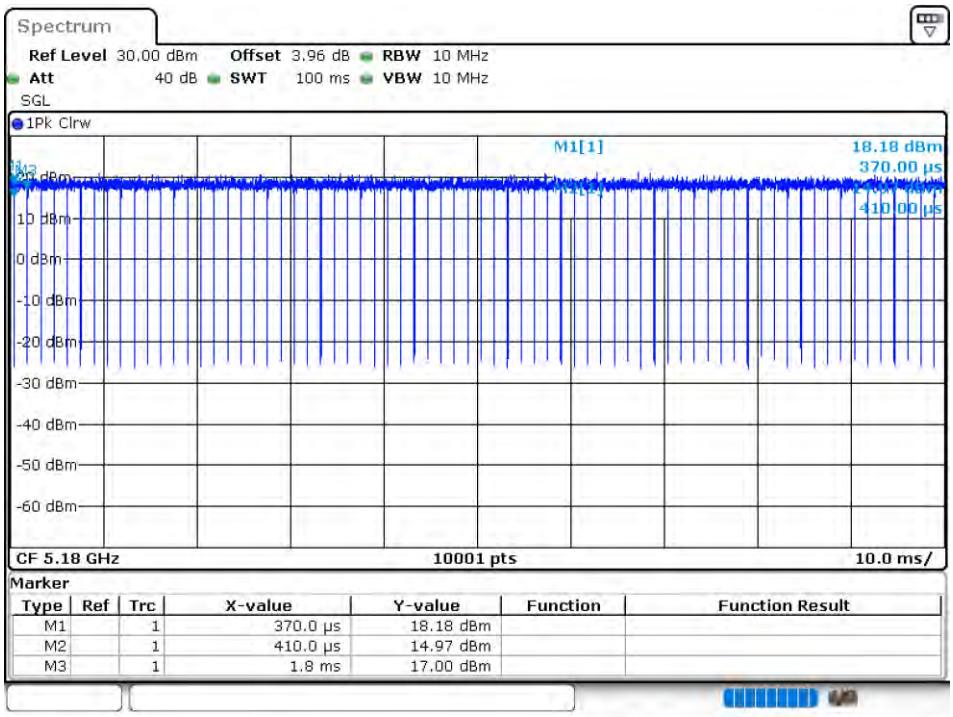
5.2G WIFI

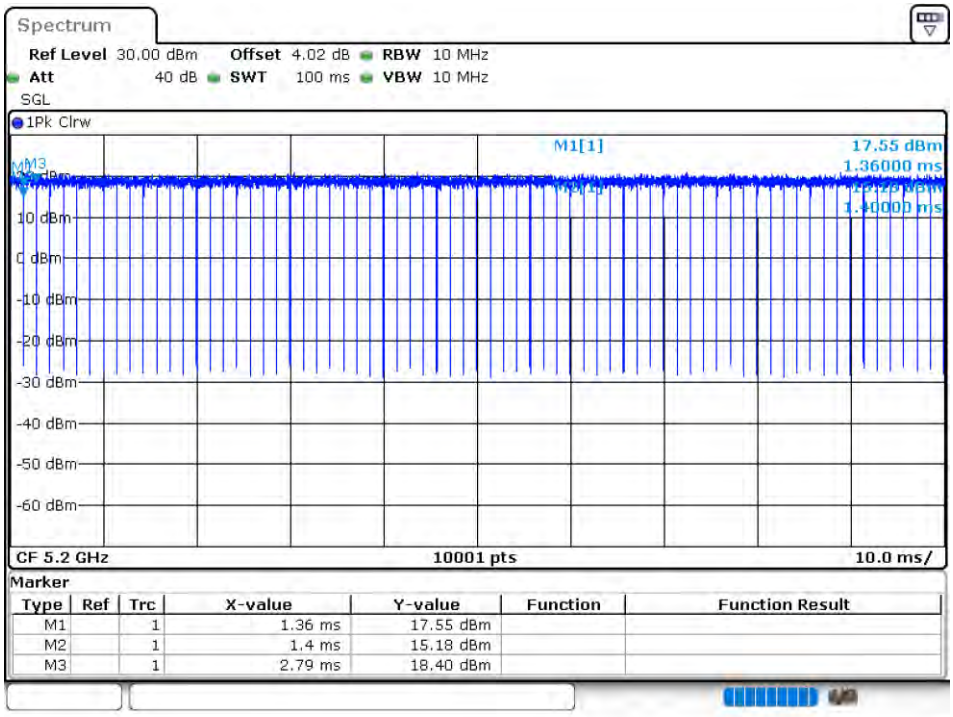
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	98.18	0.08	0.72
NVNT	a	5200	Ant1	98.18	0.08	0.72
NVNT	a	5240	Ant1	98.2	0.08	0.71
NVNT	n20	5180	Ant1	98.08	0.08	0.77
NVNT	n20	5200	Ant1	98.05	0.09	0.77
NVNT	n20	5240	Ant1	98.06	0.09	0.77
NVNT	n40	5190	Ant1	96.35	0.16	1.54
NVNT	n40	5230	Ant1	96.34	0.16	1.54
NVNT	ac20	5180	Ant1	98.05	0.09	0.76
NVNT	ac20	5200	Ant1	98.07	0.08	0.76
NVNT	ac20	5240	Ant1	98.06	0.09	0.76
NVNT	ac40	5190	Ant1	96.33	0.16	1.54
NVNT	ac40	5230	Ant1	96.38	0.16	1.54
NVNT	ac80	5210	Ant1	93.17	0.31	3.13

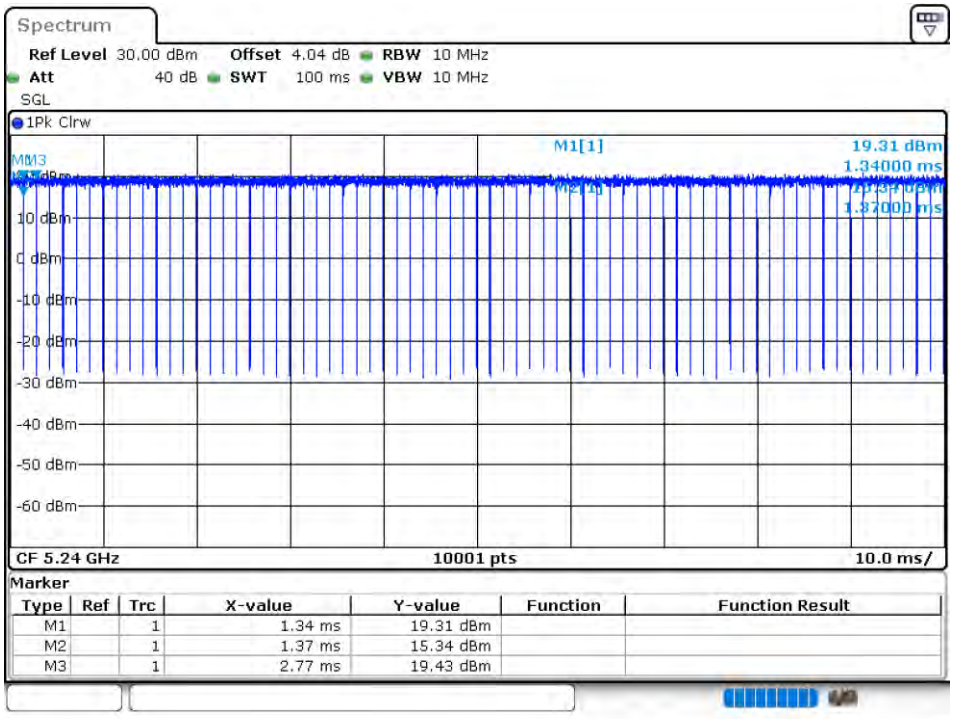
Test Graphs
Duty Cycle NVNT a 5180MHz Ant1



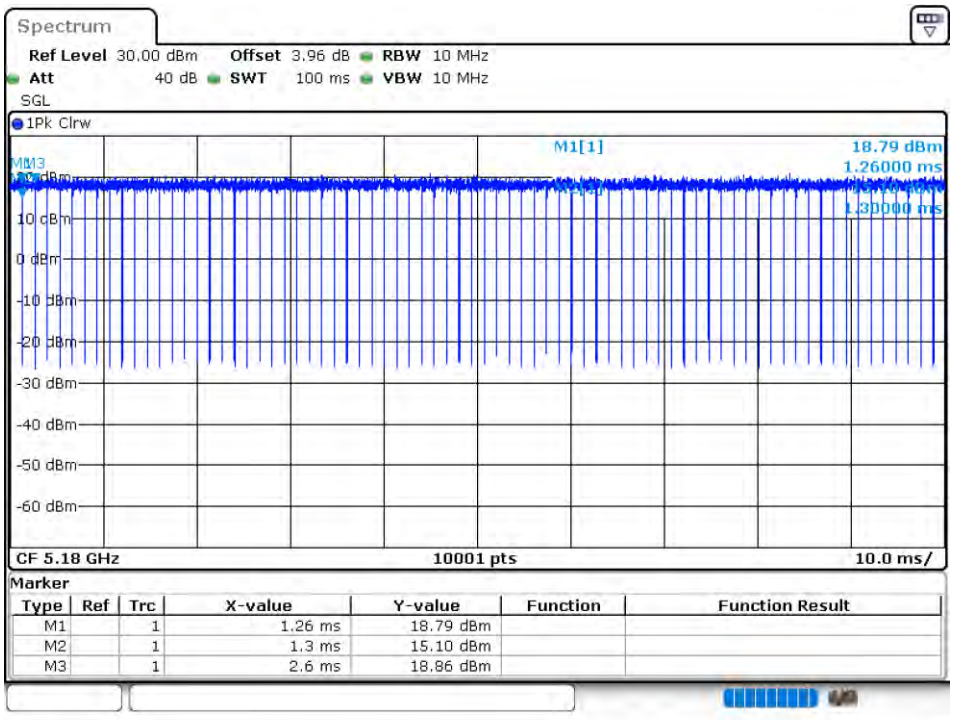
Duty Cycle NVNT a 5200MHz Ant1



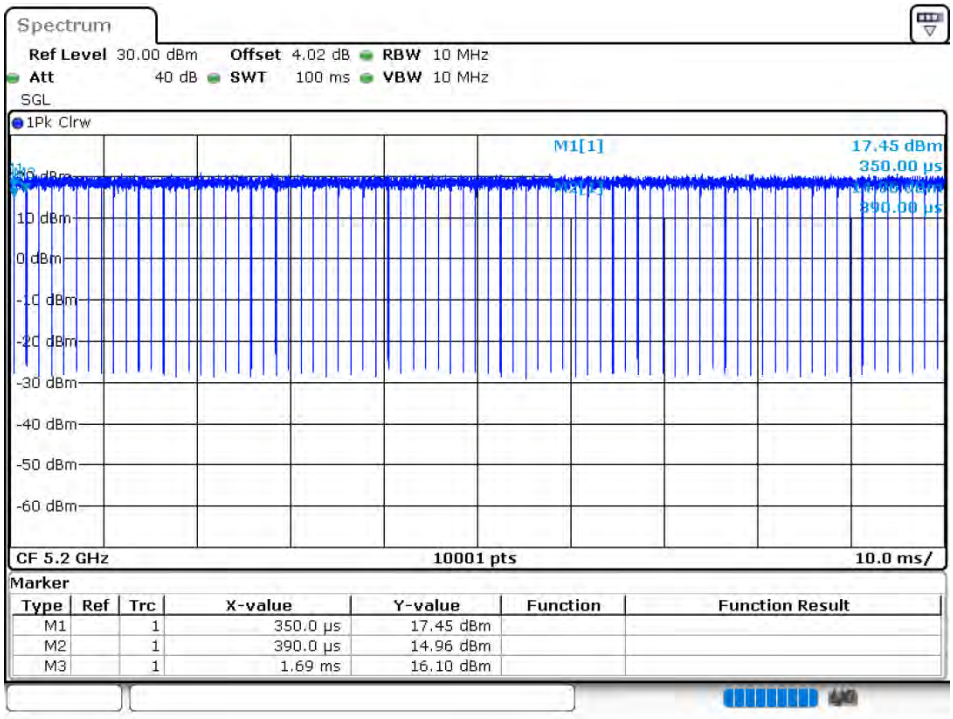
Duty Cycle NVNT a 5240MHz Ant1



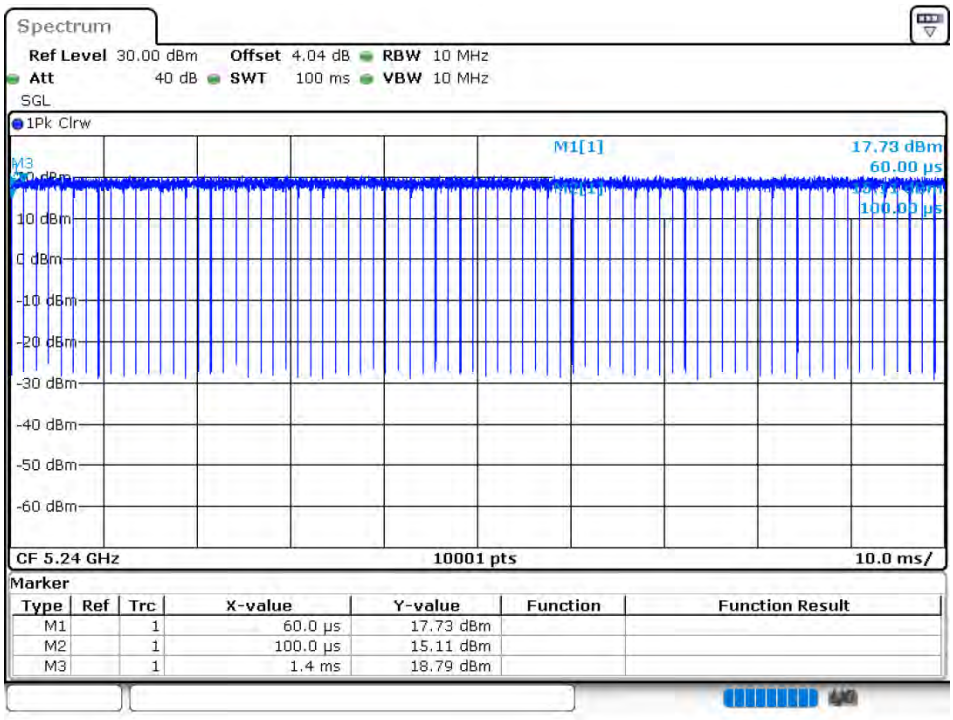
Duty Cycle NVNT n20 5180MHz Ant1



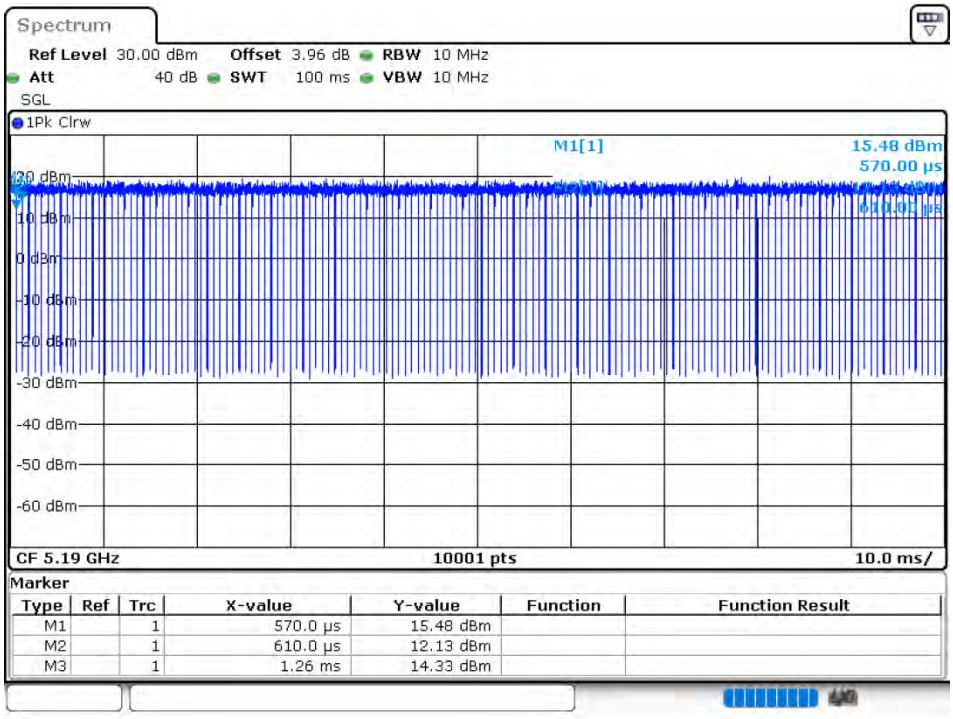
Duty Cycle NVNT n20 5200MHz Ant1



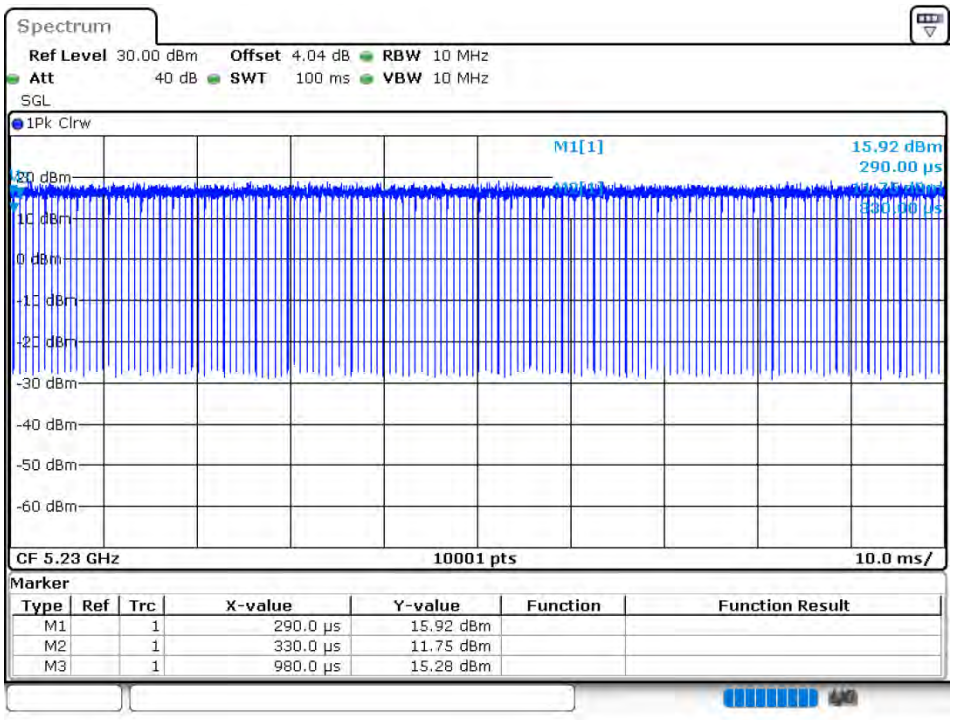
Duty Cycle NVNT n20 5240MHz Ant1



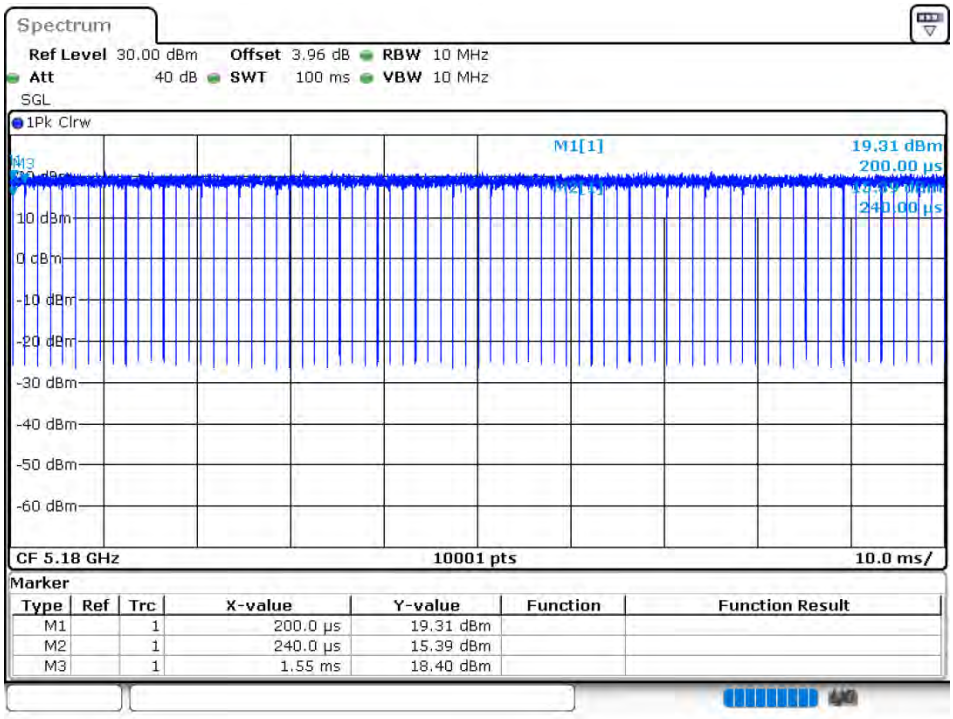
Duty Cycle NVNT n40 5190MHz Ant1



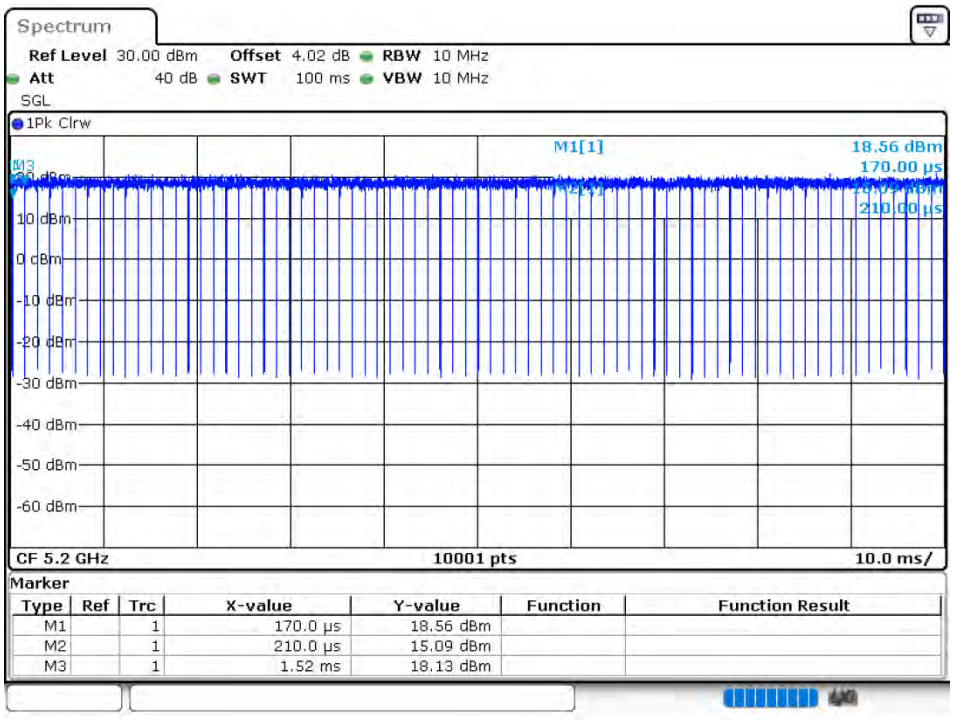
Duty Cycle NVNT n40 5230MHz Ant1



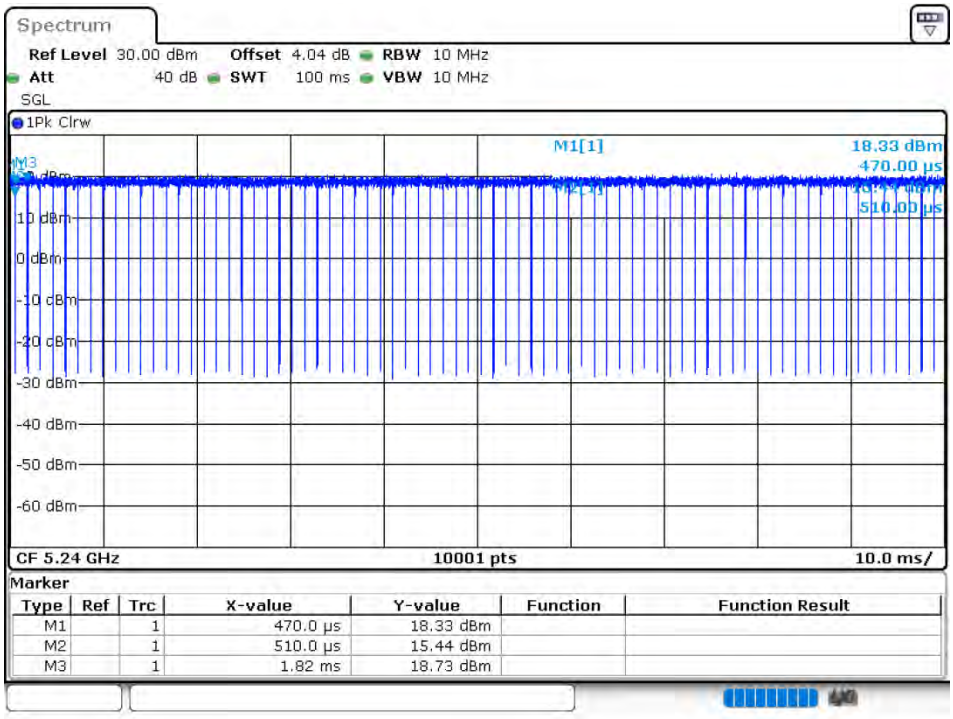
Duty Cycle NVNT ac20 5180MHz Ant1



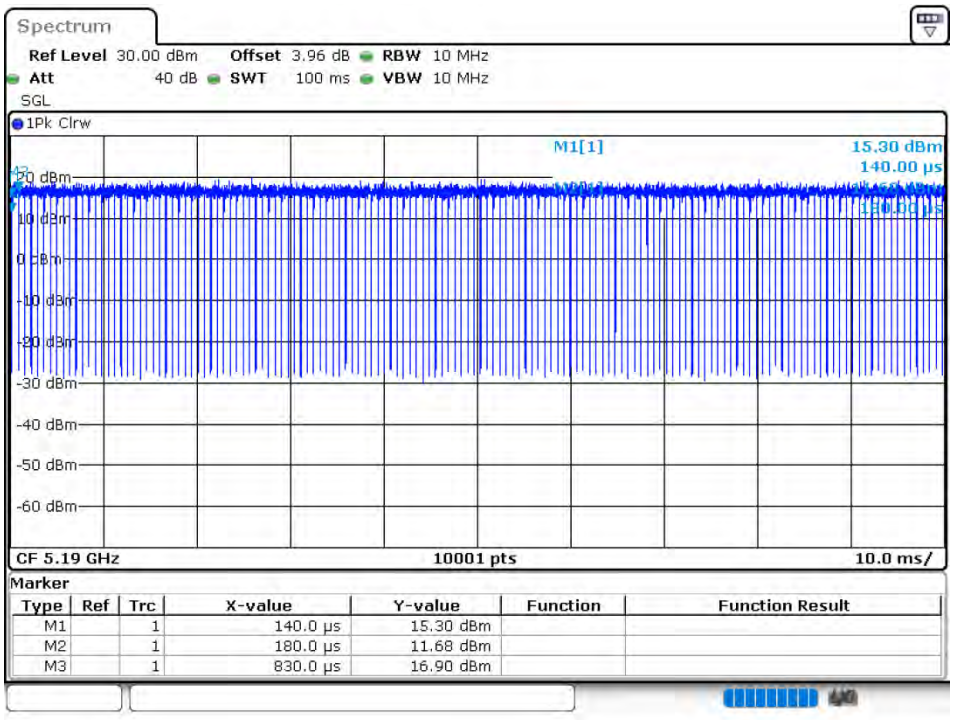
Duty Cycle NVNT ac20 5200MHz Ant1



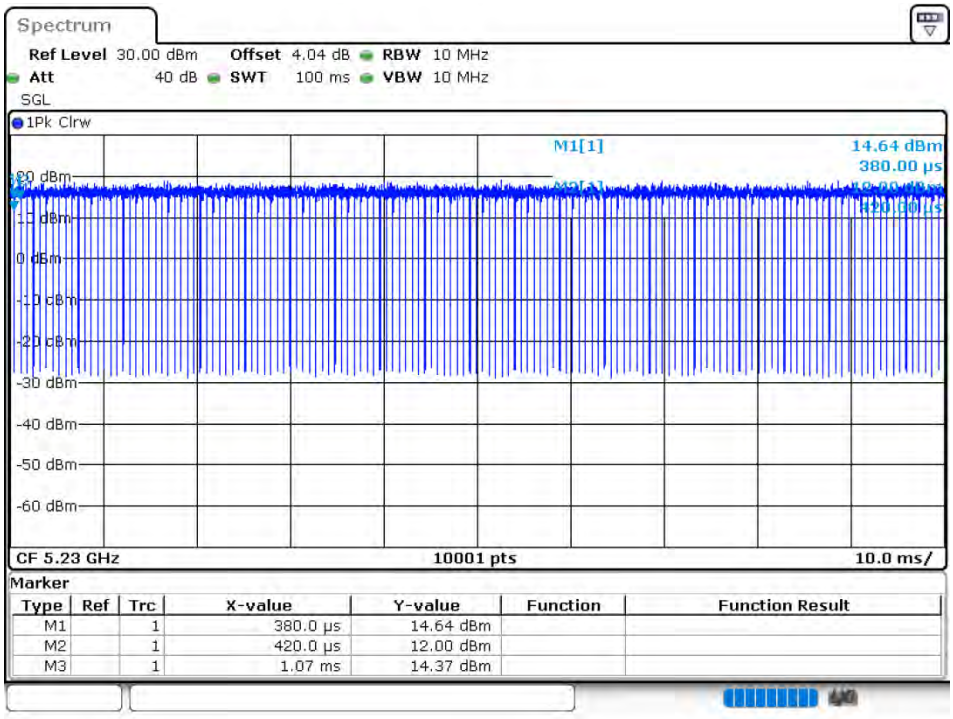
Duty Cycle NVNT ac20 5240MHz Ant1



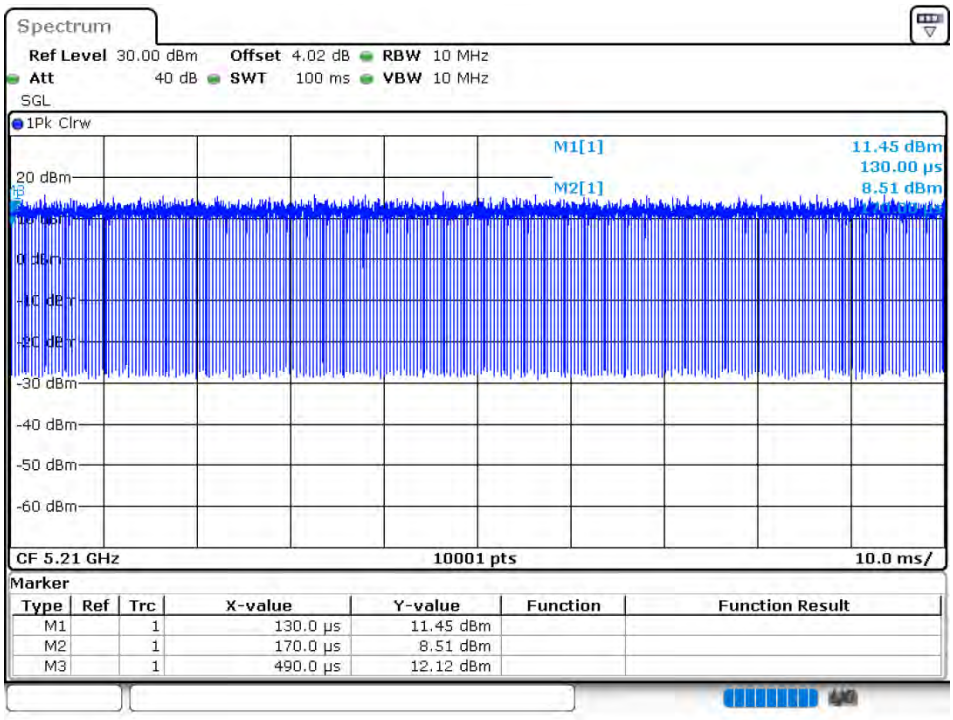
Duty Cycle NVNT ac40 5190MHz Ant1



Duty Cycle NVNT ac40 5230MHz Ant1



Duty Cycle NVNT ac80 5210MHz Ant1



Maximum Conducted Output Power

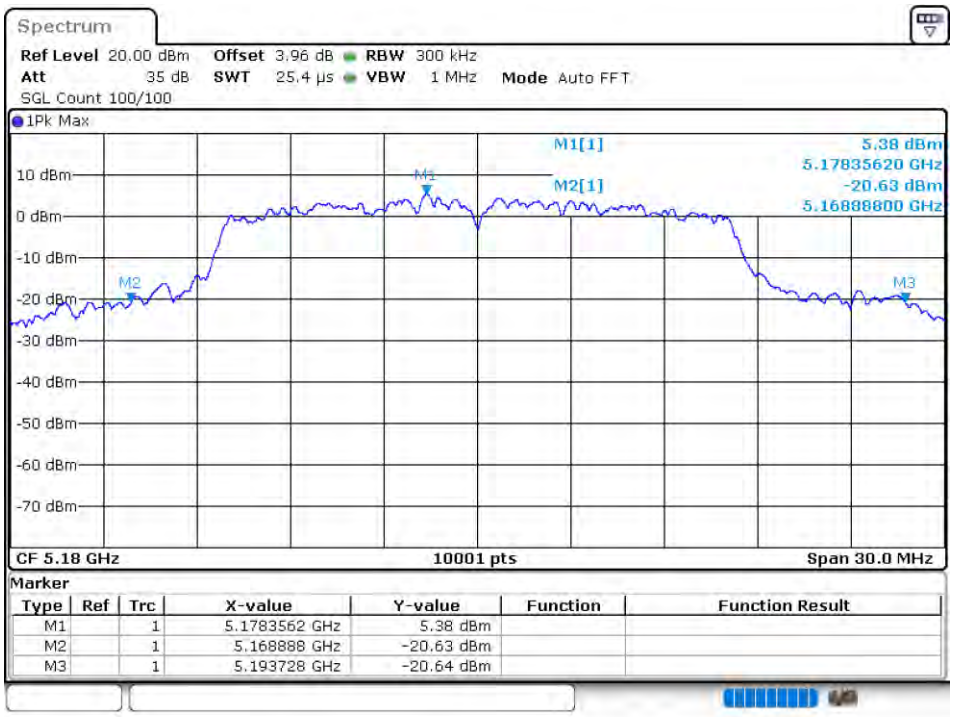
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	14.8	24	Pass
NVNT	a	5200	Ant1	14.73	24	Pass
NVNT	a	5240	Ant1	14.57	24	Pass
NVNT	n20	5180	Ant1	14.83	24	Pass
NVNT	n20	5200	Ant1	14.72	24	Pass
NVNT	n20	5240	Ant1	13.95	24	Pass
NVNT	n40	5190	Ant1	15.04	24	Pass
NVNT	n40	5230	Ant1	14.61	24	Pass
NVNT	ac20	5180	Ant1	14.88	24	Pass
NVNT	ac20	5200	Ant1	14.72	24	Pass
NVNT	ac20	5240	Ant1	14.57	24	Pass
NVNT	ac40	5190	Ant1	14.68	24	Pass
NVNT	ac40	5230	Ant1	14.2	24	Pass
NVNT	ac80	5210	Ant1	13.28	24	Pass

Note: The average power value already includes the duty cycle factor

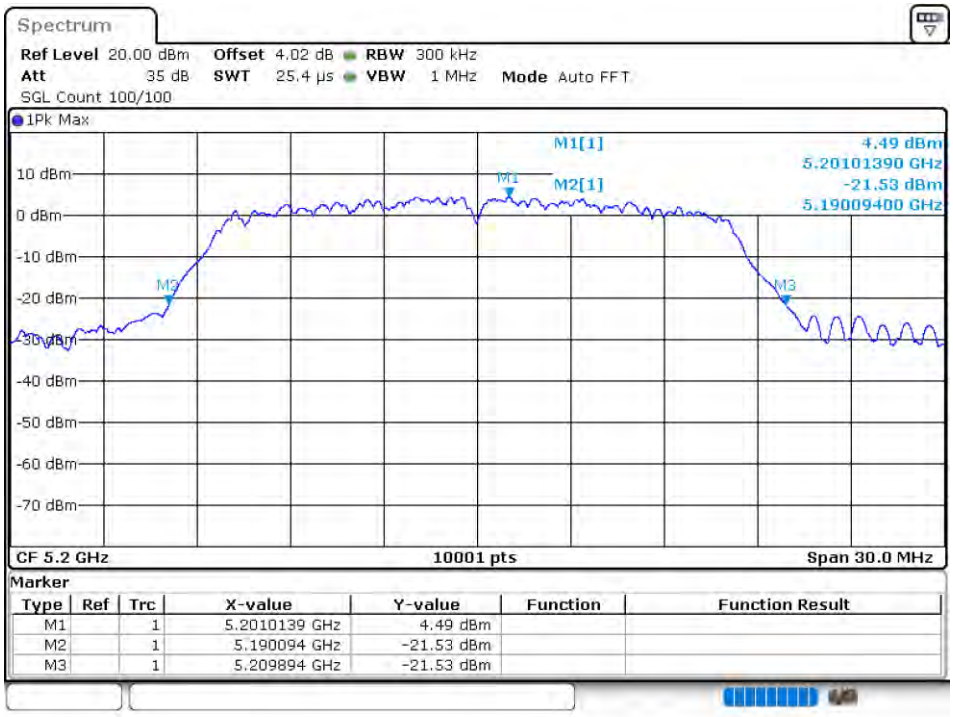
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	24.84	Pass
NVNT	a	5200	Ant1	19.8	Pass
NVNT	a	5240	Ant1	20.502	Pass
NVNT	n20	5180	Ant1	25.767	Pass
NVNT	n20	5200	Ant1	20.016	Pass
NVNT	n20	5240	Ant1	22.161	Pass
NVNT	n40	5190	Ant1	58.938	Pass
NVNT	n40	5230	Ant1	54.462	Pass
NVNT	ac20	5180	Ant1	20.244	Pass
NVNT	ac20	5200	Ant1	20.046	Pass
NVNT	ac20	5240	Ant1	20.574	Pass
NVNT	ac40	5190	Ant1	45.48	Pass
NVNT	ac40	5230	Ant1	46.302	Pass
NVNT	ac80	5210	Ant1	81.036	Pass

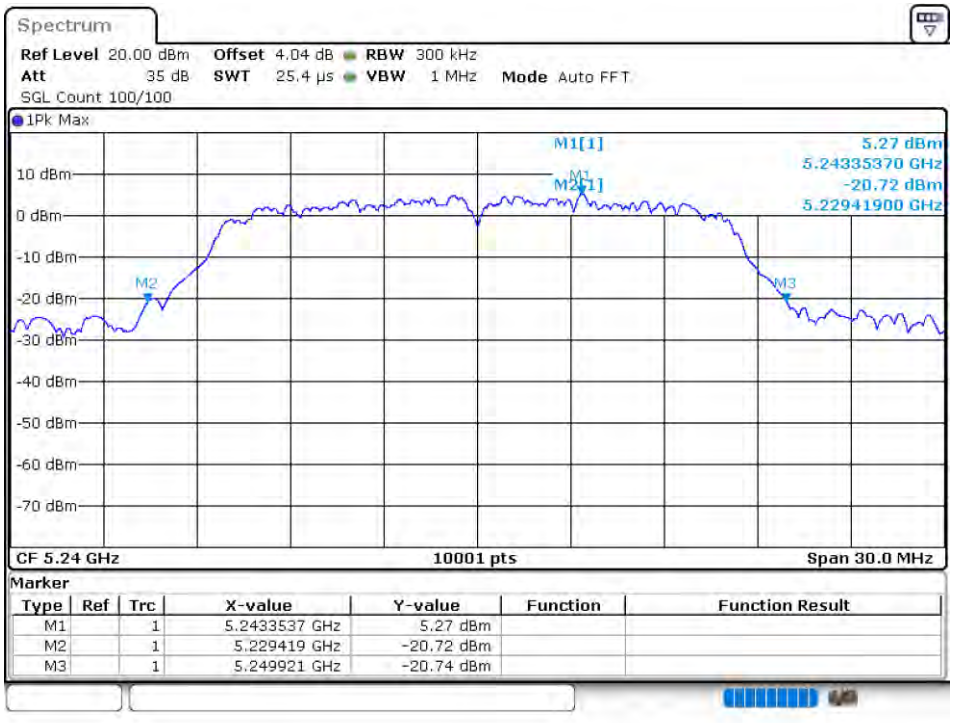
Test Graphs
-26dB Bandwidth NVNT a 5180MHz Ant1



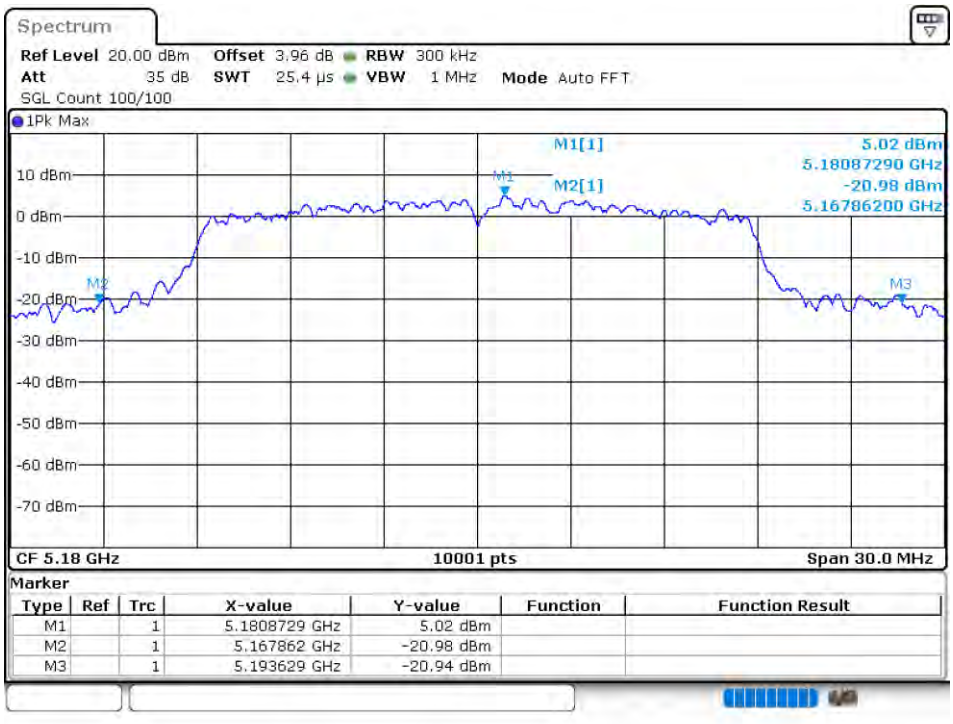
-26dB Bandwidth NVNT a 5200MHz Ant1



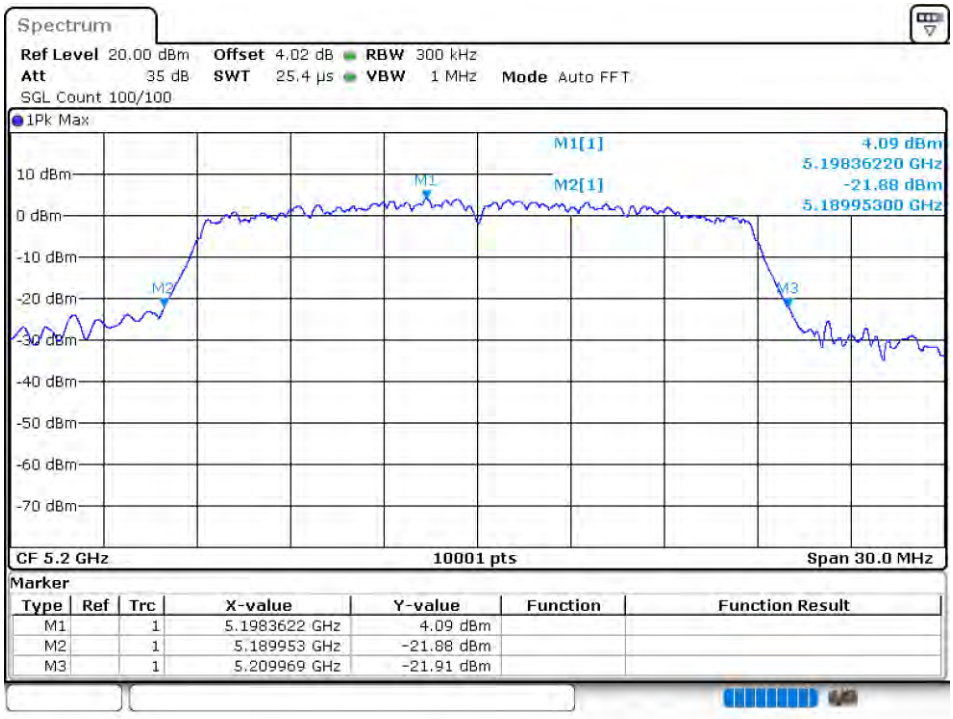
-26dB Bandwidth NVNT a 5240MHz Ant1



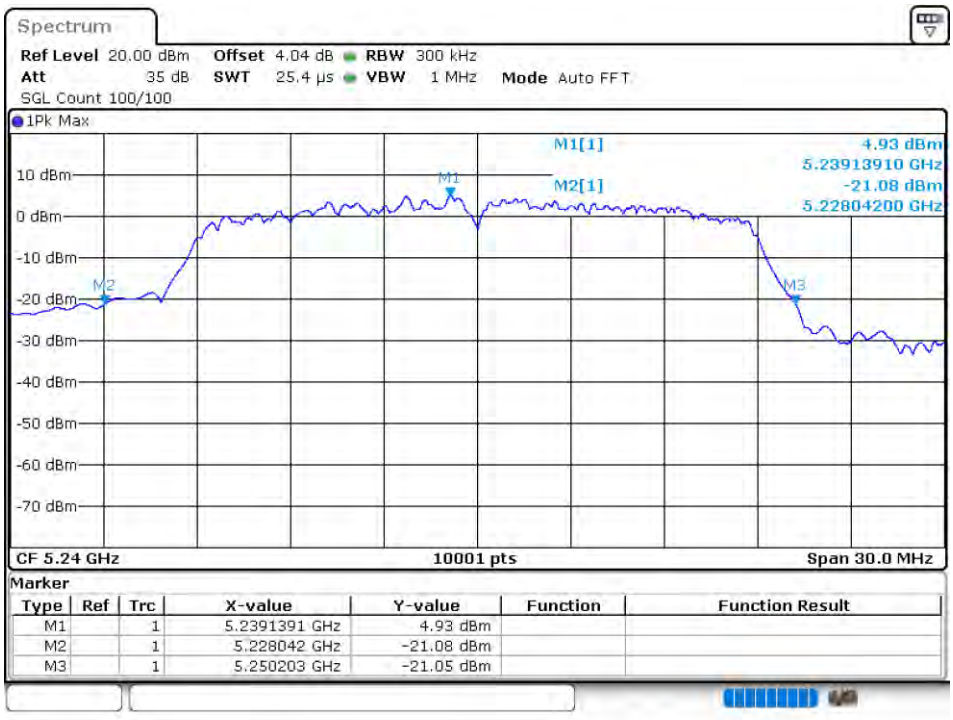
-26dB Bandwidth NVNT n20 5180MHz Ant1



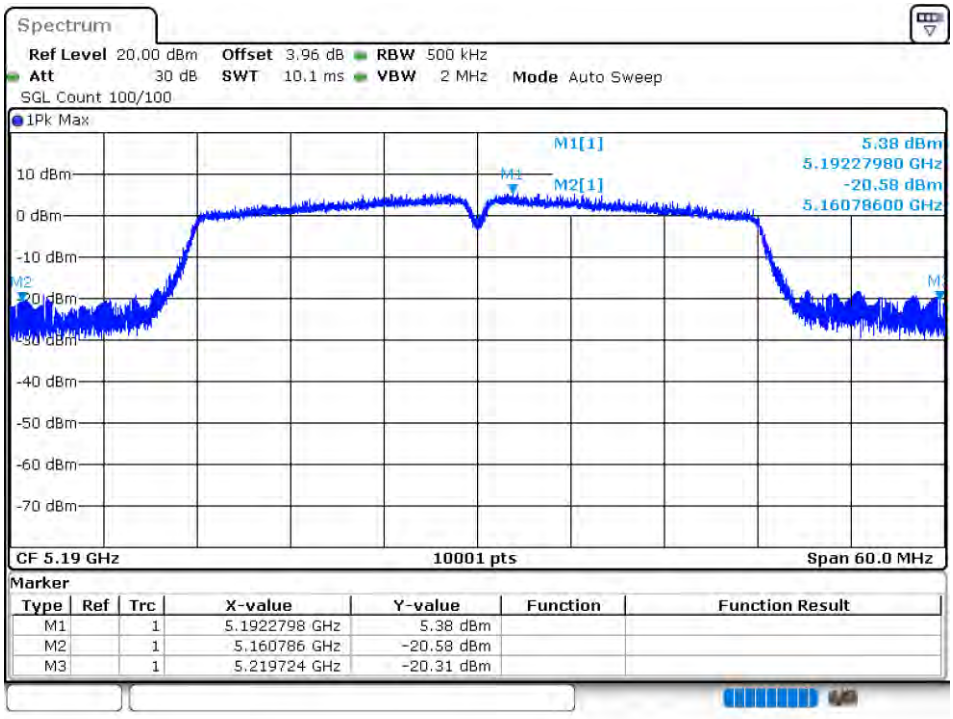
-26dB Bandwidth NVNT n20 5200MHz Ant1



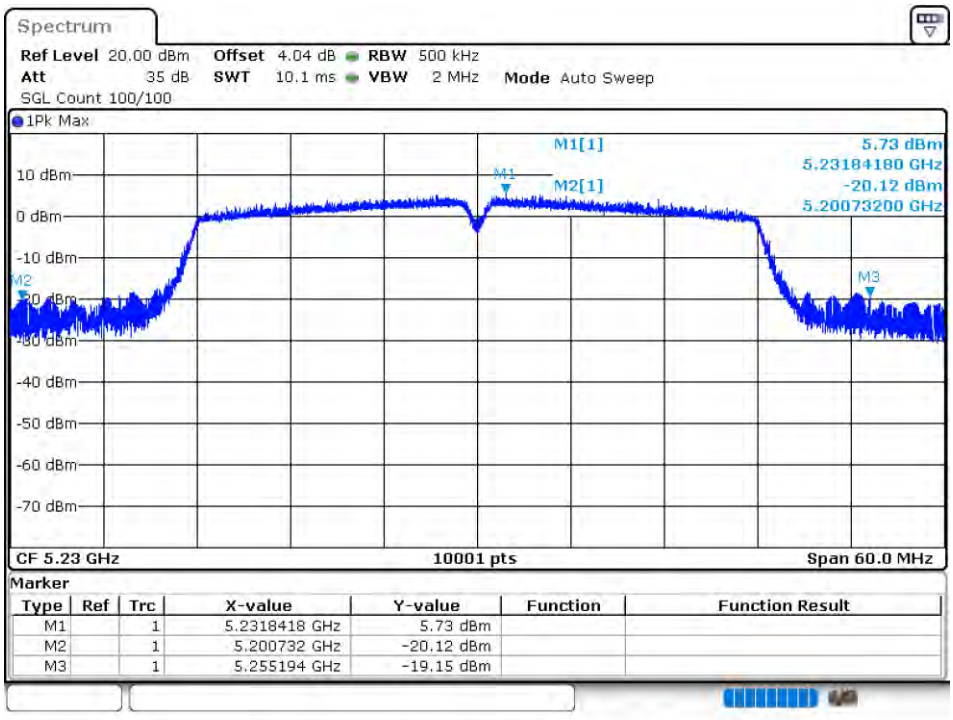
-26dB Bandwidth NVNT n20 5240MHz Ant1



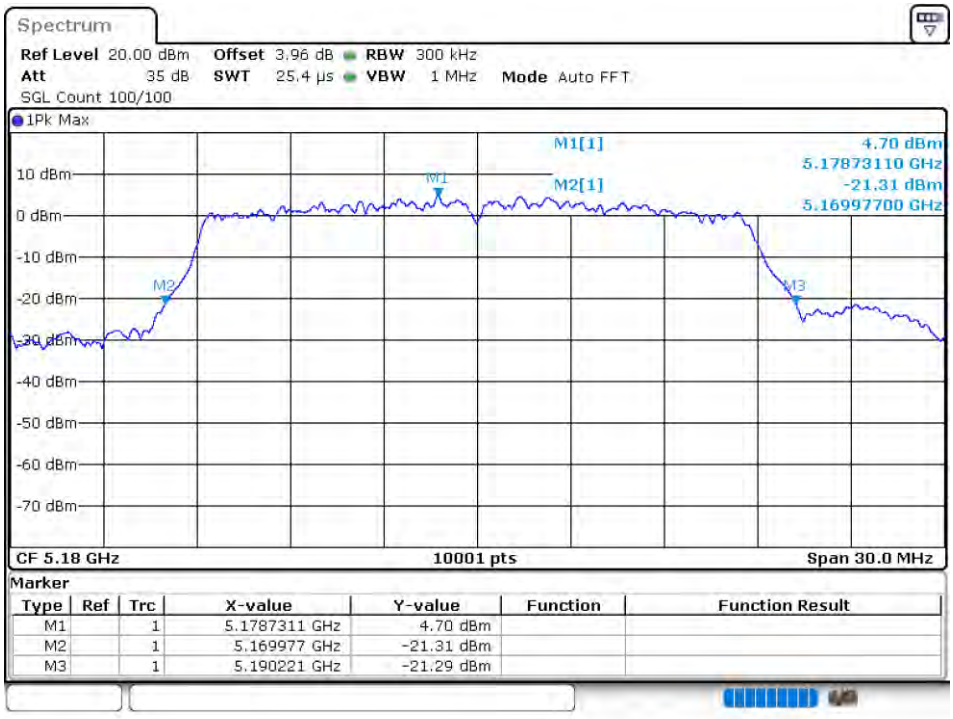
-26dB Bandwidth NVNT n40 5190MHz Ant1



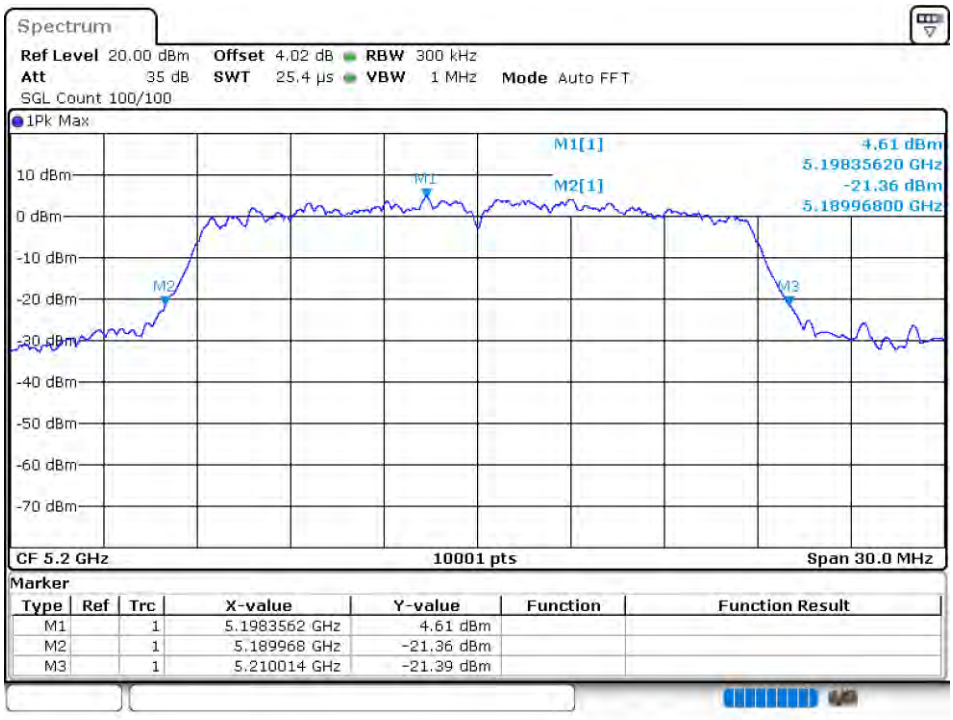
-26dB Bandwidth NVNT n40 5230MHz Ant1



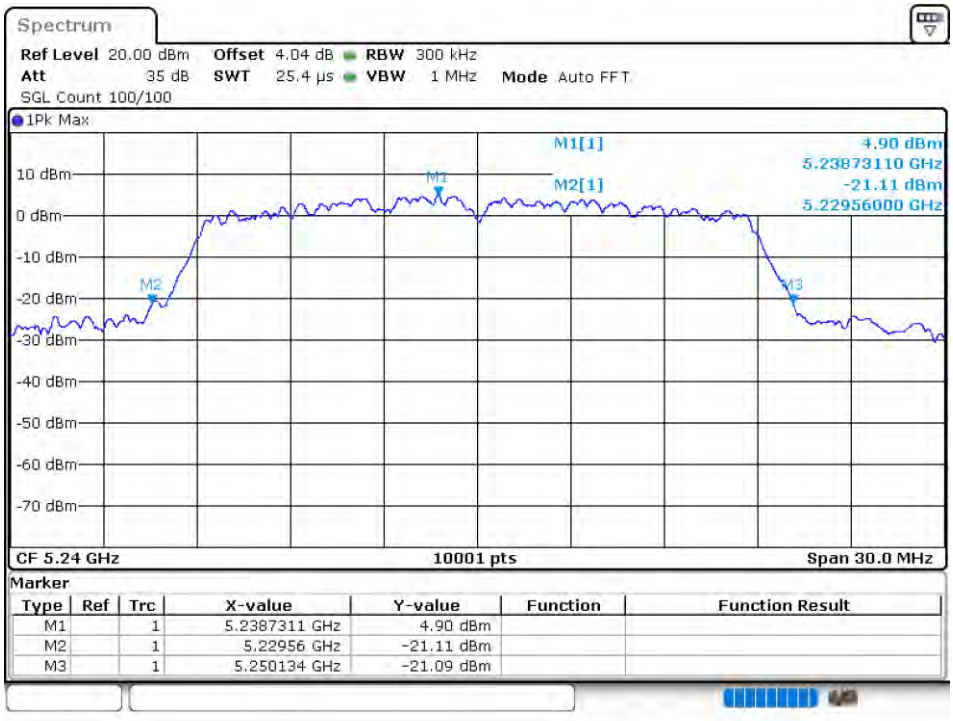
-26dB Bandwidth NVNT ac20 5180MHz Ant1



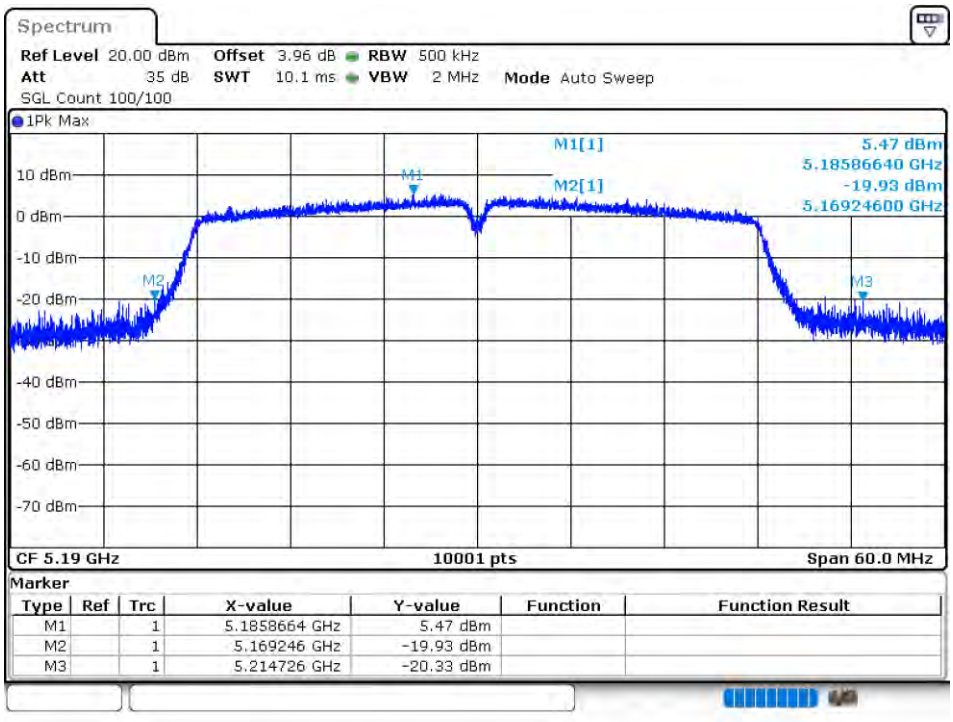
-26dB Bandwidth NVNT ac20 5200MHz Ant1



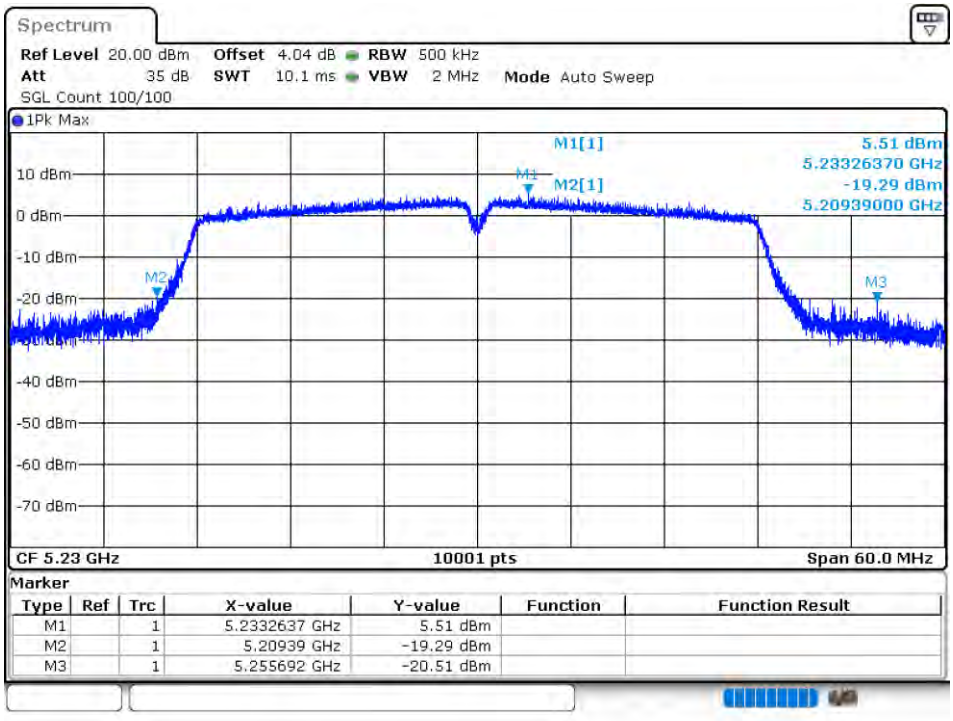
-26dB Bandwidth NVNT ac20 5240MHz Ant1



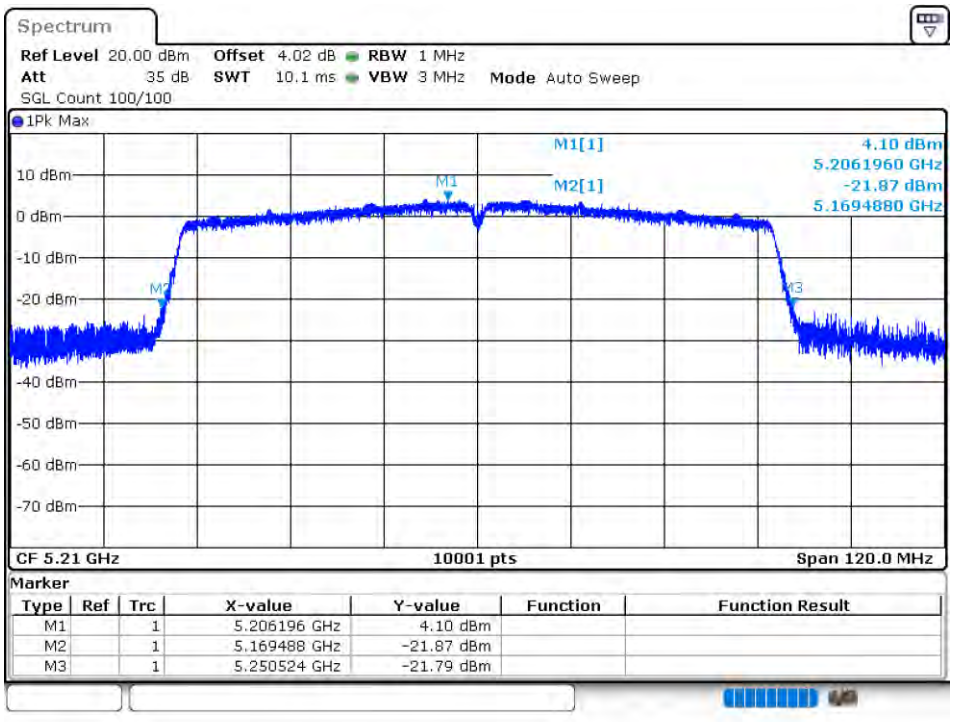
-26dB Bandwidth NVNT ac40 5190MHz Ant1



-26dB Bandwidth NVNT ac40 5230MHz Ant1



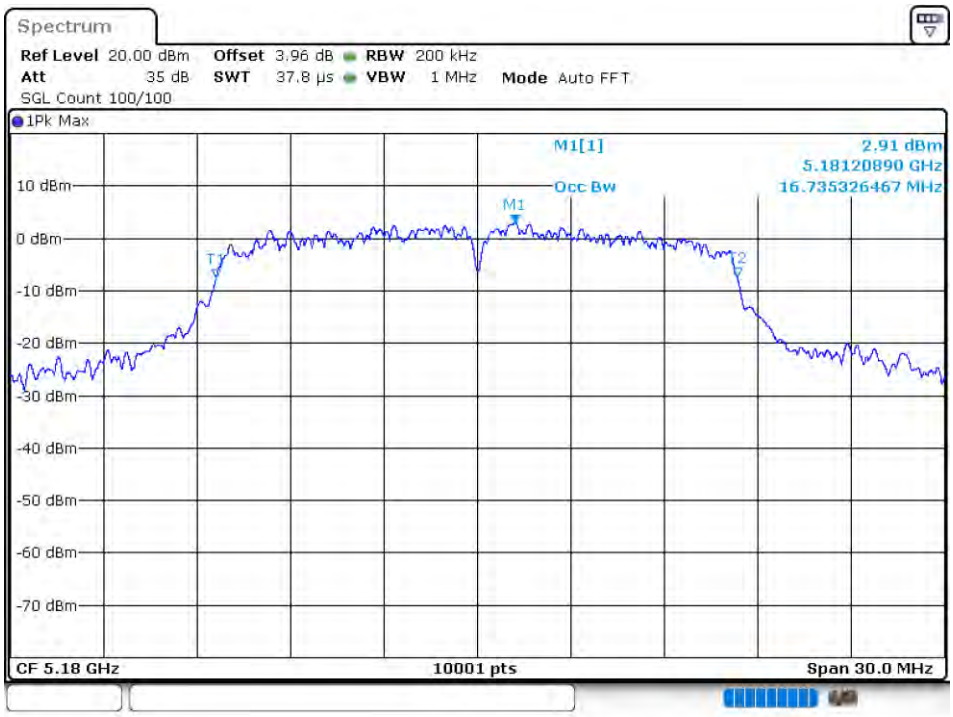
-26dB Bandwidth NVNT ac80 5210MHz Ant1



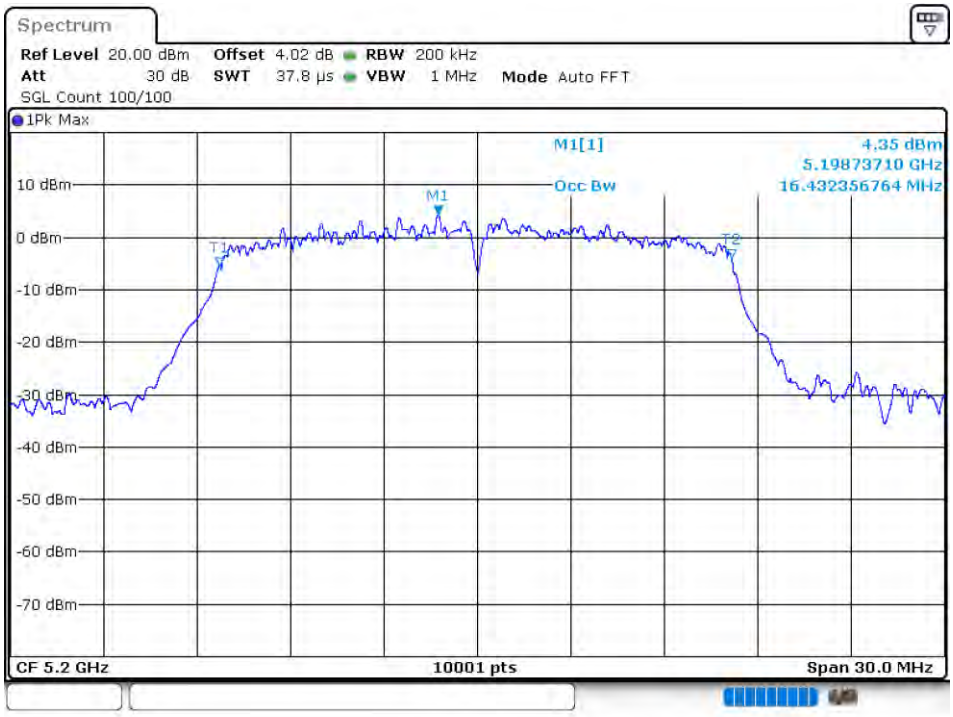
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.735
NVNT	a	5200	Ant1	16.432
NVNT	a	5240	Ant1	16.354
NVNT	n20	5180	Ant1	17.773
NVNT	n20	5200	Ant1	17.545
NVNT	n20	5240	Ant1	17.641
NVNT	n40	5190	Ant1	36.152
NVNT	n40	5230	Ant1	36.182
NVNT	ac20	5180	Ant1	17.611
NVNT	ac20	5200	Ant1	17.545
NVNT	ac20	5240	Ant1	17.551
NVNT	ac40	5190	Ant1	36.086
NVNT	ac40	5230	Ant1	36.116
NVNT	ac80	5210	Ant1	75.076

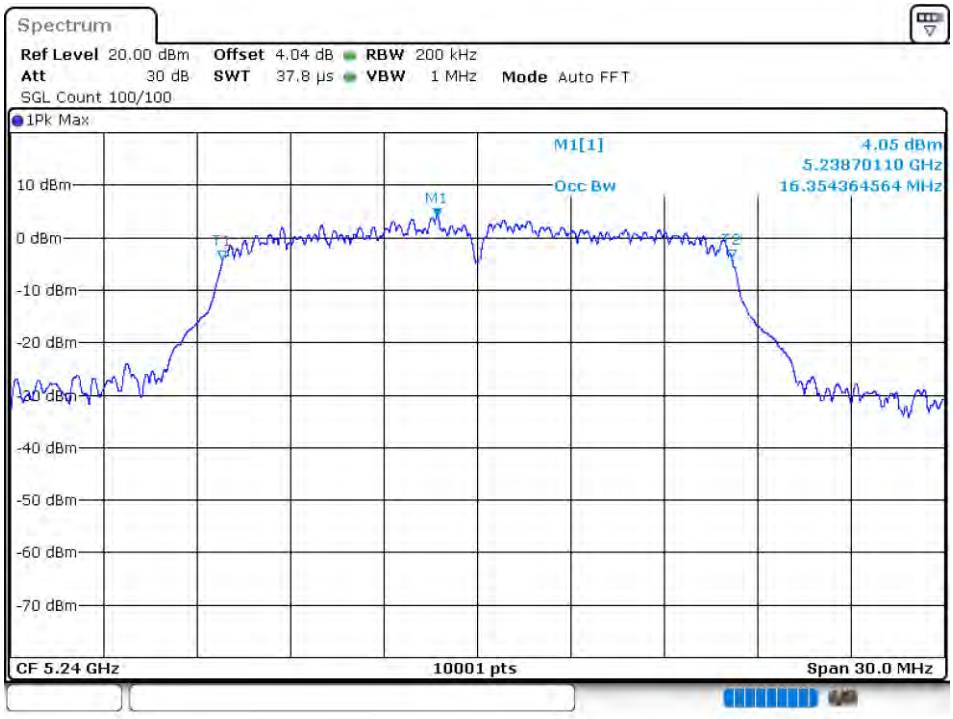
Test Graphs
OBW NVNT a 5180MHz Ant1



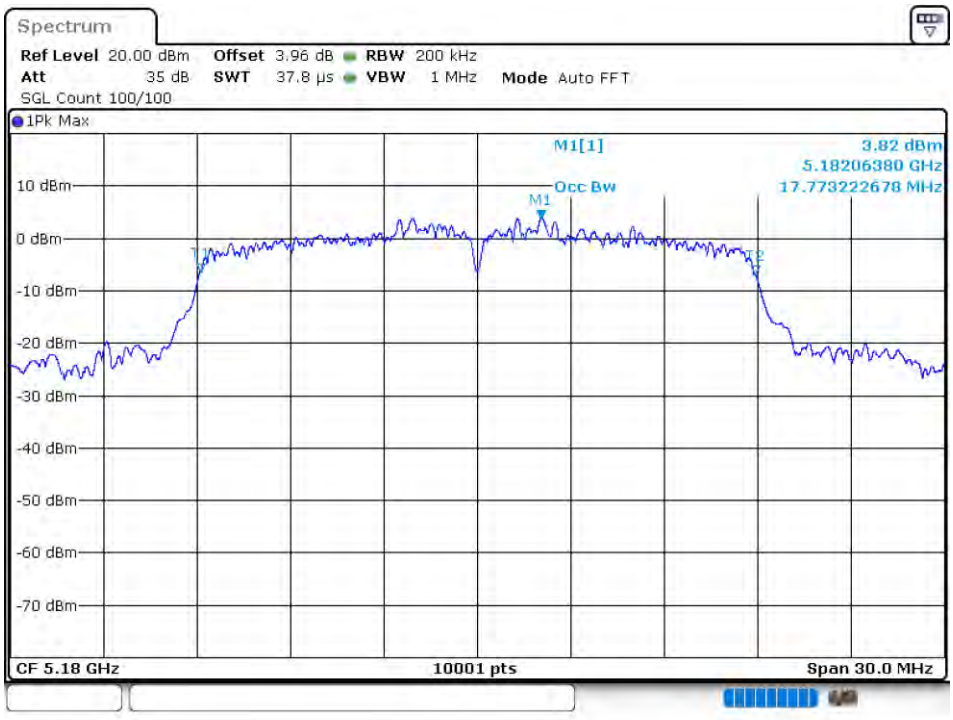
OBW NVNT a 5200MHz Ant1



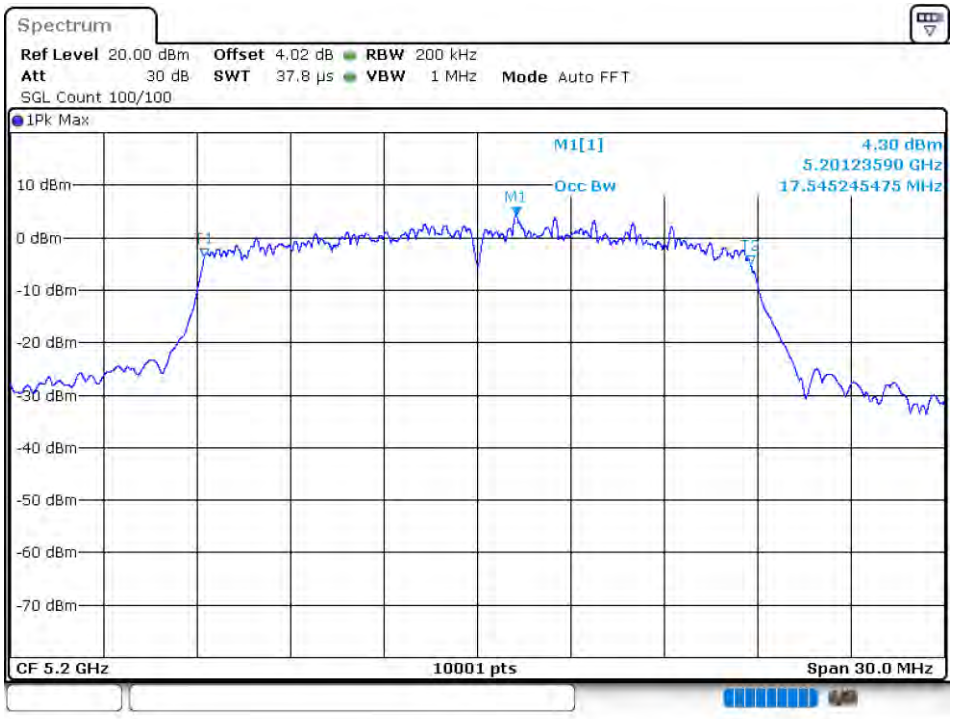
OBW NVNT a 5240MHz Ant1



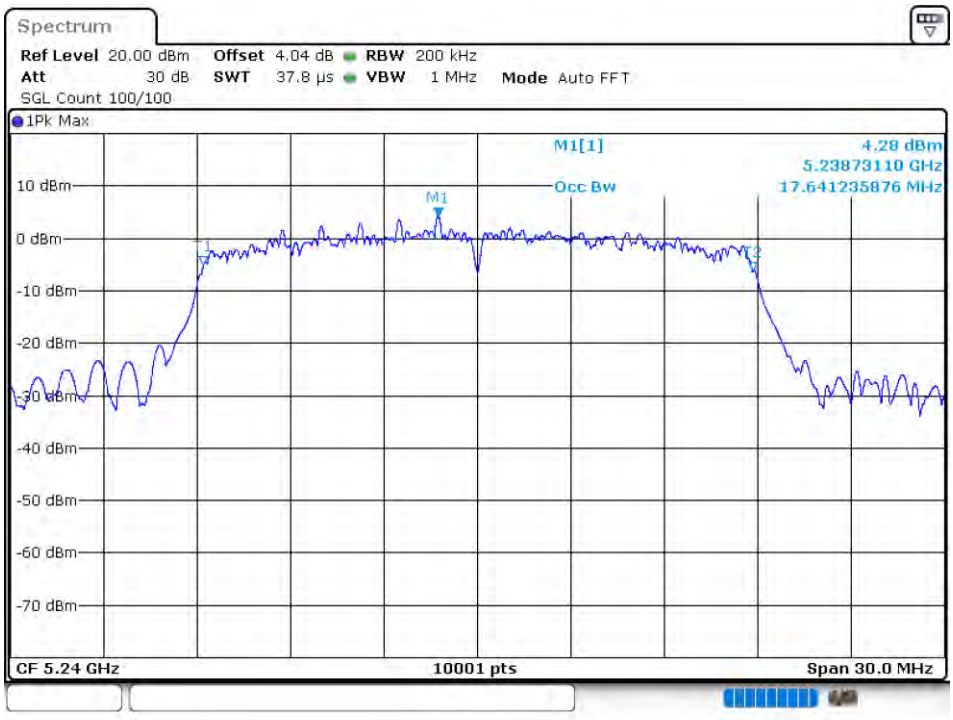
OBW NVNT n20 5180MHz Ant1



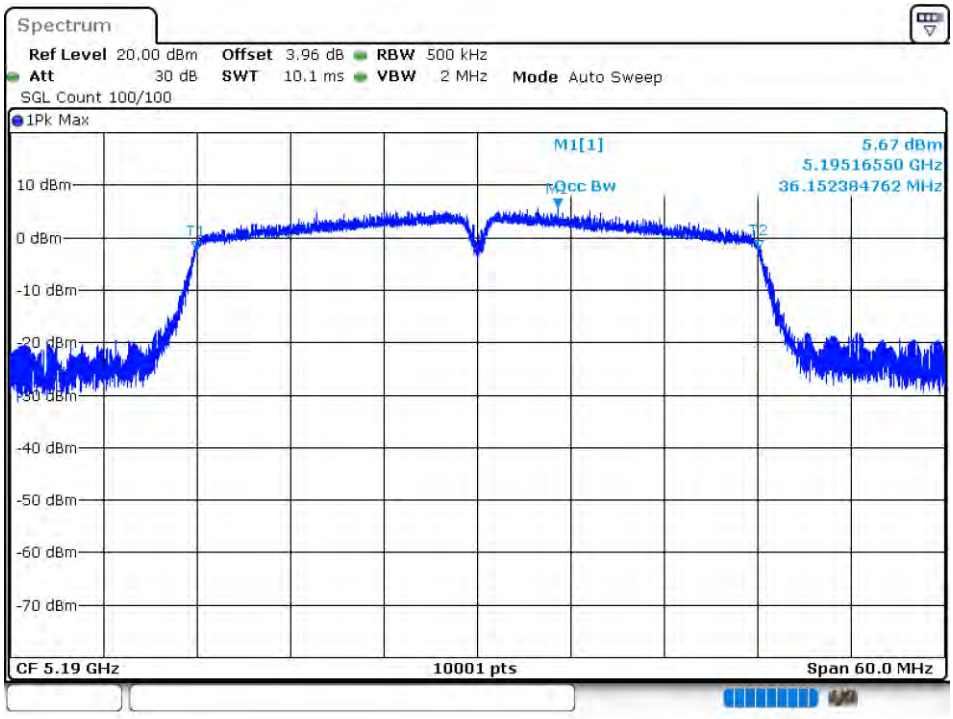
OBW NVNT n20 5200MHz Ant1



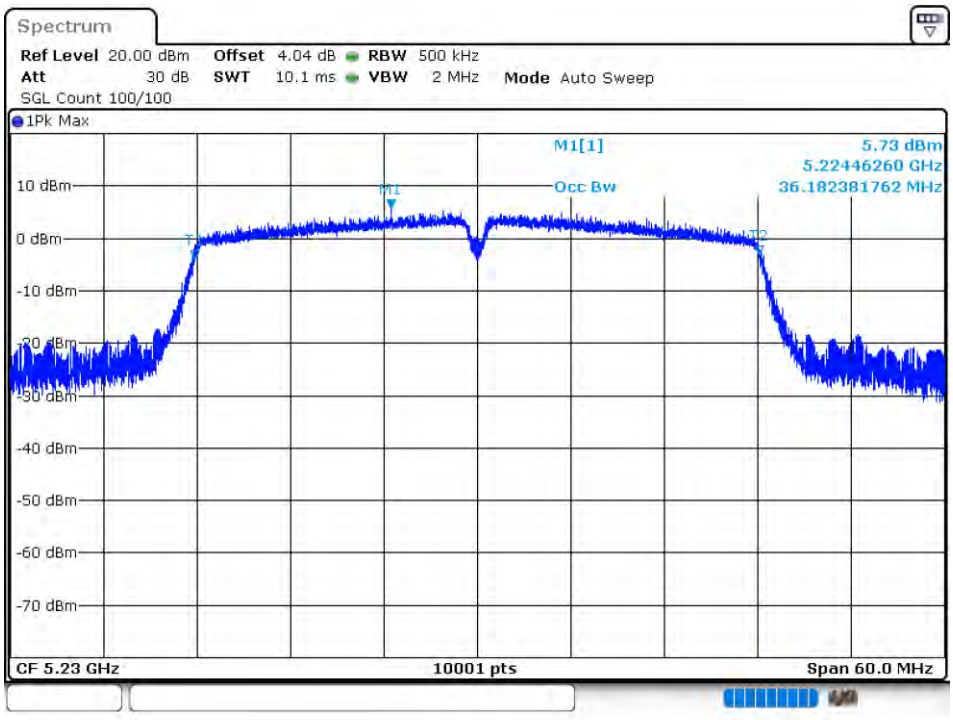
OBW NVNT n20 5240MHz Ant1



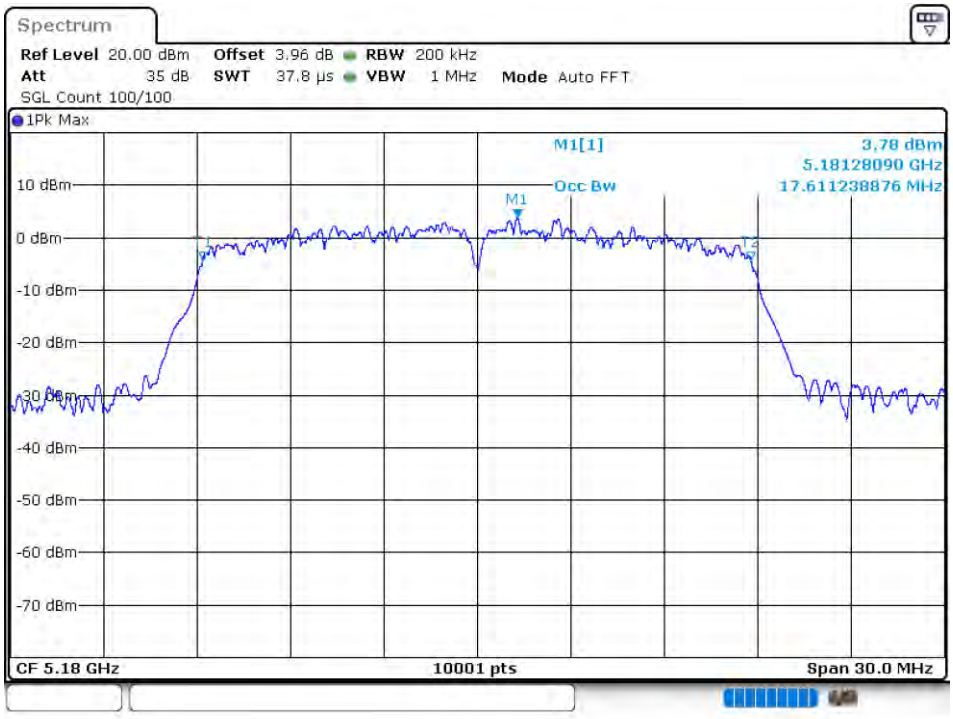
OBW NVNT n40 5190MHz Ant1



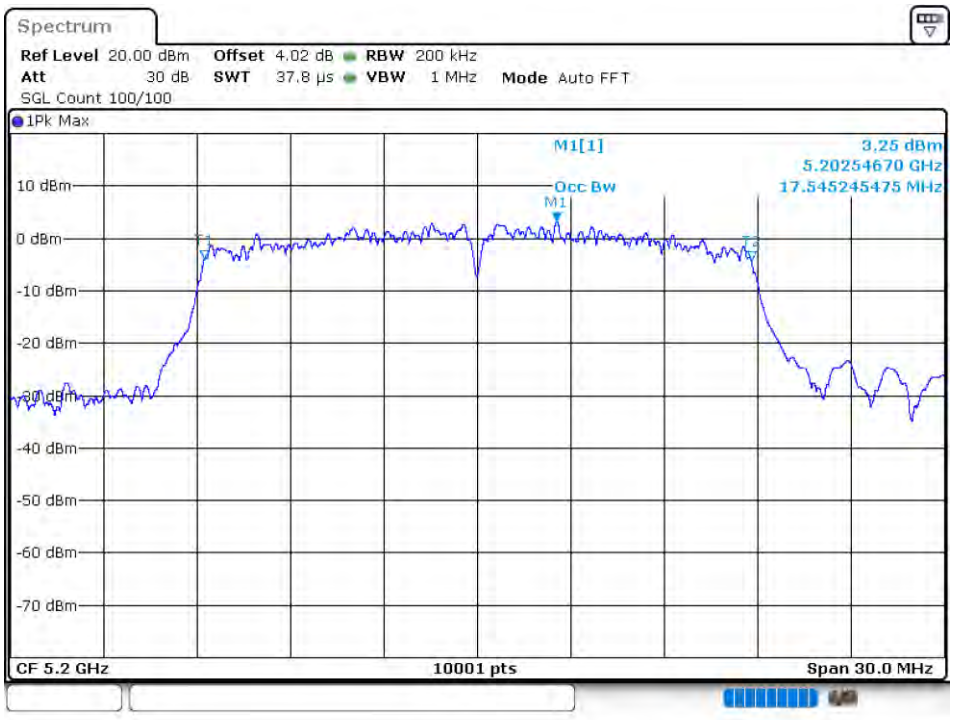
OBW NVNT n40 5230MHz Ant1



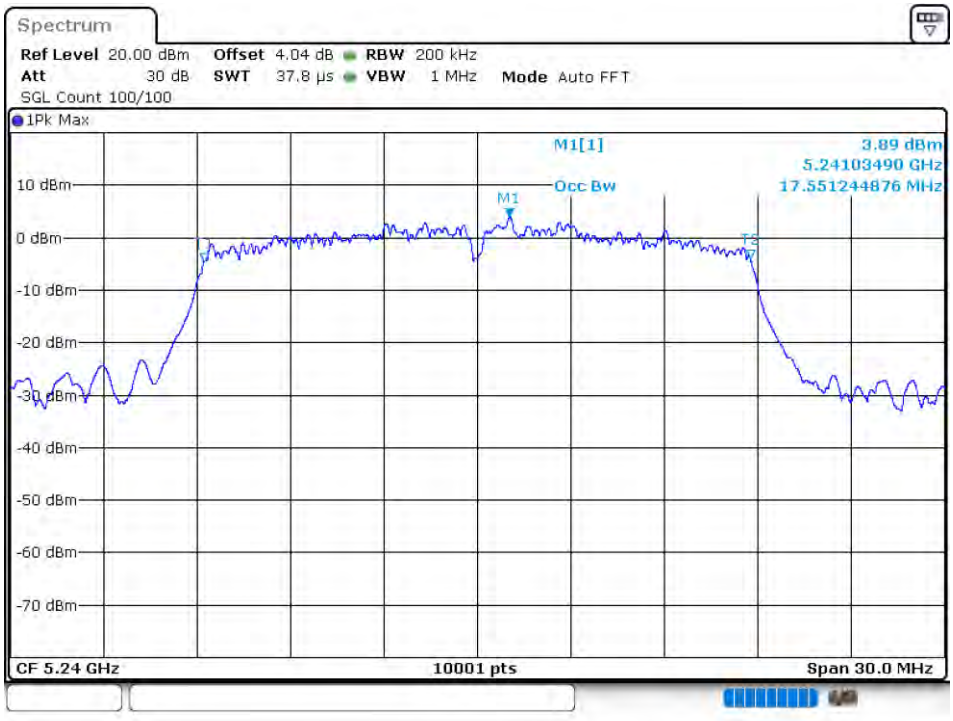
OBW NVNT ac20 5180MHz Ant1



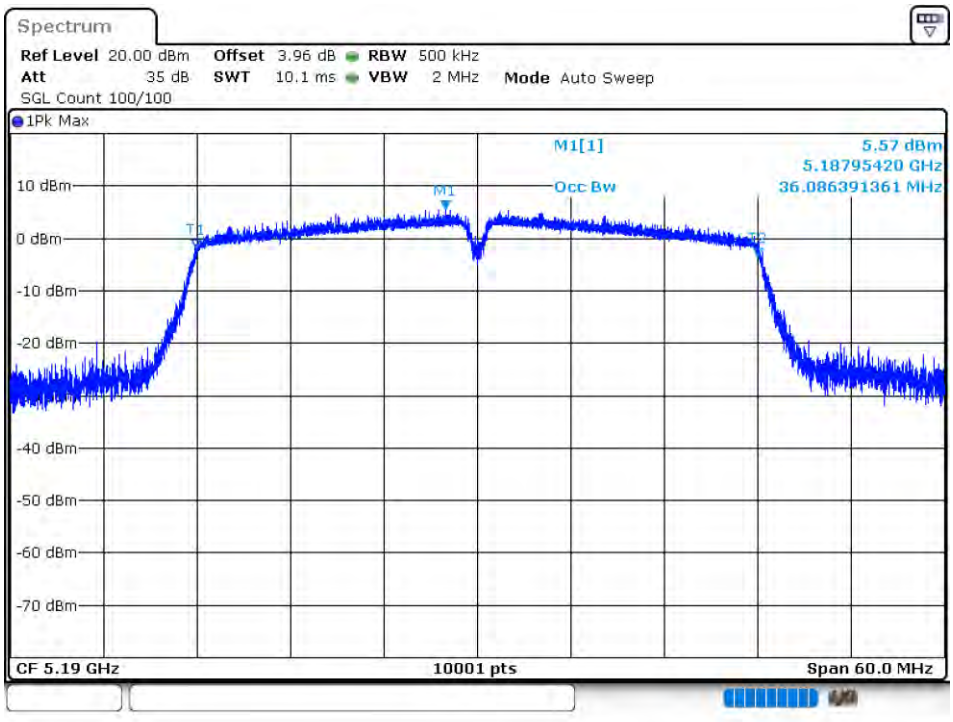
OBW NVNT ac20 5200MHz Ant1



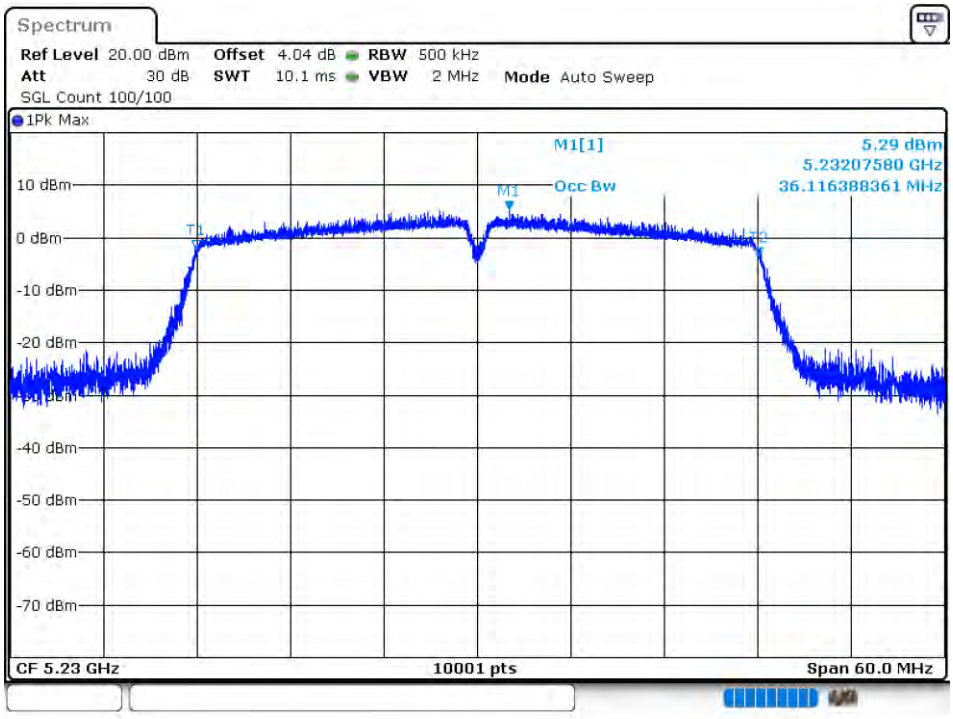
OBW NVNT ac20 5240MHz Ant1



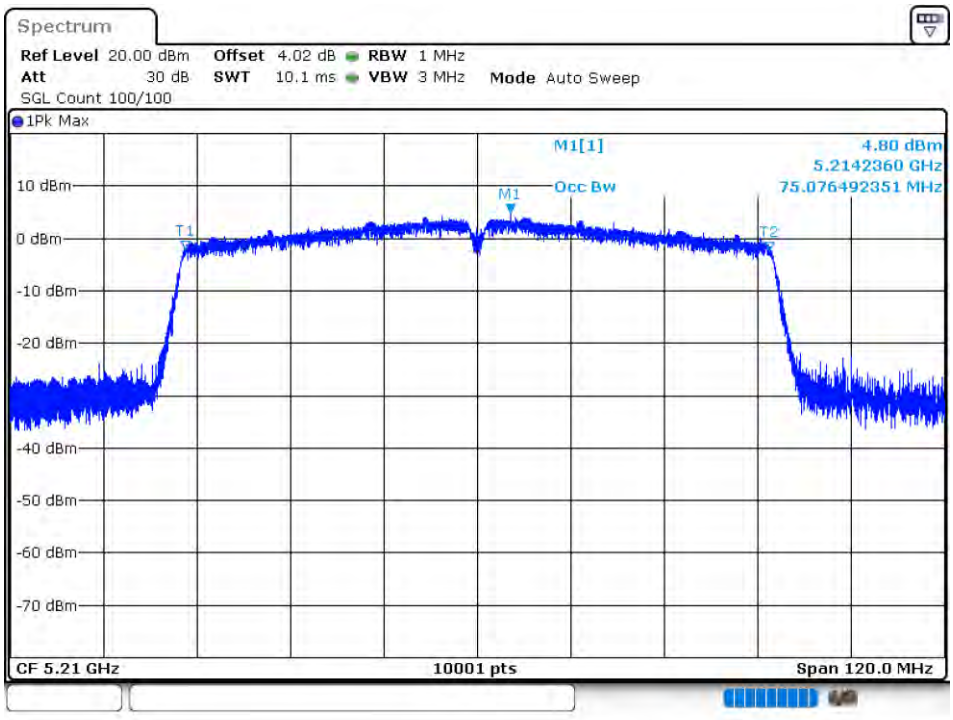
OBW NVNT ac40 5190MHz Ant1



OBW NVNT ac40 5230MHz Ant1



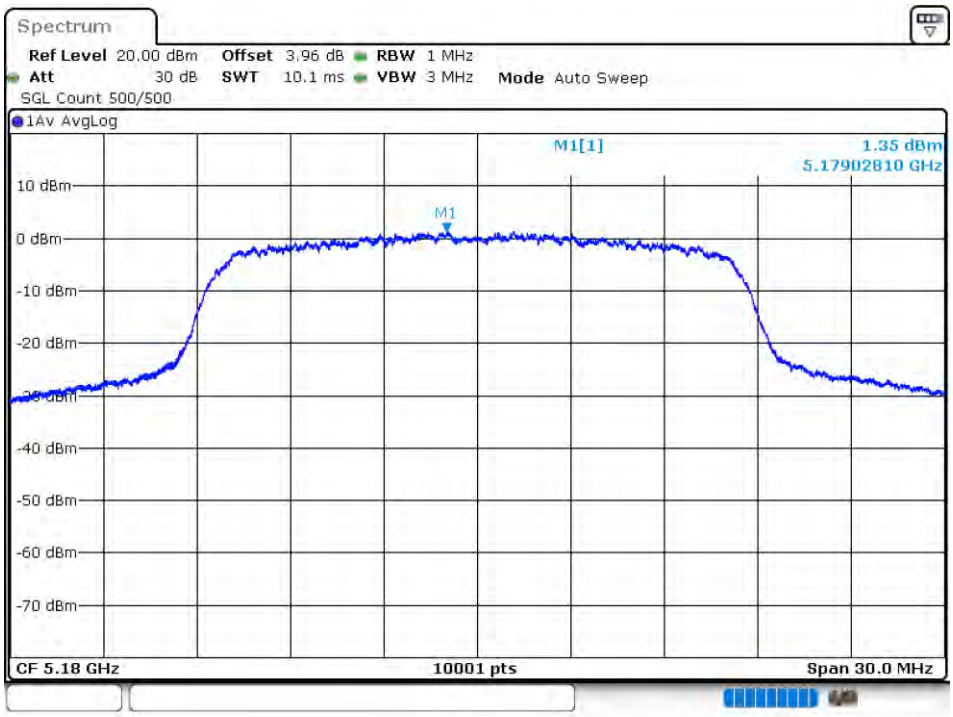
OBW NVNT ac80 5210MHz Ant1



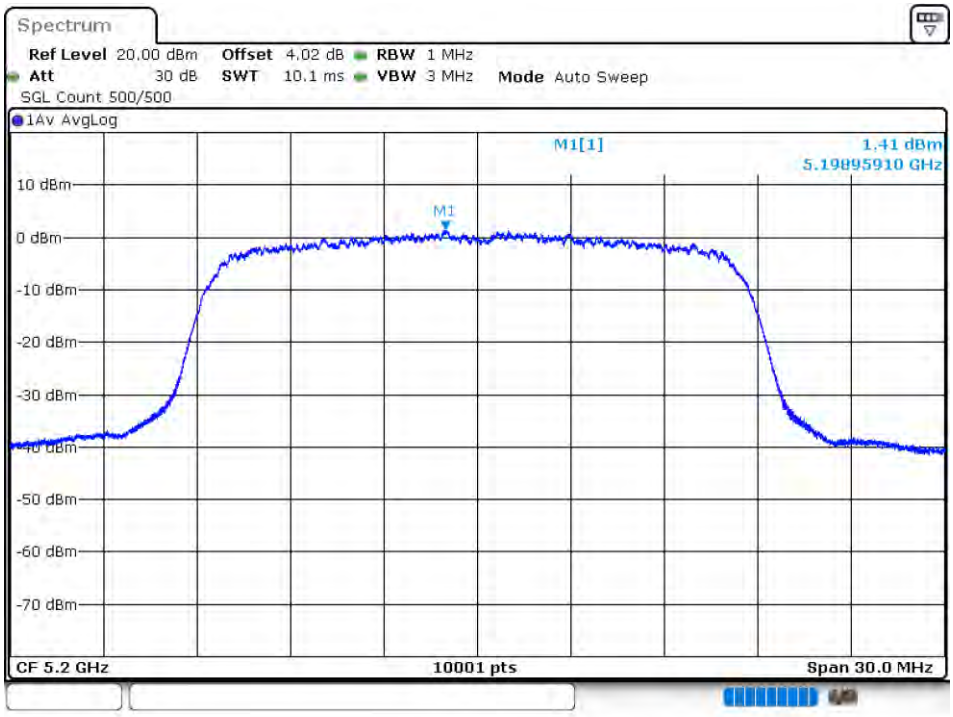
Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	1.35	0.08	1.43	11	Pass
NVNT	a	5200	Ant1	1.41	0.08	1.49	11	Pass
NVNT	a	5240	Ant1	1.57	0.08	1.65	11	Pass
NVNT	n20	5180	Ant1	0.95	0.08	1.03	11	Pass
NVNT	n20	5200	Ant1	0.73	0.09	0.82	11	Pass
NVNT	n20	5240	Ant1	0.96	0.09	1.05	11	Pass
NVNT	n40	5190	Ant1	-2.51	0.16	-2.35	11	Pass
NVNT	n40	5230	Ant1	-2.73	0.16	-2.57	11	Pass
NVNT	ac20	5180	Ant1	2.34	0.09	2.43	11	Pass
NVNT	ac20	5200	Ant1	2.05	0.08	2.13	11	Pass
NVNT	ac20	5240	Ant1	2.31	0.09	2.4	11	Pass
NVNT	ac40	5190	Ant1	-2.68	0.16	-2.52	11	Pass
NVNT	ac40	5230	Ant1	-3.17	0.16	-3.01	11	Pass
NVNT	ac80	5210	Ant1	-9.47	0.31	-9.16	11	Pass

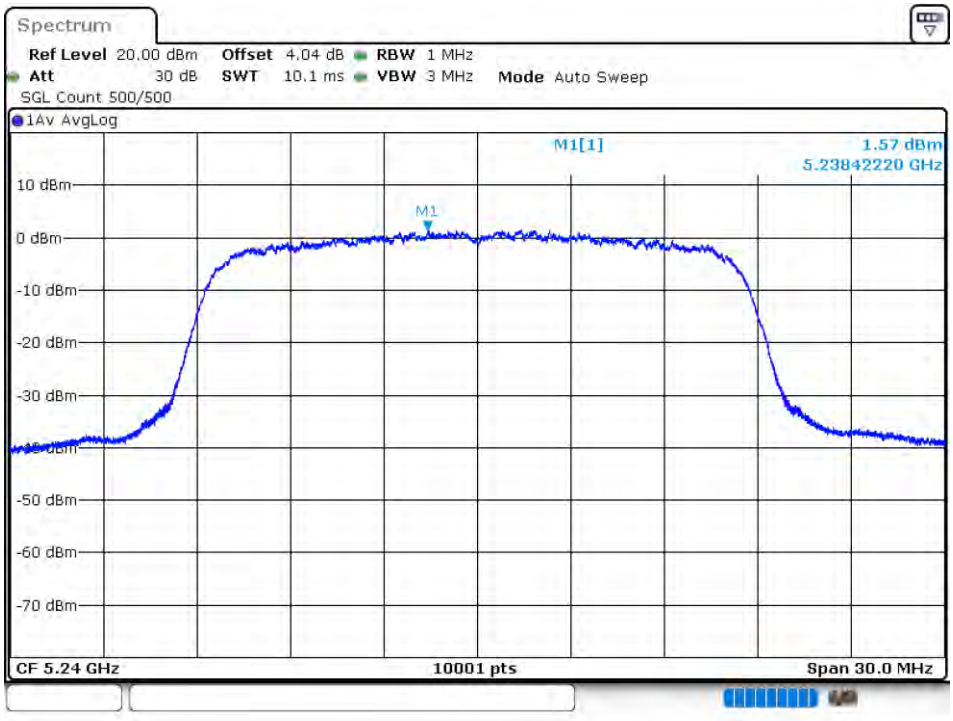
Test Graphs
PSD NVNT a 5180MHz Ant1



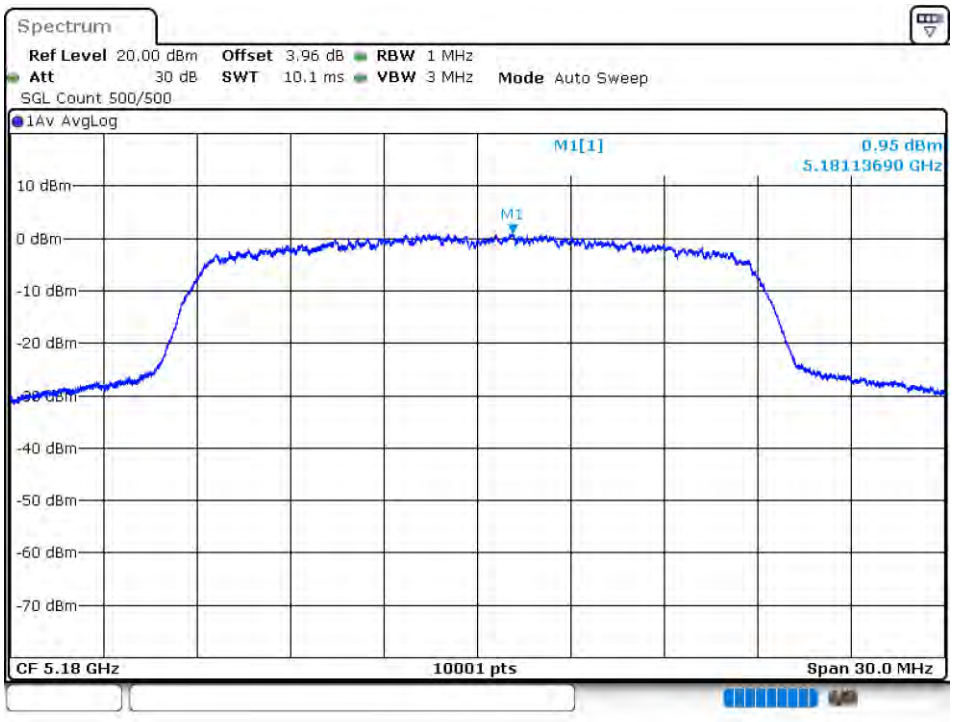
PSD NVNT a 5200MHz Ant1



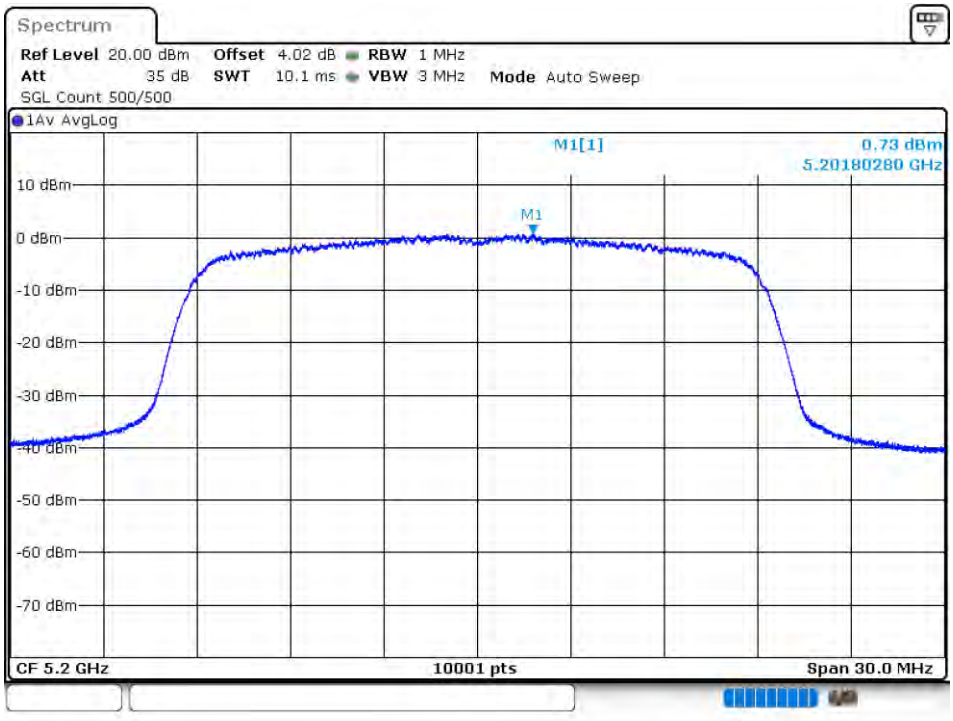
PSD NVNT a 5240MHz Ant1



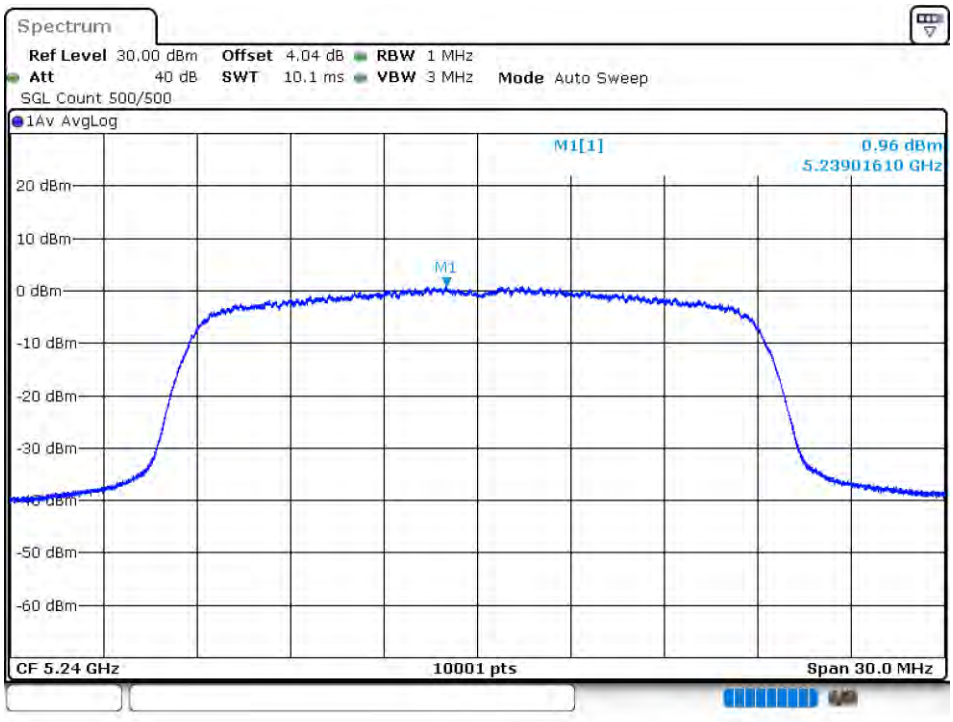
PSD NVNT n20 5180MHz Ant1



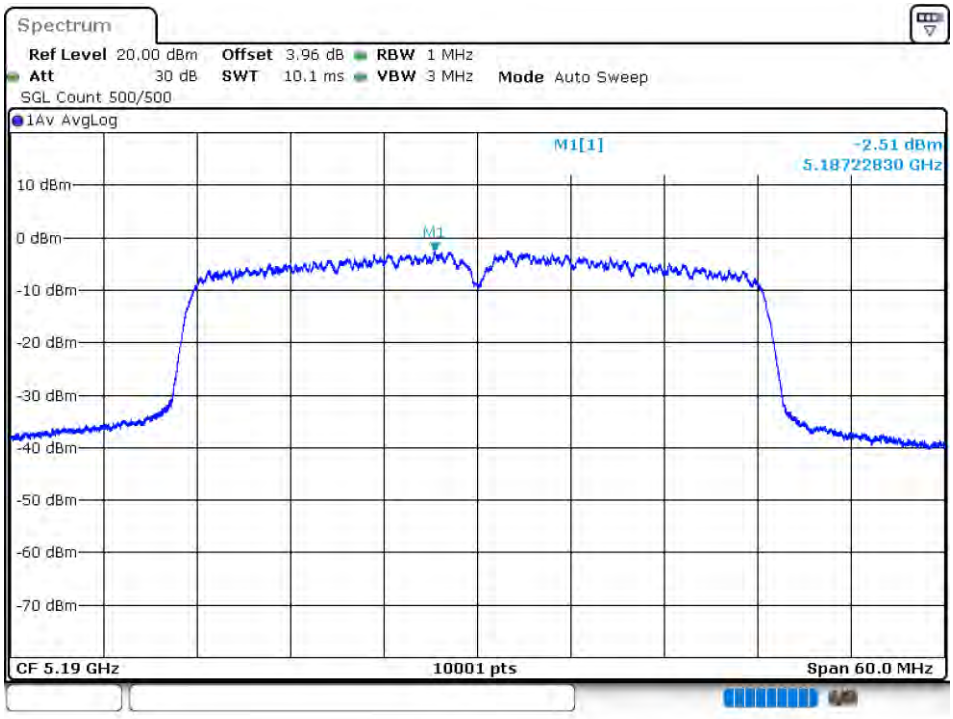
PSD NVNT n20 5200MHz Ant1



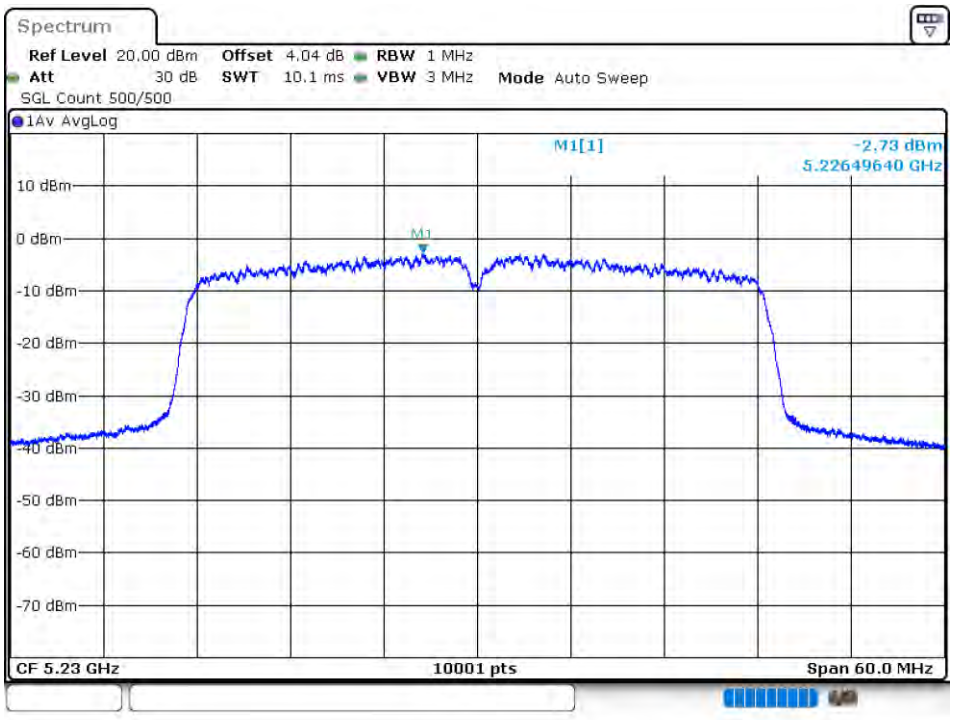
PSD NVNT n20 5240MHz Ant1



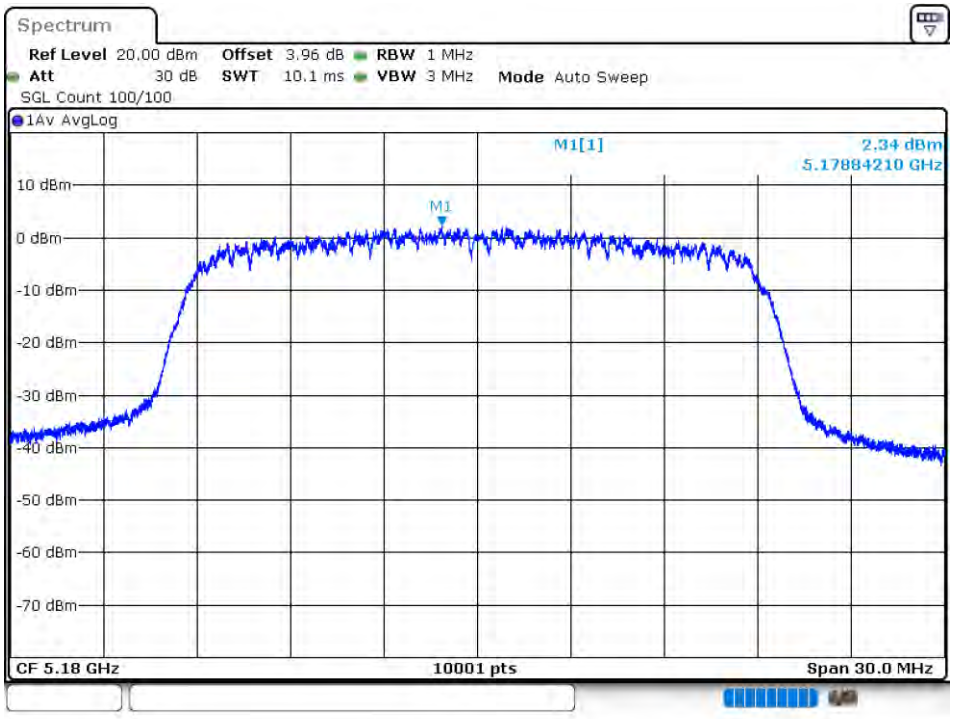
PSD NVNT n40 5190MHz Ant1



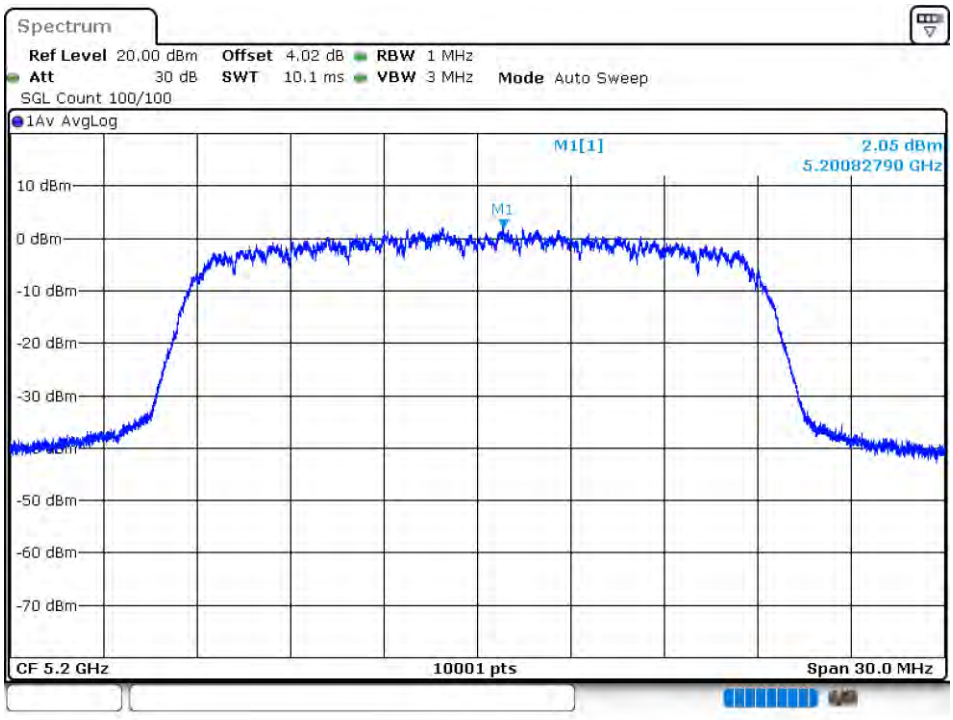
PSD NVNT n40 5230MHz Ant1



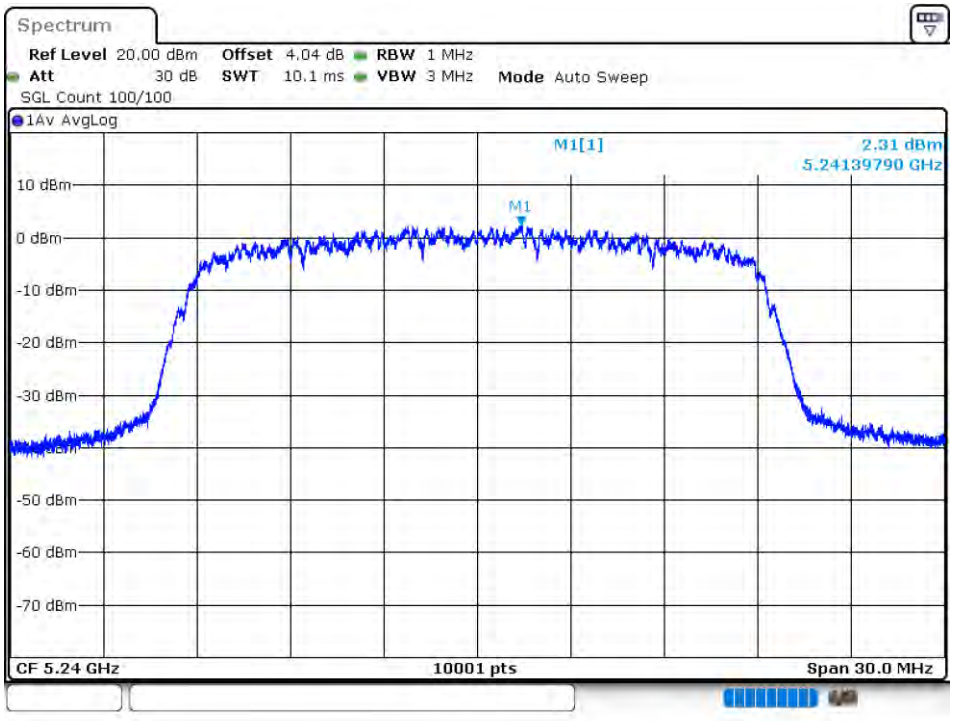
PSD NVNT ac20 5180MHz Ant1



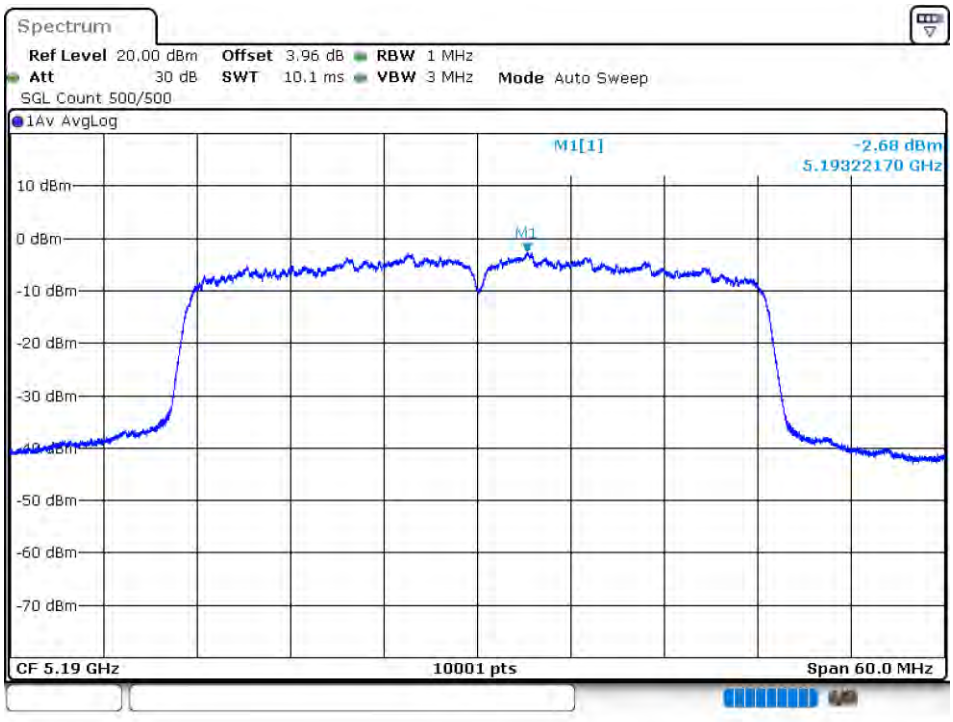
PSD NVNT ac20 5200MHz Ant1



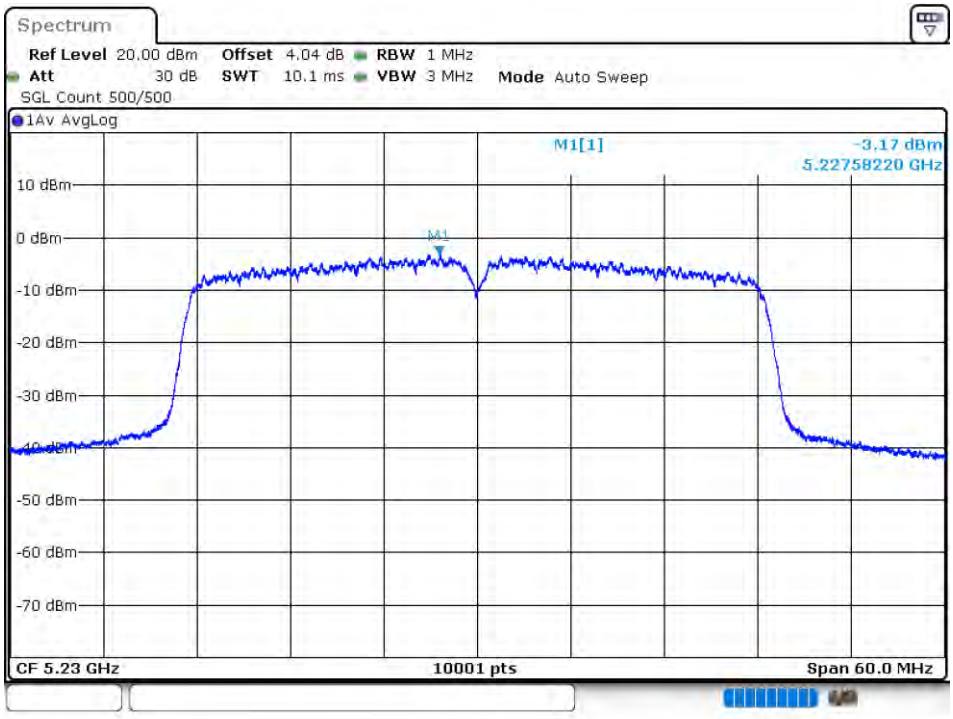
PSD NVNT ac20 5240MHz Ant1



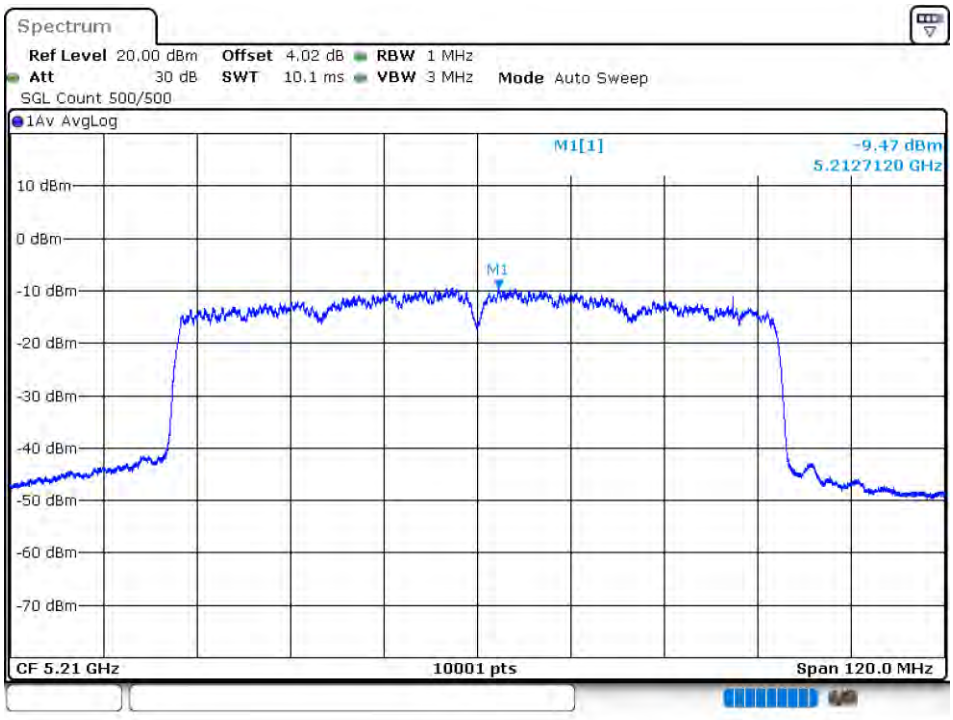
PSD NVNT ac40 5190MHz Ant1



PSD NVNT ac40 5230MHz Ant1



PSD NVNT ac80 5210MHz Ant1



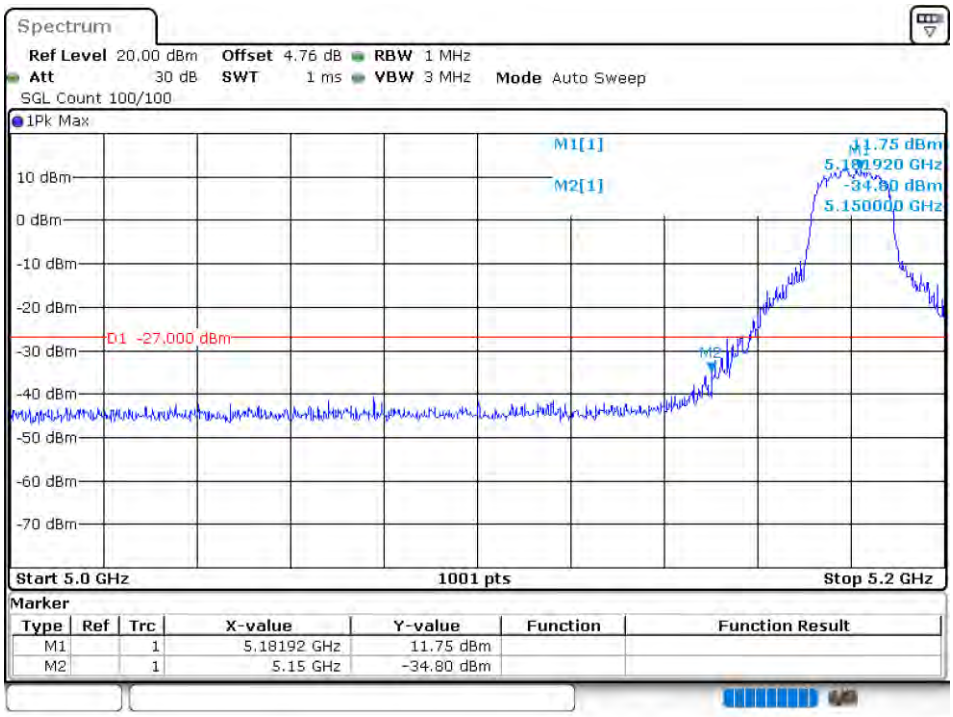
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5180	Ant1	-34.8	-27	Pass
NVNT	a	5240	Ant1	-42.06	-27	Pass
NVNT	n20	5180	Ant1	-30.49	-27	Pass
NVNT	n20	5240	Ant1	-42.02	-27	Pass
NVNT	n40	5190	Ant1	-28	-27	Pass
NVNT	n40	5230	Ant1	-42.34	-27	Pass
NVNT	ac20	5180	Ant1	-30.33	-27	Pass
NVNT	ac20	5240	Ant1	-42.24	-27	Pass
NVNT	ac40	5190	Ant1	-27.78	-27	Pass
NVNT	ac40	5230	Ant1	-41.58	-27	Pass
NVNT	ac80	5210	Ant1	-41.59	-27	Pass
NVNT	ac80	5210	Ant1	-27.53	-27	Pass
NVNT	ac80	5210	Ant1	-42.22	-27	Pass

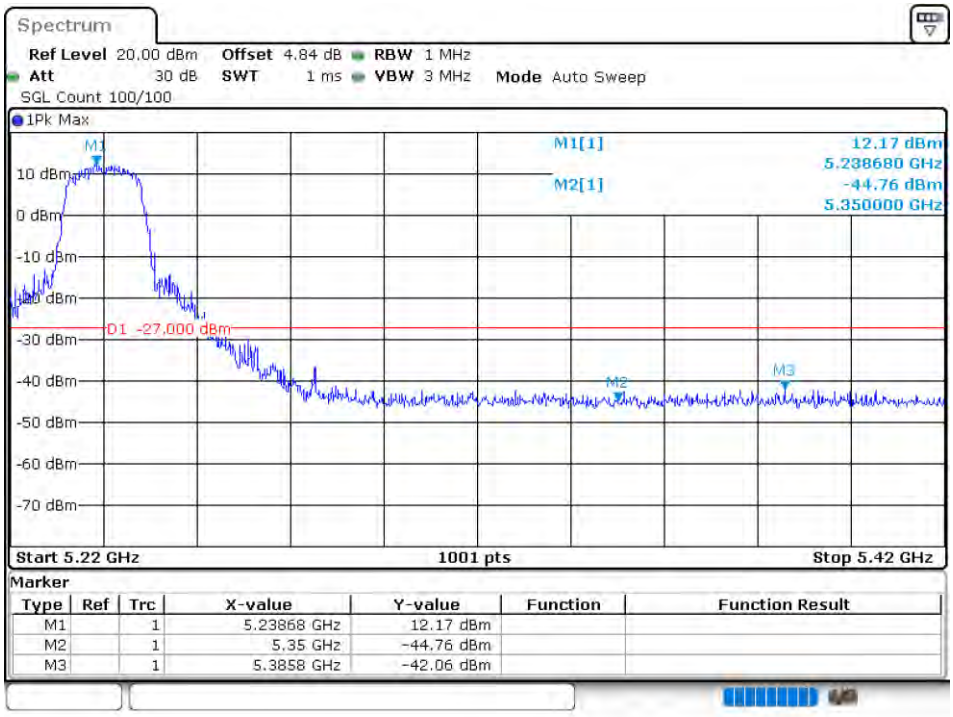
Note: This test has increased antenna gain .

Test Graphs

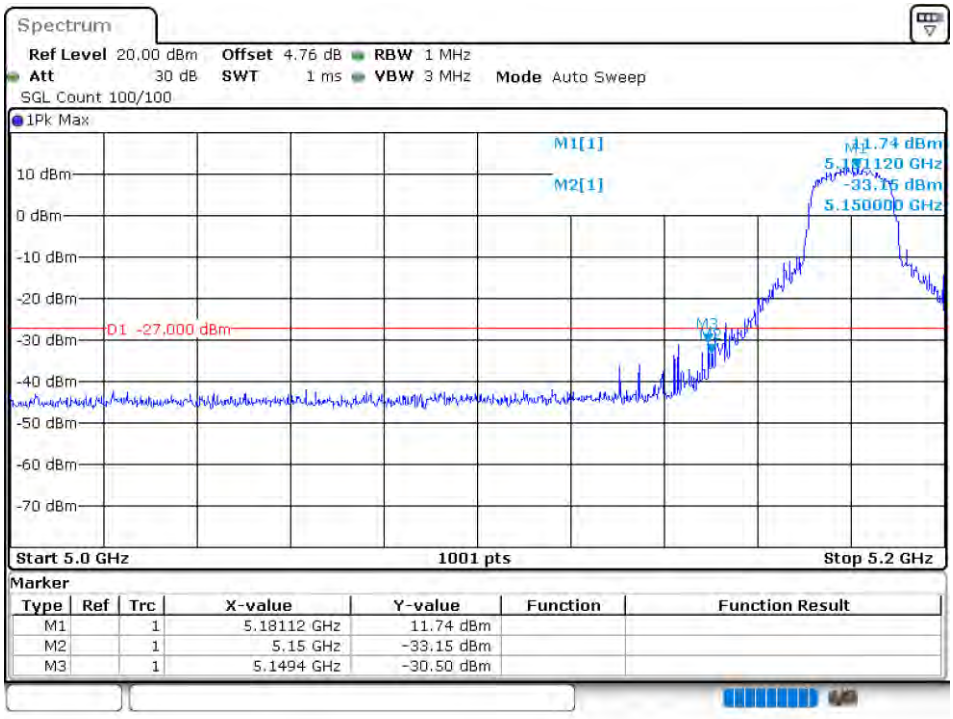
Band Edge NVNT a 5180MHz Low Ant1



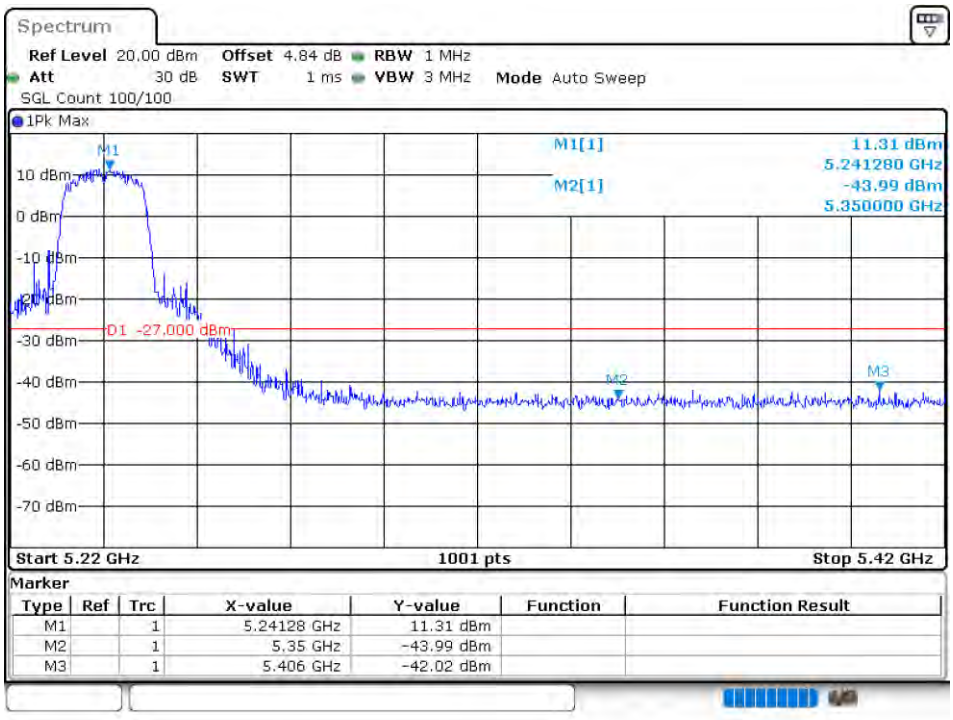
Band Edge NVNT a 5240MHz High Ant1



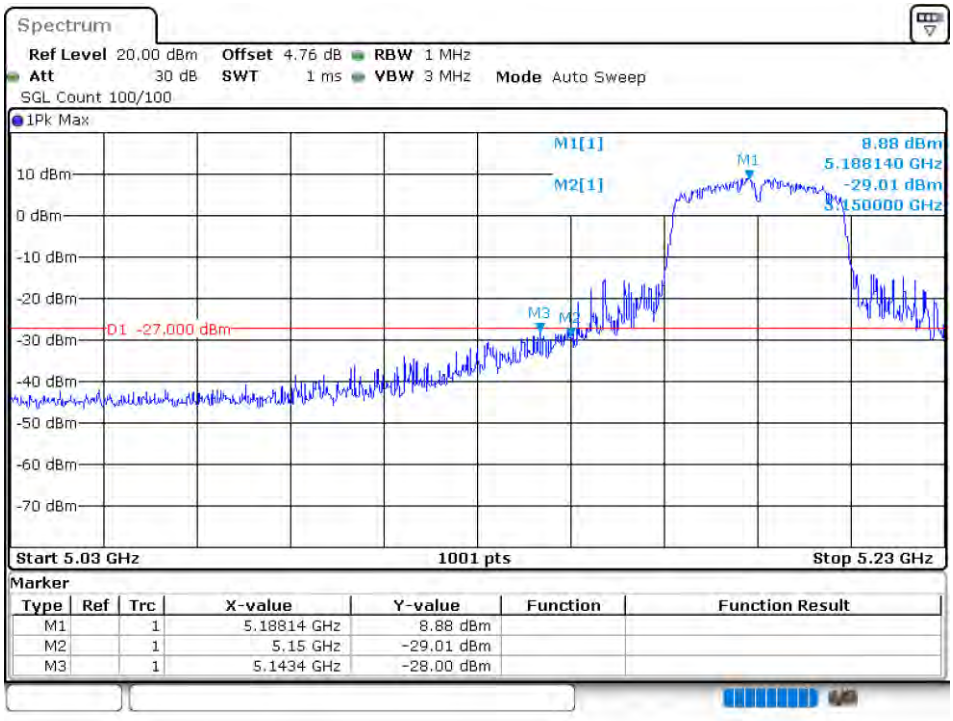
Band Edge NVNT n20 5180MHz Low Ant1



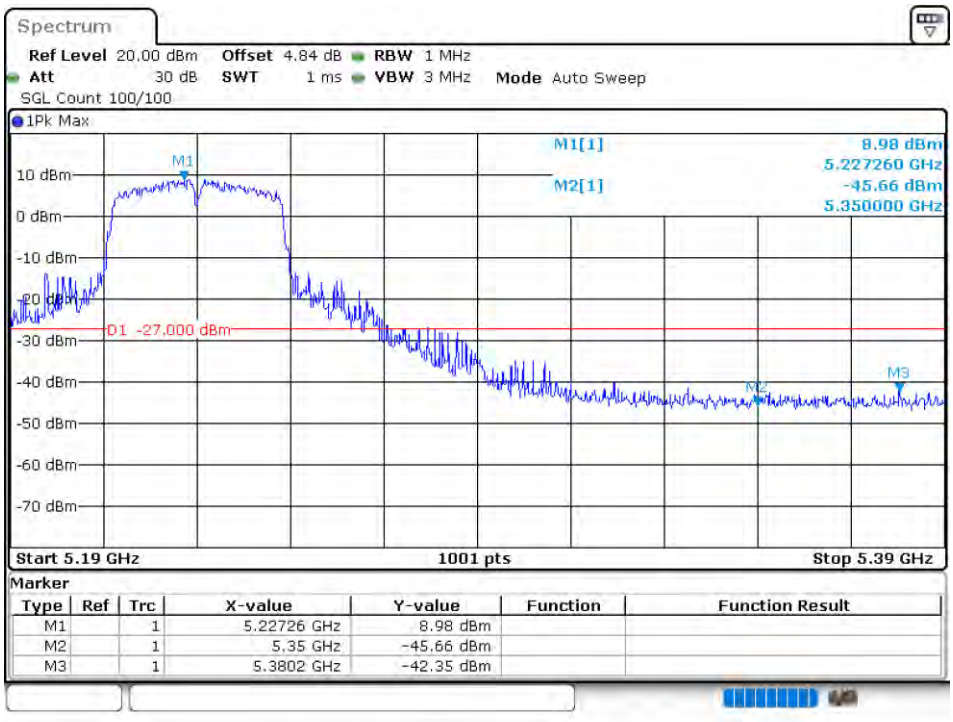
Band Edge NVNT n20 5240MHz High Ant1



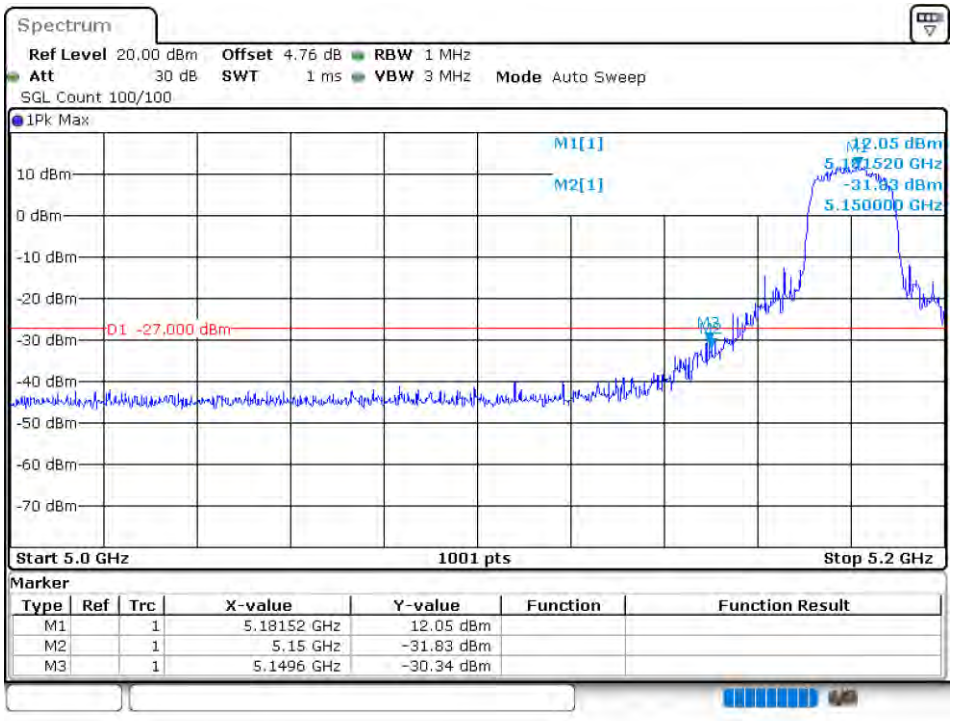
Band Edge NVNT n40 5190MHz Low Ant1



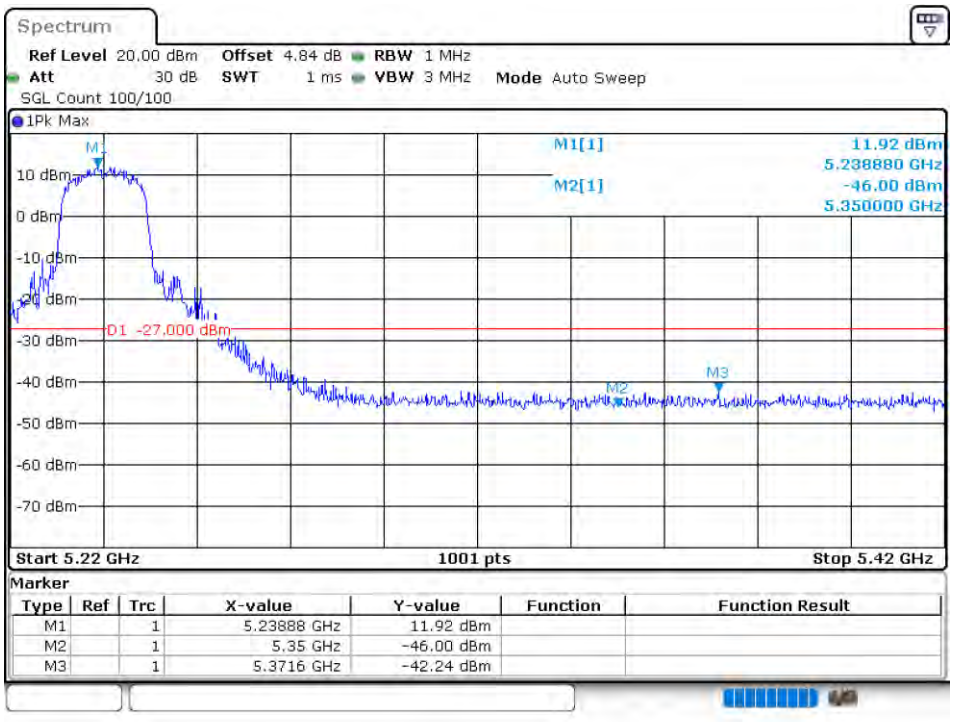
Band Edge NVNT n40 5230MHz High Ant1



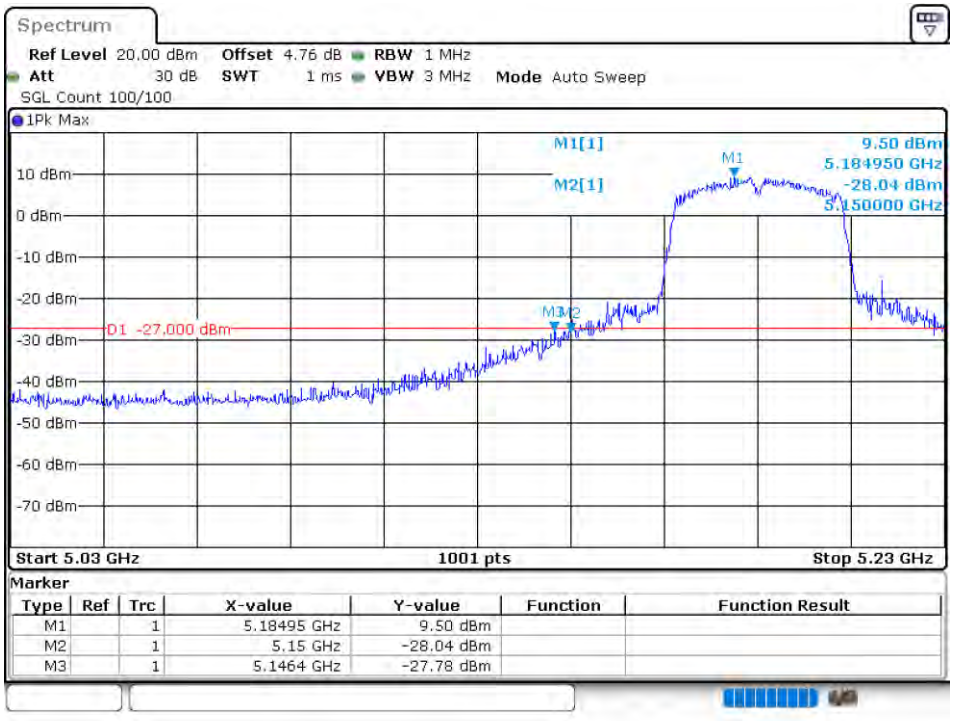
Band Edge NVNT ac20 5180MHz Low Ant1



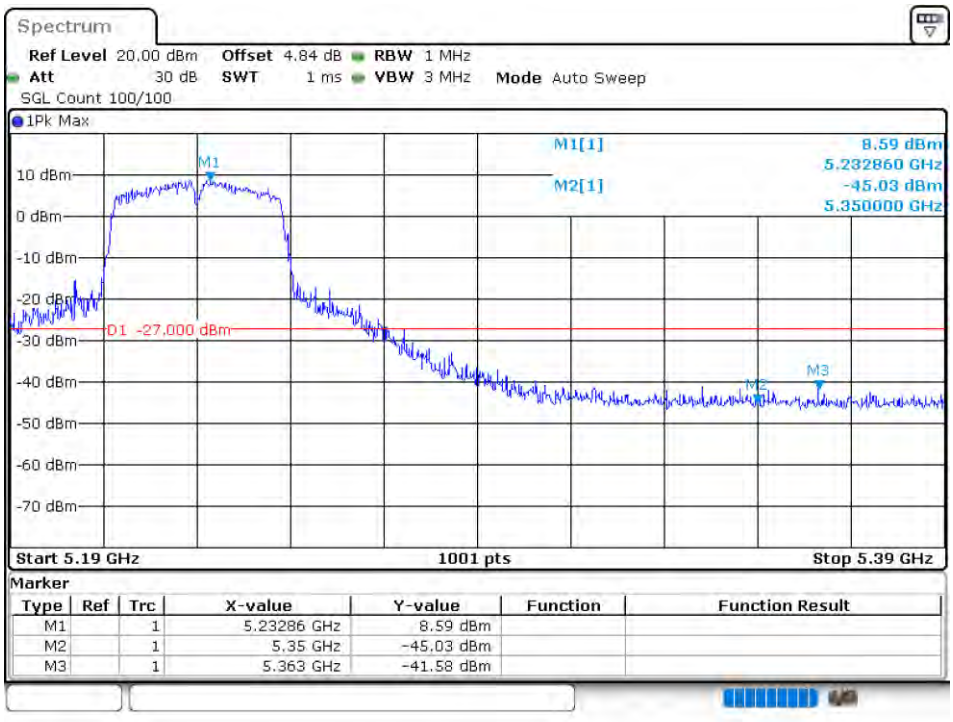
Band Edge NVNT ac20 5240MHz High Ant1



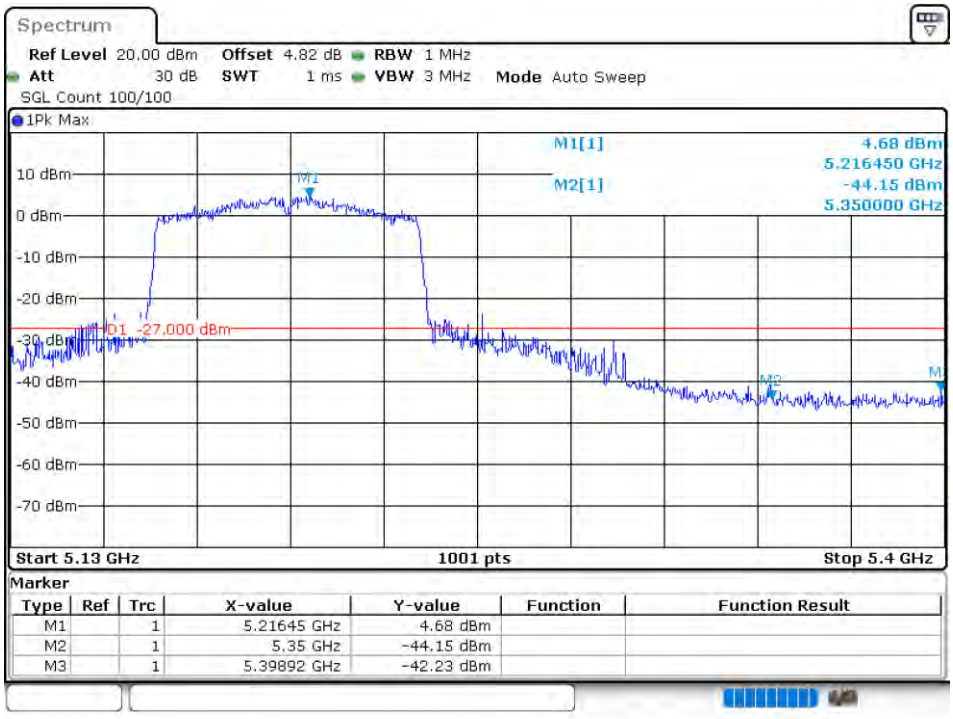
Band Edge NVNT ac40 5190MHz Low Ant1



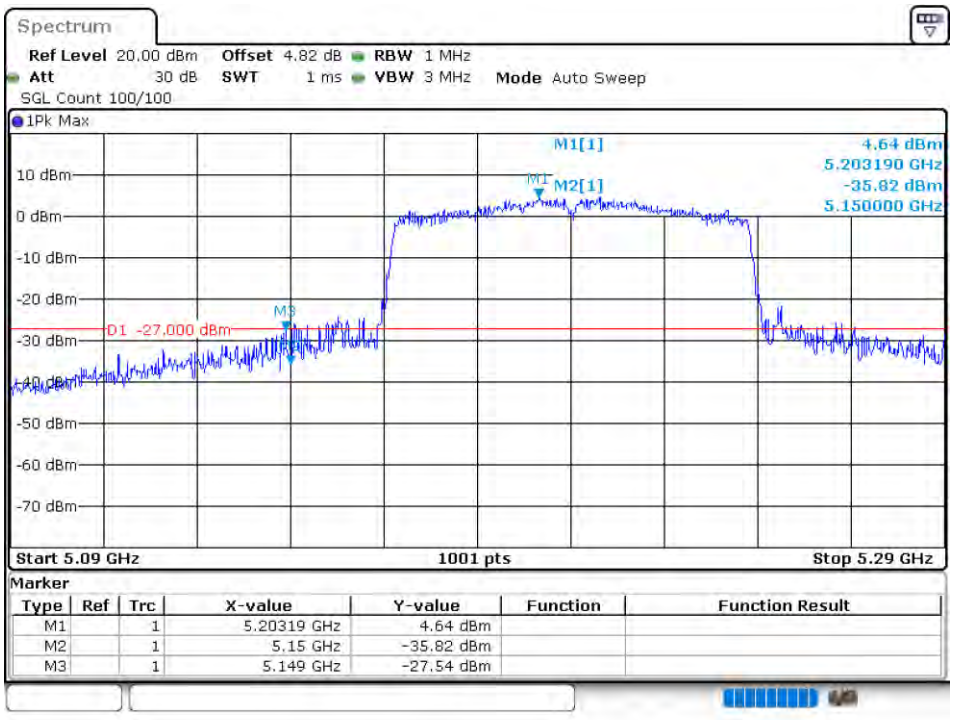
Band Edge NVNT ac40 5230MHz High Ant1



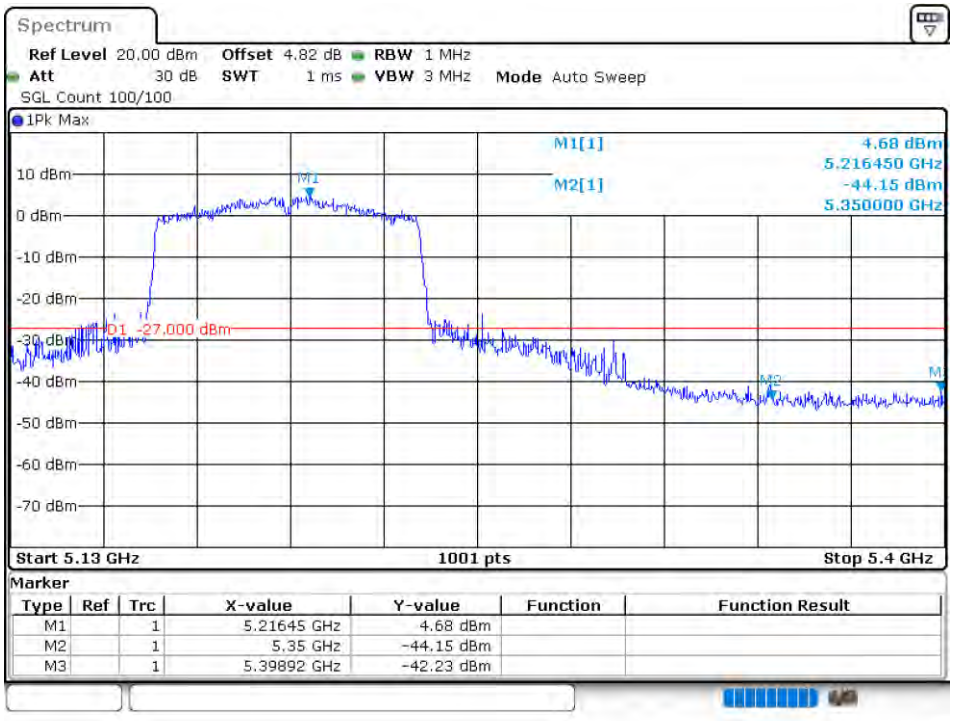
Band Edge NVNT ac80 5210MHz High Ant1



Band Edge NVNT ac80 5210MHz Low Ant1



Band Edge NVNT ac80 5210MHz High Ant1

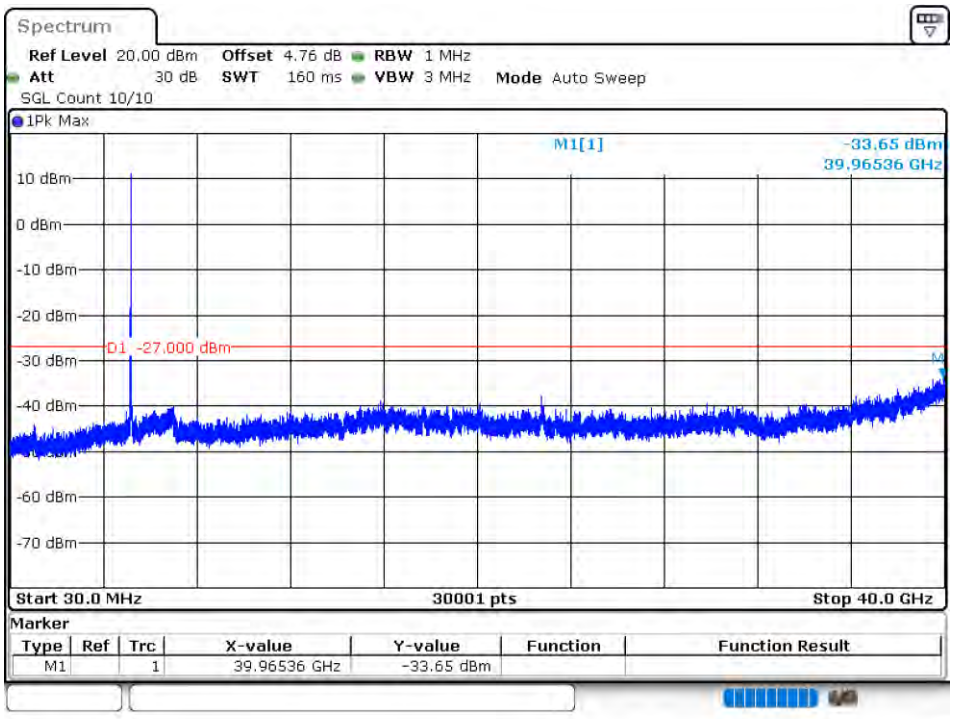


Conducted RF Spurious Emission

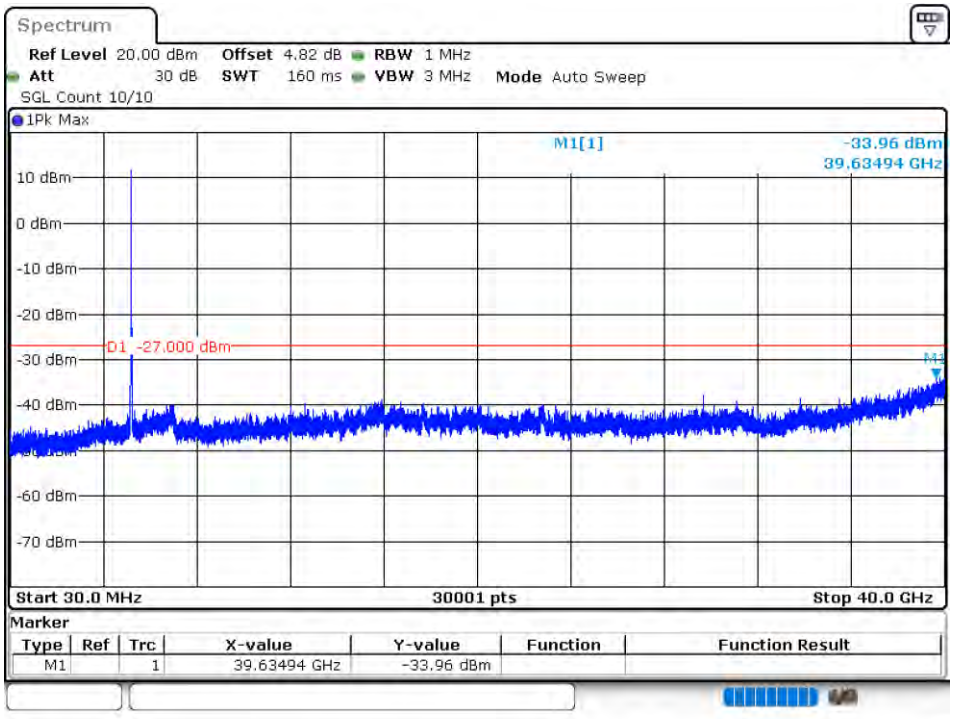
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	a	5180	Ant1	-33.64	-27	Pass
NVNT	a	5200	Ant1	-33.96	-27	Pass
NVNT	a	5240	Ant1	-33.45	-27	Pass
NVNT	n20	5180	Ant1	-33	-27	Pass
NVNT	n20	5200	Ant1	-33.72	-27	Pass
NVNT	n20	5240	Ant1	-33.74	-27	Pass
NVNT	n40	5190	Ant1	-33.48	-27	Pass
NVNT	n40	5230	Ant1	-32.84	-27	Pass
NVNT	ac20	5180	Ant1	-33.84	-27	Pass
NVNT	ac20	5200	Ant1	-33.76	-27	Pass
NVNT	ac20	5240	Ant1	-33.71	-27	Pass
NVNT	ac40	5190	Ant1	-33.42	-27	Pass
NVNT	ac40	5230	Ant1	-33.45	-27	Pass
NVNT	ac80	5210	Ant1	-33.44	-27	Pass

Note: This test has increased antenna gain .

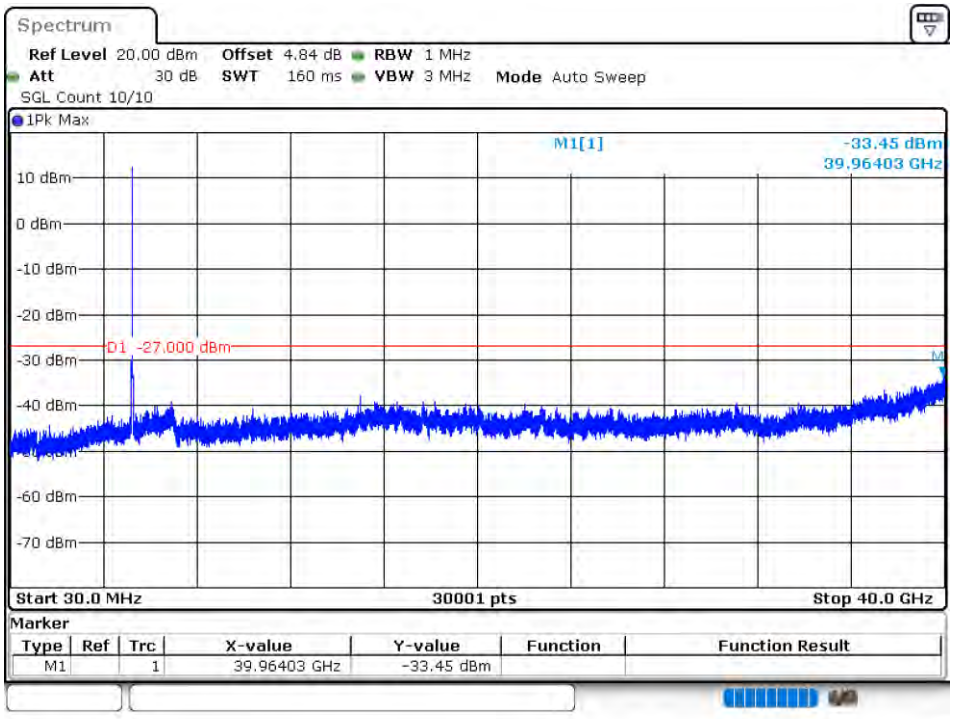
Test Graphs
Tx. Spurious NVNT a 5180MHz Ant1 Emission



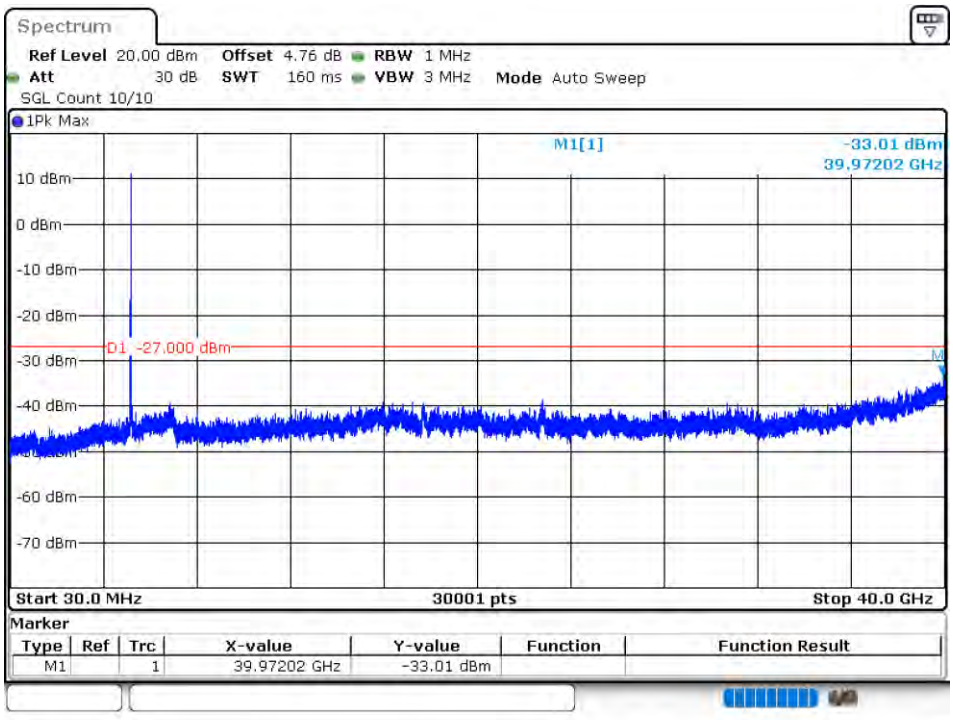
Tx. Spurious NVNT a 5200MHz Ant1 Emission



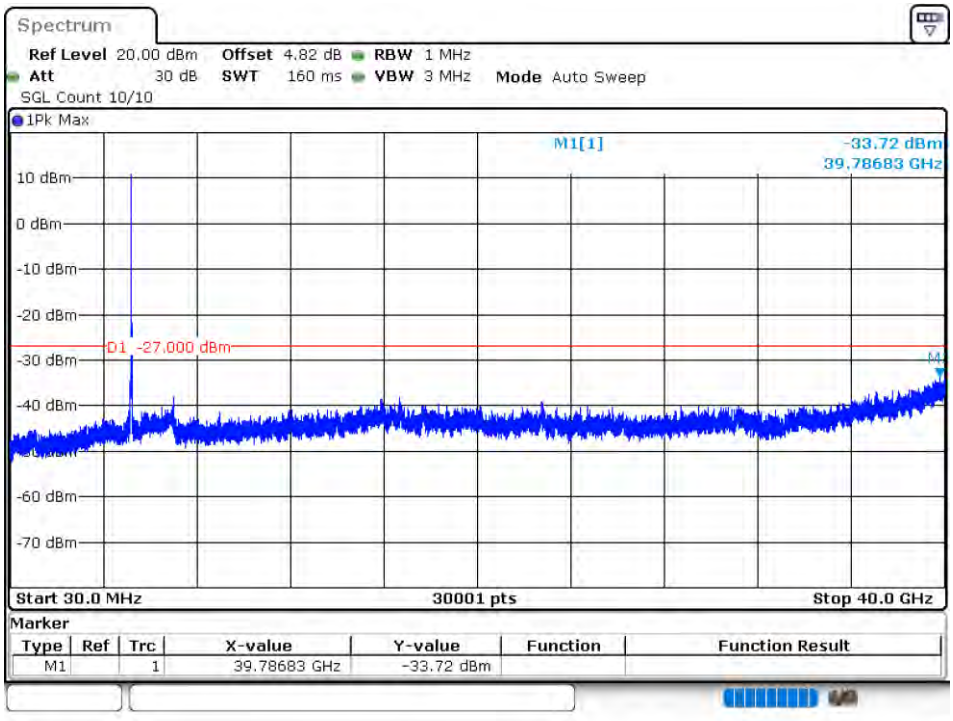
Tx. Spurious NVNT a 5240MHz Ant1 Emission



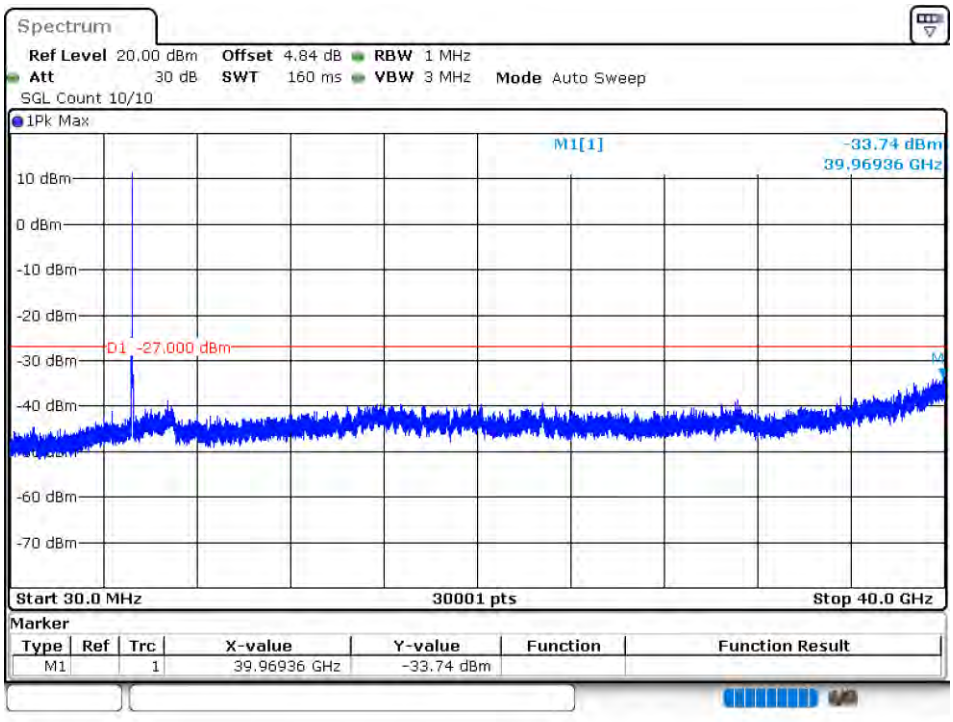
Tx. Spurious NVNT n20 5180MHz Ant1 Emission



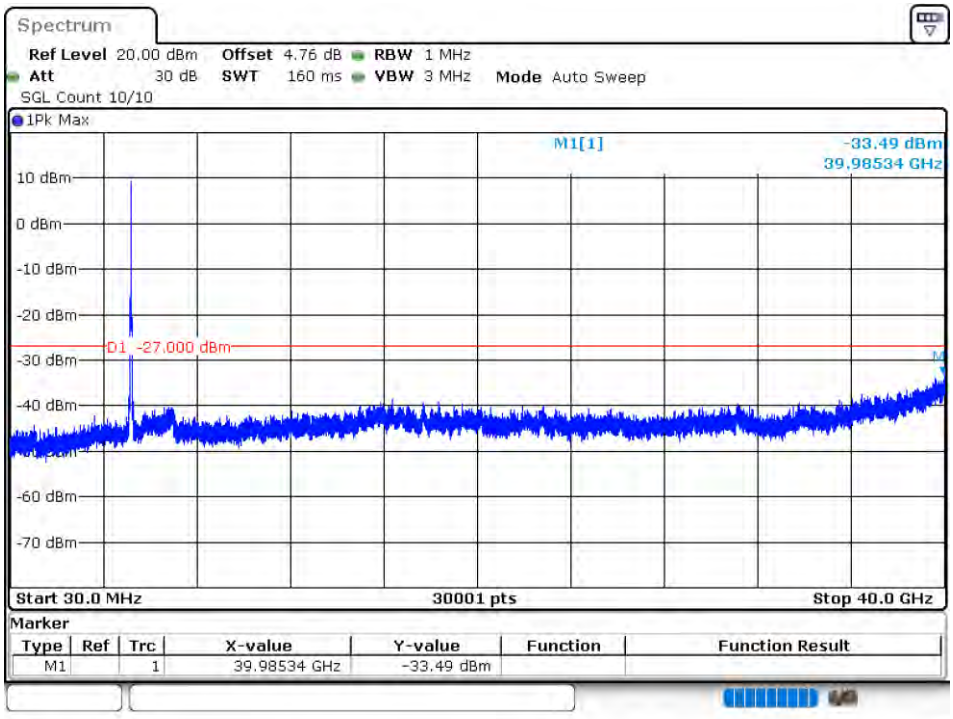
Tx. Spurious NVNT n20 5200MHz Ant1 Emission



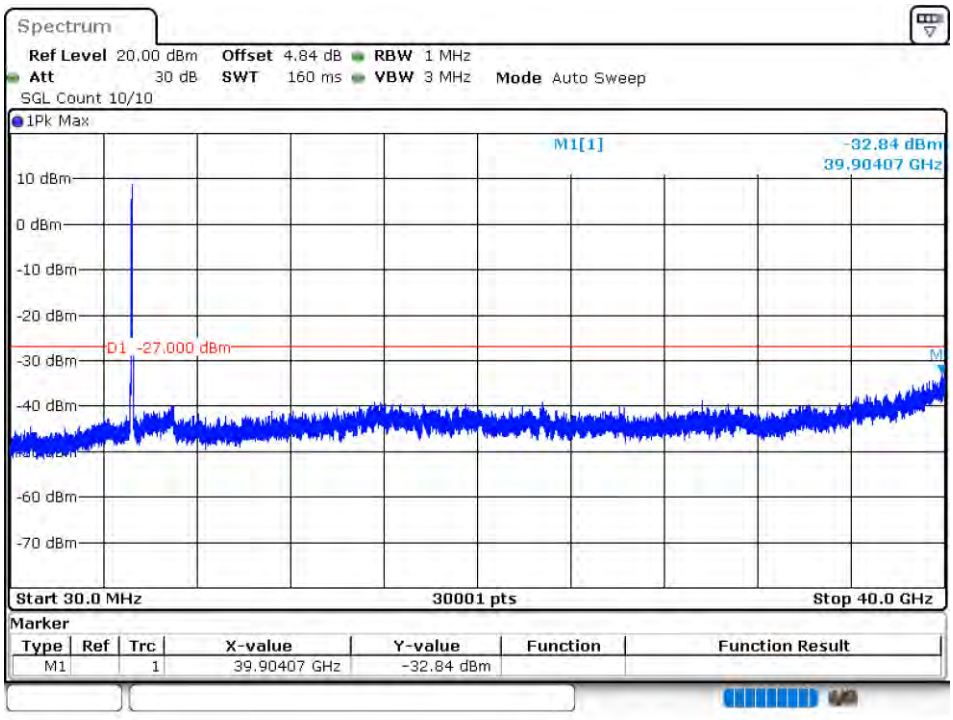
Tx. Spurious NVNT n20 5240MHz Ant1 Emission



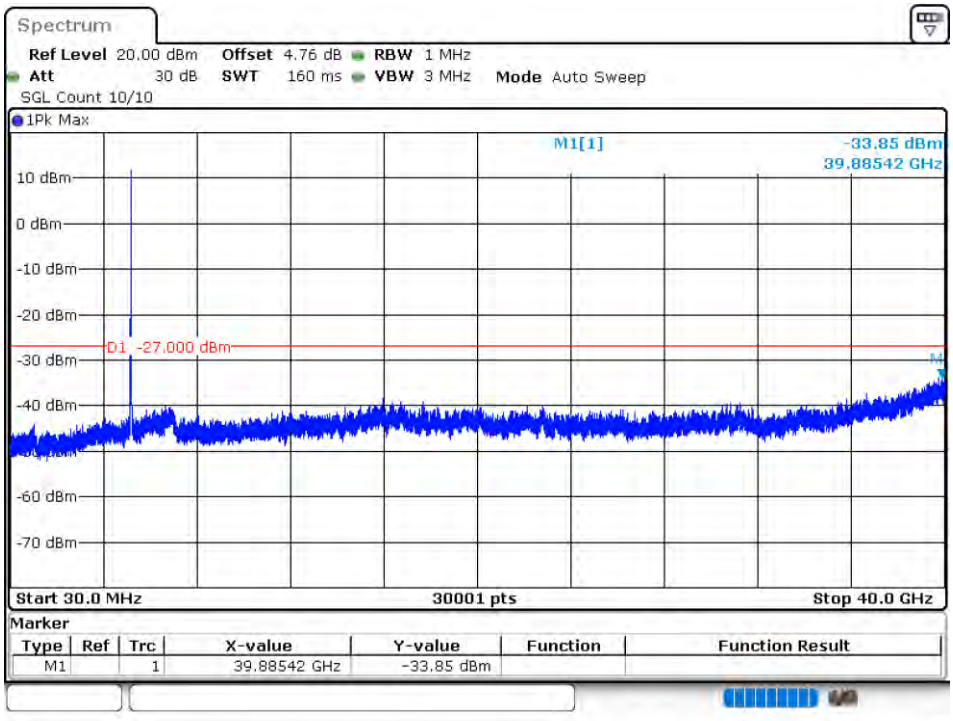
Tx. Spurious NVNT n40 5190MHz Ant1 Emission



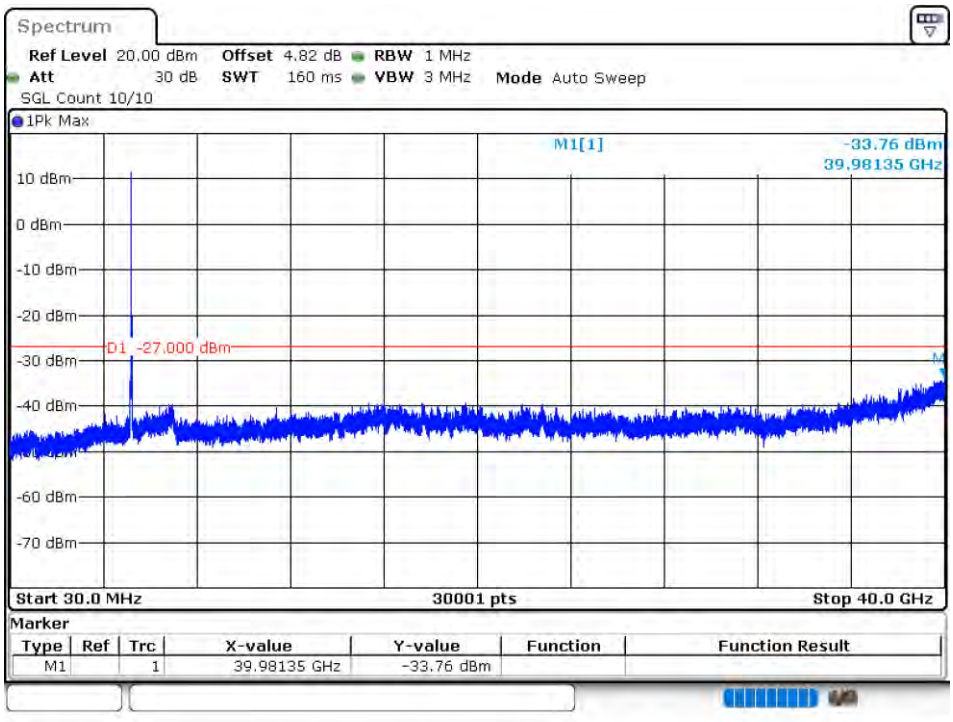
Tx. Spurious NVNT n40 5230MHz Ant1 Emission



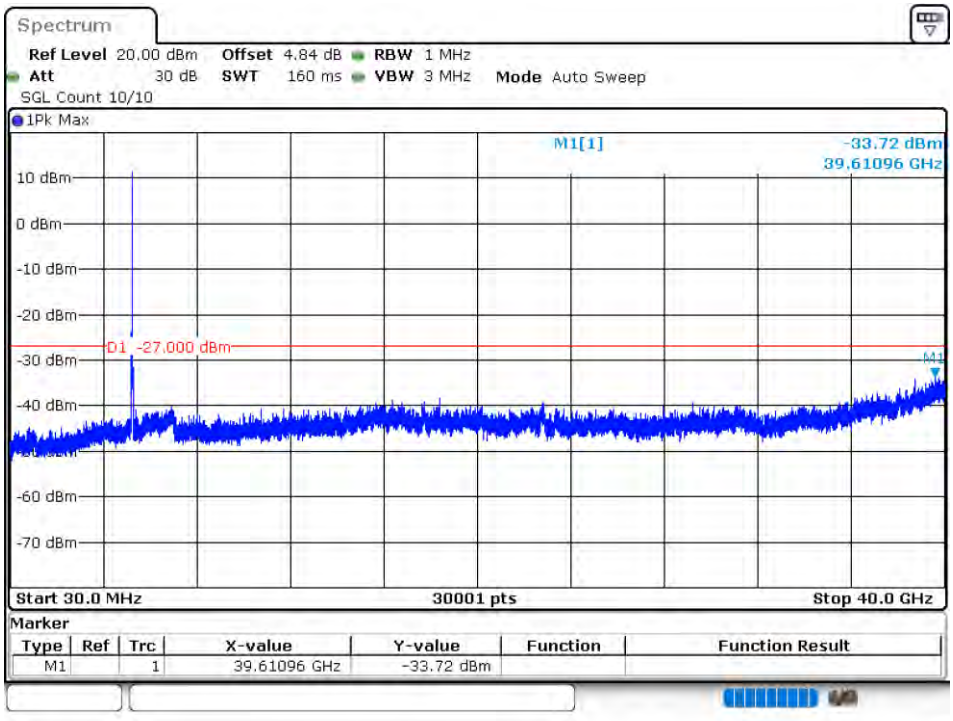
Tx. Spurious NVNT ac20 5180MHz Ant1 Emission



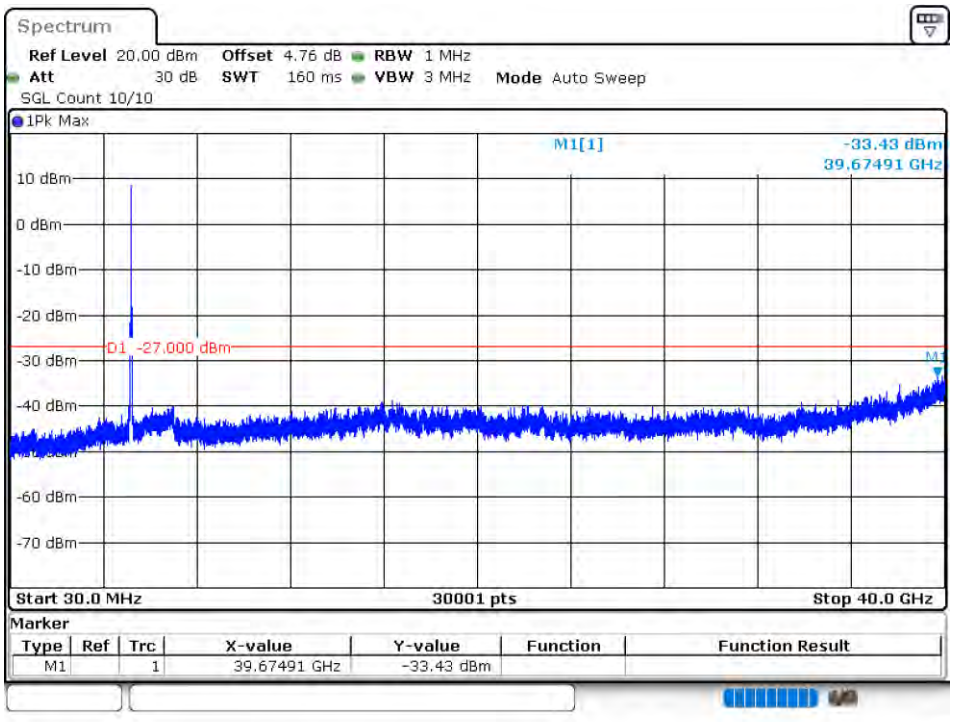
Tx. Spurious NVNT ac20 5200MHz Ant1 Emission



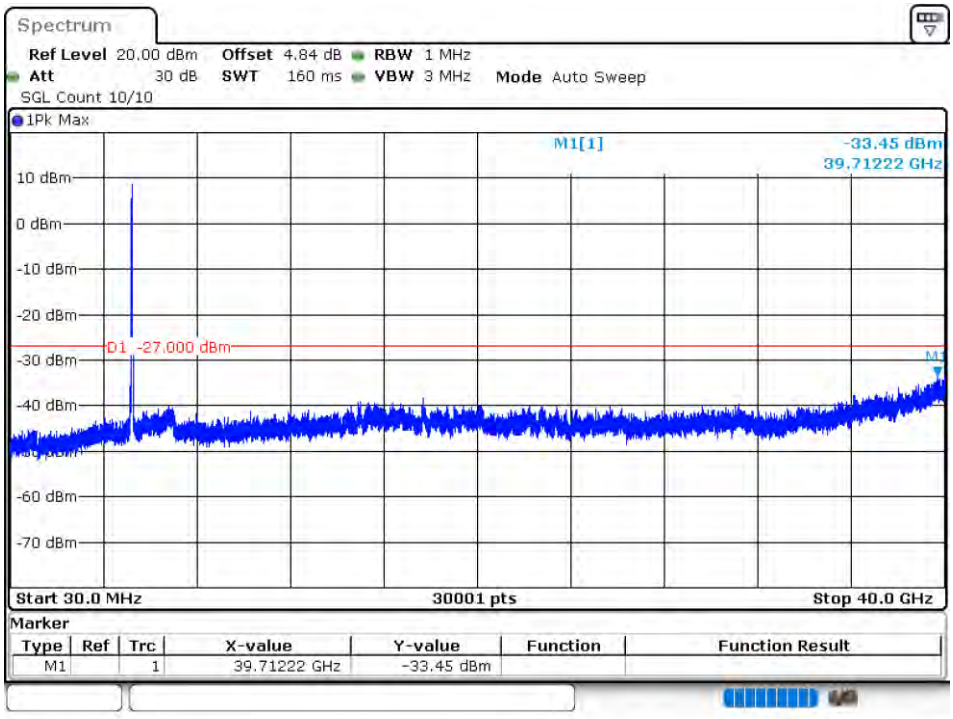
Tx. Spurious NVNT ac20 5240MHz Ant1 Emission



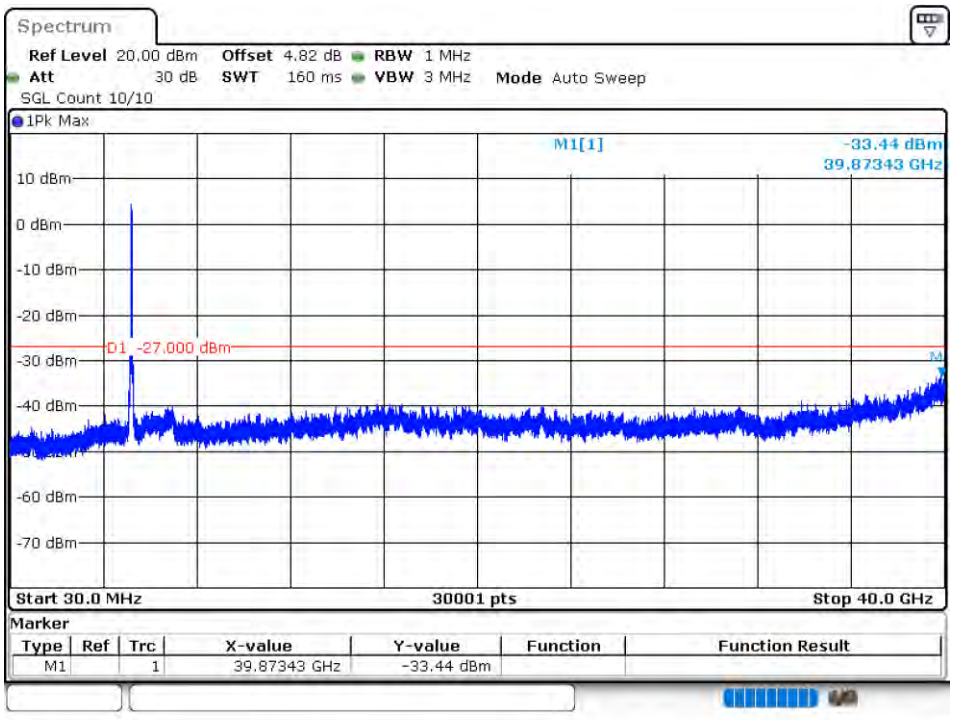
Tx. Spurious NVNT ac40 5190MHz Ant1 Emission



Tx. Spurious NVNT ac40 5230MHz Ant1 Emission



Tx. Spurious NVNT ac80 5210MHz Ant1 Emission

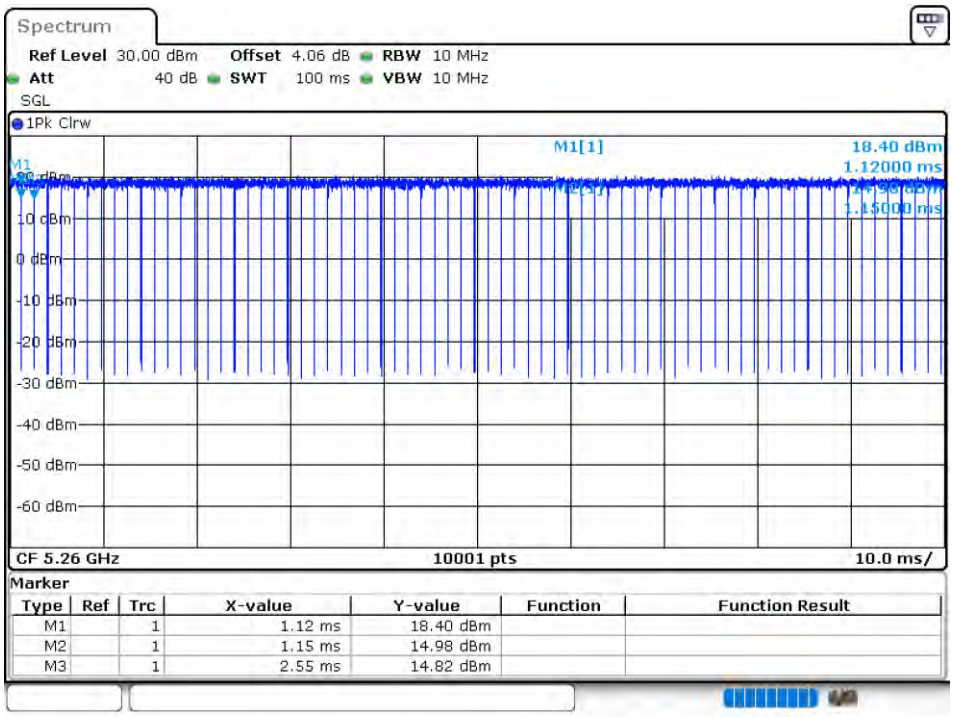


5.3G WIFI

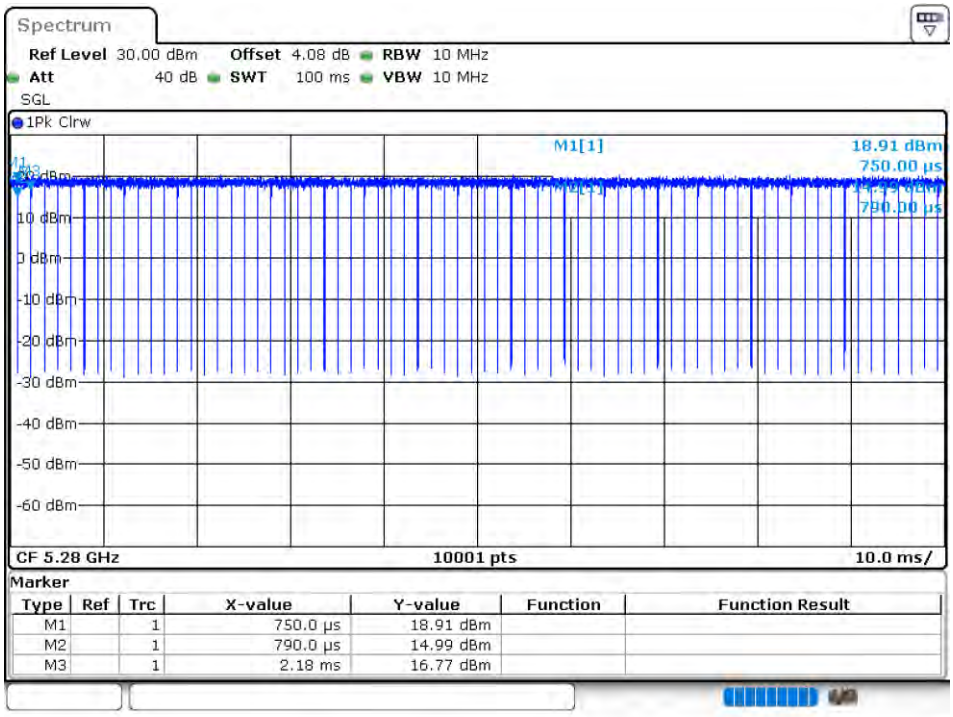
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5260	Ant1	98.2	0.08	0.71
NVNT	a	5280	Ant1	98.2	0.08	0.72
NVNT	a	5320	Ant1	98.2	0.08	0.71
NVNT	n20	5260	Ant1	98.06	0.09	0.77
NVNT	n20	5280	Ant1	98.06	0.09	0.77
NVNT	n20	5320	Ant1	98.06	0.09	0.77
NVNT	n40	5270	Ant1	96.35	0.16	1.54
NVNT	n40	5310	Ant1	96.31	0.16	1.54
NVNT	ac20	5260	Ant1	98.06	0.09	0.76
NVNT	ac20	5280	Ant1	98.09	0.08	0.76
NVNT	ac20	5320	Ant1	98.07	0.08	0.76
NVNT	ac40	5270	Ant1	96.34	0.16	1.54
NVNT	ac40	5310	Ant1	96.34	0.16	1.54
NVNT	ac80	5290	Ant1	93.12	0.31	3.13

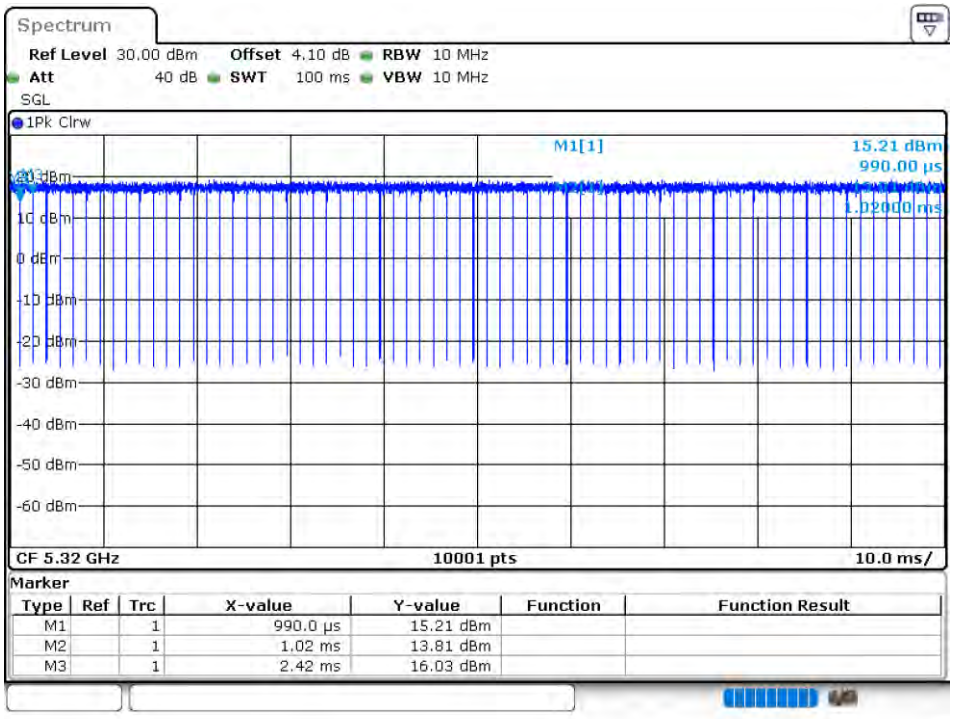
Test Graphs
Duty Cycle NVNT a 5260MHz Ant1



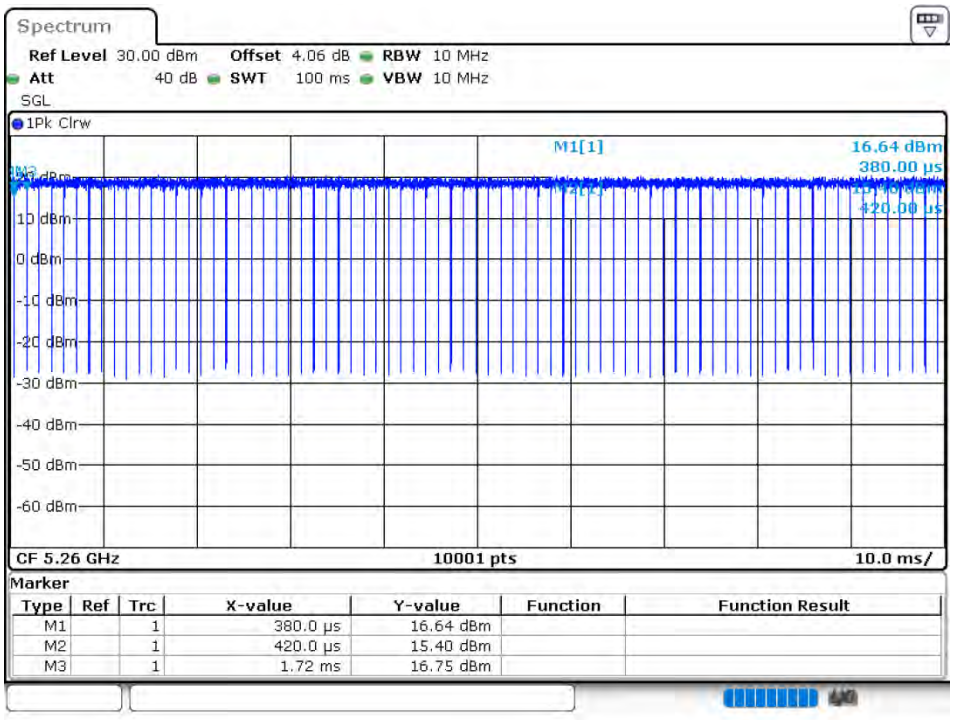
Duty Cycle NVNT a 5280MHz Ant1



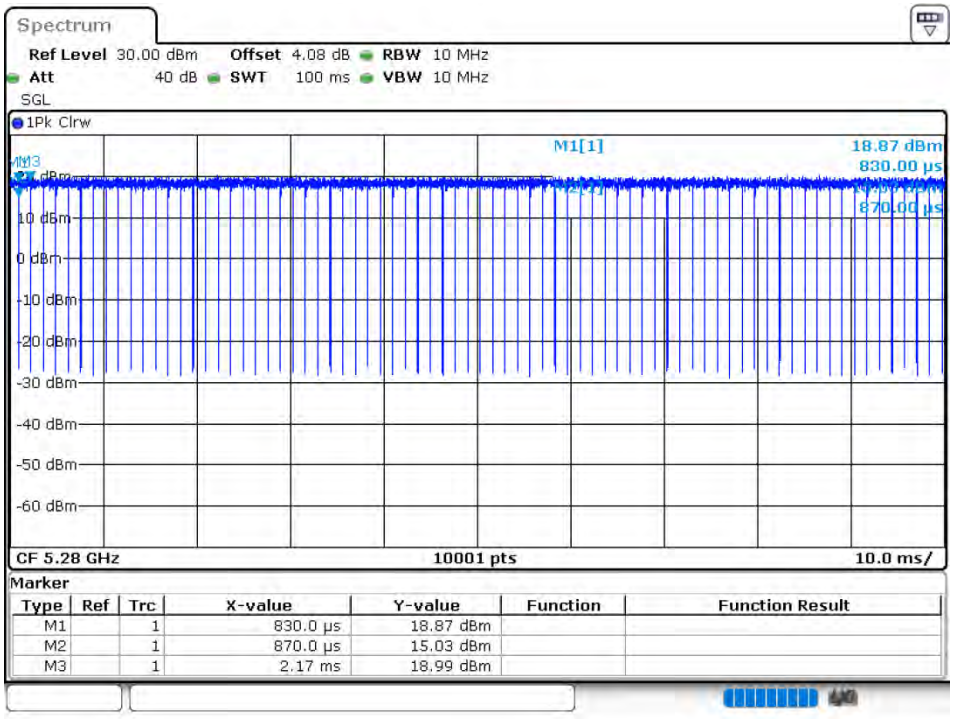
Duty Cycle NVNT a 5320MHz Ant1



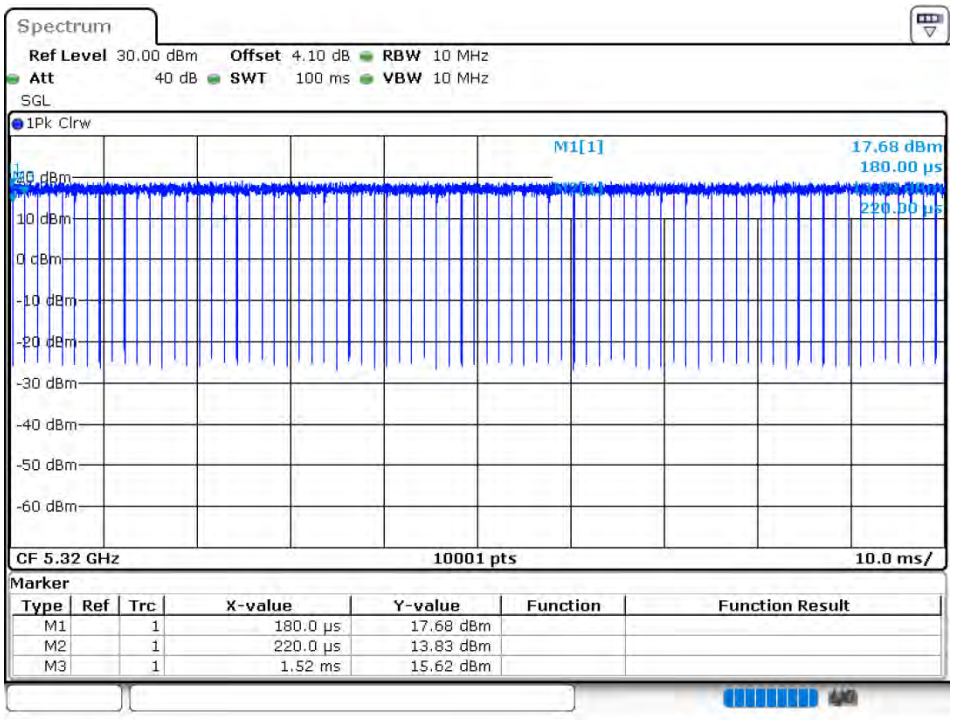
Duty Cycle NVNT n20 5260MHz Ant1



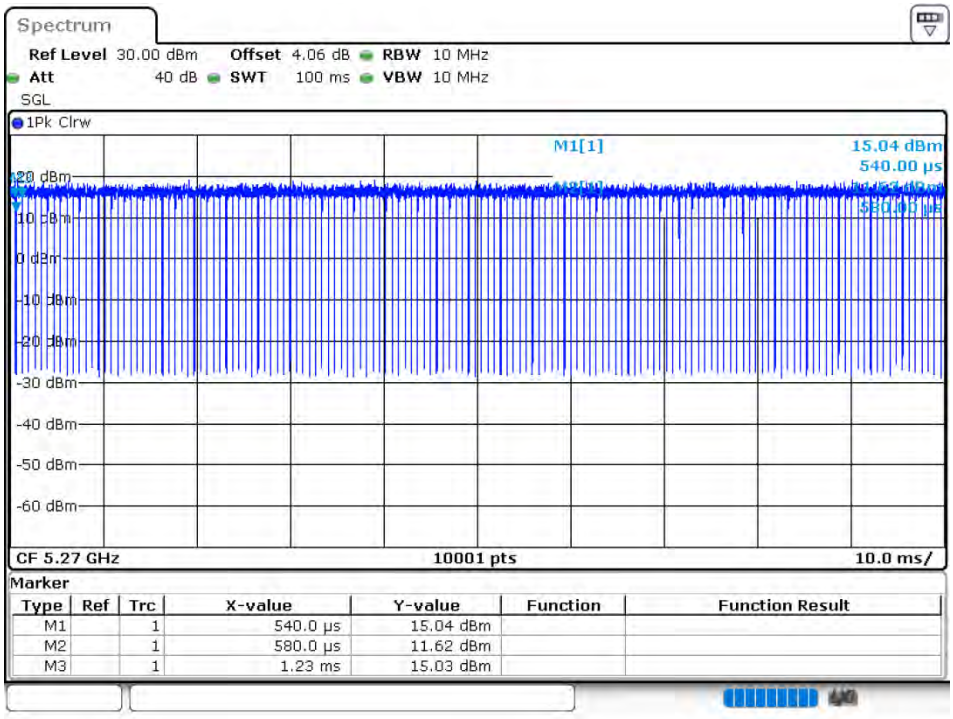
Duty Cycle NVNT n20 5280MHz Ant1



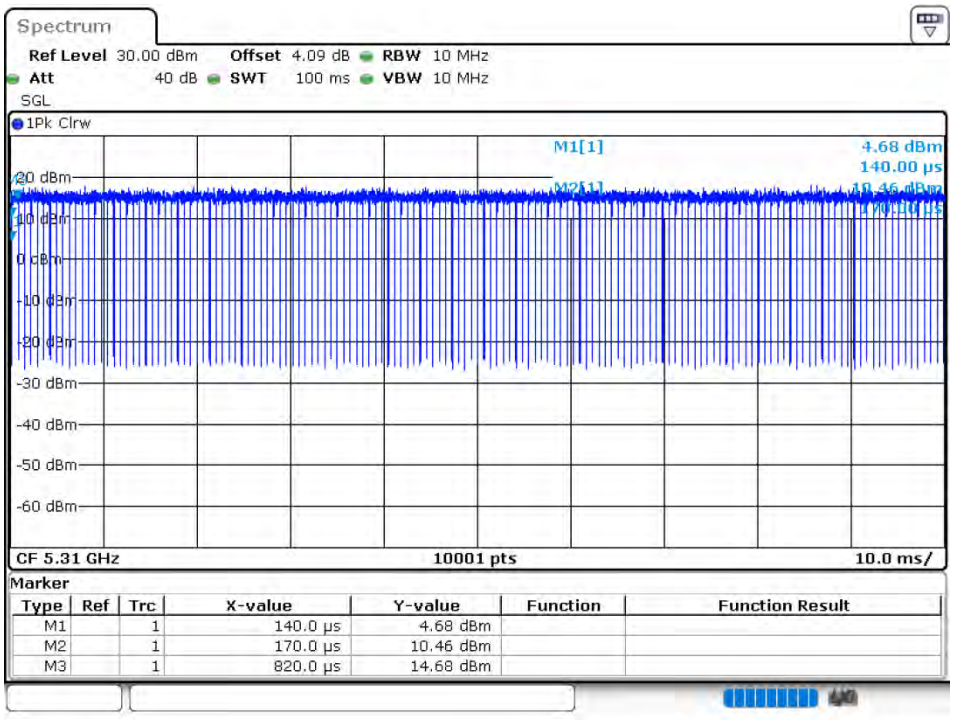
Duty Cycle NVNT n20 5320MHz Ant1



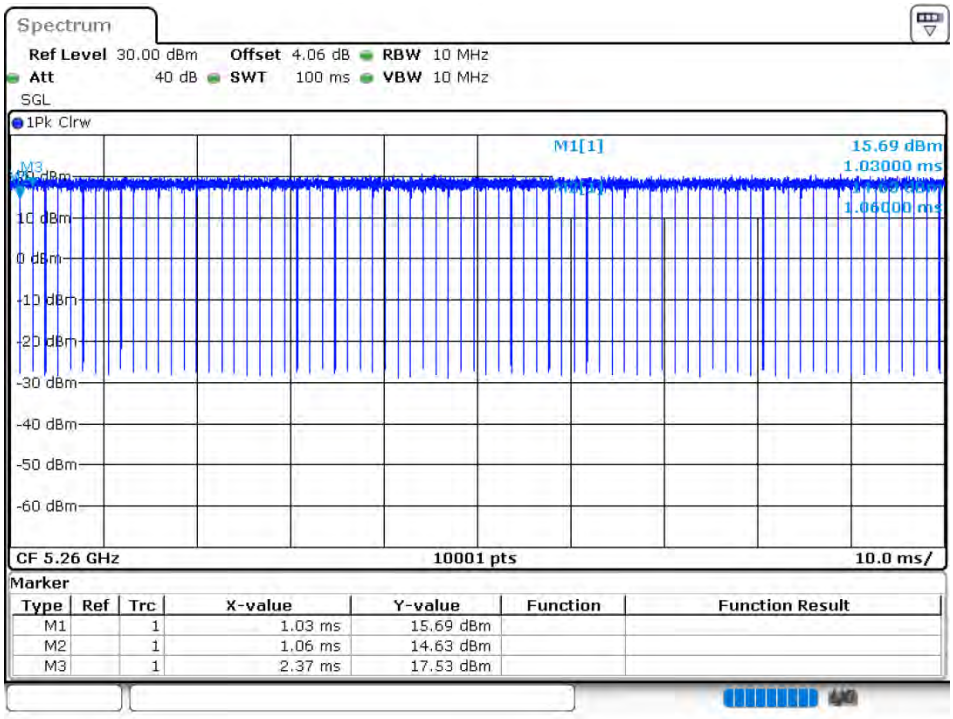
Duty Cycle NVNT n40 5270MHz Ant1



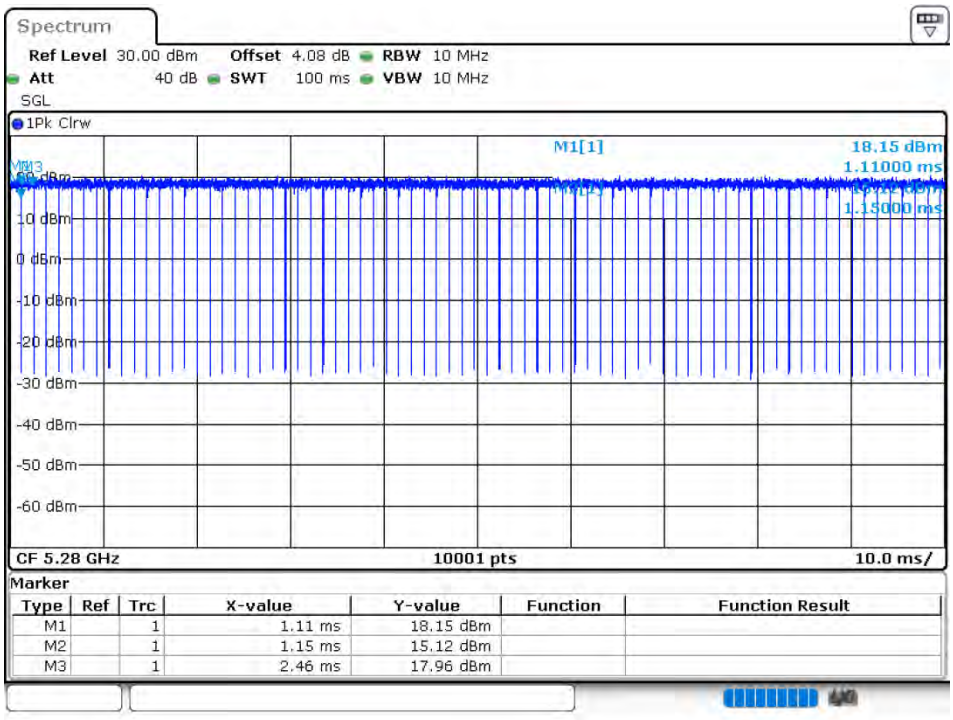
Duty Cycle NVNT n40 5310MHz Ant1



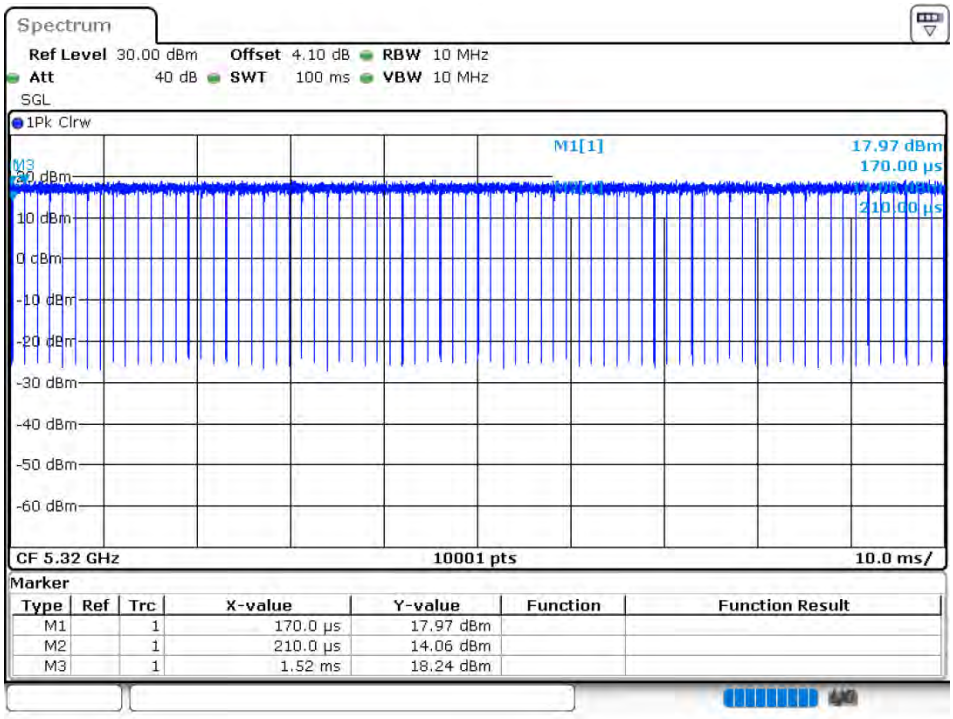
Duty Cycle NVNT ac20 5260MHz Ant1



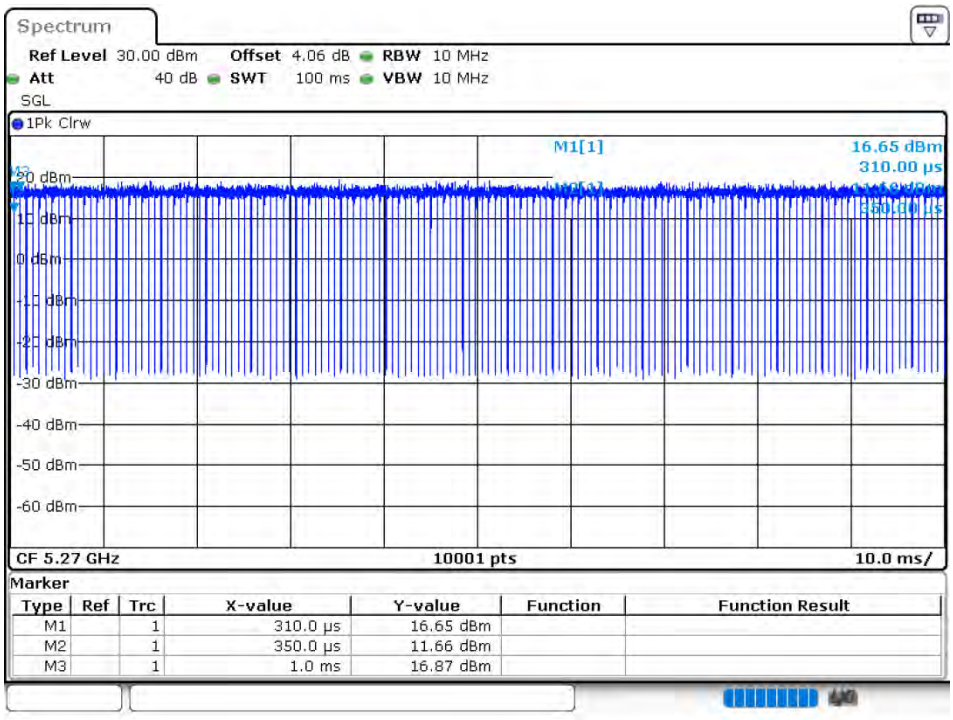
Duty Cycle NVNT ac20 5280MHz Ant1



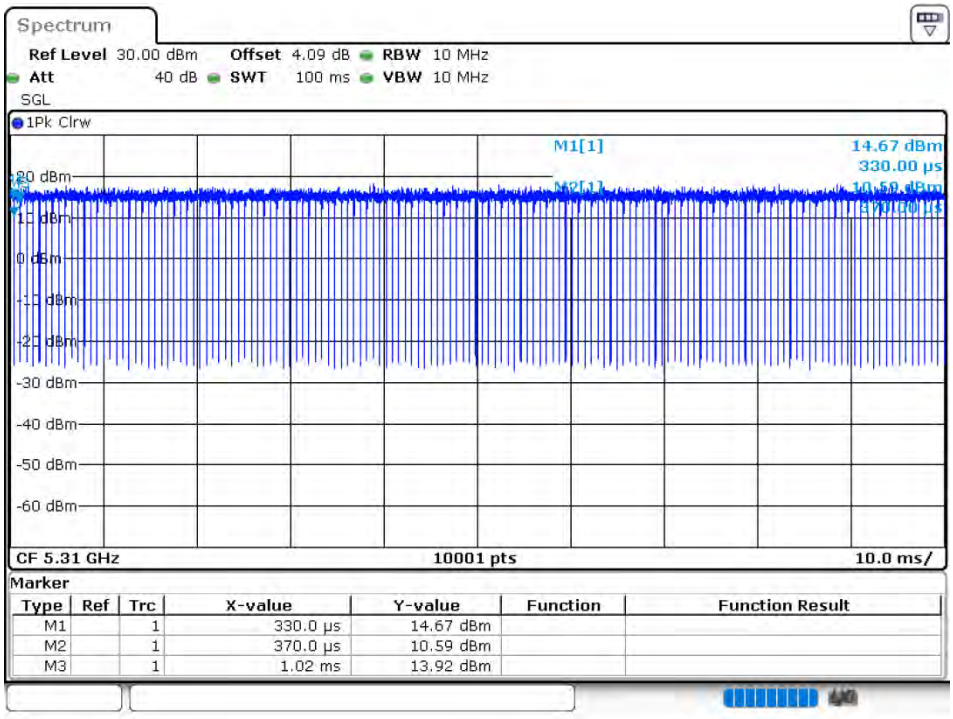
Duty Cycle NVNT ac20 5320MHz Ant1



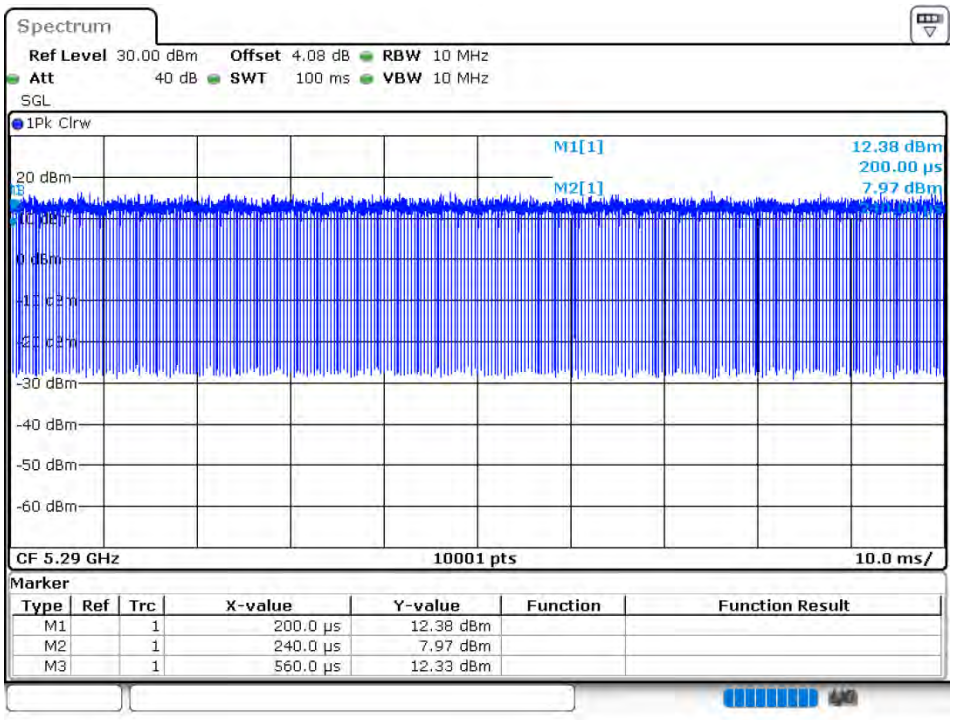
Duty Cycle NVNT ac40 5270MHz Ant1



Duty Cycle NVNT ac40 5310MHz Ant1



Duty Cycle NVNT ac80 5290MHz Ant1



Maximum Conducted Output Power

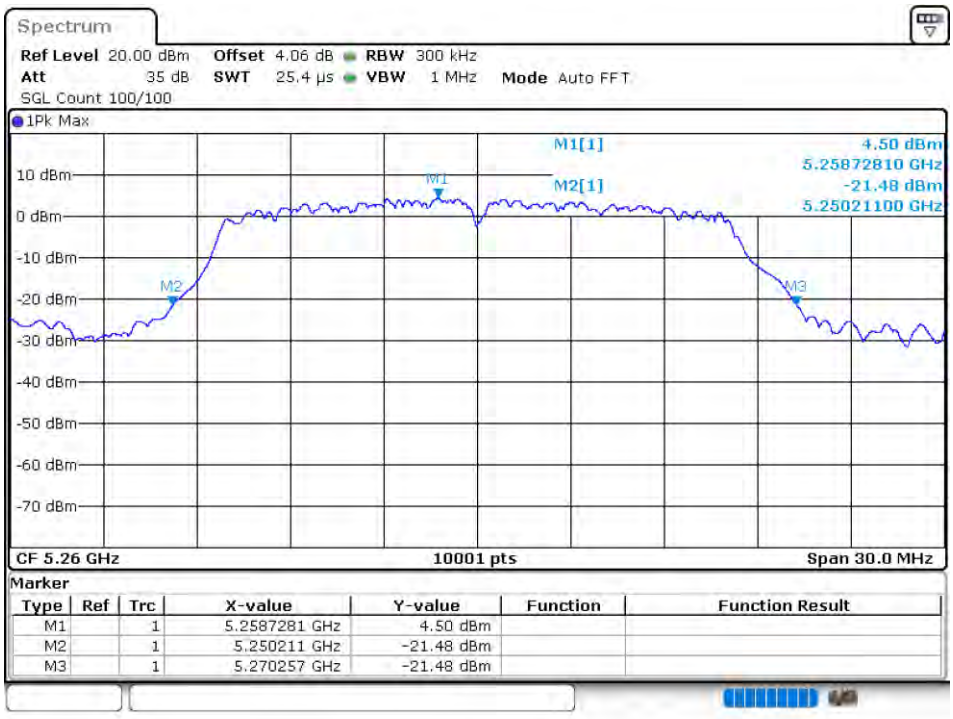
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5260	Ant1	14.43	24	Pass
NVNT	a	5280	Ant1	14.01	23.92	Pass
NVNT	a	5320	Ant1	13.85	23.95	Pass
NVNT	n20	5260	Ant1	14.55	24	Pass
NVNT	n20	5280	Ant1	14.06	24	Pass
NVNT	n20	5320	Ant1	13.77	24	Pass
NVNT	n40	5270	Ant1	14.2	24	Pass
NVNT	n40	5310	Ant1	12.96	24	Pass
NVNT	ac20	5260	Ant1	13.95	24	Pass
NVNT	ac20	5280	Ant1	14.09	24	Pass
NVNT	ac20	5320	Ant1	13.82	24	Pass
NVNT	ac40	5270	Ant1	14.28	24	Pass
NVNT	ac40	5310	Ant1	12.95	24	Pass
NVNT	ac80	5290	Ant1	12.42	24	Pass

Note: The average power value already includes the duty cycle factor

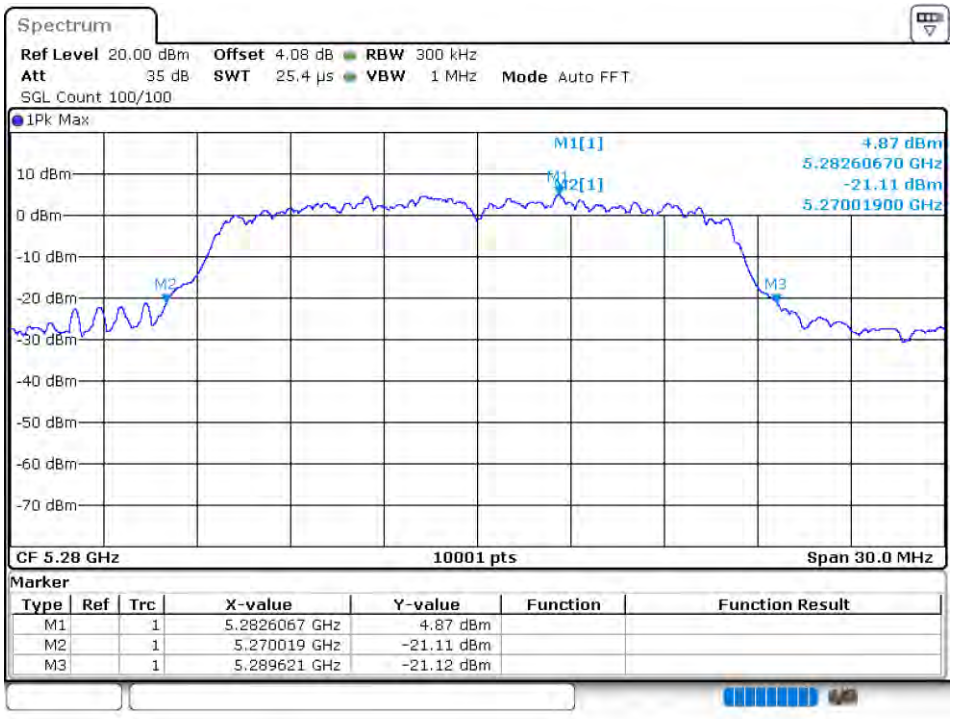
-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5260	Ant1	20.046	Pass
NVNT	a	5280	Ant1	19.602	Pass
NVNT	a	5320	Ant1	19.74	Pass
NVNT	n20	5260	Ant1	24.105	Pass
NVNT	n20	5280	Ant1	21.411	Pass
NVNT	n20	5320	Ant1	20.481	Pass
NVNT	n40	5270	Ant1	56.61	Pass
NVNT	n40	5310	Ant1	49.554	Pass
NVNT	ac20	5260	Ant1	20.481	Pass
NVNT	ac20	5280	Ant1	19.956	Pass
NVNT	ac20	5320	Ant1	20.262	Pass
NVNT	ac40	5270	Ant1	45.516	Pass
NVNT	ac40	5310	Ant1	50.052	Pass
NVNT	ac80	5290	Ant1	94.02	Pass

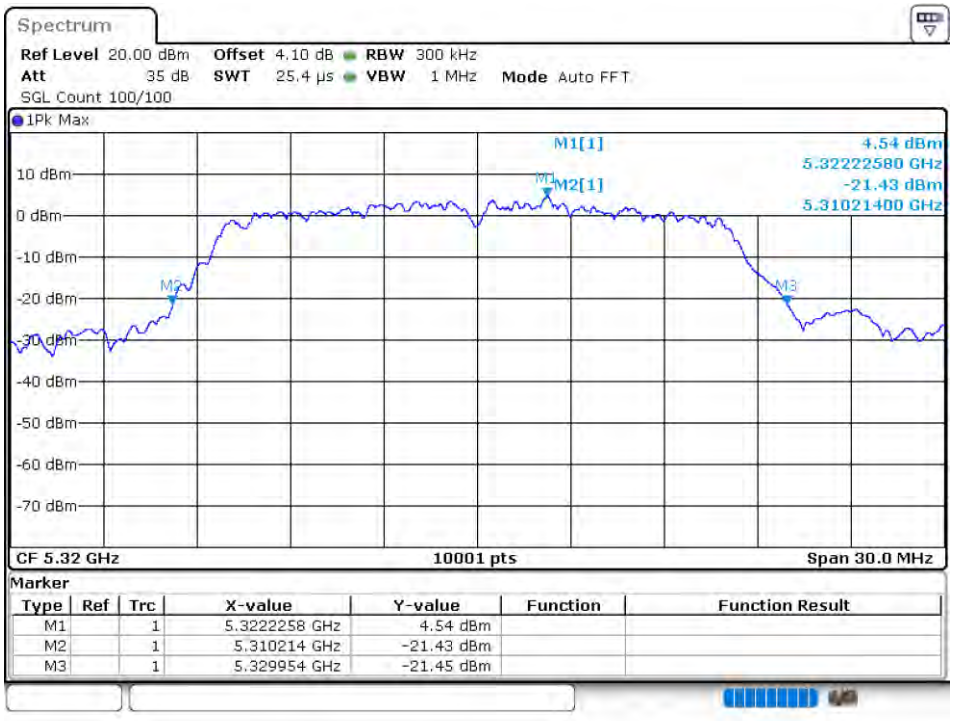
Test Graphs
-26dB Bandwidth NVNT a 5260MHz Ant1



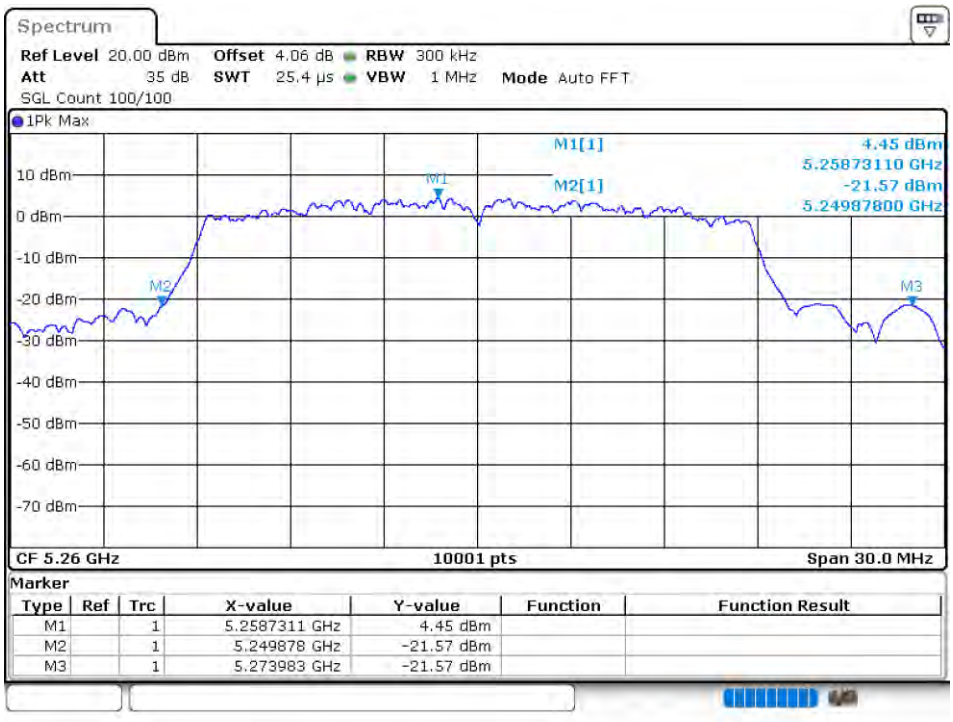
-26dB Bandwidth NVNT a 5280MHz Ant1



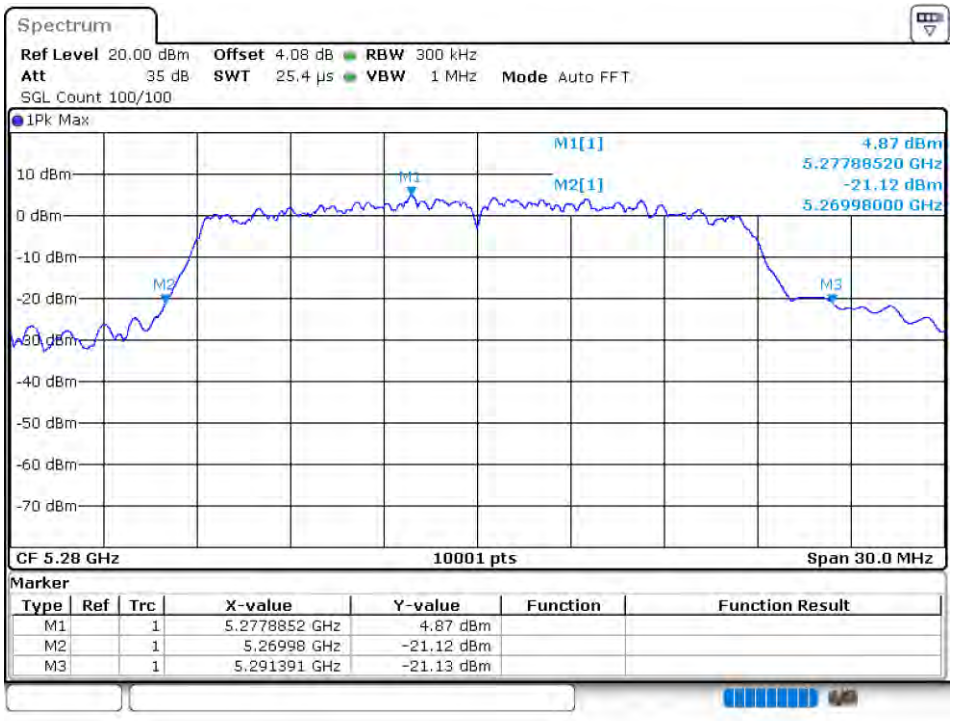
-26dB Bandwidth NVNT a 5320MHz Ant1



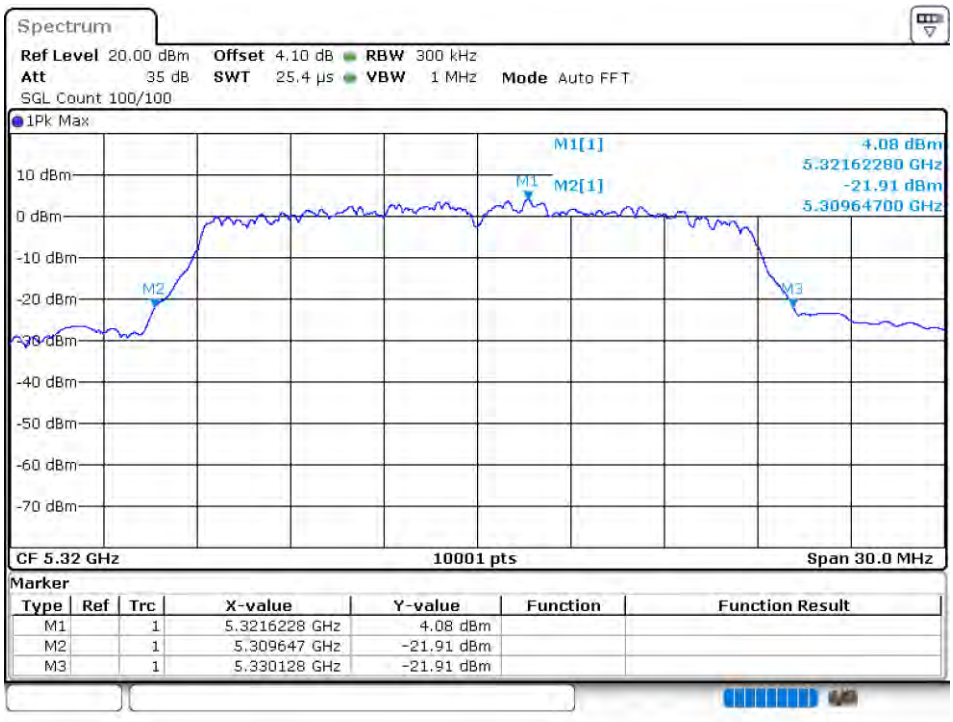
-26dB Bandwidth NVNT n20 5260MHz Ant1



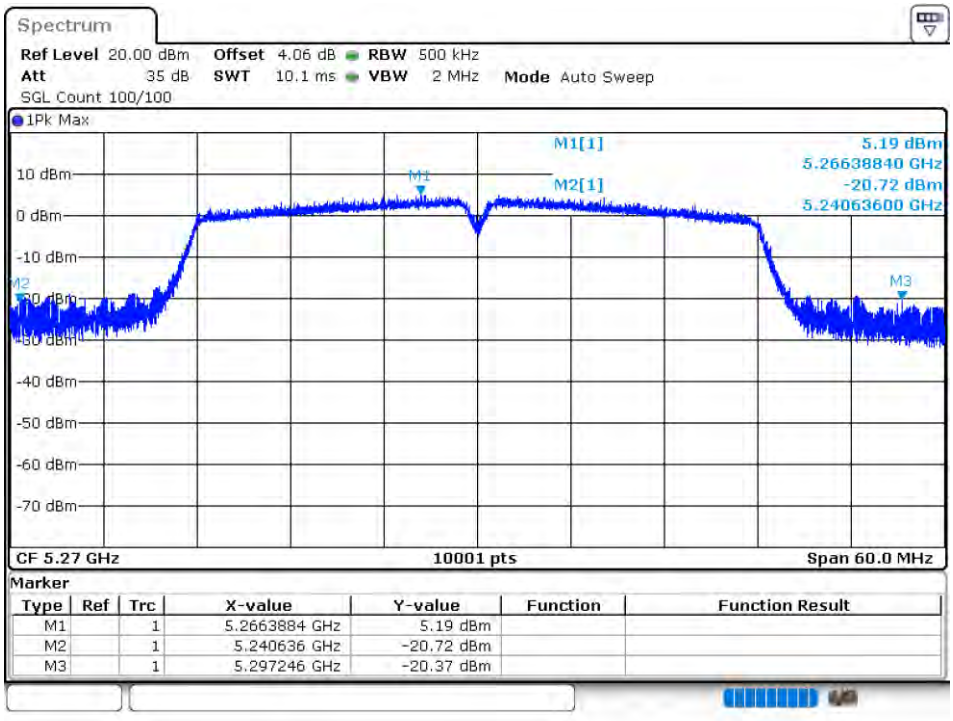
-26dB Bandwidth NVNT n20 5280MHz Ant1



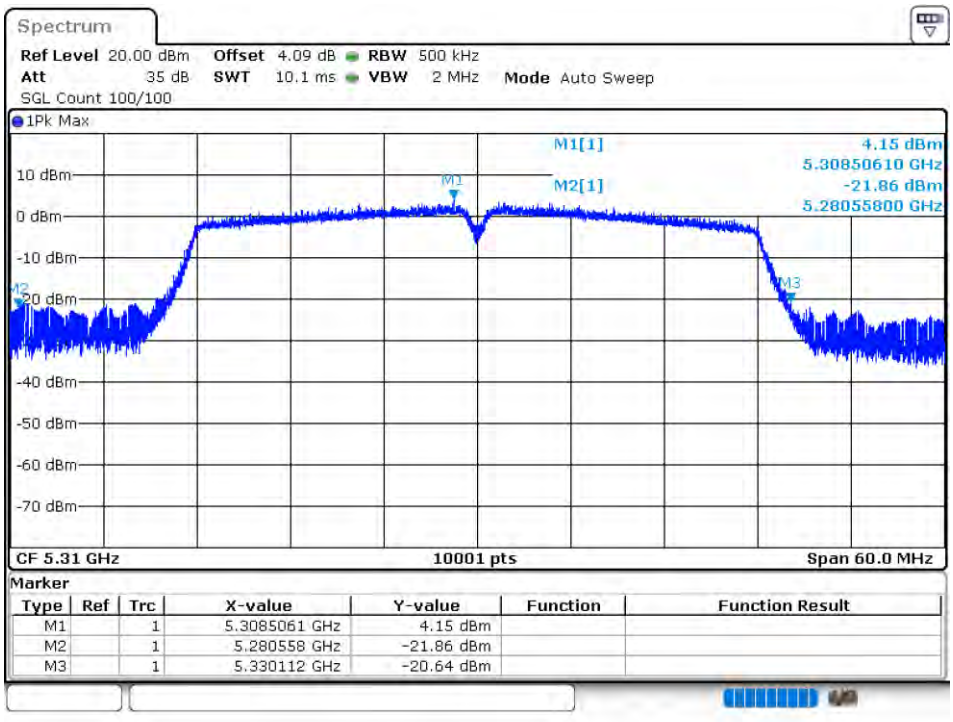
-26dB Bandwidth NVNT n20 5320MHz Ant1



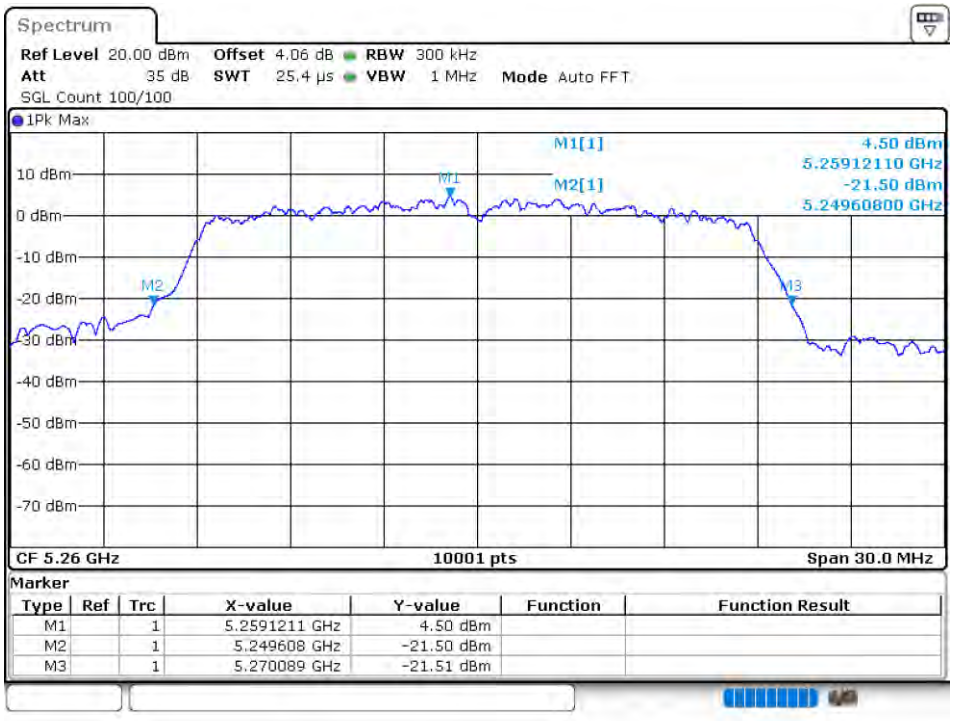
-26dB Bandwidth NVNT n40 5270MHz Ant1



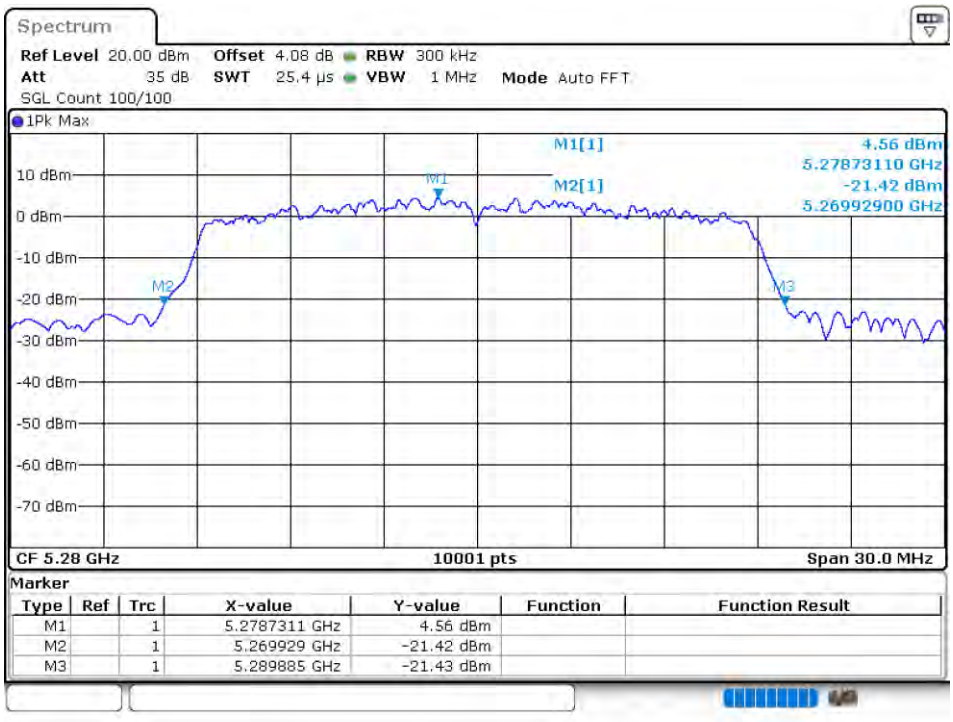
-26dB Bandwidth NVNT n40 5310MHz Ant1



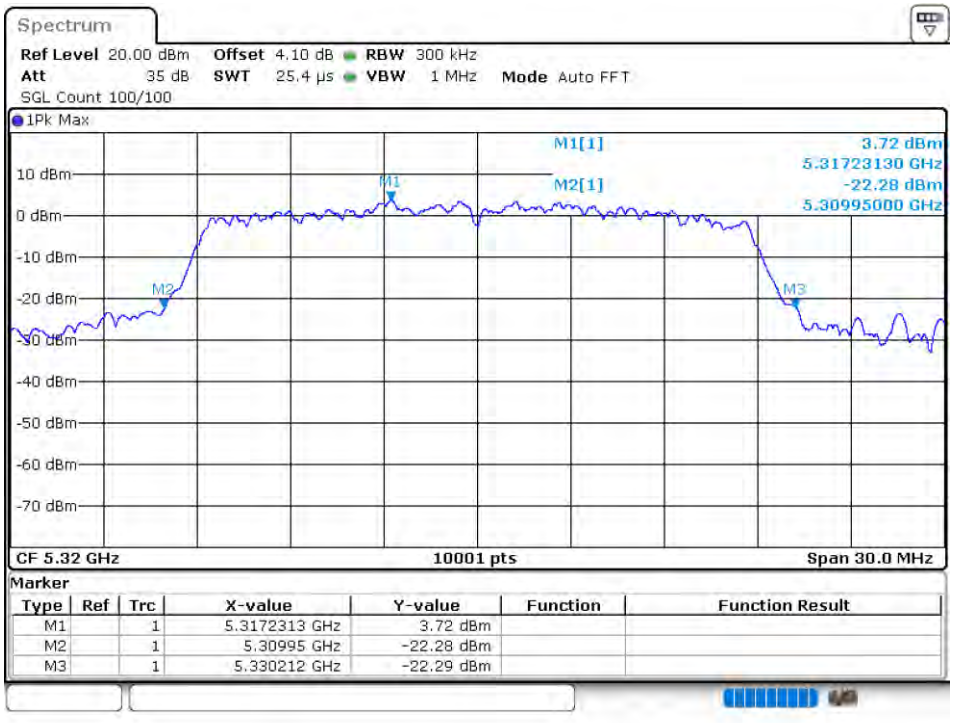
-26dB Bandwidth NVNT ac20 5260MHz Ant1



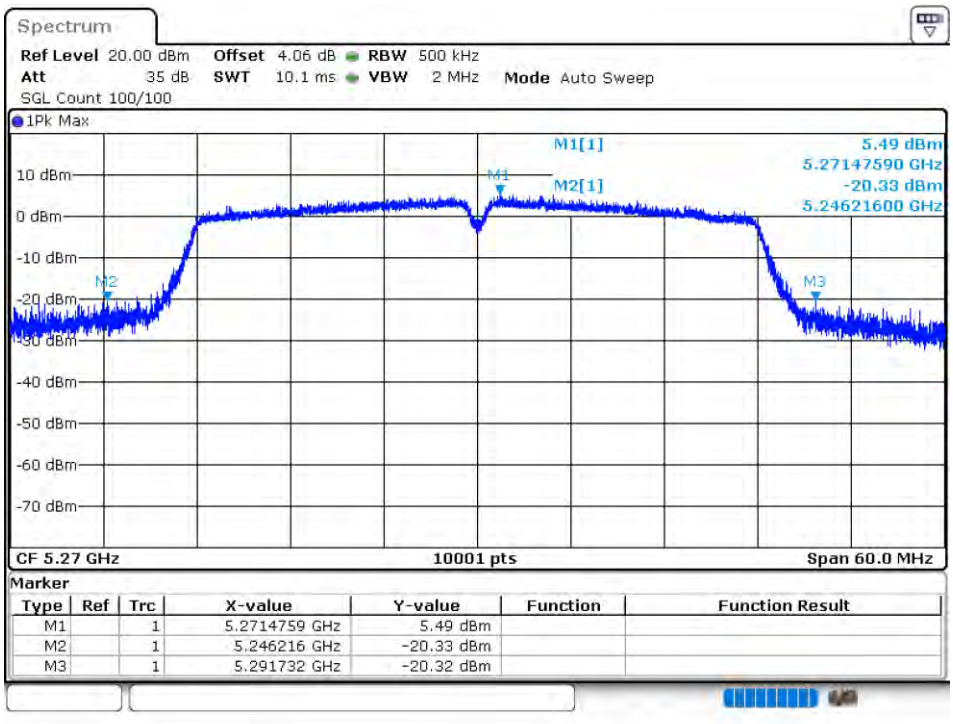
-26dB Bandwidth NVNT ac20 5280MHz Ant1



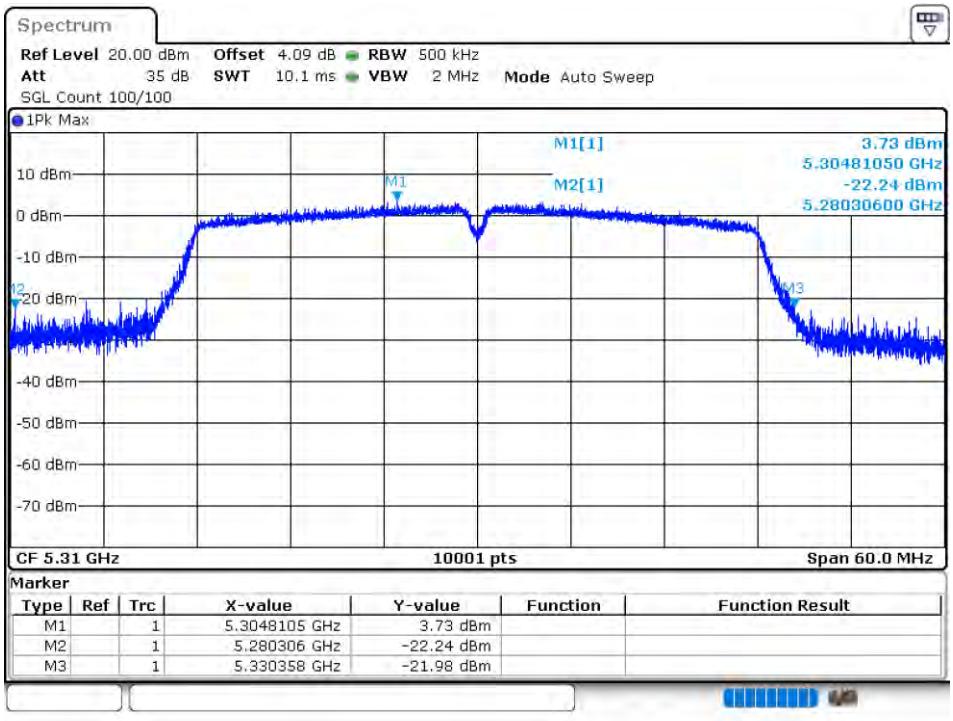
-26dB Bandwidth NVNT ac20 5320MHz Ant1



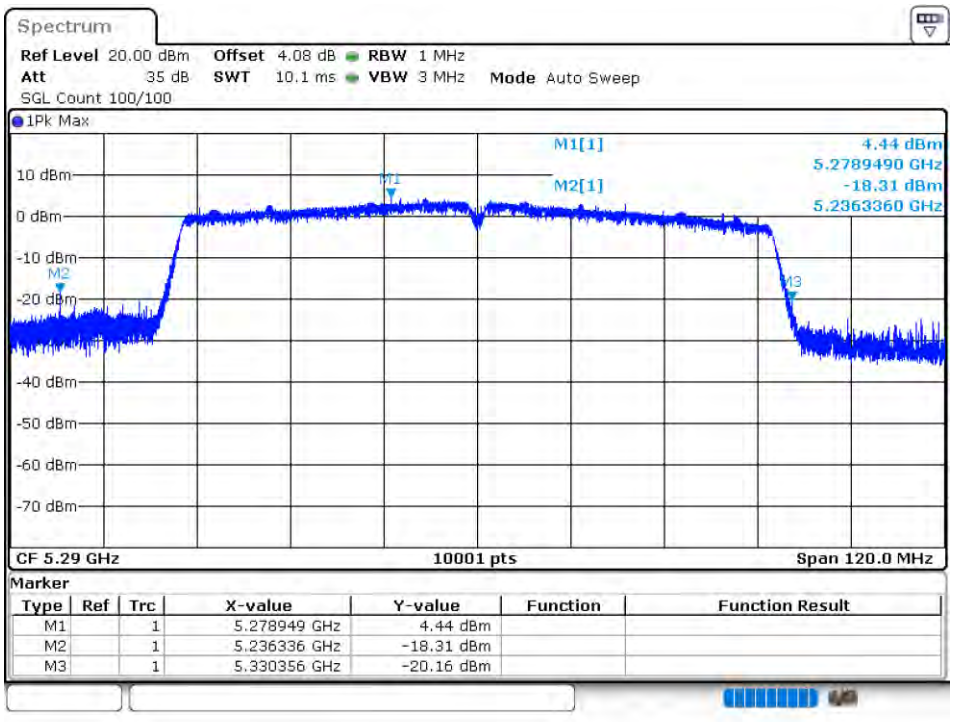
-26dB Bandwidth NVNT ac40 5270MHz Ant1



-26dB Bandwidth NVNT ac40 5310MHz Ant1

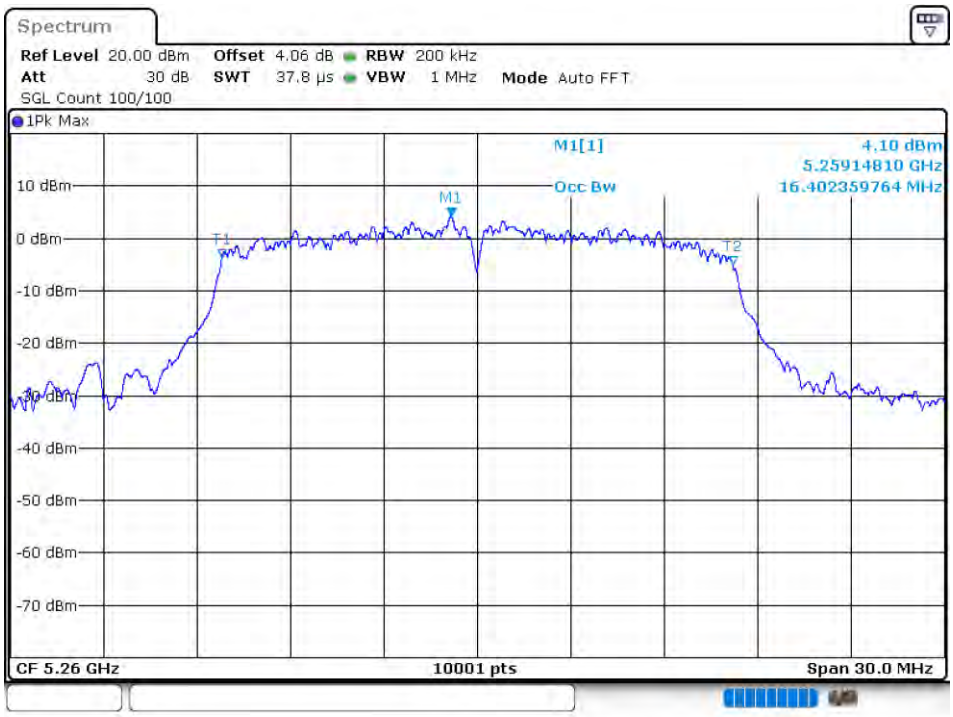
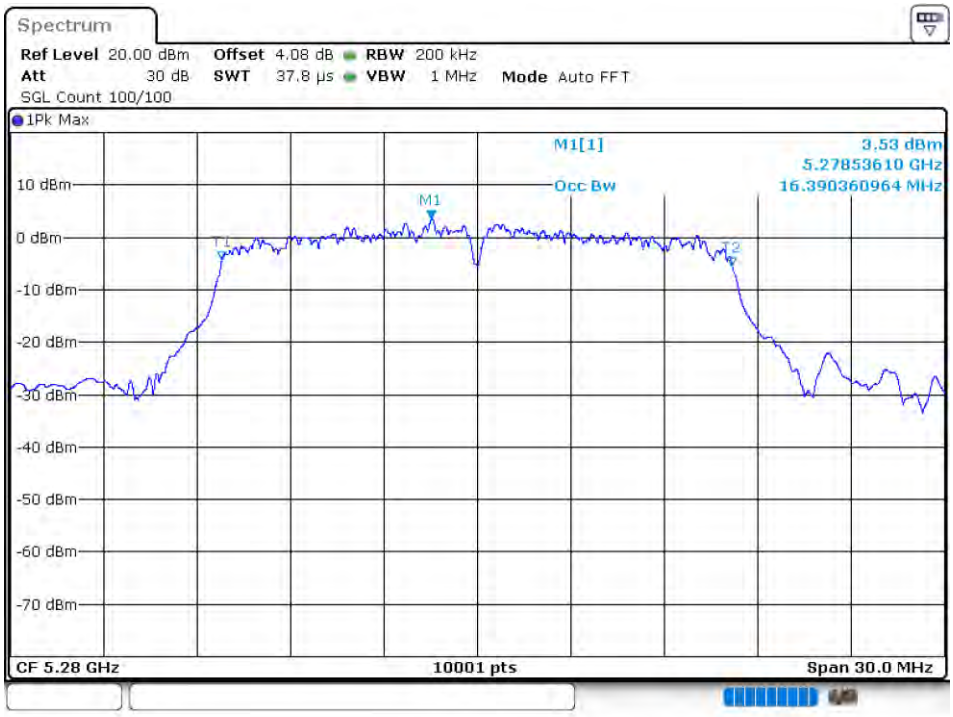


-26dB Bandwidth NVNT ac80 5290MHz Ant1

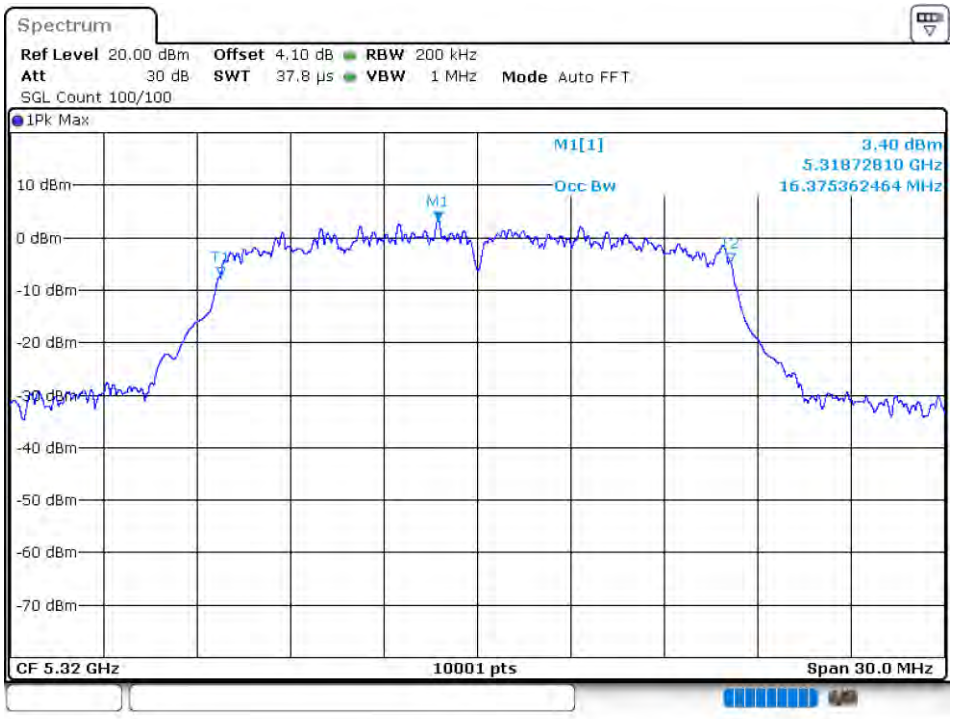


Occupied Channel Bandwidth

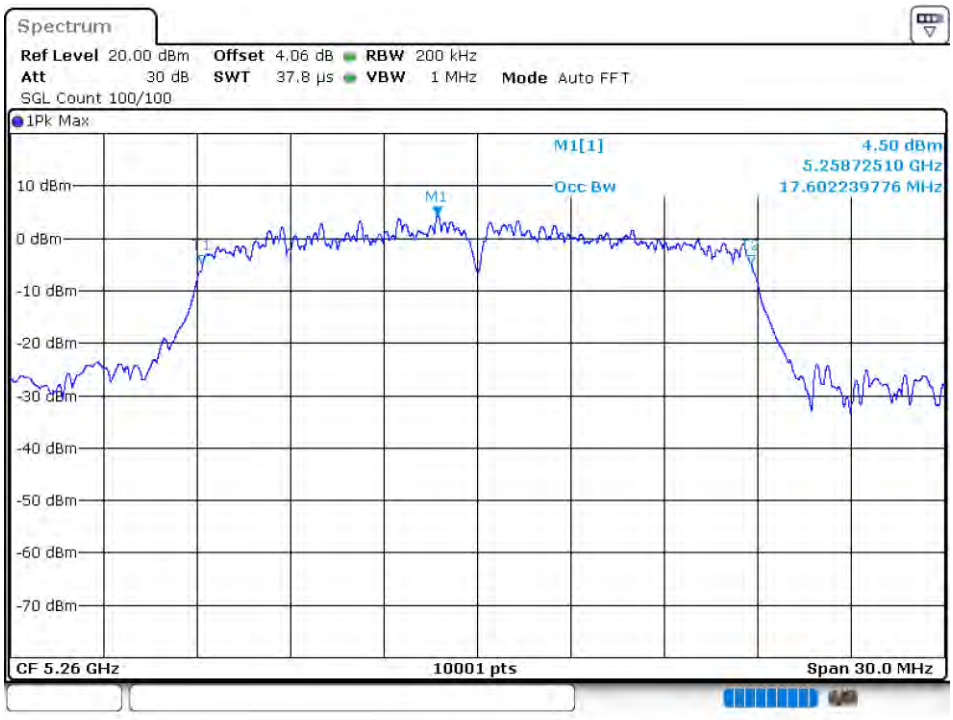
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5260	Ant1	16.402
NVNT	a	5280	Ant1	16.39
NVNT	a	5320	Ant1	16.375
NVNT	n20	5260	Ant1	17.602
NVNT	n20	5280	Ant1	17.545
NVNT	n20	5320	Ant1	17.554
NVNT	n40	5270	Ant1	36.152
NVNT	n40	5310	Ant1	36.104
NVNT	ac20	5260	Ant1	17.557
NVNT	ac20	5280	Ant1	17.56
NVNT	ac20	5320	Ant1	17.539
NVNT	ac40	5270	Ant1	36.086
NVNT	ac40	5310	Ant1	36.086
NVNT	ac80	5290	Ant1	75.136

Test Graphs
OBW NVNT a 5260MHz Ant1

OBW NVNT a 5280MHz Ant1


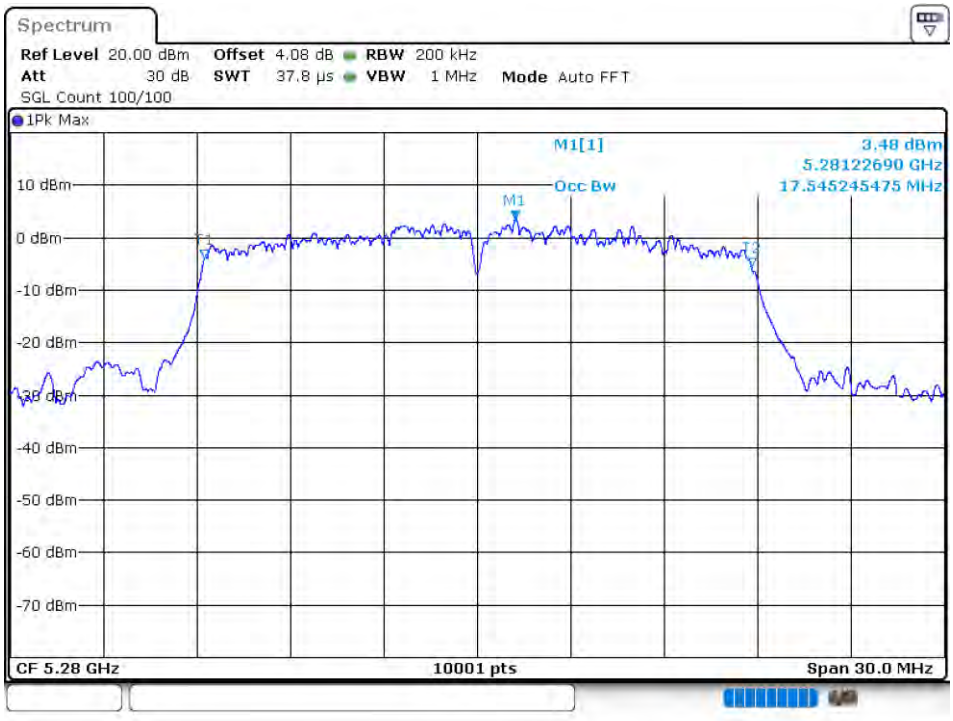
OBW NVNT a 5320MHz Ant1



OBW NVNT n20 5260MHz Ant1



OBW NVNT n20 5280MHz Ant1



OBW NVNT n20 5320MHz Ant1