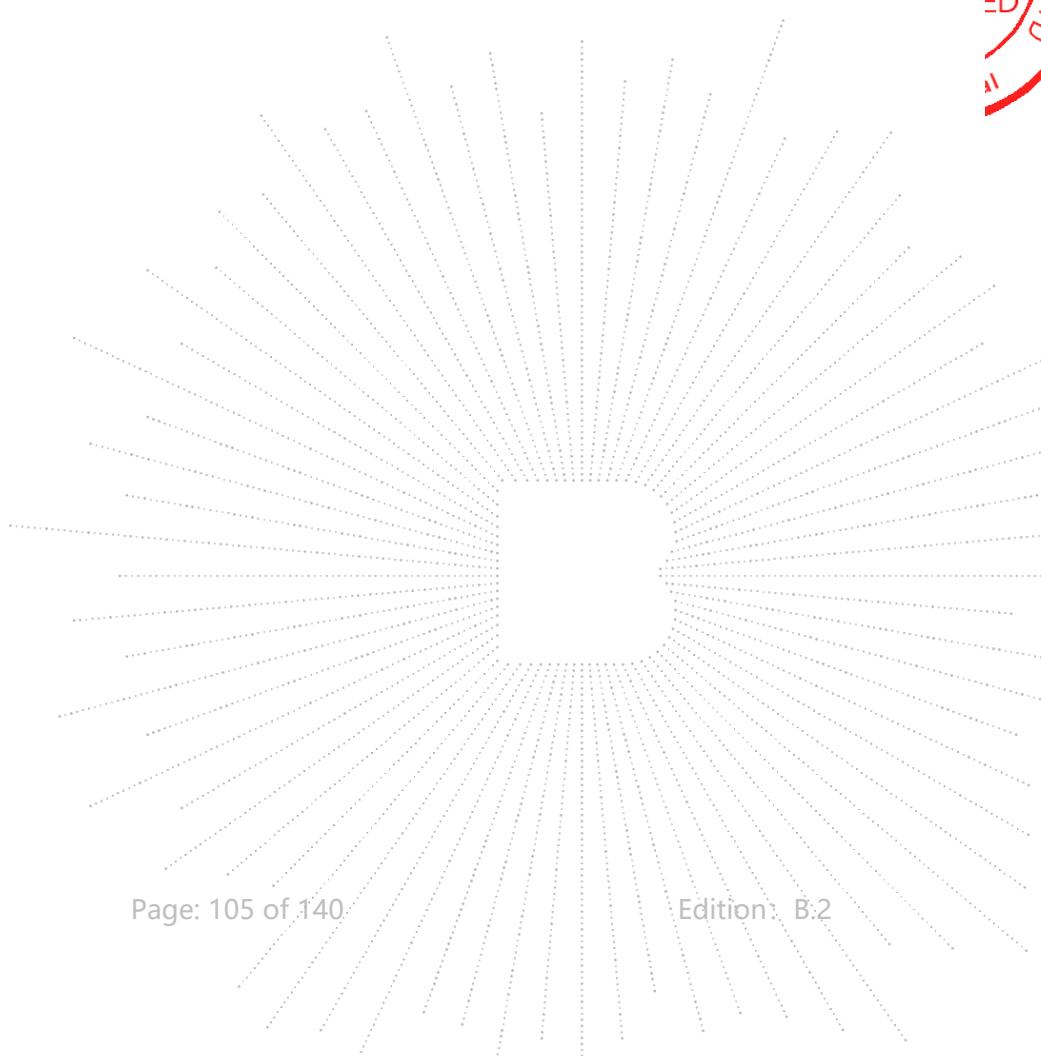
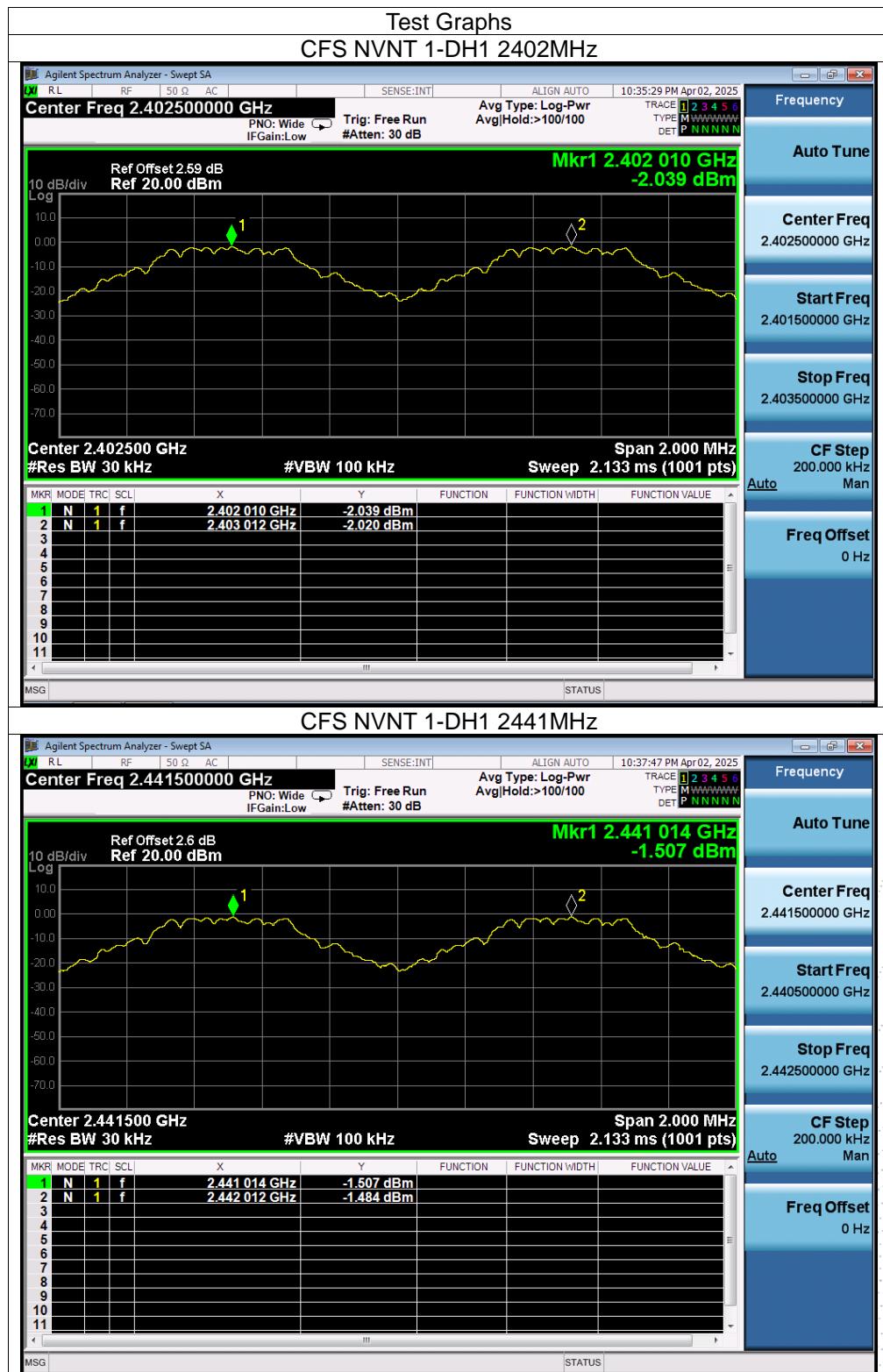
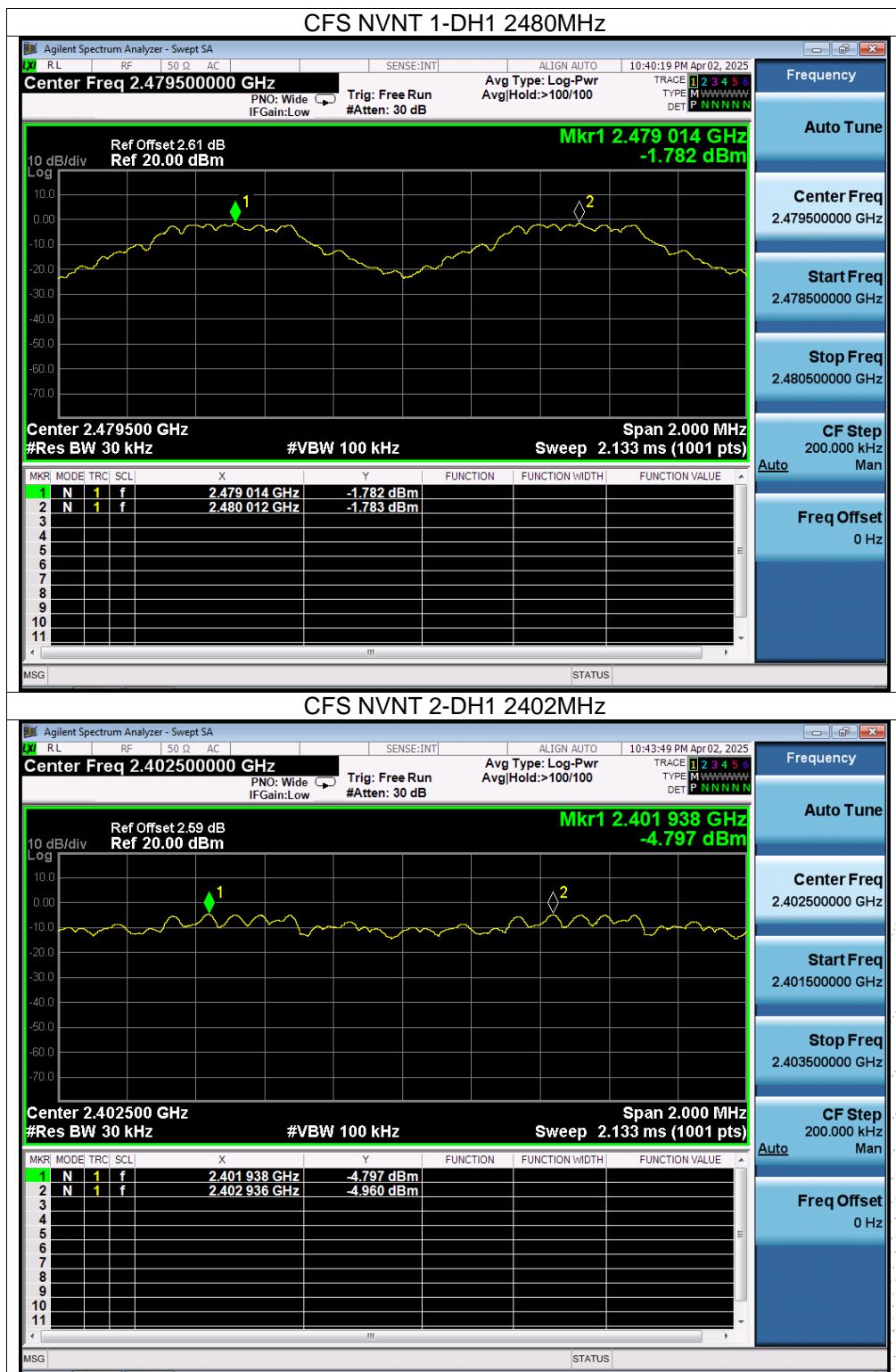


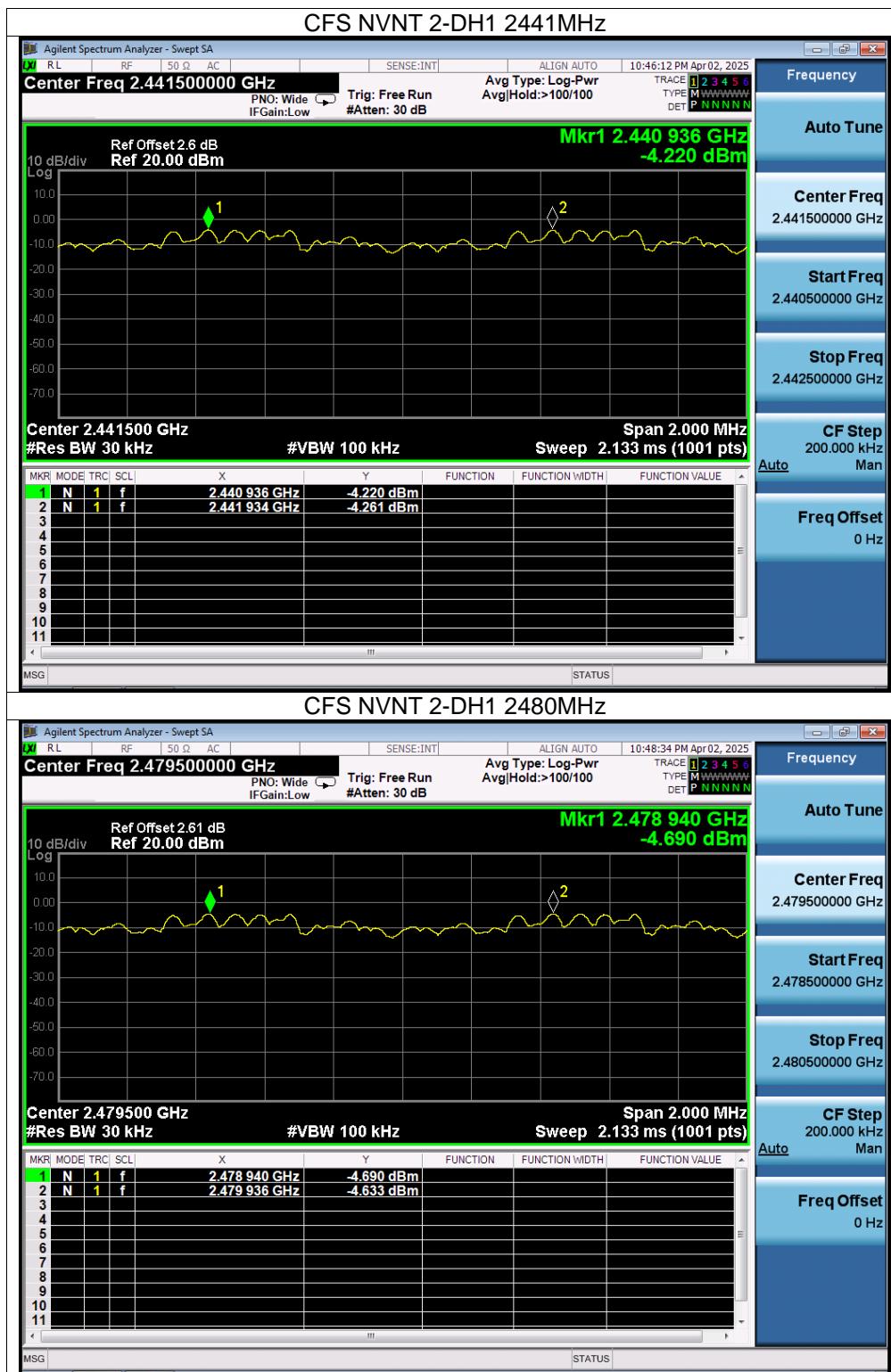
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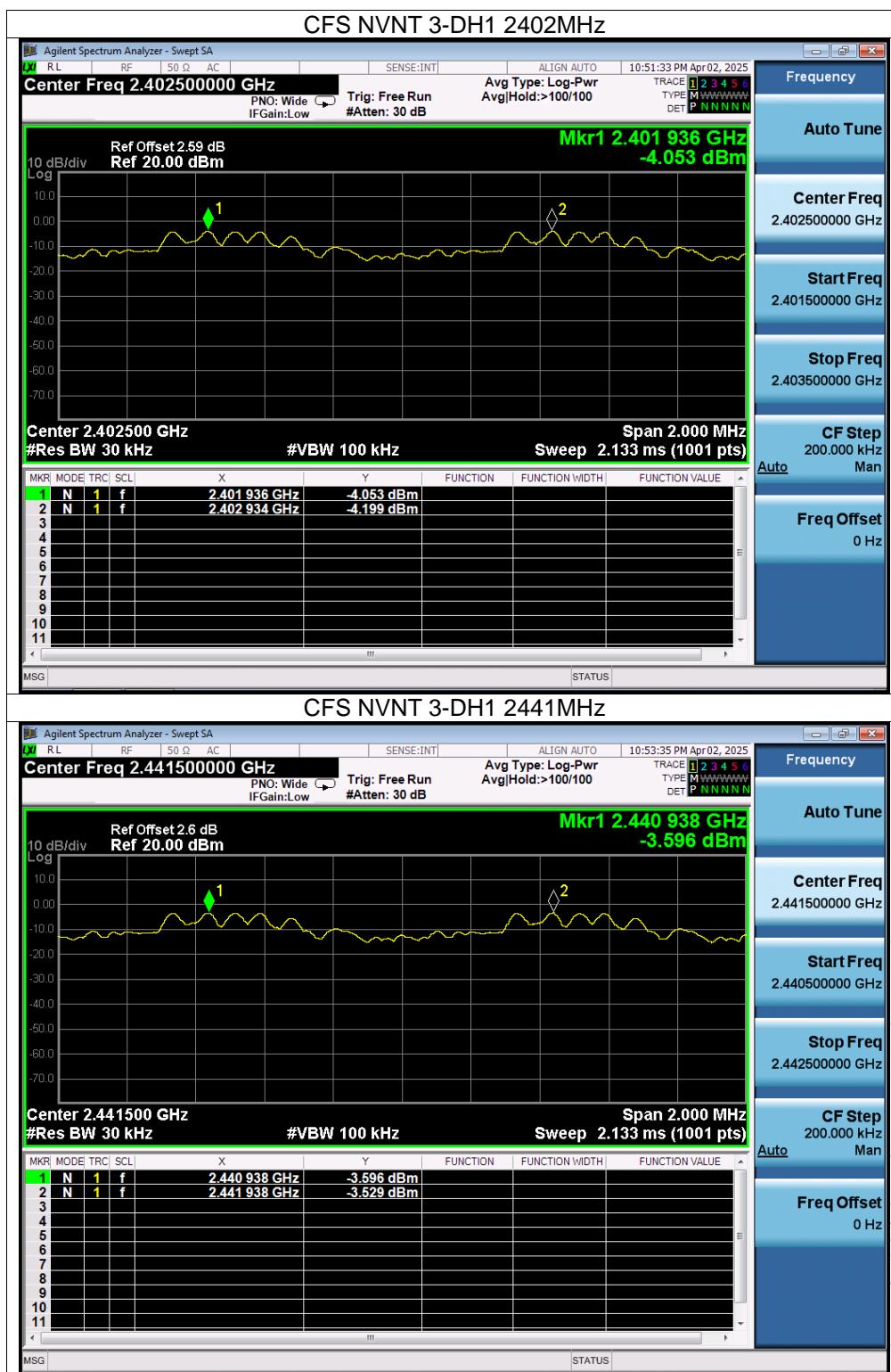
Mode	Test Channel	Separation (MHz)	Limit(MHz)	Result
1-DH1	Low	1.002	0.627	PASS
1-DH1	Middle	0.998	0.631	PASS
1-DH1	High	0.998	0.627	PASS
2-DH1	Low	0.998	0.875	PASS
2-DH1	Middle	0.998	0.874	PASS
2-DH1	High	0.996	0.873	PASS
3-DH1	Low	0.998	0.809	PASS
3-DH1	Middle	1.000	0.815	PASS
3-DH1	High	1.002	0.809	PASS

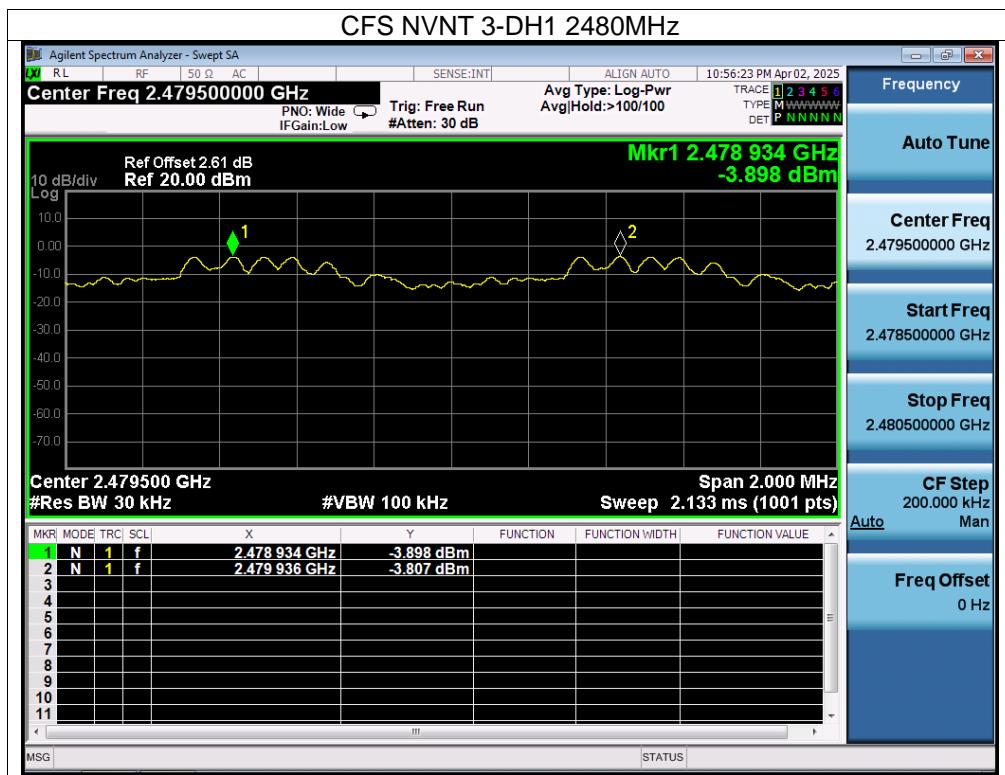












13. Number Of Hopping Frequency

13.1 Block Diagram Of Test Setup



13.2 Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

13.3 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;

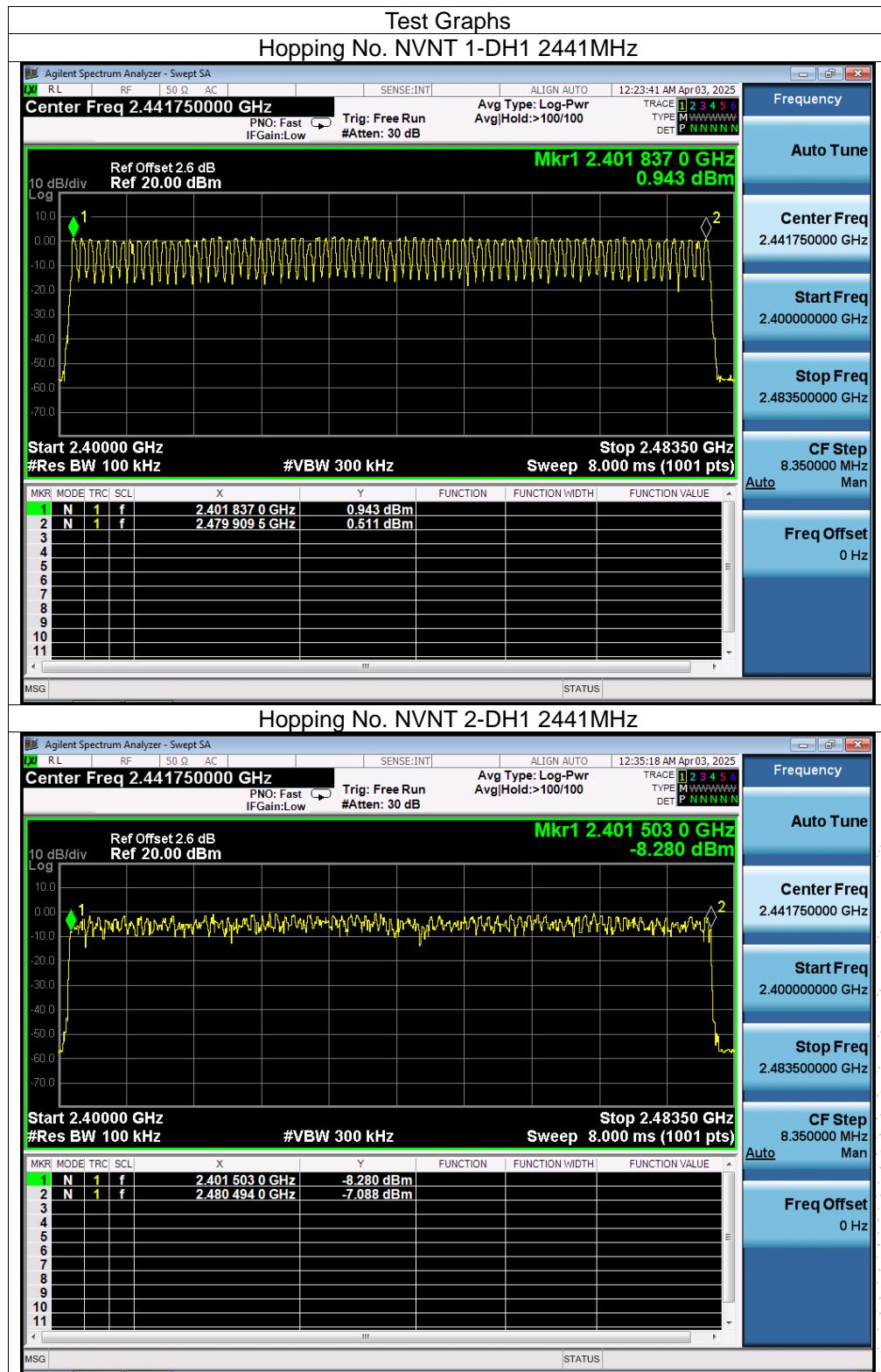
13.4 Test Result

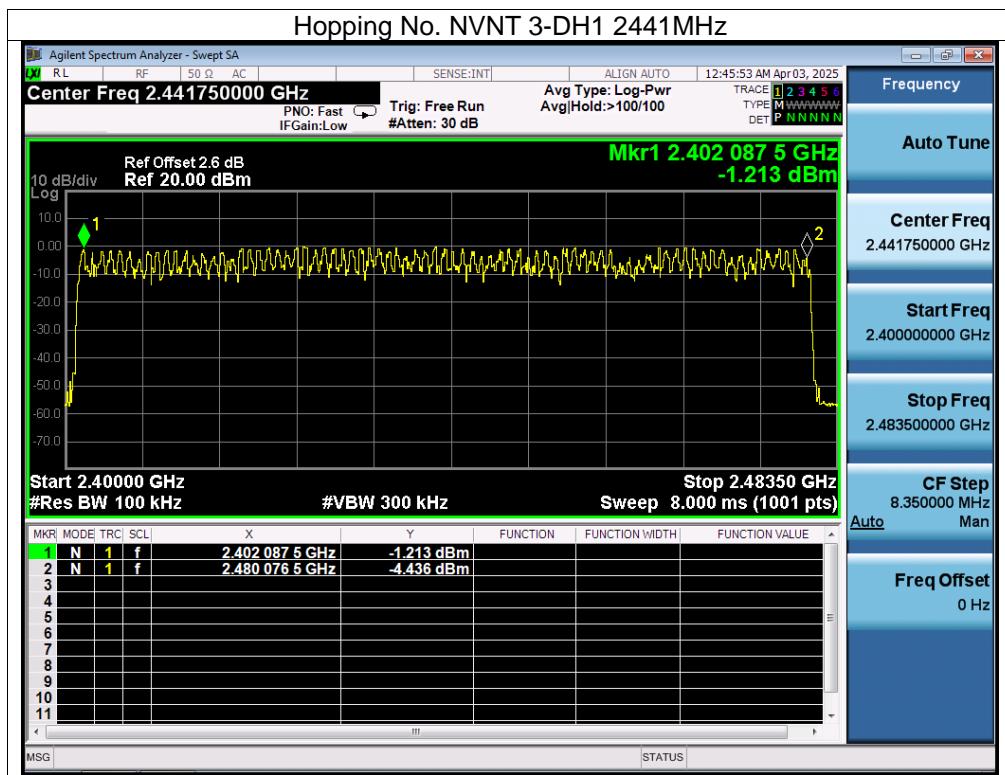
Left

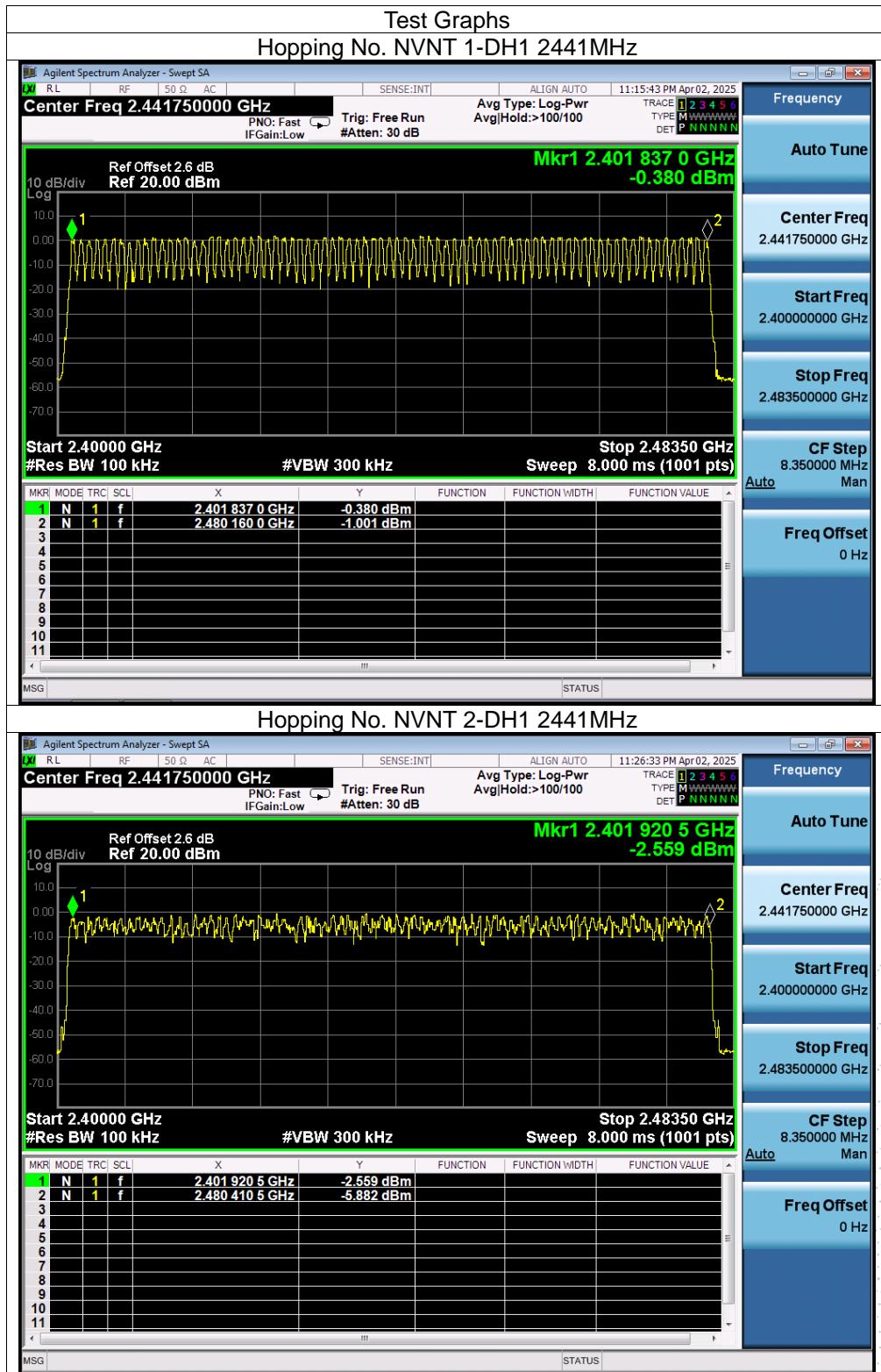
Condition	Mode	Hopping Number	Limit	Verdict
NVNT	1-DH1	79	15	Pass
NVNT	2-DH1	79	15	Pass
NVNT	3-DH1	79	15	Pass

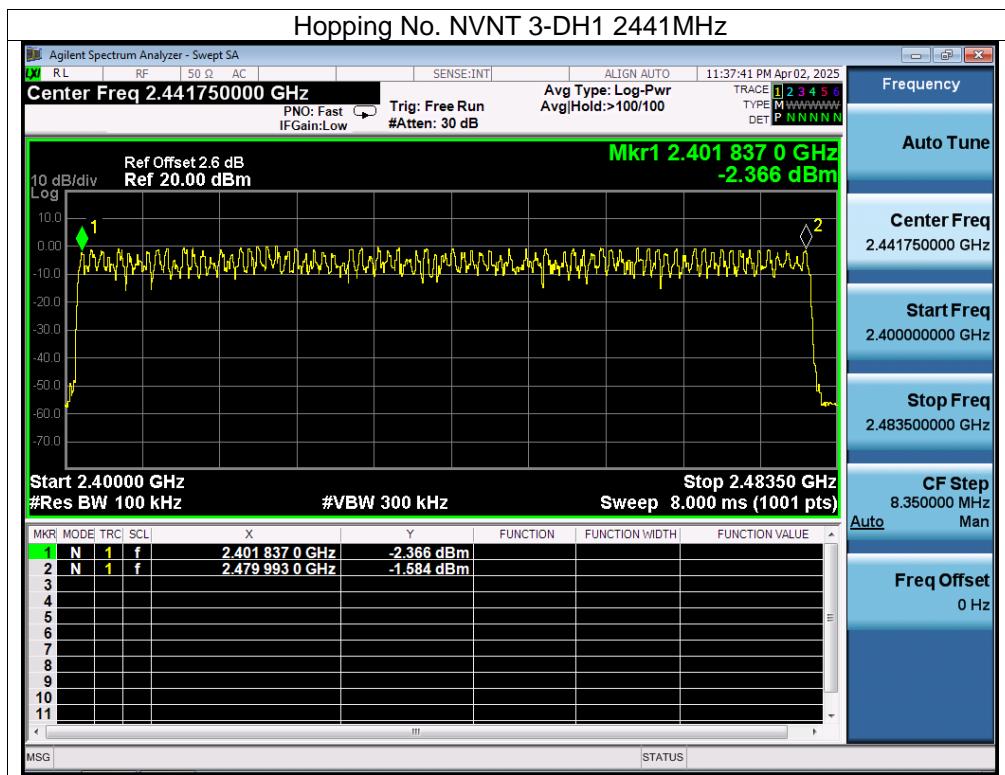
Right

Condition	Mode	Hopping Number	Limit	Verdict
NVNT	1-DH1	79	15	Pass
NVNT	2-DH1	79	15	Pass
NVNT	3-DH1	79	15	Pass

Left




Right




14. Dwell Time

14.1 Block Diagram Of Test Setup



14.2 Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

14.3 Test procedure

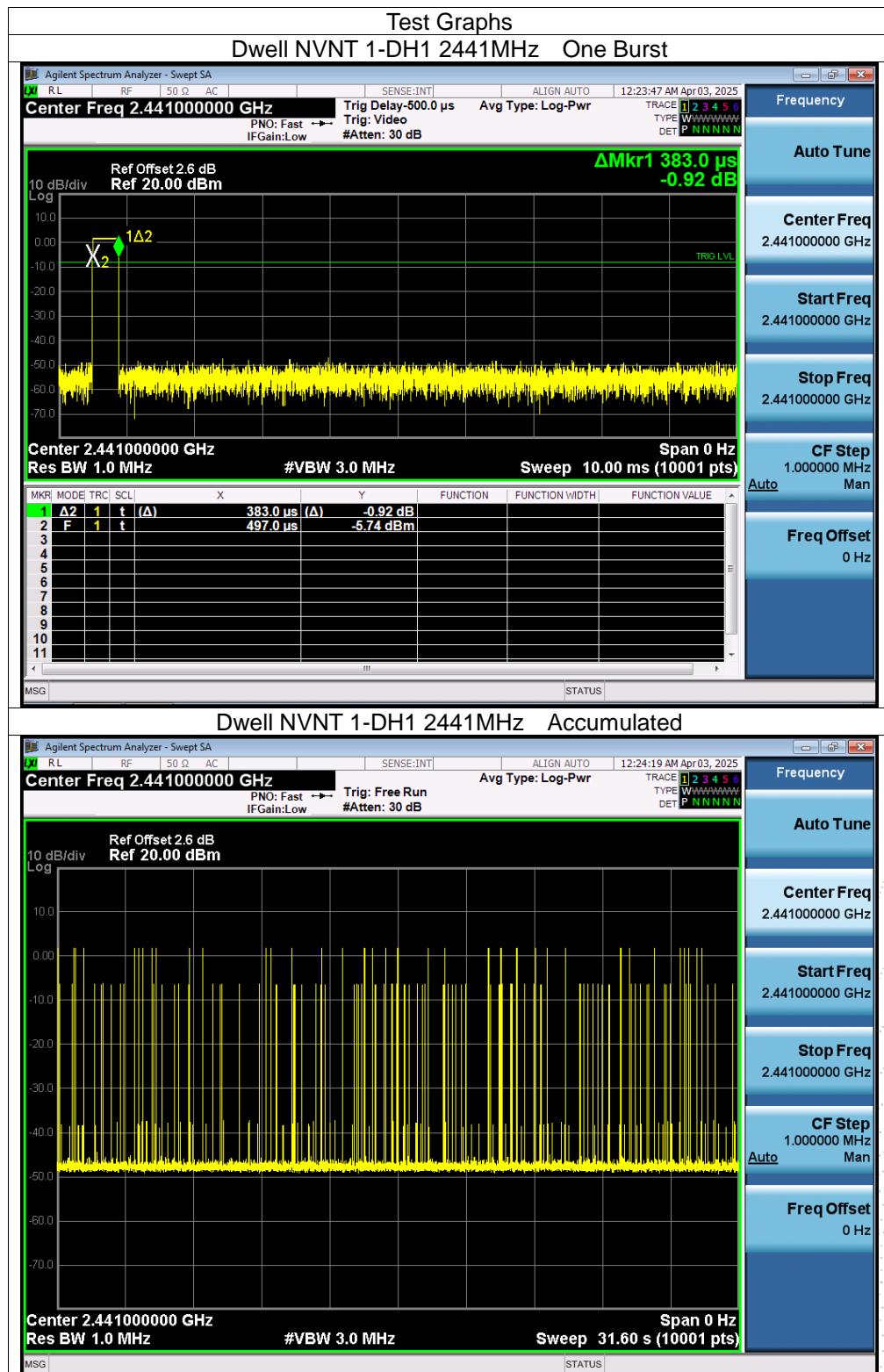
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set spectrum analyzer span = 0. Centred on a hopping channel;
3. Set RBW = 1MHz and VBW = 3MHz. Sweep = as necessary to capture the entire dwell time per hopping channel. Set the EUT for DH5, 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).

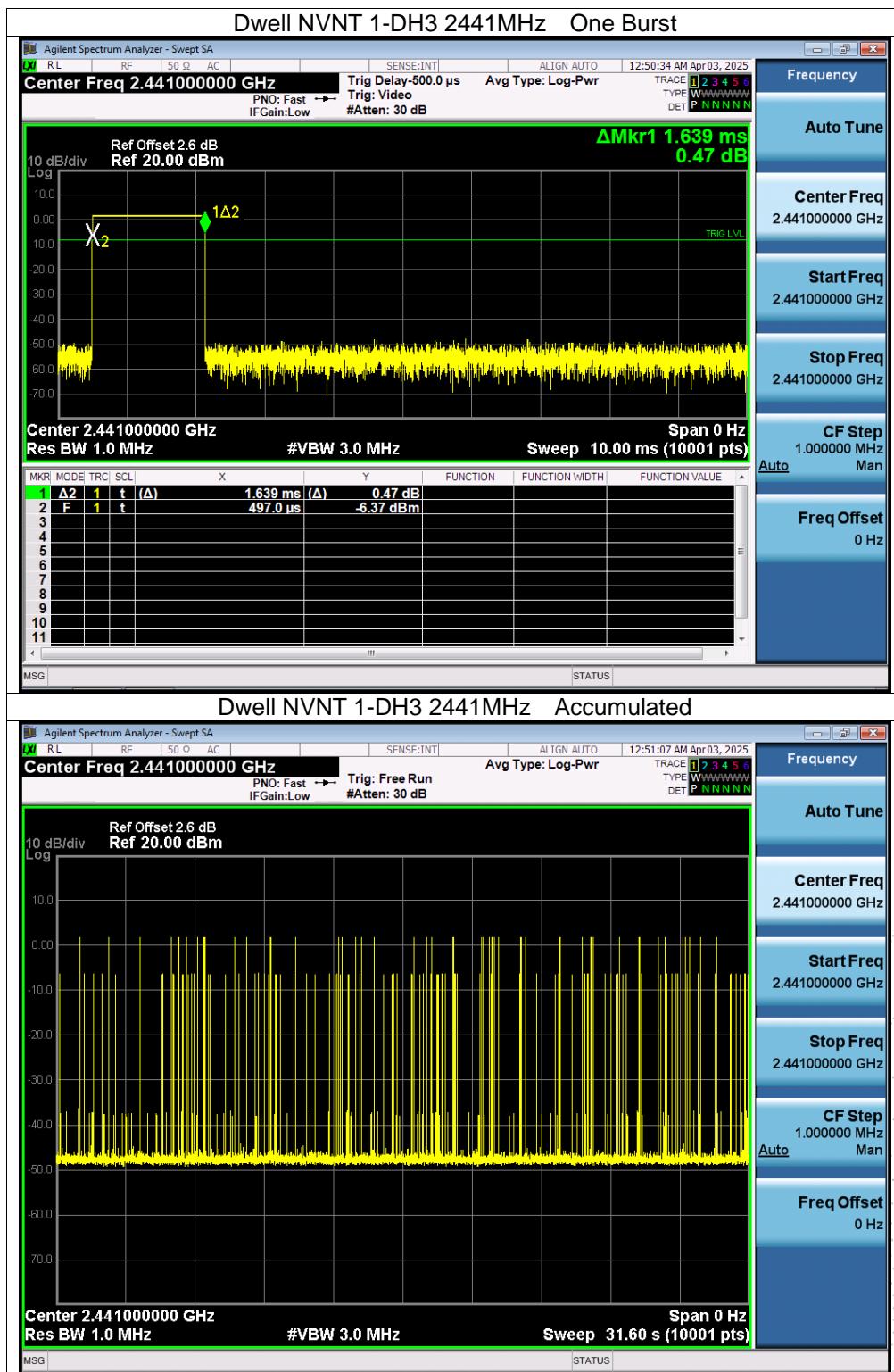
14.4 Test Result

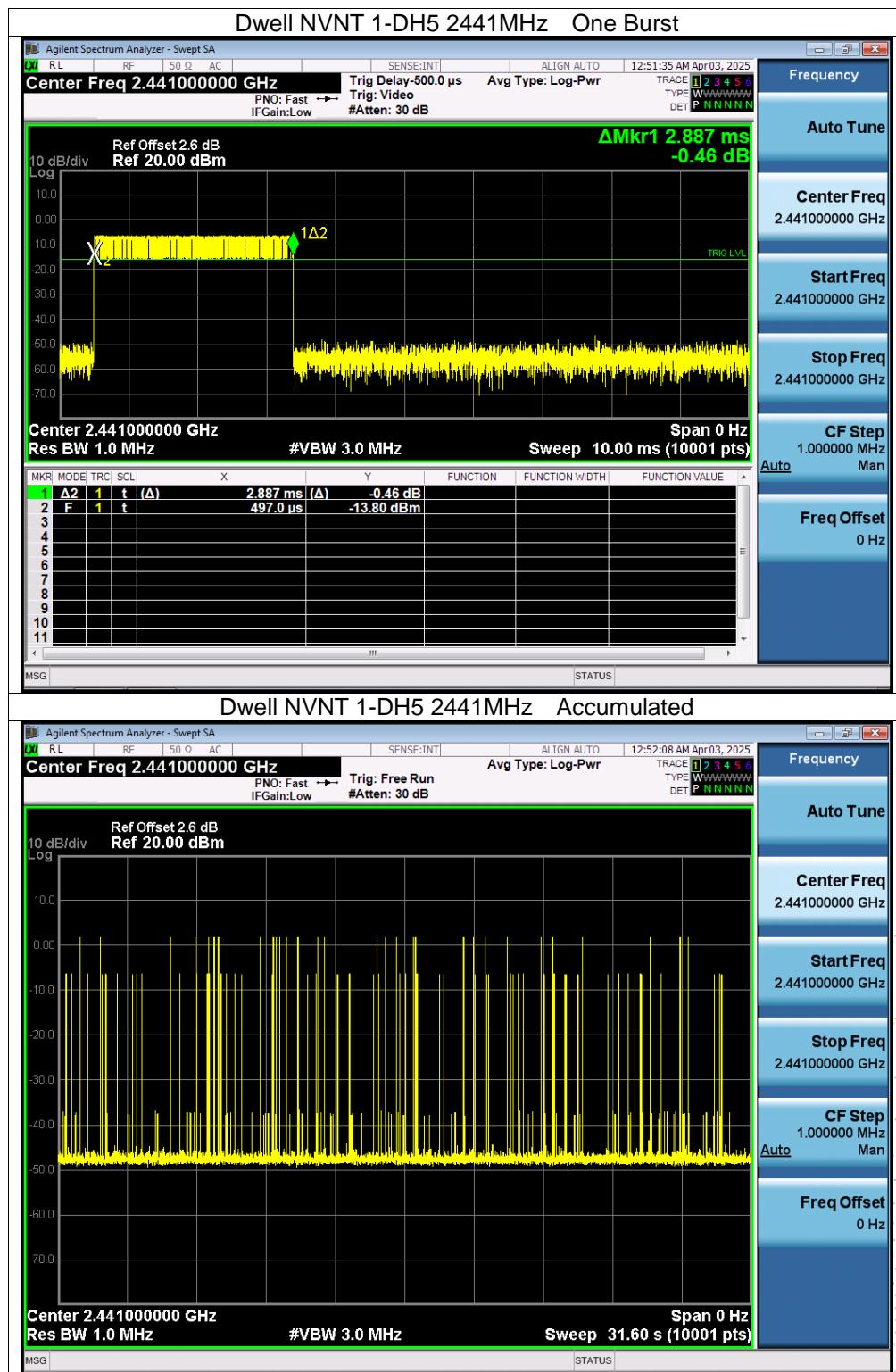
Left

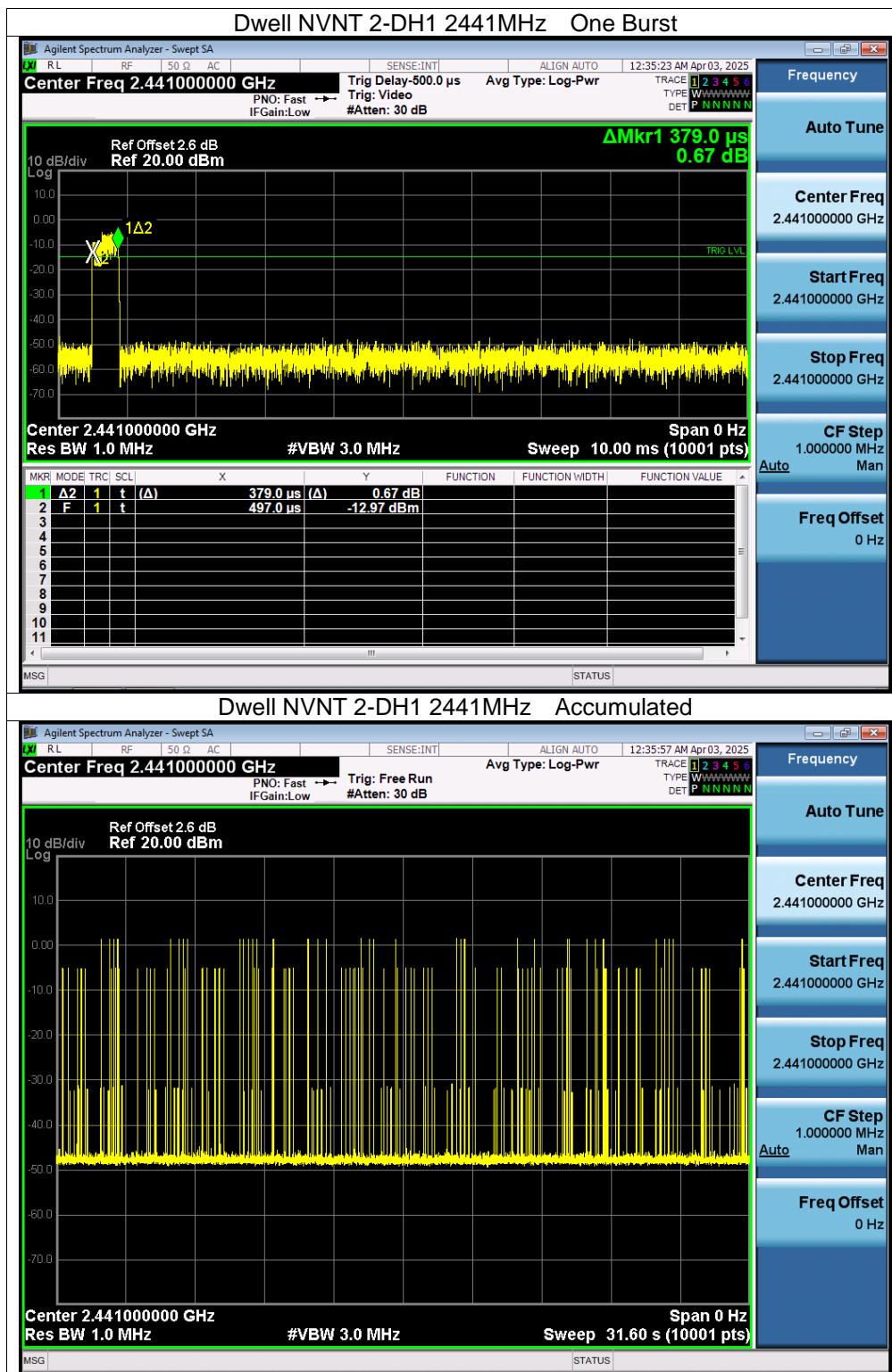
Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
1-DH1	2441	0.383	13.788	36	31600	400	Pass
1-DH3	2441	1.639	80.311	49	31600	400	Pass
1-DH5	2441	2.887	92.384	32	31600	400	Pass
2-DH1	2441	0.379	15.16	40	31600	400	Pass
2-DH3	2441	1.633	88.182	54	31600	400	Pass
2-DH5	2441	2.883	141.267	49	31600	400	Pass
3-DH1	2441	0.392	17.248	44	31600	400	Pass
3-DH3	2441	1.633	73.485	45	31600	400	Pass
3-DH5	2441	2.891	153.223	53	31600	400	Pass

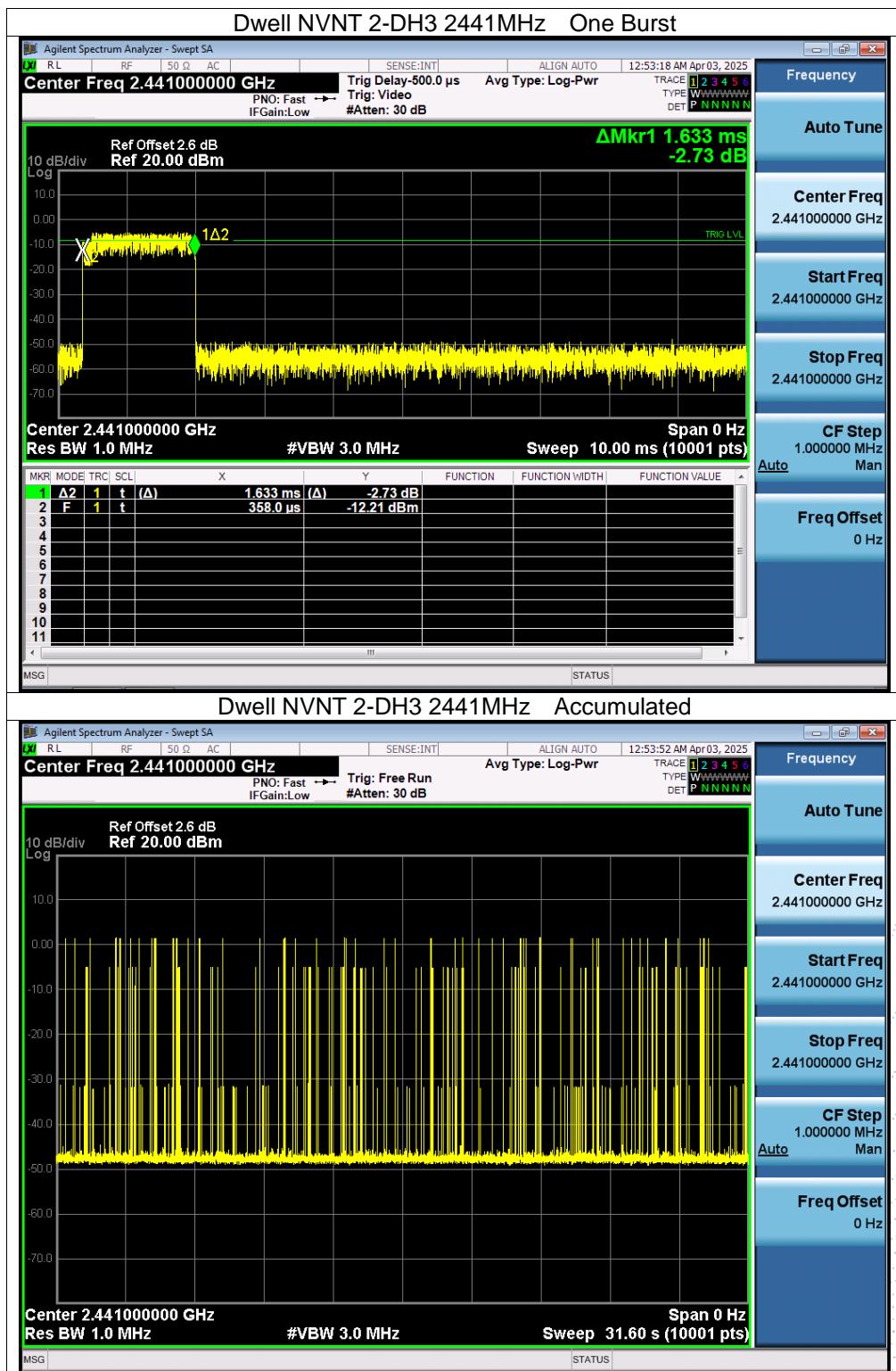
Note: Total Dwell Time (ms) = Pulse Time (ms)*Burst Count

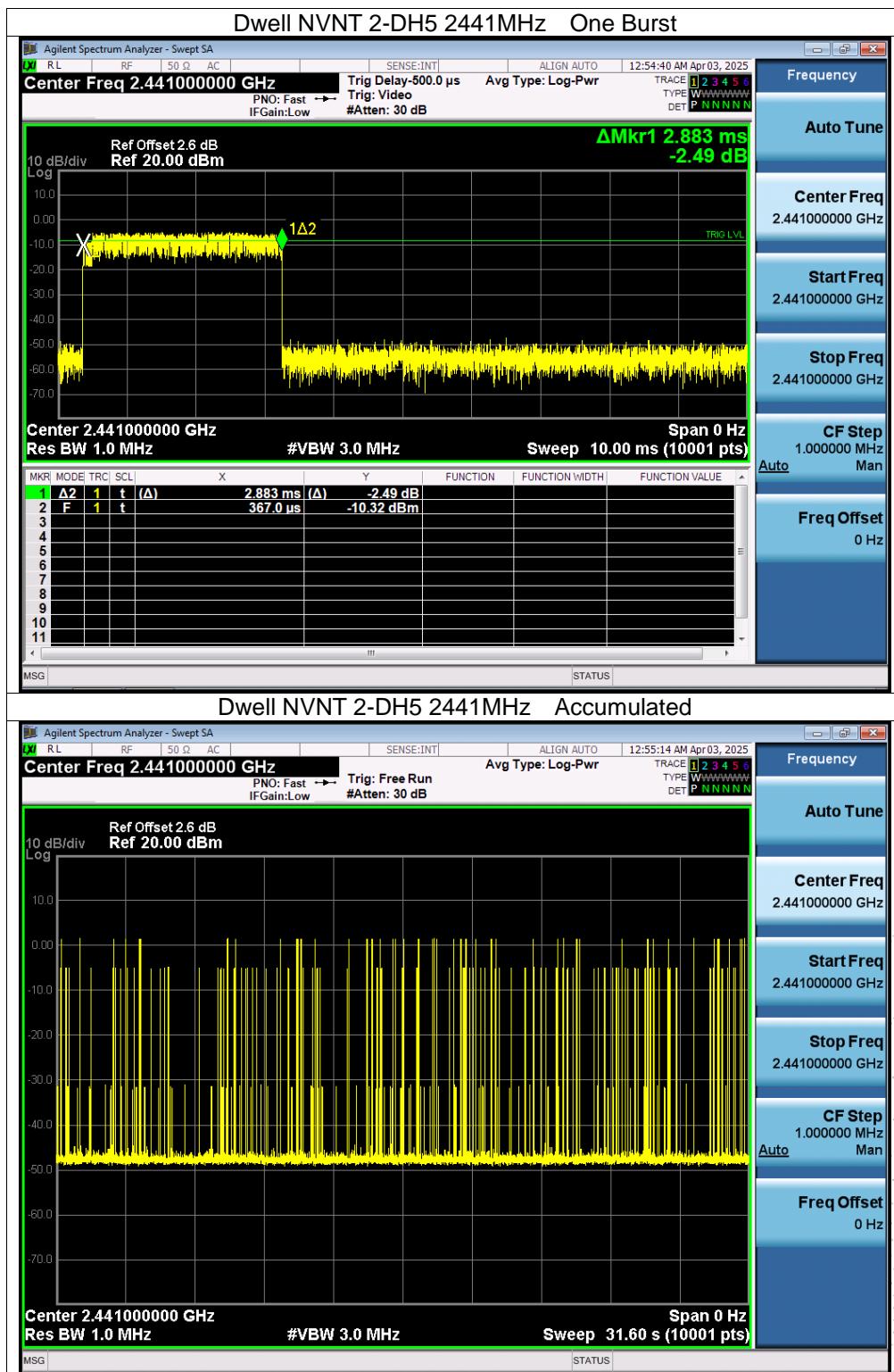


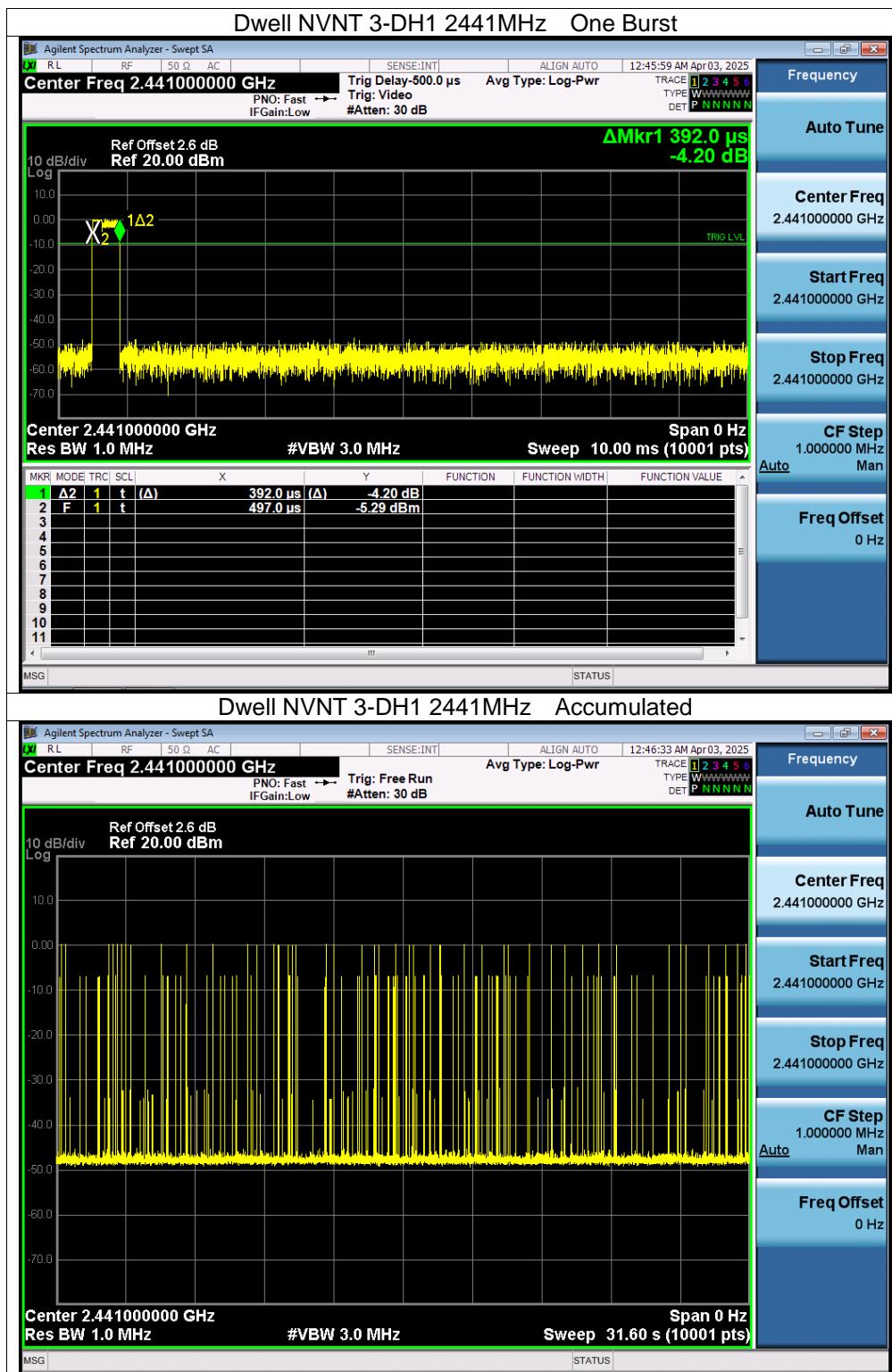


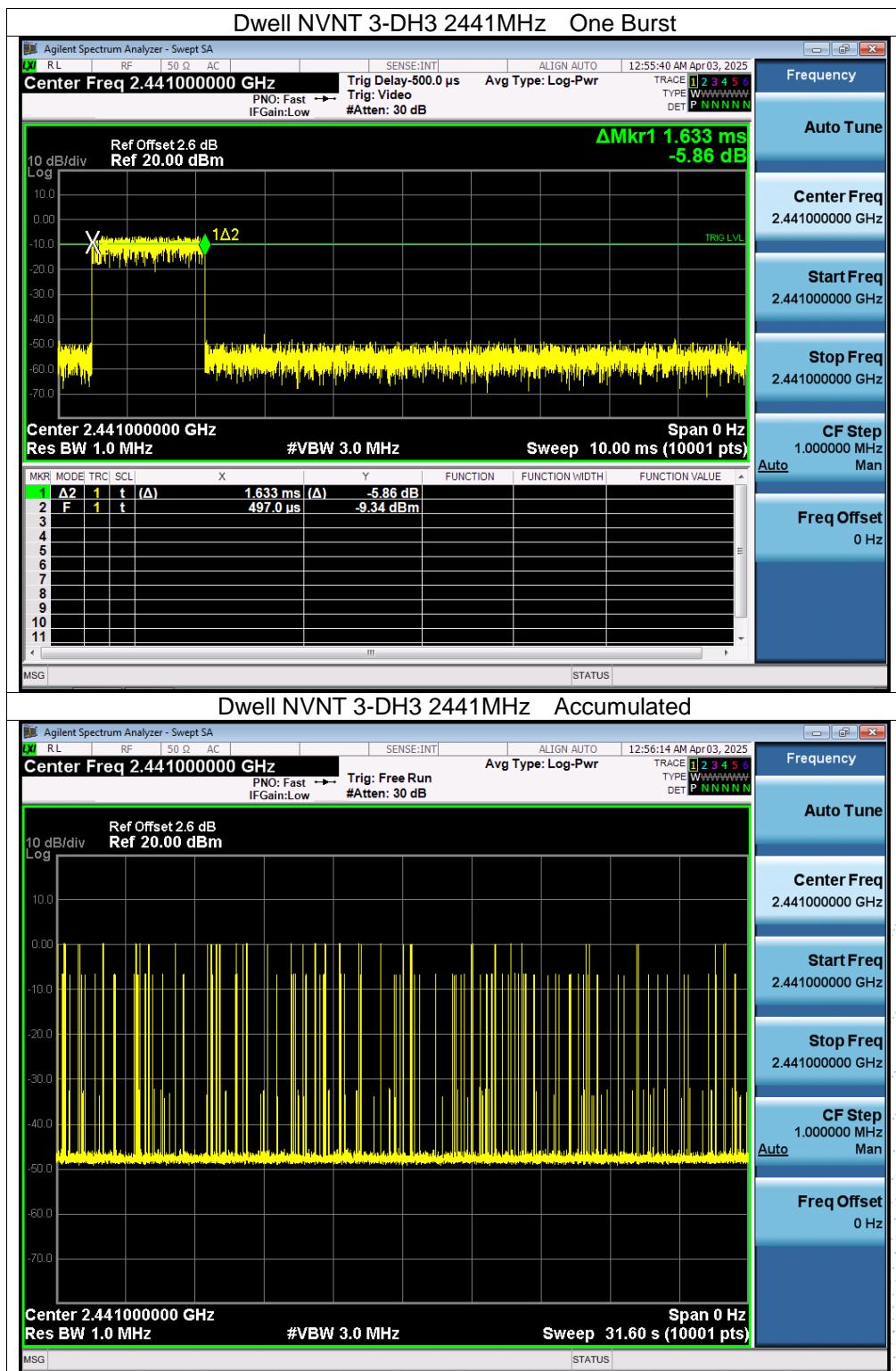


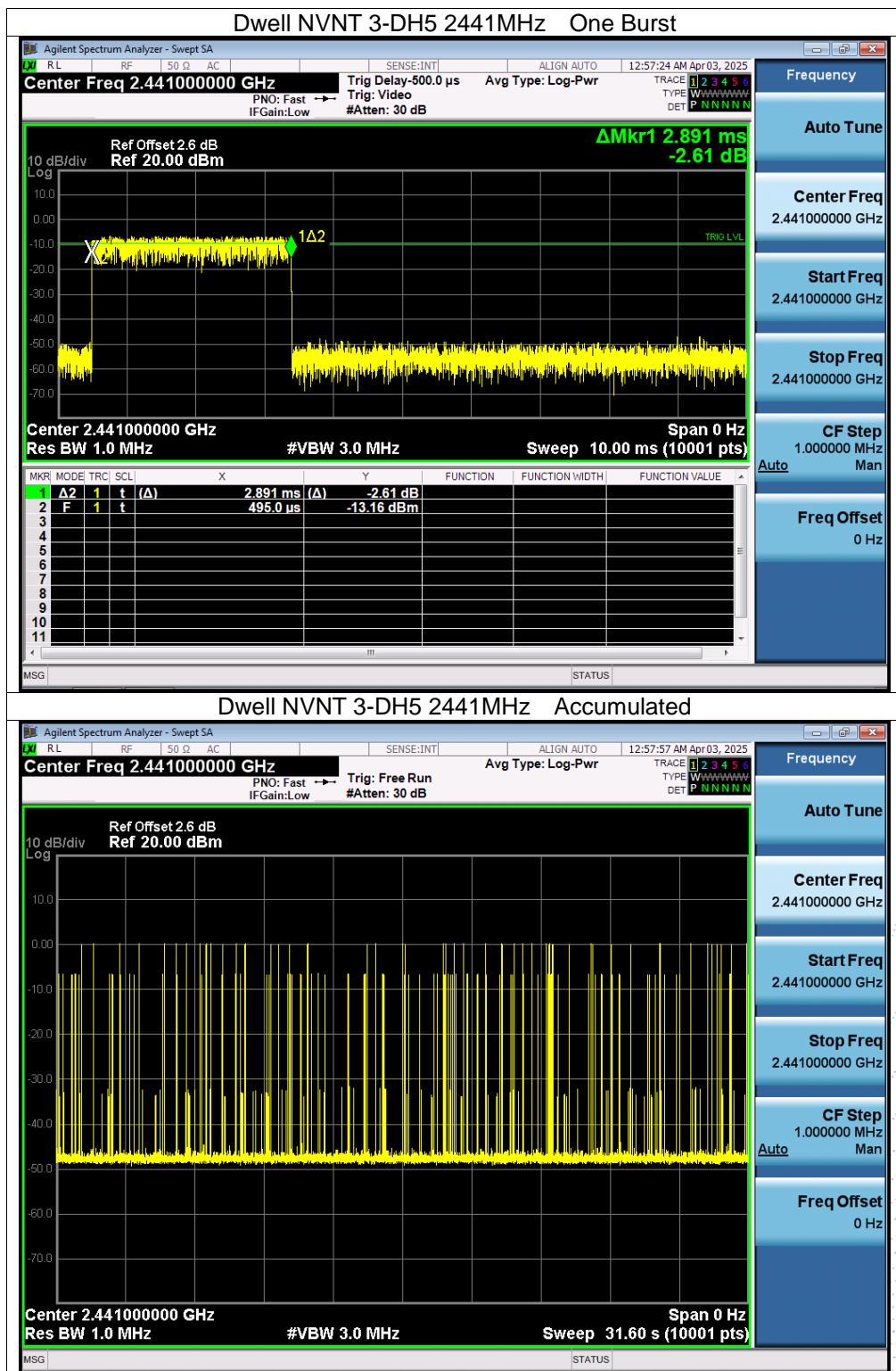










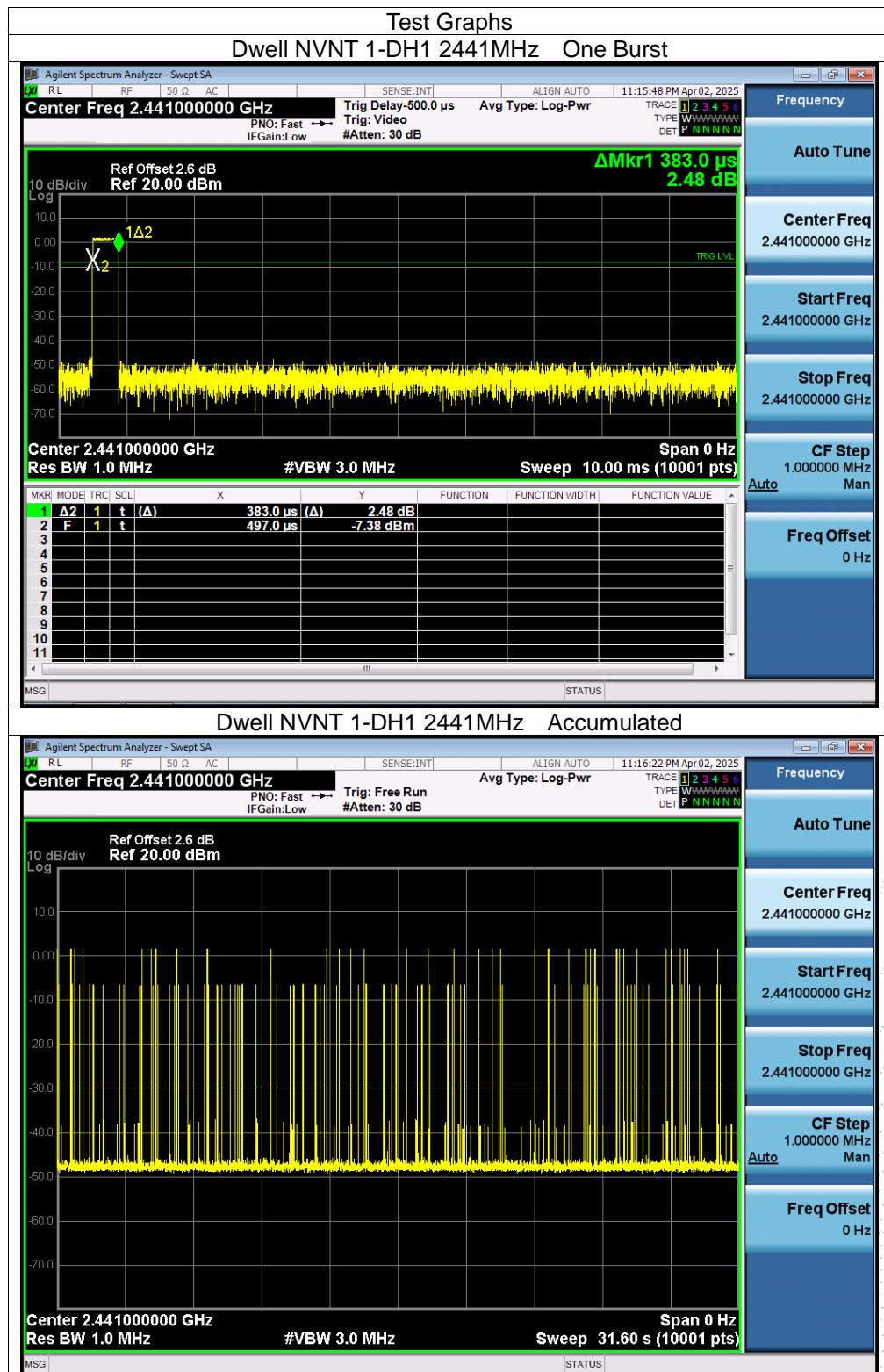


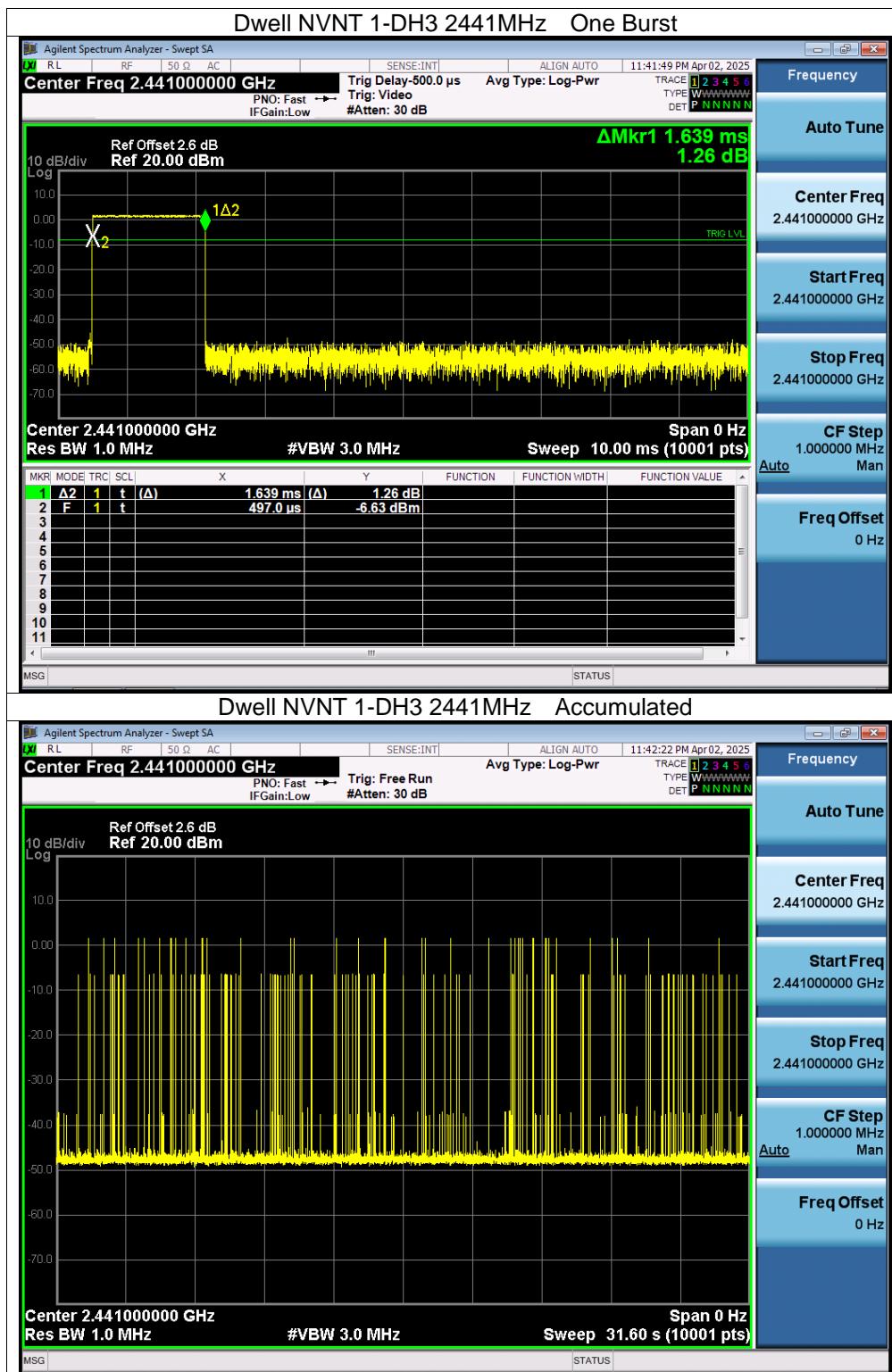
Right

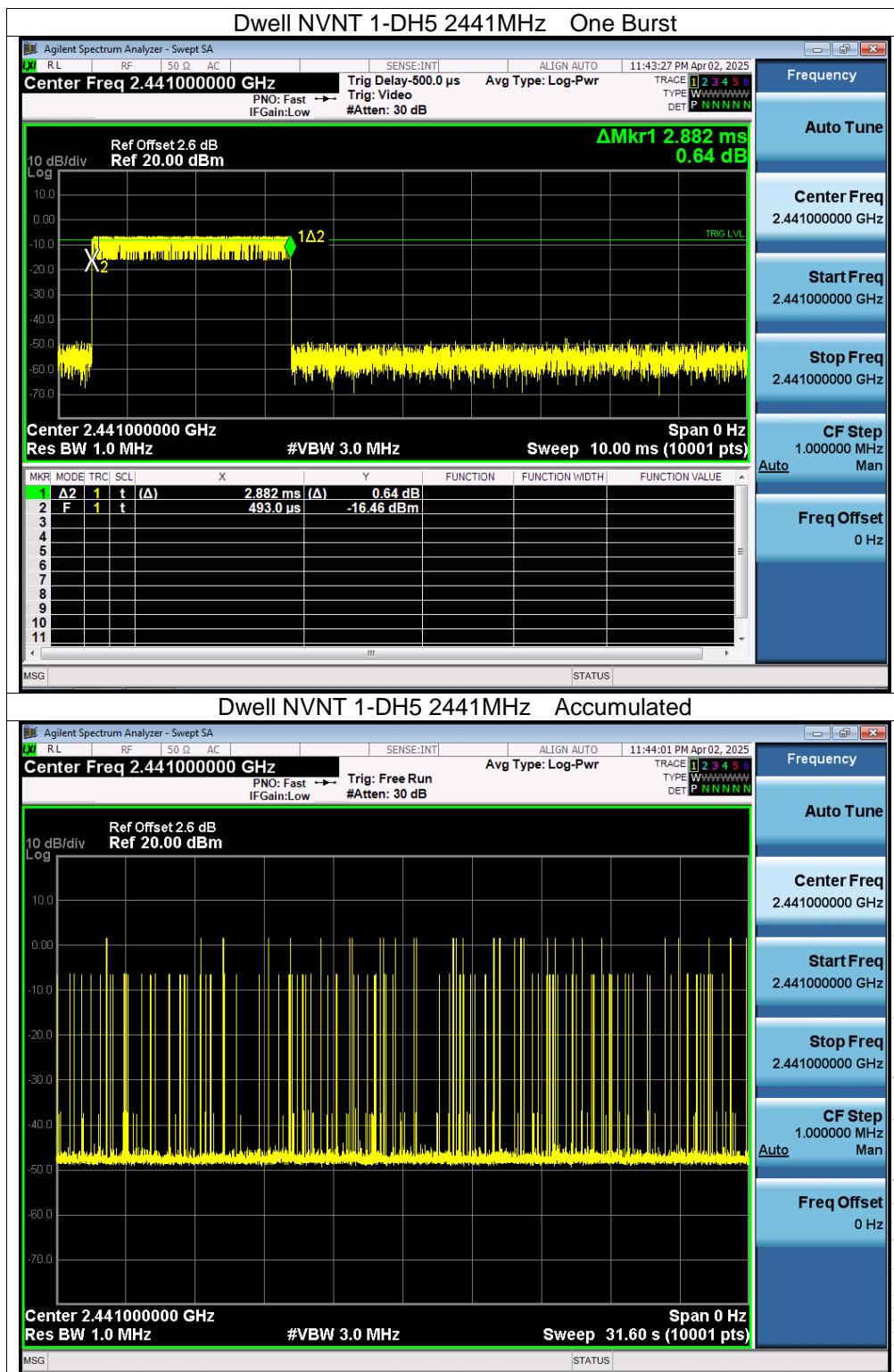
Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
1-DH1	2441	0.383	14.171	37	31600	400	Pass
1-DH3	2441	1.639	59.004	36	31600	400	Pass
1-DH5	2441	2.882	97.988	34	31600	400	Pass
2-DH1	2441	0.391	14.467	37	31600	400	Pass
2-DH3	2441	1.642	60.754	37	31600	400	Pass
2-DH5	2441	2.882	123.926	43	31600	400	Pass
3-DH1	2441	0.39	12.09	31	31600	400	Pass
3-DH3	2441	1.642	60.754	37	31600	400	Pass
3-DH5	2441	2.891	144.55	50	31600	400	Pass

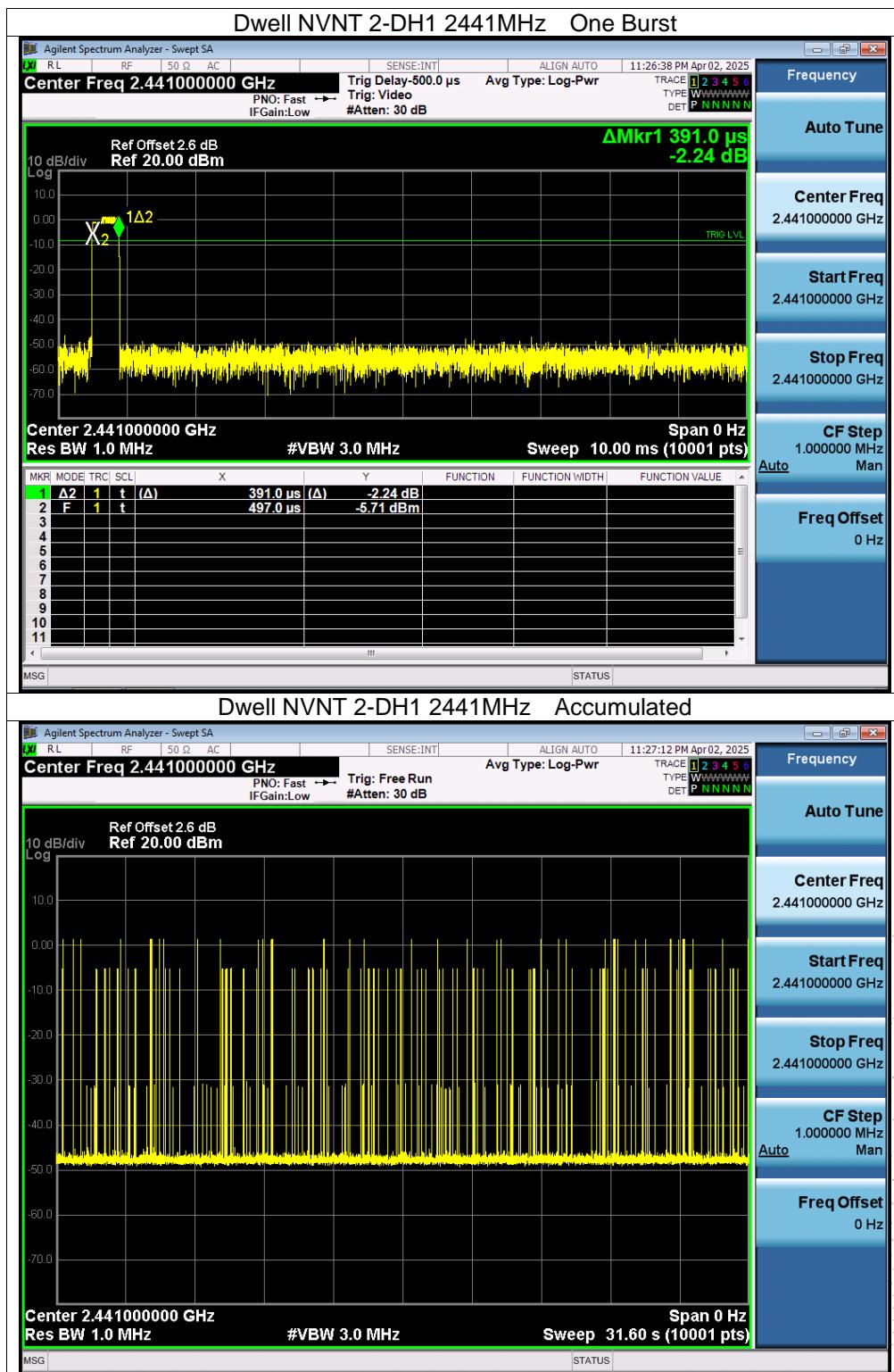
Note: Total Dwell Time (ms) = Pulse Time (ms)*Burst Count

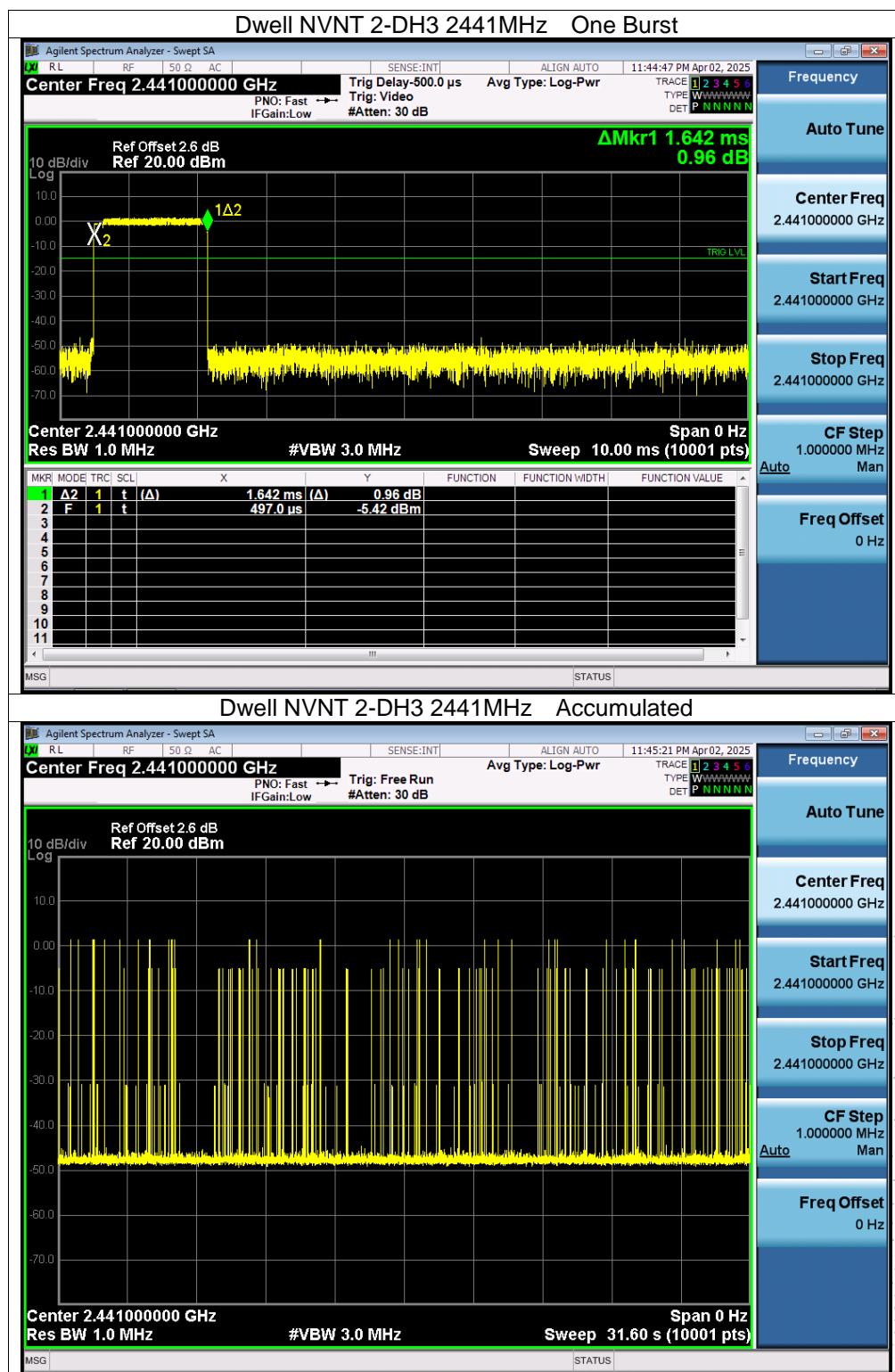


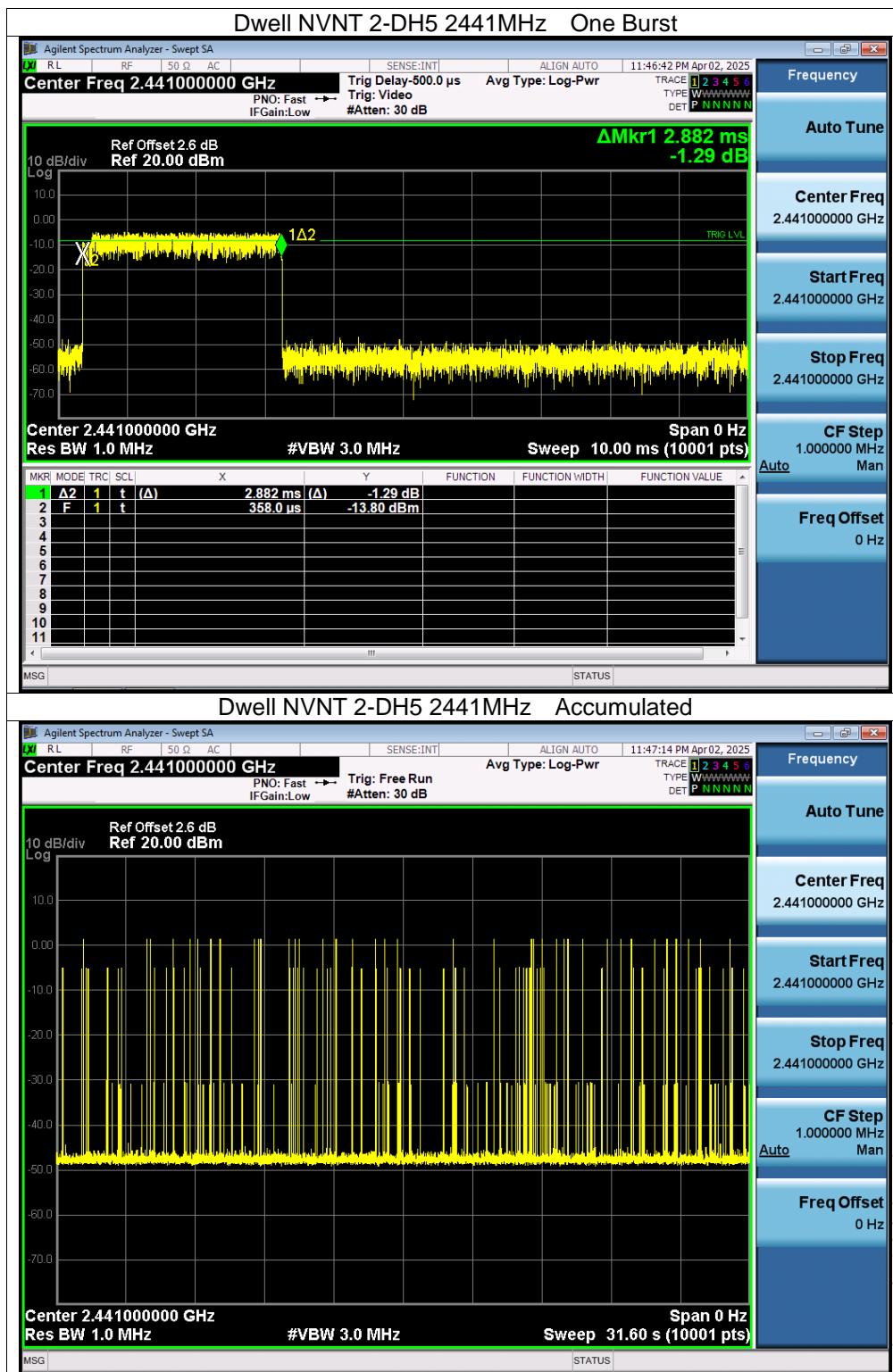


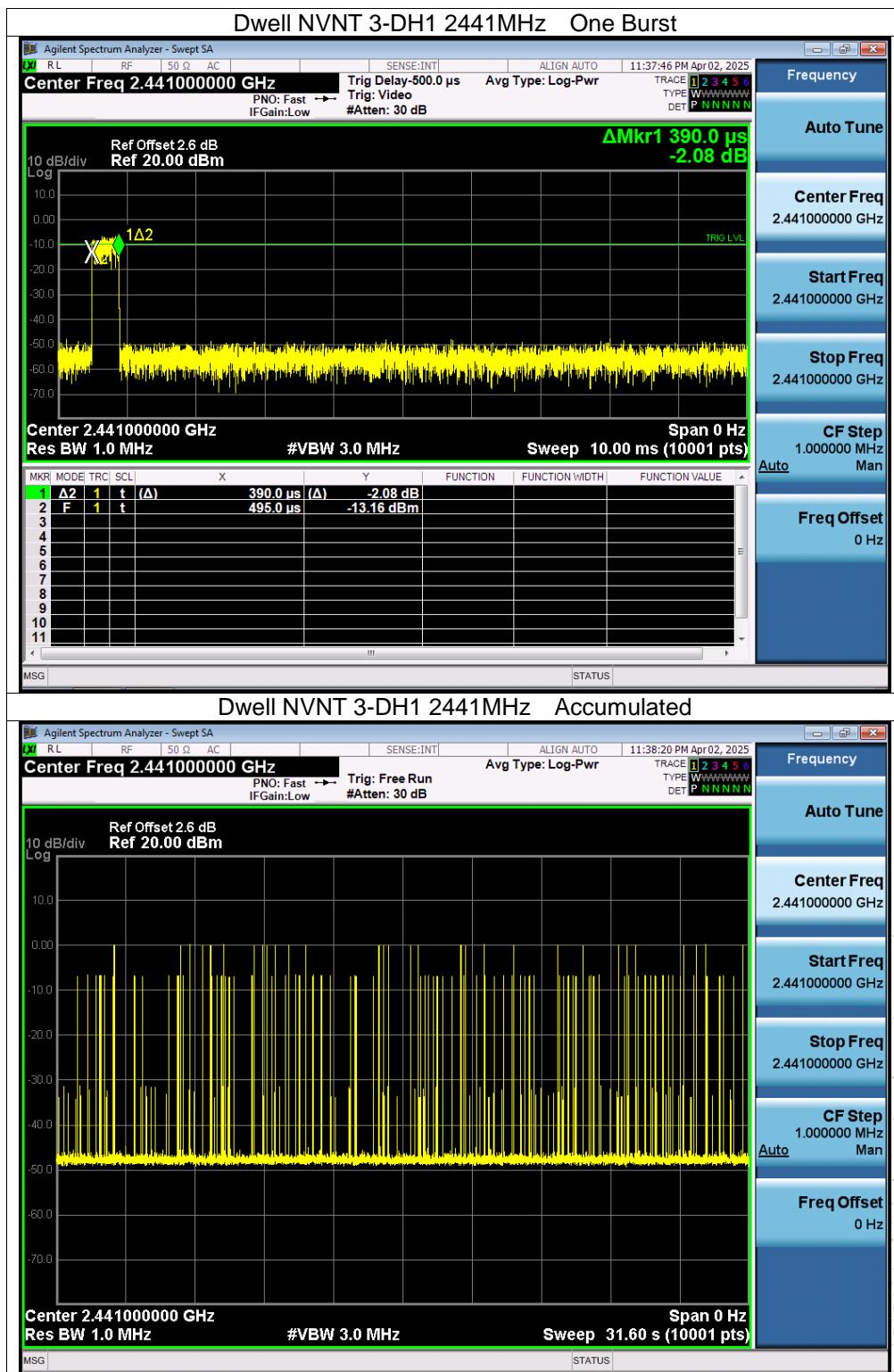


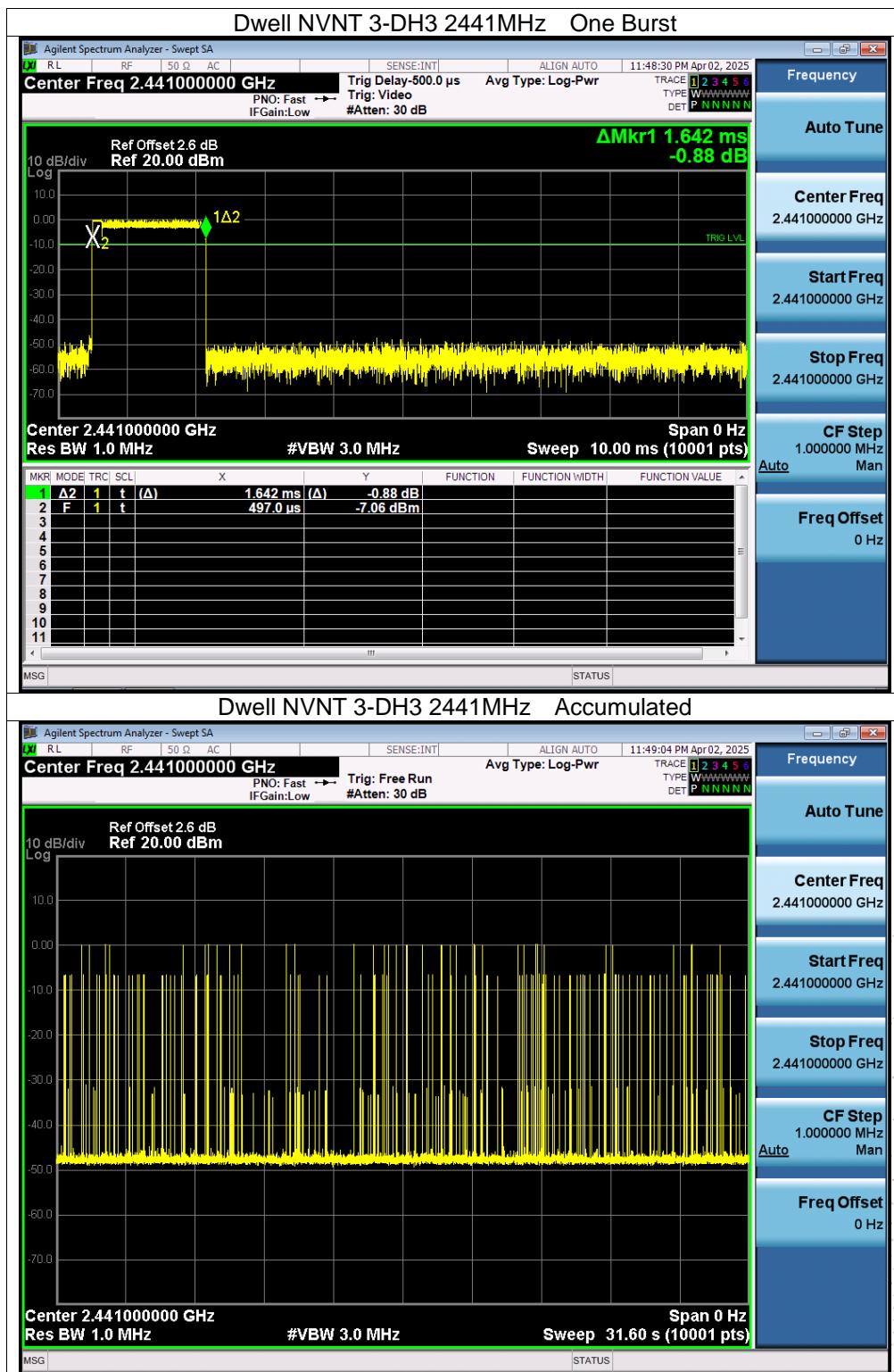


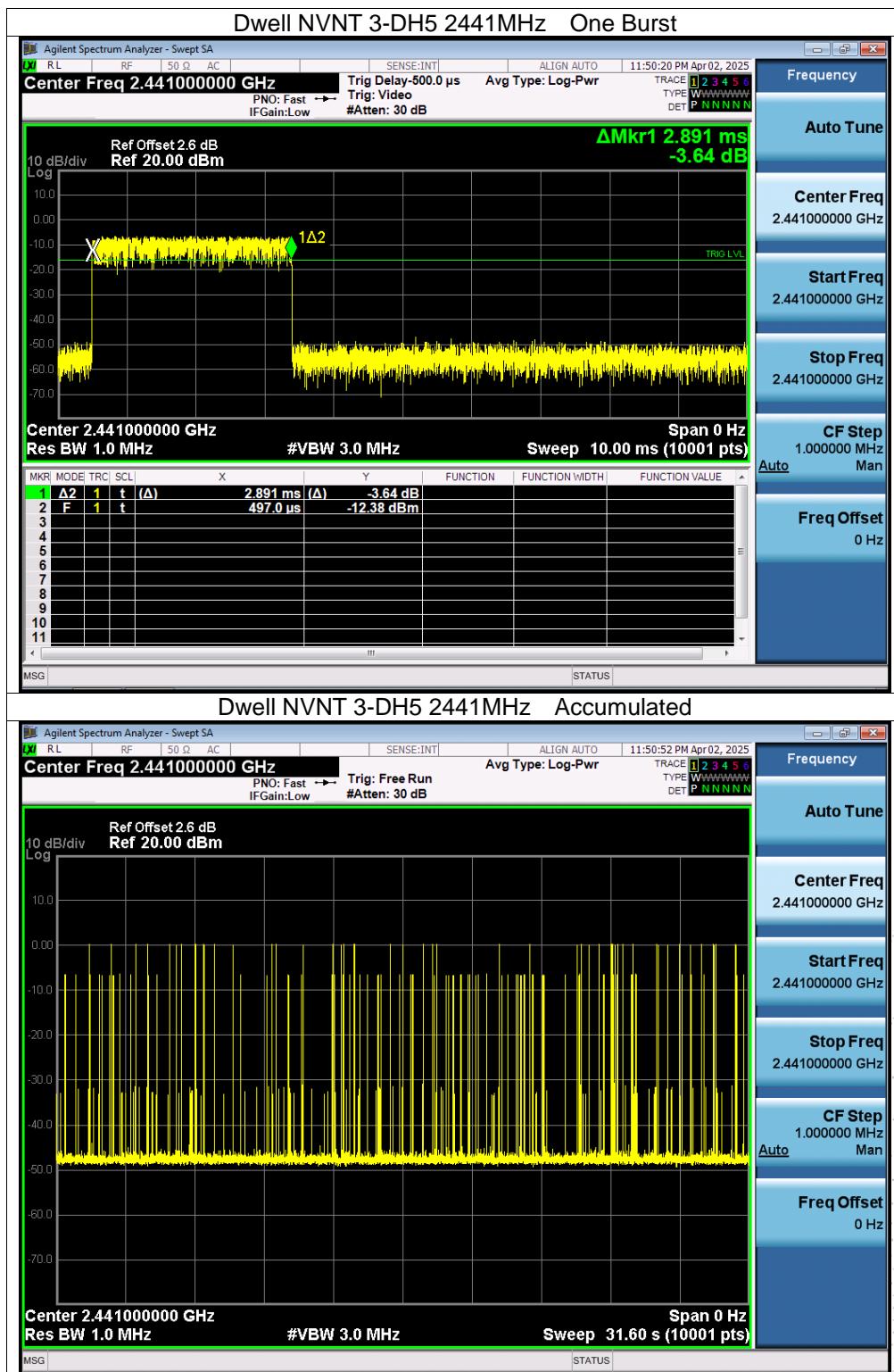












15. Antenna Requirement

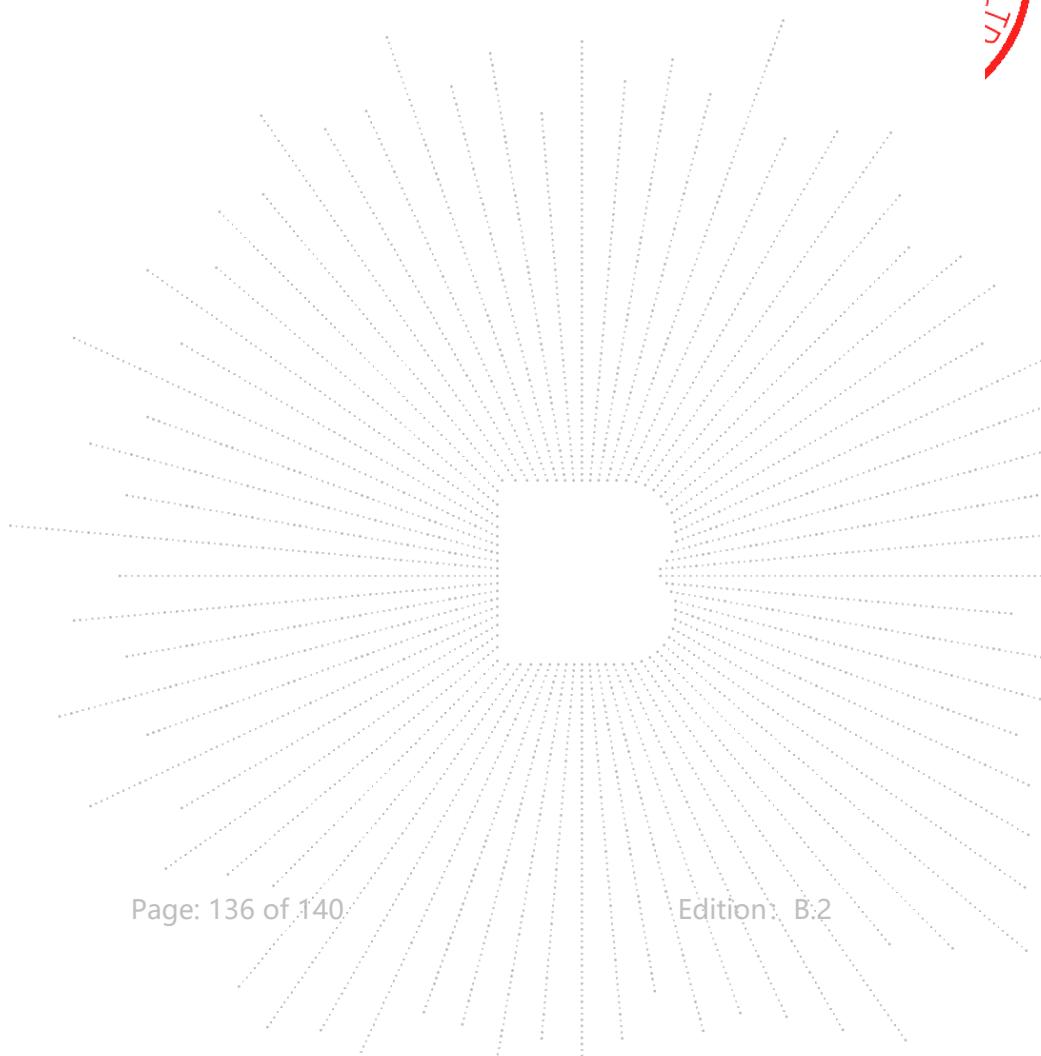
15.1 Limit

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.

15.2 Test Result

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

2024.07.26



16. EUT Photographs

EUT Photo



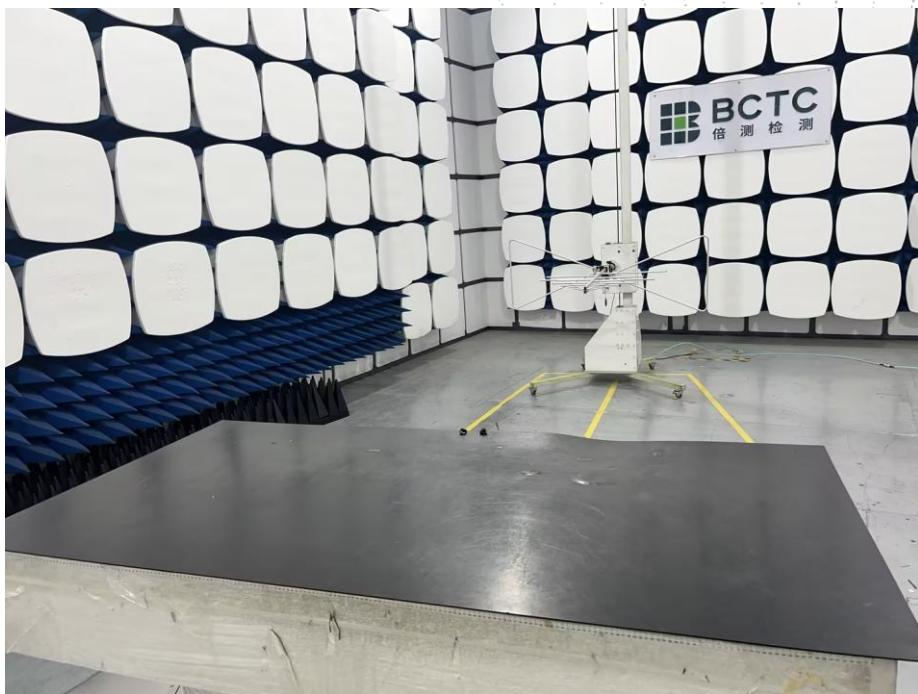
NOTE: Appendix-Photographs Of EUT Constructional Details

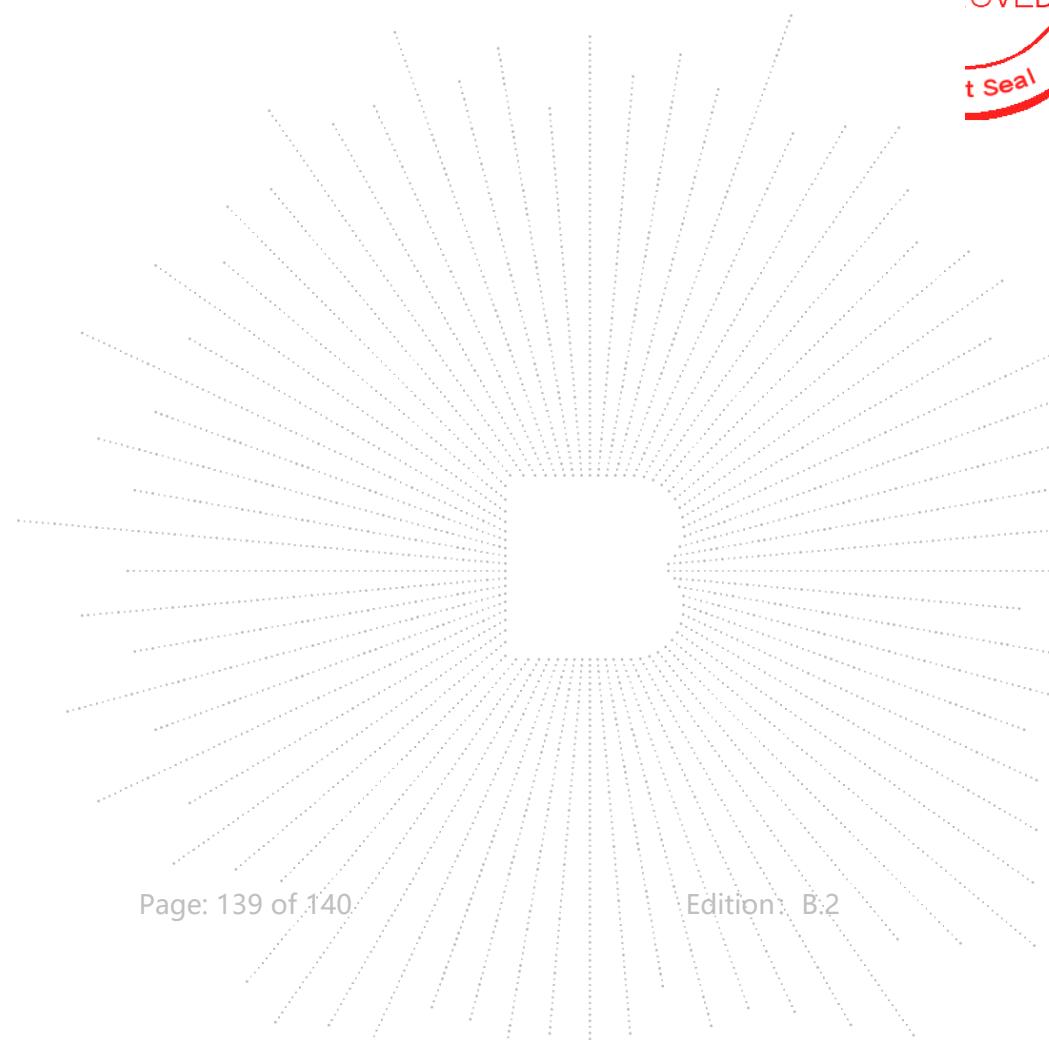
17. EUT Test Setup Photographs

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.

Address:

1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

TEL: 400-788-9558

P.C.: 518103

FAX: 0755-33229357

Website: <http://www.chnbctc.com>

Consultation E-mail: bctc@bctc-lab.com.cn

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

***** END *****

