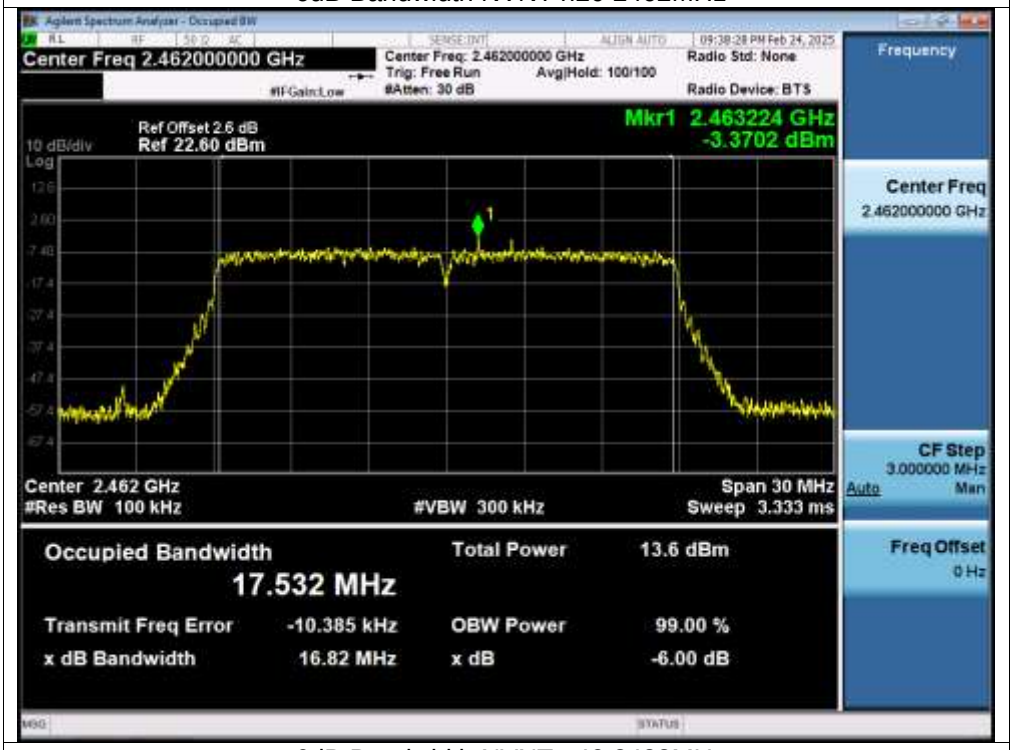
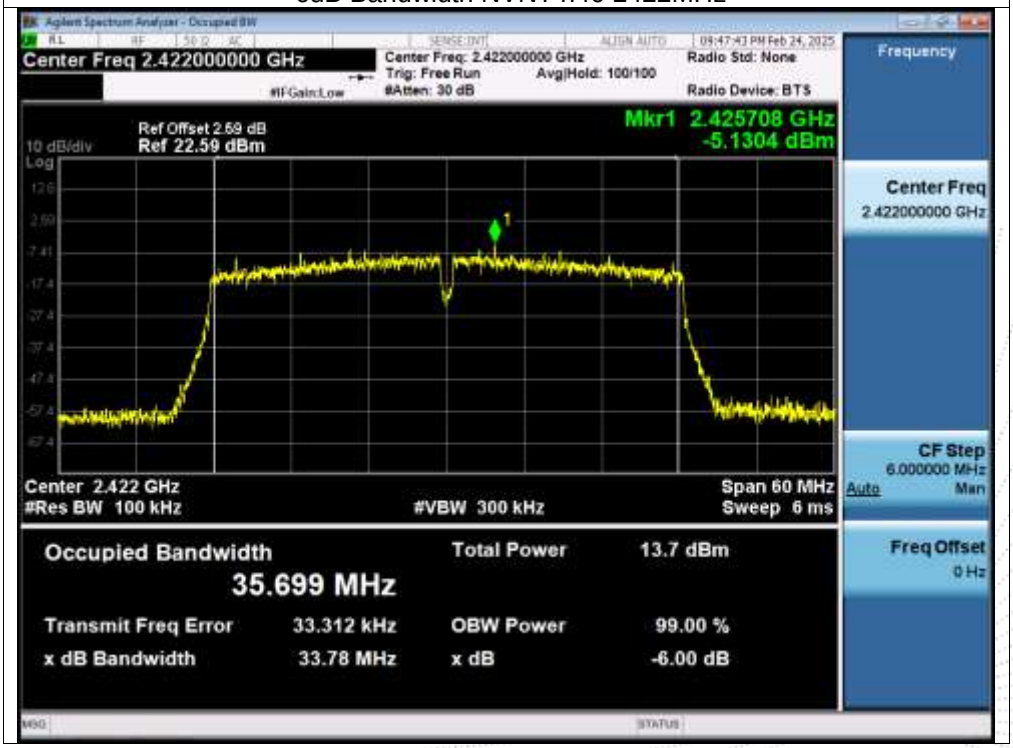
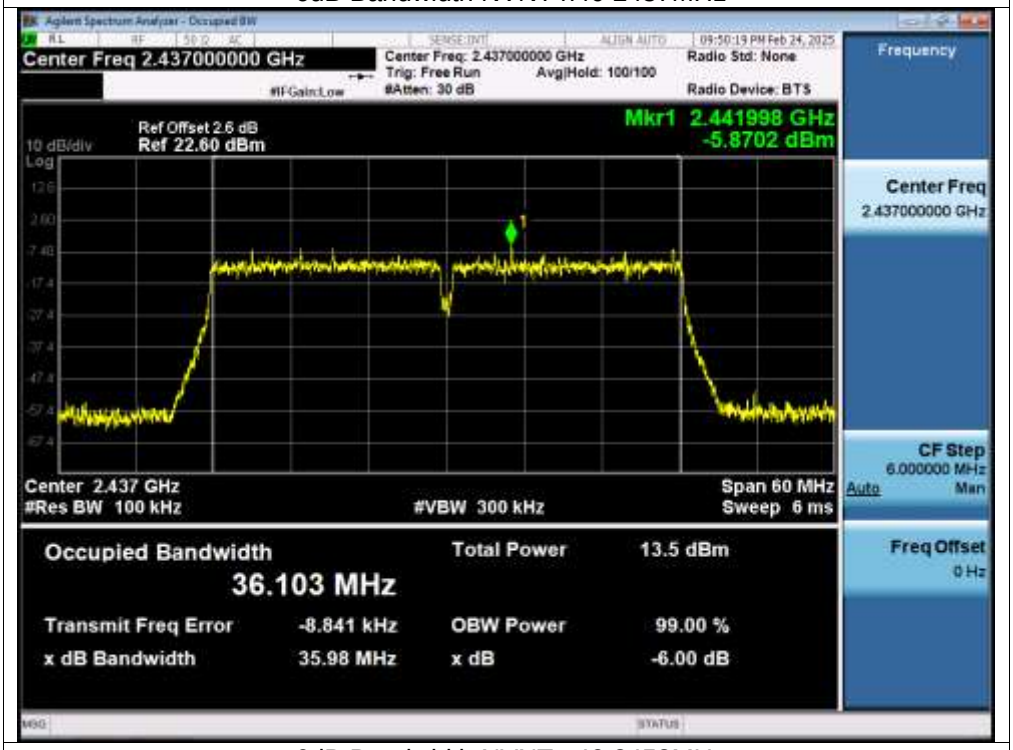
-6dB Bandwidth NVNT n20 2462MHz



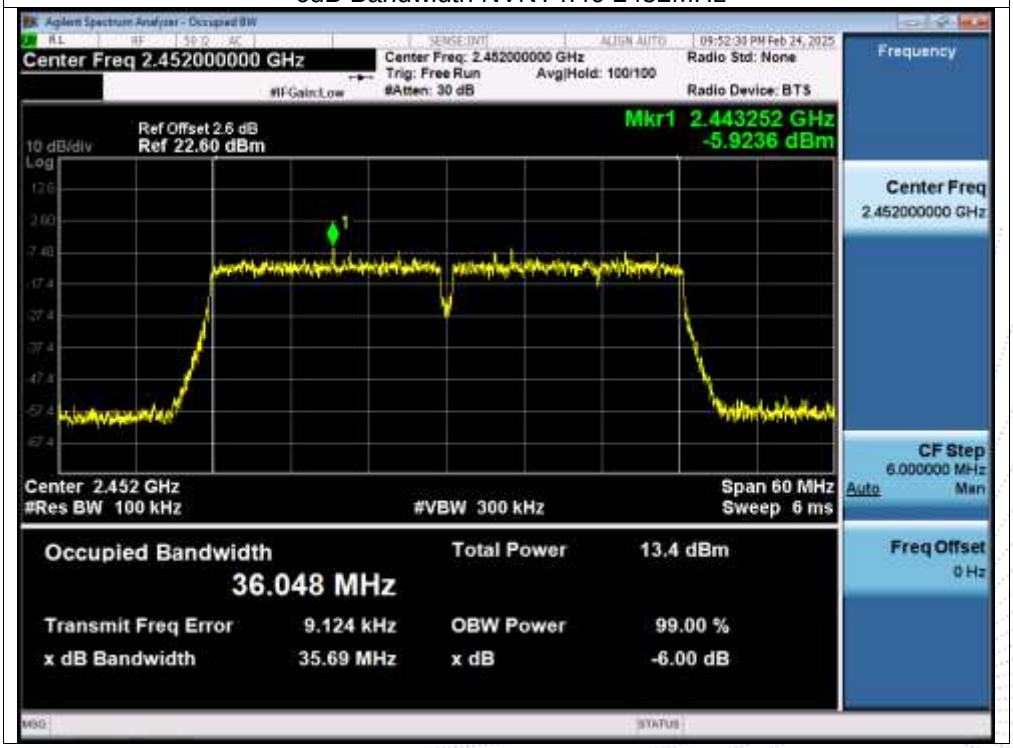
-6dB Bandwidth NVNT n40 2422MHz



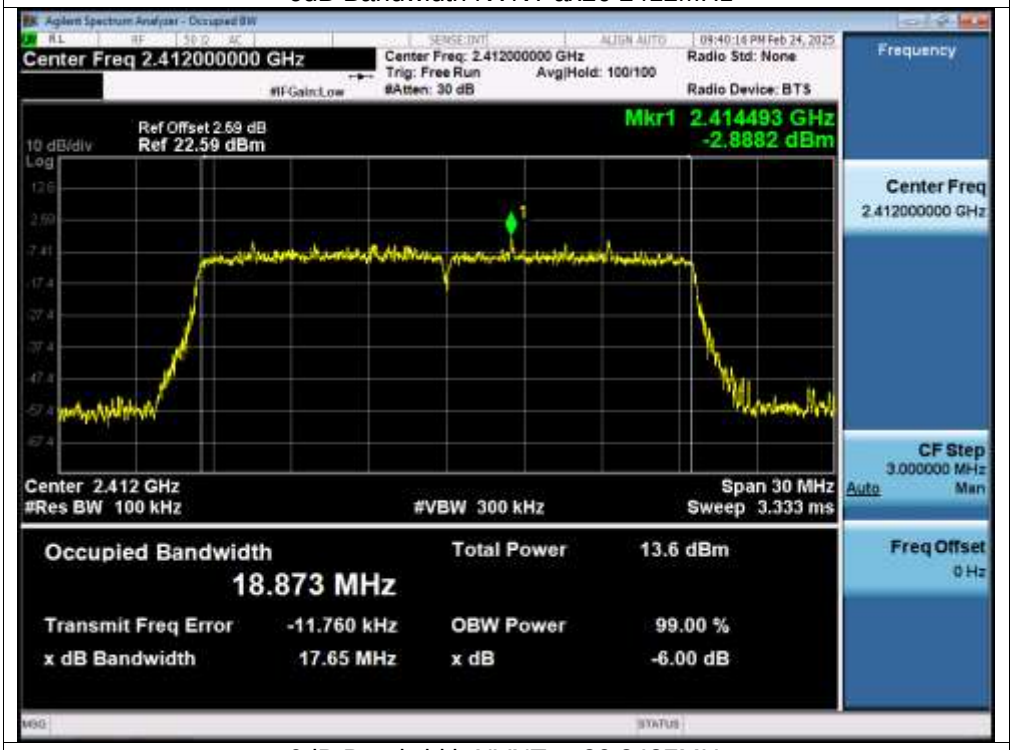
-6dB Bandwidth NVNT n40 2437MHz



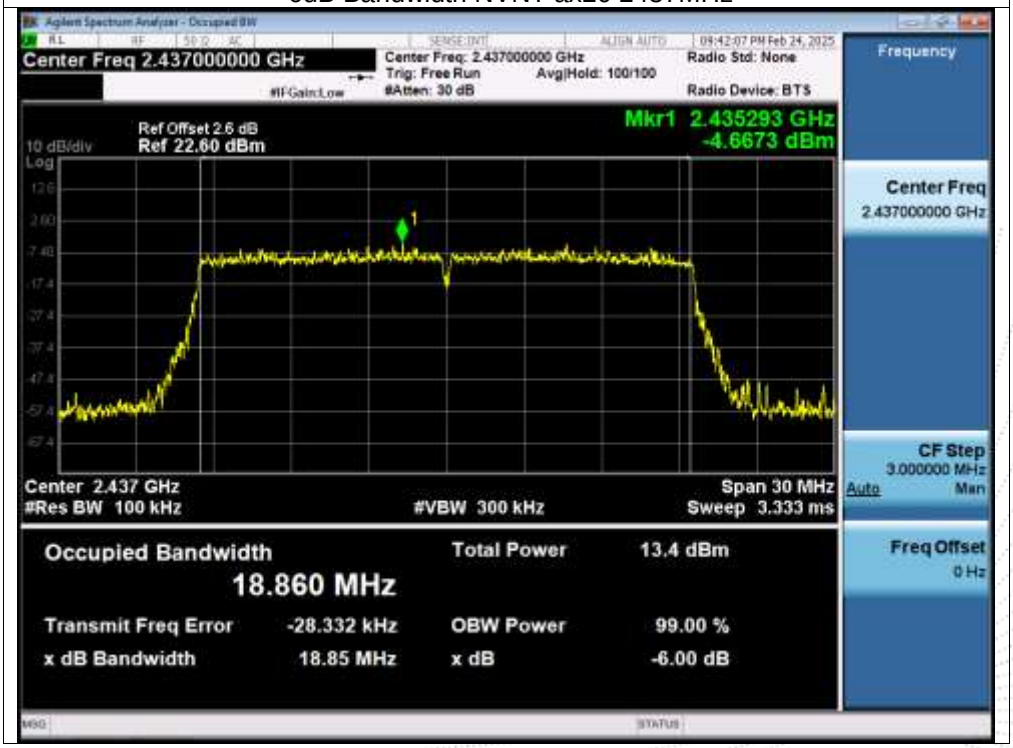
-6dB Bandwidth NVNT n40 2452MHz



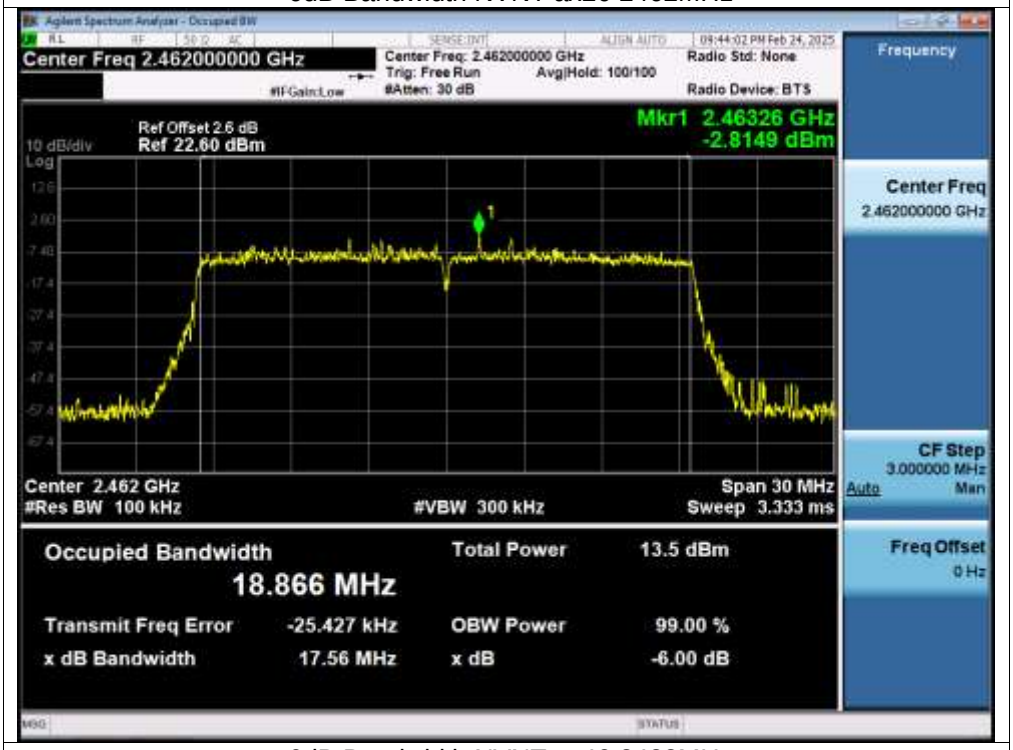
-6dB Bandwidth NVNT ax20 2412MHz



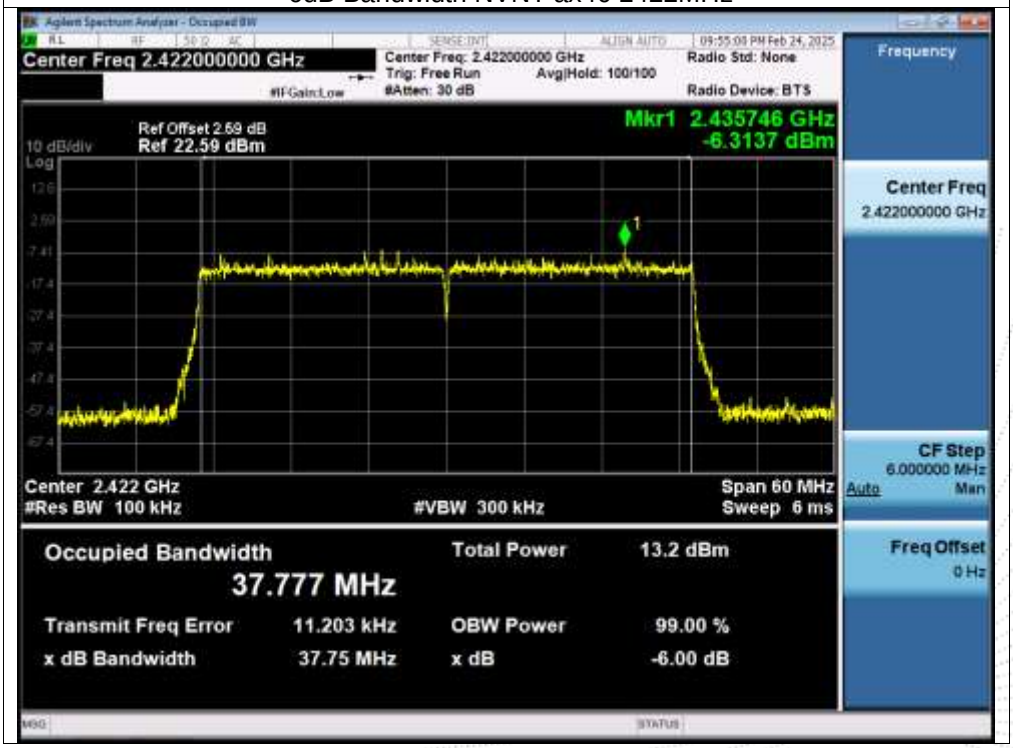
-6dB Bandwidth NVNT ax20 2437MHz



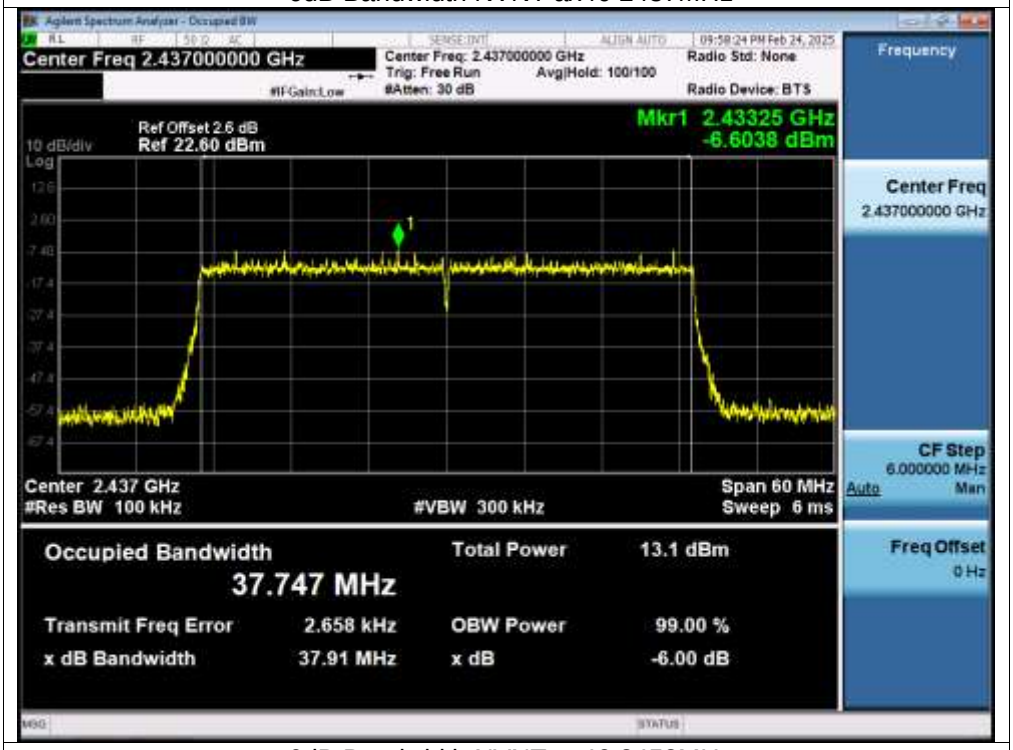
-6dB Bandwidth NVNT ax20 2462MHz



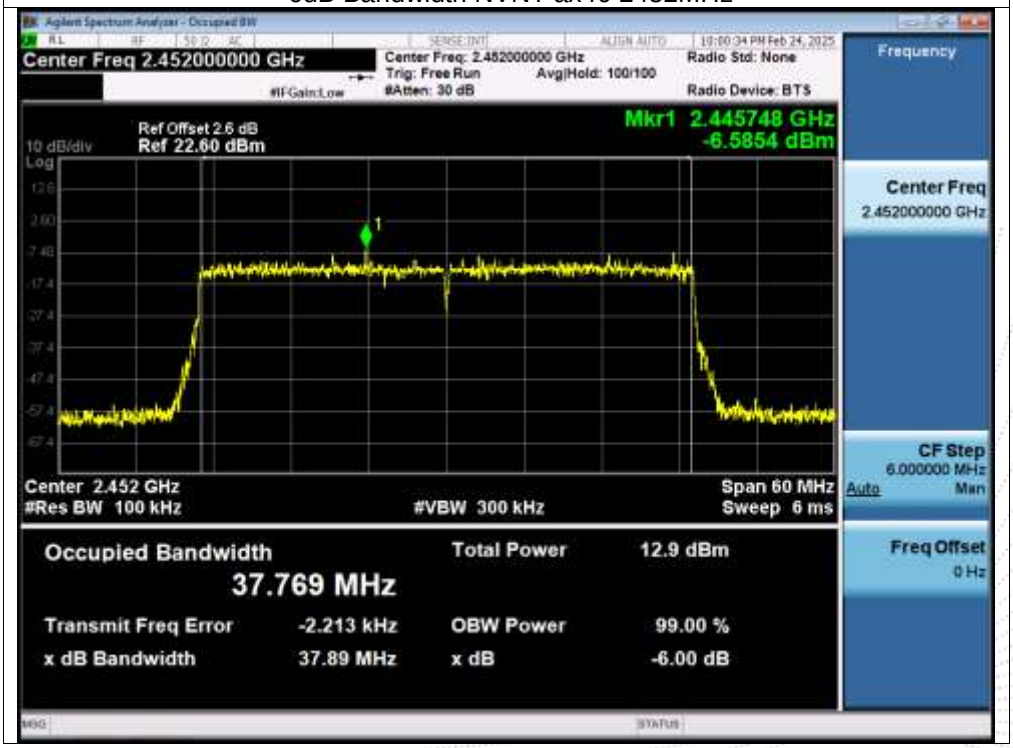
-6dB Bandwidth NVNT ax40 2422MHz



-6dB Bandwidth NVNT ax40 2437MHz

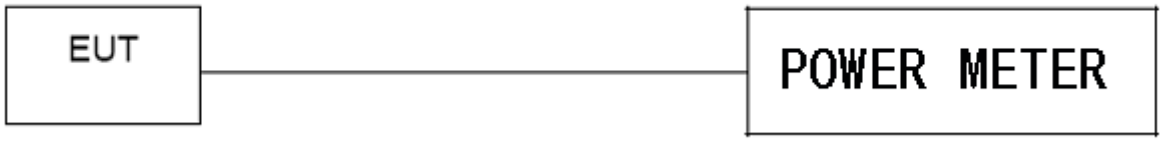


-6dB Bandwidth NVNT ax40 2452MHz



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

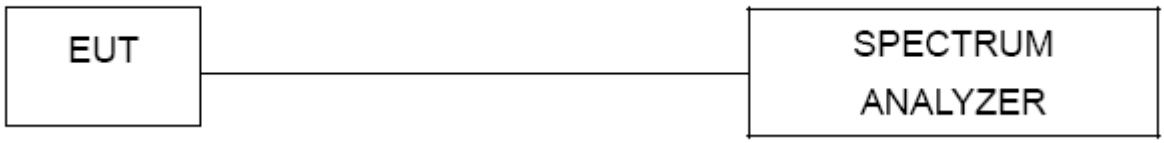
Temperature:	26 ℃	Relative Humidity:	54%RH
Pressure:	101KPa	Test Voltage:	DC 11.4V

Test Mode	Frequency(MHz)	Ant A Maximum Conducted Output Power(PK) (dBm)	Ant B Maximum Conducted Output Power(PK) (dBm)	Total Power Conducted Output Power(PK) (dBm)	Limit (dBm)
802.11b	2412	9.06	8.20	/	30
	2437	8.67	8.16	/	30
	2462	8.91	8.10	/	30
802.11g	2412	8.85	7.03	/	30
	2437	8.71	7.48	/	30
	2462	8.34	7.21	/	30
802.11n20	2412	5.96	5.09	8.56	30
	2437	6.08	5.03	8.60	30
	2462	6.29	5.12	8.75	30
802.11n40	2422	3.52	2.90	6.23	30
	2437	2.73	2.09	5.43	30
	2452	4.29	2.31	6.42	30
802.11ax20	2412	6.13	3.84	8.14	30
	2437	5.81	4.03	8.02	30
	2462	5.51	4.68	8.13	30
802.11ax40	2422	4.51	-1.64	5.45	30
	2437	2.05	0.39	4.31	30
	2452	4.28	2.00	6.30	30

For power measurements,
The Array gain=0 dB for NANT≤4,
So the directional gain for Power measurements is 2.16 dBi

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

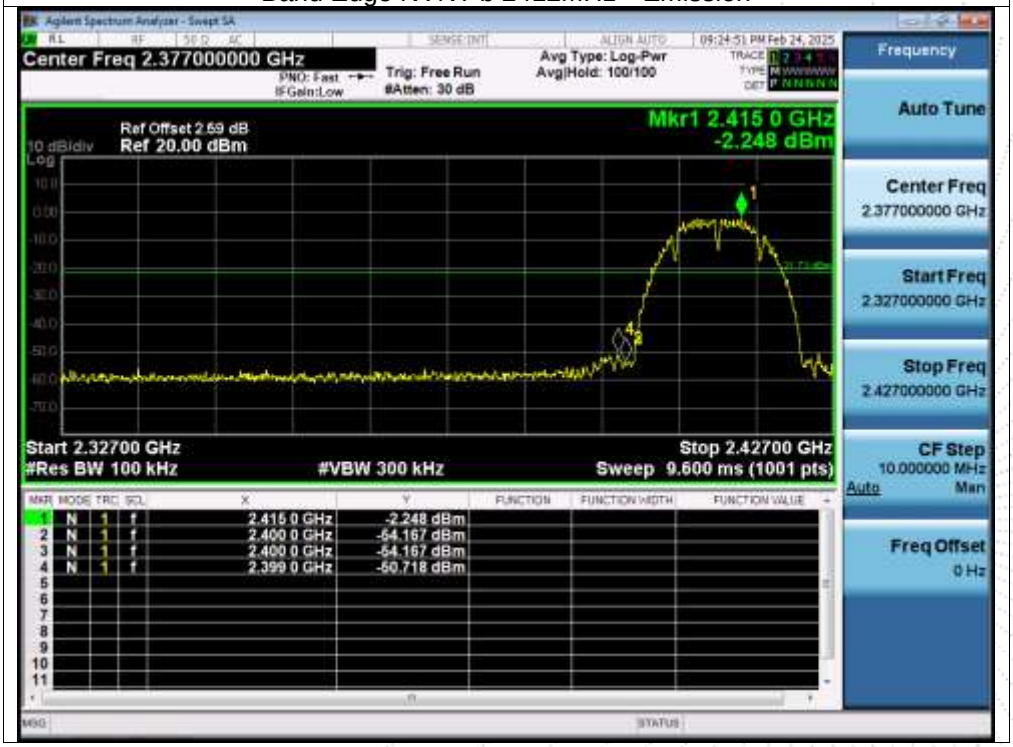
The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.
Note: Power Spectral Density(dBm)=Reading+Cable Loss

12.5 Test Result

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

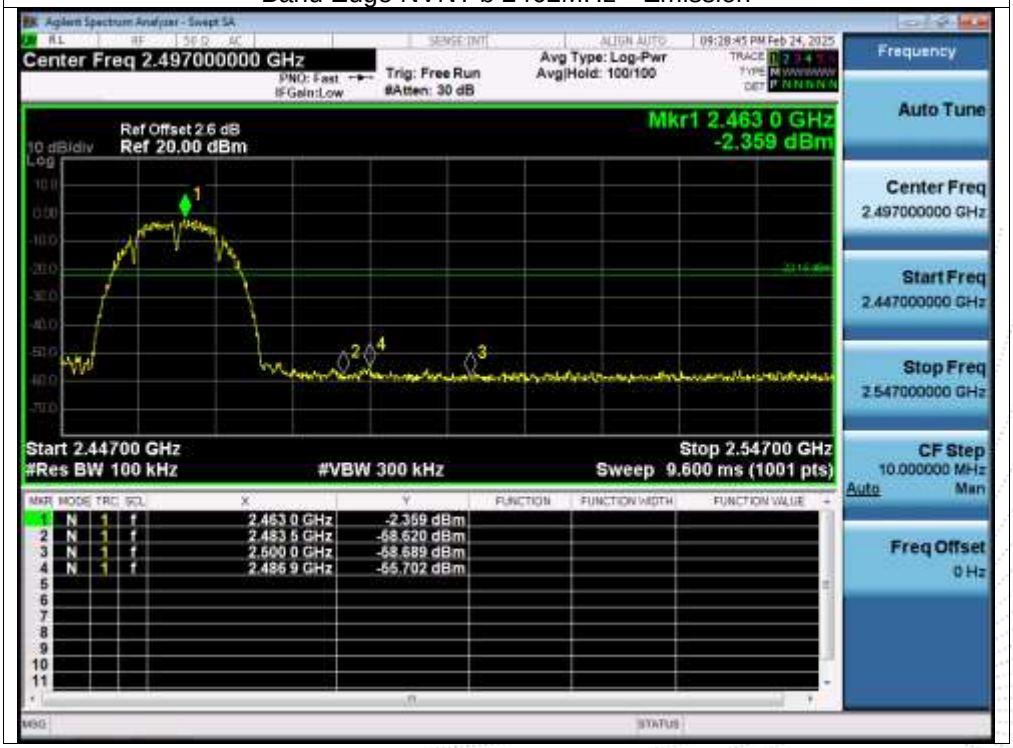
Test Graphs
Band Edge NVNT b 2412MHz Ref

Band Edge NVNT b 2412MHz Emission



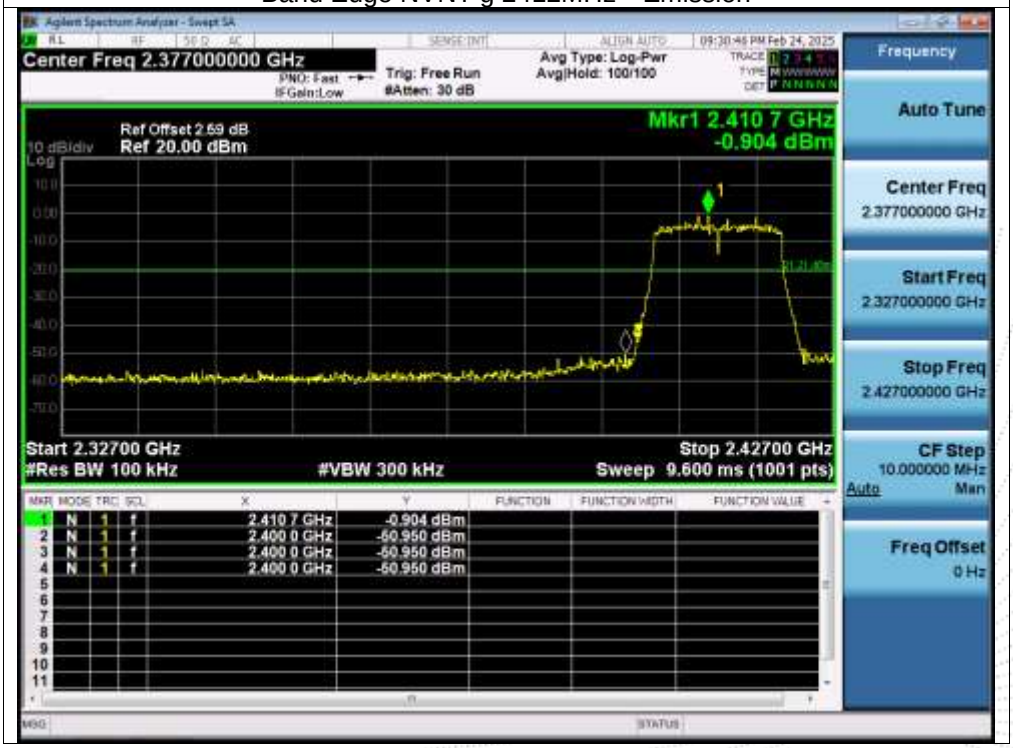
Band Edge NVNT b 2462MHz Ref

Band Edge NVNT b 2462MHz Emission



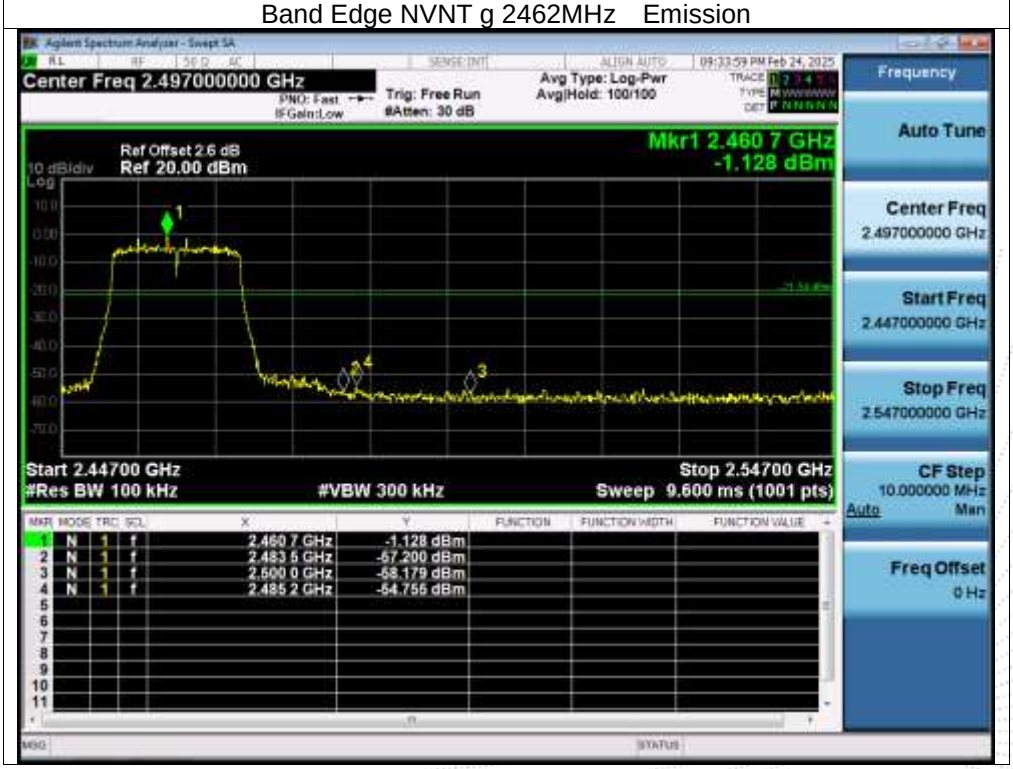
Band Edge NVNT g 2412MHz Ref

Band Edge NVNT g 2412MHz Emission



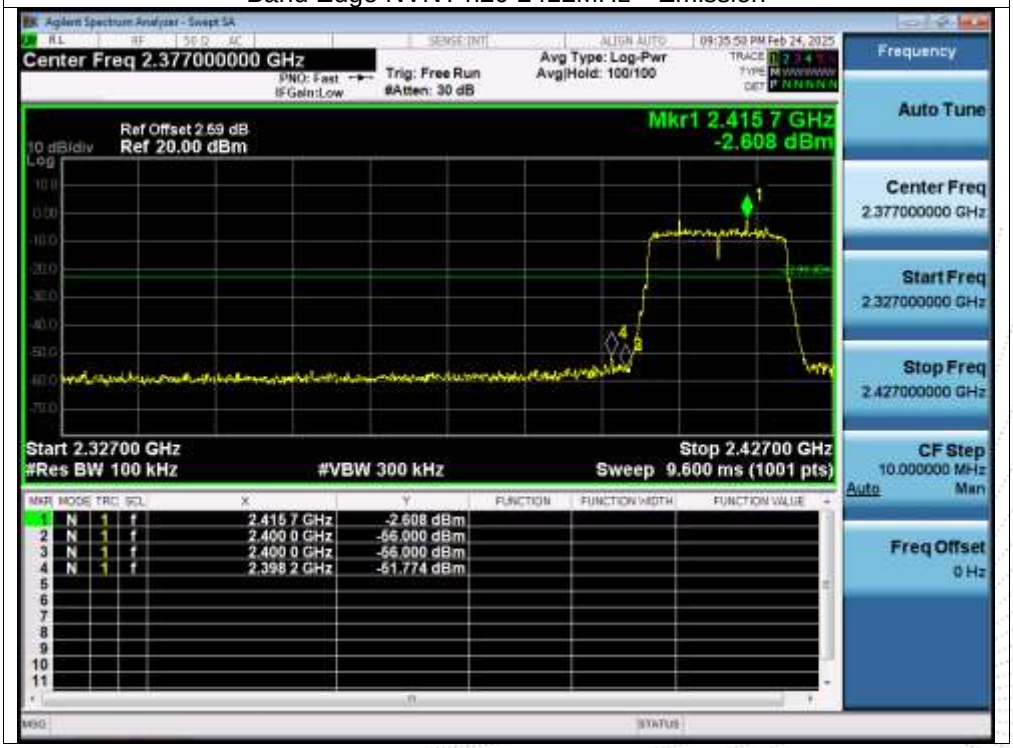
Band Edge NVNT g 2462MHz Ref

Band Edge NVNT g 2462MHz Emission



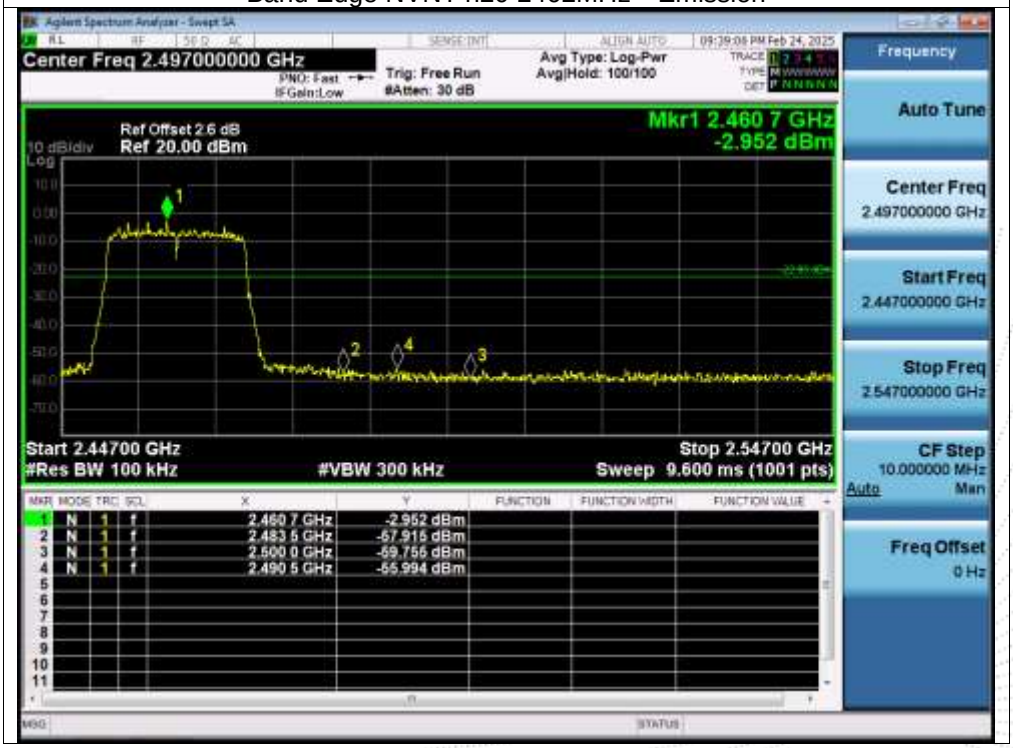
Band Edge NVNT n20 2412MHz Ref

Band Edge NVNT n20 2412MHz Emission



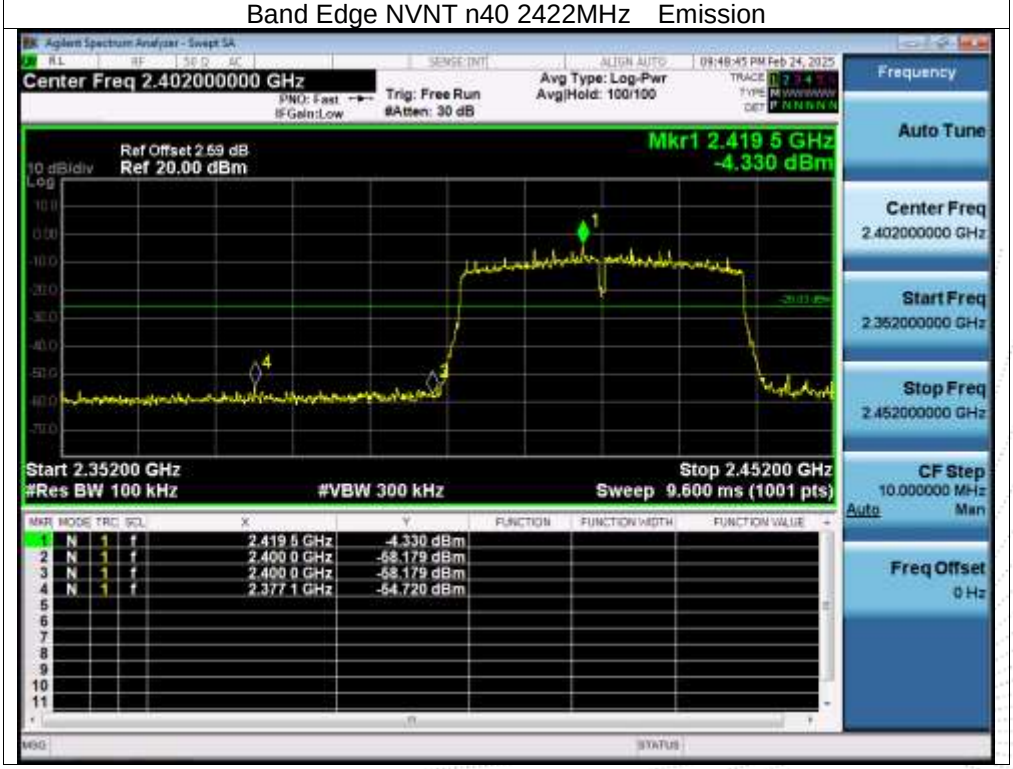
Band Edge NVNT n20 2462MHz Ref

Band Edge NVNT n20 2462MHz Emission



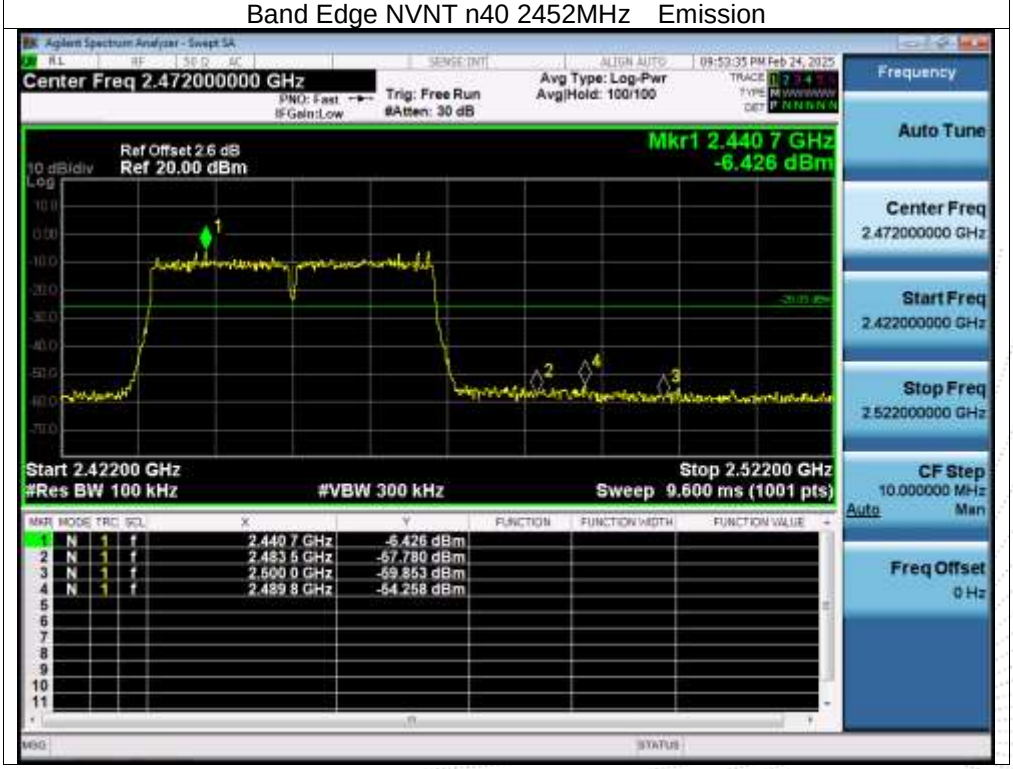
Band Edge NVNT n40 2422MHz Ref

Band Edge NVNT n40 2422MHz Emission



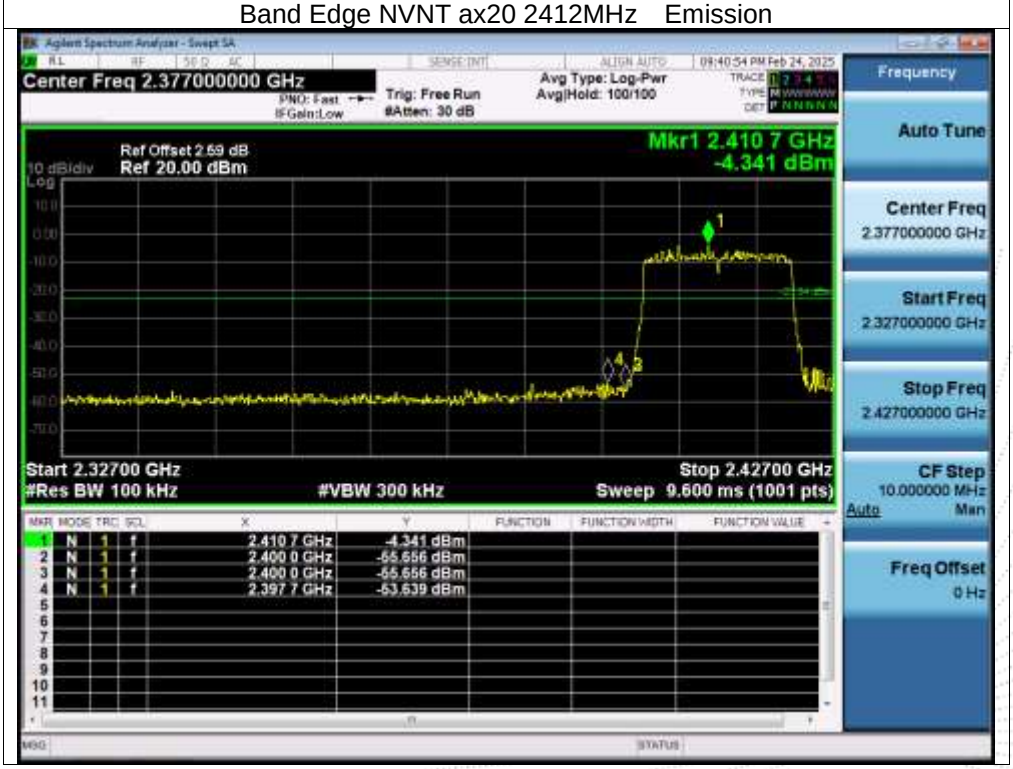
Band Edge NVNT n40 2452MHz Ref

Band Edge NVNT n40 2452MHz Emission



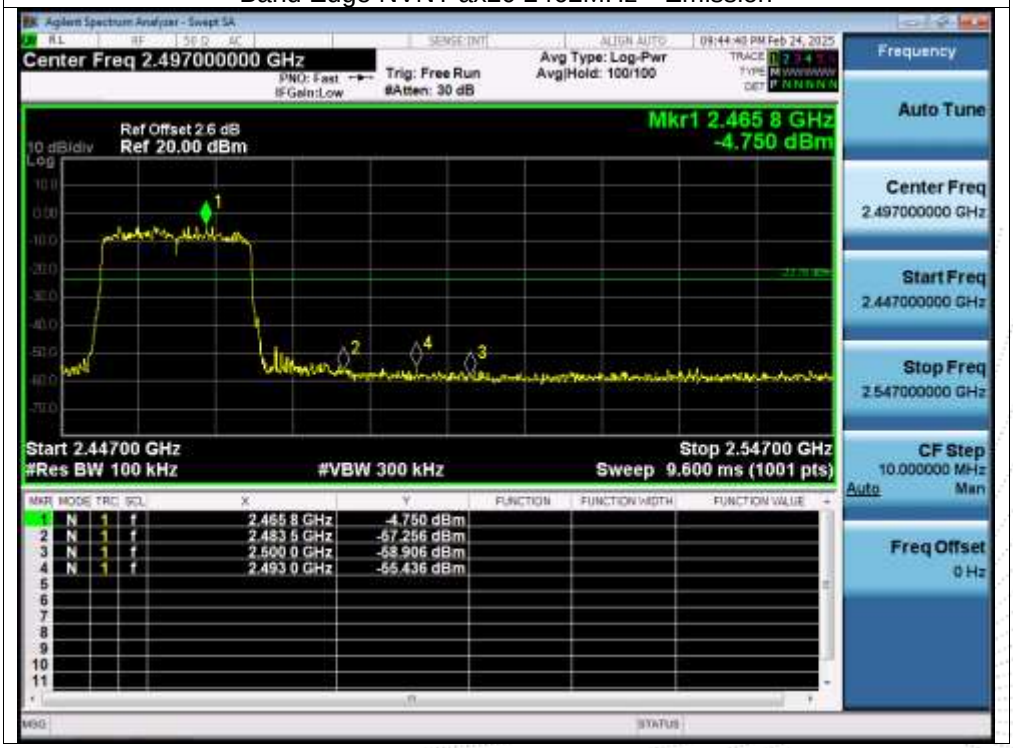
Band Edge NVNT ax20 2412MHz Ref

Band Edge NVNT ax20 2412MHz Emission



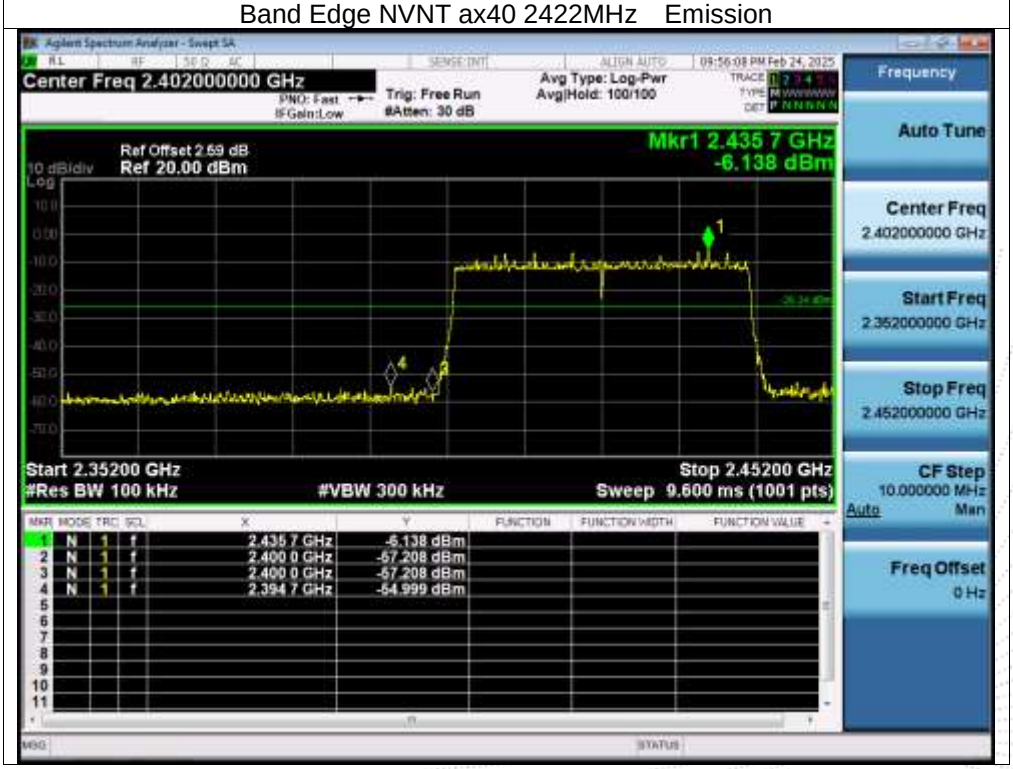
Band Edge NVNT ax20 2462MHz Ref

Band Edge NVNT ax20 2462MHz Emission

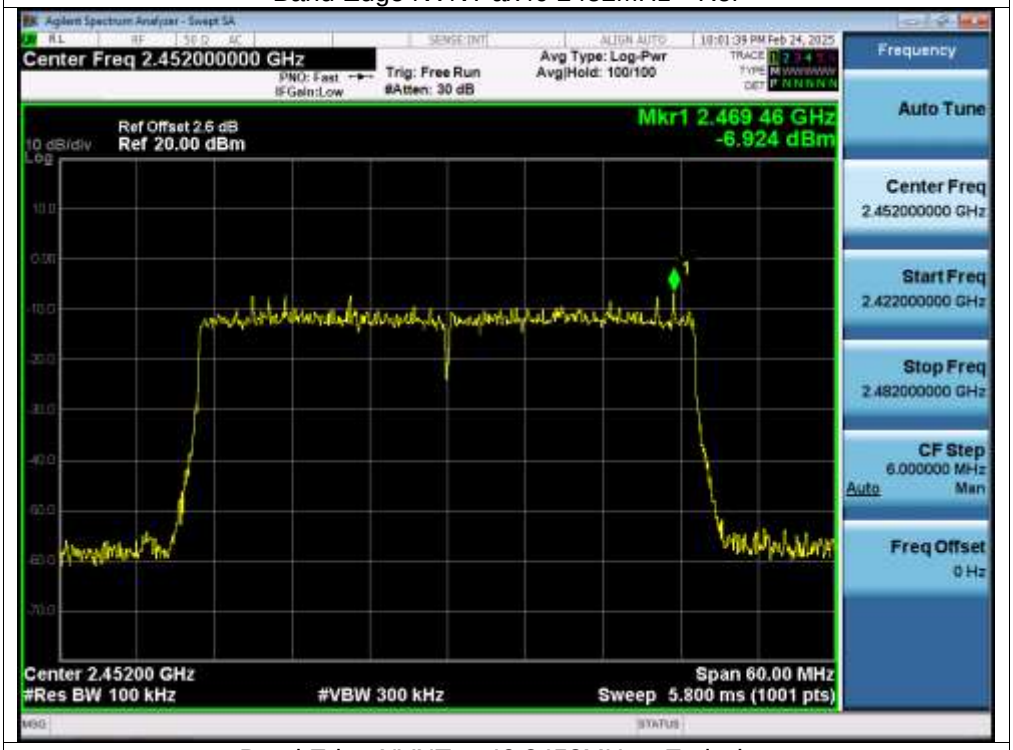


Band Edge NVNT ax40 2422MHz Ref

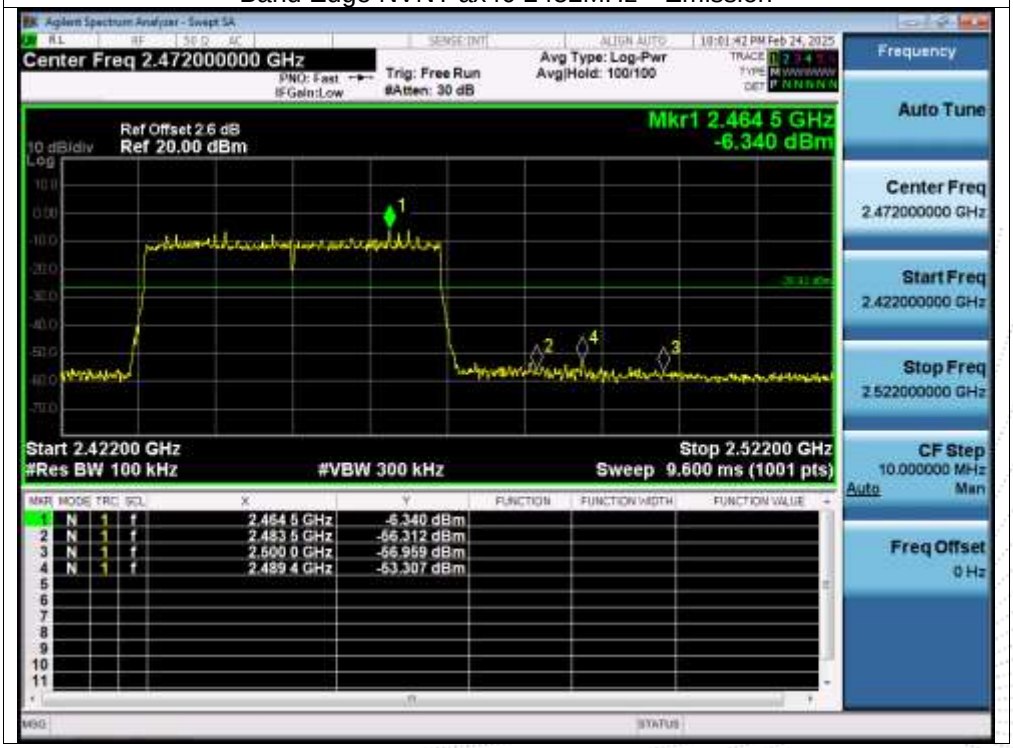
Band Edge NVNT ax40 2422MHz Emission



Band Edge NVNT ax40 2452MHz Ref



Band Edge NVNT ax40 2452MHz Emission

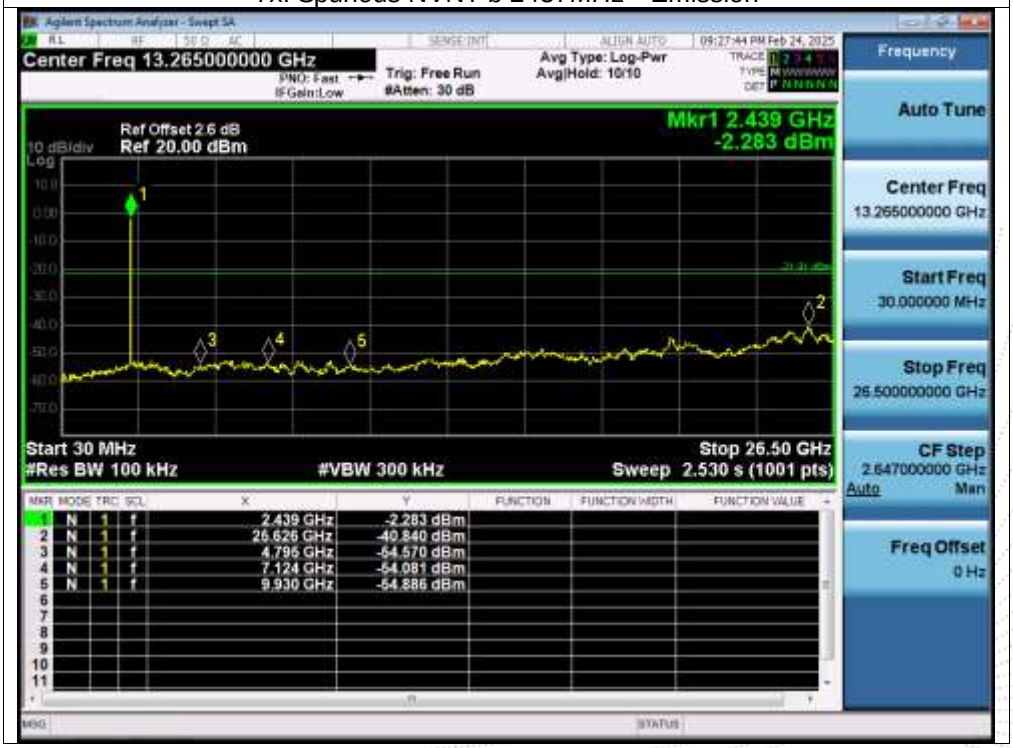


Test Graphs
Tx. Spurious NVNT b 2412MHz Ref

Tx. Spurious NVNT b 2412MHz Emission

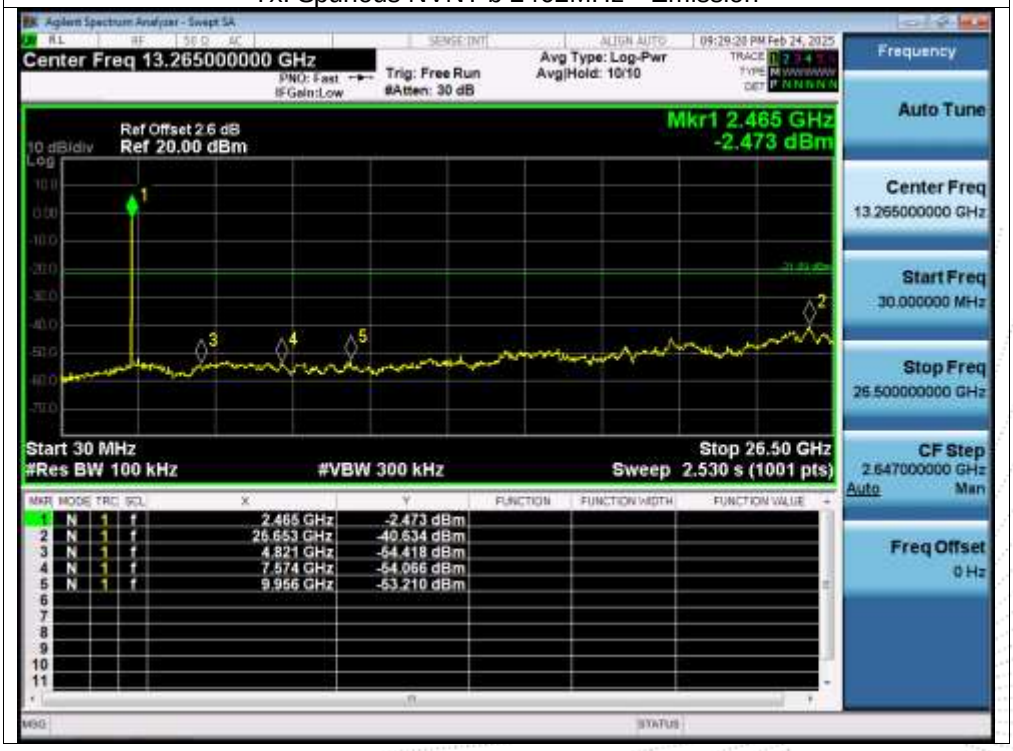
Tx. Spurious NVNT b 2437MHz Ref

Tx. Spurious NVNT b 2437MHz Emission



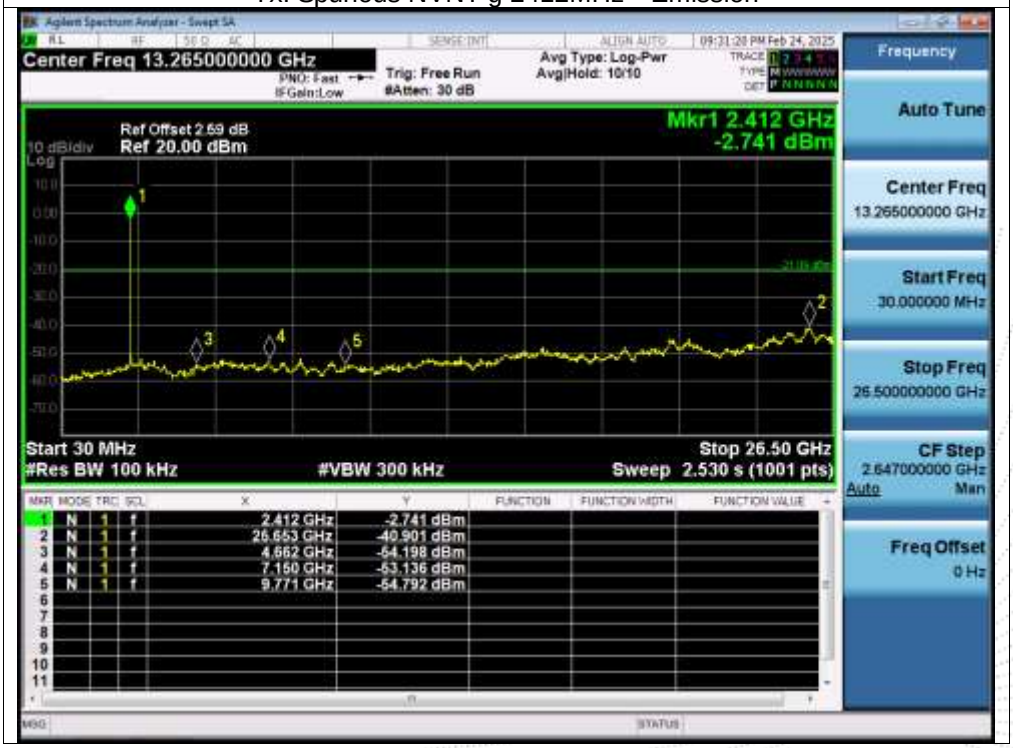
Tx. Spurious NVNT b 2462MHz Ref

Tx. Spurious NVNT b 2462MHz Emission



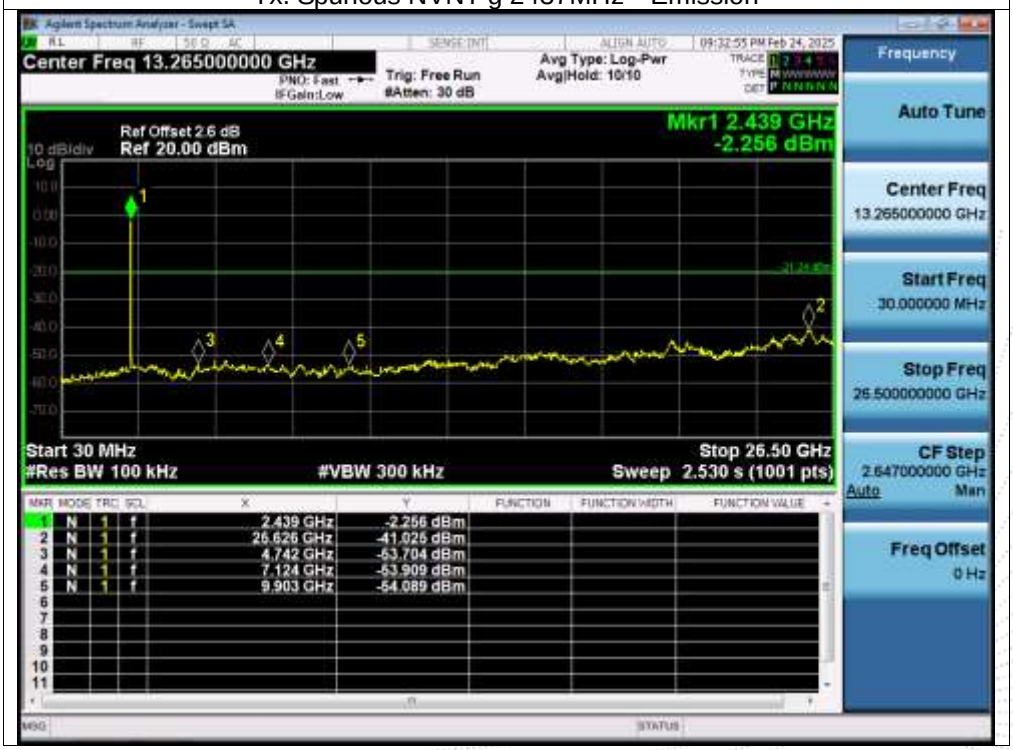
Tx. Spurious NVNT g 2412MHz Ref

Tx. Spurious NVNT g 2412MHz Emission



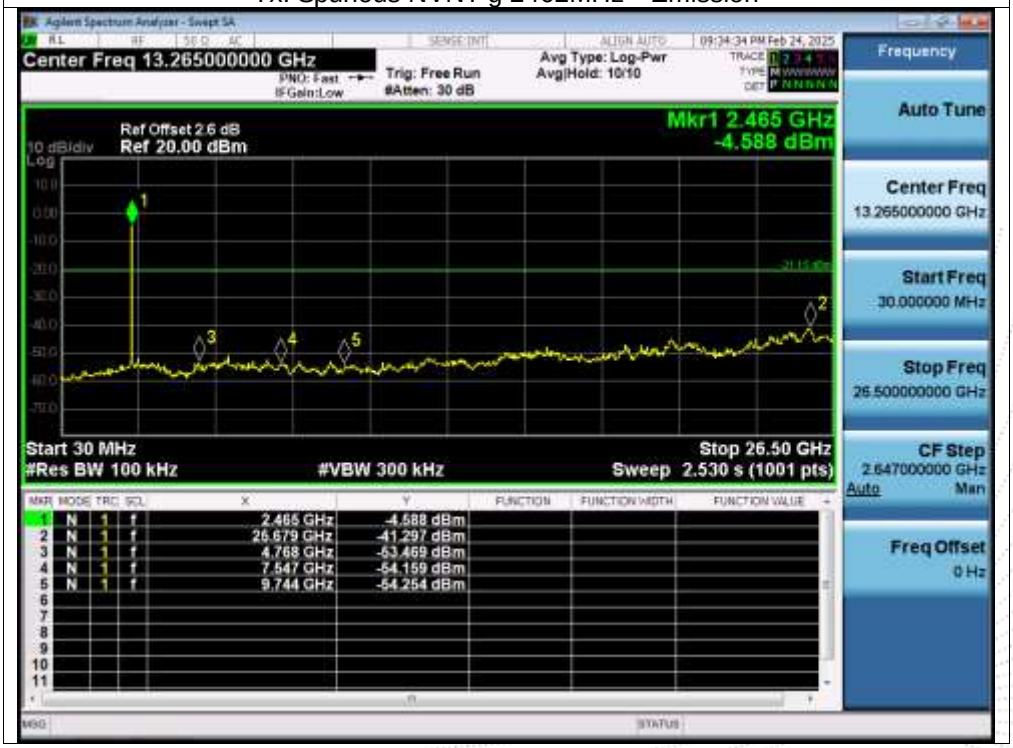
Tx. Spurious NVNT g 2437MHz Ref

Tx. Spurious NVNT g 2437MHz Emission



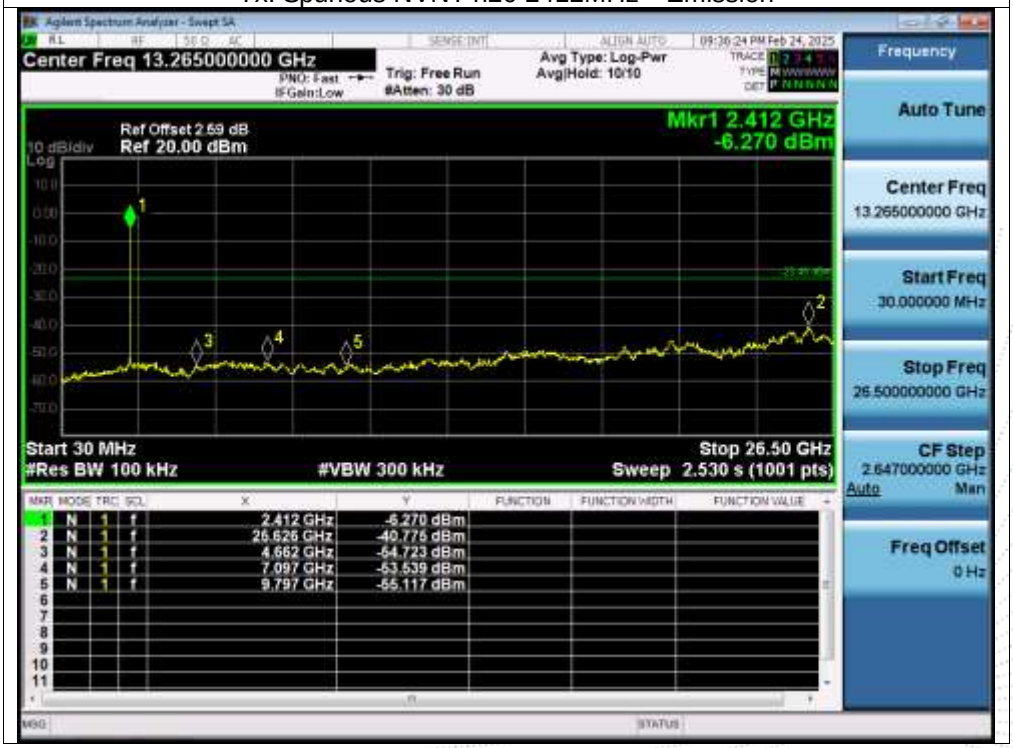
Tx. Spurious NVNT g 2462MHz Ref

Tx. Spurious NVNT g 2462MHz Emission



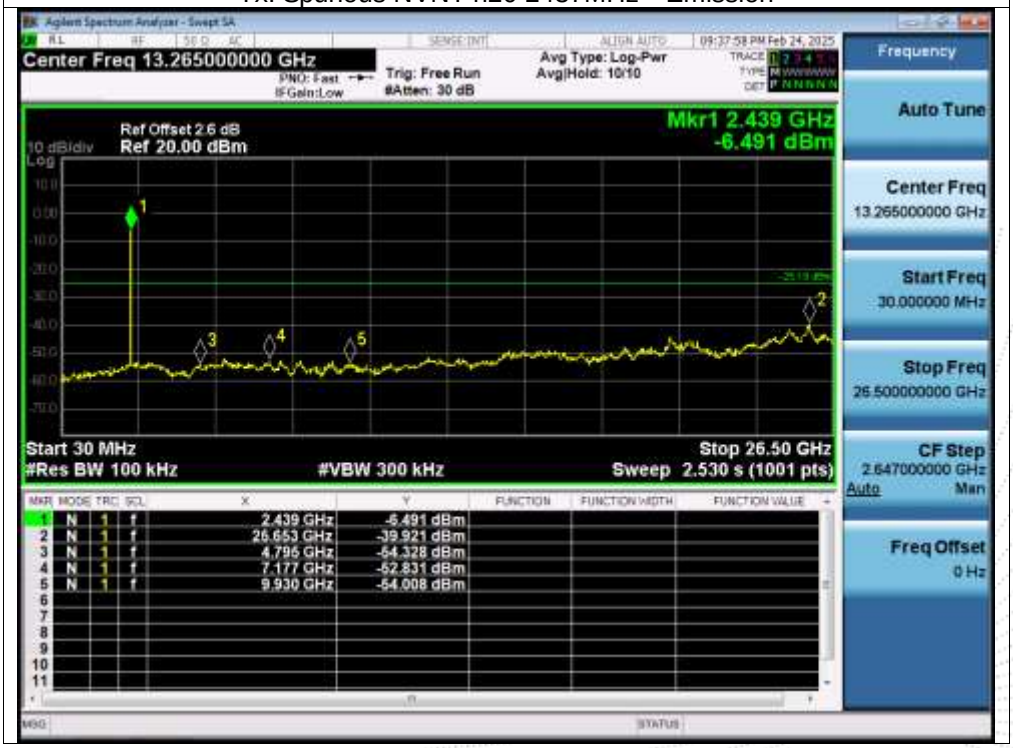
Tx. Spurious NVNT n20 2412MHz Ref

Tx. Spurious NVNT n20 2412MHz Emission



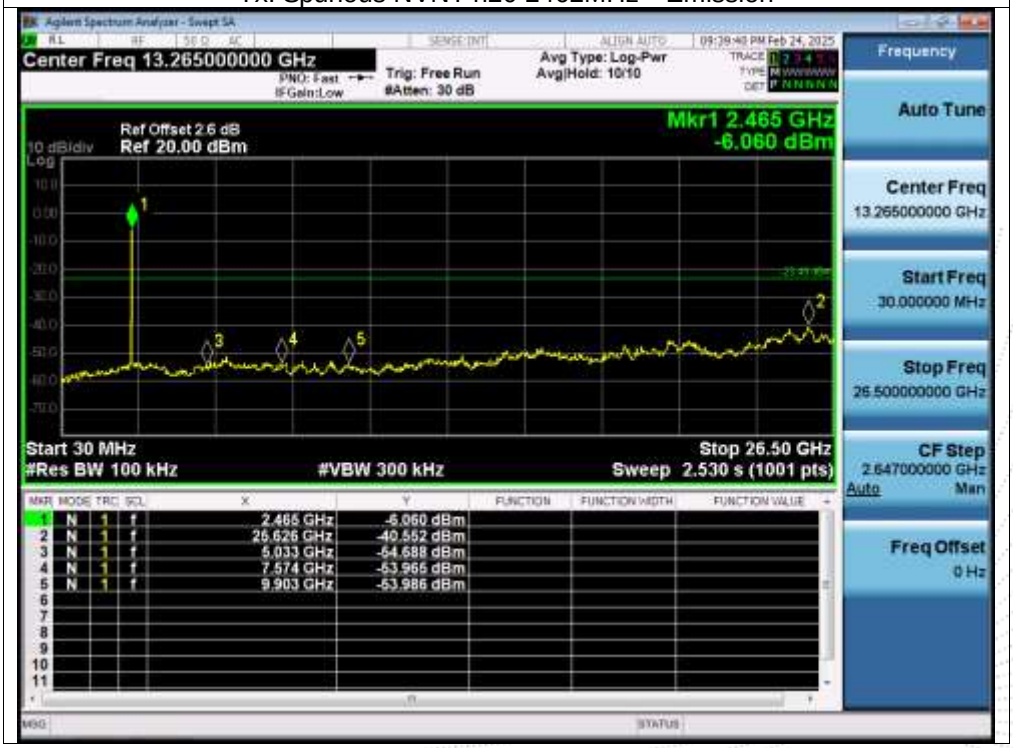
Tx. Spurious NVNT n20 2437MHz Ref

Tx. Spurious NVNT n20 2437MHz Emission



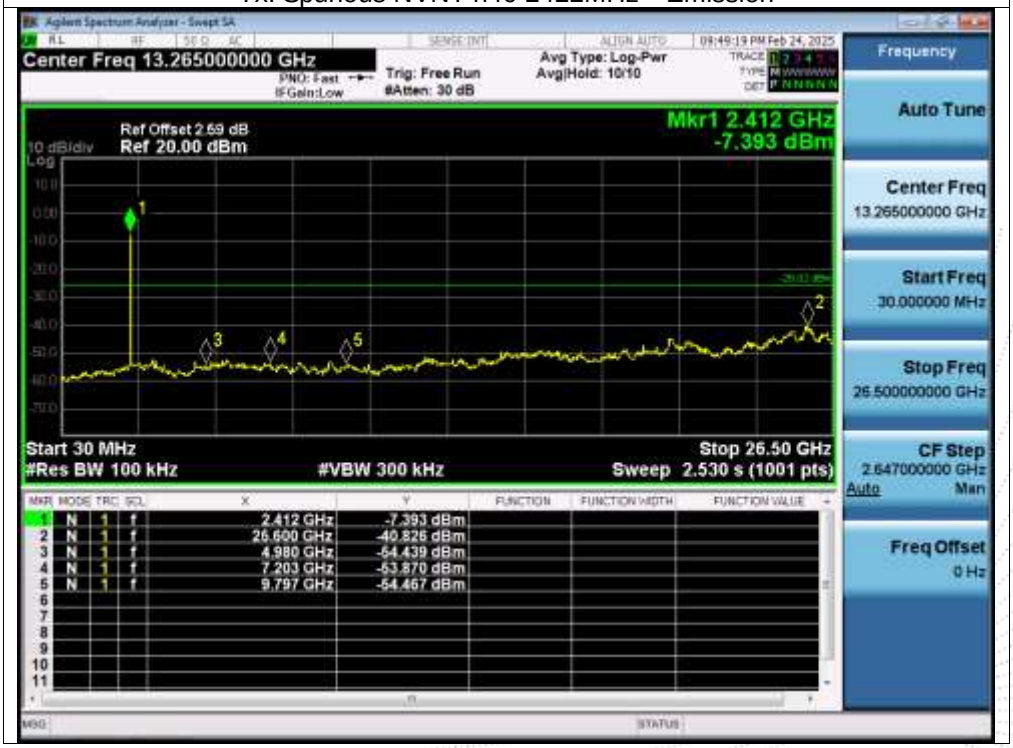
Tx. Spurious NVNT n20 2462MHz Ref

Tx. Spurious NVNT n20 2462MHz Emission



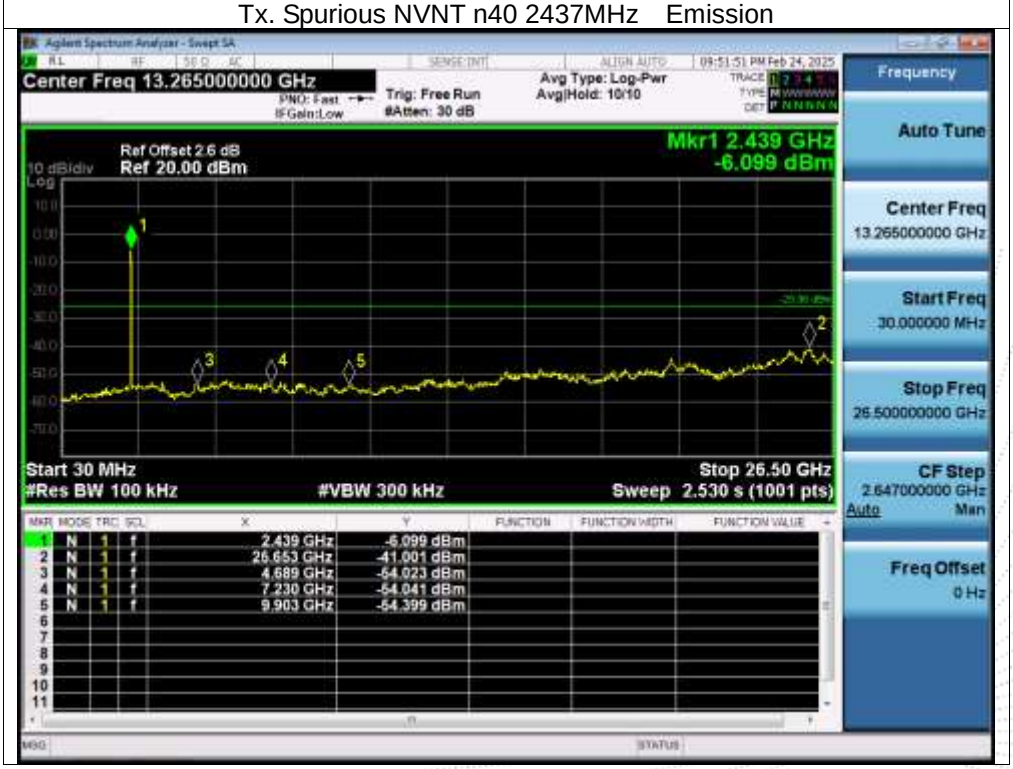
Tx. Spurious NVNT n40 2422MHz Ref

Tx. Spurious NVNT n40 2422MHz Emission



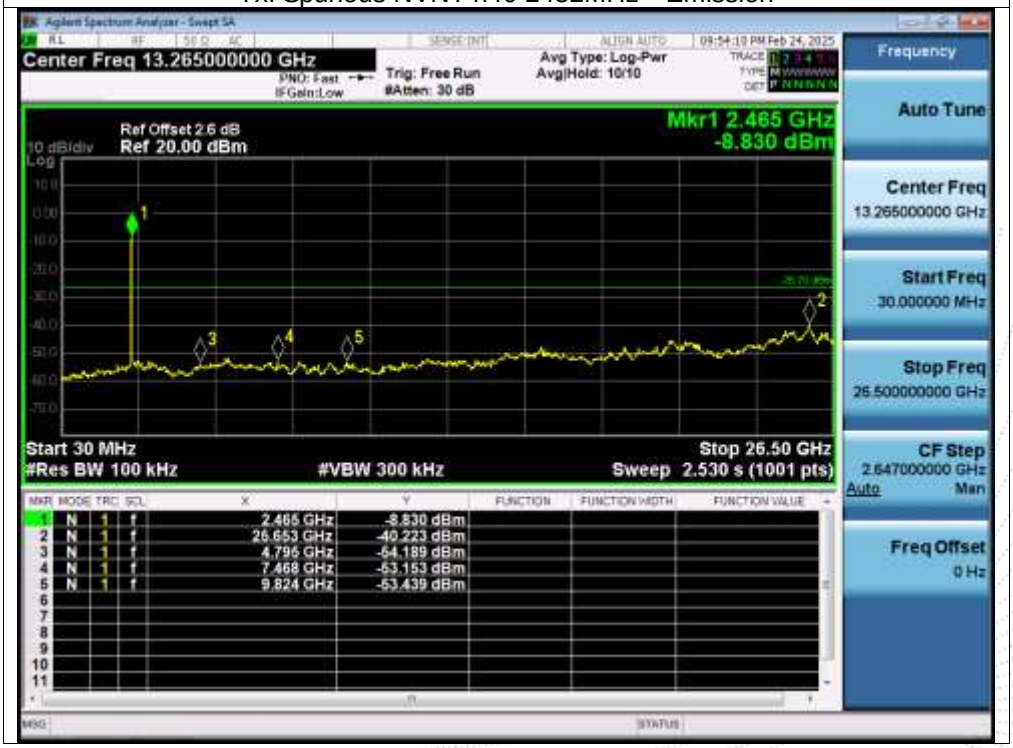
Tx. Spurious NVNT n40 2437MHz Ref

Tx. Spurious NVNT n40 2437MHz Emission



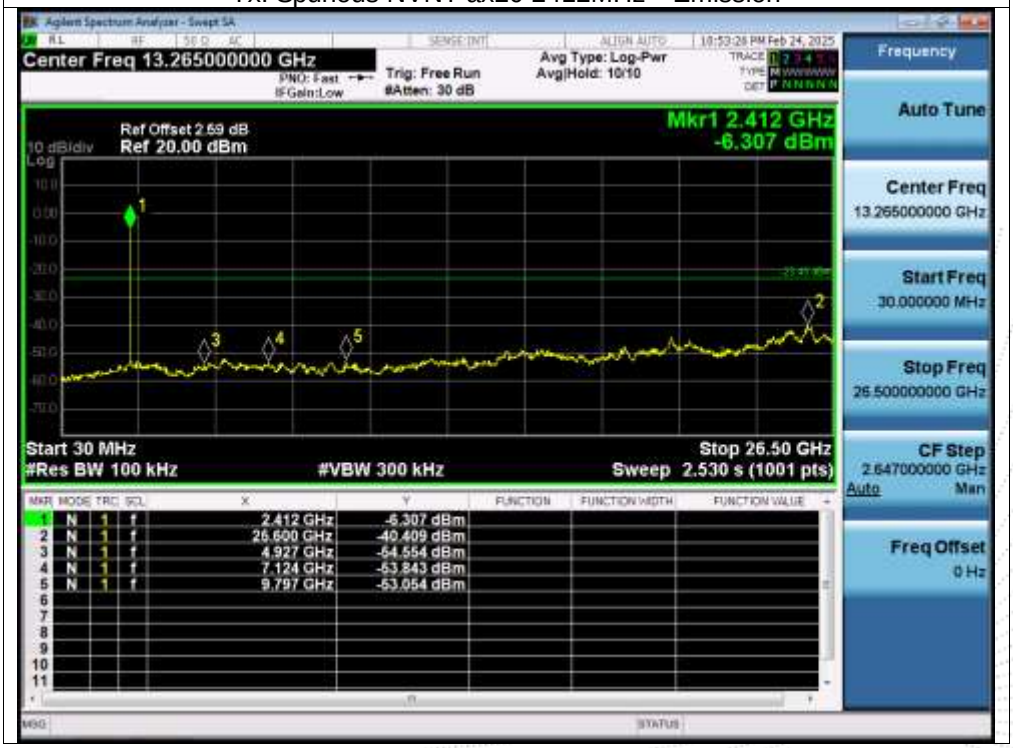
Tx. Spurious NVNT n40 2452MHz Ref

Tx. Spurious NVNT n40 2452MHz Emission



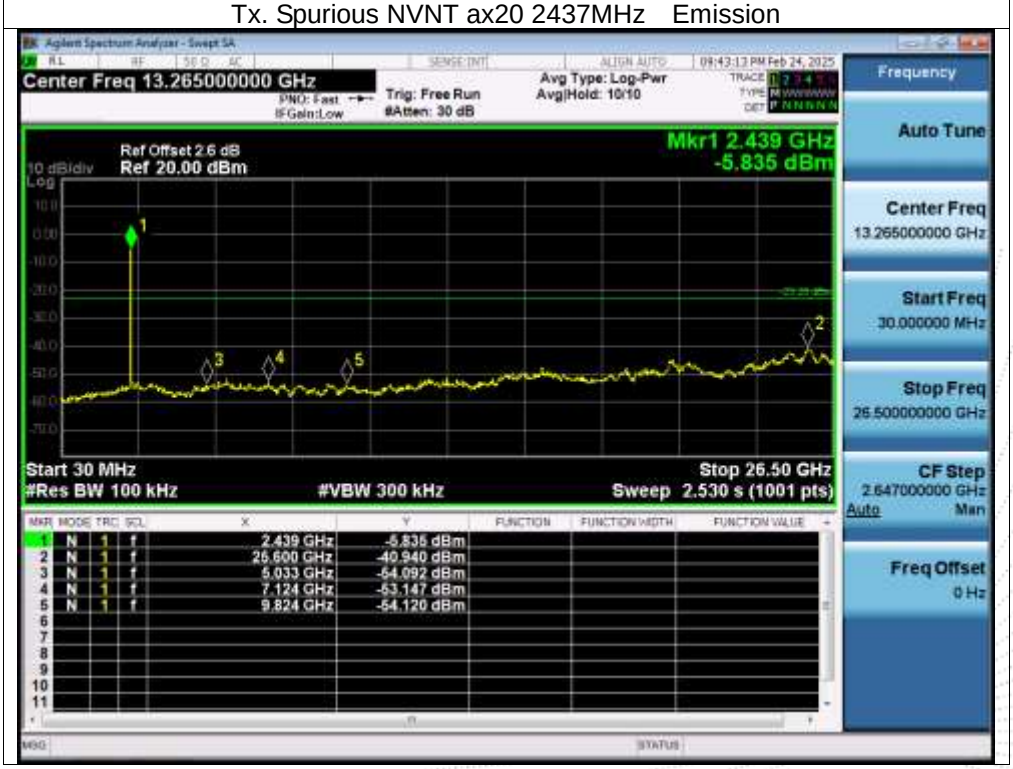
Tx. Spurious NVNT ax20 2412MHz Ref

Tx. Spurious NVNT ax20 2412MHz Emission



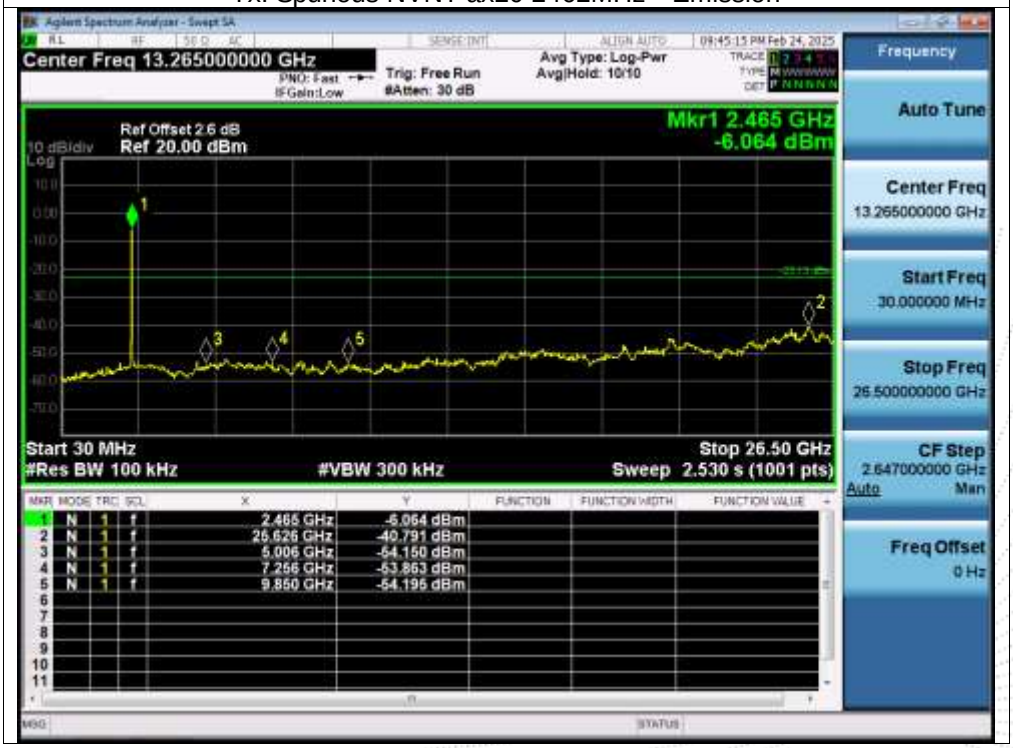
Tx. Spurious NVNT ax20 2437MHz Ref

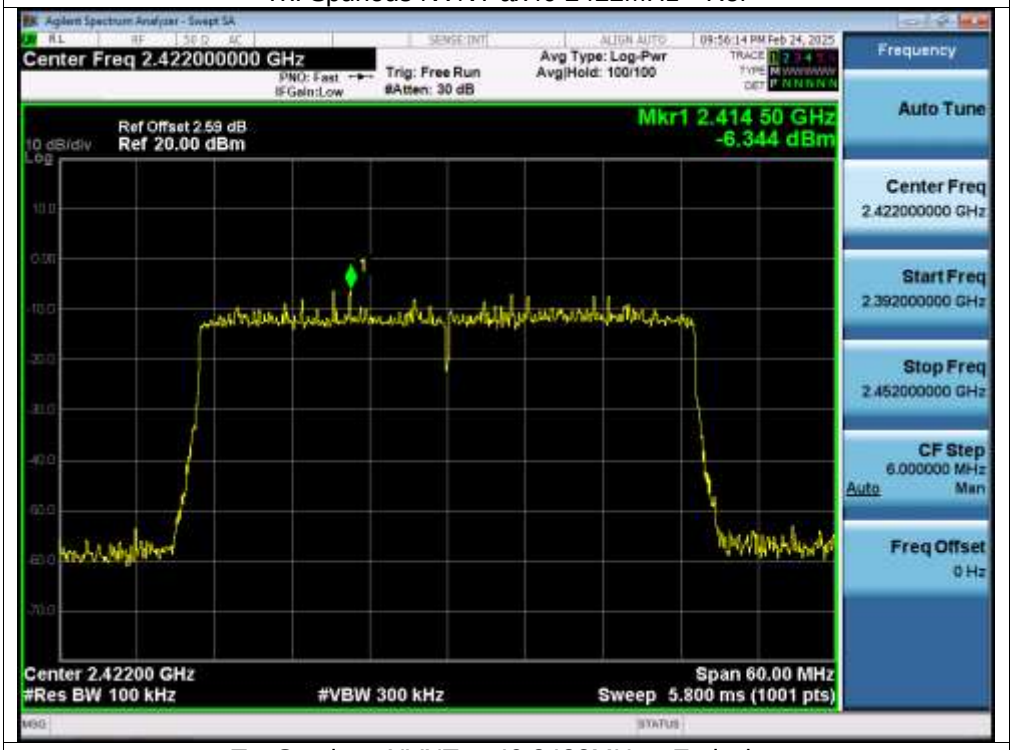
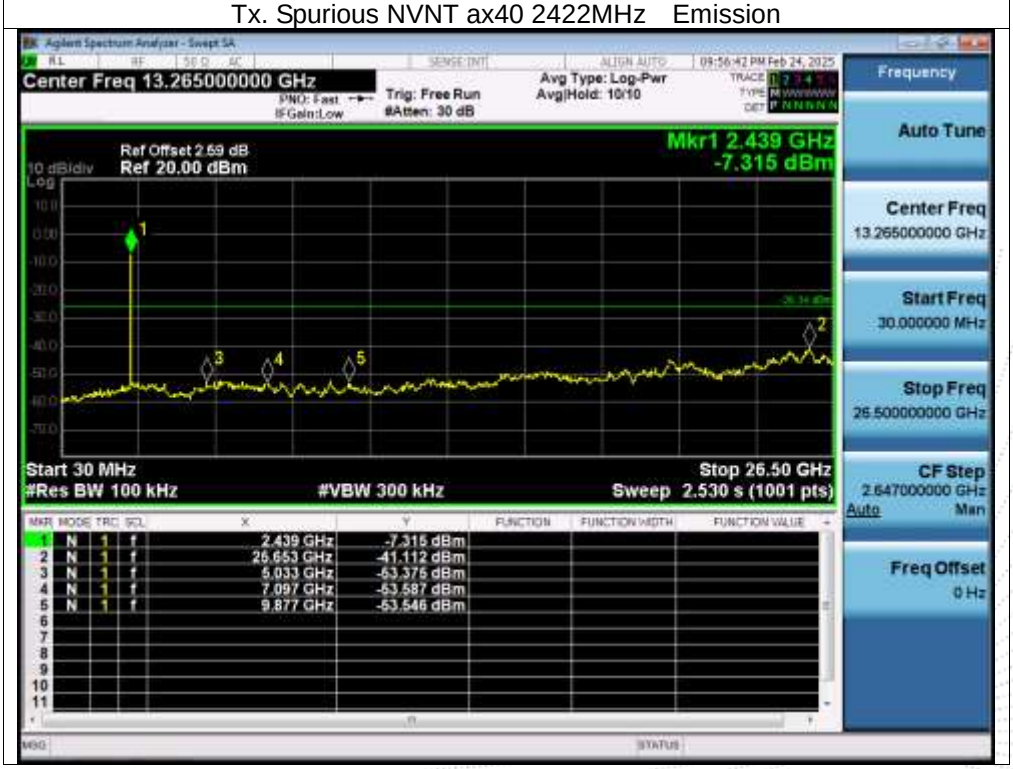
Tx. Spurious NVNT ax20 2437MHz Emission



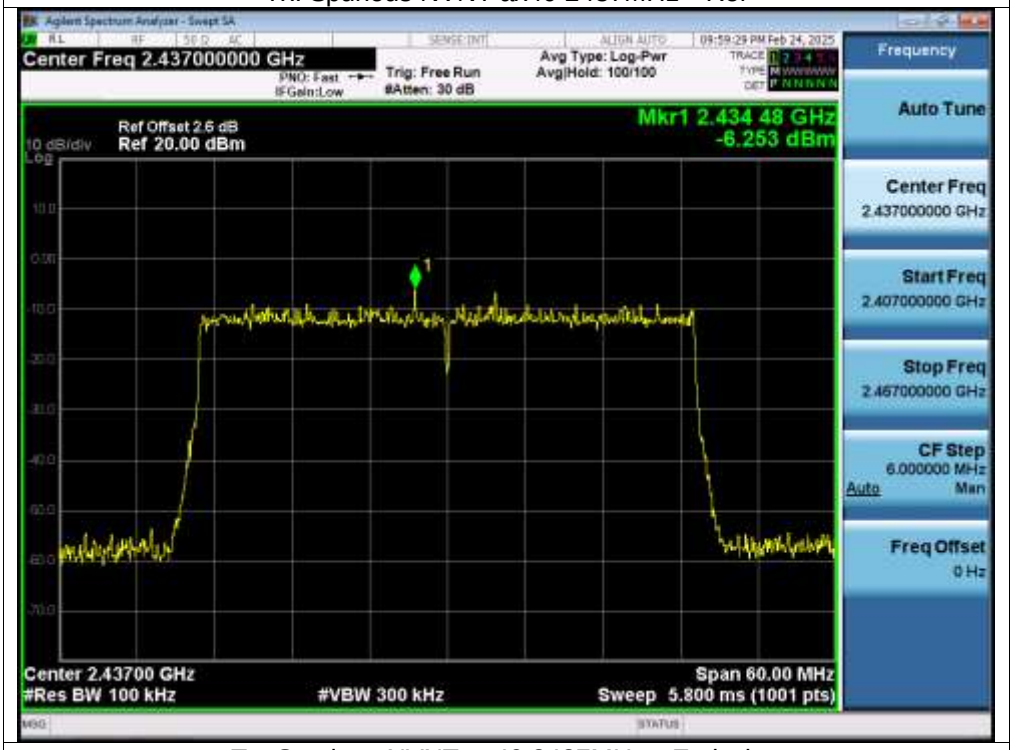
Tx. Spurious NVNT ax20 2462MHz Ref

Tx. Spurious NVNT ax20 2462MHz Emission

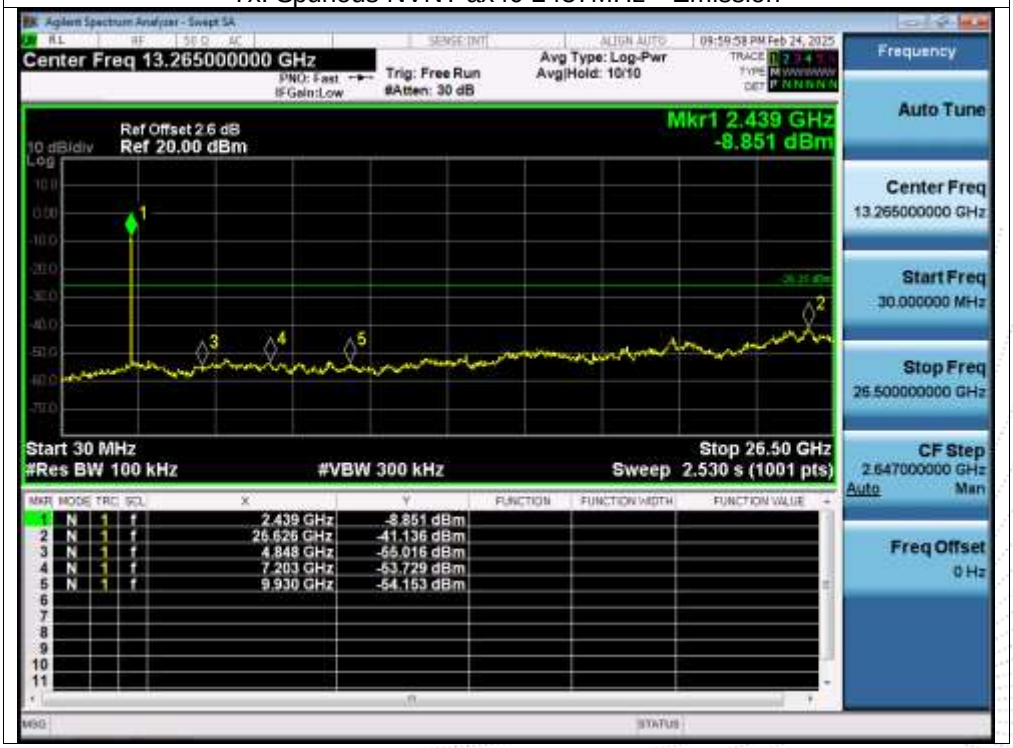


Tx. Spurious NVNT ax40 2422MHz Ref

Tx. Spurious NVNT ax40 2422MHz Emission


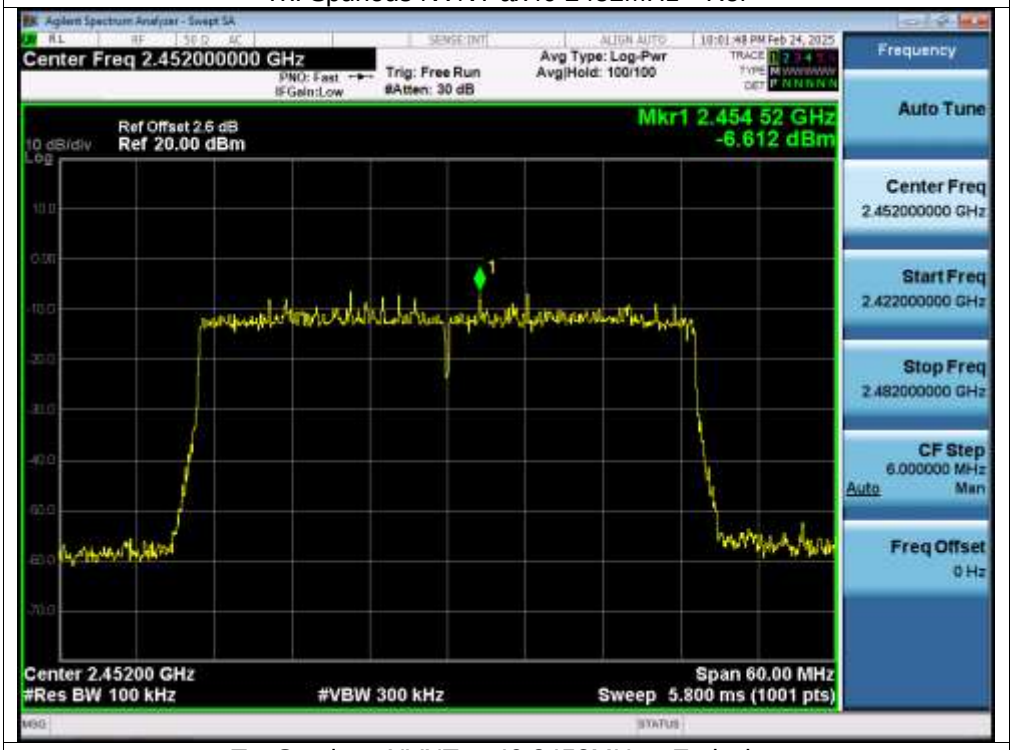
Tx. Spurious NVNT ax40 2437MHz Ref



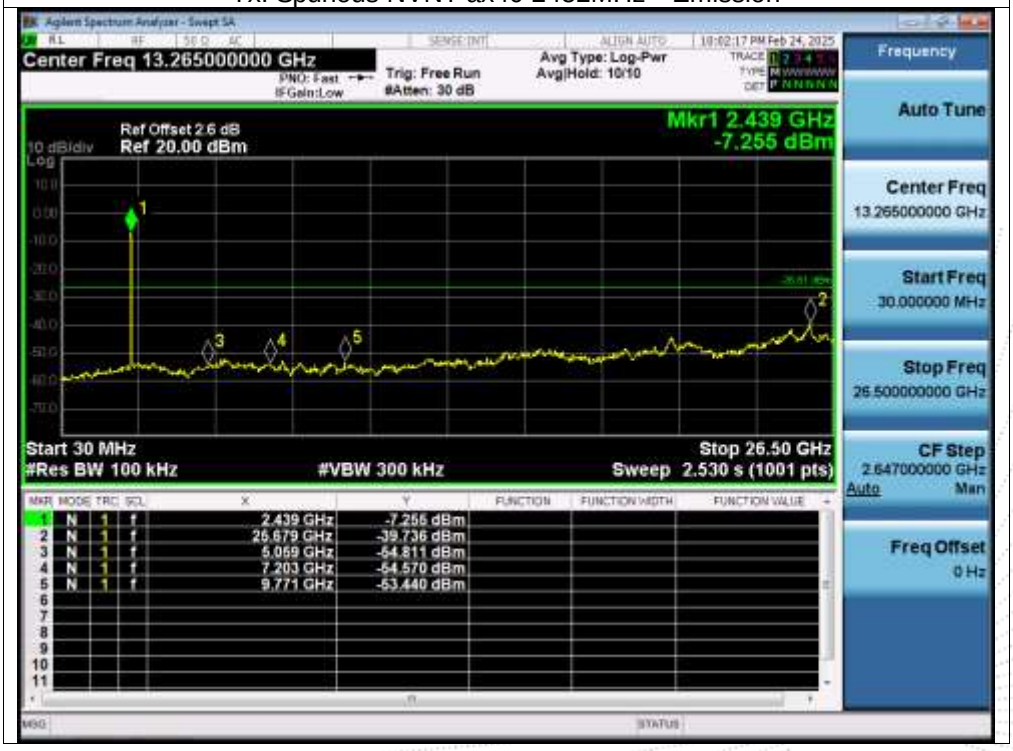
Tx. Spurious NVNT ax40 2437MHz Emission



Tx. Spurious NVNT ax40 2452MHz Ref



Tx. Spurious NVNT ax40 2452MHz 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

Duty Cycle = Ton / (Ton+Toff)

13.3 Test Procedure

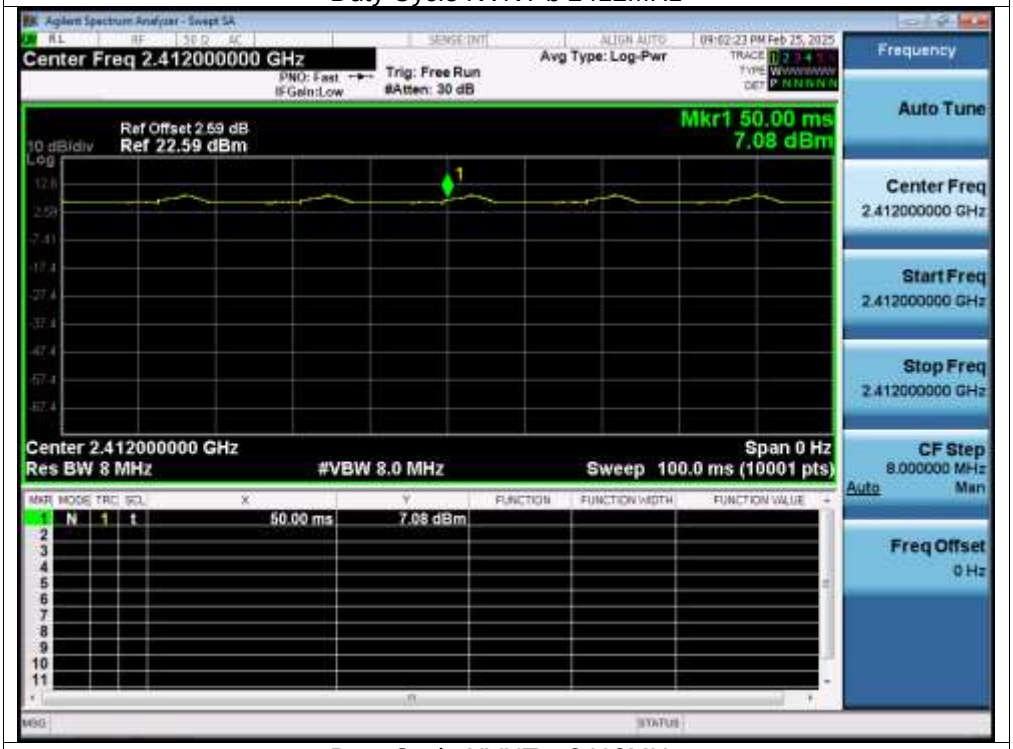
1.Set span = Zero
2. RBW = 8MHz
3. VBW = 8MHz,
4. Detector = Peak

13.4 Test Result

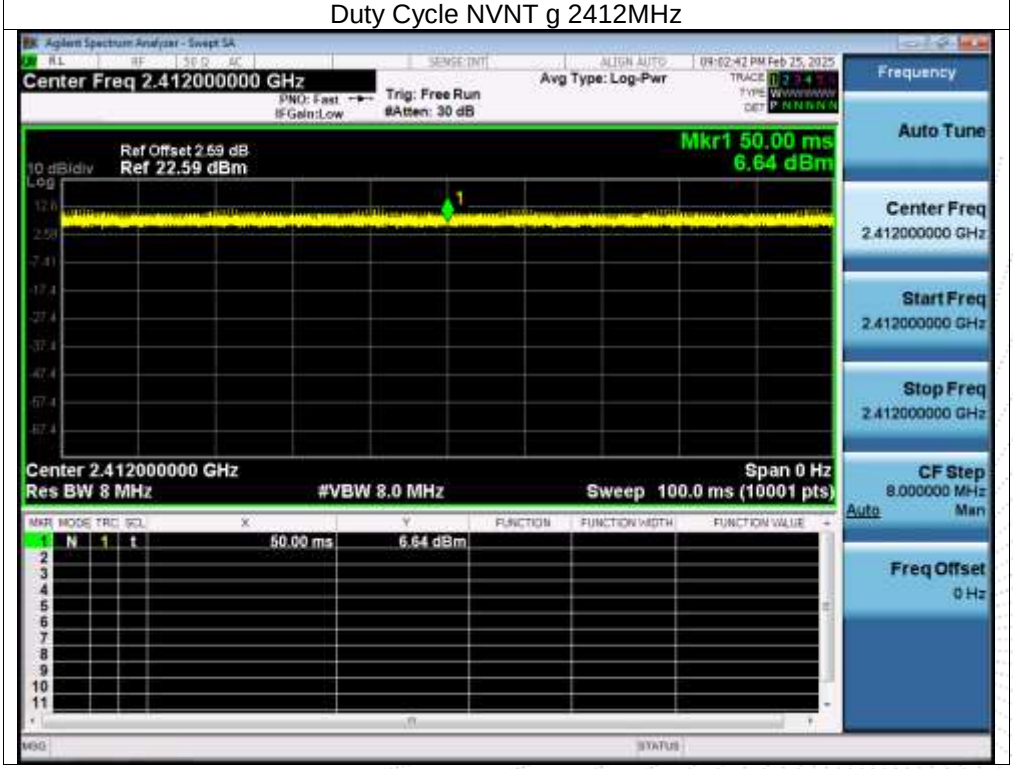
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Duty Fator(dB)
NVNT	b	2412	Ant.A&Ant.B	100	0
NVNT	g	2412	Ant.A&Ant.B	100	0
NVNT	n20	2412	Ant.A&Ant.B	100	0
NVNT	n40	2422	Ant.A&Ant.B	100	0
NVNT	ax20	2412	Ant.A&Ant.B	100	0
NVNT	ax40	2422	Ant.A&Ant.B	100	0

Ant.A

Test Graphs
Duty Cycle NVNT b 2412MHz

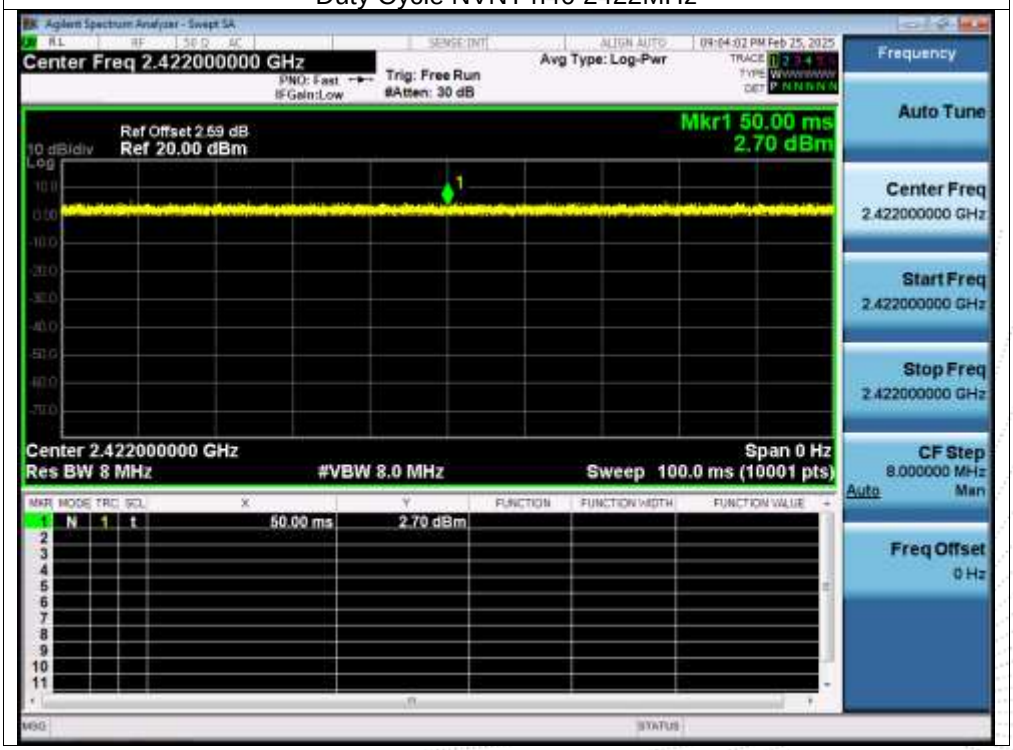


Duty Cycle NVNT g 2412MHz



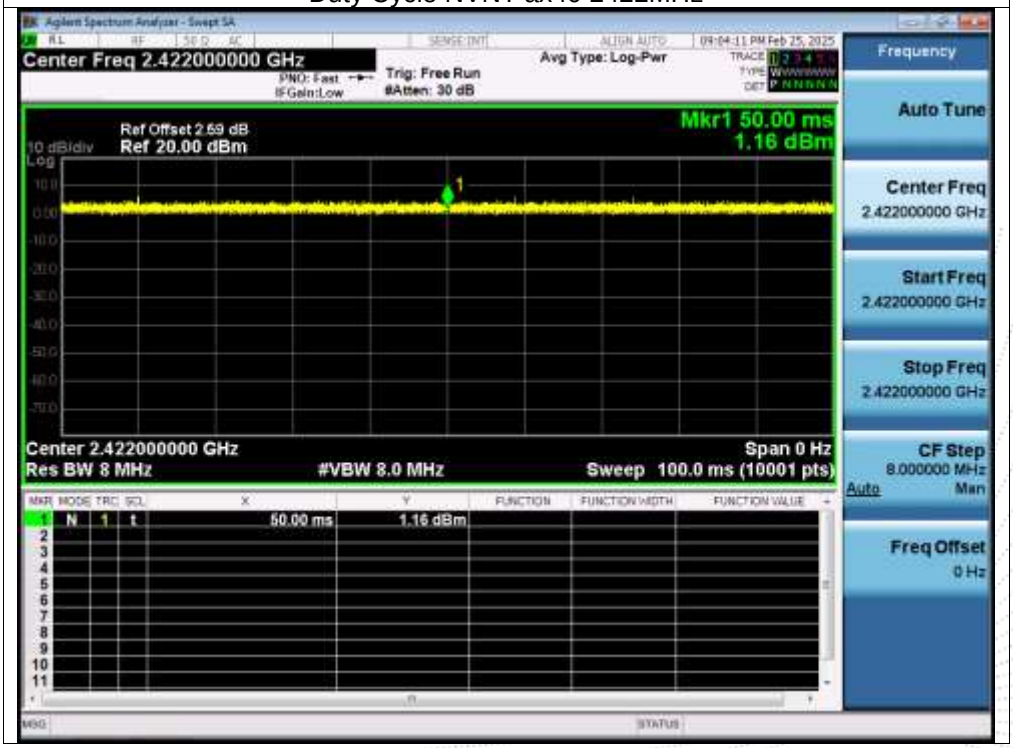
Duty Cycle NVNT n20 2412MHz

Duty Cycle NVNT n40 2422MHz



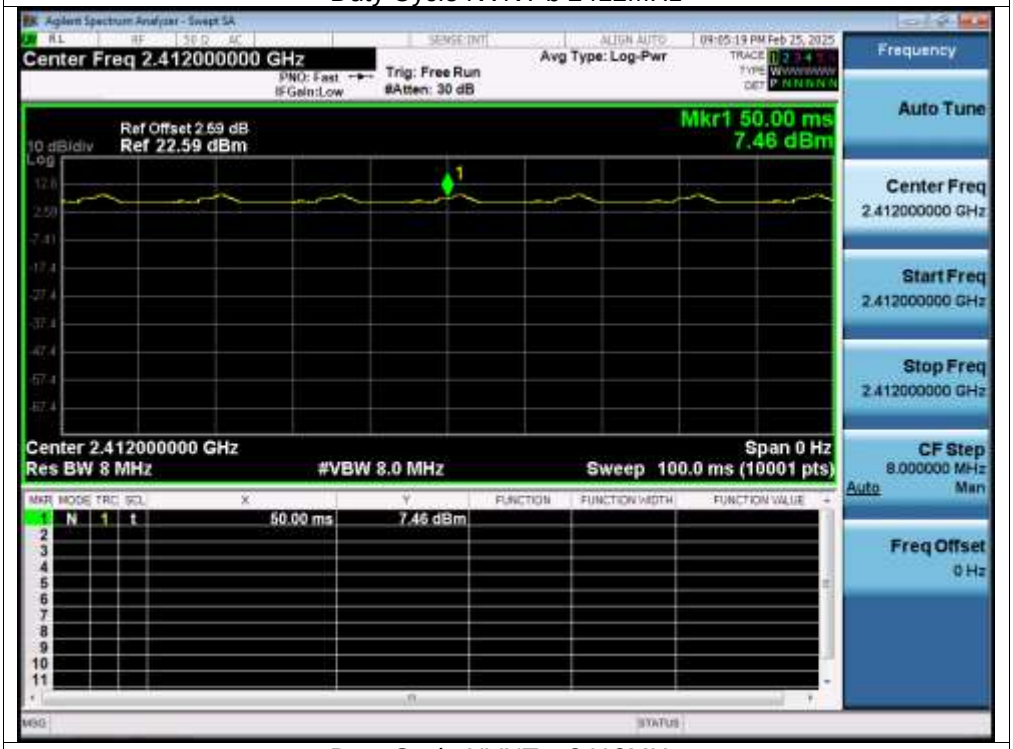
Duty Cycle NVNT ax20 2412MHz

Duty Cycle NVNT ax40 2422MHz

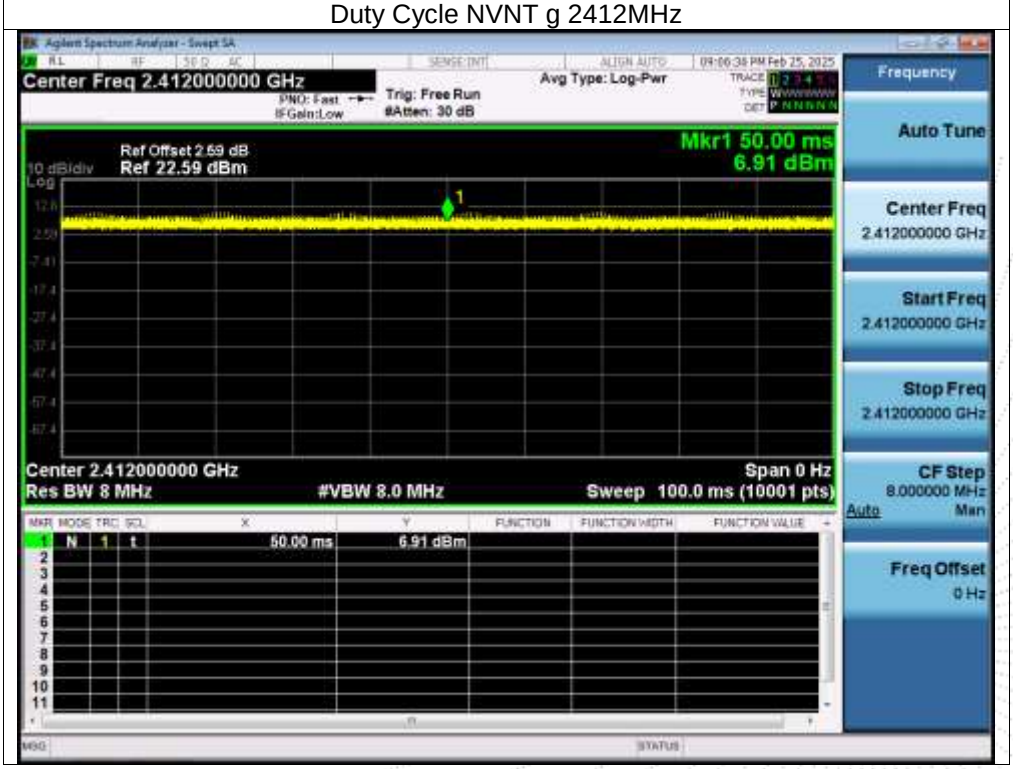


Ant.B

Test Graphs
Duty Cycle NVNT b 2412MHz

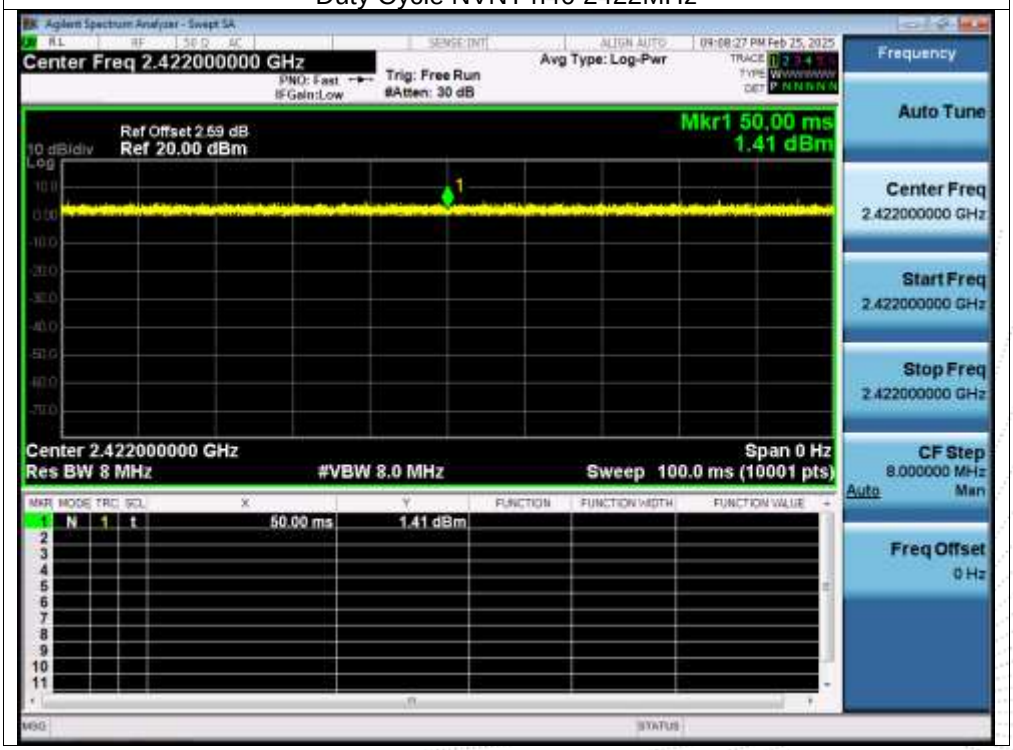


Duty Cycle NVNT g 2412MHz



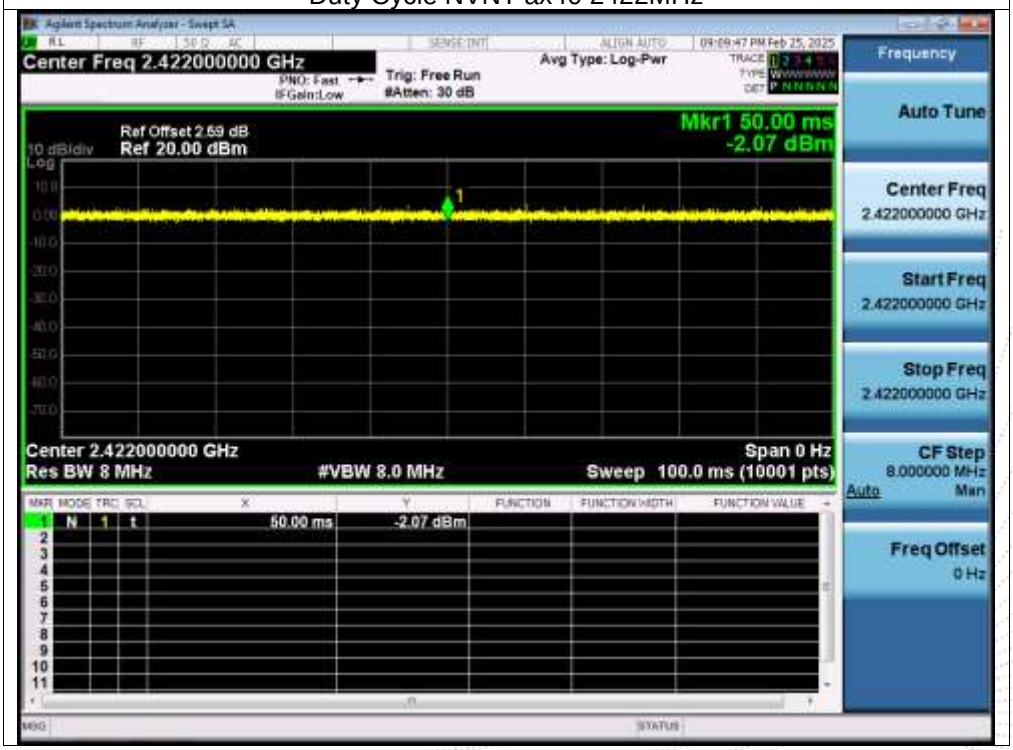
Duty Cycle NVNT n20 2412MHz

Duty Cycle NVNT n40 2422MHz



Duty Cycle NVNT ax20 2412MHz

Duty Cycle NVNT ax40 2422MHz



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.

14.1 Test Result

The EUT antenna is Internal antenna, fulfill the requirement of this section.

15. EUT Photographs

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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Complaint/Advice E-mail: advice@bctc-lab.com.cn

※※※※※ END ※※※※※