Table of Contents

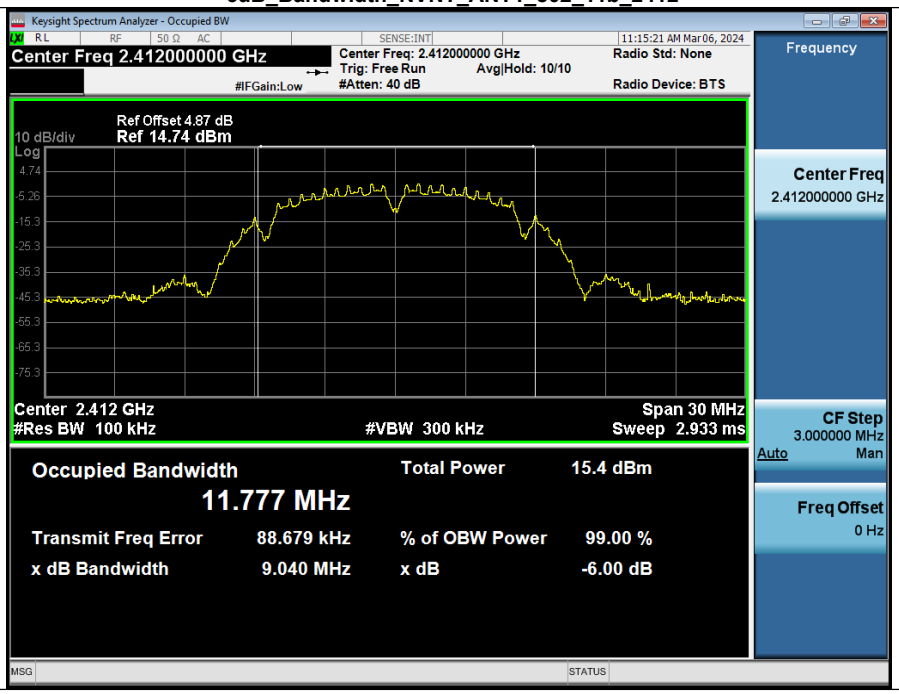
1. -6dB Bandwidth 2
2. 99% Occupied Bandwidth 9
3. Duty Cycle 16
5. Power Spectral Density 23
6. Bandedge 30
7. Spurious Emission 38

FCC ID：2BFJJ-IP-GK08A
FCC_2.4G_WIFI (Part15.247) Test Data

1. -6dB Bandwidth

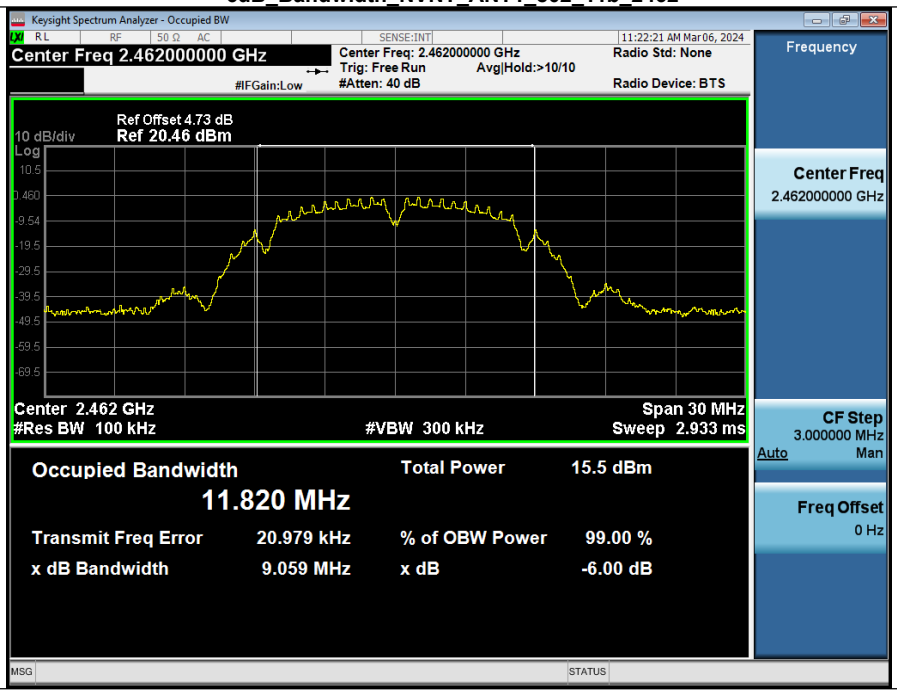
Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	9.04	500	Pass
NVNT	ANT1	802.11b	2437.00	8.61	500	Pass
NVNT	ANT1	802.11b	2462.00	9.06	500	Pass
NVNT	ANT1	802.11g	2412.00	16.12	500	Pass
NVNT	ANT1	802.11g	2437.00	16.34	500	Pass
NVNT	ANT1	802.11g	2462.00	16.34	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.06	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.00	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.28	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	35.94	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	35.81	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	35.78	500	Pass

-6dB_Bandwidth_NVNT_ANT1_802_11b_2412

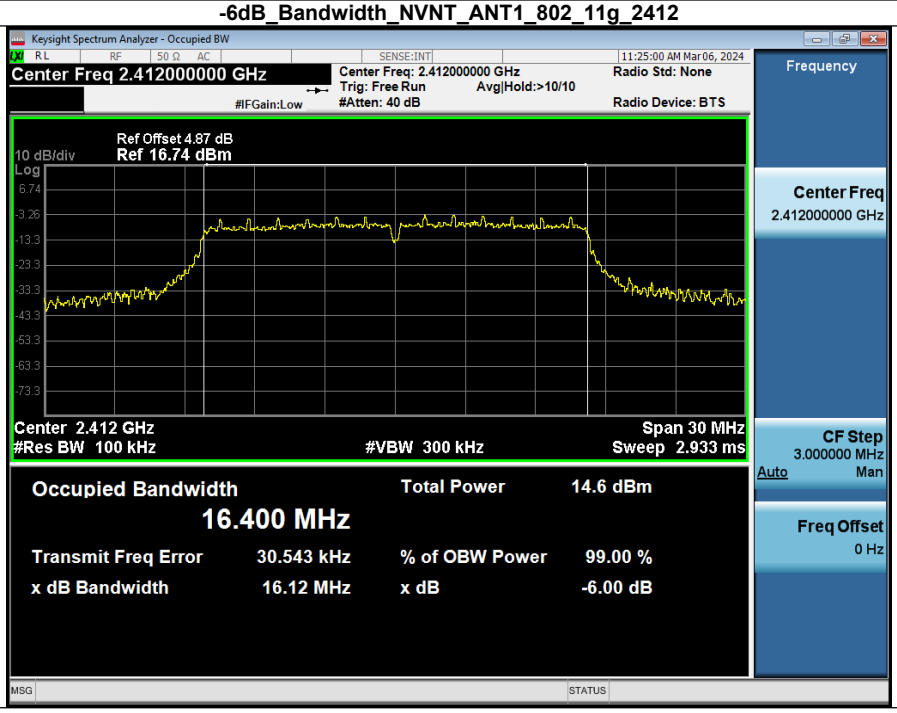


-6dB_Bandwidth_NVNT_ANT1_802_11b_2437

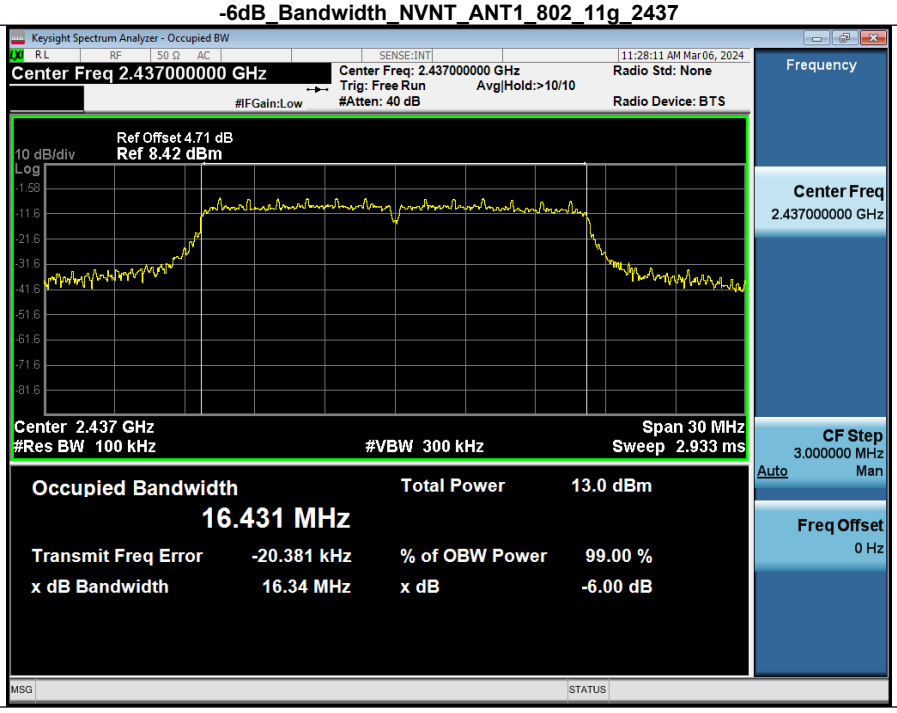
-6dB_Bandwidth_NVNT_ANT1_802_11b_2462



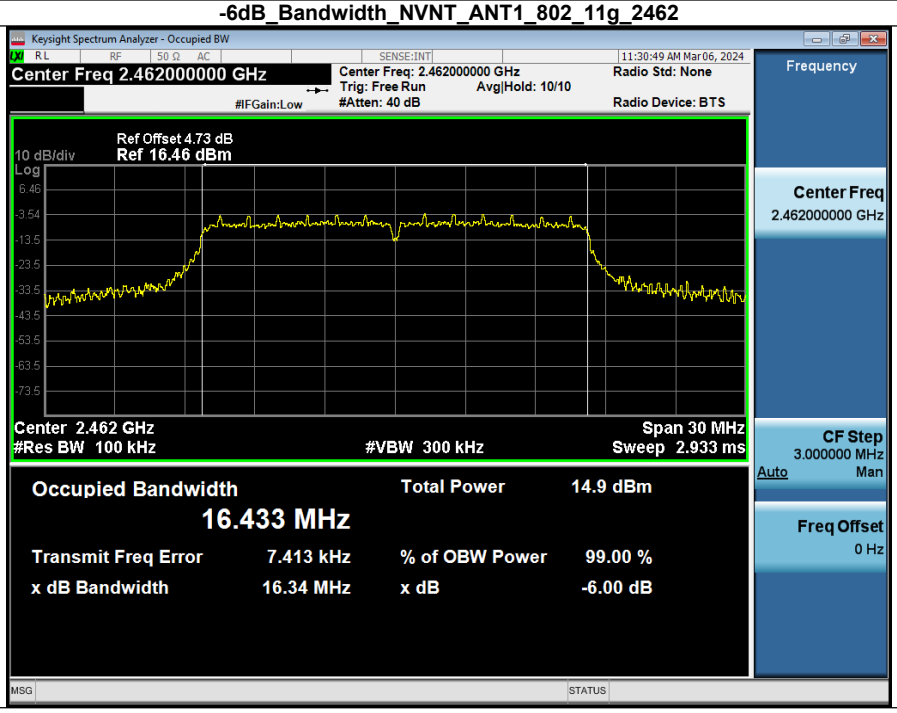
-6dB_Bandwidth_NVNT_ANT1_802_11g_2412



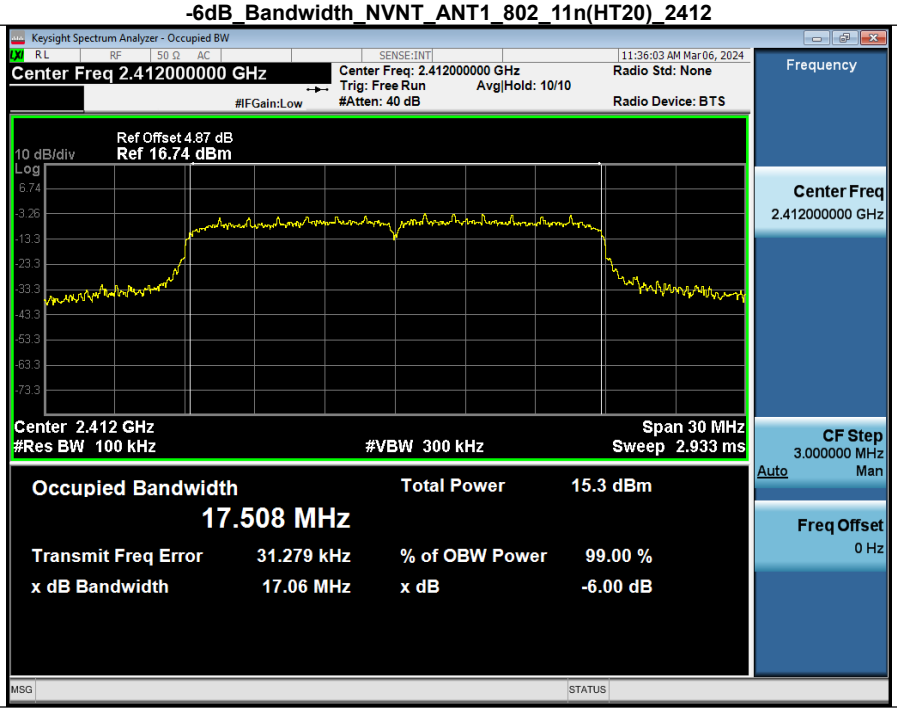
-6dB_Bandwidth_NVNT_ANT1_802_11g_2437



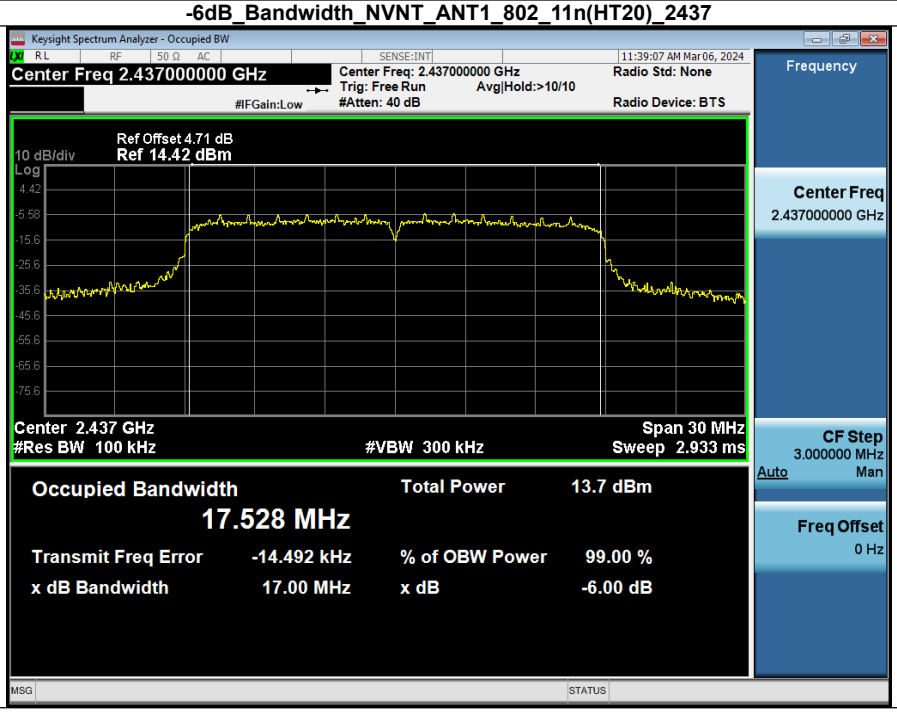
-6dB_Bandwidth_NVNT_ANT1_802_11g_2462



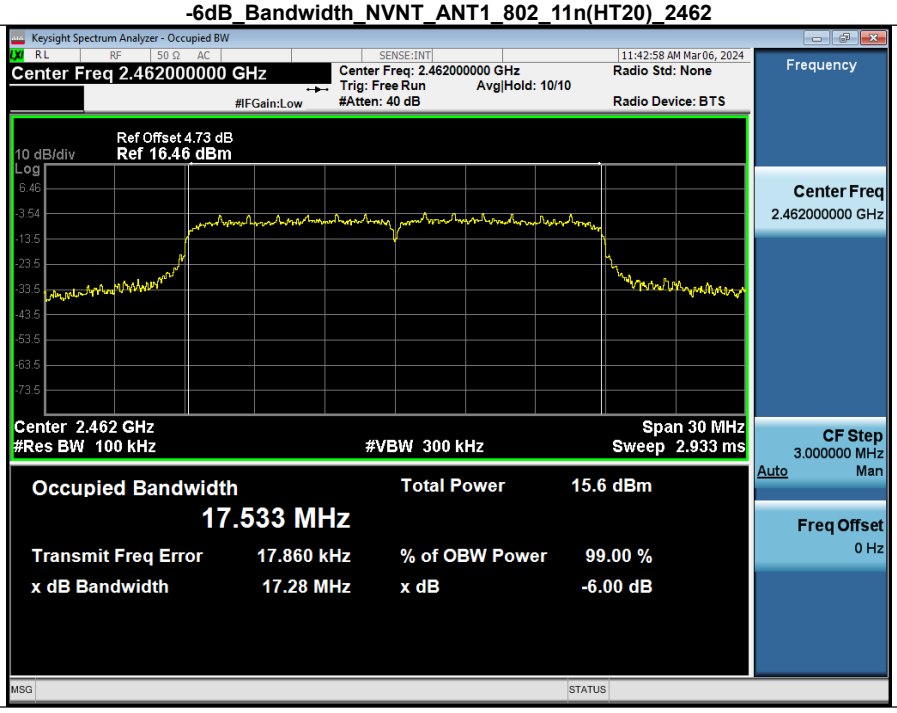
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



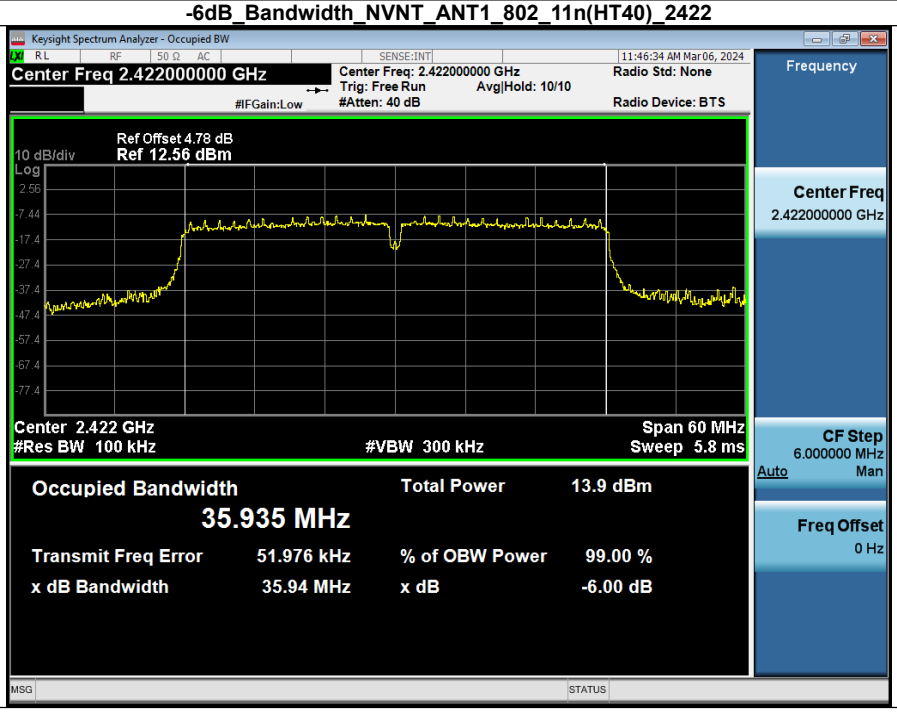
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



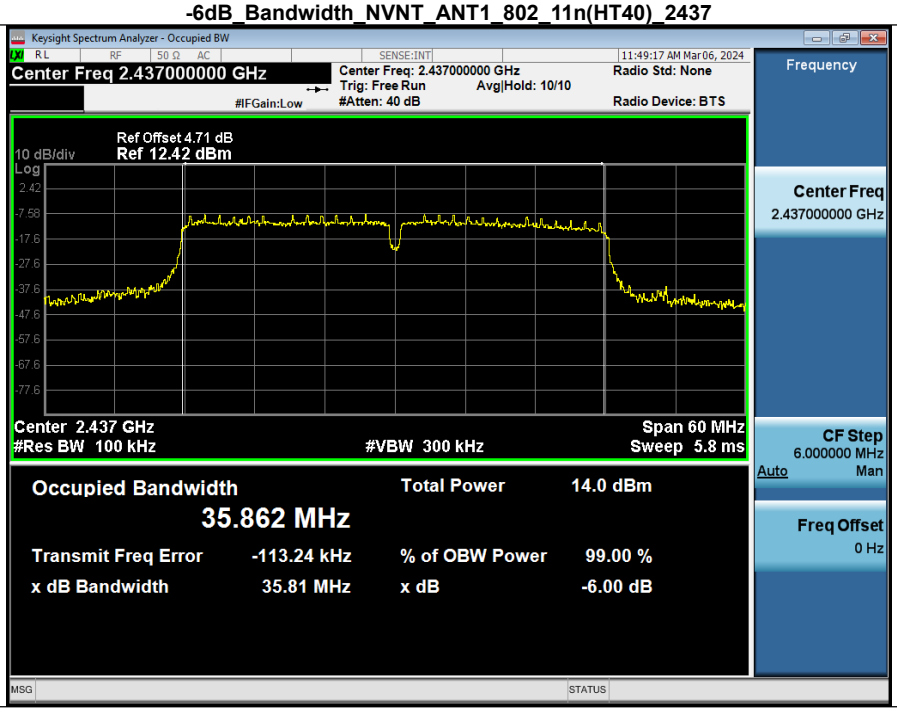
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



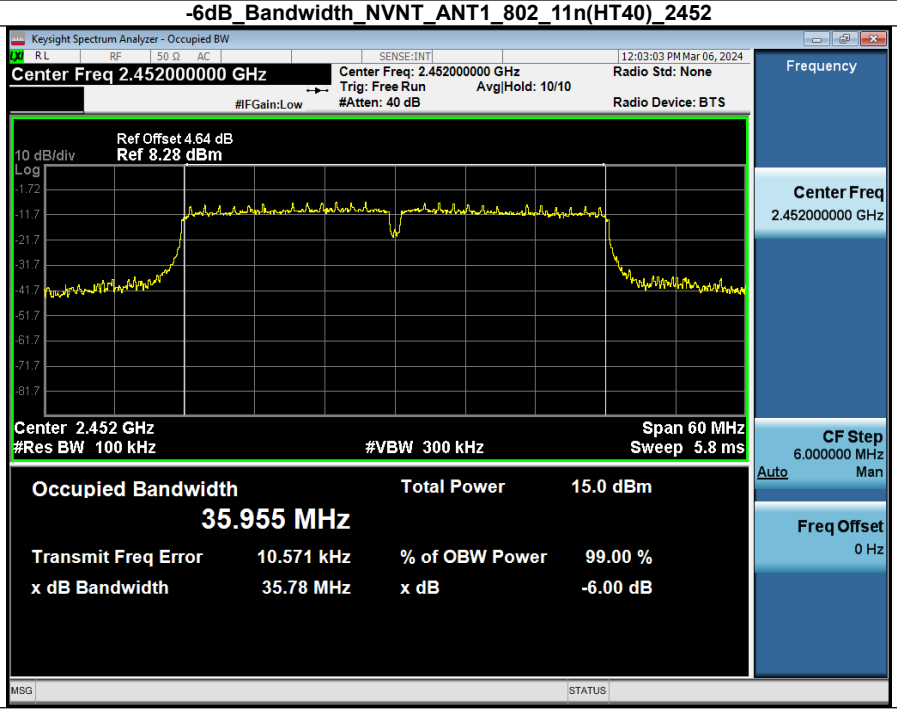
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



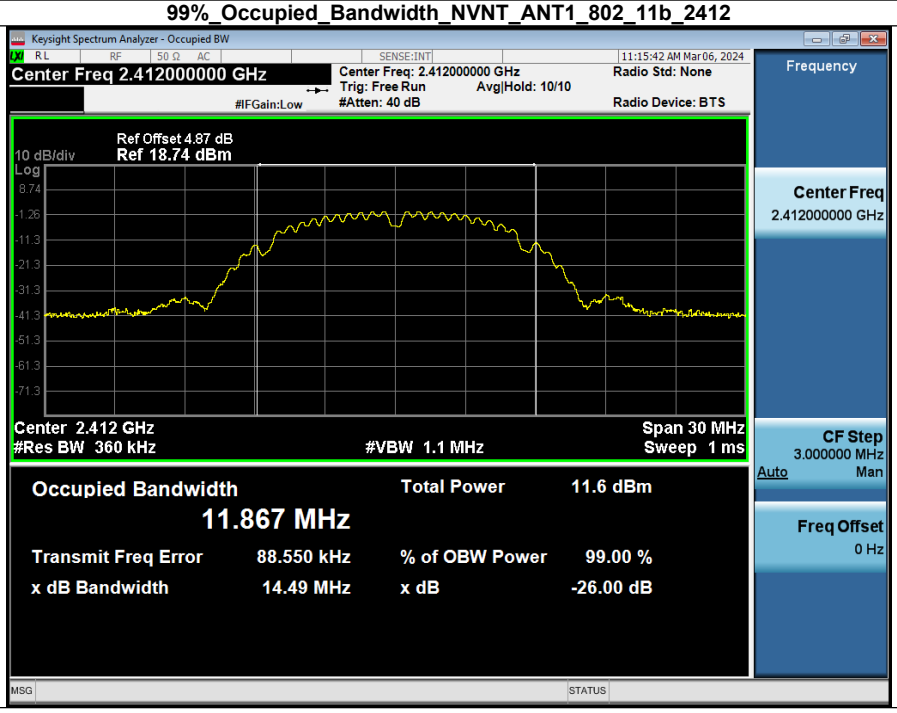
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



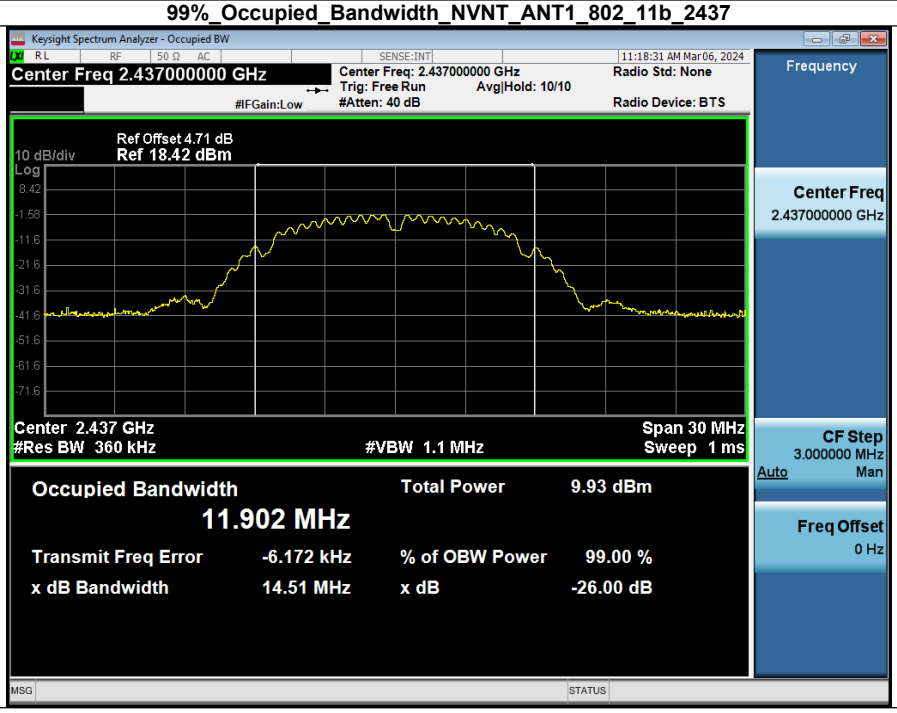
2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	802.11b	2412.00	11.867
NVNT	ANT1	802.11b	2437.00	11.902
NVNT	ANT1	802.11b	2462.00	11.877
NVNT	ANT1	802.11g	2412.00	17.058
NVNT	ANT1	802.11g	2437.00	17.090
NVNT	ANT1	802.11g	2462.00	17.135
NVNT	ANT1	802.11n(HT20)	2412.00	17.792
NVNT	ANT1	802.11n(HT20)	2437.00	17.819
NVNT	ANT1	802.11n(HT20)	2462.00	17.865
NVNT	ANT1	802.11n(HT40)	2422.00	36.399
NVNT	ANT1	802.11n(HT40)	2437.00	36.332
NVNT	ANT1	802.11n(HT40)	2452.00	36.398

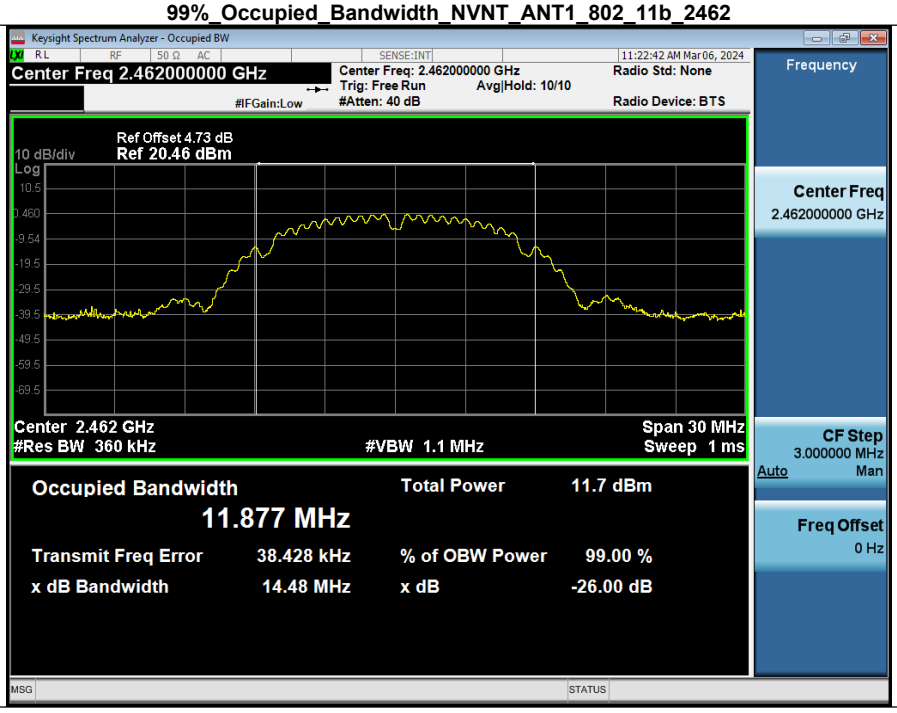
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2412



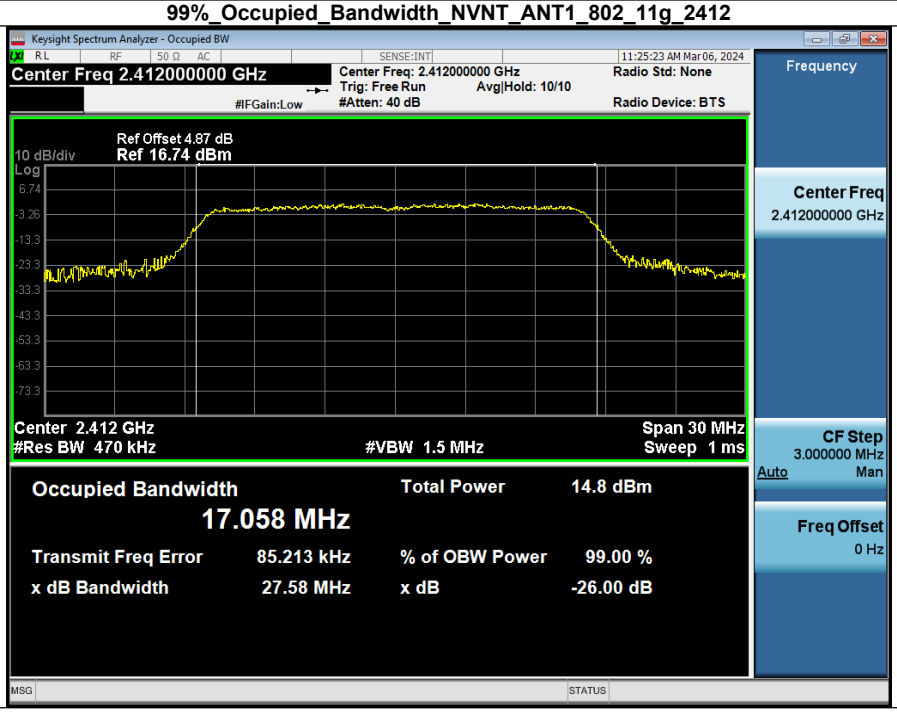
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2437



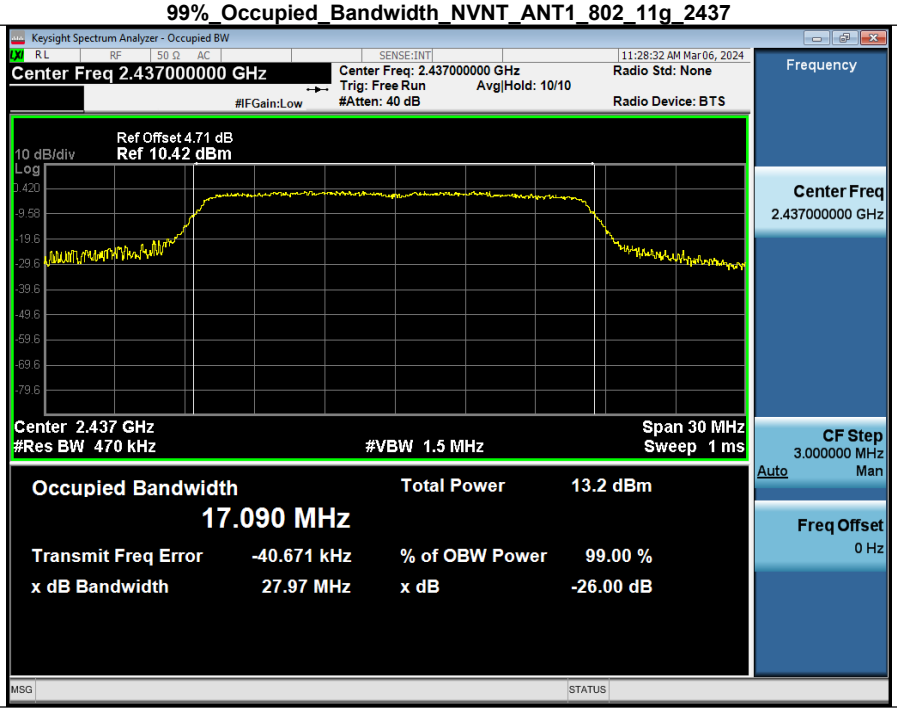
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2462



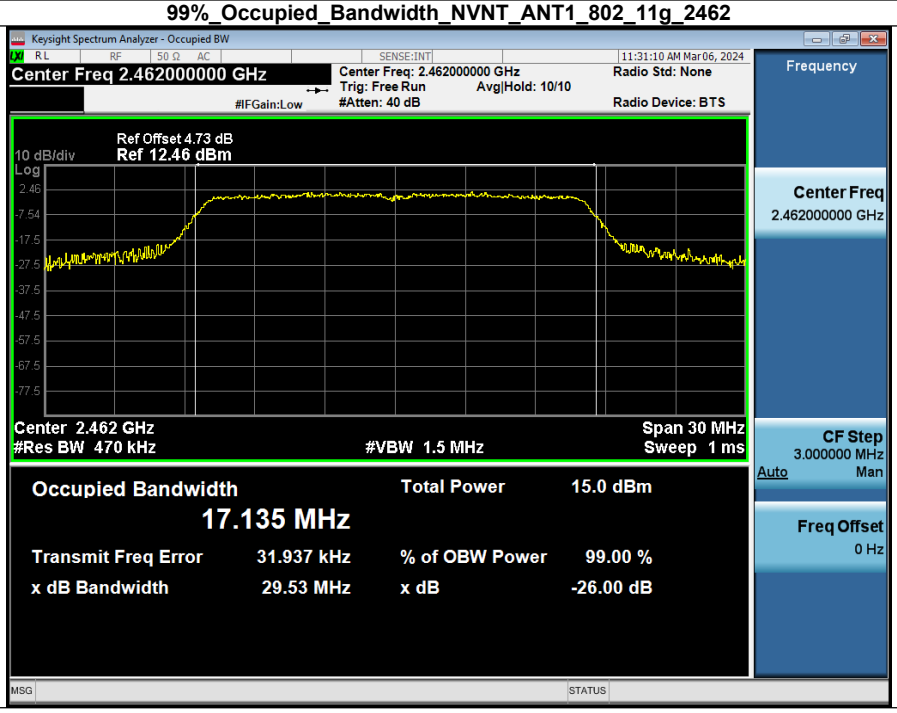
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2412



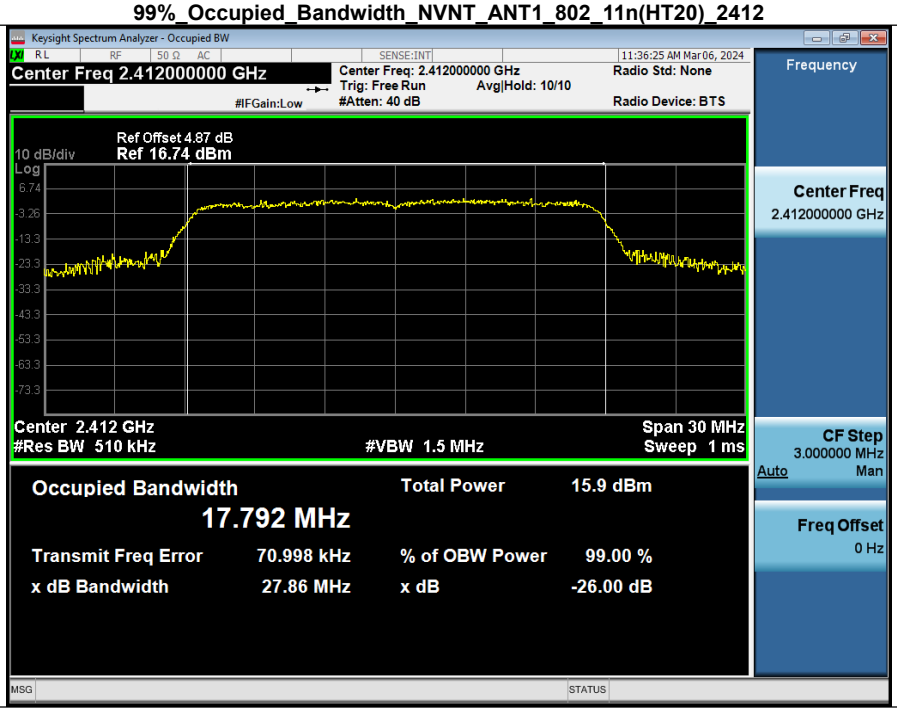
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2437



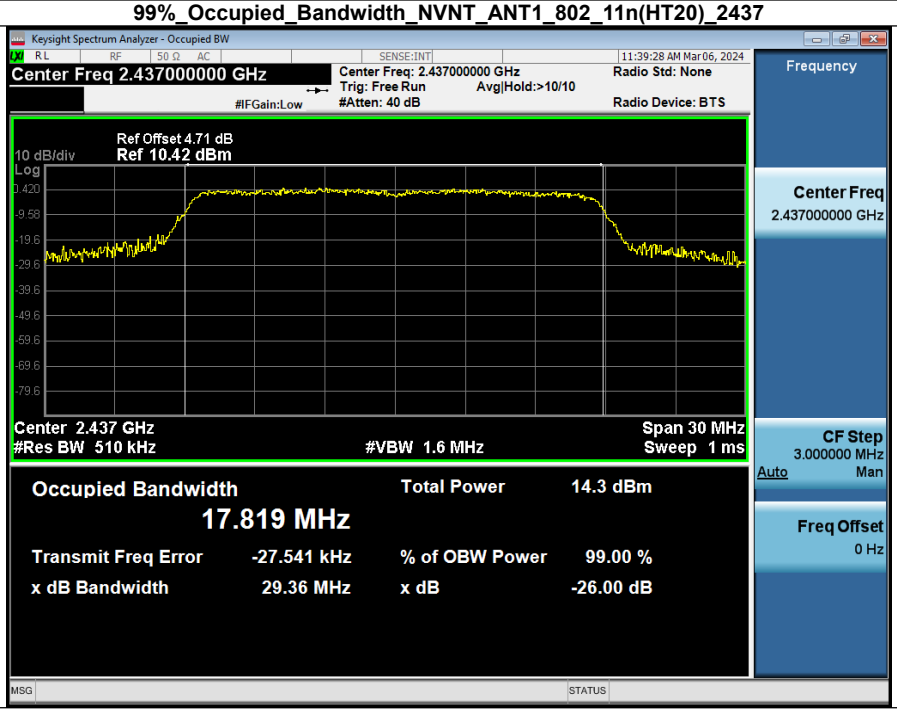
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2462



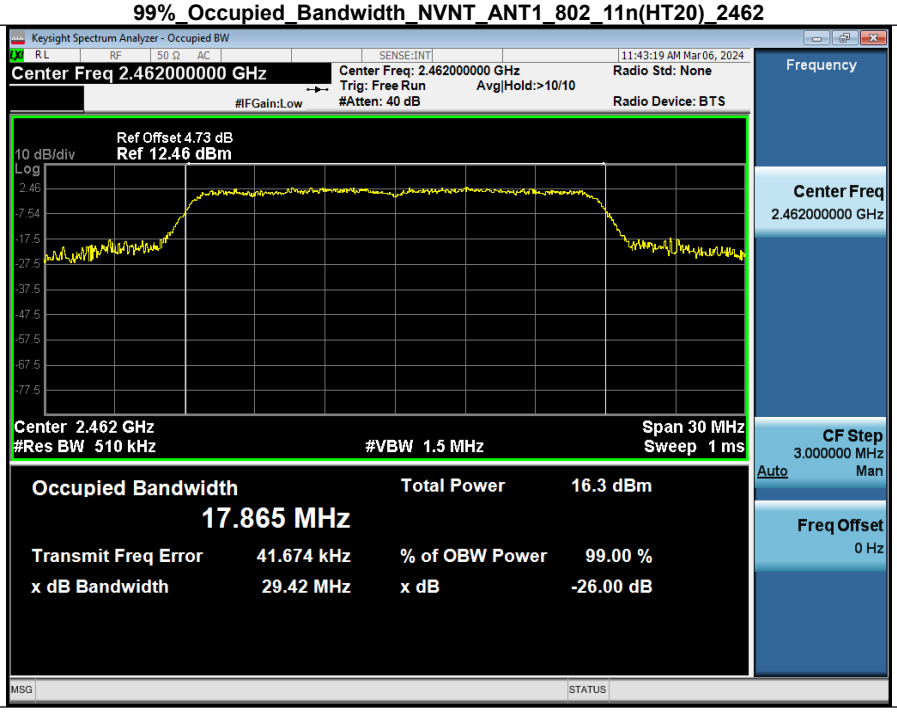
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



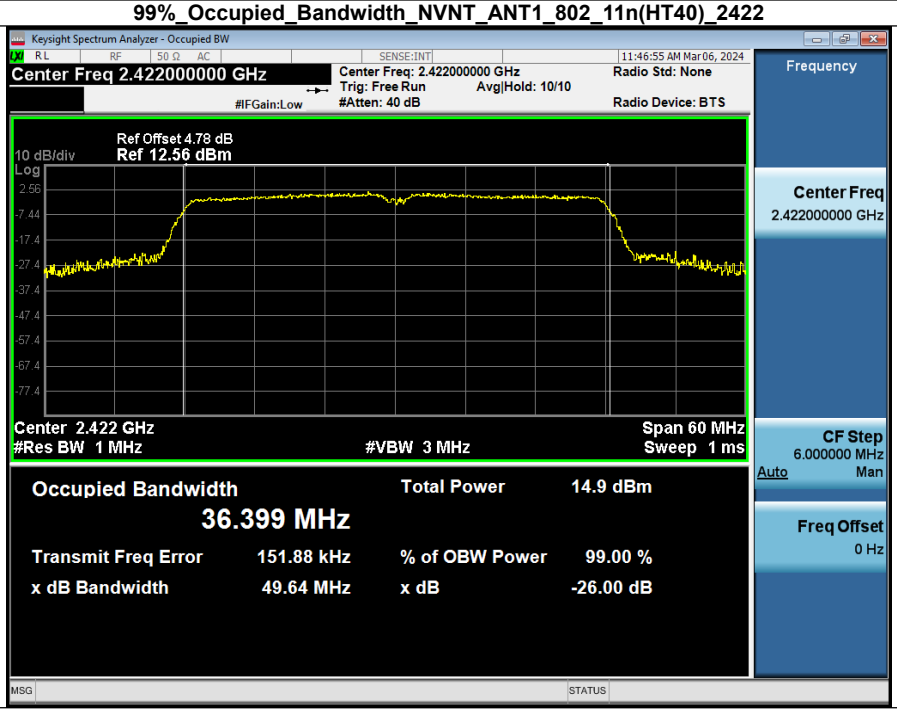
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



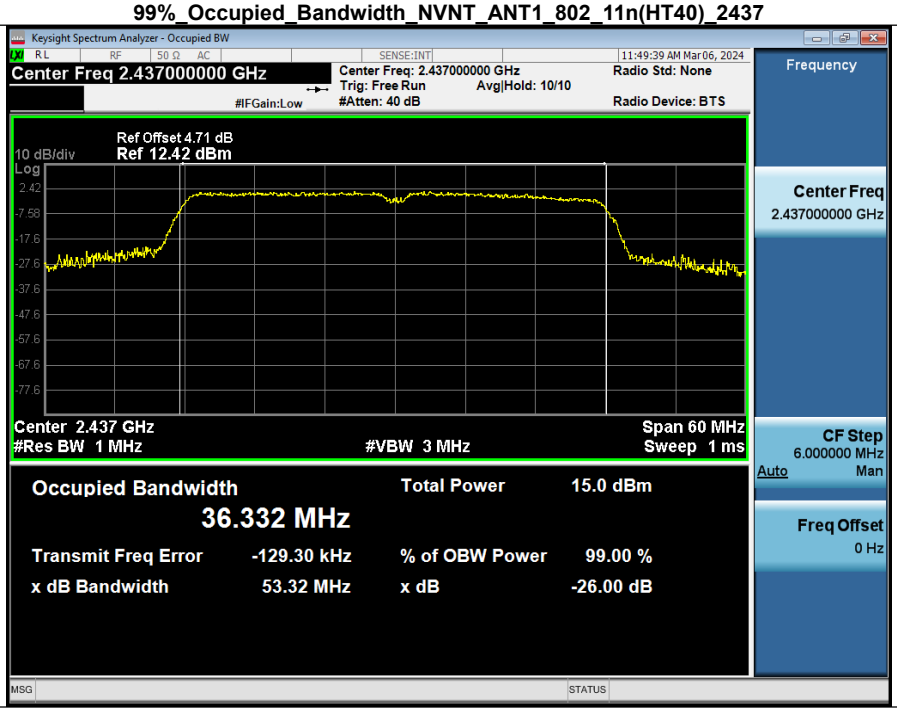
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



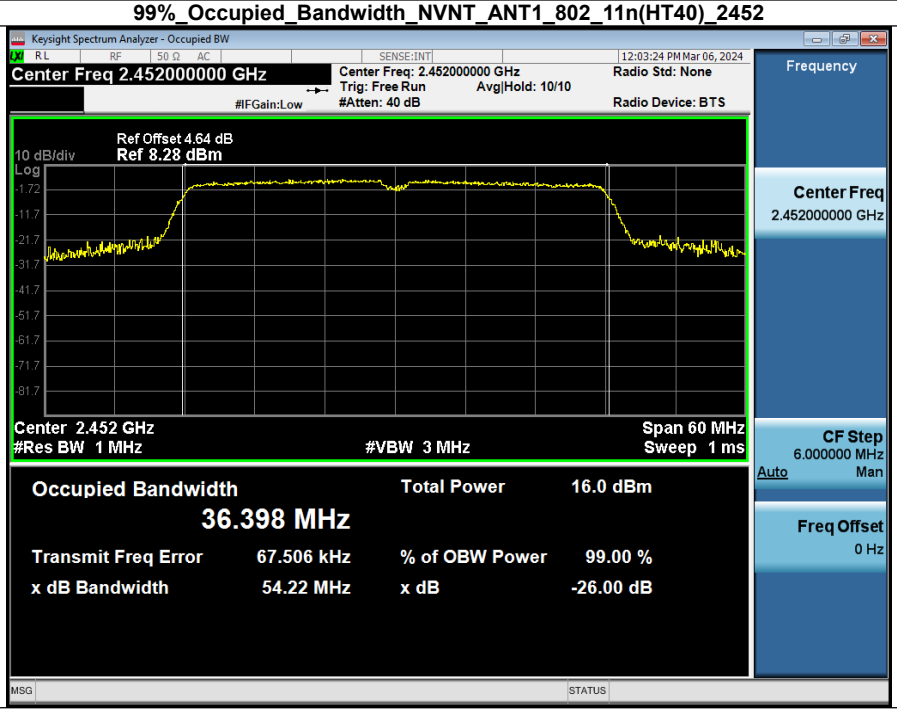
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



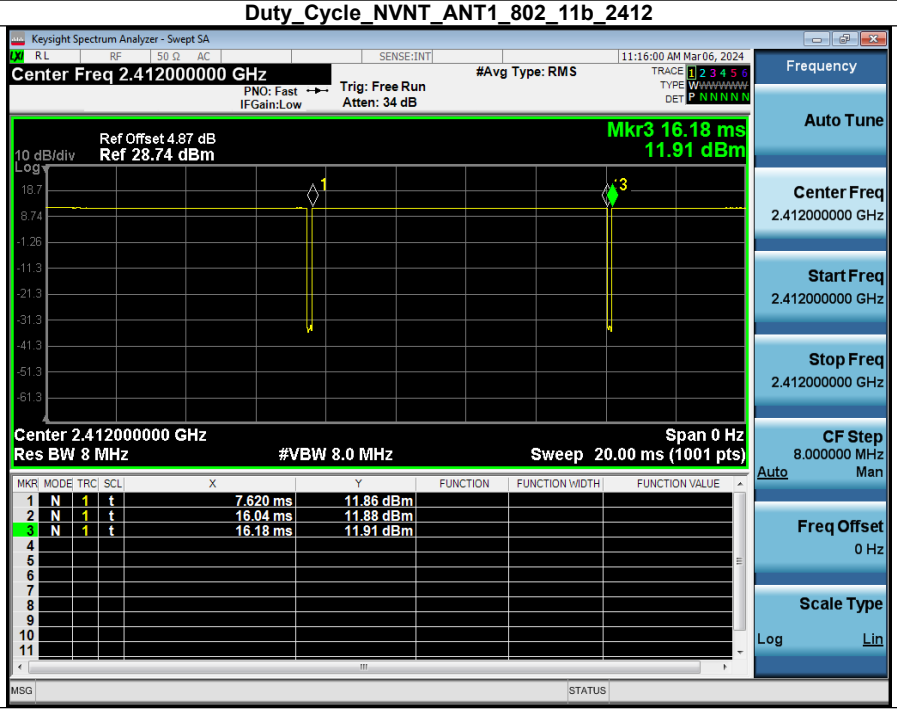
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



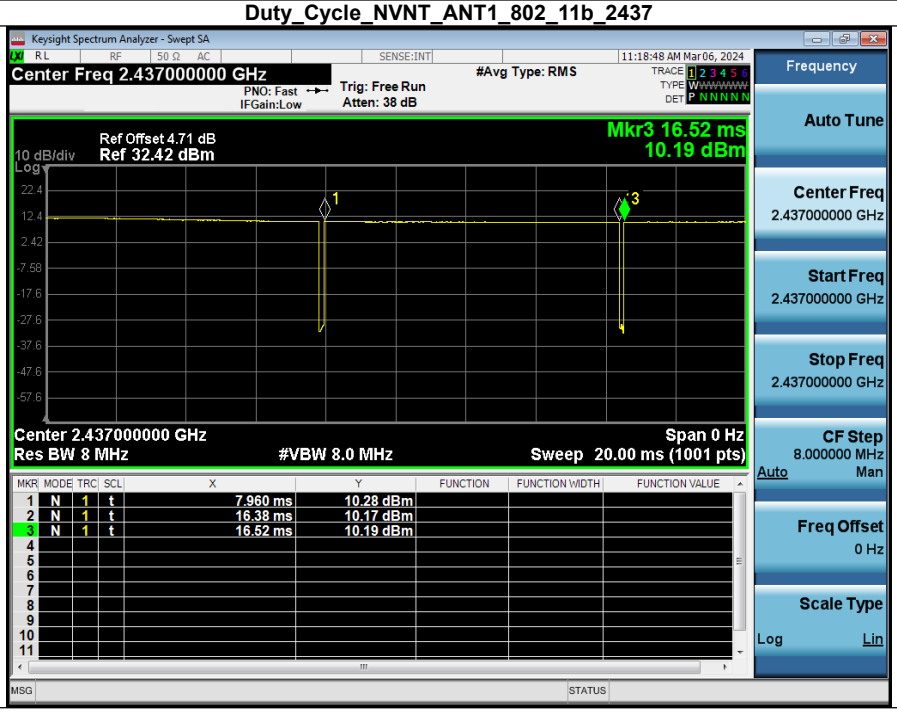
3. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	98.60	0.00
NVNT	ANT1	802.11b	2437.00	98.60	0.00
NVNT	ANT1	802.11b	2462.00	98.36	0.00
NVNT	ANT1	802.11g	2412.00	91.03	0.41
NVNT	ANT1	802.11g	2437.00	92.21	0.35
NVNT	ANT1	802.11g	2462.00	91.03	0.41
NVNT	ANT1	802.11n(HT20)	2412.00	89.55	0.48
NVNT	ANT1	802.11n(HT20)	2437.00	89.55	0.48
NVNT	ANT1	802.11n(HT20)	2462.00	89.55	0.48
NVNT	ANT1	802.11n(HT40)	2422.00	81.08	0.91
NVNT	ANT1	802.11n(HT40)	2437.00	83.78	0.77
NVNT	ANT1	802.11n(HT40)	2452.00	78.38	1.06

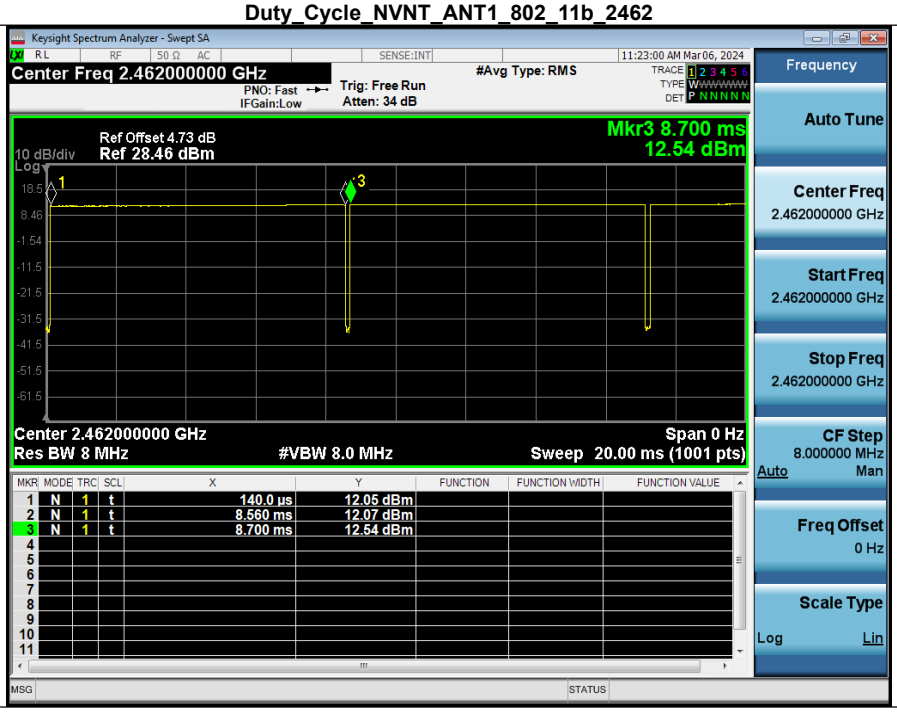
Duty_Cycle_NVNT_ANT1_802_11b_2412



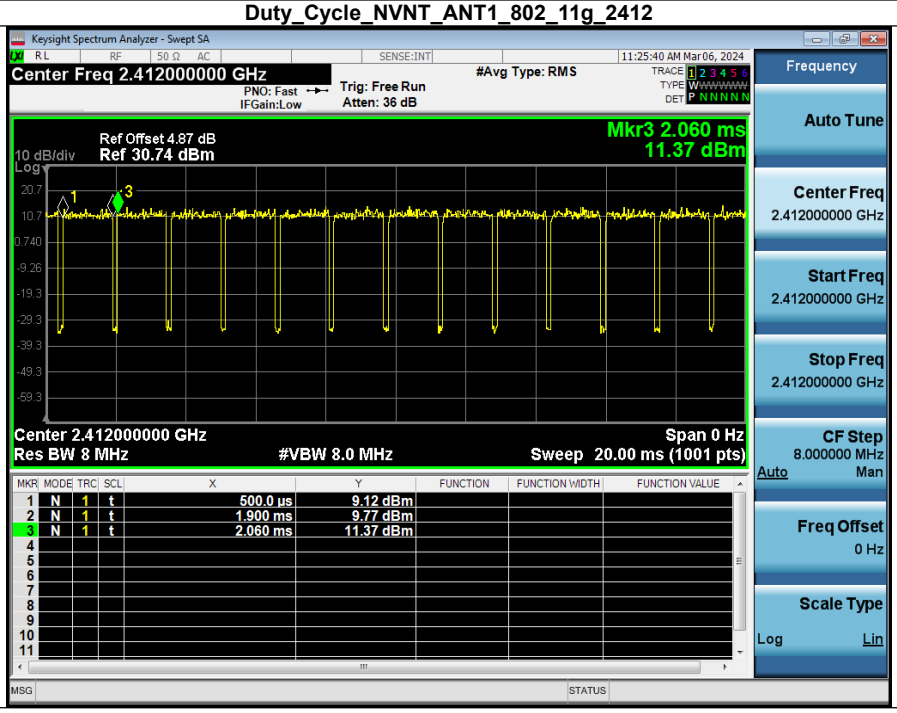
Duty_Cycle_NVNT_ANT1_802_11b_2437



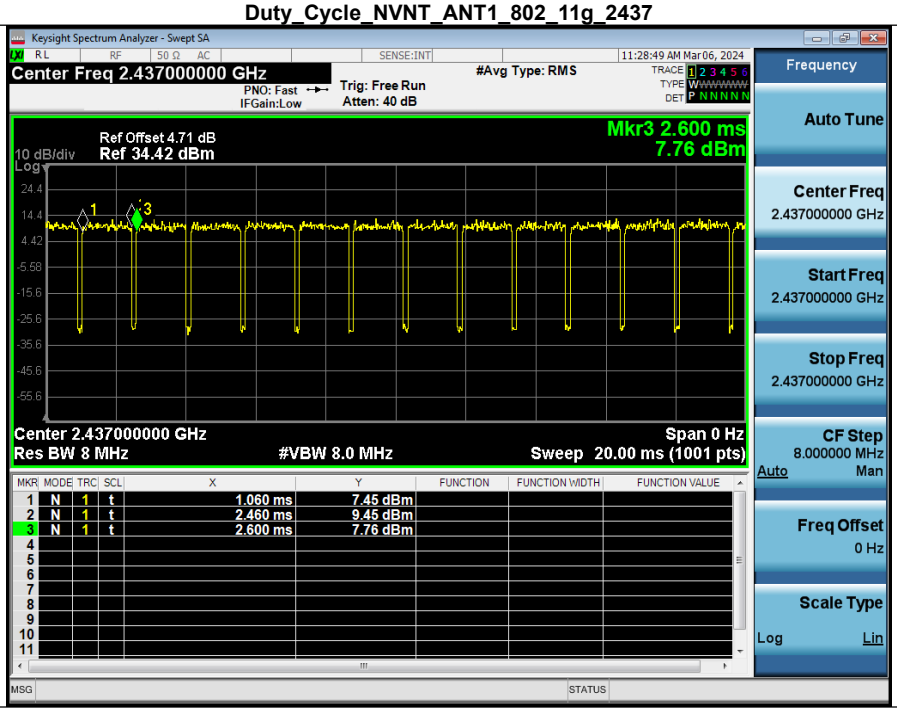
Duty_Cycle_NVNT_ANT1_802_11b_2462



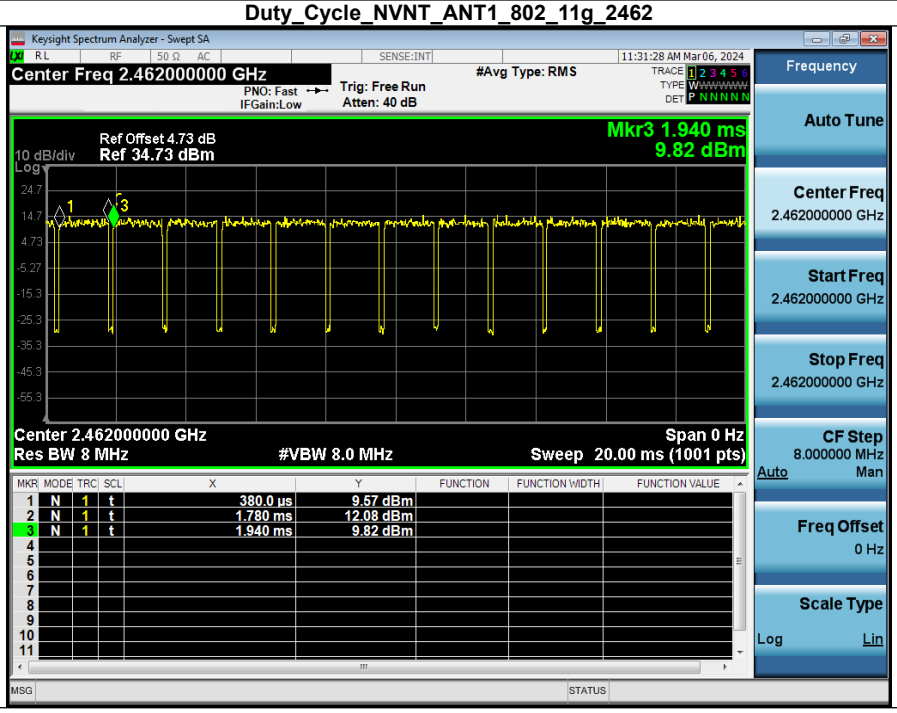
Duty_Cycle_NVNT_ANT1_802_11g_2412



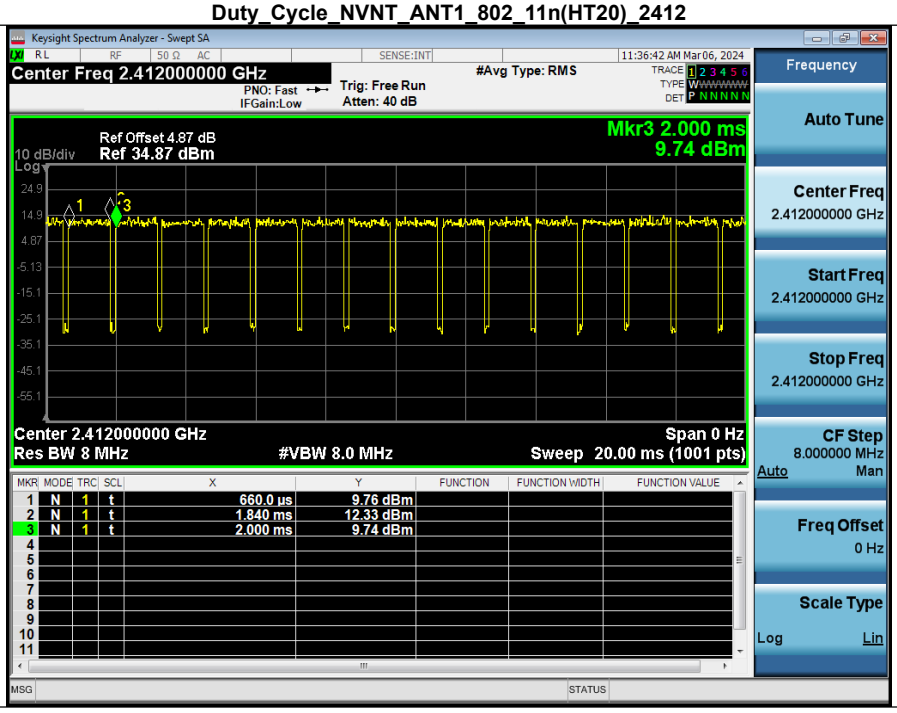
Duty_Cycle_NVNT_ANT1_802_11g_2437



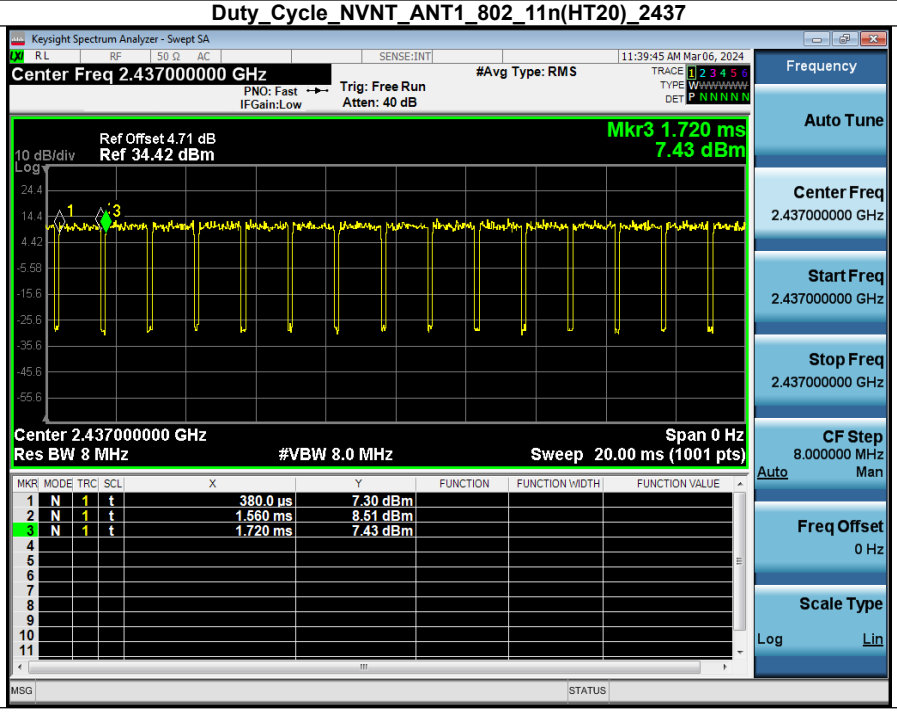
Duty_Cycle_NVNT_ANT1_802_11g_2462



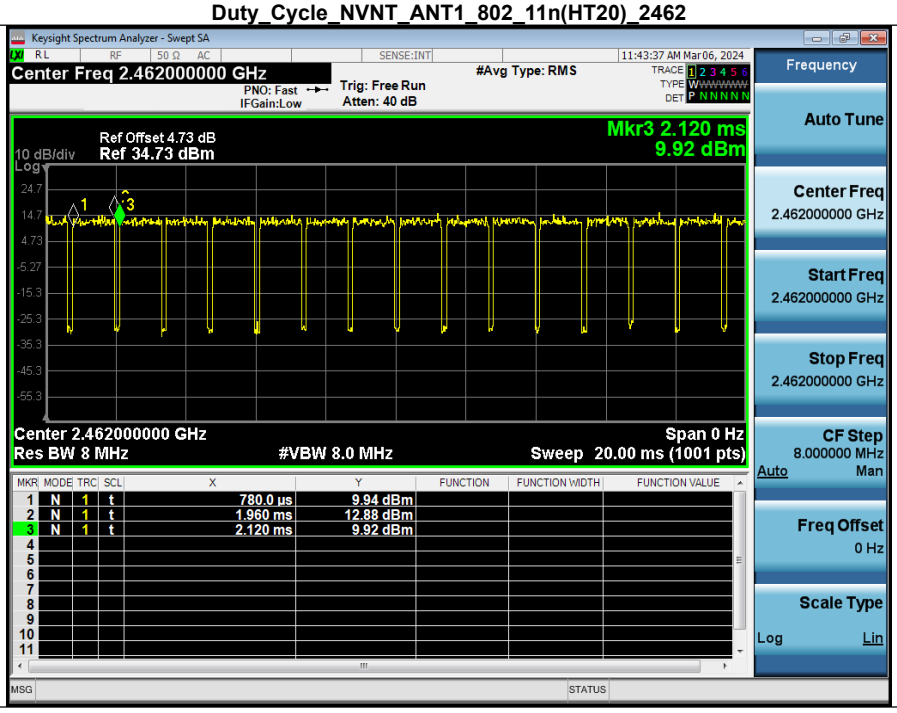
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2412



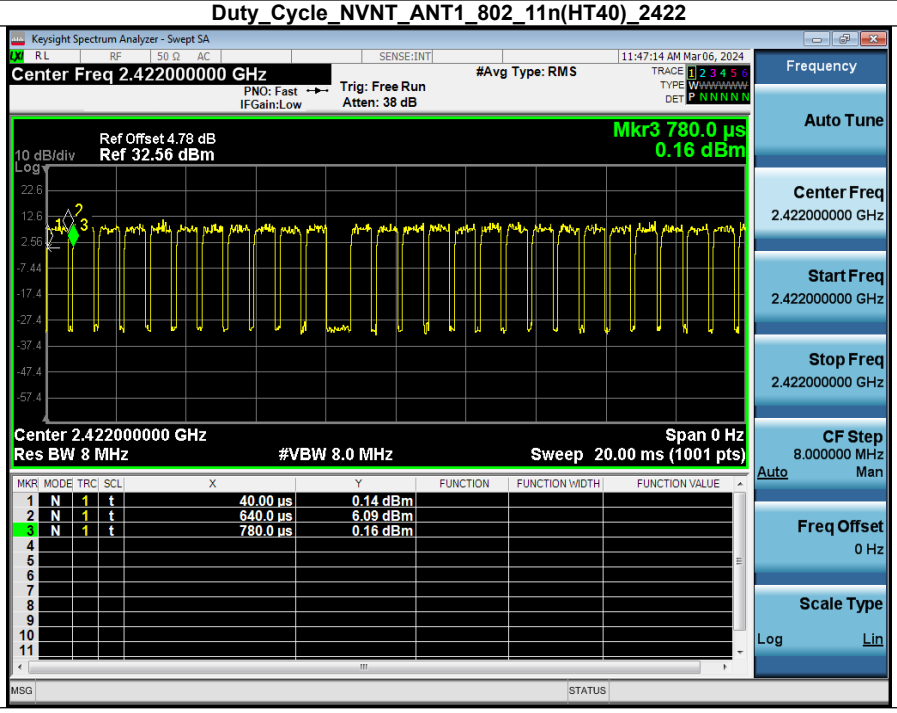
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2437



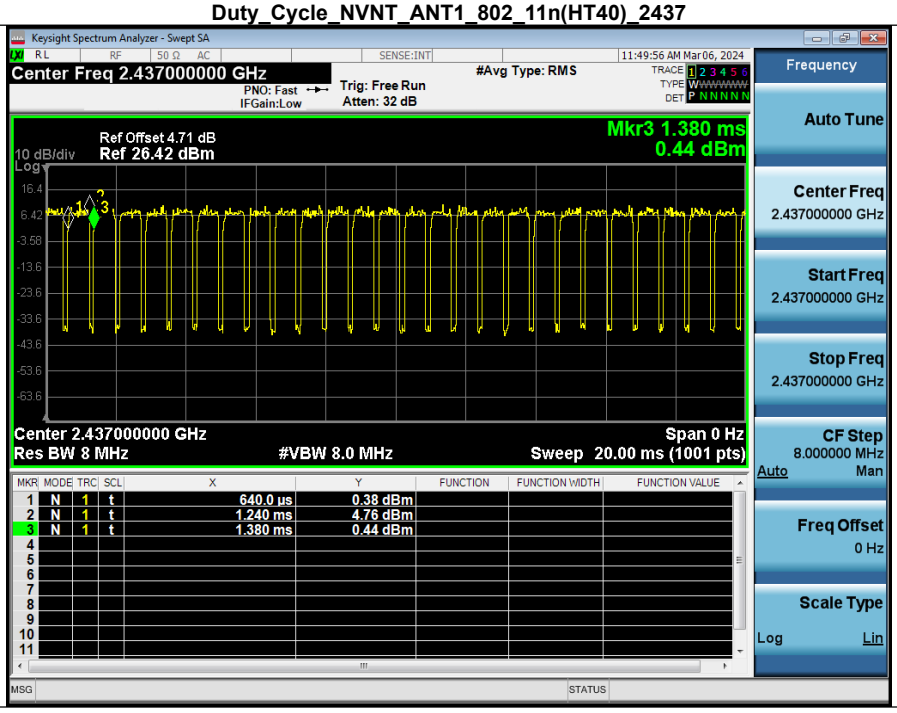
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2462



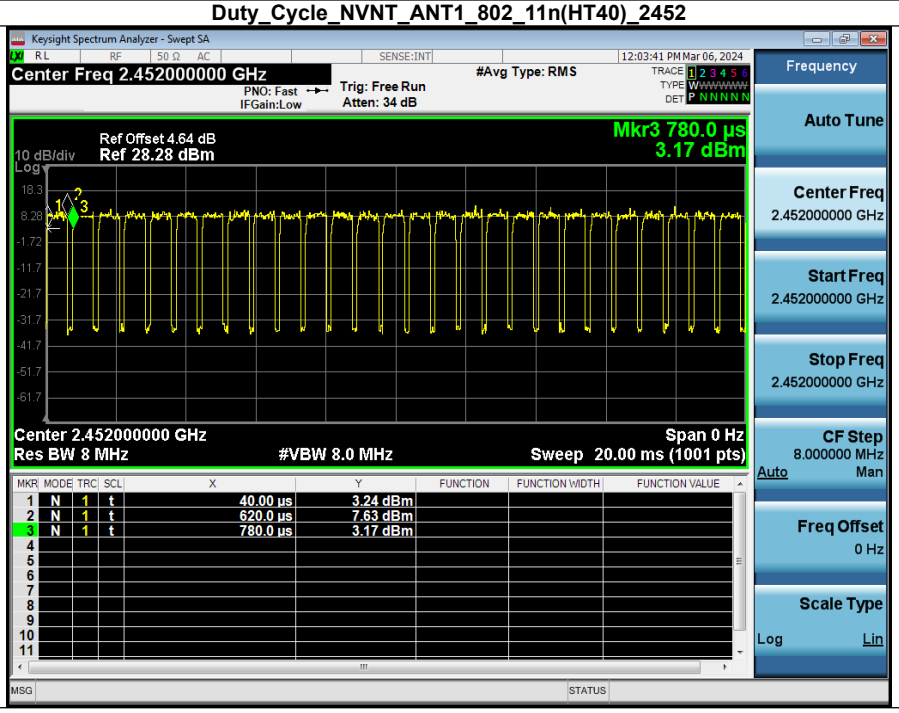
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2422



Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2437



Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2452



5. Power Spectral Density

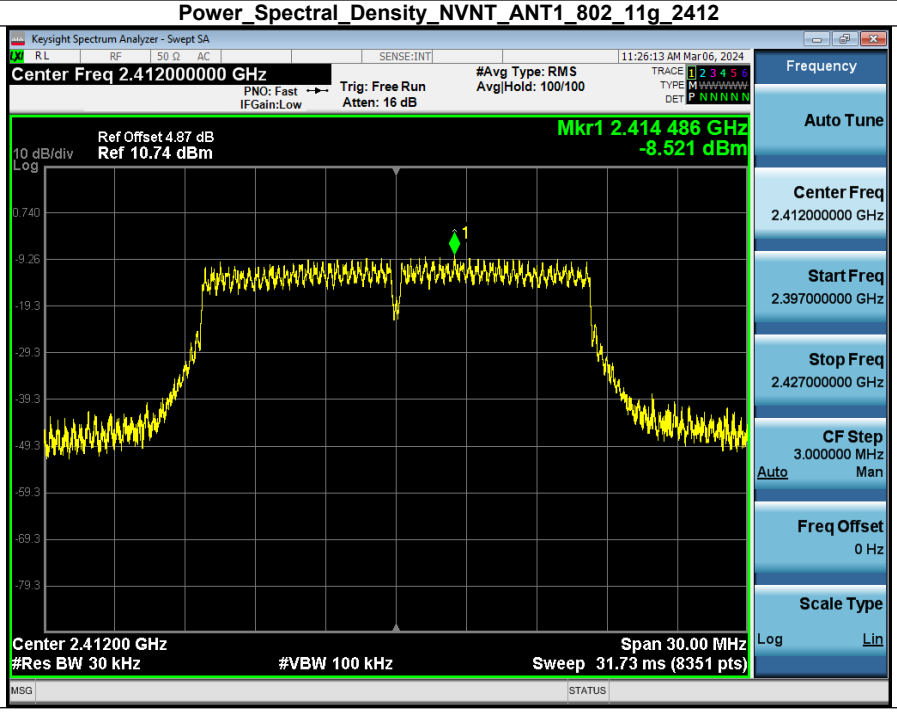
Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/30kHz)	RB factor(dB)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	-3.84	-10.00	-13.84	8	Pass
NVNT	ANT1	802.11b	2437.00	-2.95	-10.00	-12.95	8	Pass
NVNT	ANT1	802.11b	2462.00	-4.28	-10.00	-14.28	8	Pass
NVNT	ANT1	802.11g	2412.00	-8.52	-10.00	-18.52	8	Pass
NVNT	ANT1	802.11g	2437.00	-9.50	-10.00	-19.50	8	Pass
NVNT	ANT1	802.11g	2462.00	-7.96	-10.00	-17.96	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-8.10	-10.00	-18.10	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-9.69	-10.00	-19.69	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-7.80	-10.00	-17.80	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-12.67	-10.00	-22.67	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-12.74	-10.00	-22.74	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-11.44	-10.00	-21.44	8	Pass

Power_Spectral_Density_NVNT_ANT1_802_11b_2412

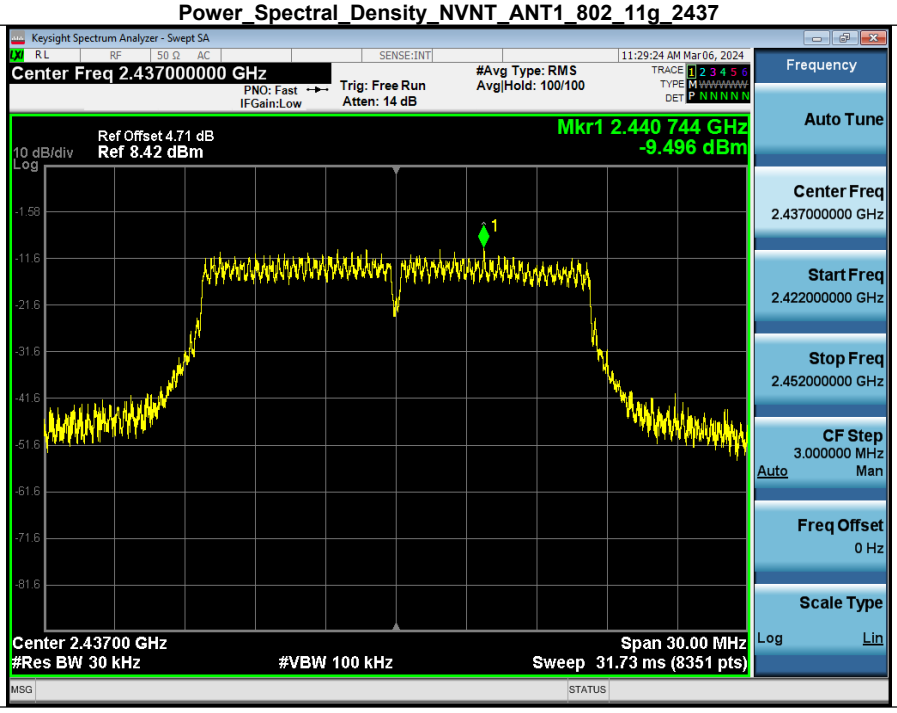
Power_Spectral_Density_NVNT_ANT1_802_11b_2437

Power_Spectral_Density_NVNT_ANT1_802_11b_2462

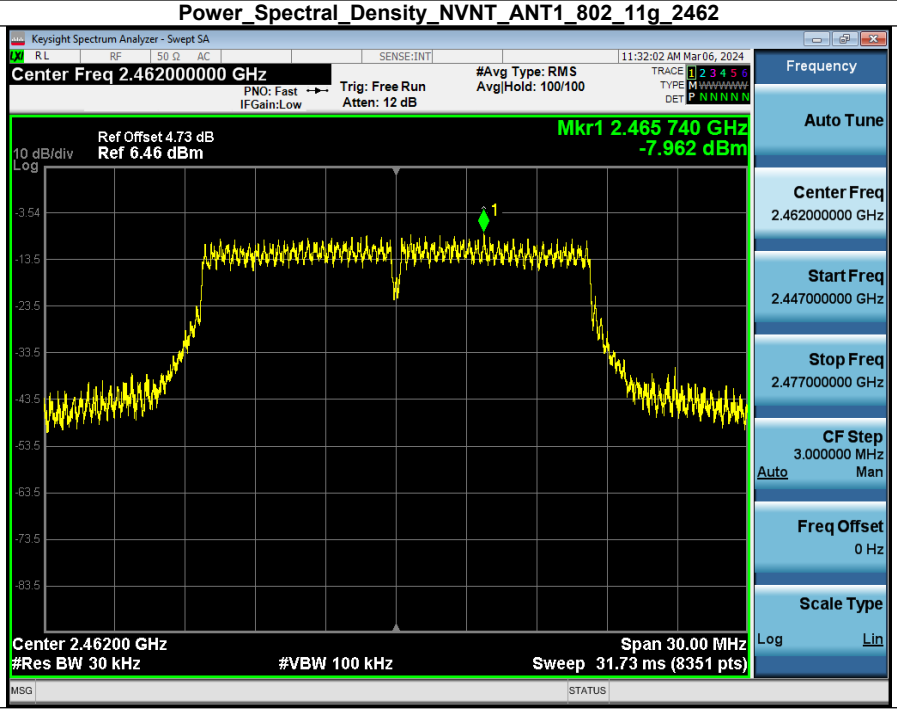
Power_Spectral_Density_NVNT_ANT1_802_11g_2412



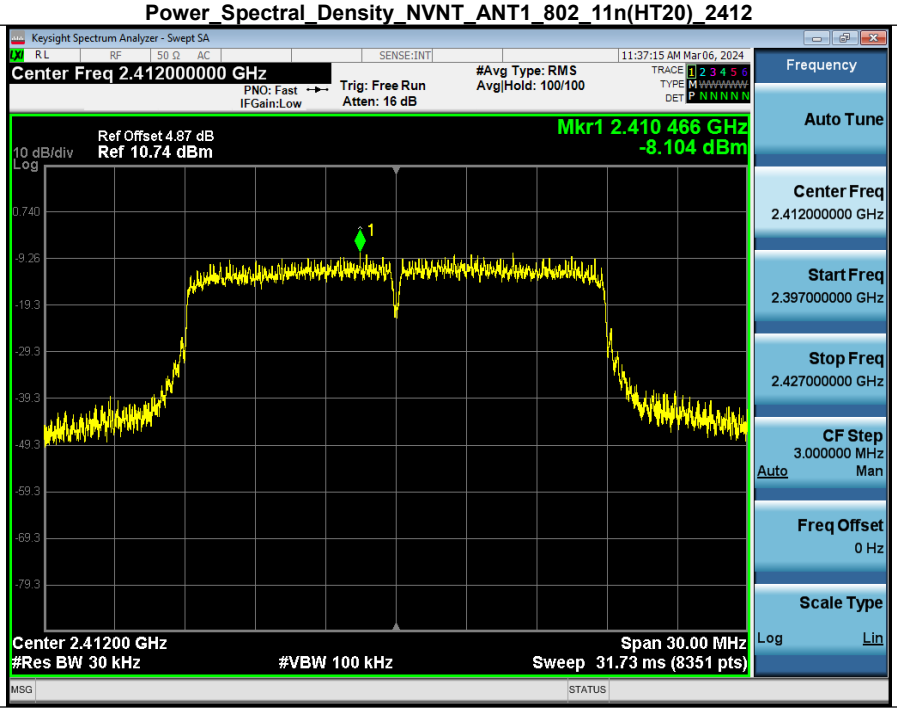
Power_Spectral_Density_NVNT_ANT1_802_11g_2437



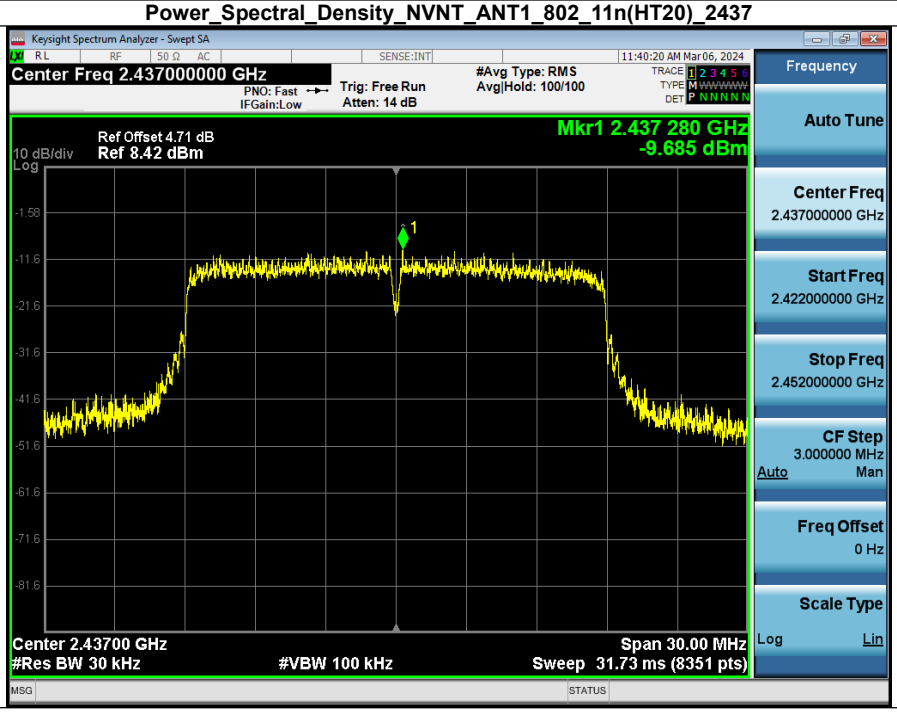
Power_Spectral_Density_NVNT_ANT1_802_11g_2462



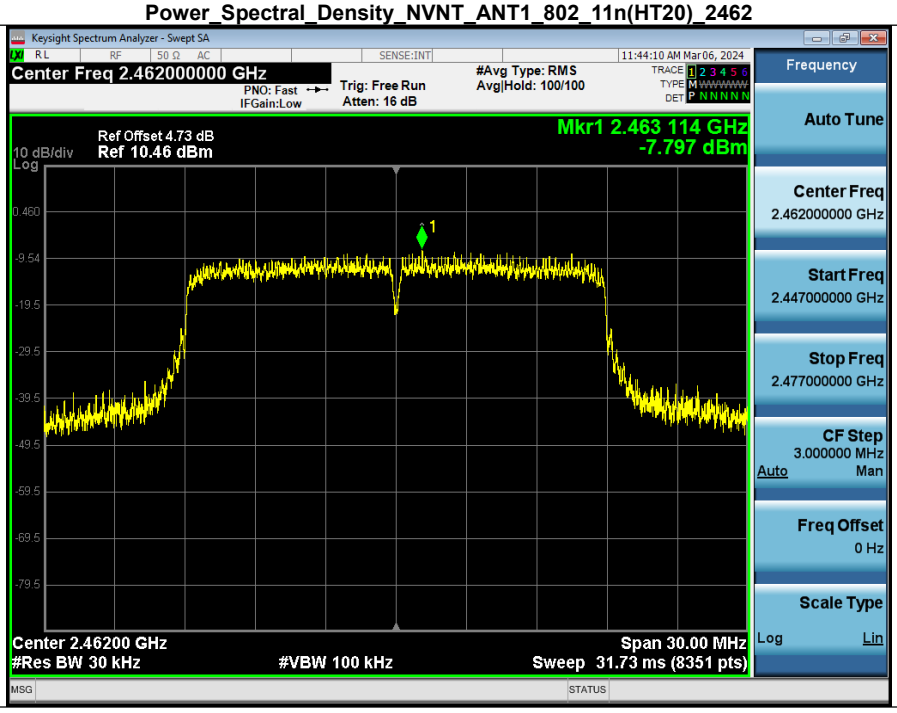
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2412



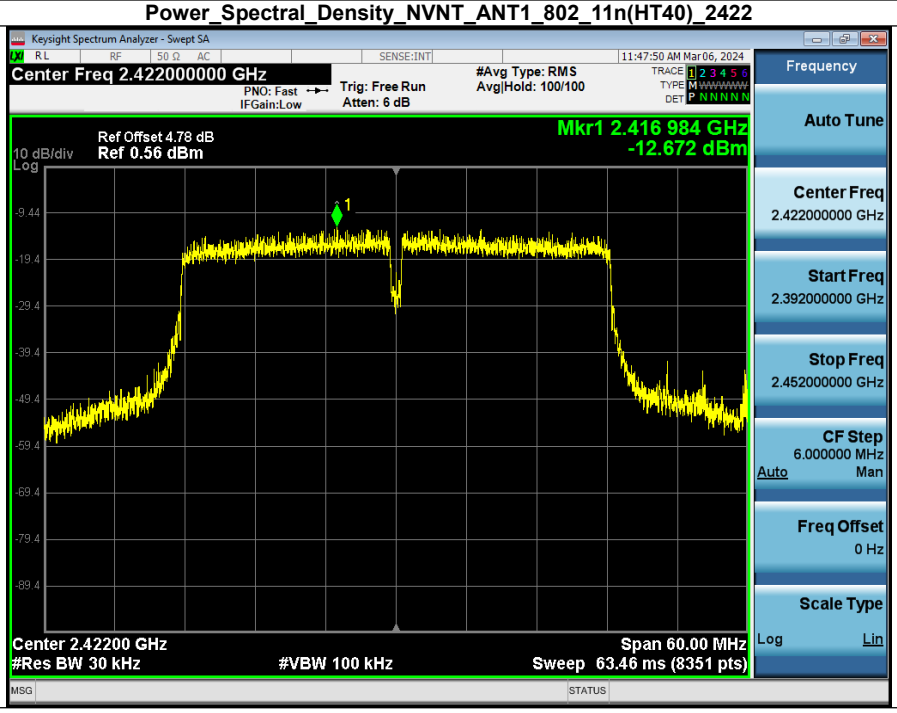
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2437



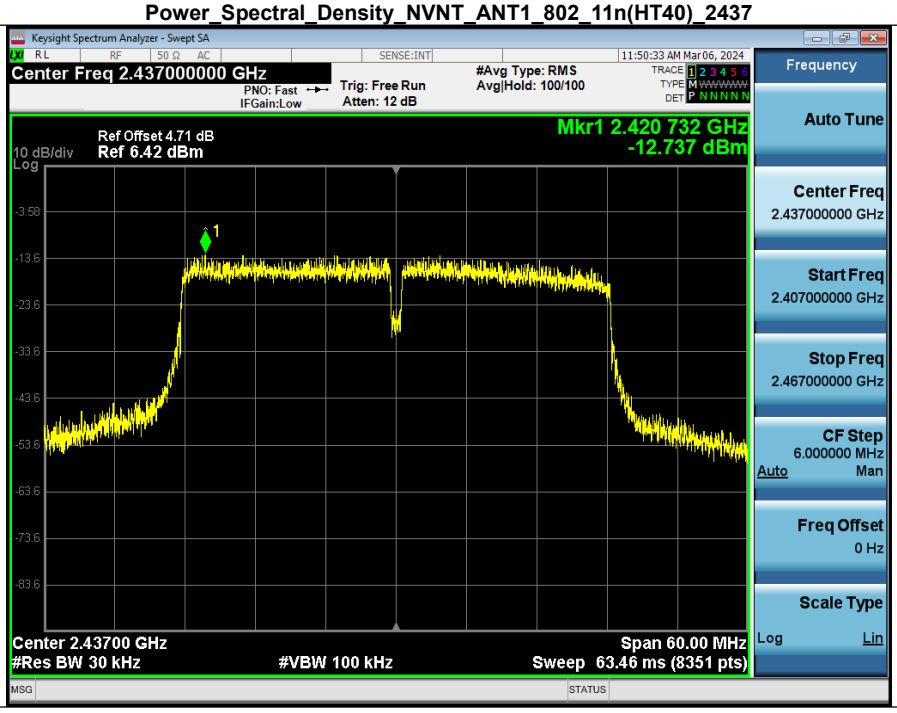
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2462



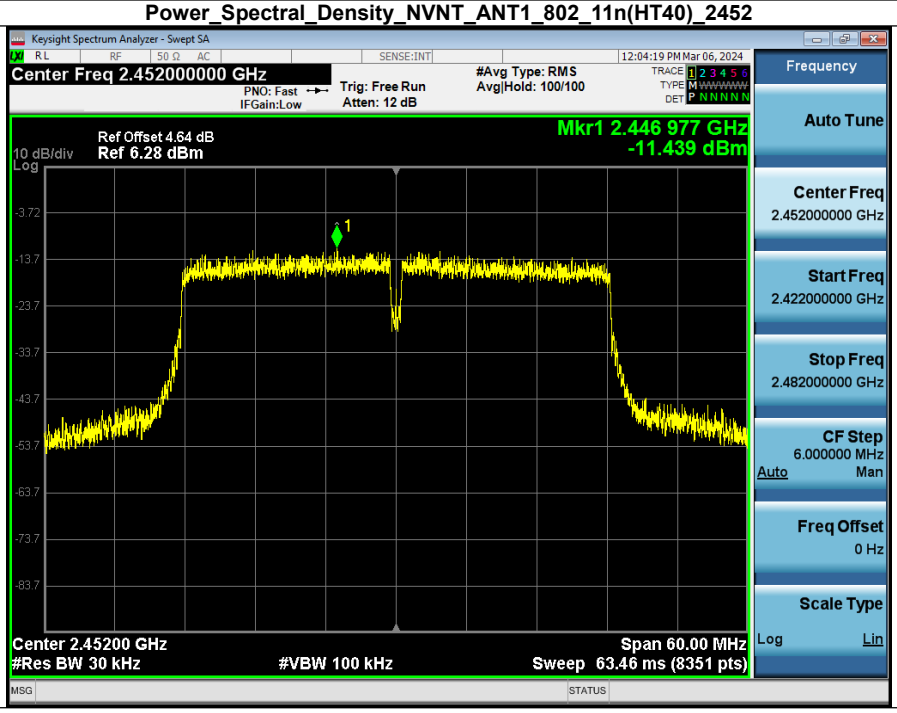
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2422



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2437



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2452

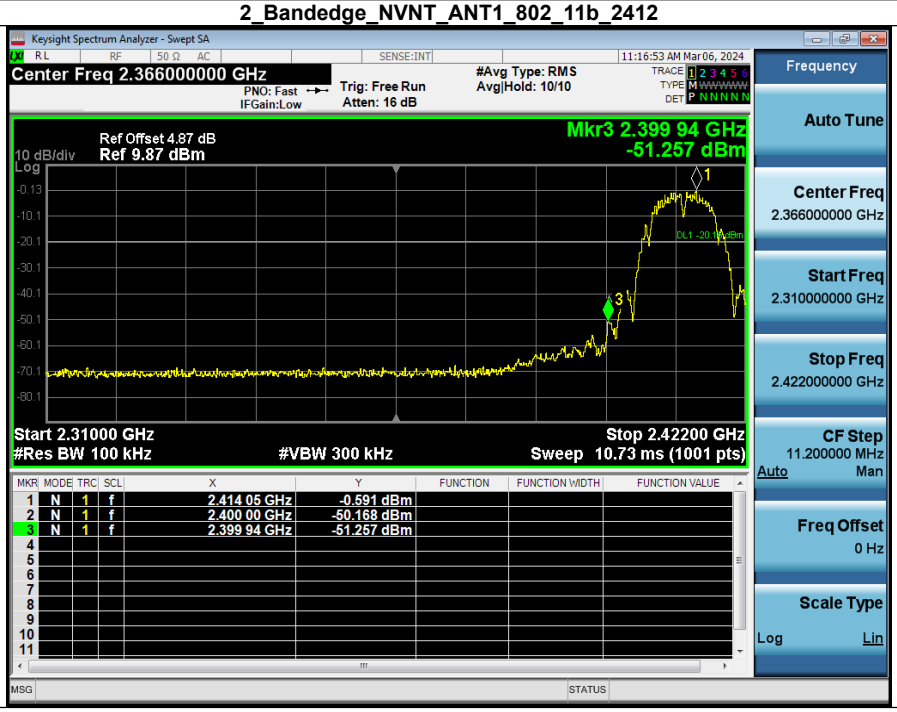


6. Bandedge

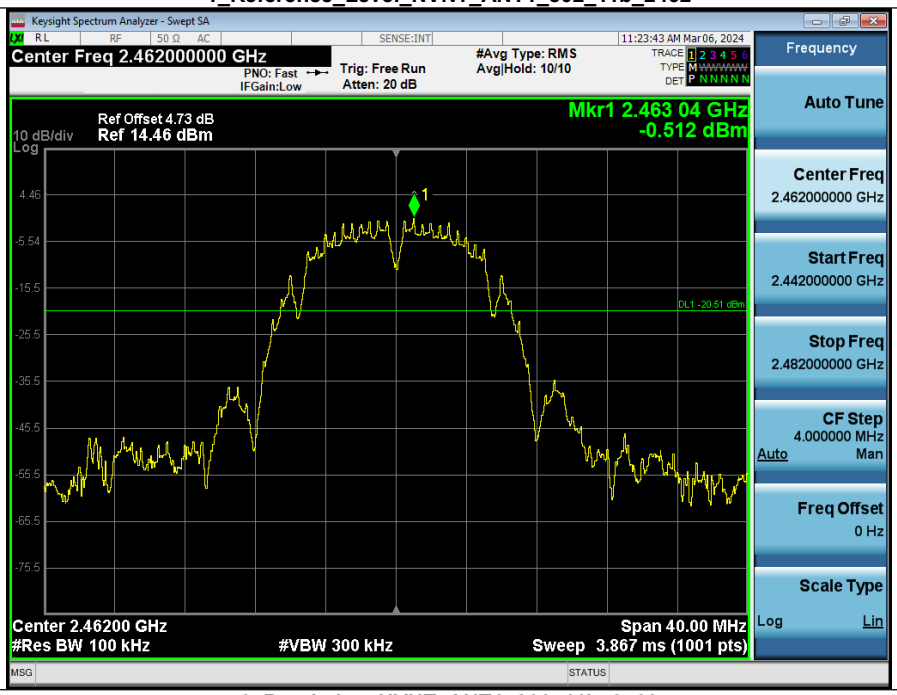
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	2399.936	-51.257	-20.148	Pass
NVNT	ANT1	802.11b	2462.00	2483.536	-57.612	-20.512	Pass
NVNT	ANT1	802.11g	2412.00	2398.928	-35.486	-23.937	Pass
NVNT	ANT1	802.11g	2462.00	2483.728	-45.413	-23.452	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.824	-31.909	-23.294	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.824	-43.872	-23.255	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2399.760	-38.898	-27.679	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2484.496	-43.225	-26.918	Pass

1_Reference_Level_NVNT_ANT1_802_11b_2412

2_Bandedge_NVNT_ANT1_802_11b_2412

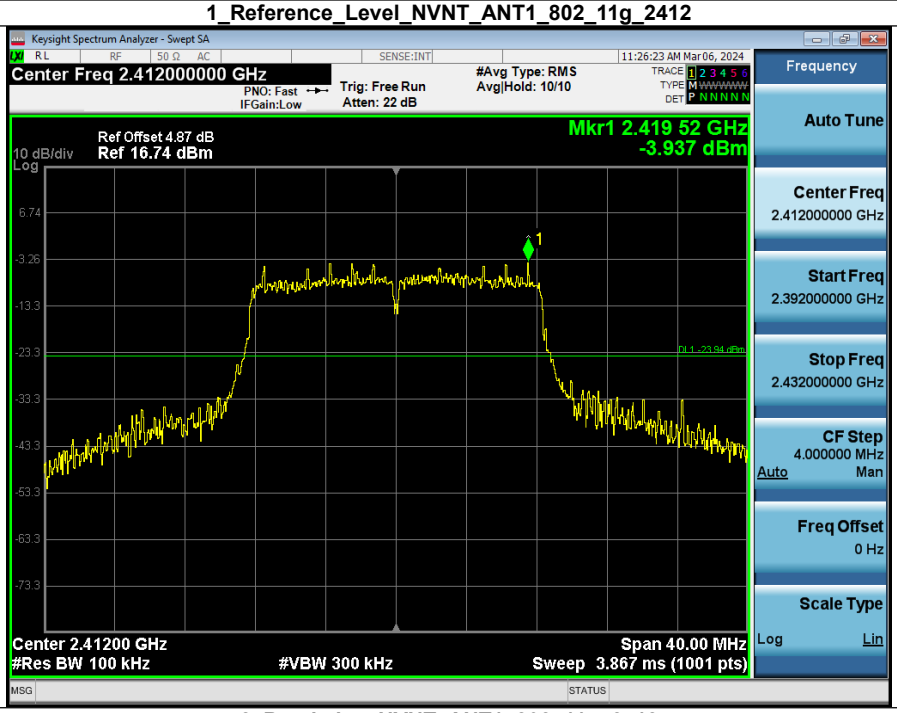


1_Reference_Level_NVNT_ANT1_802_11b_2462

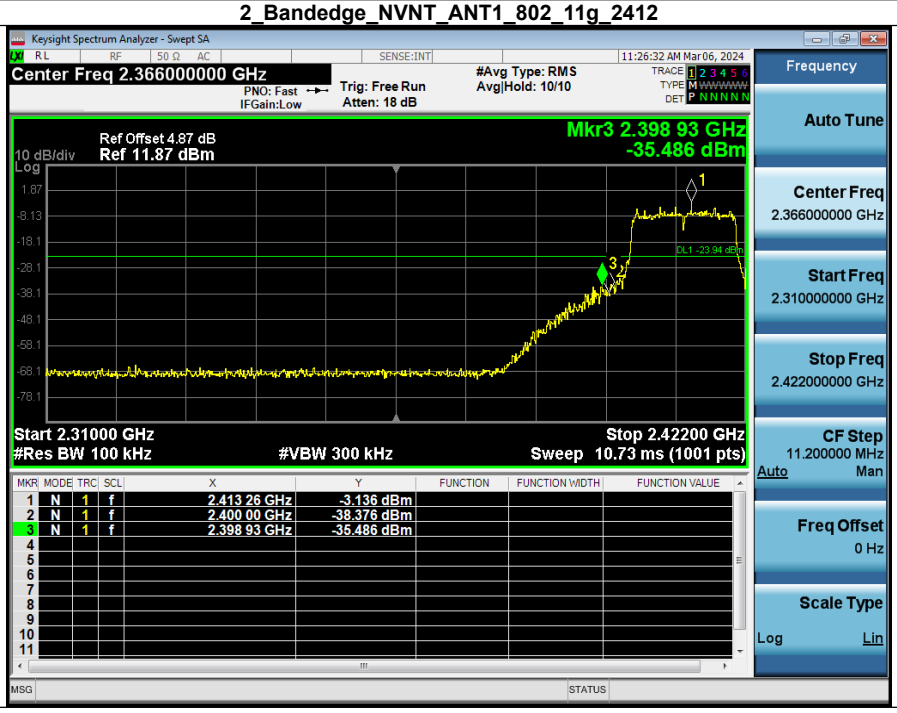


2_Bandedge_NVNT_ANT1_802_11b_2462

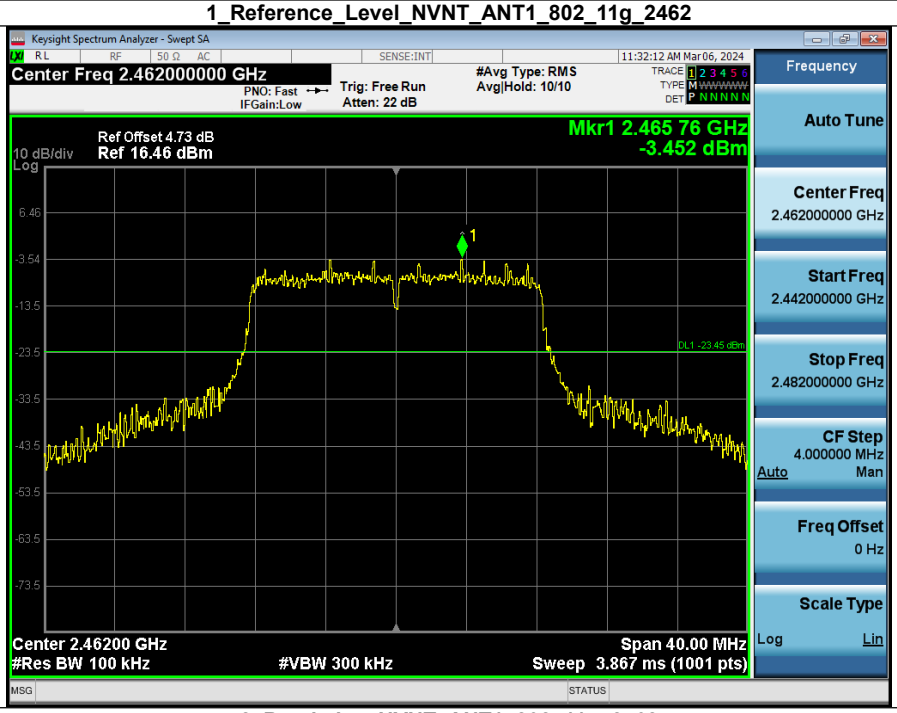
1_Reference_Level_NVNT_ANT1_802_11g_2412



2_Bandedge_NVNT_ANT1_802_11g_2412

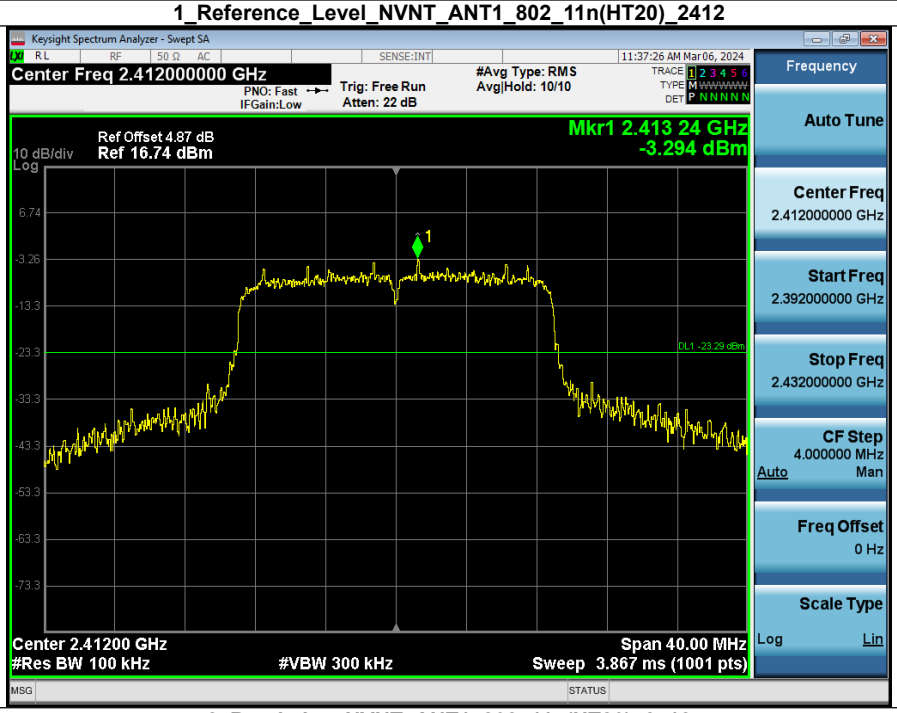


1_Reference_Level_NVNT_ANT1_802_11g_2462

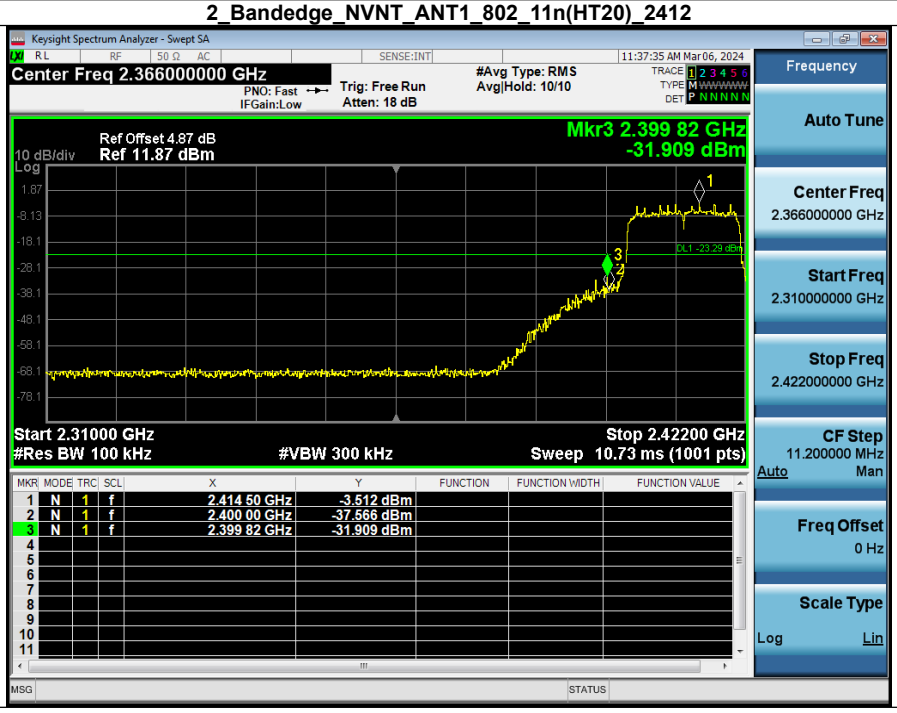


2_Bandedge_NVNT_ANT1_802_11g_2462

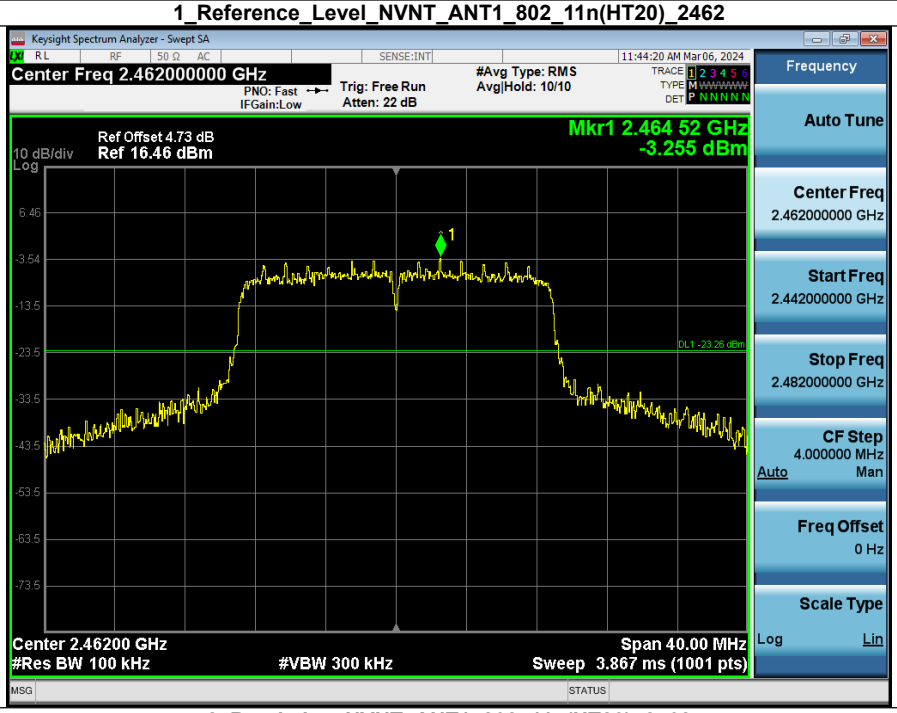
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



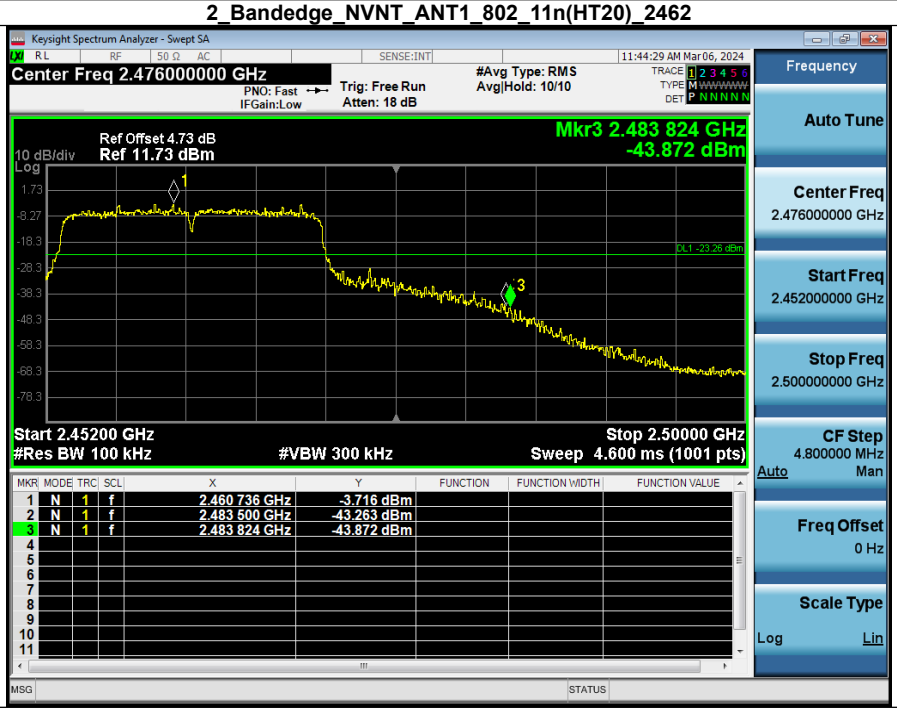
2_Bandedge_NVNT_ANT1_802_11n(HT20)_2412



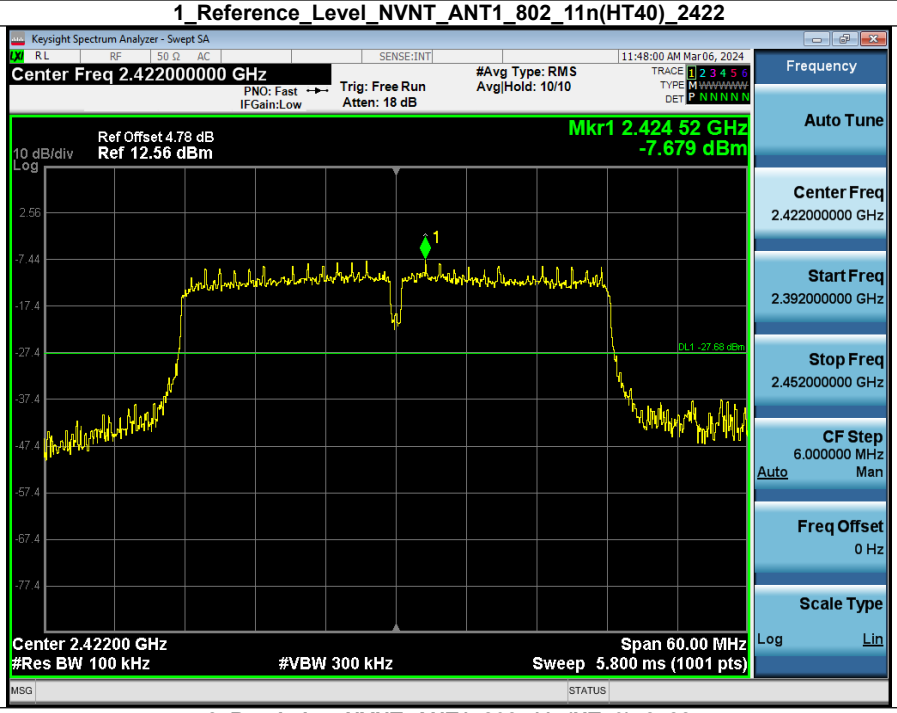
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462



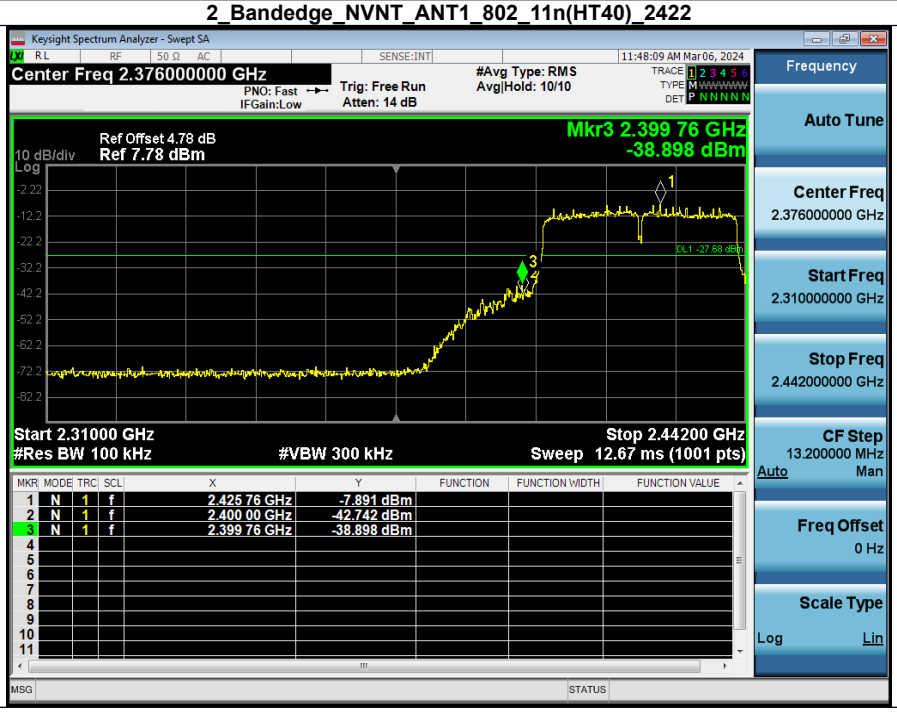
2_Bandedge_NVNT_ANT1_802_11n(HT20)_2462



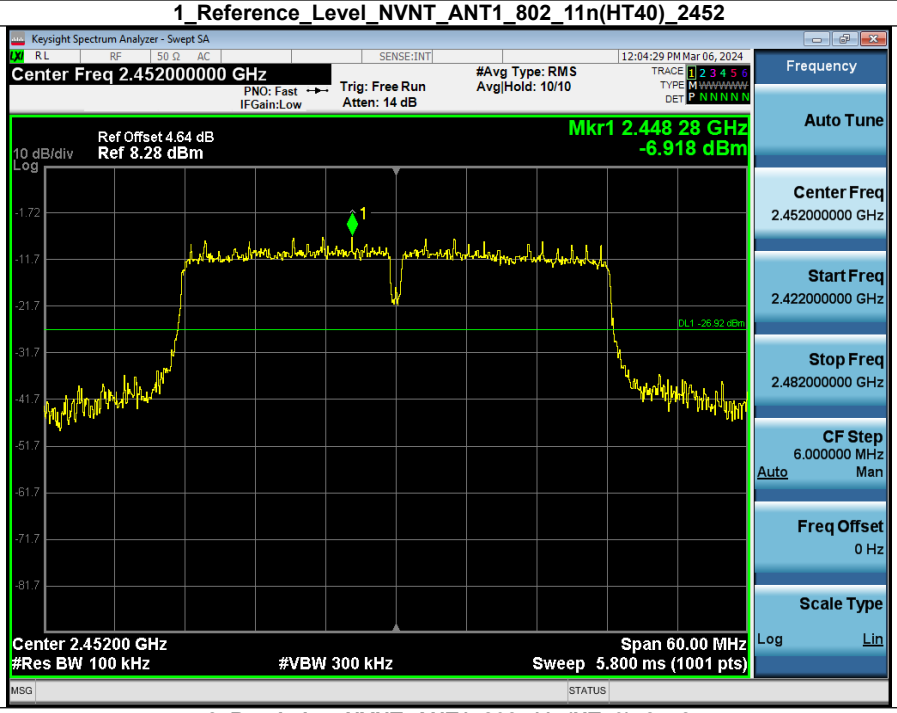
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



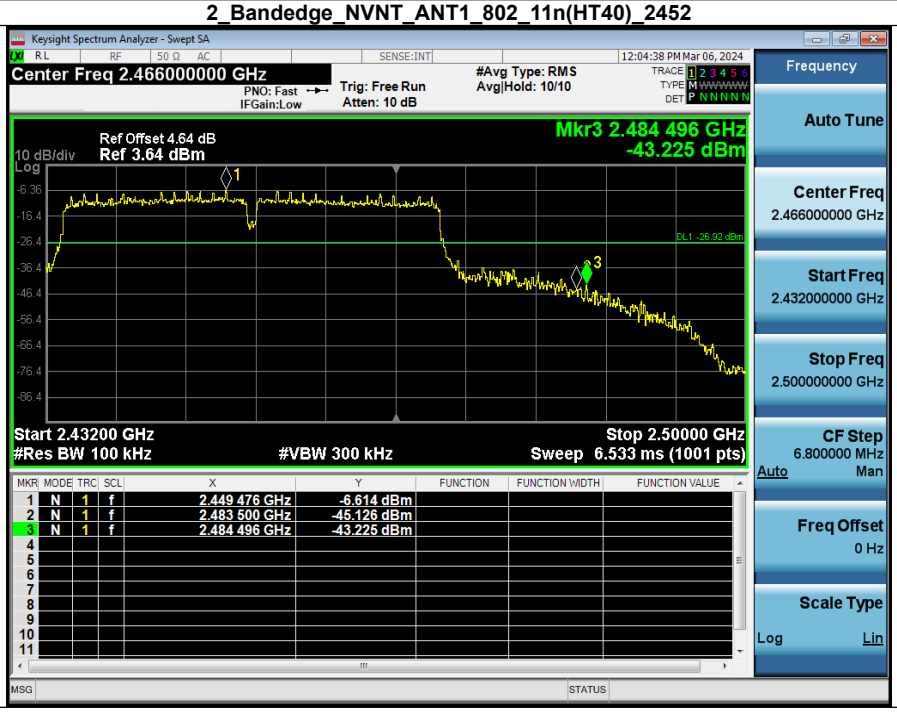
2_Bandedge_NVNT_ANT1_802_11n(HT40)_2422



1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2452



2_Bandedge_NVNT_ANT1_802_11n(HT40)_2452

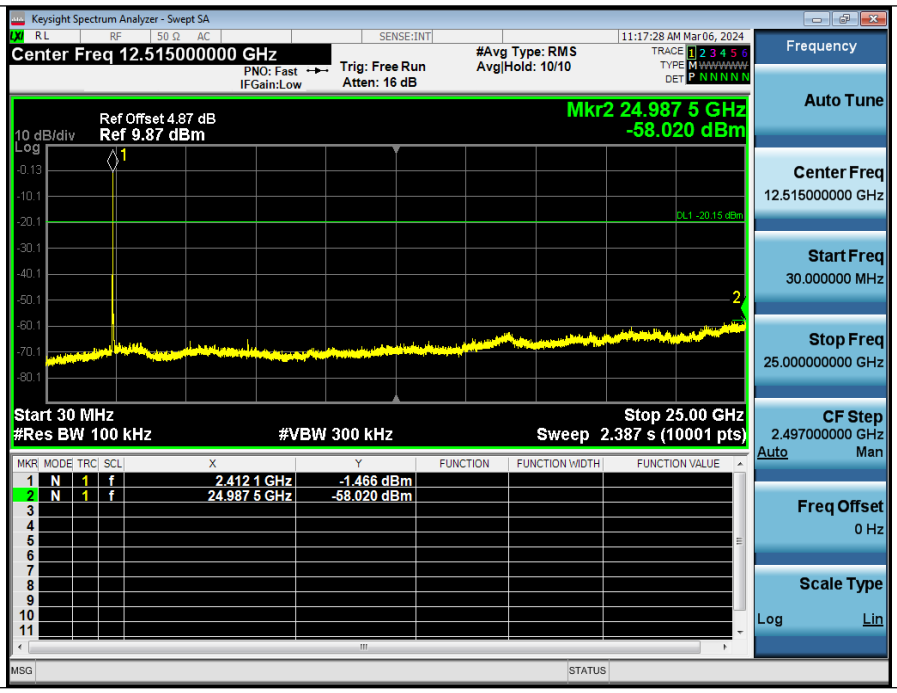


7. Spurious Emission

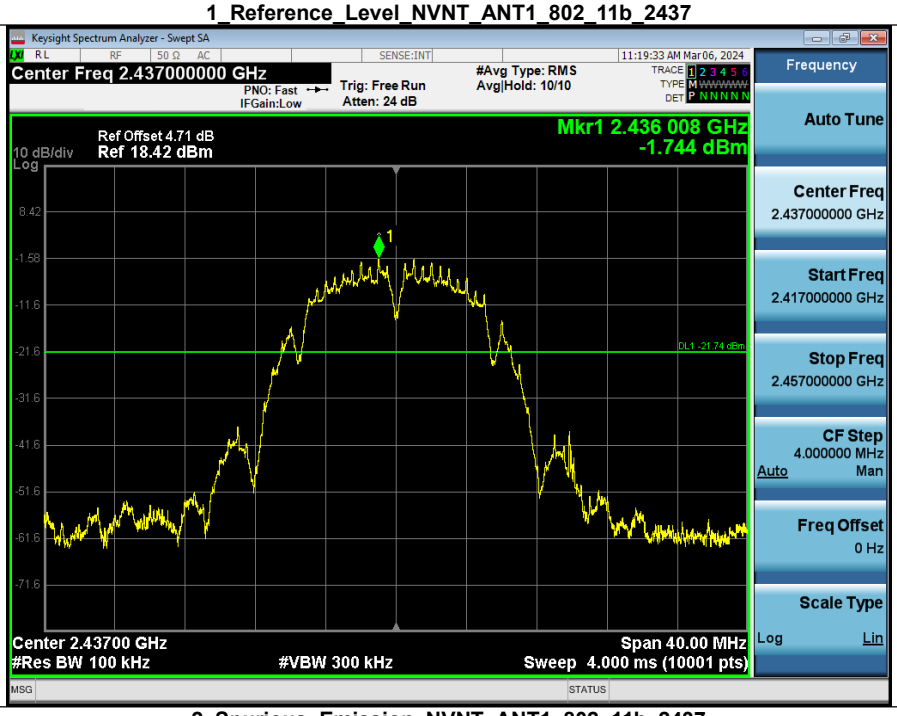
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	24987.515	-58.020	-20.148	Pass
NVNT	ANT1	802.11b	2437.00	25000.000	-54.179	-21.744	Pass
NVNT	ANT1	802.11b	2462.00	24533.061	-58.189	-20.512	Pass
NVNT	ANT1	802.11g	2412.00	24887.635	-56.032	-23.937	Pass
NVNT	ANT1	802.11g	2437.00	911.441	-48.936	-25.479	Pass
NVNT	ANT1	802.11g	2462.00	24955.054	-55.464	-23.452	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	24972.533	-56.381	-23.294	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	24997.503	-62.985	-25.792	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	24942.569	-54.142	-23.255	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	24960.048	-60.215	-27.679	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	24965.042	-60.260	-27.879	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	5221.263	-64.076	-26.918	Pass

1_Reference_Level_NVNT_ANT1_802_11b_2412

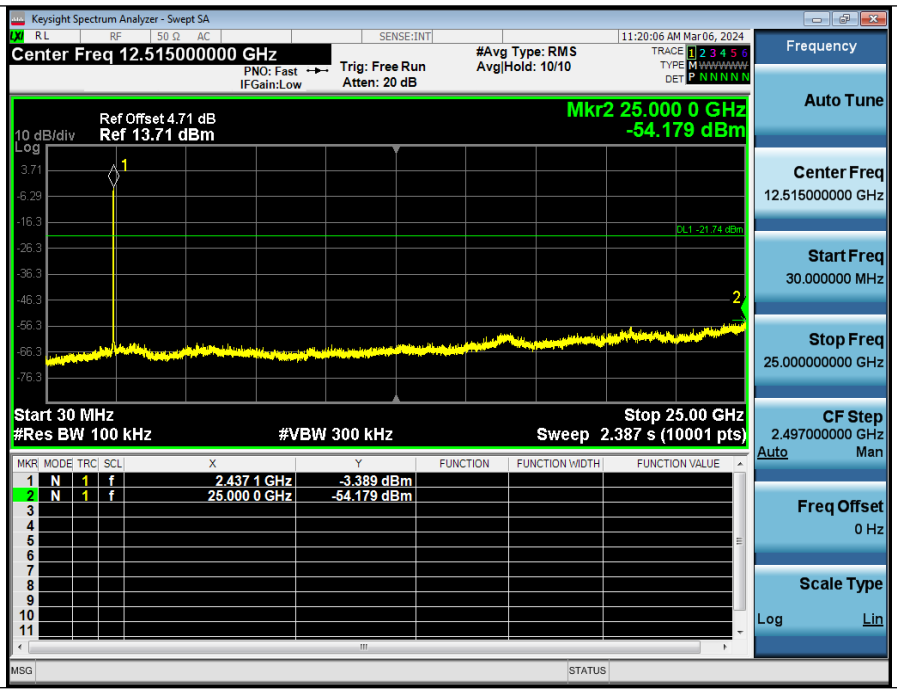
2_Spurious_Emission_NVNT_ANT1_802_11b_2412



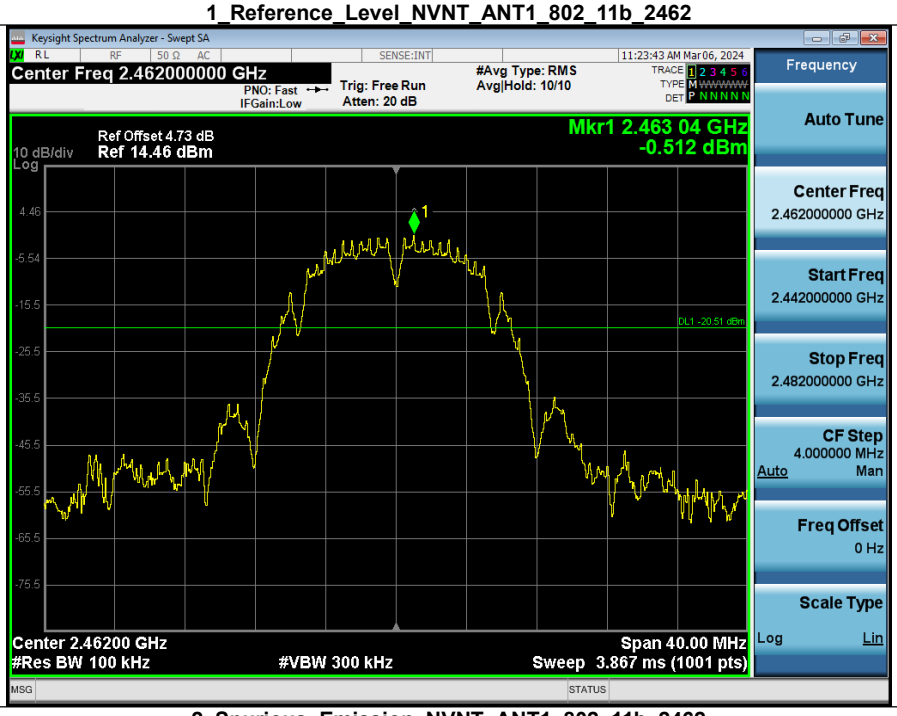
1_Reference_Level_NVNT_ANT1_802_11b_2437



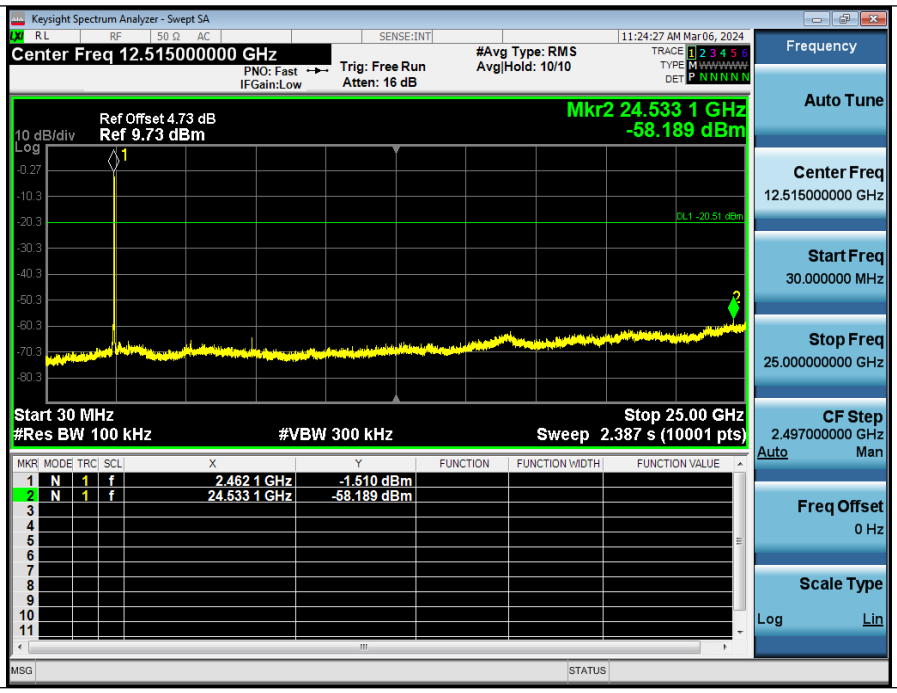
2_Spurious_Emission_NVNT_ANT1_802_11b_2437



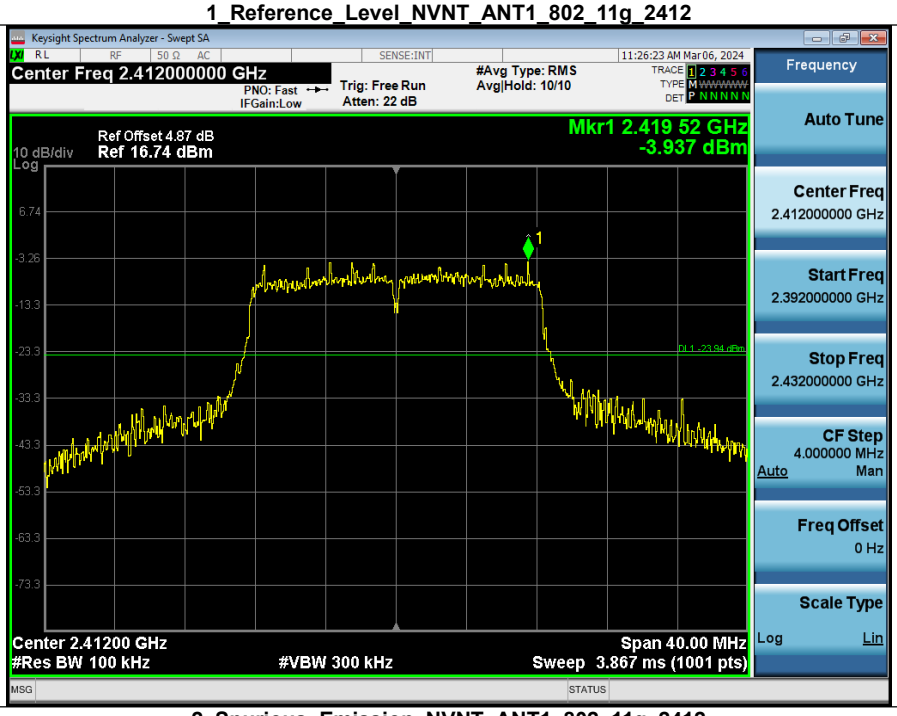
1_Reference_Level_NVNT_ANT1_802_11b_2462



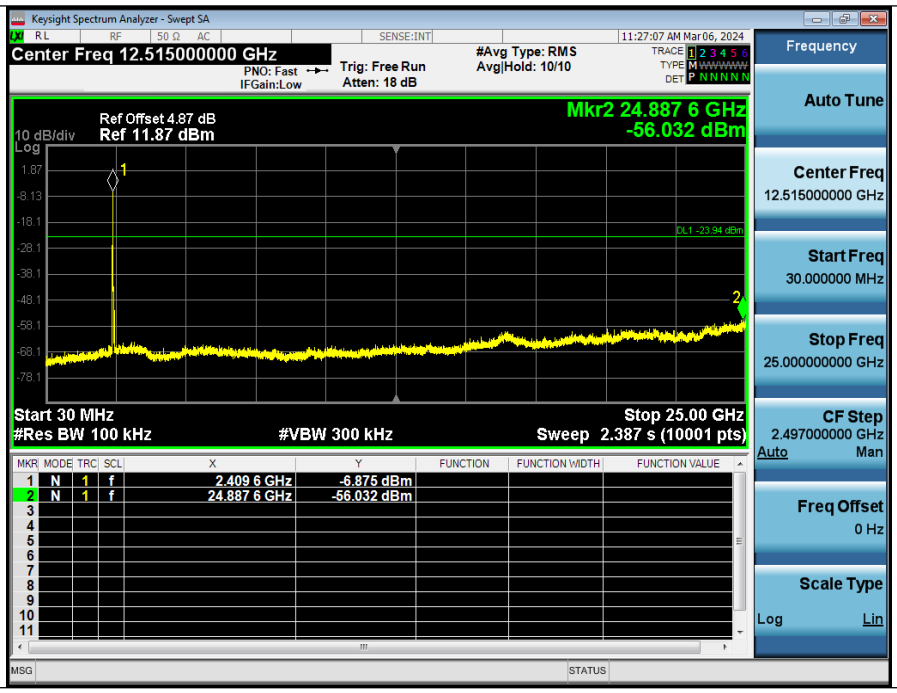
2_Spurious_Emission_NVNT_ANT1_802_11b_2462



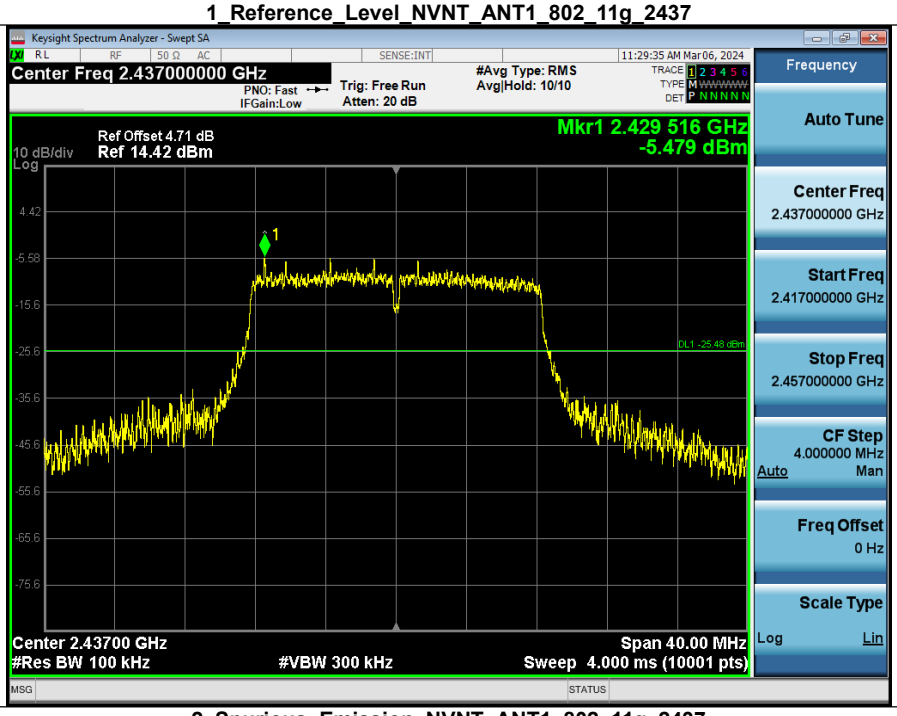
1_Reference_Level_NVNT_ANT1_802_11g_2412



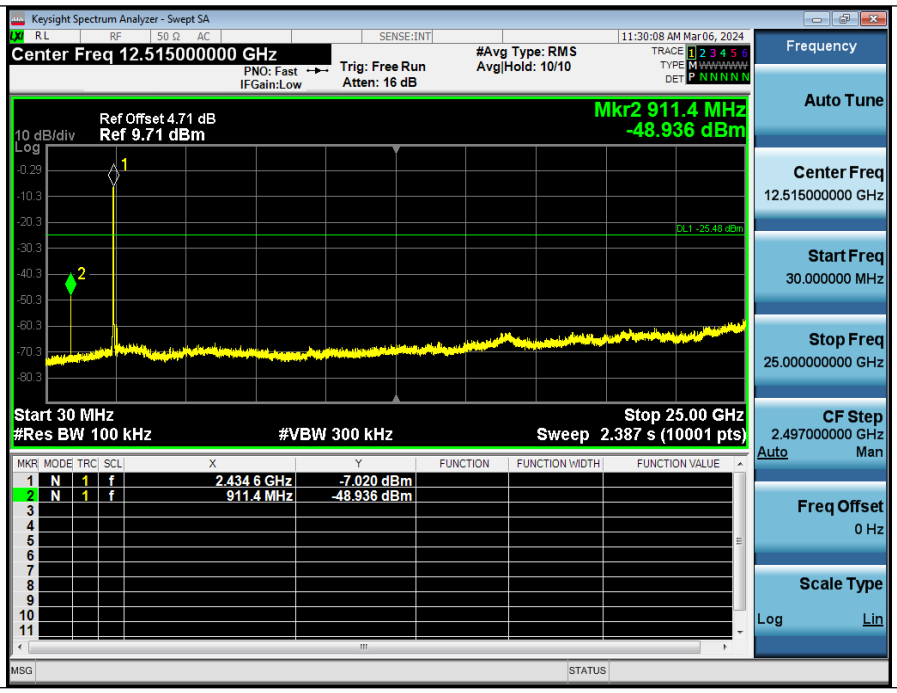
2_Spurious_Emission_NVNT_ANT1_802_11g_2412



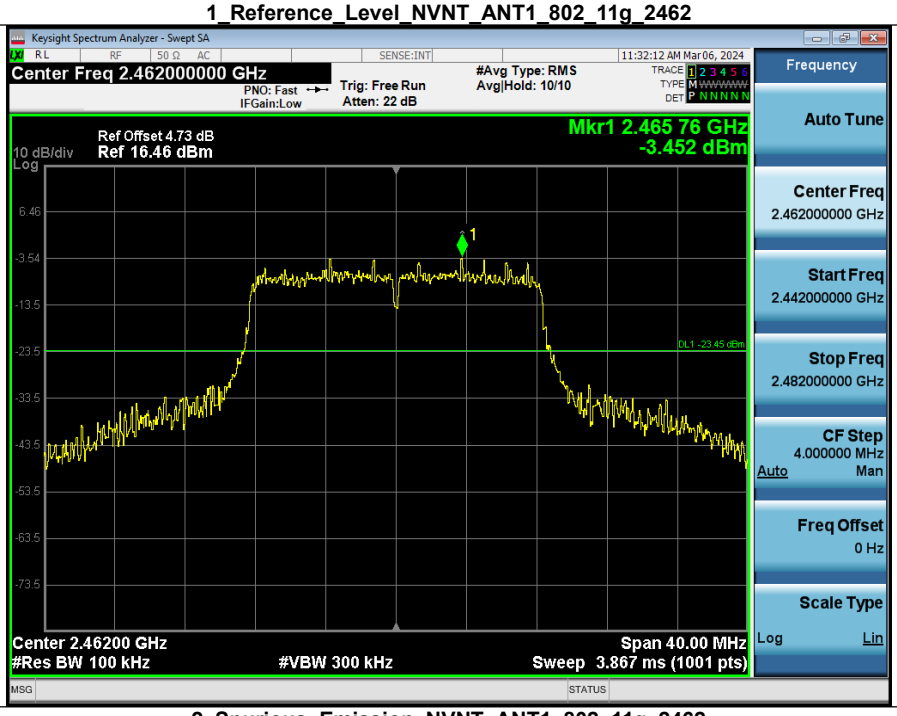
1_Reference_Level_NVNT_ANT1_802_11g_2437



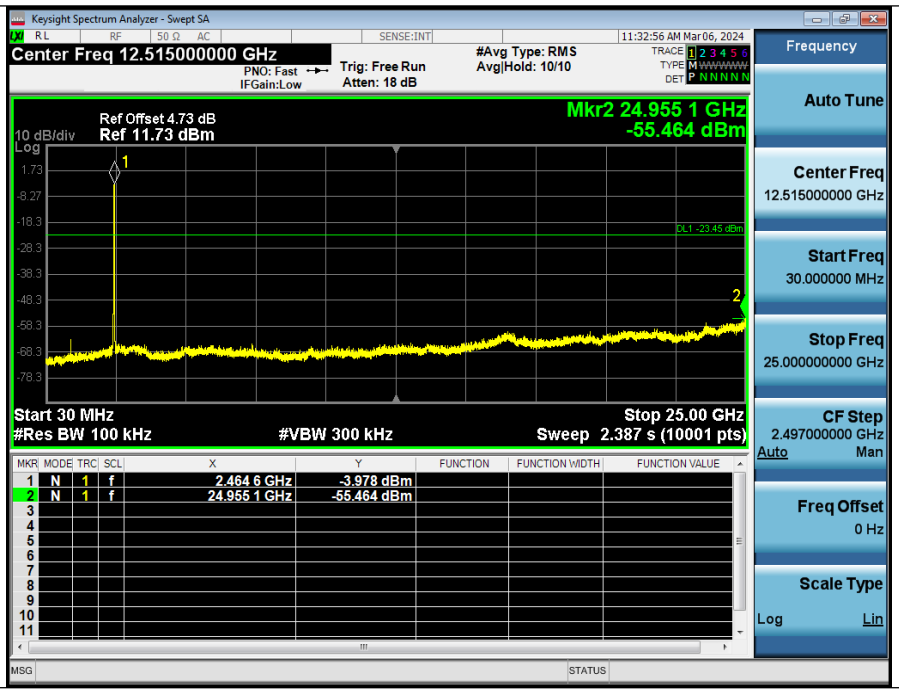
2_Spurious_Emission_NVNT_ANT1_802_11g_2437



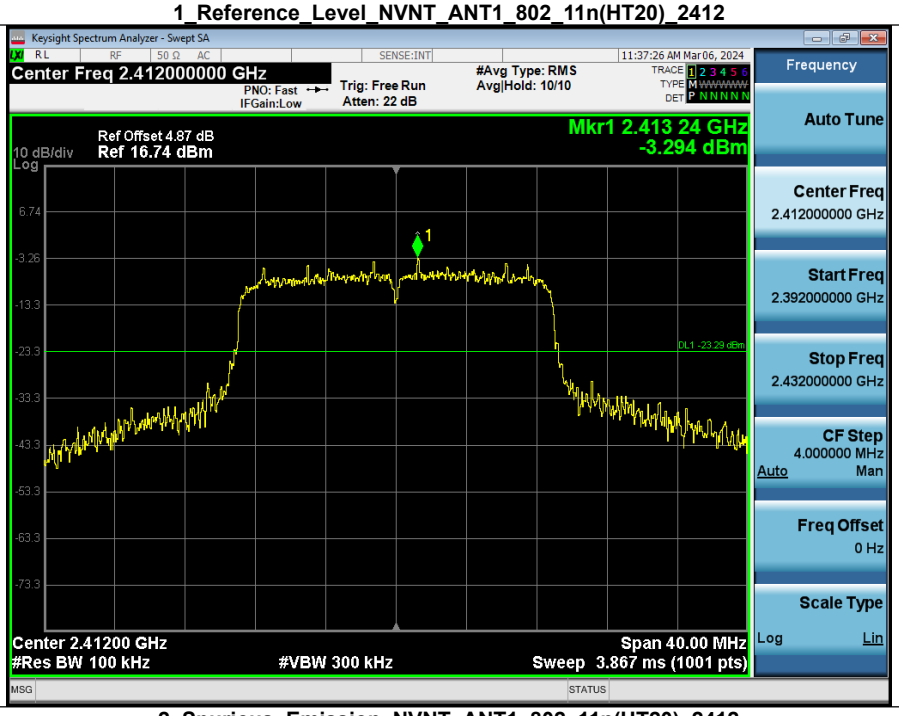
1_Reference_Level_NVNT_ANT1_802_11g_2462



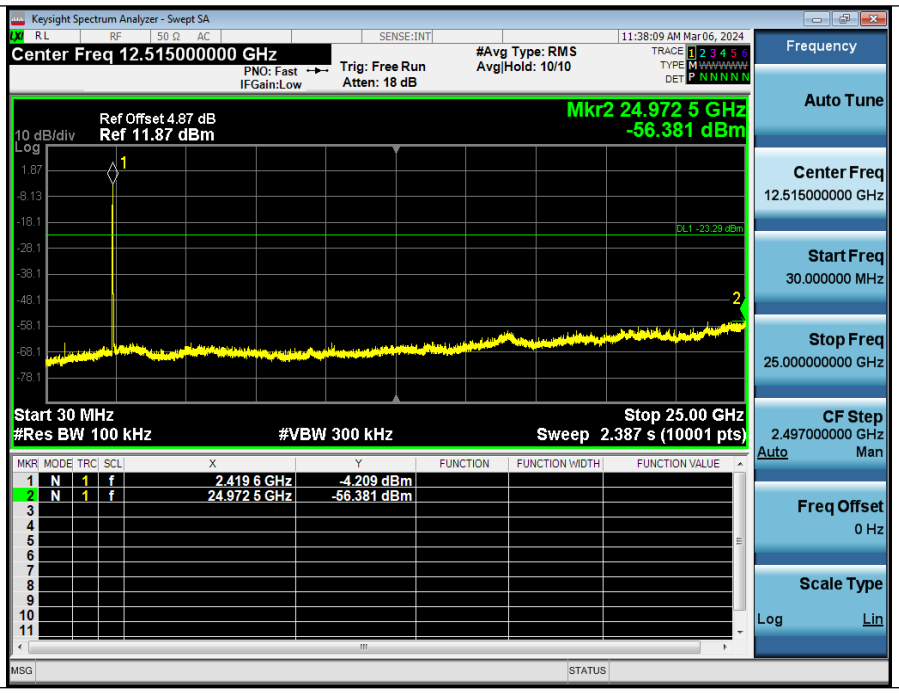
2_Spurious_Emission_NVNT_ANT1_802_11g_2462



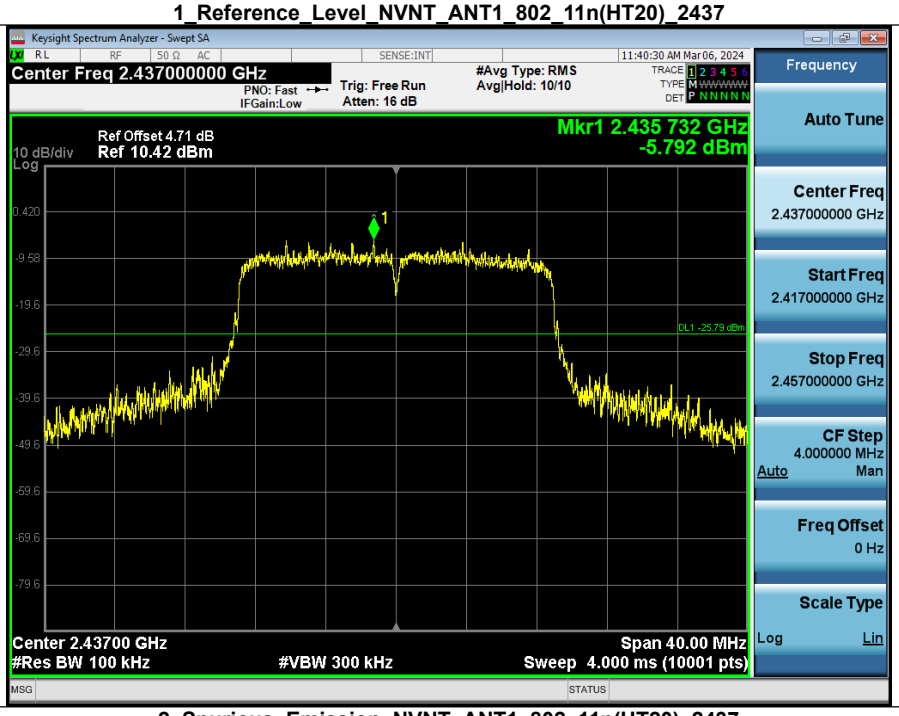
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



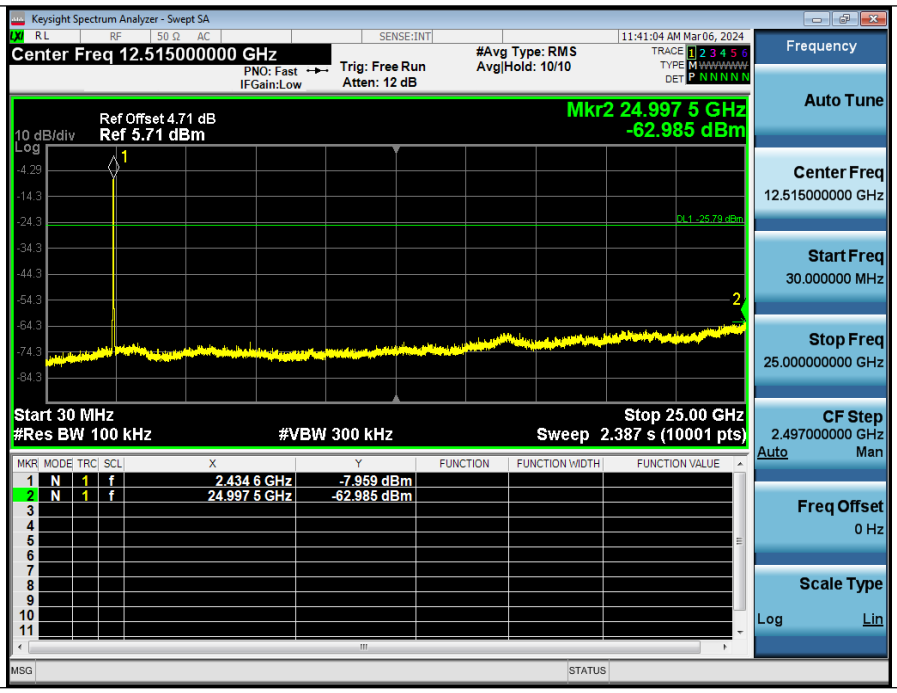
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2412



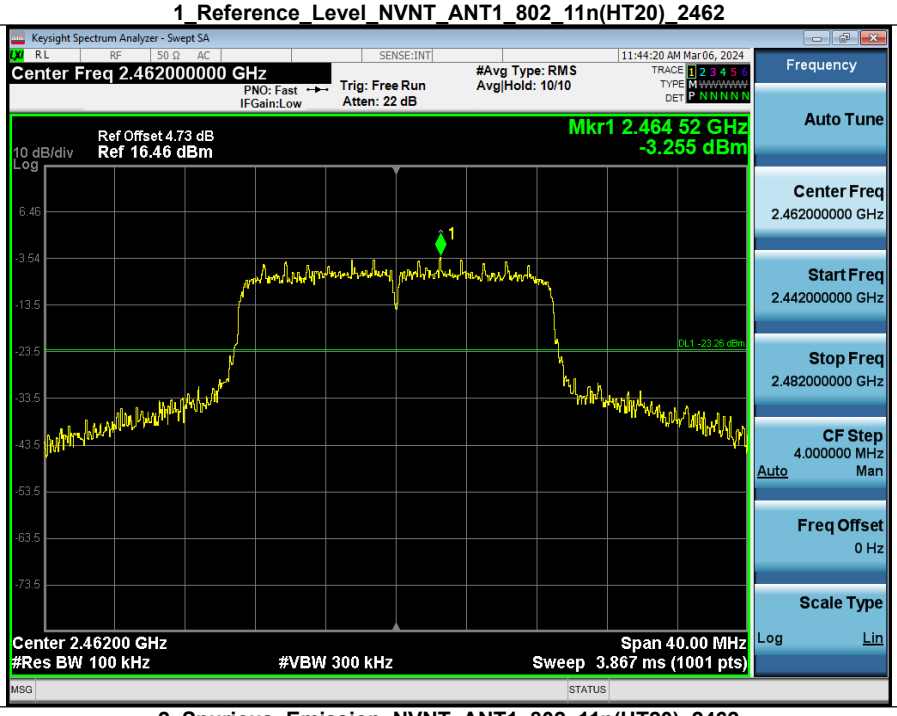
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2437



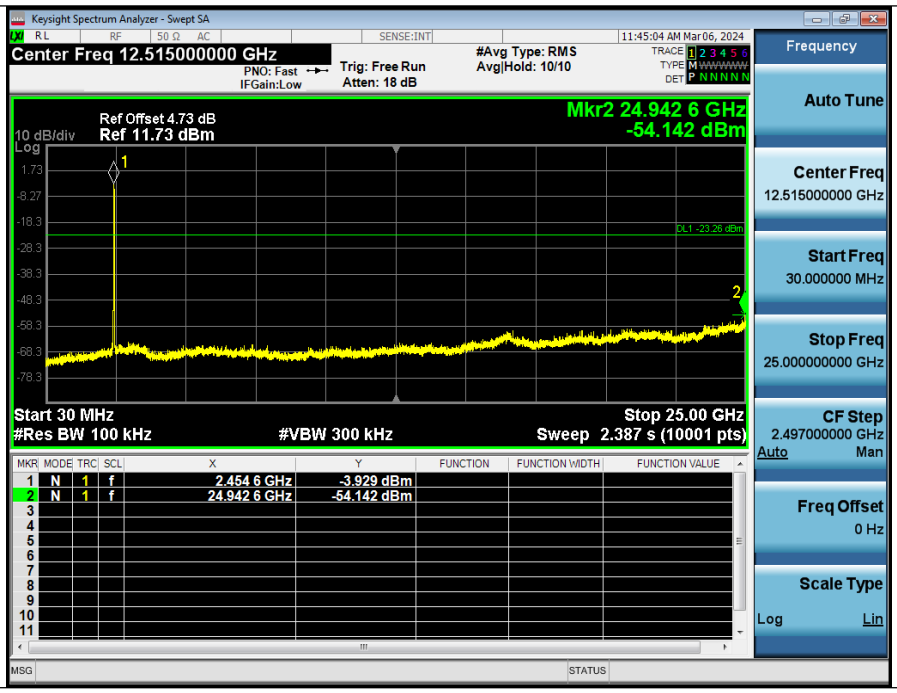
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2437



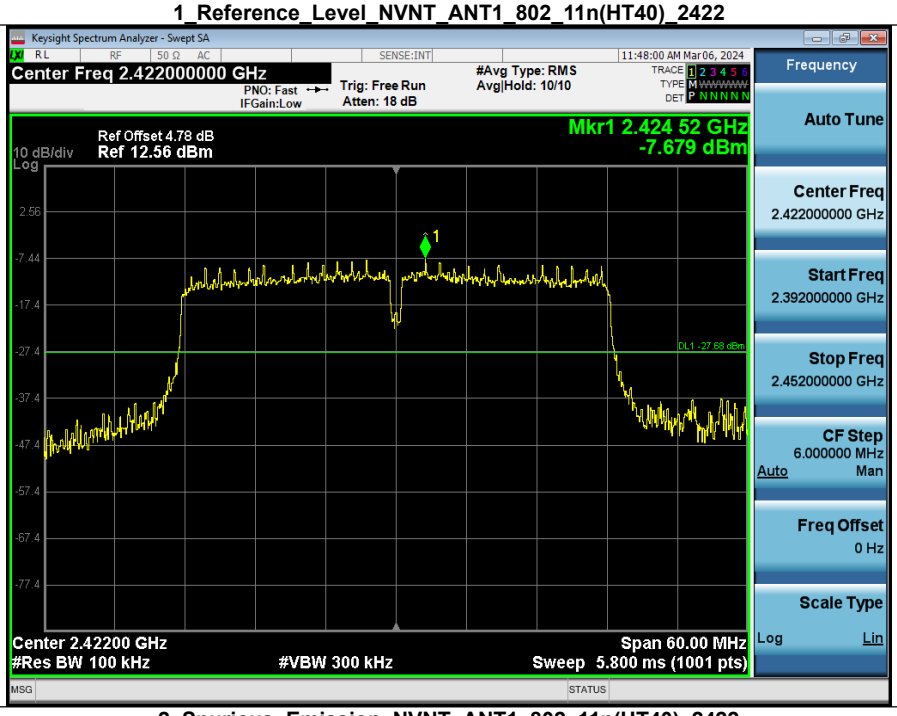
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462



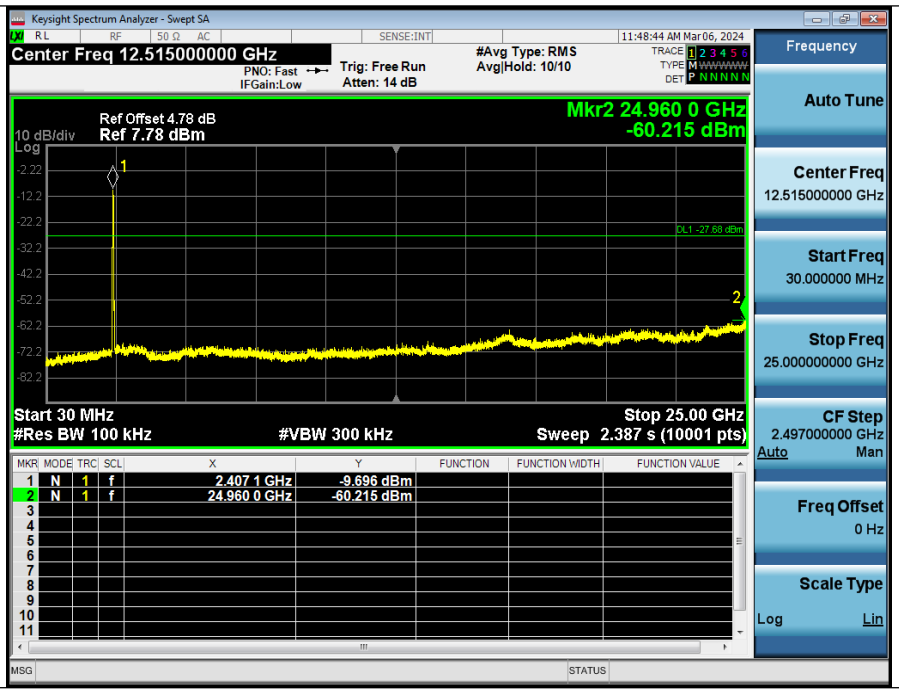
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2462



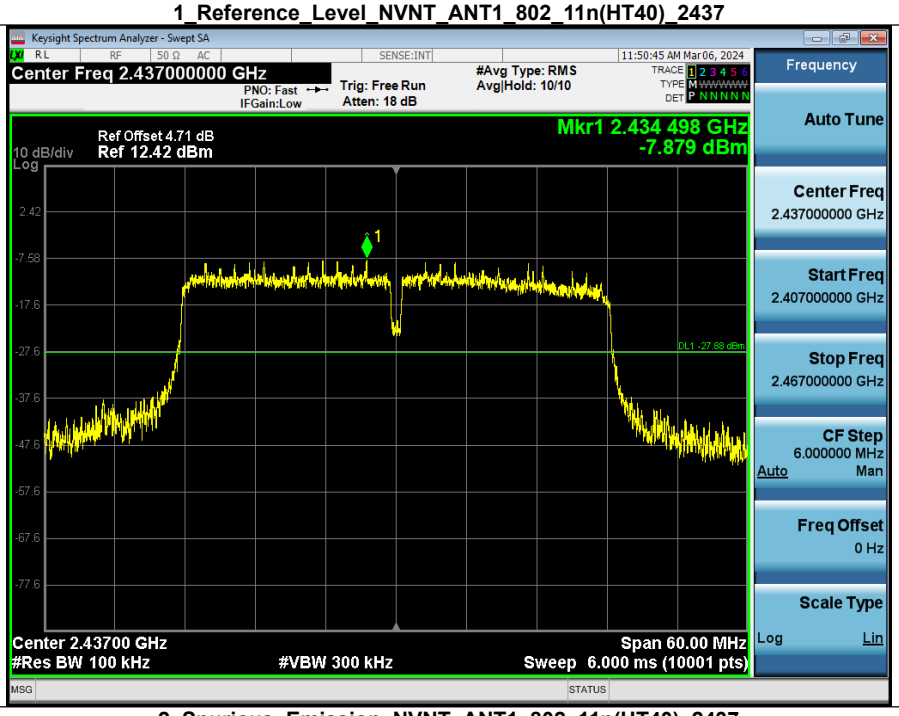
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



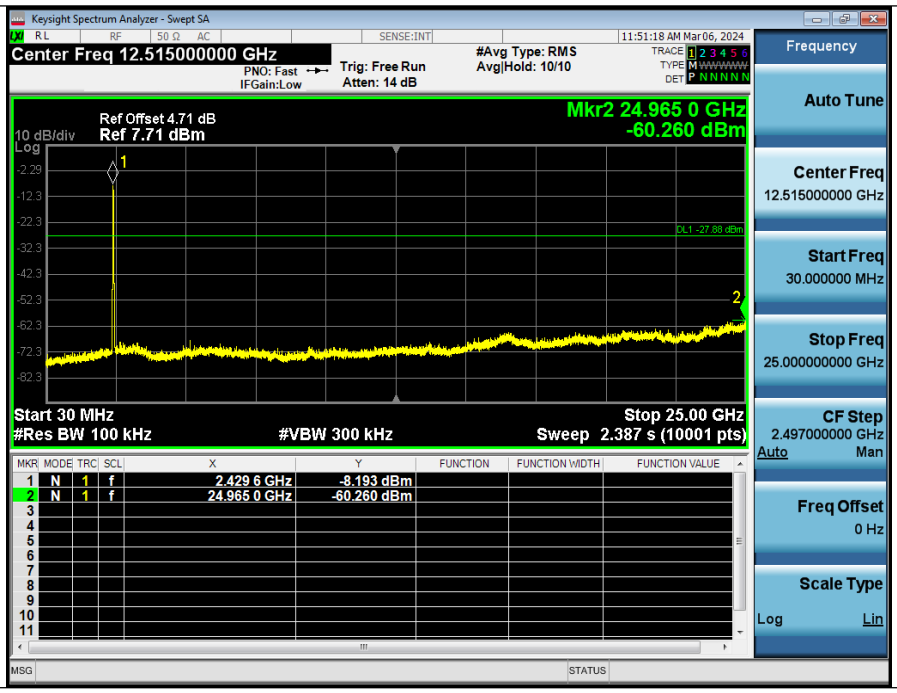
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2422



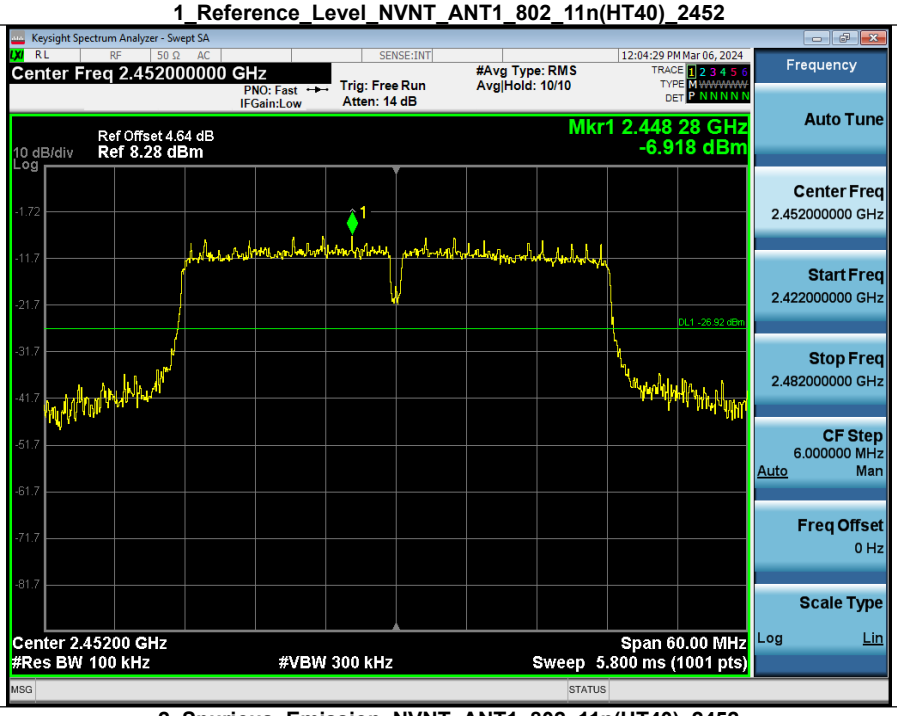
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2437



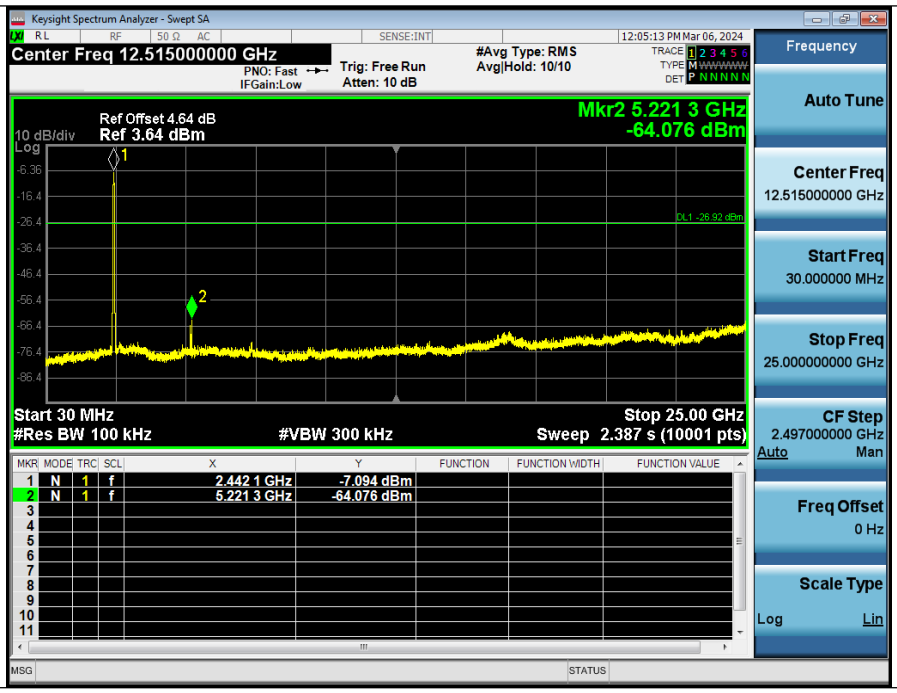
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2437



1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2452



2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2452


Keysight Spectrum Analyzer - Swept SA
Center Freq 12.515000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
#Avg Type: RMS
Avg|Hold: 10/10
12:05:13 PM Mar 06, 2024
Ref Offset 4.64 dB
10 dB/div
Ref 3.64 dBm
Mkr2 5.221 3 GHz
-64.076 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.00 GHz
Sweep 2.387 s (10001 pts)
1 N 1 f 2.442 1 GHz -7.094 dBm
2 N 1 f 5.221 3 GHz -64.076 dBm
Frequency
Auto Tune
Center Freq
12.515000000 GHz
Start Freq
30.000000 MHz
Stop Freq
25.000000000 GHz
CF Step
2.497000000 GHz
Auto Man
Freq Offset
0 Hz
Scale Type
Log Lin