



Appendix RF test data for 5G WIFI (Conducted Measurement)

Product Name: Carplay/Android Auto

Trade Mark: N/A

Test Model: M7

Environmental Conditions

Temperature:	24.5° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Aalen.Ye
Supervised by:	Allen Wang



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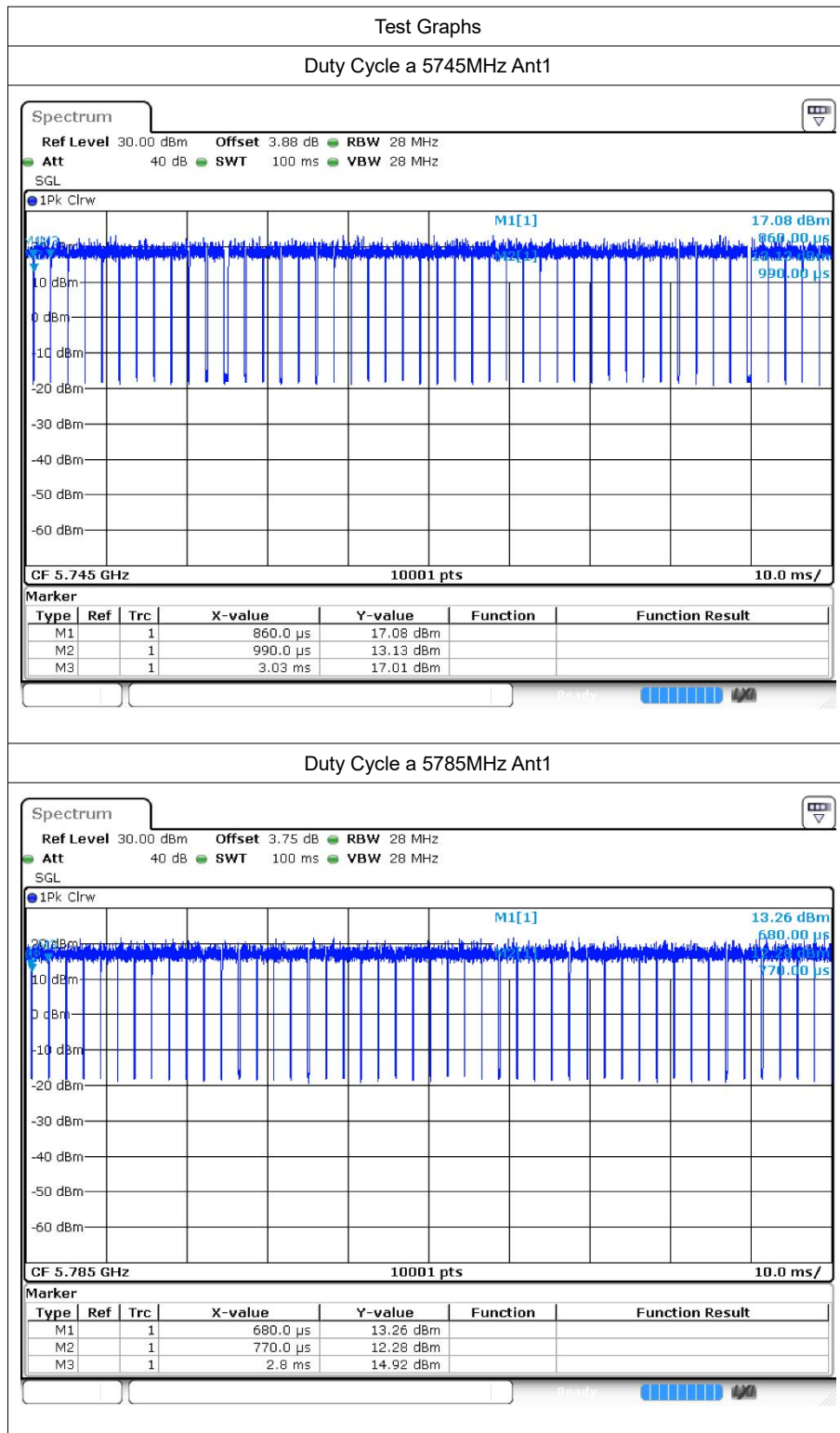


1 Duty Cycle

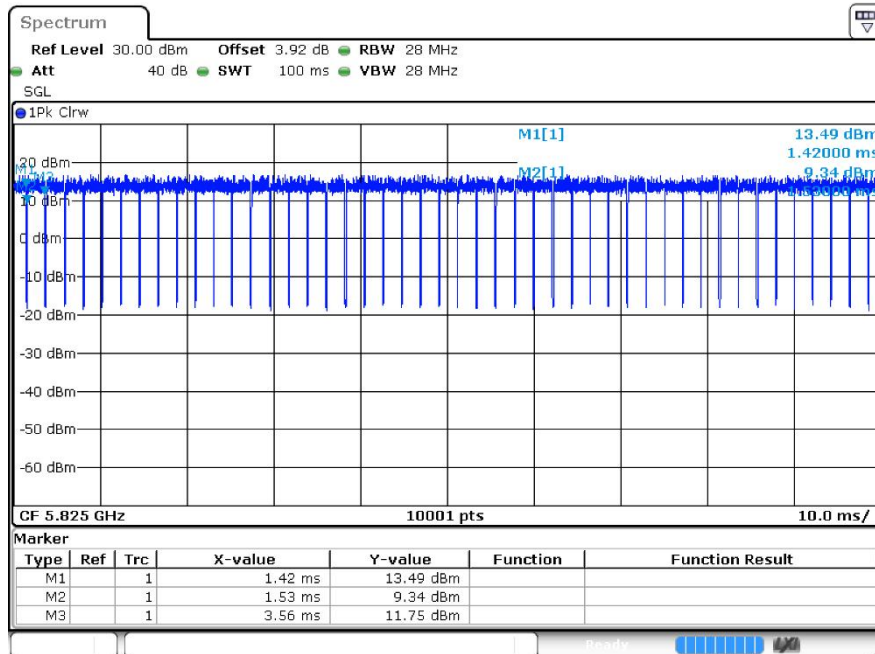
1.1 Test Result

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5745	Ant1	94.22	0.26	0.49
a	5785	Ant1	94.59	0.24	0.49
a	5825	Ant1	94.69	0.24	0.49
n20	5745	Ant1	91.59	0.38	0.53
n20	5785	Ant1	95.42	0.2	0.53
n20	5825	Ant1	94.68	0.24	0.53
n40	5755	Ant1	85.38	0.69	1.08
n40	5795	Ant1	85.05	0.7	1.08
ac20	5745	Ant1	95.58	0.2	0.53
ac20	5785	Ant1	94.25	0.26	0.53
ac20	5825	Ant1	95.42	0.2	0.53
ac40	5755	Ant1	85.19	0.7	1.06
ac40	5795	Ant1	84.91	0.71	1.08
ax20	5745	Ant1	92.93	0.32	0.68
ax20	5785	Ant1	93.2	0.31	0.68
ax20	5825	Ant1	93.24	0.3	0.68
ax40	5755	Ant1	82.75	0.82	1.32
ax40	5795	Ant1	100	0	0

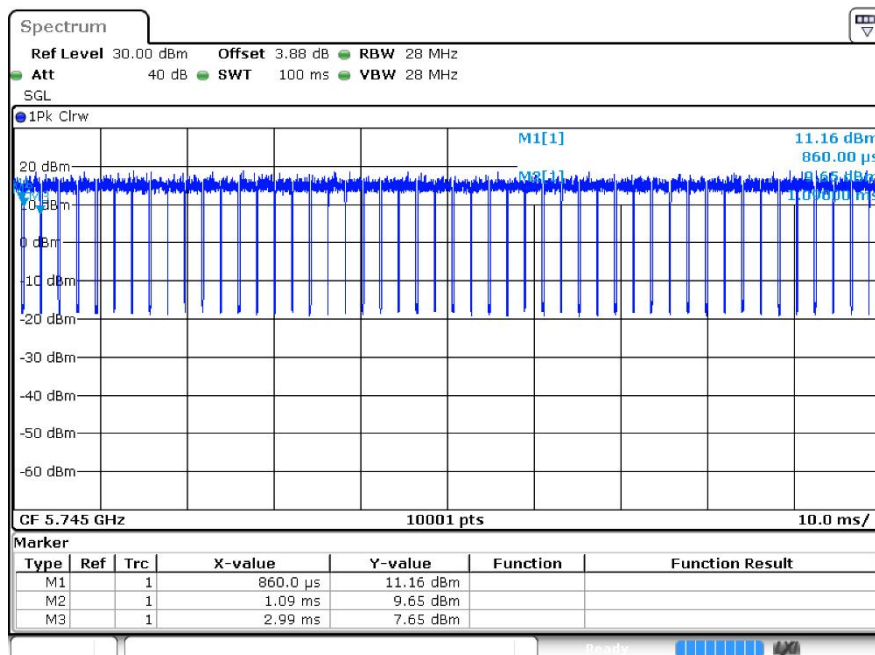
1.2 Test Graphs



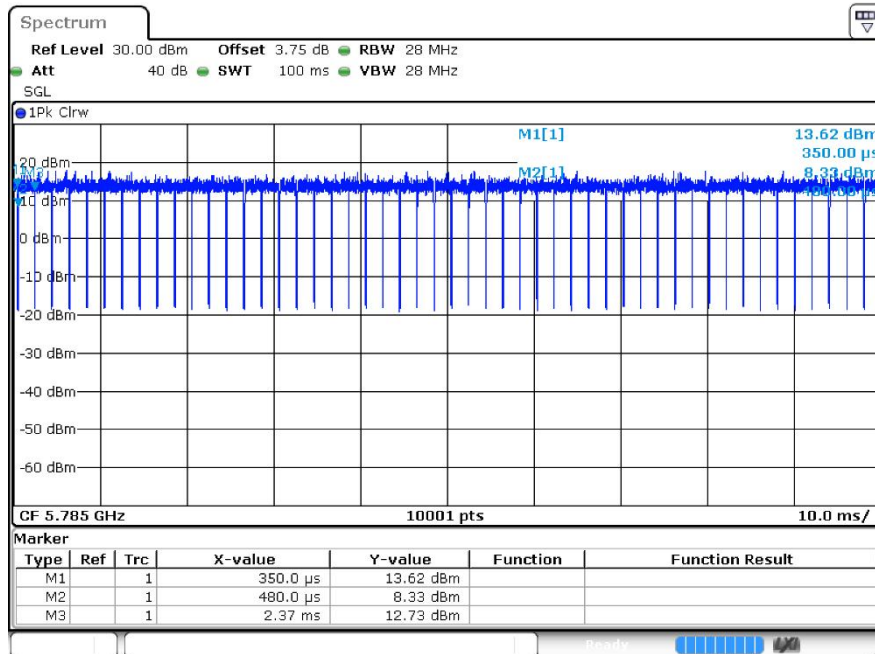
Duty Cycle a 5825MHz Ant1



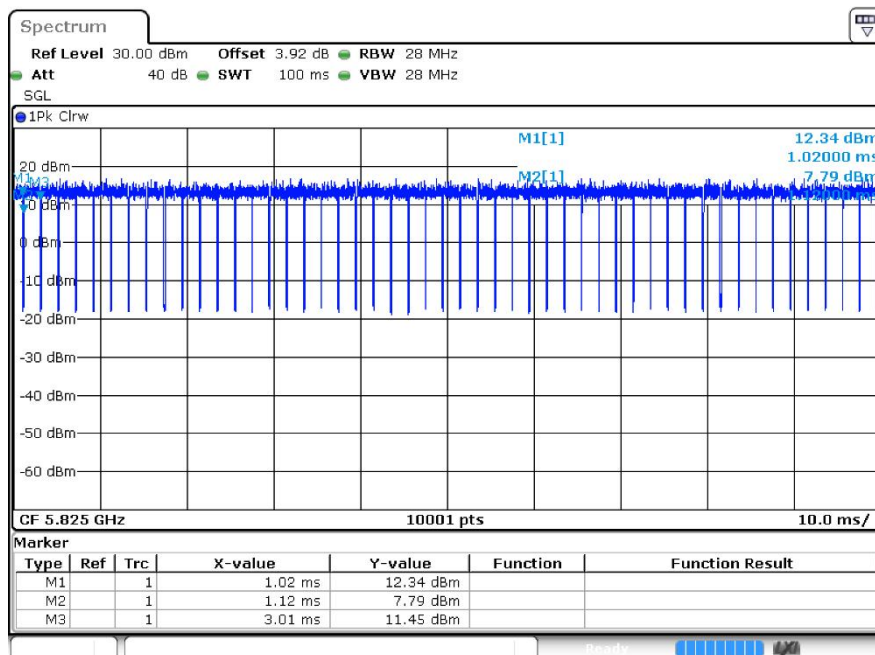
Duty Cycle n20 5745MHz Ant1



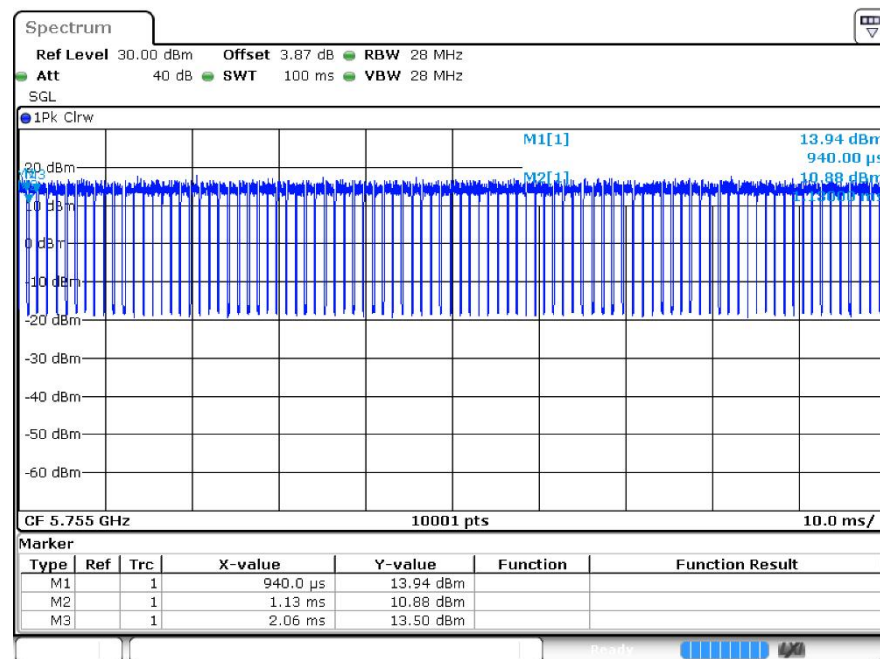
Duty Cycle n20 5785MHz Ant1



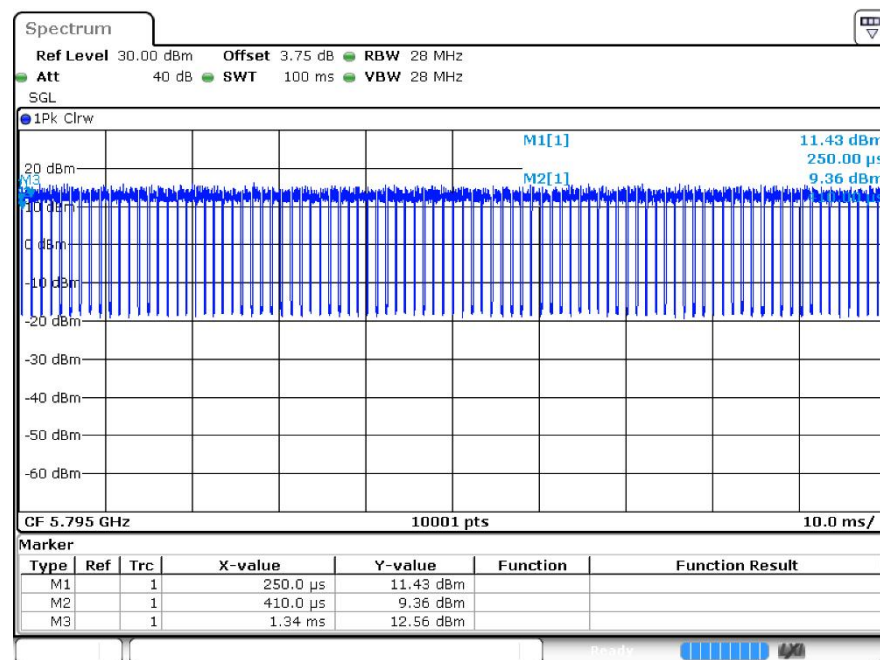
Duty Cycle n20 5825MHz Ant1



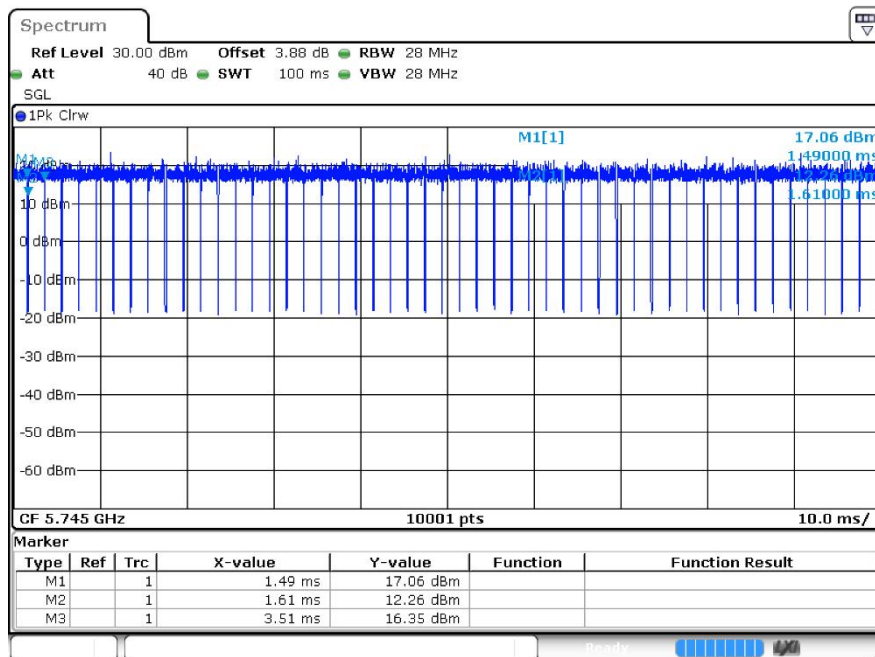
Duty Cycle n40 5755MHz Ant1



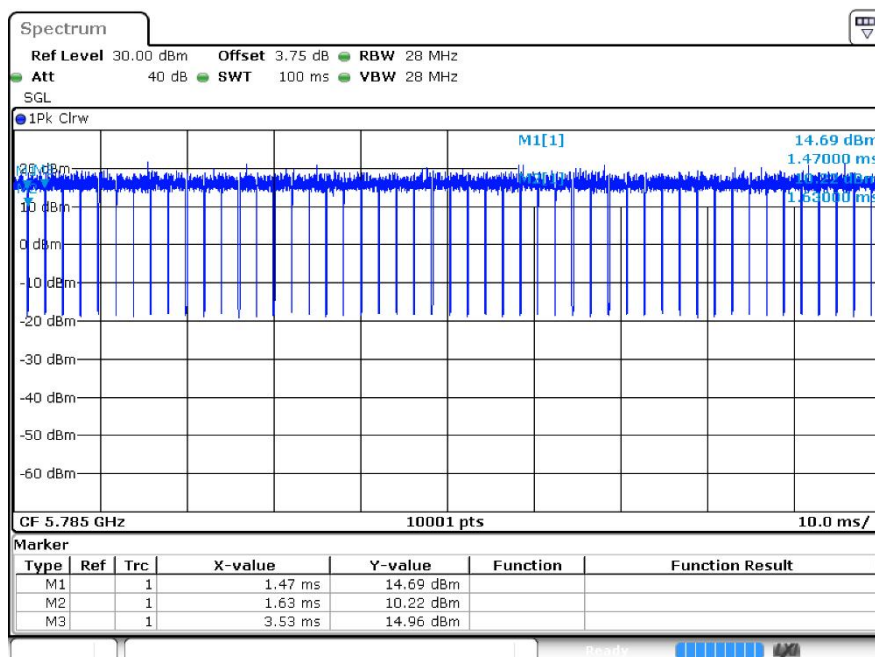
Duty Cycle n40 5795MHz Ant1



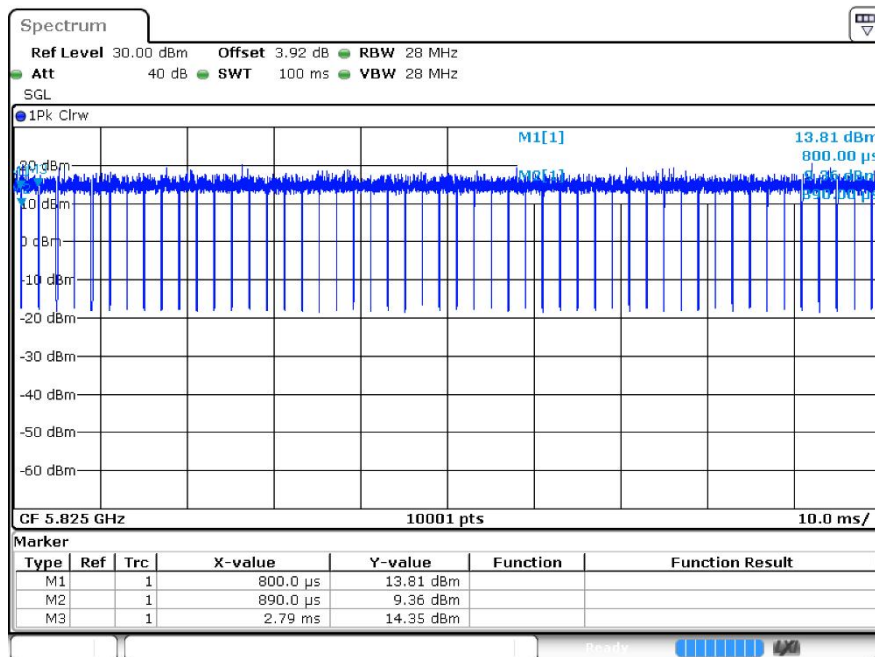
Duty Cycle ac20 5745MHz Ant1



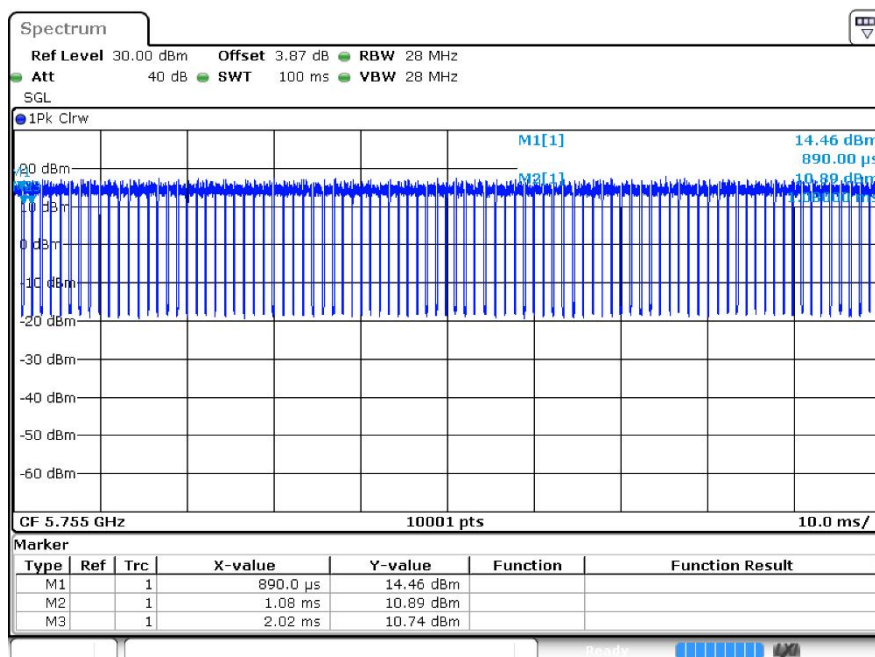
Duty Cycle ac20 5785MHz Ant1

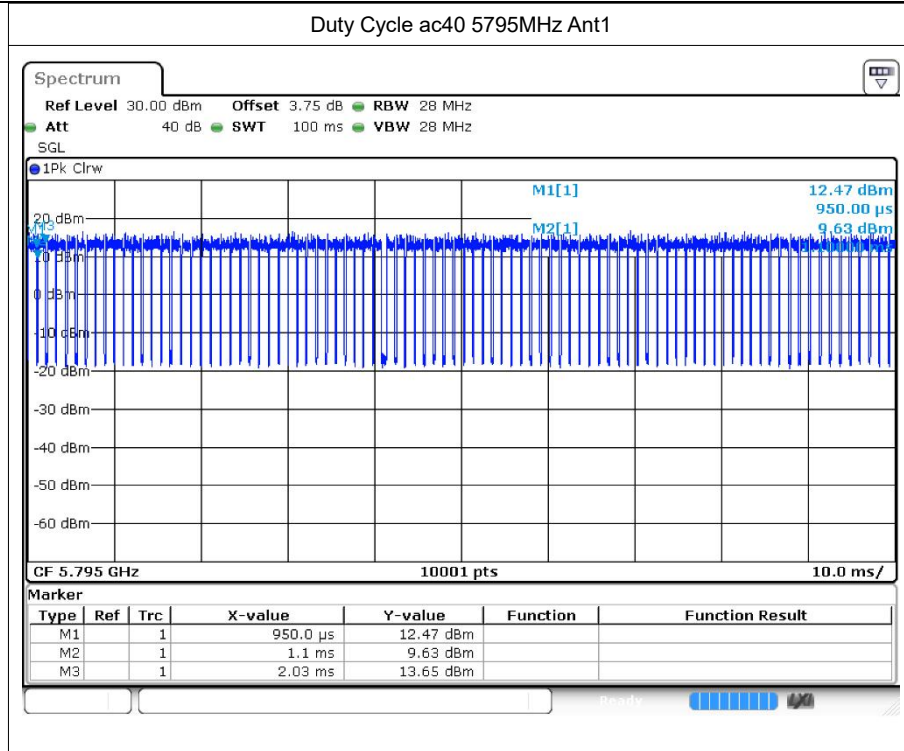


Duty Cycle ac20 5825MHz Ant1

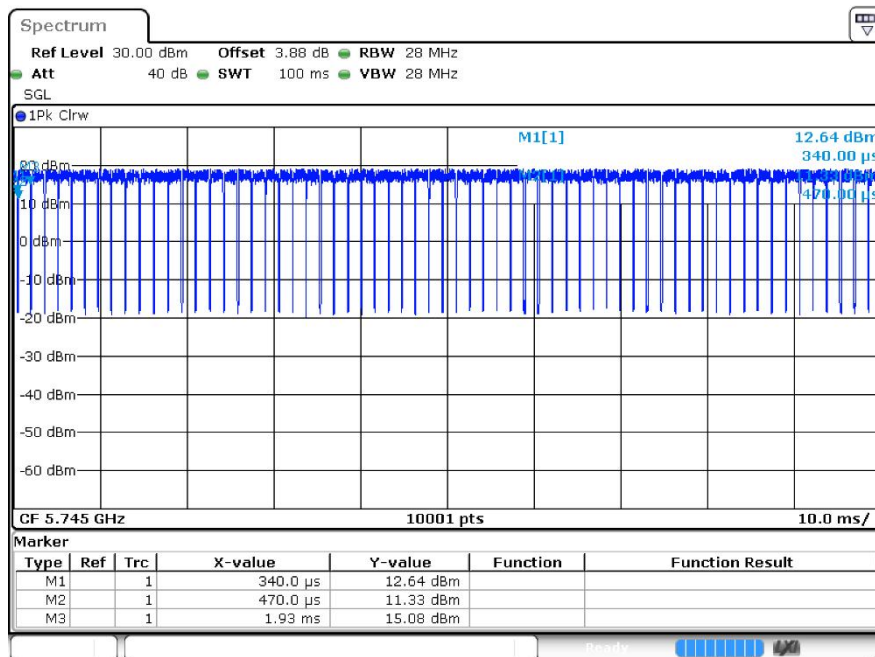


Duty Cycle ac40 5755MHz Ant1

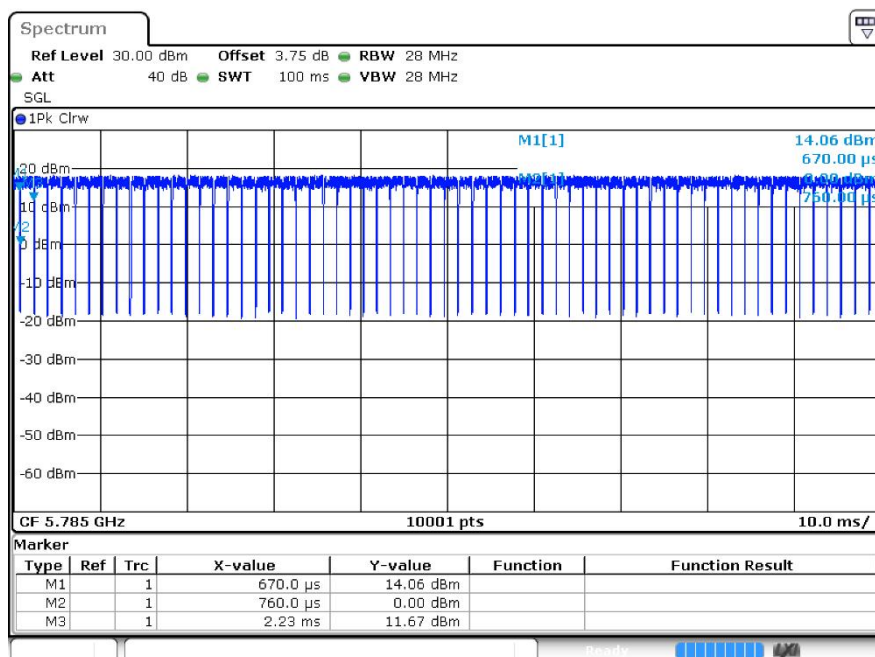




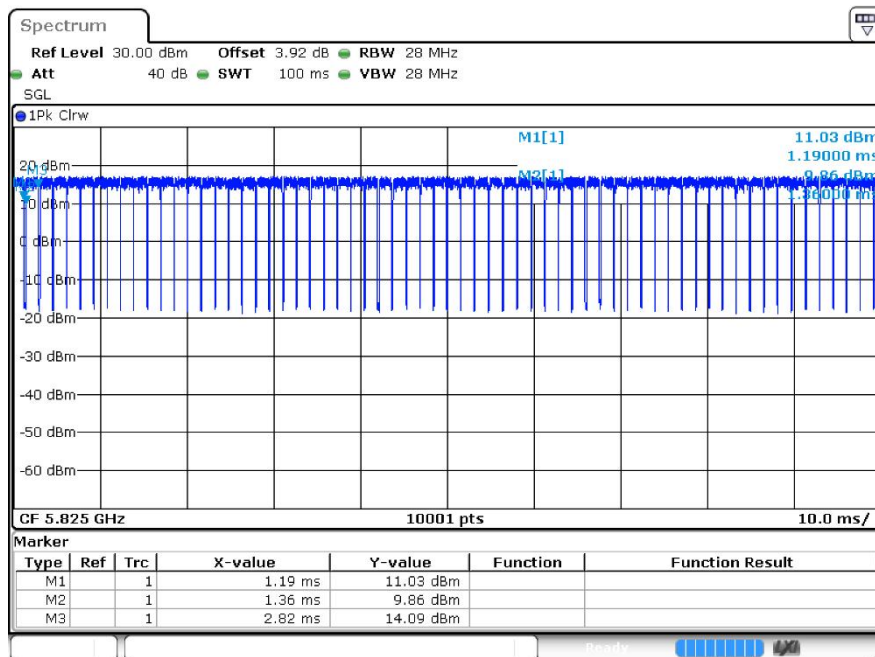
Duty Cycle ax20 5745MHz Ant1



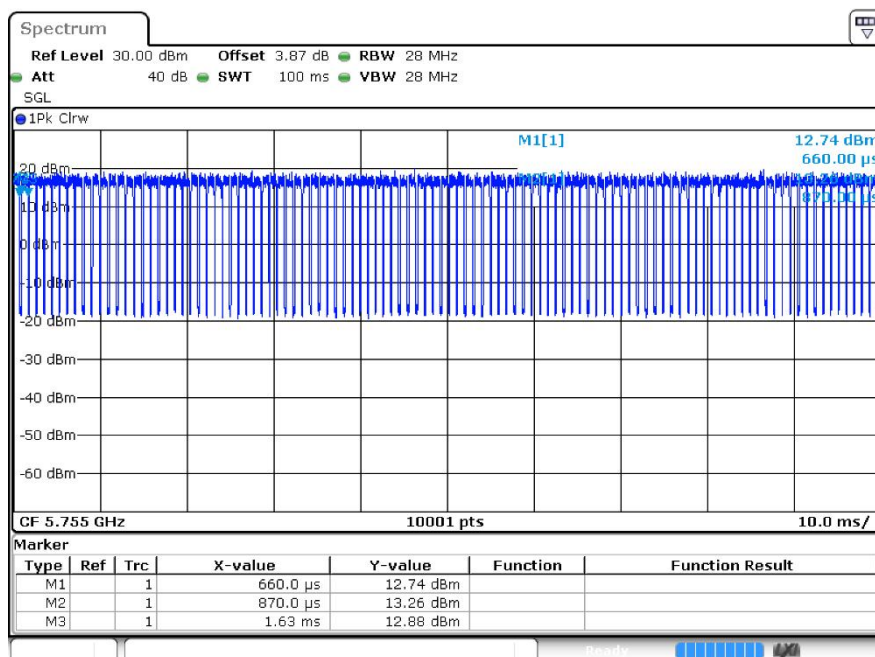
Duty Cycle ax20 5785MHz Ant1

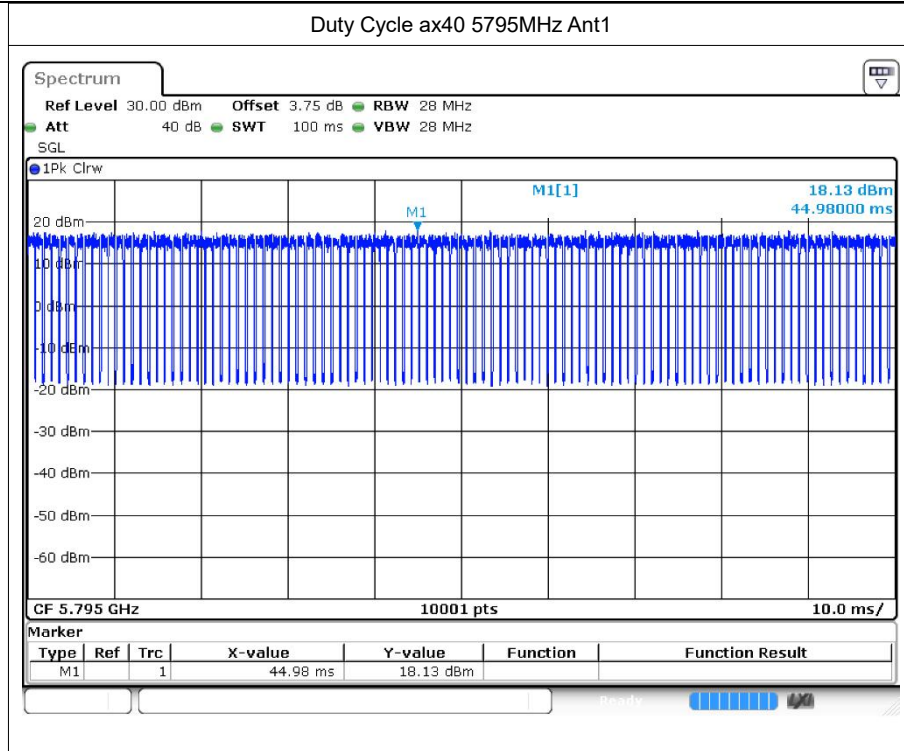


Duty Cycle ax20 5825MHz Ant1



Duty Cycle ax40 5755MHz Ant1





2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	14.11	30	Pass
a	5785	Ant1	12.17	30	Pass
a	5825	Ant1	9.43	30	Pass
n20	5745	Ant1	10.81	30	Pass
n20	5785	Ant1	9.43	30	Pass
n20	5825	Ant1	10.27	30	Pass
n40	5755	Ant1	13.28	30	Pass
n40	5795	Ant1	10.92	30	Pass
ac20	5745	Ant1	13.1	30	Pass
ac20	5785	Ant1	11.18	30	Pass
ac20	5825	Ant1	9.99	30	Pass
ac40	5755	Ant1	10.66	30	Pass
ac40	5795	Ant1	11.36	30	Pass
ax20	5745	Ant1	13.7	30	Pass
ax20	5785	Ant1	12.66	30	Pass
ax20	5825	Ant1	11.96	30	Pass
ax40	5755	Ant1	14.03	30	Pass
ax40	5795	Ant1	12.4	30	Pass

Note:

The duty factor has been compensated into the result.

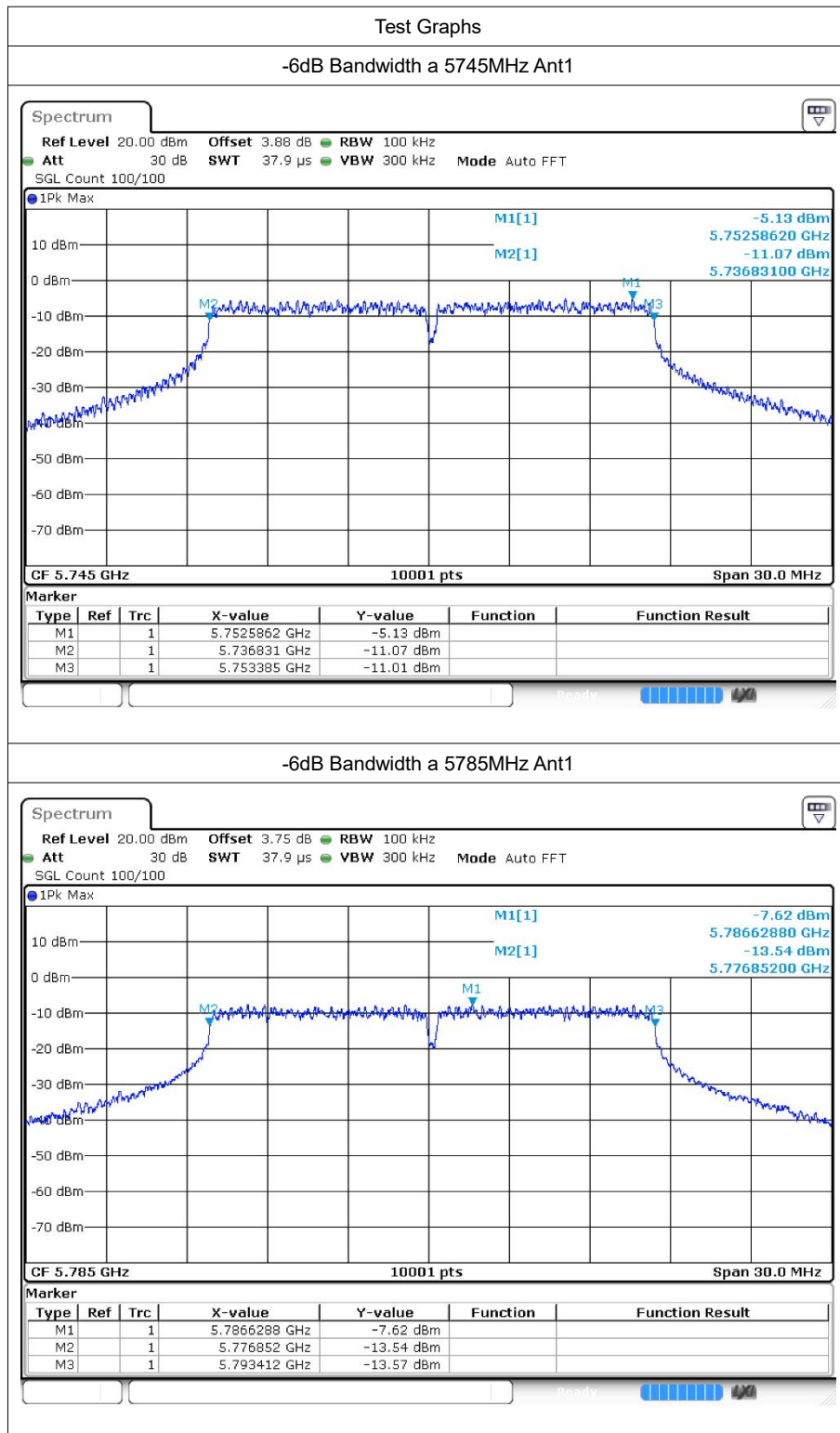


3 -6dB Bandwidth

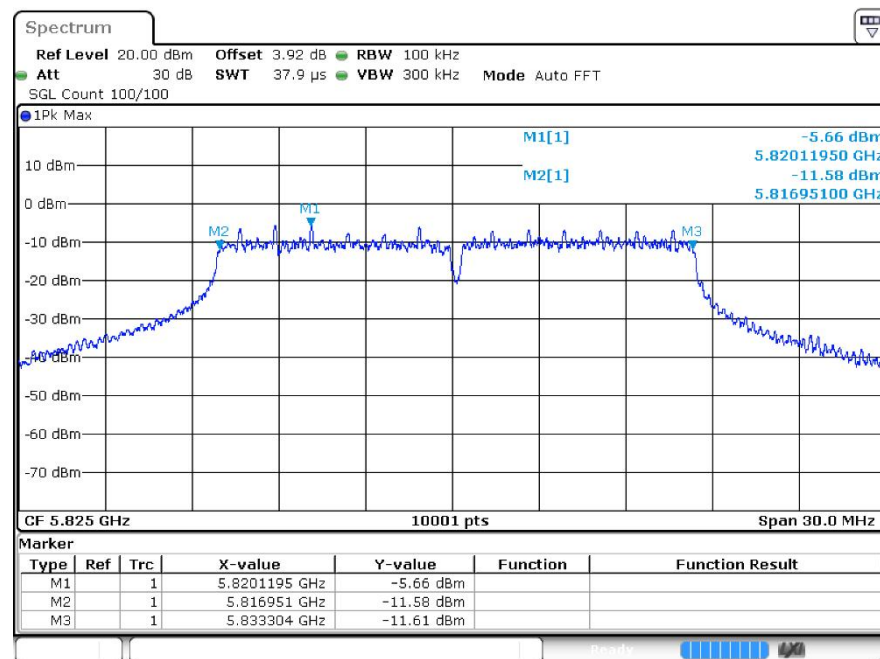
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
a	5745	Ant1	16.554	0.5	Pass
a	5785	Ant1	16.56	0.5	Pass
a	5825	Ant1	16.353	0.5	Pass
n20	5745	Ant1	17.58	0.5	Pass
n20	5785	Ant1	17.817	0.5	Pass
n20	5825	Ant1	17.721	0.5	Pass
n40	5755	Ant1	36.312	0.5	Pass
n40	5795	Ant1	36.318	0.5	Pass
ac20	5745	Ant1	17.661	0.5	Pass
ac20	5785	Ant1	17.607	0.5	Pass
ac20	5825	Ant1	17.547	0.5	Pass
ac40	5755	Ant1	36.36	0.5	Pass
ac40	5795	Ant1	36.432	0.5	Pass
ax20	5745	Ant1	18.84	0.5	Pass
ax20	5785	Ant1	19.068	0.5	Pass
ax20	5825	Ant1	19.14	0.5	Pass
ax40	5755	Ant1	38.028	0.5	Pass
ax40	5795	Ant1	37.824	0.5	Pass

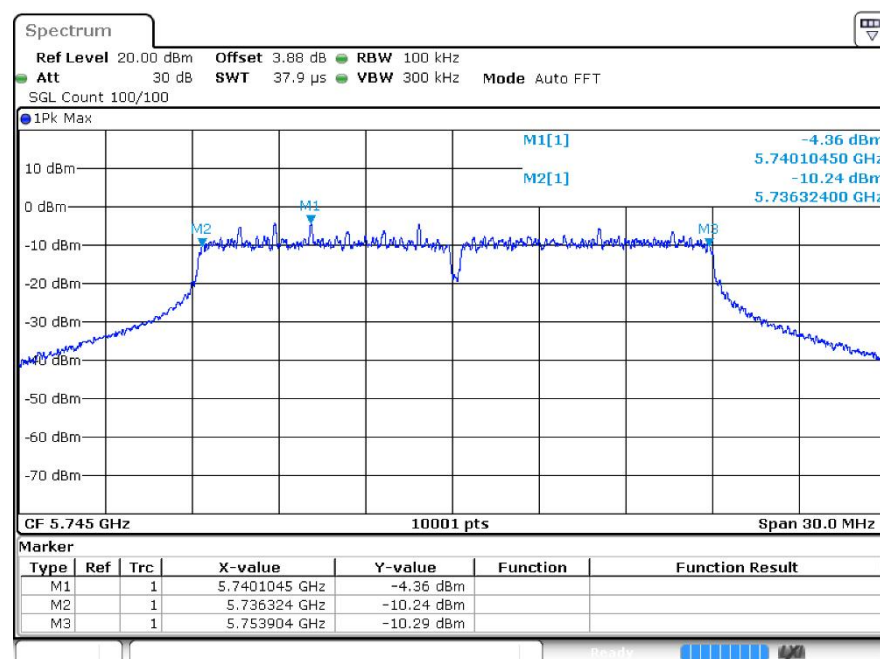
3.2 Test Graphs



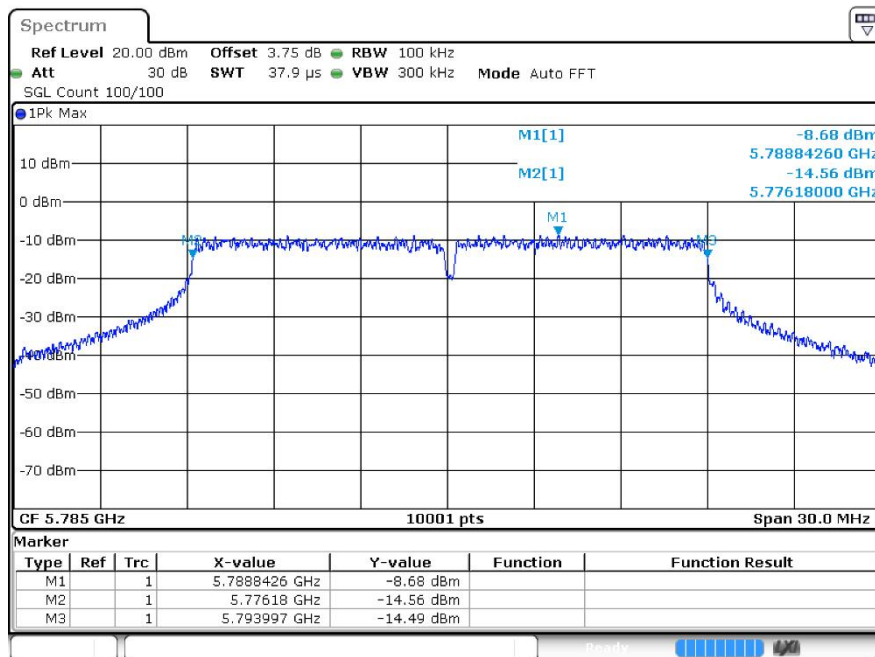
-6dB Bandwidth a 5825MHz Ant1



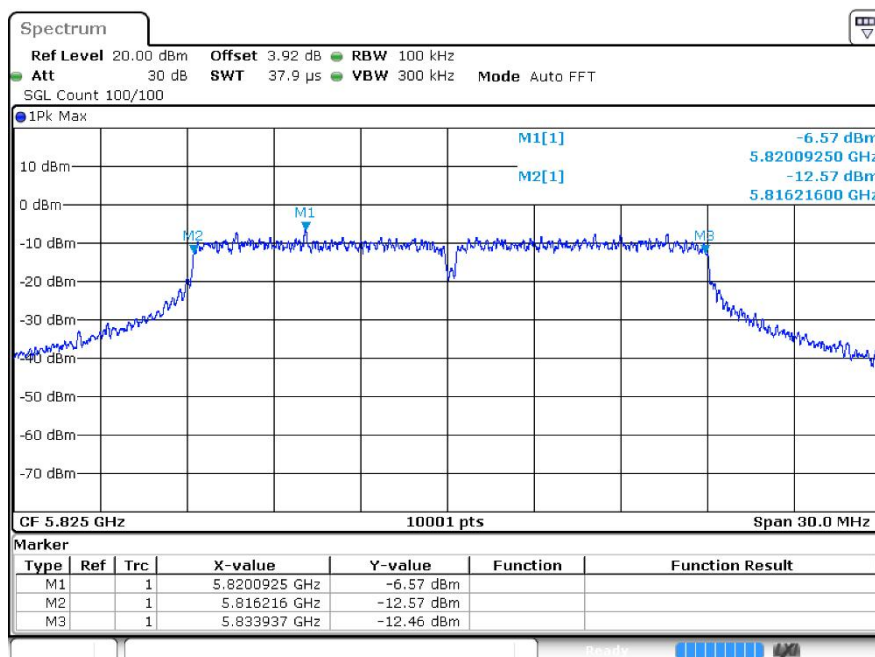
-6dB Bandwidth n20 5745MHz Ant1



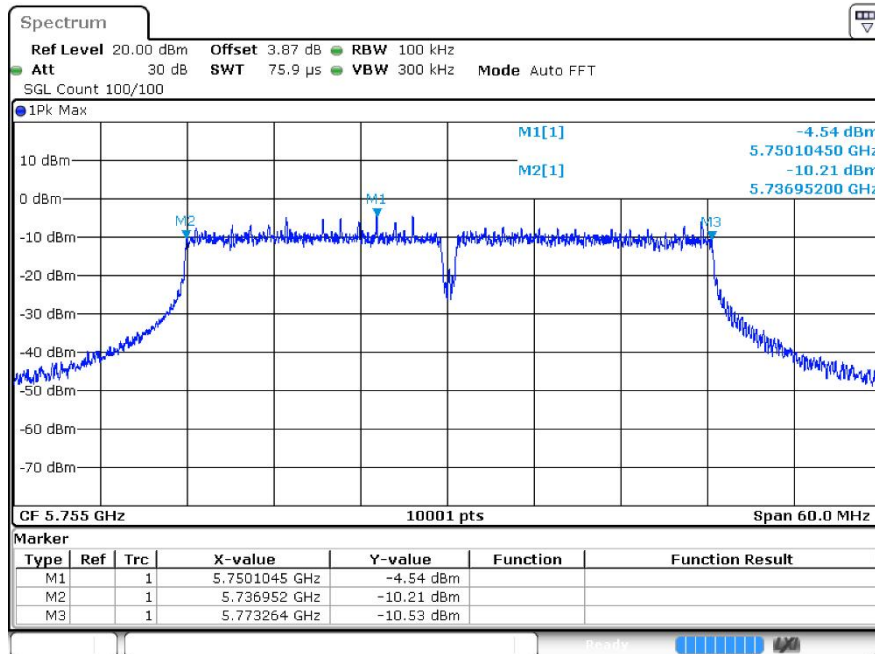
-6dB Bandwidth n20 5785MHz Ant1



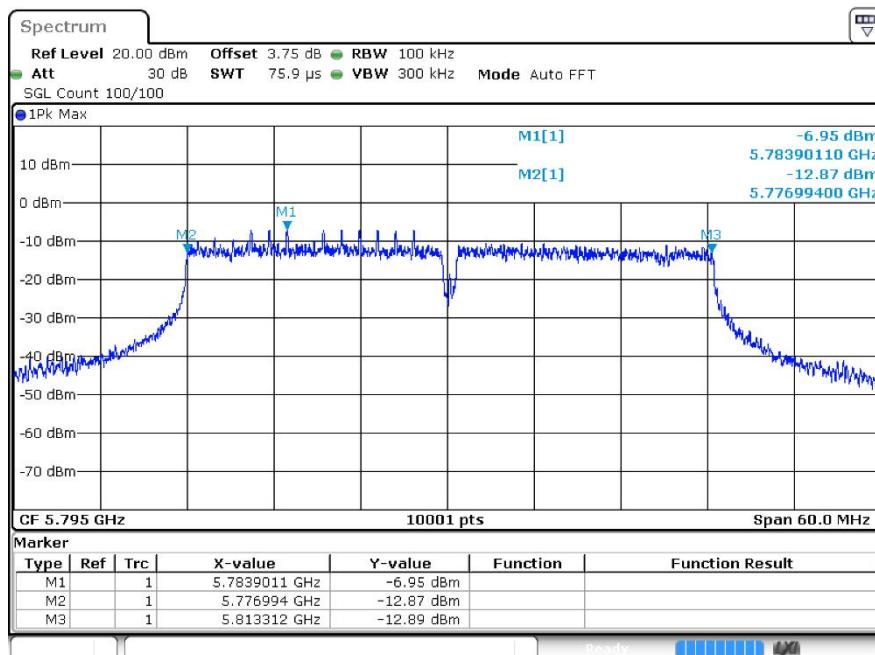
-6dB Bandwidth n20 5825MHz Ant1



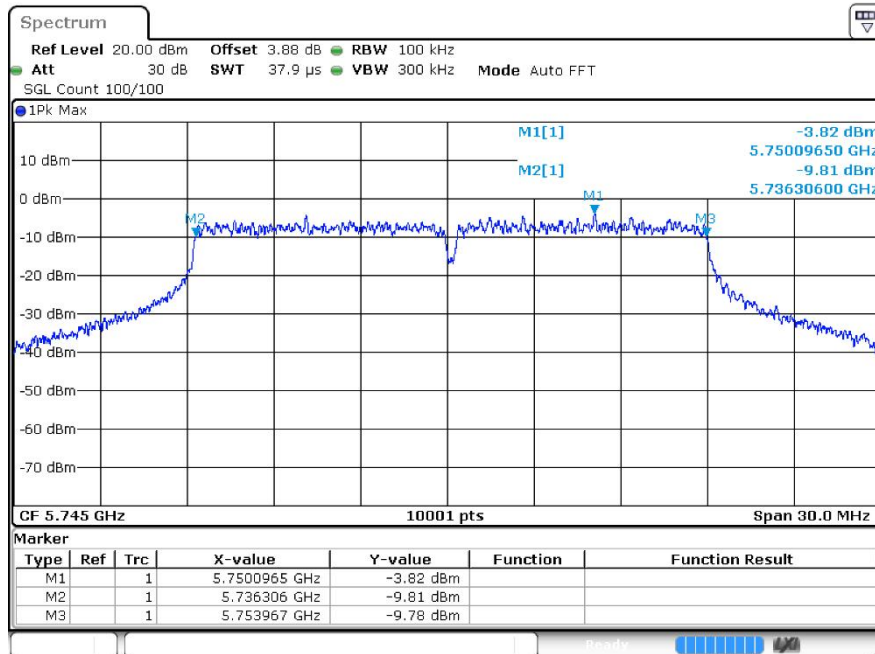
-6dB Bandwidth n40 5755MHz Ant1



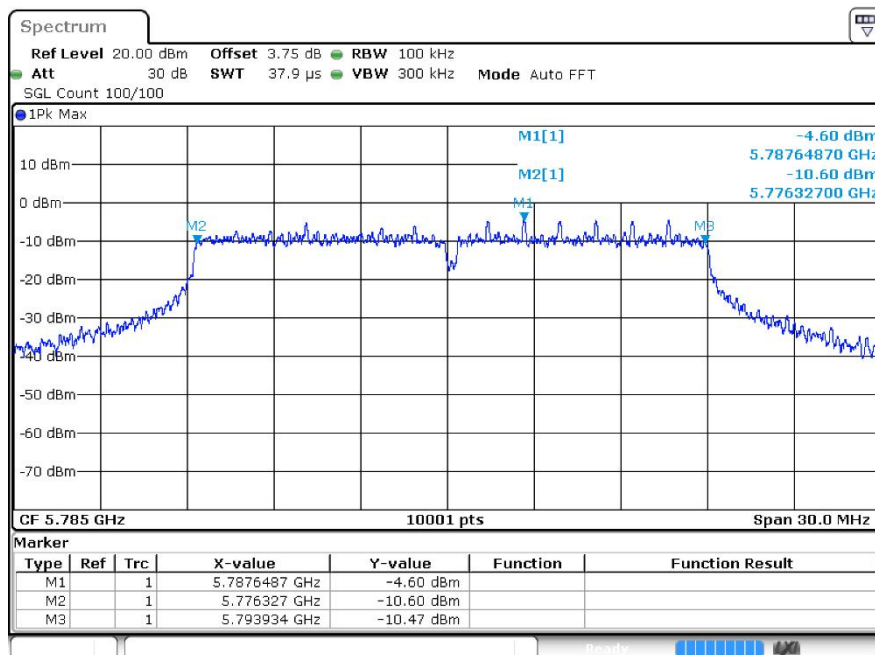
-6dB Bandwidth n40 5795MHz Ant1



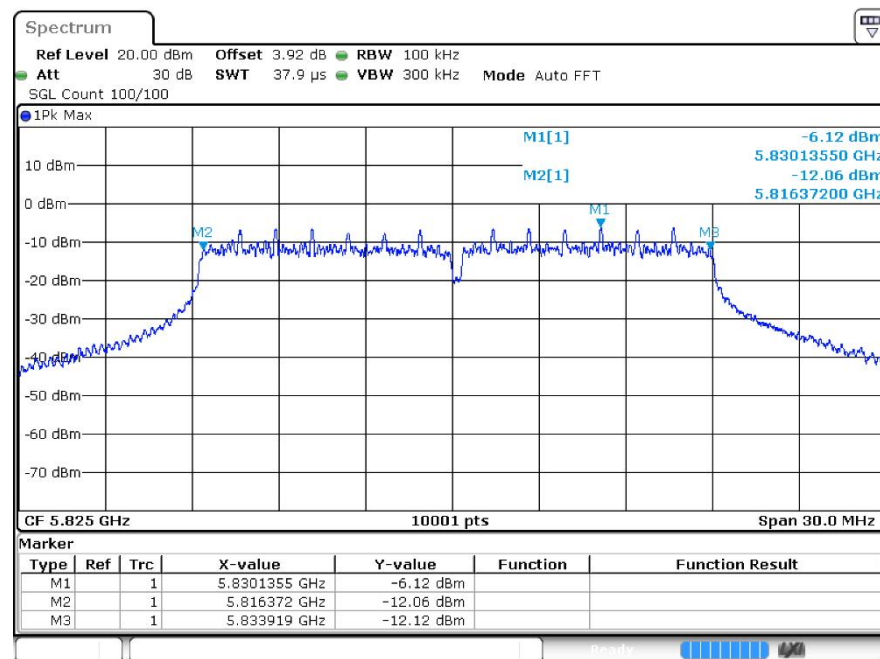
-6dB Bandwidth ac20 5745MHz Ant1



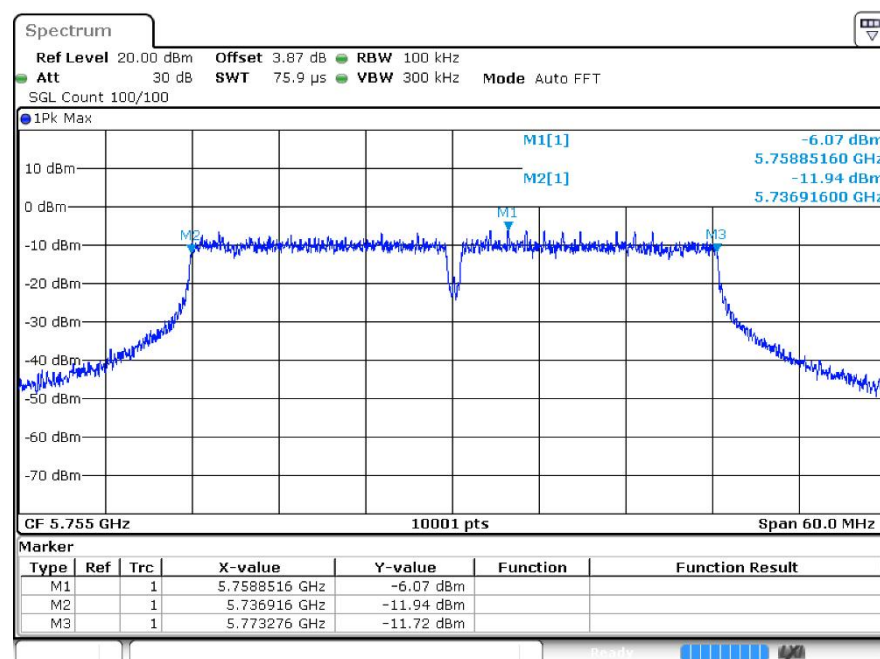
-6dB Bandwidth ac20 5785MHz Ant1

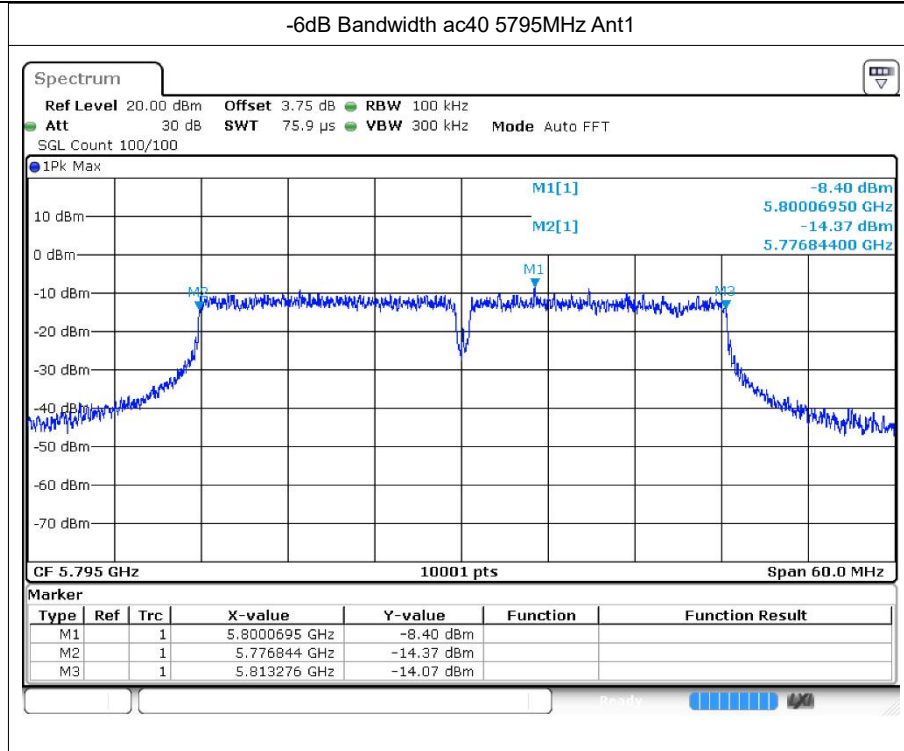


-6dB Bandwidth ac20 5825MHz Ant1

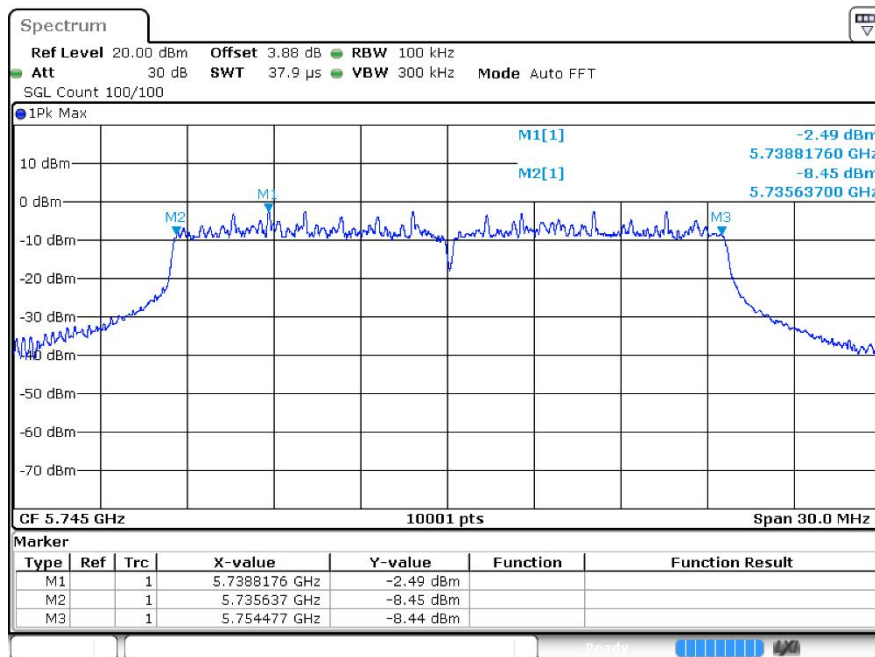


-6dB Bandwidth ac40 5755MHz Ant1

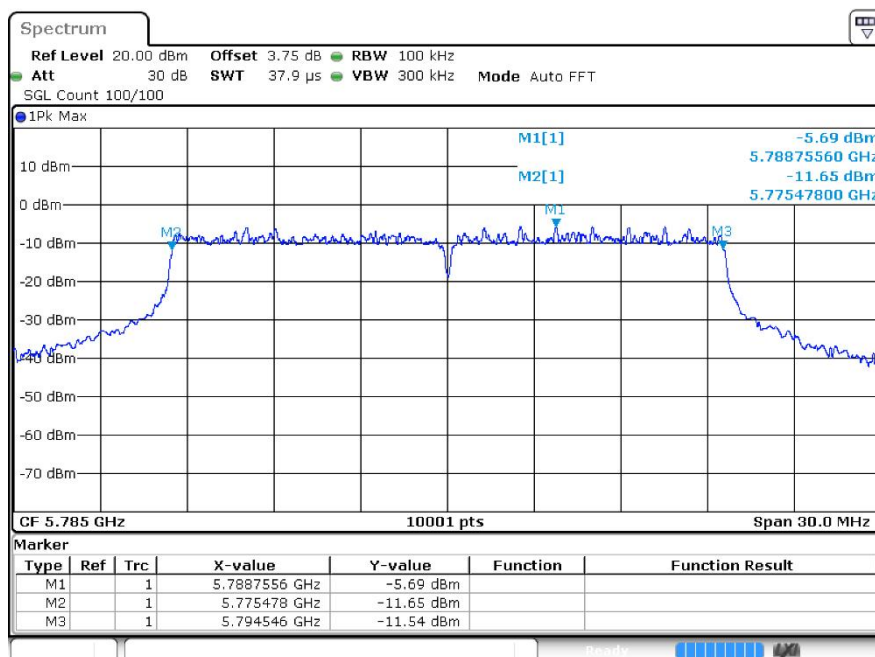




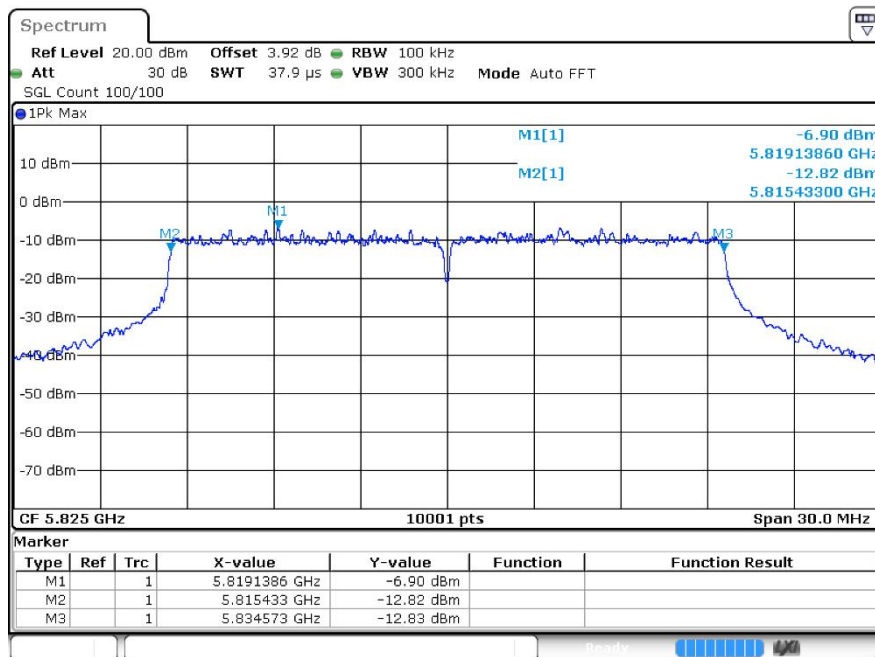
-6dB Bandwidth ax20 5745MHz Ant1



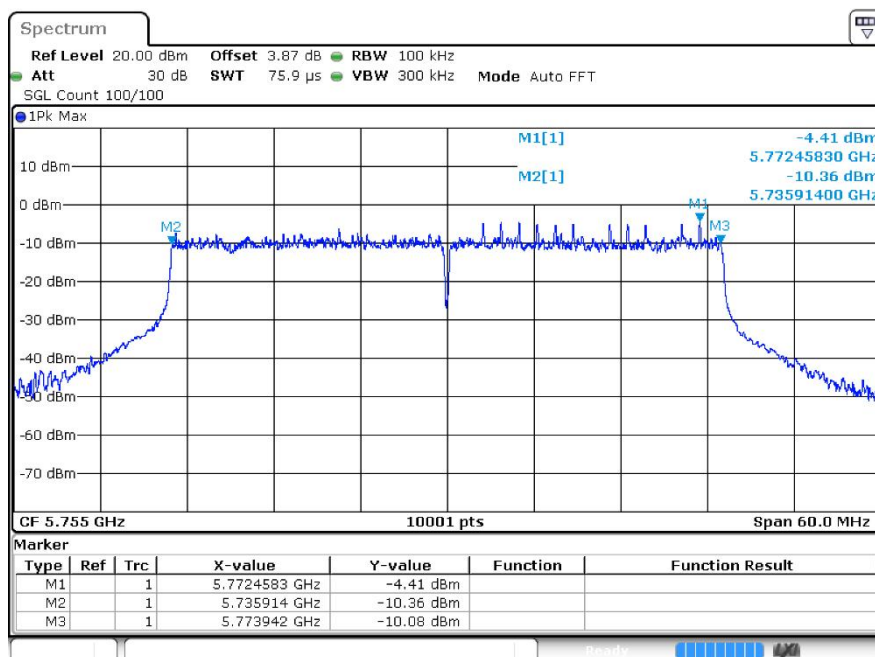
-6dB Bandwidth ax20 5785MHz Ant1

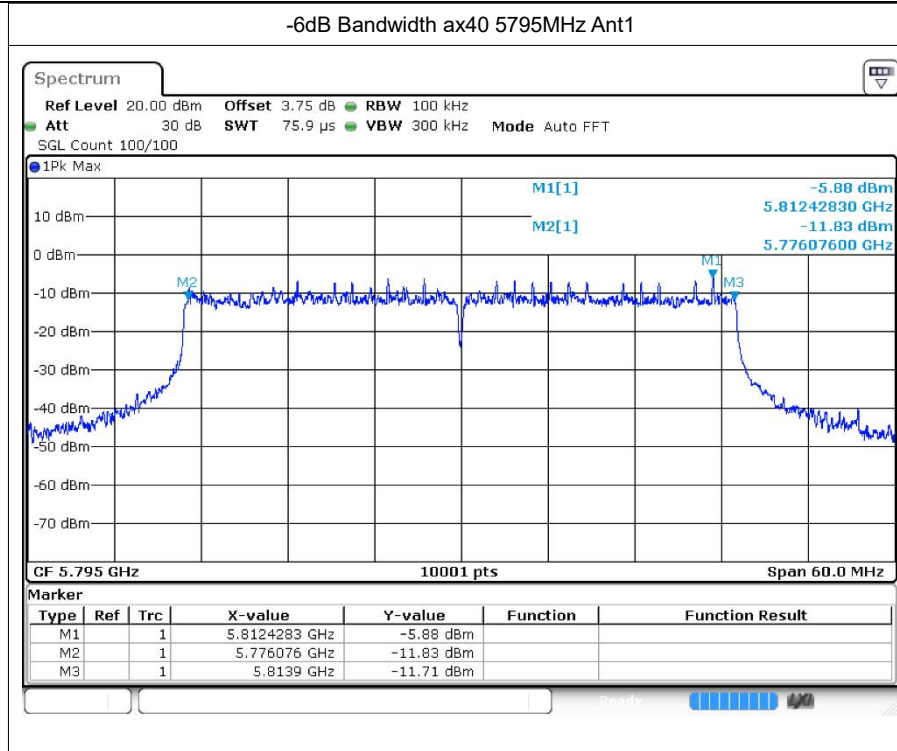


-6dB Bandwidth ax20 5825MHz Ant1



-6dB Bandwidth ax40 5755MHz Ant1



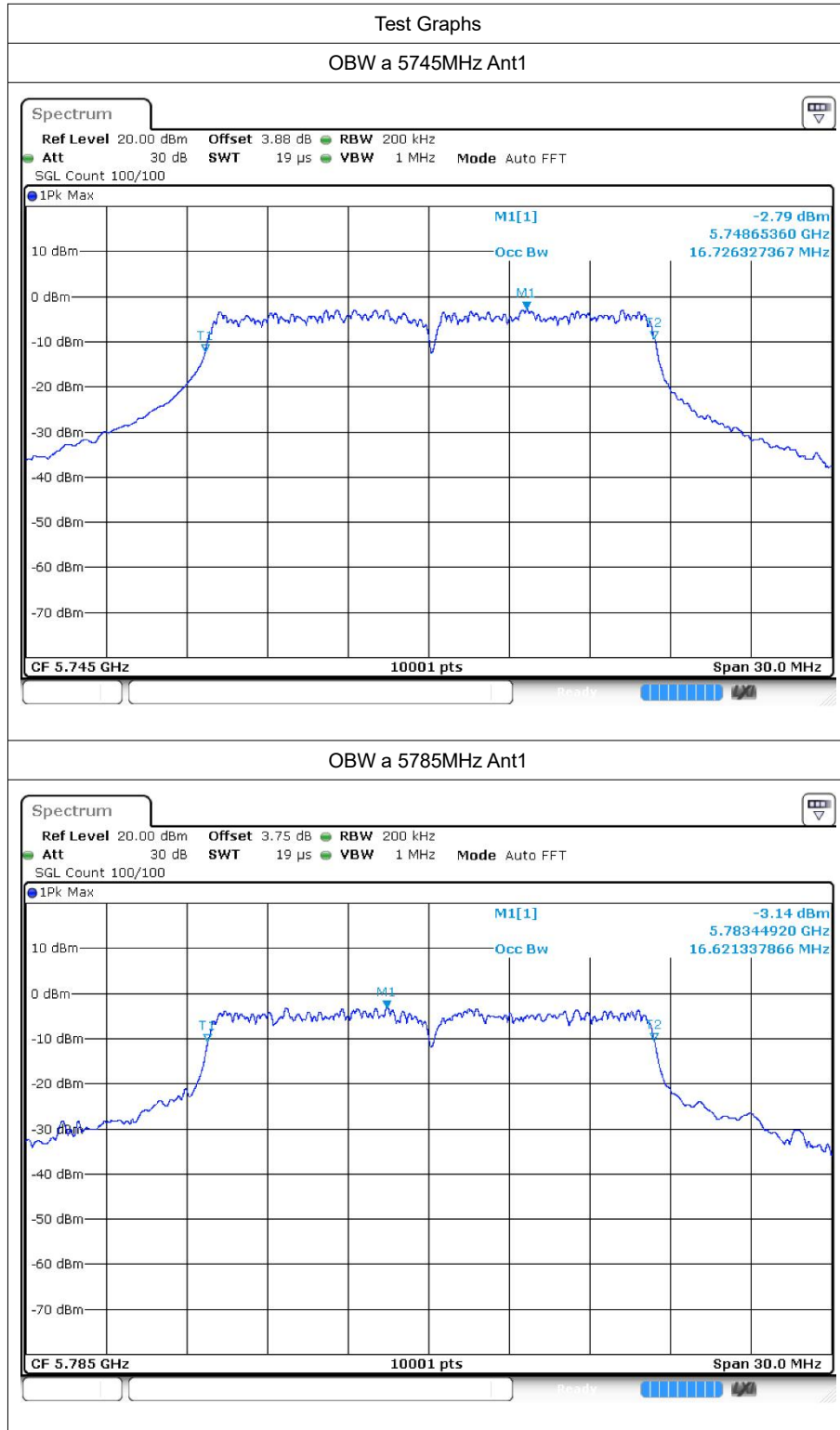


4 Occupied Channel Bandwidth

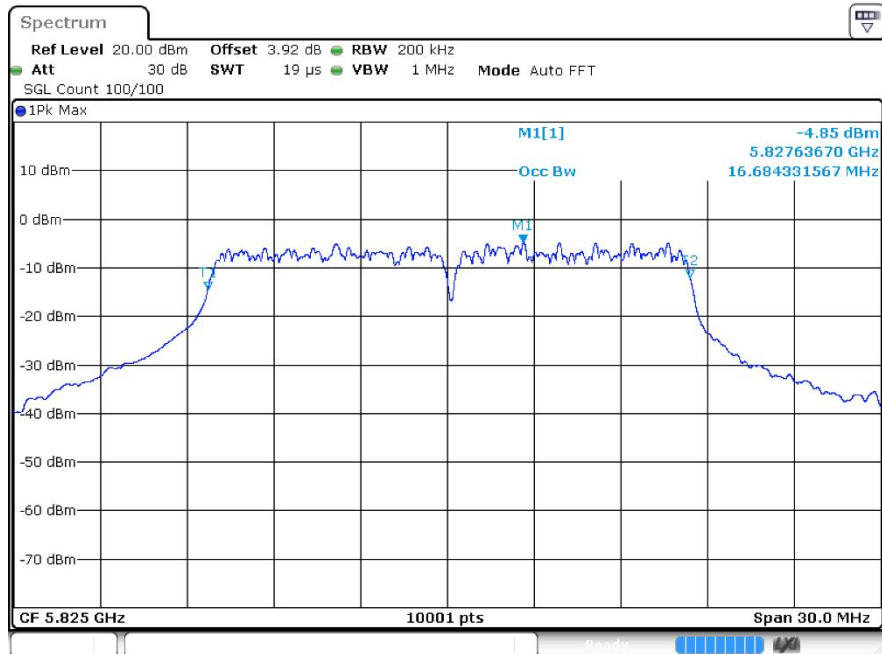
4.1 Test Result

Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
a	5745	Ant1	16.726
a	5785	Ant1	16.621
a	5825	Ant1	16.684
n20	5745	Ant1	17.869
n20	5785	Ant1	17.887
n20	5825	Ant1	17.956
n40	5755	Ant1	36.608
n40	5795	Ant1	36.326
ac20	5745	Ant1	17.851
ac20	5785	Ant1	17.998
ac20	5825	Ant1	17.947
ac40	5755	Ant1	36.53
ac40	5795	Ant1	36.728
ax20	5745	Ant1	19.234
ax20	5785	Ant1	19.162
ax20	5825	Ant1	19.102
ax40	5755	Ant1	38.012
ax40	5795	Ant1	37.928

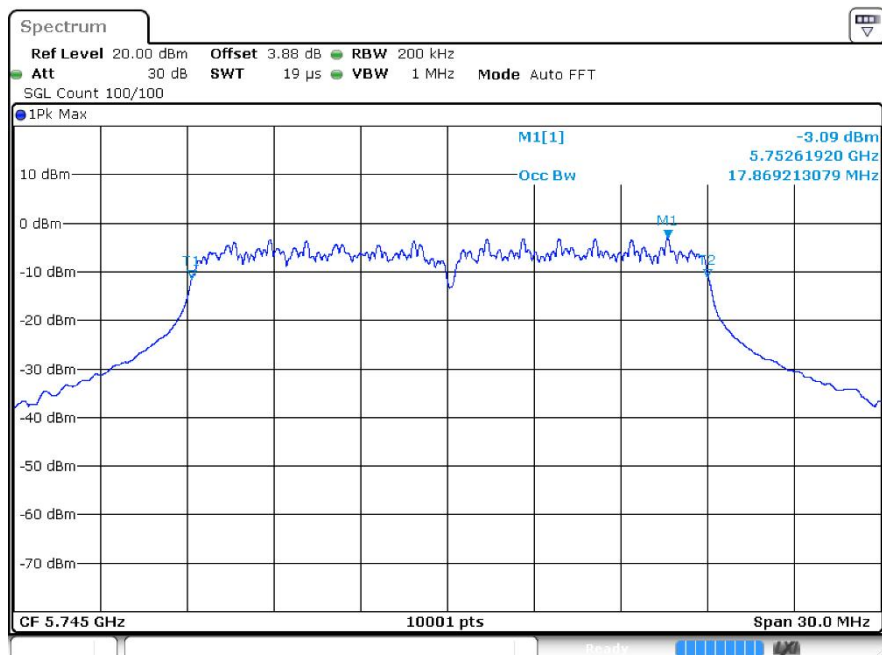
4.2 Test Graphs



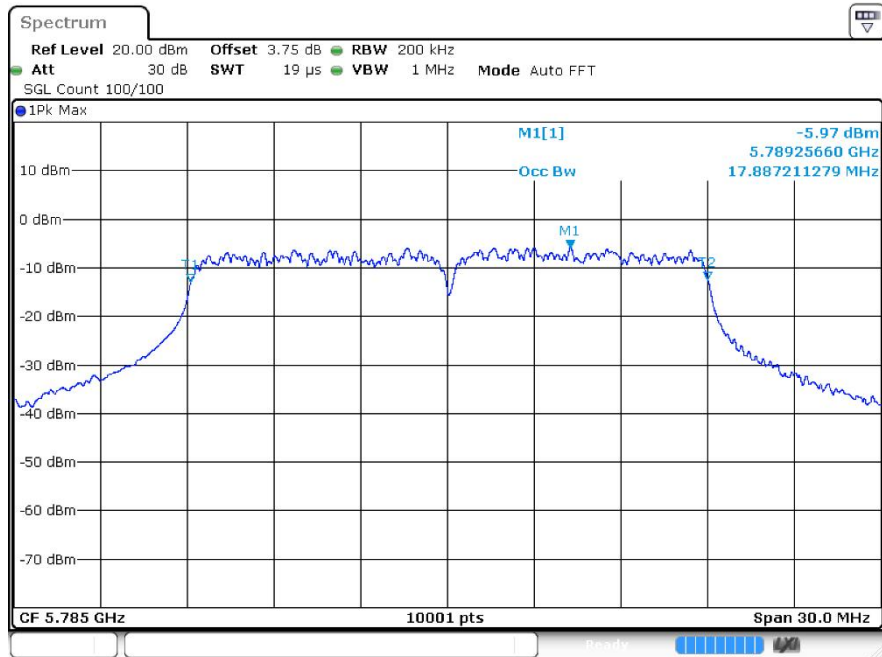
OBW a 5825MHz Ant1



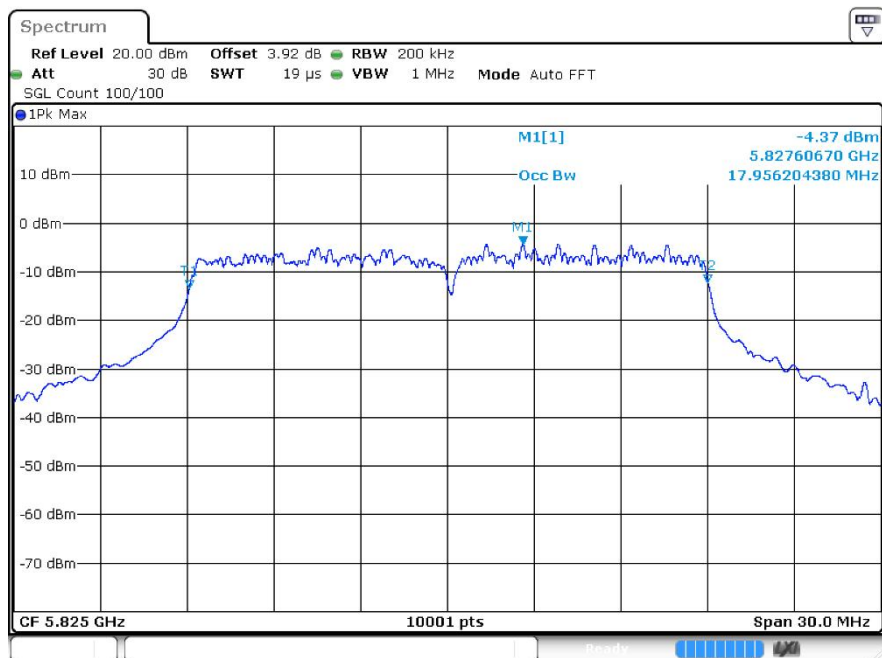
OBW n20 5745MHz Ant1



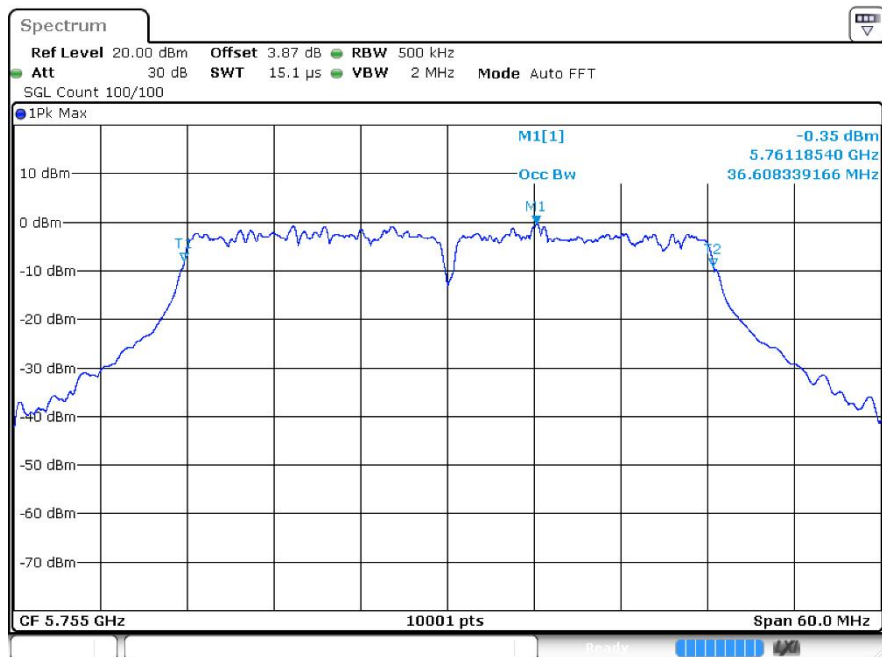
OBW n20 5785MHz Ant1



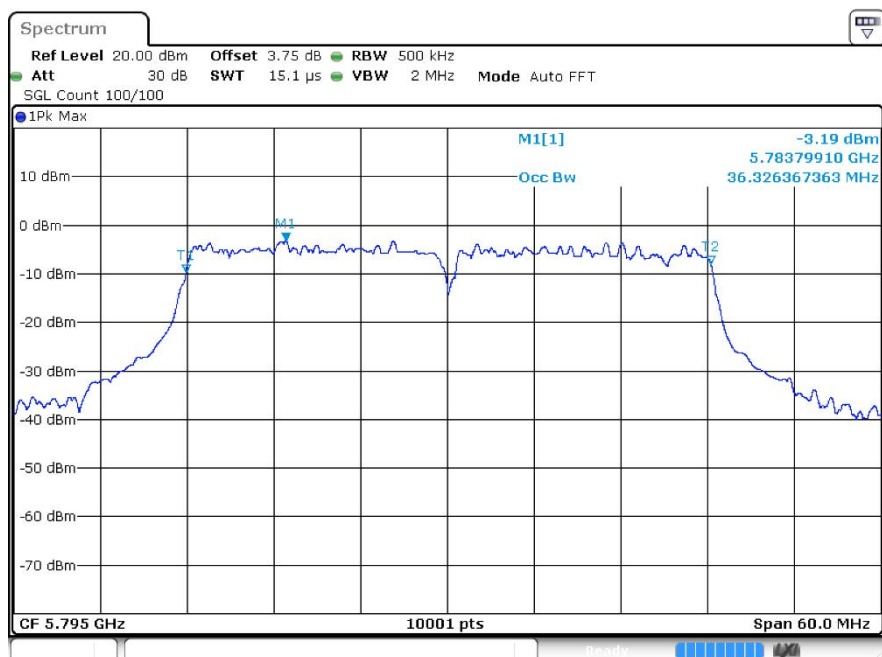
OBW n20 5825MHz Ant1



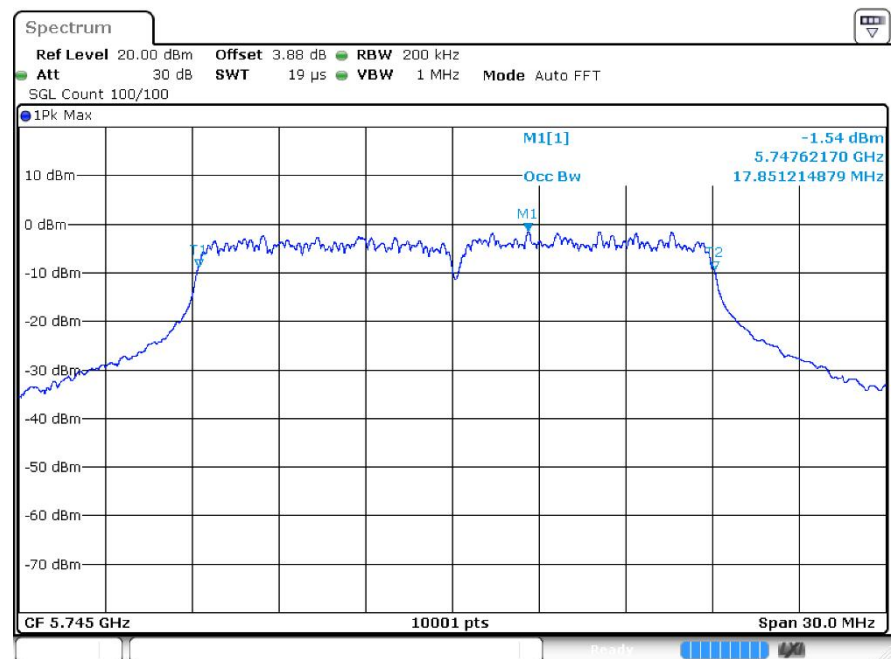
OBW n40 5755MHz Ant1



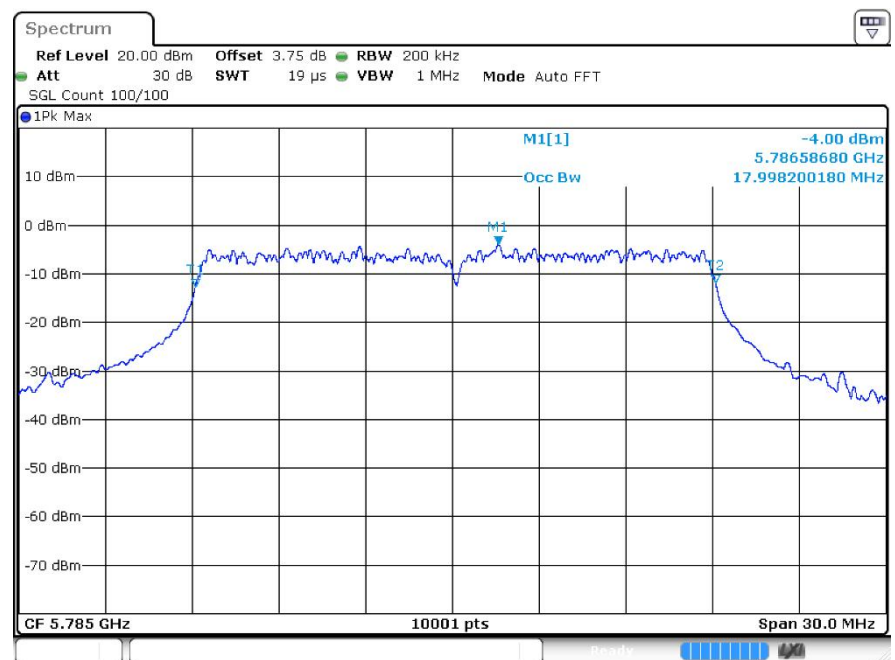
OBW n40 5795MHz Ant1



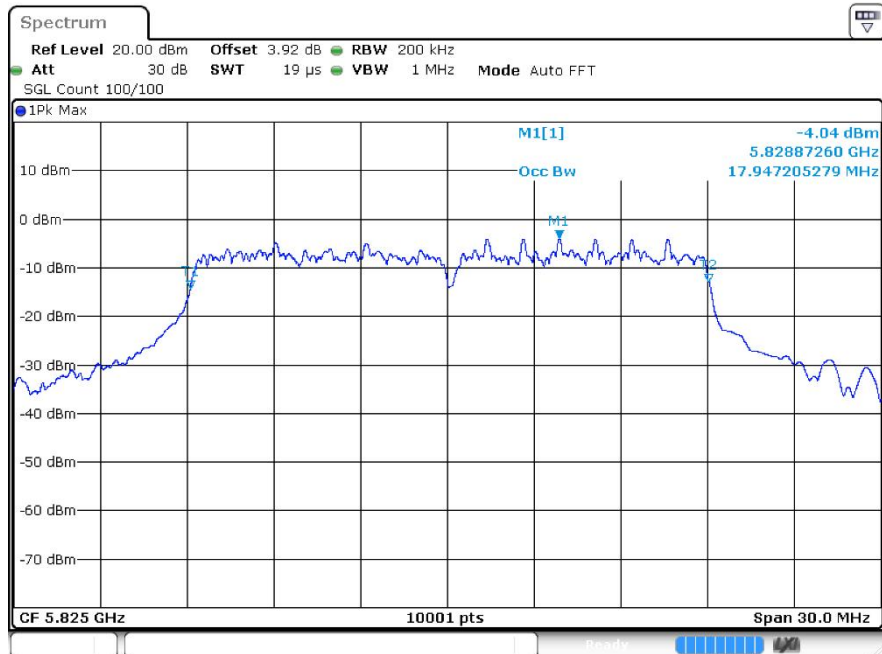
OBW ac20 5745MHz Ant1



OBW ac20 5785MHz Ant1



OBW ac20 5825MHz Ant1



OBW ac40 5755MHz Ant1

