



Appendix E

RF Test Data for 5.8GWIFI(Conducted Measurement)

Product Name: WiFi Module

Trade Mark: N/A

Test Model: IO1201B

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Leon.yi
Supervised by:	Sean She



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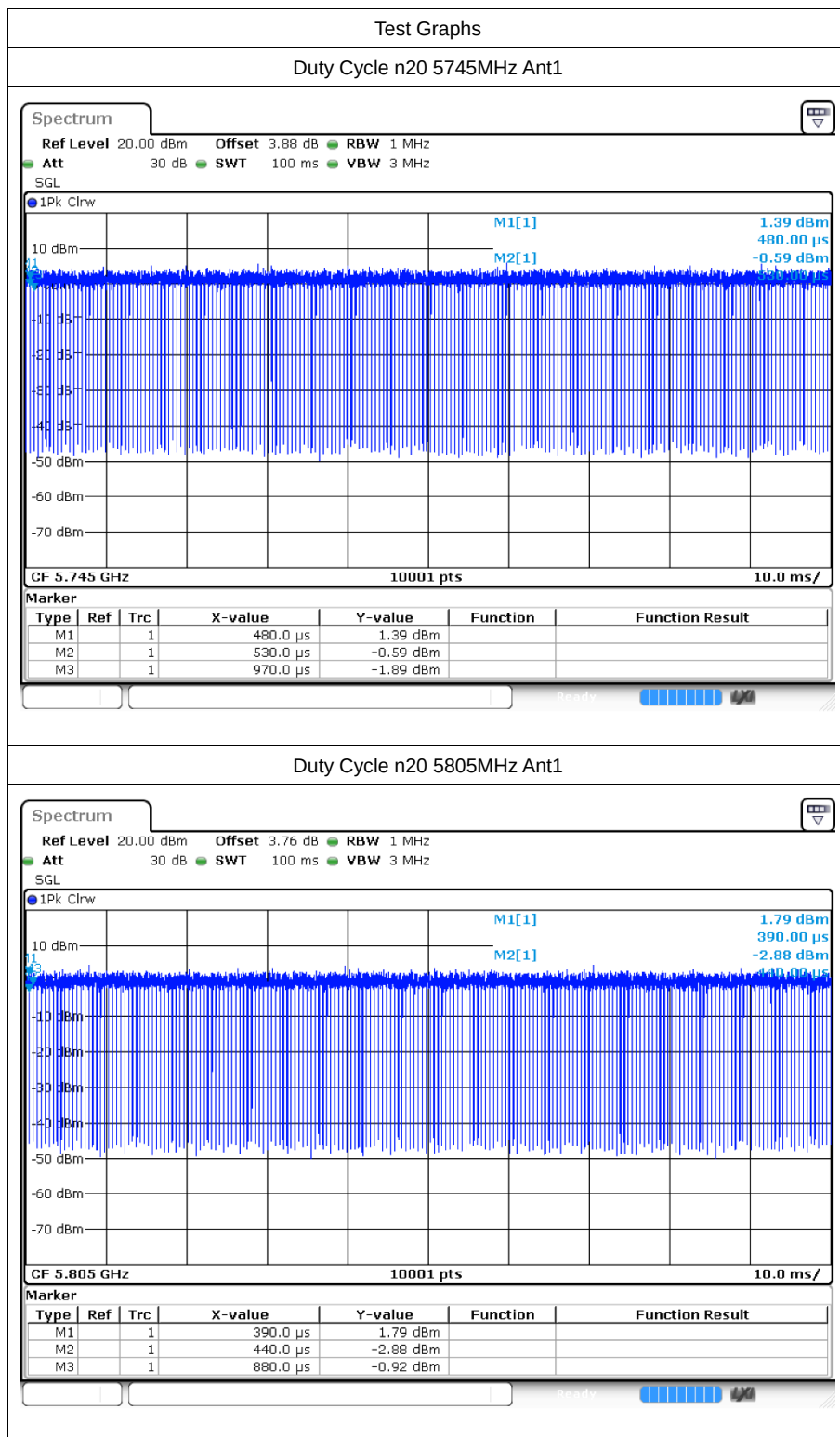
1 Duty Cycle

1.1 Test Result

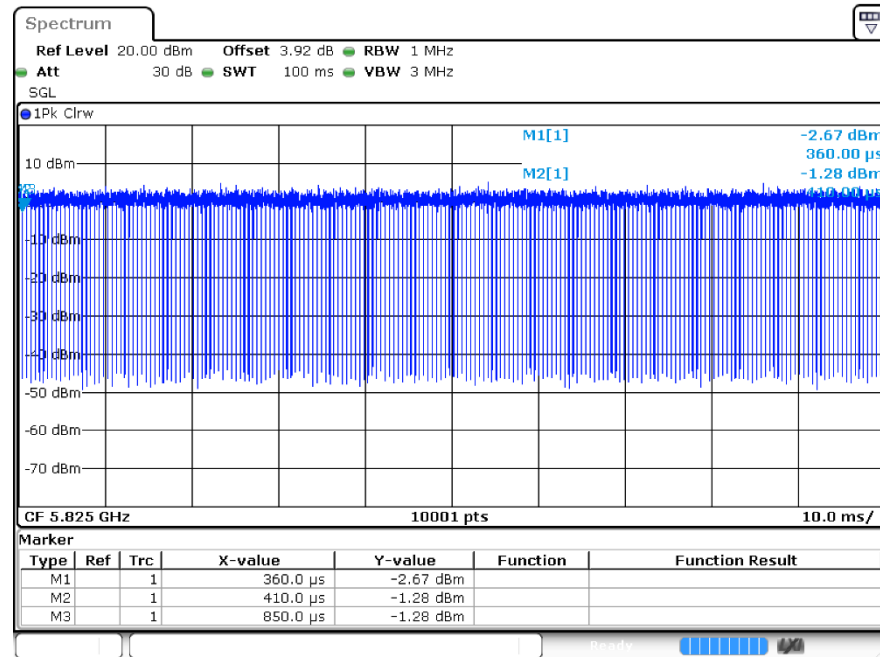
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
n20	5745	Ant1	93.03	0.31	2.27
n20	5805	Ant1	93.04	0.31	2.27
n20	5825	Ant1	92.99	0.32	2.27
n20	5745	Ant2	93.05	0.31	2.22
n20	5805	Ant2	93.05	0.31	2.22
n20	5825	Ant2	93.07	0.31	2.22
n40	5755	Ant1	92.99	0.32	2.22
n40	5795	Ant1	92.99	0.32	2.22
n40	5755	Ant2	92.65	0.33	2.27
n40	5795	Ant2	91.48	0.39	2.27
ac20	5745	Ant1	87.26	0.59	4.35
ac20	5805	Ant1	87.05	0.6	4.35
ac20	5825	Ant1	86.98	0.61	4.55
ac20	5745	Ant2	87.27	0.59	4.35
ac20	5805	Ant2	87.13	0.6	4.35
ac20	5825	Ant2	85.81	0.66	4.55
ac40	5755	Ant1	87.42	0.58	4.35
ac40	5795	Ant1	87.34	0.59	4.35
ac40	5755	Ant2	86.83	0.61	4.35
ac40	5795	Ant2	85.01	0.71	4.35
ax20	5745	Ant1	87.08	0.6	4.35
ax20	5805	Ant1	87.1	0.6	4.35
ax20	5825	Ant1	87.14	0.6	4.55
ax20	5745	Ant2	87.19	0.6	4.35
ax20	5805	Ant2	86.84	0.61	4.35
ax20	5825	Ant2	87.16	0.6	4.35
ax40	5755	Ant1	87.65	0.57	4.17
ax40	5795	Ant1	87.63	0.57	4.17
ax40	5755	Ant2	85.24	0.69	4.35
ax40	5795	Ant2	84.84	0.71	4.17
ax80	5775	Ant1	87.01	0.6	4.55
ax80	5775	Ant2	86.92	0.61	4.35



1.2 Test Graphs



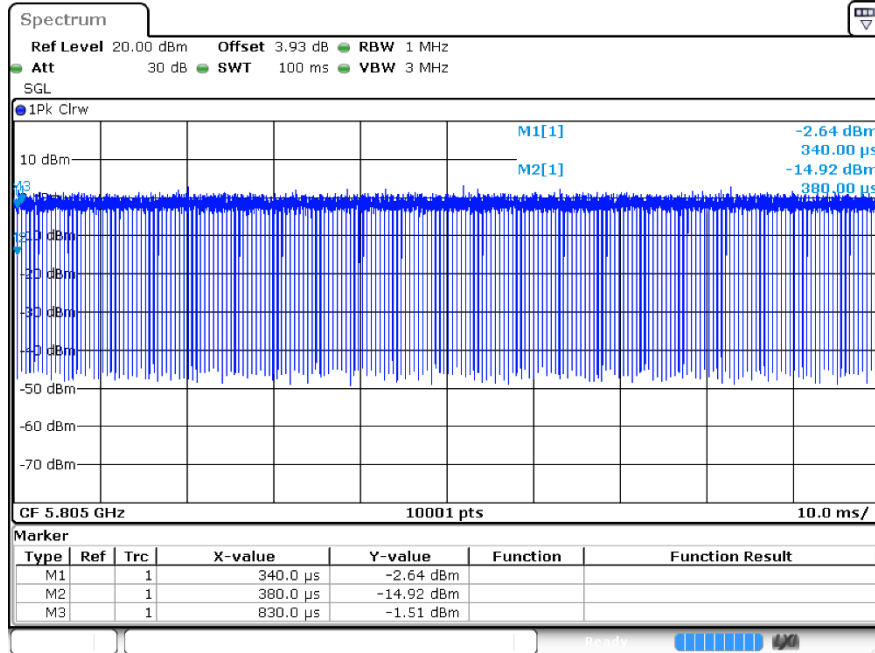
Duty Cycle n20 5825MHz Ant1



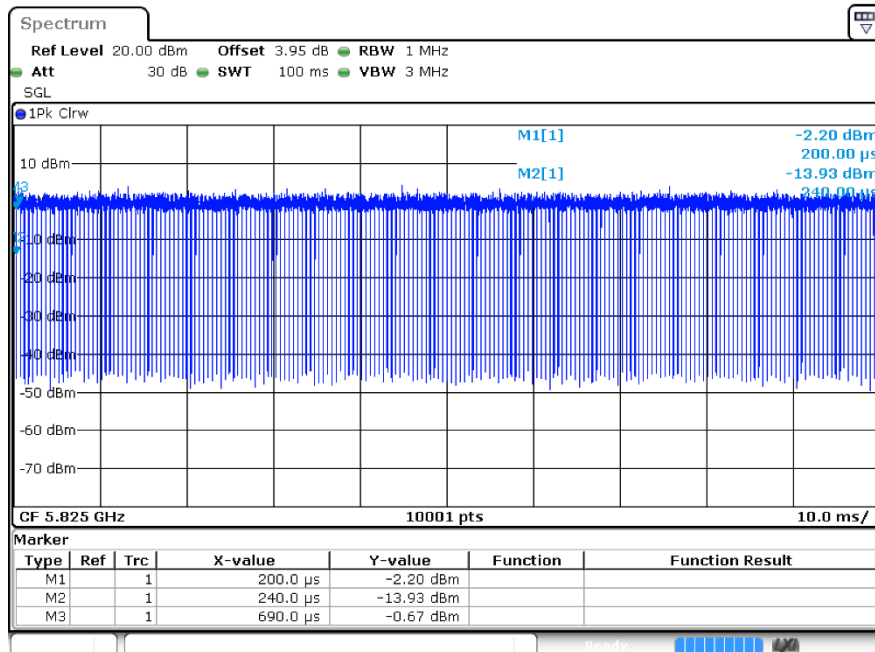
Duty Cycle n20 5745MHz Ant2



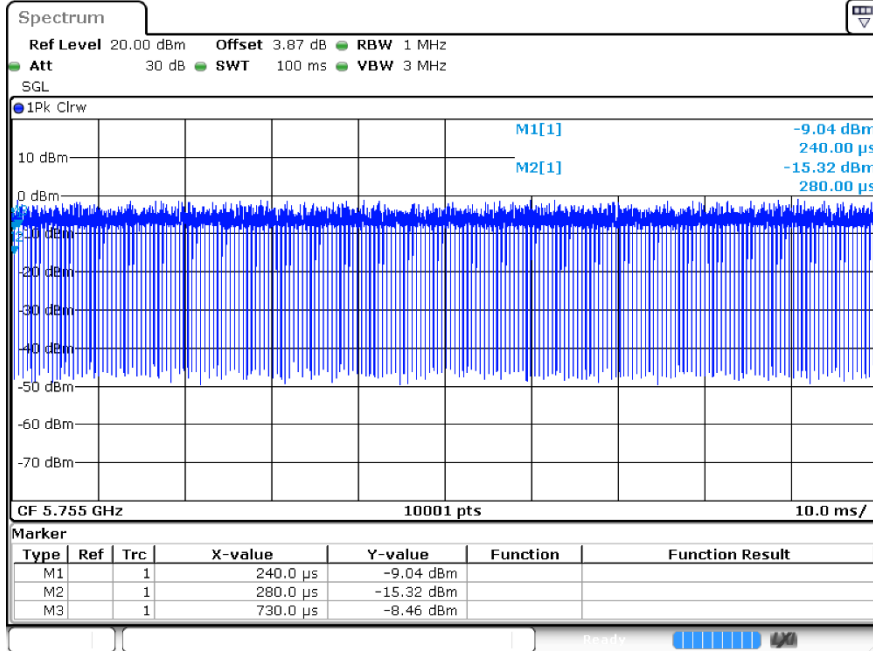
Duty Cycle n20 5805MHz Ant2



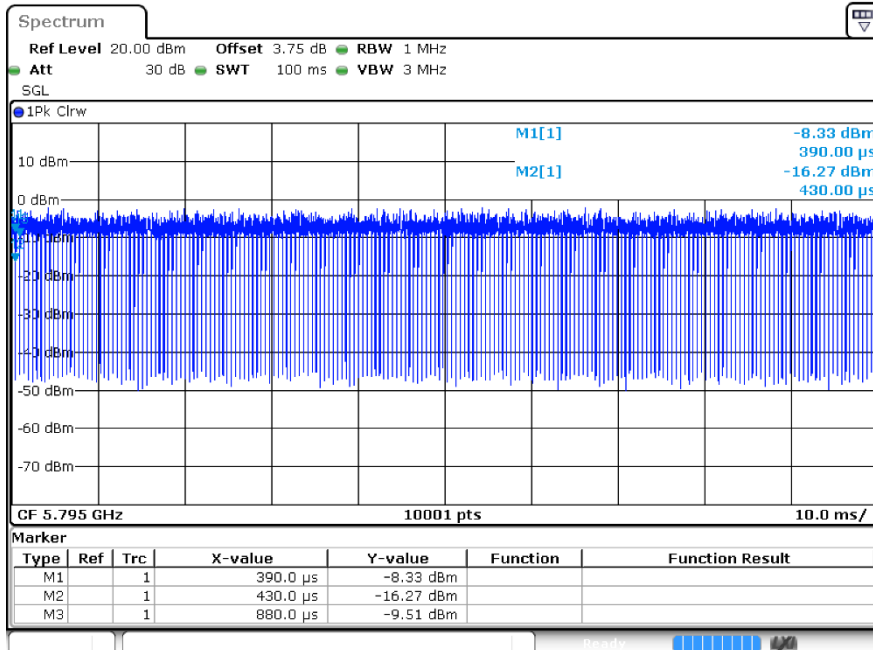
Duty Cycle n20 5825MHz Ant2



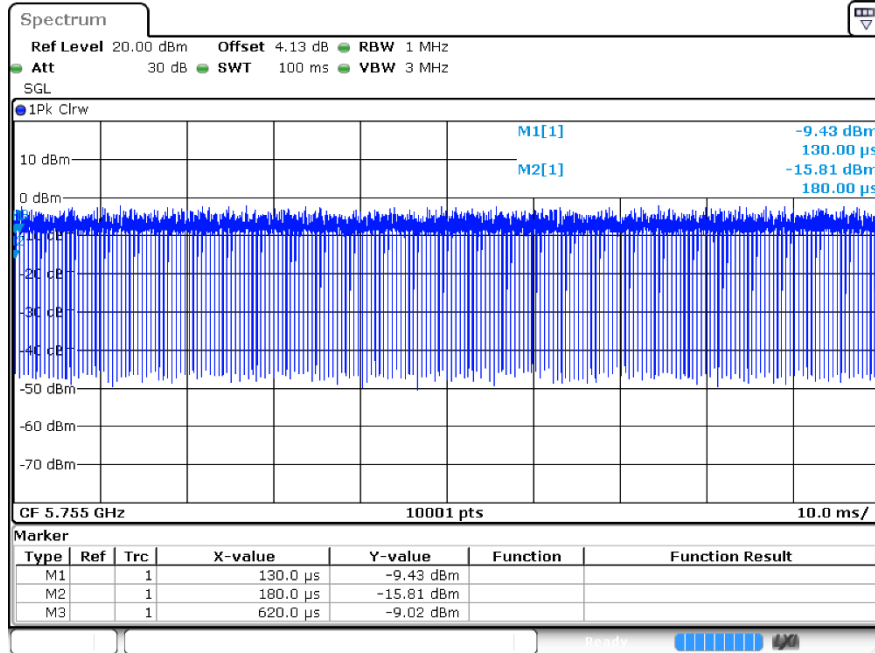
Duty Cycle n40 5755MHz Ant1



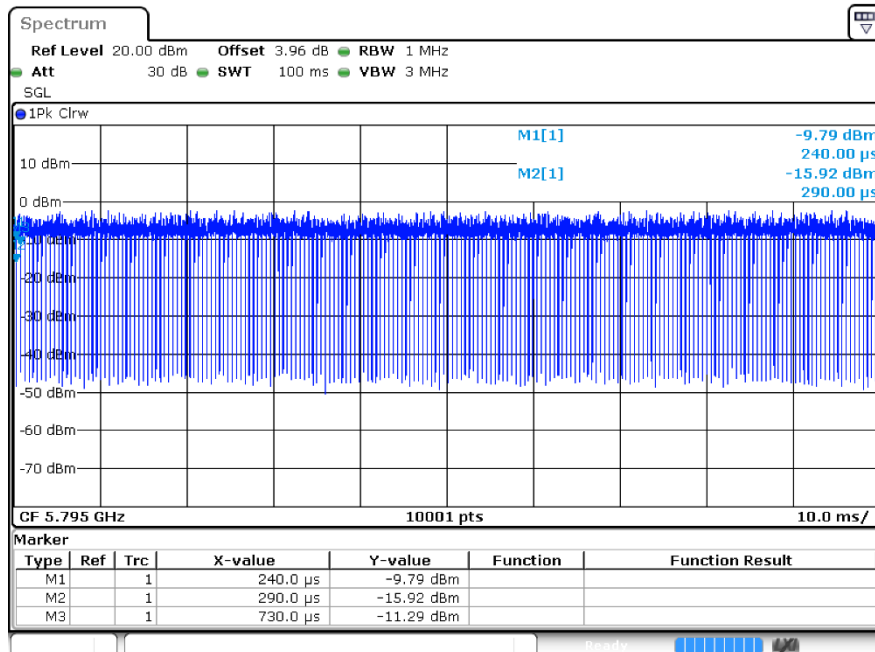
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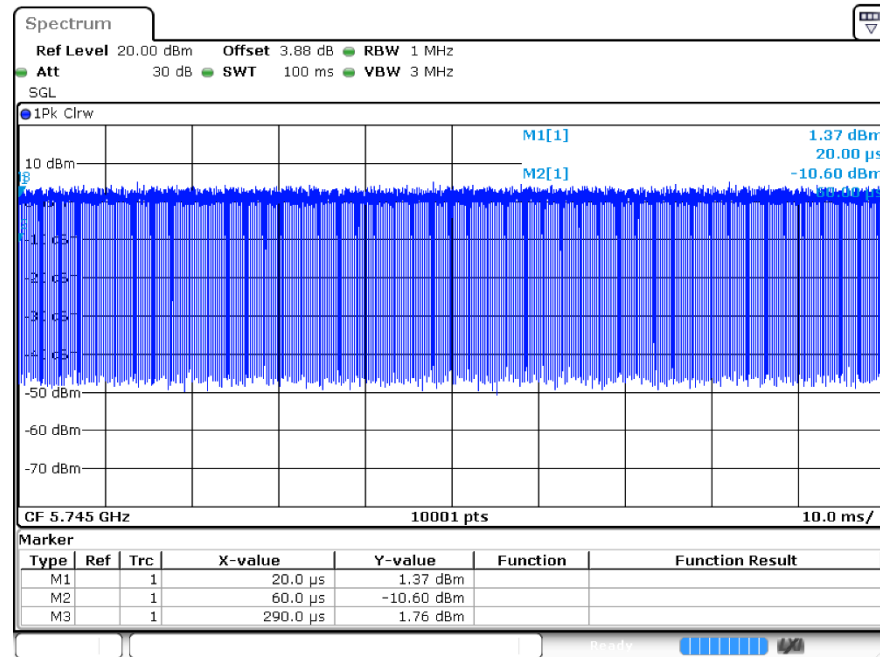
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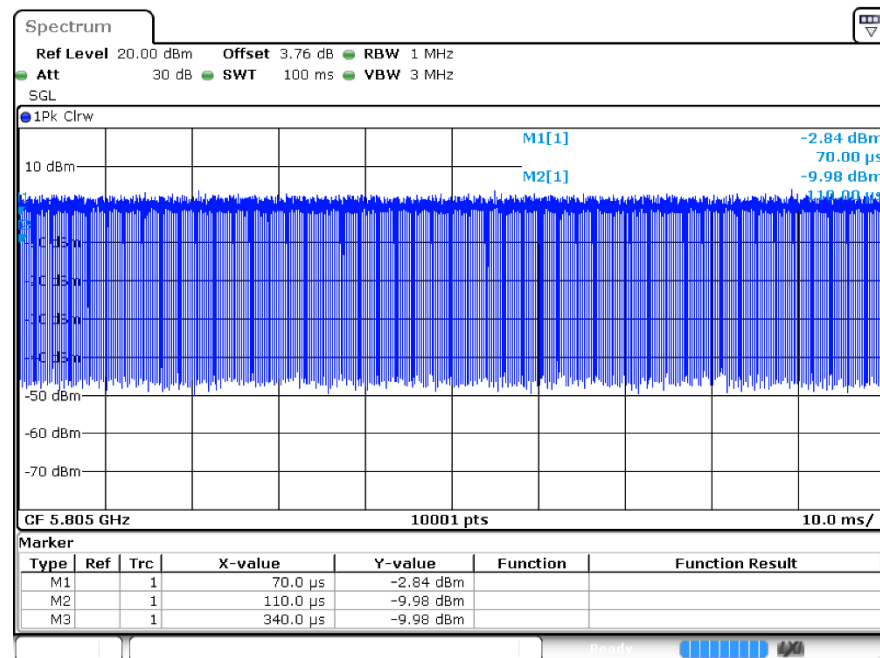
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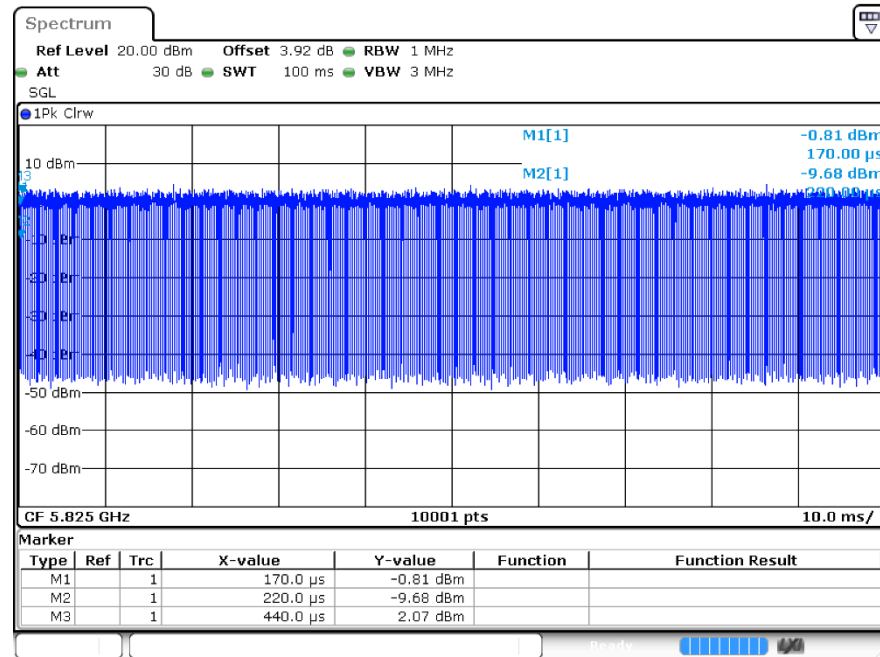
Duty Cycle ac20 5745MHz Ant1



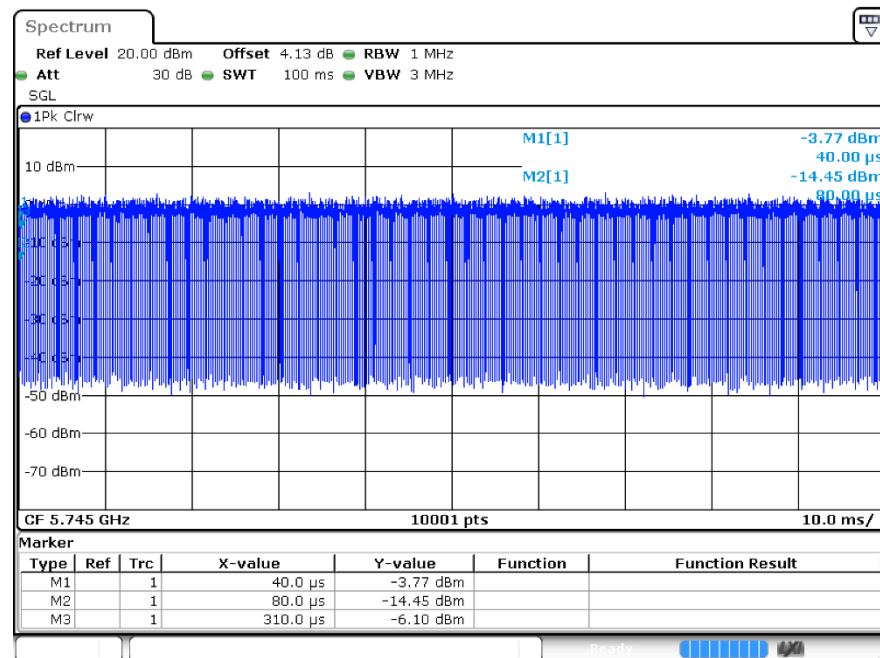
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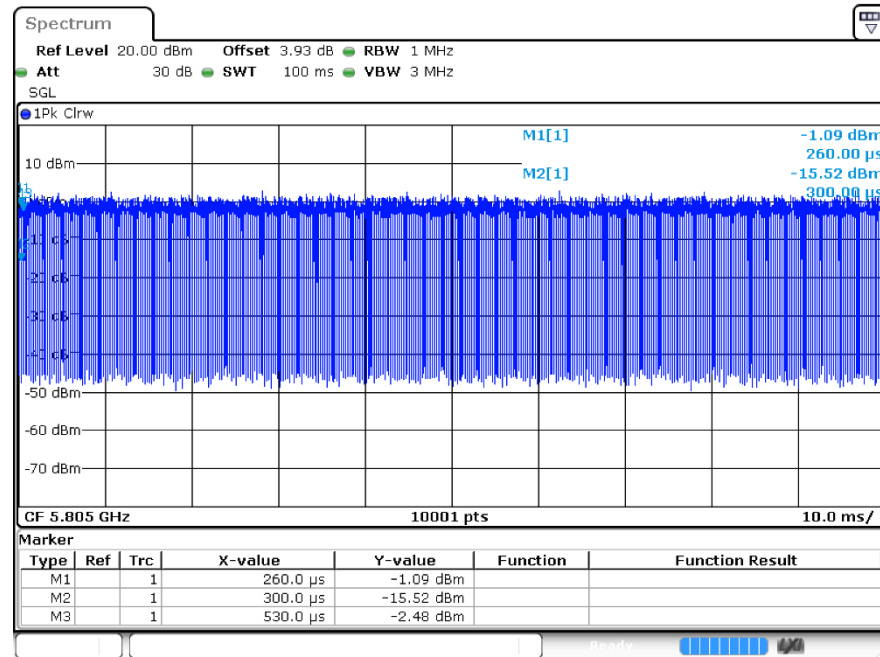
Duty Cycle ac20 5825MHz Ant1



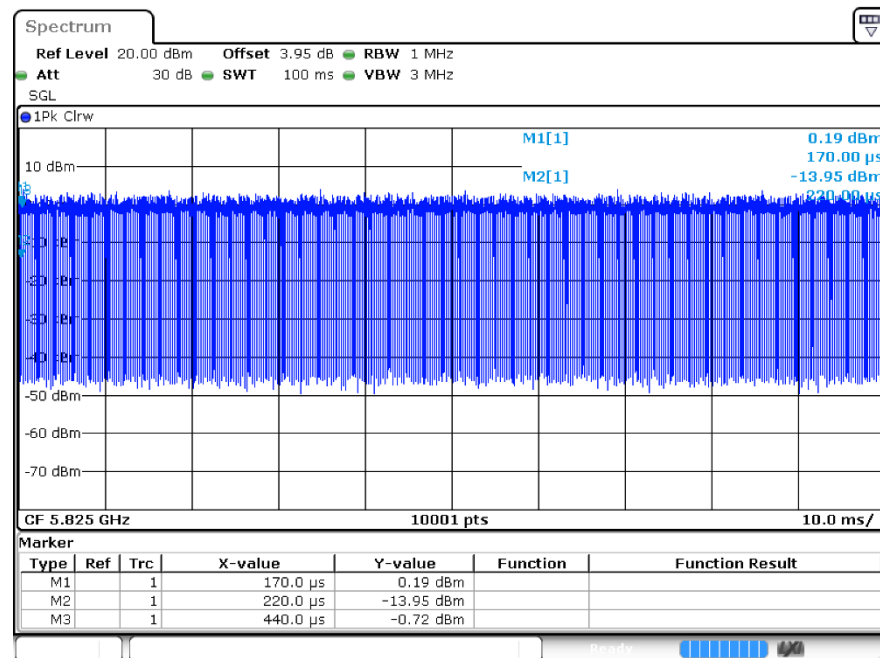
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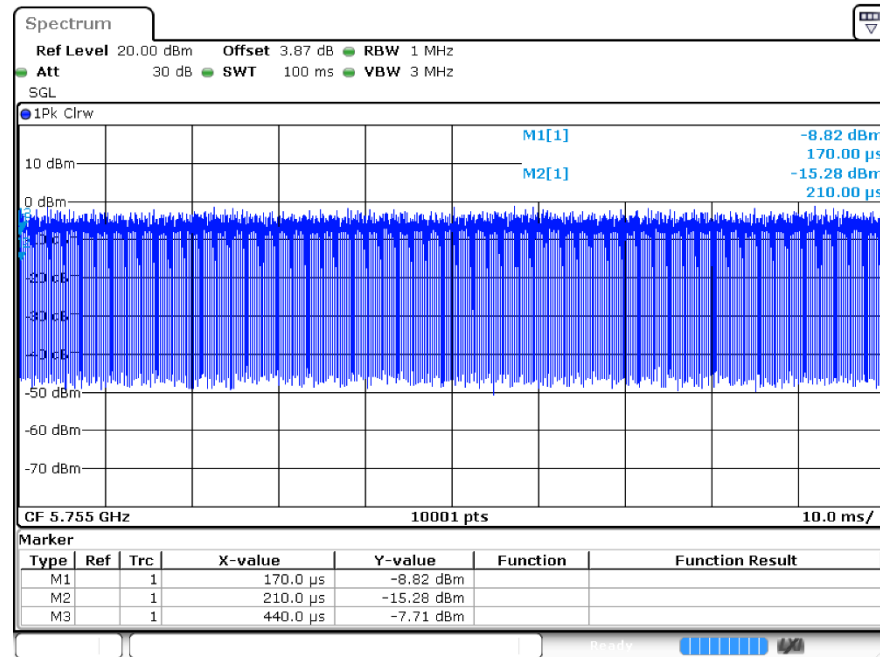
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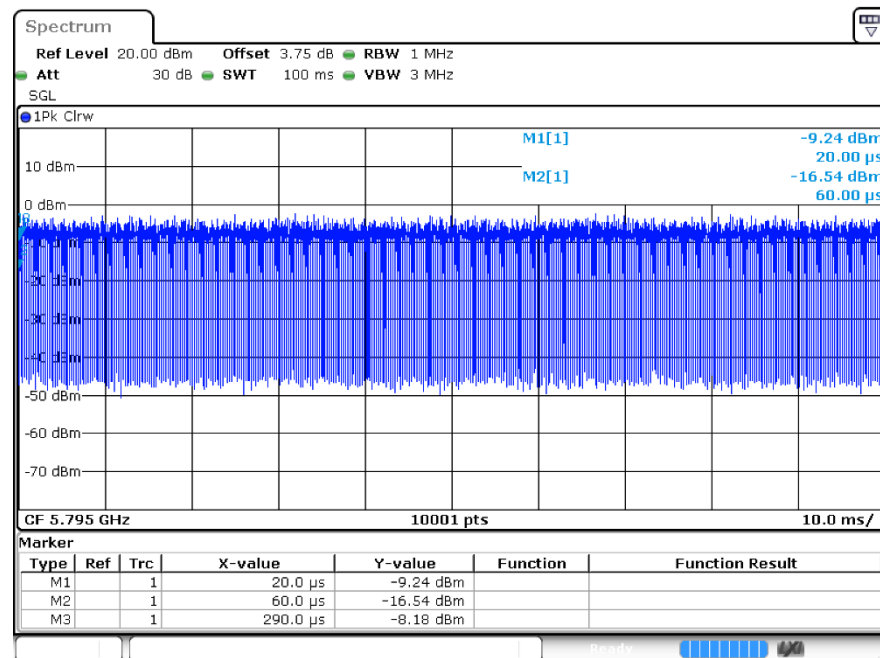
Duty Cycle ac20 5825MHz Ant2



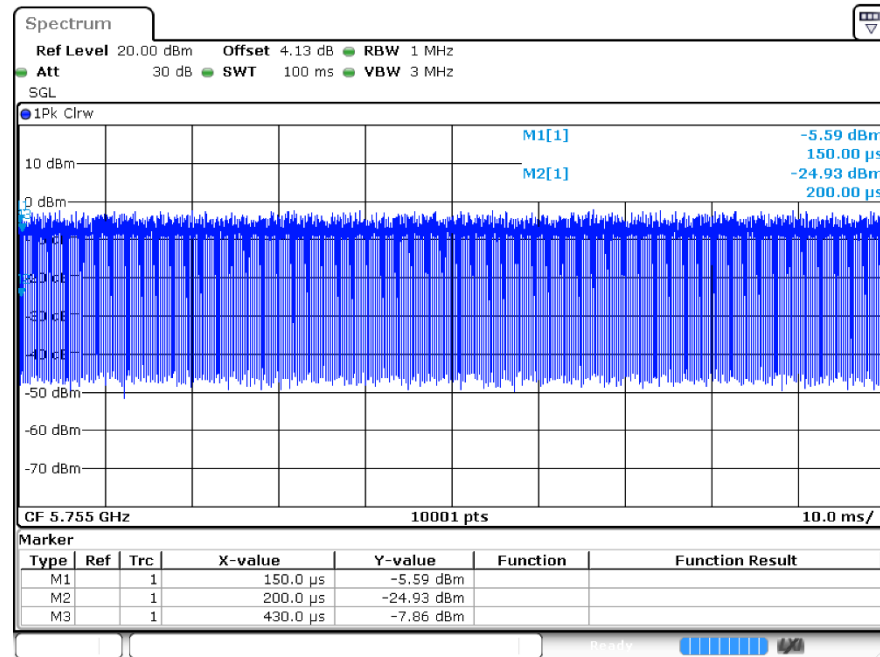
Duty Cycle ac40 5755MHz Ant1



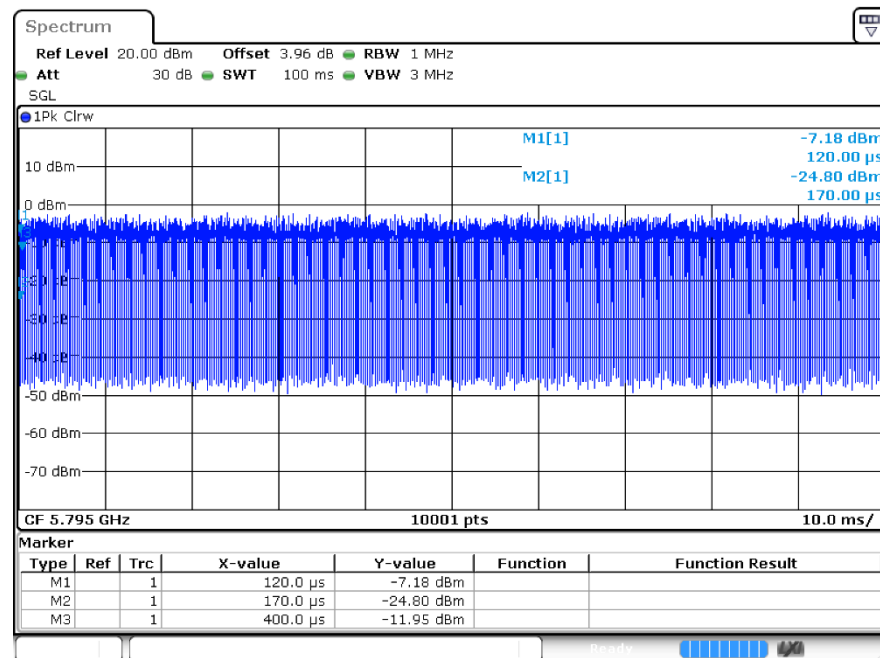
Duty Cycle ac40 5795MHz Ant1



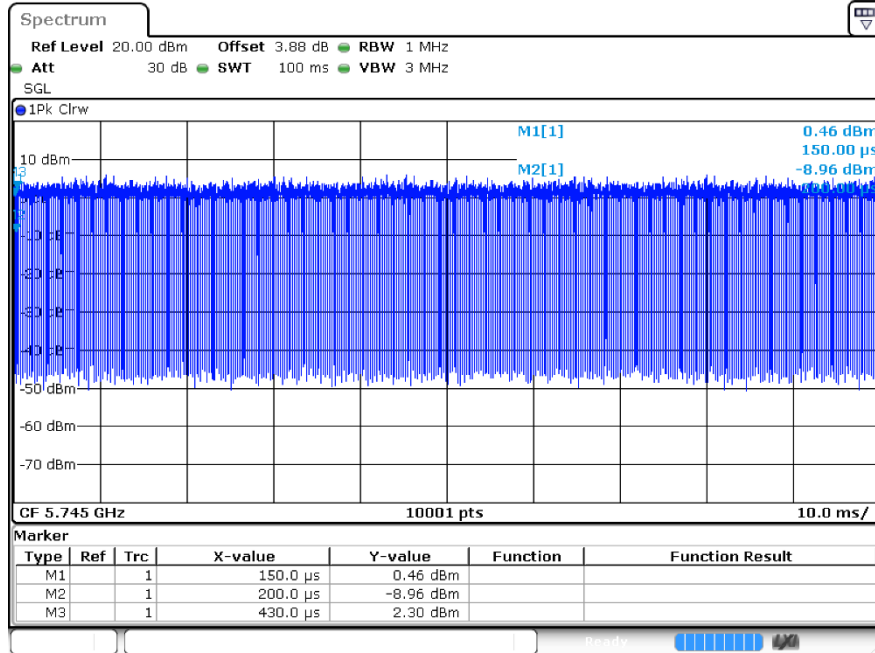
Duty Cycle ac40 5755MHz Ant2



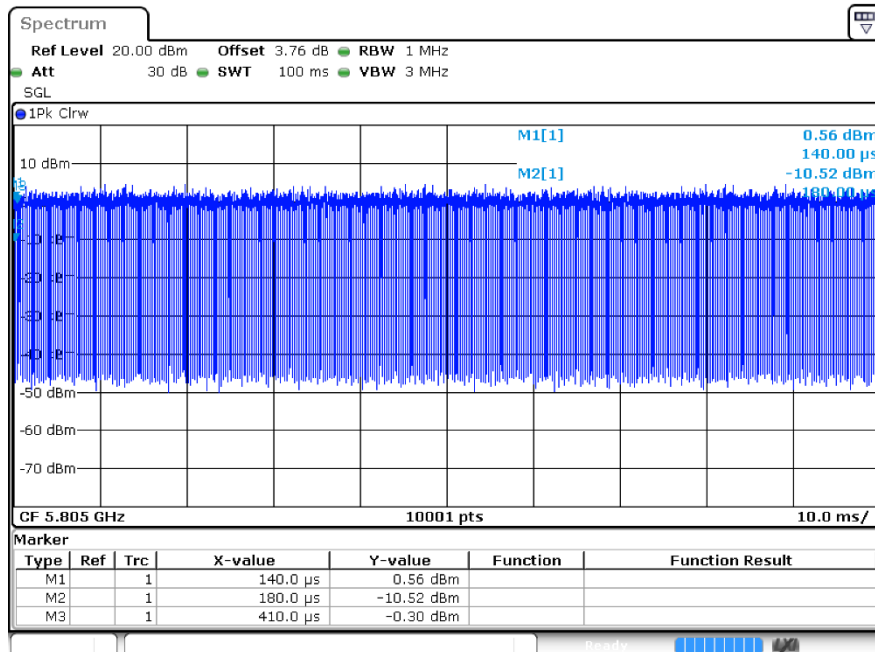
Duty Cycle ac40 5795MHz Ant2



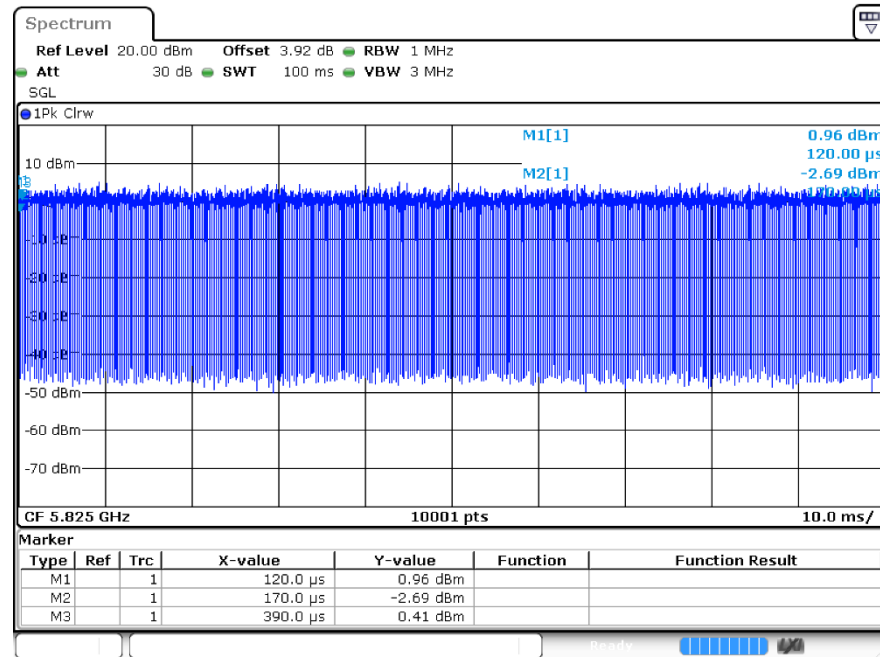
Duty Cycle ax20 5745MHz Ant1



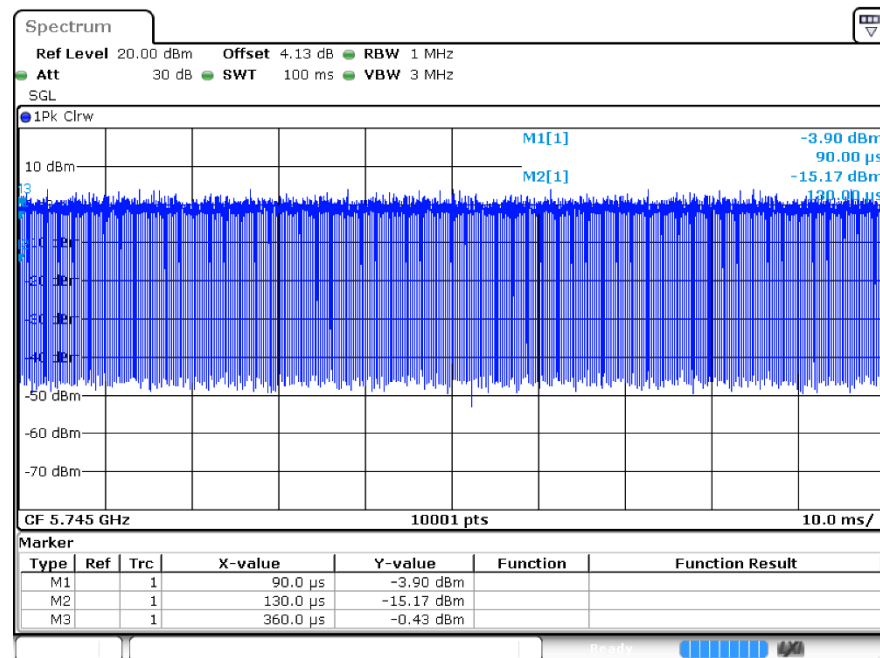
Duty Cycle ax20 5805MHz Ant1



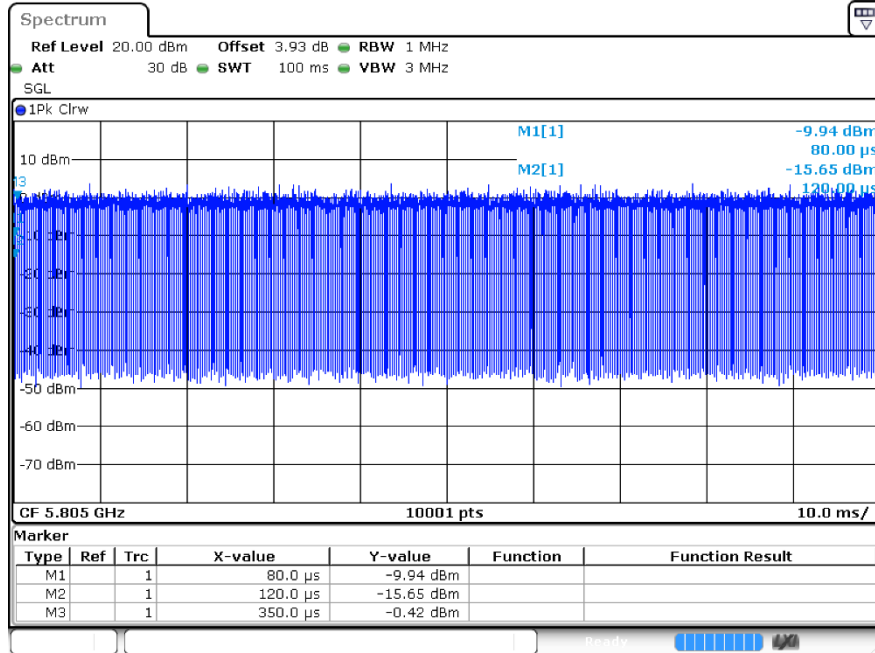
Duty Cycle ax20 5825MHz Ant1



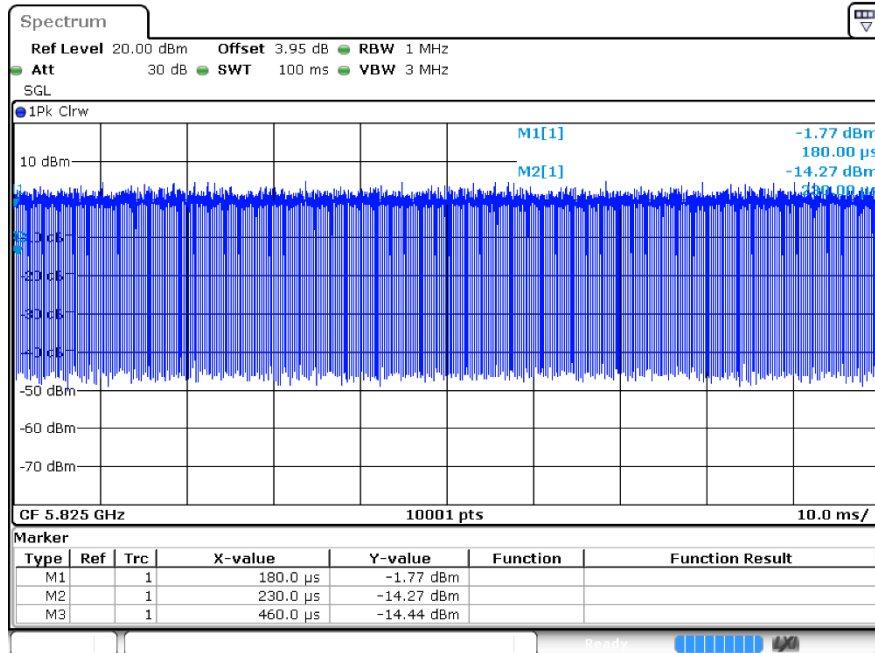
Duty Cycle ax20 5745MHz Ant2



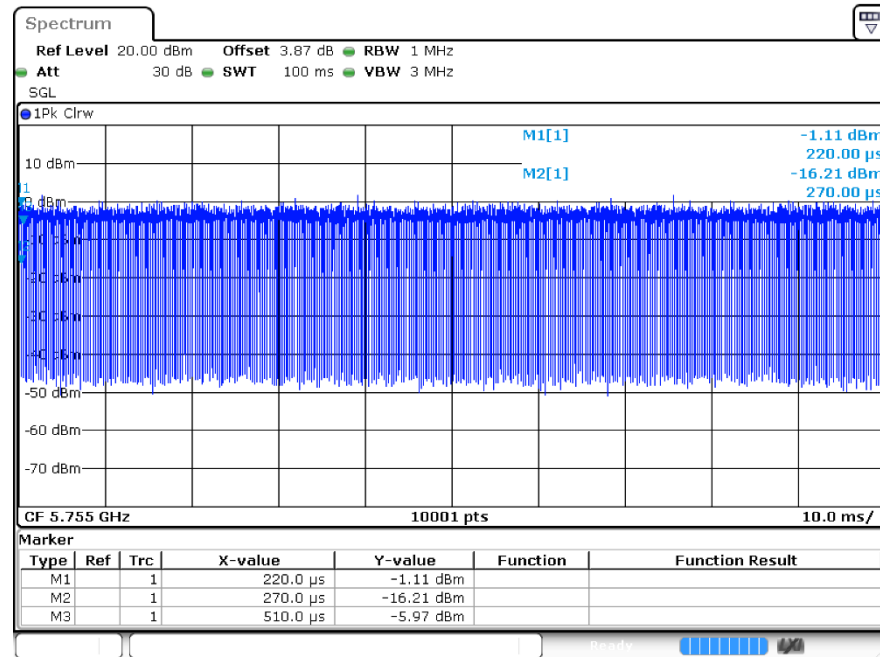
Duty Cycle ax20 5805MHz Ant2



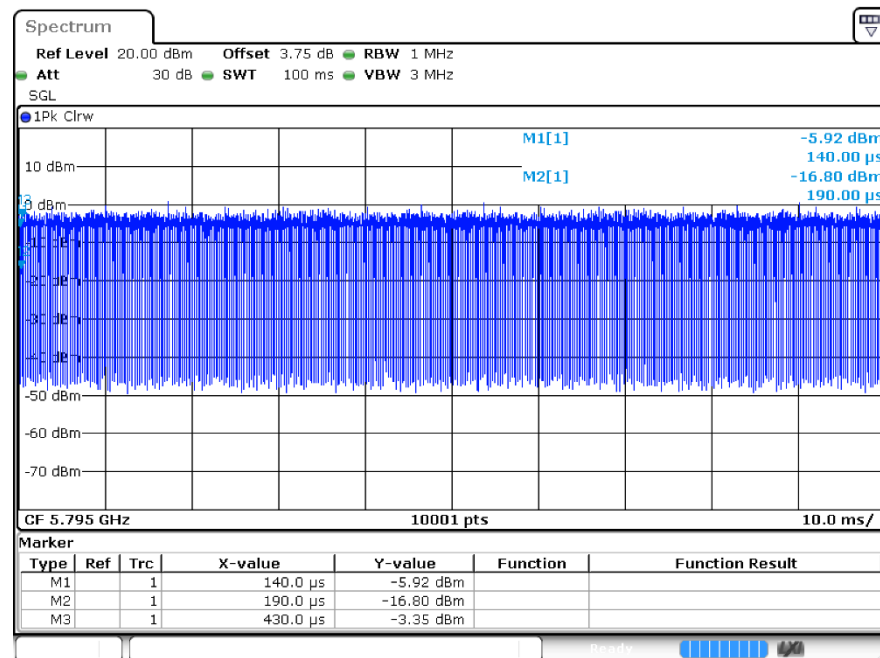
Duty Cycle ax20 5825MHz Ant2



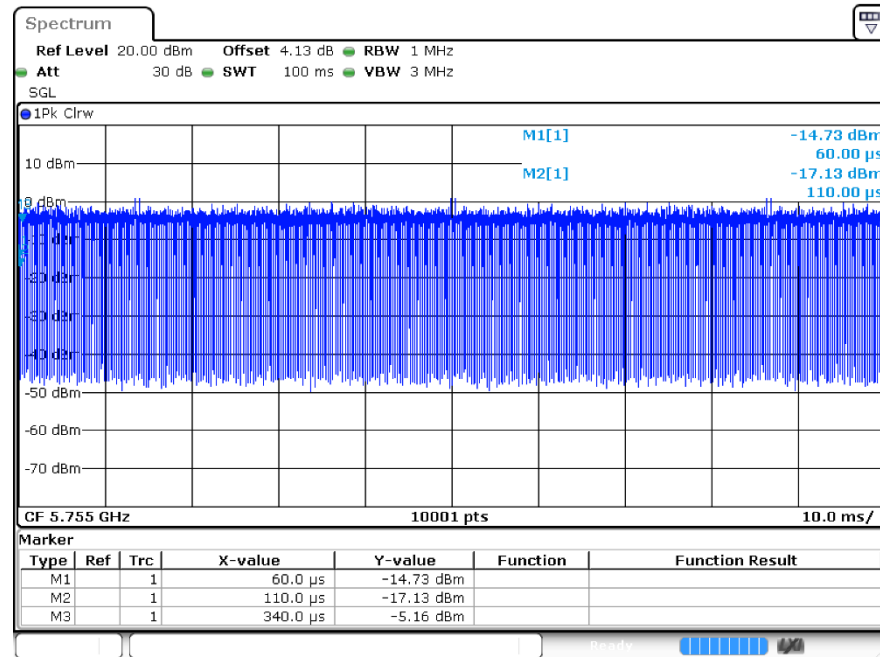
Duty Cycle ax40 5755MHz Ant1



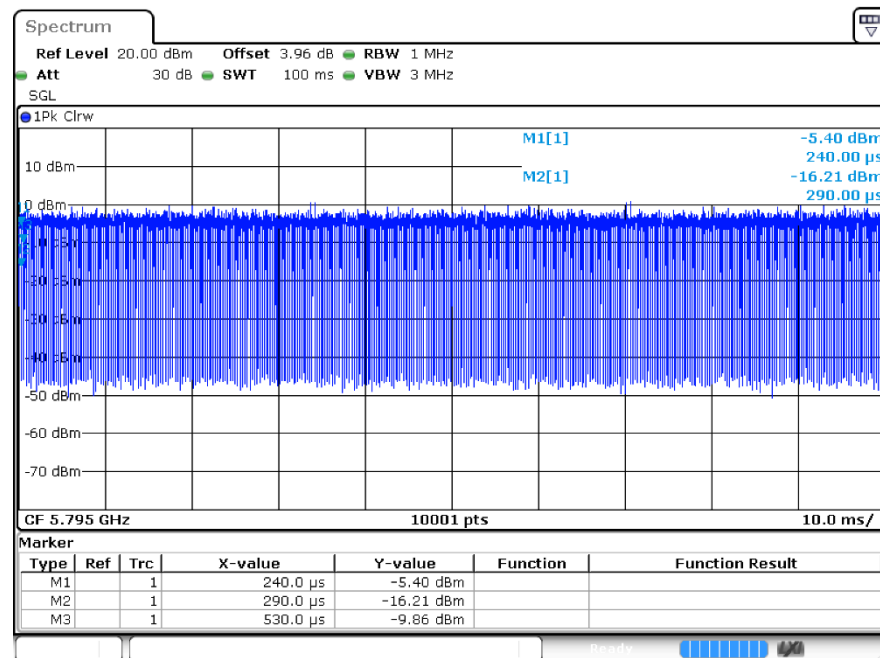
Duty Cycle ax40 5795MHz Ant1



Duty Cycle ax40 5755MHz Ant2



Duty Cycle ax40 5795MHz Ant2



2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
n20	5745	Ant1	14.97	29.3	Pass
n20	5805	Ant1	13.69	29.3	Pass
n20	5825	Ant1	14.16	29.3	Pass
n40	5755	Ant1	14.03	29.3	Pass
n40	5795	Ant1	13.06	29.3	Pass
ac20	5745	Ant1	14.91	29.3	Pass
ac20	5805	Ant1	13.48	29.3	Pass
ac20	5825	Ant1	14.10	29.3	Pass
ac40	5755	Ant1	13.96	29.3	Pass
ac40	5795	Ant1	13.09	29.3	Pass
ax20	5745	Ant1	15.52	29.3	Pass
ax20	5805	Ant1	14.29	29.3	Pass
ax20	5825	Ant1	14.64	29.3	Pass
ax40	5755	Ant1	14.47	29.3	Pass
ax40	5795	Ant1	13.48	29.3	Pass
ax80	5775	Ant1	13.79	29.3	Pass
n20	5745	Ant2	12.44	29.3	Pass
n20	5805	Ant2	12.10	29.3	Pass
n20	5825	Ant2	13.16	29.3	Pass
n40	5755	Ant2	13.24	29.3	Pass
n40	5795	Ant2	13.03	29.3	Pass
ac20	5745	Ant2	12.75	29.3	Pass
ac20	5805	Ant2	12.42	29.3	Pass
ac20	5825	Ant2	13.52	29.3	Pass
ac40	5755	Ant2	13.35	29.3	Pass
ac40	5795	Ant2	13.34	29.3	Pass
ax20	5745	Ant2	13.02	29.3	Pass
ax20	5805	Ant2	12.74	29.3	Pass
ax20	5825	Ant2	13.91	29.3	Pass
ax40	5755	Ant2	13.76	29.3	Pass
ax40	5795	Ant2	13.58	29.3	Pass
ax80	5775	Ant2	13.16	29.3	Pass
n20	5745	Sum	16.90	29.3	Pass
n20	5805	Sum	15.98	29.3	Pass
n20	5825	Sum	16.70	29.3	Pass
n40	5755	Sum	16.66	29.3	Pass



n40	5795	Sum	16.06	29.3	Pass
ac20	5745	Sum	16.97	29.3	Pass
ac20	5805	Sum	15.99	29.3	Pass
ac20	5825	Sum	16.83	29.3	Pass
ac40	5755	Sum	16.68	29.3	Pass
ac40	5795	Sum	16.23	29.3	Pass
ax20	5745	Sum	17.46	29.3	Pass
ax20	5805	Sum	16.59	29.3	Pass
ax20	5825	Sum	17.30	29.3	Pass
ax40	5755	Sum	17.14	29.3	Pass
ax40	5795	Sum	16.54	29.3	Pass
ax80	5775	Sum	16.50	29.3	Pass

Note:

The duty factor has been compensated into the result.

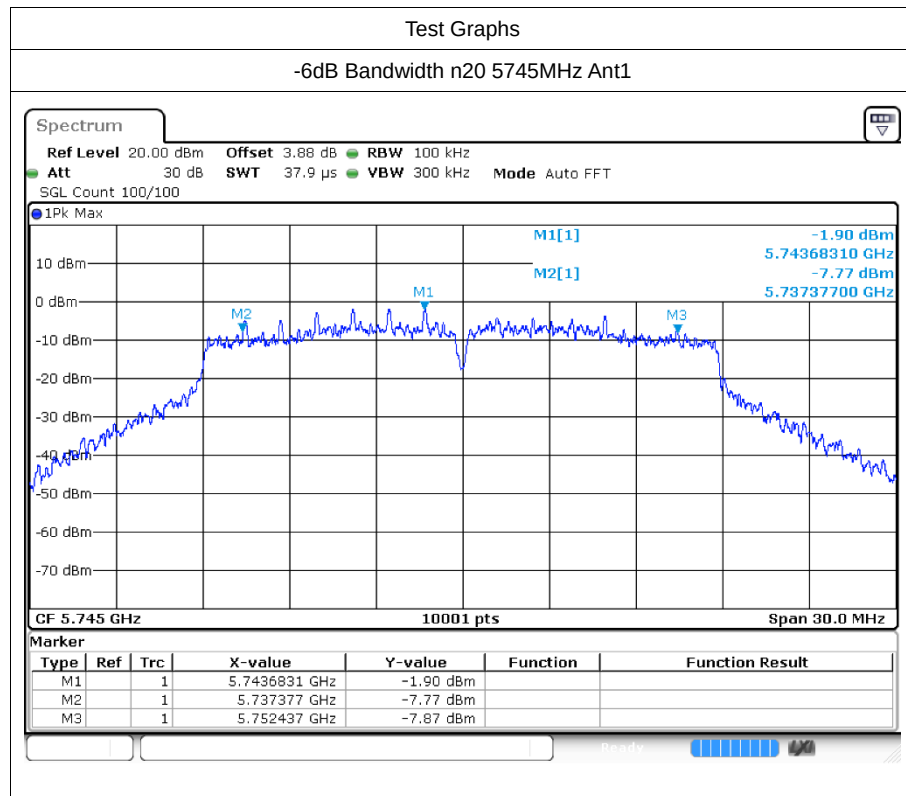


3 -6dB Bandwidth

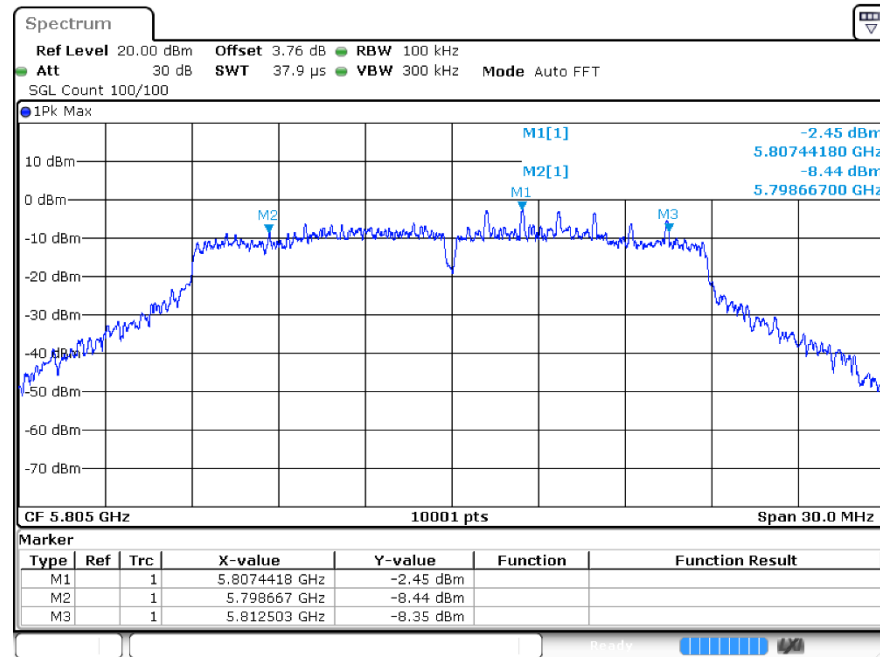
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
n20	5745	Ant1	15.06	0.5	Pass
n20	5805	Ant1	13.836	0.5	Pass
n20	5825	Ant1	17.022	0.5	Pass
n40	5755	Ant1	26.934	0.5	Pass
n40	5795	Ant1	35.082	0.5	Pass
ac20	5745	Ant1	15.102	0.5	Pass
ac20	5805	Ant1	15.036	0.5	Pass
ac20	5825	Ant1	15.108	0.5	Pass
ac40	5755	Ant1	35.058	0.5	Pass
ac40	5795	Ant1	35.076	0.5	Pass
ax20	5745	Ant1	15.09	0.5	Pass
ax20	5805	Ant1	15.108	0.5	Pass
ax20	5825	Ant1	15.099	0.5	Pass
ax40	5755	Ant1	31.32	0.5	Pass
ax40	5795	Ant1	35.076	0.5	Pass
ax80	5775	Ant1	72.564	0.5	Pass
n20	5745	Ant2	12.813	0.5	Pass
n20	5805	Ant2	13.203	0.5	Pass
n20	5825	Ant2	15.108	0.5	Pass
n40	5755	Ant2	31.332	0.5	Pass
n40	5795	Ant2	30.444	0.5	Pass
ac20	5745	Ant2	15.018	0.5	Pass
ac20	5805	Ant2	15.108	0.5	Pass
ac20	5825	Ant2	15.108	0.5	Pass
ac40	5755	Ant2	35.31	0.5	Pass
ac40	5795	Ant2	35.034	0.5	Pass
ax20	5745	Ant2	15.105	0.5	Pass
ax20	5805	Ant2	15.114	0.5	Pass
ax20	5825	Ant2	15.108	0.5	Pass
ax40	5755	Ant2	35.088	0.5	Pass
ax40	5795	Ant2	35.04	0.5	Pass
ax80	5775	Ant2	72.552	0.5	Pass

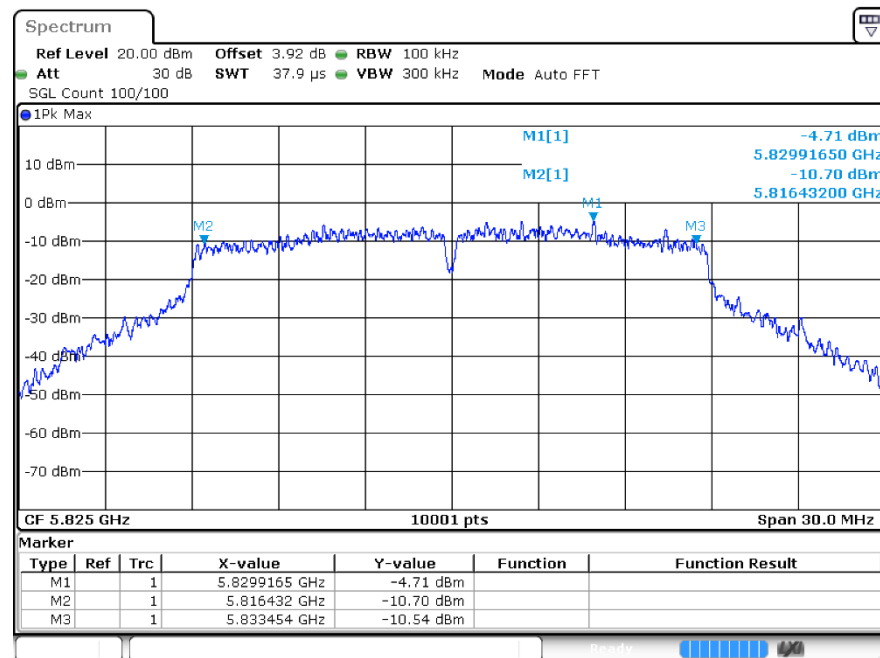
3.2 Test Graphs



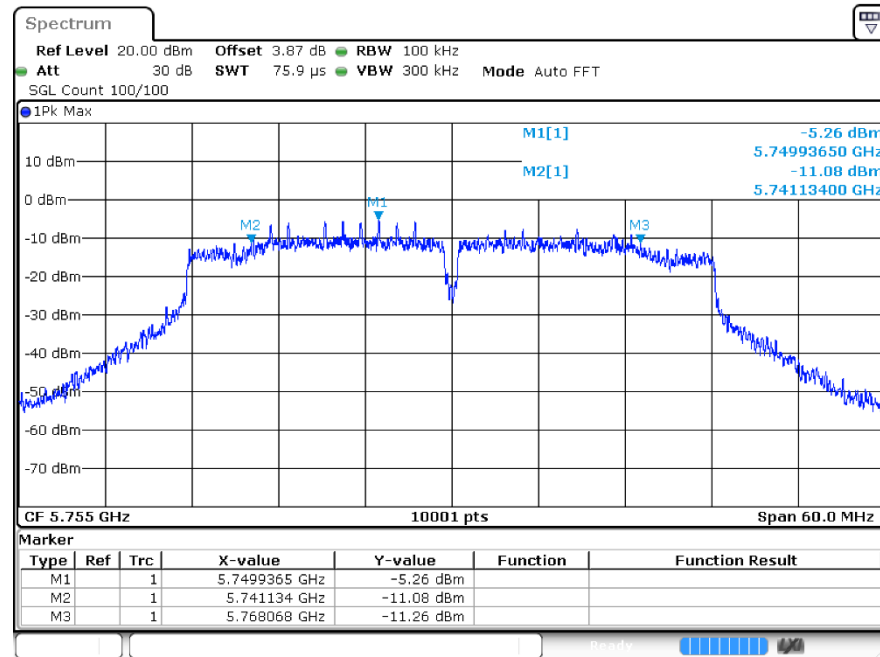
-6dB Bandwidth n20 5805MHz Ant1



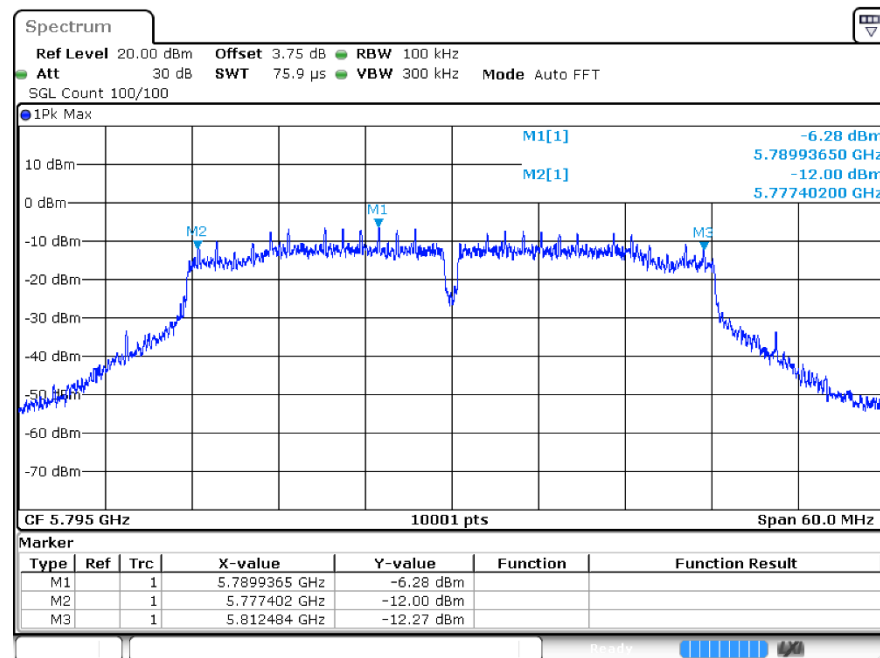
-6dB Bandwidth n20 5825MHz Ant1



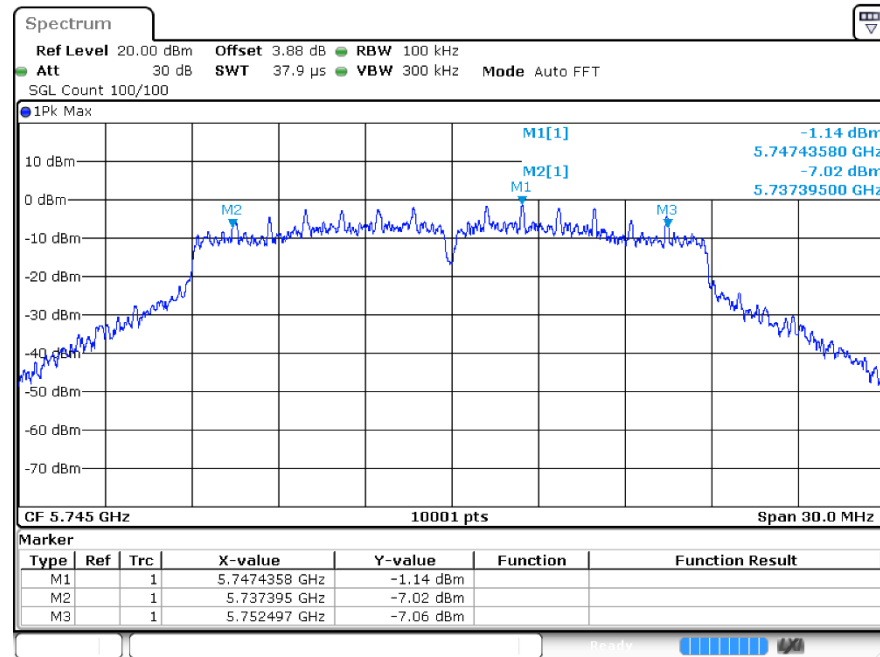
-6dB Bandwidth n40 5755MHz Ant1



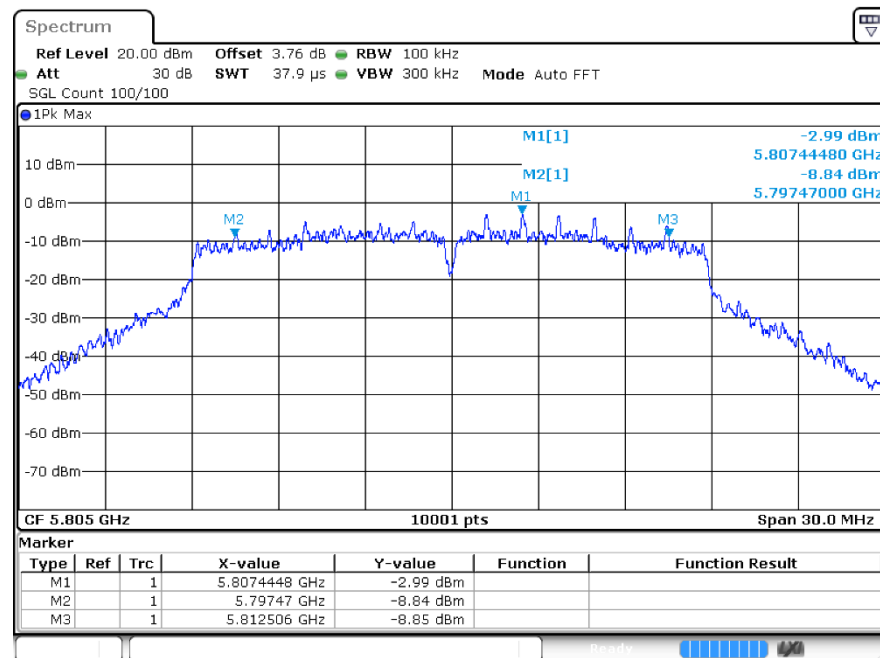
-6dB Bandwidth n40 5795MHz Ant1



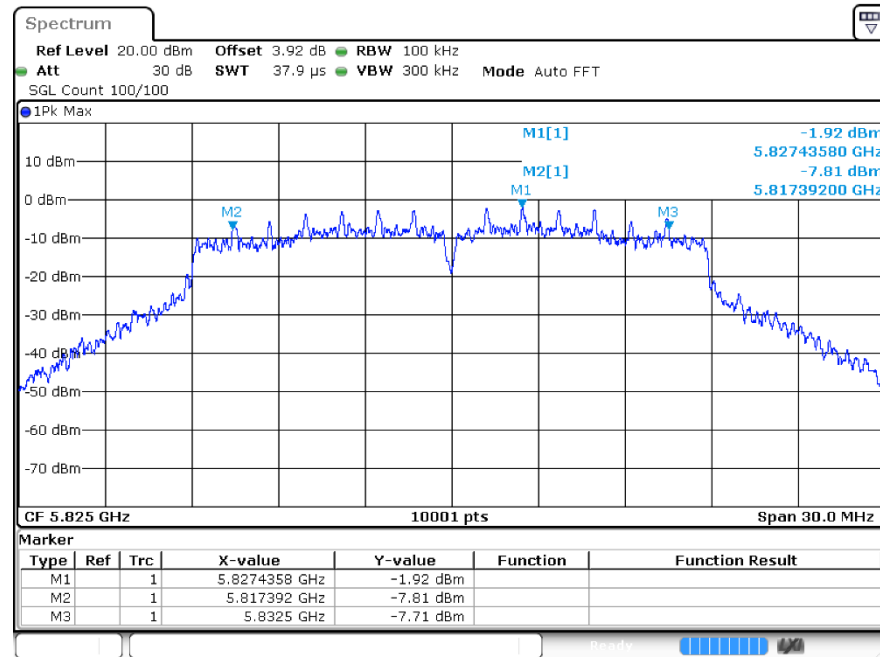
-6dB Bandwidth ac20 5745MHz Ant1



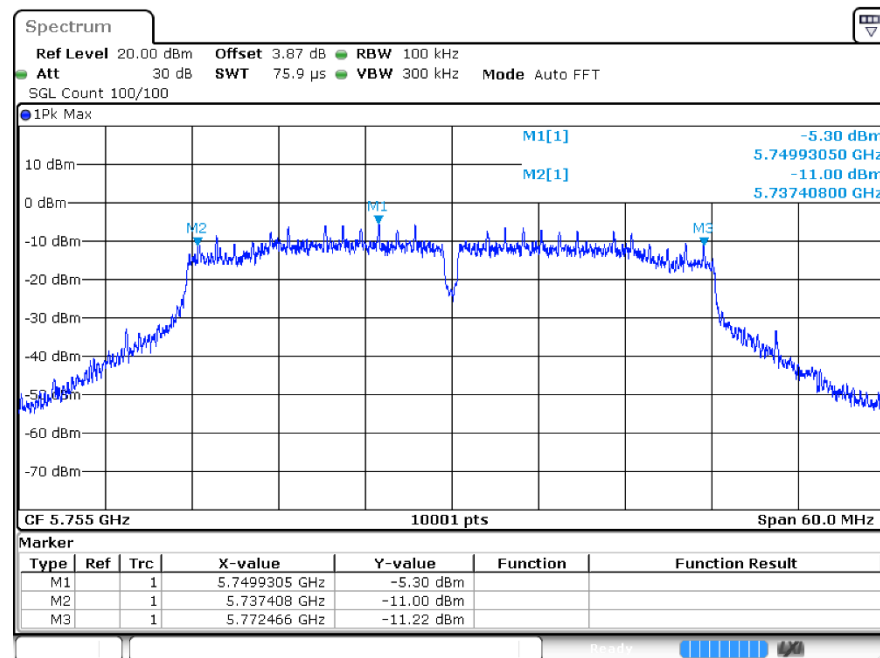
-6dB Bandwidth ac20 5805MHz Ant1

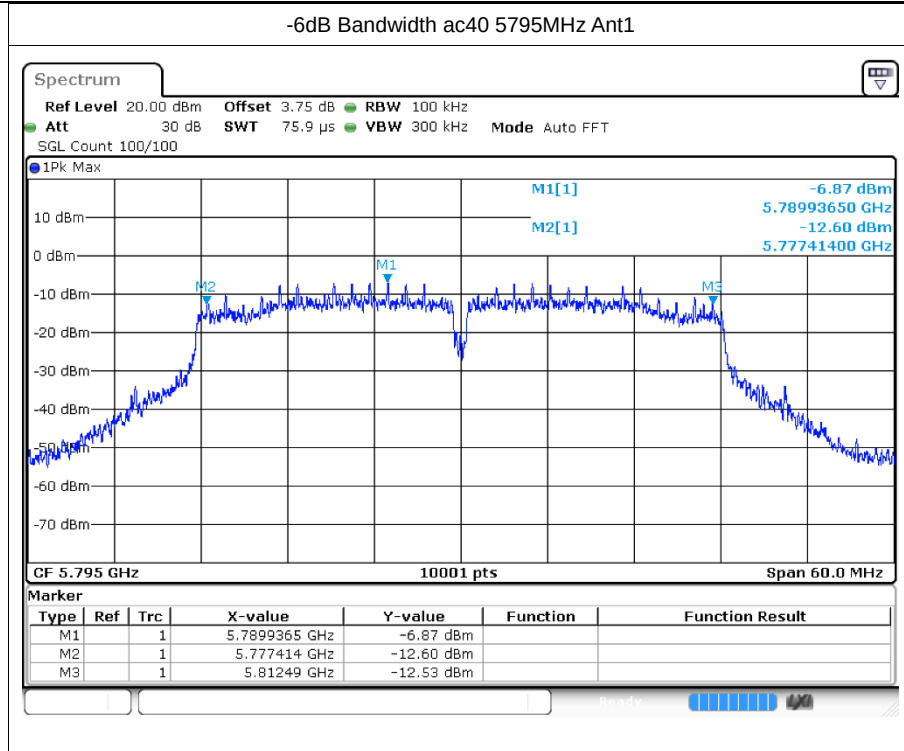


-6dB Bandwidth ac20 5825MHz Ant1

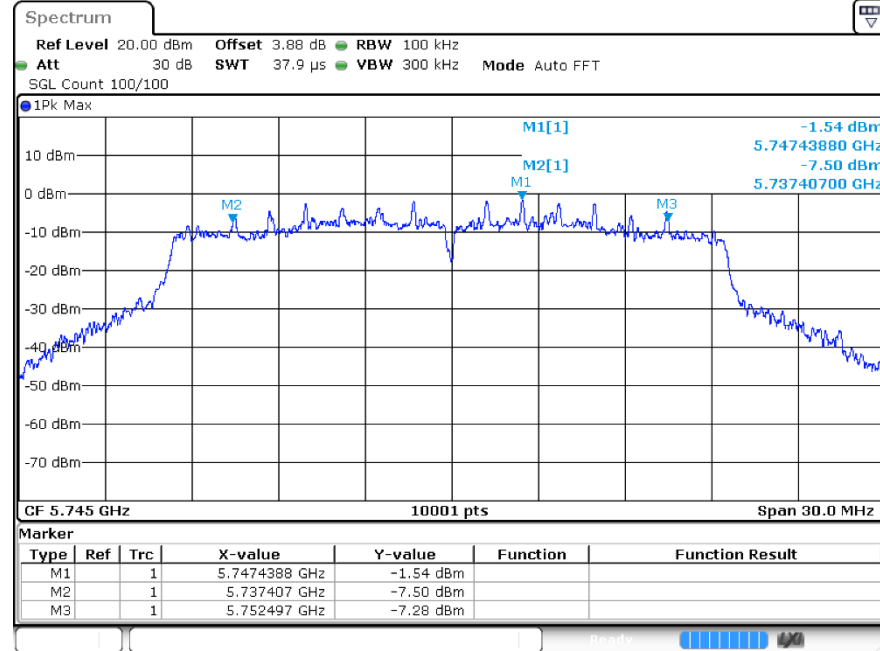


-6dB Bandwidth ac40 5755MHz Ant1

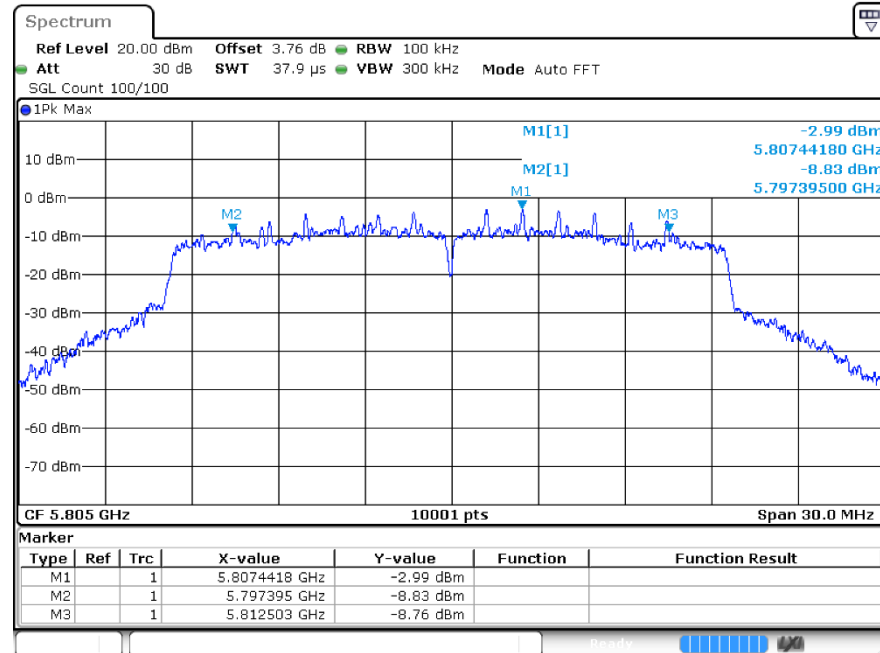




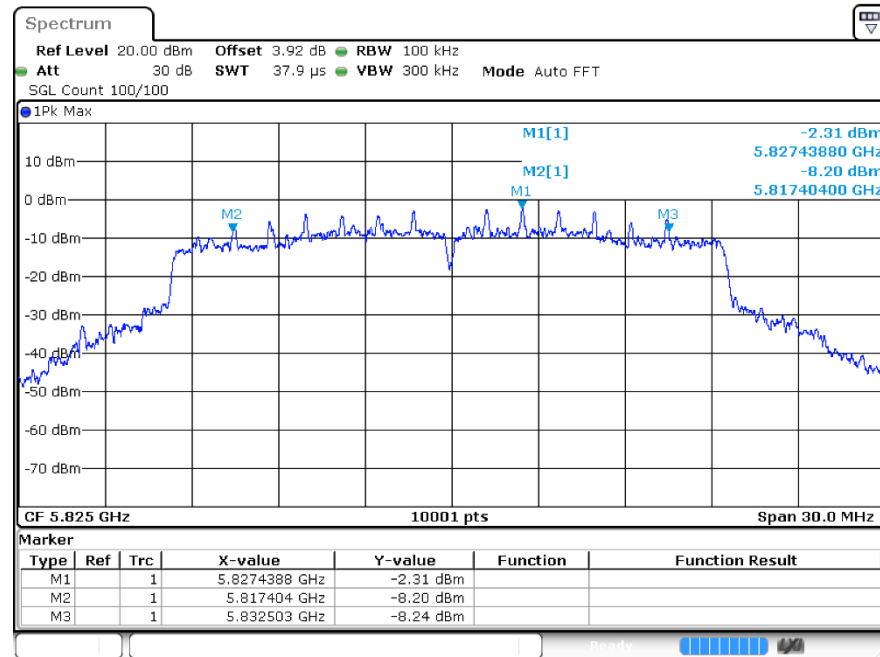
-6dB Bandwidth ax20 5745MHz Ant1



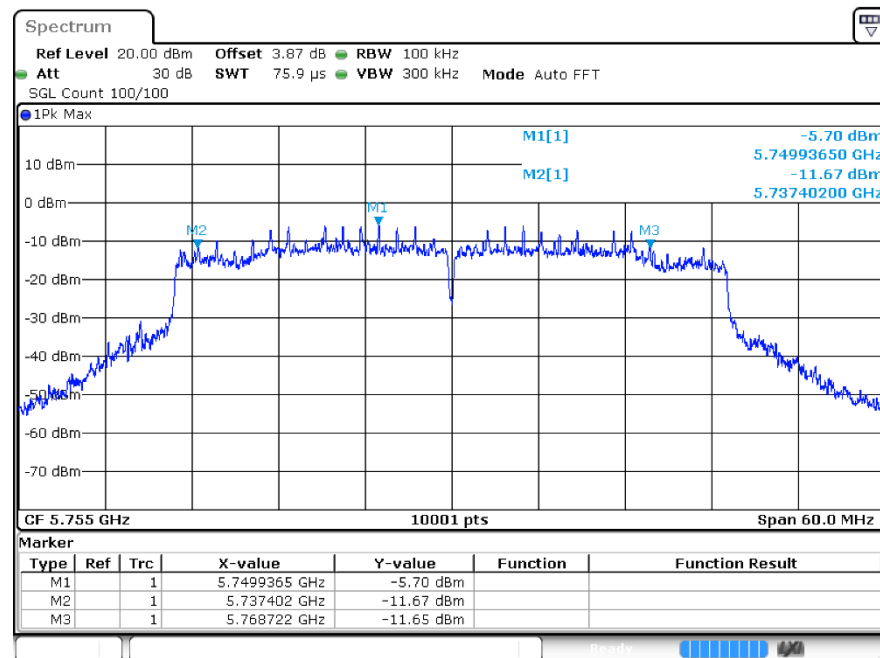
-6dB Bandwidth ax20 5805MHz Ant1



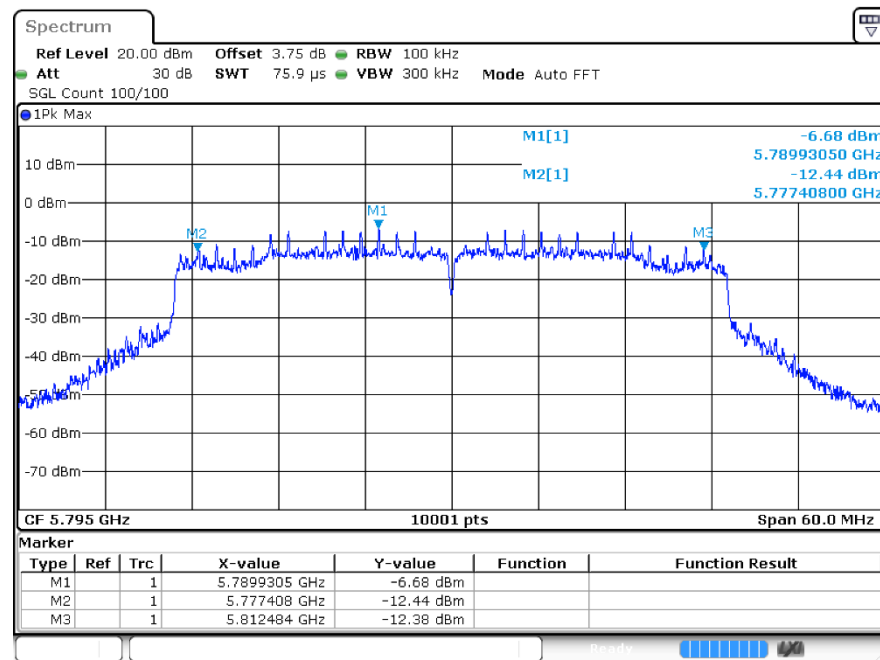
-6dB Bandwidth ax20 5825MHz Ant1



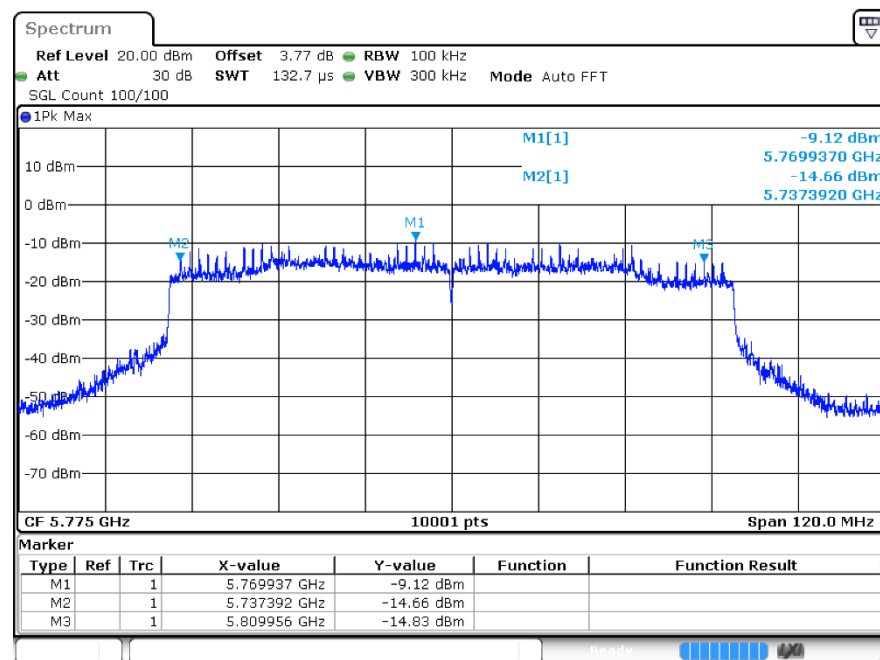
-6dB Bandwidth ax40 5755MHz Ant1

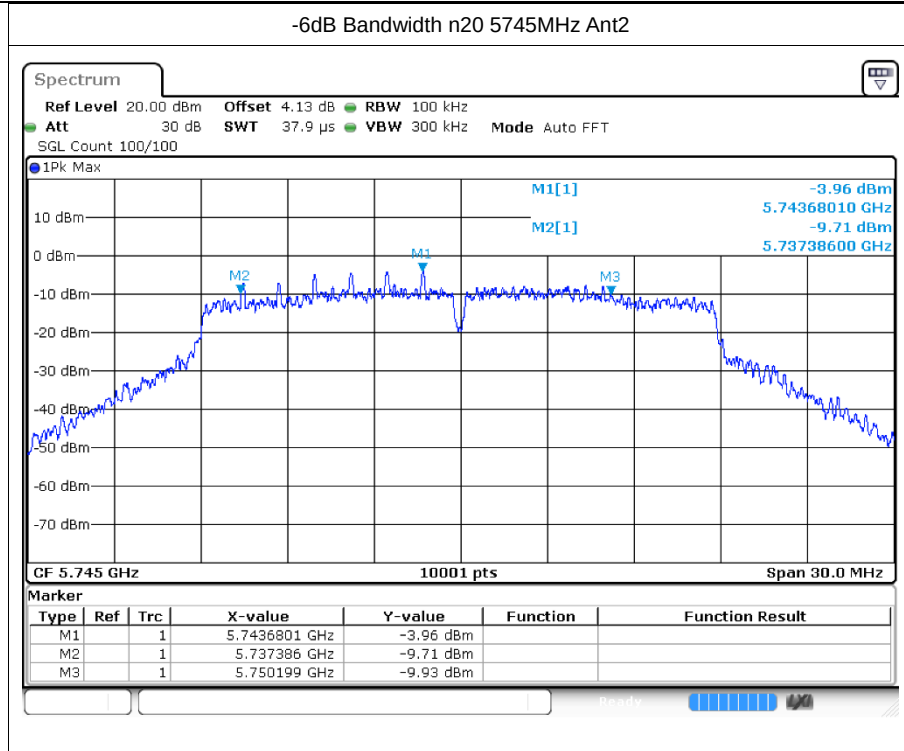


-6dB Bandwidth ax40 5795MHz Ant1

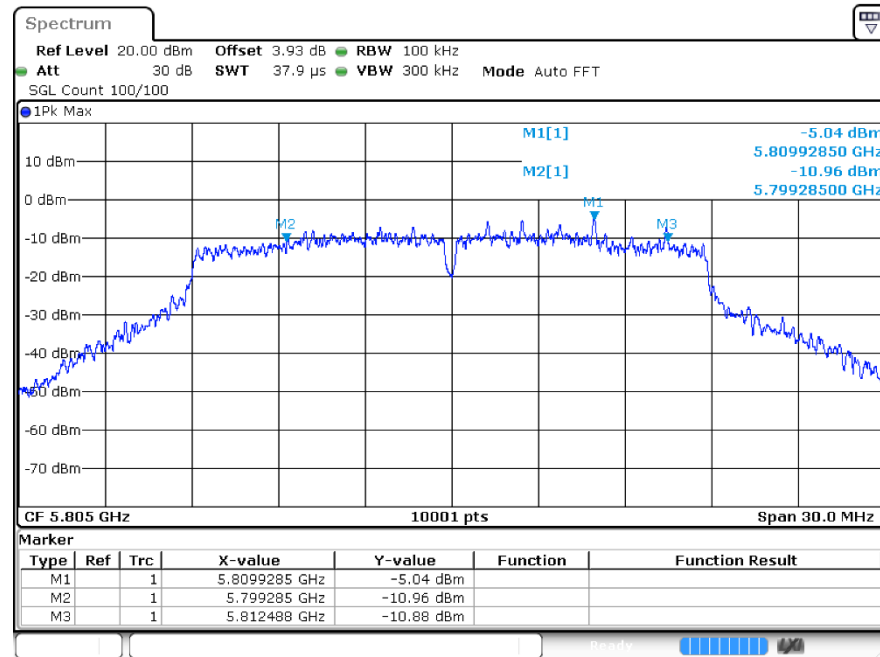


-6dB Bandwidth ax80 5775MHz Ant1

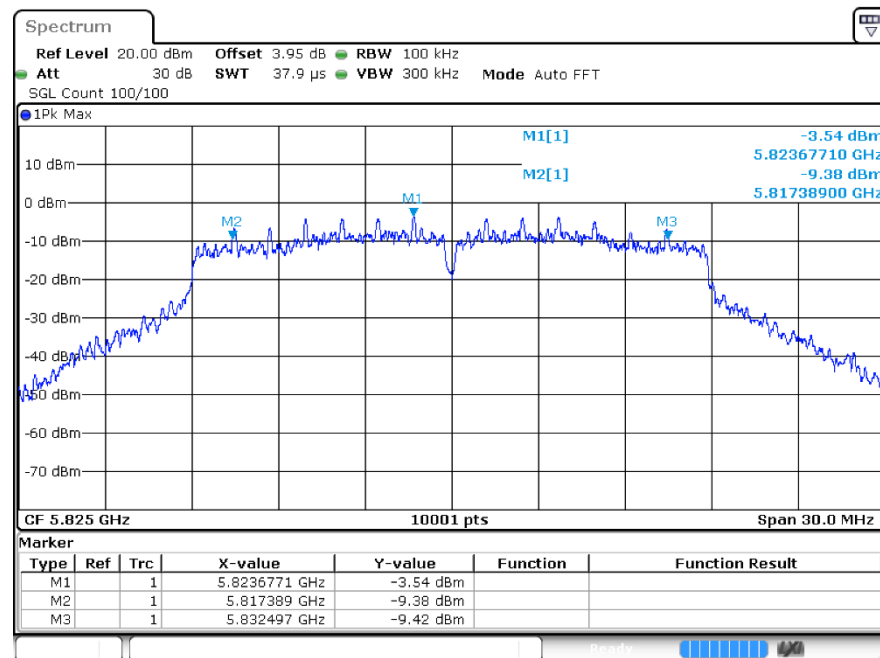




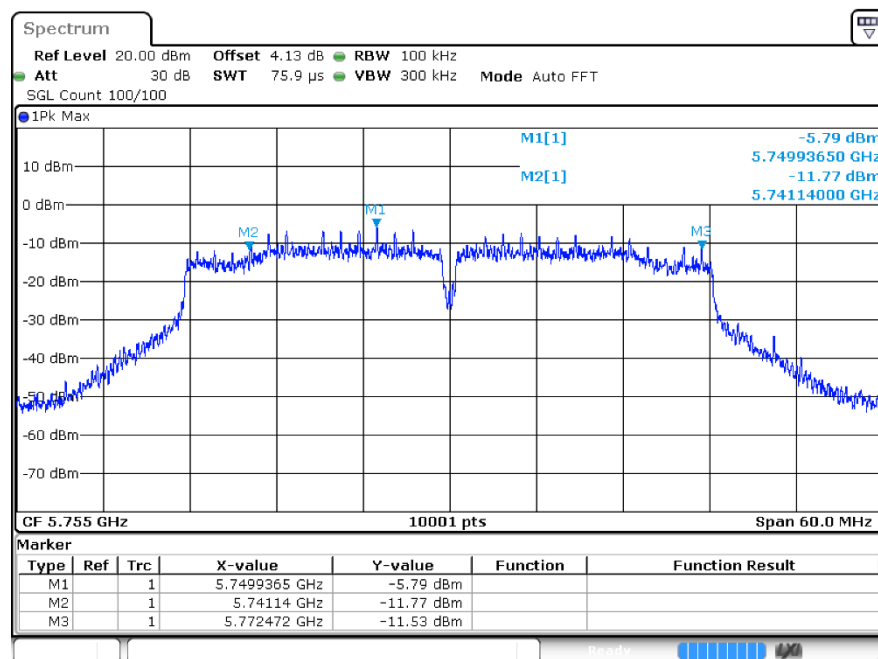
-6dB Bandwidth n20 5805MHz Ant2



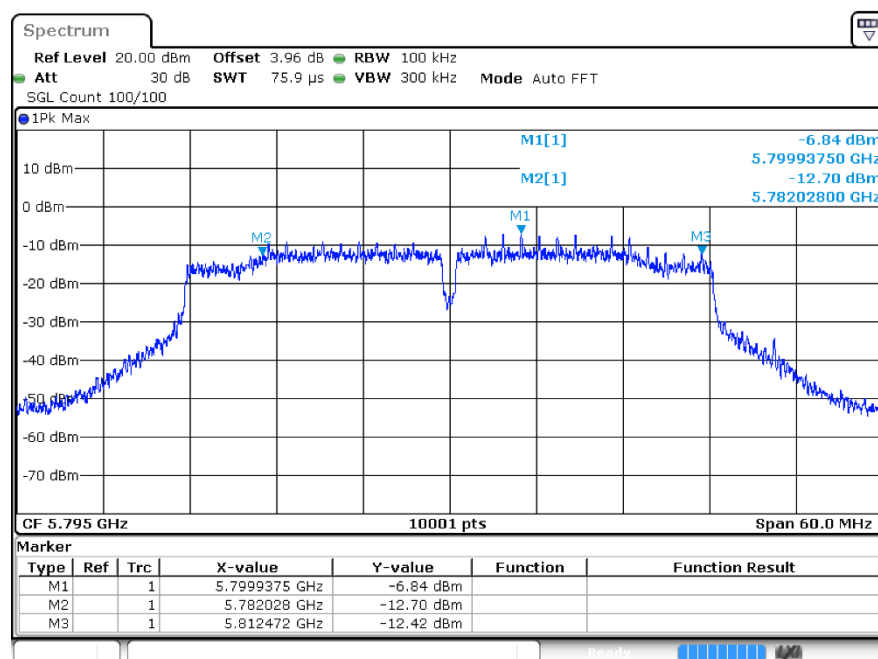
-6dB Bandwidth n20 5825MHz Ant2



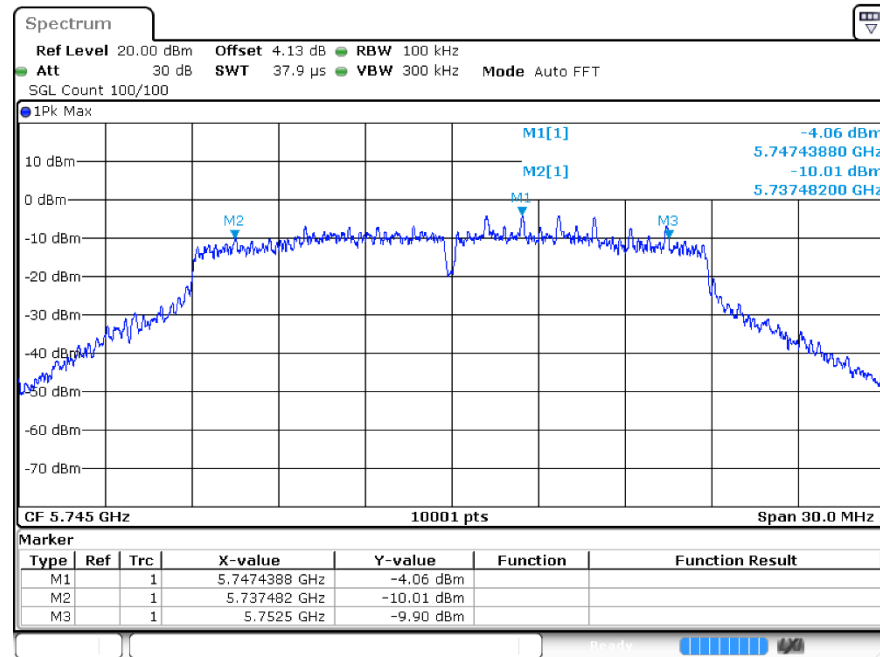
-6dB Bandwidth n40 5755MHz Ant2



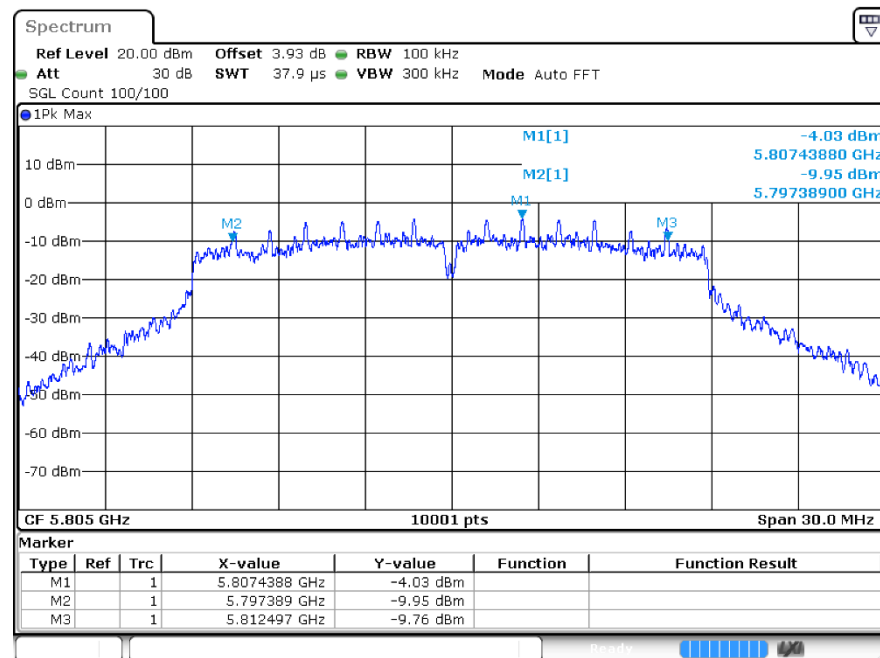
-6dB Bandwidth n40 5795MHz Ant2



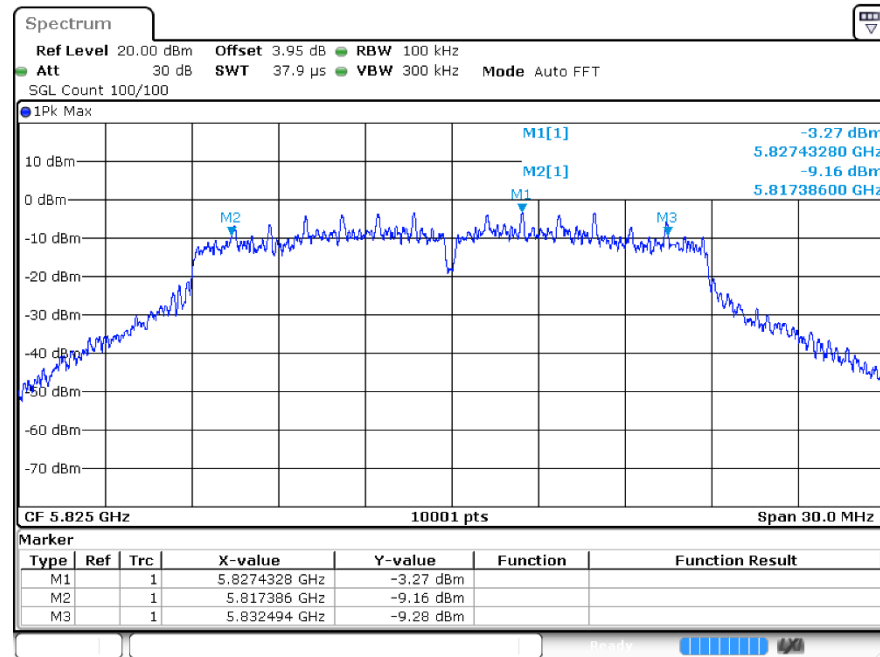
-6dB Bandwidth ac20 5745MHz Ant2



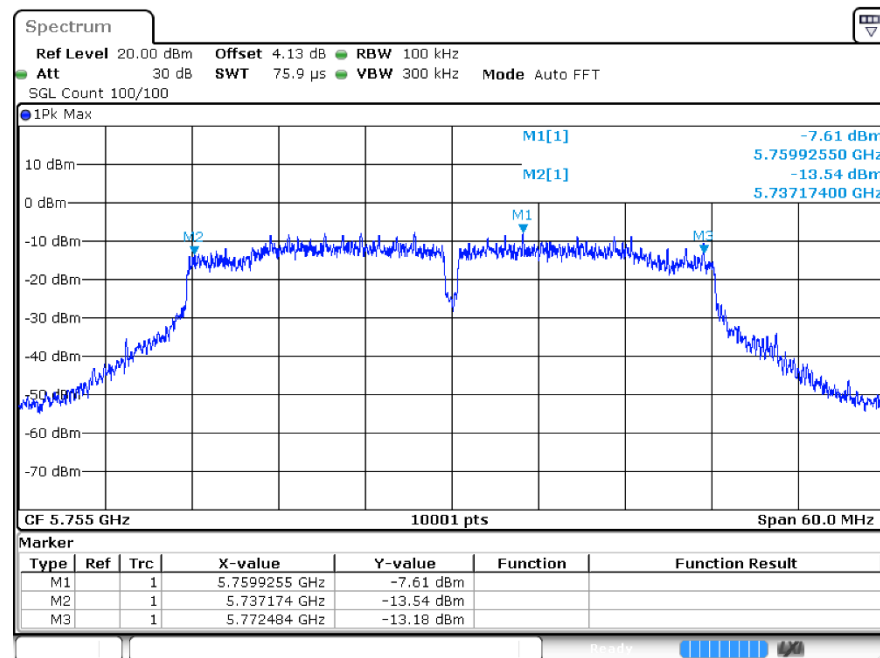
-6dB Bandwidth ac20 5805MHz Ant2

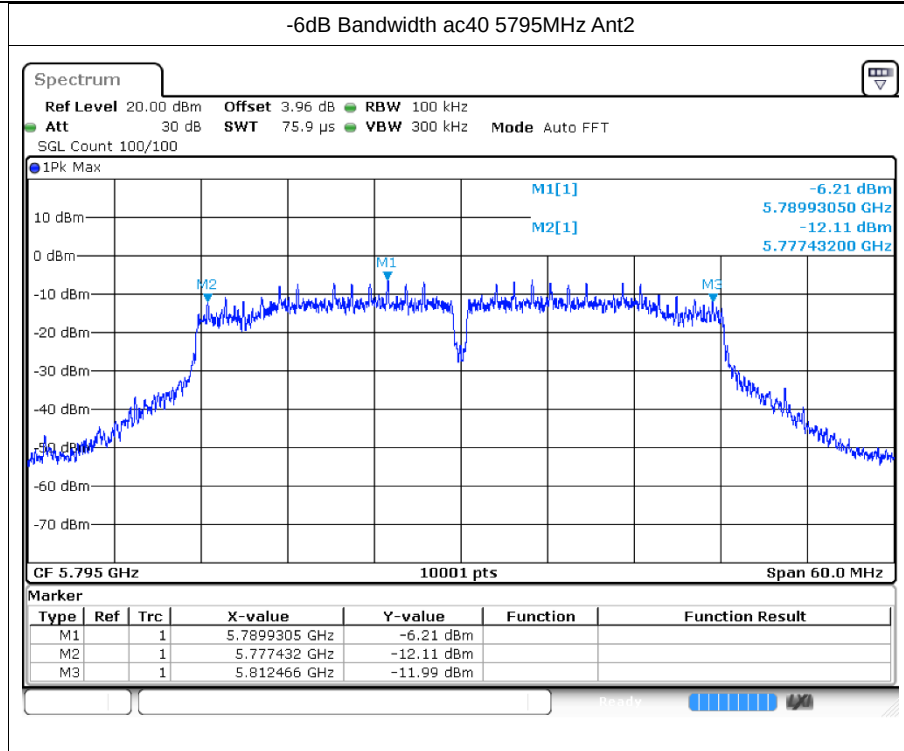


-6dB Bandwidth ac20 5825MHz Ant2

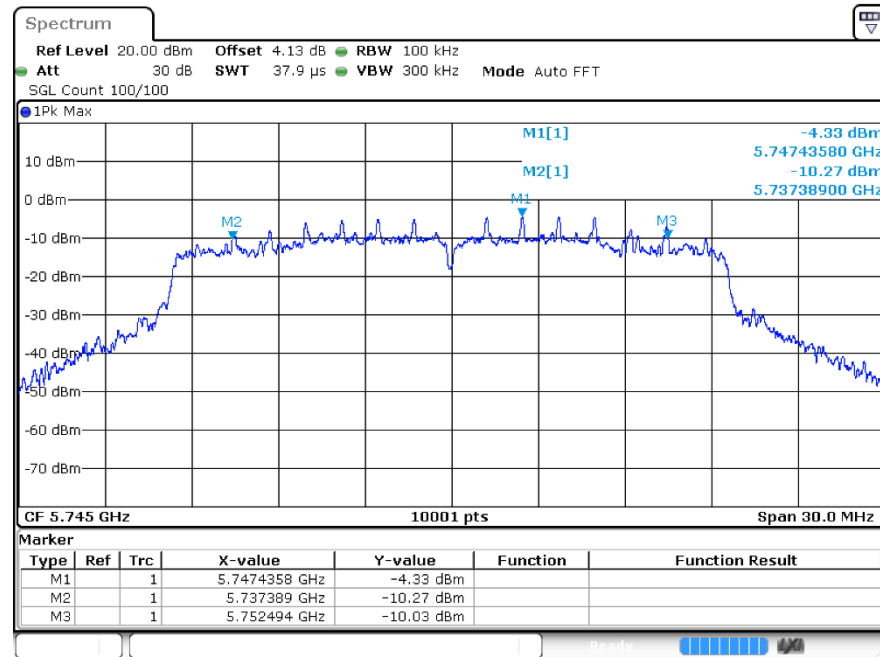


-6dB Bandwidth ac40 5755MHz Ant2

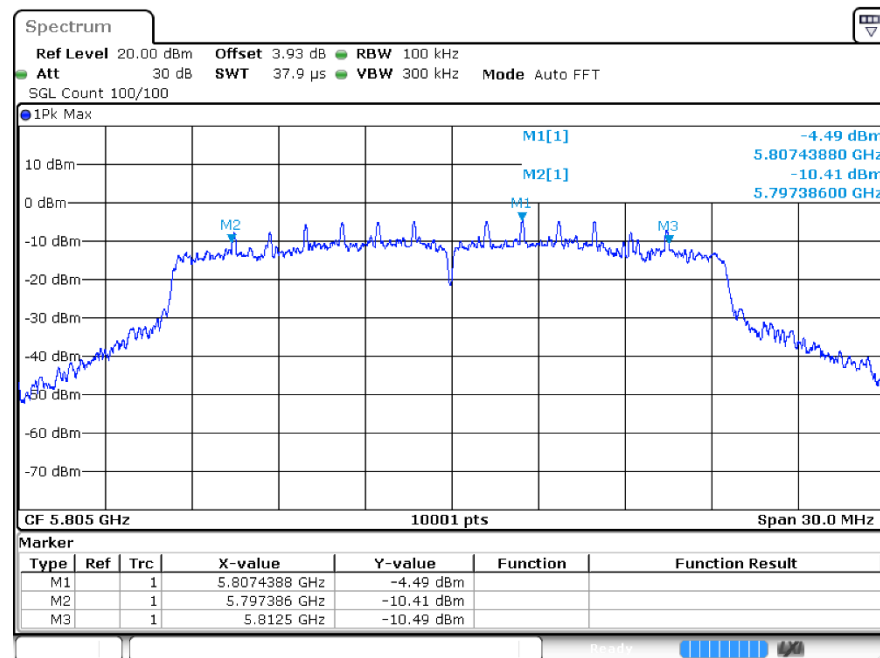




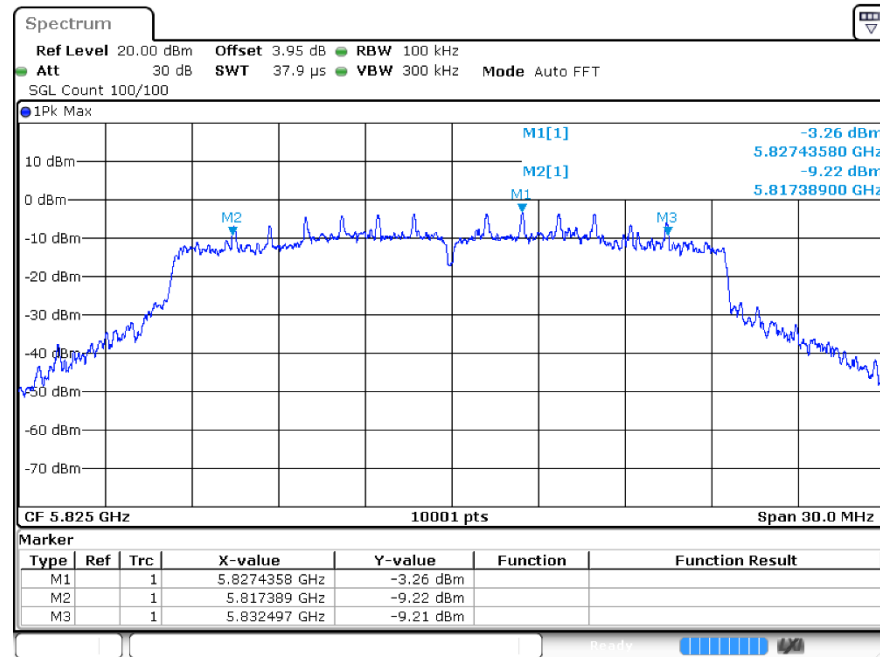
-6dB Bandwidth ax20 5745MHz Ant2



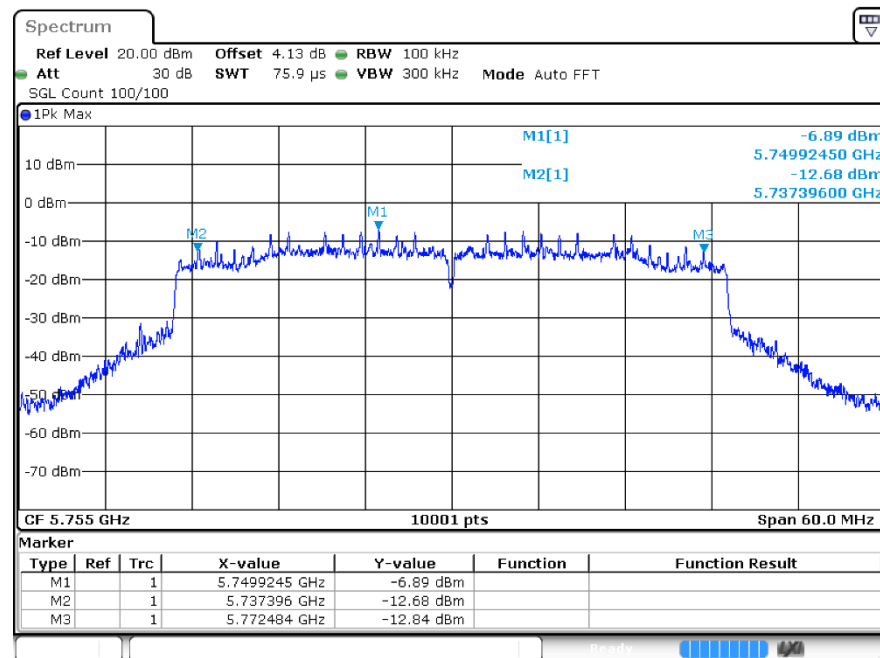
-6dB Bandwidth ax20 5805MHz Ant2



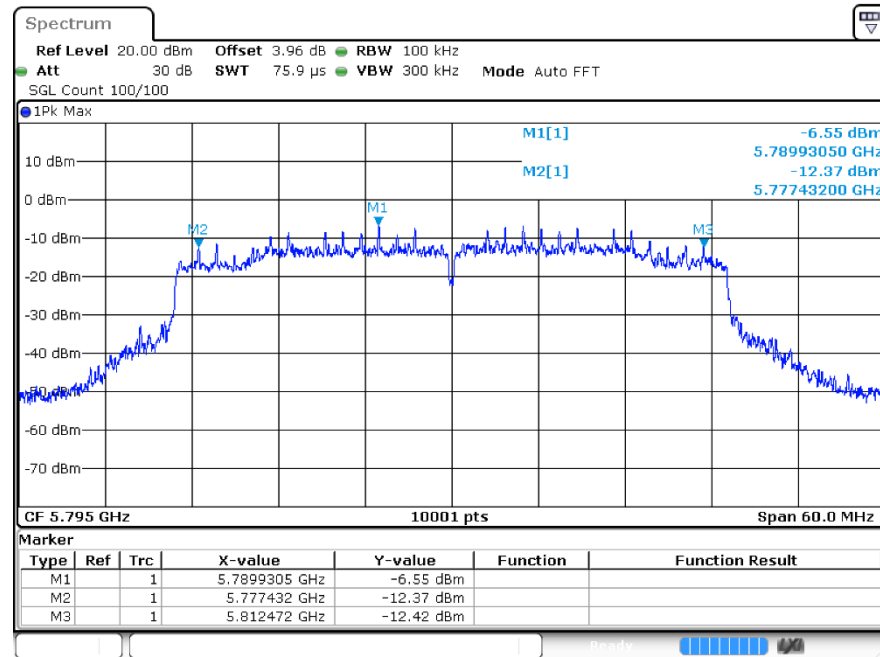
-6dB Bandwidth ax20 5825MHz Ant2



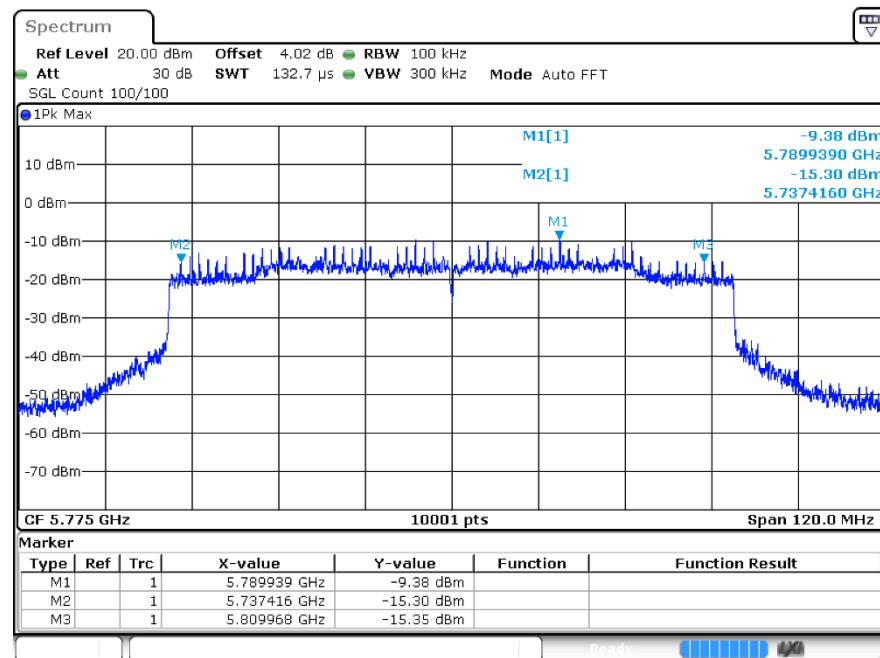
-6dB Bandwidth ax40 5755MHz Ant2



-6dB Bandwidth ax40 5795MHz Ant2



-6dB Bandwidth ax80 5775MHz Ant2





4 Occupied Channel Bandwidth

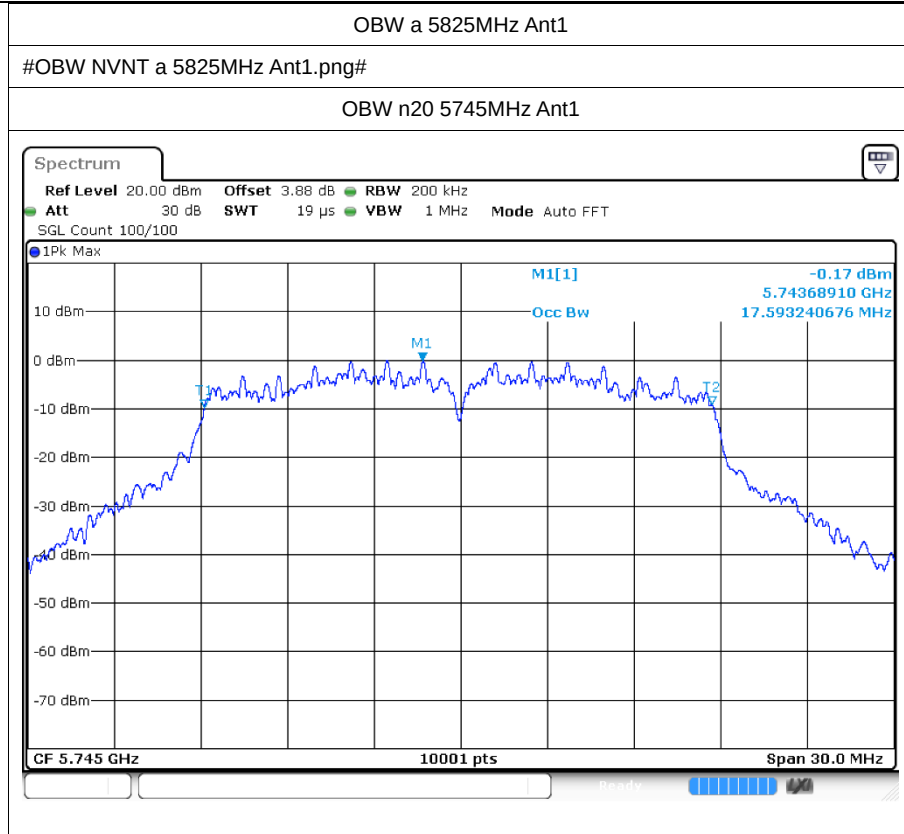
4.1 Test Result

Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
n20	5745	Ant1	17.593
n20	5805	Ant1	17.65
n20	5825	Ant1	17.623
n40	5755	Ant1	36.014
n40	5795	Ant1	36.044
ac20	5745	Ant1	17.617
ac20	5805	Ant1	17.575
ac20	5825	Ant1	17.656
ac40	5755	Ant1	36.026
ac40	5795	Ant1	36.08
ax20	5745	Ant1	18.856
ax20	5805	Ant1	18.814
ax20	5825	Ant1	18.952
ax40	5755	Ant1	37.484
ax40	5795	Ant1	37.37
ax80	5775	Ant1	76.744
n20	5745	Ant2	17.587
n20	5805	Ant2	17.617
n20	5825	Ant2	17.638
n40	5755	Ant2	35.948
n40	5795	Ant2	35.852
ac20	5745	Ant2	17.587
ac20	5805	Ant2	17.635
ac20	5825	Ant2	17.62
ac40	5755	Ant2	35.894
ac40	5795	Ant2	35.858
ax20	5745	Ant2	18.829
ax20	5805	Ant2	18.868
ax20	5825	Ant2	18.757
ax40	5755	Ant2	37.46
ax40	5795	Ant2	37.61
ax80	5775	Ant2	76.948

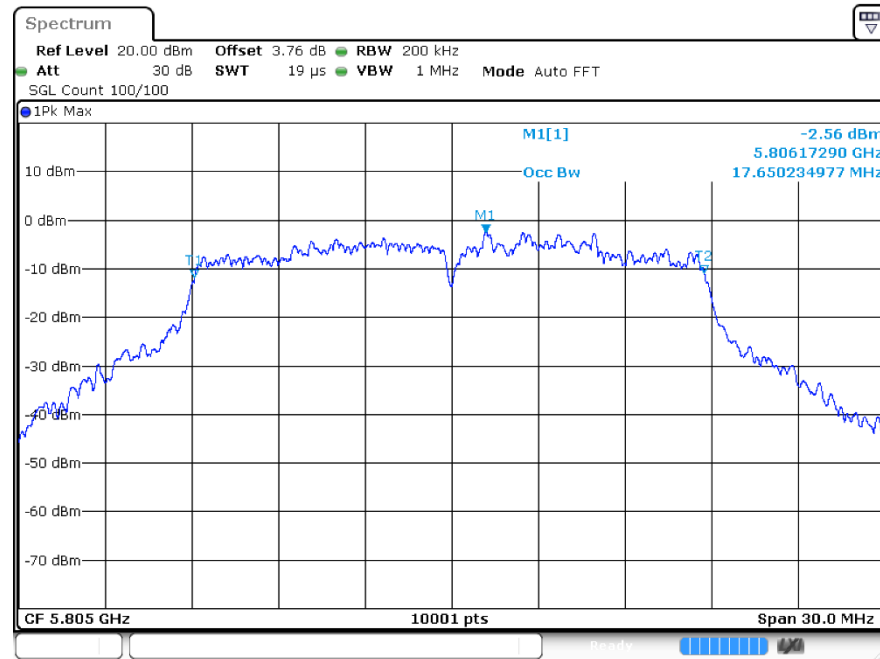


4.2 Test Graphs

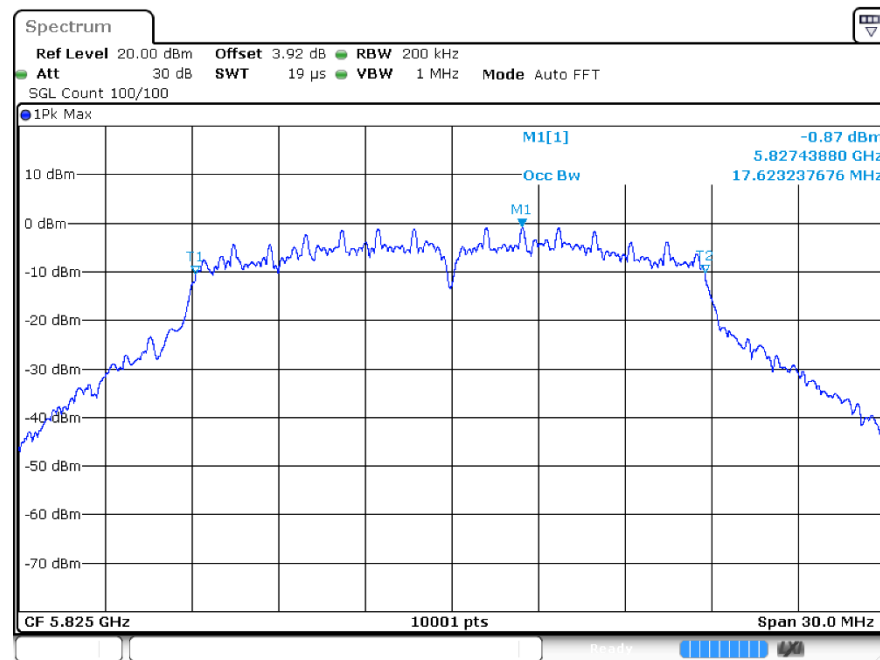
Test Graphs
OBW a 5745MHz Ant1
#OBW NVNT a 5745MHz Ant1.png#
OBW a 5805MHz Ant1
#OBW NVNT a 5805MHz Ant1.png#



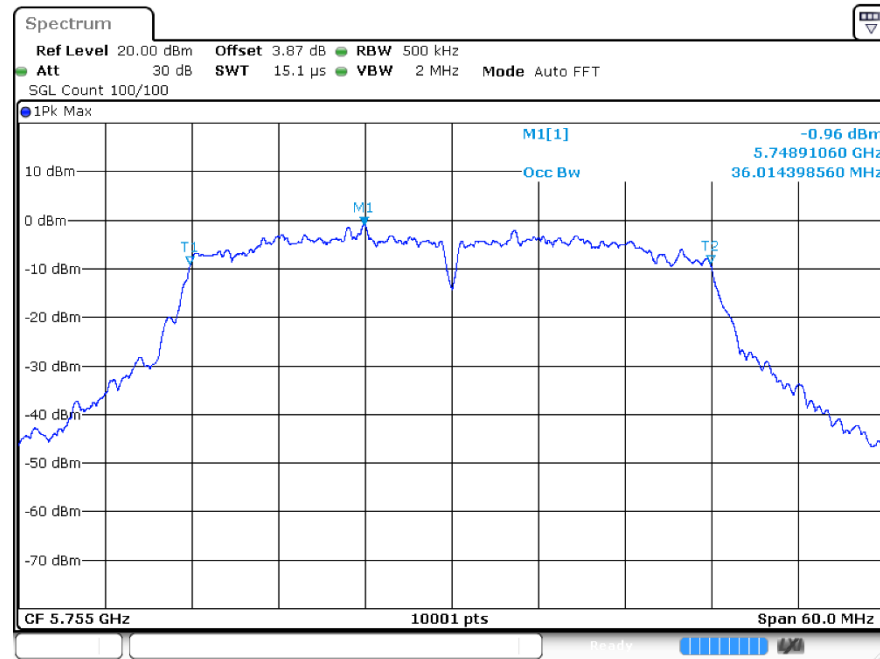
OBW n20 5805MHz Ant1



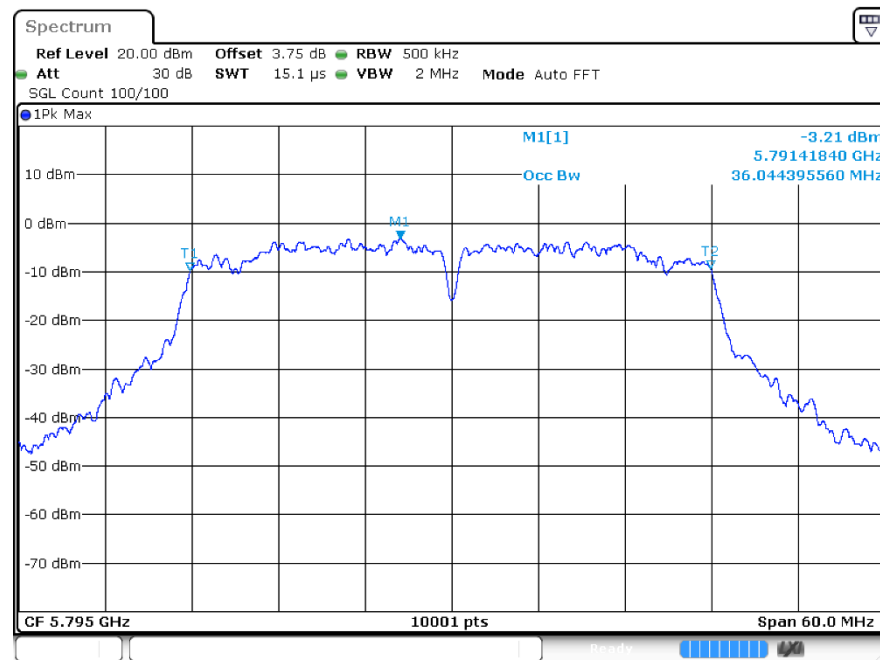
OBW n20 5825MHz Ant1



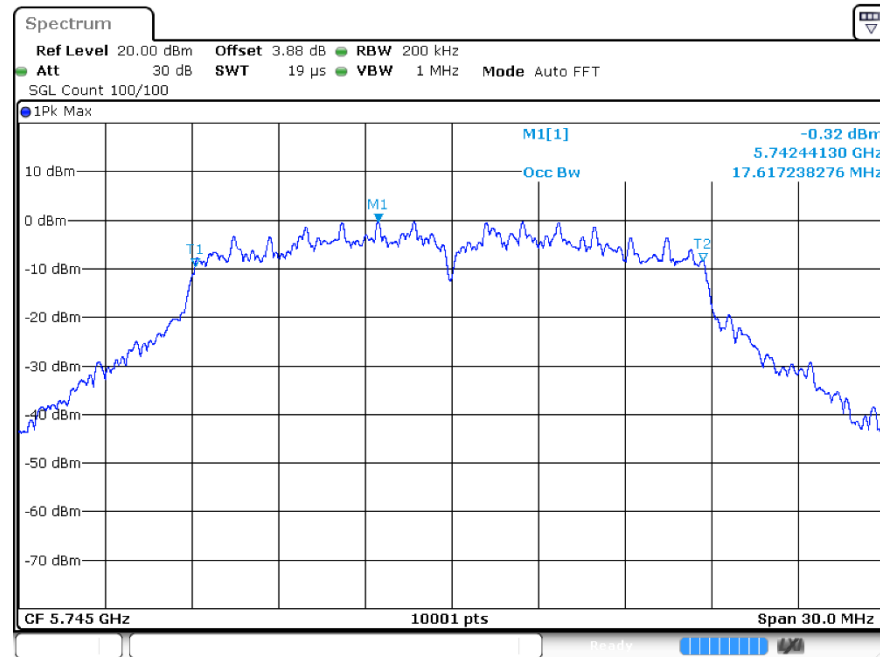
OBW n40 5755MHz Ant1



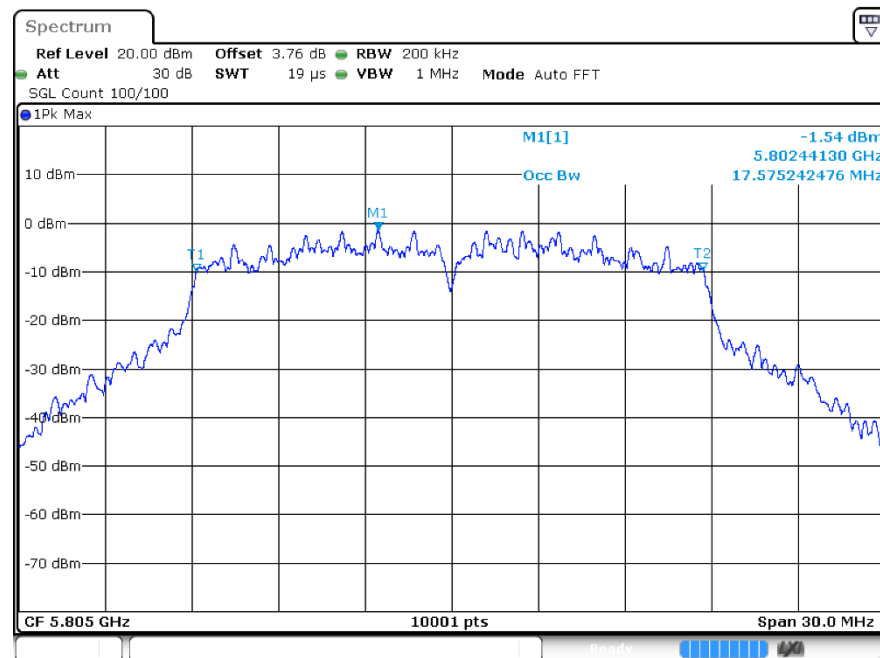
OBW n40 5795MHz Ant1



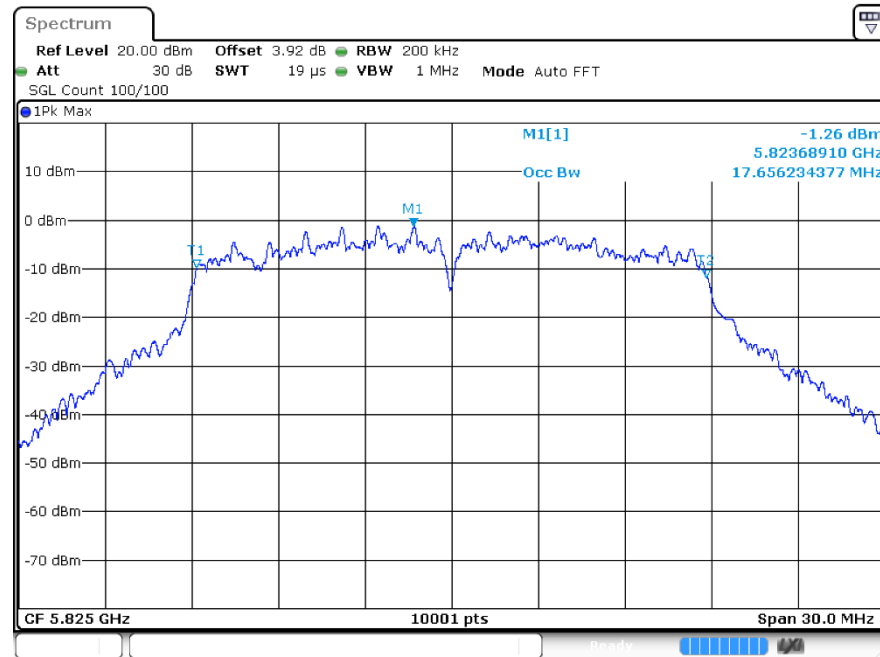
OBW ac20 5745MHz Ant1



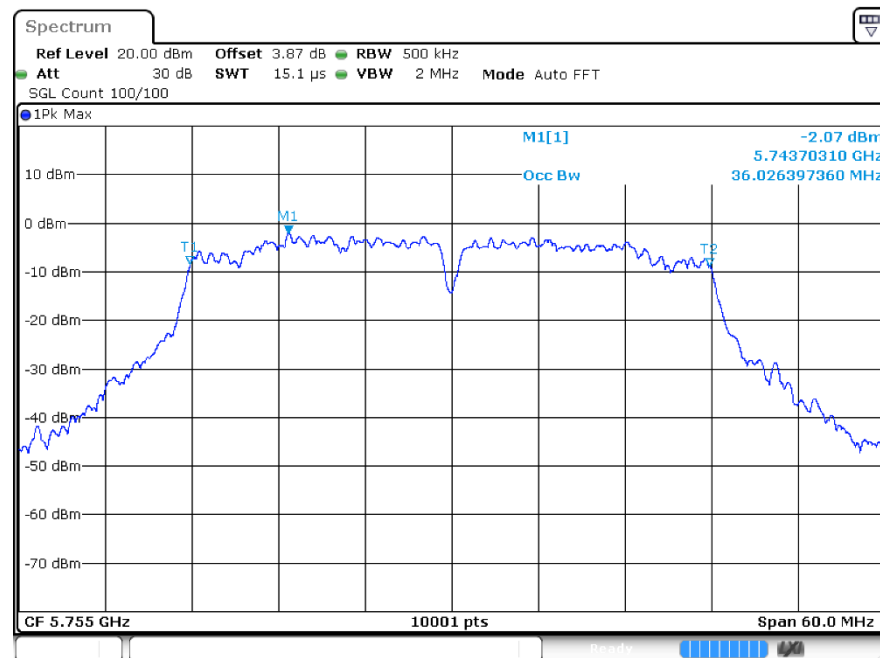
OBW ac20 5805MHz Ant1

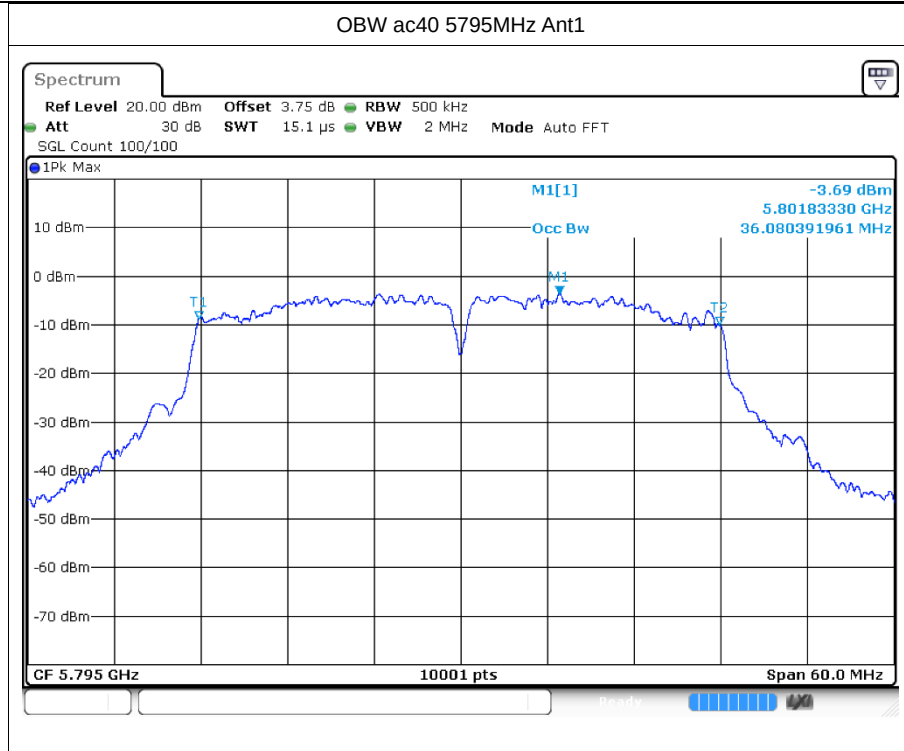


OBW ac20 5825MHz Ant1

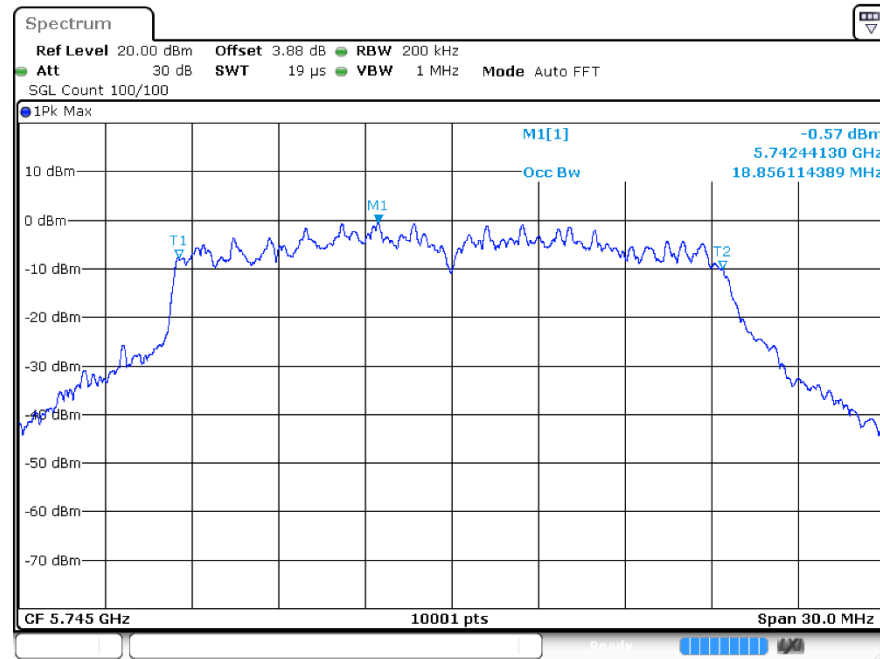


OBW ac40 5755MHz Ant1

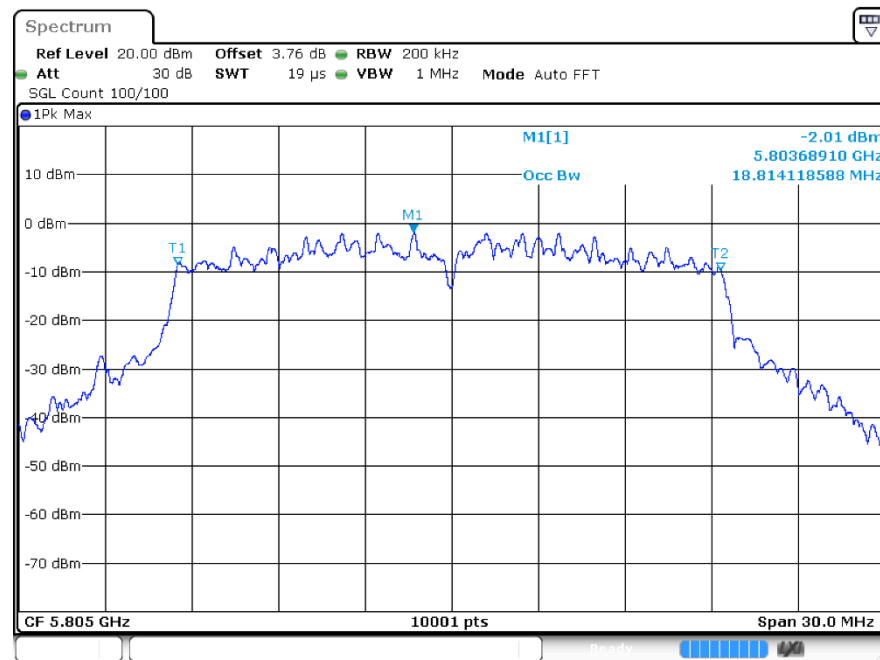




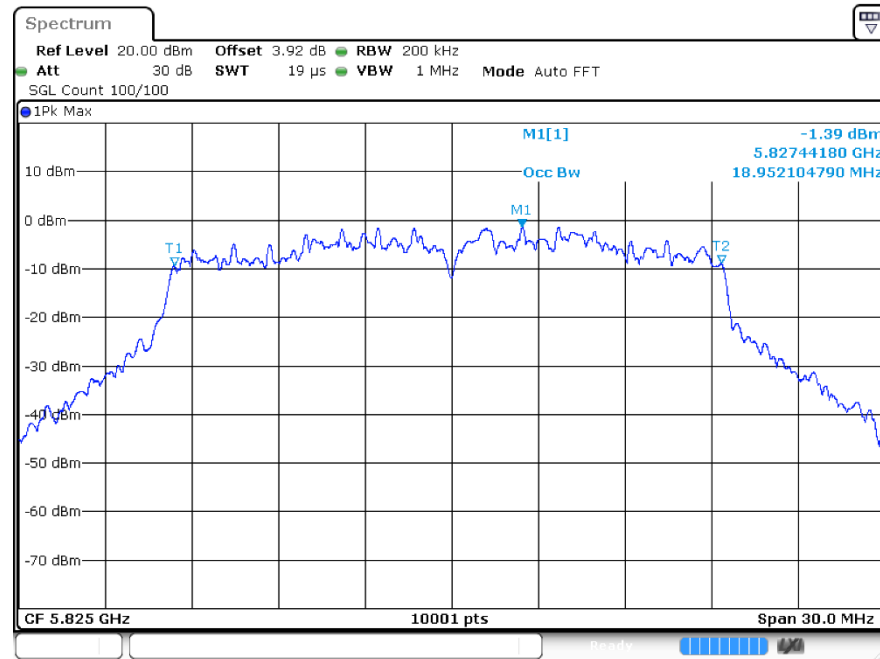
OBW ax20 5745MHz Ant1



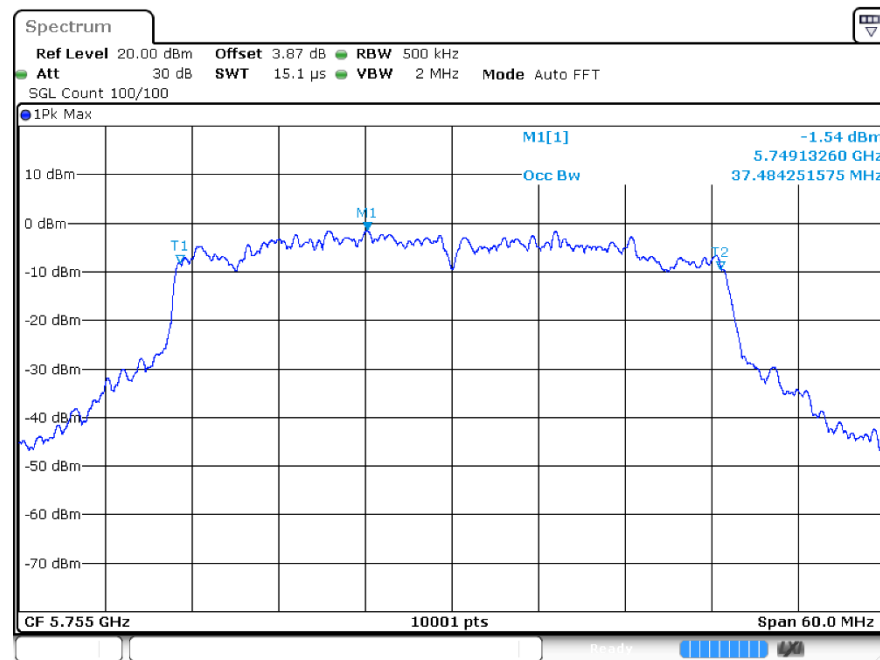
OBW ax20 5805MHz Ant1



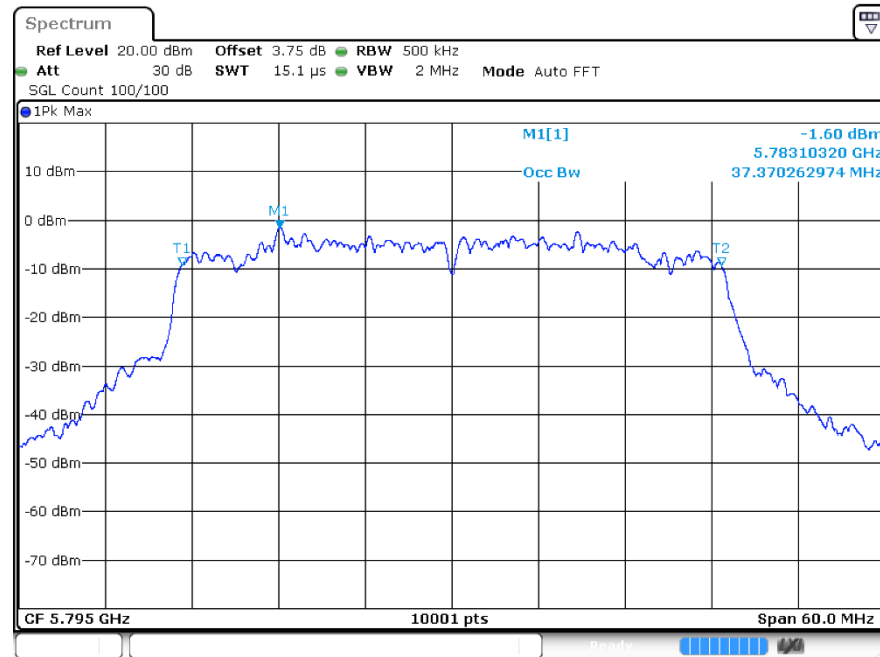
OBW ax20 5825MHz Ant1



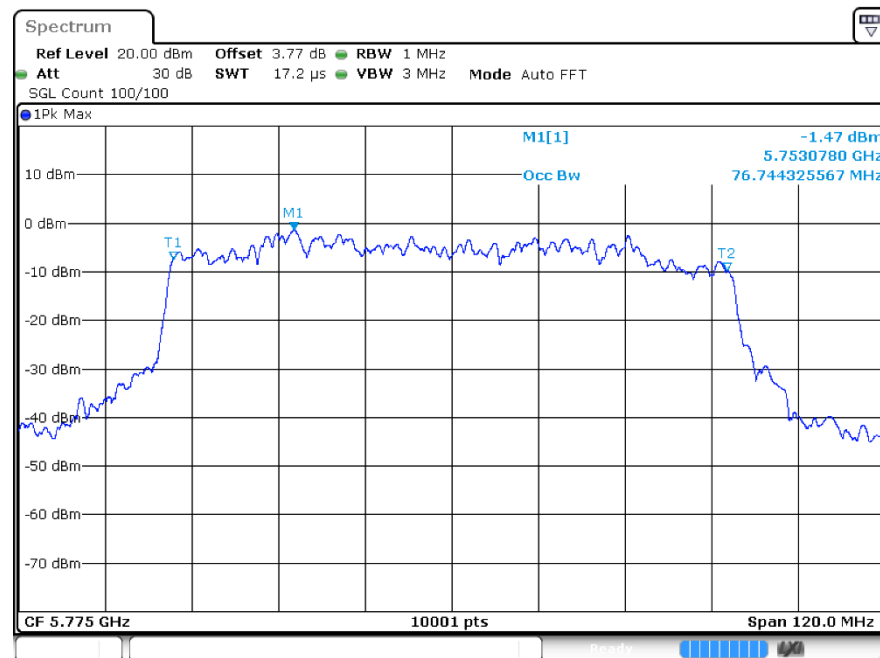
OBW ax40 5755MHz Ant1

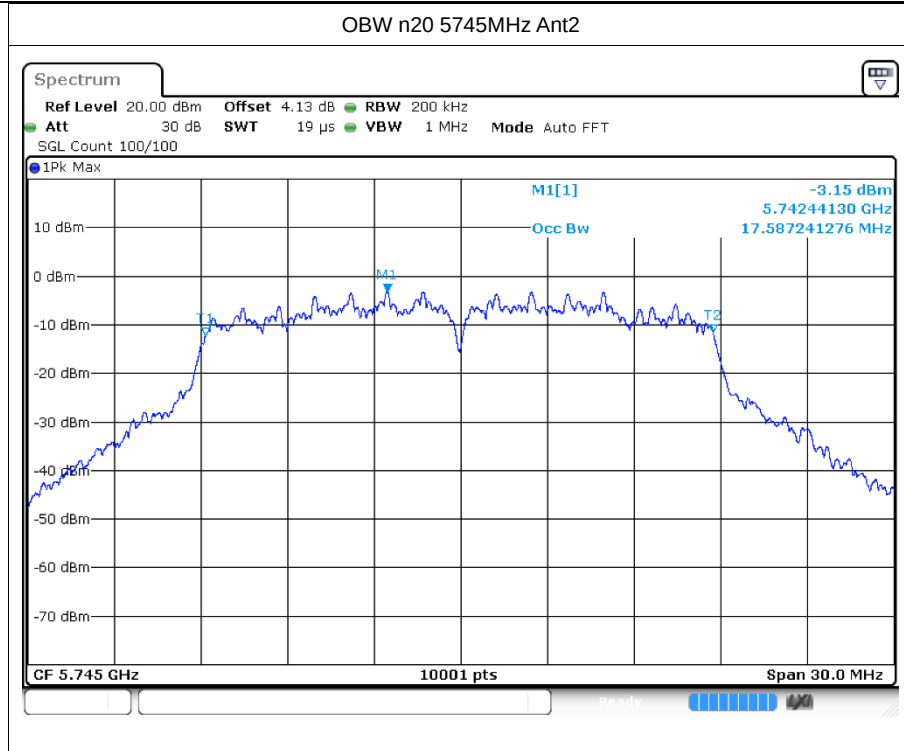


OBW ax40 5795MHz Ant1

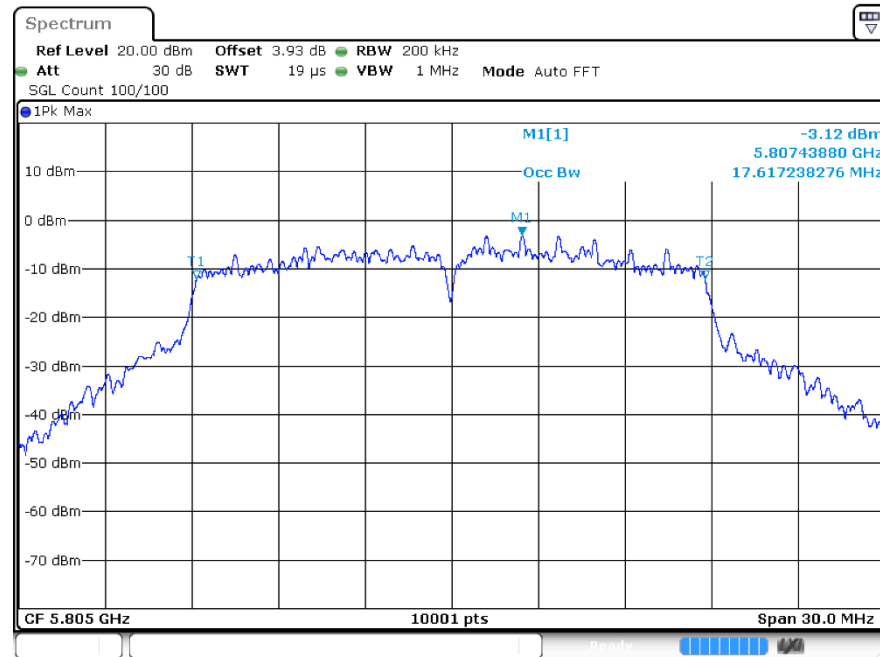


OBW ax80 5775MHz Ant1

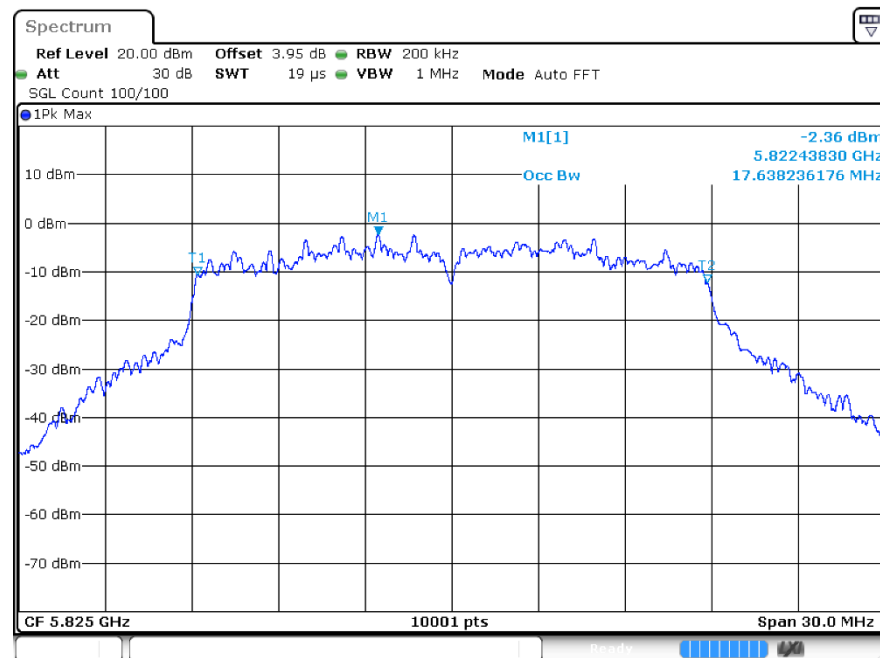




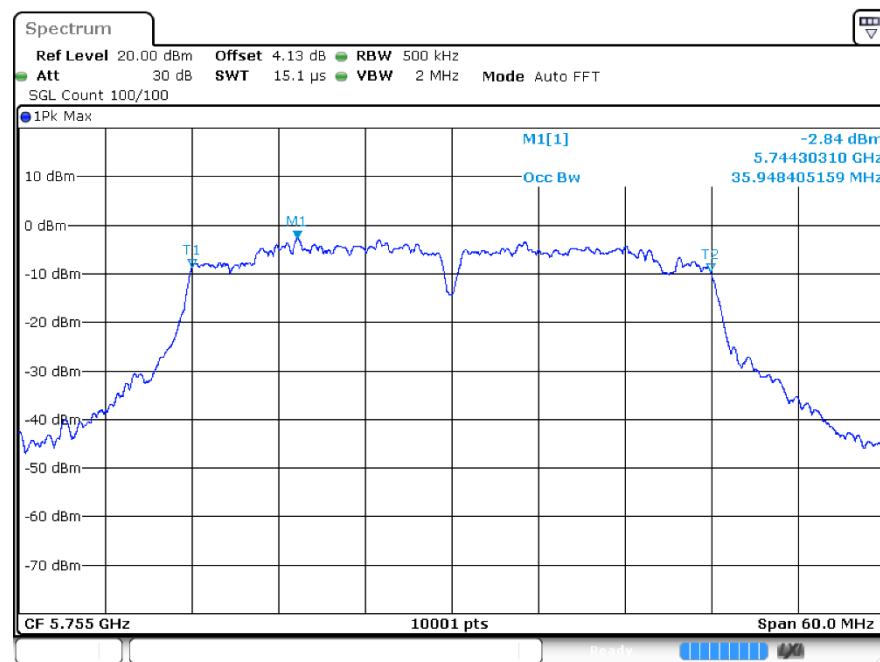
OBW n20 5805MHz Ant2



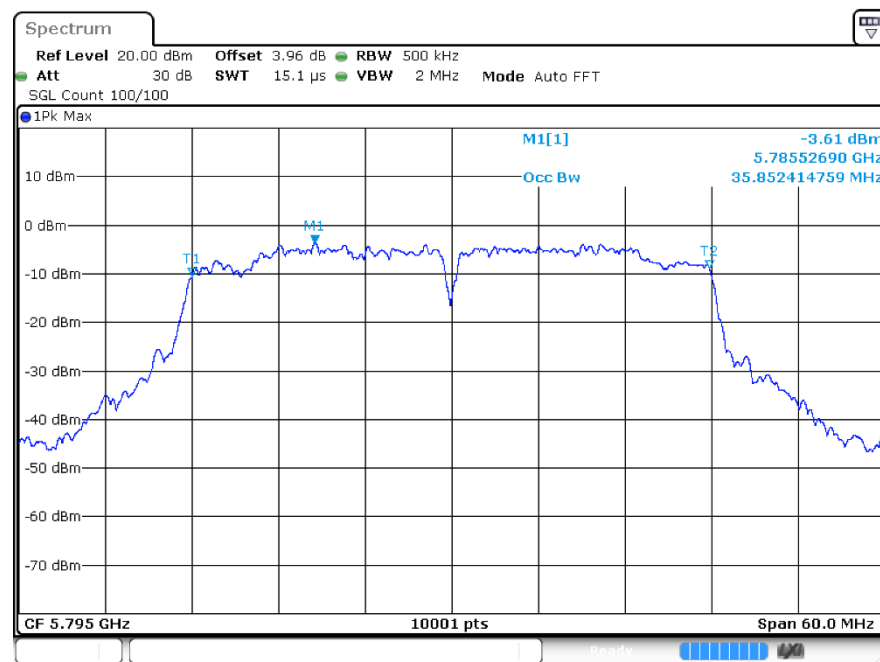
OBW n20 5825MHz Ant2



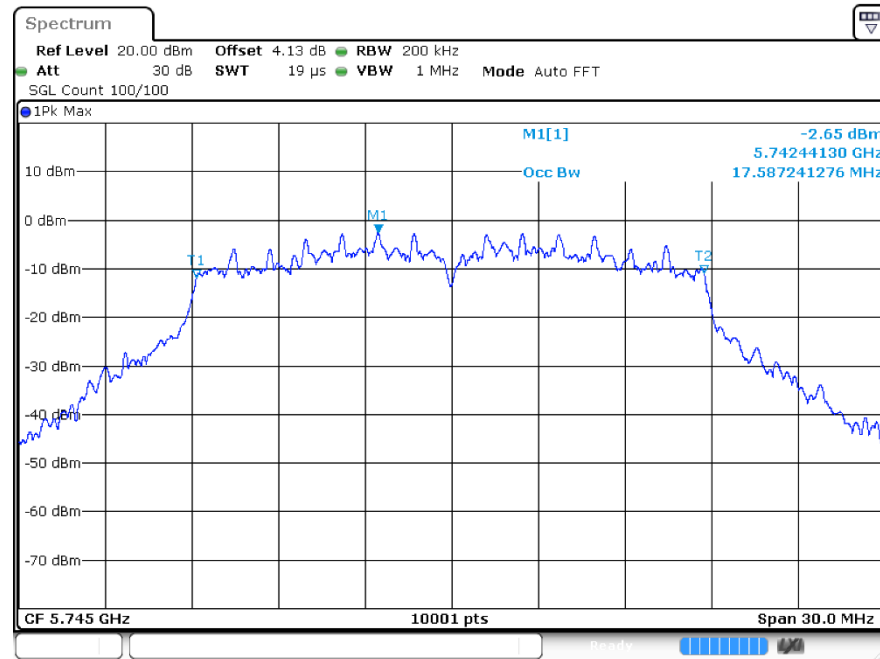
OBW n40 5755MHz Ant2



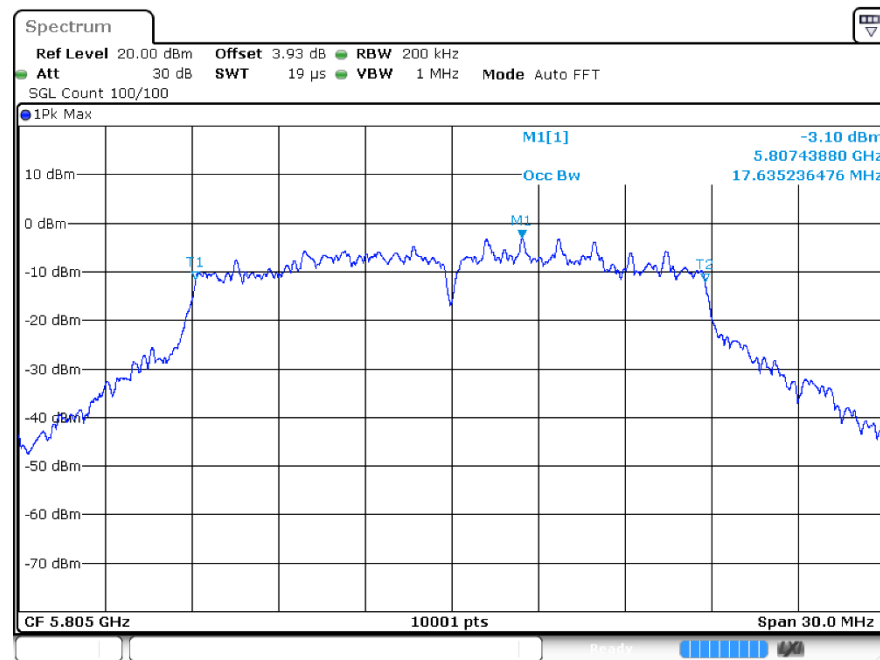
OBW n40 5795MHz Ant2



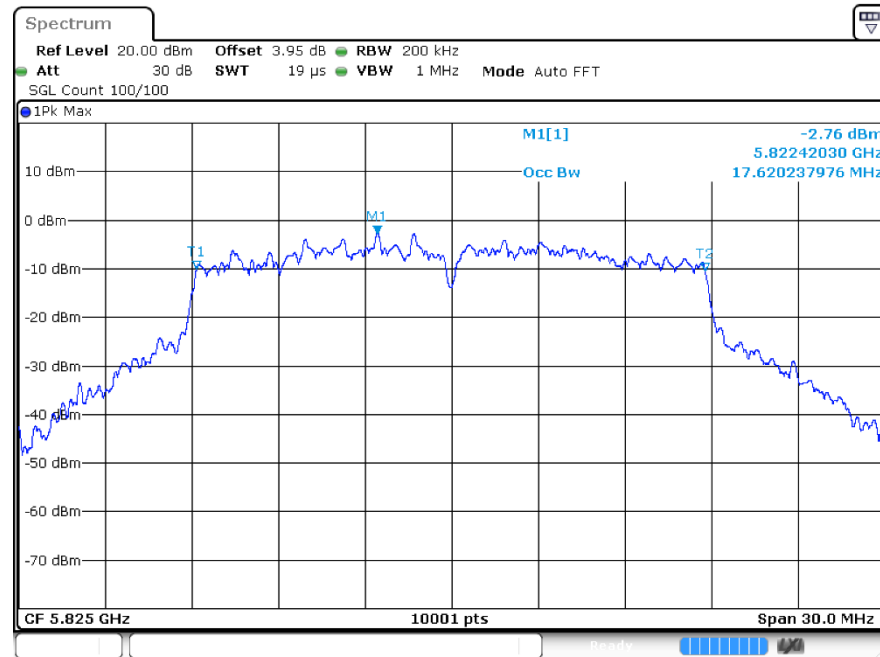
OBW ac20 5745MHz Ant2



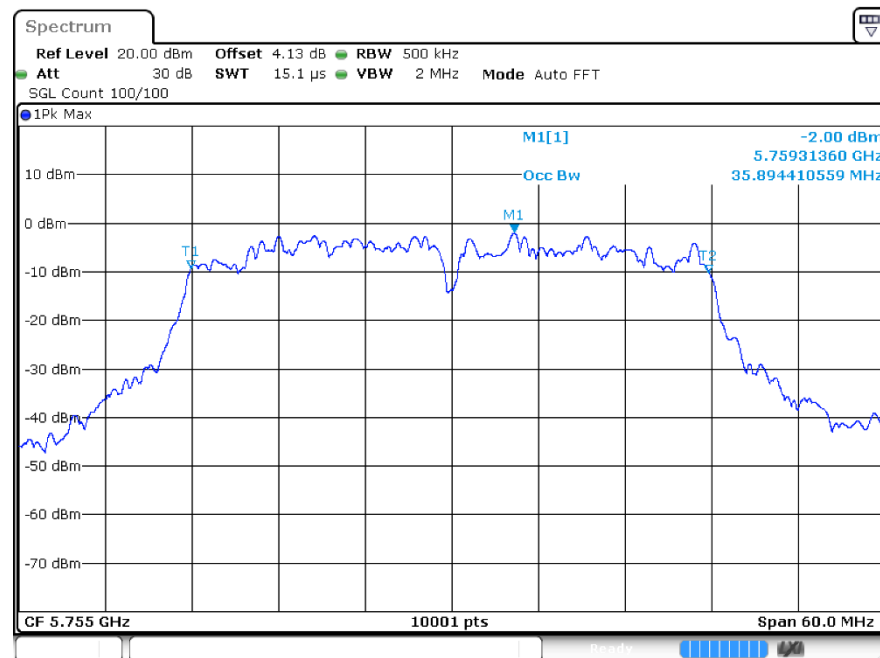
OBW ac20 5805MHz Ant2

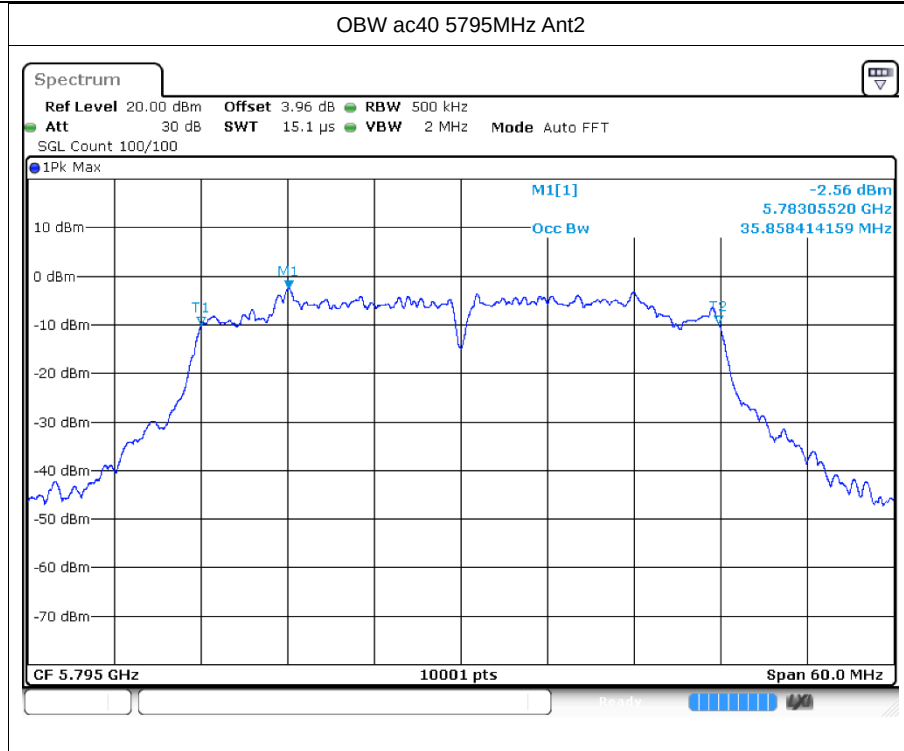


OBW ac20 5825MHz Ant2

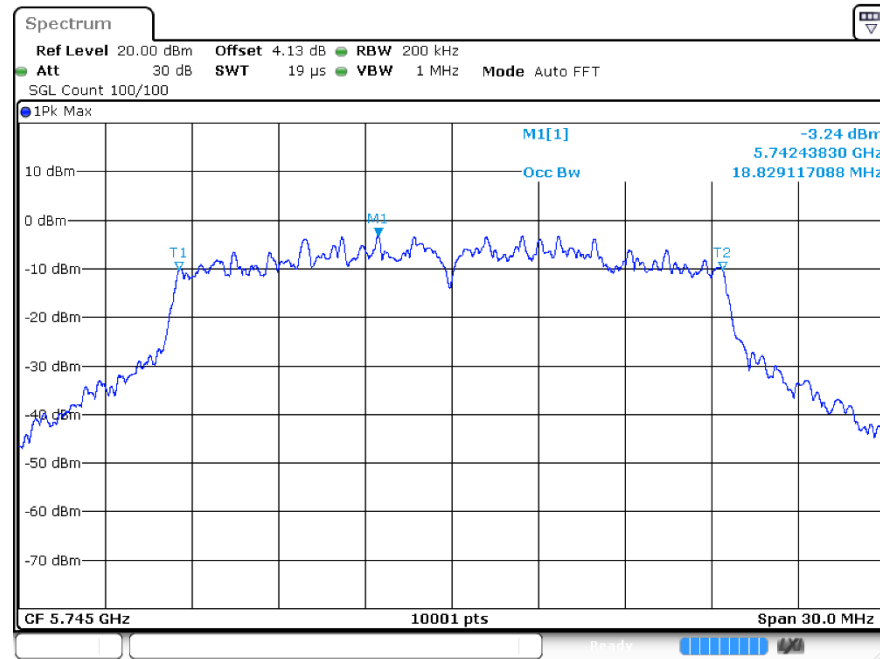


OBW ac40 5755MHz Ant2

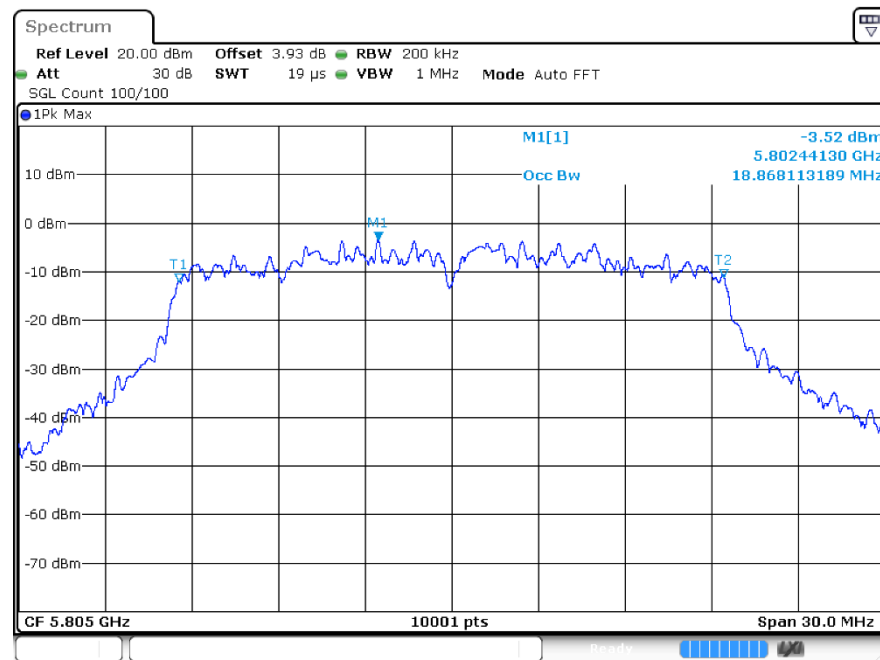




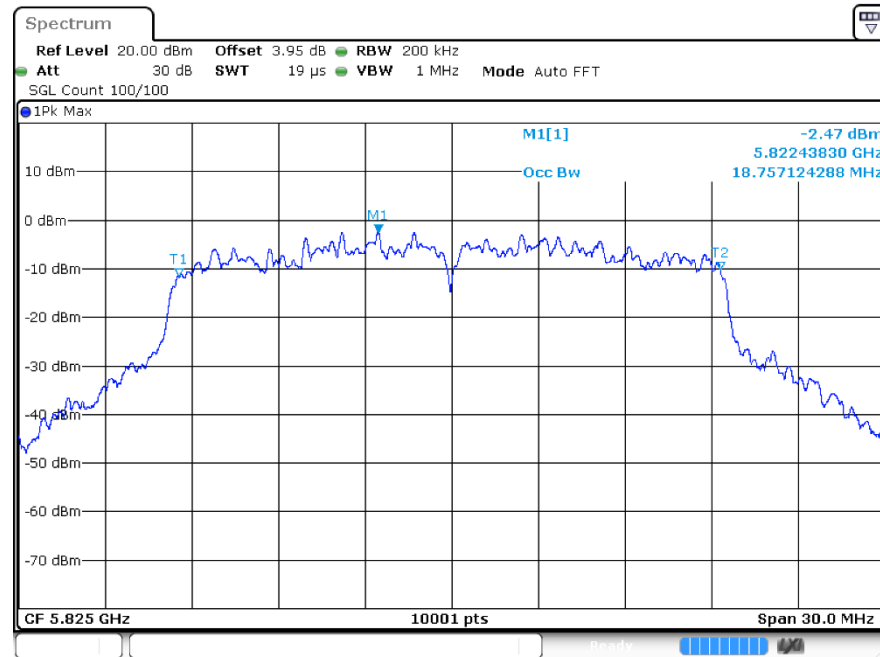
OBW ax20 5745MHz Ant2



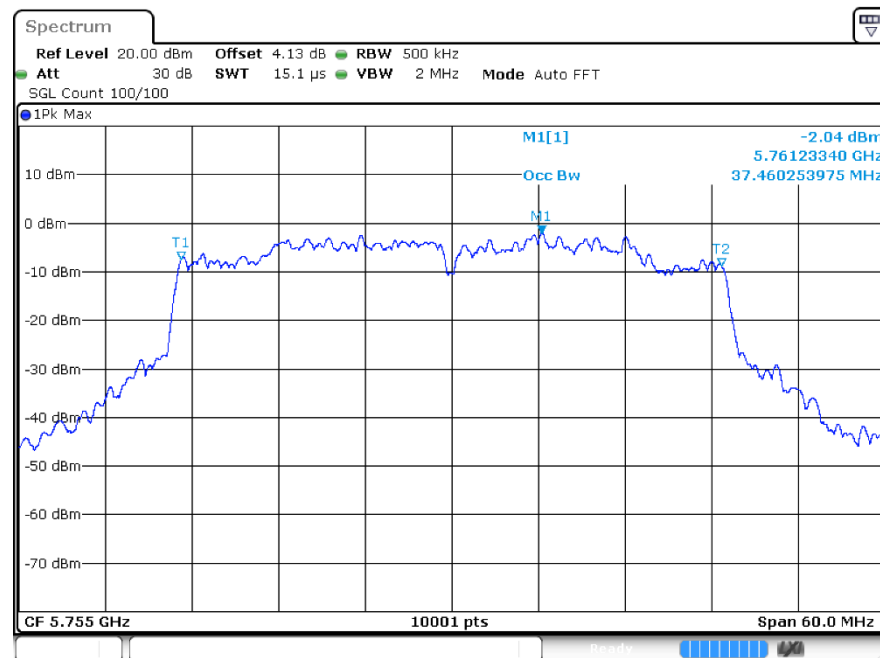
OBW ax20 5805MHz Ant2



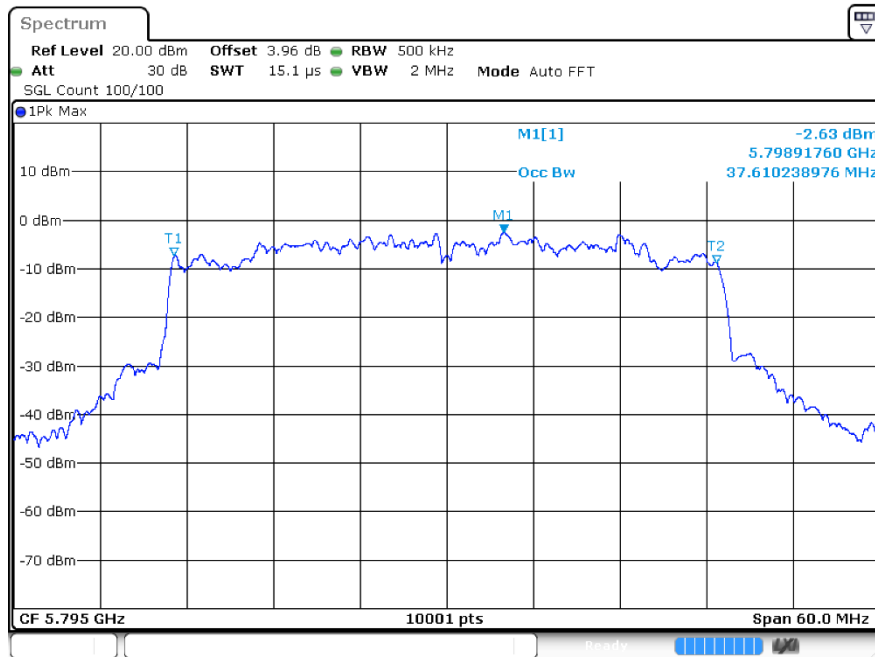
OBW ax20 5825MHz Ant2



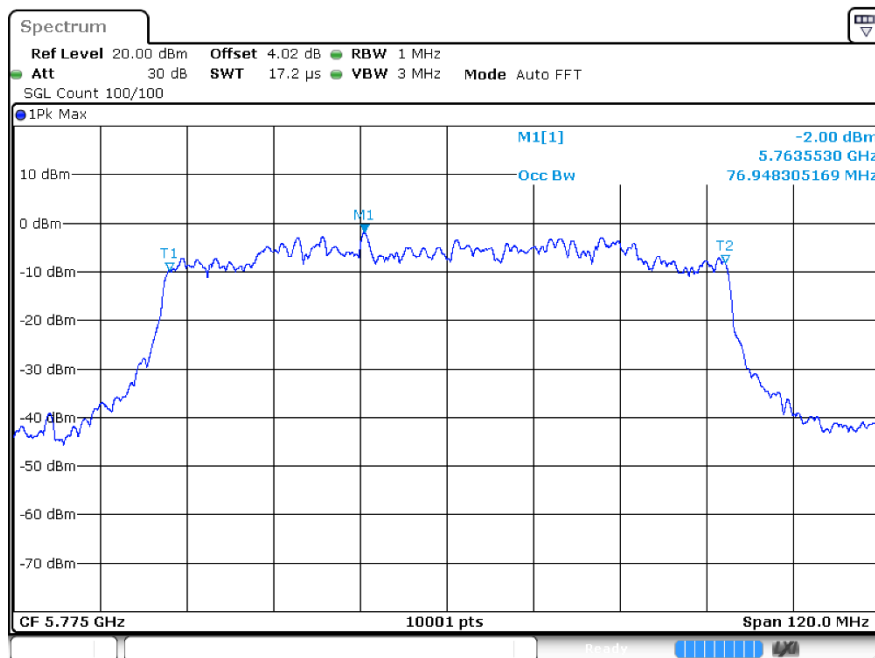
OBW ax40 5755MHz Ant2



OBW ax40 5795MHz Ant2



OBW ax80 5775MHz Ant2



5 Maximum Power Spectral Density Level

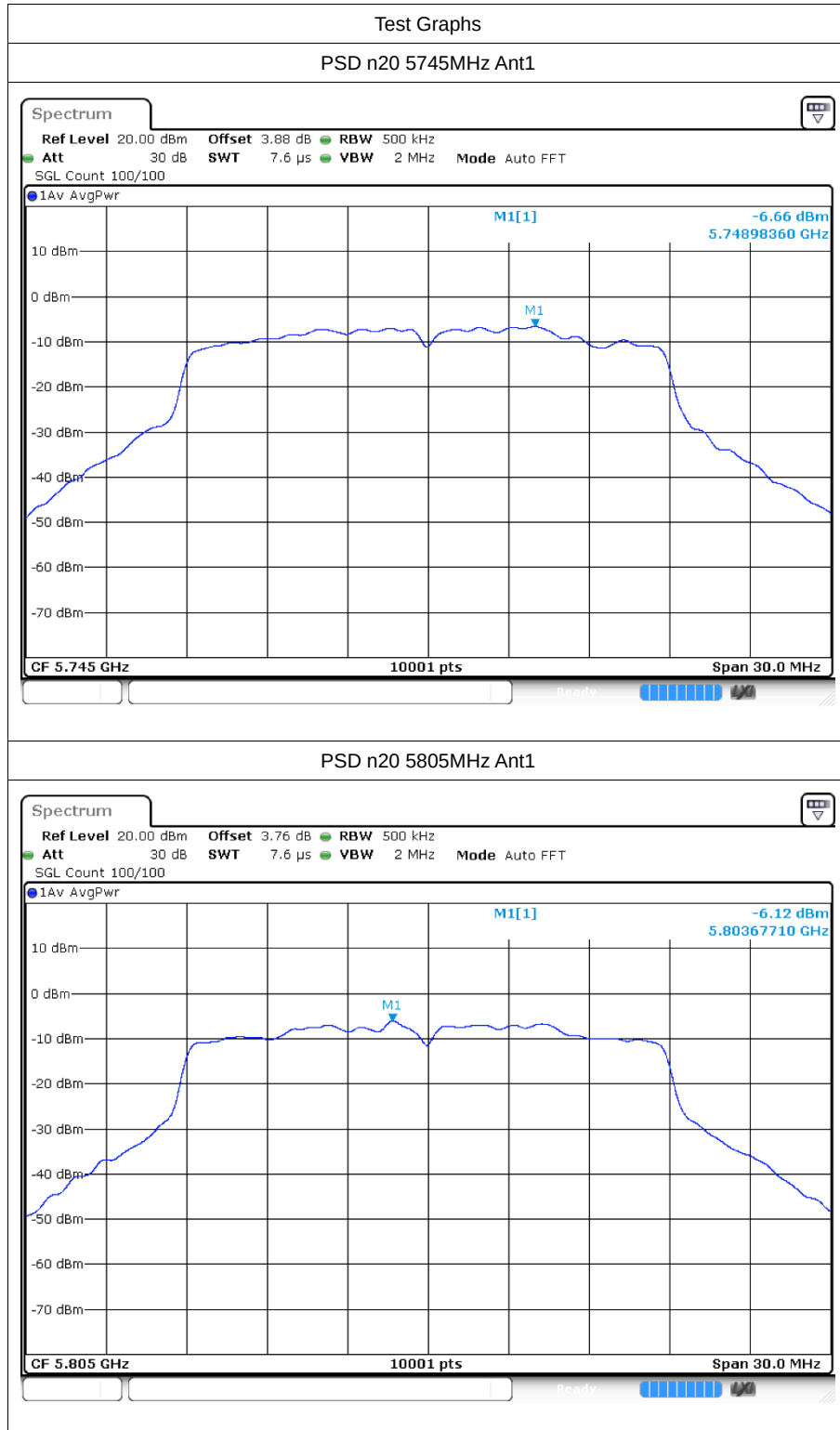
5.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
n20	5745	Ant1	-6.66	0.31	-6.35	29.3	Pass
n20	5745	Ant2	-9.21	0.31	-8.9	29.3	Pass
n20	5745	Sum	-	-	-4.43	29.3	Pass
n20	5805	Ant1	-6.12	0.31	-5.81	29.3	Pass
n20	5805	Ant2	-7.99	0.31	-7.68	29.3	Pass
n20	5805	Sum	-	-	-3.63	29.3	Pass
n20	5825	Ant1	-6.04	0.32	-5.72	29.3	Pass
n20	5825	Ant2	-6.96	0.31	-6.65	29.3	Pass
n20	5825	Sum	-	-	-3.15	29.3	Pass
n40	5755	Ant1	-8.94	0.32	-8.62	29.3	Pass
n40	5755	Ant2	-11.14	0.33	-10.81	29.3	Pass
n40	5755	Sum	-	-	-6.57	29.3	Pass
n40	5795	Ant1	-11.18	0.32	-10.86	29.3	Pass
n40	5795	Ant2	-10.38	0.39	-9.99	29.3	Pass
n40	5795	Sum	-	-	-7.39	29.3	Pass
ac20	5745	Ant1	-4.53	0.59	-3.94	29.3	Pass
ac20	5745	Ant2	-9.12	0.59	-8.53	29.3	Pass
ac20	5745	Sum	-	-	-2.64	29.3	Pass
ac20	5805	Ant1	-6.48	0.6	-5.88	29.3	Pass
ac20	5805	Ant2	-8.34	0.6	-7.74	29.3	Pass
ac20	5805	Sum	-	-	-3.70	29.3	Pass
ac20	5825	Ant1	-6.04	0.61	-5.43	29.3	Pass
ac20	5825	Ant2	-7.14	0.66	-6.48	29.3	Pass
ac20	5825	Sum	-	-	-2.91	29.3	Pass
ac40	5755	Ant1	-9.42	0.58	-8.84	29.3	Pass
ac40	5755	Ant2	-10.24	0.61	-9.63	29.3	Pass
ac40	5755	Sum	-	-	-6.21	29.3	Pass
ac40	5795	Ant1	-10.59	0.59	-10	29.3	Pass
ac40	5795	Ant2	-10.1	0.71	-9.39	29.3	Pass
ac40	5795	Sum	-	-	-6.67	29.3	Pass
ax20	5745	Ant1	-4.86	0.6	-4.26	29.3	Pass
ax20	5745	Ant2	-9.19	0.6	-8.59	29.3	Pass
ax20	5745	Sum	-	-	-2.90	29.3	Pass
ax20	5805	Ant1	-8.42	0.6	-7.82	29.3	Pass

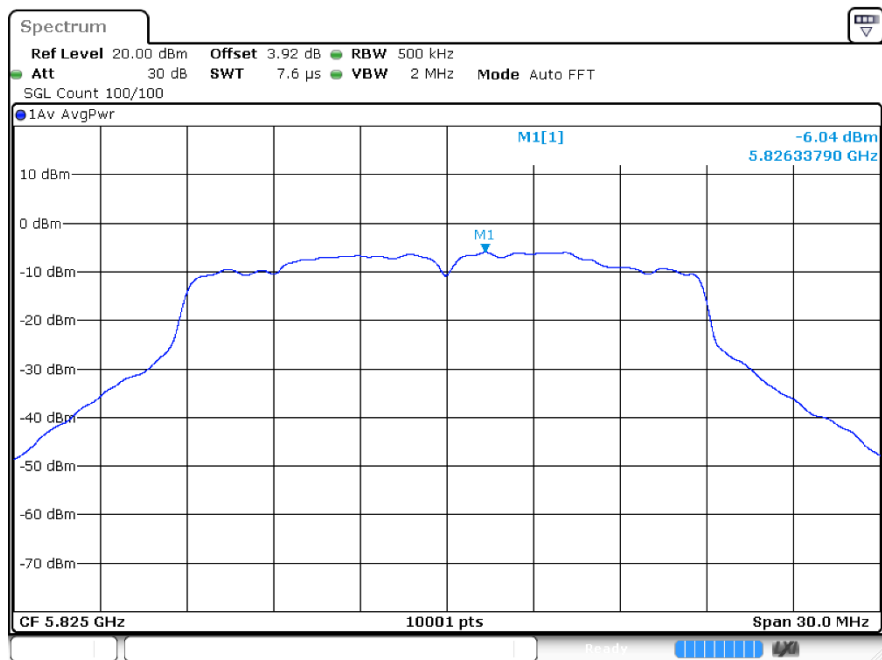


ax20	5805	Ant2	-8.41	0.61	-7.8	29.3	Pass
ax20	5805	Sum	-		-4.80	29.3	Pass
ax20	5825	Ant1	-6.44	0.6	-5.84	29.3	Pass
ax20	5825	Ant2	-8.73	0.6	-8.13	29.3	Pass
ax20	5825	Sum	-	-	-3.83	29.3	Pass
ax40	5755	Ant1	-10.87	0.57	-10.3	29.3	Pass
ax40	5755	Ant2	-11.46	0.69	-10.77	29.3	Pass
ax40	5755	Sum	-	-	-7.52	29.3	Pass
ax40	5795	Ant1	-10.64	0.57	-10.07	29.3	Pass
ax40	5795	Ant2	-11.14	0.71	-10.43	29.3	Pass
ax40	5795	Sum	-	-	-7.24	29.3	Pass
ax80	5775	Ant1	-13.21	0.6	-12.61	29.3	Pass
ax80	5775	Ant2	-13.99	0.61	-13.38	29.3	Pass
ax80	5775	Sum	-	-	-9.97	29.3	Pass

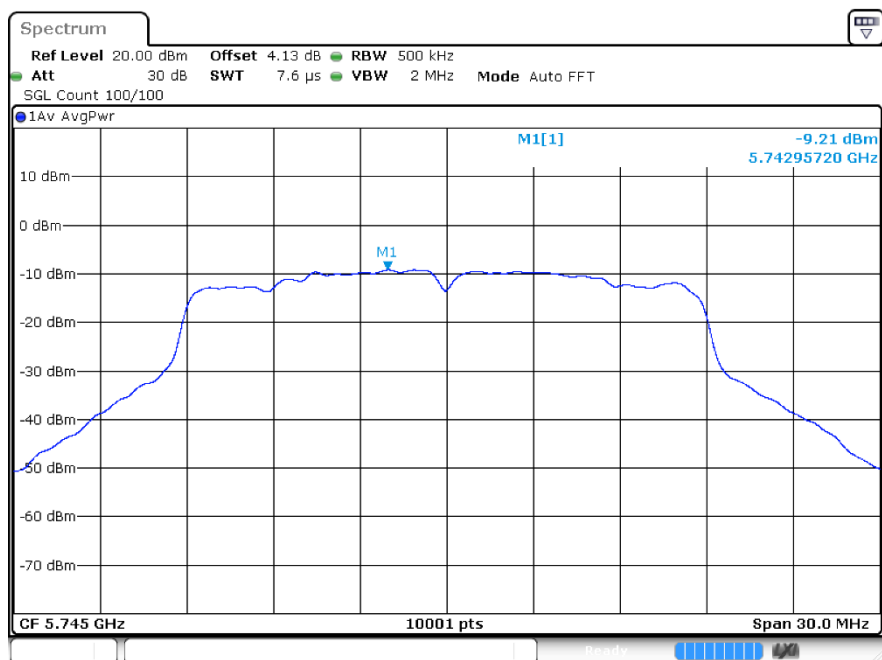
5.2 Test Graphs

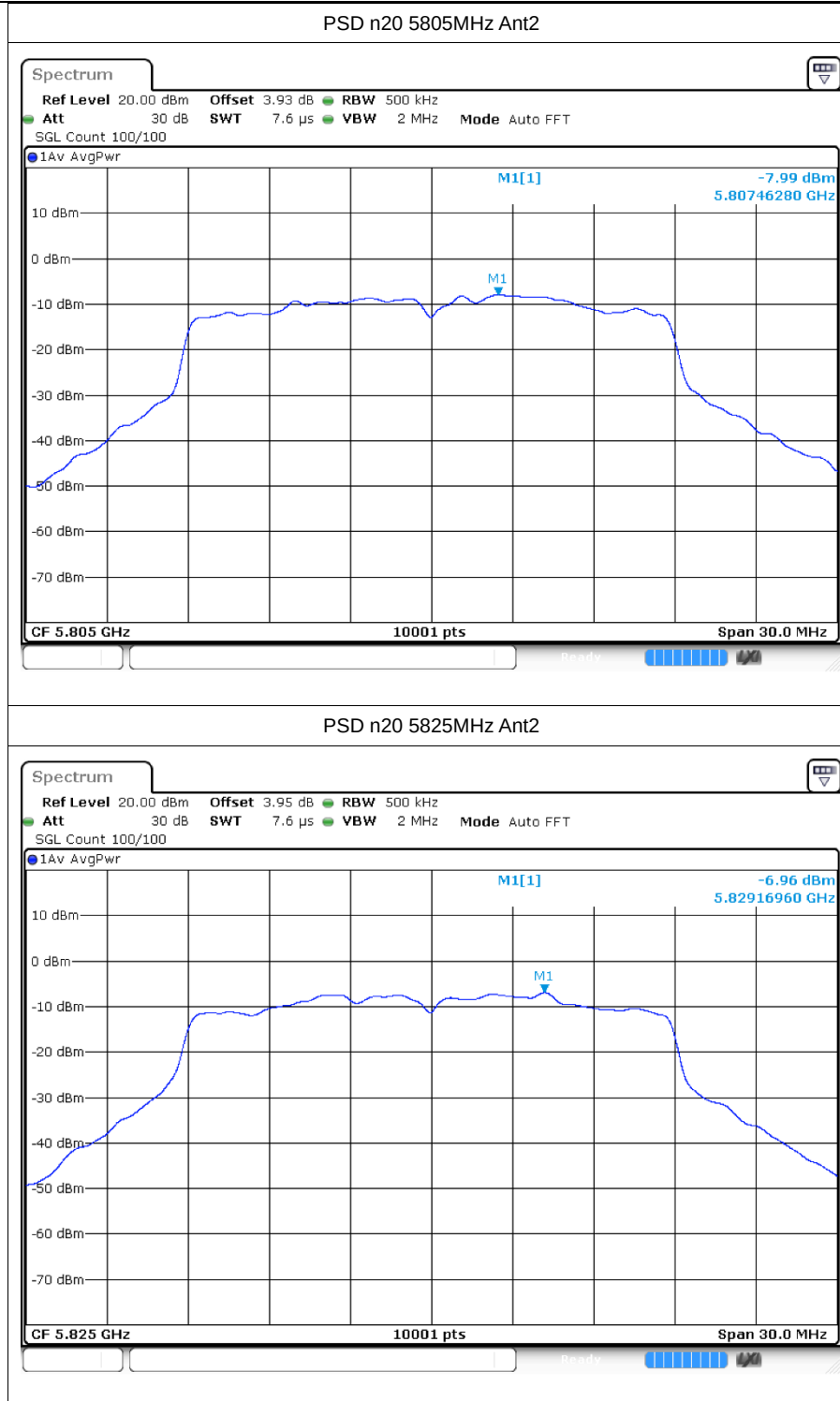


PSD n20 5825MHz Ant1

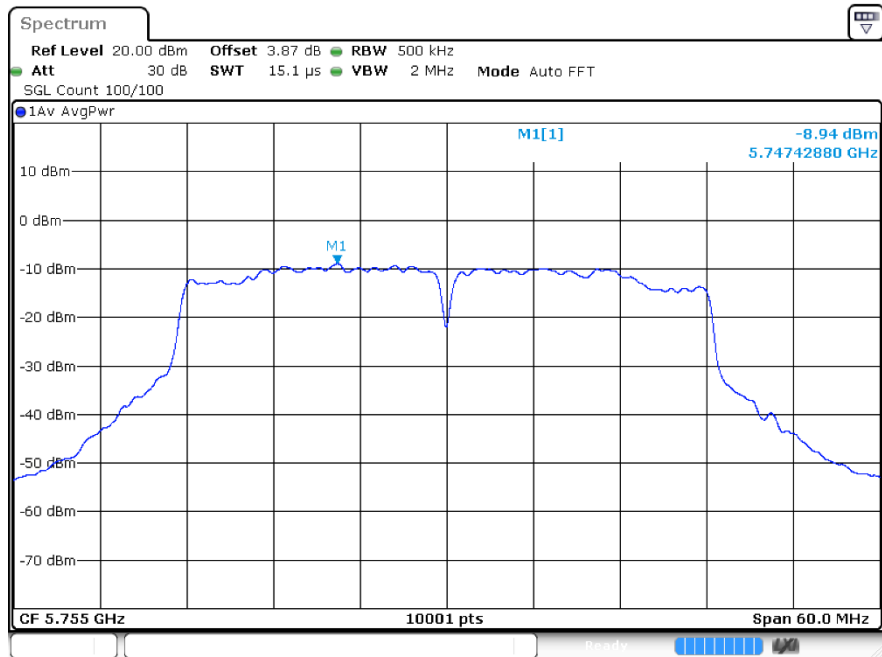


PSD n20 5745MHz Ant2





PSD n40 5755MHz Ant1



PSD n40 5795MHz Ant1

