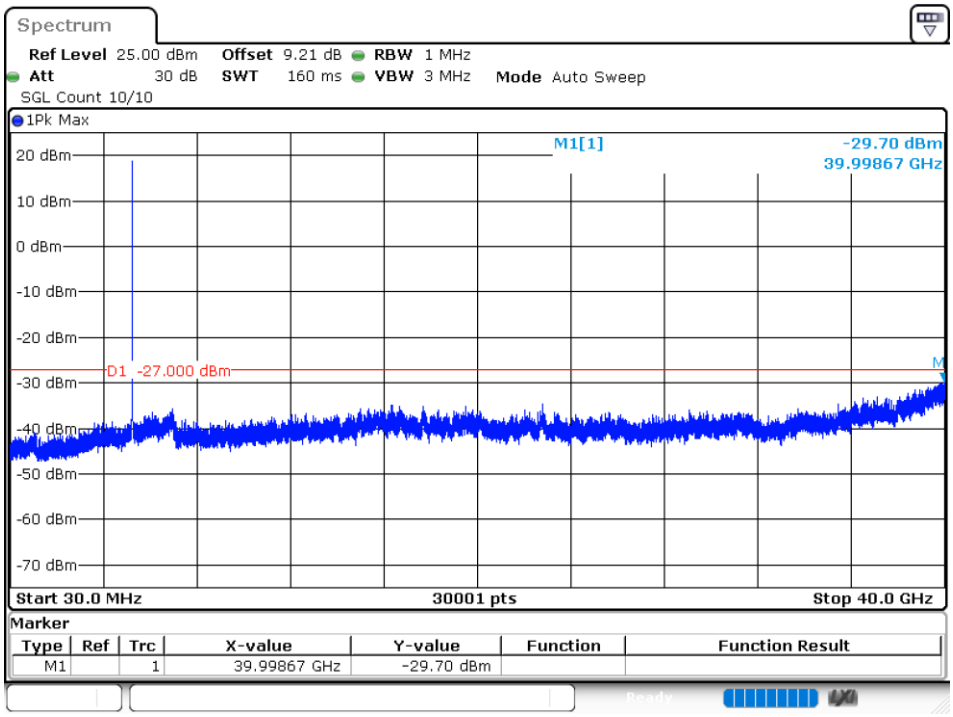
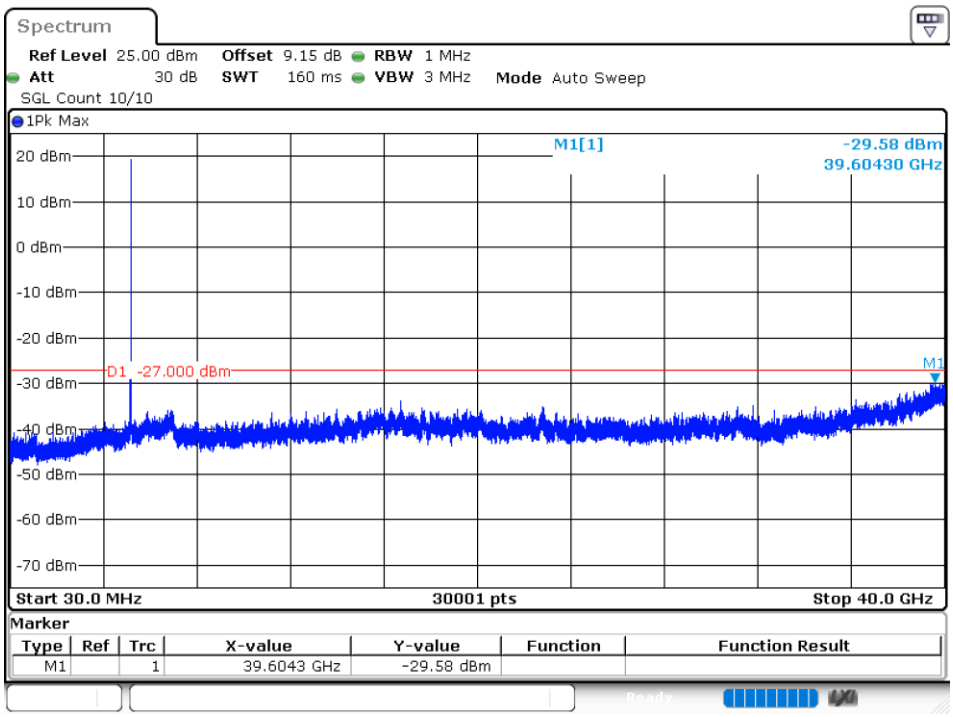
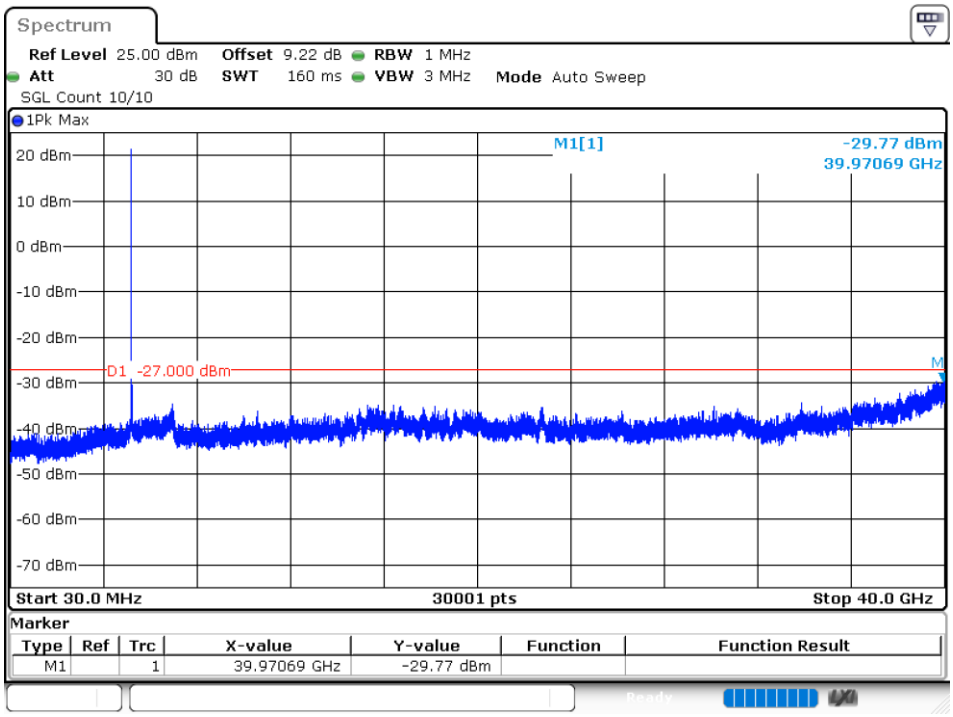
Tx. Spurious NVNT ax20 5240MHz Ant1 Emission



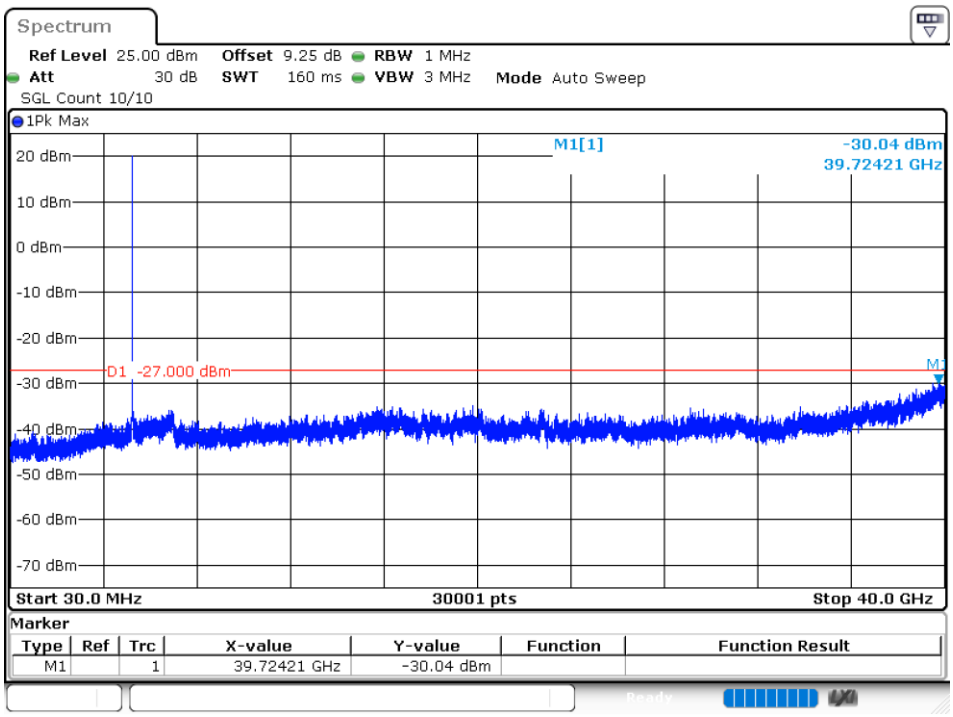
Tx. Spurious NVNT ax20 5180MHz Ant2 Emission



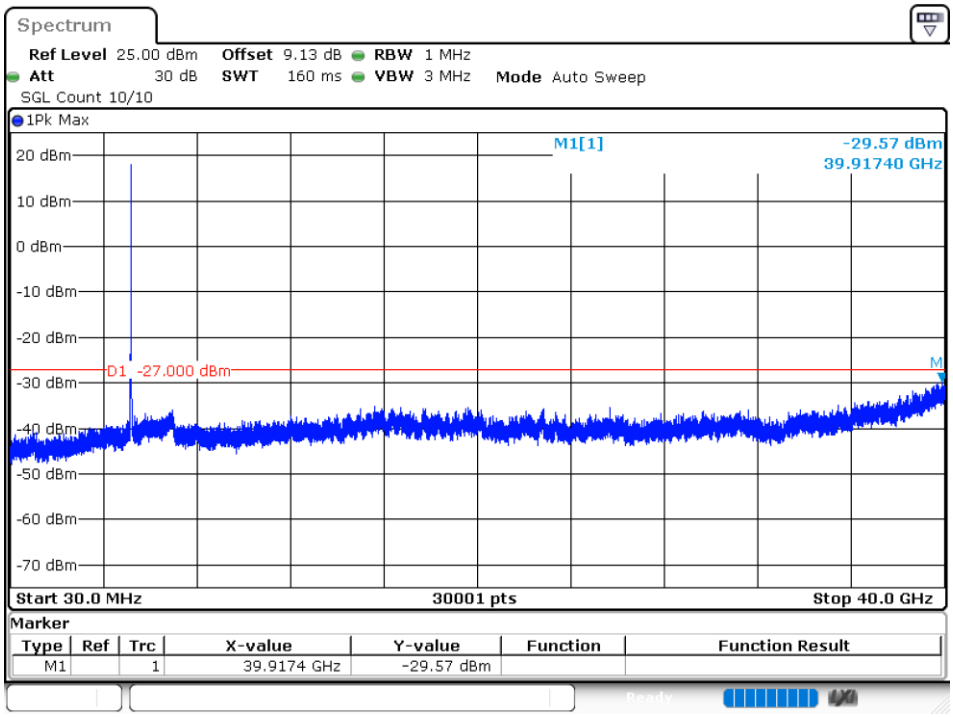
Tx. Spurious NVNT ax20 5200MHz Ant2 Emission



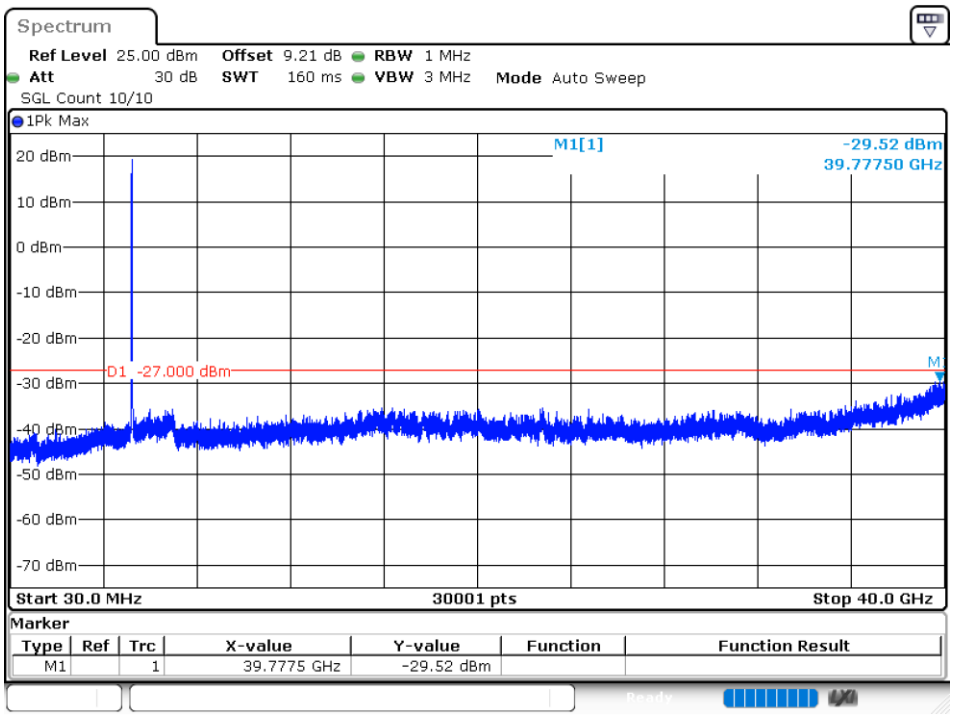
Tx. Spurious NVNT ax20 5240MHz Ant2 Emission



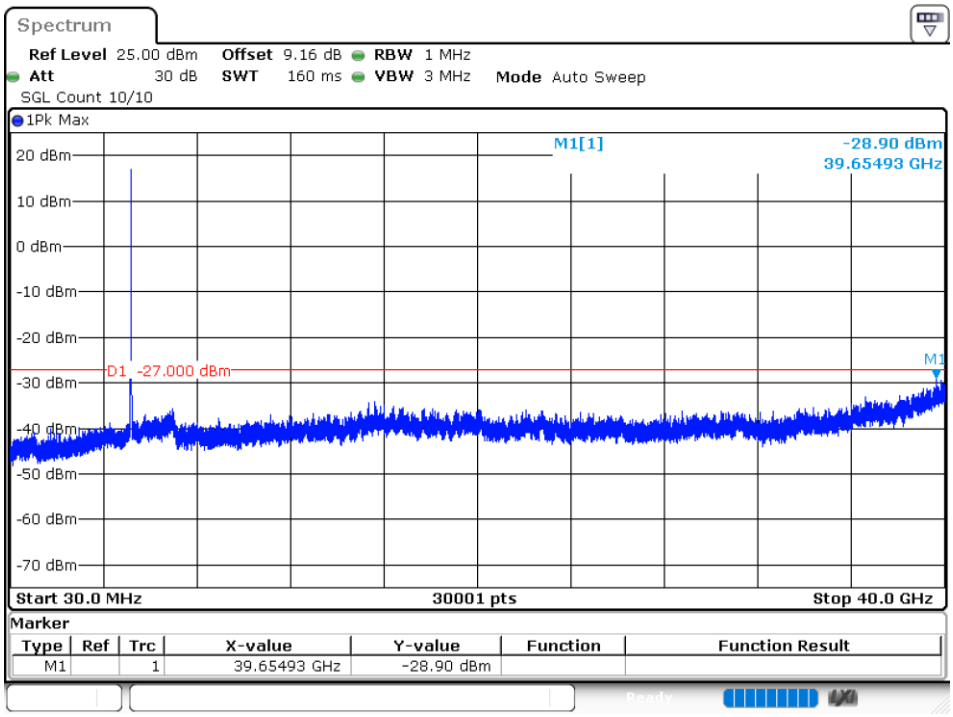
Tx. Spurious NVNT ax40 5190MHz Ant1 Emission



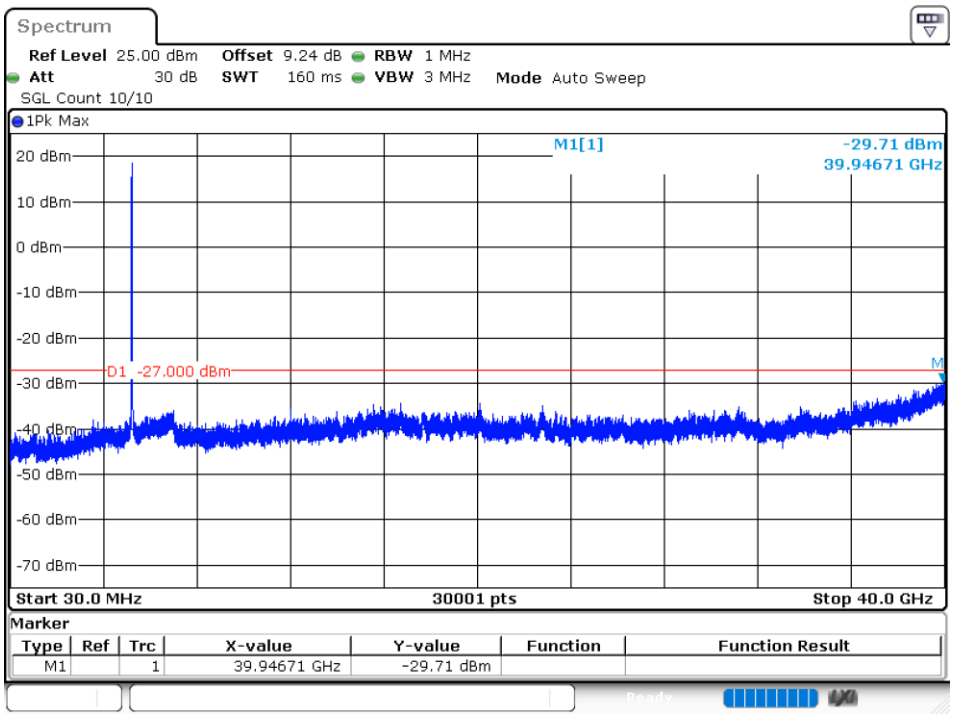
Tx. Spurious NVNT ax40 5230MHz Ant1 Emission



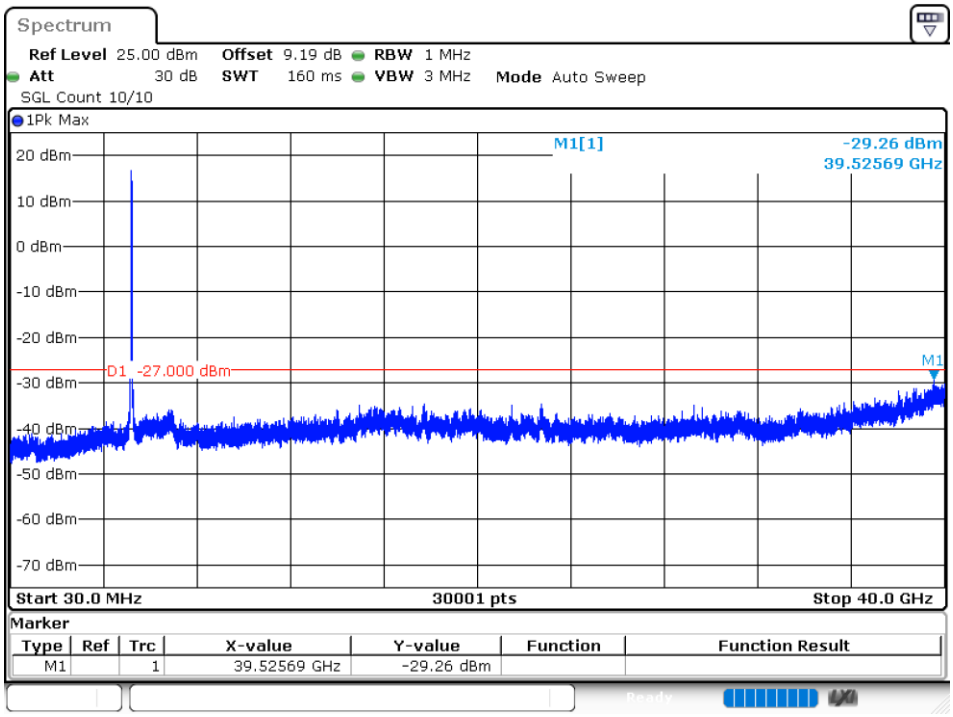
Tx. Spurious NVNT ax40 5190MHz Ant2 Emission



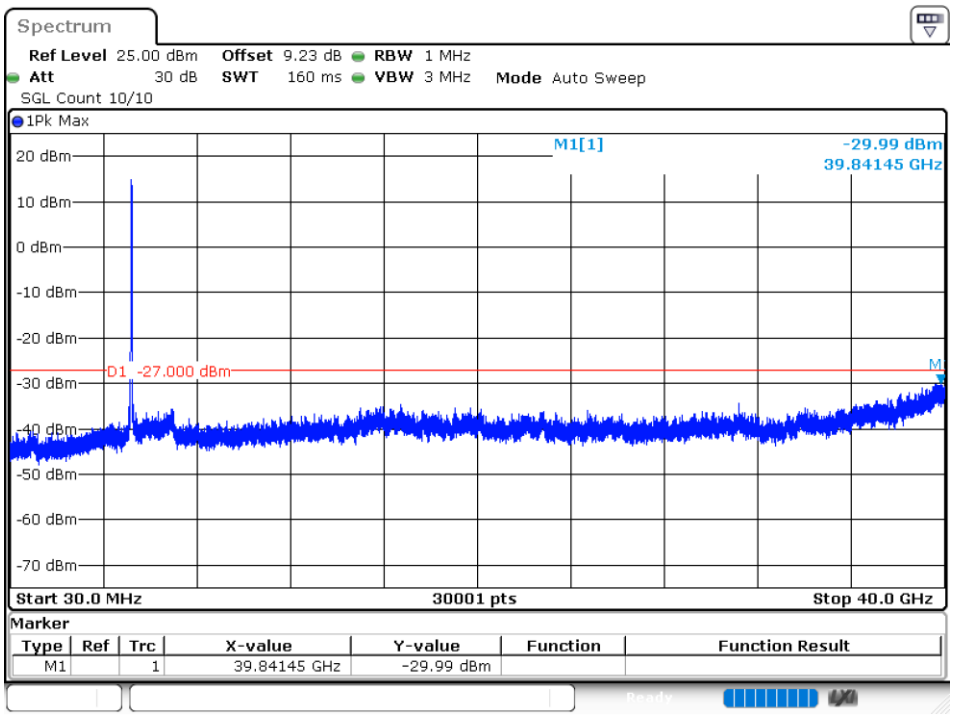
Tx. Spurious NVNT ax40 5230MHz Ant2 Emission



Tx. Spurious NVNT ax80 5210MHz Ant1 Emission



Tx. Spurious NVNT ax80 5210MHz Ant2 Emission



5.2G WIFI MIMO

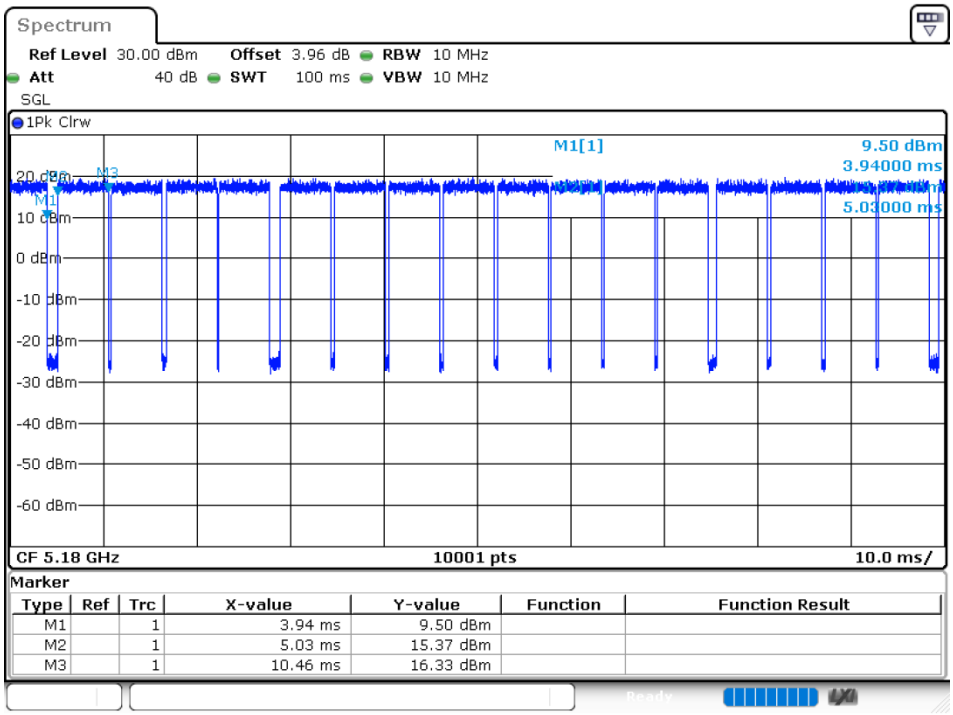
Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	ac20	5180	Ant1	91.56	0.38	0.18
NVNT	ac20	5200	Ant1	92.42	0.34	0.18
NVNT	ac20	5240	Ant1	92.28	0.35	0.18
NVNT	ac40	5190	Ant1	93.21	0.31	0.18
NVNT	ac40	5230	Ant1	93.56	0.29	0.18
NVNT	ac80	5210	Ant1	87.12	0.6	0.18
NVNT	ax20	5180	Ant1	96	0.18	100
NVNT	ax20	5200	Ant1	94.81	0.23	0.18
NVNT	ax20	5240	Ant1	95.37	0.21	0.18
NVNT	ax40	5190	Ant1	95.2	0.21	0.18
NVNT	ax40	5230	Ant1	95.36	0.21	0.18
NVNT	ax80	5210	Ant1	94.96	0.22	0.18
NVNT	n20	5180	Ant1	92.7	0.33	0.18
NVNT	n20	5200	Ant1	90.66	0.43	0.18
NVNT	n20	5240	Ant1	91.52	0.38	0.18
NVNT	n40	5190	Ant1	93.71	0.28	0.18
NVNT	n40	5230	Ant1	94.83	0.23	0.18

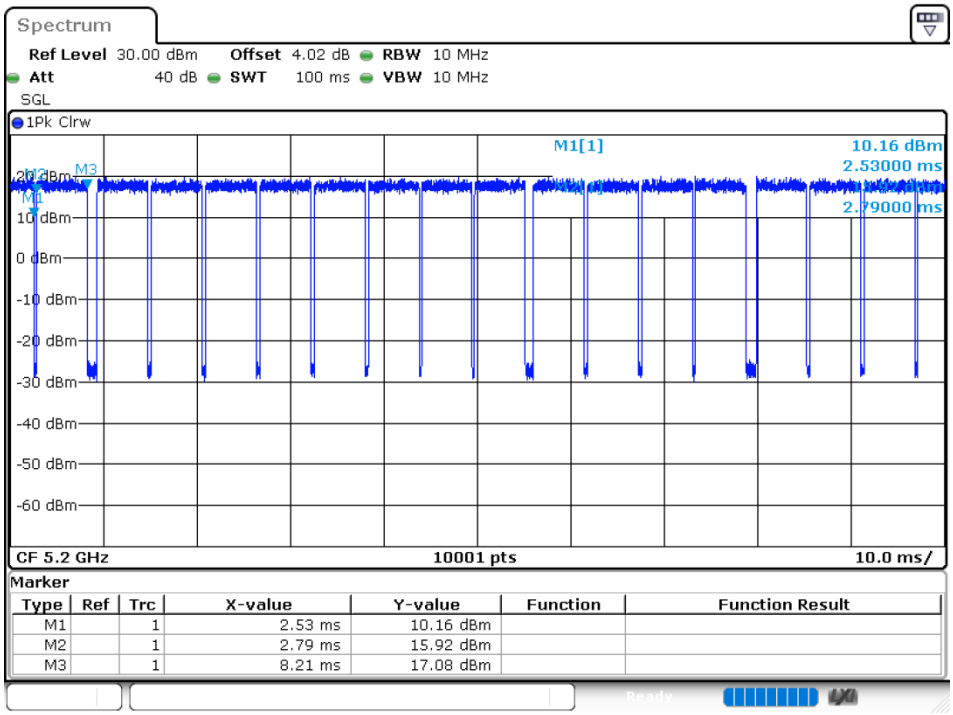
Note: ANT1 and ANT2 have the same duty cycle and only record Ant1.

Test Graphs

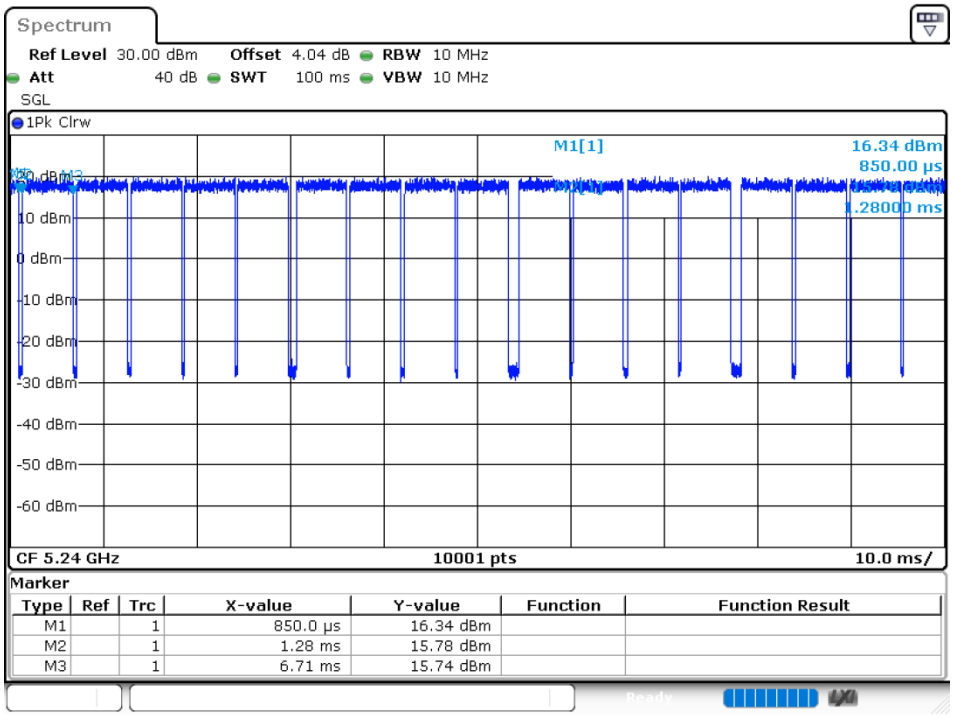
Duty Cycle NVNT ac20 5180MHz Ant1



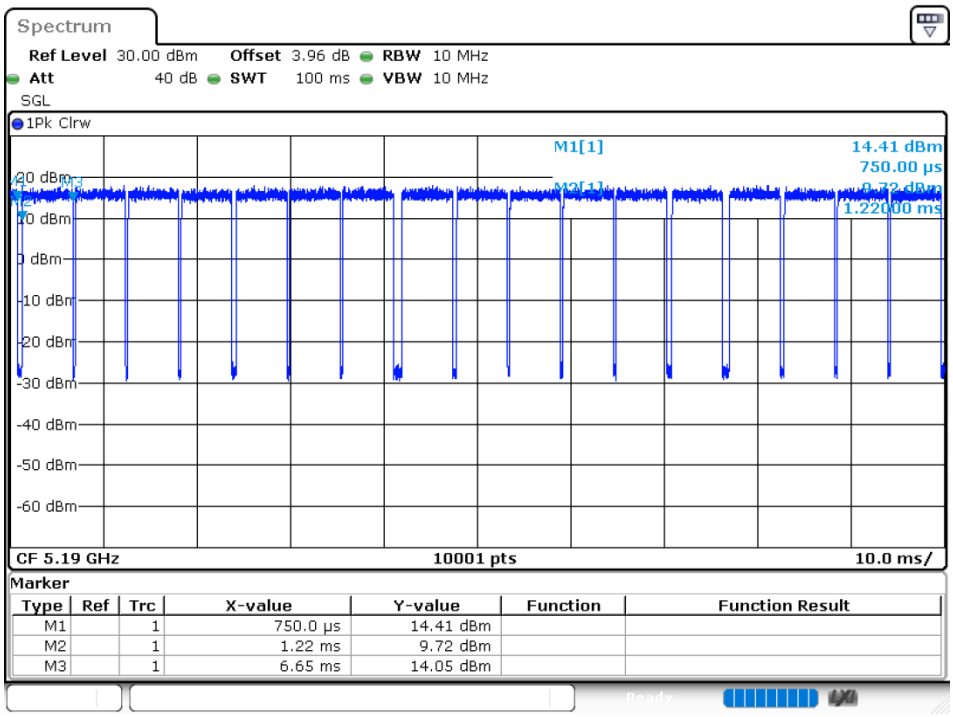
Duty Cycle NVNT ac20 5200MHz Ant1



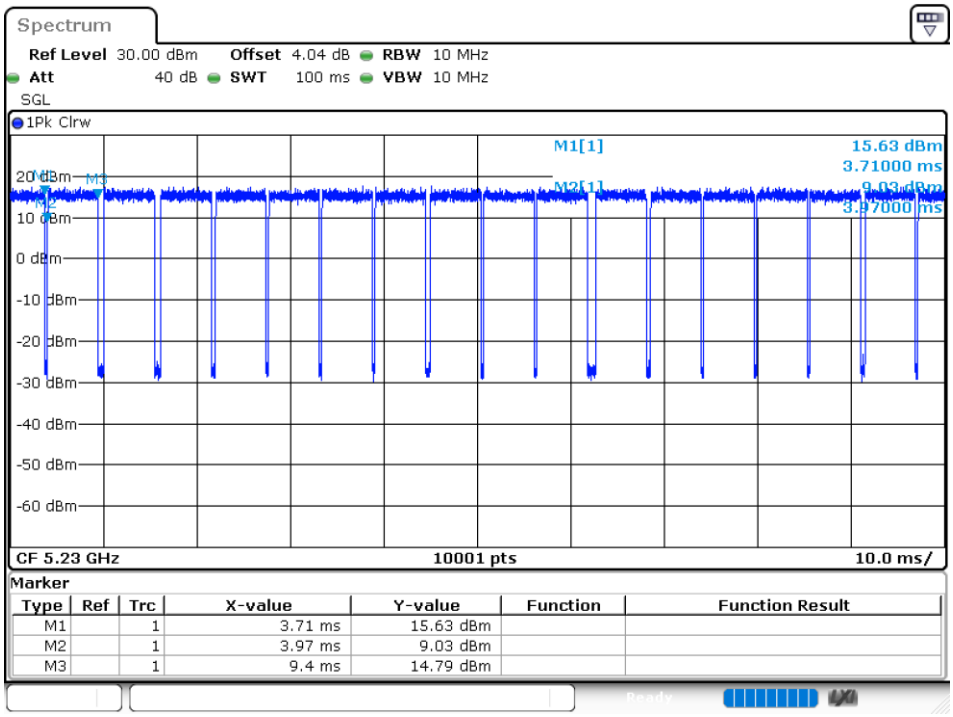
Duty Cycle NVNT ac20 5240MHz Ant1



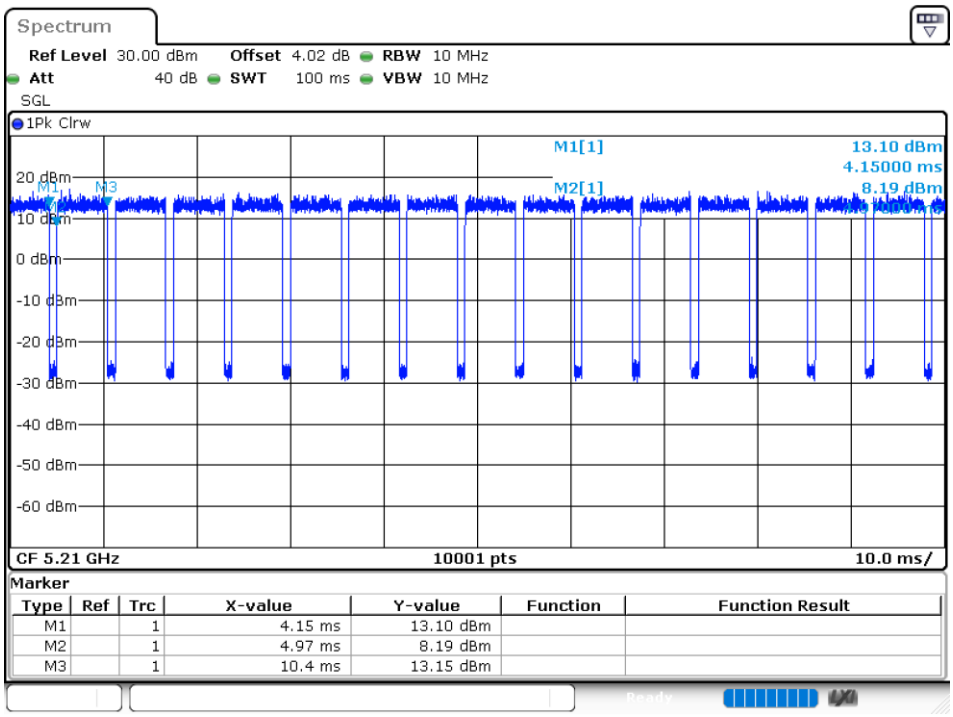
Duty Cycle NVNT ac40 5190MHz Ant1



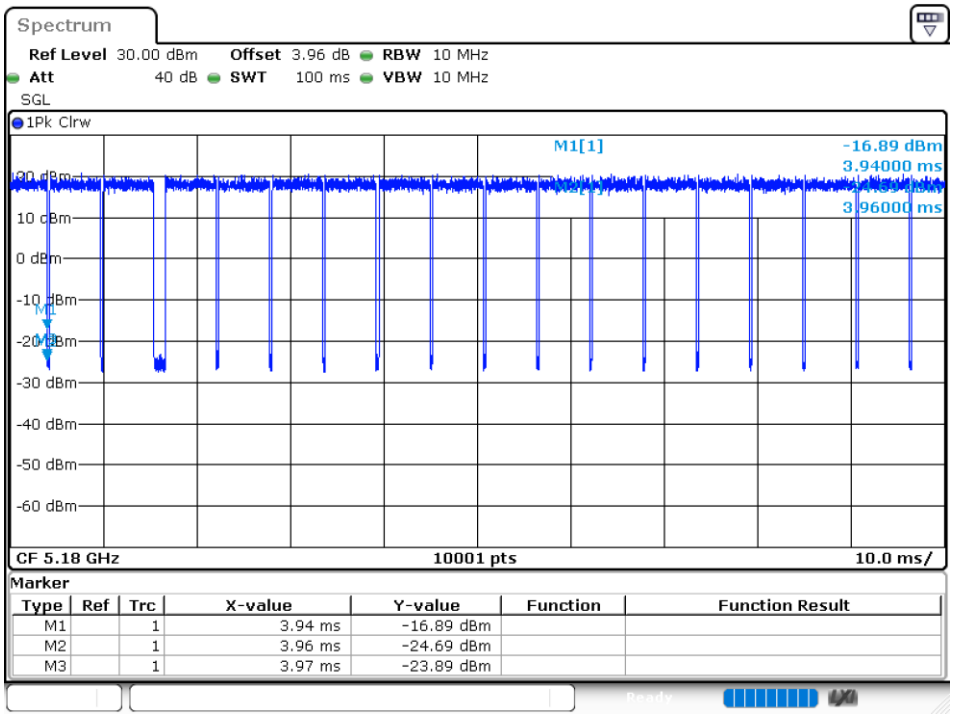
Duty Cycle NVNT ac40 5230MHz Ant1



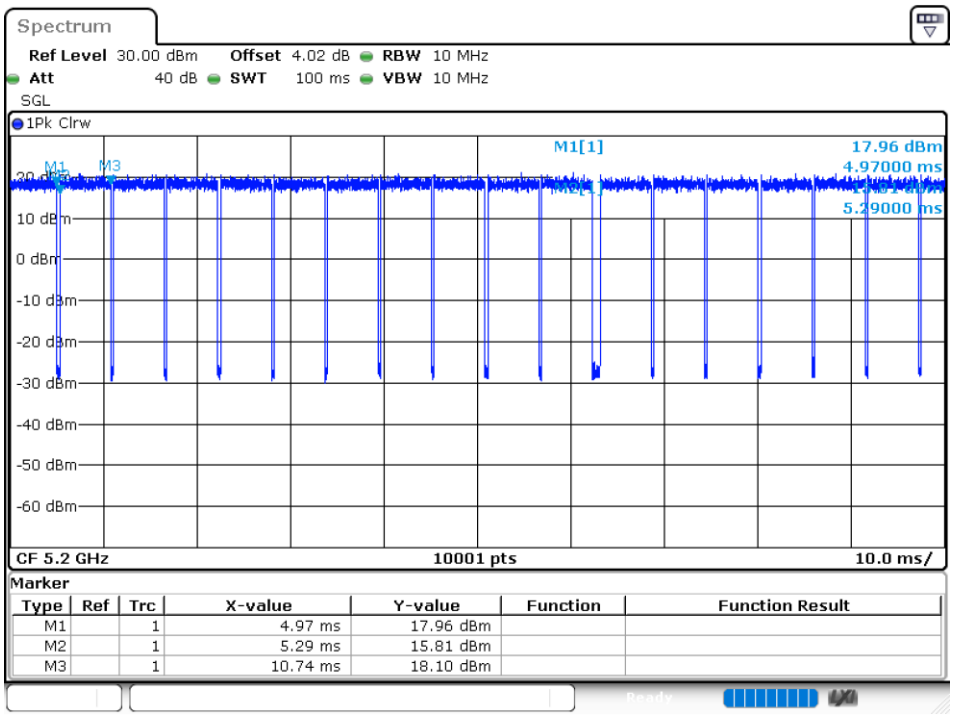
Duty Cycle NVNT ac80 5210MHz Ant1



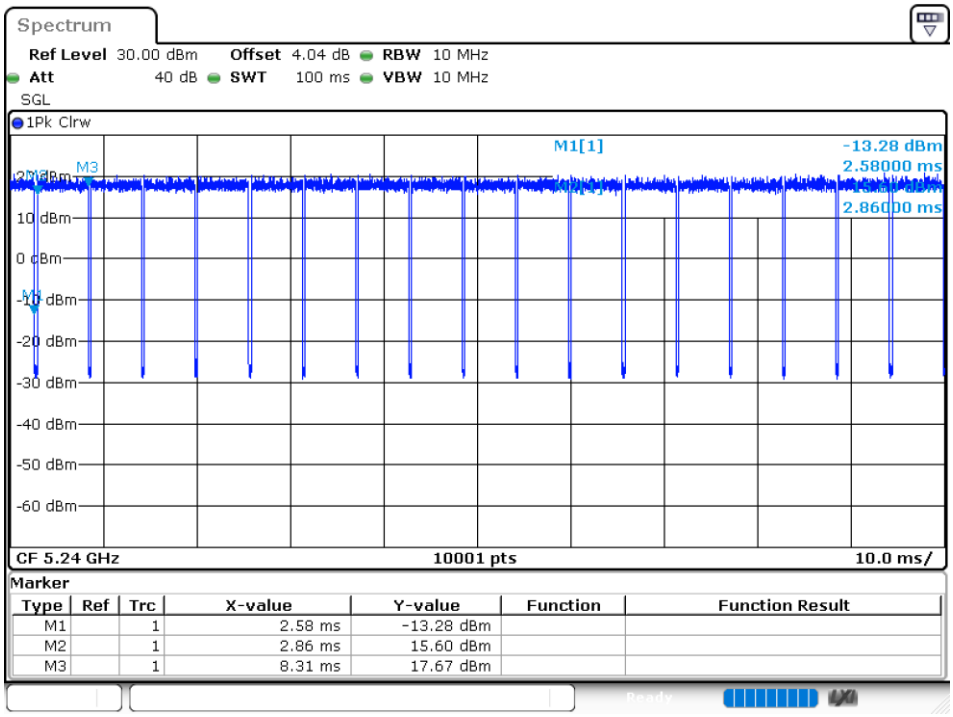
Duty Cycle NVNT ax20 5180MHz Ant1



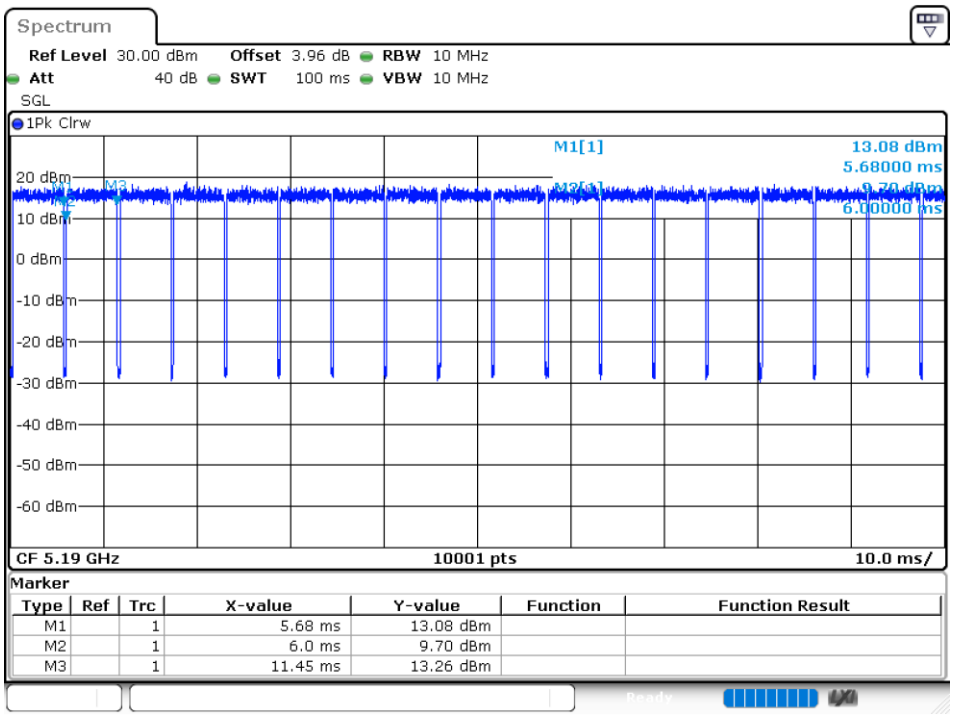
Duty Cycle NVNT ax20 5200MHz Ant1



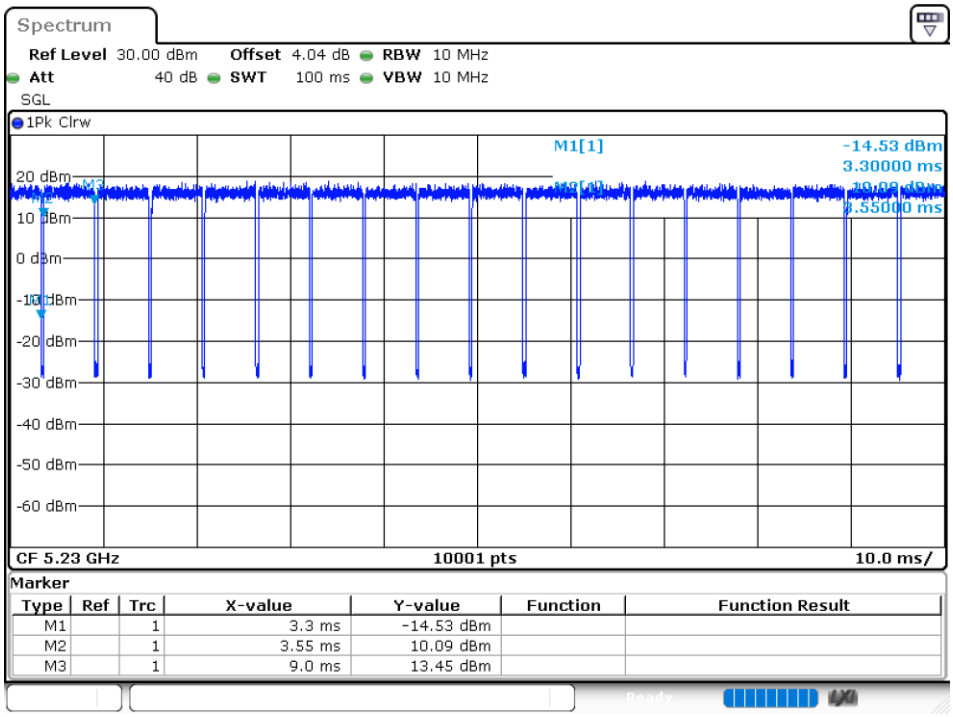
Duty Cycle NVNT ax20 5240MHz Ant1



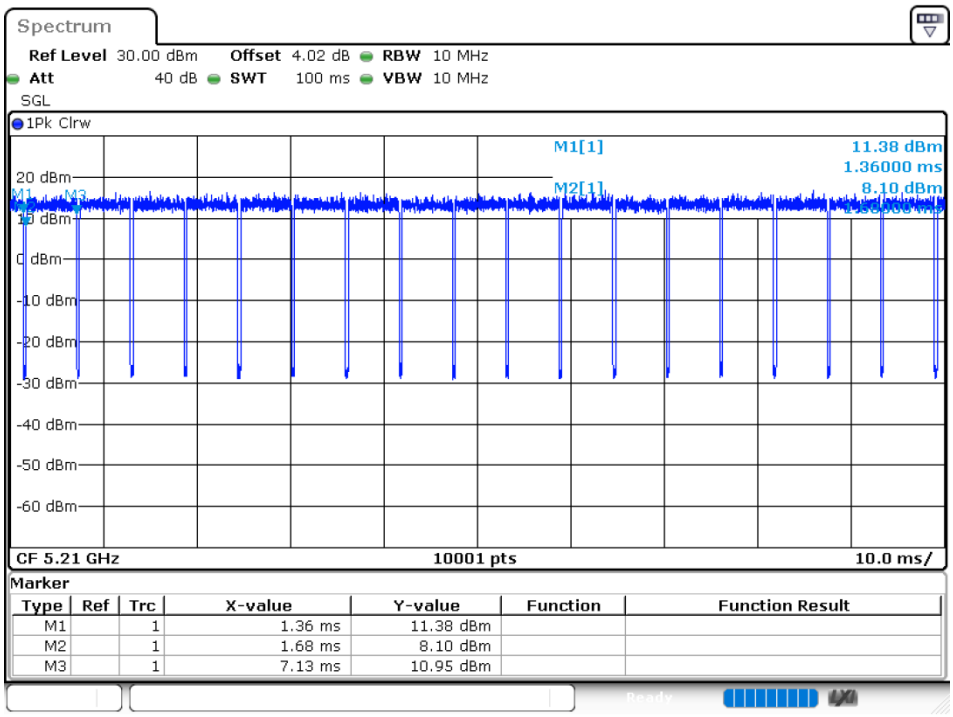
Duty Cycle NVNT ax40 5190MHz Ant1



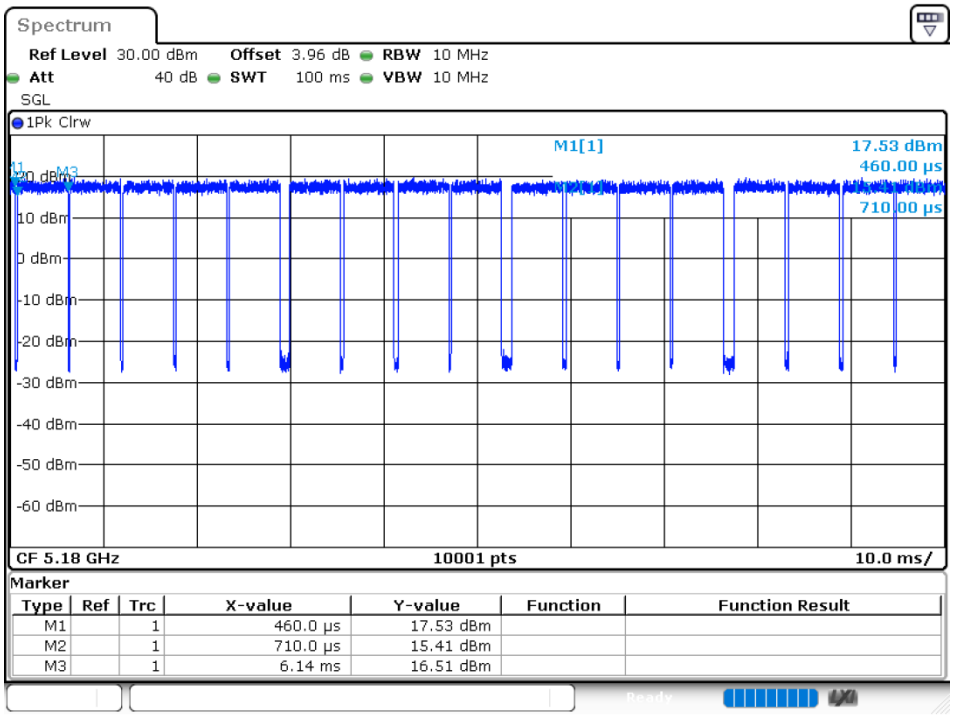
Duty Cycle NVNT ax40 5230MHz Ant1



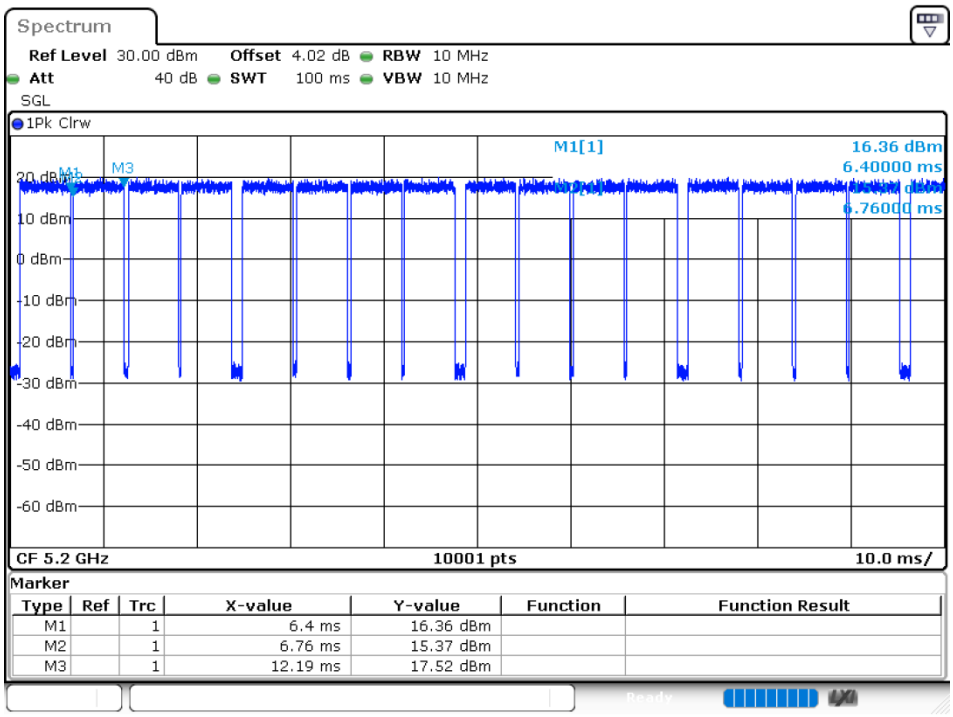
Duty Cycle NVNT ax80 5210MHz Ant1



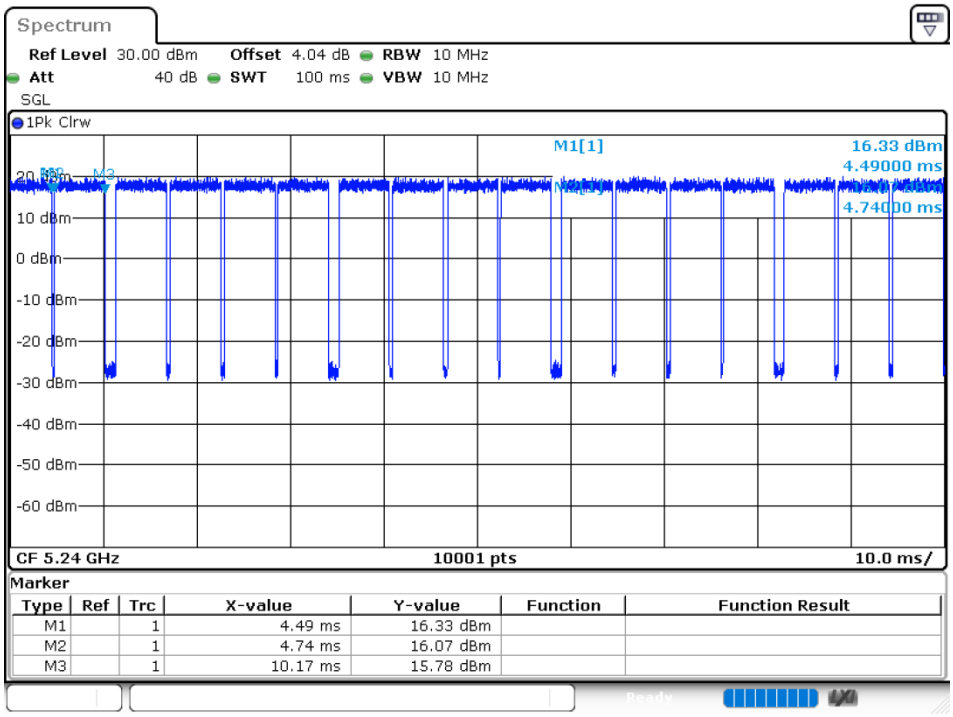
Duty Cycle NVNT n20 5180MHz Ant1



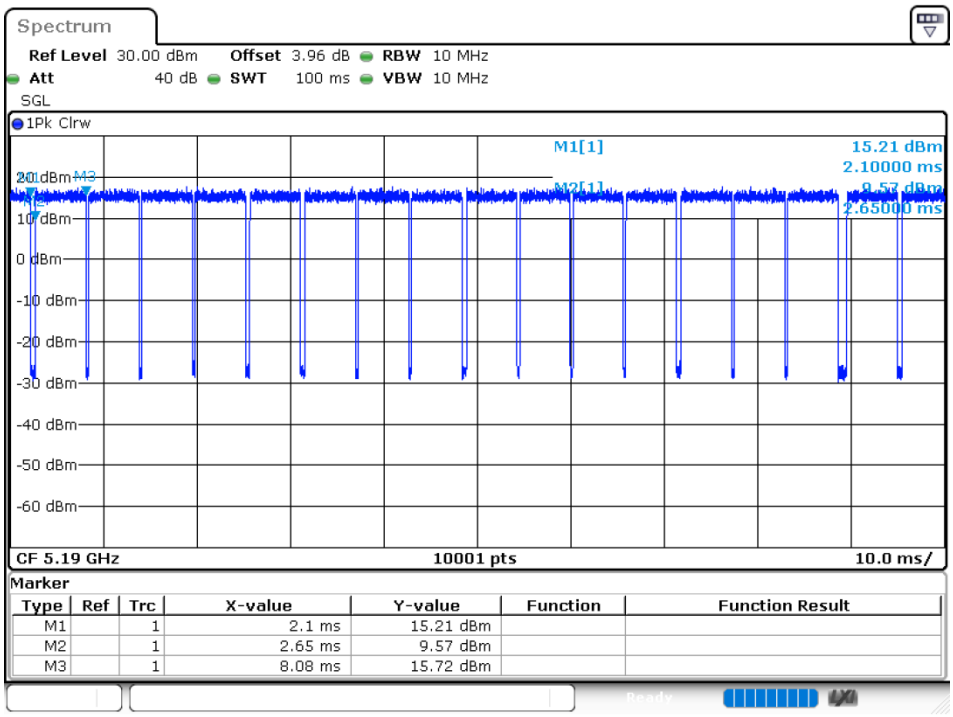
Duty Cycle NVNT n20 5200MHz Ant1



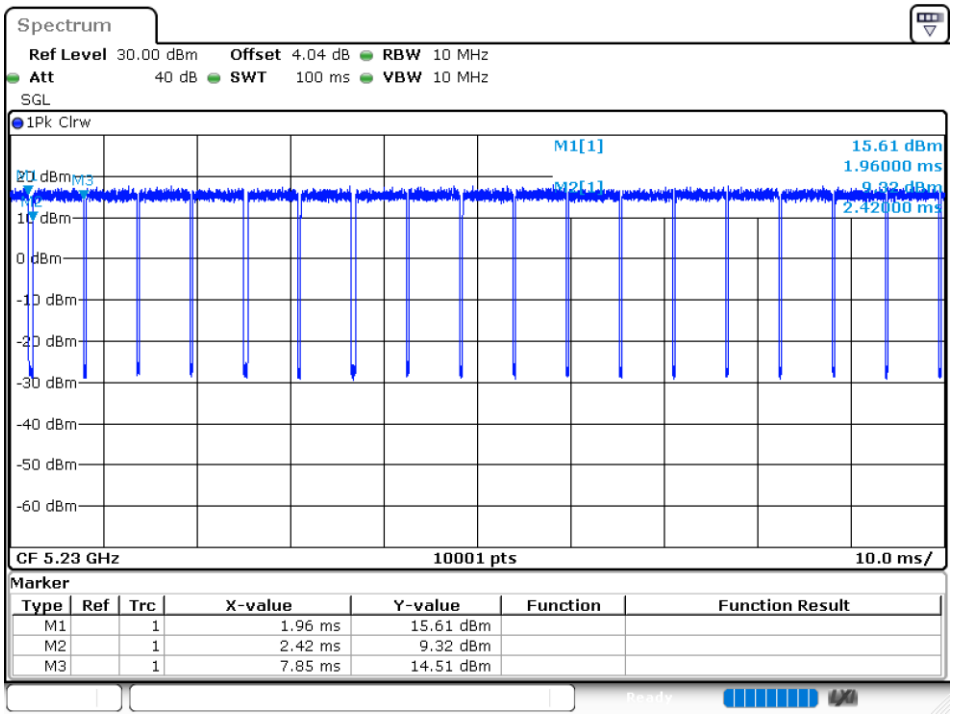
Duty Cycle NVNT n20 5240MHz Ant1



Duty Cycle NVNT n40 5190MHz Ant1



Duty Cycle NVNT n40 5230MHz Ant1



Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Conducted Power Limit (dBm)	elevation angle above 30 degrees Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Verdict
NVNT	ac20	5180	Ant1	15.37	30	-1.28	14.09	21	Pass
NVNT	ac20	5180	Ant2	15.69	30	-0.84	14.85	21	Pass
NVNT	ac20	5180	Sum	18.54	30	1.96	20.5	21	Pass
NVNT	ac20	5200	Ant1	15.37	30	-1.28	14.09	21	Pass
NVNT	ac20	5200	Ant2	15.77	30	-0.84	14.93	21	Pass
NVNT	ac20	5200	Sum	18.58	30	1.96	20.54	21	Pass
NVNT	ac20	5240	Ant1	15.43	30	-1.28	14.15	21	Pass
NVNT	ac20	5240	Ant2	15.98	30	-0.84	15.14	21	Pass
NVNT	ac20	5240	Sum	18.72	30	1.96	20.68	21	Pass
NVNT	ac40	5190	Ant1	15.71	30	-1.28	14.43	21	Pass
NVNT	ac40	5190	Ant2	16.13	30	-0.84	15.29	21	Pass
NVNT	ac40	5190	Sum	18.94	30	1.96	20.9	21	Pass
NVNT	ac40	5230	Ant1	15.27	30	-1.28	13.99	21	Pass
NVNT	ac40	5230	Ant2	16	30	-0.84	15.16	21	Pass
NVNT	ac40	5230	Sum	18.66	30	1.96	20.62	21	Pass
NVNT	ac80	5210	Ant1	15.67	30	-1.28	14.39	21	Pass
NVNT	ac80	5210	Ant2	16.13	30	-0.84	15.29	21	Pass
NVNT	ac80	5210	Sum	18.92	30	1.96	20.88	21	Pass
NVNT	ax20	5180	Ant1	15.61	30	-1.28	14.33	21	Pass
NVNT	ax20	5180	Ant2	15.98	30	-0.84	15.14	21	Pass
NVNT	ax20	5180	Sum	18.81	30	1.96	20.77	21	Pass
NVNT	ax20	5200	Ant1	15.7	30	-1.28	14.42	21	Pass
NVNT	ax20	5200	Ant2	16.01	30	-0.84	15.17	21	Pass
NVNT	ax20	5200	Sum	18.87	30	1.96	20.83	21	Pass
NVNT	ax20	5240	Ant1	15.19	30	-1.28	13.91	21	Pass
NVNT	ax20	5240	Ant2	15.79	30	-0.84	14.95	21	Pass
NVNT	ax20	5240	Sum	18.51	30	1.96	20.47	21	Pass
NVNT	ax40	5190	Ant1	15.34	30	-1.28	14.06	21	Pass
NVNT	ax40	5190	Ant2	15.69	30	-0.84	14.85	21	Pass
NVNT	ax40	5190	Sum	18.53	30	1.96	20.49	21	Pass
NVNT	ax40	5230	Ant1	15.3	30	-1.28	14.02	21	Pass
NVNT	ax40	5230	Ant2	16.09	30	-0.84	15.25	21	Pass
NVNT	ax40	5230	Sum	18.72	30	1.96	20.68	21	Pass
NVNT	ax80	5210	Ant1	15.6	30	-1.28	14.32	21	Pass

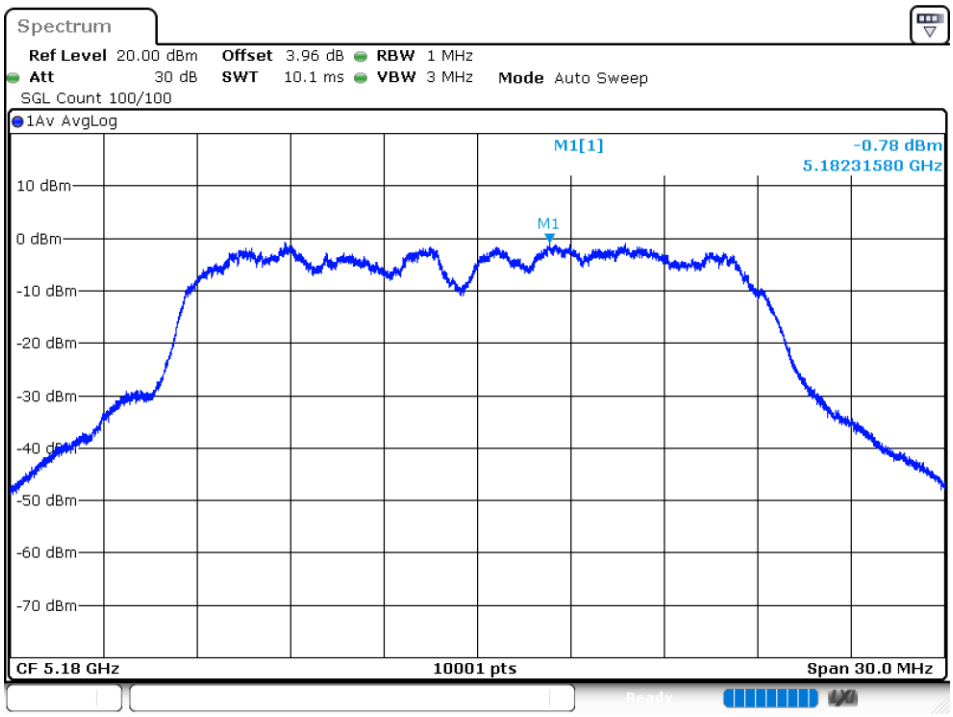
NVNT	ax80	5210	Ant2	16.06	30	-0.84	15.22	21	Pass
NVNT	ax80	5210	Sum	18.85	30	1.96	20.81	21	Pass
NVNT	n20	5180	Ant1	15.48	30	-1.28	14.2	21	Pass
NVNT	n20	5180	Ant2	15.67	30	-0.84	14.83	21	Pass
NVNT	n20	5180	Sum	18.59	30	1.96	20.55	21	Pass
NVNT	n20	5200	Ant1	15.45	30	-1.28	14.17	21	Pass
NVNT	n20	5200	Ant2	15.68	30	-0.84	14.84	21	Pass
NVNT	n20	5200	Sum	18.58	30	1.96	20.54	21	Pass
NVNT	n20	5240	Ant1	15.4	30	-1.28	14.12	21	Pass
NVNT	n20	5240	Ant2	16.02	30	-0.84	15.18	21	Pass
NVNT	n20	5240	Sum	18.73	30	1.96	20.69	21	Pass
NVNT	n40	5190	Ant1	15.39	30	-1.28	14.11	21	Pass
NVNT	n40	5190	Ant2	15.56	30	-0.84	14.72	21	Pass
NVNT	n40	5190	Sum	18.49	30	1.96	20.45	21	Pass
NVNT	n40	5230	Ant1	15.36	30	-1.28	14.08	21	Pass
NVNT	n40	5230	Ant2	15.96	30	-0.84	15.12	21	Pass
NVNT	n40	5230	Sum	18.68	30	1.96	20.64	21	Pass

Maximum Power Spectral Density Level

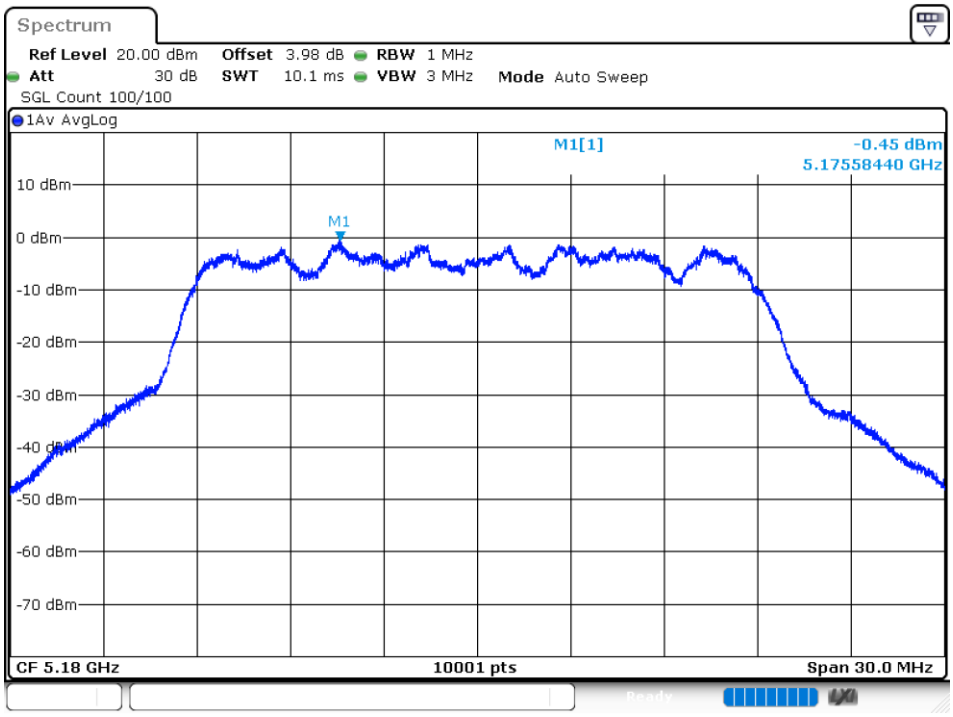
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	ac20	5180	Ant1	-0.78	0.38	-0.4	17	Pass
NVNT	ac20	5180	Ant2	-0.45	0.38	-0.07	17	Pass
NVNT	ac20	5180	Sum	2.4	0.38	2.78	14.82	Pass
NVNT	ac20	5200	Ant1	-1.48	0.34	-1.14	17	Pass
NVNT	ac20	5200	Ant2	-0.58	0.34	-0.24	17	Pass
NVNT	ac20	5200	Sum	2	0.34	2.34	14.82	Pass
NVNT	ac20	5240	Ant1	-0.97	0.35	-0.62	17	Pass
NVNT	ac20	5240	Ant2	0.24	0.35	0.59	17	Pass
NVNT	ac20	5240	Sum	2.69	0.35	3.04	14.82	Pass
NVNT	ac40	5190	Ant1	-1.52	0.31	-1.21	17	Pass
NVNT	ac40	5190	Ant2	-2.55	0.31	-2.24	17	Pass
NVNT	ac40	5190	Sum	1.01	0.31	1.32	14.82	Pass
NVNT	ac40	5230	Ant1	-3.37	0.29	-3.08	17	Pass
NVNT	ac40	5230	Ant2	-2.25	0.29	-1.96	17	Pass
NVNT	ac40	5230	Sum	0.24	0.29	0.53	14.82	Pass
NVNT	ac80	5210	Ant1	-7.99	0.6	-7.39	17	Pass
NVNT	ac80	5210	Ant2	-7.05	0.6	-6.45	17	Pass
NVNT	ac80	5210	Sum	-4.48	0.6	-3.88	14.82	Pass
NVNT	ax20	5180	Ant1	-0.31	0.15	-0.16	17	Pass
NVNT	ax20	5180	Ant2	0.72	0.15	0.87	17	Pass
NVNT	ax20	5180	Sum	3.25	0.15	3.4	14.82	Pass
NVNT	ax20	5200	Ant1	0.7	0.23	0.93	17	Pass
NVNT	ax20	5200	Ant2	0.96	0.23	1.19	17	Pass
NVNT	ax20	5200	Sum	3.84	0.23	4.07	14.82	Pass
NVNT	ax20	5240	Ant1	-0.33	0.21	-0.12	17	Pass
NVNT	ax20	5240	Ant2	1.07	0.21	1.28	17	Pass
NVNT	ax20	5240	Sum	3.44	0.21	3.65	14.82	Pass
NVNT	ax40	5190	Ant1	-2.16	0.21	-1.95	17	Pass
NVNT	ax40	5190	Ant2	-2.42	0.21	-2.21	17	Pass
NVNT	ax40	5190	Sum	0.72	0.21	0.93	14.82	Pass
NVNT	ax40	5230	Ant1	-2.04	0.29	-1.75	17	Pass
NVNT	ax40	5230	Ant2	-1.72	0.29	-1.43	17	Pass
NVNT	ax40	5230	Sum	1.13	0.29	1.42	14.82	Pass
NVNT	ax80	5210	Ant1	-5.53	0.22	-5.31	17	Pass
NVNT	ax80	5210	Ant2	-5.07	0.22	-4.85	17	Pass
NVNT	ax80	5210	Sum	-2.28	0.22	-2.06	14.82	Pass
NVNT	n20	5180	Ant1	1.41	0.33	1.74	17	Pass
NVNT	n20	5180	Ant2	0.06	0.33	0.39	17	Pass

NVNT	n20	5180	Sum	3.8	0.33	4.13	14.82	Pass
NVNT	n20	5200	Ant1	-0.66	0.43	-0.23	17	Pass
NVNT	n20	5200	Ant2	-1.07	0.43	-0.64	17	Pass
NVNT	n20	5200	Sum	2.15	0.43	2.58	14.82	Pass
NVNT	n20	5240	Ant1	0.46	0.38	0.84	17	Pass
NVNT	n20	5240	Ant2	0.82	0.38	1.2	17	Pass
NVNT	n20	5240	Sum	3.65	0.38	4.03	14.82	Pass
NVNT	n40	5190	Ant1	-3.43	0.28	-3.15	17	Pass
NVNT	n40	5190	Ant2	-3.73	0.28	-3.45	17	Pass
NVNT	n40	5190	Sum	-0.57	0.28	-0.29	14.82	Pass
NVNT	n40	5230	Ant1	-4.56	0.23	-4.33	17	Pass
NVNT	n40	5230	Ant2	-3.6	0.23	-3.37	17	Pass
NVNT	n40	5230	Sum	-1.04	0.23	-0.81	14.82	Pass

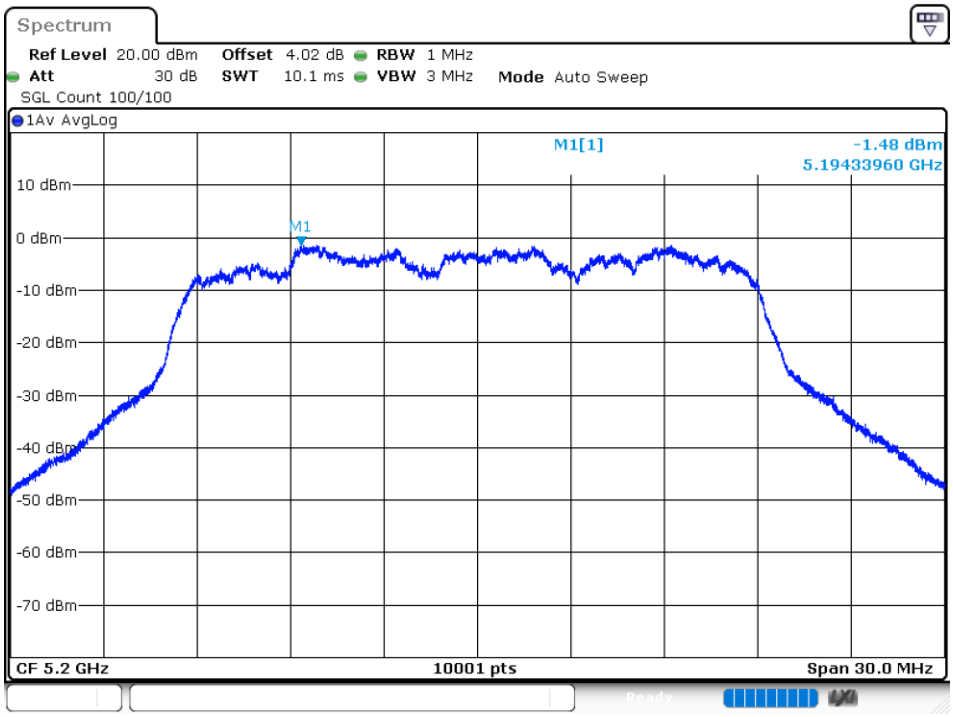
Test Graphs
PSD NVNT ac20 5180MHz Ant1



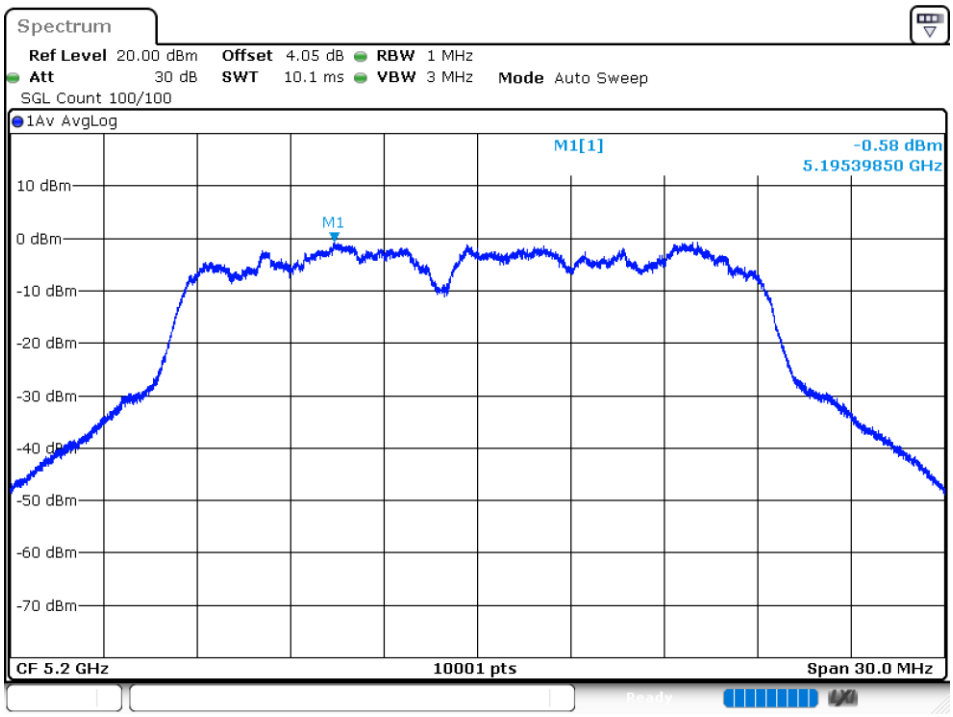
PSD NVNT ac20 5180MHz Ant2



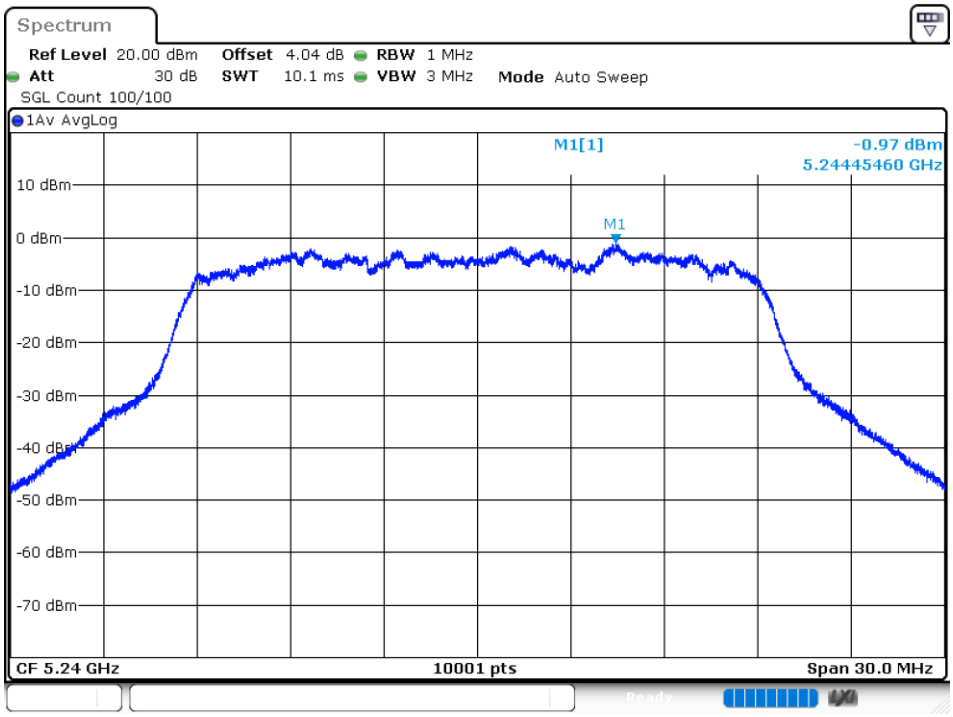
PSD NVNT ac20 5200MHz Ant1



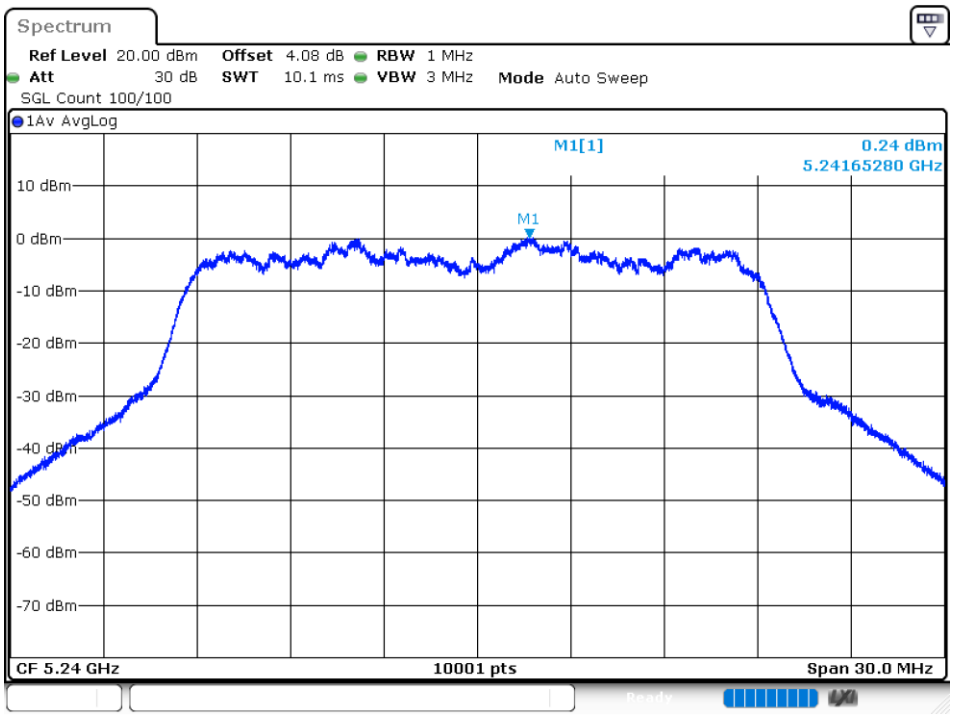
PSD NVNT ac20 5200MHz Ant2



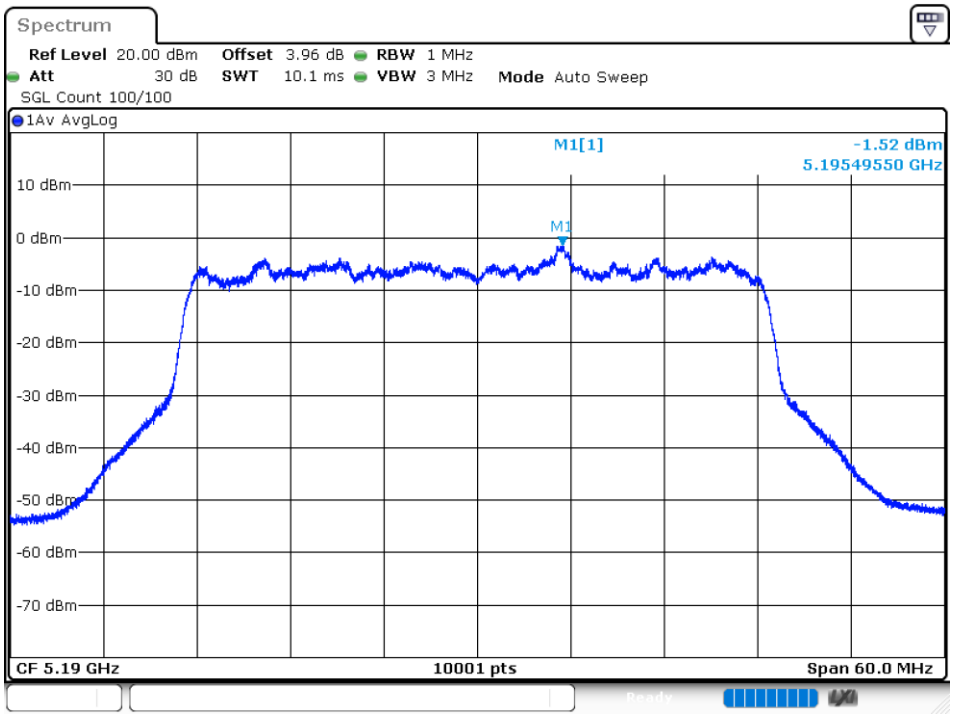
PSD NVNT ac20 5240MHz Ant1



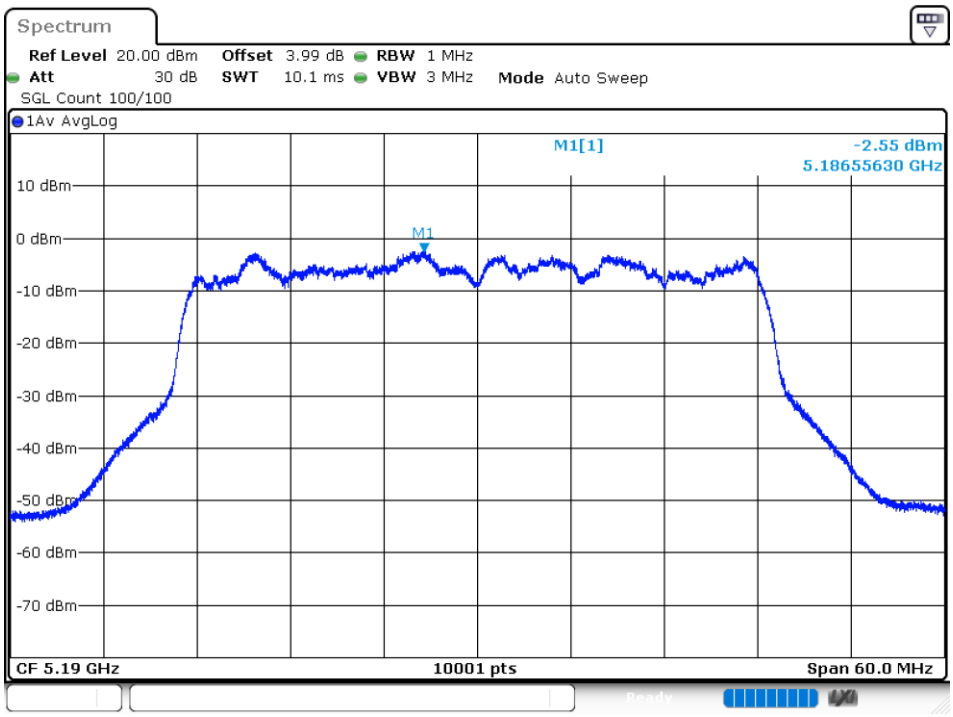
PSD NVNT ac20 5240MHz Ant2



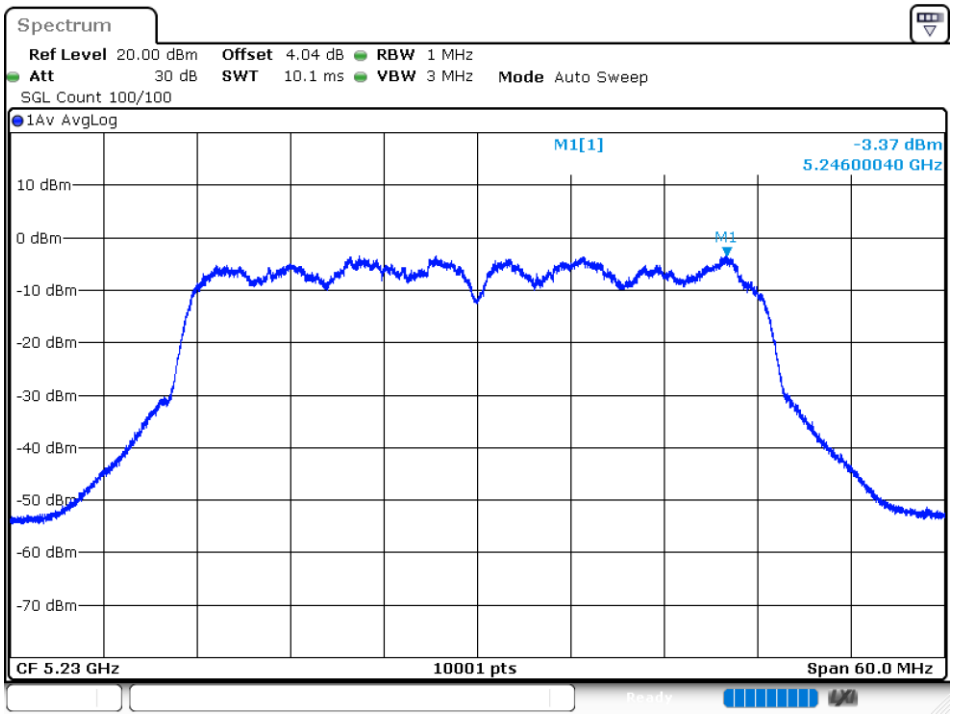
PSD NVNT ac40 5190MHz Ant1



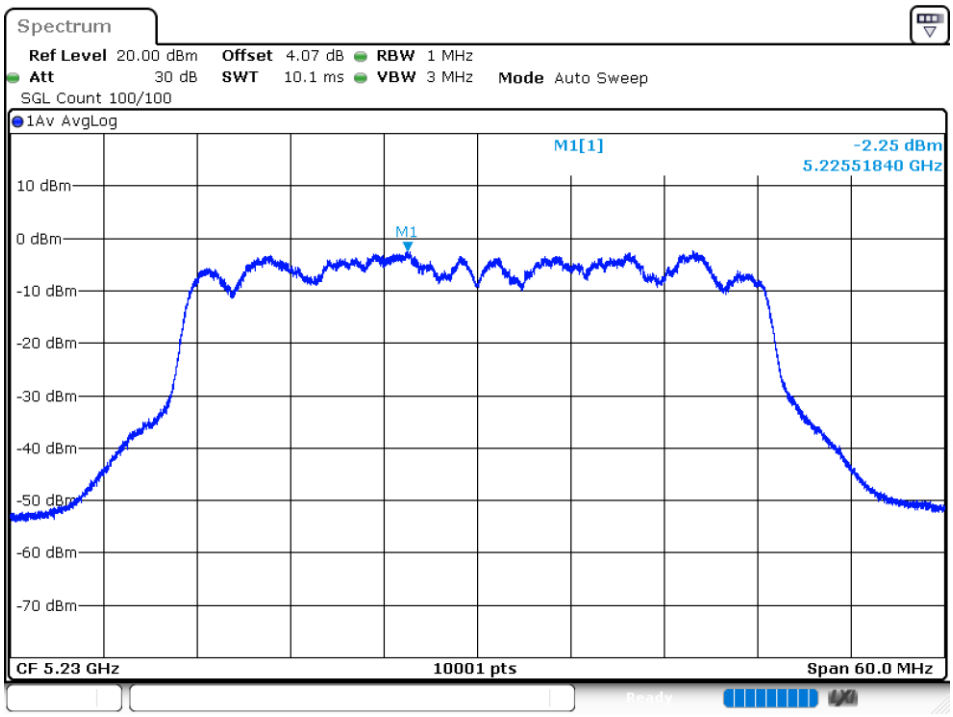
PSD NVNT ac40 5190MHz Ant2



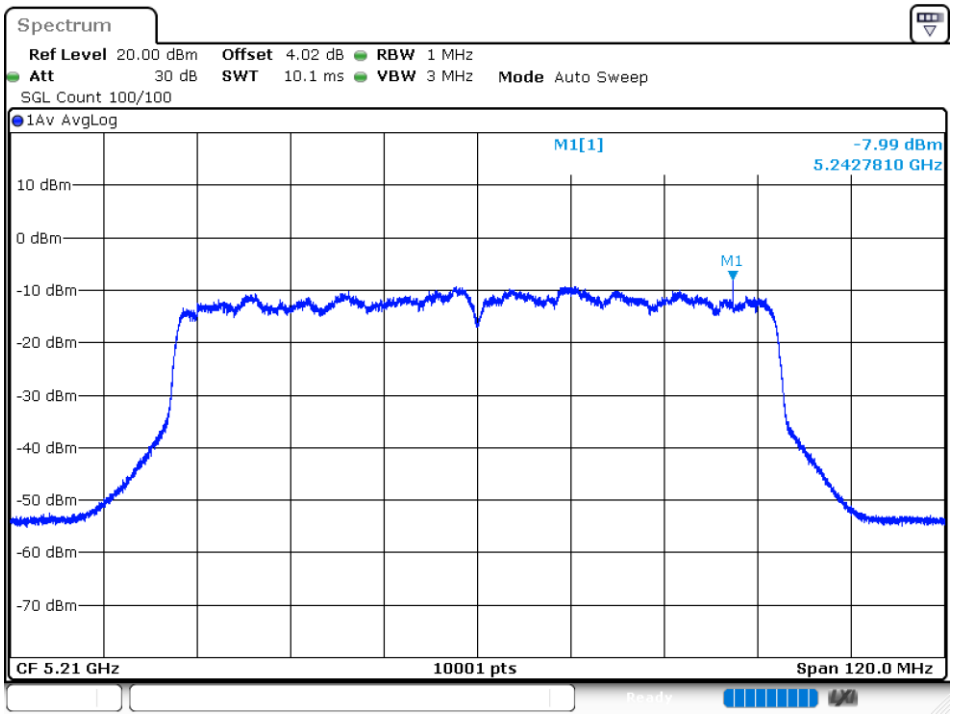
PSD NVNT ac40 5230MHz Ant1



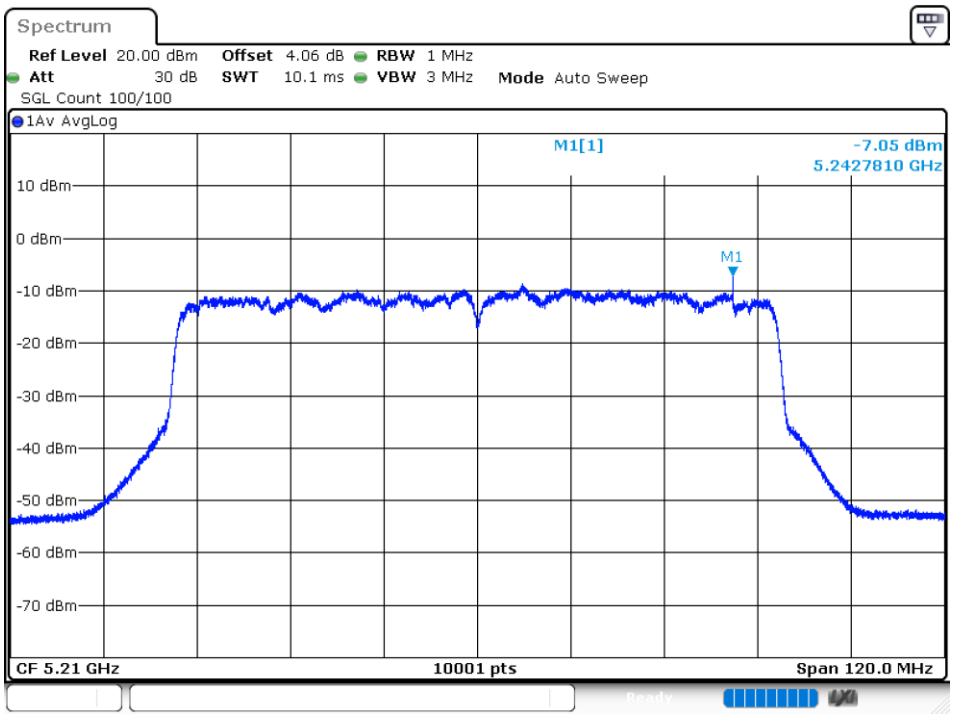
PSD NVNT ac40 5230MHz Ant2



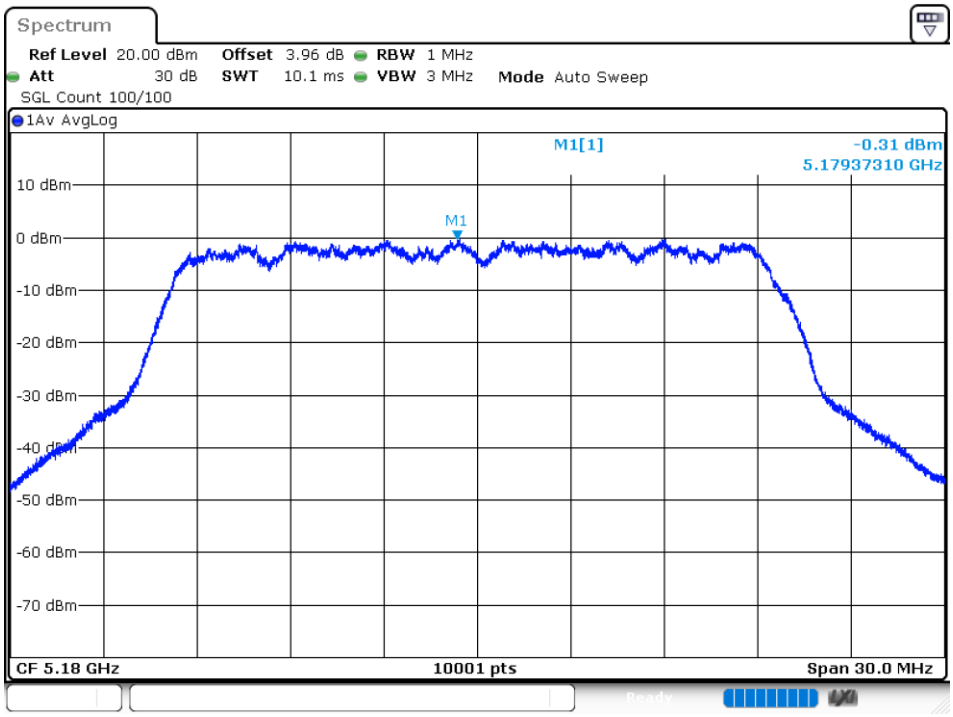
PSD NVNT ac80 5210MHz Ant1



PSD NVNT ac80 5210MHz Ant2



PSD NVNT ax20 5180MHz Ant1



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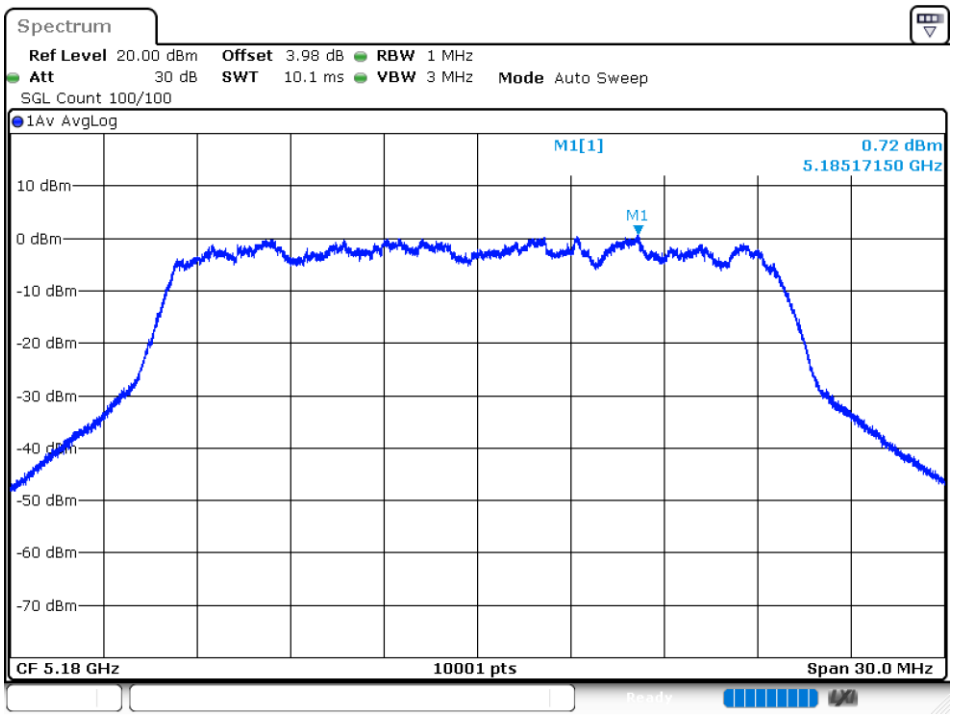
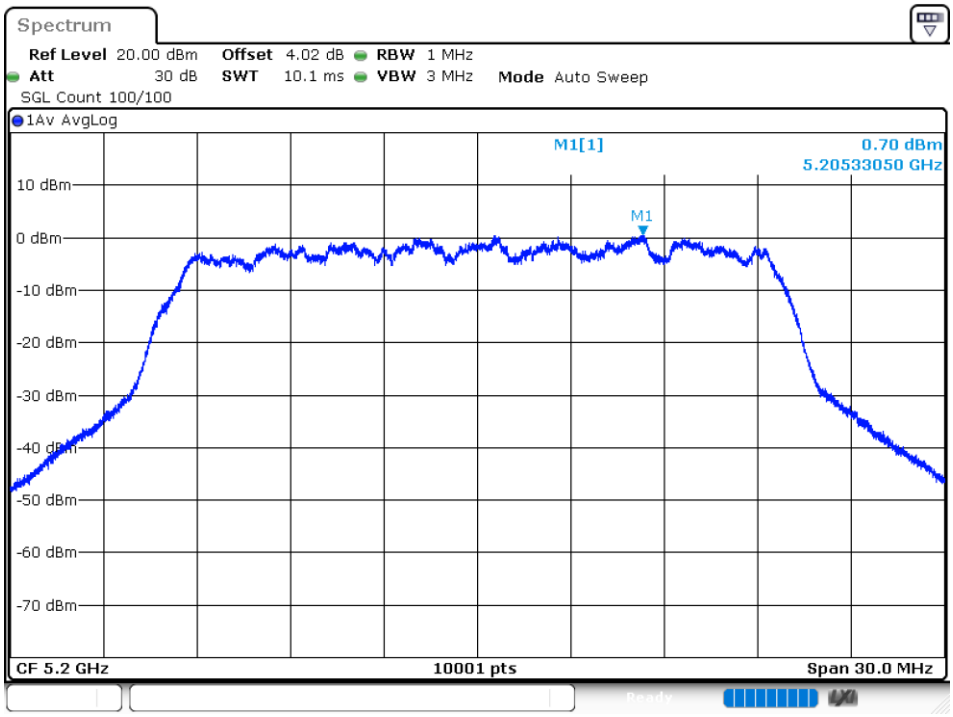
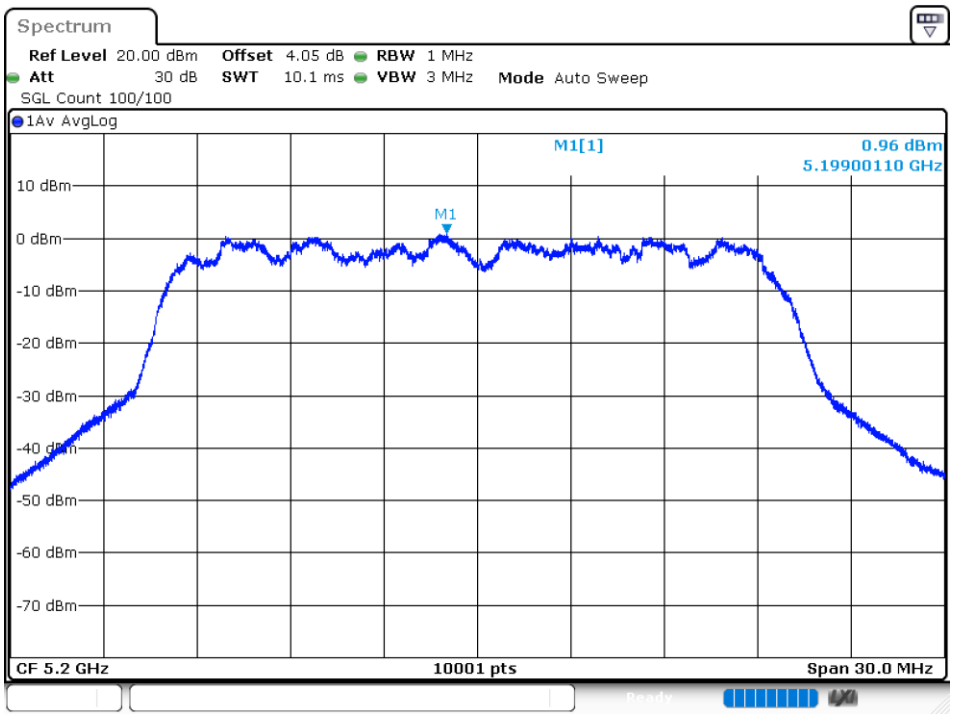


PSD NVNT ax20 5200MHz Ant1



PSD NVNT ax20 5200MHz Ant2



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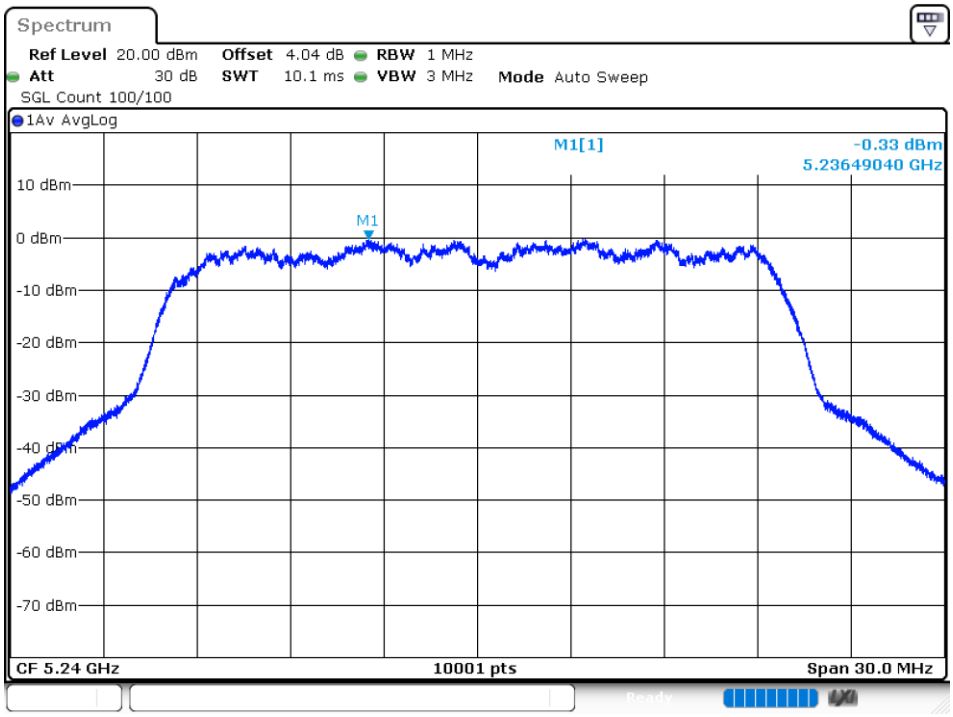
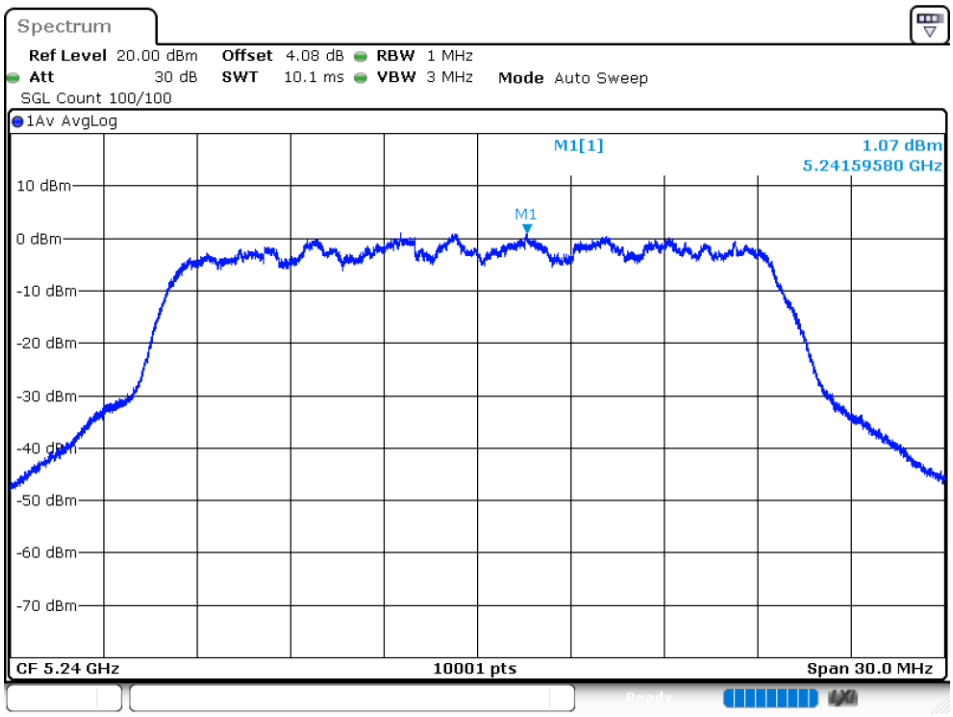
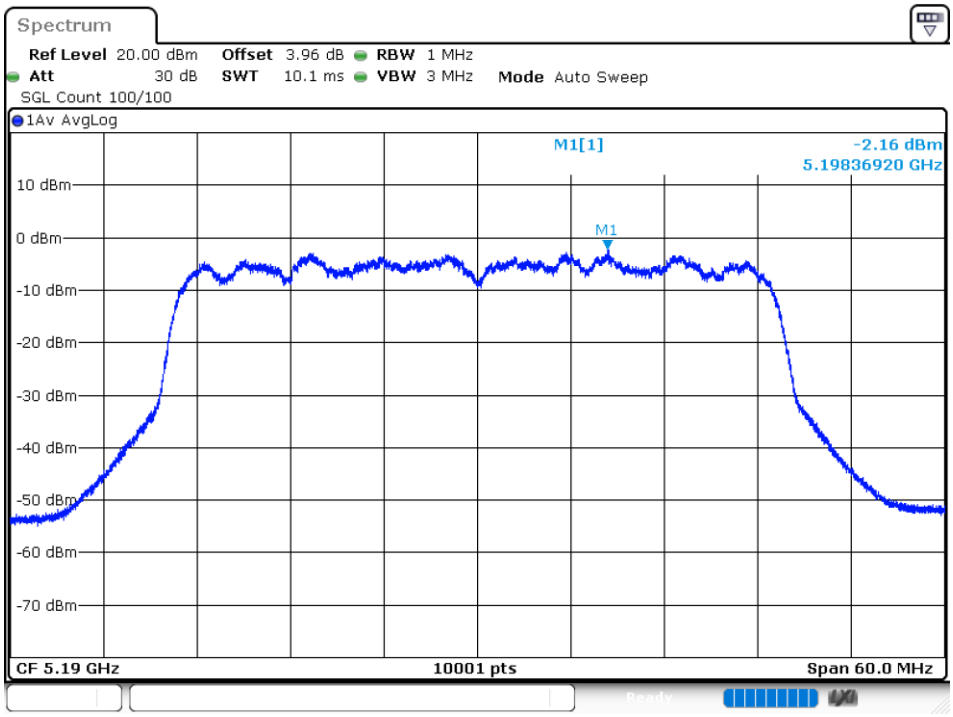


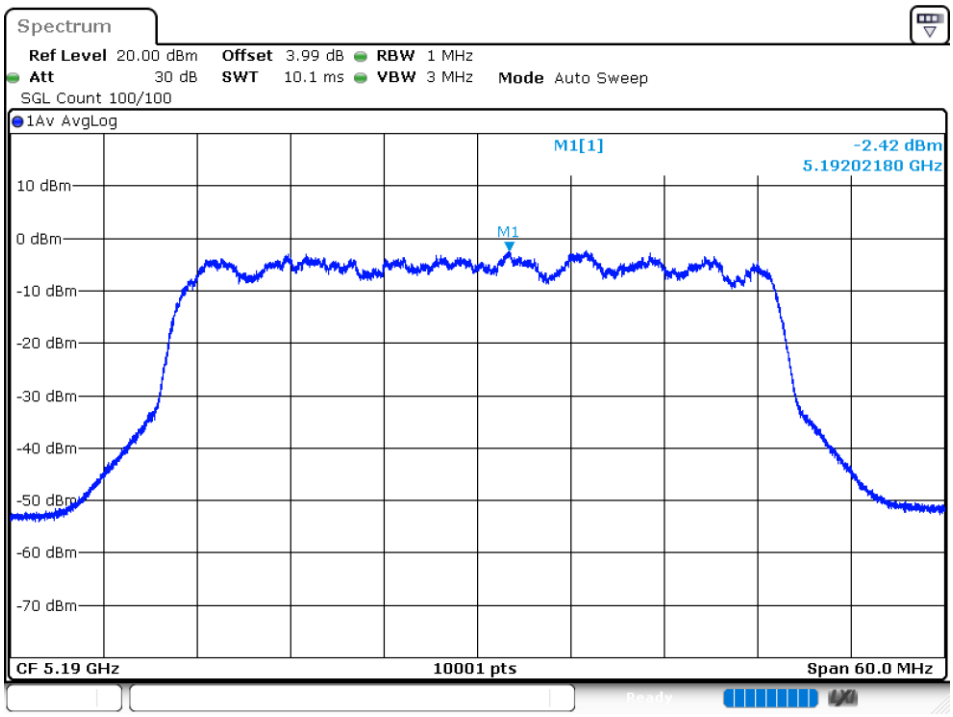
PSD NVNT ax20 5240MHz Ant2



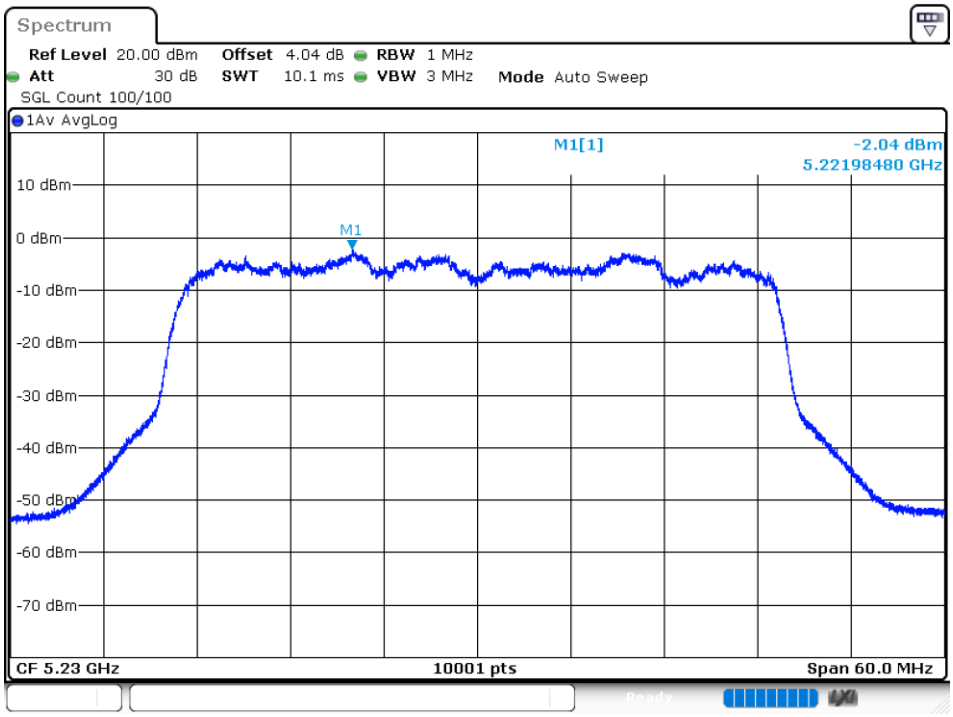
PSD NVNT ax40 5190MHz Ant1



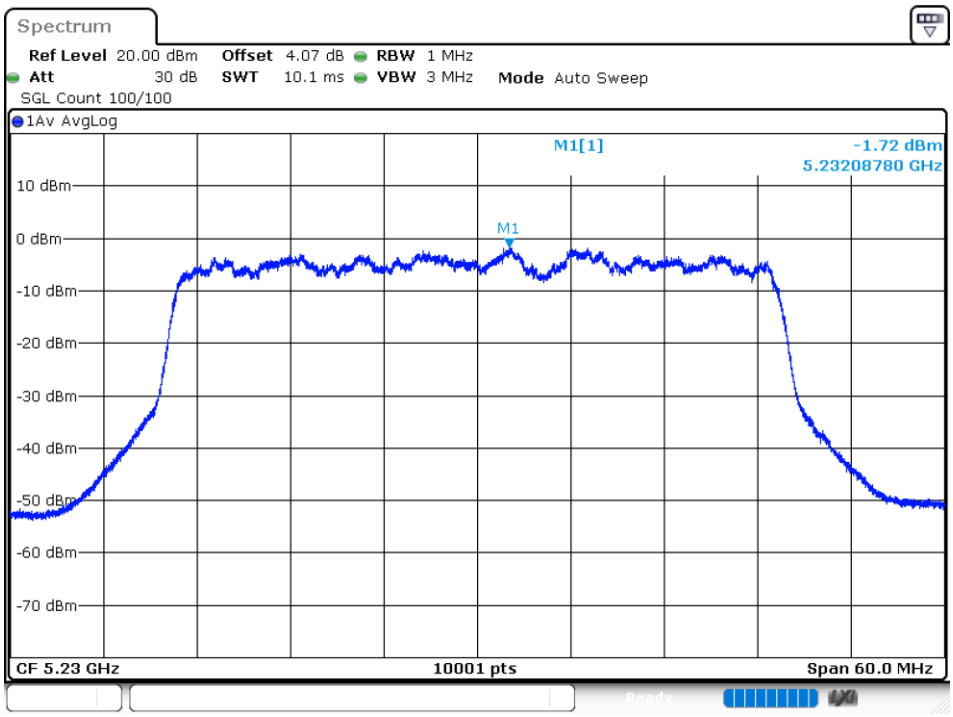
PSD NVNT ax40 5190MHz Ant2



PSD NVNT ax40 5230MHz Ant1



PSD NVNT ax40 5230MHz Ant2



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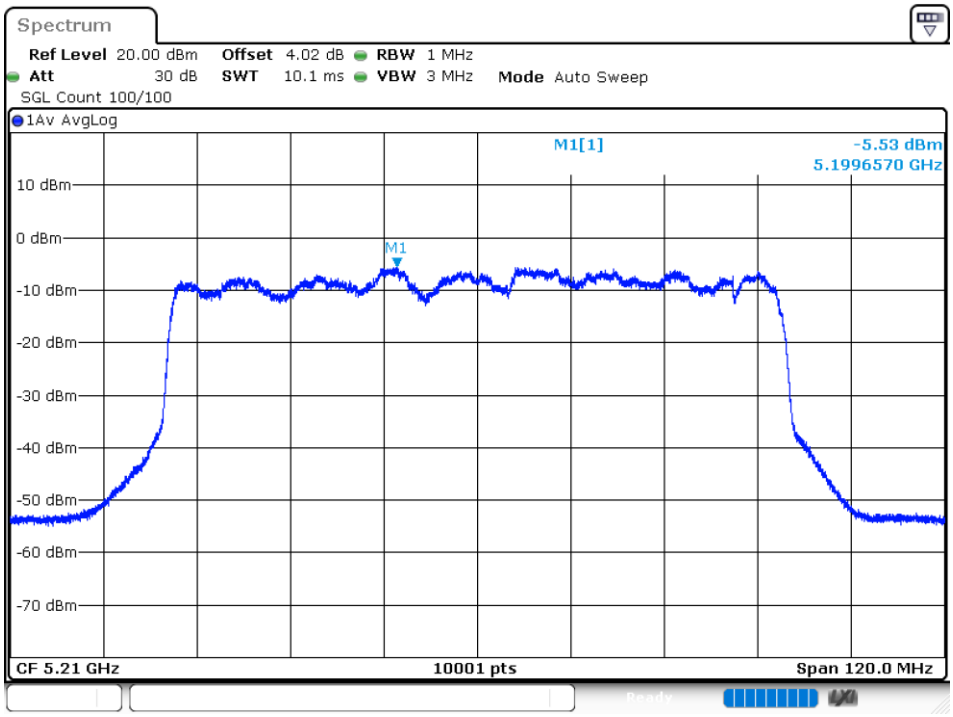
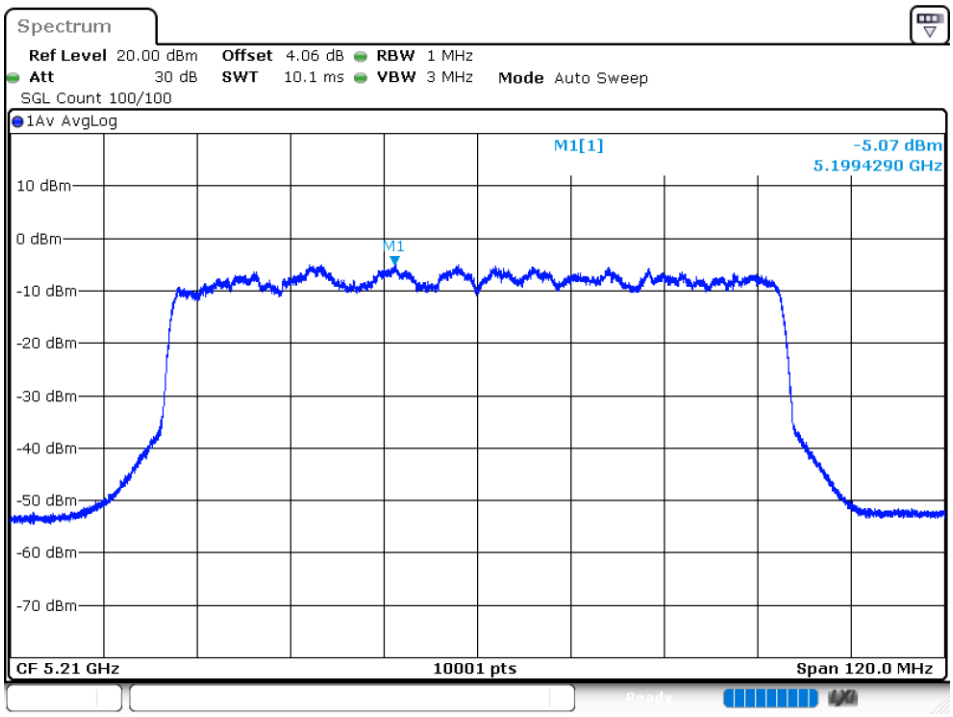
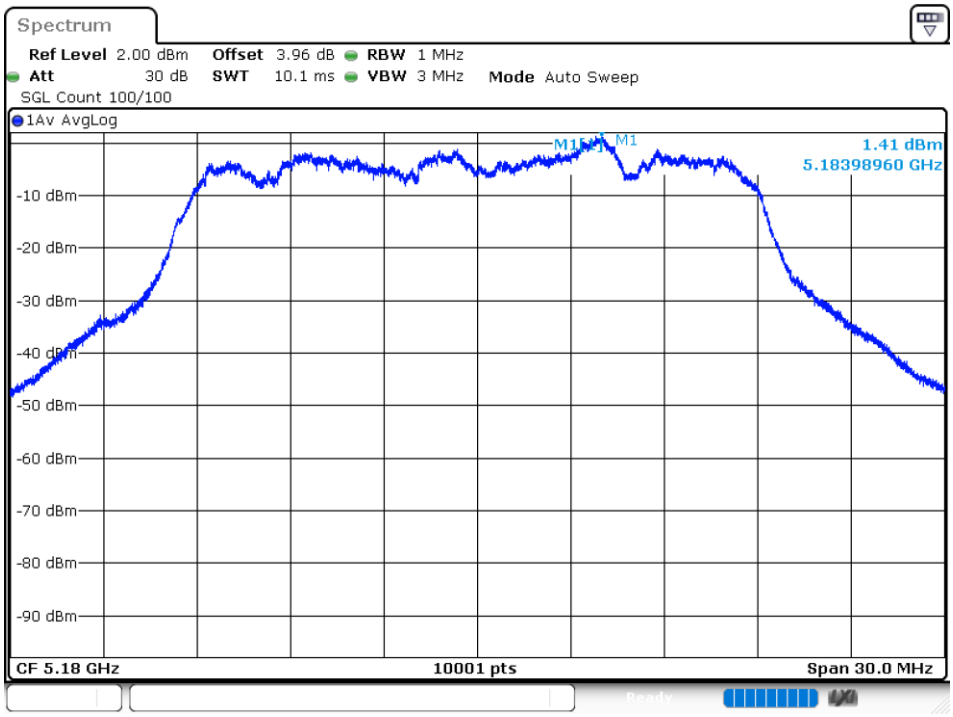


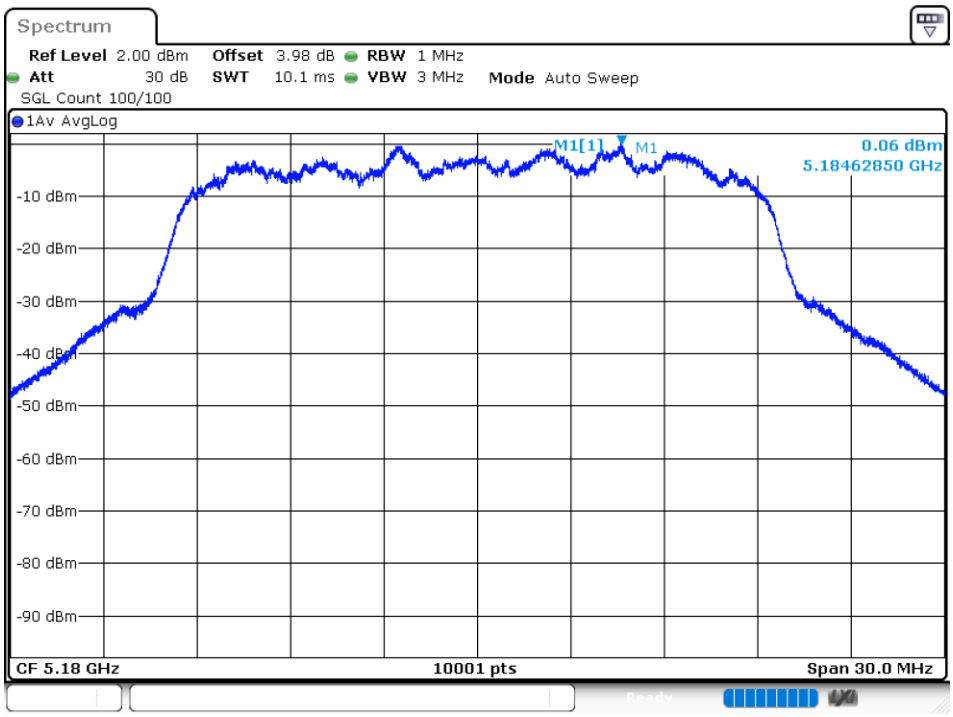
PSD NVNT ax80 5210MHz Ant2



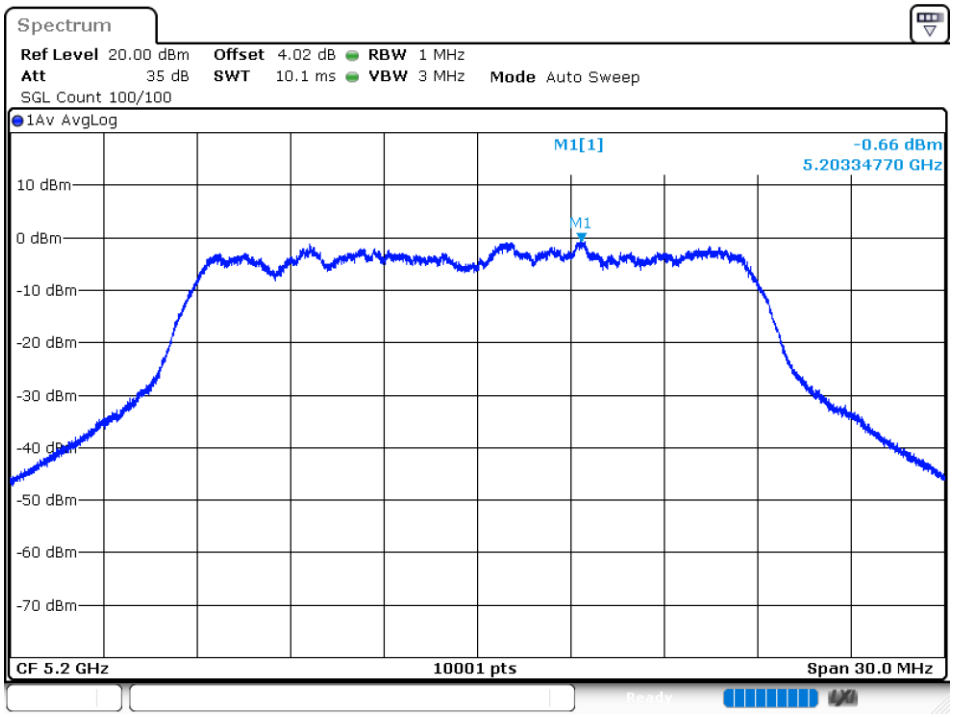
PSD NVNT n20 5180MHz Ant1



PSD NVNT n20 5180MHz Ant2



PSD NVNT n20 5200MHz Ant1



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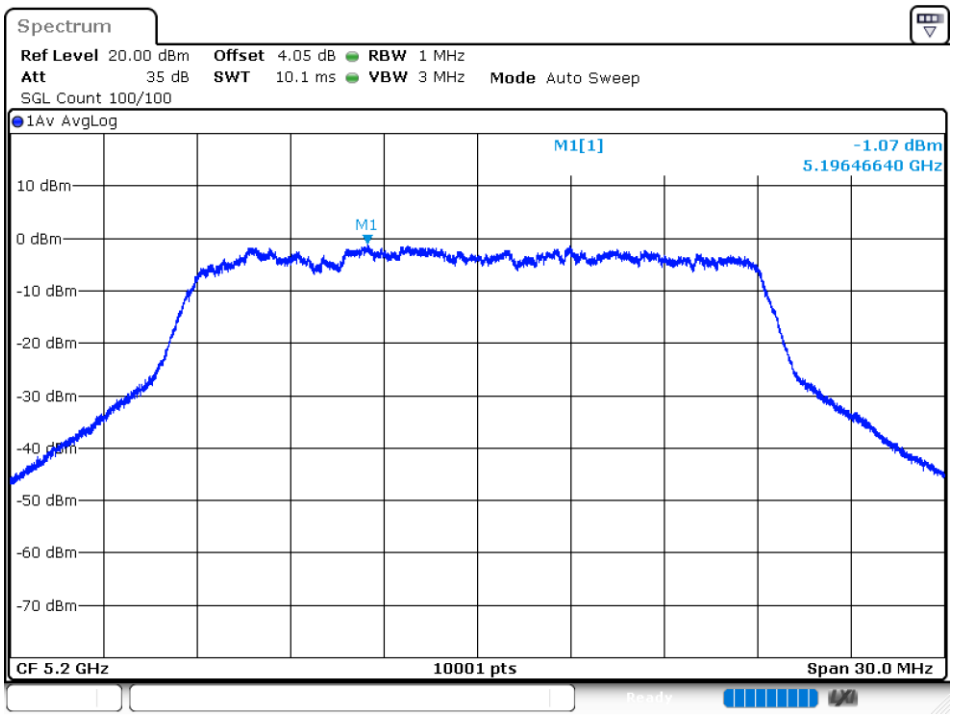
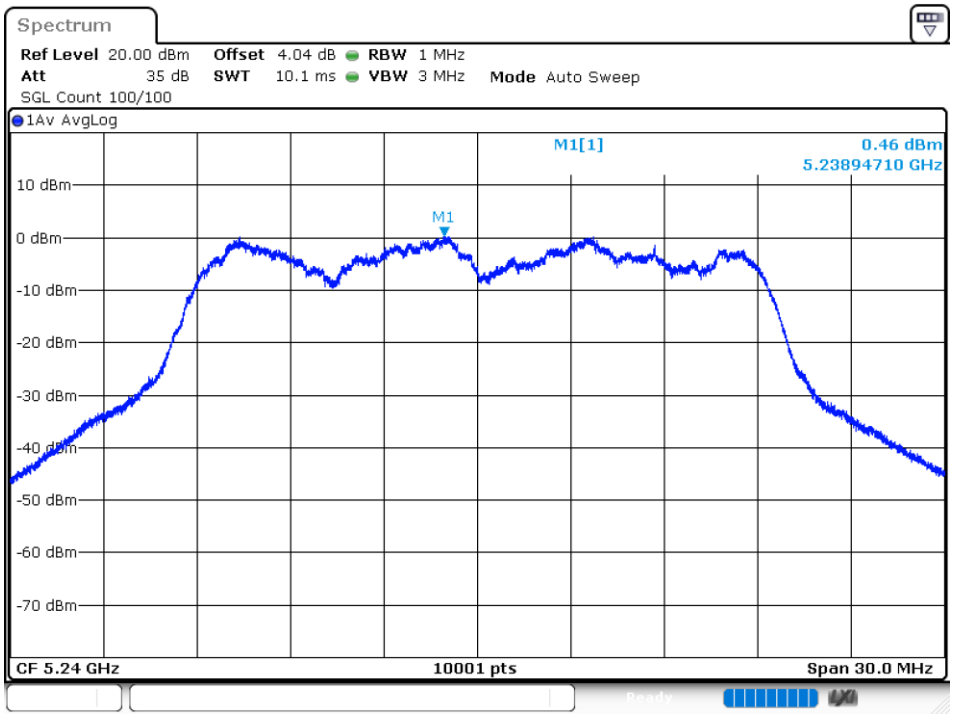


PSD NVNT n20 5240MHz Ant1



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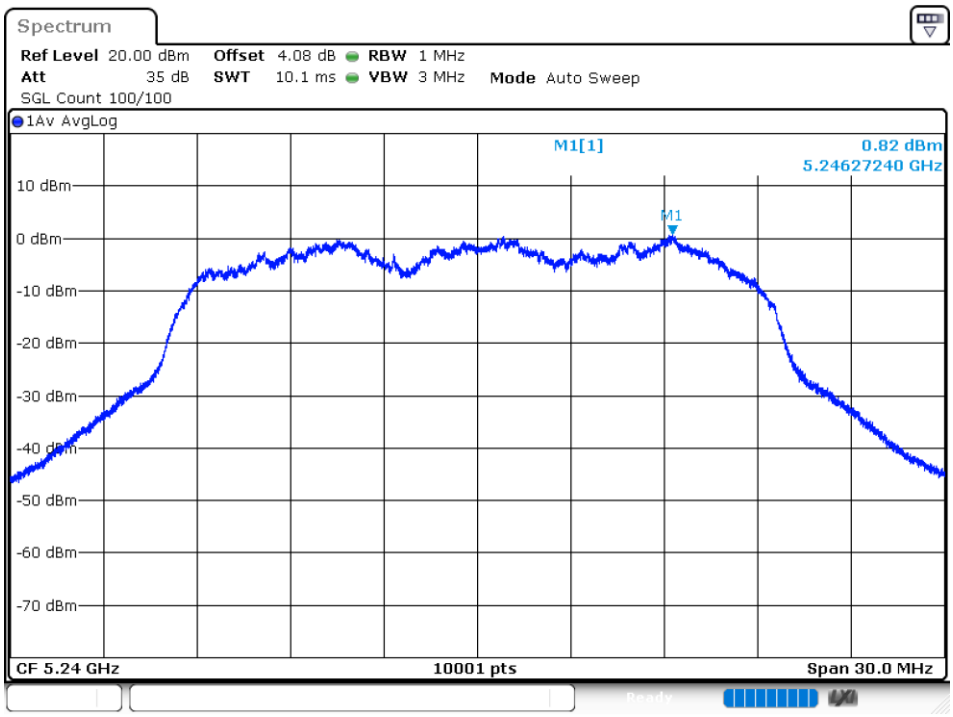
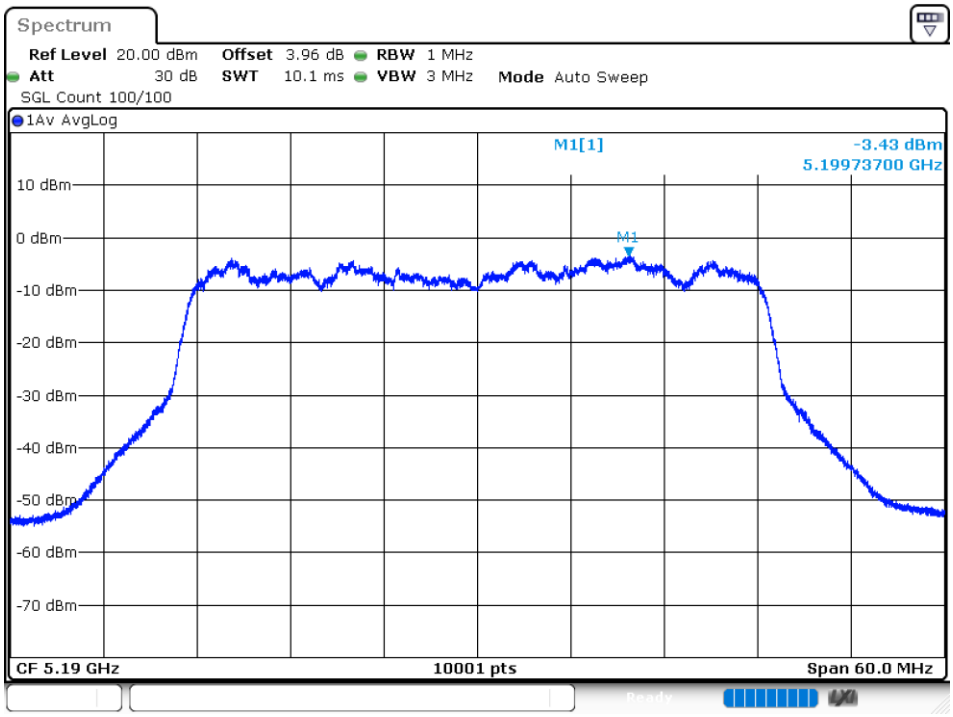
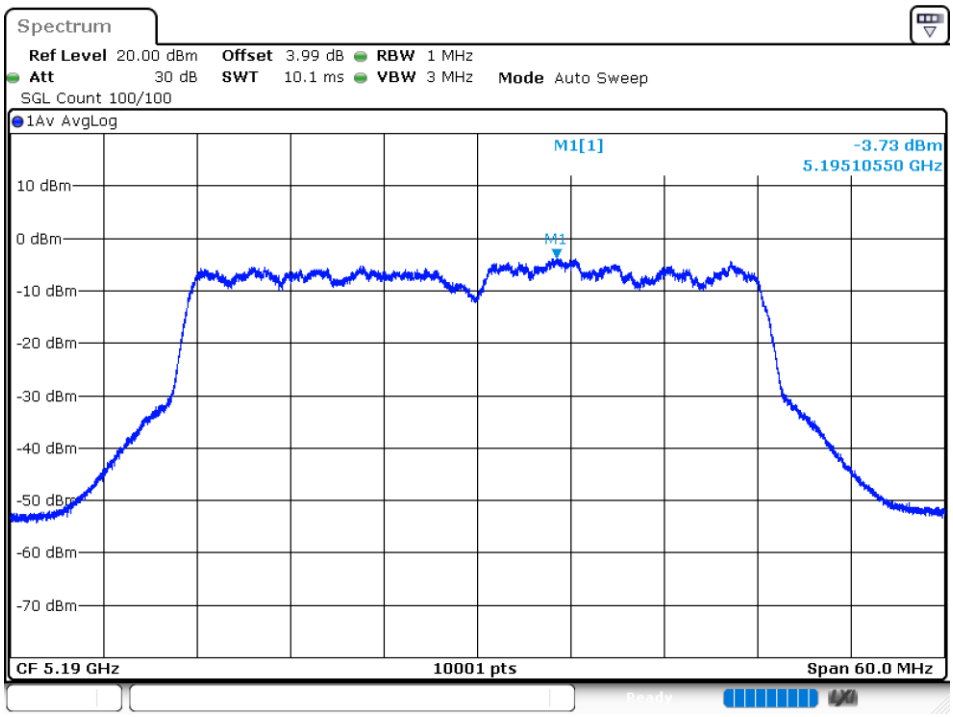


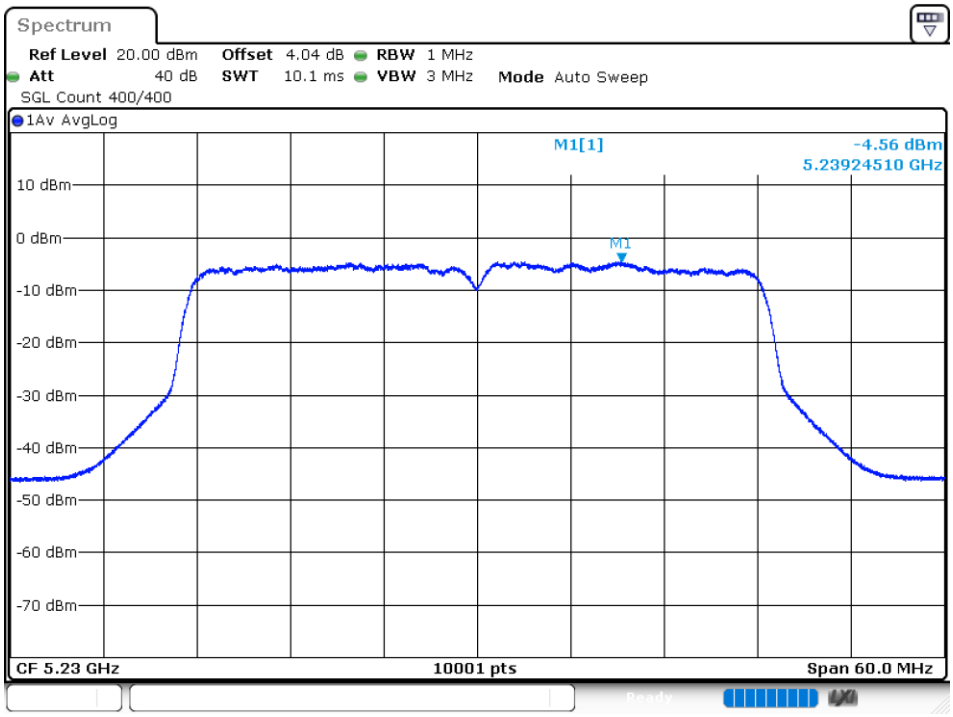
PSD NVNT n40 5190MHz Ant1



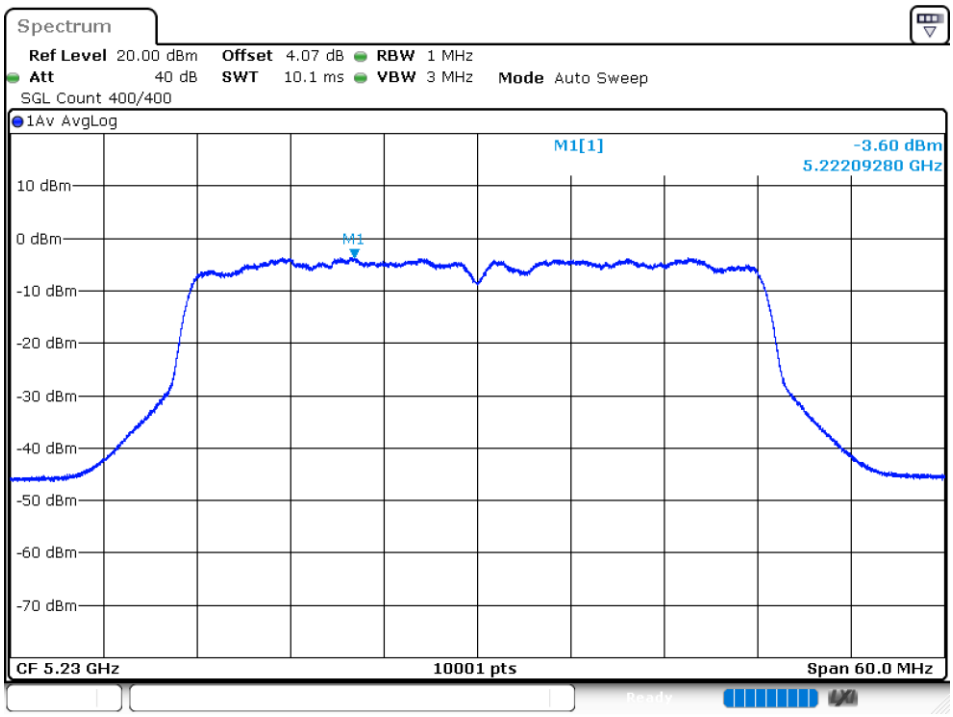
PSD NVNT n40 5190MHz Ant2



PSD NVNT n40 5230MHz Ant1



PSD NVNT n40 5230MHz Ant2



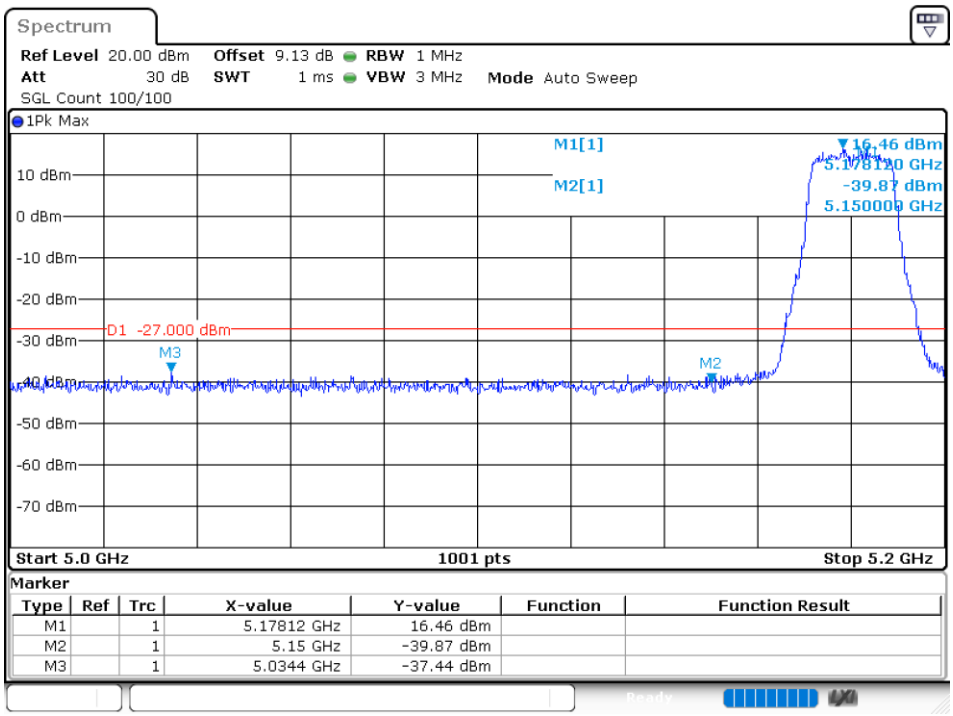
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	ac20	5180	Ant1	-37.43	-27	Pass
NVNT	ac20	5180	Ant2	-38.05	-27	Pass
NVNT	ac20	5240	Ant1	-38.36	-27	Pass
NVNT	ac20	5240	Ant2	-37.05	-27	Pass
NVNT	ac40	5190	Ant1	-37.44	-27	Pass
NVNT	ac40	5190	Ant2	-37.67	-27	Pass
NVNT	ac40	5230	Ant1	-38.36	-27	Pass
NVNT	ac40	5230	Ant2	-37.22	-27	Pass
NVNT	ac80	5210	Ant1	-37.95	-27	Pass
NVNT	ac80	5210	Ant2	-38.03	-27	Pass
NVNT	ax20	5180	Ant1	-36.64	-27	Pass
NVNT	ax20	5180	Ant2	-37.48	-27	Pass
NVNT	ax20	5240	Ant1	-38.47	-27	Pass
NVNT	ax20	5240	Ant2	-37.89	-27	Pass
NVNT	ax40	5190	Ant1	-37.34	-27	Pass
NVNT	ax40	5190	Ant2	-37.37	-27	Pass
NVNT	ax40	5230	Ant1	-38.4	-27	Pass
NVNT	ax40	5230	Ant2	-37.49	-27	Pass
NVNT	ax80	5210	Ant1	-38.06	-27	Pass
NVNT	ax80	5210	Ant2	-38.2	-27	Pass
NVNT	n20	5180	Ant1	-37.55	-27	Pass
NVNT	n20	5180	Ant2	-37.24	-27	Pass
NVNT	n20	5240	Ant1	-37.81	-27	Pass
NVNT	n20	5240	Ant2	-38.04	-27	Pass
NVNT	n40	5190	Ant1	-37.41	-27	Pass
NVNT	n40	5190	Ant2	-36.23	-27	Pass
NVNT	n40	5230	Ant1	-41.85	-27	Pass
NVNT	n40	5230	Ant2	-41.06	-27	Pass

Note: This test has increased antenna gain, and the amplitude of Band Edge which are attenuated by more than 3dB below the permissible value.

Test Graphs

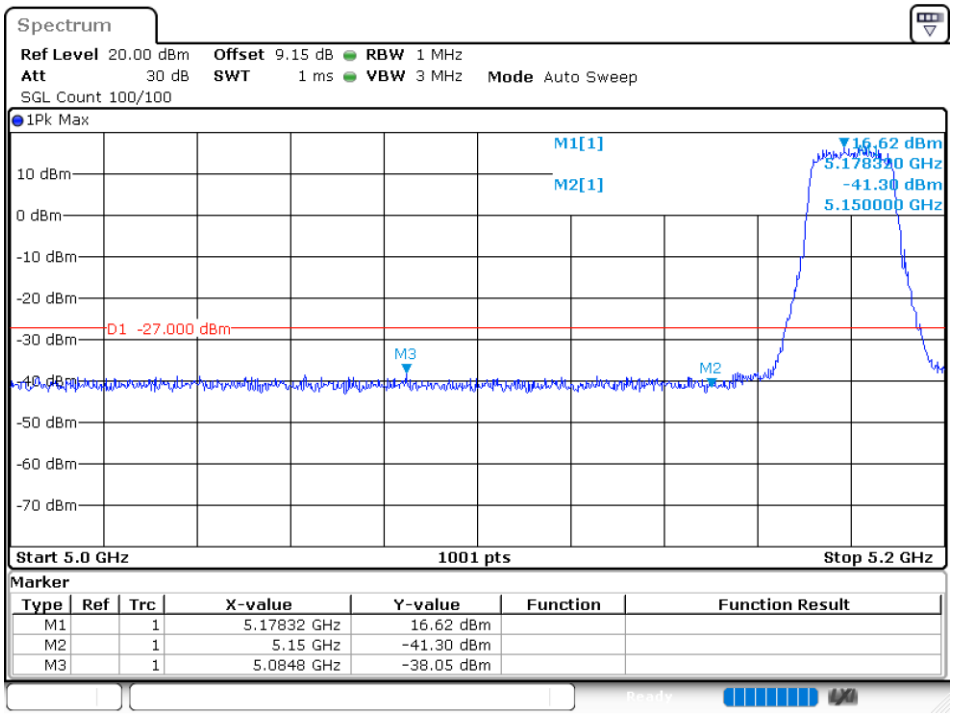
Band Edge NVNT ac20 5180MHz Low Ant1



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.17812 GHz	16.46 dBm		
M2		1	5.15 GHz	-39.87 dBm		
M3		1	5.0344 GHz	-37.44 dBm		

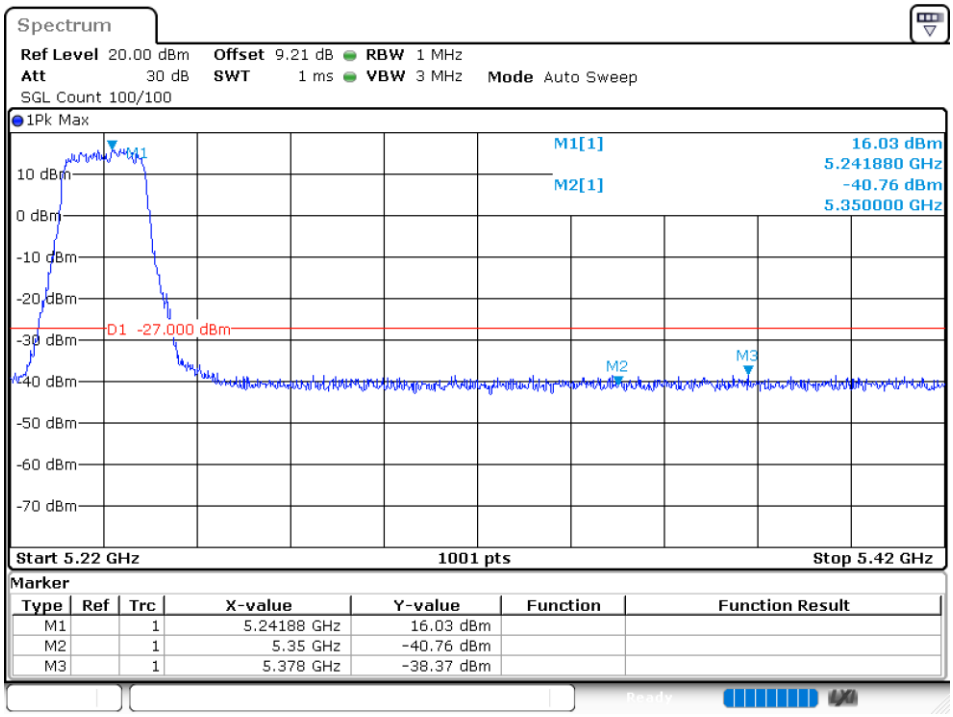
Band Edge NVNT ac20 5180MHz Low Ant2



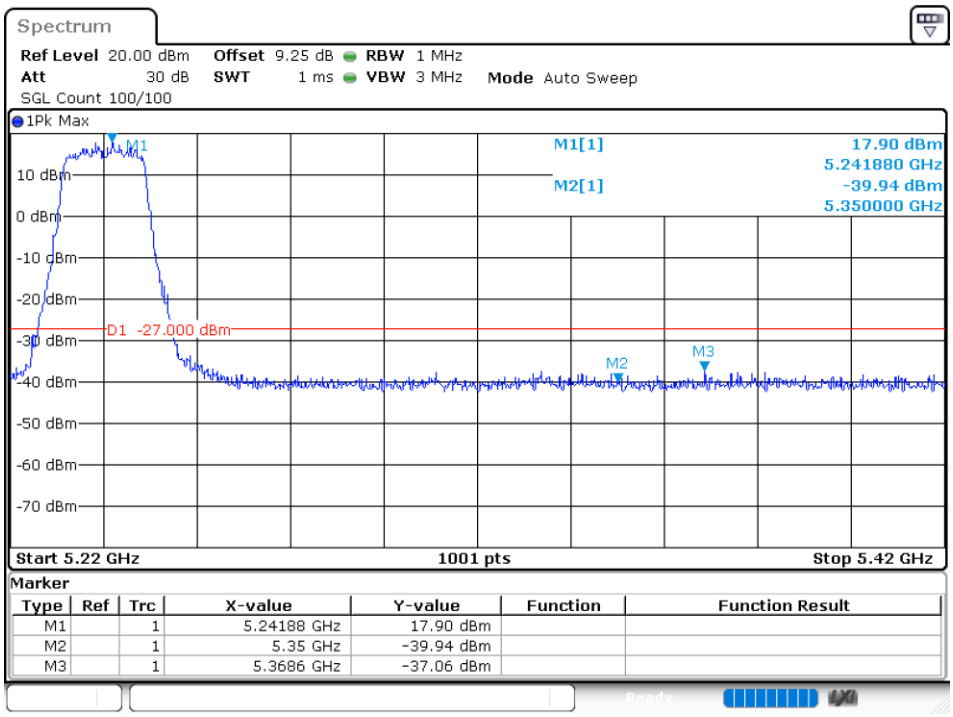
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.17832 GHz	16.62 dBm		
M2		1	5.15 GHz	-41.30 dBm		
M3		1	5.0848 GHz	-38.05 dBm		

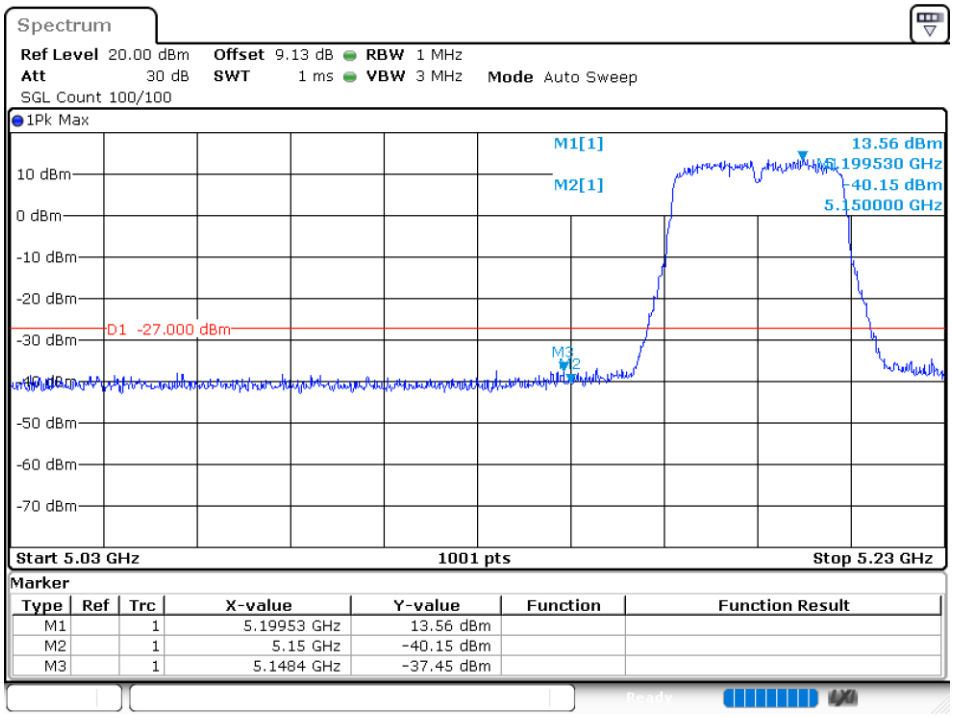
Band Edge NVNT ac20 5240MHz High Ant1



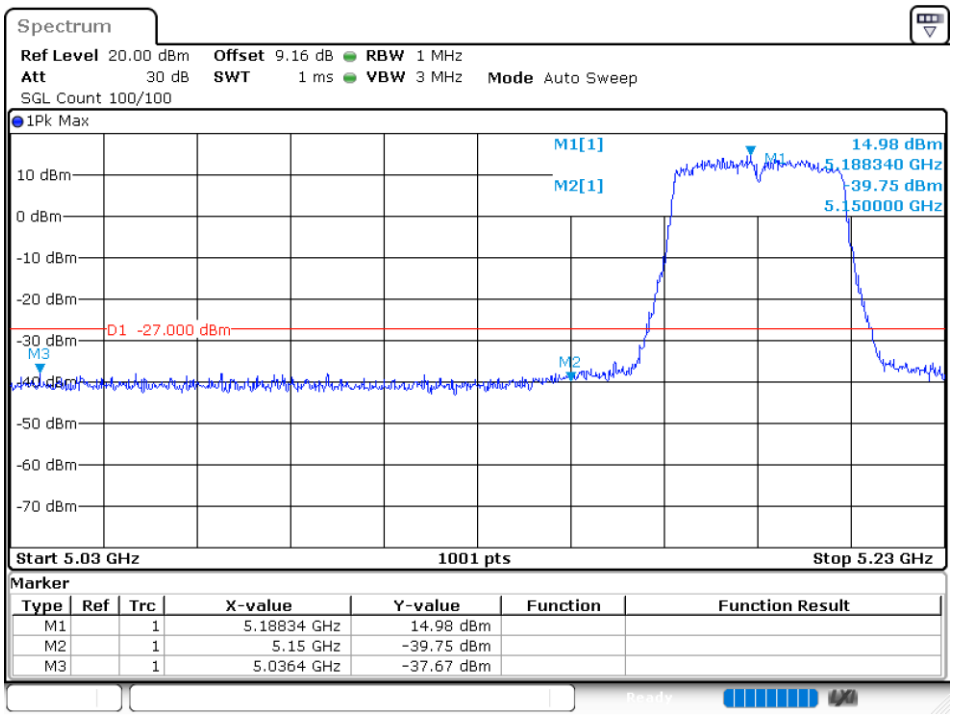
Band Edge NVNT ac20 5240MHz High Ant2



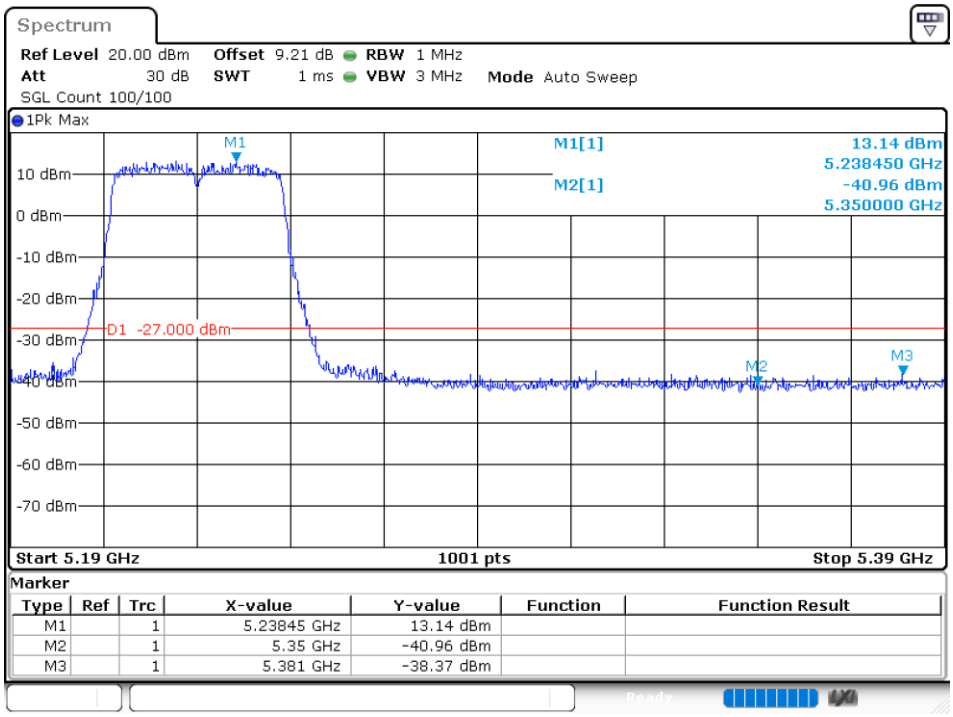
Band Edge NVNT ac40 5190MHz Low Ant1



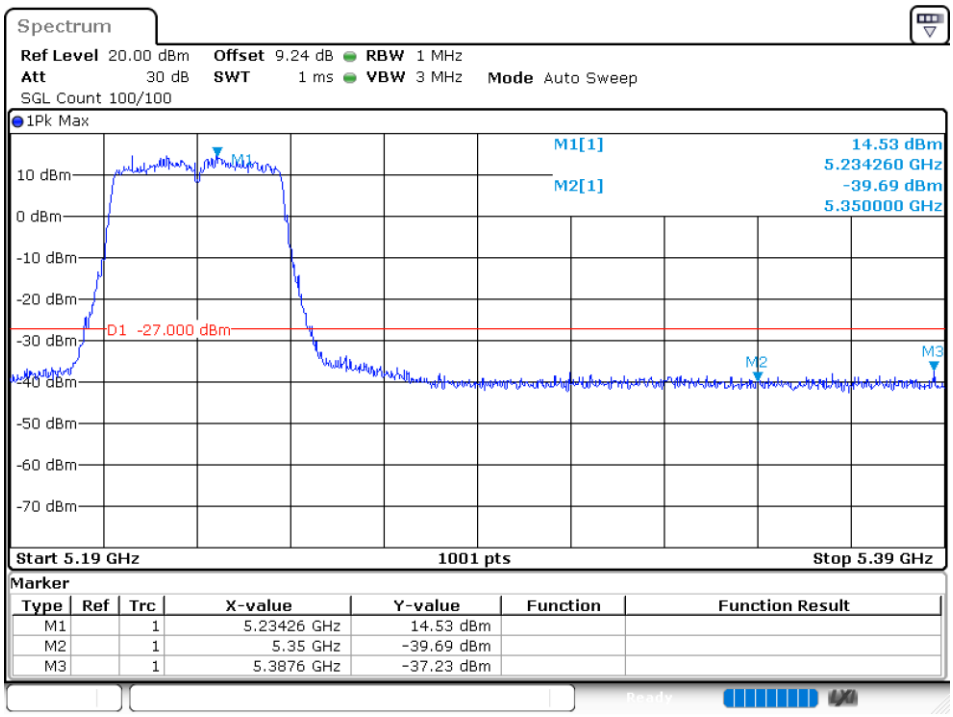
Band Edge NVNT ac40 5190MHz Low Ant2



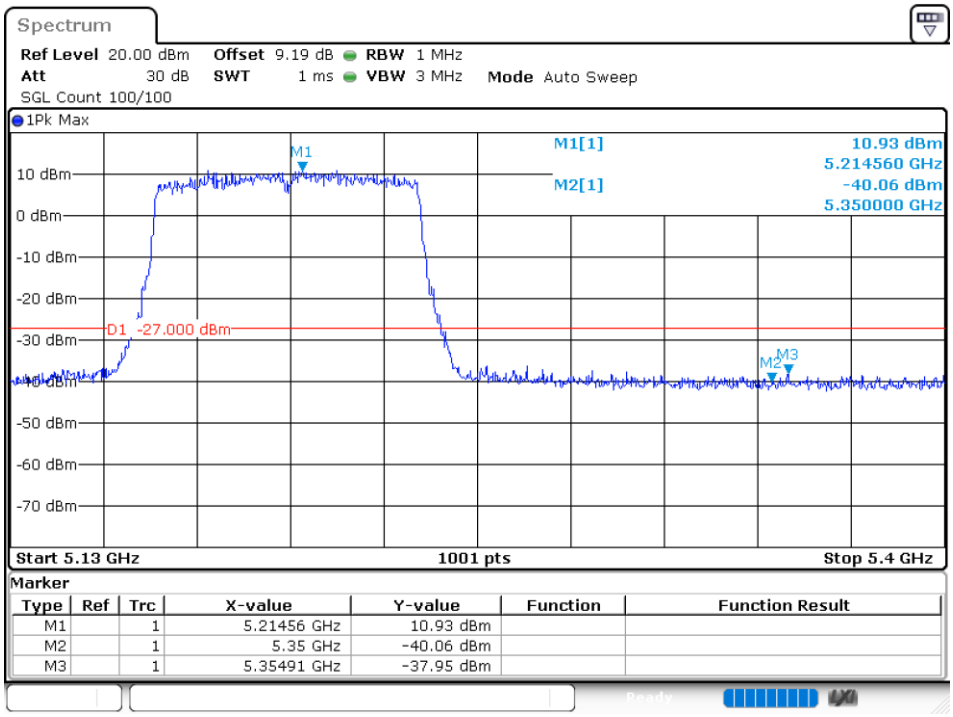
Band Edge NVNT ac40 5230MHz High Ant1



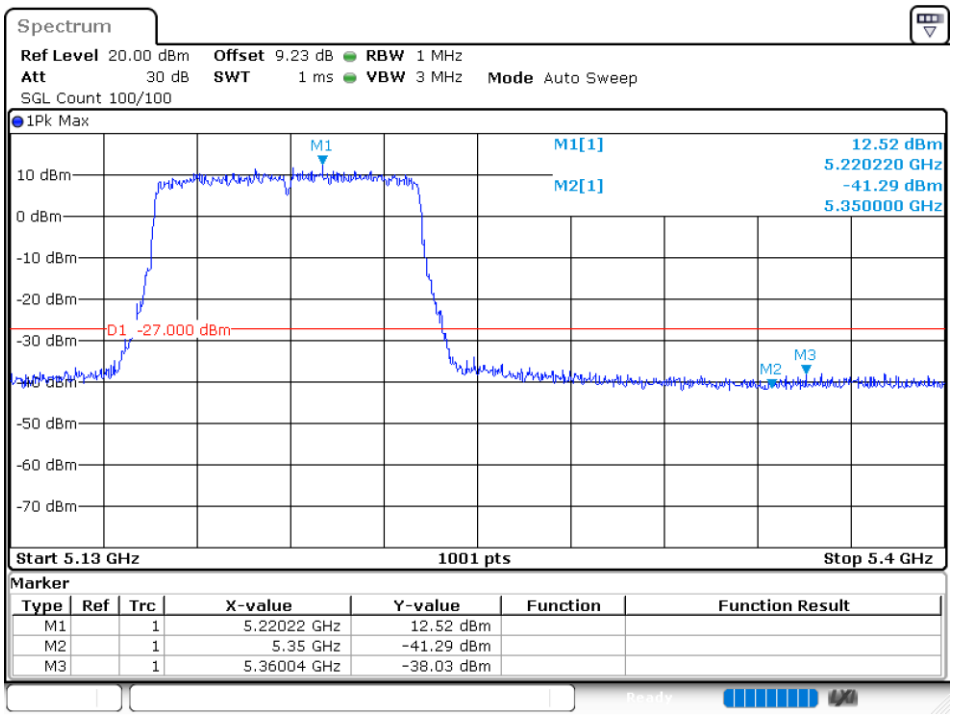
Band Edge NVNT ac40 5230MHz High Ant2



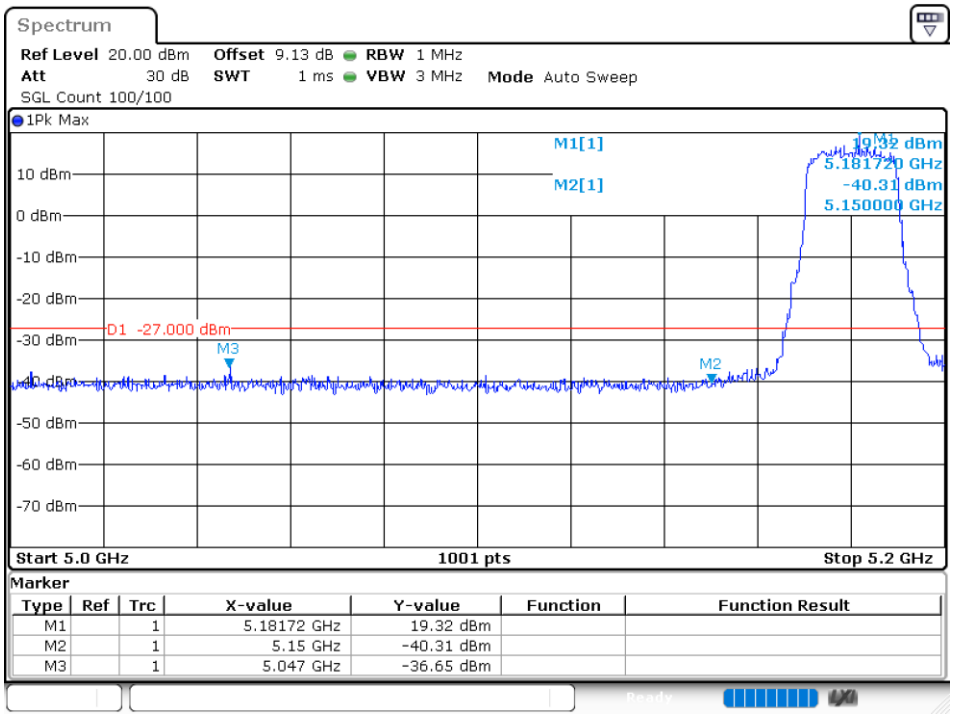
Band Edge NVNT ac80 5210MHz High Ant1



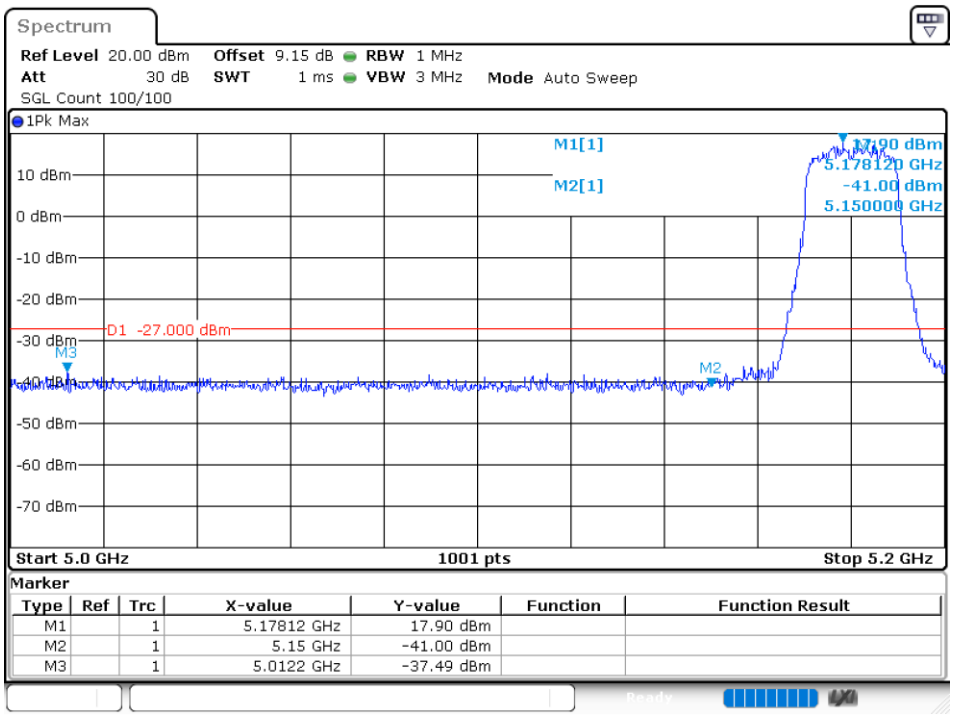
Band Edge NVNT ac80 5210MHz High Ant2



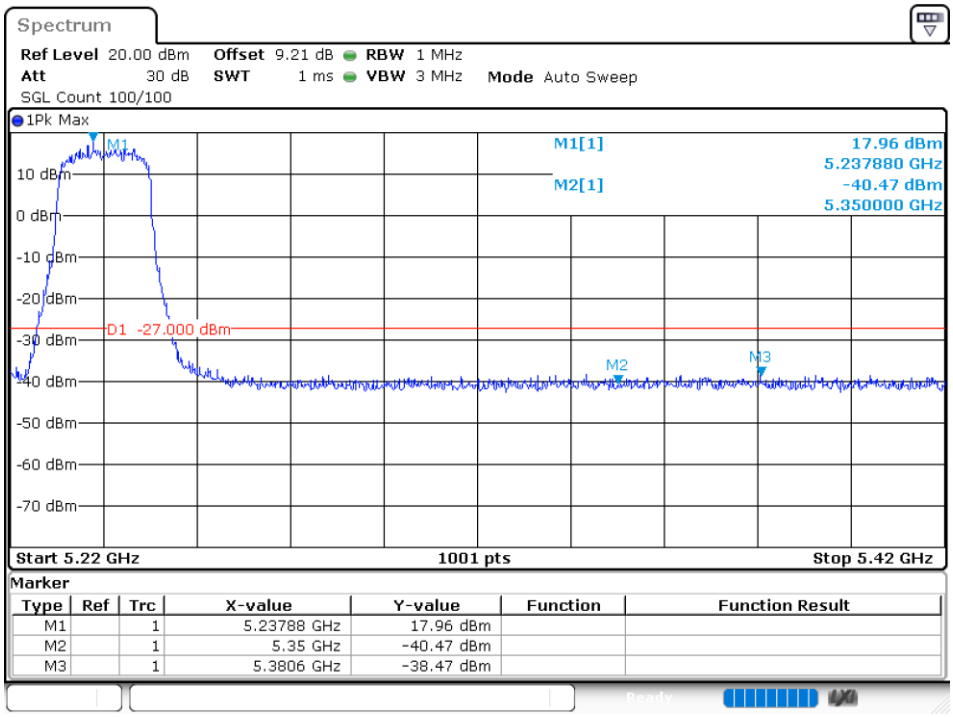
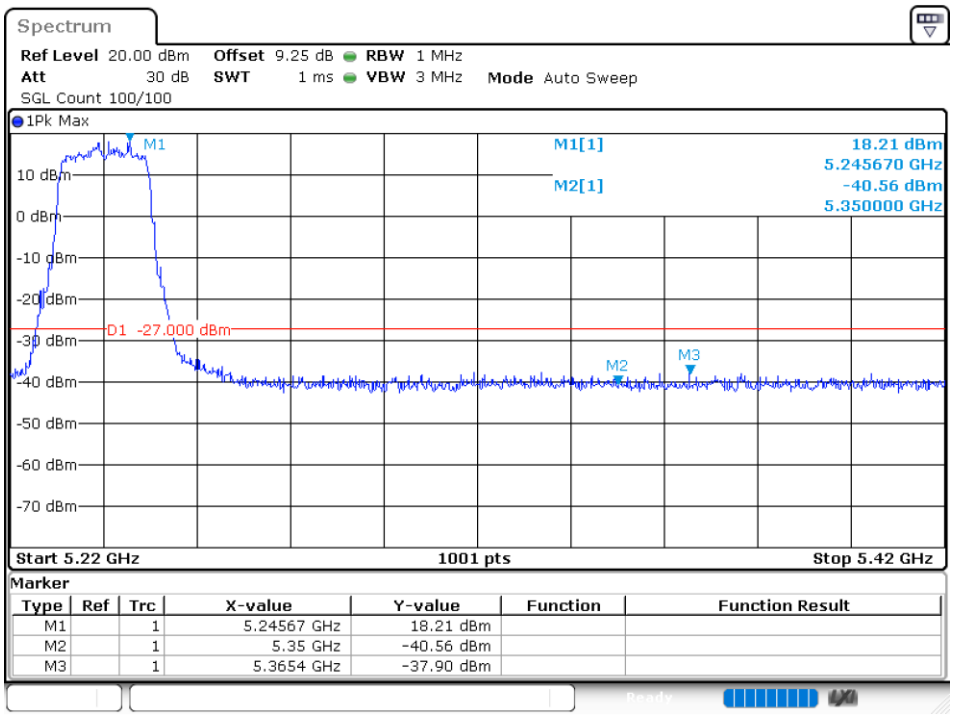
Band Edge NVNT ax20 5180MHz Low Ant1



Band Edge NVNT ax20 5180MHz Low Ant2



Band Edge NVNT ax20 5240MHz High Ant1



Band Edge NVNT ax20 5240MHz High Ant2