Report No.: MAX250423110P01-R02
FCC ID: 2BDTM-M01
FCC_2.4G_WIFI (Part15.247) Test Data

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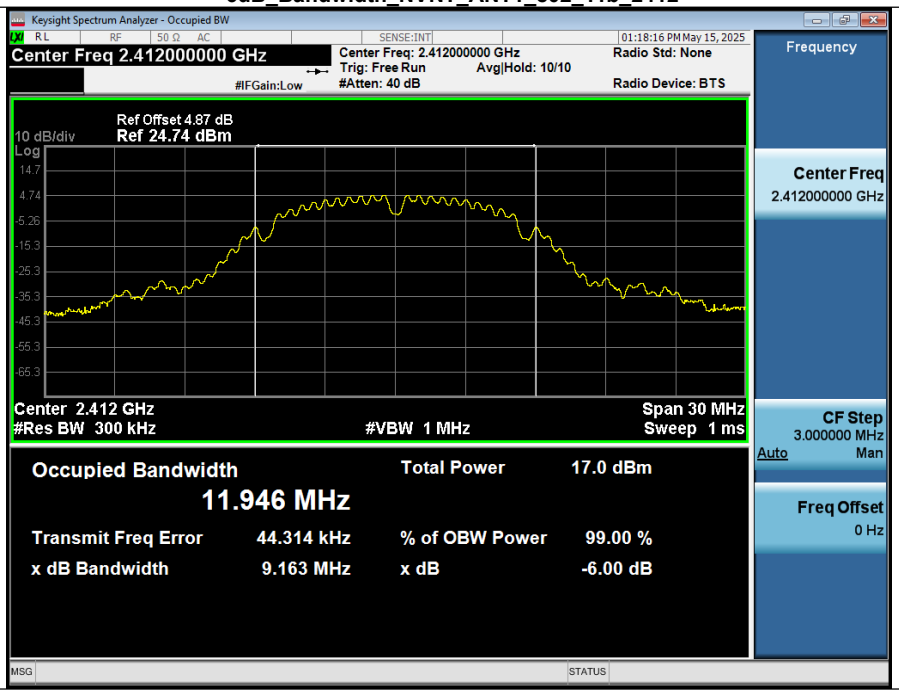
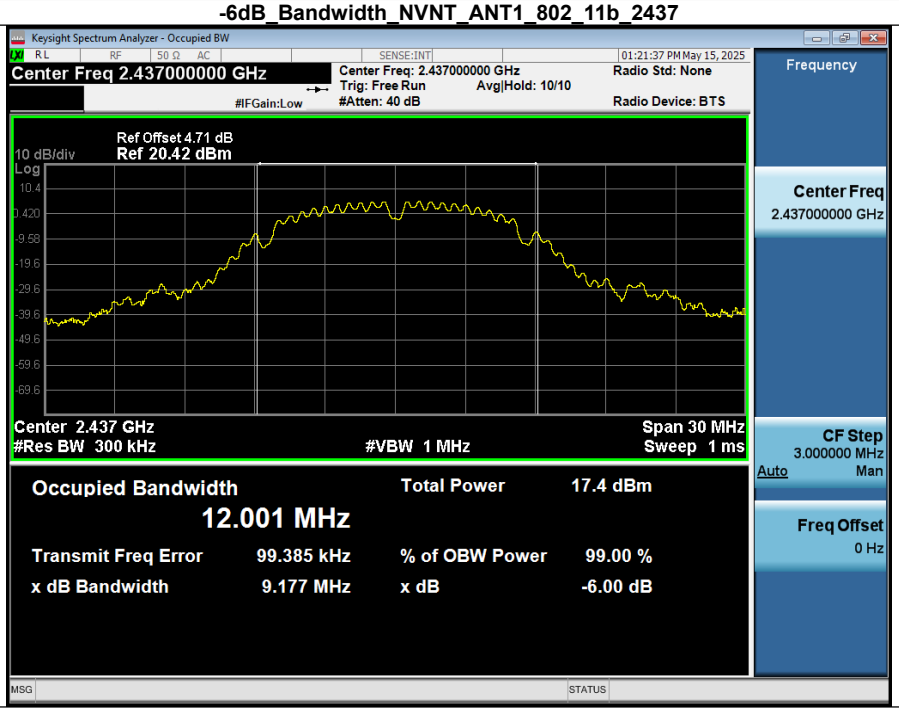
1. -6dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	9.16	500	Pass
NVNT	ANT1	802.11b	2437.00	9.18	500	Pass
NVNT	ANT1	802.11b	2462.00	9.18	500	Pass
NVNT	ANT1	802.11g	2412.00	16.42	500	Pass
NVNT	ANT1	802.11g	2437.00	16.38	500	Pass
NVNT	ANT1	802.11g	2462.00	16.42	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.34	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.41	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.35	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	36.20	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	35.90	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	35.86	500	Pass

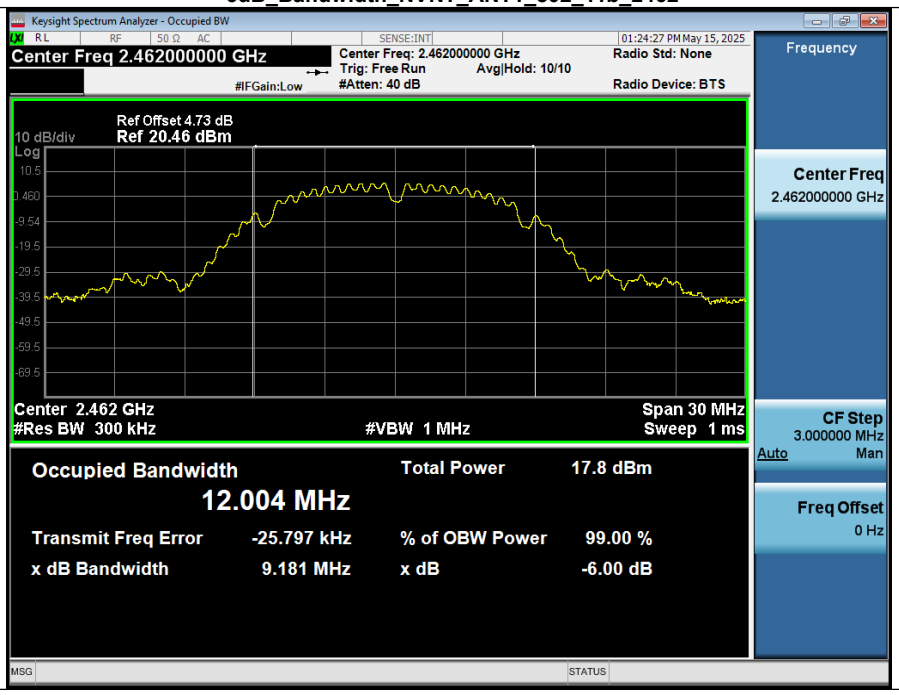
-6dB_Bandwidth_NVNT_ANT1_802_11b_2412



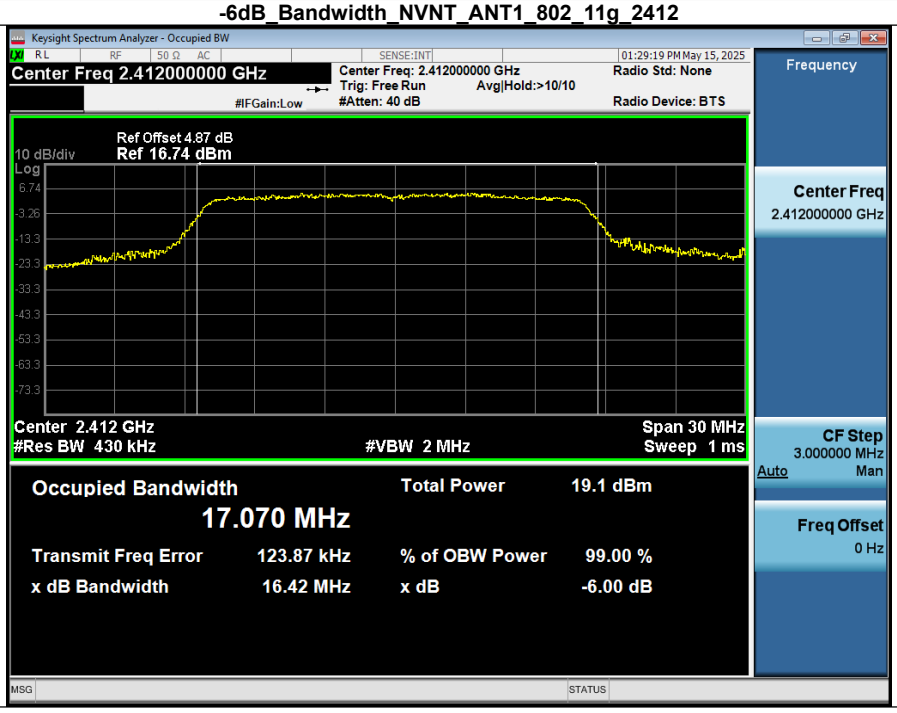
-6dB_Bandwidth_NVNT_ANT1_802_11b_2437



-6dB_Bandwidth_NVNT_ANT1_802_11b_2462



-6dB_Bandwidth_NVNT_ANT1_802_11g_2412



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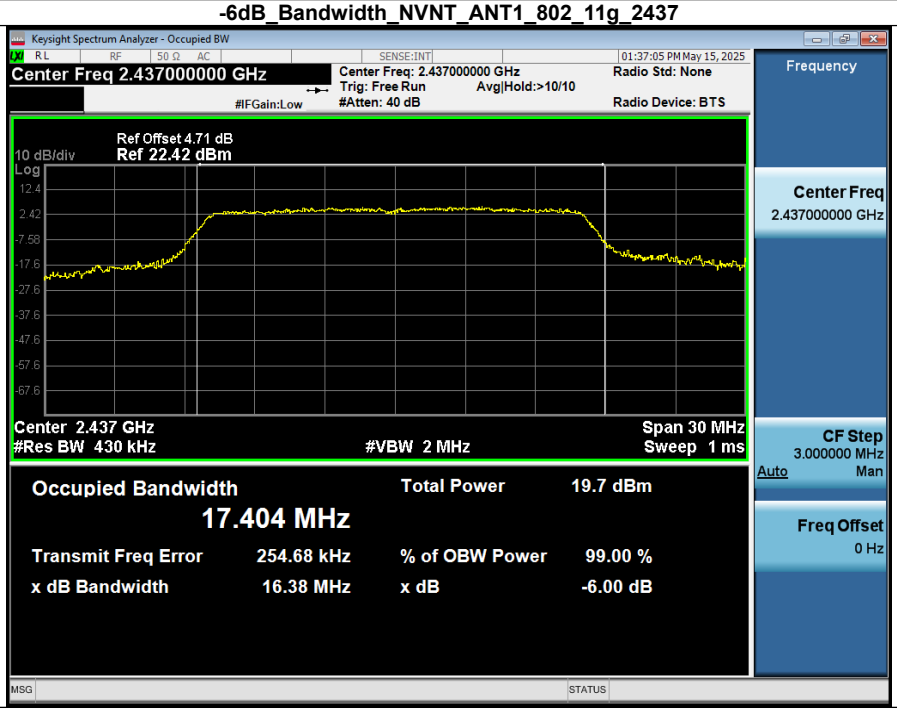

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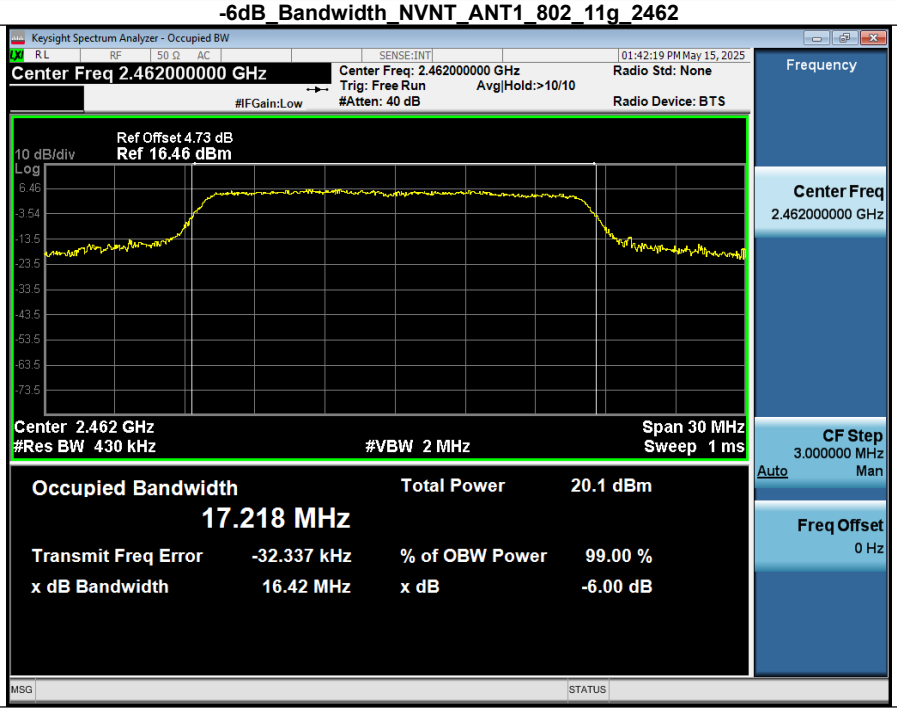
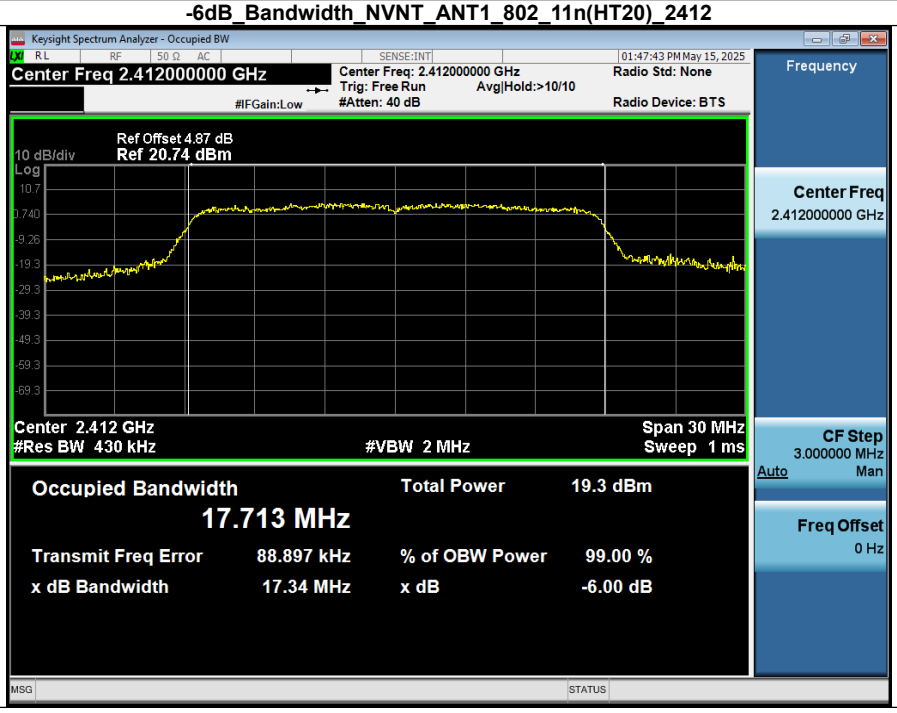
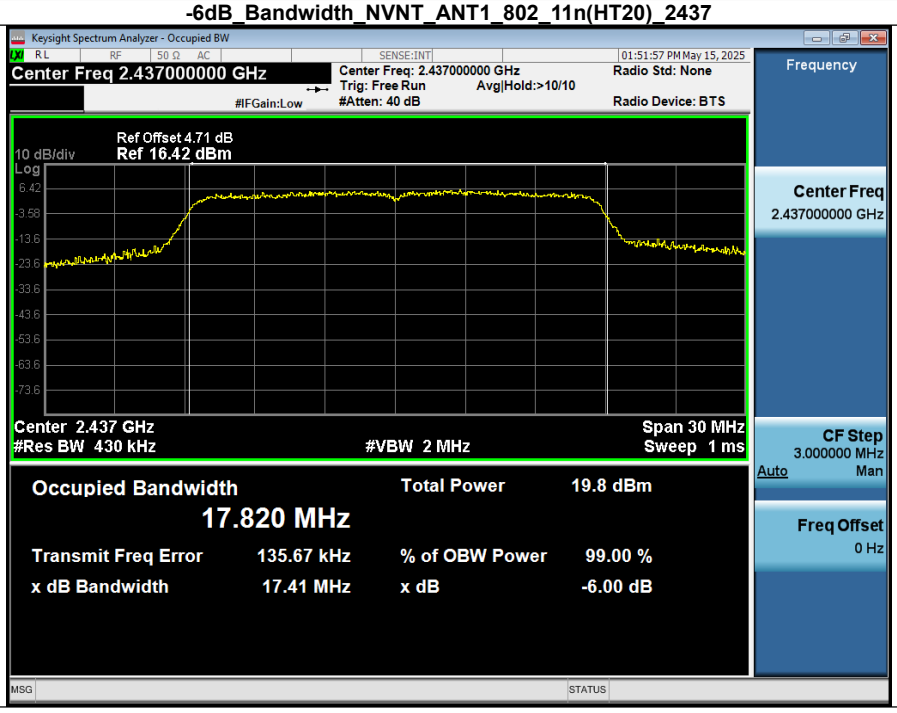


-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



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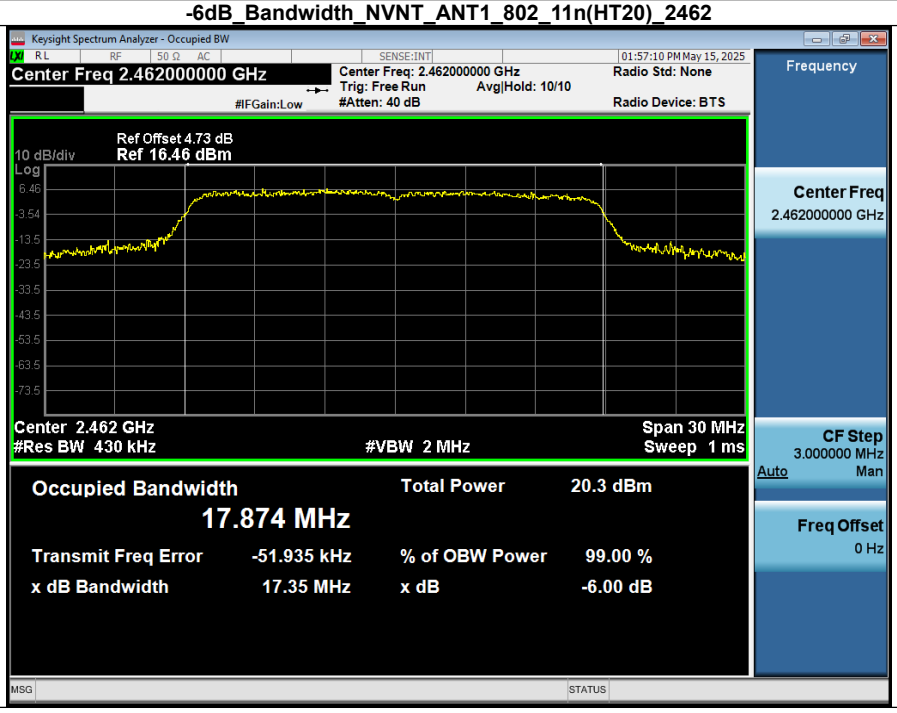
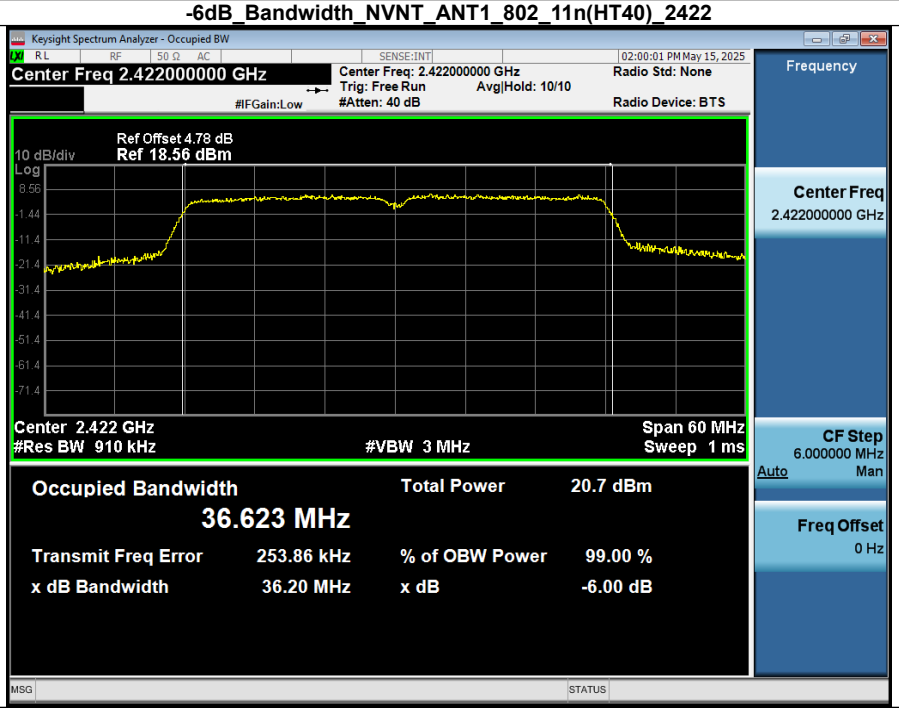
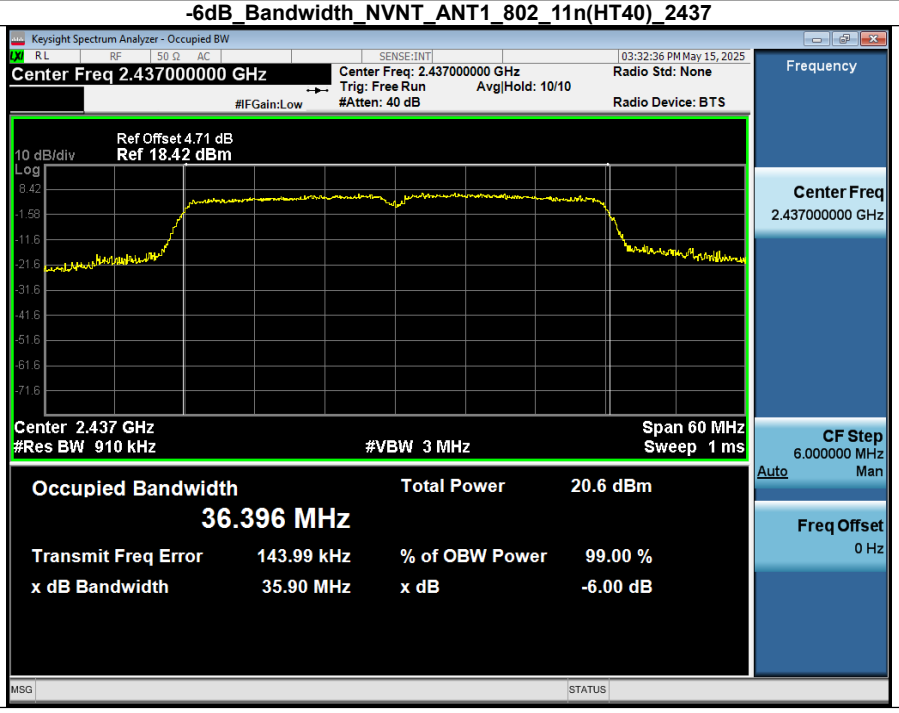


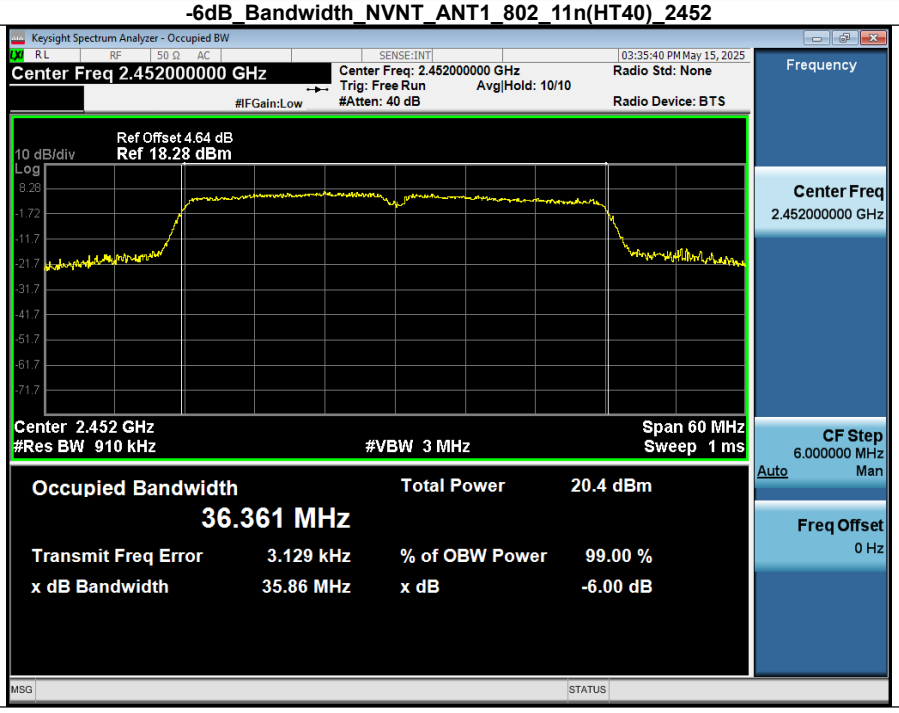
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



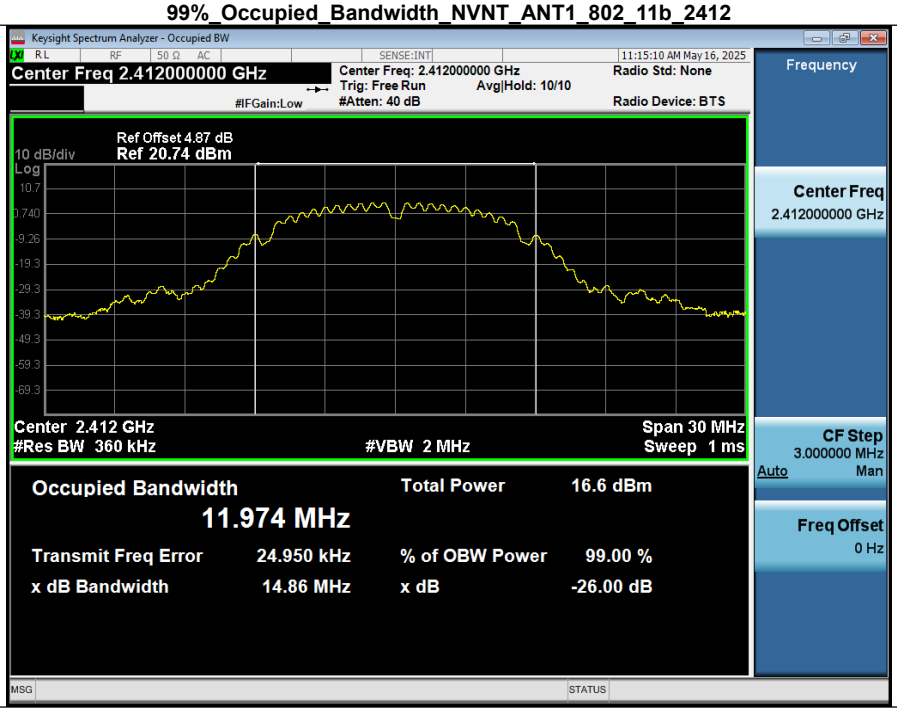
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



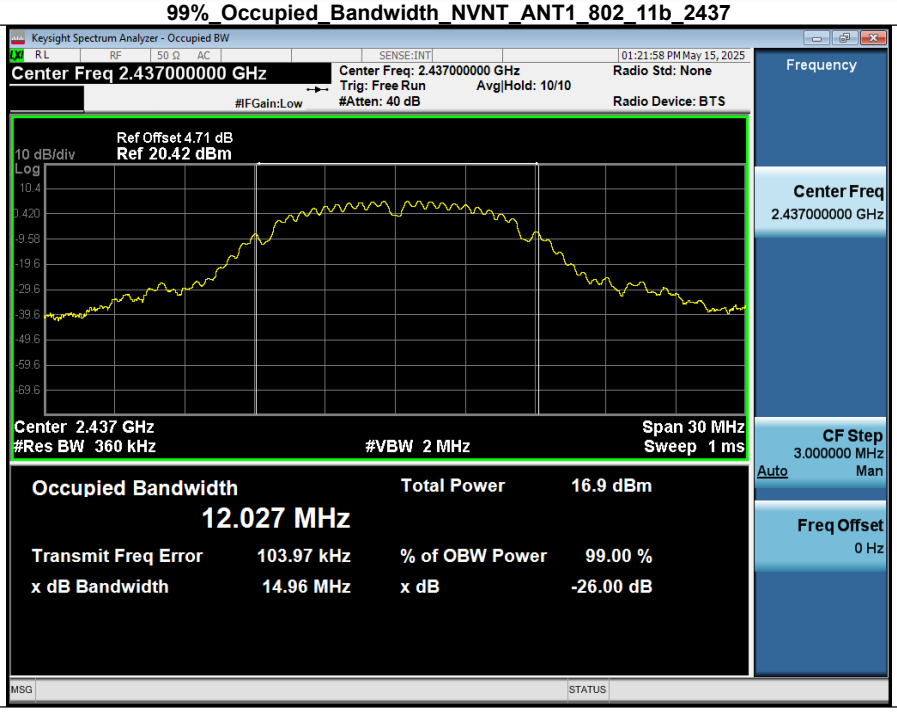
2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	802.11b	2412.00	11.974
NVNT	ANT1	802.11b	2437.00	12.027
NVNT	ANT1	802.11b	2462.00	12.013
NVNT	ANT1	802.11g	2412.00	17.375
NVNT	ANT1	802.11g	2437.00	18.372
NVNT	ANT1	802.11g	2462.00	17.594
NVNT	ANT1	802.11n(HT20)	2412.00	17.823
NVNT	ANT1	802.11n(HT20)	2437.00	17.956
NVNT	ANT1	802.11n(HT20)	2462.00	17.979
NVNT	ANT1	802.11n(HT40)	2422.00	36.802
NVNT	ANT1	802.11n(HT40)	2437.00	36.462
NVNT	ANT1	802.11n(HT40)	2452.00	36.440

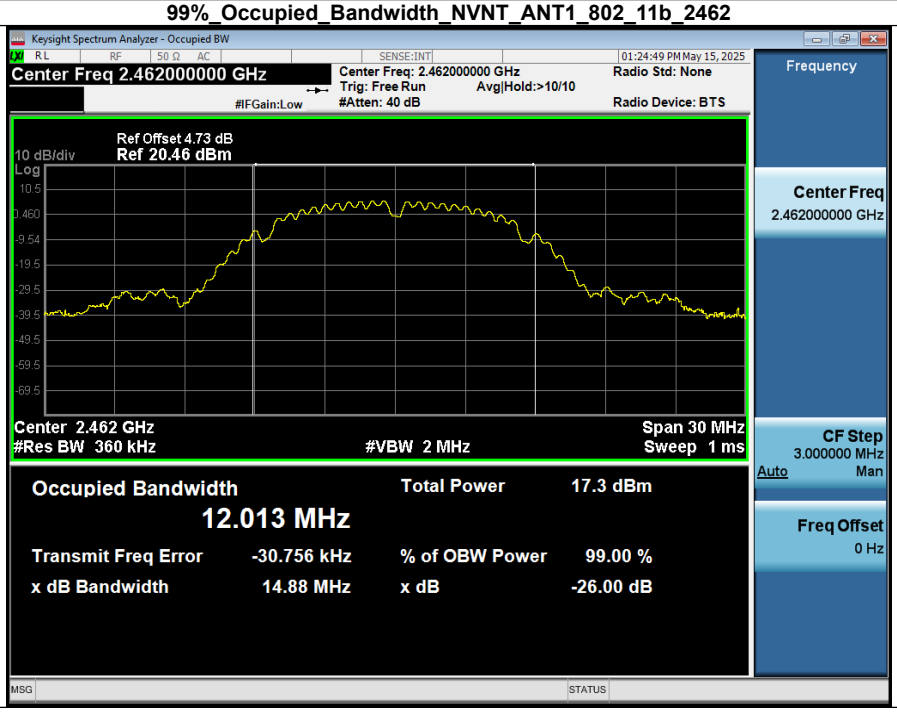
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2412



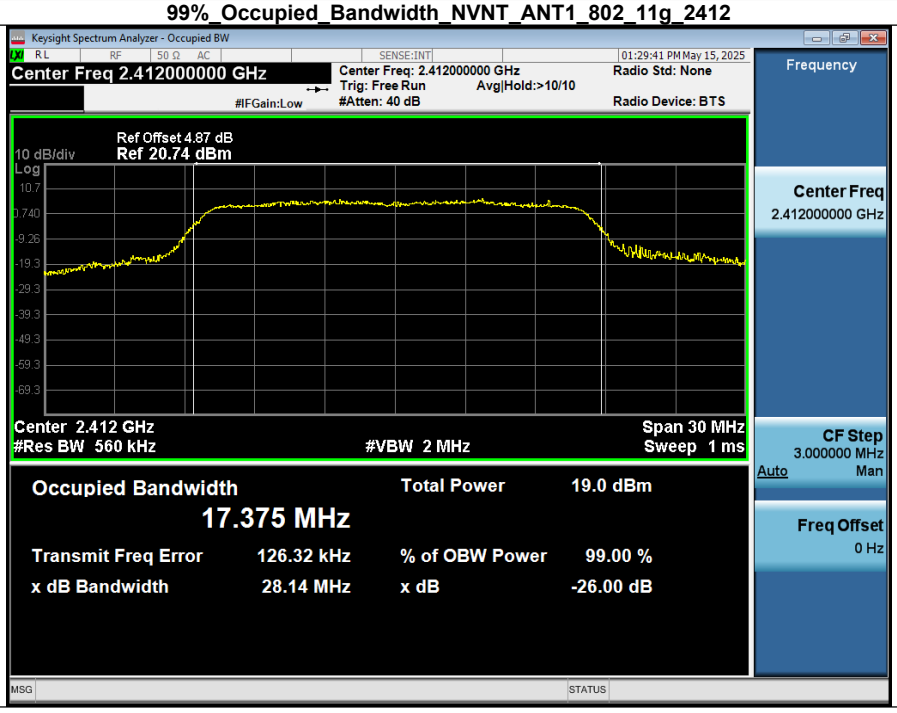
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2437



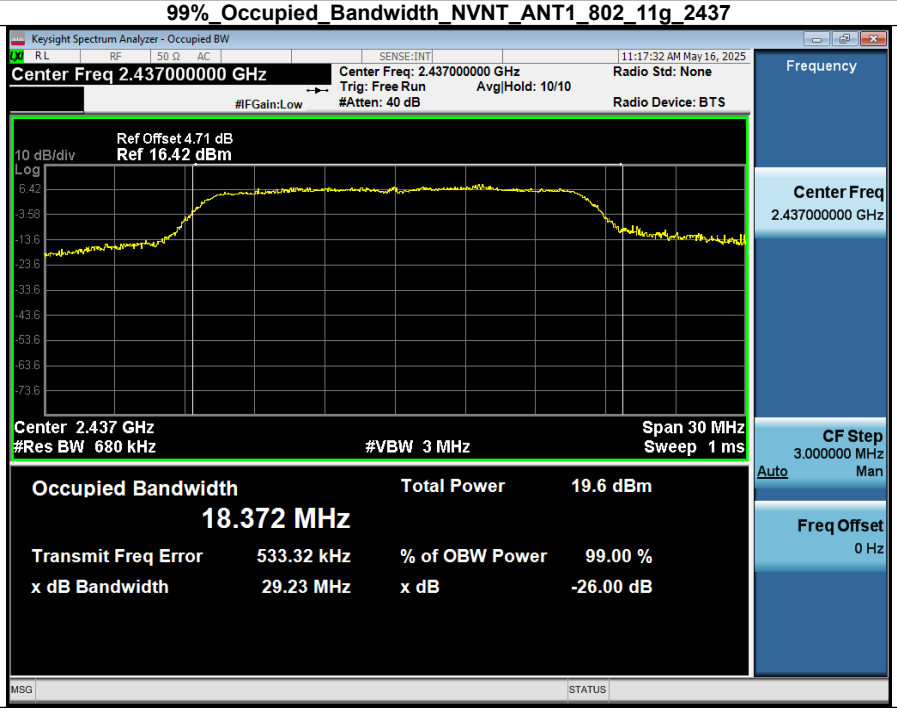
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2462



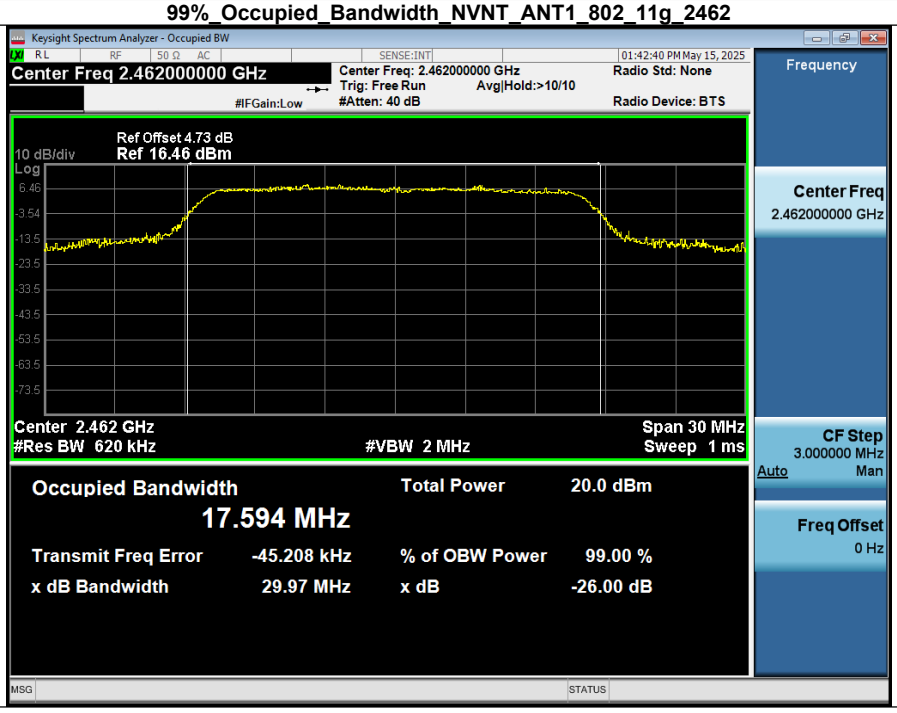
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2412



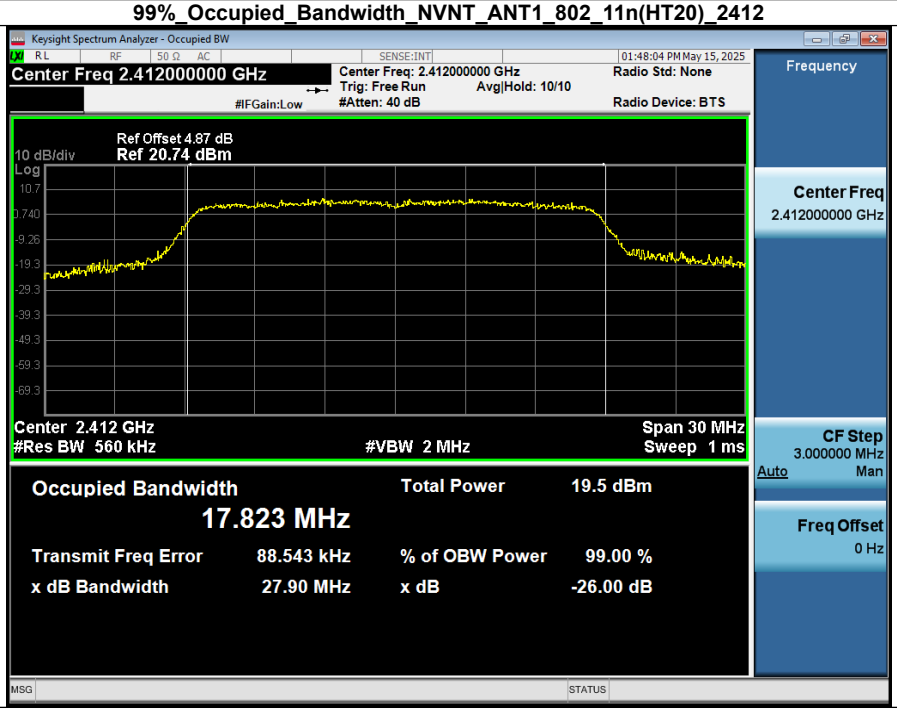
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2437



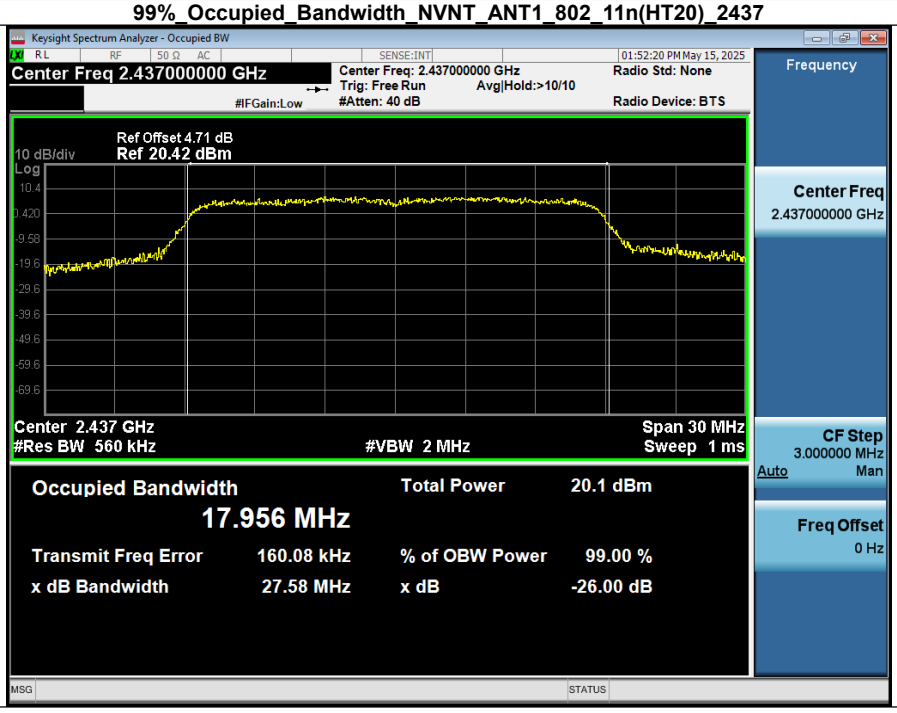
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2462



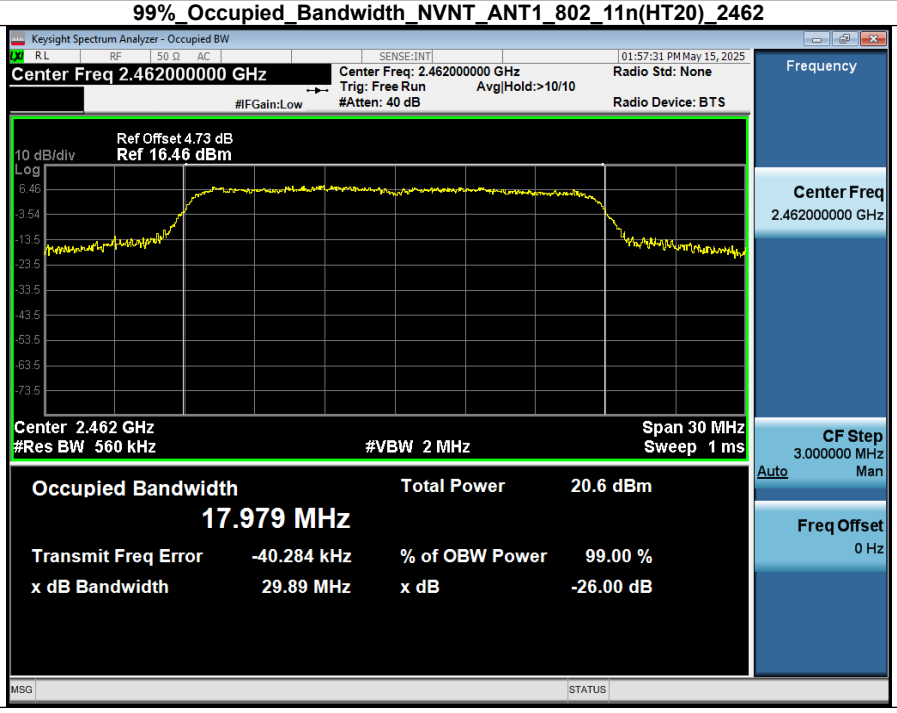
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



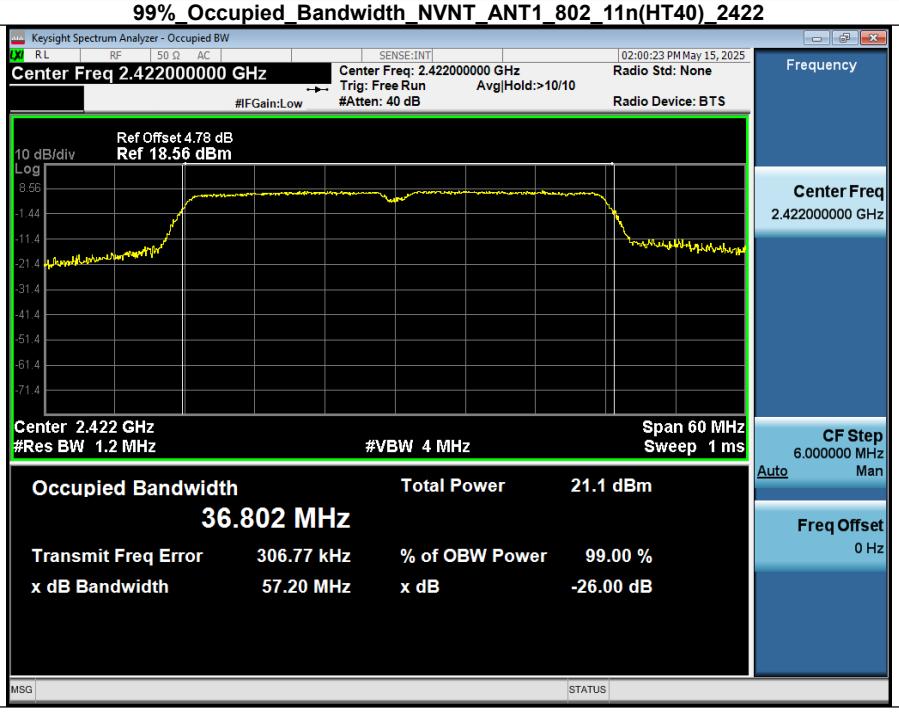
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



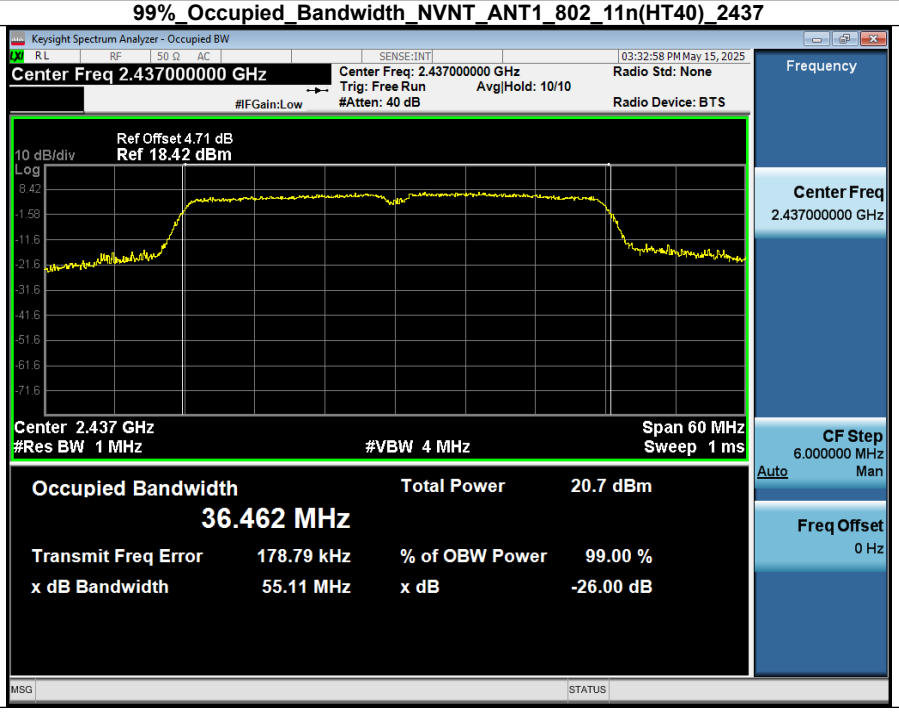
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



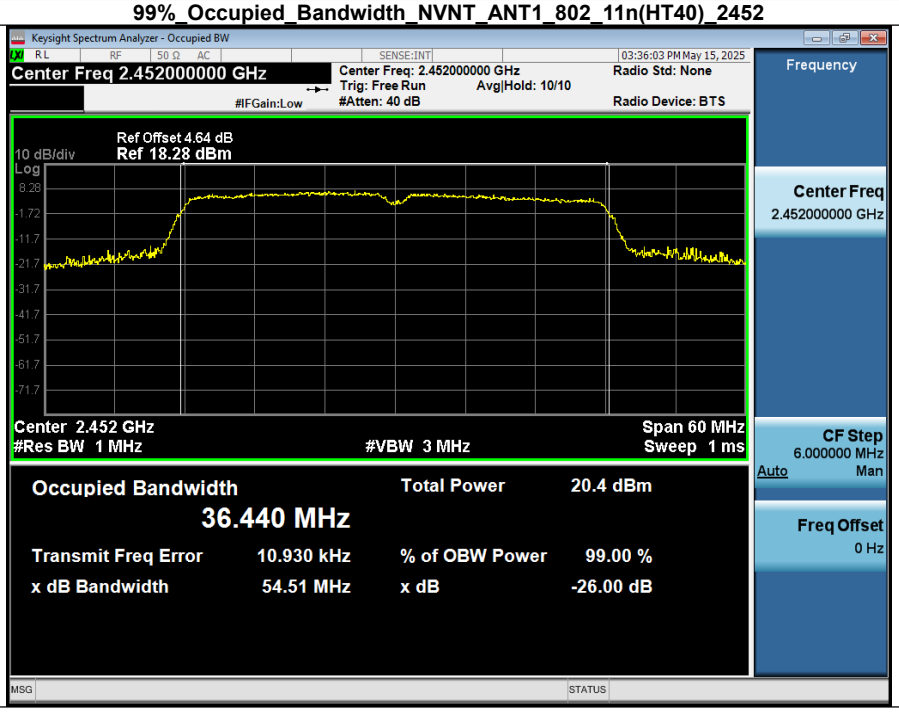
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



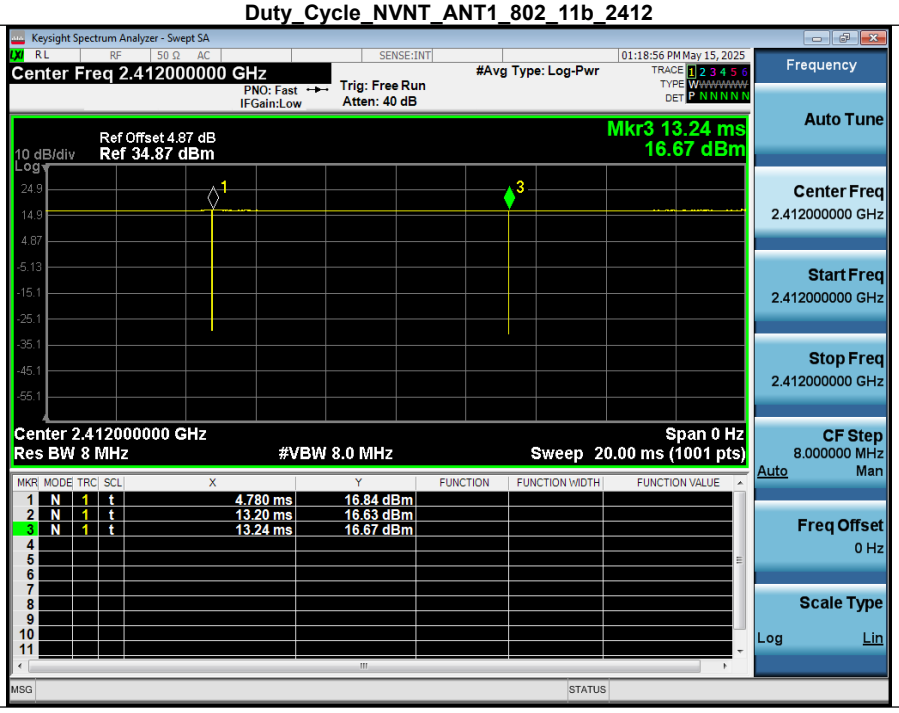
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



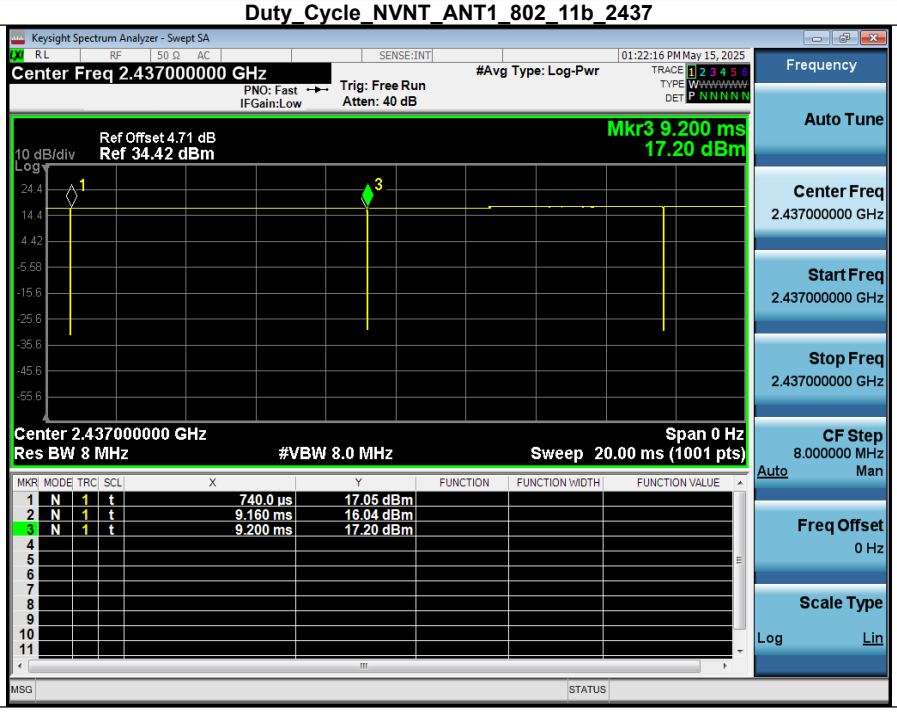
3. Duty Cycle

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	99.76	0.00
NVNT	ANT1	802.11b	2462.00	99.76	0.00
NVNT	ANT1	802.11g	2412.00	97.26	0.12
NVNT	ANT1	802.11g	2437.00	98.61	0.00
NVNT	ANT1	802.11g	2462.00	98.61	0.00
NVNT	ANT1	802.11n(HT20)	2412.00	96.77	0.14
NVNT	ANT1	802.11n(HT20)	2437.00	98.36	0.00
NVNT	ANT1	802.11n(HT20)	2462.00	98.36	0.00
NVNT	ANT1	802.11n(HT40)	2422.00	96.88	0.14
NVNT	ANT1	802.11n(HT40)	2437.00	96.88	0.14
NVNT	ANT1	802.11n(HT40)	2452.00	93.75	0.28

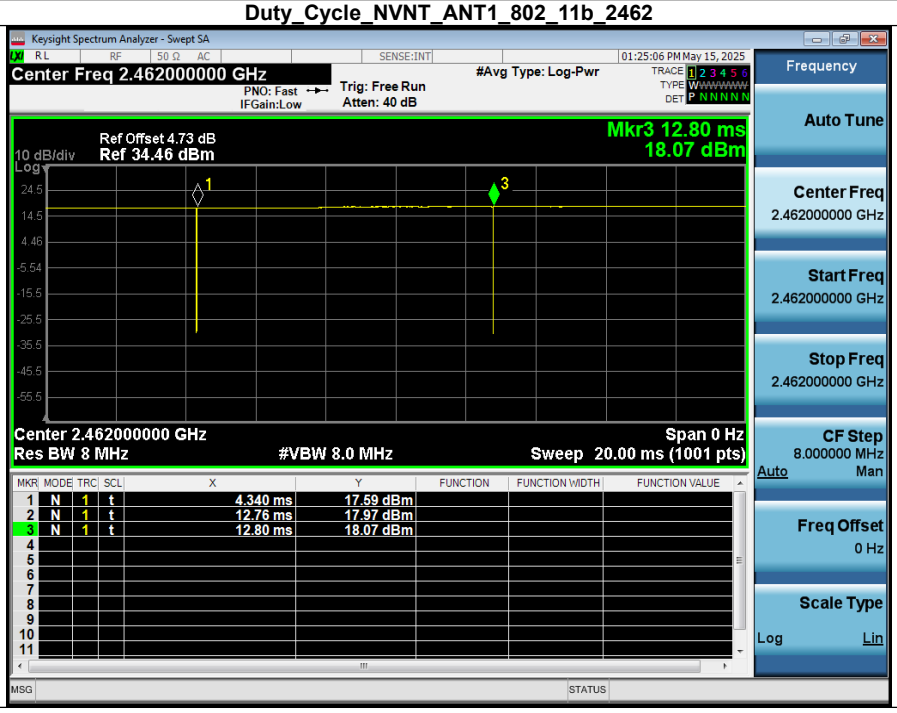
Duty_Cycle_NVNT_ANT1_802_11b_2412



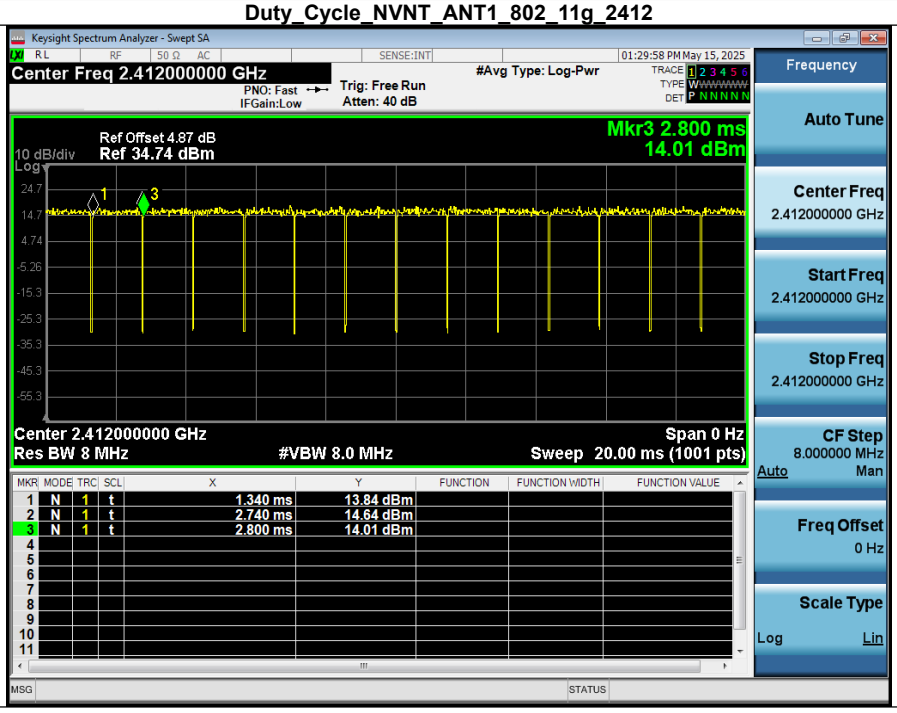
Duty_Cycle_NVNT_ANT1_802_11b_2437



Duty_Cycle_NVNT_ANT1_802_11b_2462



Duty_Cycle_NVNT_ANT1_802_11g_2412



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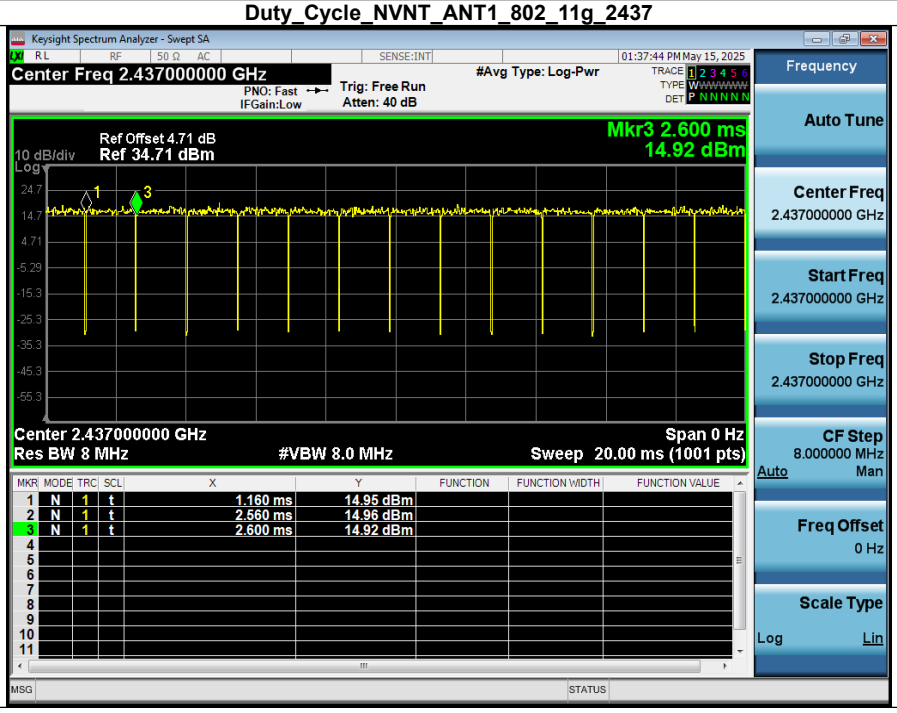

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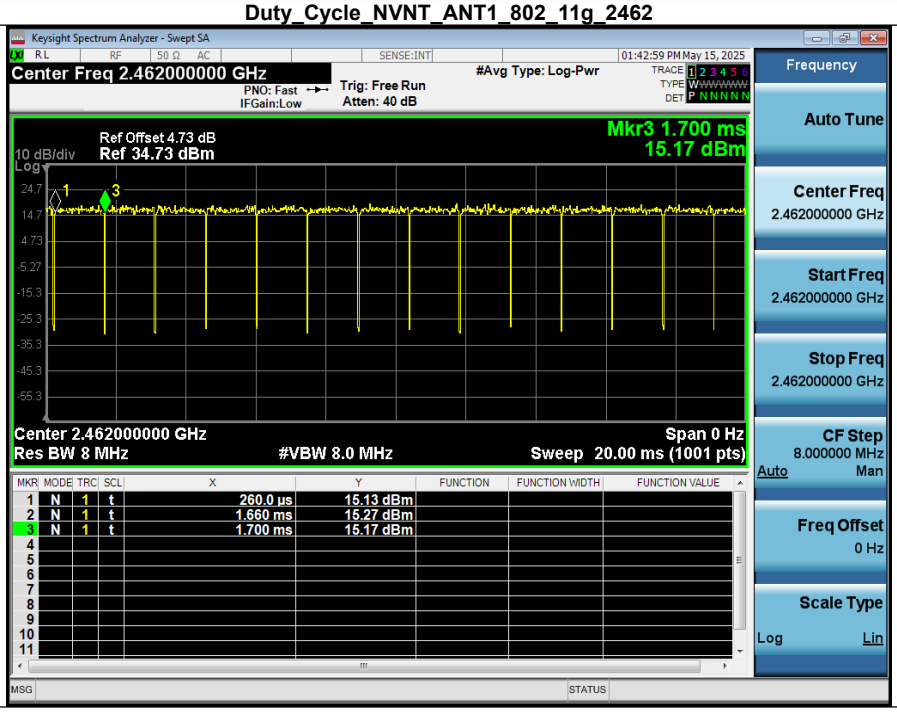
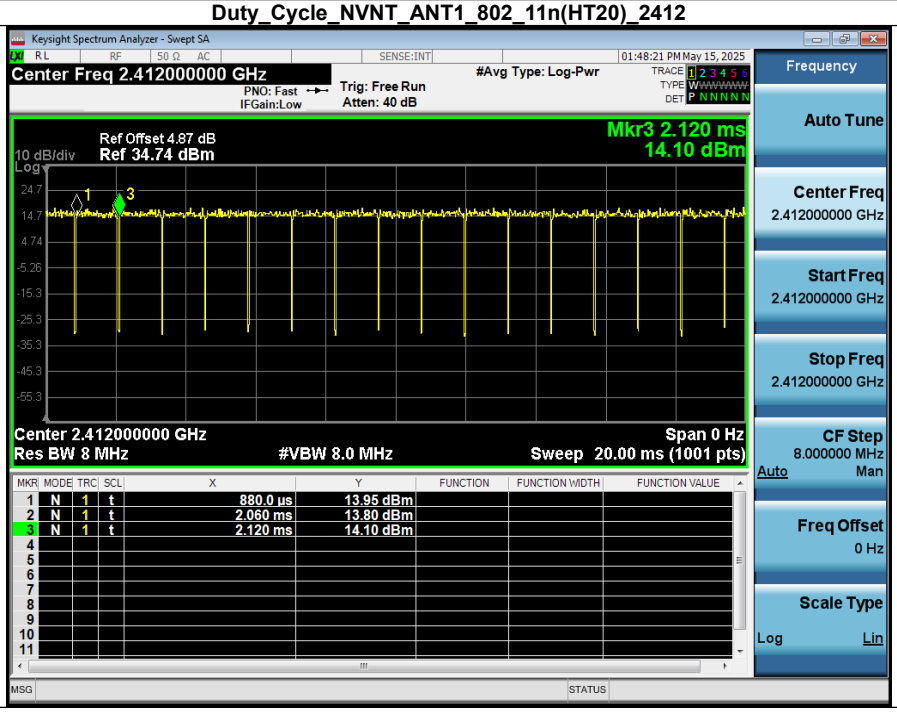
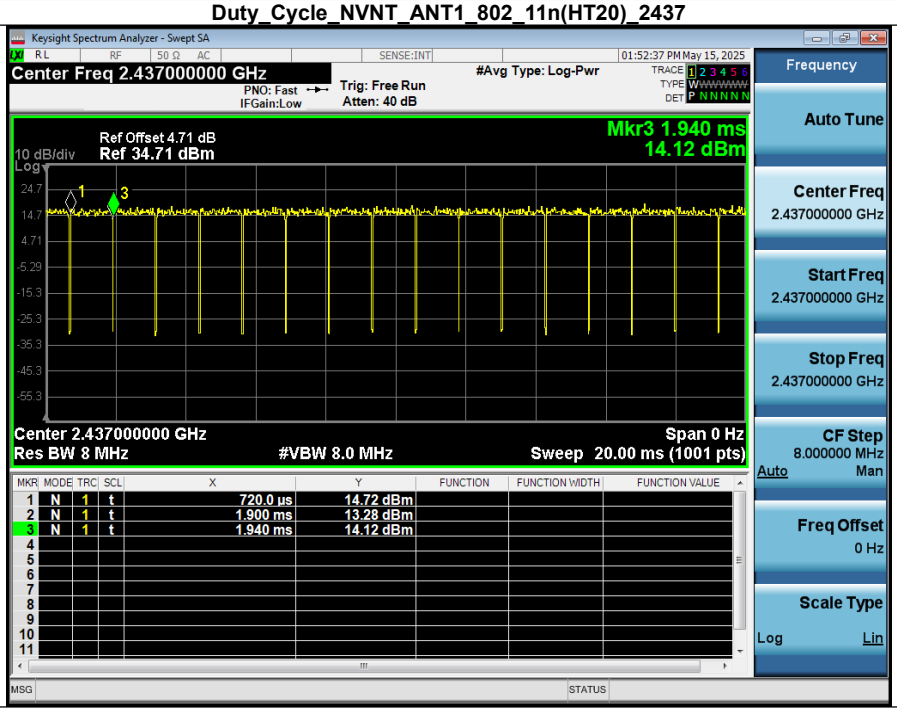


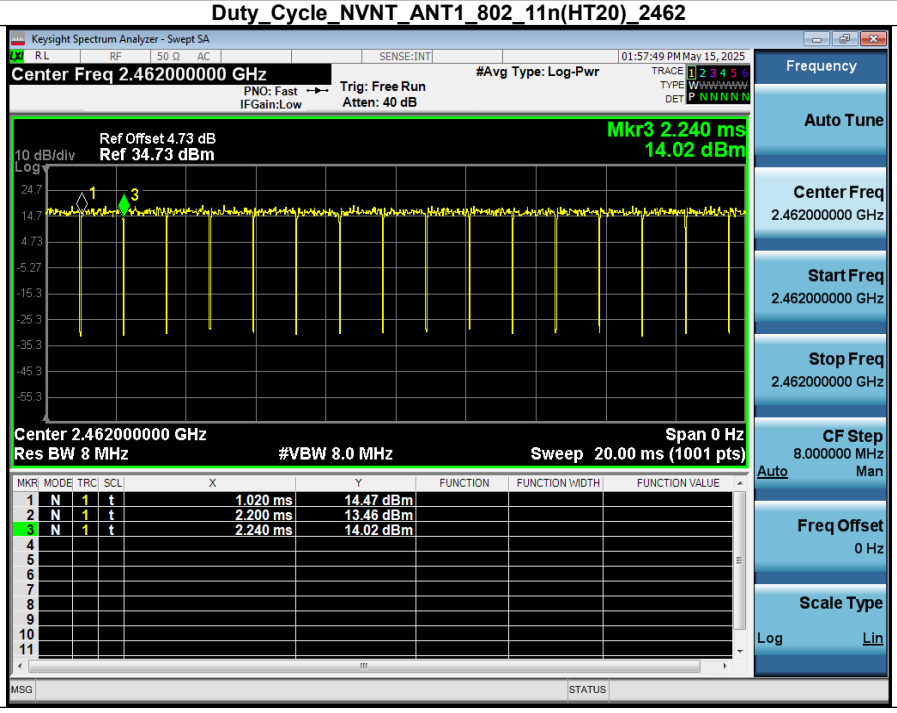
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2412



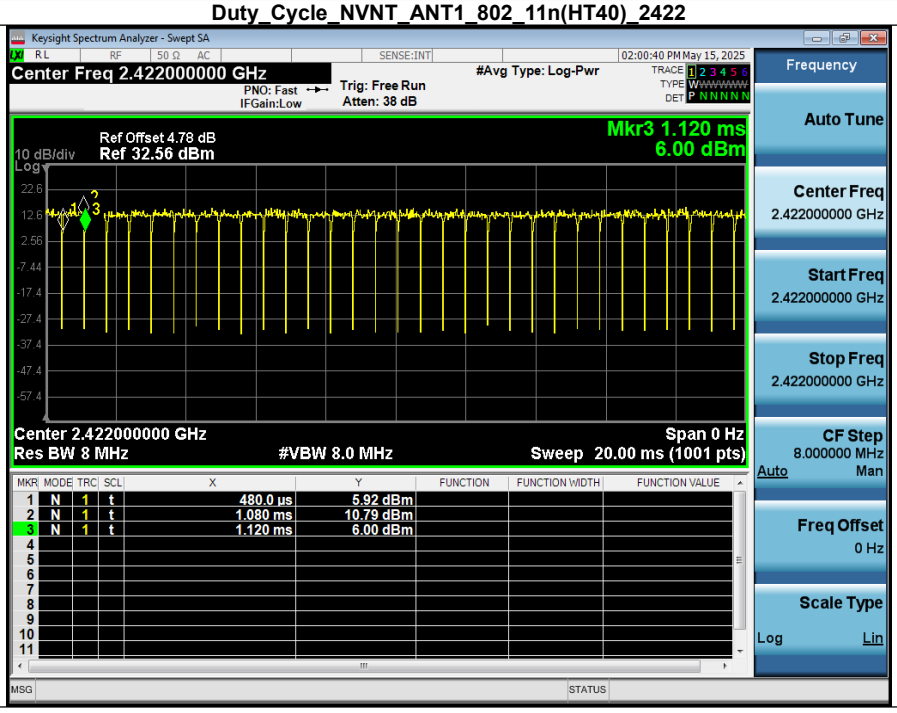
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2437



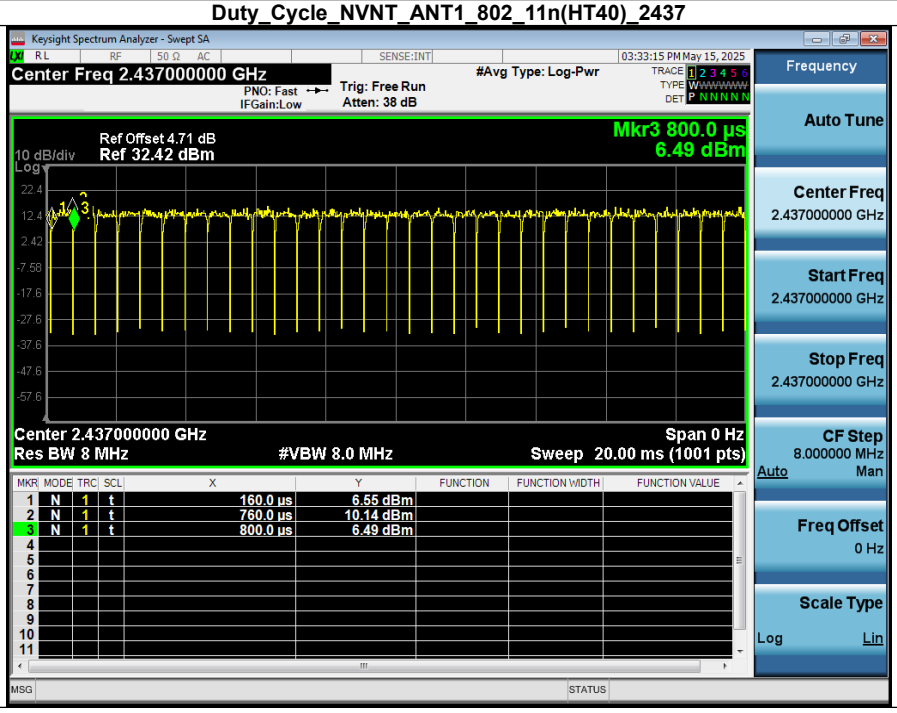
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2462



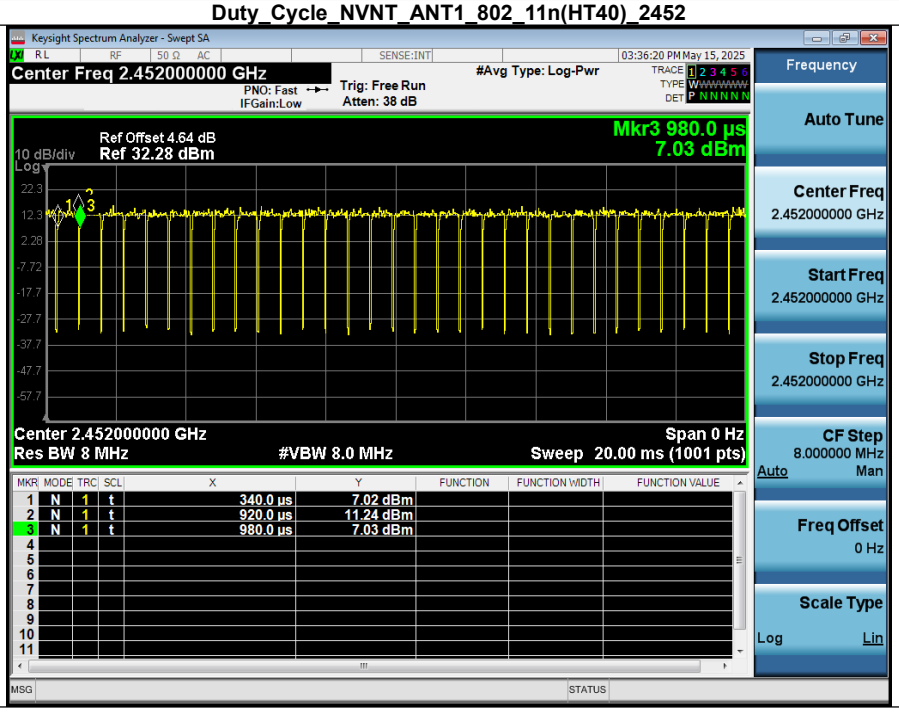
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2422



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	17.01	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	17.48	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	17.87	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	18.67	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	17.22	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	17.84	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	17.68	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	18.25	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	17.87	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	Peak	18.56	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	Peak	18.39	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	Peak	18.28	30	Pass

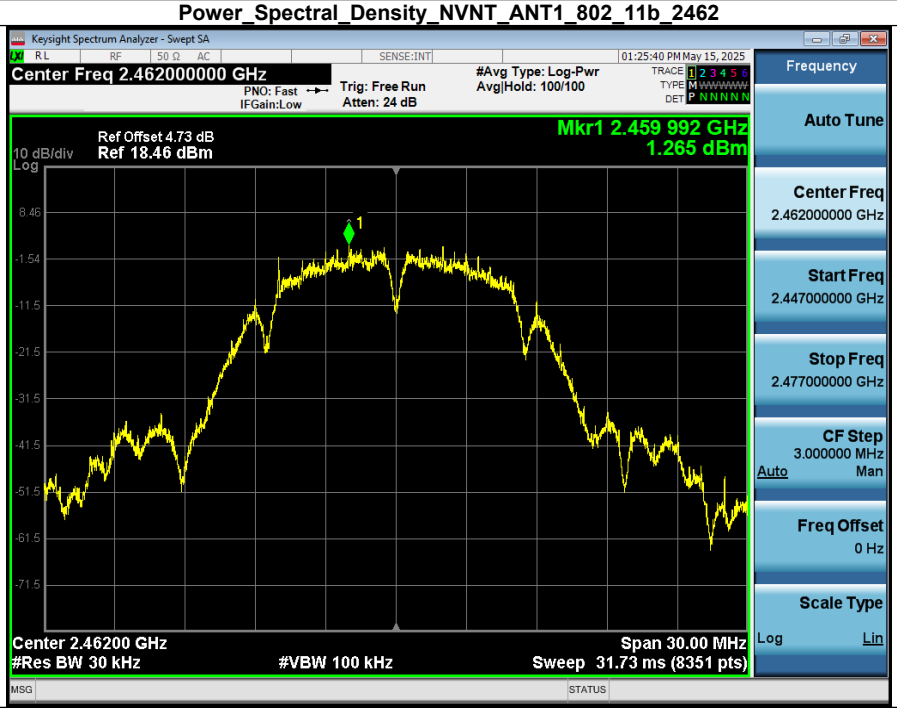
5. Power Spectral Density

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	1.07	N/A	-10.00	-8.93	8	Pass
NVNT	ANT1	802.11b	2437.00	0.98	N/A	-10.00	-9.02	8	Pass
NVNT	ANT1	802.11b	2462.00	1.26	N/A	-10.00	-8.73	8	Pass
NVNT	ANT1	802.11g	2412.00	-3.74	N/A	-10.00	-13.74	8	Pass
NVNT	ANT1	802.11g	2437.00	-3.13	N/A	-10.00	-13.13	8	Pass
NVNT	ANT1	802.11g	2462.00	-2.55	N/A	-10.00	-12.55	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-4.36	N/A	-10.00	-14.36	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-3.72	N/A	-10.00	-13.72	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-3.24	N/A	-10.00	-13.24	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-7.20	N/A	-10.00	-17.20	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-6.44	N/A	-10.00	-16.44	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-6.49	N/A	-10.00	-16.49	8	Pass

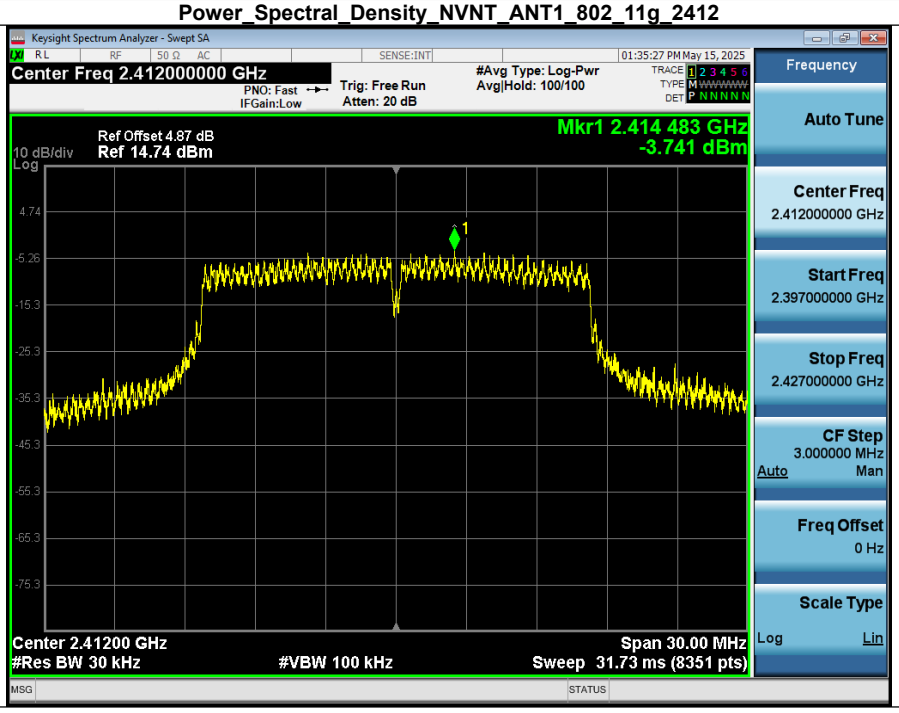
Power_Spectral_Density_NVNT_ANT1_802_11b_2412

Power_Spectral_Density_NVNT_ANT1_802_11b_2437

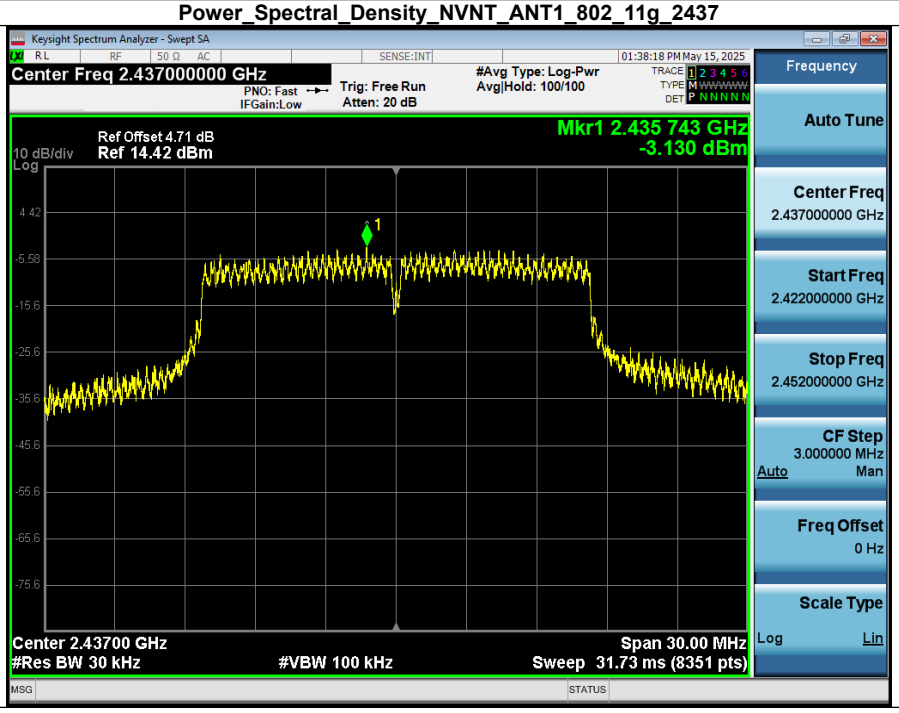
Power_Spectral_Density_NVNT_ANT1_802_11b_2462



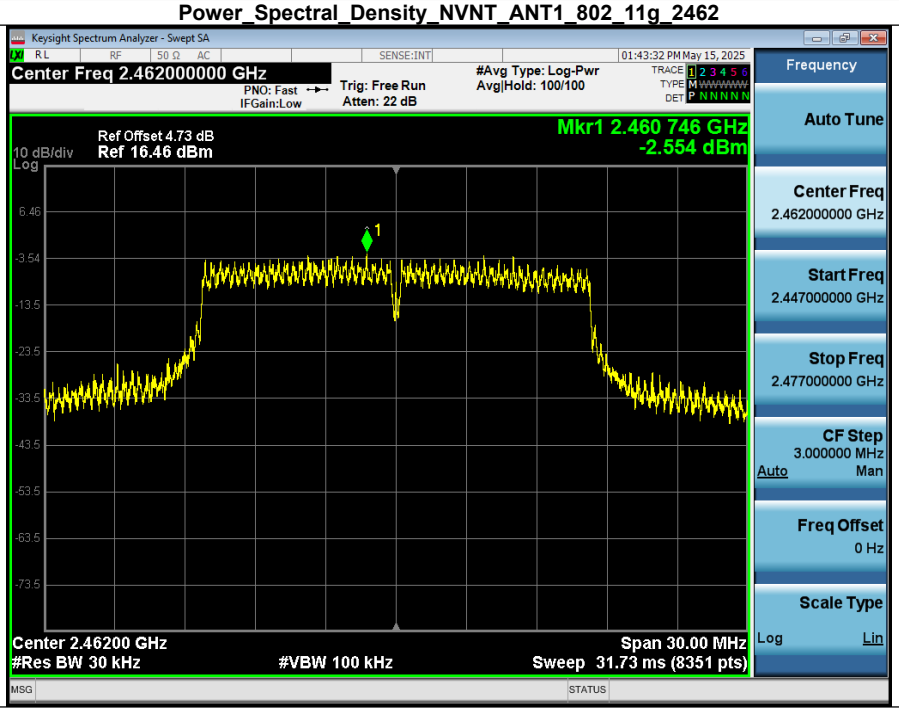
Power_Spectral_Density_NVNT_ANT1_802_11g_2412



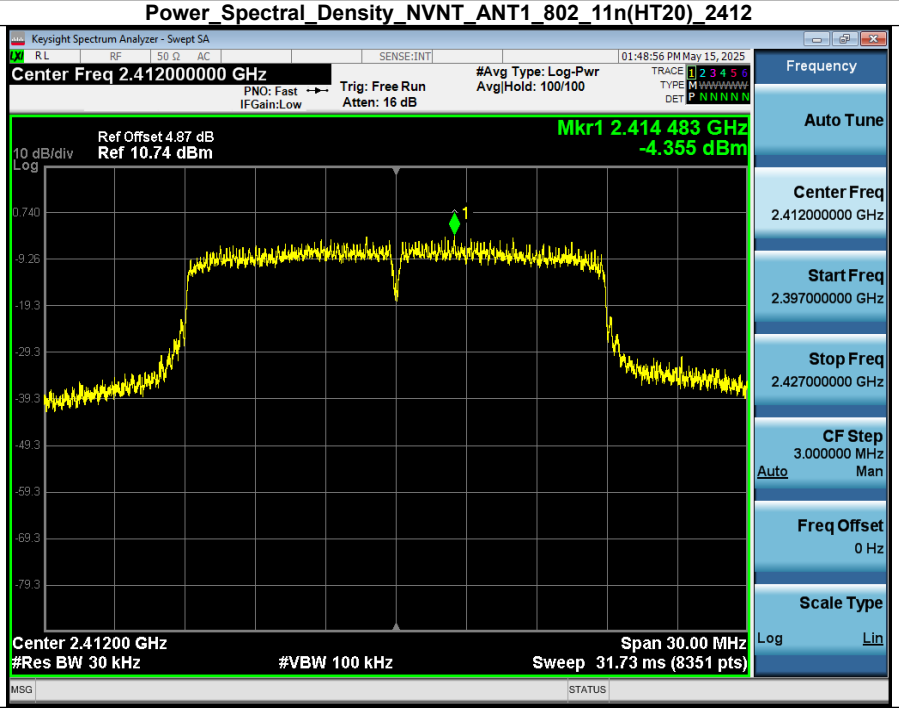
Power_Spectral_Density_NVNT_ANT1_802_11g_2437



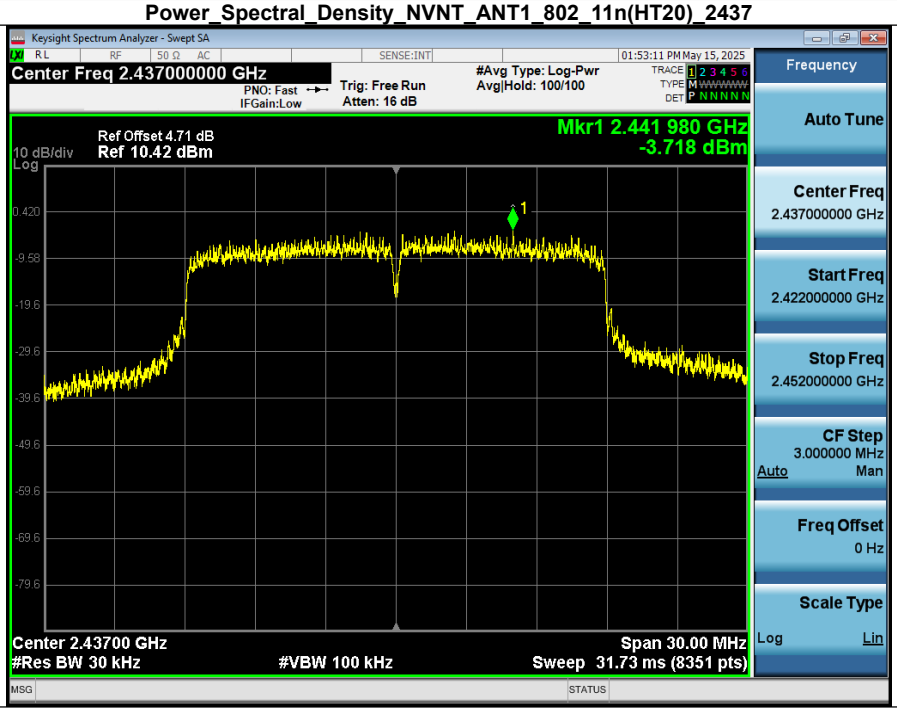
Power_Spectral_Density_NVNT_ANT1_802_11g_2462



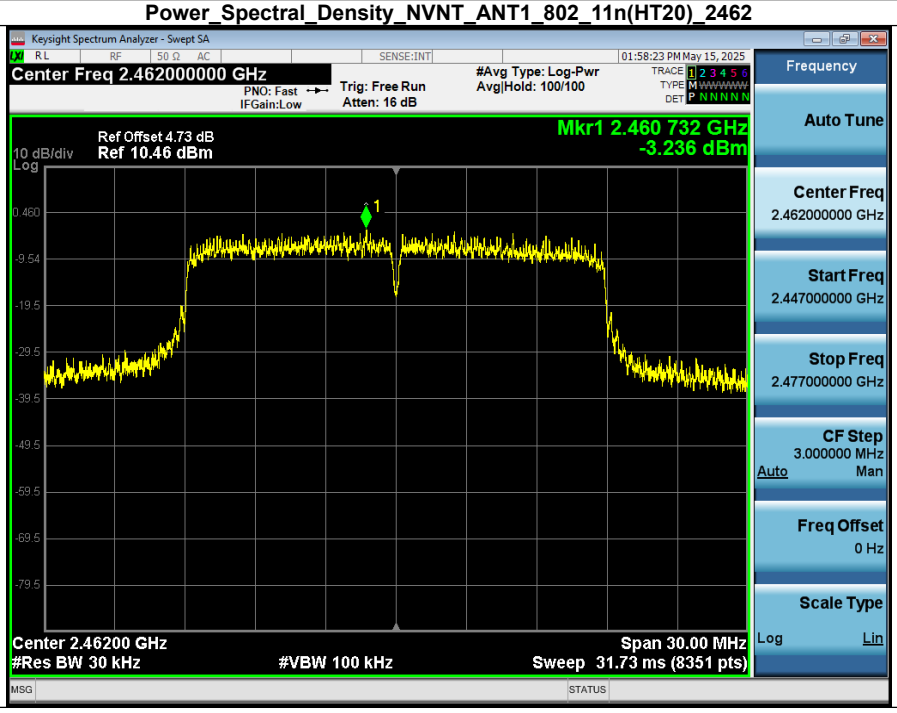
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2412



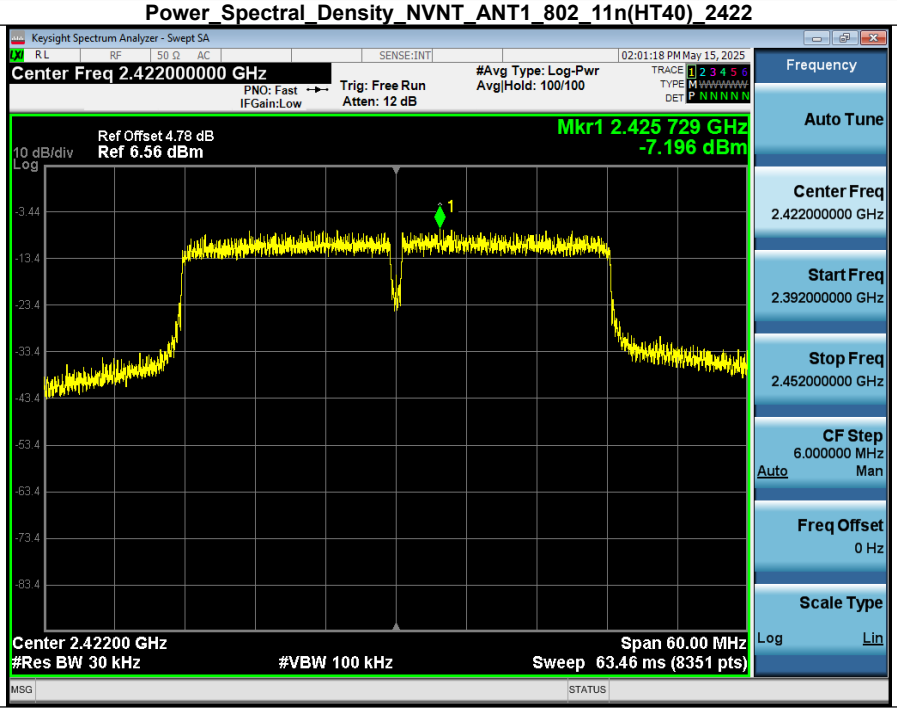
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2437



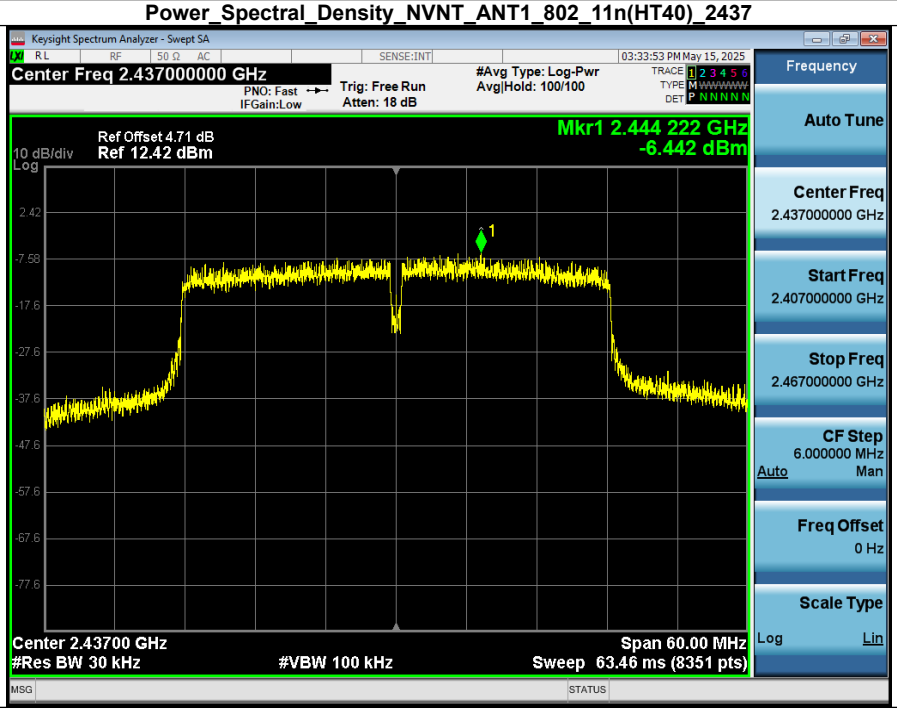
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2462



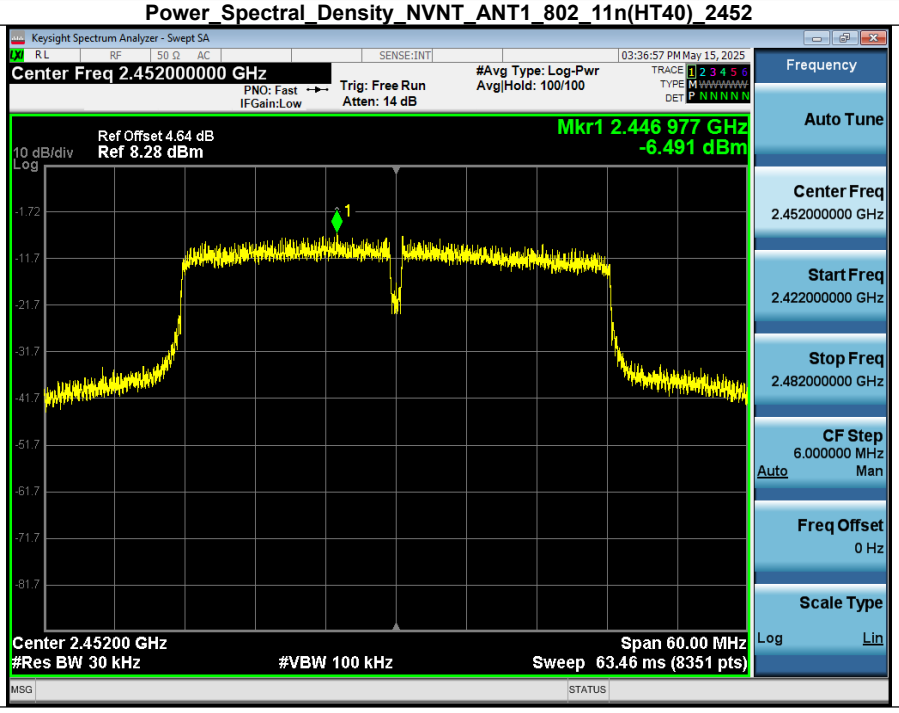
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2422



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2437



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2452

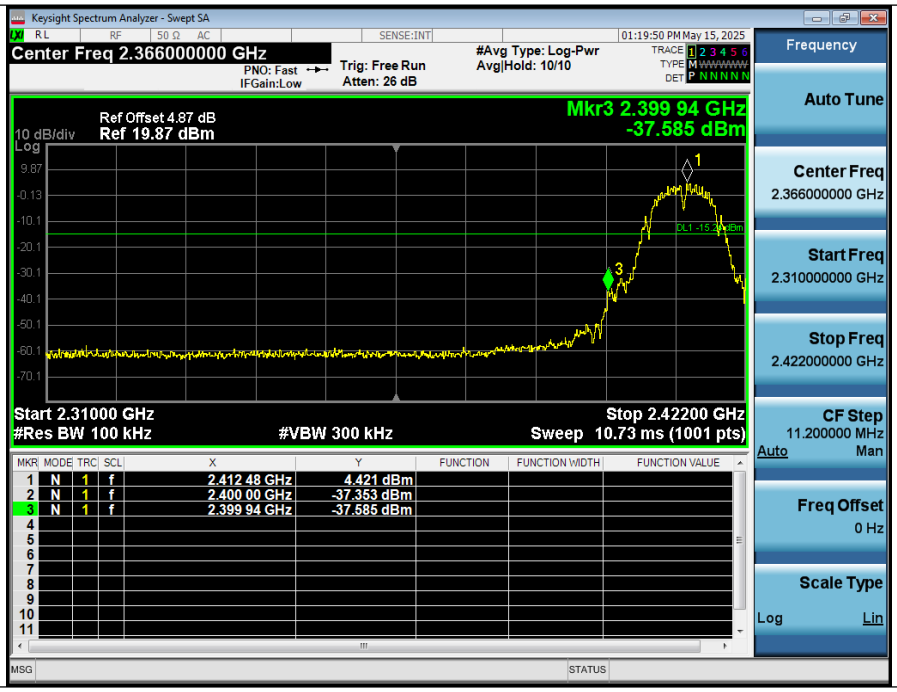


6. Bandedge

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	4.761	-37.585	-15.239	Pass
NVNT	ANT1	802.11b	2462.00	2485.792	5.485	-52.727	-14.515	Pass
NVNT	ANT1	802.11g	2412.00	2399.600	0.978	-29.639	-19.022	Pass
NVNT	ANT1	802.11g	2462.00	2483.536	2.175	-37.532	-17.825	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.600	0.383	-29.702	-19.617	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.536	1.358	-36.815	-18.642	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2399.232	-1.895	-29.359	-21.895	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2483.816	-1.874	-34.852	-21.874	Pass

1_Reference_Level_NVNT_ANT1_802_11b_2412

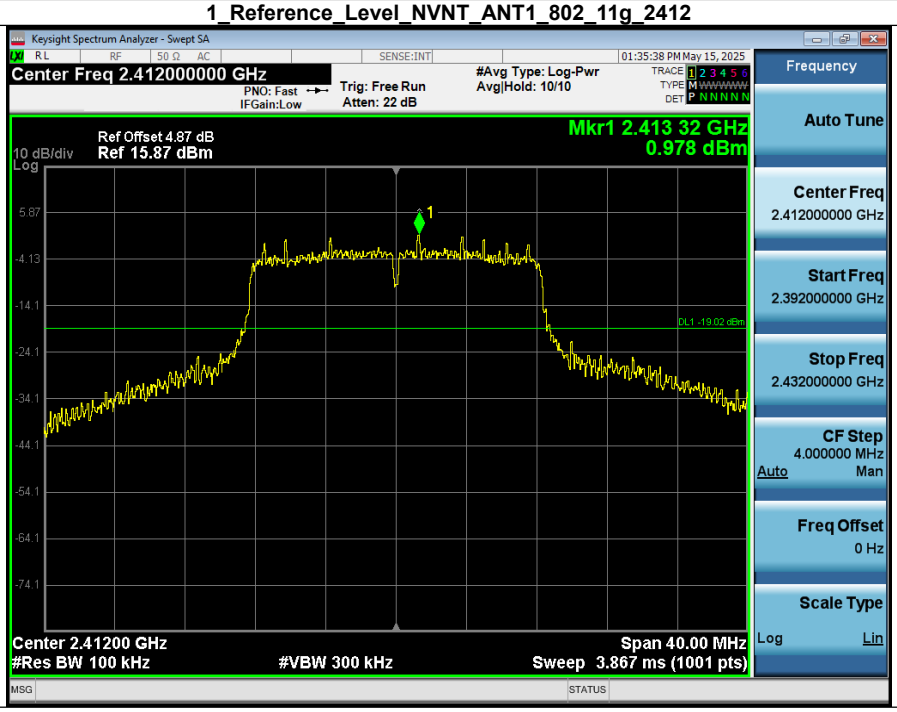
2_Bandedge_NVNT_ANT1_802_11b_2412



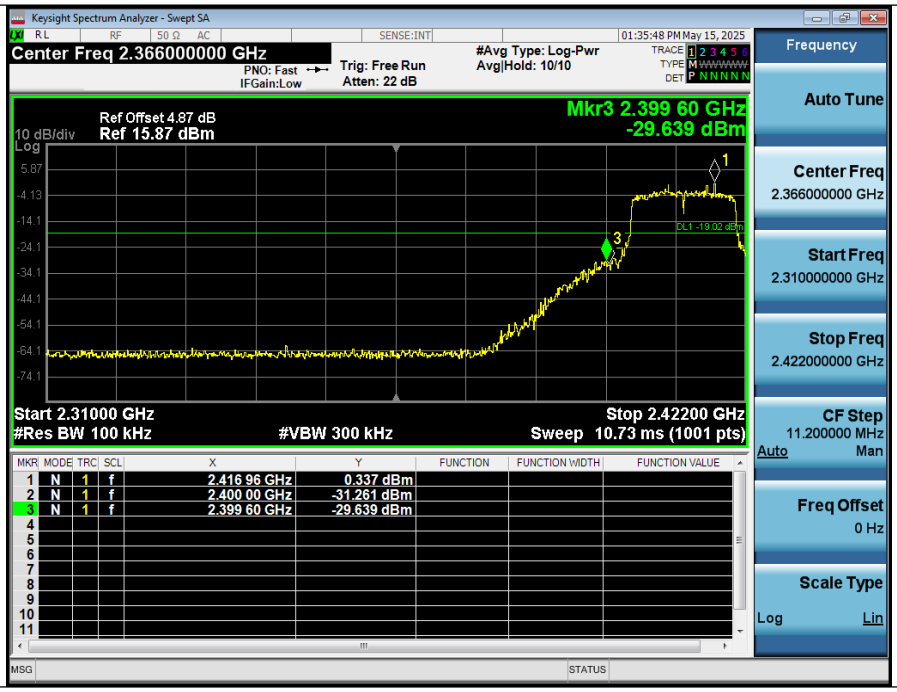
1_Reference_Level_NVNT_ANT1_802_11b_2462

2_Bandedge_NVNT_ANT1_802_11b_2462

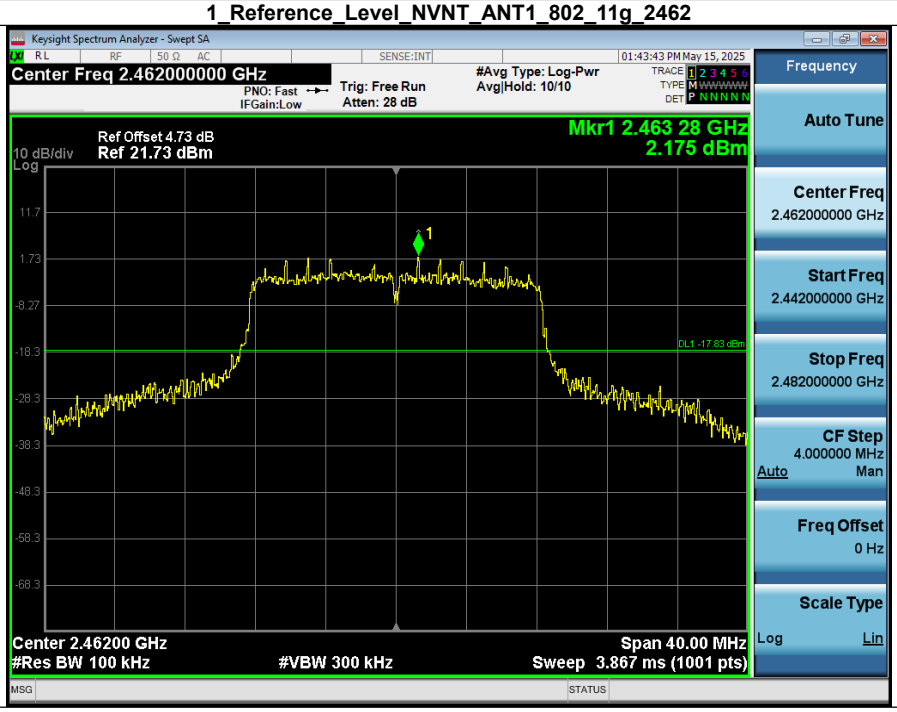
1_Reference_Level_NVNT_ANT1_802_11g_2412



2_Bandedge_NVNT_ANT1_802_11g_2412

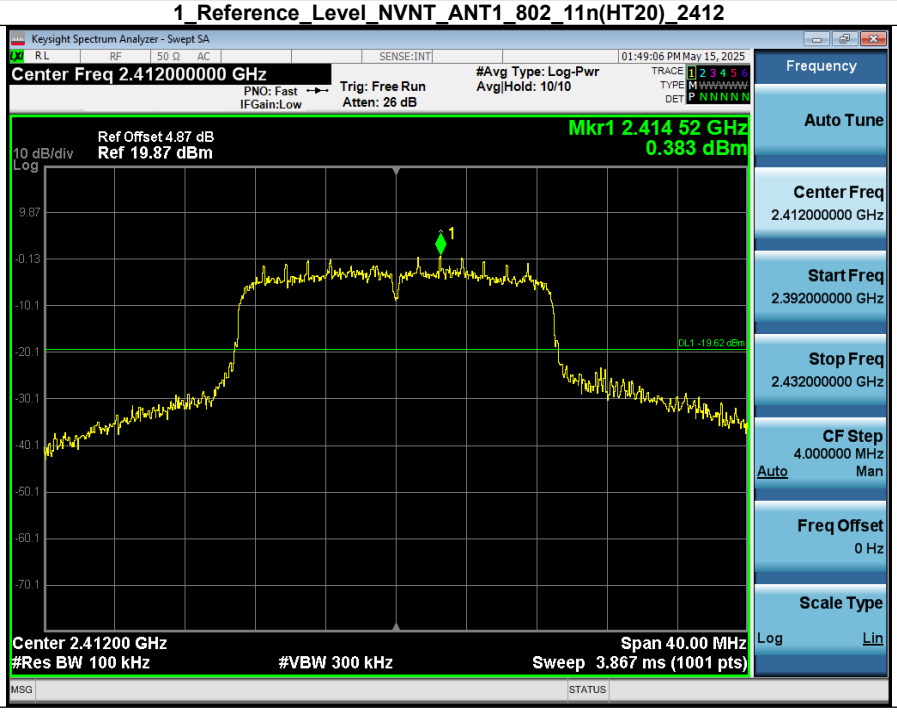


1_Reference_Level_NVNT_ANT1_802_11g_2462

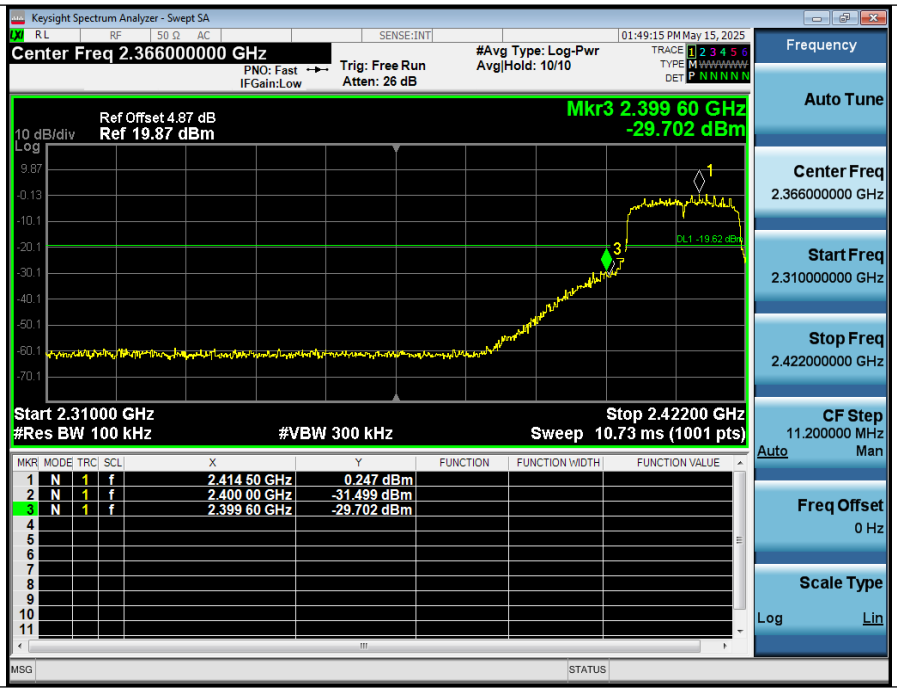


2_Bandedge_NVNT_ANT1_802_11g_2462

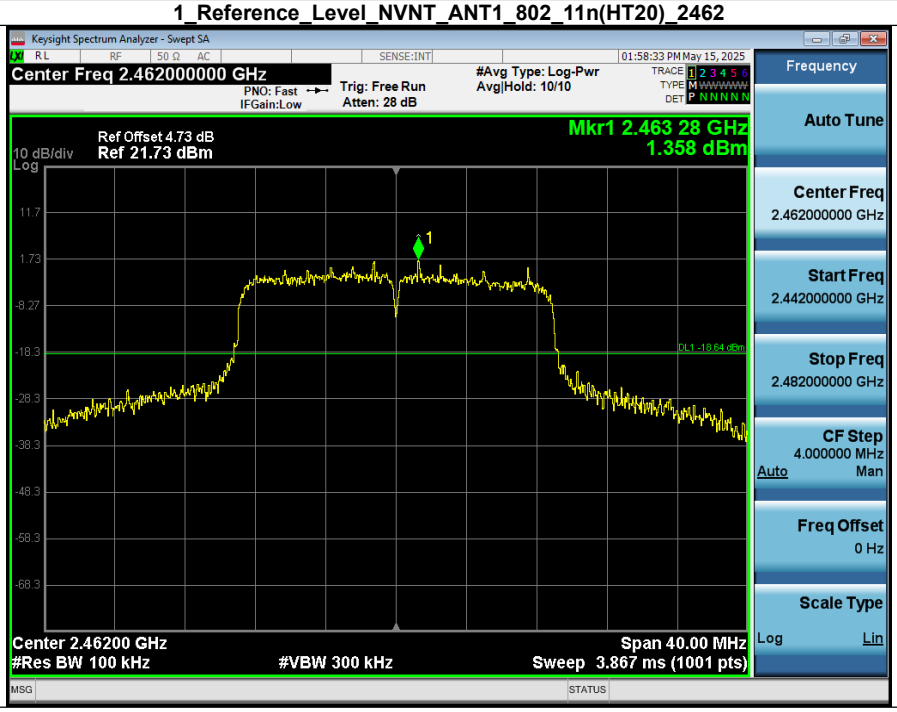
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



2_Bandedge_NVNT_ANT1_802_11n(HT20)_2412

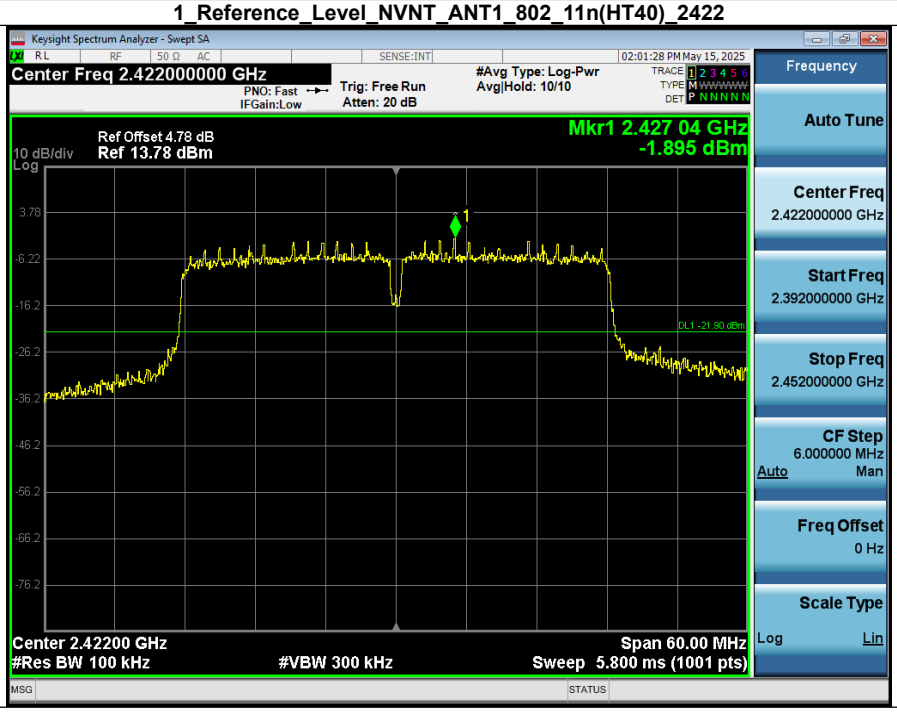


1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462

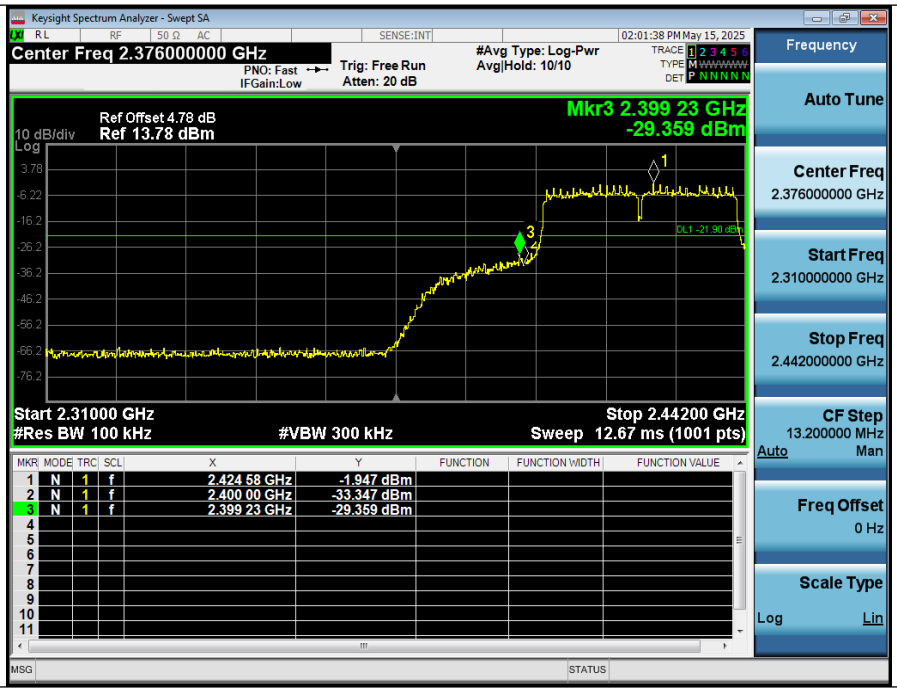


2_Bandedge_NVNT_ANT1_802_11n(HT20)_2462

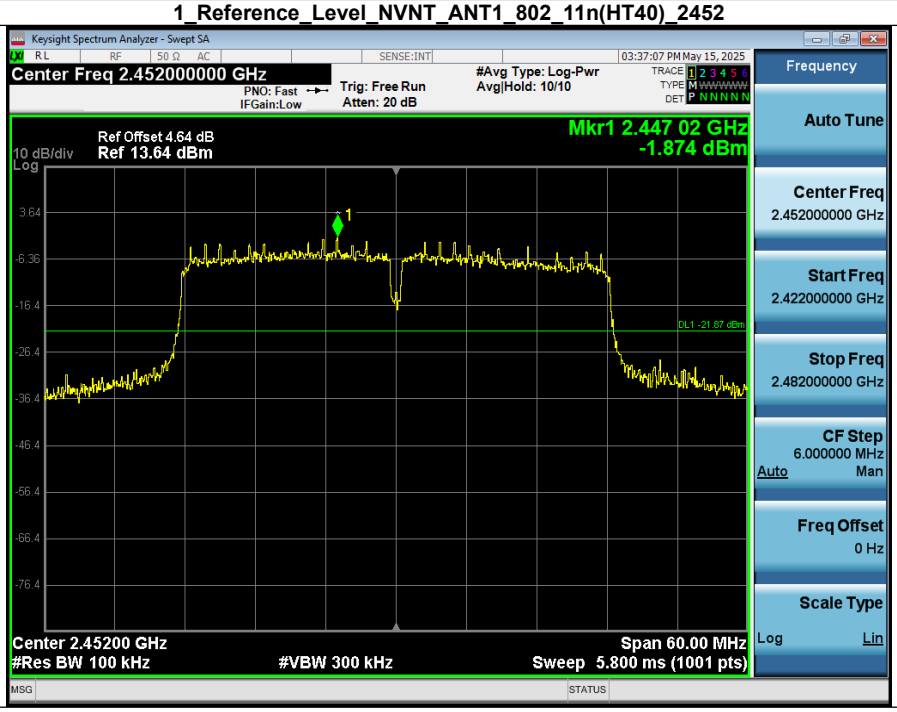
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



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

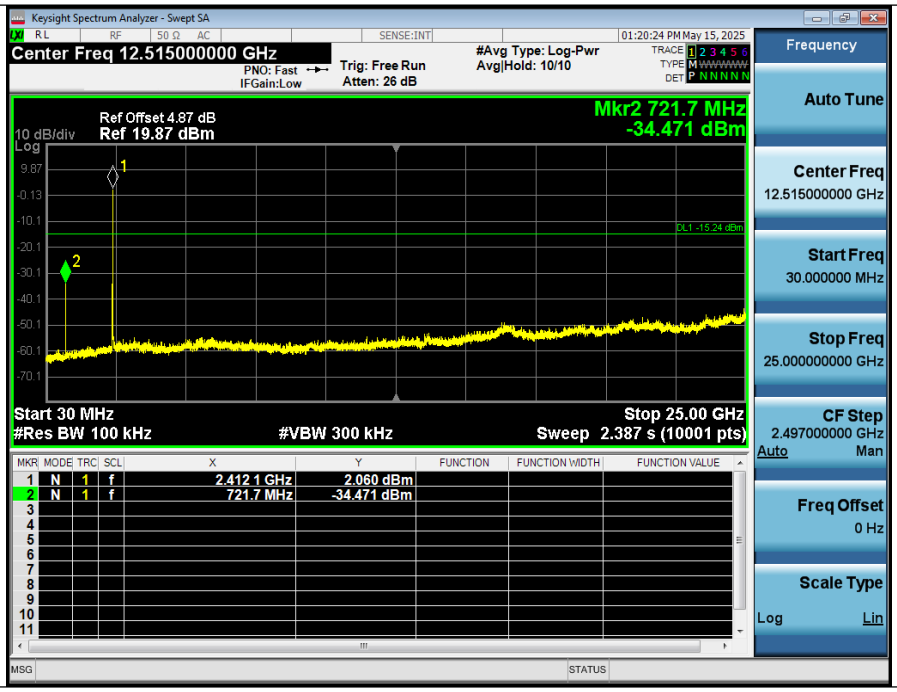
Keysight Spectrum Analyzer - Swept SA
Center Freq 2.466000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 20 dB
#Avg Type: Log-Pwr
Avg|Hold: 10/10
03:37:17 PM May 15, 2025
Ref Offset 4.64 dB
10 dB/div
Ref 13.64 dBm
Mkr3 2.483 816 GHz
-34.852 dBm
Start 2.43200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.50000 GHz
Sweep 6.533 ms (1001 pts)
1 N 1 f 2.443 288 GHz -1.677 dBm
2 N 1 f 2.483 500 GHz -36.576 dBm
3 N 1 f 2.483 816 GHz -34.852 dBm
Frequency
Auto Tune
Center Freq
2.466000000 GHz
Start Freq
2.432000000 GHz
Stop Freq
2.500000000 GHz
CF Step
6.800000 MHz
Auto
Man
Freq Offset
0 Hz
Scale Type
Log
Lin

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	721.669	4.761	-34.471	-15.239	Pass
NVNT	ANT1	802.11b	2437.00	24480.624	4.673	-44.499	-15.327	Pass
NVNT	ANT1	802.11b	2462.00	24997.503	5.485	-39.891	-14.515	Pass
NVNT	ANT1	802.11g	2412.00	24430.684	0.978	-49.508	-19.022	Pass
NVNT	ANT1	802.11g	2437.00	721.669	0.994	-39.516	-19.006	Pass
NVNT	ANT1	802.11g	2462.00	24992.509	2.175	-42.650	-17.825	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	729.160	0.383	-44.624	-19.617	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	706.687	0.823	-46.056	-19.177	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	911.441	1.358	-33.483	-18.642	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	24982.521	-1.895	-50.988	-21.895	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	721.669	-1.466	-44.903	-21.466	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	898.956	-1.874	-36.347	-21.874	Pass

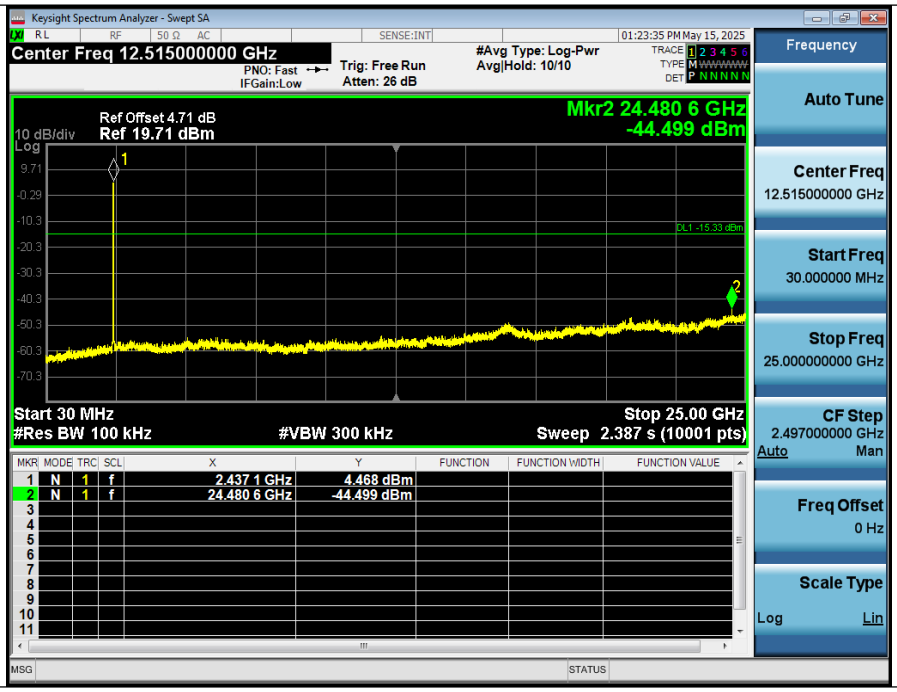
1_Reference_Level_NVNT_ANT1_802_11b_2412

2_Spurious_Emission_NVNT_ANT1_802_11b_2412



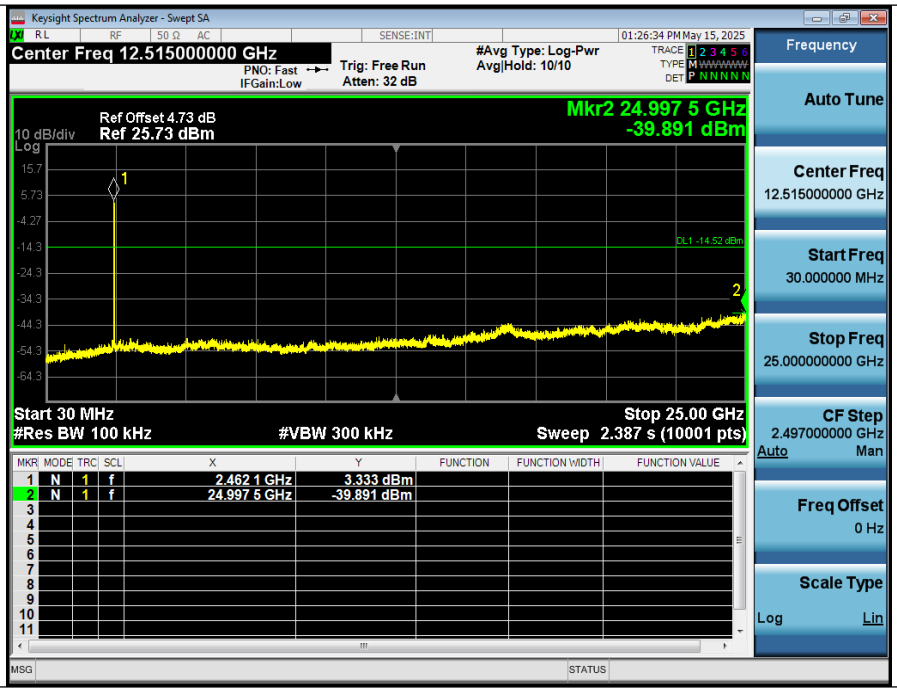
1_Reference_Level_NVNT_ANT1_802_11b_2437

2_Spurious_Emission_NVNT_ANT1_802_11b_2437

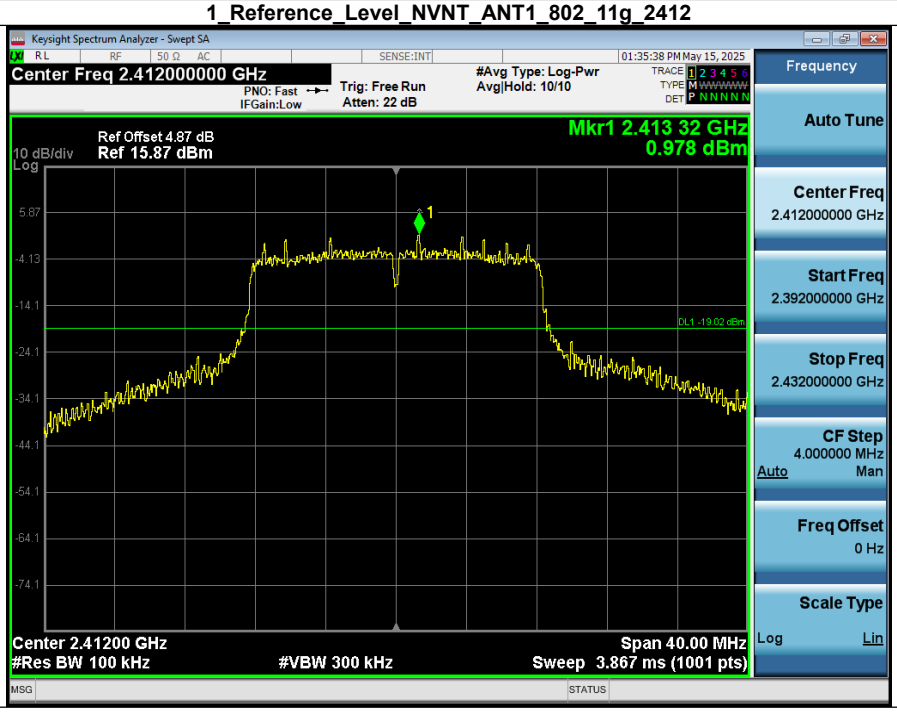


1_Reference_Level_NVNT_ANT1_802_11b_2462

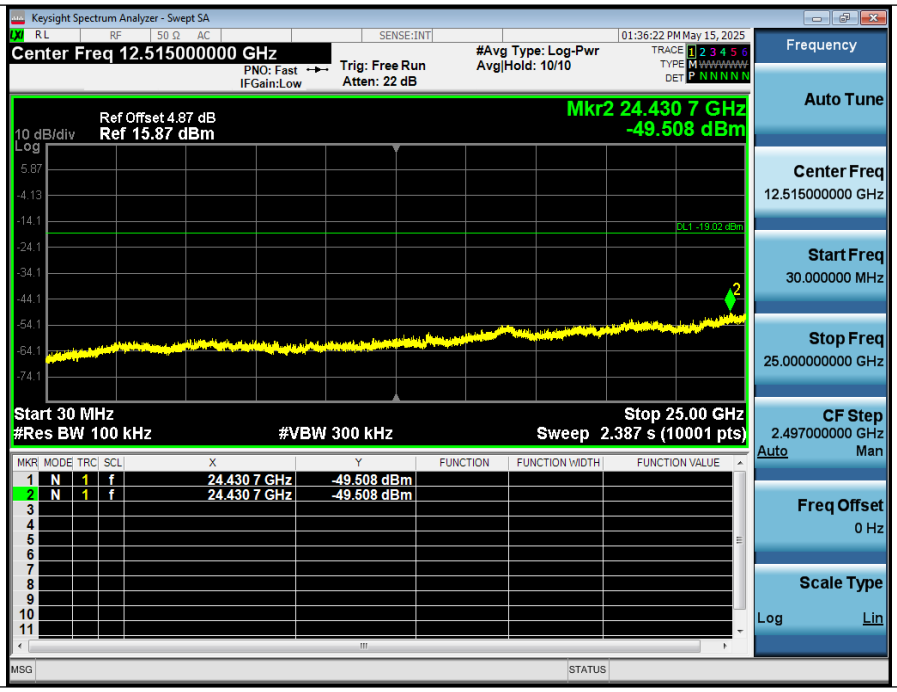
2_Spurious_Emission_NVNT_ANT1_802_11b_2462



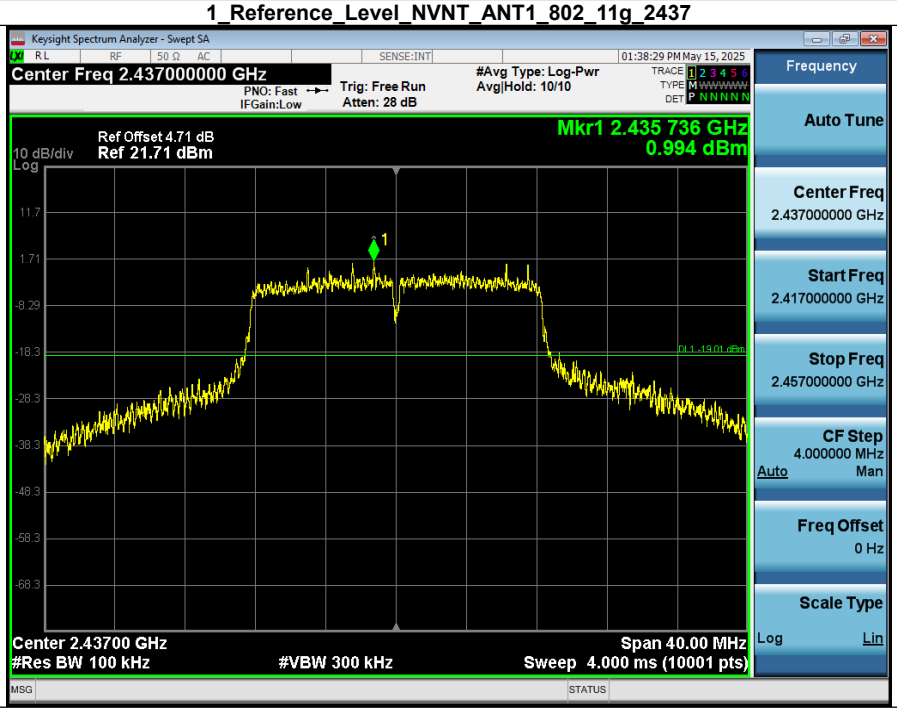
1_Reference_Level_NVNT_ANT1_802_11g_2412



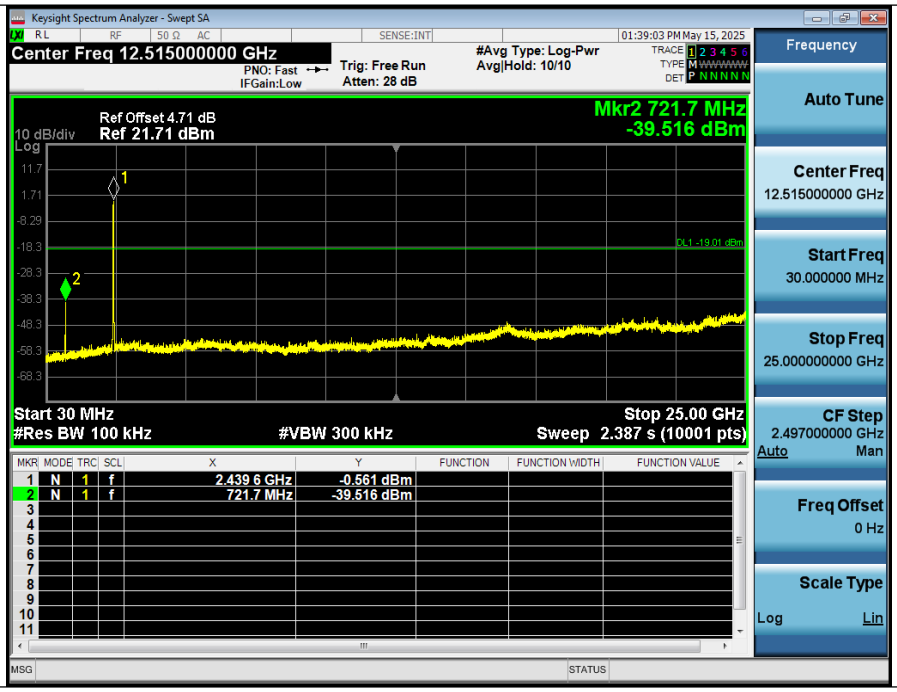
2_Spurious_Emission_NVNT_ANT1_802_11g_2412



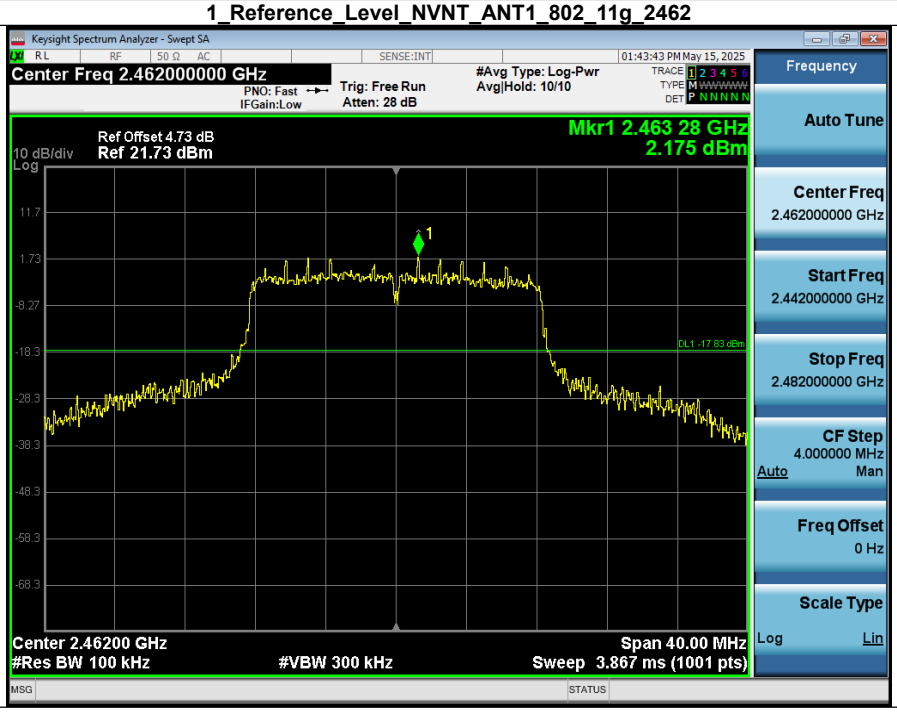
1_Reference_Level_NVNT_ANT1_802_11g_2437



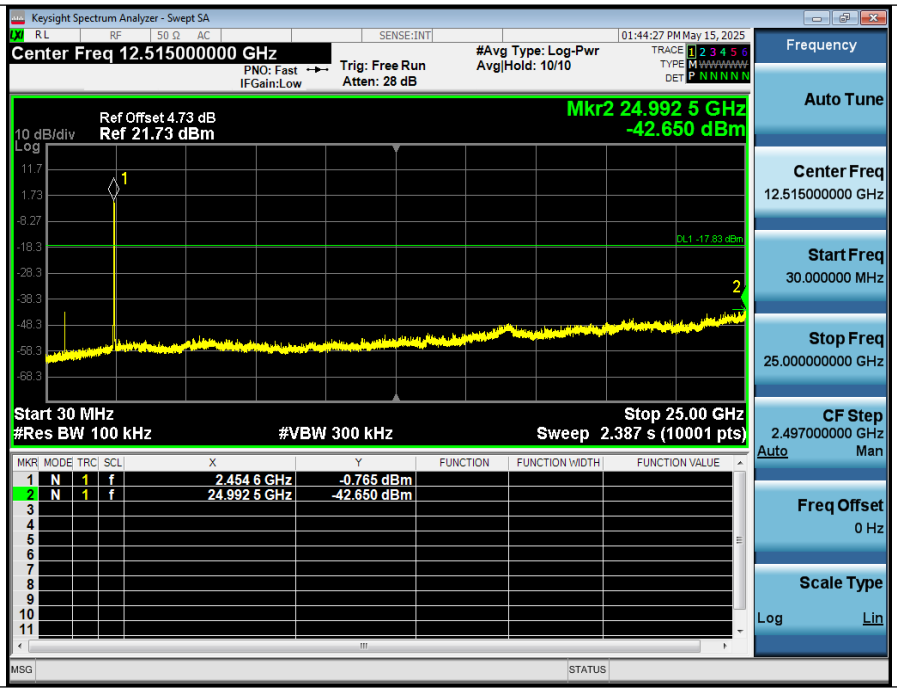
2_Spurious_Emission_NVNT_ANT1_802_11g_2437



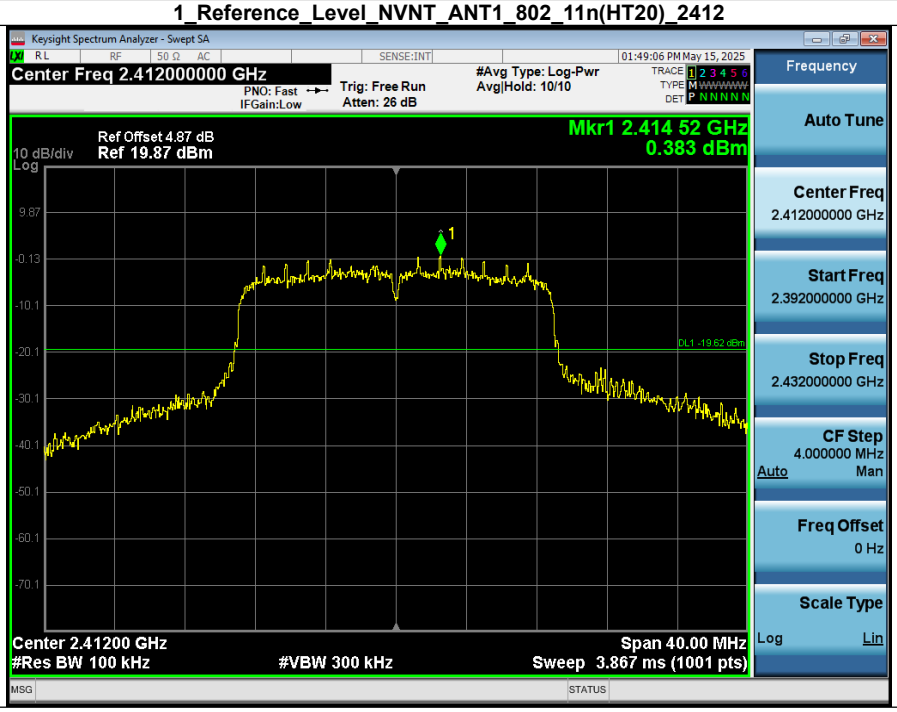
1_Reference_Level_NVNT_ANT1_802_11g_2462



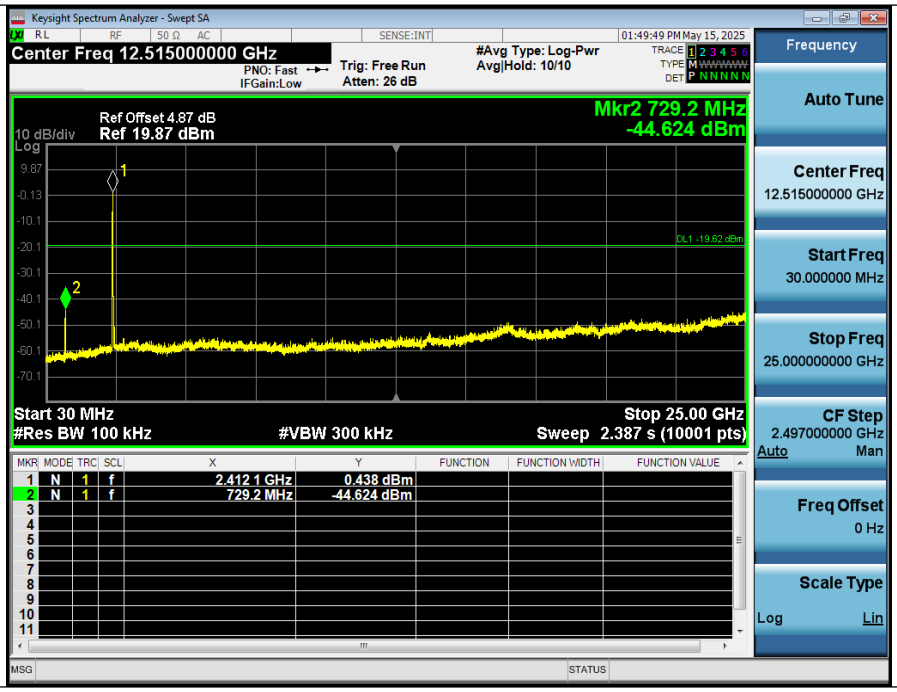
2_Spurious_Emission_NVNT_ANT1_802_11g_2462



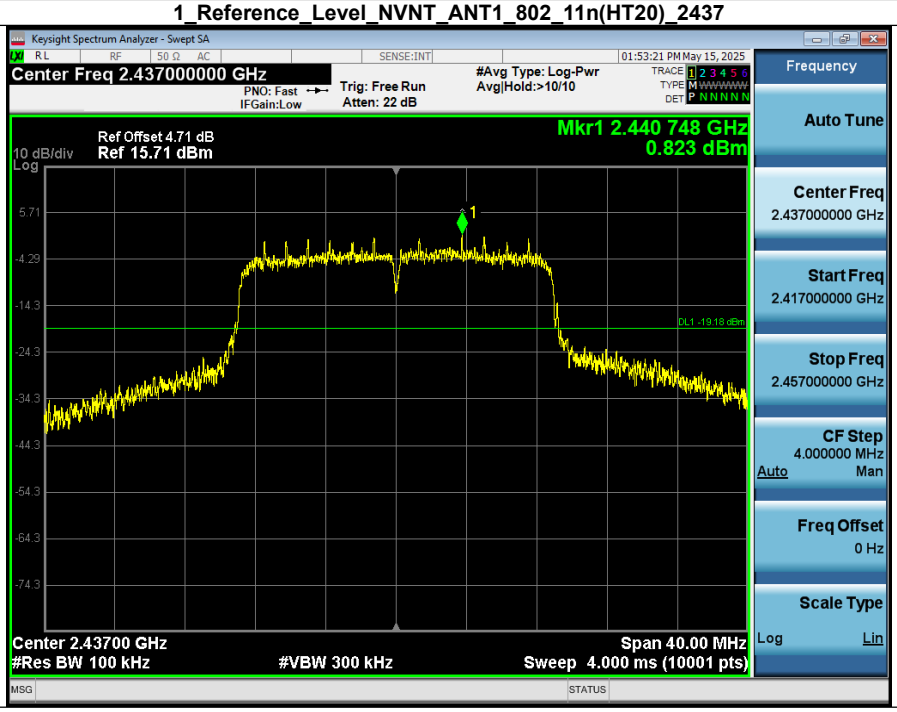
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



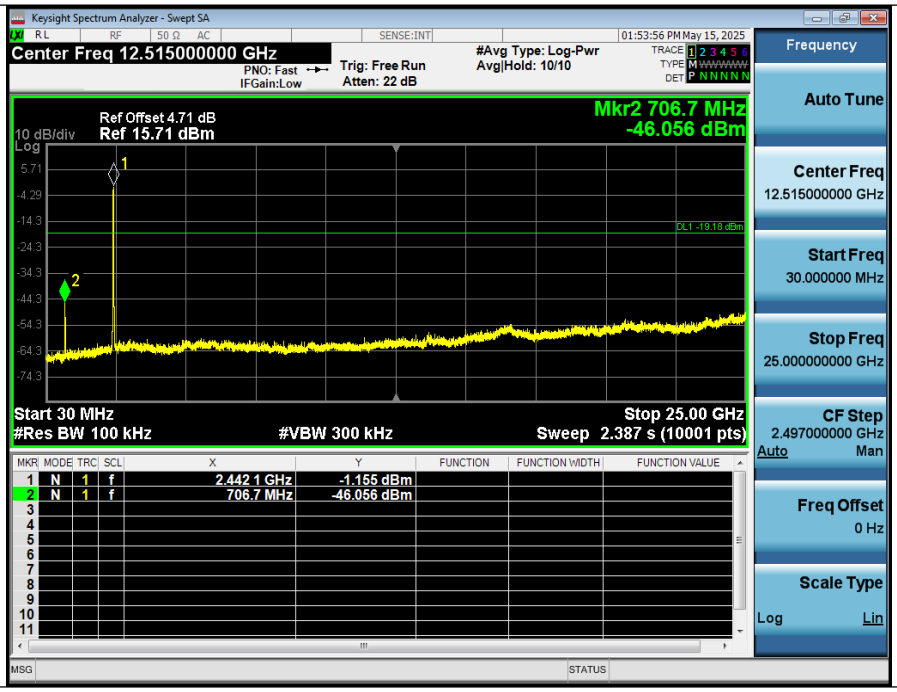
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2412



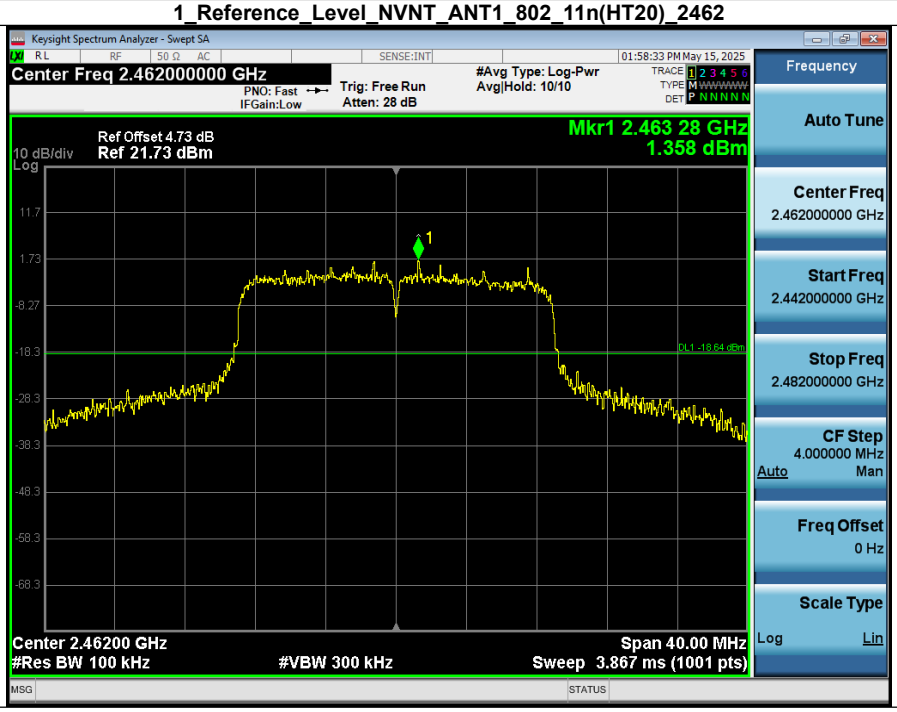
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2437



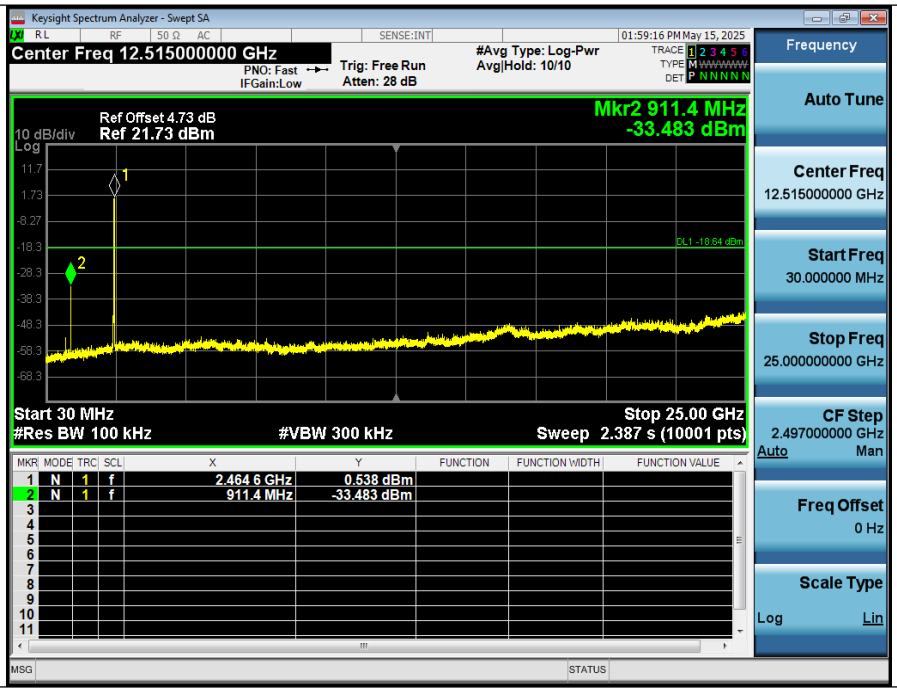
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2437



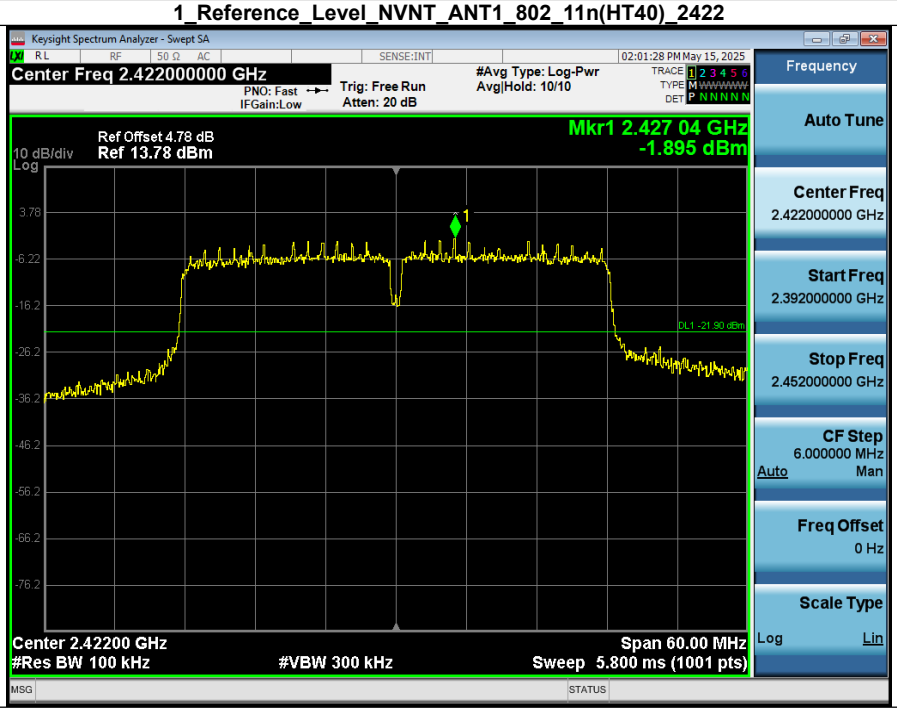
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462



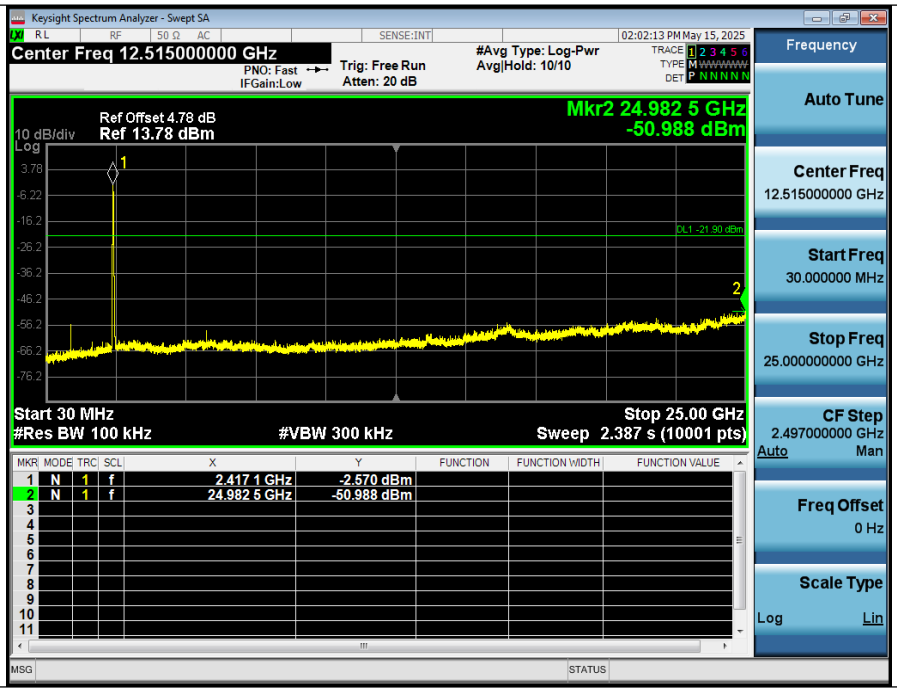
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2462



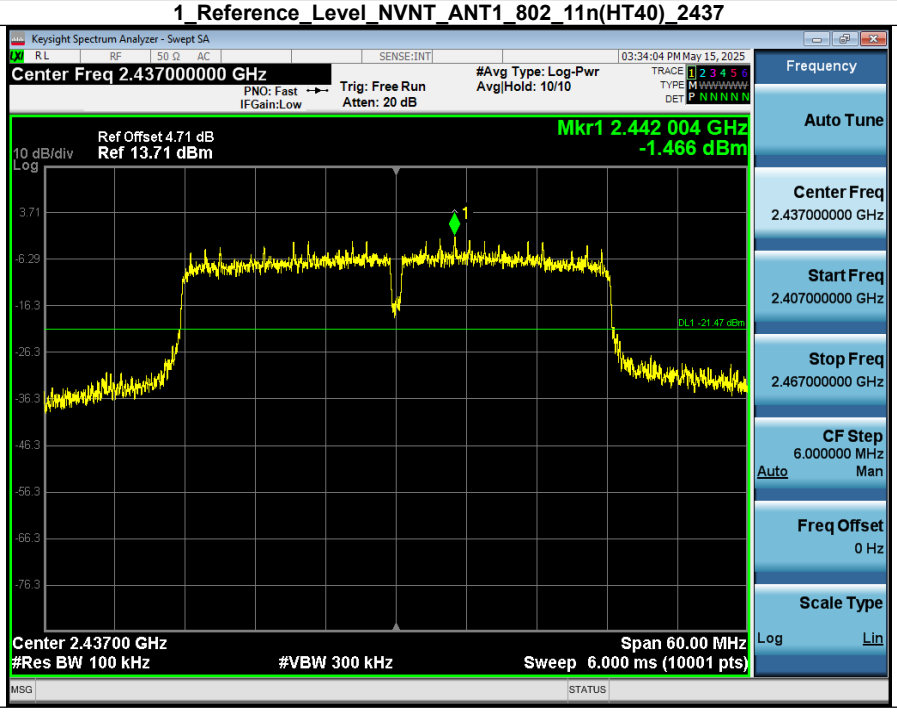
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



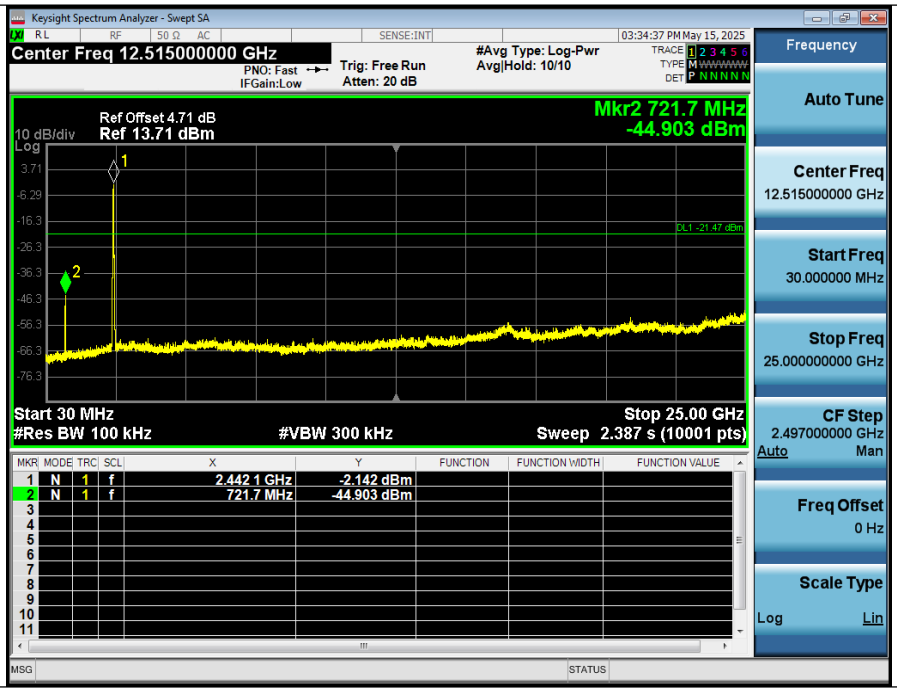
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2422



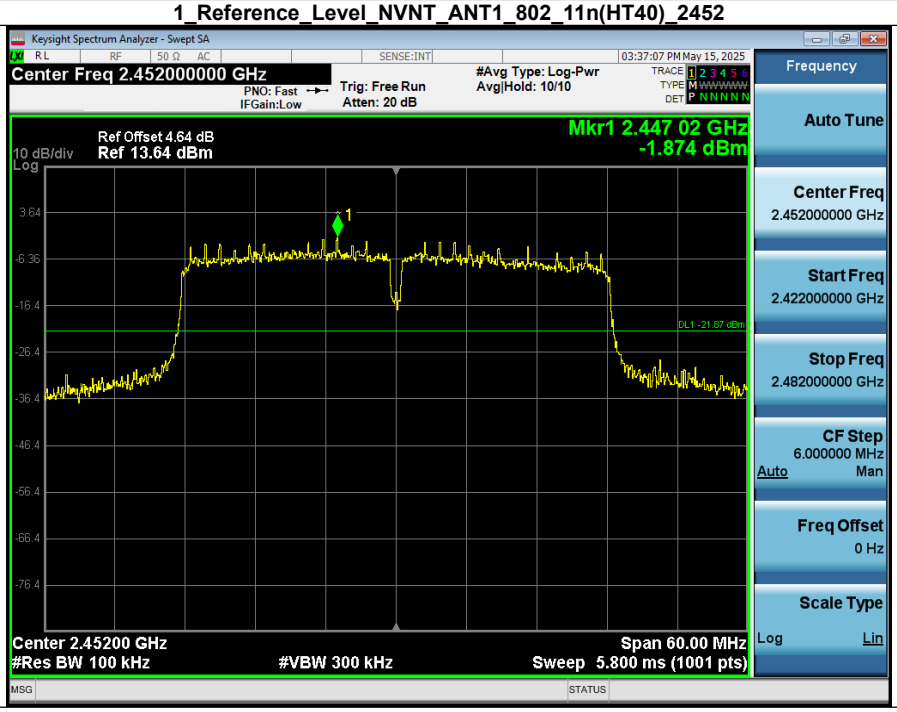
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2437



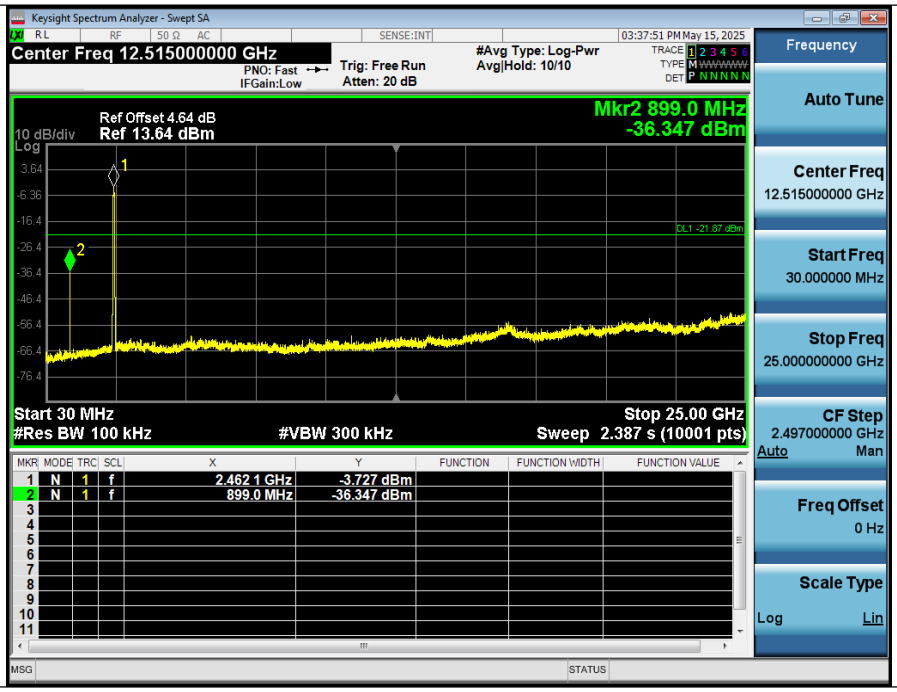
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2437



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: 20 dB
#Avg Type: Log-Pwr
Avg|Hold: 10/10
03:37:51 PM May 15, 2025
Ref Offset 4.64 dB
10 dB/div Ref 13.64 dBm
Mkr2 899.0 MHz
-36.347 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 2.462 1 GHz -3.727 dBm
2 N 1 f 899.0 MHz -36.347 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