

Appendix D

RF Test Data for 5GHz_WIFI (Conducted Measurement)

Product Name: SMARTPHONE

Trade Mark: SIRAGON

Test Model: SP-7300

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

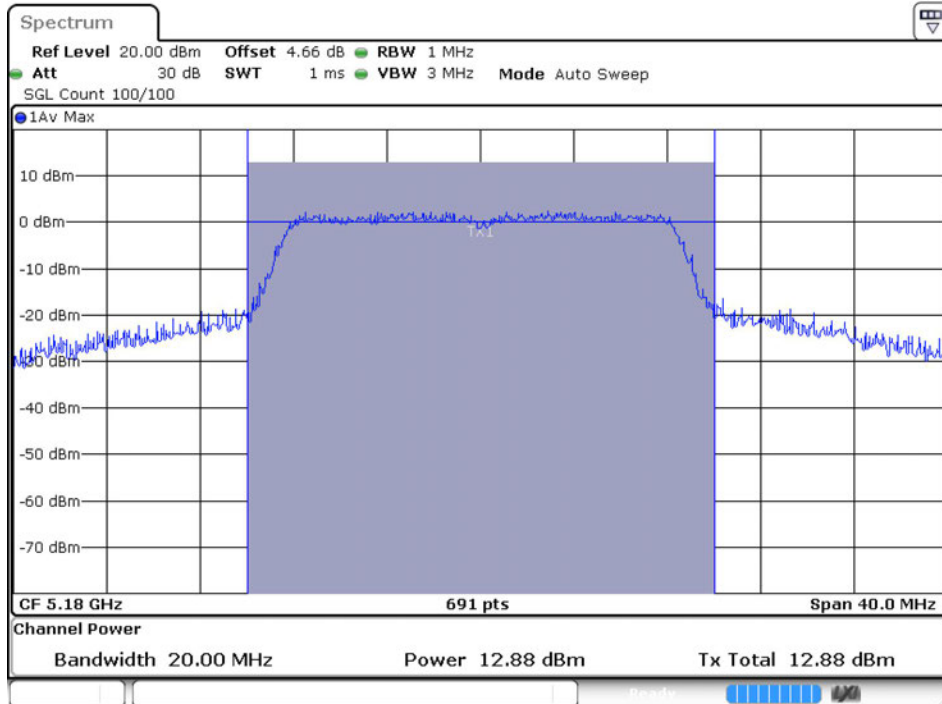
Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
802.11a	5180	Ant1	88.3	0.54	0.72
802.11a	5200	Ant1	88.12	0.54	0.72
802.11a	5240	Ant1	88.1	0.55	0.72
802.11a	5260	Ant1	88.05	0.55	0.72
802.11a	5280	Ant1	88.72	0.52	0.72
802.11a	5320	Ant1	88.11	0.55	0.72
802.11n20	5180	Ant1	86.93	0.61	0.85
802.11n20	5200	Ant1	86.83	0.61	0.85
802.11n20	5240	Ant1	87.17	0.6	0.85
802.11n20	5260	Ant1	87.1	0.6	0.85
802.11n20	5280	Ant1	86.99	0.61	0.85
802.11n20	5320	Ant1	87	0.6	0.85
802.11n40	5190	Ant1	76.88	1.14	1.69
802.11n40	5230	Ant1	76.81	1.15	1.72
802.11n40	5270	Ant1	76.76	1.15	1.72
802.11n40	5310	Ant1	76.7	1.15	1.72
802.11ac20	5180	Ant1	87.19	0.6	0.85
802.11ac20	5200	Ant1	86.72	0.62	0.85
802.11ac20	5240	Ant1	87.16	0.6	0.85
802.11ac20	5260	Ant1	87.29	0.59	0.85
802.11ac20	5280	Ant1	87.14	0.6	0.84
802.11ac20	5320	Ant1	87.44	0.58	0.85
802.11ac40	5190	Ant1	77.02	1.13	1.69
802.11ac40	5230	Ant1	77.06	1.13	1.69
802.11ac40	5270	Ant1	77.08	1.13	1.69
802.11ac40	5310	Ant1	77.17	1.13	1.69
802.11ac80	5210	Ant1	62.55	2.04	3.66
802.11ac80	5290	Ant1	62.93	2.01	3.57

2.Maximum Conducted Output Power

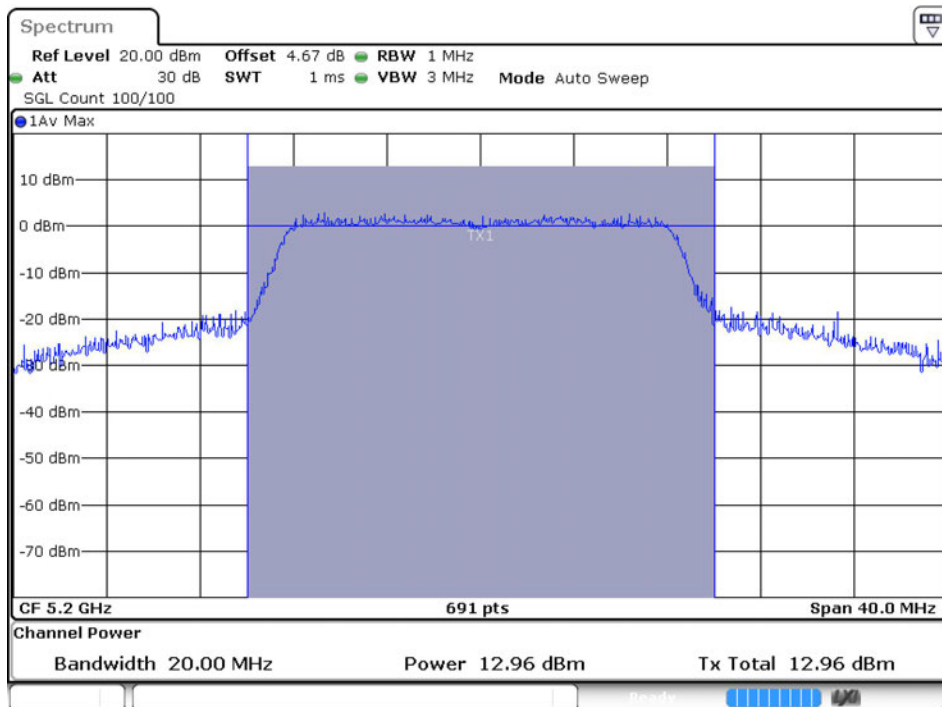
Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
802.11a	5180	Ant1	12.88	0.54	13.99	24	Pass
802.11a	5200	Ant1	12.96	0.55	13.56	24	Pass
802.11a	5240	Ant1	13.15	0.55	13.32	24	Pass
802.11a	5260	Ant1	12.72	0.55	13.51	24	Pass
802.11a	5280	Ant1	12.6	0.52	12.40	24	Pass
802.11a	5320	Ant1	14.29	0.55	14.81	24	Pass
802.11n20	5180	Ant1	13.04	0.61	12.68	24	Pass
802.11n20	5200	Ant1	12.14	0.61	12.63	24	Pass
802.11n20	5240	Ant1	12.41	0.6	12.26	24	Pass
802.11n20	5260	Ant1	11.92	0.6	12.03	24	Pass
802.11n20	5280	Ant1	11.91	0.61	12.41	24	Pass
802.11n20	5320	Ant1	13.55	0.6	13.19	24	Pass
802.11n40	5190	Ant1	11.47	1.14	12.04	24	Pass
802.11n40	5230	Ant1	11.82	1.15	12.64	24	Pass
802.11n40	5270	Ant1	11.24	1.15	12.31	24	Pass
802.11n40	5310	Ant1	12.39	1.15	12.83	24	Pass
802.11ac20	5180	Ant1	11.92	0.6	11.72	24	Pass
802.11ac20	5200	Ant1	12.12	0.62	12.26	24	Pass
802.11ac20	5240	Ant1	12.28	0.6	12.74	24	Pass
802.11ac20	5260	Ant1	11.79	0.59	11.99	24	Pass
802.11ac20	5280	Ant1	11.87	0.6	12.04	24	Pass
802.11ac20	5320	Ant1	13.43	0.58	13.74	24	Pass
802.11ac40	5190	Ant1	10.71	1.13	11.08	24	Pass
802.11ac40	5230	Ant1	11.27	1.13	12.18	24	Pass
802.11ac40	5270	Ant1	10.67	1.13	10.84	24	Pass
802.11ac40	5310	Ant1	11.91	1.13	12.56	24	Pass
802.11ac80	5210	Ant1	10.76	2.04	11.90	24	Pass
802.11ac80	5290	Ant1	11.08	2.01	12.76	24	Pass

Test Graphs

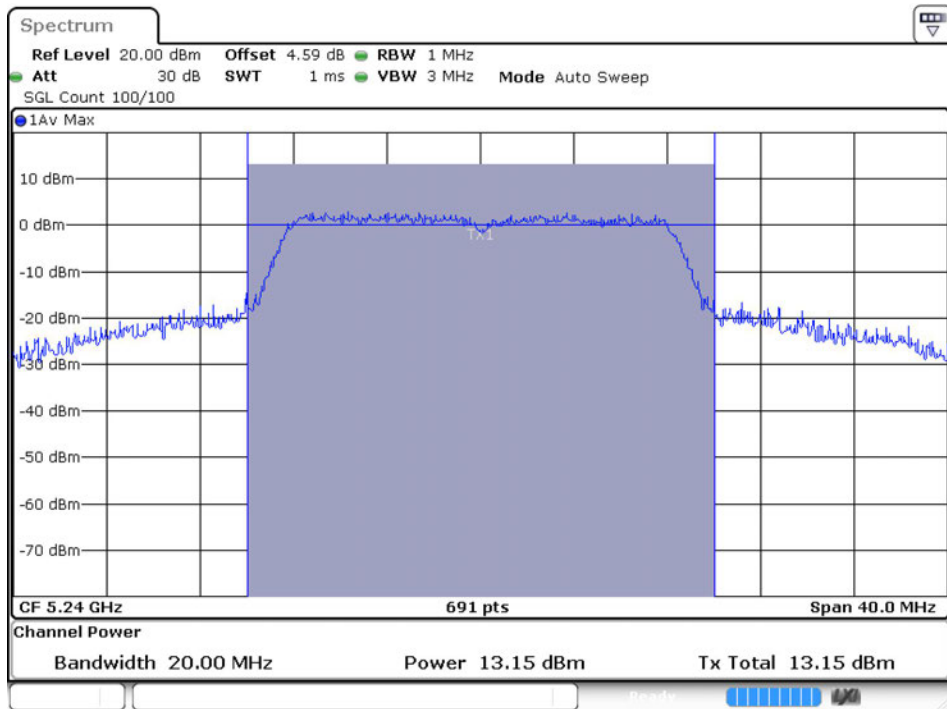
Power NVNT a 5180MHz Ant1



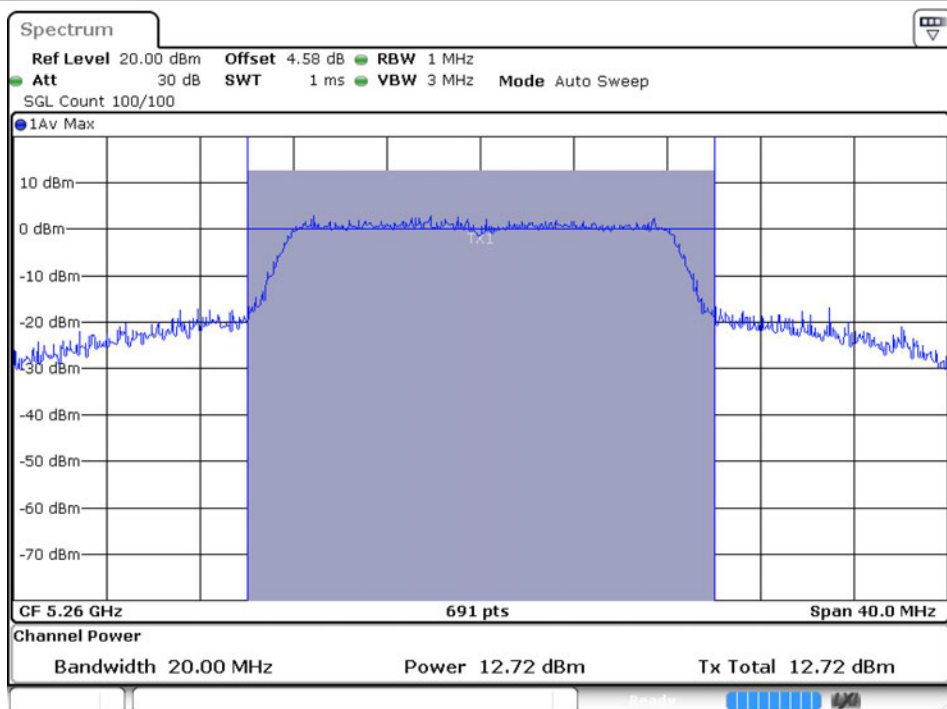
Power NVNT a 5200MHz Ant1



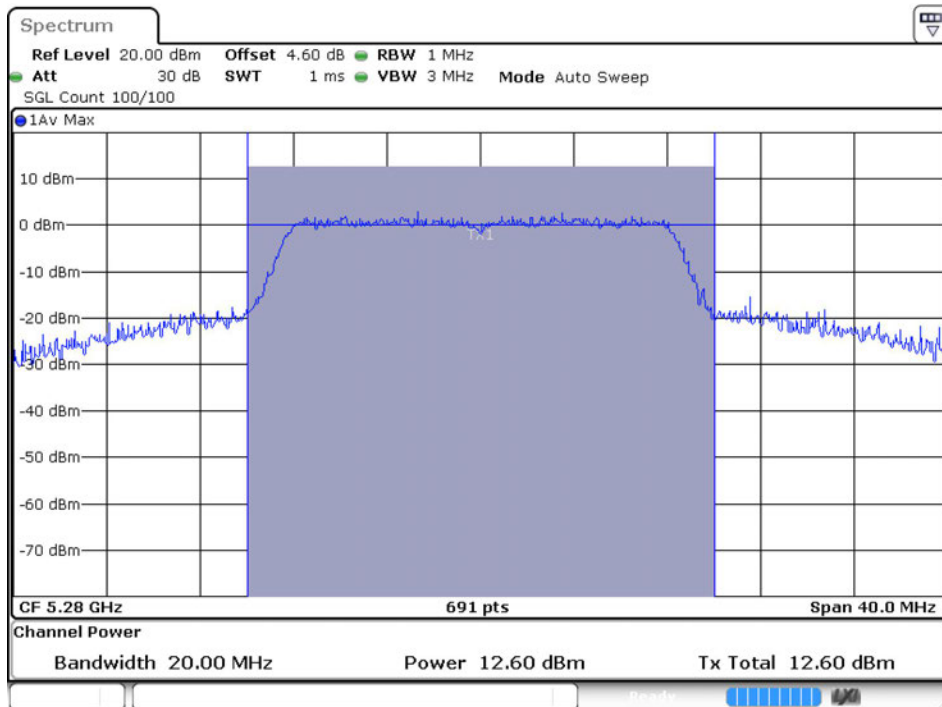
Power NVNT a 5240MHz Ant1



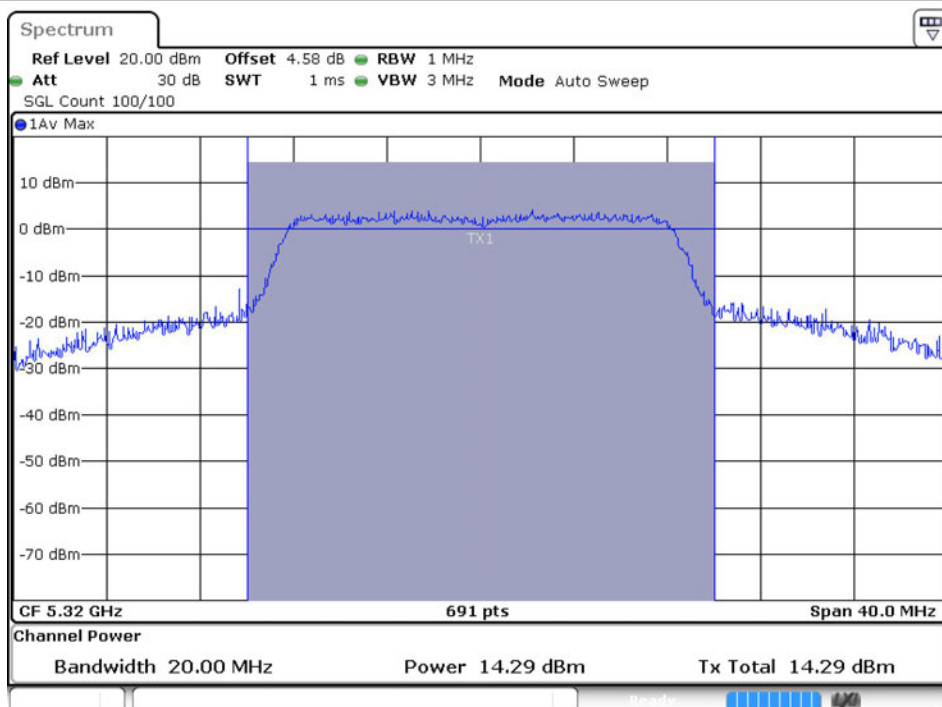
Power NVNT a 5260MHz Ant1



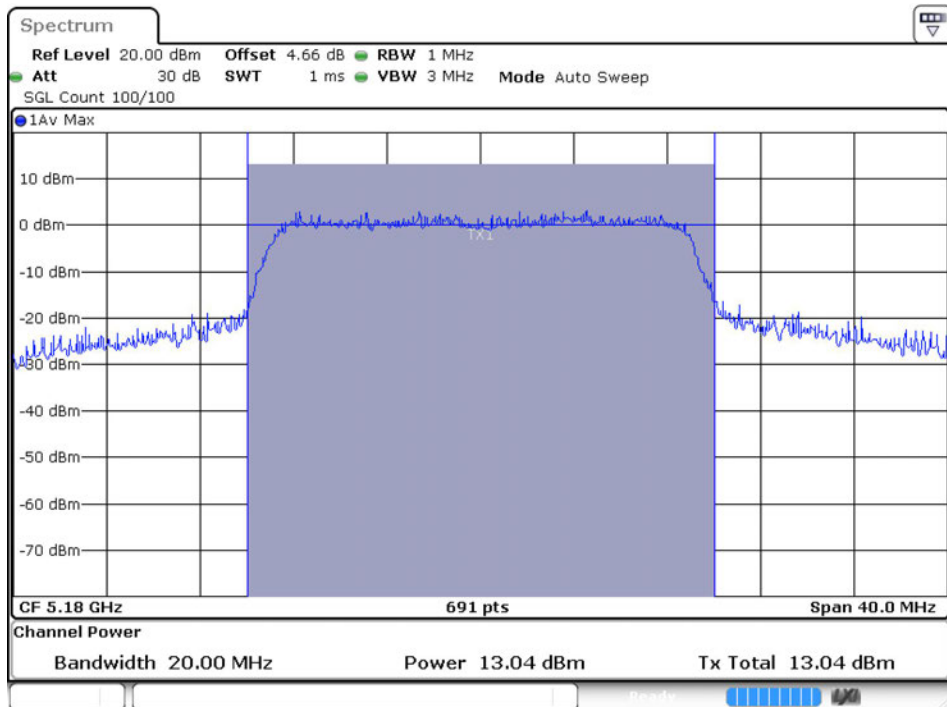
Power NVNT a 5280MHz Ant1



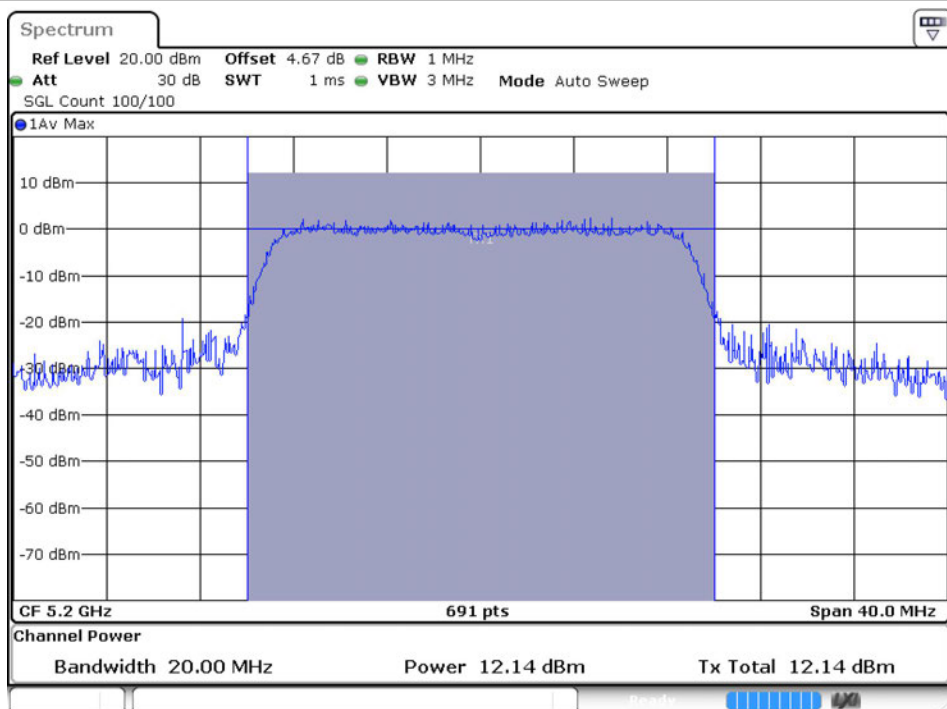
Power NVNT a 5320MHz Ant1



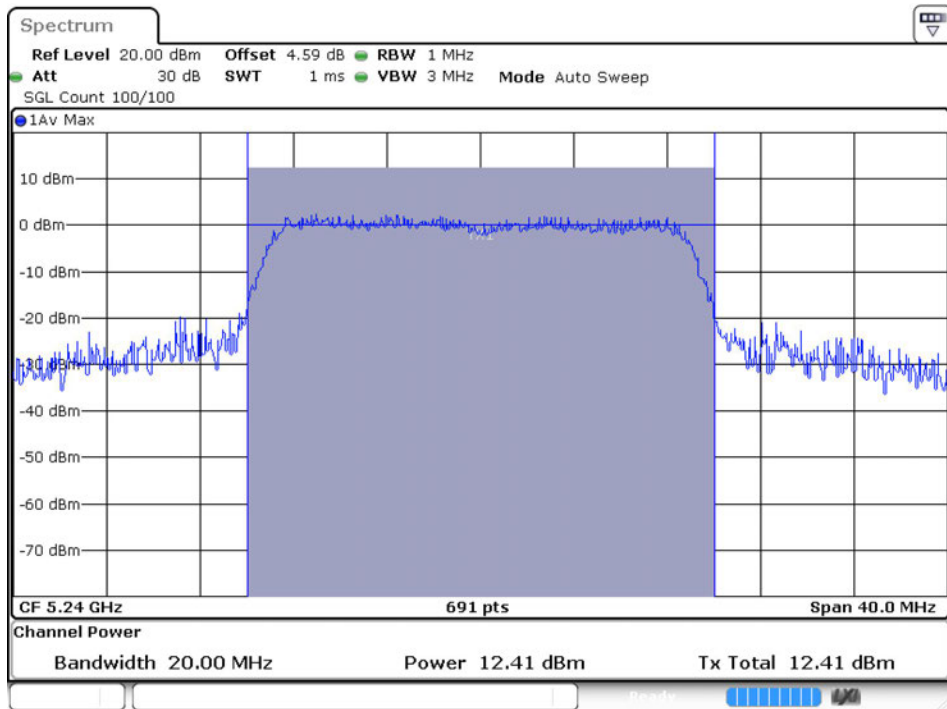
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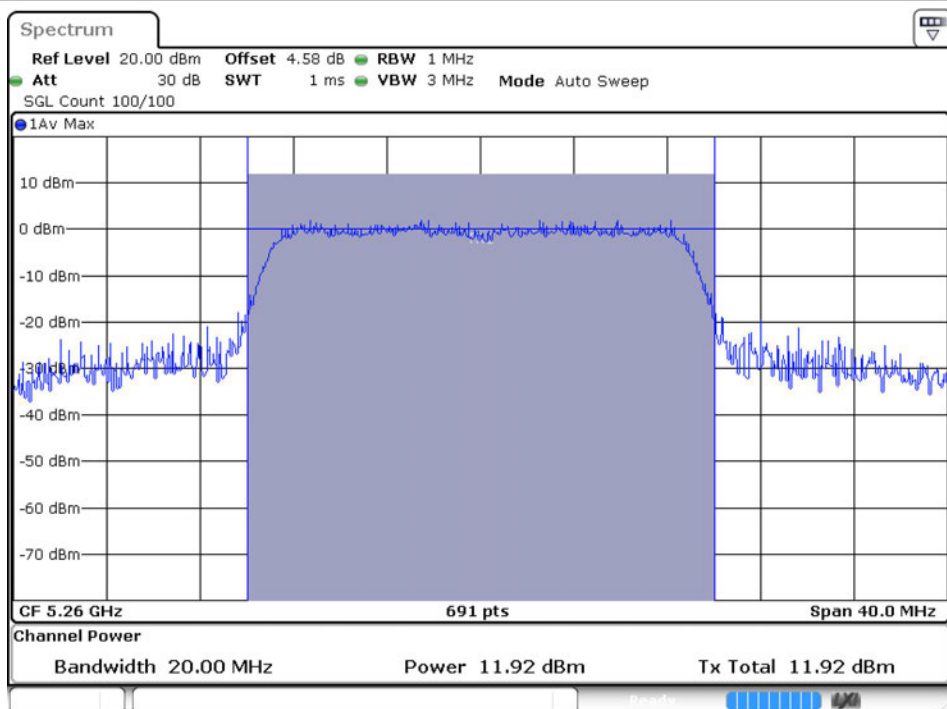
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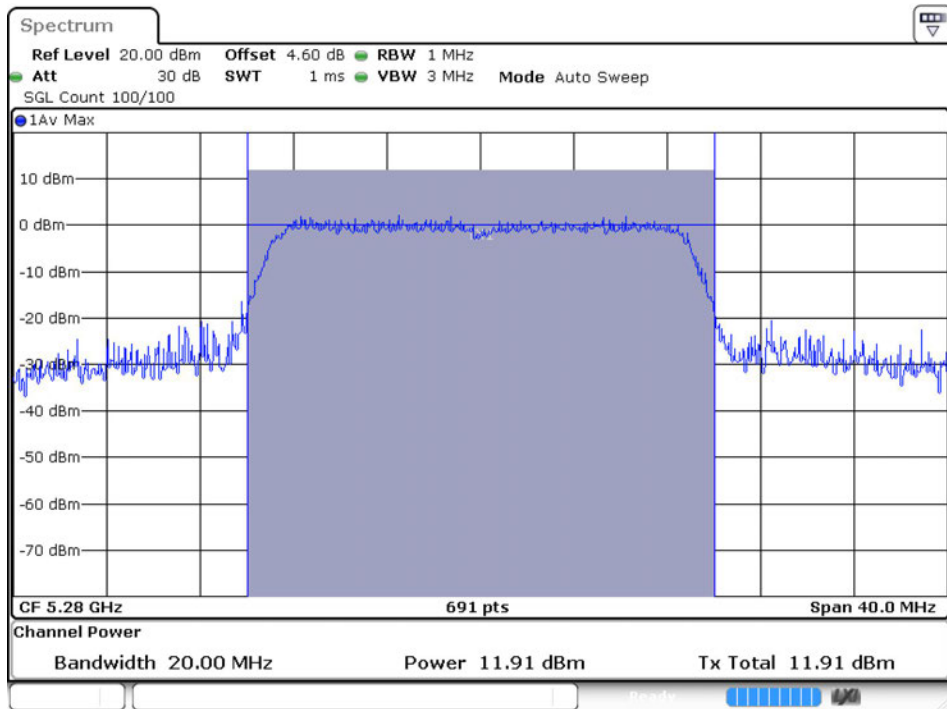
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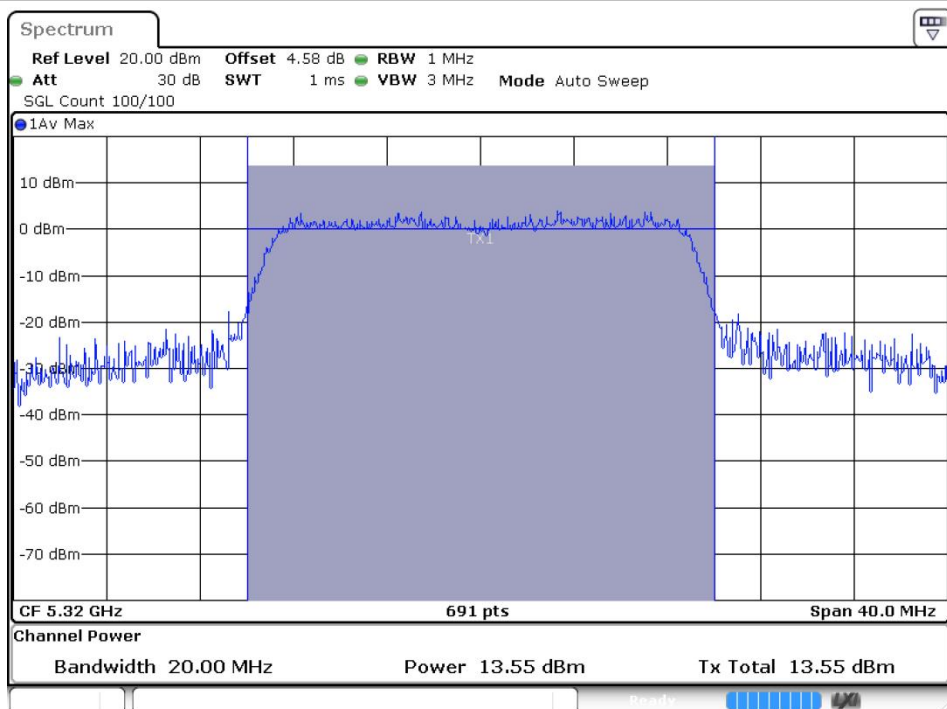
Power NVNT n20 5260MHz Ant1



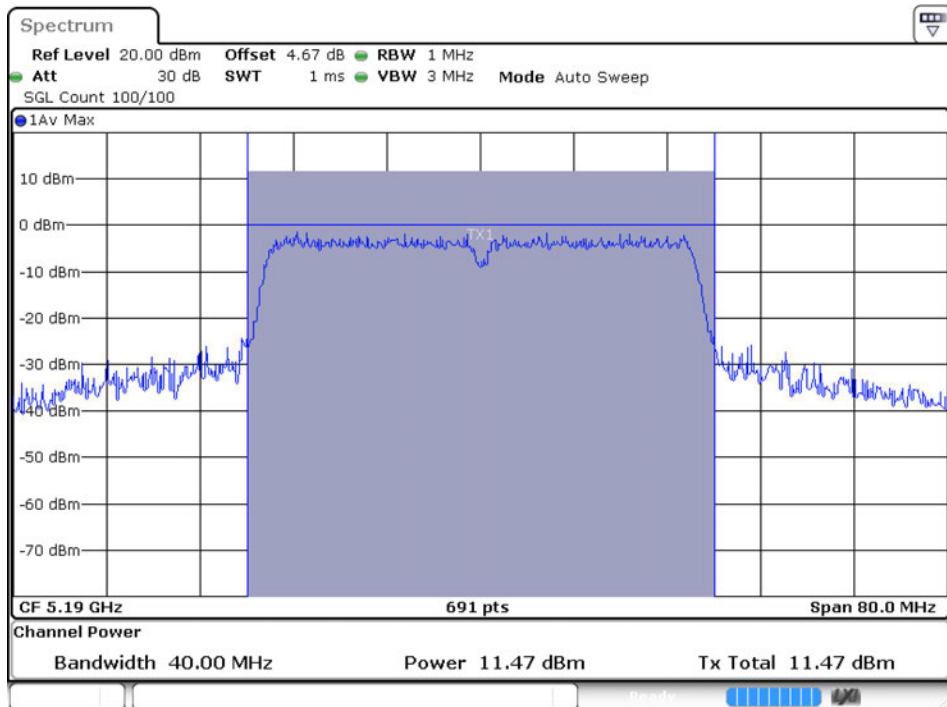
Power NVNT n20 5280MHz Ant1



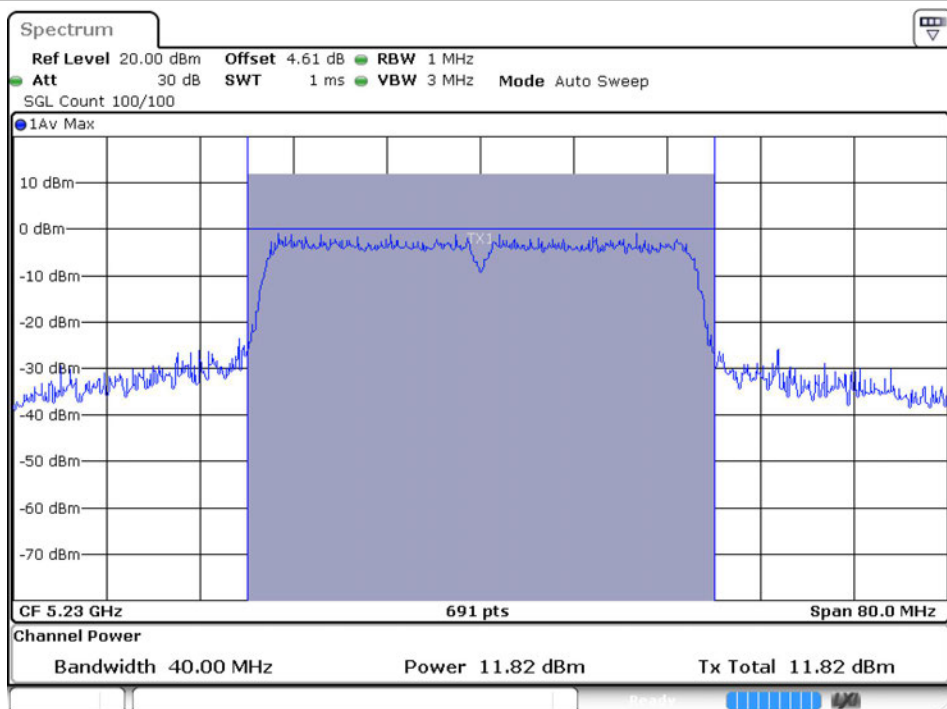
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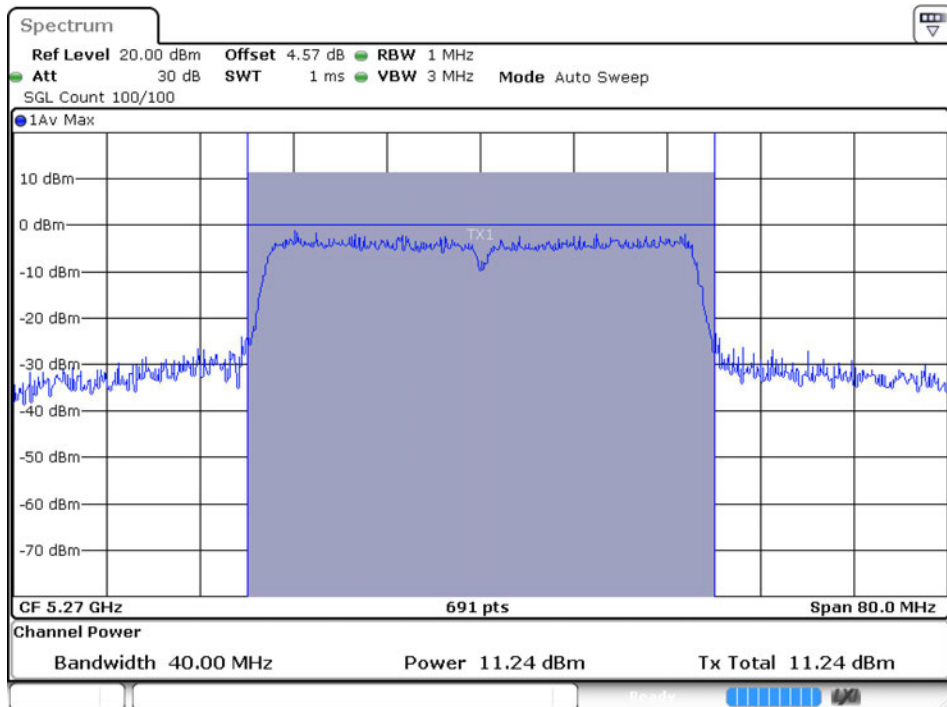
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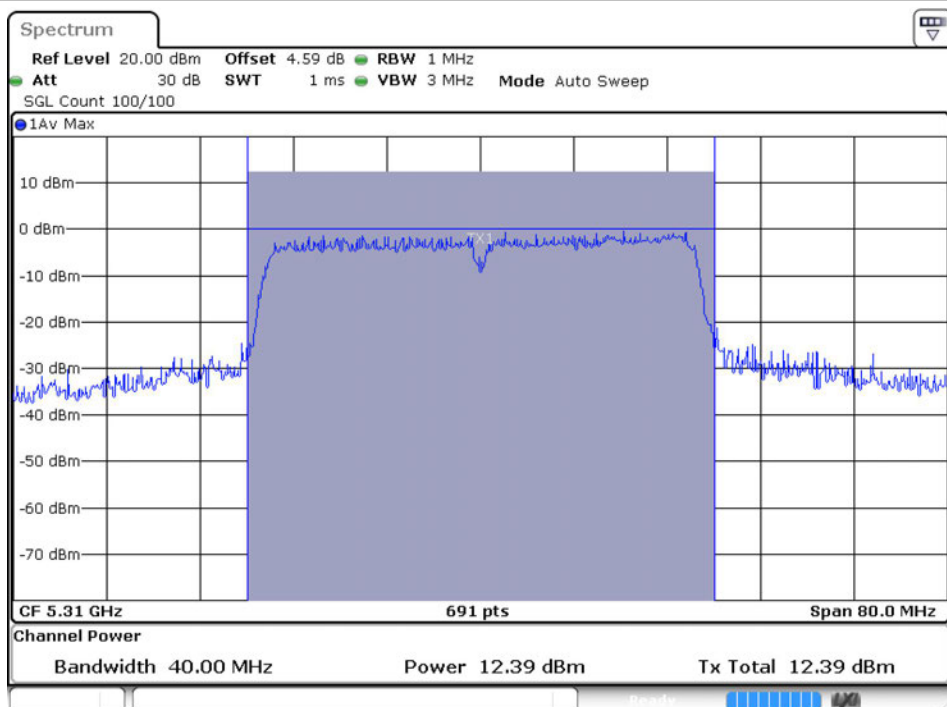
Power NVNT n40 5230MHz Ant1



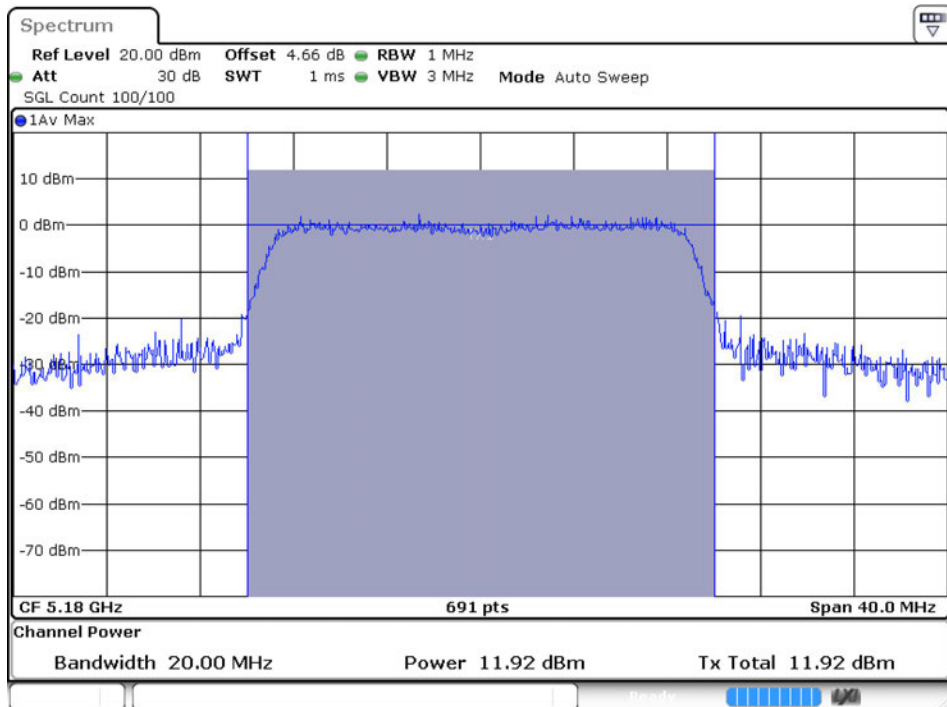
Power NVNT n40 5270MHz Ant1



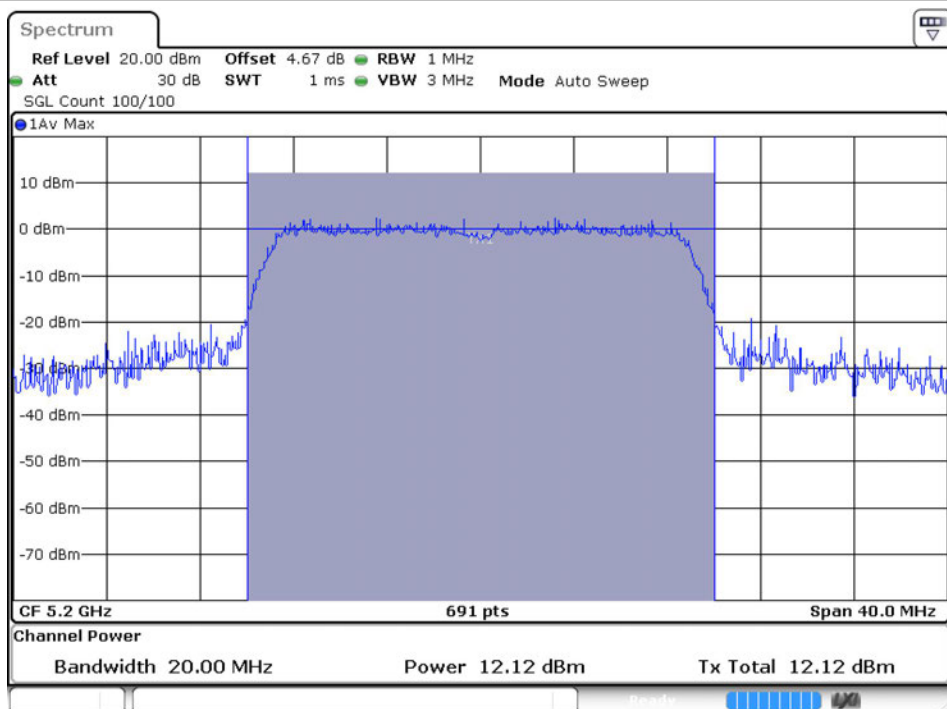
Power NVNT n40 5310MHz Ant1



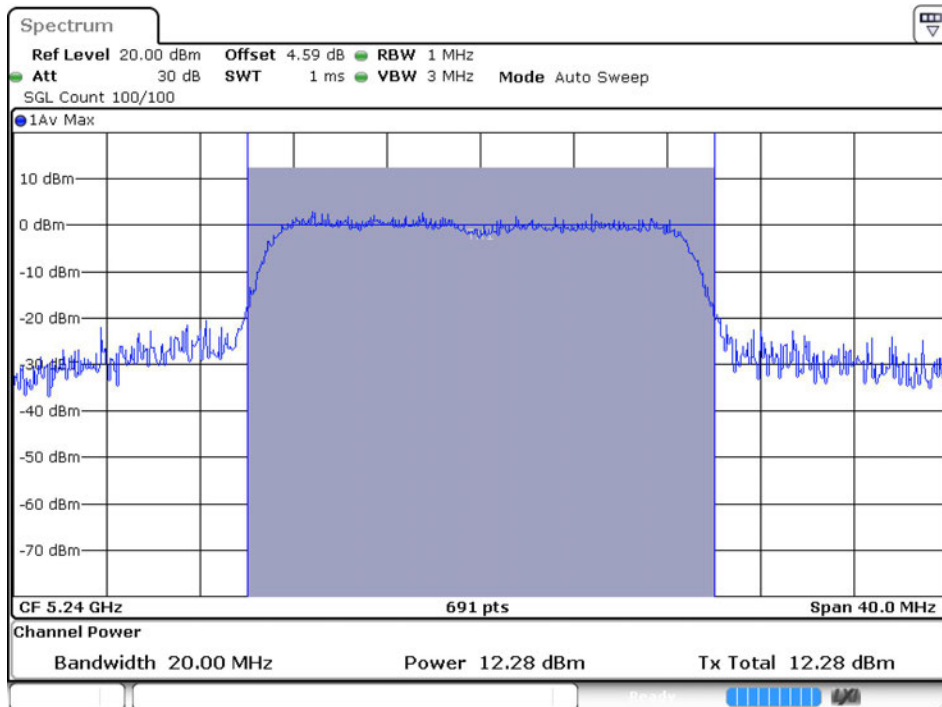
Power NVNT ac20 5180MHz Ant1



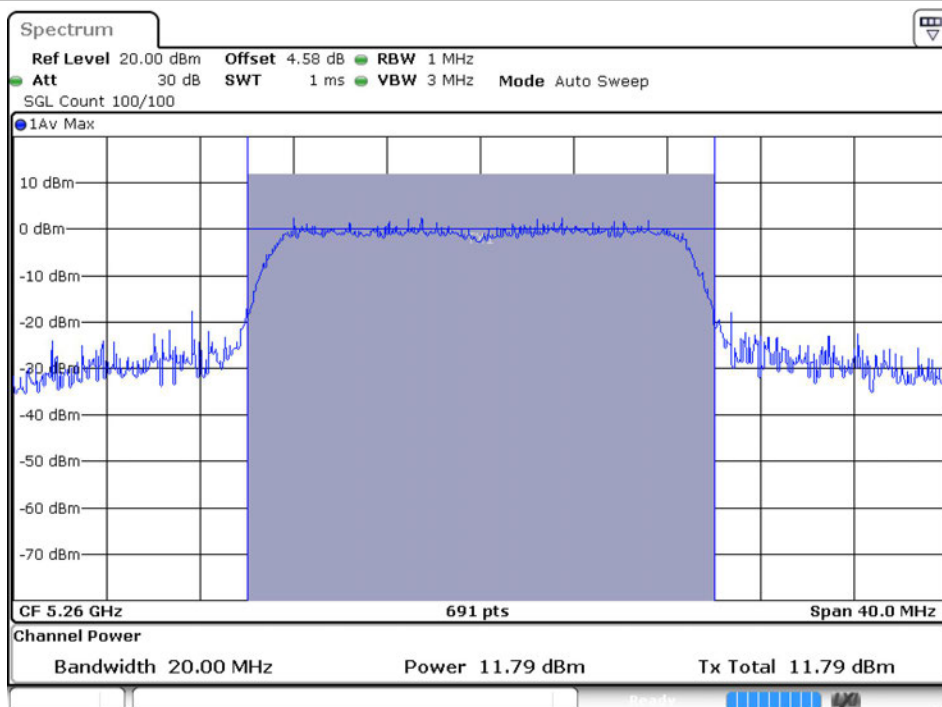
Power NVNT ac20 5200MHz Ant1



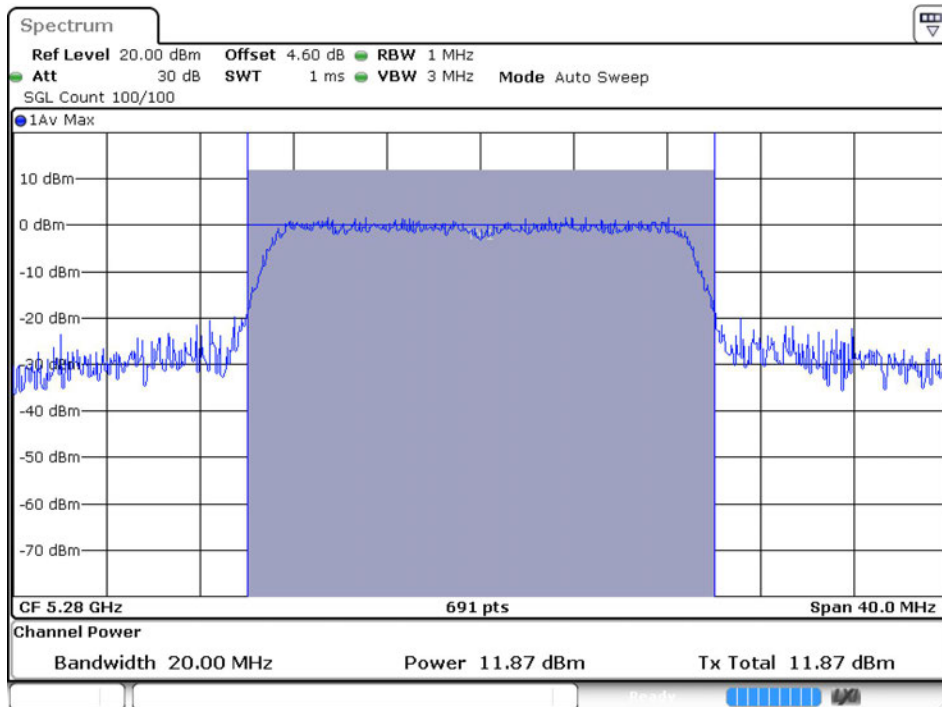
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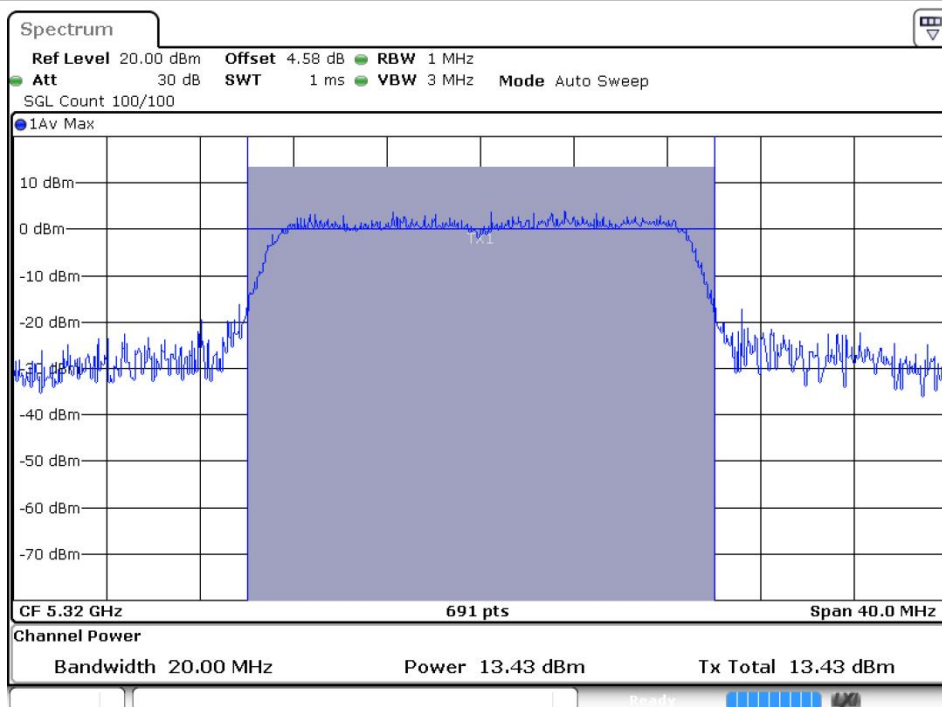
Power NVNT ac20 5260MHz Ant1



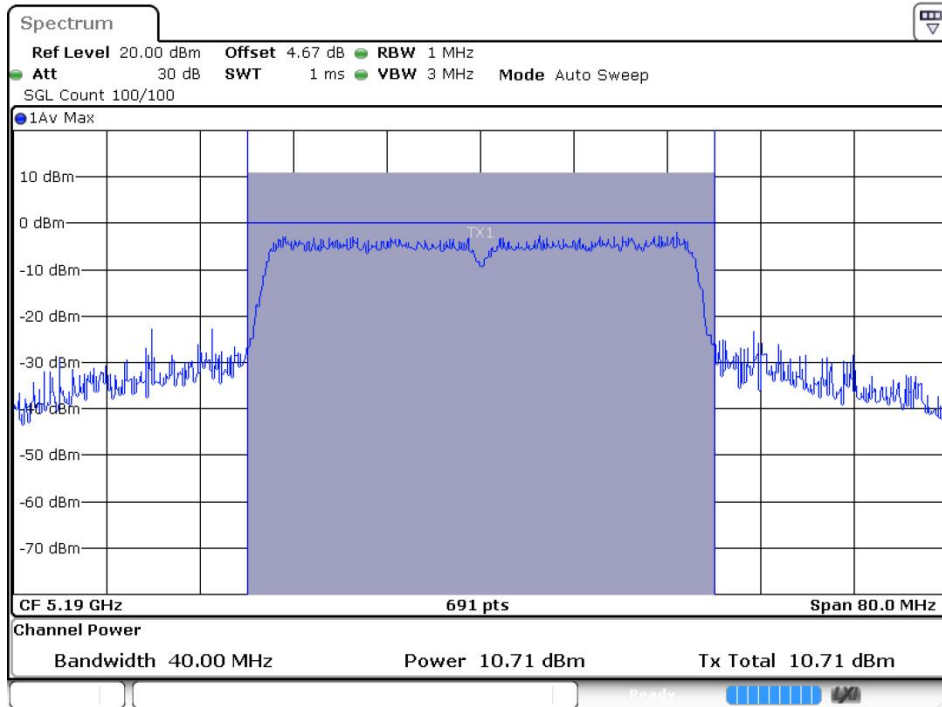
Power NVNT ac20 5280MHz Ant1



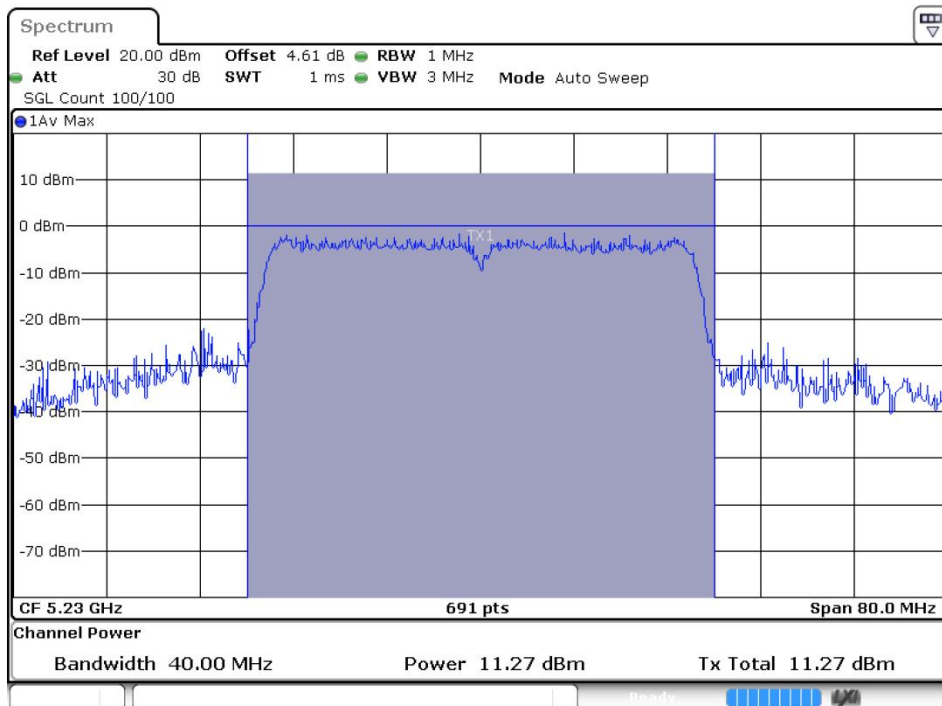
Power NVNT ac20 5320MHz Ant1



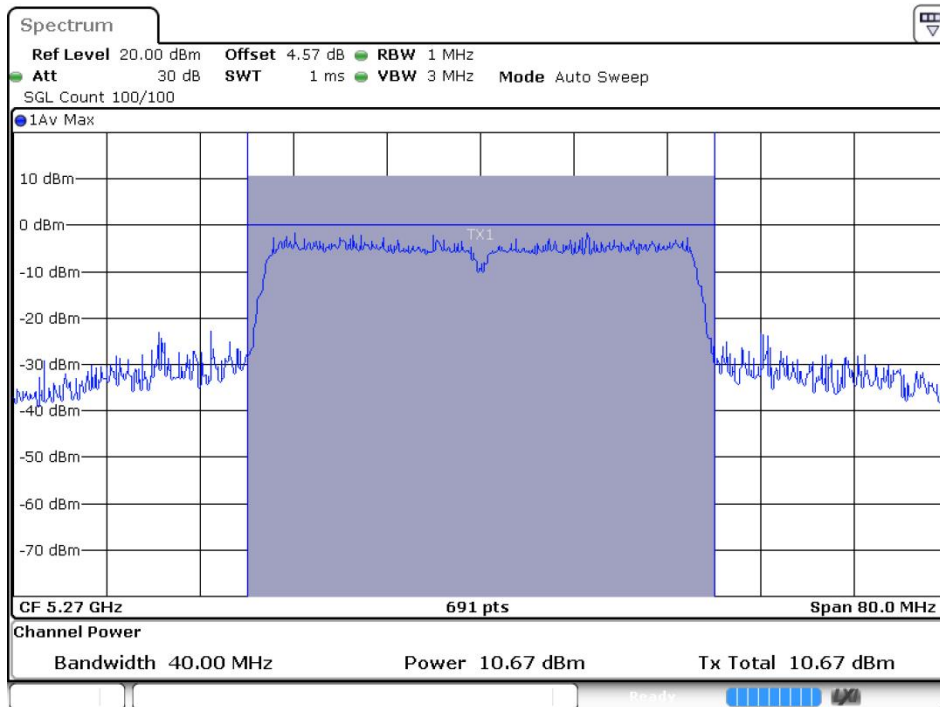
Power NVNT ac40 5190MHz Ant1



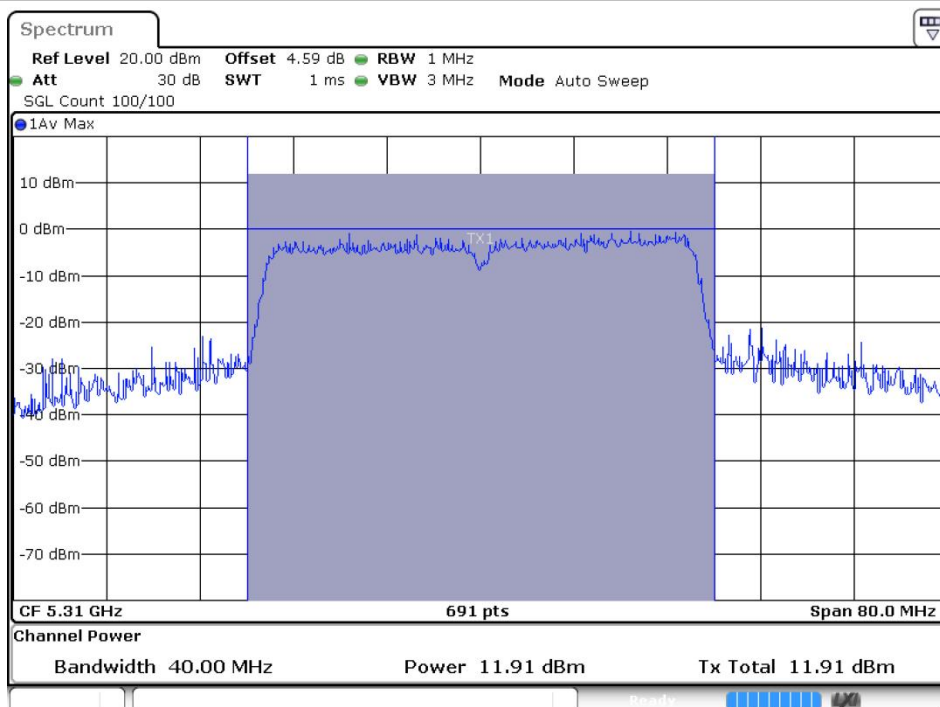
Power NVNT ac40 5230MHz Ant1



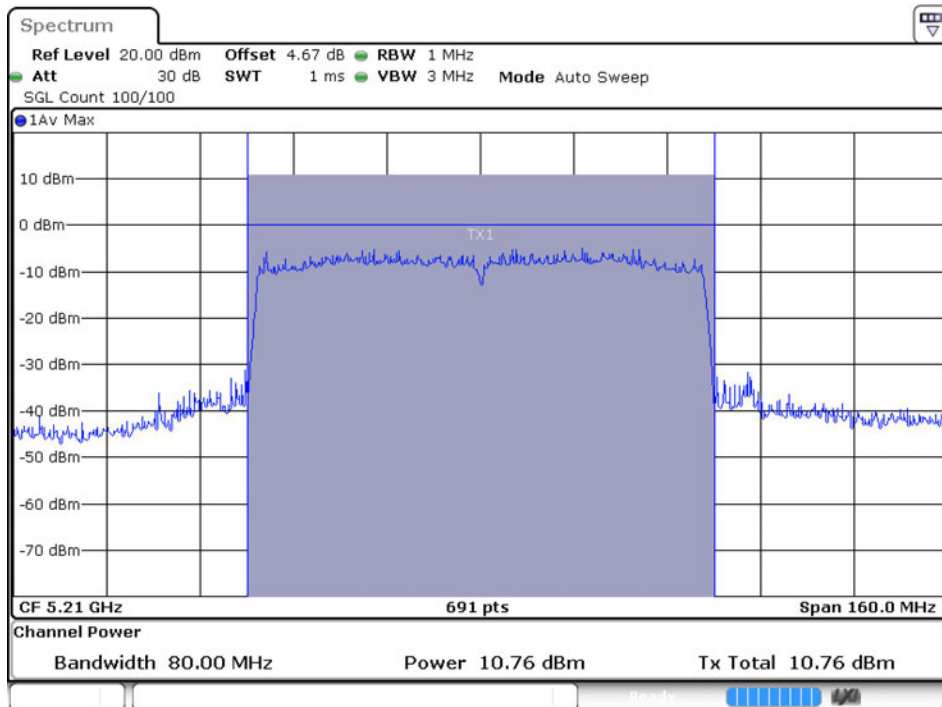
Power NVNT ac40 5270MHz Ant1



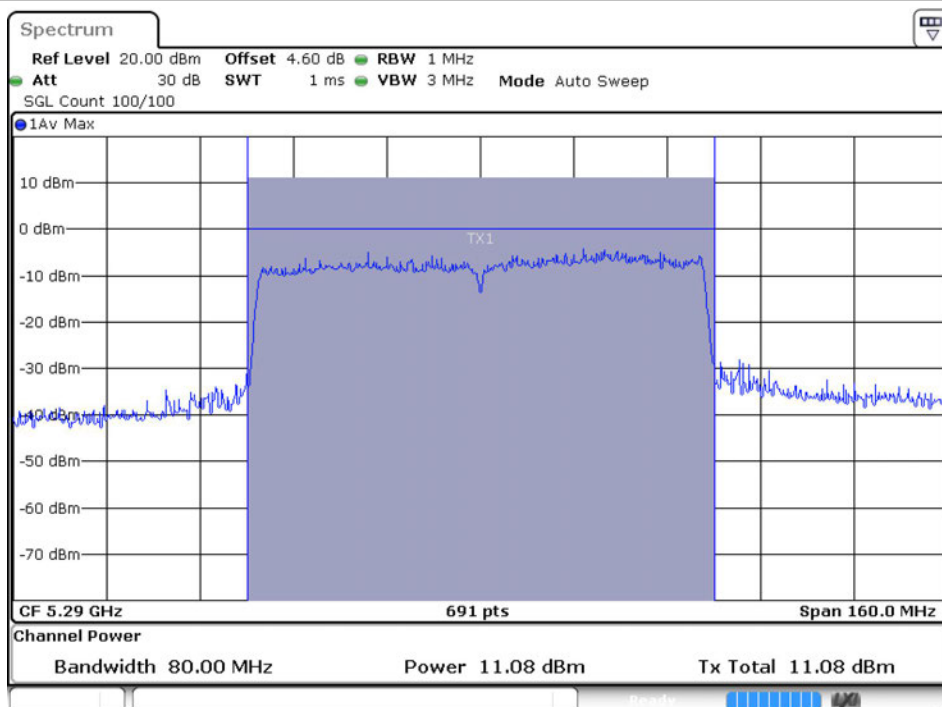
Power NVNT ac40 5310MHz Ant1



Power NVNT ac80 5210MHz Ant1



Power NVNT ac80 5290MHz Ant1

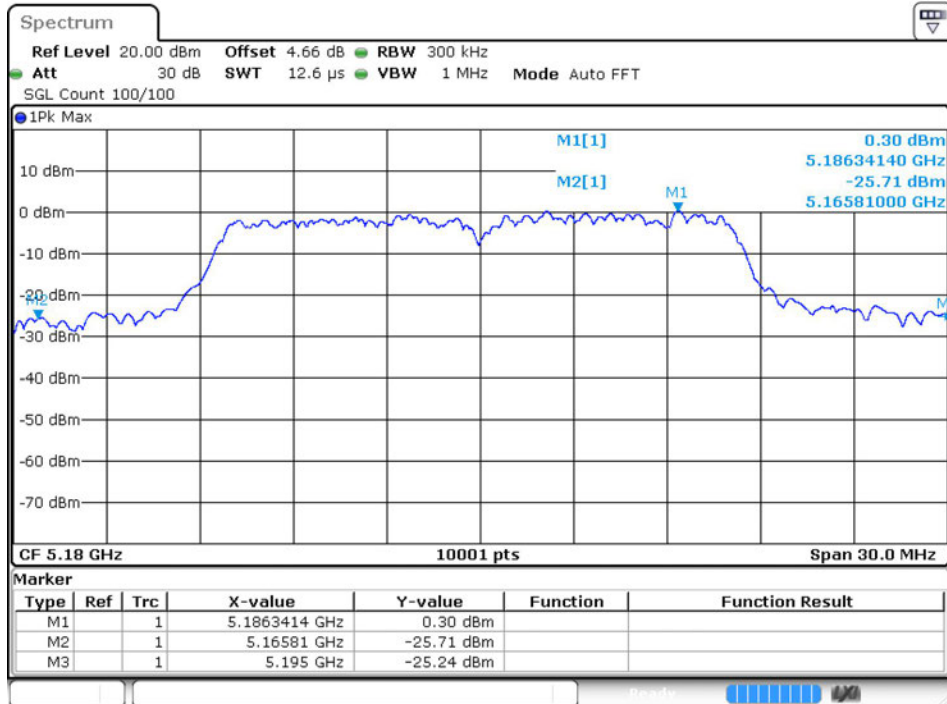


3.-26dB Bandwidth

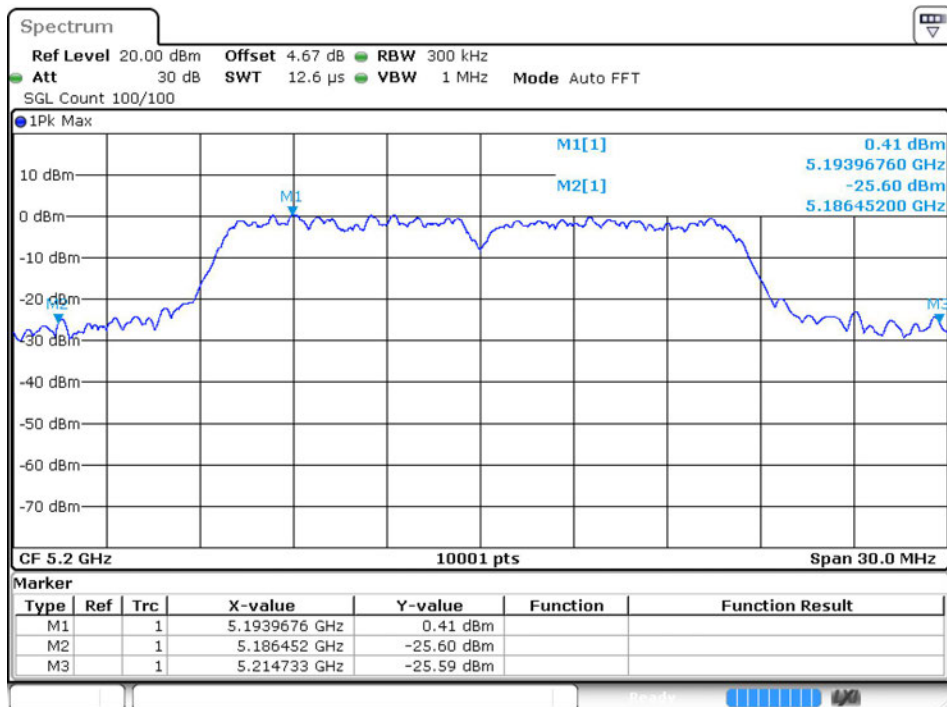
Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Limit -26 dB Bandwidth (MHz)	Verdict
802.11a	5180	Ant1	29.19	0.5	Pass
802.11a	5200	Ant1	28.281	0.5	Pass
802.11a	5240	Ant1	28.305	0.5	Pass
802.11a	5260	Ant1	30	0.5	Pass
802.11a	5280	Ant1	29.649	0.5	Pass
802.11a	5320	Ant1	30	0.5	Pass
802.11n20	5180	Ant1	28.164	0.5	Pass
802.11n20	5200	Ant1	22.266	0.5	Pass
802.11n20	5240	Ant1	25.068	0.5	Pass
802.11n20	5260	Ant1	22.818	0.5	Pass
802.11n20	5280	Ant1	20.007	0.5	Pass
802.11n20	5320	Ant1	20.574	0.5	Pass
802.11n40	5190	Ant1	40.188	0.5	Pass
802.11n40	5230	Ant1	42.648	0.5	Pass
802.11n40	5270	Ant1	39.684	0.5	Pass
802.11n40	5310	Ant1	40.026	0.5	Pass
802.11ac20	5180	Ant1	20.814	0.5	Pass
802.11ac20	5200	Ant1	23.85	0.5	Pass
802.11ac20	5240	Ant1	20.133	0.5	Pass
802.11ac20	5260	Ant1	24.219	0.5	Pass
802.11ac20	5280	Ant1	20.805	0.5	Pass
802.11ac20	5320	Ant1	20.238	0.5	Pass
802.11ac40	5190	Ant1	46.728	0.5	Pass
802.11ac40	5230	Ant1	45.972	0.5	Pass
802.11ac40	5270	Ant1	42.48	0.5	Pass
802.11ac40	5310	Ant1	39.216	0.5	Pass
802.11ac80	5210	Ant1	77.952	0.5	Pass
802.11ac80	5290	Ant1	78.78	0.5	Pass

Test Graphs

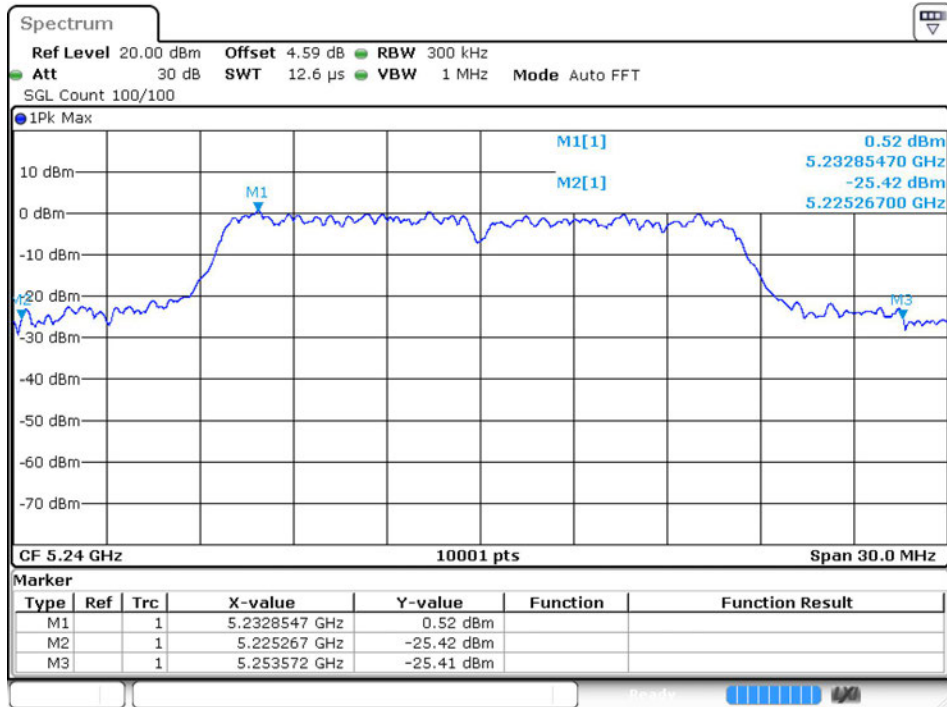
-26dB Bandwidth NVNT a 5180MHz Ant1



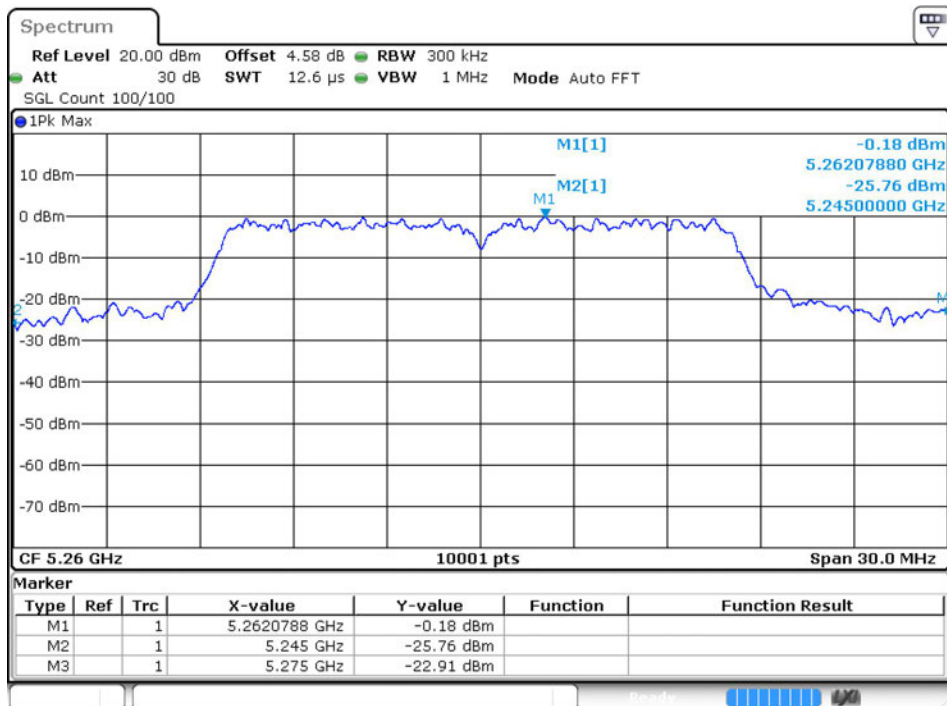
-26dB Bandwidth NVNT a 5200MHz Ant1



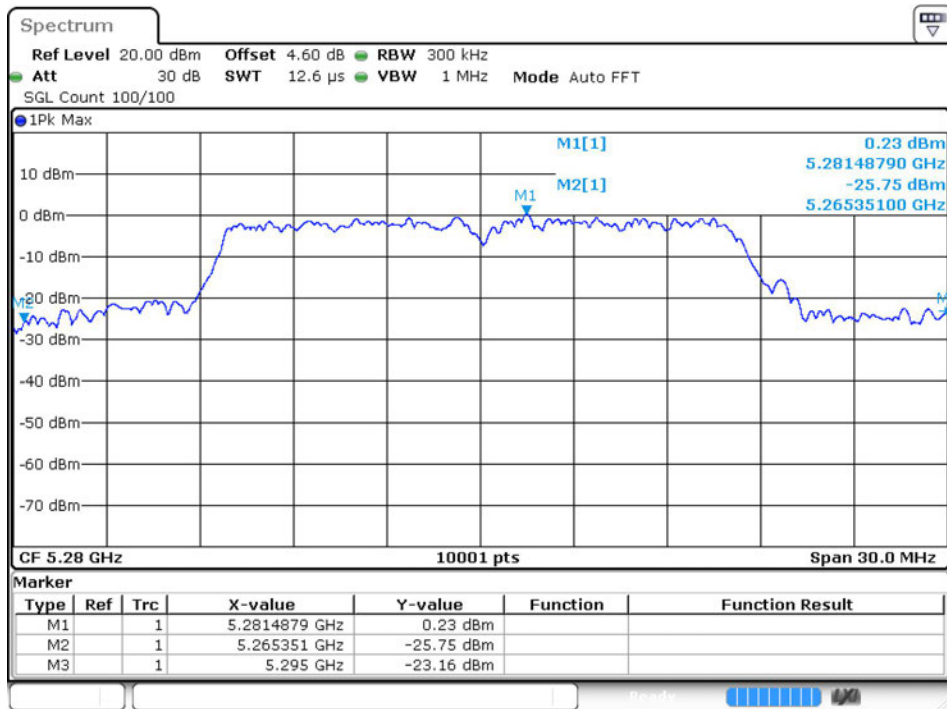
-26dB Bandwidth NVNT a 5240MHz Ant1



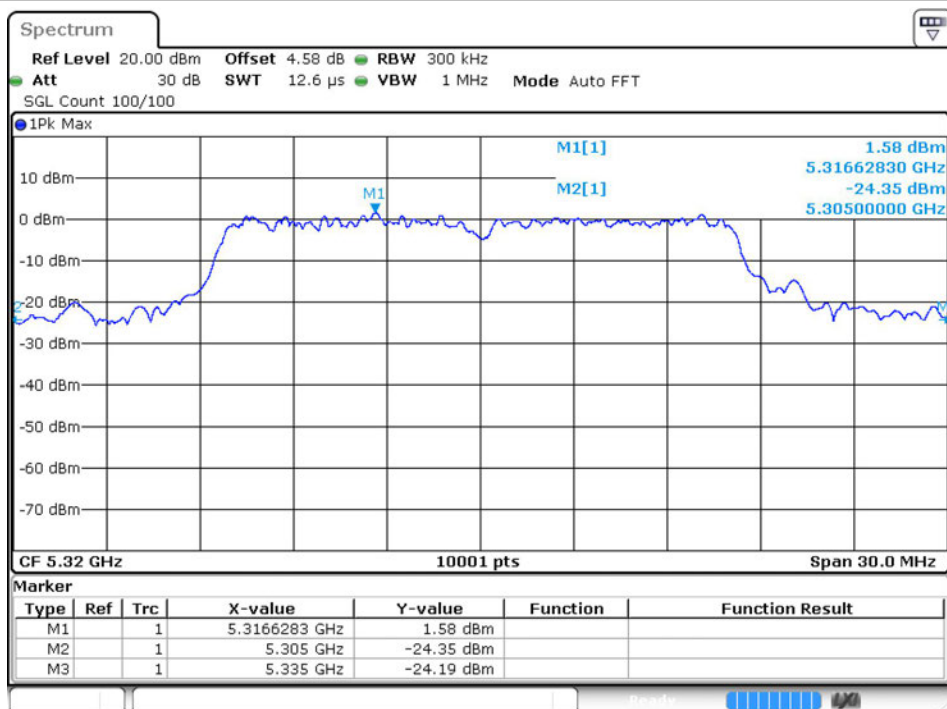
-26dB Bandwidth NVNT a 5260MHz Ant1



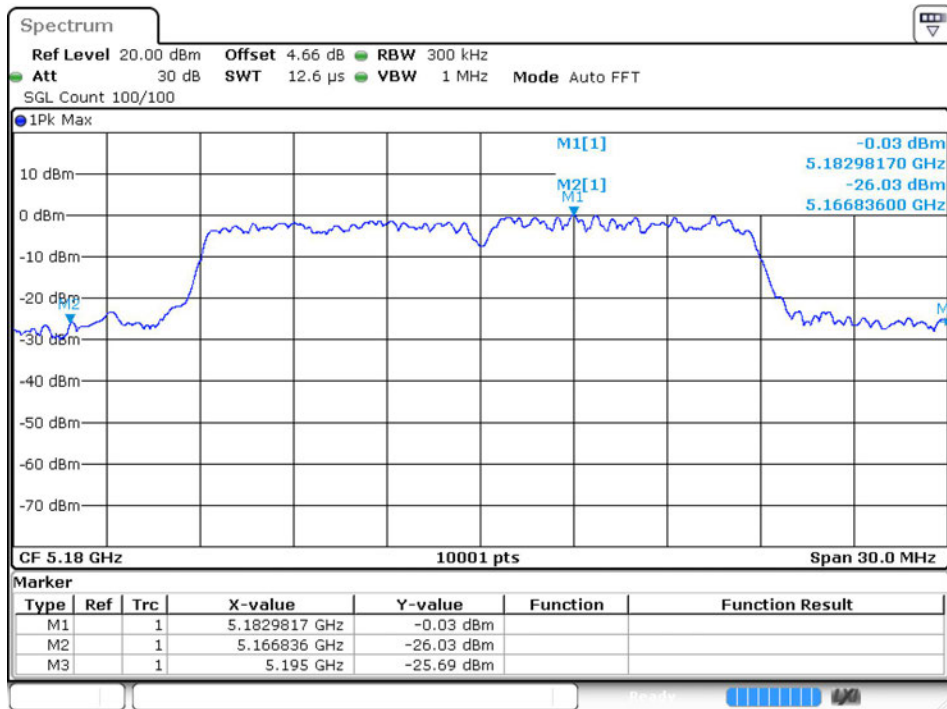
-26dB Bandwidth NVNT a 5280MHz Ant1



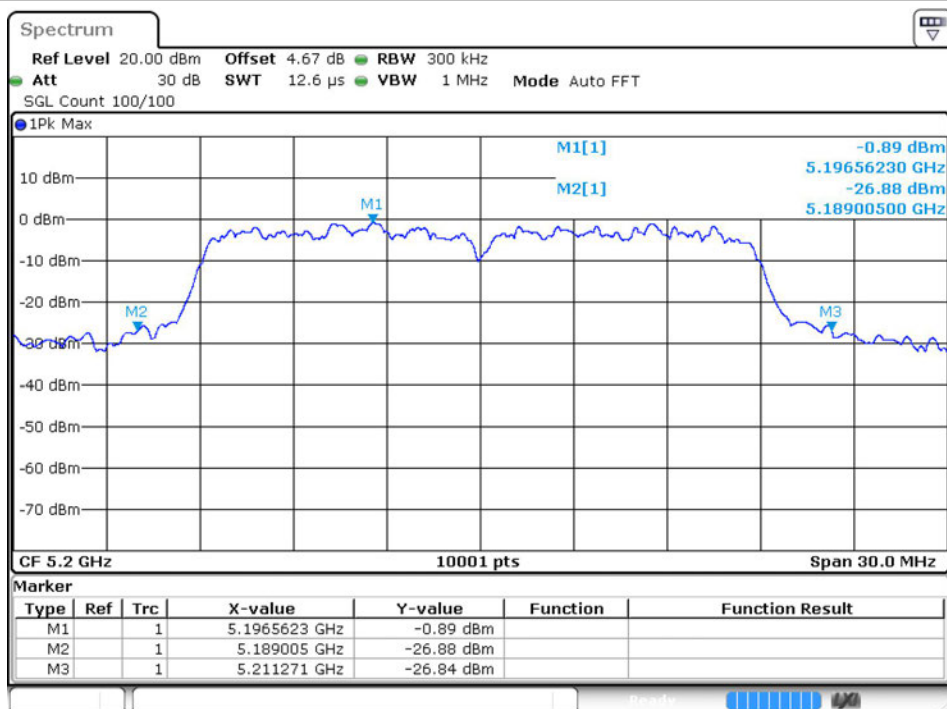
-26dB Bandwidth NVNT a 5320MHz Ant1



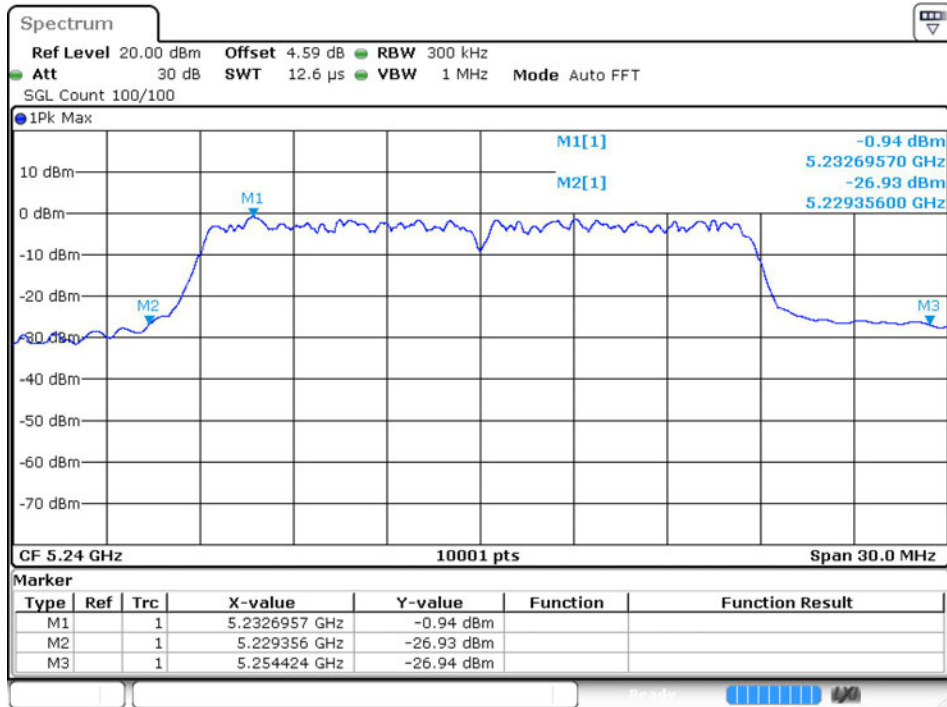
-26dB Bandwidth NVNT n20 5180MHz Ant1



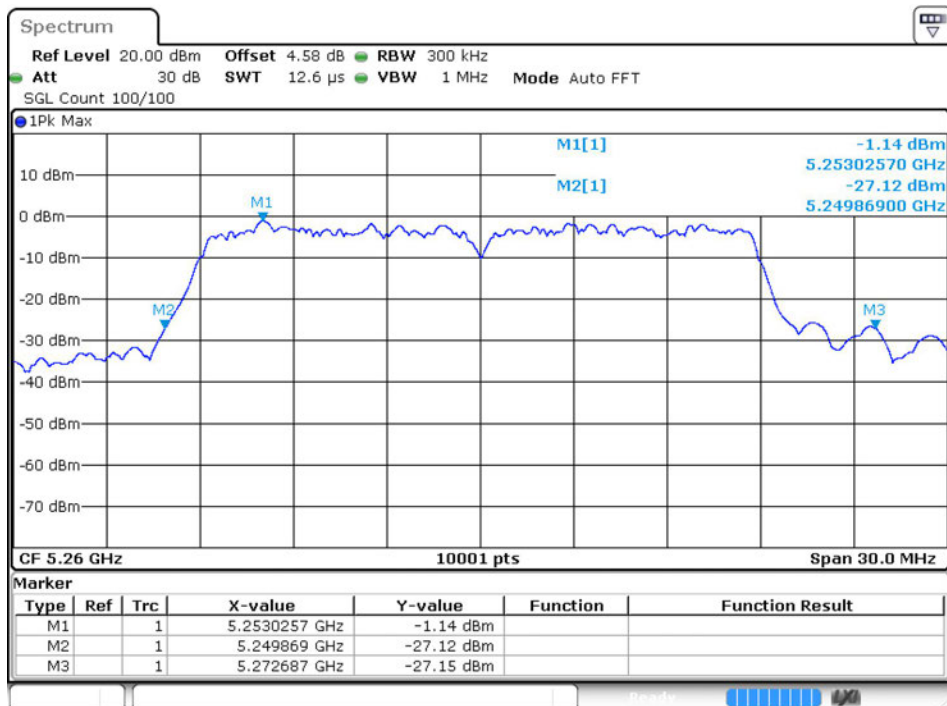
-26dB Bandwidth NVNT n20 5200MHz Ant1



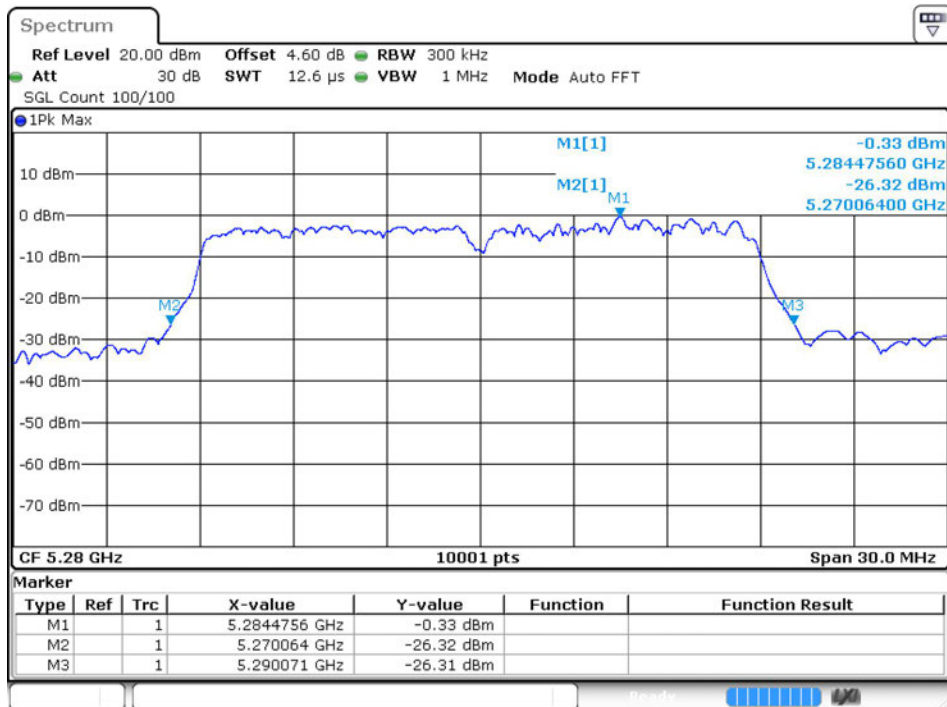
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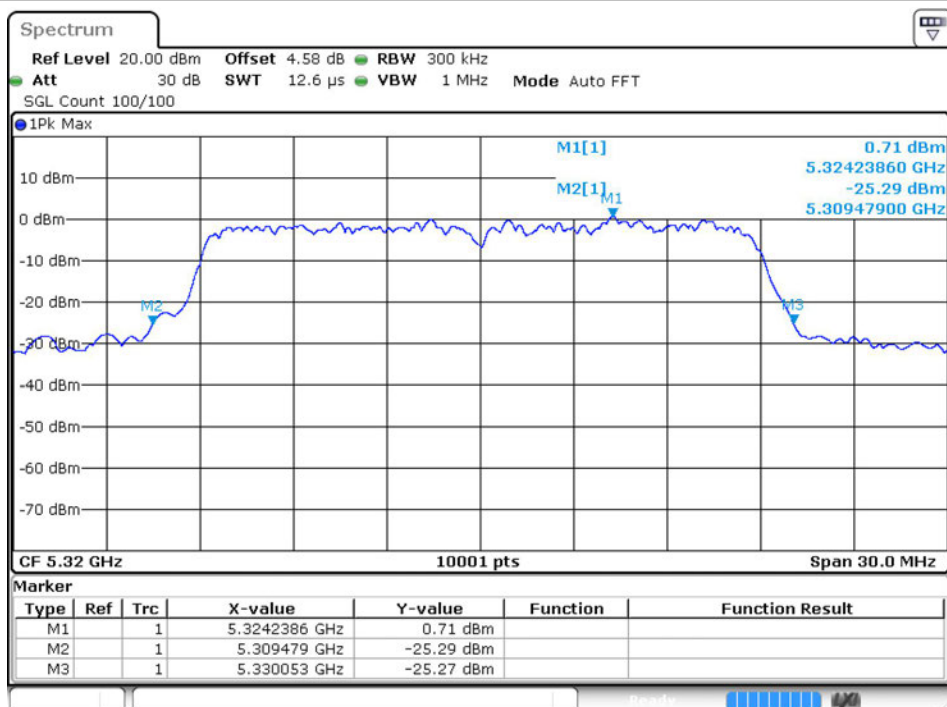
-26dB Bandwidth NVNT n20 5260MHz Ant1



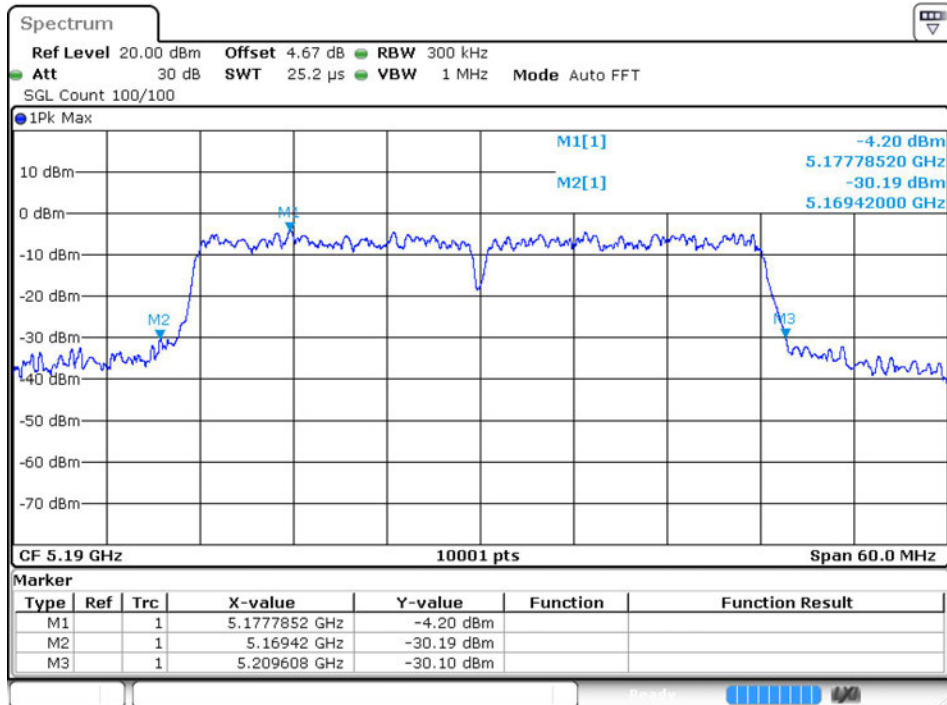
-26dB Bandwidth NVNT n20 5280MHz Ant1



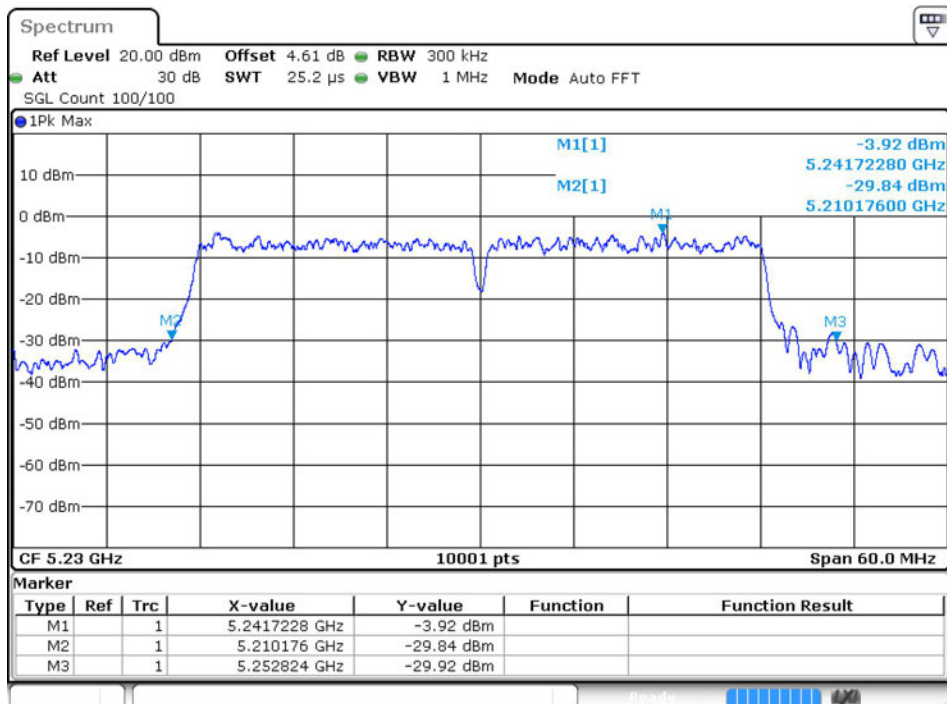
-26dB Bandwidth NVNT n20 5320MHz Ant1



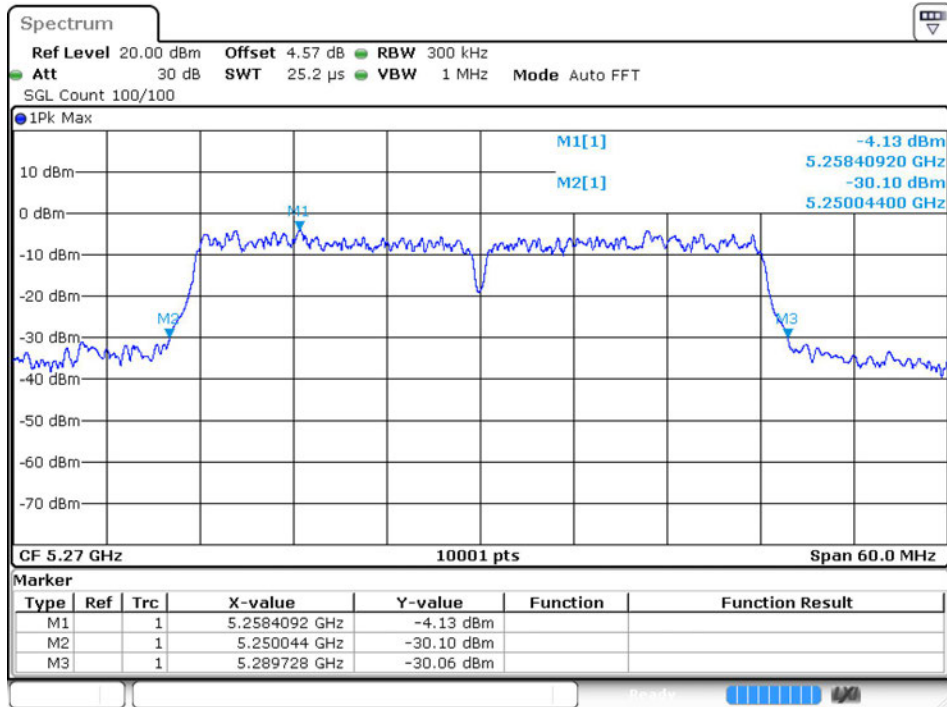
-26dB Bandwidth NVNT n40 5190MHz Ant1



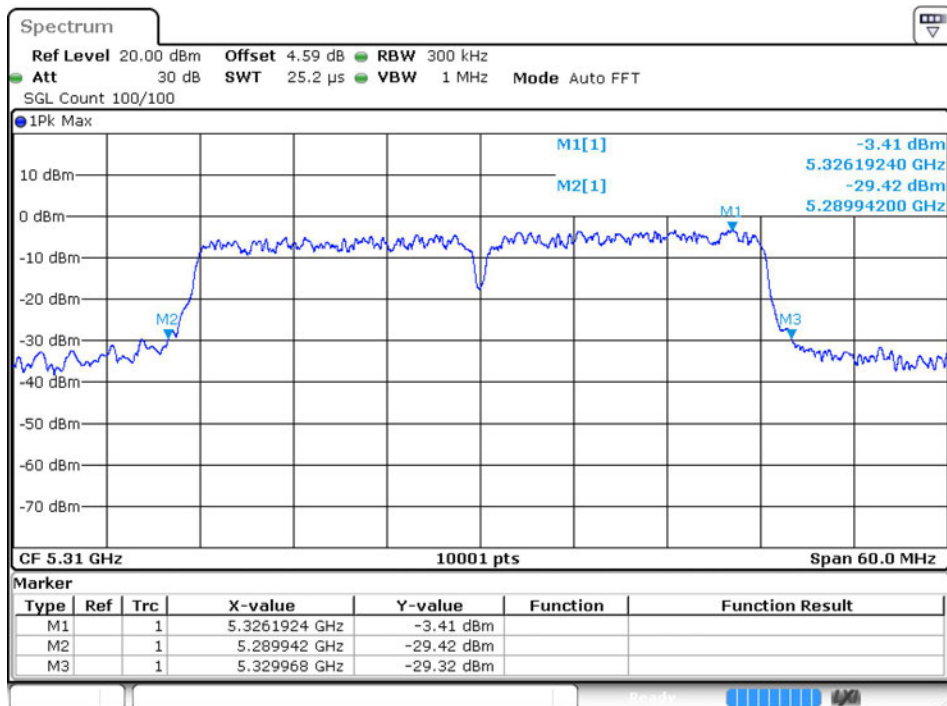
-26dB Bandwidth NVNT n40 5230MHz Ant1



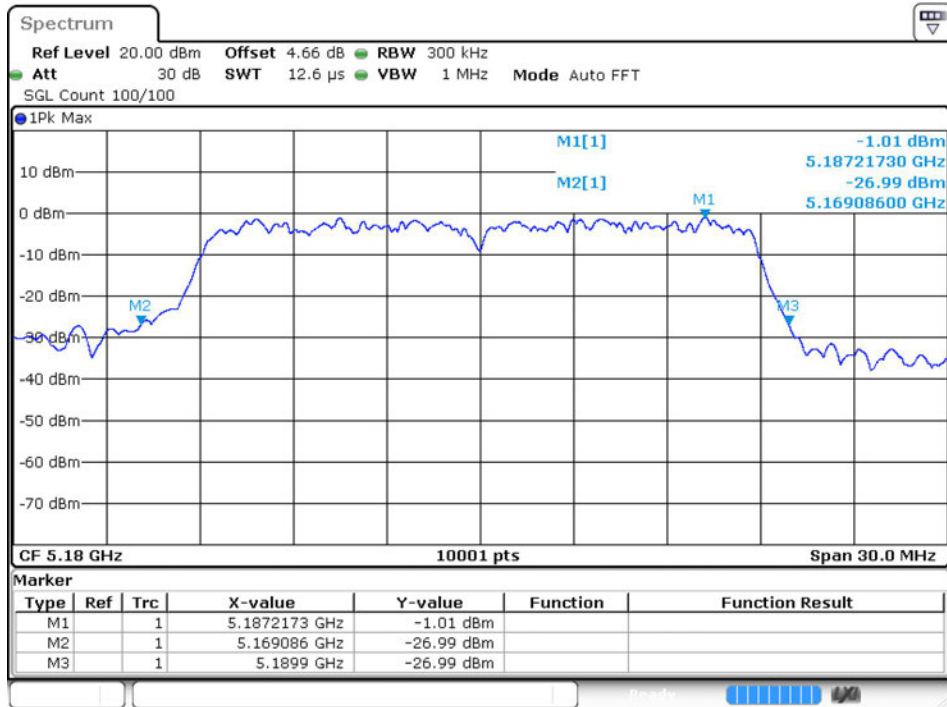
-26dB Bandwidth NVNT n40 5270MHz Ant1



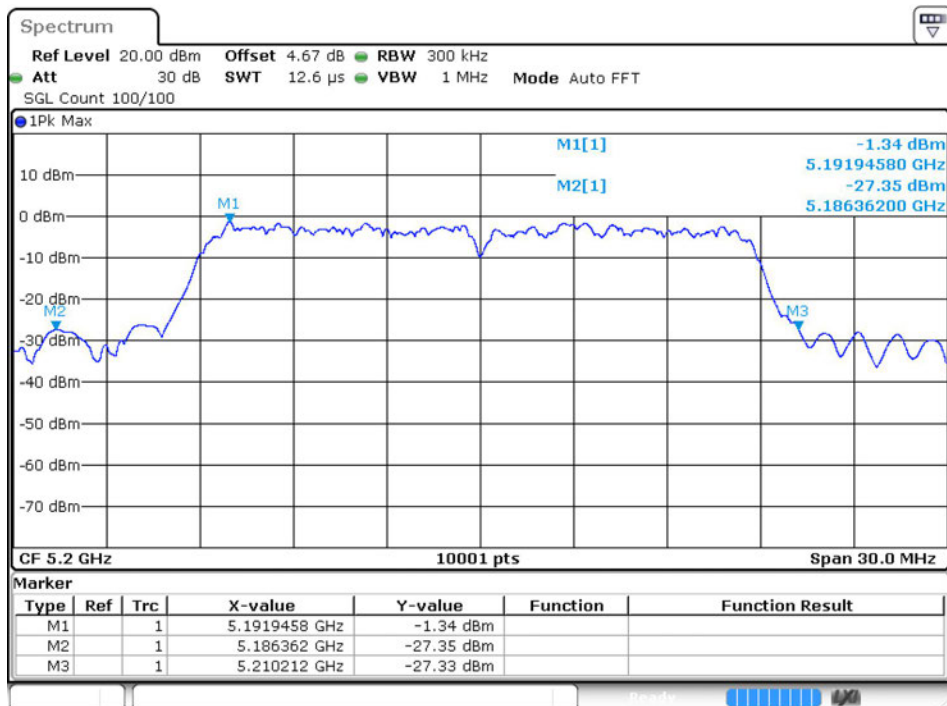
-26dB Bandwidth NVNT n40 5310MHz Ant1



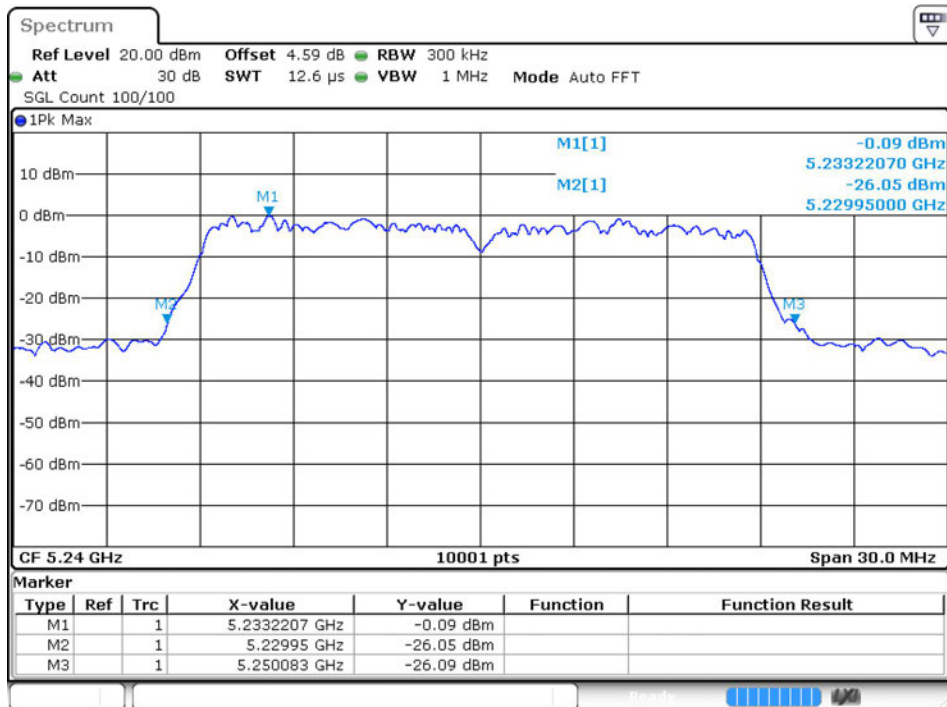
-26dB Bandwidth NVNT ac20 5180MHz Ant1



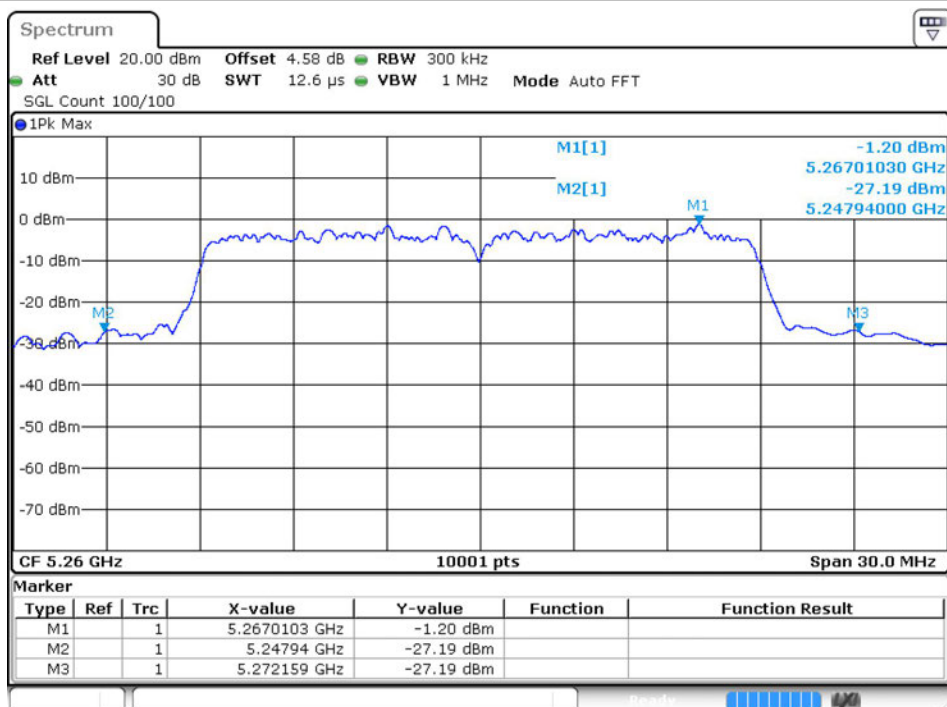
-26dB Bandwidth NVNT ac20 5200MHz Ant1



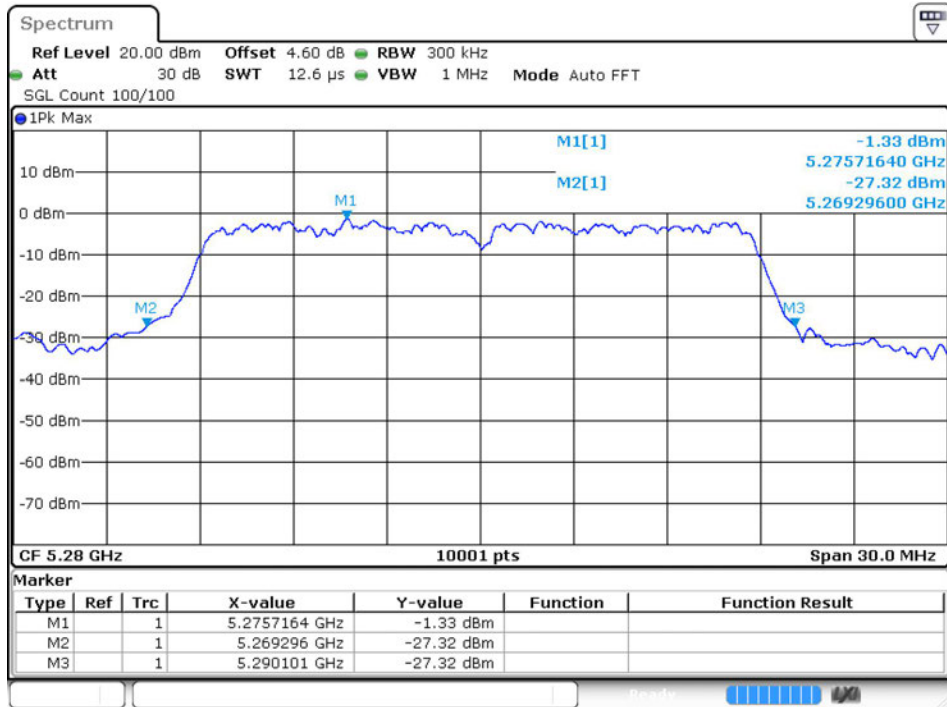
-26dB Bandwidth NVNT ac20 5240MHz Ant1



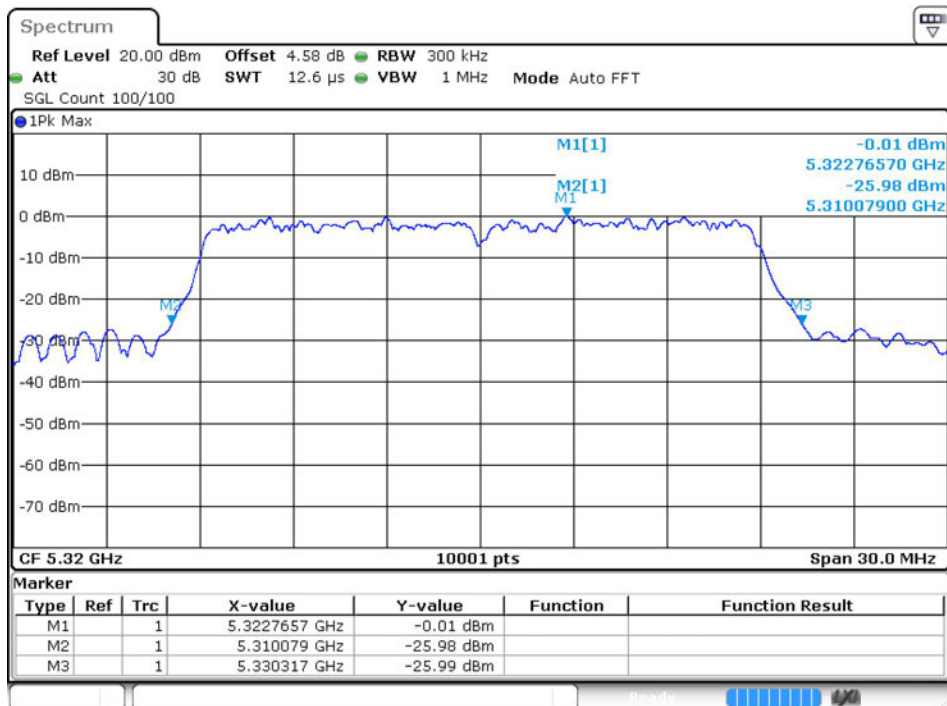
-26dB Bandwidth NVNT ac20 5260MHz Ant1



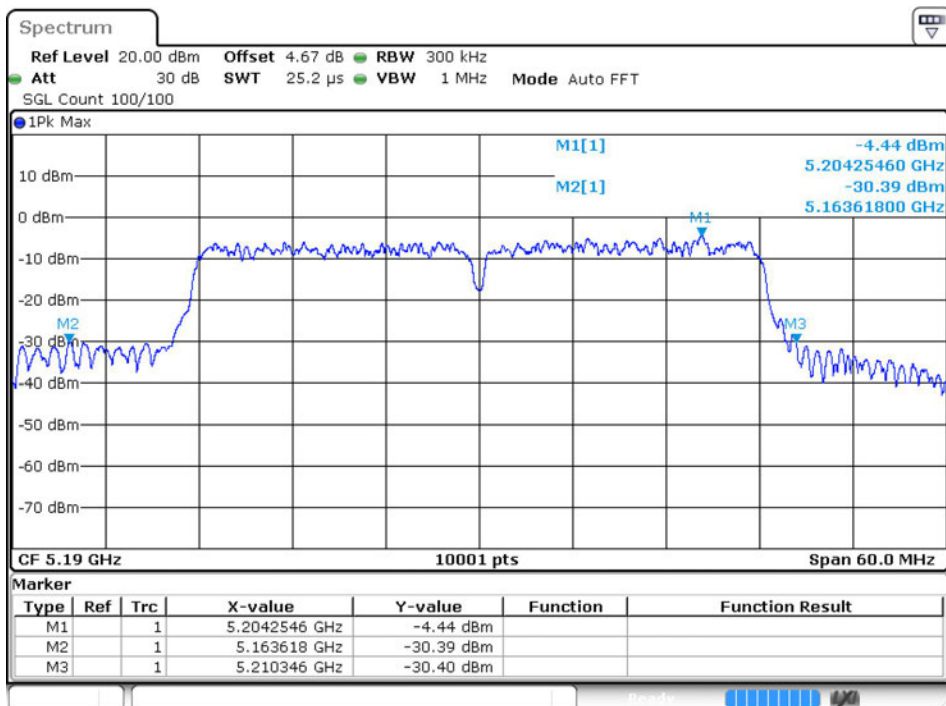
-26dB Bandwidth NVNT ac20 5280MHz Ant1



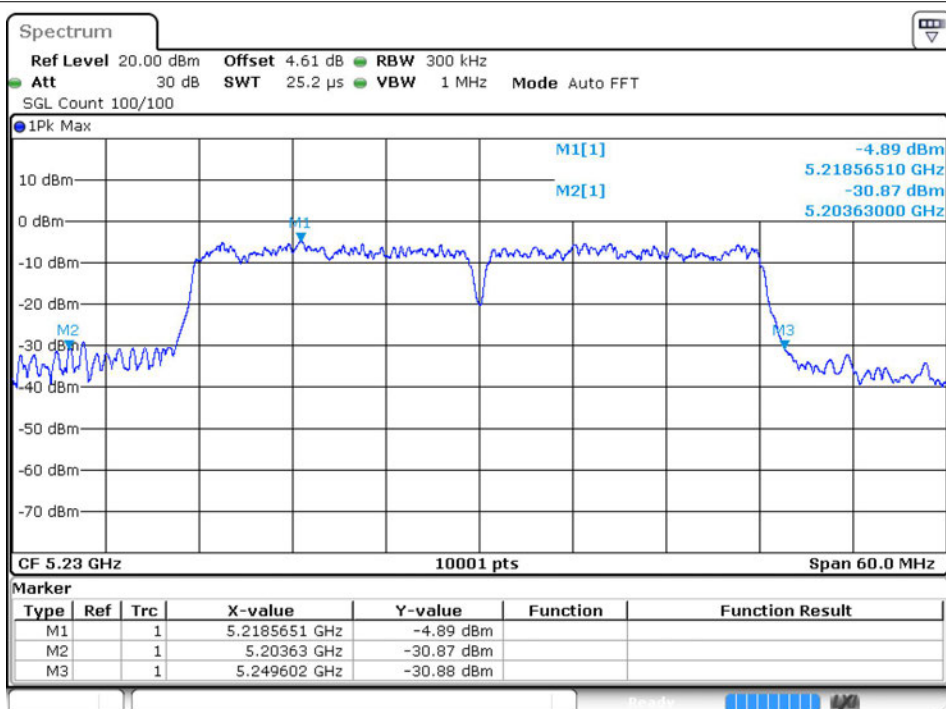
-26dB Bandwidth NVNT ac20 5320MHz Ant1



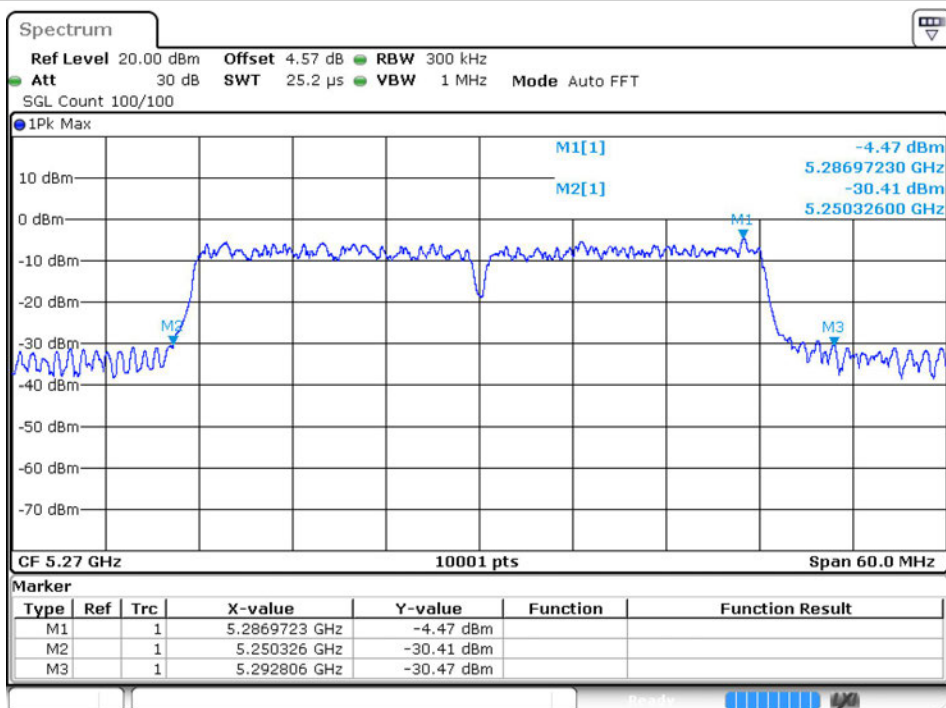
-26dB Bandwidth NVNT ac40 5190MHz Ant1



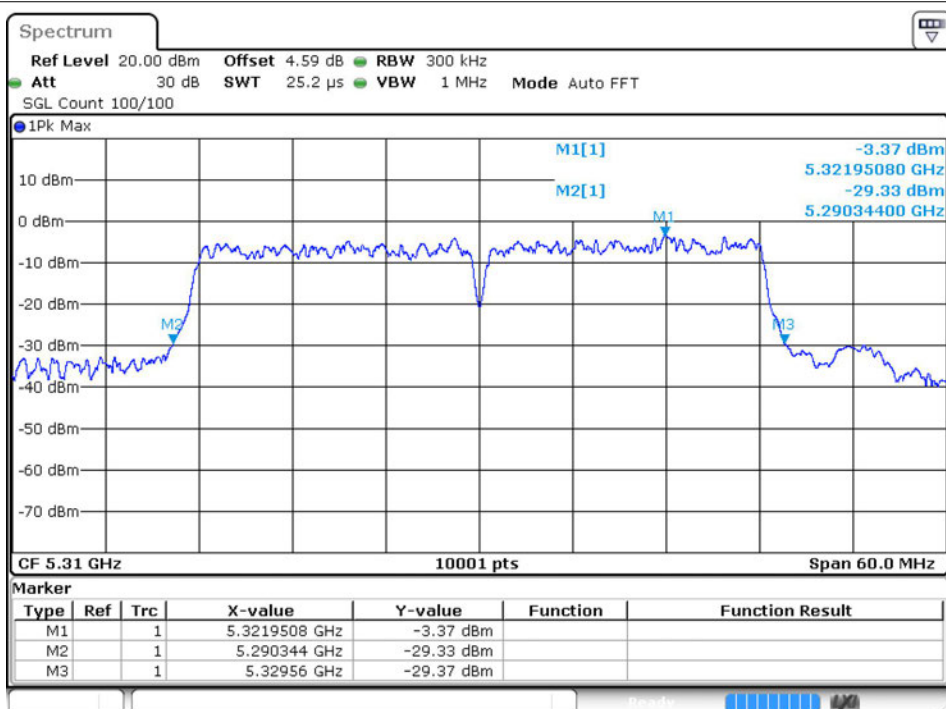
-26dB Bandwidth NVNT ac40 5230MHz Ant1



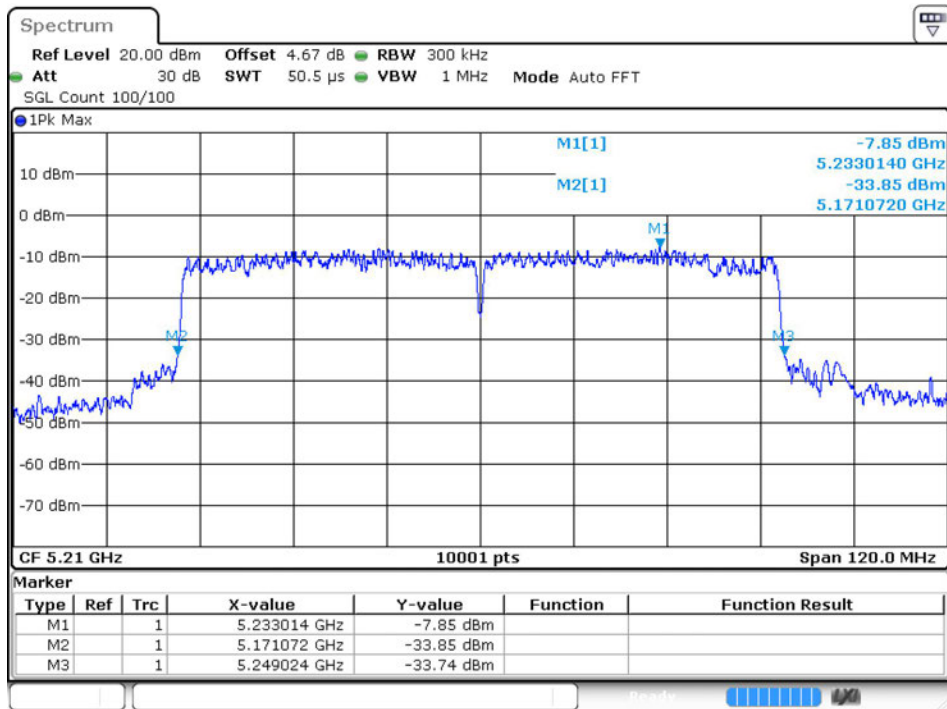
-26dB Bandwidth NVNT ac40 5270MHz Ant1



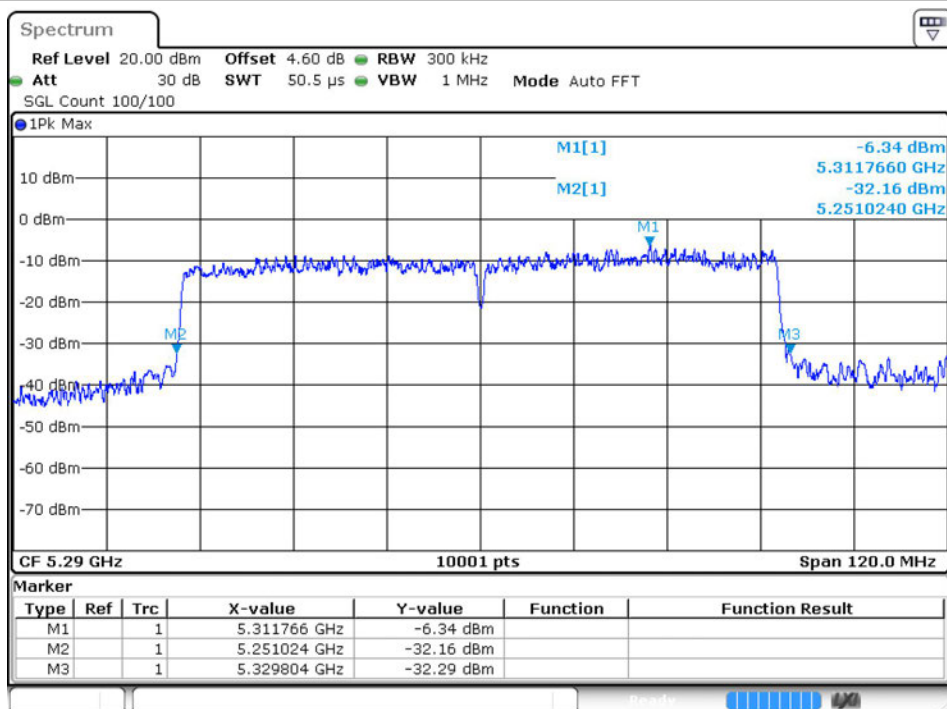
-26dB Bandwidth NVNT ac40 5310MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1



-26dB Bandwidth NVNT ac80 5290MHz Ant1

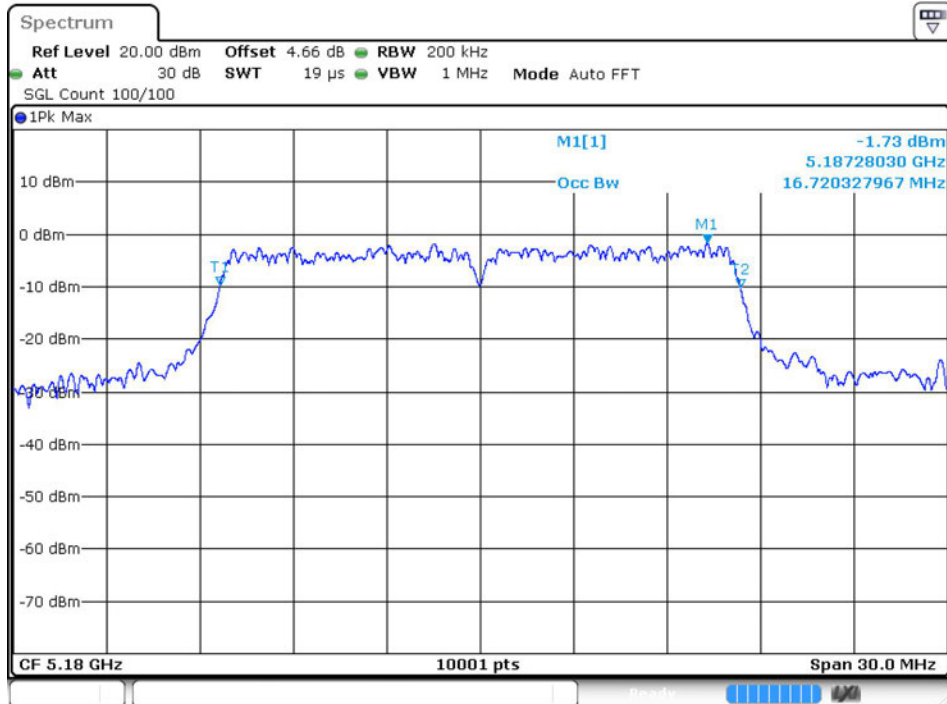


4.Occupied Channel Bandwidth

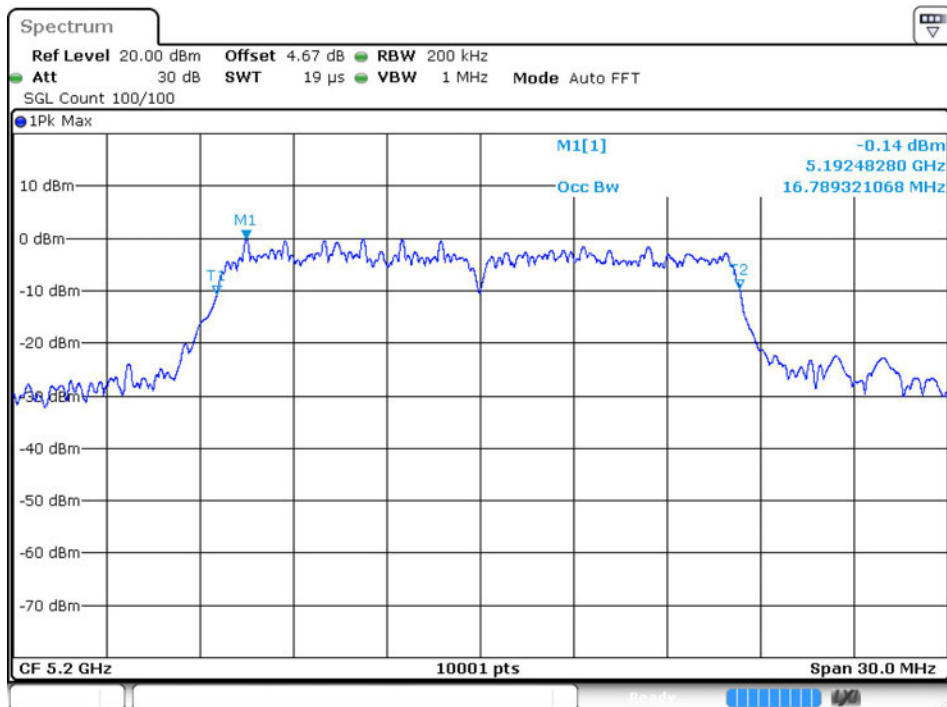
Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
802.11a	5180	Ant1	16.72
802.11a	5200	Ant1	16.789
802.11a	5240	Ant1	16.741
802.11a	5260	Ant1	16.762
802.11a	5280	Ant1	16.822
802.11a	5320	Ant1	16.753
802.11n20	5180	Ant1	17.698
802.11n20	5200	Ant1	17.632
802.11n20	5240	Ant1	17.662
802.11n20	5260	Ant1	17.674
802.11n20	5280	Ant1	17.578
802.11n20	5320	Ant1	17.59
802.11n40	5190	Ant1	36.338
802.11n40	5230	Ant1	36.35
802.11n40	5270	Ant1	36.248
802.11n40	5310	Ant1	36.416
802.11ac20	5180	Ant1	17.632
802.11ac20	5200	Ant1	17.68
802.11ac20	5240	Ant1	17.563
802.11ac20	5260	Ant1	17.578
802.11ac20	5280	Ant1	17.668
802.11ac20	5320	Ant1	17.632
802.11ac40	5190	Ant1	36.14
802.11ac40	5230	Ant1	36.254
802.11ac40	5270	Ant1	36.29
802.11ac40	5310	Ant1	36.218
802.11ac80	5210	Ant1	75.568
802.11ac80	5290	Ant1	75.772

Test Graphs

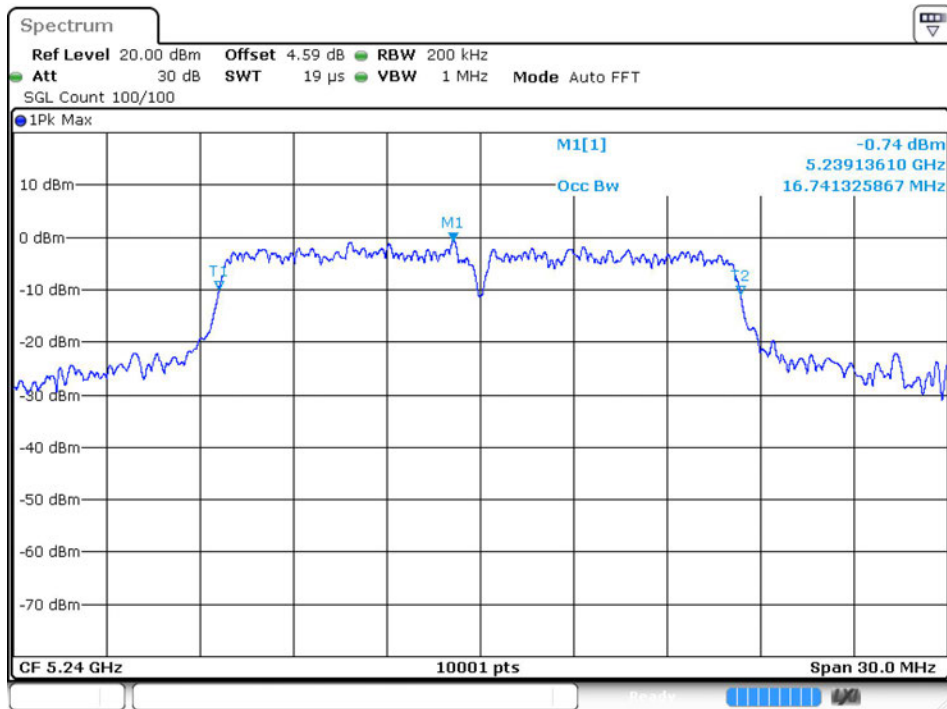
OBW NVNT a 5180MHz Ant1



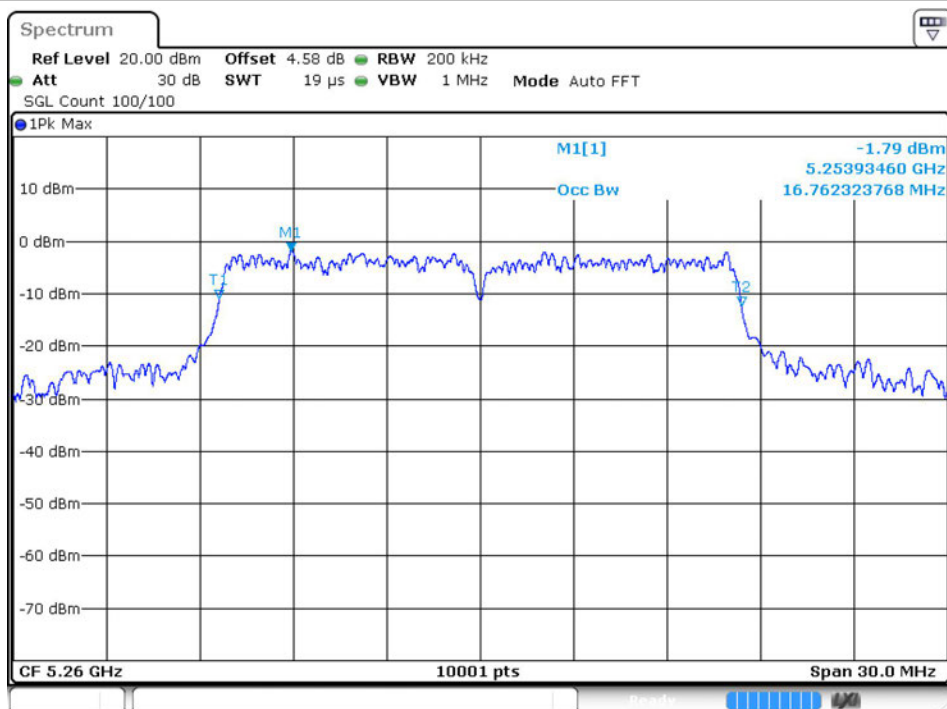
OBW NVNT a 5200MHz Ant1



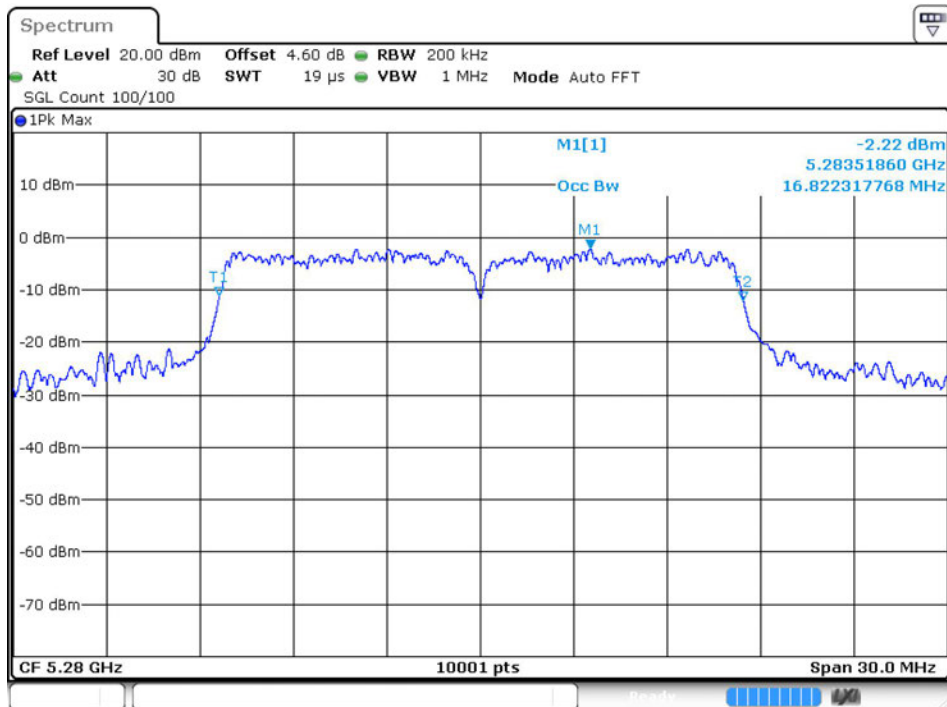
OBW NVNT a 5240MHz Ant1



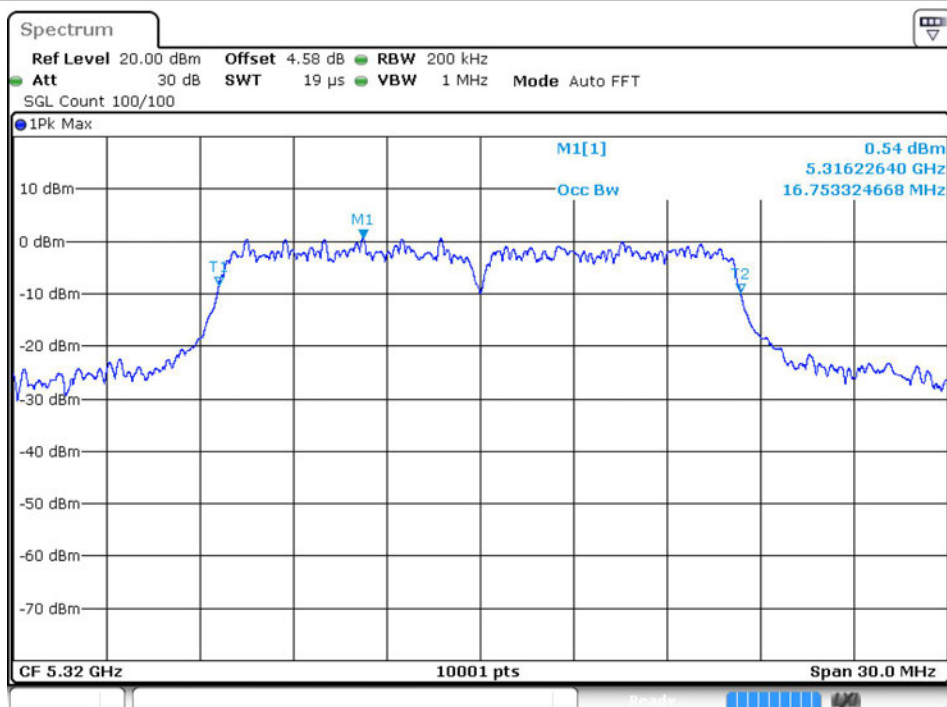
OBW NVNT a 5260MHz Ant1



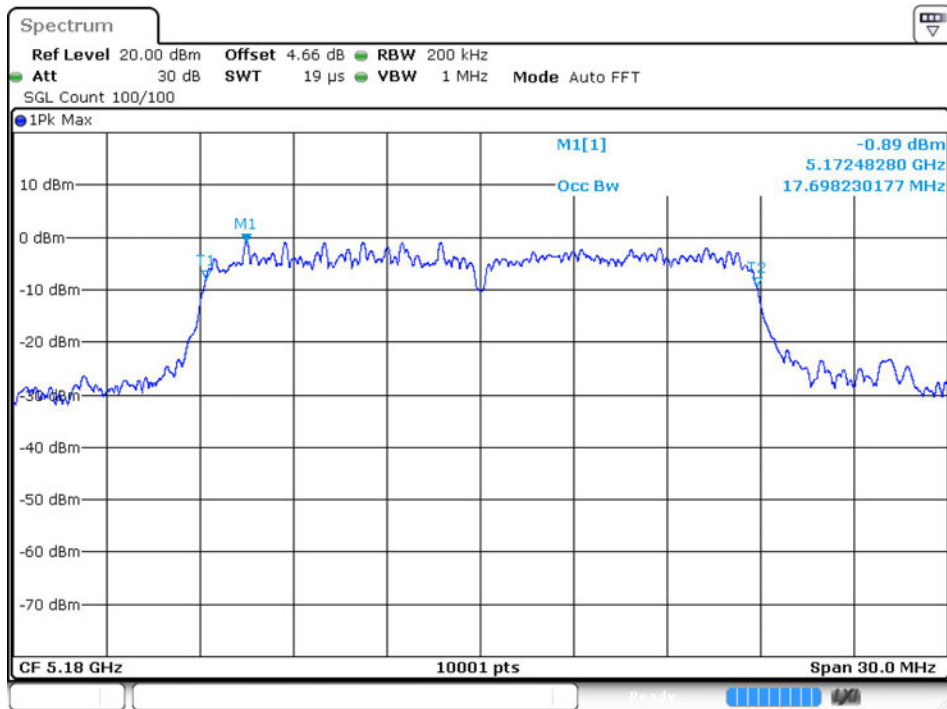
OBW NVNT a 5280MHz Ant1



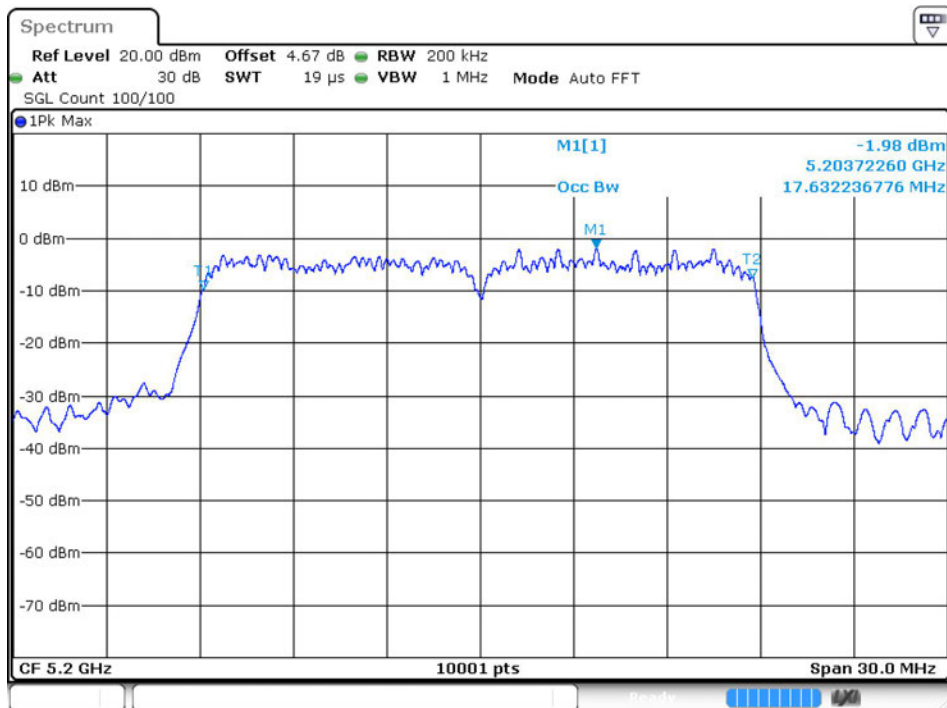
OBW NVNT a 5320MHz Ant1



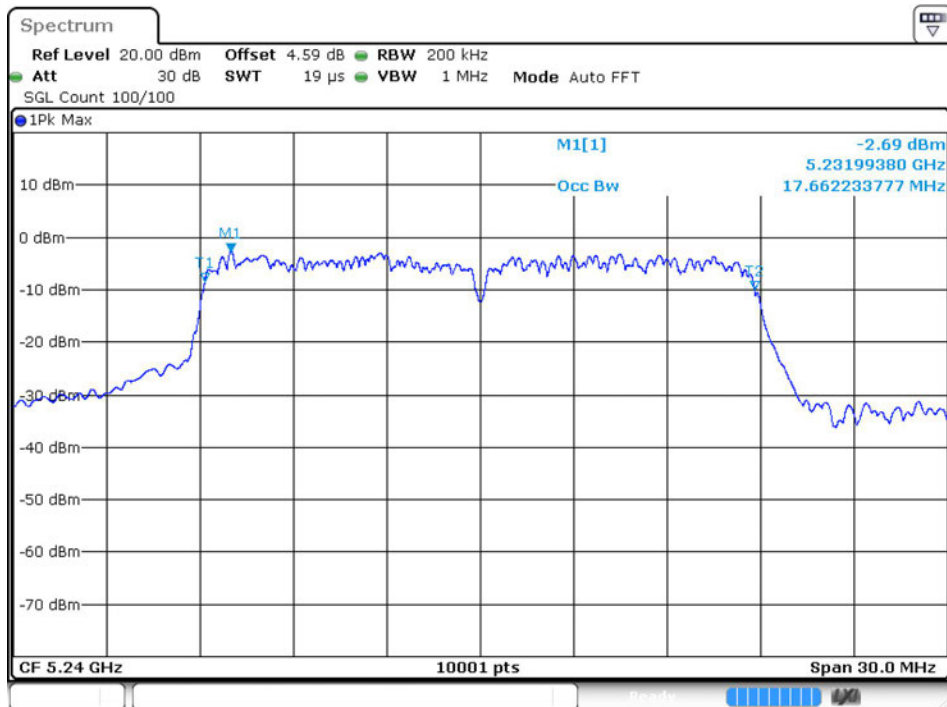
OBW NVNT n20 5180MHz Ant1



OBW NVNT n20 5200MHz Ant1



OBW NVNT n20 5240MHz Ant1



OBW NVNT n20 5260MHz Ant1

