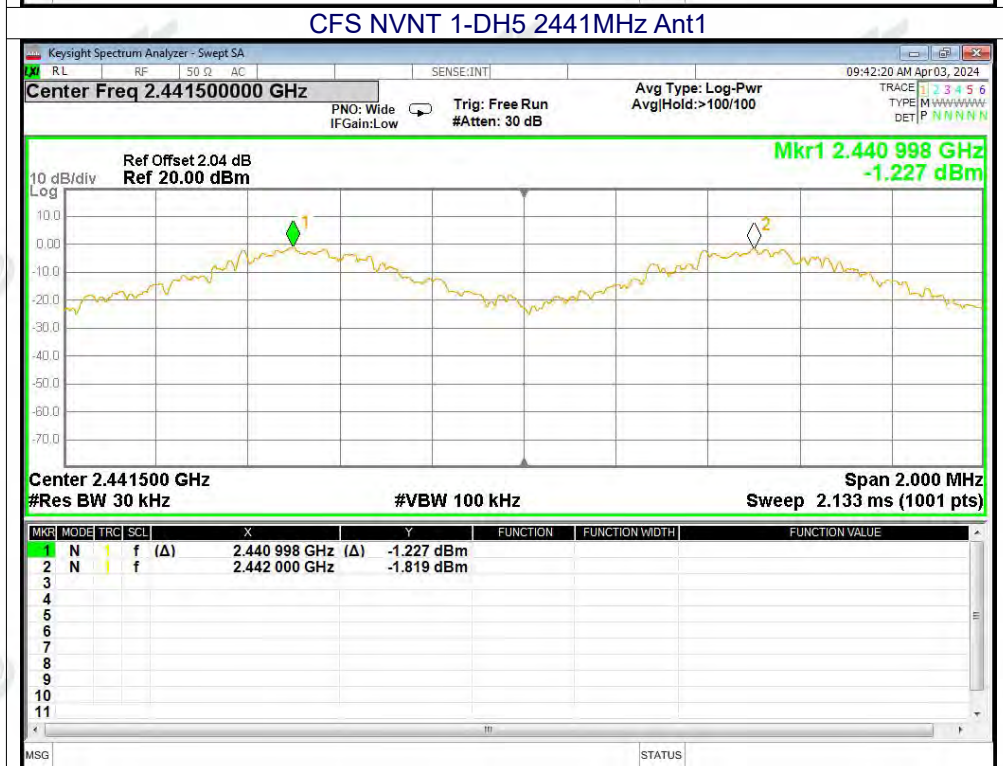
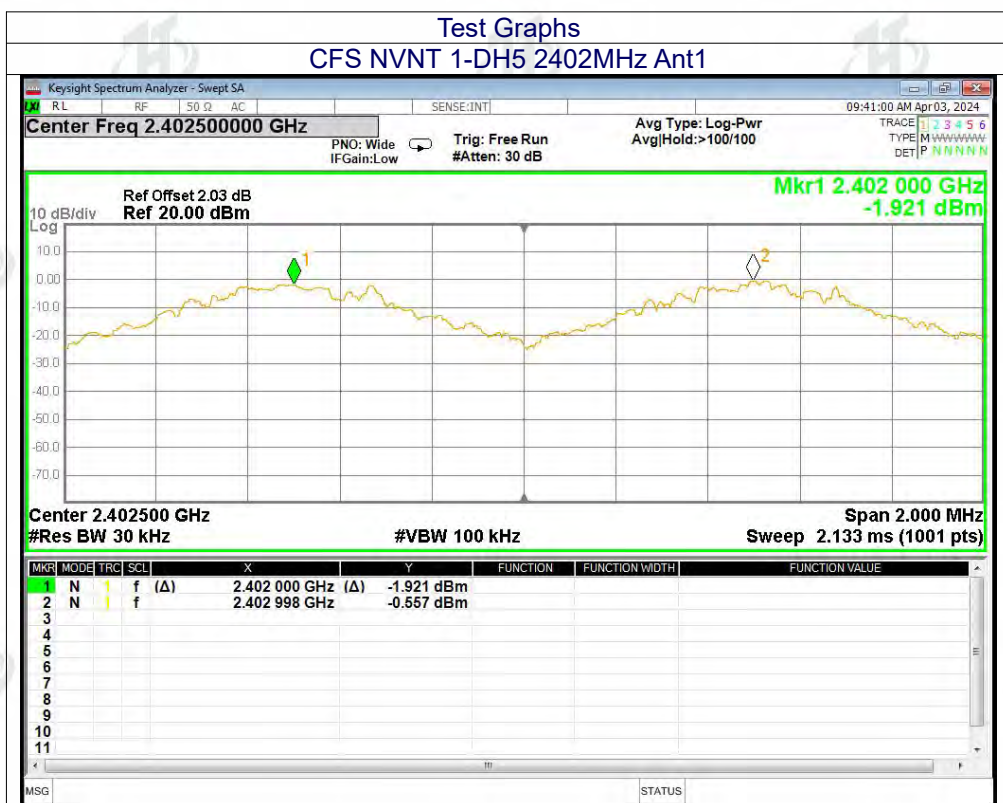
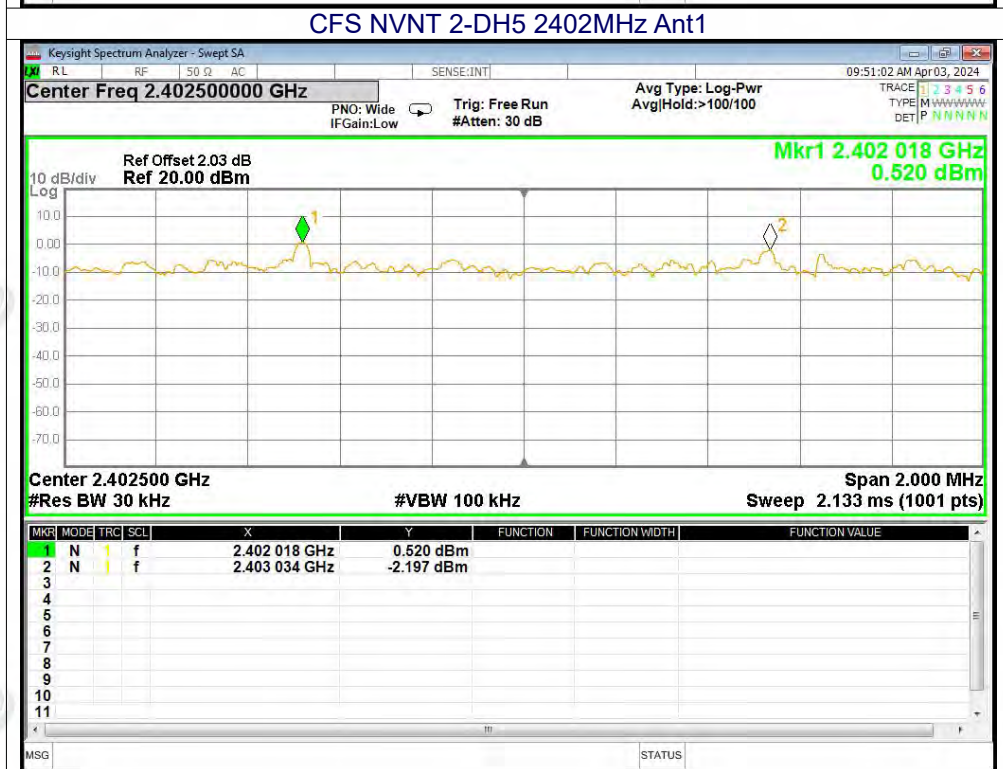
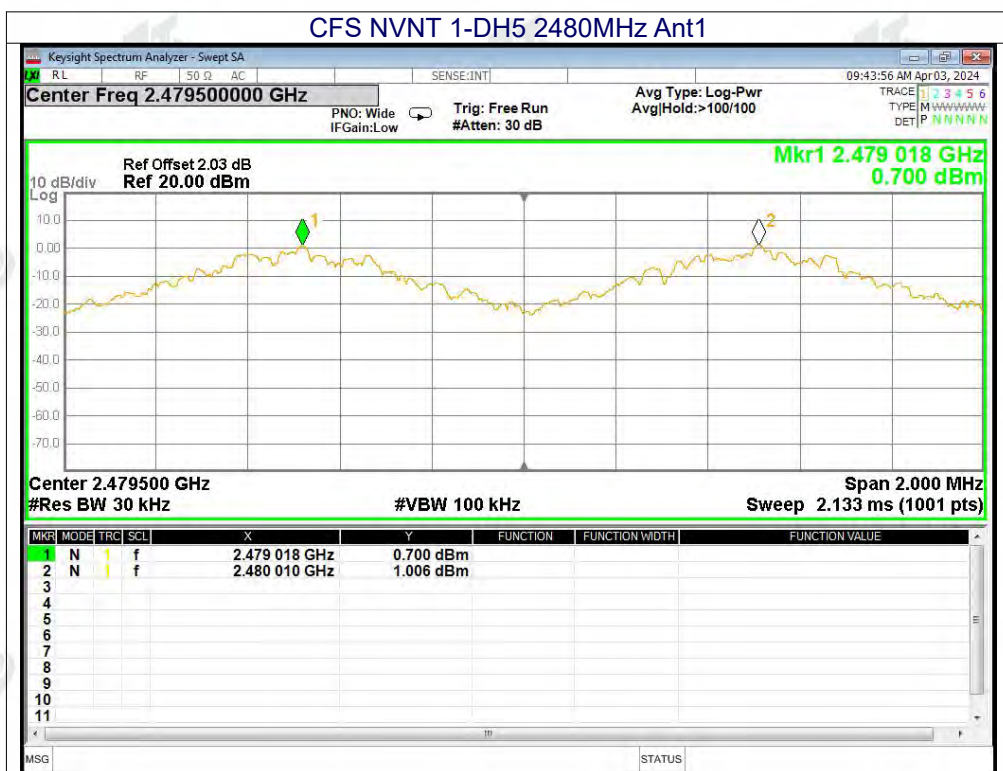


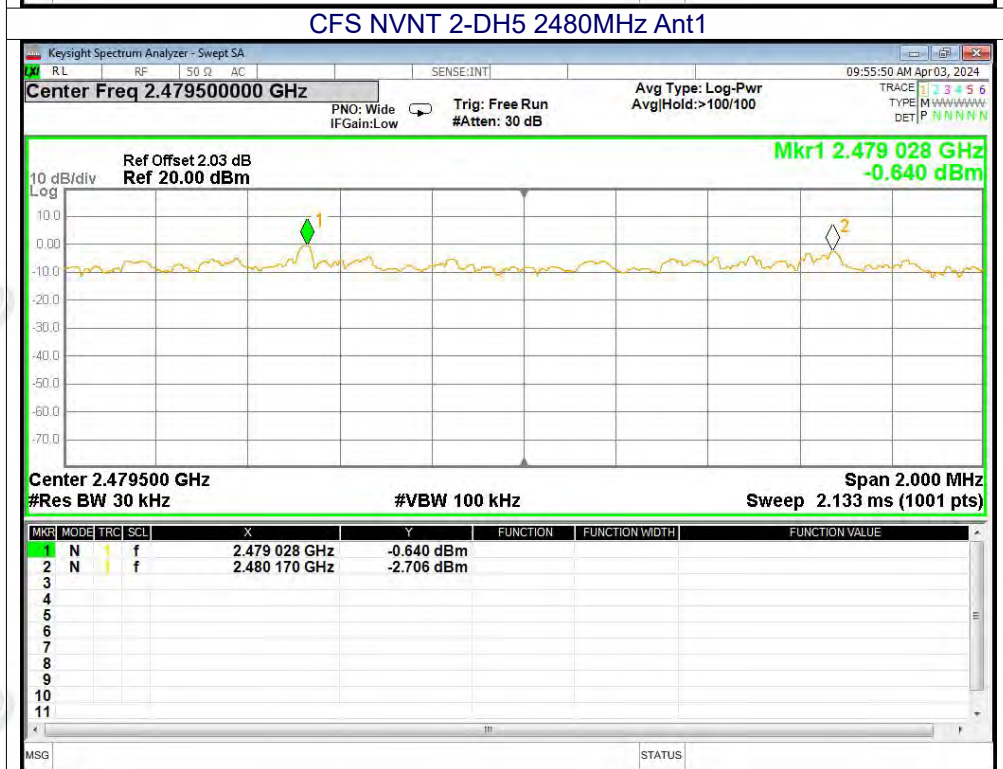
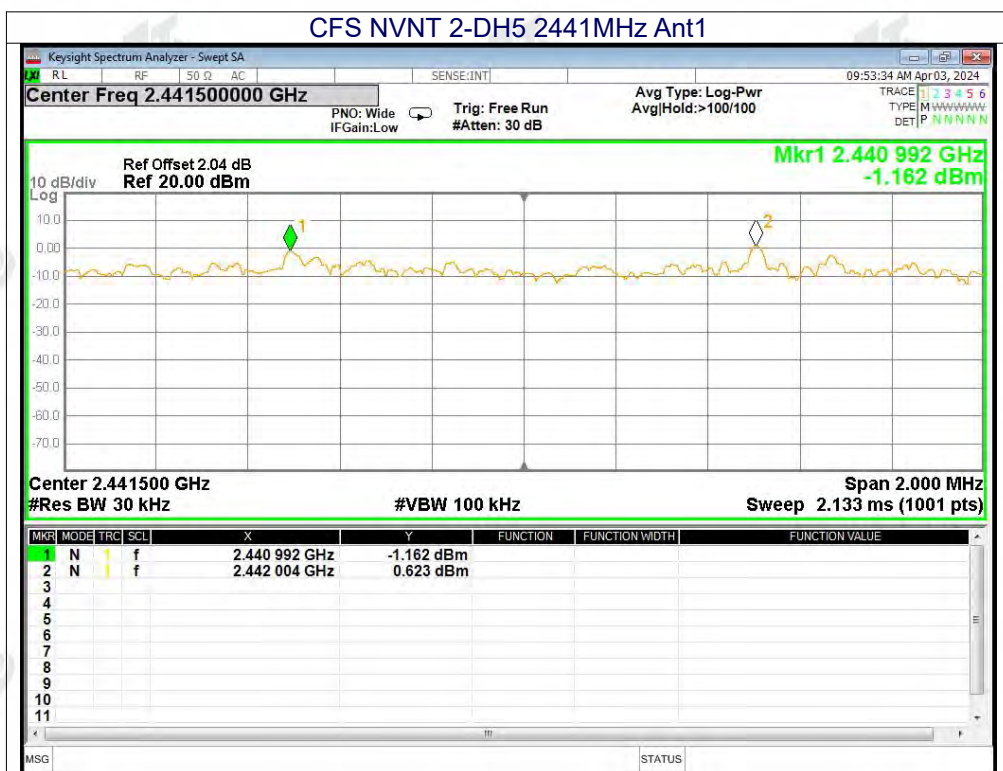


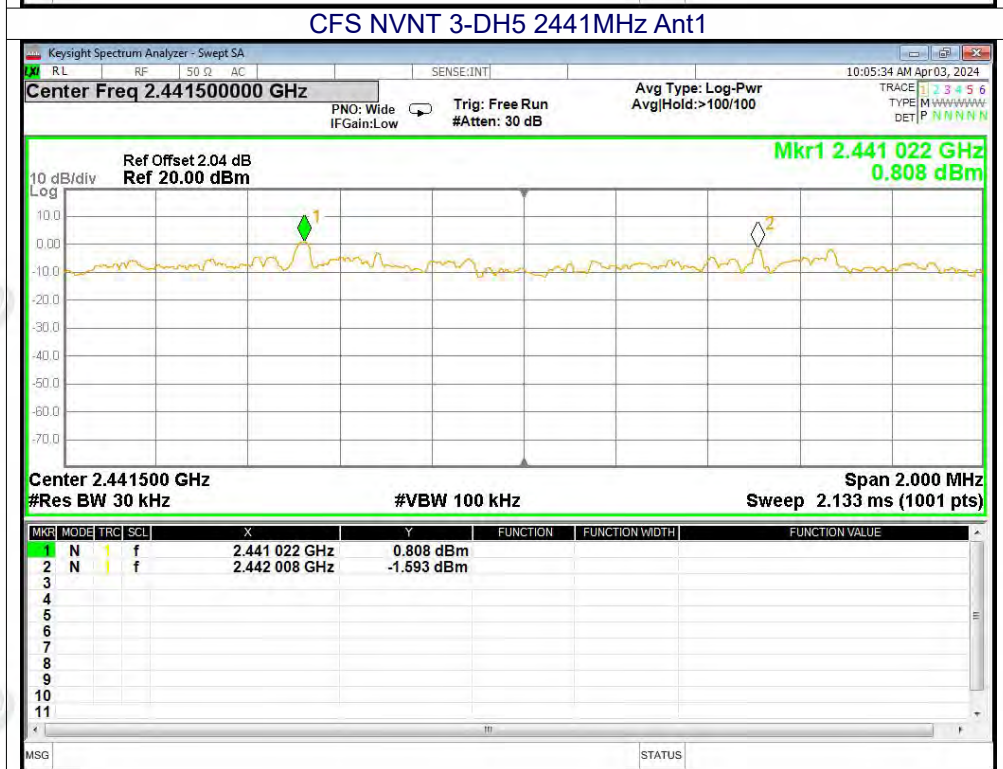
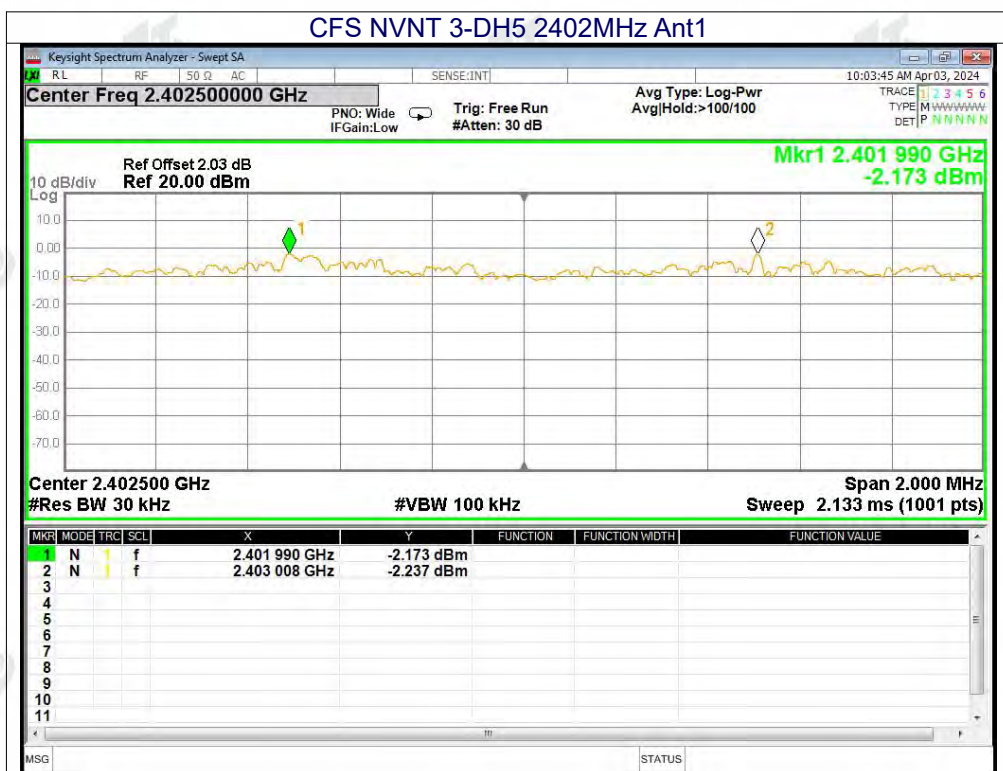
9.4 Test Result

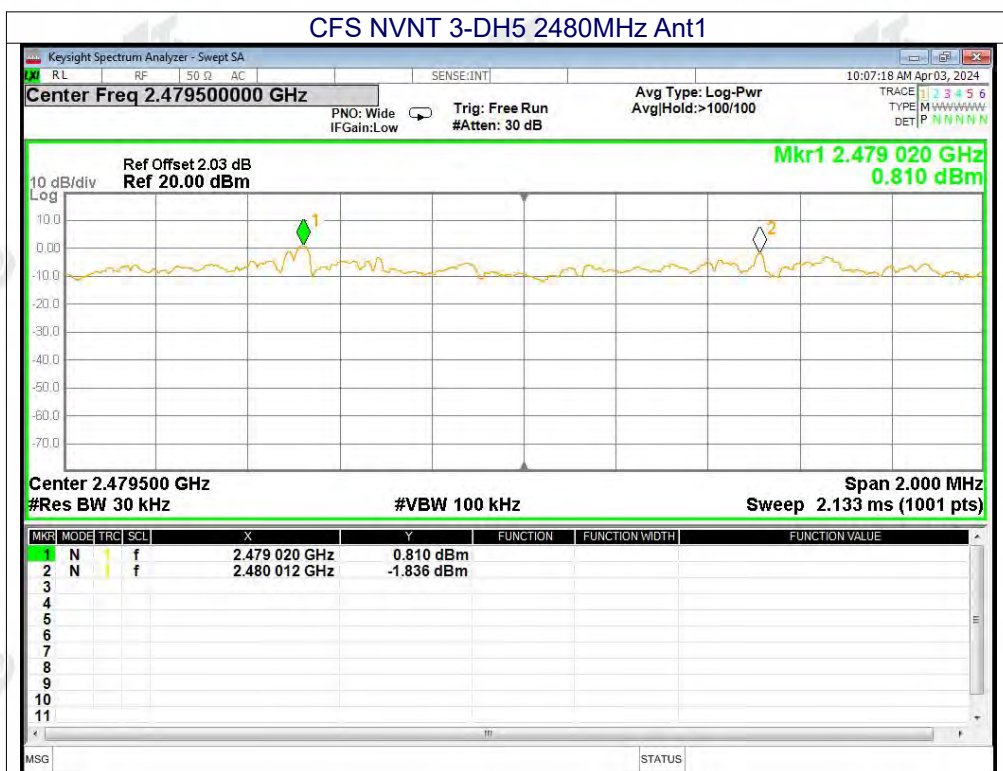
Modulation	Test Channel	Separation (MHz)	Limit(MHz)	Result
GFSK	Low	0.998	0.937	PASS
GFSK	Middle	1.002	0.901	PASS
GFSK	High	0.992	0.955	PASS
$\pi/4$ DQPSK	Low	1.016	0.889	PASS
$\pi/4$ DQPSK	Middle	1.012	0.848	PASS
$\pi/4$ DQPSK	High	1.142	0.851	PASS
8DPSK	Low	1.018	0.849	PASS
8DPSK	Middle	0.986	0.879	PASS
8DPSK	High	0.992	0.878	PASS











10.NUMBER OF HOPPING FREQUENCY

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)(iii)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=100kHz, VBW=300kHz, Frequency range=2400MHz-2483.5MHz, Detector=Peak
Limit:	15 channels

10.1 Test Setup



10.2 Test procedure

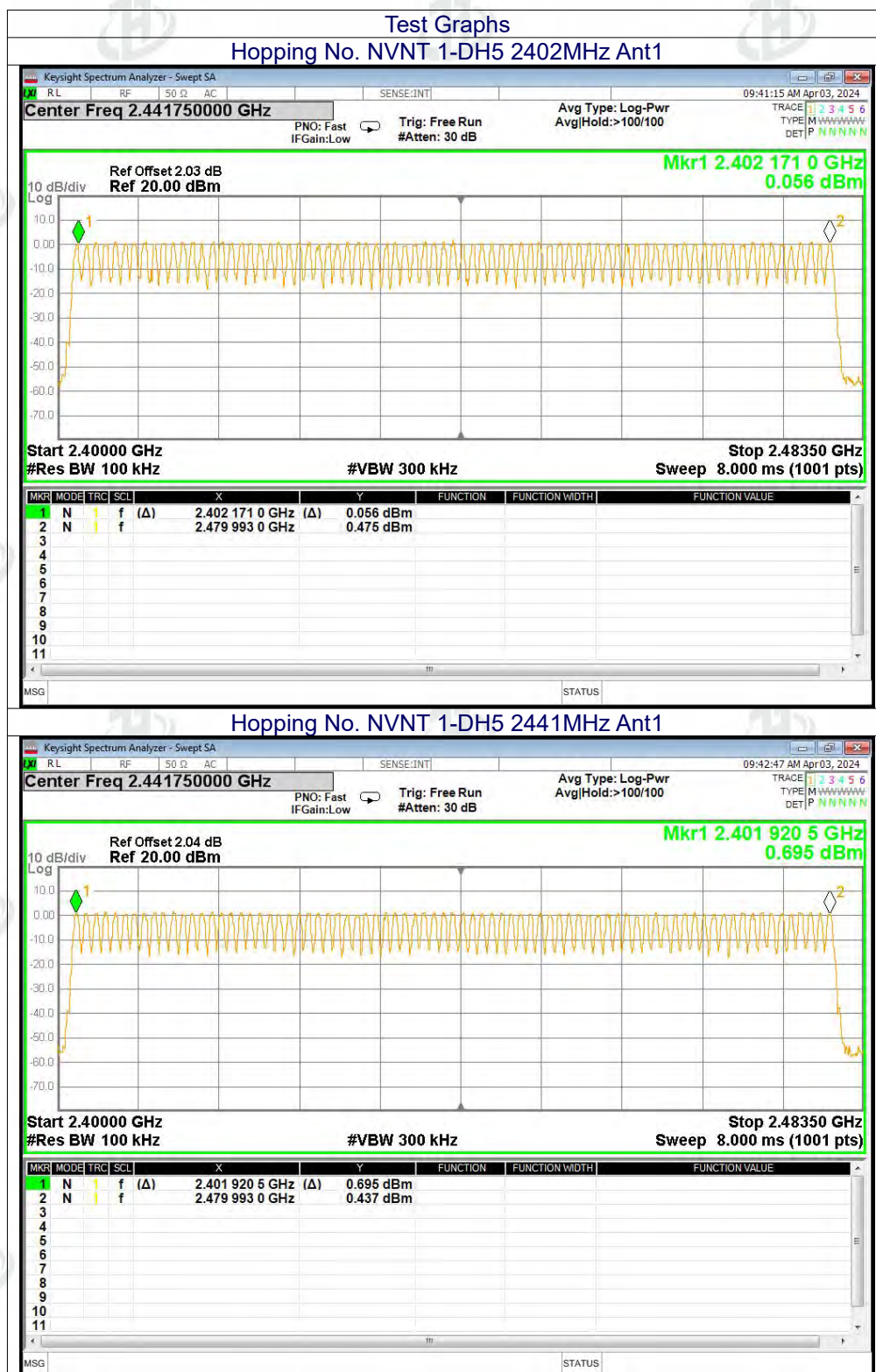
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 100kHz. VBW = 300kHz. Sweep = auto; Detector Function = Peak. Trace = Max hold.
3. Allow the trace to stabilize. It may prove necessary to break the span up to sections. in order to clearly show all of the hopping frequencies. The limit is specified in one of the subparagraphs of this Section.
4. Set the spectrum analyzer: Start Frequency = 2.4GHz, Stop Frequency = 2.4835GHz. Sweep=auto;

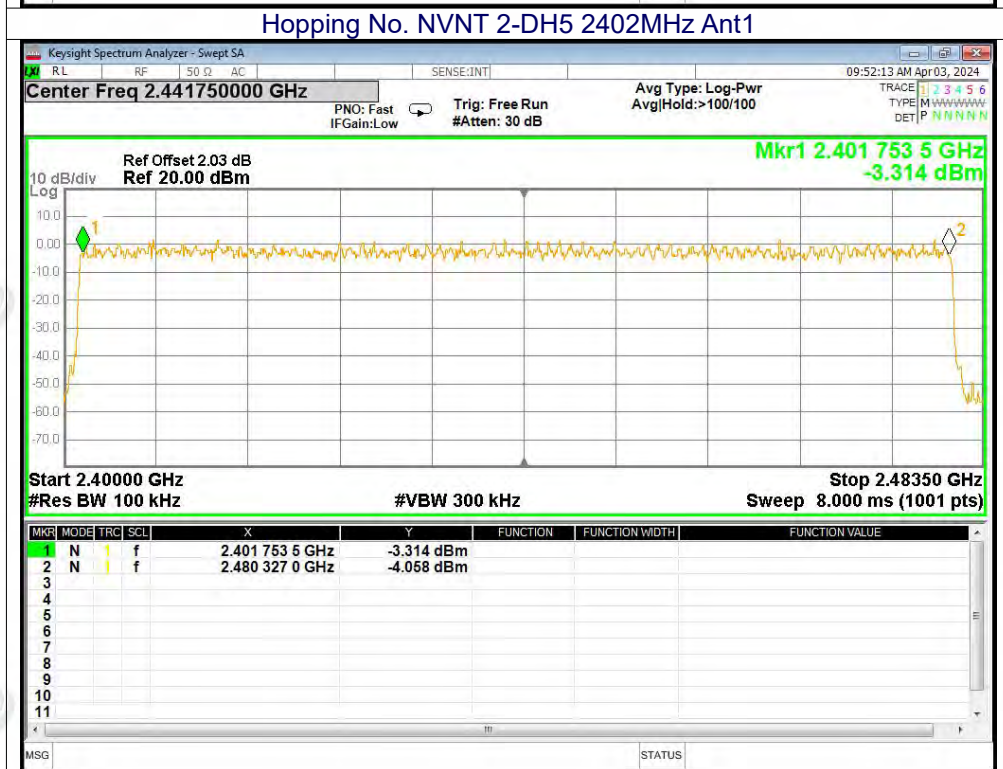
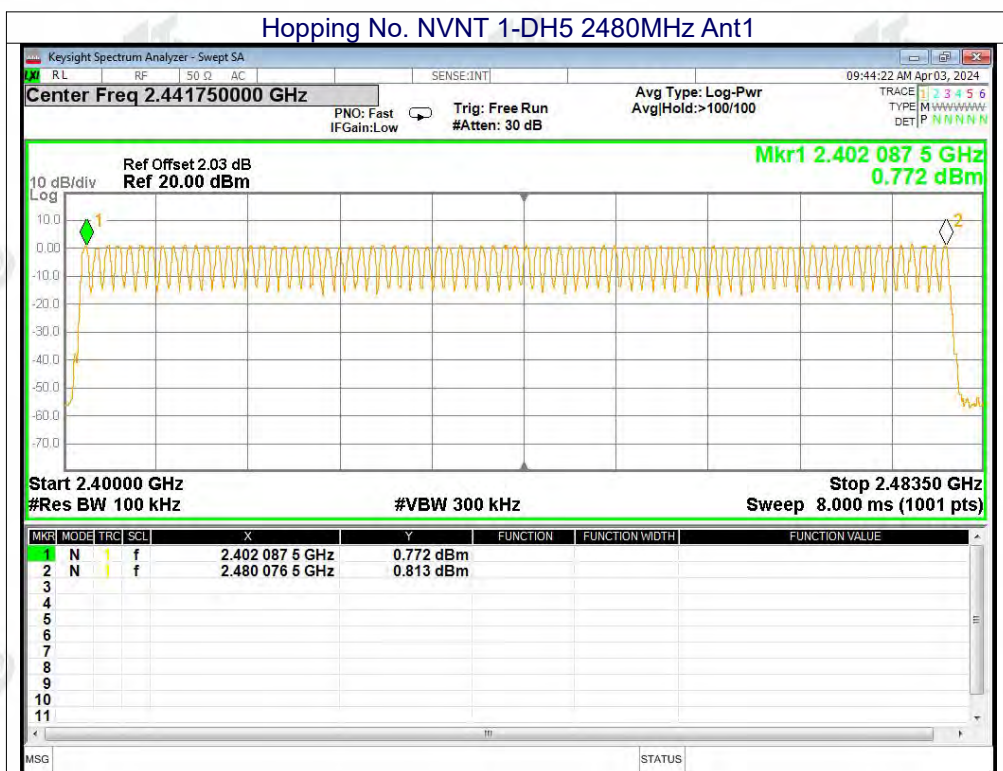
10.3 DEVIATION FROM STANDARD

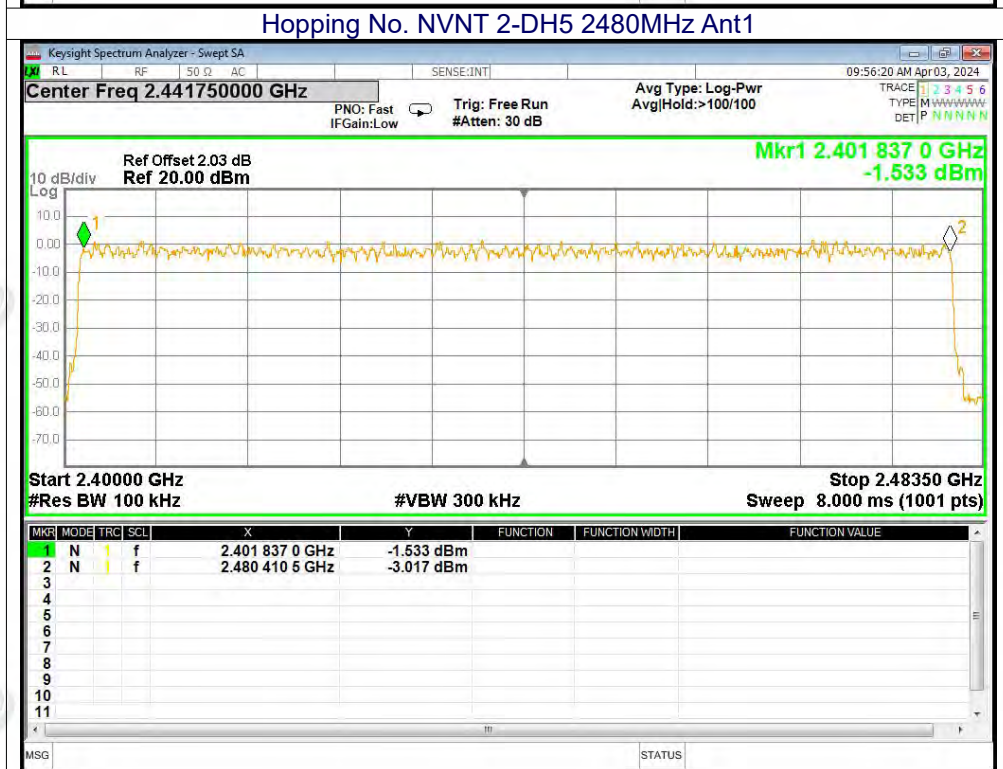
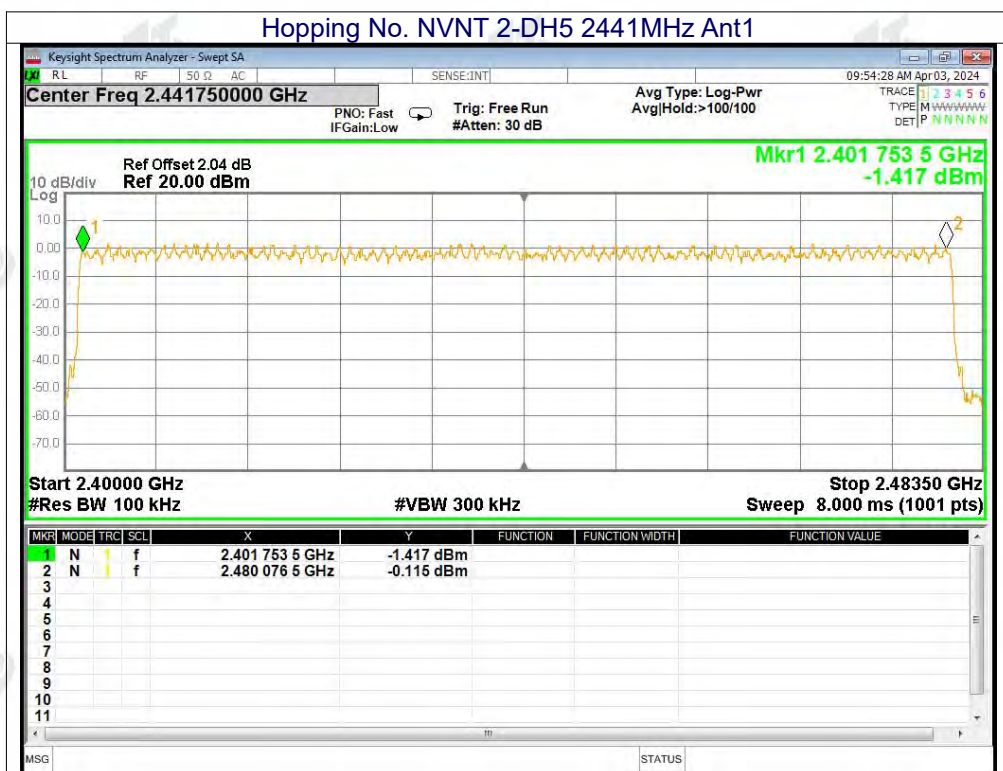
No deviation.

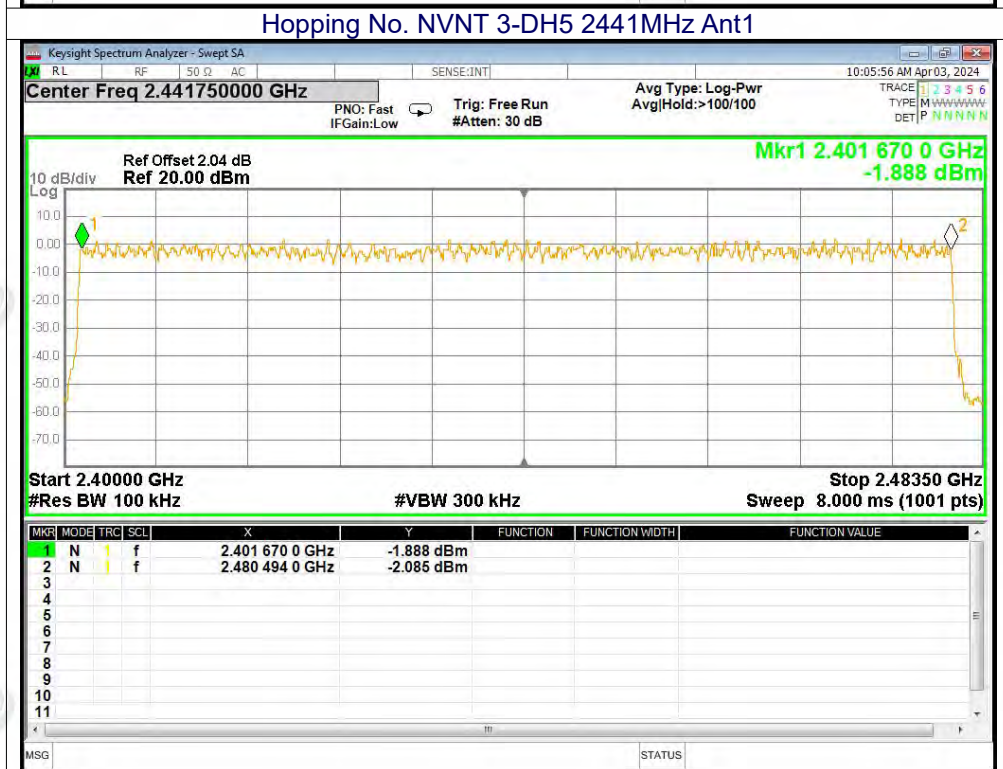
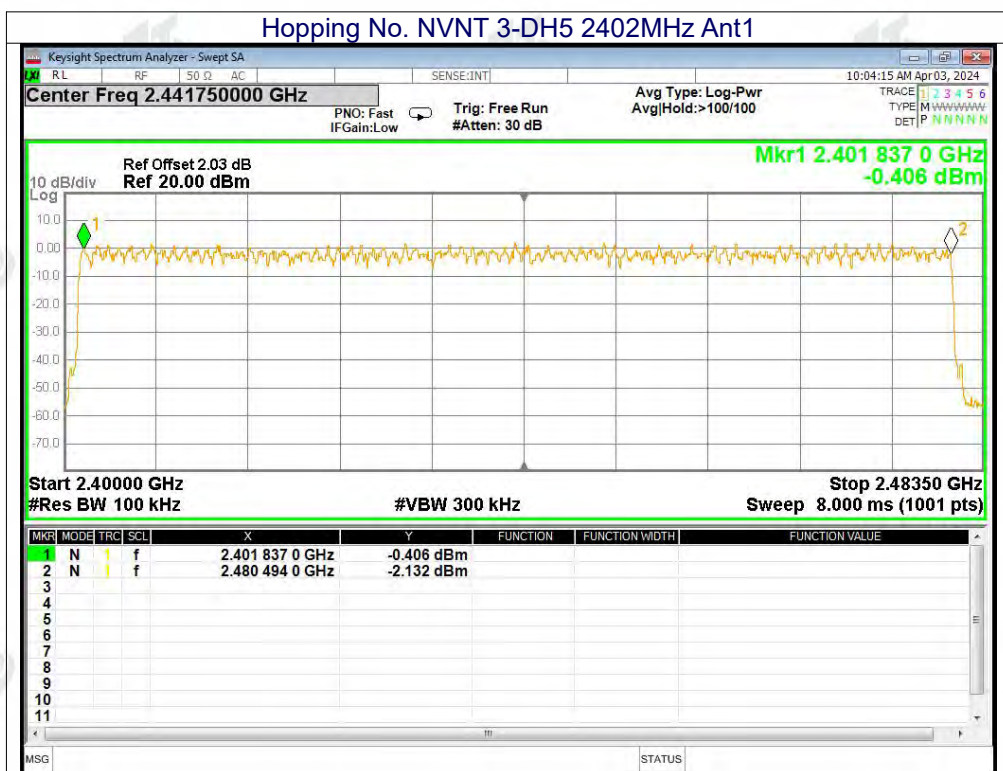


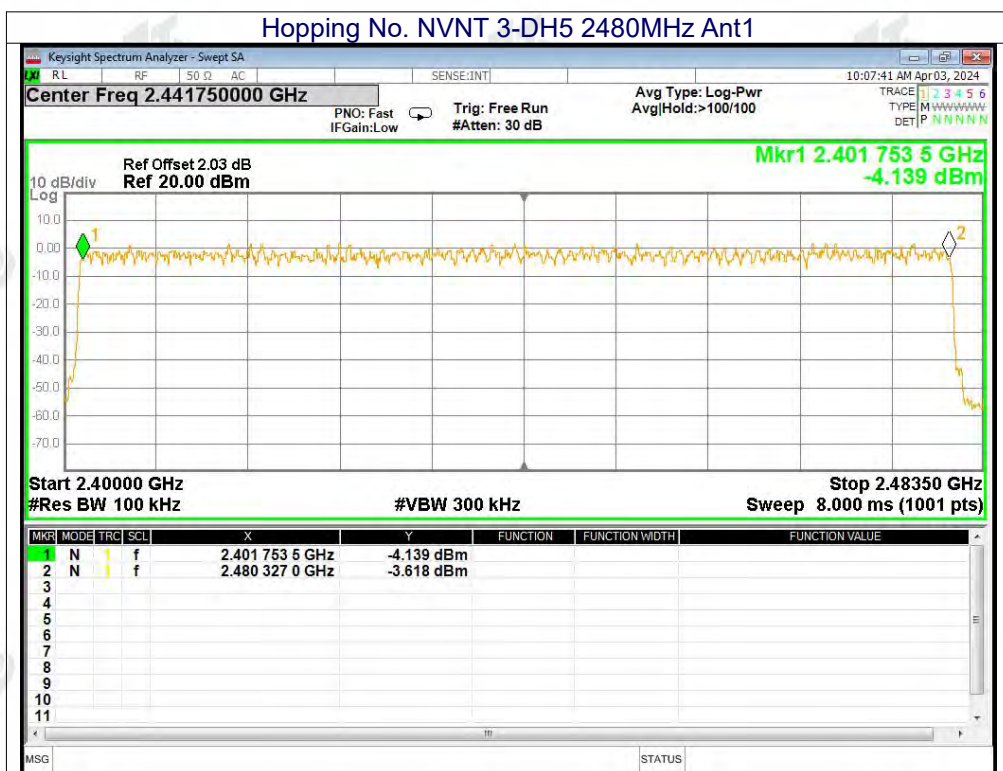
10.4 Test Result











**11. DWELL TIME**

Test Requirement:	FCC Part15 C Section 15.247 (a)(1)(iii)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=1MHz, VBW=3MHz, Span=0Hz, Detector=Peak
Limit:	0.4 Second

11.1 Test Setup**11.2 Test procedure**

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set spectrum analyzer span = 0Hz;
3. Set RBW = 1MHz and VBW = 3MHz. Sweep = as necessary to capture the entire dwell time per hopping channel. Set the EUT for DH5, DH3 and DH1 packet transmitting.
4. Use the marker-delta function to determine the dwell time. If this value varies with different modes of operation (e.g., data rate, modulation format, etc.), repeat this test for each variation. The limit is specified in one of the subparagraphs of this Section. Submit this plot(s).

11.3 DEVIATION FROM STANDARD

No deviation.



11.4 Test Result

Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
1-DH1	2441	0.4	127.6	319	31600	400	Pass
1-DH3	2441	1.656	266.616	161	31600	400	Pass
1-DH5	2441	2.905	313.74	108	31600	400	Pass
2-DH1	2441	0.411	130.698	318	31600	400	Pass
2-DH3	2441	1.663	279.384	168	31600	400	Pass
2-DH5	2441	2.908	273.352	94	31600	400	Pass
3-DH1	2441	0.408	17.544	43	31600	400	Pass
3-DH3	2441	1.661	264.099	159	31600	400	Pass
3-DH5	2441	2.912	270.816	93	31600	400	Pass

Remarks:

The test period: $T = 0.4 \text{ Second/Channel} \times 79 \text{ Channel} = 31.6 \text{ s}$

(1 / 2 / 3)-DH1: Dwell time (ms) = Pulse Time (ms) * $[1600 / (2 * 79)] * 31.6\text{s}$

(1 / 2 / 3)-DH3: Dwell time (ms) = Pulse Time (ms) * $[1600 / (4 * 79)] * 31.6\text{s}$

(1 / 2 / 3)-DH5: Dwell time (ms) = Pulse Time (ms) * $[1600 / (6 * 79)] * 31.6\text{s}$

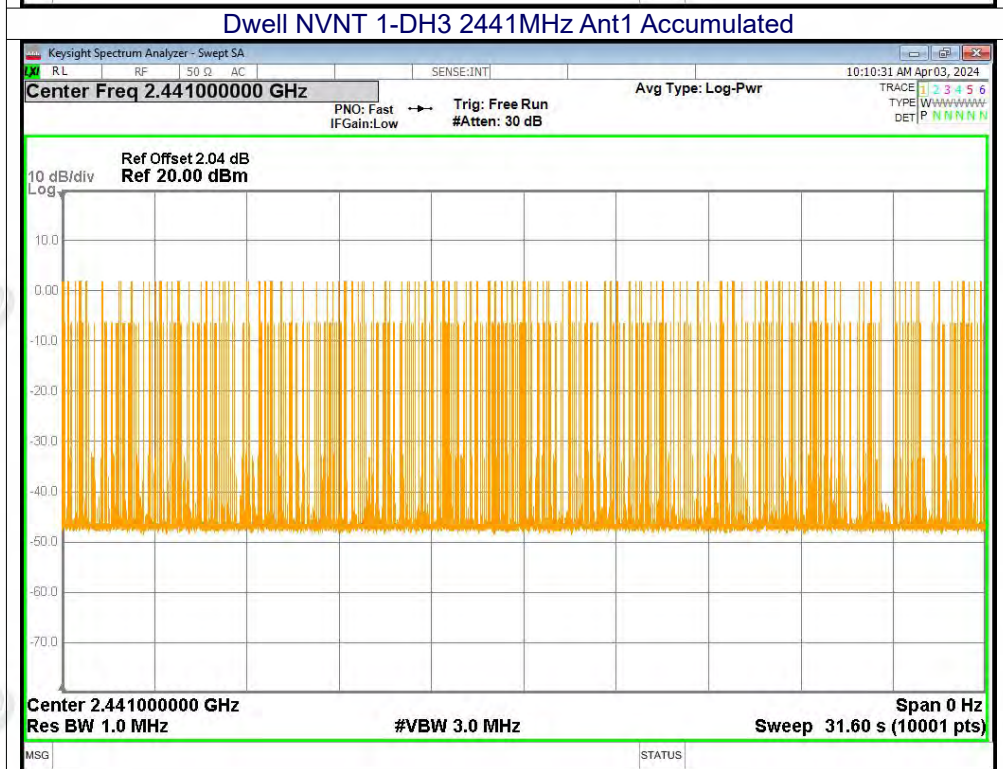
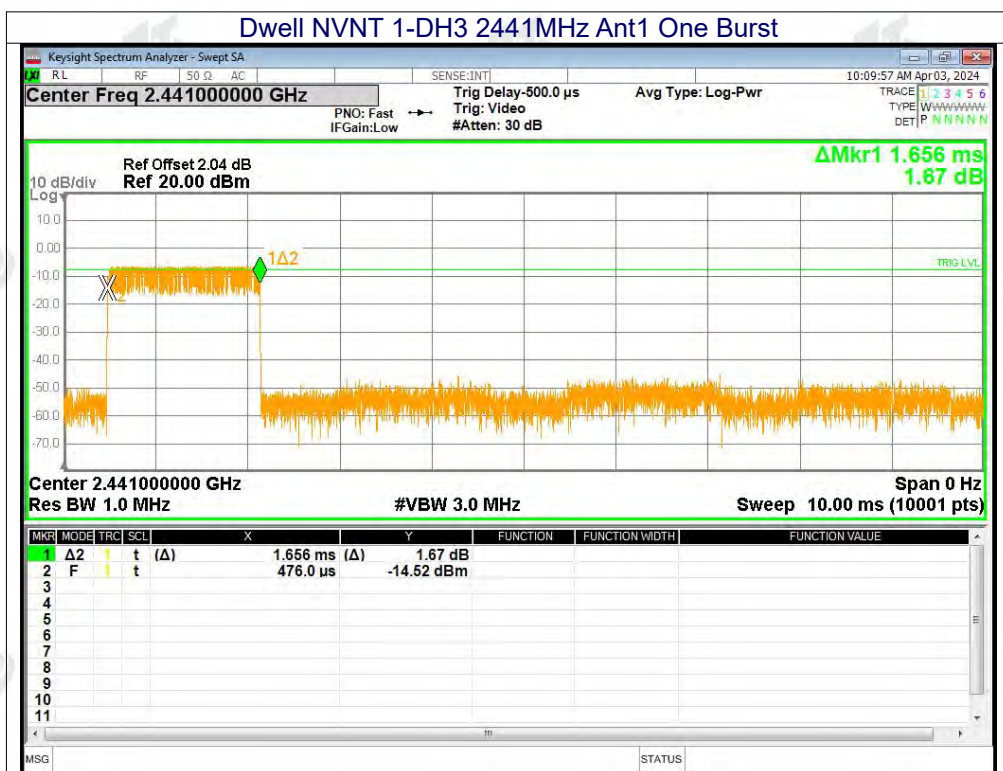
Test Graphs

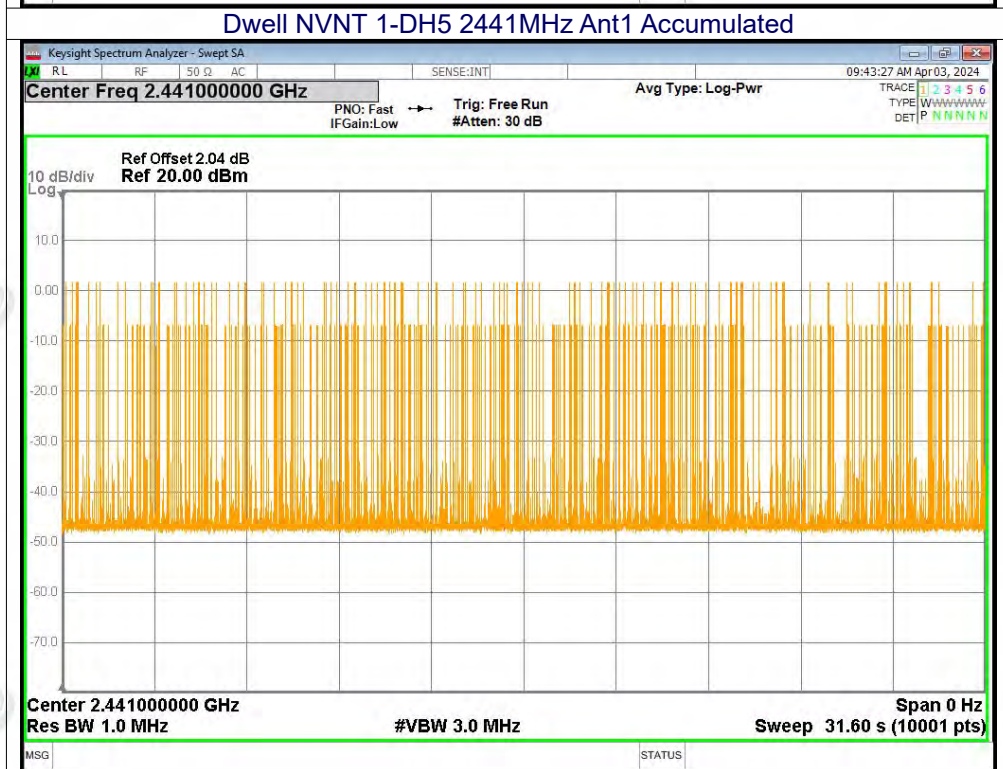
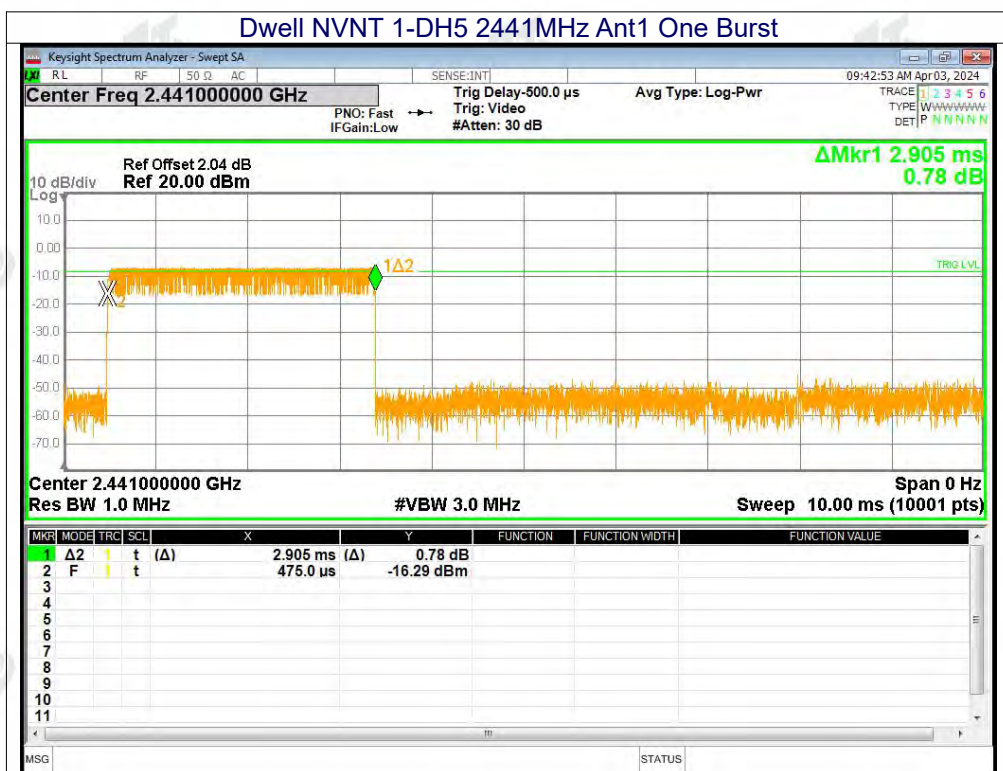
Dwell NVNT 1-DH1 2441MHz Ant1 One Burst

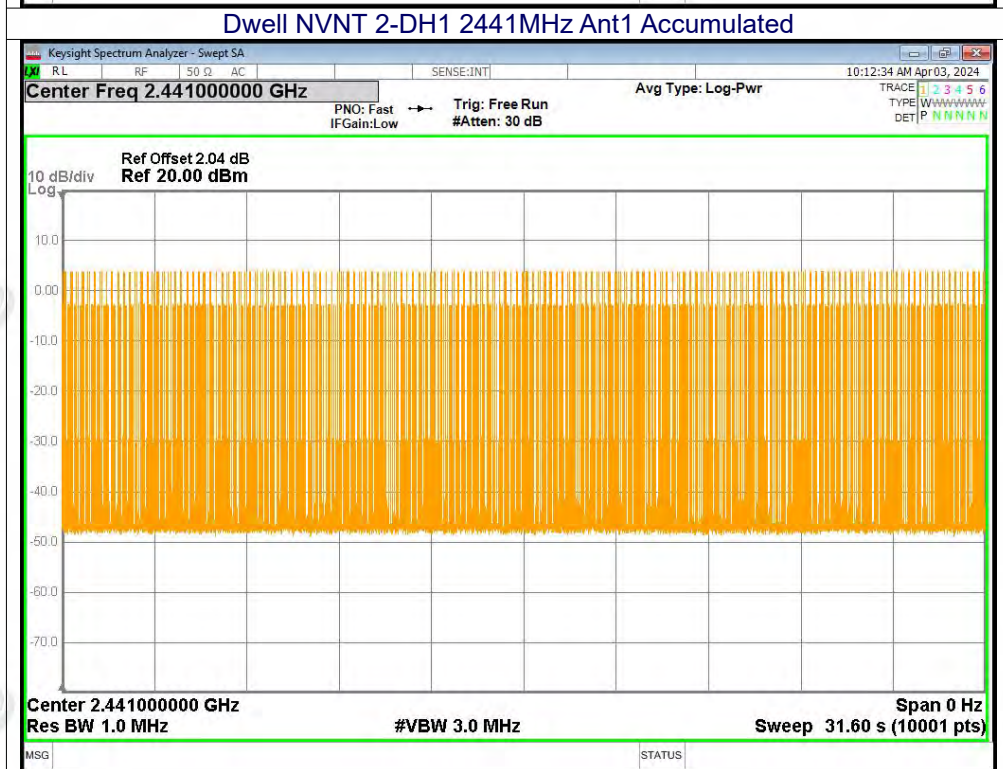
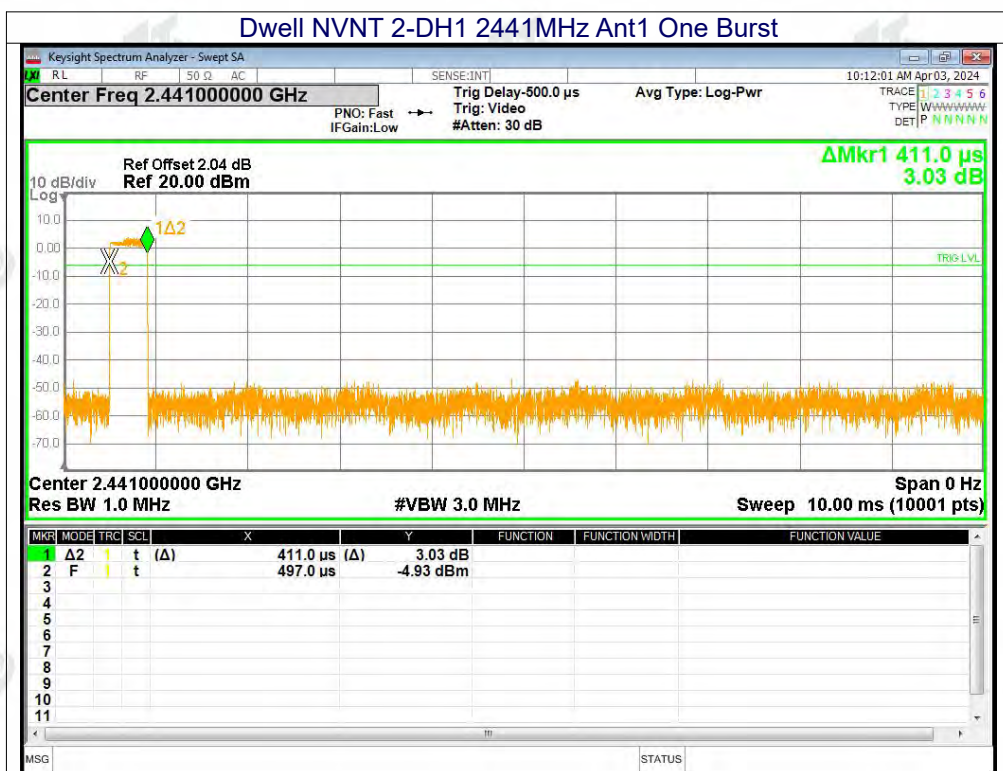


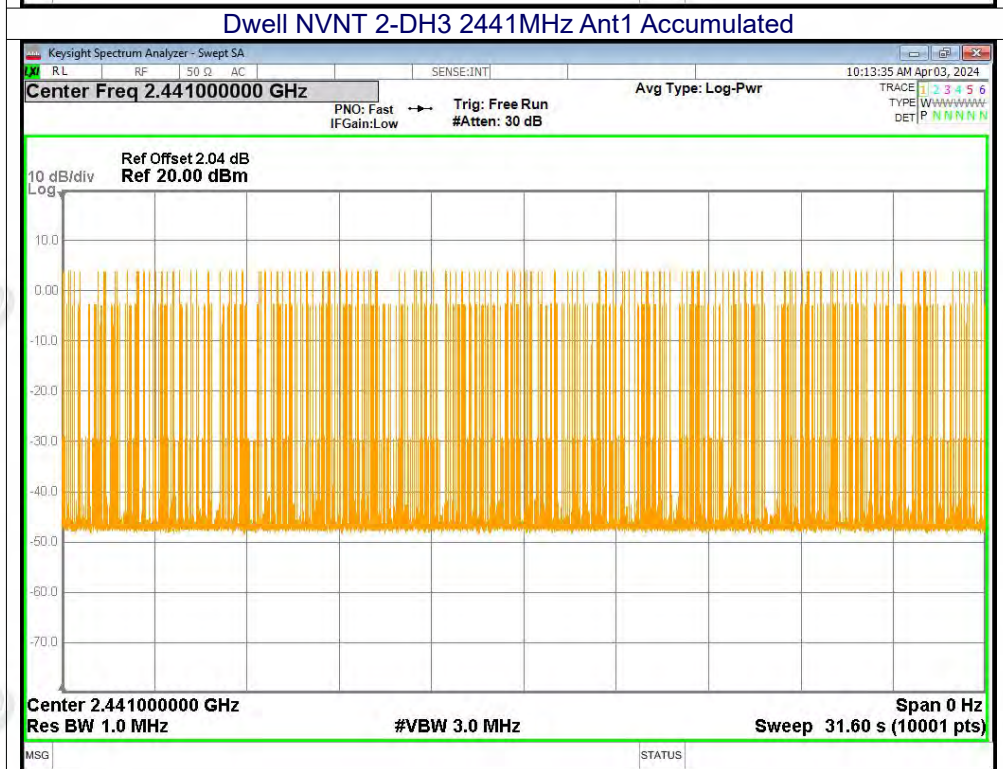
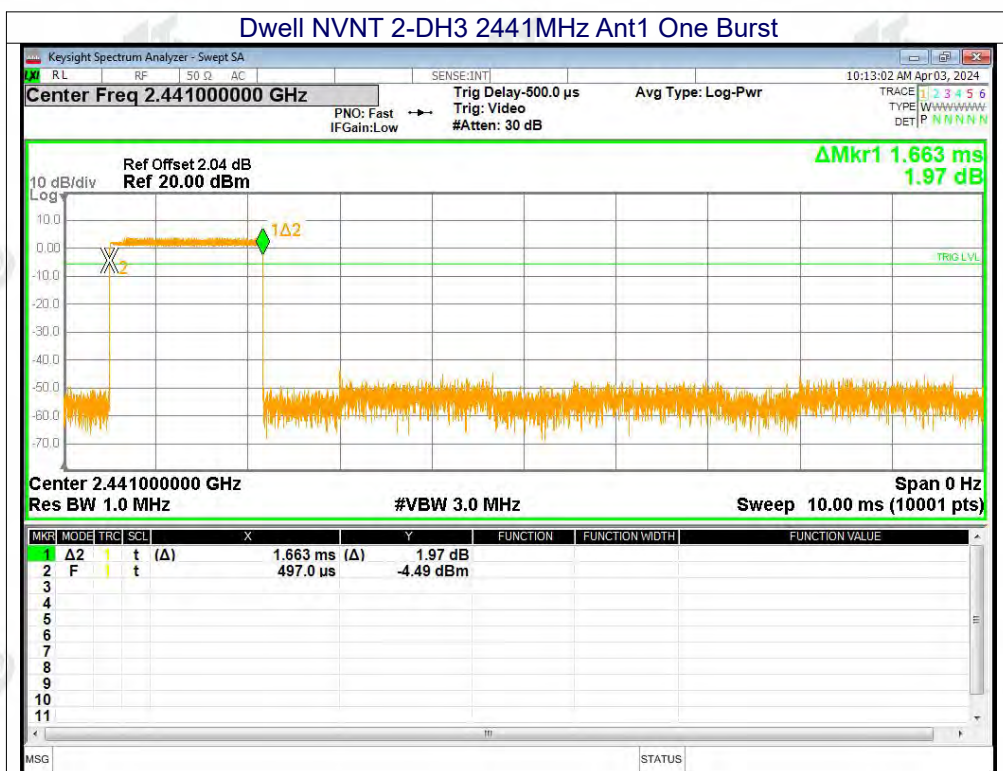
Dwell NVNT 1-DH1 2441MHz Ant1 Accumulated

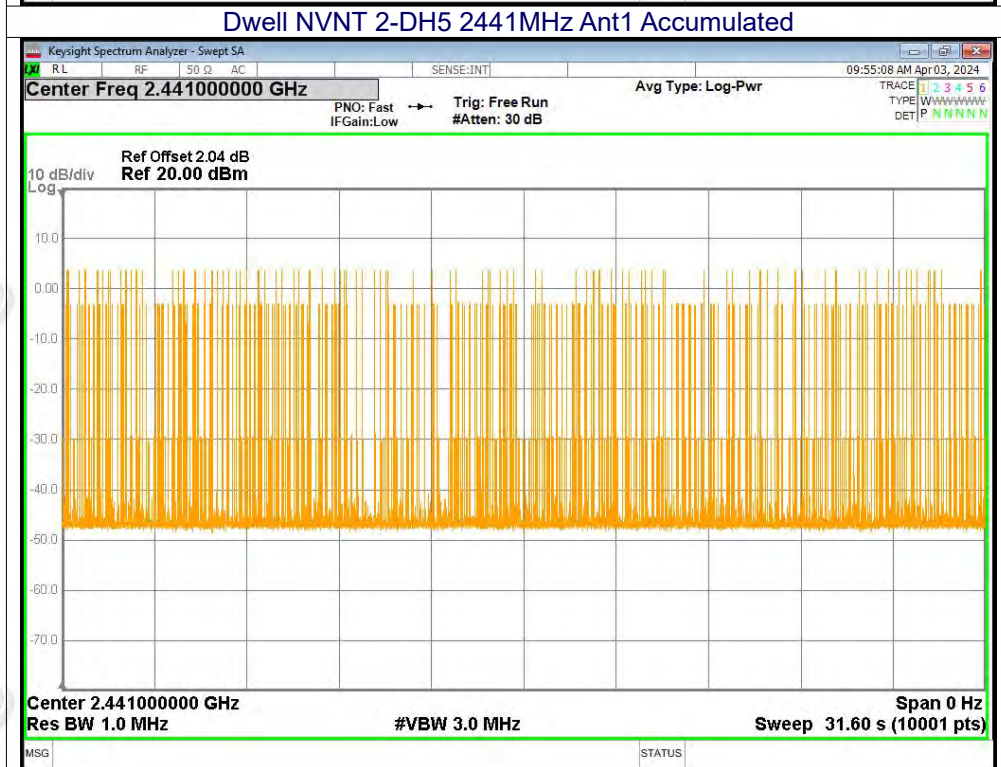
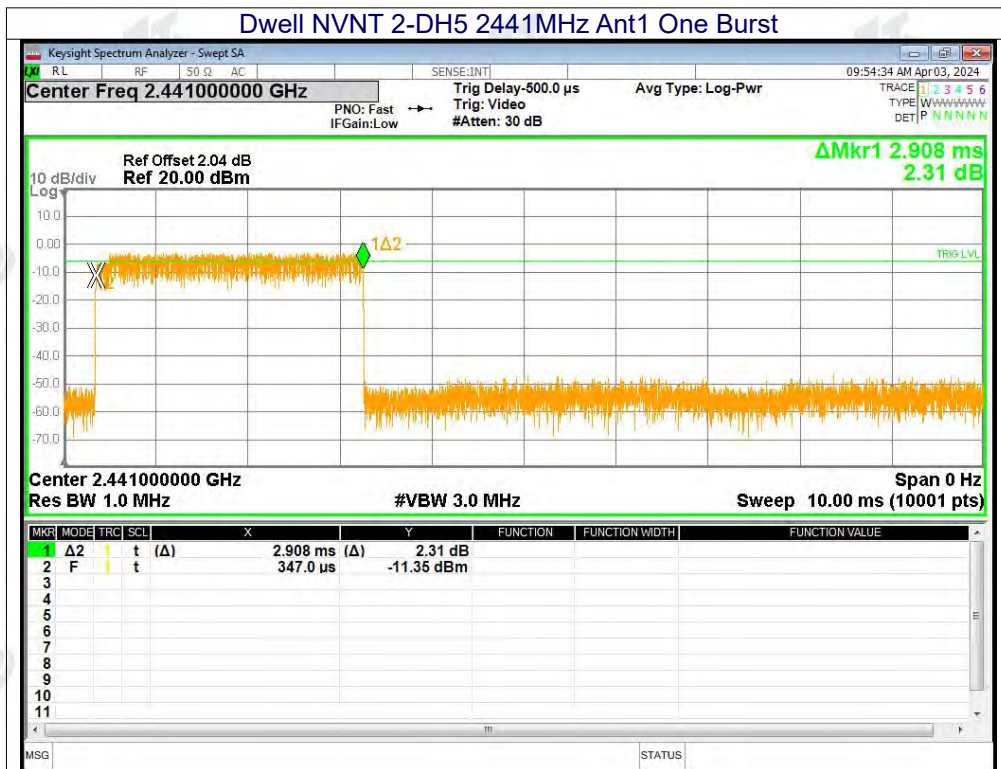


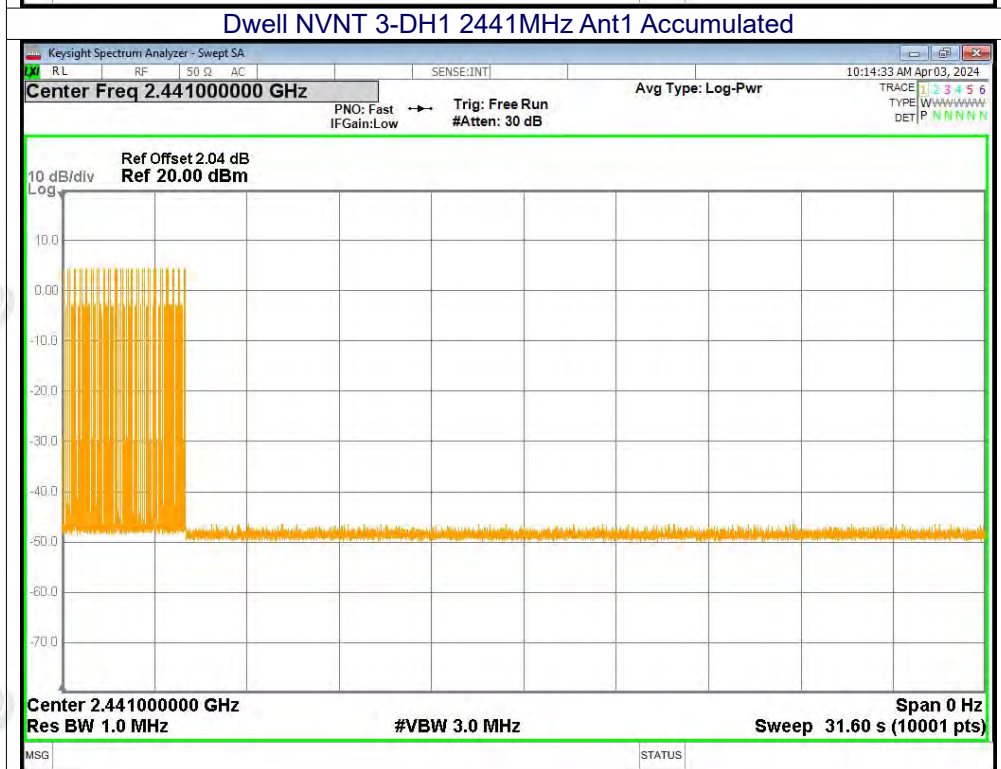
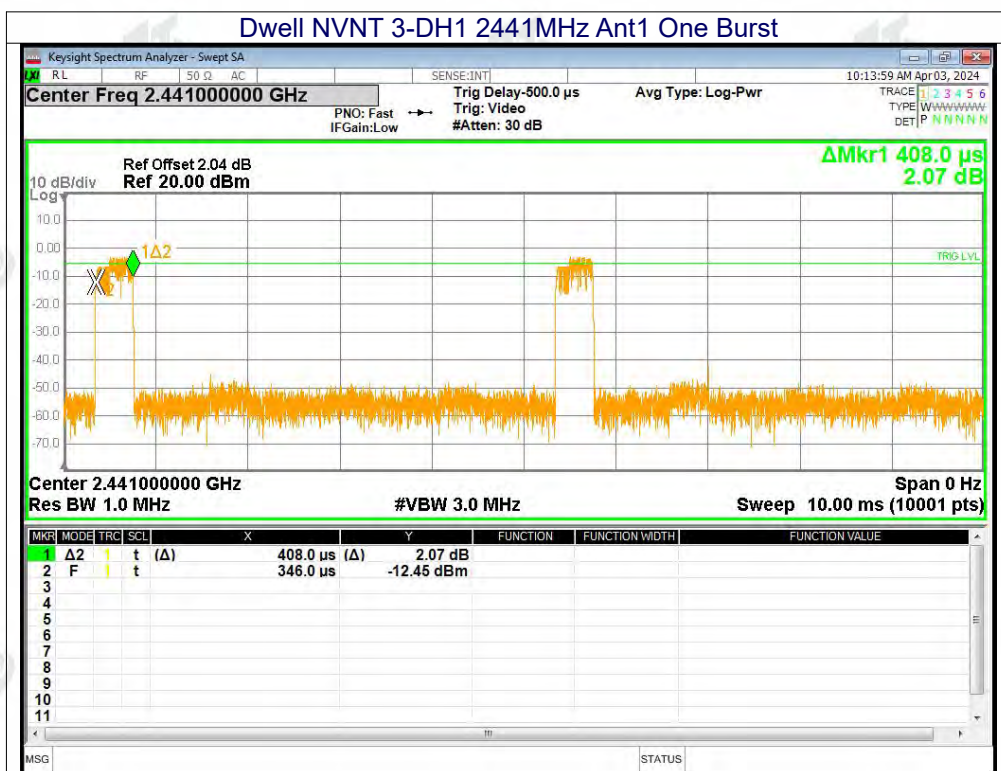


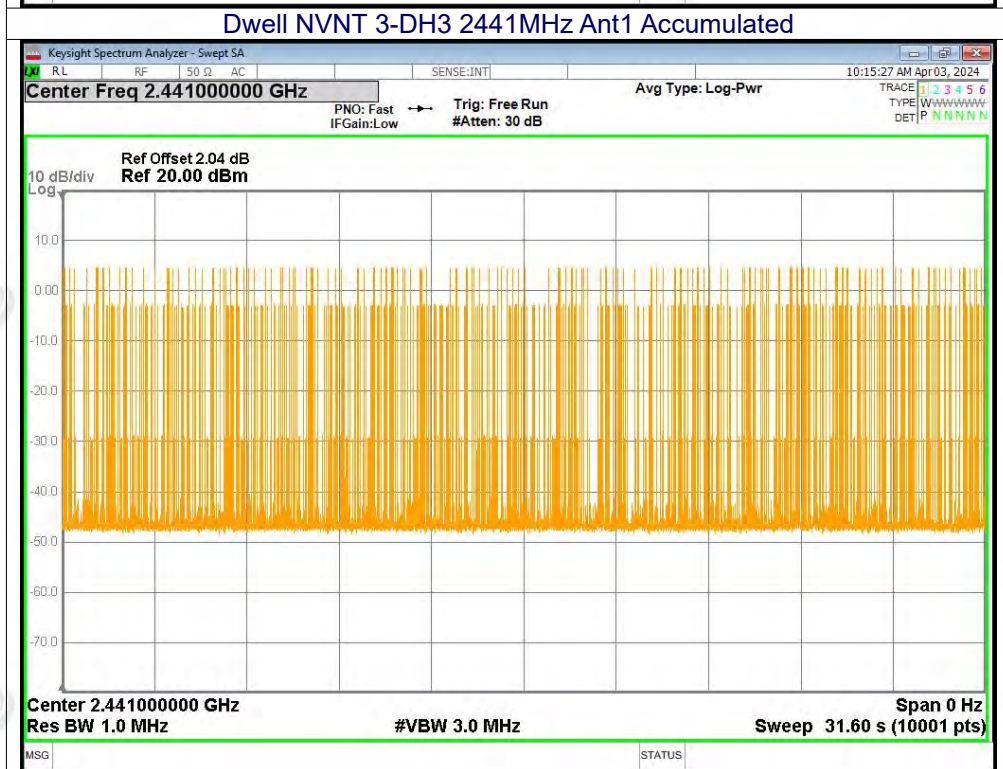
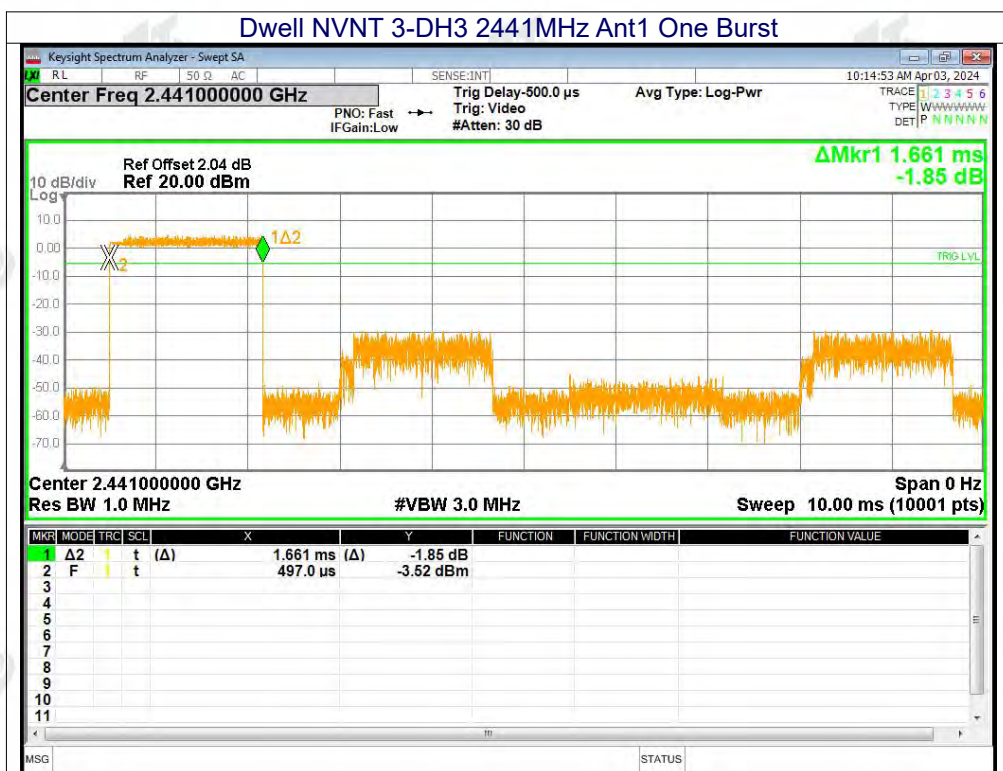


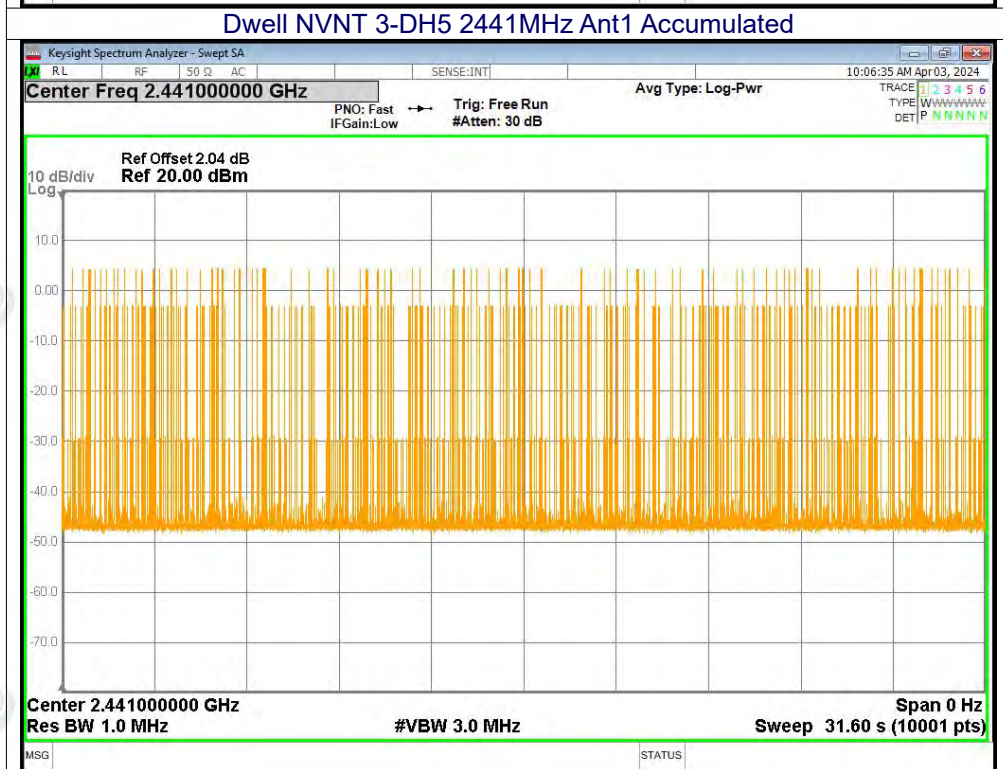
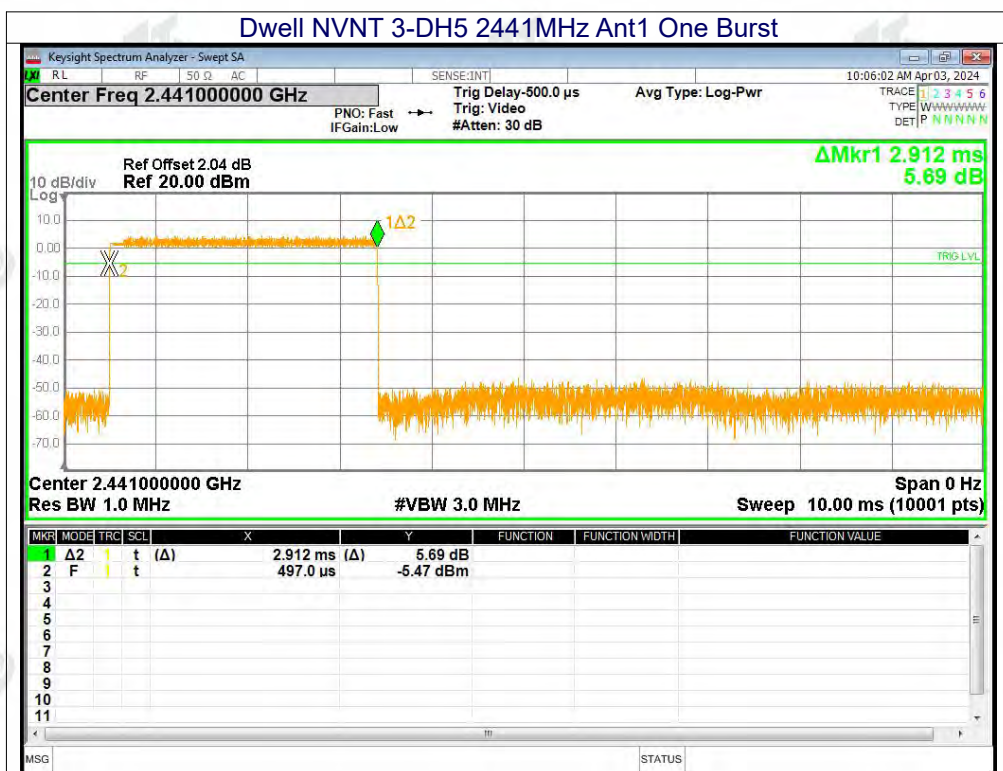












**12. Antenna Requirement**

Standard requirement:	FCC Part15 C Section 15.203 /247(b)(4)
15.203 requirement: 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. 15.247(b) (4) requirement: (4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	
EUT Antenna:	
The antenna is Cable antenna, the best case gain of the antennas is 0.1dBi, reference to the appendix II for details	



13. Test Setup Photo

Reference to the appendix I for details.

14. EUT Constructional Details

Reference to the appendix II for details.

***** END OF REPORT *****