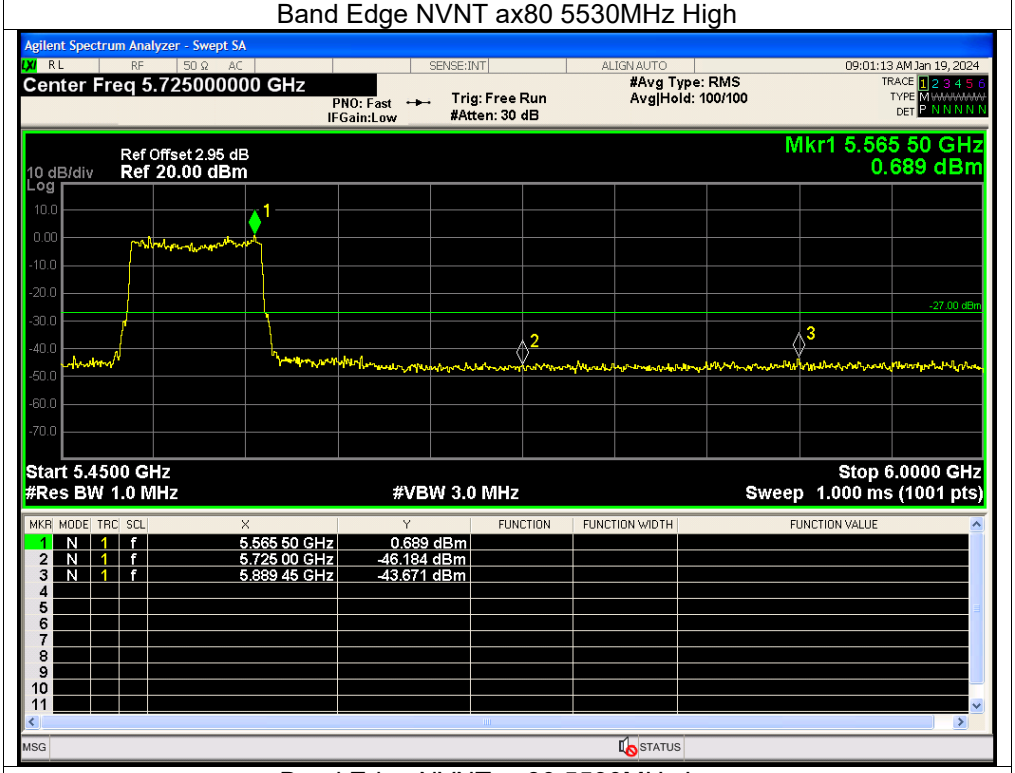
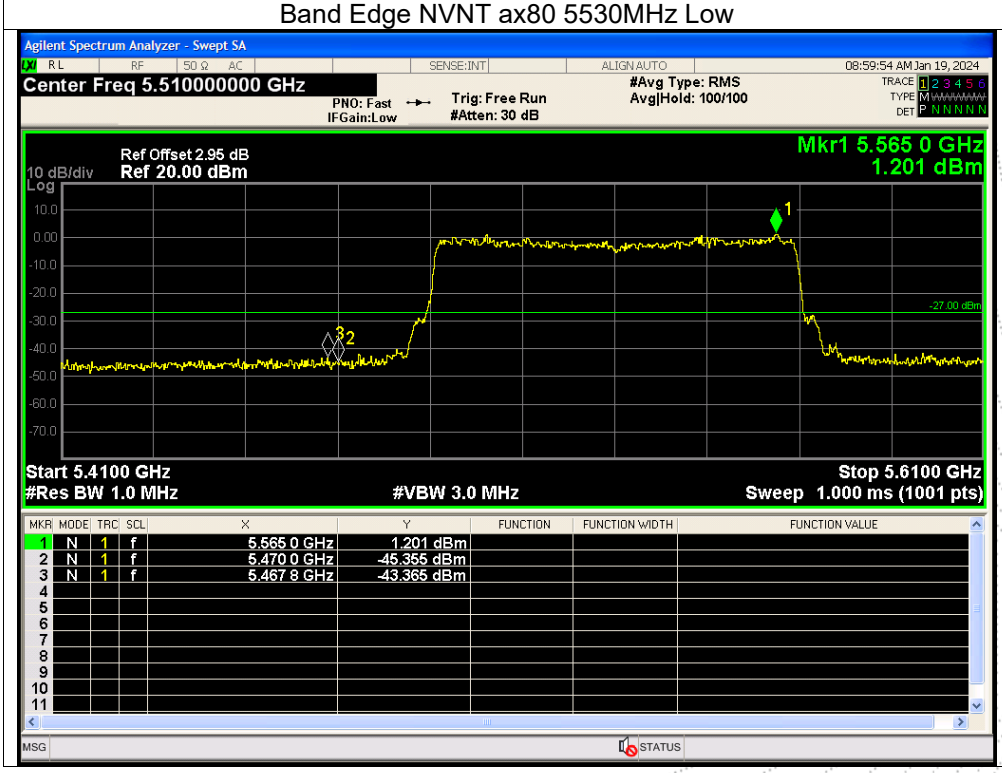
Band Edge NVNT ax80 5530MHz High



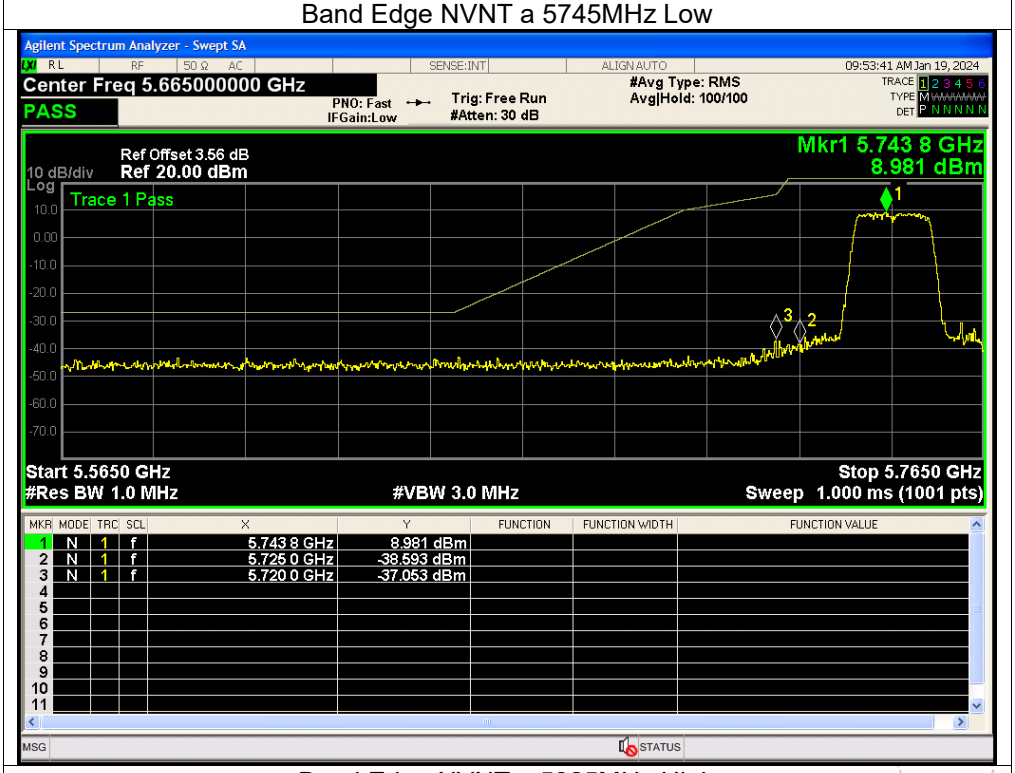
Band Edge NVNT ax80 5530MHz Low



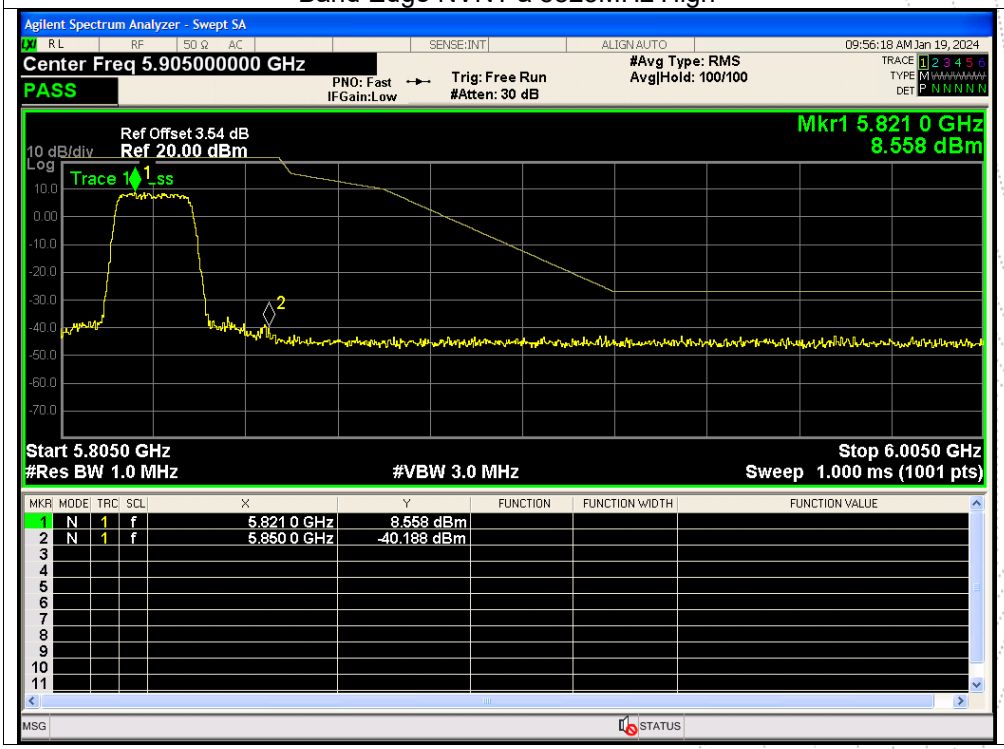
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A.
Antenna A: 5745-5825MHz

Test Graphs

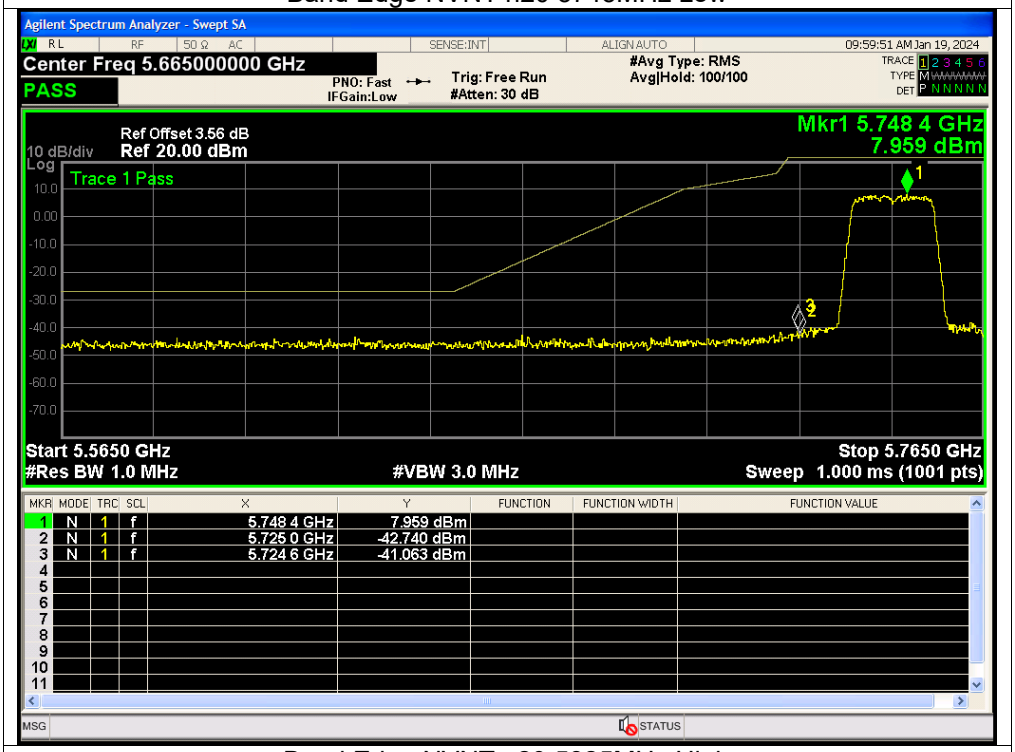
Band Edge NVNT a 5745MHz Low



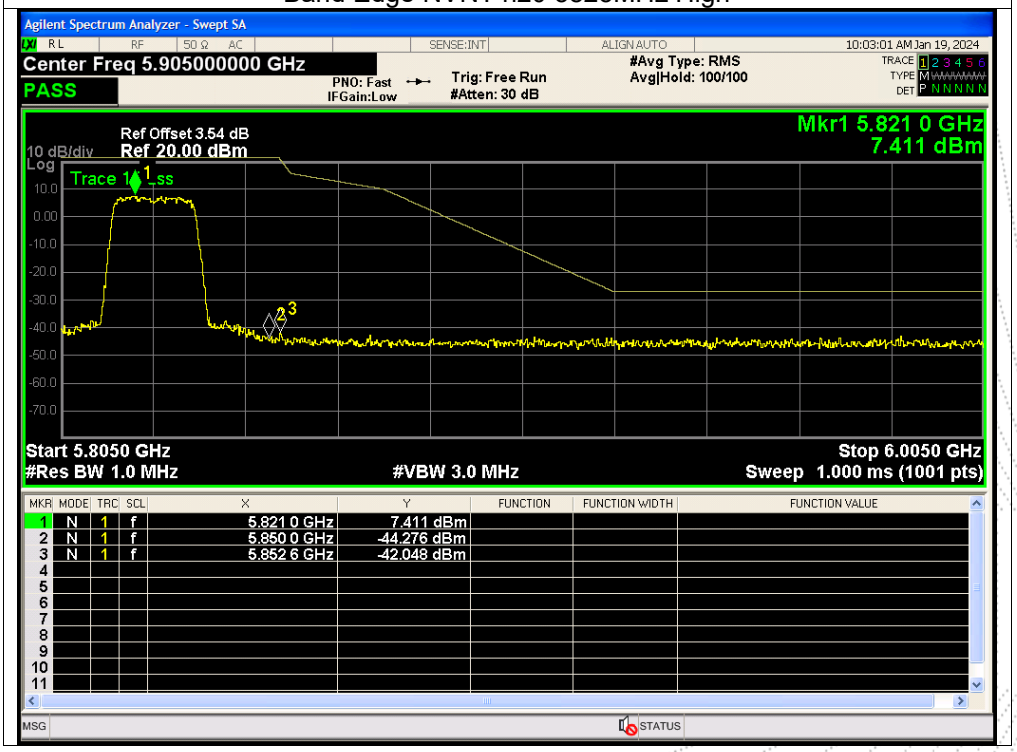
Band Edge NVNT a 5825MHz High



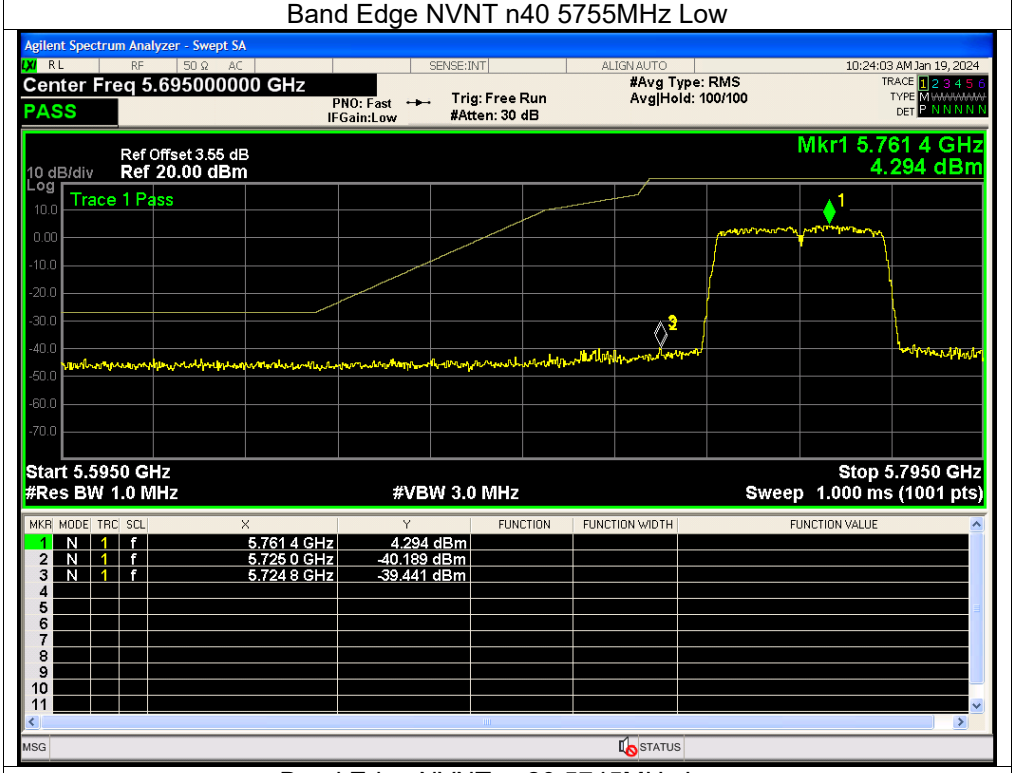
Band Edge NVNT n20 5745MHz Low



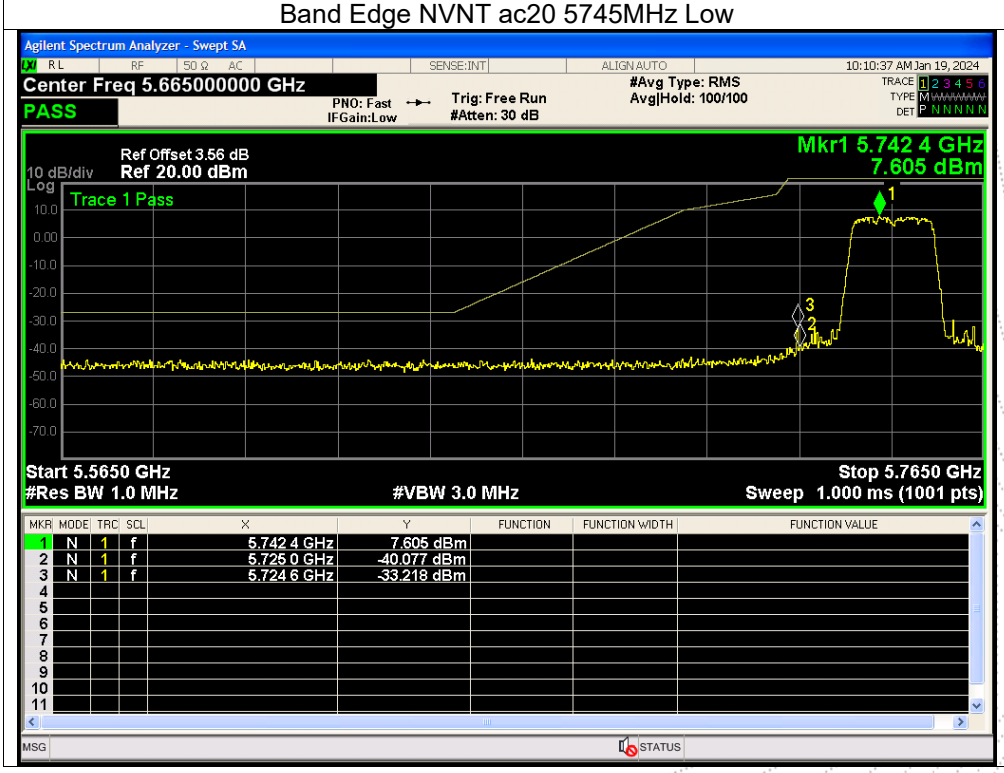
Band Edge NVNT n20 5825MHz High



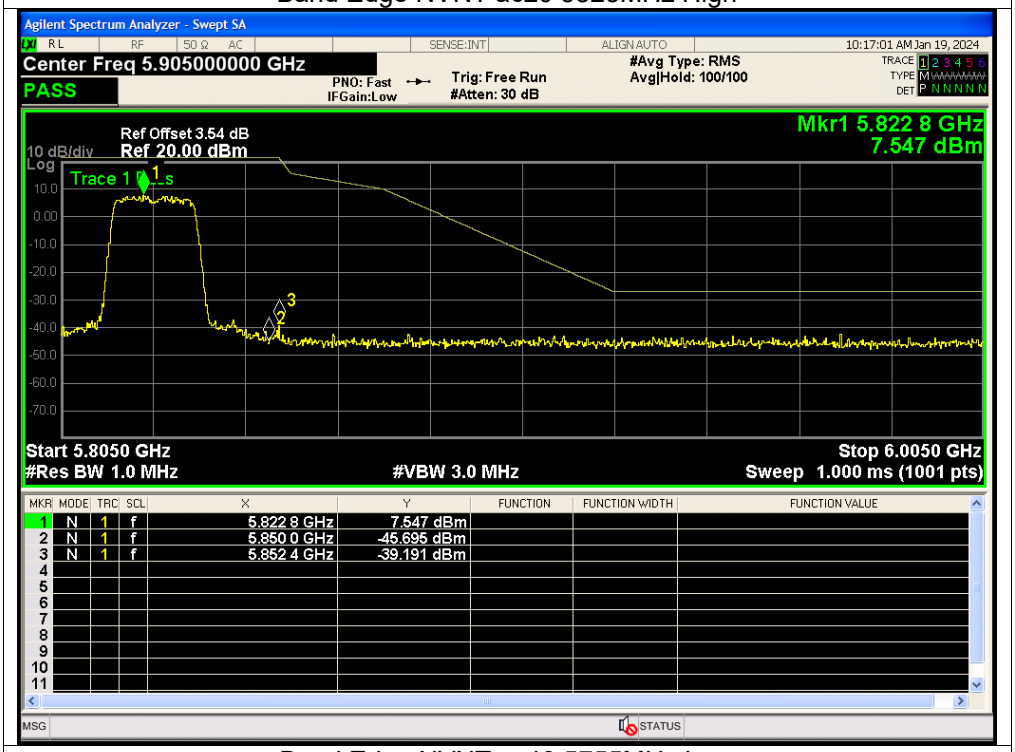
Band Edge NVNT n40 5755MHz Low



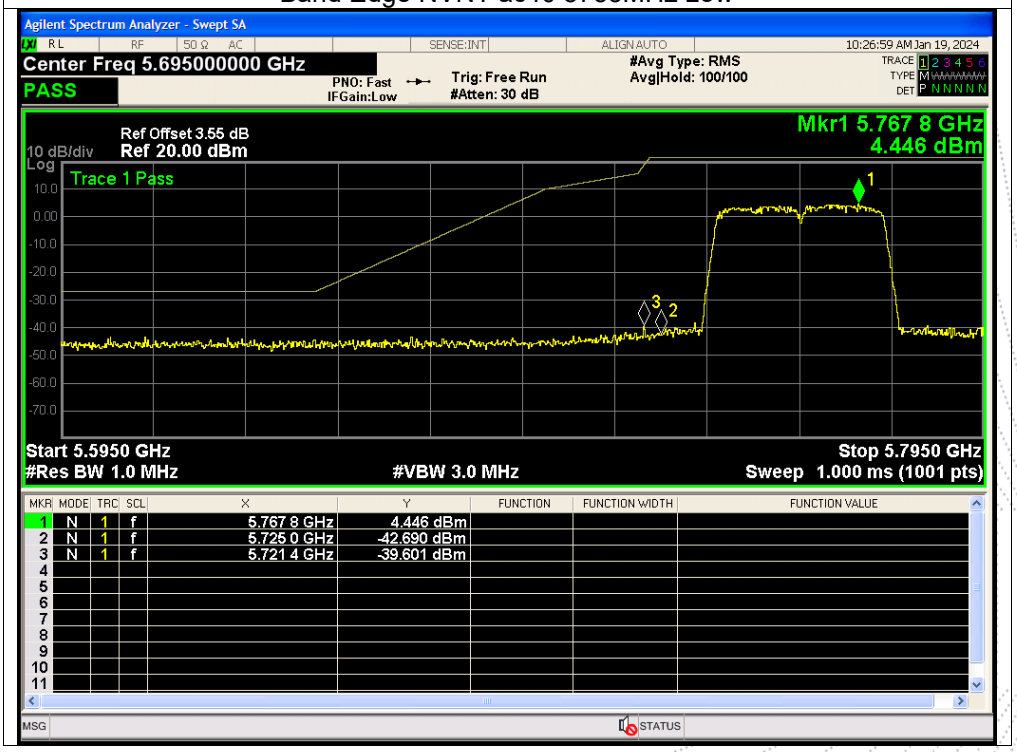
Band Edge NVNT ac20 5745MHz Low



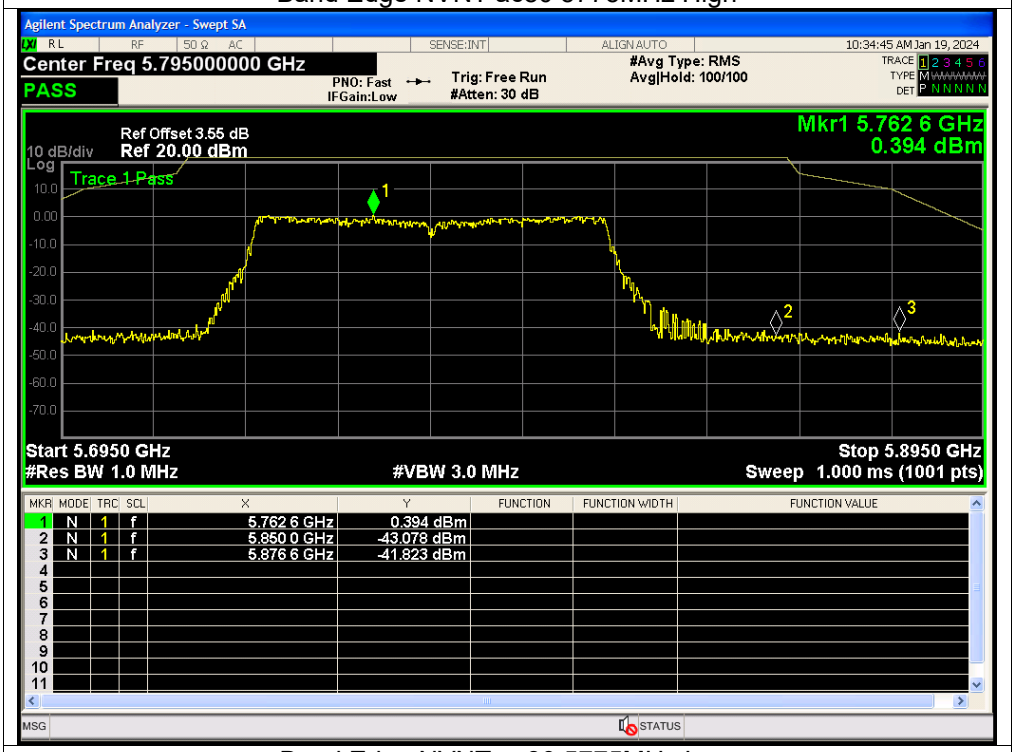
Band Edge NVNT ac20 5825MHz High



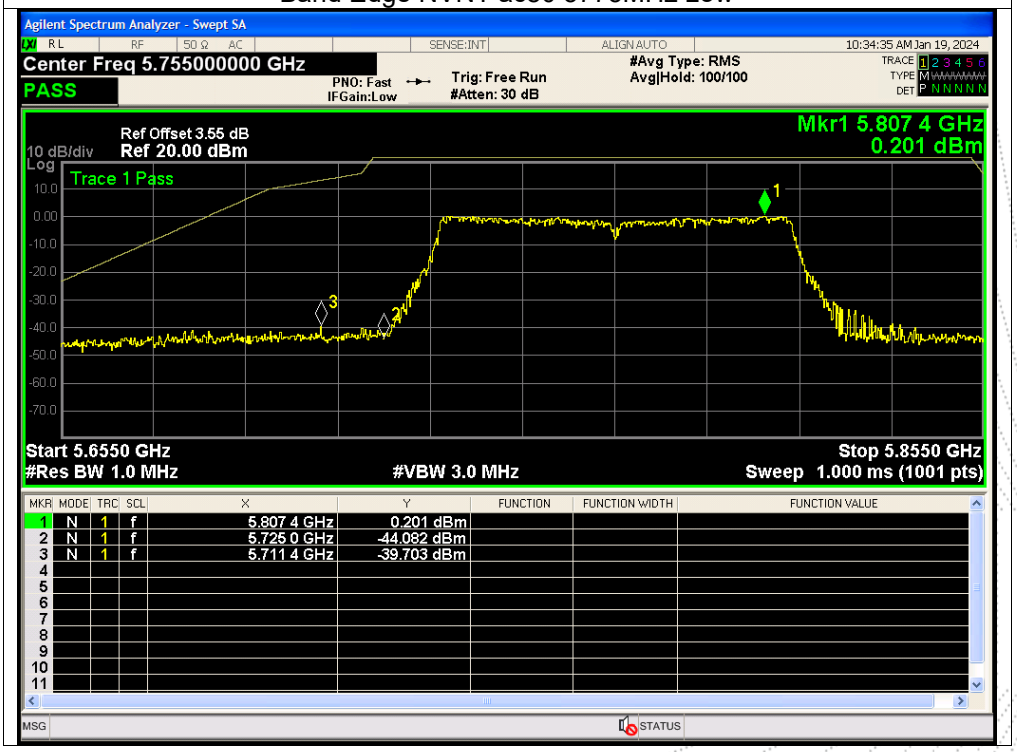
Band Edge NVNT ac40 5755MHz Low



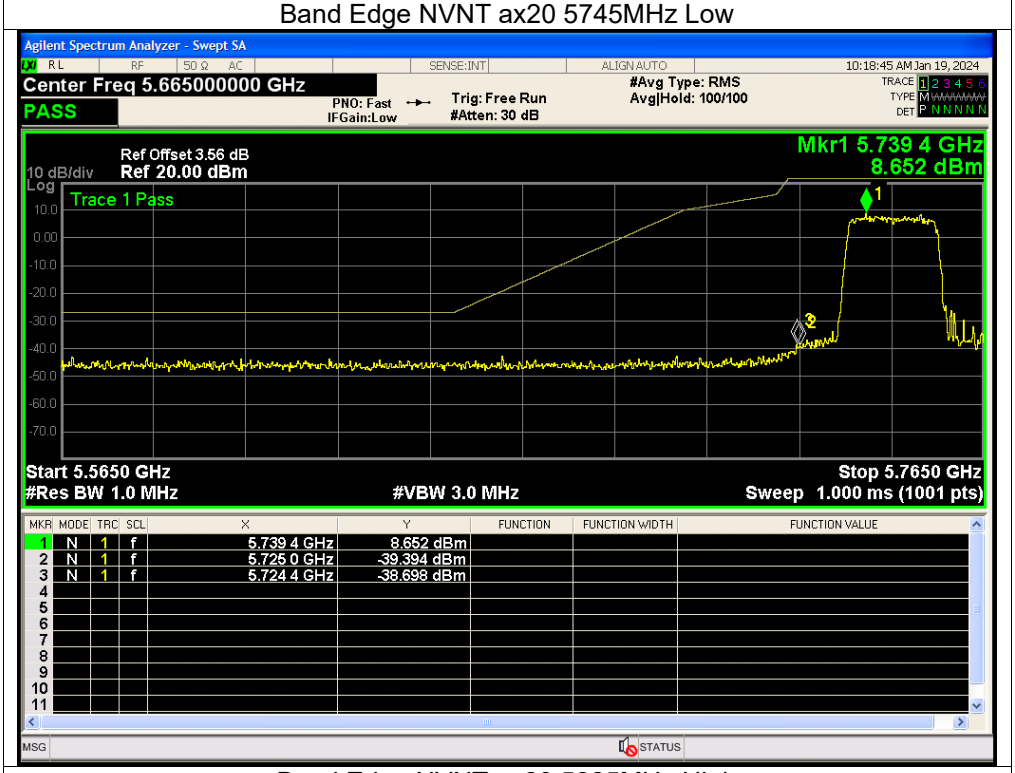
Band Edge NVNT ac80 5775MHz High



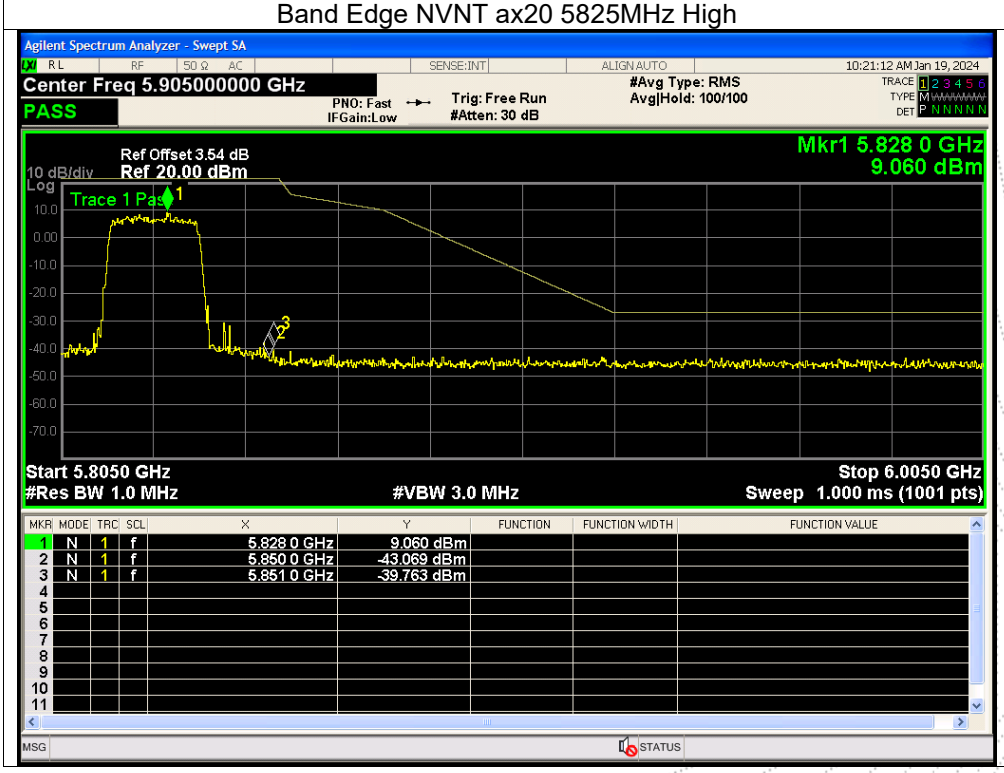
Band Edge NVNT ac80 5775MHz Low



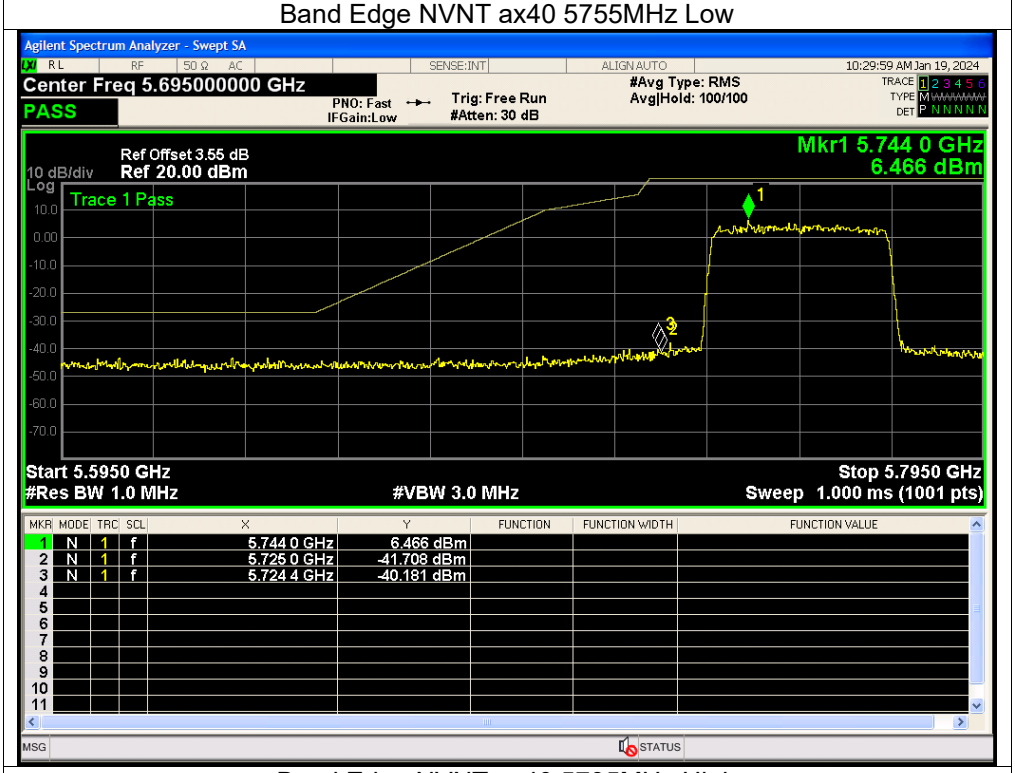
Band Edge NVNT ax20 5745MHz Low



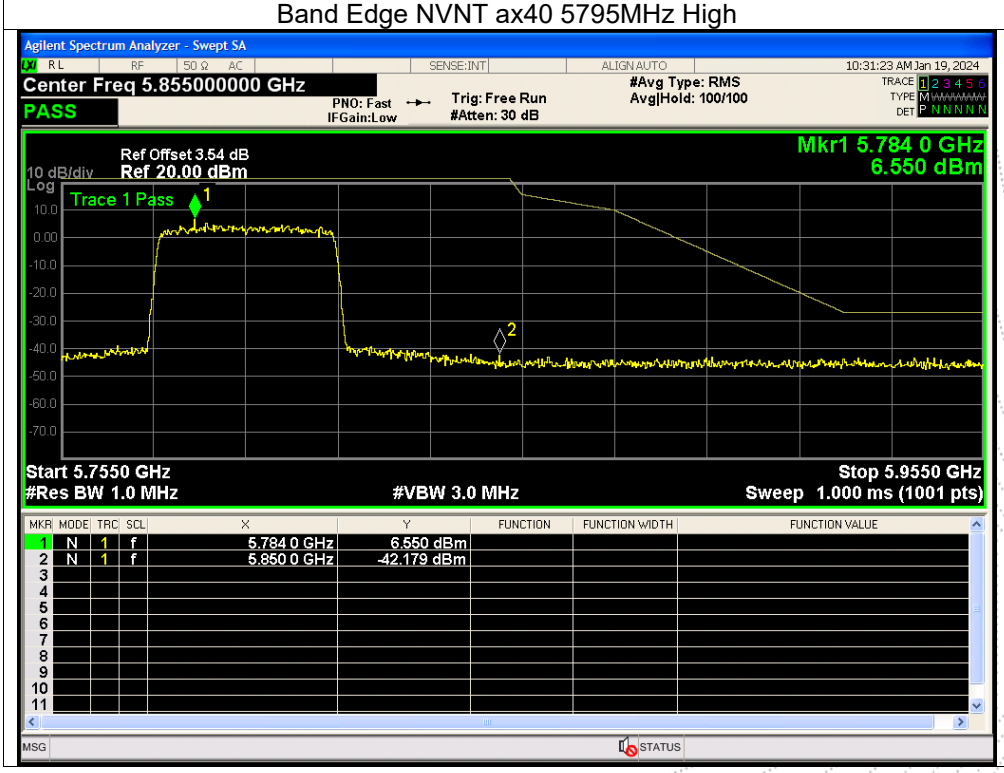
Band Edge NVNT ax20 5825MHz High



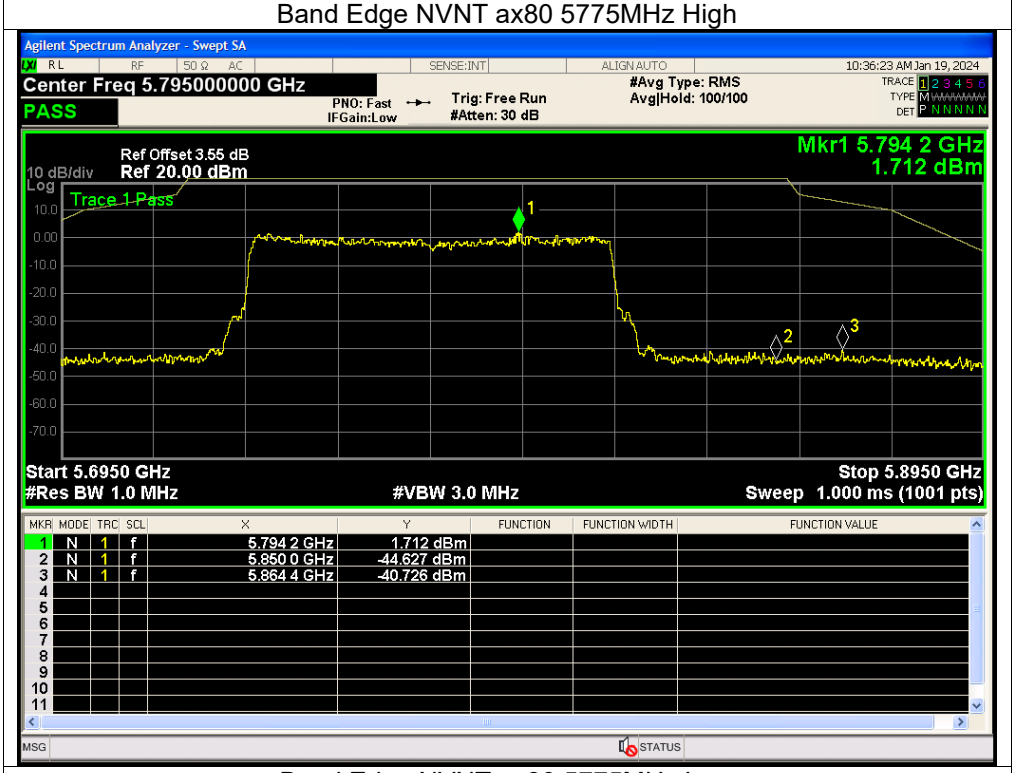
Band Edge NVNT ax40 5755MHz Low



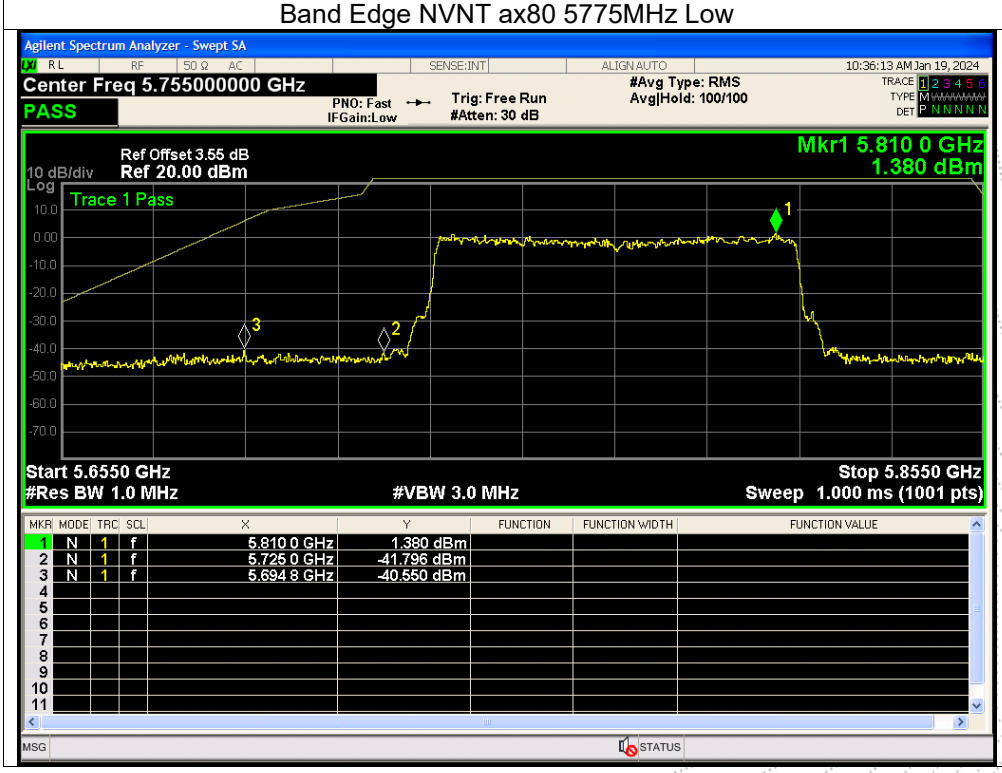
Band Edge NVNT ax40 5795MHz High



Band Edge NVNT ax80 5775MHz High

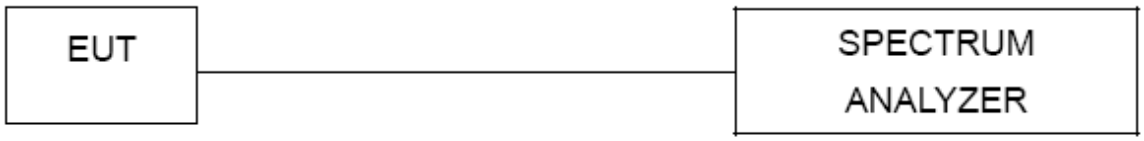


Band Edge NVNT ax80 5775MHz Low



12. Spurious RF Conducted Emissions

12.1 Block Diagram Of Test Setup



12.2 Limit

Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1)For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(2)For transmitters operating in the 5.725-5.85 GHz band(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge..
(3)For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.
(4)For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

12.3 Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

12.4 Test Result

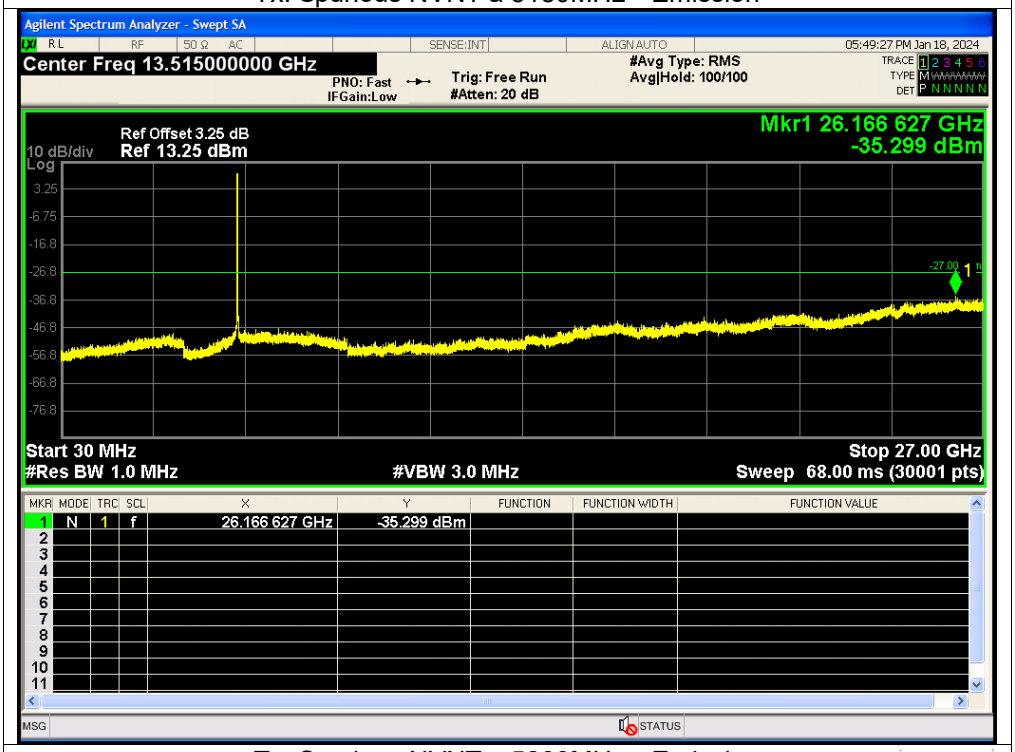
Remark: The measurement frequency range is from 9KHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.

About:26.5GHz-40GHz, The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

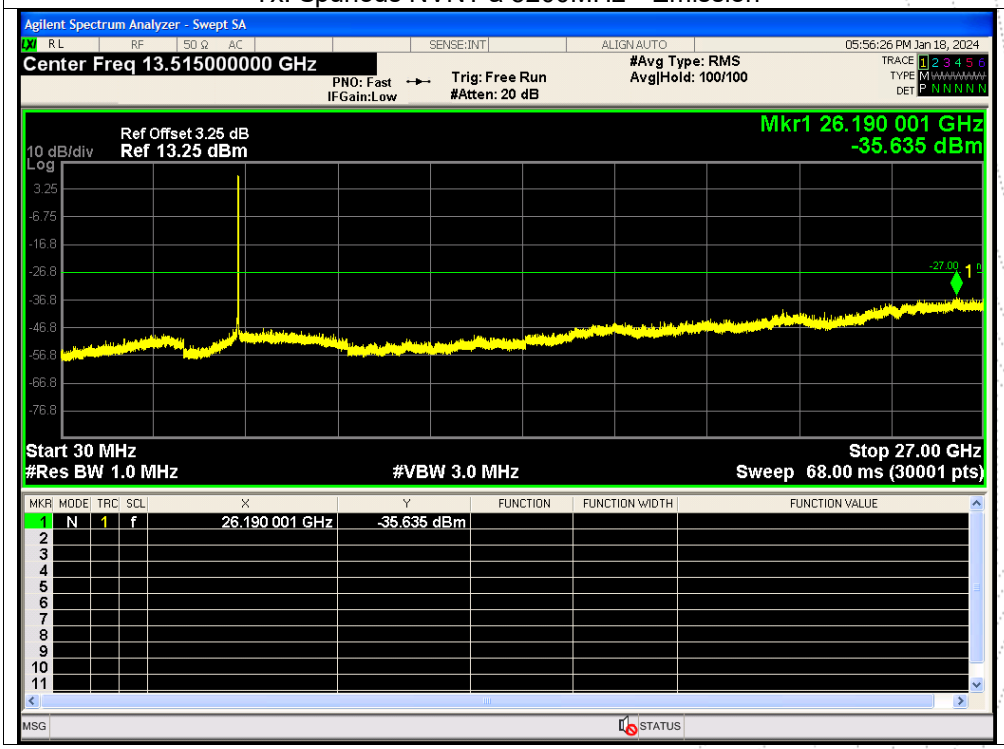
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A .
Plot. Antenna A: 5180-5240MHz

Test Graphs

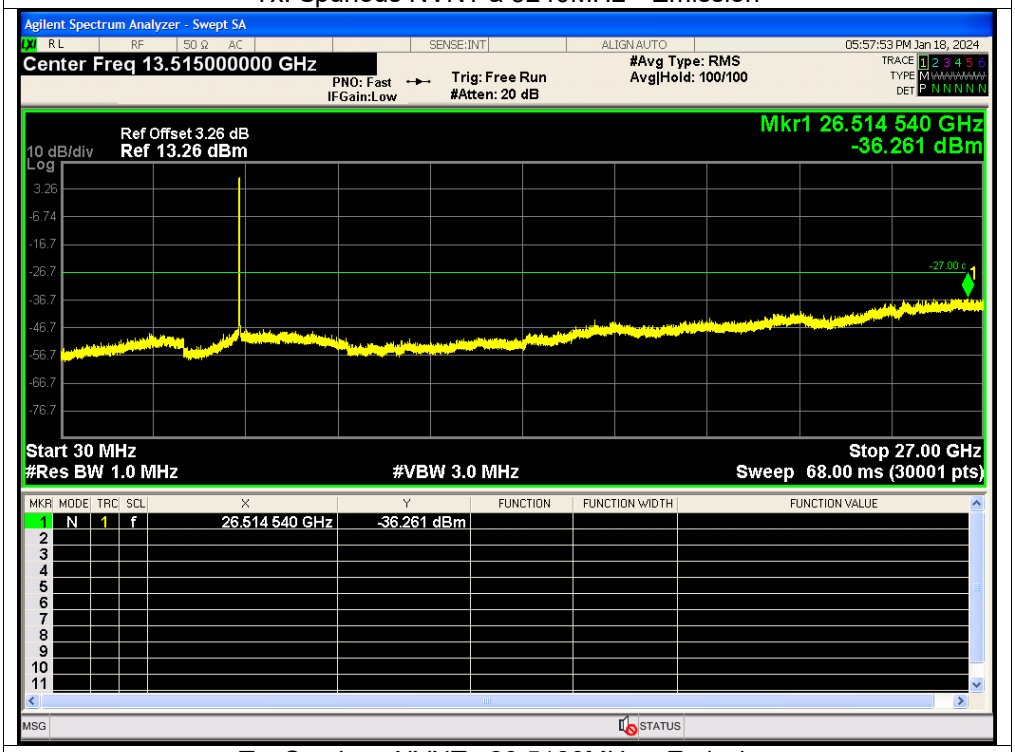
Tx. Spurious NVNT a 5180MHz Emission



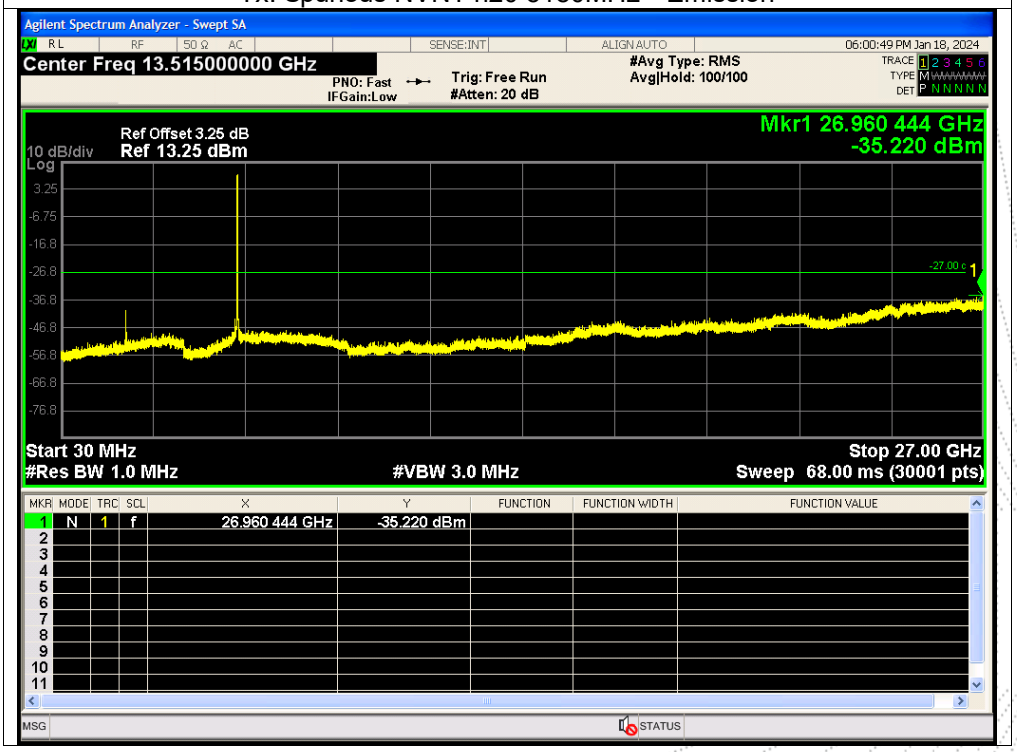
Tx. Spurious NVNT a 5200MHz Emission



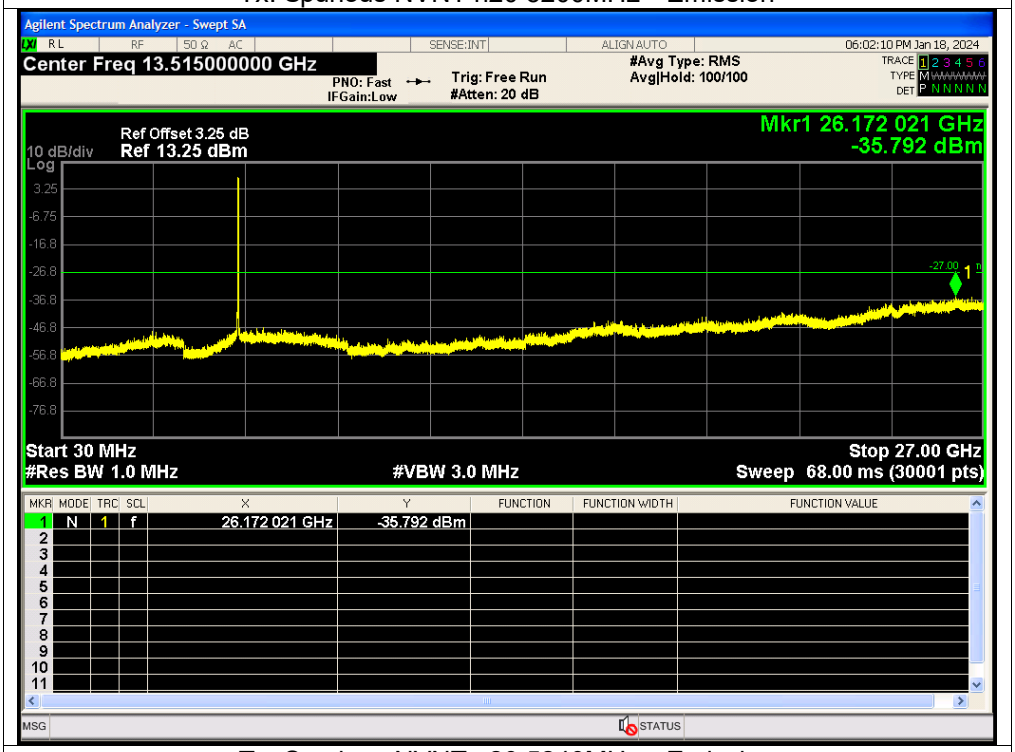
Tx. Spurious NVNT a 5240MHz Emission



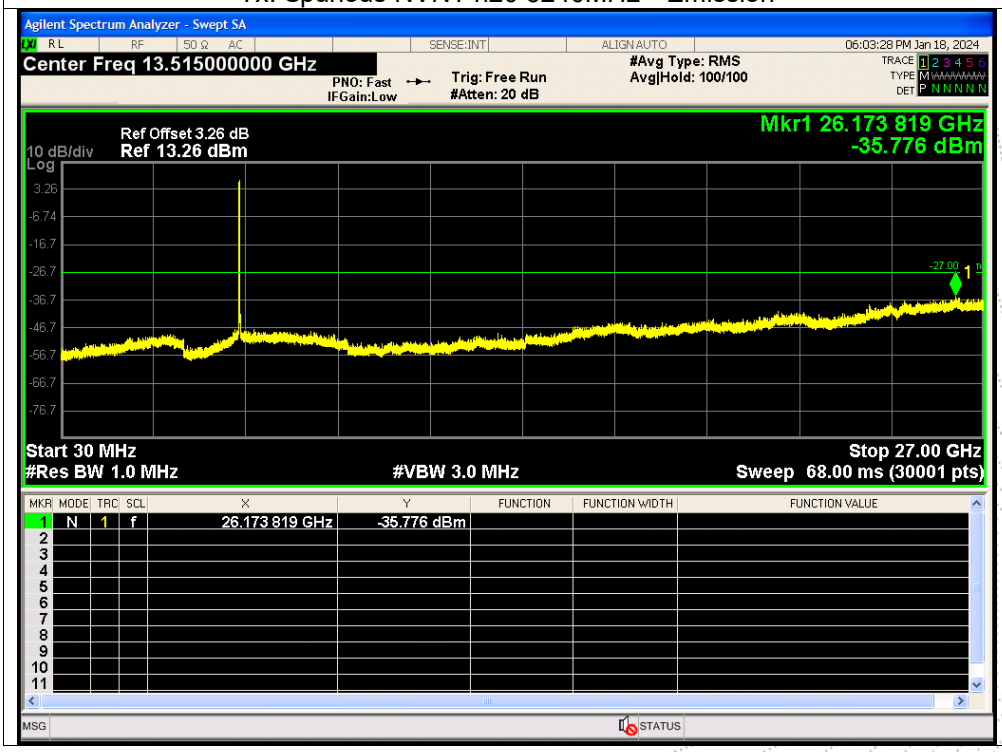
Tx. Spurious NVNT n20 5180MHz Emission



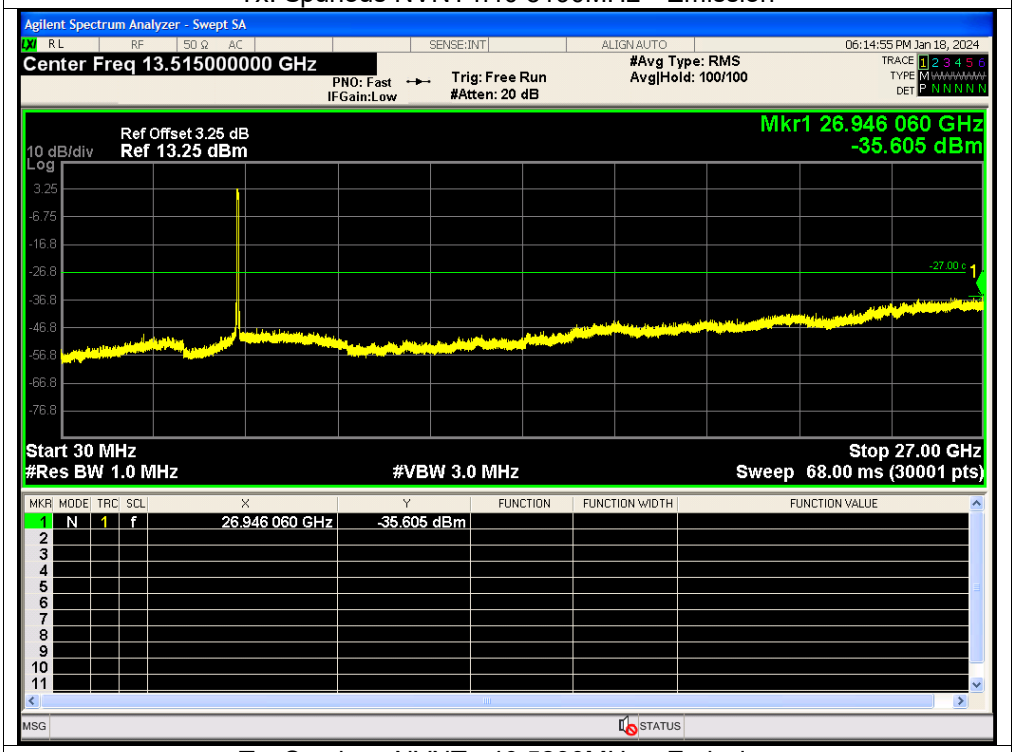
Tx. Spurious NVNT n20 5200MHz Emission



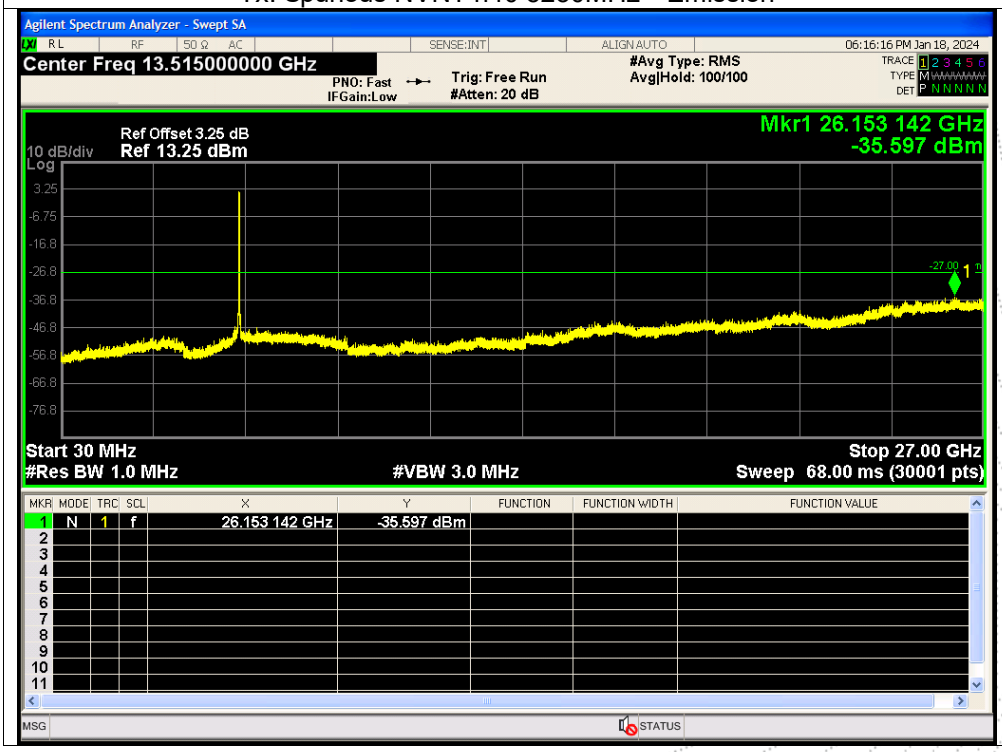
Tx. Spurious NVNT n20 5240MHz Emission



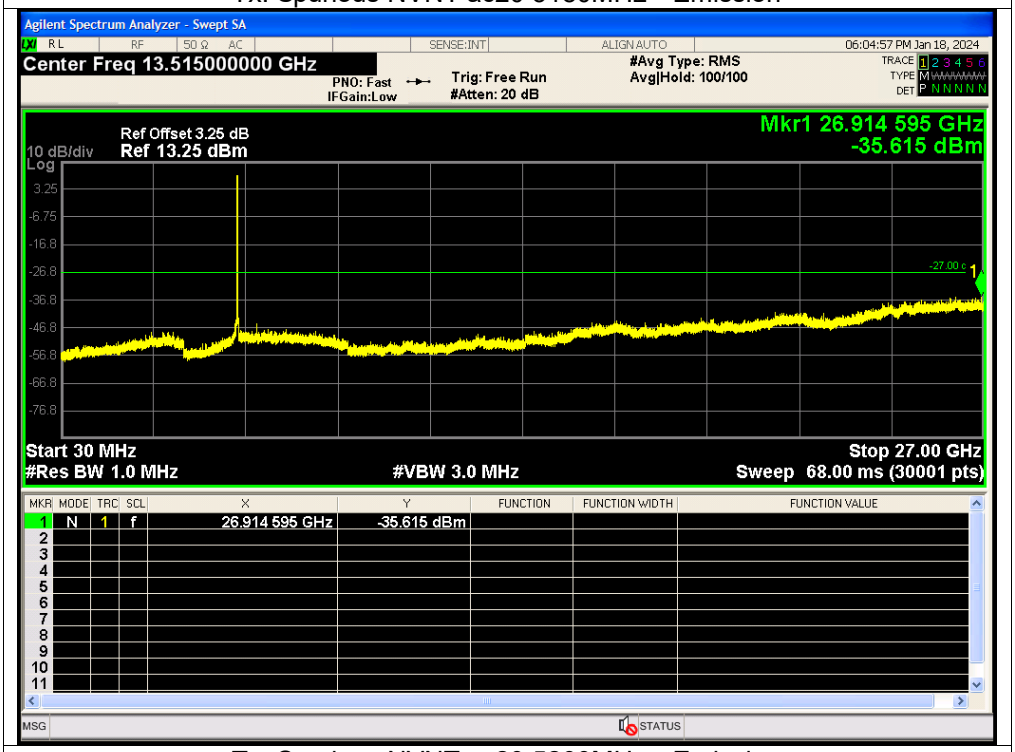
Tx. Spurious NVNT n40 5190MHz Emission



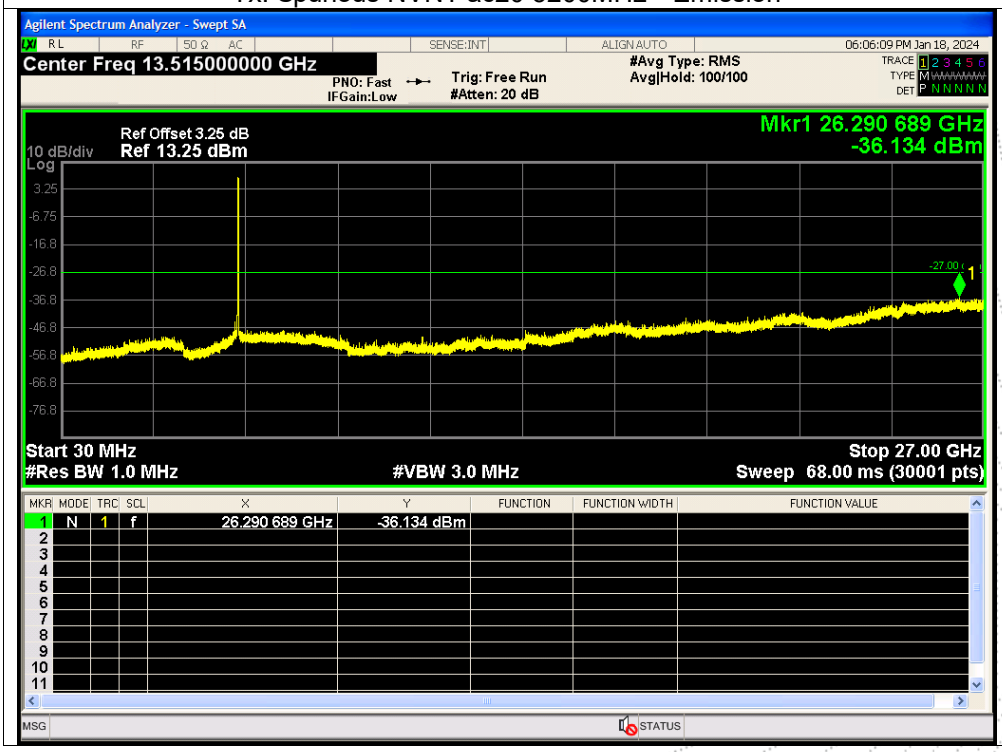
Tx. Spurious NVNT n40 5230MHz Emission



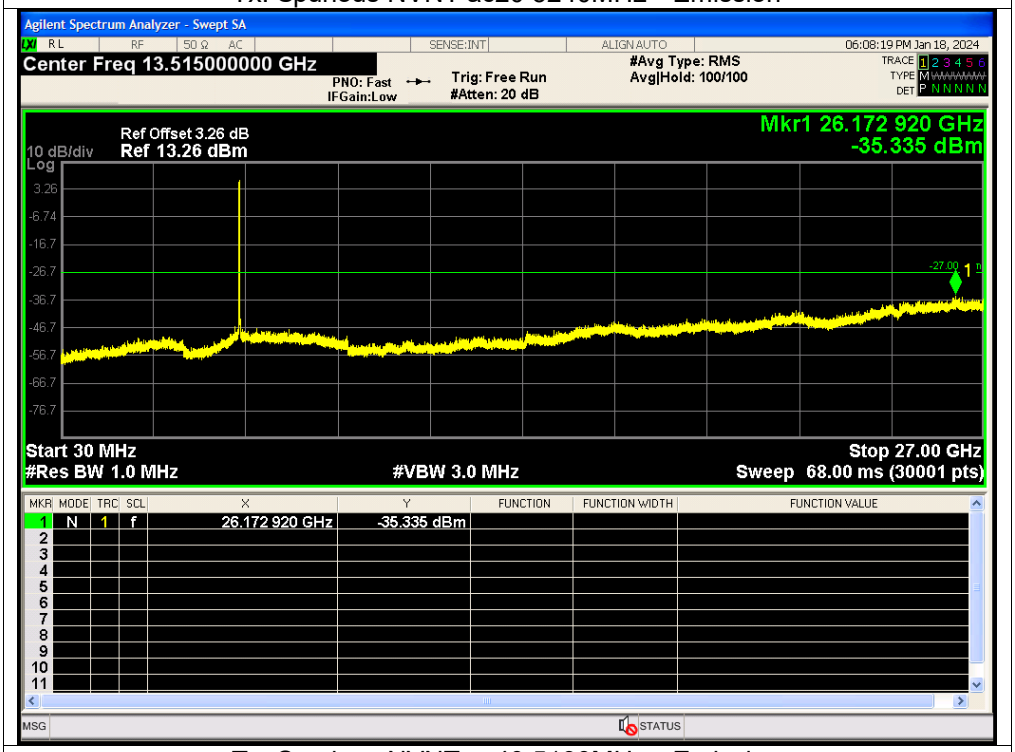
Tx. Spurious NVNT ac20 5180MHz Emission



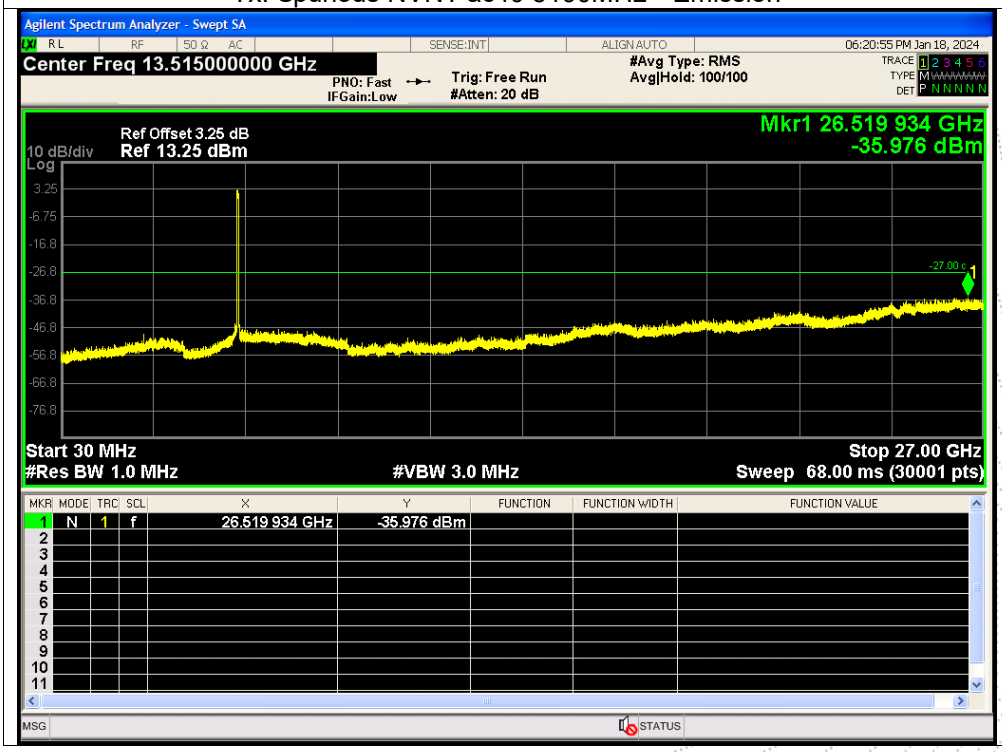
Tx. Spurious NVNT ac20 5200MHz Emission



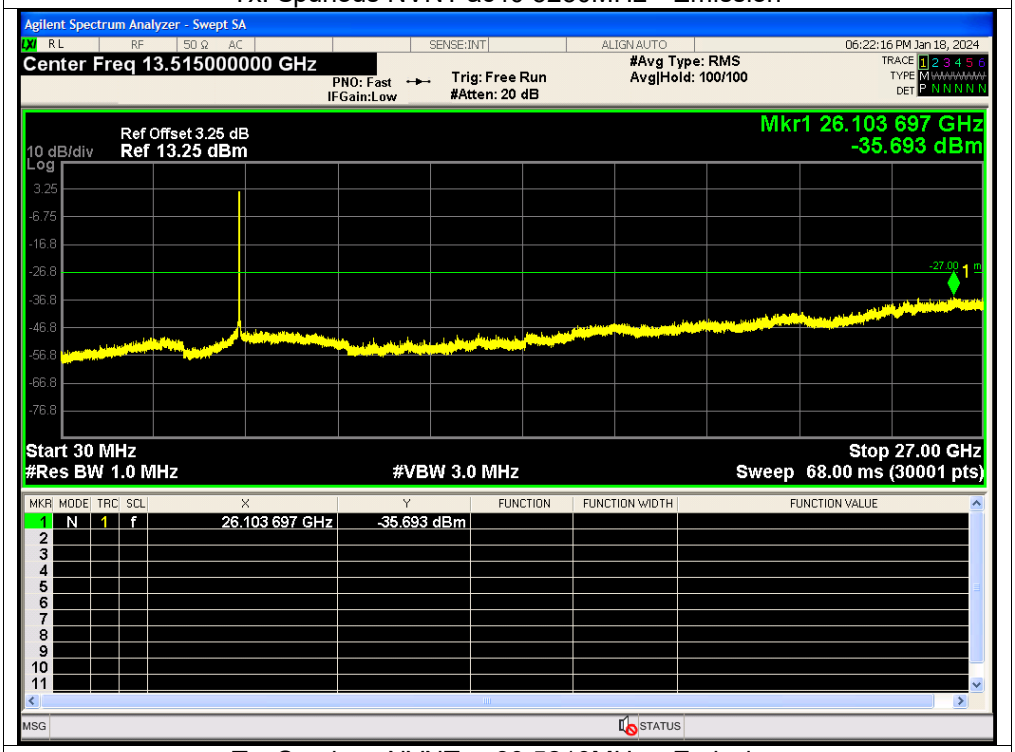
Tx. Spurious NVNT ac20 5240MHz Emission



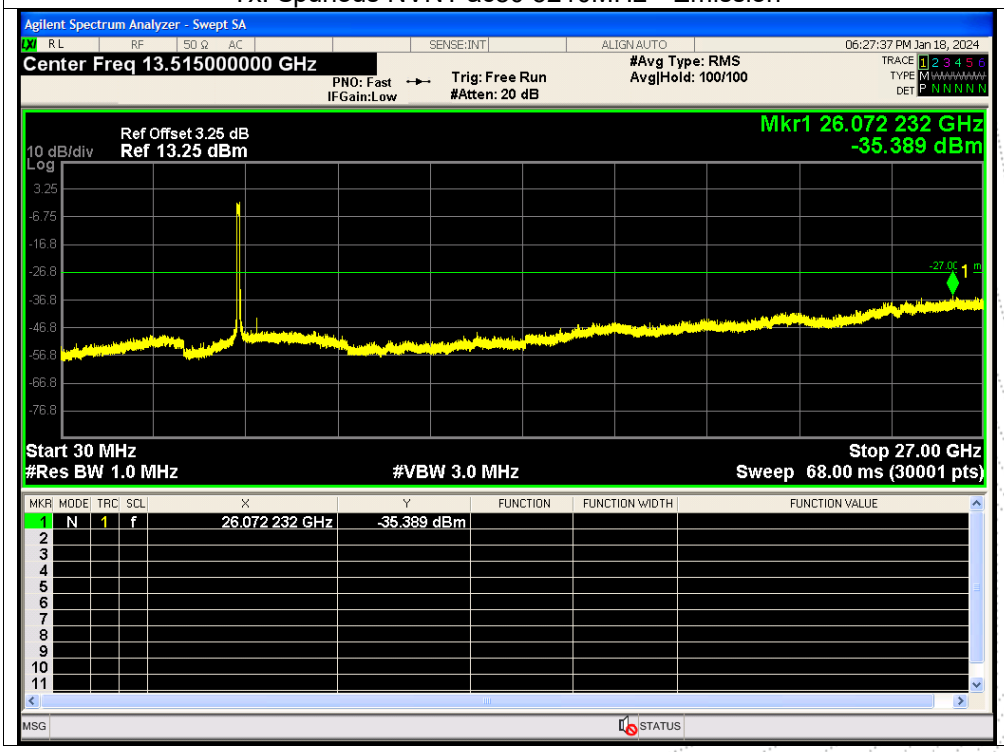
Tx. Spurious NVNT ac40 5190MHz Emission



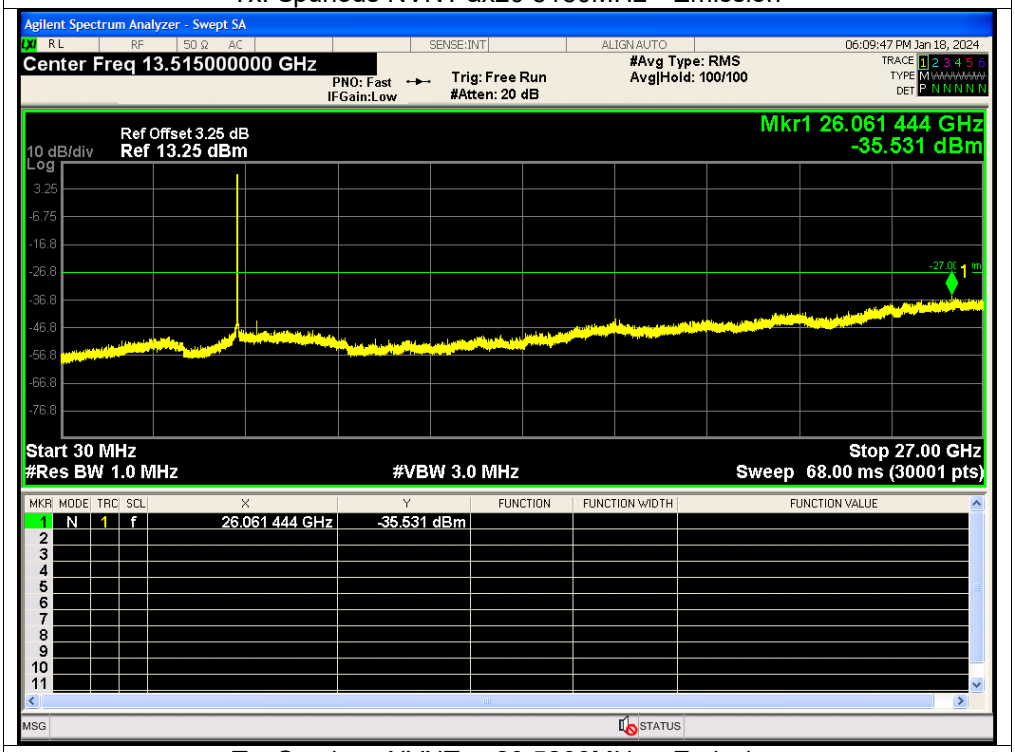
Tx. Spurious NVNT ac40 5230MHz Emission



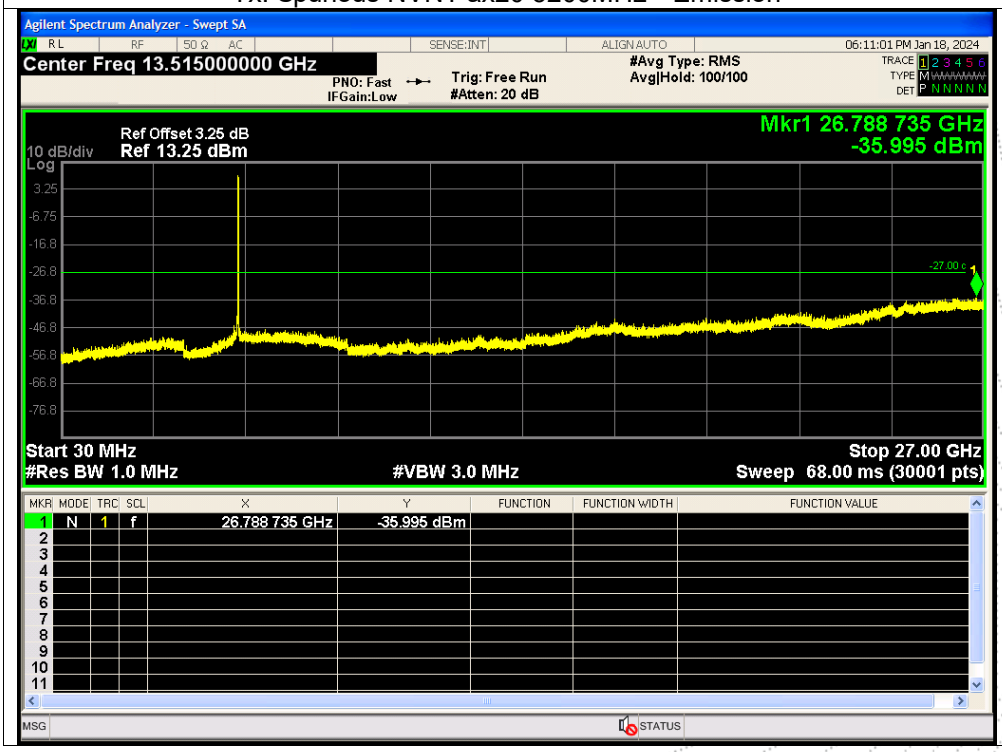
Tx. Spurious NVNT ac80 5210MHz Emission



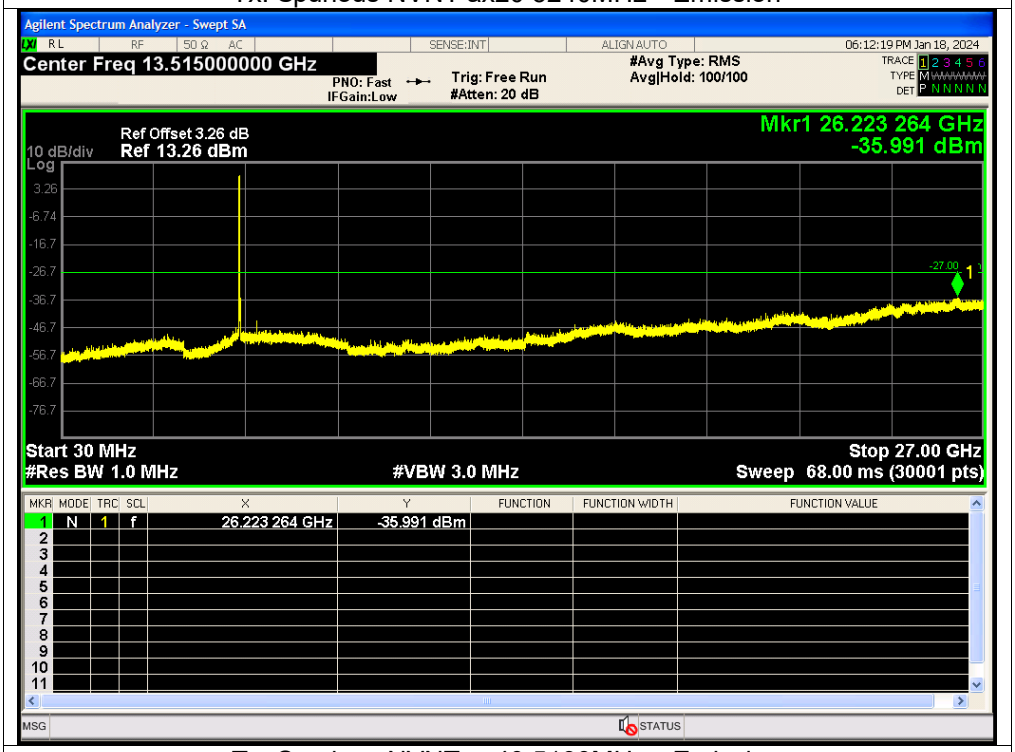
Tx. Spurious NVNT ax20 5180MHz Emission



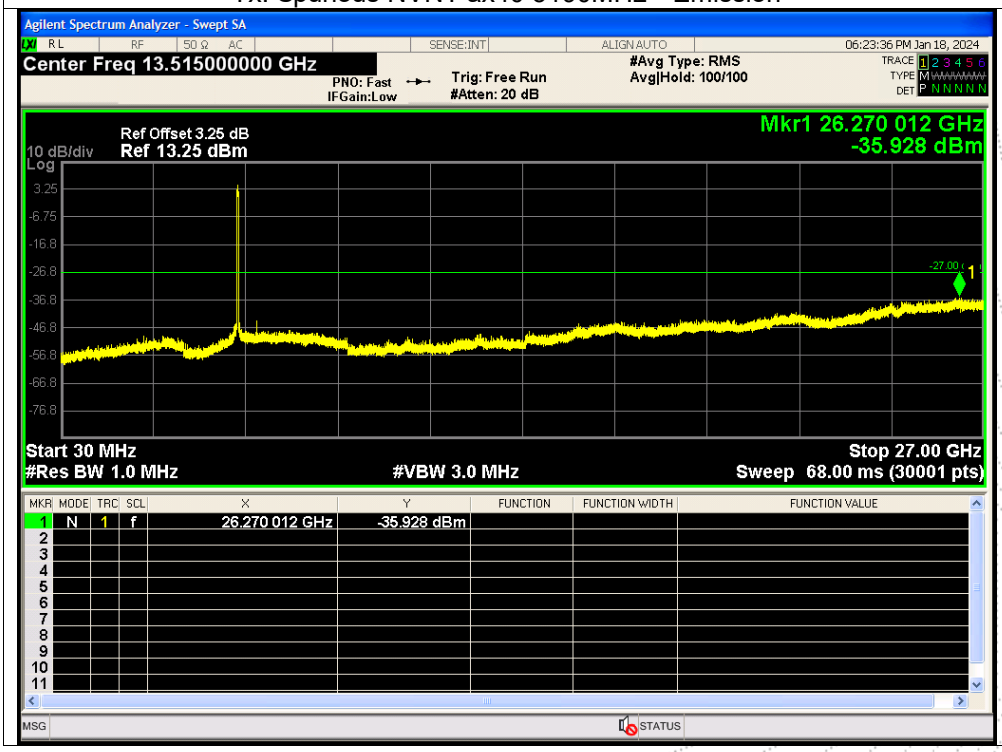
Tx. Spurious NVNT ax20 5200MHz Emission



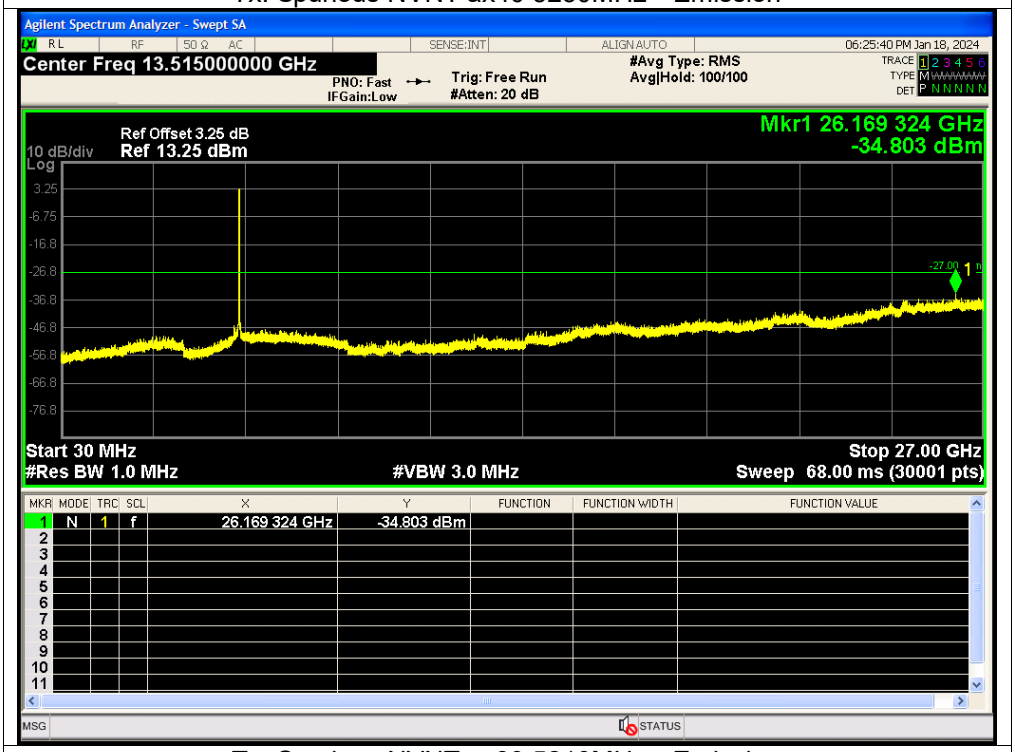
Tx. Spurious NVNT ax20 5240MHz Emission



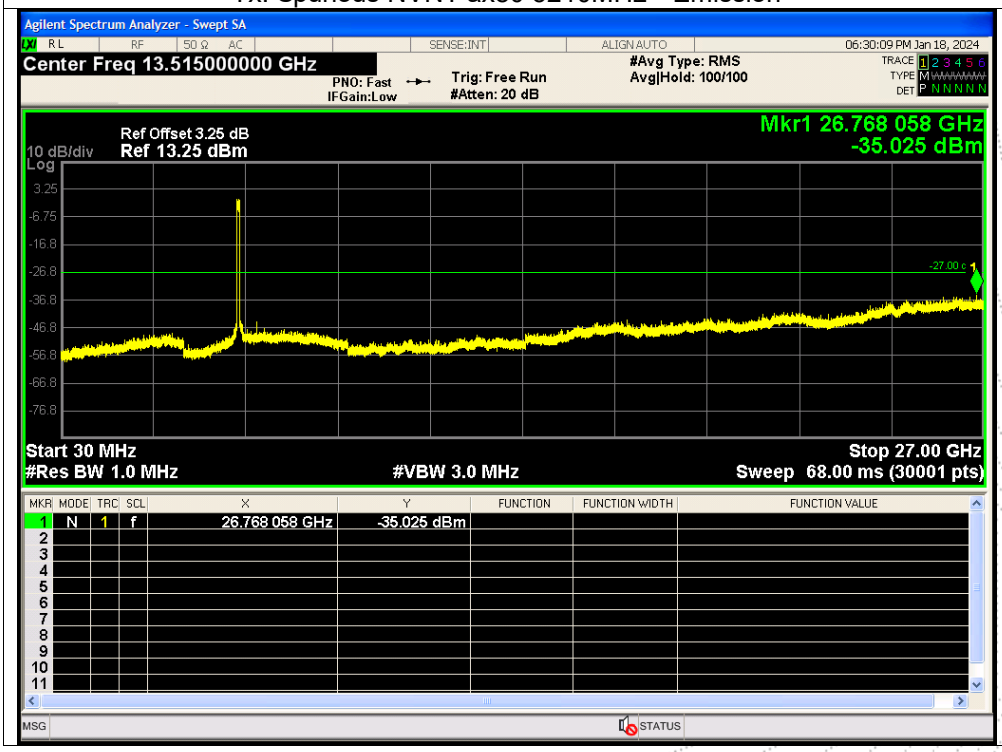
Tx. Spurious NVNT ax40 5190MHz Emission



Tx. Spurious NVNT ax40 5230MHz Emission

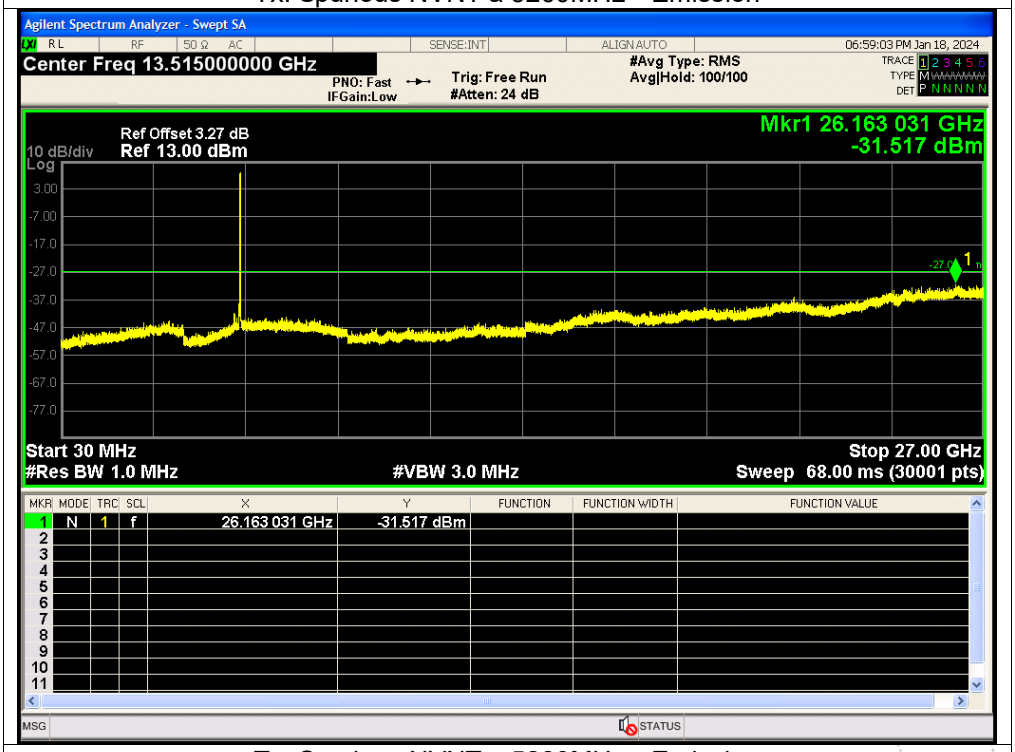


Tx. Spurious NVNT ax80 5210MHz Emission

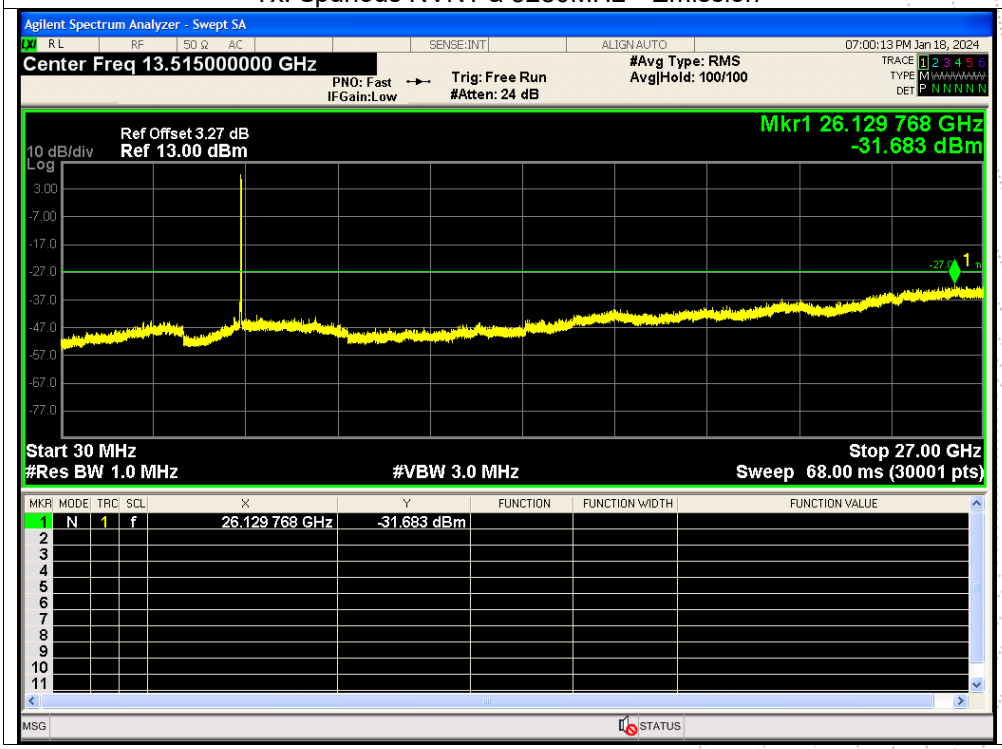


Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A.
Antenna A: 5260-5320MHz

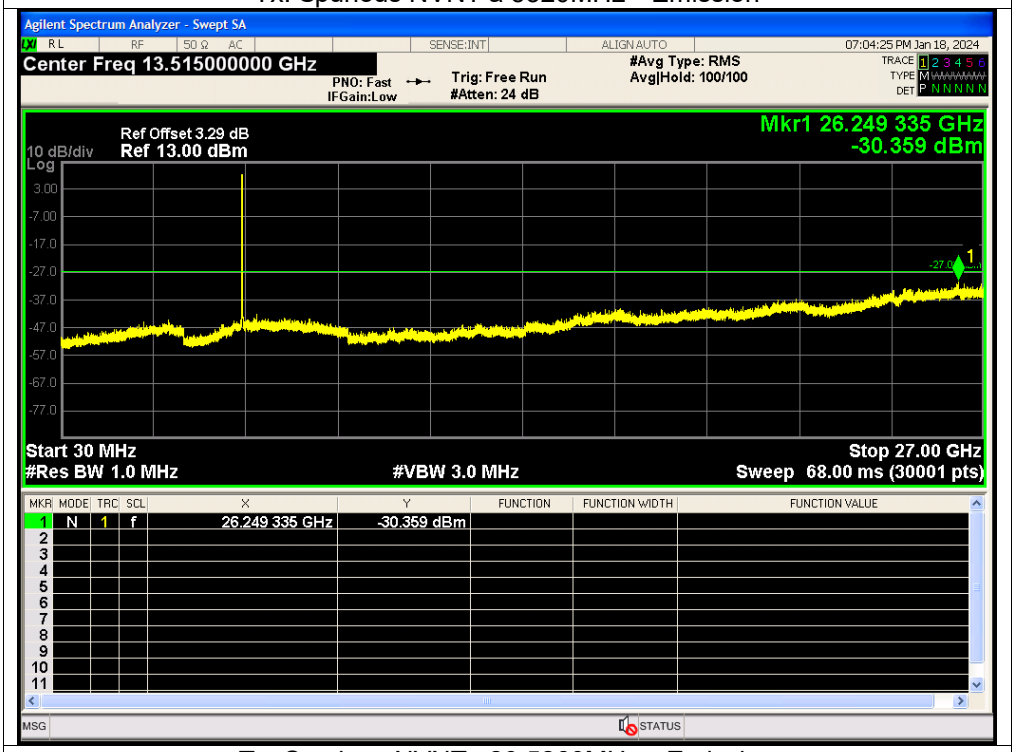
Test Graphs
Tx. Spurious NVNT a 5260MHz Emission



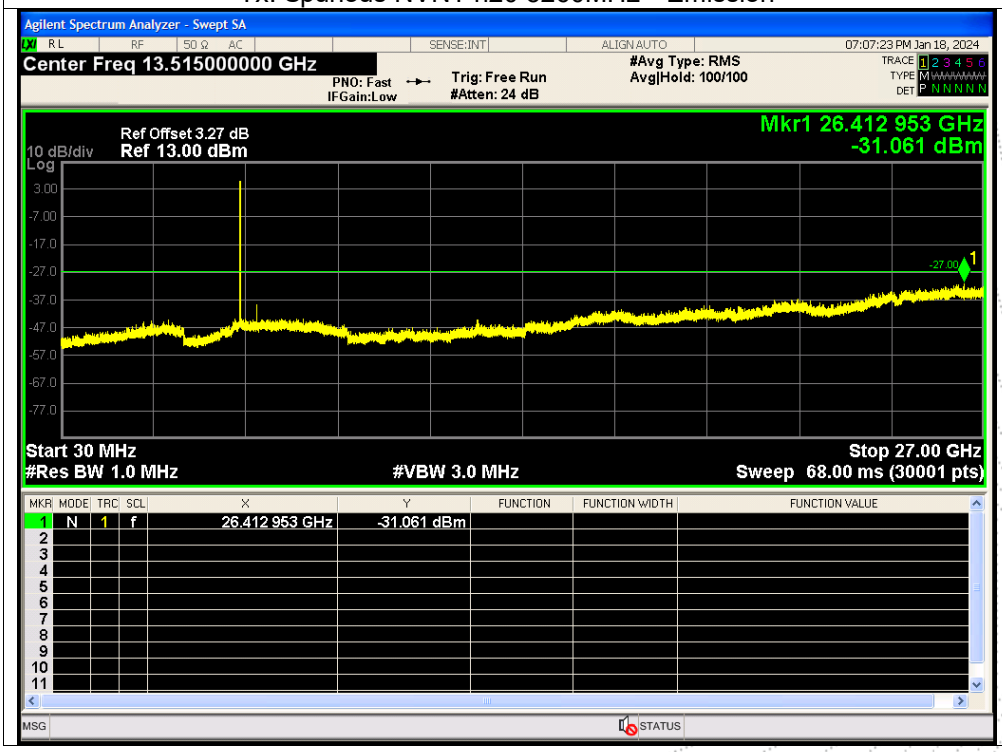
Tx. Spurious NVNT a 5280MHz Emission



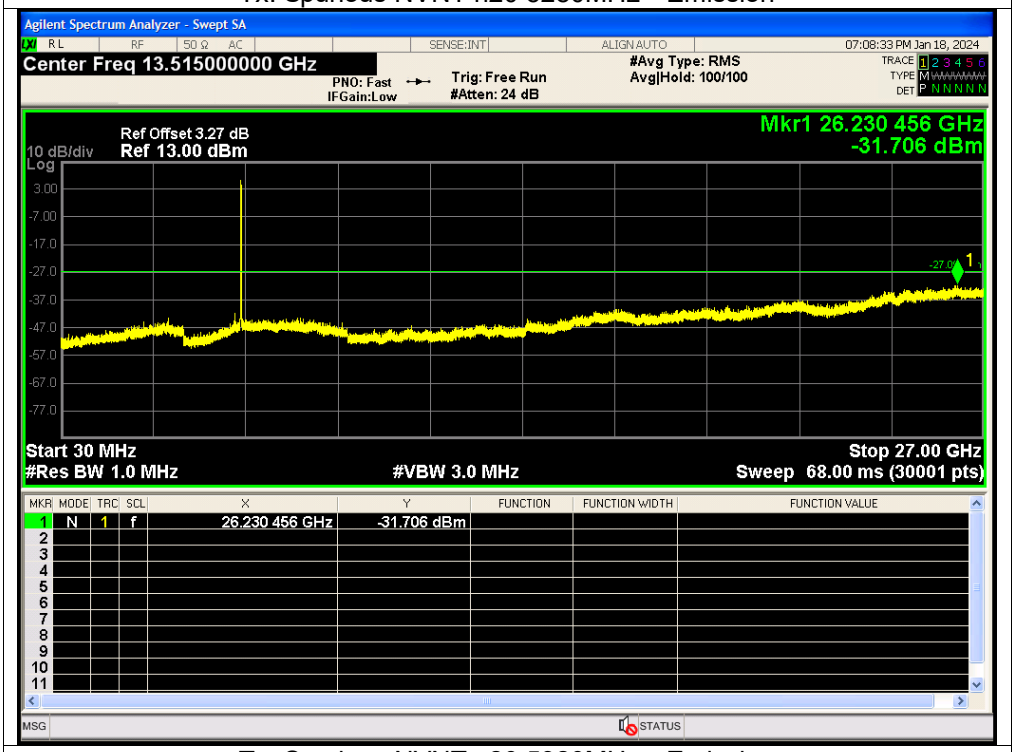
Tx. Spurious NVNT a 5320MHz Emission



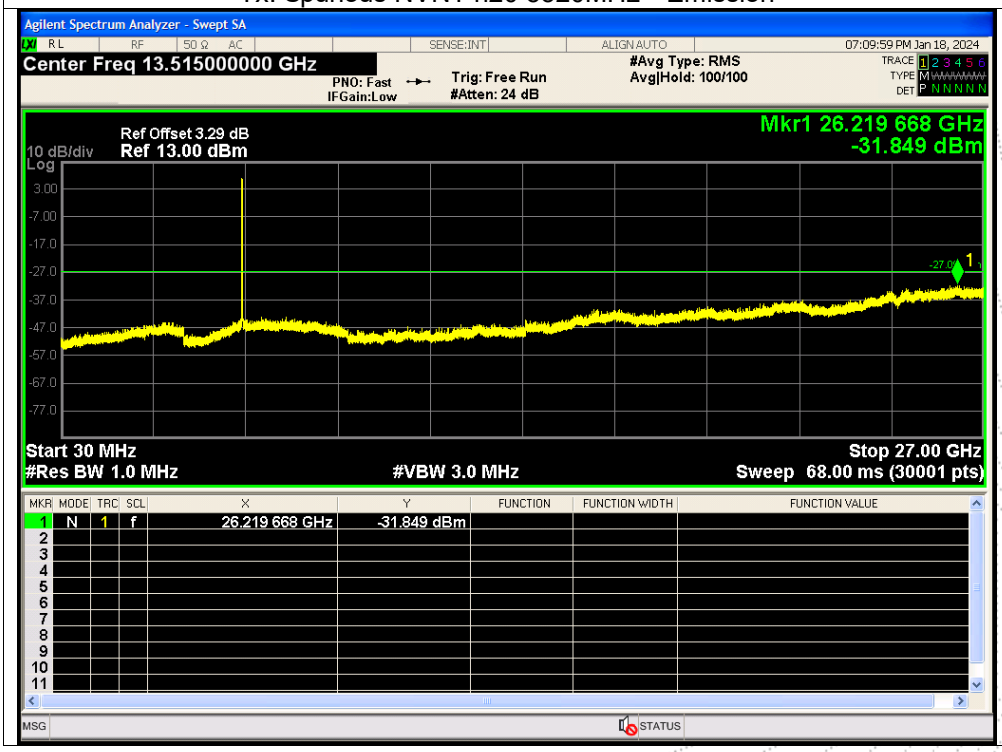
Tx. Spurious NVNT n20 5260MHz Emission



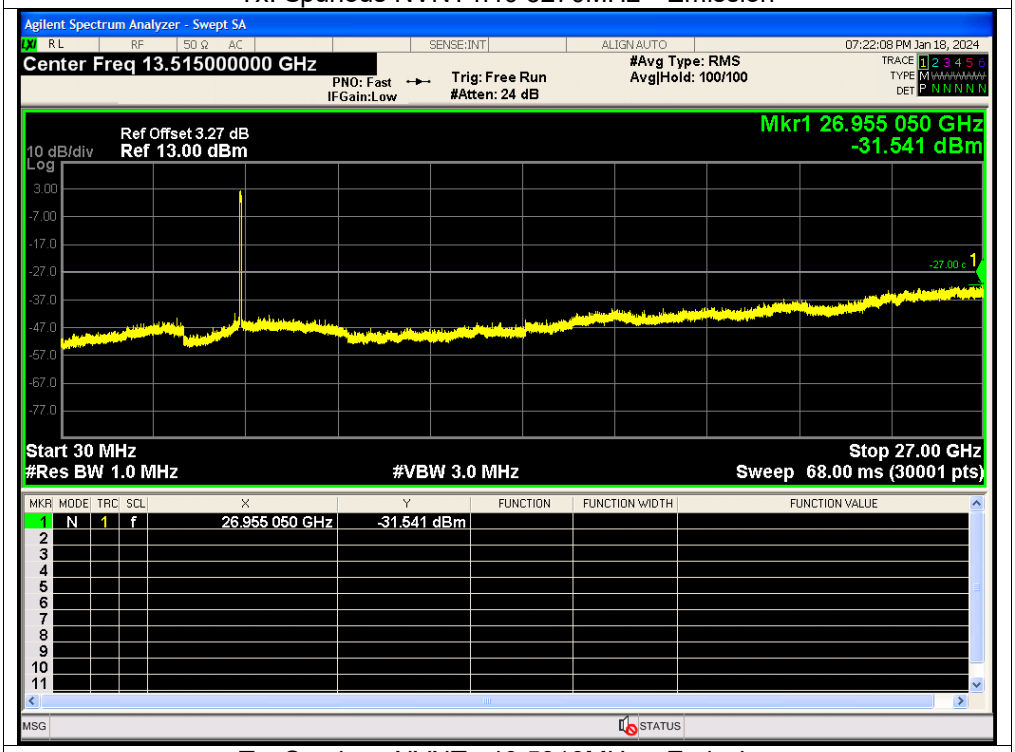
Tx. Spurious NVNT n20 5280MHz Emission



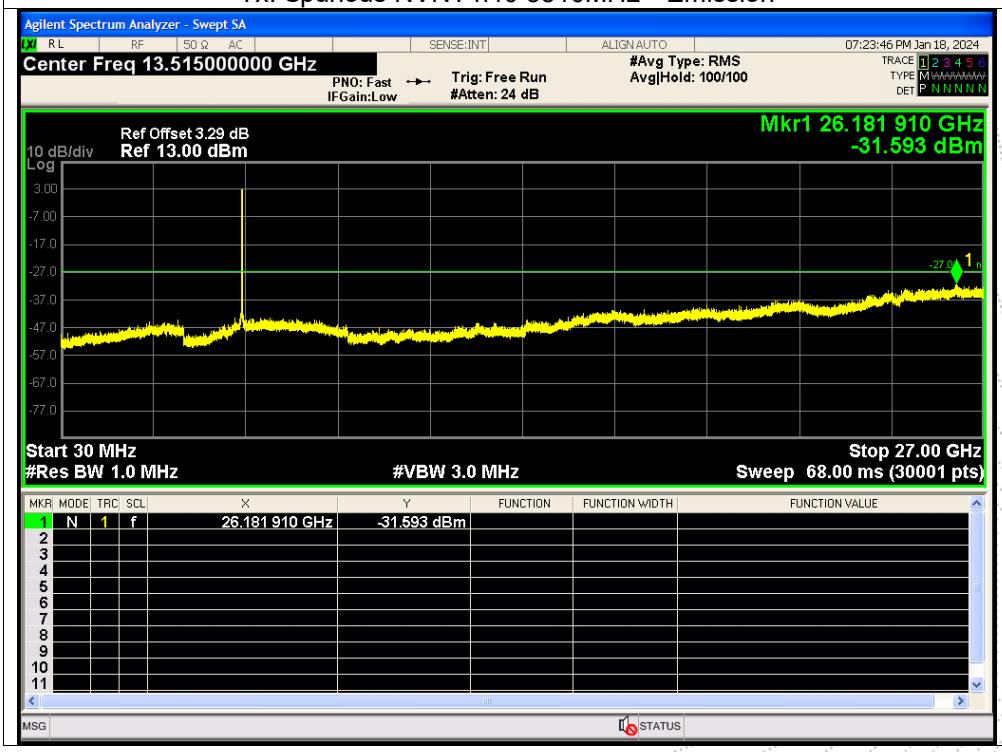
Tx. Spurious NVNT n20 5320MHz Emission



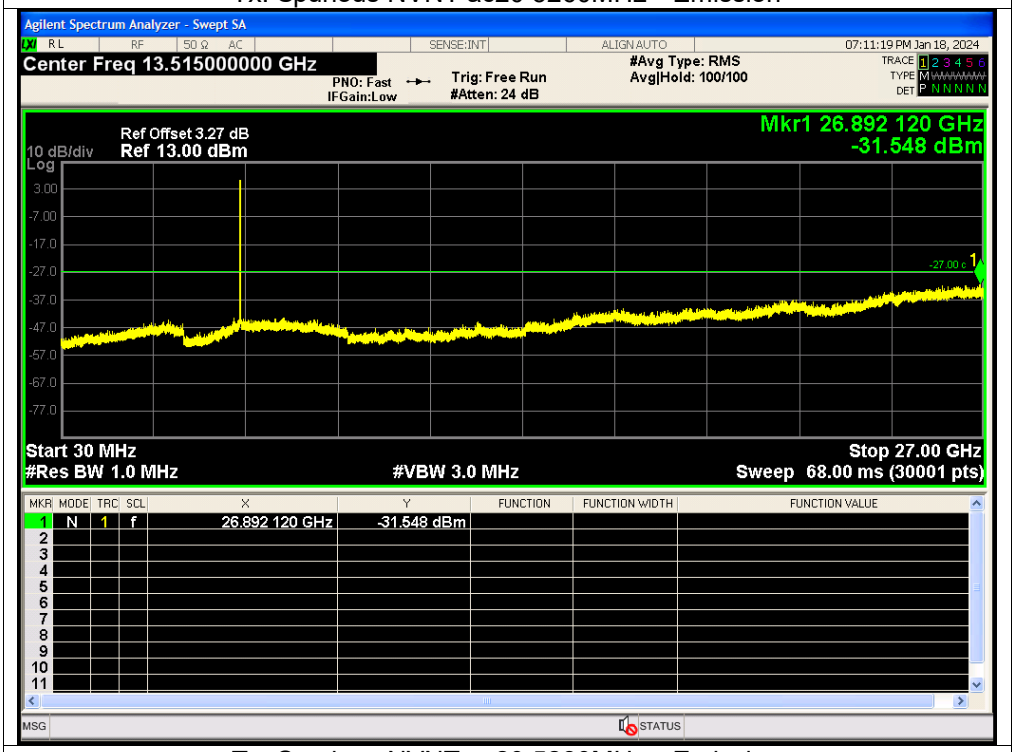
Tx. Spurious NVNT n40 5270MHz Emission



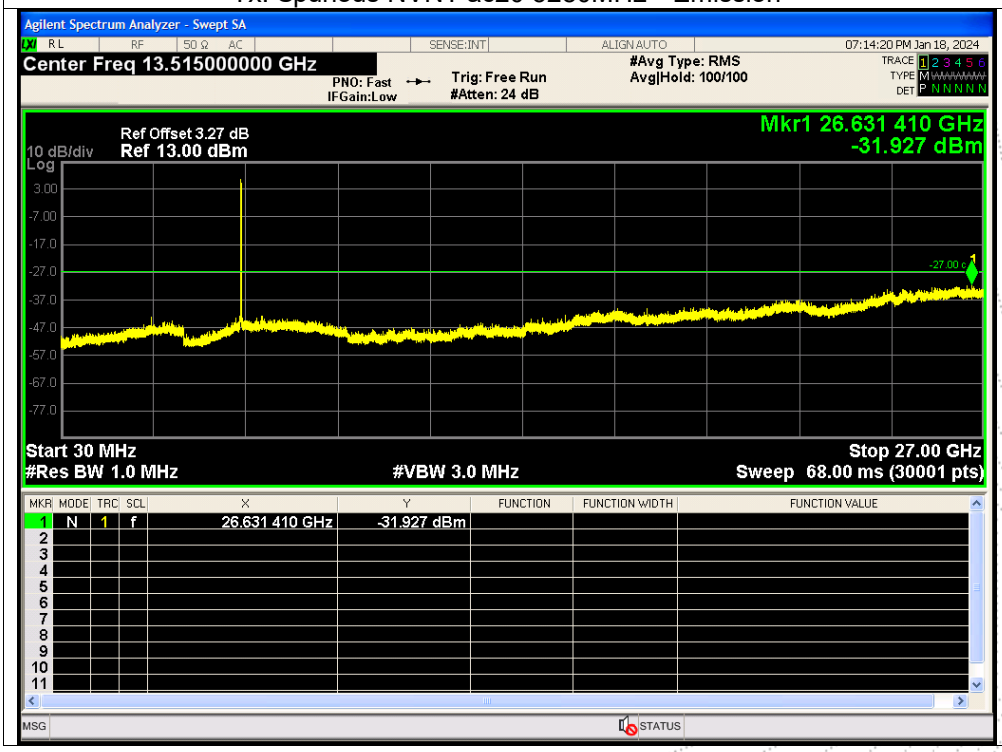
Tx. Spurious NVNT n40 5310MHz Emission



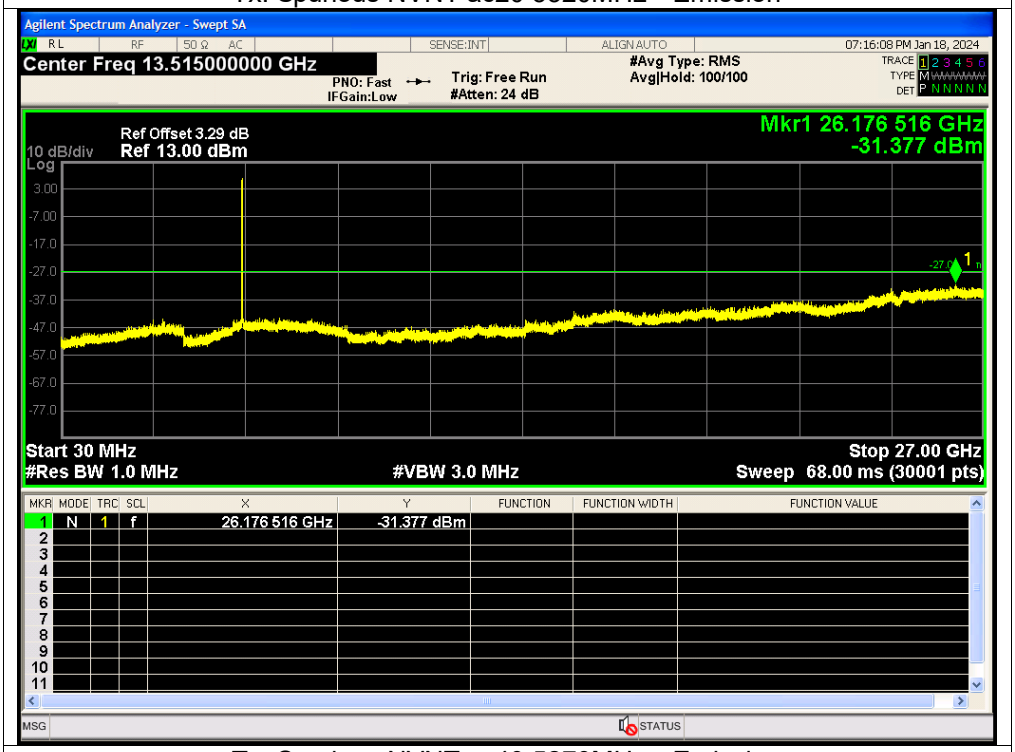
Tx. Spurious NVNT ac20 5260MHz Emission



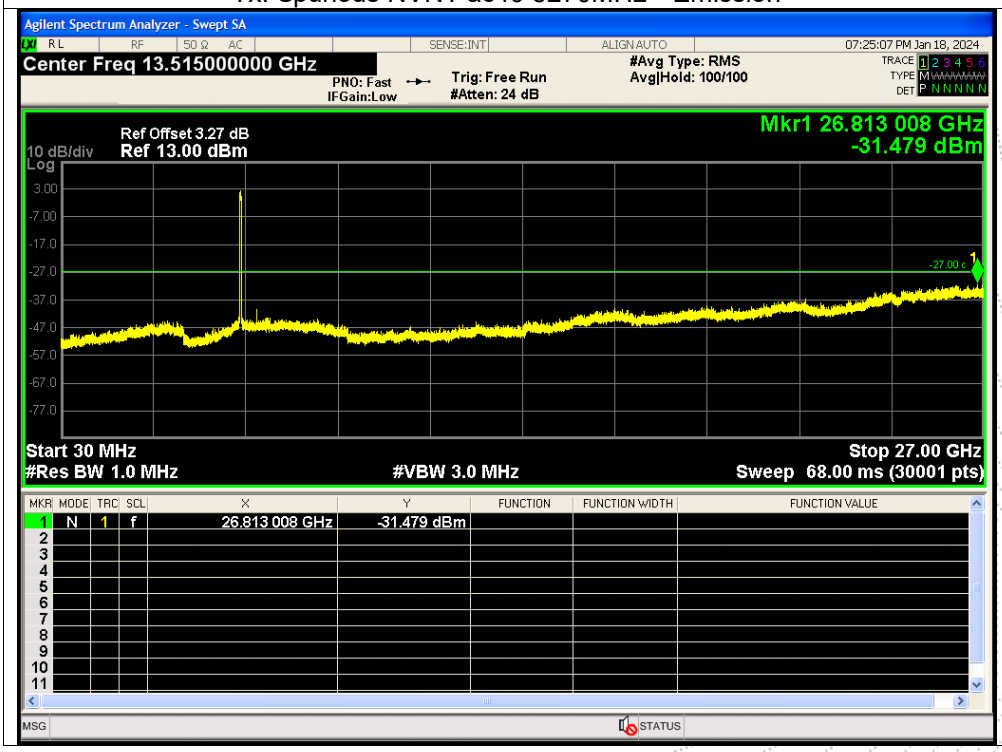
Tx. Spurious NVNT ac20 5280MHz Emission



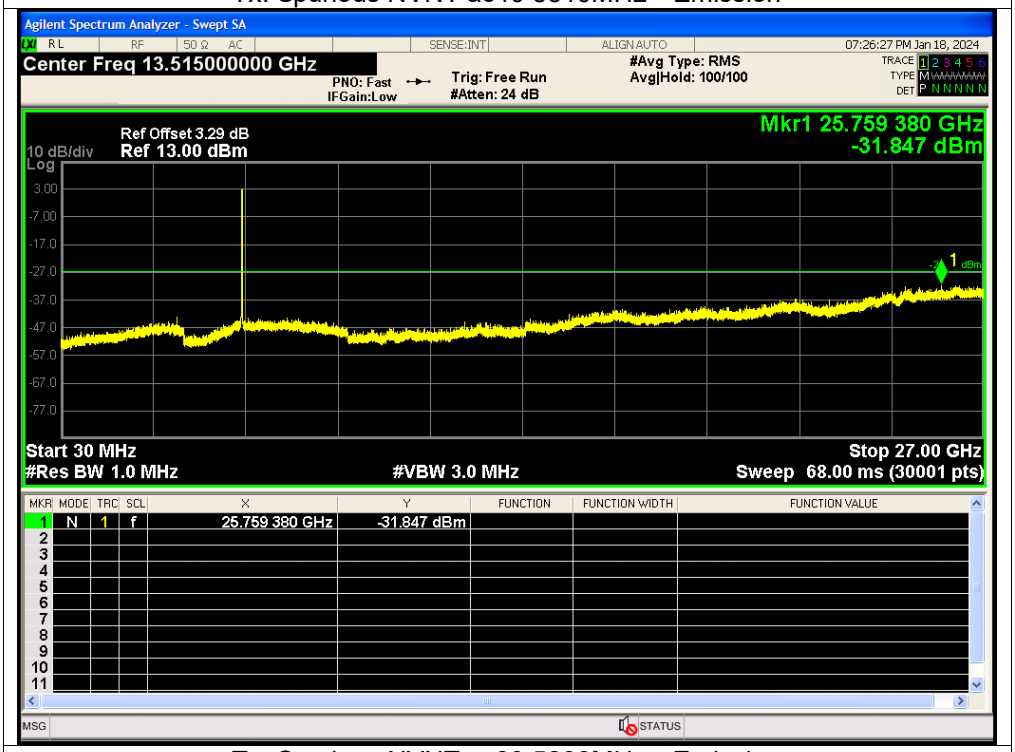
Tx. Spurious NVNT ac20 5320MHz Emission



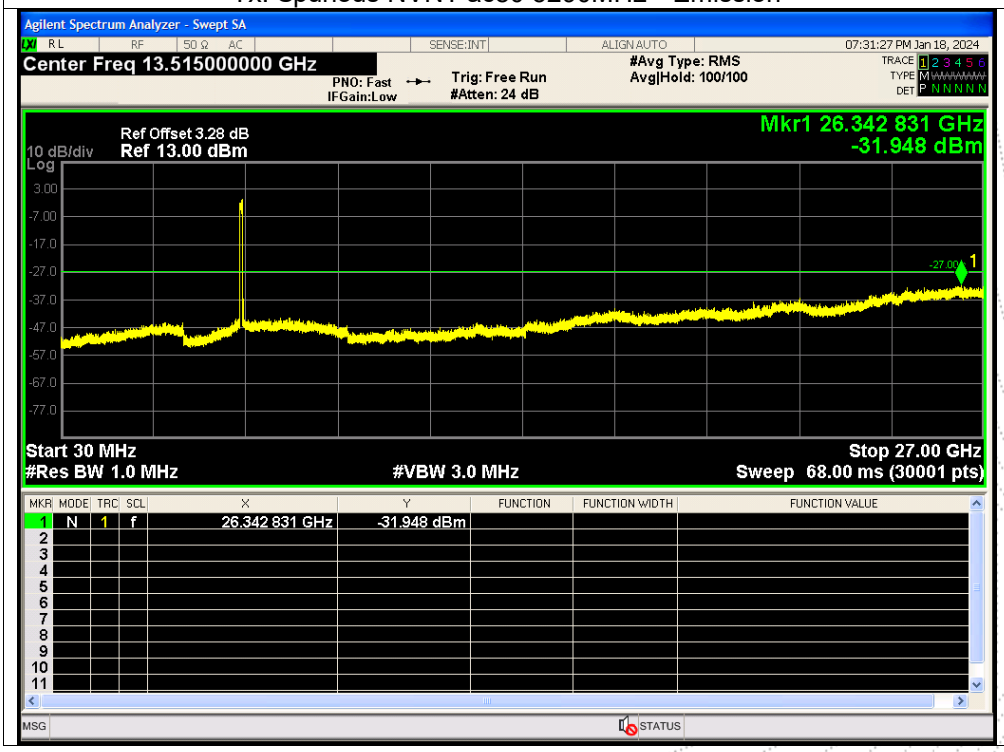
Tx. Spurious NVNT ac40 5270MHz Emission



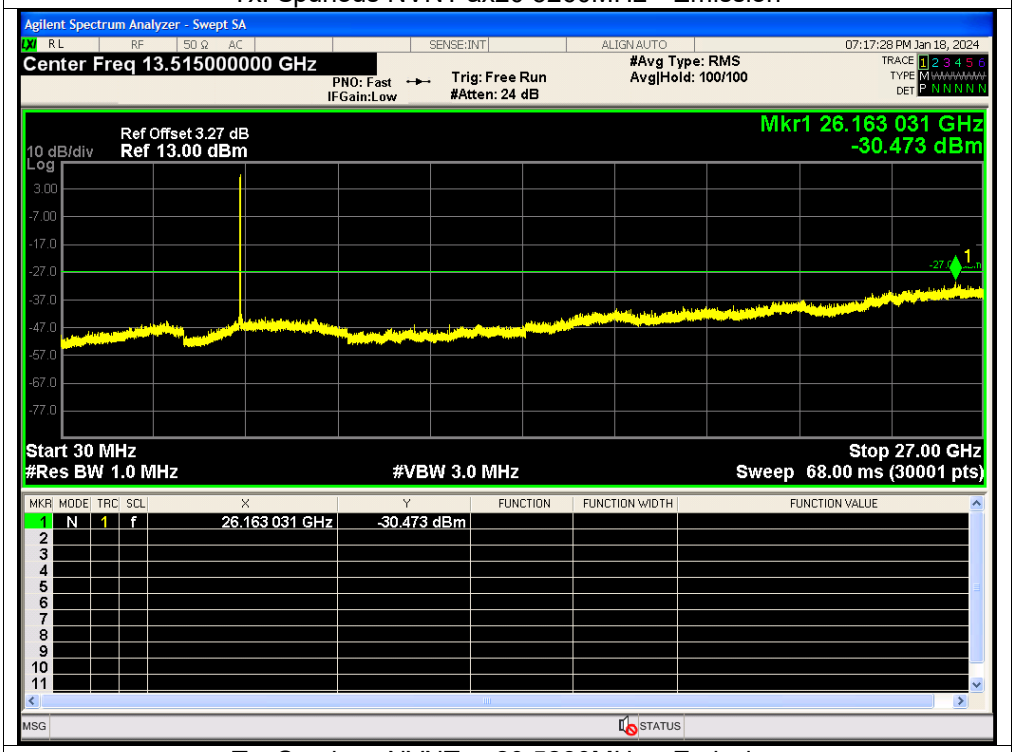
Tx. Spurious NVNT ac40 5310MHz Emission



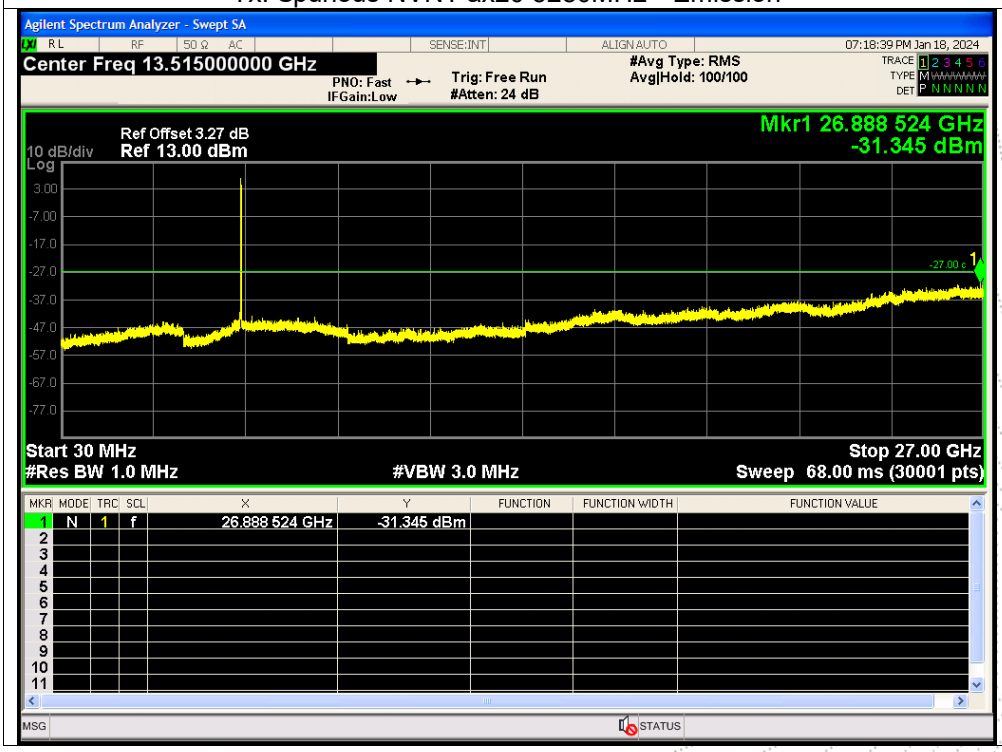
Tx. Spurious NVNT ac80 5290MHz Emission



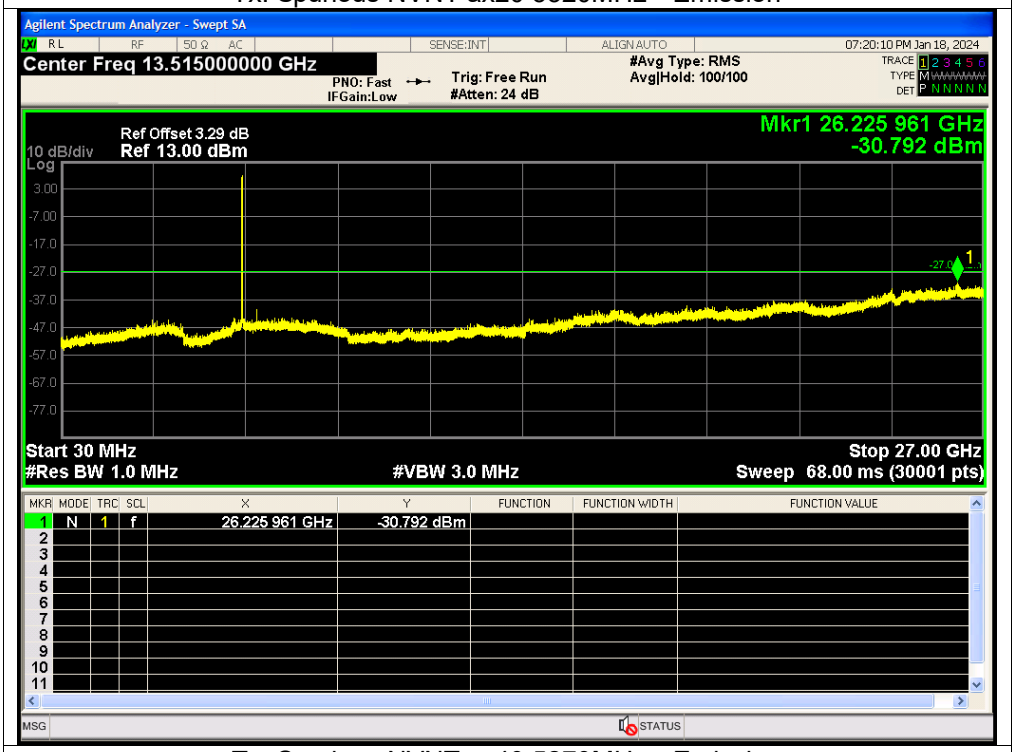
Tx. Spurious NVNT ax20 5260MHz Emission



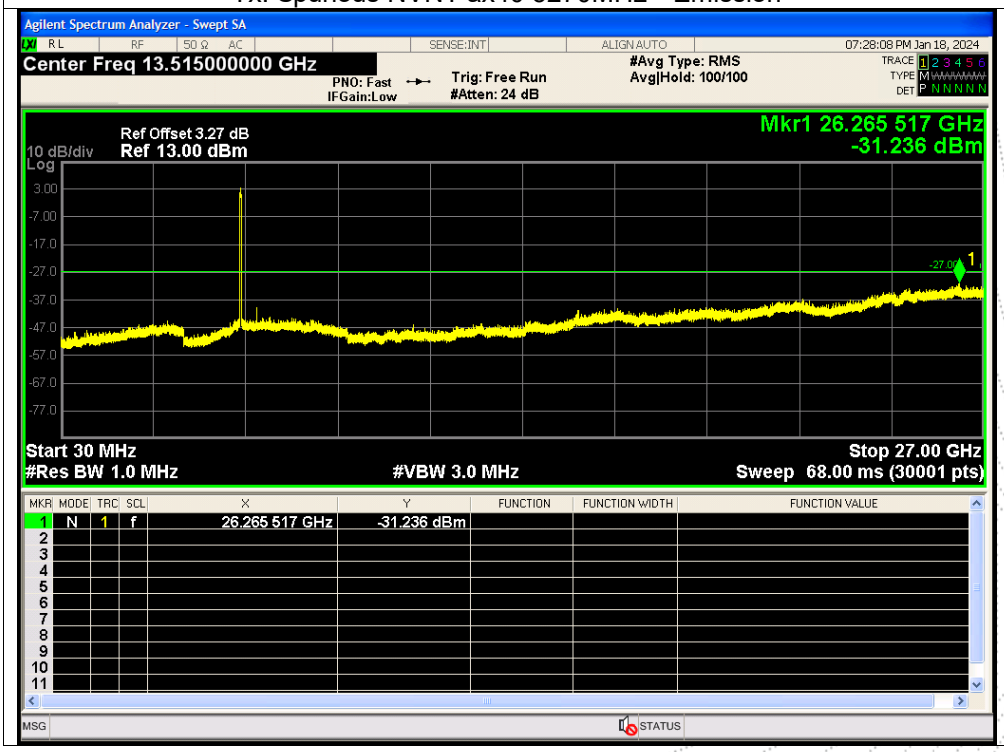
Tx. Spurious NVNT ax20 5280MHz Emission



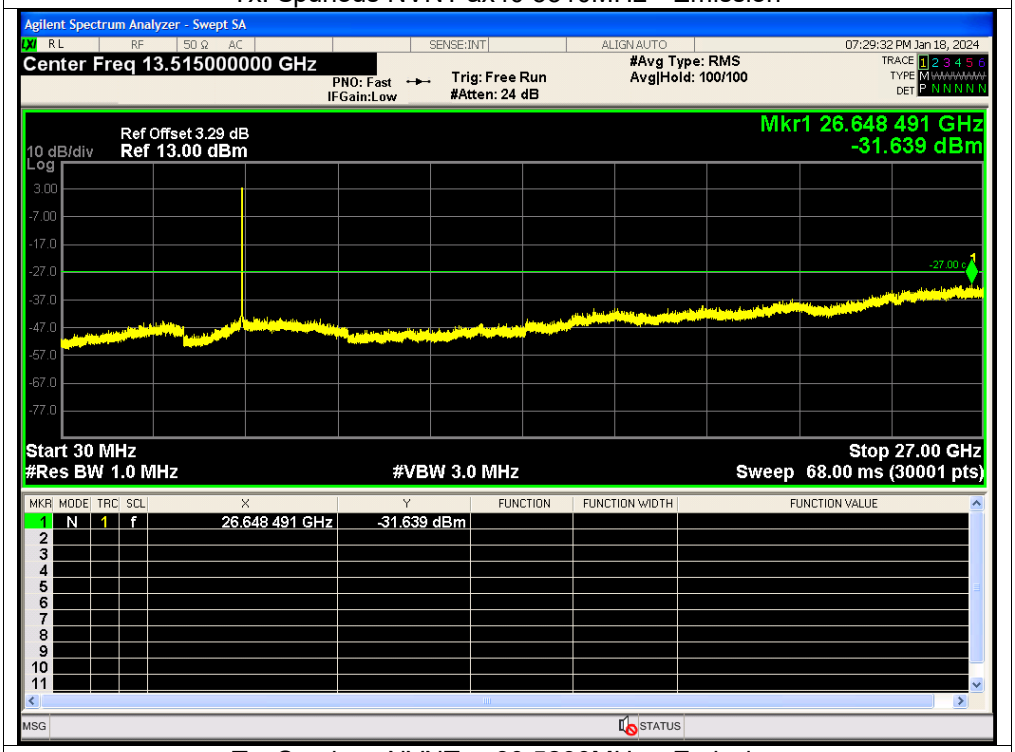
Tx. Spurious NVNT ax20 5320MHz Emission



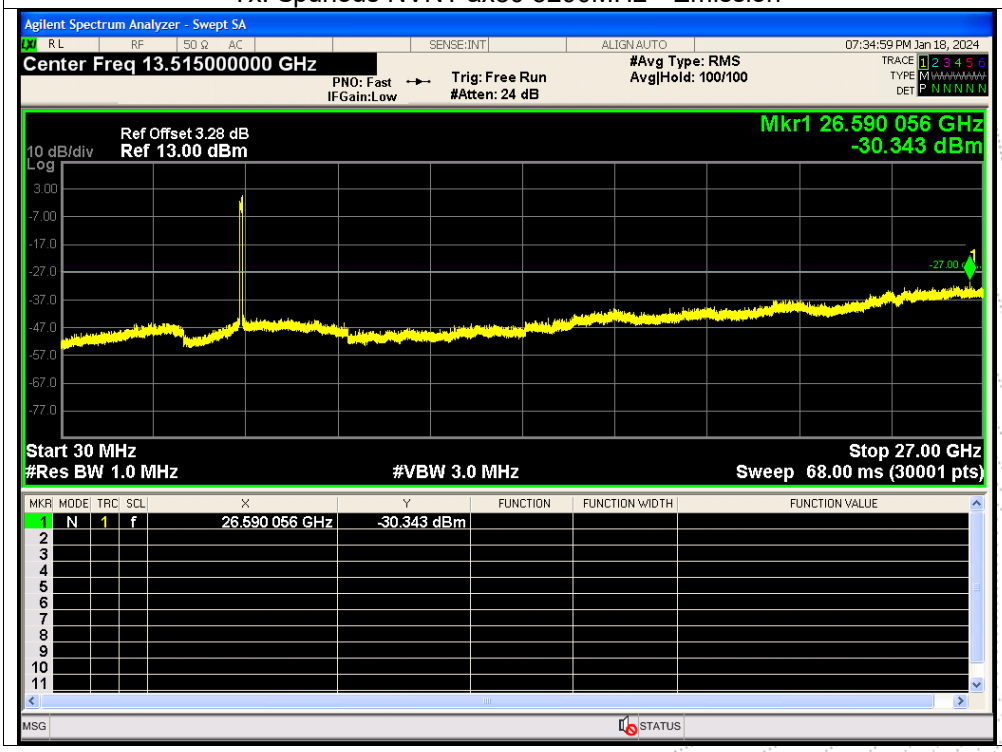
Tx. Spurious NVNT ax40 5270MHz Emission



Tx. Spurious NVNT ax40 5310MHz Emission



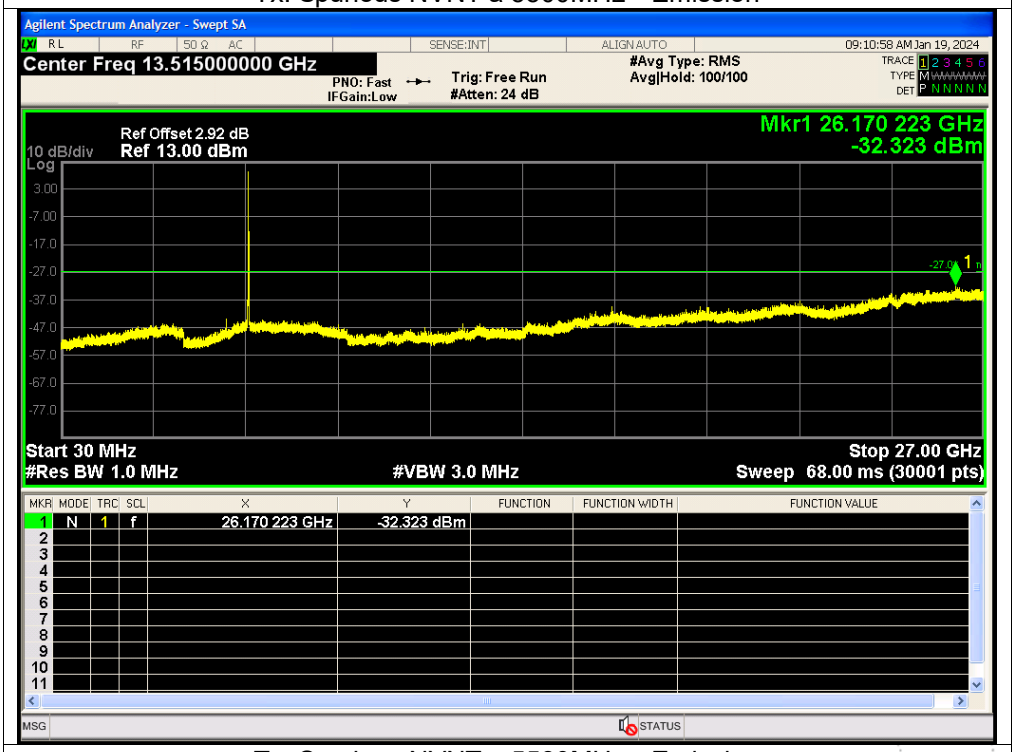
Tx. Spurious NVNT ax80 5290MHz Emission



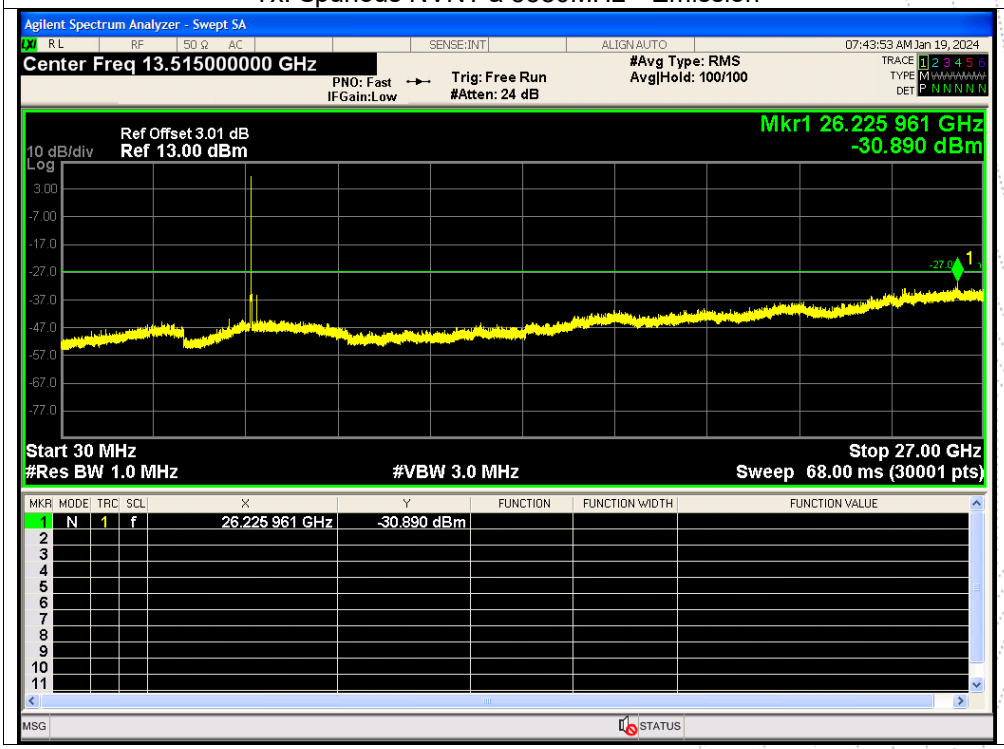
Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A.
Antenna A: 5500-5700MHz

Test Graphs

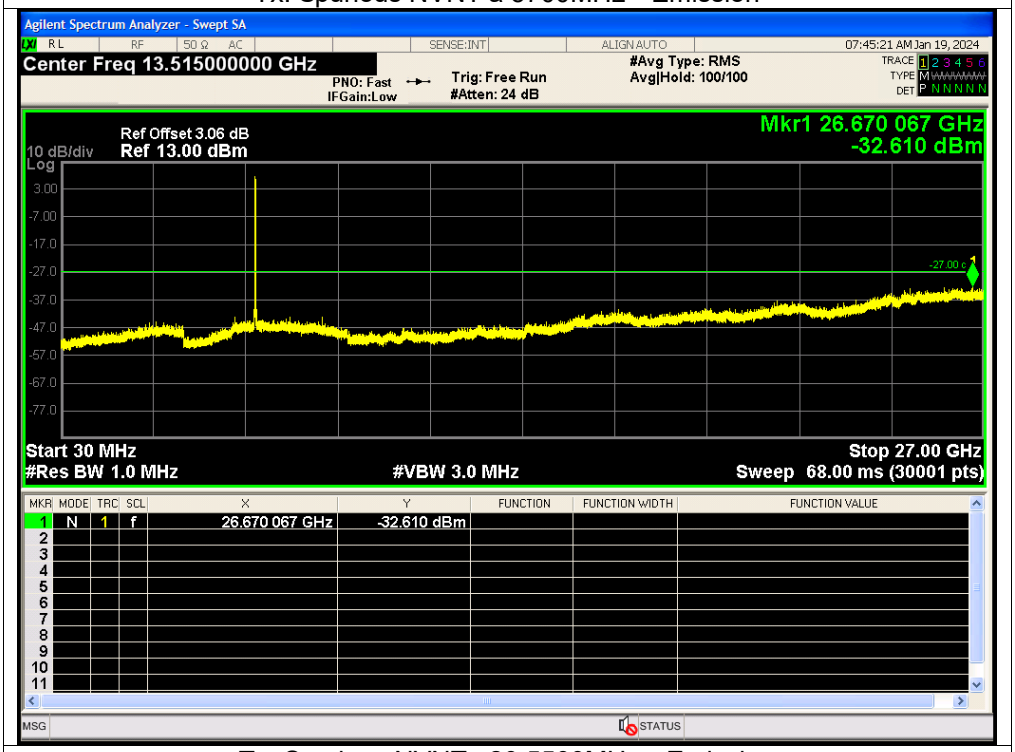
Tx. Spurious NVNT a 5500MHz Emission



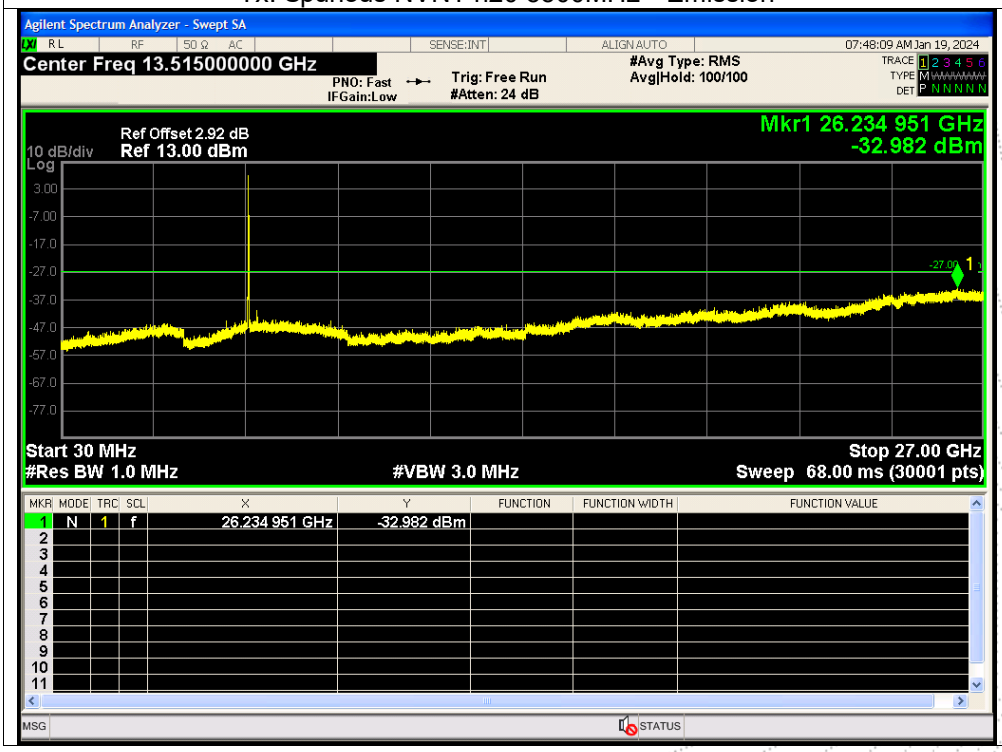
Tx. Spurious NVNT a 5580MHz Emission



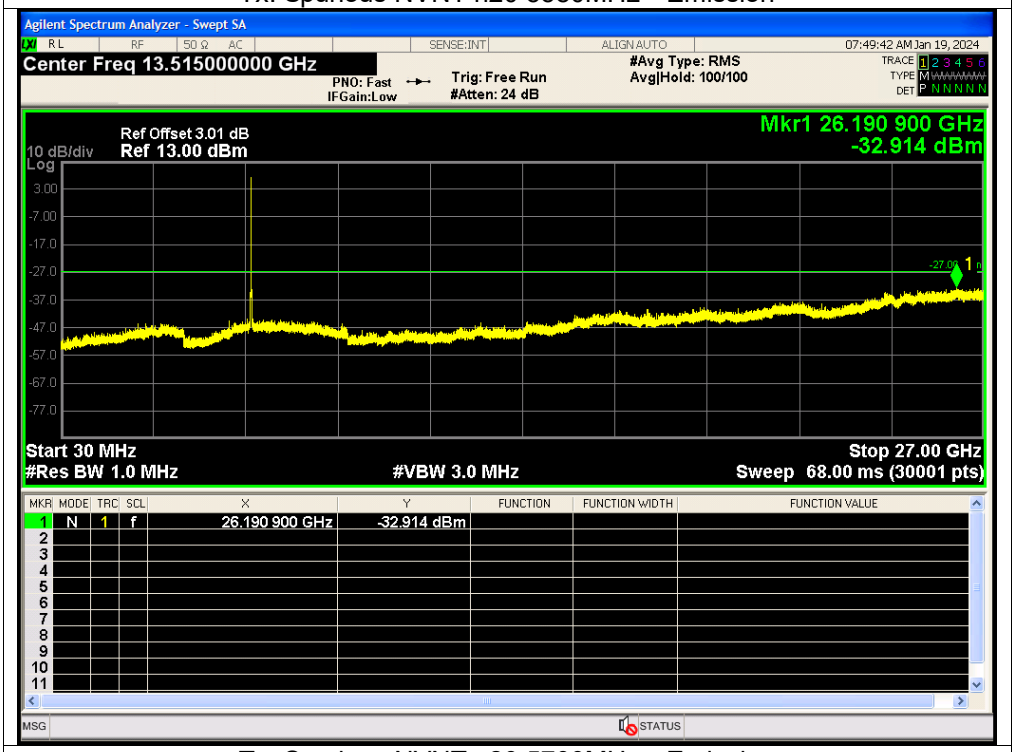
Tx. Spurious NVNT a 5700MHz Emission



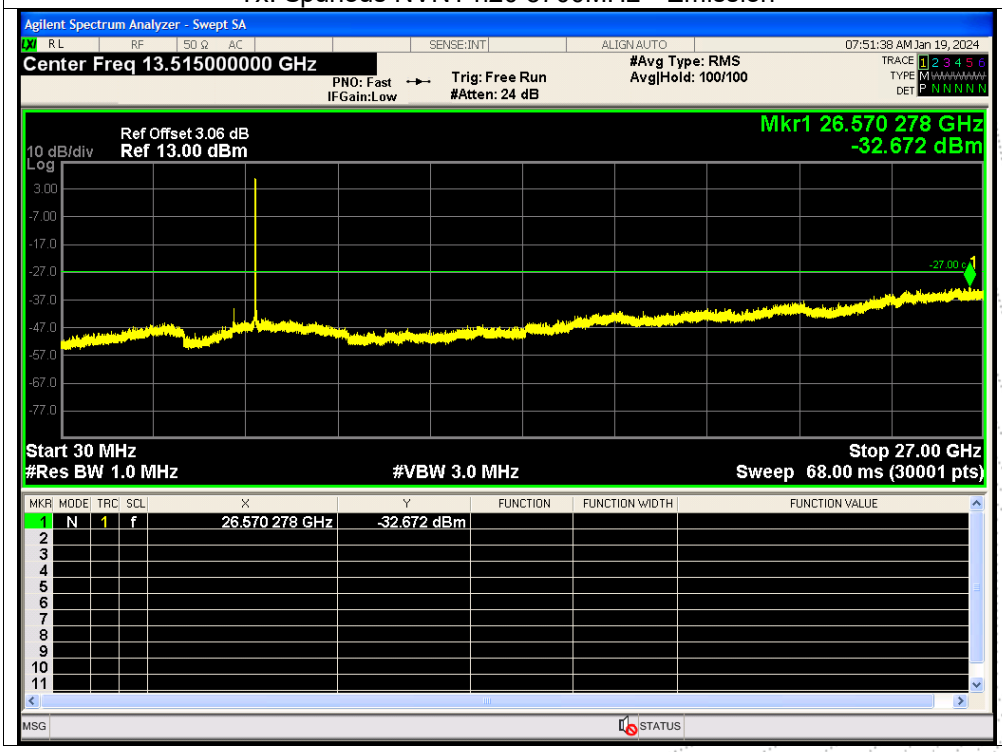
Tx. Spurious NVNT n20 5500MHz Emission



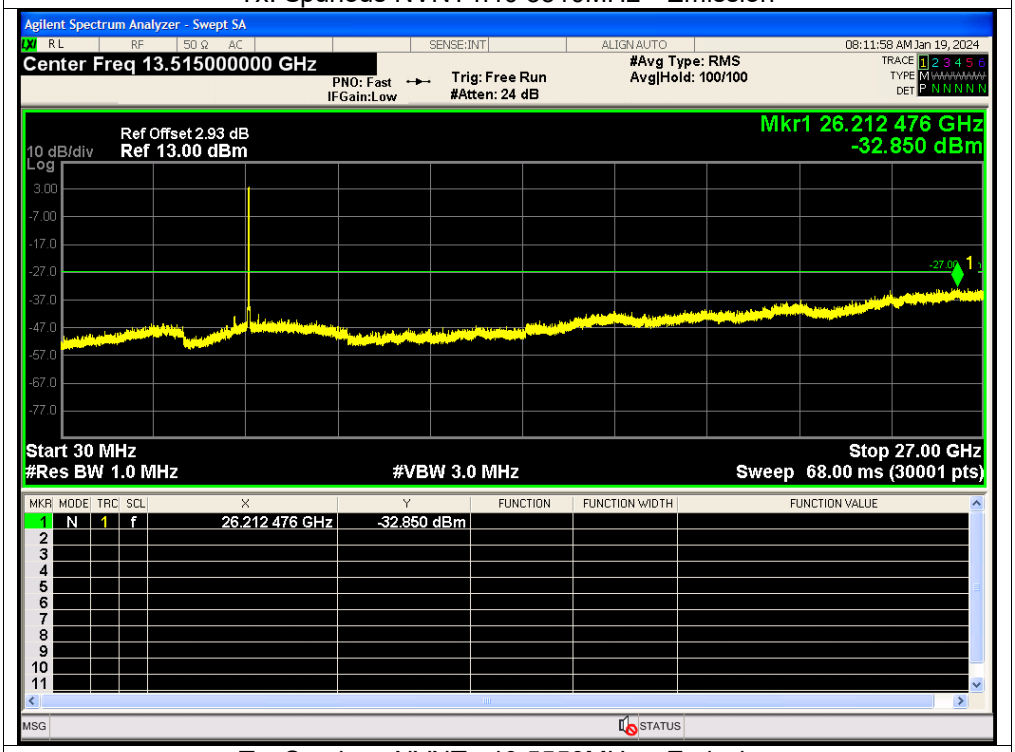
Tx. Spurious NVNT n20 5580MHz Emission



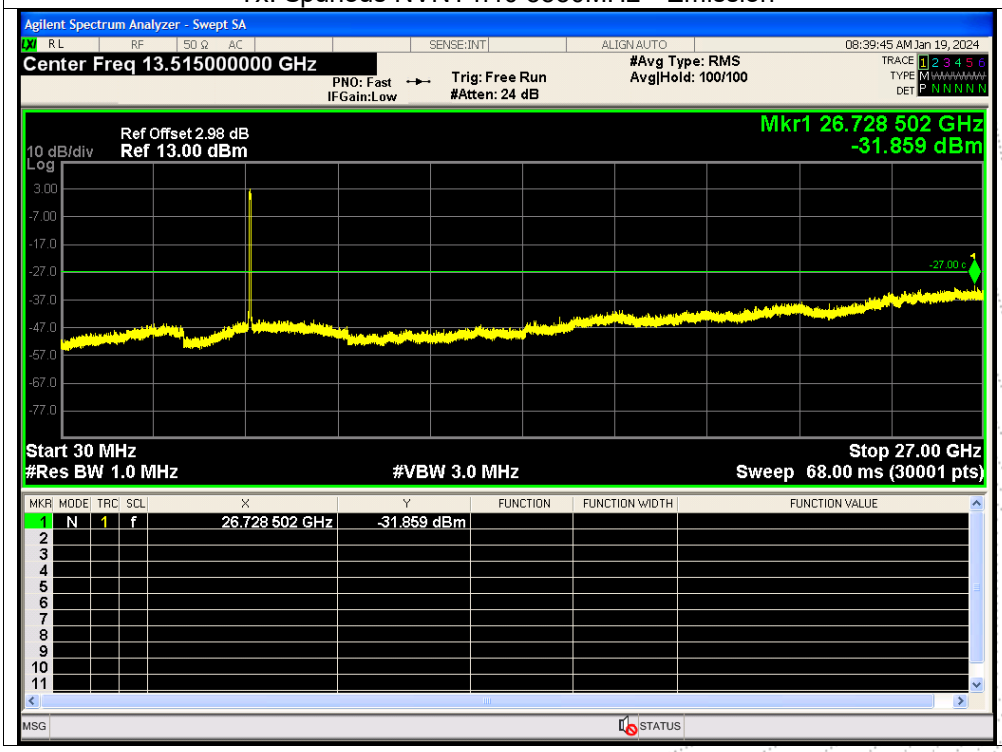
Tx. Spurious NVNT n20 5700MHz Emission



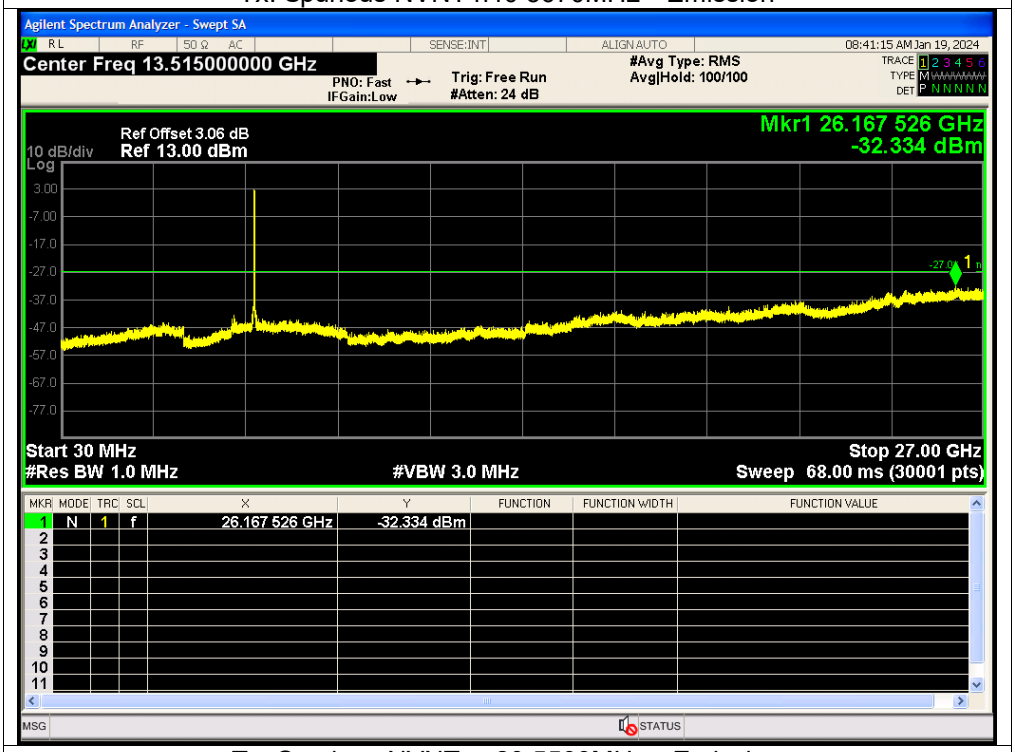
Tx. Spurious NVNT n40 5510MHz Emission



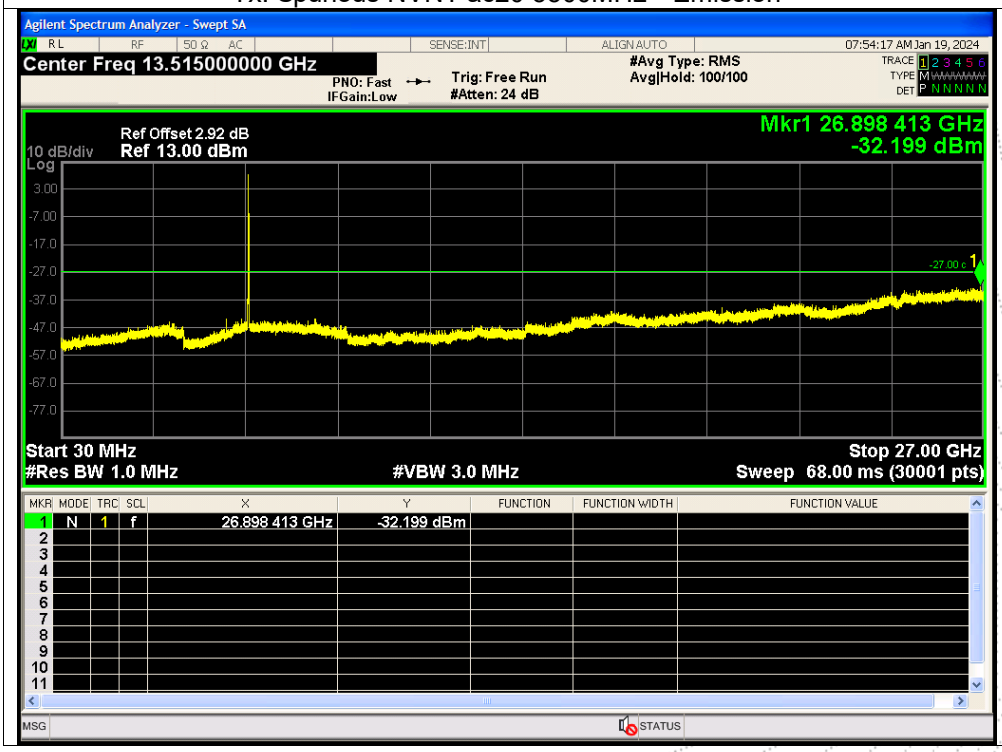
Tx. Spurious NVNT n40 5550MHz Emission



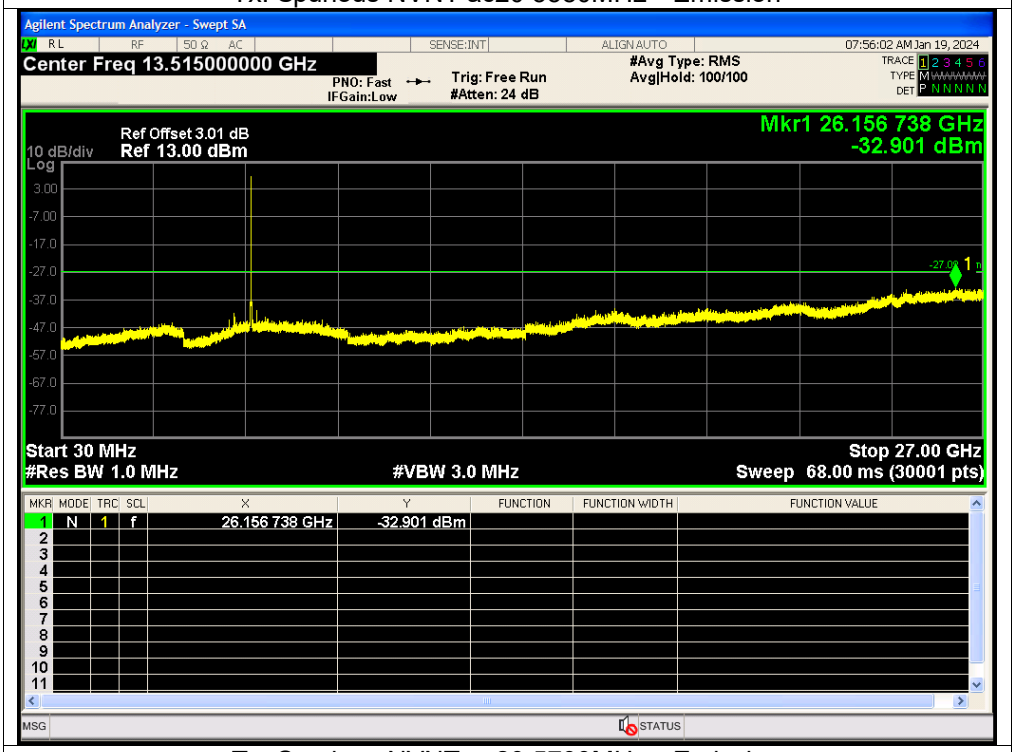
Tx. Spurious NVNT n40 5670MHz Emission



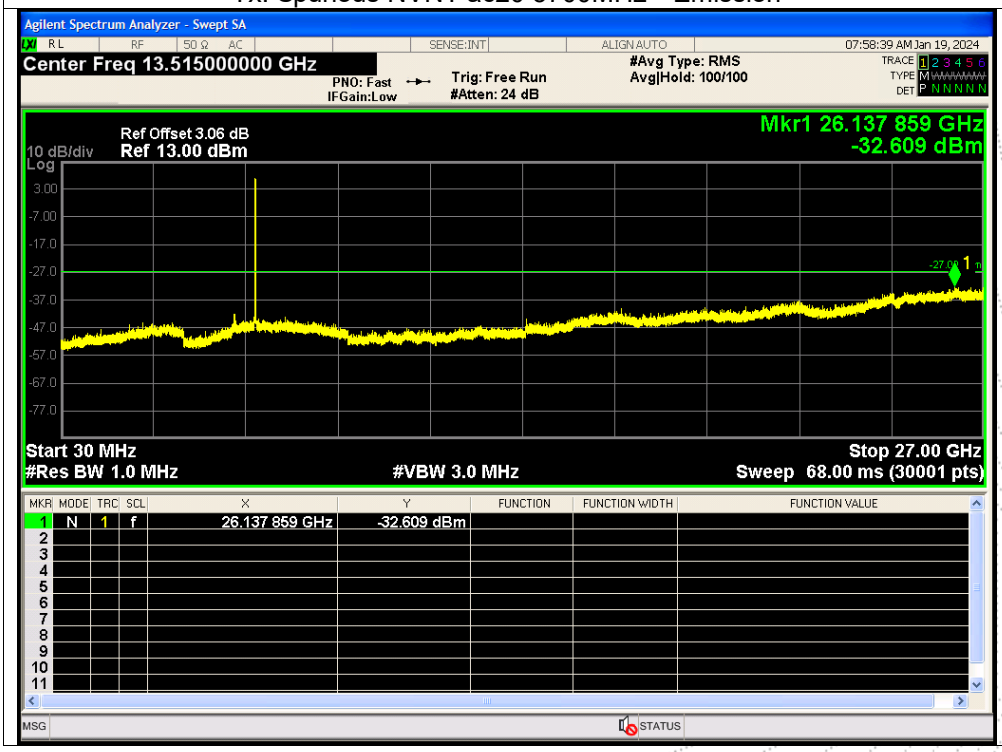
Tx. Spurious NVNT ac20 5500MHz Emission



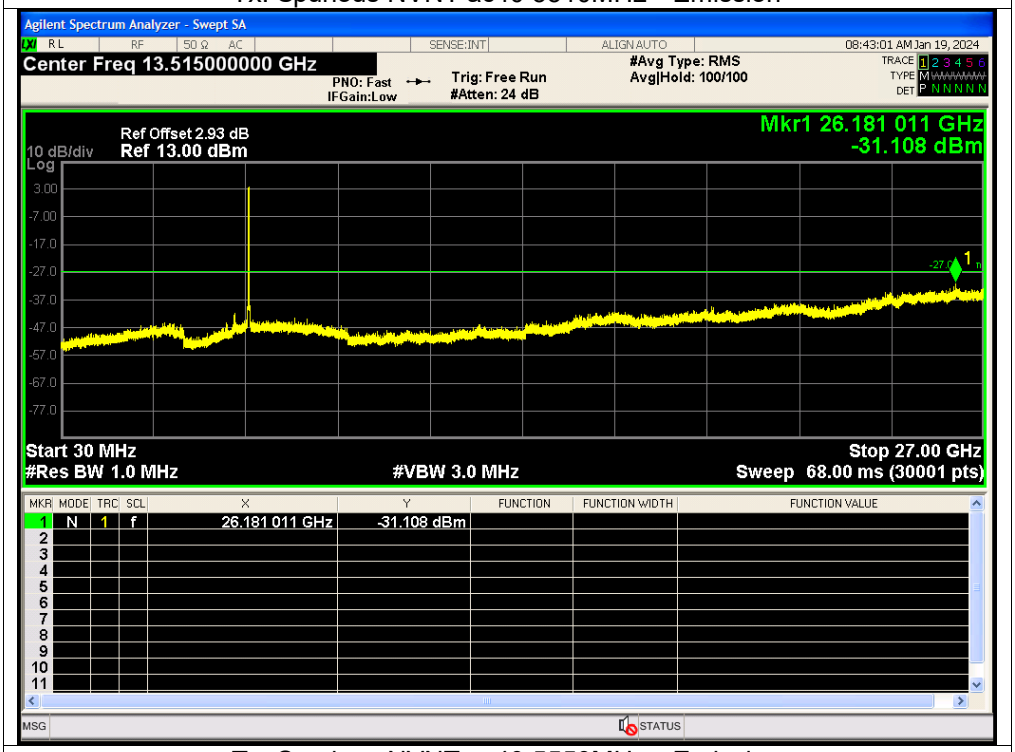
Tx. Spurious NVNT ac20 5580MHz Emission



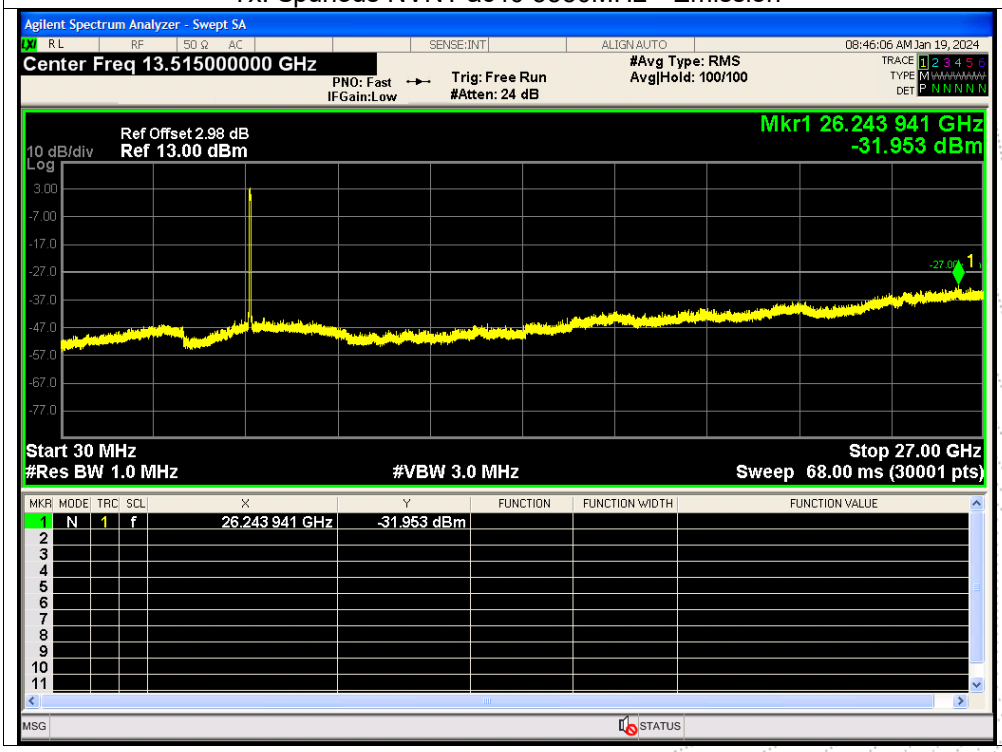
Tx. Spurious NVNT ac20 5700MHz Emission



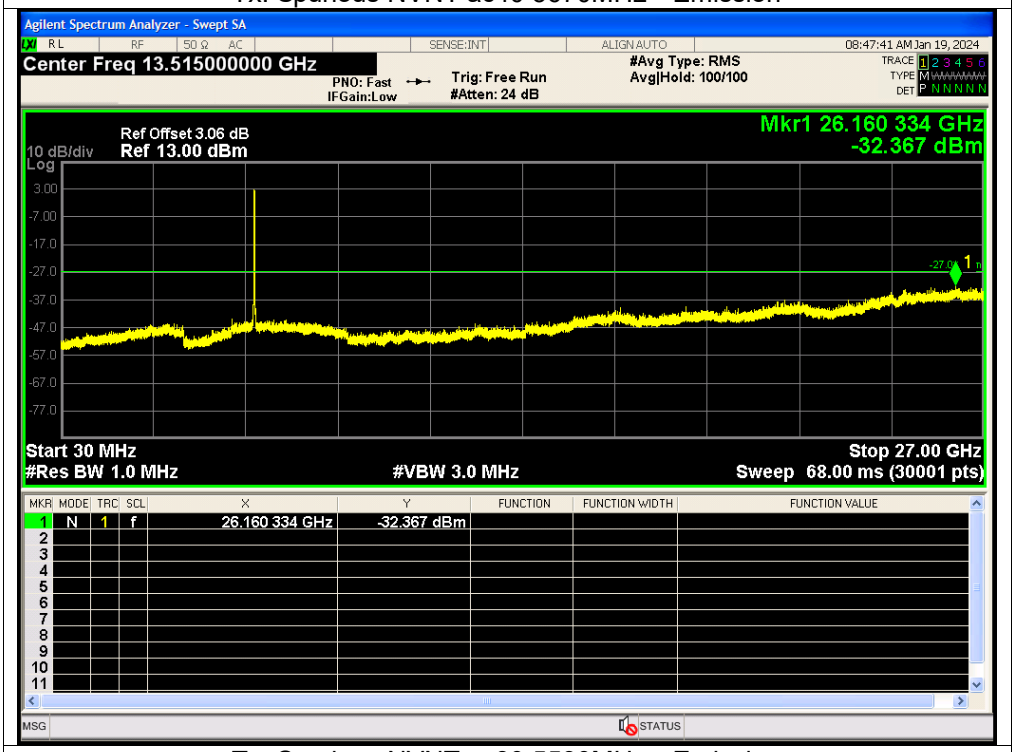
Tx. Spurious NVNT ac40 5510MHz Emission



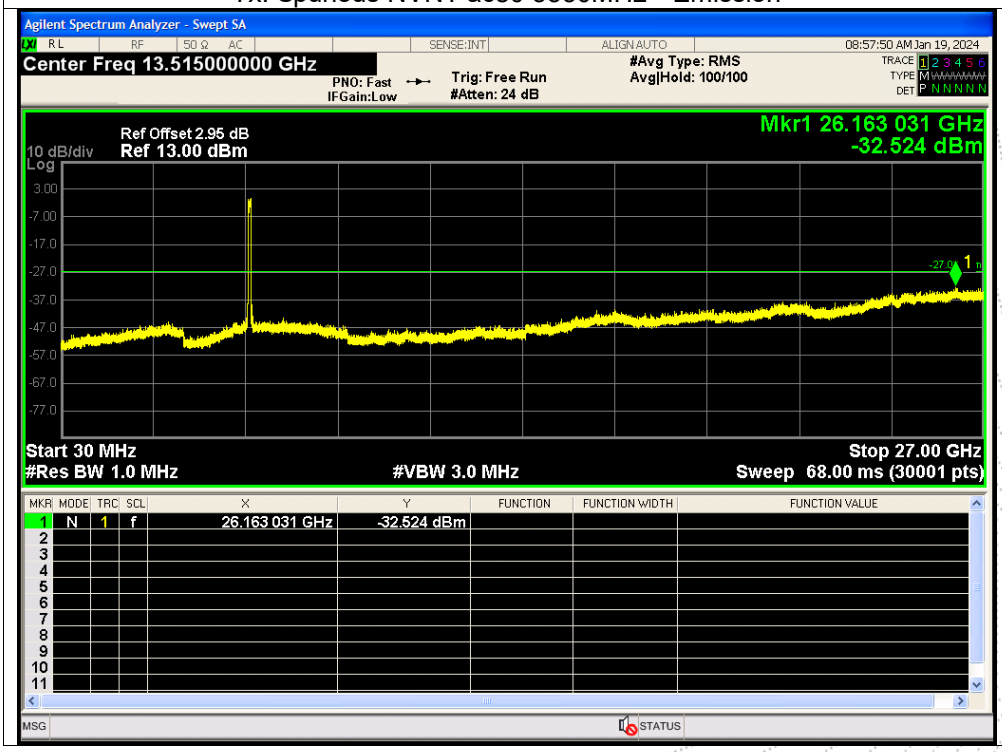
Tx. Spurious NVNT ac40 5550MHz Emission



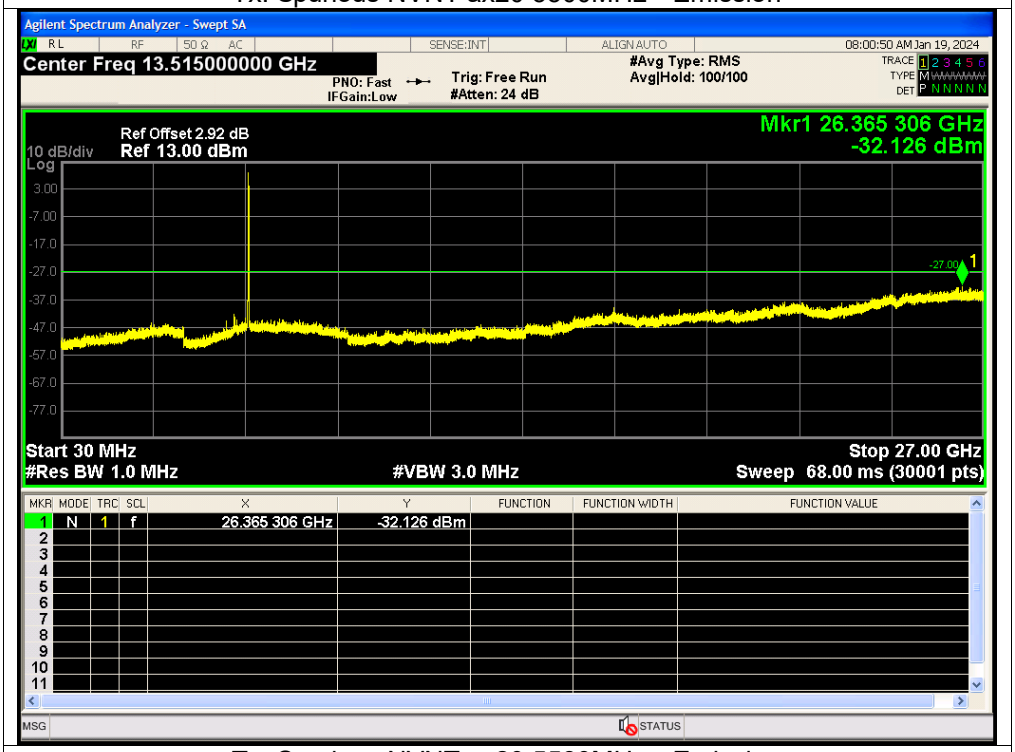
Tx. Spurious NVNT ac40 5670MHz Emission



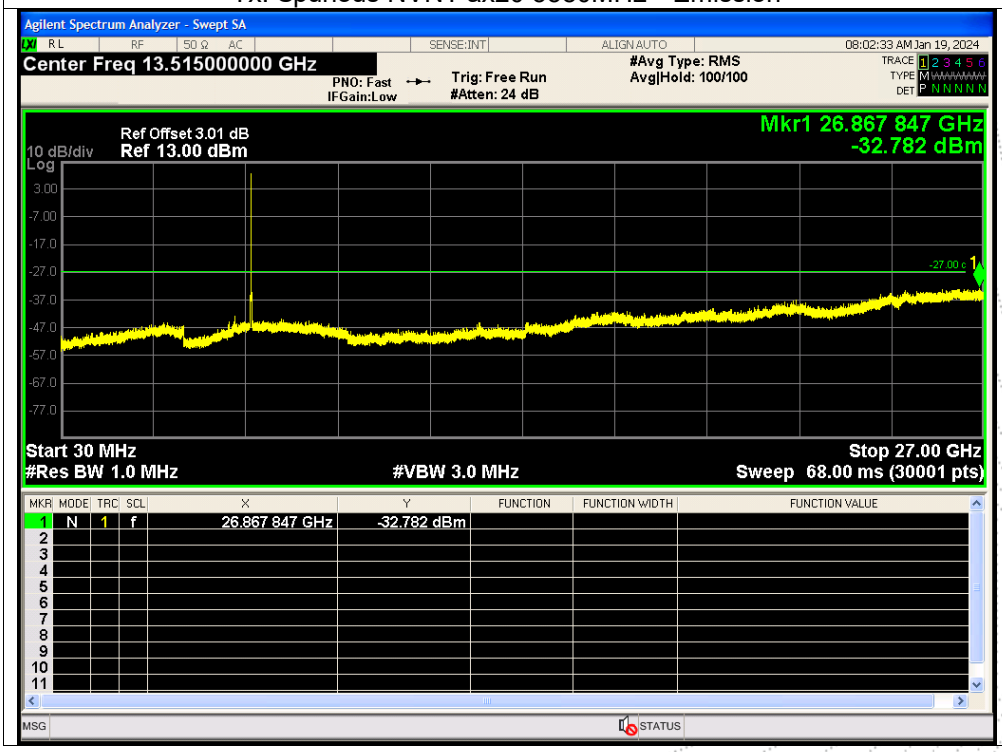
Tx. Spurious NVNT ac80 5530MHz Emission



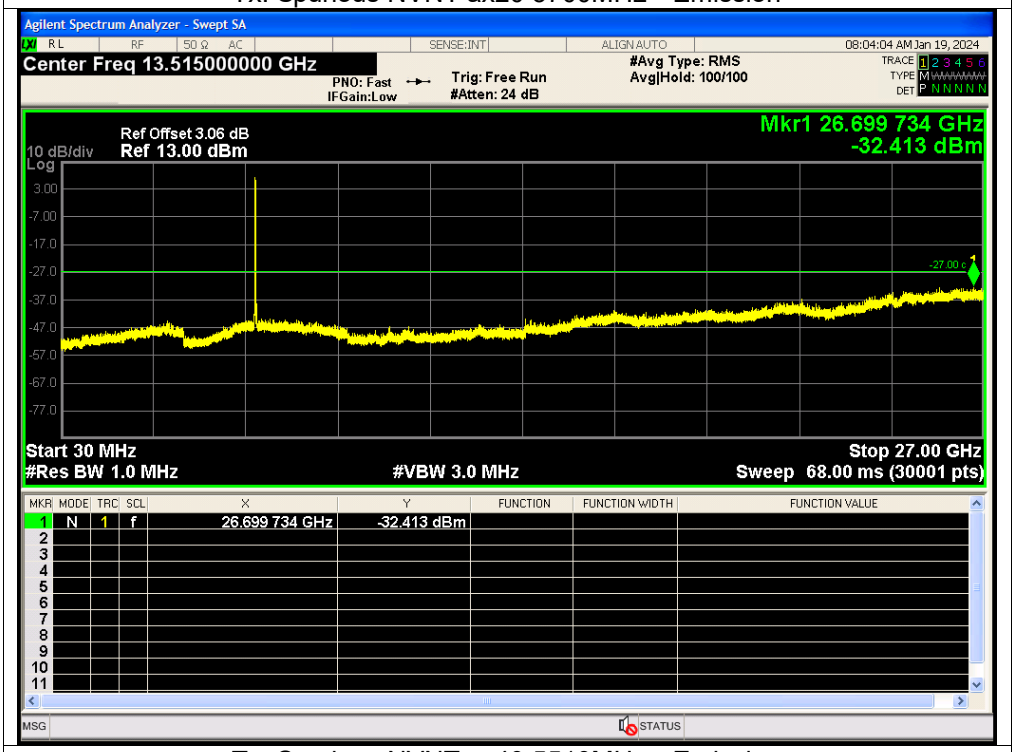
Tx. Spurious NVNT ax20 5500MHz Emission



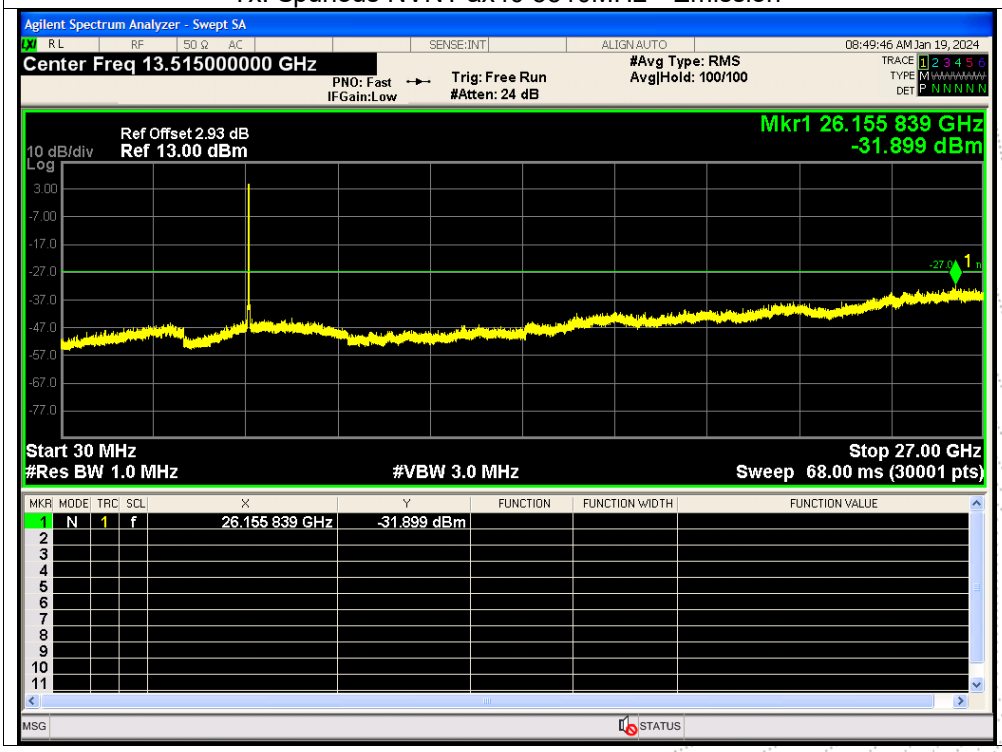
Tx. Spurious NVNT ax20 5580MHz Emission



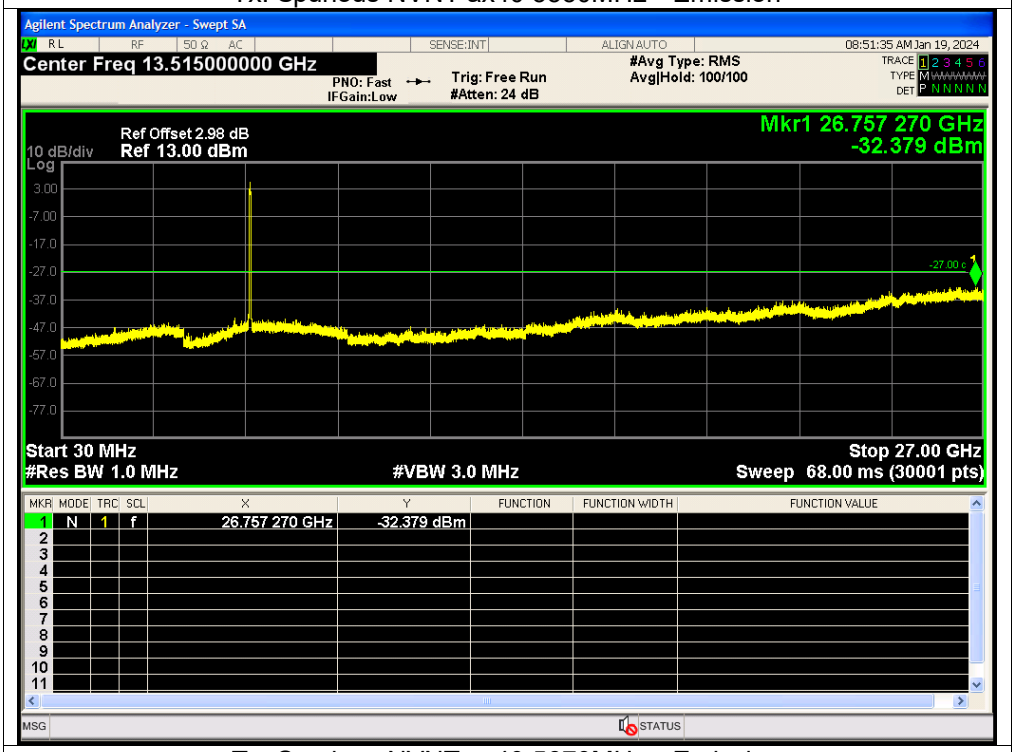
Tx. Spurious NVNT ax20 5700MHz Emission



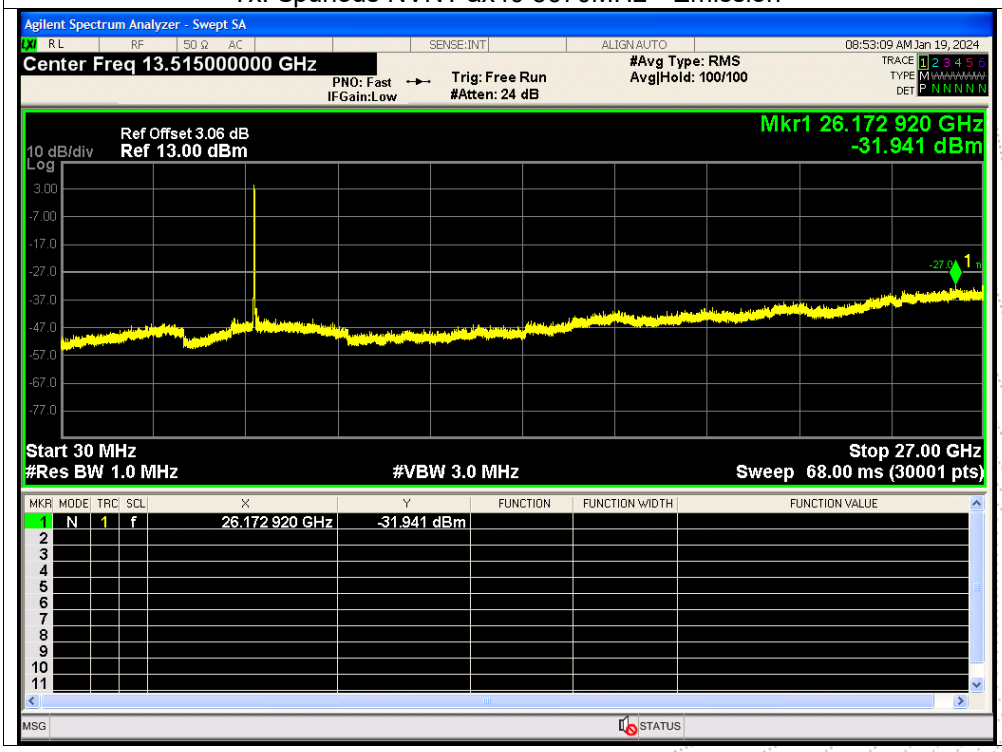
Tx. Spurious NVNT ax40 5510MHz Emission



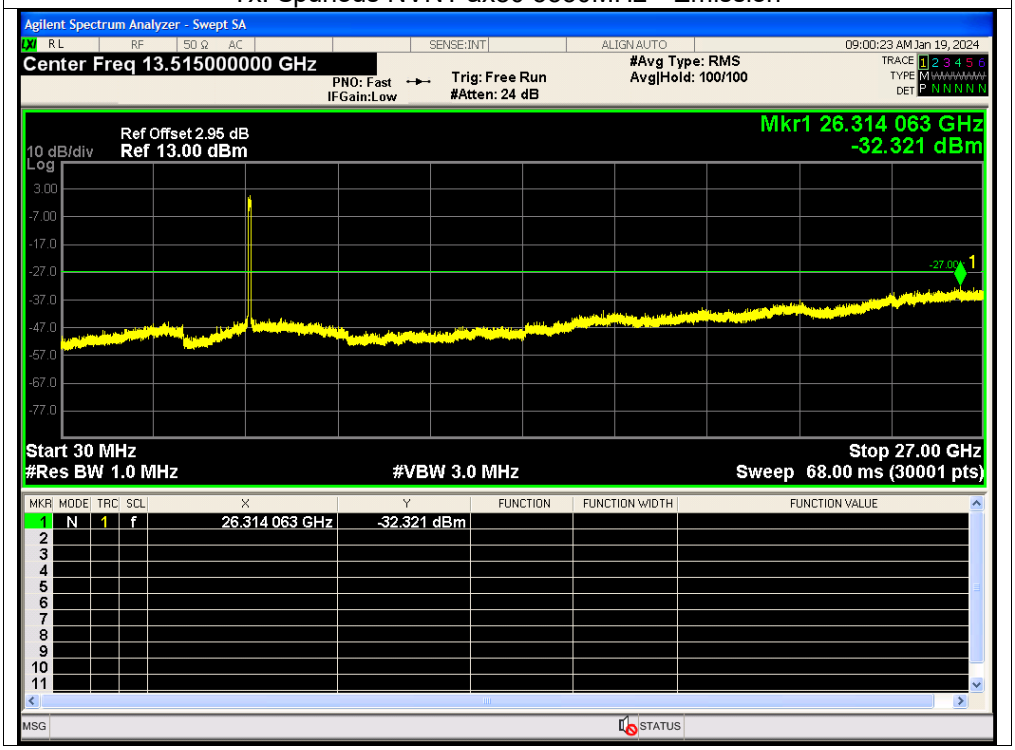
Tx. Spurious NVNT ax40 5550MHz Emission



Tx. Spurious NVNT ax40 5670MHz Emission

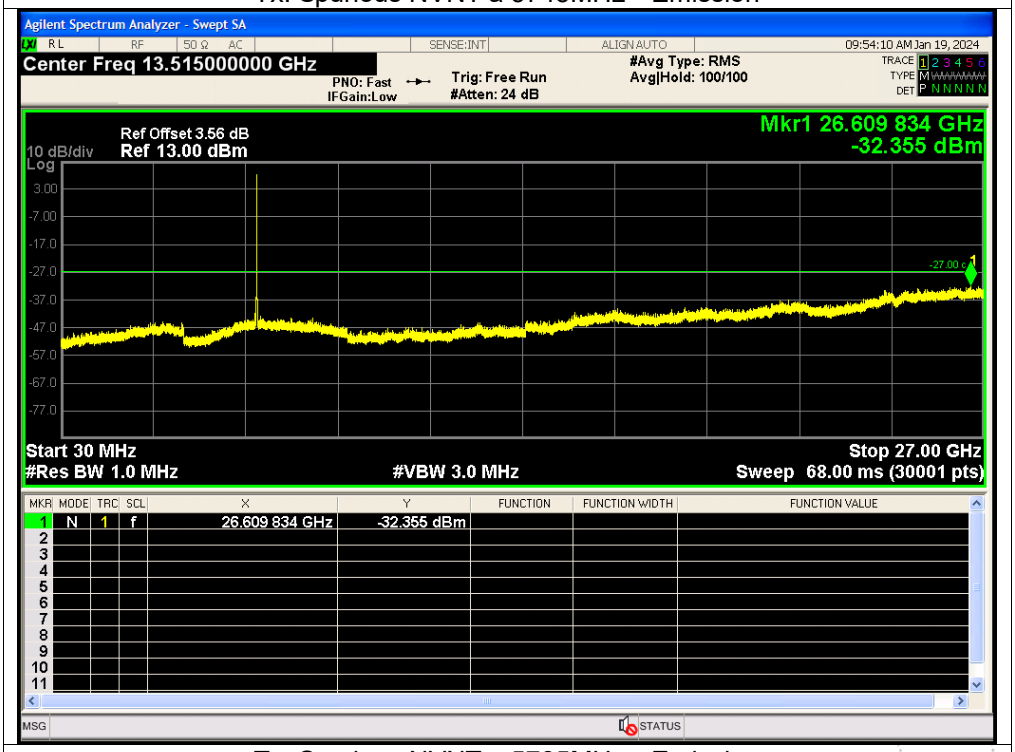


Tx. Spurious NVNT ax80 5530MHz Emission

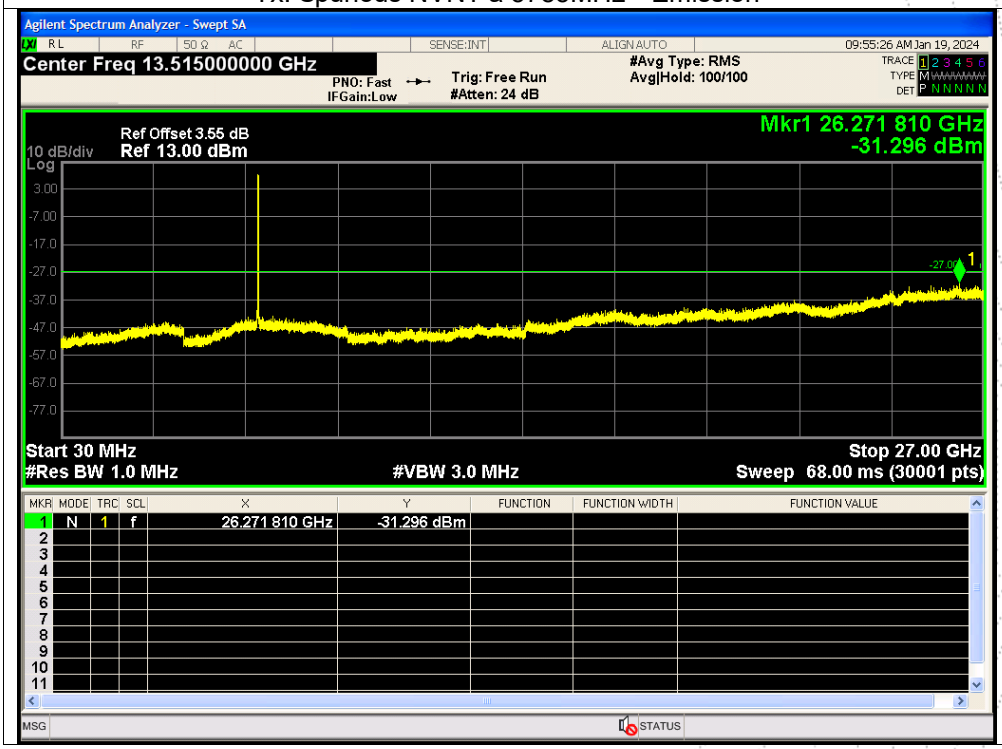


Note: A(B) Represent the value of antenna A and B, The worst data is Antenna A, only shown Antenna A.
Antenna A: 5745-58250MHz

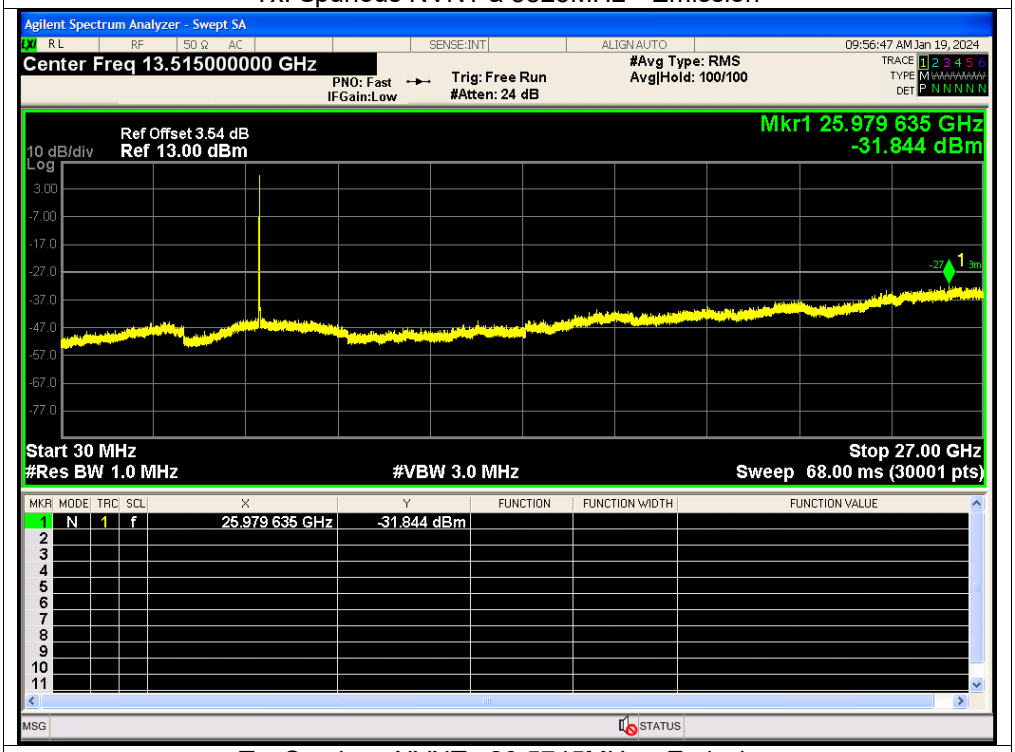
Test Graphs
Tx. Spurious NVNT a 5745MHz Emission



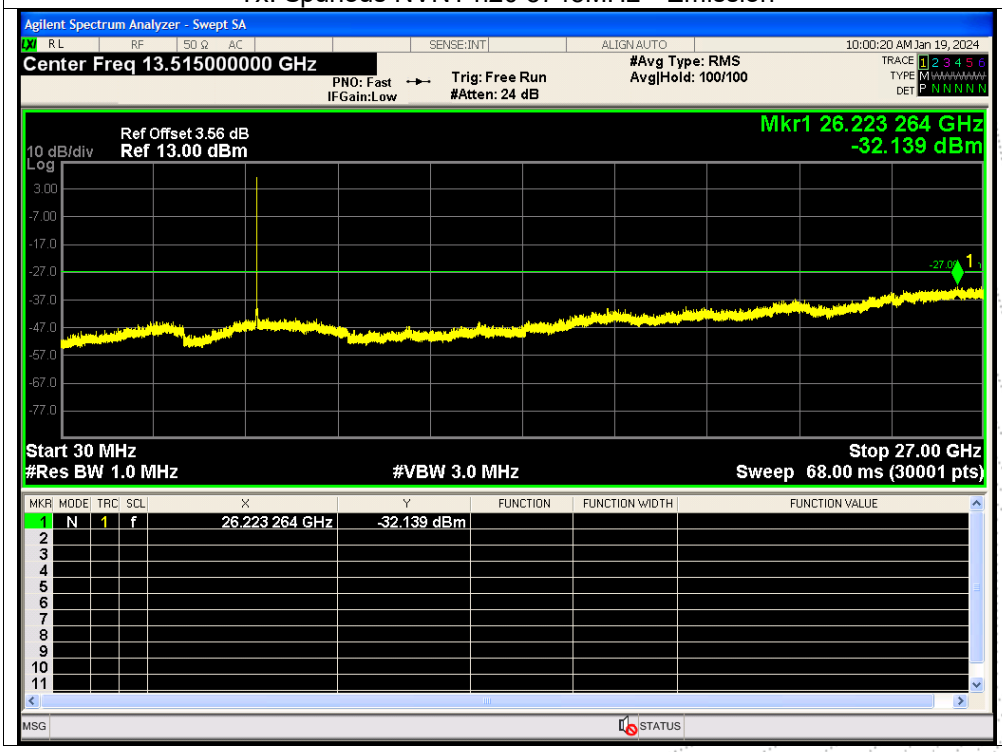
Tx. Spurious NVNT a 5785MHz Emission



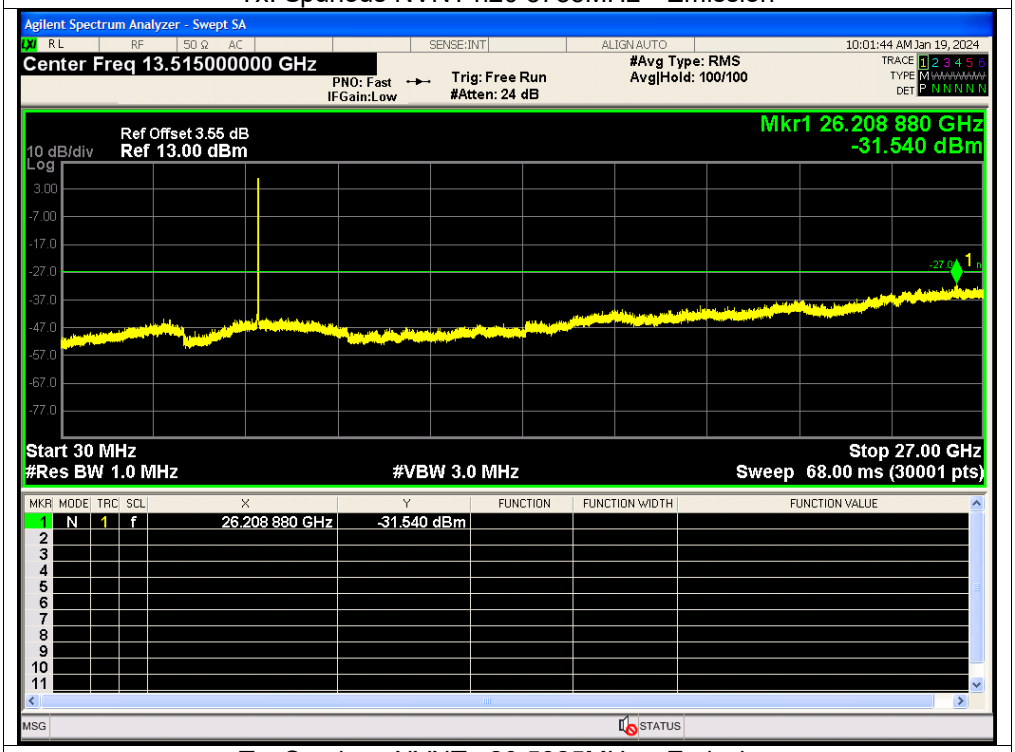
Tx. Spurious NVNT a 5825MHz Emission



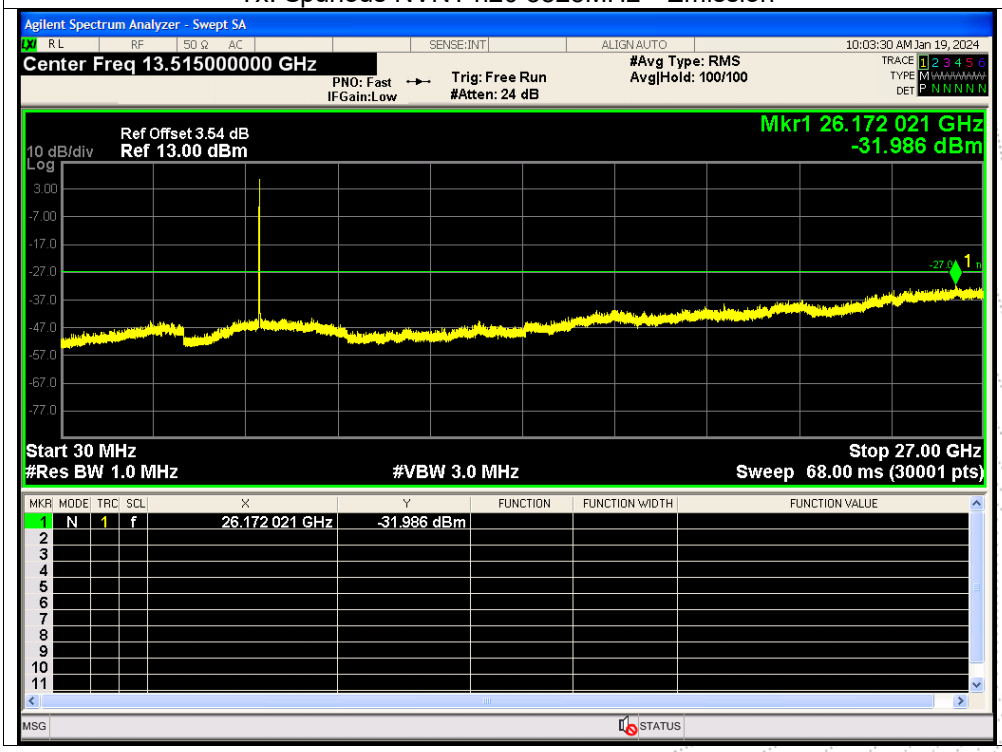
Tx. Spurious NVNT n20 5745MHz Emission



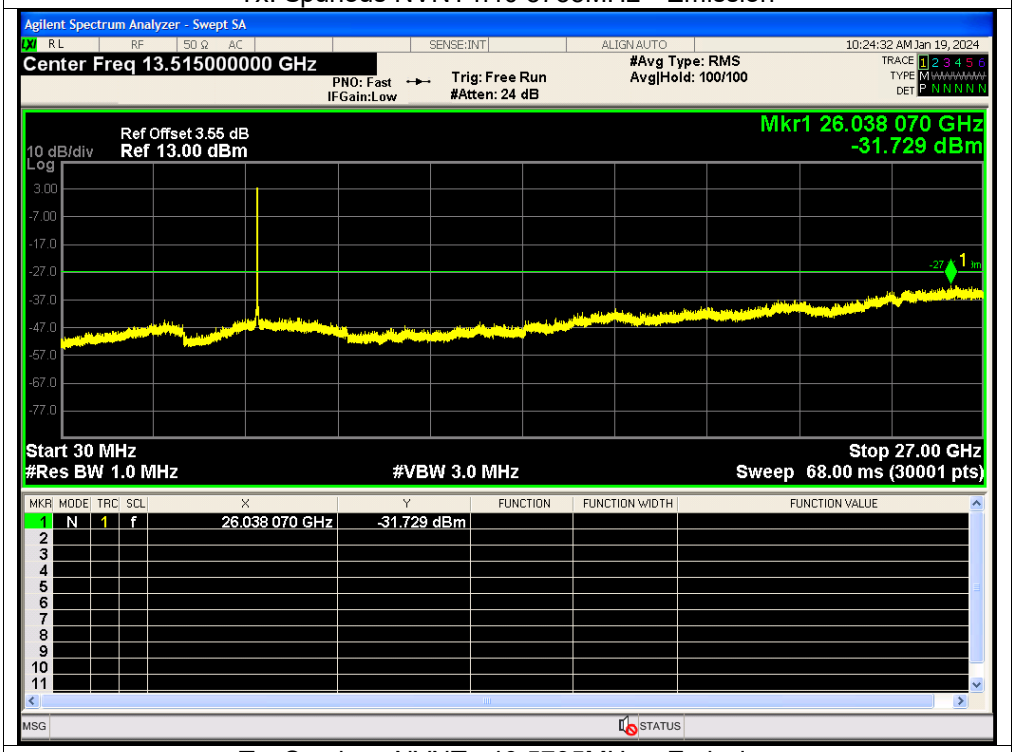
Tx. Spurious NVNT n20 5785MHz Emission



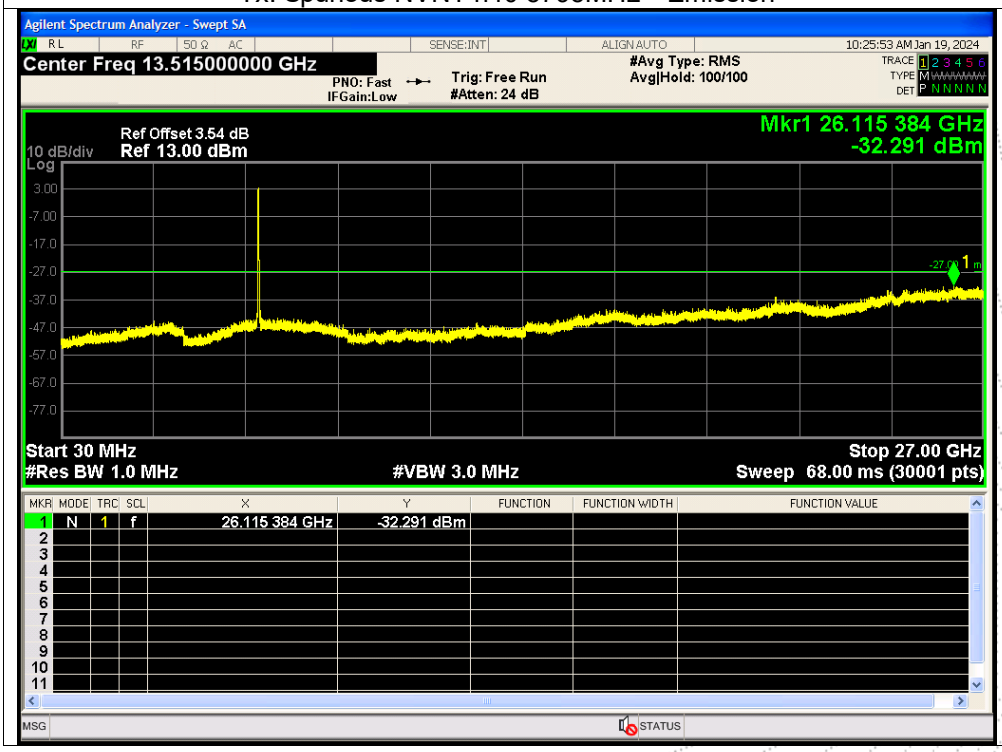
Tx. Spurious NVNT n20 5825MHz Emission



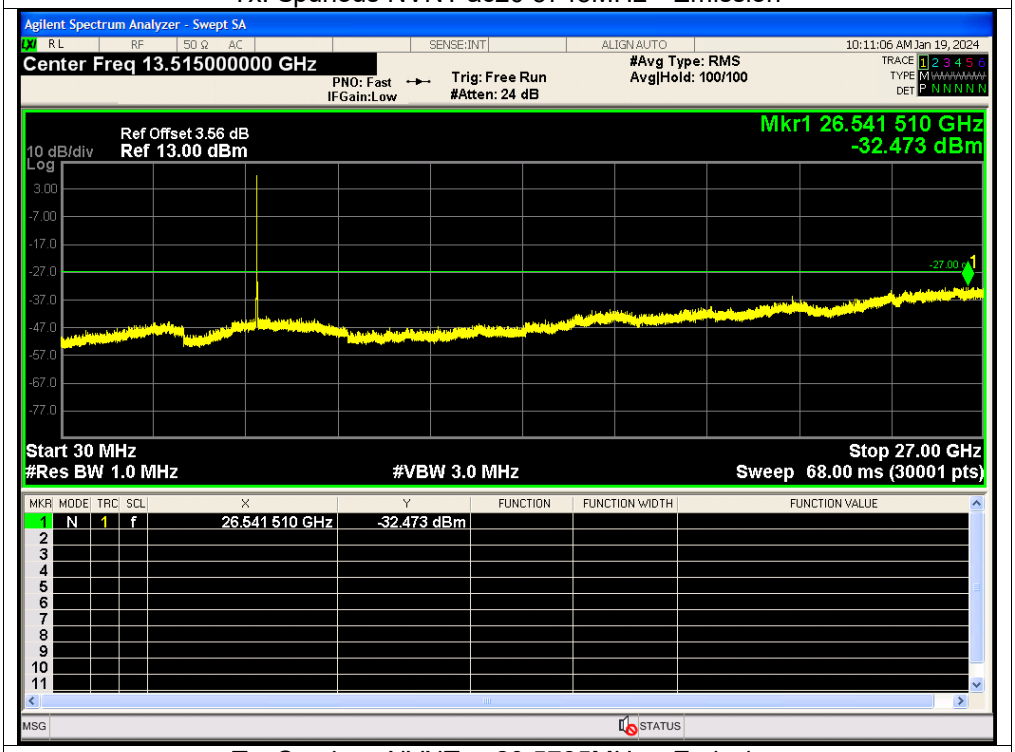
Tx. Spurious NVNT n40 5755MHz Emission



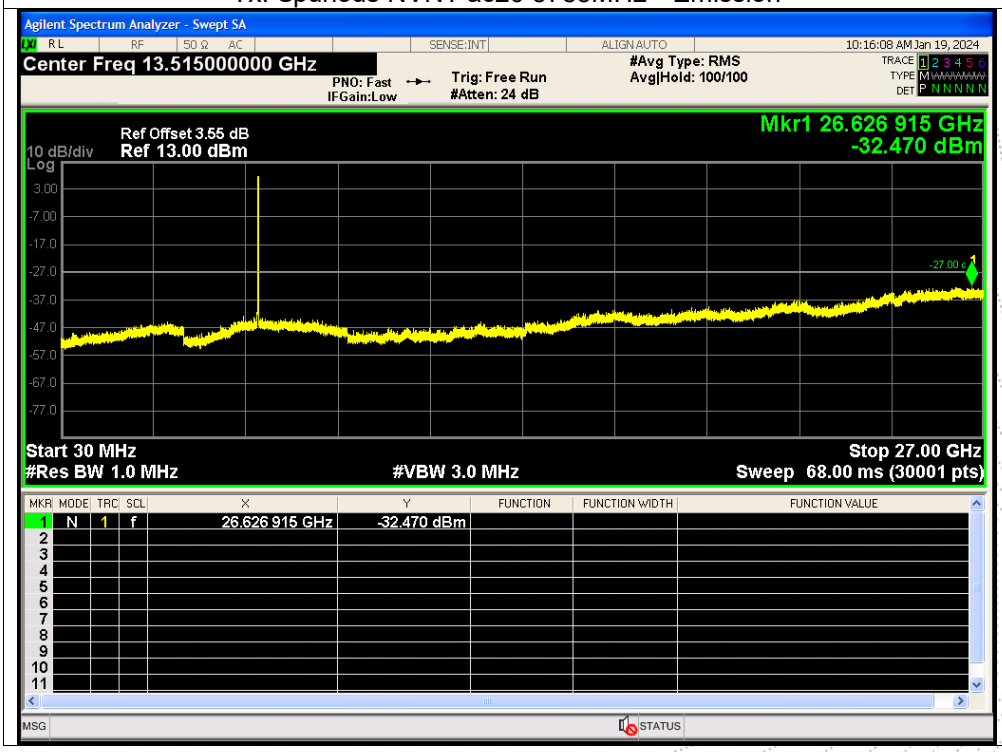
Tx. Spurious NVNT n40 5795MHz Emission



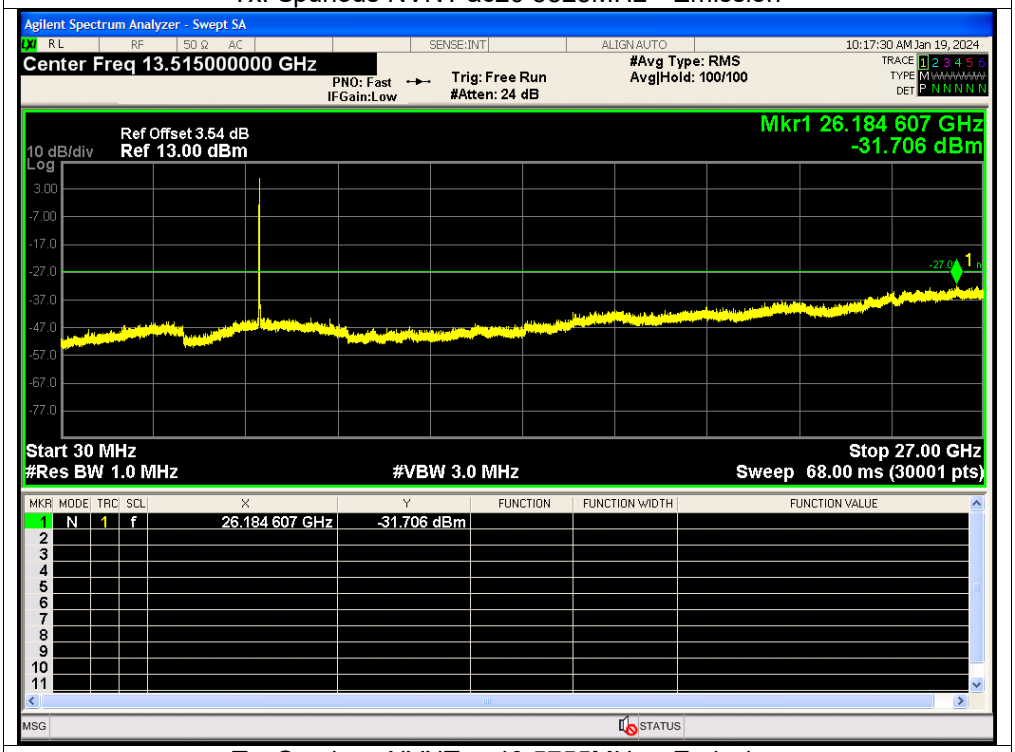
Tx. Spurious NVNT ac20 5745MHz Emission



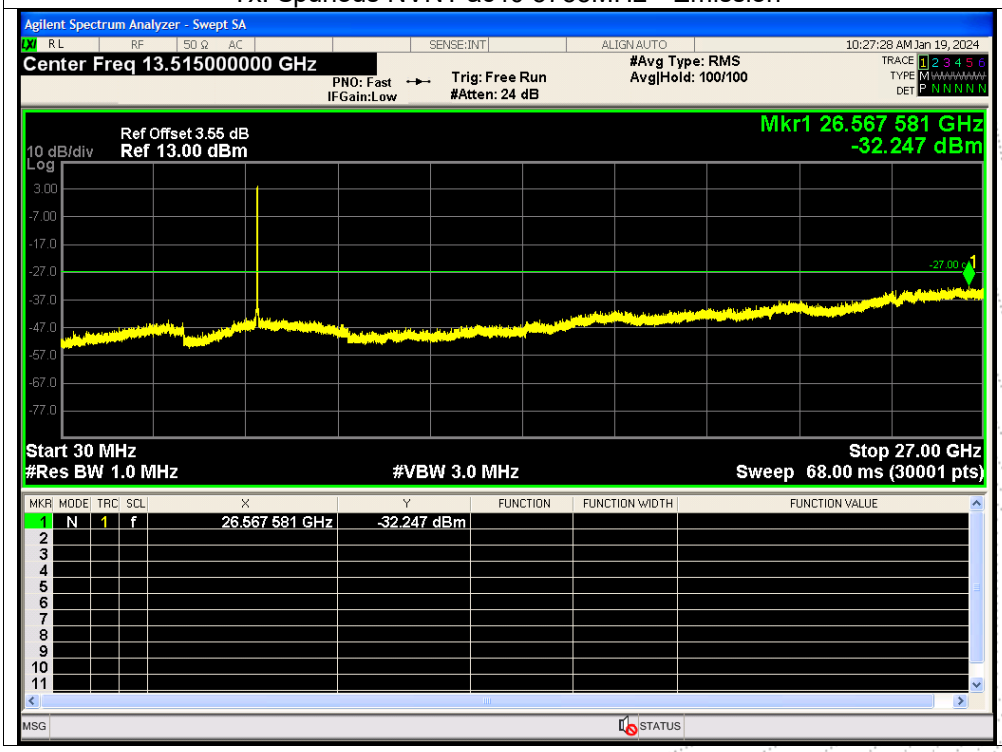
Tx. Spurious NVNT ac20 5785MHz Emission



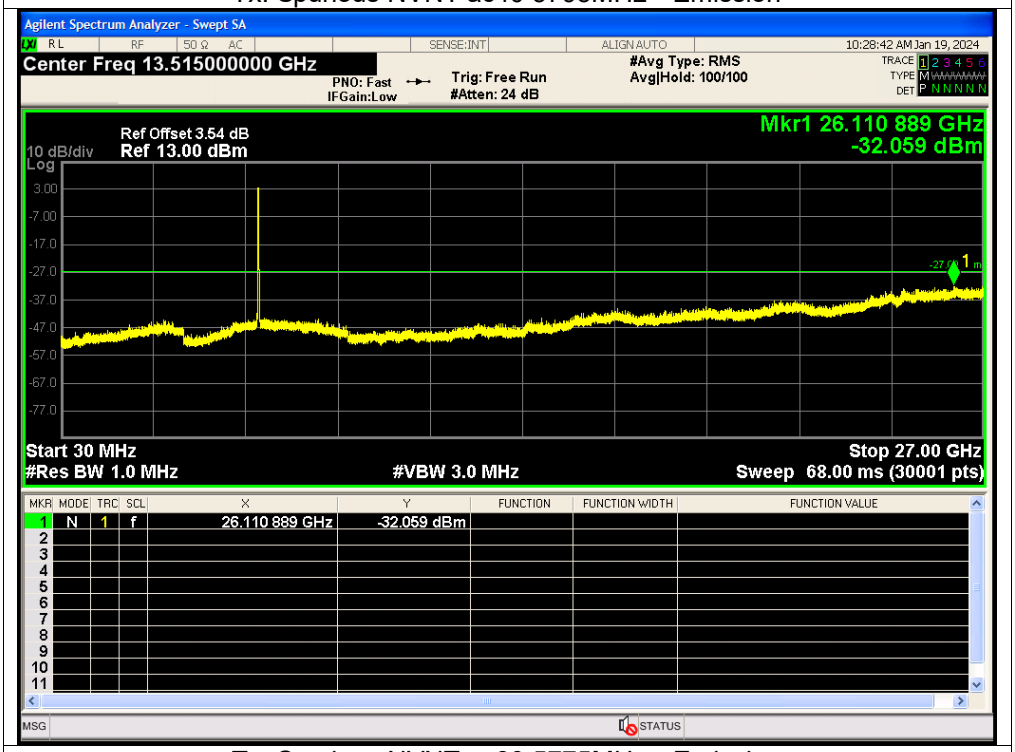
Tx. Spurious NVNT ac20 5825MHz Emission



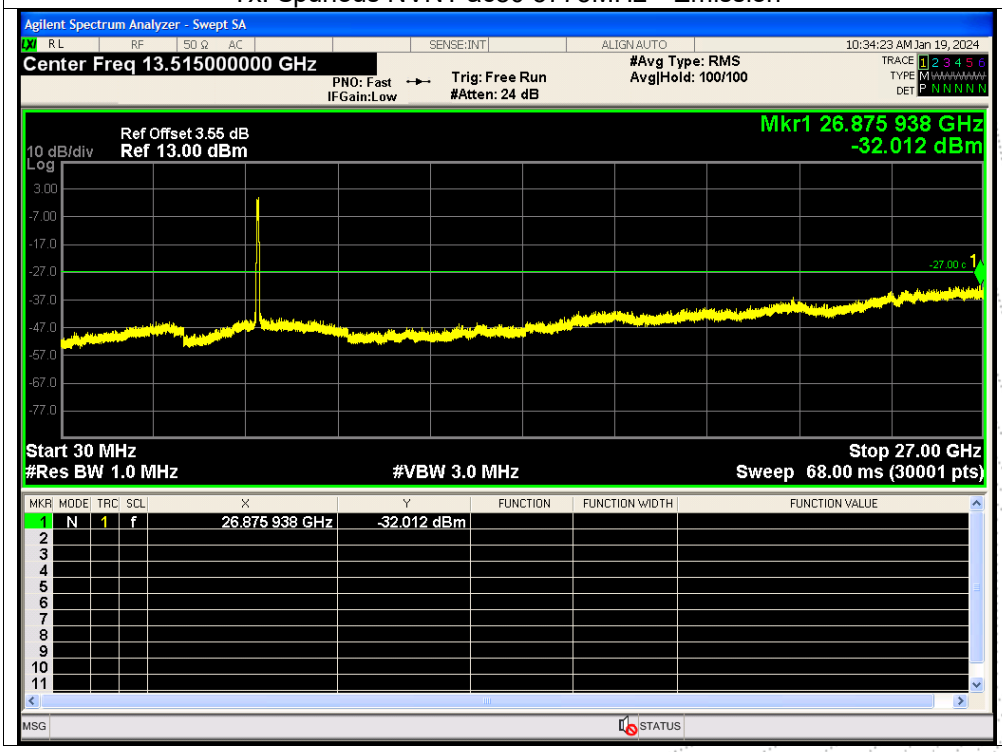
Tx. Spurious NVNT ac40 5755MHz Emission



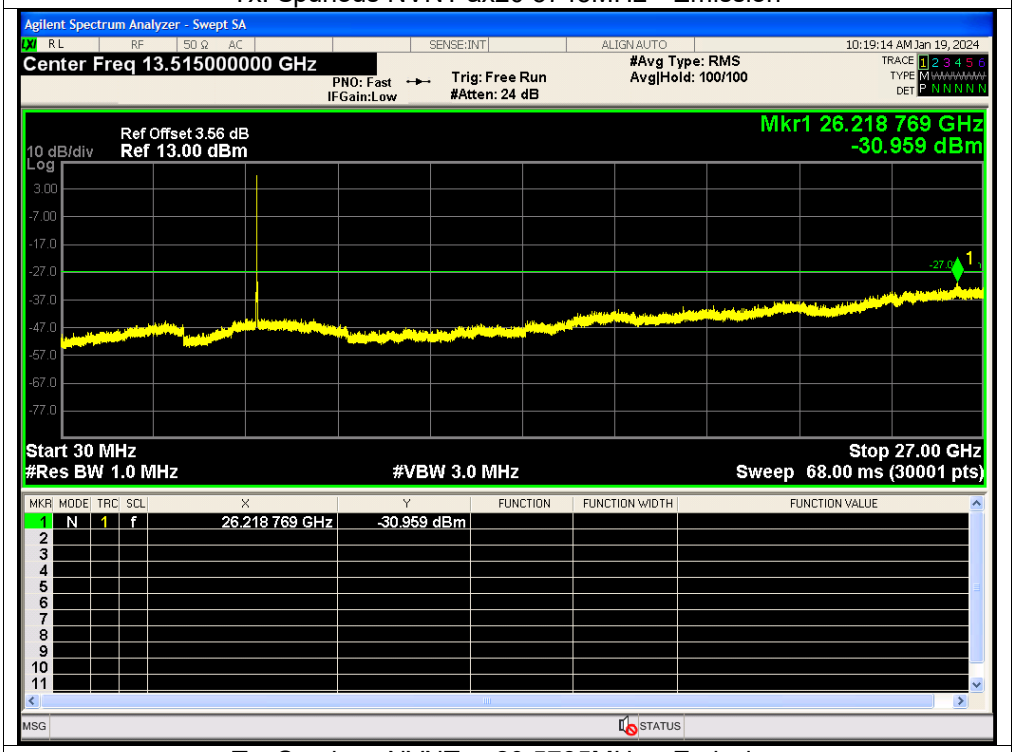
Tx. Spurious NVNT ac40 5795MHz Emission



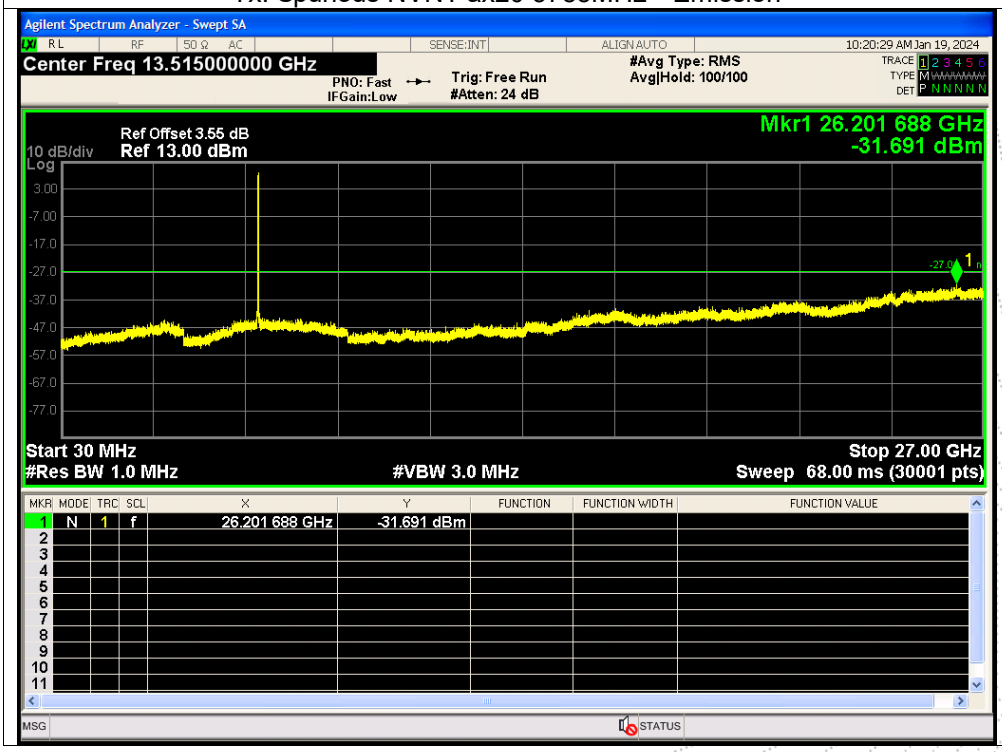
Tx. Spurious NVNT ac80 5775MHz Emission



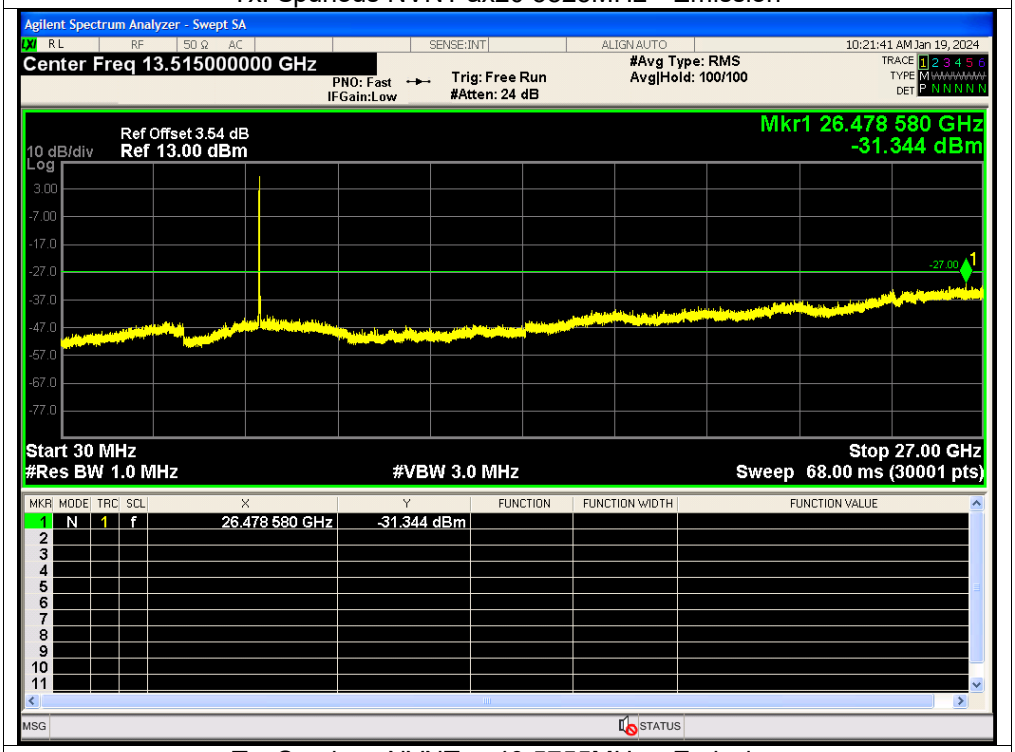
Tx. Spurious NVNT ax20 5745MHz Emission



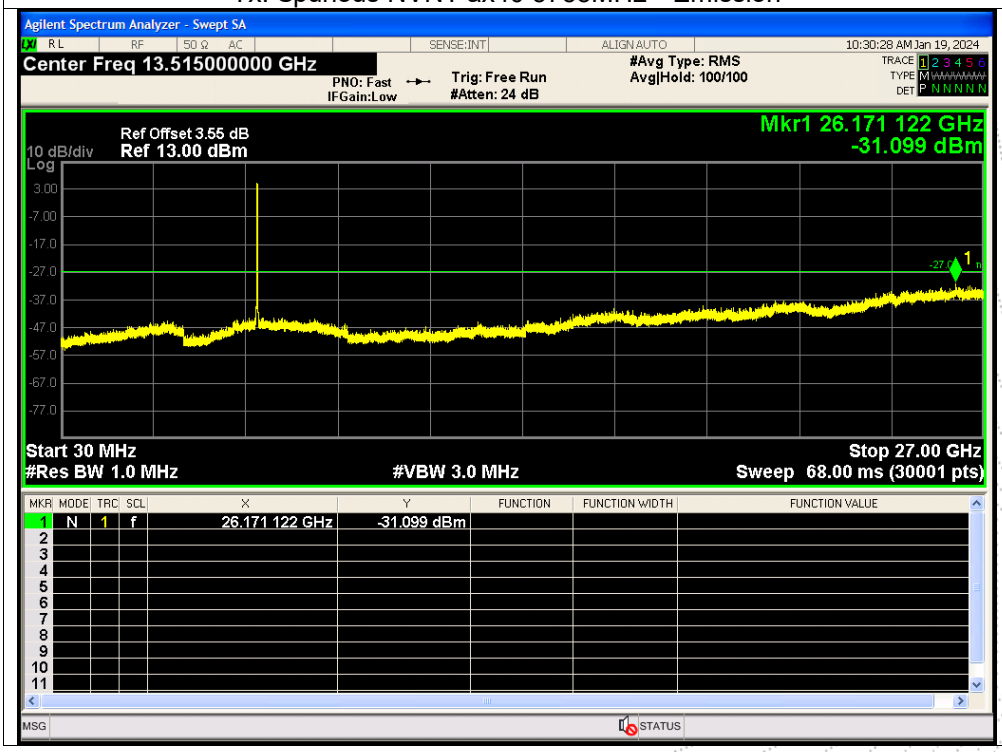
Tx. Spurious NVNT ax20 5785MHz Emission



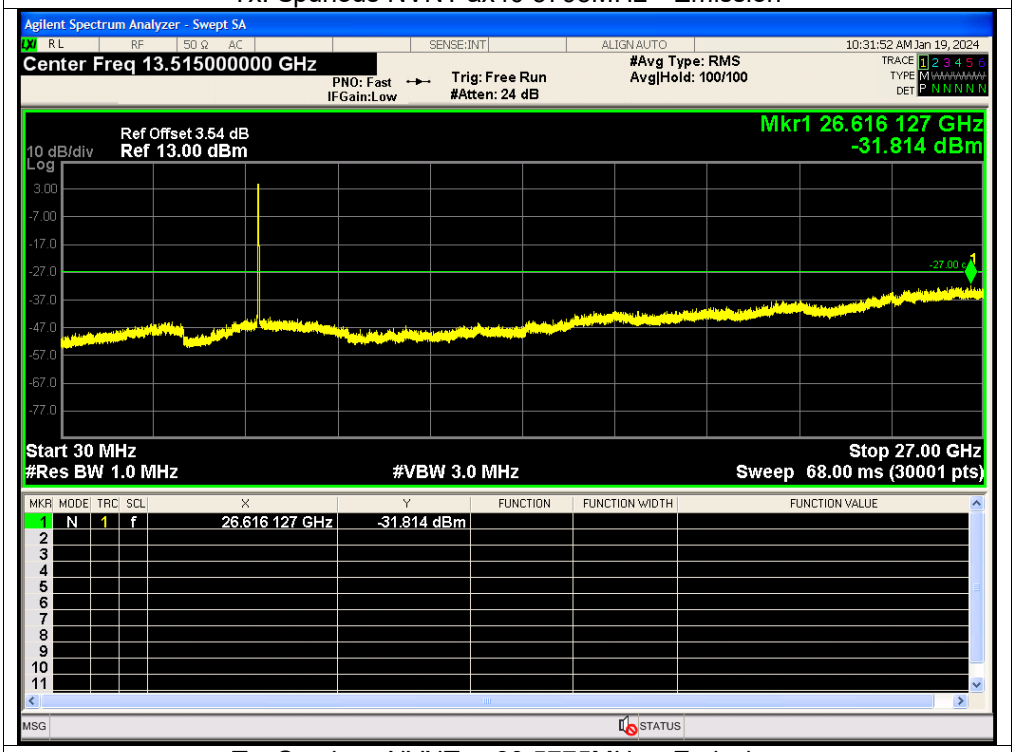
Tx. Spurious NVNT ax20 5825MHz Emission



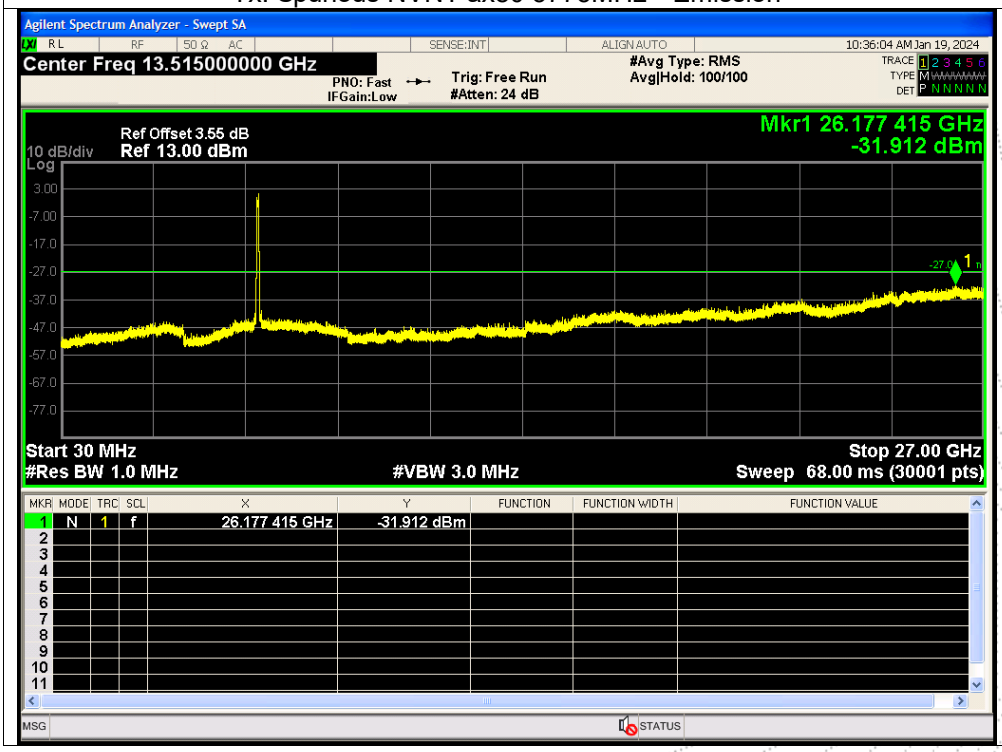
Tx. Spurious NVNT ax40 5755MHz Emission



Tx. Spurious NVNT ax40 5795MHz Emission

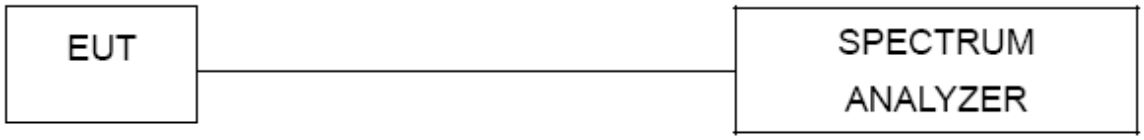


Tx. Spurious NVNT ax80 5775MHz Emission



13. Frequency Stability Measurement

13.1 Block Diagram Of Test Setup



13.2 Limit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band (IEEE 802.11n specification)..

13.3 Test Procedure

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. fc is declaring of channel frequency. Then the frequency error formula is (fc-f)/fc × 106 ppm and he limit is less than ±20ppm (IEEE 802.11nspecification).
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is -20°C~70°C.

13.4 Test Result

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX (5.1G) Mode Frequency U-NII-1 (5180-5240MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5180.0116	5180	0.0116	2.2394
		V max (V)	138.00	5180.0093	5180	0.0093	1.7954
		V min (V)	102.00	5180.0017	5180	0.0017	0.3282
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5180.0098	5180	0.0098	1.8919
		T (°C)	-10	5180.0010	5180	0.0010	0.1931
		T (°C)	0	5180.0045	5180	0.0045	0.8687
		T (°C)	10	5180.0017	5180	0.0017	0.3282
		T (°C)	20	5180.0124	5180	0.0124	2.3938
		T (°C)	30	5180.0119	5180	0.0119	2.2973
		T (°C)	40	5180.0134	5180	0.0134	2.5869
		T (°C)	50	5180.0067	5180	0.0067	1.2934
		T (°C)	60	5180.0091	5180	0.0091	1.7568
		T (°C)	70	5180.0065	5180	0.0065	1.2548
Limits				5150-5250 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5200.0059	5200	0.0059	1.1346
		V max (V)	138.00	5200.0112	5200	0.0112	2.1538
		V min (V)	102.00	5200.0004	5200	0.0004	0.0769
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5200MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5200.00970	5200	0.00970	1.8654
		T (°C)	-10	5200.00060	5200	0.00060	0.1154
		T (°C)	0	5200.00910	5200	0.00910	1.7500
		T (°C)	10	5200.00040	5200	0.00040	0.0769
		T (°C)	20	5200.00640	5200	0.00640	1.2308
		T (°C)	30	5200.00160	5200	0.00160	0.3077
		T (°C)	40	5200.00770	5200	0.00770	1.4808
		T (°C)	50	5200.00820	5200	0.00820	1.5769
		T (°C)	60	5200.00330	5200	0.00330	0.6346
		T (°C)	70	5200.00140	5200	0.00140	0.2692
Limits				5150-5250 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5240.0011	5240	0.0011	0.2099
		V max (V)	138.00	5240.0073	5240	0.0073	1.3931
		V min (V)	102.00	5240.0106	5240	0.0106	2.0229
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5240.0001	5240	0.0001	0.0191
		T (°C)	-10	5240.0009	5240	0.0009	0.1718
		T (°C)	0	5240.0014	5240	0.0014	0.2672
		T (°C)	10	5240.0071	5240	0.0071	1.3550
		T (°C)	20	5240.0054	5240	0.0054	1.0305
		T (°C)	30	5240.0071	5240	0.0071	1.3550
		T (°C)	40	5240.0021	5240	0.0021	0.4008
		T (°C)	50	5240.0033	5240	0.0033	0.6298
		T (°C)	60	5240.0099	5240	0.0099	1.8893
		T (°C)	70	5240.0006	5240	0.0006	0.1145
Limits				5150-5250 MHz			
Result				Complies			

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX (5.3G) Mode Frequency U-NII-2A (5260-5320MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5260.0065	5260	0.0065	1.2357
		V max (V)	138.00	5260.0086	5260	0.0086	1.6350
		V min (V)	102.00	5260.0016	5260	0.0016	0.3042
Limits				5260-5320 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5260MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5260.0045	5260	0.0045	0.8555
		T (°C)	-10	5260.0129	5260	0.0129	2.4525
		T (°C)	0	5260.0127	5260	0.0127	2.4144
		T (°C)	10	5260.0102	5260	0.0102	1.9392
		T (°C)	20	5260.0061	5260	0.0061	1.1597
		T (°C)	30	5260.0039	5260	0.0039	0.7414
		T (°C)	40	5260.0045	5260	0.0045	0.8555
		T (°C)	50	5260.0010	5260	0.0010	0.1901
		T (°C)	60	5260.0079	5260	0.0079	1.5019
		T (°C)	70	5260.0034	5260	0.0034	0.6464
Limits				5260-5320 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5280.0019	5280	0.0019	0.3598
		V max (V)	138.00	5280.0082	5280	0.0082	1.5530
		V min (V)	102.00	5280.0044	5280	0.0044	0.8333
Limits				5260-5320 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5280MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5280.00930	5280	0.00930	1.7614
		T (°C)	-10	5280.00070	5280	0.00070	0.1326
		T (°C)	0	5280.00910	5280	0.00910	1.7235
		T (°C)	10	5280.00220	5280	0.00220	0.4167
		T (°C)	20	5280.00200	5280	0.00200	0.3788
		T (°C)	30	5280.00390	5280	0.00390	0.7386
		T (°C)	40	5280.00240	5280	0.00240	0.4545
		T (°C)	50	5280.01090	5280	0.01090	2.0644
		T (°C)	60	5280.01050	5280	0.01050	1.9886
		T (°C)	70	5280.00150	5280	0.00150	0.2841
Limits				5260-5320 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5320.0029	5320	0.0029	0.5451
		V max (V)	138.00	5320.0094	5320	0.0094	1.7669
		V min (V)	102.00	5320.0061	5320	0.0061	1.1466
Limits				5260-5320 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5320MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5320.0096	5320	0.0096	1.8045
		T (°C)	-10	5320.0008	5320	0.0008	0.1504
		T (°C)	0	5320.0046	5320	0.0046	0.8647
		T (°C)	10	5320.0110	5320	0.0110	2.0677
		T (°C)	20	5320.0064	5320	0.0064	1.2030
		T (°C)	30	5320.0005	5320	0.0005	0.0940
		T (°C)	40	5320.0080	5320	0.0080	1.5038
		T (°C)	50	5320.0020	5320	0.0020	0.3759
		T (°C)	60	5320.0034	5320	0.0034	0.6391
		T (°C)	70	5320.0115	5320	0.0115	2.1617
Limits				5260-5320 MHz			
Result				Complies			

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX (5.6G) Mode Frequency U-NII-2C (5500-5700MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5500.0047	5500	0.0047	0.8545
		V max (V)	138.00	5500.0018	5500	0.0018	0.3273
		V min (V)	102.00	5500.0014	5500	0.0014	0.2545
Limits				5500-5700 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5500MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5500.0069	5500	0.0069	1.2545
		T (°C)	-10	5500.0128	5500	0.0128	2.3273
		T (°C)	0	5500.0009	5500	0.0009	0.1636
		T (°C)	10	5500.0031	5500	0.0031	0.5636
		T (°C)	20	5500.0107	5500	0.0107	1.9455
		T (°C)	30	5500.0085	5500	0.0085	1.5455
		T (°C)	40	5500.0001	5500	0.0001	0.0182
		T (°C)	50	5500.0005	5500	0.0005	0.0909
		T (°C)	60	5500.0015	5500	0.0015	0.2727
		T (°C)	70	5500.0113	5500	0.0113	2.0545
Limits				5500-5700 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5580.0077	5580	0.0077	1.3799
		V max (V)	138.00	5580.0065	5580	0.0065	1.1649
		V min (V)	102.00	5580.0094	5580	0.0094	1.6846
Limits				5500-5700 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5580MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5580.00540	5580	0.00540	0.9677
		T (°C)	-10	5580.01200	5580	0.01200	2.1505
		T (°C)	0	5580.00340	5580	0.00340	0.6093
		T (°C)	10	5580.00300	5580	0.00300	0.5376
		T (°C)	20	5580.00790	5580	0.00790	1.4158
		T (°C)	30	5580.00600	5580	0.00600	1.0753
		T (°C)	40	5580.00690	5580	0.00690	1.2366
		T (°C)	50	5580.01340	5580	0.01340	2.4014
		T (°C)	60	5580.01080	5580	0.01080	1.9355
		T (°C)	70	5580.00750	5580	0.00750	1.3441
Limits				5500-5700 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5700.0045	5700	0.0045	0.7895
		V max (V)	138.00	5700.0091	5700	0.0091	1.5965
		V min (V)	102.00	5700.0078	5700	0.0078	1.3684
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5700MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5700.0077	5700	0.0077	1.3509
		T (°C)	-10	5700.0022	5700	0.0022	0.3860
		T (°C)	0	5700.0024	5700	0.0024	0.4211
		T (°C)	10	5700.0091	5700	0.0091	1.5965
		T (°C)	20	5700.0035	5700	0.0035	0.6140
		T (°C)	30	5700.0038	5700	0.0038	0.6667
		T (°C)	40	5700.0001	5700	0.0001	0.0175
		T (°C)	50	5700.0101	5700	0.0101	1.7719
		T (°C)	60	5700.0088	5700	0.0088	1.5439
		T (°C)	70	5700.0129	5700	0.0129	2.2632
Limits				5725-5850 MHz			
Result				Complies			

Temperature:	26 ℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	TX (5.8G) Mode Frequency U-NII-3 (5745-5825MHz)		

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5745.00680	5745	0.00680	1.1836
		V max (V)	138.00	5745.01330	5745	0.01330	2.3151
		V min (V)	102.00	5745.00320	5745	0.00320	0.5570
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5745.00680	5745	0.00680	1.1836
		T (°C)	-10	5745.00590	5745	0.00590	1.0270
		T (°C)	0	5745.00840	5745	0.00840	1.4621
		T (°C)	10	5745.00250	5745	0.00250	0.4352
		T (°C)	20	5745.01160	5745	0.01160	2.0191
		T (°C)	30	5745.00760	5745	0.00760	1.3229
		T (°C)	40	5745.01010	5745	0.01010	1.7581
		T (°C)	50	5745.01260	5745	0.01260	2.1932
		T (°C)	60	5745.00510	5745	0.00510	0.8877
		T (°C)	70	5745.00740	5745	0.00740	1.2881
Limits				5725-5850 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5785.01240	5785	0.01240	2.1435
		V max (V)	138.00	5785.00720	5785	0.00720	1.2446
		V min (V)	102.00	5785.00510	5785	0.00510	0.8816
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5785MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5785.00470	5785	0.00470	0.8124
		T (°C)	-10	5785.01330	5785	0.01330	2.2990
		T (°C)	0	5785.00910	5785	0.00910	1.5730
		T (°C)	10	5785.01300	5785	0.01300	2.2472
		T (°C)	20	5785.00460	5785	0.00460	0.7952
		T (°C)	30	5785.01340	5785	0.01340	2.3163
		T (°C)	40	5785.00690	5785	0.00690	1.1927
		T (°C)	50	5785.00680	5785	0.00680	1.1755
		T (°C)	60	5785.01100	5785	0.01100	1.9015
		T (°C)	70	5785.00630	5785	0.00630	1.0890
Limits				5725-5850 MHz			
Result				Complies			

Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5825.00860	5825	0.00860	1.4764
		V max (V)	138.00	5825.01090	5825	0.01090	1.8712
		V min (V)	102.00	5825.00120	5825	0.00120	0.2060
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5825.01000	5825	0.01000	1.7167
		T (°C)	-10	5825.00900	5825	0.00900	1.5451
		T (°C)	0	5825.00630	5825	0.00630	1.0815
		T (°C)	10	5825.01130	5825	0.01130	1.9399
		T (°C)	20	5825.01170	5825	0.01170	2.0086
		T (°C)	30	5825.00990	5825	0.00990	1.6996
		T (°C)	40	5825.00280	5825	0.00280	0.4807
		T (°C)	50	5825.00480	5825	0.00480	0.8240
		T (°C)	60	5825.01330	5825	0.01330	2.2833
		T (°C)	70	5825.00150	5825	0.00150	0.2575
Limits				5725-5850 MHz			
Result				Complies			

14. Duty Cycle Of Test Signal

14.1 Standard Requirement

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle. All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

14.2 Formula

Duty Cycle = Ton / (Ton+Toff)

14.3 Test Procedure

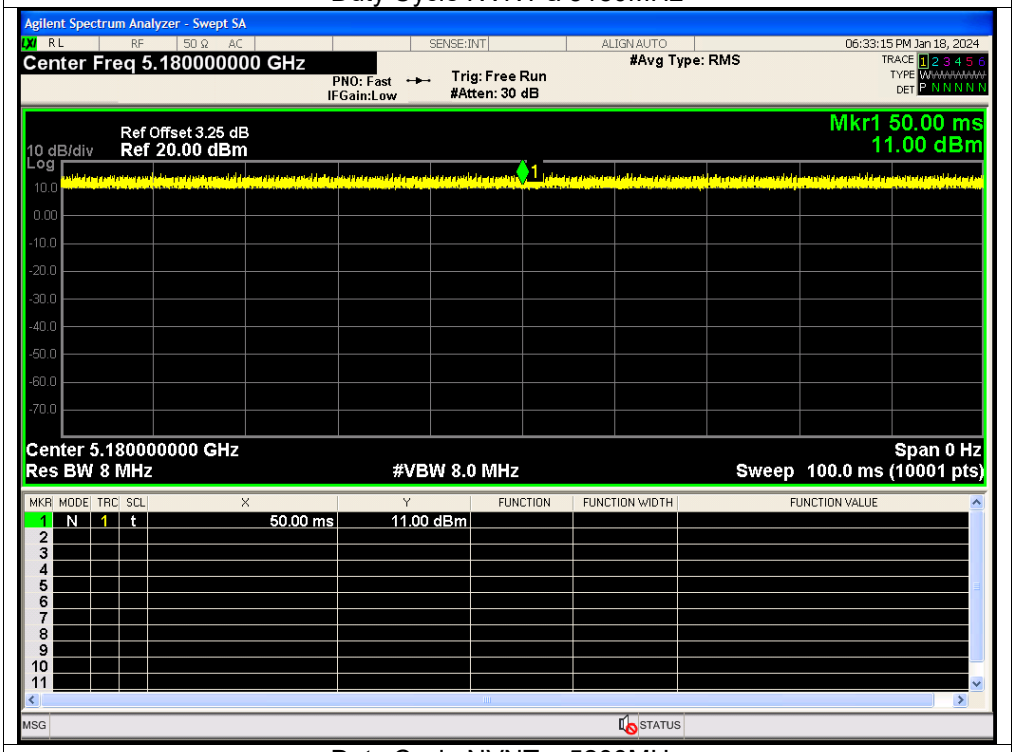
1.Set span = Zero
2. RBW = 8MHz
3. VBW = 8MHz,
4. Detector = Peak

14.4 Test Result

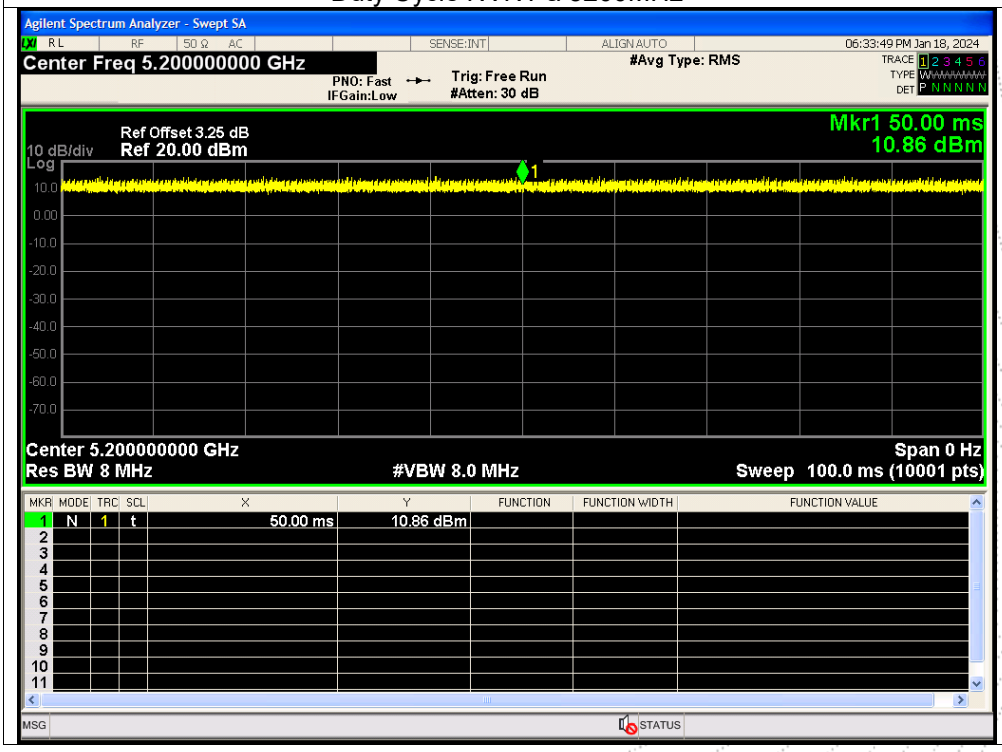
Condition	Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5180	100	0	0
NVNT	a	5200	100	0	0
NVNT	a	5240	100	0	0
NVNT	n20	5180	100	0	0
NVNT	n20	5200	100	0	0
NVNT	n20	5240	100	0	0
NVNT	n40	5190	100	0	0
NVNT	n40	5230	100	0	0
NVNT	ac20	5180	100	0	0
NVNT	ac20	5200	100	0	0
NVNT	ac20	5240	100	0	0
NVNT	ac40	5190	100	0	0
NVNT	ac40	5230	100	0	0
NVNT	ac80	5210	100	0	0
NVNT	ax20	5180	100	0	0
NVNT	ax20	5200	100	0	0
NVNT	ax20	5240	100	0	0
NVNT	ax40	5190	100	0	0
NVNT	ax40	5230	100	0	0
NVNT	ax80	5210	100	0	0

Test Graphs

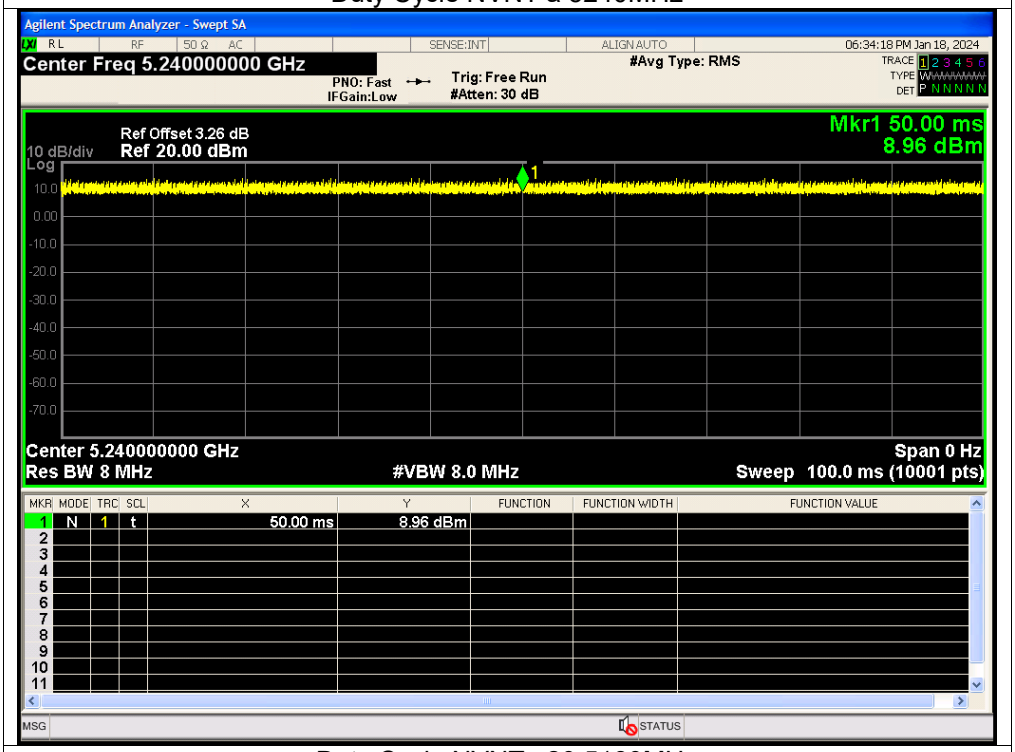
Duty Cycle NVNT a 5180MHz



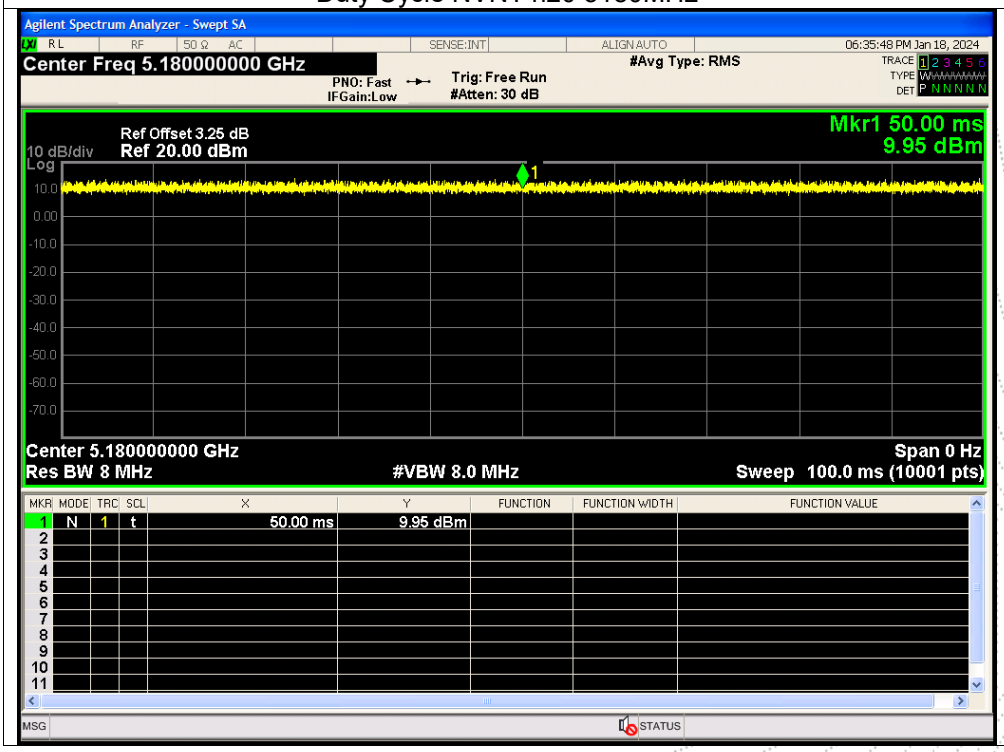
Duty Cycle NVNT a 5200MHz



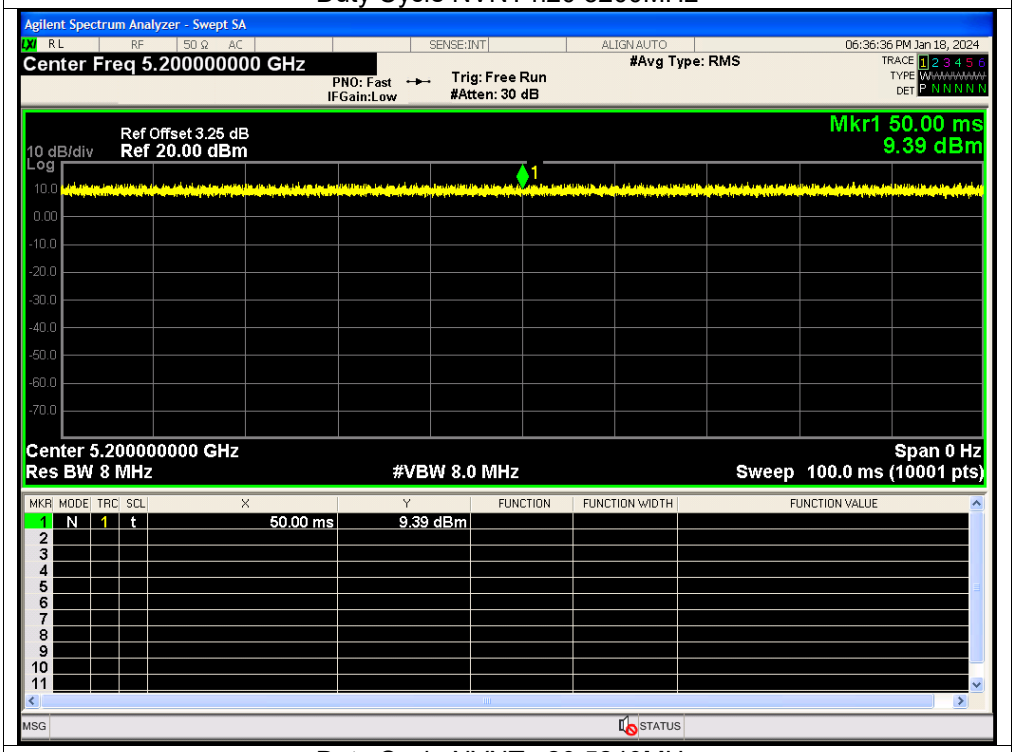
Duty Cycle NVNT a 5240MHz



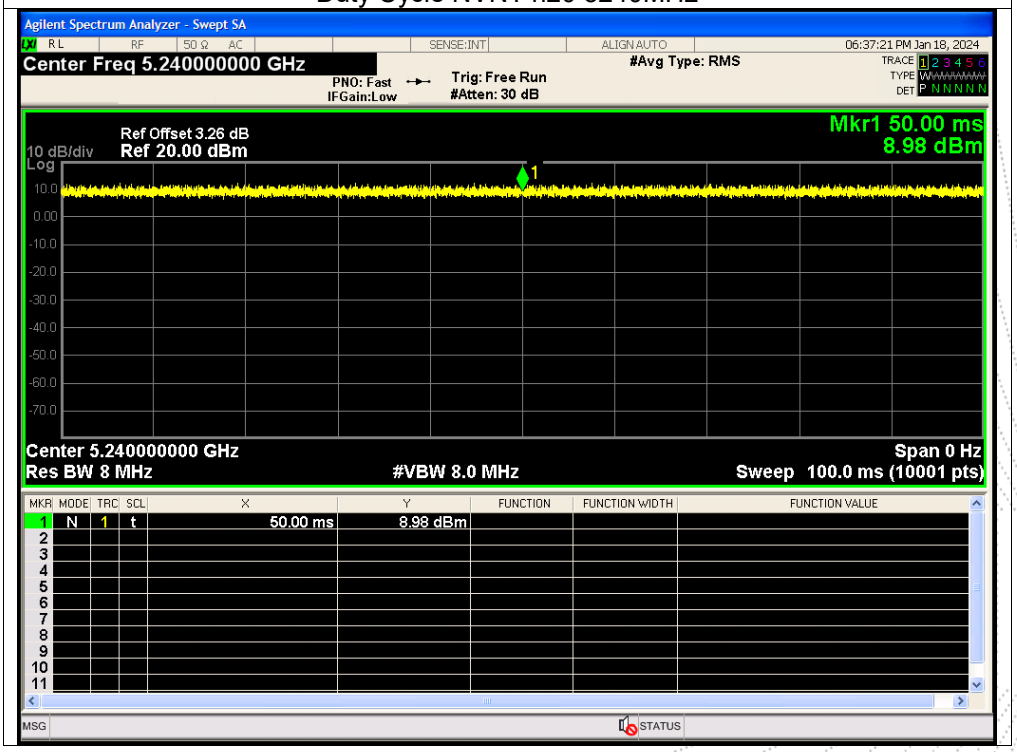
Duty Cycle NVNT n20 5180MHz



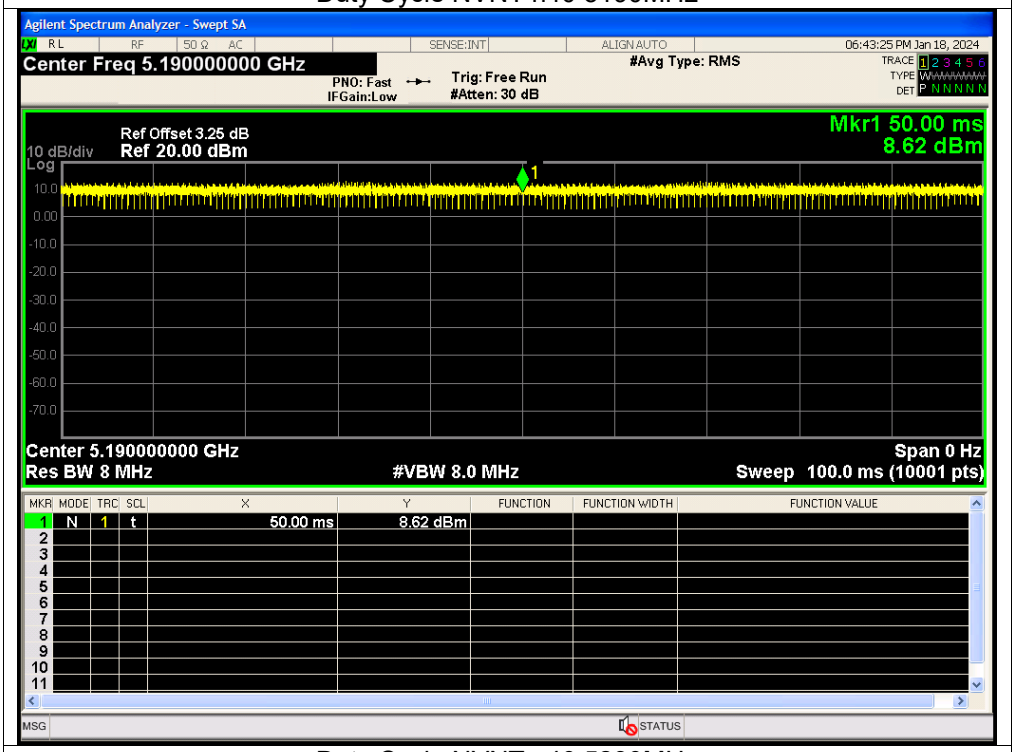
Duty Cycle NVNT n20 5200MHz



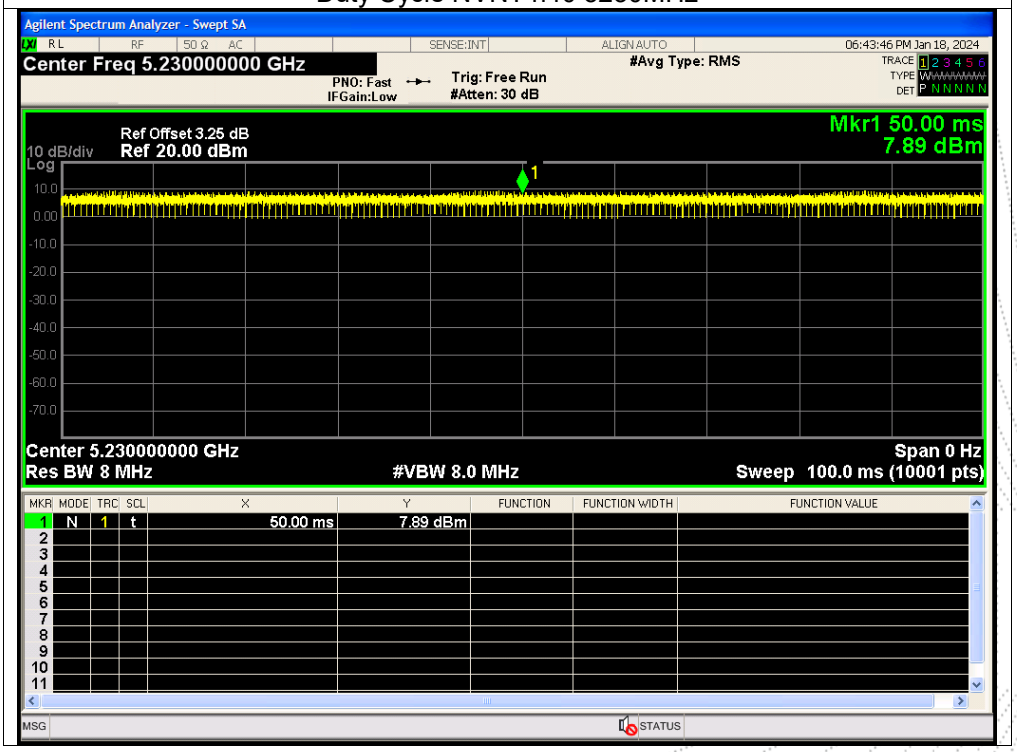
Duty Cycle NVNT n20 5240MHz



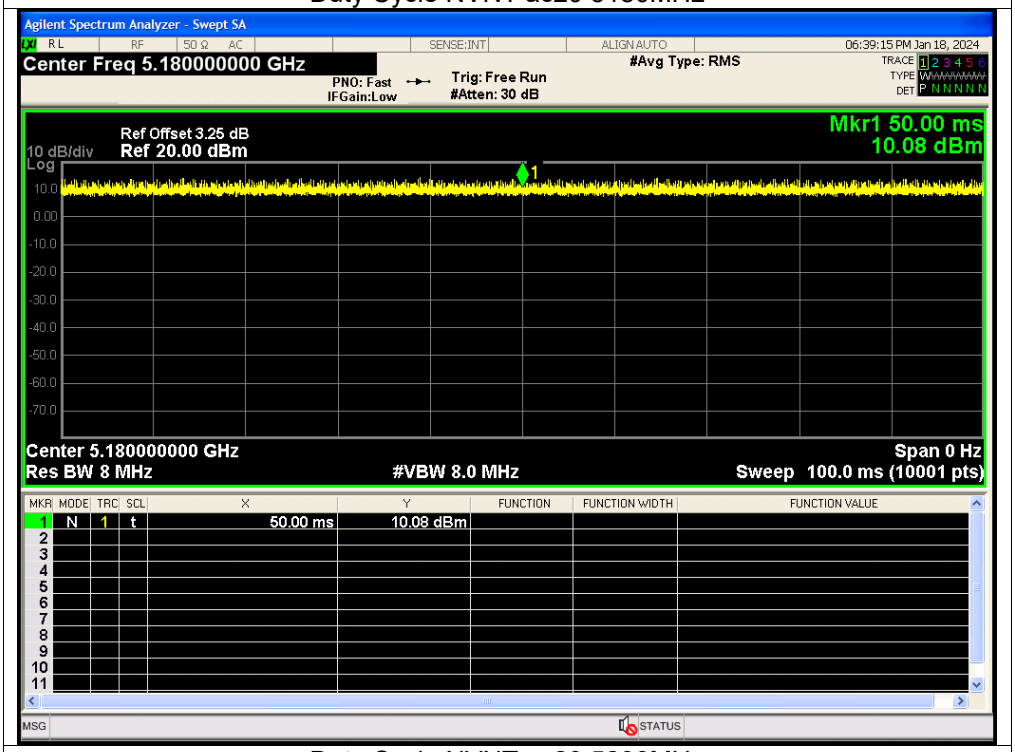
Duty Cycle NVNT n40 5190MHz



Duty Cycle NVNT n40 5230MHz



Duty Cycle NVNT ac20 5180MHz



Duty Cycle NVNT ac20 5200MHz