

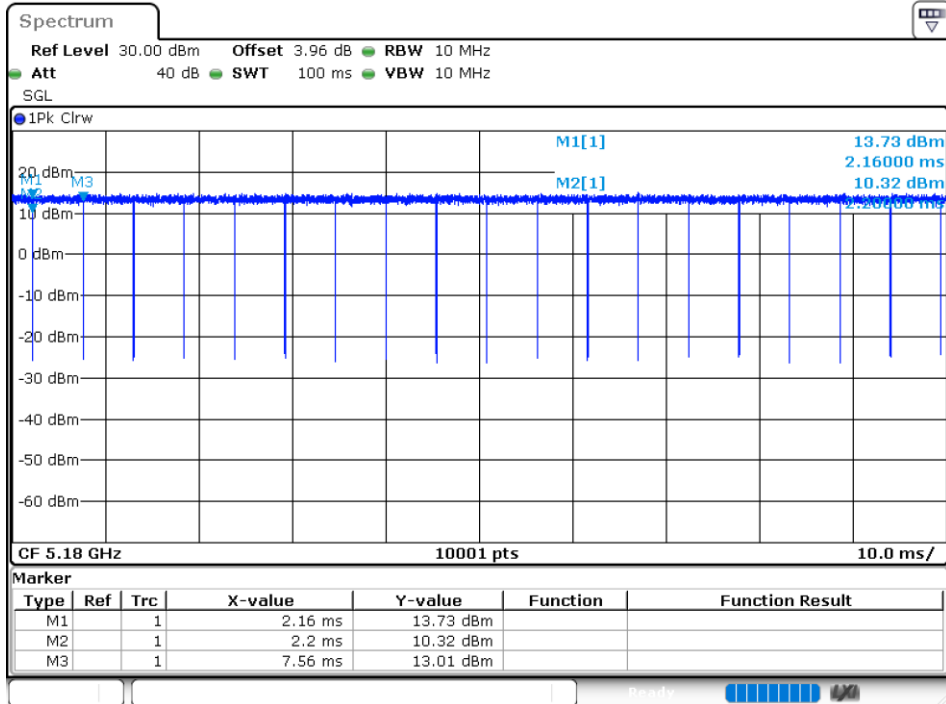
5.2G WIFI

Duty Cycle

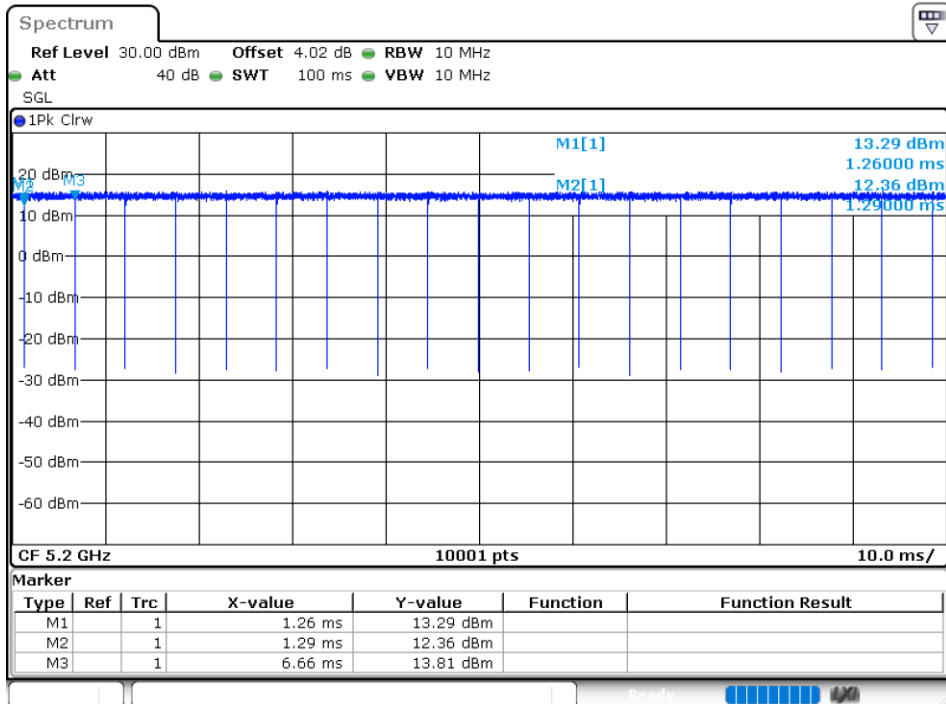
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	Ant1	99.43	0.02	0.19
NVNT	a	5200	Ant1	99.62	0.02	0.19
NVNT	a	5240	Ant1	99.43	0.02	0.19
NVNT	n20	5180	Ant1	99.48	0.02	0.2
NVNT	n20	5200	Ant1	99.48	0.02	0.2
NVNT	n20	5240	Ant1	99.48	0.02	0.2
NVNT	n40	5190	Ant1	98.99	0.04	0.41
NVNT	n40	5230	Ant1	98.96	0.05	0.41
NVNT	ac20	5180	Ant1	99.48	0.02	0.2
NVNT	ac20	5200	Ant1	99.47	0.02	0.2
NVNT	ac20	5240	Ant1	99.47	0.02	0.2
NVNT	ac40	5190	Ant1	98.98	0.04	0.41
NVNT	ac40	5230	Ant1	96.31	0.16	0.41
NVNT	ax20	5180	Ant1	99.35	0.03	0.26
NVNT	ax20	5200	Ant1	99.37	0.03	0.26
NVNT	ax20	5240	Ant1	99.35	0.03	0.26
NVNT	ax40	5190	Ant1	95.44	0.2	0.52
NVNT	ax40	5230	Ant1	95.43	0.2	0.52

Test Graphs

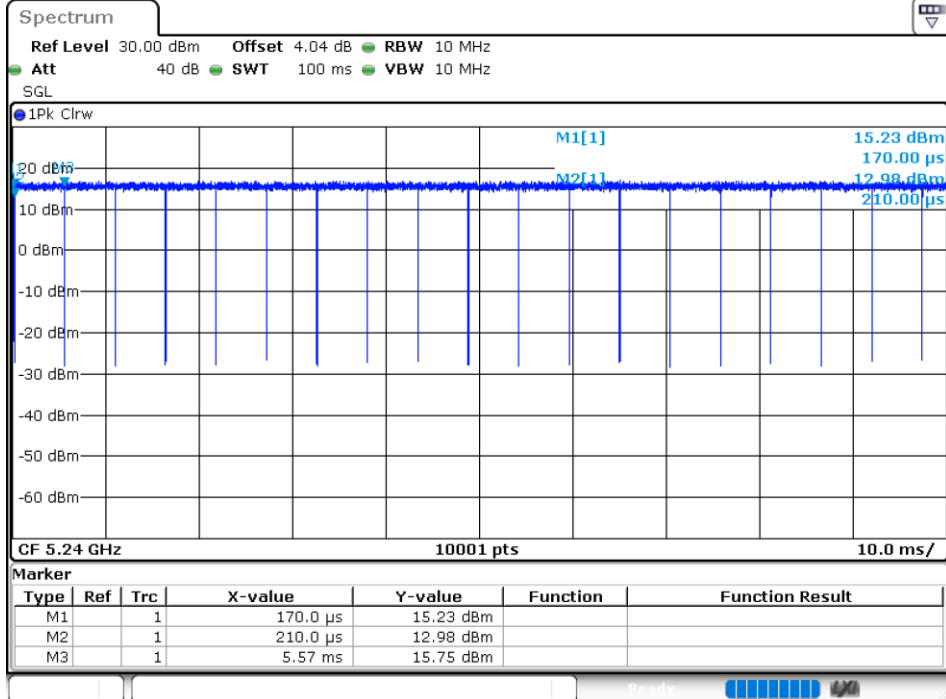
Duty Cycle NVNT a 5180MHz Ant1



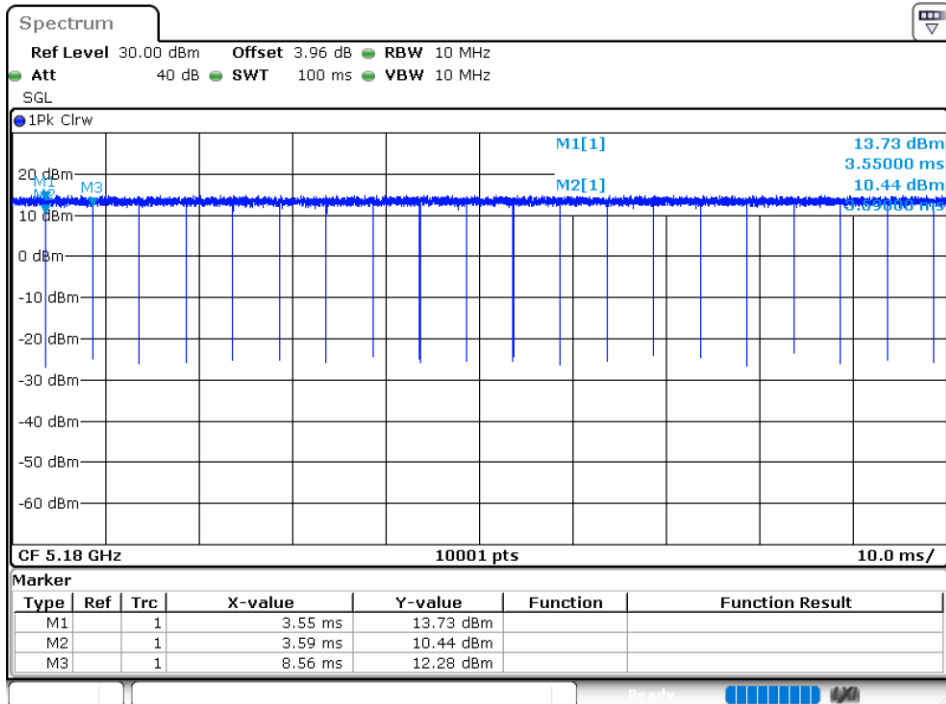
Duty Cycle NVNT a 5200MHz Ant1



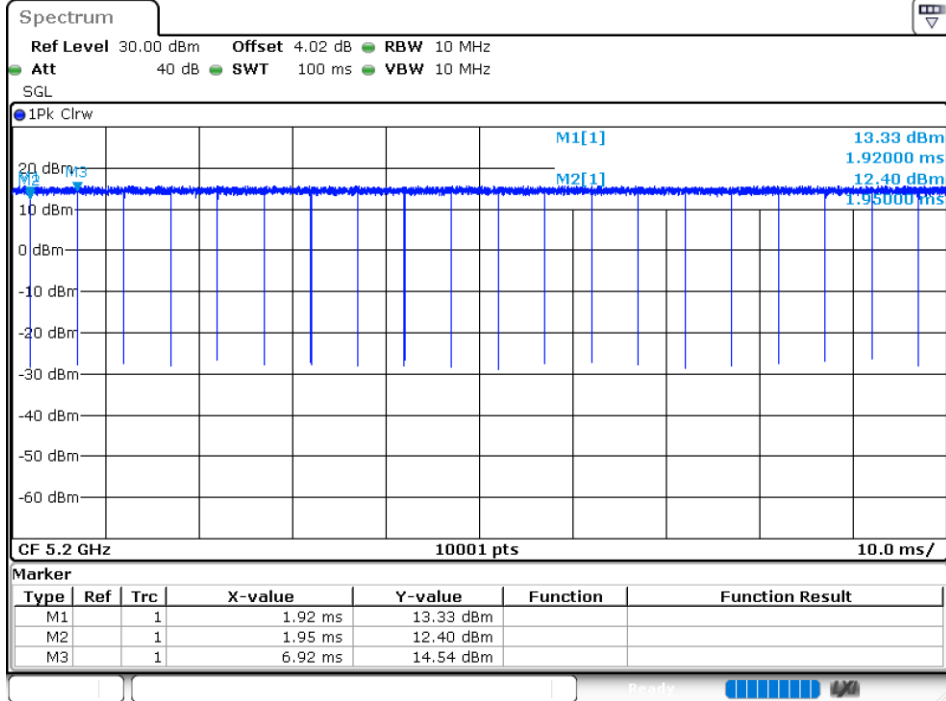
Duty Cycle NVNT a 5240MHz Ant1



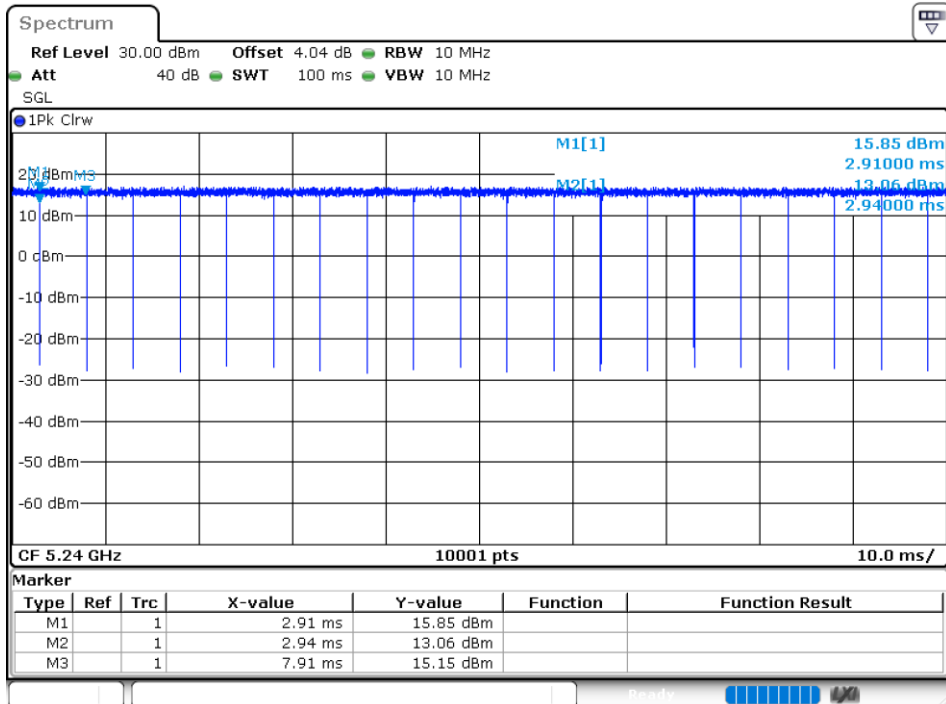
Duty Cycle NVNT n20 5180MHz Ant1



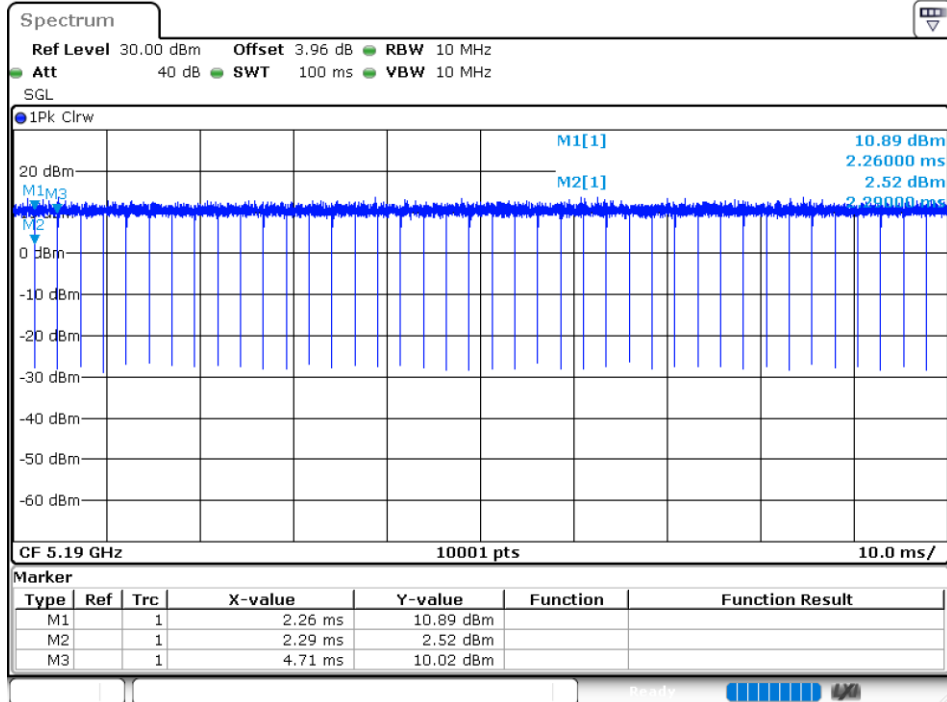
Duty Cycle NVNT n20 5200MHz Ant1



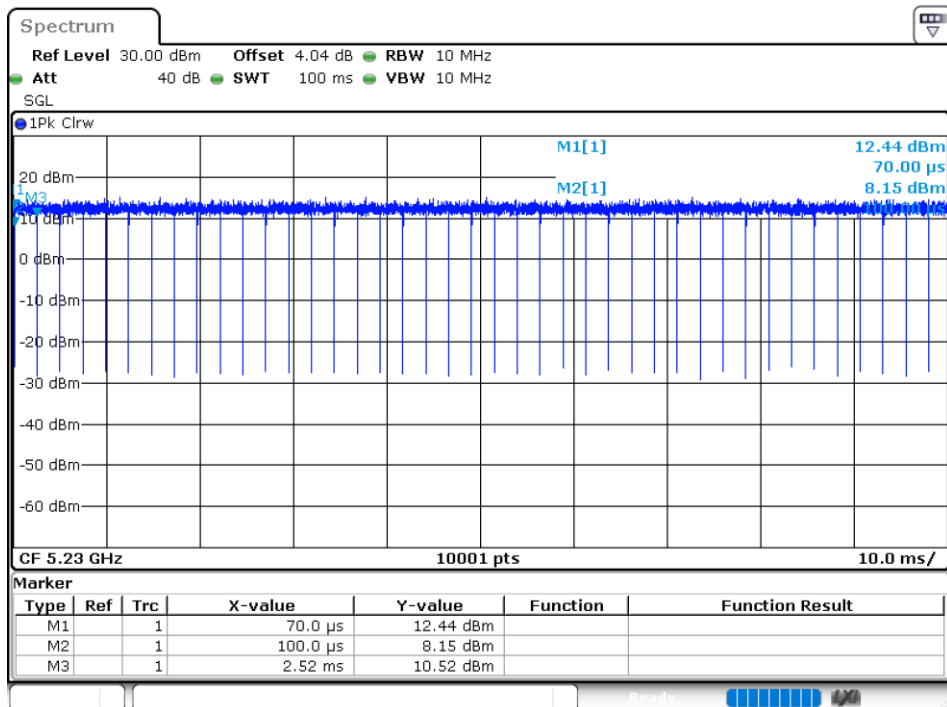
Duty Cycle NVNT n20 5240MHz Ant1



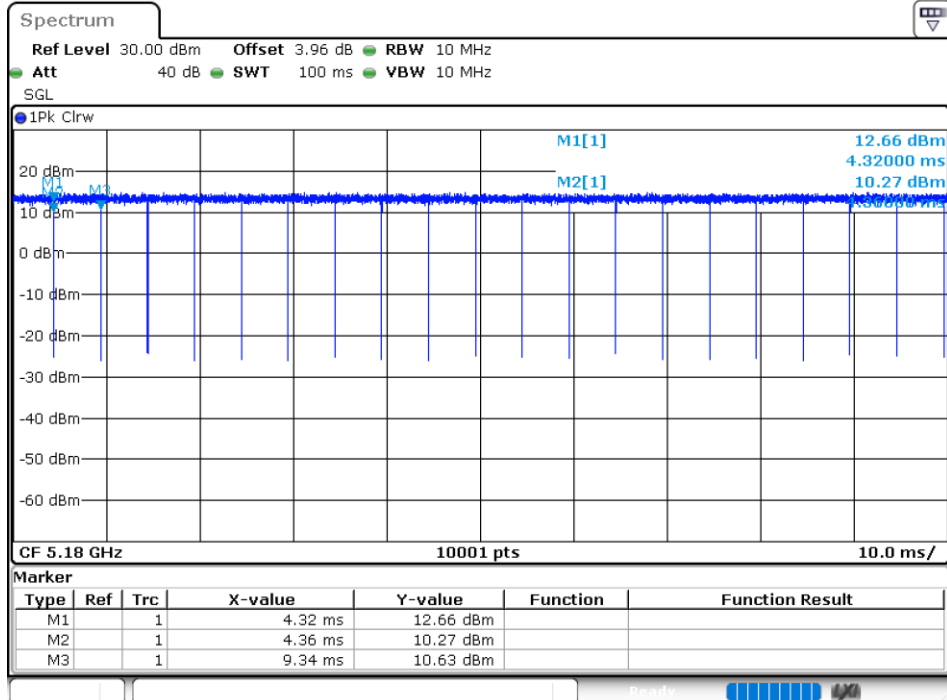
Duty Cycle NVNT n40 5190MHz Ant1



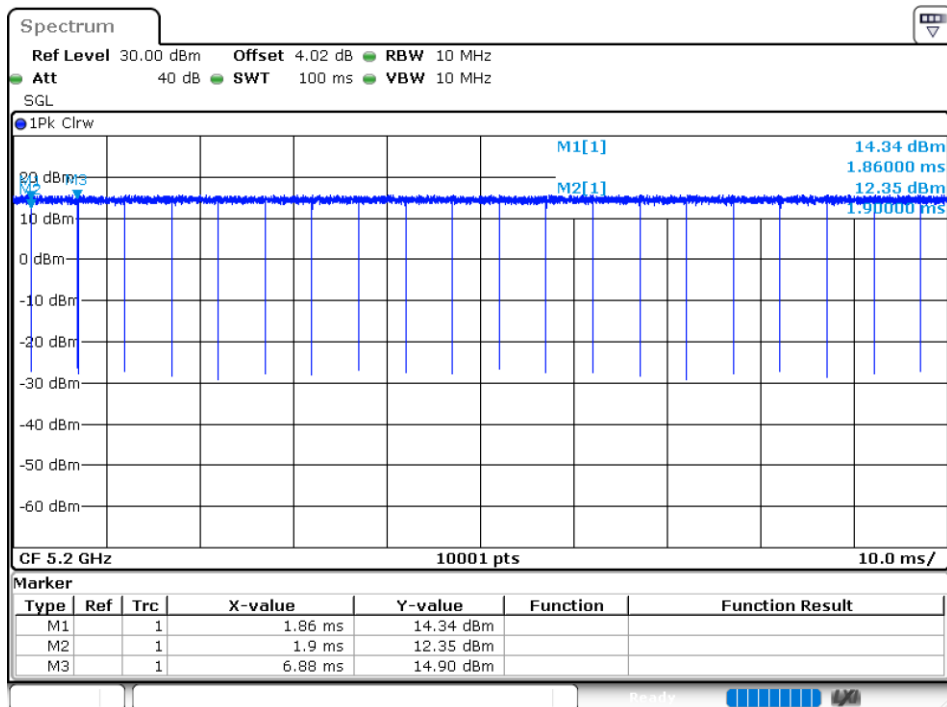
Duty Cycle NVNT n40 5230MHz Ant1



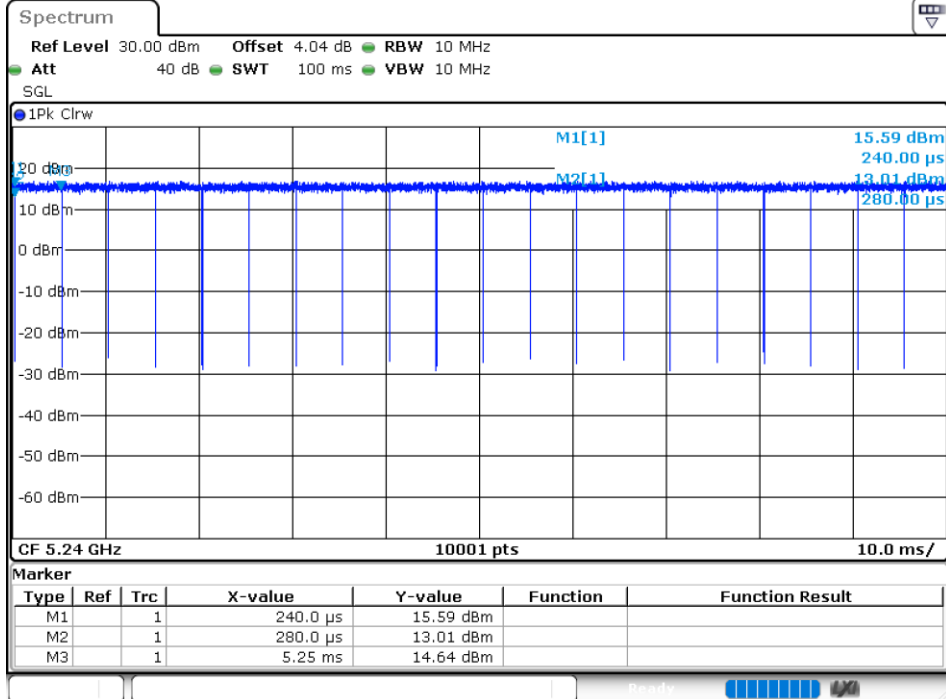
Duty Cycle NVNT ac20 5180MHz Ant1



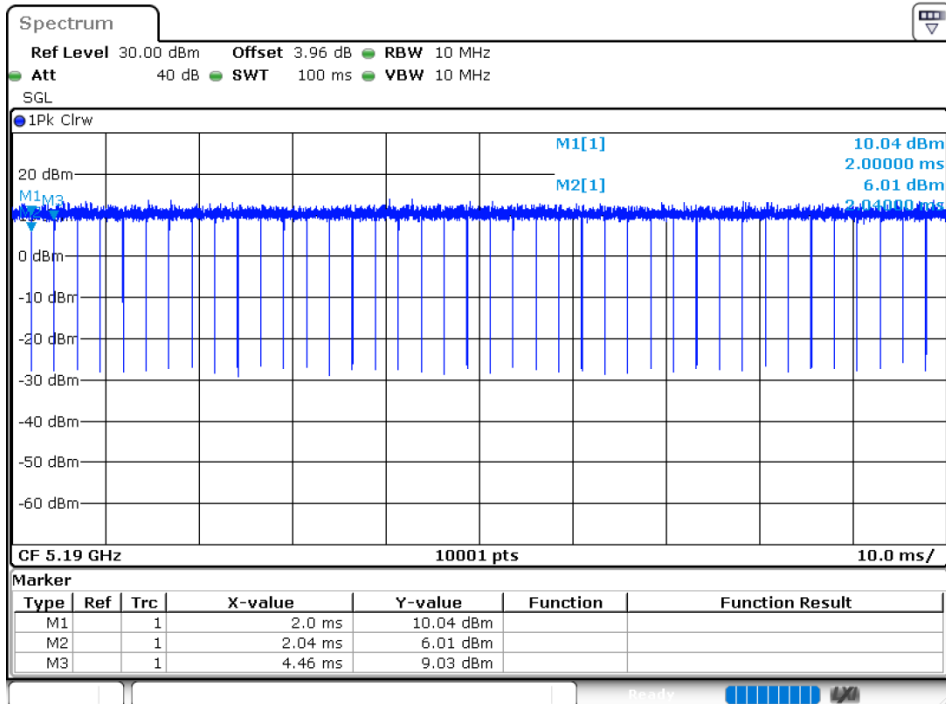
Duty Cycle NVNT ac20 5200MHz Ant1



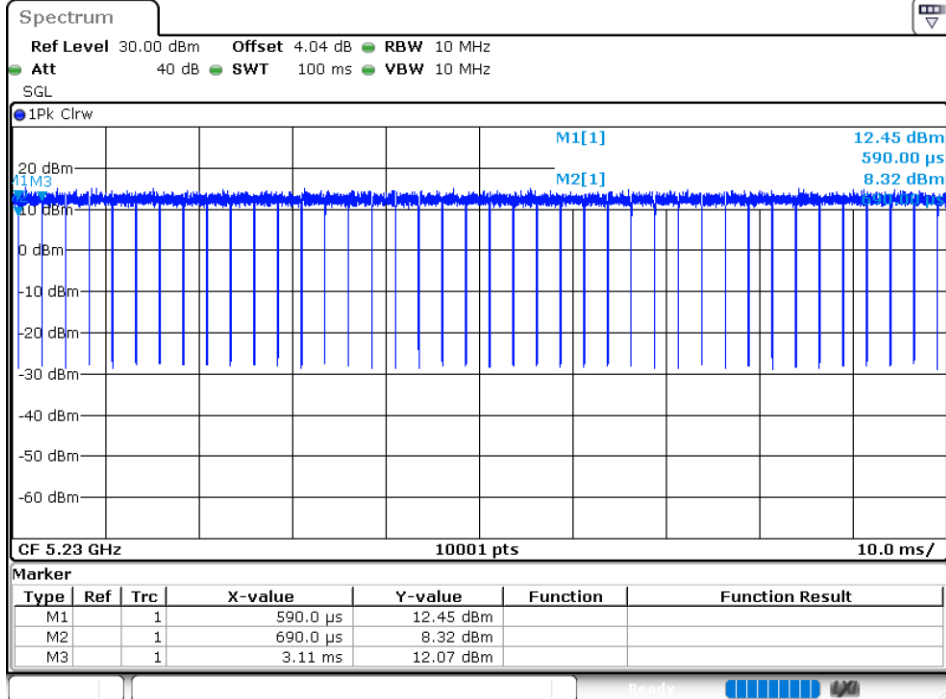
Duty Cycle NVNT ac20 5240MHz Ant1



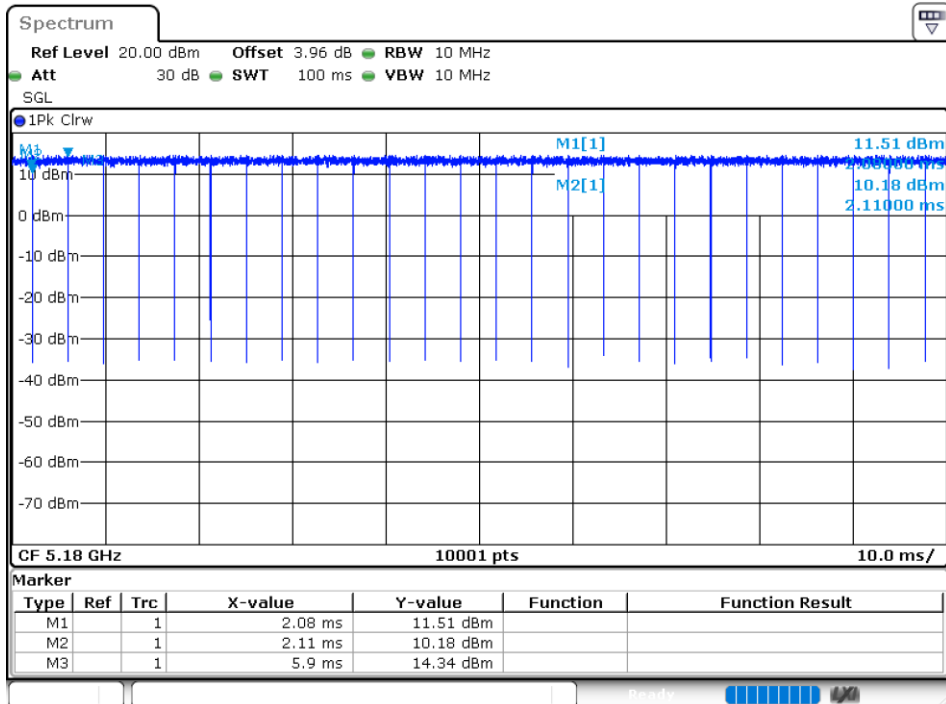
Duty Cycle NVNT ac40 5190MHz Ant1



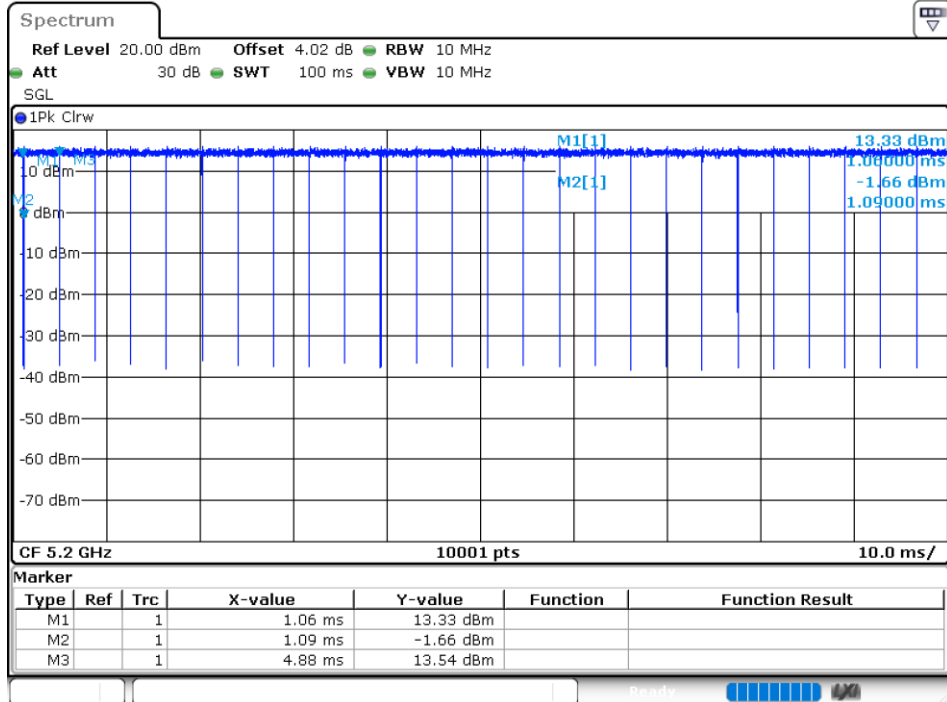
Duty Cycle NVNT ac40 5230MHz Ant1



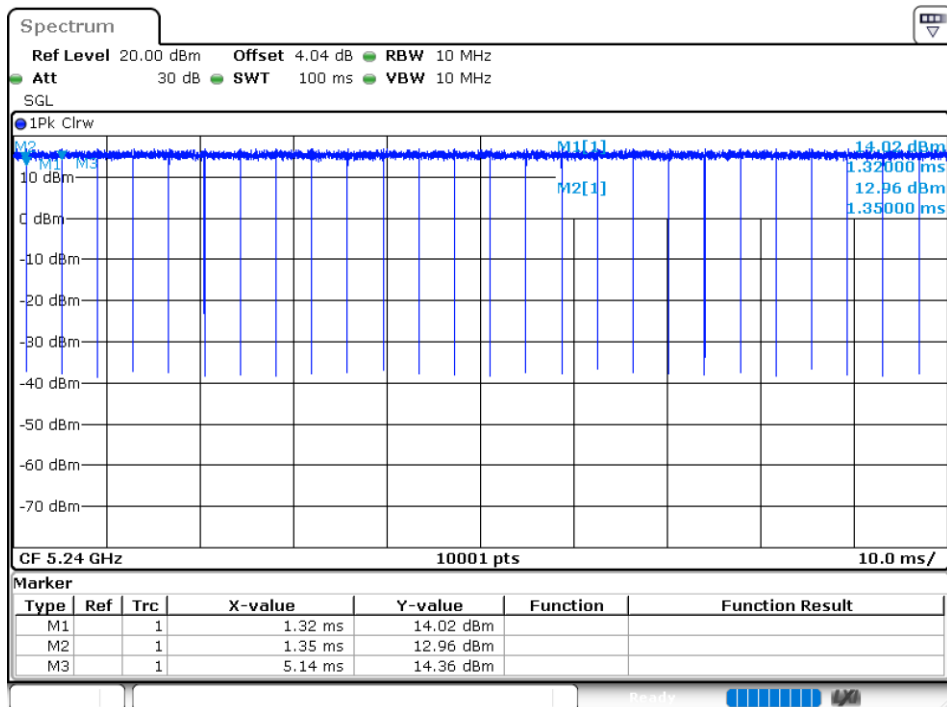
Duty Cycle NVNT ax20 5180MHz Ant1



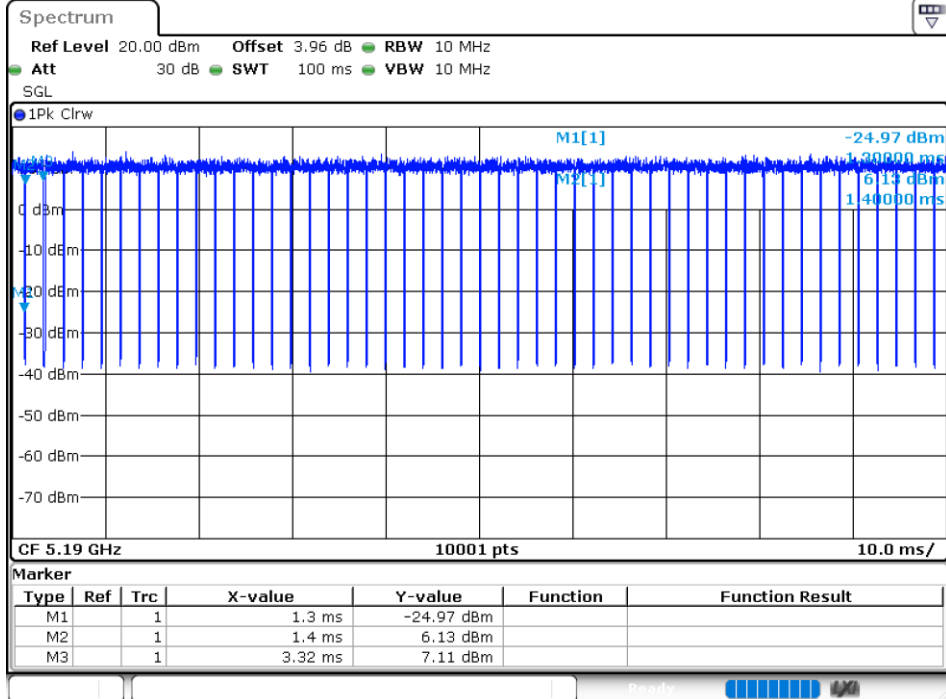
Duty Cycle NVNT ax20 5200MHz Ant1



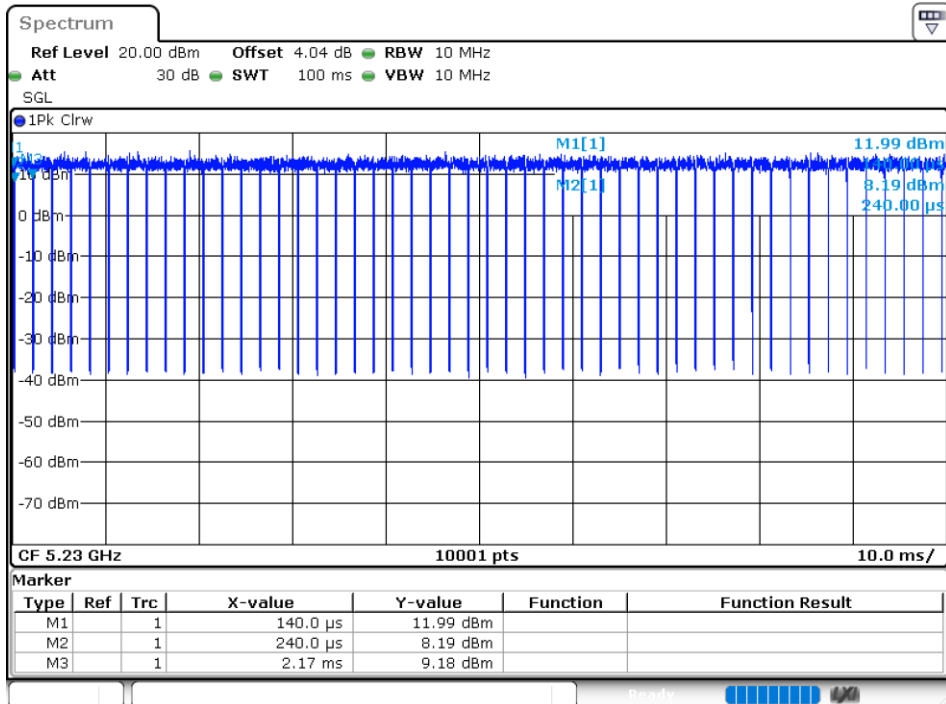
Duty Cycle NVNT ax20 5240MHz Ant1



Duty Cycle NVNT ax40 5190MHz Ant1



Duty Cycle NVNT ax40 5230MHz Ant1



Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	10.78	24	Pass
NVNT	a	5200	Ant1	11.26	24	Pass
NVNT	a	5240	Ant1	11.07	24	Pass
NVNT	n20	5180	Ant1	10.61	24	Pass
NVNT	n20	5200	Ant1	11.56	24	Pass
NVNT	n20	5240	Ant1	11.25	24	Pass
NVNT	n40	5190	Ant1	9.56	24	Pass
NVNT	n40	5230	Ant1	10.28	24	Pass
NVNT	ac20	5180	Ant1	10.68	24	Pass
NVNT	ac20	5200	Ant1	11.31	24	Pass
NVNT	ac20	5240	Ant1	11.18	24	Pass
NVNT	ac40	5190	Ant1	9.52	24	Pass
NVNT	ac40	5230	Ant1	10.36	24	Pass
NVNT	ax20	5180	Ant1	10.63	24	Pass
NVNT	ax20	5200	Ant1	11.22	24	Pass
NVNT	ax20	5240	Ant1	10.93	24	Pass
NVNT	ax40	5190	Ant1	9.48	24	Pass
NVNT	ax40	5230	Ant1	10.22	24	Pass

-26dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-26 dB Bandwidth (MHz)	Verdict
NVNT	a	5180	Ant1	28.116	Pass
NVNT	a	5200	Ant1	25.581	Pass
NVNT	a	5240	Ant1	25.734	Pass
NVNT	n20	5180	Ant1	27.258	Pass
NVNT	n20	5200	Ant1	28.533	Pass
NVNT	n20	5240	Ant1	26.805	Pass
NVNT	n40	5190	Ant1	55.92	Pass
NVNT	n40	5230	Ant1	58.968	Pass
NVNT	ac20	5180	Ant1	28.482	Pass
NVNT	ac20	5200	Ant1	27.045	Pass
NVNT	ac20	5240	Ant1	26.904	Pass
NVNT	ac40	5190	Ant1	54.612	Pass
NVNT	ac40	5230	Ant1	56.592	Pass
NVNT	ax20	5180	Ant1	27.678	Pass
NVNT	ax20	5200	Ant1	24.291	Pass
NVNT	ax20	5240	Ant1	24.48	Pass
NVNT	ax40	5190	Ant1	51.96	Pass
NVNT	ax40	5230	Ant1	49.008	Pass

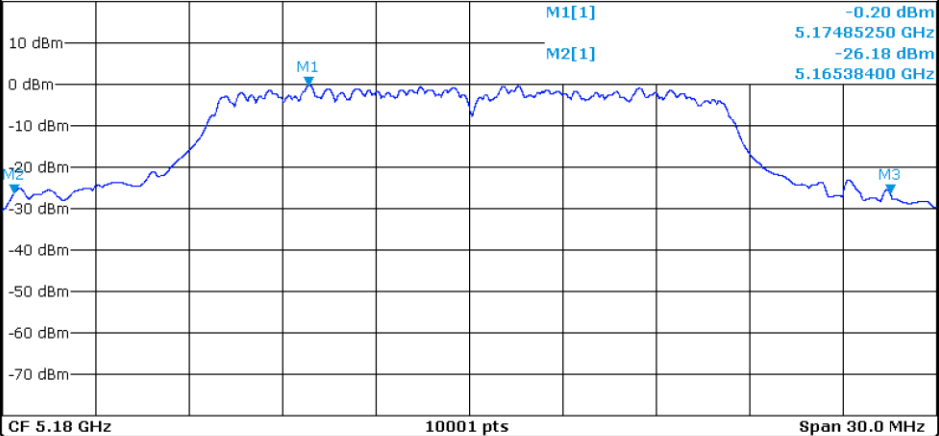
Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 3.96 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max



Marker

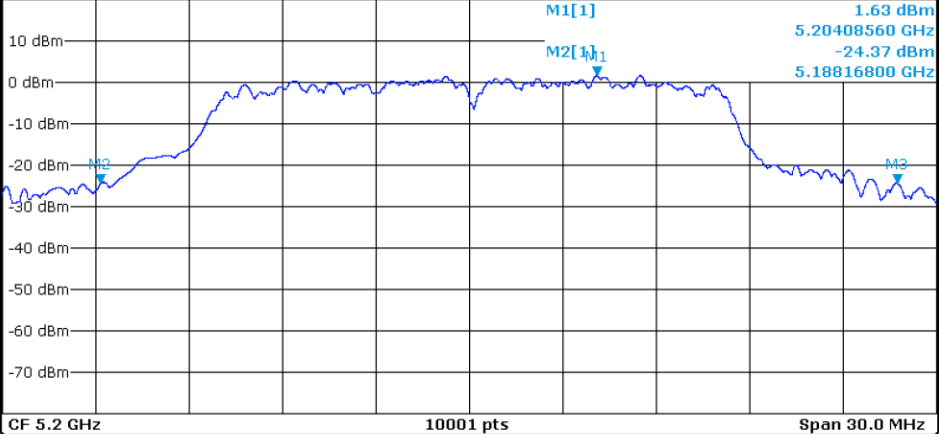
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.1748525 GHz	-0.20 dBm		
M2		1	5.165384 GHz	-26.18 dBm		
M3		1	5.1935 GHz	-26.19 dBm		

-26dB Bandwidth NVNT a 5200MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.02 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max



Marker

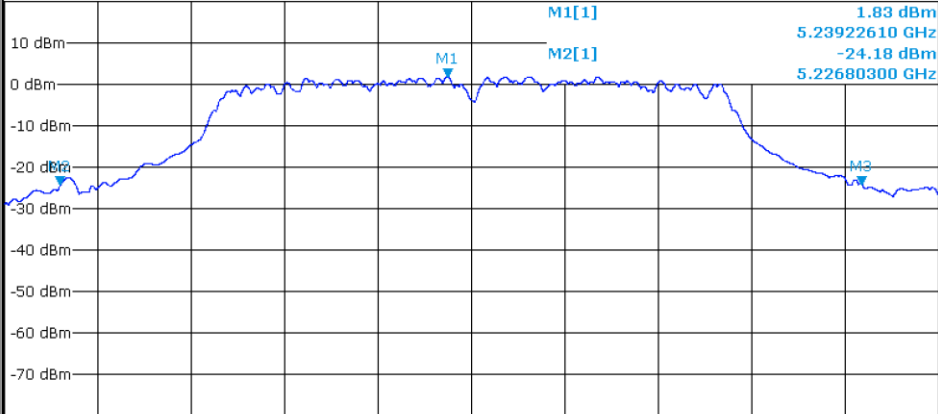
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.2040856 GHz	1.63 dBm		
M2		1	5.188168 GHz	-24.37 dBm		
M3		1	5.213749 GHz	-24.39 dBm		

-26dB Bandwidth NVNT a 5240MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.04 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max



CF 5.24 GHz 10001 pts Span 30.0 MHz

Marker

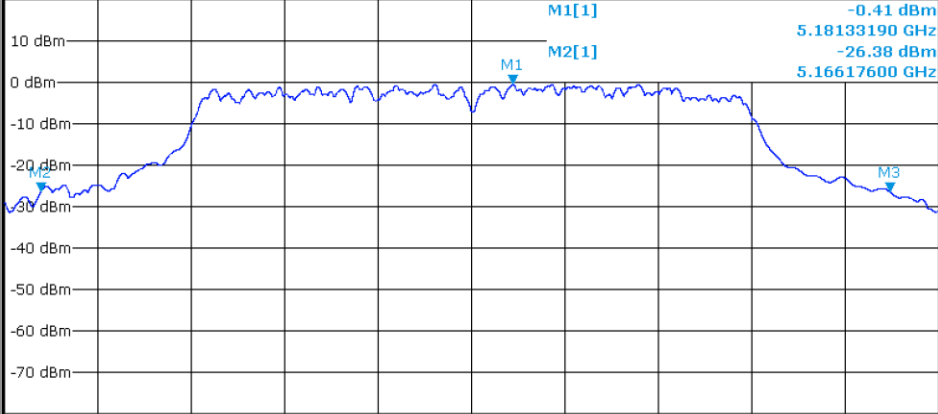
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.2392261 GHz	1.83 dBm		
M2		1	5.226803 GHz	-24.18 dBm		
M3		1	5.252537 GHz	-24.19 dBm		

-26dB Bandwidth NVNT n20 5180MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 3.96 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max



CF 5.18 GHz 10001 pts Span 30.0 MHz

Marker

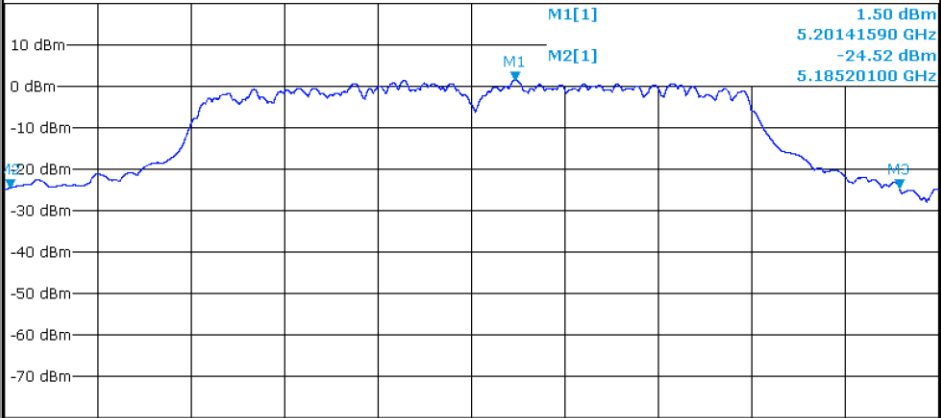
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.1813319 GHz	-0.41 dBm		
M2		1	5.166176 GHz	-26.38 dBm		
M3		1	5.193434 GHz	-26.41 dBm		

-26dB Bandwidth NVNT n20 5200MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.02 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max



CF 5.2 GHz 10001 pts Span 30.0 MHz

Marker

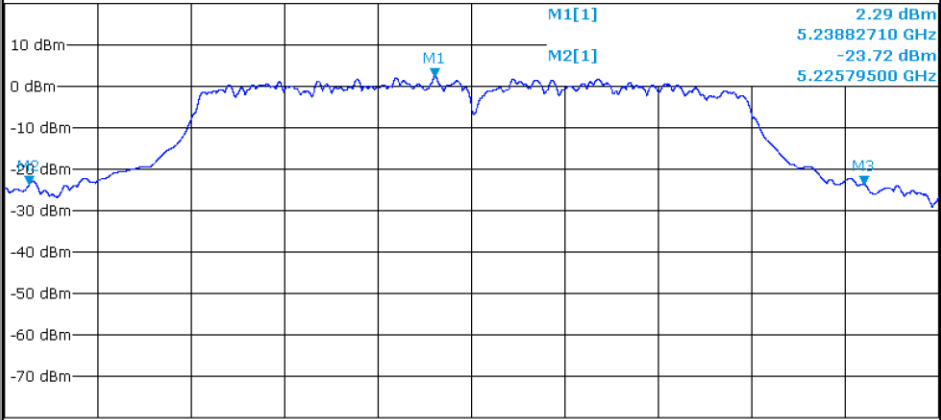
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	5.2014159 GHz	1.50 dBm		
M2	1	1	5.185201 GHz	-24.52 dBm		
M3	1	1	5.213734 GHz	-24.49 dBm		

-26dB Bandwidth NVNT n20 5240MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.04 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max

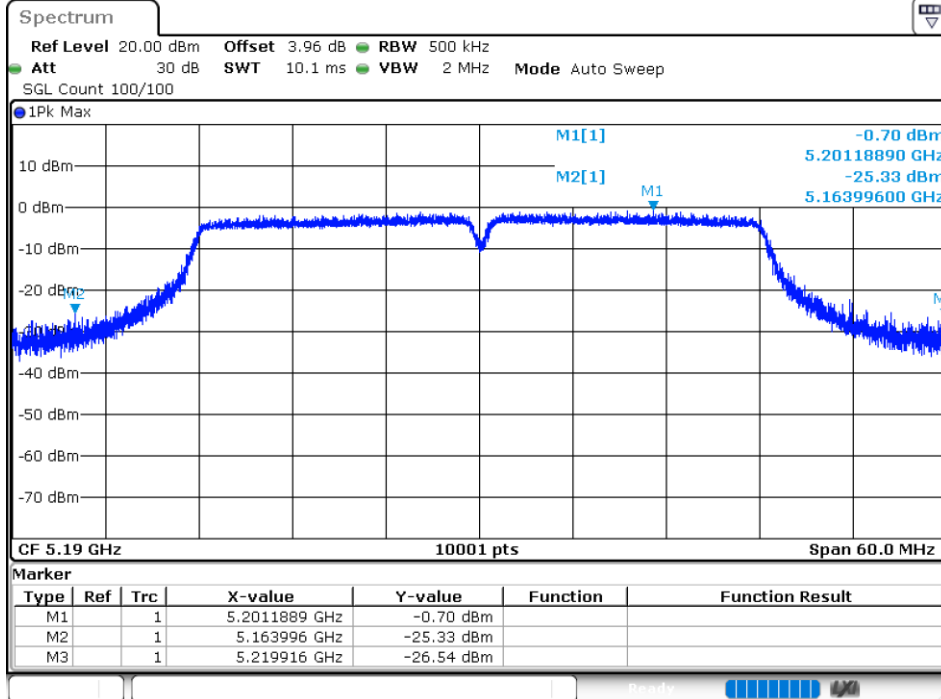


CF 5.24 GHz 10001 pts Span 30.0 MHz

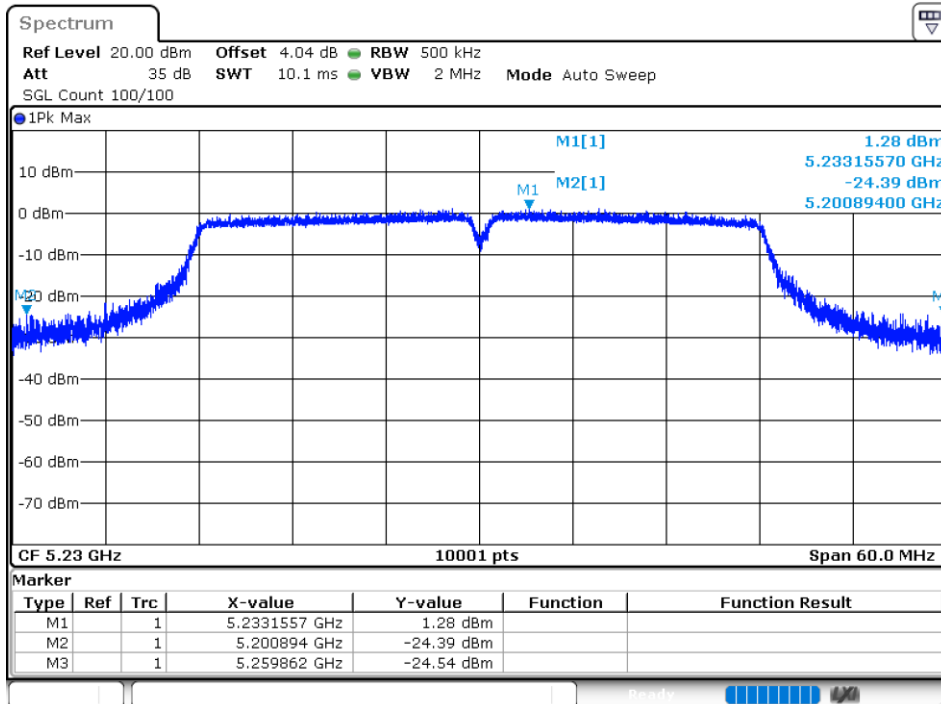
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	5.2388271 GHz	2.29 dBm		
M2	1	1	5.225795 GHz	-23.72 dBm		
M3	1	1	5.2526 GHz	-23.72 dBm		

-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1

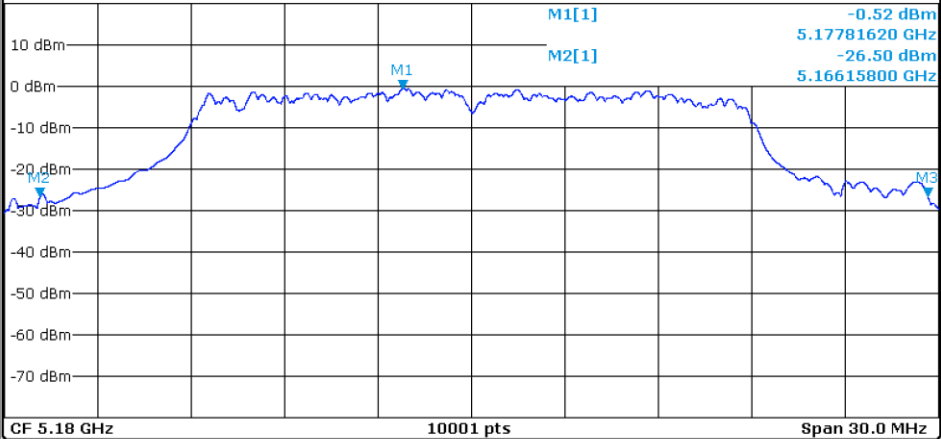


-26dB Bandwidth NVNT ac20 5180MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 3.96 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max



Marker

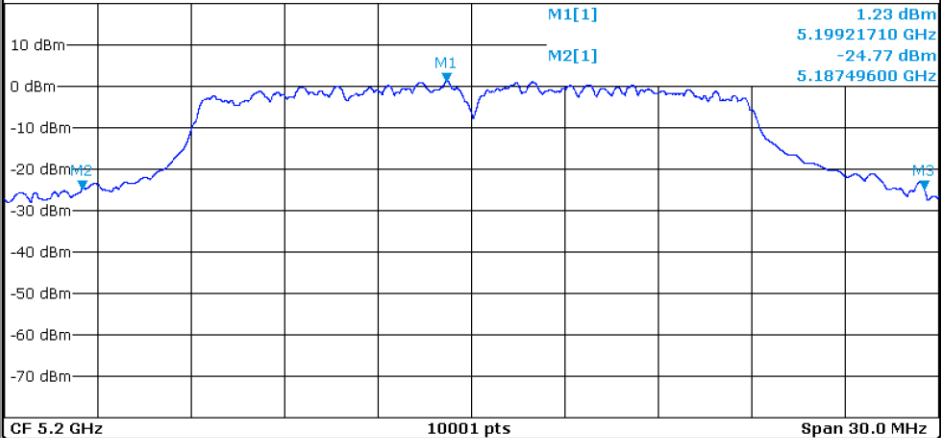
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	5.1778162 GHz	-0.52 dBm		
M2	1	1	5.166158 GHz	-26.50 dBm		
M3	1	1	5.19464 GHz	-26.48 dBm		

-26dB Bandwidth NVNT ac20 5200MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.02 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max



Marker

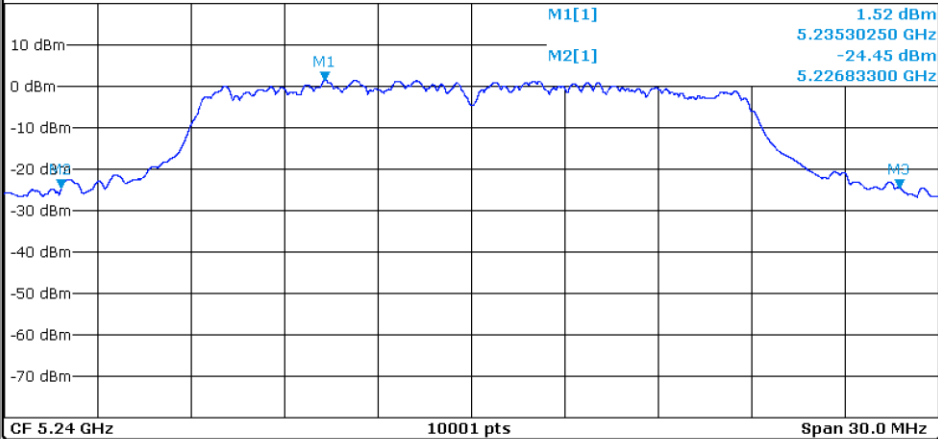
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	5.1992171 GHz	1.23 dBm		
M2	1	1	5.187496 GHz	-24.77 dBm		
M3	1	1	5.214541 GHz	-24.74 dBm		

-26dB Bandwidth NVNT ac20 5240MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.04 dB RBW 300 kHz
Att 35 dB SWT 25.4 μ s VBW 1 MHz Mode Auto FFT
SGL Count 100/100

1Pk Max



Marker

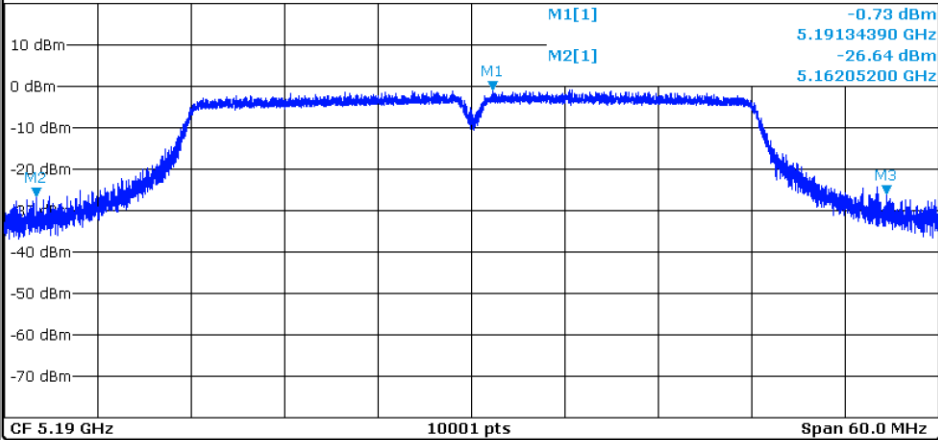
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.2353025 GHz	1.52 dBm		
M2		1	5.226833 GHz	-24.45 dBm		
M3		1	5.253737 GHz	-24.48 dBm		

-26dB Bandwidth NVNT ac40 5190MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 3.96 dB RBW 500 kHz
Att 35 dB SWT 10.1 ms VBW 2 MHz Mode Auto Sweep
SGL Count 100/100

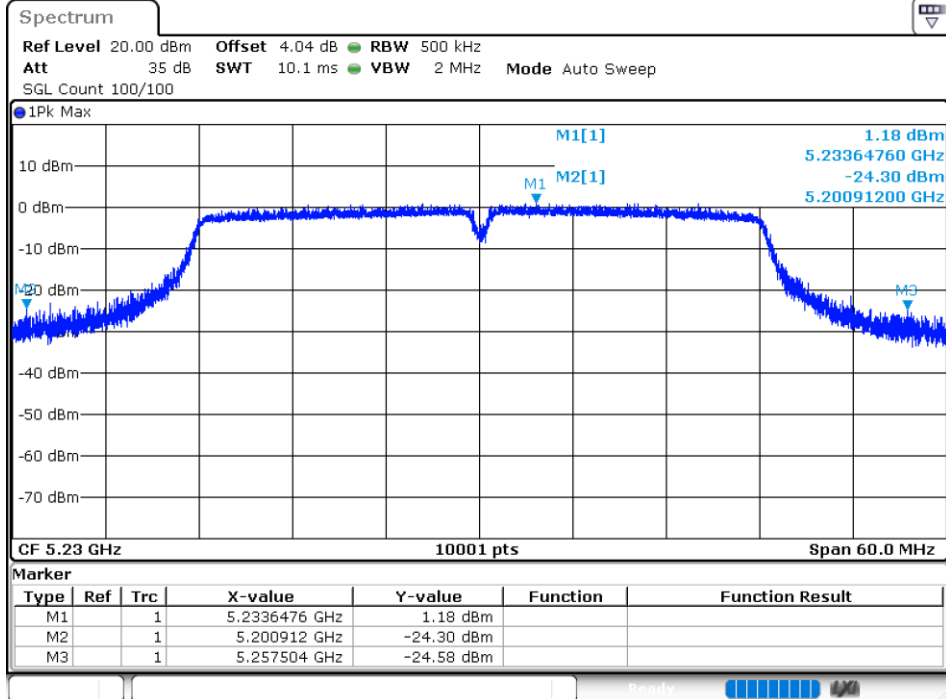
1Pk Max



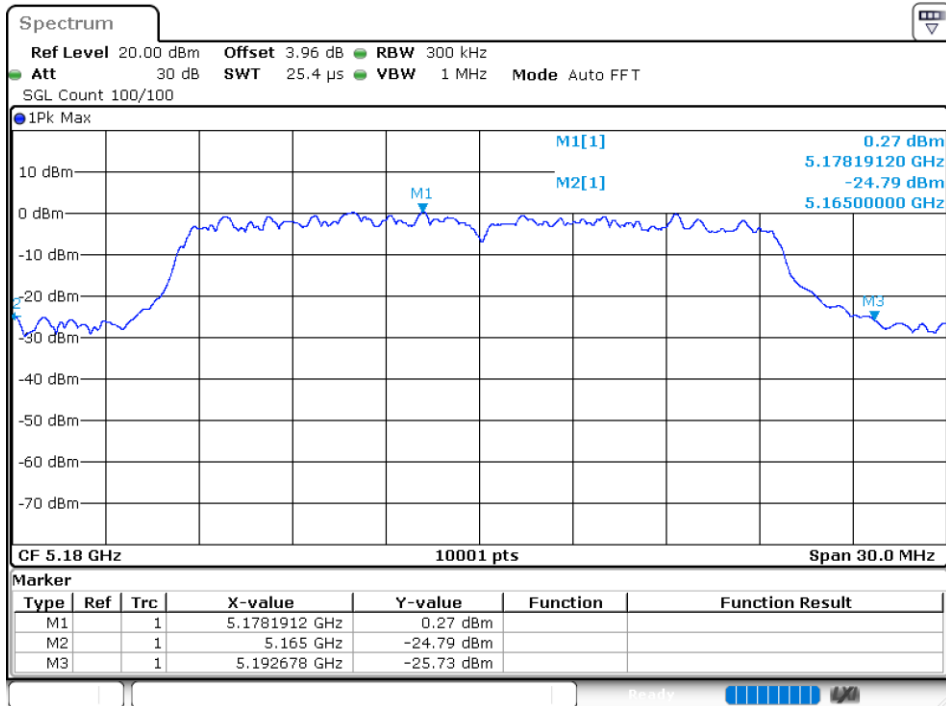
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.1913439 GHz	-0.73 dBm		
M2		1	5.162052 GHz	-26.64 dBm		
M3		1	5.216664 GHz	-25.93 dBm		

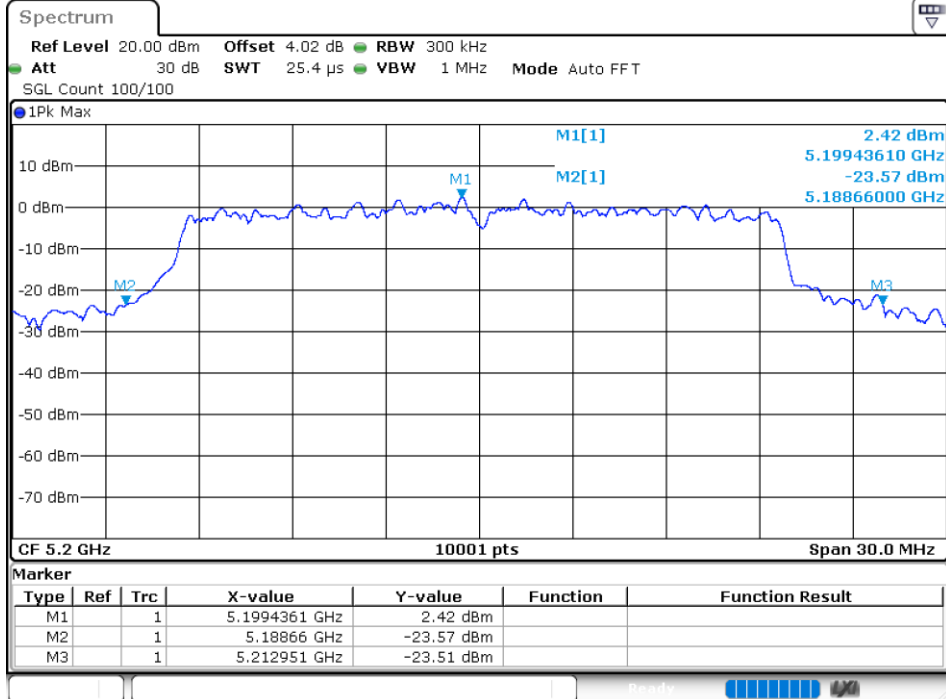
-26dB Bandwidth NVNT ac40 5230MHz Ant1



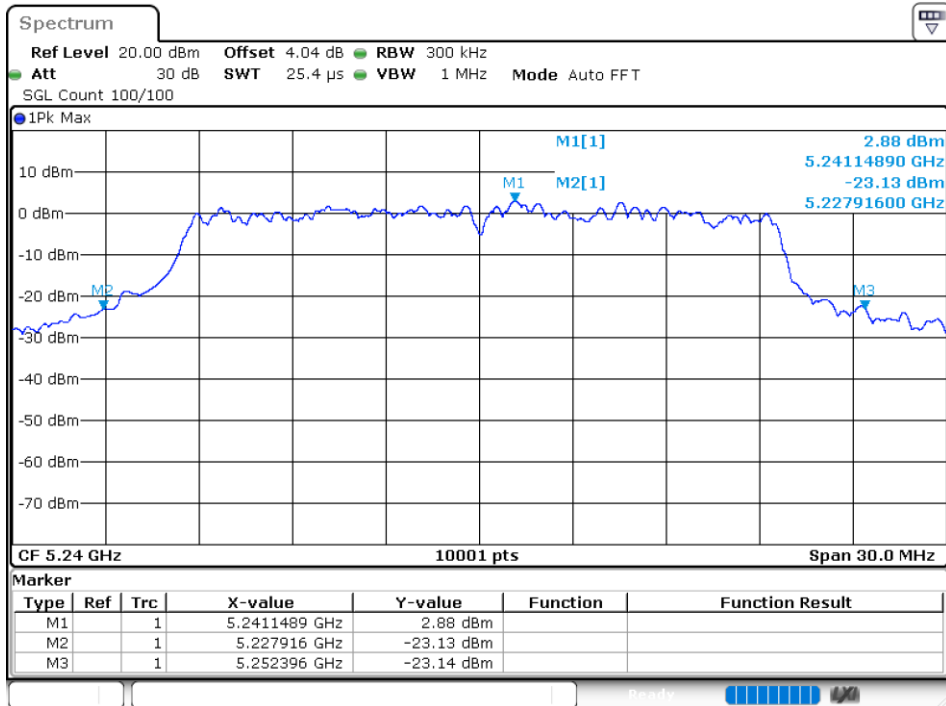
-26dB Bandwidth NVNT ax20 5180MHz Ant1



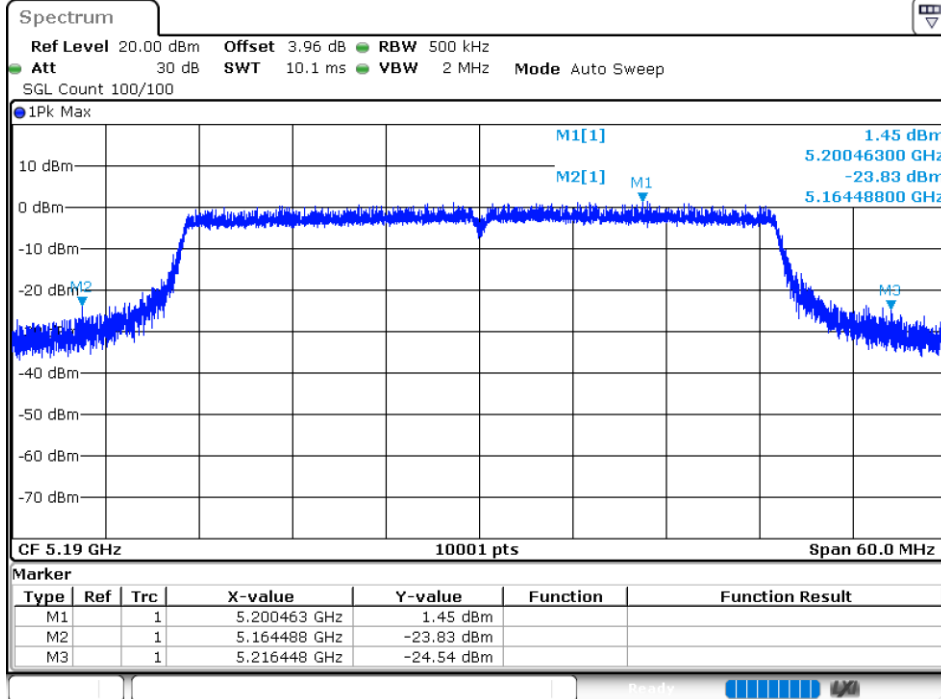
-26dB Bandwidth NVNT ax20 5200MHz Ant1



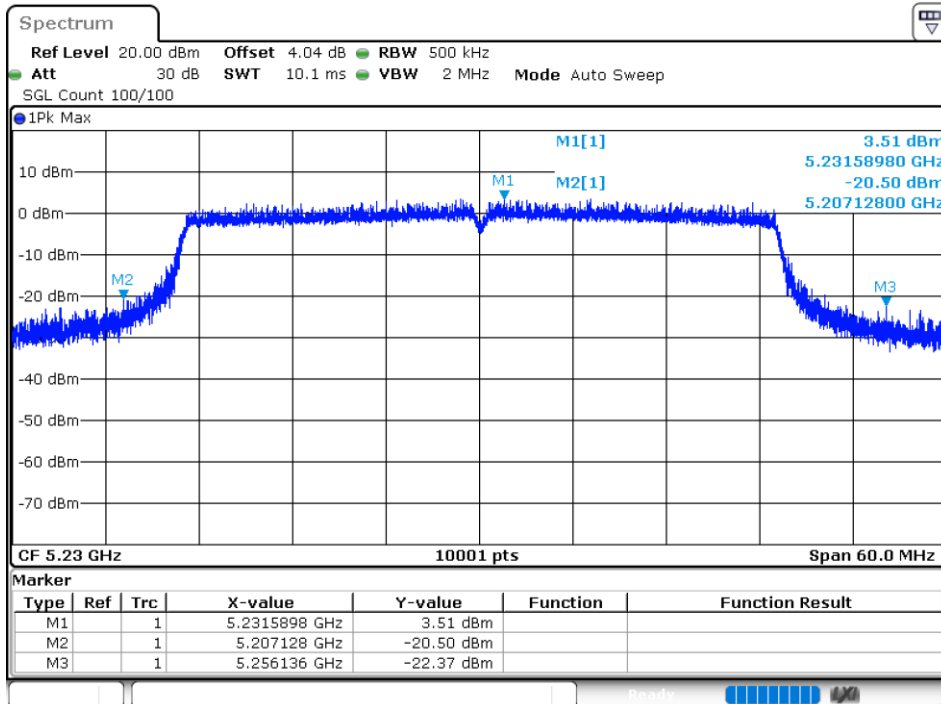
-26dB Bandwidth NVNT ax20 5240MHz Ant1



-26dB Bandwidth NVNT ax40 5190MHz Ant1



-26dB Bandwidth NVNT ax40 5230MHz Ant1

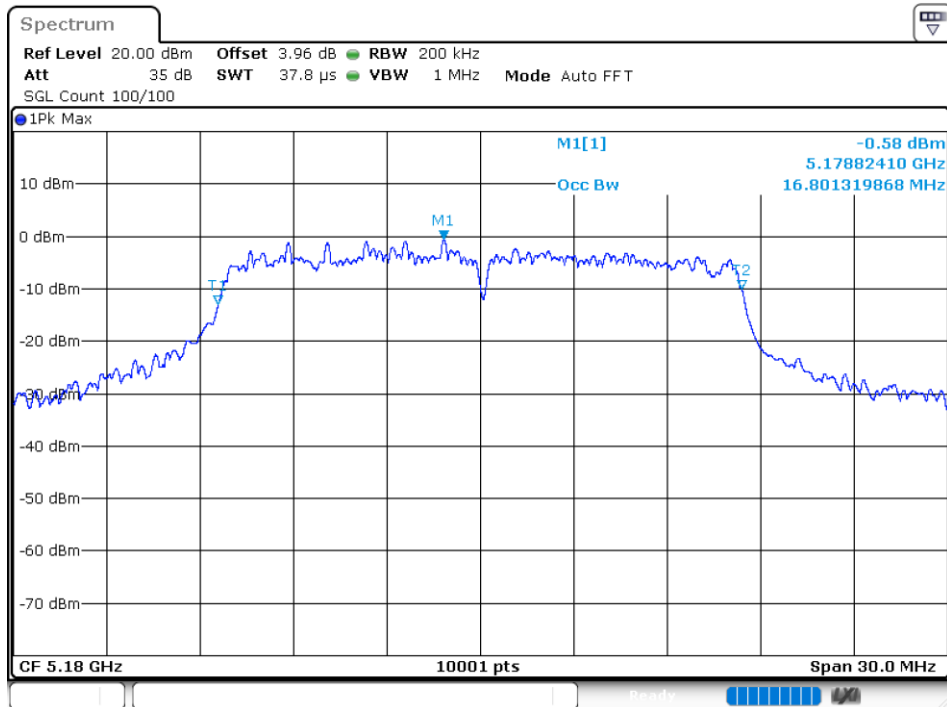


Occupied Channel Bandwidth

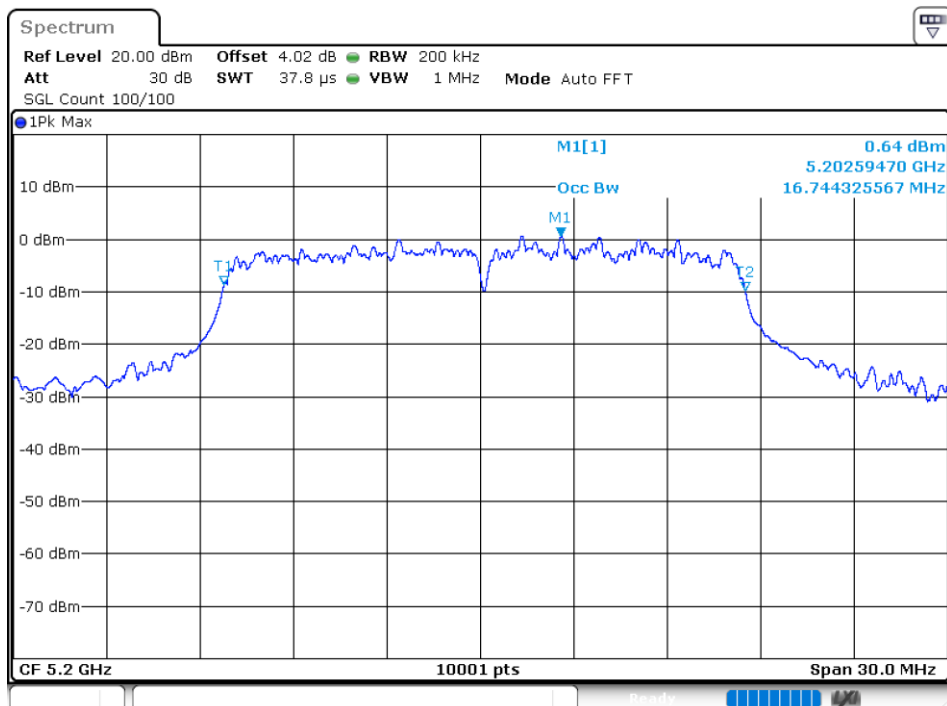
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5180	Ant1	16.801
NVNT	a	5200	Ant1	16.744
NVNT	a	5240	Ant1	16.699
NVNT	n20	5180	Ant1	18.076
NVNT	n20	5200	Ant1	17.875
NVNT	n20	5240	Ant1	18.013
NVNT	n40	5190	Ant1	36.758
NVNT	n40	5230	Ant1	36.62
NVNT	ac20	5180	Ant1	17.788
NVNT	ac20	5200	Ant1	17.836
NVNT	ac20	5240	Ant1	17.911
NVNT	ac40	5190	Ant1	36.728
NVNT	ac40	5230	Ant1	36.632
NVNT	ax20	5180	Ant1	19.117
NVNT	ax20	5200	Ant1	19.066
NVNT	ax20	5240	Ant1	18.991
NVNT	ax40	5190	Ant1	38.048
NVNT	ax40	5230	Ant1	37.934

Test Graphs

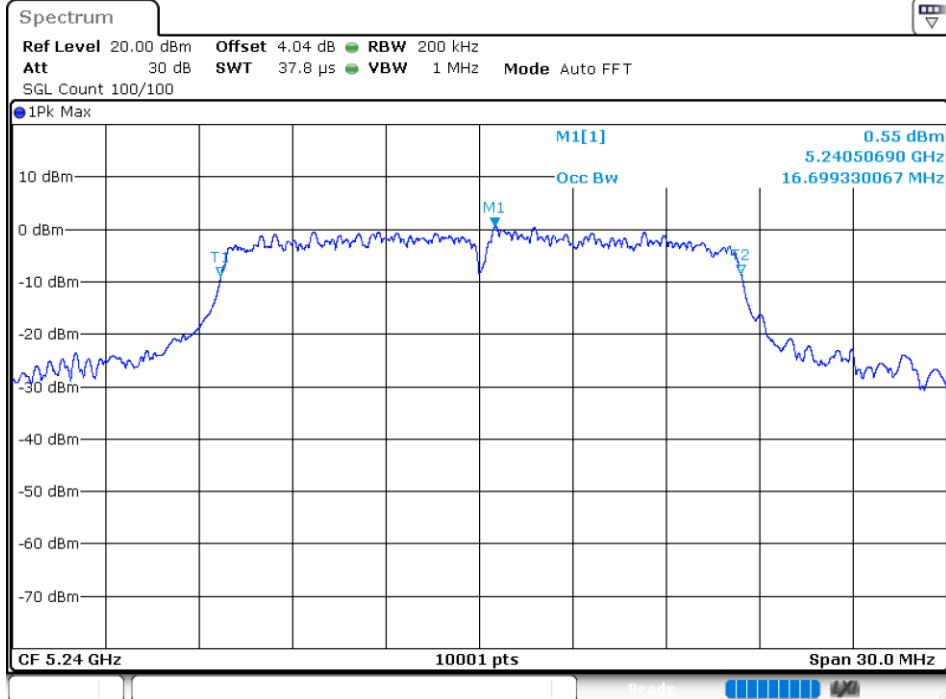
OBW NVNT a 5180MHz Ant1



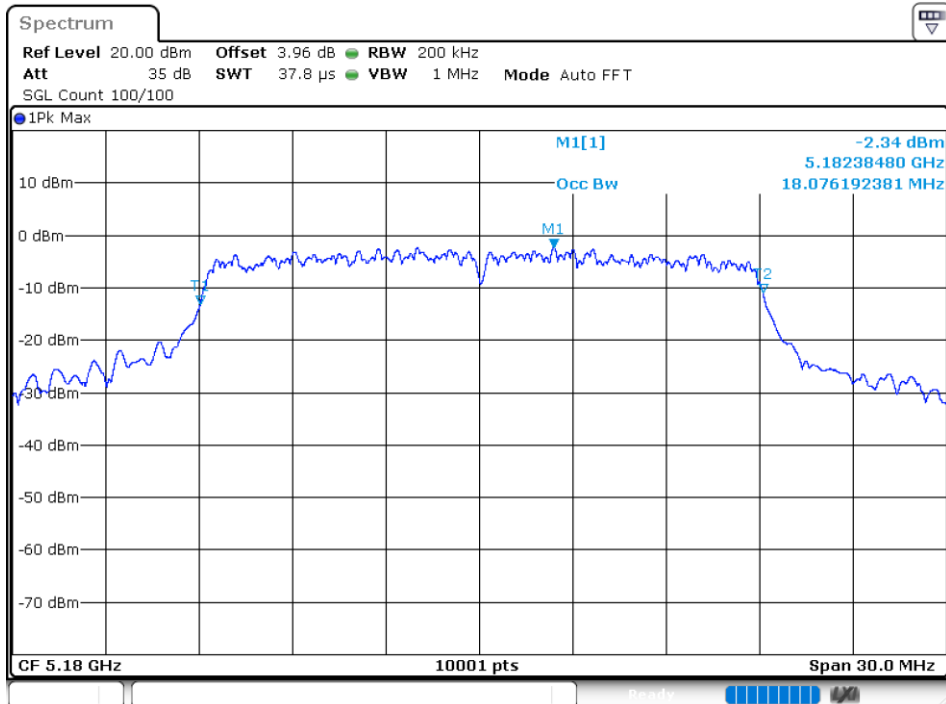
OBW NVNT a 5200MHz Ant1



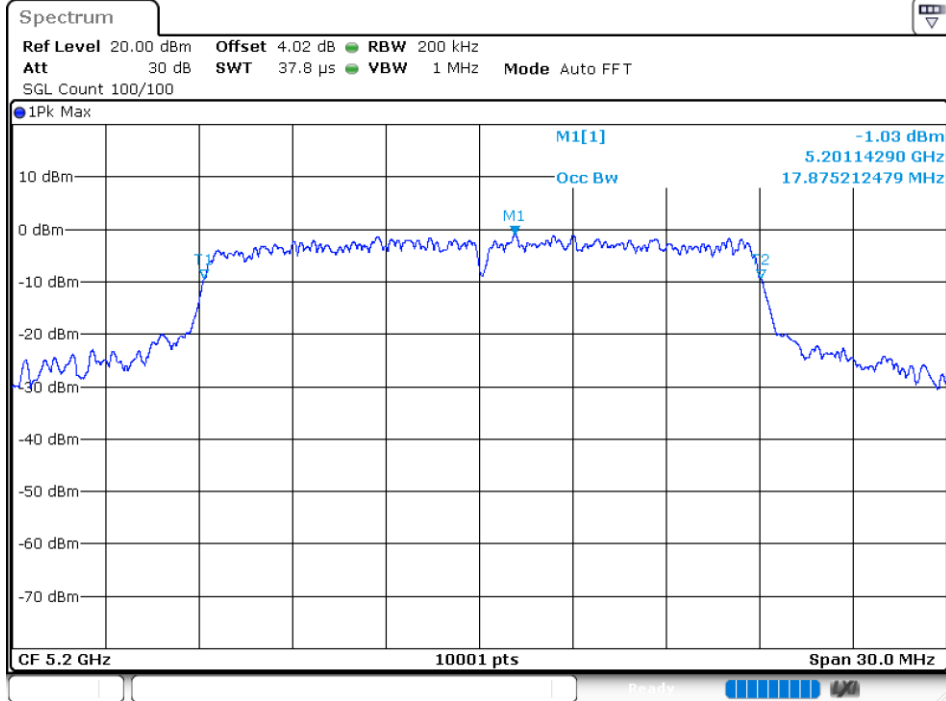
OBW NVNT a 5240MHz Ant1



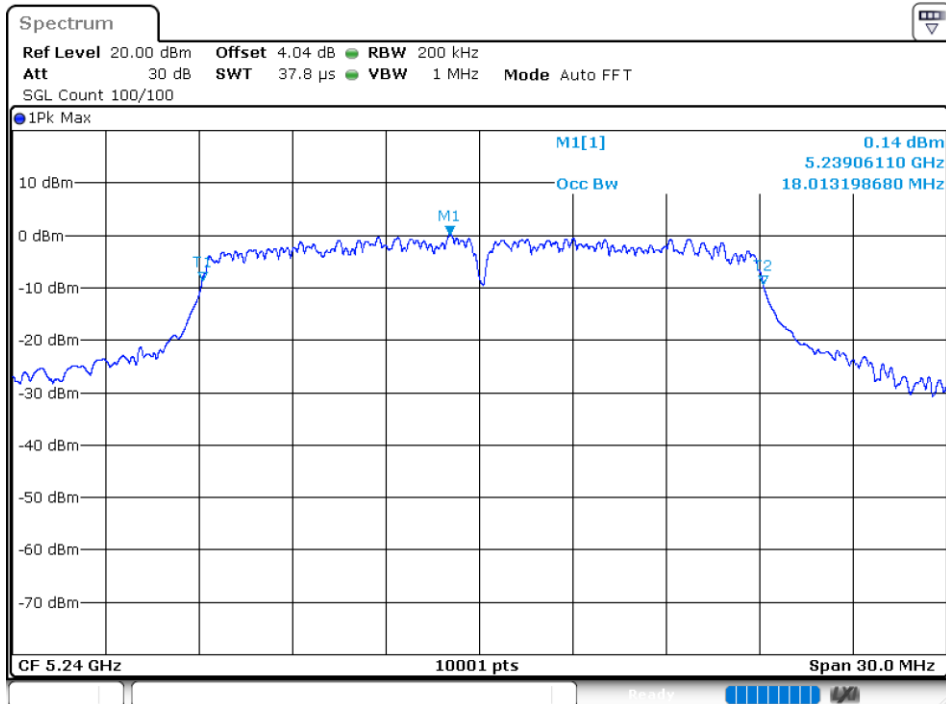
OBW NVNT n20 5180MHz Ant1



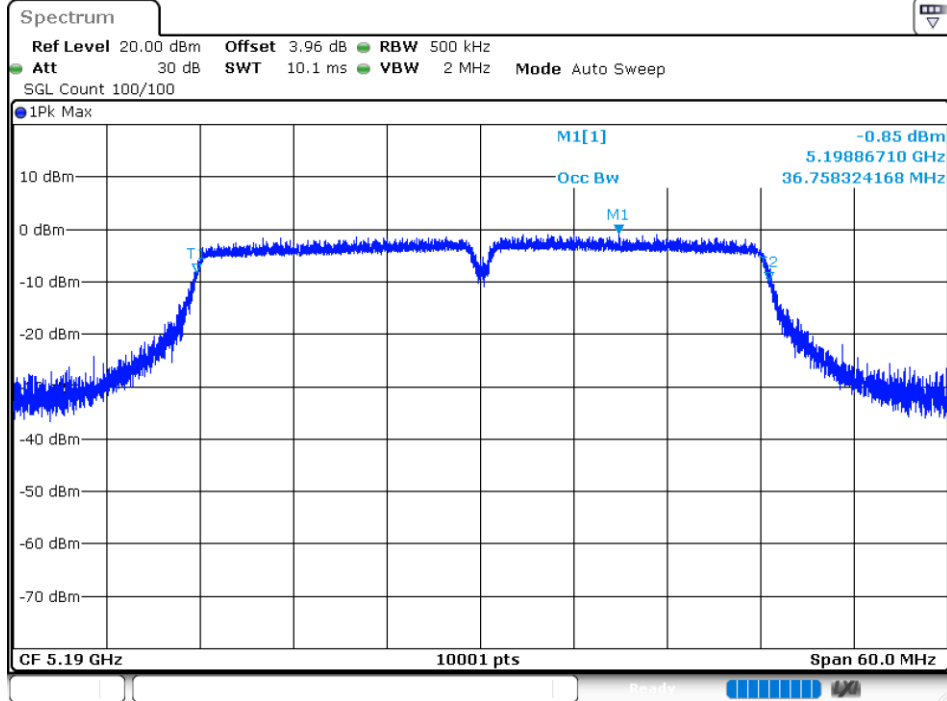
OBW NVNT n20 5200MHz Ant1



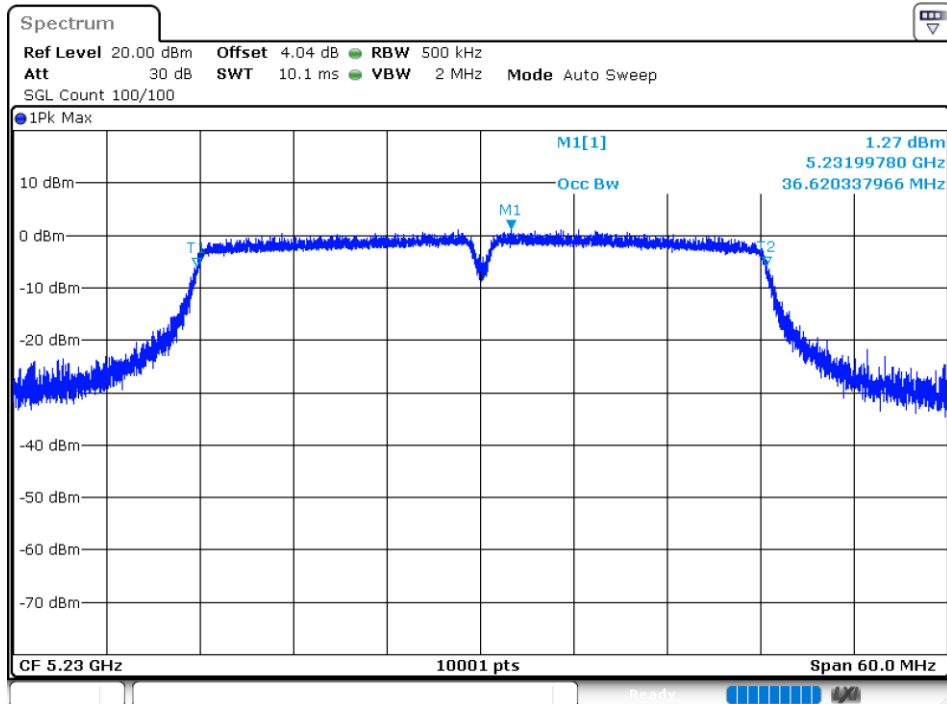
OBW NVNT n20 5240MHz Ant1



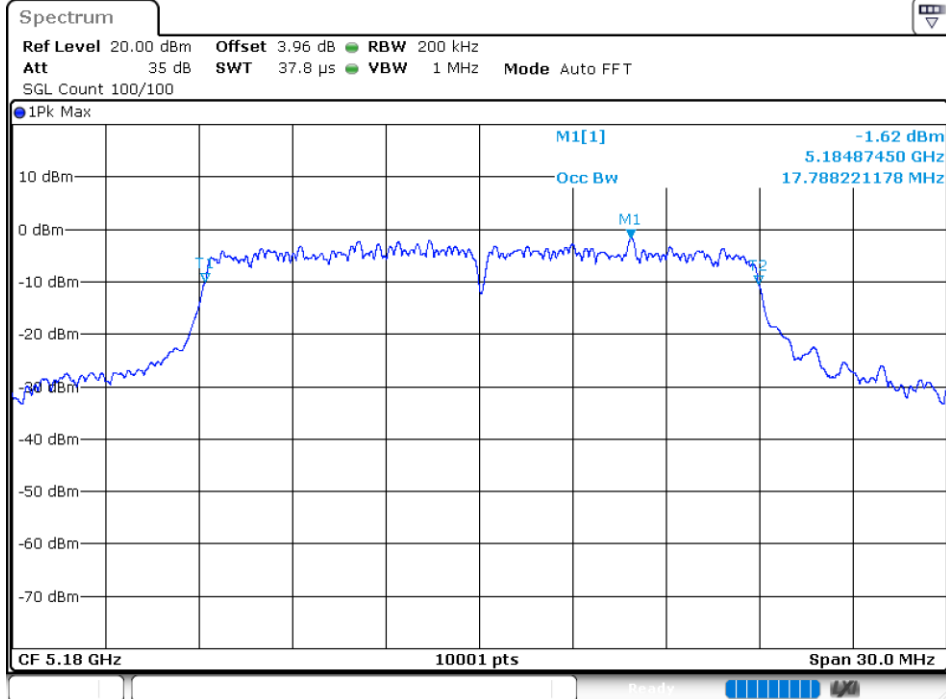
OBW NVNT n40 5190MHz Ant1



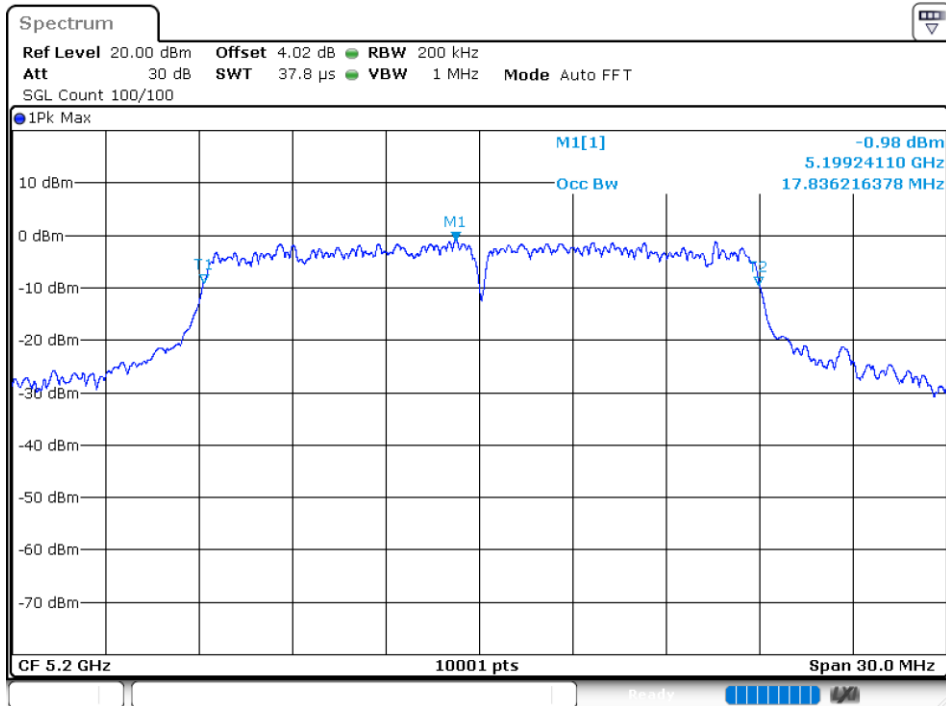
OBW NVNT n40 5230MHz Ant1



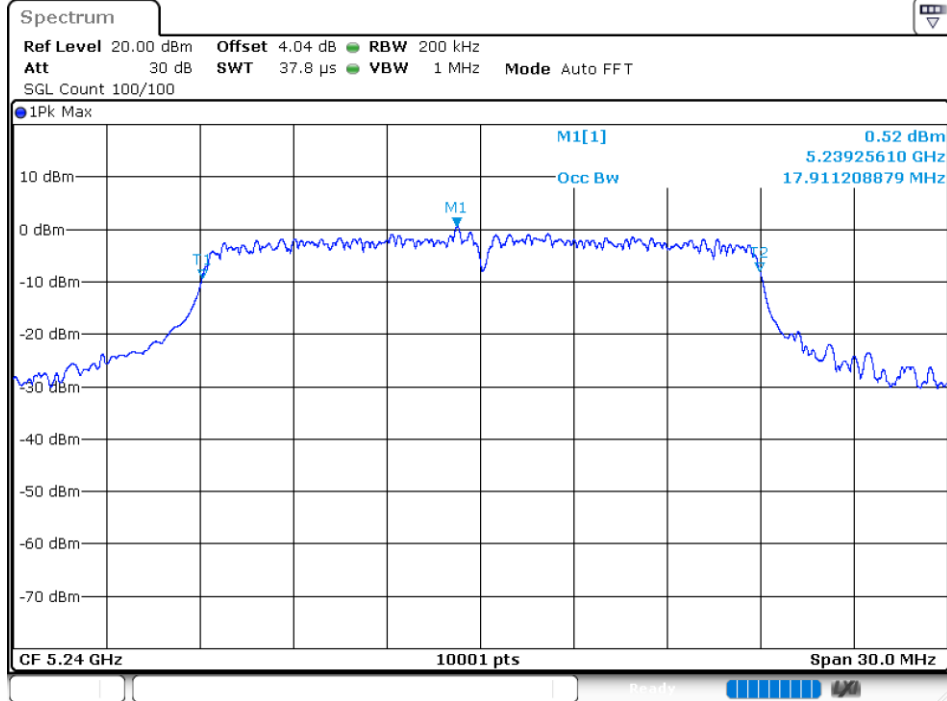
OBW NVNT ac20 5180MHz Ant1



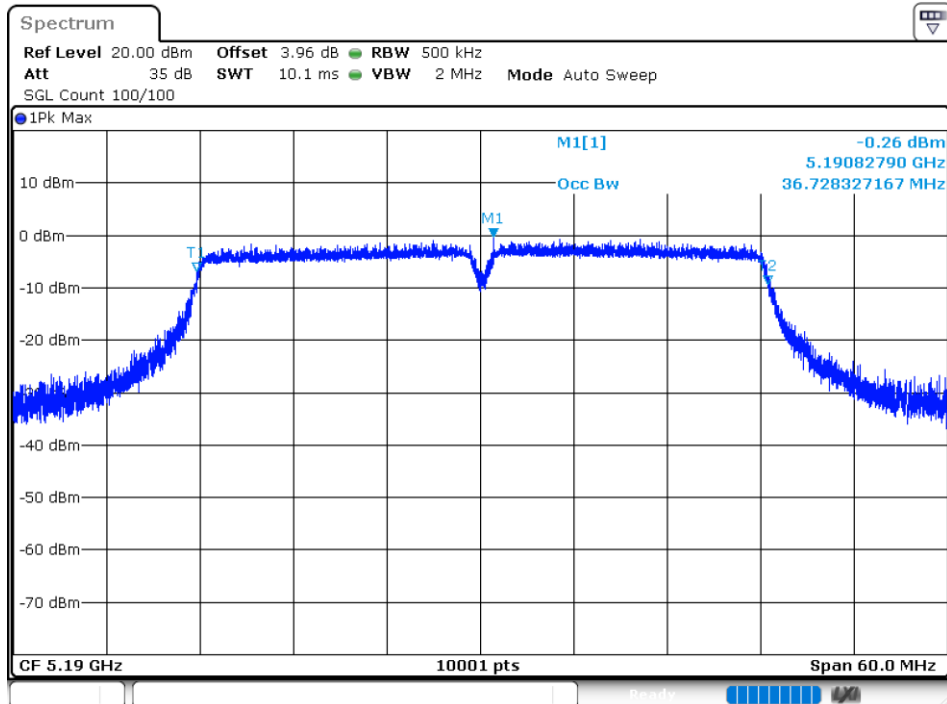
OBW NVNT ac20 5200MHz Ant1



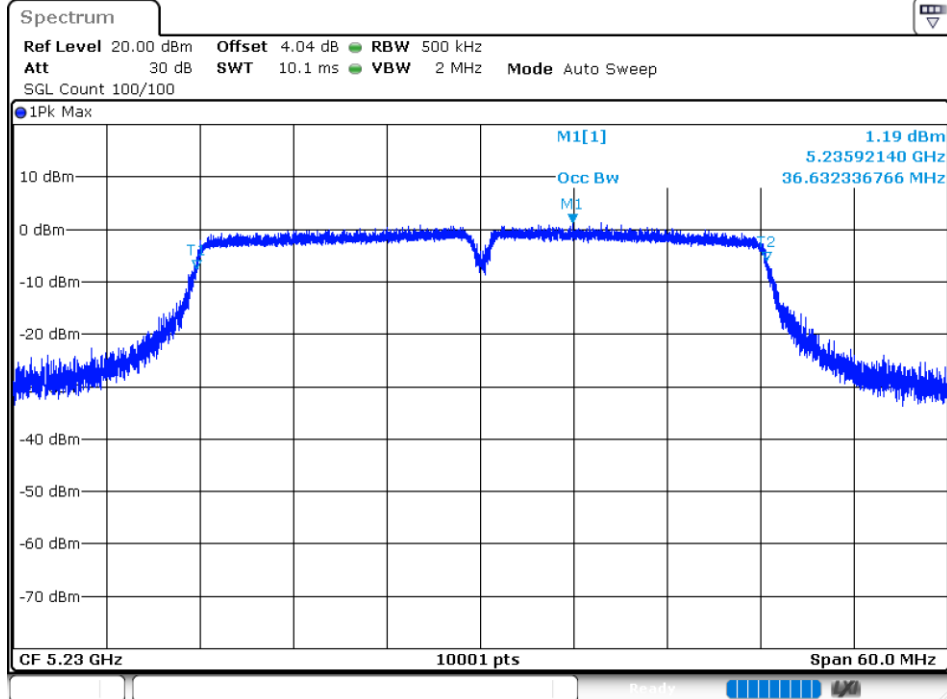
OBW NVNT ac20 5240MHz Ant1



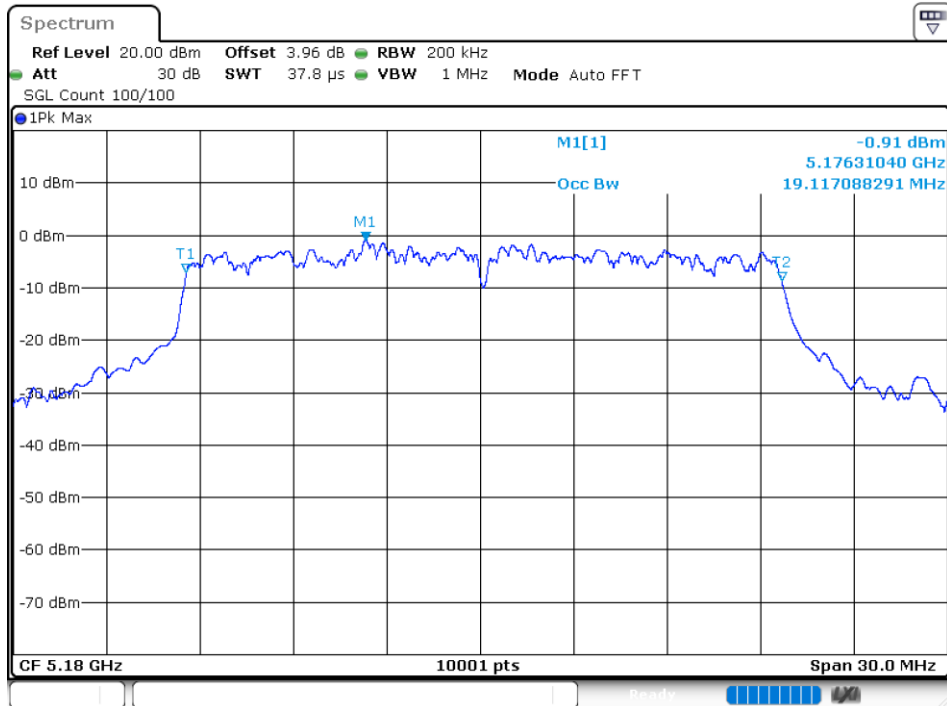
OBW NVNT ac40 5190MHz Ant1



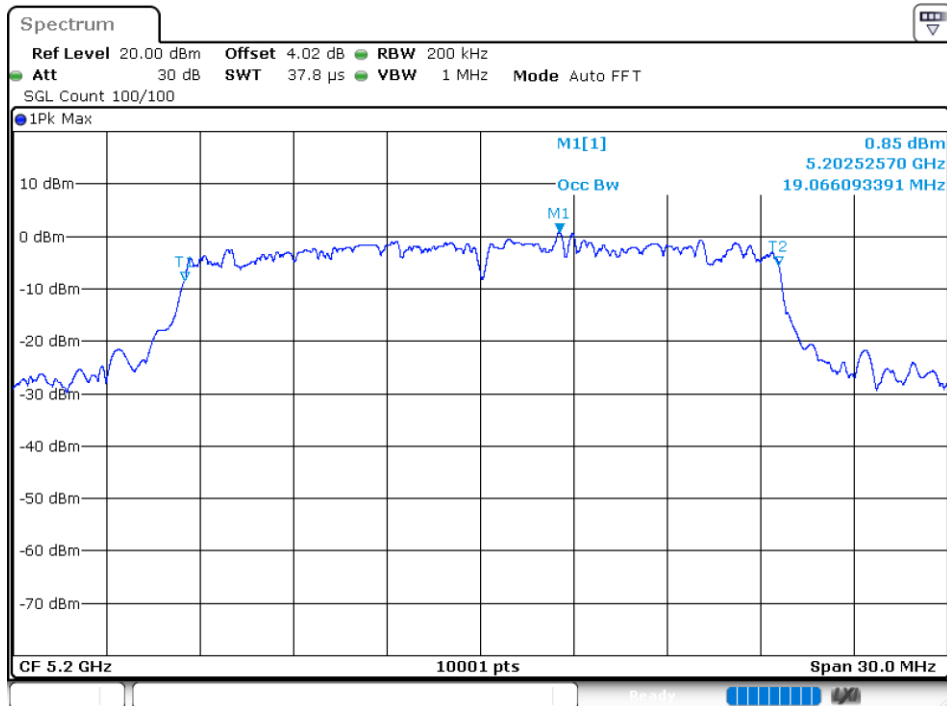
OBW NVNT ac40 5230MHz Ant1



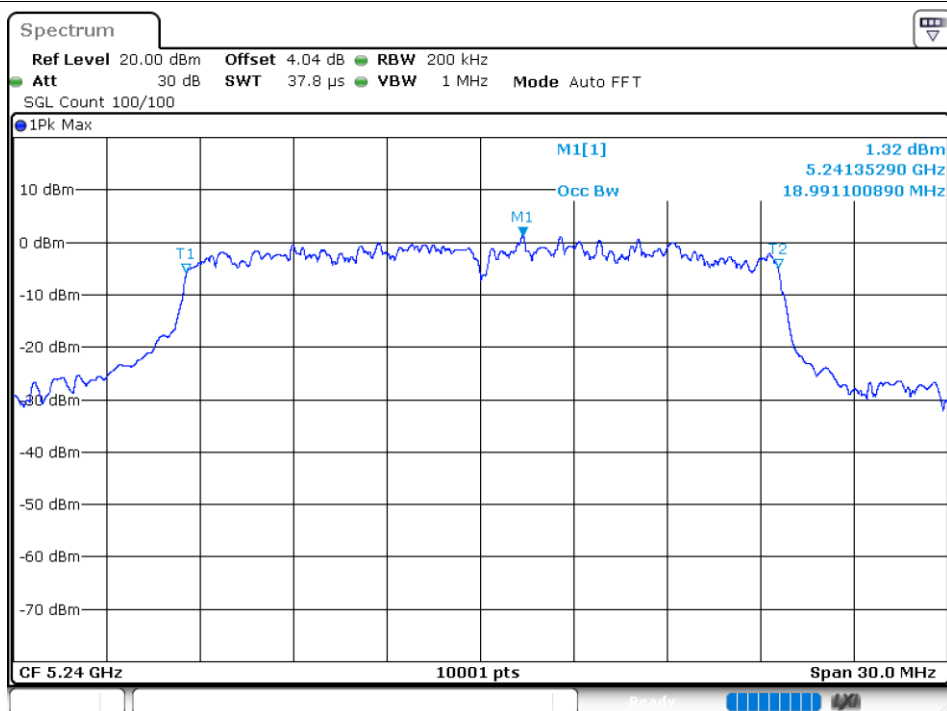
OBW NVNT ax20 5180MHz Ant1



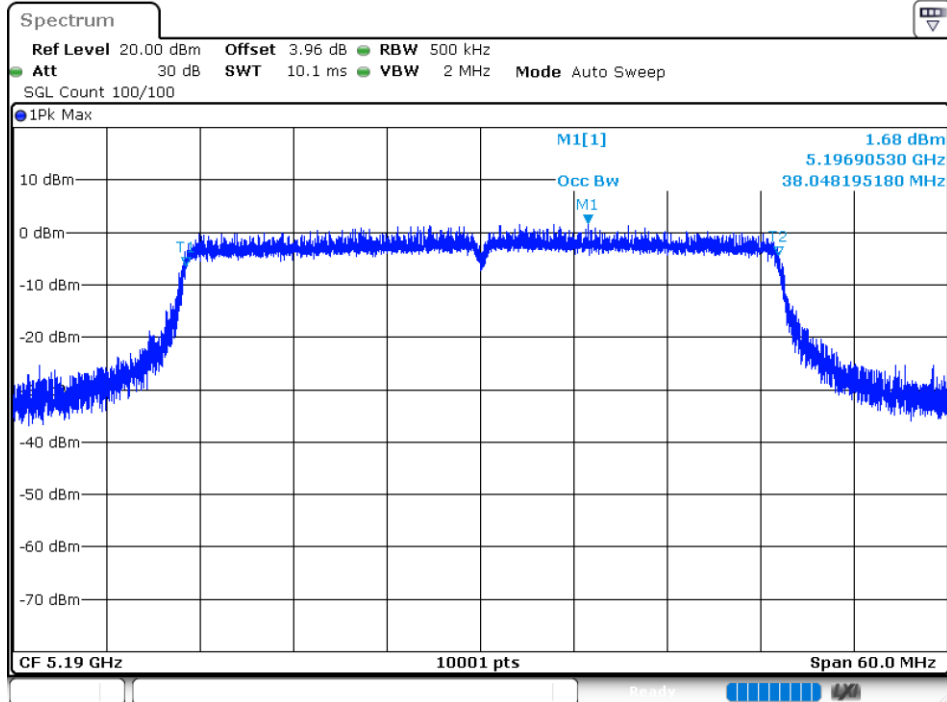
OBW NVNT ax20 5200MHz Ant1



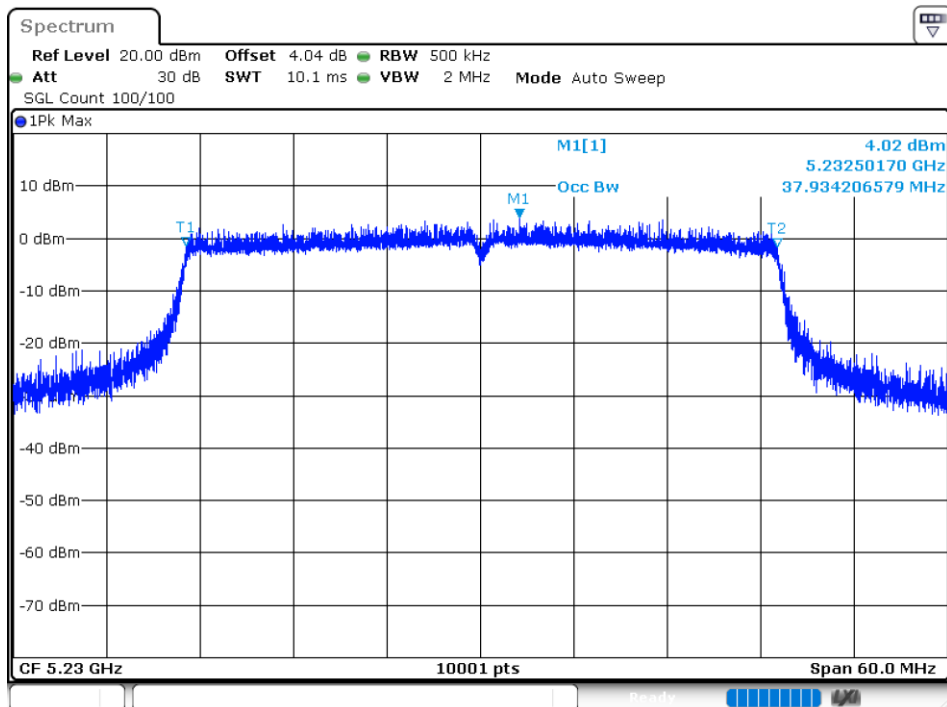
OBW NVNT ax20 5240MHz Ant1



OBW NVNT ax40 5190MHz Ant1



OBW NVNT ax40 5230MHz Ant1

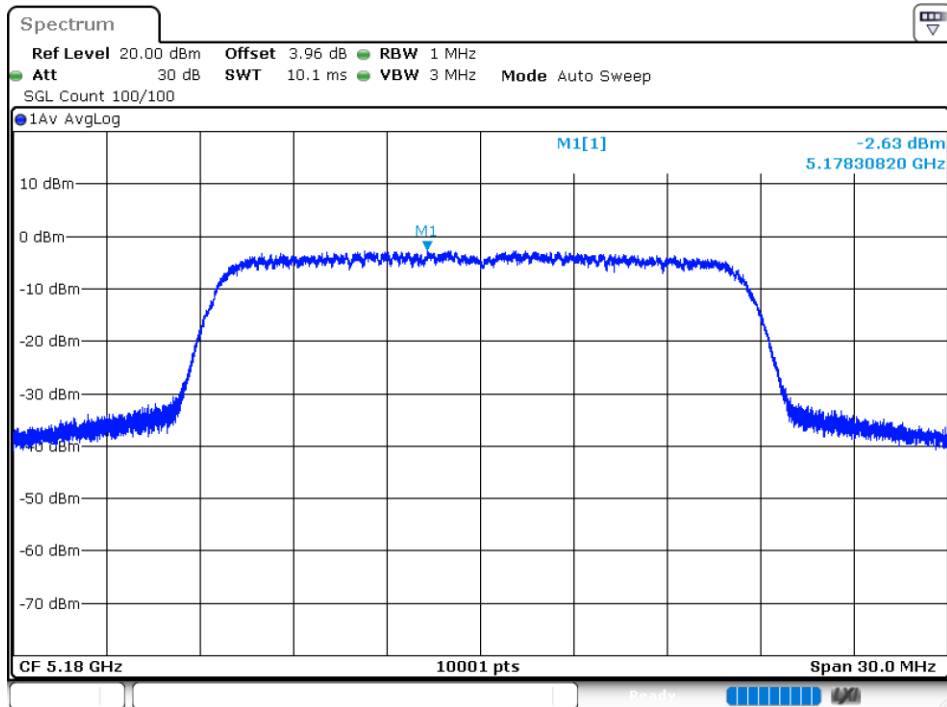


Maximum Power Spectral Density Level

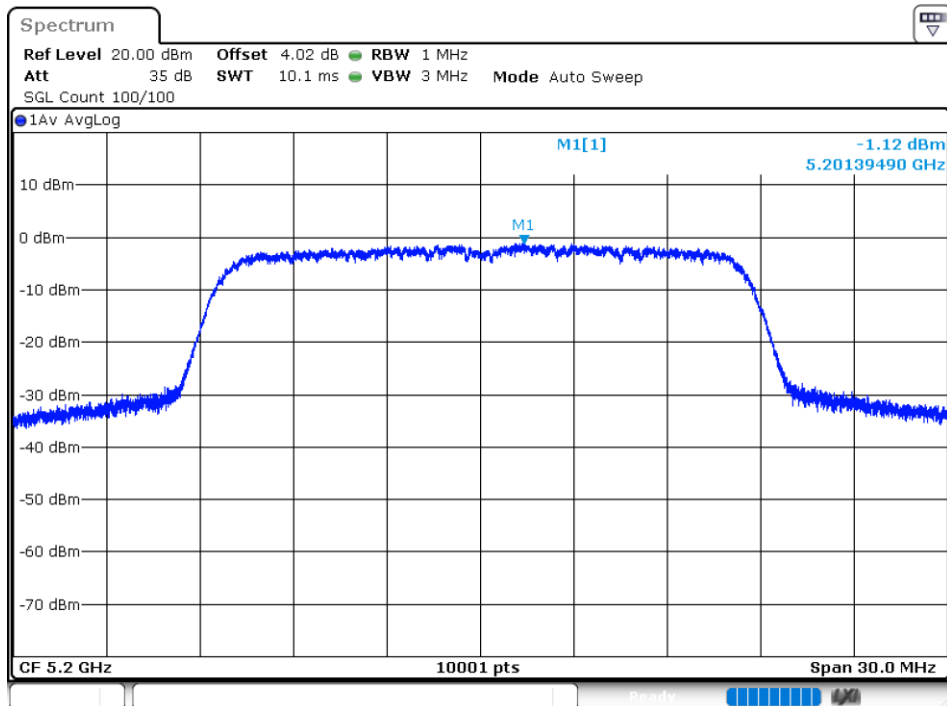
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	Ant1	-2.63	0.02	-2.61	11	Pass
NVNT	a	5200	Ant1	-1.12	0.02	-1.1	11	Pass
NVNT	a	5240	Ant1	-0.42	0.02	-0.4	11	Pass
NVNT	n20	5180	Ant1	-2.96	0.02	-2.94	11	Pass
NVNT	n20	5200	Ant1	-1.52	0.02	-1.5	11	Pass
NVNT	n20	5240	Ant1	-0.47	0.02	-0.45	11	Pass
NVNT	n40	5190	Ant1	-6.8	0.04	-6.76	11	Pass
NVNT	n40	5230	Ant1	-5.29	0.05	-5.24	11	Pass
NVNT	ac20	5180	Ant1	-3.07	0.02	-3.05	11	Pass
NVNT	ac20	5200	Ant1	-1.44	0.02	-1.42	11	Pass
NVNT	ac20	5240	Ant1	-0.85	0.02	-0.83	11	Pass
NVNT	ac40	5190	Ant1	-6.92	0.04	-6.88	11	Pass
NVNT	ac40	5230	Ant1	-5.22	0.16	-5.06	11	Pass
NVNT	ax20	5180	Ant1	-3.52	0.03	-3.49	11	Pass
NVNT	ax20	5200	Ant1	-1.97	0.03	-1.94	11	Pass
NVNT	ax20	5240	Ant1	-1.17	0.03	-1.14	11	Pass
NVNT	ax40	5190	Ant1	-7.89	0.2	-7.69	11	Pass
NVNT	ax40	5230	Ant1	-5.46	0.2	-5.26	11	Pass

Test Graphs

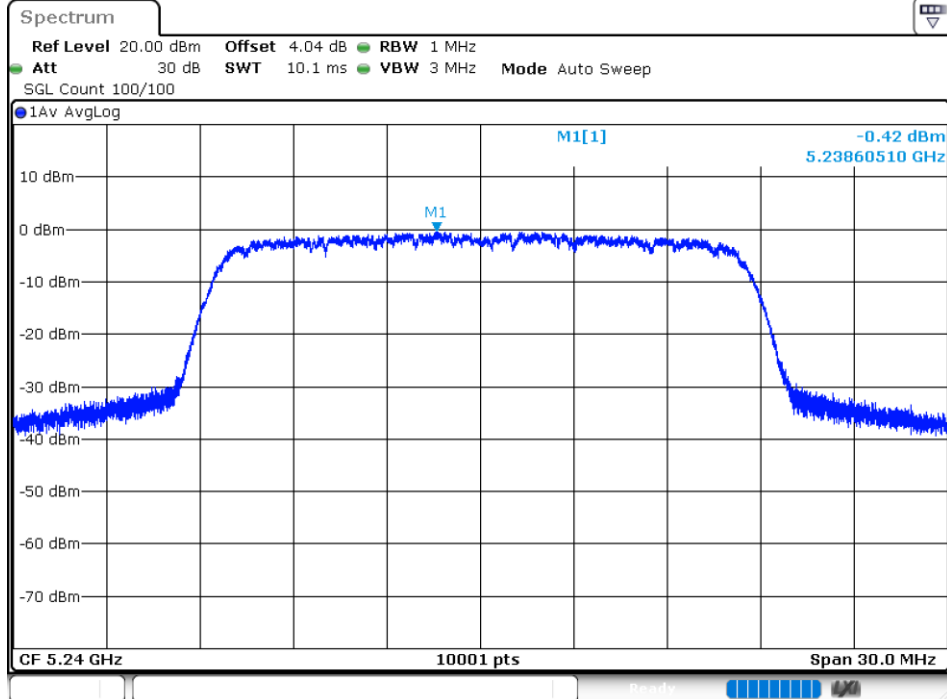
PSD NVNT a 5180MHz Ant1



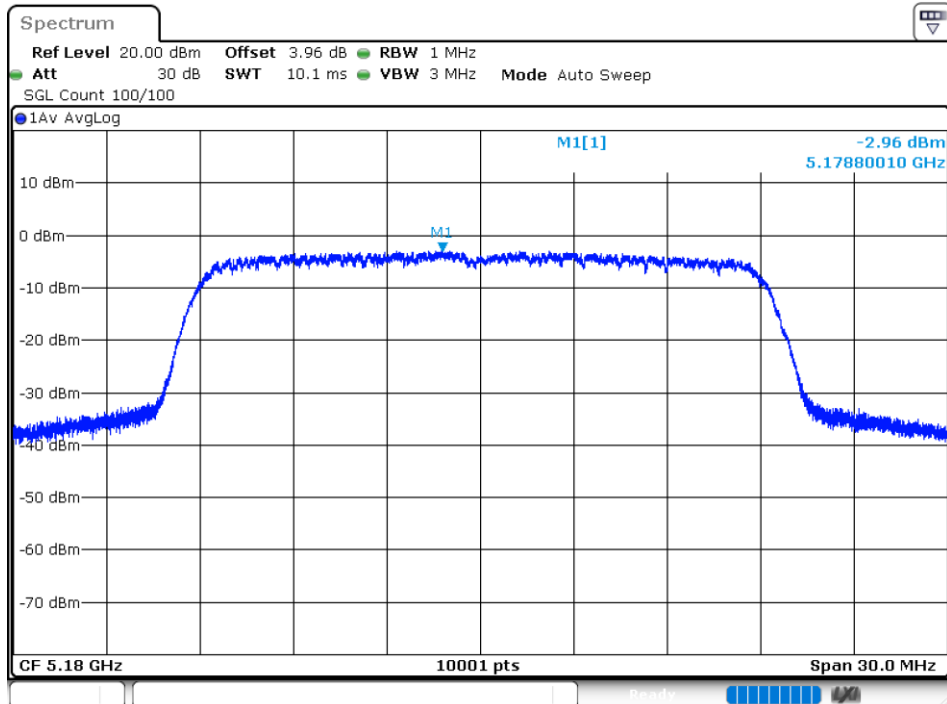
PSD NVNT a 5200MHz Ant1



PSD NVNT a 5240MHz Ant1



PSD NVNT n20 5180MHz Ant1

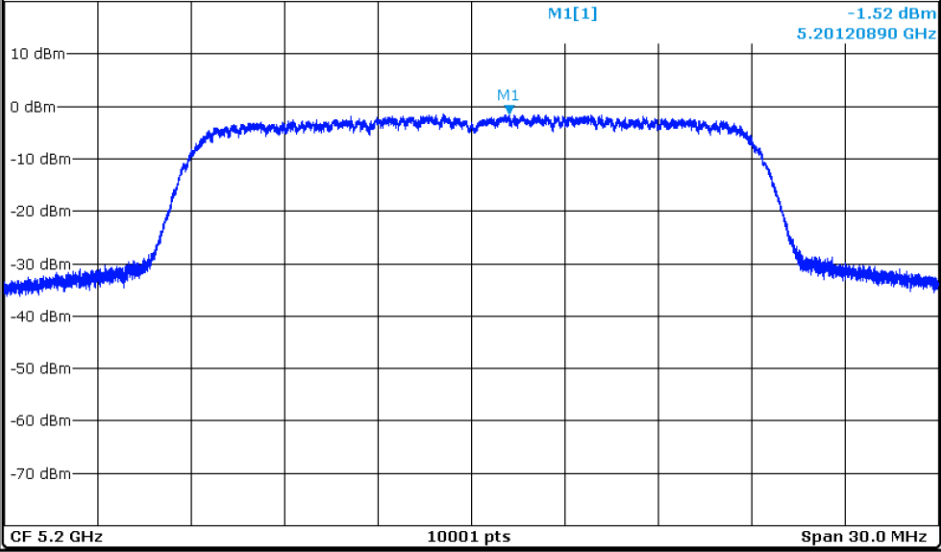


PSD NVNT n20 5200MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.02 dB RBW 1 MHz
Att 35 dB SWT 10.1 ms VBW 3 MHz Mode Auto Sweep
SGL Count 100/100

1Av AvgLog

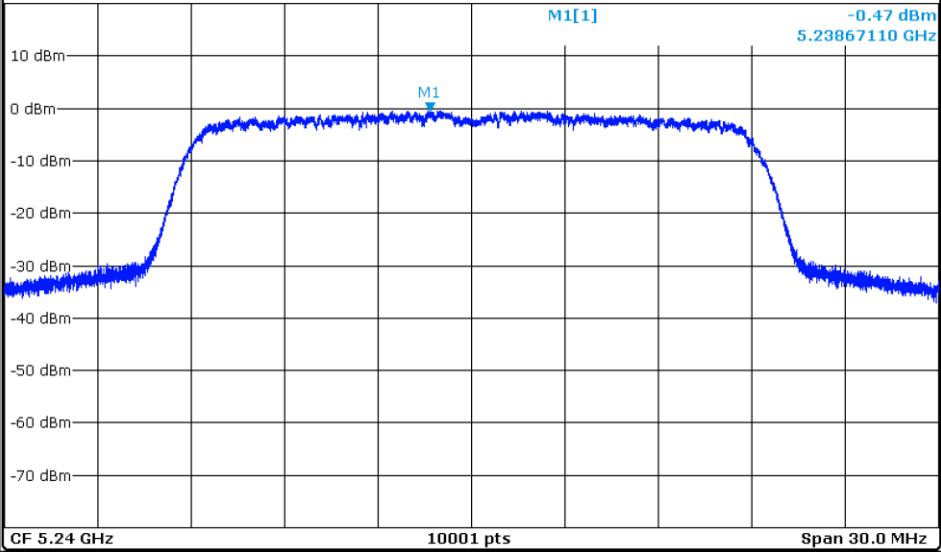


PSD NVNT n20 5240MHz Ant1

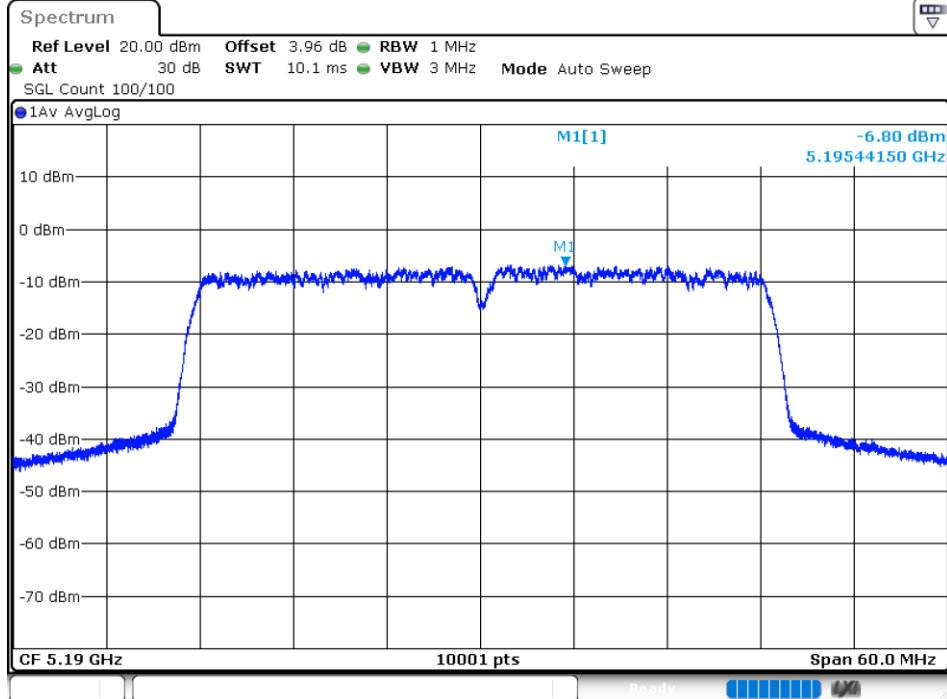
Spectrum

Ref Level 20.00 dBm Offset 4.04 dB RBW 1 MHz
Att 35 dB SWT 10.1 ms VBW 3 MHz Mode Auto Sweep
SGL Count 100/100

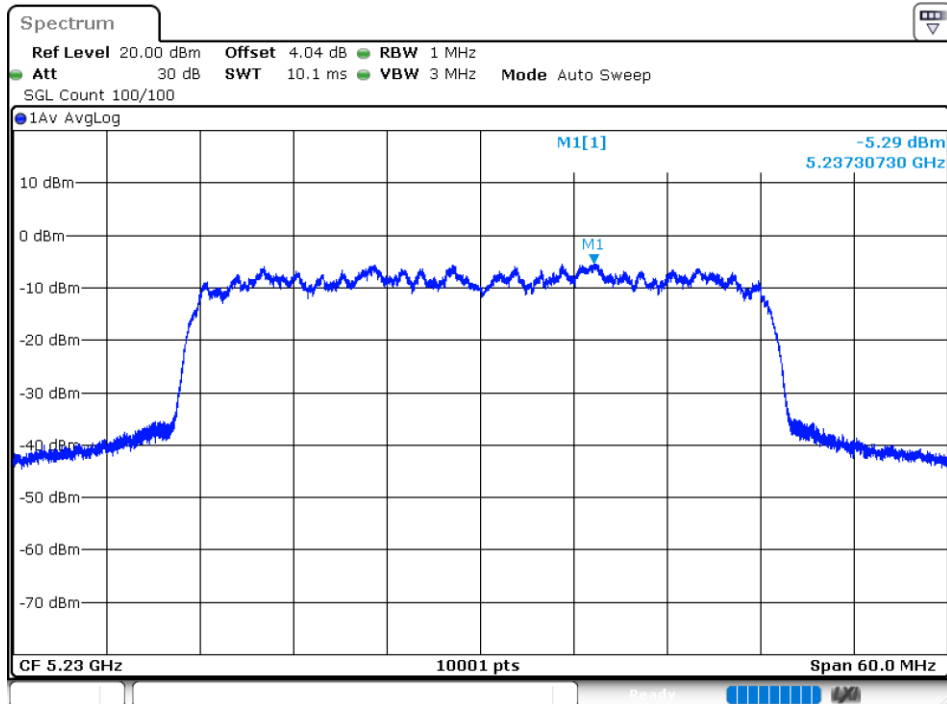
1Av AvgLog



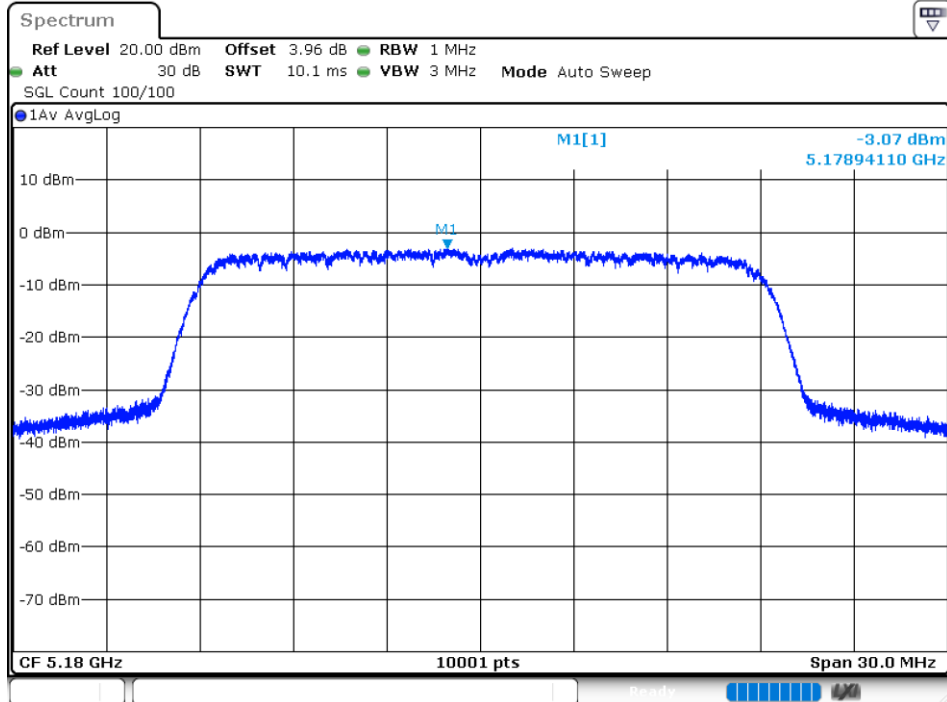
PSD NVNT n40 5190MHz Ant1



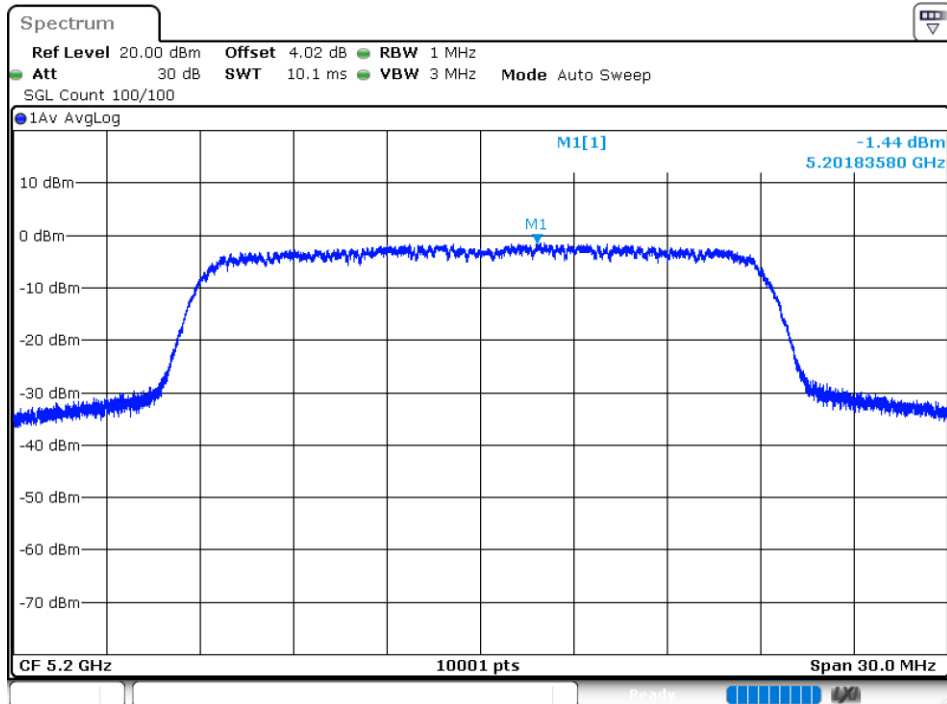
PSD NVNT n40 5230MHz Ant1



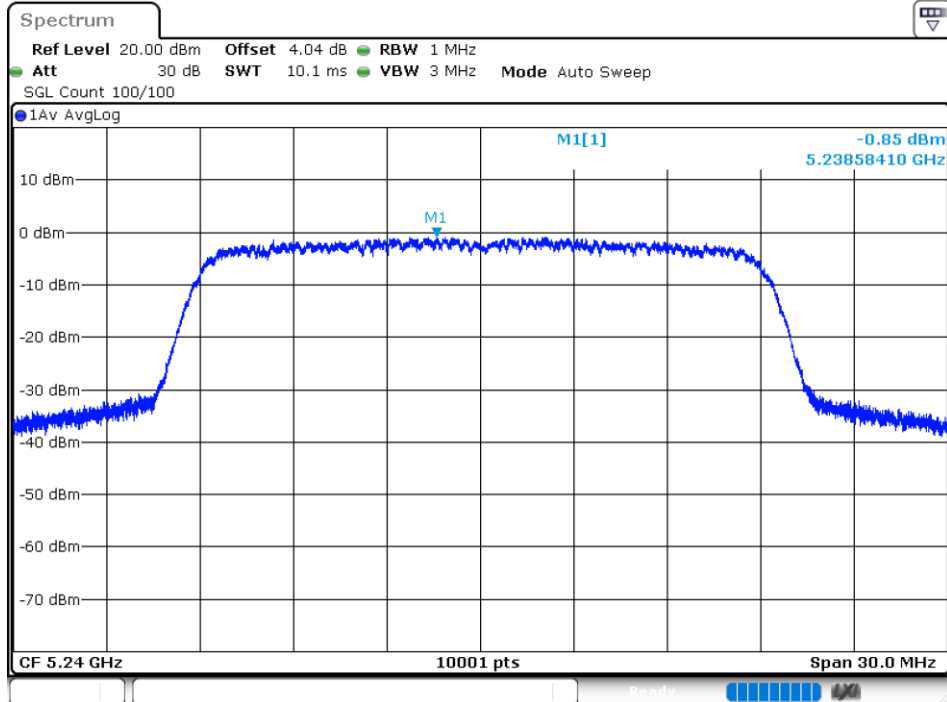
PSD NVNT ac20 5180MHz Ant1



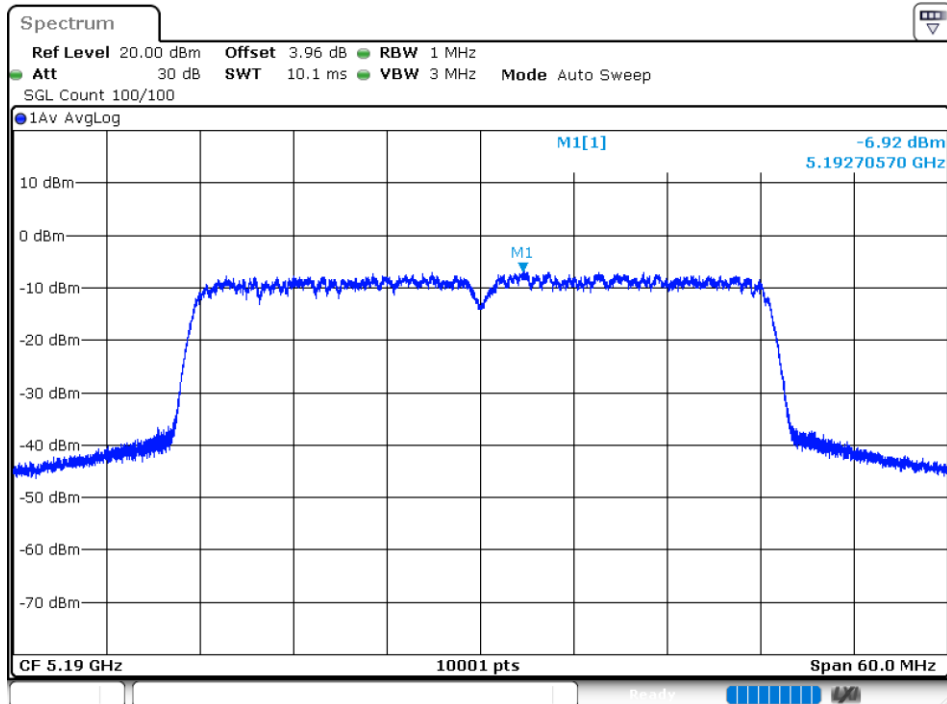
PSD NVNT ac20 5200MHz Ant1



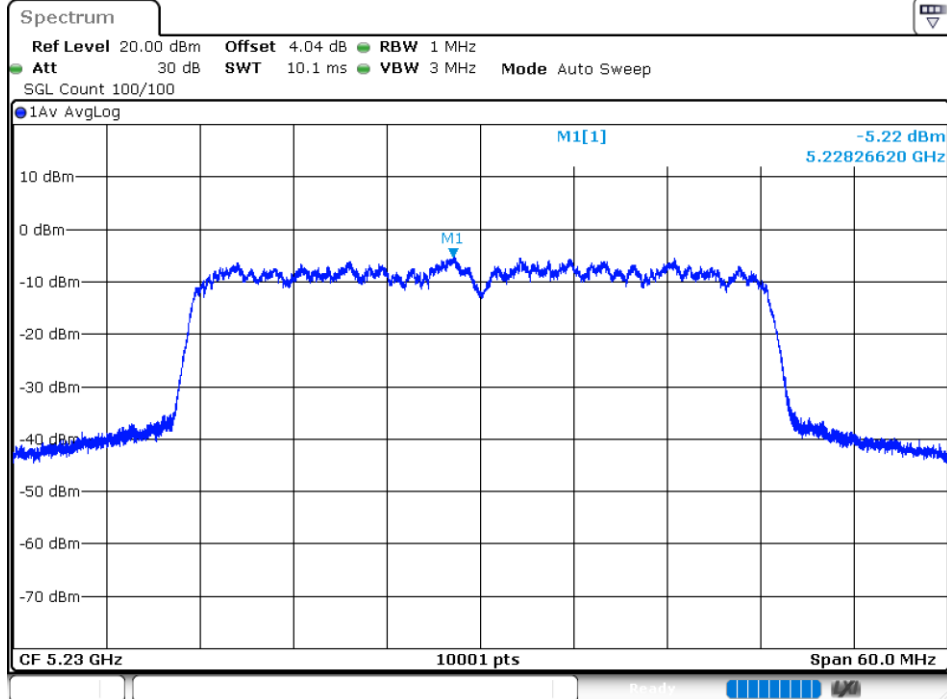
PSD NVNT ac20 5240MHz Ant1



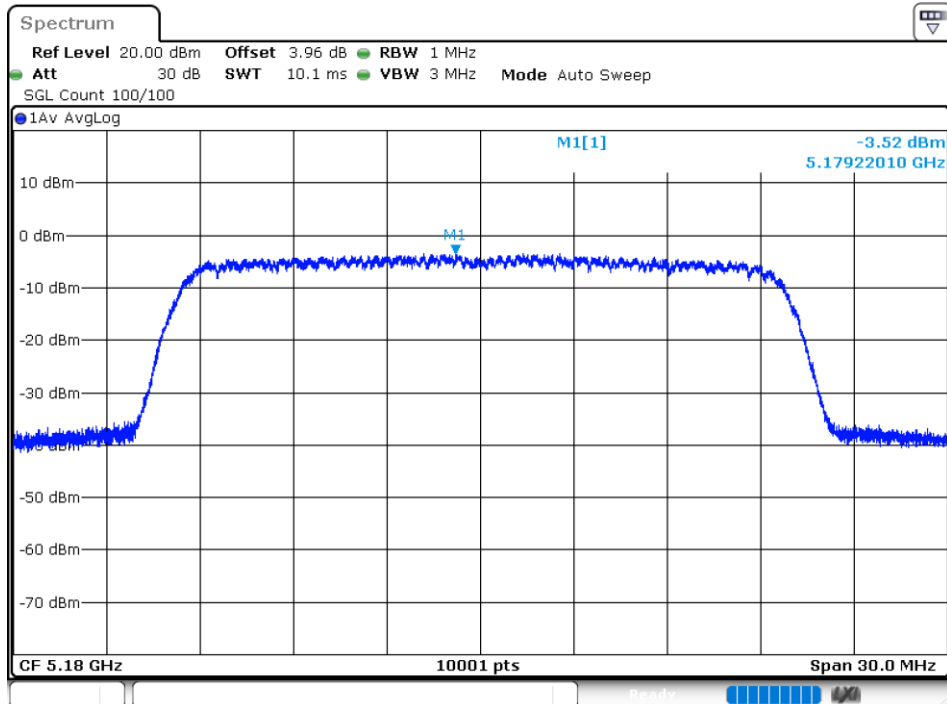
PSD NVNT ac40 5190MHz Ant1



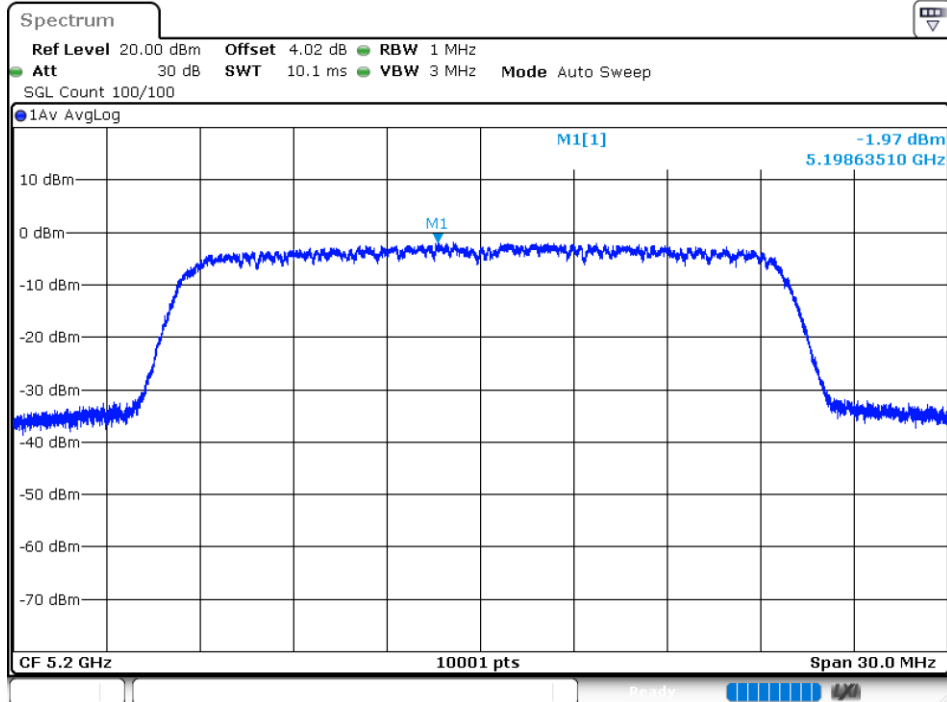
PSD NVNT ac40 5230MHz Ant1



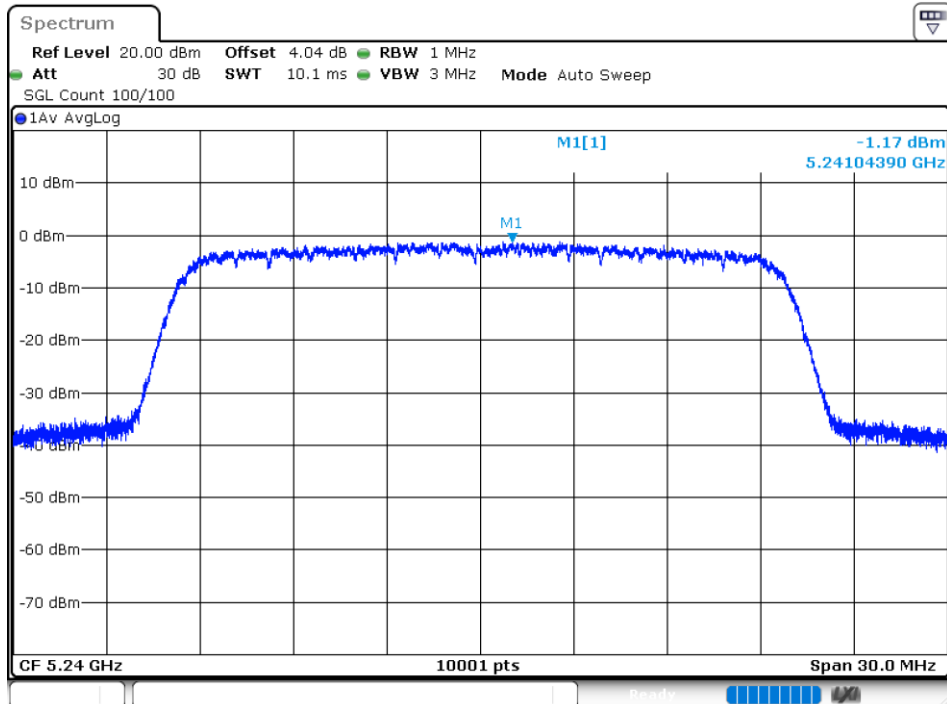
PSD NVNT ax20 5180MHz Ant1



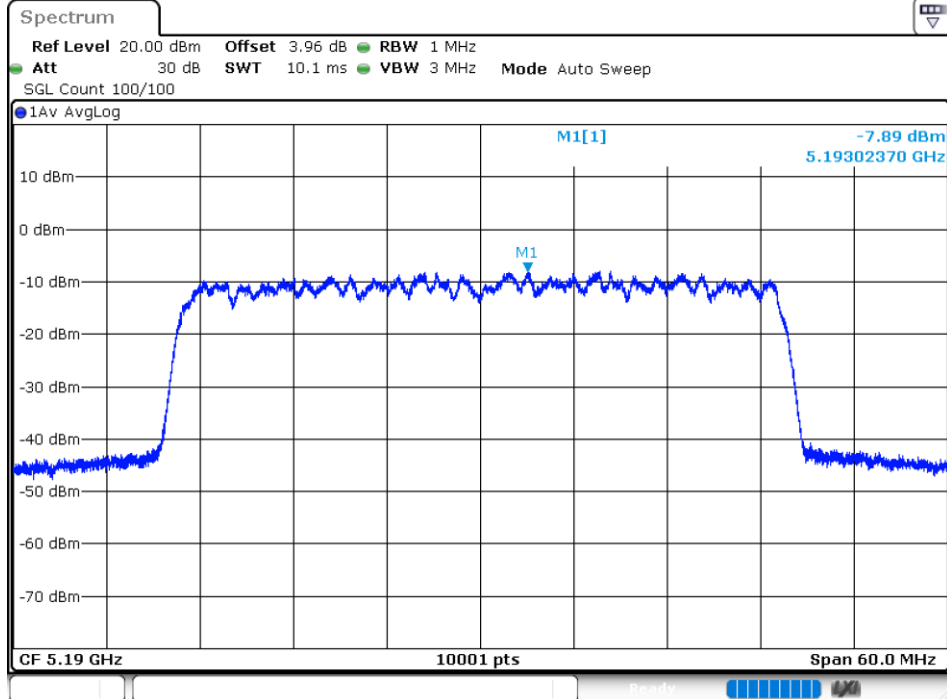
PSD NVNT ax20 5200MHz Ant1



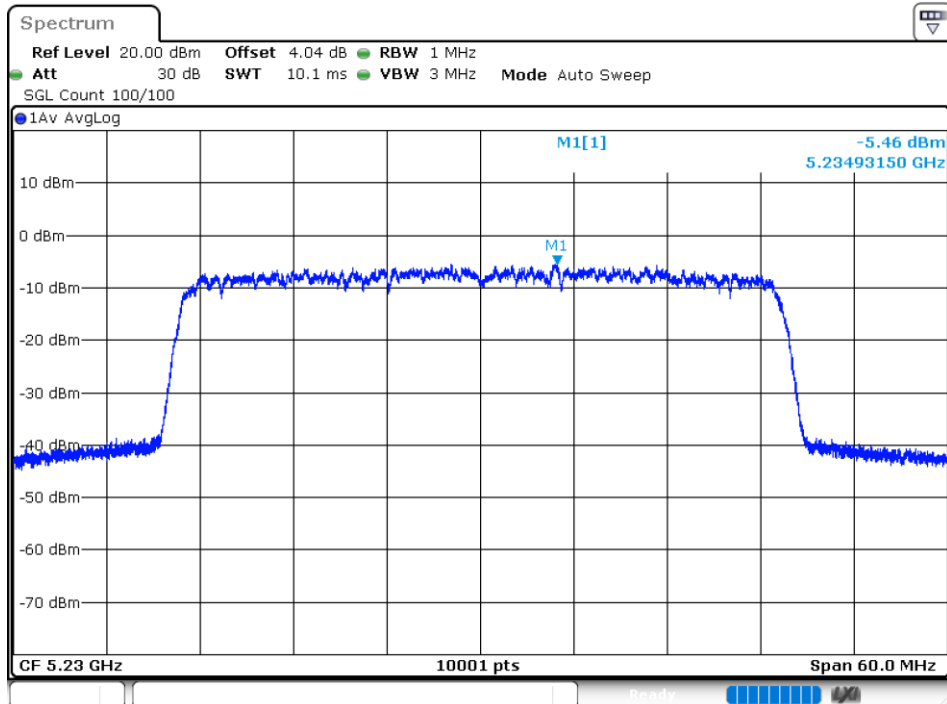
PSD NVNT ax20 5240MHz Ant1



PSD NVNT ax40 5190MHz Ant1



PSD NVNT ax40 5230MHz Ant1



Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	-29.31	-27	Pass
NVNT	a	5240	Ant1	-40.93	-27	Pass
NVNT	n20	5180	Ant1	-29.26	-27	Pass
NVNT	n20	5240	Ant1	-40.72	-27	Pass
NVNT	n40	5190	Ant1	-29.14	-27	Pass
NVNT	n40	5230	Ant1	-41.54	-27	Pass
NVNT	ac20	5180	Ant1	-29.16	-27	Pass
NVNT	ac20	5240	Ant1	-40.88	-27	Pass
NVNT	ac40	5190	Ant1	-27.65	-27	Pass
NVNT	ac40	5230	Ant1	-41.01	-27	Pass
NVNT	ax20	5180	Ant1	-29.35	-27	Pass
NVNT	ax20	5240	Ant1	-41.3	-27	Pass
NVNT	ax40	5190	Ant1	-28.15	-27	Pass
NVNT	ax40	5230	Ant1	-41.1	-27	Pass

Note: This test has increased antenna gain.

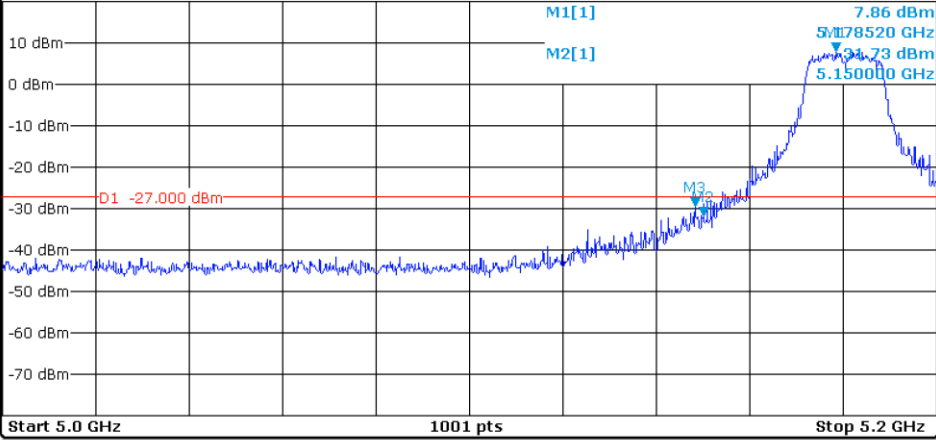
Test Graphs

Band Edge NVNT a 5180MHz Low Ant1

Spectrum

Ref Level 20.00 dBm Offset 5.46 dB RBW 1 MHz
Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep
SGL Count 100/100

1Pk Max



Marker

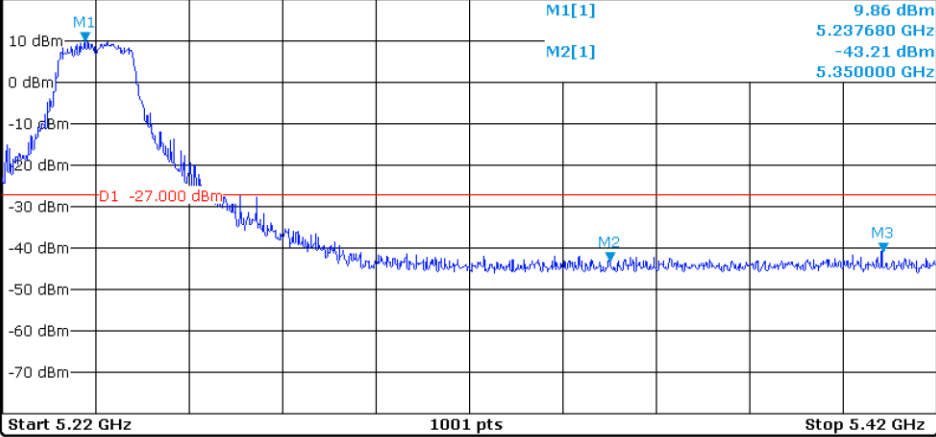
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	5.17852 GHz	7.86 dBm		
M2	1	1	5.15 GHz	-31.73 dBm		
M3	1	1	5.1484 GHz	-29.31 dBm		

Band Edge NVNT a 5240MHz High Ant1

Spectrum

Ref Level 20.00 dBm Offset 5.54 dB RBW 1 MHz
Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep
SGL Count 100/100

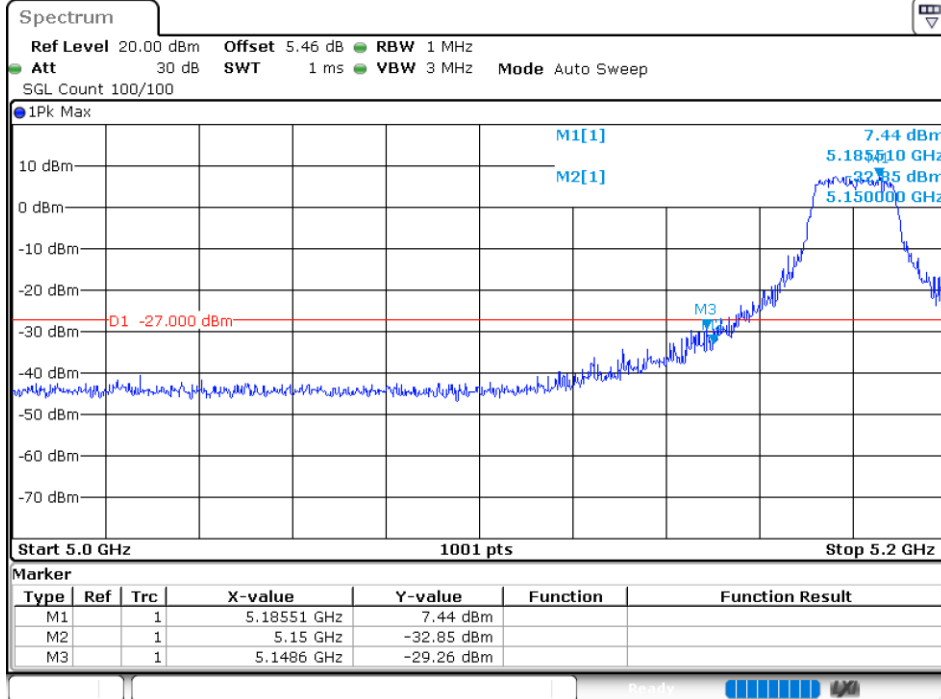
1Pk Max



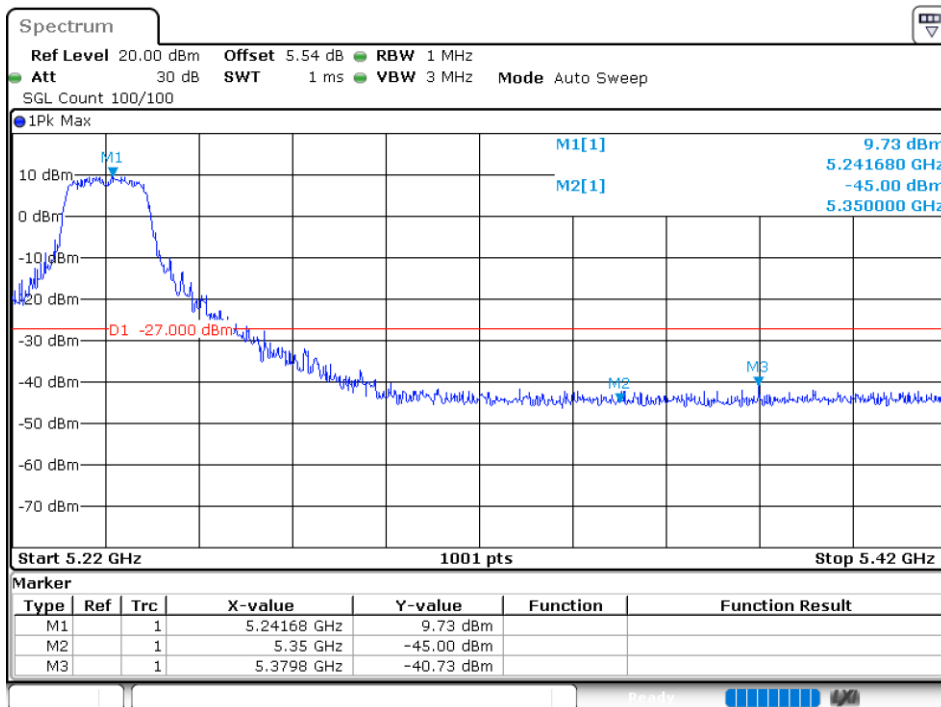
Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	5.23768 GHz	9.86 dBm		
M2	1	1	5.35 GHz	-43.21 dBm		
M3	1	1	5.4084 GHz	-40.93 dBm		

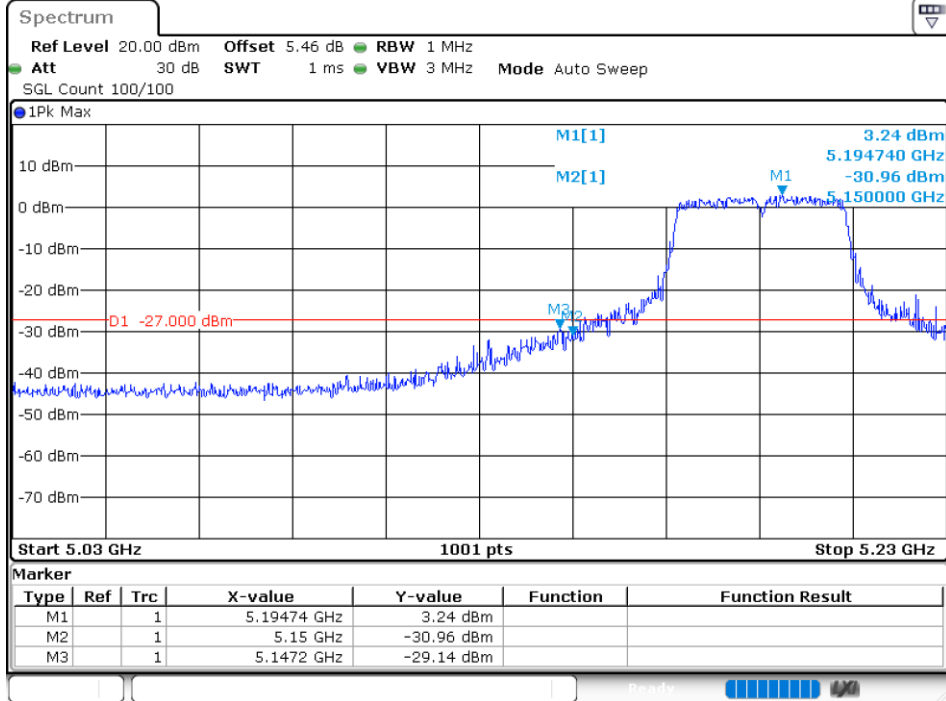
Band Edge NVNT n20 5180MHz Low Ant1



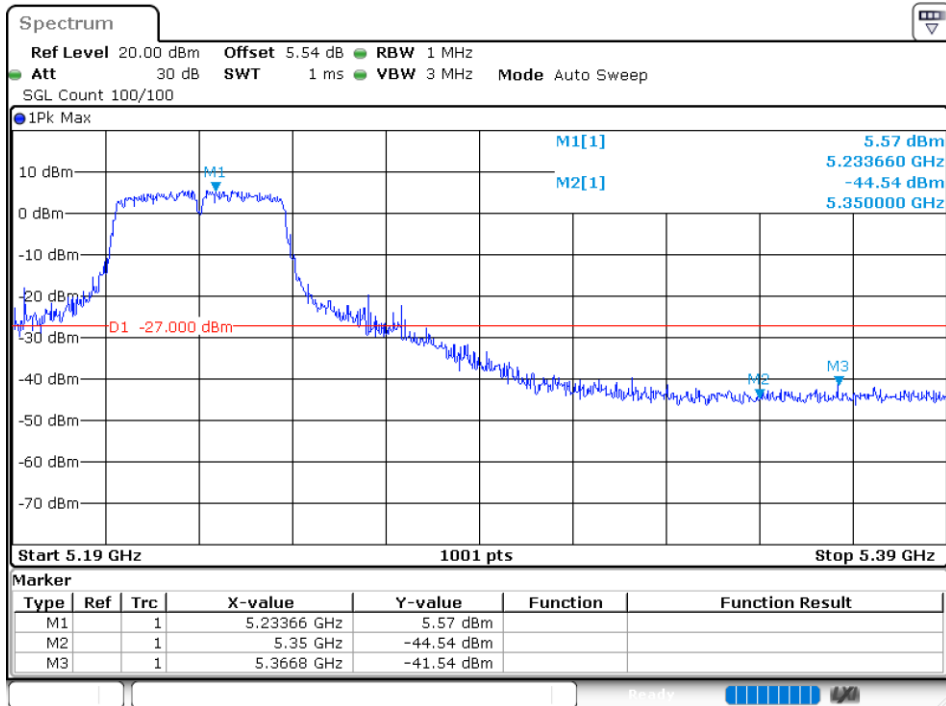
Band Edge NVNT n20 5240MHz High Ant1



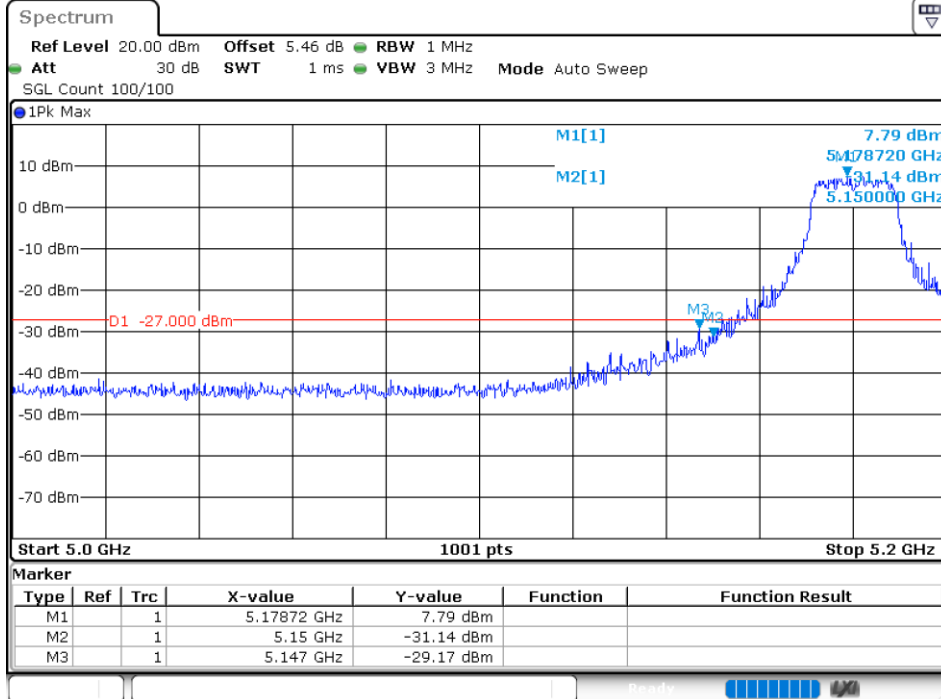
Band Edge NVNT n40 5190MHz Low Ant1



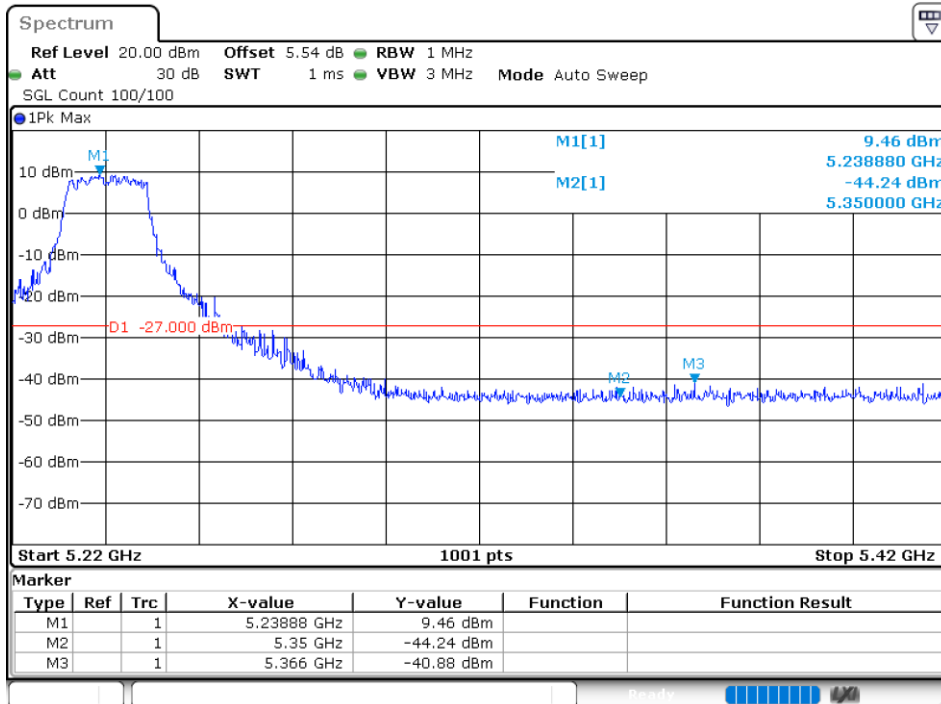
Band Edge NVNT n40 5230MHz High Ant1



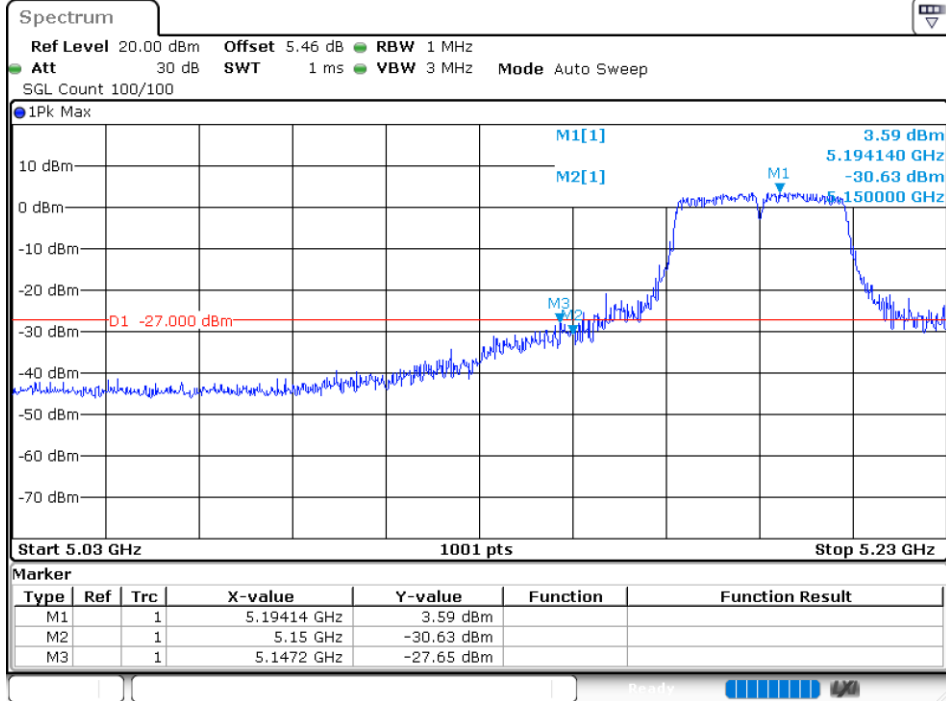
Band Edge NVNT ac20 5180MHz Low Ant1



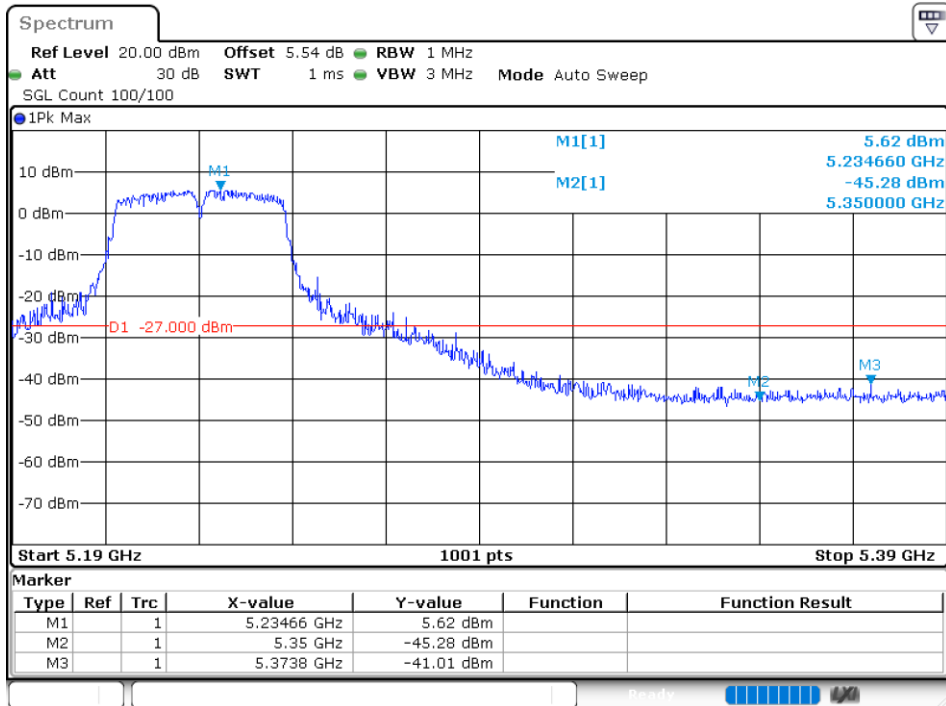
Band Edge NVNT ac20 5240MHz High Ant1



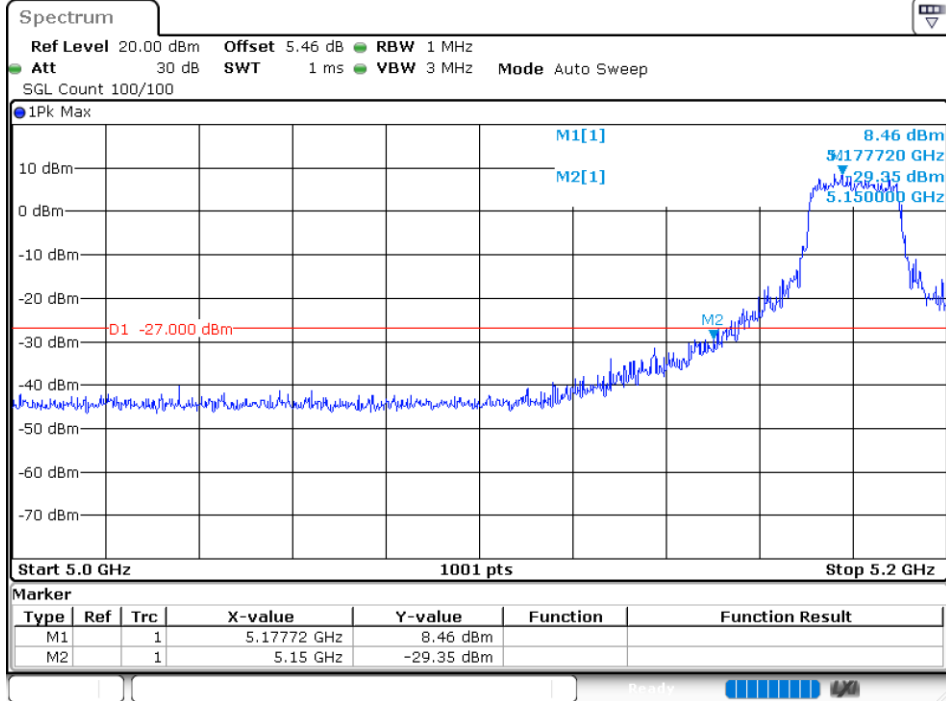
Band Edge NVNT ac40 5190MHz Low Ant1



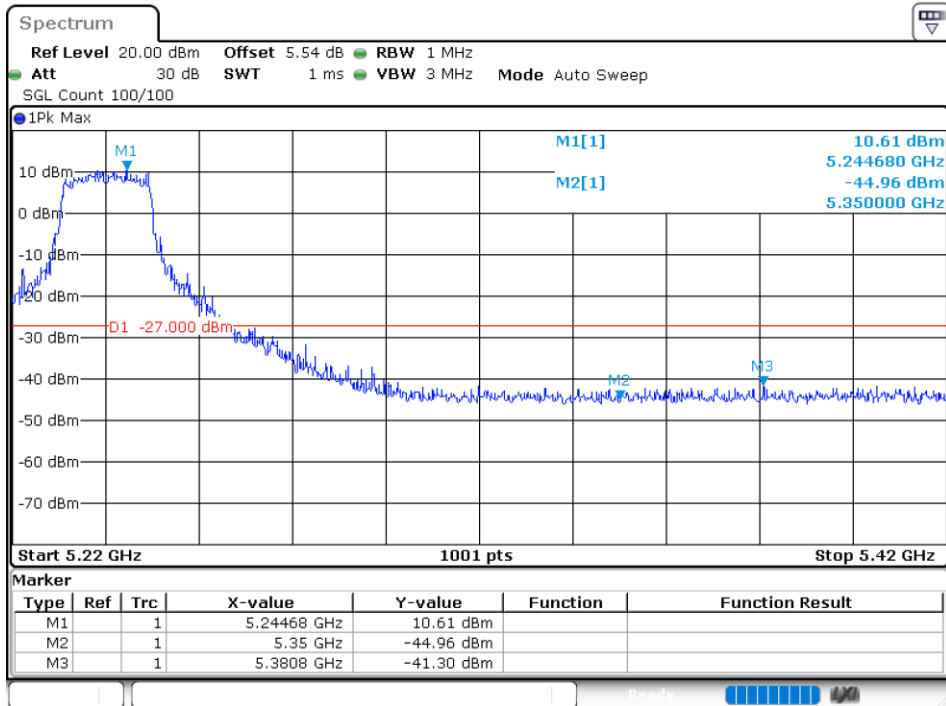
Band Edge NVNT ac40 5230MHz High Ant1



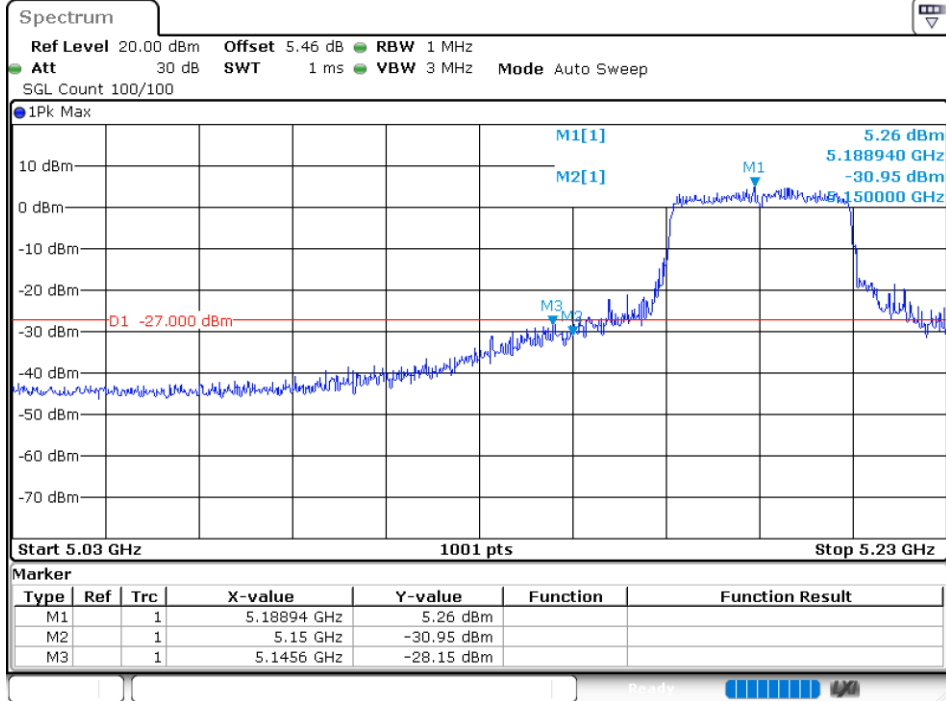
Band Edge NVNT ax20 5180MHz Low Ant1



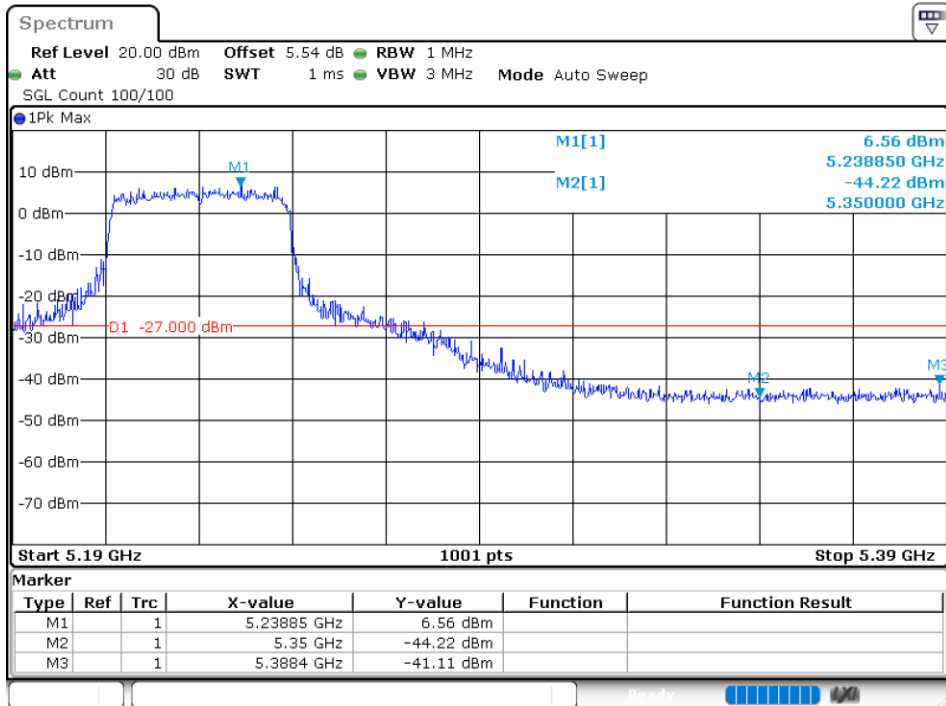
Band Edge NVNT ax20 5240MHz High Ant1



Band Edge NVNT ax40 5190MHz Low Ant1



Band Edge NVNT ax40 5230MHz High Ant1



Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	a	5180	Ant1	-32.85	-27	Pass
NVNT	a	5200	Ant1	-31.66	-27	Pass
NVNT	a	5240	Ant1	-31.63	-27	Pass
NVNT	n20	5180	Ant1	-33.01	-27	Pass
NVNT	n20	5200	Ant1	-31.88	-27	Pass
NVNT	n20	5240	Ant1	-33.43	-27	Pass
NVNT	n40	5190	Ant1	-33.14	-27	Pass
NVNT	n40	5230	Ant1	-32.77	-27	Pass
NVNT	ac20	5180	Ant1	-32.73	-27	Pass
NVNT	ac20	5200	Ant1	-33.09	-27	Pass
NVNT	ac20	5240	Ant1	-32.83	-27	Pass
NVNT	ac40	5190	Ant1	-32.53	-27	Pass
NVNT	ac40	5230	Ant1	-32.75	-27	Pass
NVNT	ax20	5180	Ant1	-33.33	-27	Pass
NVNT	ax20	5200	Ant1	-31.23	-27	Pass
NVNT	ax20	5240	Ant1	-33.05	-27	Pass
NVNT	ax40	5190	Ant1	-33.24	-27	Pass
NVNT	ax40	5230	Ant1	-33.19	-27	Pass

Note: This test has increased antenna gain.