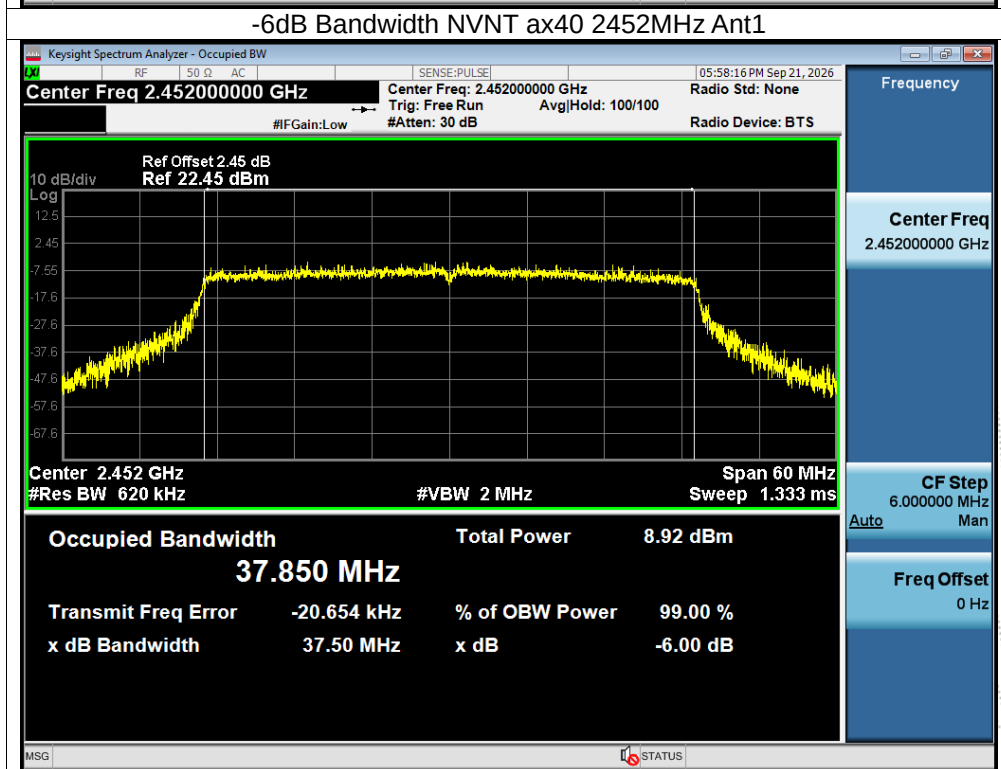
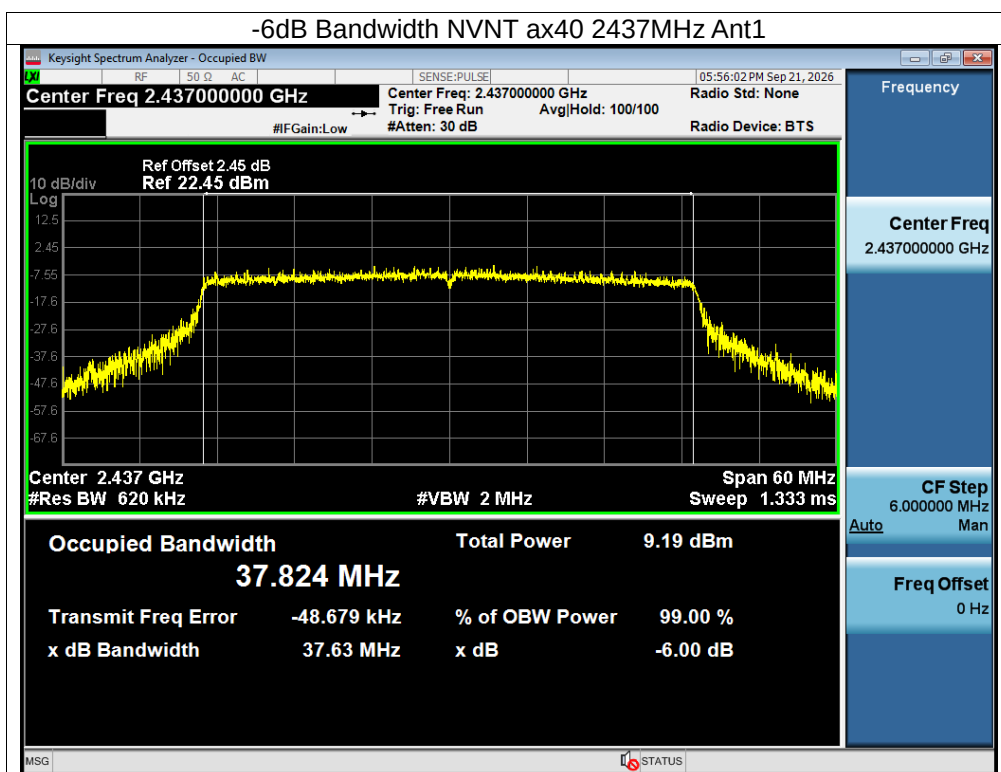




SHENZHEN

11. Peak Output Power Test

11.1 Block Diagram Of Test Setup



11.2 Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

11.3 Test Procedure

- a. The EUT was directly connected to the Power meter

11.4 EUT Operating Conditions

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Note: Power Spectral Density(dBm)=Reading+Cable Loss

11.5 Test Result

Temperature:	23℃	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 12V

Test Mode	Frequency(MHz)	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)
802.11b	2412	11.66	30
	2437	14.02	30
	2462	12.82	30
802.11g	2412	10.81	30
	2437	10.9	30
	2462	11.14	30
802.11n20	2412	9.85	30
	2437	9.94	30
	2462	10.41	30
802.11n40	2422	8.24	30
	2437	8.52	30
	2452	8.15	30
802.11ax20	2412	9.29	30
	2437	9.38	30
	2462	10.47	30
802.11ax40	2422	7.37	30
	2437	7.62	30
	2452	7.26	30

12. 100 kHz Bandwidth Of Frequency Band Edge

12.1 Block Diagram Of Test Setup



12.2 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

12.3 Test Procedure

Using the following spectrum analyzer setting:

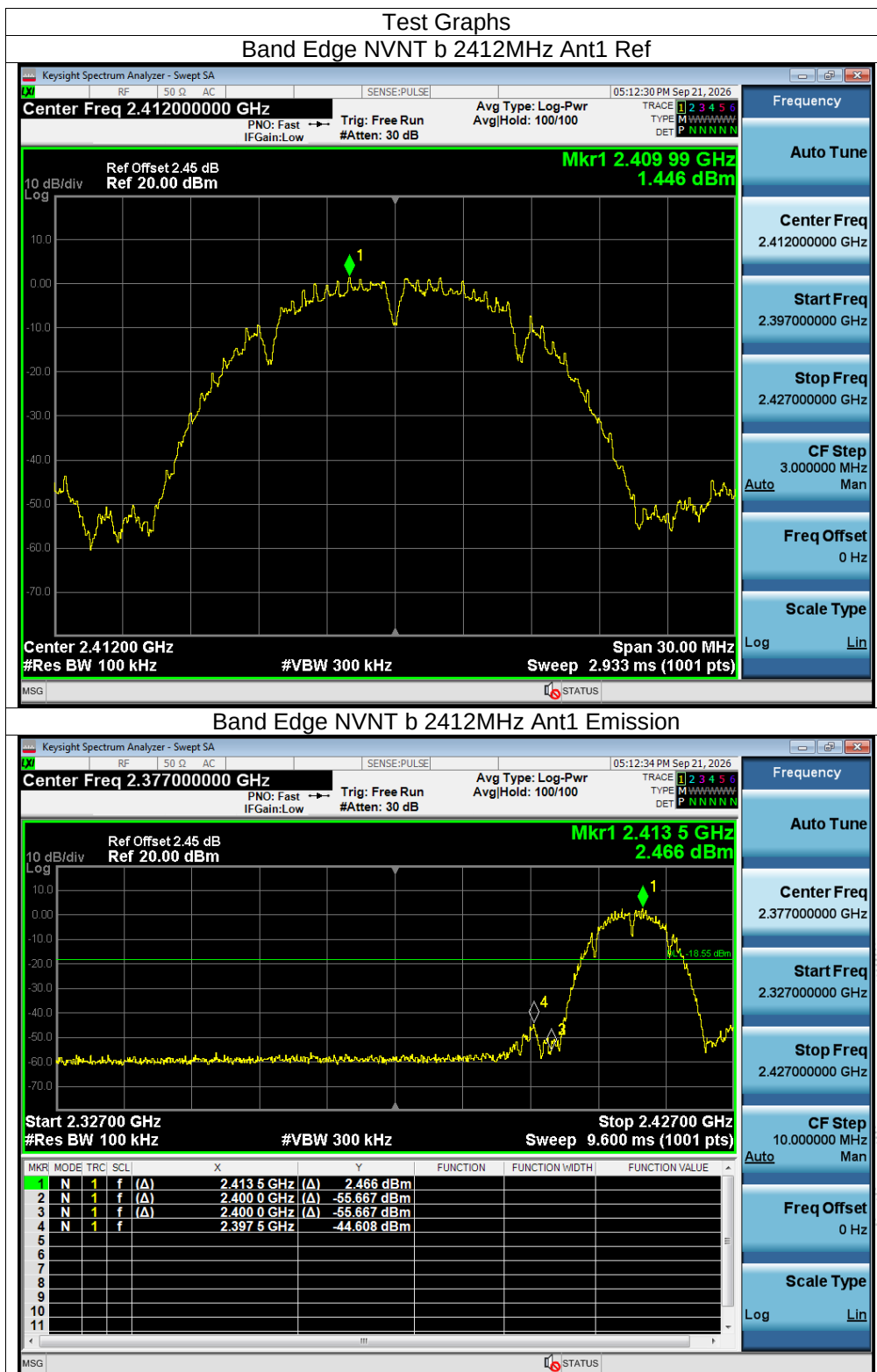
- a) Set the RBW = 100KHz.
- b) Set the VBW = 300KHz.
- c) Sweep time = auto couple.
- d) Detector function = peak.
- e) Trace mode = max hold.
- f) Allow trace to fully stabilize..

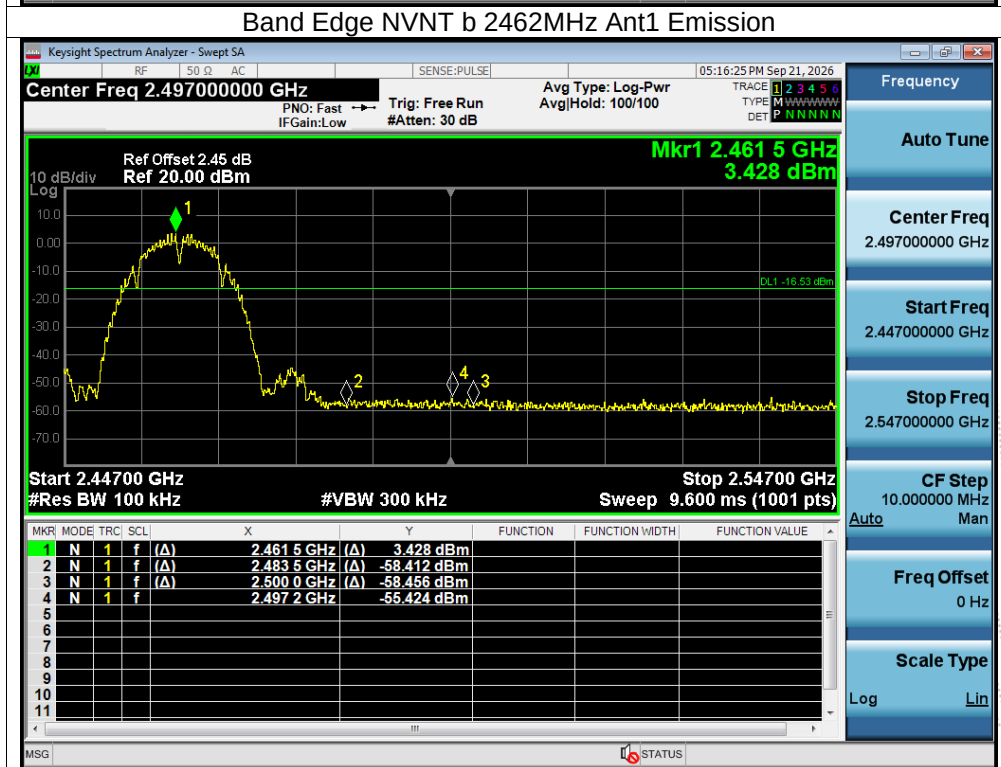
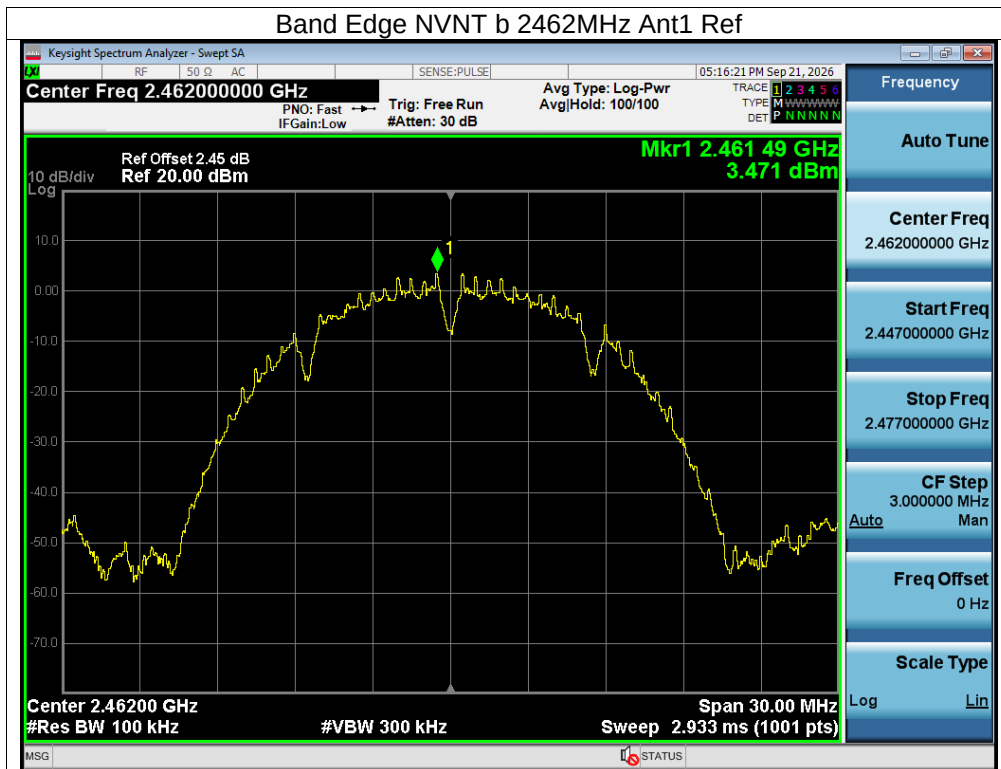
12.4 EUT Operating Conditions

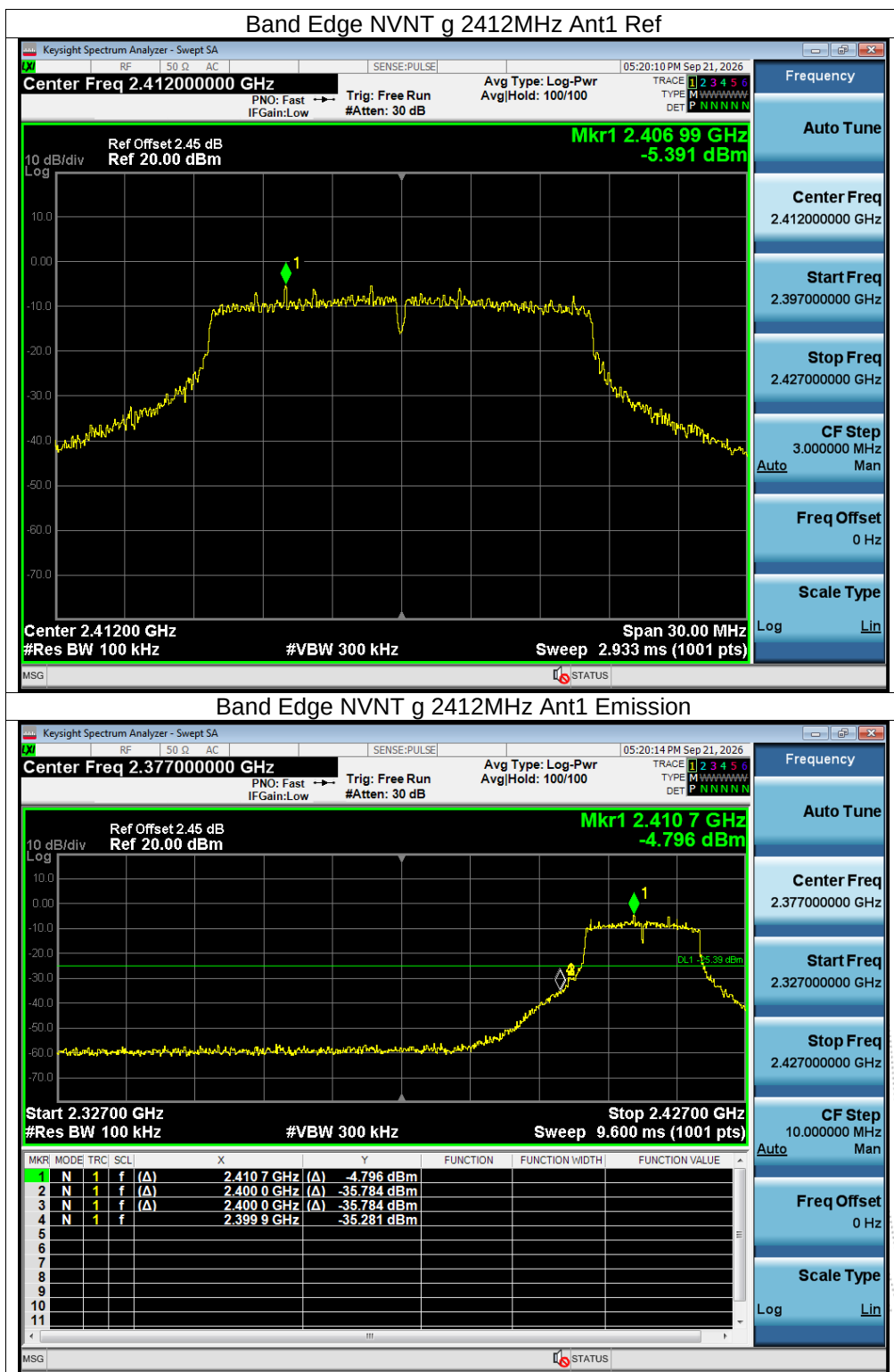
The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

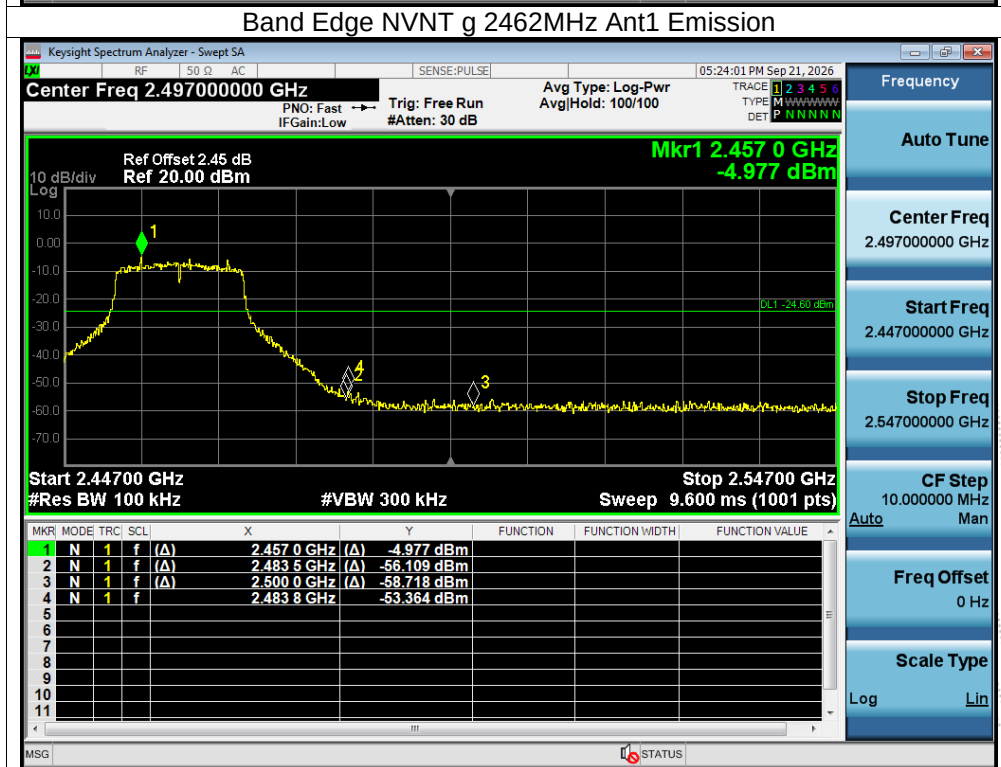
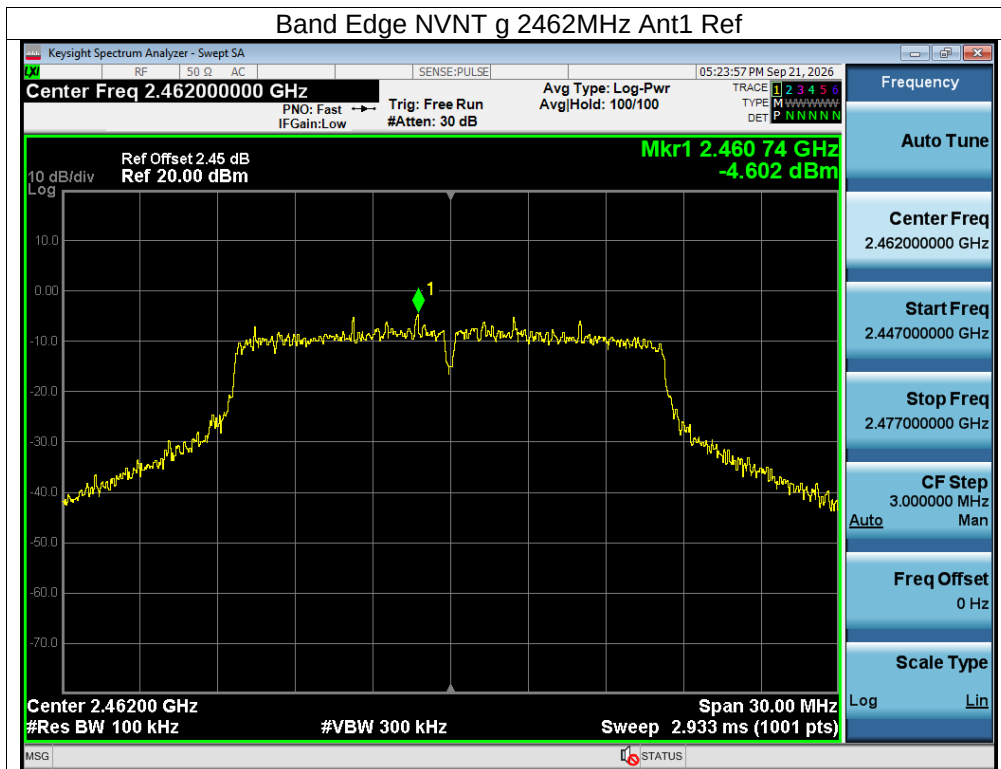
Note: Power Spectral Density(dBm)=Reading+Cable Loss

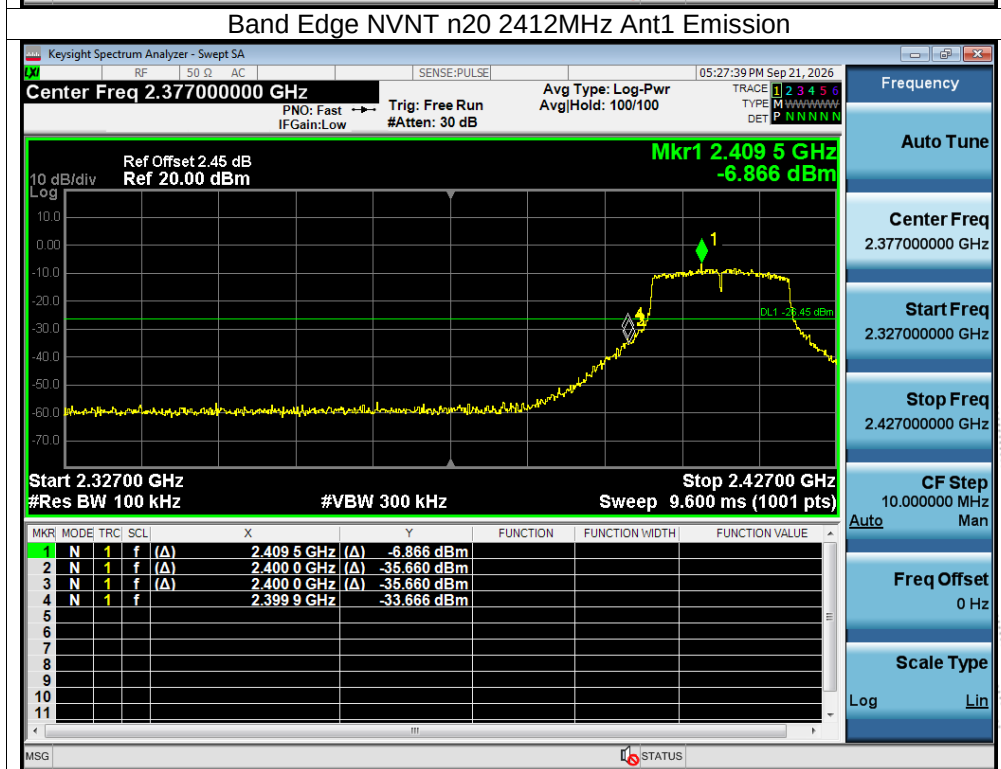
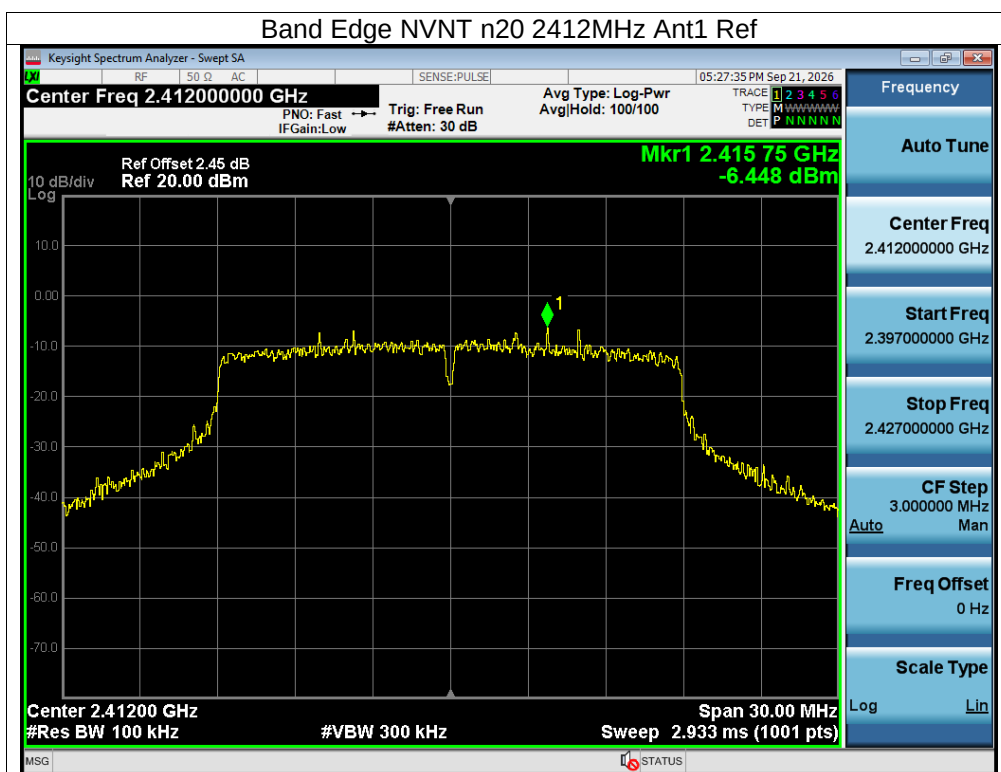
12.5 Test Result

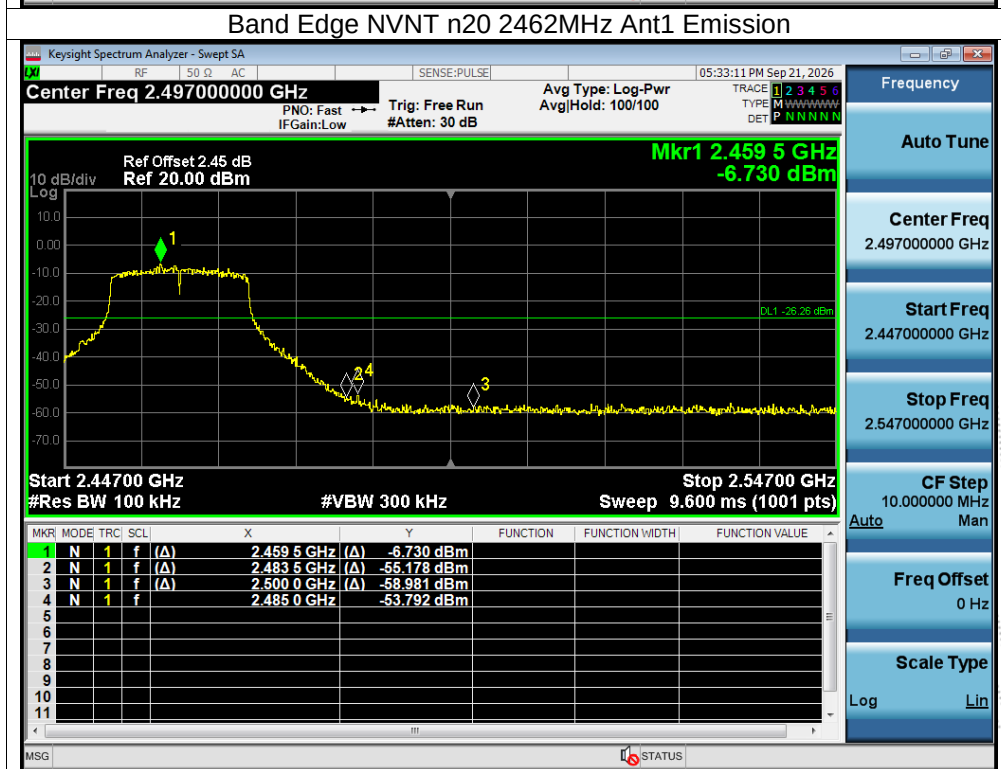
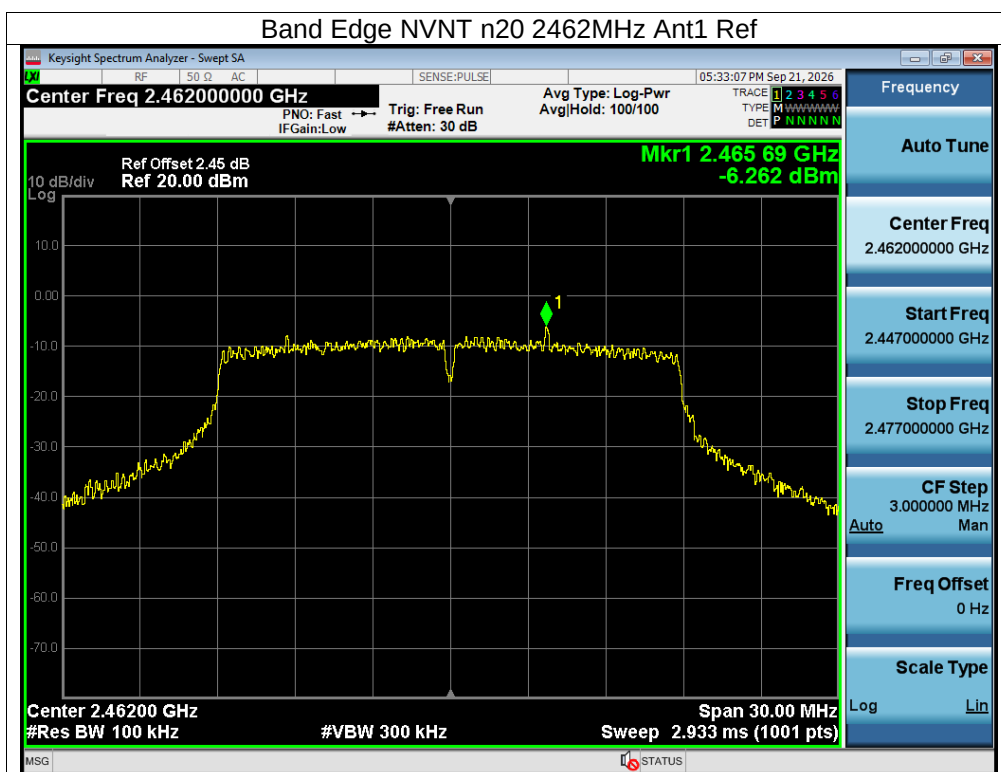


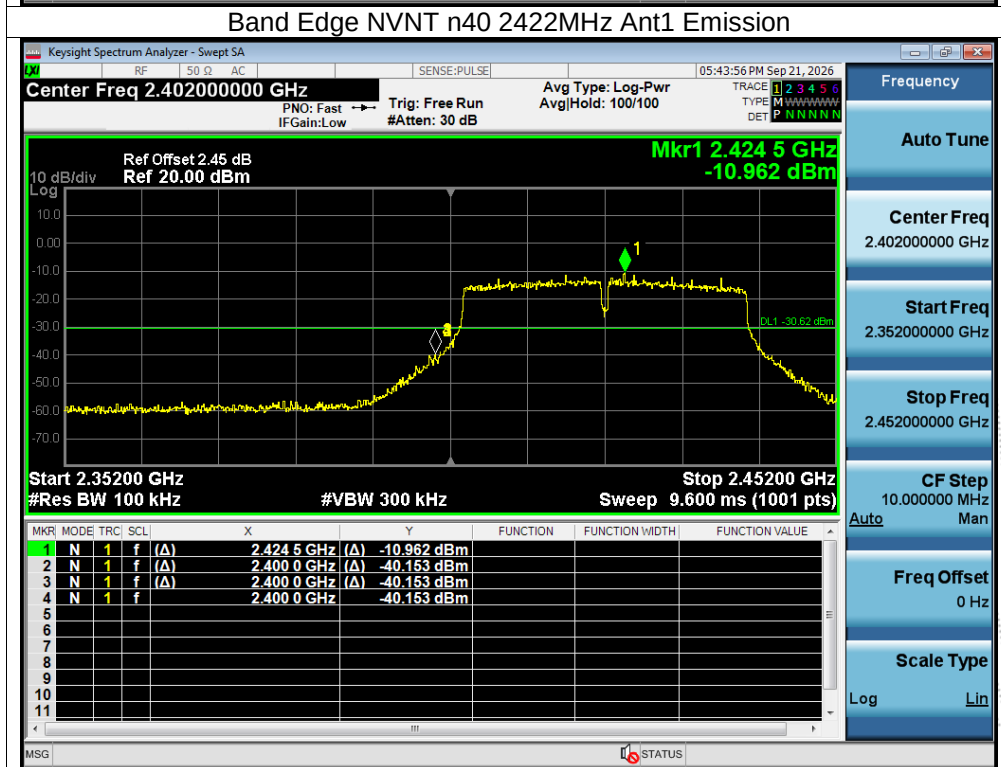
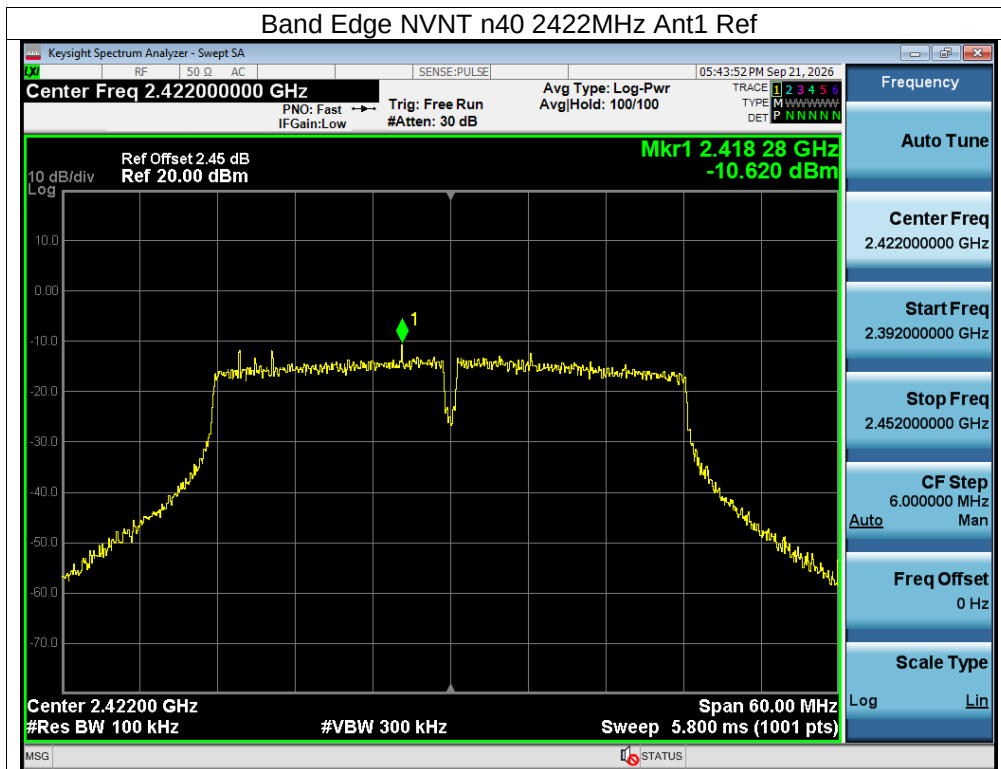


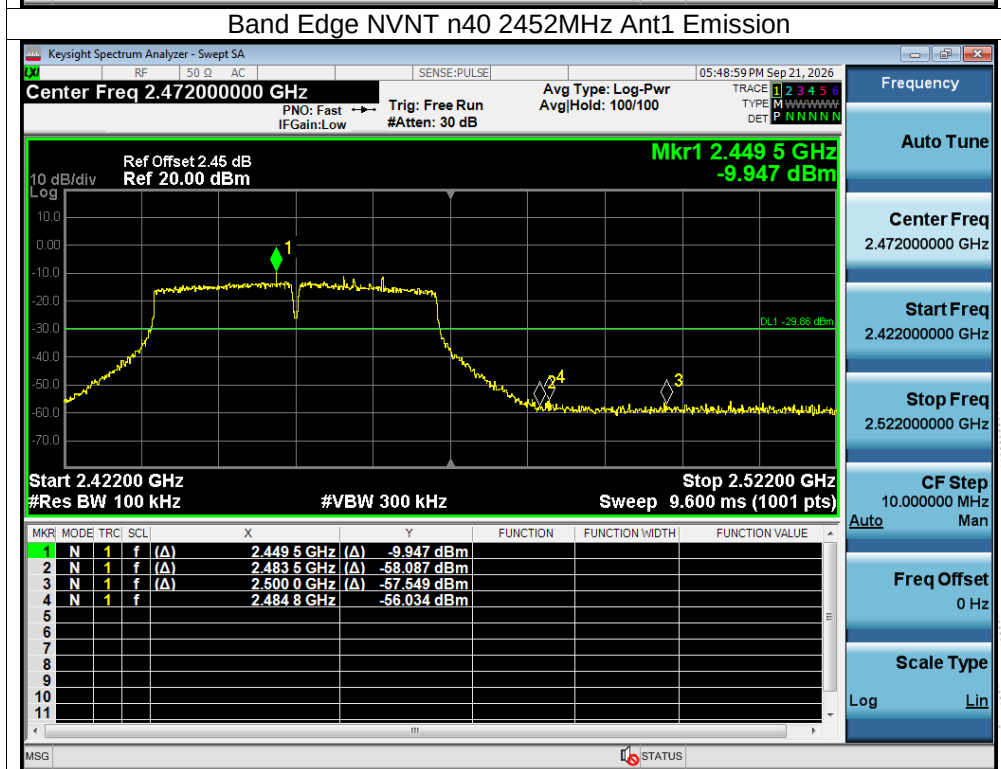
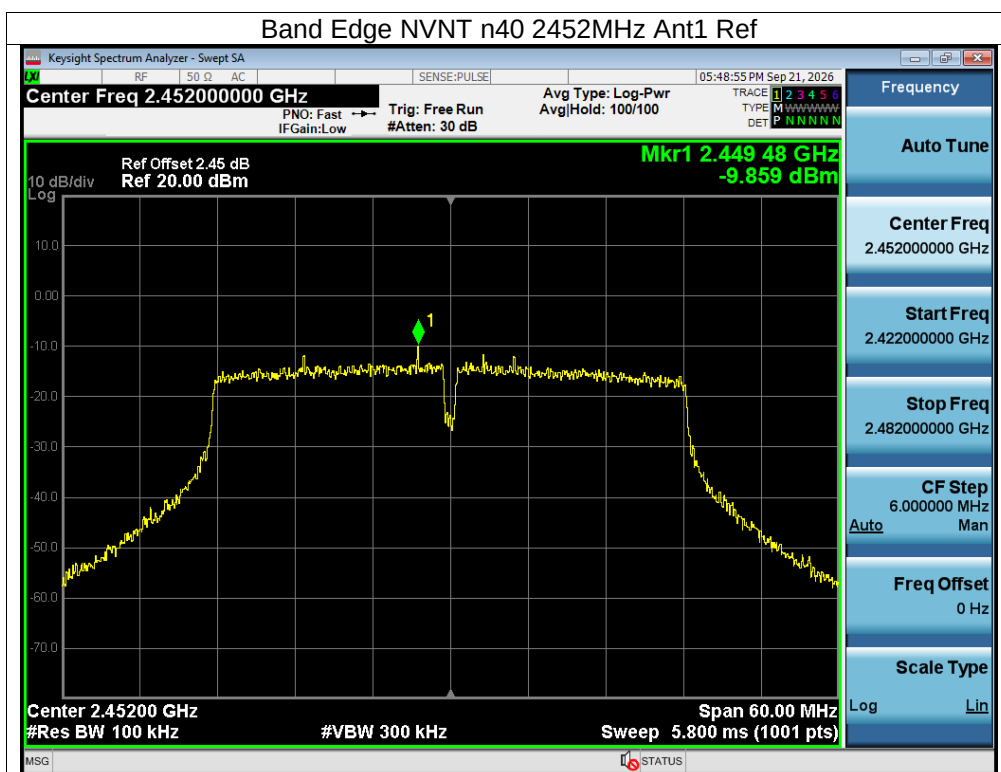




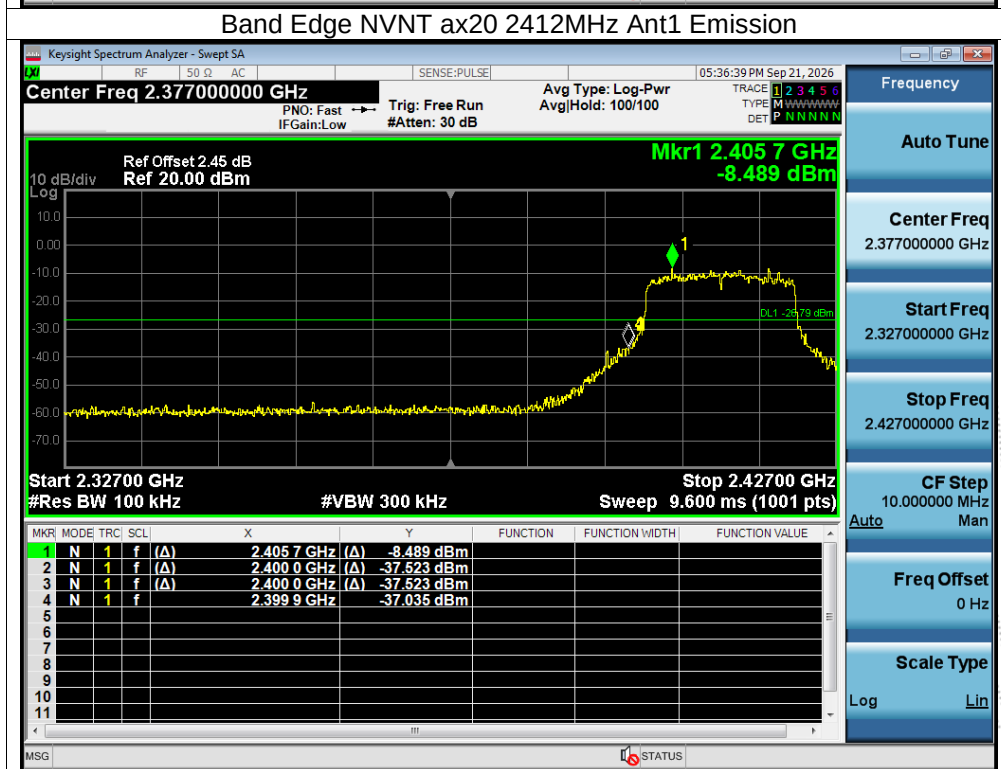
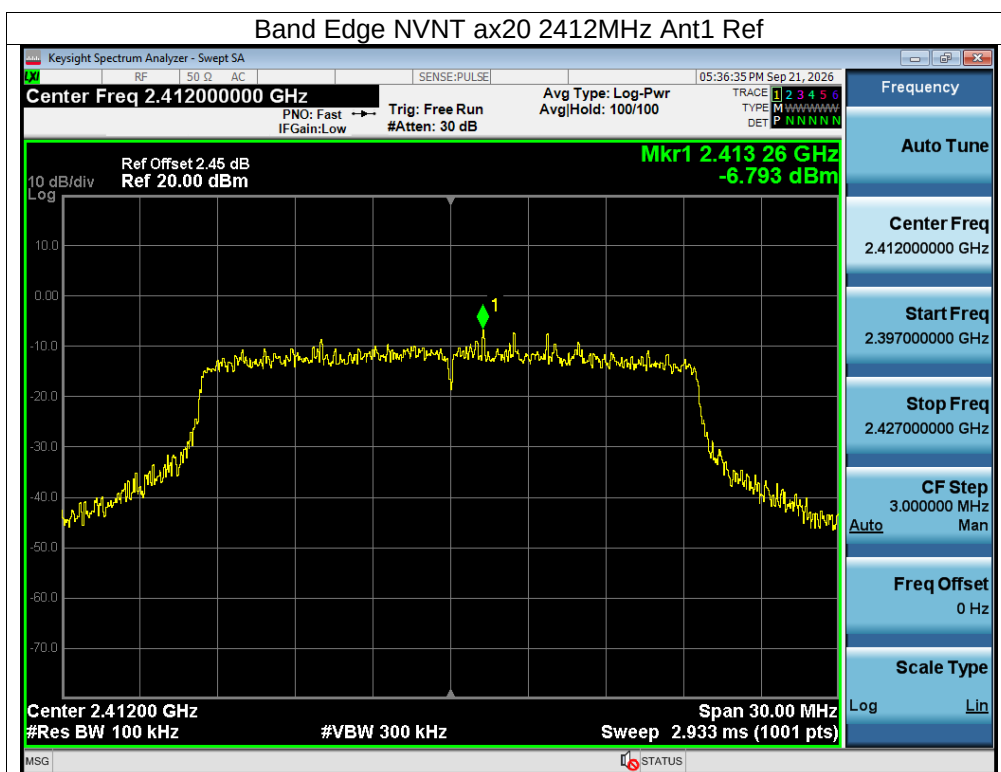


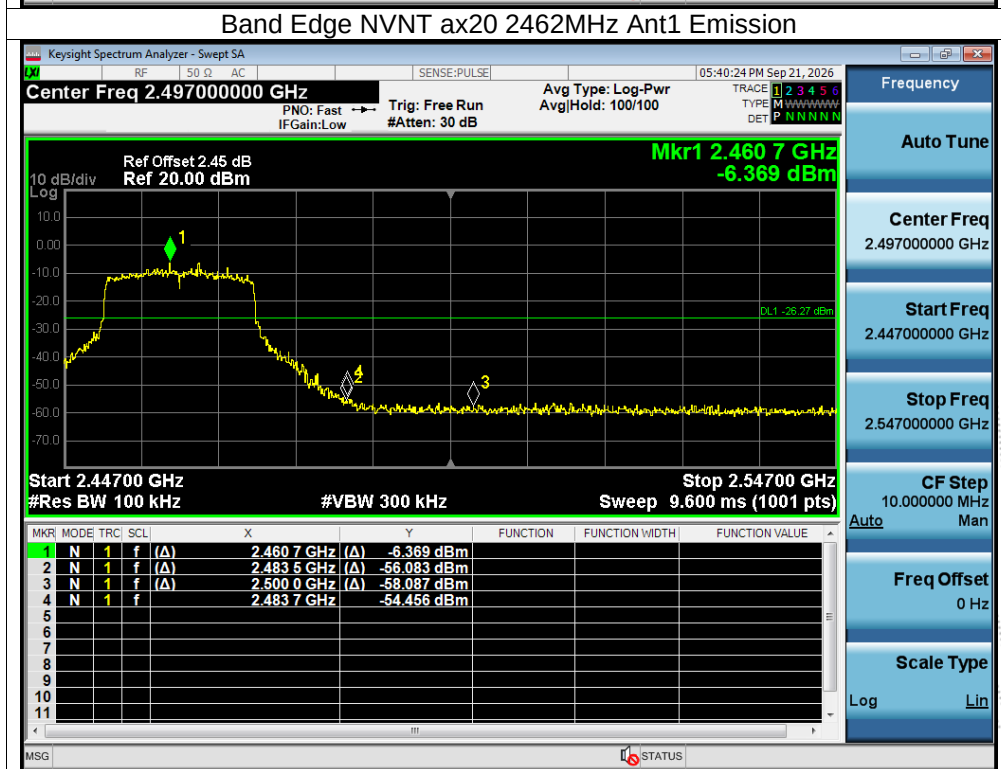
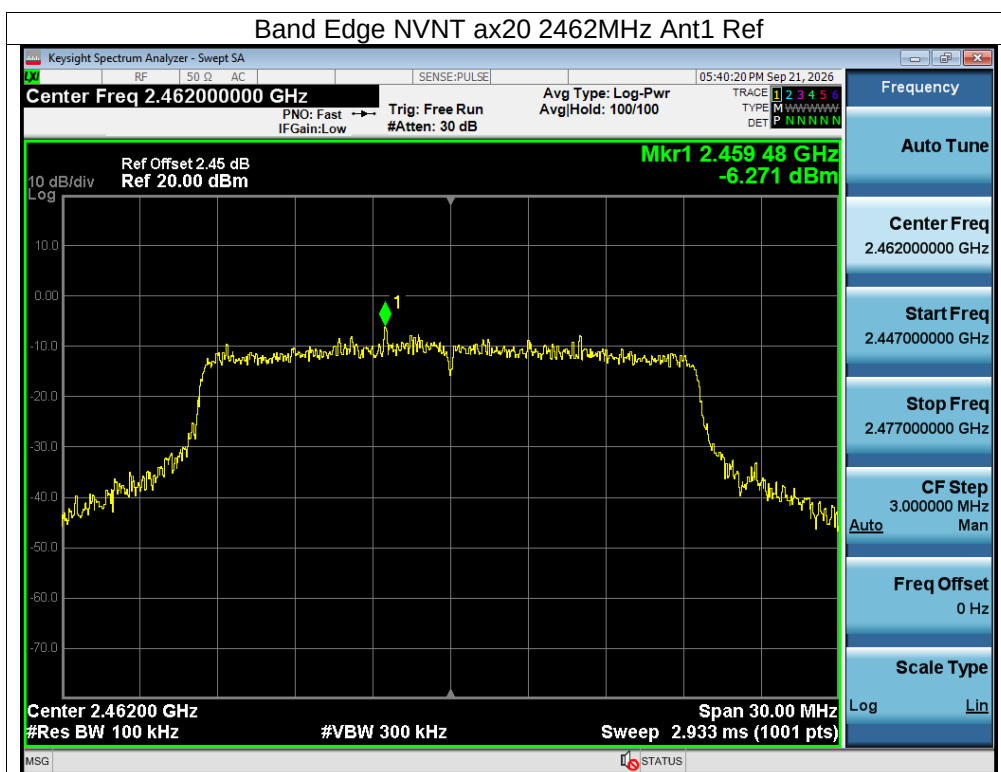


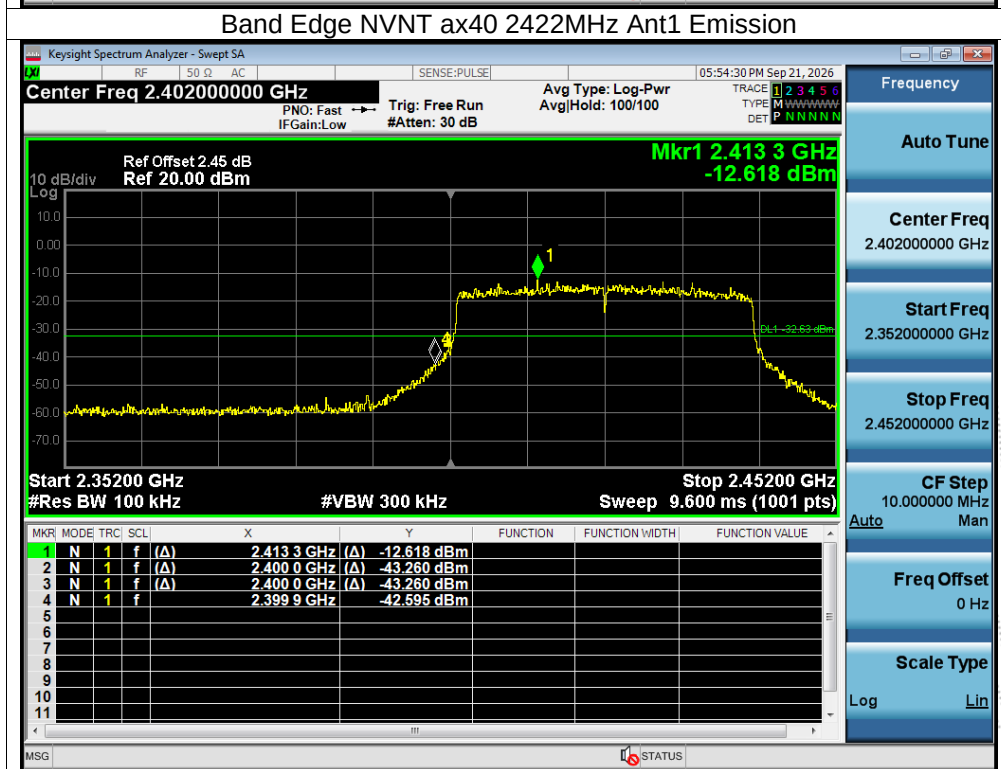
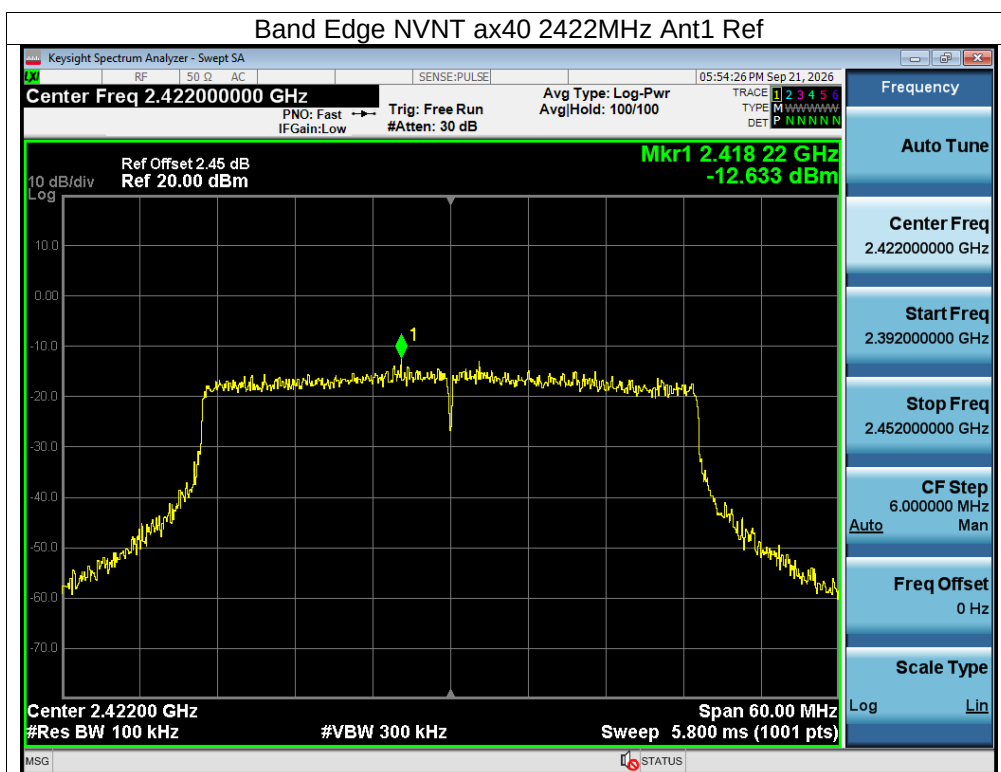


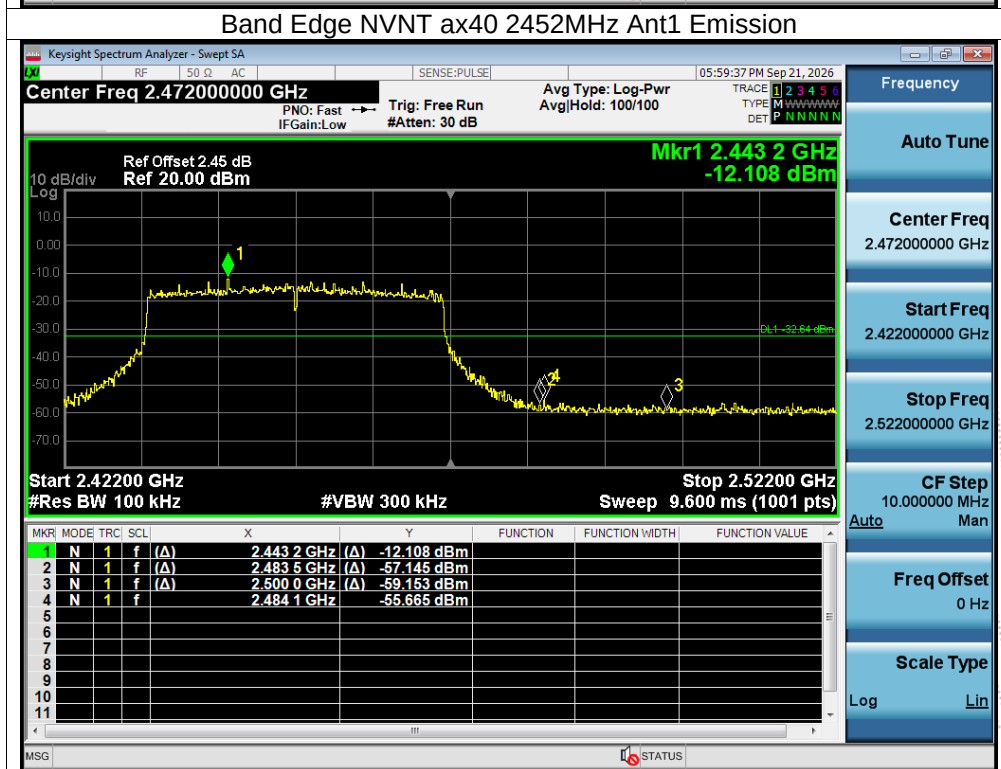
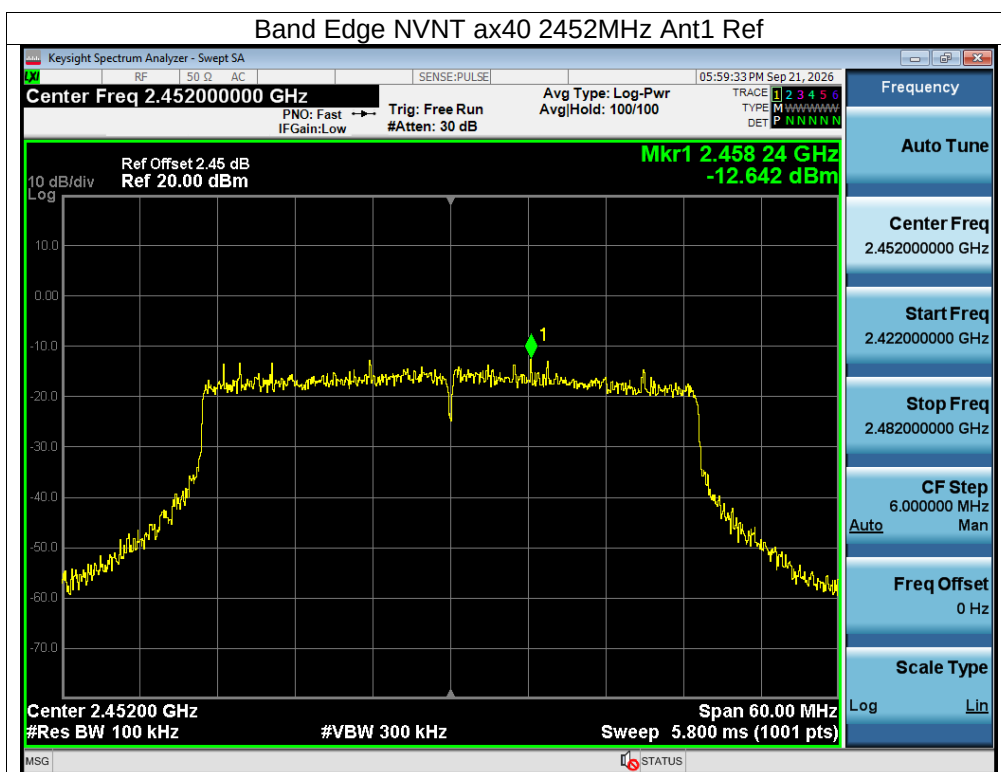


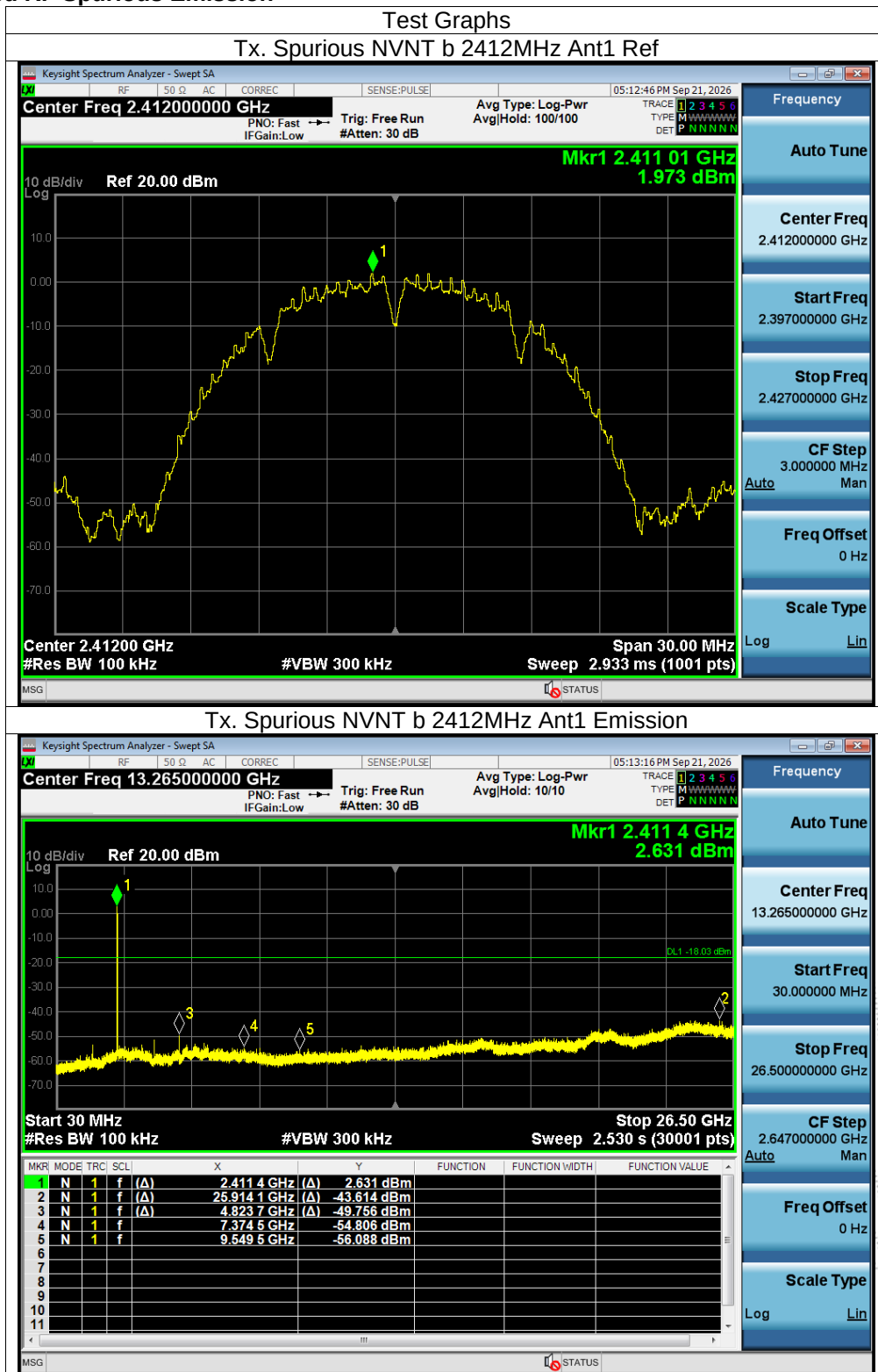
BCTC CO., LTD

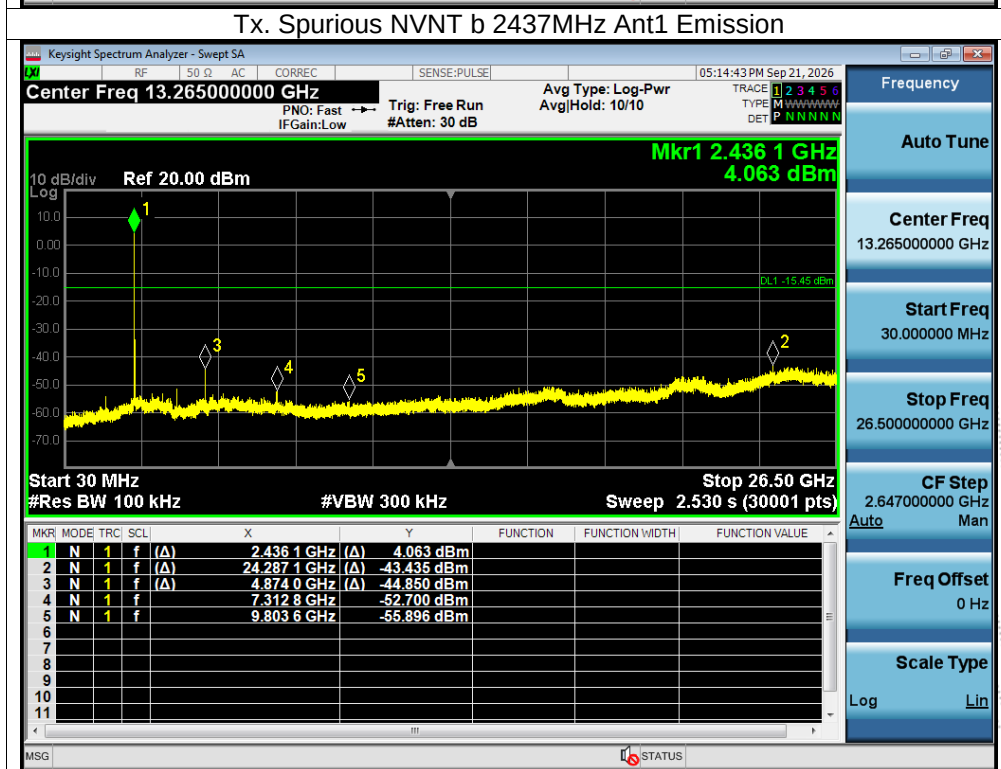
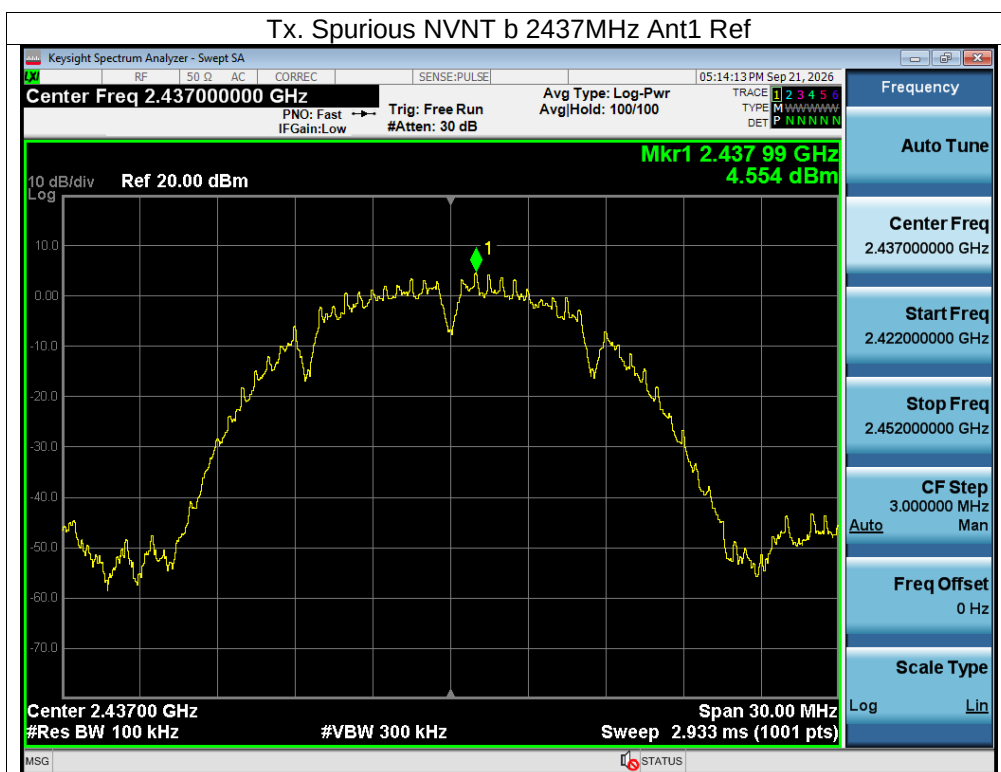




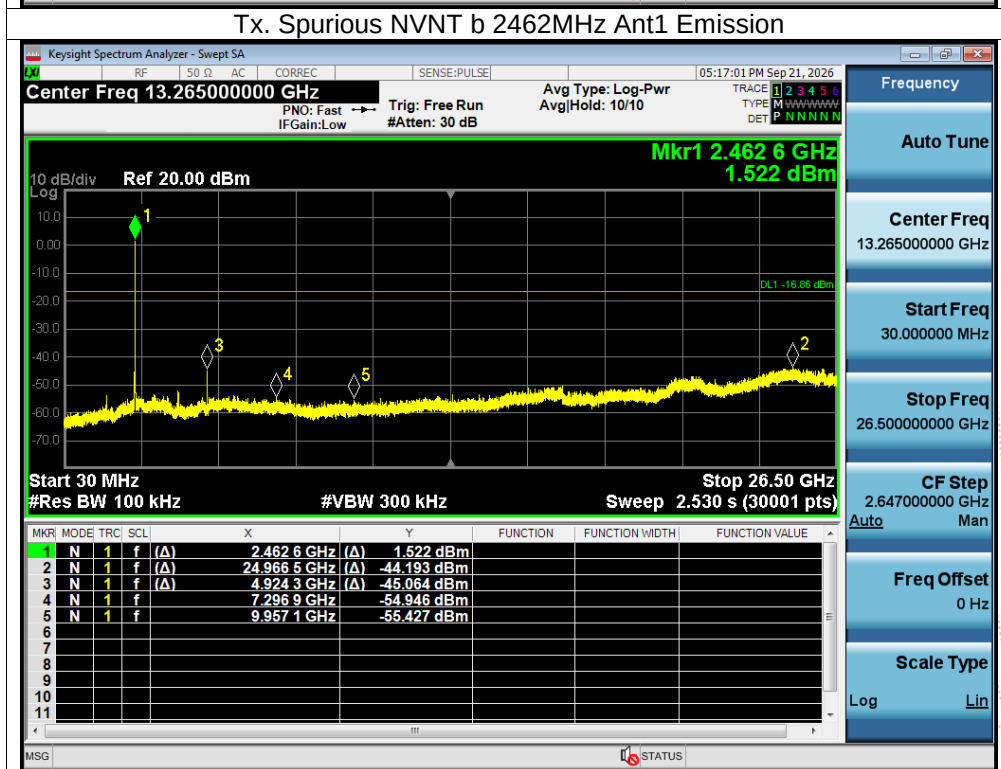
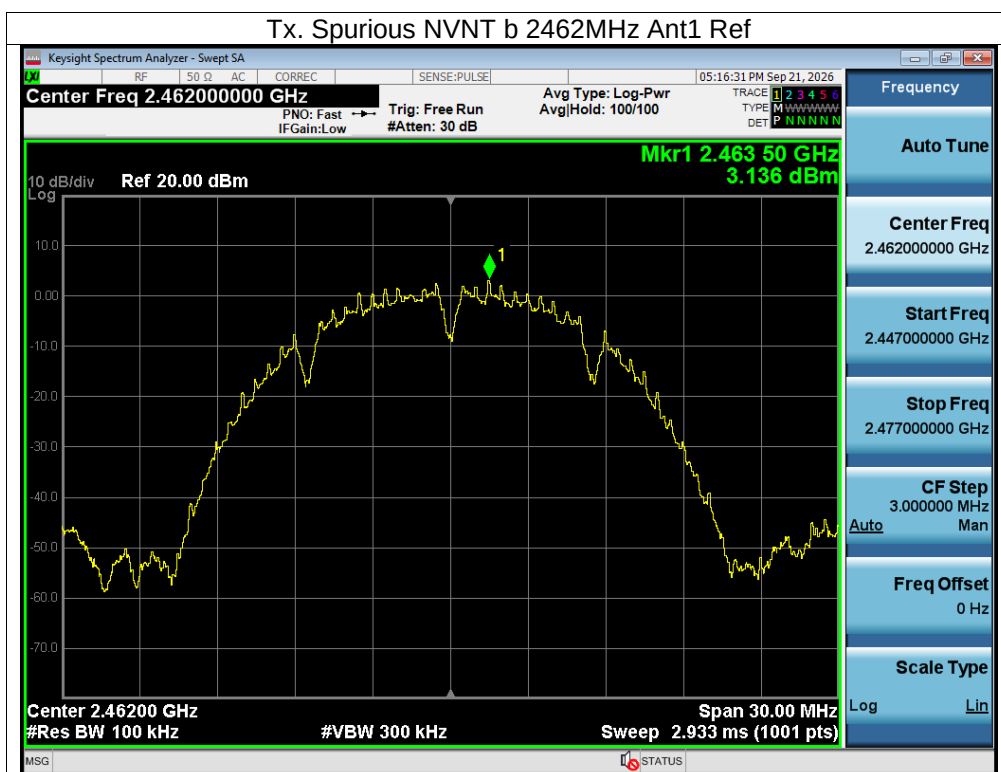




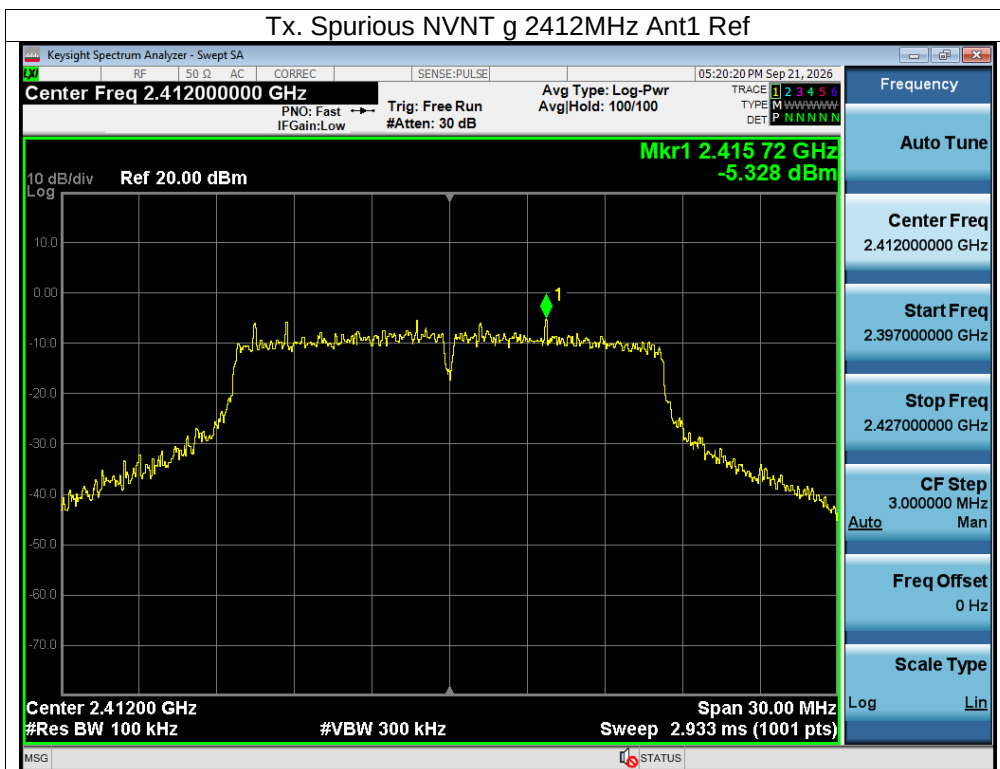
Conducted RF Spurious Emission




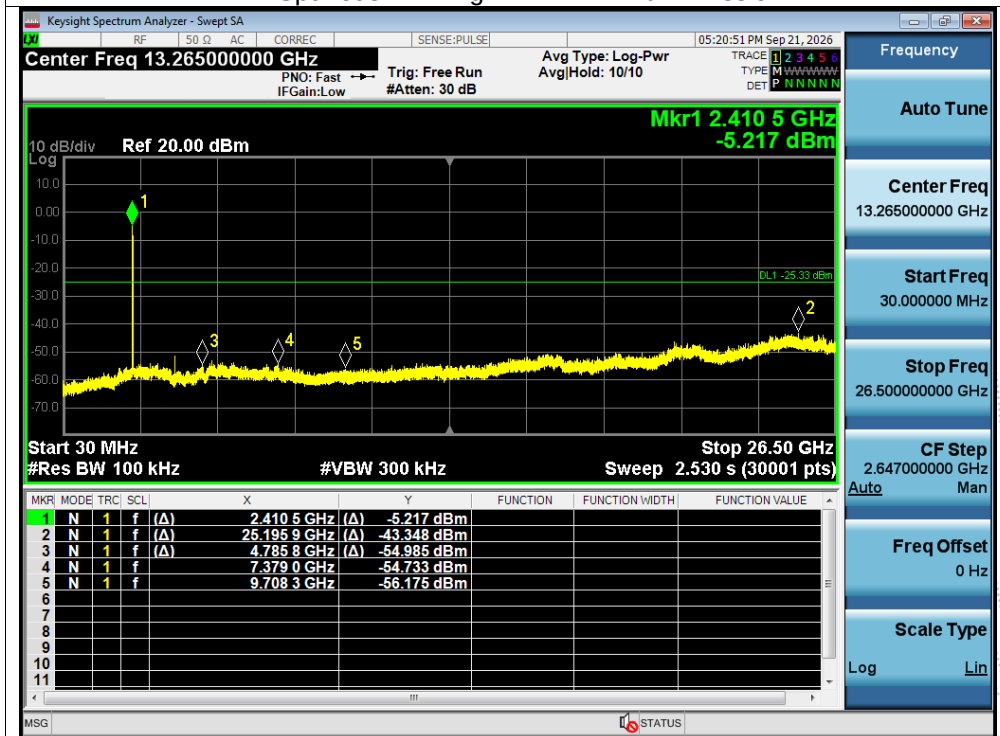
CO., LTD

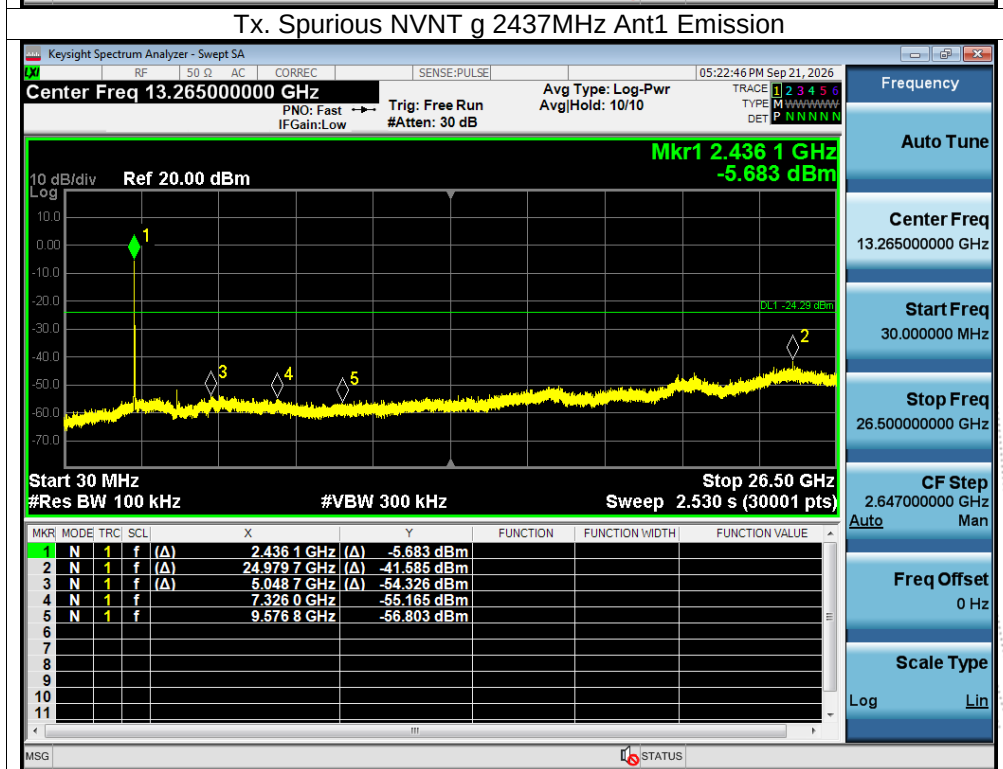
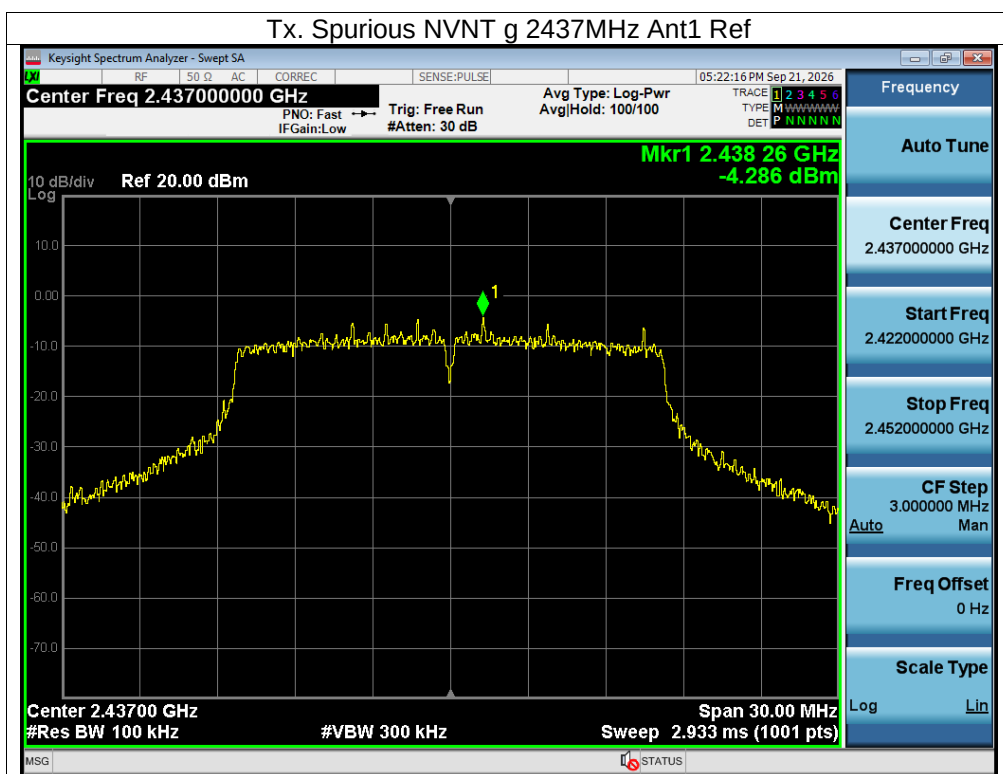


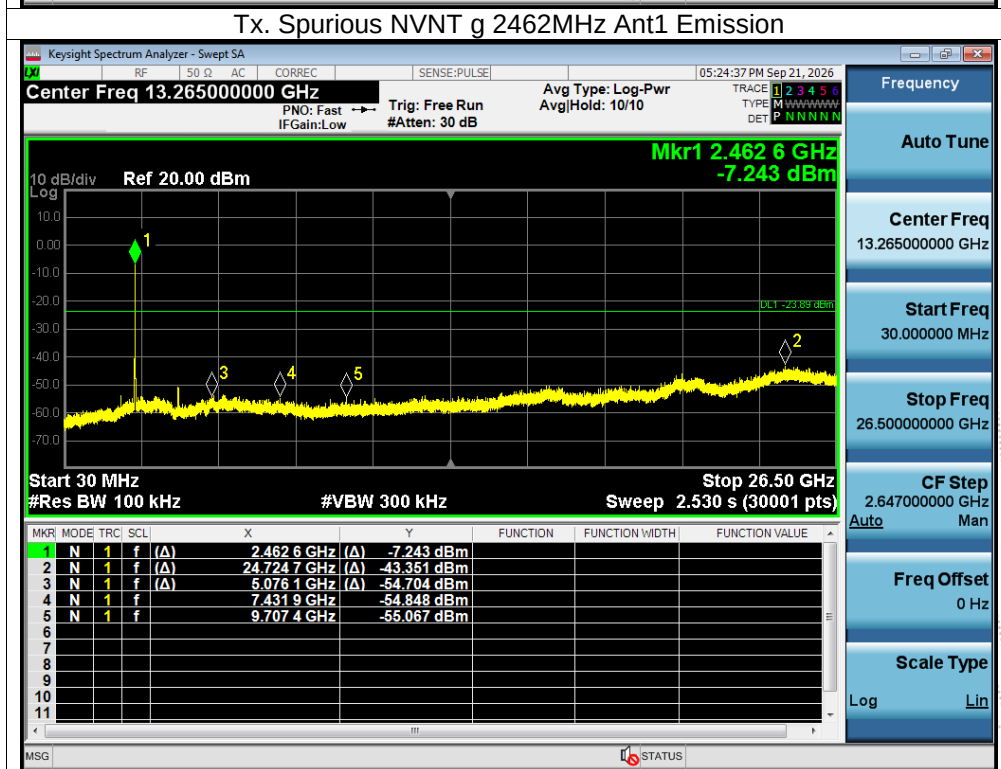
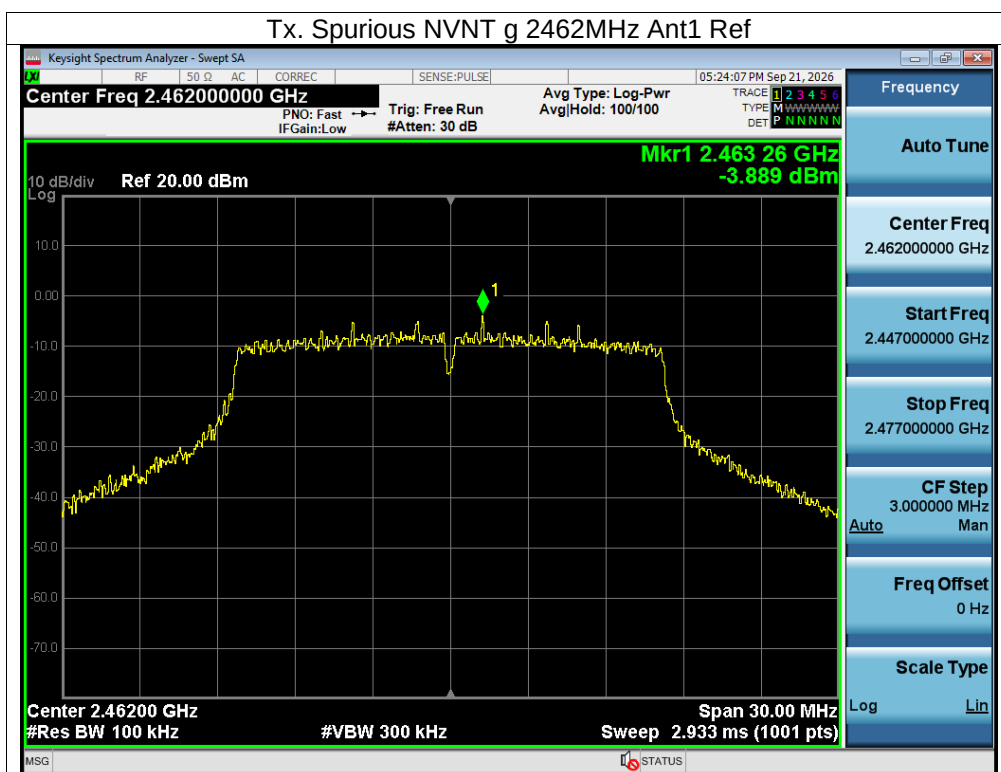
Tx. Spurious NVNT g 2412MHz Ant1 Ref



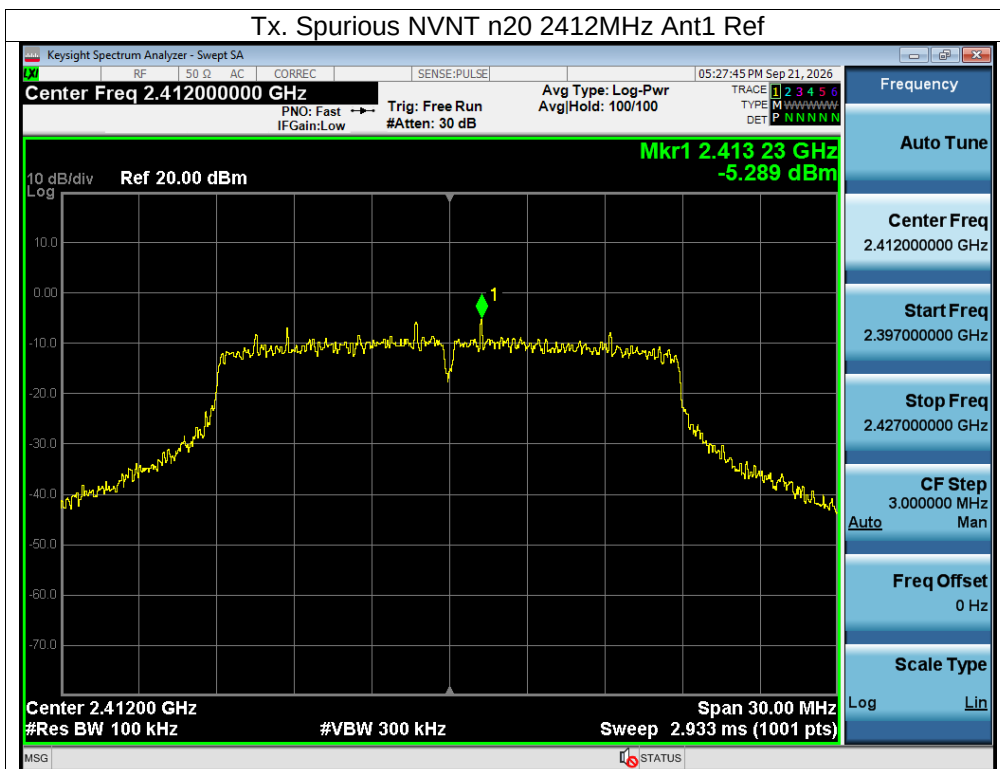
Tx. Spurious NVNT g 2412MHz Ant1 Emission



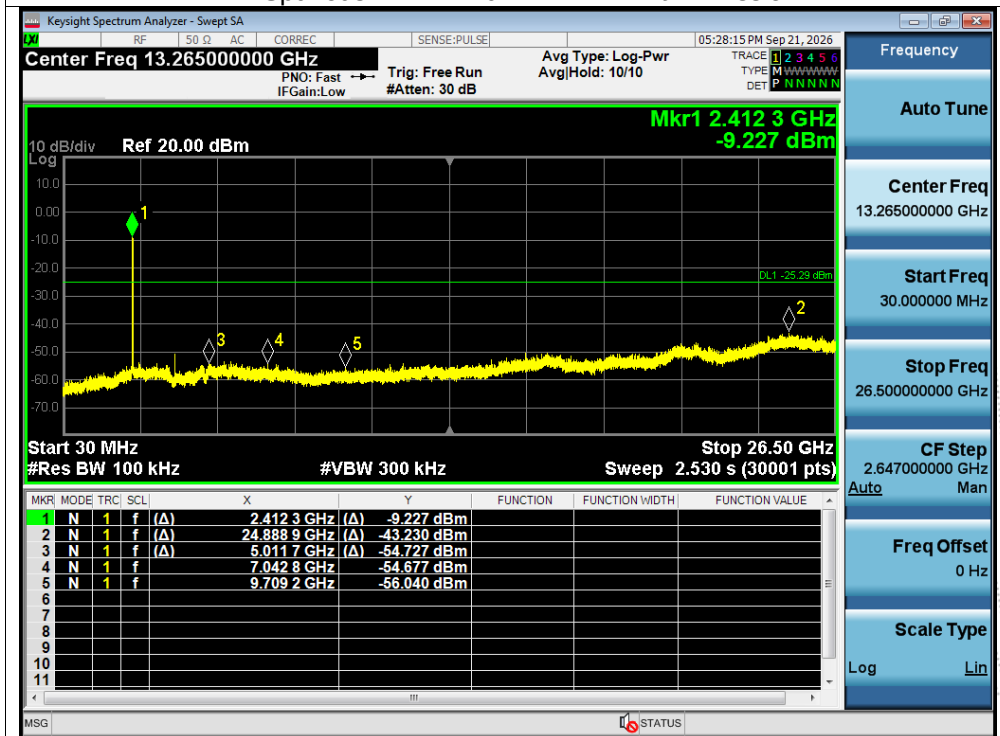




Tx. Spurious NVNT n20 2412MHz Ant1 Ref

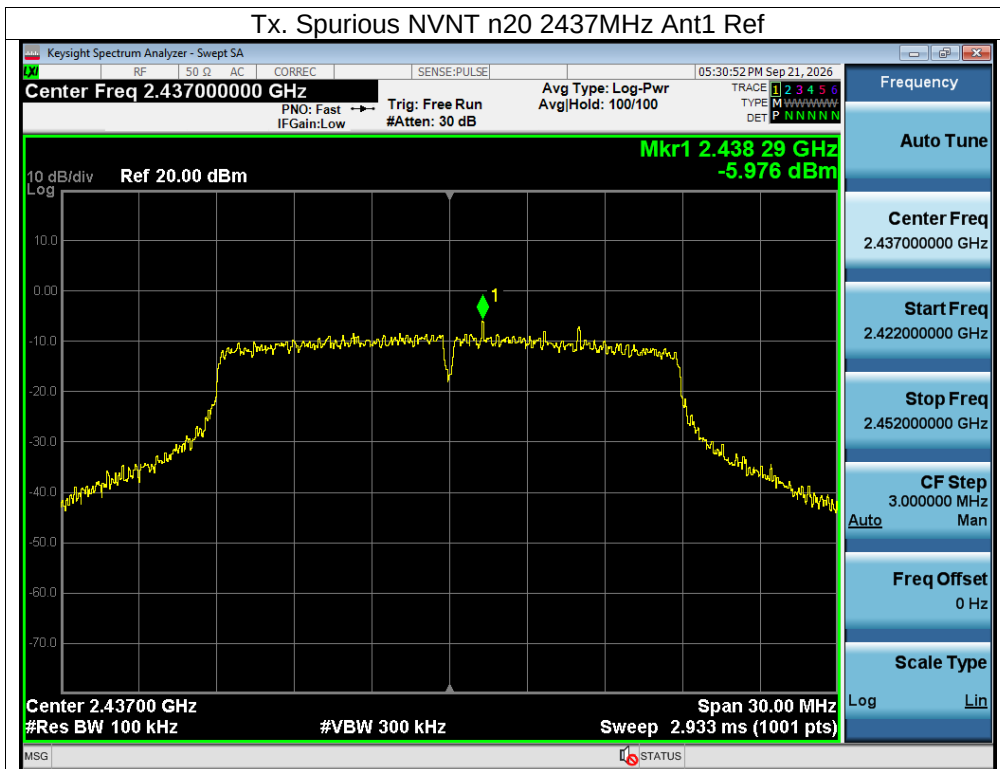


Tx. Spurious NVNT n20 2412MHz Ant1 Emission

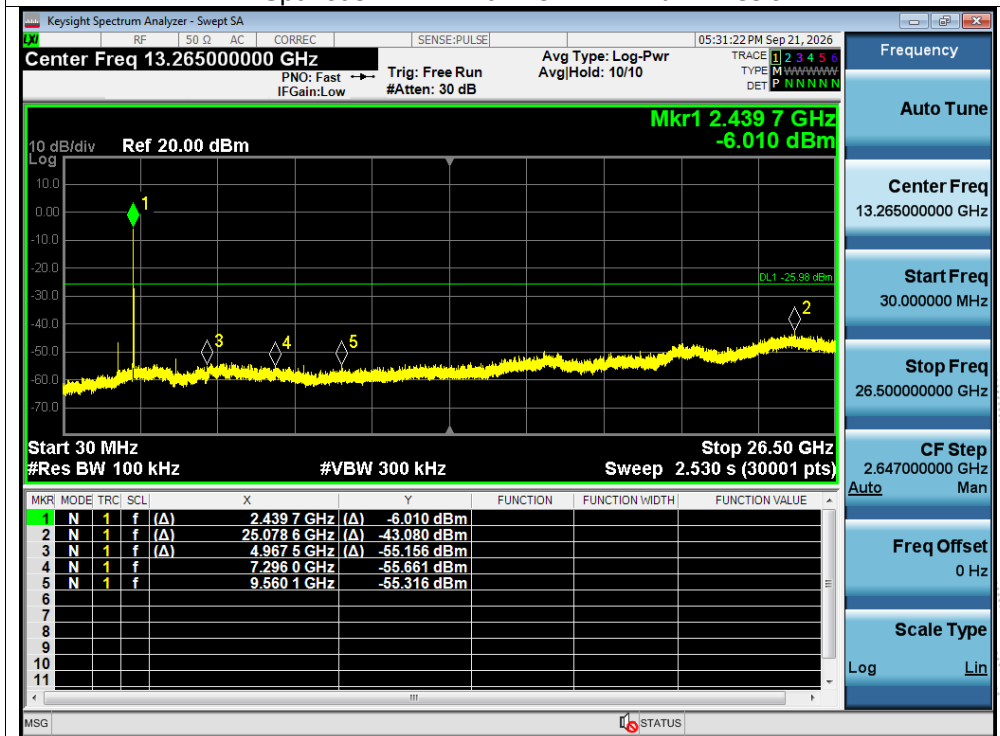




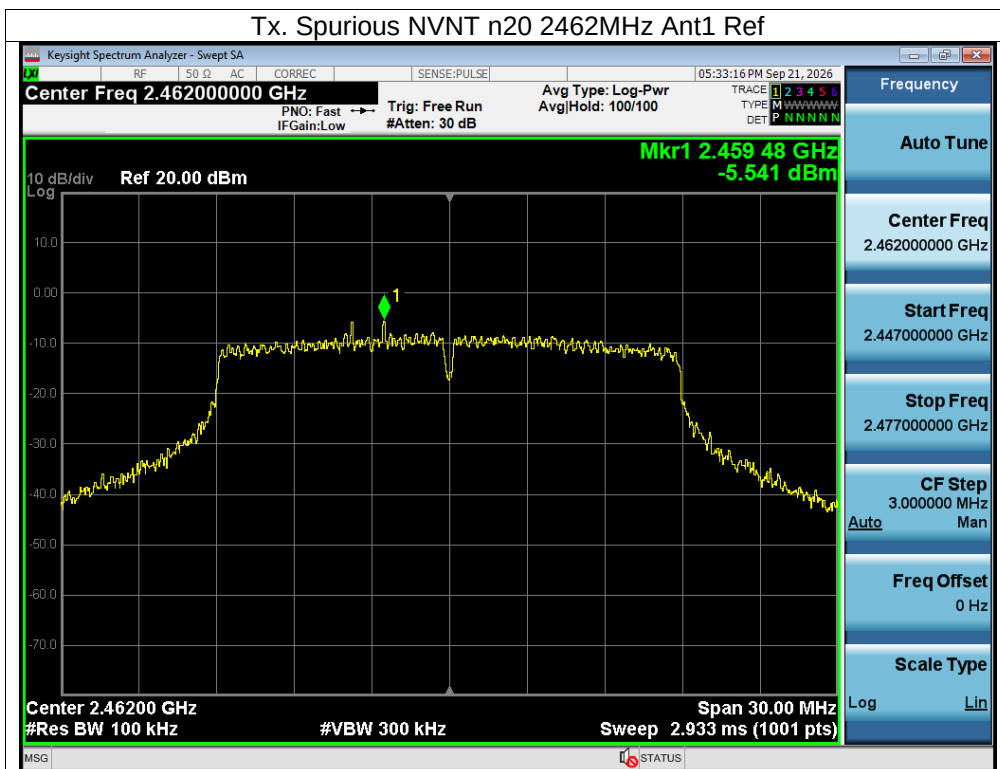
Tx. Spurious NVNT n20 2437MHz Ant1 Ref



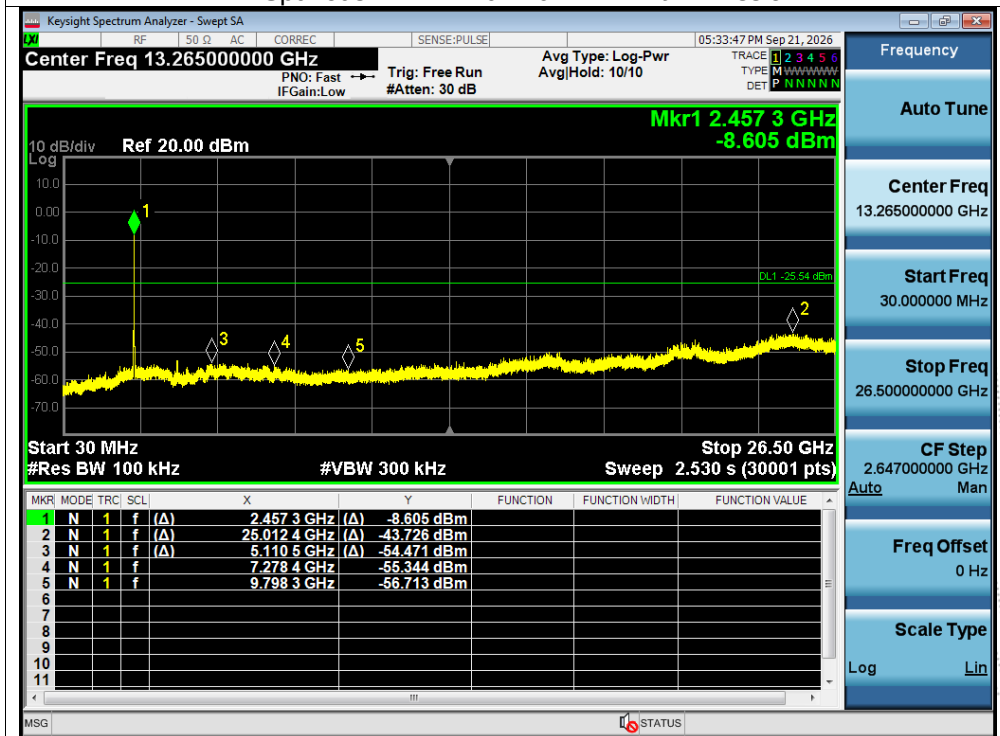
Tx. Spurious NVNT n20 2437MHz Ant1 Emission



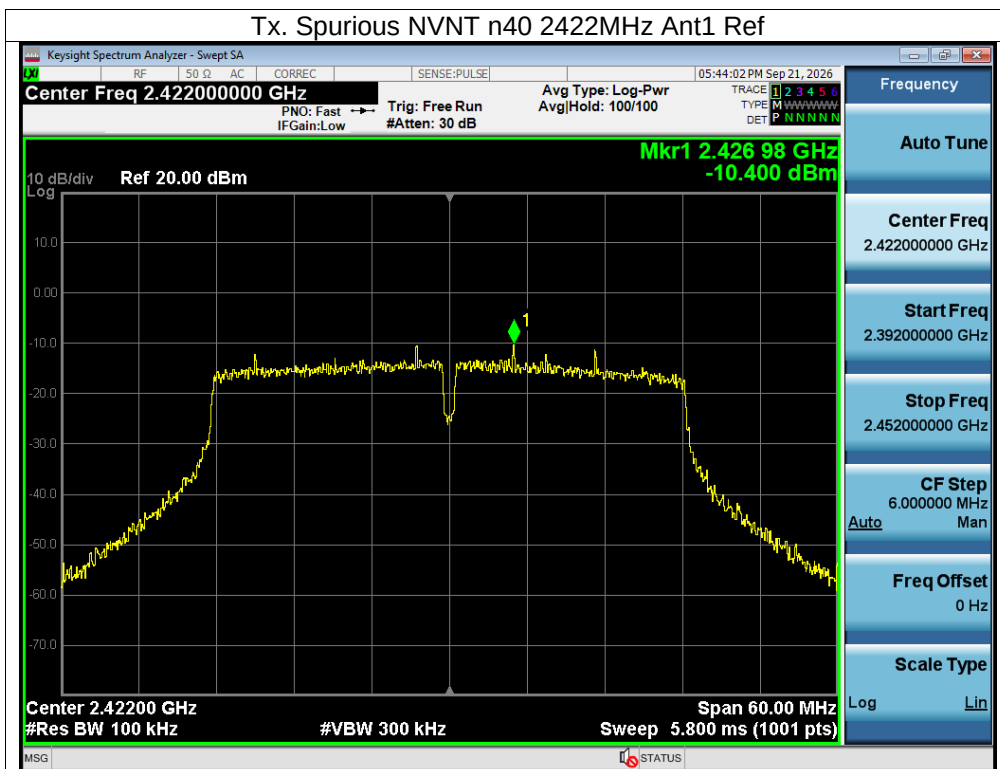
Tx. Spurious NVNT n20 2462MHz Ant1 Ref



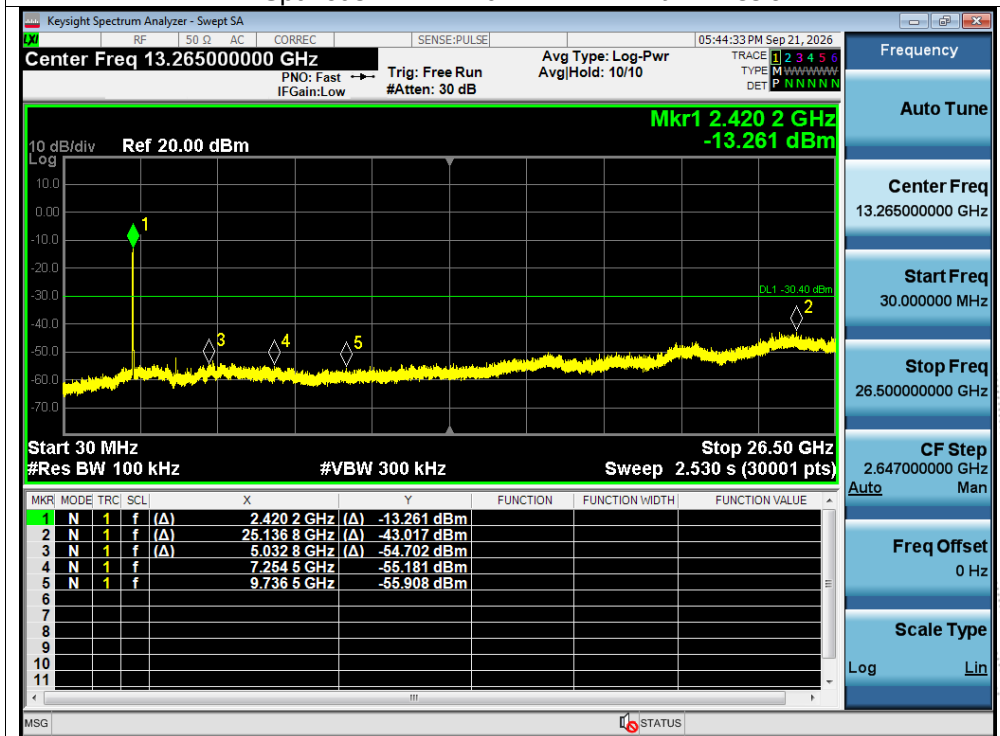
Tx. Spurious NVNT n20 2462MHz Ant1 Emission



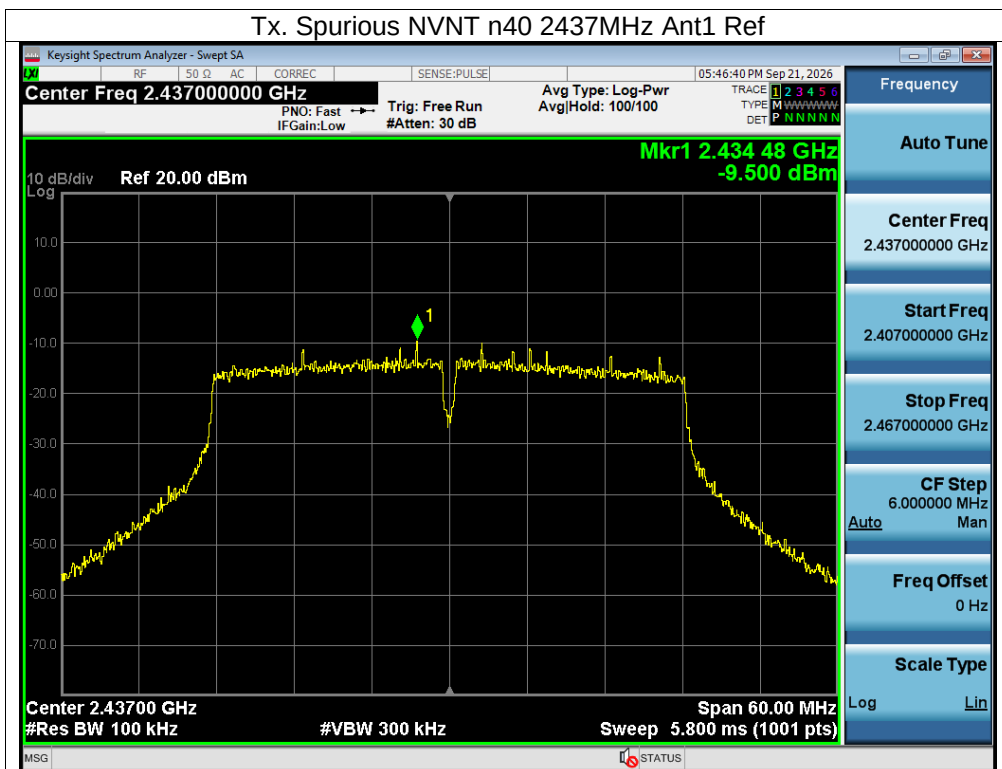
Tx. Spurious NVNT n40 2422MHz Ant1 Ref



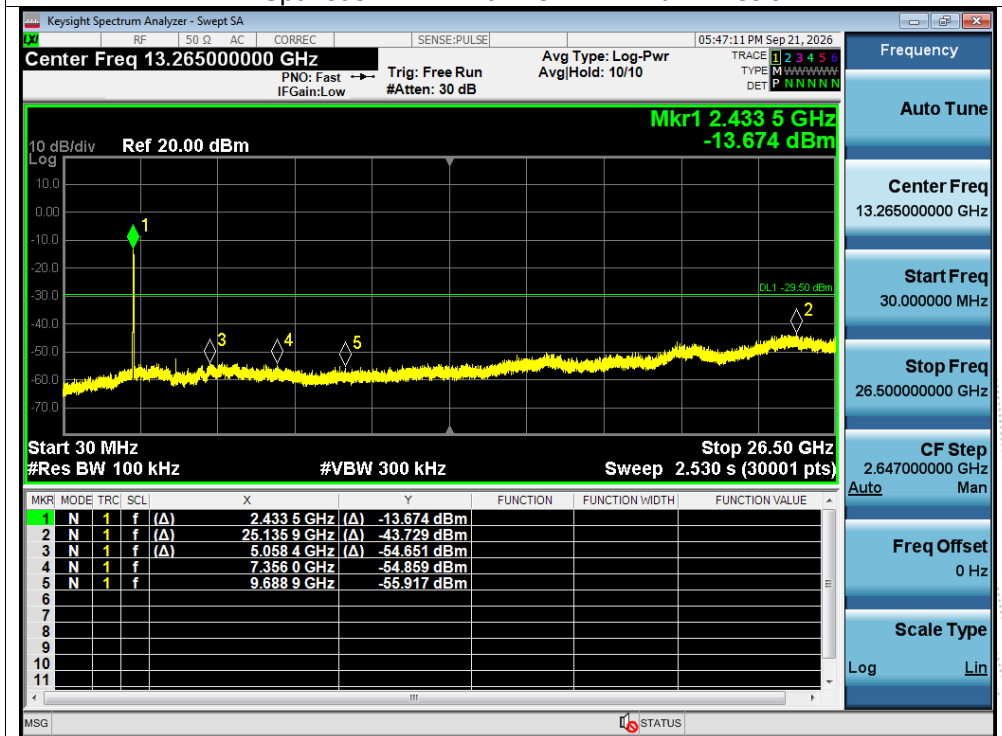
Tx. Spurious NVNT n40 2422MHz Ant1 Emission



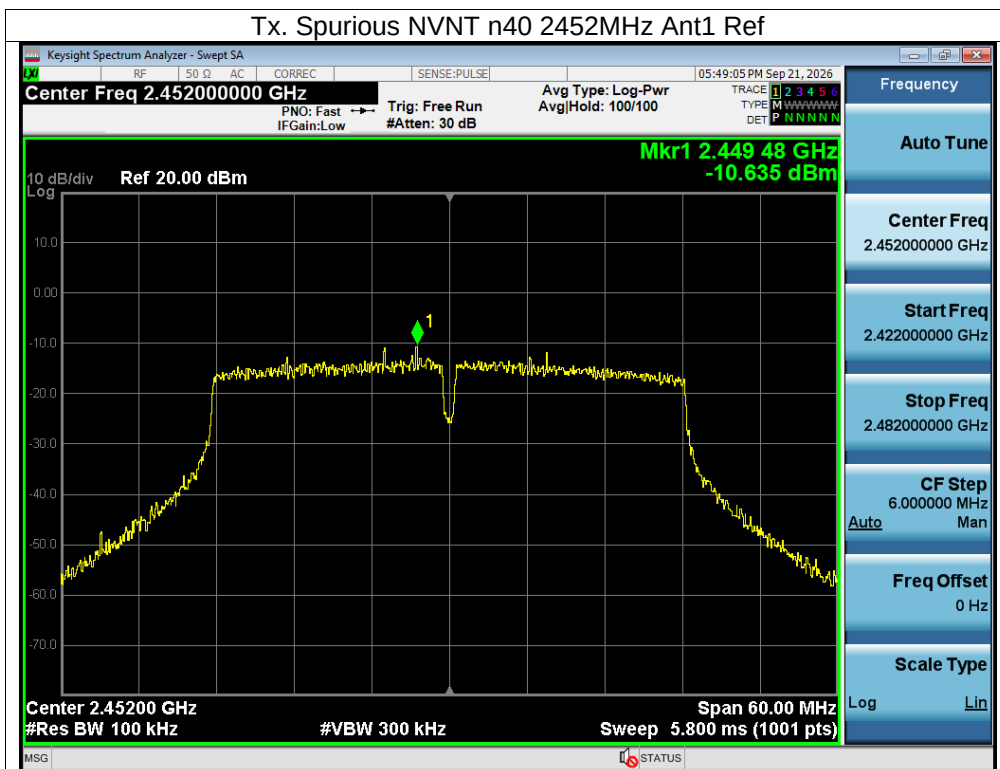
Tx. Spurious NVNT n40 2437MHz Ant1 Ref



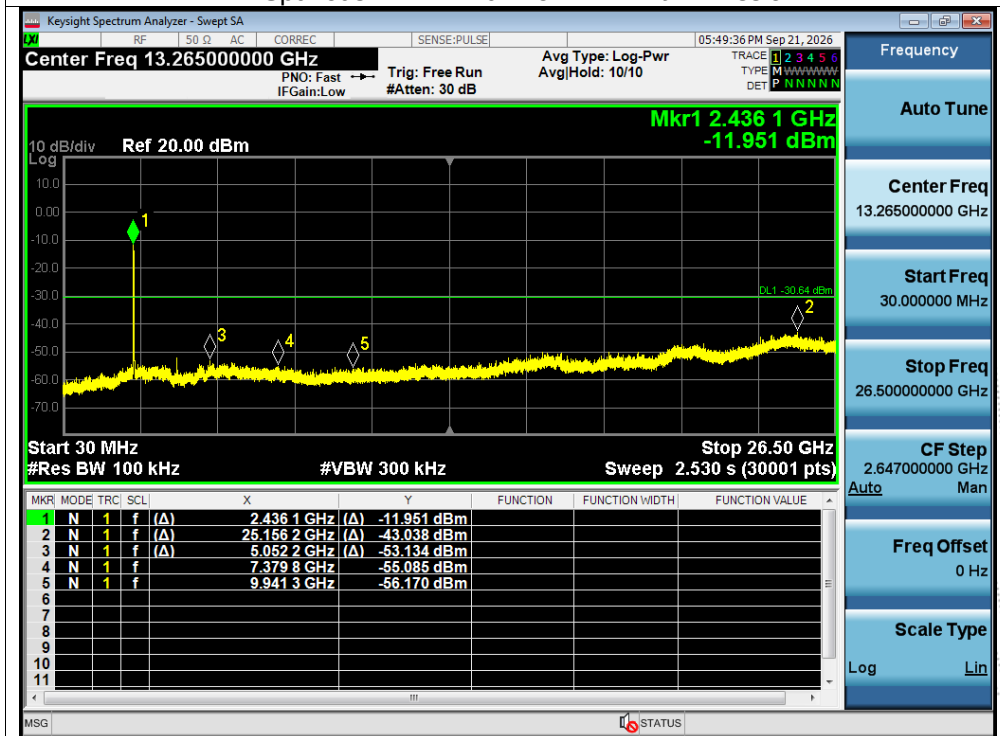
Tx. Spurious NVNT n40 2437MHz Ant1 Emission



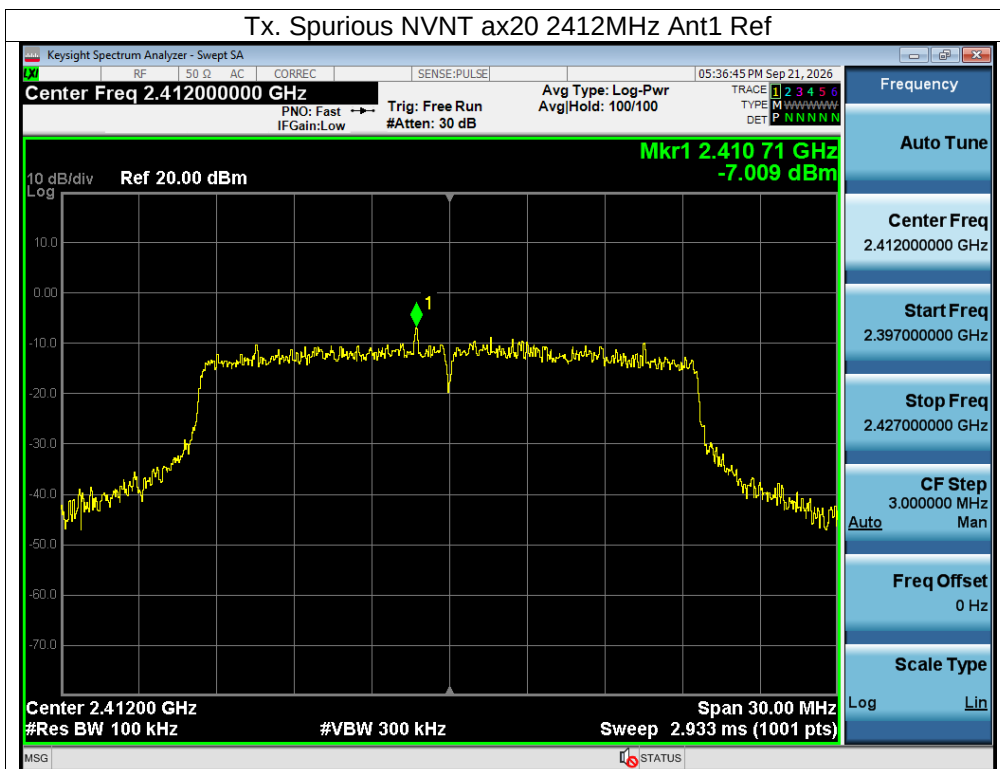
Tx. Spurious NVNT n40 2452MHz Ant1 Ref



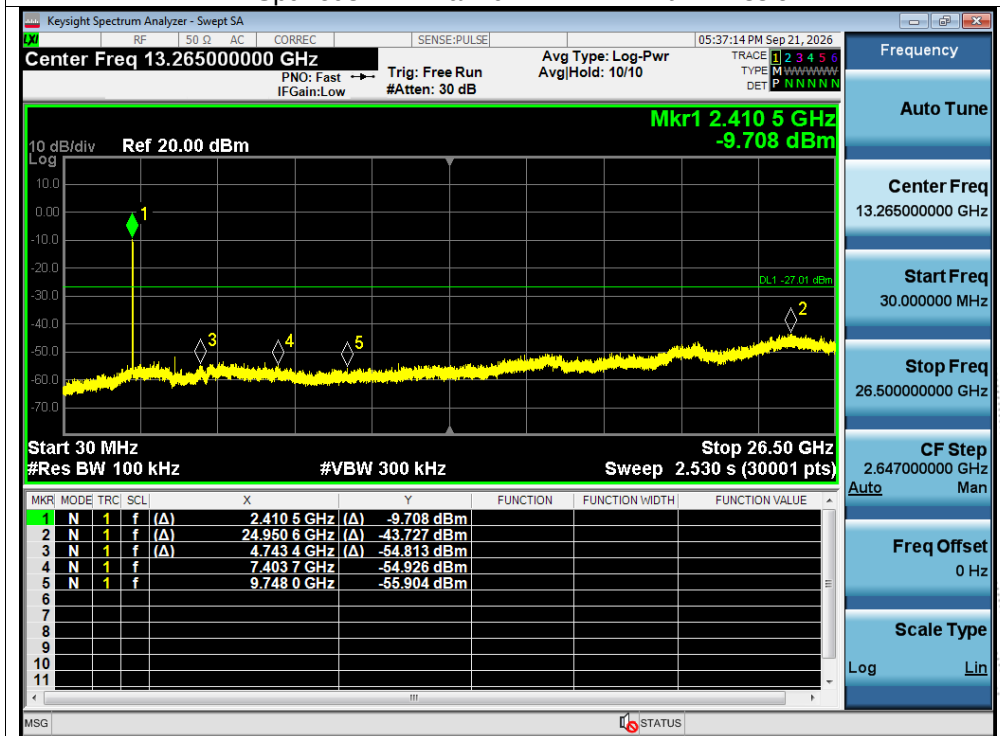
Tx. Spurious NVNT n40 2452MHz Ant1 Emission

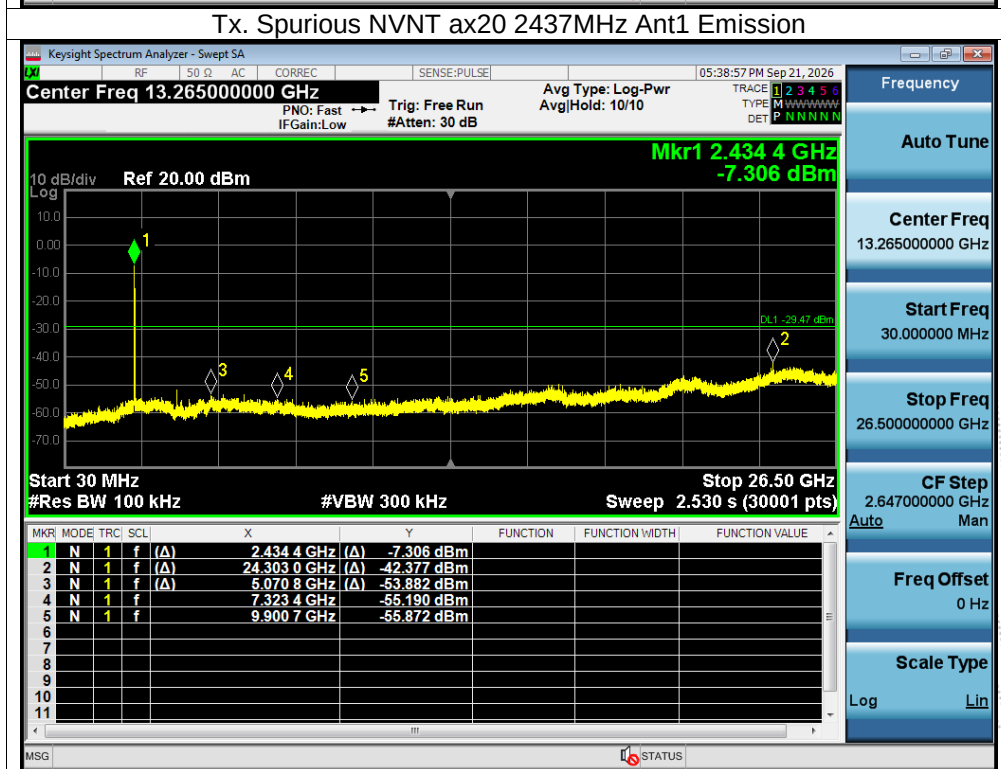
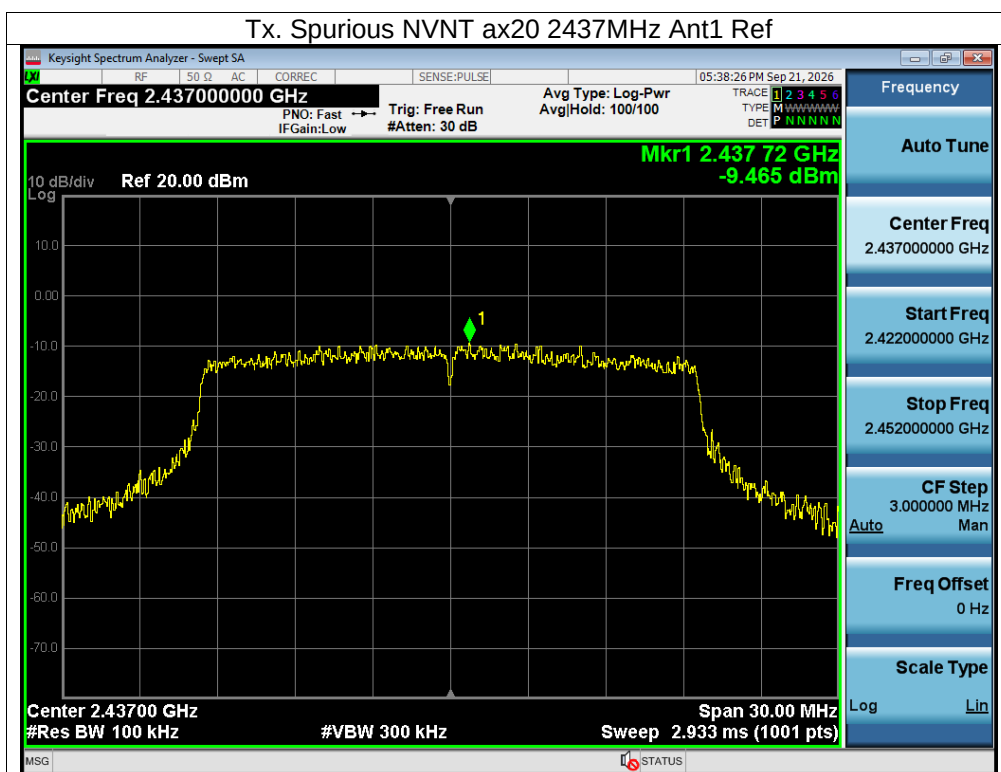


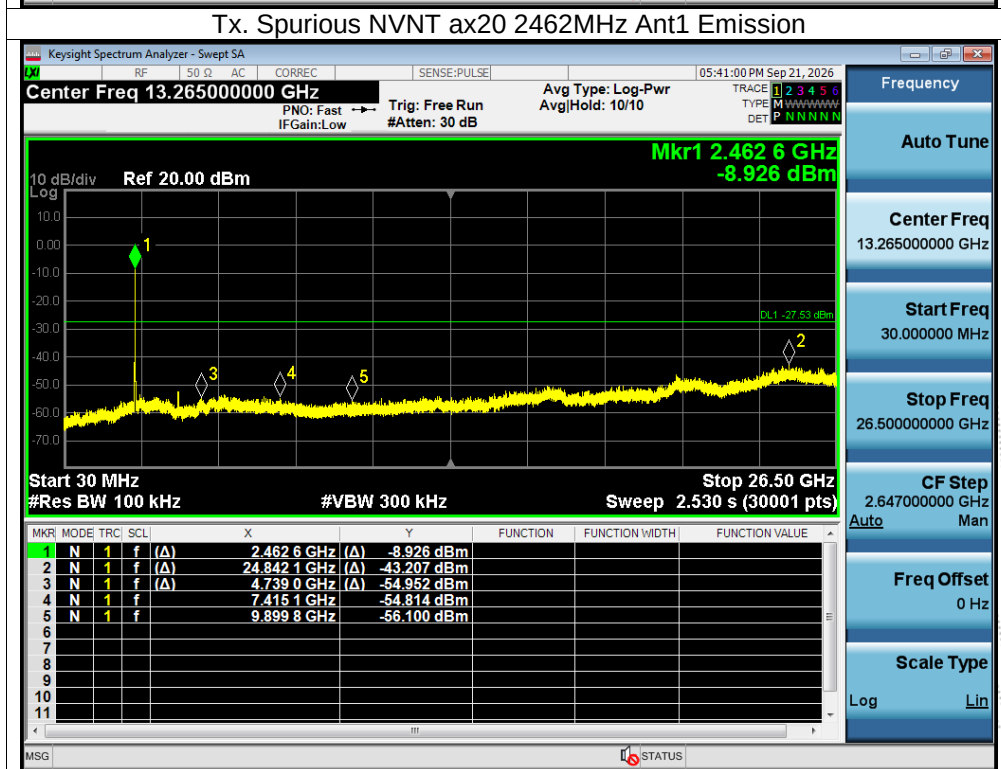
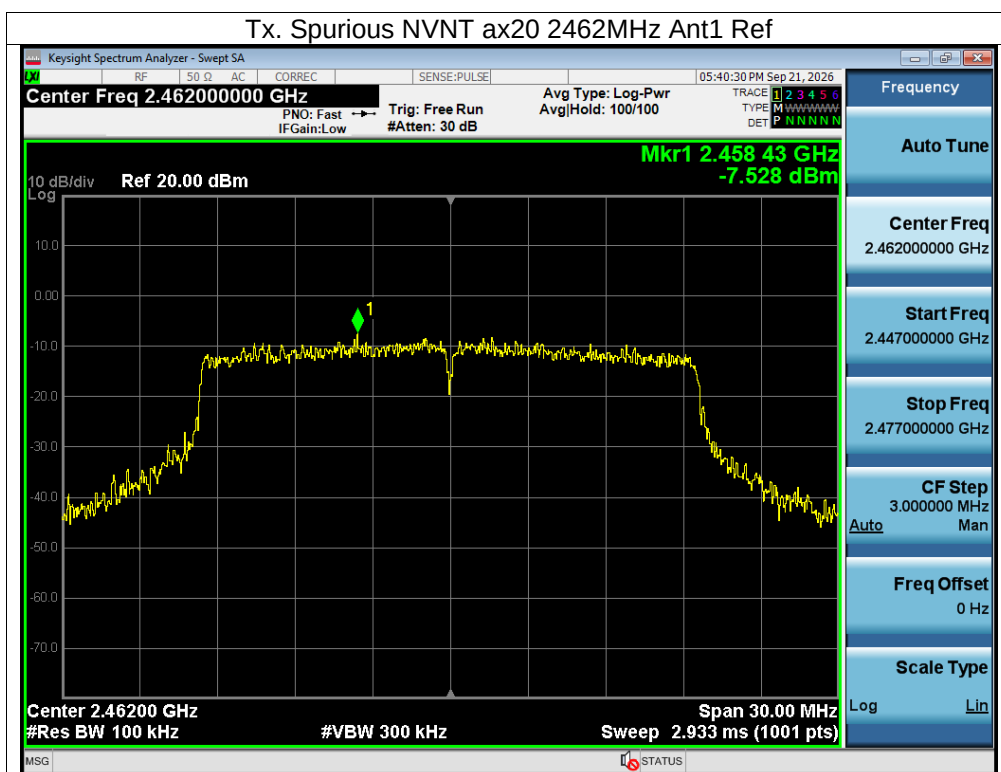
Tx. Spurious NVNT ax20 2412MHz Ant1 Ref



Tx. Spurious NVNT ax20 2412MHz Ant1 Emission

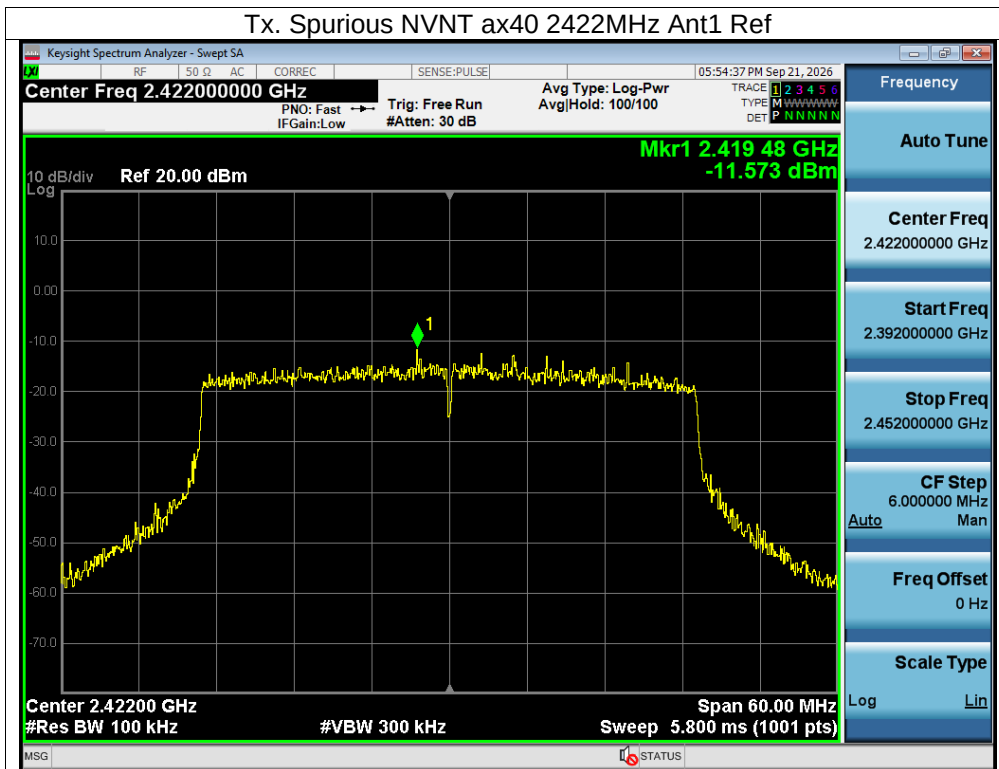




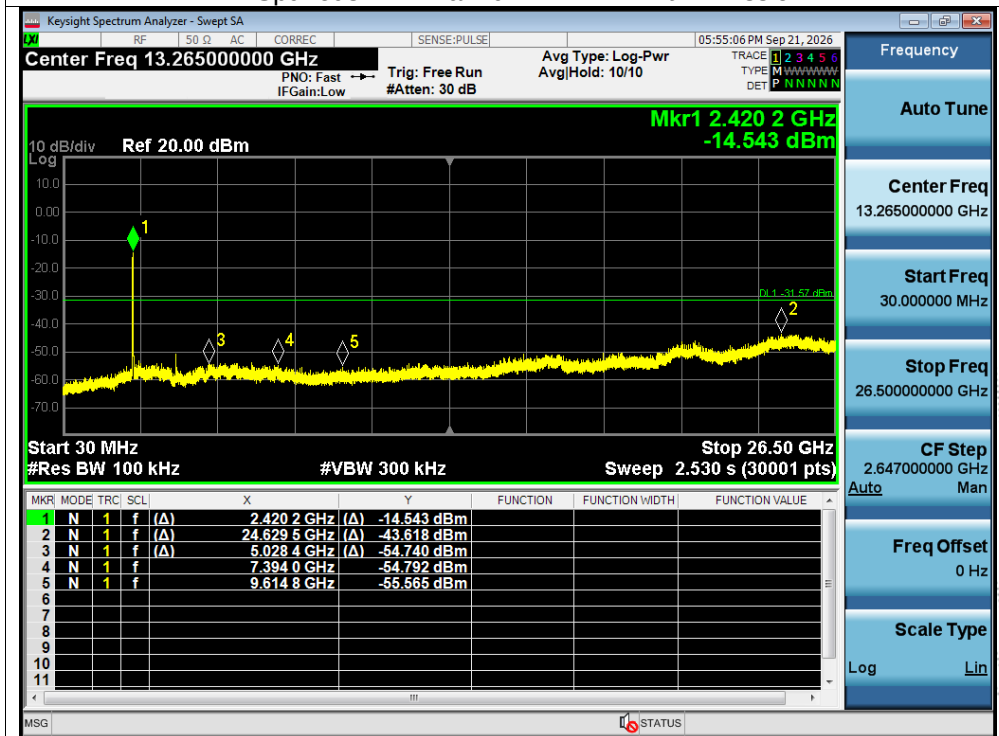


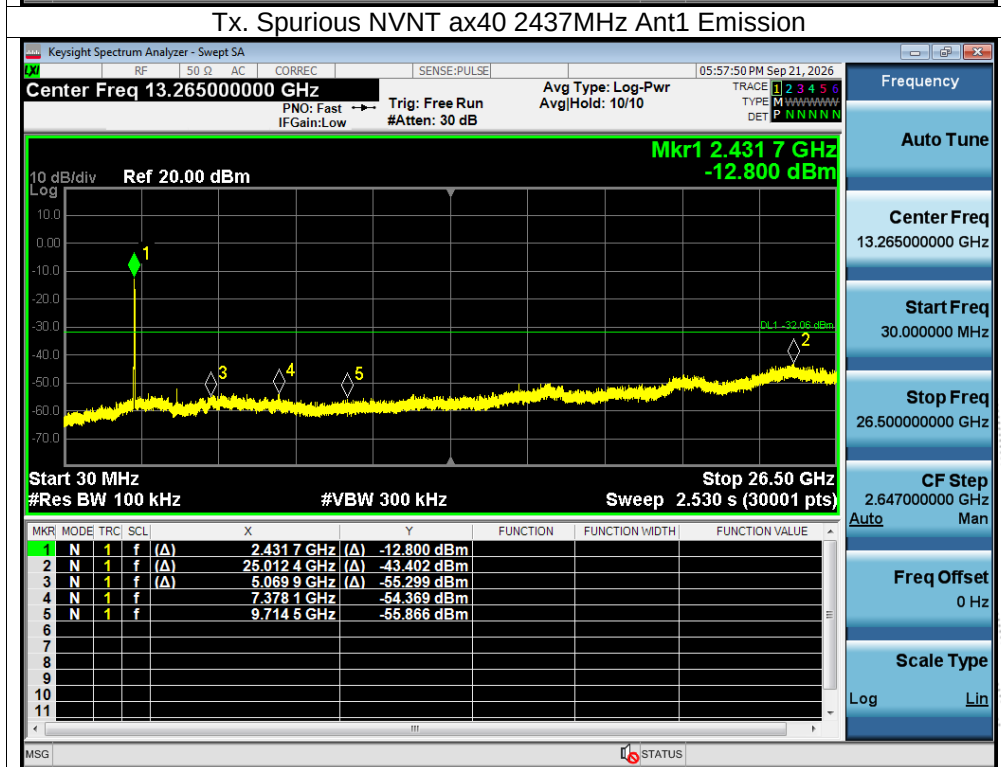
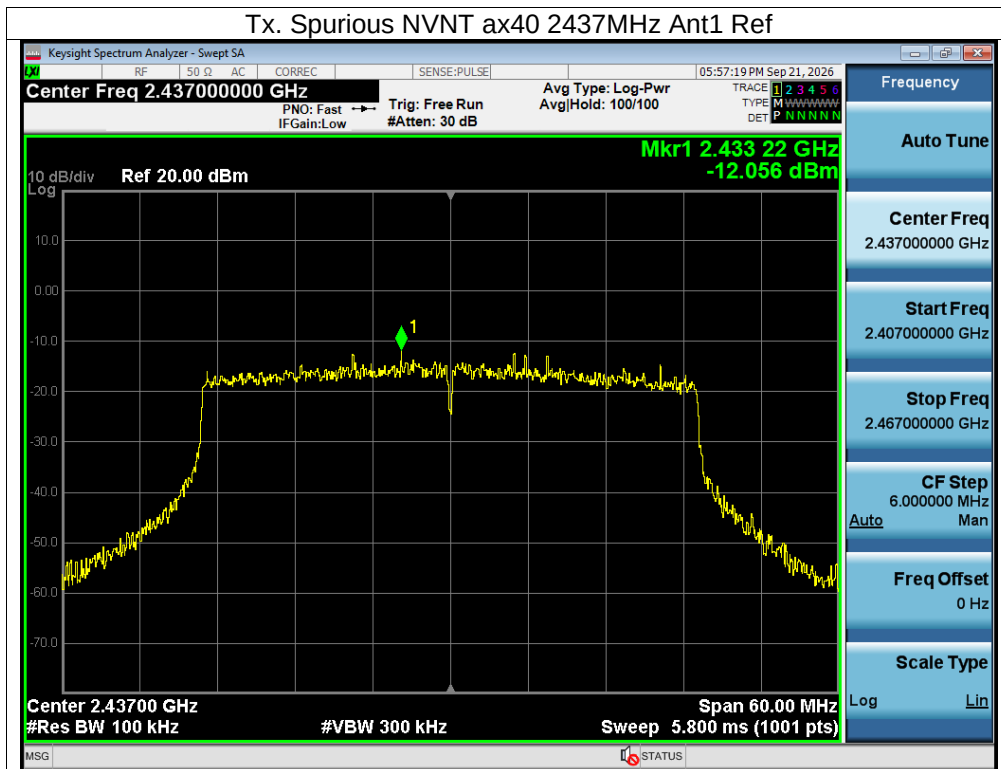


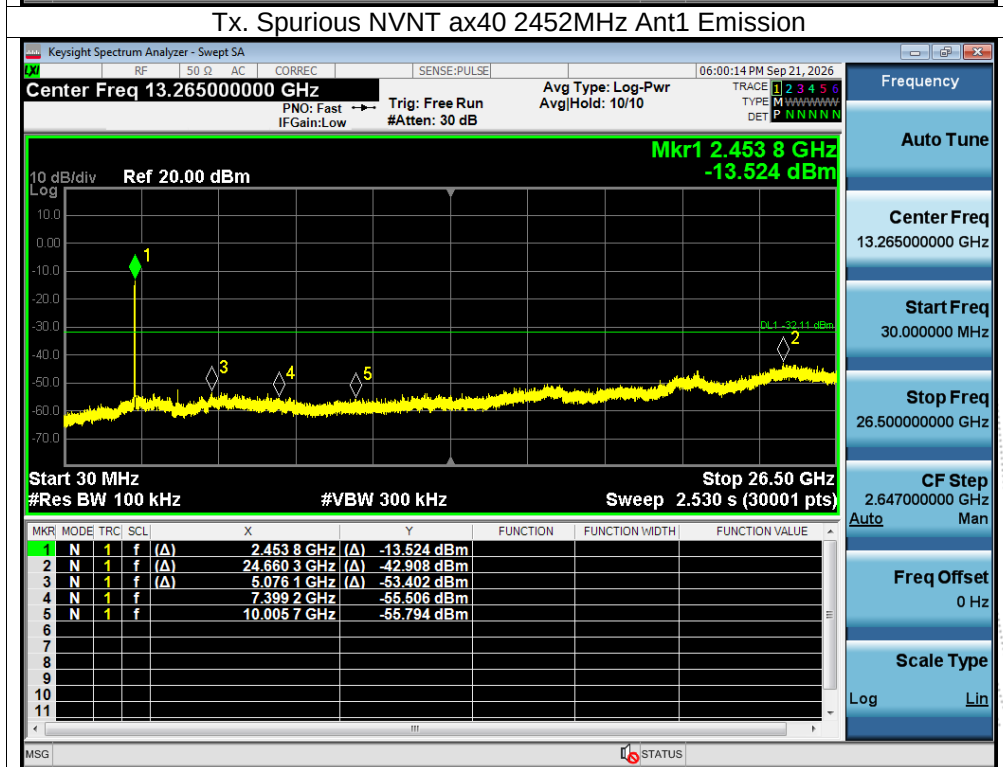
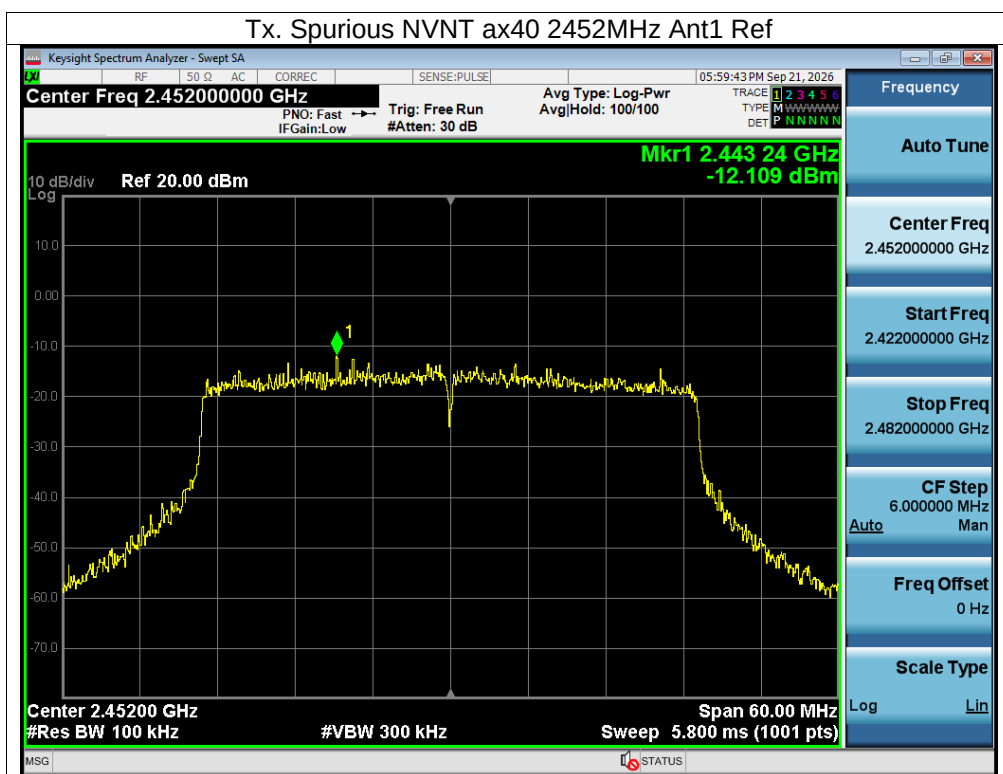
Tx. Spurious NVNT ax40 2422MHz Ant1 Ref



Tx. Spurious NVNT ax40 2422MHz Ant1 Emission







13. Duty Cycle Of Test Signal

13.1 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.

13.2 Formula

$$\text{Duty Cycle} = T_{\text{on}} / (T_{\text{on}} + T_{\text{off}})$$

13.3 Test Procedure

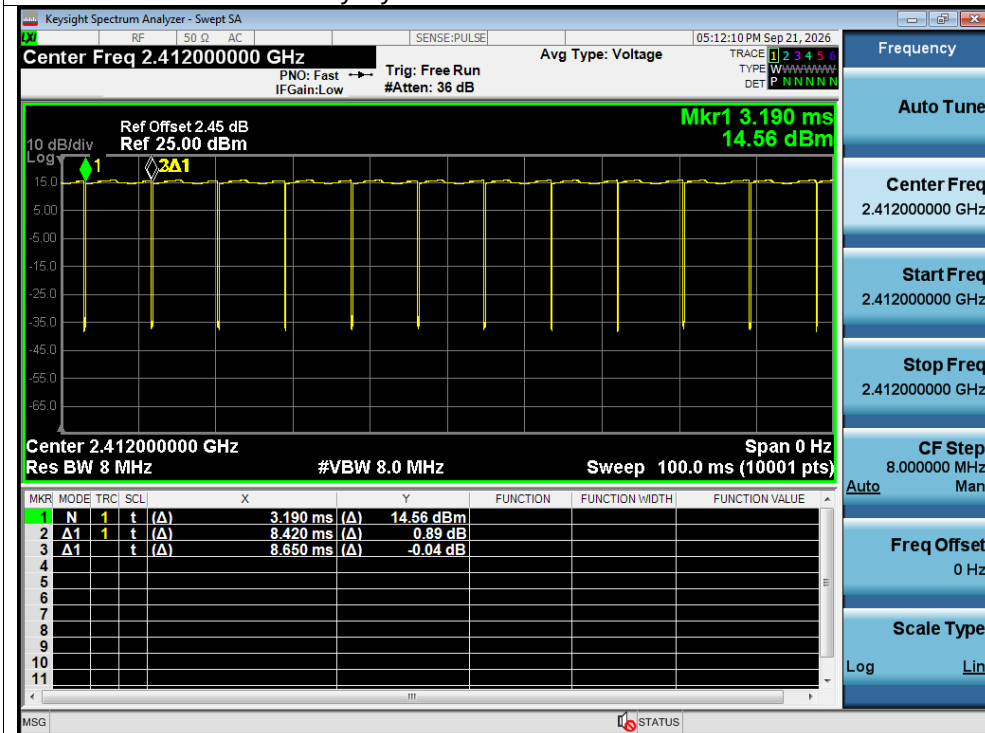
1. Set span = Zero
2. RBW = 8MHz
3. VBW = 8MHz,
4. Detector = Peak

13.4 Test Result

Condition	Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	97.34	0.12	0.12
NVNT	b	2437	98.48	0.07	0.12
NVNT	b	2462	97.23	0.12	0.12
NVNT	g	2412	92.11	0.36	0.71
NVNT	g	2437	78.09	1.07	0.72
NVNT	g	2462	89.17	0.5	0.71
NVNT	n20	2412	97.51	0.11	0.2
NVNT	n20	2437	97.7	0.1	0.2
NVNT	n20	2462	97.51	0.11	0.2
NVNT	n40	2422	97.42	0.11	0.2
NVNT	n40	2437	97.41	0.11	0.2
NVNT	n40	2452	97.41	0.11	0.2
NVNT	ax20	2412	96.76	0.14	0.26
NVNT	ax20	2437	87.98	0.56	0.26
NVNT	ax20	2462	96.76	0.14	0.26
NVNT	ax40	2422	96.76	0.14	0.26
NVNT	ax40	2437	97	0.13	0.26
NVNT	ax40	2452	96.75	0.14	0.26

Test Graphs

Duty Cycle NVNT b 2412MHz Ant1



Duty Cycle NVNT b 2437MHz Ant1

