FCC_2.4G_WIFI (Part15.247) Test Data
FCC ID: 2BMCW-K1-800
Report No.:NCT240472436XE1-3

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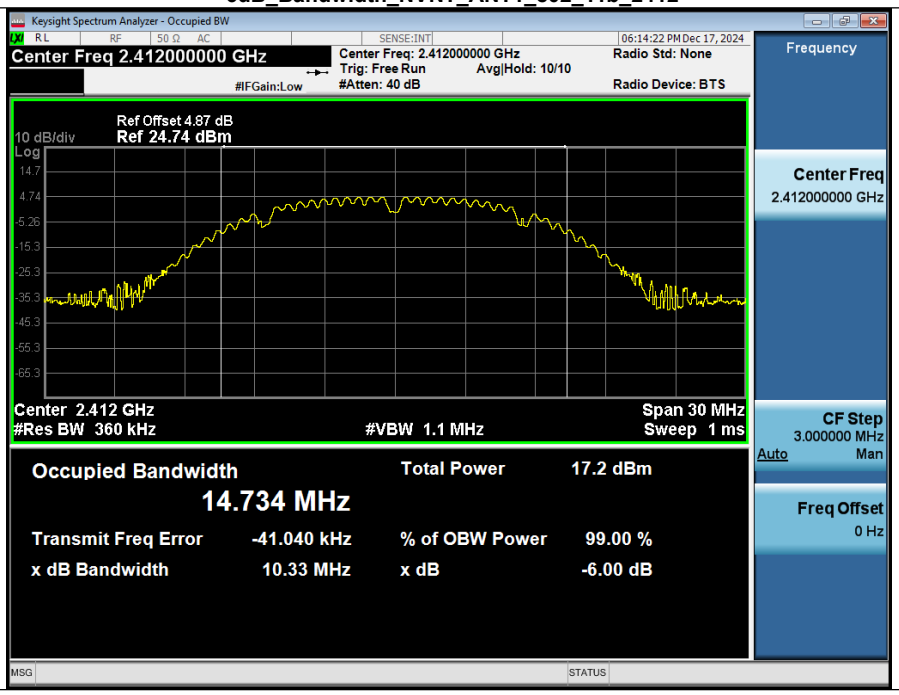
1. -6dB Bandwidth

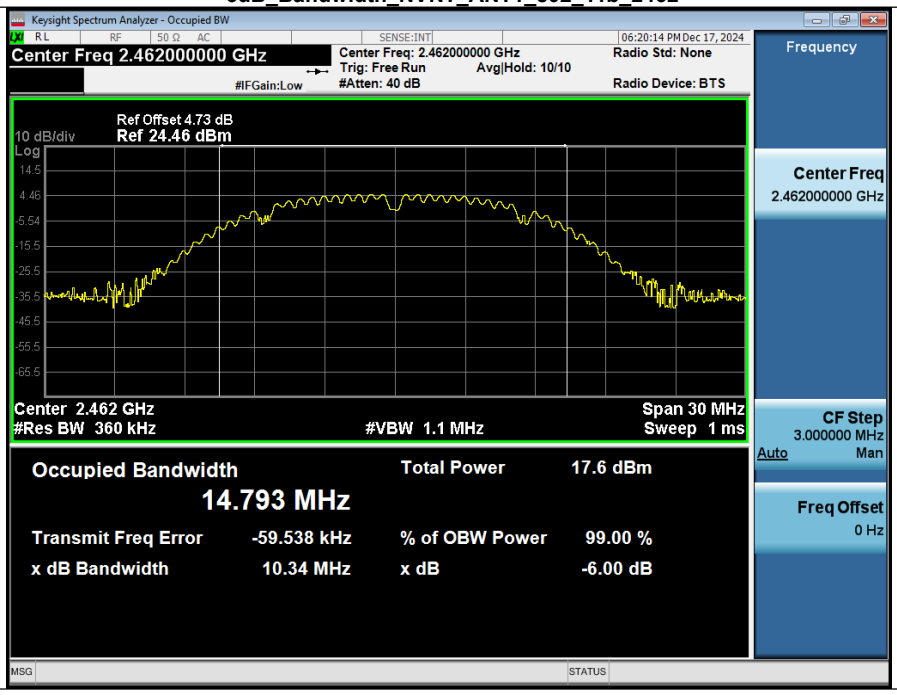
Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	10.33	500	Pass
NVNT	ANT1	802.11b	2437.00	10.34	500	Pass
NVNT	ANT1	802.11b	2462.00	10.34	500	Pass
NVNT	ANT1	802.11g	2412.00	16.29	500	Pass
NVNT	ANT1	802.11g	2437.00	16.29	500	Pass
NVNT	ANT1	802.11g	2462.00	16.31	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.58	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.60	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.63	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	36.41	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	36.34	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	36.35	500	Pass

-6dB_Bandwidth_NVNT_ANT1_802_11b_2412

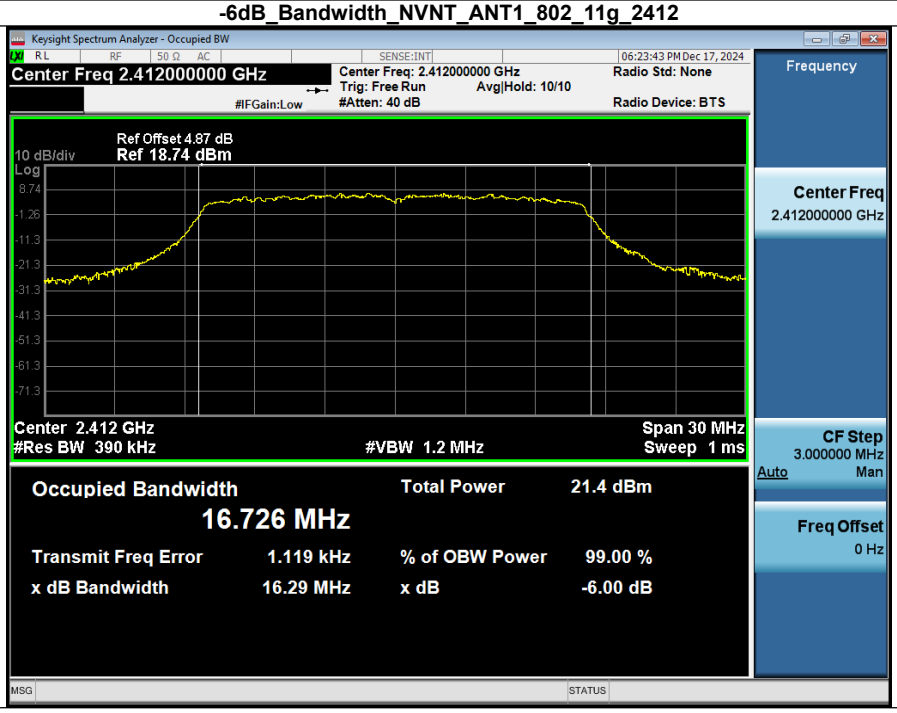


-6dB_Bandwidth_NVNT_ANT1_802_11b_2437

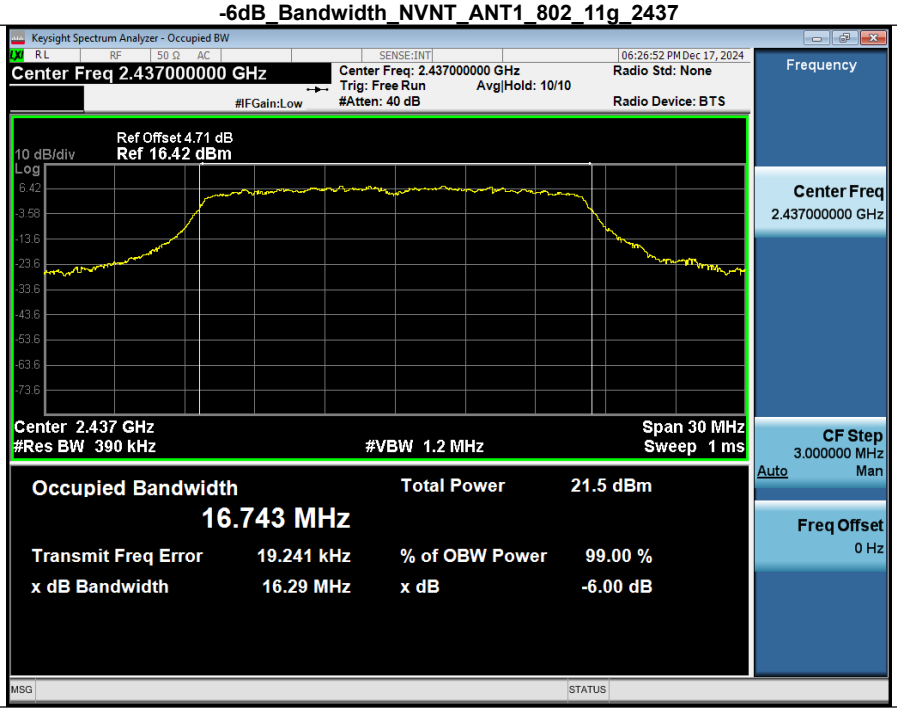
-6dB_Bandwidth_NVNT_ANT1_802_11b_2462



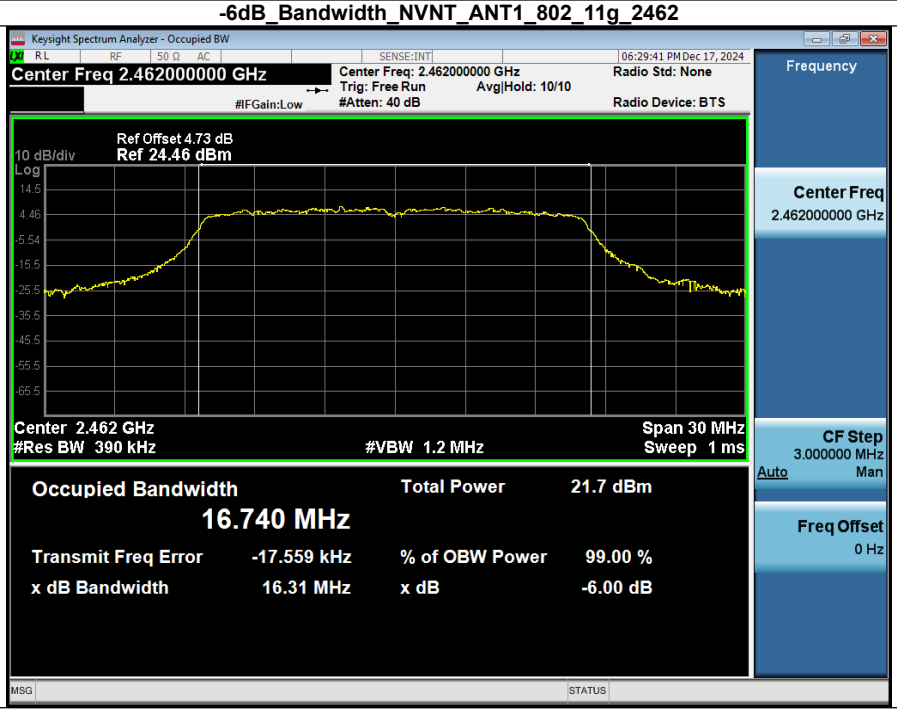
-6dB_Bandwidth_NVNT_ANT1_802_11g_2412



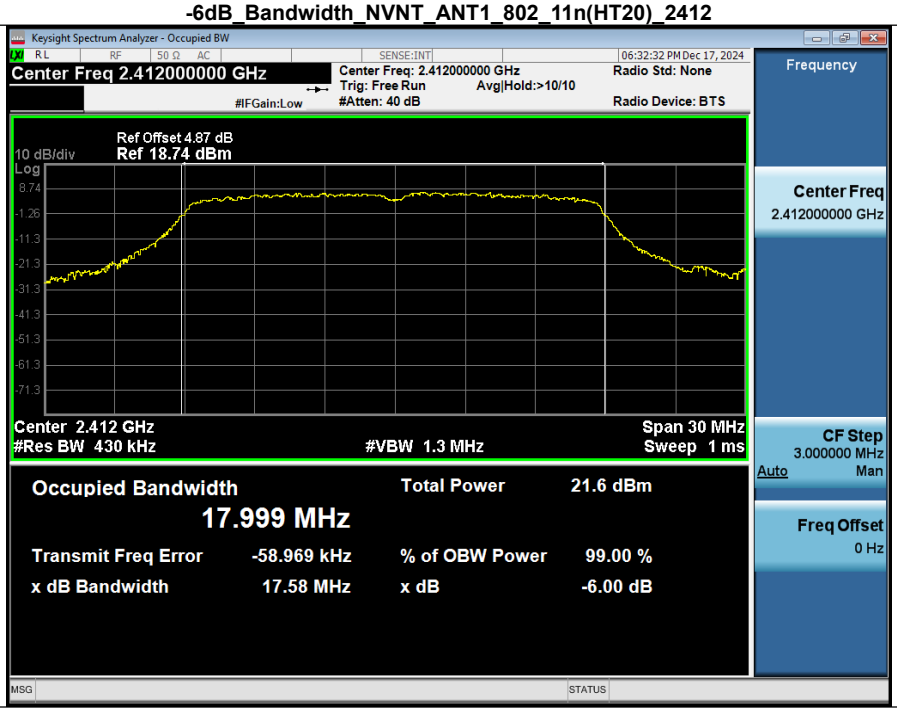
-6dB_Bandwidth_NVNT_ANT1_802_11g_2437



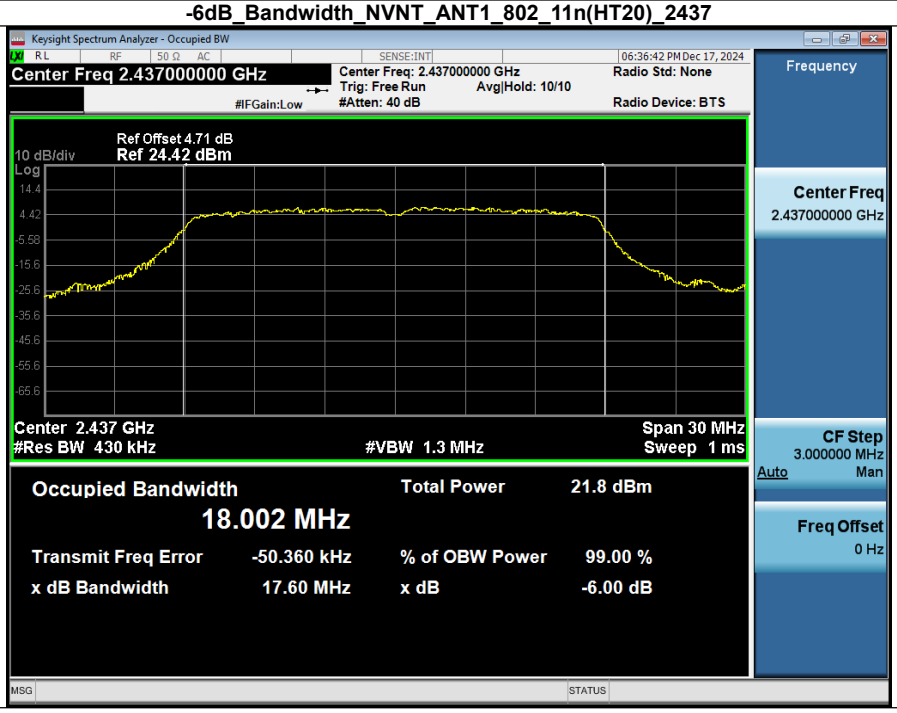
-6dB_Bandwidth_NVNT_ANT1_802_11g_2462



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



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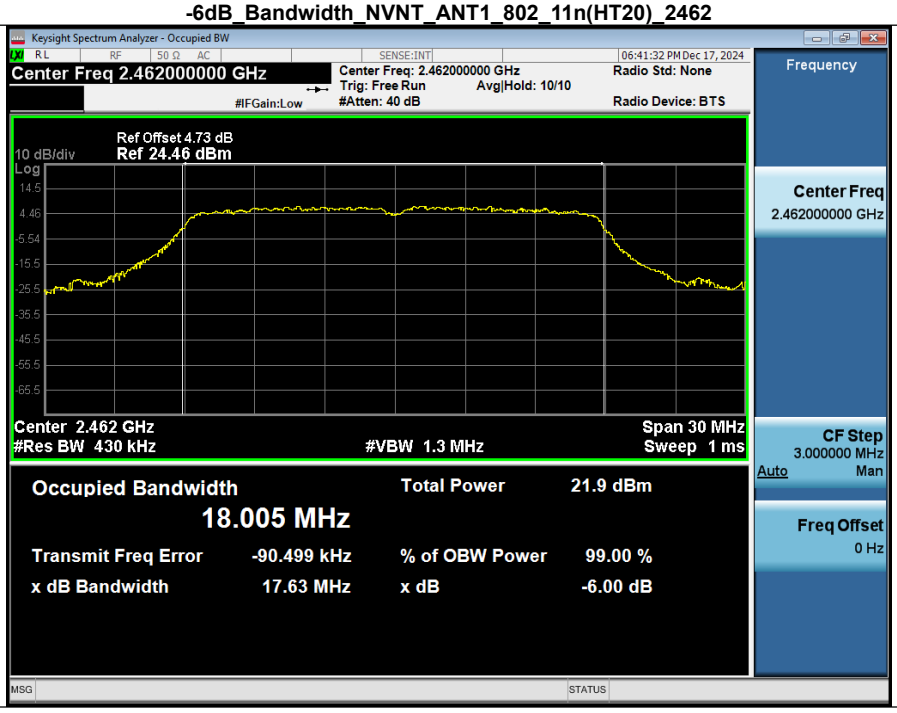
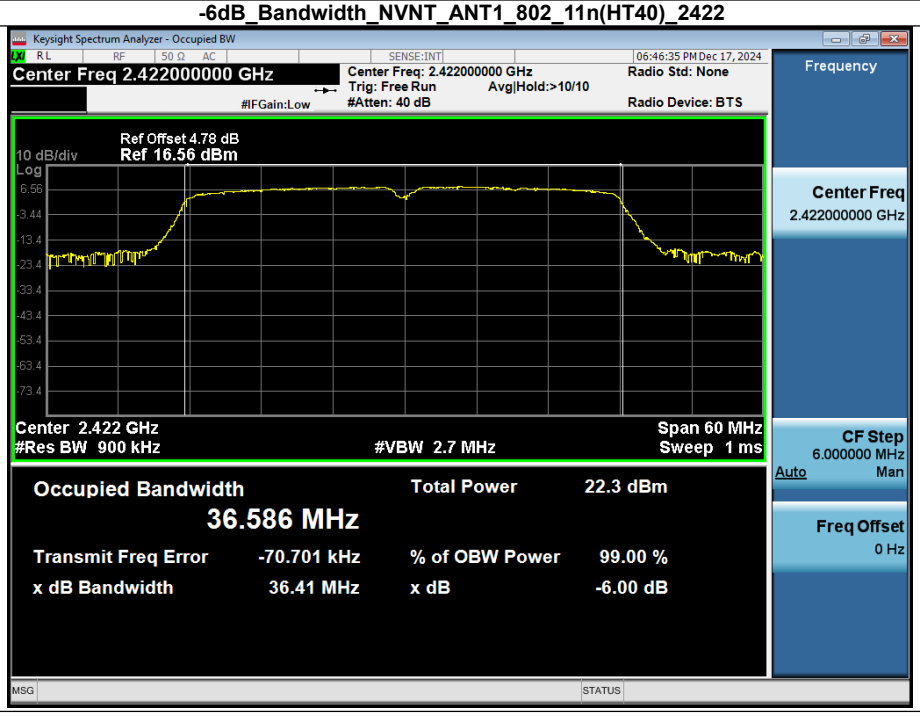


-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



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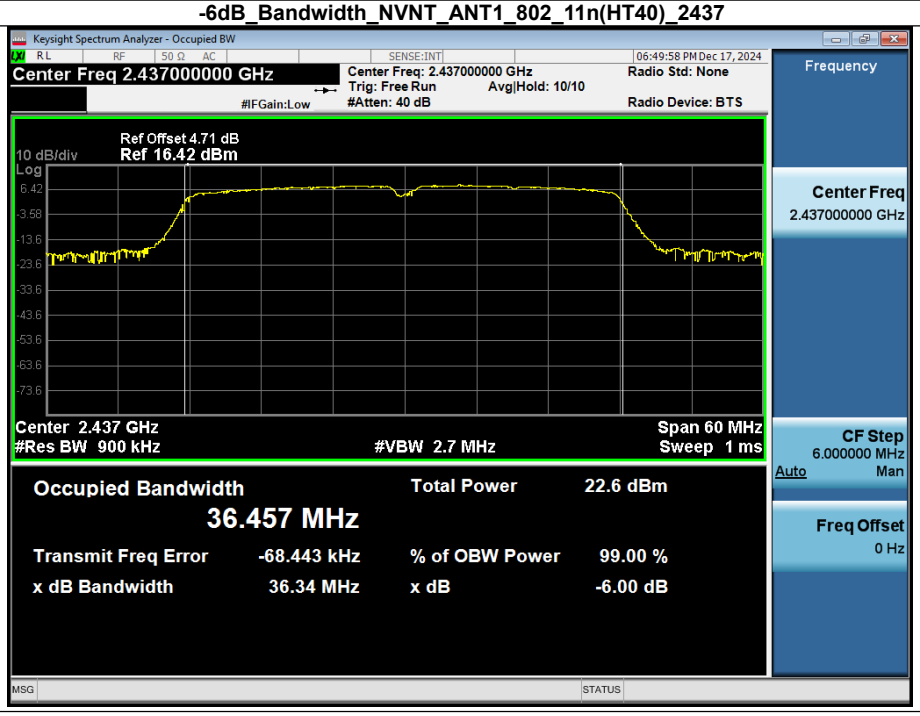
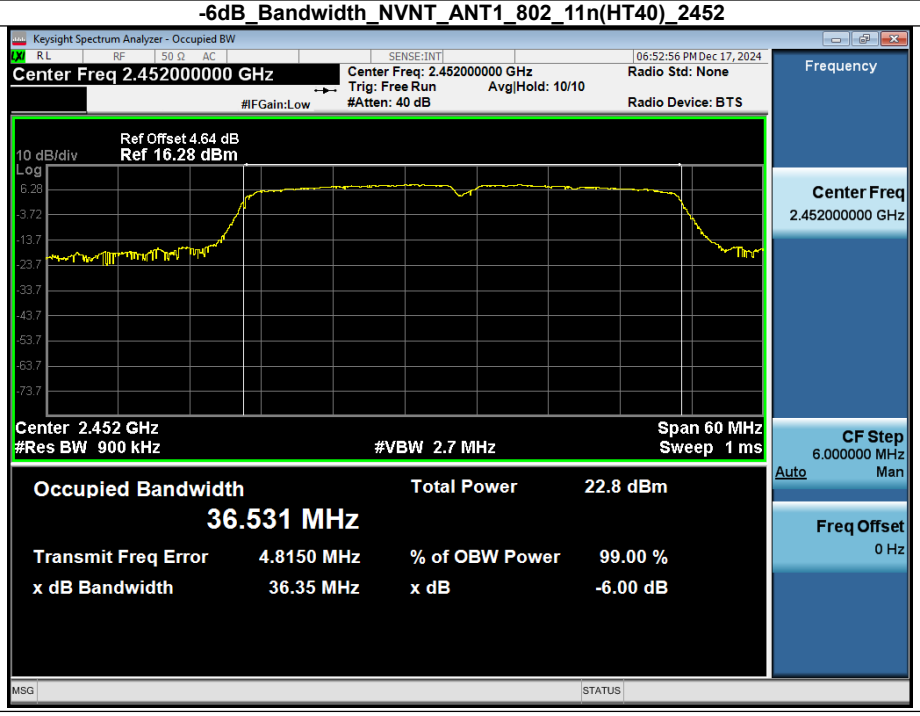


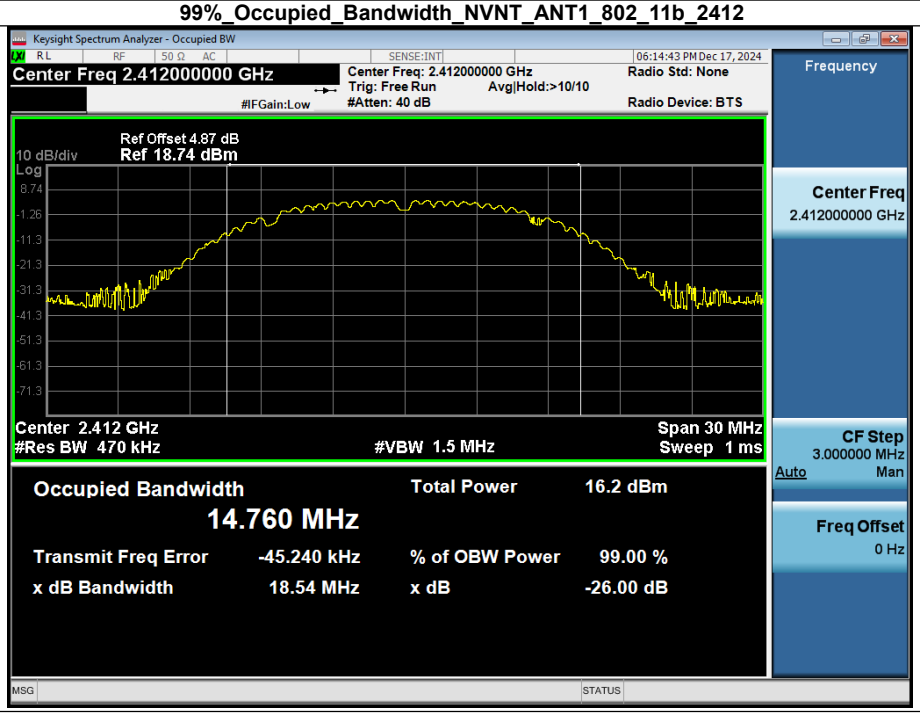
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



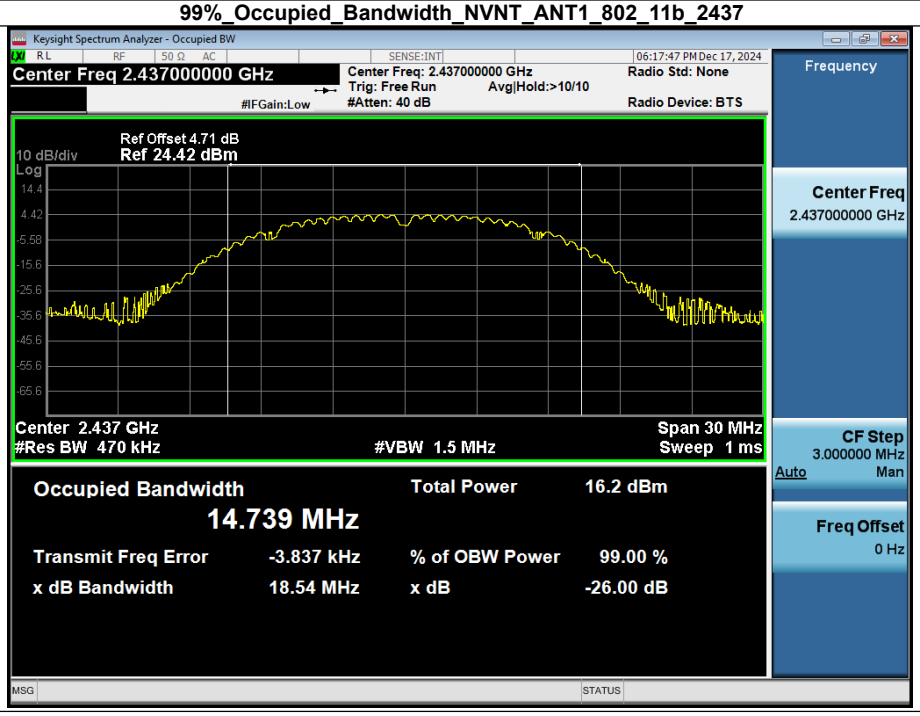
2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	802.11b	2412.00	14.760
NVNT	ANT1	802.11b	2437.00	14.739
NVNT	ANT1	802.11b	2462.00	14.815
NVNT	ANT1	802.11g	2412.00	16.907
NVNT	ANT1	802.11g	2437.00	16.936
NVNT	ANT1	802.11g	2462.00	16.943
NVNT	ANT1	802.11n(HT20)	2412.00	18.179
NVNT	ANT1	802.11n(HT20)	2437.00	18.153
NVNT	ANT1	802.11n(HT20)	2462.00	18.217
NVNT	ANT1	802.11n(HT40)	2422.00	36.578
NVNT	ANT1	802.11n(HT40)	2437.00	36.539
NVNT	ANT1	802.11n(HT40)	2452.00	36.512

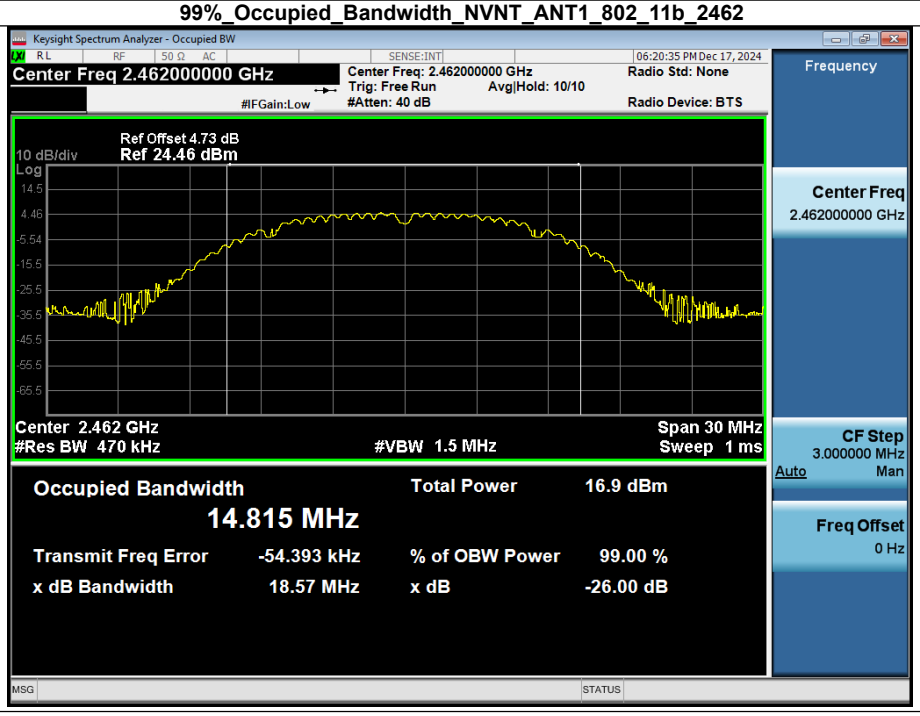
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2412



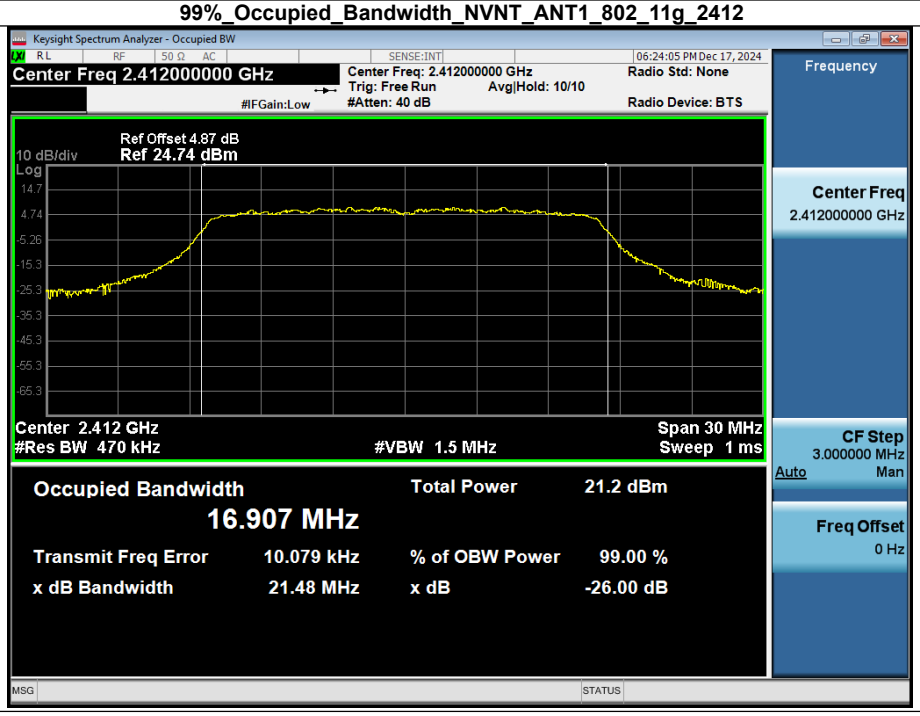
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2437



99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2462



99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2412



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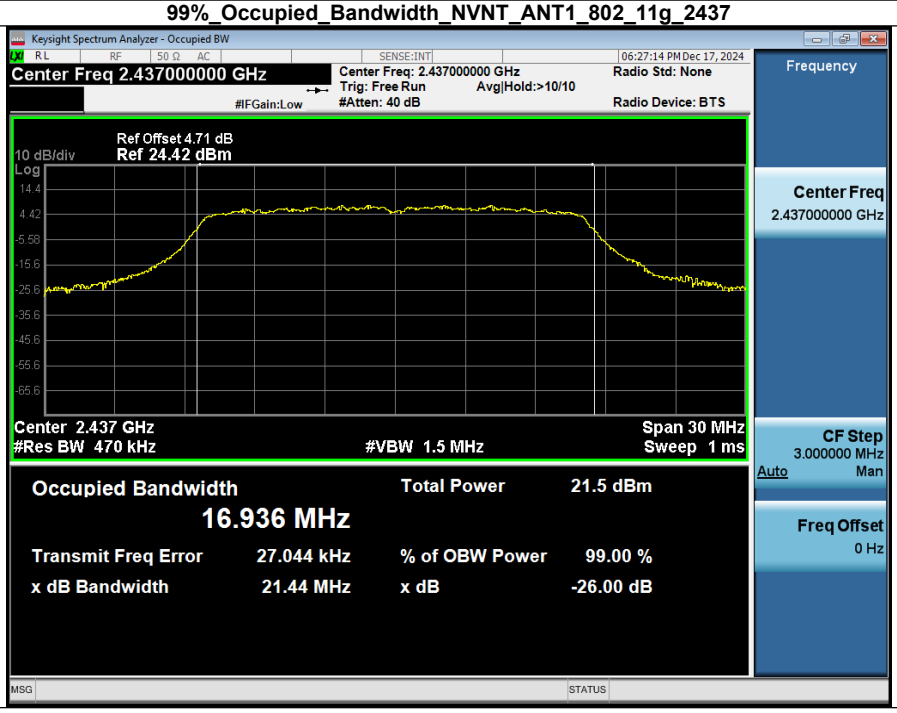

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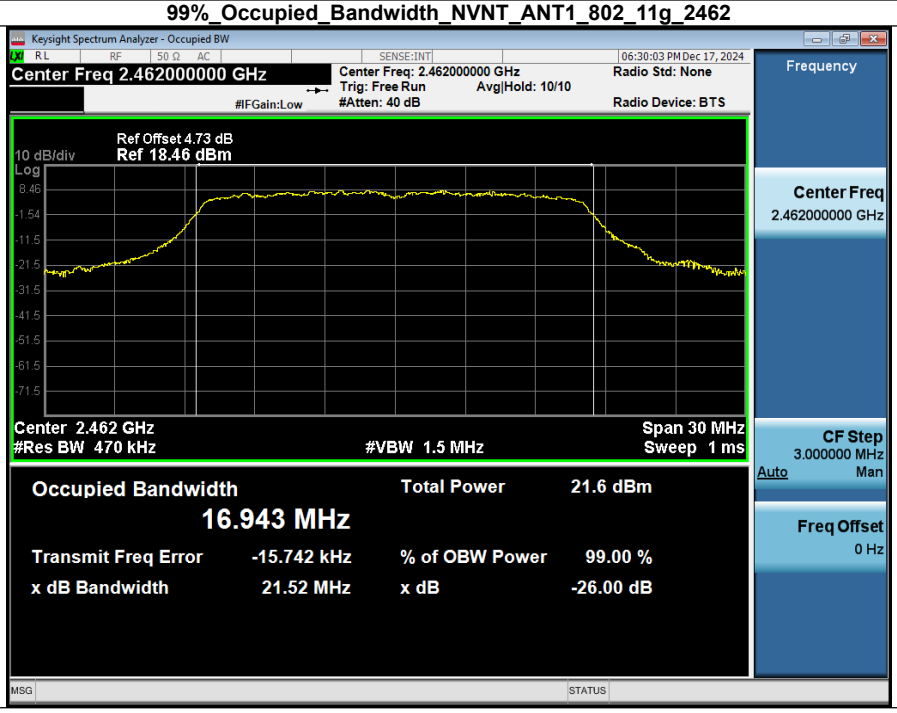
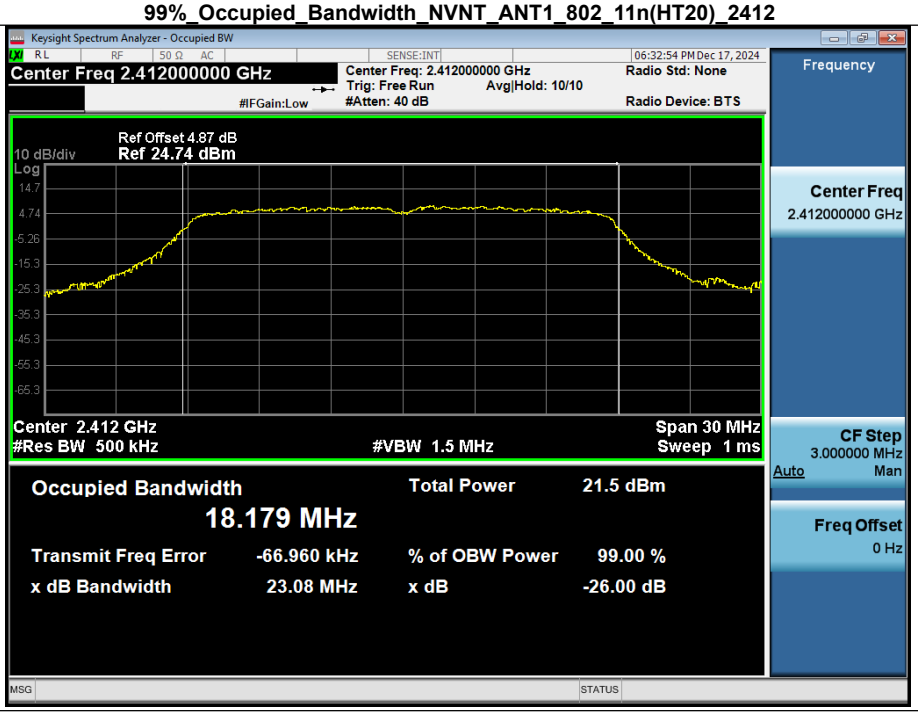
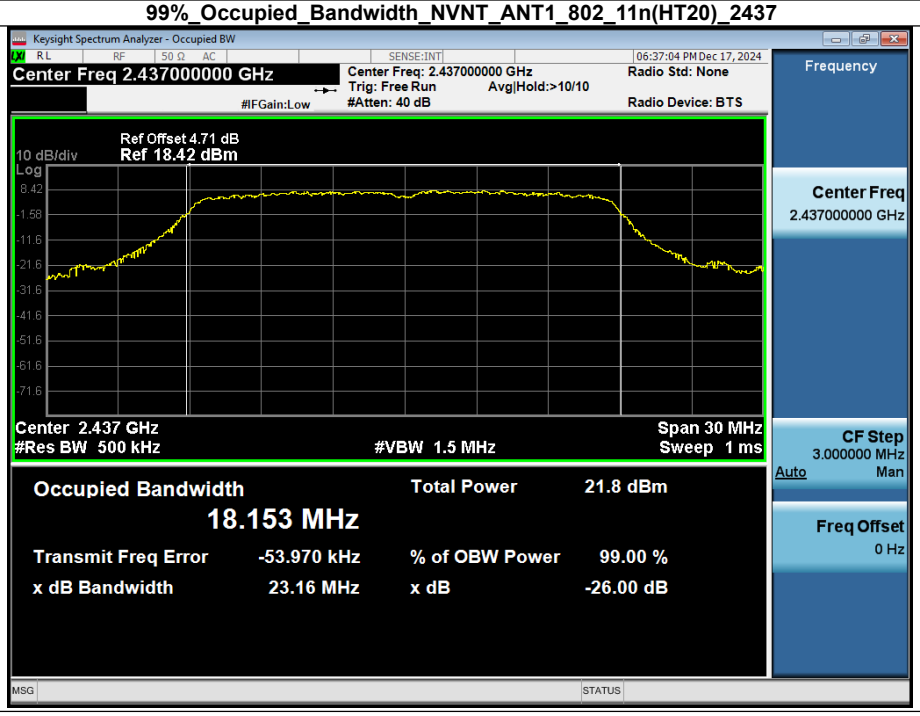


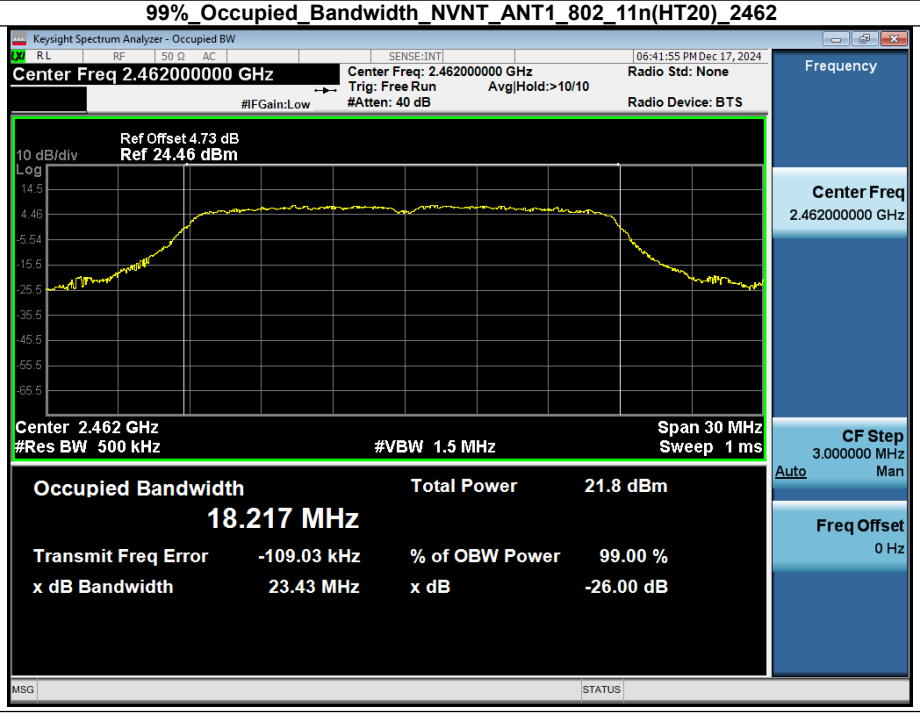
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



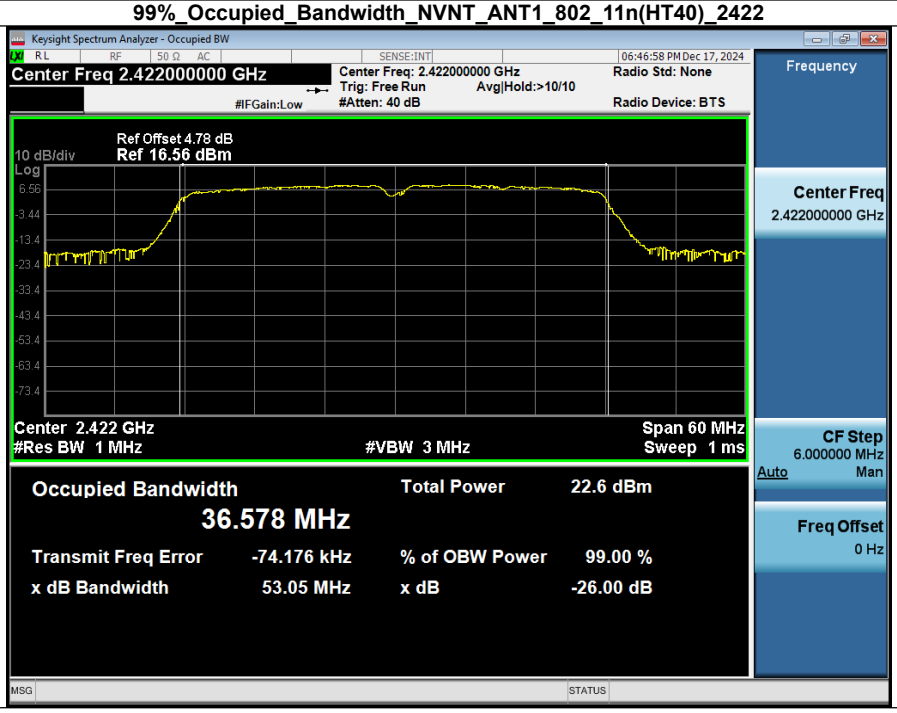
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



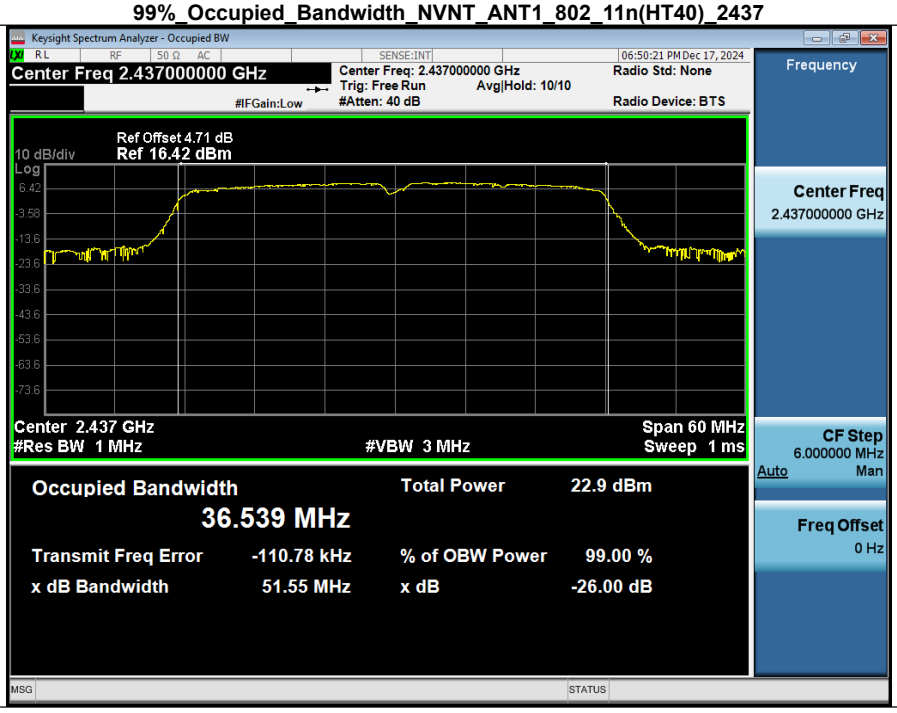
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



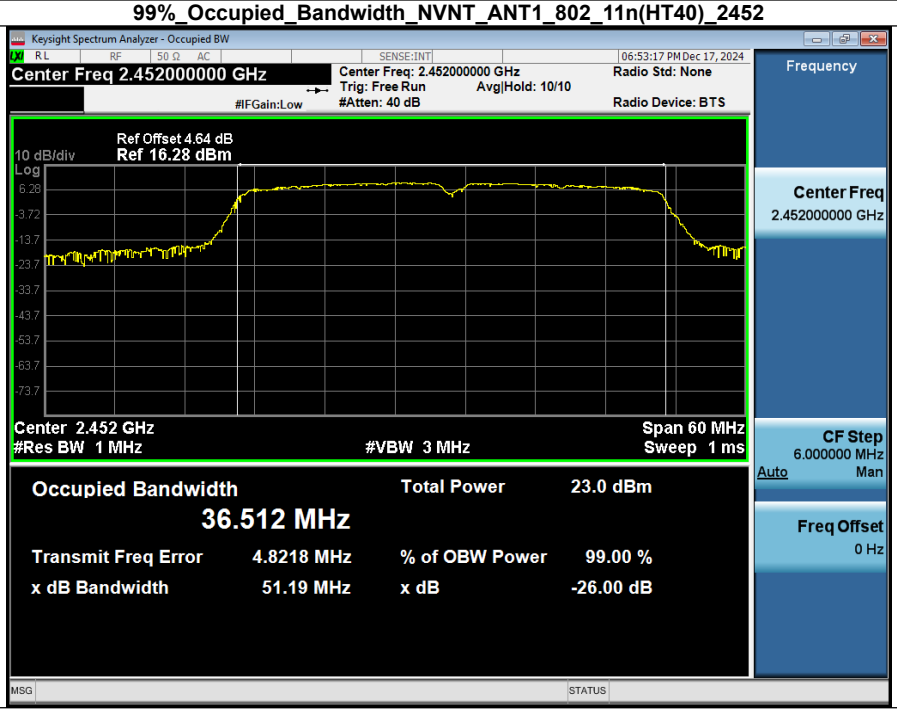
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



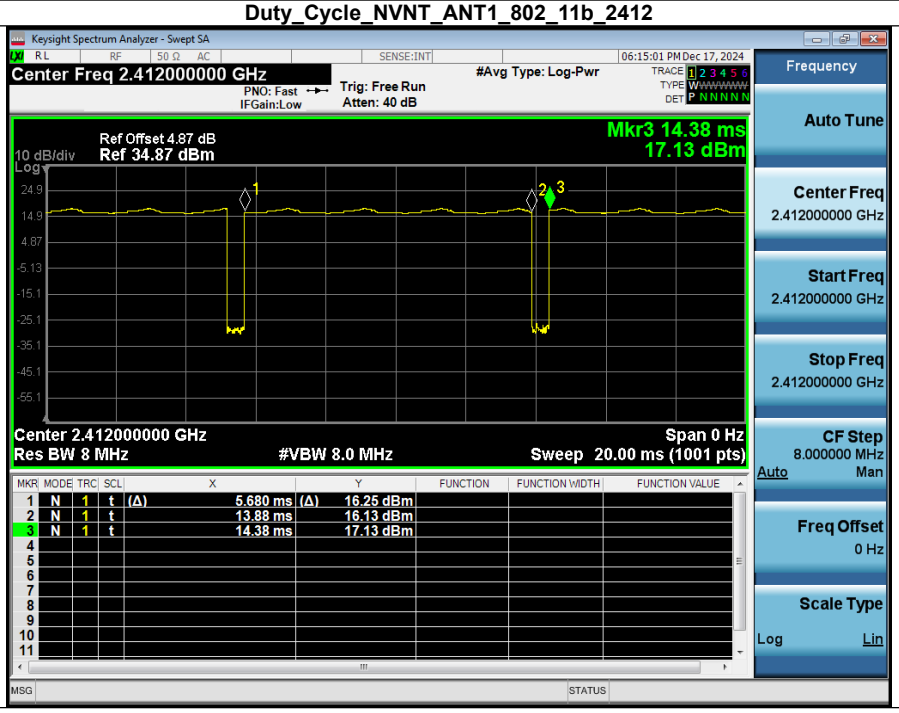
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



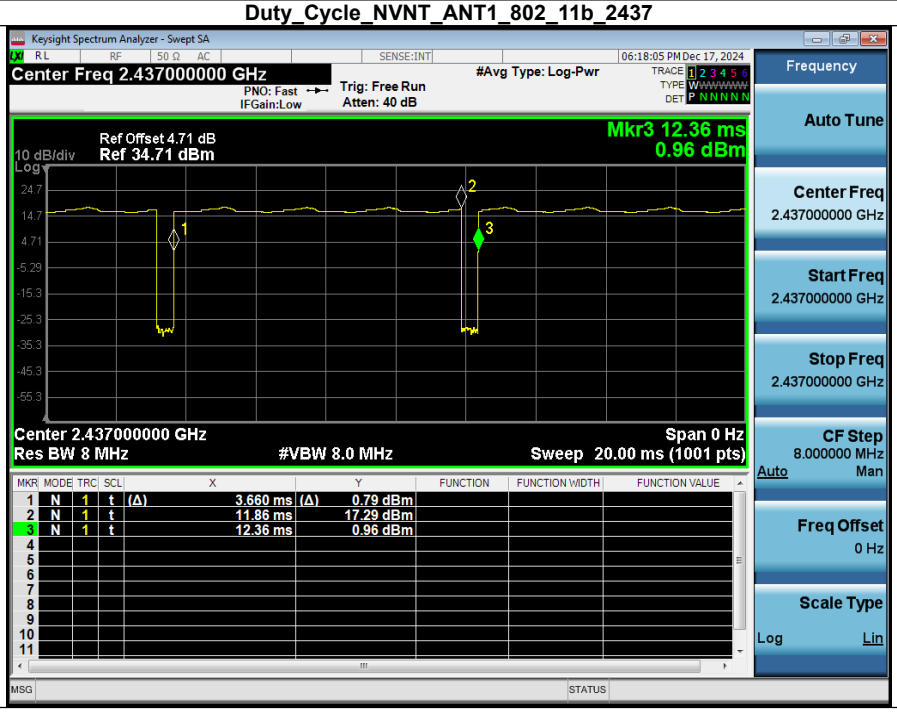
3. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	94.48	0.25
NVNT	ANT1	802.11b	2437.00	94.48	0.25
NVNT	ANT1	802.11b	2462.00	94.25	0.26
NVNT	ANT1	802.11g	2412.00	74.19	1.30
NVNT	ANT1	802.11g	2437.00	74.19	1.30
NVNT	ANT1	802.11g	2462.00	73.12	1.36
NVNT	ANT1	802.11n(HT20)	2412.00	72.73	1.38
NVNT	ANT1	802.11n(HT20)	2437.00	70.79	1.50
NVNT	ANT1	802.11n(HT20)	2462.00	72.73	1.38
NVNT	ANT1	802.11n(HT40)	2422.00	57.89	2.37
NVNT	ANT1	802.11n(HT40)	2437.00	57.89	2.37
NVNT	ANT1	802.11n(HT40)	2452.00	55.36	2.57

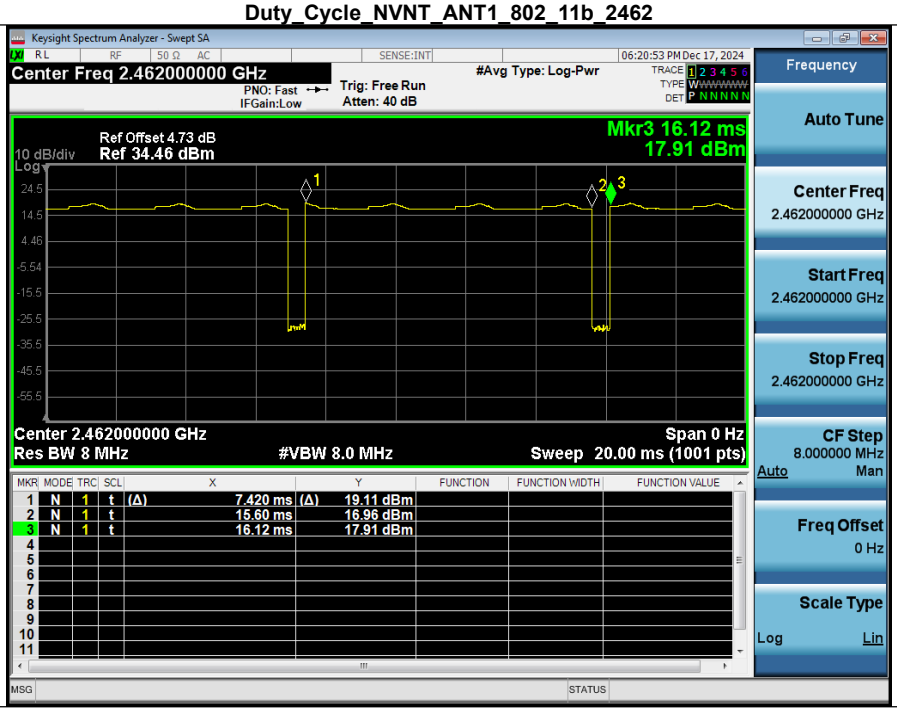
Duty_Cycle_NVNT_ANT1_802_11b_2412



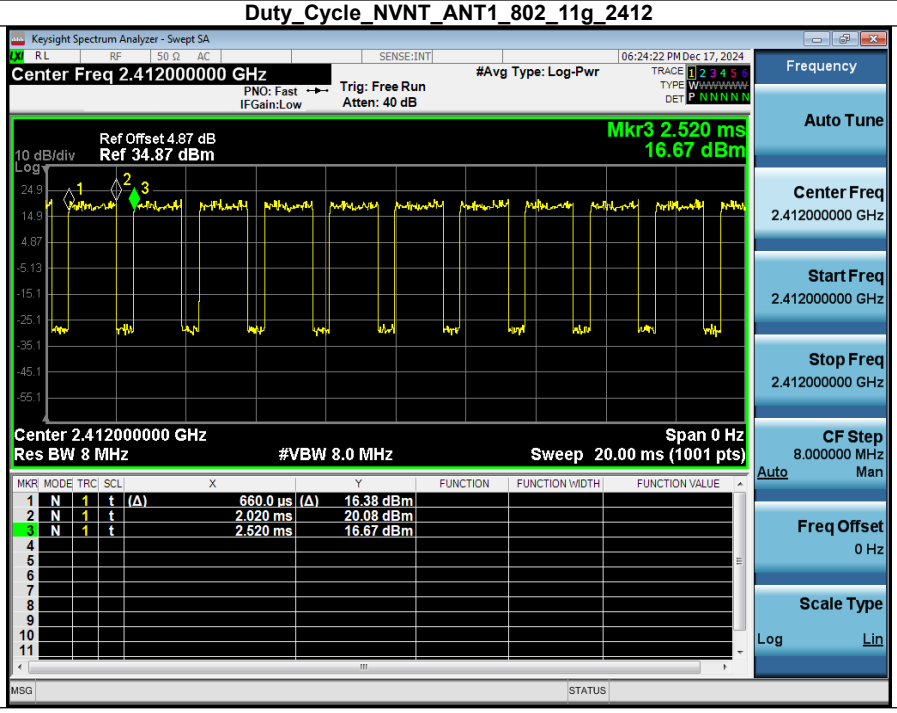
Duty_Cycle_NVNT_ANT1_802_11b_2437



Duty_Cycle_NVNT_ANT1_802_11b_2462



Duty_Cycle_NVNT_ANT1_802_11g_2412



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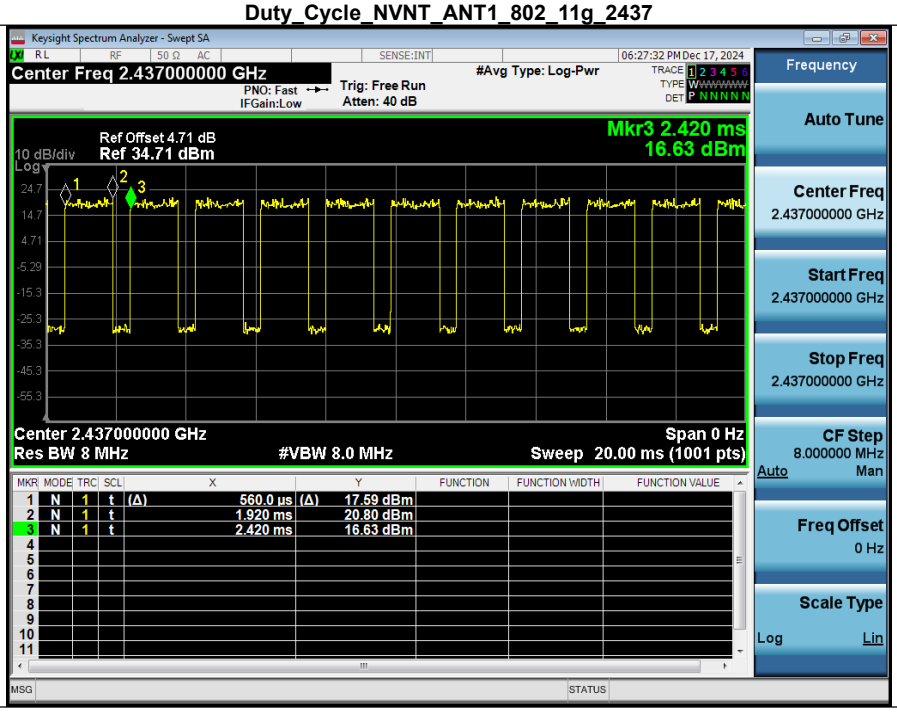
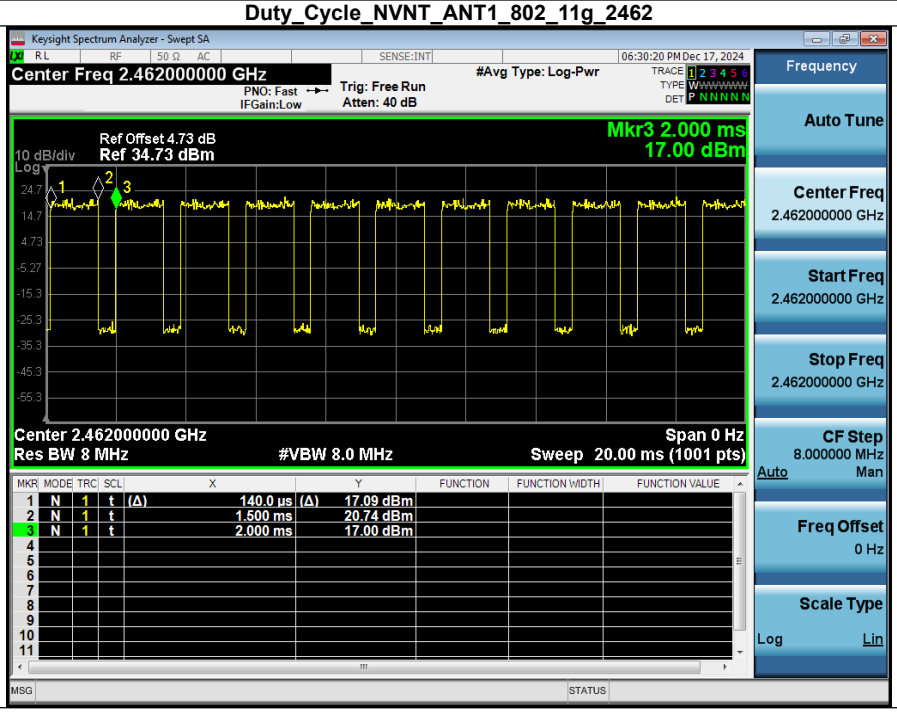
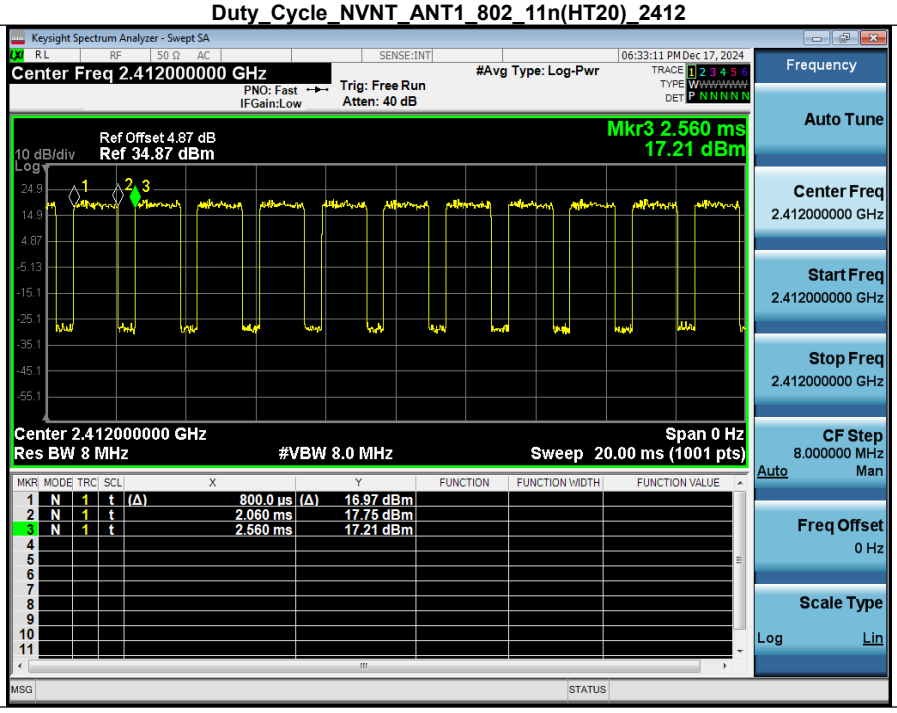


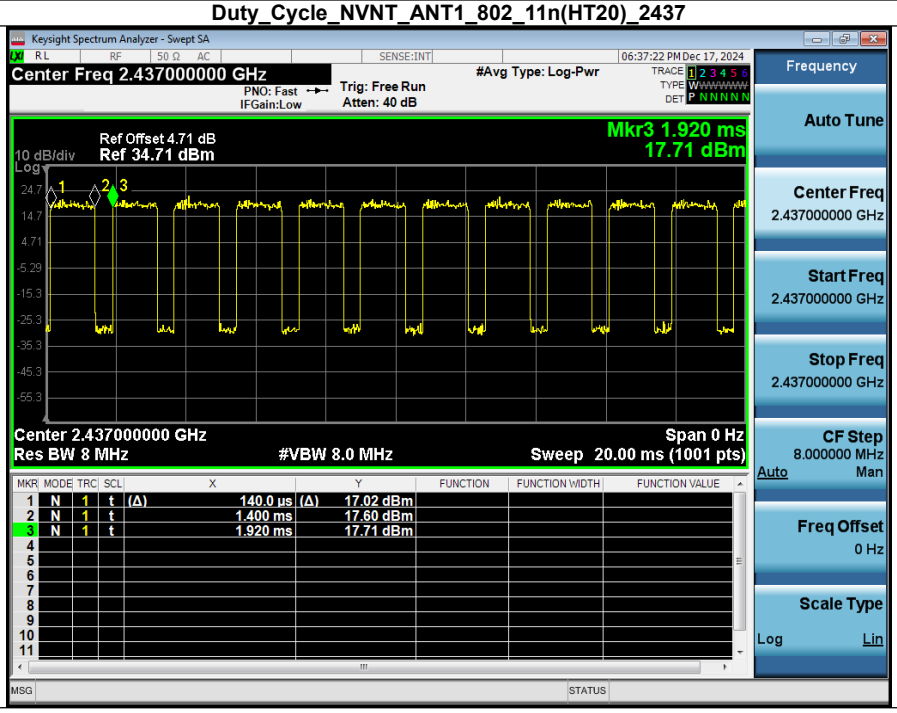
Duty_Cycle_NVNT_ANT1_802_11g_2462



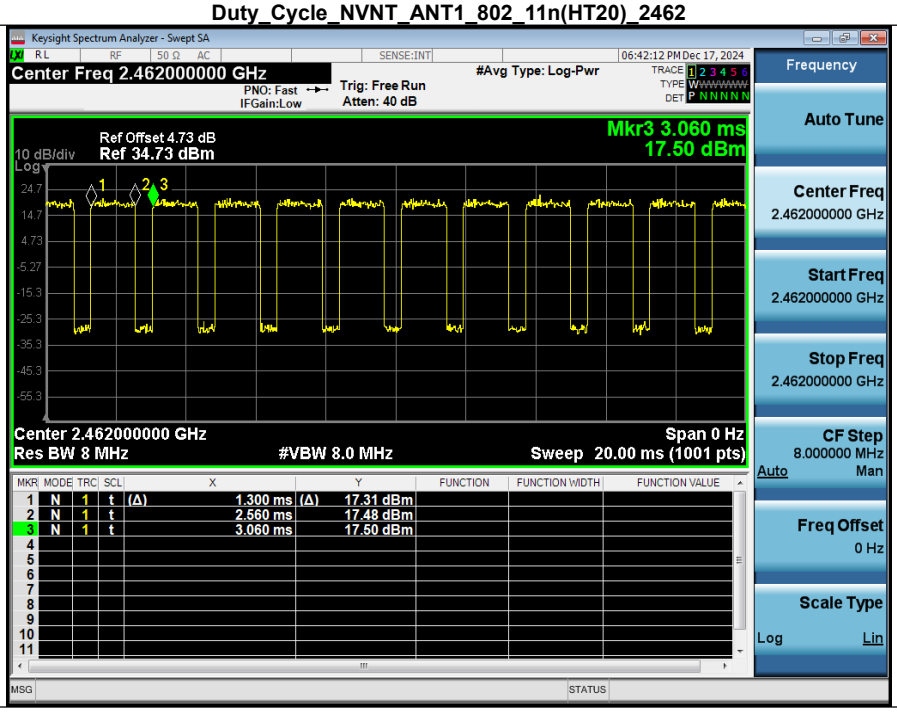
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2412



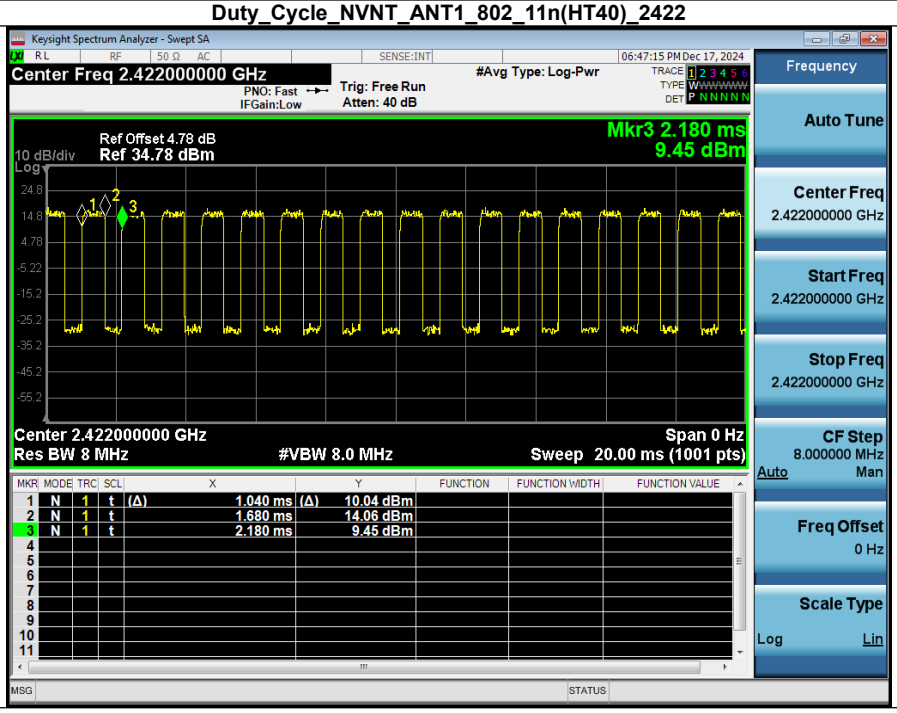
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2437



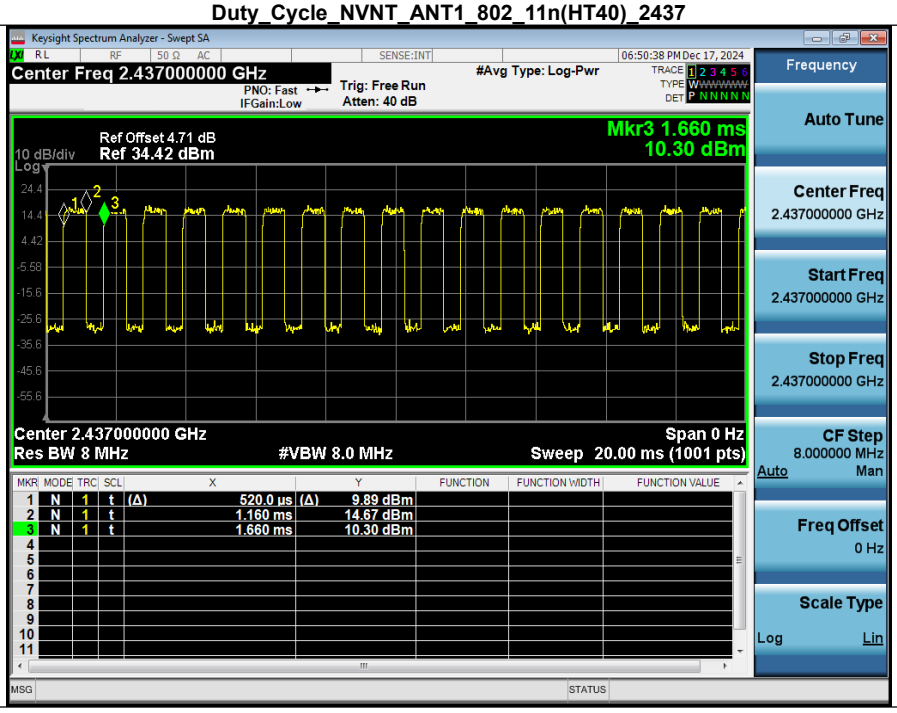
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2462



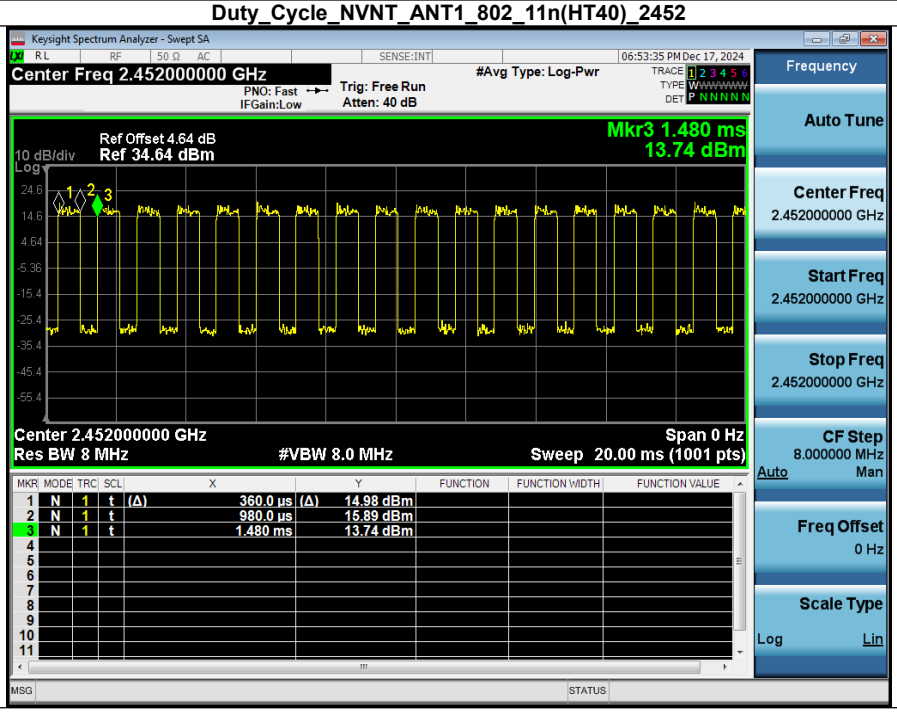
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2422



Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2437



Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2452



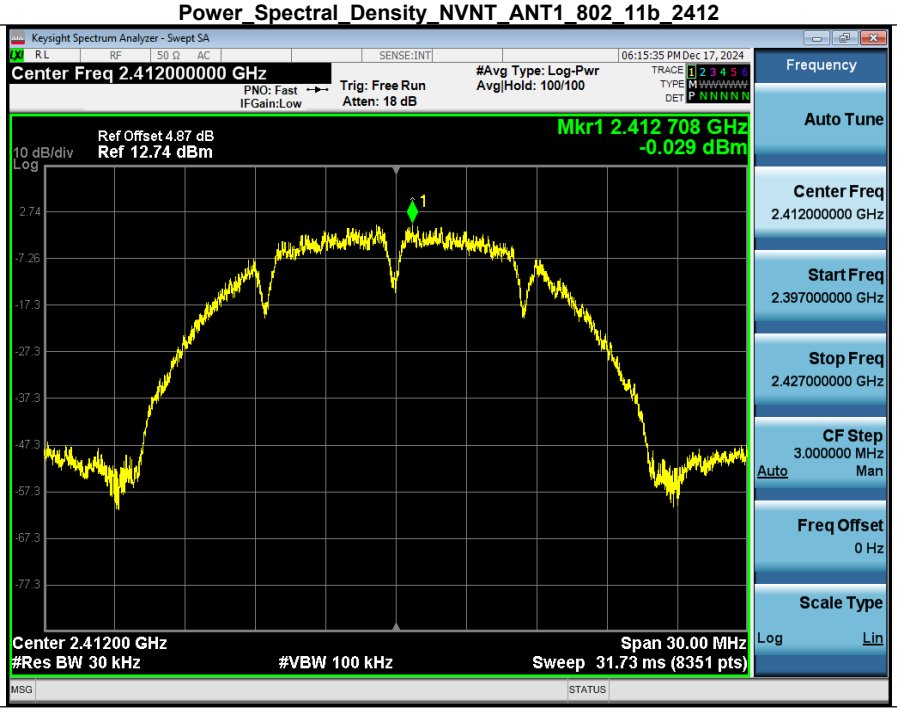
4. MAX. Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	Peak	15.80	N/A	15.80	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	16.04	N/A	16.04	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	16.73	N/A	16.73	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	20.90	N/A	20.90	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	21.14	N/A	21.14	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	21.29	N/A	21.29	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	21.18	N/A	21.18	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	21.44	N/A	21.44	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	21.60	N/A	21.60	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	Peak	21.13	N/A	21.13	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	Peak	21.46	N/A	21.46	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	Peak	21.37	N/A	21.37	30	Pass

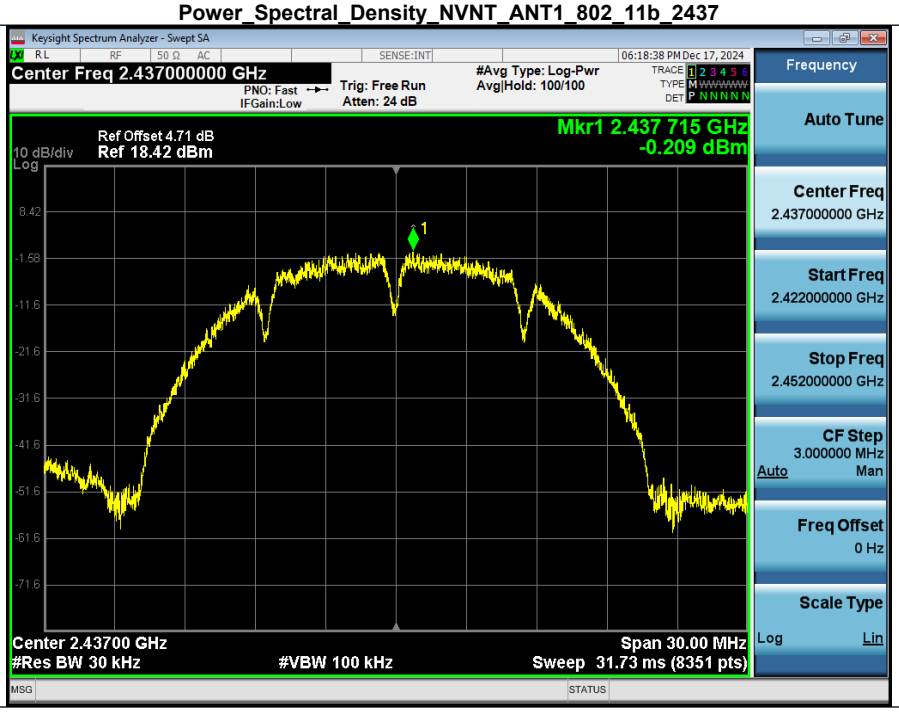
5. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	SA_PSD(dBm/30kHz)	Duty factor(dB)	RB factor(dB)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	-0.03	N/A	-10.00	-10.03	8	Pass
NVNT	ANT1	802.11b	2437.00	-0.21	N/A	-10.00	-10.21	8	Pass
NVNT	ANT1	802.11b	2462.00	0.40	N/A	-10.00	-9.60	8	Pass
NVNT	ANT1	802.11g	2412.00	-0.99	N/A	-10.00	-10.99	8	Pass
NVNT	ANT1	802.11g	2437.00	-0.88	N/A	-10.00	-10.88	8	Pass
NVNT	ANT1	802.11g	2462.00	-0.75	N/A	-10.00	-10.75	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-0.90	N/A	-10.00	-10.90	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-1.01	N/A	-10.00	-11.01	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-0.91	N/A	-10.00	-10.91	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-7.70	N/A	-10.00	-17.70	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-7.41	N/A	-10.00	-17.41	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-7.37	N/A	-10.00	-17.37	8	Pass
Remark:PSD(dbm/3kHz)=PSD(dbm/30kHz)-10Log(30kHz/3kHz)									

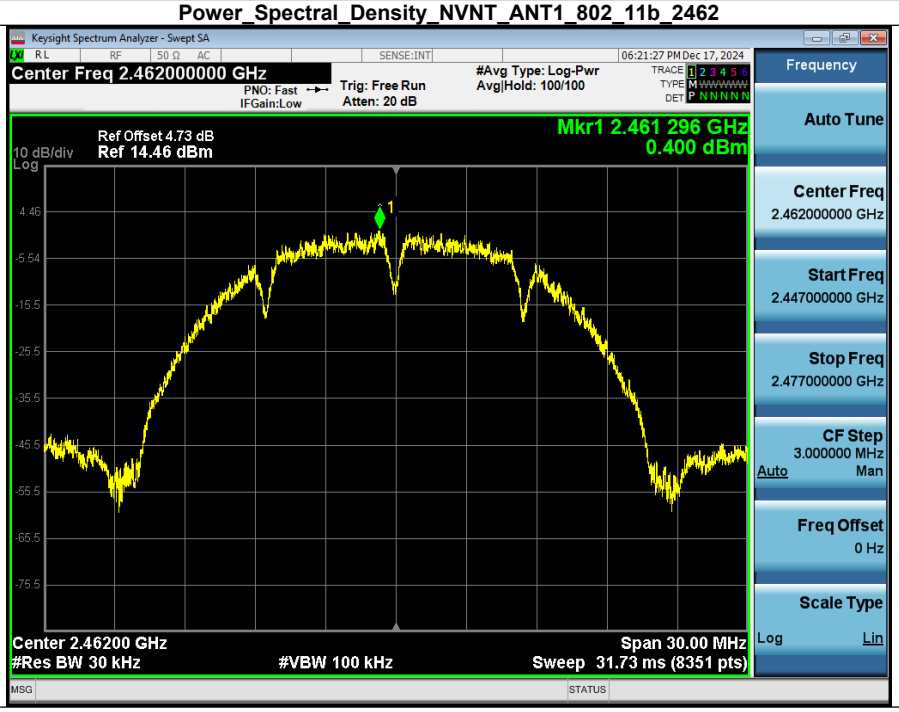
Power_Spectral_Density_NVNT_ANT1_802_11b_2412



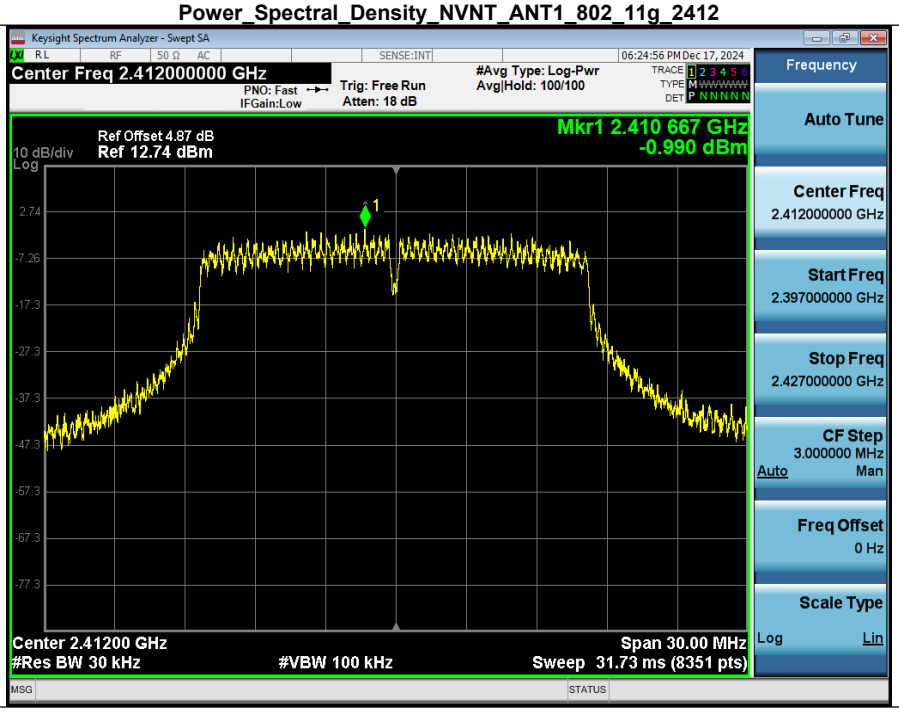
Power_Spectral_Density_NVNT_ANT1_802_11b_2437



Power_Spectral_Density_NVNT_ANT1_802_11b_2462



Power_Spectral_Density_NVNT_ANT1_802_11g_2412



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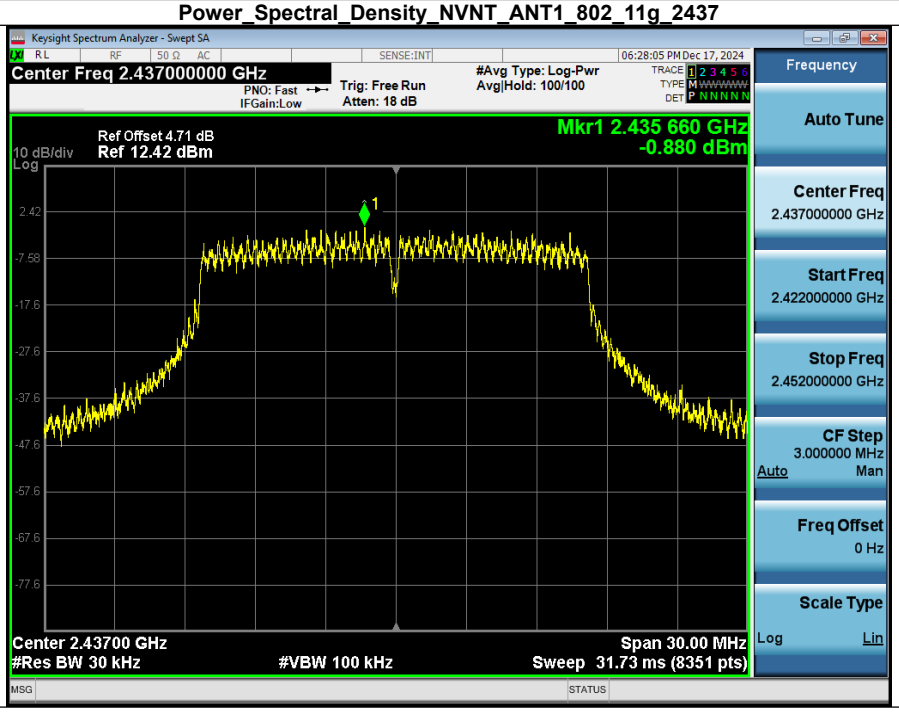

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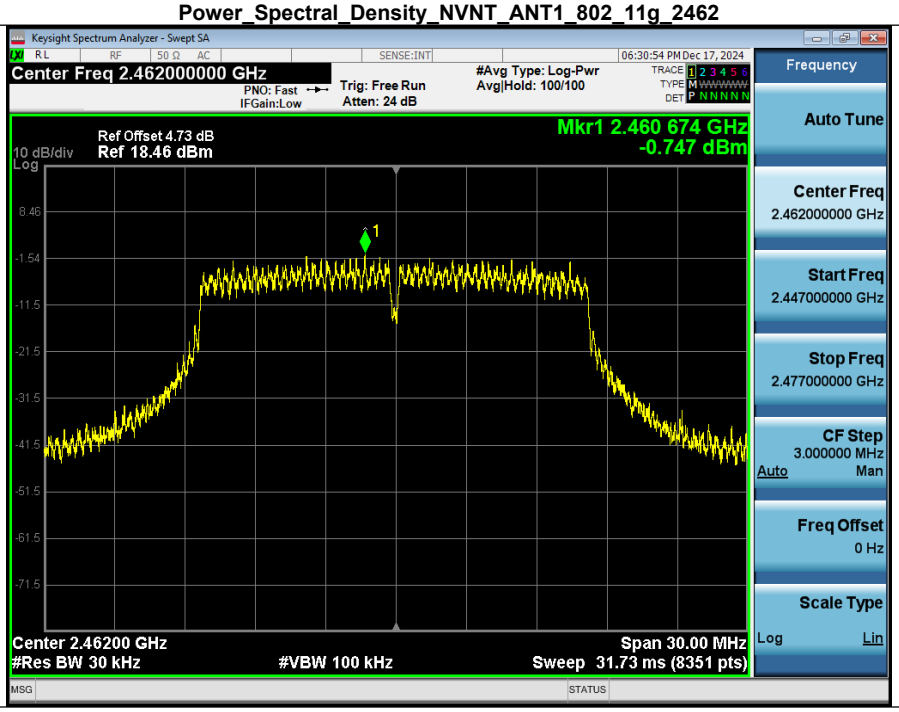
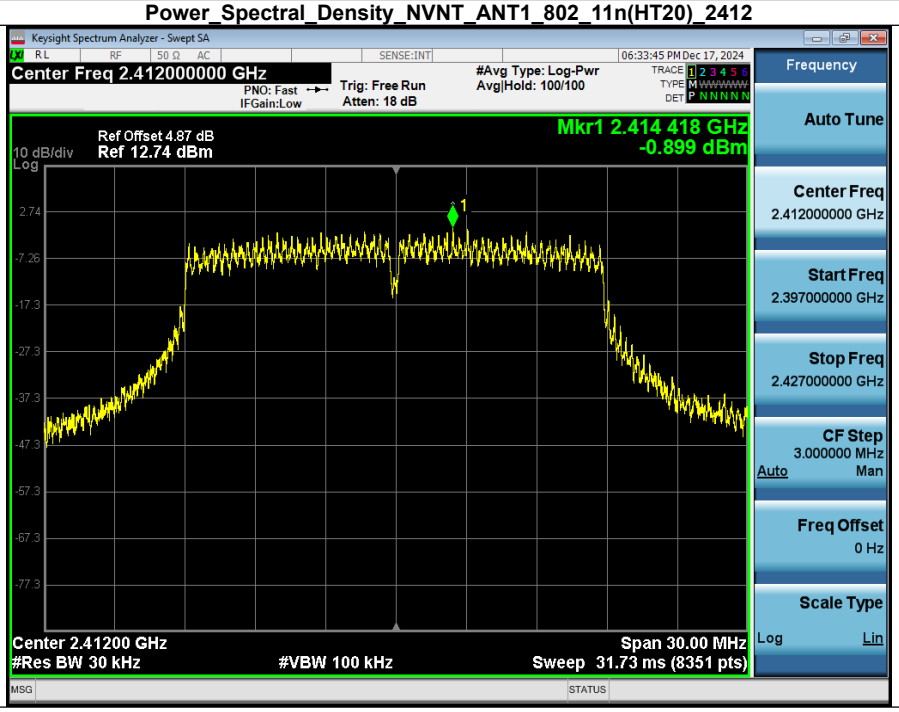
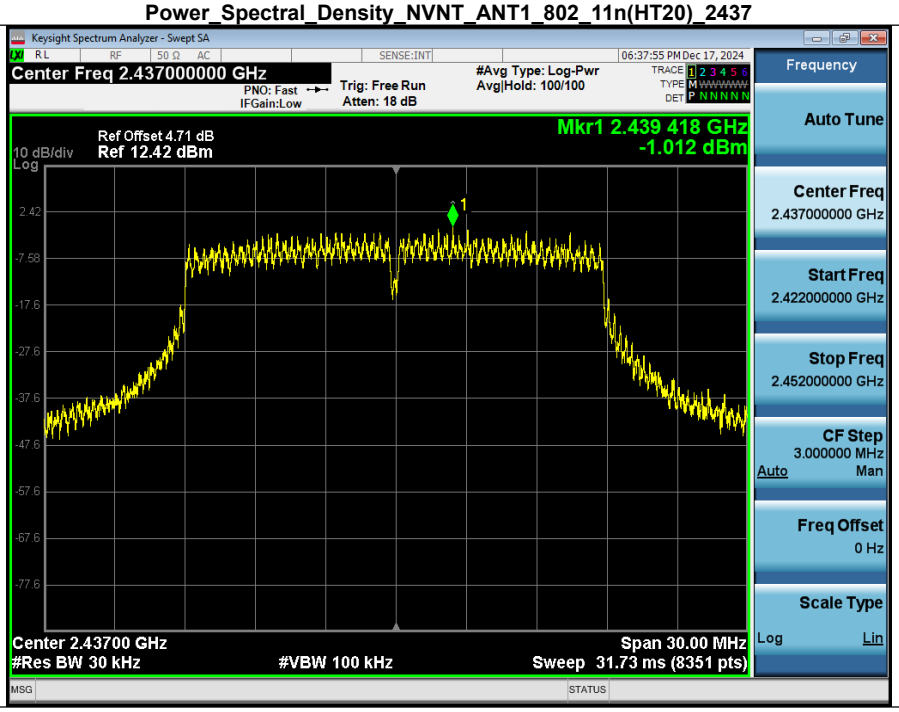


Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2412



Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2437



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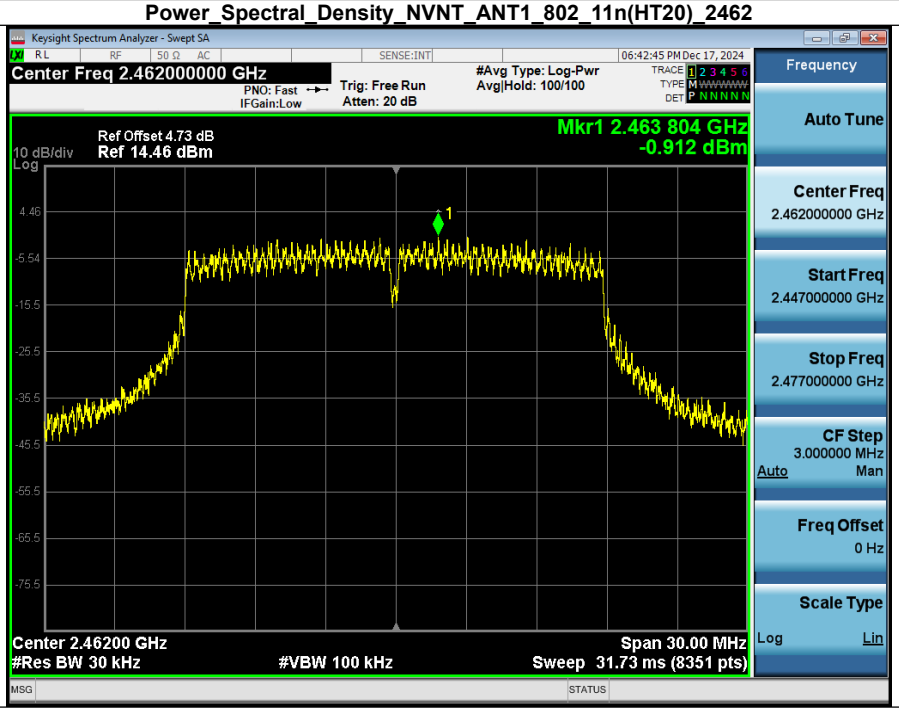
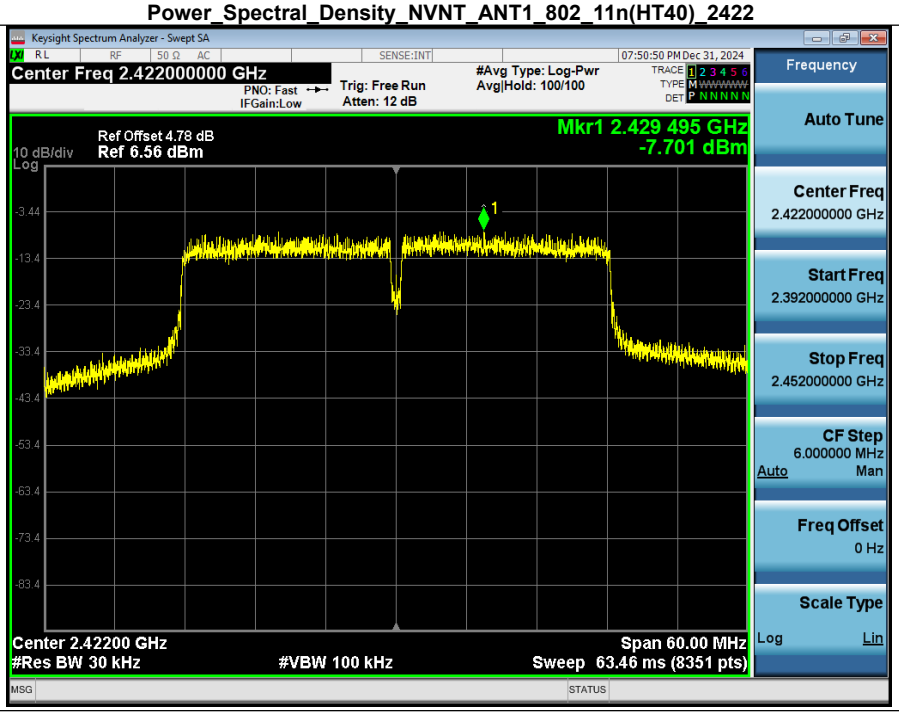
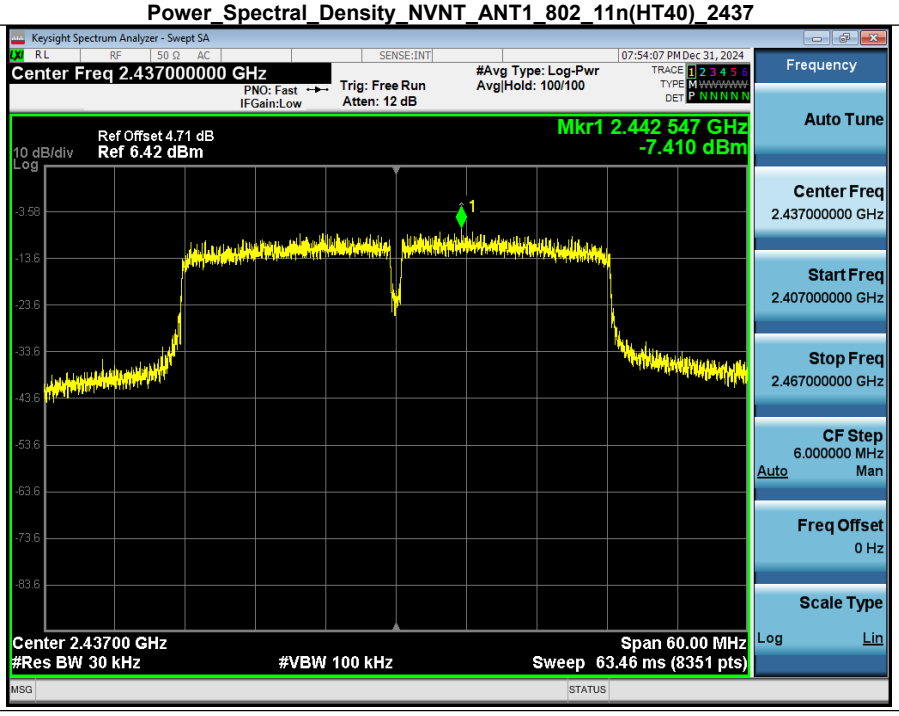


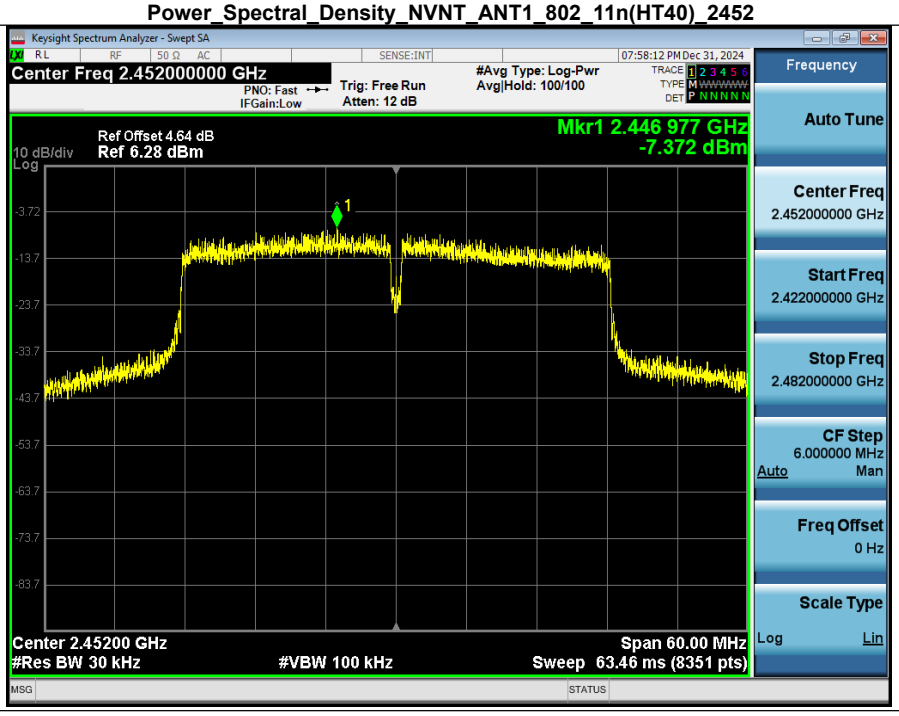
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2422



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2437



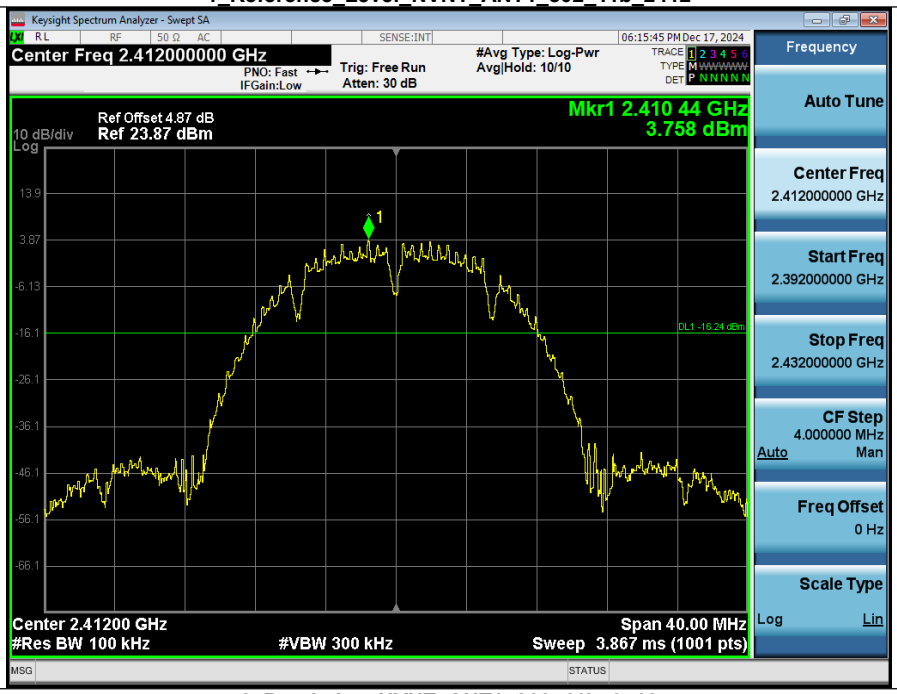
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2452



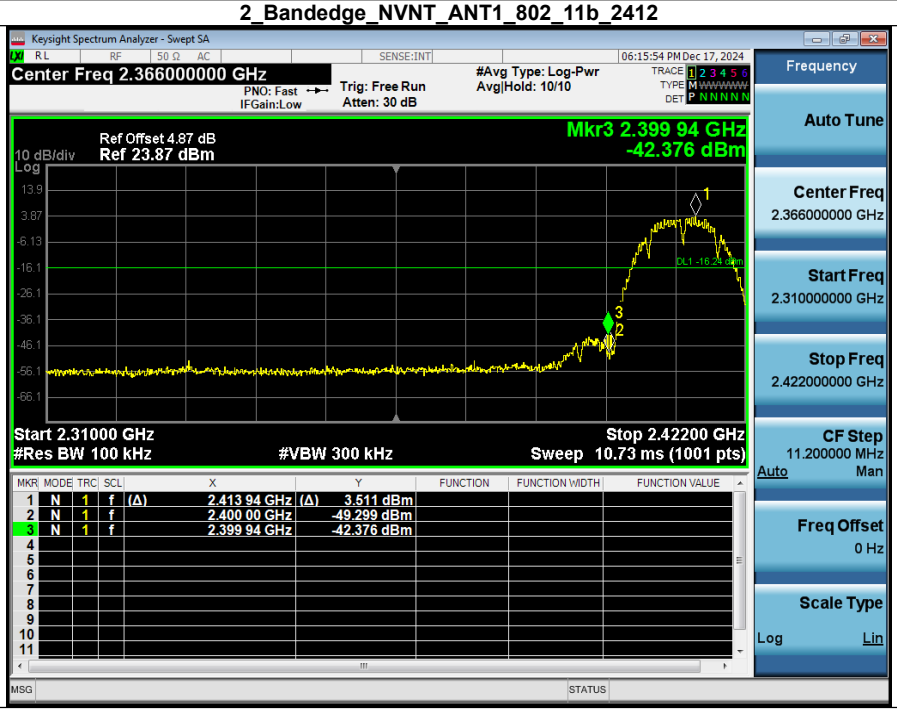
6. Bandedge

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	2399.936	-42.376	-16.242	Pass
NVNT	ANT1	802.11b	2462.00	2487.616	-52.808	-15.283	Pass
NVNT	ANT1	802.11g	2412.00	2399.712	-32.402	-16.251	Pass
NVNT	ANT1	802.11g	2462.00	2483.776	-40.934	-16.384	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.936	-30.416	-16.492	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2485.312	-39.372	-15.821	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2391.576	-31.127	-19.179	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2488.236	-29.320	-18.398	Pass

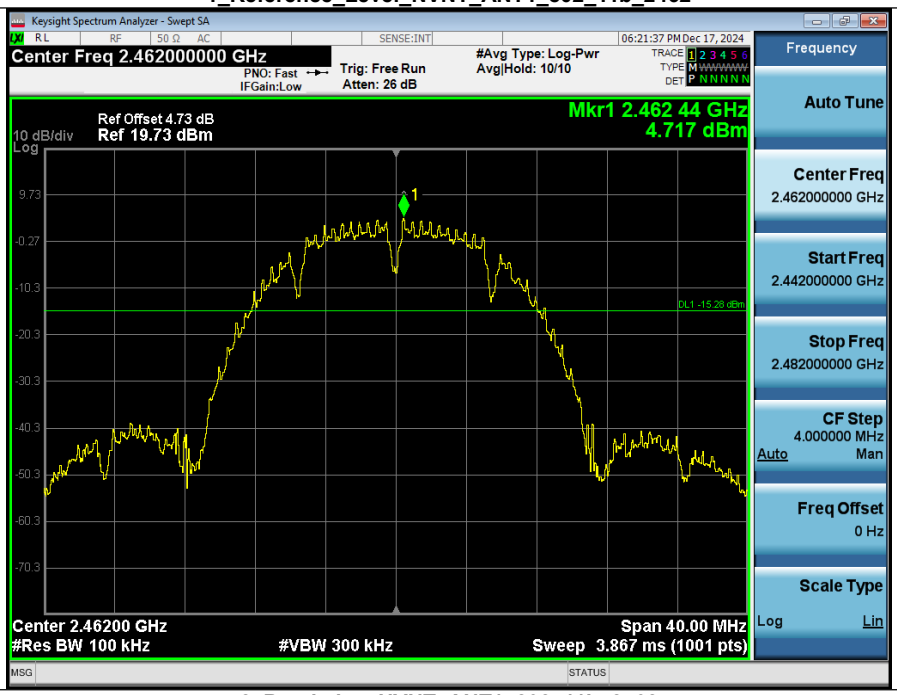
1_Reference_Level_NVNT_ANT1_802_11b_2412



2_Bandedge_NVNT_ANT1_802_11b_2412

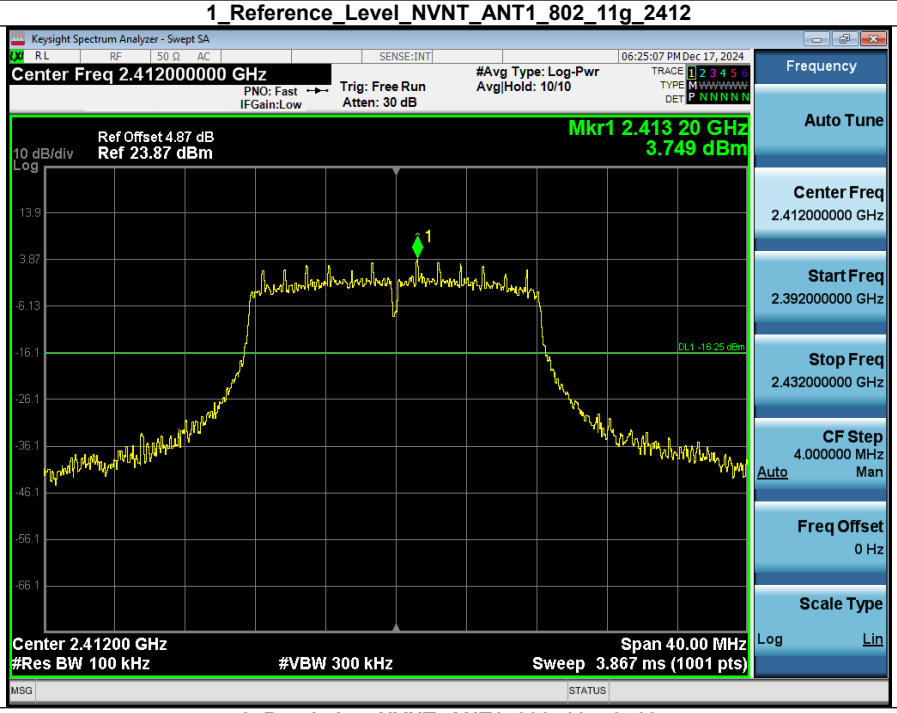


1_Reference_Level_NVNT_ANT1_802_11b_2462

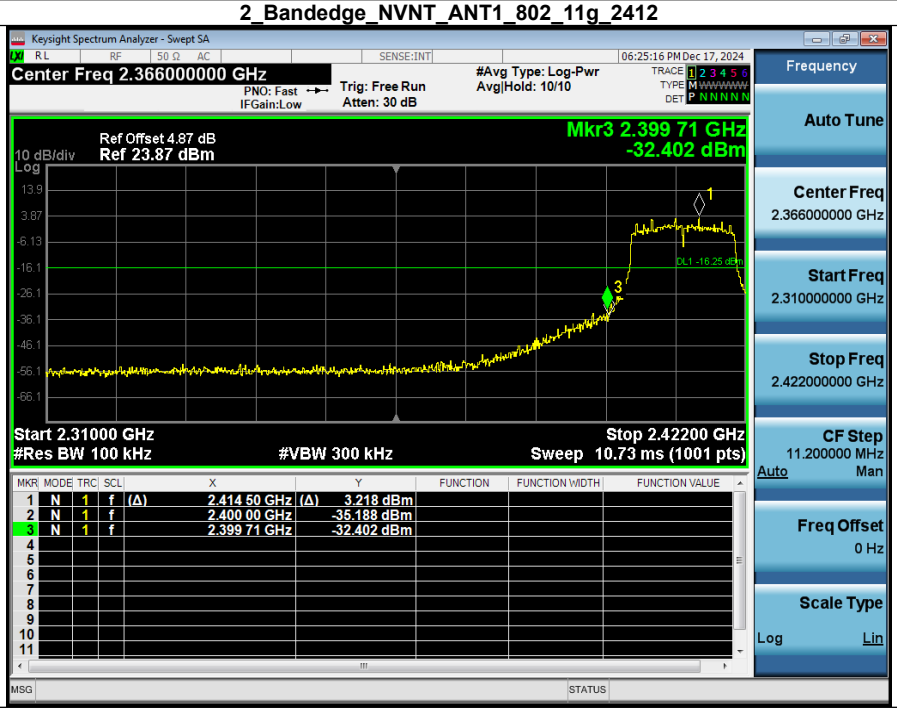


2_Bandedge_NVNT_ANT1_802_11b_2462

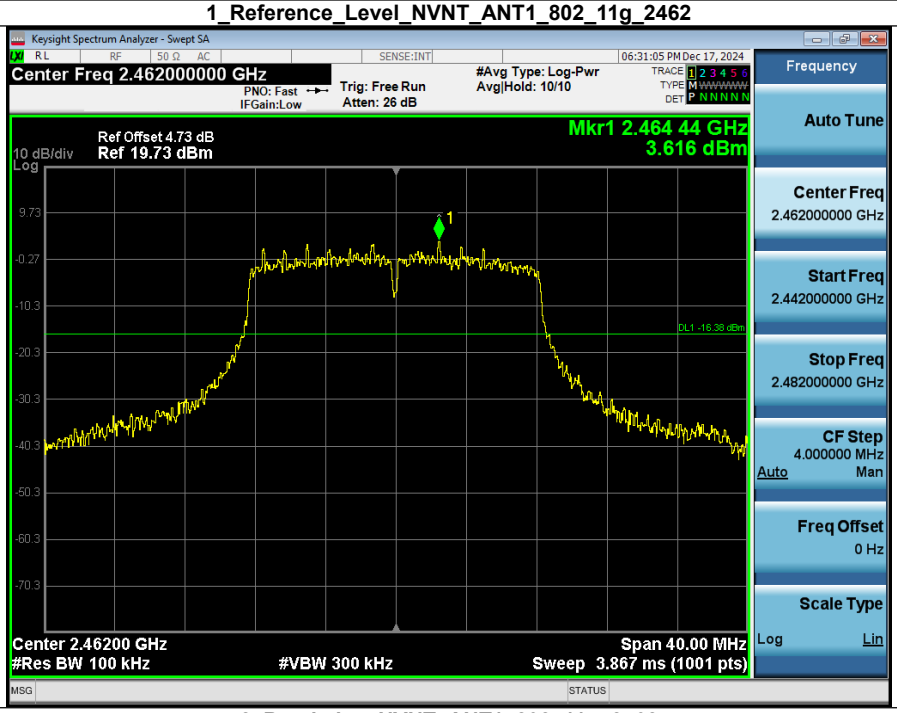
1_Reference_Level_NVNT_ANT1_802_11g_2412



2_Bandedge_NVNT_ANT1_802_11g_2412

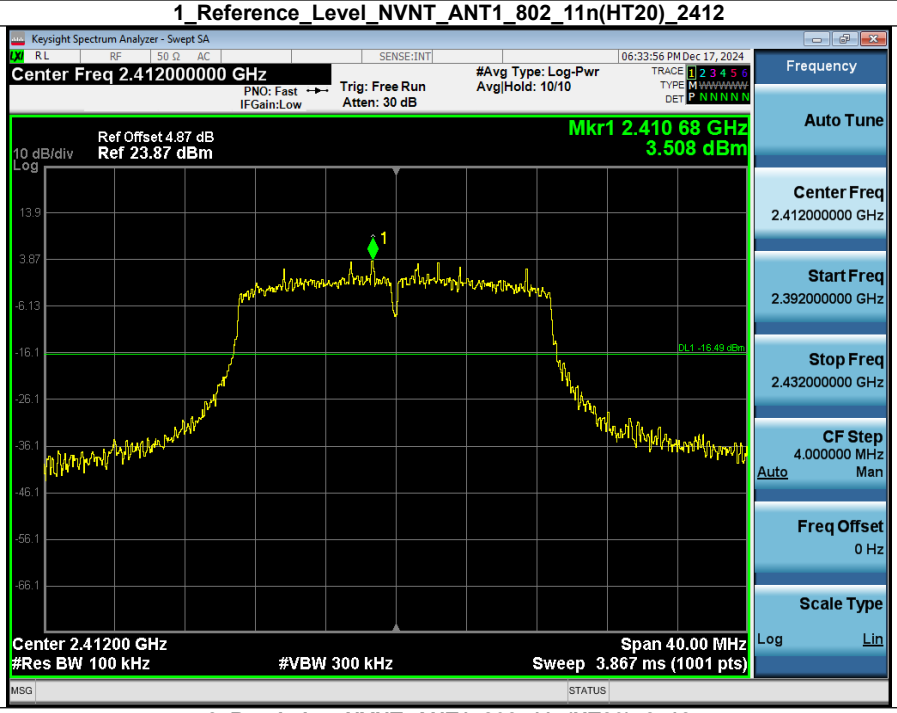


1_Reference_Level_NVNT_ANT1_802_11g_2462

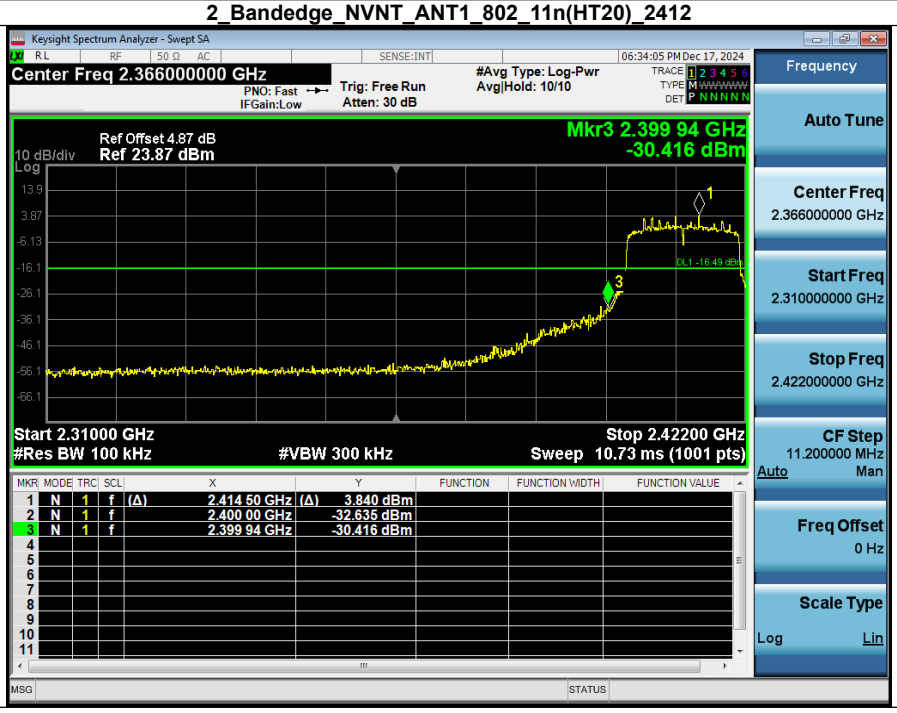


2_Bandedge_NVNT_ANT1_802_11g_2462

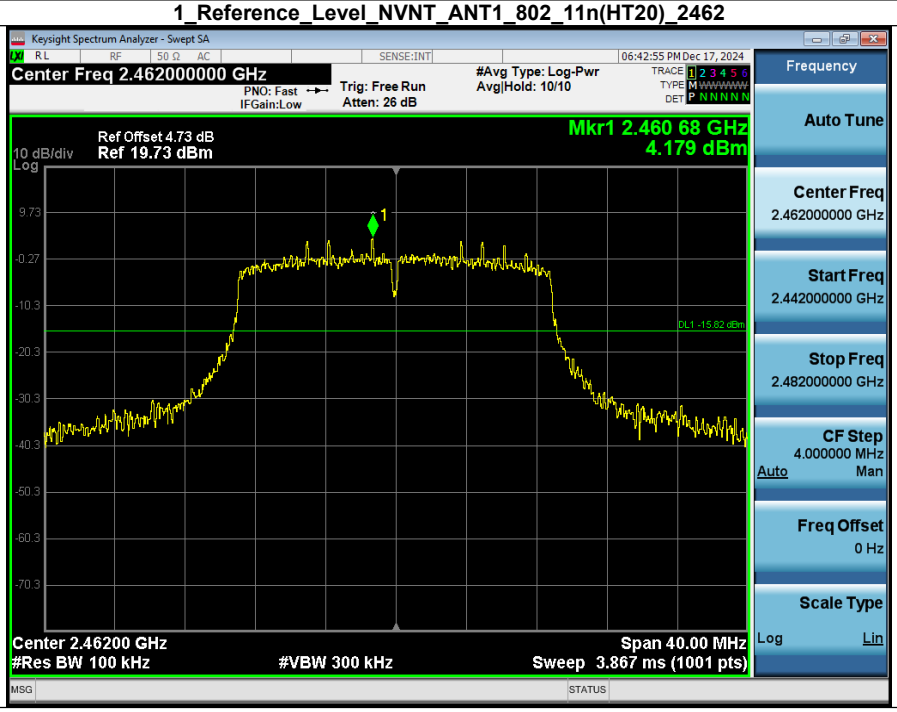
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



2_Bandedge_NVNT_ANT1_802_11n(HT20)_2412

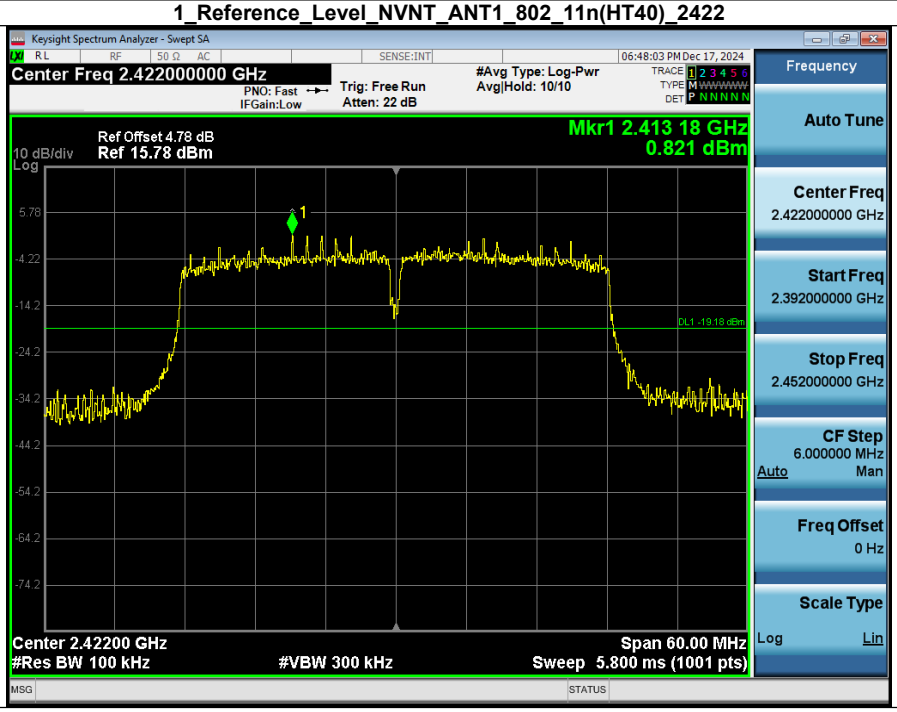


1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462

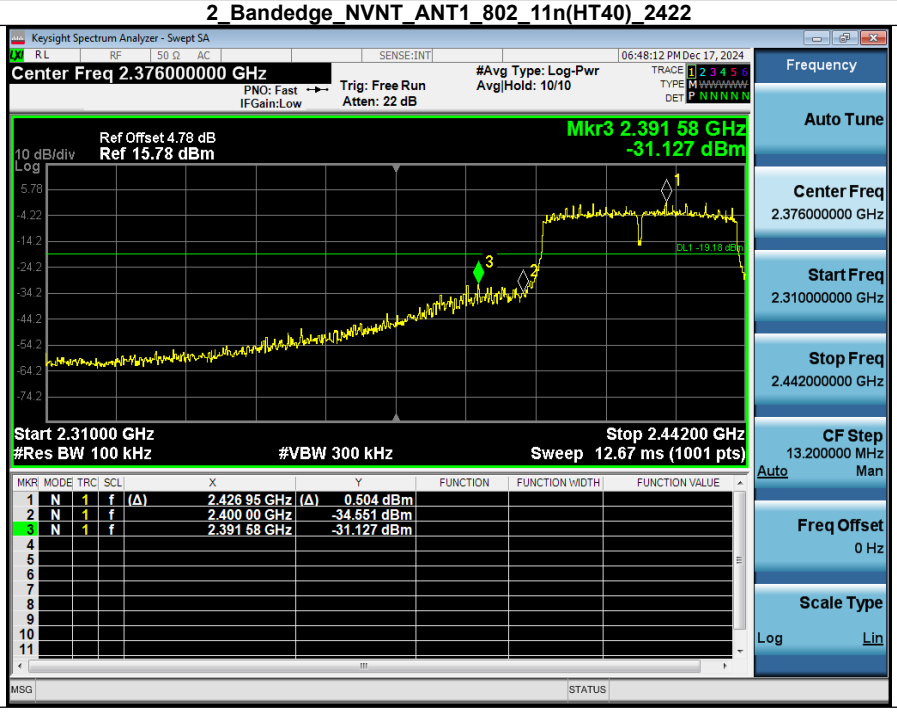


2_Bandedge_NVNT_ANT1_802_11n(HT20)_2462

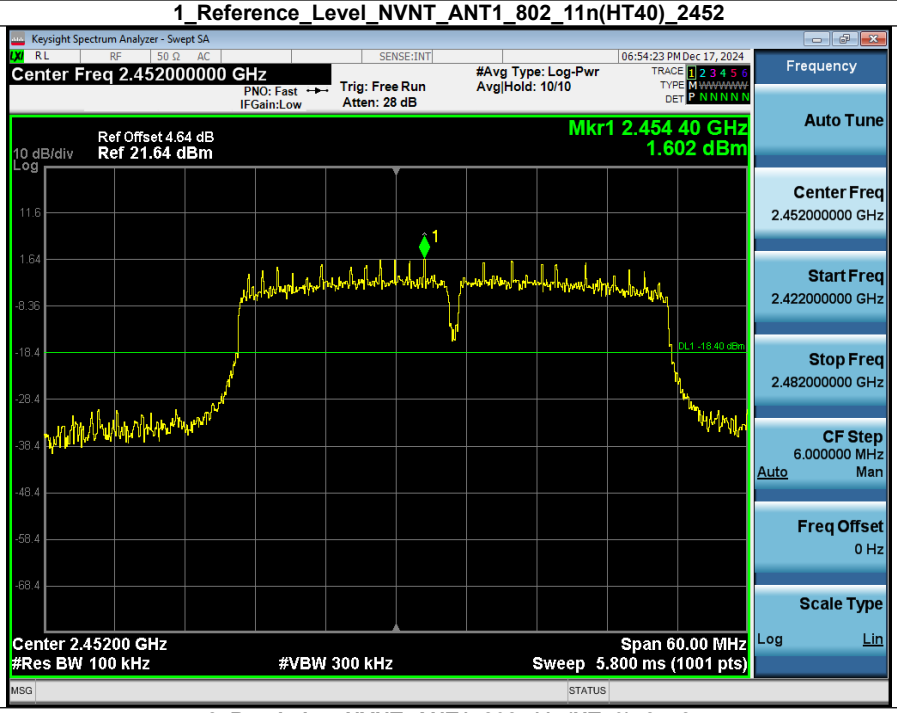
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



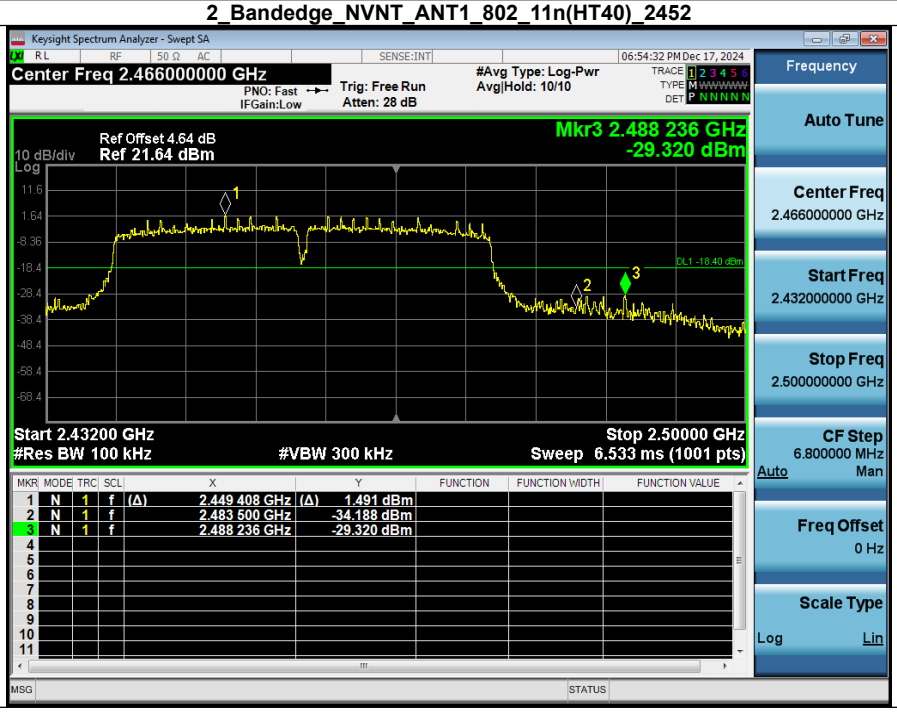
2_Bandedge_NVNT_ANT1_802_11n(HT40)_2422



1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2452



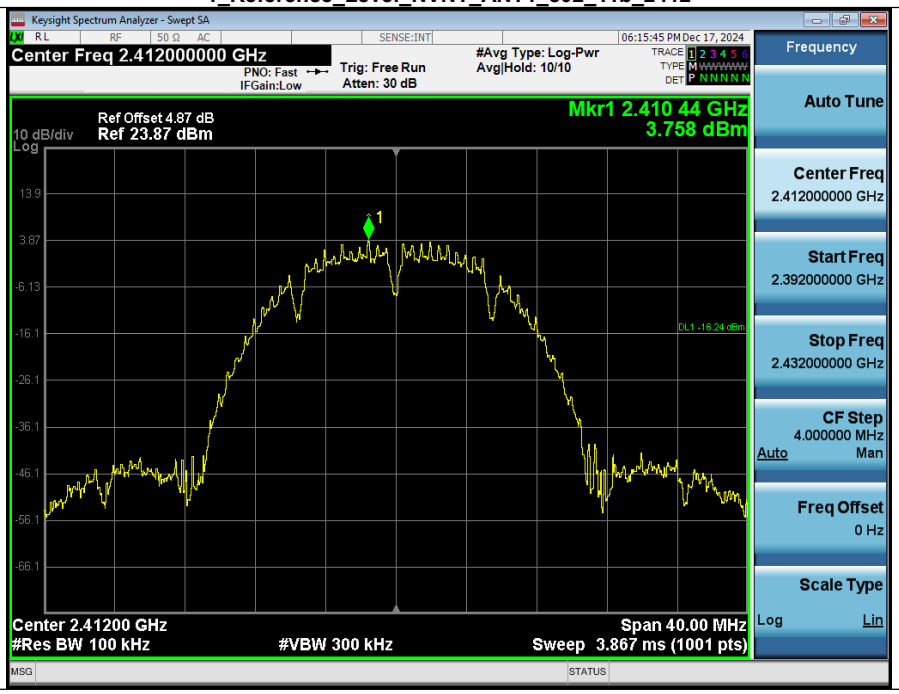
2_Bandedge_NVNT_ANT1_802_11n(HT40)_2452



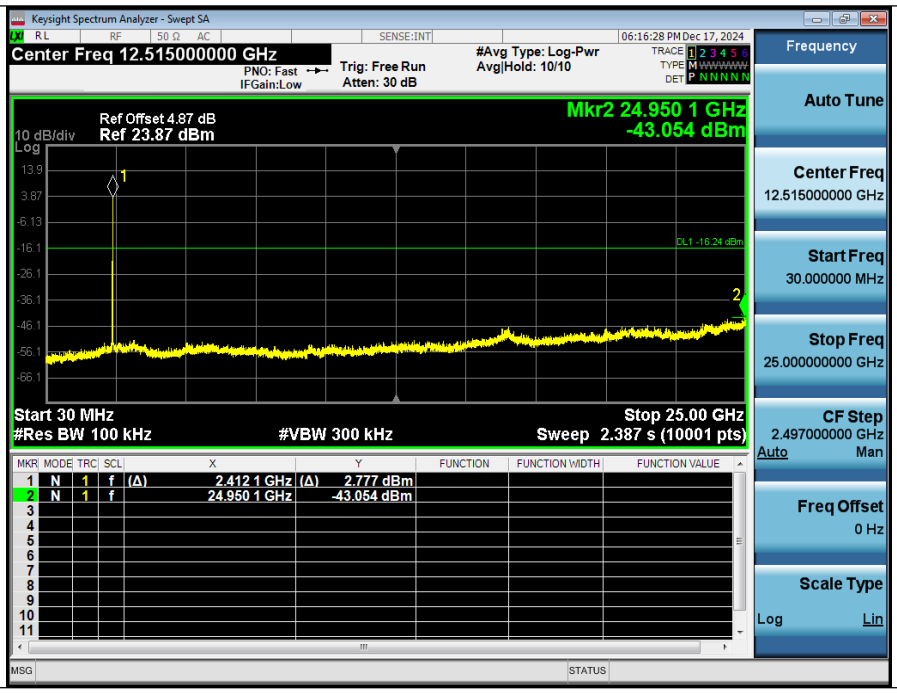
7. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	24950.060	-43.054	-16.242	Pass
NVNT	ANT1	802.11b	2437.00	24962.545	-42.529	-16.149	Pass
NVNT	ANT1	802.11b	2462.00	24870.156	-47.390	-15.283	Pass
NVNT	ANT1	802.11g	2412.00	24962.545	-43.083	-16.251	Pass
NVNT	ANT1	802.11g	2437.00	24957.551	-43.297	-16.929	Pass
NVNT	ANT1	802.11g	2462.00	24970.036	-47.211	-16.384	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	24985.018	-42.896	-16.492	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	24937.575	-46.784	-15.468	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	24982.521	-47.323	-15.821	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	24985.018	-50.475	-19.179	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	24975.030	-43.755	-18.839	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2504.527	-40.698	-18.398	Pass

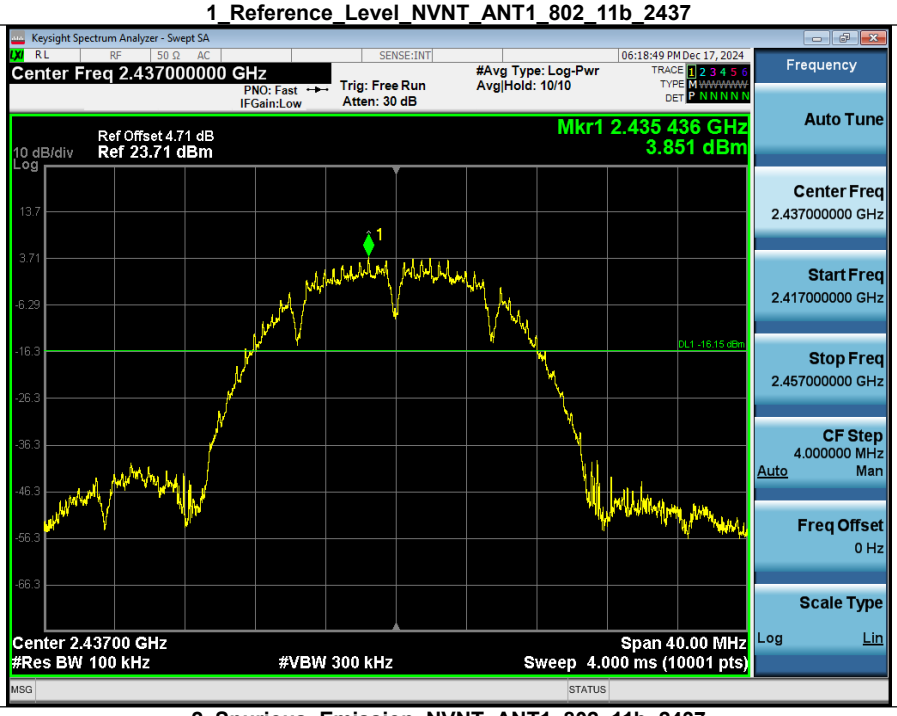
1_Reference_Level_NVNT_ANT1_802_11b_2412



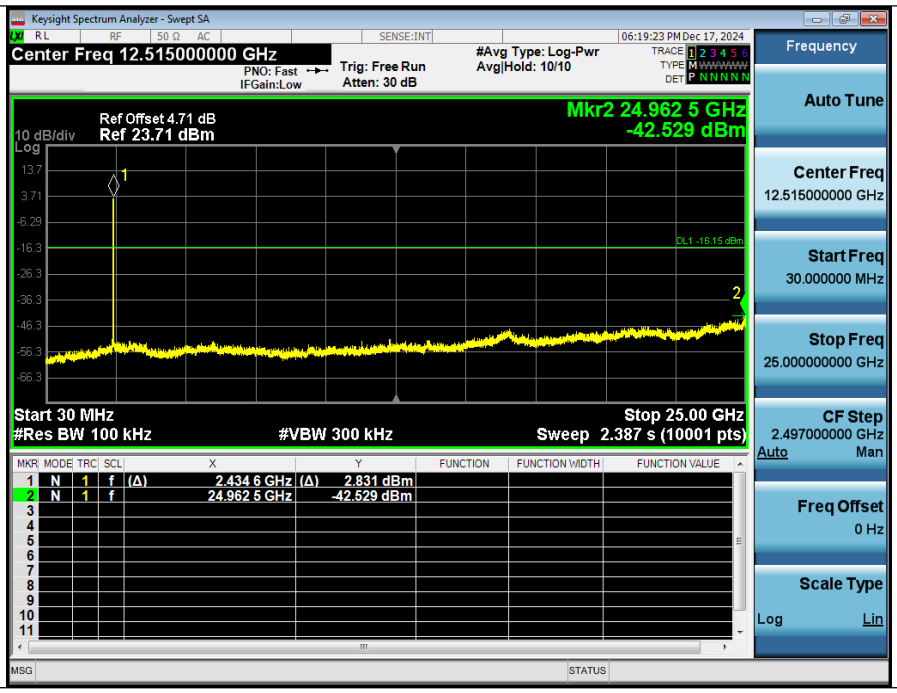
2_Spurious_Emission_NVNT_ANT1_802_11b_2412



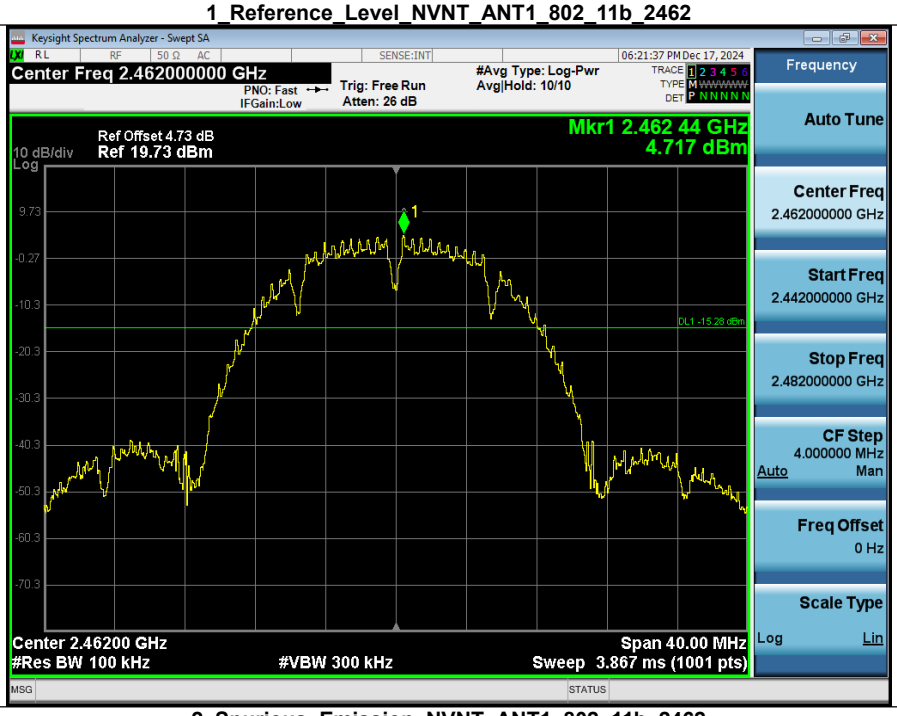
1_Reference_Level_NVNT_ANT1_802_11b_2437



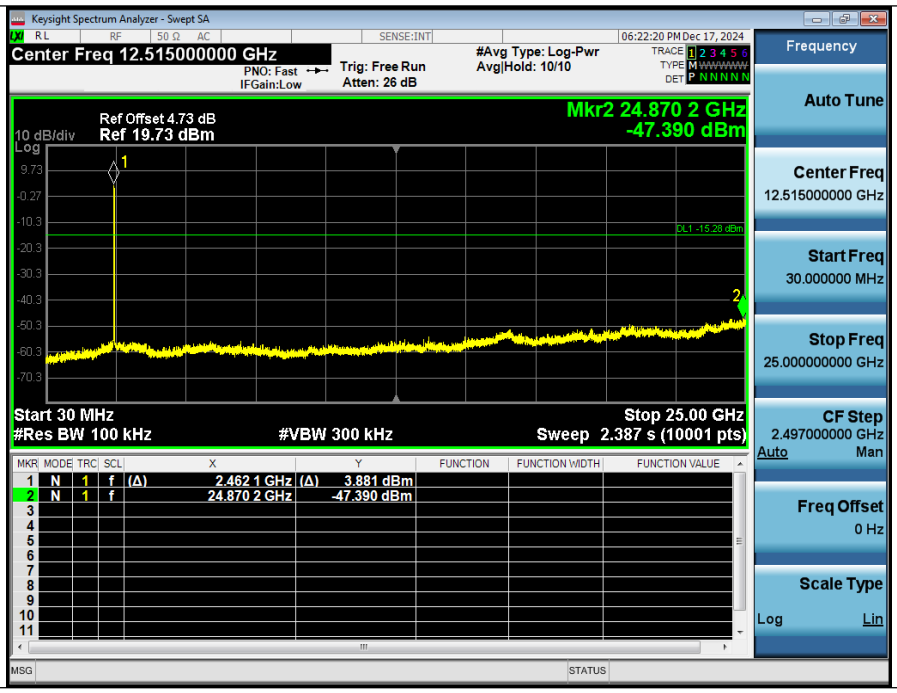
2_Spurious_Emission_NVNT_ANT1_802_11b_2437



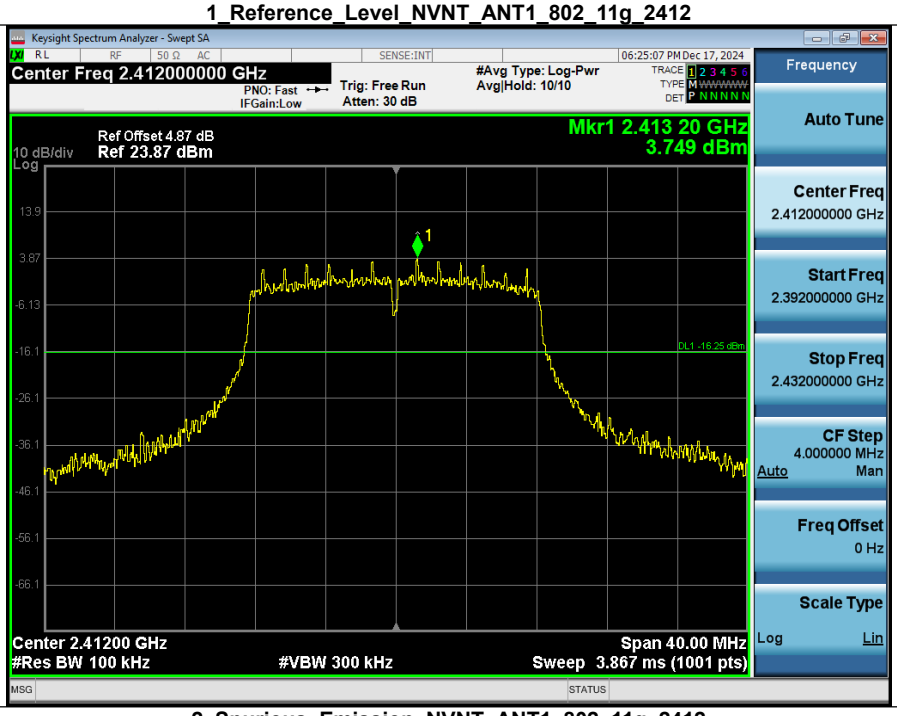
1_Reference_Level_NVNT_ANT1_802_11b_2462



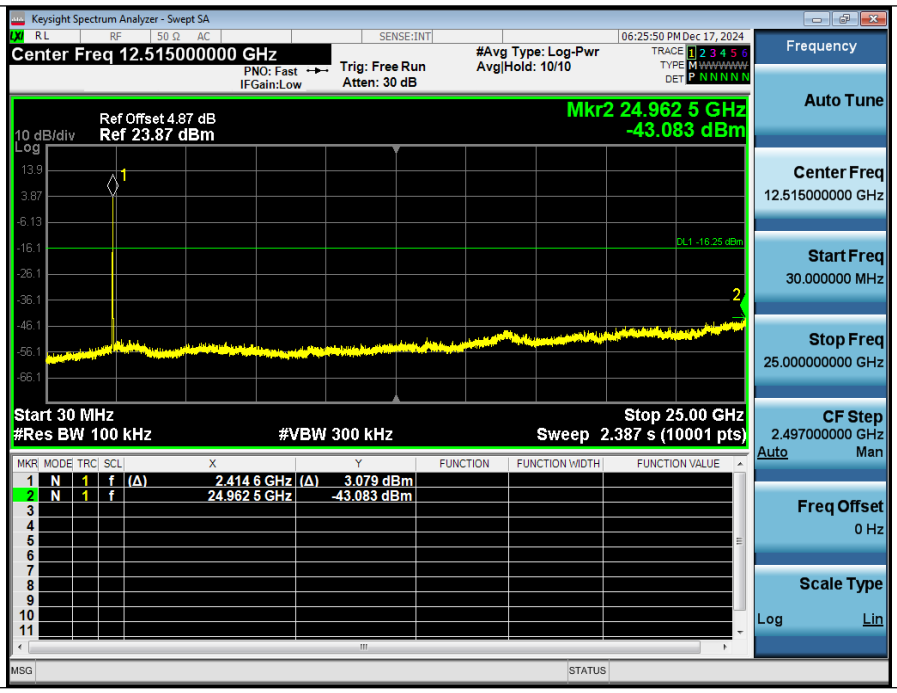
2_Spurious_Emission_NVNT_ANT1_802_11b_2462



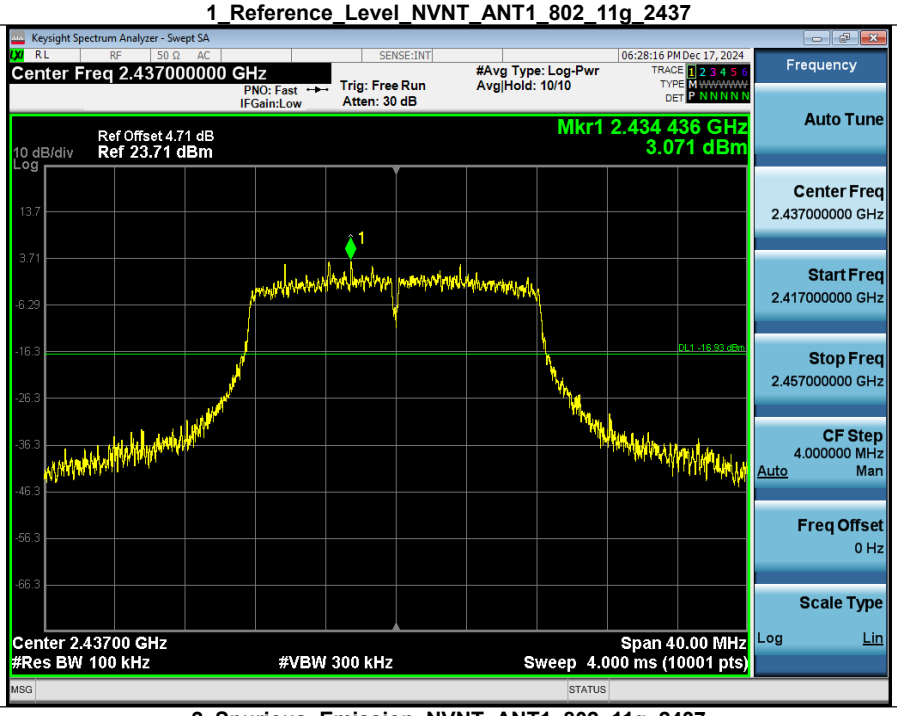
1_Reference_Level_NVNT_ANT1_802_11g_2412



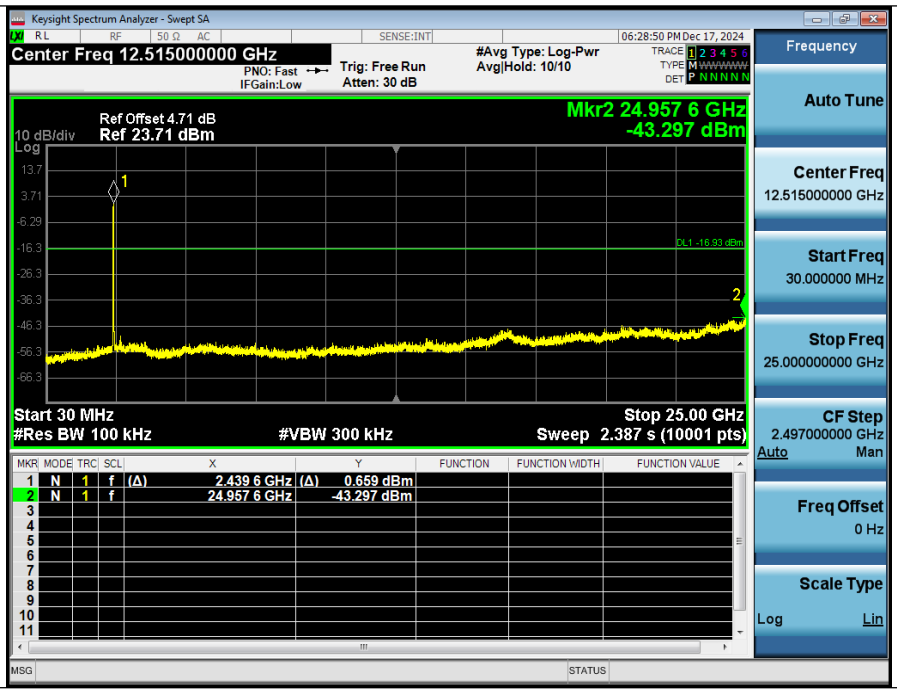
2_Spurious_Emission_NVNT_ANT1_802_11g_2412



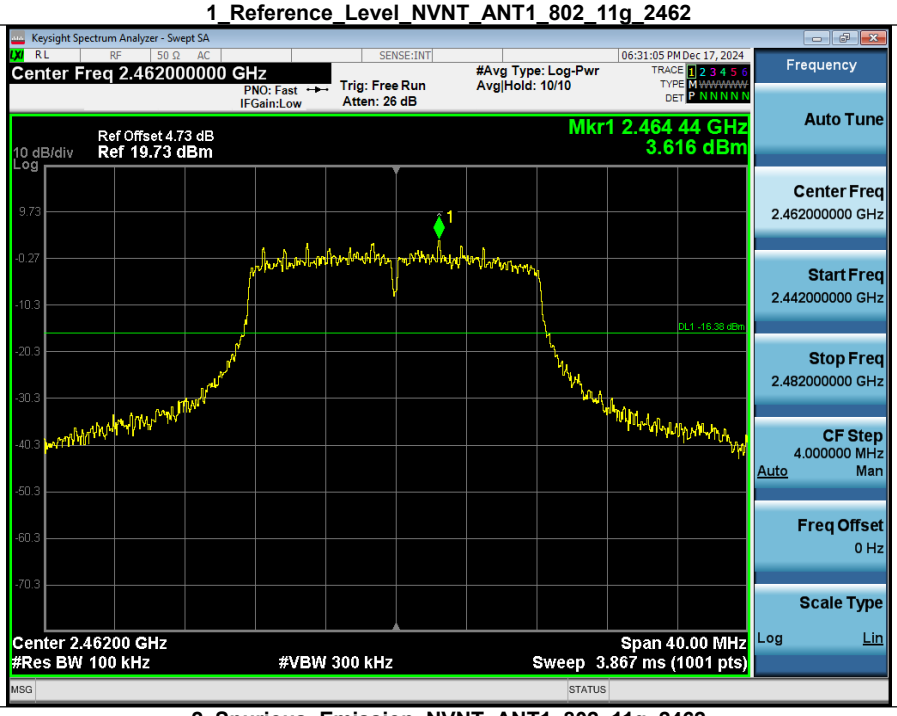
1_Reference_Level_NVNT_ANT1_802_11g_2437



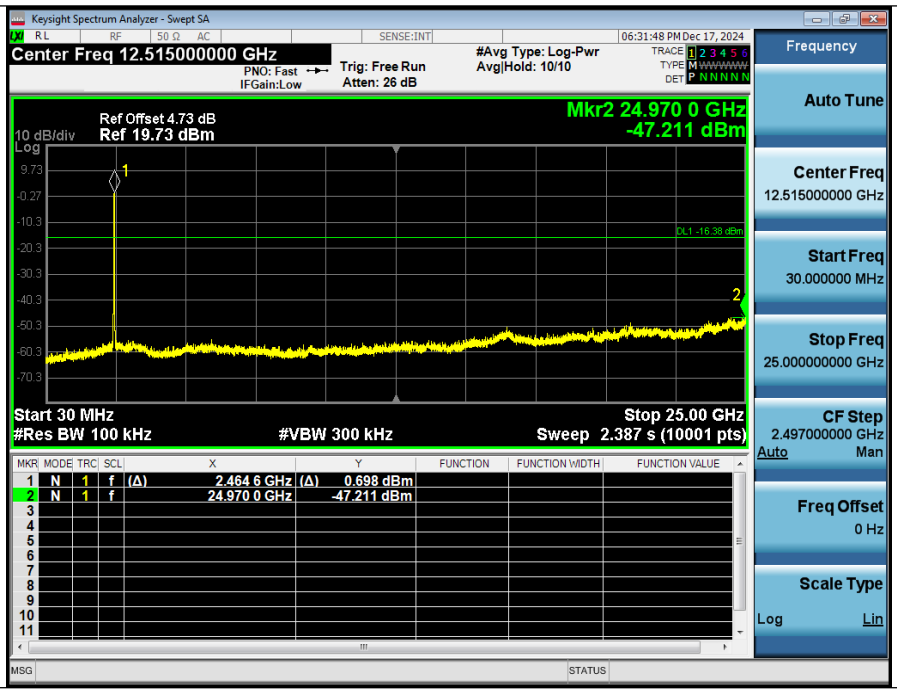
2_Spurious_Emission_NVNT_ANT1_802_11g_2437



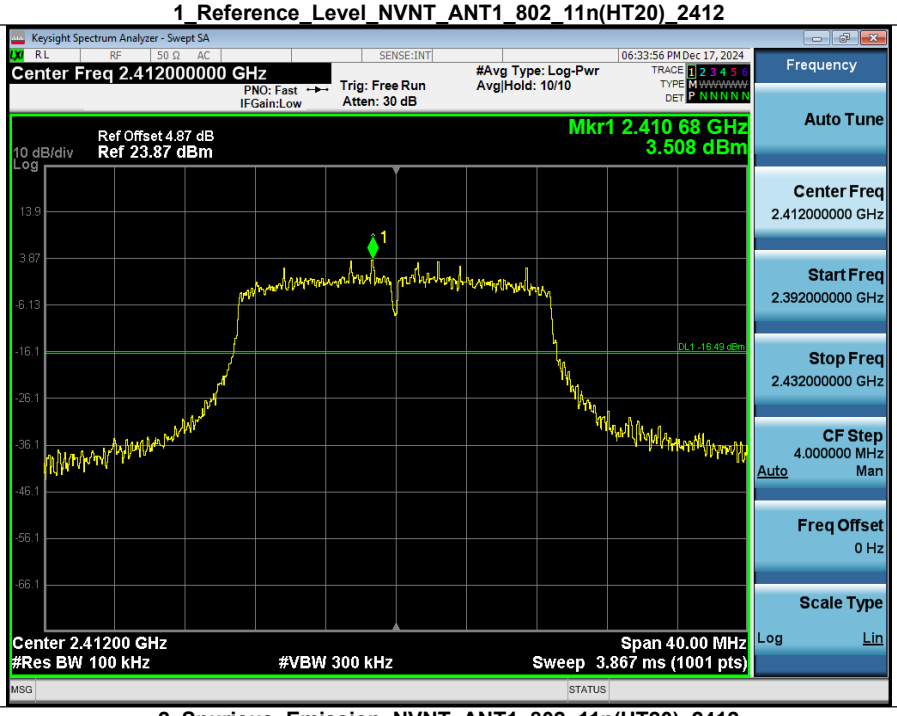
1_Reference_Level_NVNT_ANT1_802_11g_2462



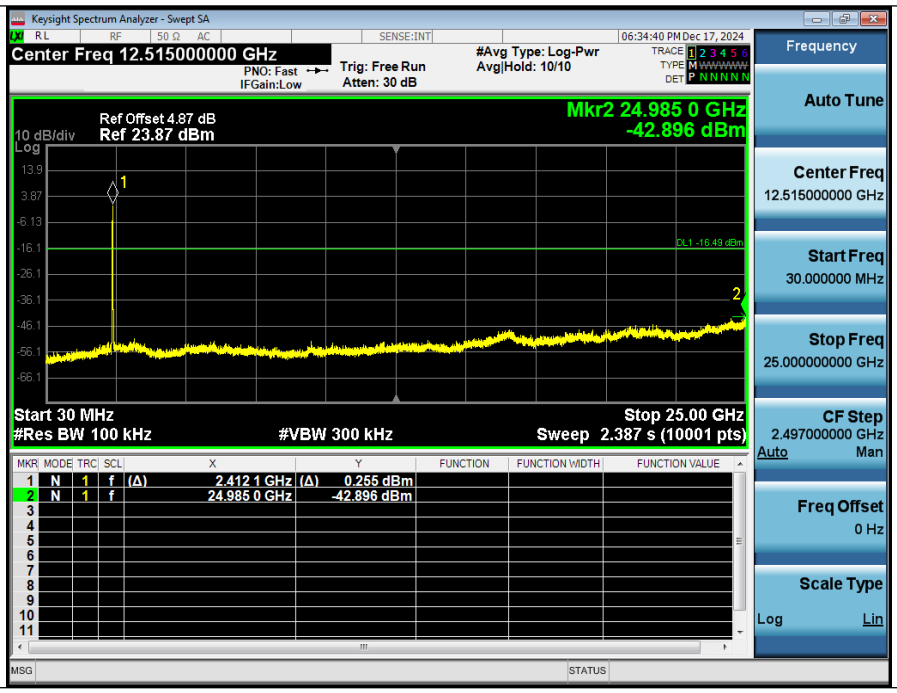
2_Spurious_Emission_NVNT_ANT1_802_11g_2462



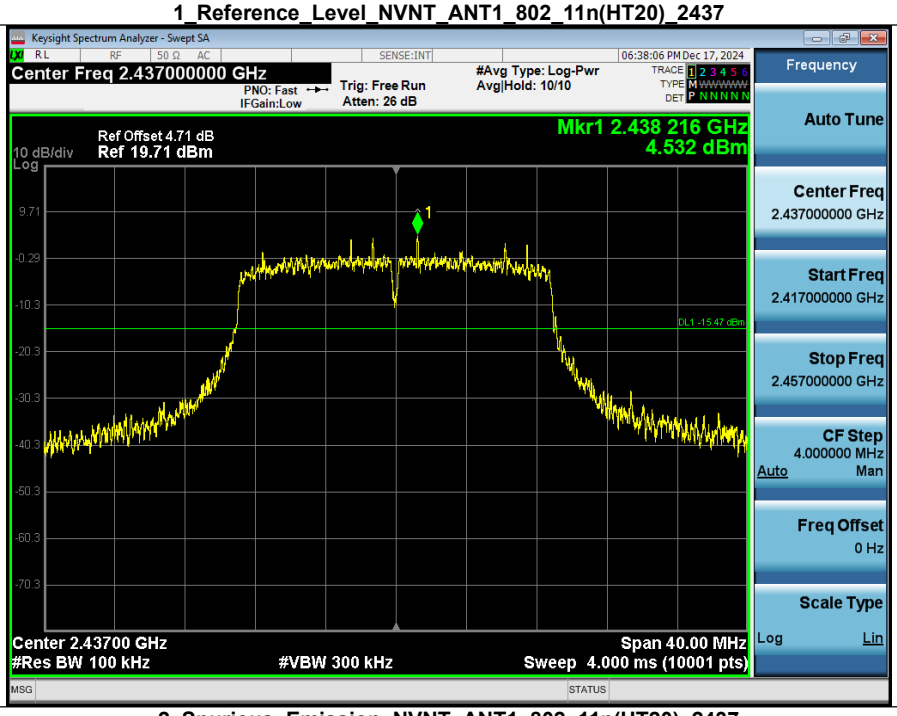
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



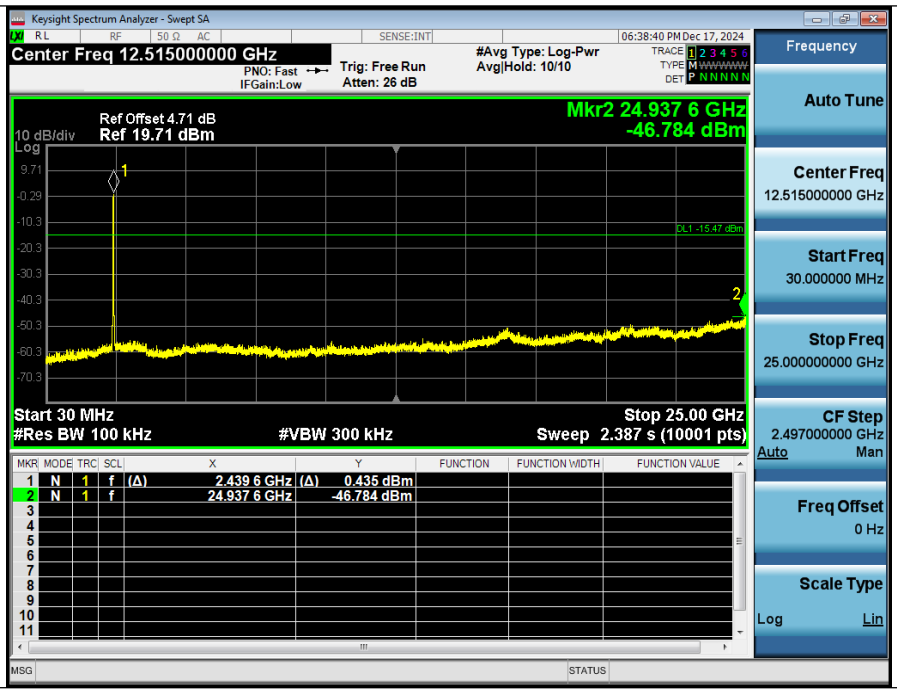
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2412



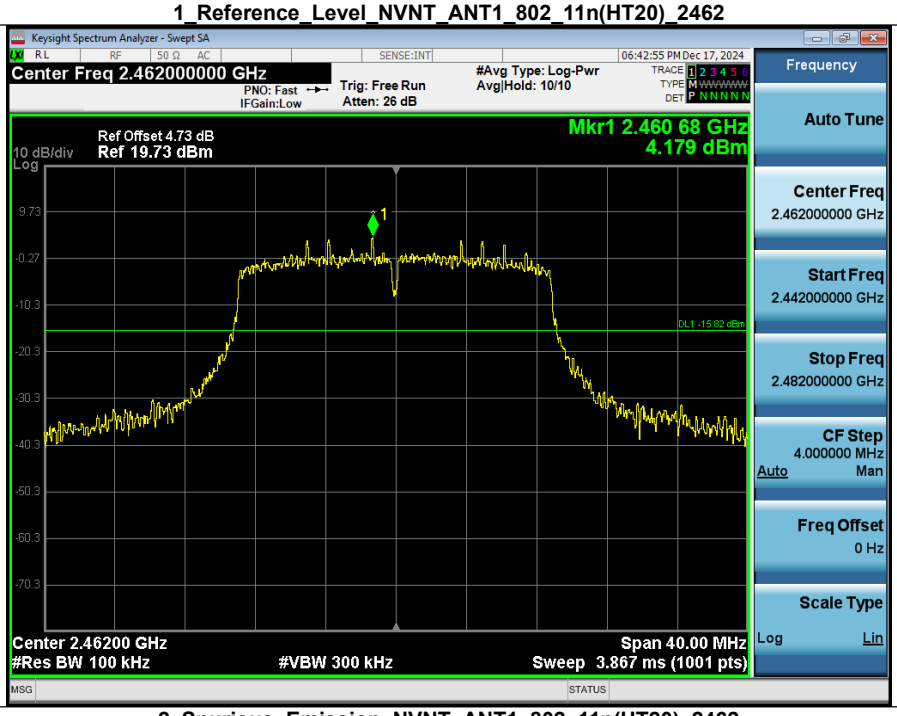
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2437



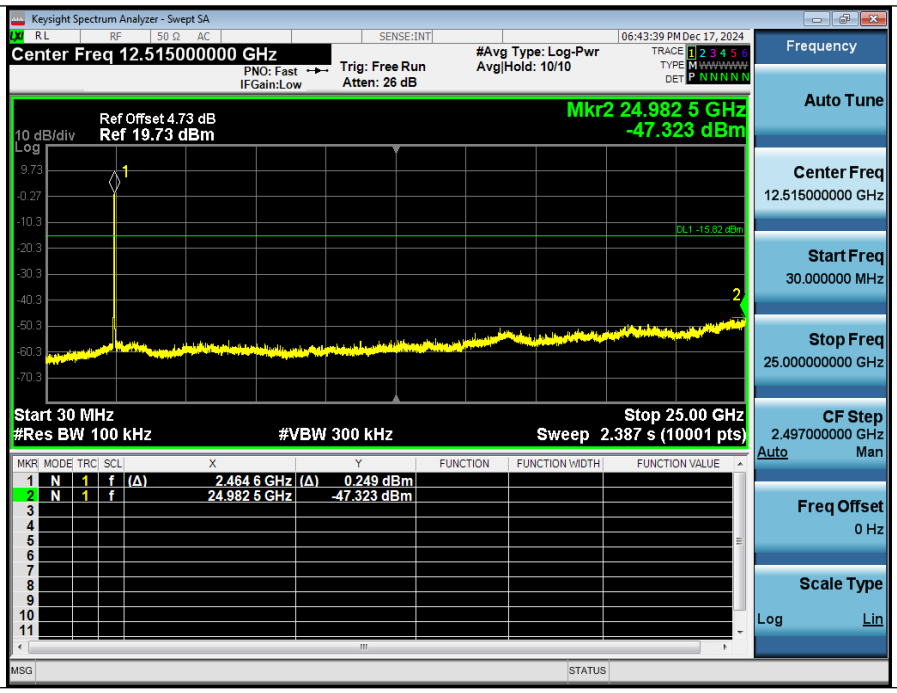
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2437



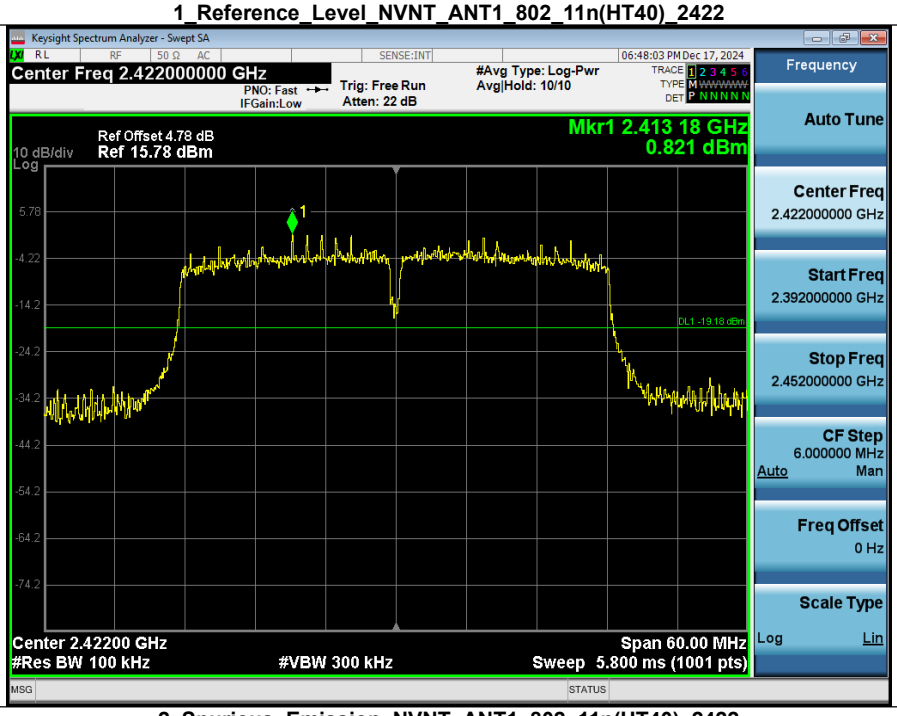
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462



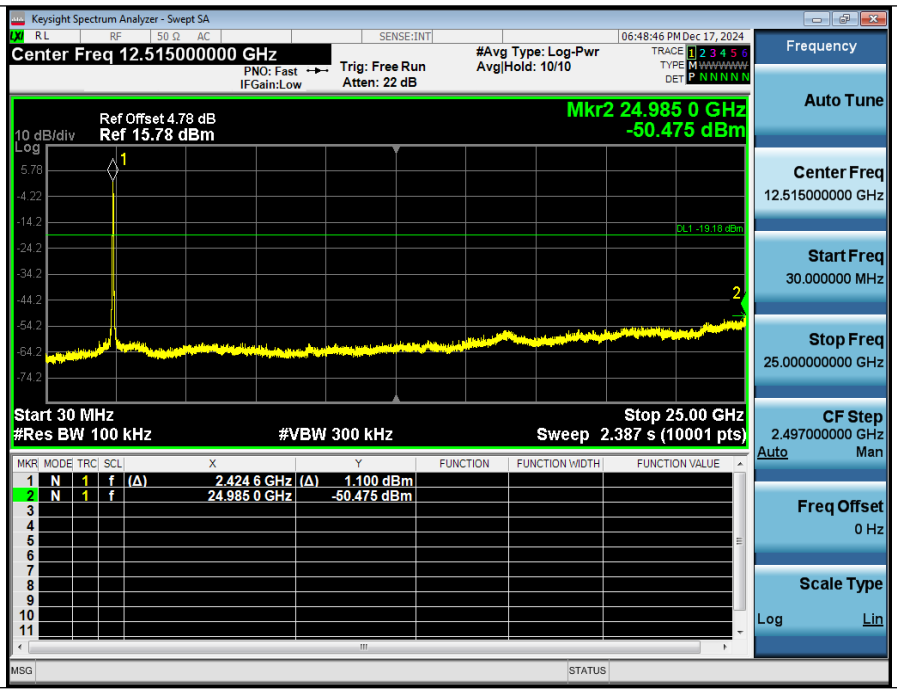
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2462



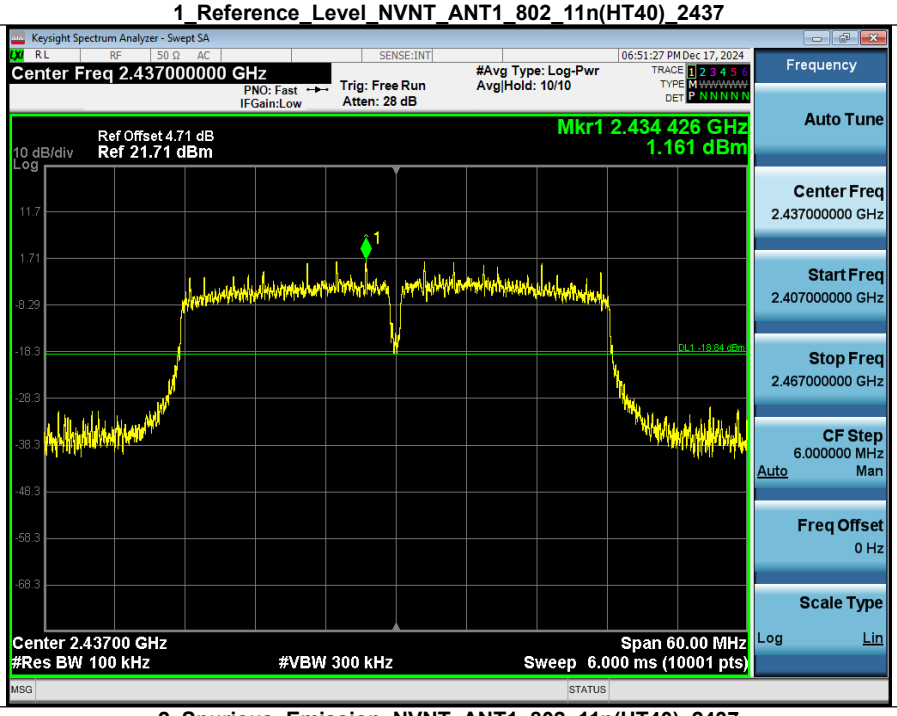
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



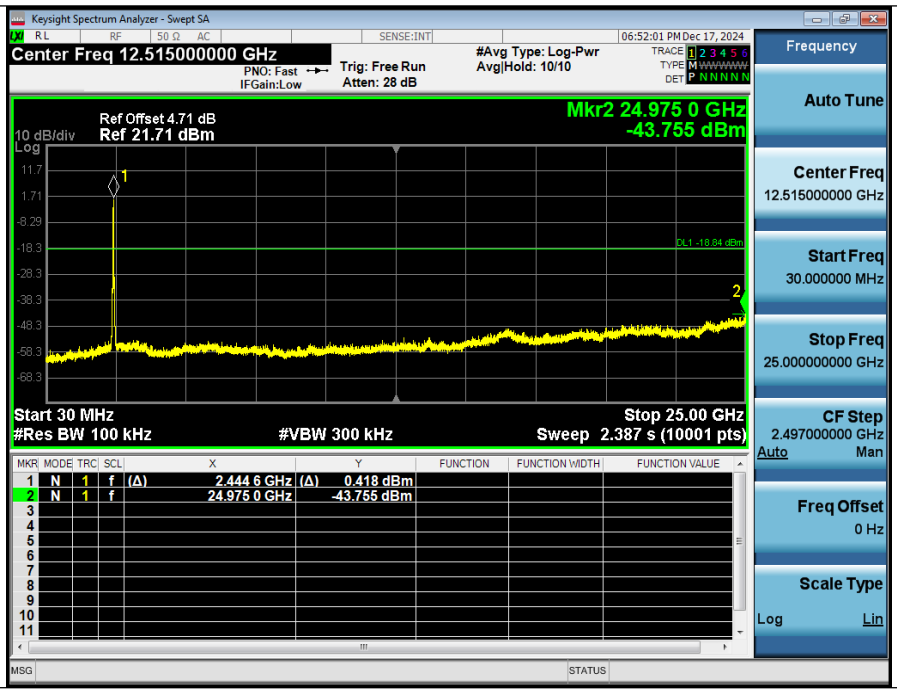
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2422



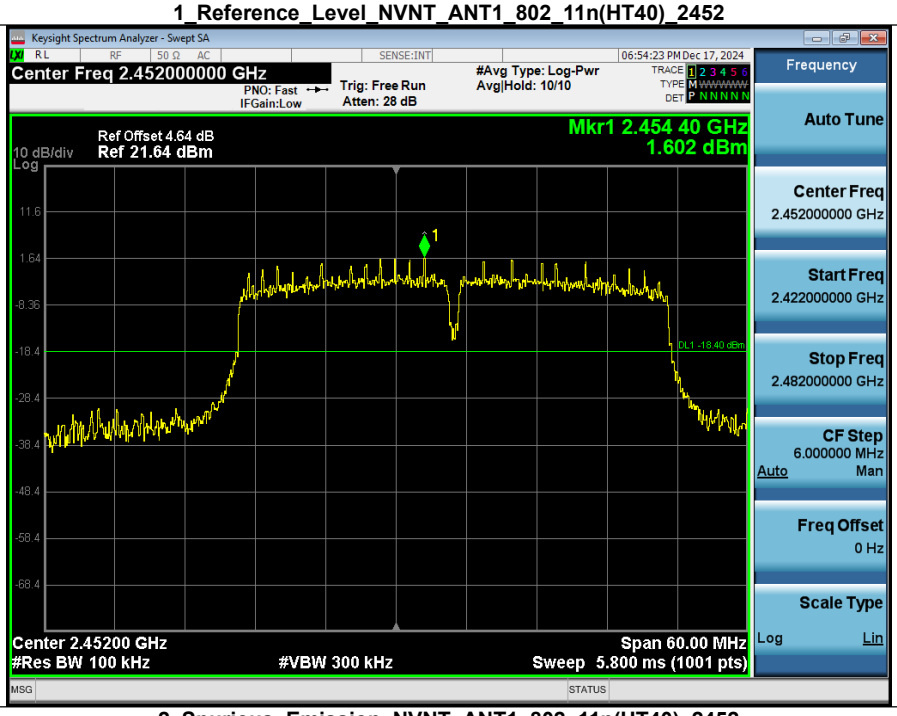
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2437



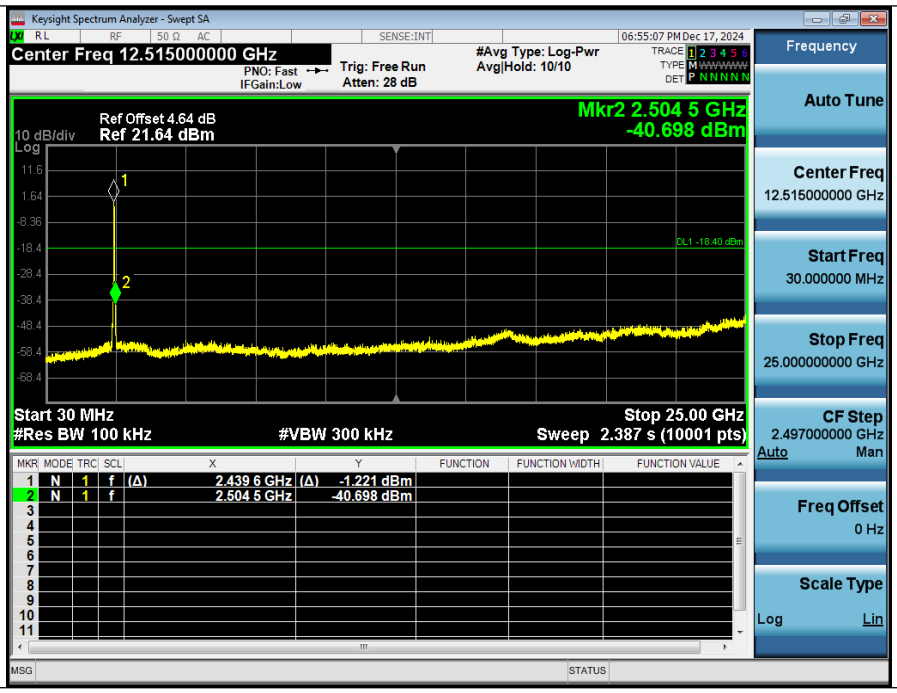
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2437



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: 28 dB
#Avg Type: Log-Pwr
Avg|Hold: 10/10
06:55:07 PM Dec 17, 2024
Ref Offset 4.64 dB
10 dB/div
Ref 21.64 dBm
Mkr2 2.504 5 GHz
-40.698 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 (Δ) 2.439 6 GHz (Δ) -1.221 dBm
2 N 1 f 2.504 5 GHz -40.698 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