



Appendix E

RF Test Data for 5.8GWIFI(Conducted Measurement)

Product Name: AUTOMOTIVE DIAGNOSIS SYSTEM,COMPREHENSIVE TPMS TOOL

Trade Mark: AUTEL

Test Model: MaxiCheck MX900-TS

Environmental Conditions

Temperature:	25.5℃
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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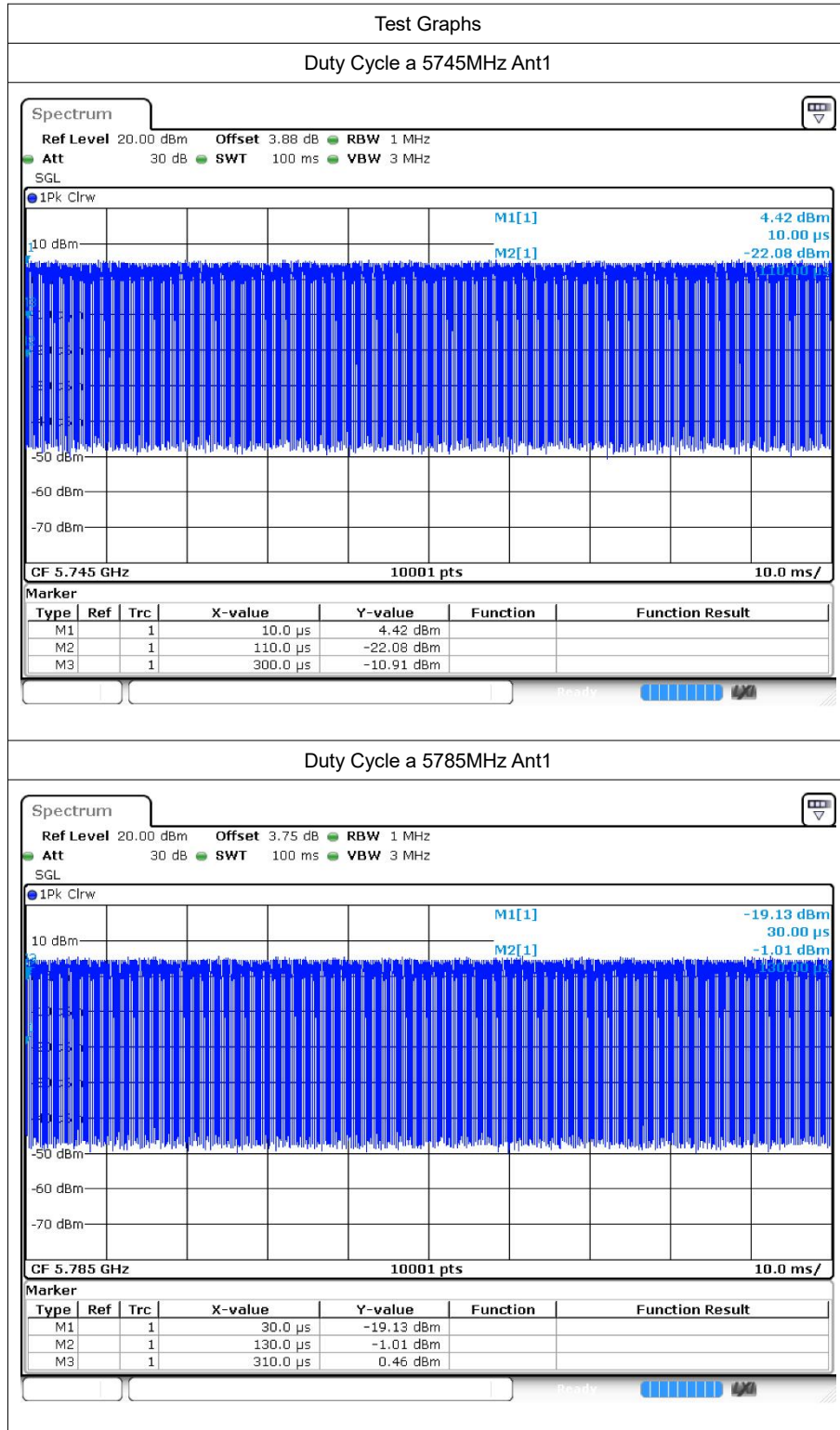


1 Duty Cycle

1.1 Test Result

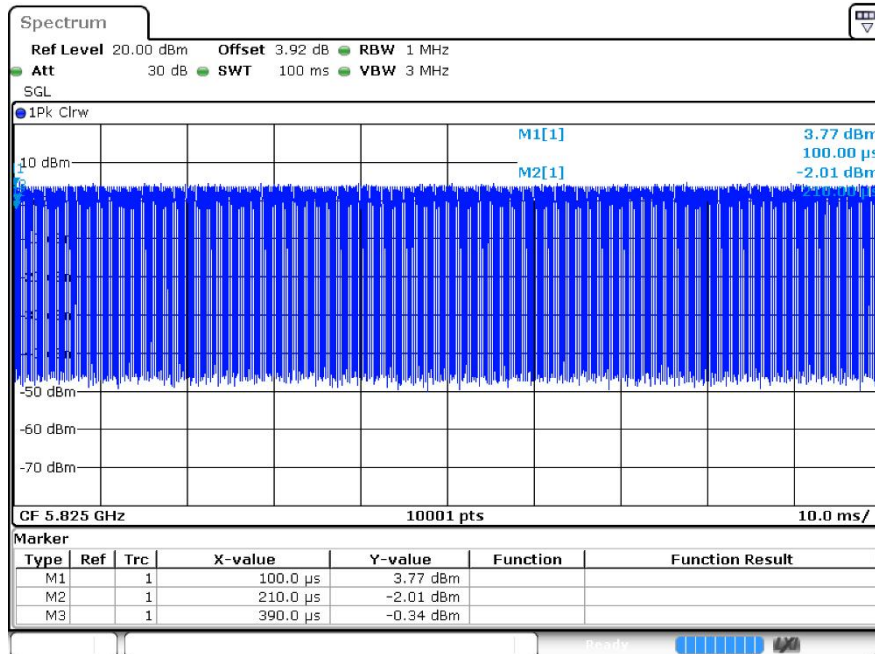
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
a	5745	Ant1	67.72	1.69	5.26
a	5785	Ant1	67.68	1.7	5.56
a	5825	Ant1	67.7	1.69	5.56
n20	5745	Ant1	66.25	1.79	5.88
n20	5785	Ant1	66.25	1.79	5.88
n20	5825	Ant1	66.31	1.78	6.25
n40	5755	Ant1	55.16	2.58	10
n40	5795	Ant1	55.47	2.56	10
ac20	5745	Ant1	64.25	1.92	6.67
ac20	5785	Ant1	64.09	1.93	6.67
ac20	5825	Ant1	64.12	1.93	6.67
ac40	5755	Ant1	52.63	2.79	11.11
ac40	5795	Ant1	52.53	2.8	11.11
ac80	5775	Ant1	37.05	4.31	20

1.2 Test Graphs

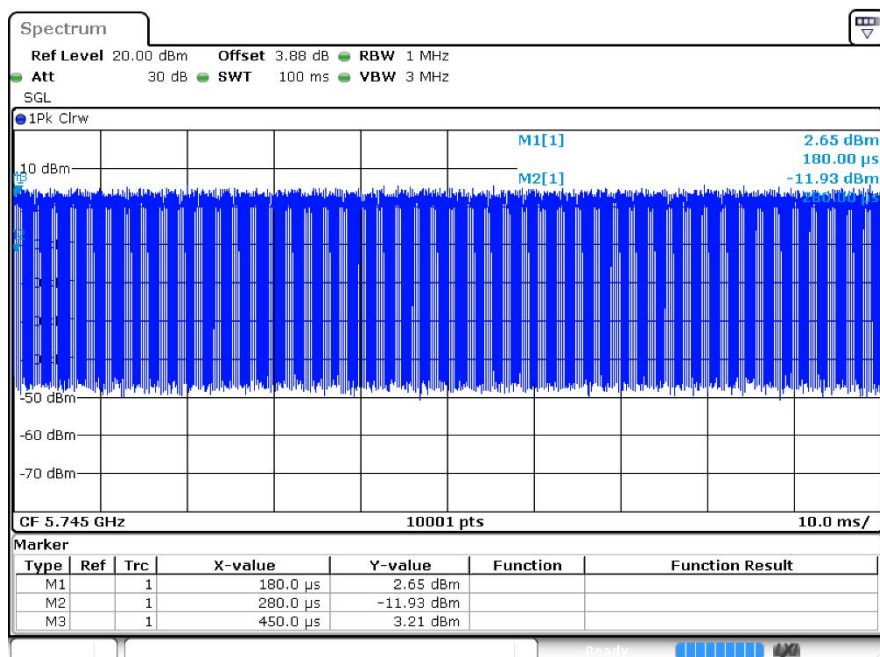




Duty Cycle a 5825MHz Ant1

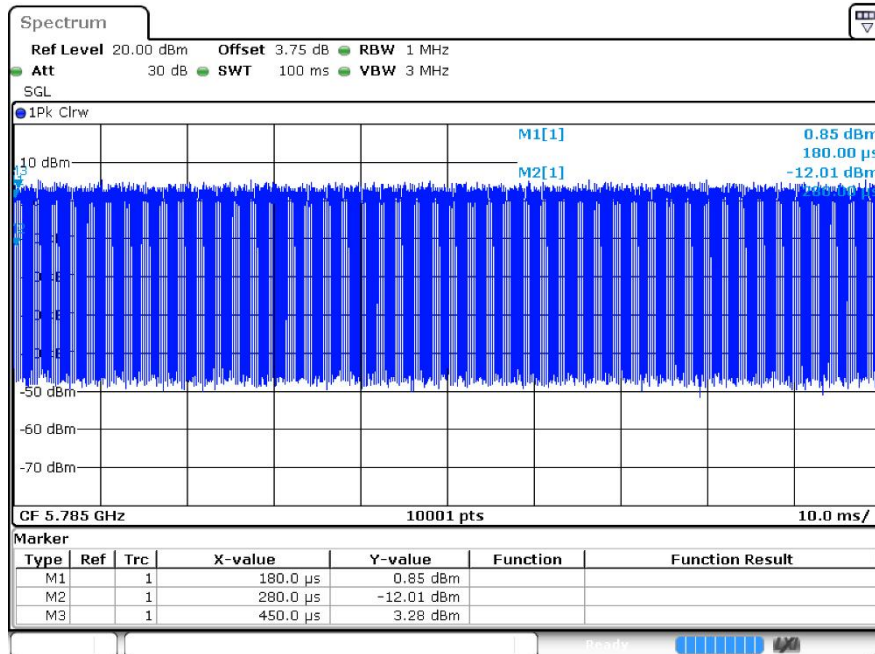


Duty Cycle n20 5745MHz Ant1

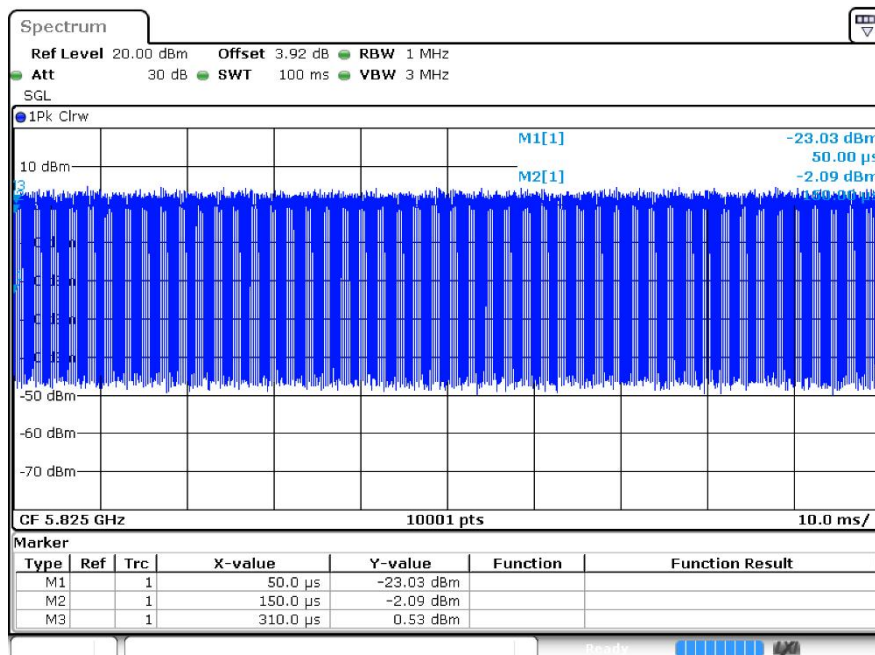




Duty Cycle n20 5785MHz Ant1

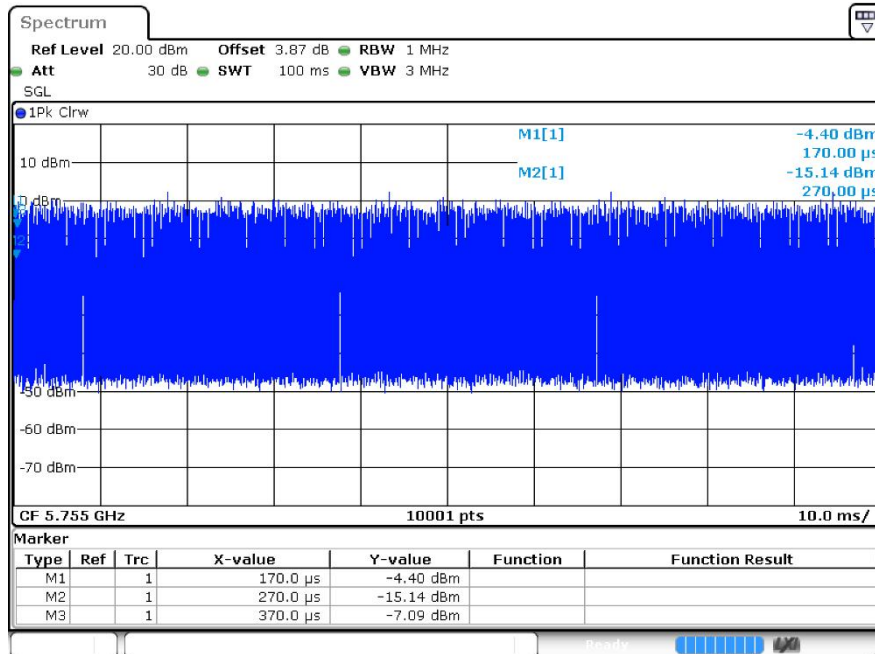


Duty Cycle n20 5825MHz Ant1

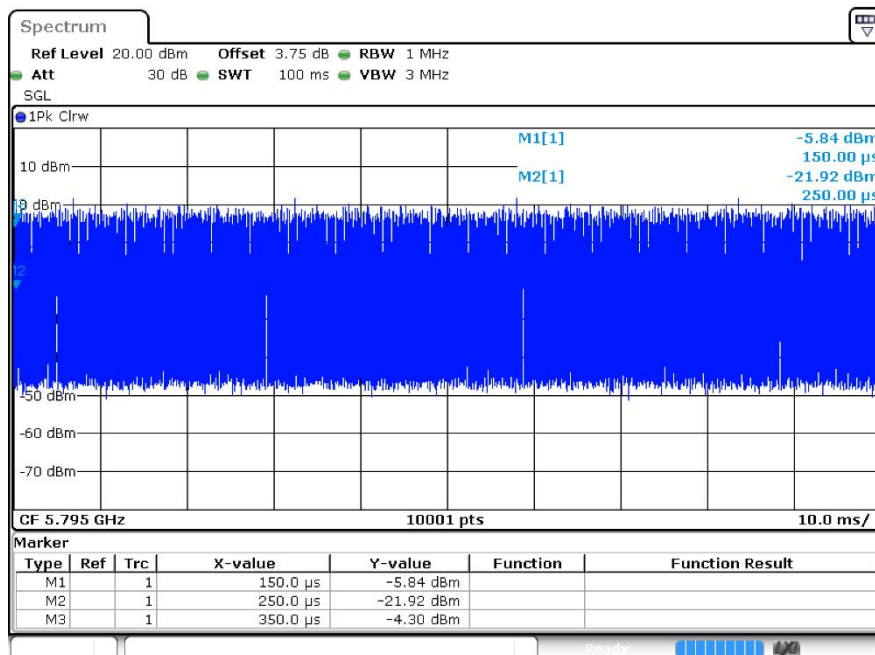




Duty Cycle n40 5755MHz Ant1

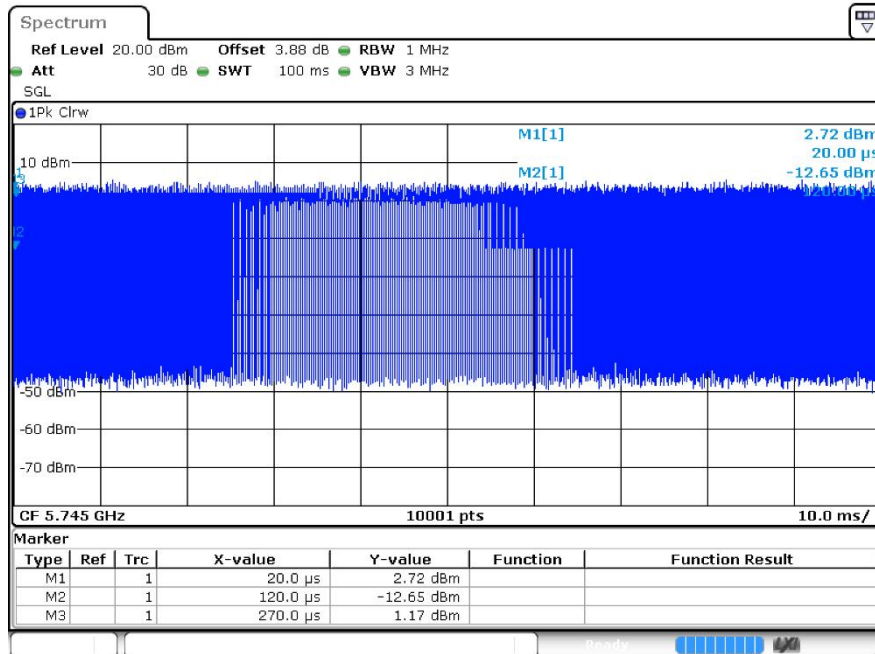


Duty Cycle n40 5795MHz Ant1

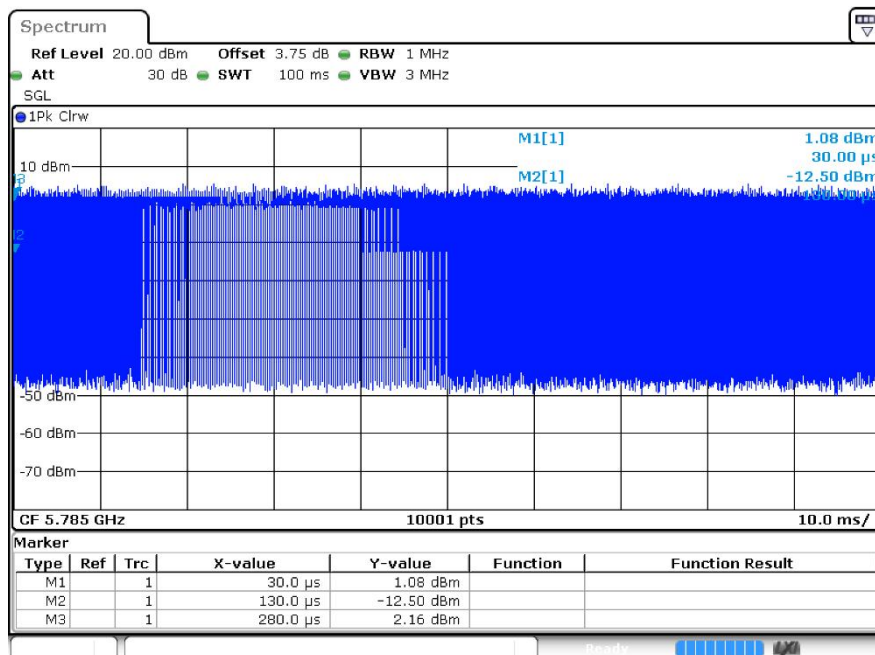




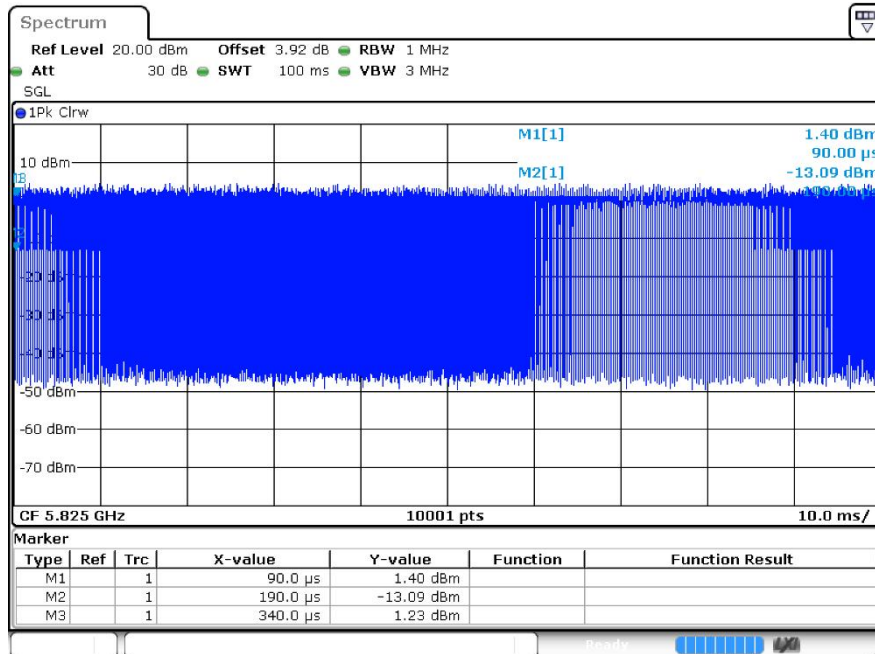
Duty Cycle ac20 5745MHz Ant1



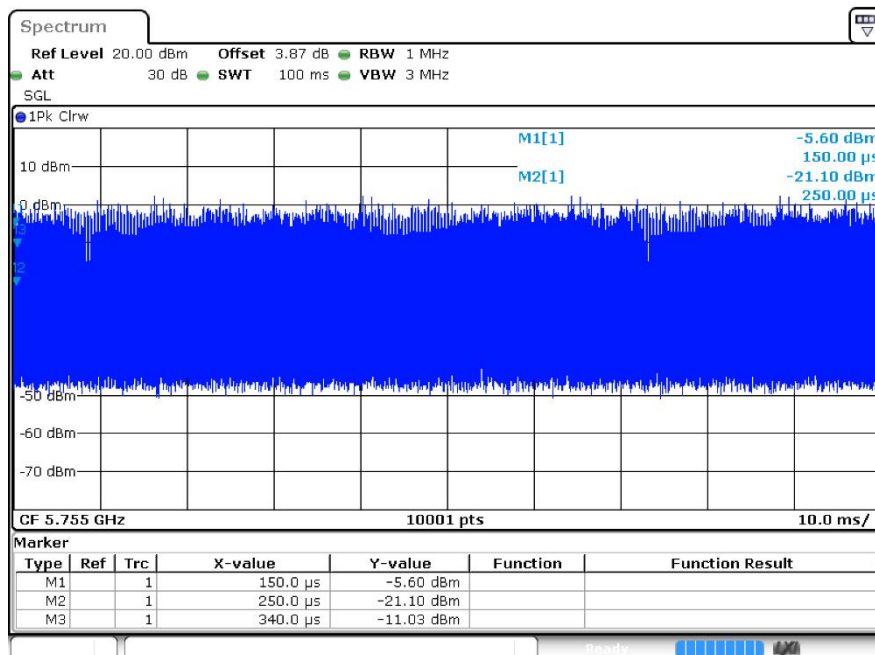
Duty Cycle ac20 5785MHz Ant1



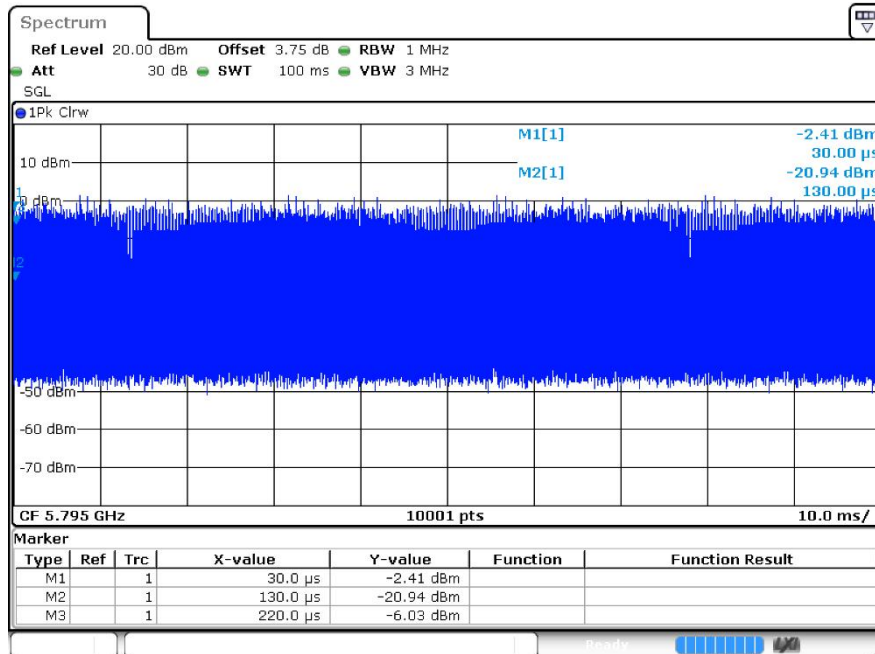
Duty Cycle ac20 5825MHz Ant1



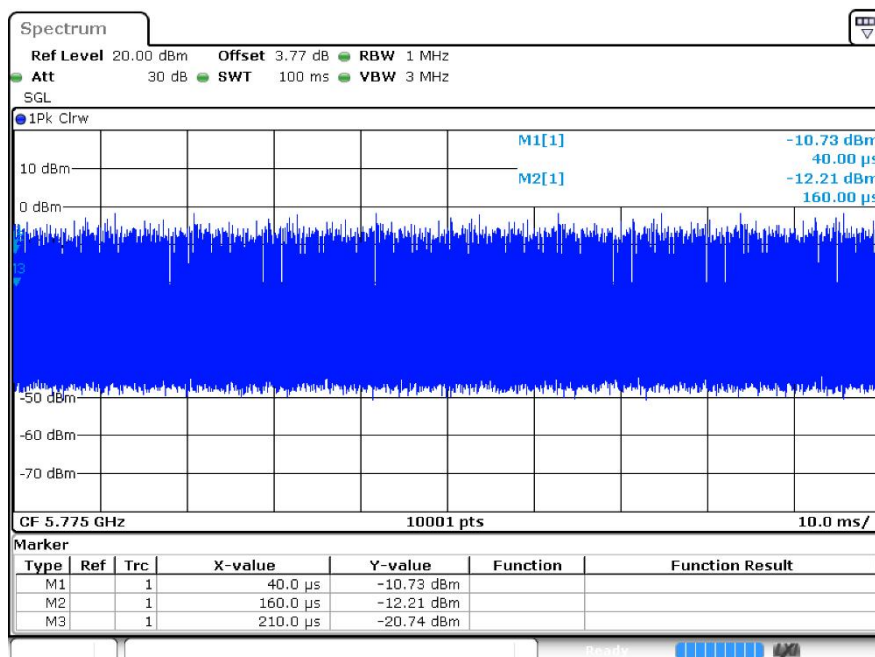
Duty Cycle ac40 5755MHz Ant1



Duty Cycle ac40 5795MHz Ant1



Duty Cycle ac80 5775MHz Ant1





2 Maximum Conducted Output Power

2.1 Test Result

Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	12.17	30	Pass
a	5785	Ant1	12.13	30	Pass
a	5825	Ant1	11.21	30	Pass
n20	5745	Ant1	11.53	30	Pass
n20	5785	Ant1	11.42	30	Pass
n20	5825	Ant1	10.68	30	Pass
n40	5755	Ant1	11.99	30	Pass
n40	5795	Ant1	11.52	30	Pass
ac20	5745	Ant1	11.34	30	Pass
ac20	5785	Ant1	11.31	30	Pass
ac20	5825	Ant1	10.65	30	Pass
ac40	5755	Ant1	11.99	30	Pass
ac40	5795	Ant1	11.42	30	Pass
ac80	5775	Ant1	10.93	30	Pass

Note:

The duty factor has been compensated into the result.

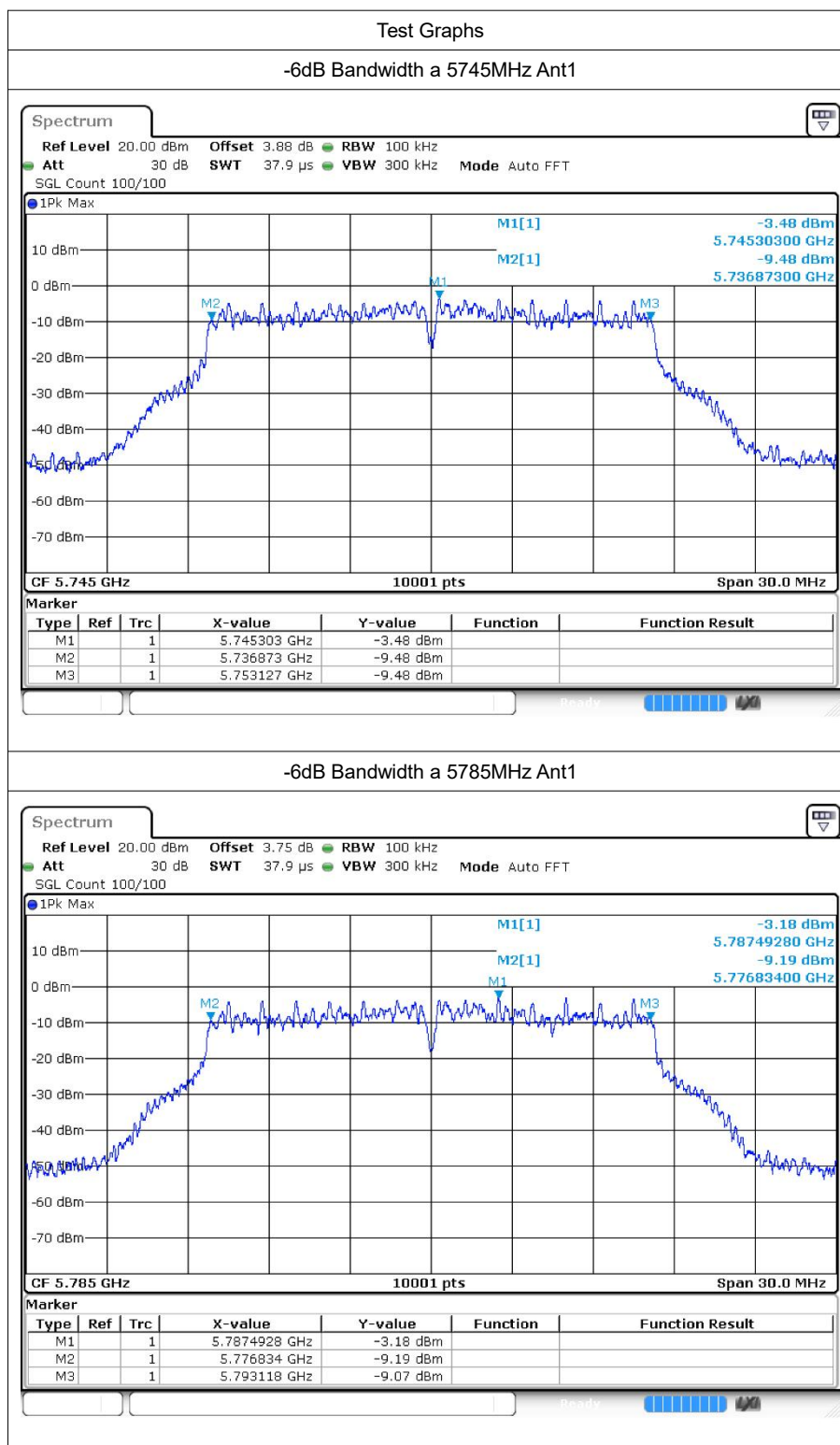


3 -6dB Bandwidth

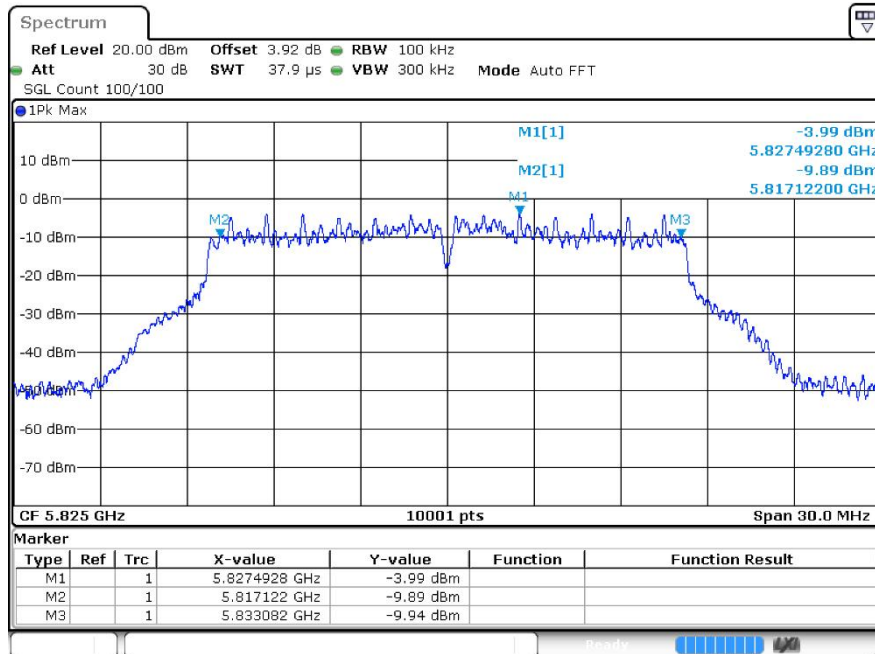
3.1 Test Result

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
a	5745	Ant1	16.254	0.5	Pass
a	5785	Ant1	16.284	0.5	Pass
a	5825	Ant1	15.96	0.5	Pass
n20	5745	Ant1	17.538	0.5	Pass
n20	5785	Ant1	16.896	0.5	Pass
n20	5825	Ant1	17.619	0.5	Pass
n40	5755	Ant1	35.778	0.5	Pass
n40	5795	Ant1	35.676	0.5	Pass
ac20	5745	Ant1	15.966	0.5	Pass
ac20	5785	Ant1	17.559	0.5	Pass
ac20	5825	Ant1	17.604	0.5	Pass
ac40	5755	Ant1	35.994	0.5	Pass
ac40	5795	Ant1	36.06	0.5	Pass
ac80	5775	Ant1	75.168	0.5	Pass

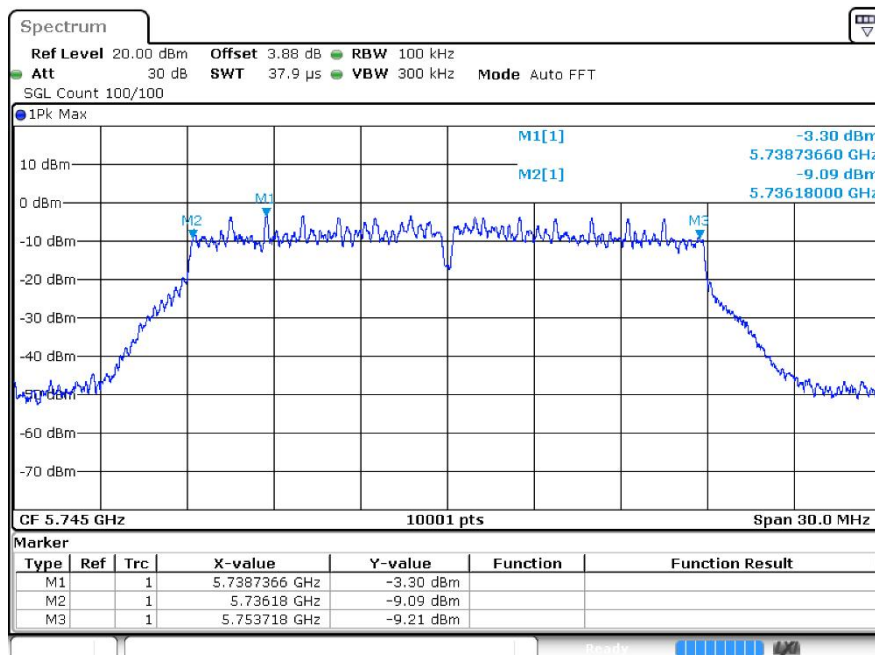
3.2 Test Graphs



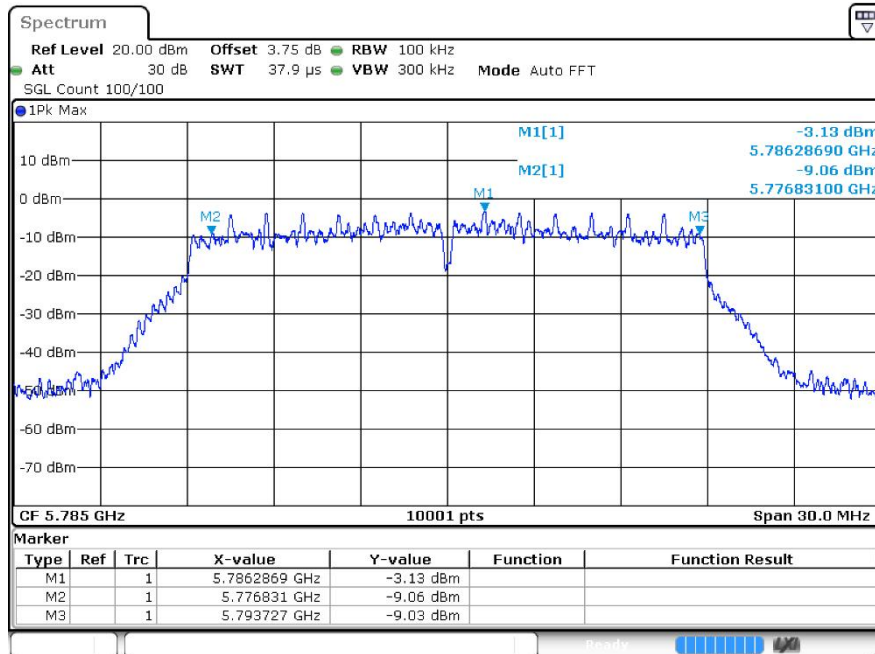
-6dB Bandwidth a 5825MHz Ant1



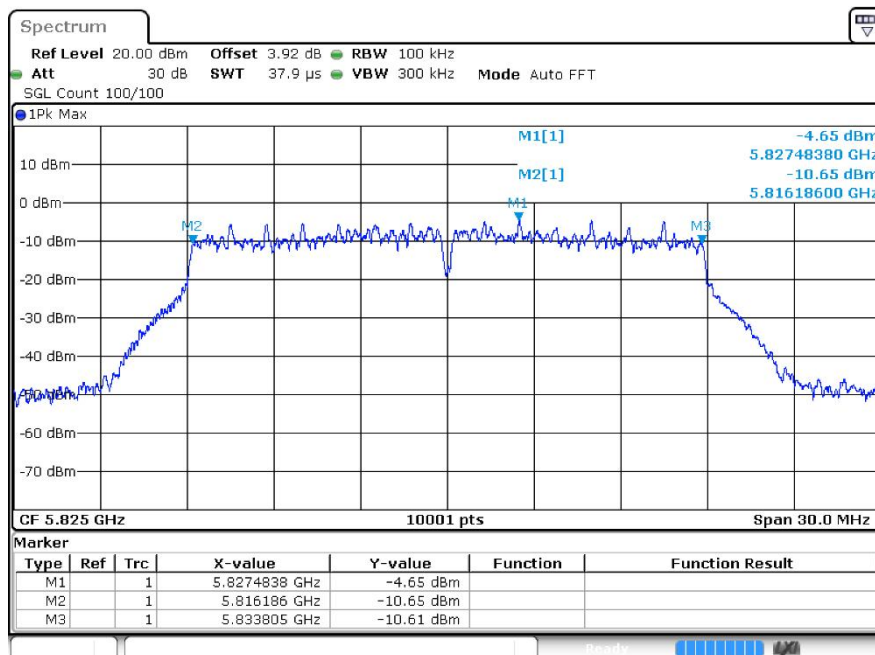
-6dB Bandwidth n20 5745MHz Ant1



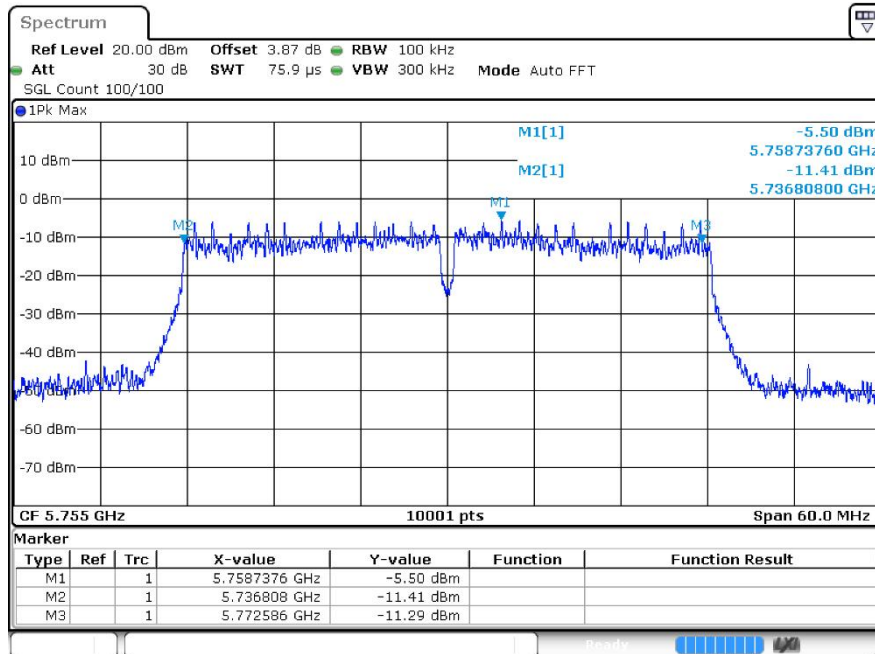
-6dB Bandwidth n20 5785MHz Ant1



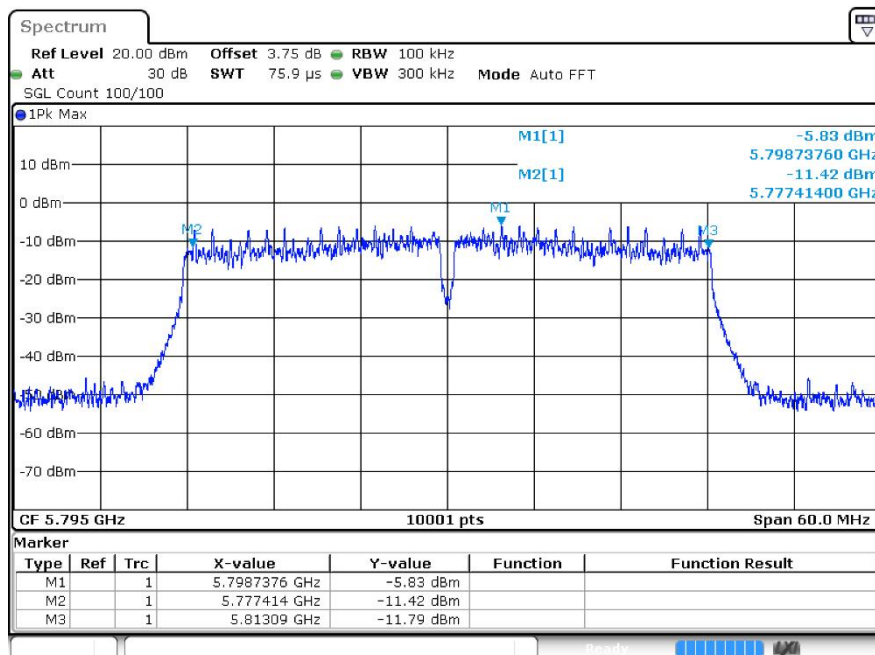
-6dB Bandwidth n20 5825MHz Ant1



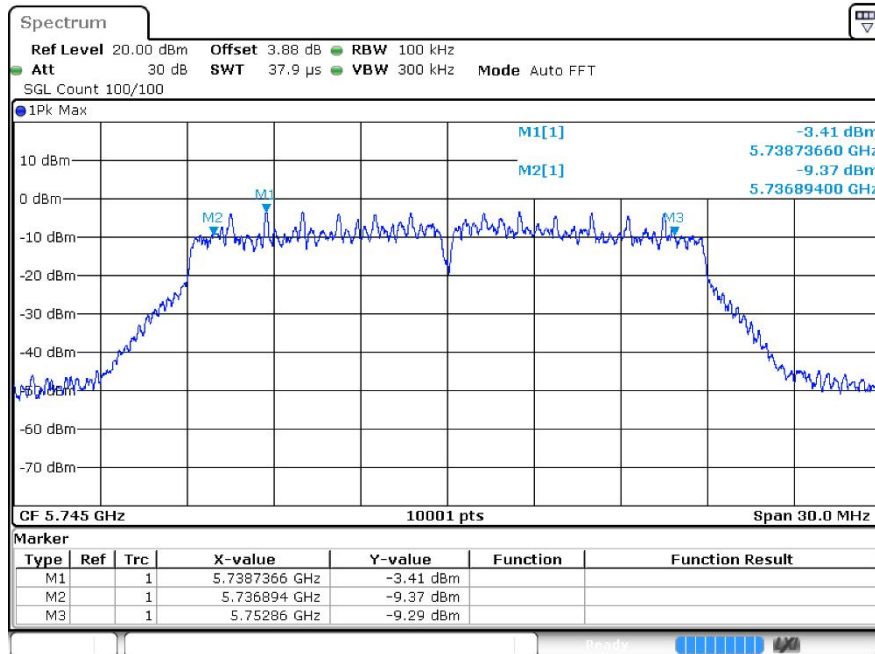
-6dB Bandwidth n40 5755MHz Ant1



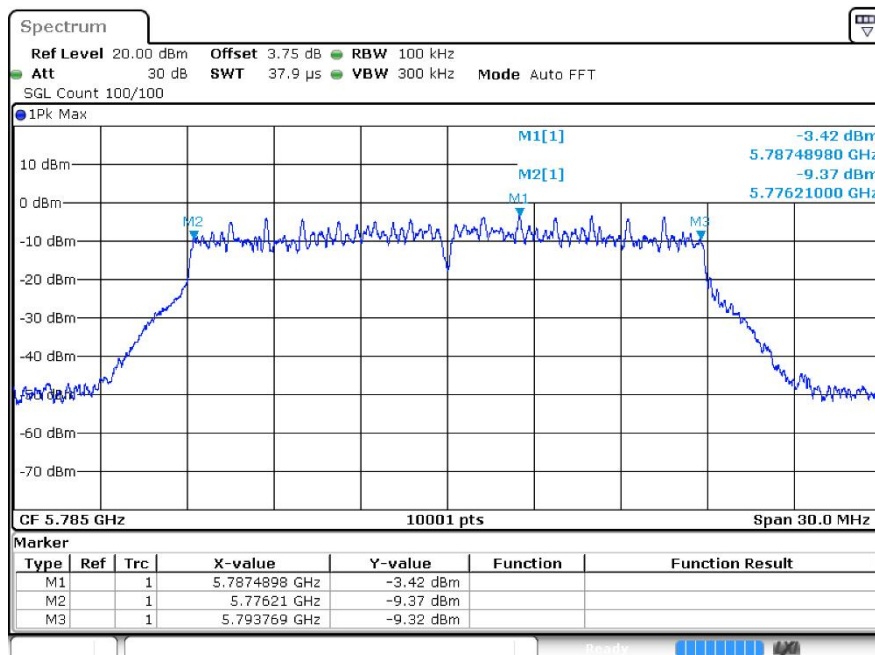
-6dB Bandwidth n40 5795MHz Ant1



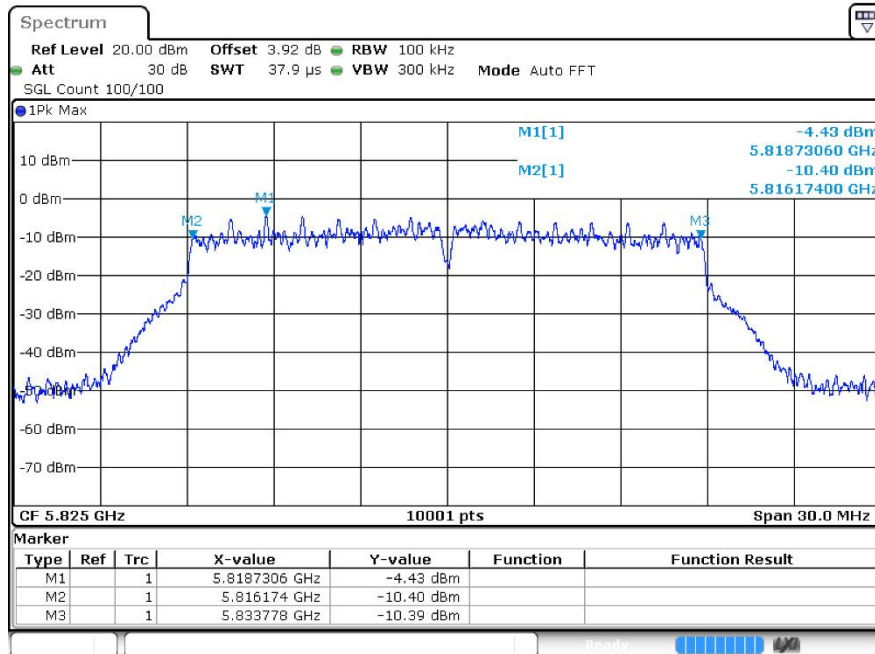
-6dB Bandwidth ac20 5745MHz Ant1



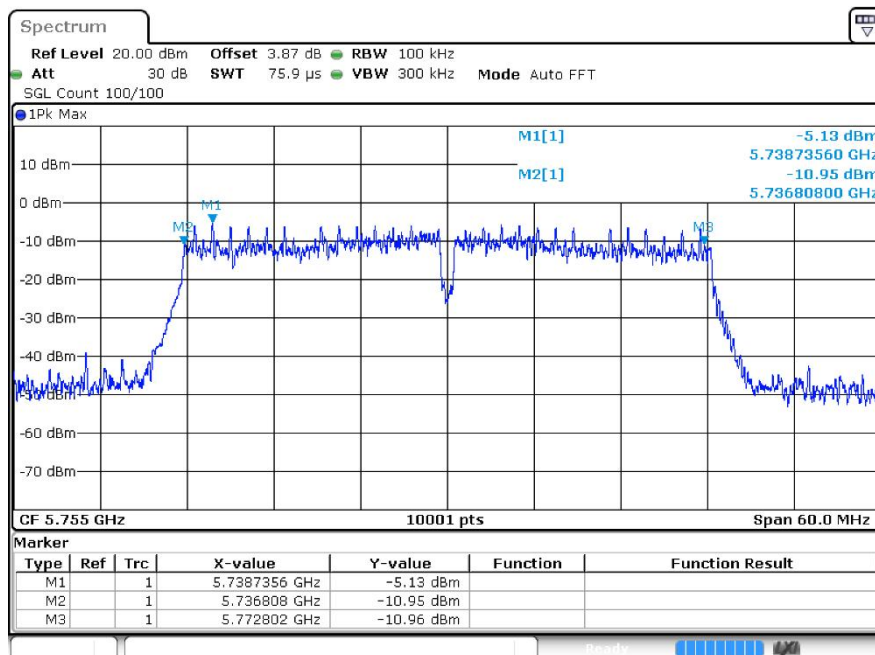
-6dB Bandwidth ac20 5785MHz Ant1



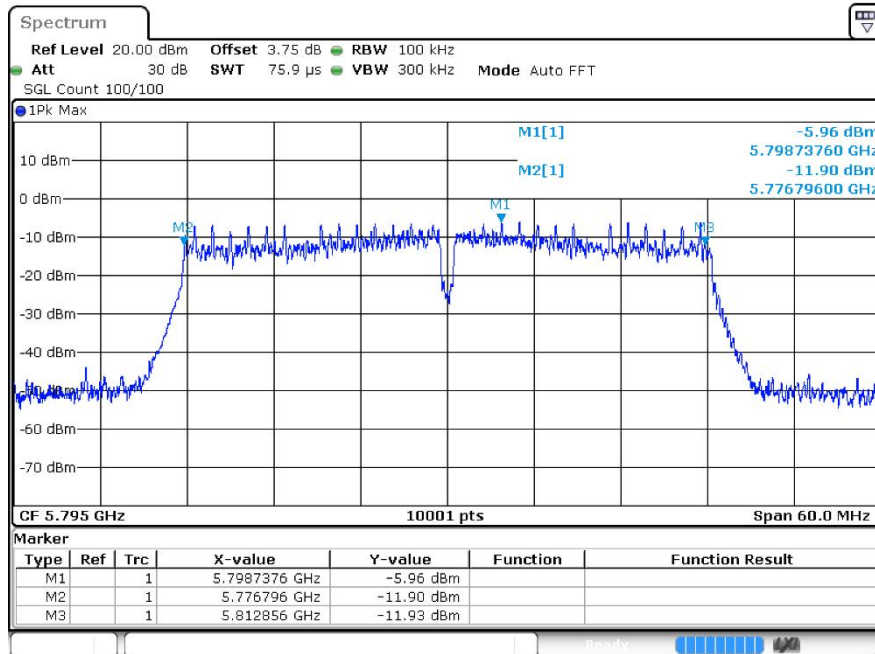
-6dB Bandwidth ac20 5825MHz Ant1



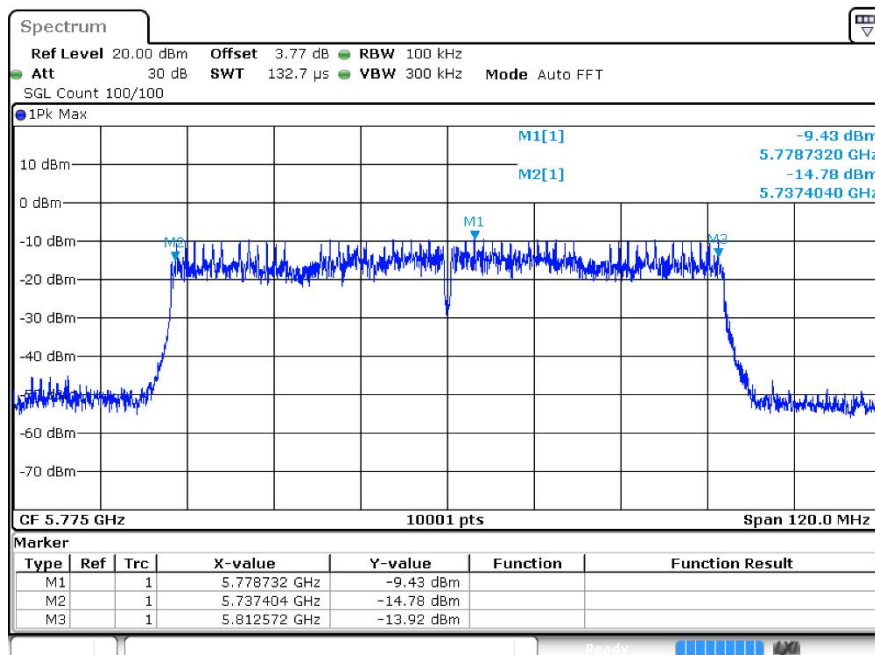
-6dB Bandwidth ac40 5755MHz Ant1



-6dB Bandwidth ac40 5795MHz Ant1



-6dB Bandwidth ac80 5775MHz Ant1



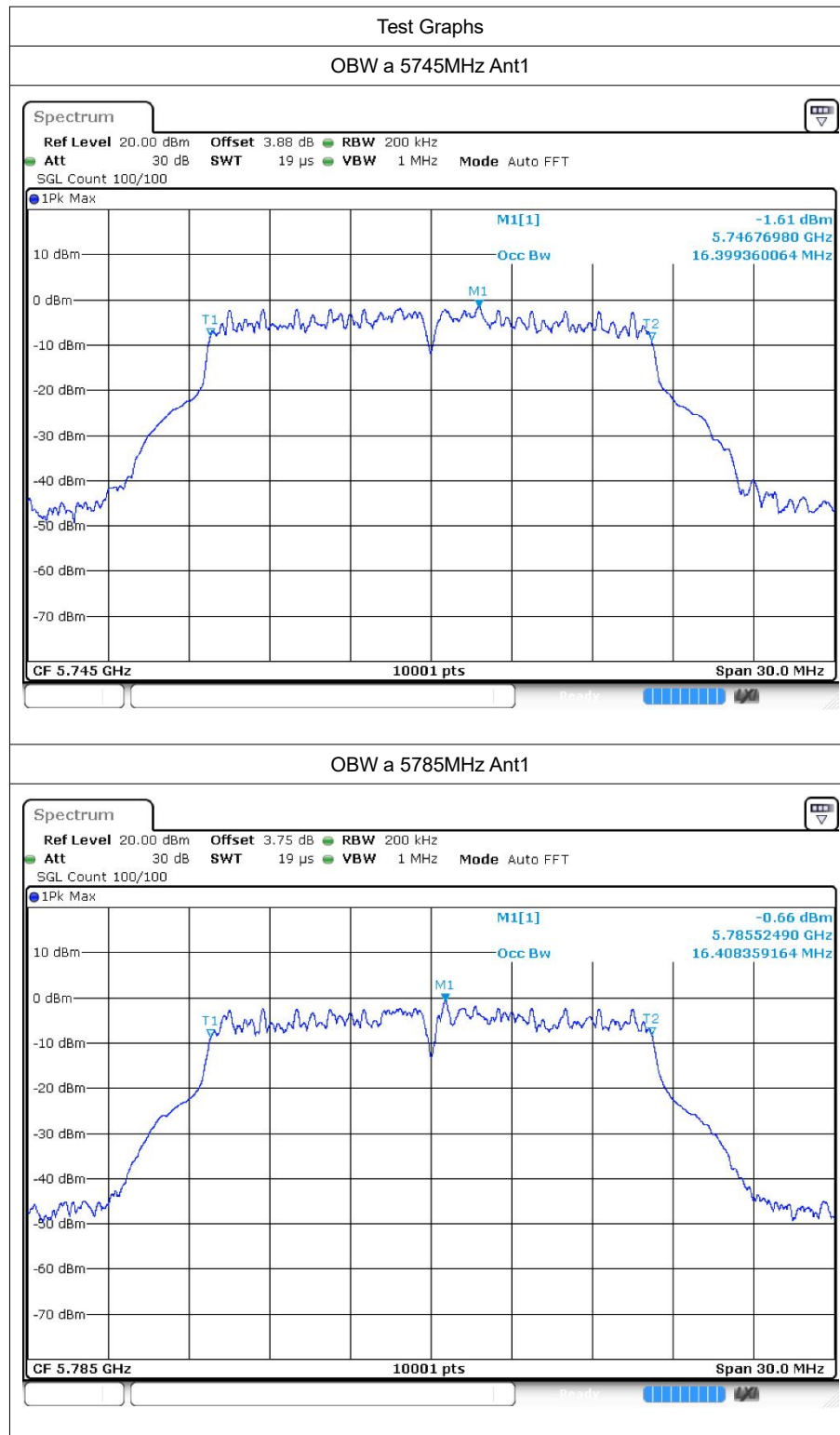


4 Occupied Channel Bandwidth

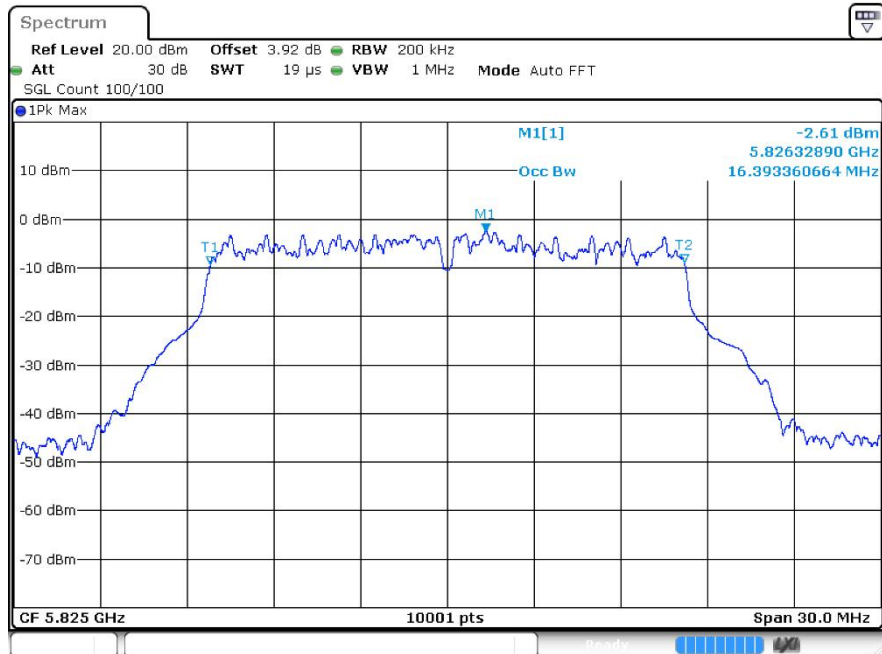
4.1 Test Result

Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
a	5745	Ant1	16.399
a	5785	Ant1	16.408
a	5825	Ant1	16.393
n20	5745	Ant1	17.614
n20	5785	Ant1	17.65
n20	5825	Ant1	17.611
n40	5755	Ant1	36.17
n40	5795	Ant1	36.308
ac20	5745	Ant1	17.749
ac20	5785	Ant1	17.626
ac20	5825	Ant1	17.671
ac40	5755	Ant1	36.188
ac40	5795	Ant1	36.404
ac80	5775	Ant1	75.496

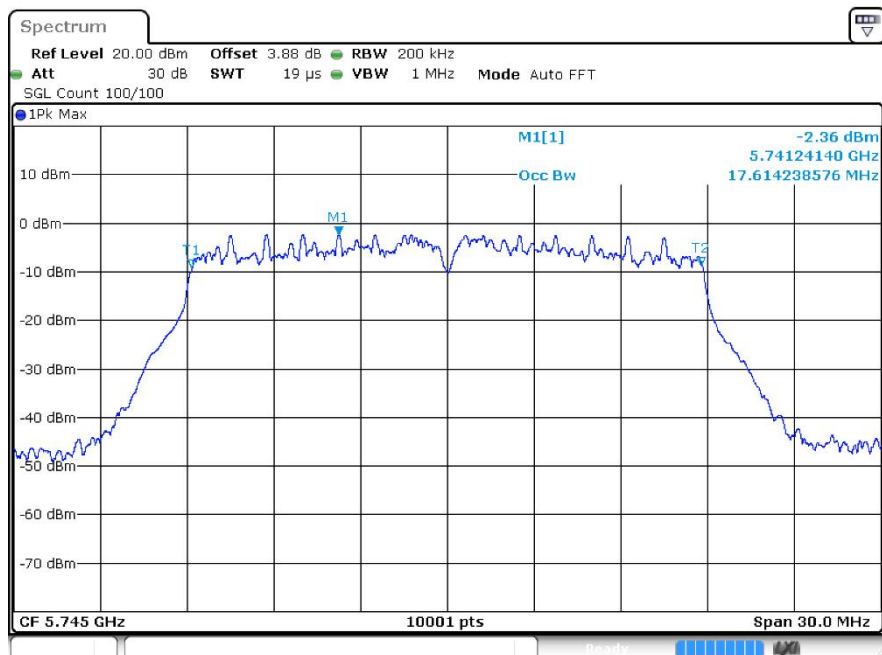
4.2 Test Graphs



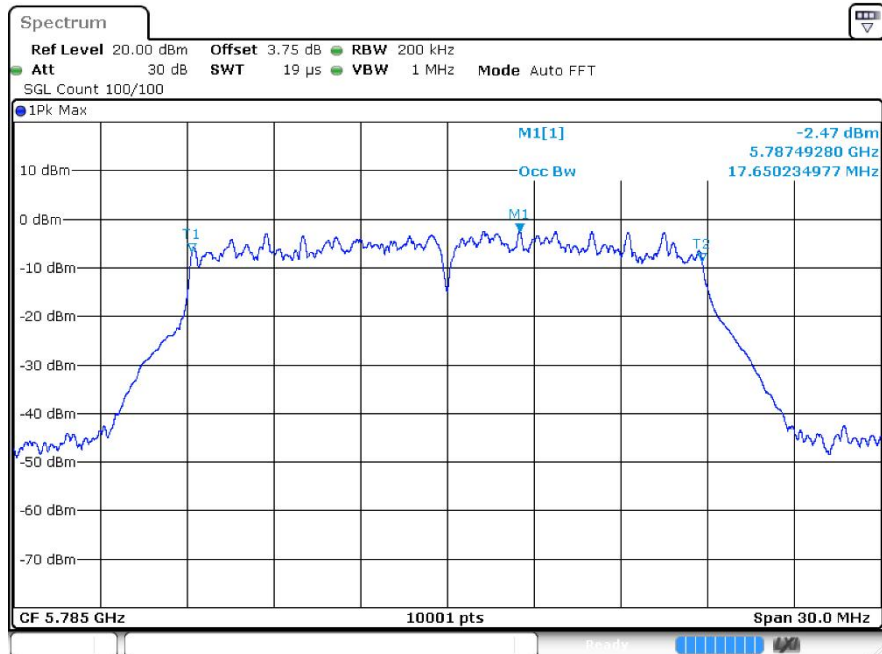
OBW a 5825MHz Ant1



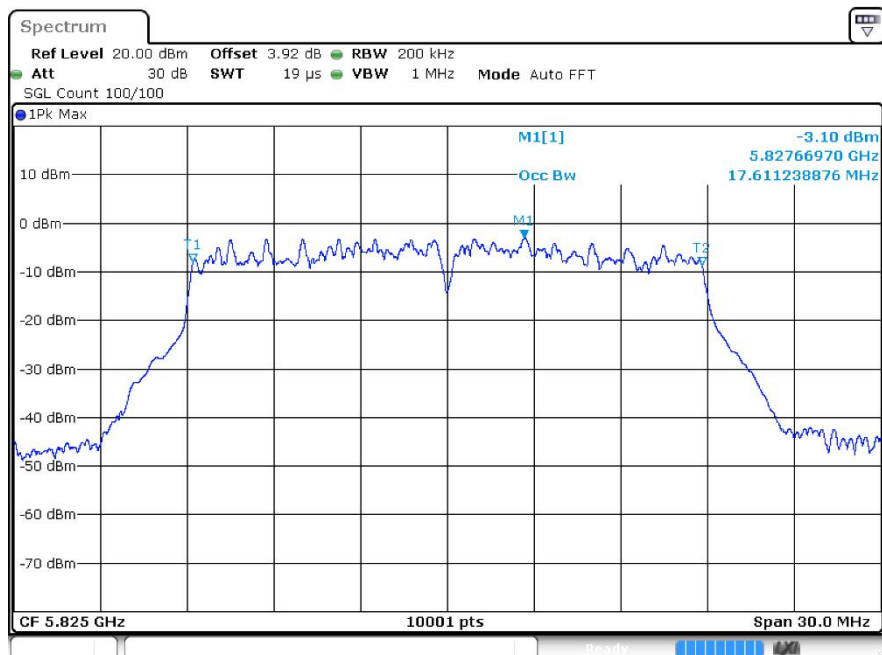
OBW n20 5745MHz Ant1



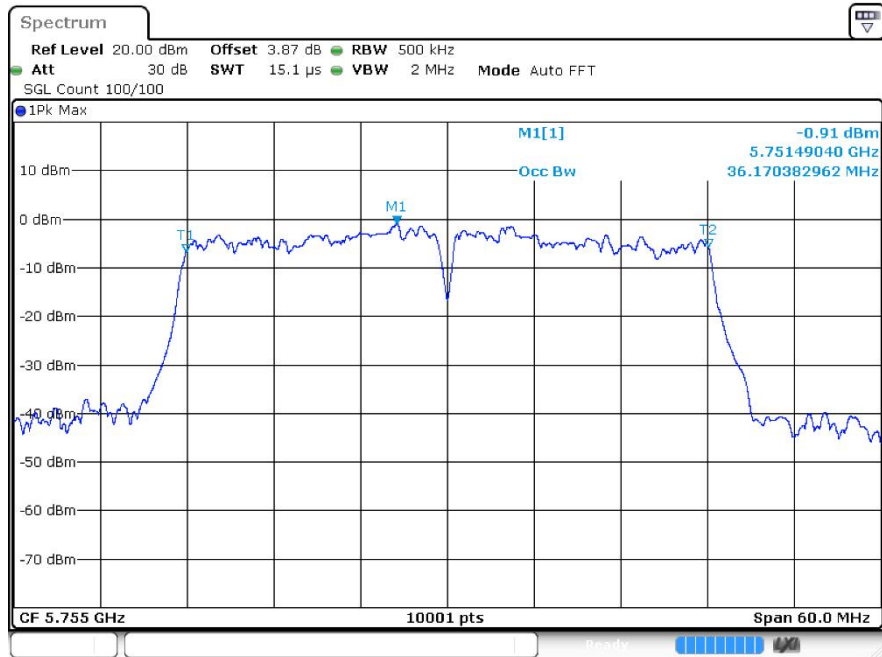
OBW n20 5785MHz Ant1



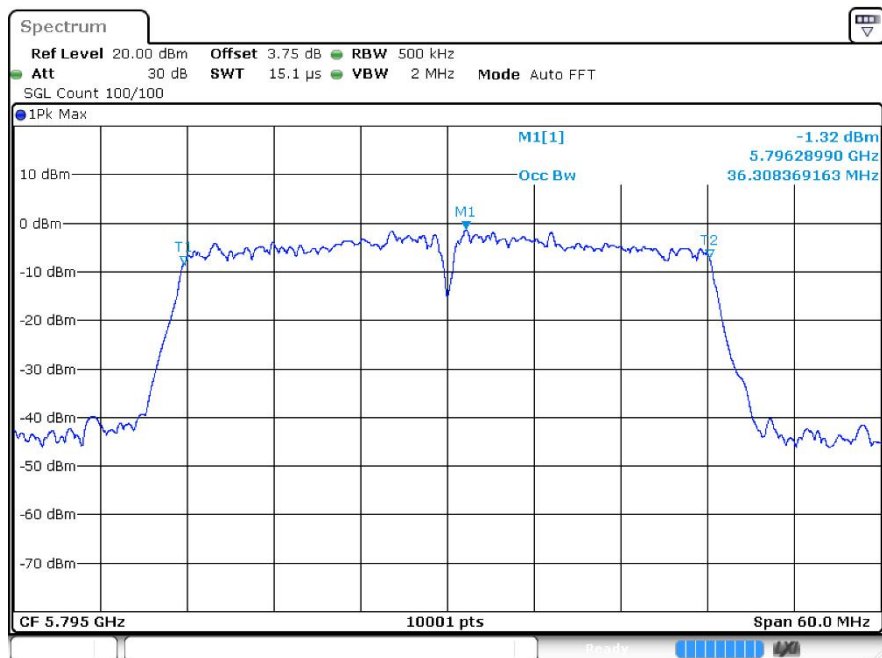
OBW n20 5825MHz Ant1



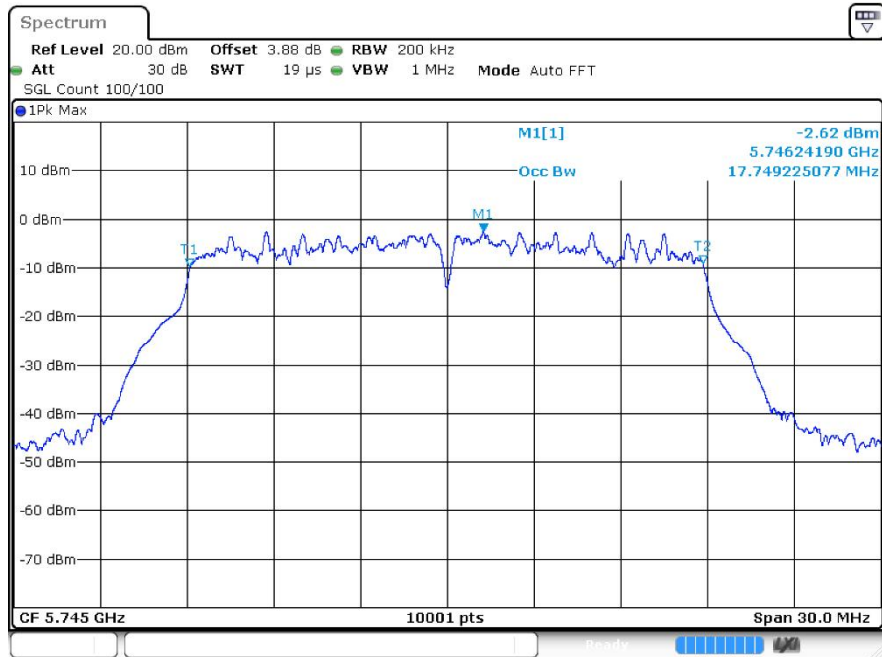
OBW n40 5755MHz Ant1



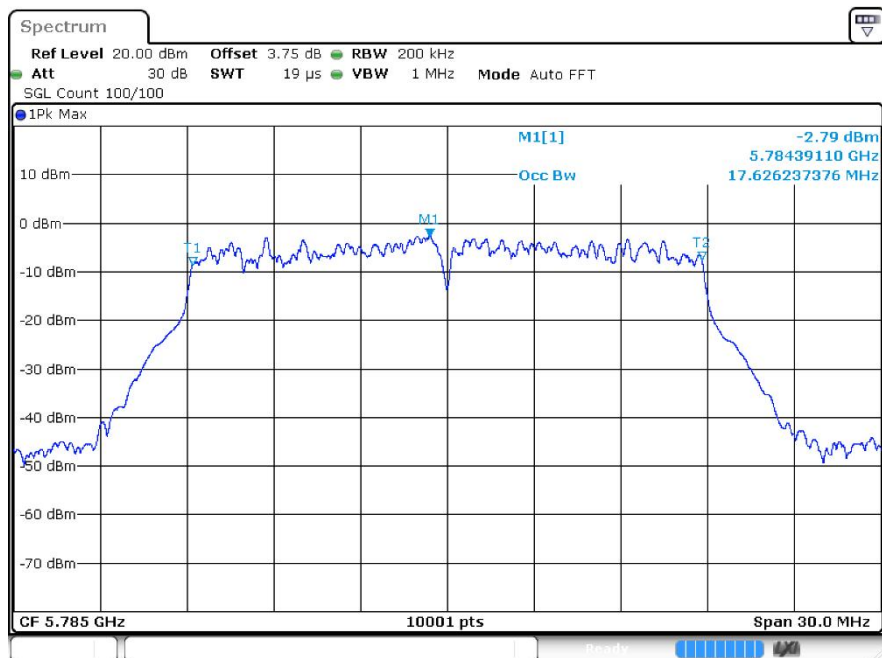
OBW n40 5795MHz Ant1



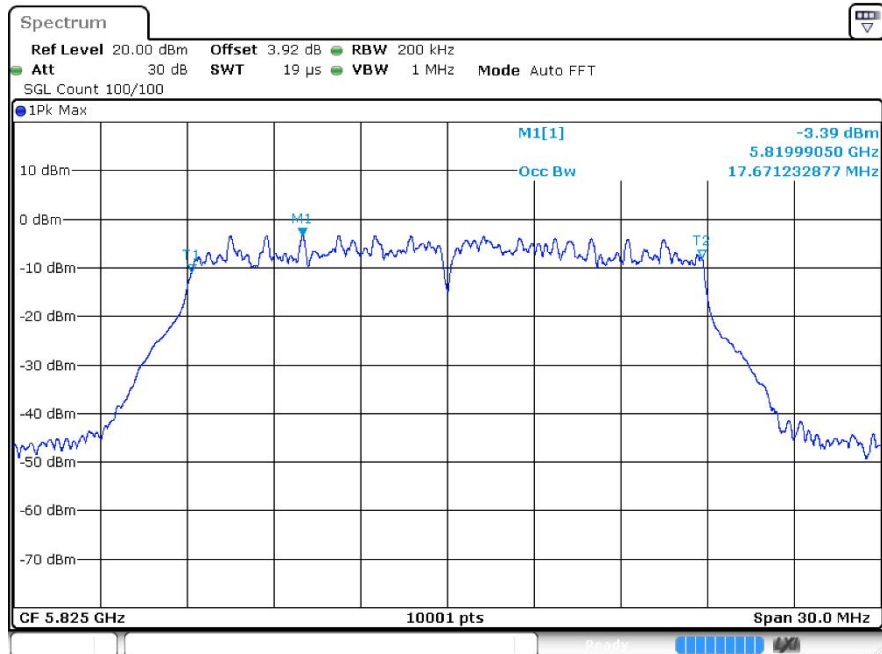
OBW ac20 5745MHz Ant1



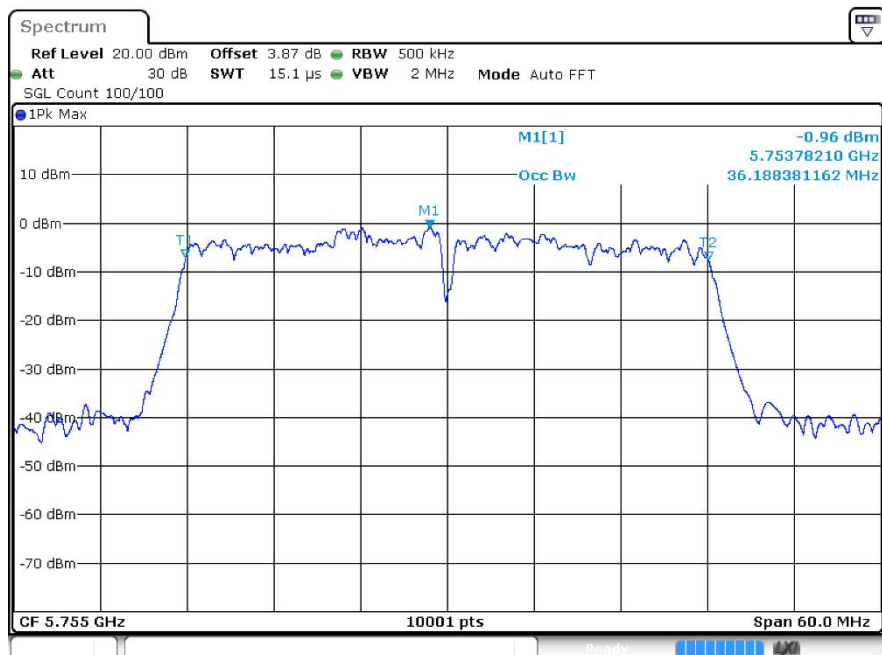
OBW ac20 5785MHz Ant1



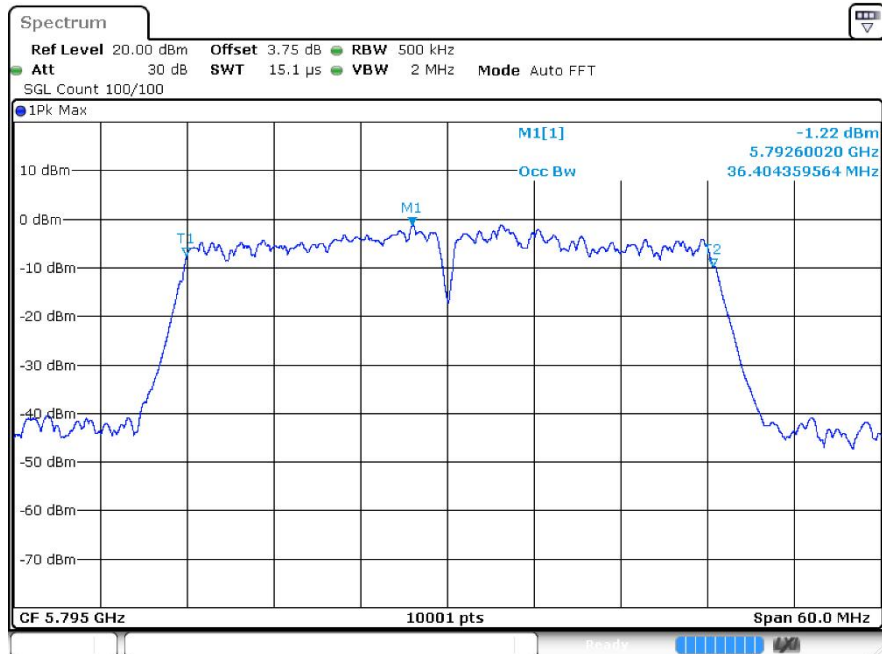
OBW ac20 5825MHz Ant1



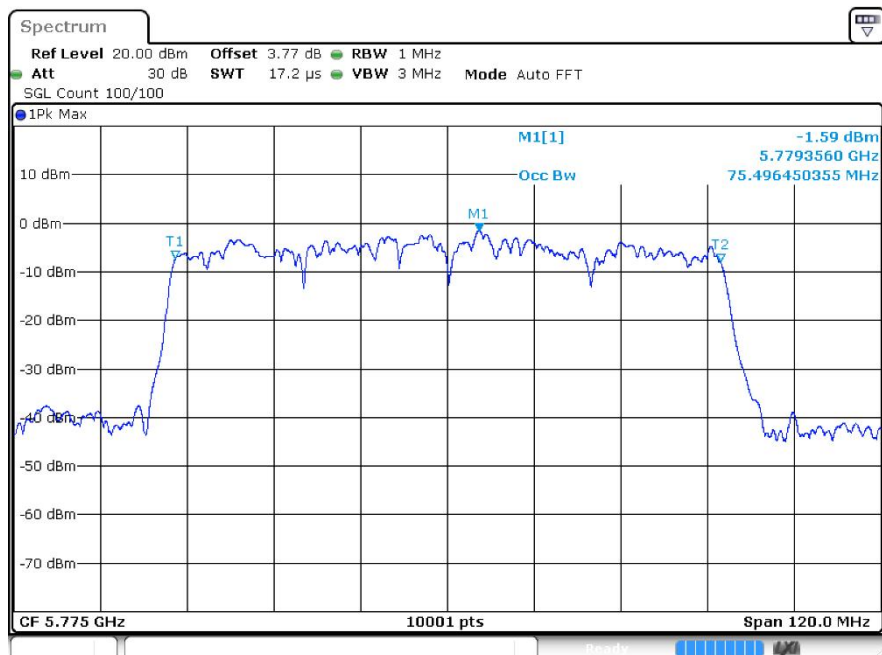
OBW ac40 5755MHz Ant1



OBW ac40 5795MHz Ant1



OBW ac80 5775MHz Ant1



5 Maximum Power Spectral Density Level

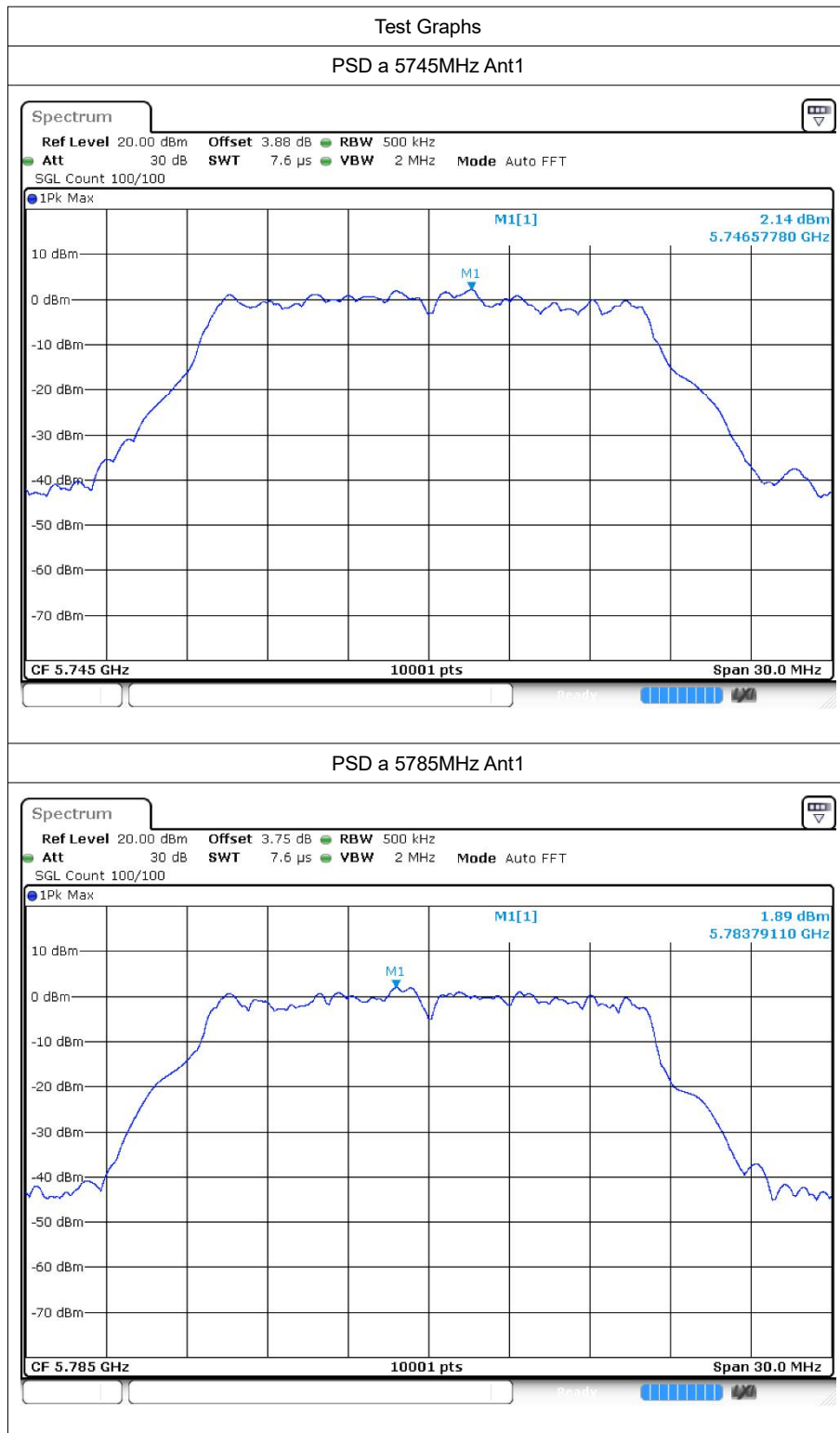
5.1 Test Result

Mode	Frequency (MHz)	Antenna	Total PSD (dBm)	Limit (dBm)	Verdict
a	5745	Ant1	2.14	30	Pass
a	5785	Ant1	1.89	30	Pass
a	5825	Ant1	1.09	30	Pass
n20	5745	Ant1	2.77	30	Pass
n20	5785	Ant1	1	30	Pass
n20	5825	Ant1	0.9	30	Pass
n40	5755	Ant1	-0.85	30	Pass
n40	5795	Ant1	-1.17	30	Pass
ac20	5745	Ant1	1.97	30	Pass
ac20	5785	Ant1	1.4	30	Pass
ac20	5825	Ant1	0.84	30	Pass
ac40	5755	Ant1	-1.28	30	Pass
ac40	5795	Ant1	-0.93	30	Pass
ac80	5775	Ant1	-4.77	30	Pass

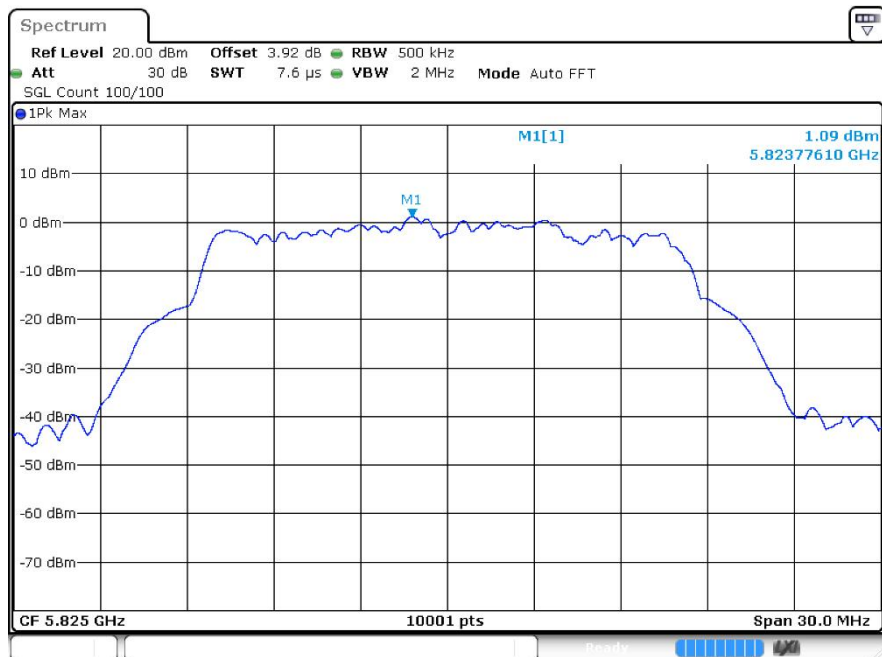
Note:

The duty factor has been compensated into the result.

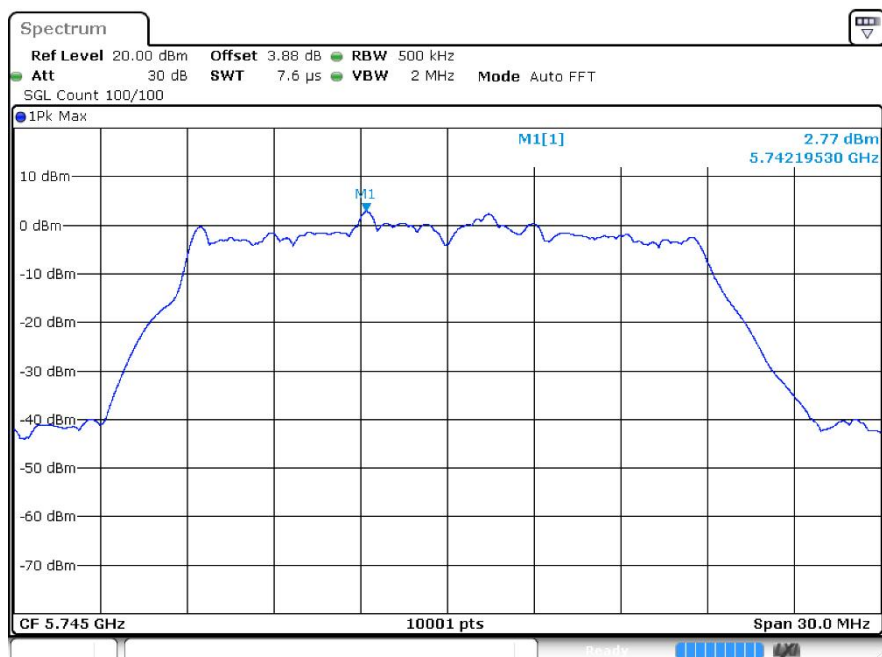
5.2 Test Graphs



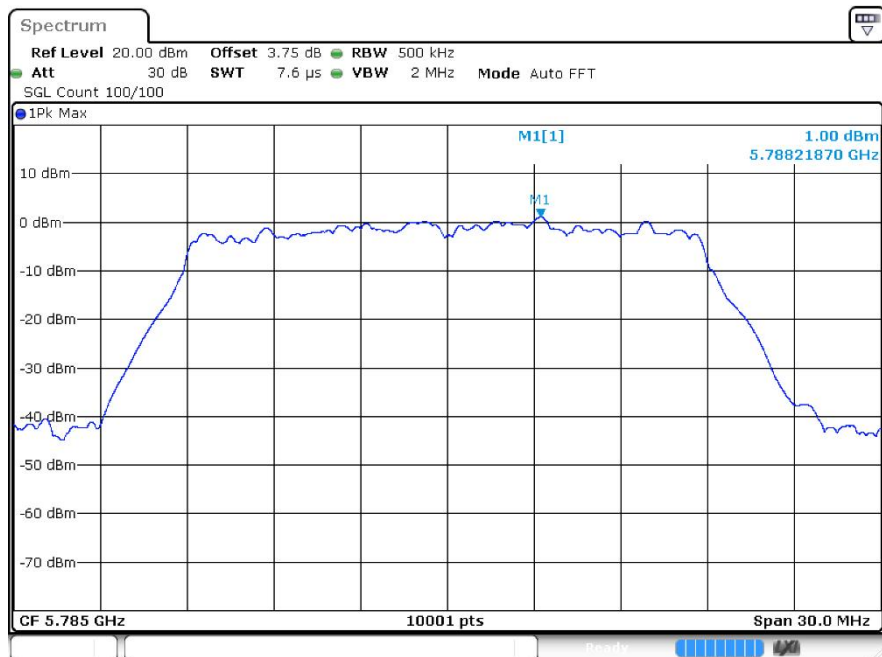
PSD a 5825MHz Ant1



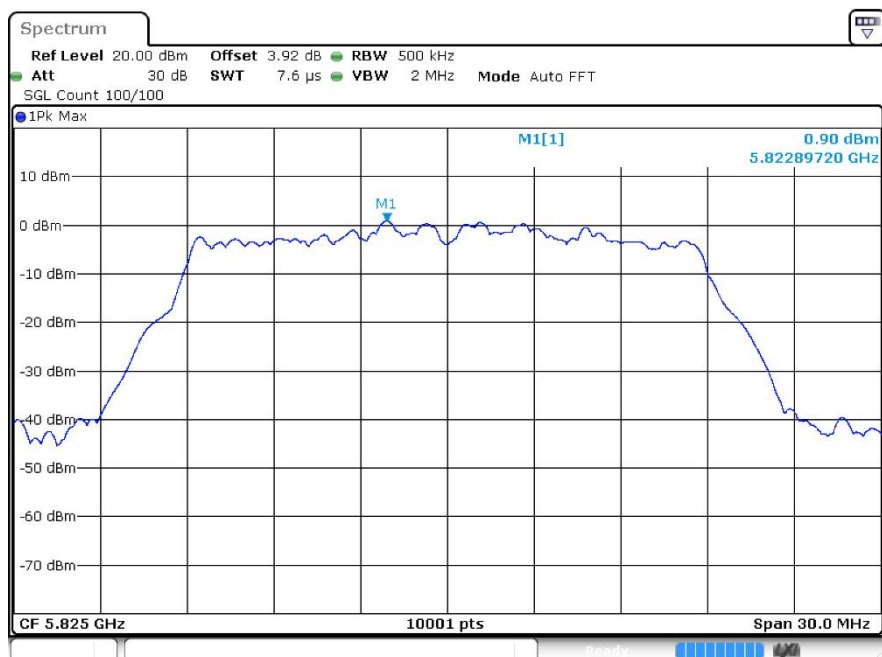
PSD n20 5745MHz Ant1



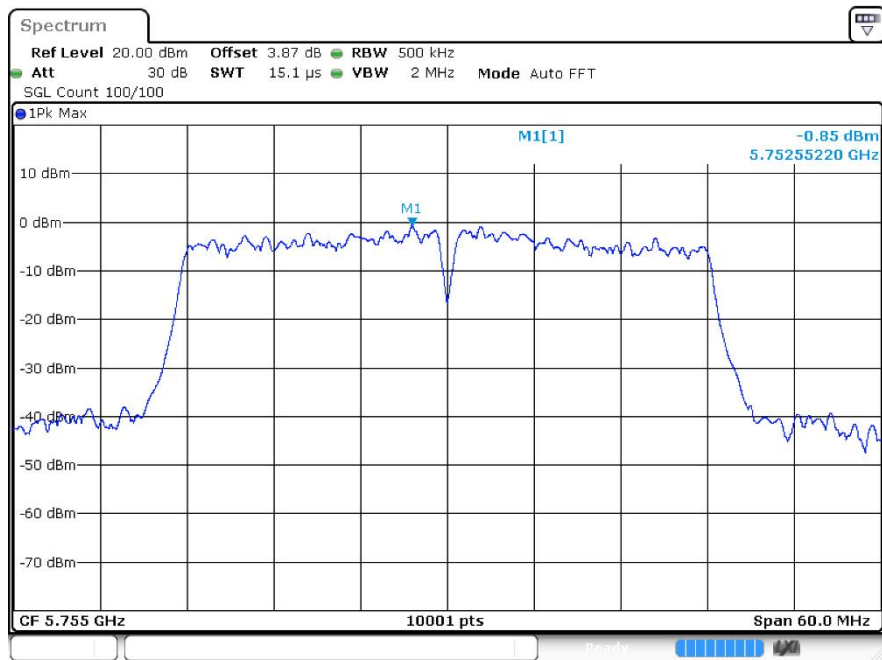
PSD n20 5785MHz Ant1



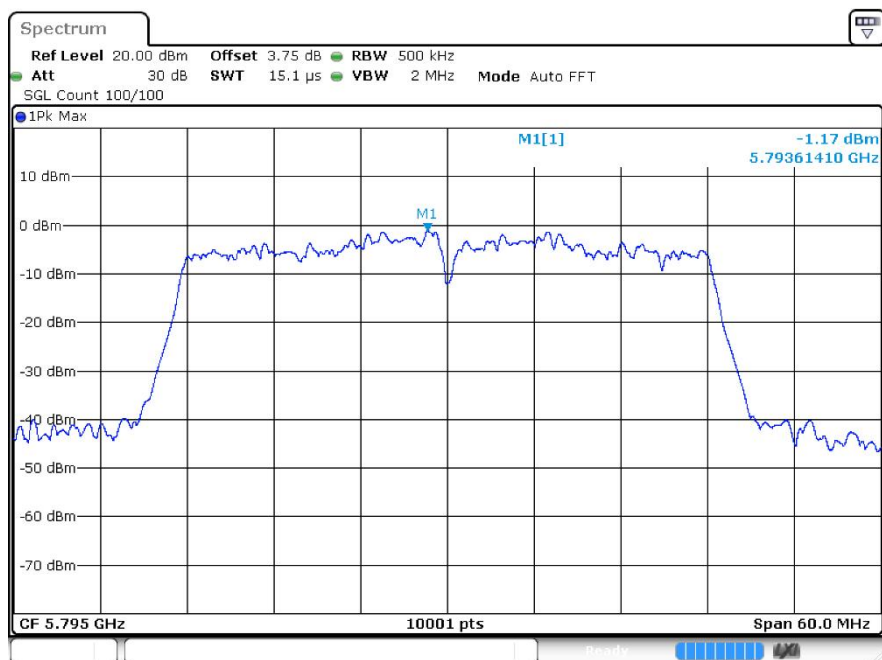
PSD n20 5825MHz Ant1



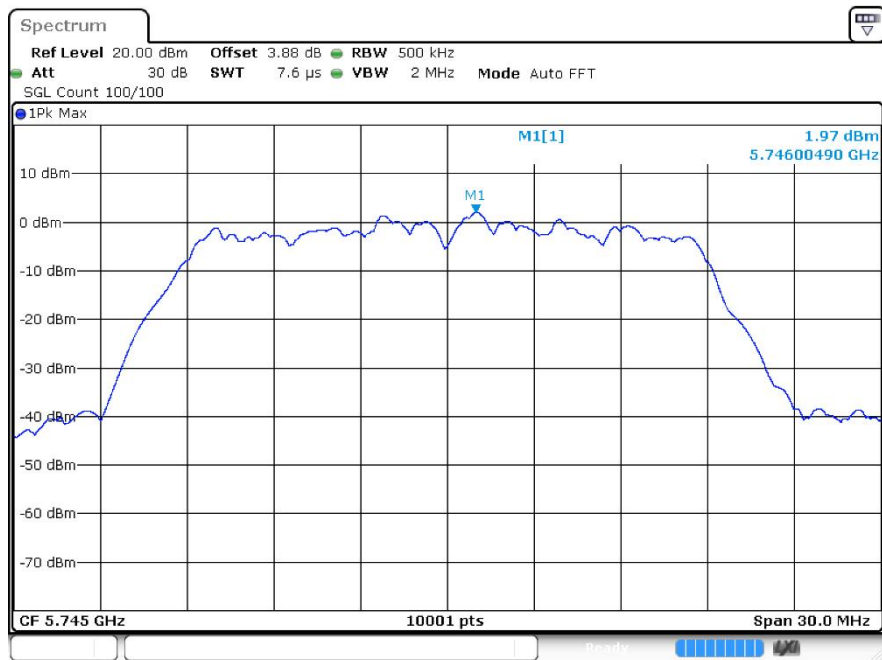
PSD n40 5755MHz Ant1



PSD n40 5795MHz Ant1



PSD ac20 5745MHz Ant1



PSD ac20 5785MHz Ant1

