Report No.:MAX250410110P03-R02
FCC ID:2BDTM-S01T
FCC_2.4G_WIFI (Part15.247) Test Data

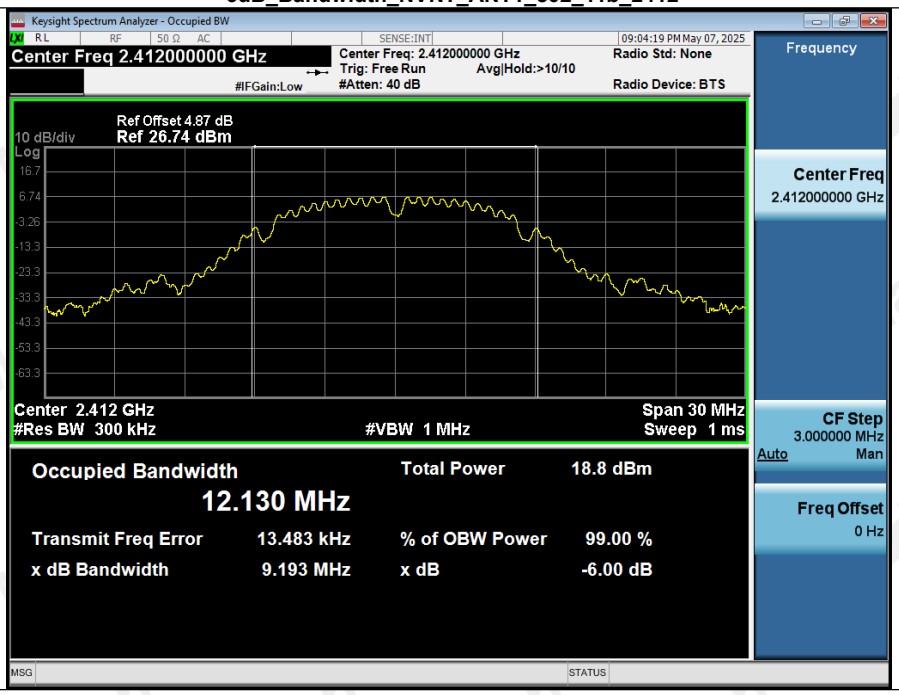
Table of Contents

1. -6dB Bandwidth 2
2. 99% Occupied Bandwidth 9
3. Duty Cycle 16
4. MAX. Output Power 23
5. Power Spectral Density 24
6. Bandedge 31
7. Spurious Emission 39

1. -6dB Bandwidth

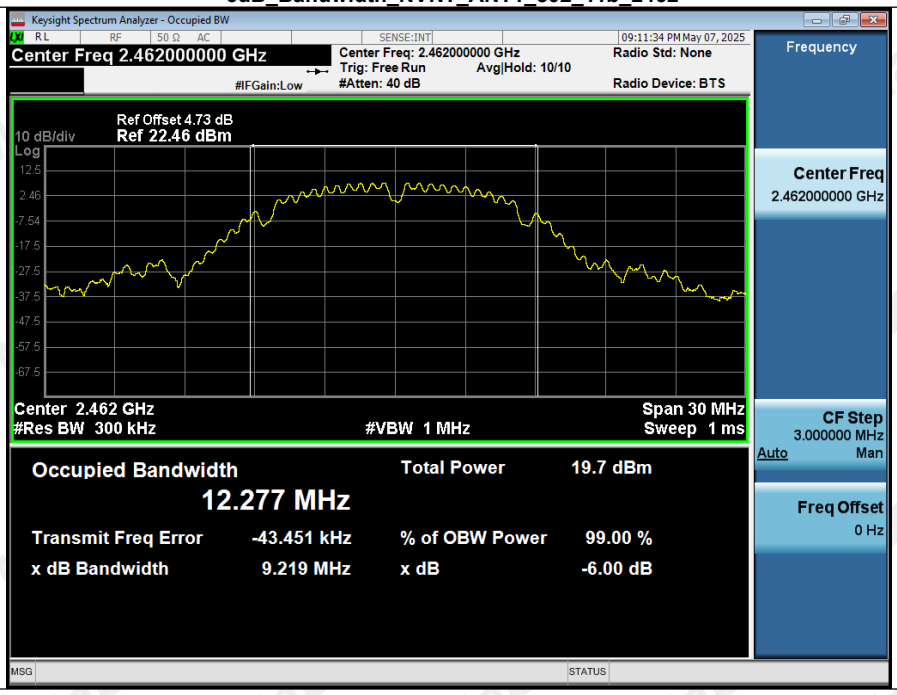
Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	9.19	500	Pass
NVNT	ANT1	802.11b	2437.00	8.73	500	Pass
NVNT	ANT1	802.11b	2462.00	9.22	500	Pass
NVNT	ANT1	802.11g	2412.00	16.39	500	Pass
NVNT	ANT1	802.11g	2437.00	16.47	500	Pass
NVNT	ANT1	802.11g	2462.00	16.39	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.31	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.41	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.32	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	36.28	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	36.05	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	36.03	500	Pass

-6dB_Bandwidth_NVNT_ANT1_802_11b_2412

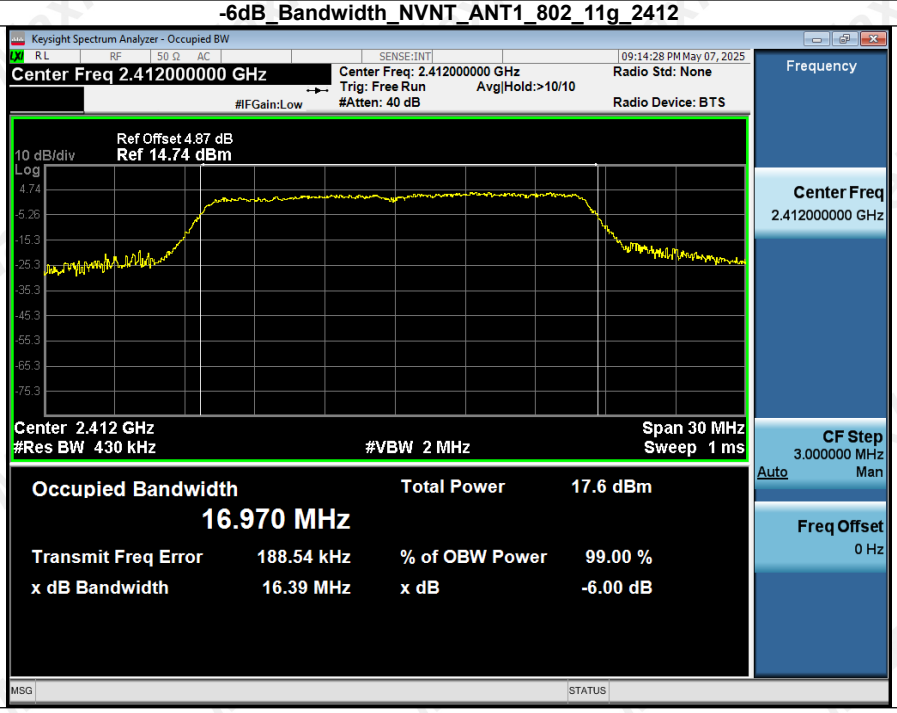


-6dB_Bandwidth_NVNT_ANT1_802_11b_2437

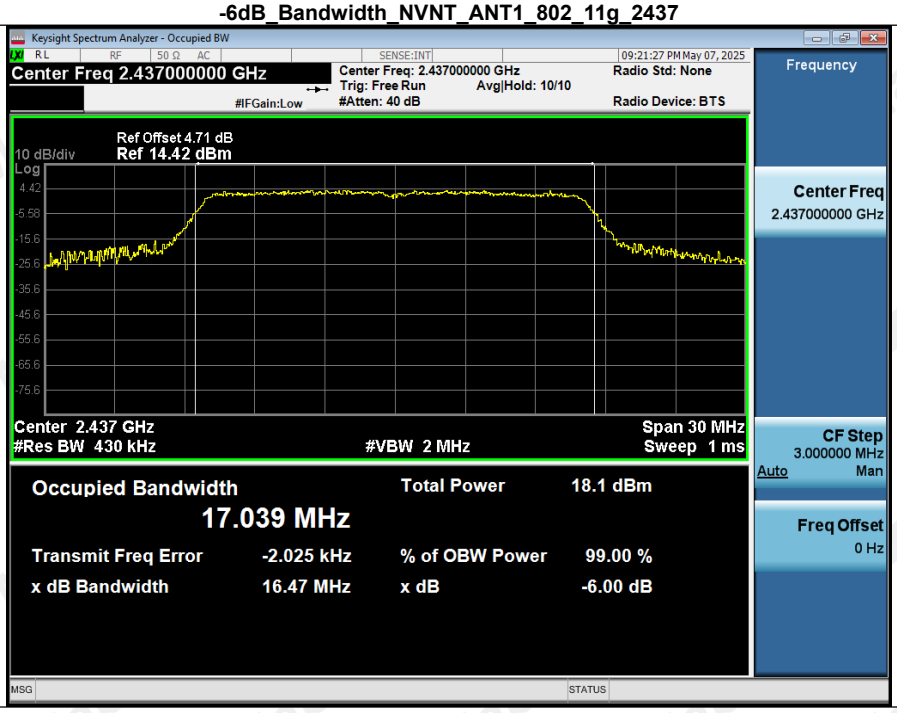
-6dB_Bandwidth_NVNT_ANT1_802_11b_2462



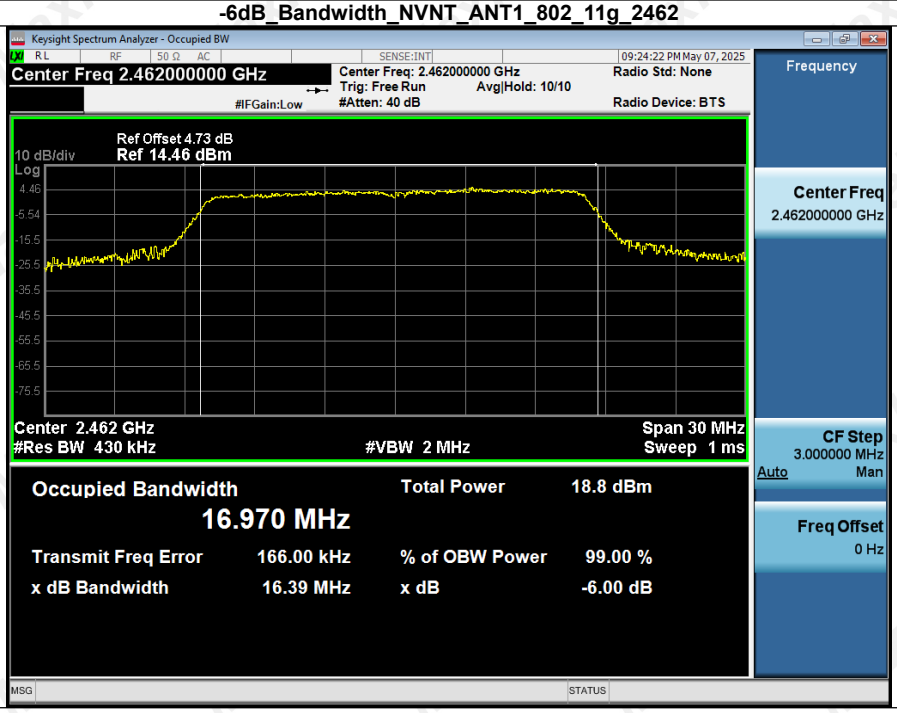
-6dB_Bandwidth_NVNT_ANT1_802_11g_2412



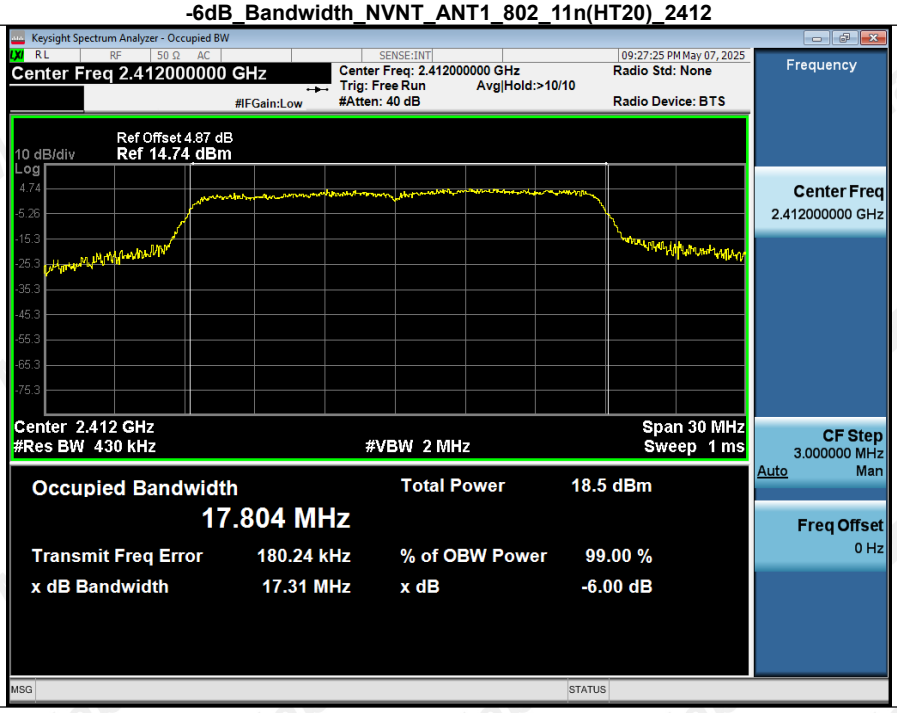
-6dB_Bandwidth_NVNT_ANT1_802_11g_2437



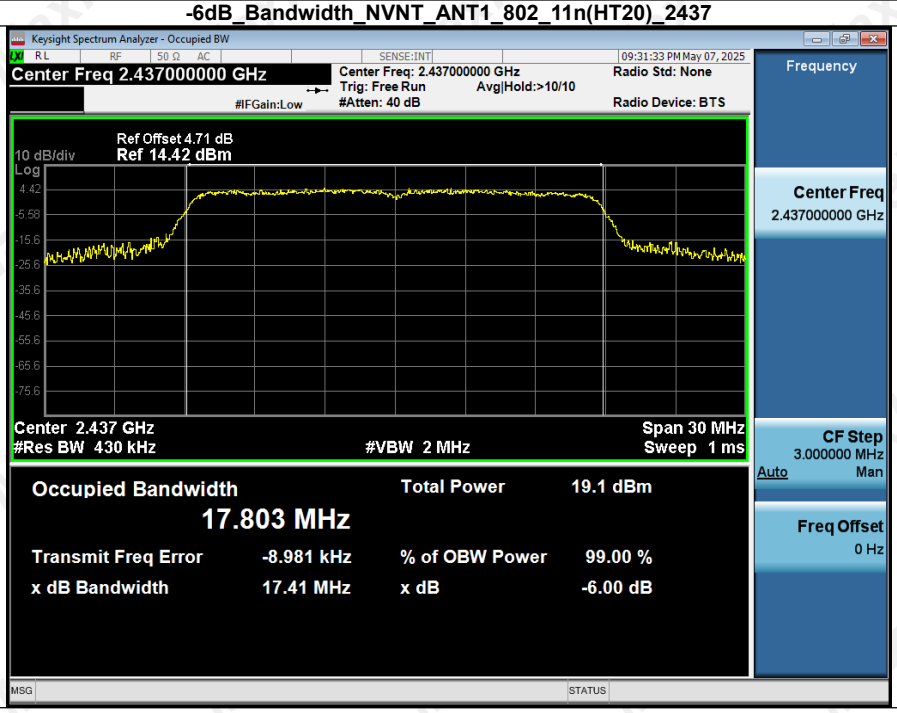
-6dB_Bandwidth_NVNT_ANT1_802_11g_2462



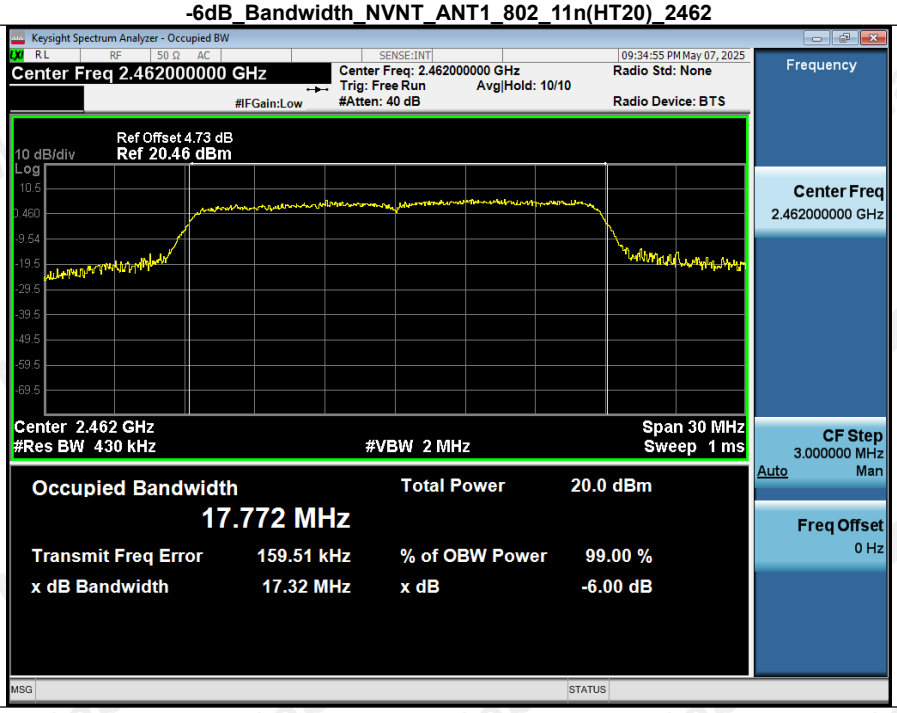
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



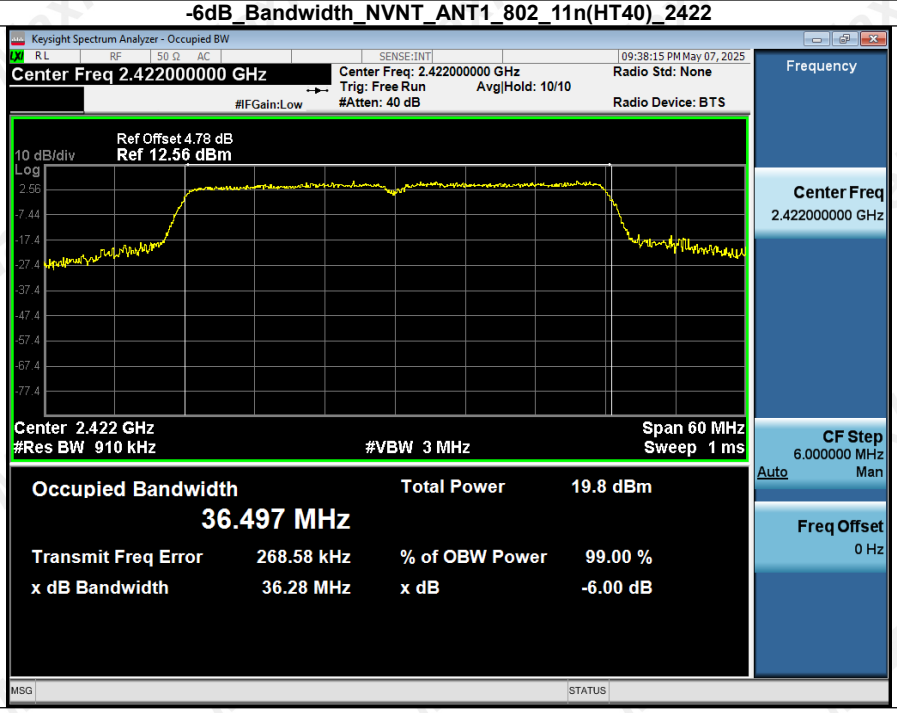
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



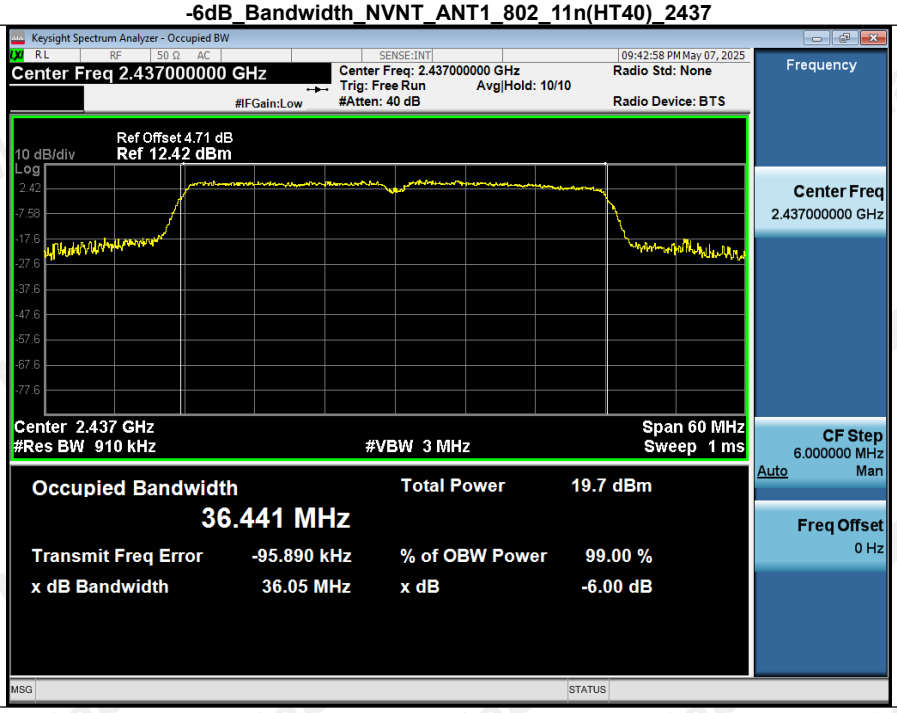
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



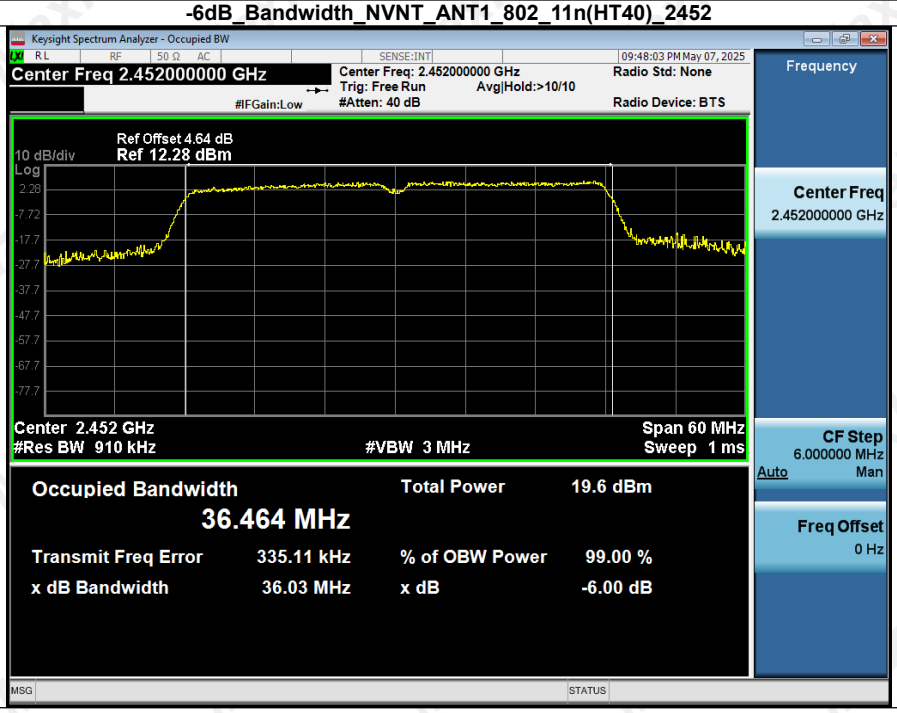
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



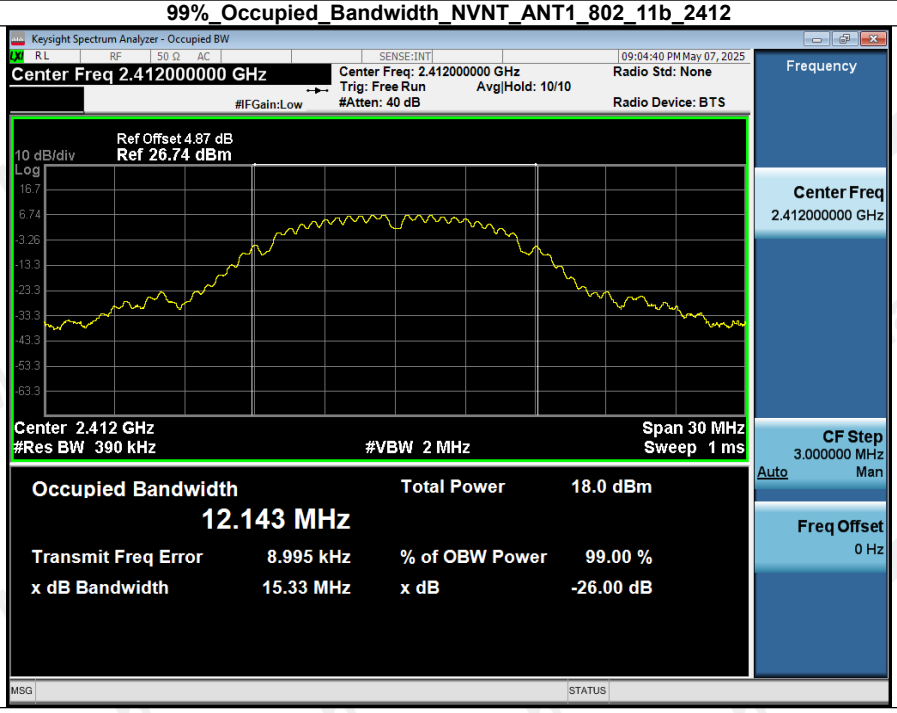
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



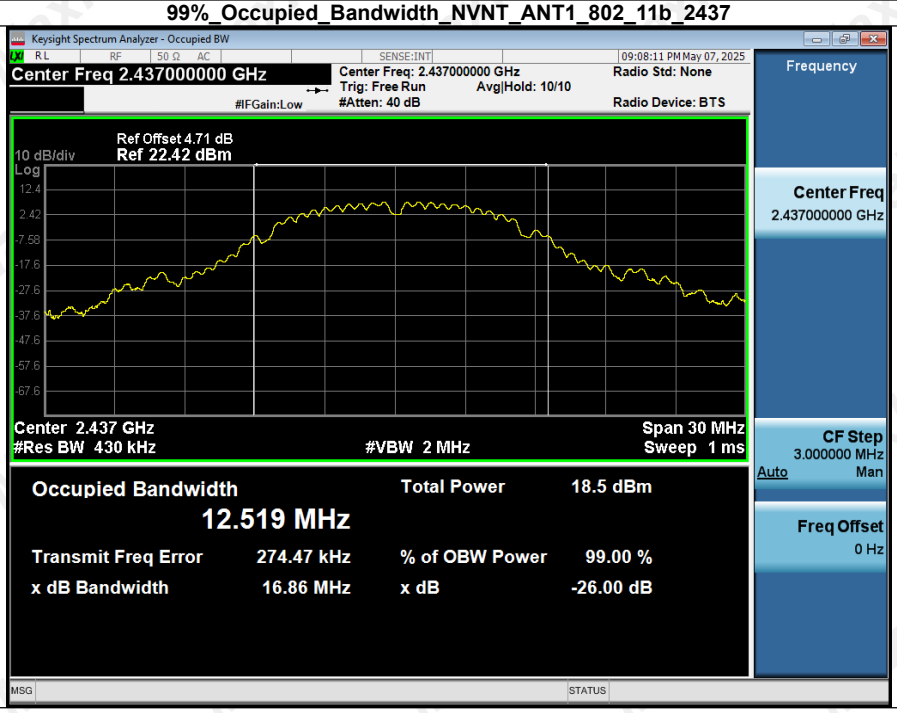
2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	802.11b	2412.00	12.143
NVNT	ANT1	802.11b	2437.00	12.519
NVNT	ANT1	802.11b	2462.00	12.292
NVNT	ANT1	802.11g	2412.00	17.213
NVNT	ANT1	802.11g	2437.00	17.163
NVNT	ANT1	802.11g	2462.00	17.073
NVNT	ANT1	802.11n(HT20)	2412.00	17.858
NVNT	ANT1	802.11n(HT20)	2437.00	17.888
NVNT	ANT1	802.11n(HT20)	2462.00	17.852
NVNT	ANT1	802.11n(HT40)	2422.00	36.539
NVNT	ANT1	802.11n(HT40)	2437.00	36.485
NVNT	ANT1	802.11n(HT40)	2452.00	36.518

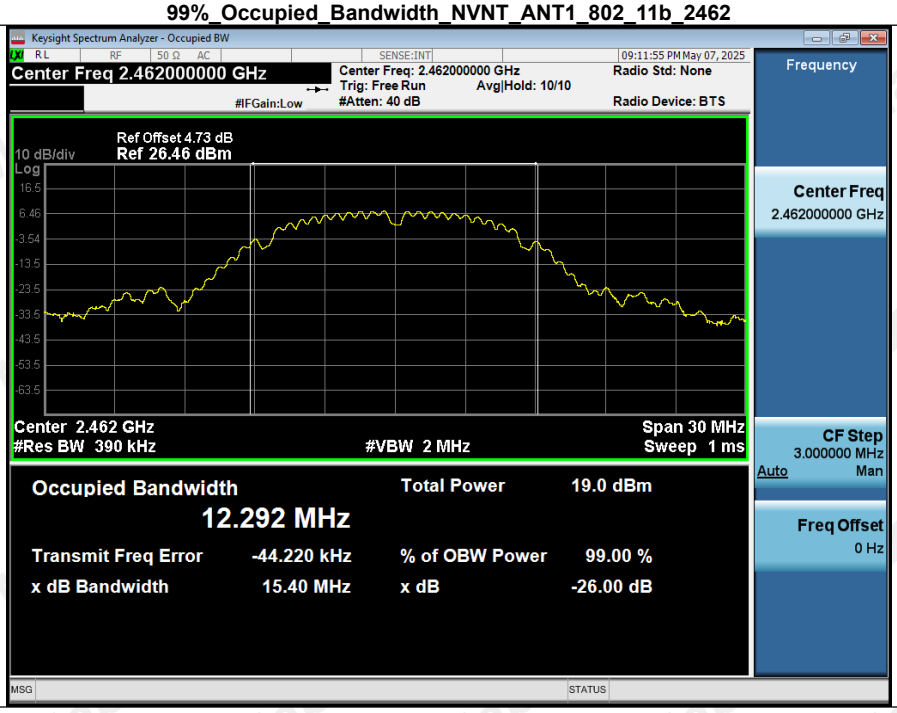
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2412



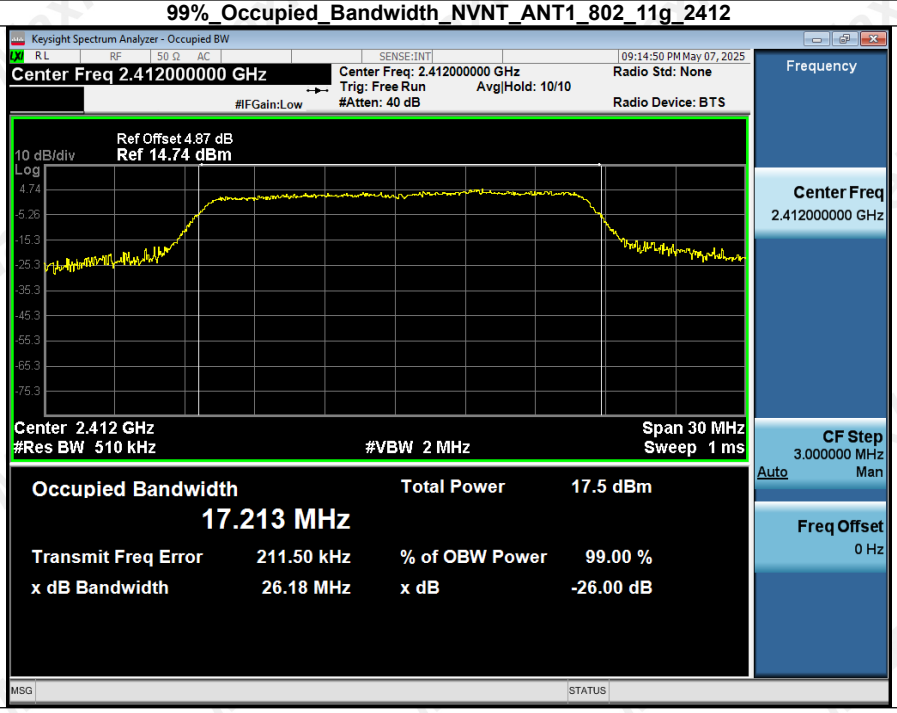
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2437



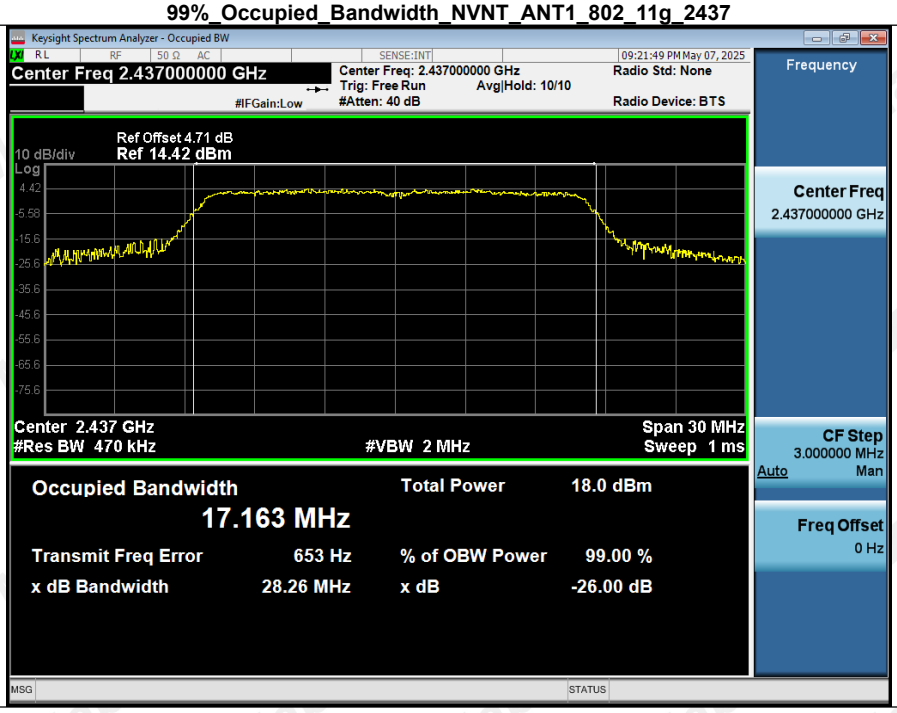
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2462



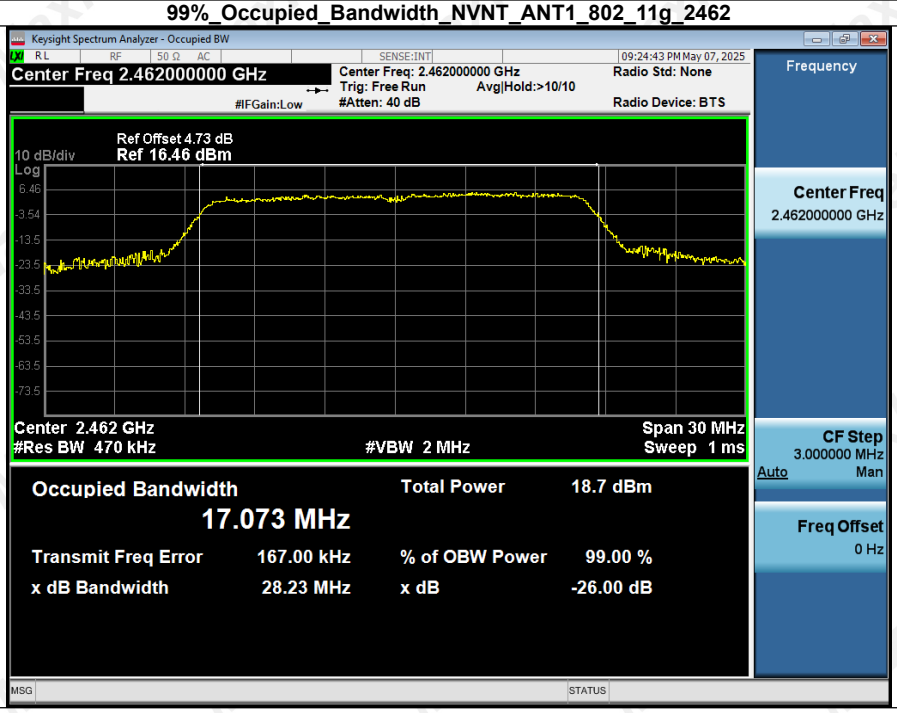
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2412



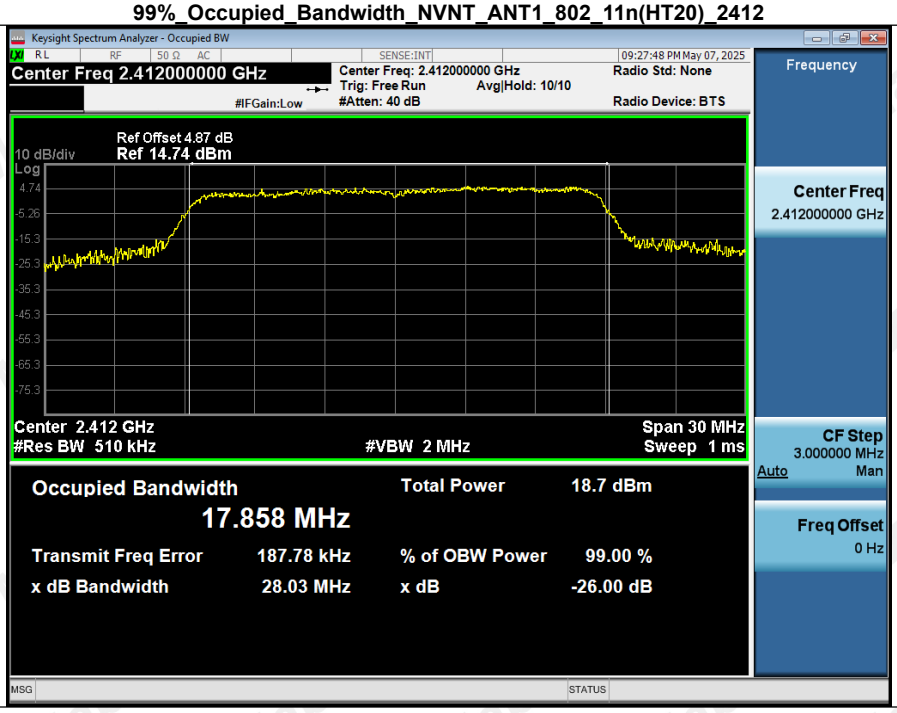
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2437



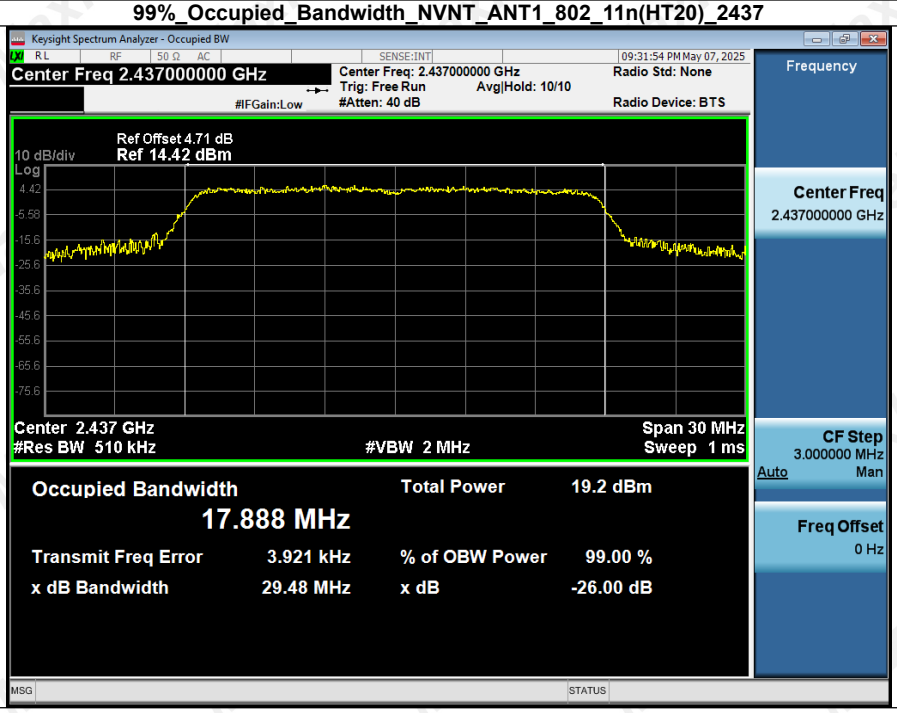
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2462



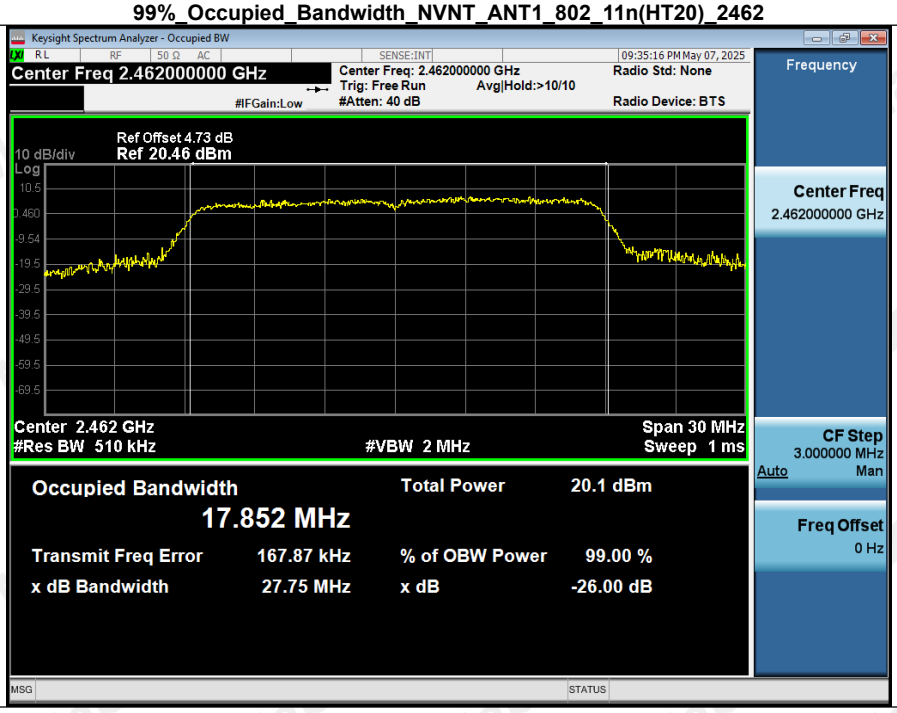
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



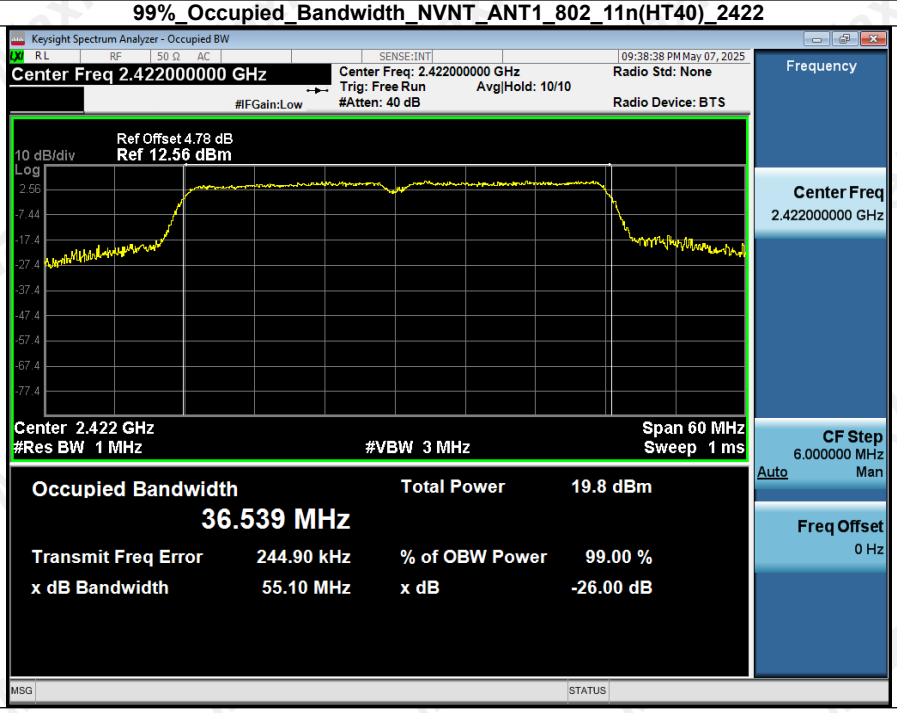
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



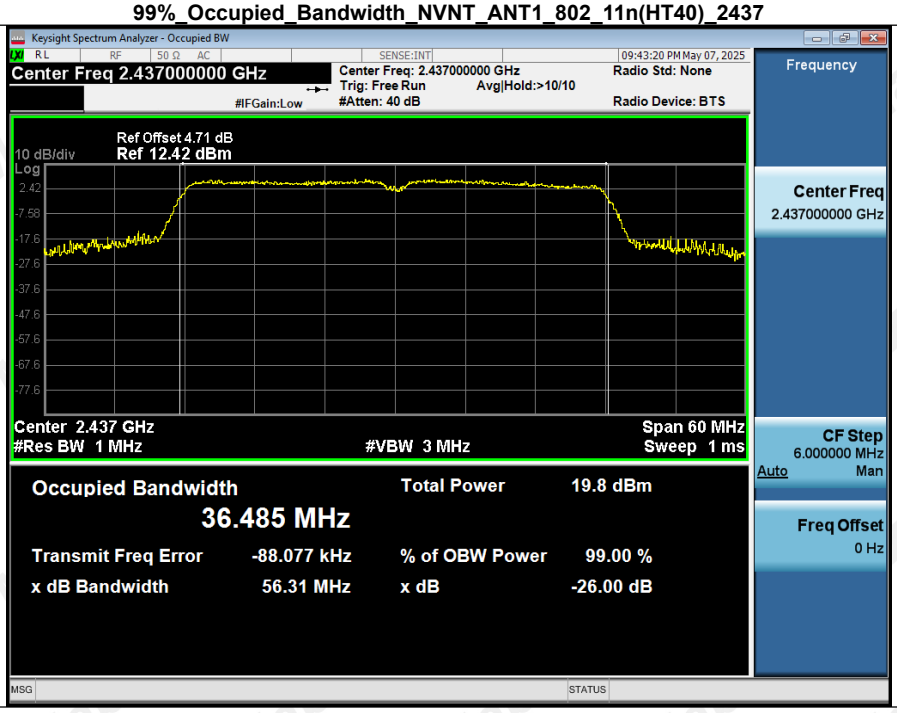
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



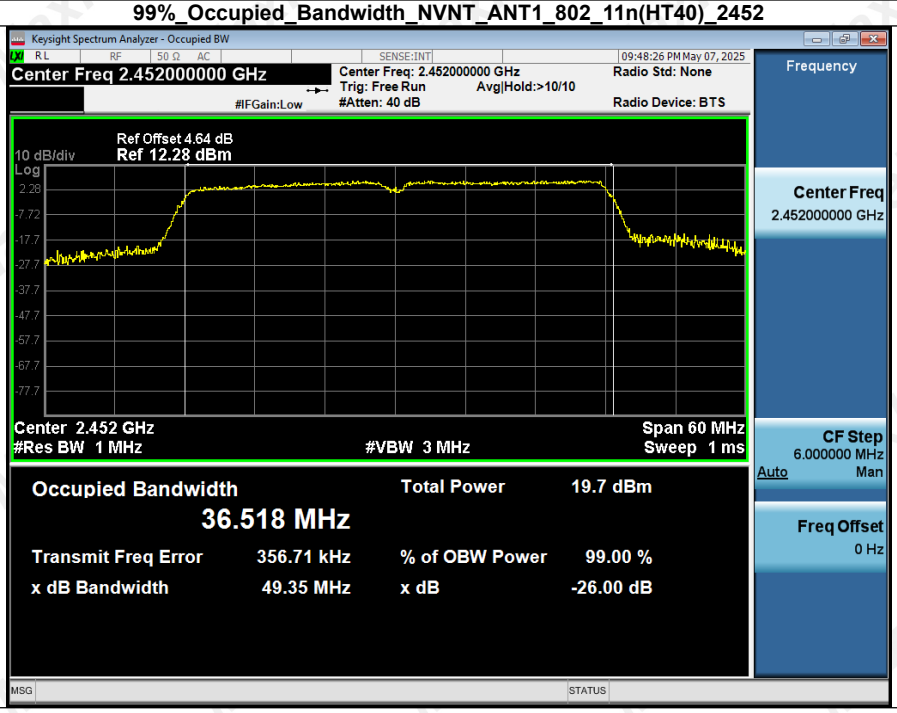
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



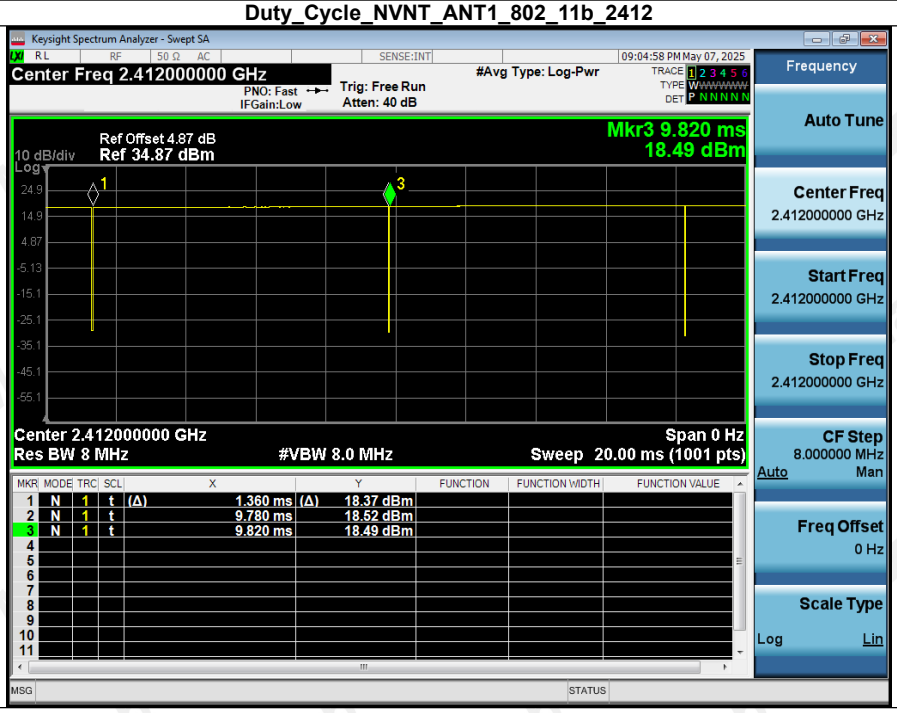
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



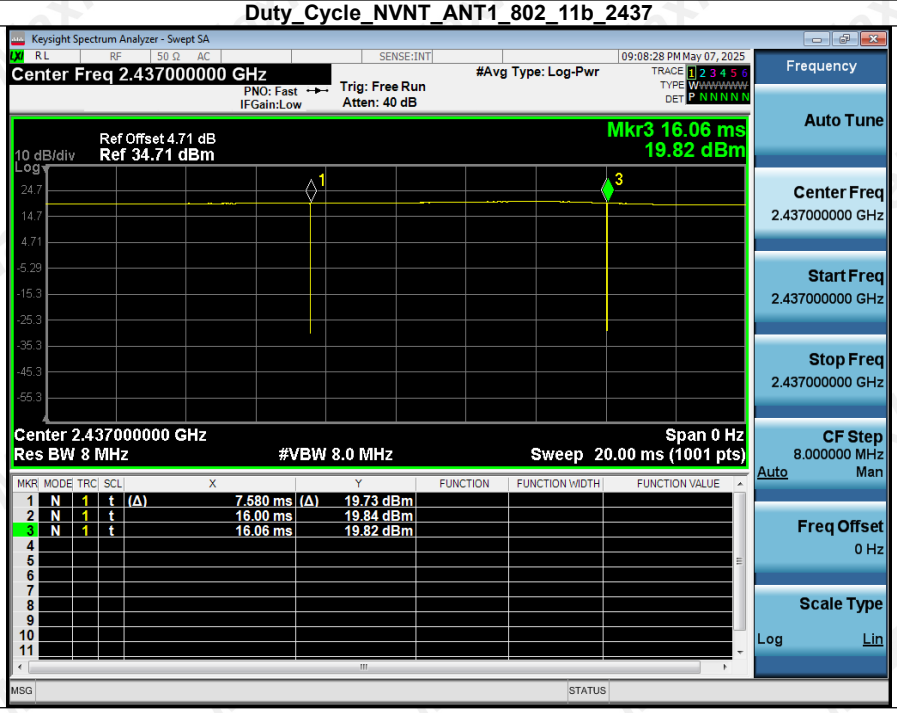
3. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	99.76	0.00
NVNT	ANT1	802.11b	2437.00	99.53	0.00
NVNT	ANT1	802.11b	2462.00	99.53	0.00
NVNT	ANT1	802.11g	2412.00	97.22	0.12
NVNT	ANT1	802.11g	2437.00	97.22	0.12
NVNT	ANT1	802.11g	2462.00	97.26	0.12
NVNT	ANT1	802.11n(HT20)	2412.00	98.36	0.00
NVNT	ANT1	802.11n(HT20)	2437.00	98.39	0.00
NVNT	ANT1	802.11n(HT20)	2462.00	96.77	0.14
NVNT	ANT1	802.11n(HT40)	2422.00	96.87	0.14
NVNT	ANT1	802.11n(HT40)	2437.00	96.88	0.14
NVNT	ANT1	802.11n(HT40)	2452.00	93.75	0.28

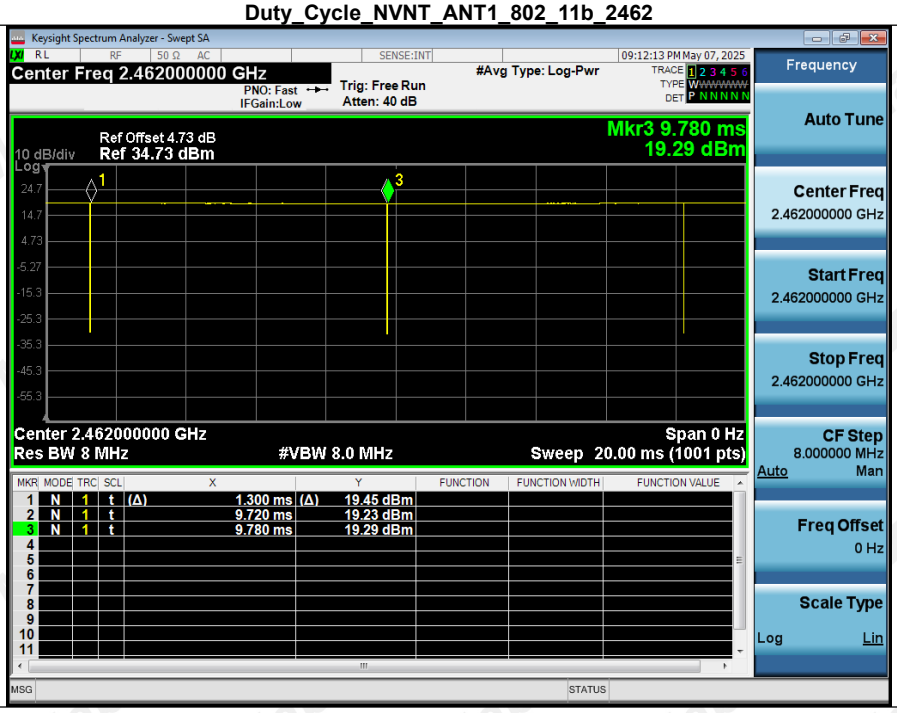
Duty_Cycle_NVNT_ANT1_802_11b_2412



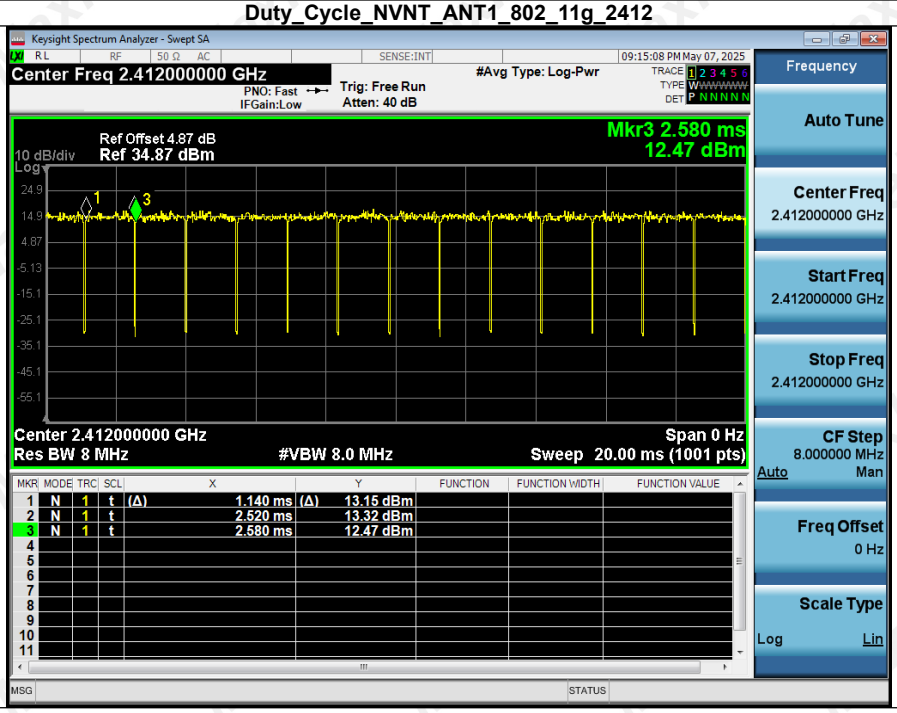
Duty_Cycle_NVNT_ANT1_802_11b_2437



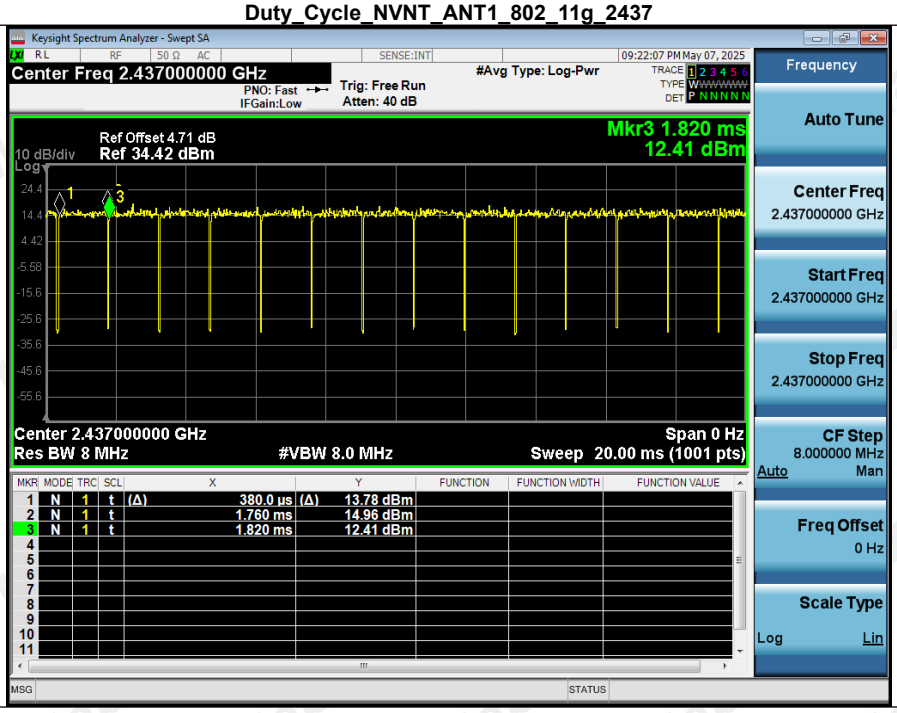
Duty_Cycle_NVNT_ANT1_802_11b_2462



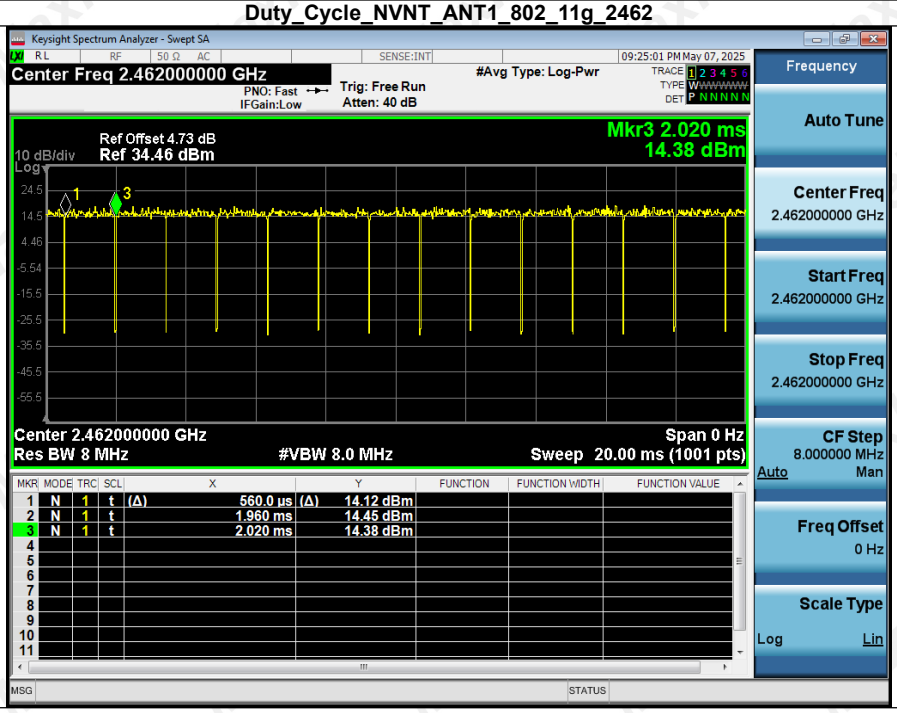
Duty_Cycle_NVNT_ANT1_802_11g_2412



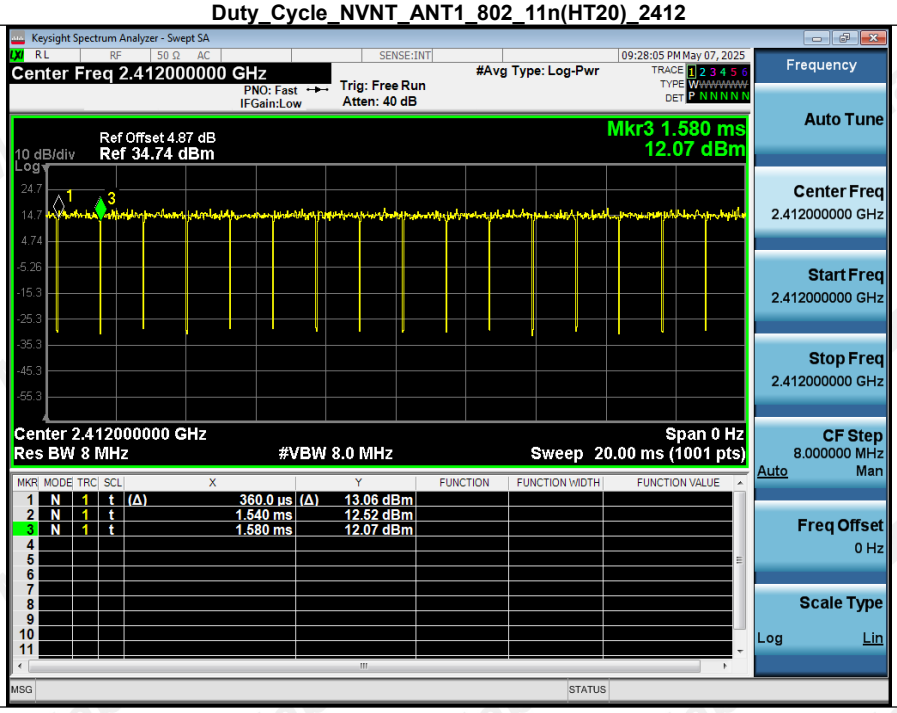
Duty_Cycle_NVNT_ANT1_802_11g_2437



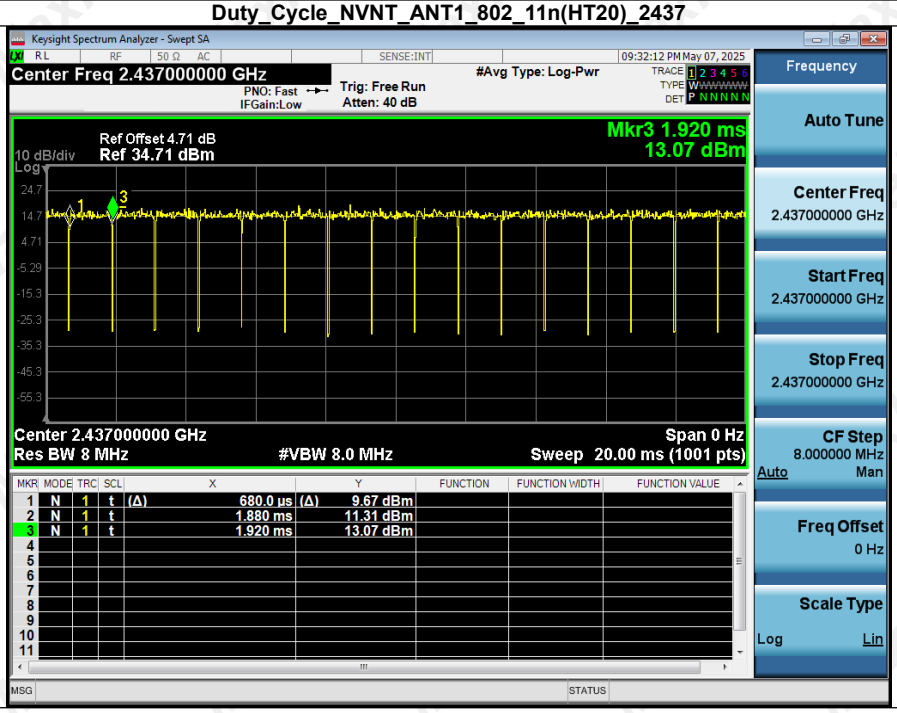
Duty_Cycle_NVNT_ANT1_802_11g_2462



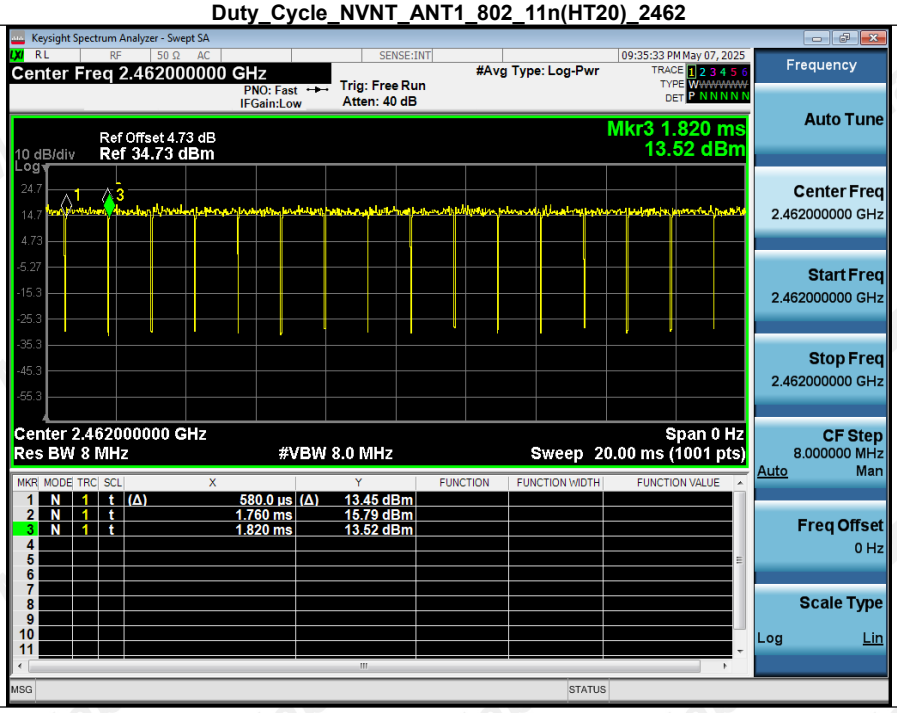
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2412



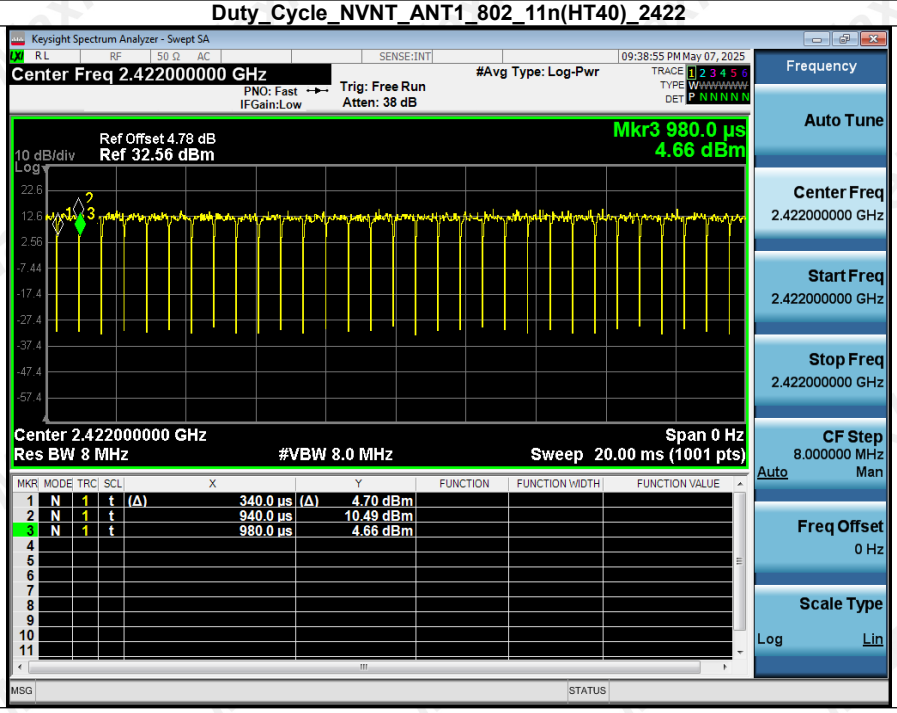
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2437



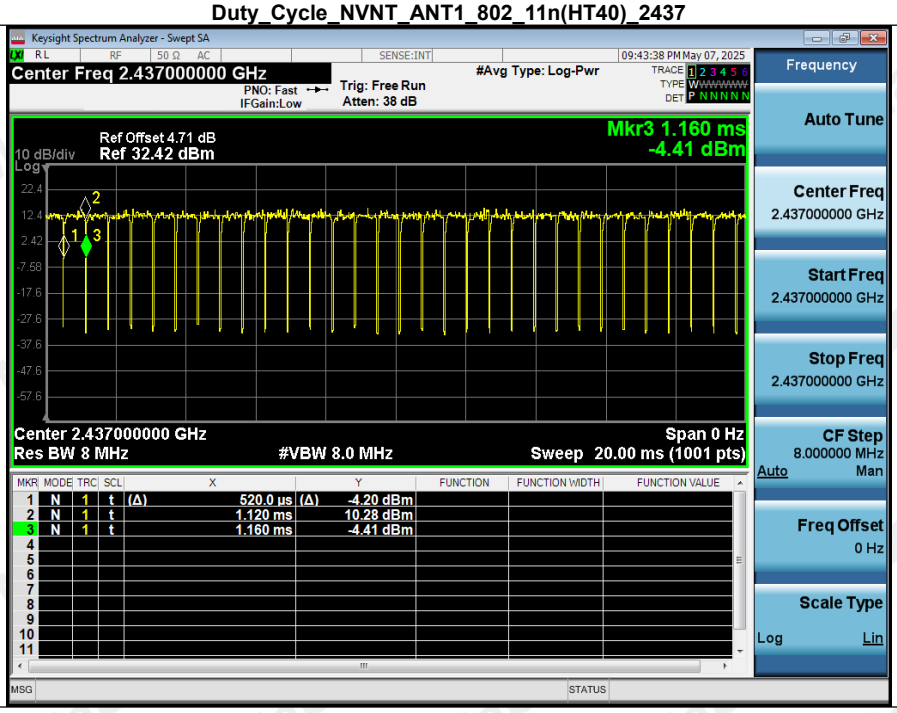
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2462



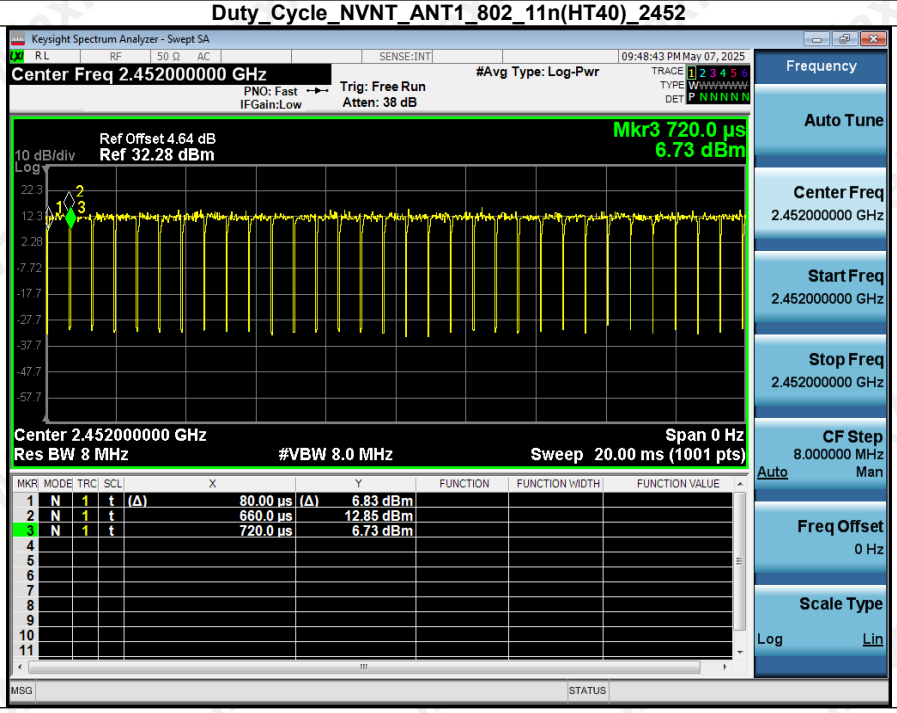
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2422



Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2437



Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2452



4. MAX. Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Detector	peak conducted output power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	Peak	17.38	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	18.06	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	18.39	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	17.15	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	17.59	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	18.41	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	18.18	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	18.67	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	19.62	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	Peak	18.87	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	Peak	18.76	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	Peak	18.72	30	Pass

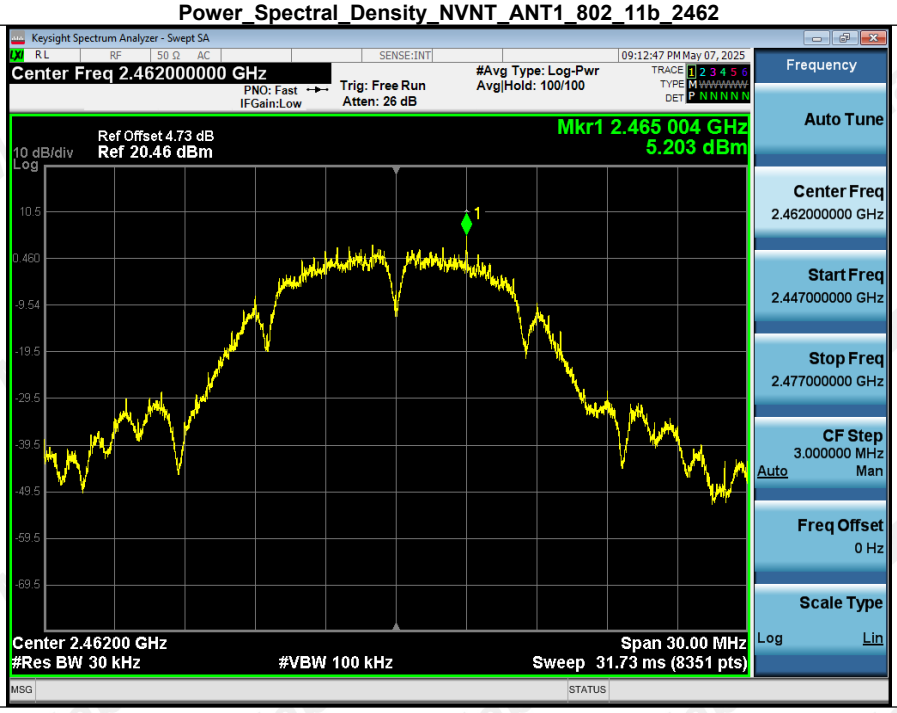
5. Power Spectral Density

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	3.39	N/A	-10.00	-6.61	8	Pass
NVNT	ANT1	802.11b	2437.00	3.91	N/A	-10.00	-6.09	8	Pass
NVNT	ANT1	802.11b	2462.00	5.20	N/A	-10.00	-4.80	8	Pass
NVNT	ANT1	802.11g	2412.00	-3.93	N/A	-10.00	-13.93	8	Pass
NVNT	ANT1	802.11g	2437.00	-4.91	N/A	-10.00	-14.91	8	Pass
NVNT	ANT1	802.11g	2462.00	-2.58	N/A	-10.00	-12.58	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-4.80	N/A	-10.00	-14.80	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-4.74	N/A	-10.00	-14.74	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-3.32	N/A	-10.00	-13.32	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-7.80	N/A	-10.00	-17.80	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-7.95	N/A	-10.00	-17.95	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-7.83	N/A	-10.00	-17.83	8	Pass

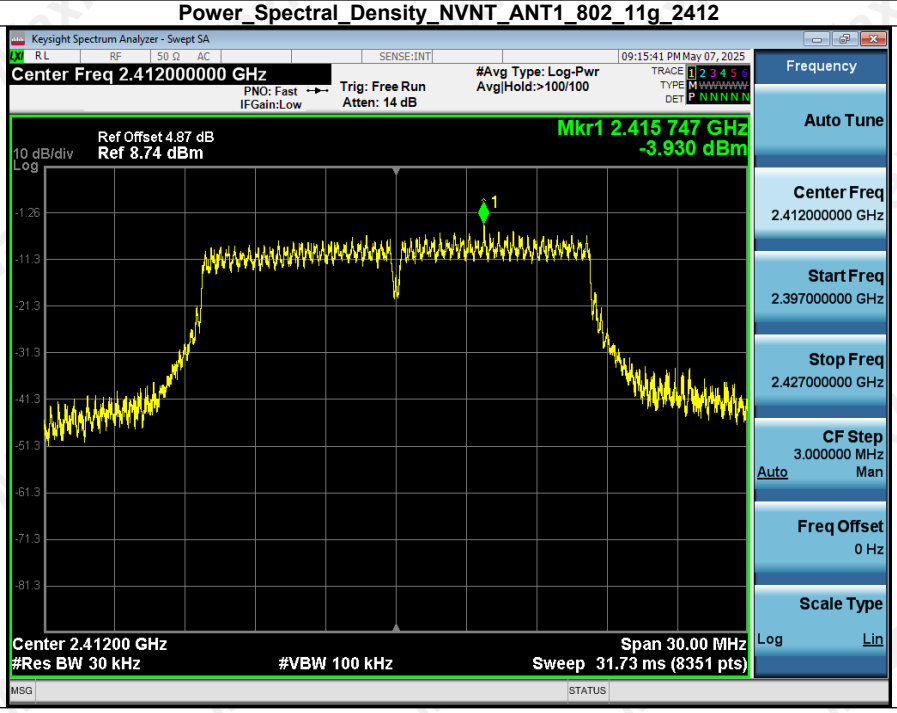
Power_Spectral_Density_NVNT_ANT1_802_11b_2412

Power_Spectral_Density_NVNT_ANT1_802_11b_2437

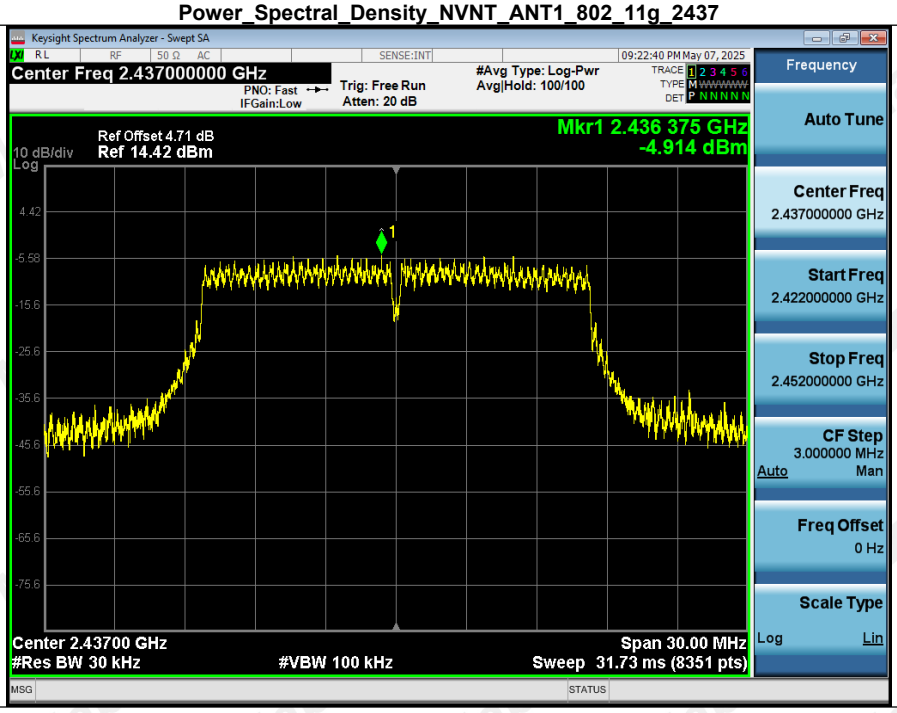
Power_Spectral_Density_NVNT_ANT1_802_11b_2462



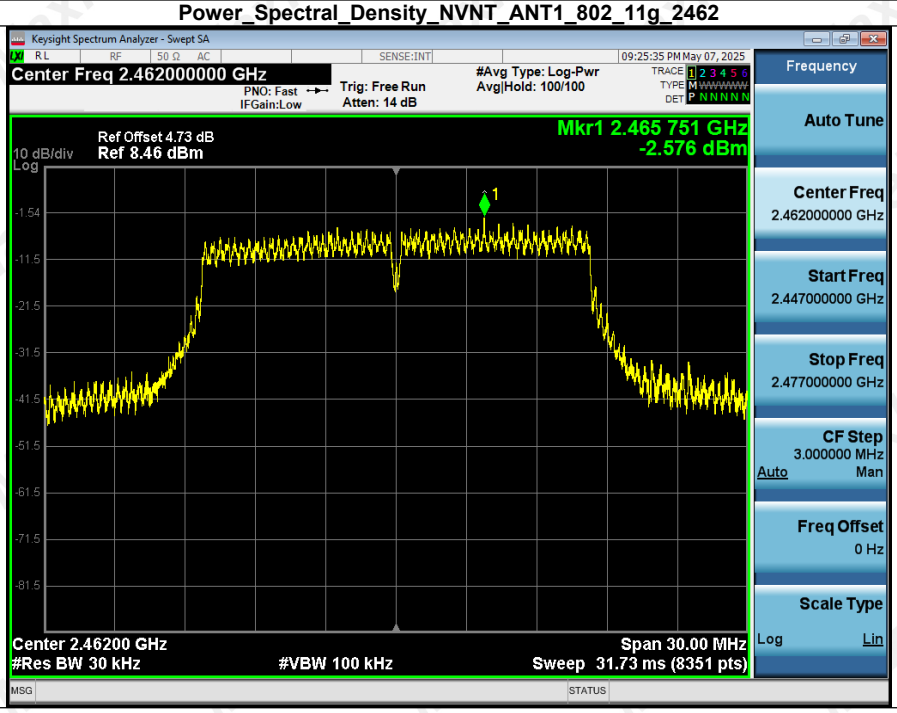
Power_Spectral_Density_NVNT_ANT1_802_11g_2412



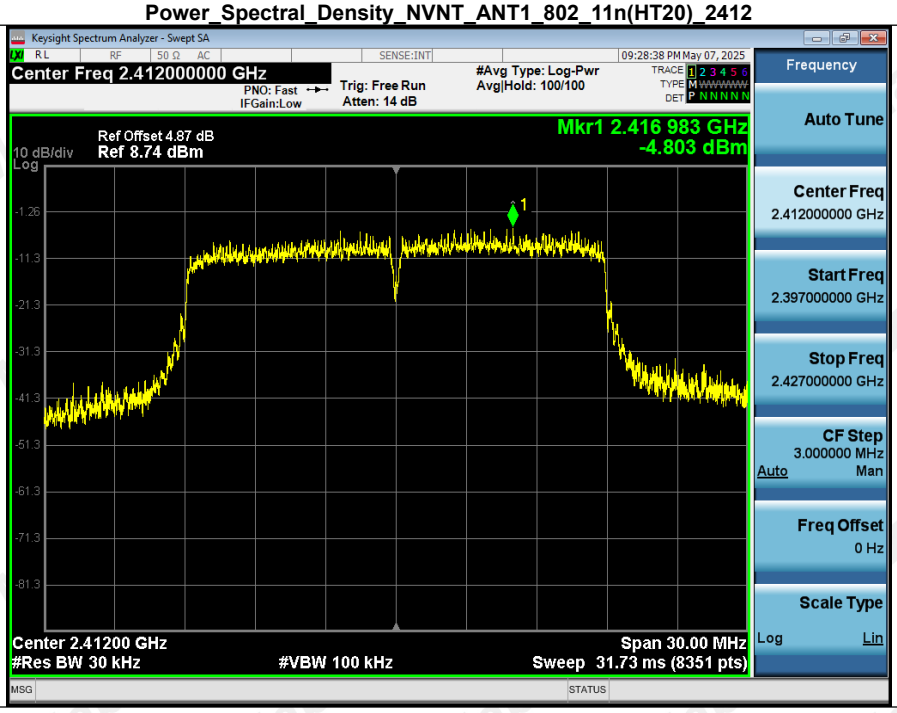
Power_Spectral_Density_NVNT_ANT1_802_11g_2437



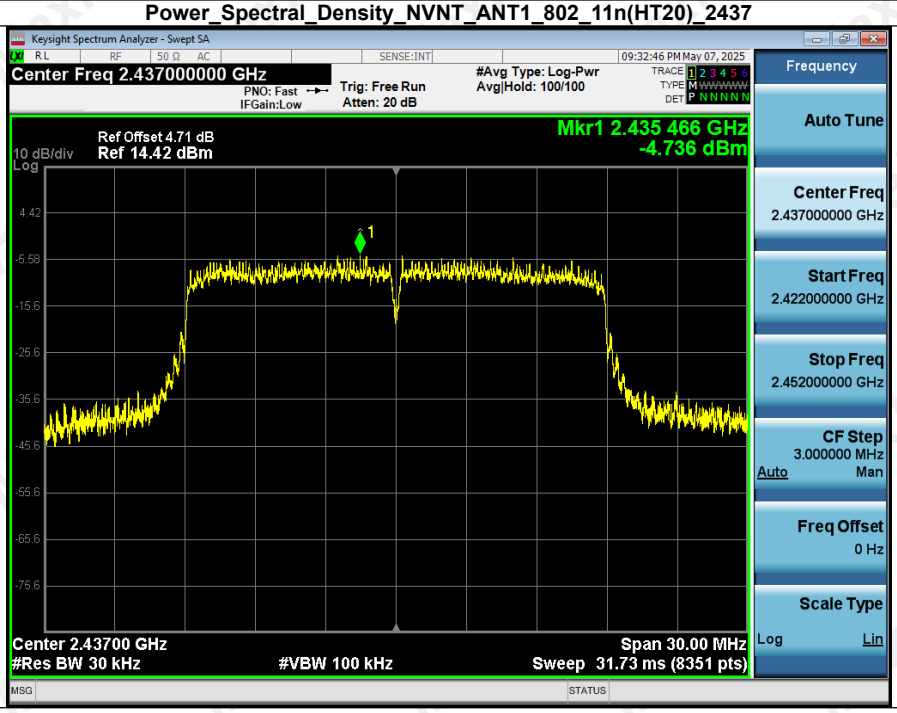
Power_Spectral_Density_NVNT_ANT1_802_11g_2462



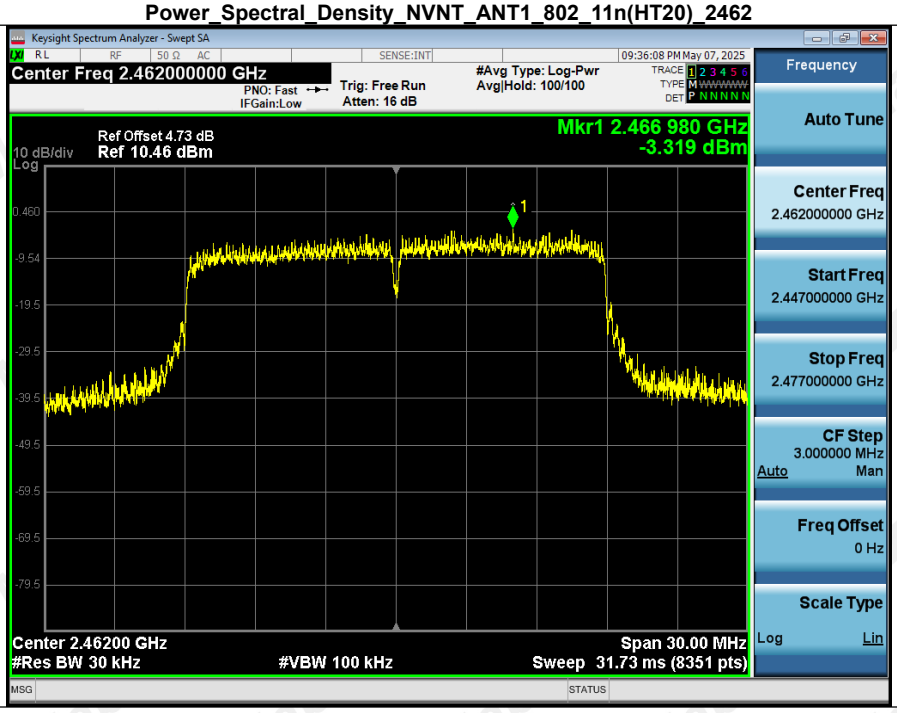
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2412



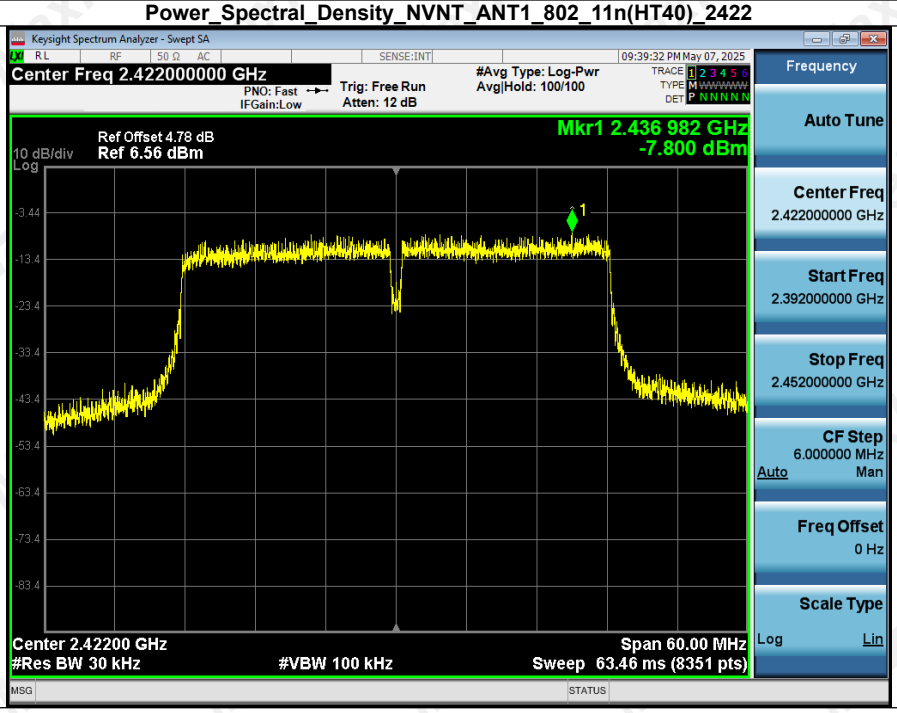
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2437



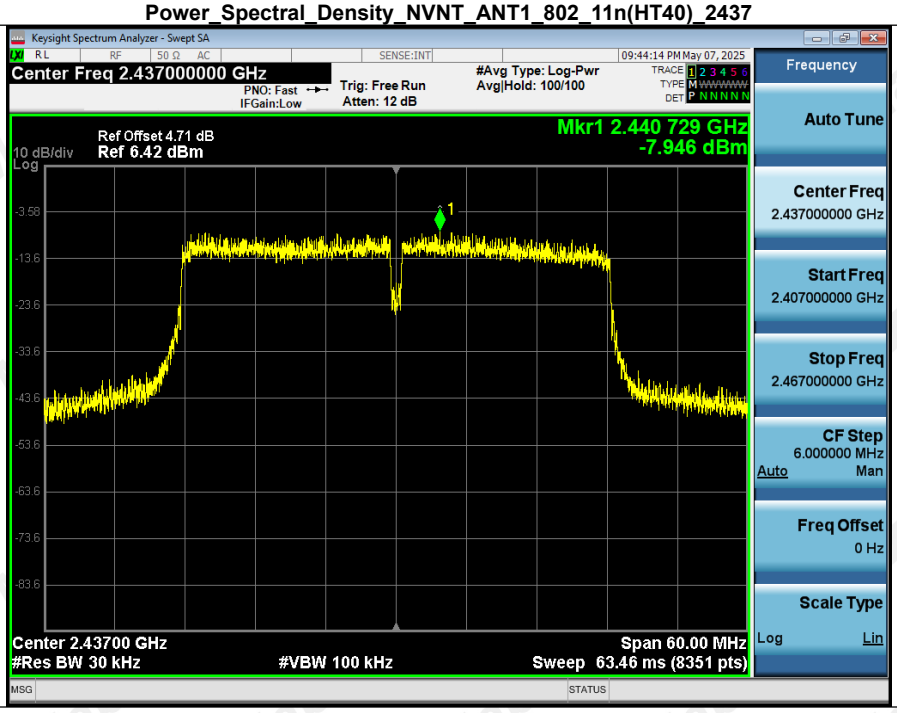
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2462



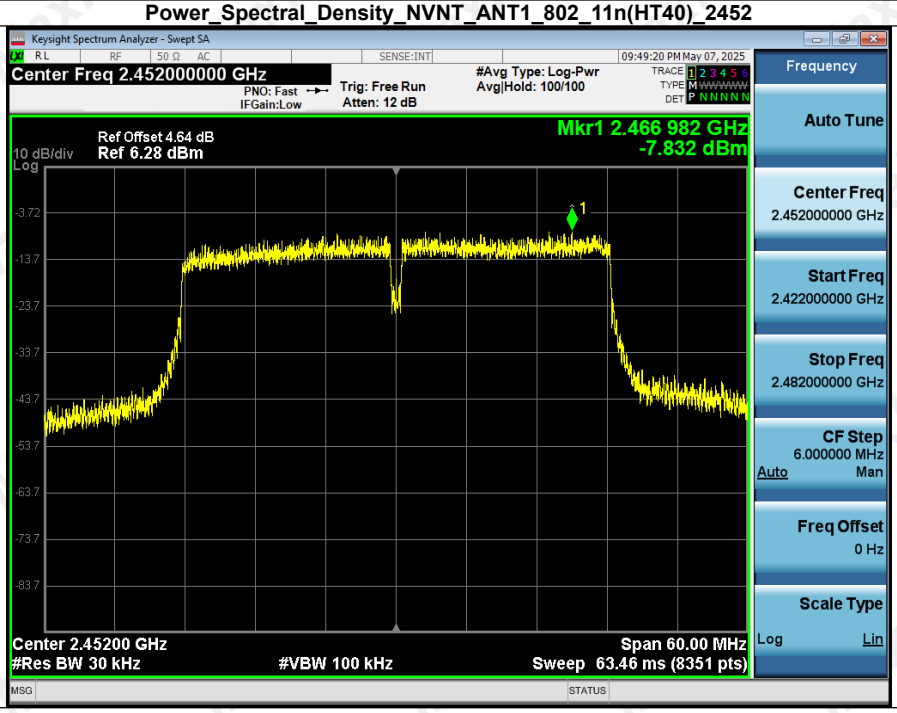
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2422



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2437



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2452

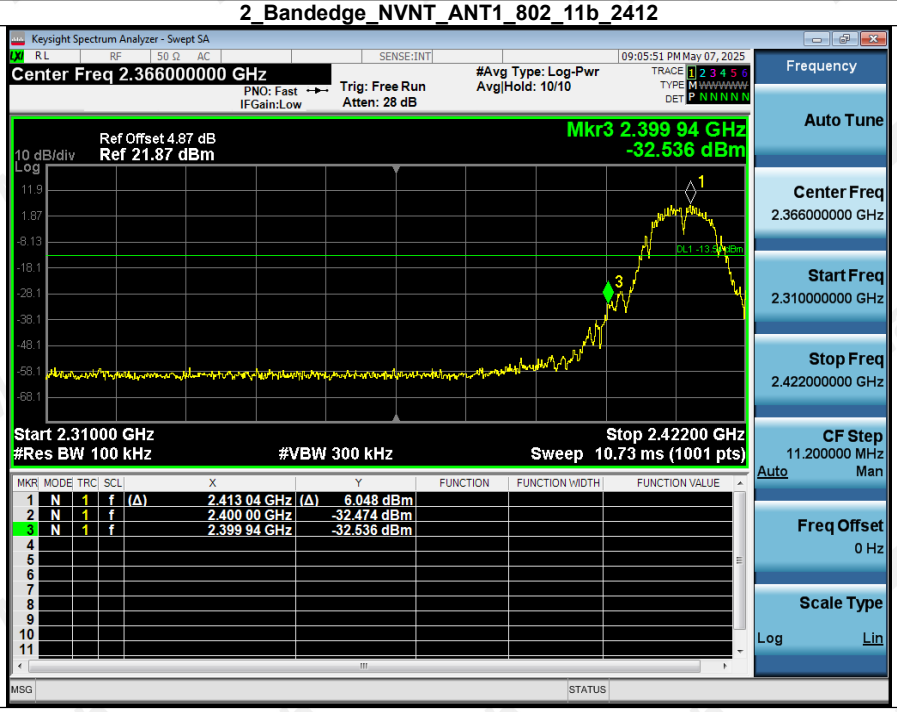


6. Bandedge

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	2399.936	6.456	-32.536	-13.544	Pass
NVNT	ANT1	802.11b	2462.00	2487.520	7.289	-48.904	-12.711	Pass
NVNT	ANT1	802.11g	2412.00	2399.600	-0.277	-34.186	-20.277	Pass
NVNT	ANT1	802.11g	2462.00	2484.160	0.714	-40.002	-19.286	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.712	-0.432	-31.029	-20.432	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.824	1.177	-38.643	-18.823	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2399.760	-2.839	-34.583	-22.839	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2483.544	-2.816	-35.217	-22.816	Pass

1_Reference_Level_NVNT_ANT1_802_11b_2412

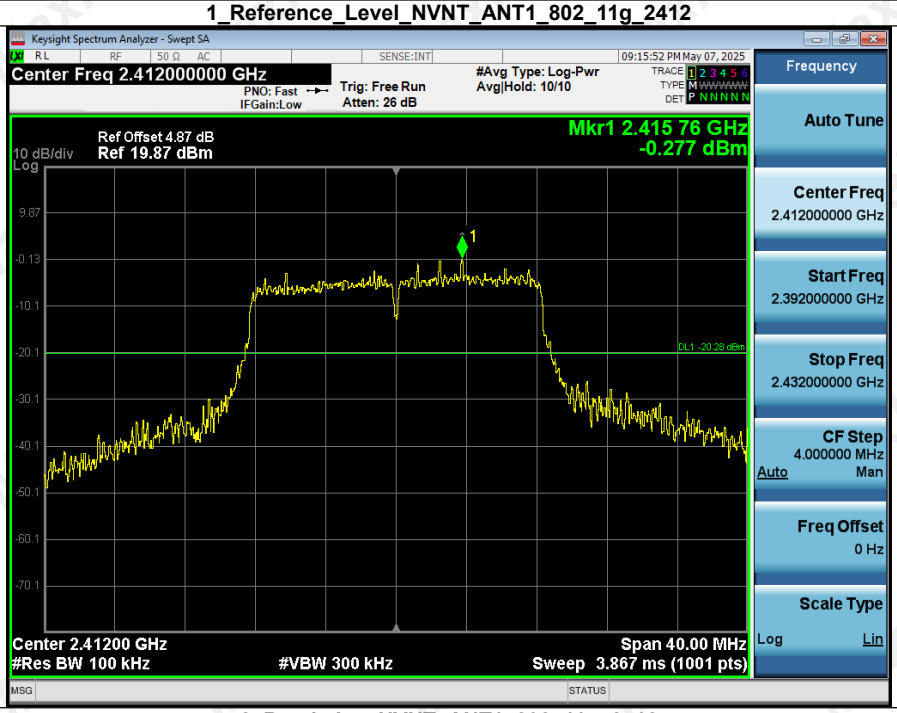
2_Bandedge_NVNT_ANT1_802_11b_2412



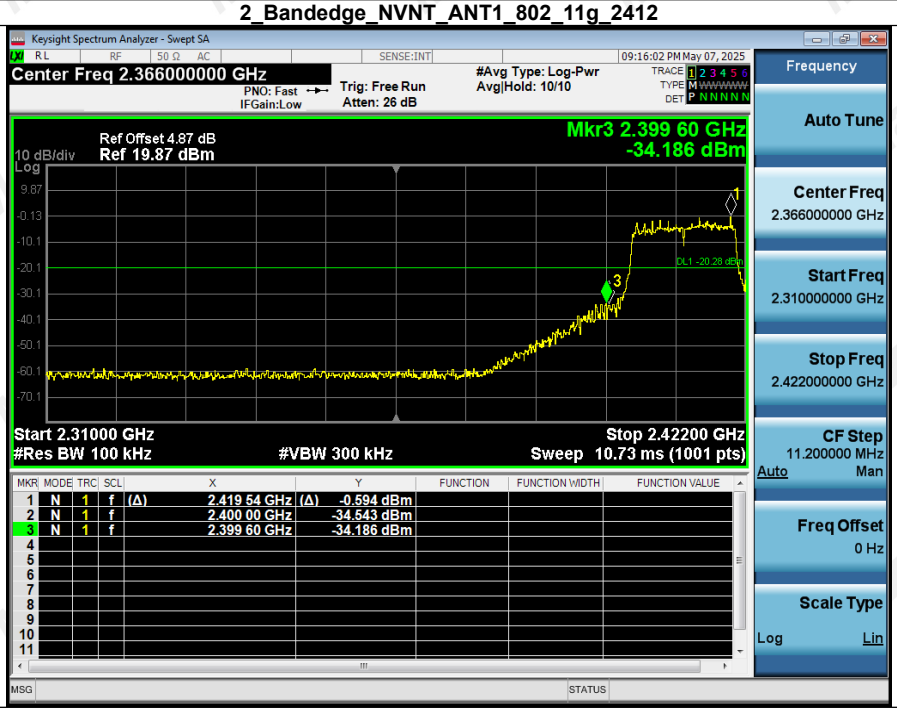
1_Reference_Level_NVNT_ANT1_802_11b_2462

2_Bandedge_NVNT_ANT1_802_11b_2462

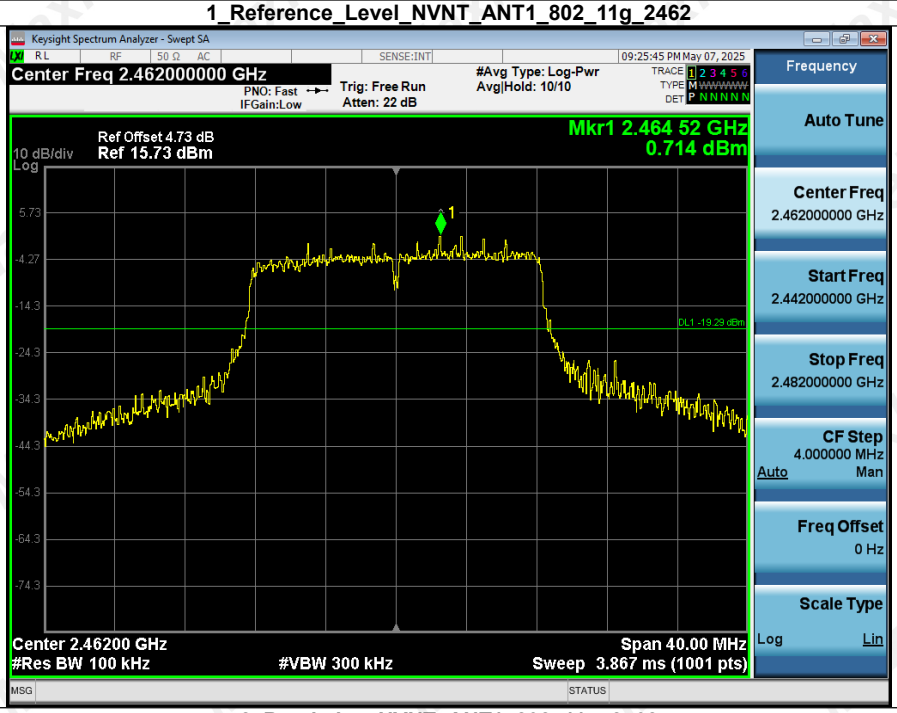
1_Reference_Level_NVNT_ANT1_802_11g_2412



2_Bandedge_NVNT_ANT1_802_11g_2412



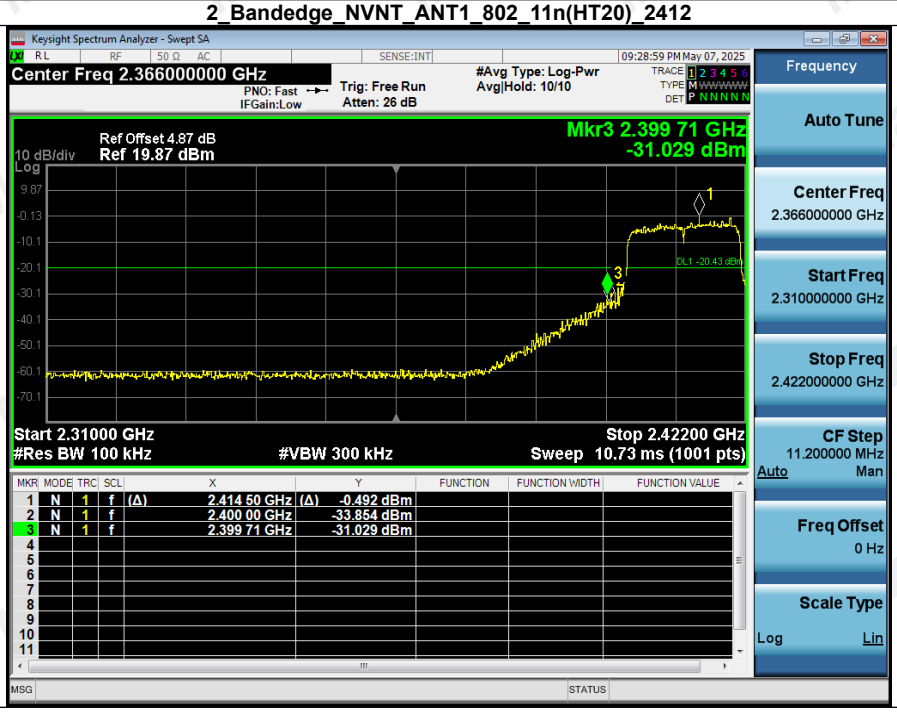
1_Reference_Level_NVNT_ANT1_802_11g_2462



2_Bandedge_NVNT_ANT1_802_11g_2462

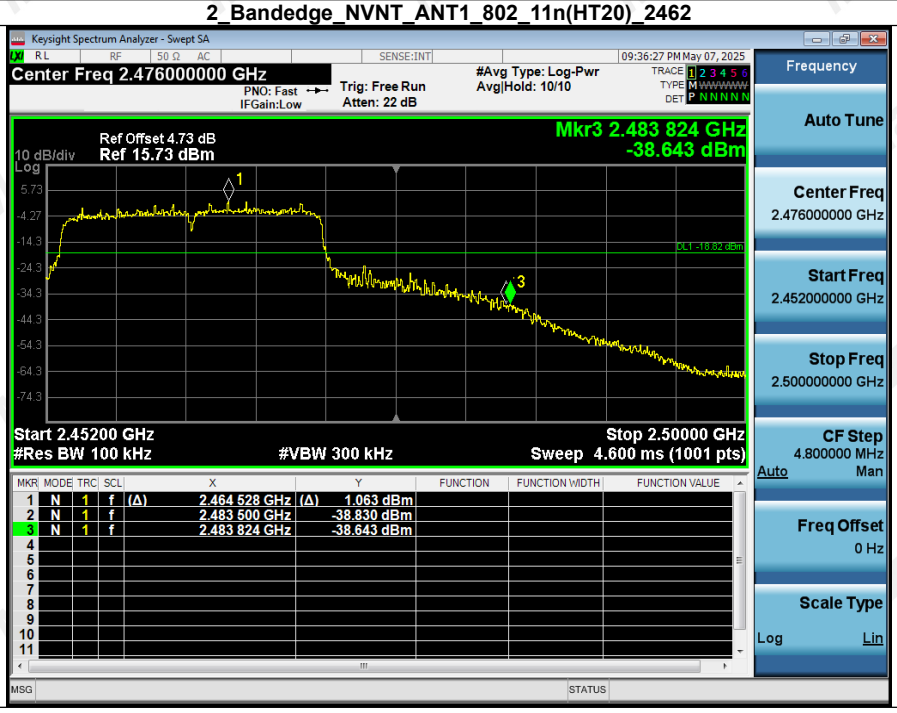
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412

2_Bandedge_NVNT_ANT1_802_11n(HT20)_2412

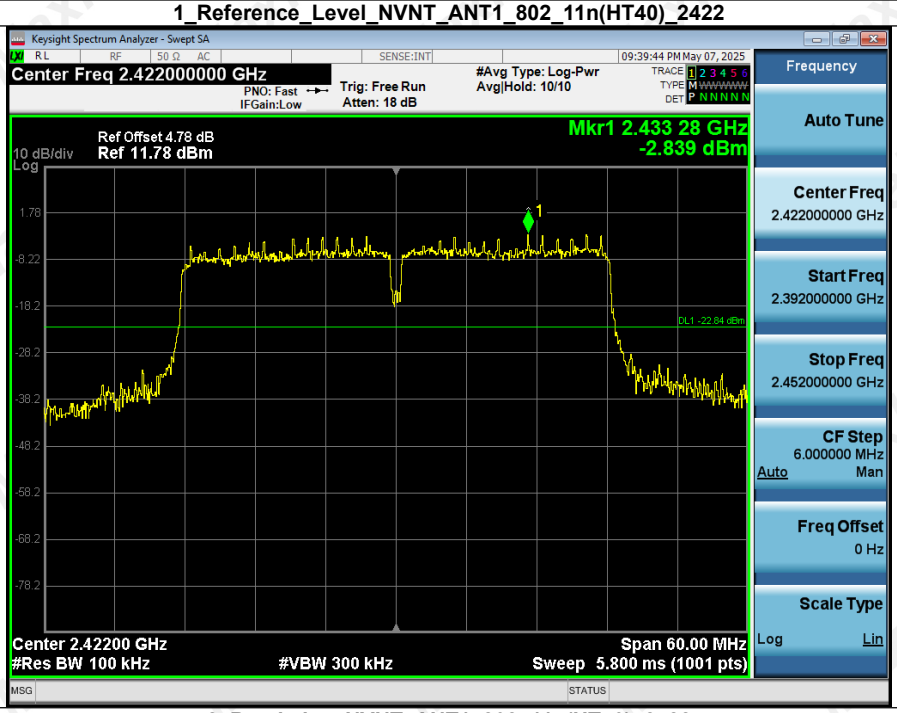


1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462

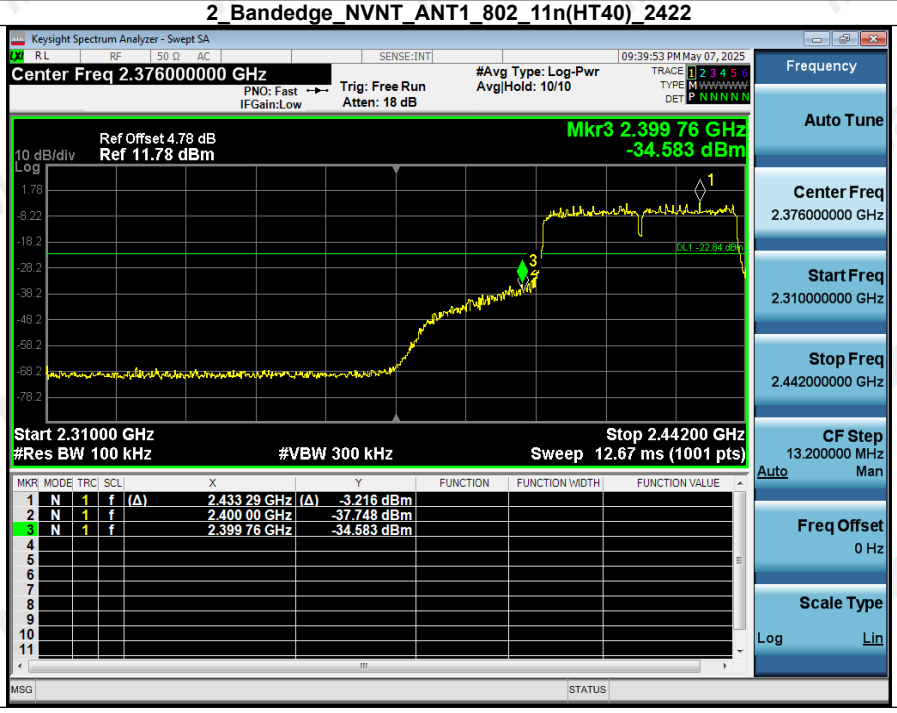
2_Bandedge_NVNT_ANT1_802_11n(HT20)_2462



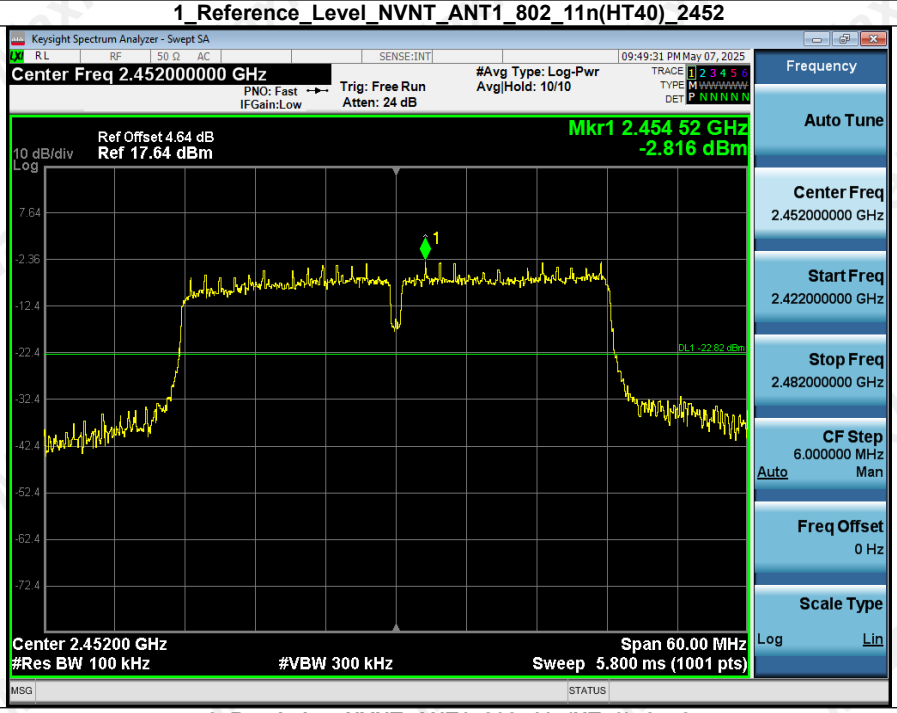
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



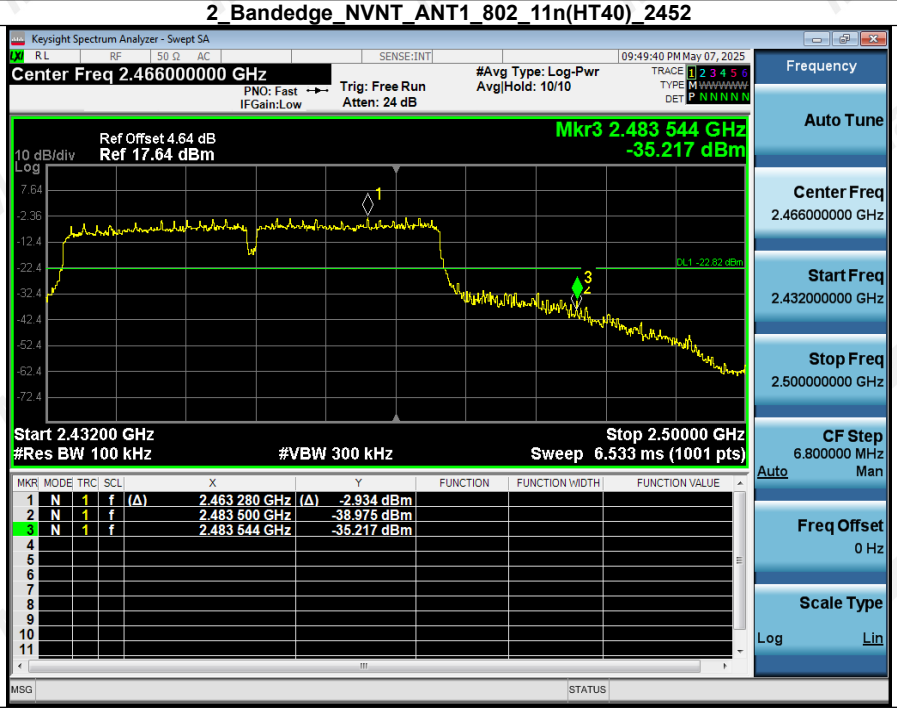
2_Bandedge_NVNT_ANT1_802_11n(HT40)_2422



1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2452



2_Bandedge_NVNT_ANT1_802_11n(HT40)_2452

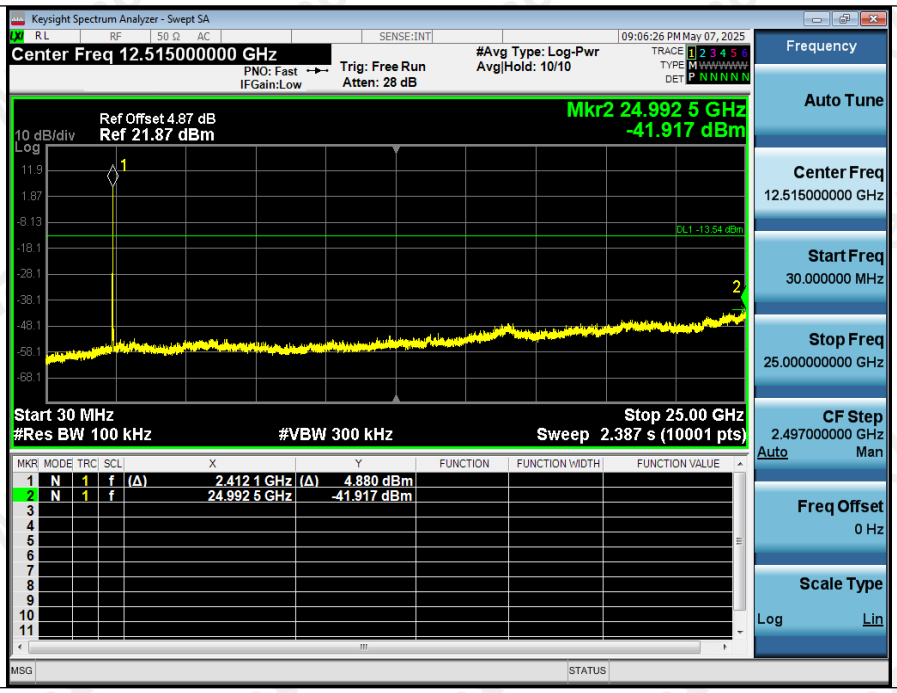


7. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	24992.509	6.456	-41.917	-13.544	Pass
NVNT	ANT1	802.11b	2437.00	24907.611	6.753	-37.217	-13.247	Pass
NVNT	ANT1	802.11b	2462.00	24997.503	7.289	-36.090	-12.711	Pass
NVNT	ANT1	802.11g	2412.00	719.172	-0.277	-33.796	-20.277	Pass
NVNT	ANT1	802.11g	2437.00	24967.539	-0.421	-45.327	-20.421	Pass
NVNT	ANT1	802.11g	2462.00	706.687	0.714	-42.369	-19.286	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	719.172	-0.432	-36.991	-20.432	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	24970.036	-0.038	-44.809	-20.038	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	729.160	1.177	-43.299	-18.823	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	704.190	-2.839	-46.365	-22.839	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	719.172	-2.964	-36.327	-22.964	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	721.669	-2.816	-40.203	-22.816	Pass

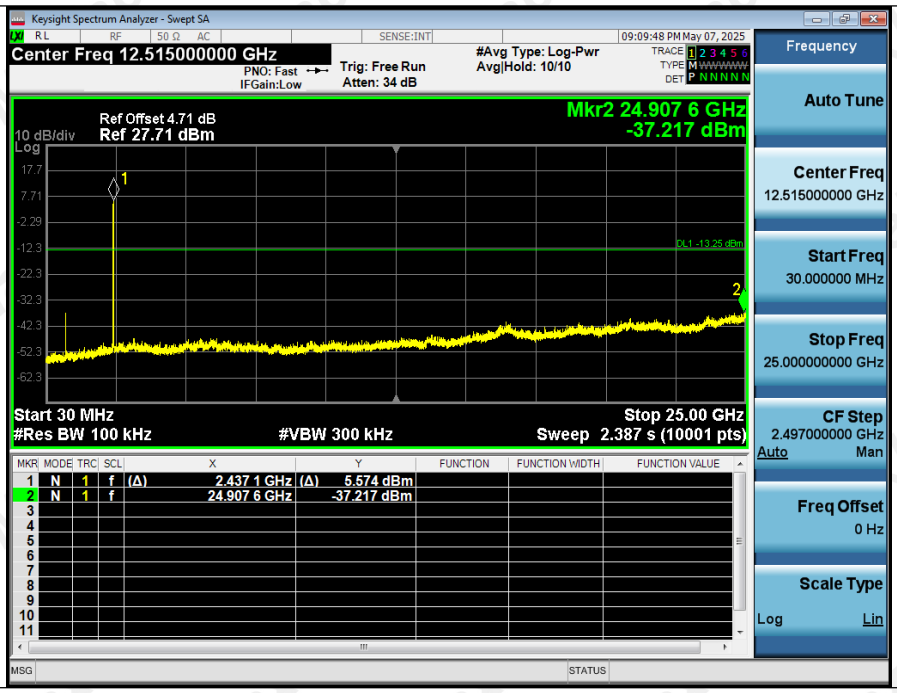
1_Reference_Level_NVNT_ANT1_802_11b_2412

2_Spurious_Emission_NVNT_ANT1_802_11b_2412

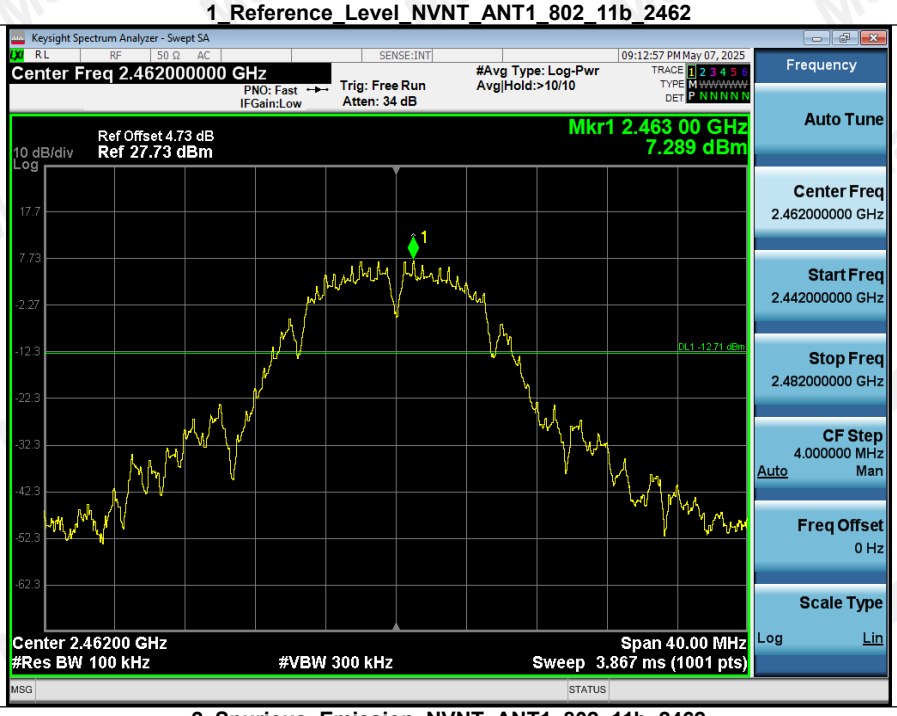


1_Reference_Level_NVNT_ANT1_802_11b_2437

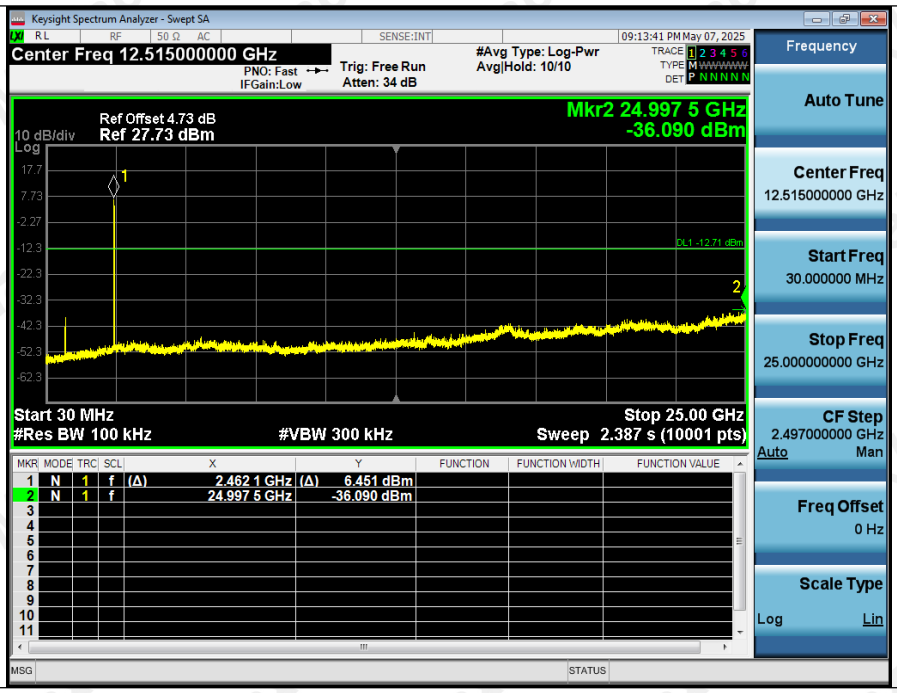
2_Spurious_Emission_NVNT_ANT1_802_11b_2437



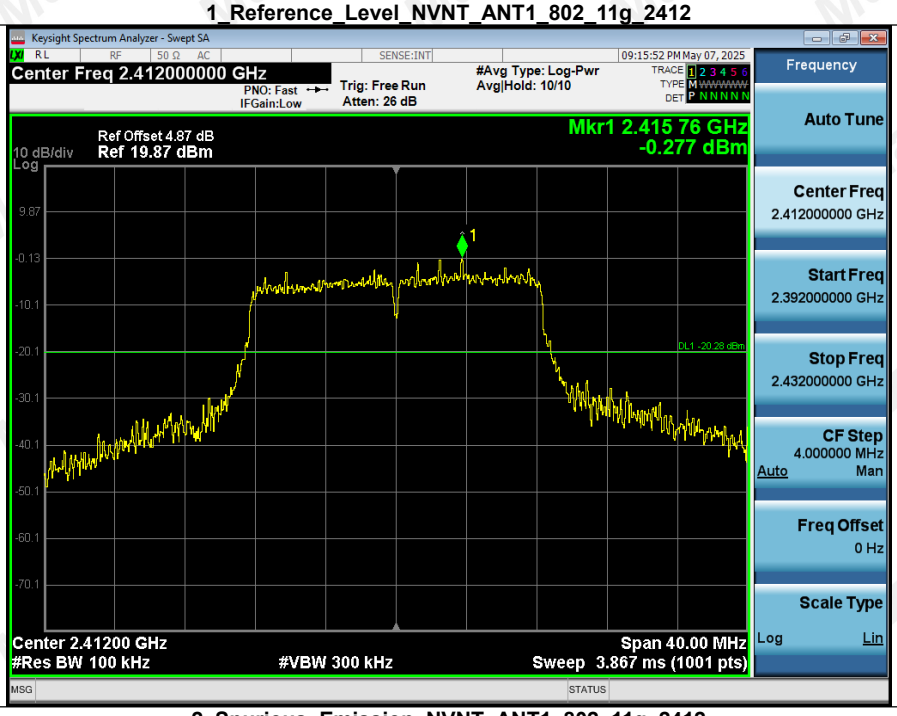
1_Reference_Level_NVNT_ANT1_802_11b_2462



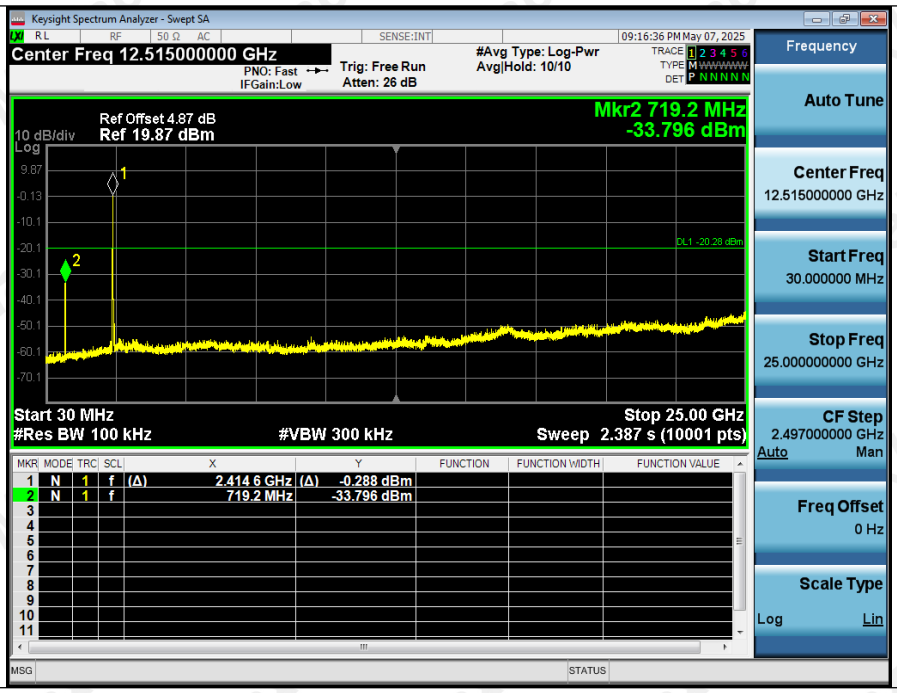
2_Spurious_Emission_NVNT_ANT1_802_11b_2462



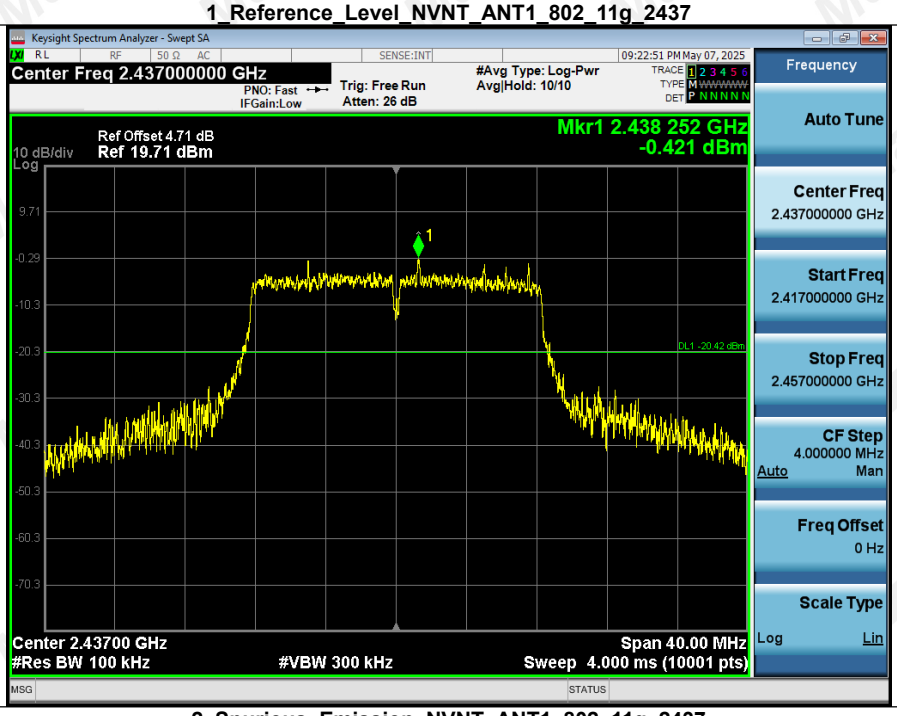
1_Reference_Level_NVNT_ANT1_802_11g_2412



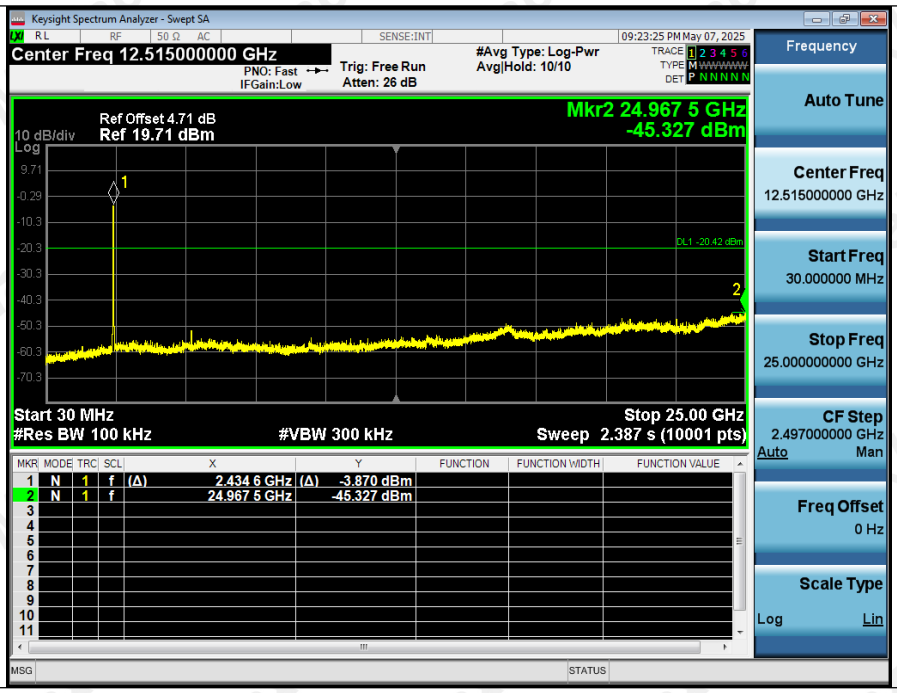
2_Spurious_Emission_NVNT_ANT1_802_11g_2412



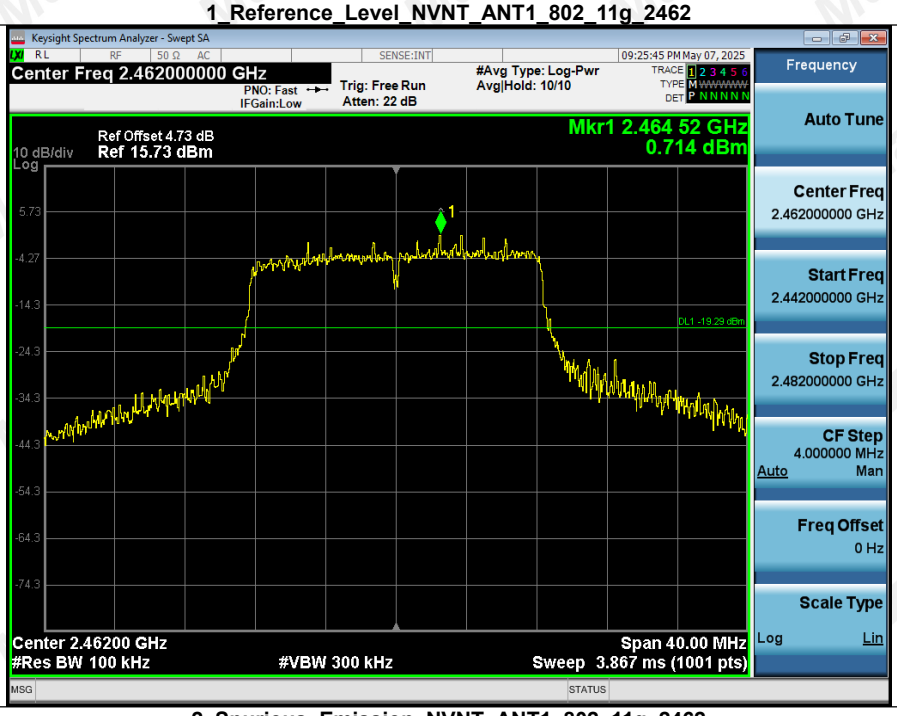
1_Reference_Level_NVNT_ANT1_802_11g_2437



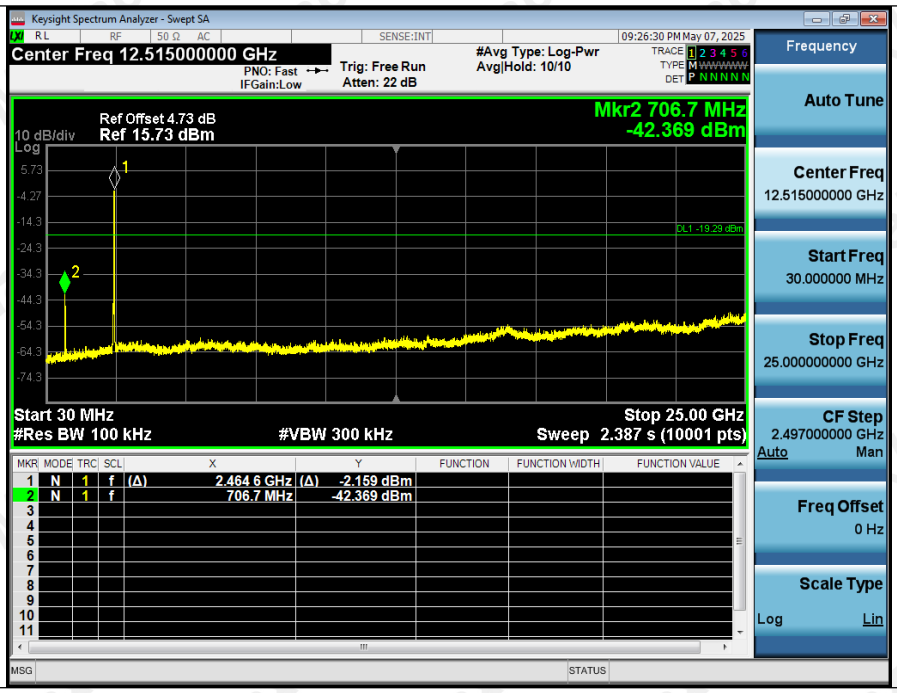
2_Spurious_Emission_NVNT_ANT1_802_11g_2437



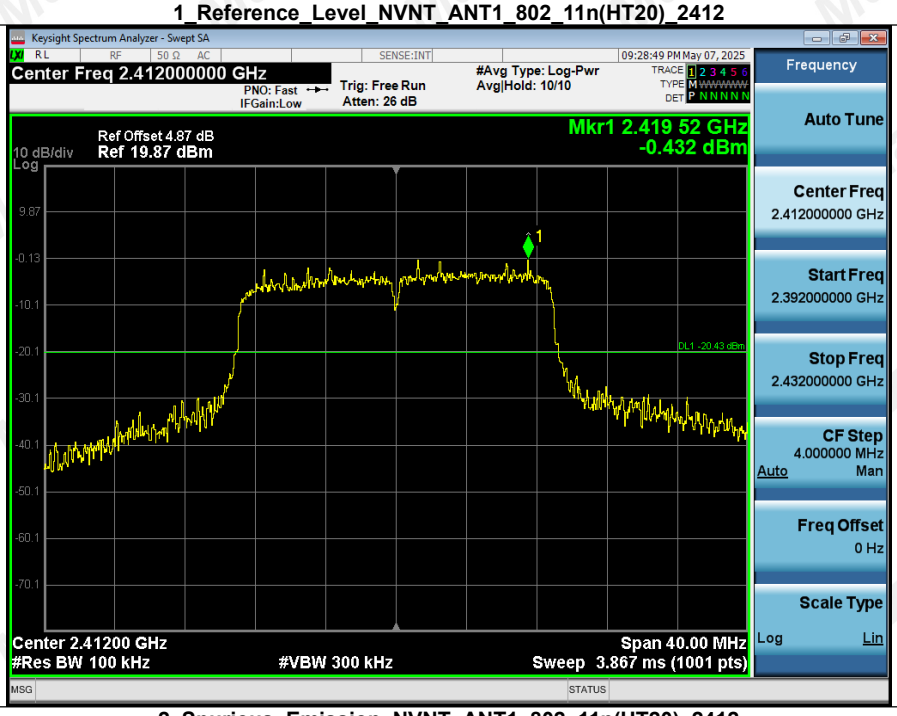
1_Reference_Level_NVNT_ANT1_802_11g_2462



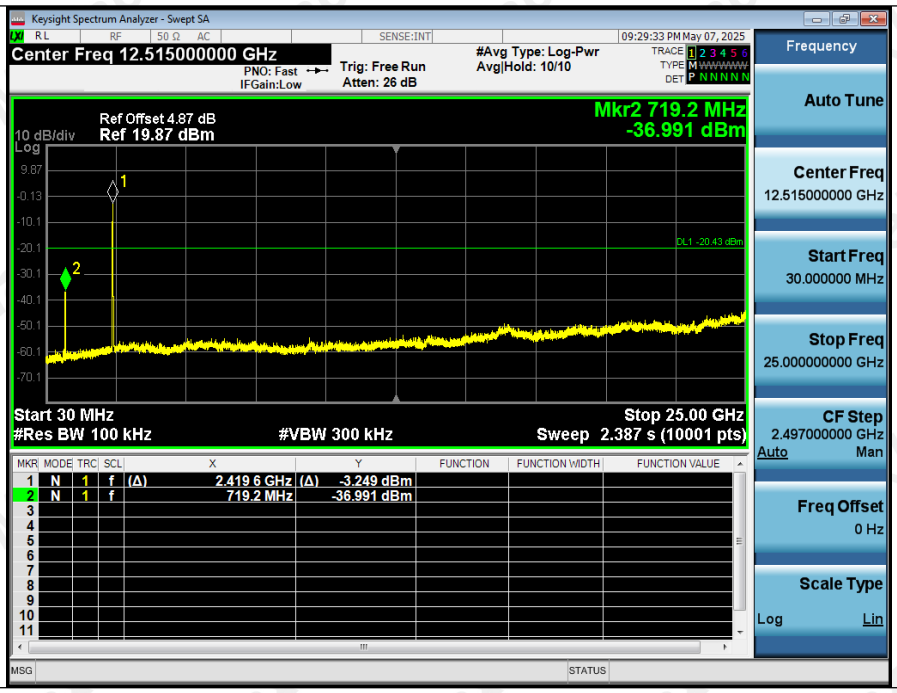
2_Spurious_Emission_NVNT_ANT1_802_11g_2462



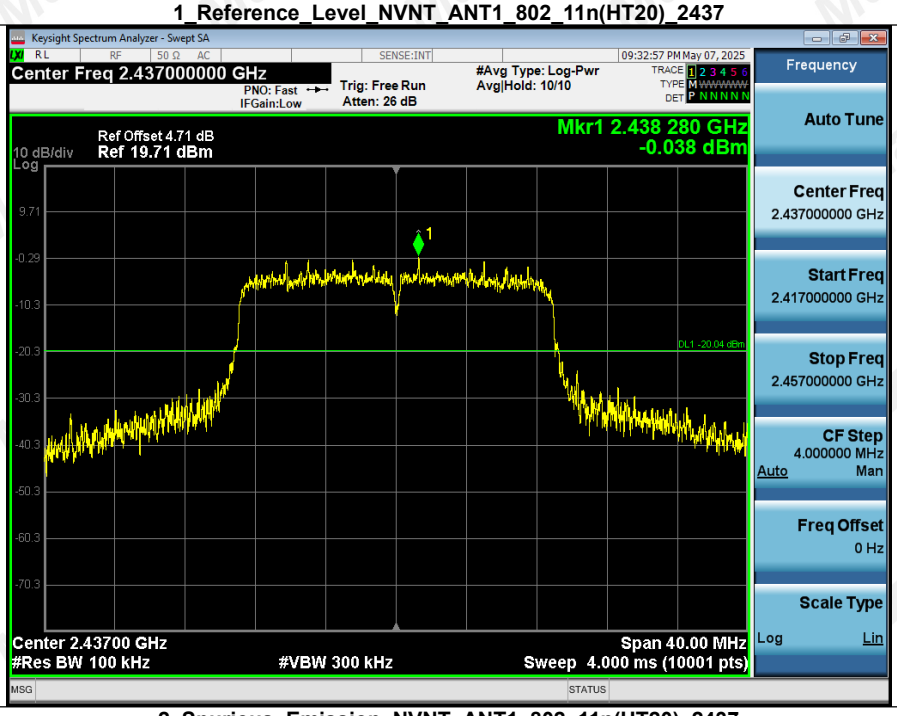
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



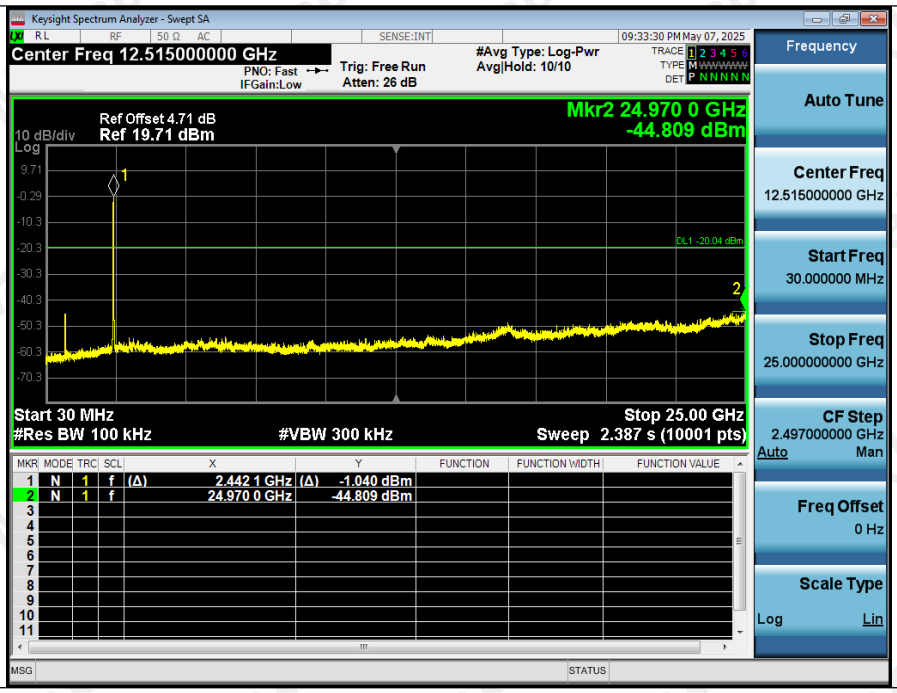
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2412



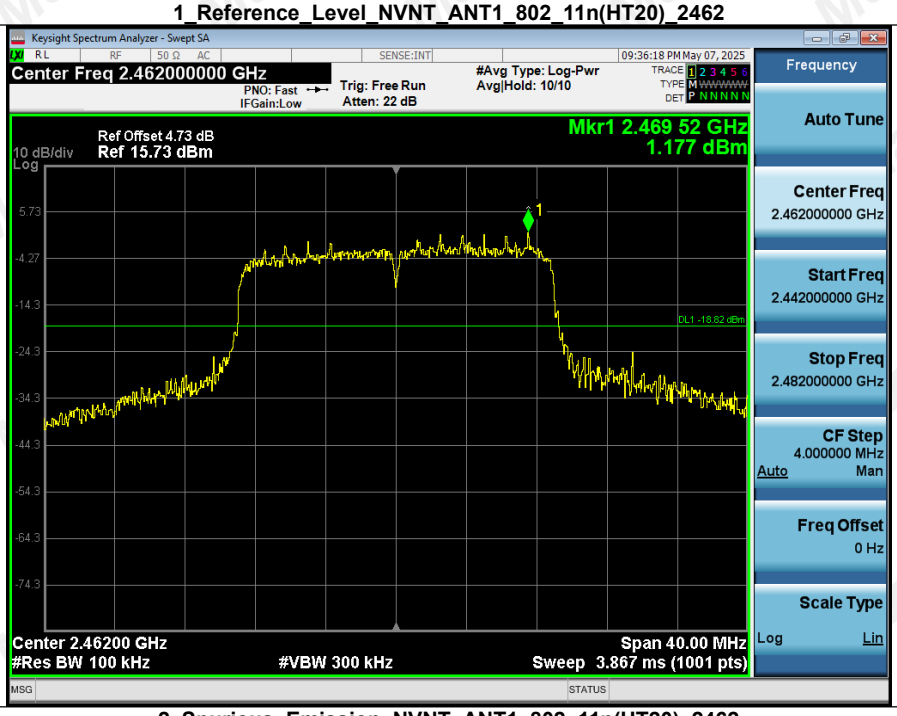
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2437



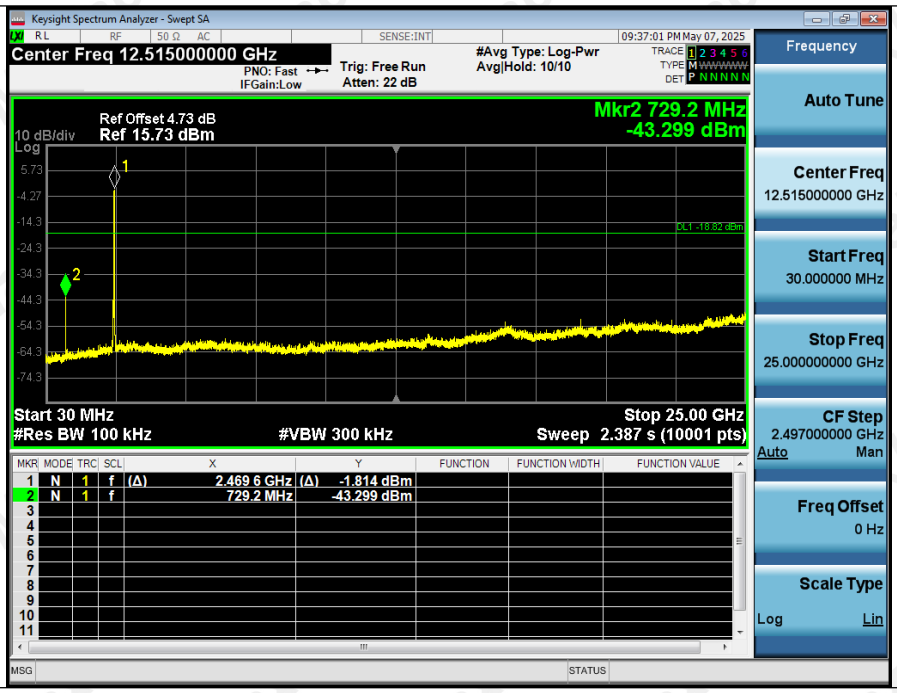
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2437



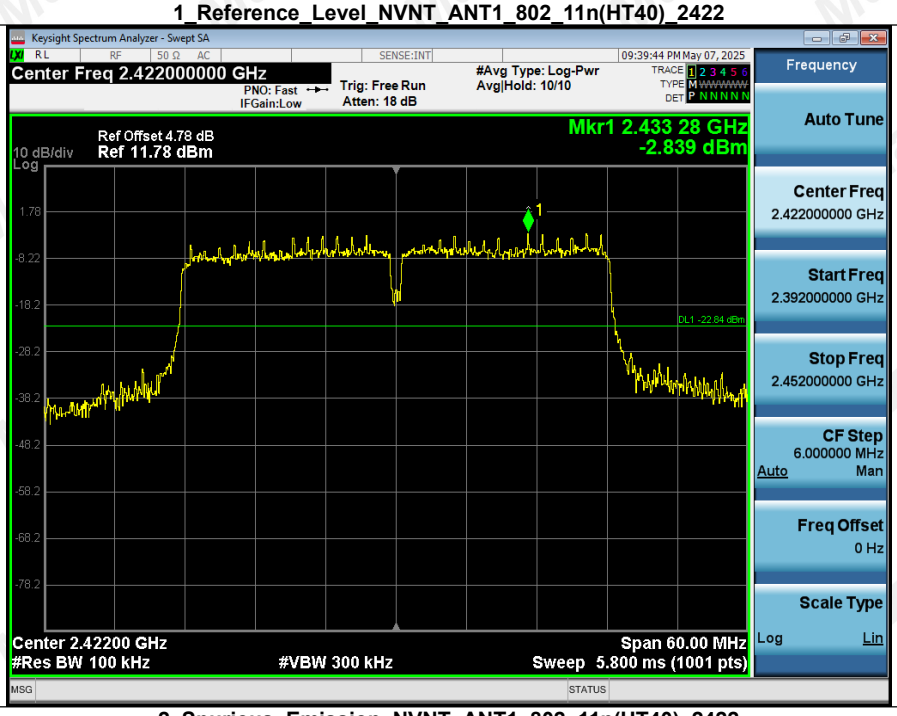
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462



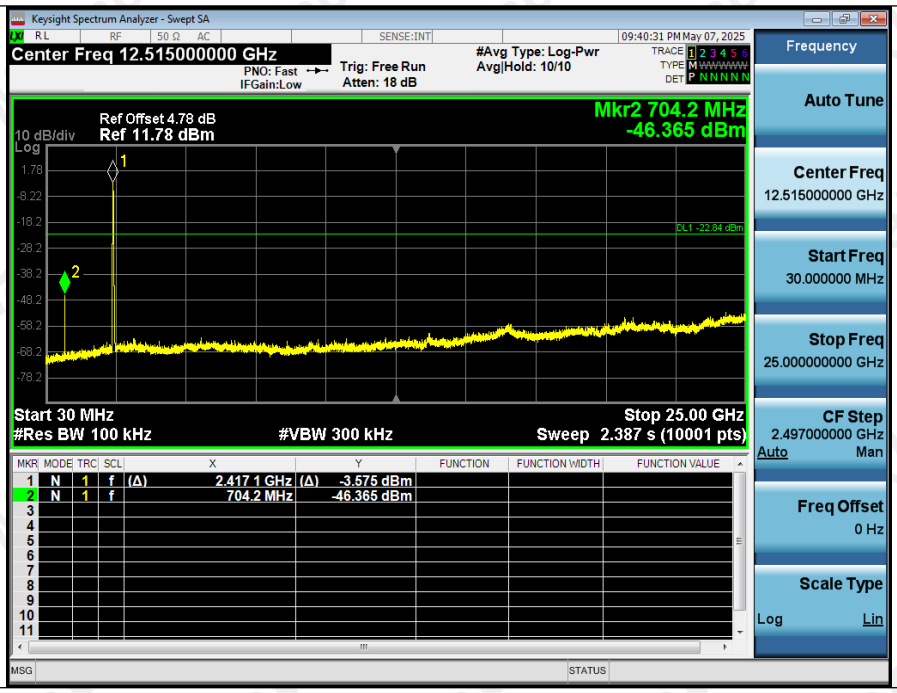
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2462



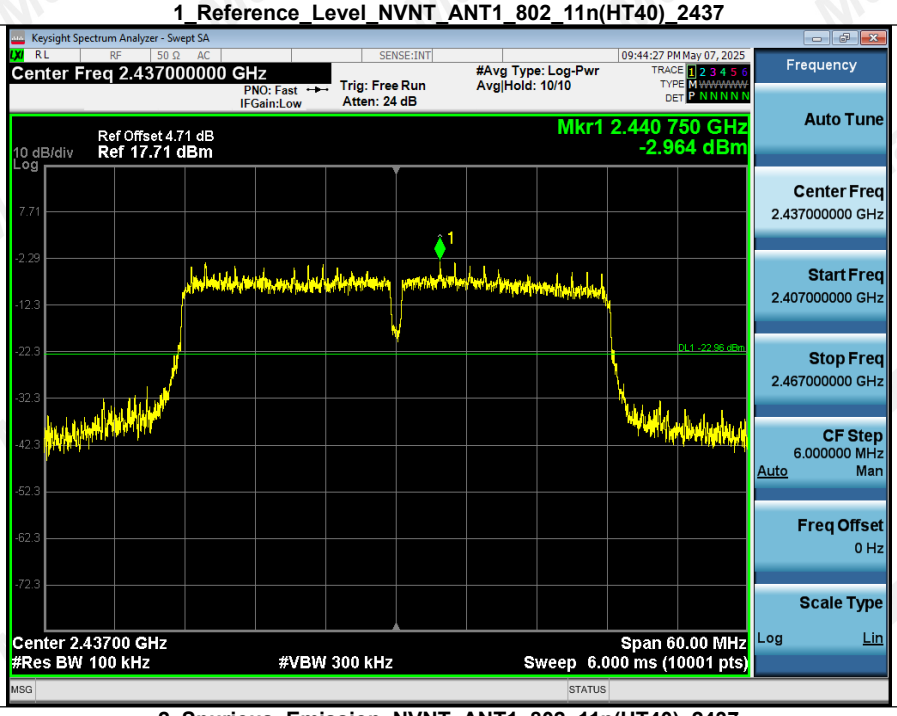
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



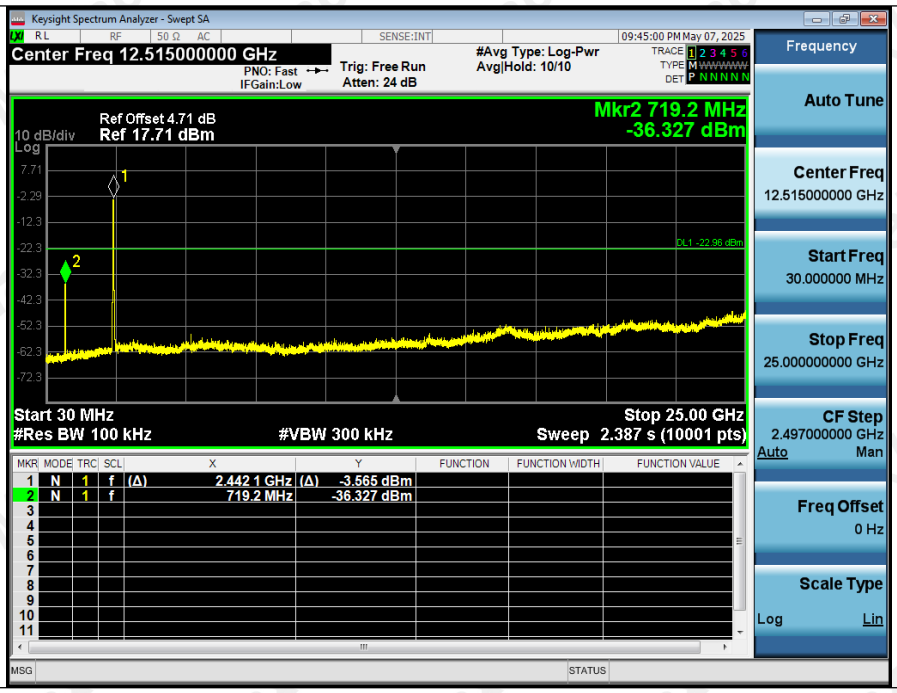
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2422



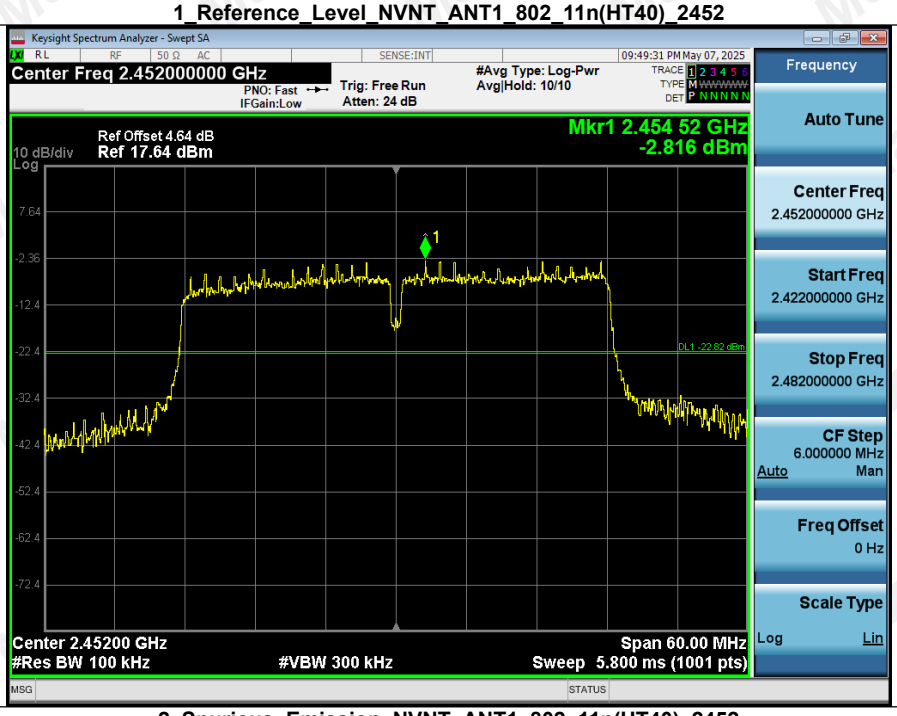
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2437



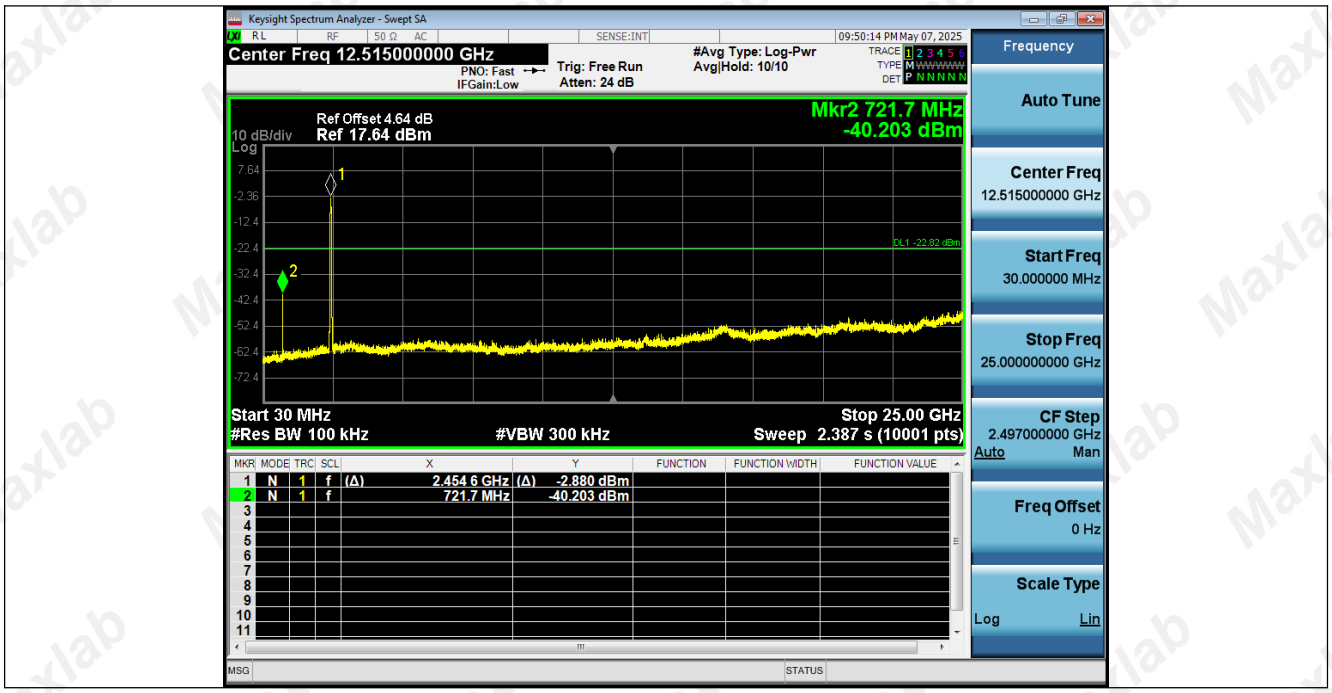
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2437



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: 24 dB
#Avg Type: Log-Pwr
Avg|Hold: 10/10
09:50:14 PM May 07, 2025
Ref Offset 4.64 dB
10 dB/div
Ref 17.64 dBm
Mkr2 721.7 MHz
-40.203 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) 2.454 6 GHz (Δ) -2.880 dBm
2 N 1 f 721.7 MHz -40.203 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