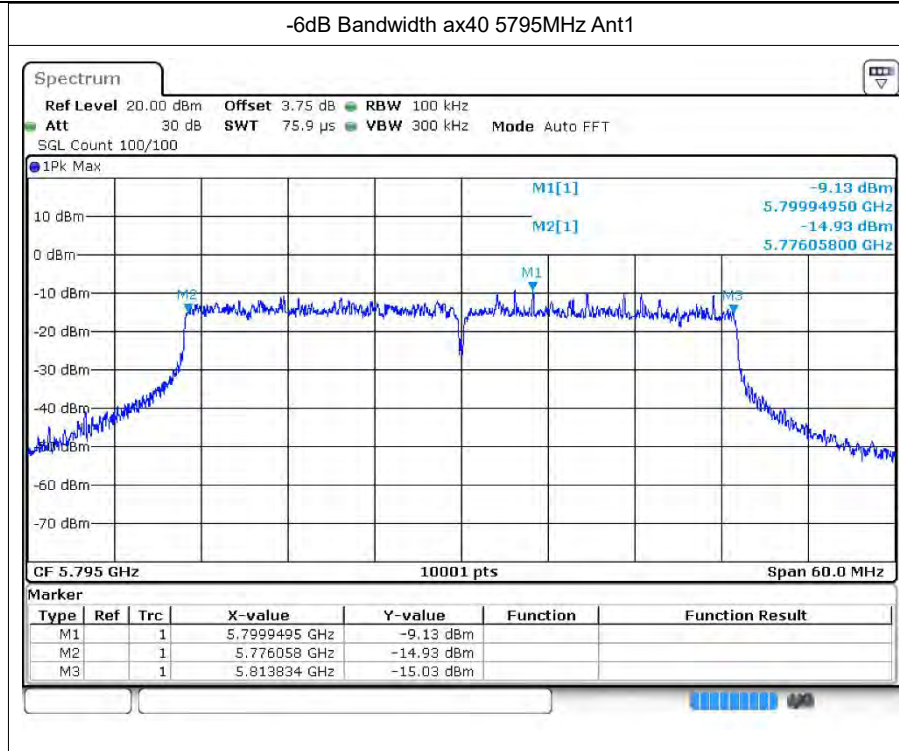
-6dB Bandwidth ax20 5825MHz Ant1



-6dB Bandwidth ax40 5755MHz Ant1









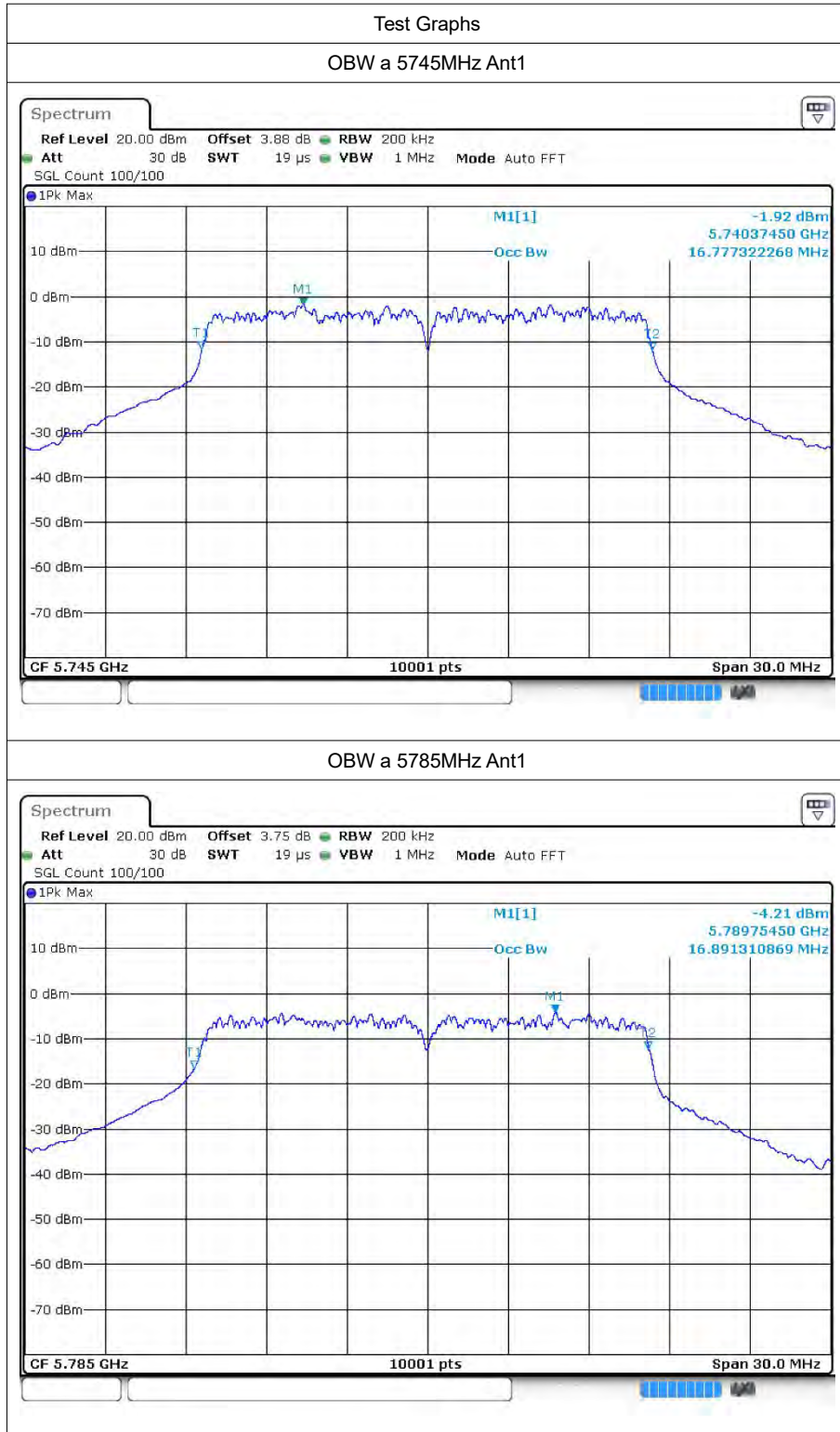
## 4 Occupied Channel Bandwidth

### 4.1 Test Result

Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
a	5745	Ant1	16.777
a	5785	Ant1	16.891
a	5825	Ant1	16.786
n20	5745	Ant1	17.953
n20	5785	Ant1	17.806
n20	5825	Ant1	17.95
n40	5755	Ant1	36.65
n40	5795	Ant1	36.536
ac20	5745	Ant1	18.022
ac20	5785	Ant1	17.911
ac20	5825	Ant1	18.016
ac40	5755	Ant1	36.41
ac40	5795	Ant1	36.758
ax20	5745	Ant1	19.18
ax20	5785	Ant1	19.048
ax20	5825	Ant1	19.033
ax40	5755	Ant1	38.006
ax40	5795	Ant1	37.94

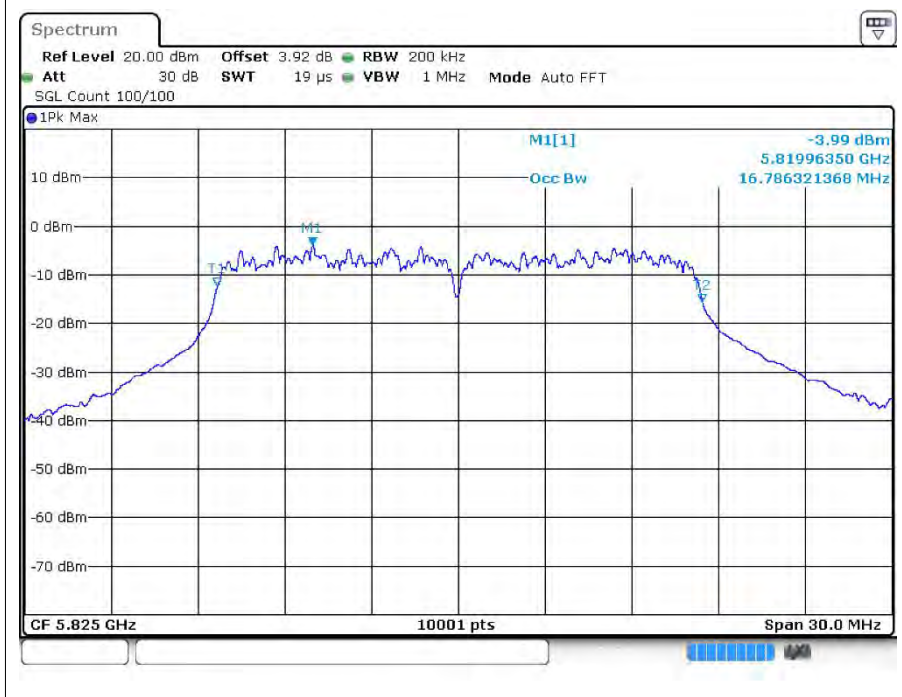


### 4.2 Test Graphs

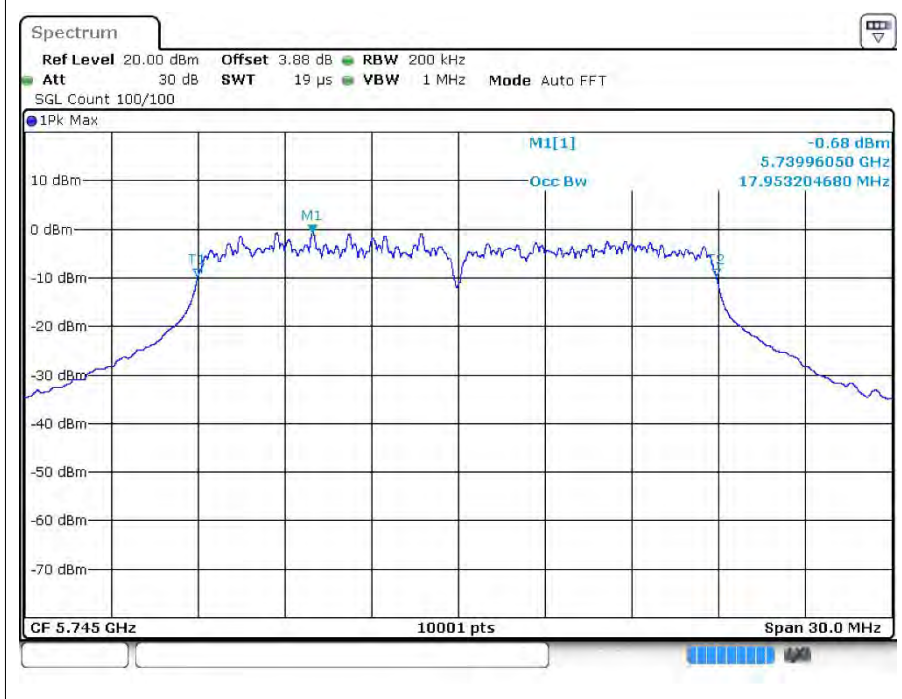




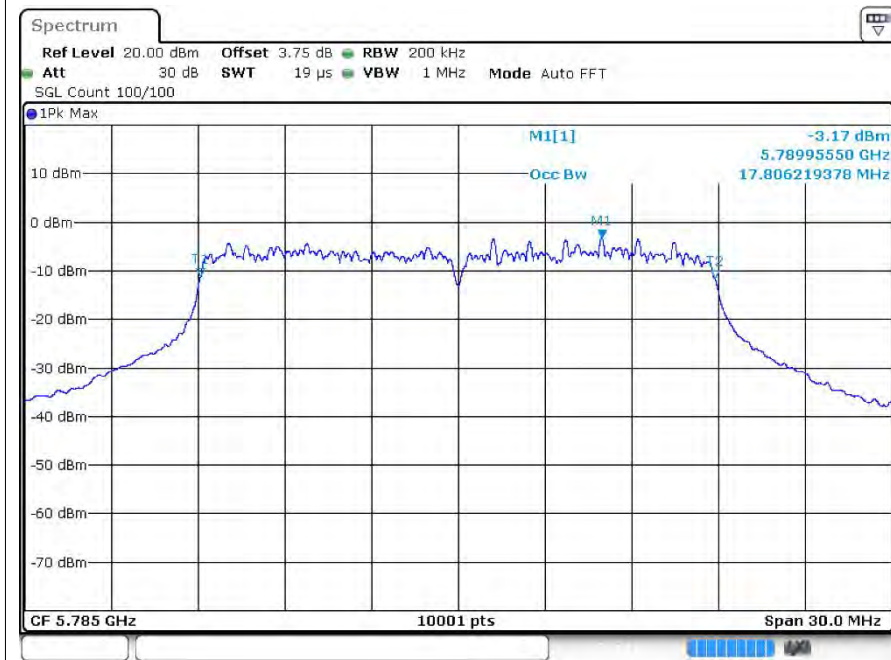
OBW a 5825MHz Ant1



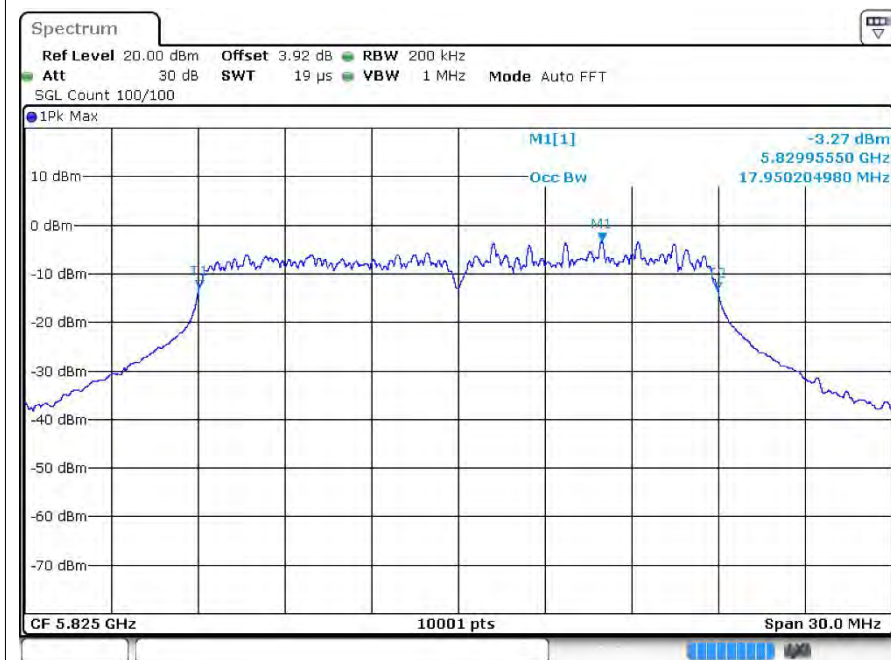
OBW n20 5745MHz Ant1



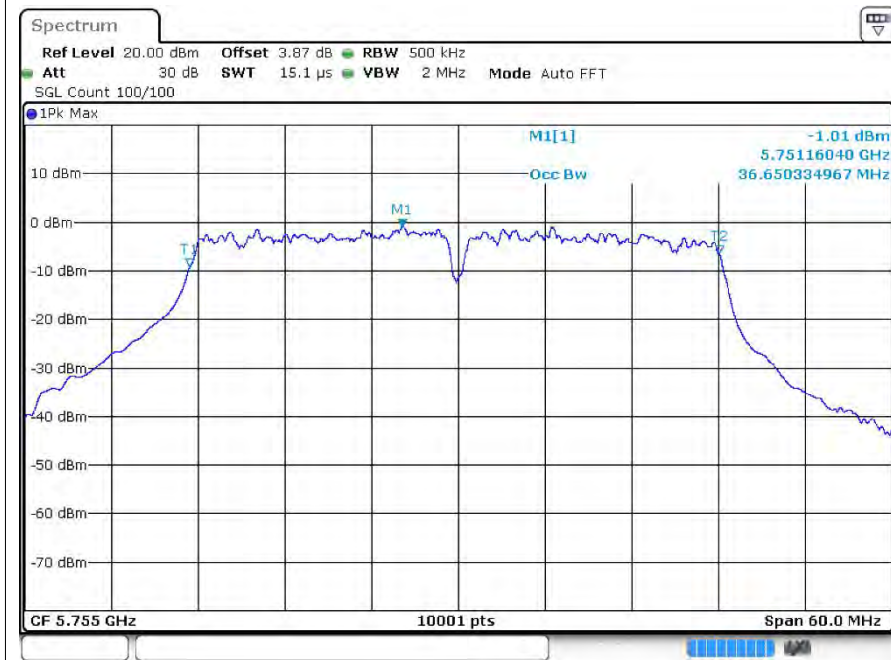
OBW n20 5785MHz Ant1



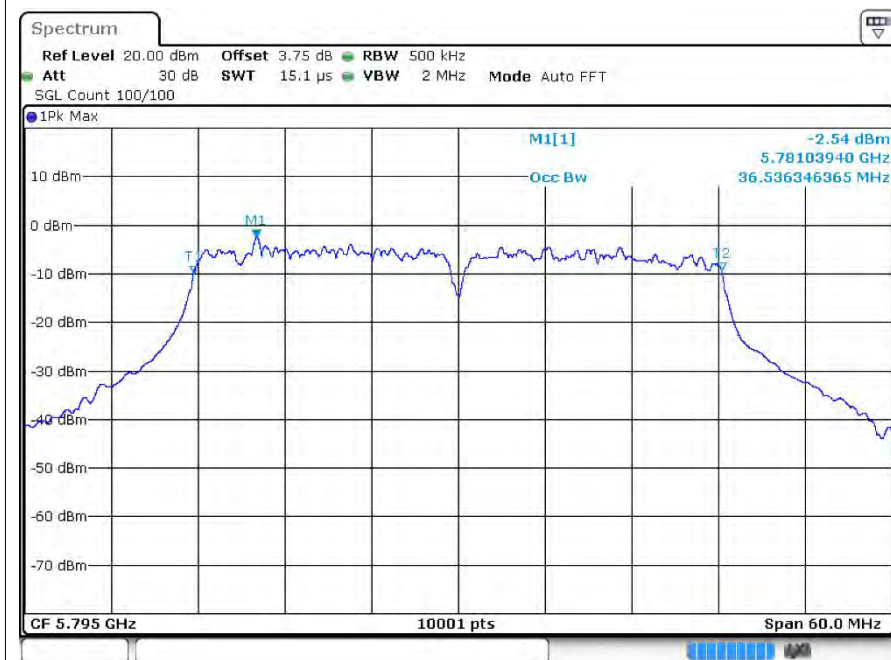
OBW n20 5825MHz Ant1



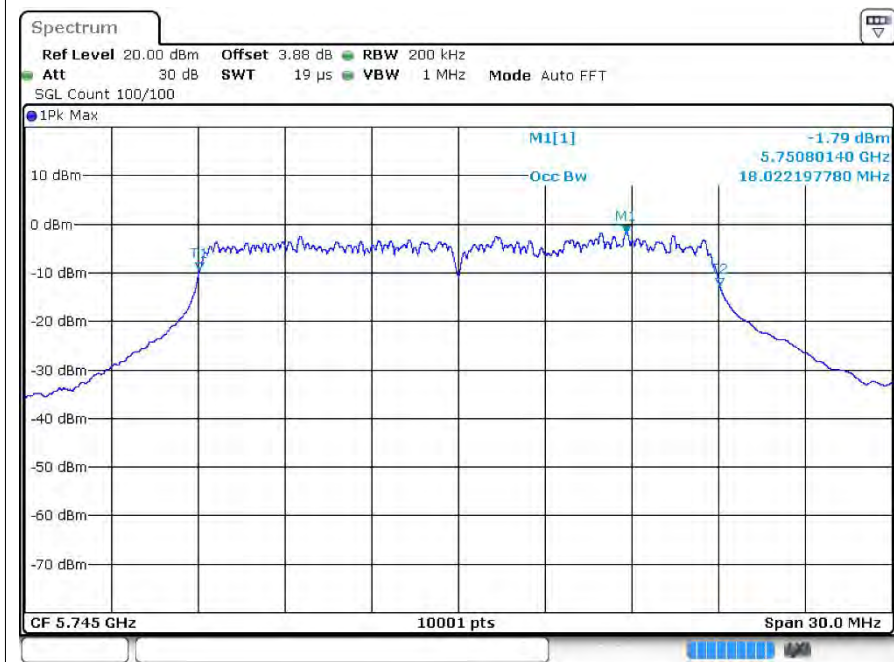
OBW n40 5755MHz Ant1



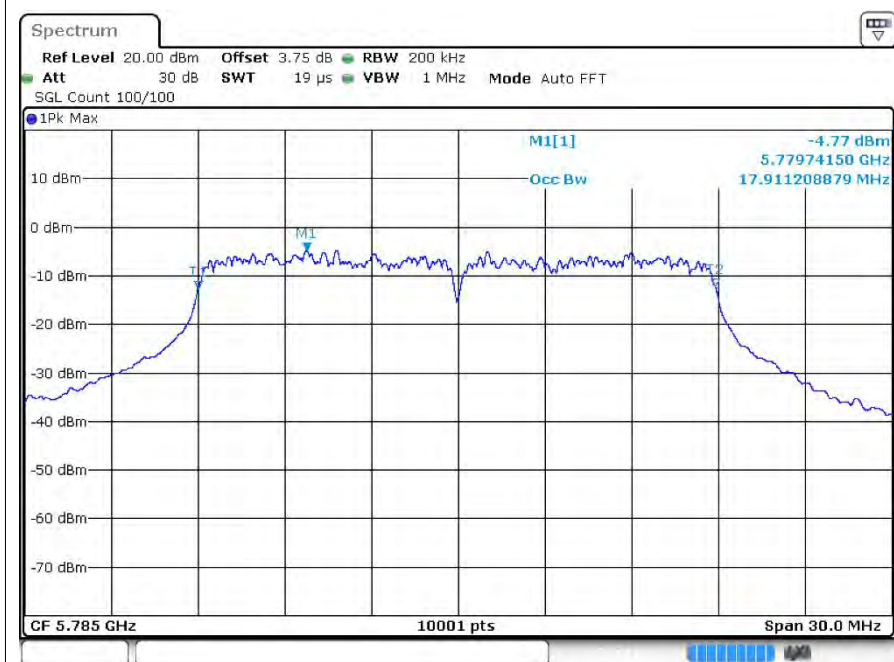
OBW n40 5795MHz Ant1



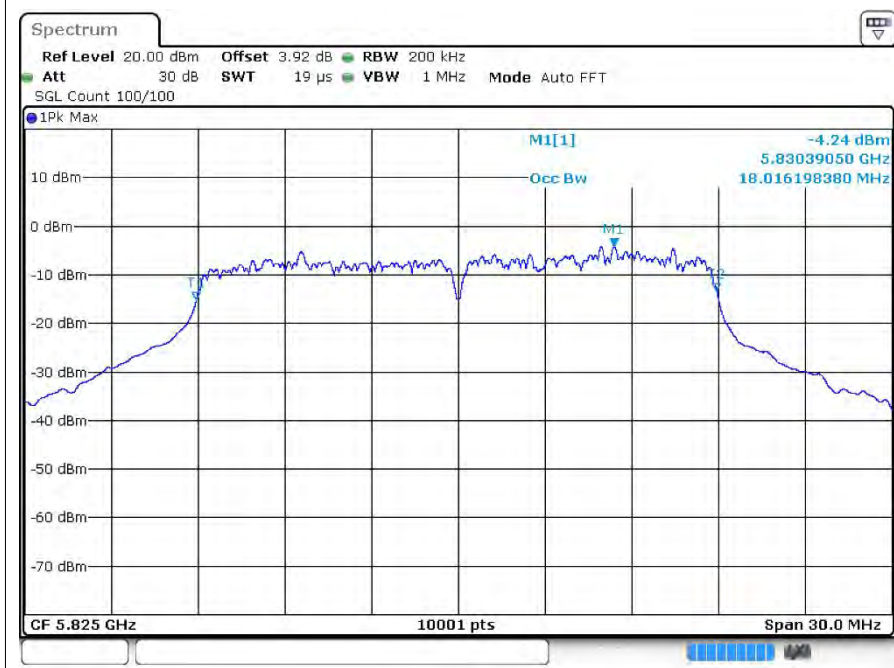
OBW ac20 5745MHz Ant1



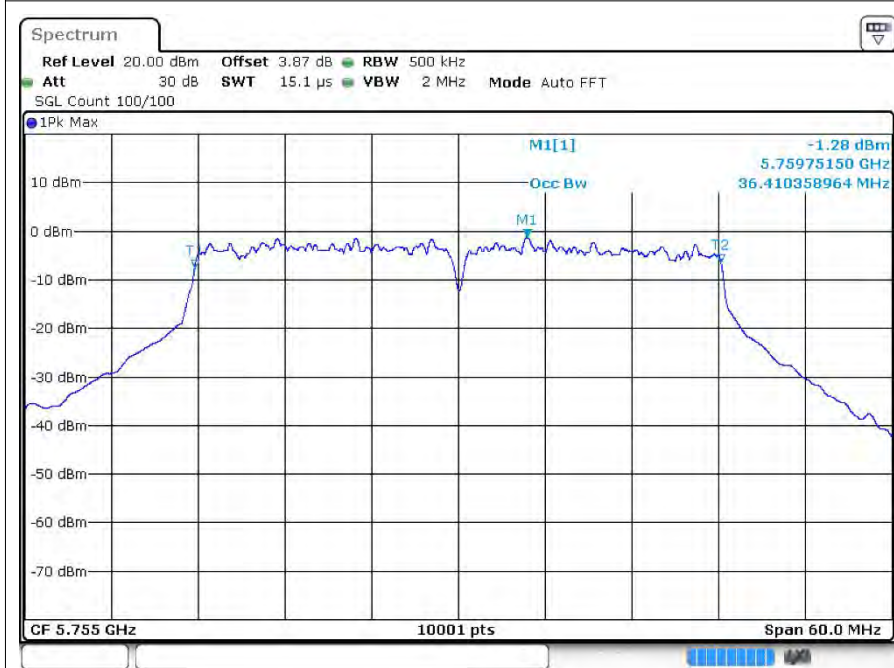
OBW ac20 5785MHz Ant1



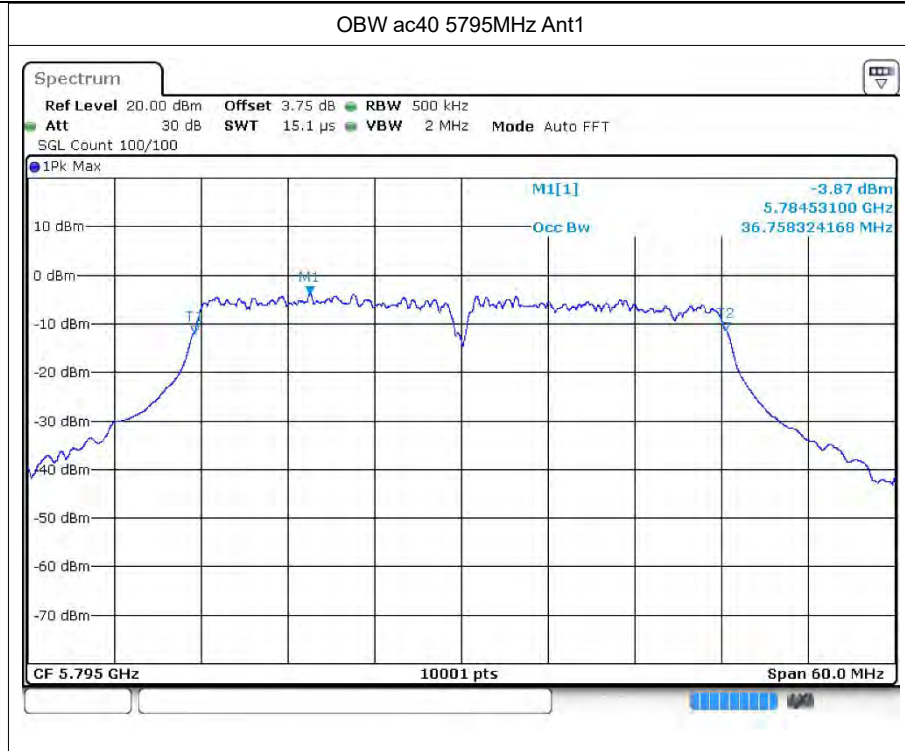
OBW ac20 5825MHz Ant1



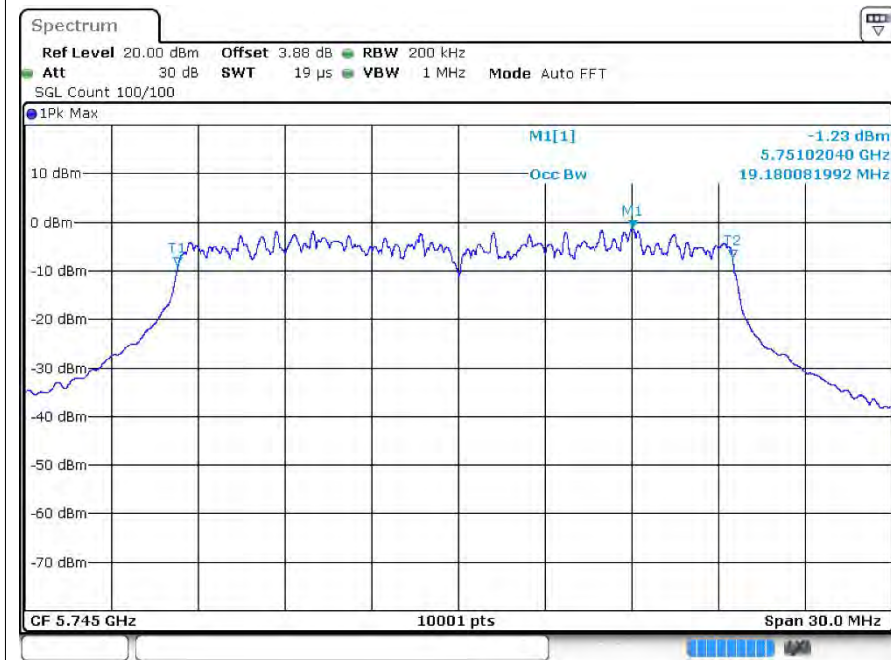
OBW ac40 5755MHz Ant1



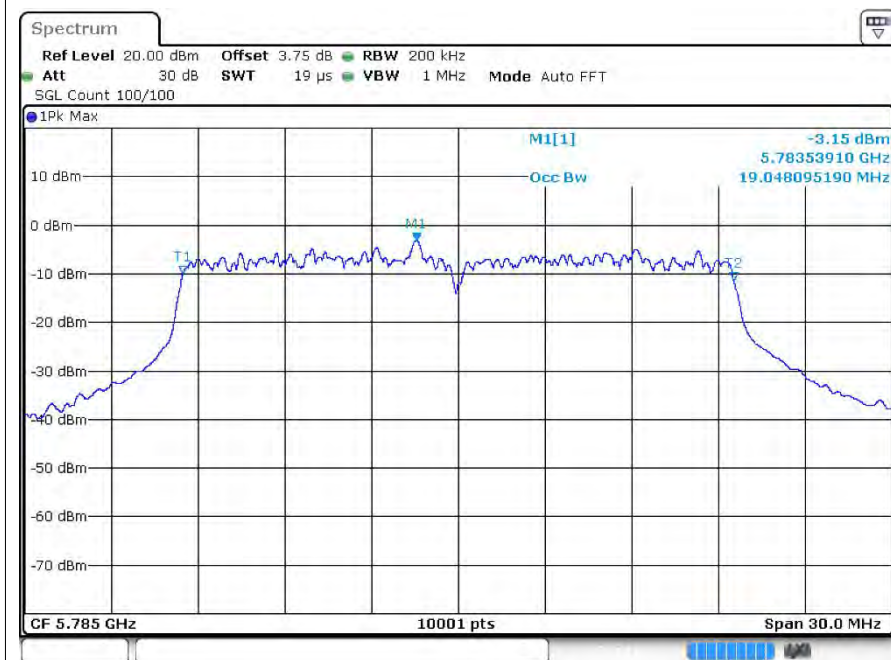




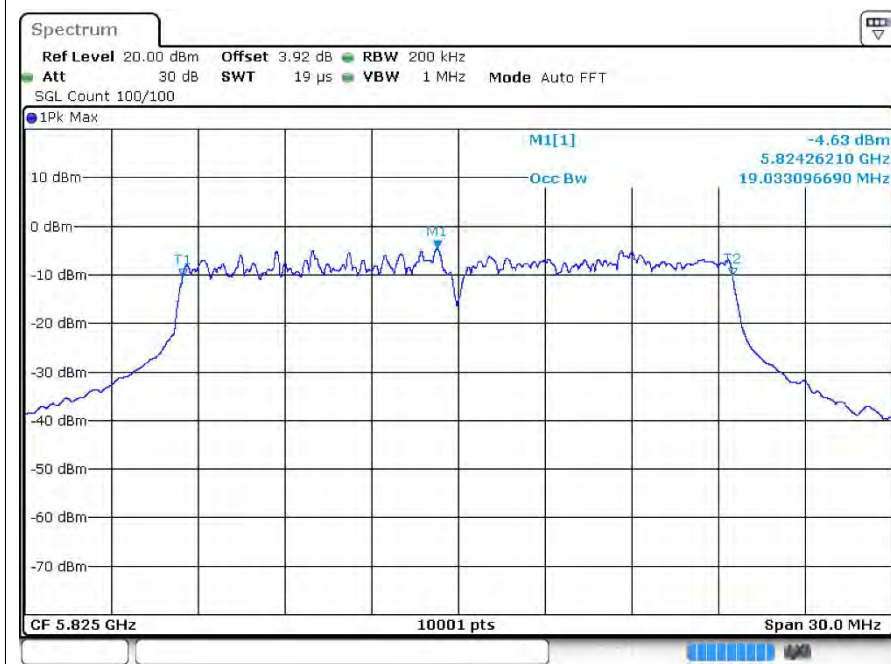
OBW ax20 5745MHz Ant1



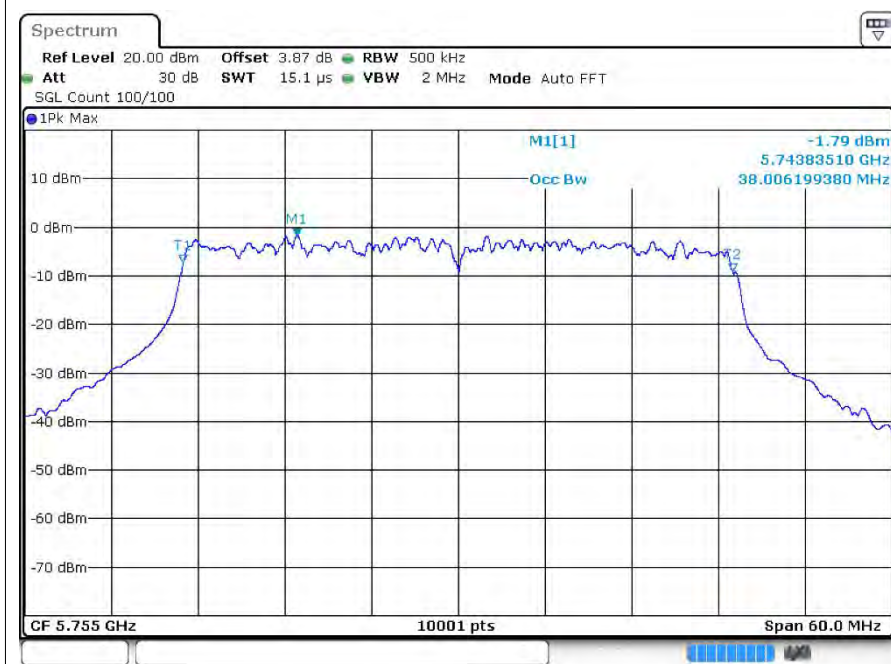
OBW ax20 5785MHz Ant1

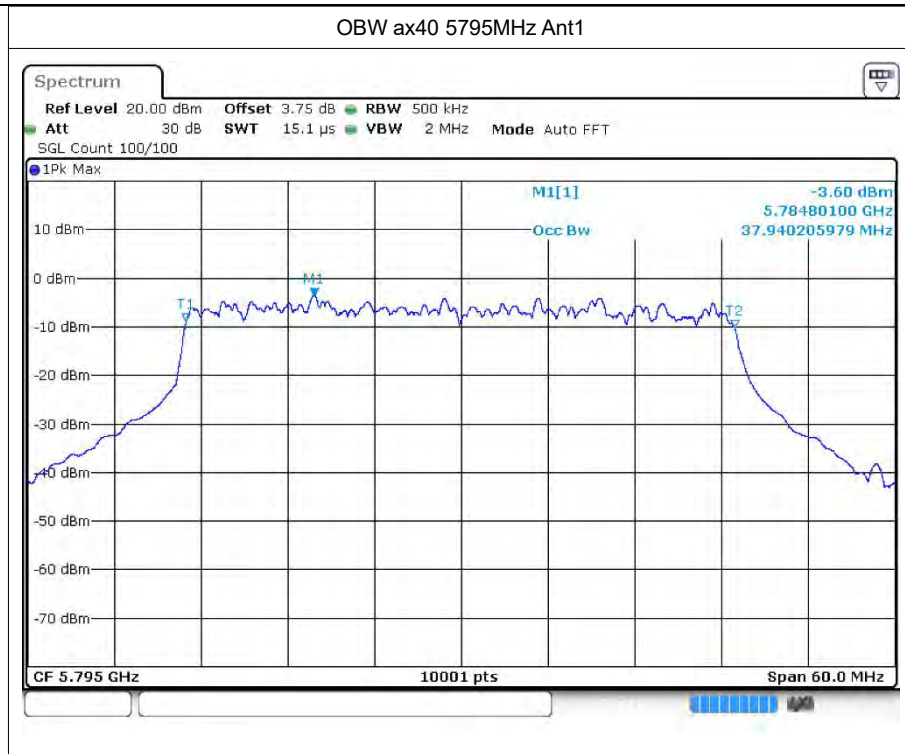


OBW ax20 5825MHz Ant1



OBW ax40 5755MHz Ant1





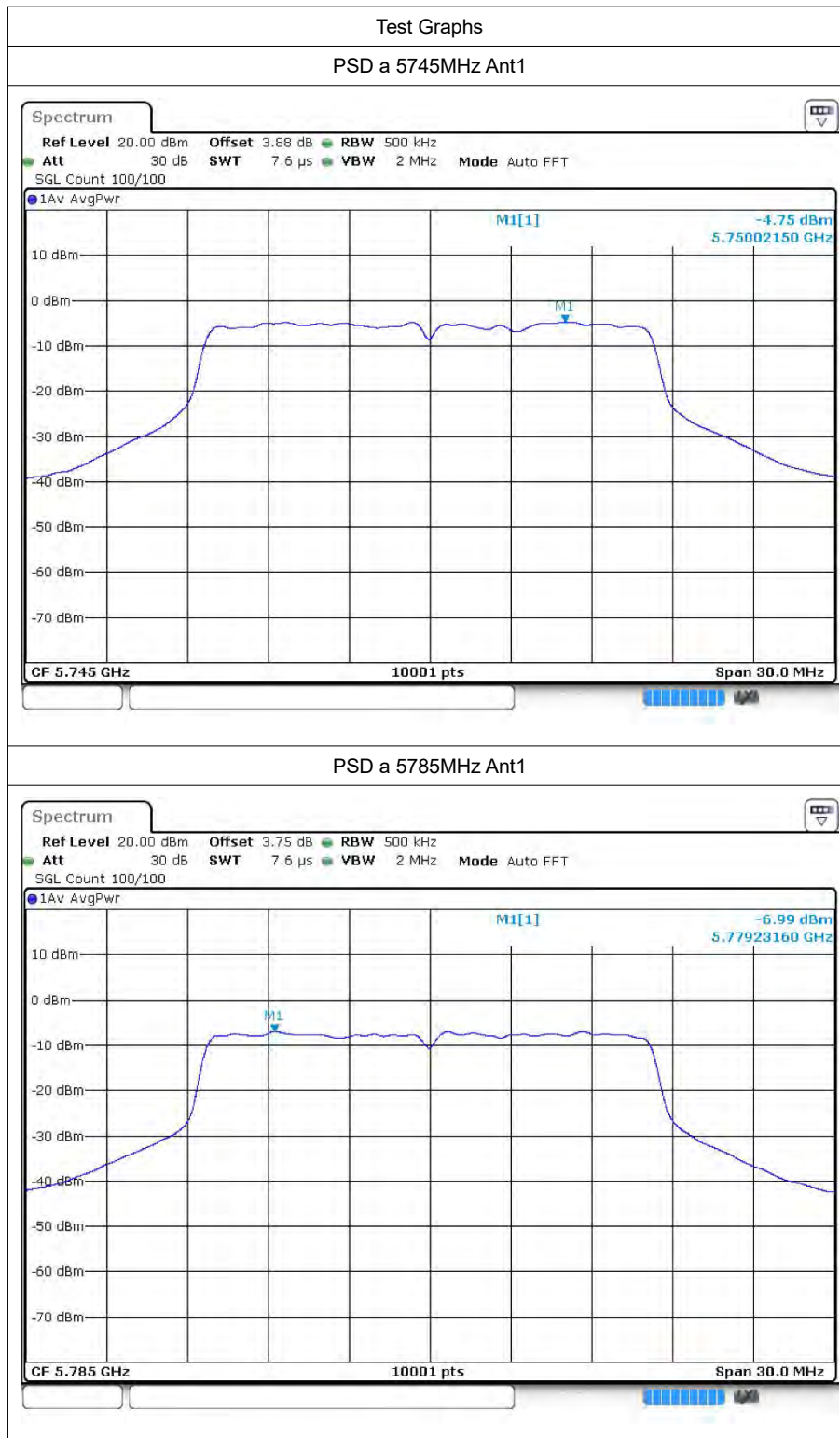


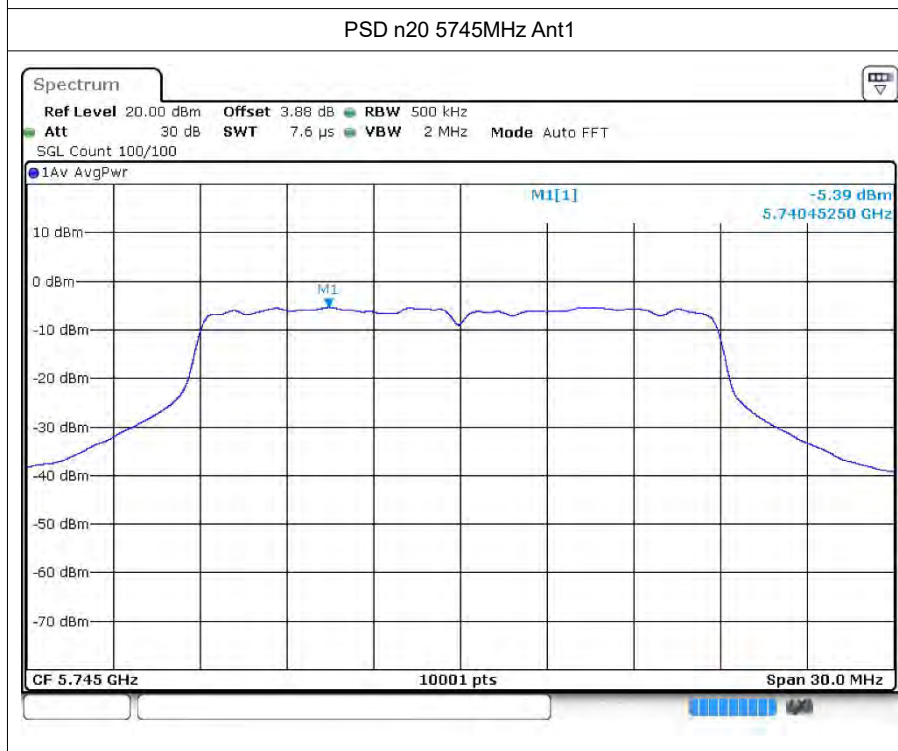
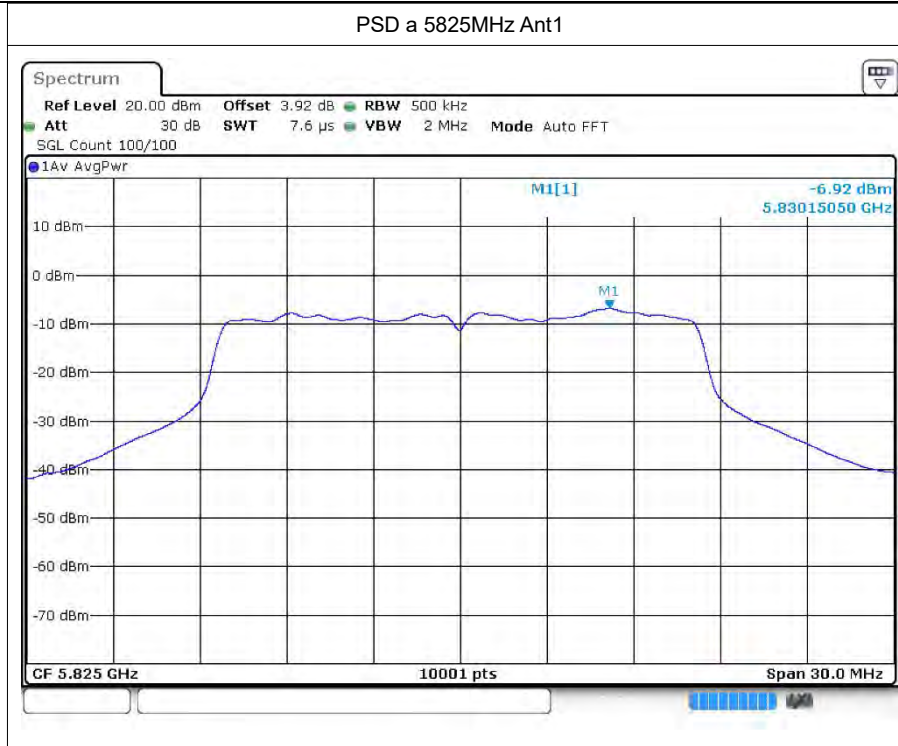
## 5 Maximum Power Spectral Density Level

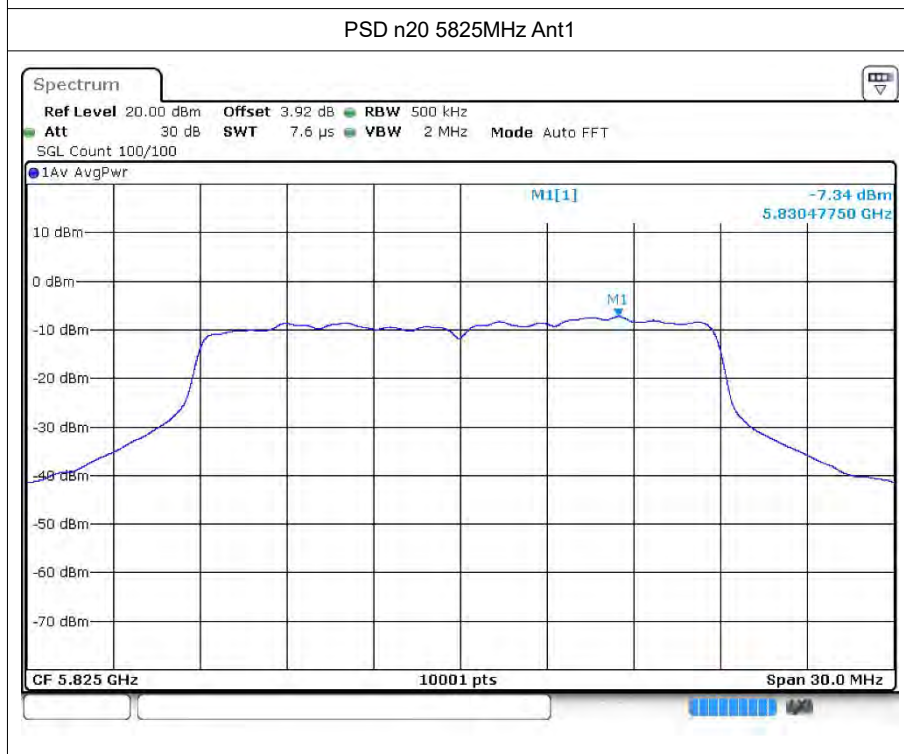
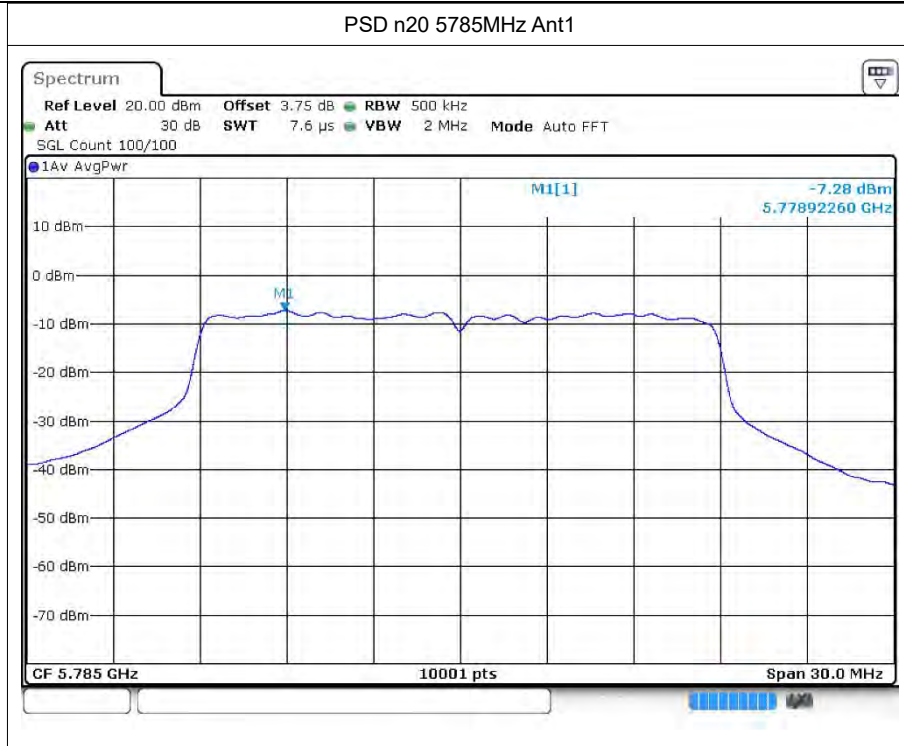
### 5.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	-4.75	0.21	-4.54	30	Pass
a	5785	Ant1	-6.99	0.18	-6.81	30	Pass
a	5825	Ant1	-6.92	0.21	-6.71	30	Pass
n20	5745	Ant1	-5.39	0.23	-5.16	30	Pass
n20	5785	Ant1	-7.28	0.2	-7.08	30	Pass
n20	5825	Ant1	-7.34	0.2	-7.14	30	Pass
n40	5755	Ant1	-8.4	0.45	-7.95	30	Pass
n40	5795	Ant1	-10.81	0.49	-10.32	30	Pass
ac20	5745	Ant1	-5.56	0.19	-5.37	30	Pass
ac20	5785	Ant1	-7.38	0.19	-7.19	30	Pass
ac20	5825	Ant1	-7.9	0.24	-7.66	30	Pass
ac40	5755	Ant1	-8.27	0.45	-7.82	30	Pass
ac40	5795	Ant1	-10.71	0.44	-10.27	30	Pass
ax20	5745	Ant1	-6.6	0.45	-6.15	30	Pass
ax20	5785	Ant1	-9.22	0.31	-8.91	30	Pass
ax20	5825	Ant1	-9.08	0.39	-8.69	30	Pass
ax40	5755	Ant1	-10.03	0.81	-9.22	30	Pass
ax40	5795	Ant1	-12.19	0.57	-11.62	30	Pass

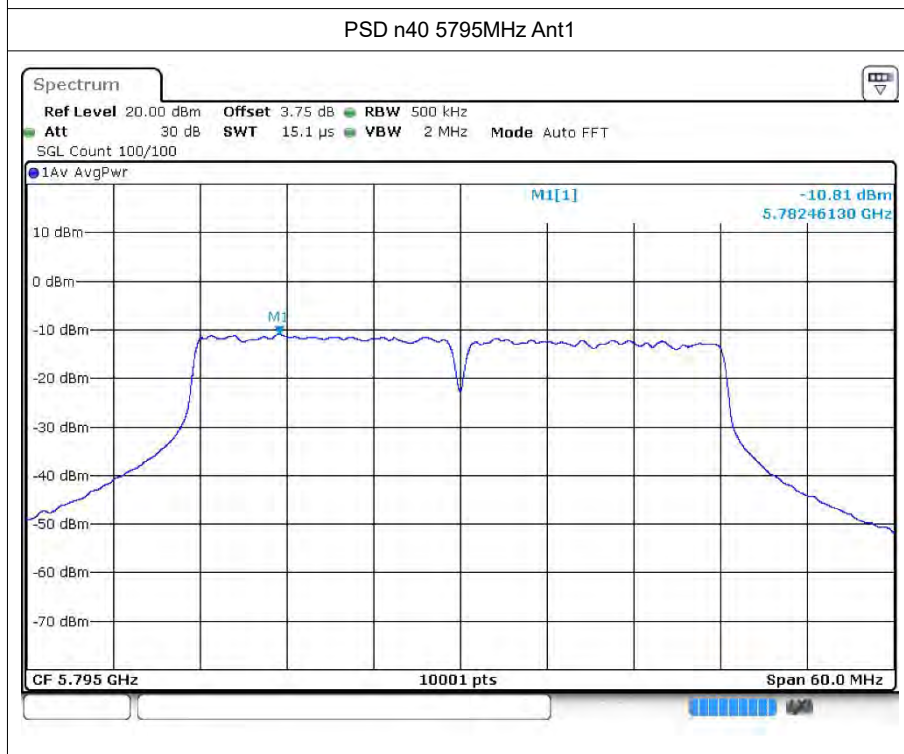
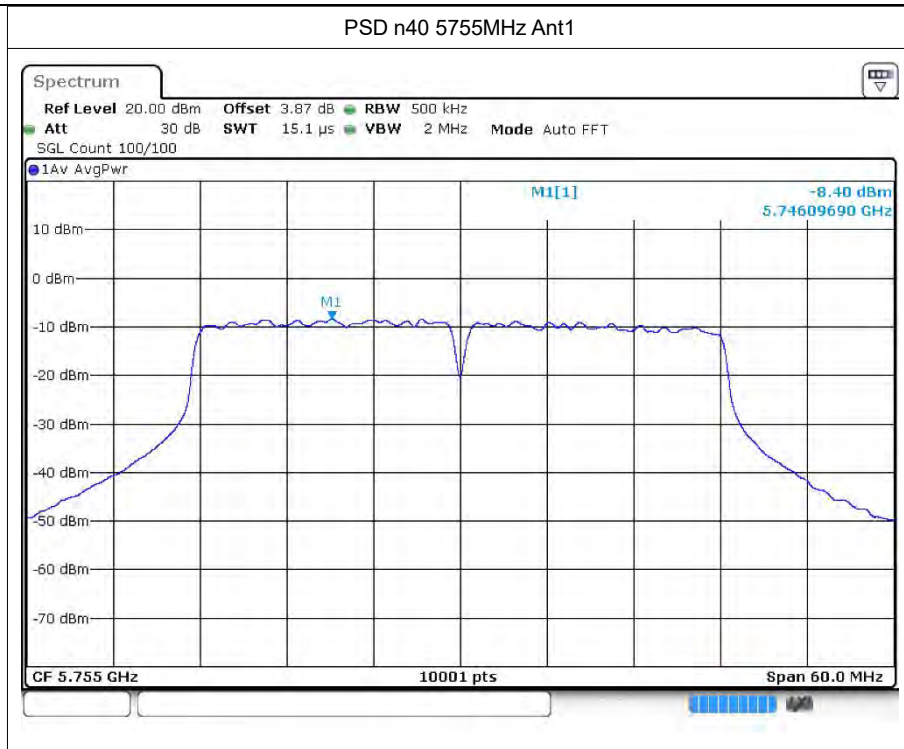
## 5.2 Test Graphs



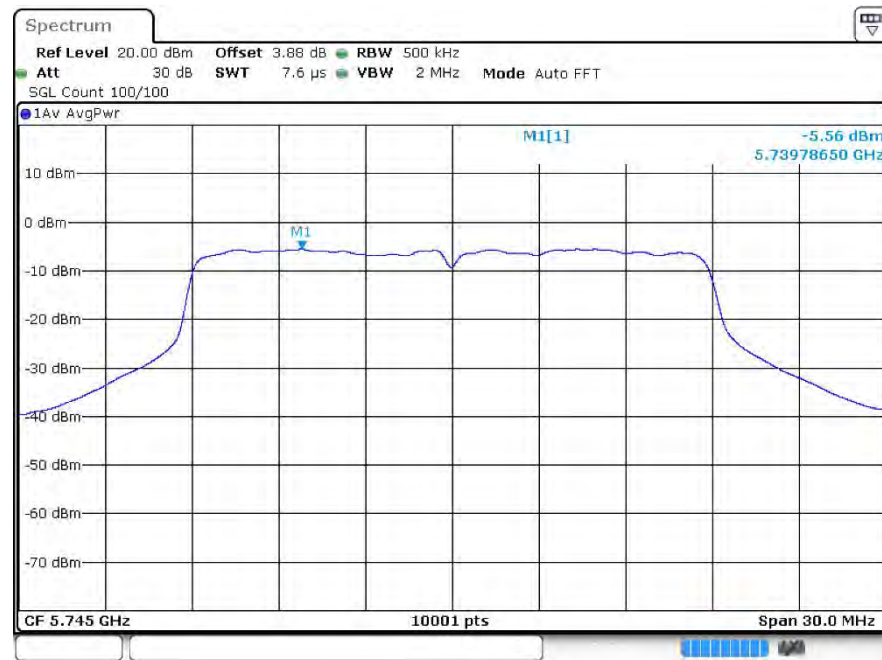




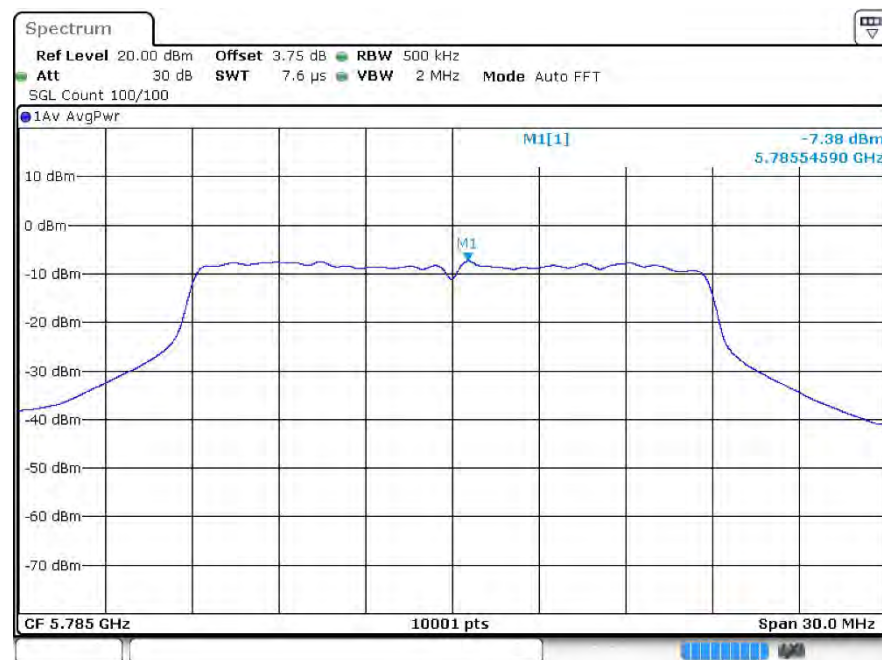


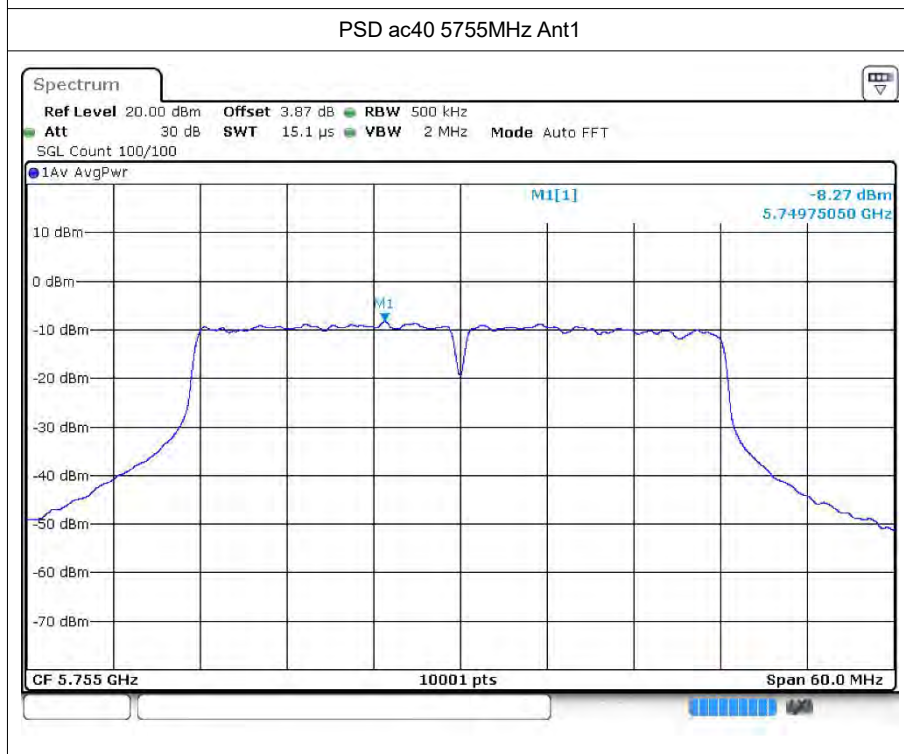
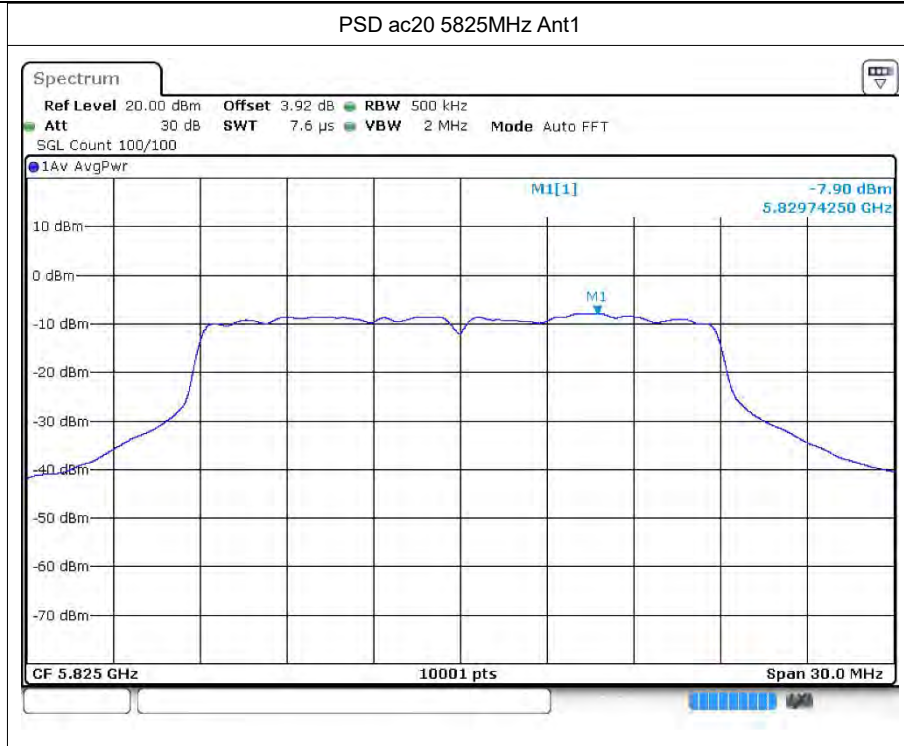


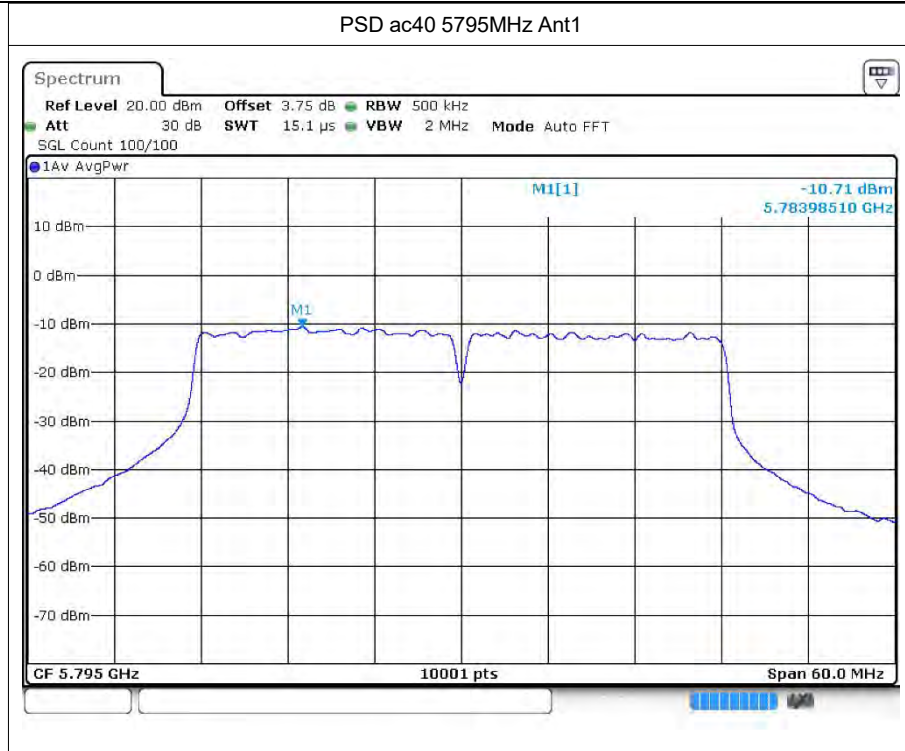
PSD ac20 5745MHz Ant1



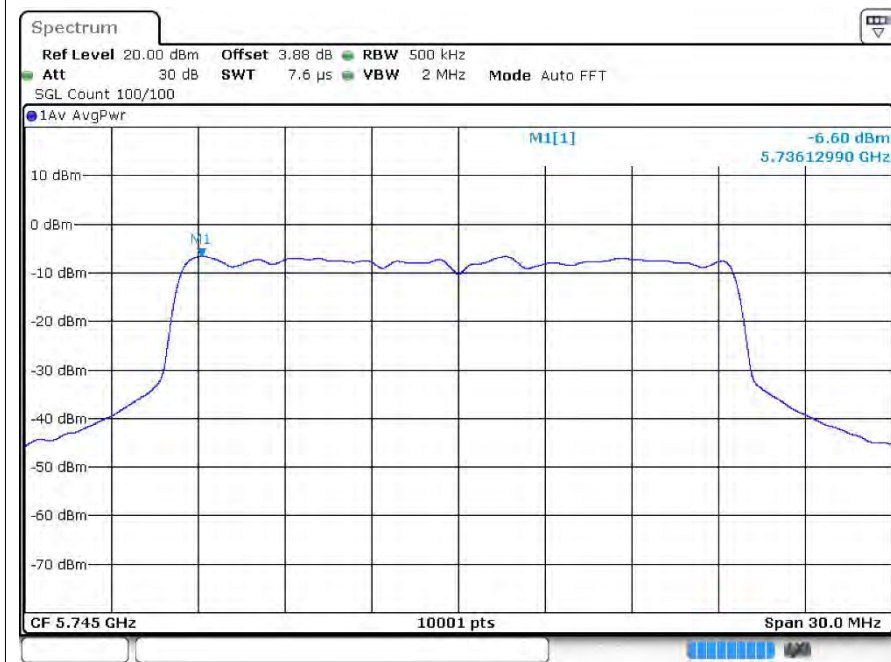
PSD ac20 5785MHz Ant1



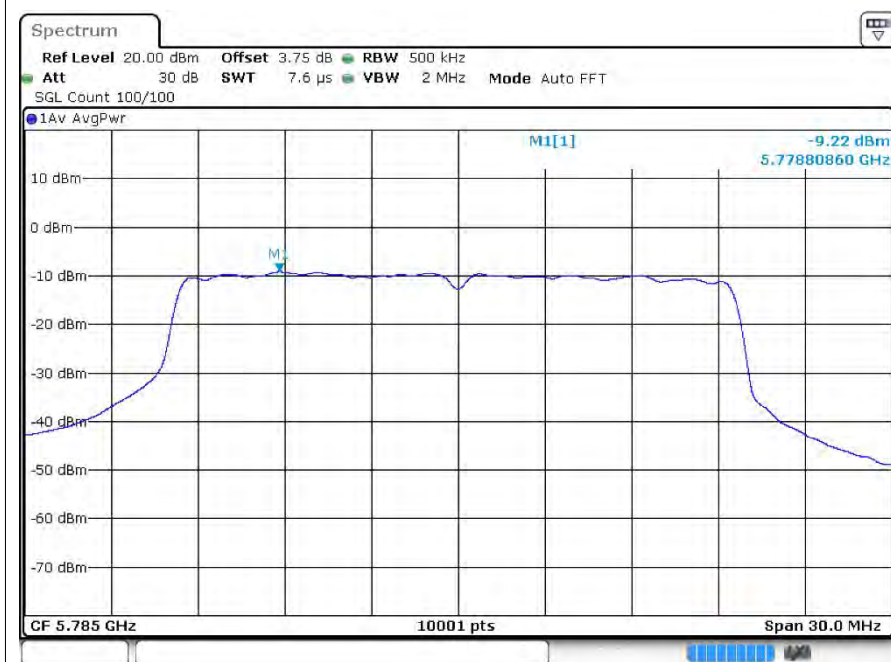


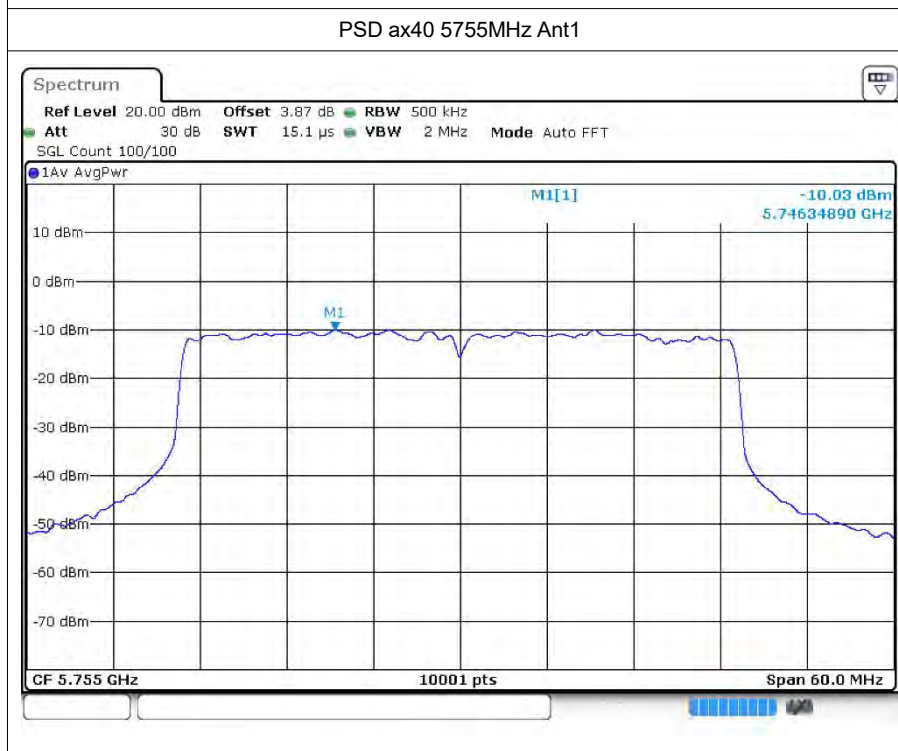
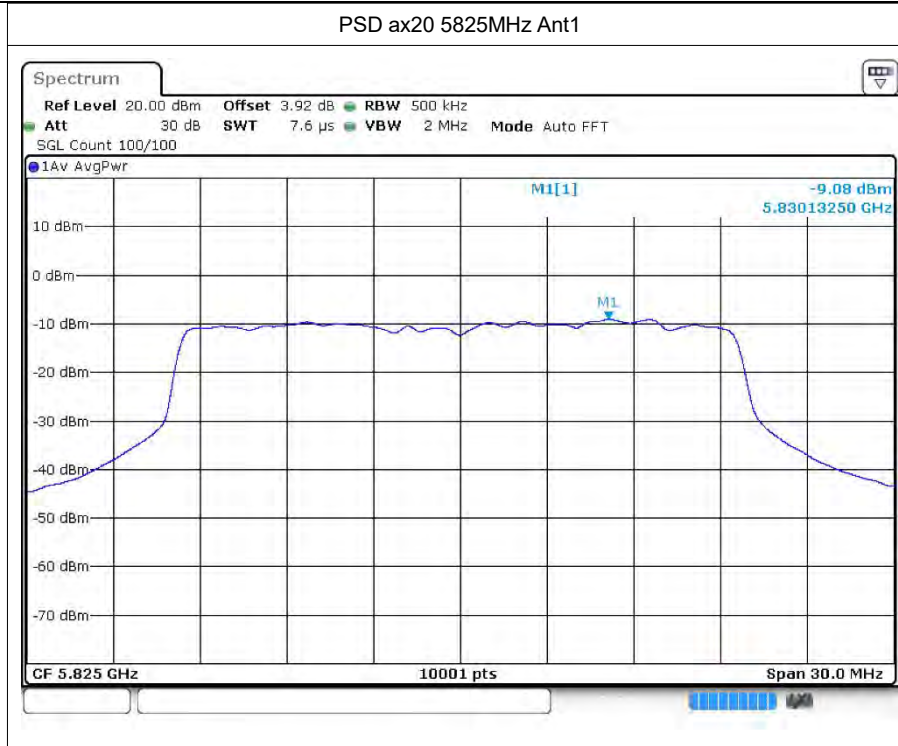


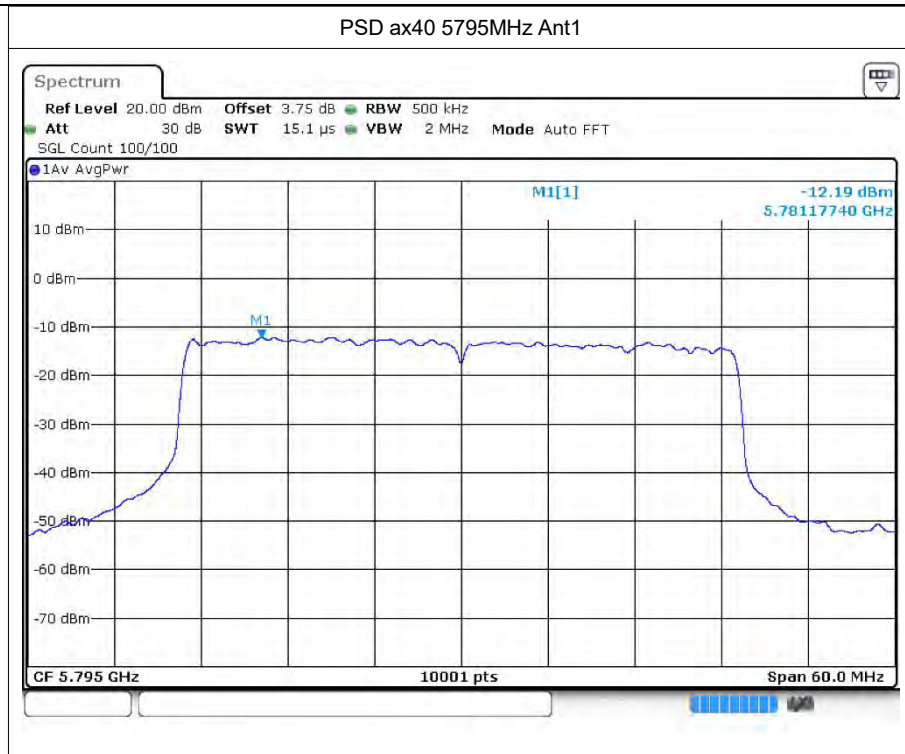
PSD ax20 5745MHz Ant1



PSD ax20 5785MHz Ant1









## 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	5745	Ant1	5744.96	-40000	-6.96	25	Pass
20C 120V	a	5745	Ant1	5744.96	-40000	-6.96	25	Pass
20C 138V	a	5745	Ant1	5744.96	-40000	-6.96	25	Pass
-20C 120V	a	5745	Ant1	5744.98	-20000	-3.48	25	Pass
-10C 120V	a	5745	Ant1	5744.96	-40000	-6.96	25	Pass
0C 120V	a	5745	Ant1	5744.96	-40000	-6.96	25	Pass
10C 120V	a	5745	Ant1	5744.94	-60000	-10.44	25	Pass
30C 120V	a	5745	Ant1	5744.94	-60000	-10.44	25	Pass
40C 120V	a	5745	Ant1	5744.96	-40000	-6.96	25	Pass
50C 120V	a	5745	Ant1	5744.96	-40000	-6.96	25	Pass
20C 102V	a	5785	Ant1	5784.96	-40000	-6.91	25	Pass
20C 120V	a	5785	Ant1	5784.92	-80000	-13.83	25	Pass
20C 138V	a	5785	Ant1	5784.96	-40000	-6.91	25	Pass
-20C 120V	a	5785	Ant1	5784.96	-40000	-6.91	25	Pass
-10C 120V	a	5785	Ant1	5784.98	-20000	-3.46	25	Pass
0C 120V	a	5785	Ant1	5784.96	-40000	-6.91	25	Pass
10C 120V	a	5785	Ant1	5784.96	-40000	-6.91	25	Pass
30C 120V	a	5785	Ant1	5784.96	-40000	-6.91	25	Pass
40C 120V	a	5785	Ant1	5784.96	-40000	-6.91	25	Pass
50C 120V	a	5785	Ant1	5784.96	-40000	-6.91	25	Pass
20C 102V	a	5825	Ant1	5824.96	-40000	-6.87	25	Pass
20C 120V	a	5825	Ant1	5824.96	-40000	-6.87	25	Pass
20C 138V	a	5825	Ant1	5824.96	-40000	-6.87	25	Pass
-20C 120V	a	5825	Ant1	5824.98	-20000	-3.43	25	Pass
-10C 120V	a	5825	Ant1	5824.98	-20000	-3.43	25	Pass
0C 120V	a	5825	Ant1	5824.96	-40000	-6.87	25	Pass
10C 120V	a	5825	Ant1	5824.96	-40000	-6.87	25	Pass
30C 120V	a	5825	Ant1	5824.98	-20000	-3.43	25	Pass
40C 120V	a	5825	Ant1	5824.98	-20000	-3.43	25	Pass
50C 120V	a	5825	Ant1	5824.96	-40000	-6.87	25	Pass
20C 102V	n20	5745	Ant1	5744.98	-20000	-3.48	25	Pass
20C 120V	n20	5745	Ant1	5744.98	-20000	-3.48	25	Pass
20C 138V	n20	5745	Ant1	5744.98	-20000	-3.48	25	Pass
-20C 120V	n20	5745	Ant1	5744.96	-40000	-6.96	25	Pass





-10C 120V	n20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
0C 120V	n20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
10C 120V	n20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
30C 120V	n20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
40C 120V	n20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
50C 120V	n20	5745	Ant1	5744.98	-20000	-3.48	25	Pass
20C 102V	n20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
20C 120V	n20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
20C 138V	n20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
-20C 120V	n20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
-10C 120V	n20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
0C 120V	n20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
10C 120V	n20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
30C 120V	n20	5785	Ant1	5784.98	-20000	-3.46	25	Pass
40C 120V	n20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
50C 120V	n20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
20C 102V	n20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
20C 120V	n20	5825	Ant1	5824.98	-20000	-3.43	25	Pass
20C 138V	n20	5825	Ant1	5824.98	-20000	-3.43	25	Pass
-20C 120V	n20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
-10C 120V	n20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
0C 120V	n20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
10C 120V	n20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
30C 120V	n20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
40C 120V	n20	5825	Ant1	5824.98	-20000	-3.43	25	Pass
50C 120V	n20	5825	Ant1	5824.94	-60000	-10.3	25	Pass
20C 102V	n40	5755	Ant1	5755	0	0	25	Pass
20C 120V	n40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
20C 138V	n40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
-20C 120V	n40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
-10C 120V	n40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
0C 120V	n40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
10C 120V	n40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
30C 120V	n40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
40C 120V	n40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
50C 120V	n40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
20C 102V	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
20C 120V	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
20C 138V	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
-20C 120V	n40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
-10C 120V	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
0C 120V	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
10C 120V	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass



30C 120V	n40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
40C 120V	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
50C 120V	n40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
20C 102V	ac20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
20C 120V	ac20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
20C 138V	ac20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
-20C 120V	ac20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
-10C 120V	ac20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
0C 120V	ac20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
10C 120V	ac20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
30C 120V	ac20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
40C 120V	ac20	5745	Ant1	5744.98	-20000	-3.48	25	Pass
50C 120V	ac20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
20C 102V	ac20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
20C 120V	ac20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
20C 138V	ac20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
-20C 120V	ac20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
-10C 120V	ac20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
0C 120V	ac20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
10C 120V	ac20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
30C 120V	ac20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
40C 120V	ac20	5785	Ant1	5784.98	-20000	-3.46	25	Pass
50C 120V	ac20	5785	Ant1	5784.98	-20000	-3.46	25	Pass
20C 102V	ac20	5825	Ant1	5824.98	-20000	-3.43	25	Pass
20C 120V	ac20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
20C 138V	ac20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
-20C 120V	ac20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
-10C 120V	ac20	5825	Ant1	5824.98	-20000	-3.43	25	Pass
0C 120V	ac20	5825	Ant1	5824.98	-20000	-3.43	25	Pass
10C 120V	ac20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
30C 120V	ac20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
40C 120V	ac20	5825	Ant1	5824.94	-60000	-10.3	25	Pass
50C 120V	ac20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
20C 102V	ac40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
20C 120V	ac40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
20C 138V	ac40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
-20C 120V	ac40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
-10C 120V	ac40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
0C 120V	ac40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
10C 120V	ac40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
30C 120V	ac40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
40C 120V	ac40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
50C 120V	ac40	5755	Ant1	5754.92	-80000	-13.9	25	Pass



20C 102V	ac40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
20C 120V	ac40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
20C 138V	ac40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
-20C 120V	ac40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
-10C 120V	ac40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
0C 120V	ac40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
10C 120V	ac40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
30C 120V	ac40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
40C 120V	ac40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
50C 120V	ac40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
20C 102V	ax20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
20C 120V	ax20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
20C 138V	ax20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
-20C 120V	ax20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
-10C 120V	ax20	5745	Ant1	5744.98	-20000	-3.48	25	Pass
0C 120V	ax20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
10C 120V	ax20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
30C 120V	ax20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
40C 120V	ax20	5745	Ant1	5744.96	-40000	-6.96	25	Pass
50C 120V	ax20	5745	Ant1	5744.94	-60000	-10.44	25	Pass
20C 102V	ax20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
20C 120V	ax20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
20C 138V	ax20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
-20C 120V	ax20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
-10C 120V	ax20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
0C 120V	ax20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
10C 120V	ax20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
30C 120V	ax20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
40C 120V	ax20	5785	Ant1	5784.94	-60000	-10.37	25	Pass
50C 120V	ax20	5785	Ant1	5784.96	-40000	-6.91	25	Pass
20C 102V	ax20	5825	Ant1	5824.94	-60000	-10.3	25	Pass
20C 120V	ax20	5825	Ant1	5824.94	-60000	-10.3	25	Pass
20C 138V	ax20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
-20C 120V	ax20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
-10C 120V	ax20	5825	Ant1	5824.98	-20000	-3.43	25	Pass
0C 120V	ax20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
10C 120V	ax20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
30C 120V	ax20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
40C 120V	ax20	5825	Ant1	5824.96	-40000	-6.87	25	Pass
50C 120V	ax20	5825	Ant1	5824.94	-60000	-10.3	25	Pass
20C 102V	ax40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
20C 120V	ax40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
20C 138V	ax40	5755	Ant1	5754.96	-40000	-6.95	25	Pass



-20C 120V	ax40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
-10C 120V	ax40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
0C 120V	ax40	5755	Ant1	5754.96	-40000	-6.95	25	Pass
10C 120V	ax40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
30C 120V	ax40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
40C 120V	ax40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
50C 120V	ax40	5755	Ant1	5754.92	-80000	-13.9	25	Pass
20C 102V	ax40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
20C 120V	ax40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
20C 138V	ax40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
-20C 120V	ax40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
-10C 120V	ax40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
0C 120V	ax40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
10C 120V	ax40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
30C 120V	ax40	5795	Ant1	5794.92	-80000	-13.81	25	Pass
40C 120V	ax40	5795	Ant1	5794.96	-40000	-6.9	25	Pass
50C 120V	ax40	5795	Ant1	5794.92	-80000	-13.81	25	Pass

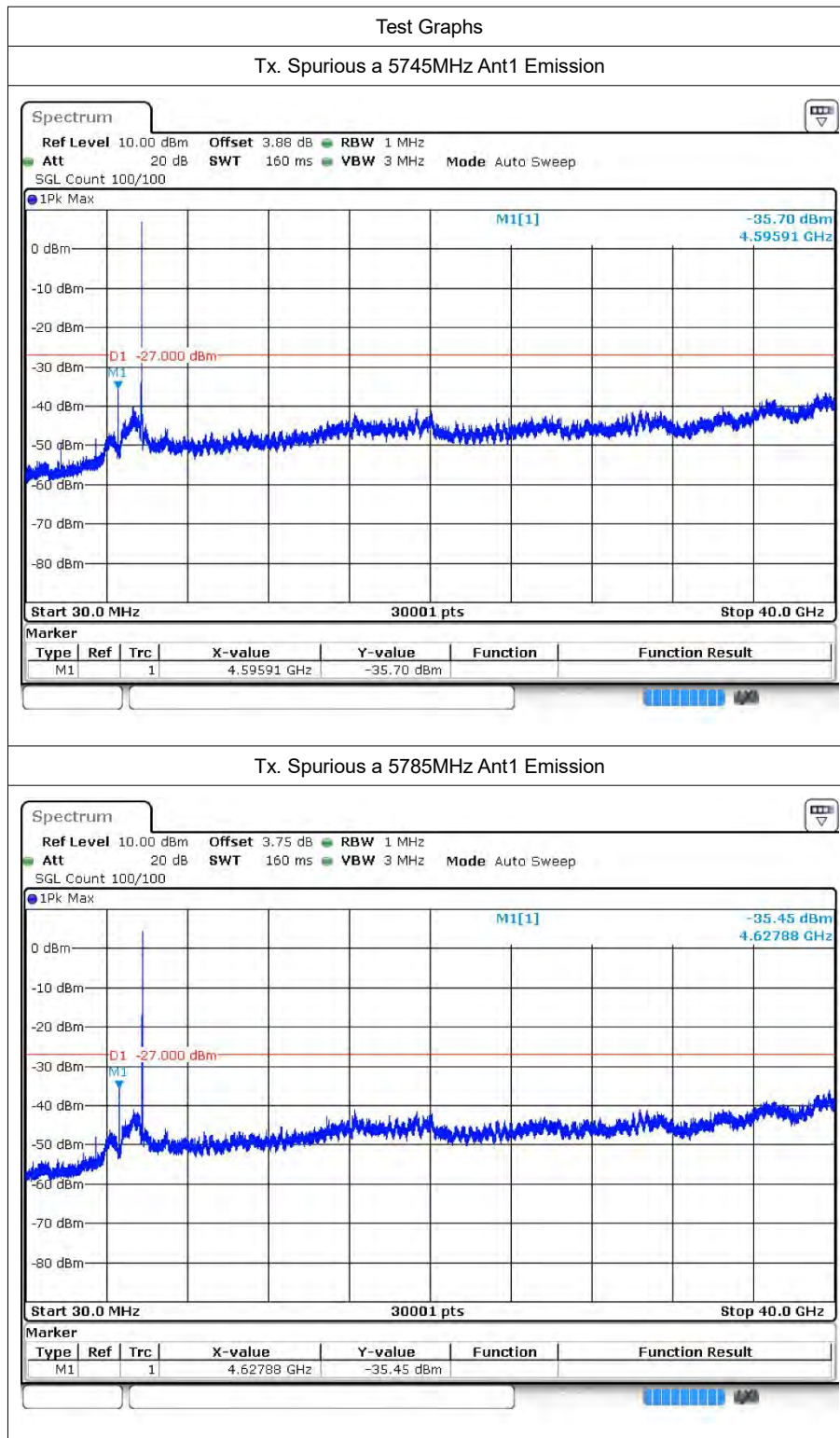


## 7 Conducted RF Spurious Emission

### 7.1 Test Result

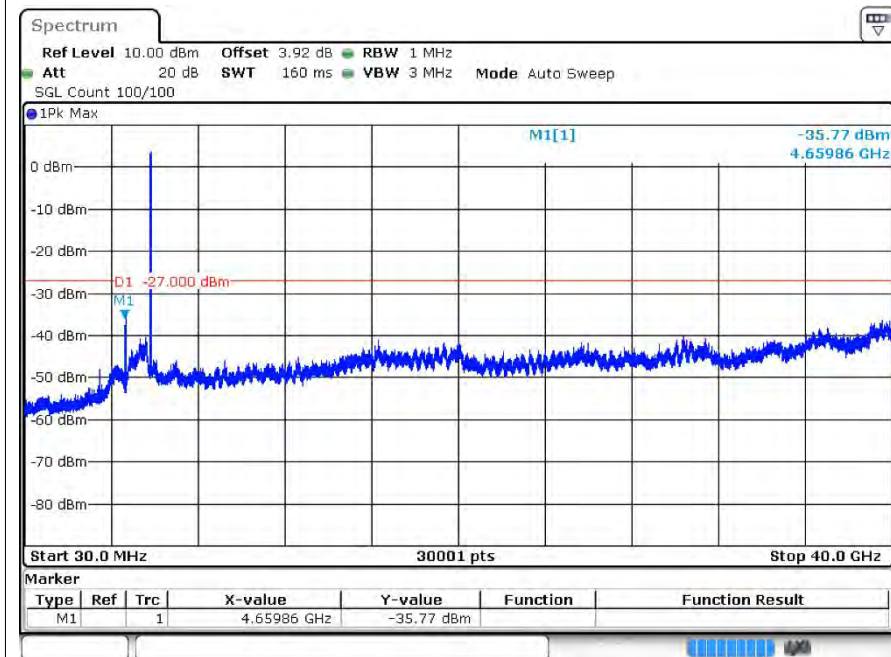
Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
a	5745	Ant1	-35.69	-27	Pass
a	5785	Ant1	-35.45	-27	Pass
a	5825	Ant1	-35.76	-27	Pass
n20	5745	Ant1	-35.48	-27	Pass
n20	5785	Ant1	-36.05	-27	Pass
n20	5825	Ant1	-35.45	-27	Pass
n40	5755	Ant1	-34.17	-27	Pass
n40	5795	Ant1	-33.56	-27	Pass
ac20	5745	Ant1	-35.96	-27	Pass
ac20	5785	Ant1	-36.18	-27	Pass
ac20	5825	Ant1	-35.33	-27	Pass
ac40	5755	Ant1	-33.49	-27	Pass
ac40	5795	Ant1	-34.38	-27	Pass
ax20	5745	Ant1	-35.87	-27	Pass
ax20	5785	Ant1	-36.23	-27	Pass
ax20	5825	Ant1	-35.64	-27	Pass
ax40	5755	Ant1	-34.3	-27	Pass
ax40	5795	Ant1	-34.83	-27	Pass

## 7.2 Test Graphs

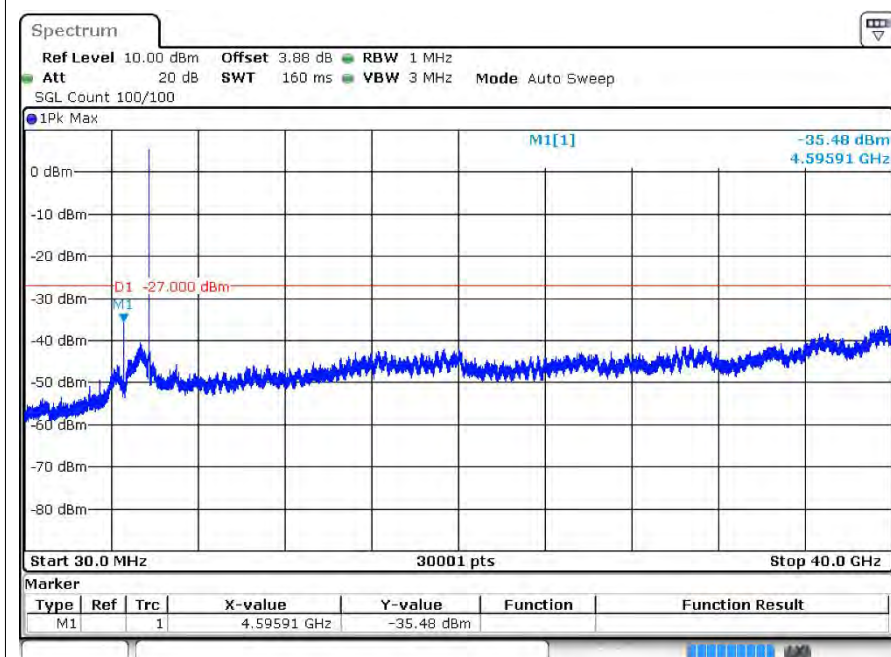




Tx. Spurious a 5825MHz Ant1 Emission

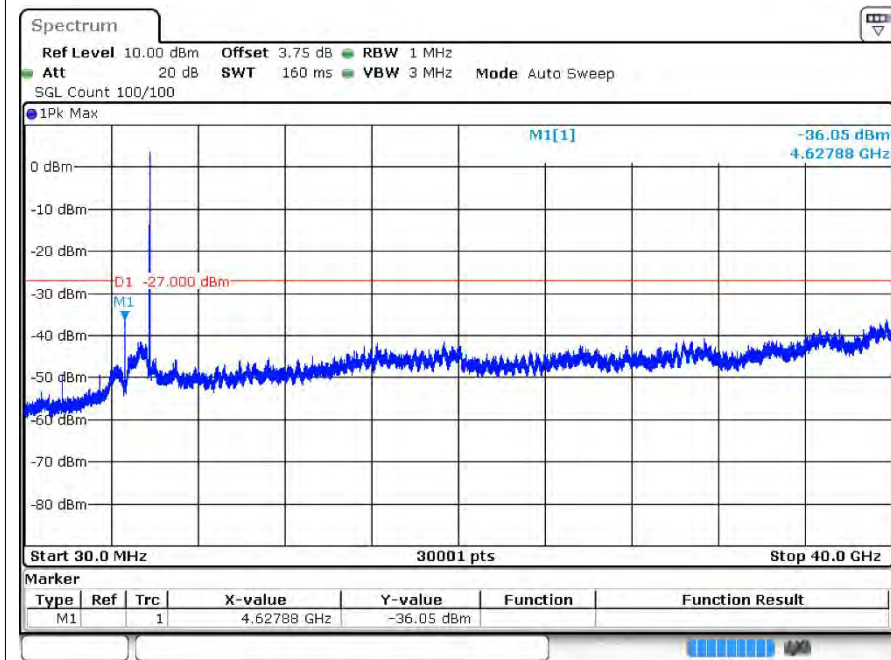


Tx. Spurious n20 5745MHz Ant1 Emission

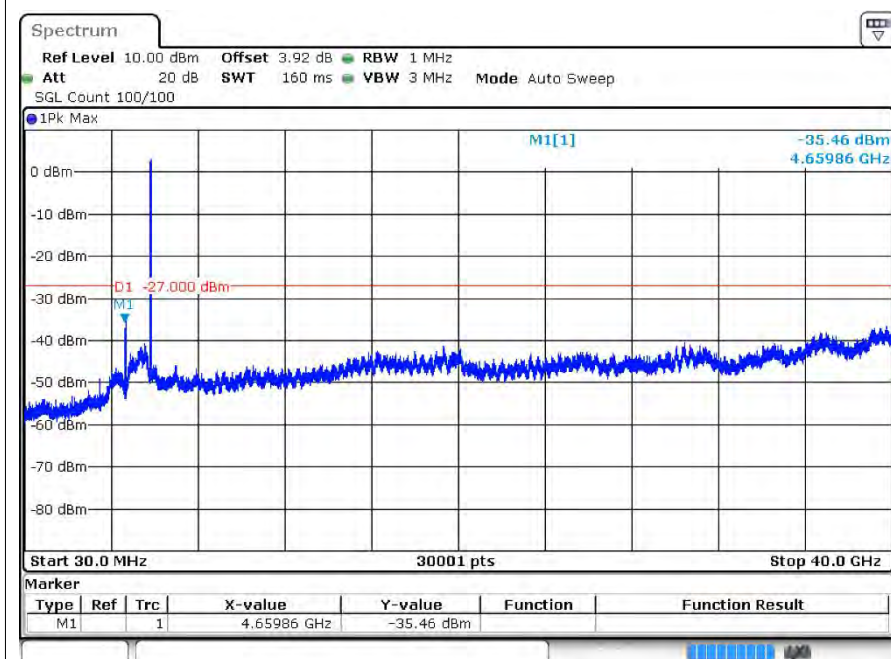




Tx. Spurious n20 5785MHz Ant1 Emission



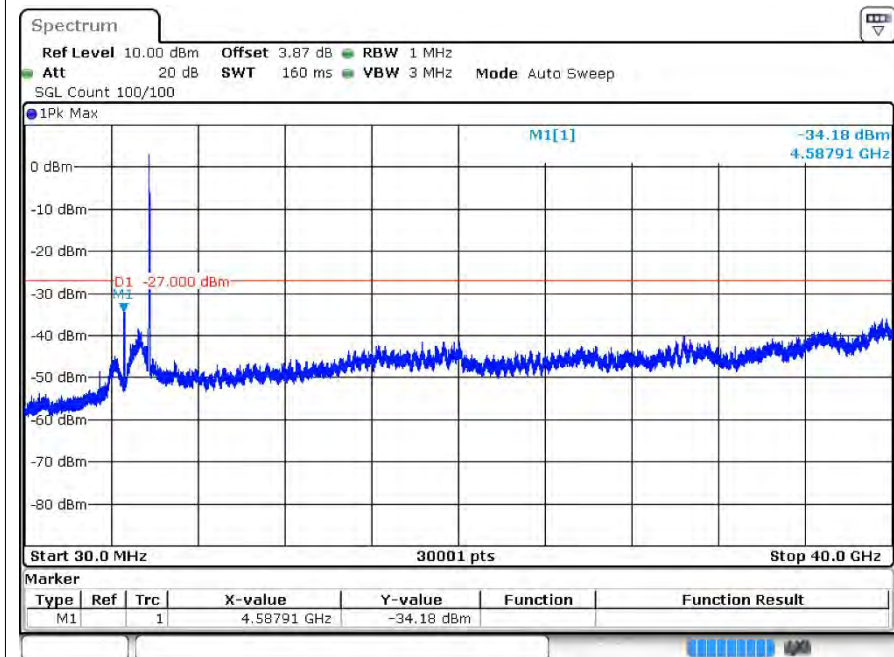
Tx. Spurious n20 5825MHz Ant1 Emission



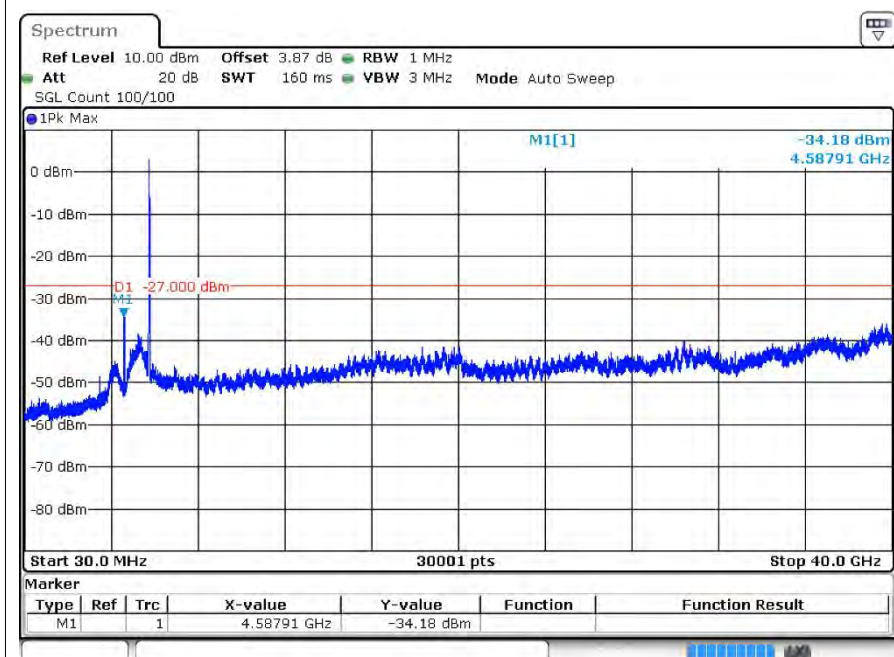




Tx. Spurious n40 5755MHz Ant1 Emission

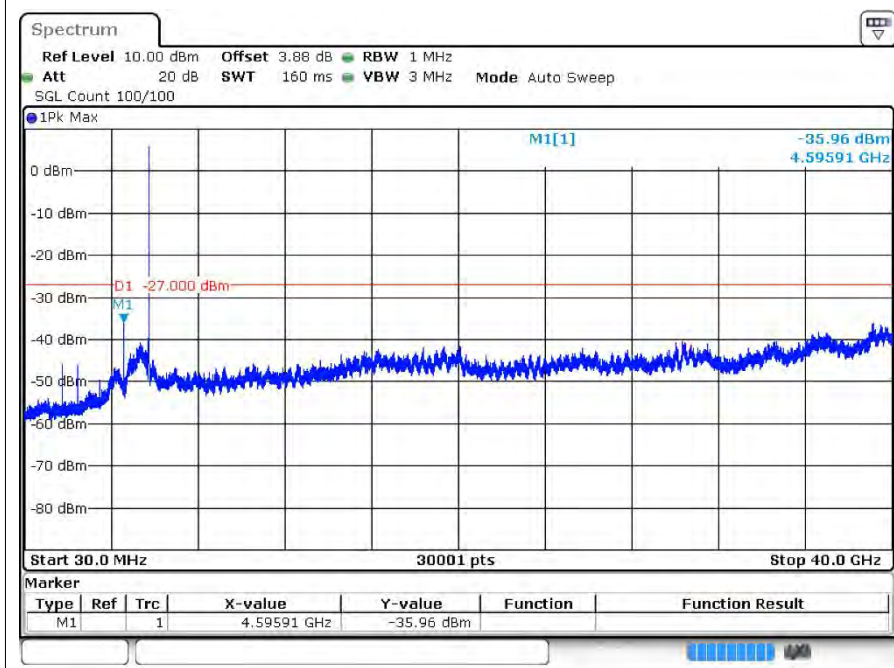


Tx. Spurious n40 5795MHz Ant1 Emission

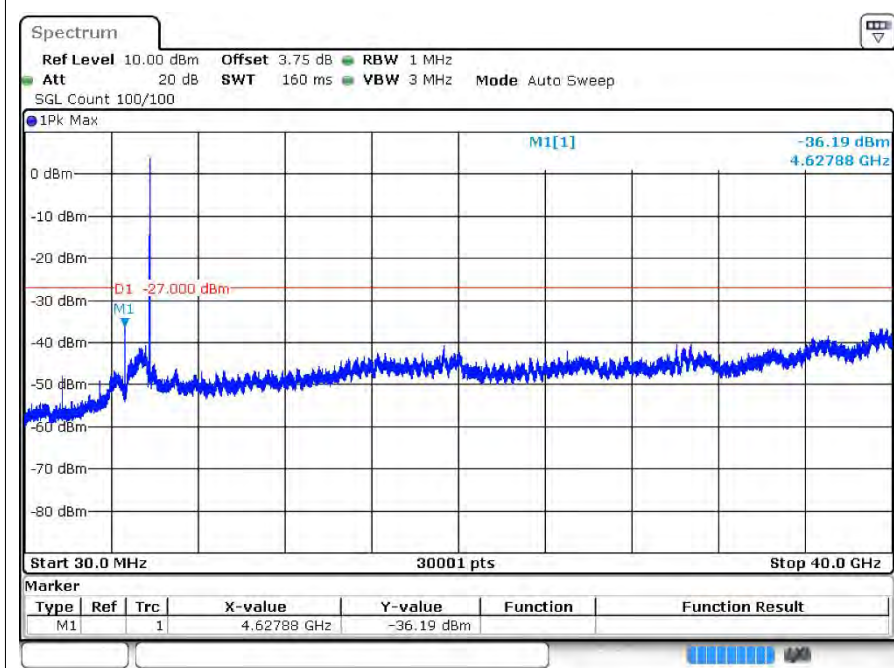




Tx. Spurious ac20 5745MHz Ant1 Emission

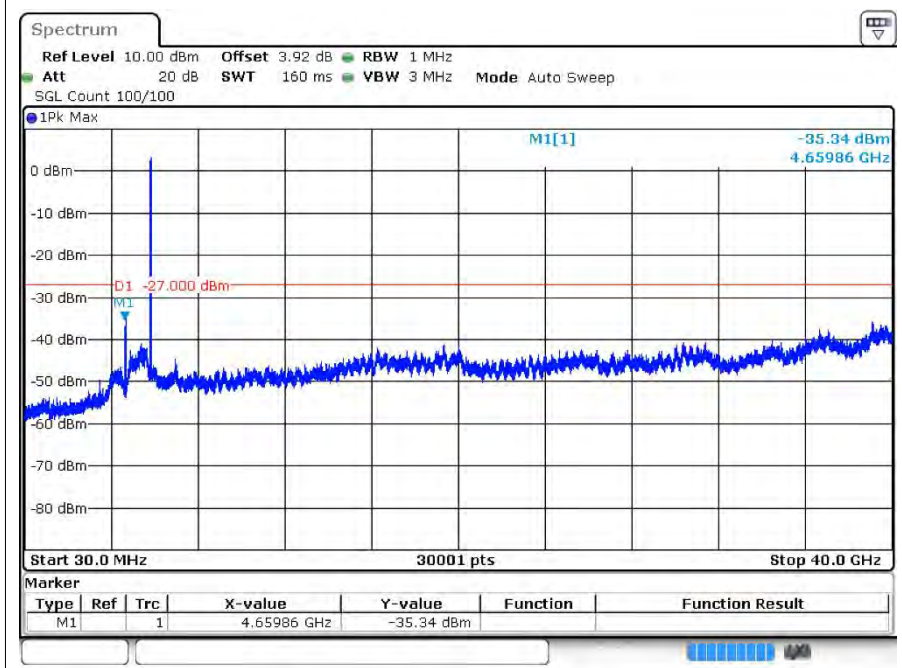


Tx. Spurious ac20 5785MHz Ant1 Emission

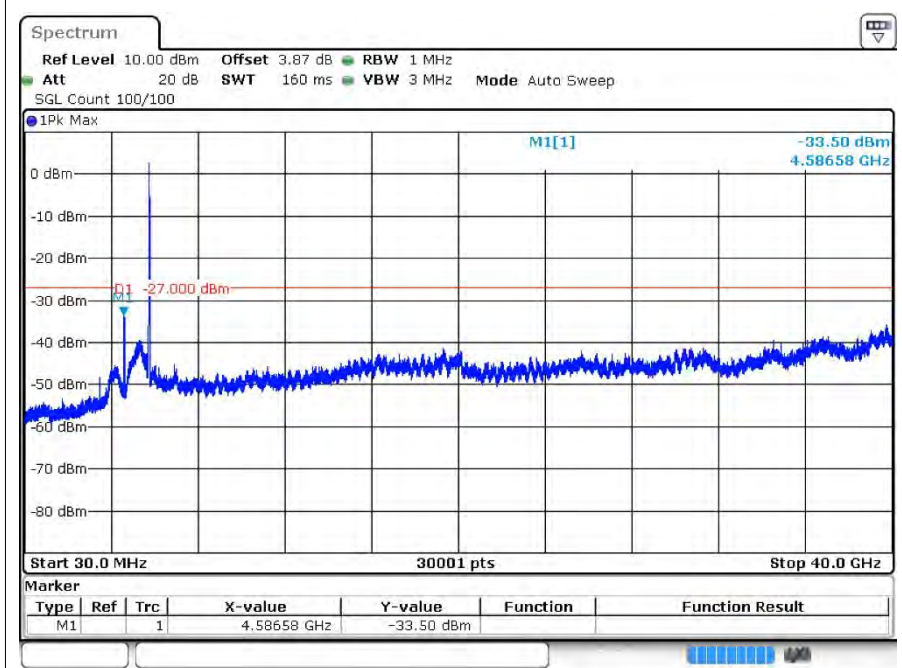


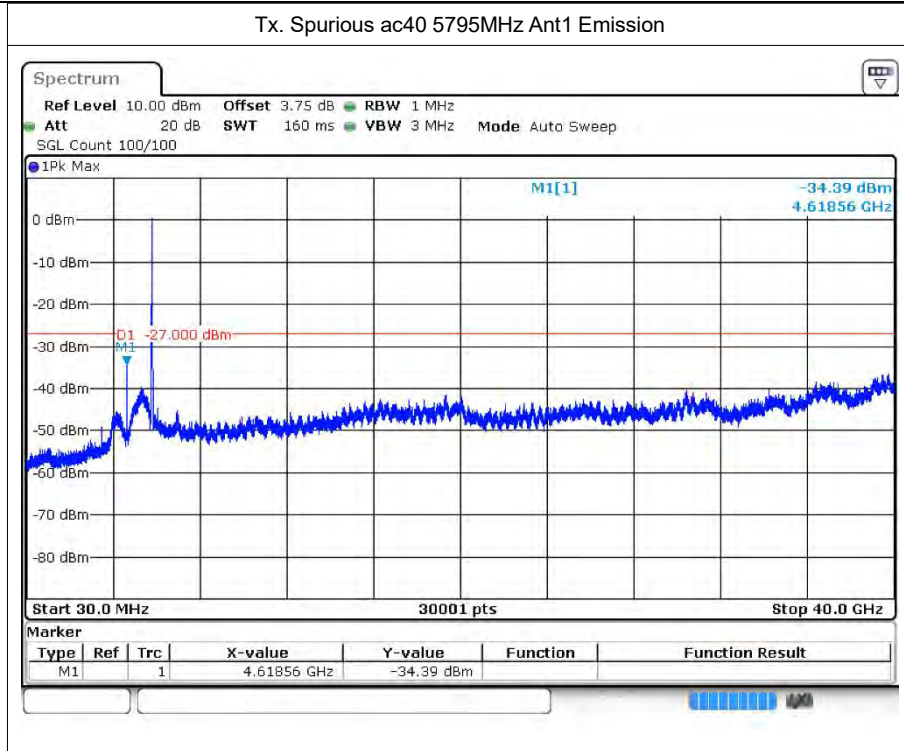


Tx. Spurious ac20 5825MHz Ant1 Emission



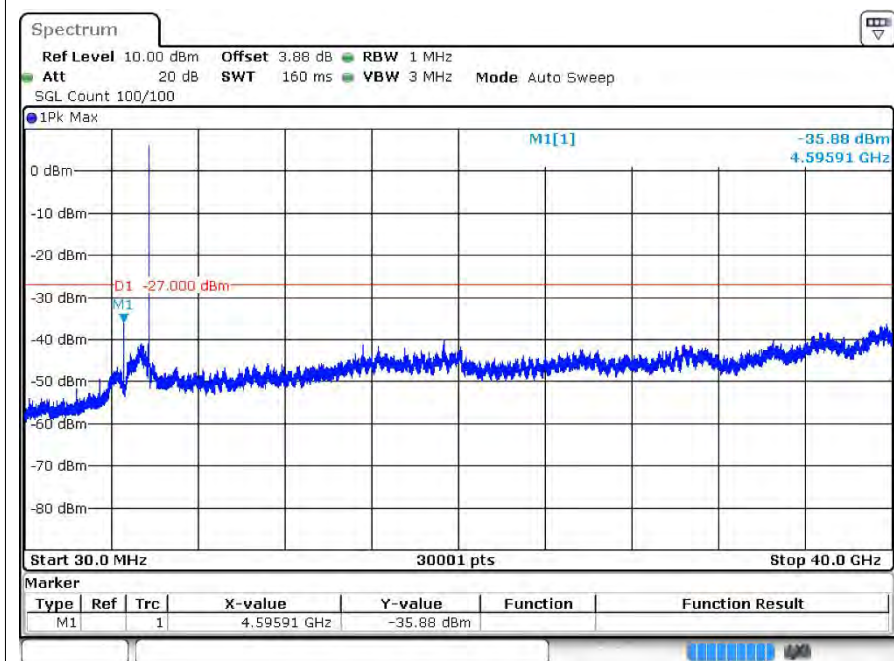
Tx. Spurious ac40 5755MHz Ant1 Emission



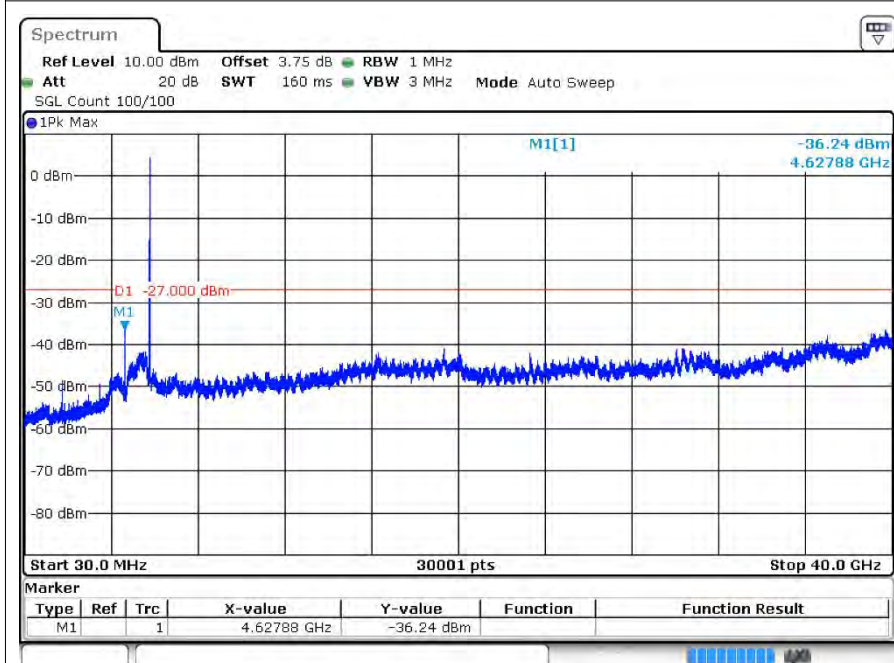




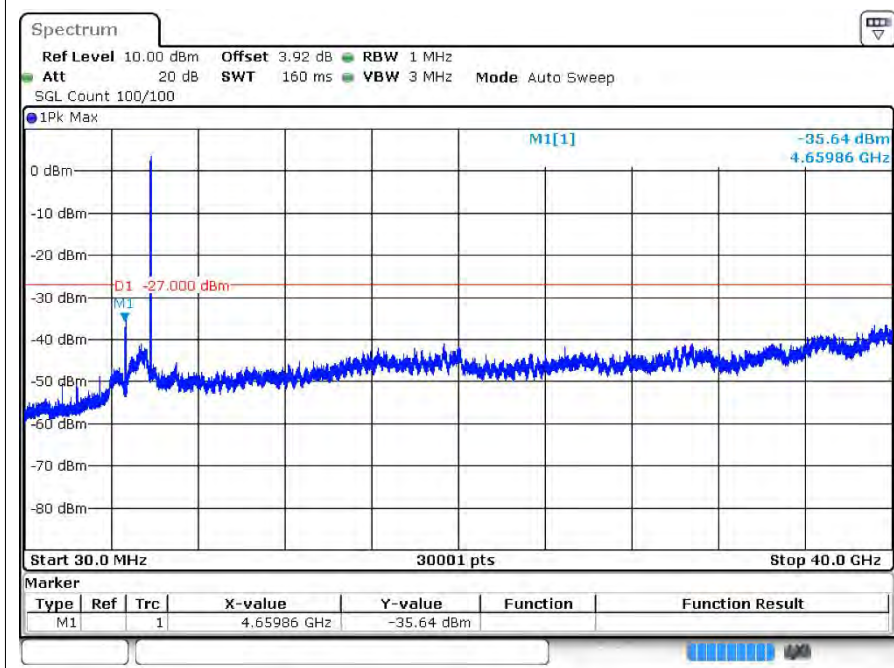
Tx. Spurious ax20 5745MHz Ant1 Emission



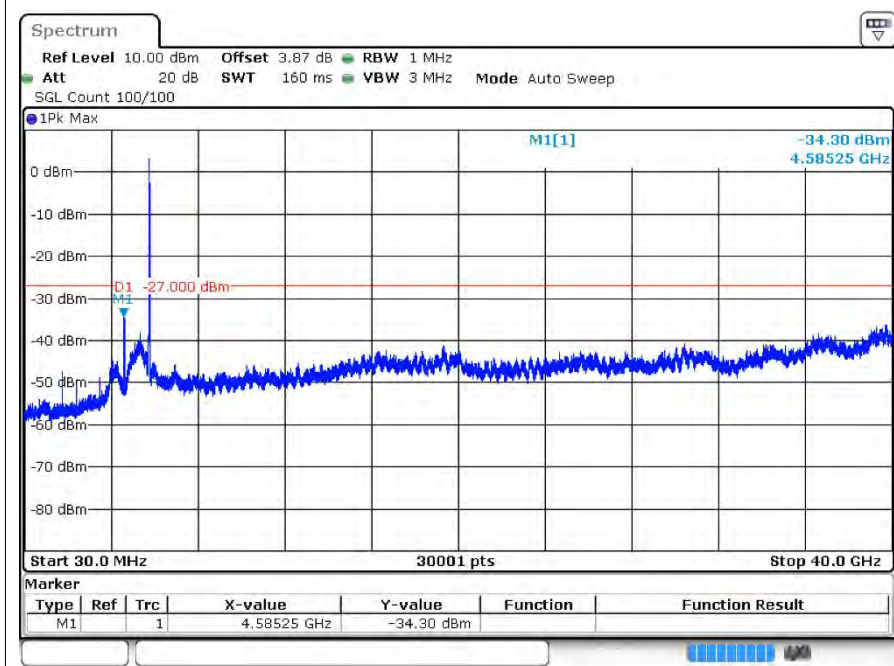
Tx. Spurious ax20 5785MHz Ant1 Emission



Tx. Spurious ax20 5825MHz Ant1 Emission

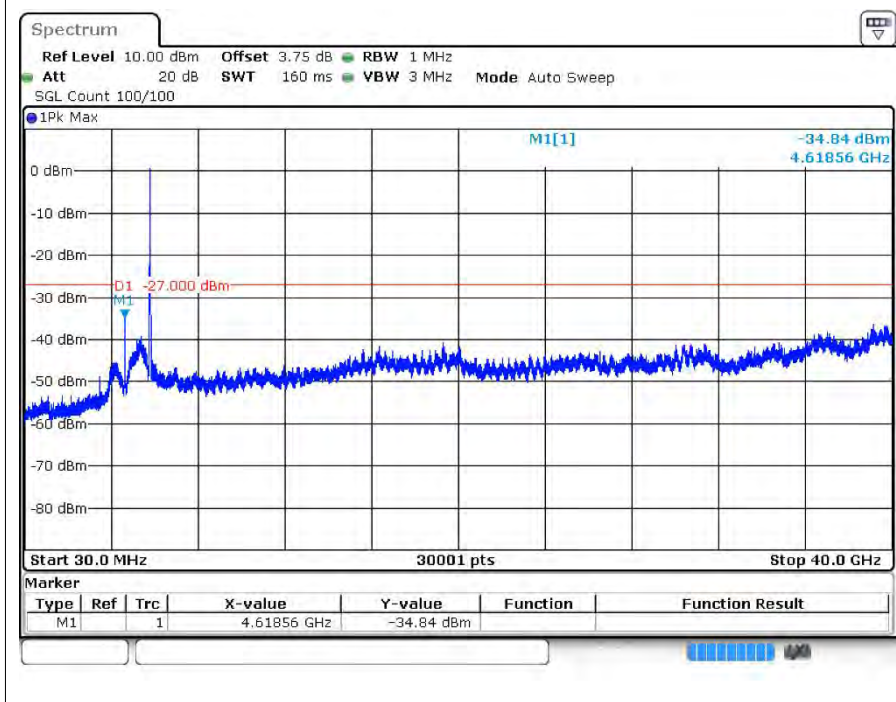


Tx. Spurious ax40 5755MHz Ant1 Emission





Tx. Spurious ax40 5795MHz Ant1 Emission



## 8 Restrict Band

### 8.1 Test Result

Mode	Frequency (MHz)	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	EIRP Power (dBm)	Detector	Limit (dBm)	Verdict
a	5745	5650	-42.11	2	-	-40.11	Peak	-27	Pass
a	5745	5650	-49.54	2	0.21	-47.33	Average	-27	Pass
a	5745	5700	-44.52	2	-	-42.52	Peak	10	Pass
a	5745	5700	-50.08	2	0.21	-47.87	Average	10	Pass
a	5745	5720	-43.31	2	-	-41.31	Peak	15.6	Pass
a	5745	5720	-49.32	2	0.21	-47.11	Average	15.6	Pass
a	5745	5725	-40.32	2	-	-38.32	Peak	27	Pass
a	5745	5725	-47.1	2	0.21	-44.89	Average	27	Pass
a	5825	5850	-43.15	2	-	-41.15	Peak	27	Pass
a	5825	5850	-49.01	2	0.21	-46.8	Average	27	Pass
a	5825	5855	-42.99	2	-	-40.99	Peak	15.6	Pass
a	5825	5855	-49.27	2	0.21	-47.06	Average	15.6	Pass
a	5825	5875	-43.03	2	-	-41.03	Peak	10	Pass
a	5825	5875	-49.29	2	0.21	-47.08	Average	10	Pass
a	5825	5925	-41.63	2	-	-39.63	Peak	-27	Pass
a	5825	5925	-49.33	2	0.21	-47.12	Average	-27	Pass
n20	5745	5650	-44.33	2	-	-42.33	Peak	-27	Pass
n20	5745	5650	-49.46	2	0.23	-47.23	Average	-27	Pass
n20	5745	5700	-43.44	2	-	-41.44	Peak	10	Pass
n20	5745	5700	-50.18	2	0.23	-47.95	Average	10	Pass
n20	5745	5720	-39.27	2	-	-37.27	Peak	15.6	Pass
n20	5745	5720	-49.65	2	0.23	-47.42	Average	15.6	Pass
n20	5745	5725	-39.76	2	-	-37.76	Peak	27	Pass
n20	5745	5725	-48.08	2	0.23	-45.85	Average	27	Pass
n20	5825	5850	-42.99	2	-	-40.99	Peak	27	Pass
n20	5825	5850	-48.84	2	0.2	-46.64	Average	27	Pass
n20	5825	5855	-40.03	2	-	-38.03	Peak	15.6	Pass
n20	5825	5855	-50.06	2	0.2	-47.86	Average	15.6	Pass
n20	5825	5875	-42.8	2	-	-40.8	Peak	10	Pass
n20	5825	5875	-49.55	2	0.2	-47.35	Average	10	Pass
n20	5825	5925	-41.23	2	-	-39.23	Peak	-27	Pass
n20	5825	5925	-50	2	0.2	-47.8	Average	-27	Pass
n40	5755	5650	-42.94	2	-	-40.94	Peak	-27	Pass
n40	5755	5650	-49.58	2	0.45	-47.13	Average	-27	Pass
n40	5755	5700	-42.01	2	-	-40.01	Peak	10	Pass



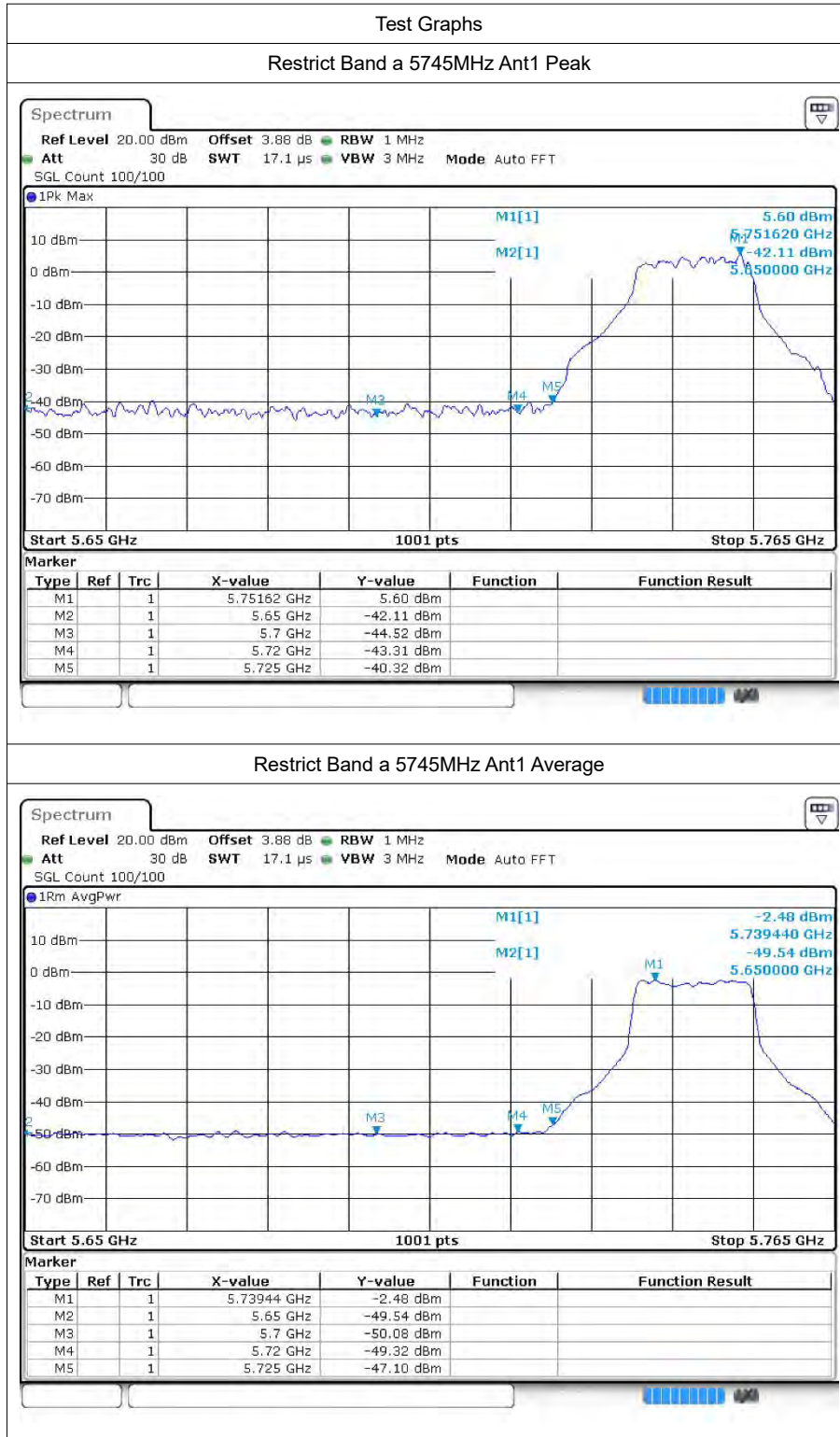


n40	5755	5700	-50.4	2	0.45	-47.95	Average	10	Pass
n40	5755	5720	-41.95	2	-	-39.95	Peak	15.6	Pass
n40	5755	5720	-48.64	2	0.45	-46.19	Average	15.6	Pass
n40	5755	5725	-38.39	2	-	-36.39	Peak	27	Pass
n40	5755	5725	-46.76	2	0.45	-44.31	Average	27	Pass
n40	5795	5850	-43.17	2	-	-41.17	Peak	27	Pass
n40	5795	5850	-49.55	2	0.49	-47.06	Average	27	Pass
n40	5795	5855	-43.79	2	-	-41.79	Peak	15.6	Pass
n40	5795	5855	-50.03	2	0.49	-47.54	Average	15.6	Pass
n40	5795	5875	-42.76	2	-	-40.76	Peak	10	Pass
n40	5795	5875	-50.83	2	0.49	-48.34	Average	10	Pass
n40	5795	5925	-42.49	2	-	-40.49	Peak	-27	Pass
n40	5795	5925	-49.54	2	0.49	-47.05	Average	-27	Pass
ac20	5745	5650	-43.89	2	-	-41.89	Peak	-27	Pass
ac20	5745	5650	-49.64	2	0.19	-47.45	Average	-27	Pass
ac20	5745	5700	-44.36	2	-	-42.36	Peak	10	Pass
ac20	5745	5700	-50.28	2	0.19	-48.09	Average	10	Pass
ac20	5745	5720	-42.82	2	-	-40.82	Peak	15.6	Pass
ac20	5745	5720	-49.01	2	0.19	-46.82	Average	15.6	Pass
ac20	5745	5725	-34.63	2	-	-32.63	Peak	27	Pass
ac20	5745	5725	-47.3	2	0.19	-45.11	Average	27	Pass
ac20	5825	5850	-42.03	2	-	-40.03	Peak	27	Pass
ac20	5825	5850	-49.22	2	0.24	-46.98	Average	27	Pass
ac20	5825	5855	-42.76	2	-	-40.76	Peak	15.6	Pass
ac20	5825	5855	-50.51	2	0.24	-48.27	Average	15.6	Pass
ac20	5825	5875	-41.93	2	-	-39.93	Peak	10	Pass
ac20	5825	5875	-50	2	0.24	-47.76	Average	10	Pass
ac20	5825	5925	-42.03	2	-	-40.03	Peak	-27	Pass
ac20	5825	5925	-49.16	2	0.24	-46.92	Average	-27	Pass
ac40	5755	5650	-42.77	2	-	-40.77	Peak	-27	Pass
ac40	5755	5650	-50.05	2	0.45	-47.6	Average	-27	Pass
ac40	5755	5700	-42.88	2	-	-40.88	Peak	10	Pass
ac40	5755	5700	-49.79	2	0.45	-47.34	Average	10	Pass
ac40	5755	5720	-40.08	2	-	-38.08	Peak	15.6	Pass
ac40	5755	5720	-49.28	2	0.45	-46.83	Average	15.6	Pass
ac40	5755	5725	-35.61	2	-	-33.61	Peak	27	Pass
ac40	5755	5725	-47.04	2	0.45	-44.59	Average	27	Pass
ac40	5795	5850	-42.39	2	-	-40.39	Peak	27	Pass
ac40	5795	5850	-49.9	2	0.44	-47.46	Average	27	Pass
ac40	5795	5855	-42.72	2	-	-40.72	Peak	15.6	Pass
ac40	5795	5855	-49.79	2	0.44	-47.35	Average	15.6	Pass
ac40	5795	5875	-43.11	2	-	-41.11	Peak	10	Pass
ac40	5795	5875	-49.94	2	0.44	-47.5	Average	10	Pass



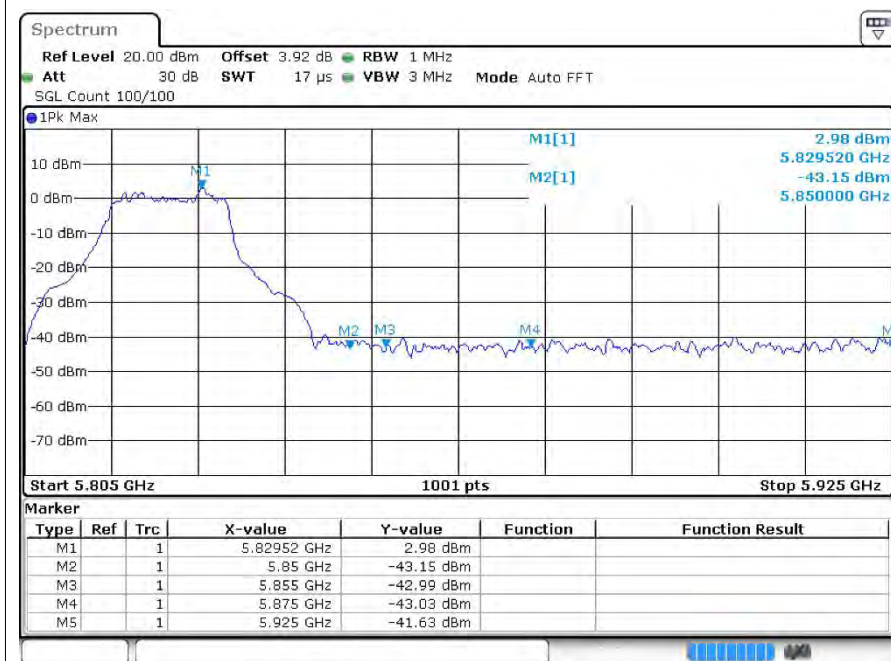
ac40	5795	5925	-42.18	2	-	-40.18	Peak	-27	Pass
ac40	5795	5925	-49.44	2	0.44	-47	Average	-27	Pass
ax20	5745	5650	-41.13	2	-	-39.13	Peak	-27	Pass
ax20	5745	5650	-49.52	2	0.45	-47.07	Average	-27	Pass
ax20	5745	5700	-44.59	2	-	-42.59	Peak	10	Pass
ax20	5745	5700	-50.82	2	0.45	-48.37	Average	10	Pass
ax20	5745	5720	-42.55	2	-	-40.55	Peak	15.6	Pass
ax20	5745	5720	-49.81	2	0.45	-47.36	Average	15.6	Pass
ax20	5745	5725	-38.27	2	-	-36.27	Peak	27	Pass
ax20	5745	5725	-48.87	2	0.45	-46.42	Average	27	Pass
ax20	5825	5850	-41.18	2	-	-39.18	Peak	27	Pass
ax20	5825	5850	-48.54	2	0.39	-46.15	Average	27	Pass
ax20	5825	5855	-42.16	2	-	-40.16	Peak	15.6	Pass
ax20	5825	5855	-49.1	2	0.39	-46.71	Average	15.6	Pass
ax20	5825	5875	-42.8	2	-	-40.8	Peak	10	Pass
ax20	5825	5875	-49.32	2	0.39	-46.93	Average	10	Pass
ax20	5825	5925	-42.4	2	-	-40.4	Peak	-27	Pass
ax20	5825	5925	-50.42	2	0.39	-48.03	Average	-27	Pass
ax40	5755	5650	-43.85	2	-	-41.85	Peak	-27	Pass
ax40	5755	5650	-49.92	2	0.81	-47.11	Average	-27	Pass
ax40	5755	5700	-42.35	2	-	-40.35	Peak	10	Pass
ax40	5755	5700	-50.01	2	0.81	-47.2	Average	10	Pass
ax40	5755	5720	-42.96	2	-	-40.96	Peak	15.6	Pass
ax40	5755	5720	-49.65	2	0.81	-46.84	Average	15.6	Pass
ax40	5755	5725	-41.35	2	-	-39.35	Peak	27	Pass
ax40	5755	5725	-49.52	2	0.81	-46.71	Average	27	Pass
ax40	5795	5850	-43.73	2	-	-41.73	Peak	27	Pass
ax40	5795	5850	-50.44	2	0.57	-47.87	Average	27	Pass
ax40	5795	5855	-43.18	2	-	-41.18	Peak	15.6	Pass
ax40	5795	5855	-50.22	2	0.57	-47.65	Average	15.6	Pass
ax40	5795	5875	-43.86	2	-	-41.86	Peak	10	Pass
ax40	5795	5875	-49.55	2	0.57	-46.98	Average	10	Pass
ax40	5795	5925	-43.28	2	-	-41.28	Peak	-27	Pass
ax40	5795	5925	-50.53	2	0.57	-47.96	Average	-27	Pass

## 8.2 Test Graphs

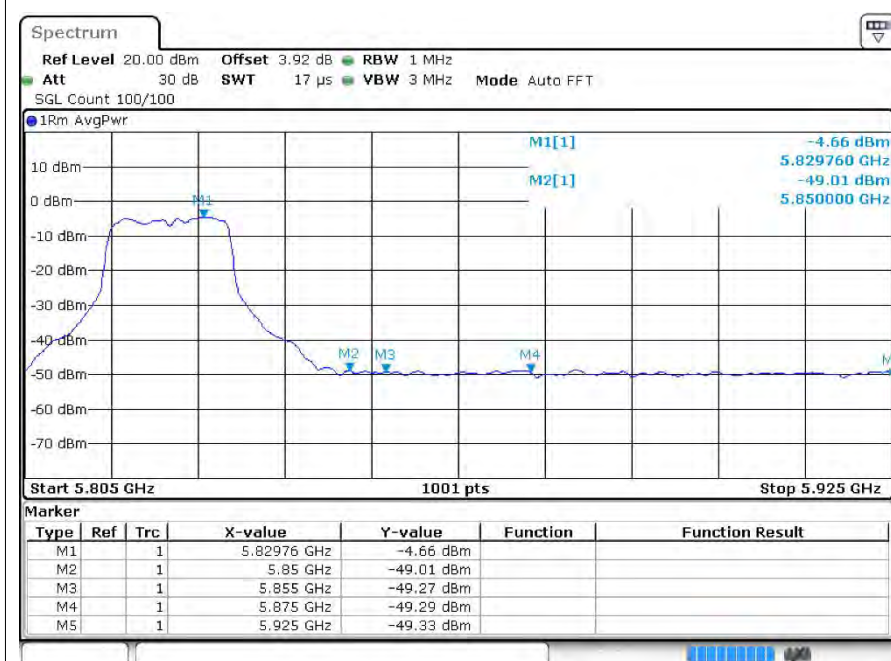




Restrict Band a 5825MHz Ant1 Peak

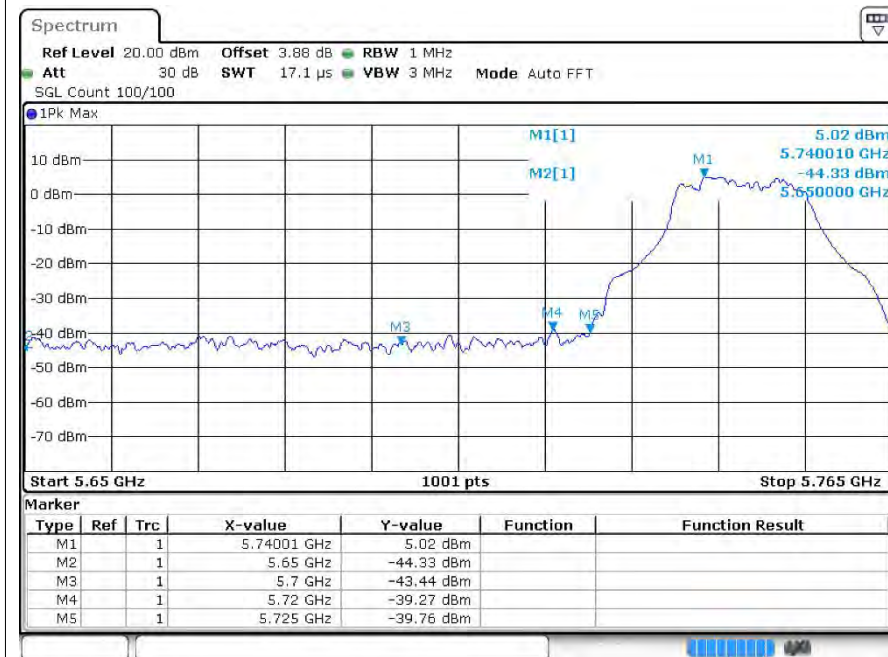


Restrict Band a 5825MHz Ant1 Average

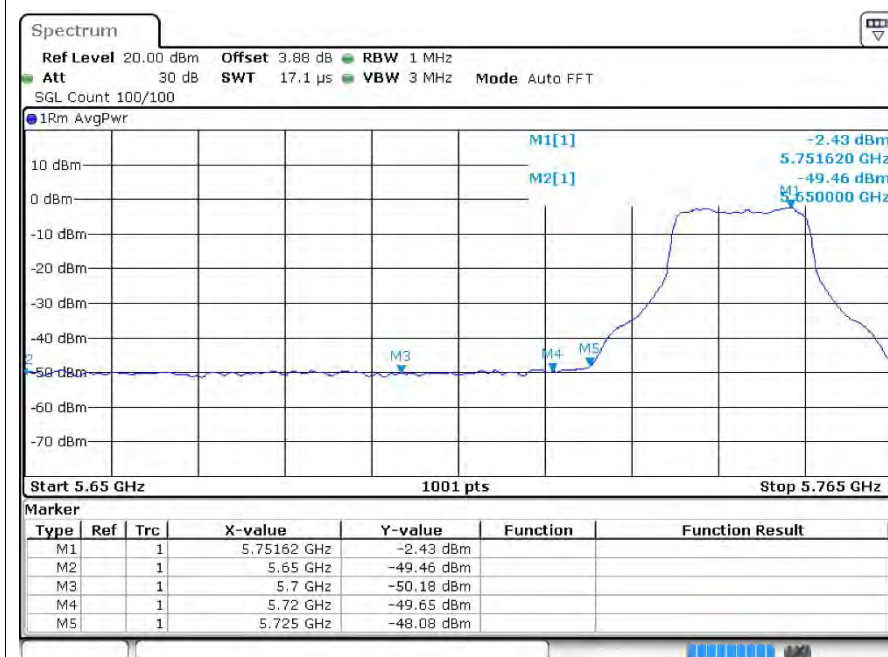




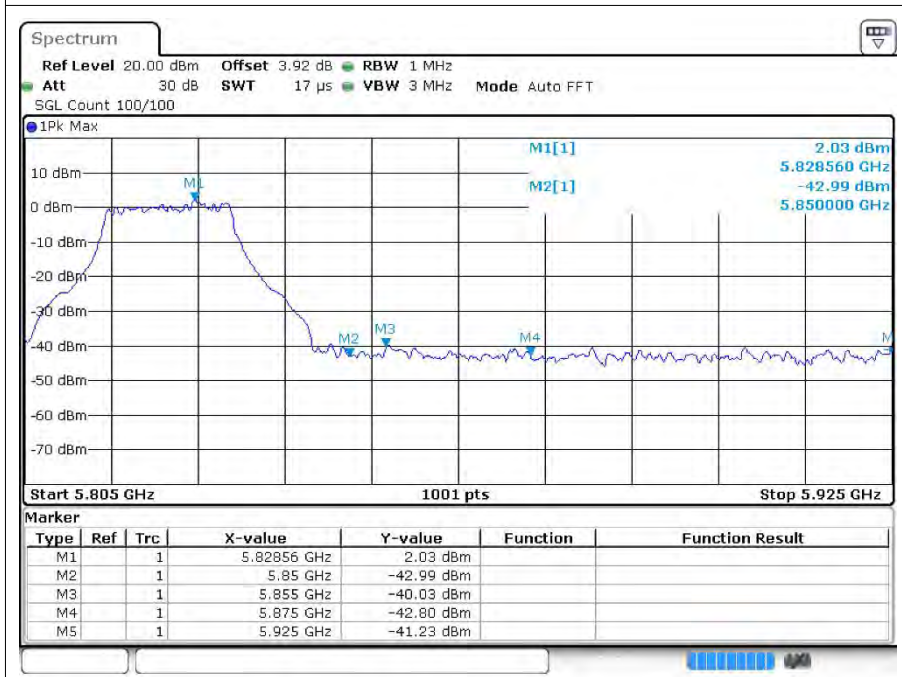
Restrict Band n20 5745MHz Ant1 Peak



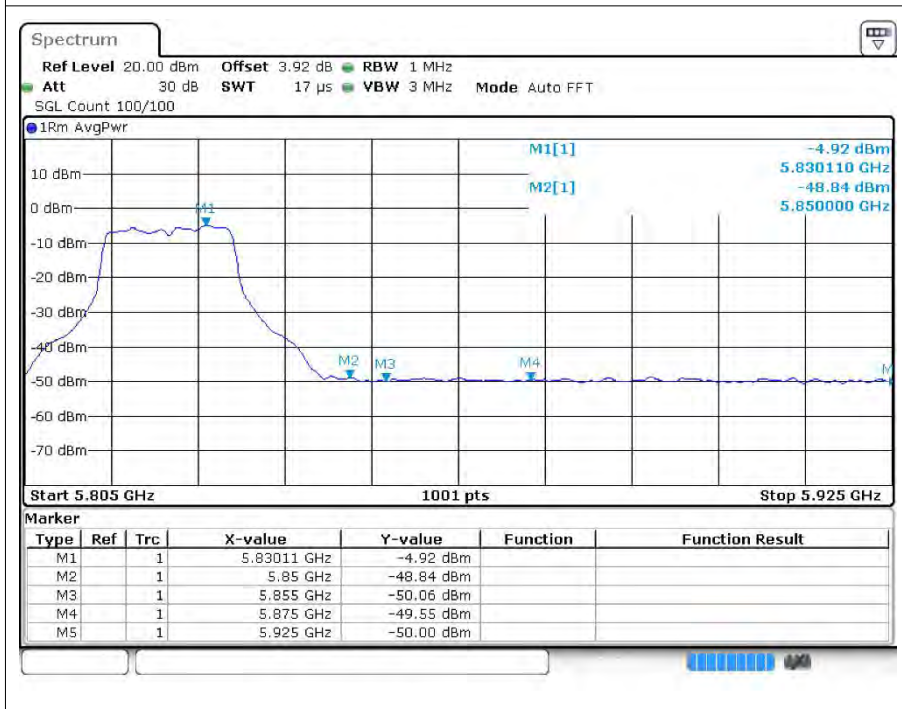
Restrict Band n20 5745MHz Ant1 Average

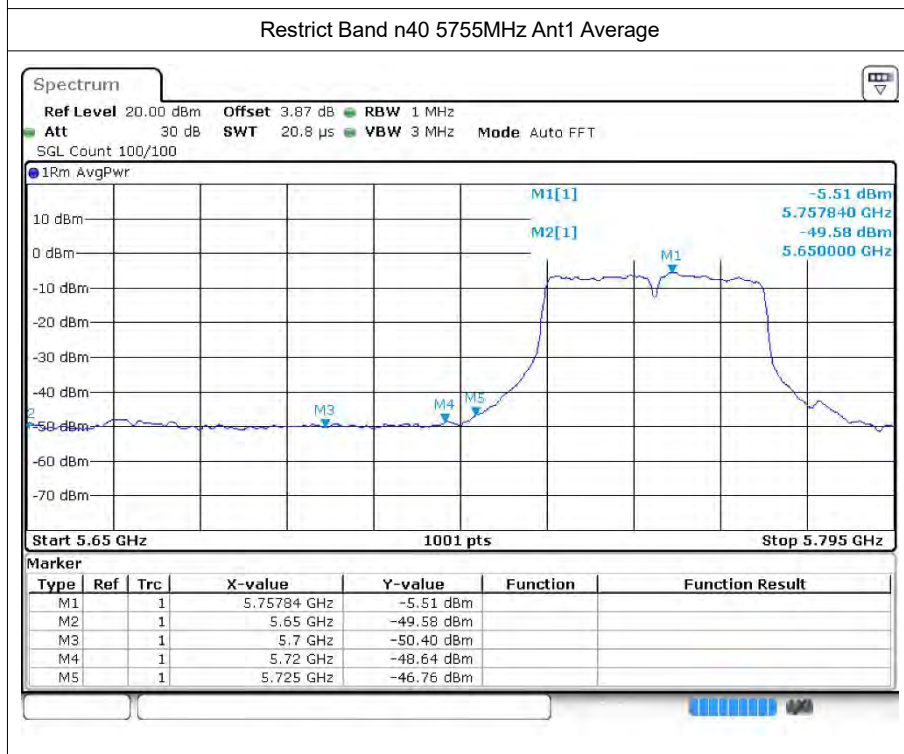
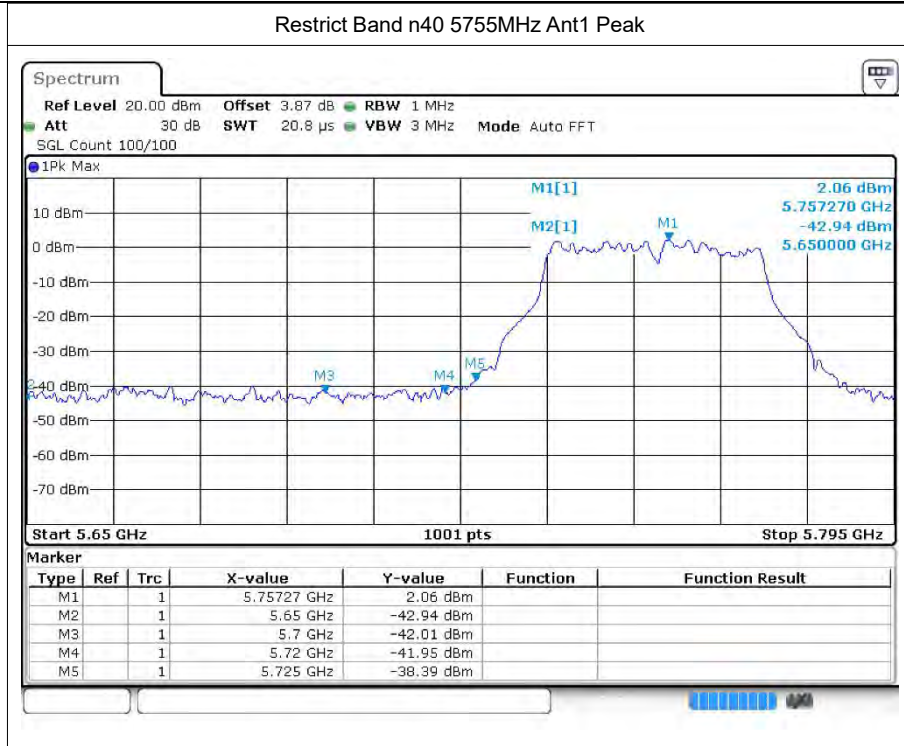


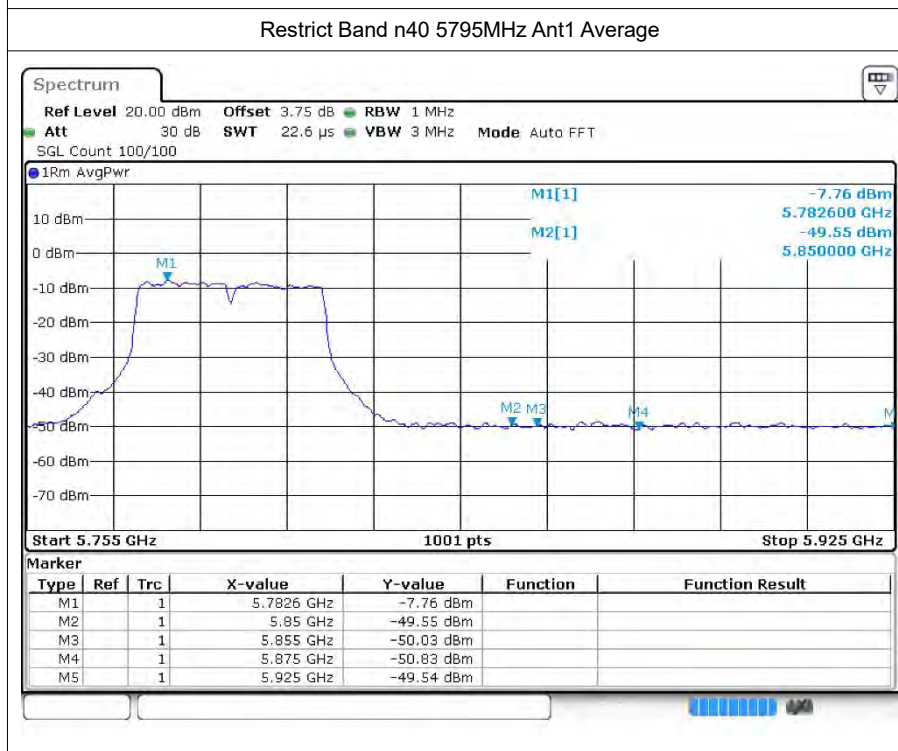
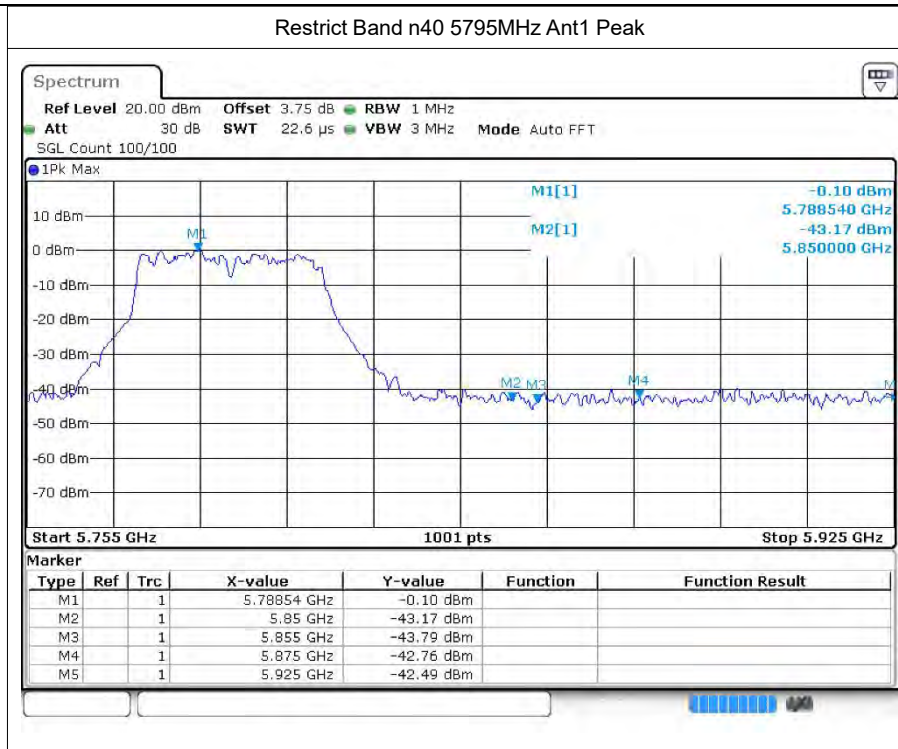
Restrict Band n20 5825MHz Ant1 Peak



Restrict Band n20 5825MHz Ant1 Average

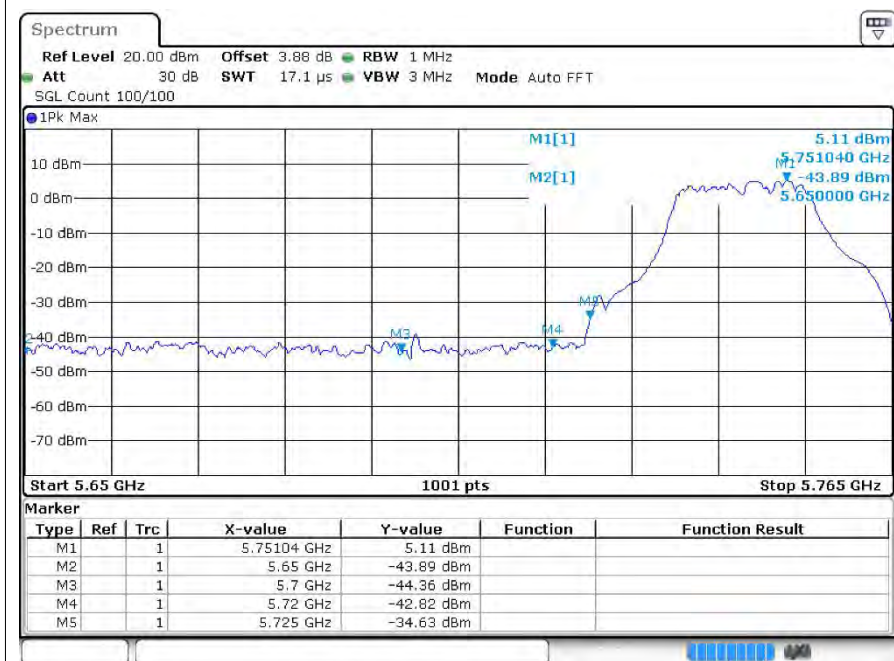




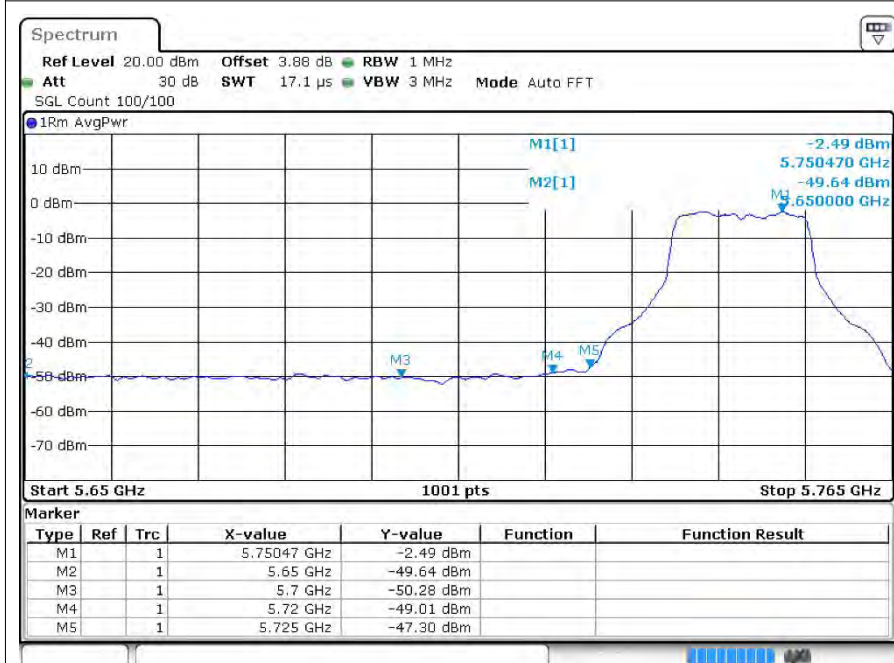


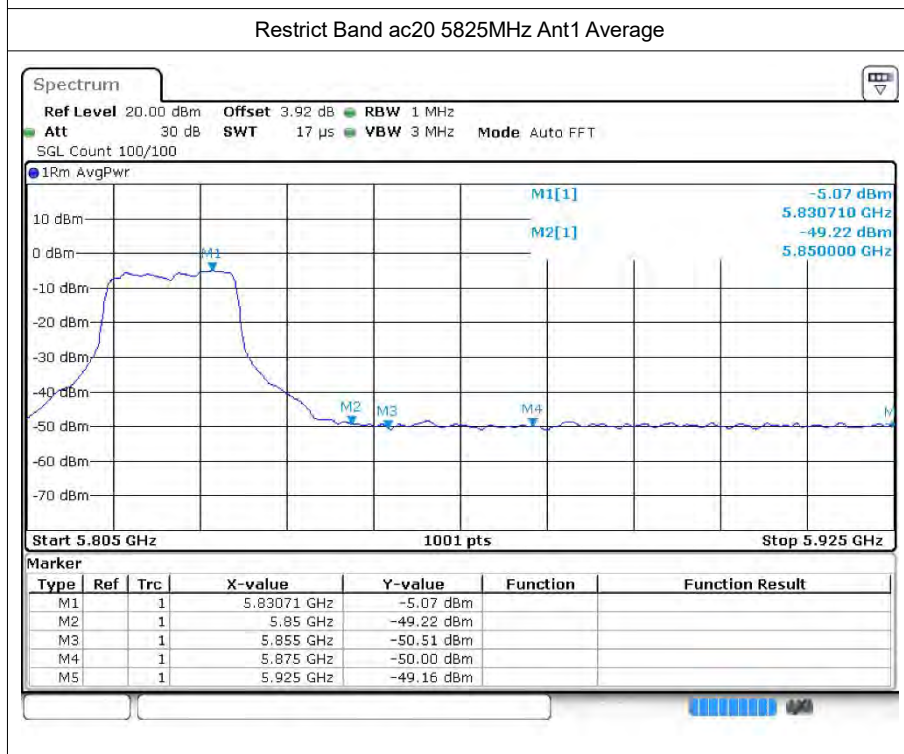
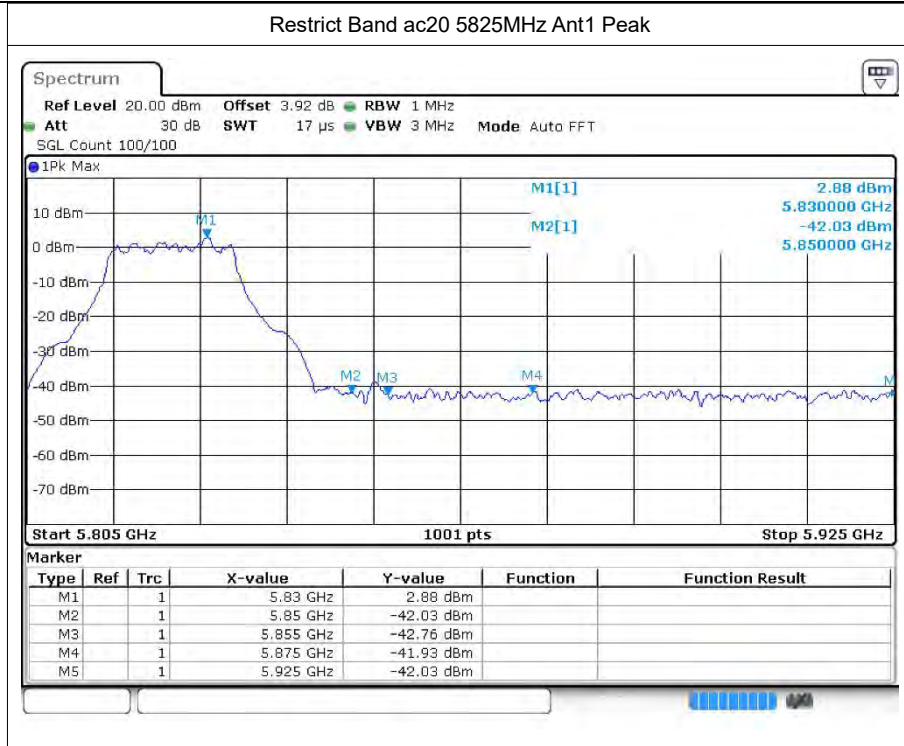


Restrict Band ac20 5745MHz Ant1 Peak



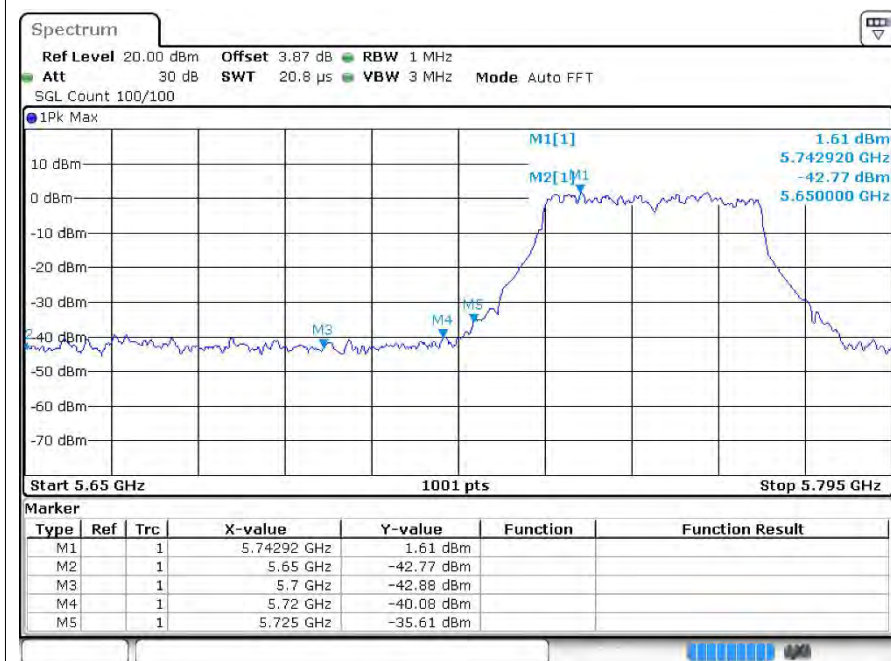
Restrict Band ac20 5745MHz Ant1 Average



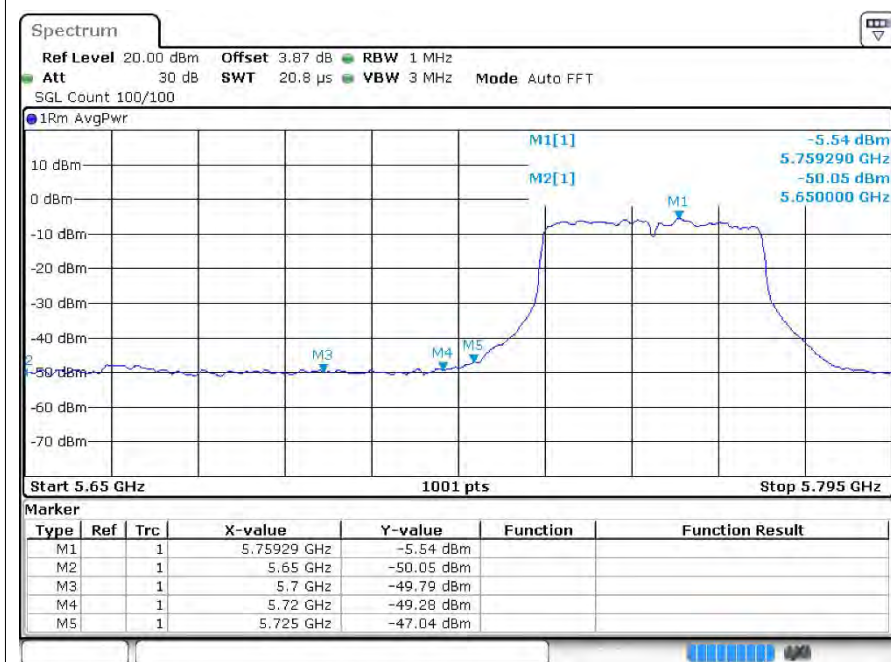




Restrict Band ac40 5755MHz Ant1 Peak

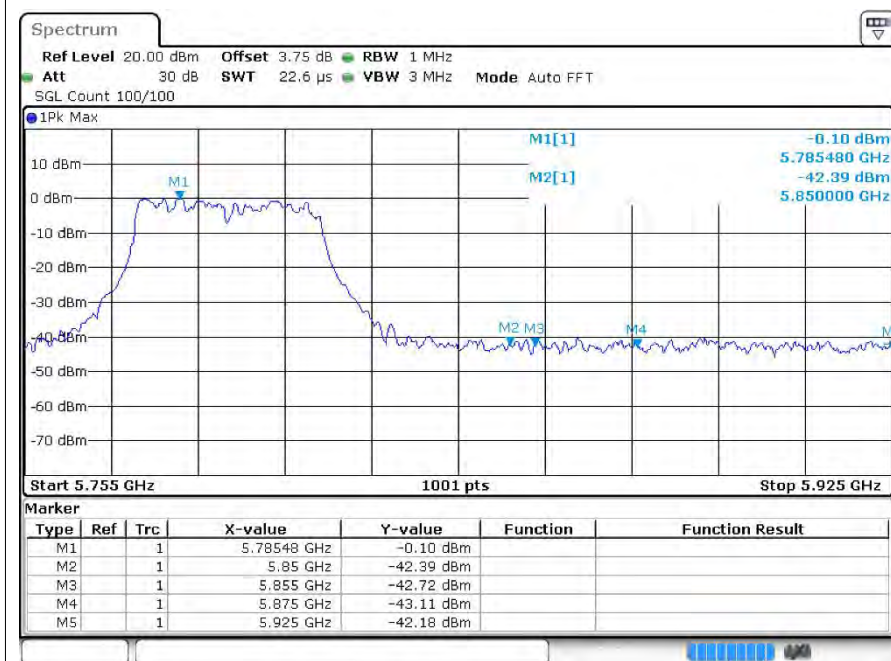


Restrict Band ac40 5755MHz Ant1 Average

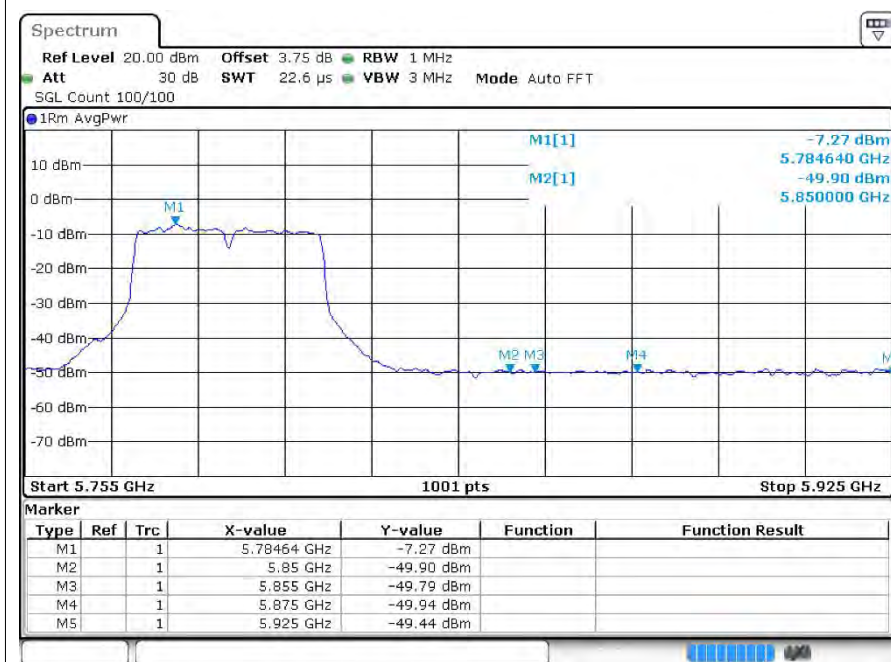




Restrict Band ac40 5795MHz Ant1 Peak

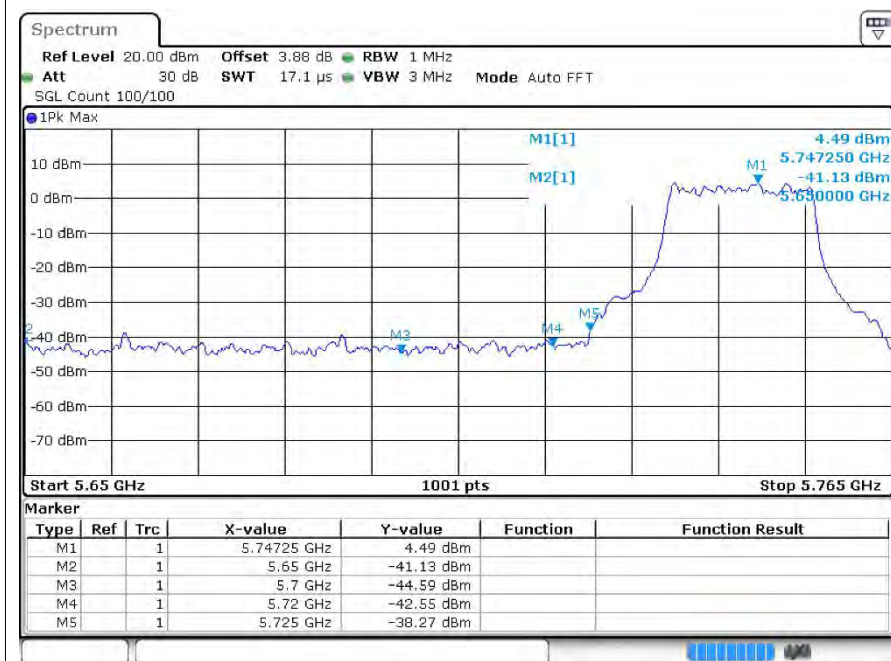


Restrict Band ac40 5795MHz Ant1 Average

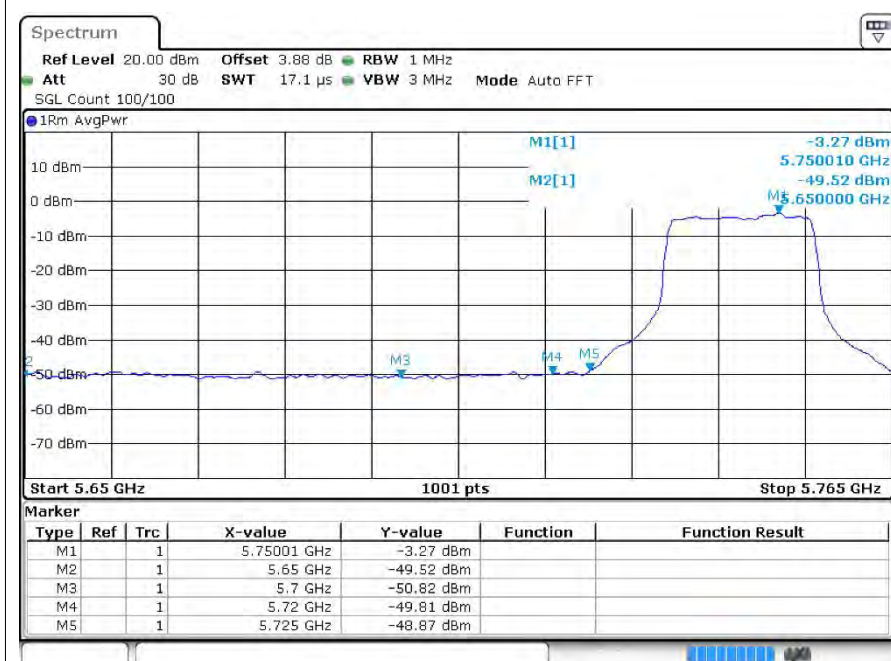




Restrict Band ax20 5745MHz Ant1 Peak

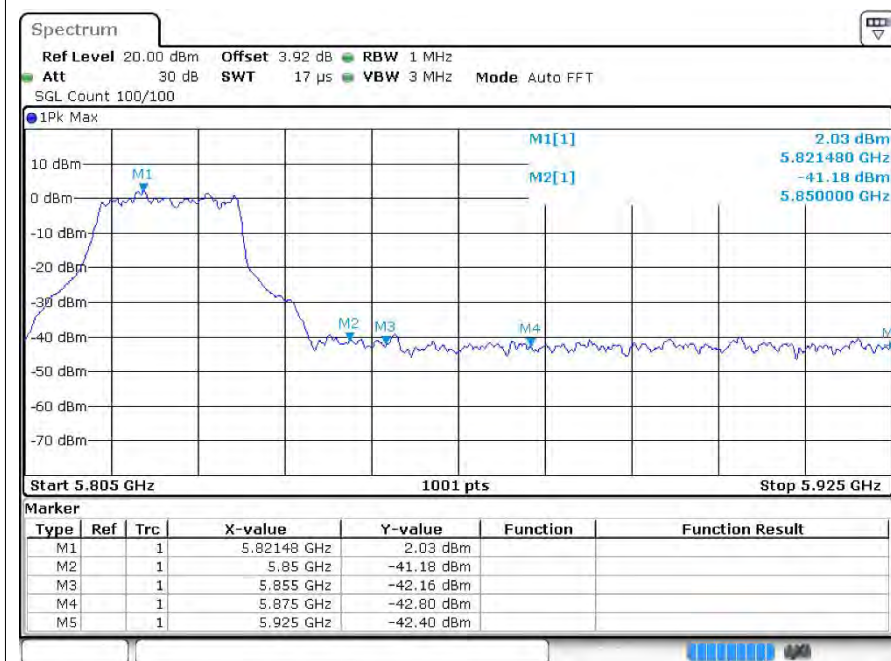


Restrict Band ax20 5745MHz Ant1 Average

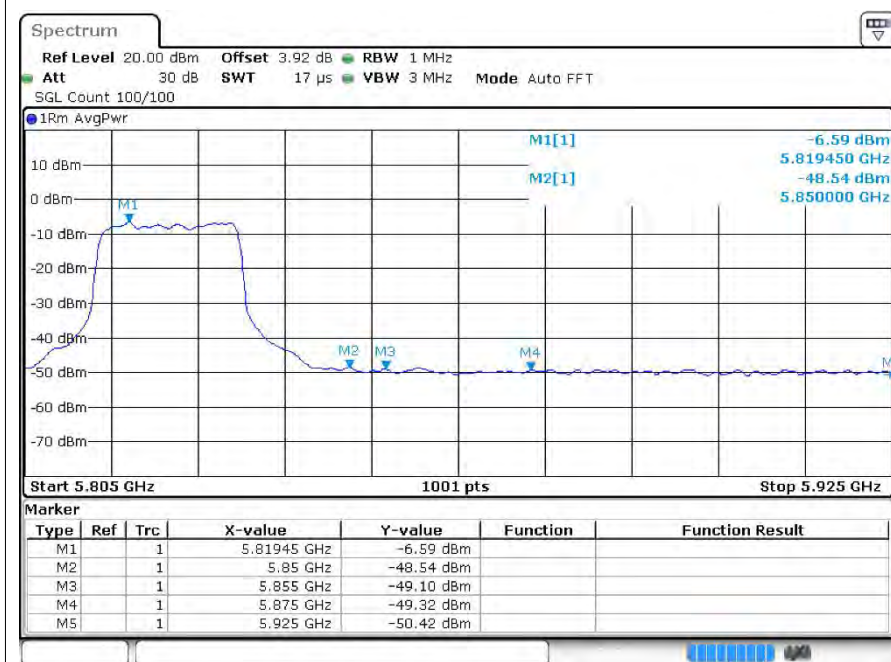




Restrict Band ax20 5825MHz Ant1 Peak



Restrict Band ax20 5825MHz Ant1 Average

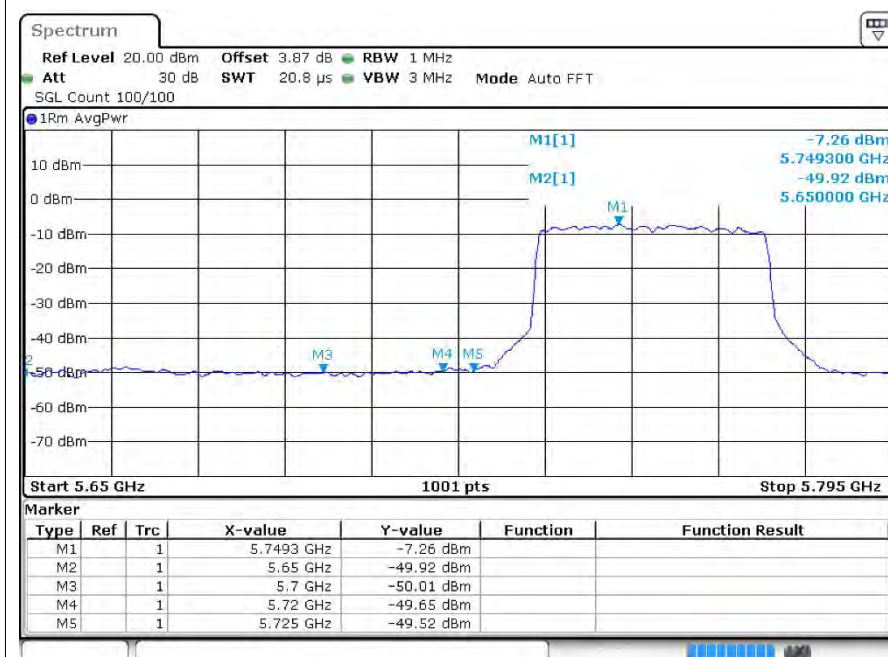




Restrict Band ax40 5755MHz Ant1 Peak

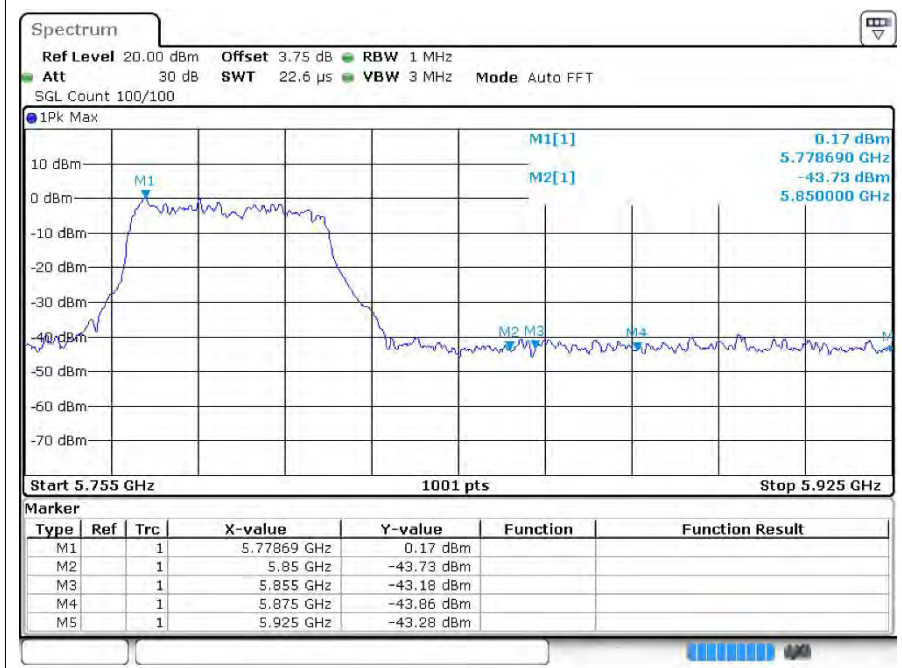


Restrict Band ax40 5755MHz Ant1 Average

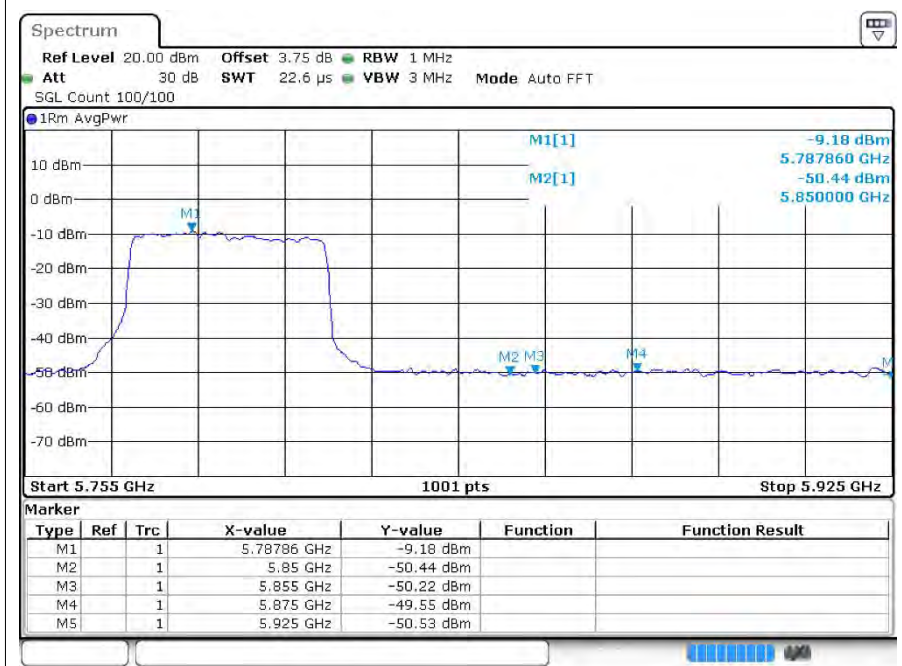




Restrict Band ax40 5795MHz Ant1 Peak



Restrict Band ax40 5795MHz Ant1 Average



---The End---