



Appendix G

RF Test Data for U-NII Band III (Conducted Measurement)

Product Name: All-in-One Live Streaming Device

Trade Mark: HNKJ LAB

Test Model: HN-V88-HD

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



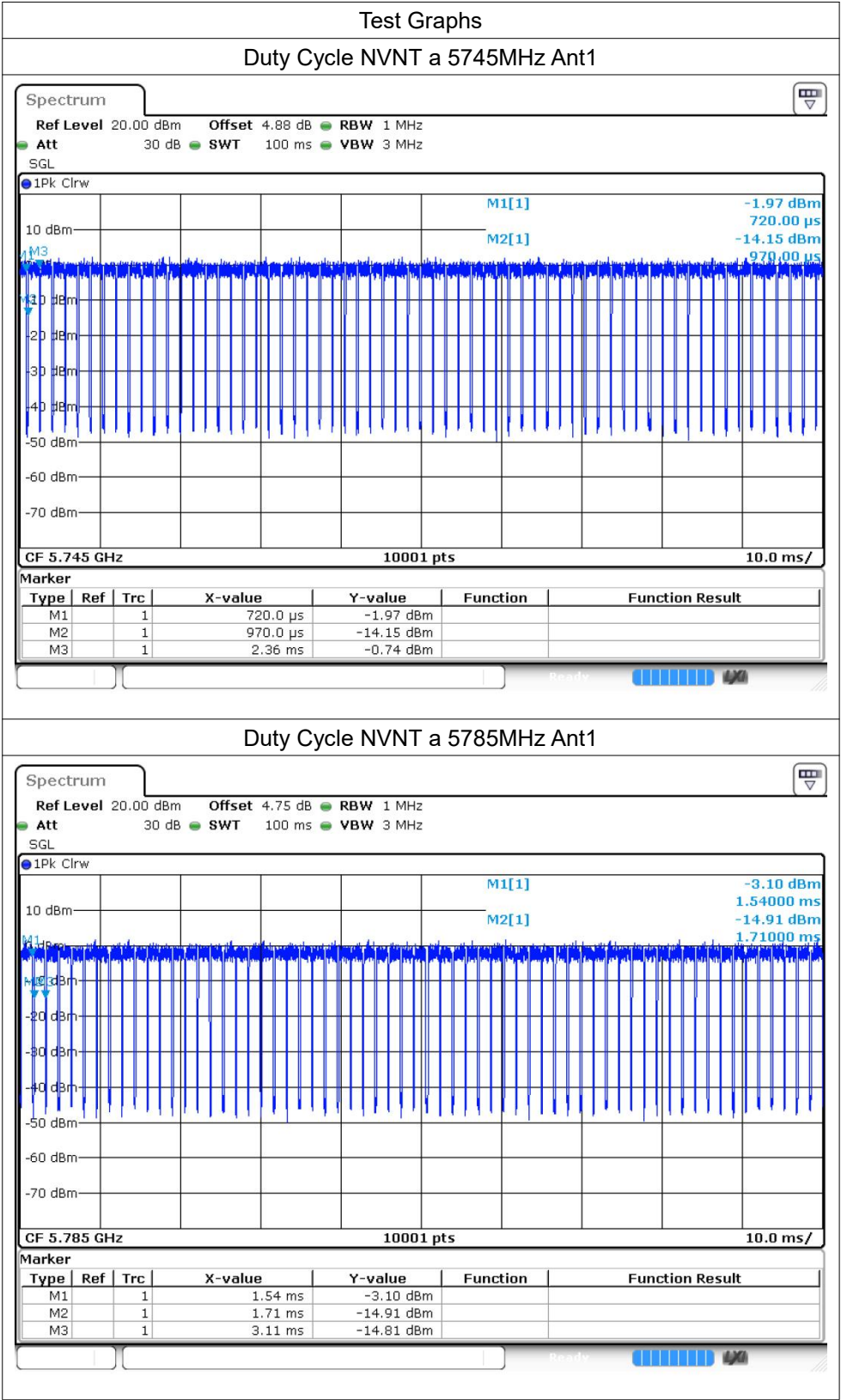
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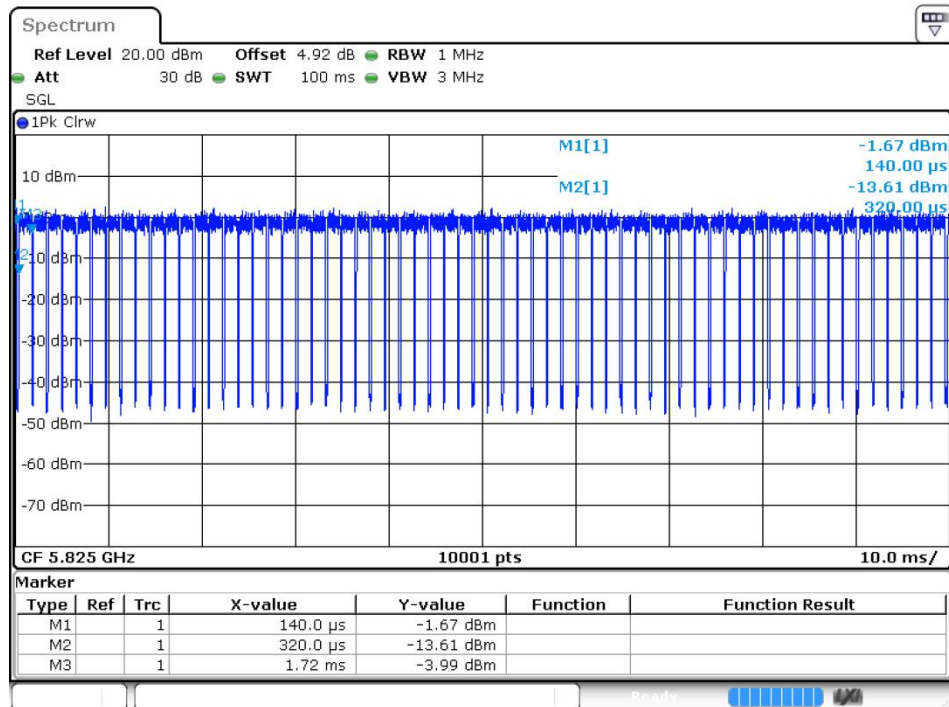
1 Duty Cycle

Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
802.11a	5745	Ant1	88.46	0.53	0.72
802.11a	5785	Ant1	88.4	0.54	0.71
802.11a	5825	Ant1	88.68	0.52	0.71
802.11n20	5745	Ant1	87.19	0.6	0.85
802.11n20	5785	Ant1	87.05	0.6	0.85
802.11n20	5825	Ant1	87.29	0.59	0.85
802.11n40	5755	Ant1	76.87	1.14	1.69
802.11n40	5795	Ant1	76.86	1.14	1.72
802.11ac20	5745	Ant1	86.96	0.61	0.84
802.11ac20	5785	Ant1	87.22	0.59	0.84
802.11ac20	5825	Ant1	86.98	0.61	0.85
802.11ac40	5755	Ant1	77	1.13	1.67
802.11ac40	5795	Ant1	76.8	1.15	1.69
802.11ac80	5775	Ant1	61.72	2.1	0.85

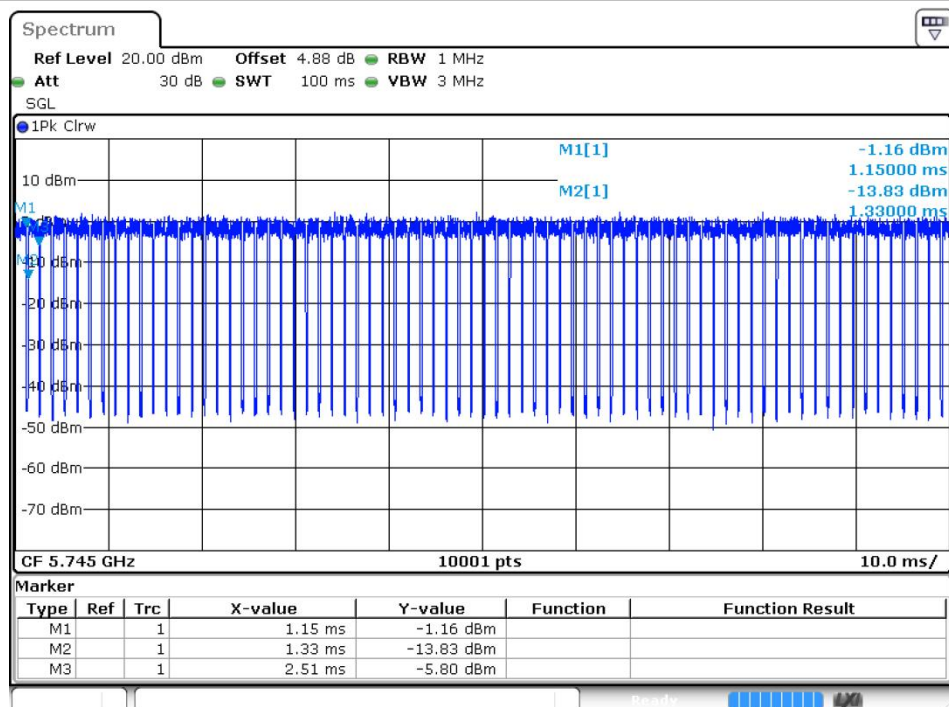




Duty Cycle NVNT a 5825MHz Ant1

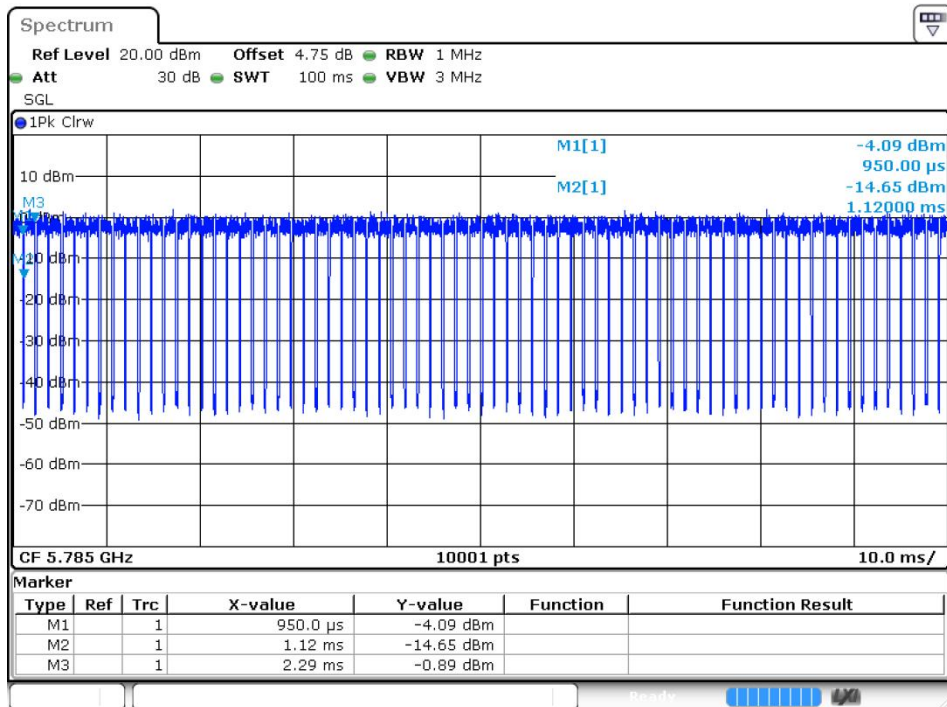


Duty Cycle NVNT n20 5745MHz Ant1

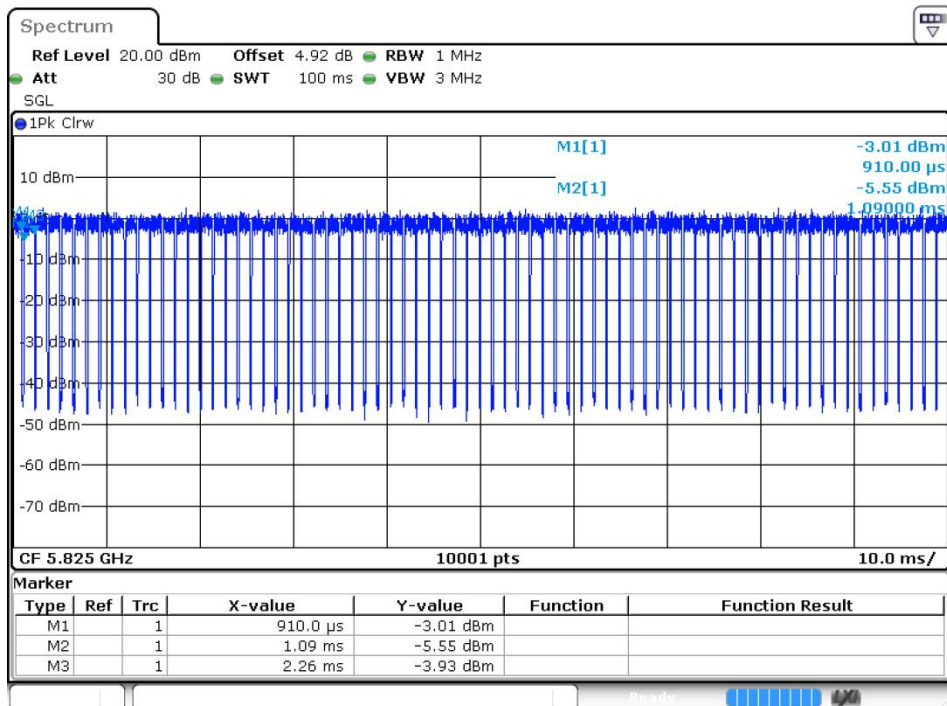




Duty Cycle NVNT n20 5785MHz Ant1

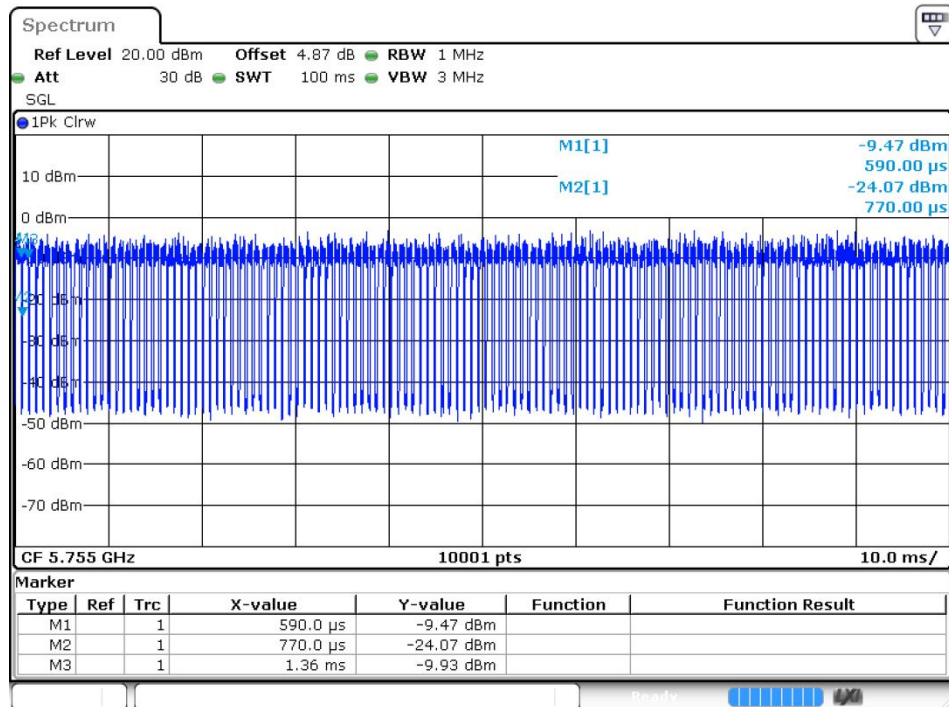


Duty Cycle NVNT n20 5825MHz Ant1

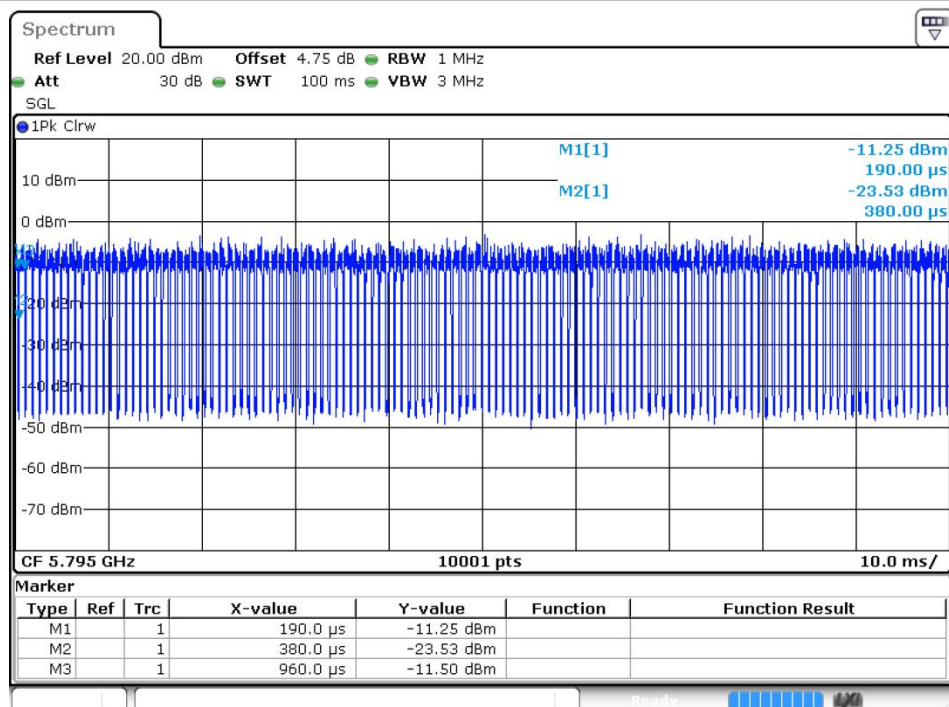




Duty Cycle NVNT n40 5755MHz Ant1

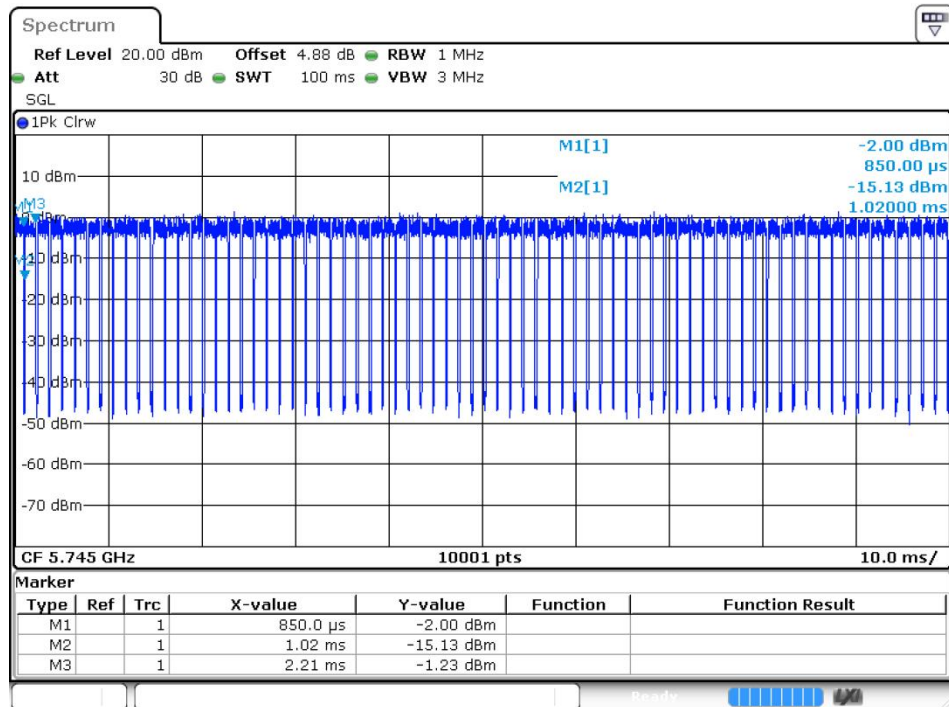


Duty Cycle NVNT n40 5795MHz Ant1

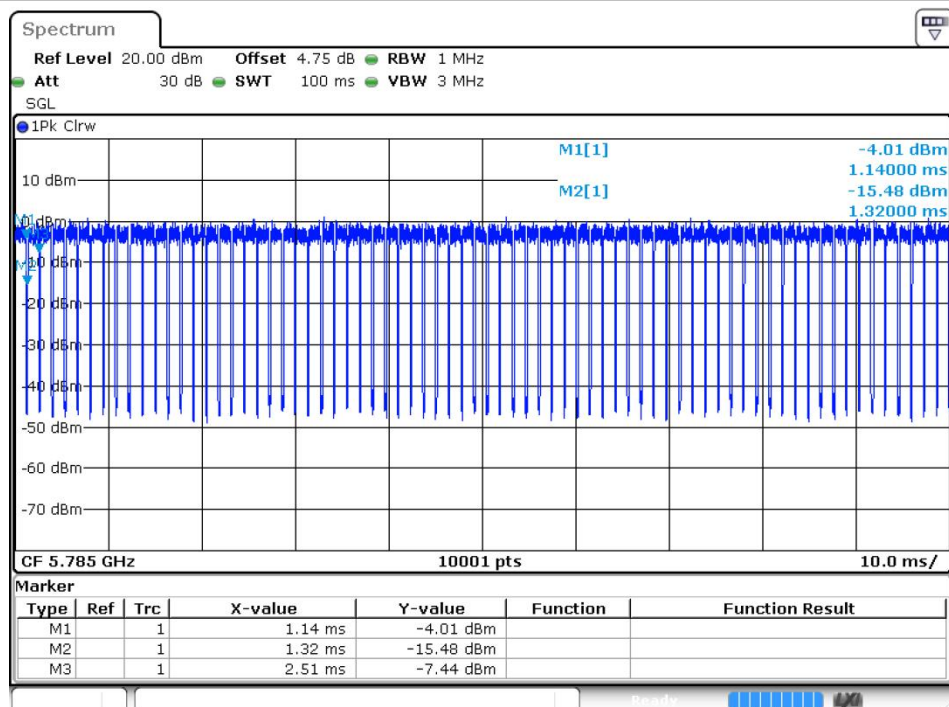




Duty Cycle NVNT ac20 5745MHz Ant1

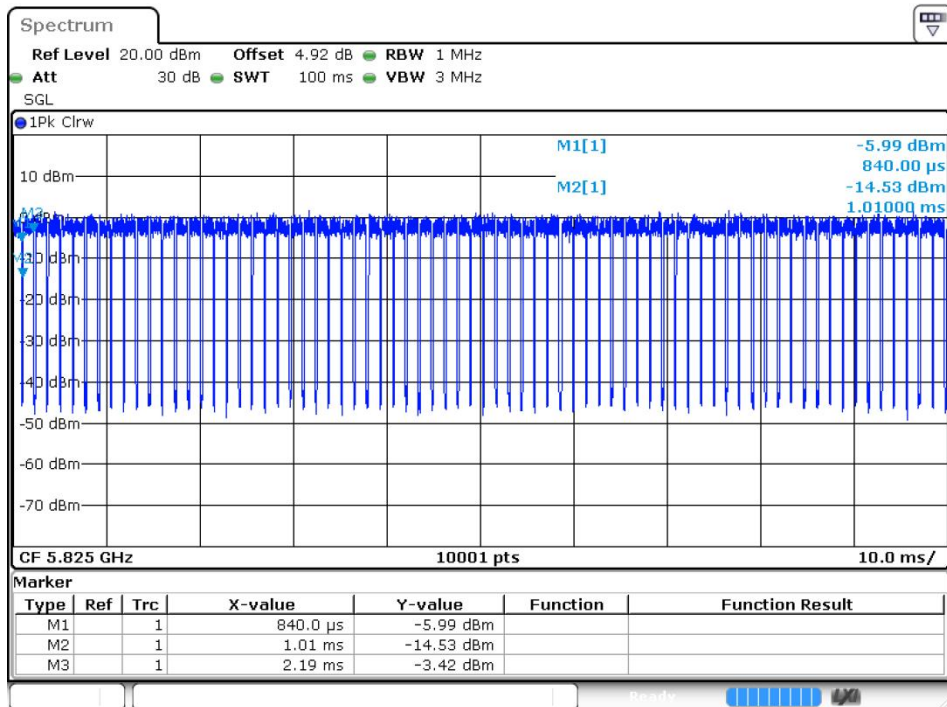


Duty Cycle NVNT ac20 5785MHz Ant1

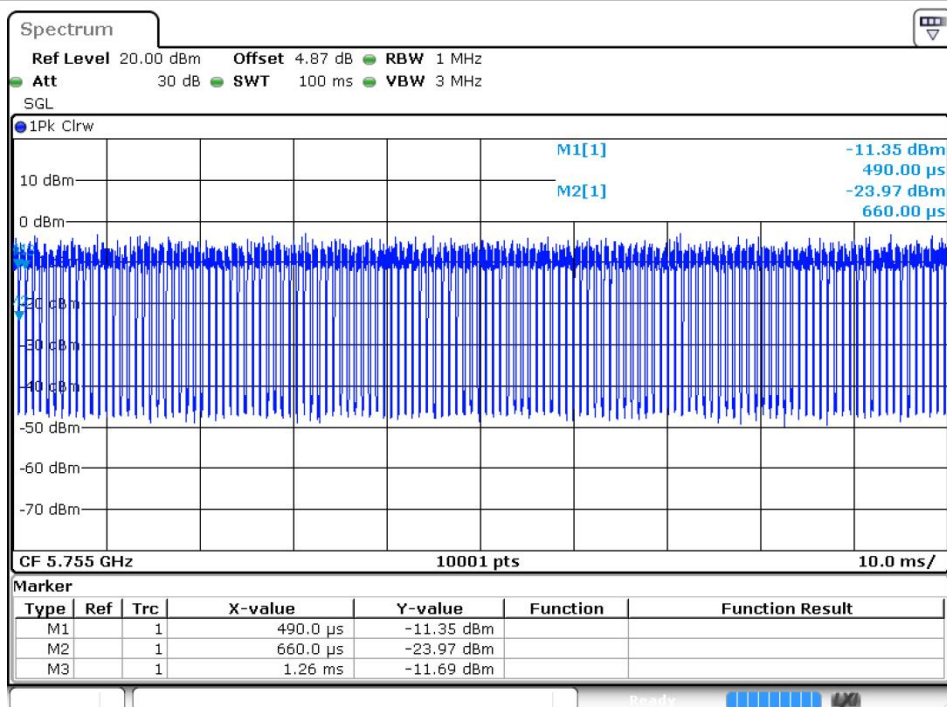




Duty Cycle NVNT ac20 5825MHz Ant1

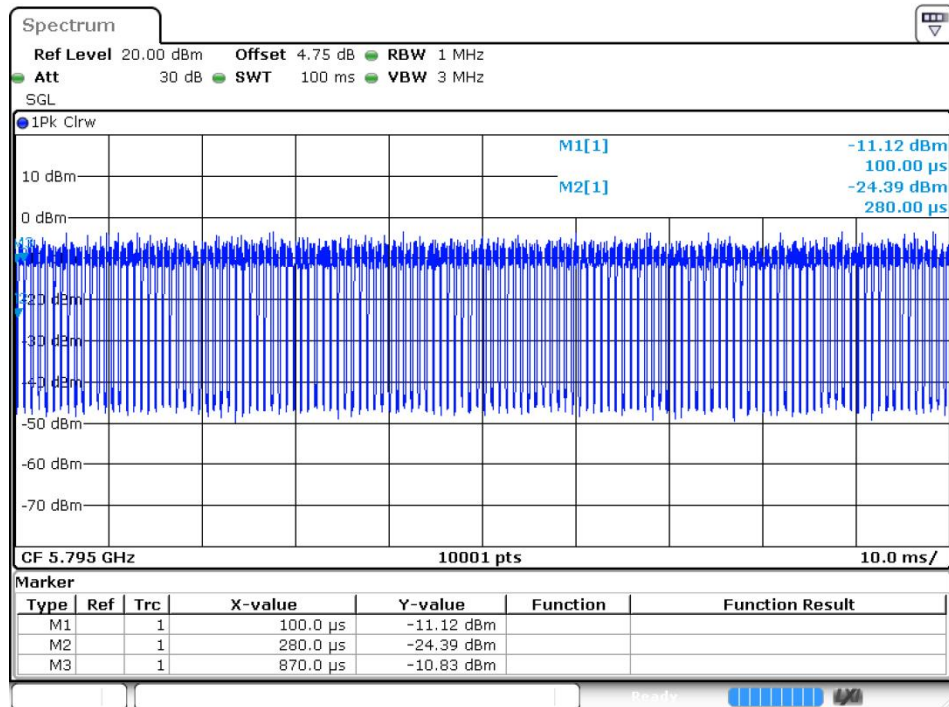


Duty Cycle NVNT ac40 5755MHz Ant1

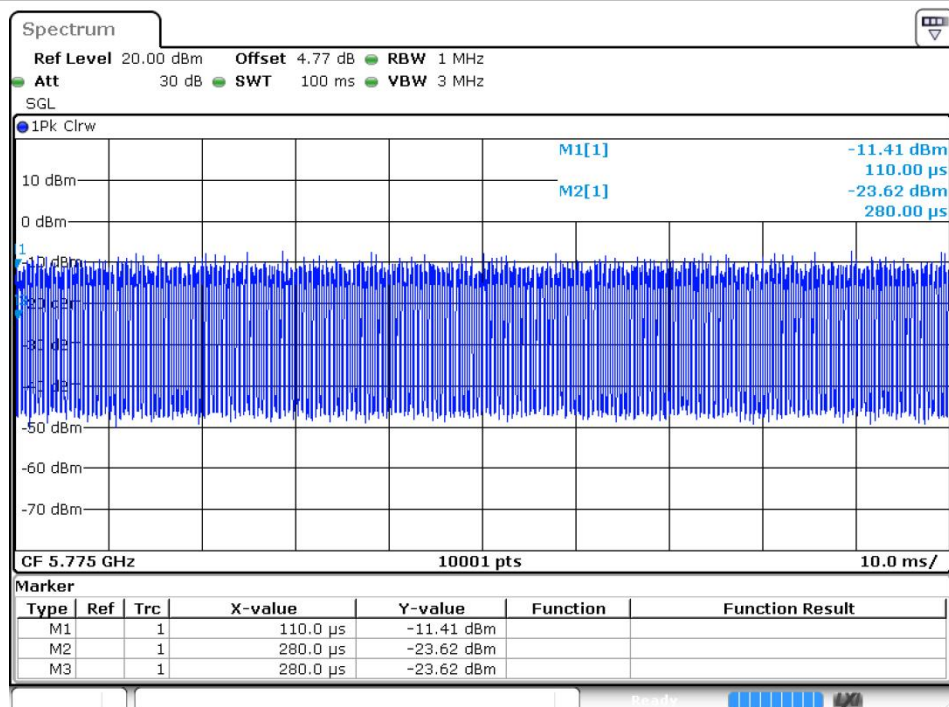




Duty Cycle NVNT ac40 5795MHz Ant1



Duty Cycle NVNT ac80 5775MHz Ant1





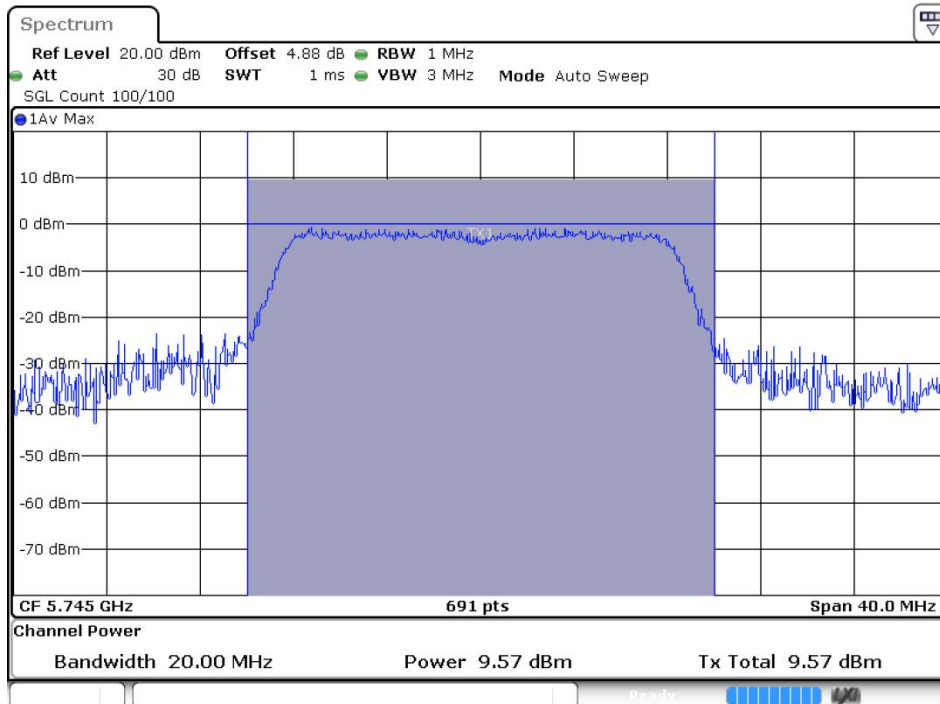
2 Maximum Conducted Output Power

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
802.11a	5745	Ant1	9.57	0.53	10.1	30	Pass
802.11a	5785	Ant1	8.87	0.54	9.41	30	Pass
802.11a	5825	Ant1	9.67	0.52	10.19	30	Pass
802.11n20	5745	Ant1	9.56	0.6	10.16	30	Pass
802.11n20	5785	Ant1	9.14	0.6	9.74	30	Pass
802.11n20	5825	Ant1	9.88	0.59	10.47	30	Pass
802.11n40	5755	Ant1	8.13	1.14	9.27	30	Pass
802.11n40	5795	Ant1	7.9	1.14	9.04	30	Pass
802.11ac20	5745	Ant1	8.74	0.61	9.35	30	Pass
802.11ac20	5785	Ant1	8.24	0.59	8.83	30	Pass
802.11ac20	5825	Ant1	9	0.61	9.61	30	Pass
802.11ac40	5755	Ant1	8.25	1.13	9.38	30	Pass
802.11ac40	5795	Ant1	7.94	1.15	9.09	30	Pass
802.11ac80	5775	Ant1	8.2	2.1	10.3	30	Pass

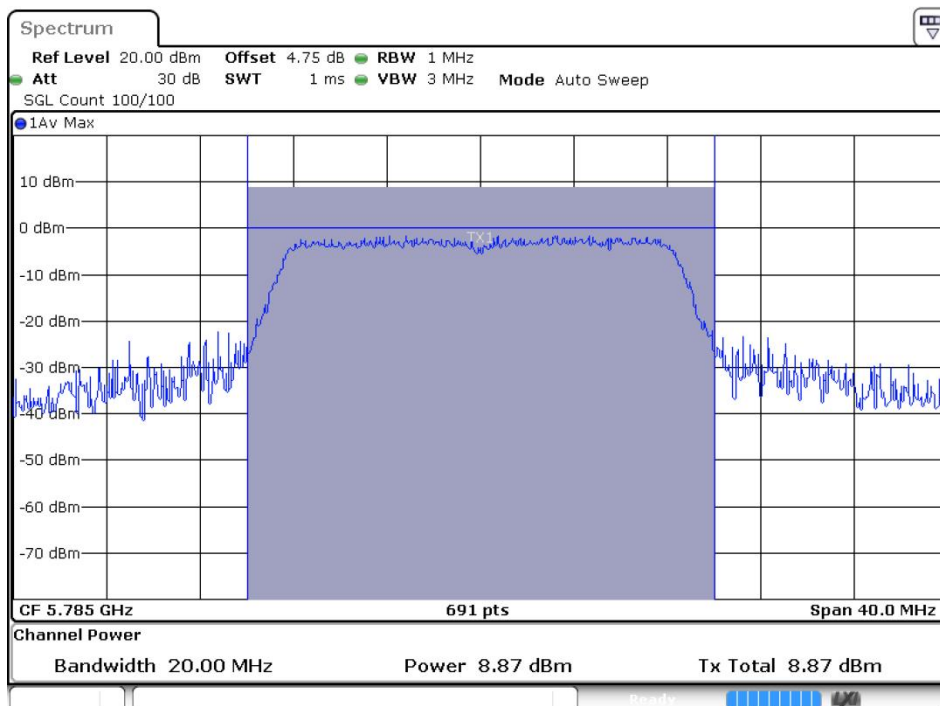


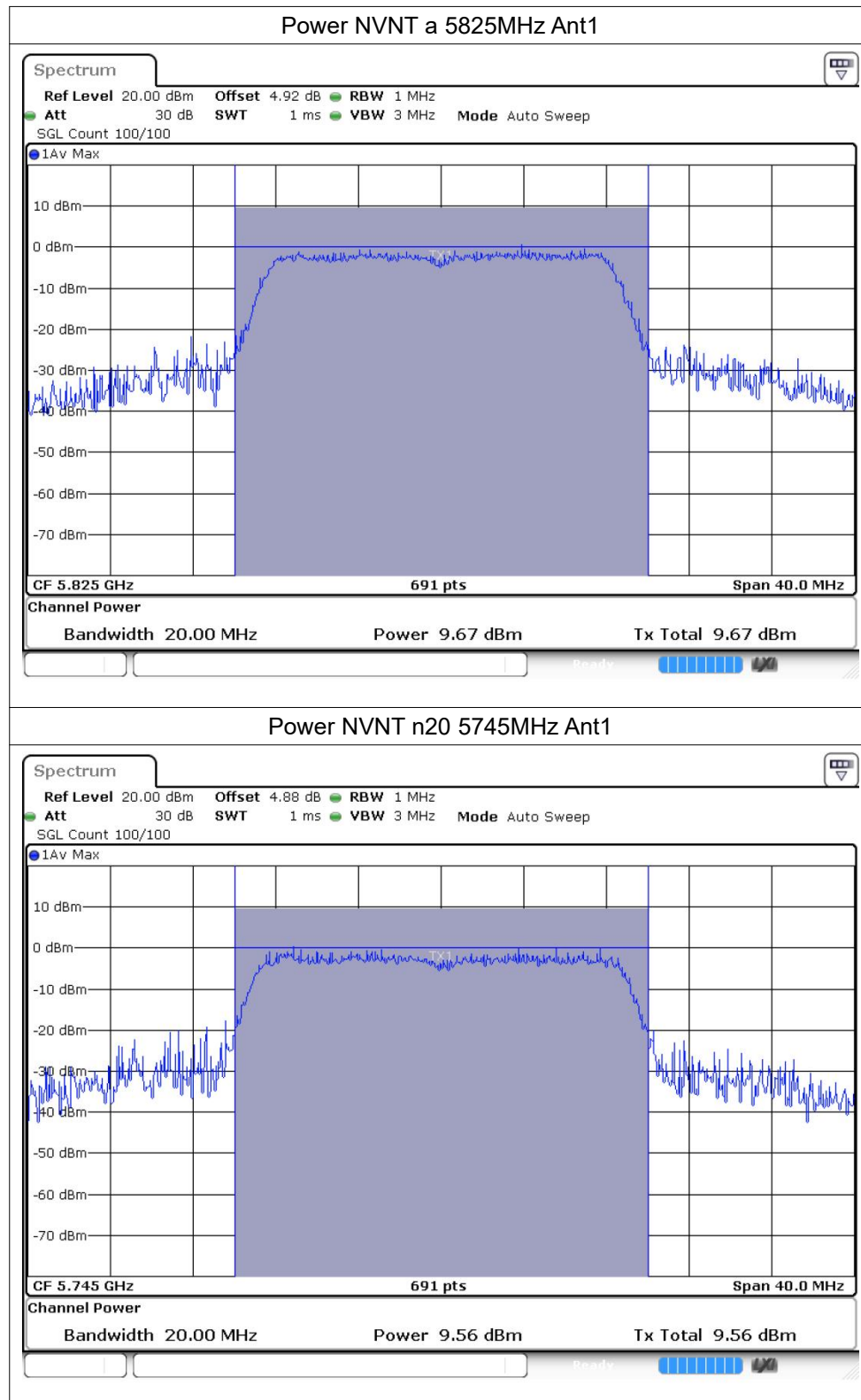
Test Graphs

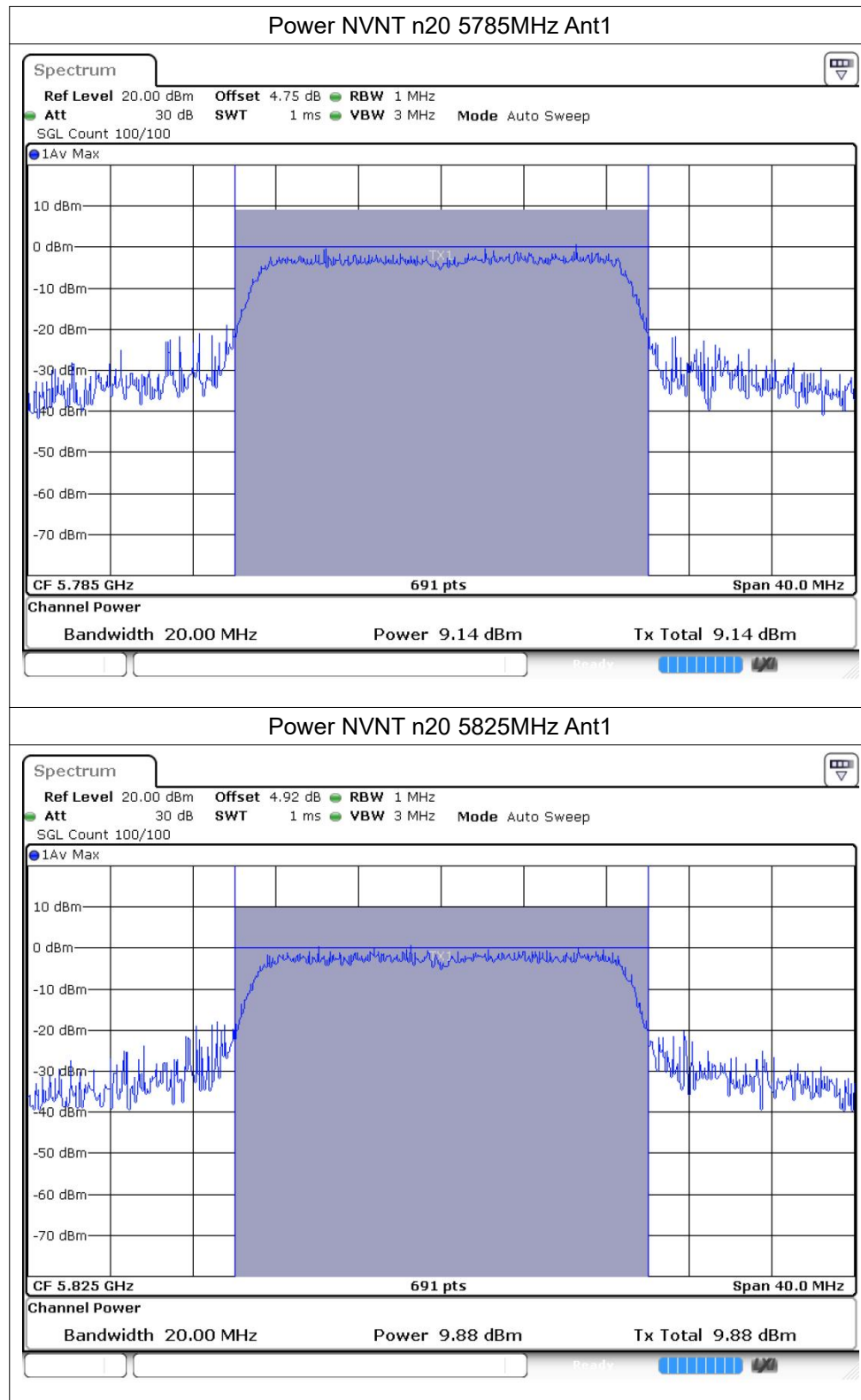
Power NVNT a 5745MHz Ant1

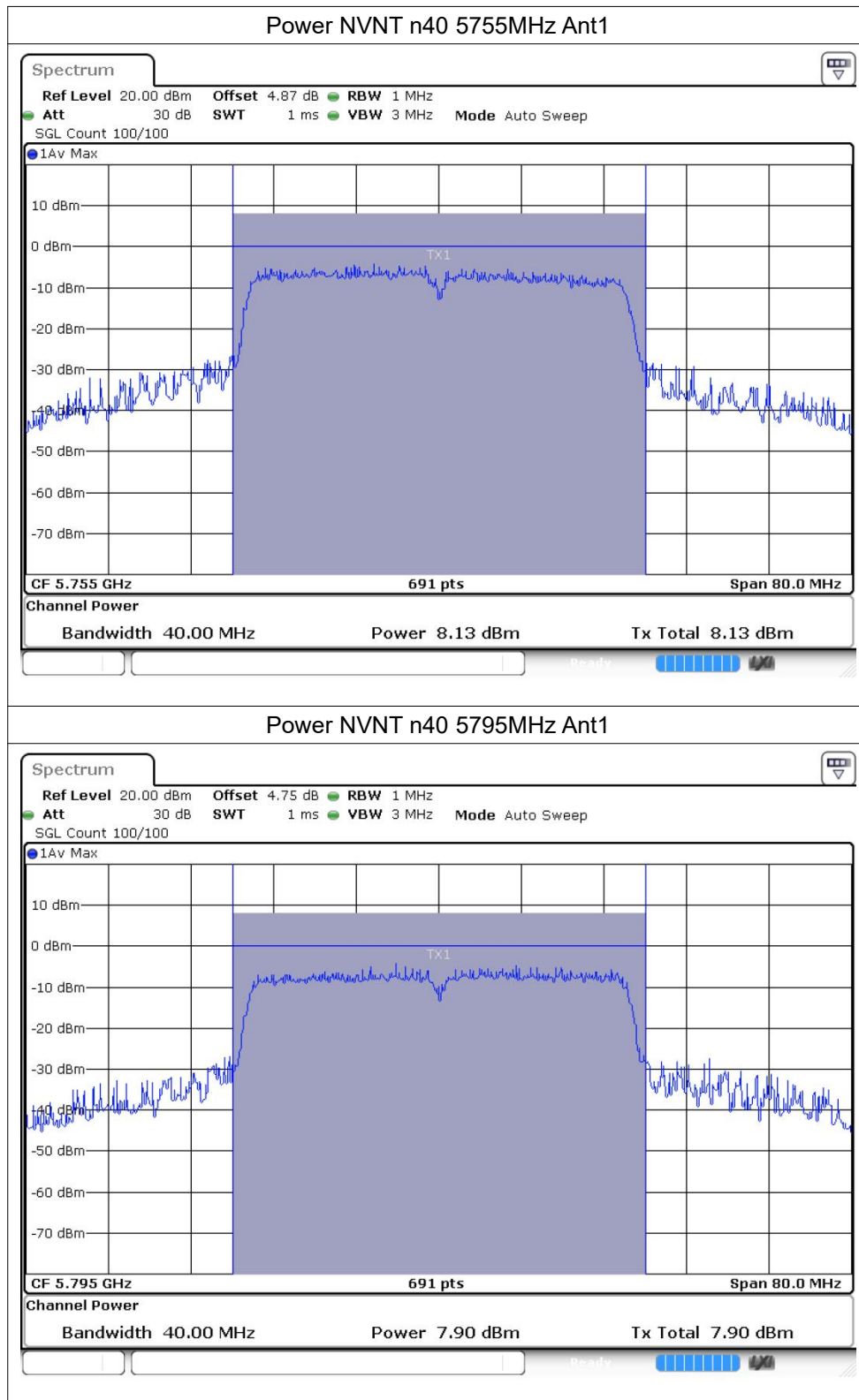


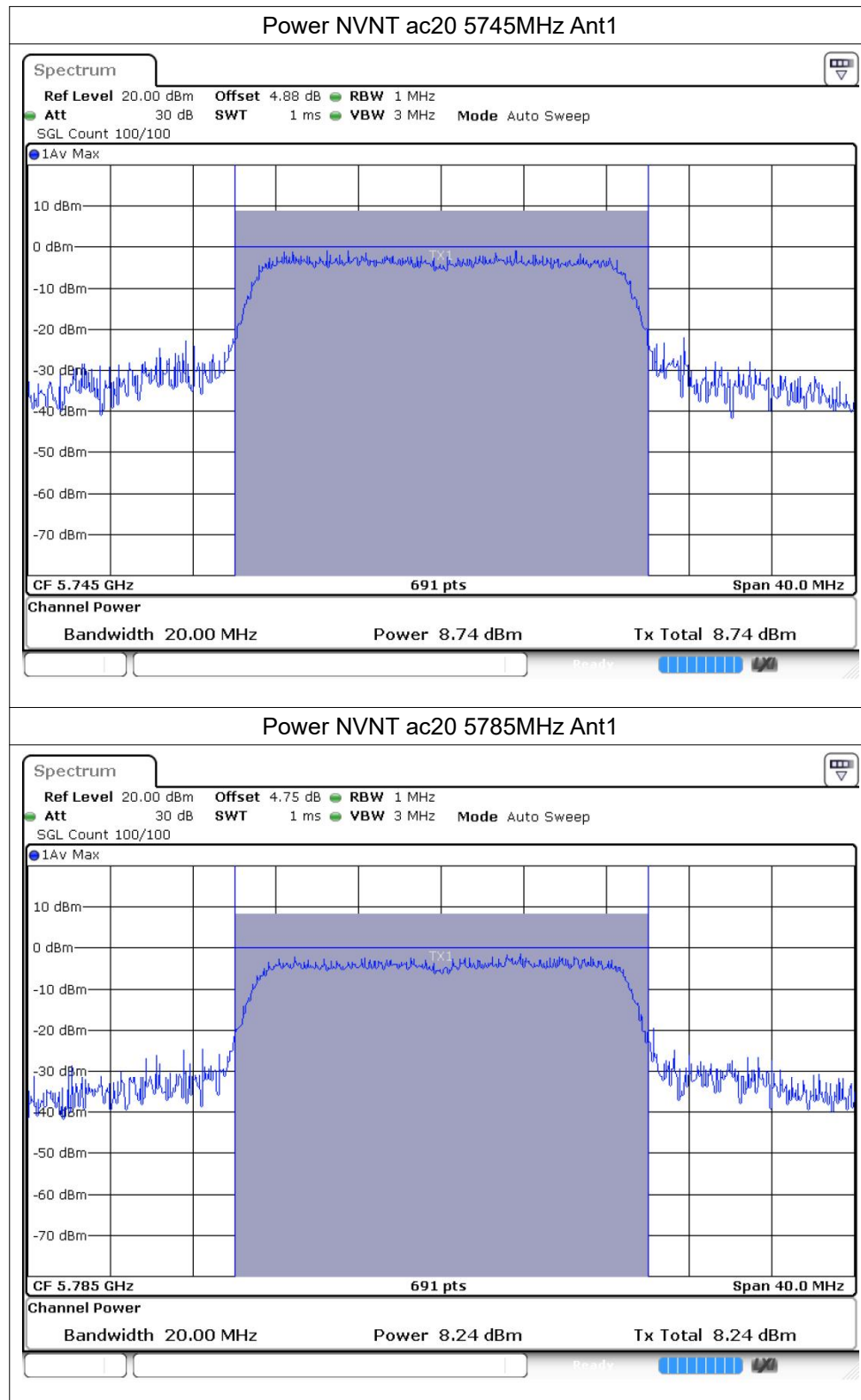
Power NVNT a 5785MHz Ant1

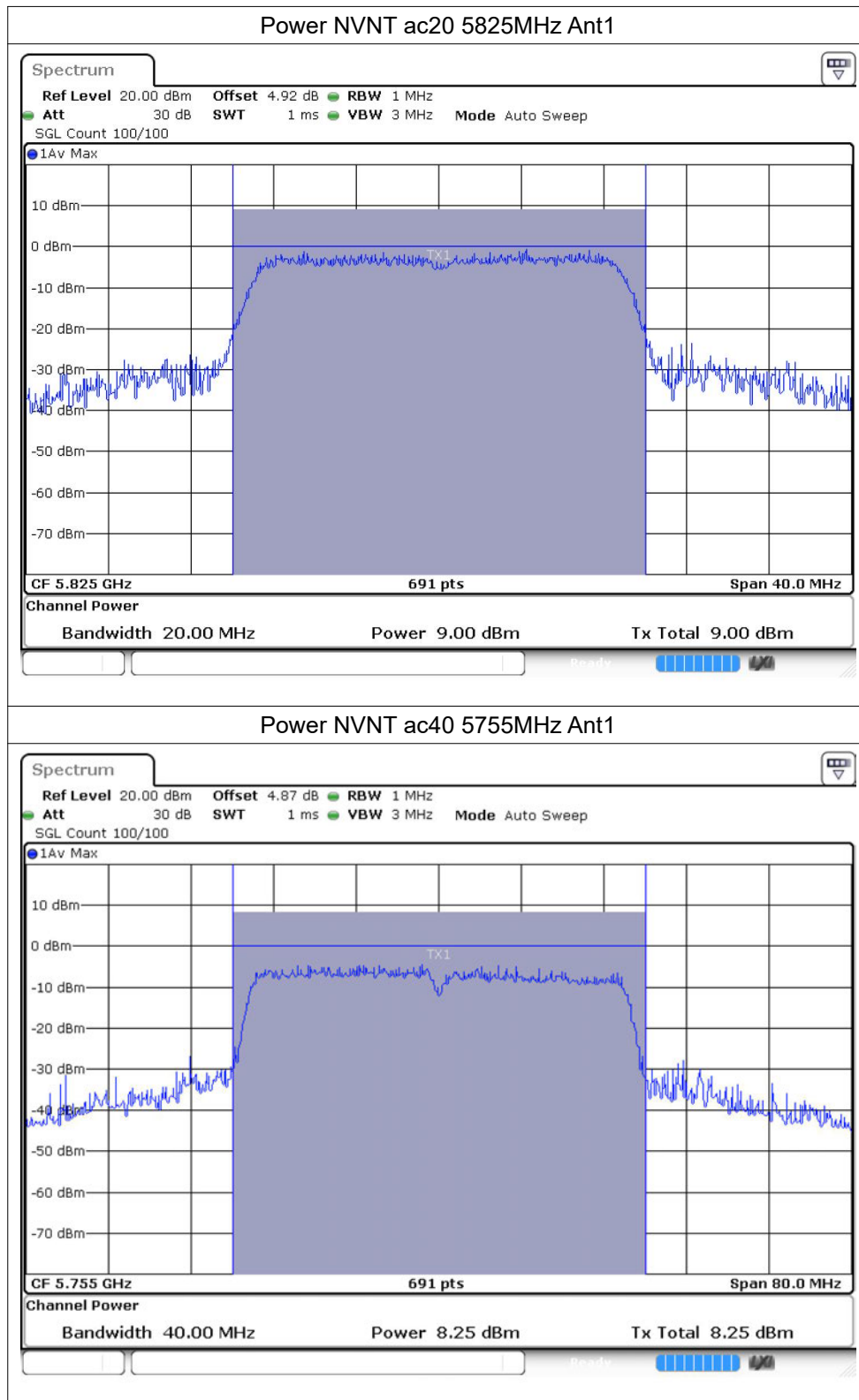


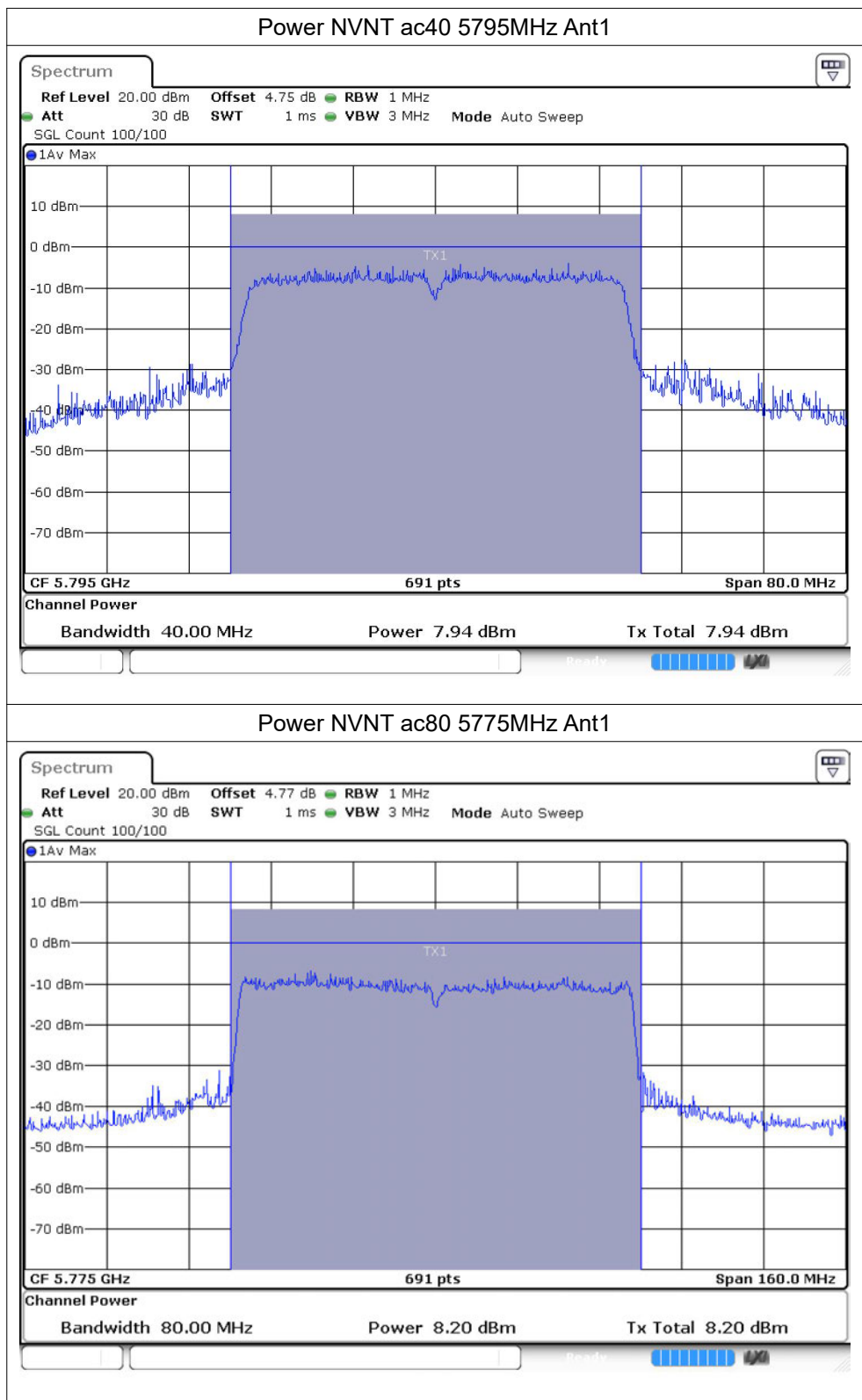














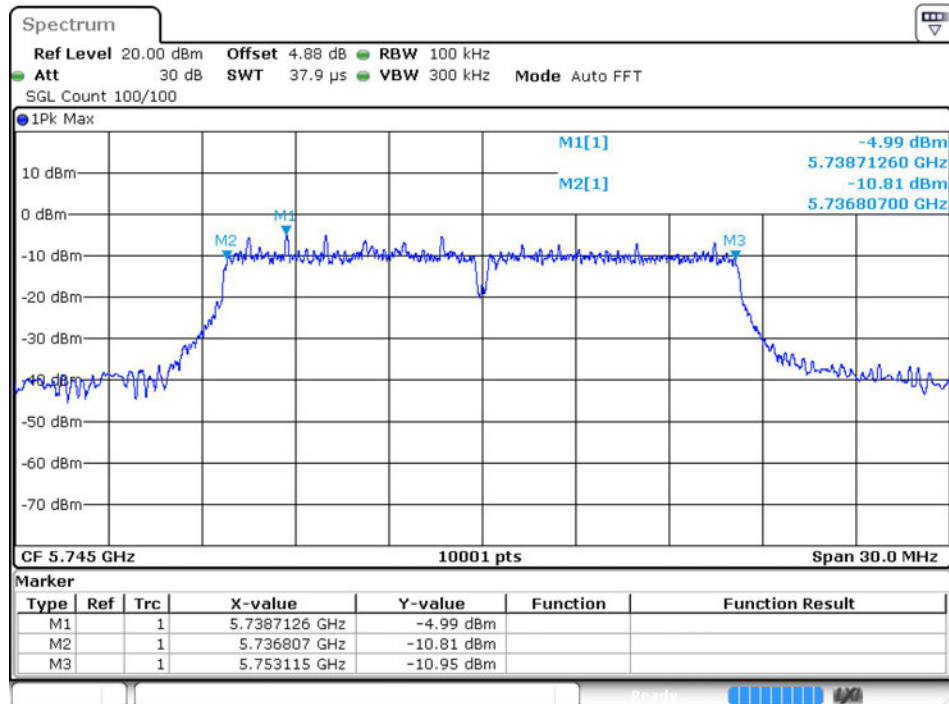
3 -6dB Bandwidth

Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
802.11a	5745	Ant1	16.308	0.5	Pass
802.11a	5785	Ant1	16.323	0.5	Pass
802.11a	5825	Ant1	16.335	0.5	Pass
802.11n20	5745	Ant1	17.571	0.5	Pass
802.11n20	5785	Ant1	17.406	0.5	Pass
802.11n20	5825	Ant1	17.145	0.5	Pass
802.11n40	5755	Ant1	35.358	0.5	Pass
802.11n40	5795	Ant1	36.012	0.5	Pass
802.11ac20	5745	Ant1	17.556	0.5	Pass
802.11ac20	5785	Ant1	17.115	0.5	Pass
802.11ac20	5825	Ant1	17.151	0.5	Pass
802.11ac40	5755	Ant1	35.322	0.5	Pass
802.11ac40	5795	Ant1	35.55	0.5	Pass
802.11ac80	5775	Ant1	75.576	0.5	Pass

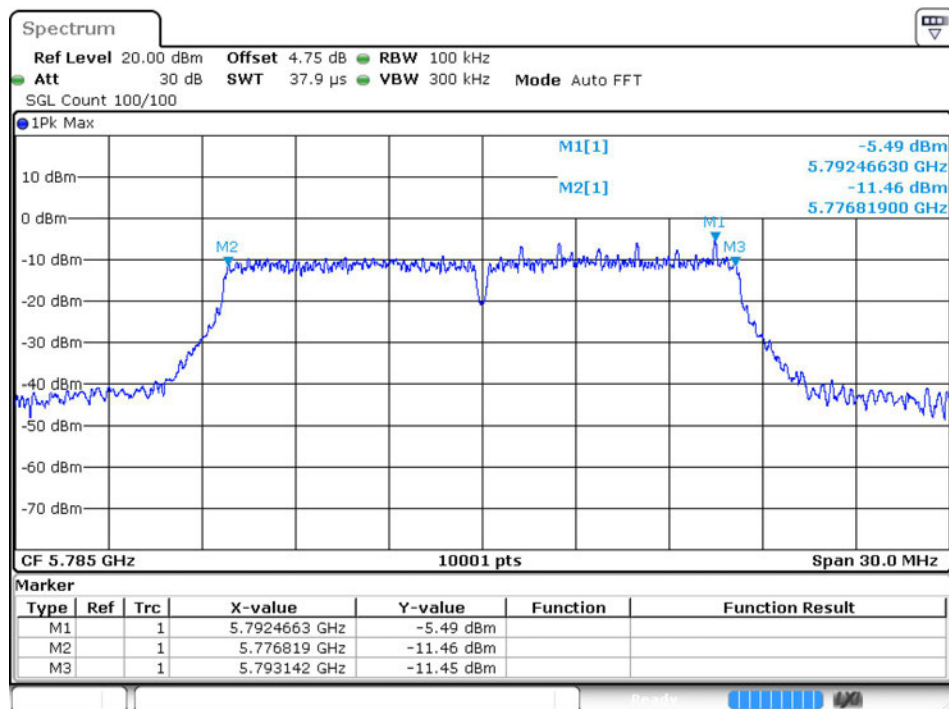


Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant1

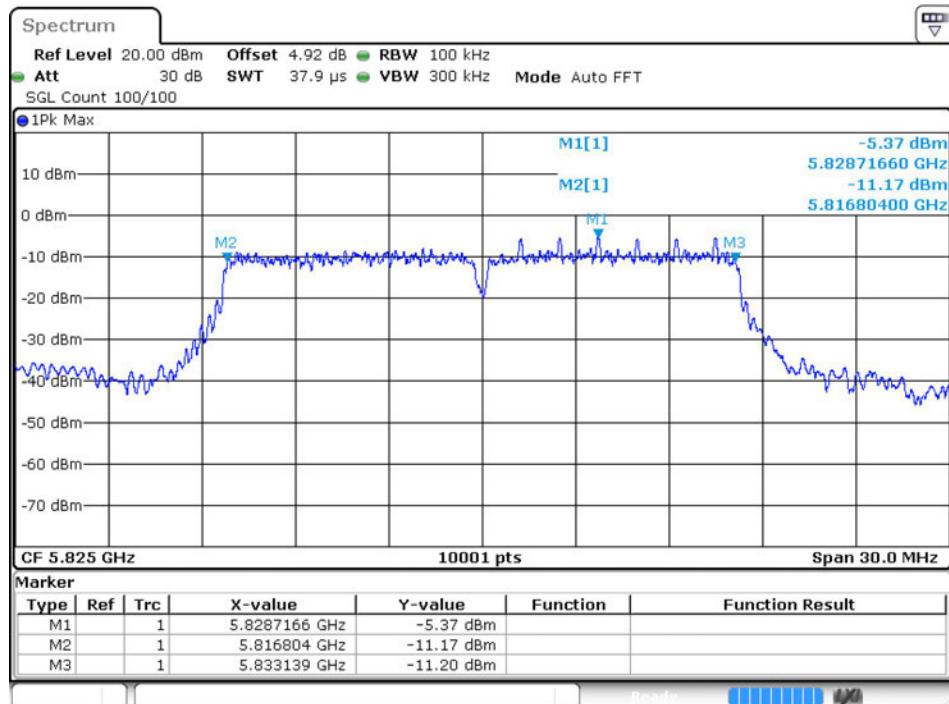


-6dB Bandwidth NVNT a 5785MHz Ant1

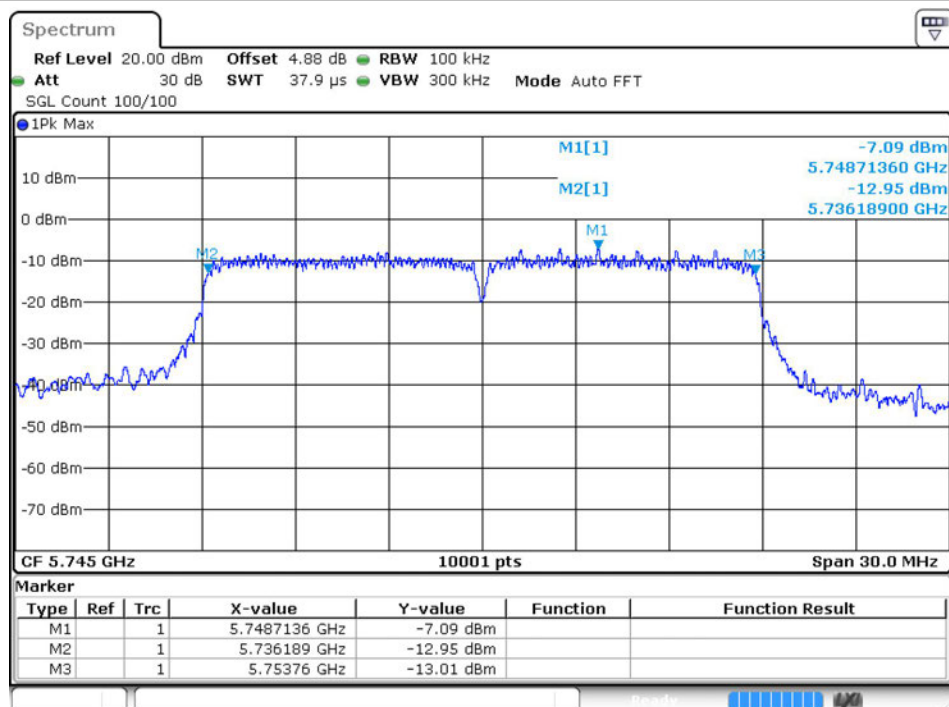




-6dB Bandwidth NVNT a 5825MHz Ant1

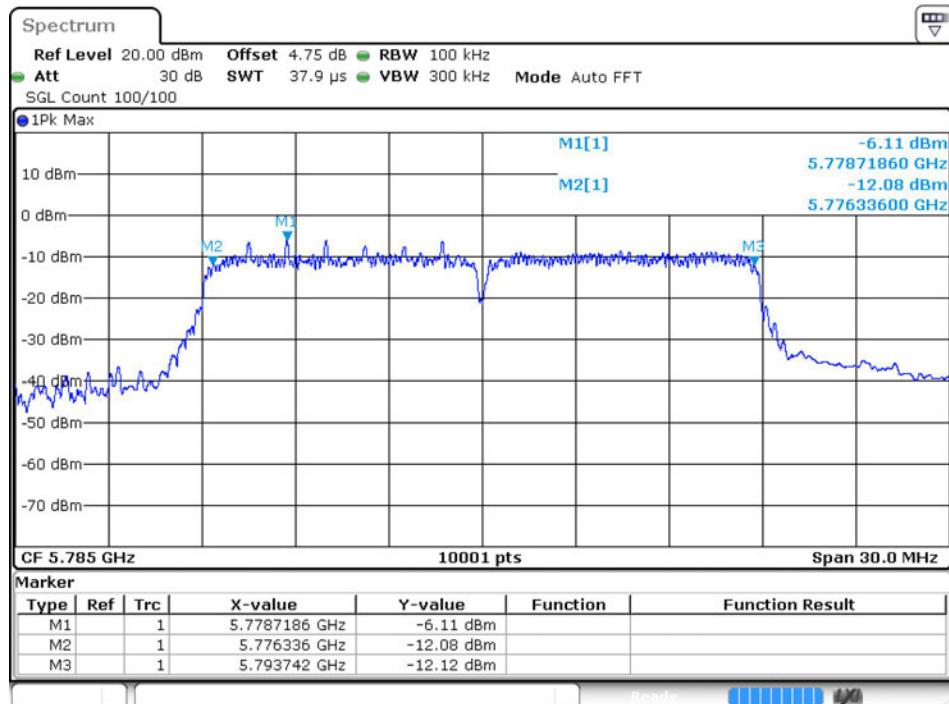


-6dB Bandwidth NVNT n20 5745MHz Ant1

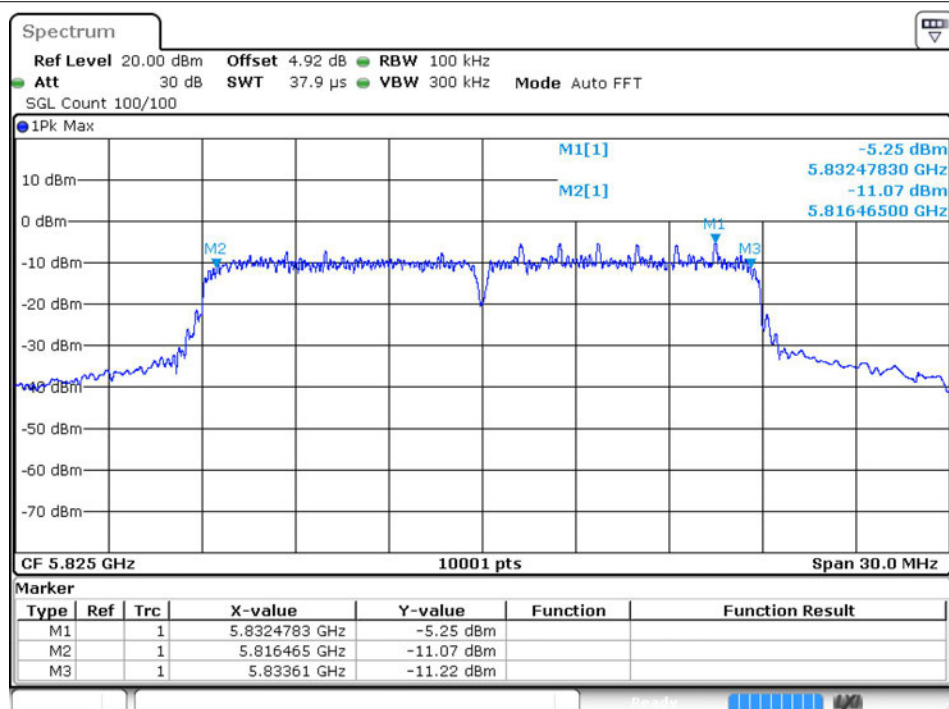




-6dB Bandwidth NVNT n20 5785MHz Ant1

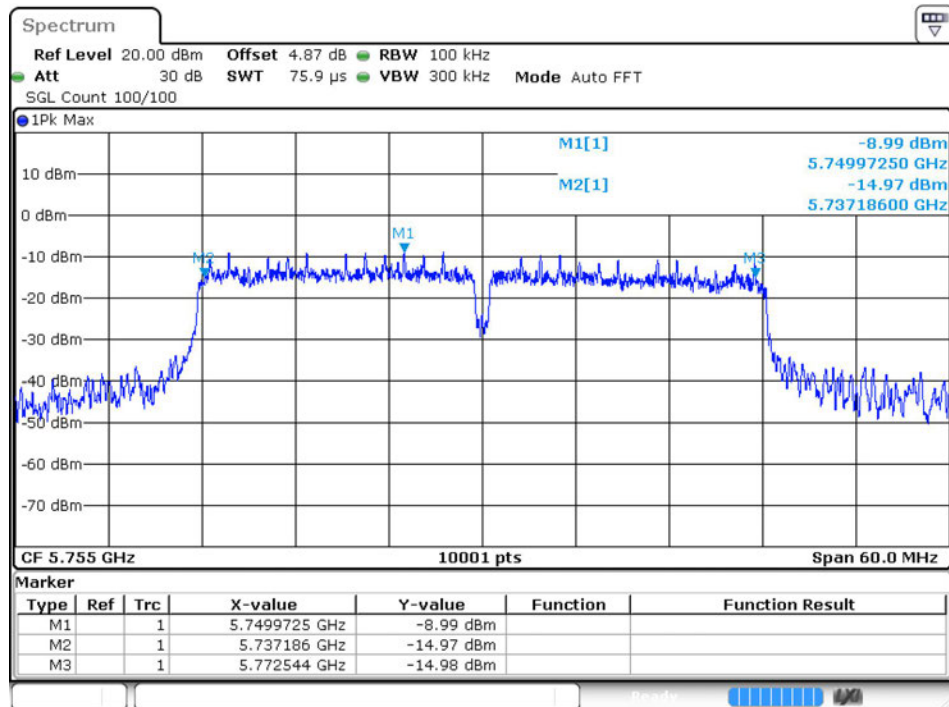


-6dB Bandwidth NVNT n20 5825MHz Ant1

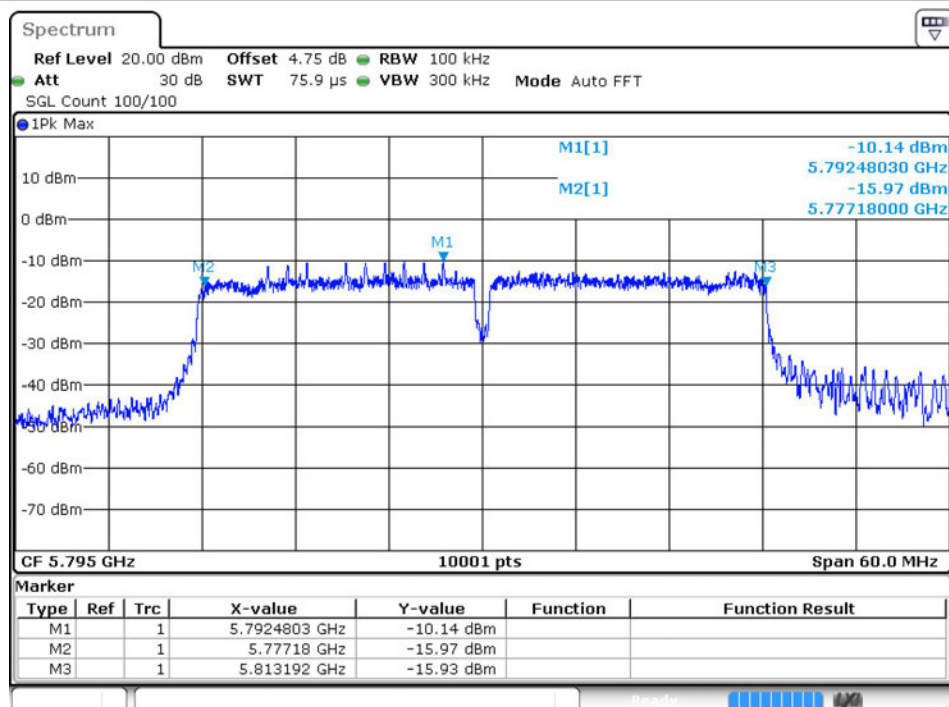




-6dB Bandwidth NVNT n40 5755MHz Ant1

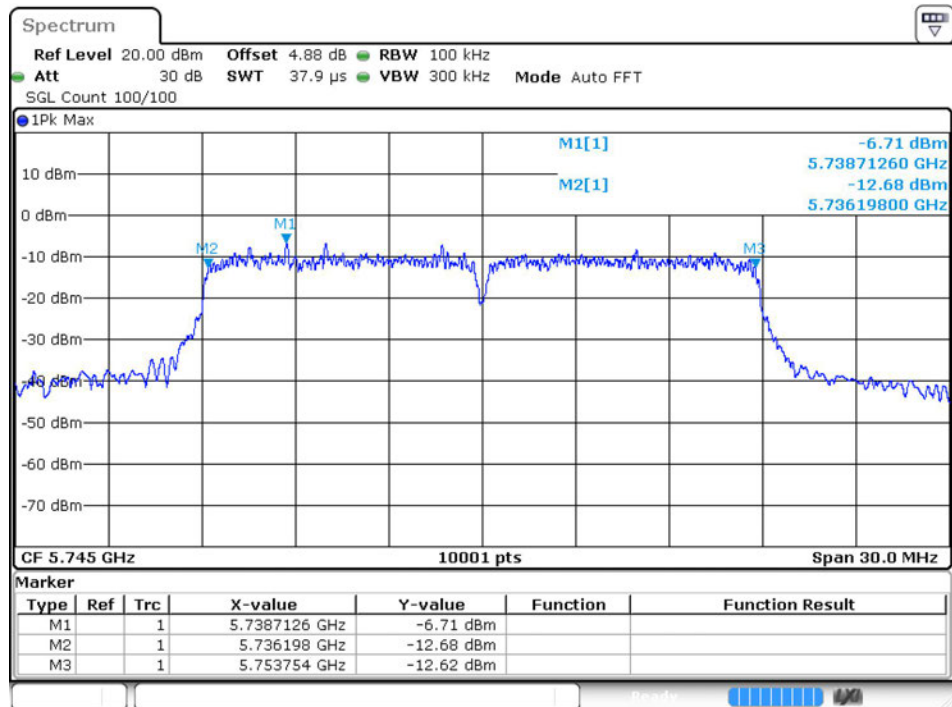


-6dB Bandwidth NVNT n40 5795MHz Ant1

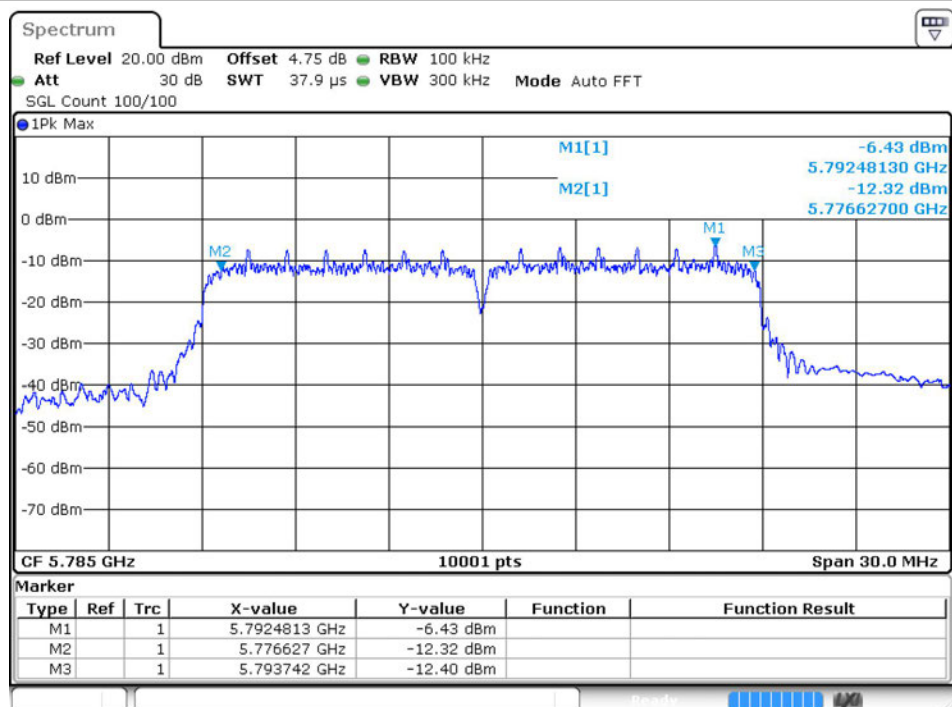




-6dB Bandwidth NVNT ac20 5745MHz Ant1

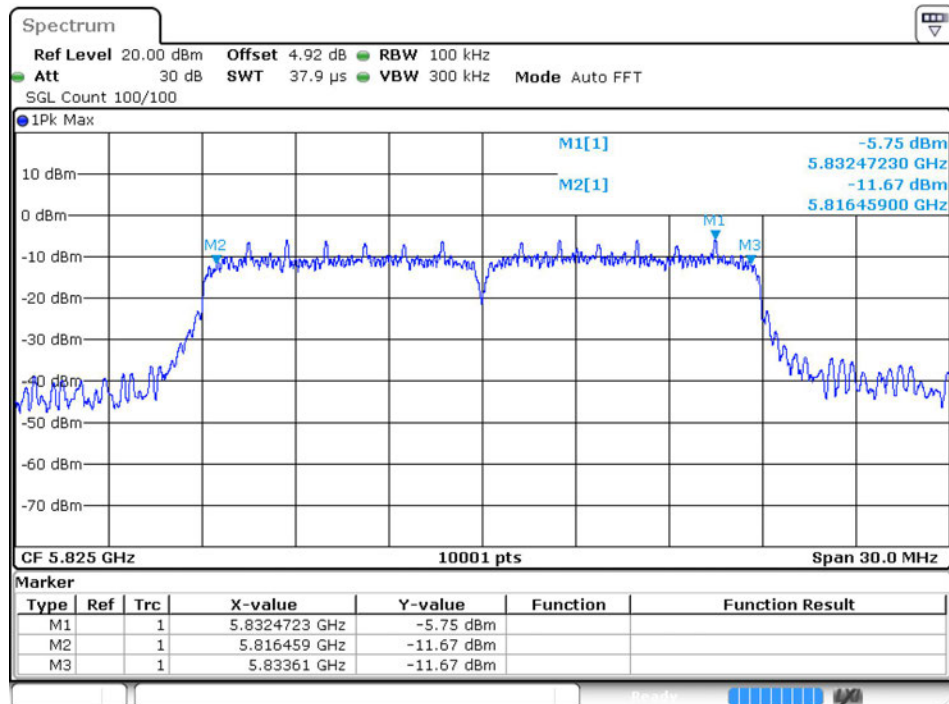


-6dB Bandwidth NVNT ac20 5785MHz Ant1

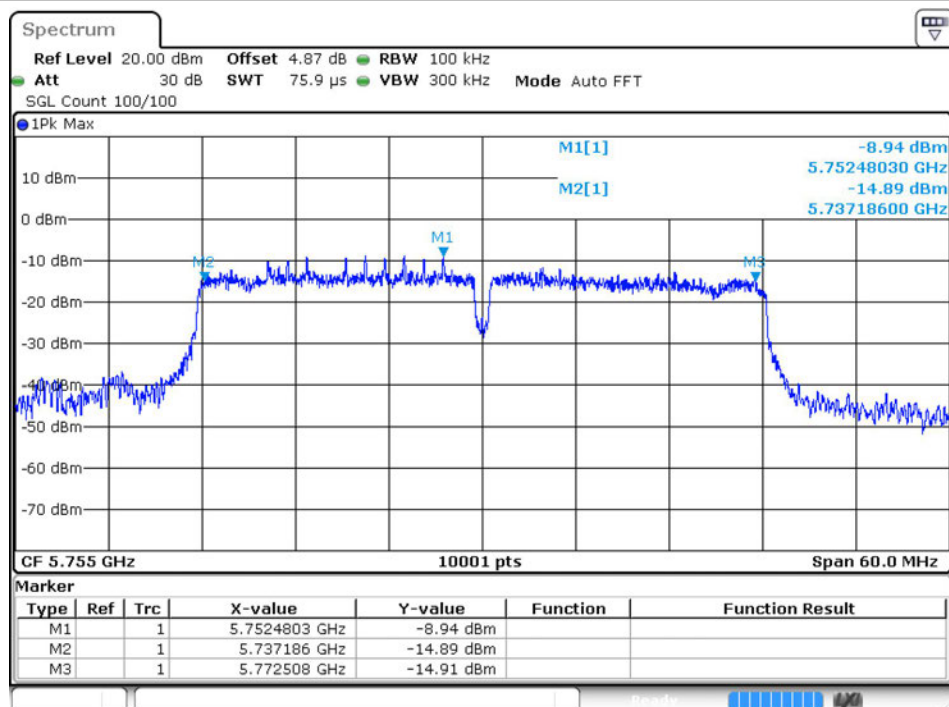




-6dB Bandwidth NVNT ac20 5825MHz Ant1

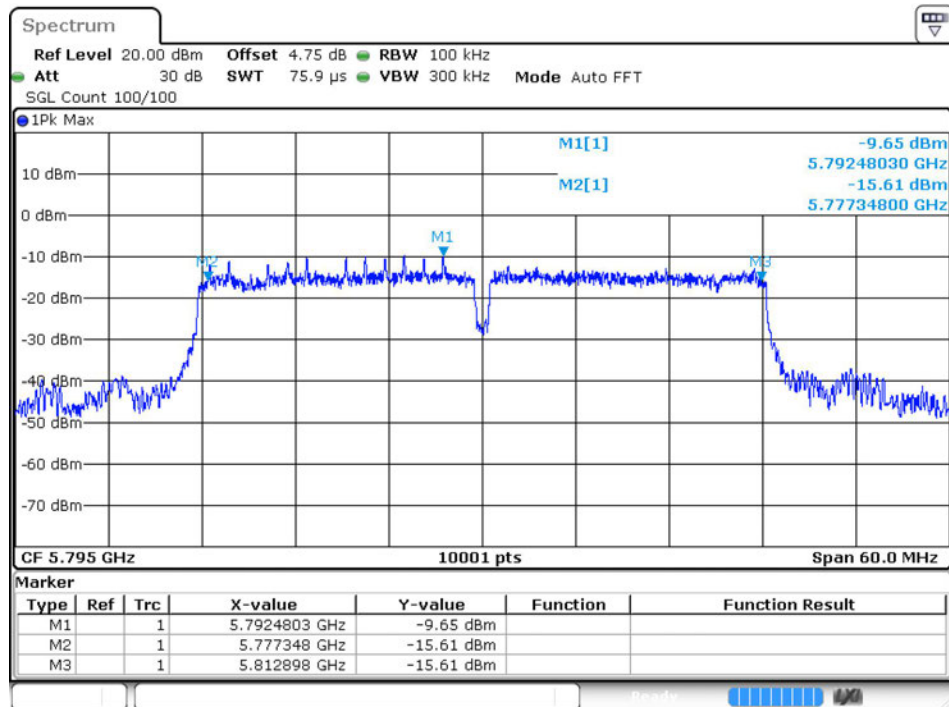


-6dB Bandwidth NVNT ac40 5755MHz Ant1

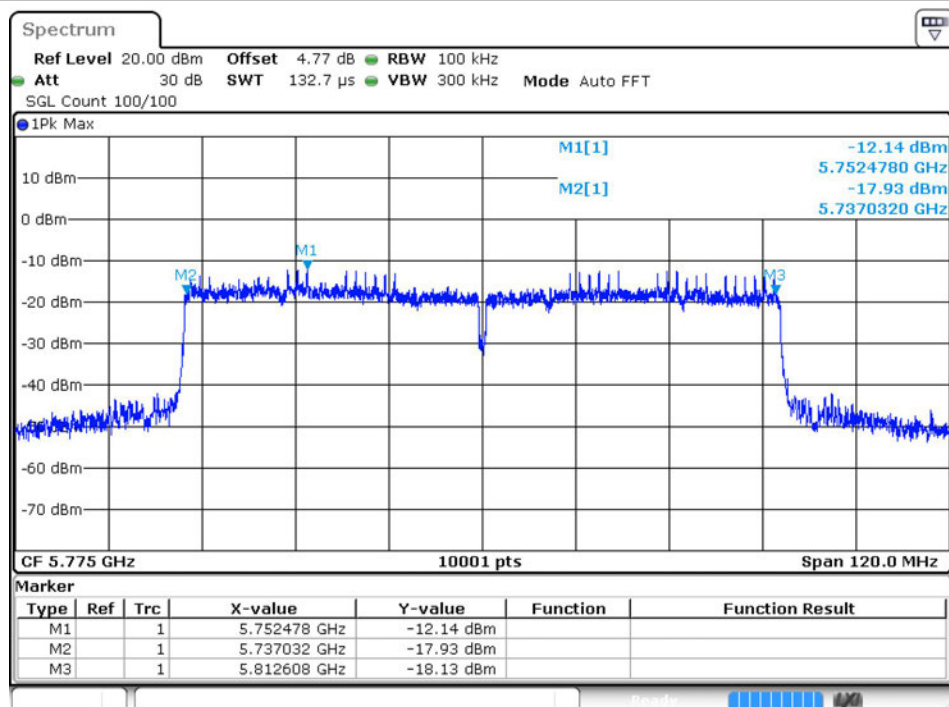




-6dB Bandwidth NVNT ac40 5795MHz Ant1



-6dB Bandwidth NVNT ac80 5775MHz Ant1





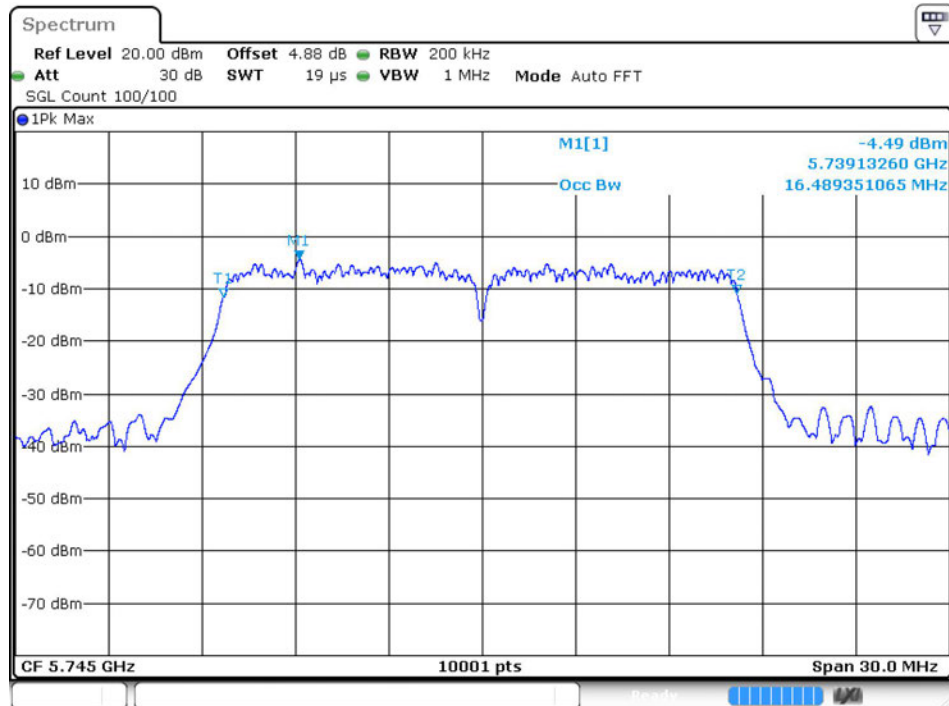
4 Occupied Channel Bandwidth

Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
802.11a	5745	Ant1	16.489
802.11	5785	Ant1	16.615
802.11a	5825	Ant1	16.456
802.11n20	5745	Ant1	17.641
802.11n20	5785	Ant1	17.593
802.11n20	5825	Ant1	17.605
802.11n40	5755	Ant1	36.35
802.11n40	5795	Ant1	36.272
802.11ac20	5745	Ant1	17.587
802.11ac20	5785	Ant1	17.719
802.11ac20	5825	Ant1	17.572
802.11ac40	5755	Ant1	36.212
802.11ac40	5795	Ant1	36.296
802.11ac80	5775	Ant1	75.772

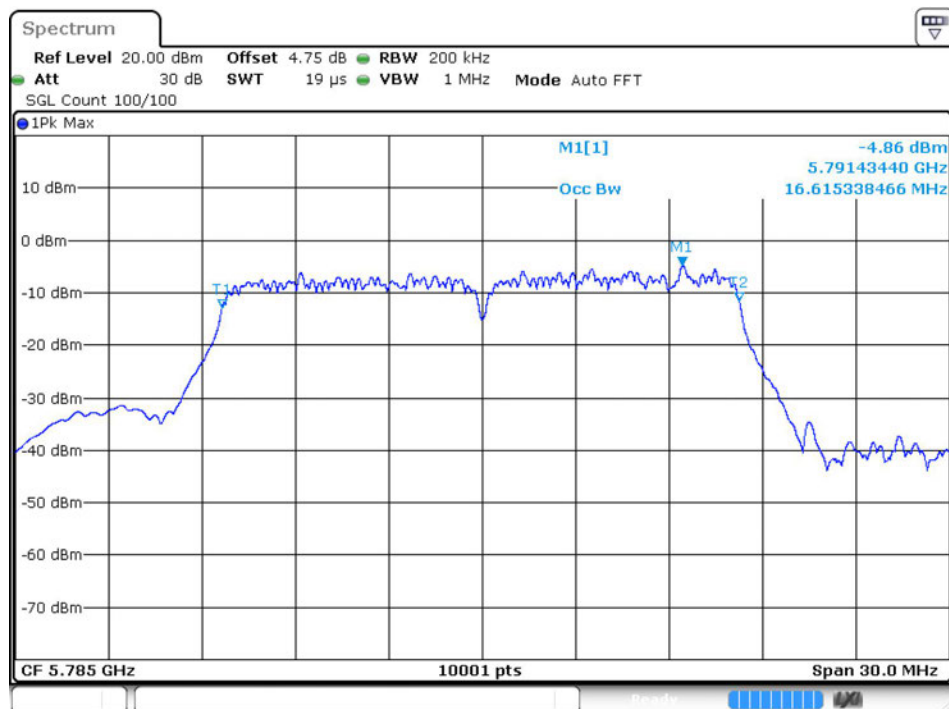


Test Graphs

OBW NVNT a 5745MHz Ant1

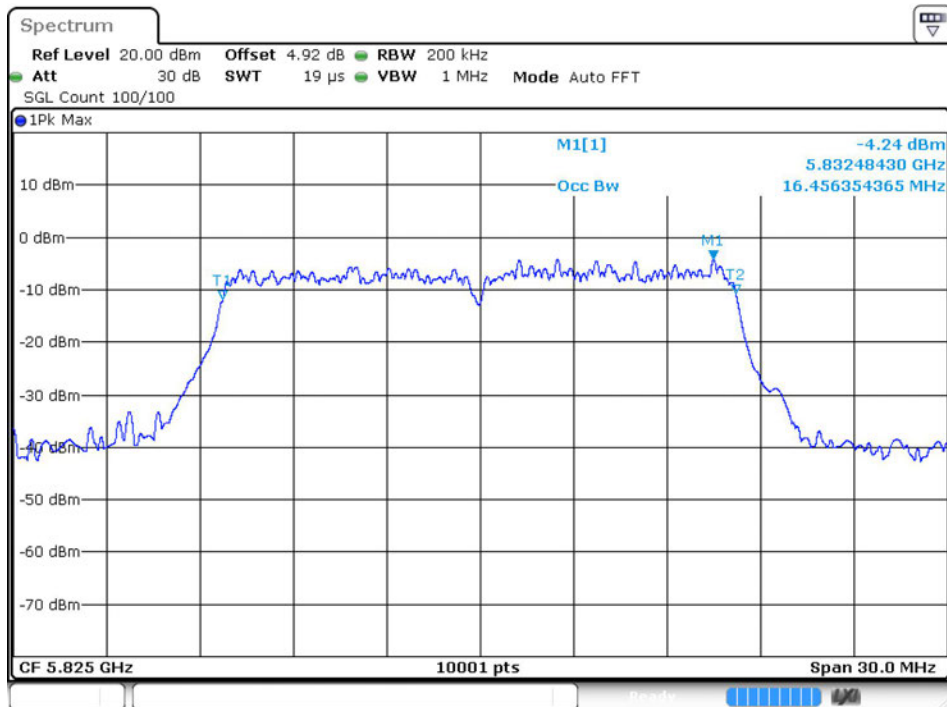


OBW NVNT a 5785MHz Ant1

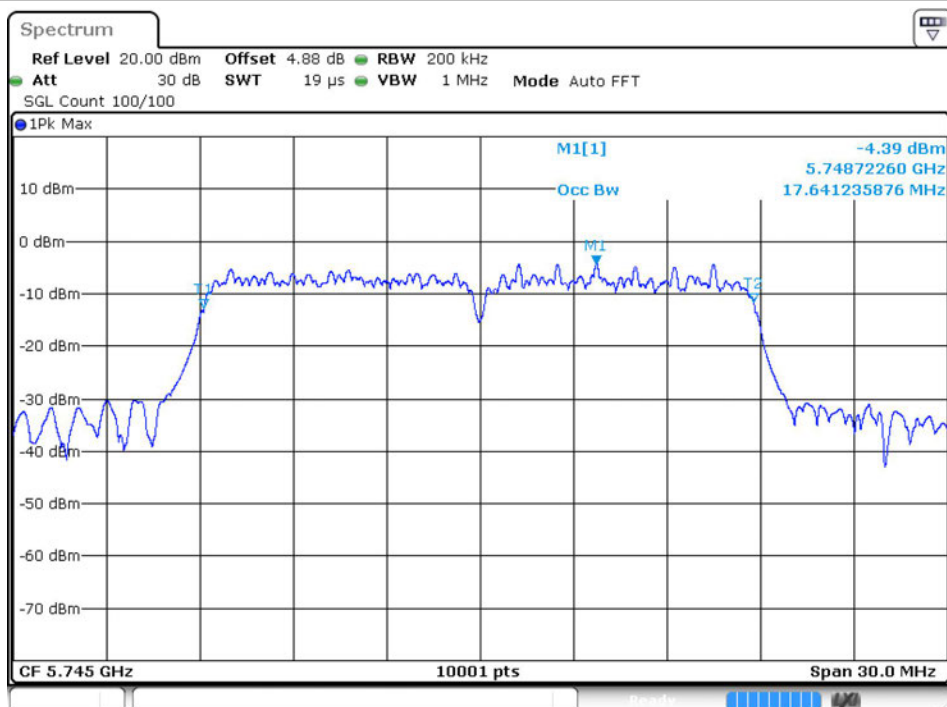




OBW NVNT a 5825MHz Ant1

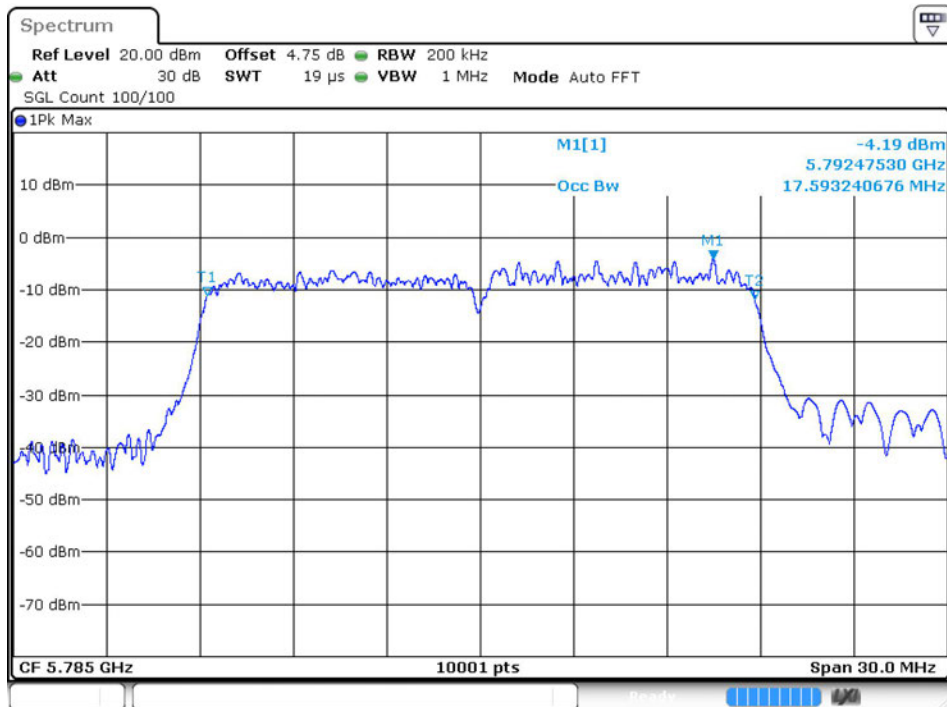


OBW NVNT n20 5745MHz Ant1

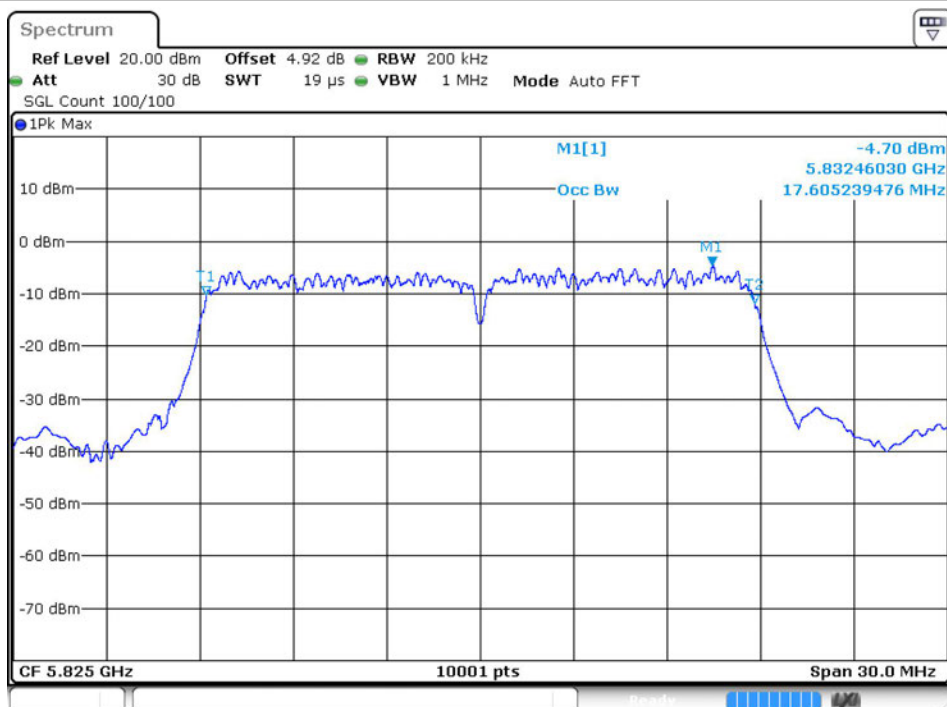




OBW NVNT n20 5785MHz Ant1

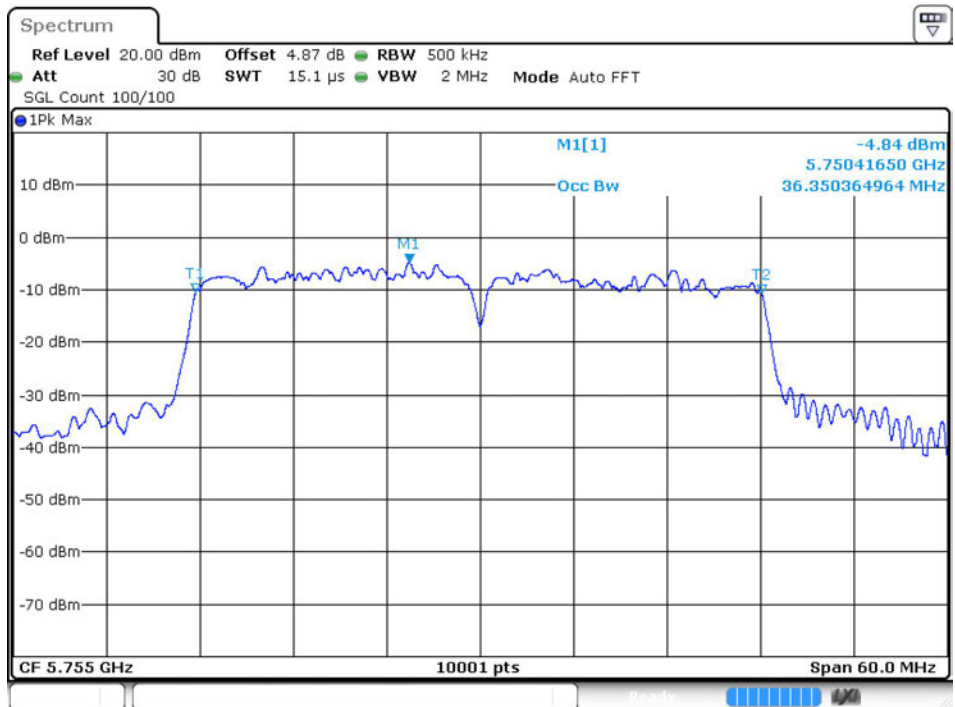


OBW NVNT n20 5825MHz Ant1

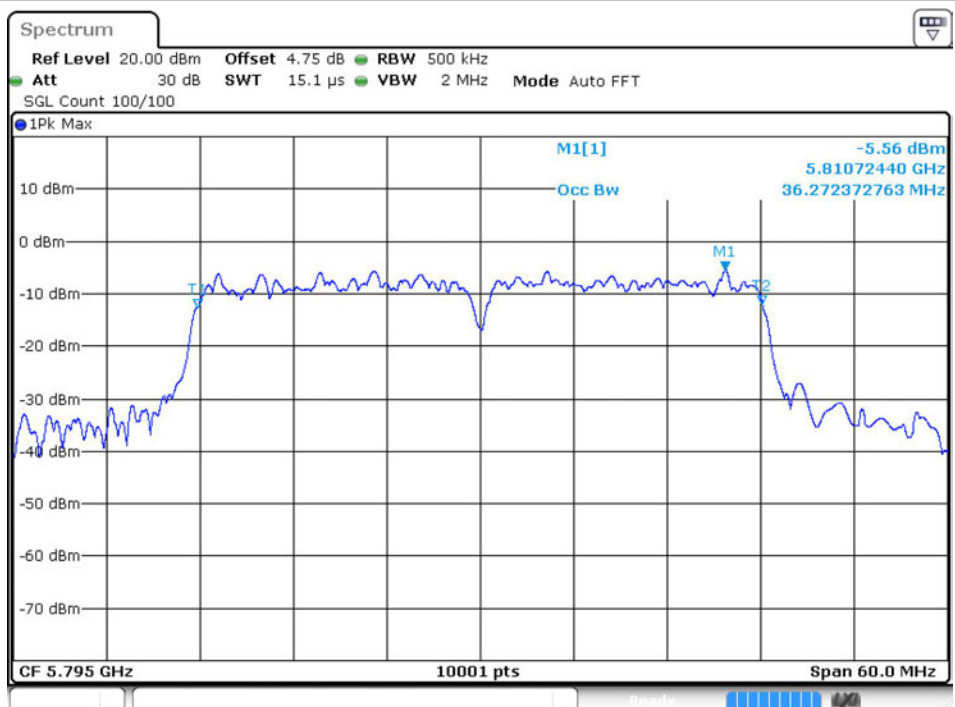




OBW NVNT n40 5755MHz Ant1

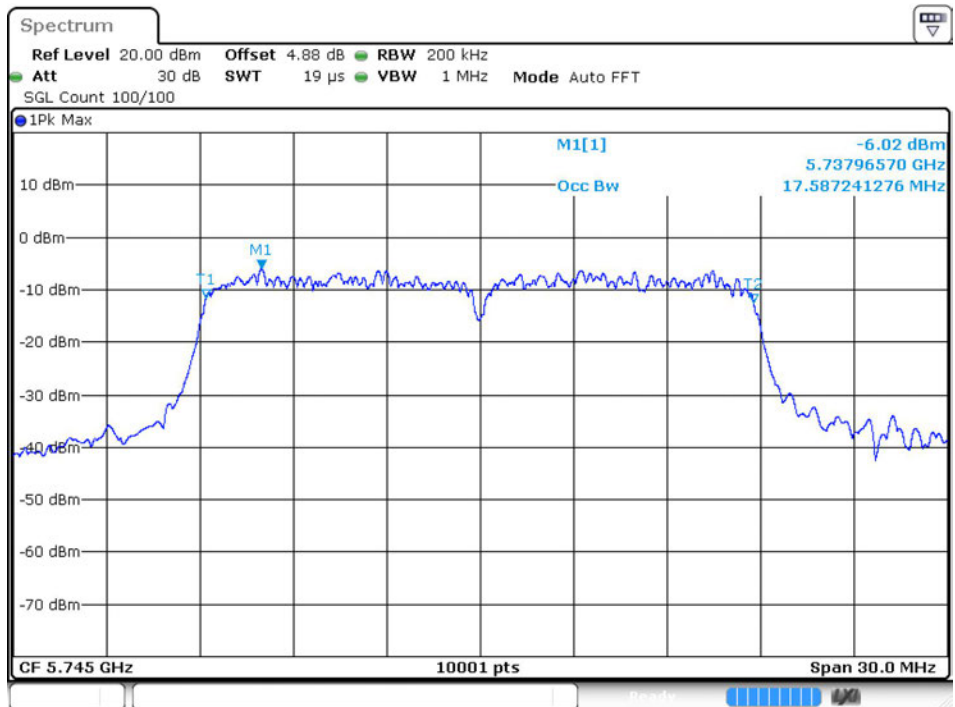


OBW NVNT n40 5795MHz Ant1

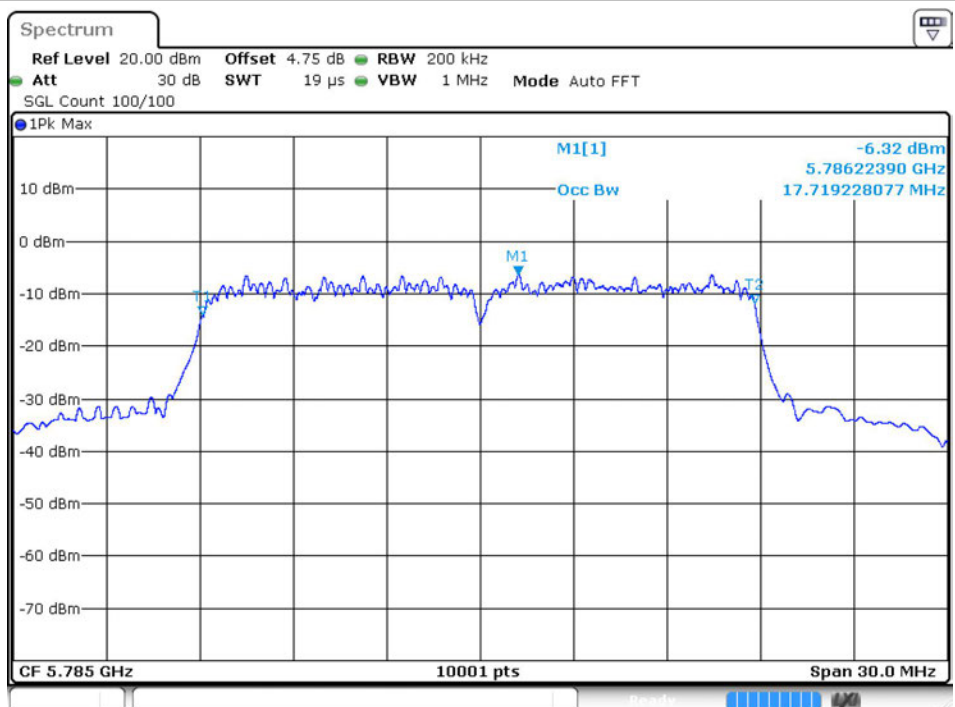




OBW NVNT ac20 5745MHz Ant1

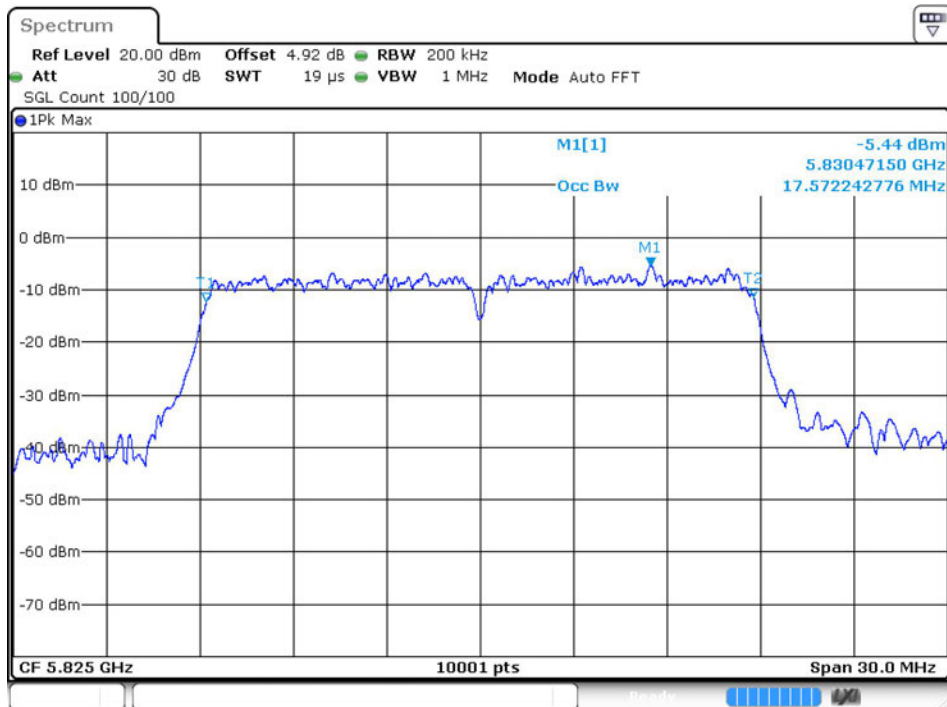


OBW NVNT ac20 5785MHz Ant1

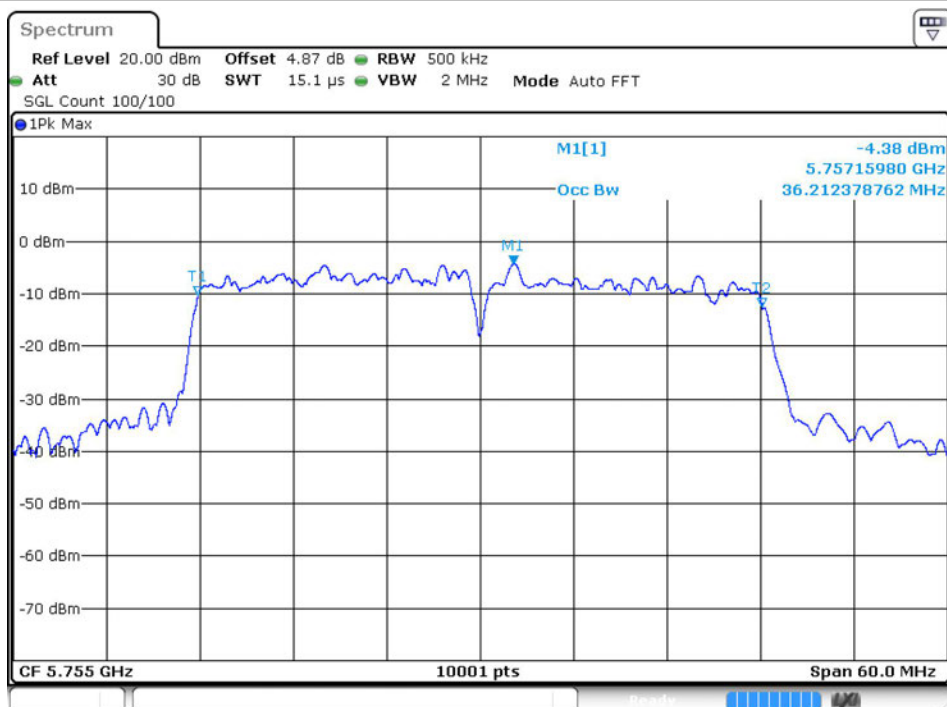




OBW NVNT ac20 5825MHz Ant1

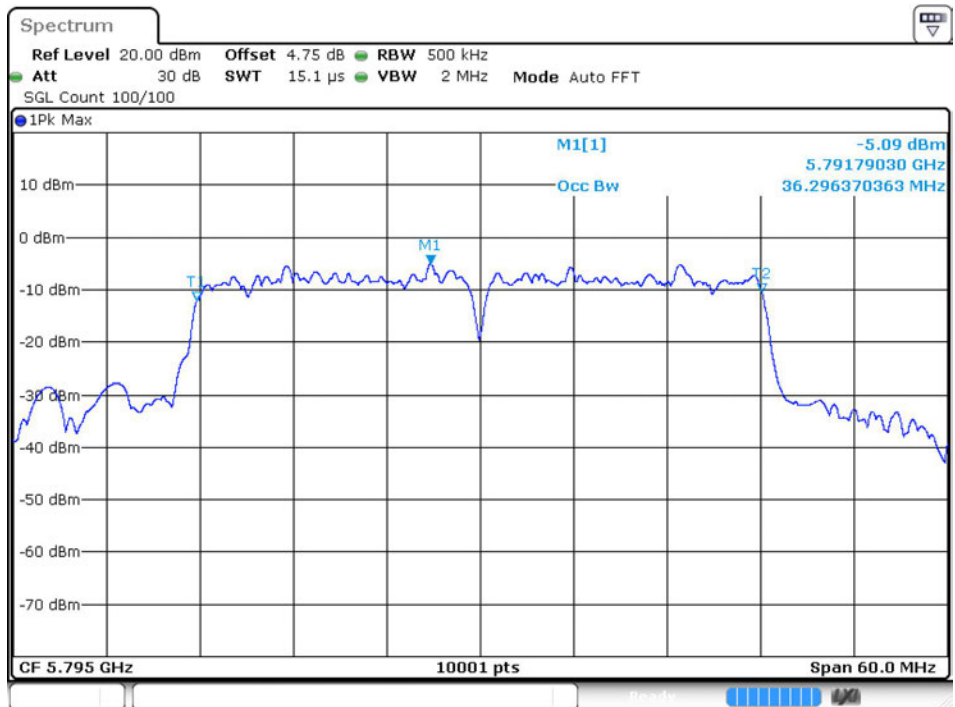


OBW NVNT ac40 5755MHz Ant1

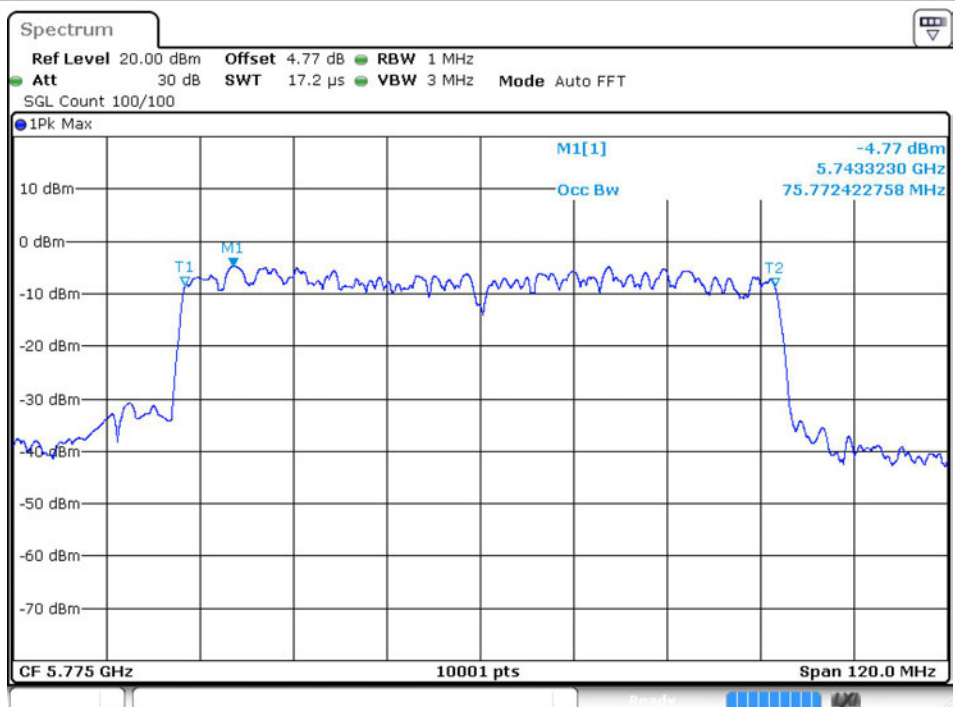




OBW NVNT ac40 5795MHz Ant1



OBW NVNT ac80 5775MHz Ant1





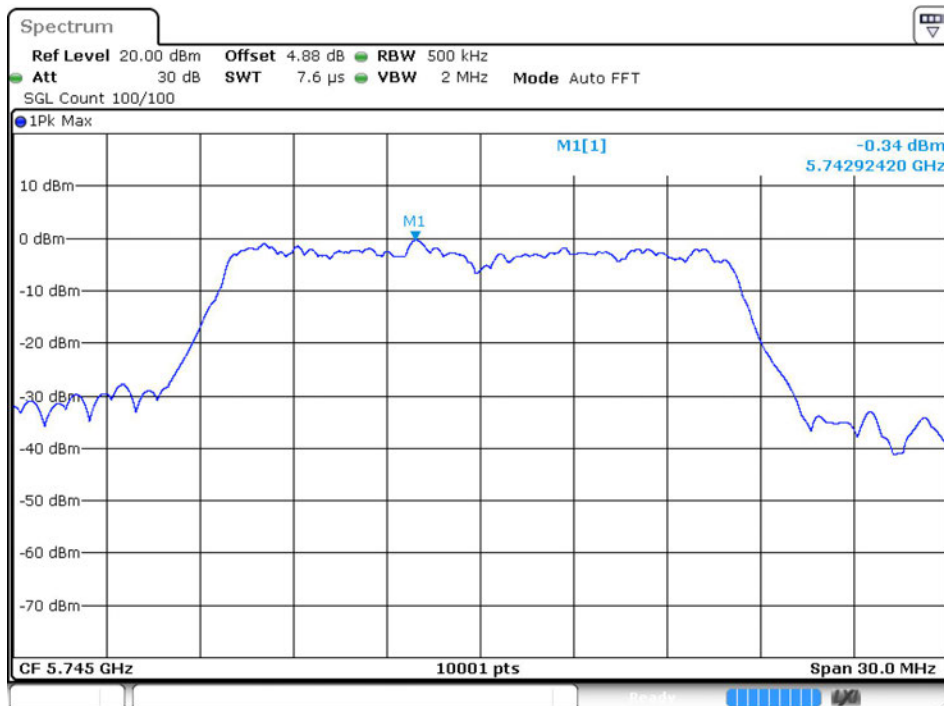
5 Maximum Power Spectral Density Level

Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Total PSD (dBm)	Limit (dBm)	Verdict
802.11a	5745	Ant1	-0.34	-0.34	30	Pass
802.11a	5785	Ant1	-2.13	-2.13	30	Pass
802.11a	5825	Ant1	-0.61	-0.61	30	Pass
802.11n20	5745	Ant1	-0.8	-0.8	30	Pass
802.11n20	5785	Ant1	-0.22	-0.22	30	Pass
802.11n20	5825	Ant1	-0.15	-0.15	30	Pass
802.11n40	5755	Ant1	-4.41	-4.41	30	Pass
802.11n40	5795	Ant1	-5.05	-5.05	30	Pass
802.11ac20	5745	Ant1	-2.42	-2.42	30	Pass
802.11ac20	5785	Ant1	-2.16	-2.16	30	Pass
802.11ac20	5825	Ant1	-0.83	-0.83	30	Pass
802.11ac40	5755	Ant1	-4.35	-4.35	30	Pass
802.11ac40	5795	Ant1	-5.11	-5.11	30	Pass
802.11ac80	5775	Ant1	-7.65	-7.65	30	Pass



Test Graphs

PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1

