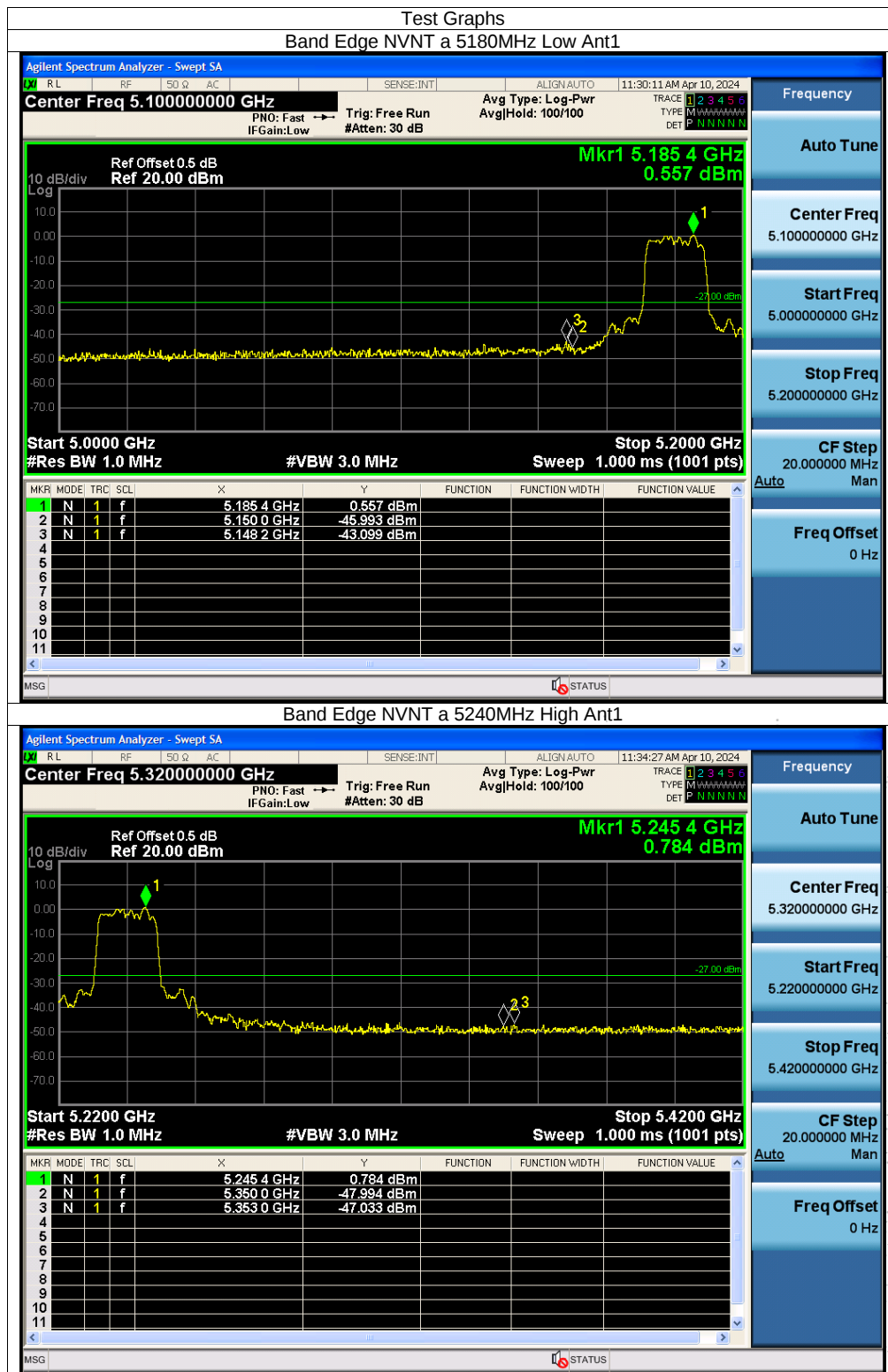
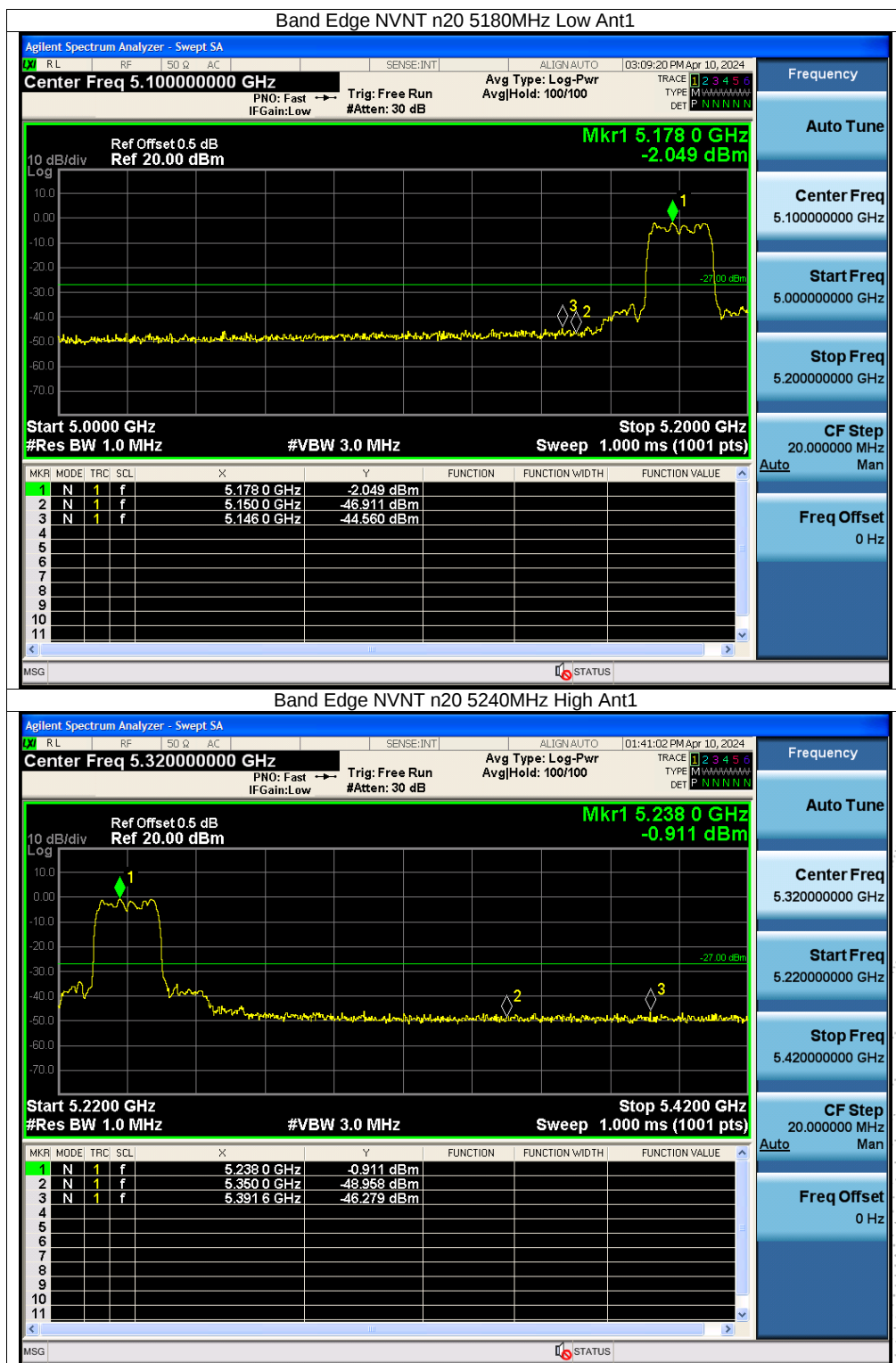
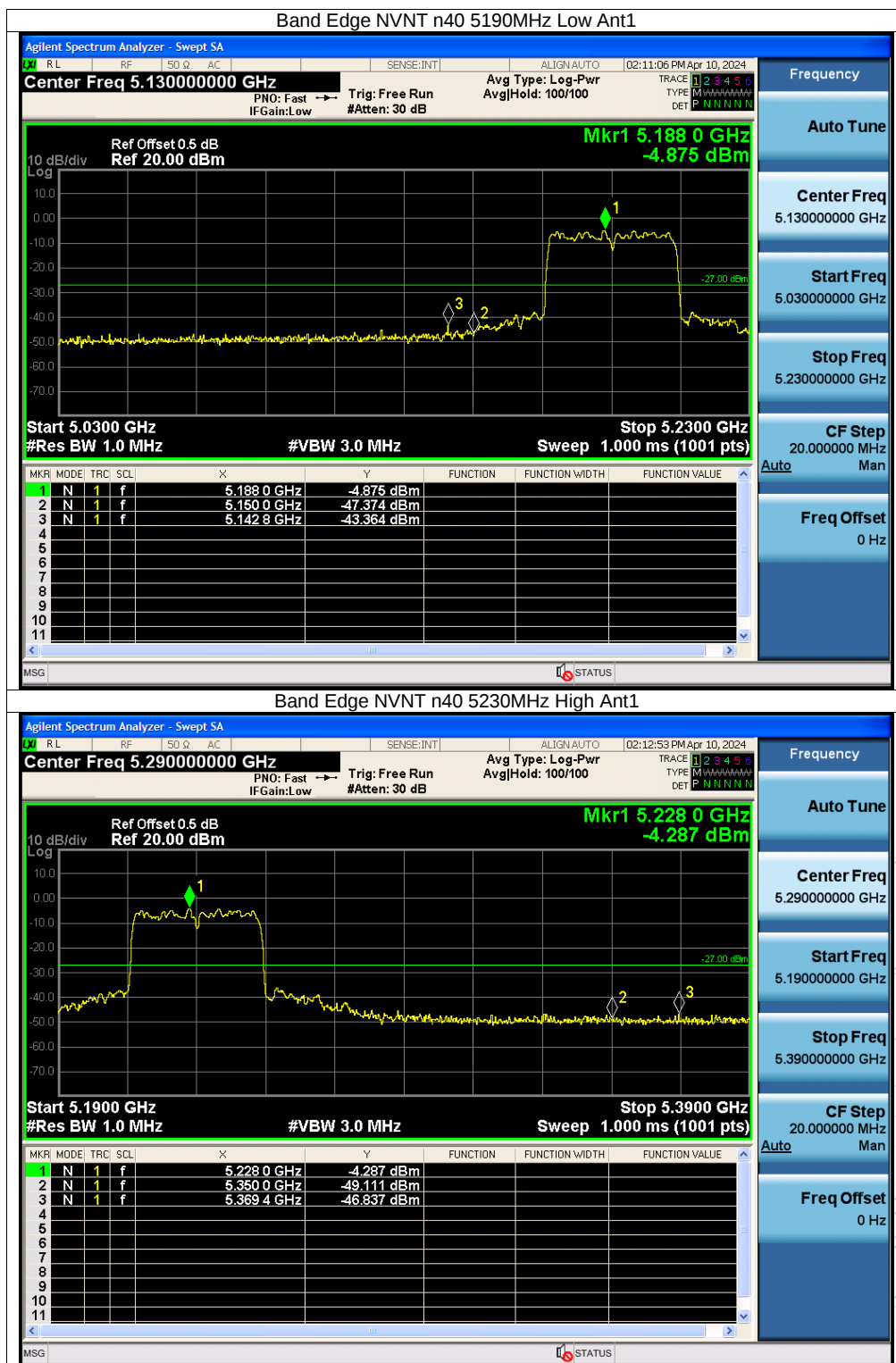
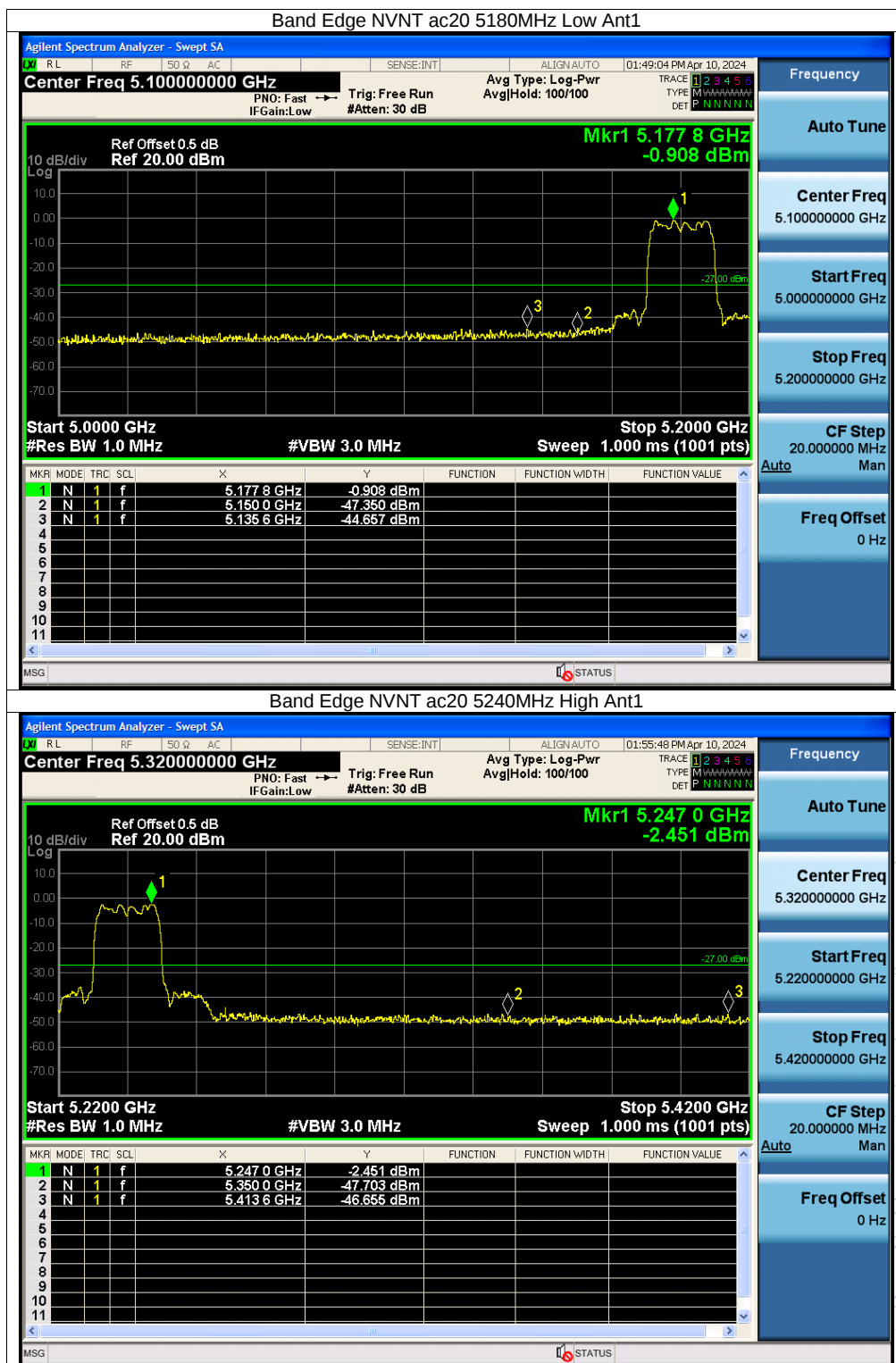


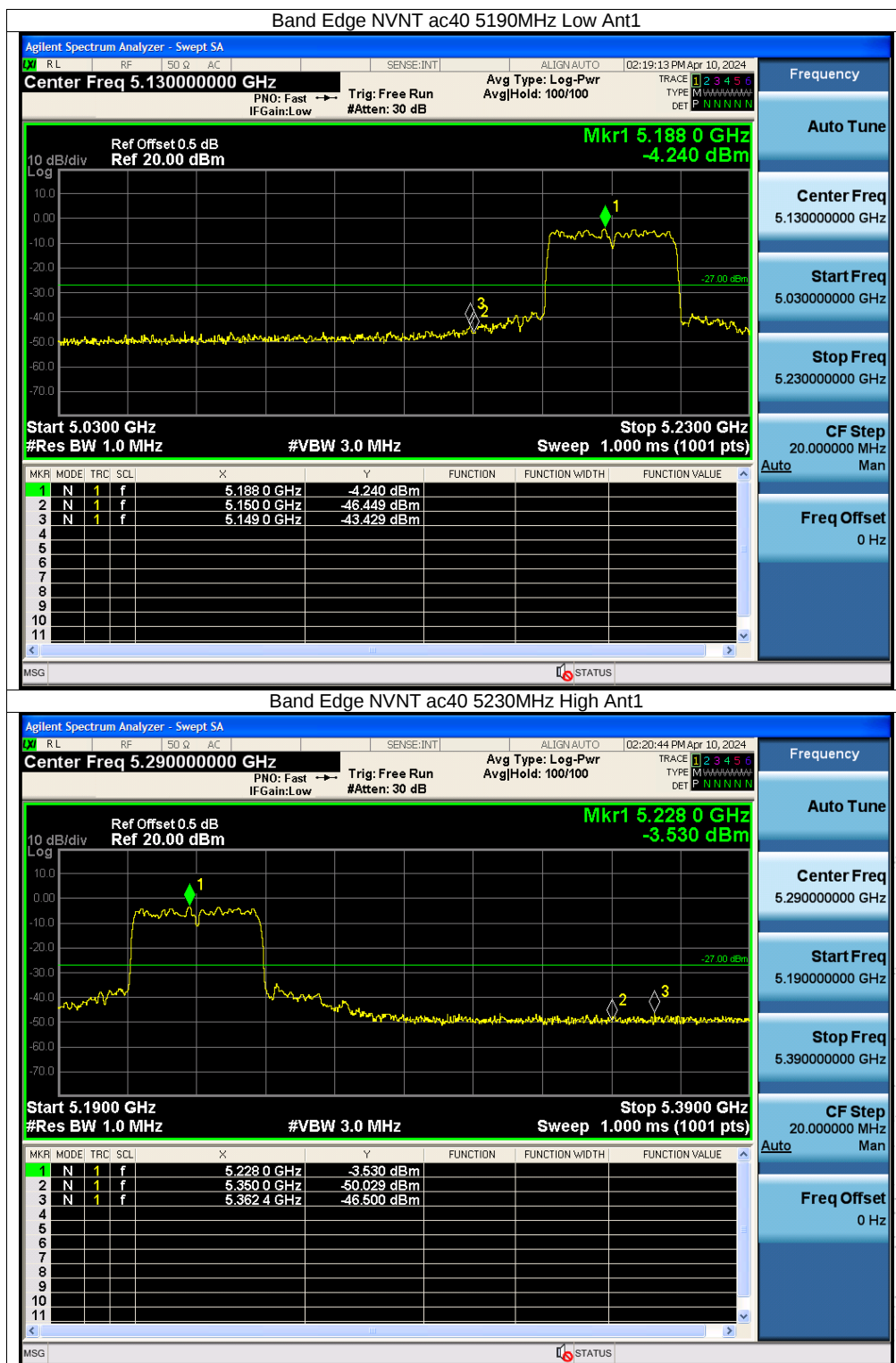
11.5 Test Result

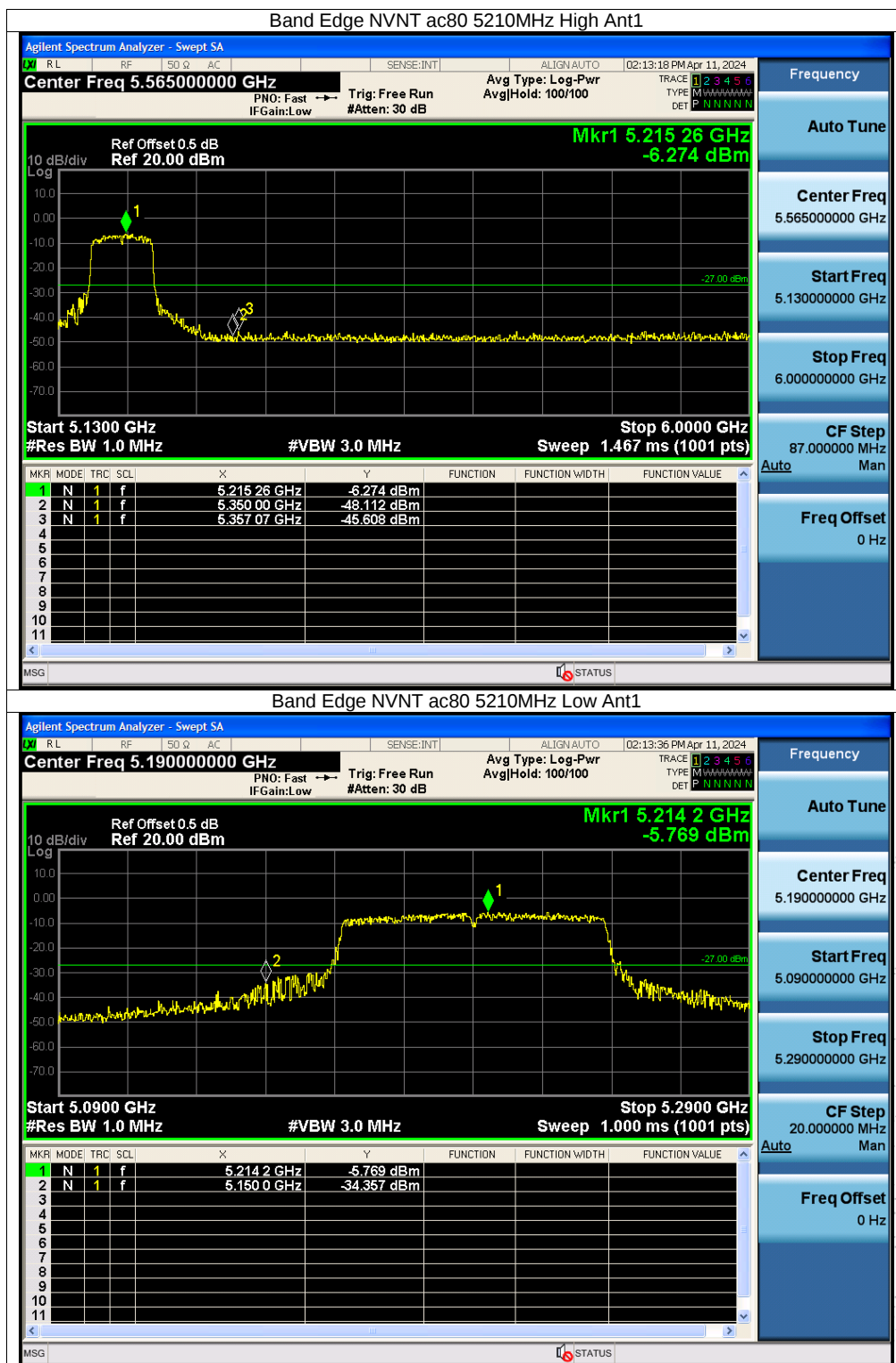


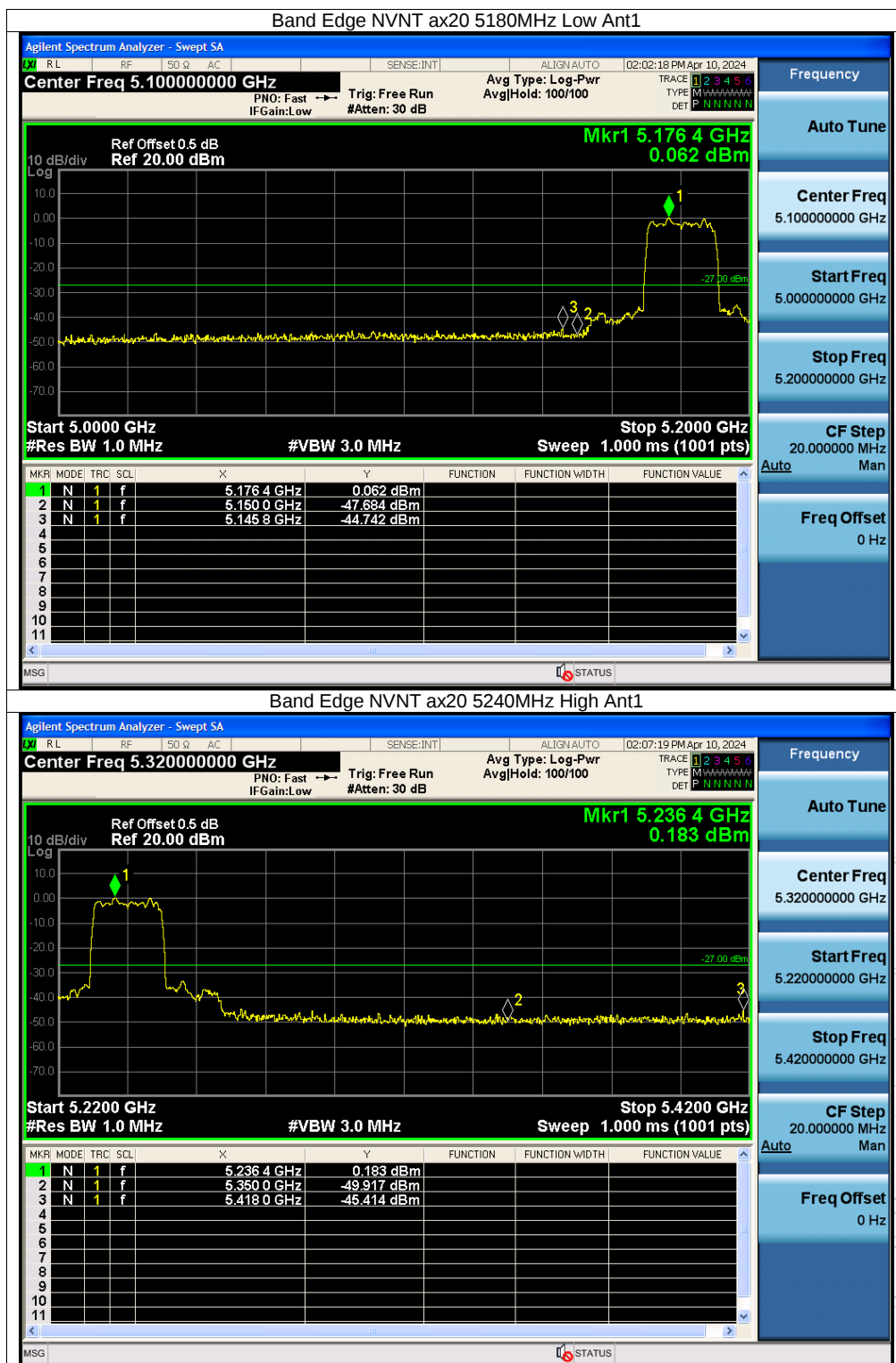


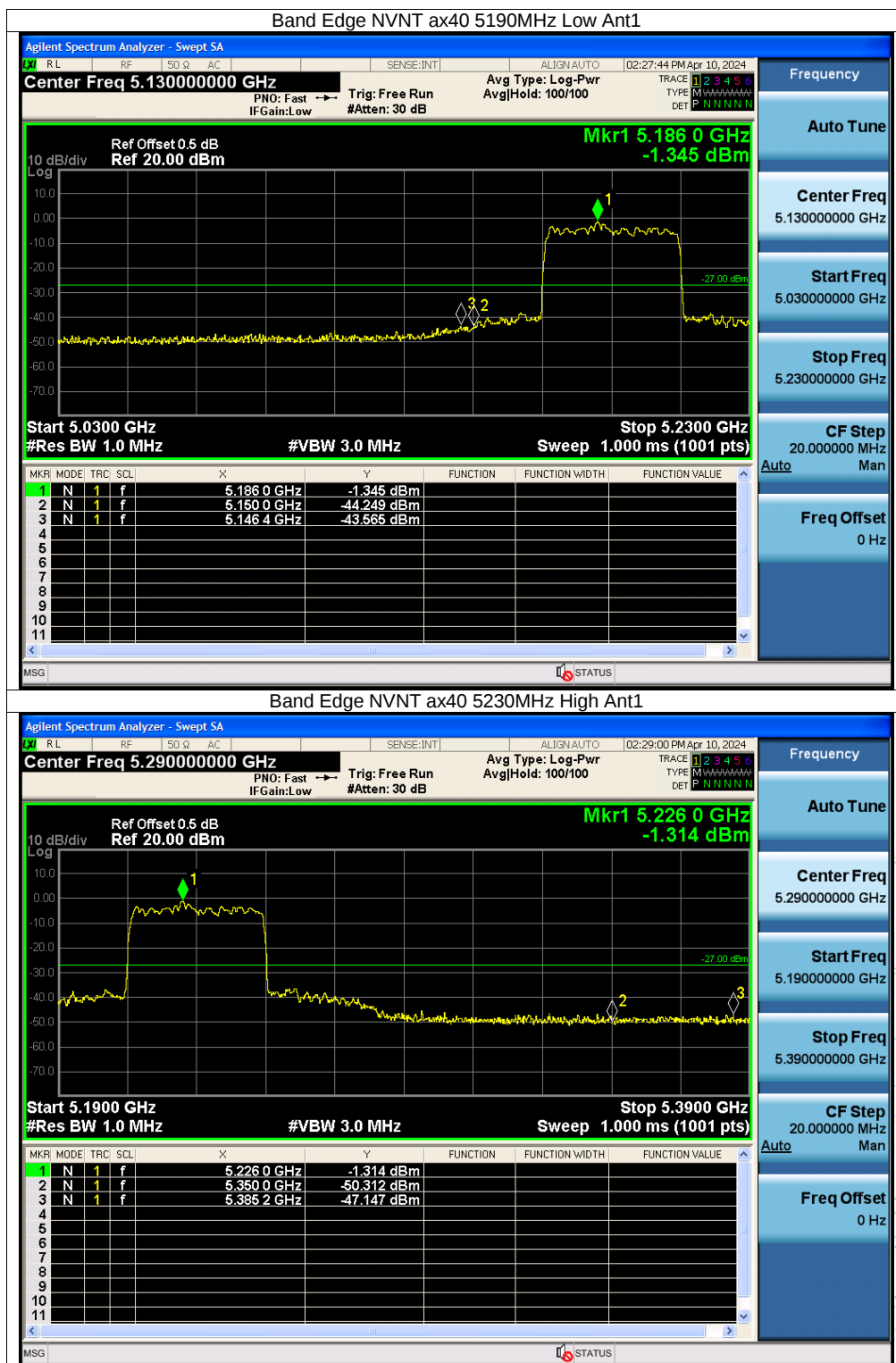


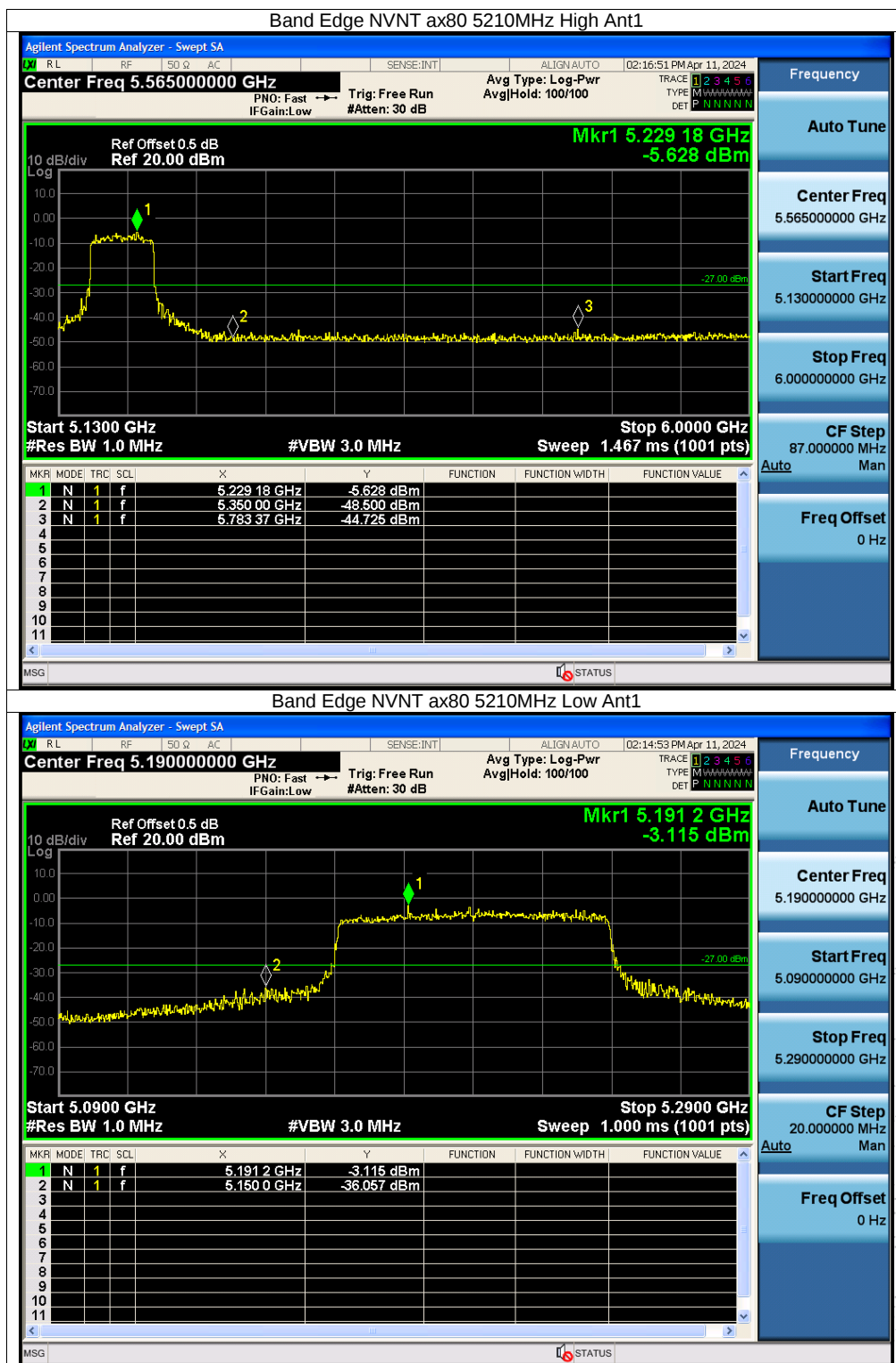


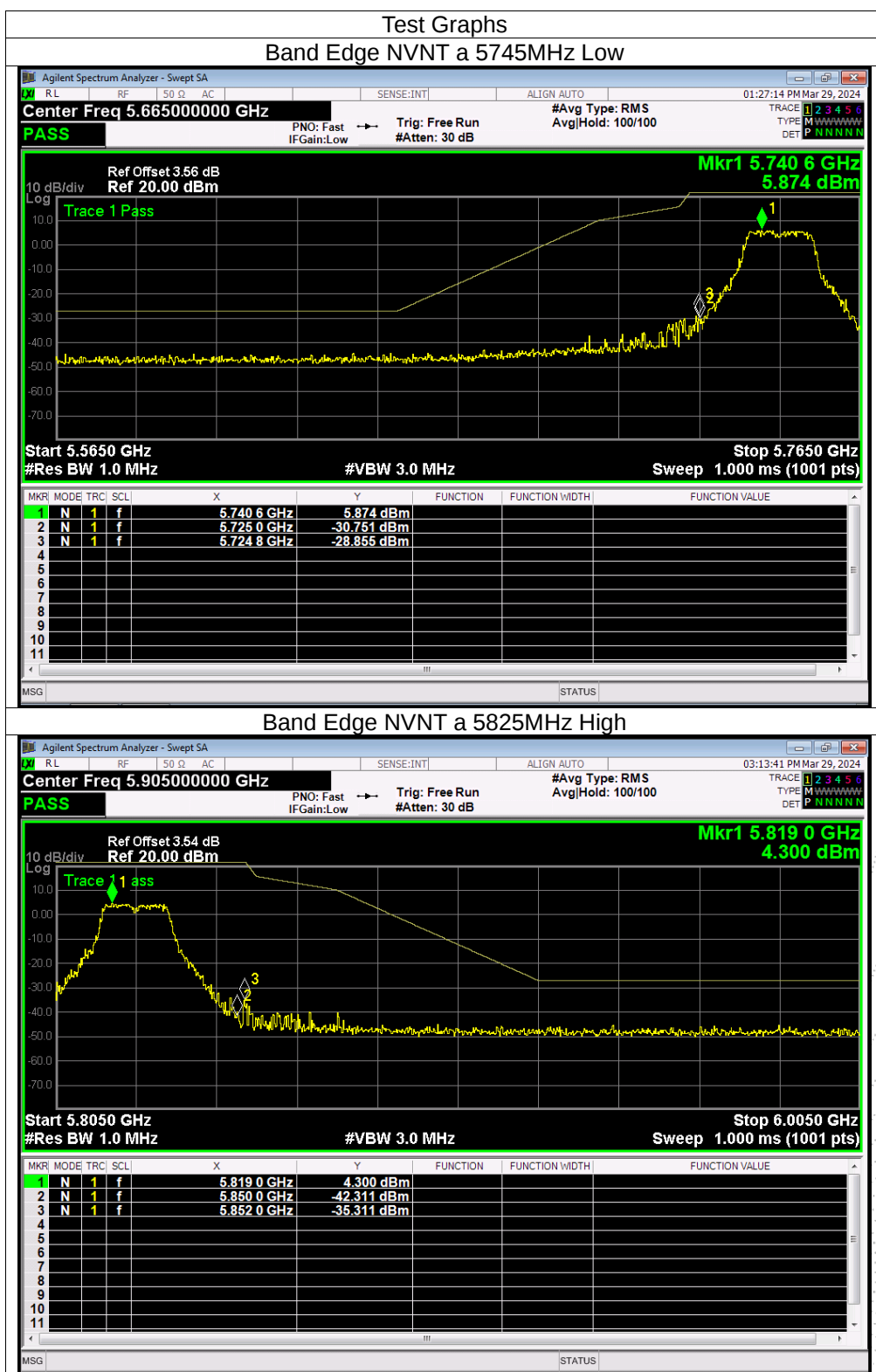


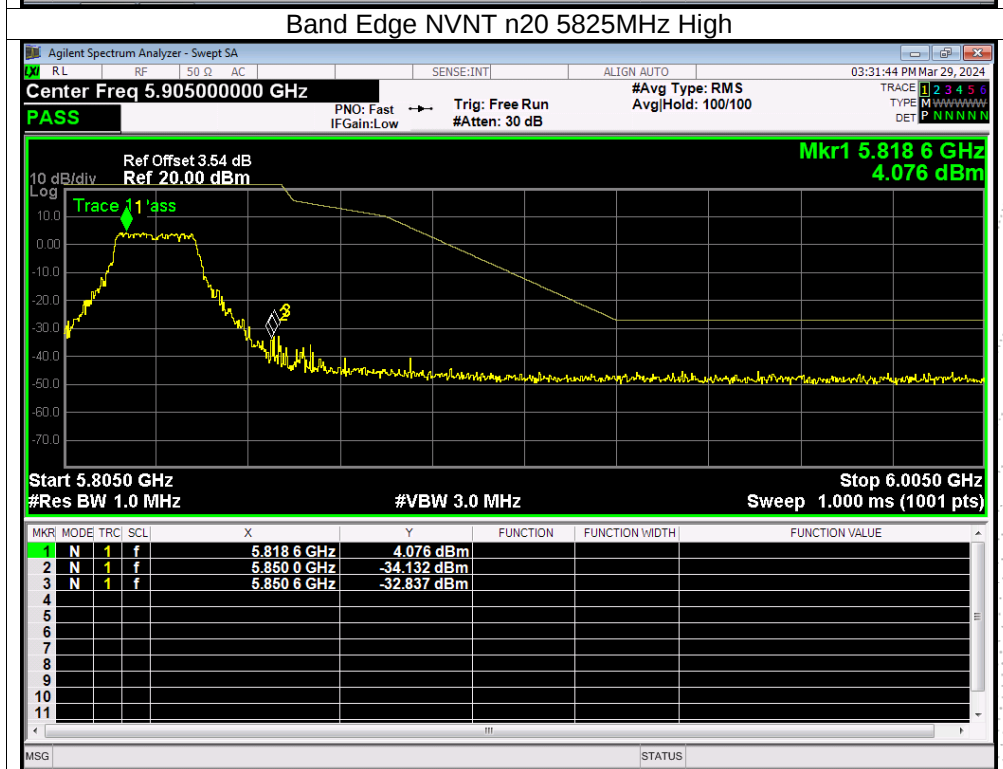
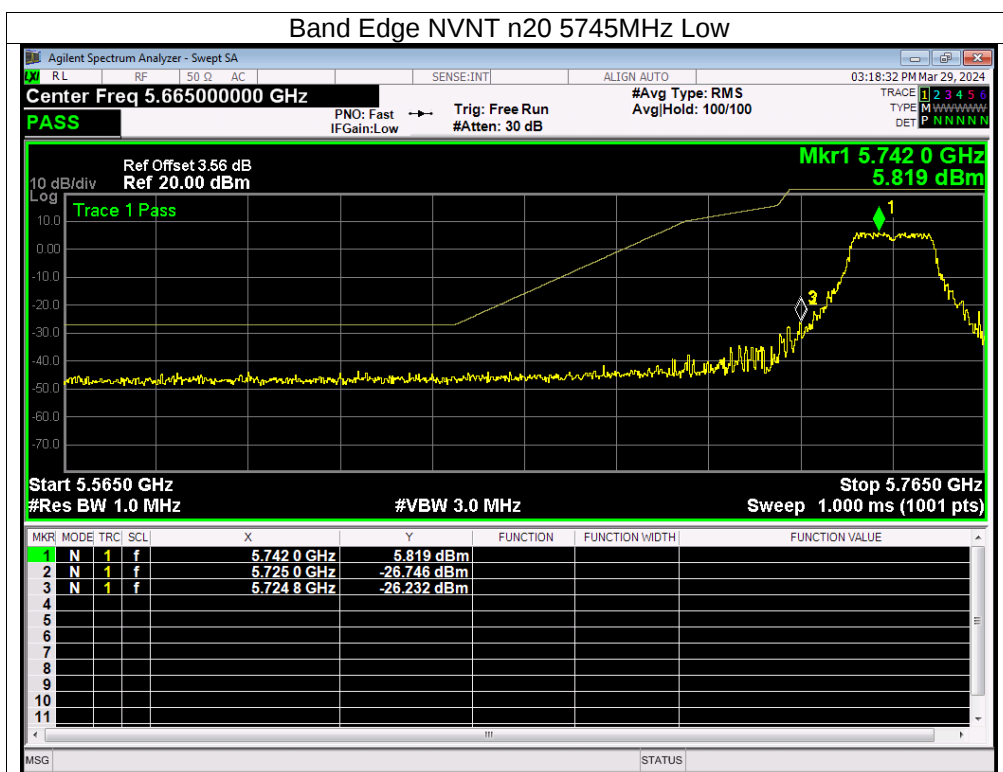


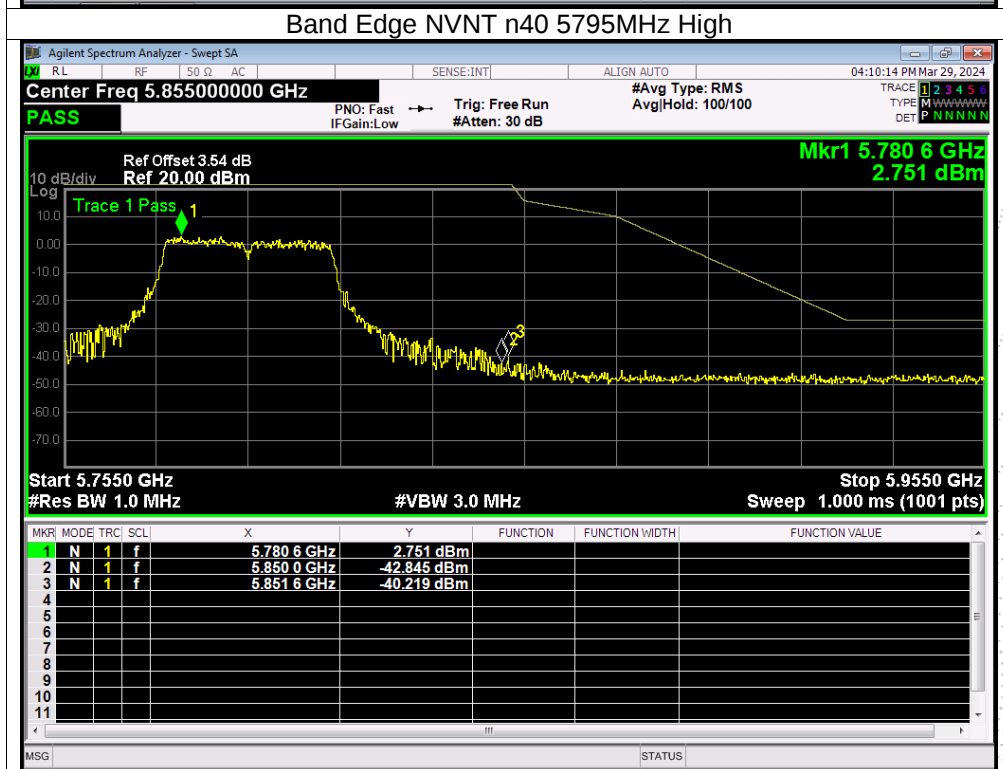
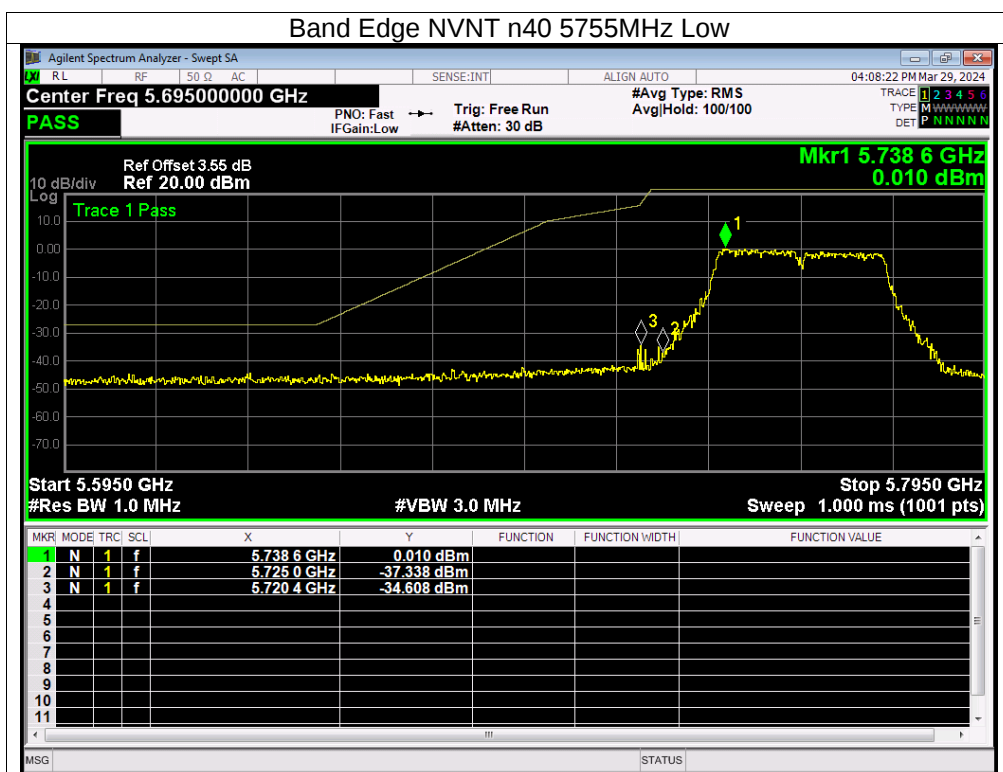


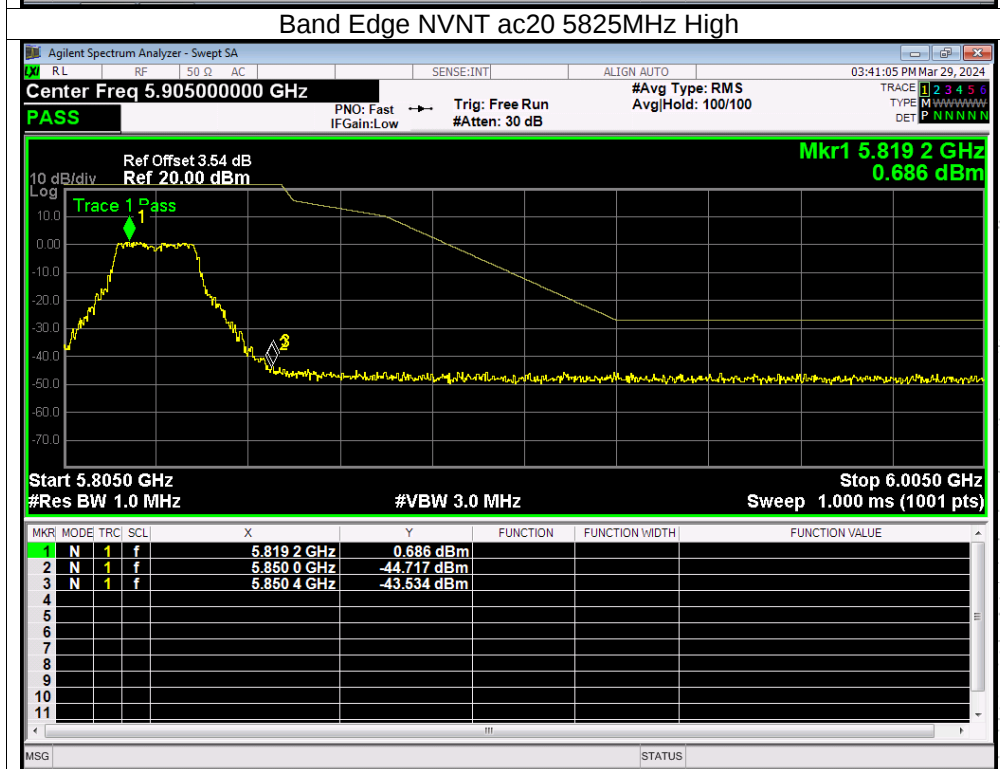
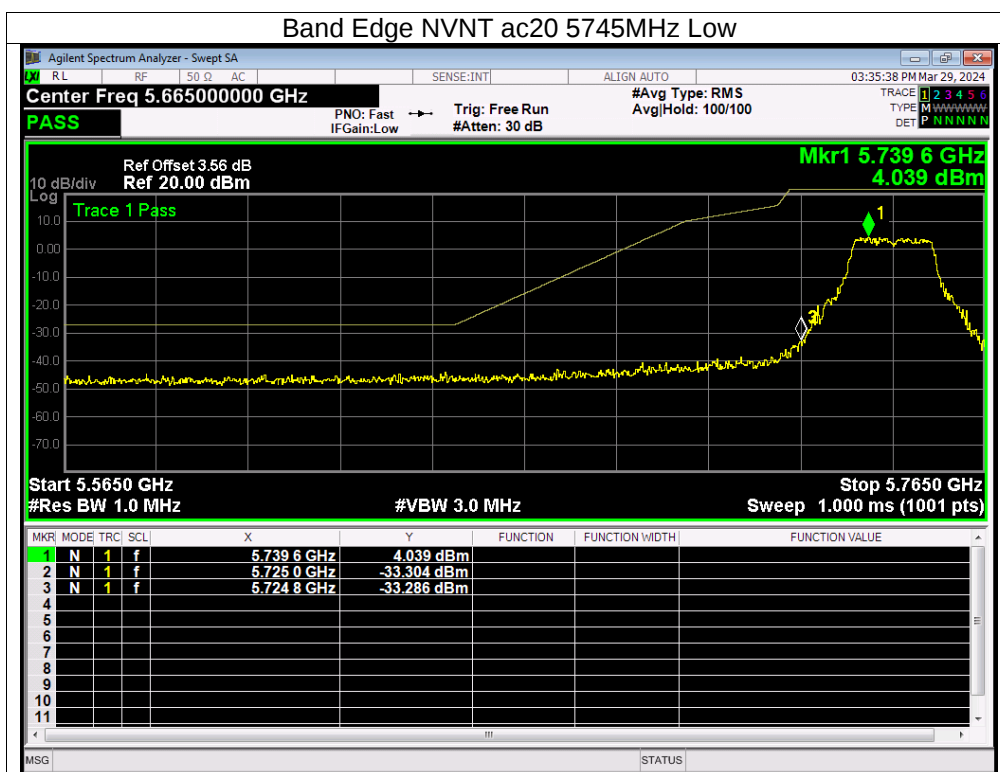


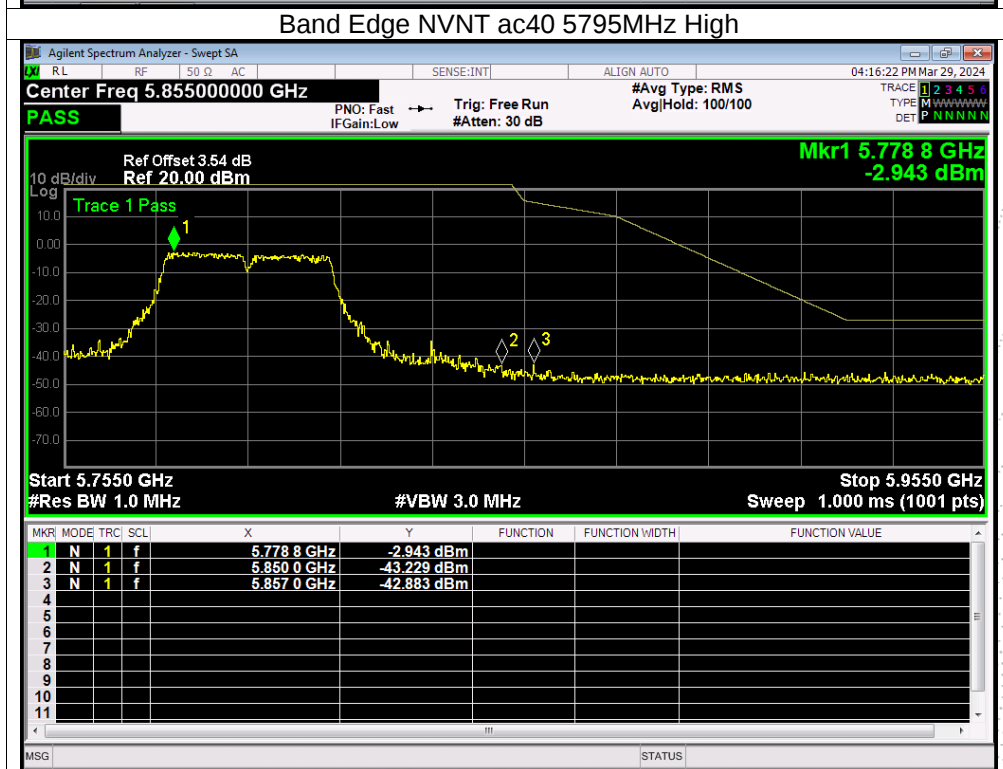
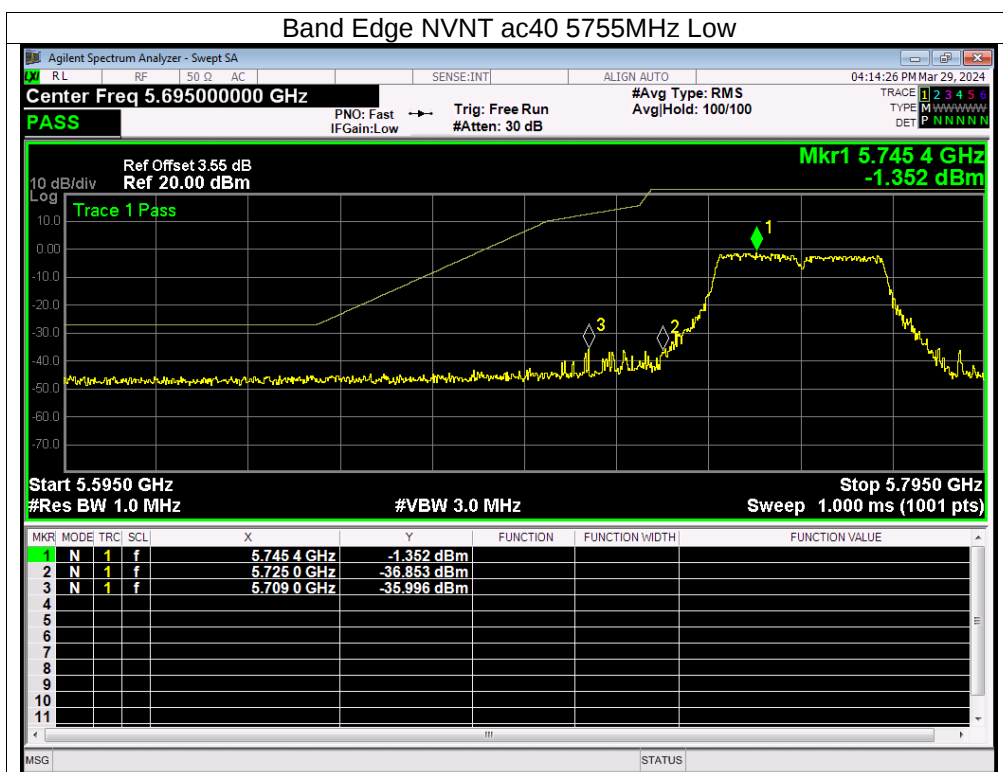


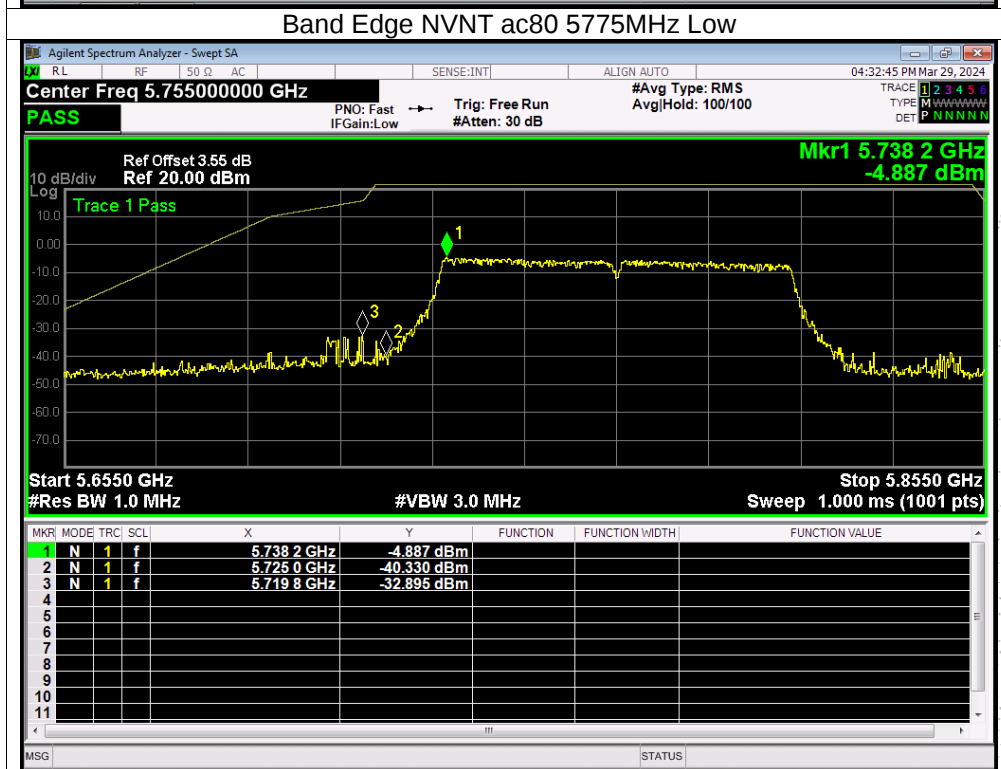
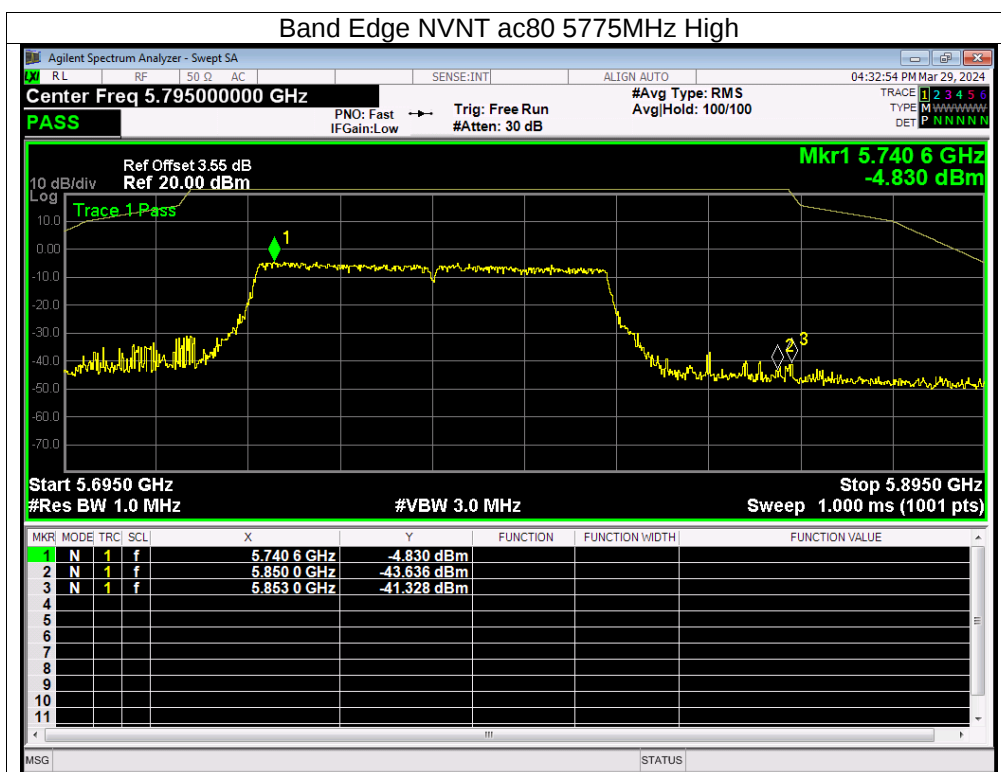


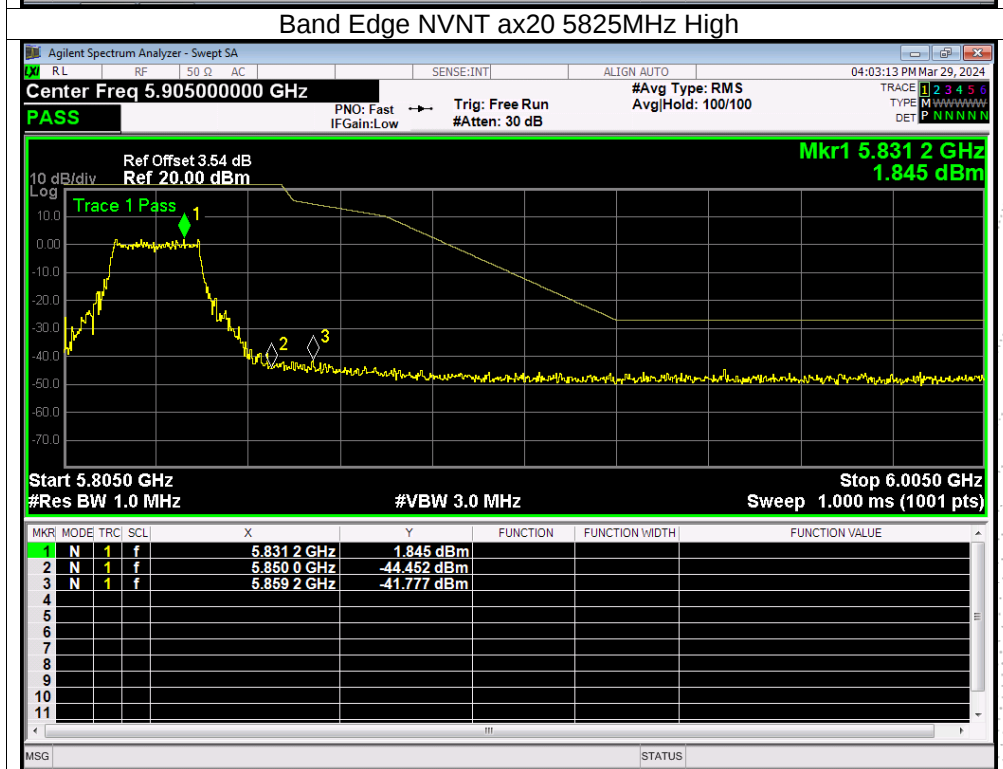
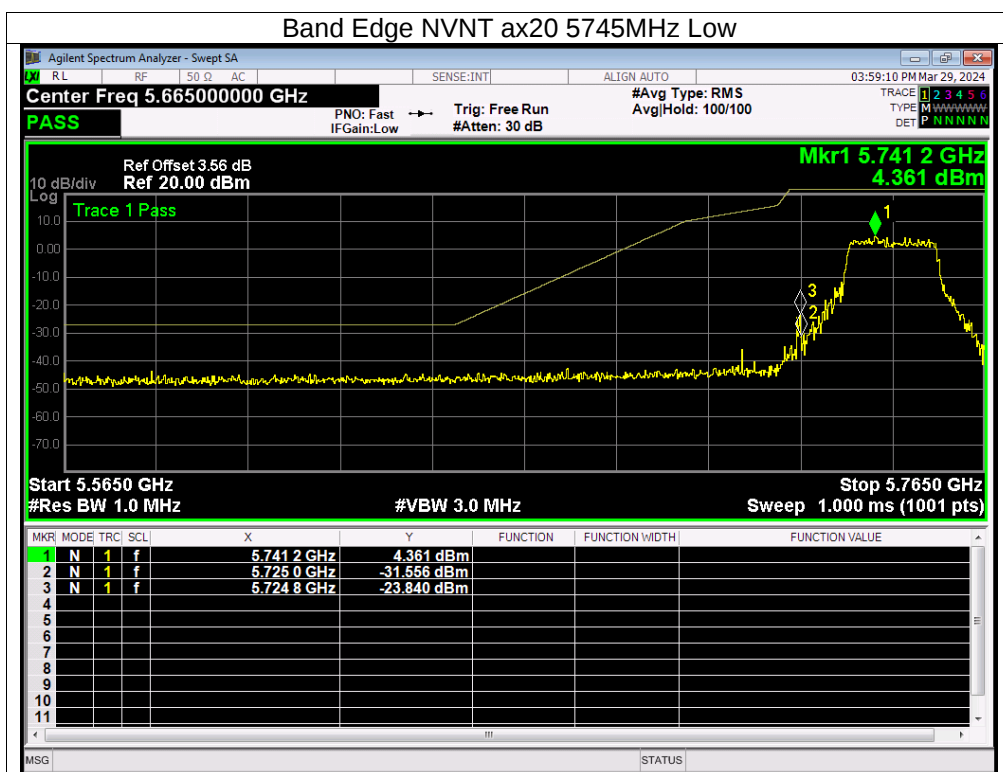


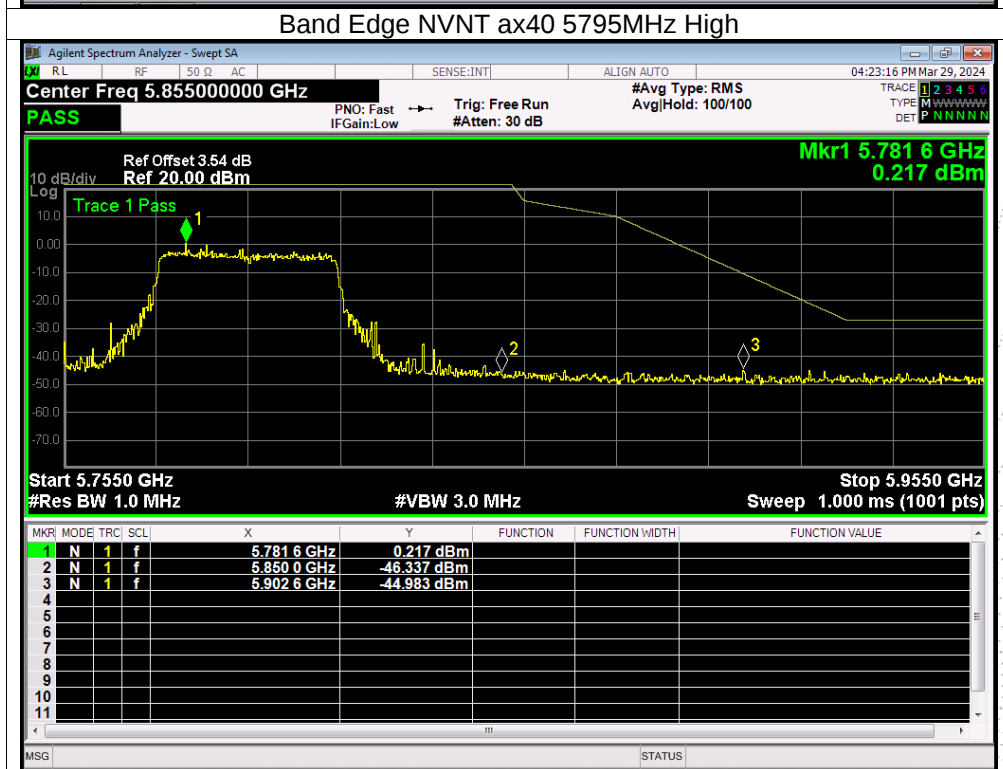
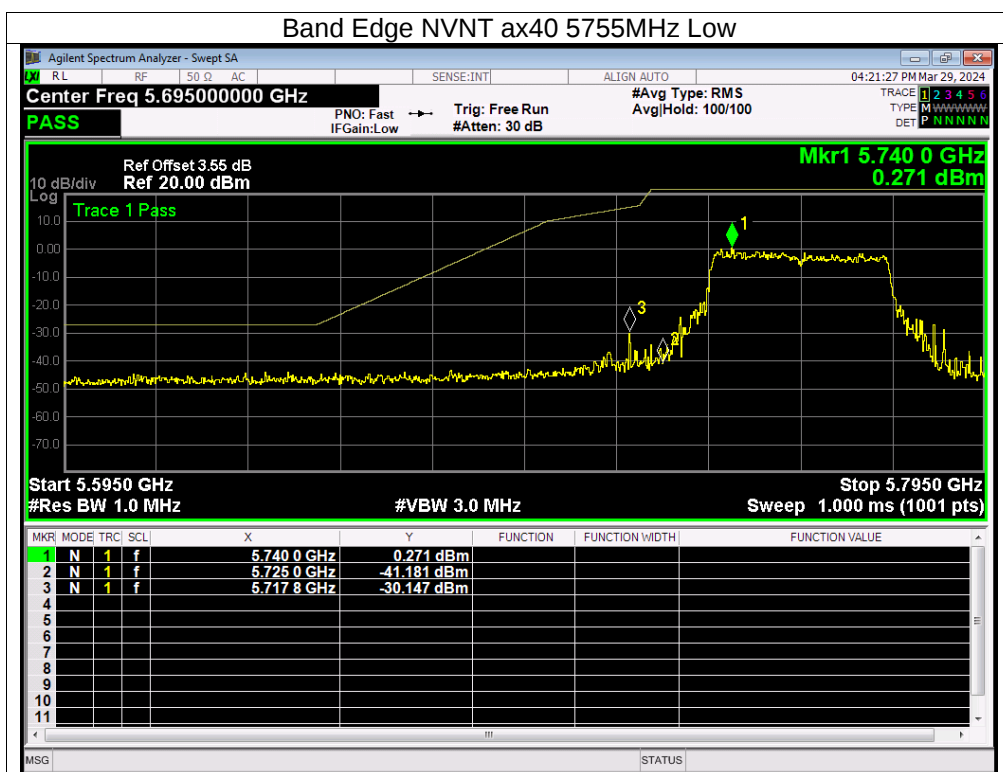


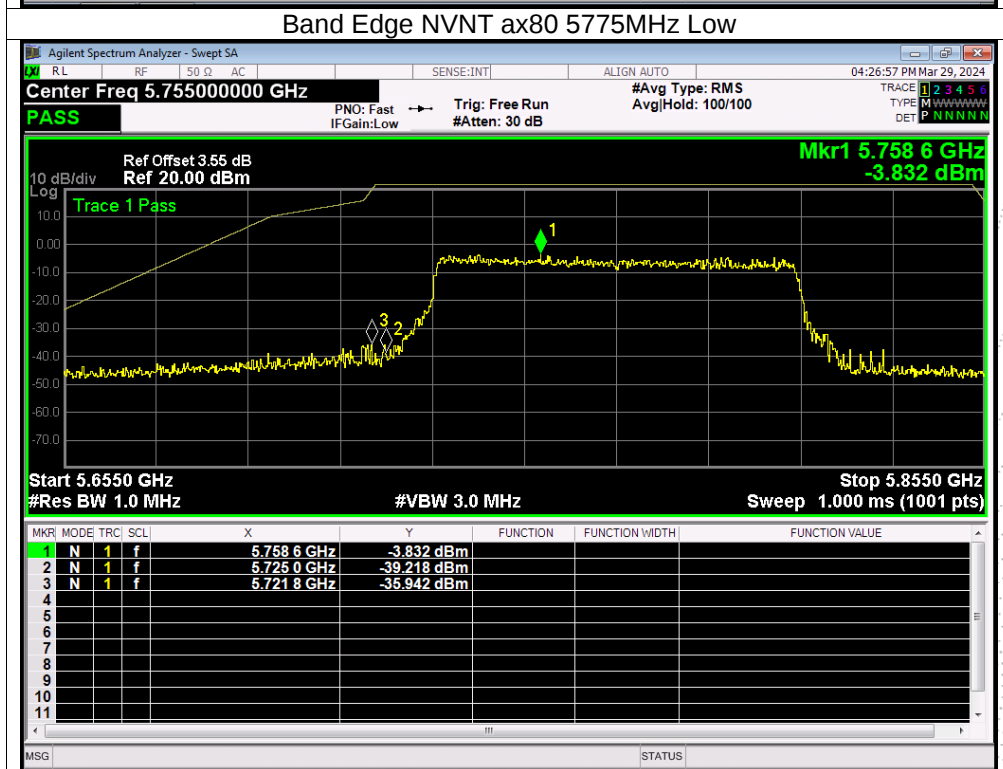
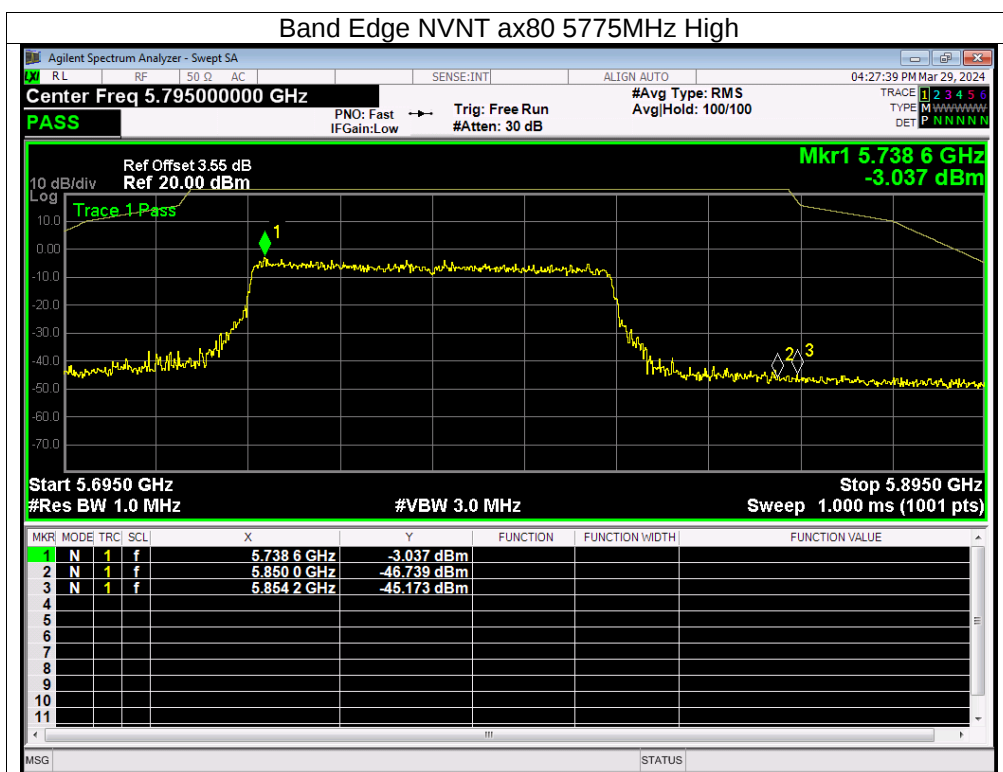












12. Spurious RF Conducted Emissions

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.

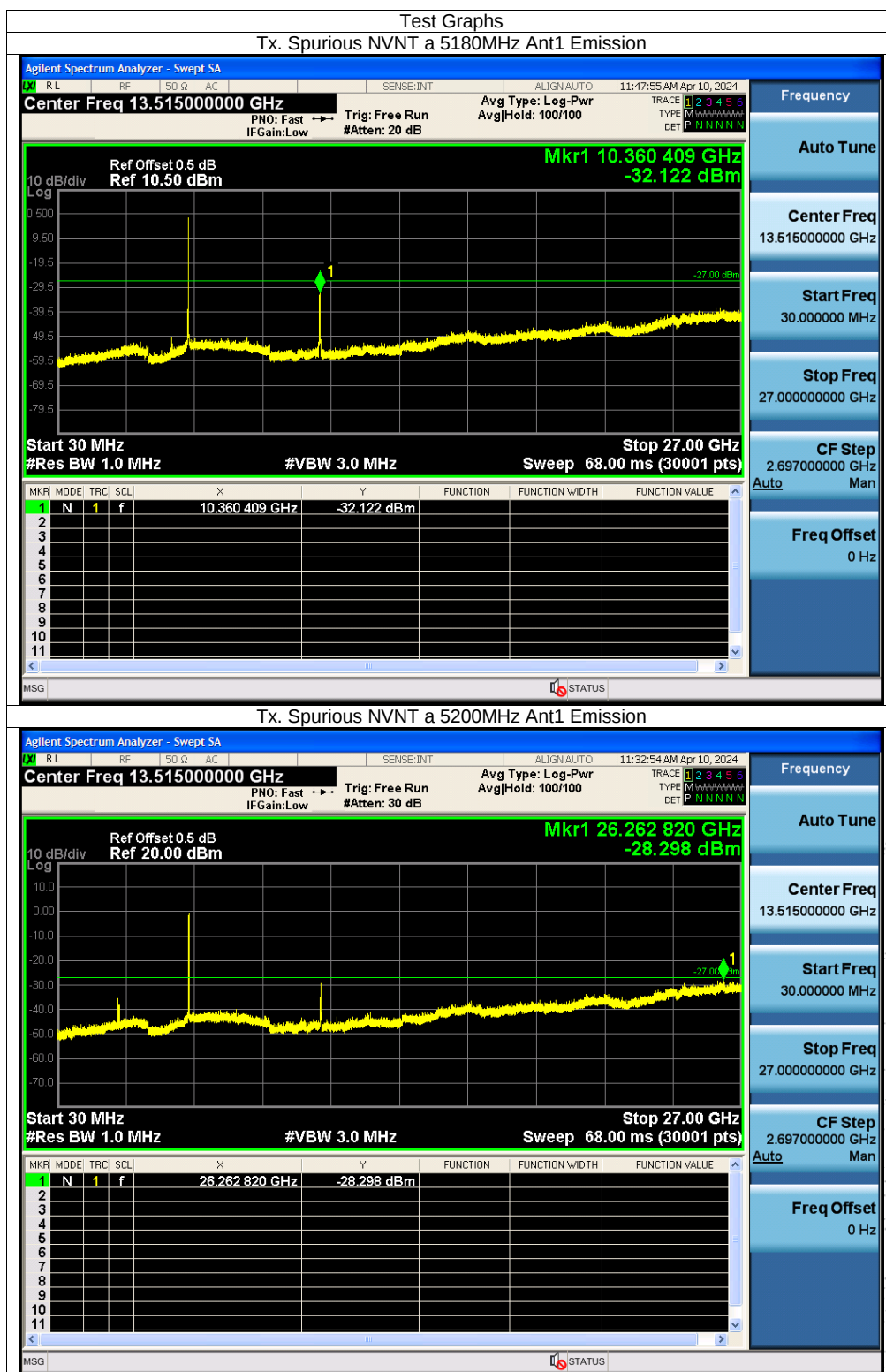
12.3 Test procedure

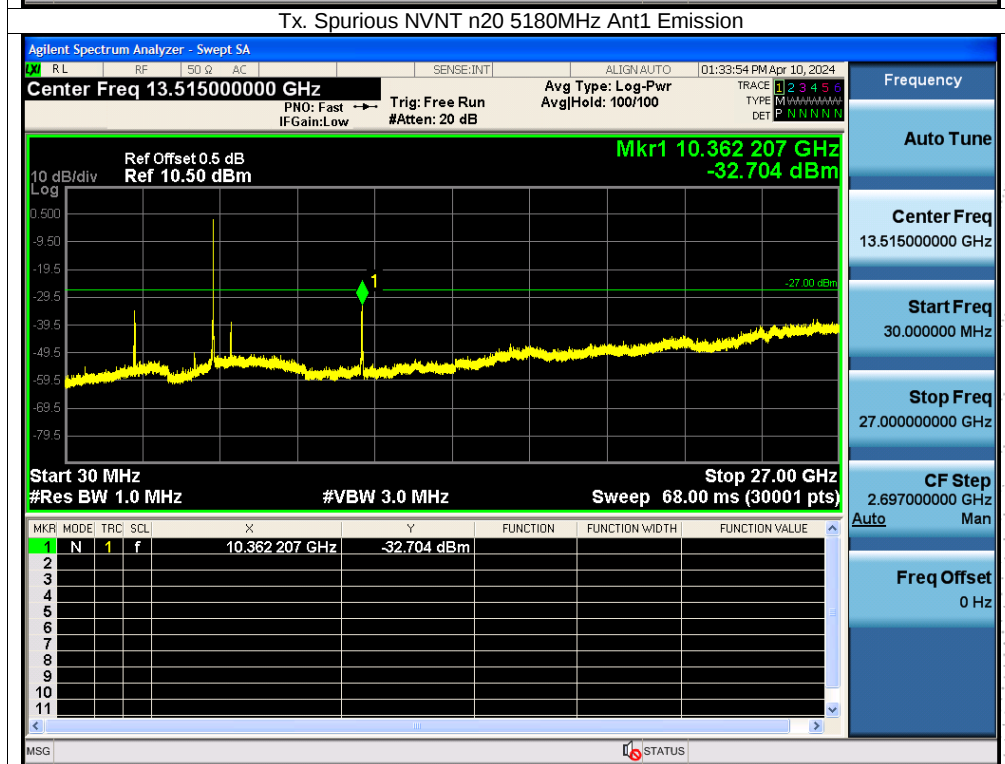
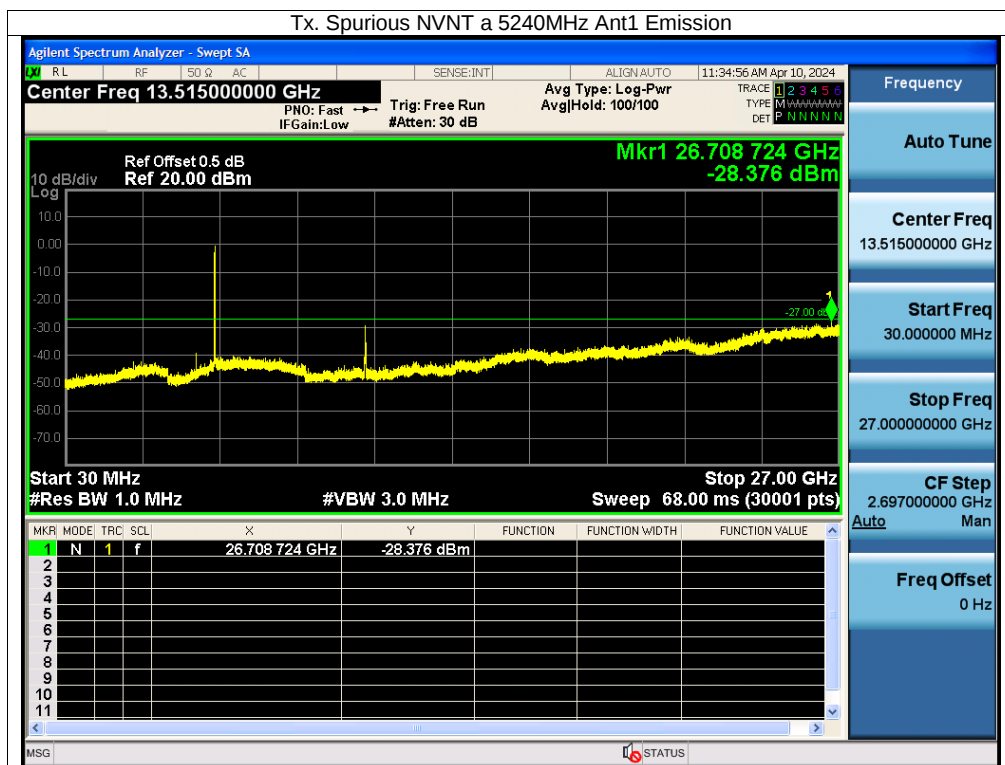
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then 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.

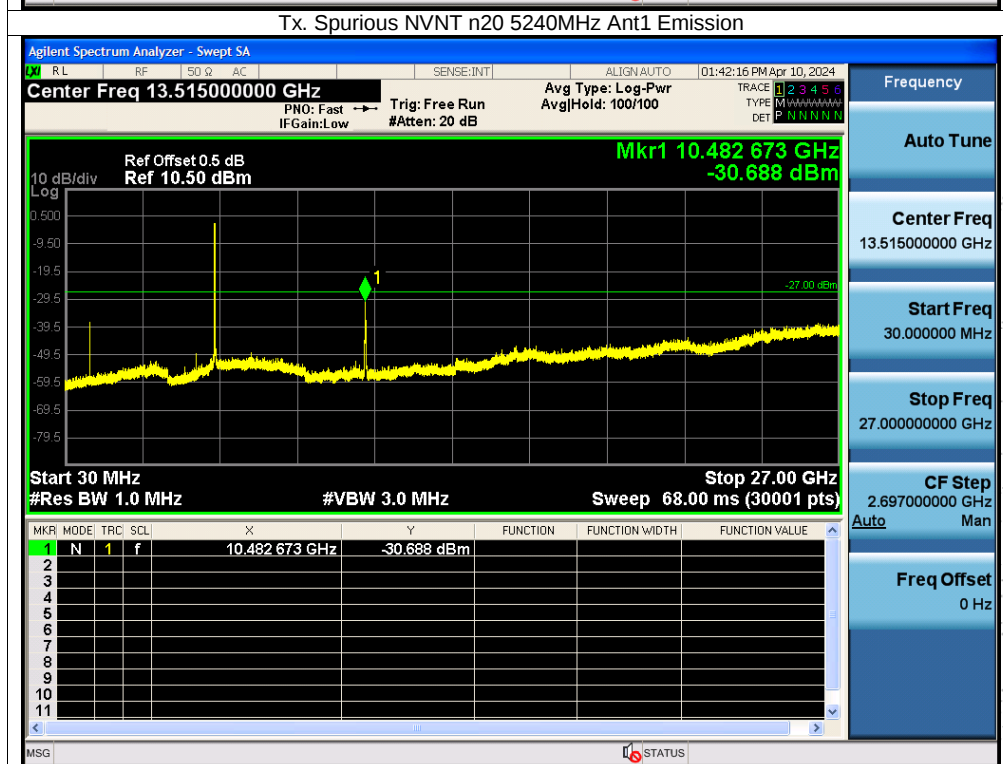
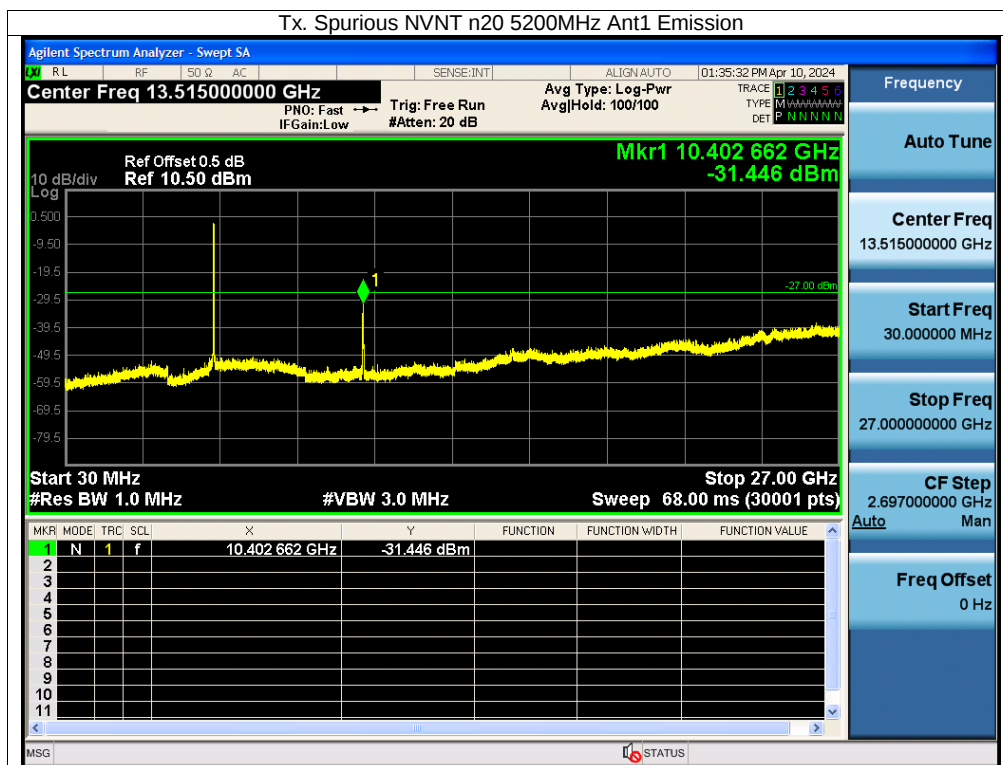
12.4 Test Result

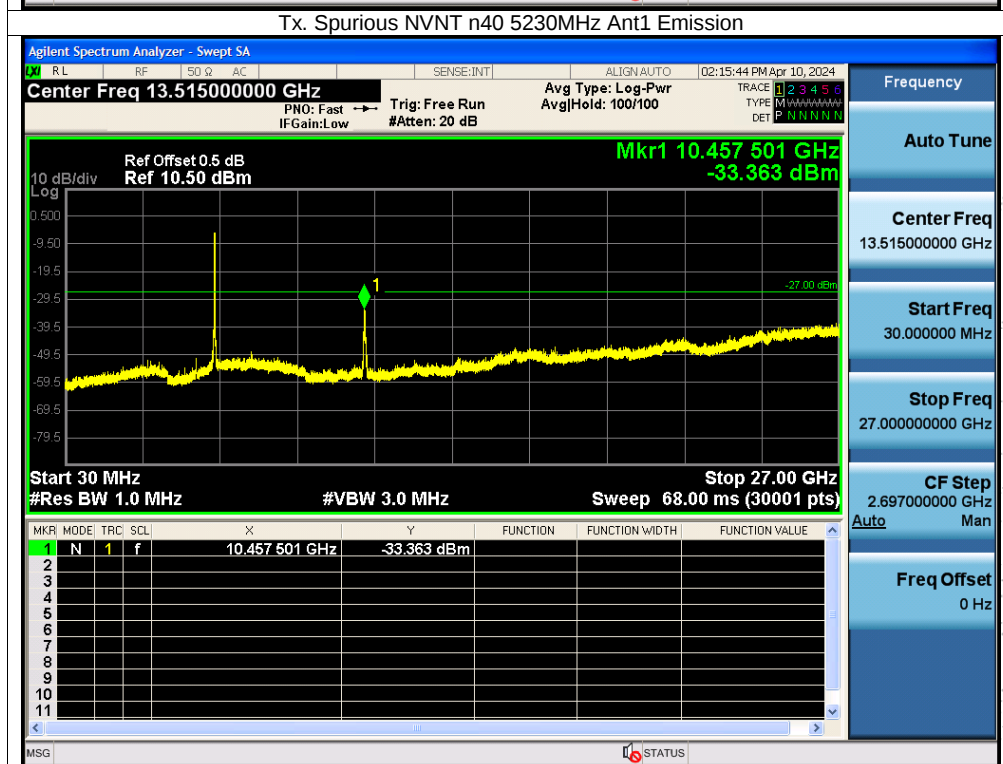
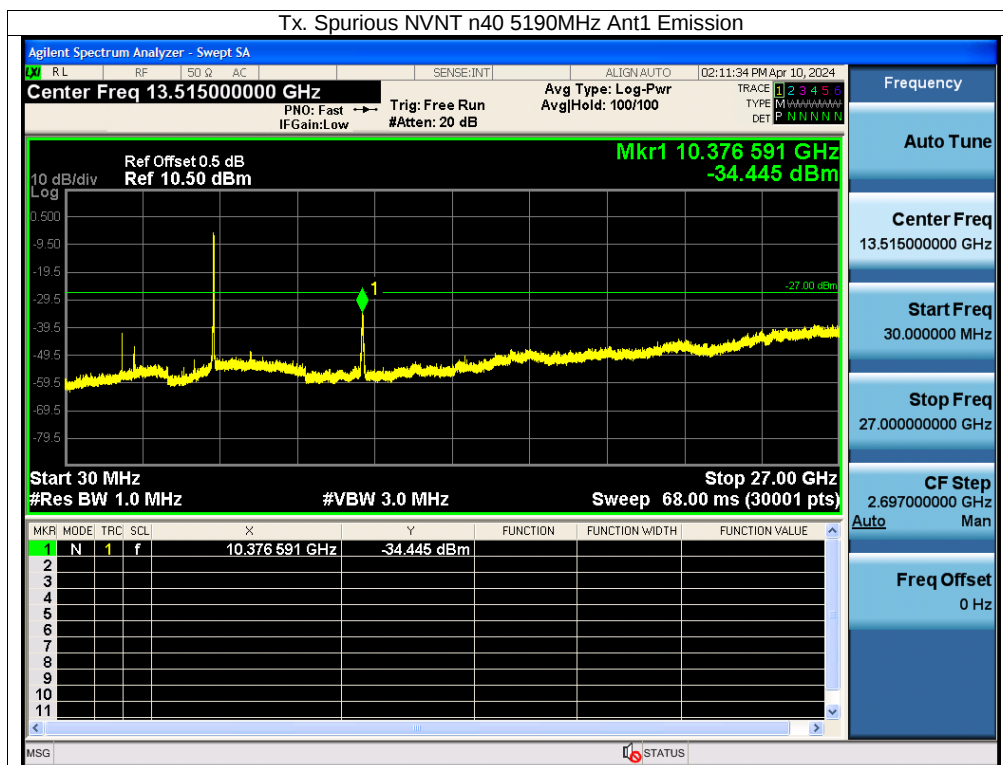
Remark: The measurement frequency range is from 9KHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandedge measurement data.

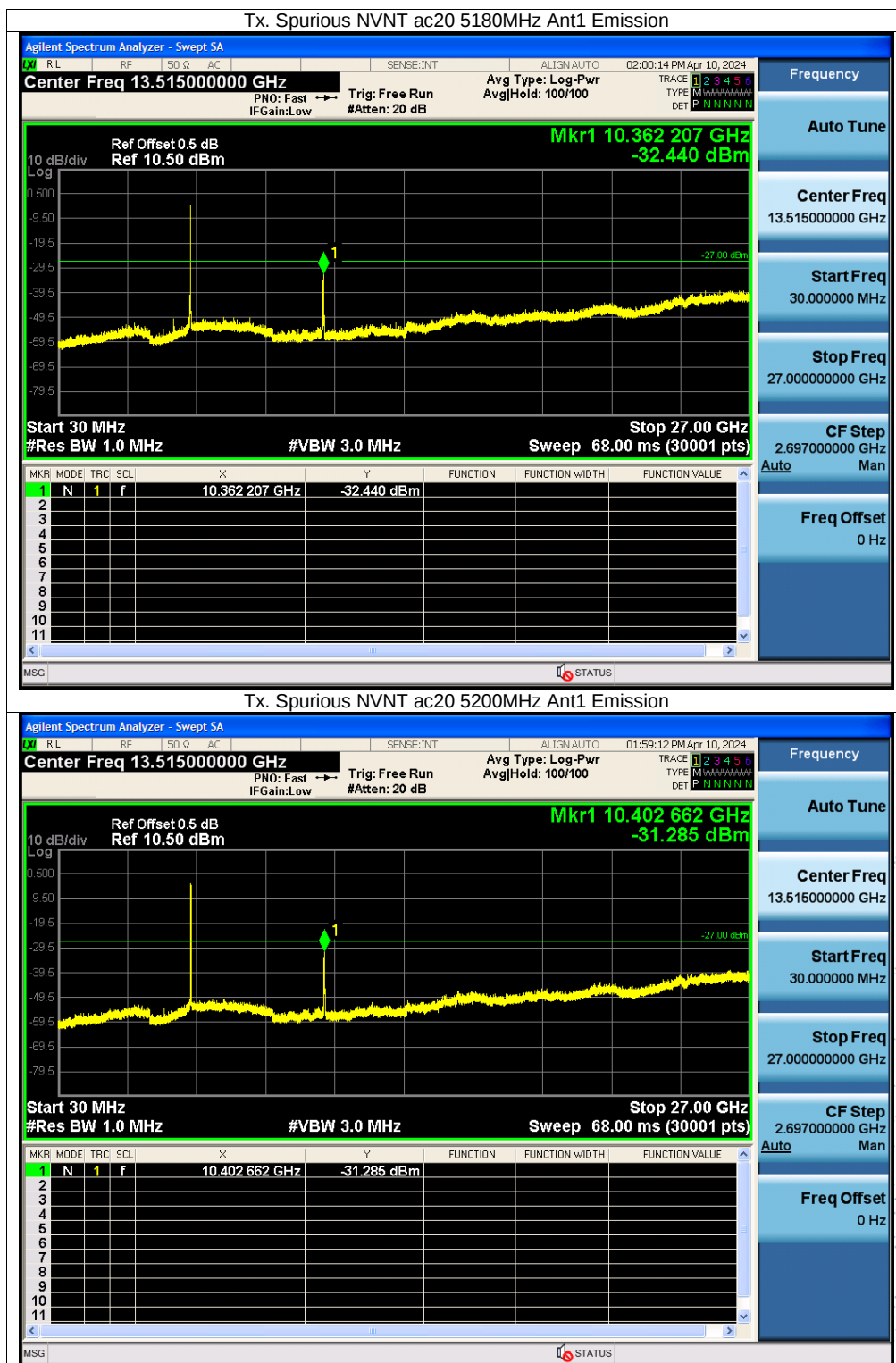
About: 26.5GHz-40GHz, The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

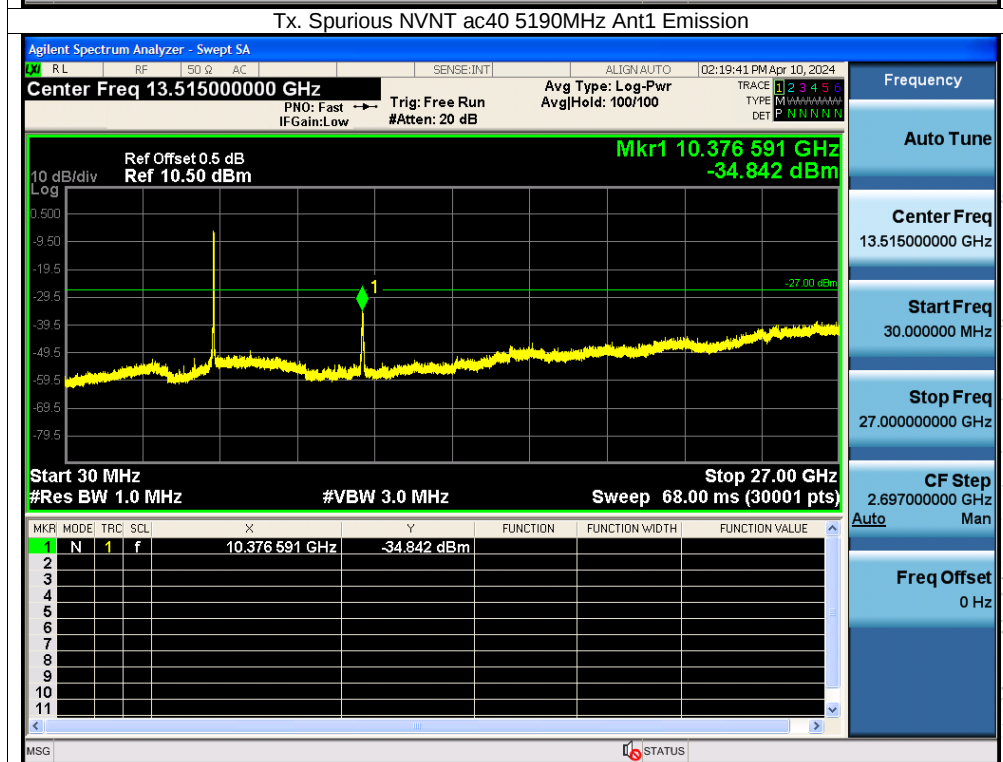
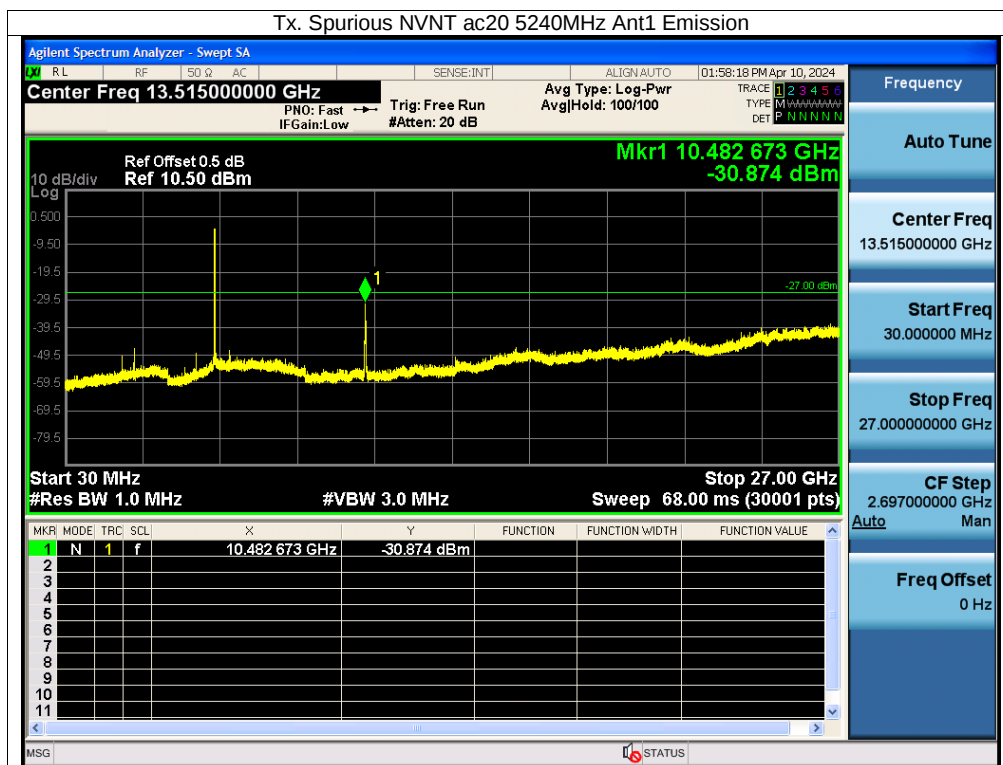


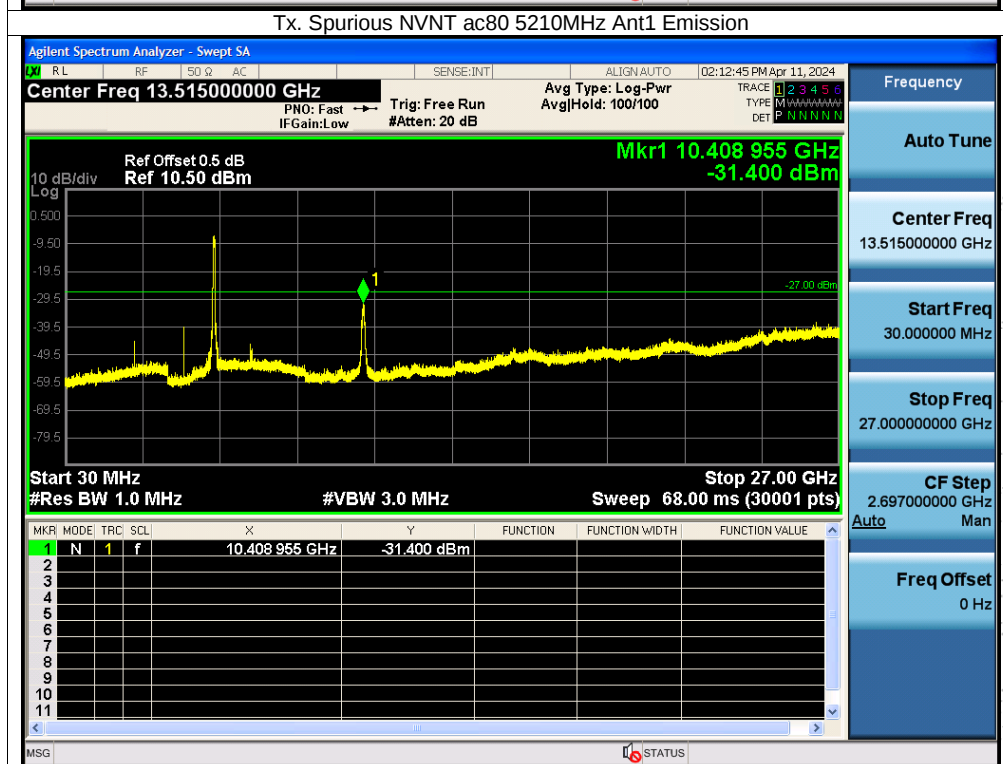
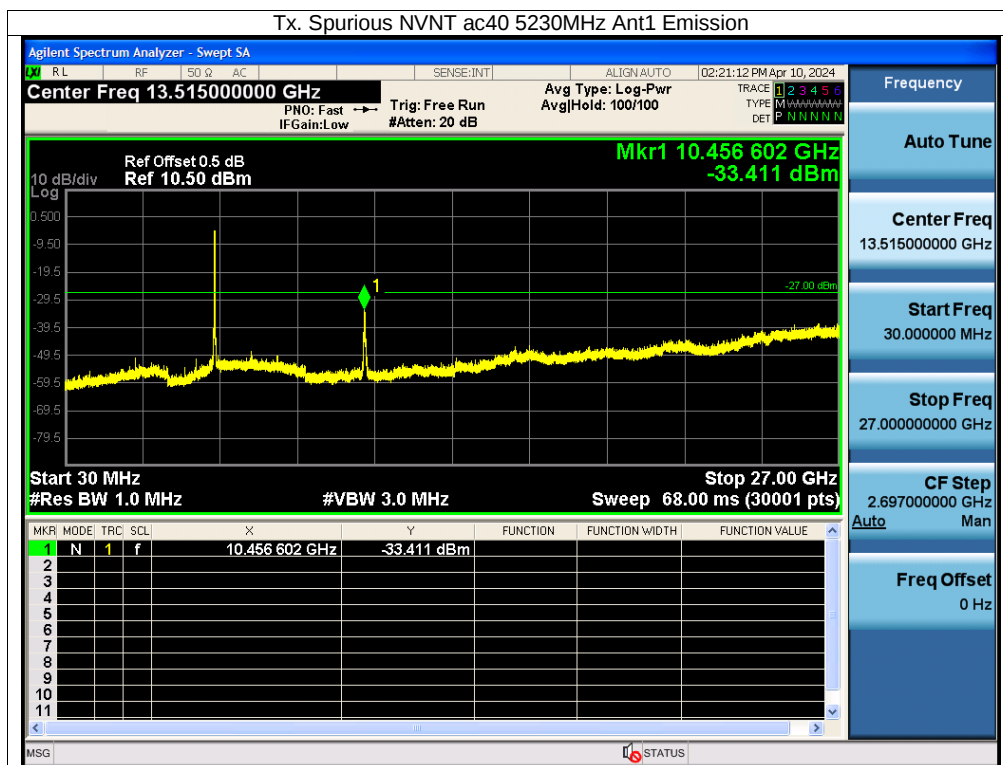


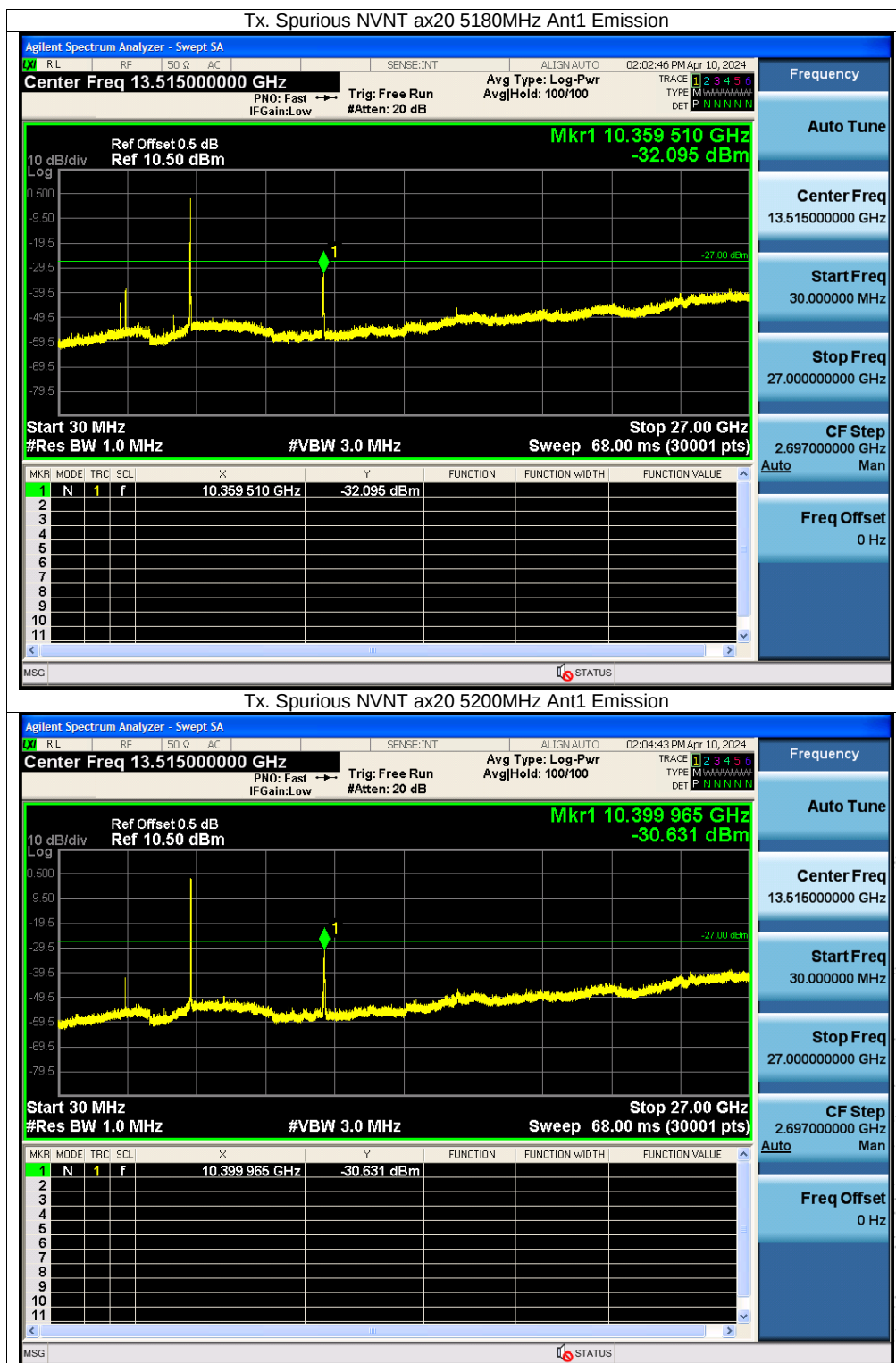


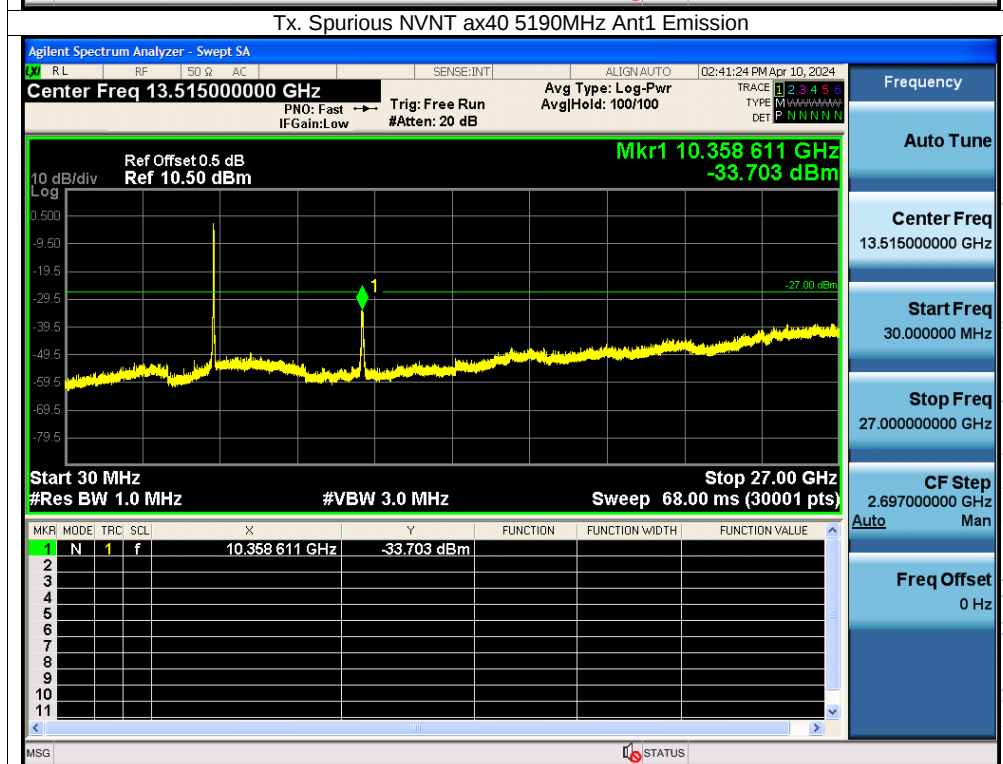
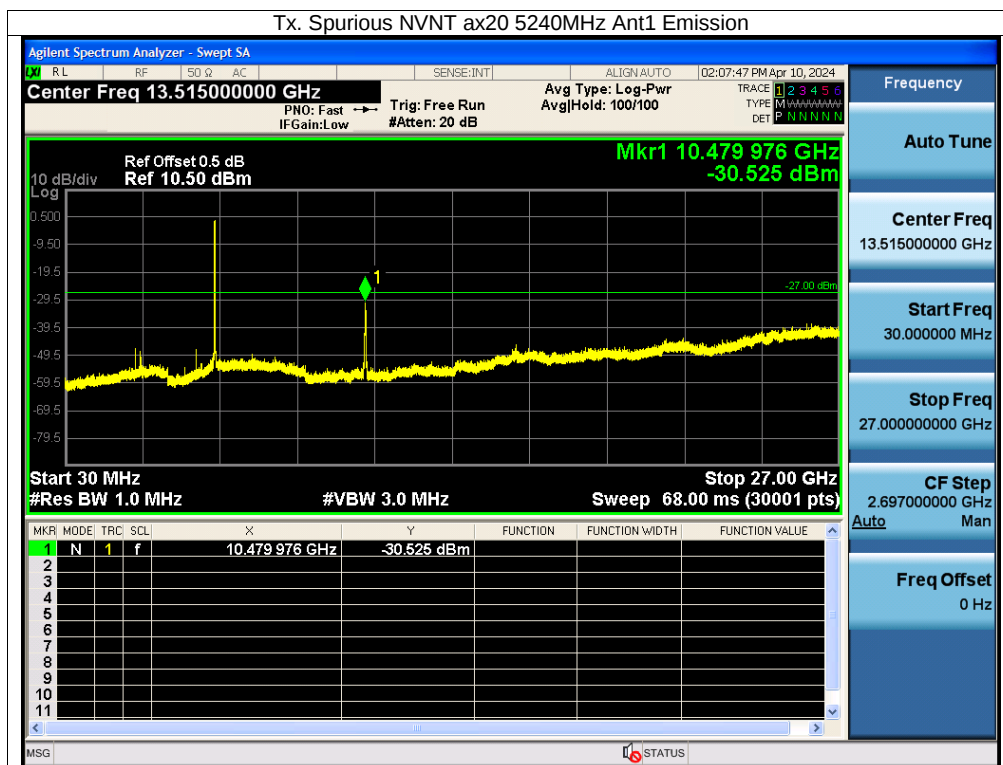


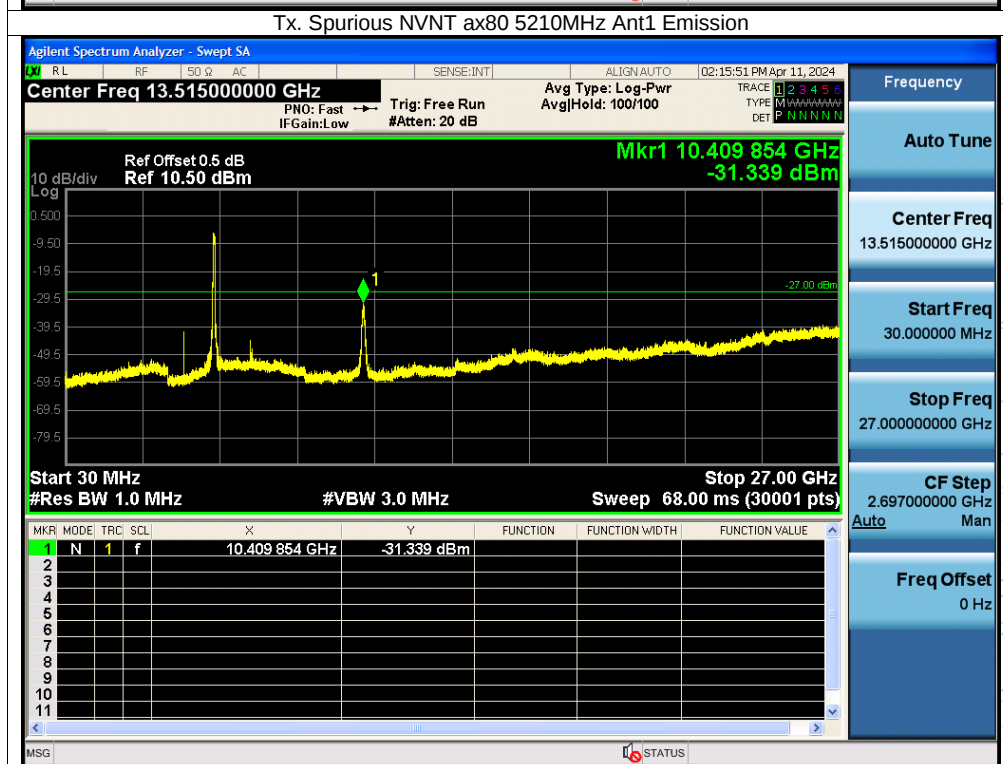
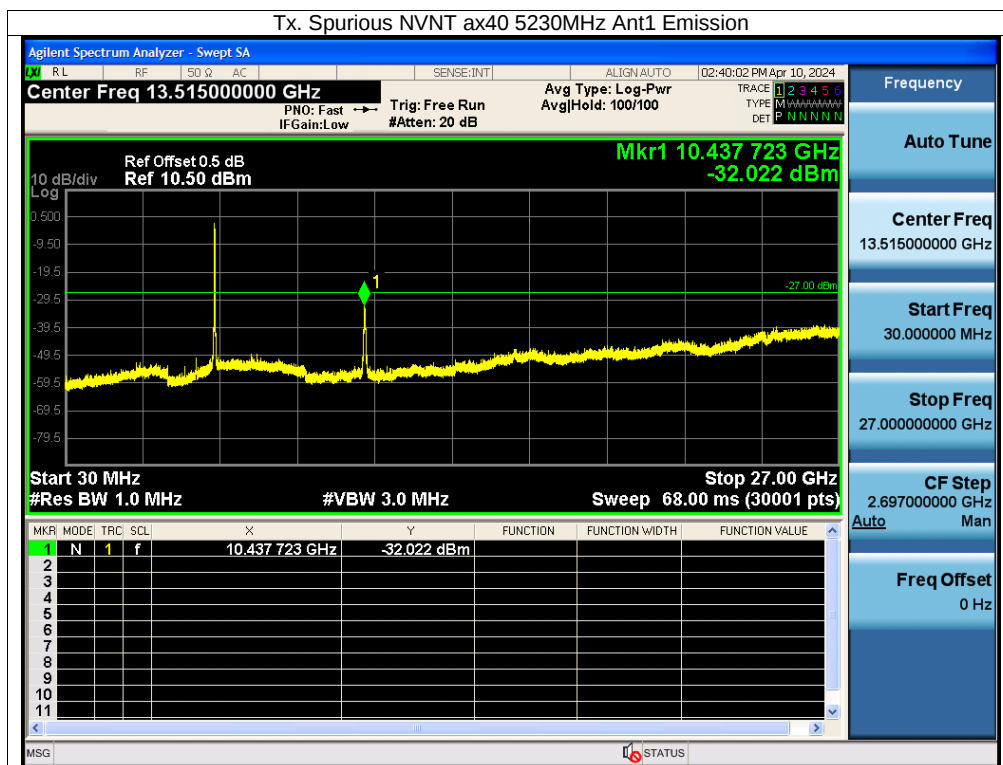


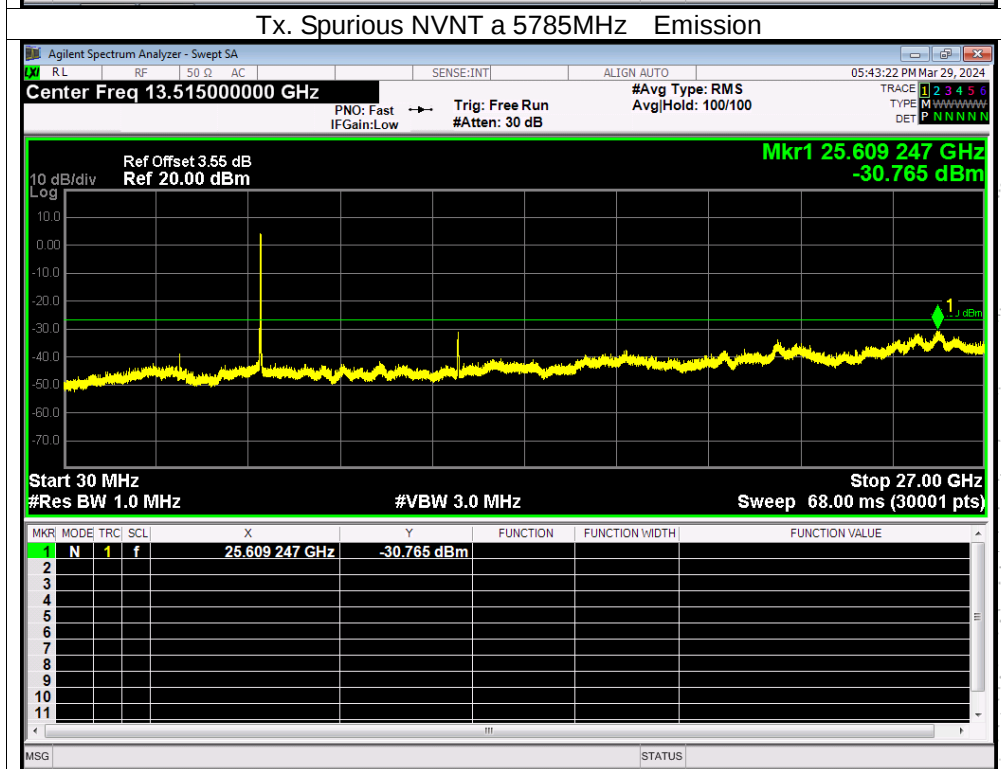
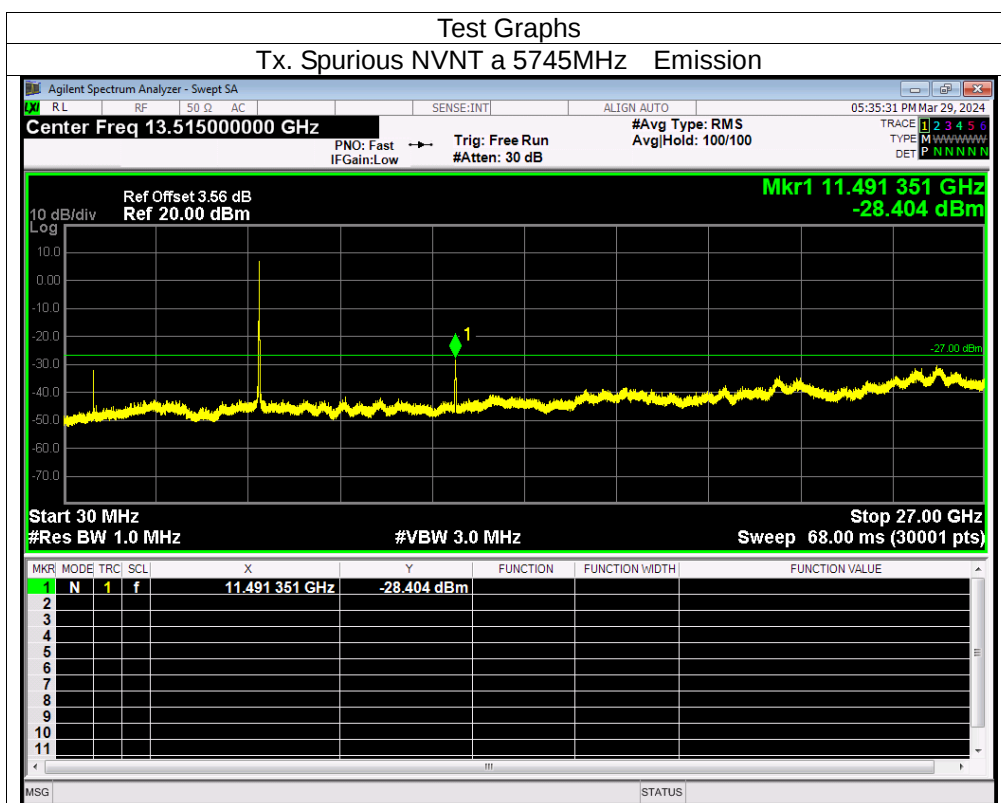


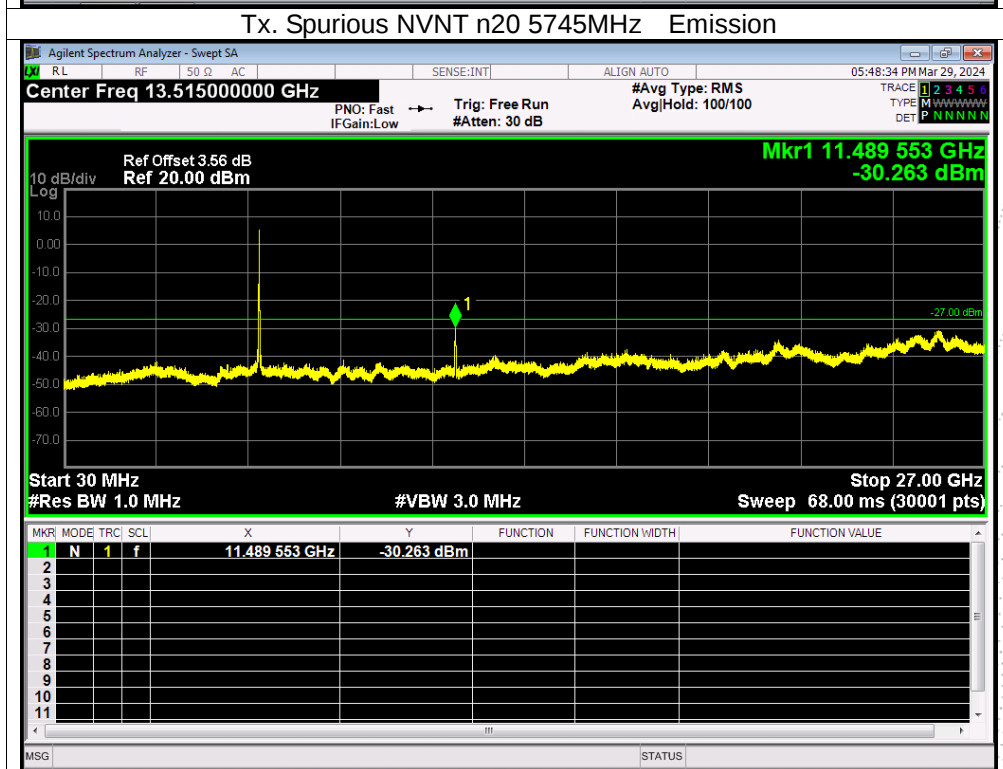
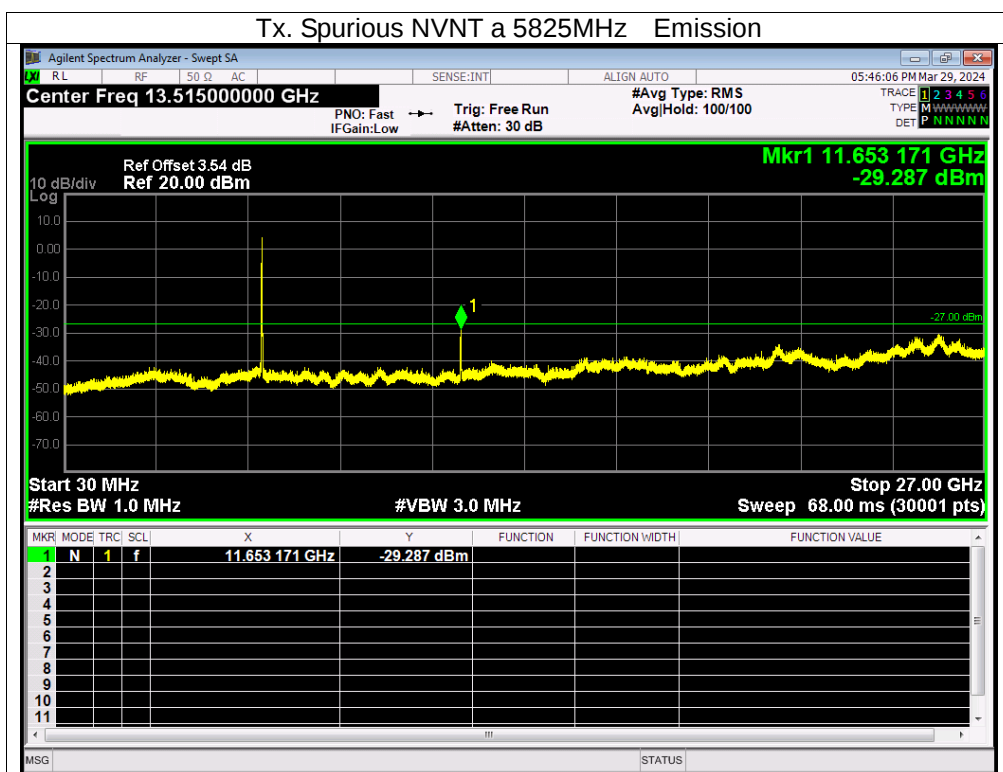


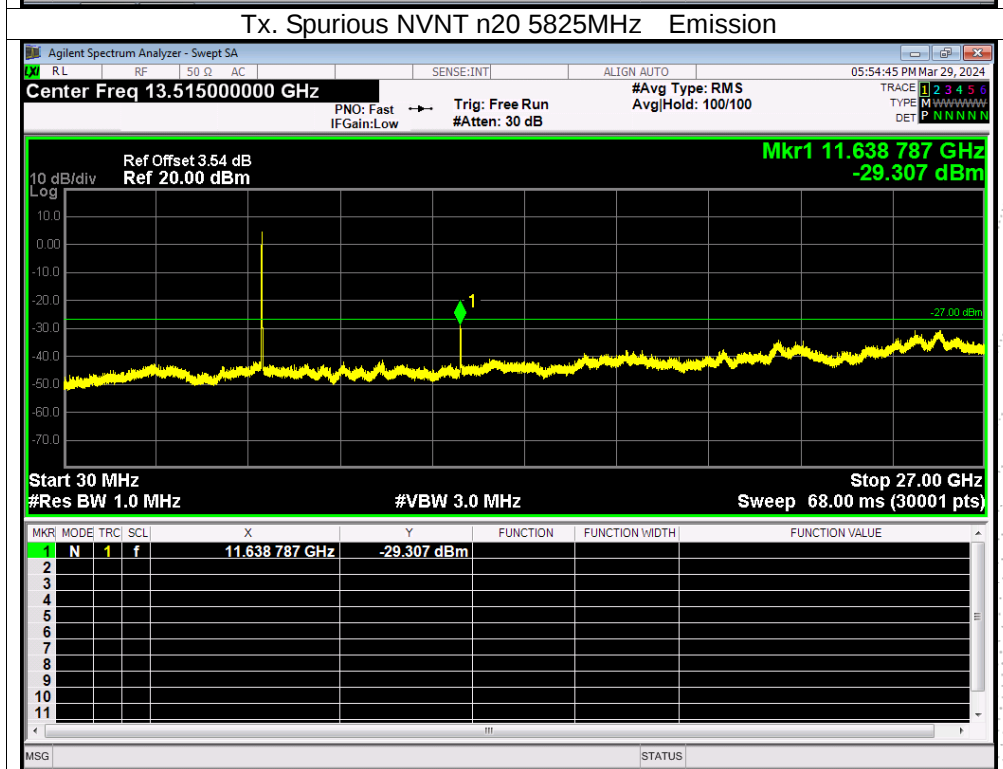
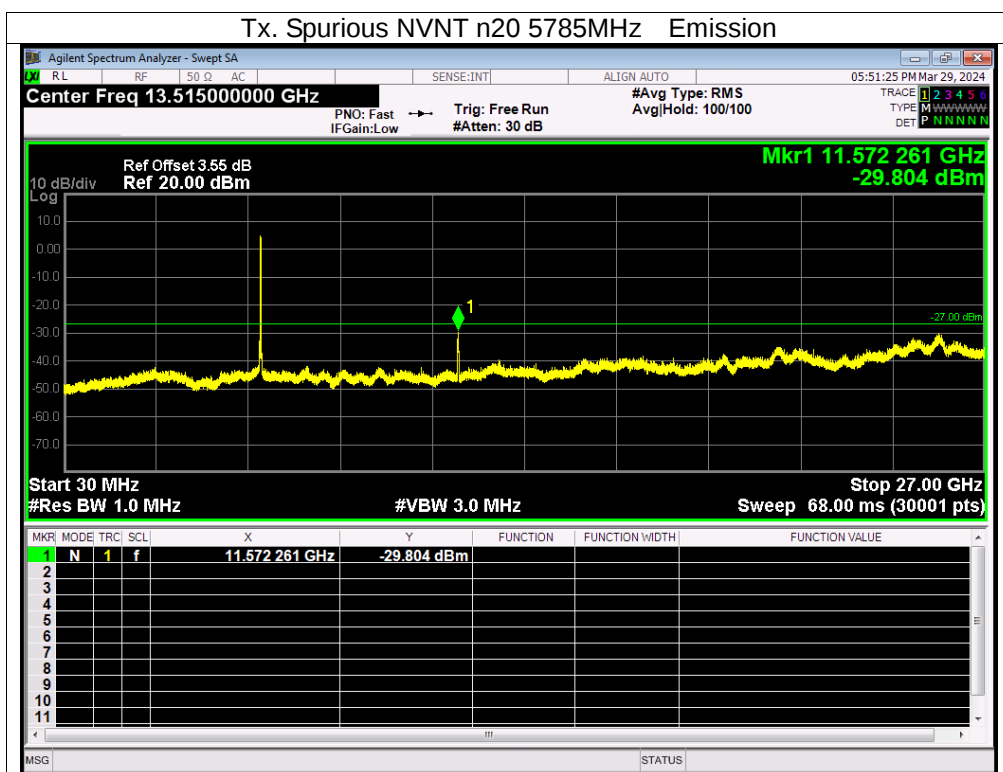


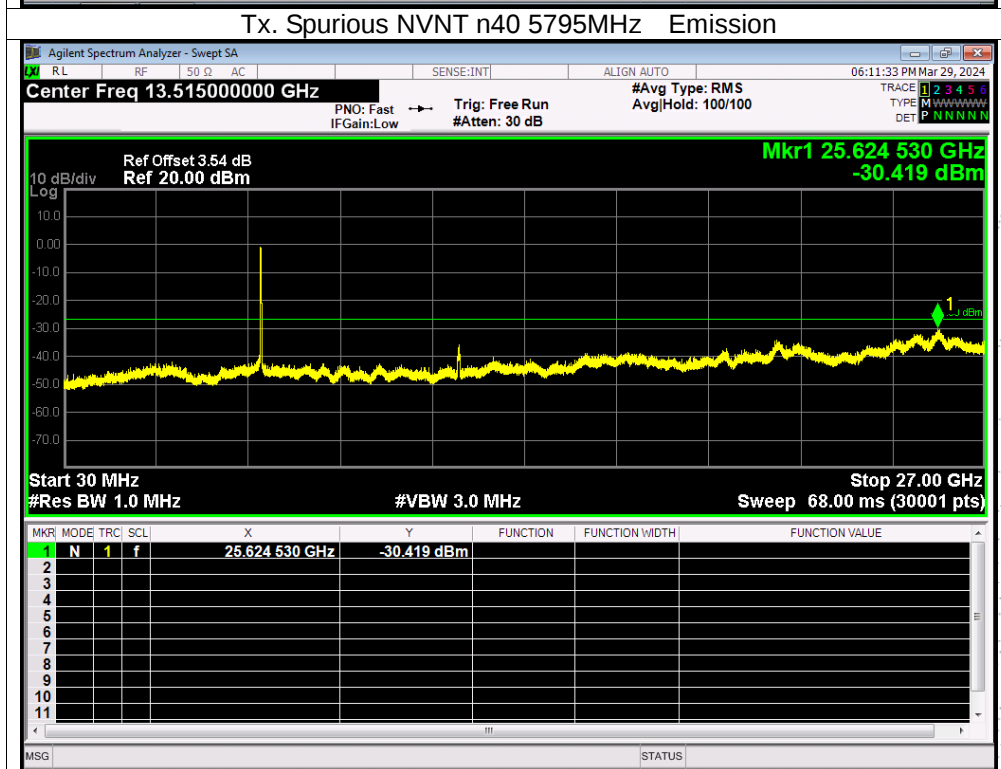
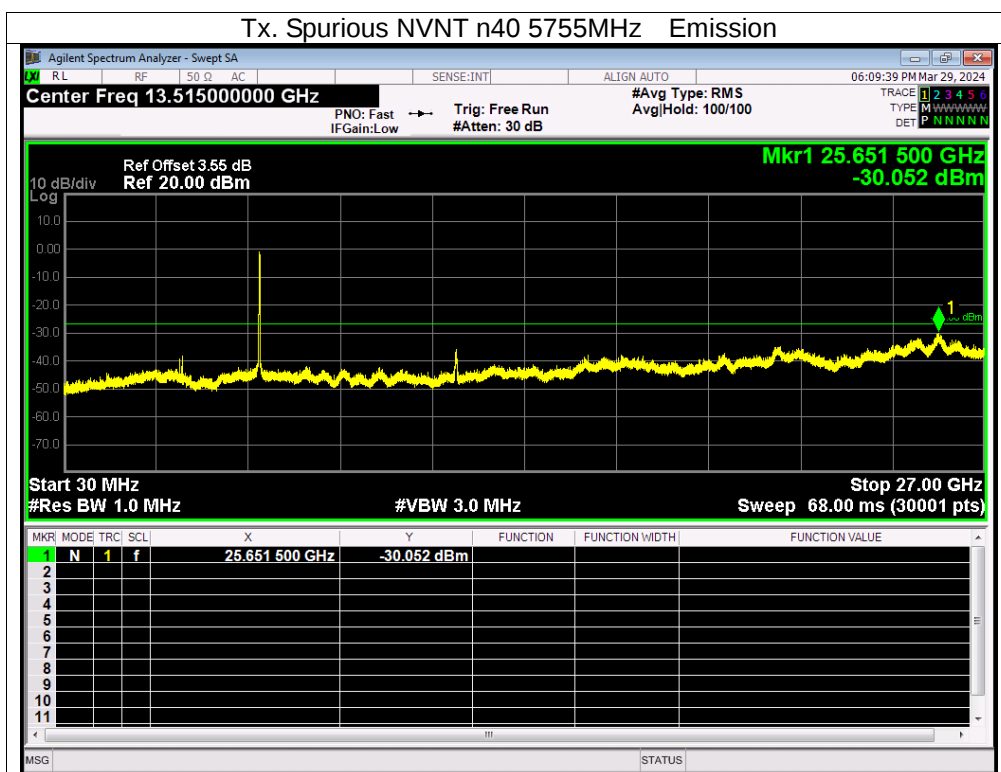


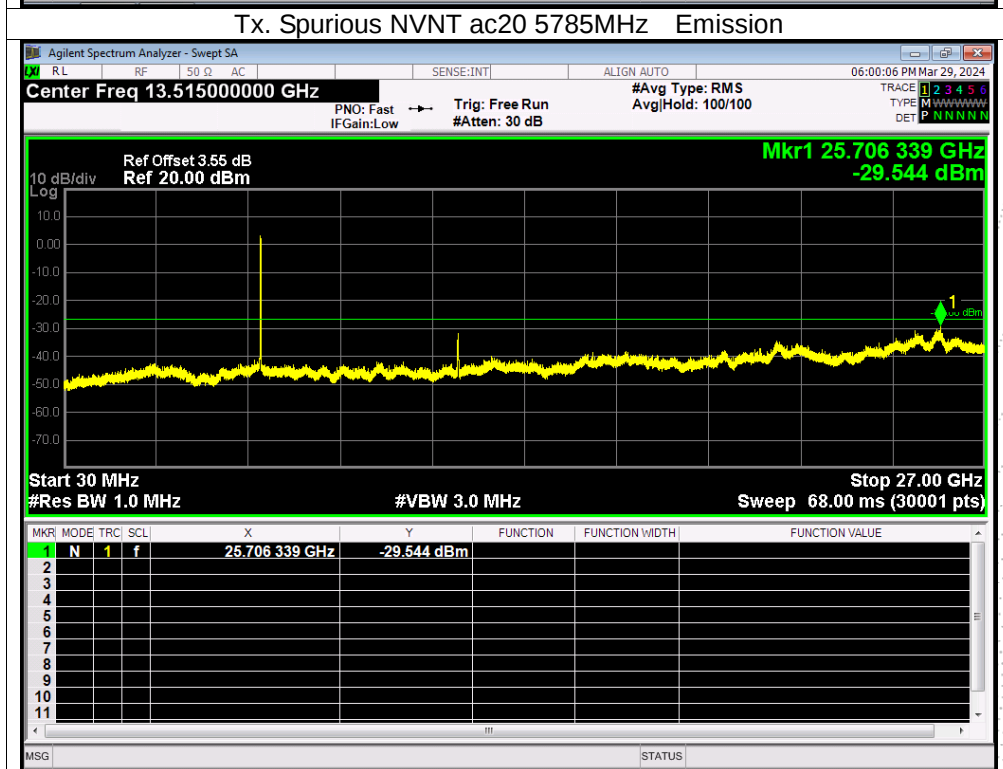
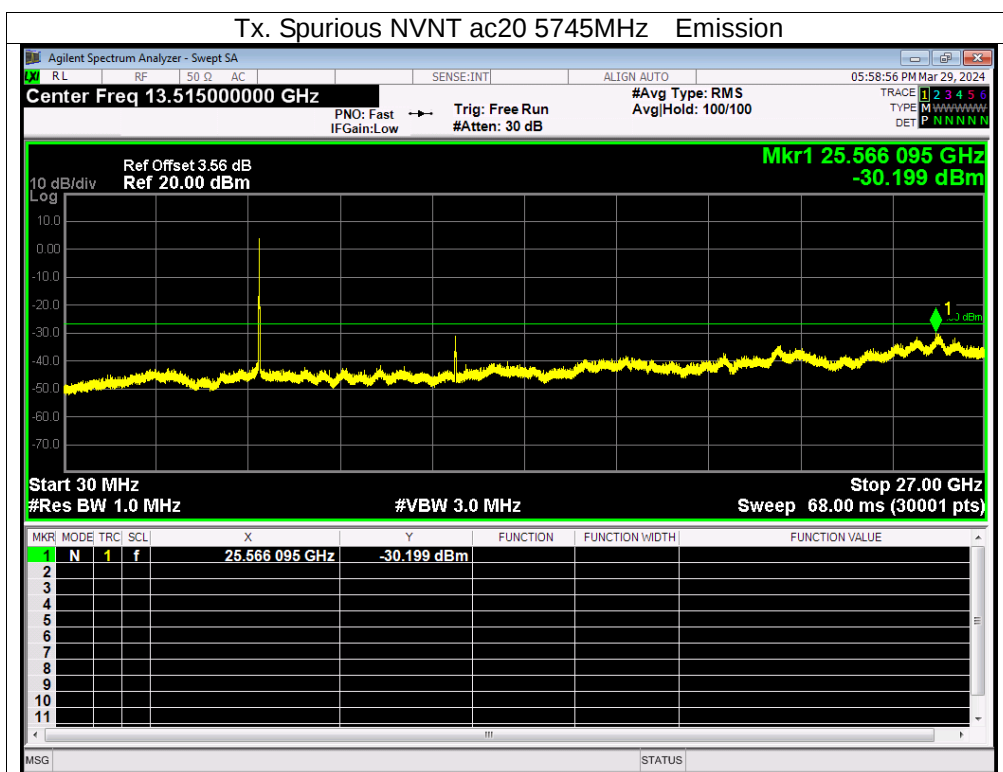


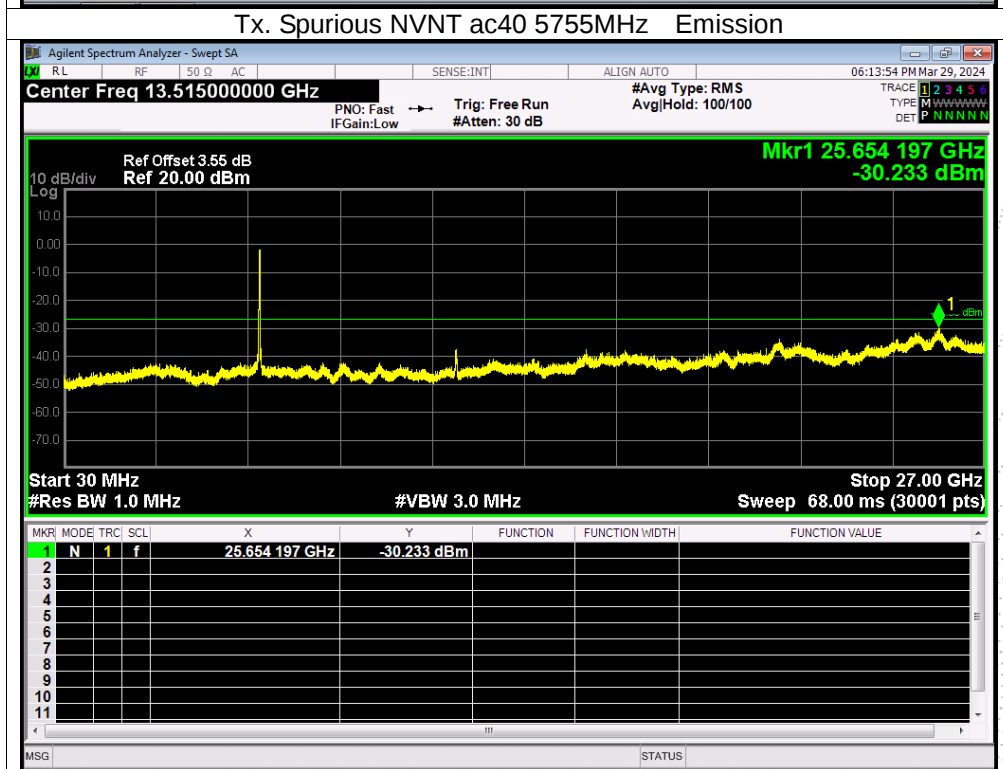
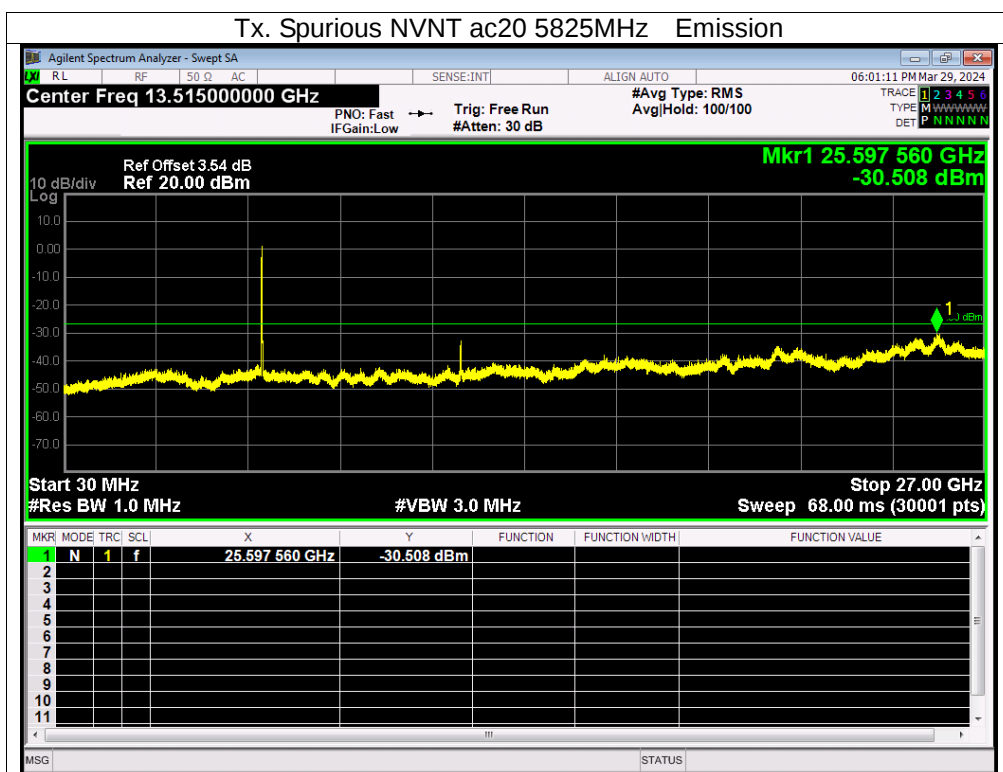


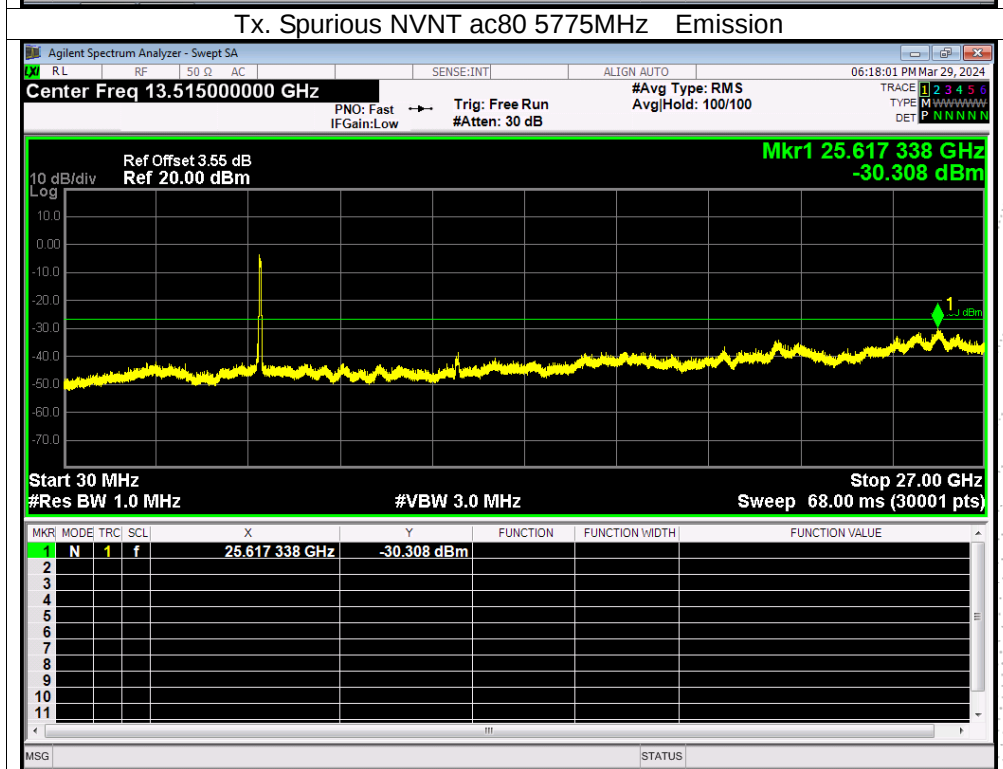
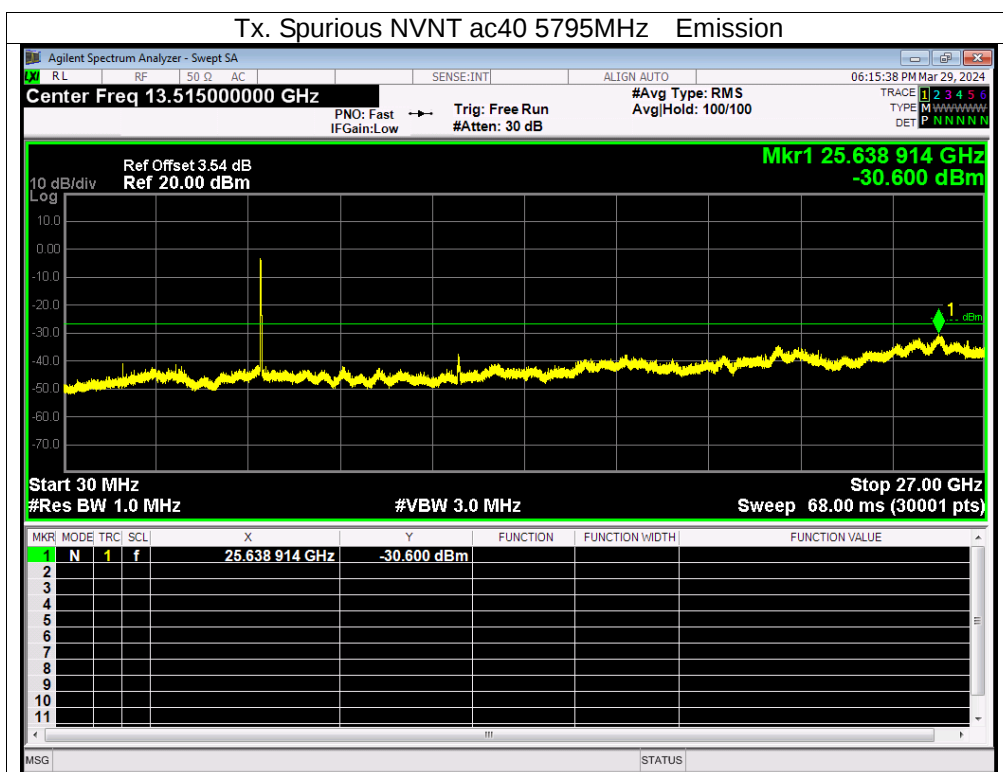


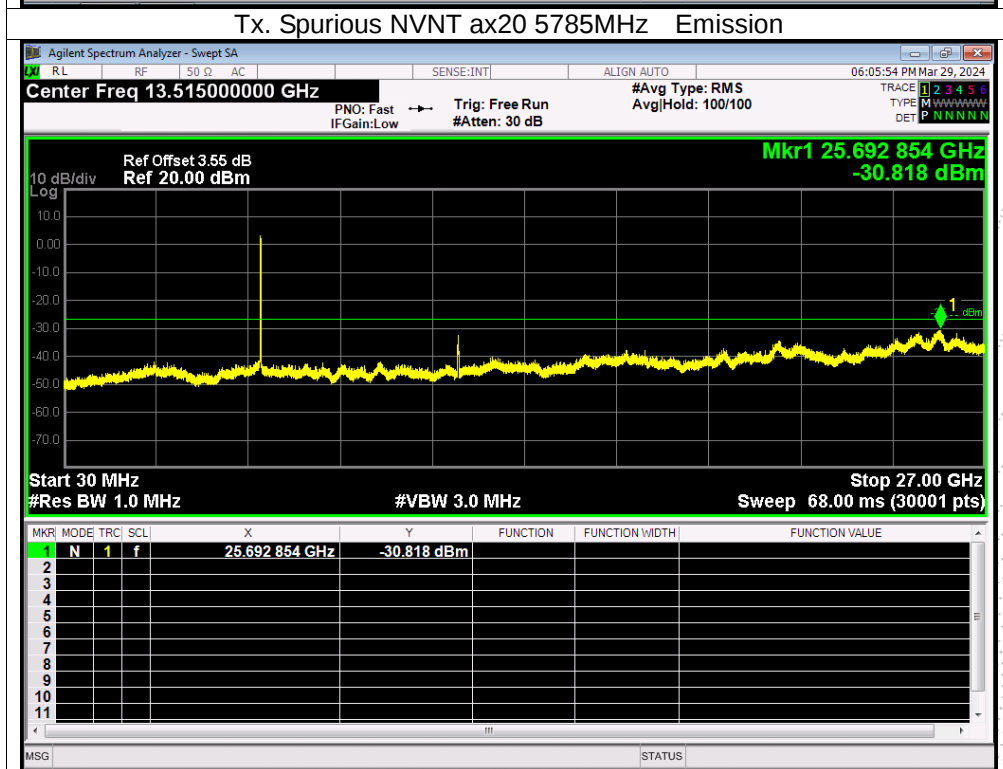
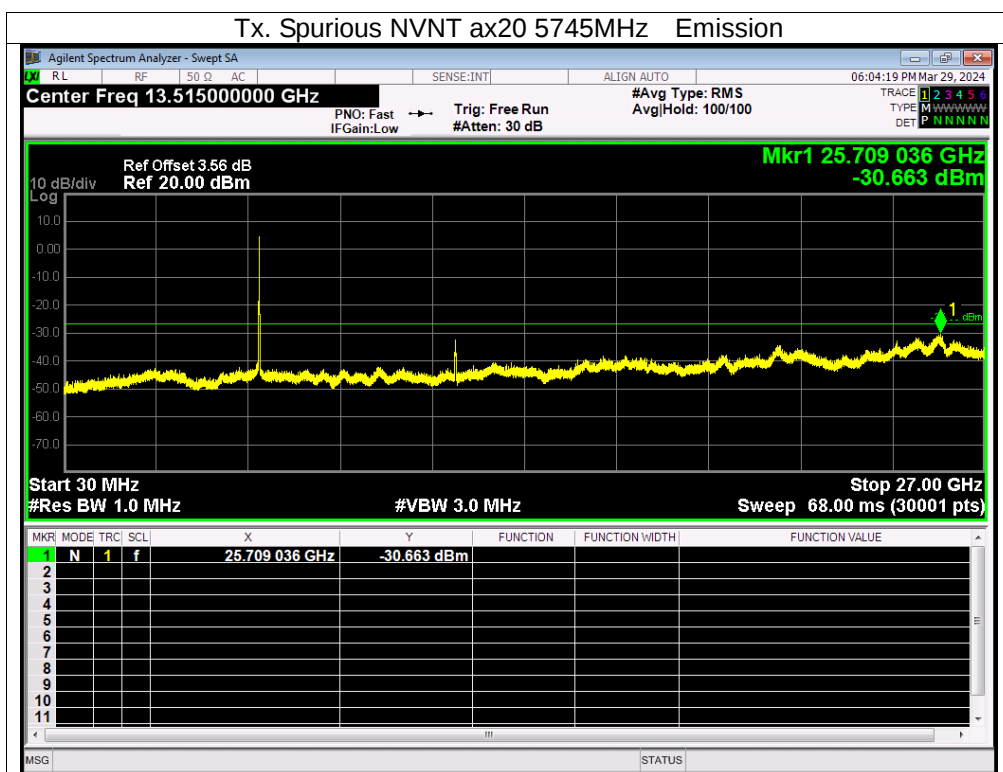


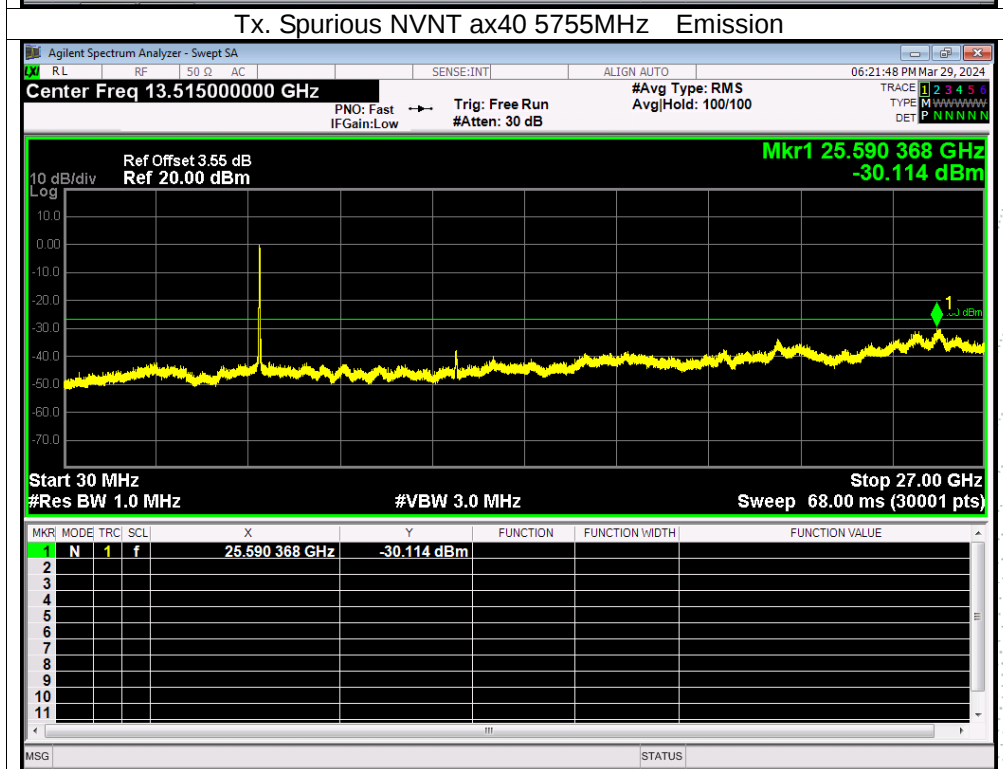
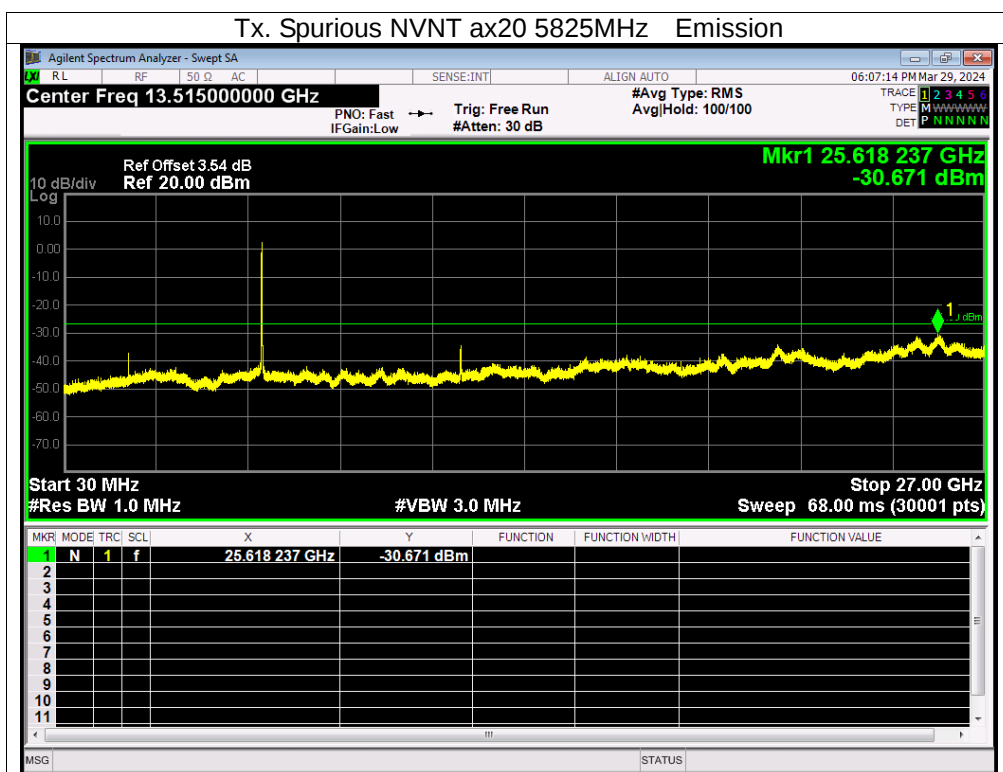


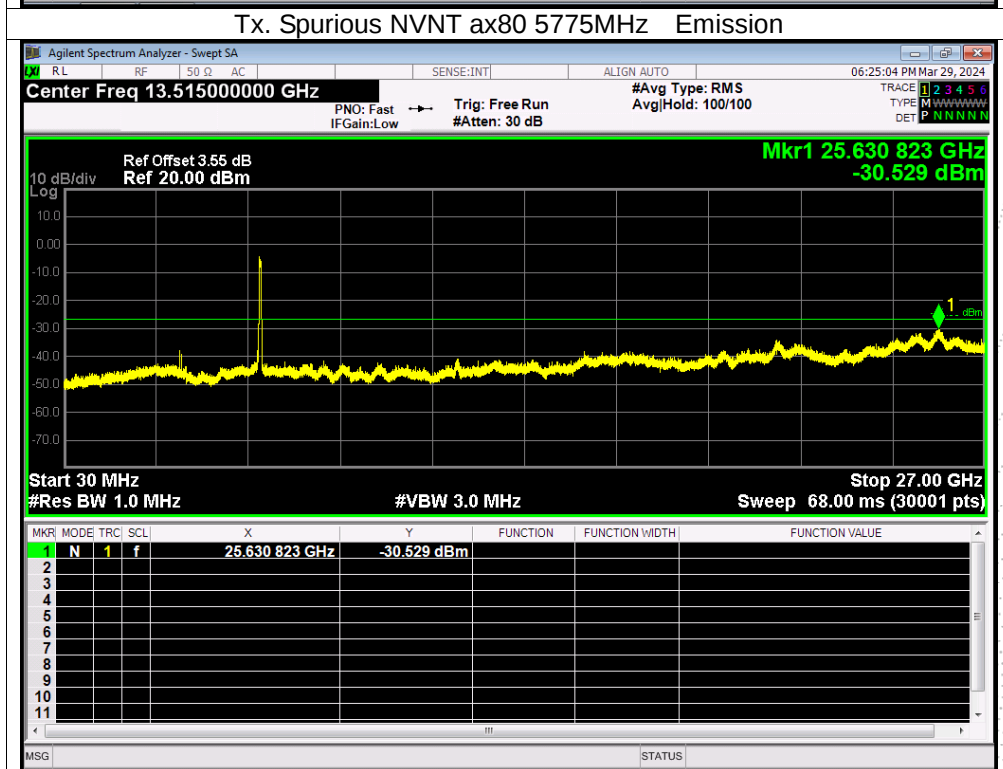
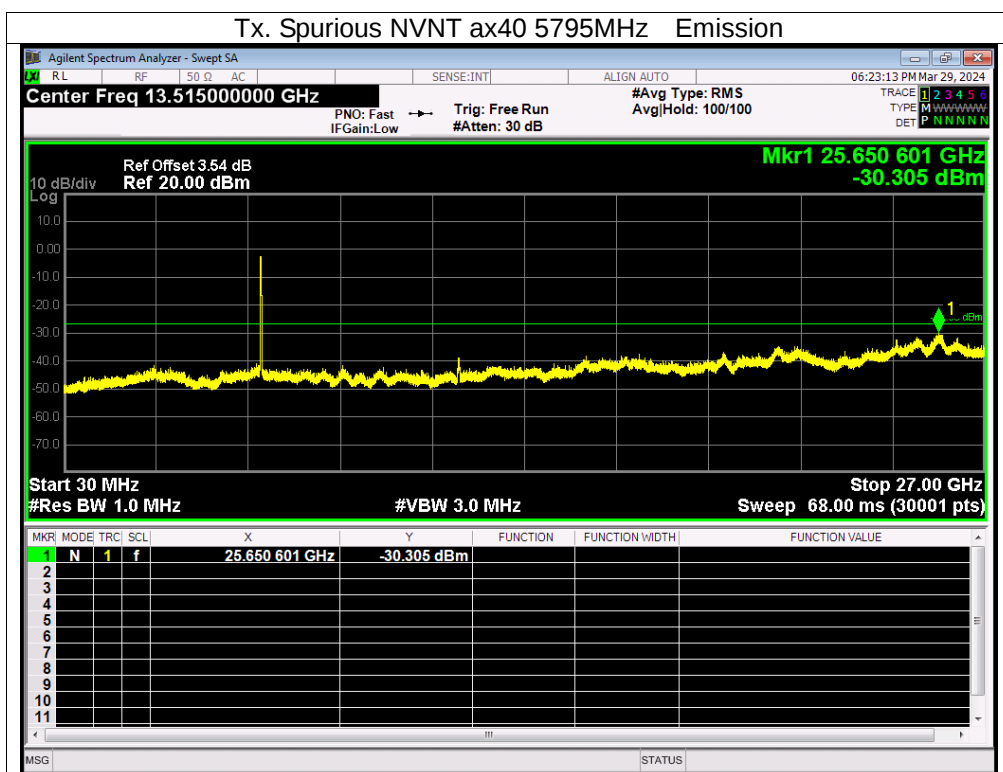












13. Frequency Stability Measurement

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. f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm and he limit is less than ± 20 ppm (IEEE 802.11n specification).
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 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/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	5180.0104	5180	0.0104	2.0077
		V max (V)	138.00	5180.0018	5180	0.0018	0.3475
		V min (V)	102.00	5180.0110	5180	0.0110	2.1236
Limits				5150-5250 MHz			
Result				Complies			

Temperature vs. Frequency Stability

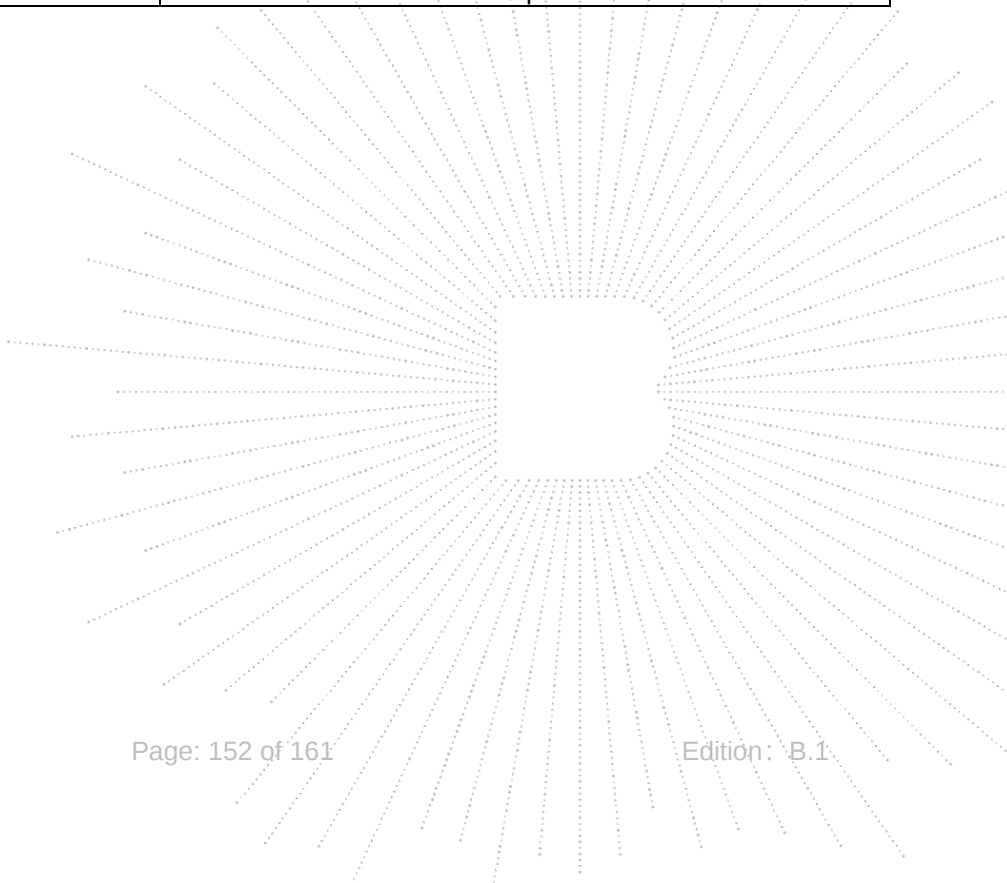
TEST CONDITIONS				Reference Frequency: 5180MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5180.0100	5180	0.0100	1.9305
		T (°C)	-10	5180.0053	5180	0.0053	1.0232
		T (°C)	0	5180.0098	5180	0.0098	1.8919
		T (°C)	10	5180.0029	5180	0.0029	0.5598
		T (°C)	20	5180.0007	5180	0.0007	0.1351
		T (°C)	30	5180.0089	5180	0.0089	1.7181
		T (°C)	40	5180.0135	5180	0.0135	2.6062
		T (°C)	50	5180.0035	5180	0.0035	0.6757
		T (°C)	60	5180.0005	5180	0.0005	0.0965
		T (°C)	70	5180.0100	5180	0.0100	1.9305
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	5200.0006	5200	0.0006	0.1154
		V max (V)	138.00	5200.0086	5200	0.0086	1.6538
		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	5200.00210	5200	0.00210	0.4038
		T (°C)	-10	5200.01110	5200	0.01110	2.1346
		T (°C)	0	5200.01150	5200	0.01150	2.2115
		T (°C)	10	5200.00760	5200	0.00760	1.4615
		T (°C)	20	5200.01220	5200	0.01220	2.3462
		T (°C)	30	5200.00450	5200	0.00450	0.8654
		T (°C)	40	5200.00690	5200	0.00690	1.3269
		T (°C)	50	5200.00460	5200	0.00460	0.8846
		T (°C)	60	5200.01300	5200	0.01300	2.5000
		T (°C)	70	5200.00010	5200	0.00010	0.0192
Limits				5150-5250 MHz			
Result				Complies			

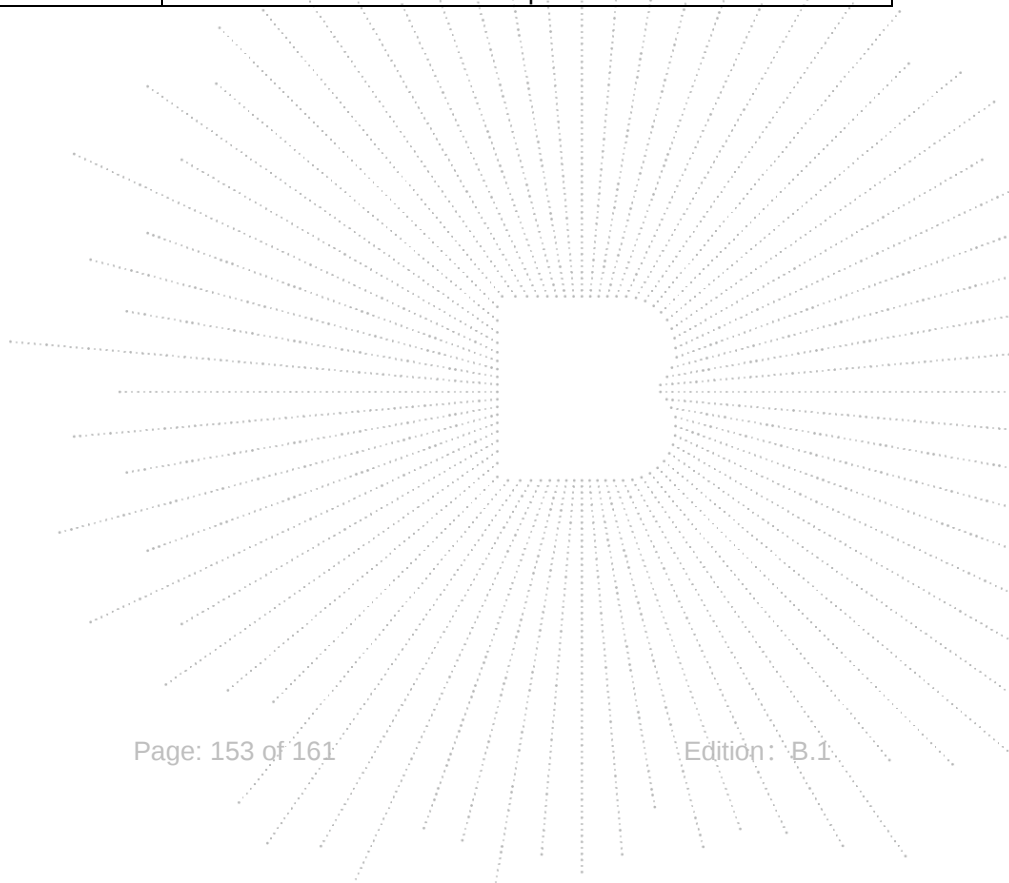


Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5240MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5240.0023	5240	0.0023	0.4389
		V max (V)	138.00	5240.0098	5240	0.0098	1.8702
		V min (V)	102.00	5240.0088	5240	0.0088	1.6794
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	5240.0089	5240	0.0089	1.6985
		T (°C)	-10	5240.0044	5240	0.0044	0.8397
		T (°C)	0	5240.0035	5240	0.0035	0.6679
		T (°C)	10	5240.0086	5240	0.0086	1.6412
		T (°C)	20	5240.0111	5240	0.0111	2.1183
		T (°C)	30	5240.0028	5240	0.0028	0.5344
		T (°C)	40	5240.0037	5240	0.0037	0.7061
		T (°C)	50	5240.0105	5240	0.0105	2.0038
		T (°C)	60	5240.0127	5240	0.0127	2.4237
		T (°C)	70	5240.0104	5240	0.0104	1.9847
Limits				5150-5250 MHz			
Result				Complies			



Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz
Test Mode:	TX (5.8G) Mode Frequency U-NII-3 (5745-5825MHz)		

Voltage vs. Frequency Stabilit

TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5745.00420	5745	0.00420	0.7311
		V max (V)	138.00	5745.01160	5745	0.01160	2.0191
		V min (V)	102.00	5745.00090	5745	0.00090	0.1567
Limits				5725-5850 MHz			
Result				Complies			

Temperature vs. Frequency Stability

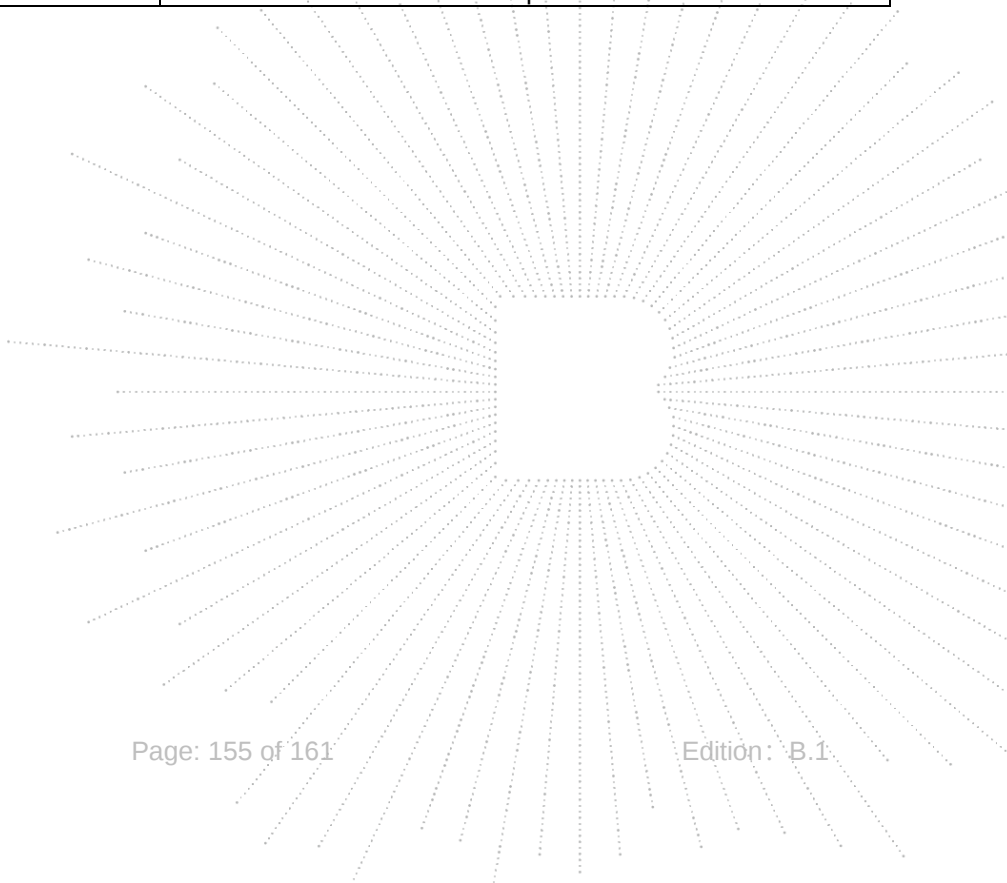
TEST CONDITIONS				Reference Frequency: 5745MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
V nom (V)	120	T (°C)	-20	5745.00220	5745	0.00220	0.3829
		T (°C)	-10	5745.00450	5745	0.00450	0.7833
		T (°C)	0	5745.01320	5745	0.01320	2.2977
		T (°C)	10	5745.01200	5745	0.01200	2.0888
		T (°C)	20	5745.01070	5745	0.01070	1.8625
		T (°C)	30	5745.00290	5745	0.00290	0.5048
		T (°C)	40	5745.00760	5745	0.00760	1.3229
		T (°C)	50	5745.00930	5745	0.00930	1.6188
		T (°C)	60	5745.00850	5745	0.00850	1.4795
		T (°C)	70	5745.00590	5745	0.00590	1.0270
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	5785.00500	5785	0.00500	0.8643
		V max (V)	138.00	5785.00350	5785	0.00350	0.6050
		V min (V)	102.00	5785.00060	5785	0.00060	0.1037
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	5785.00490	5785	0.00490	0.8470
		T (°C)	-10	5785.00500	5785	0.00500	0.8643
		T (°C)	0	5785.00130	5785	0.00130	0.2247
		T (°C)	10	5785.01330	5785	0.01330	2.2990
		T (°C)	20	5785.00530	5785	0.00530	0.9162
		T (°C)	30	5785.00070	5785	0.00070	0.1210
		T (°C)	40	5785.00620	5785	0.00620	1.0717
		T (°C)	50	5785.00130	5785	0.00130	0.2247
		T (°C)	60	5785.00990	5785	0.00990	1.7113
		T (°C)	70	5785.00270	5785	0.00270	0.4667
Limits				5725-5850 MHz			
Result				Complies			

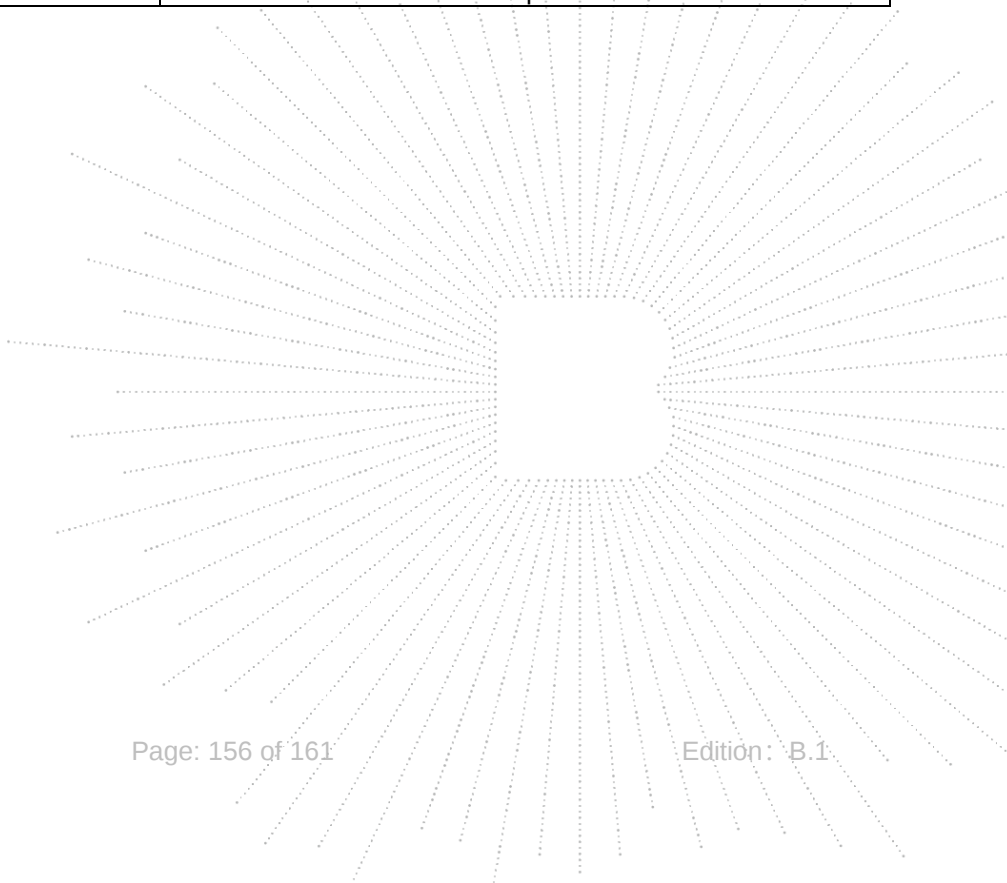


Voltage vs. Frequency Stability

TEST CONDITIONS				Reference Frequency: 5825MHz			
				f	fc	Max. Deviation (MHz)	Max. Deviation (ppm)
T nom (°C)	20	V nom (V)	120.00	5825.01300	5825	0.01300	2.2318
		V max (V)	138.00	5825.00300	5825	0.00300	0.5150
		V min (V)	102.00	5825.00430	5825	0.00430	0.7382
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	5825.01020	5825	0.01020	1.7511
		T (°C)	-10	5825.00660	5825	0.00660	1.1330
		T (°C)	0	5825.01090	5825	0.01090	1.8712
		T (°C)	10	5825.00200	5825	0.00200	0.3433
		T (°C)	20	5825.00260	5825	0.00260	0.4464
		T (°C)	30	5825.00970	5825	0.00970	1.6652
		T (°C)	40	5825.00290	5825	0.00290	0.4979
		T (°C)	50	5825.00280	5825	0.00280	0.4807
		T (°C)	60	5825.00820	5825	0.00820	1.4077
		T (°C)	70	5825.00280	5825	0.00280	0.4807
Limits				5725-5850 MHz			
Result				Complies			



14. Antenna Requirement

14.1 Limit

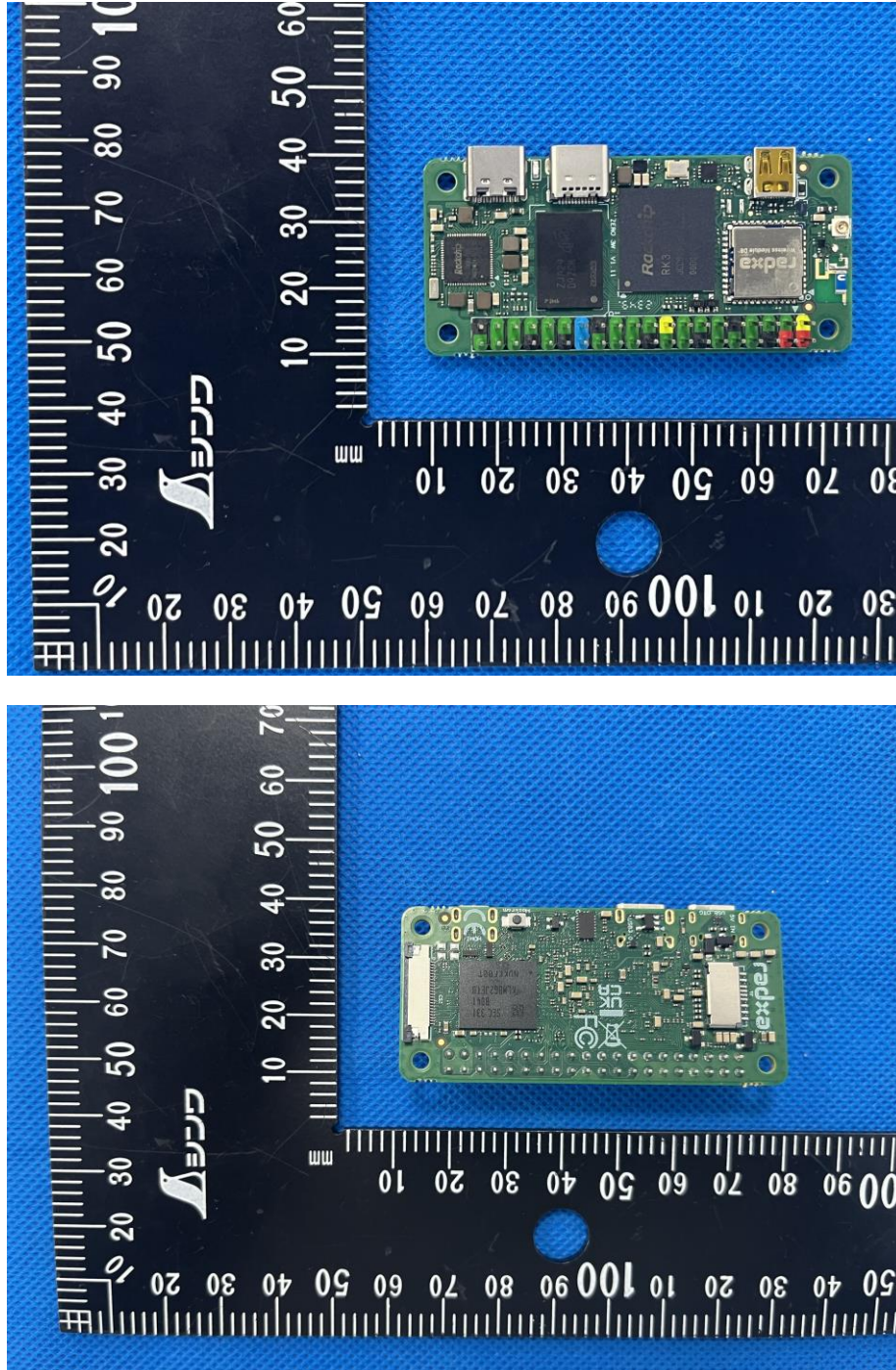
15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

14.2 Test Antenna

The EUT antenna is Chip antenna, It comply with the standard requirement.

15. EUT Photographs

EUT Photos



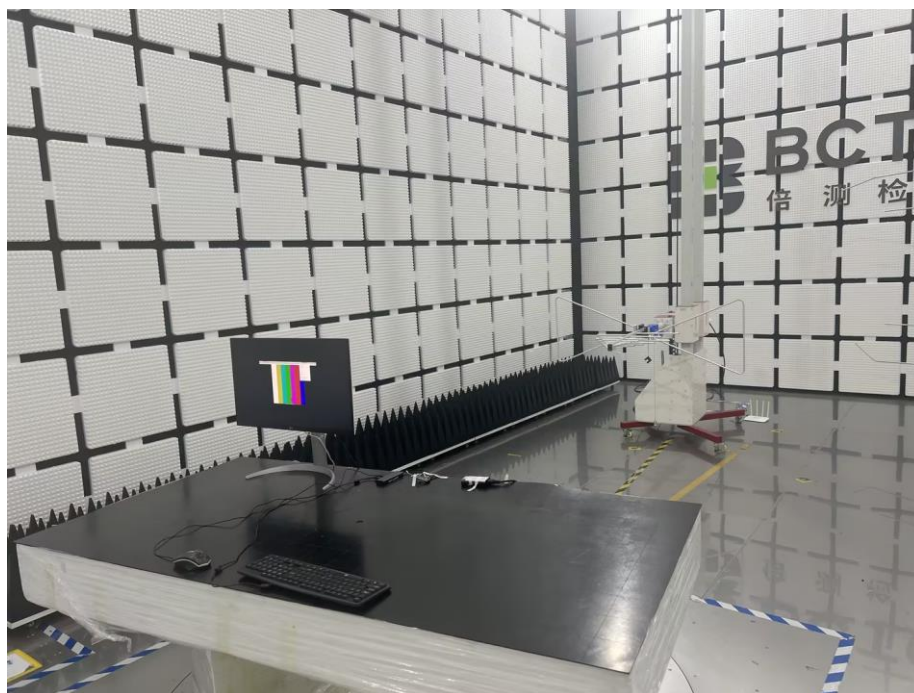
NOTE: Appendix-Photographs Of EUT Constructional Details

16. EUT Test Setup Photographs

Conducted emissions



Radiated Measurement Photos



STATEMENT

1. The equipment lists are traceable to the national reference standards.
2. The test report can not be partially copied unless prior written approval is issued from our lab.
3. The test report is invalid without the "special seal for inspection and testing".
4. The test report is invalid without the signature of the approver.
5. The test process and test result is only related to the Unit Under Test.
6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.
7. The quality system of our laboratory is in accordance with ISO/IEC17025.
8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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***** END *****