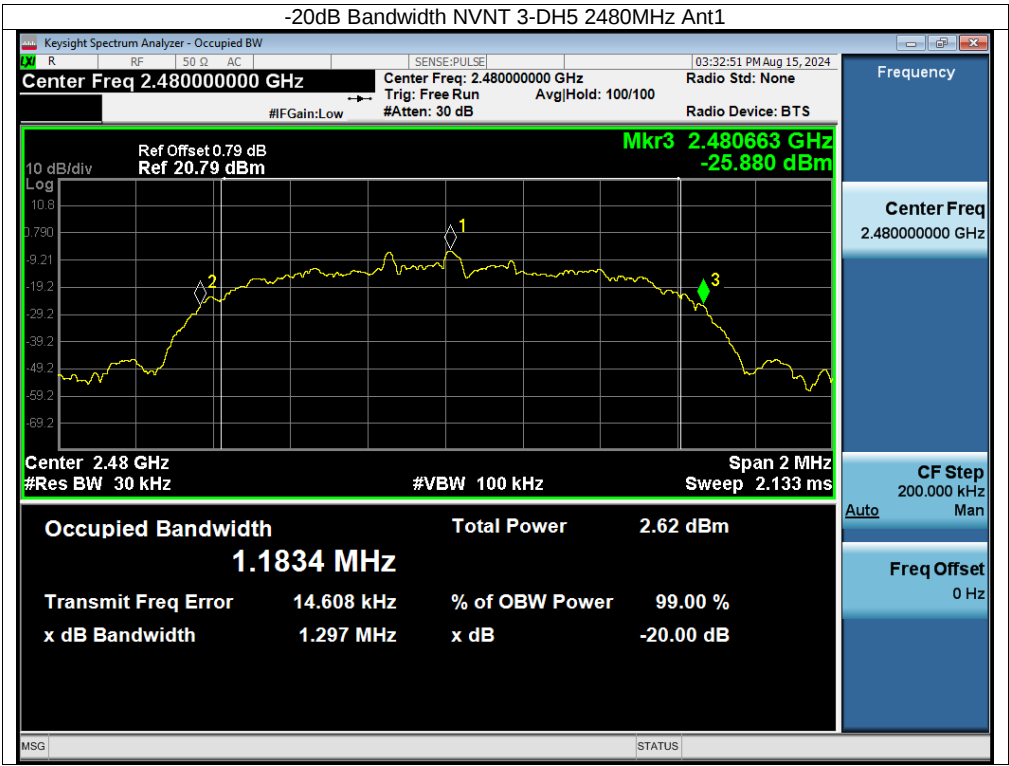




Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.869
NVNT	1-DH5	2441	Ant1	0.879
NVNT	1-DH5	2480	Ant1	0.852
NVNT	2-DH5	2402	Ant1	1.191
NVNT	2-DH5	2441	Ant1	1.193
NVNT	2-DH5	2480	Ant1	1.174
NVNT	3-DH5	2402	Ant1	1.189
NVNT	3-DH5	2441	Ant1	1.196
NVNT	3-DH5	2480	Ant1	1.197









OBW NVNT 3-DH5 2441MHz Ant1

Keysight Spectrum Analyzer - Occupied BW

03:31:10 PM Aug 15, 2024

Center Freq 2.441000000 GHz

Center Freq: 2.441000000 GHz

Trig: Free Run

Avg|Hold: 100/100

Radio Std: None

#FGain:Low

#Atten: 30 dB

Radio Device: BTS

10 dB/div

Log

Ref Offset 0.78 dB

Ref 20.78 dBm

Mkr1 2.440853 GHz

-6.3284 dBm

1

Center 2.441 GHz

#Res BW 30 kHz

#VBW 100 kHz

Span 3 MHz

Sweep 3.2 ms

Occupied Bandwidth

1.1964 MHz

Total Power

2.00 dBm

Transmit Freq Error

12.062 kHz

% of OBW Power

99.00 %

x dB Bandwidth

1.284 MHz

x dB

-20.00 dB

MSG

STATUS

Frequency

Center Freq

2.441000000 GHz

CF Step

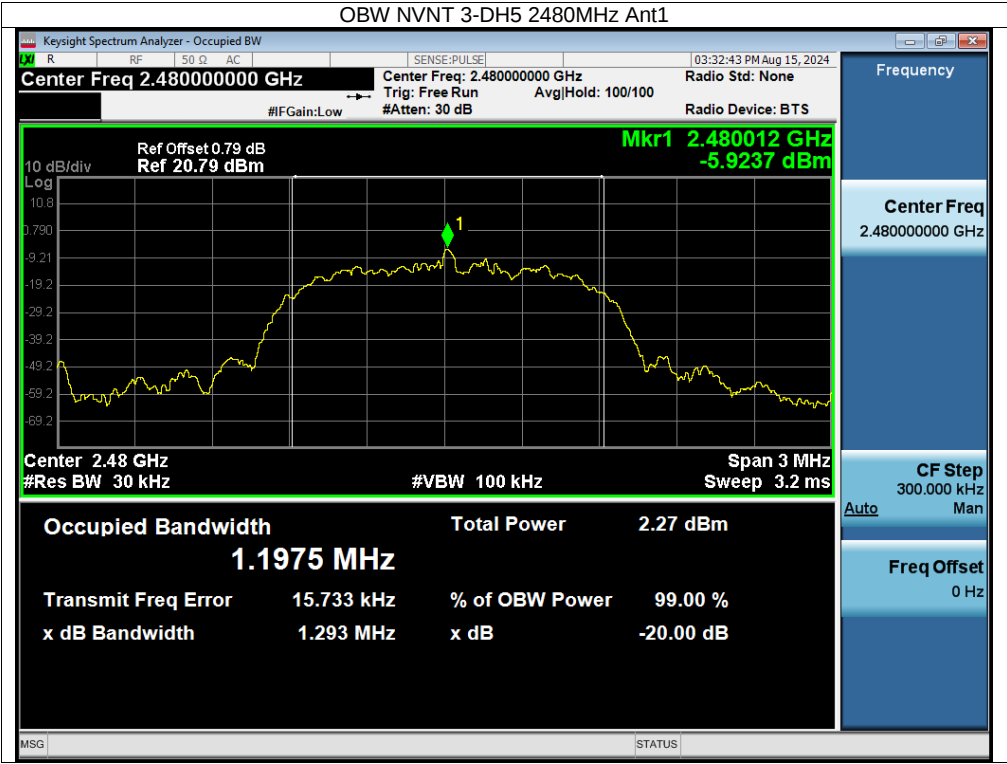
300.000 kHz

Auto

Man

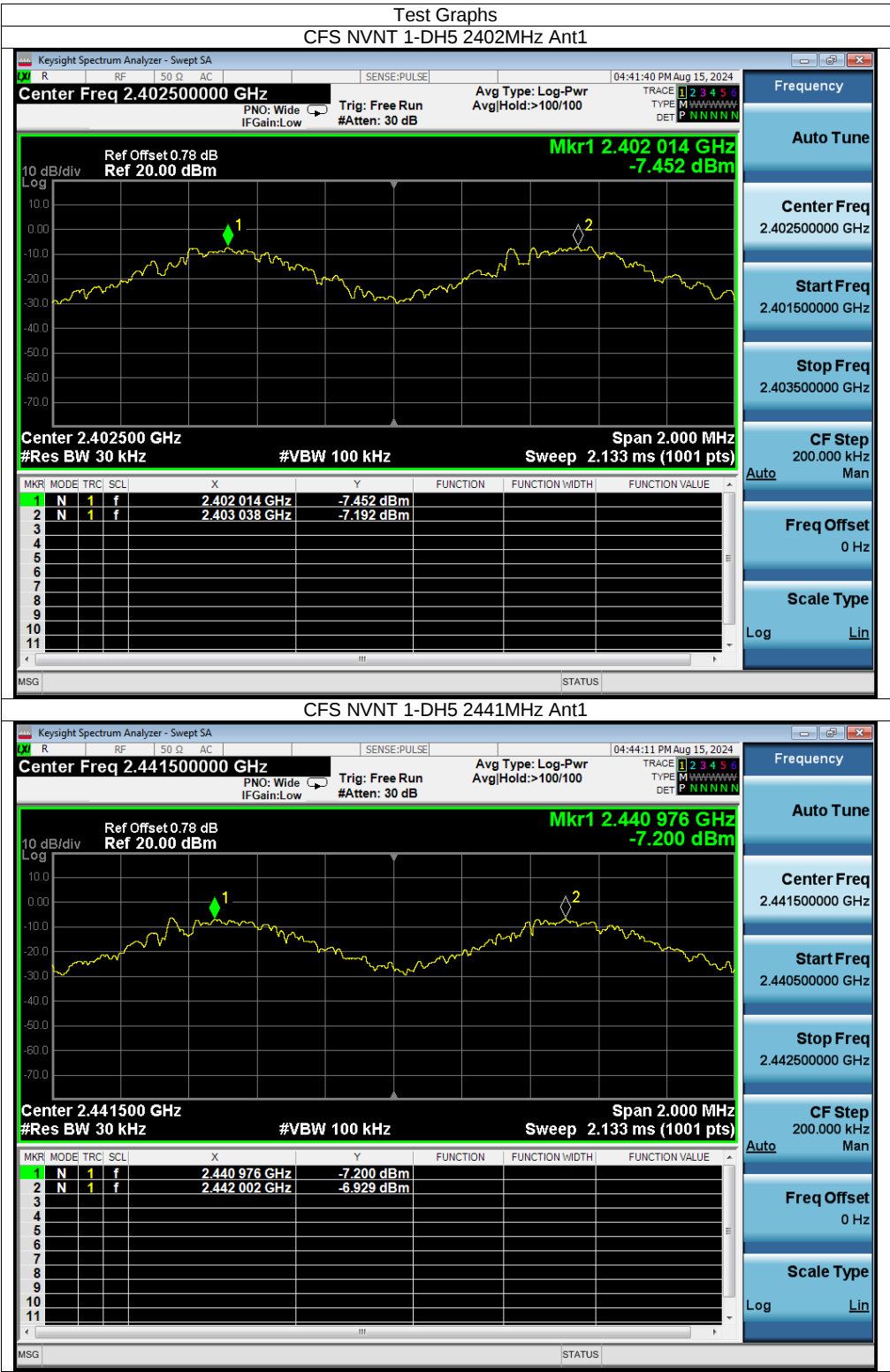
Freq Offset

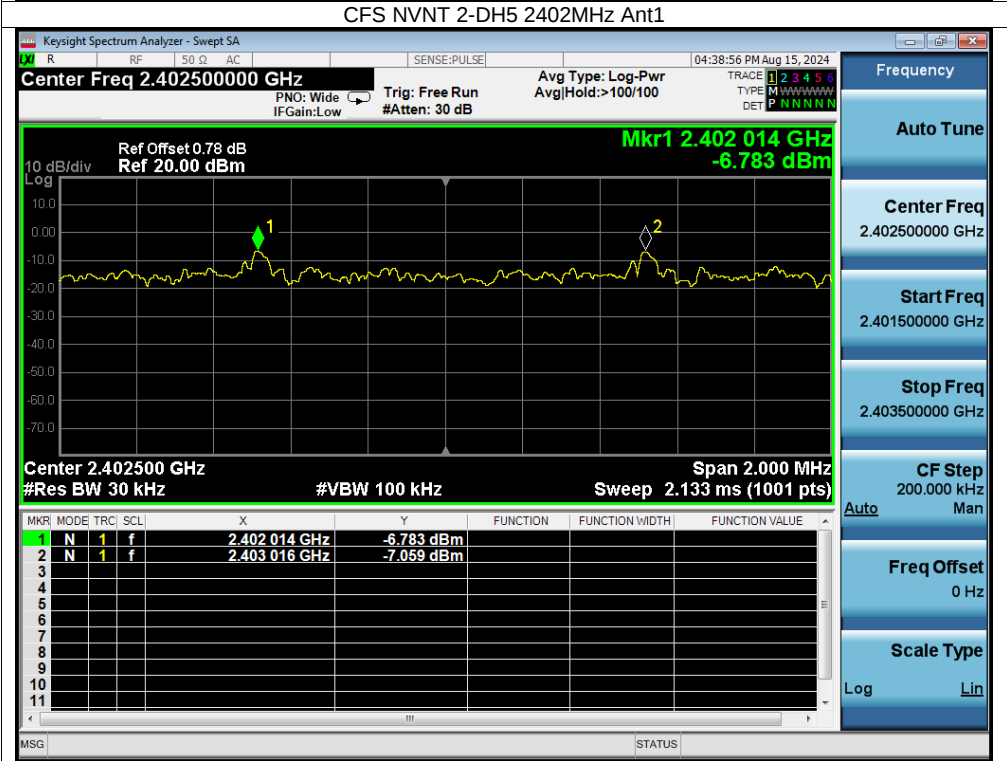
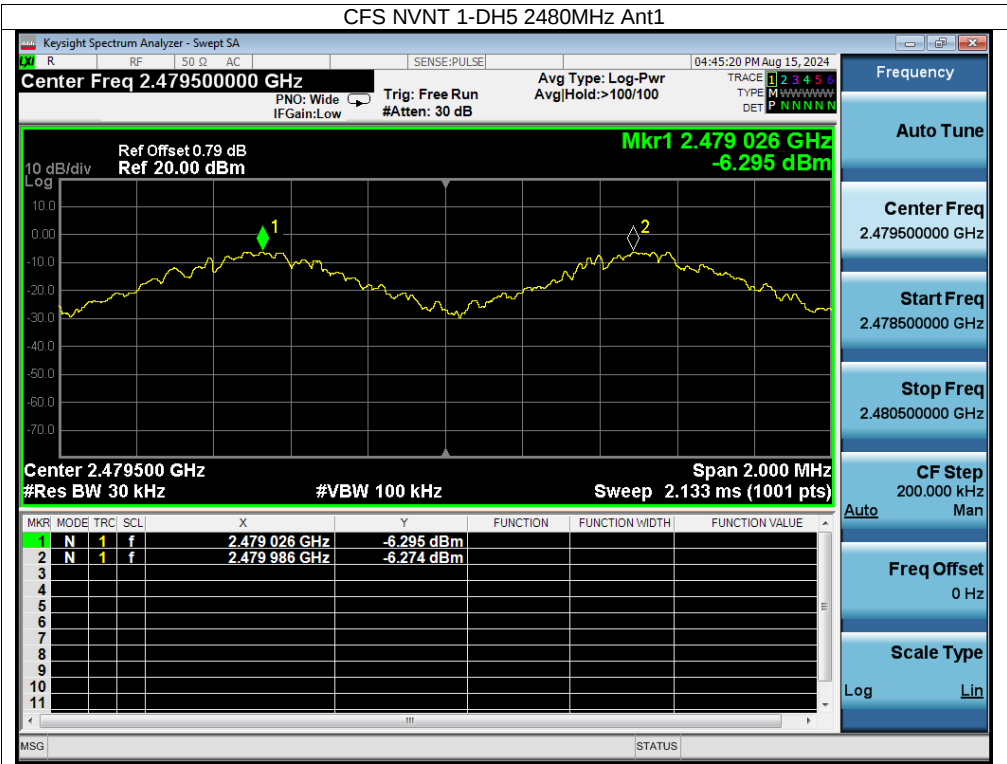
0 Hz

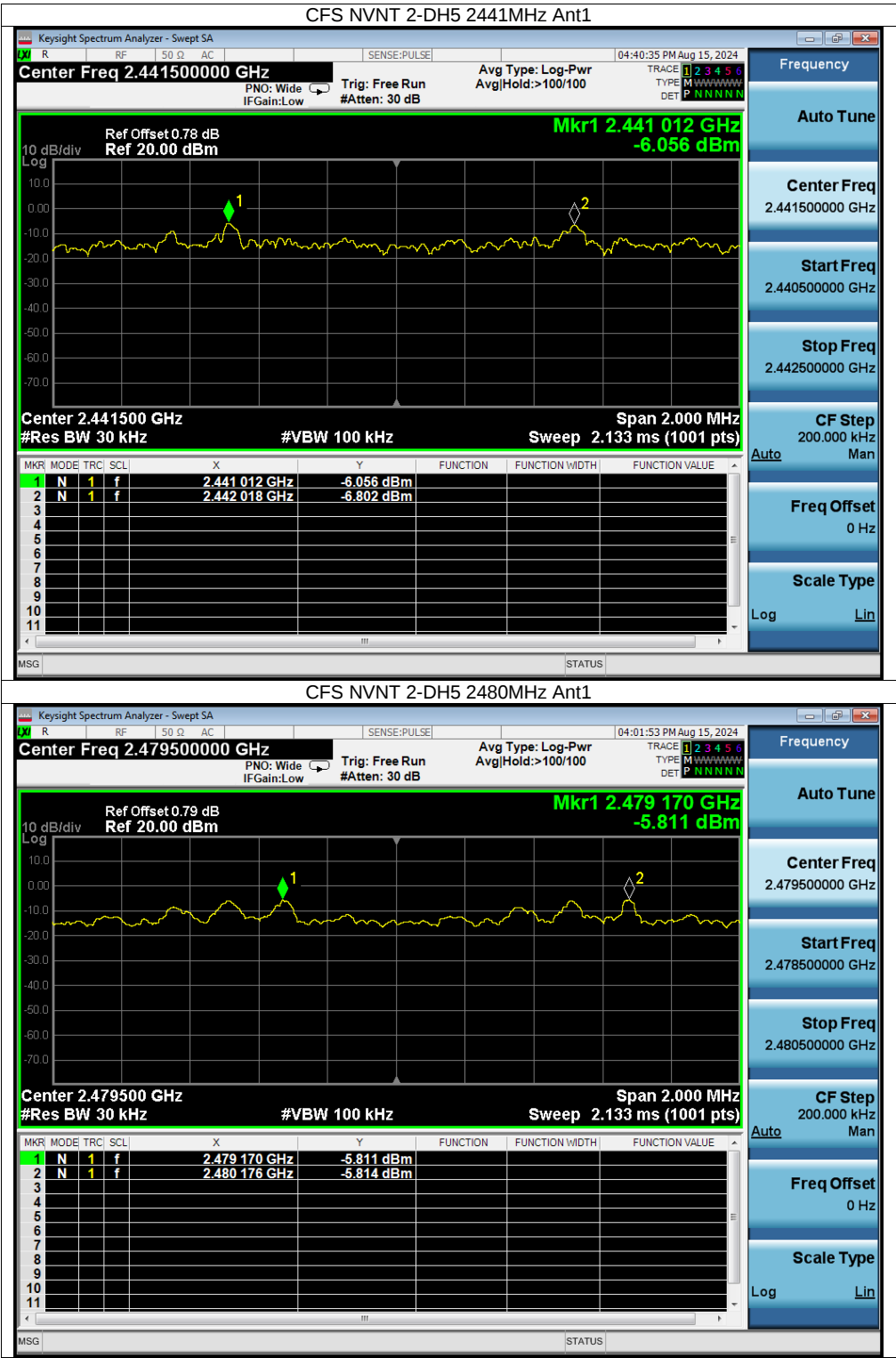


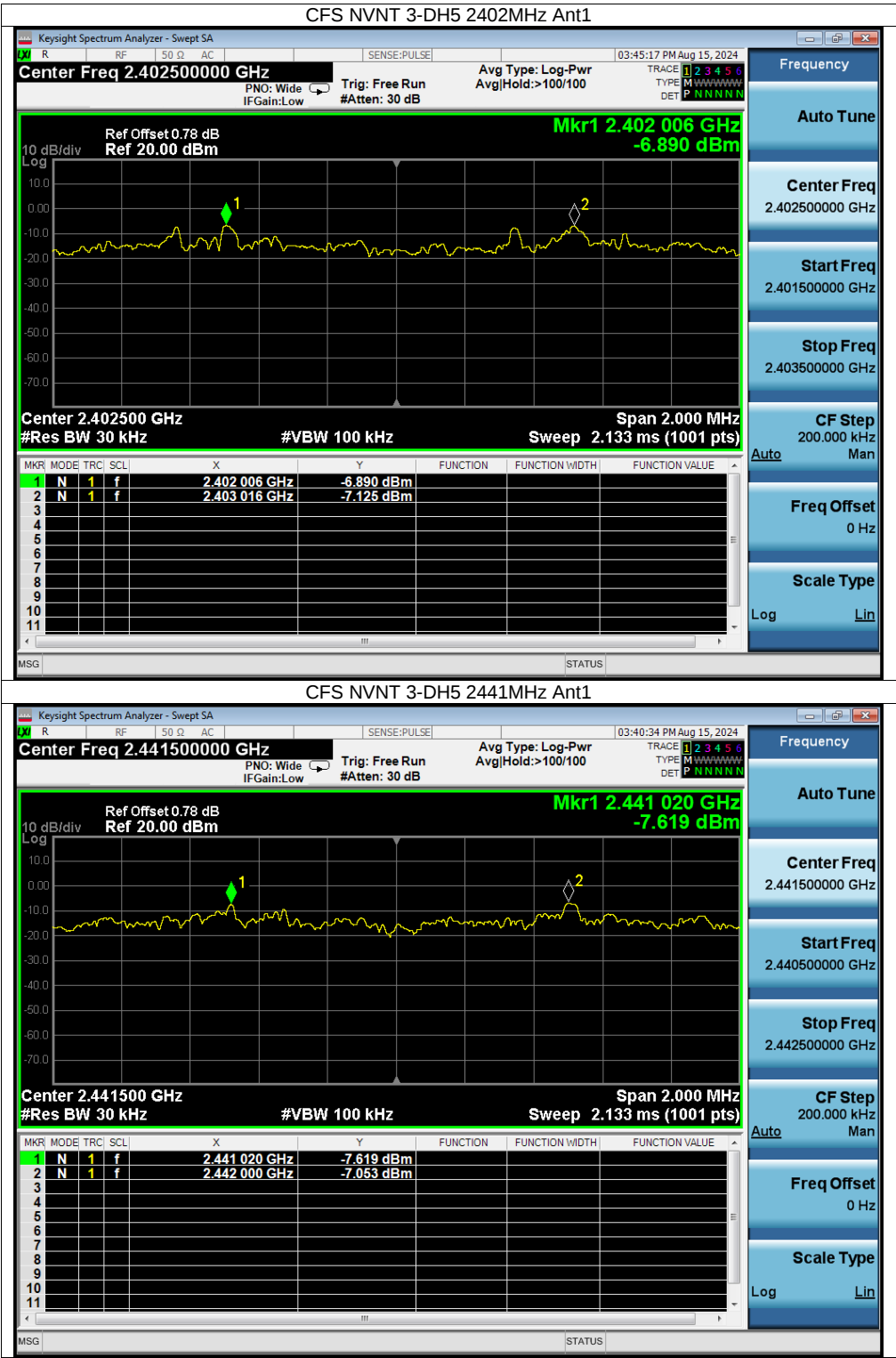
Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2402.014	2403.038	1.024	0.633	Pass
NVNT	1-DH5	Ant1	2440.976	2442.002	1.026	0.64	Pass
NVNT	1-DH5	Ant1	2479.026	2479.986	0.96	0.62	Pass
NVNT	2-DH5	Ant1	2402.014	2403.016	1.002	0.853	Pass
NVNT	2-DH5	Ant1	2441.012	2442.018	1.006	0.853	Pass
NVNT	2-DH5	Ant1	2479.17	2480.176	1.006	0.873	Pass
NVNT	3-DH5	Ant1	2402.006	2403.016	1.01	0.86	Pass
NVNT	3-DH5	Ant1	2441.02	2442	0.98	0.853	Pass
NVNT	3-DH5	Ant1	2479.034	2480.008	0.974	0.867	Pass









CFS NVNT 3-DH5 2441MHz Ant1

Keysight Spectrum Analyzer - Swept SA

03:40:34 PM Aug 15, 2024

Center Freq 2.441500000 GHz

PNO: Wide IFGain:Low

Trig: Free Run #Atten: 30 dB

Avg Type: Log-Pwr AvgHold:>100/100

TRACE 1 2 3 4 5 6

TYPE M W W W W W W W

DET P N N N N N

Ref Offset 0.78 dB

Ref 20.00 dBm

Mkr1 2.441 020 GHz

-7.619 dBm

Center 2.441500 GHz

#Res BW 30 kHz

#VBW 100 kHz

Span 2.000 MHz

Sweep 2.133 ms (1001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.441 020 GHz	-7.619 dBm			
2	N	1	f	2.442 000 GHz	-7.053 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG

STATUS

Frequency

Auto Tune

Center Freq 2.441500000 GHz

Start Freq 2.440500000 GHz

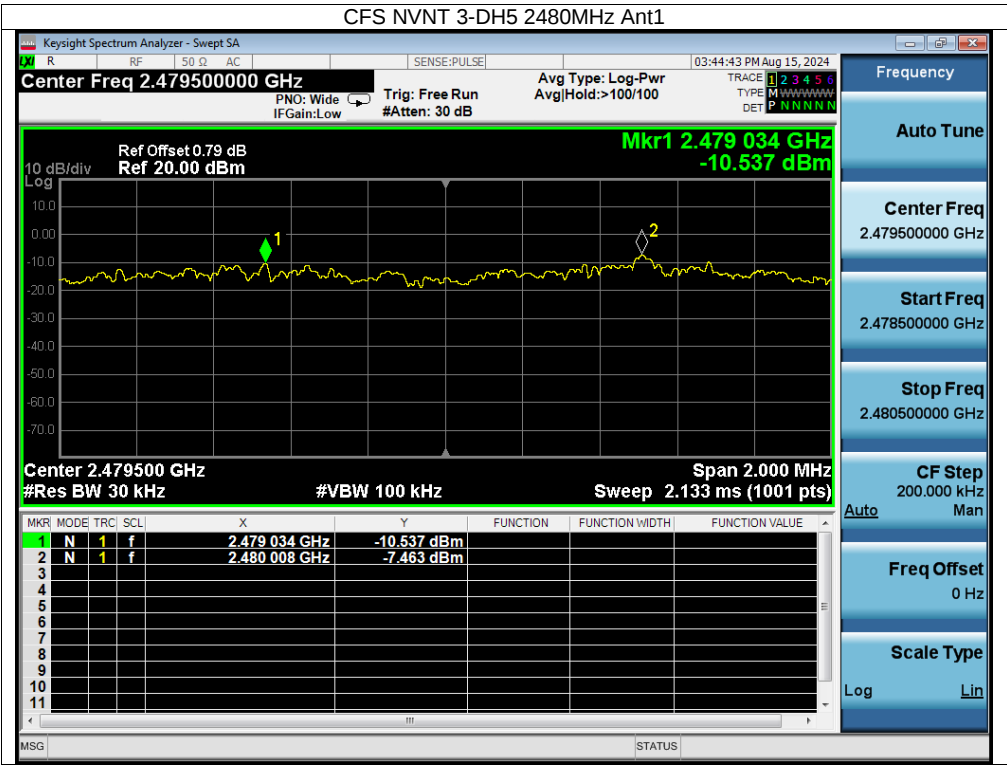
Stop Freq 2.442500000 GHz

CF Step 200.000 kHz

Auto Man

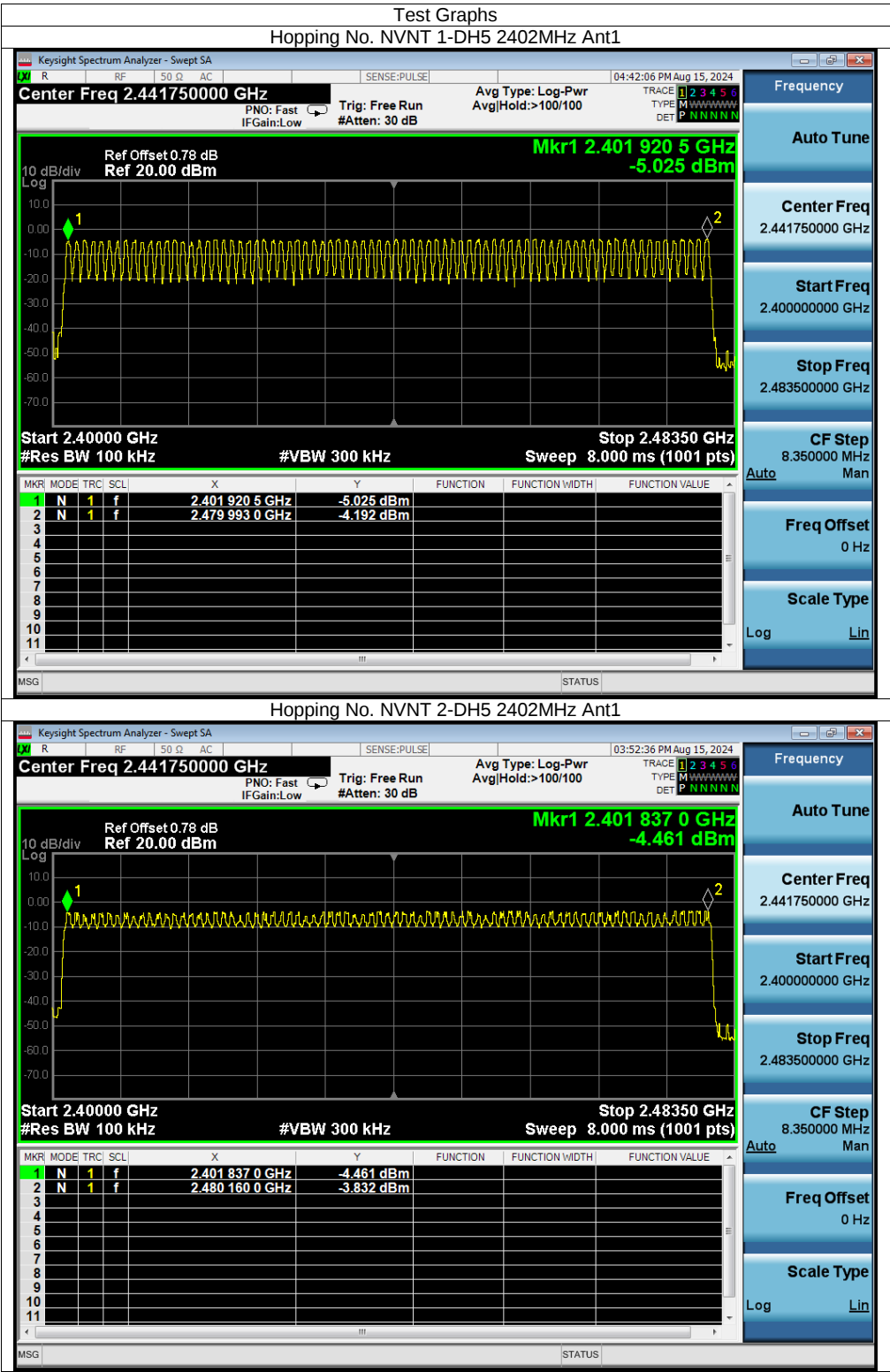
Freq Offset 0 Hz

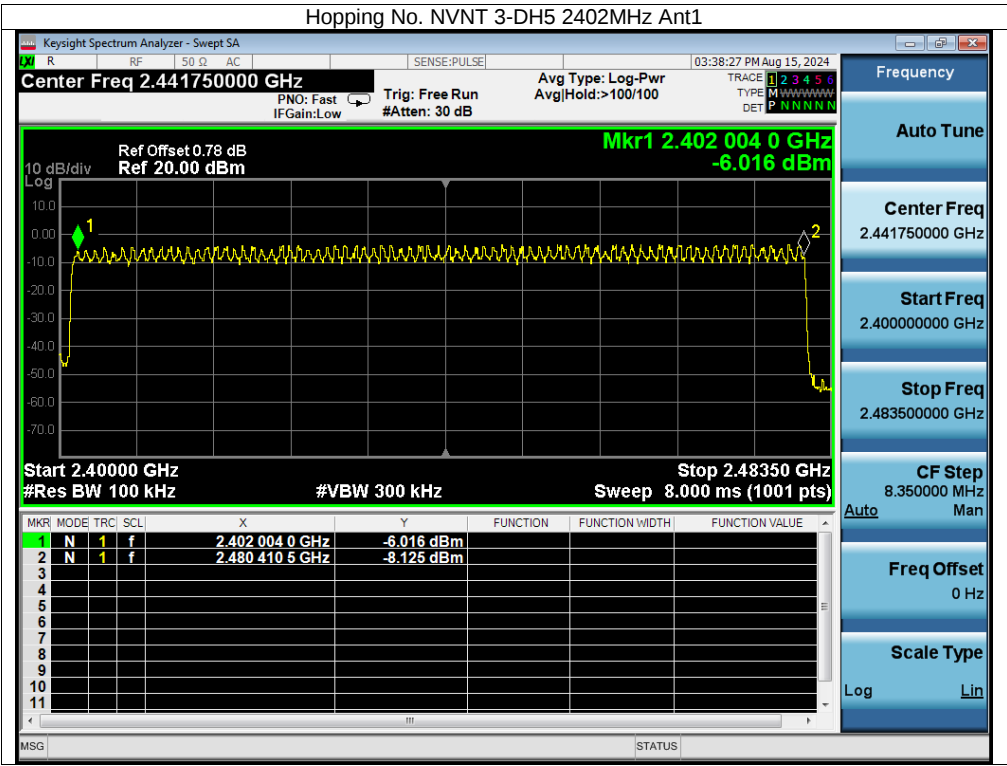
Scale Type Log Lin



Number of Hopping Channel

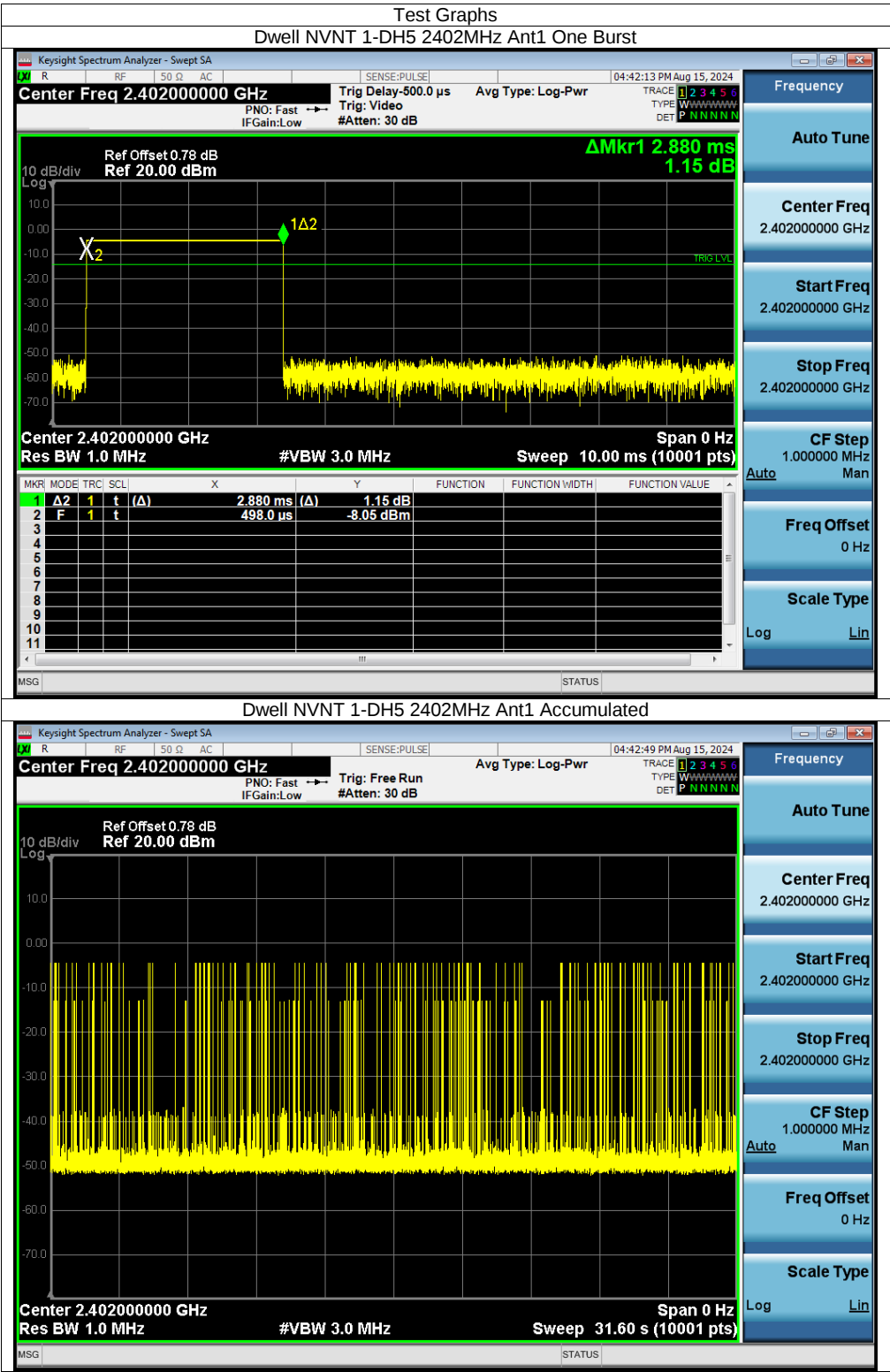
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH5	Ant1	79	15	Pass
NVNT	2-DH5	Ant1	79	15	Pass
NVNT	3-DH5	Ant1	79	15	Pass

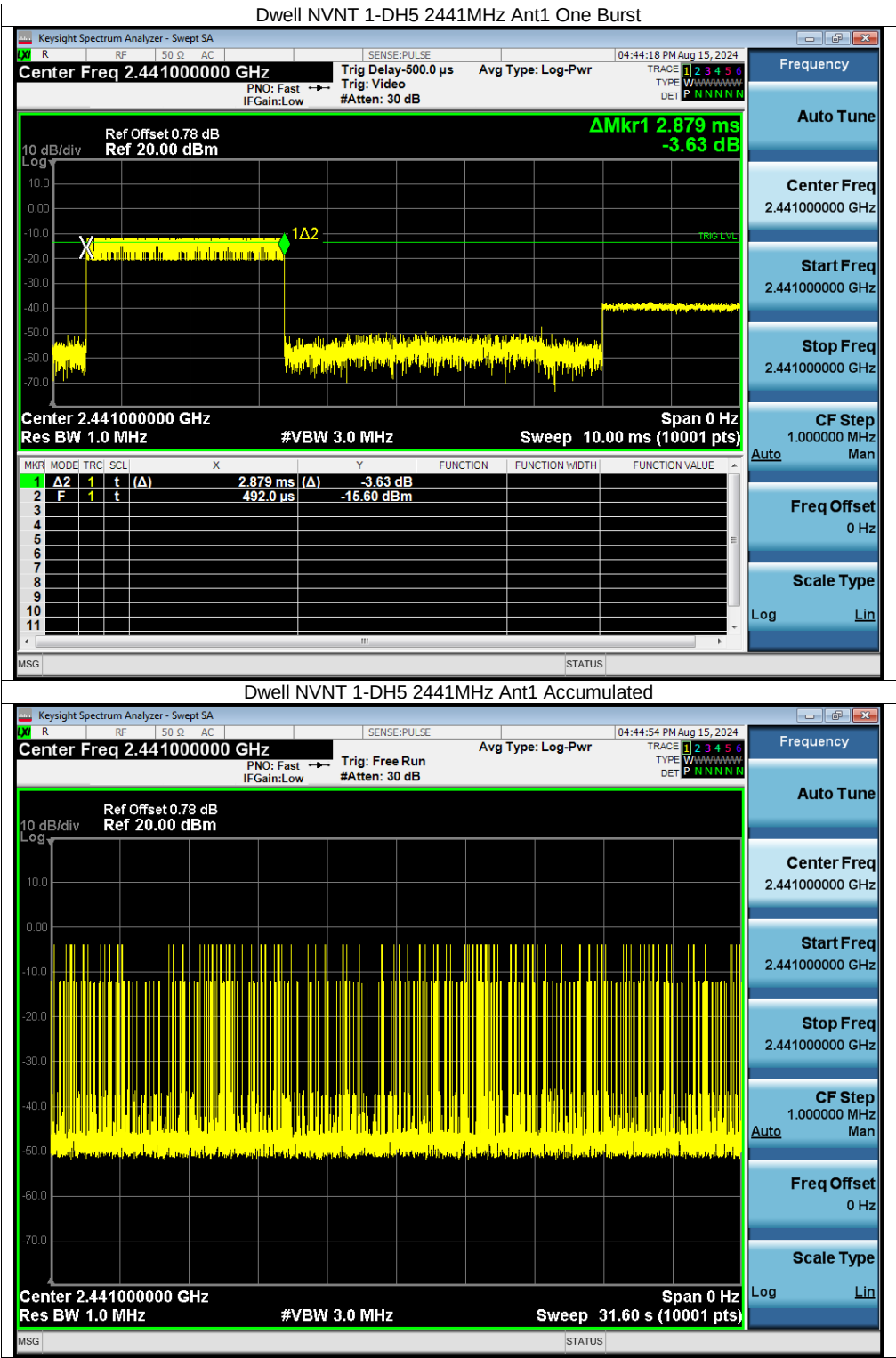


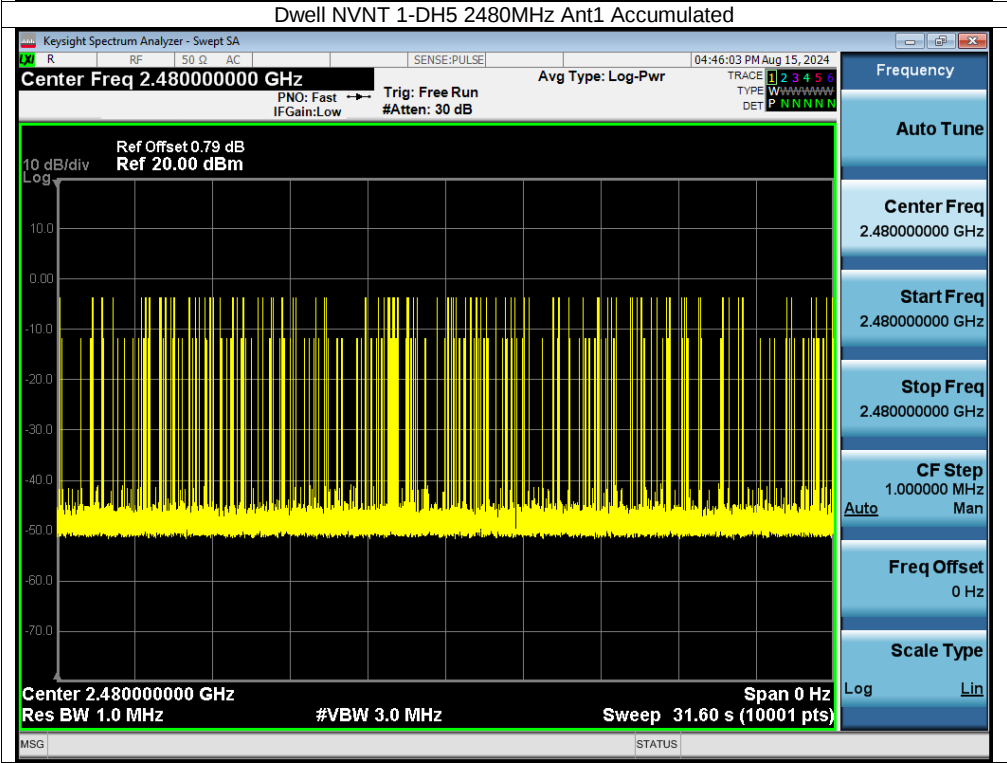
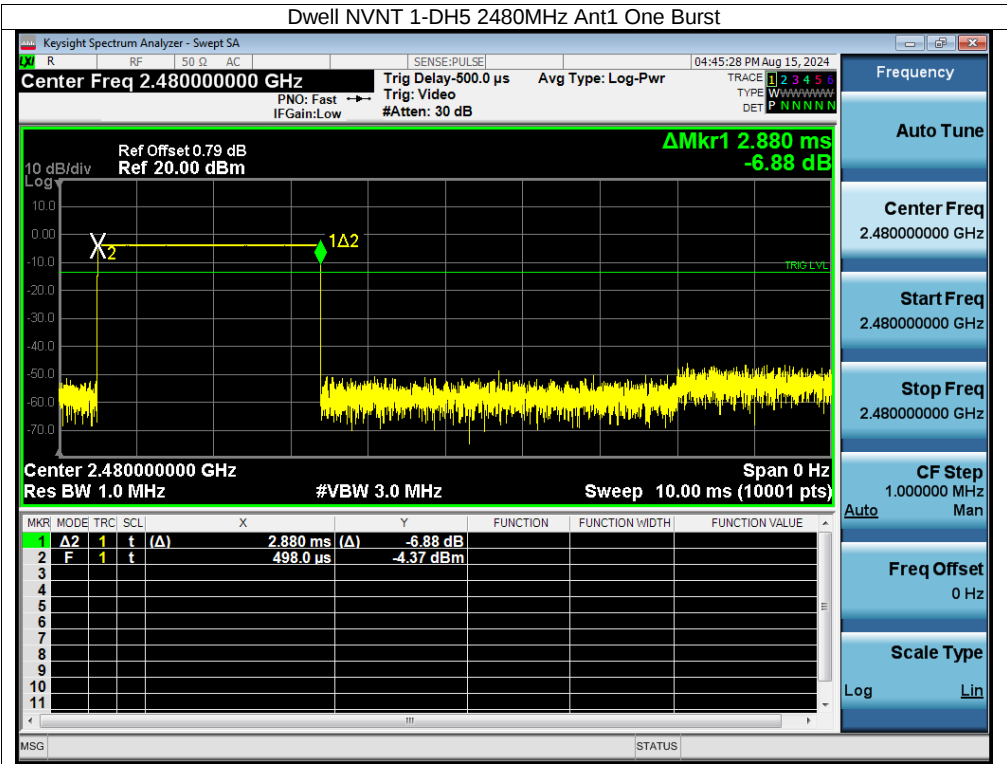


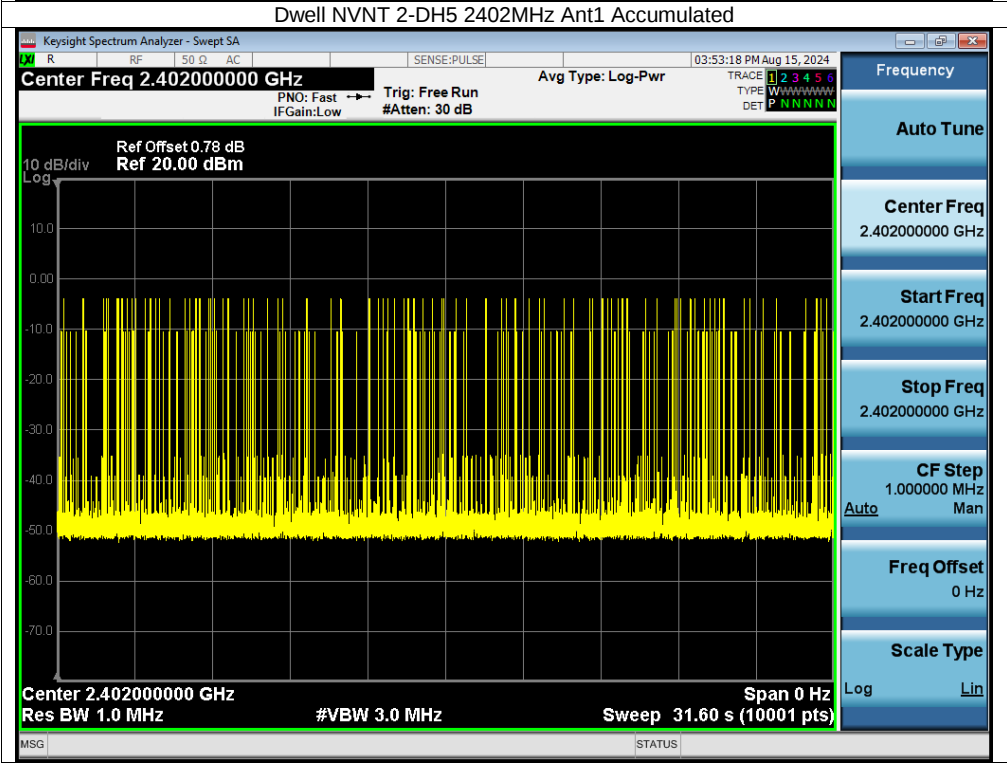
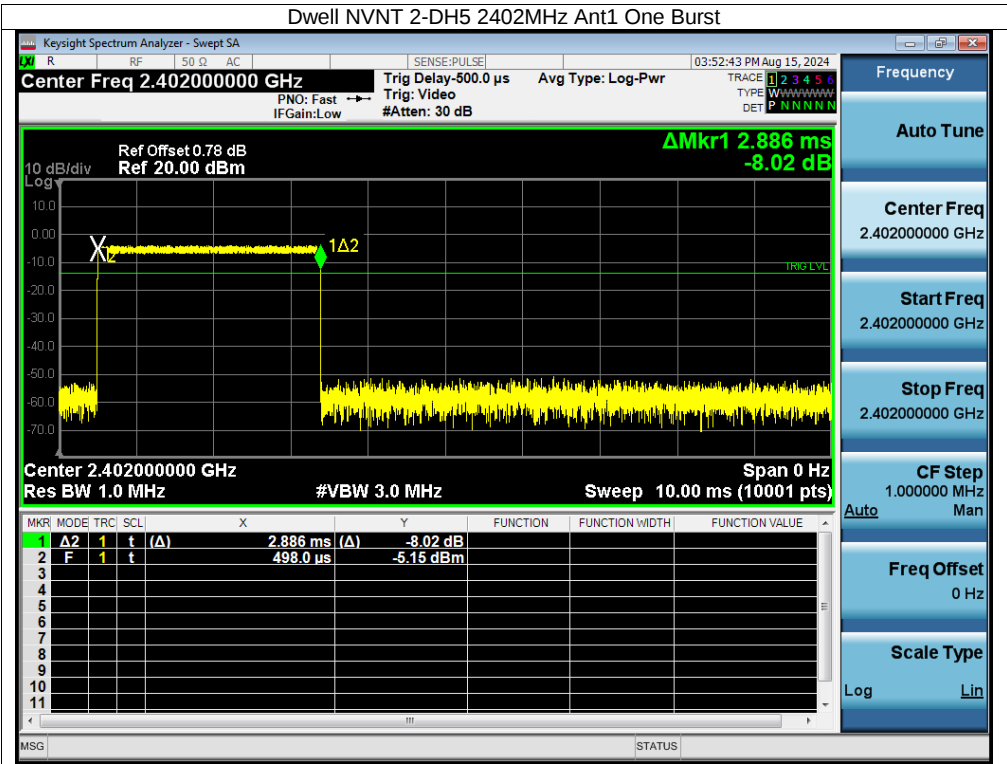
Dwell Time

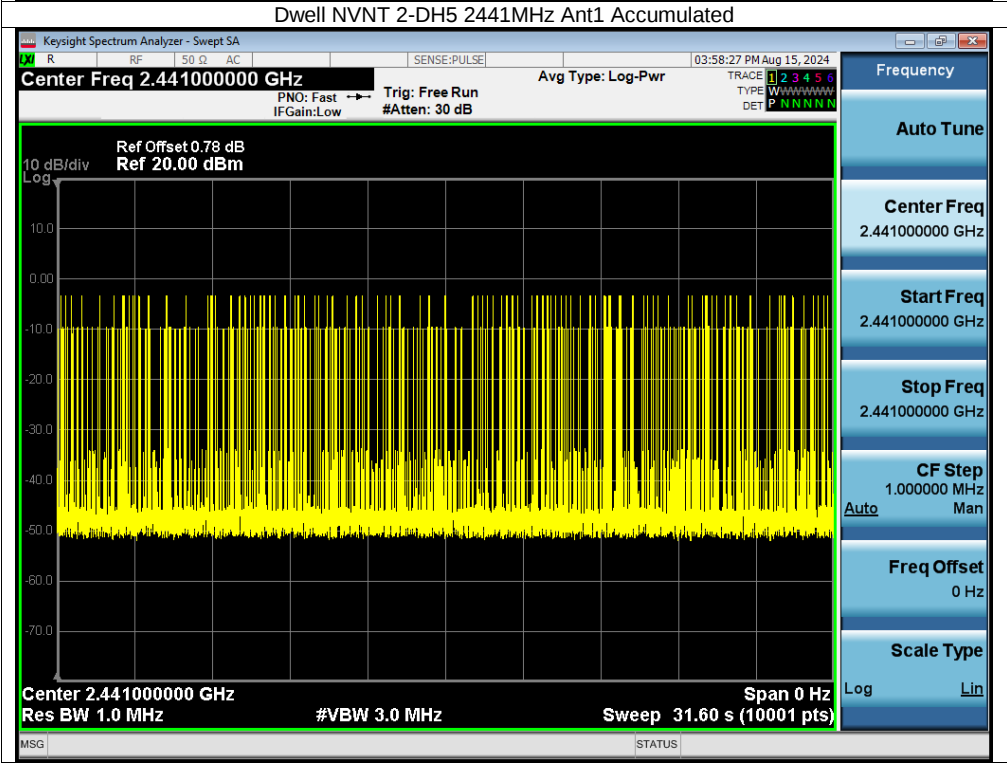
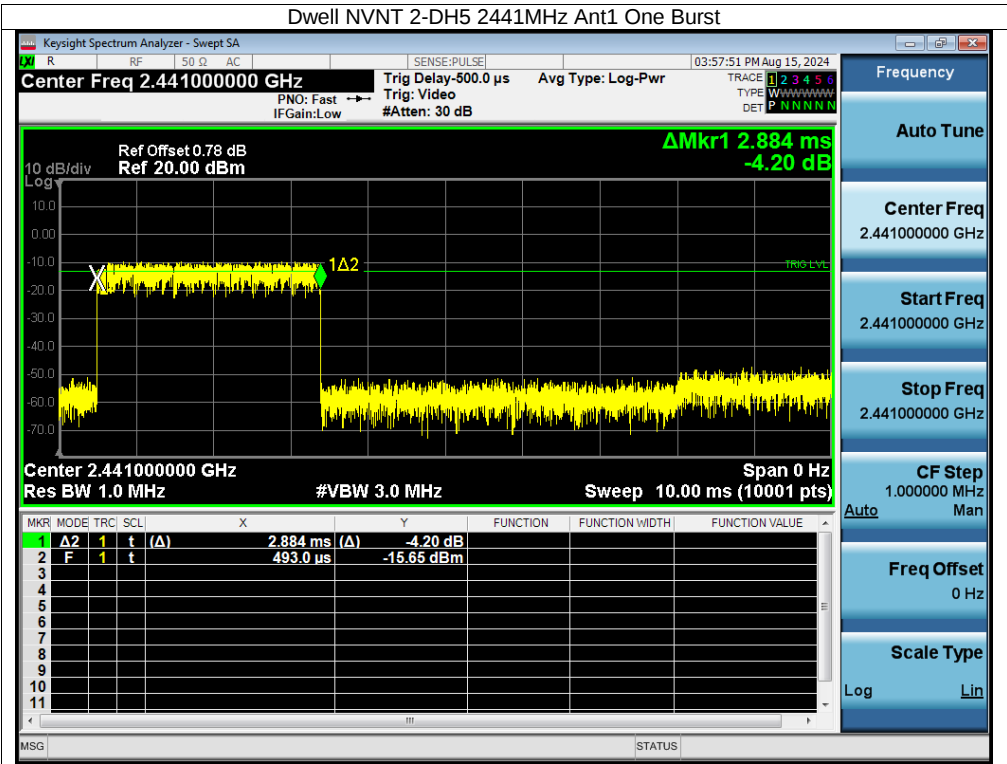
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.88	339.84	118	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.879	328.206	114	31600	400	Pass
NVNT	1-DH5	2480	Ant1	2.88	302.4	105	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.886	268.398	93	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.884	325.892	113	31600	400	Pass
NVNT	2-DH5	2480	Ant1	2.886	331.89	115	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.887	317.57	110	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.888	294.576	102	31600	400	Pass
NVNT	3-DH5	2480	Ant1	2.888	300.352	104	31600	400	Pass

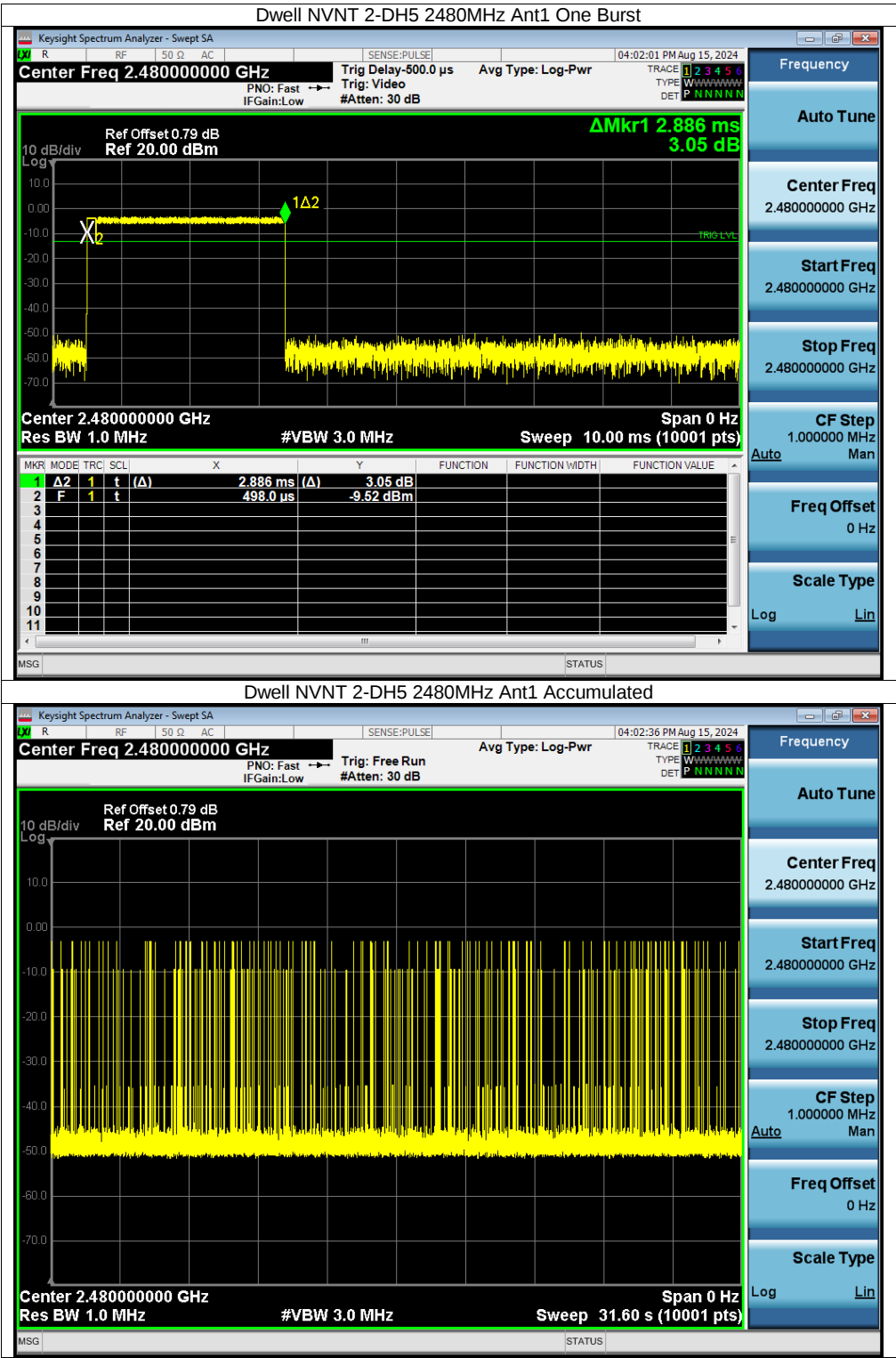


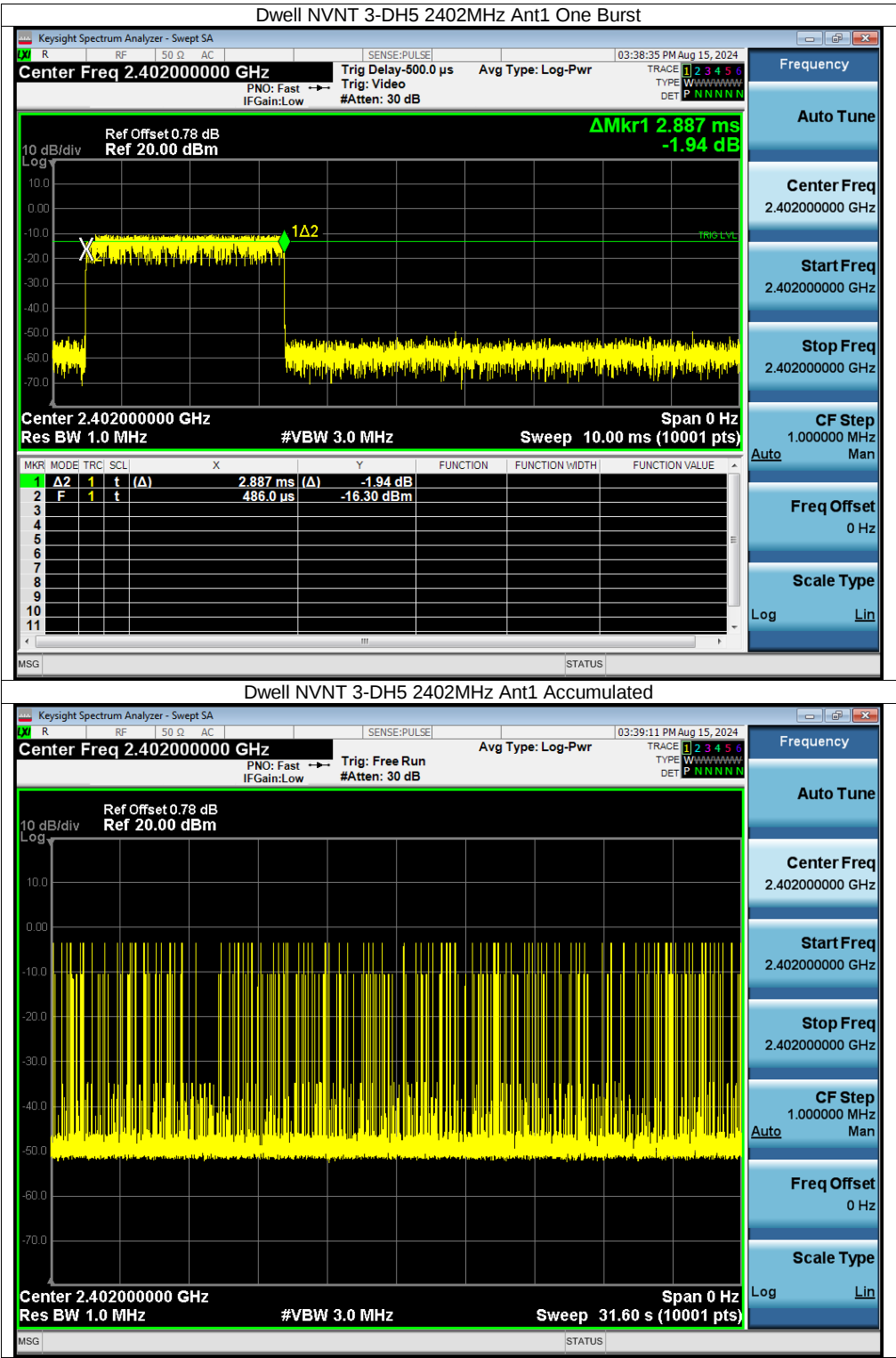












Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

Keysight Spectrum Analyzer - Swept SA

Center Freq 2.402000000 GHz

Trig: Free Run

Avg Type: Log-Pwr

Trig: Free Run

PNO: Fast

IFGain:Low

#Atten: 30 dB

03:39:11 PM Aug 15, 2024

TRACE 1 2 3 4 5 6

TYPE W W W W W W W W

DET P N N N N N

Ref Offset 0.78 dB

Ref 20.00 dBm

10 dB/div

Log

Center 2.402000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 31.60 s (10001 pts)

Span 0 Hz

MSG

STATUS

Frequency

Auto Tune

Center Freq
2.402000000 GHz

Start Freq
2.402000000 GHz

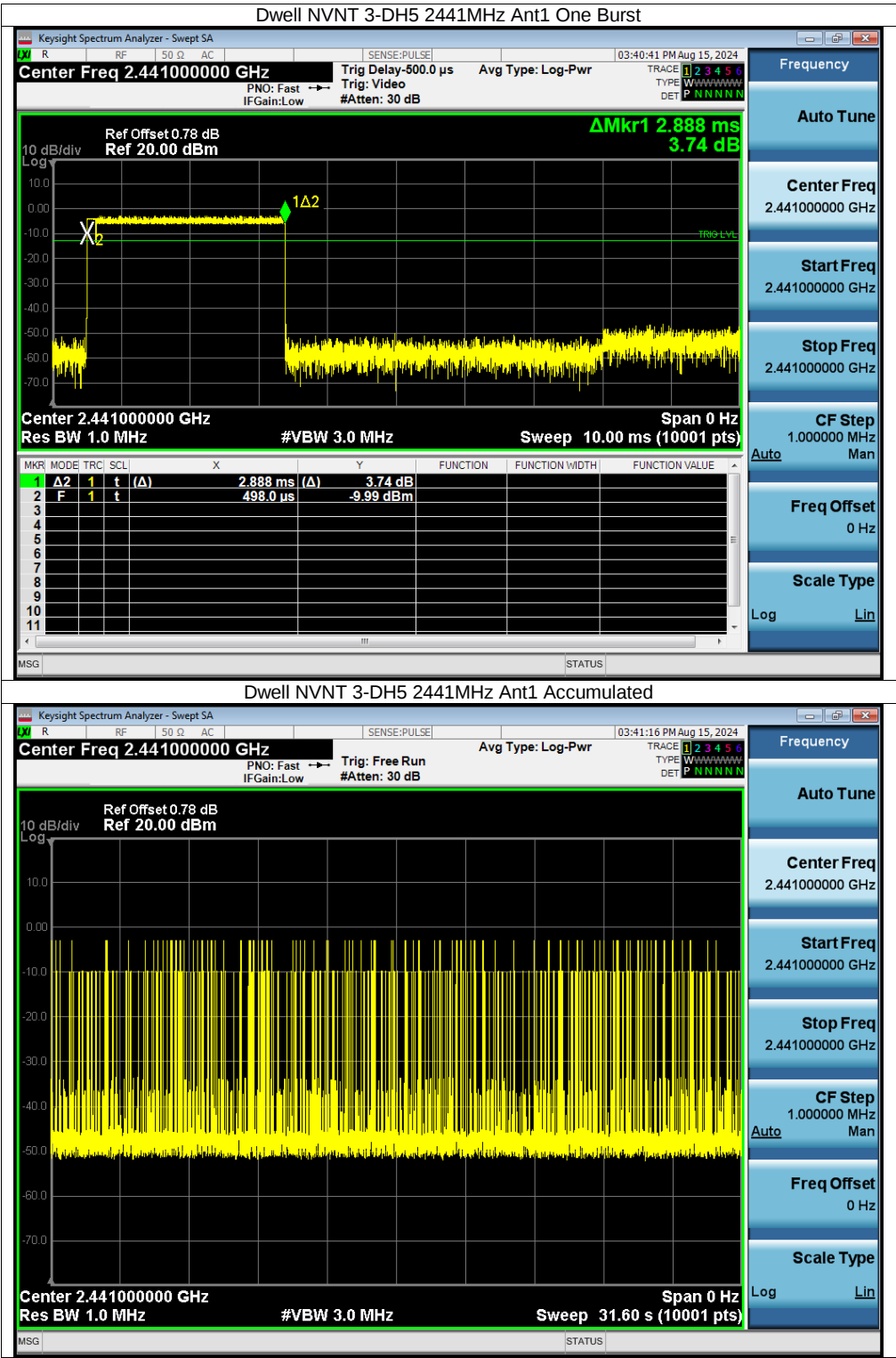
Stop Freq
2.402000000 GHz

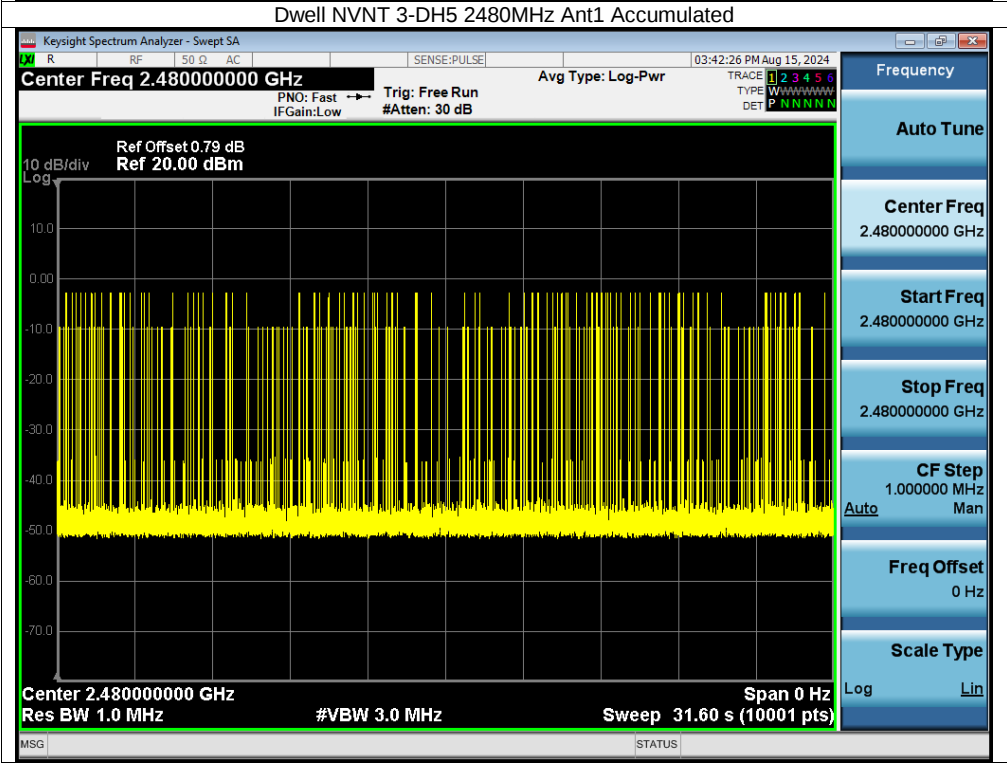
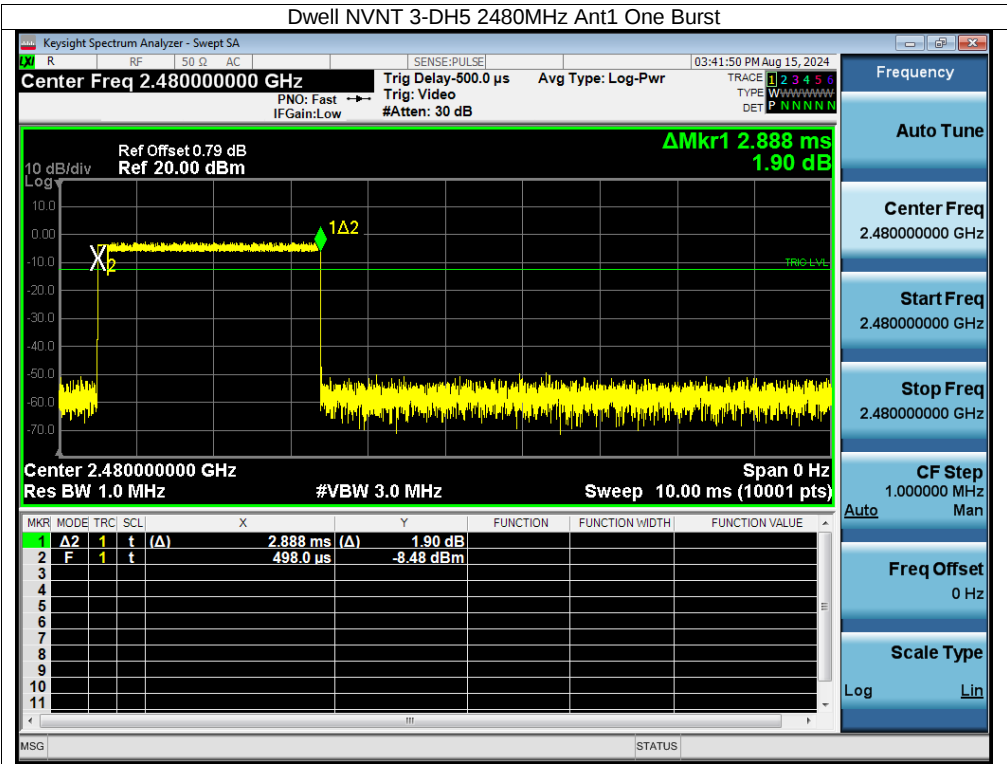
CF Step
1.000000 MHz

Auto Man

Freq Offset
0 Hz

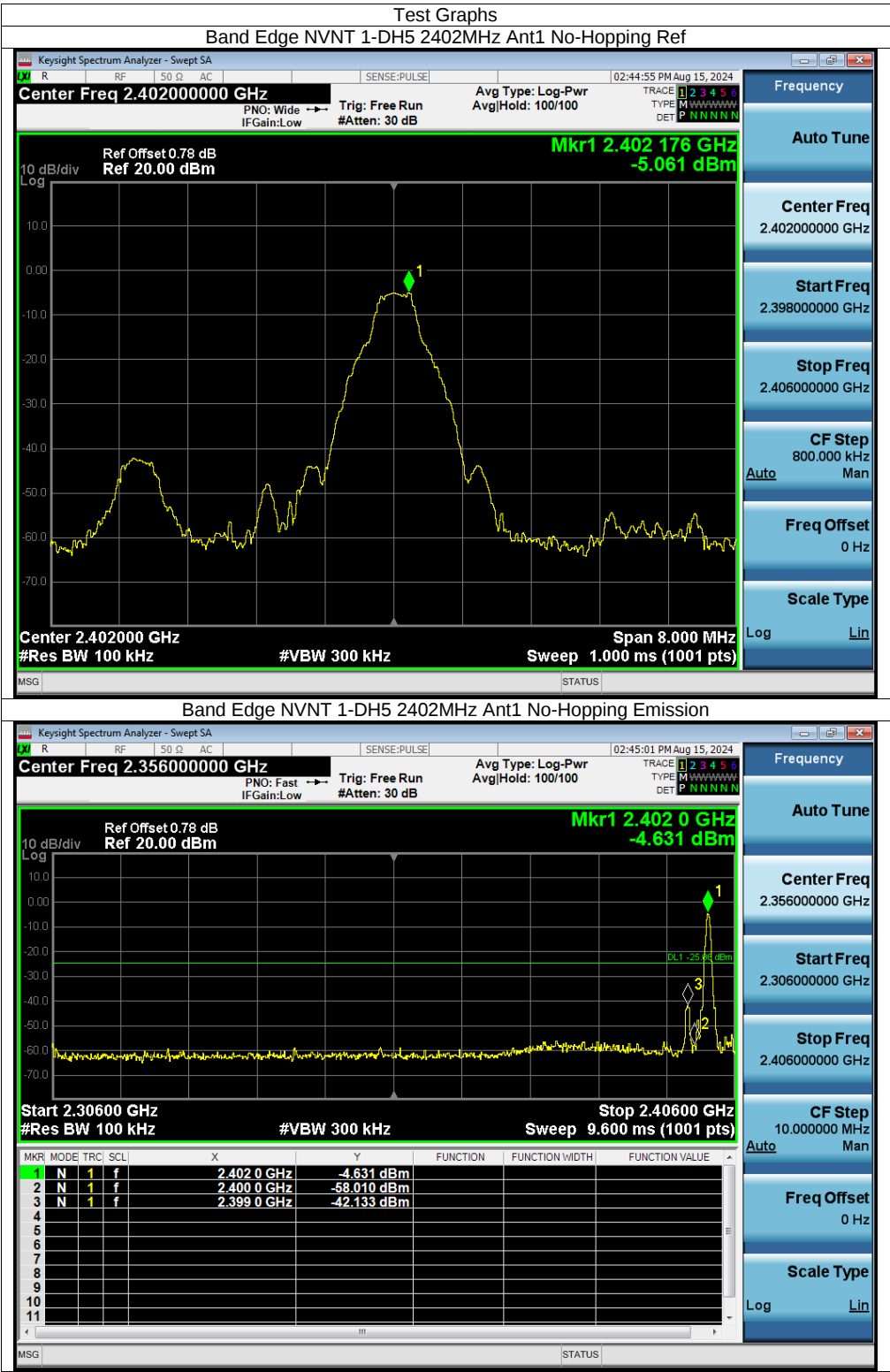
Scale Type
Log Lin



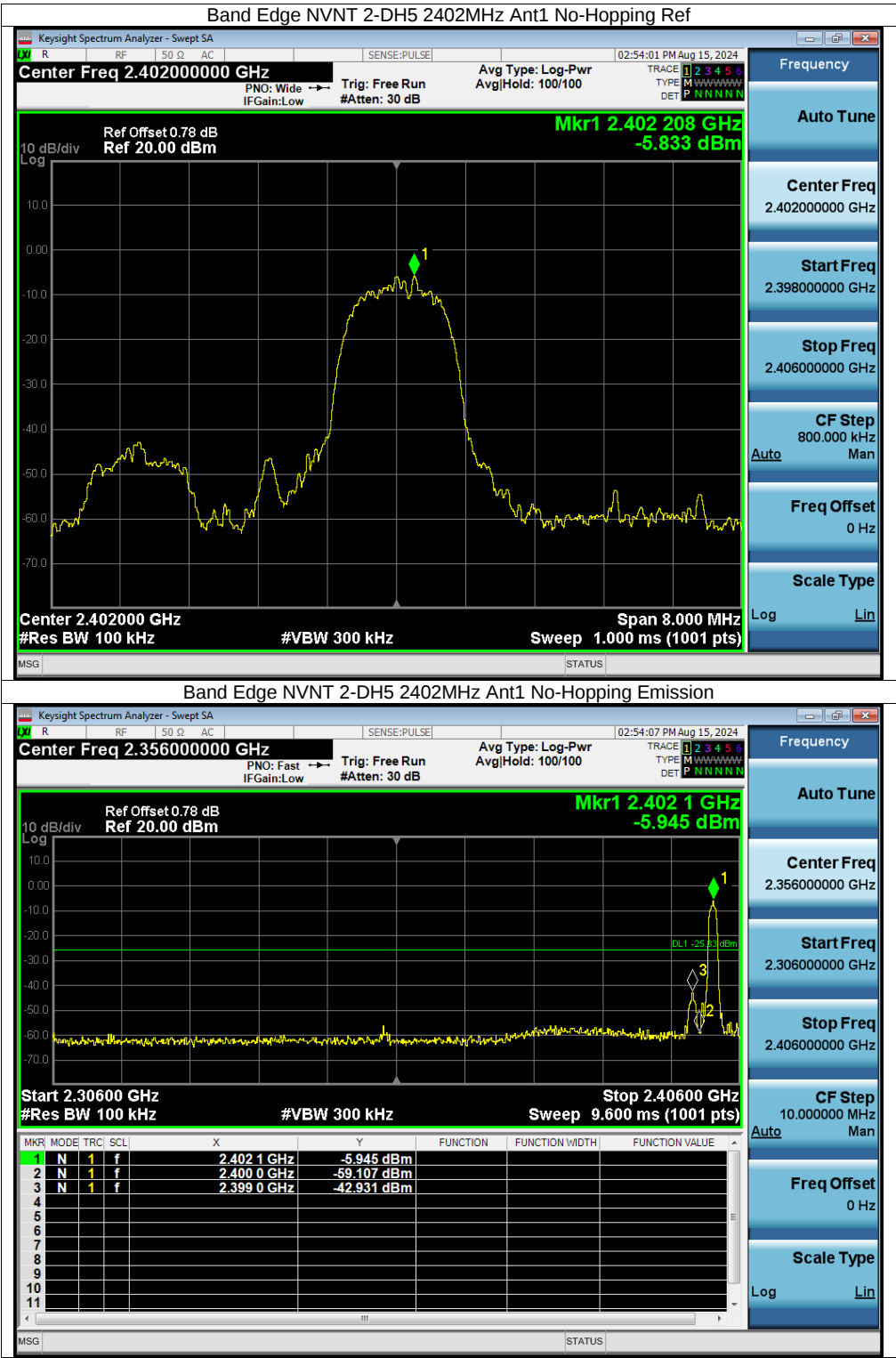


Band Edge

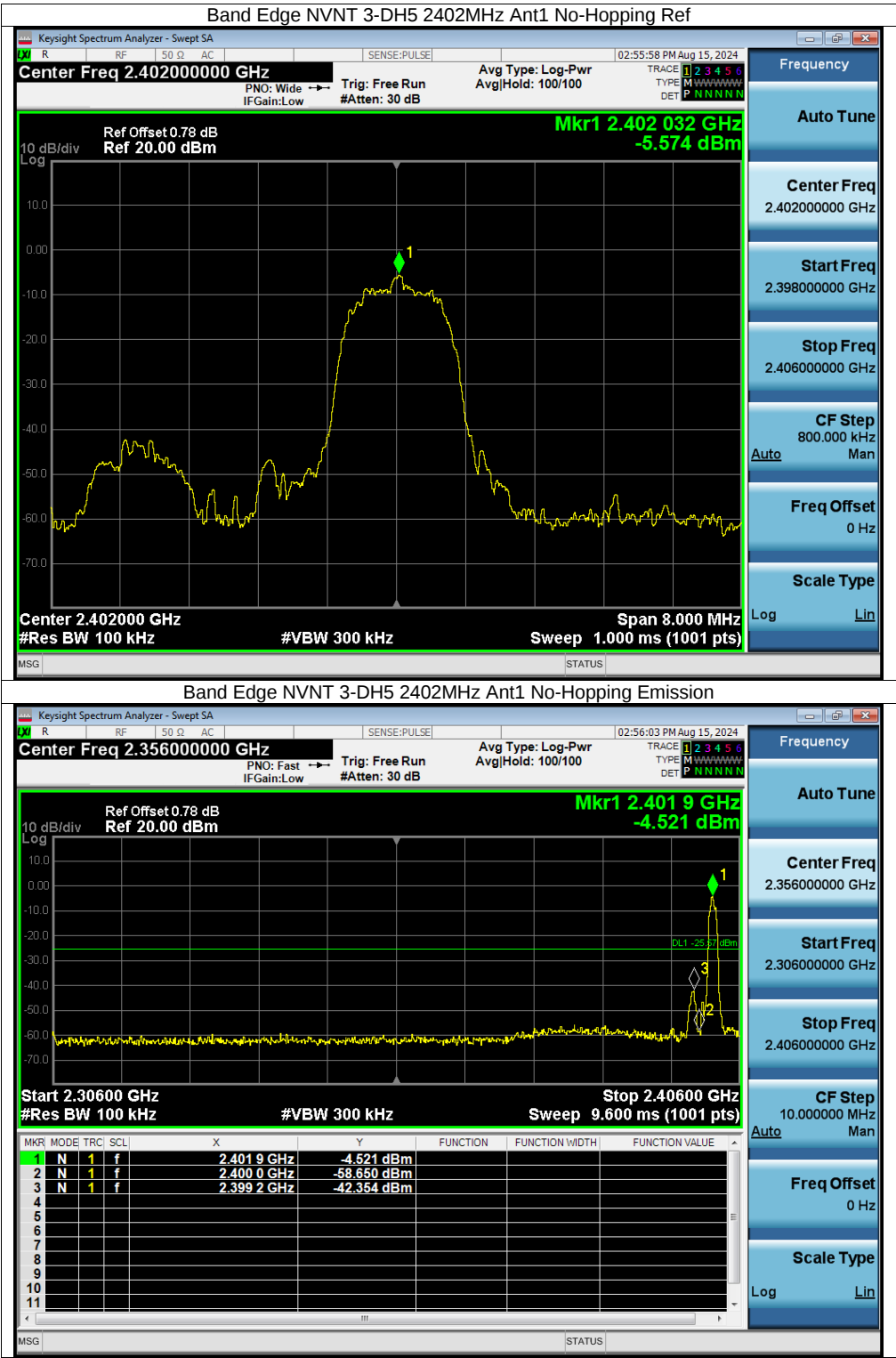
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-37.07	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-47.8	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-37.1	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-51.74	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-36.78	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-50.54	-20	Pass

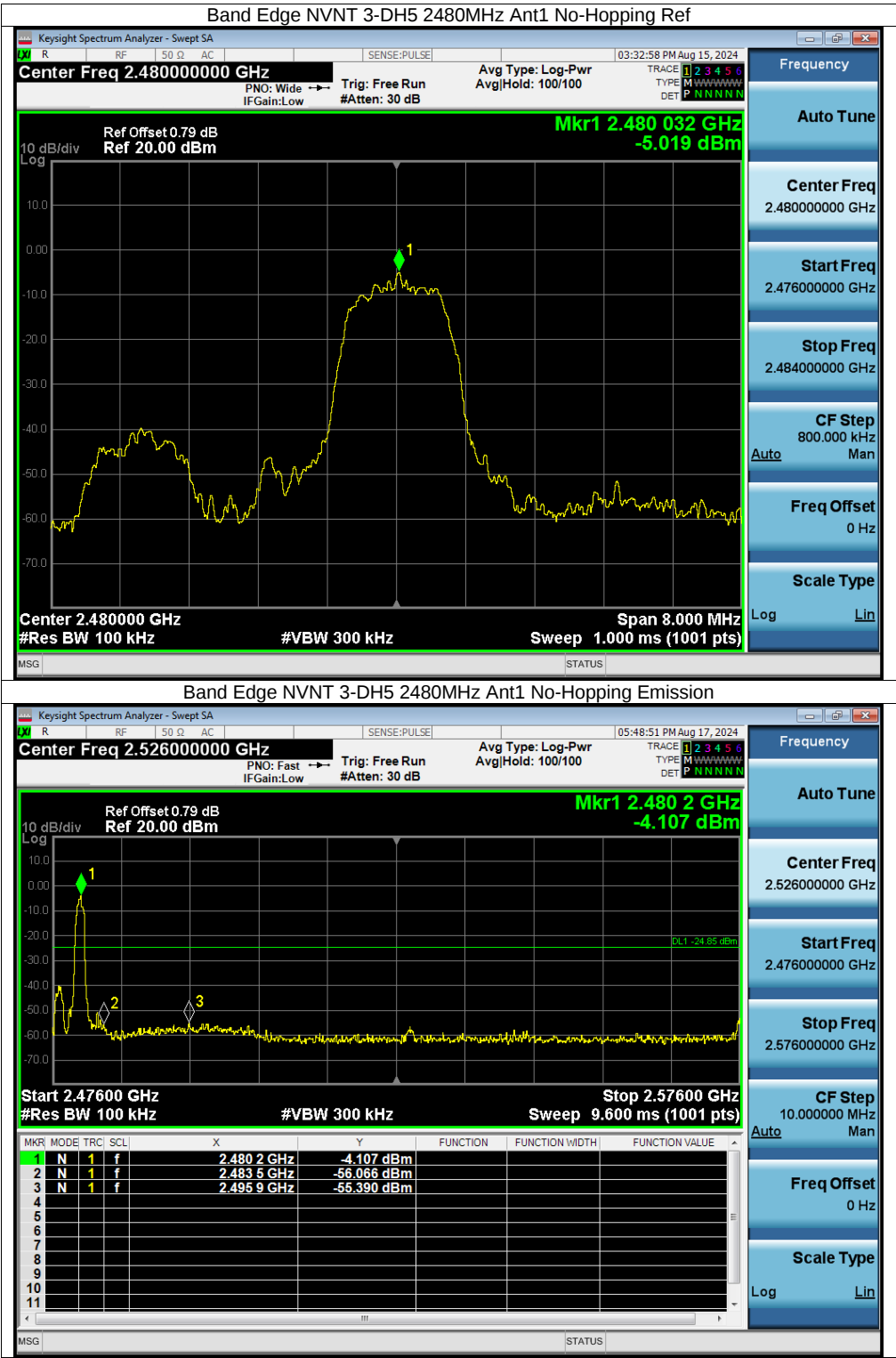






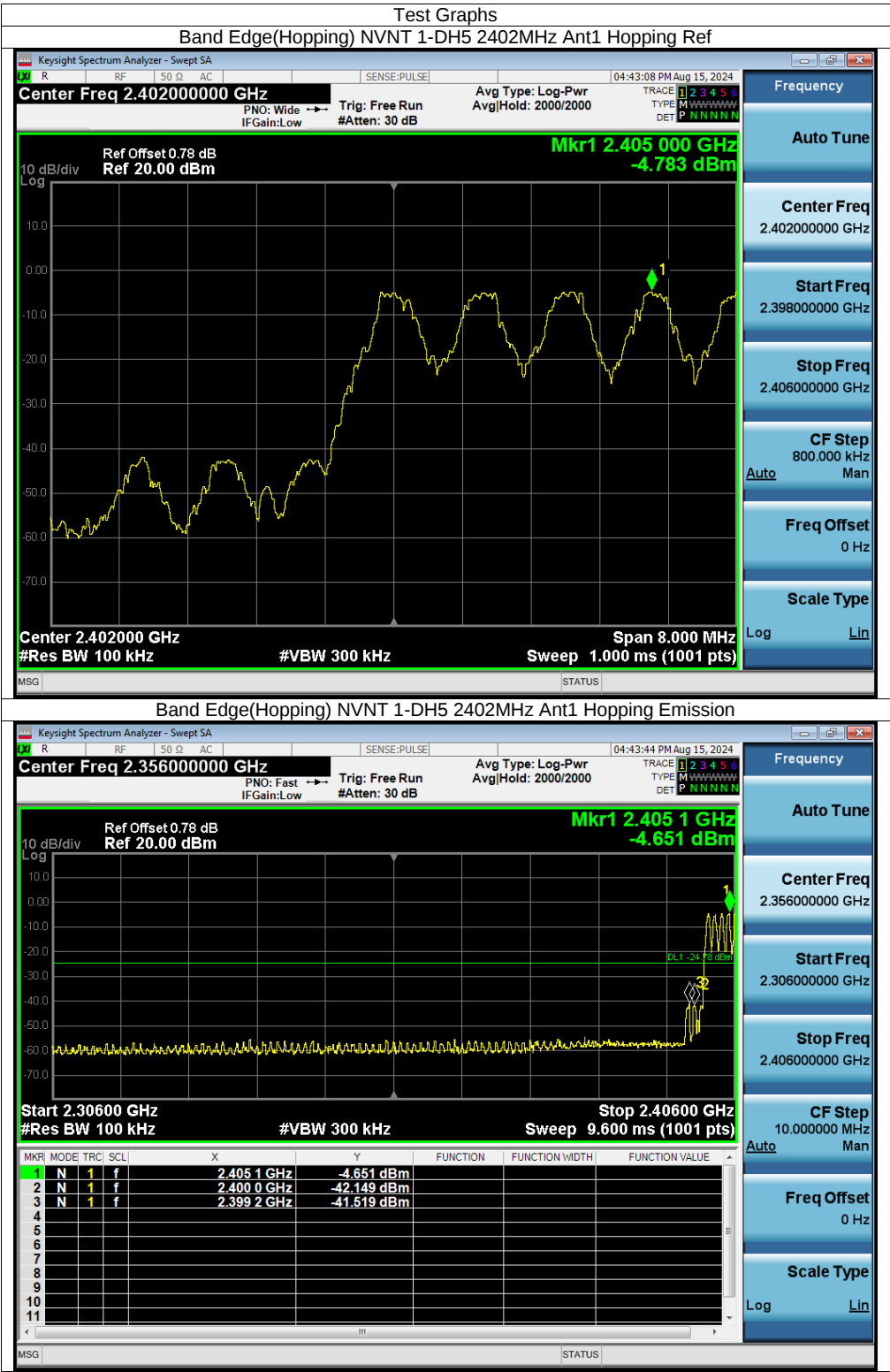




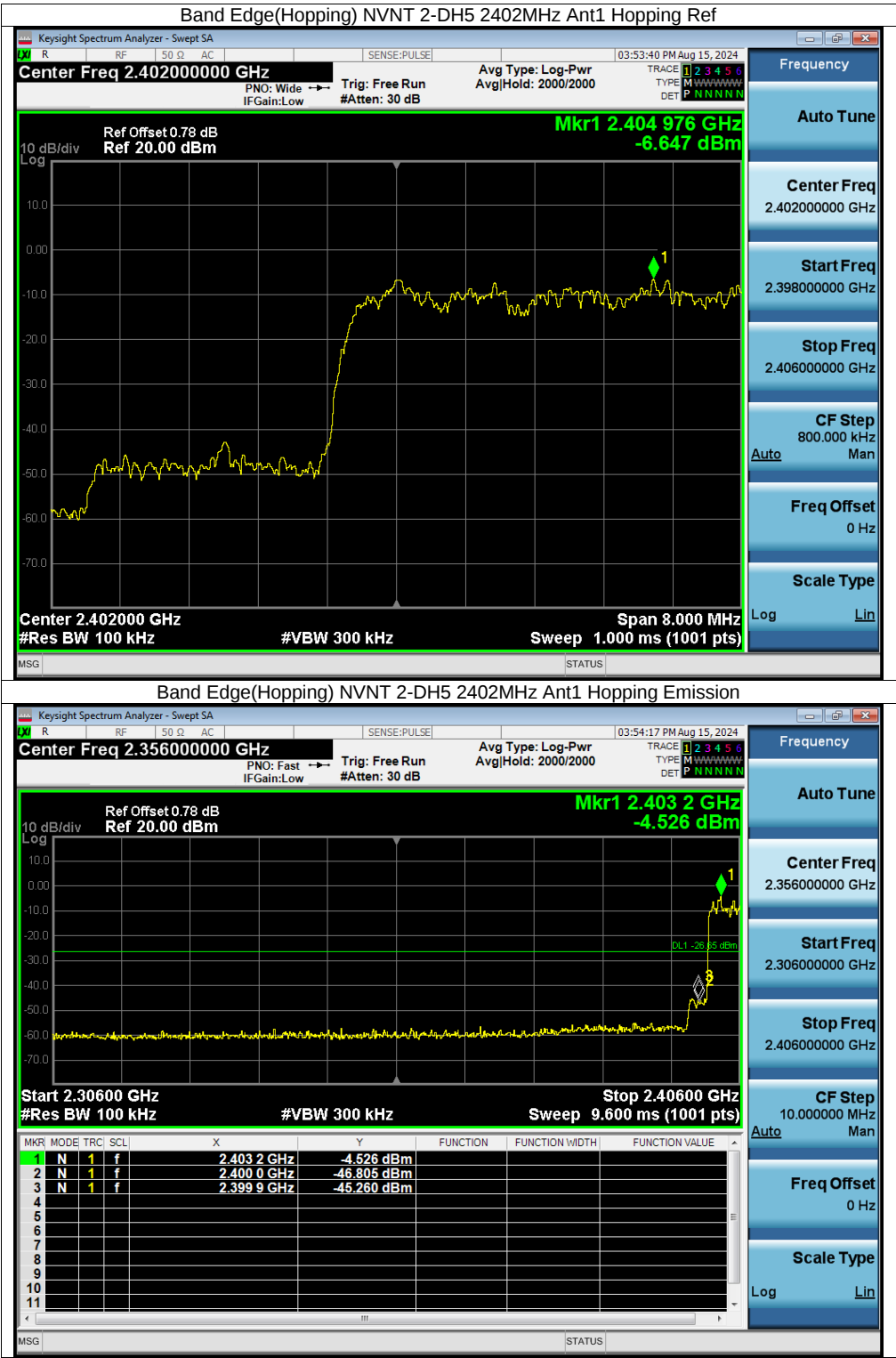


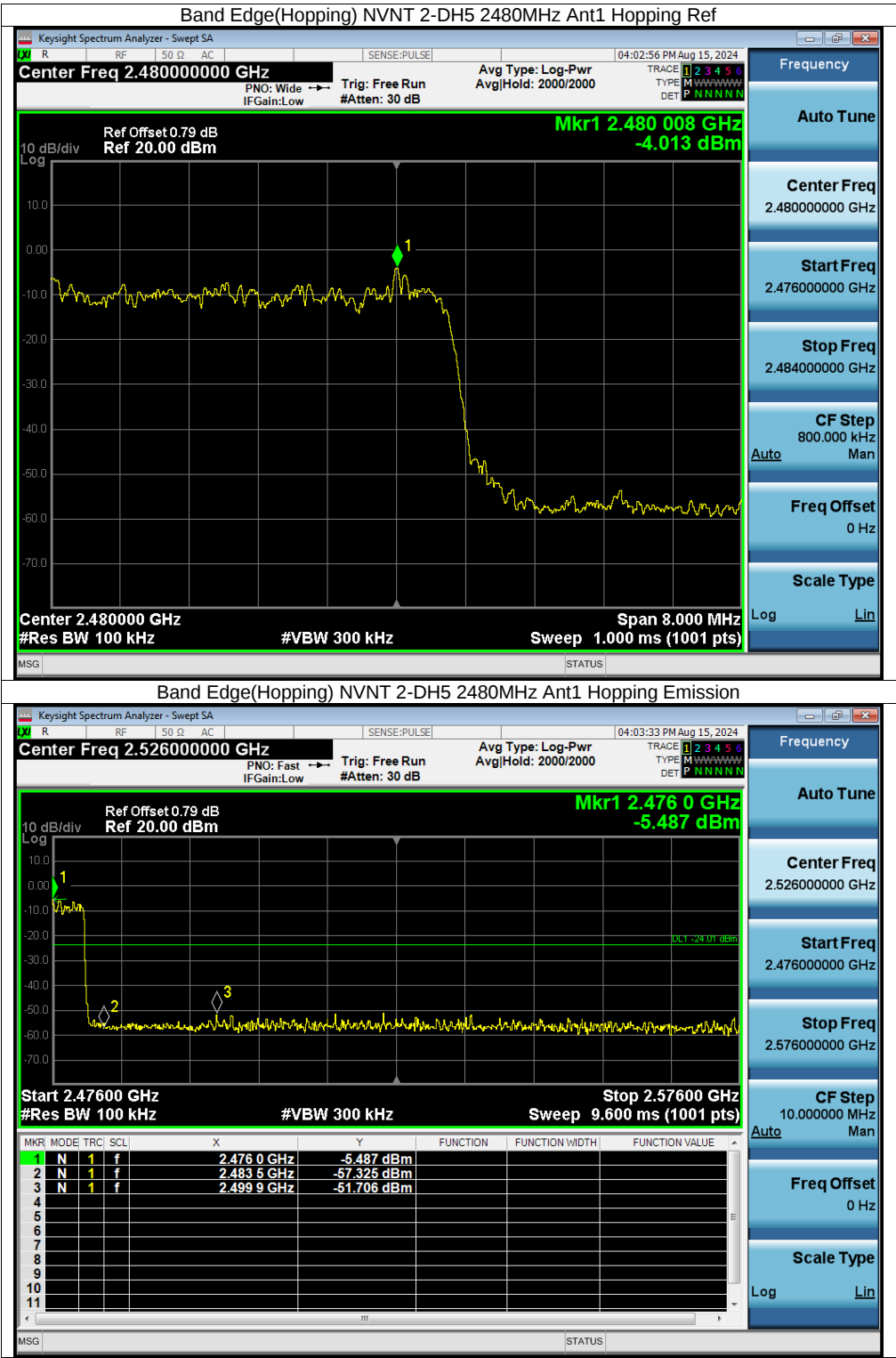
Band Edge(Hopping)

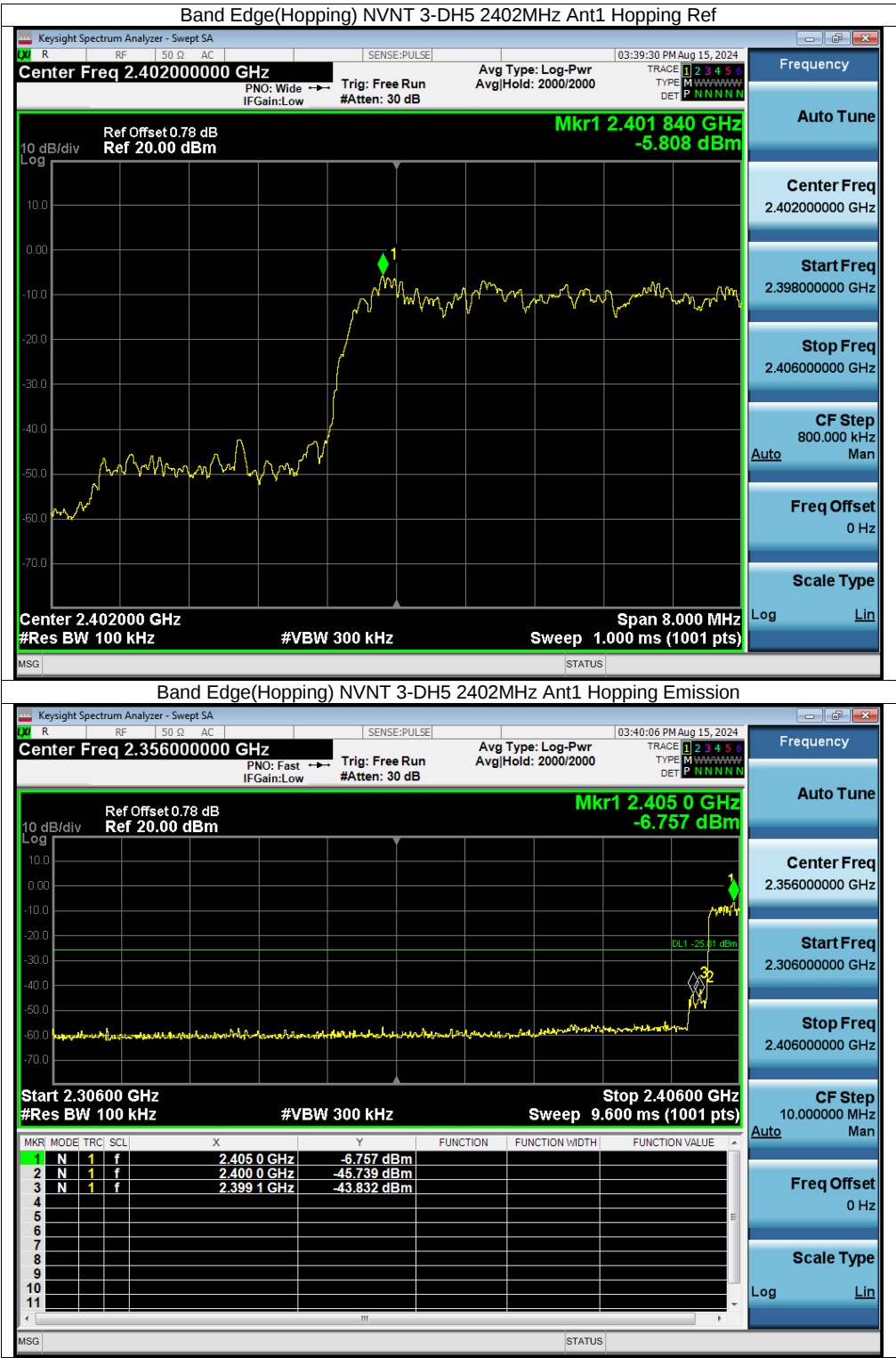
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-36.74	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-47.96	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-38.61	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-47.7	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-38.02	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-48.34	-20	Pass







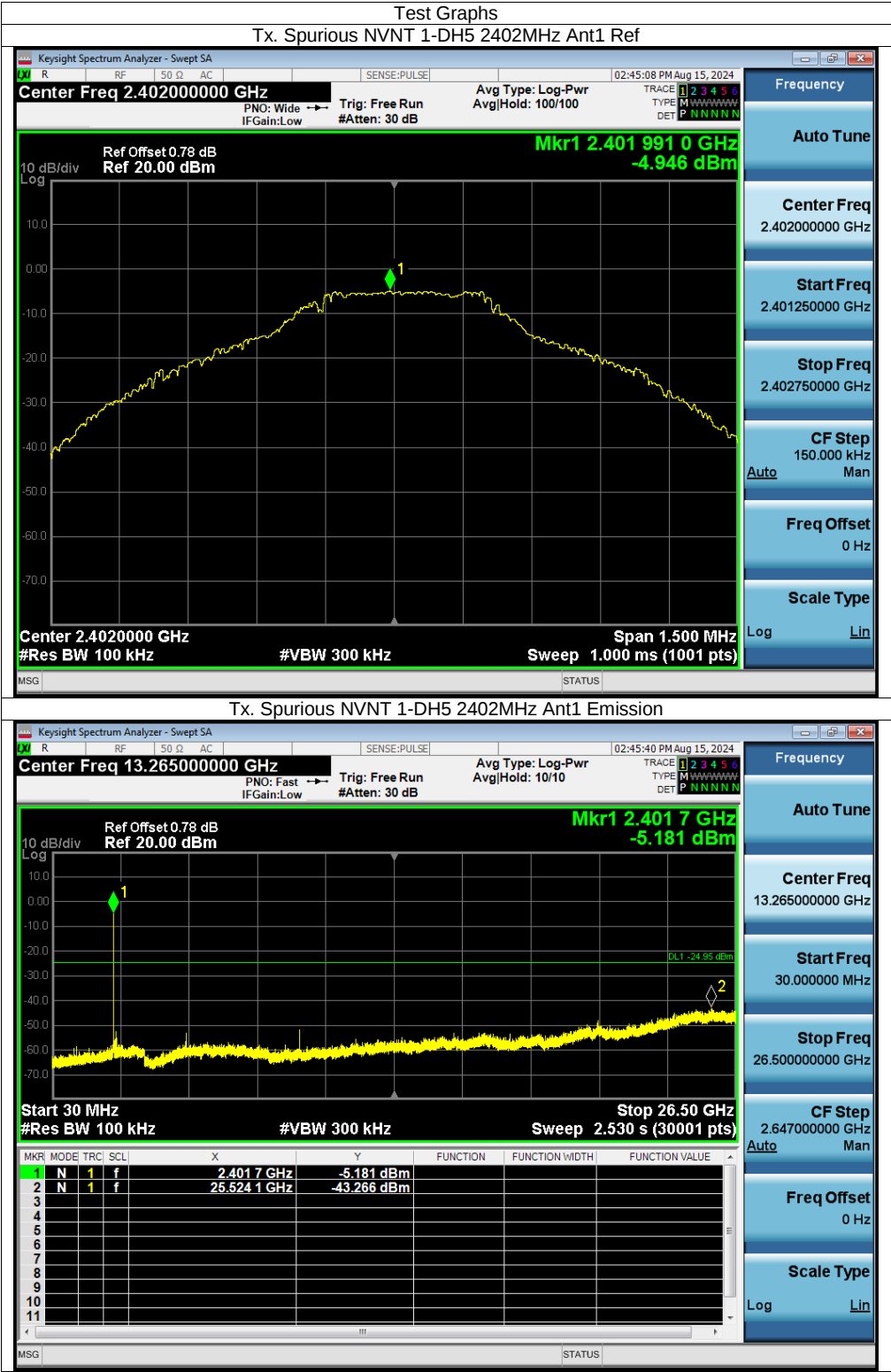


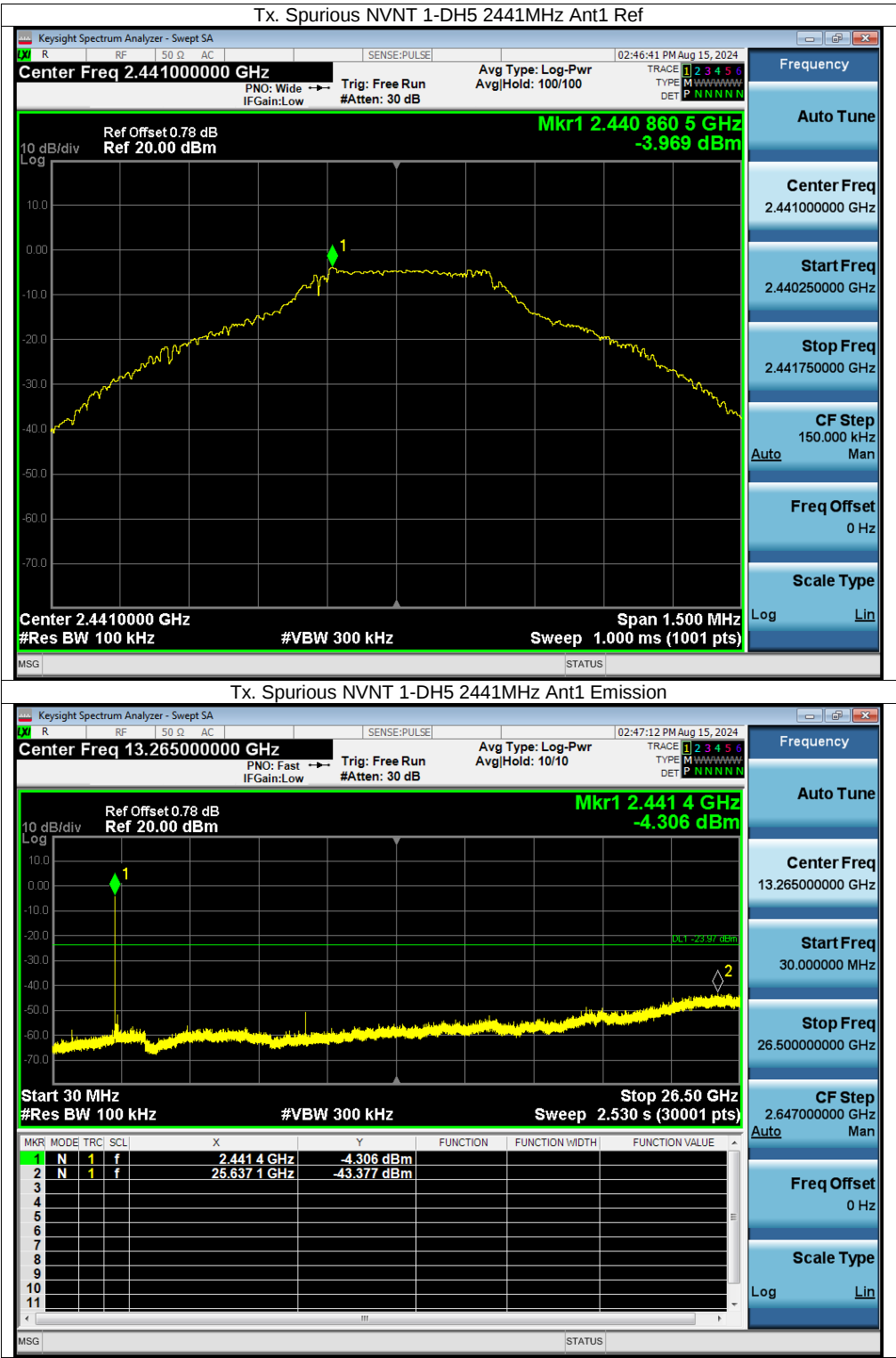


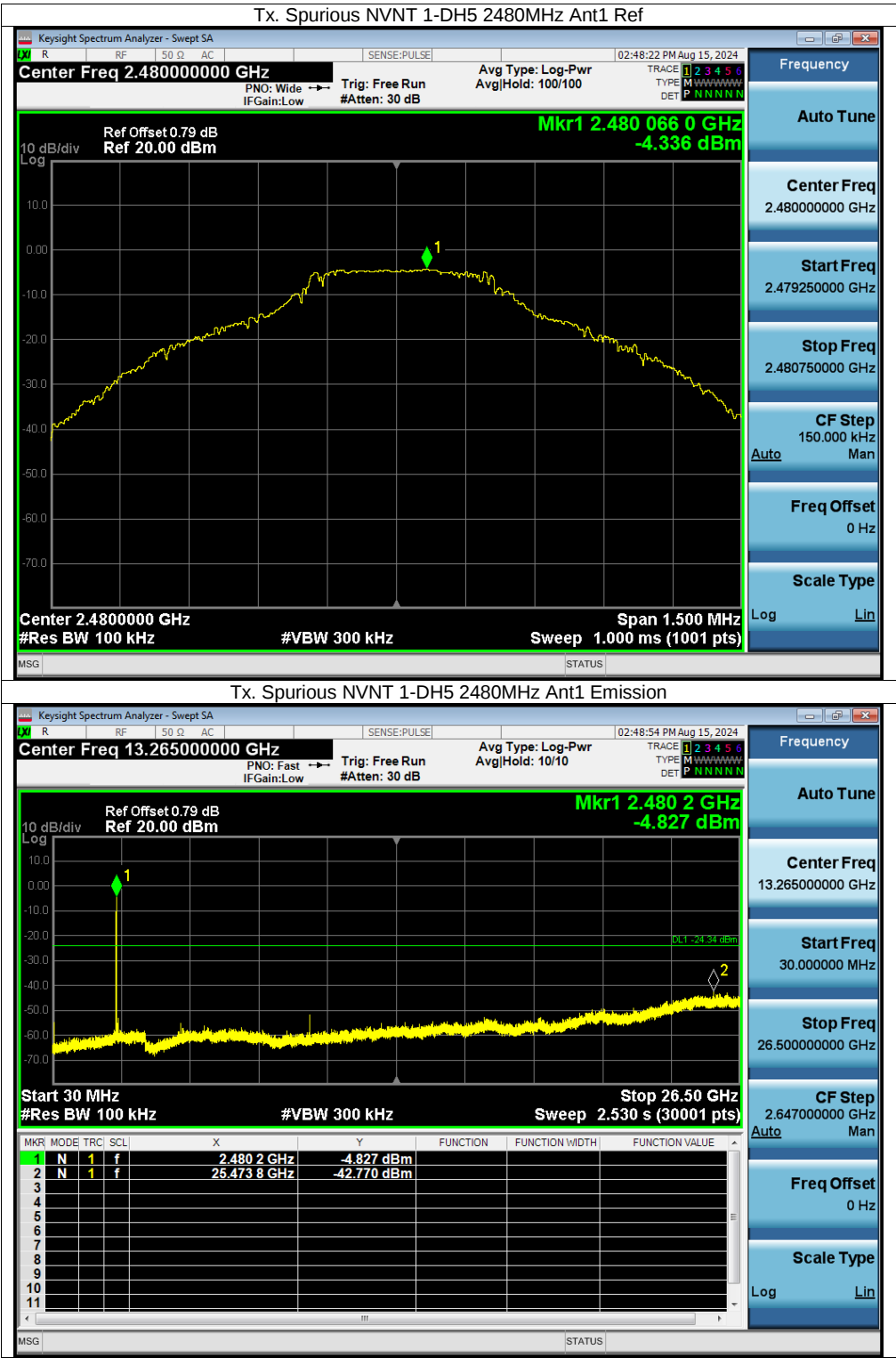


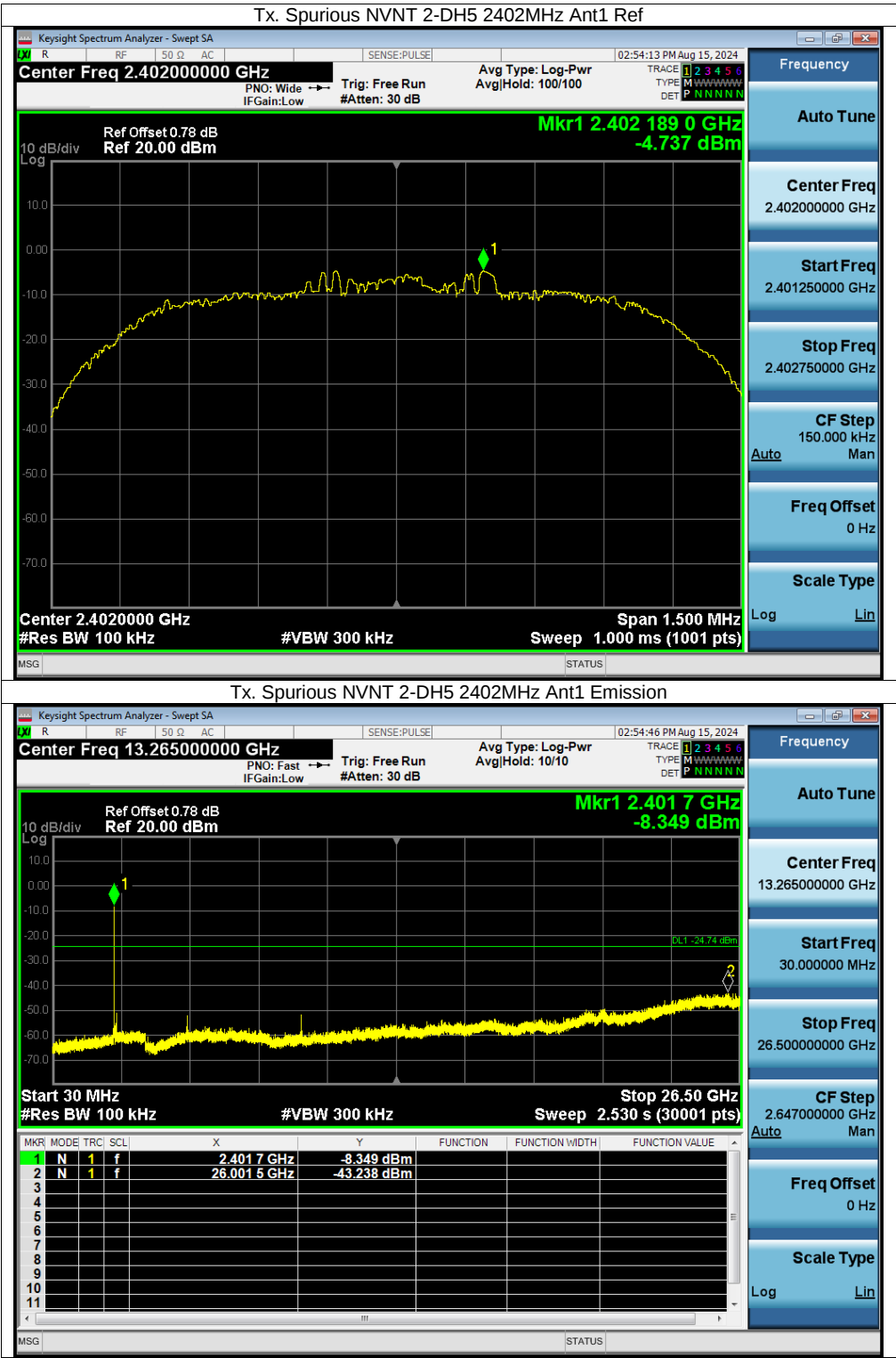
Conducted RF Spurious Emission

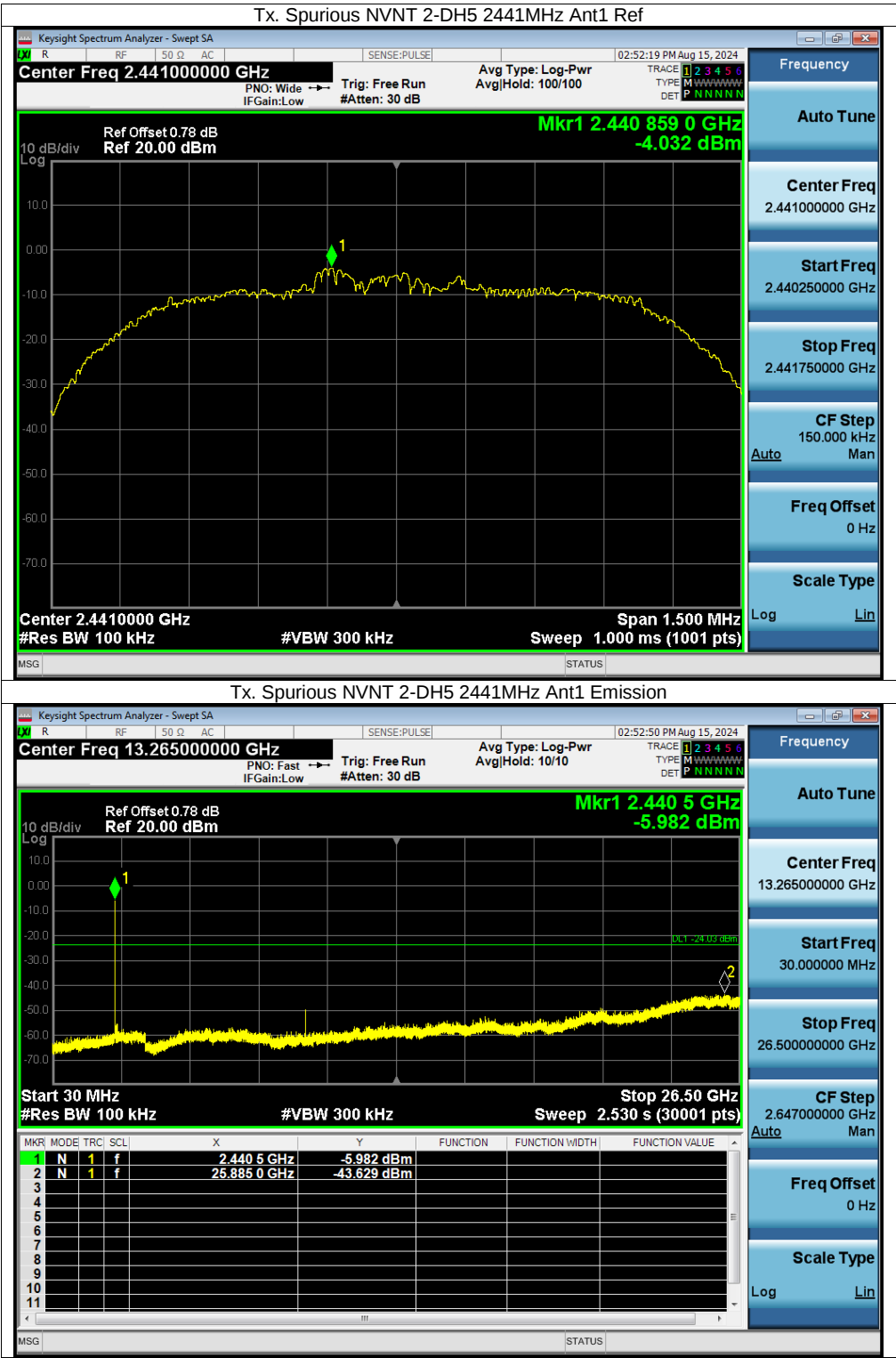
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-38.32	-20	Pass
NVNT	1-DH5	2441	Ant1	-39.41	-20	Pass
NVNT	1-DH5	2480	Ant1	-38.43	-20	Pass
NVNT	2-DH5	2402	Ant1	-38.5	-20	Pass
NVNT	2-DH5	2441	Ant1	-39.6	-20	Pass
NVNT	2-DH5	2480	Ant1	-37.98	-20	Pass
NVNT	3-DH5	2402	Ant1	-38.59	-20	Pass
NVNT	3-DH5	2441	Ant1	-39.7	-20	Pass
NVNT	3-DH5	2480	Ant1	-39.24	-20	Pass

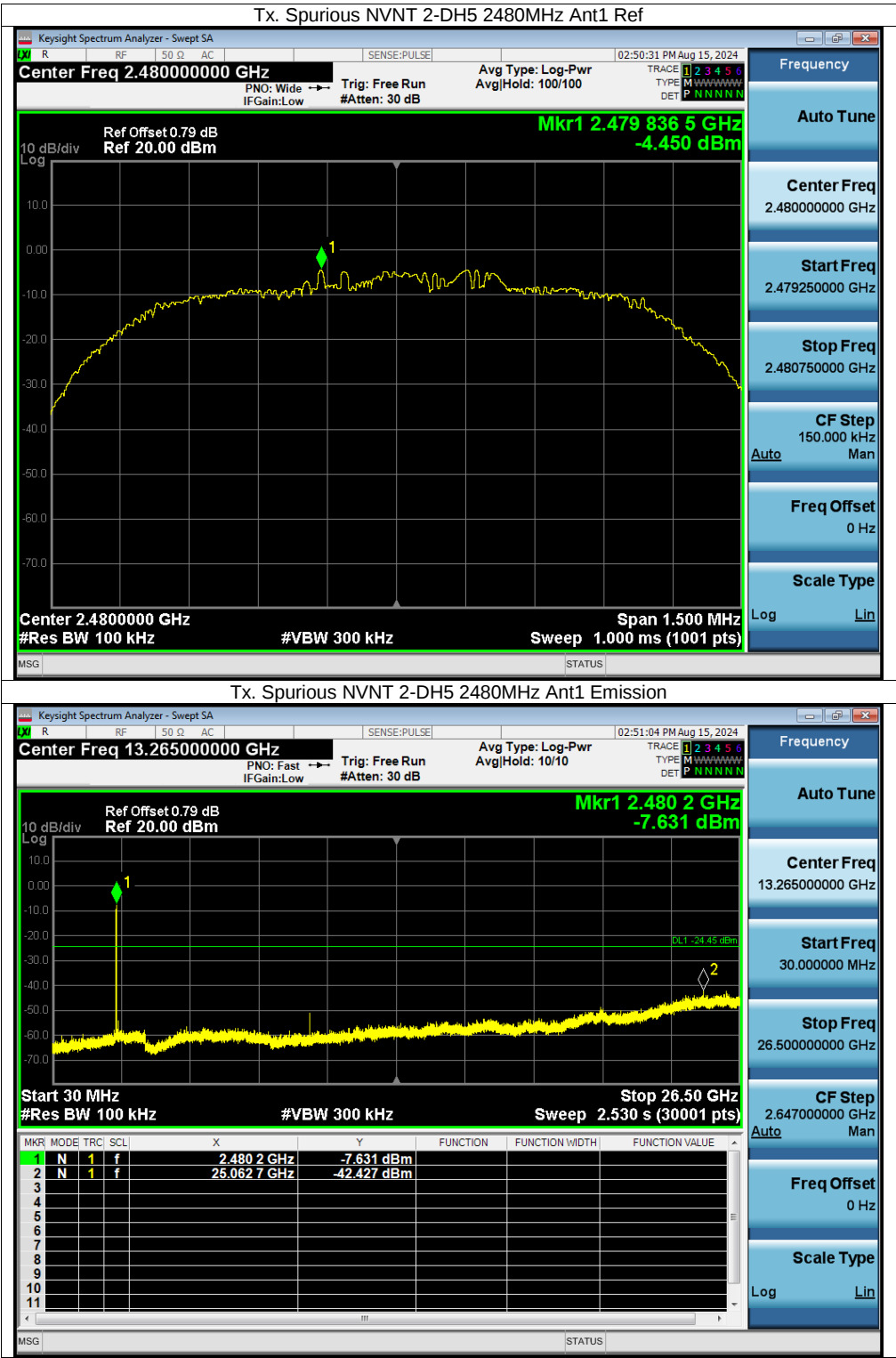




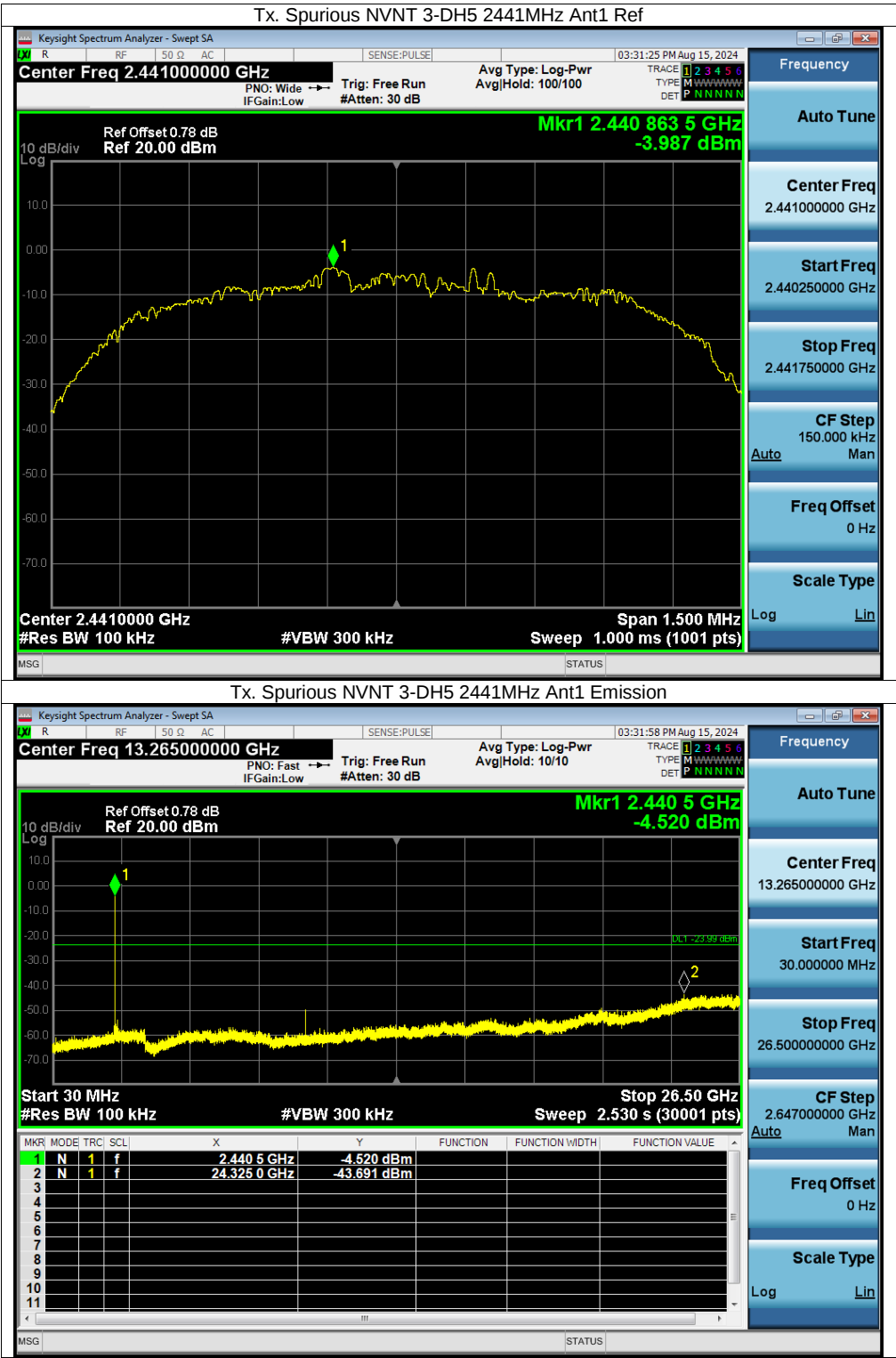


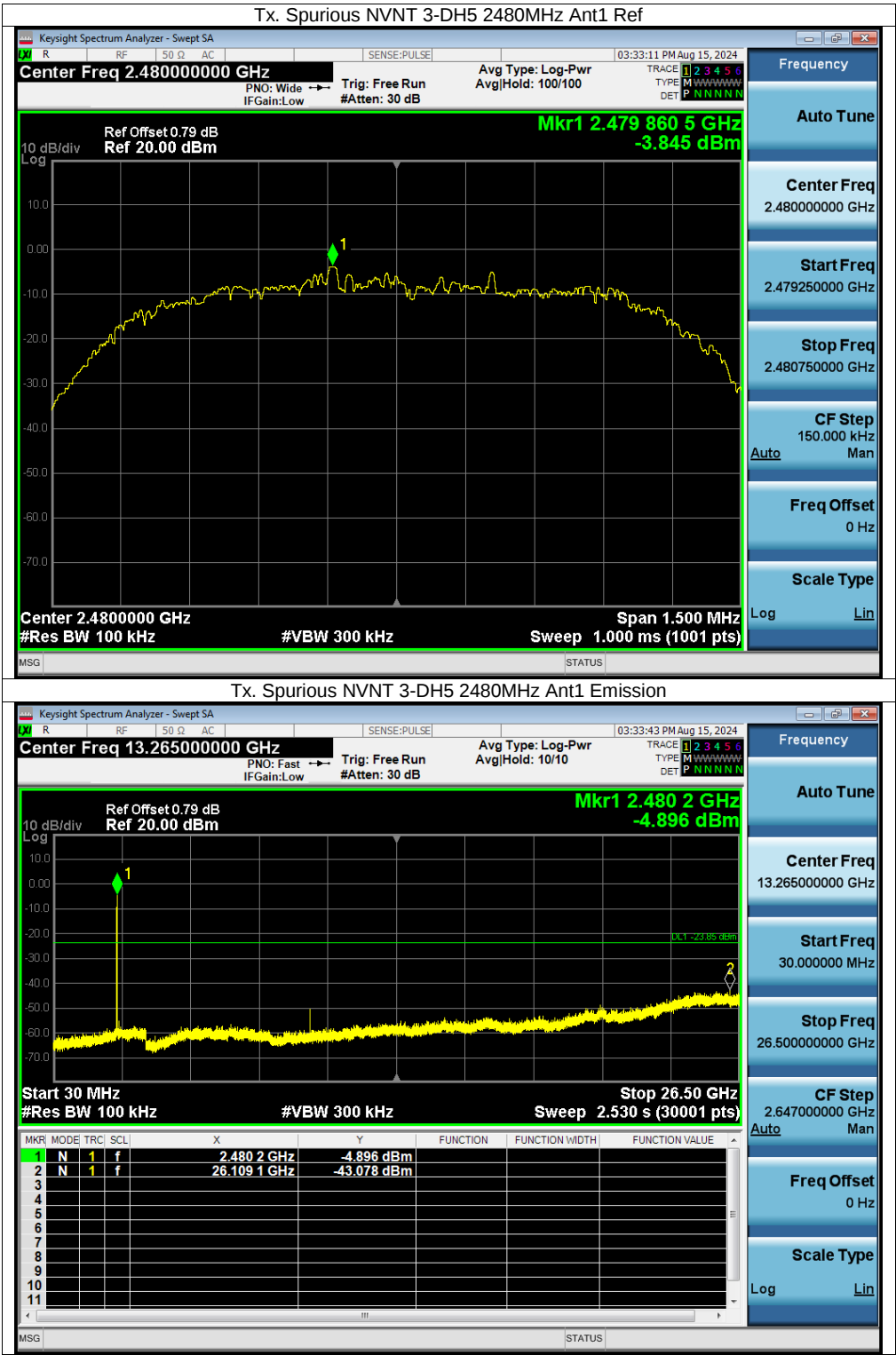










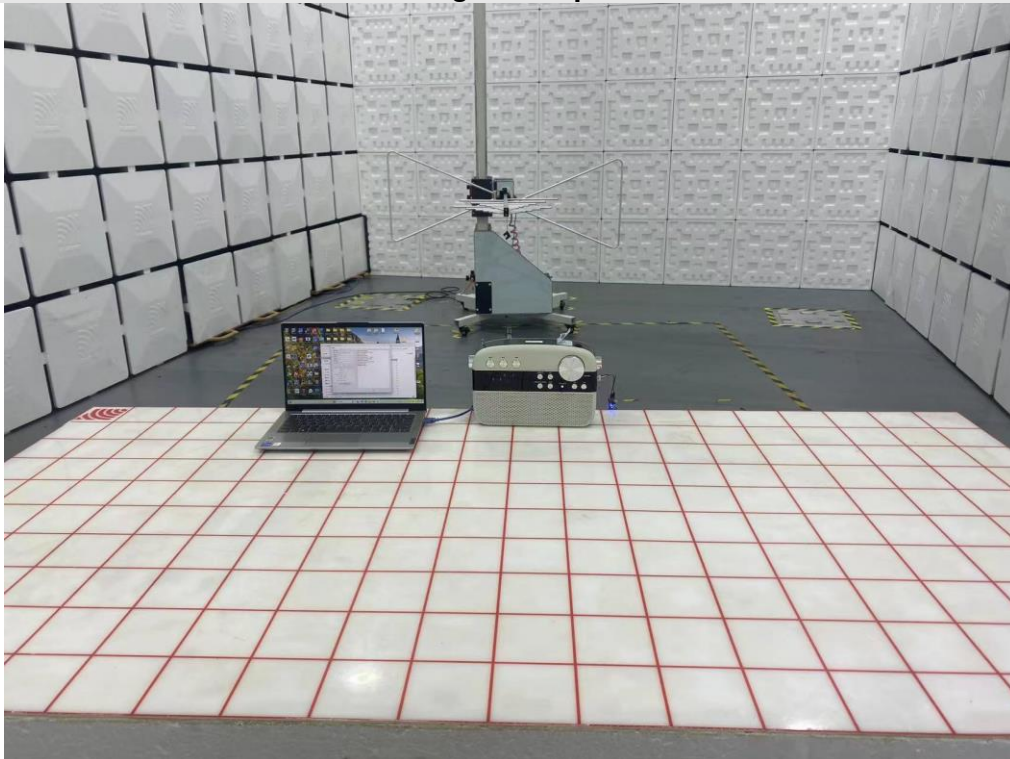


APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

AC Power Line Conducted Emission



Radiated Band edge and Spurious Emission





END OF REPORT