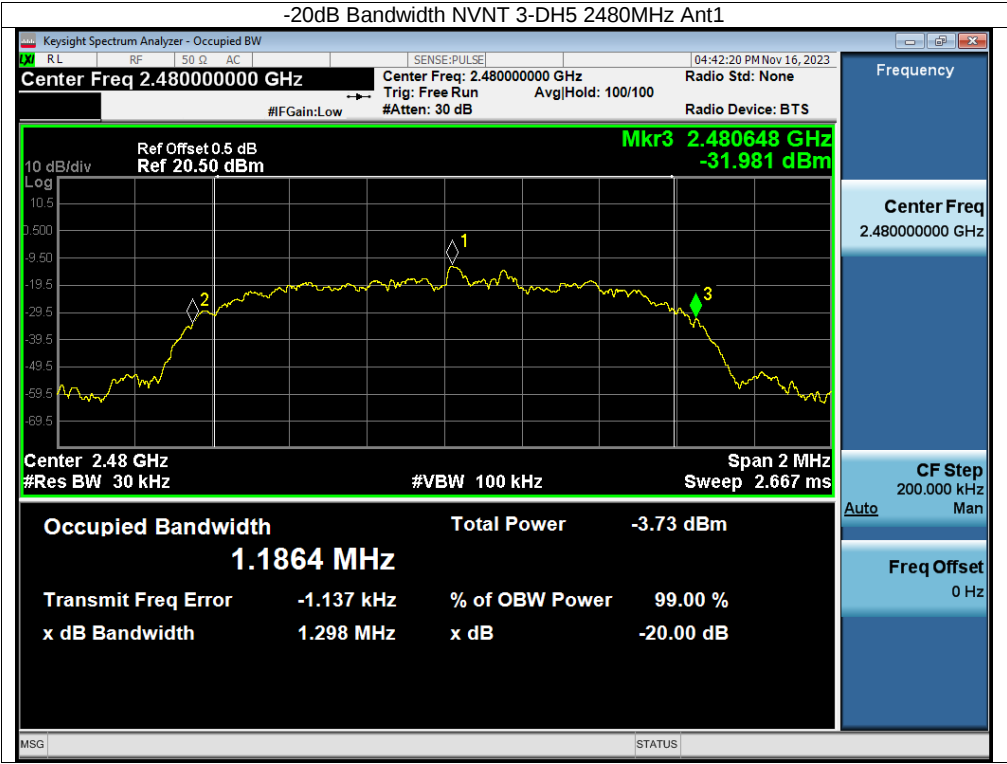




Occupied Channel Bandwidth

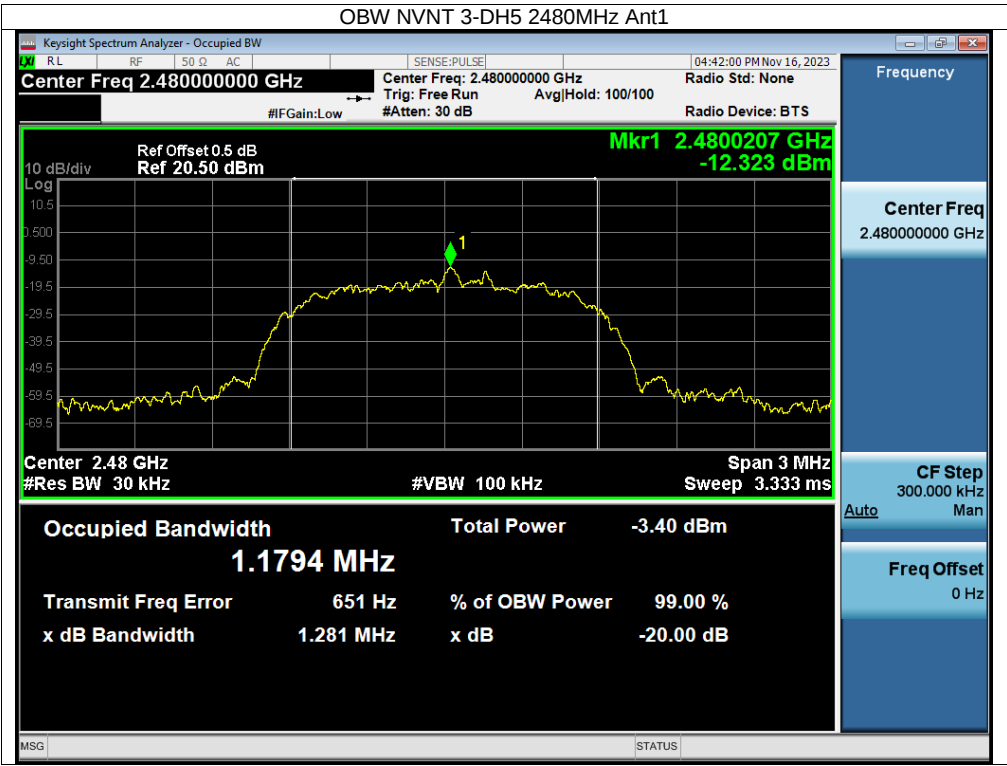
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH5	2402	Ant1	0.829
NVNT	1-DH5	2441	Ant1	0.836
NVNT	1-DH5	2480	Ant1	0.841
NVNT	2-DH5	2402	Ant1	1.19
NVNT	2-DH5	2441	Ant1	1.178
NVNT	2-DH5	2480	Ant1	1.192
NVNT	3-DH5	2402	Ant1	1.197
NVNT	3-DH5	2441	Ant1	1.198
NVNT	3-DH5	2480	Ant1	1.179





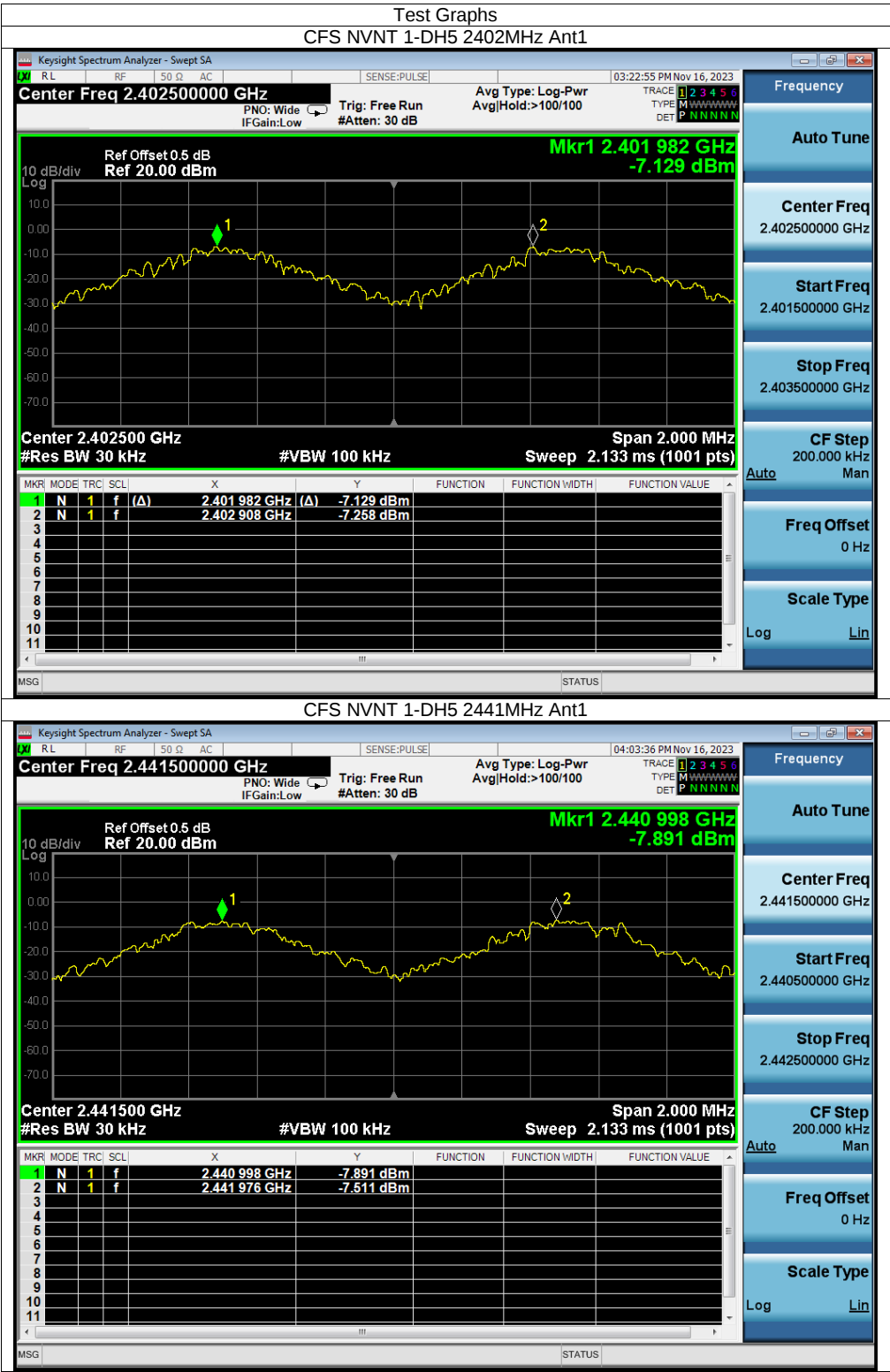






Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.982	2402.908	0.926	0.629	Pass
NVNT	1-DH5	Ant1	2440.998	2441.976	0.978	0.628	Pass
NVNT	1-DH5	Ant1	2479.016	2479.99	0.974	0.627	Pass
NVNT	2-DH5	Ant1	2402.01	2403.022	1.012	0.851	Pass
NVNT	2-DH5	Ant1	2441.03	2442.02	0.99	0.889	Pass
NVNT	2-DH5	Ant1	2479.01	2480.002	0.992	0.852	Pass
NVNT	3-DH5	Ant1	2402.01	2403.152	1.142	0.857	Pass
NVNT	3-DH5	Ant1	2440.92	2442.132	1.212	0.863	Pass
NVNT	3-DH5	Ant1	2479.13	2480.136	1.006	0.865	Pass



CFS NVNT 1-DH5 2441MHz Ant1

Keysight Spectrum Analyzer - Swept SA

RLRF50QACSENSE:PULSE04:03:36 PM Nov 16, 2023

Center Freq 2.441500000 GHz

PNO: WideTrig: Free RunAvg Type: Log-PwrAvg|Hold:>100/100

IFGain:Low#Atten: 30 dB

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 0.5 dB

Ref 20.00 dBm

Mkr1 2.440 998 GHz

-7.891 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		2.440 998 GHz		-7.891 dBm	
2	N	1	f		2.441 976 GHz		-7.511 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

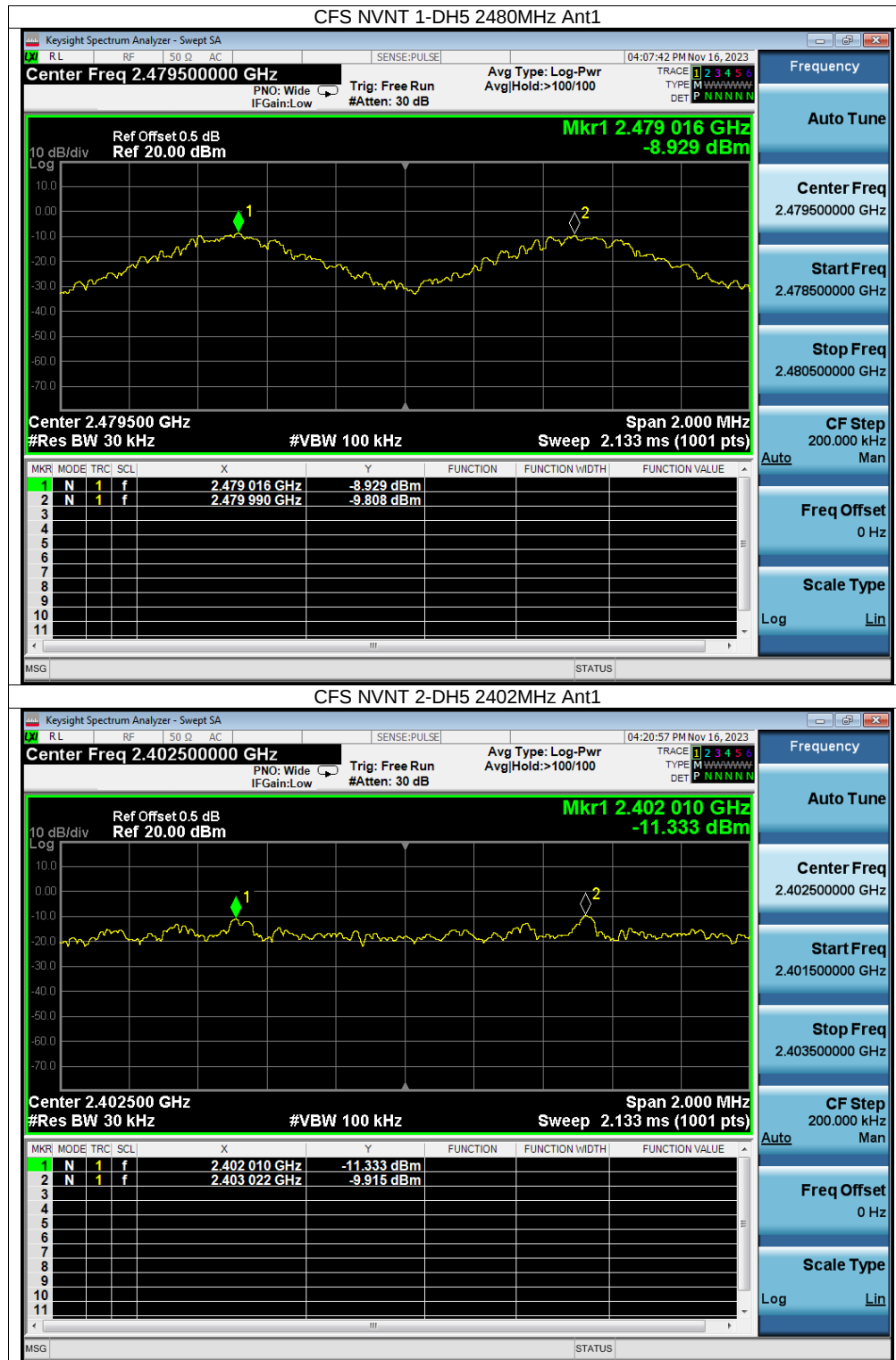
AutoMan

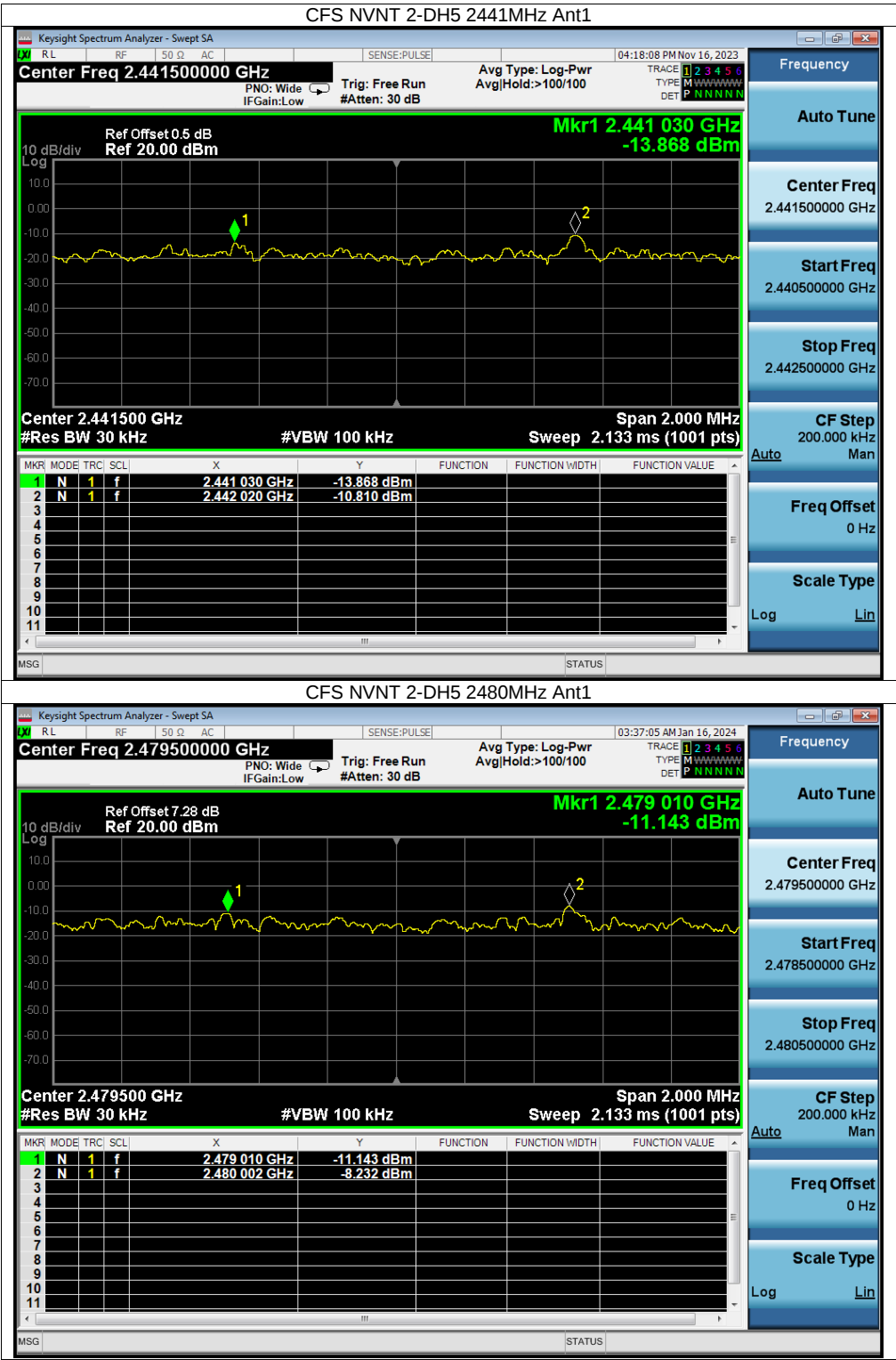
Freq Offset

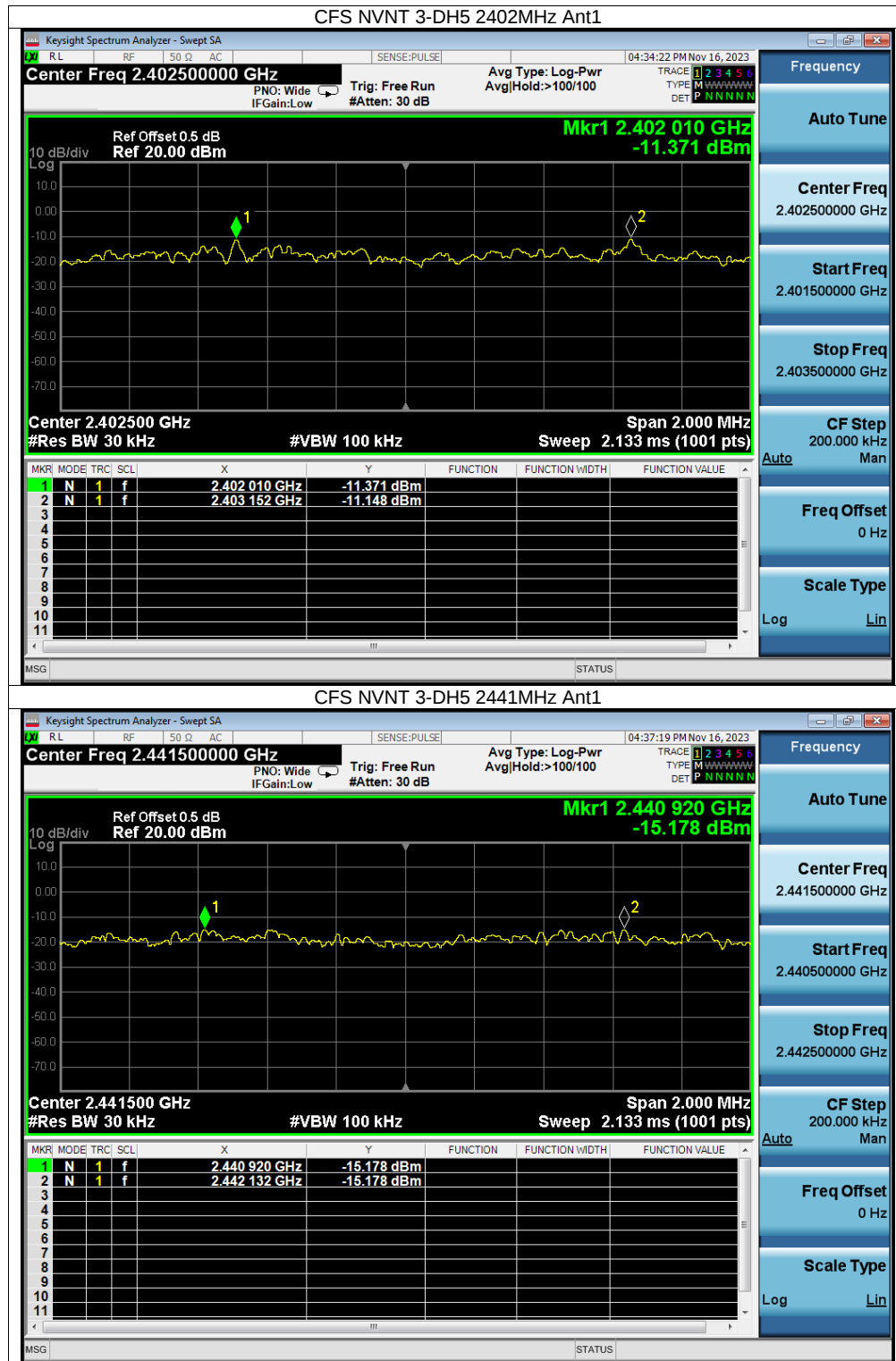
0 Hz

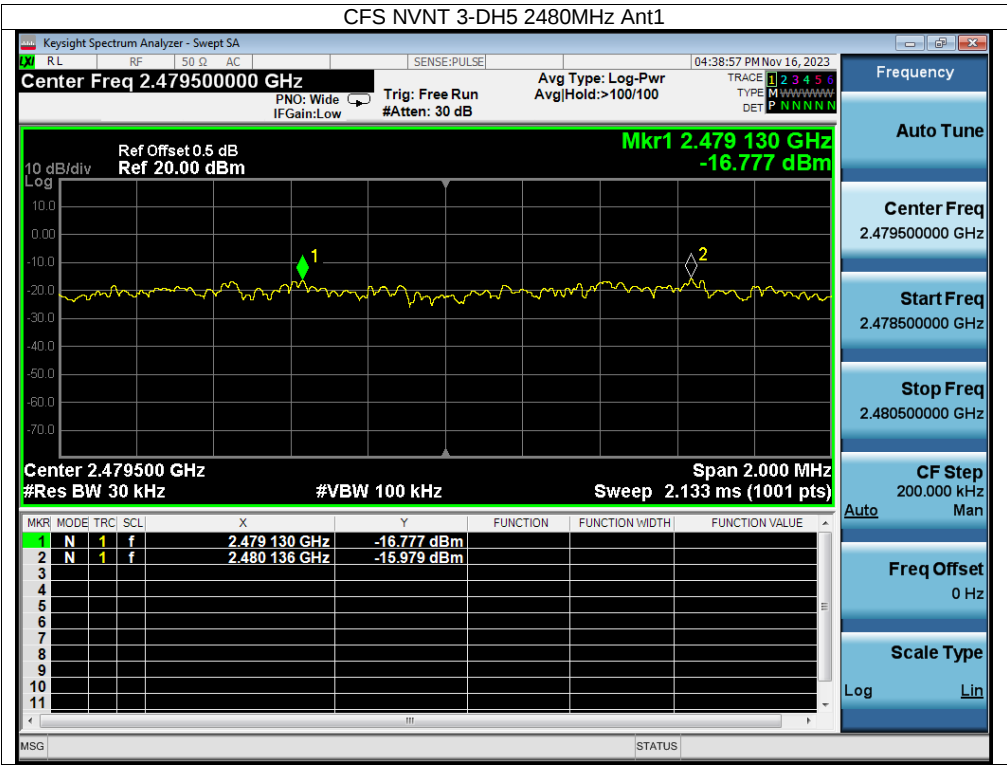
Scale Type

LogLin



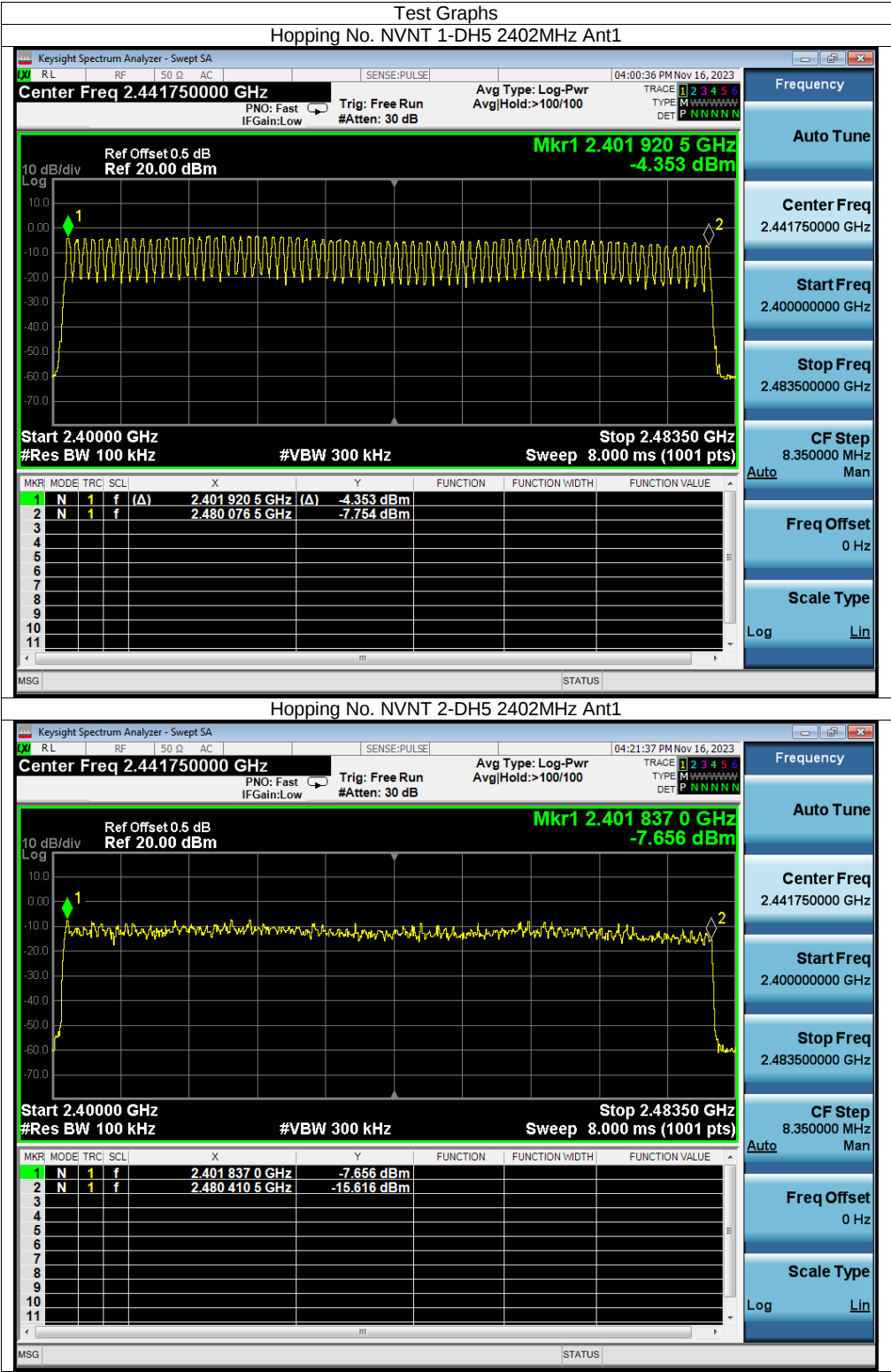






Number of Hopping Channel

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



Frequency

Auto Tune

Center Freq2.441750000 GHz

Start Freq2.400000000 GHz

Stop Freq2.483500000 GHz

CF Step8.350000 MHz

AutoMan

Freq Offset0 Hz

Scale TypeLogLin

Hopping No. NVNT 2-DH5 2402MHz Ant1

Keysight Spectrum Analyzer - Swept SA

RLRF50ΩACSENSE:PULSE

04:21:37 PM Nov 16, 2023

Center Freq 2.441750000 GHz

PNO: FastIFGain:Low

Trig: Free Run#Atten: 30 dB

Avg Type: Log-PwrAvg|Hold:>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 0.5 dB

Ref 20.00 dBm

Mkr1 2.401 837 0 GHz

-7.656 dBm

Start 2.40000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Stop 2.48350 GHz

Sweep 8.000 ms (1001 pts)

MSGSTATUS

Frequency

Auto Tune

Center Freq2.441750000 GHz

Start Freq2.400000000 GHz

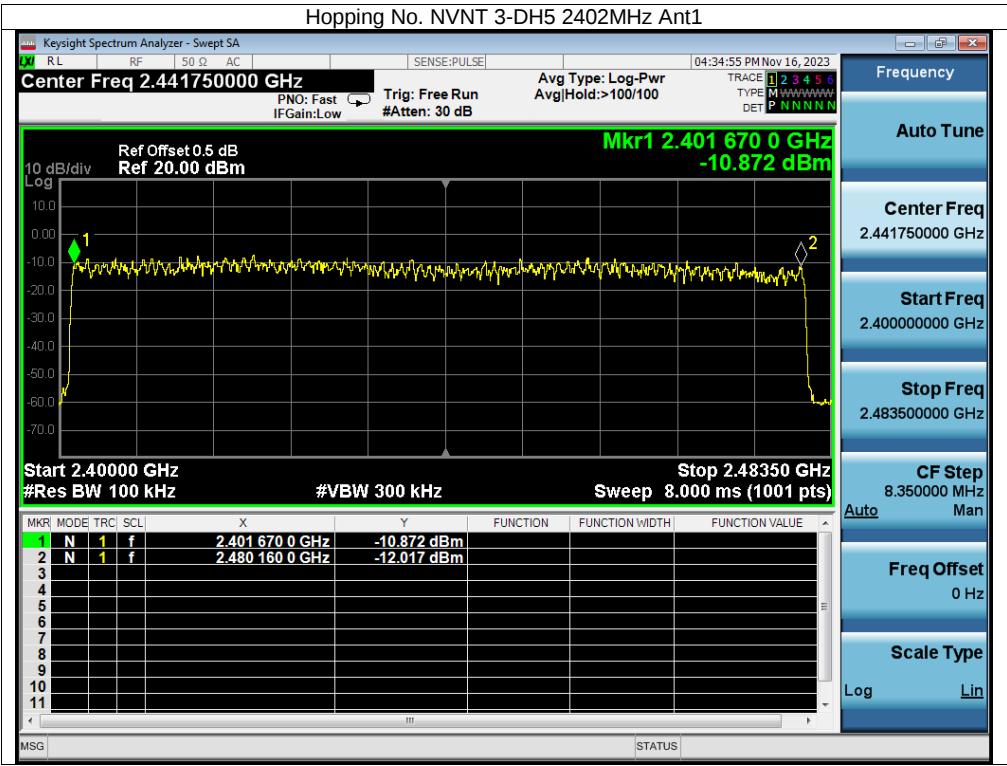
Stop Freq2.483500000 GHz

CF Step8.350000 MHz

AutoMan

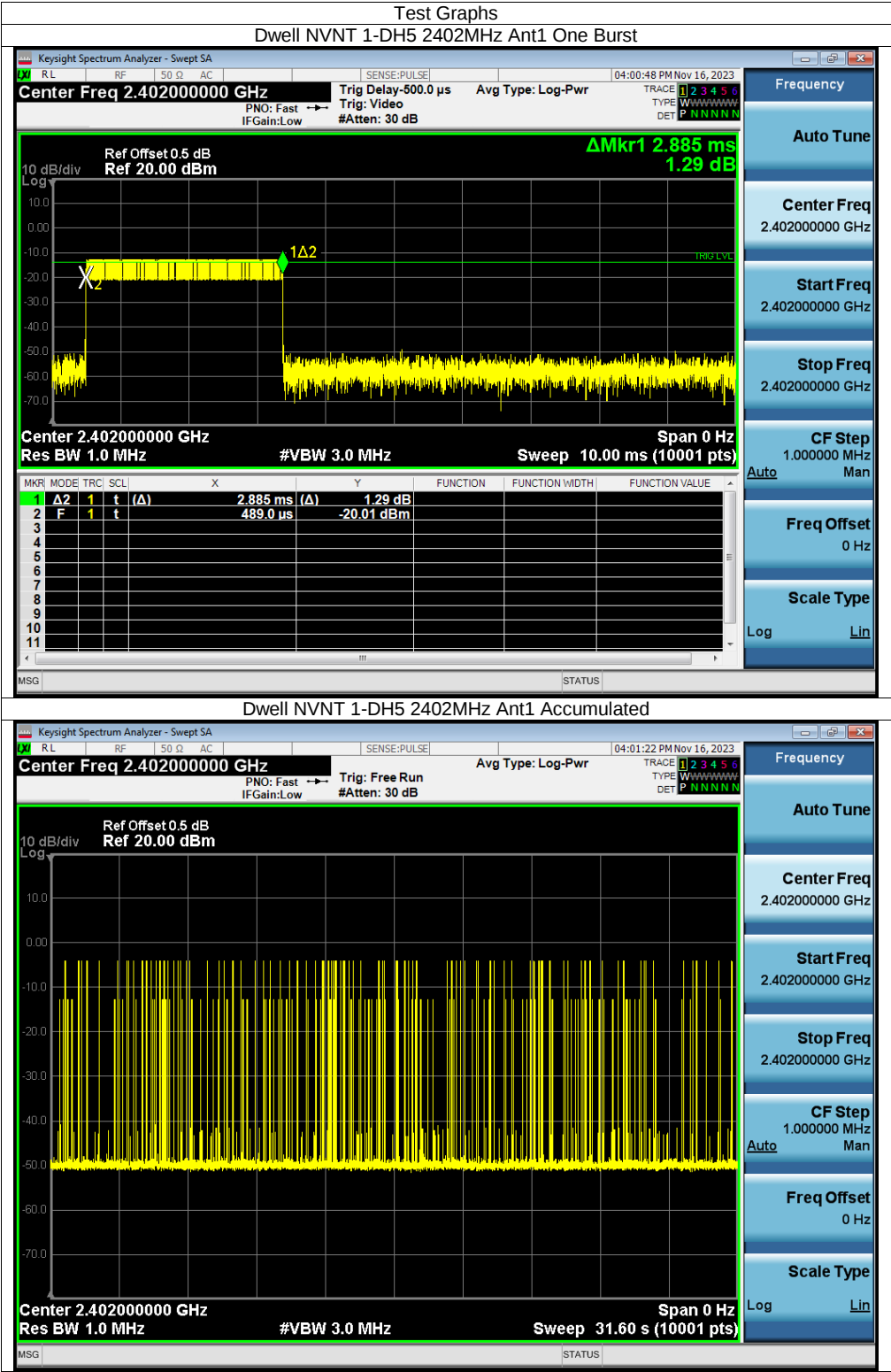
Freq Offset0 Hz

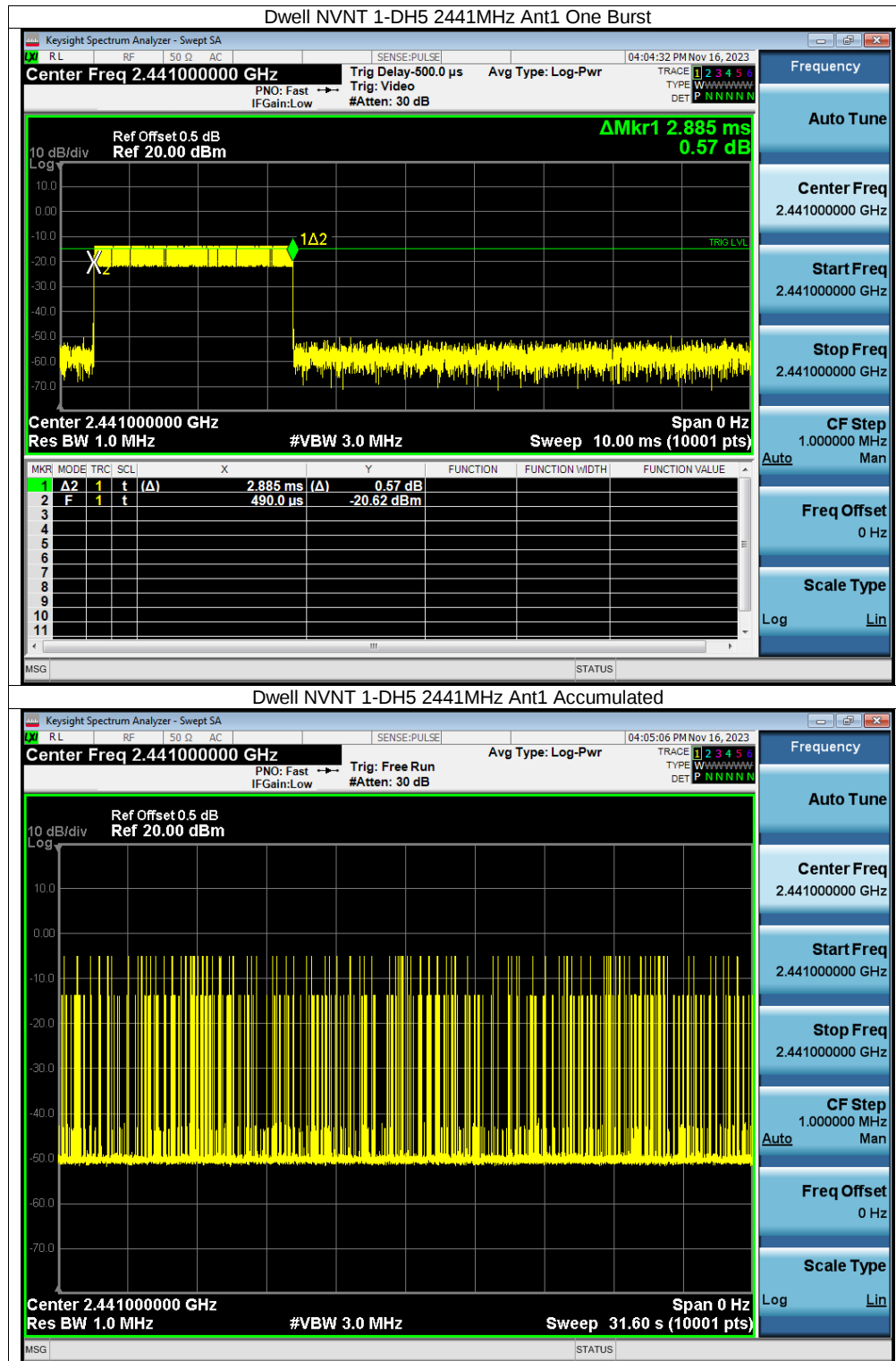
Scale TypeLogLin

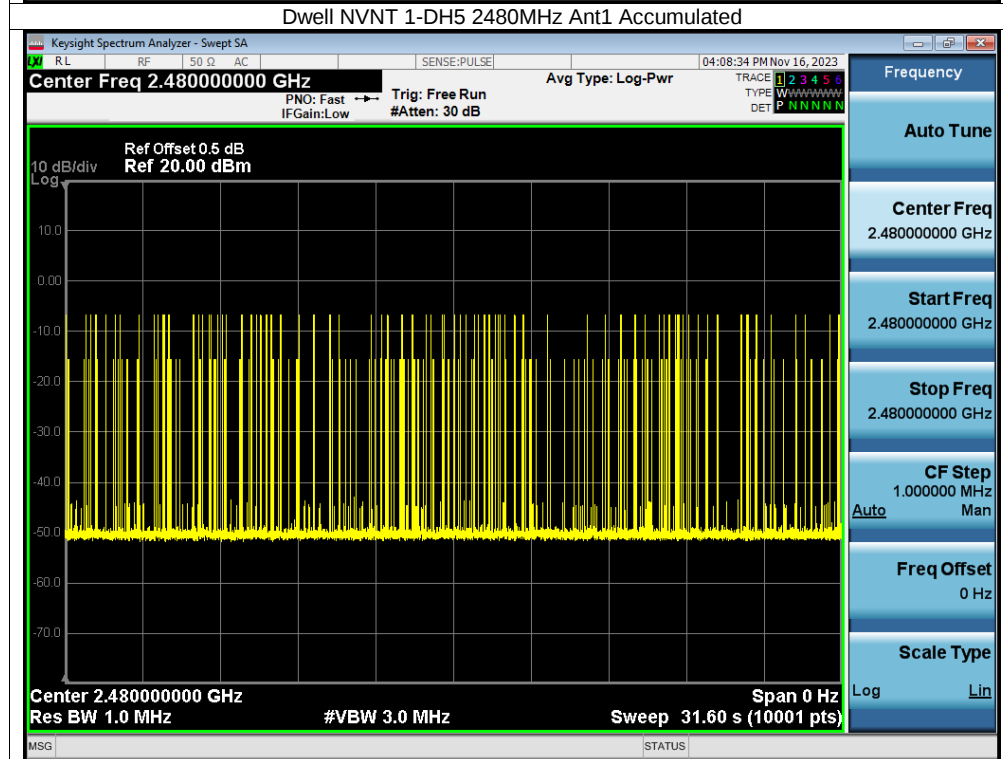
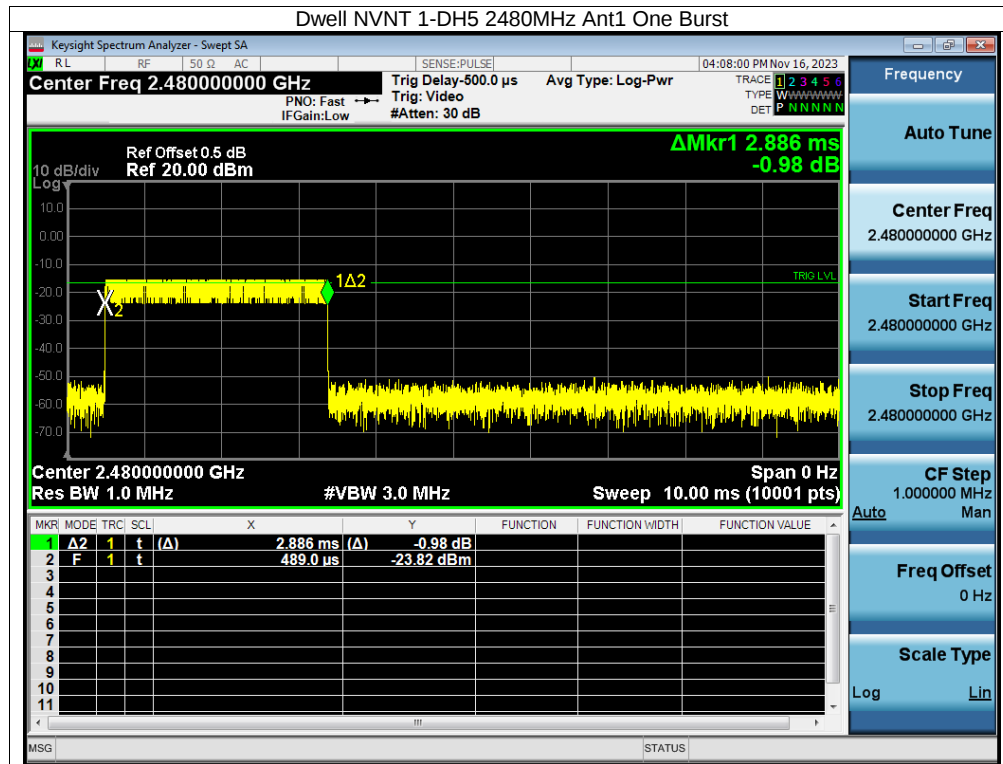


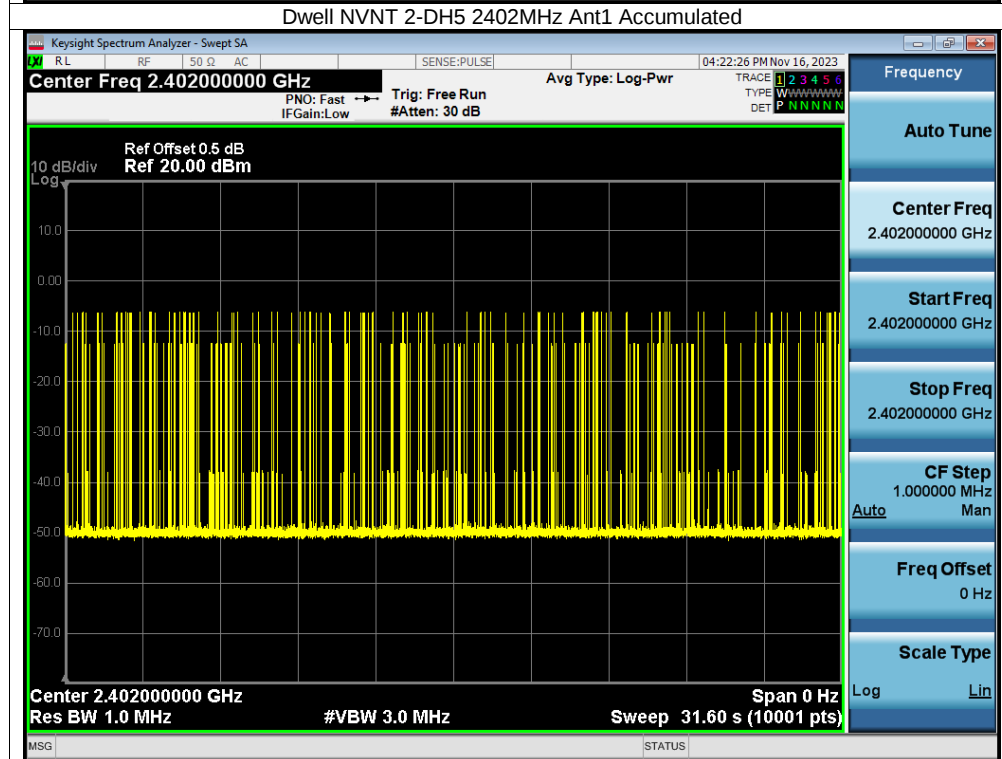
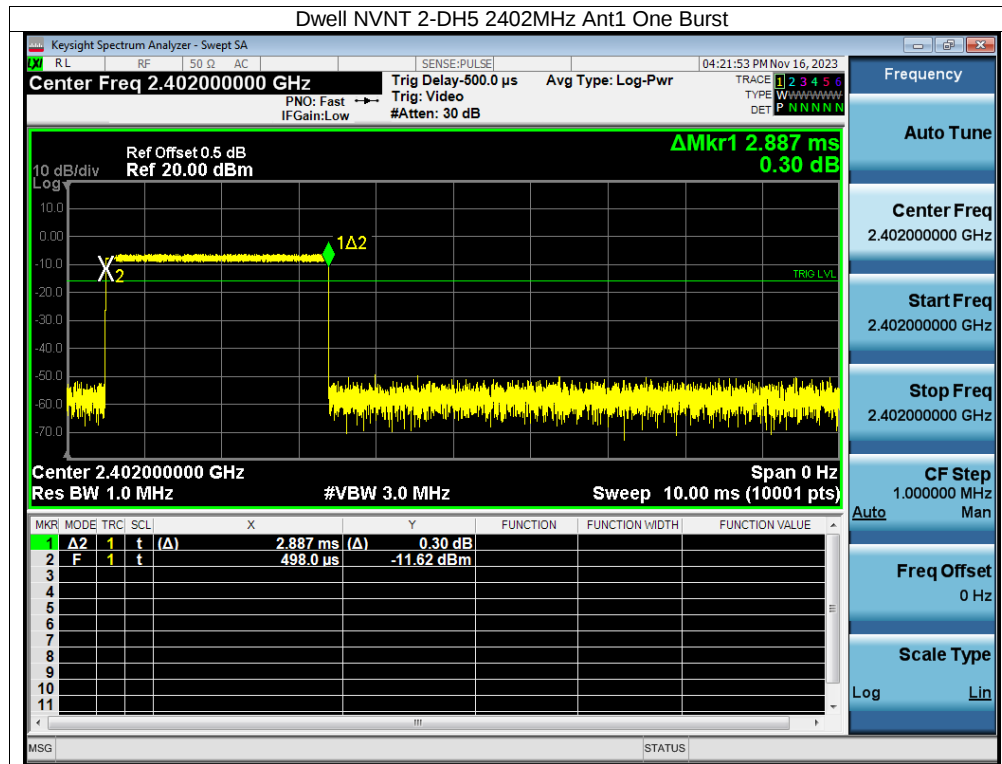
Dwell Time

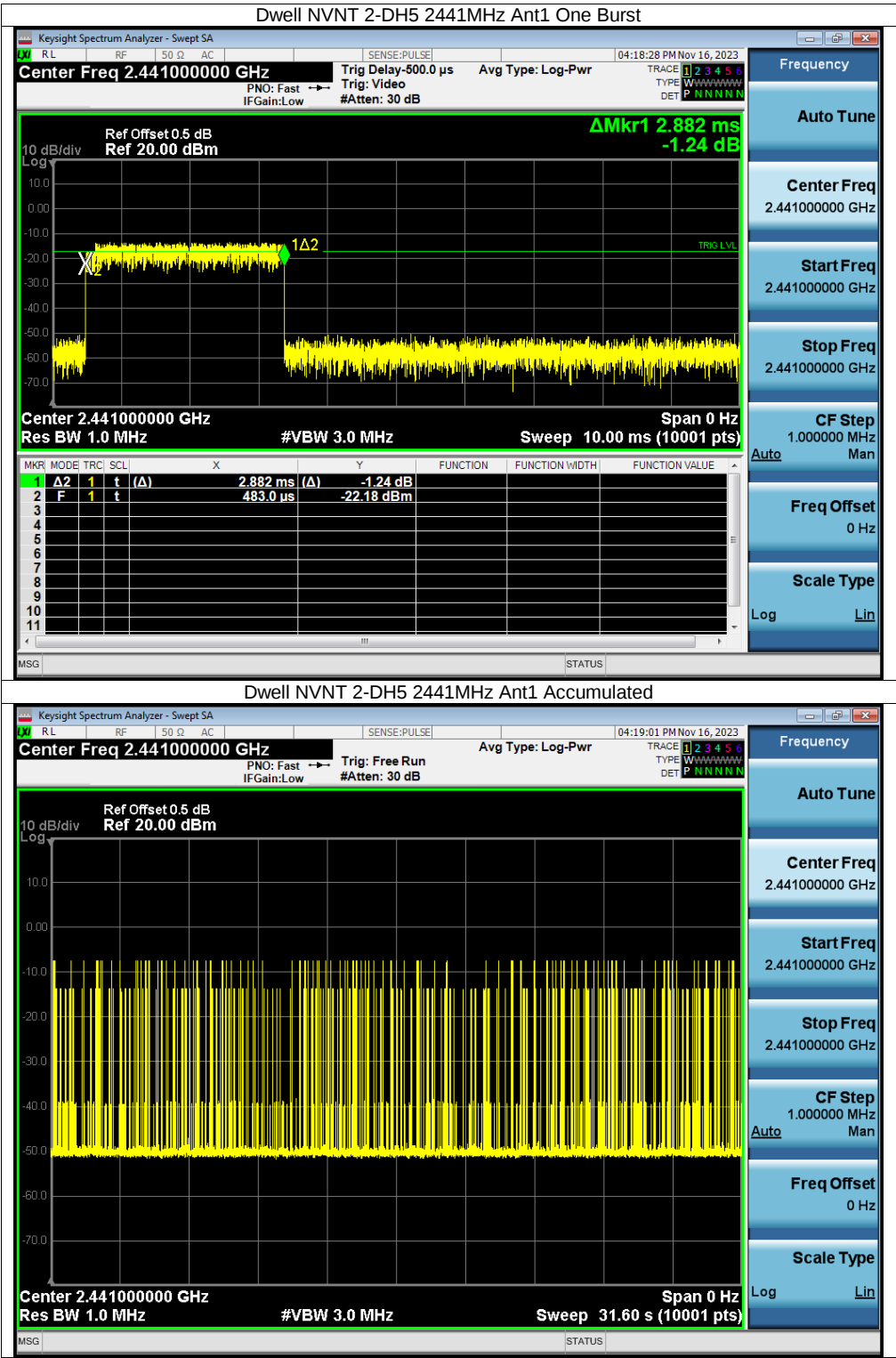
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.885	291.385	101	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.885	311.58	108	31600	400	Pass
NVNT	1-DH5	2480	Ant1	2.886	282.828	98	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.887	294.474	102	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.882	314.138	109	31600	400	Pass
NVNT	2-DH5	2480	Ant1	2.887	346.44	120	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.888	314.792	109	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.887	288.7	100	31600	400	Pass
NVNT	3-DH5	2480	Ant1	2.889	294.678	102	31600	400	Pass











Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated

Keysight Spectrum Analyzer - Swept SA

RLRF50QACSENSE:PULSE04:19:01 PM Nov 16, 2023

Center Freq 2.441000000 GHzTrig: Free RunAvg Type: Log-Pwr

PNO: FastIFGain:Low#Atten: 30 dB

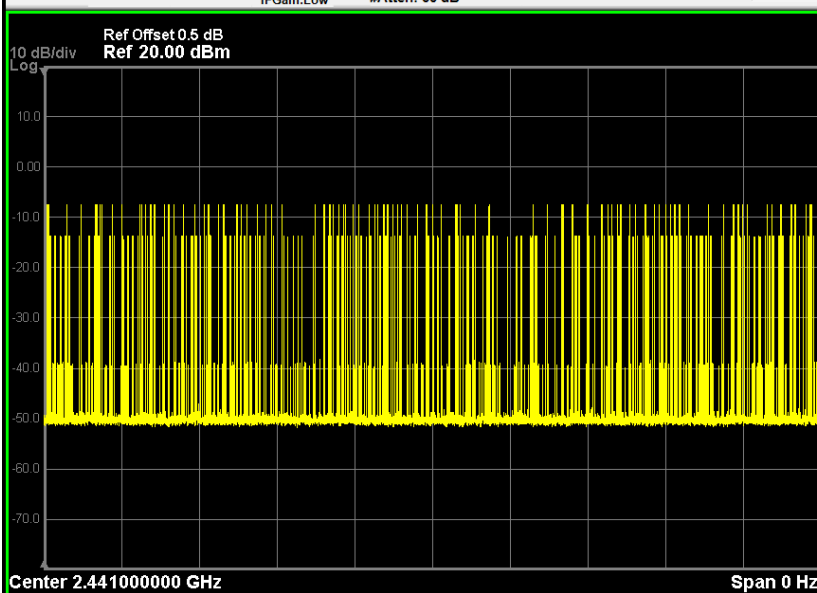
TRACE 1 2 3 4 5 6

TYPE W W W W W W W W

DET P N N N N N

Ref Offset 0.5 dB

Ref 20.00 dBm



Center 2.441000000 GHz

Res BW 1.0 MHz

#VBW 3.0 MHz

Sweep 31.60 s (10001 pts)

Span 0 Hz

MSGSTATUS

Frequency

Auto Tune

Center Freq
2.441000000 GHz

Start Freq
2.441000000 GHz

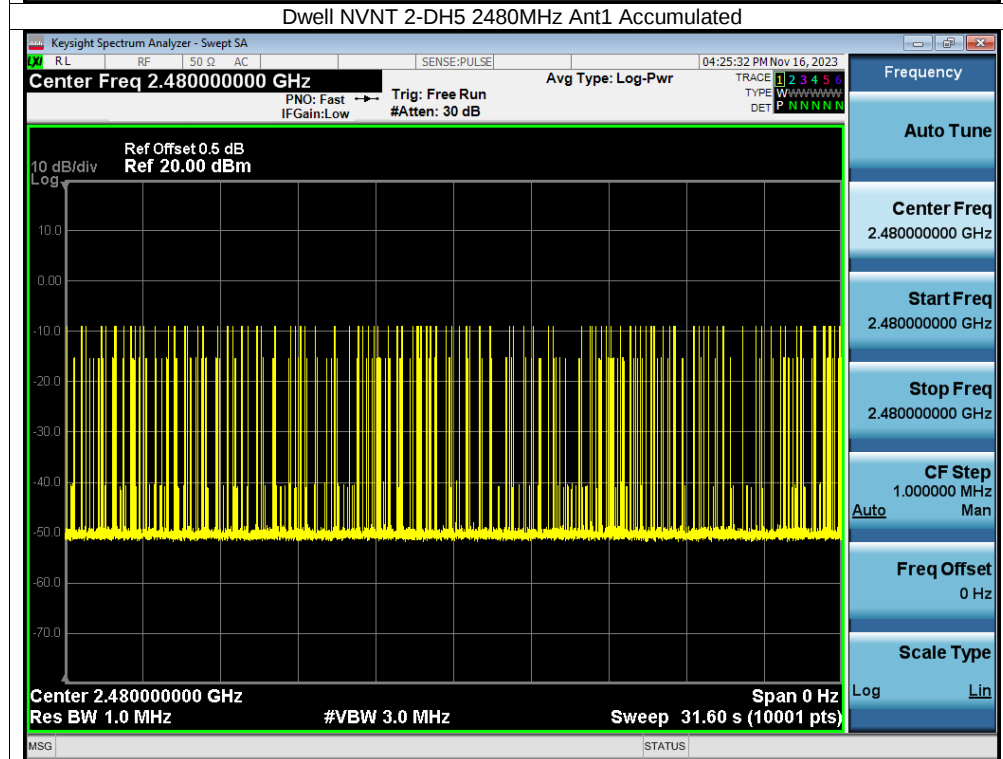
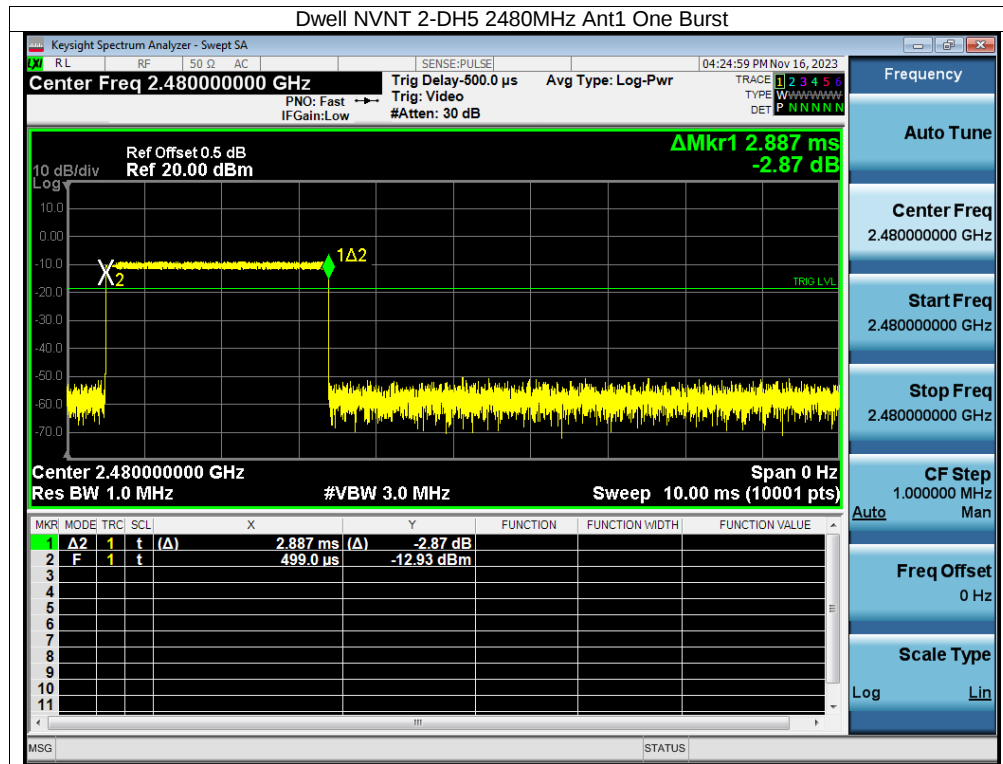
Stop Freq
2.441000000 GHz

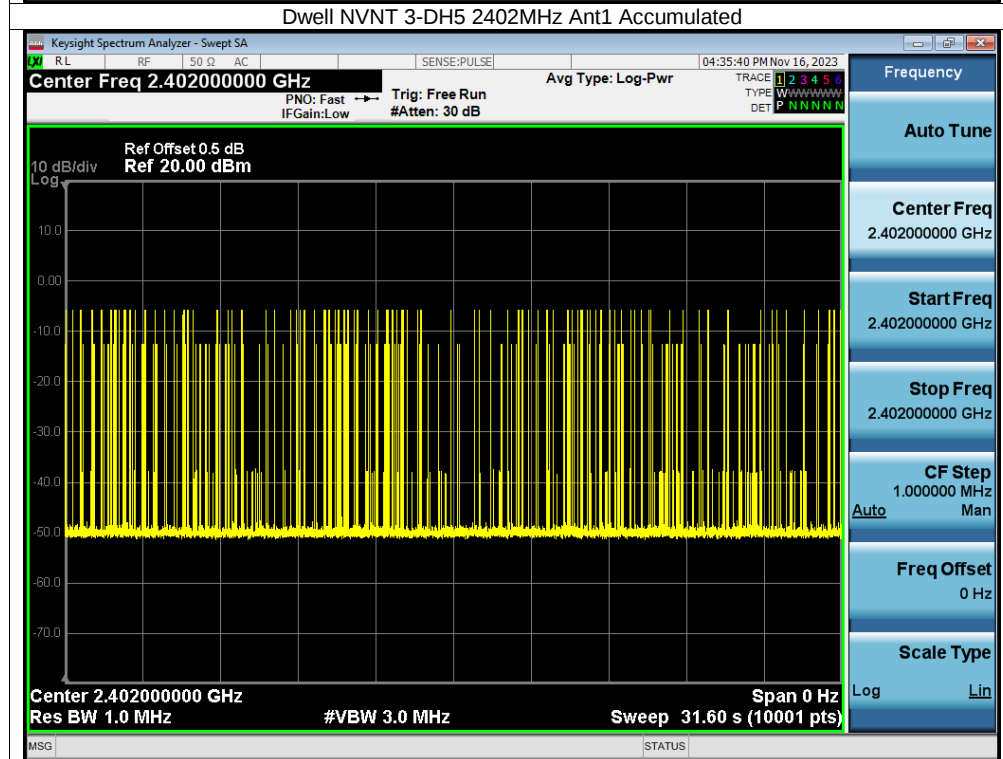
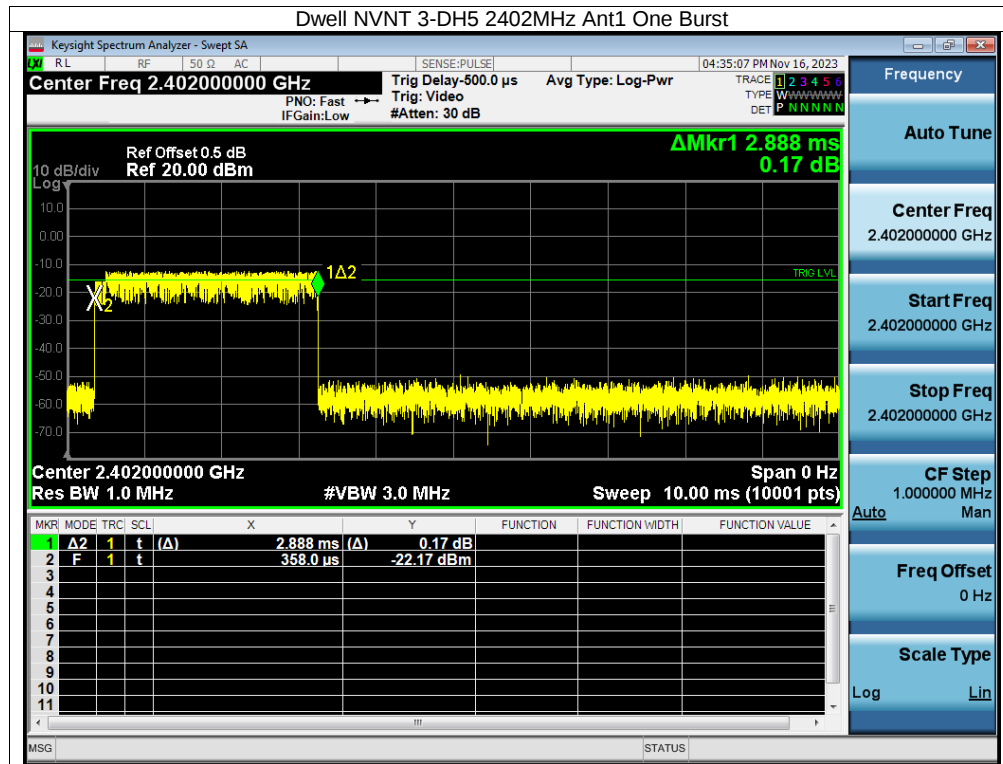
CF Step
1.000000 MHz

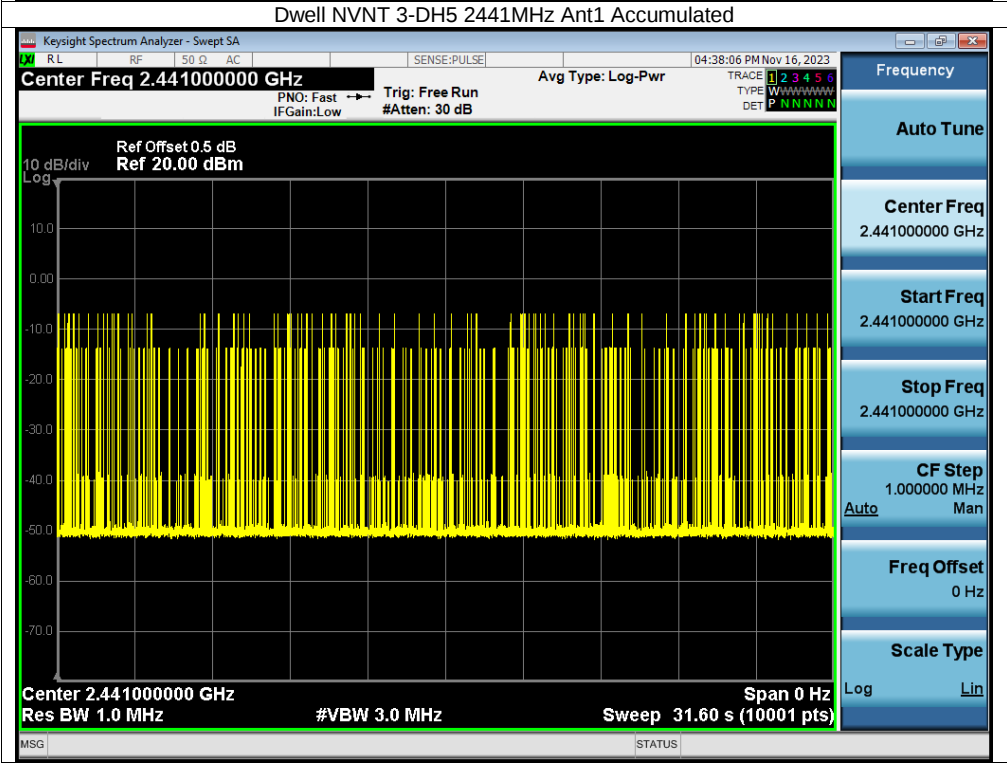
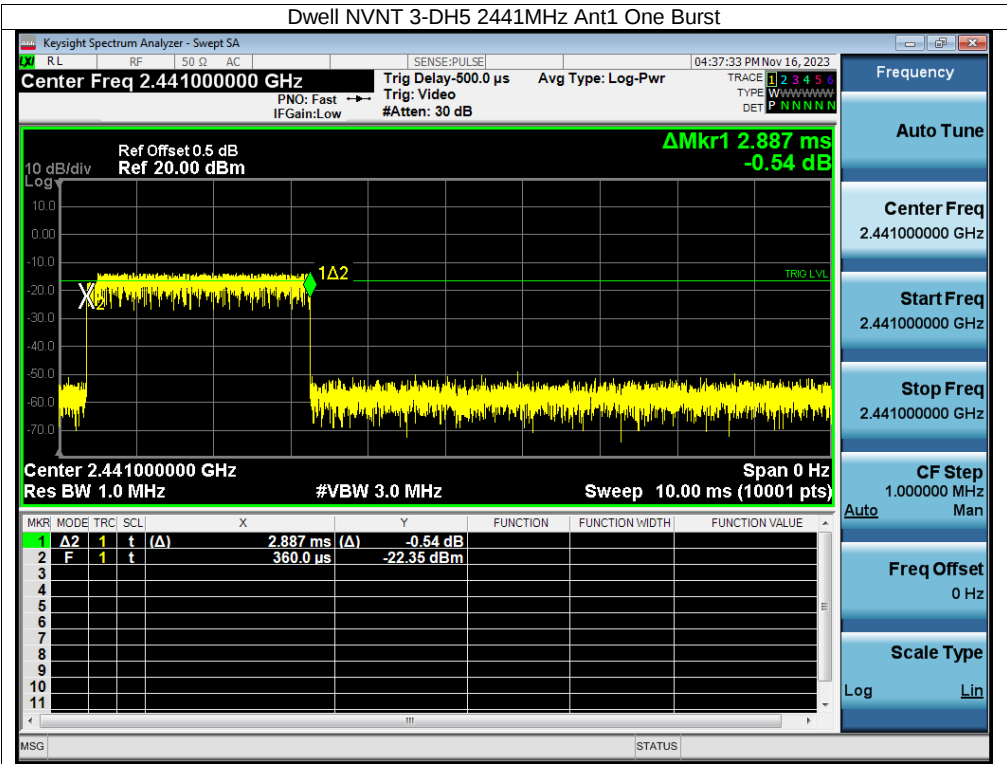
AutoMan

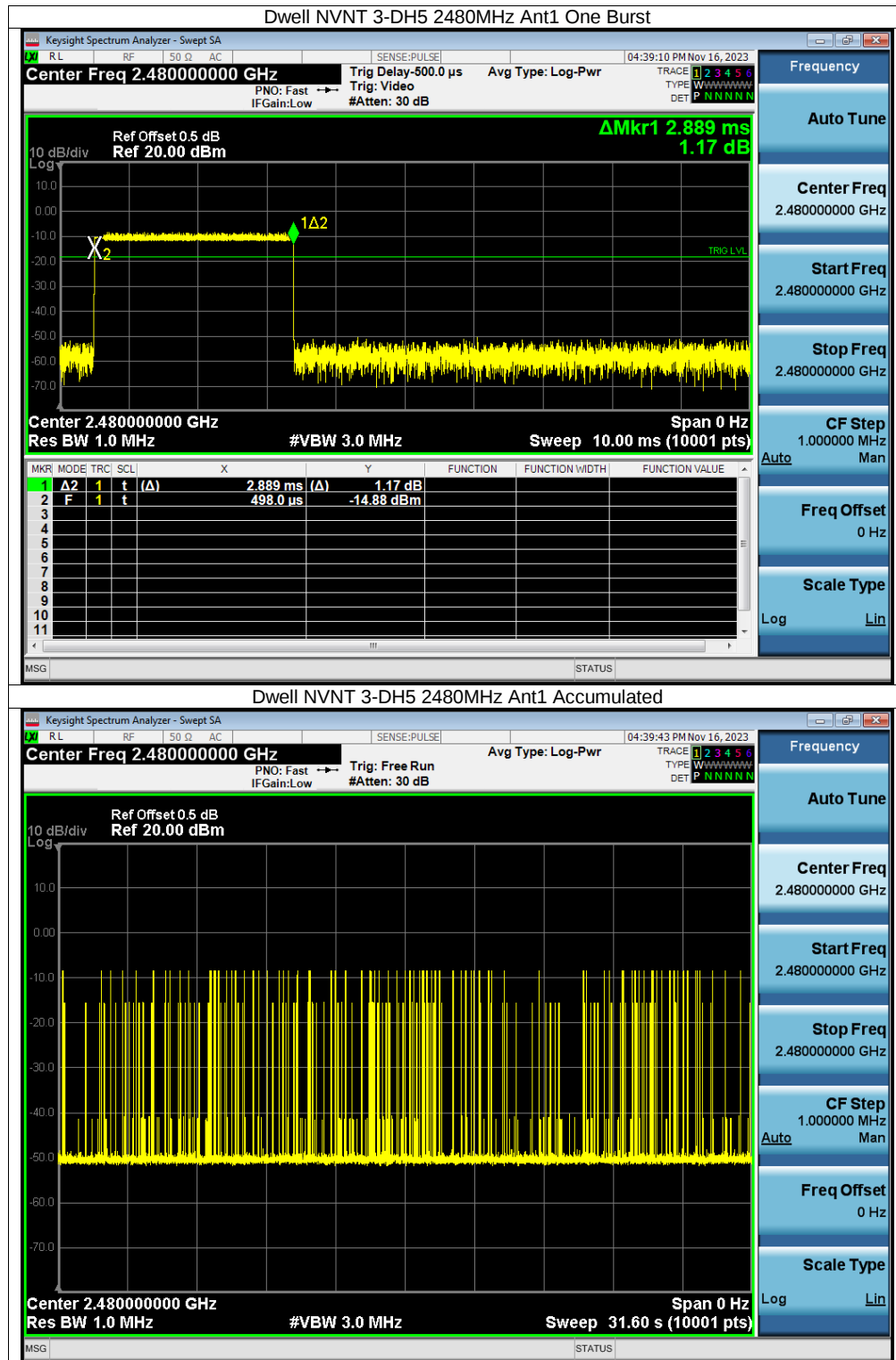
Freq Offset
0 Hz

Scale Type
LogLin



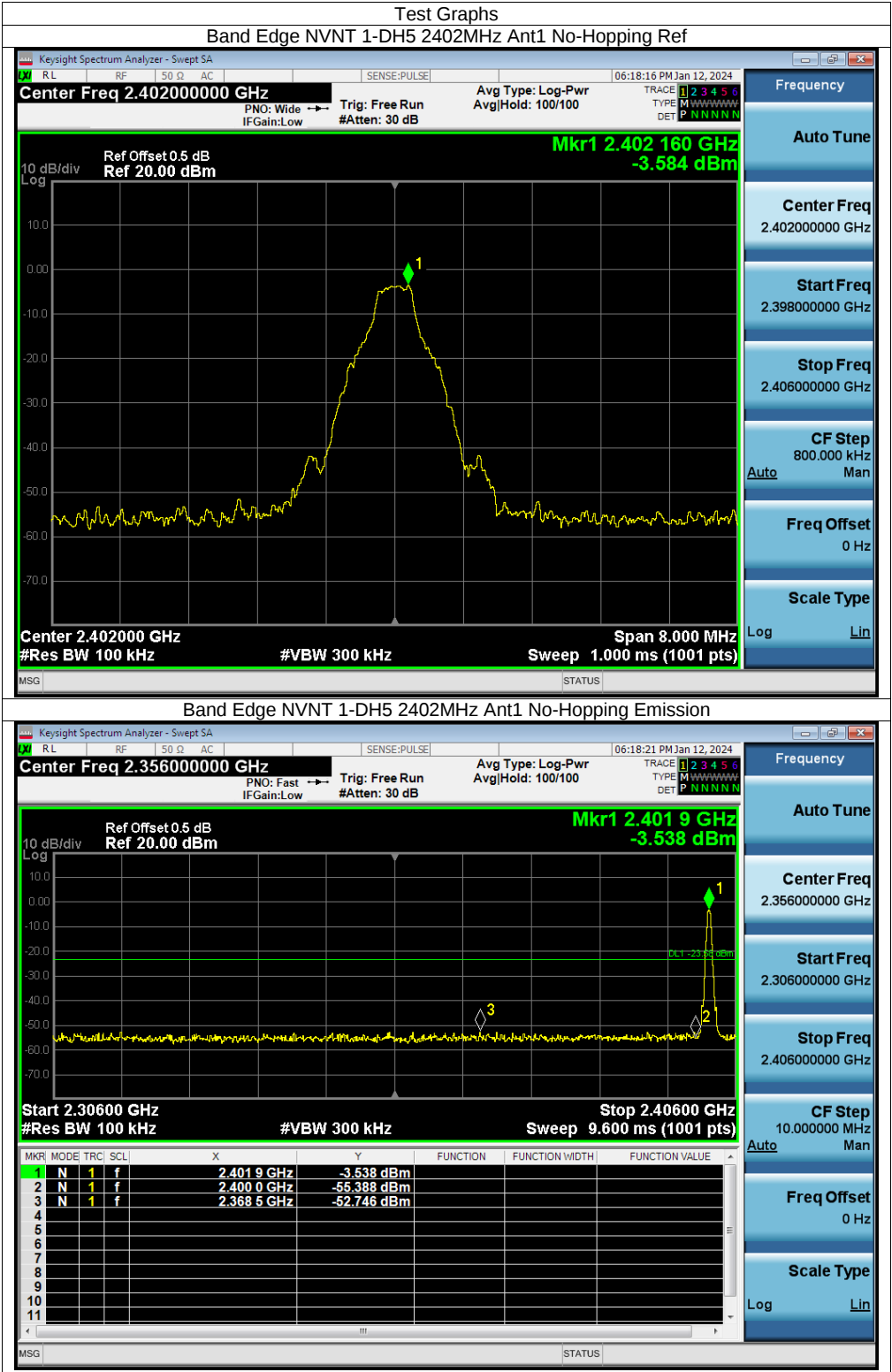


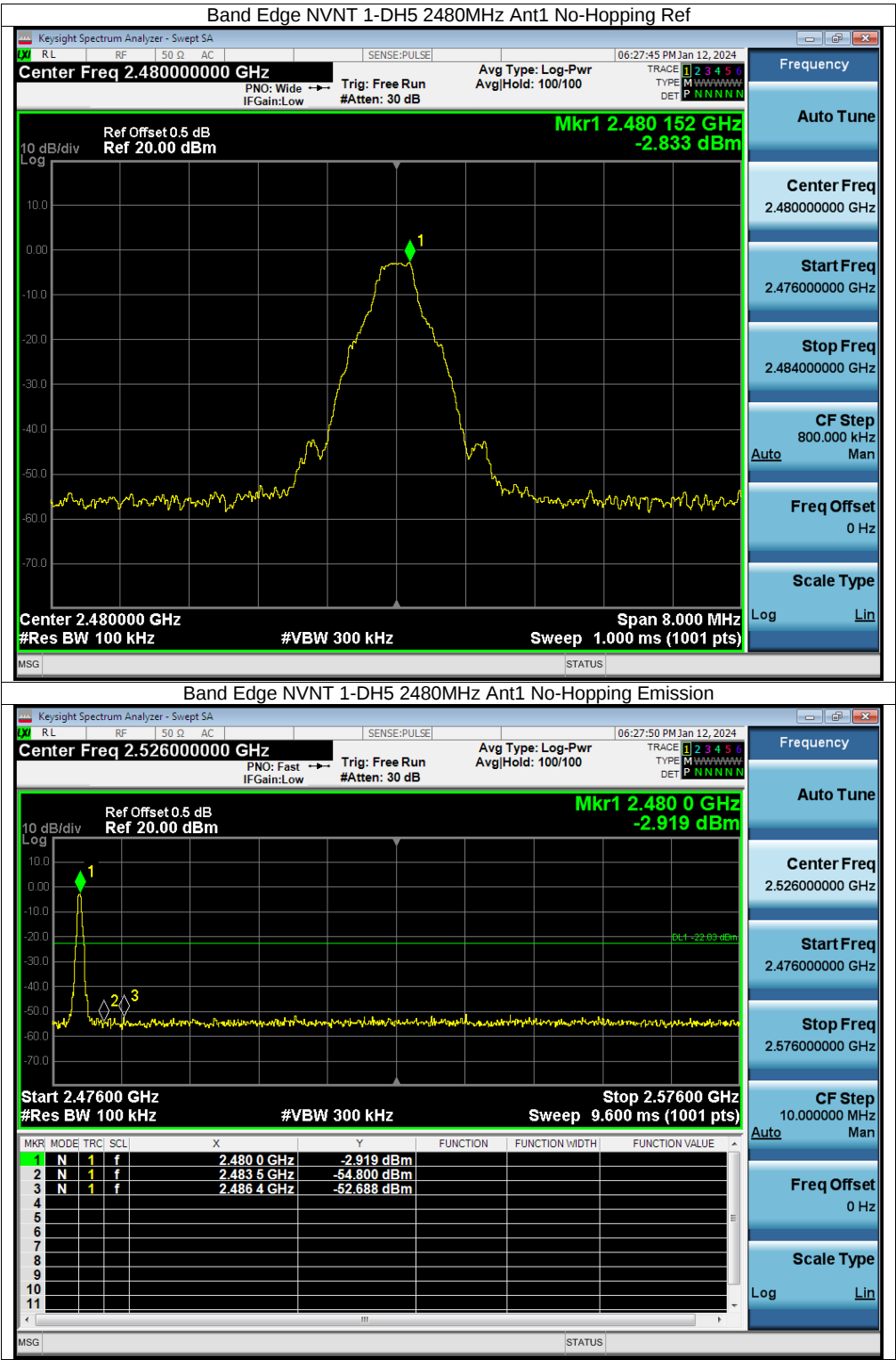




Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-49.166	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-49.857	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-45.43	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-41.098	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-45.092	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-45.249	-20	Pass





Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

KeySight Spectrum Analyzer - Swept SA

RLRF50QACSENSE:PULSE

06:27:50 PM Jan 12, 2024

Center Freq 2.526000000 GHz

PNO: Fast → Trig: Free Run

IFGain:Low #Atten: 30 dB

Avg Type: Log-Pwr

Avg/Hold: 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 0.5 dB

Ref 20.00 dBm

Mkr1 2.480 0 GHz

-2.919 dBm

10 dB/div

Log

Start 2.47600 GHz

#Res BW 100 kHz

#VBW 300 kHz

Stop 2.57600 GHz

Sweep 9.600 ms (1001 pts)

MSG

STATUS

Frequency

Auto Tune

Center Freq

2.526000000 GHz

Start Freq

2.476000000 GHz

Stop Freq

2.576000000 GHz

CF Step

10.000000 MHz

Auto

Man

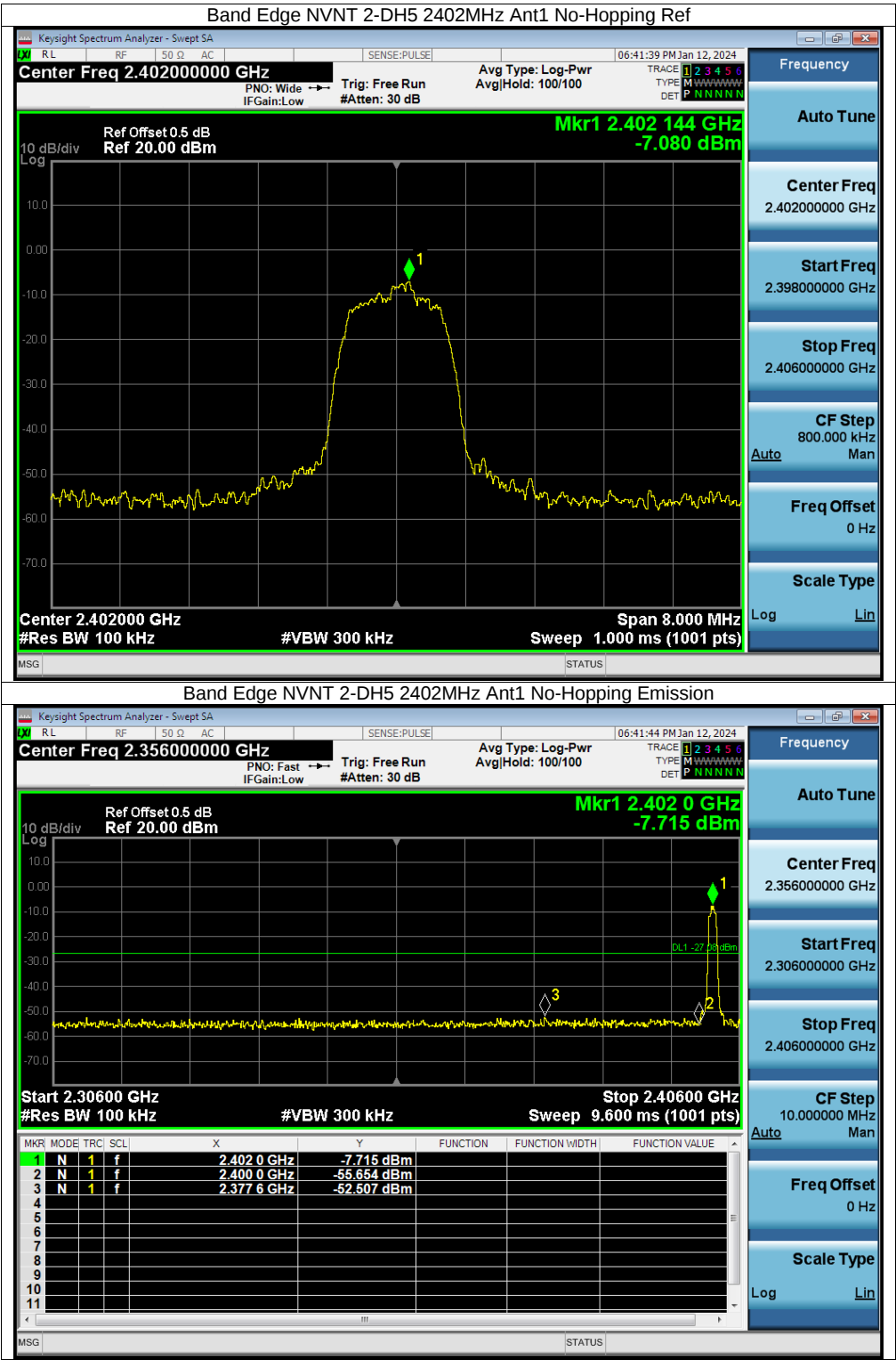
Freq Offset

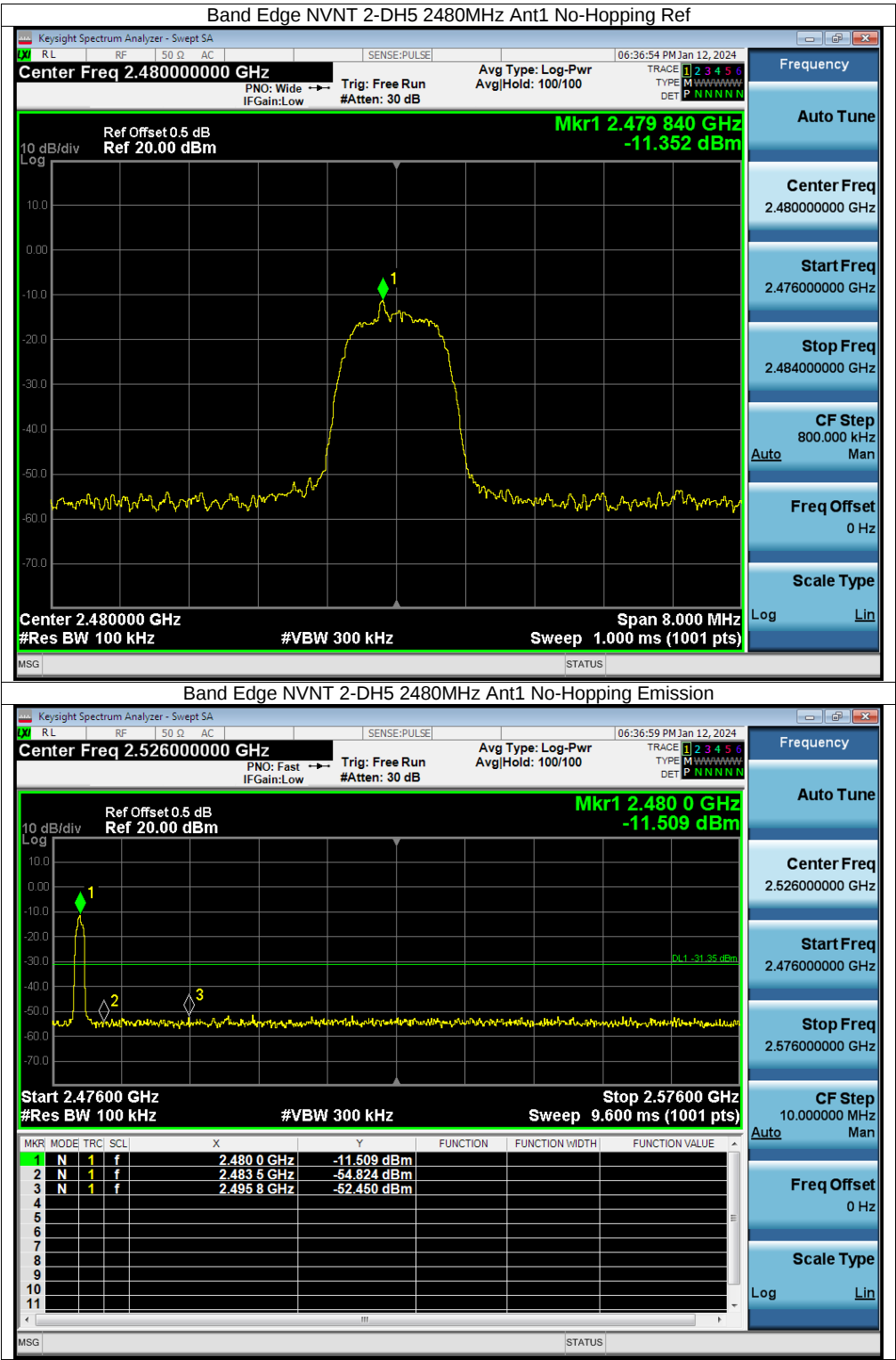
0 Hz

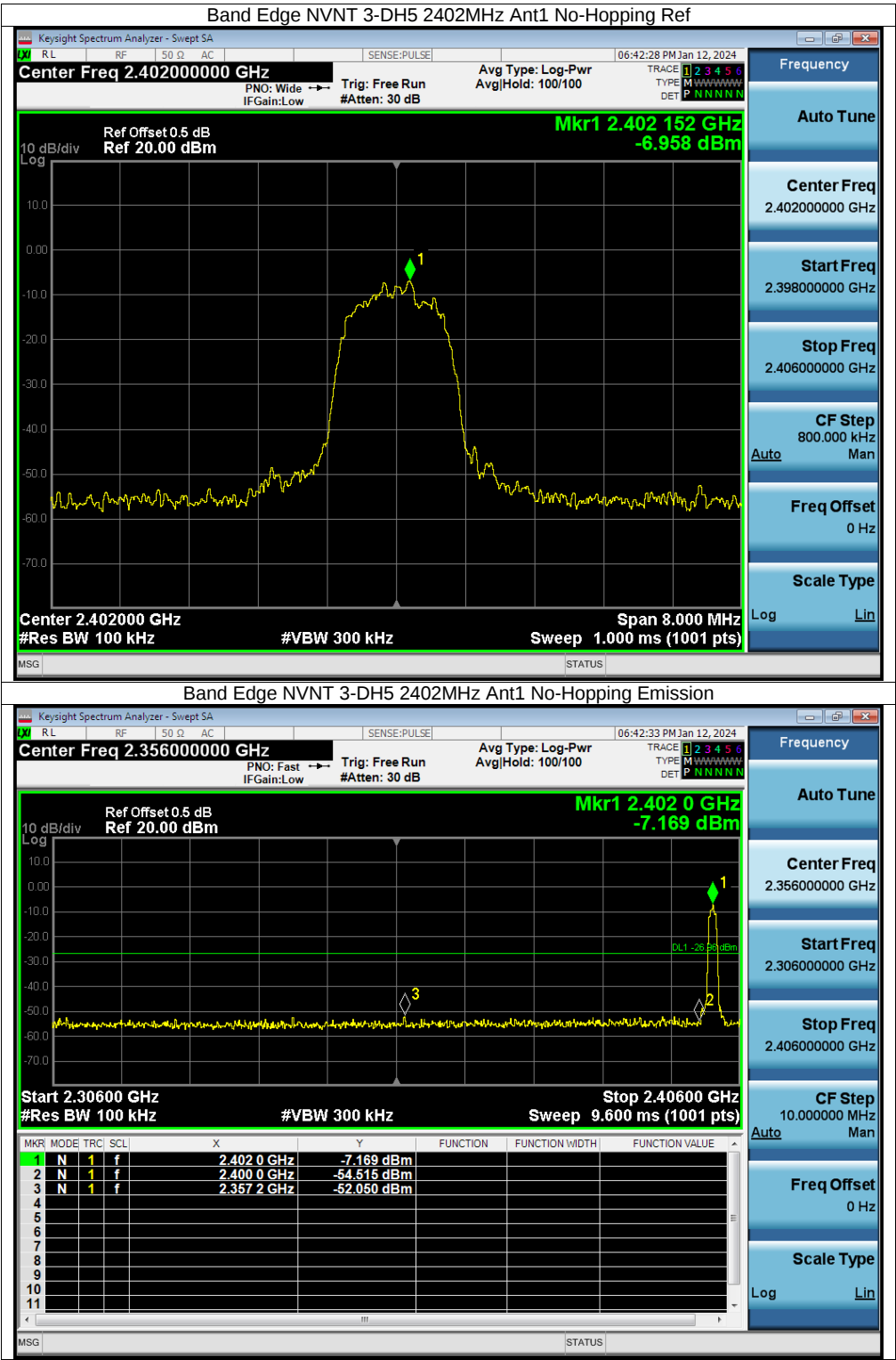
Scale Type

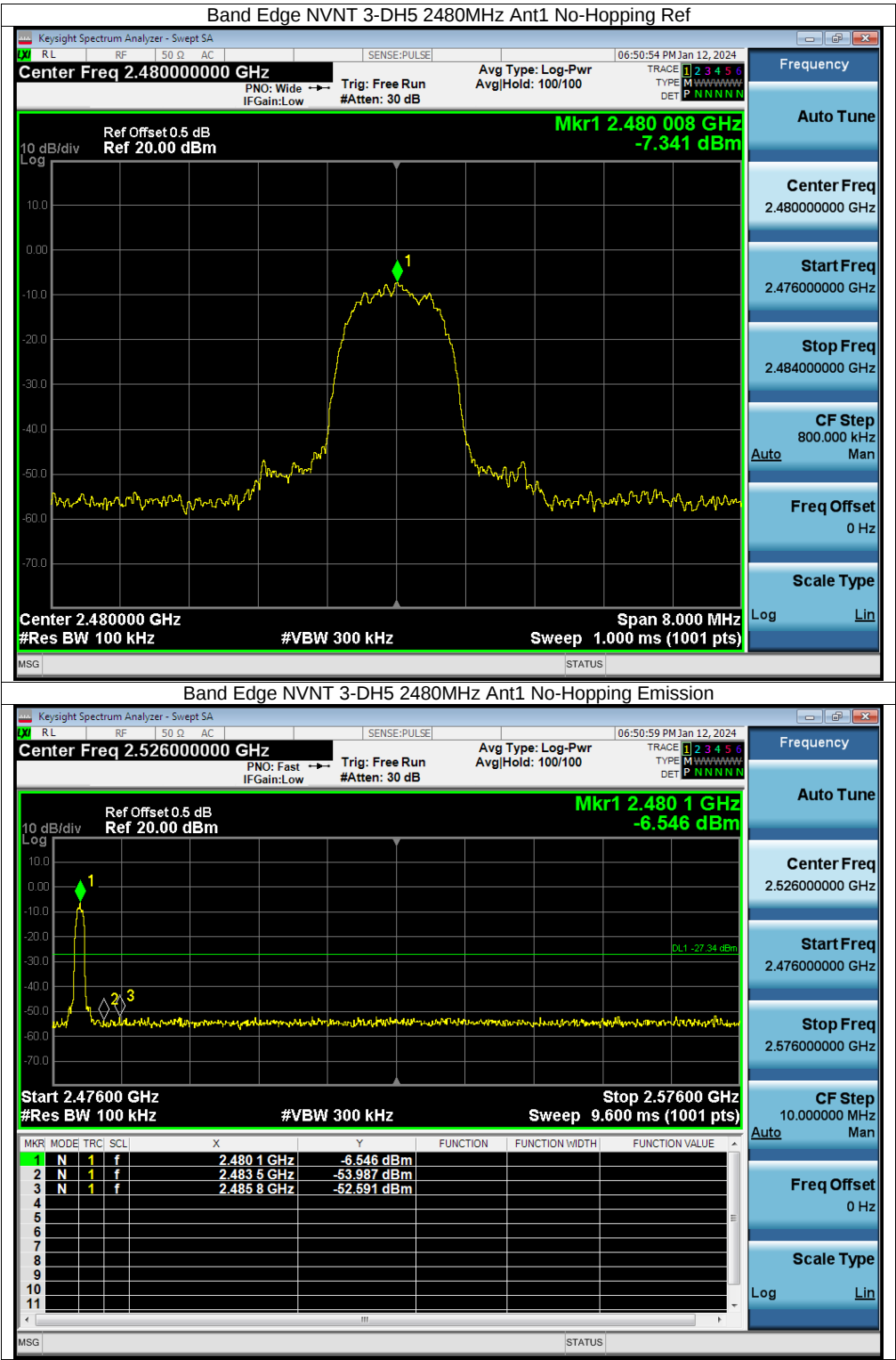
Log

Lin



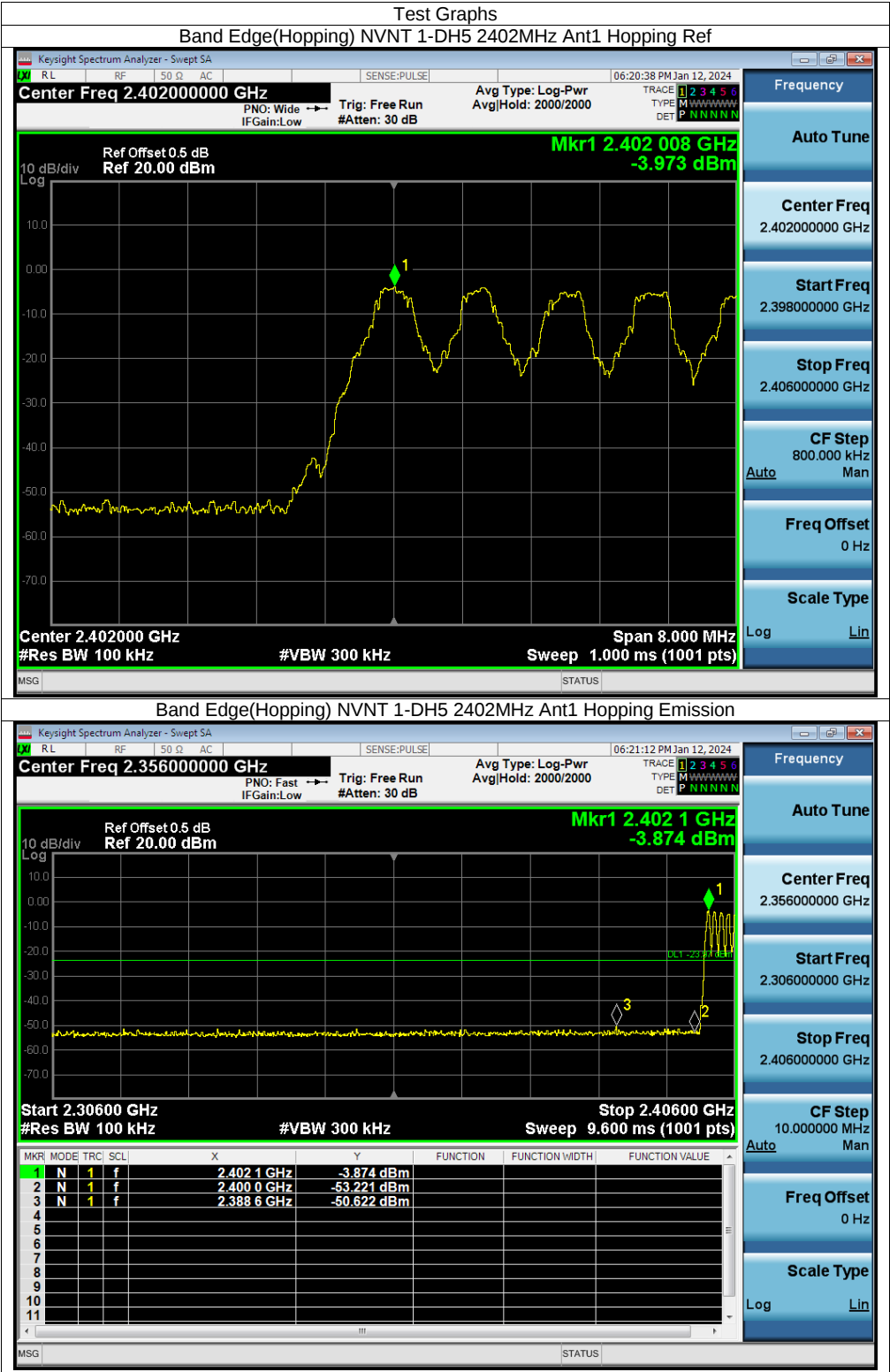




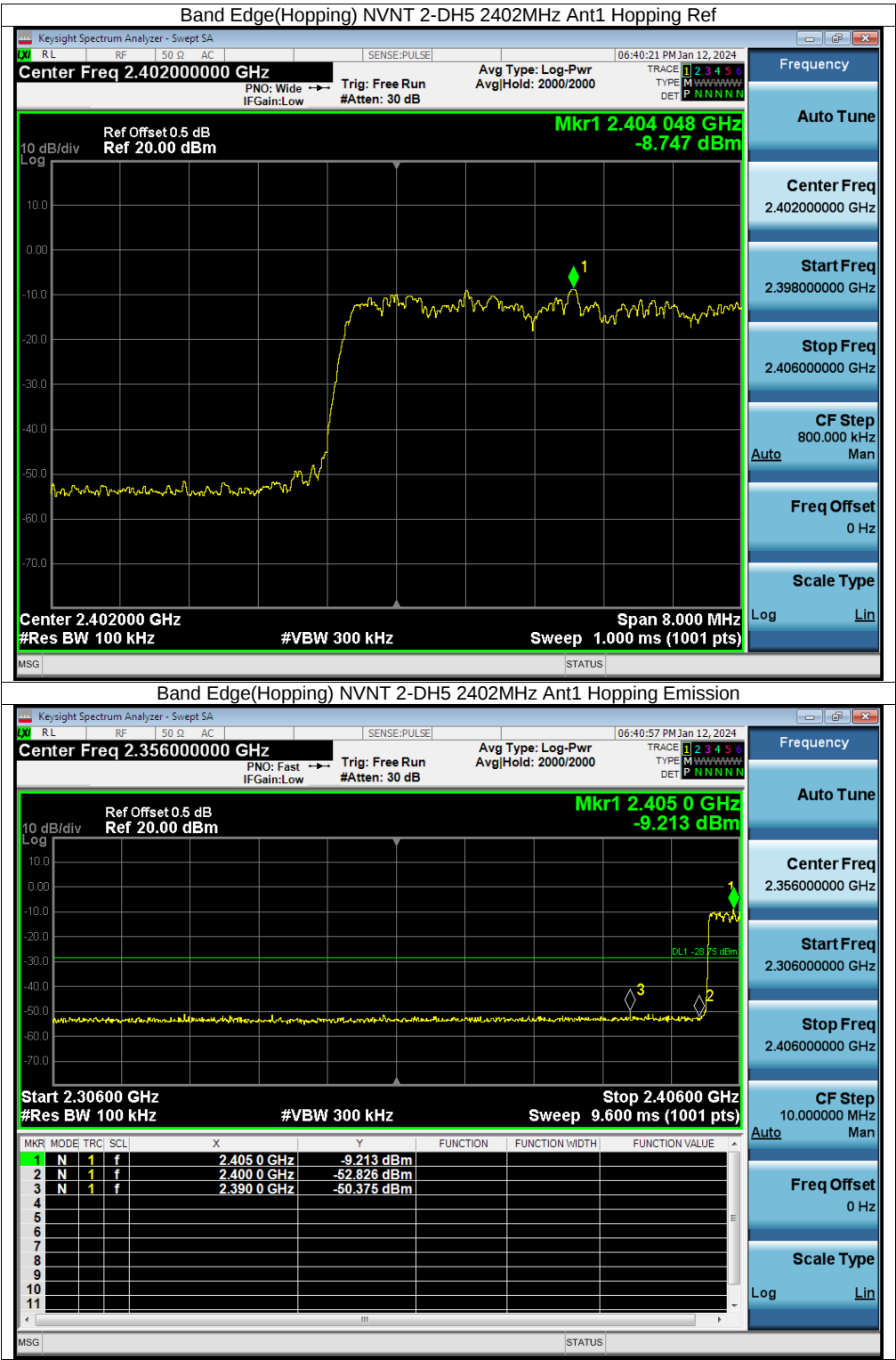


Band Edge(Hopping)

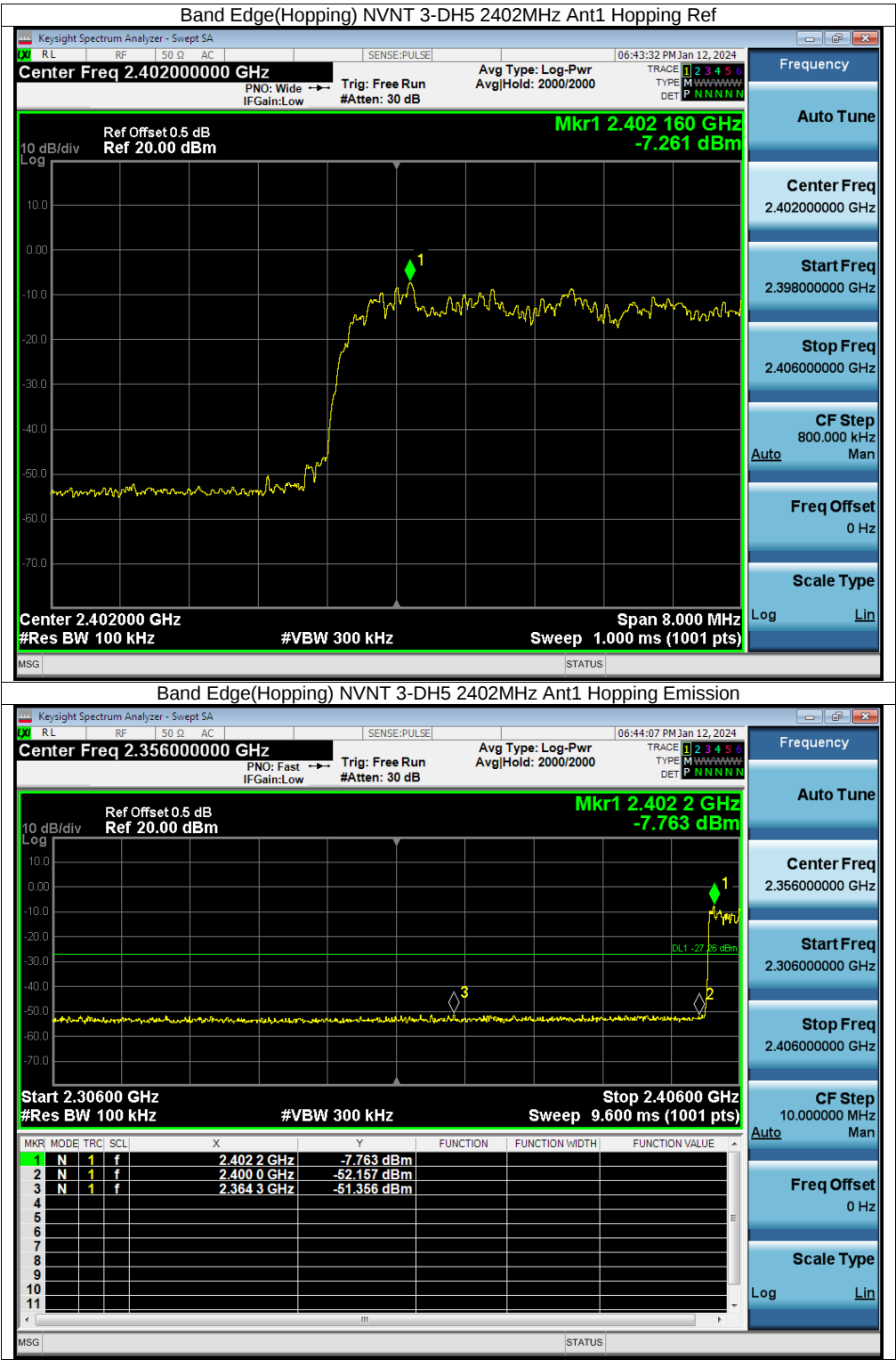
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-46.647	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-43.866	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-41.623	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-39.004	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-44.099	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-46.318	-20	Pass







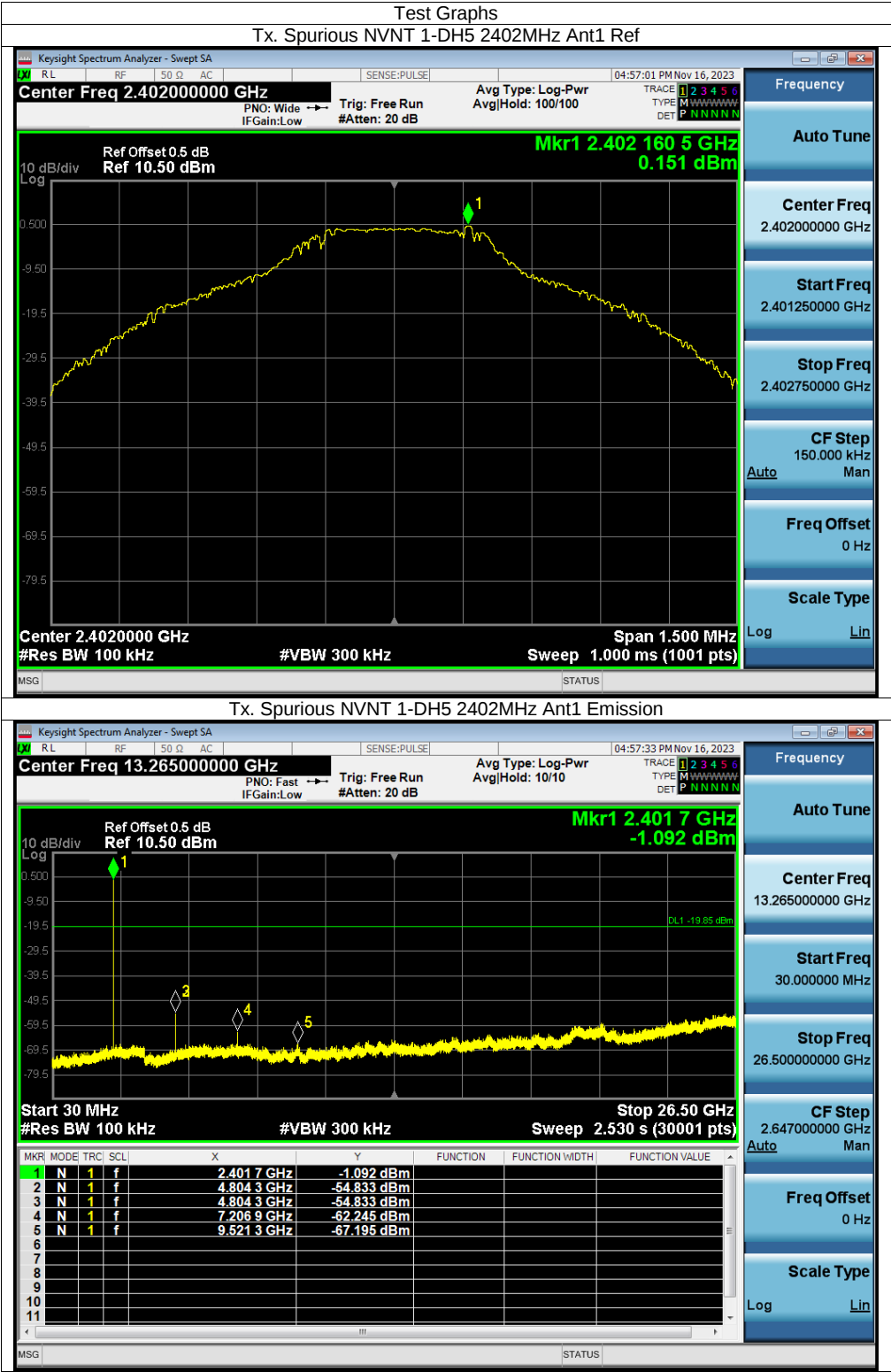


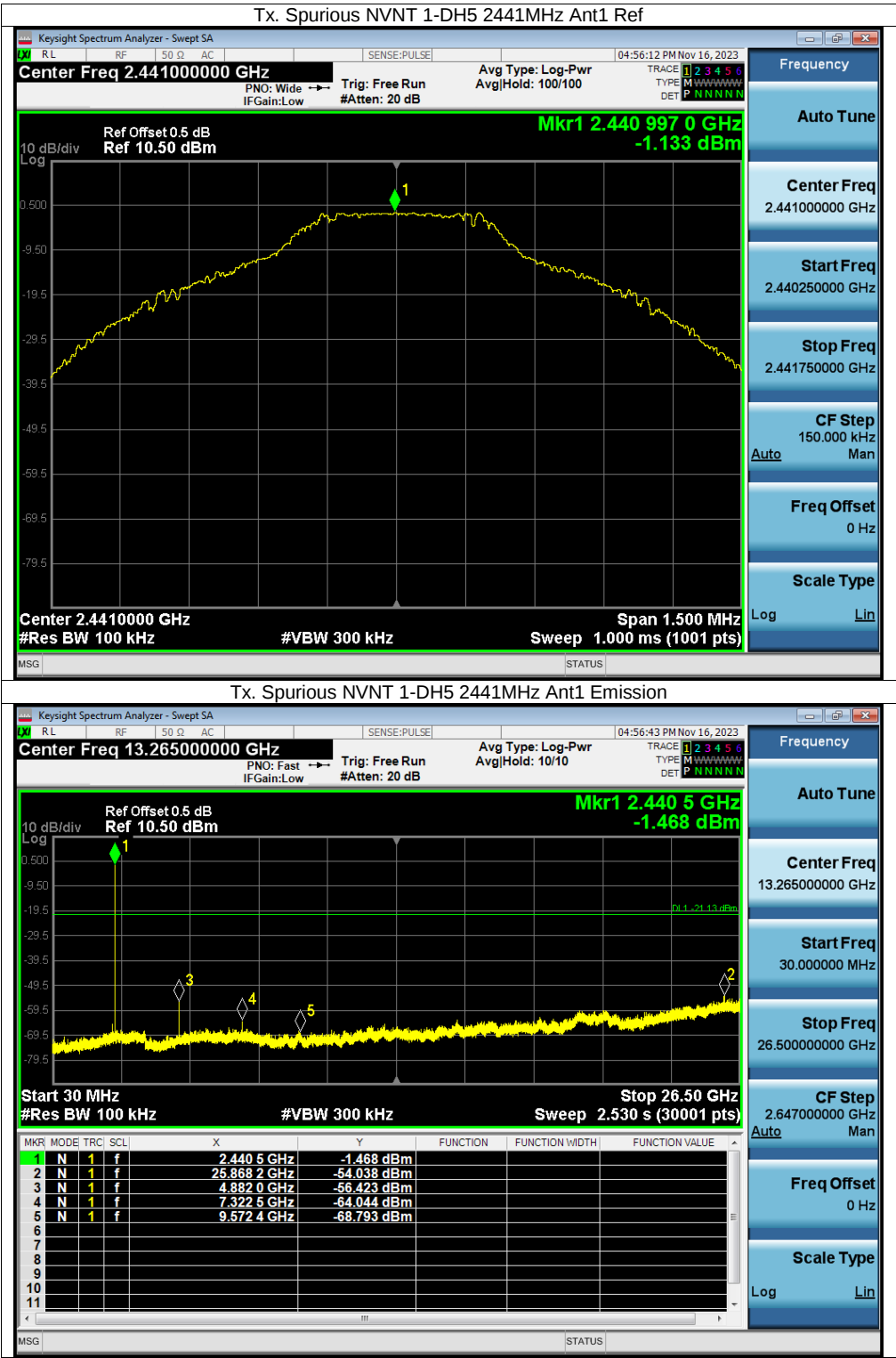


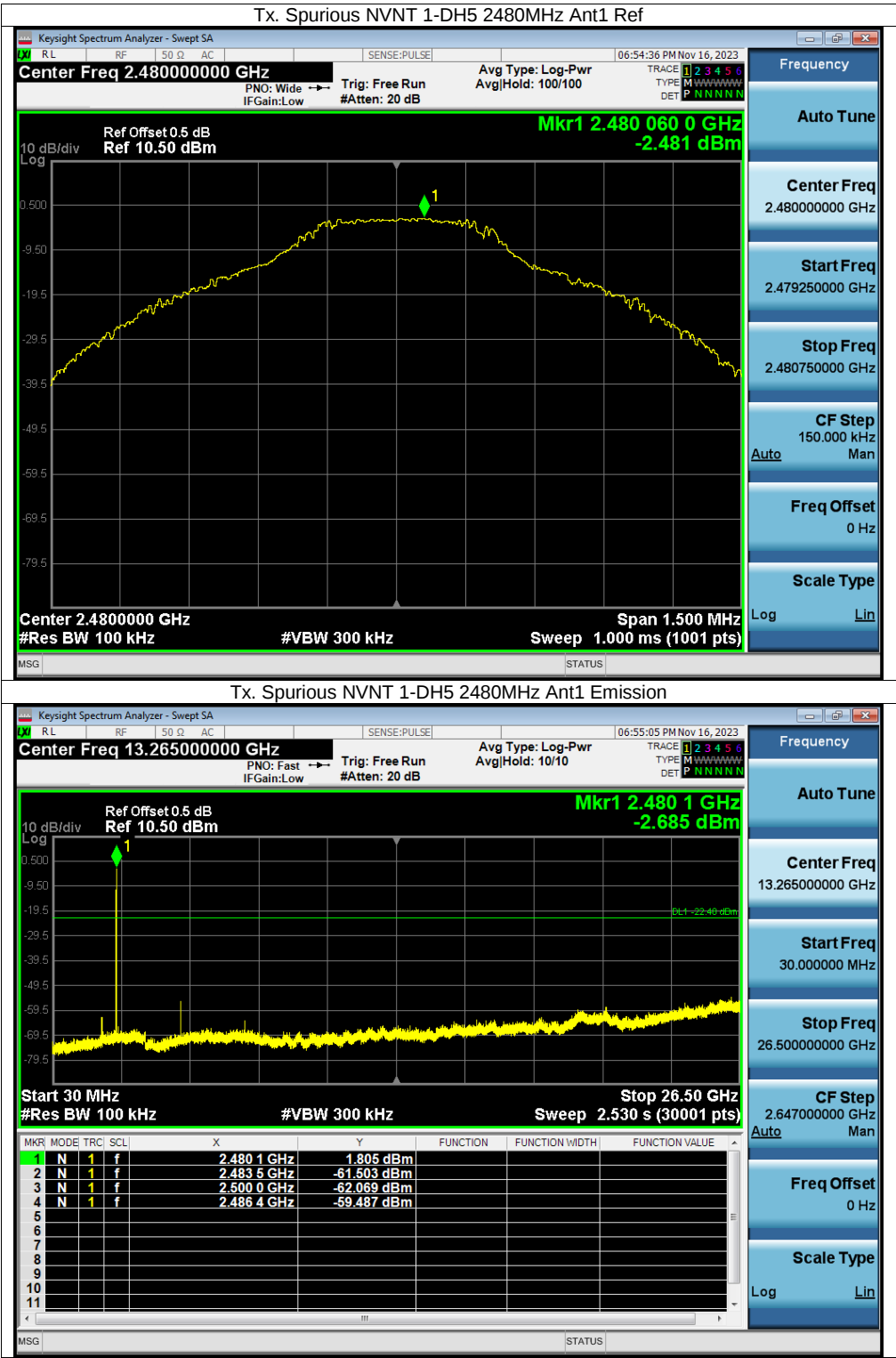


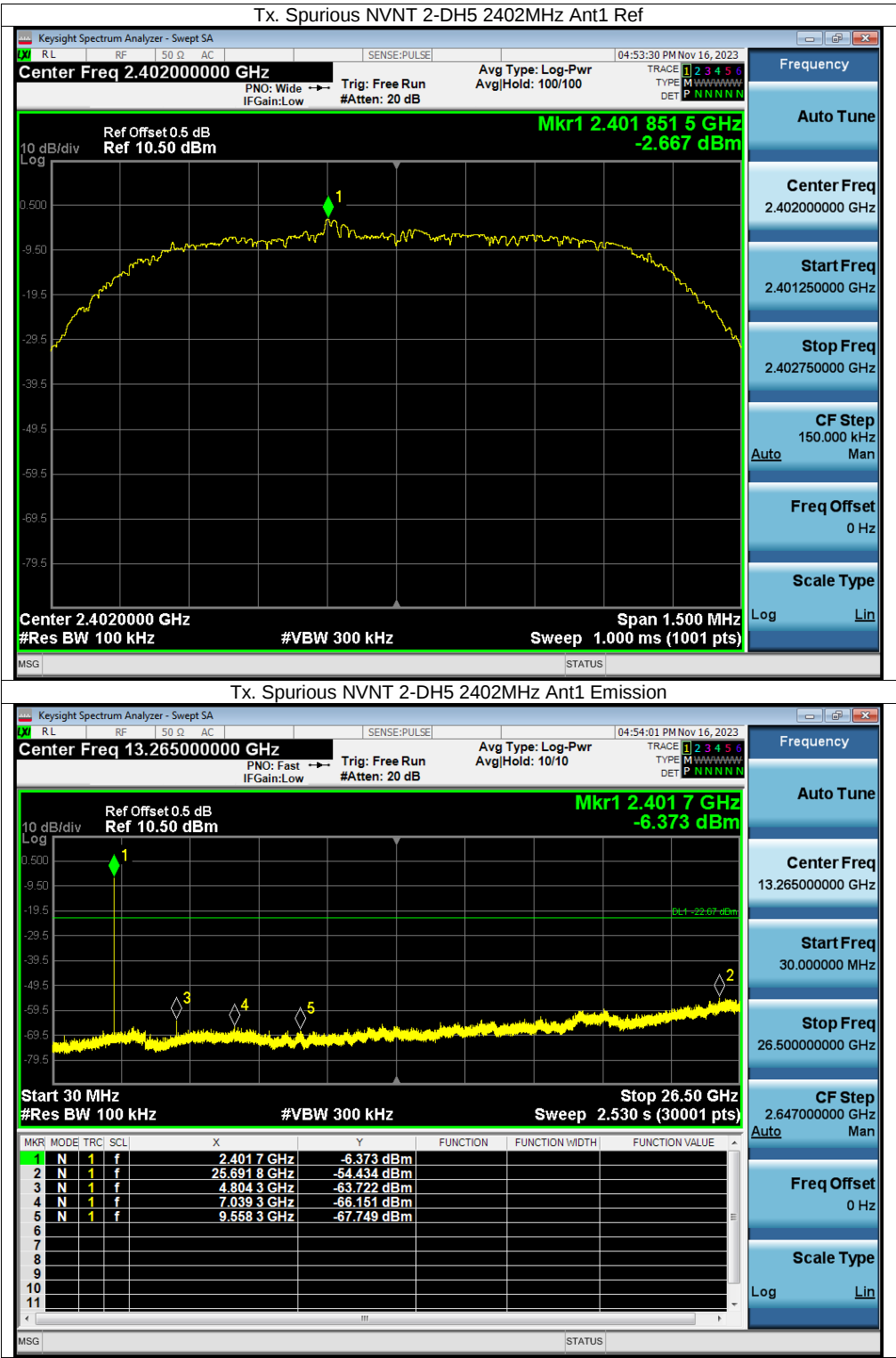
Conducted RF Spurious Emission

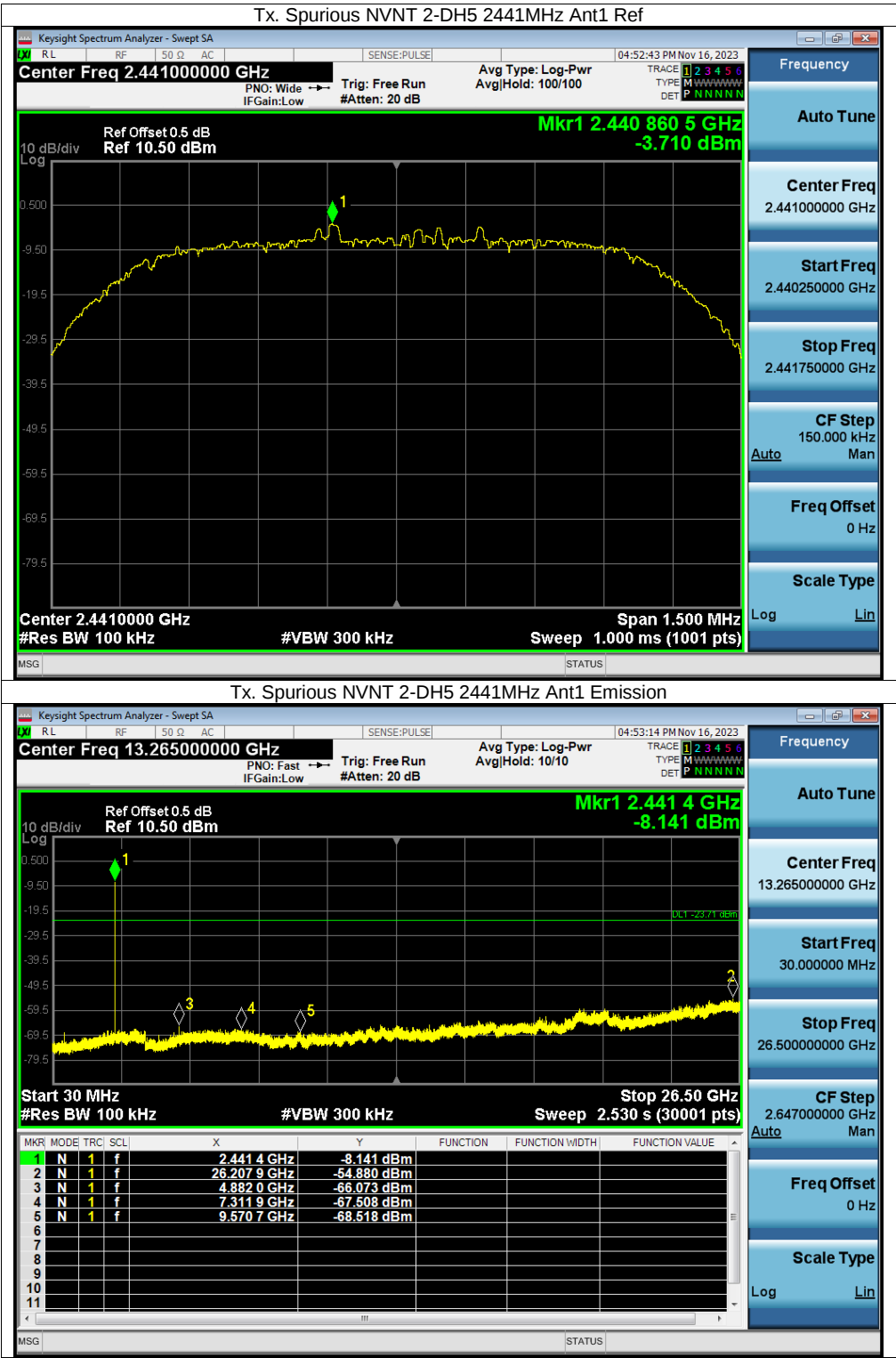
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-54.98	-20	Pass
NVNT	1-DH5	2441	Ant1	-52.9	-20	Pass
NVNT	1-DH5	2480	Ant1	-51.93	-20	Pass
NVNT	2-DH5	2402	Ant1	-51.76	-20	Pass
NVNT	2-DH5	2441	Ant1	-51.16	-20	Pass
NVNT	2-DH5	2480	Ant1	-49.52	-20	Pass
NVNT	3-DH5	2402	Ant1	-47.79	-20	Pass
NVNT	3-DH5	2441	Ant1	-51.13	-20	Pass
NVNT	3-DH5	2480	Ant1	-48.51	-20	Pass

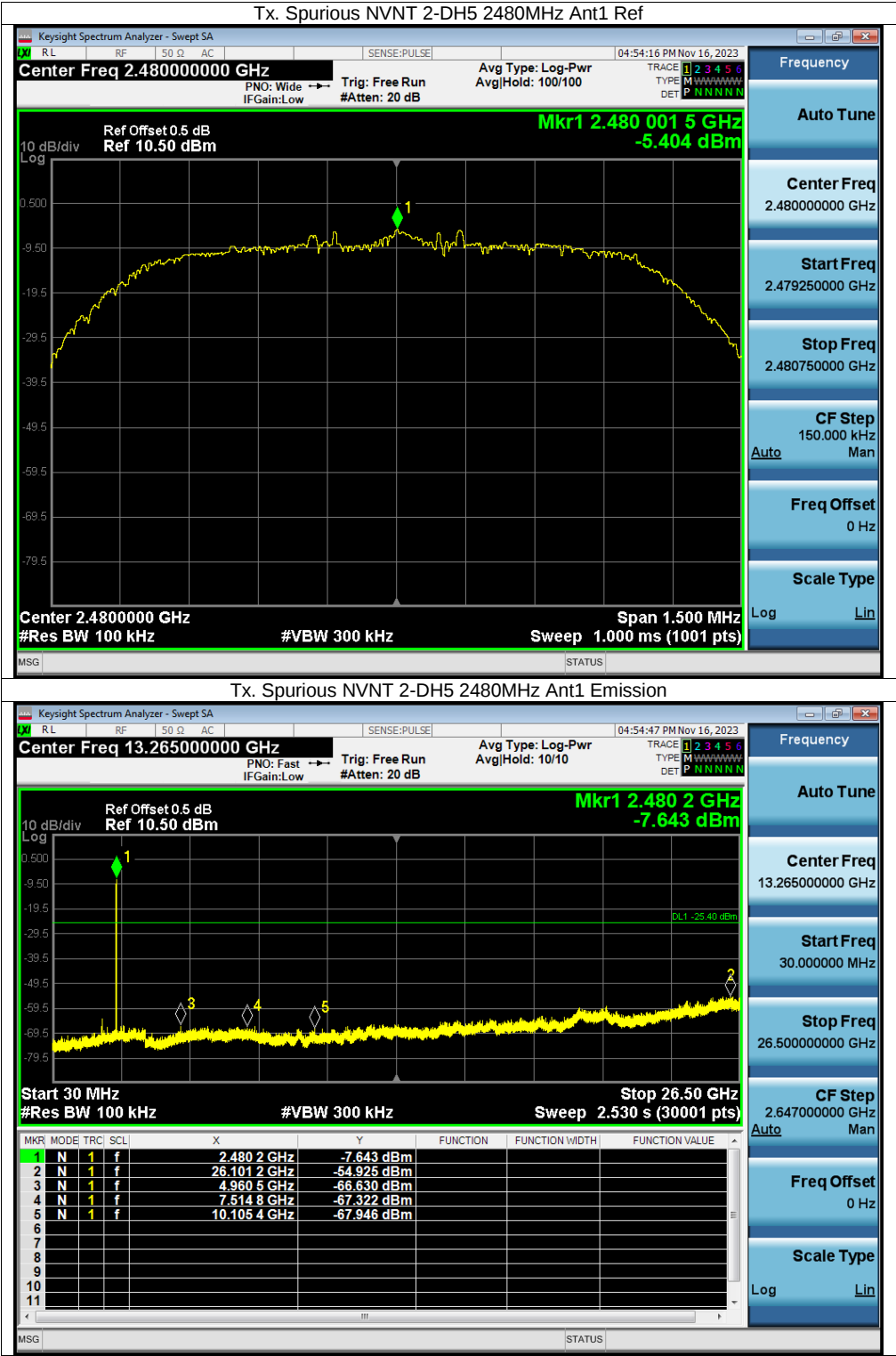


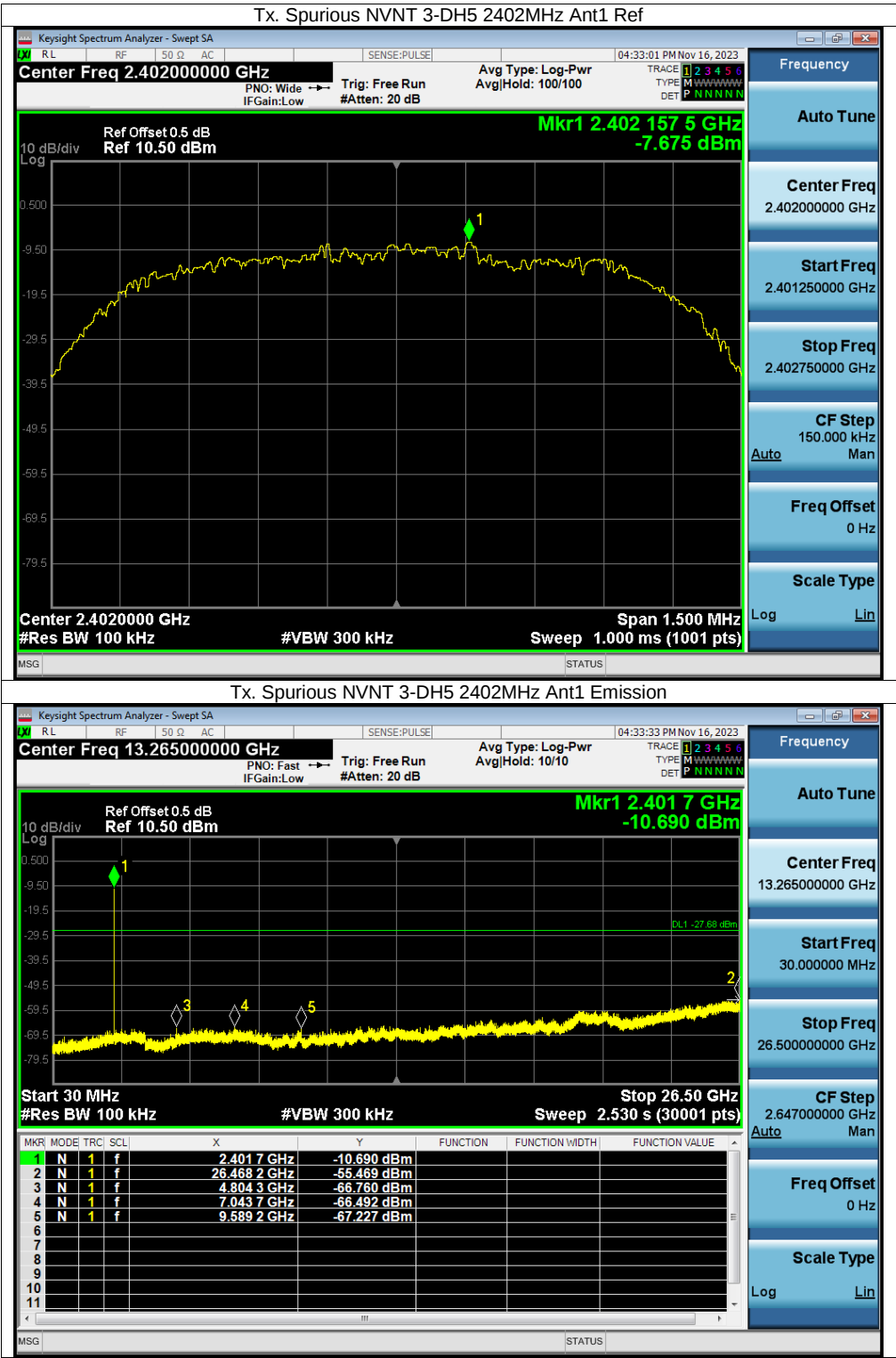


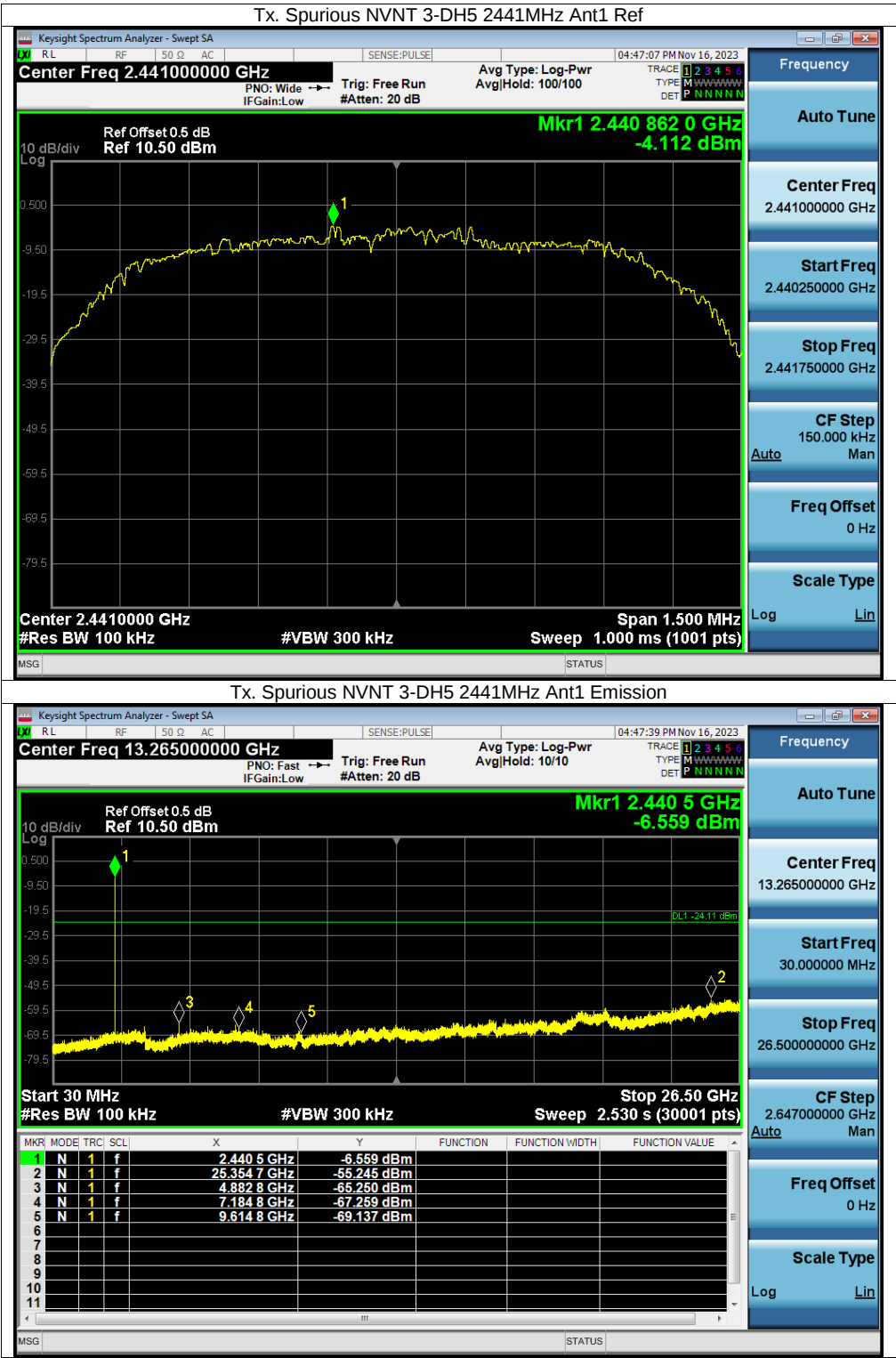


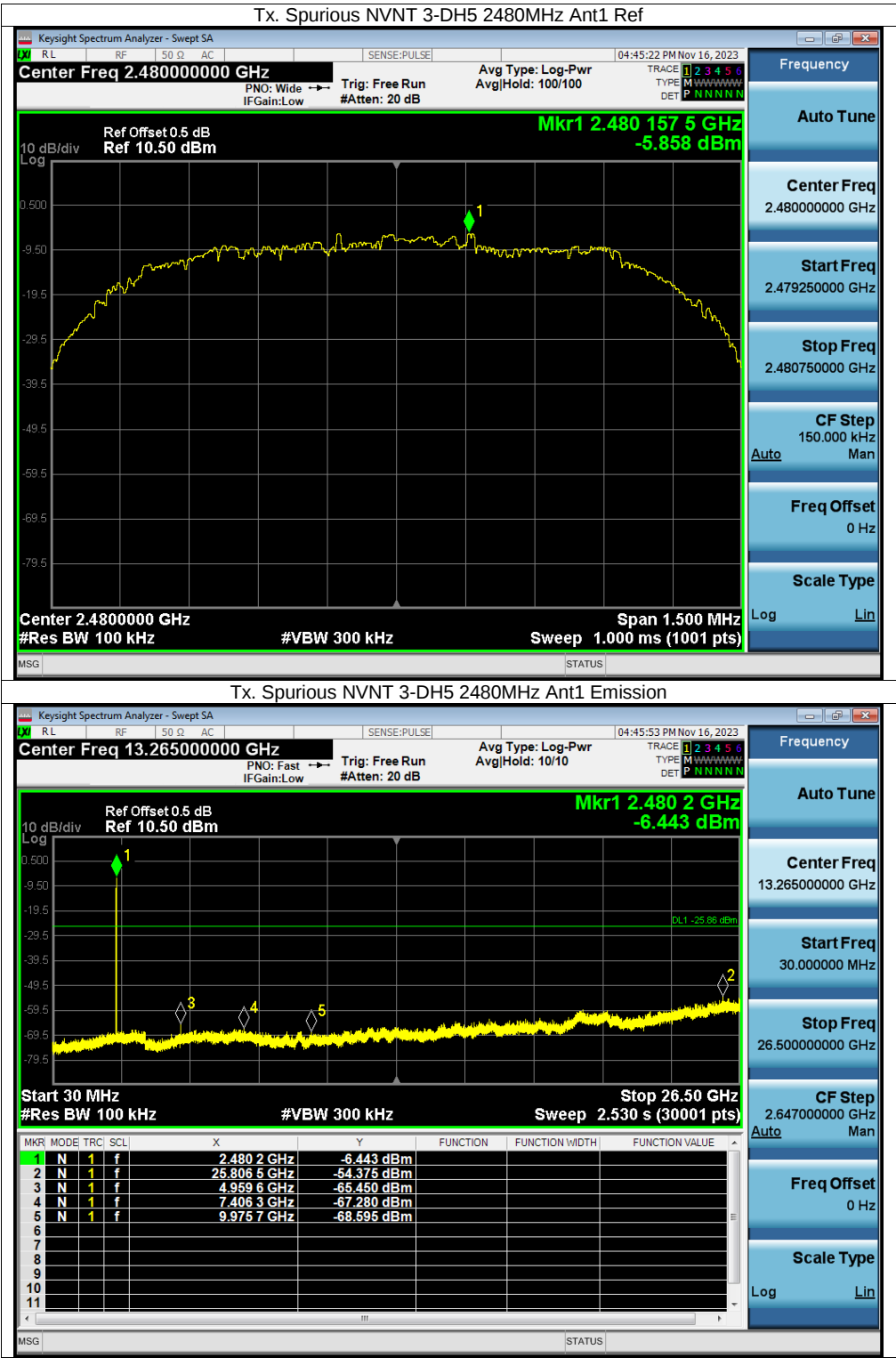










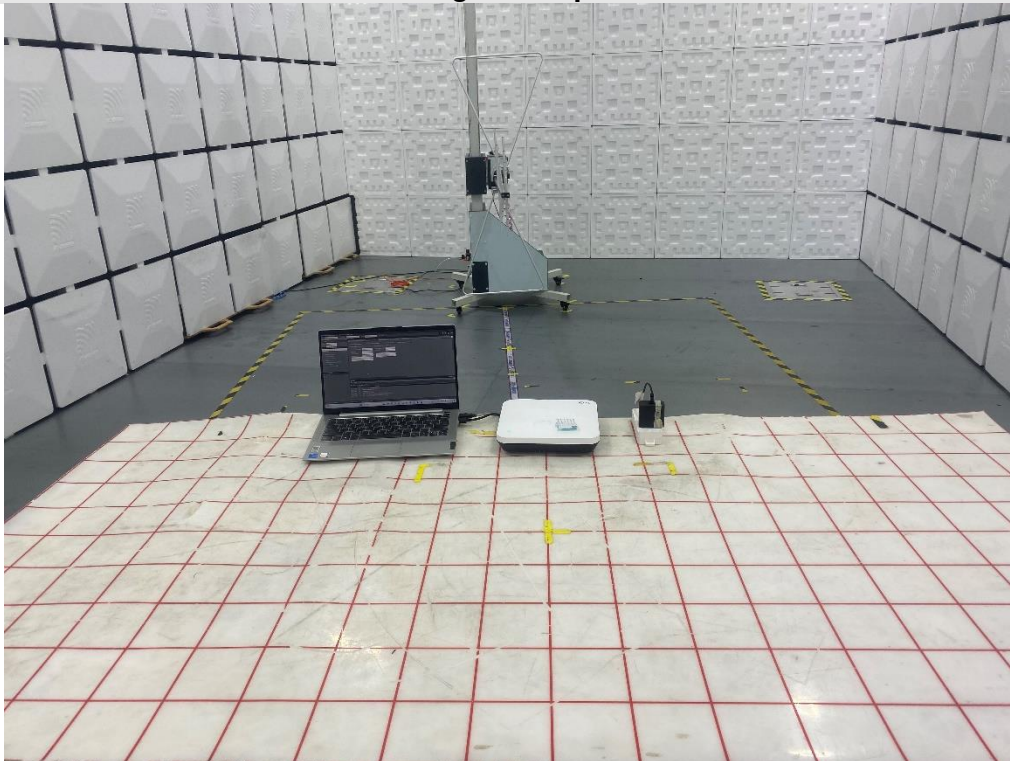


APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

AC Power Line Conducted Emission



Radiated Band edge and Spurious Emission





END OF REPORT