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FCC ID:2BNJW-X25
FCC_2.4G_WIFI (Part15.247) Test Data

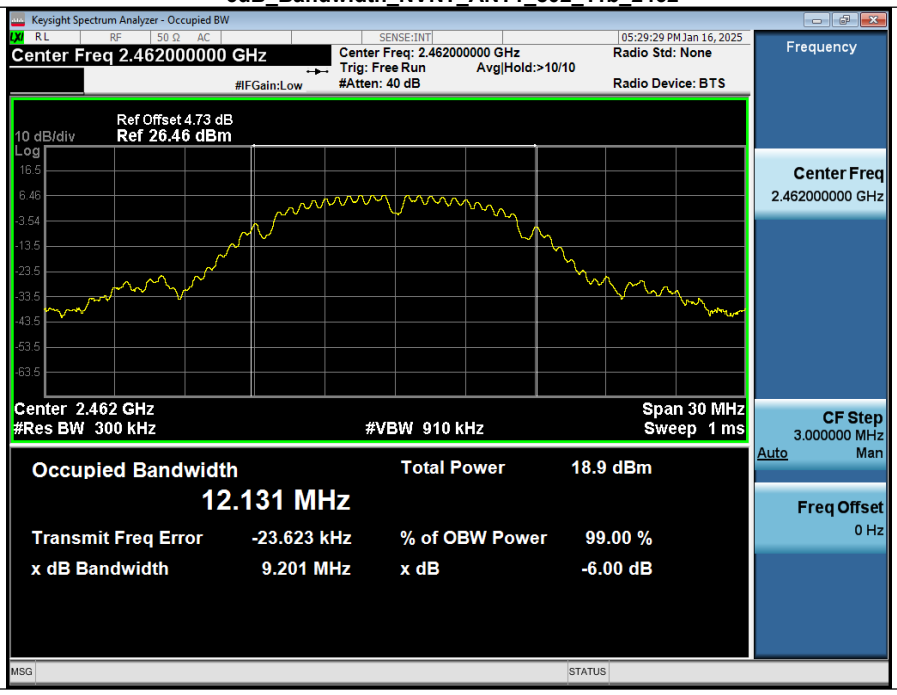
1. -6dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	9.16	500	Pass
NVNT	ANT1	802.11b	2437.00	9.20	500	Pass
NVNT	ANT1	802.11b	2462.00	9.20	500	Pass
NVNT	ANT1	802.11g	2412.00	16.37	500	Pass
NVNT	ANT1	802.11g	2437.00	16.50	500	Pass
NVNT	ANT1	802.11g	2462.00	16.48	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.21	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.45	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.33	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	36.00	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	35.99	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	35.99	500	Pass

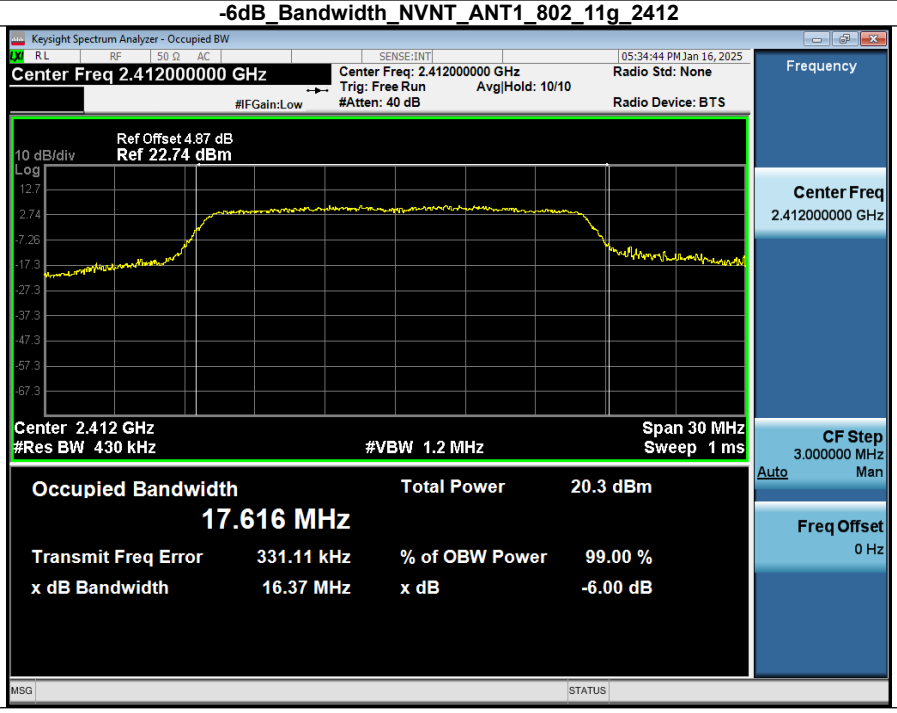
-6dB_Bandwidth_NVNT_ANT1_802_11b_2412

-6dB_Bandwidth_NVNT_ANT1_802_11b_2437

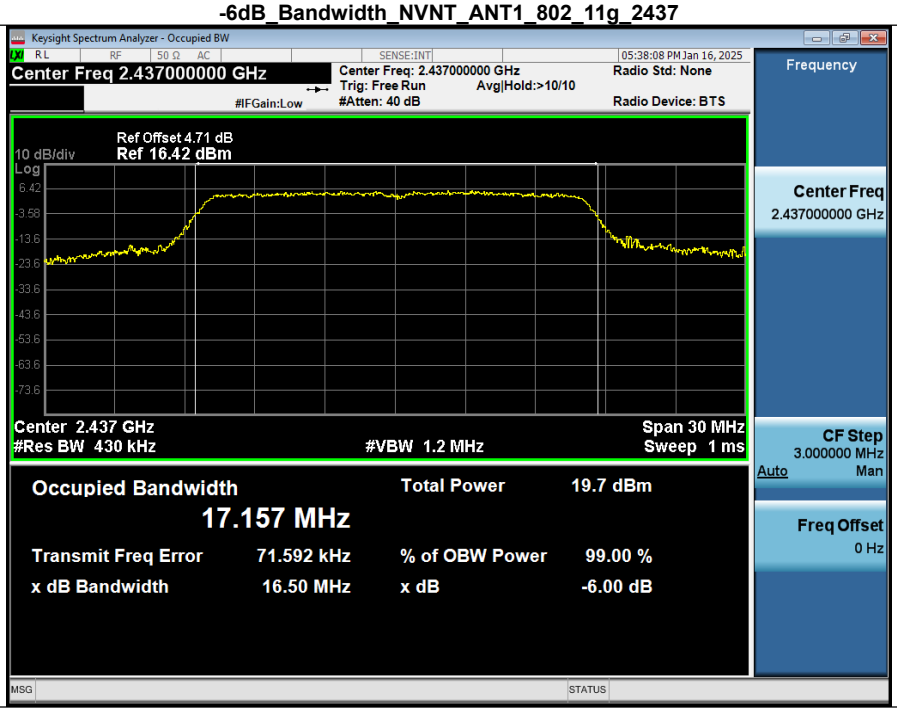
-6dB_Bandwidth_NVNT_ANT1_802_11b_2462



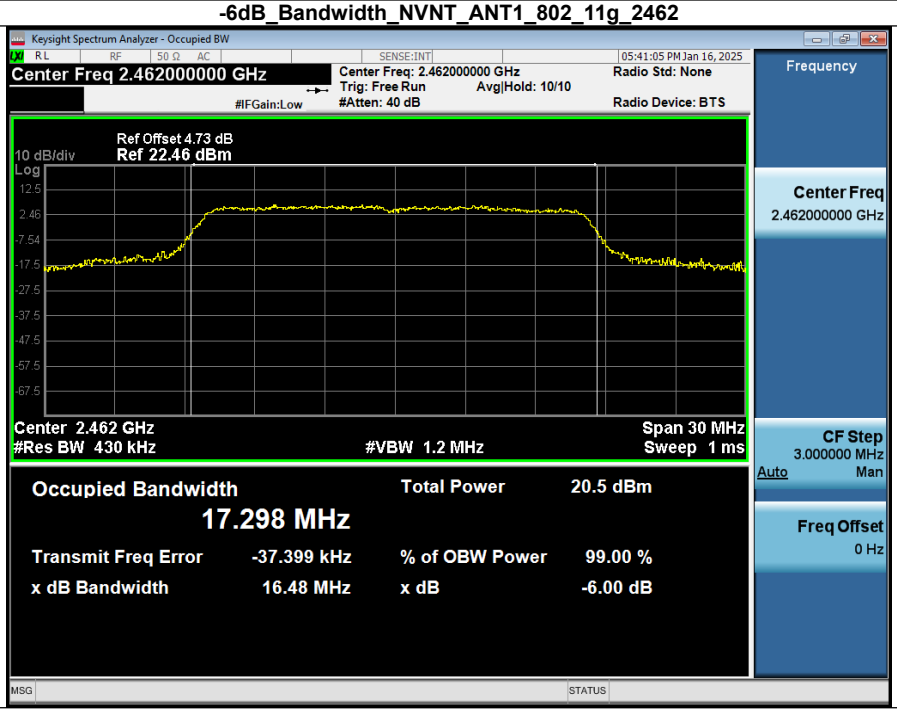
-6dB_Bandwidth_NVNT_ANT1_802_11g_2412



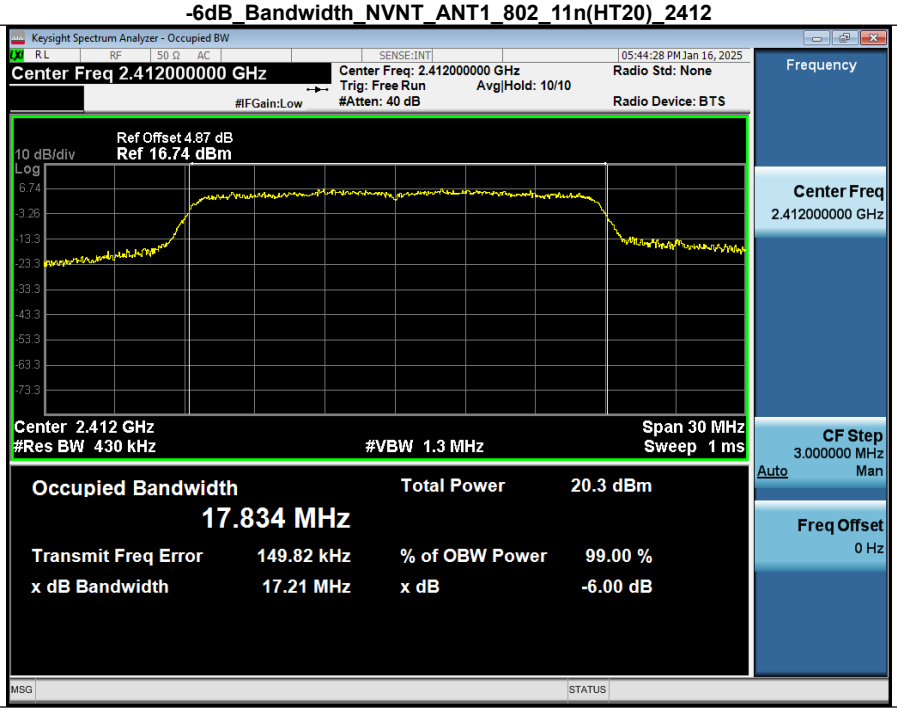
-6dB_Bandwidth_NVNT_ANT1_802_11g_2437



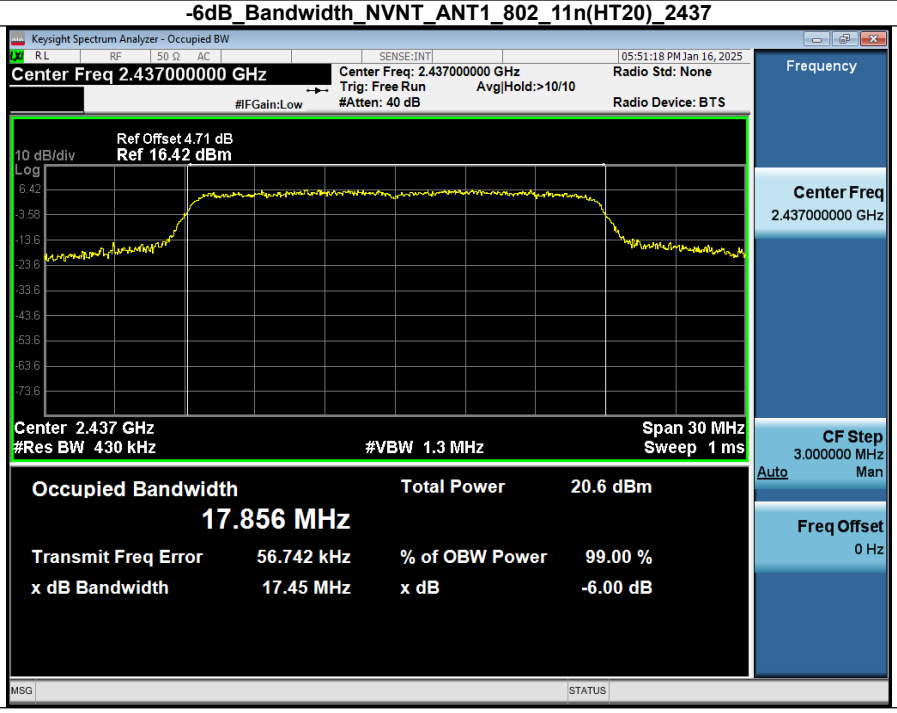
-6dB_Bandwidth_NVNT_ANT1_802_11g_2462



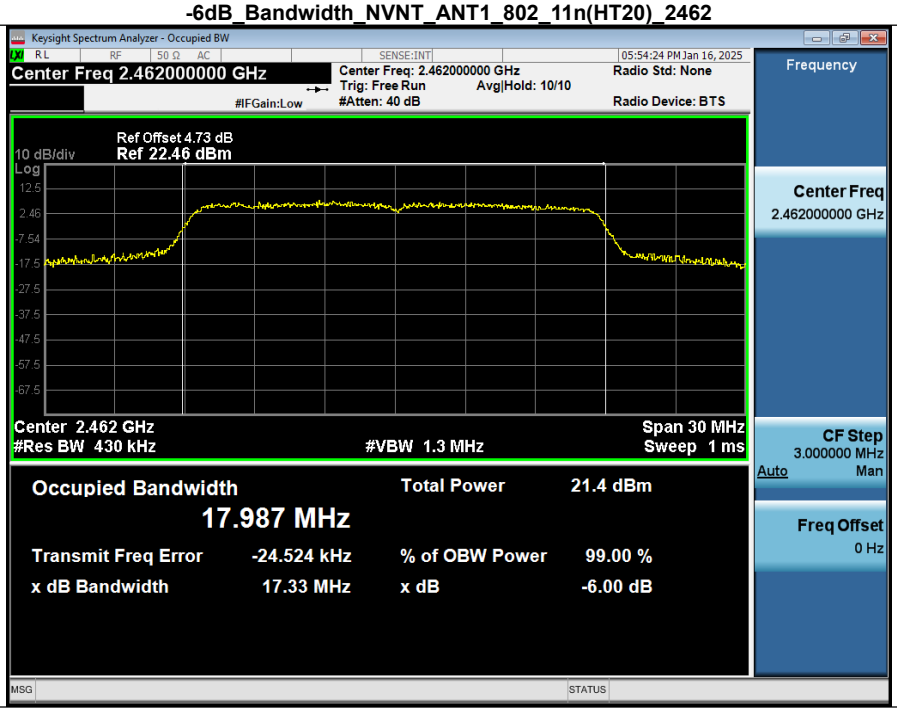
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



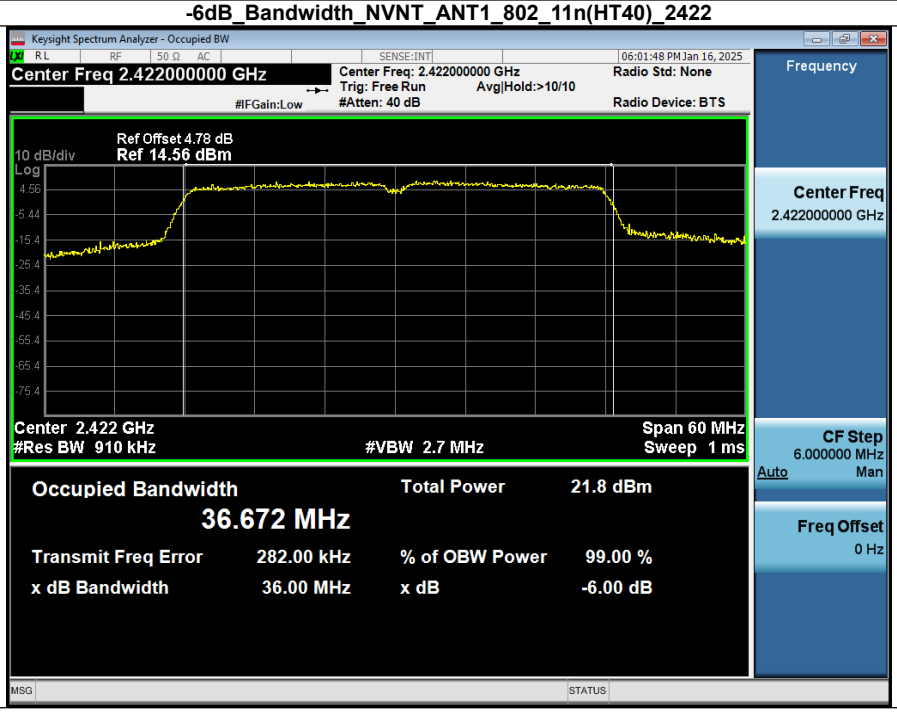
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



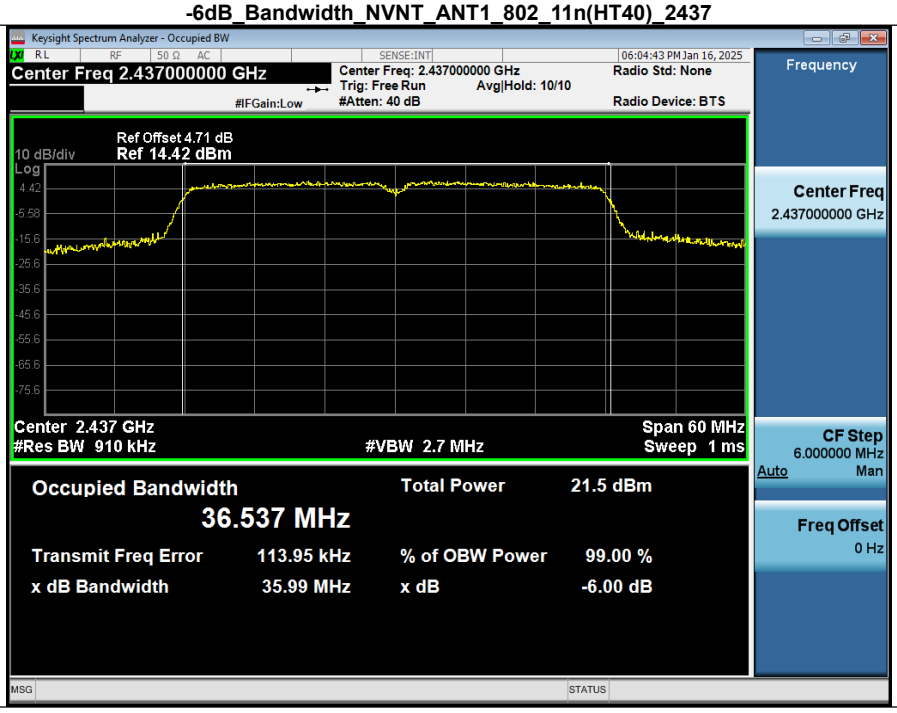
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



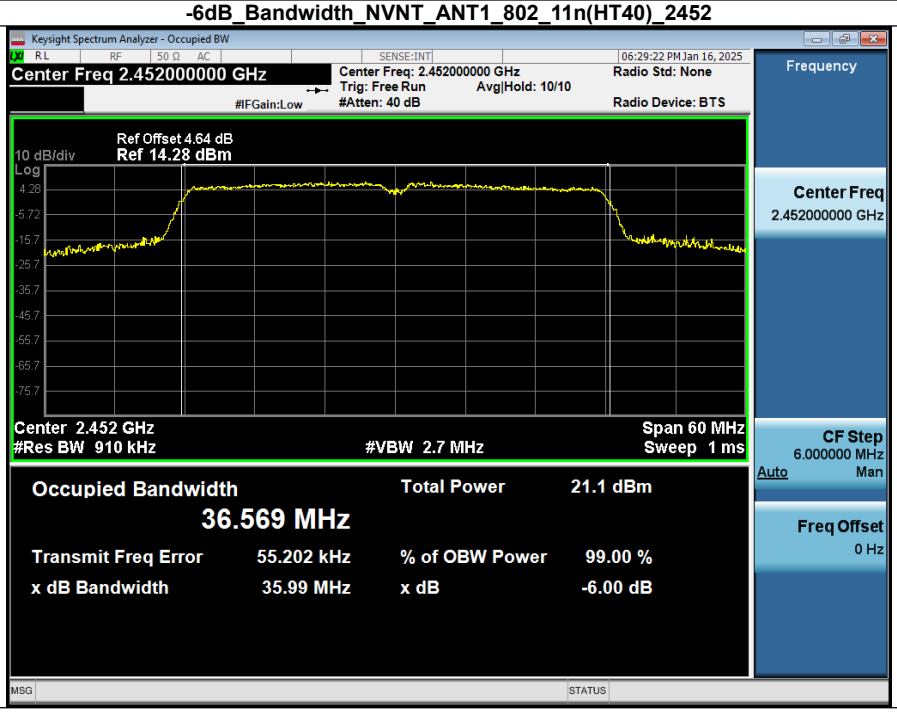
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



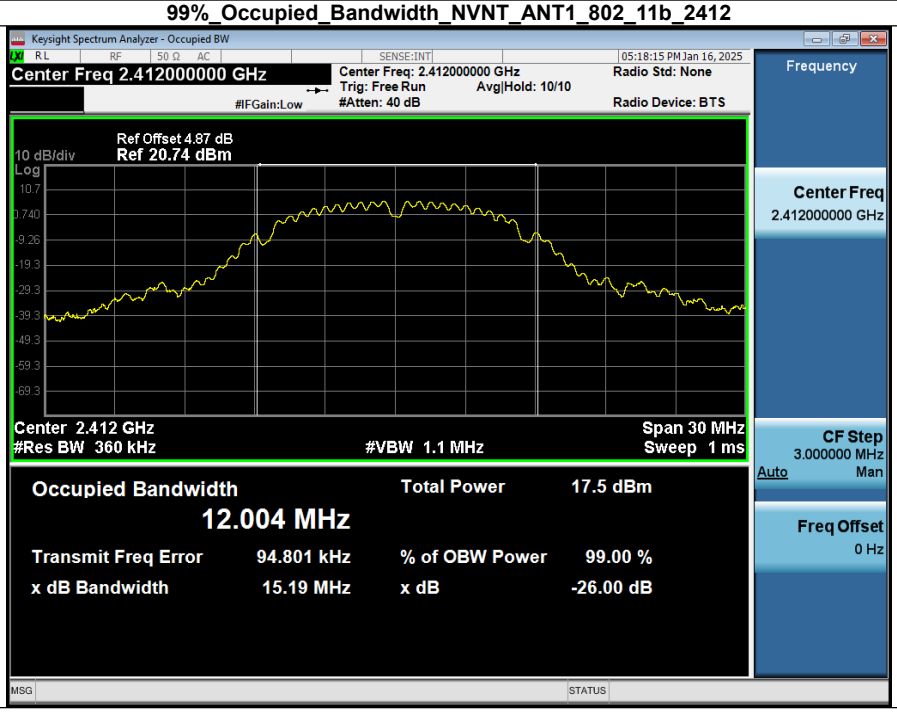
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



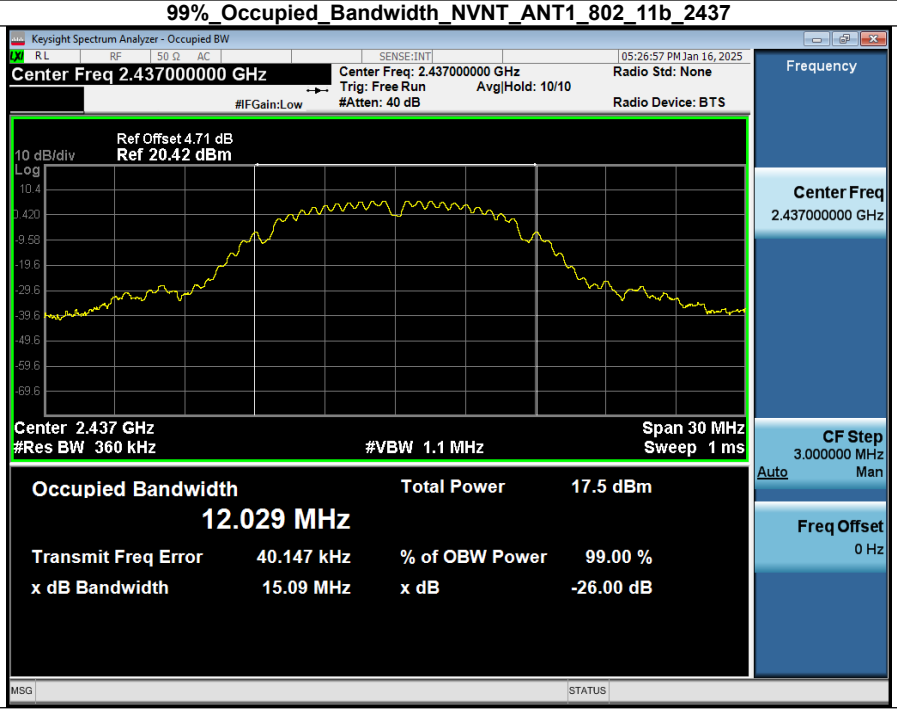
2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	802.11b	2412.00	12.004
NVNT	ANT1	802.11b	2437.00	12.029
NVNT	ANT1	802.11b	2462.00	12.144
NVNT	ANT1	802.11g	2412.00	18.288
NVNT	ANT1	802.11g	2437.00	17.471
NVNT	ANT1	802.11g	2462.00	17.844
NVNT	ANT1	802.11n(HT20)	2412.00	18.047
NVNT	ANT1	802.11n(HT20)	2437.00	18.015
NVNT	ANT1	802.11n(HT20)	2462.00	18.258
NVNT	ANT1	802.11n(HT40)	2422.00	36.879
NVNT	ANT1	802.11n(HT40)	2437.00	36.655
NVNT	ANT1	802.11n(HT40)	2452.00	36.612

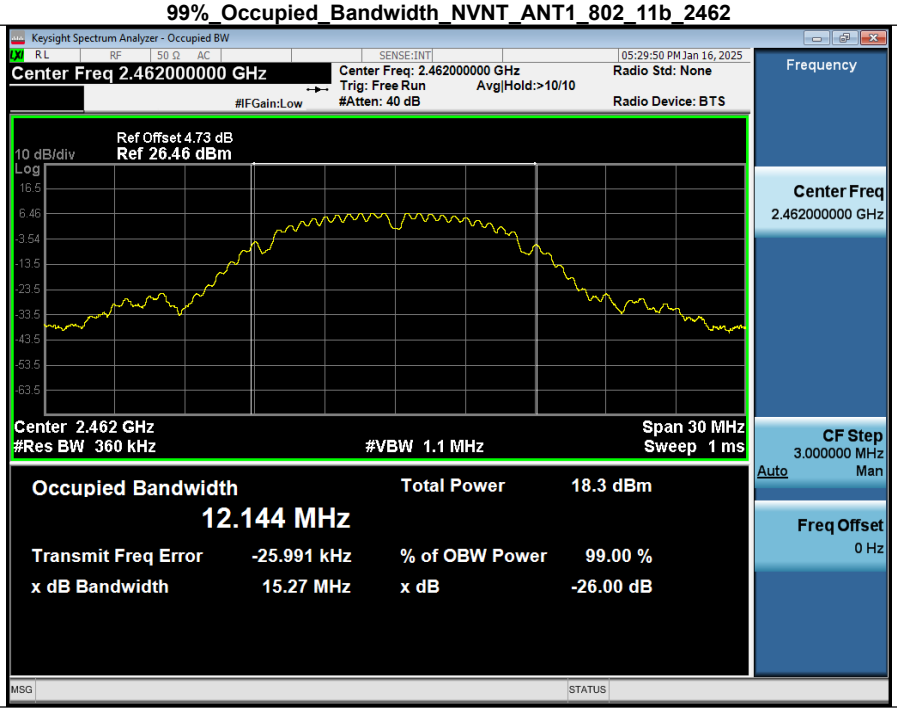
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2412



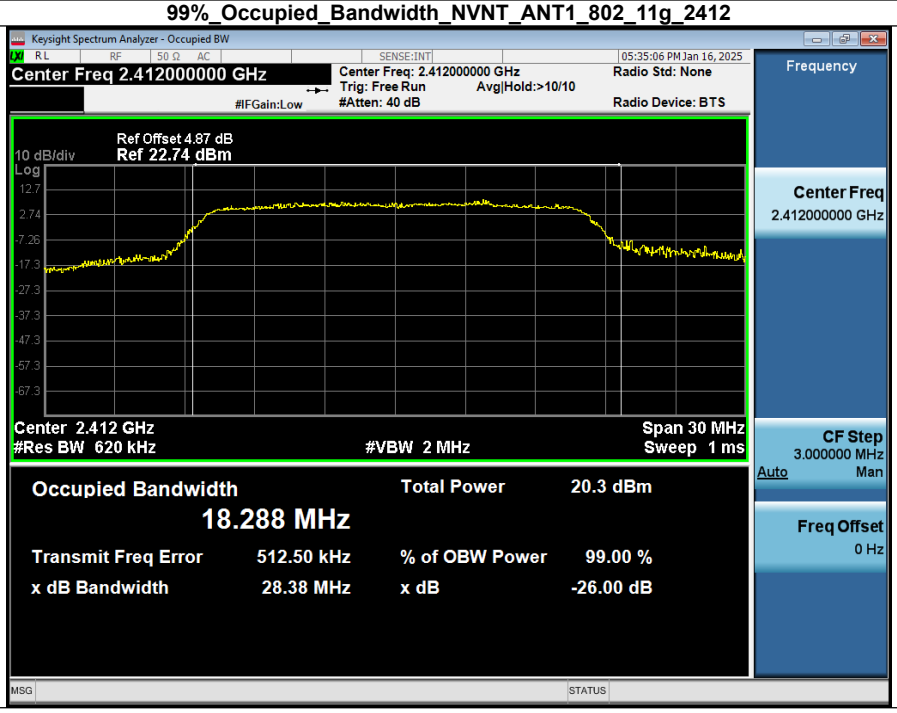
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2437



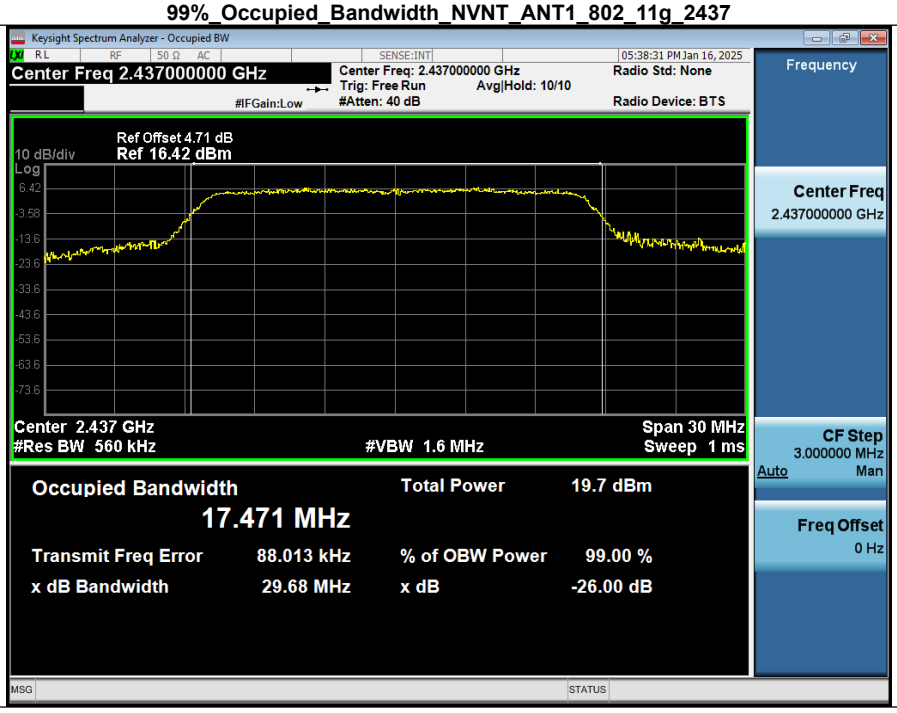
99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2462



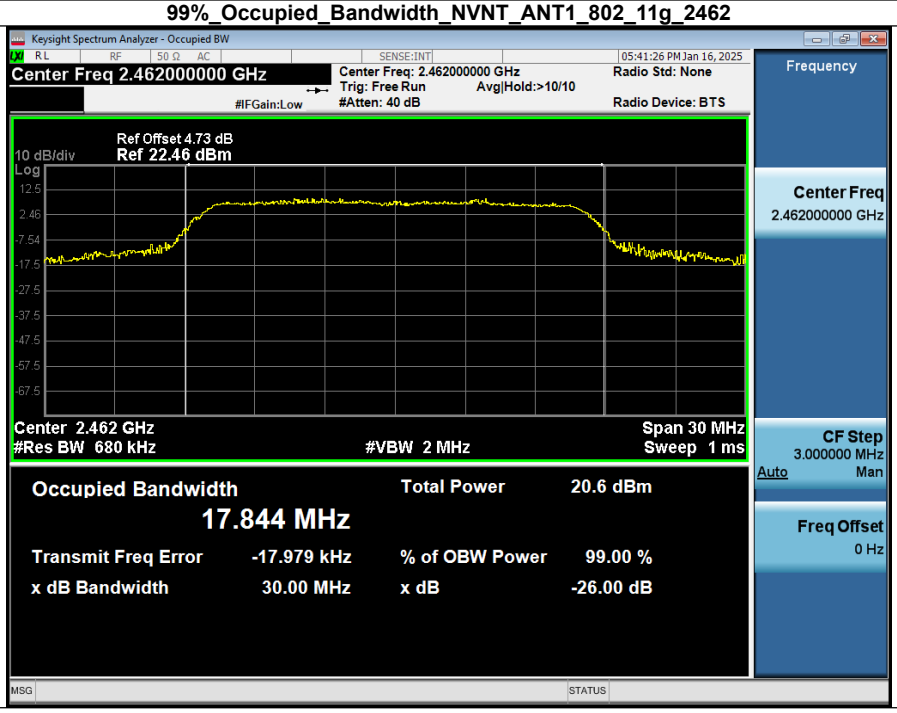
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2412



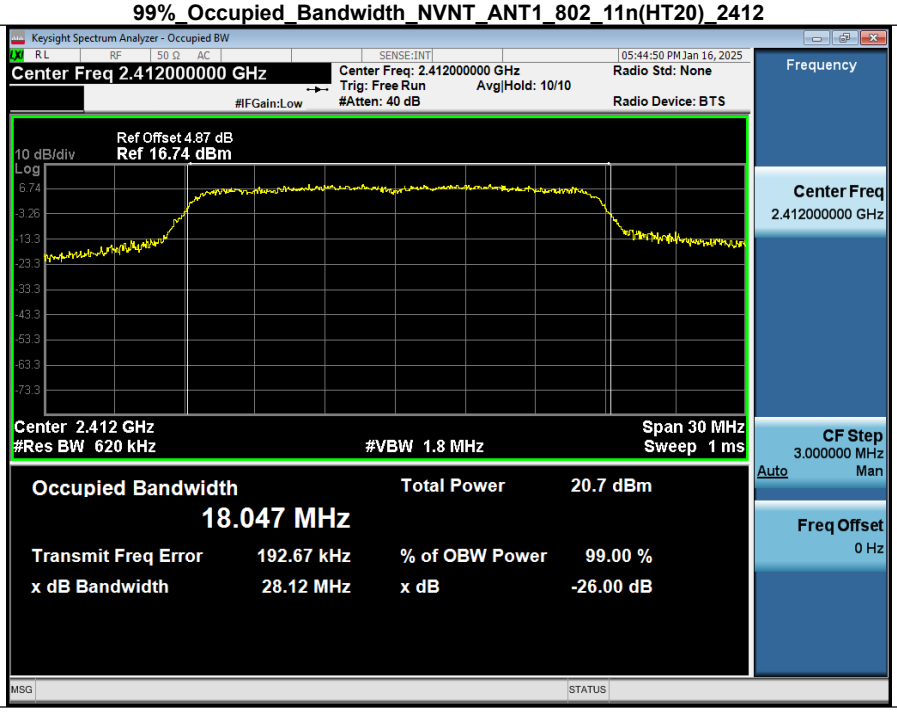
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2437



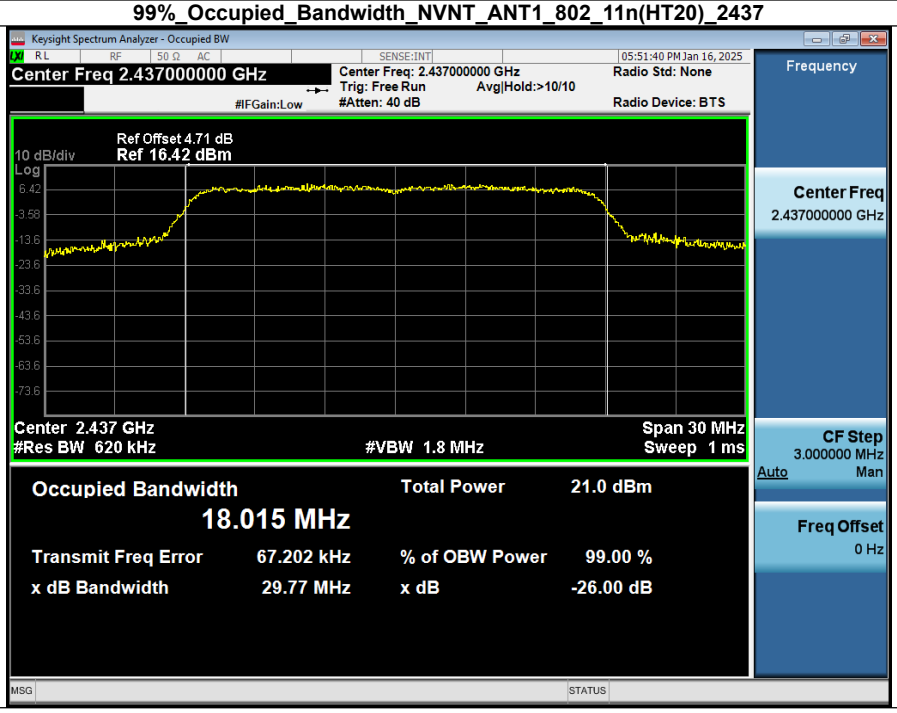
99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2462



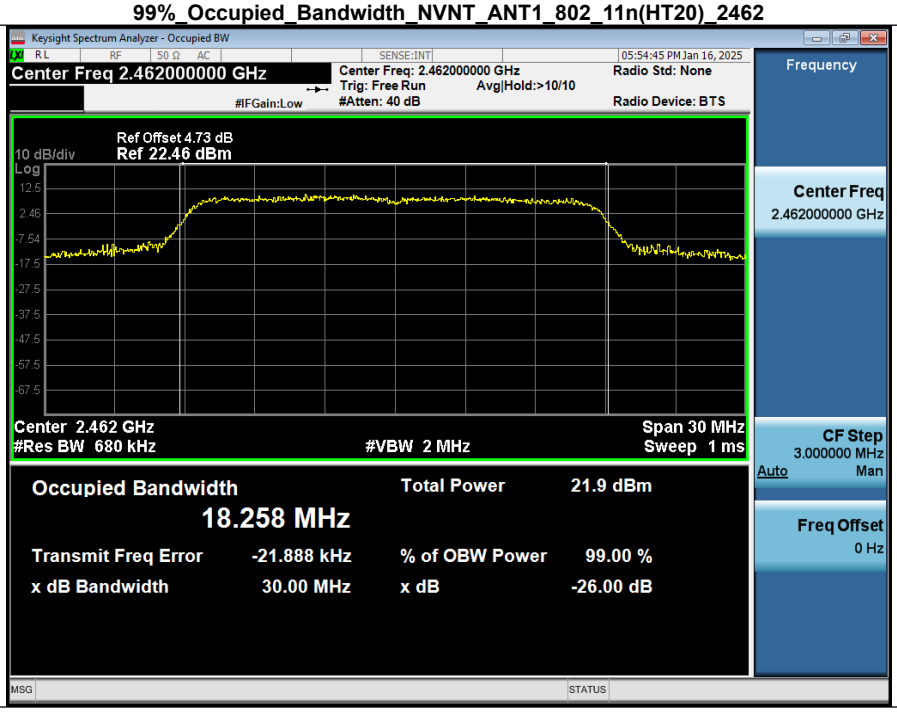
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



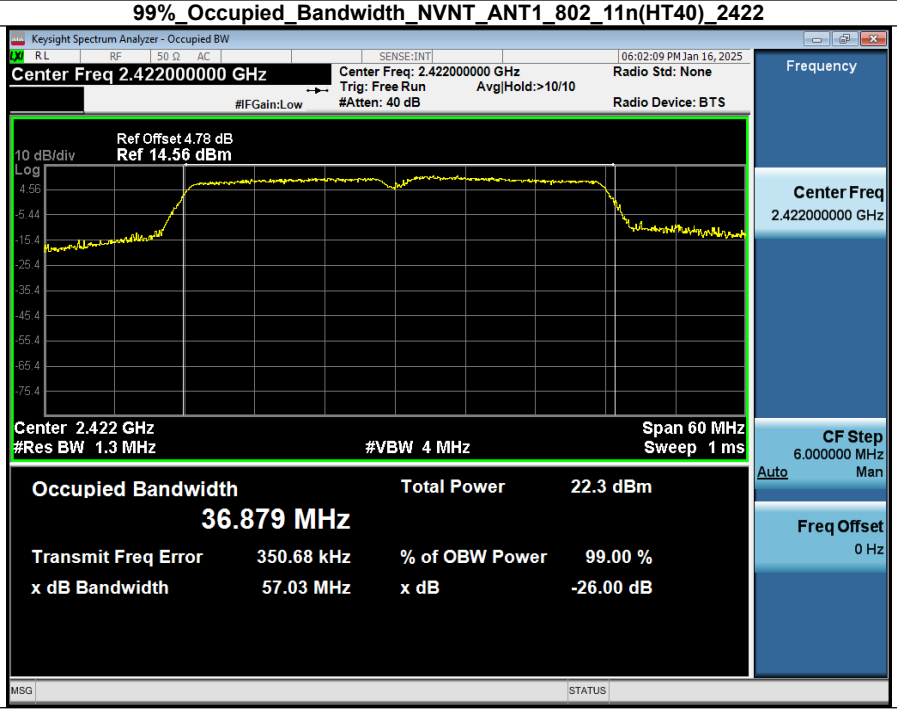
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



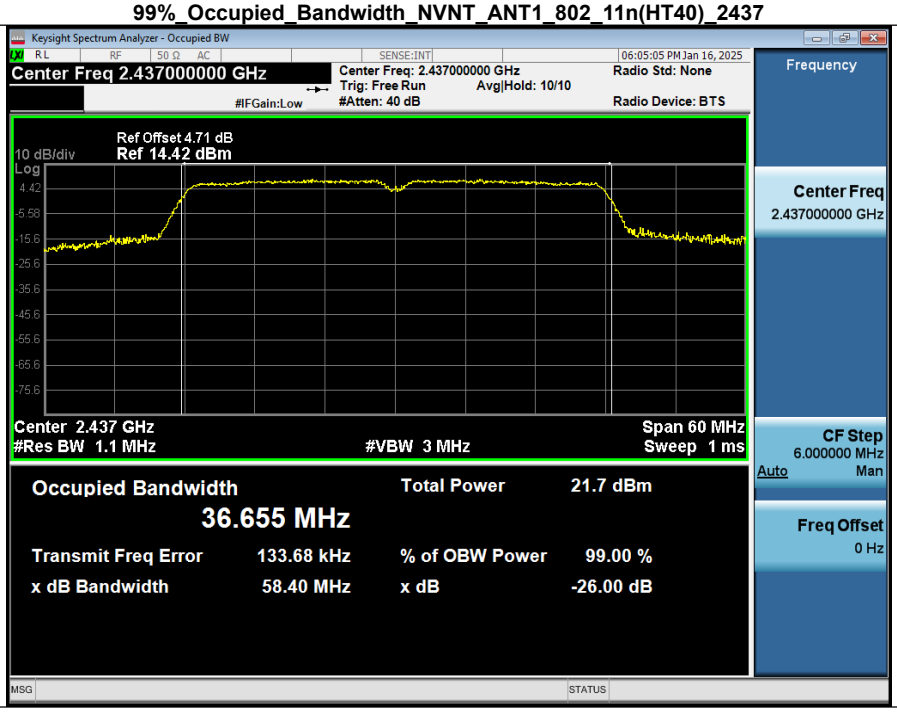
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



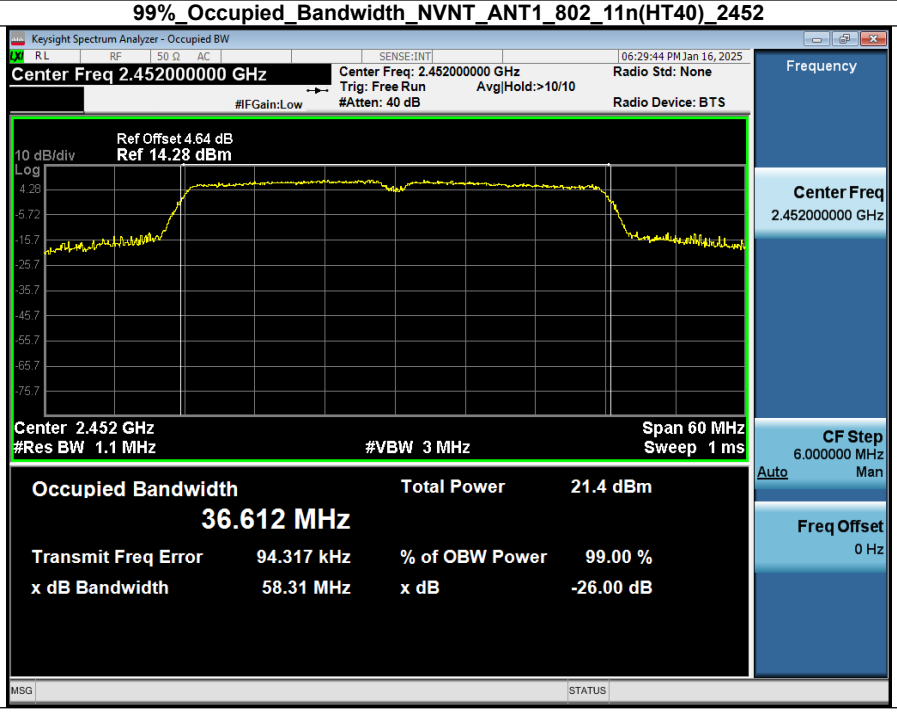
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



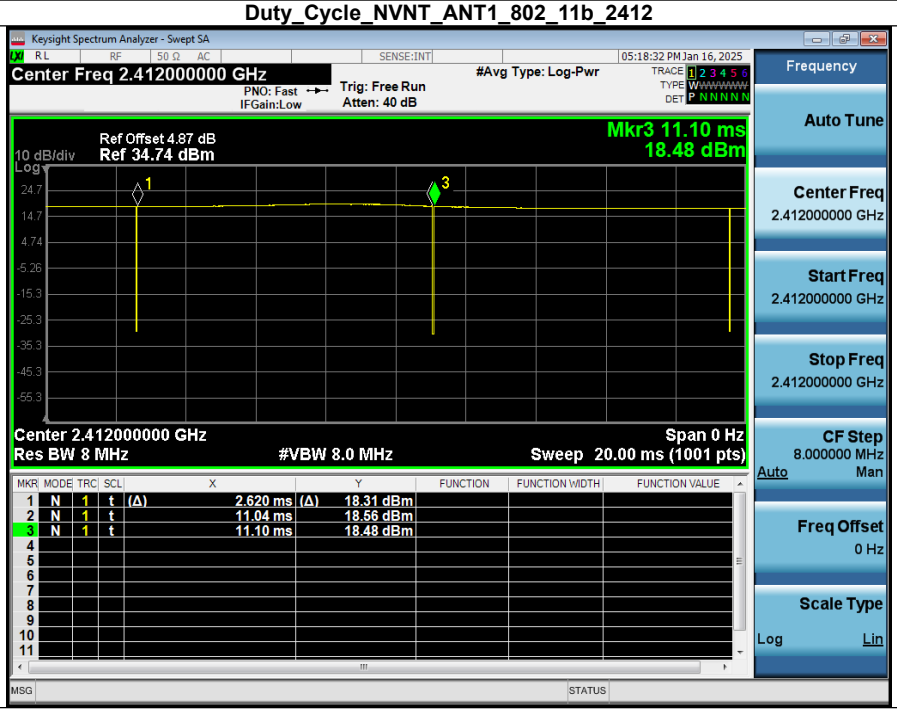
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



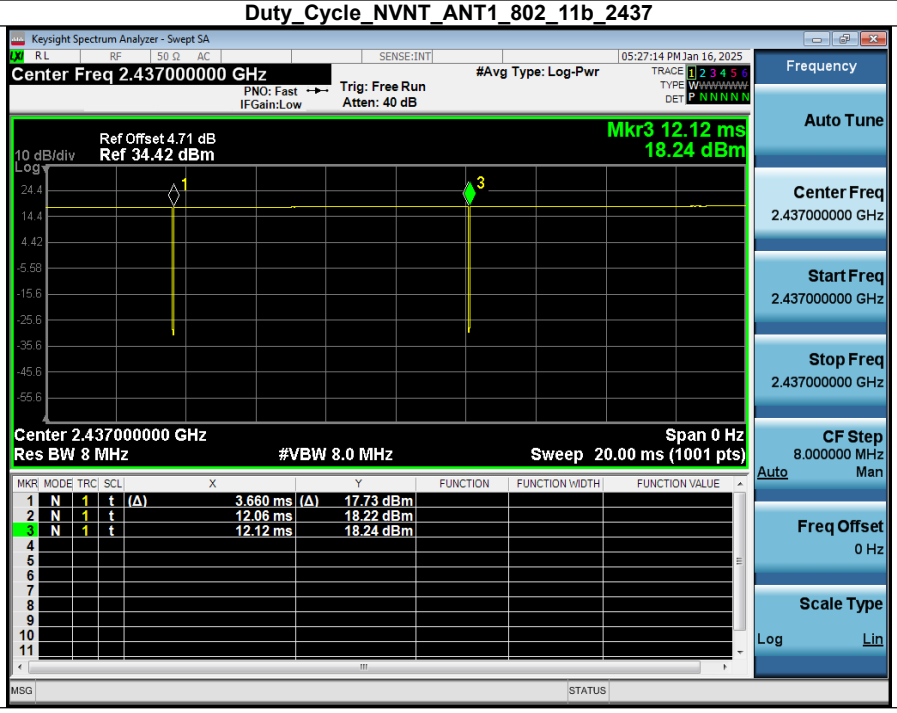
3. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	99.53	0.00
NVNT	ANT1	802.11b	2437.00	99.53	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	97.26	0.12
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	96.77	0.14
NVNT	ANT1	802.11n(HT40)	2422.00	93.75	0.28
NVNT	ANT1	802.11n(HT40)	2437.00	96.88	0.14
NVNT	ANT1	802.11n(HT40)	2452.00	93.75	0.28

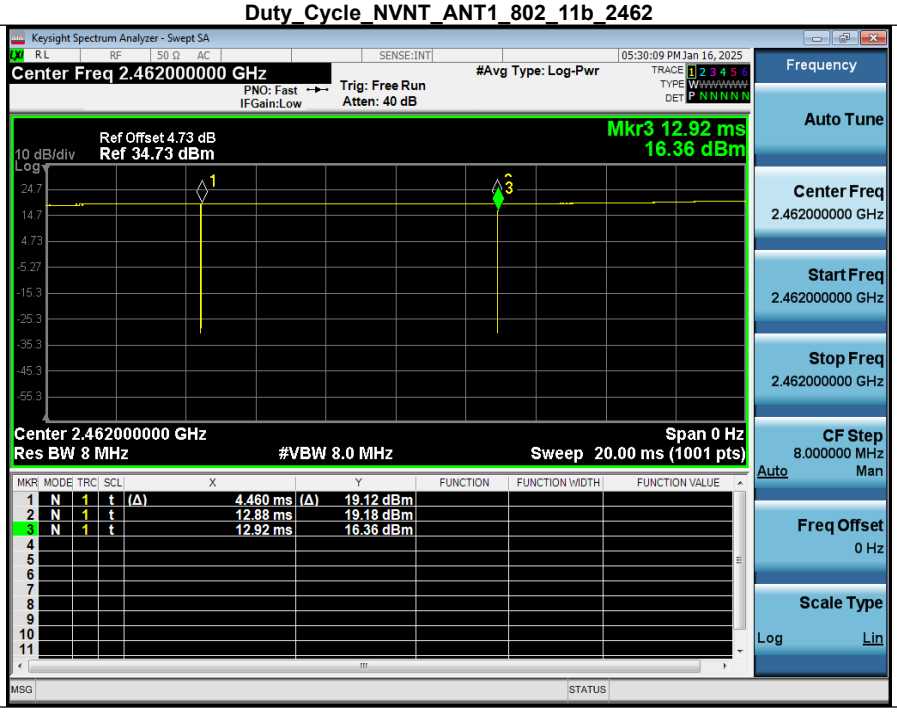
Duty_Cycle_NVNT_ANT1_802_11b_2412



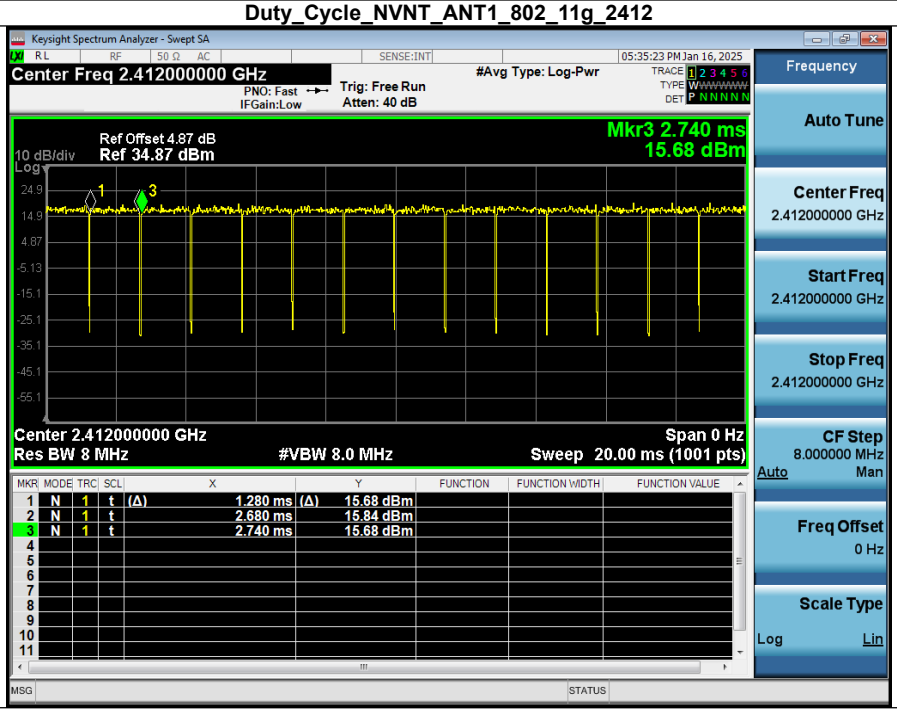
Duty_Cycle_NVNT_ANT1_802_11b_2437



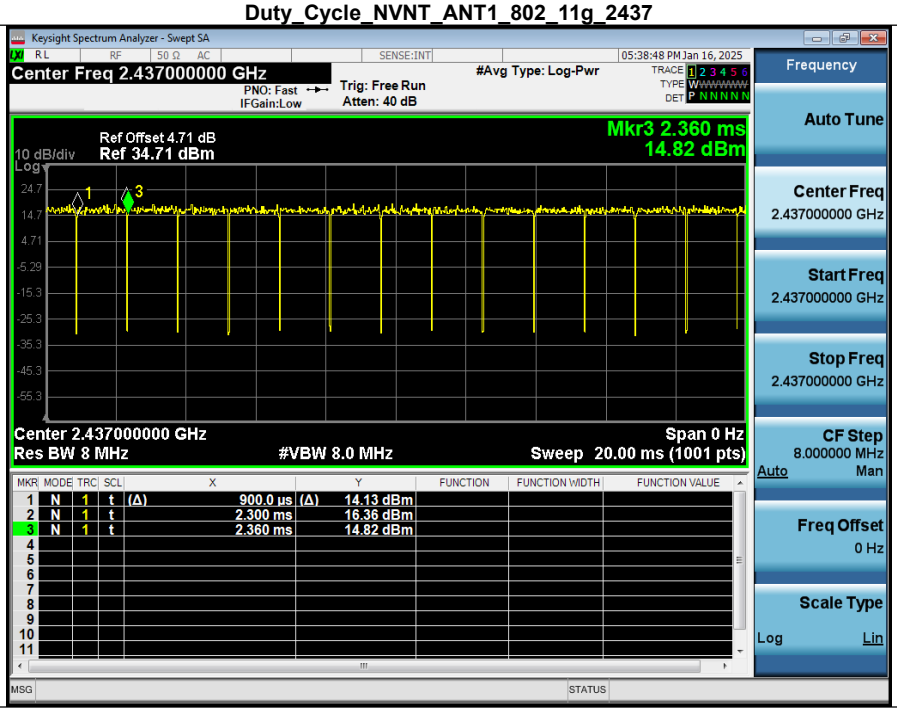
Duty_Cycle_NVNT_ANT1_802_11b_2462



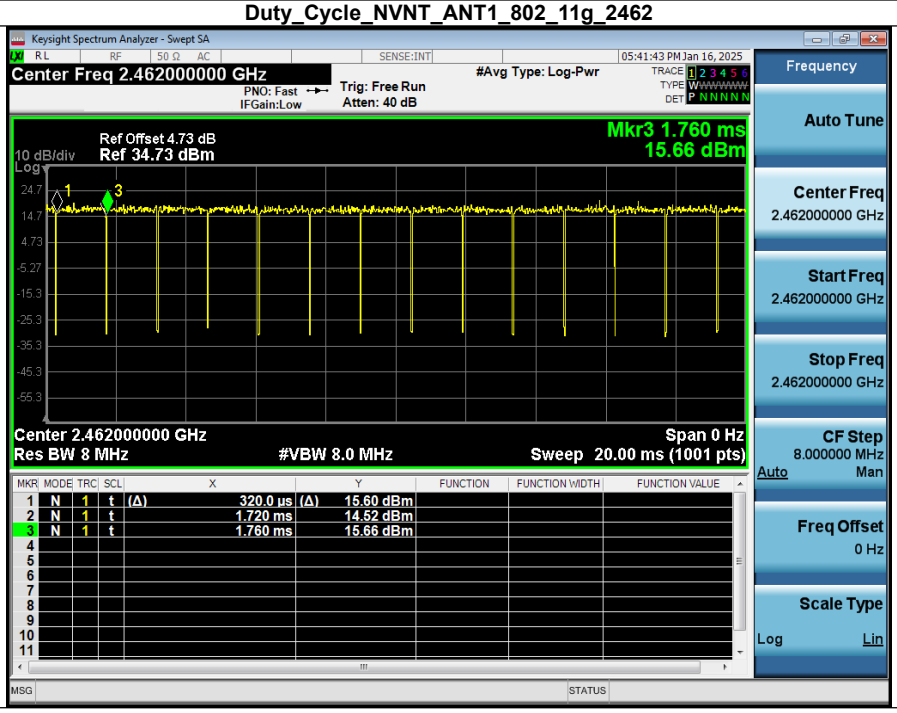
Duty_Cycle_NVNT_ANT1_802_11g_2412



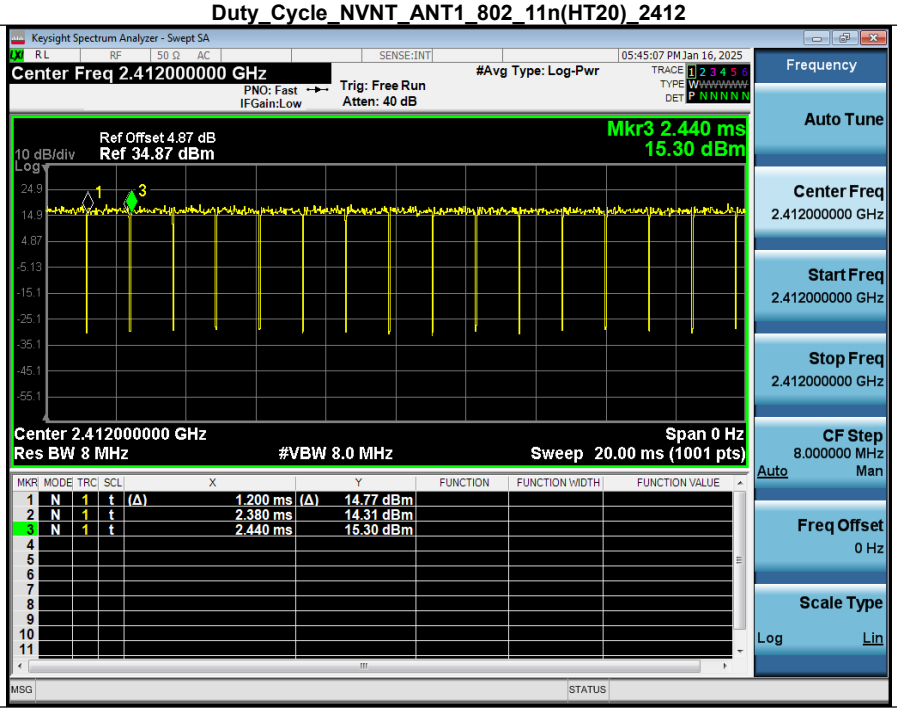
Duty_Cycle_NVNT_ANT1_802_11g_2437



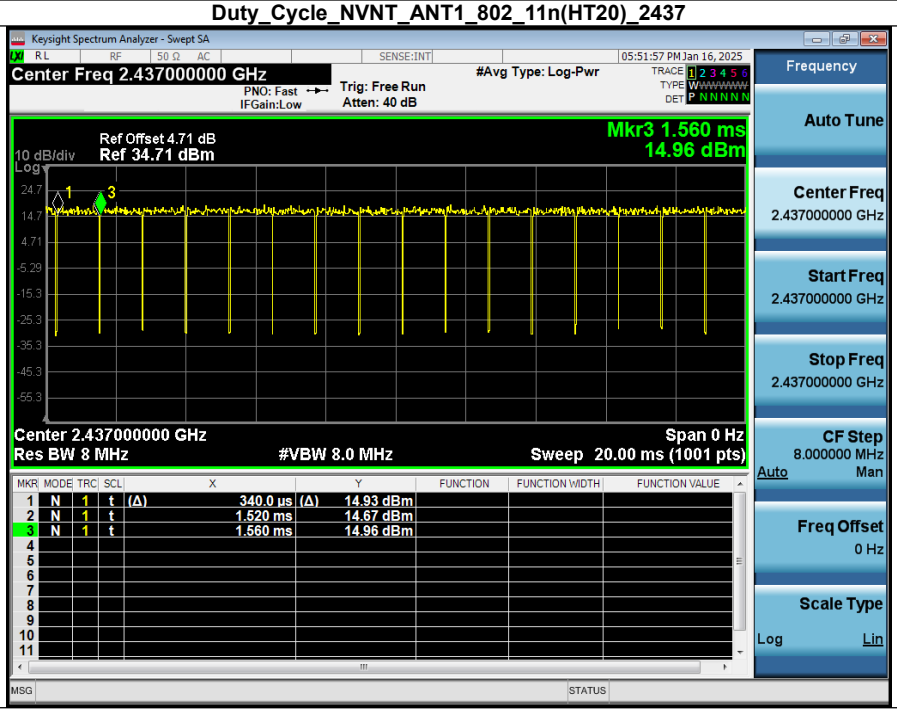
Duty_Cycle_NVNT_ANT1_802_11g_2462



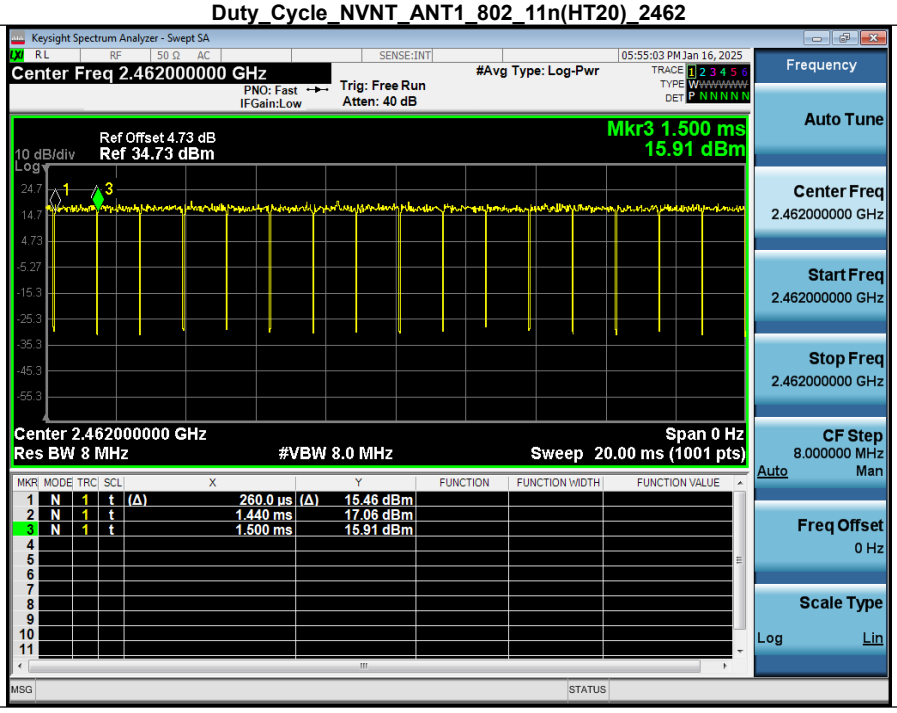
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2412



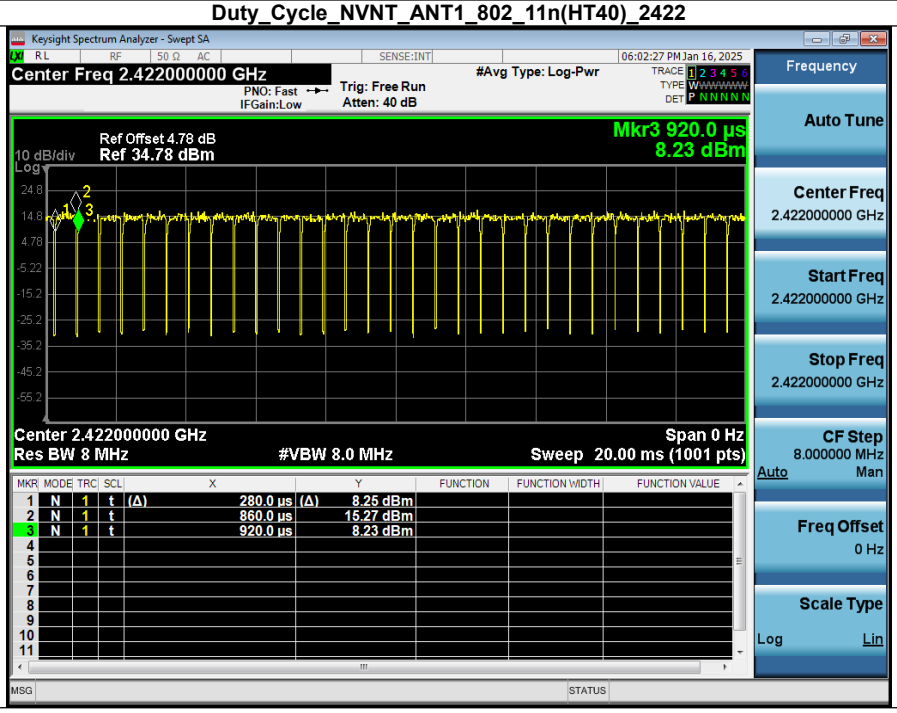
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2437



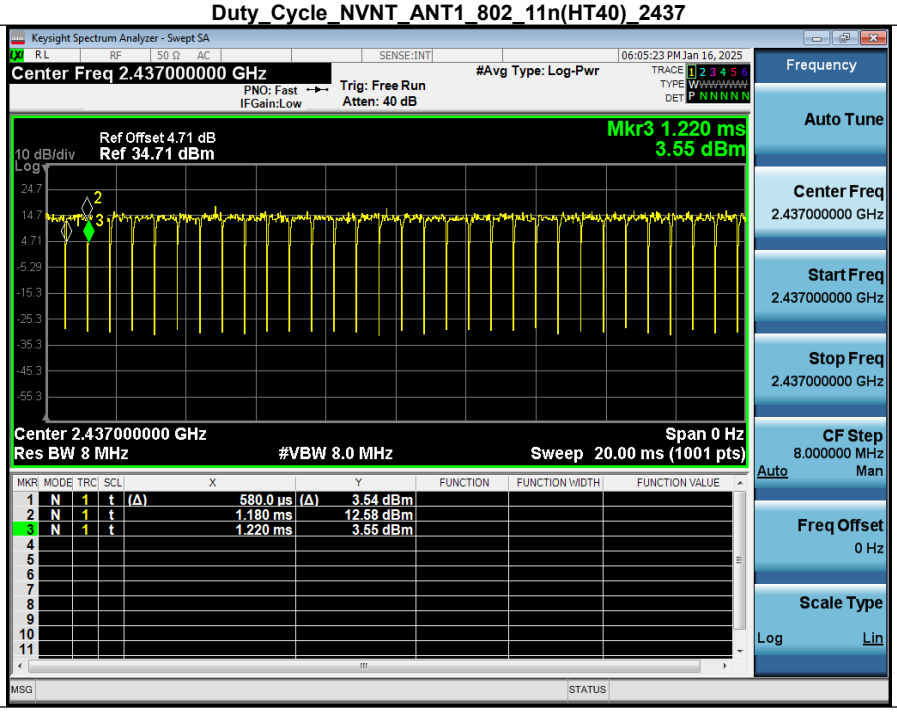
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_2462



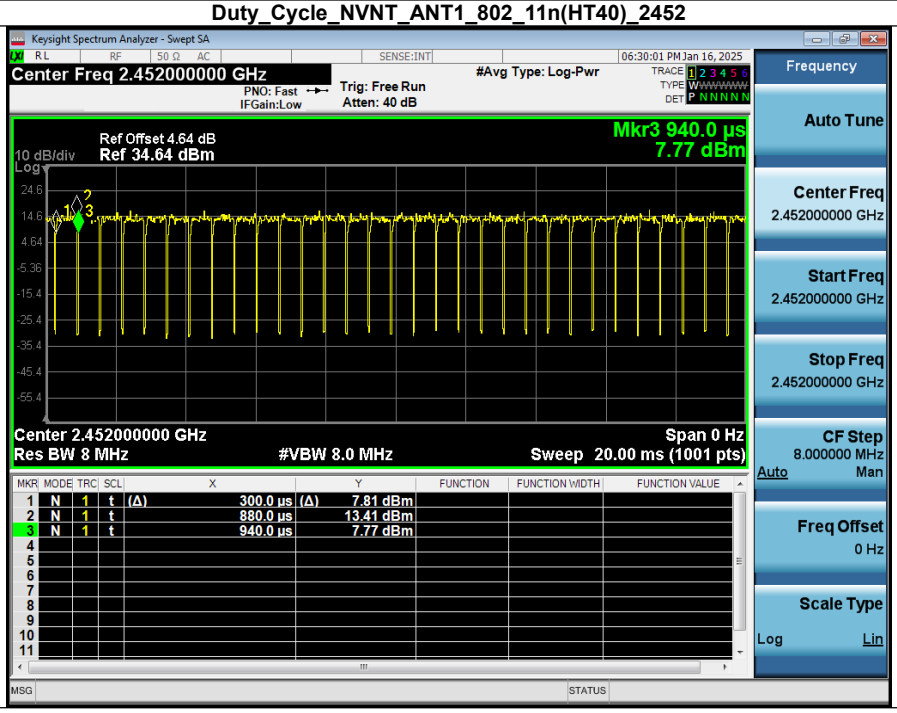
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_2422



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	Conducted Power(dBm)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	Peak	16.69	16.69	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	16.65	16.65	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	17.54	17.54	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	19.95	19.95	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	19.31	19.31	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	20.20	20.20	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	20.05	20.05	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	20.29	20.29	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	21.15	21.15	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	Peak	20.89	20.89	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	Peak	20.55	20.55	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	Peak	20.23	20.23	30	Pass

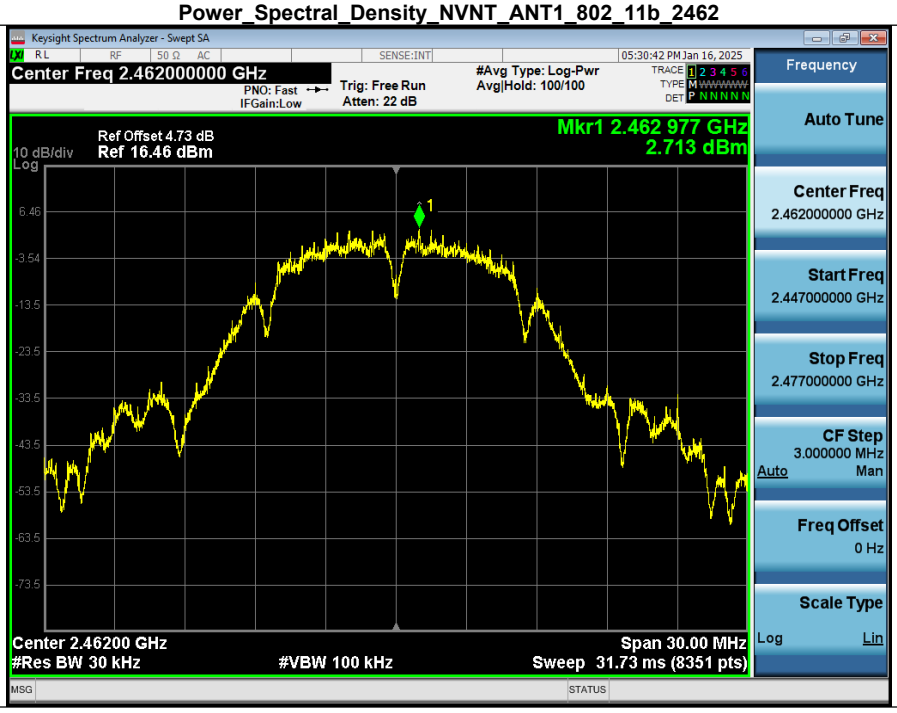
5. Power Spectral Density

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	3.75	N/A	-10.00	-6.25	8	Pass
NVNT	ANT1	802.11b	2437.00	1.31	N/A	-10.00	-8.69	8	Pass
NVNT	ANT1	802.11b	2462.00	2.71	N/A	-10.00	-7.29	8	Pass
NVNT	ANT1	802.11g	2412.00	-1.30	N/A	-10.00	-11.30	8	Pass
NVNT	ANT1	802.11g	2437.00	-2.85	N/A	-10.00	-12.85	8	Pass
NVNT	ANT1	802.11g	2462.00	-1.96	N/A	-10.00	-11.96	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-3.16	N/A	-10.00	-13.16	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-2.87	N/A	-10.00	-12.87	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-1.93	N/A	-10.00	-11.93	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-5.57	N/A	-10.00	-15.57	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-6.17	N/A	-10.00	-16.17	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-6.06	N/A	-10.00	-16.06	8	Pass

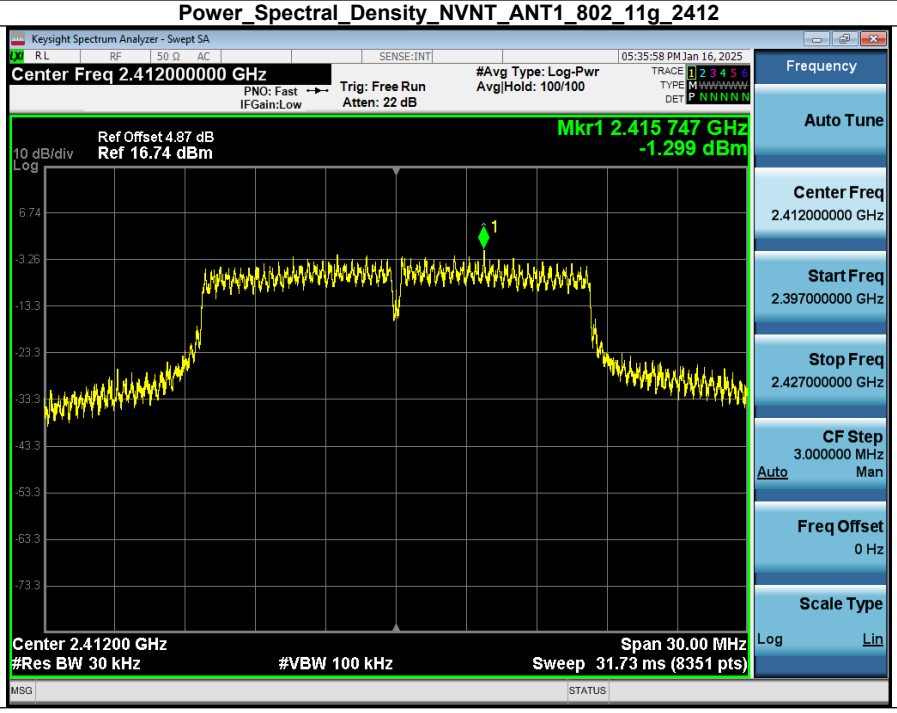
Power_Spectral_Density_NVNT_ANT1_802_11b_2412

Power_Spectral_Density_NVNT_ANT1_802_11b_2437

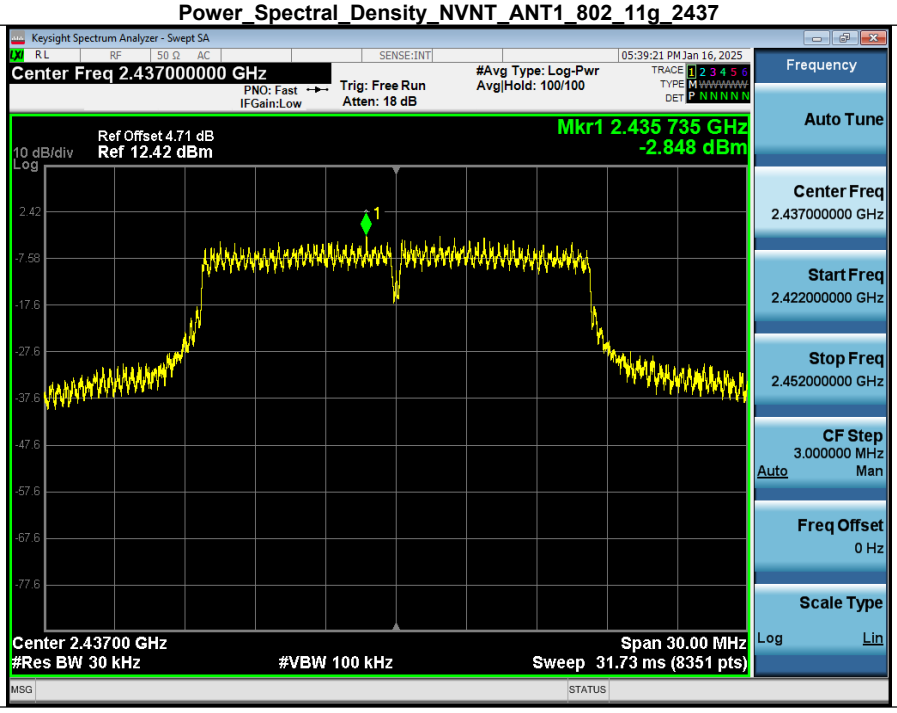
Power_Spectral_Density_NVNT_ANT1_802_11b_2462



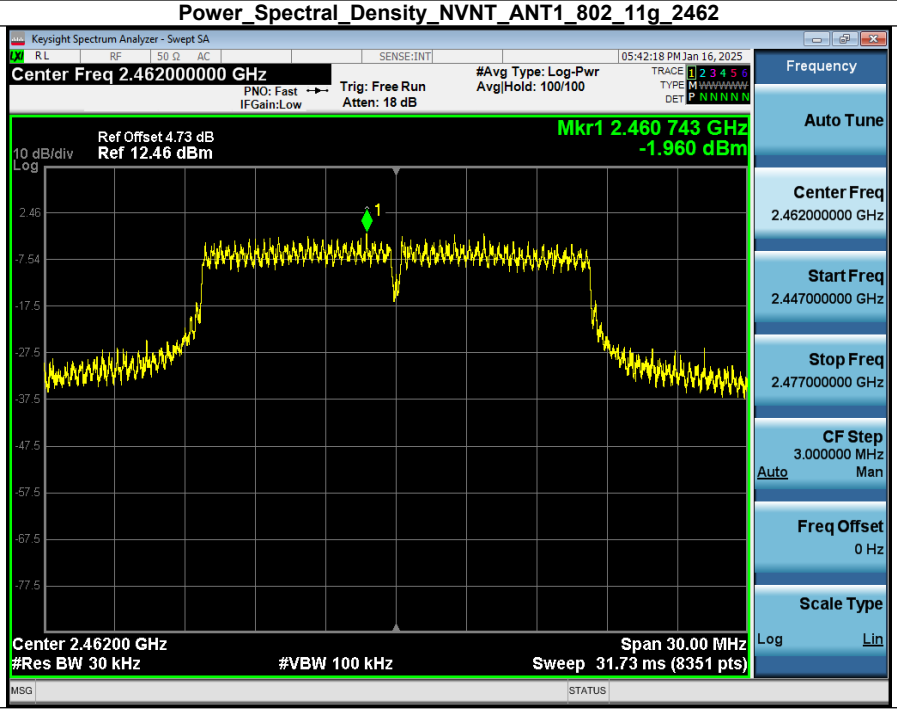
Power_Spectral_Density_NVNT_ANT1_802_11g_2412



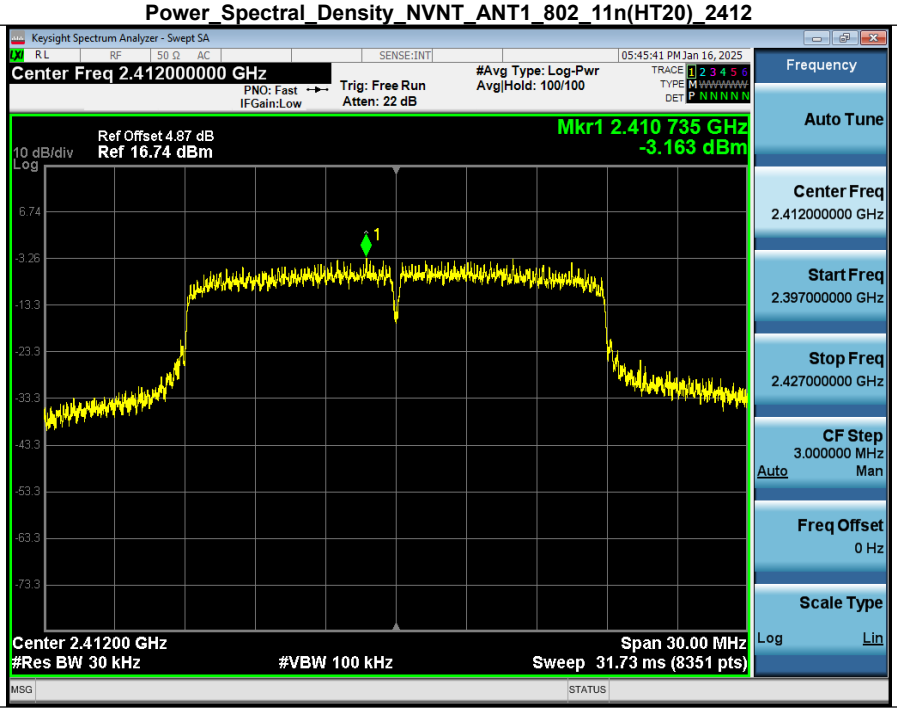
Power_Spectral_Density_NVNT_ANT1_802_11g_2437



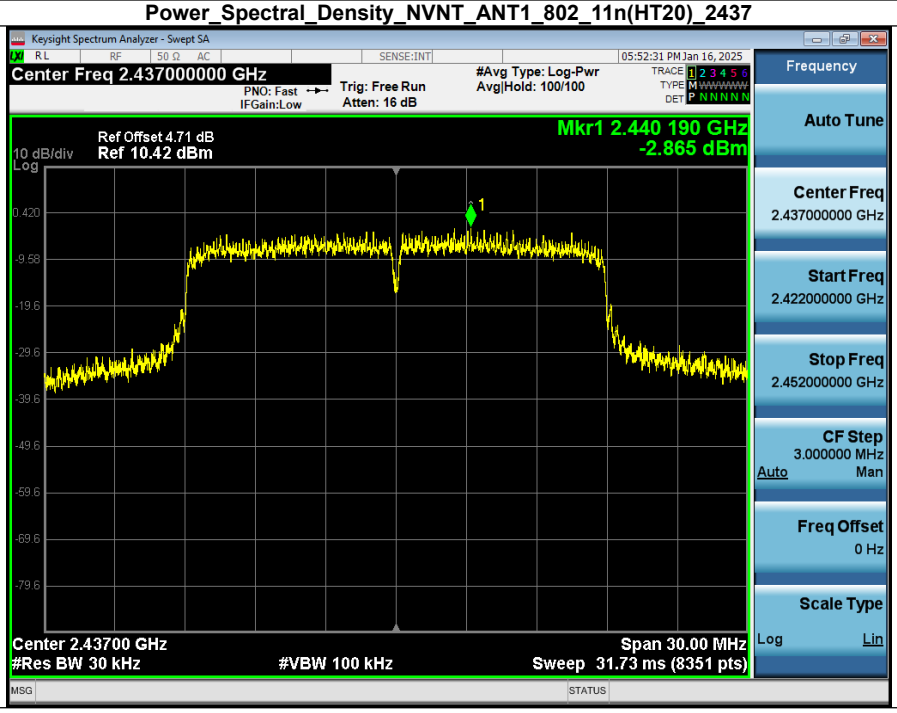
Power_Spectral_Density_NVNT_ANT1_802_11g_2462



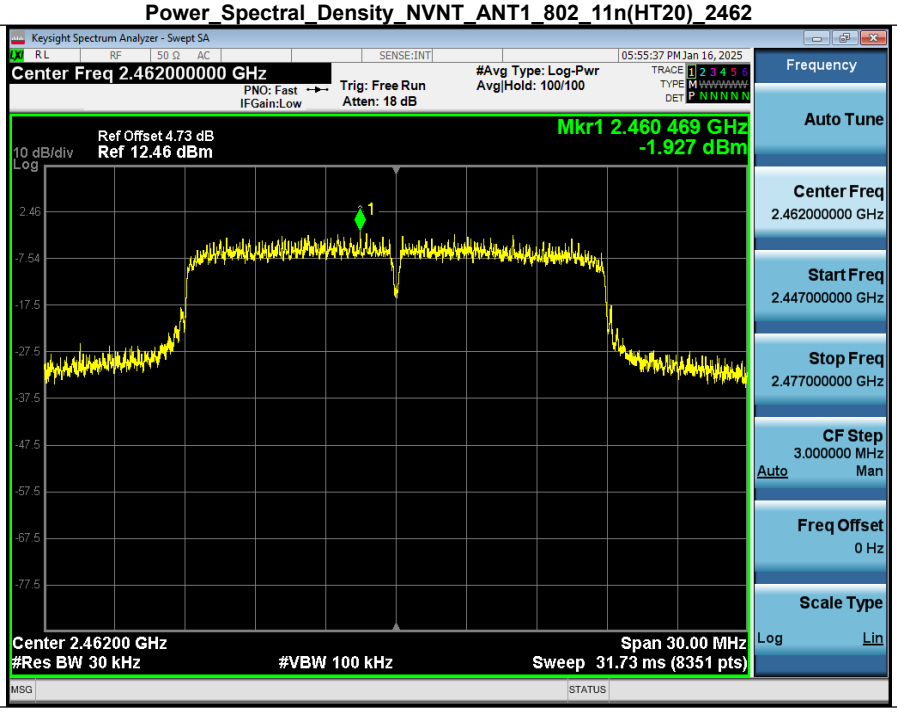
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2412



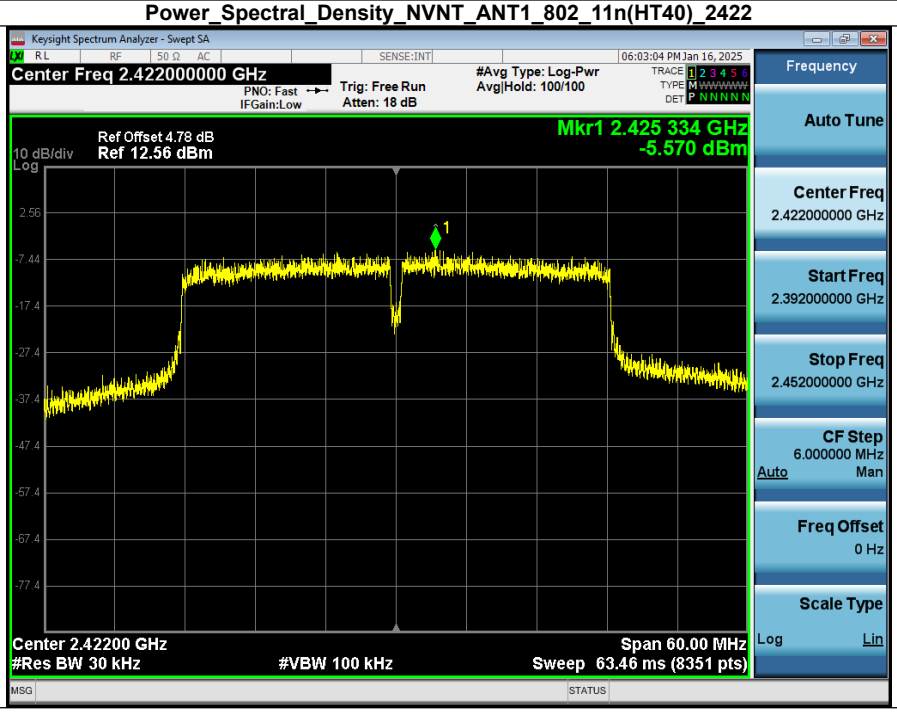
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2437



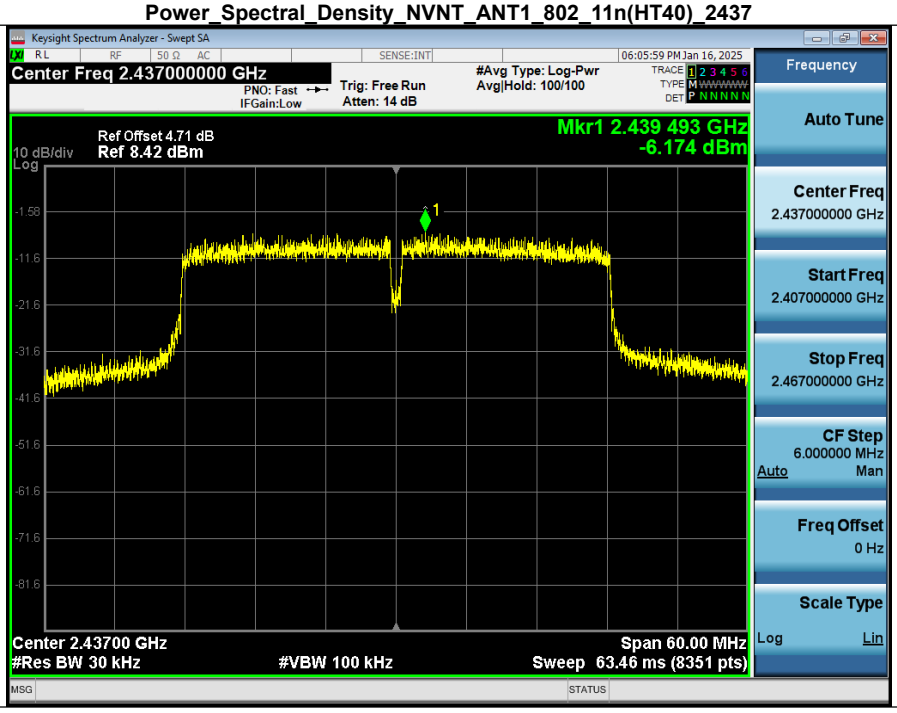
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2462



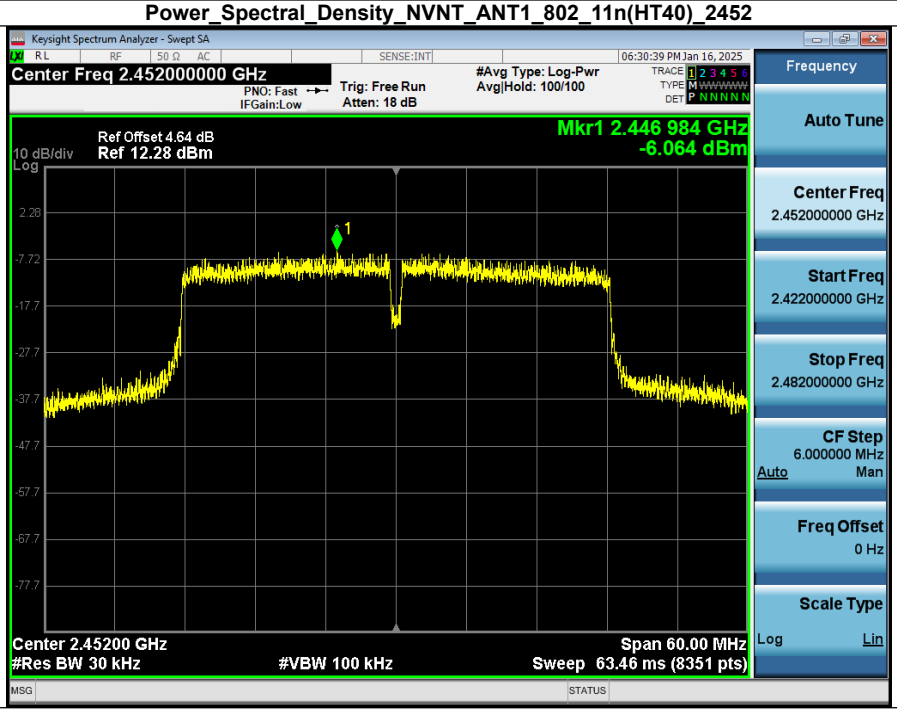
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2422



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2437



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2452

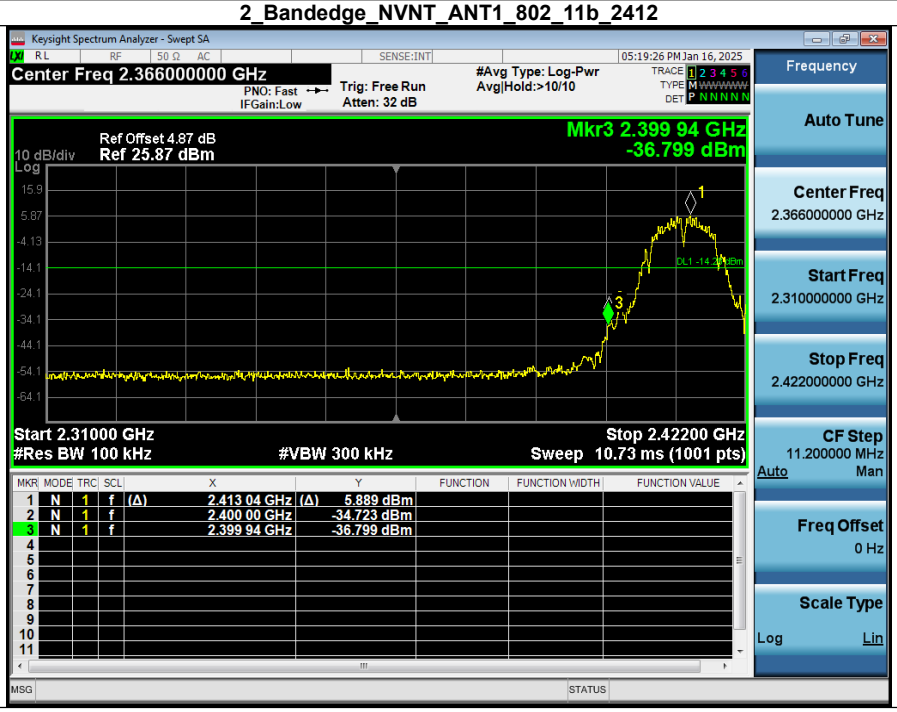


6. Bandedge

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	5.719	-36.799	-14.281	Pass
NVNT	ANT1	802.11b	2462.00	2484.448	6.528	-54.085	-13.472	Pass
NVNT	ANT1	802.11g	2412.00	2399.152	2.313	-23.902	-17.687	Pass
NVNT	ANT1	802.11g	2462.00	2483.872	2.216	-38.046	-17.784	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.488	1.851	-27.175	-18.149	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2484.496	2.662	-33.060	-17.338	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2399.232	-0.564	-28.227	-20.564	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2483.952	-1.178	-32.073	-21.178	Pass

1_Reference_Level_NVNT_ANT1_802_11b_2412

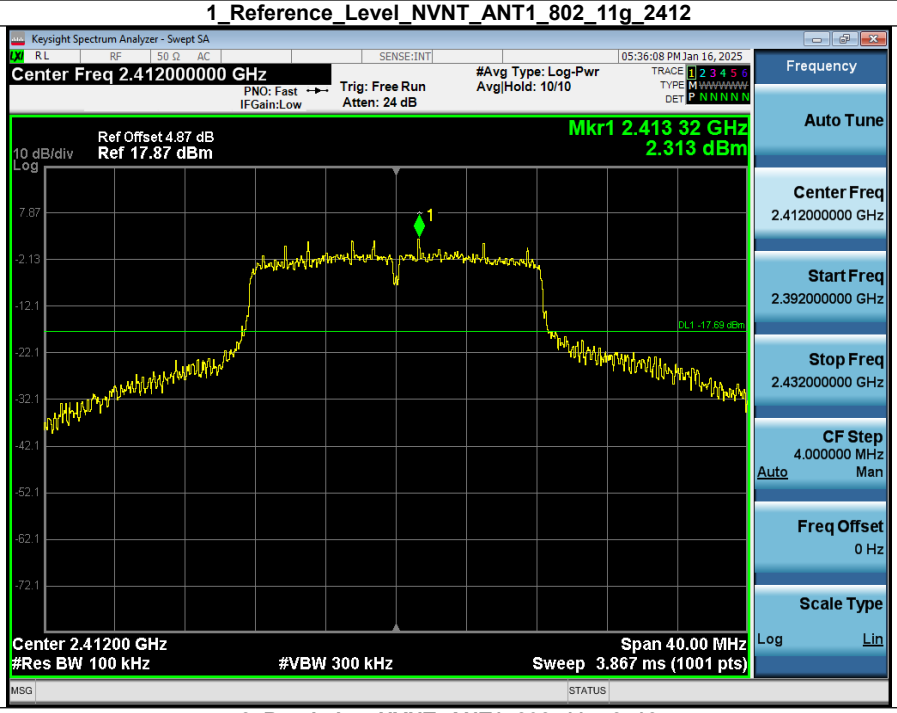
2_Bandedge_NVNT_ANT1_802_11b_2412



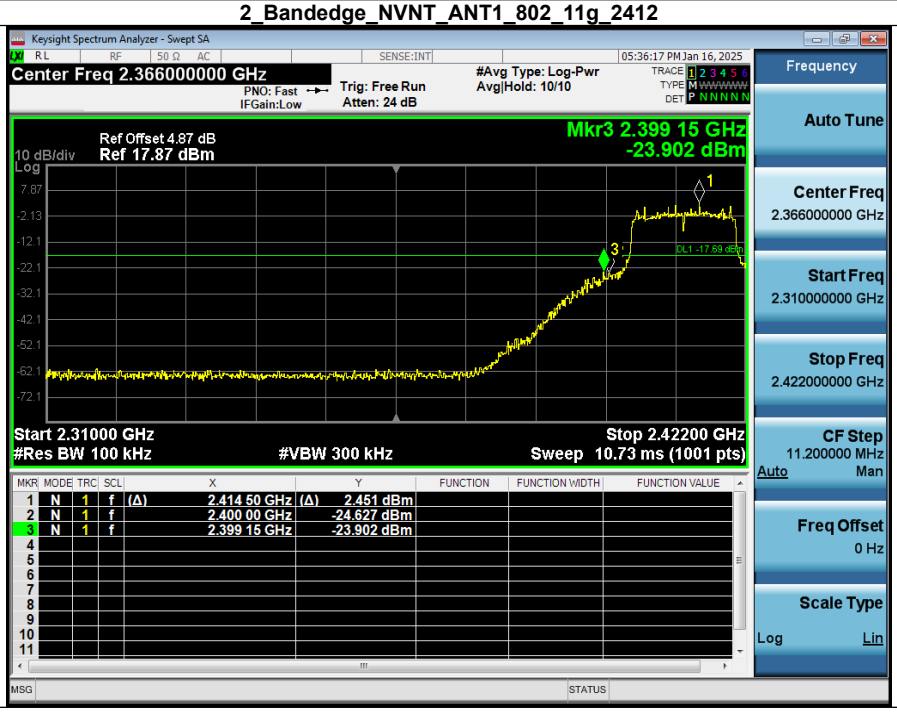
1_Reference_Level_NVNT_ANT1_802_11b_2462

2_Bandedge_NVNT_ANT1_802_11b_2462

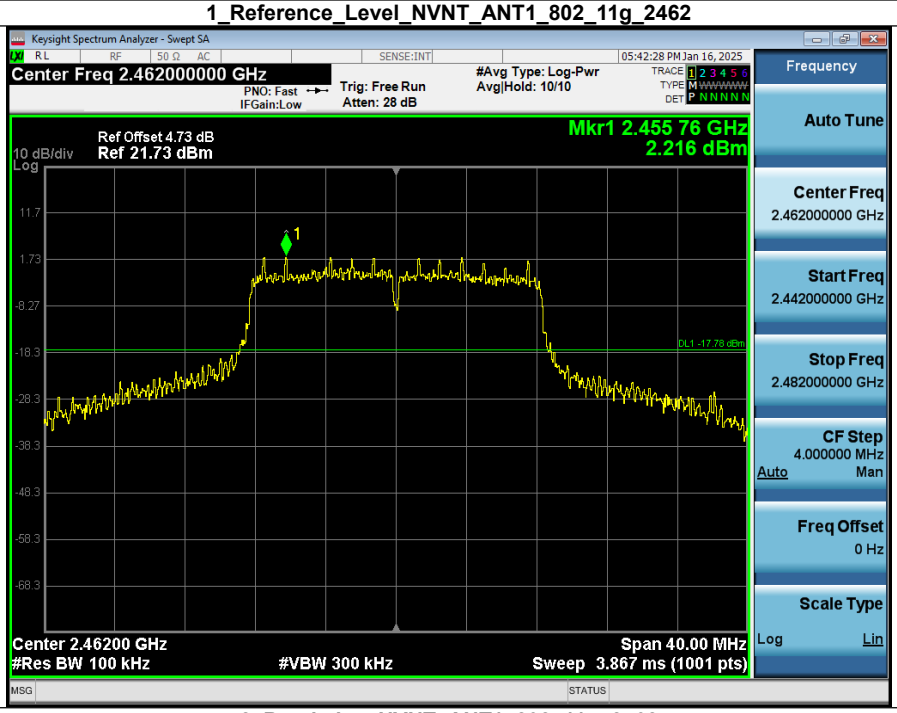
1_Reference_Level_NVNT_ANT1_802_11g_2412



2_Bandedge_NVNT_ANT1_802_11g_2412

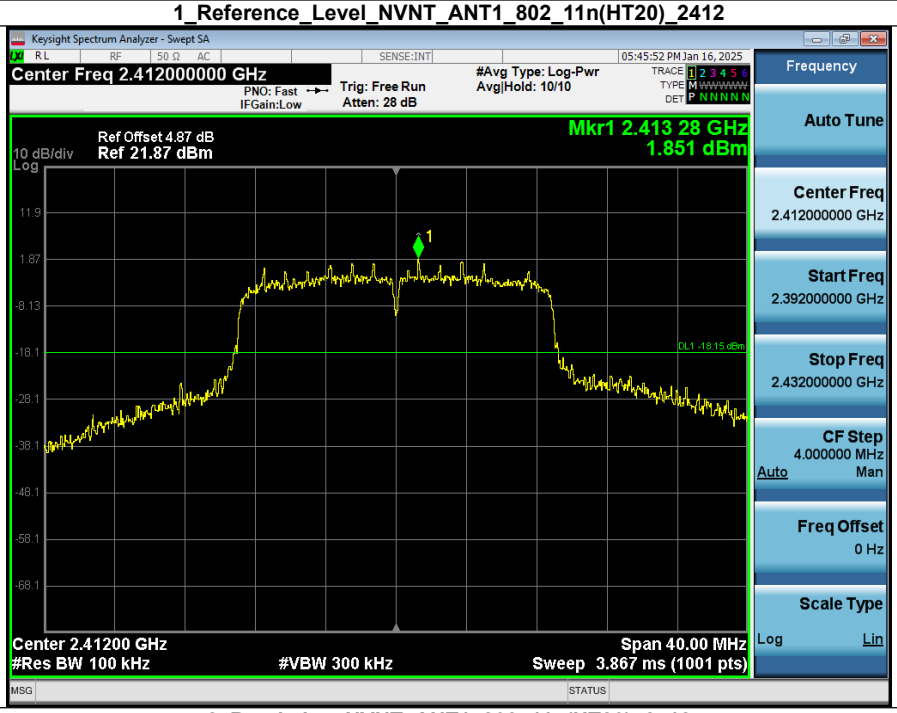


1_Reference_Level_NVNT_ANT1_802_11g_2462

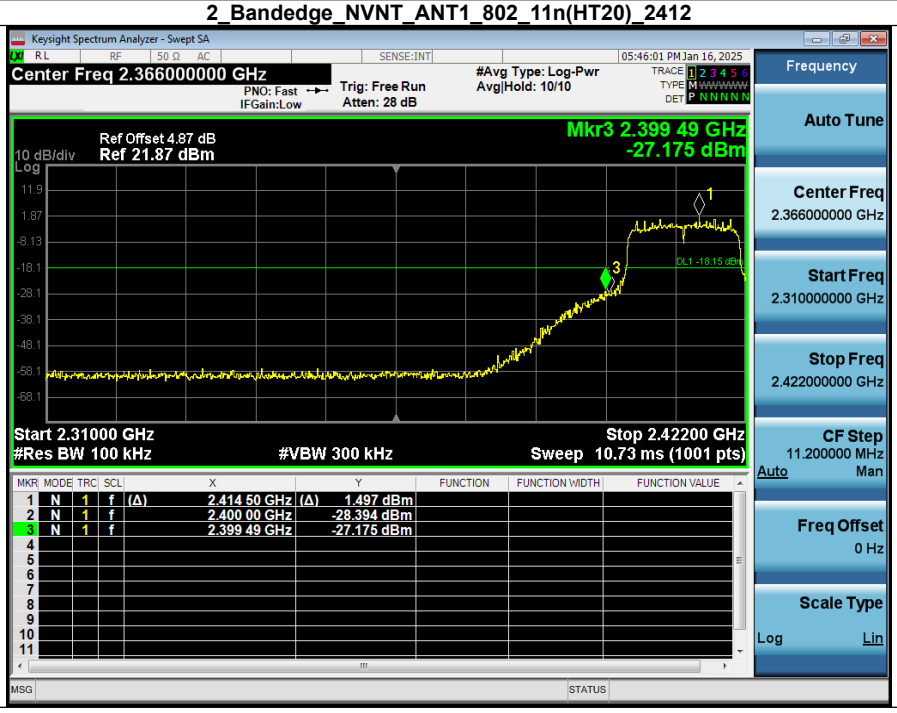


2_Bandedge_NVNT_ANT1_802_11g_2462

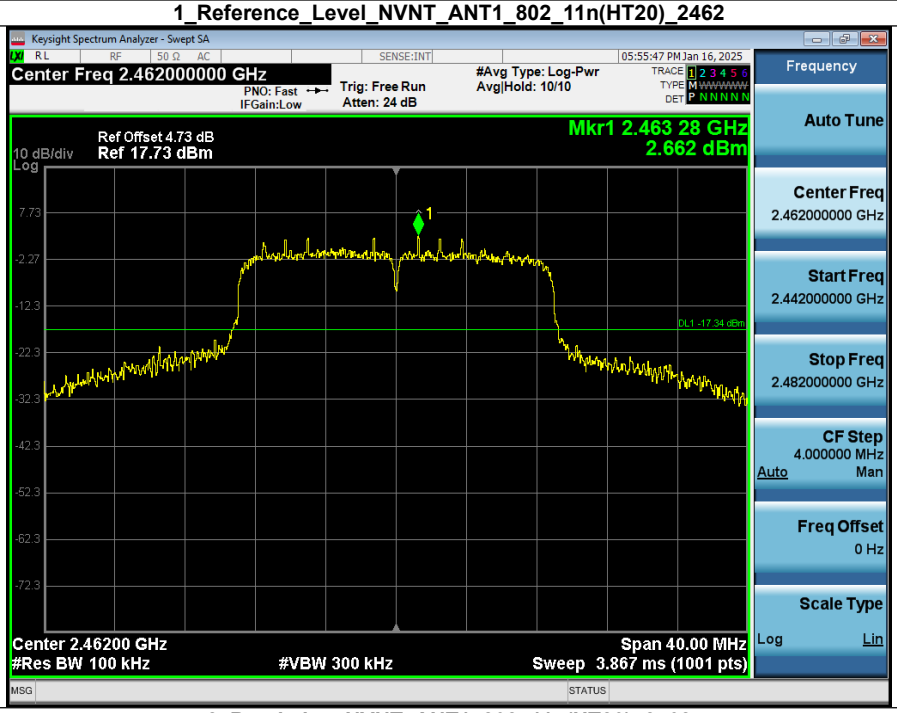
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



2_Bandedge_NVNT_ANT1_802_11n(HT20)_2412



1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462



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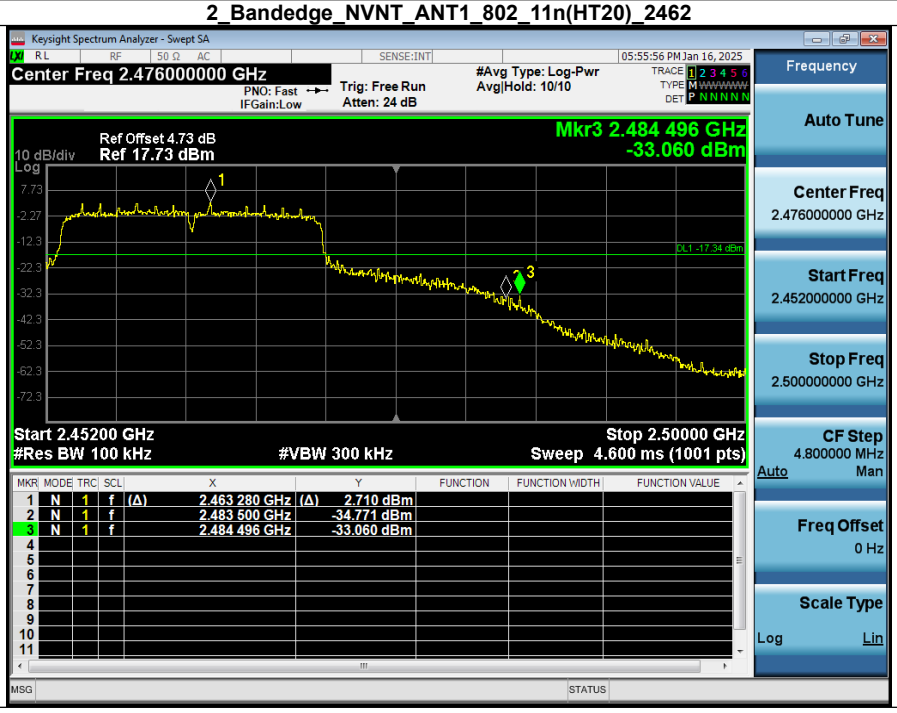
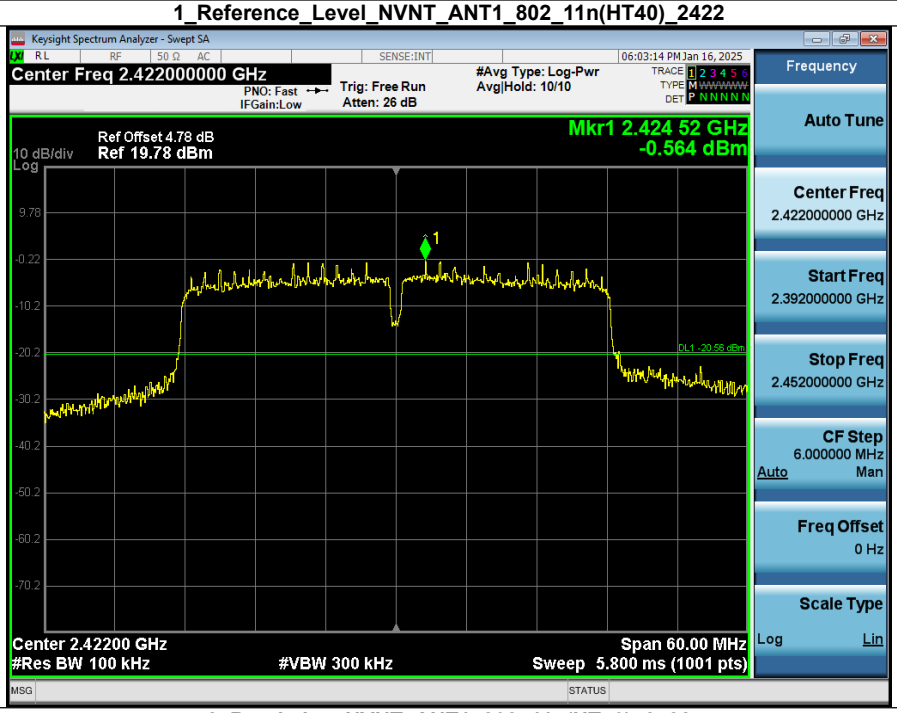
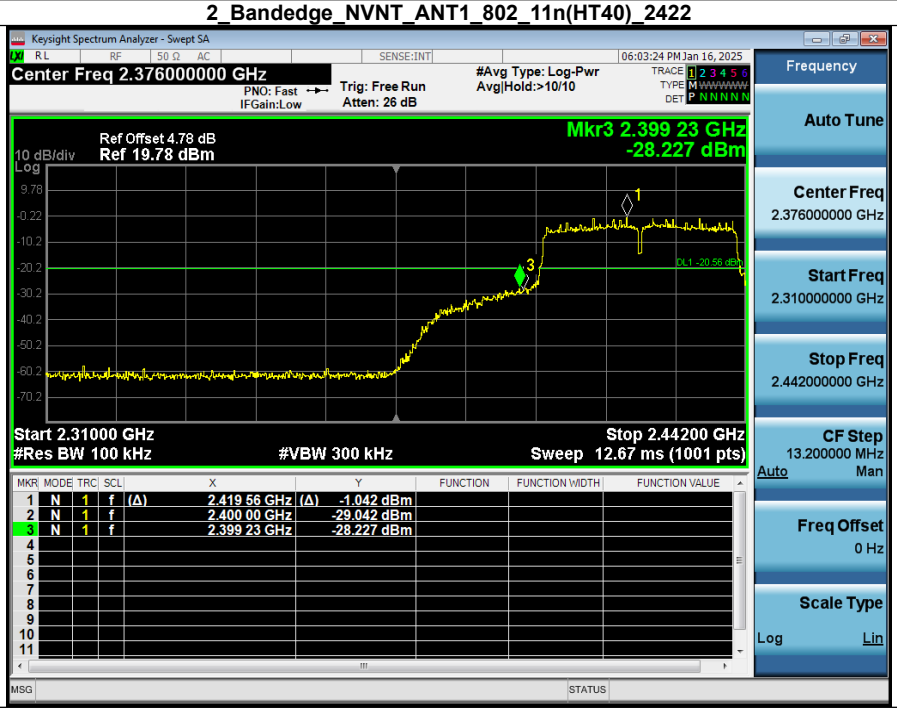


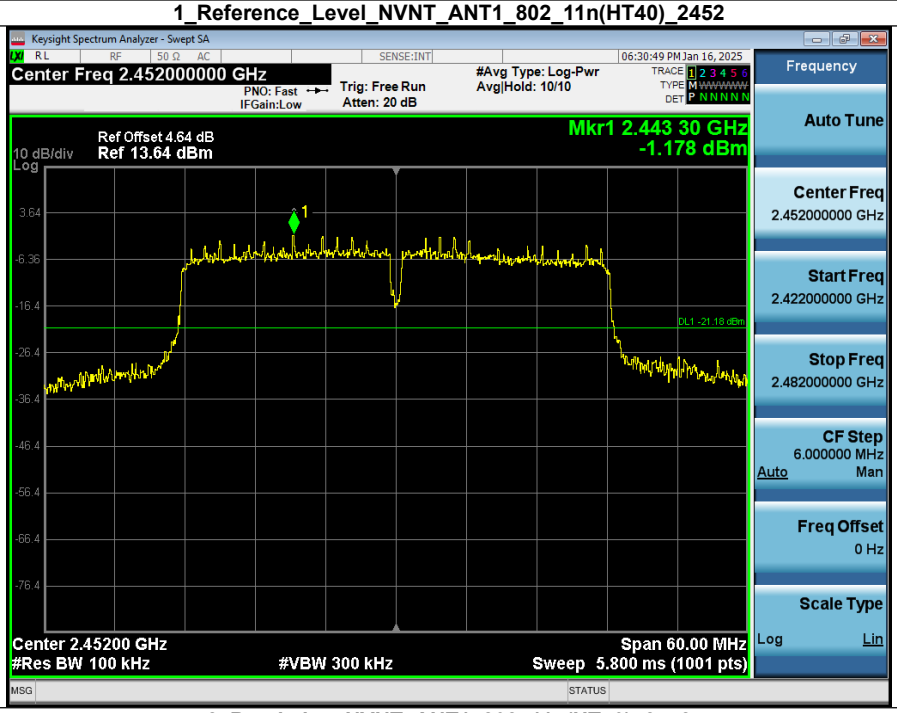
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



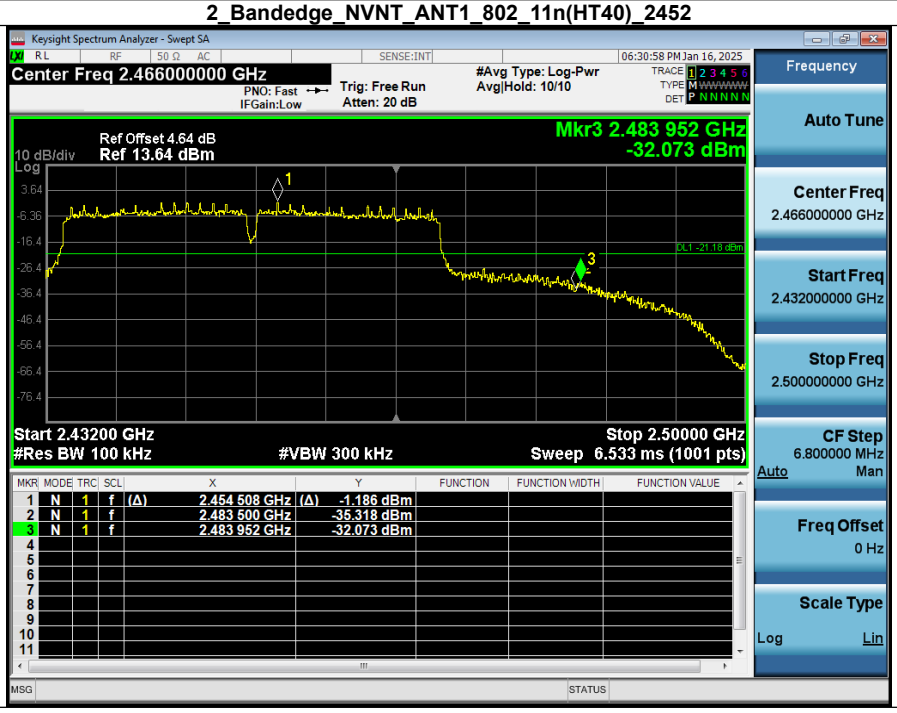
2_Bandedge_NVNT_ANT1_802_11n(HT40)_2422



1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2452



2_Bandedge_NVNT_ANT1_802_11n(HT40)_2452

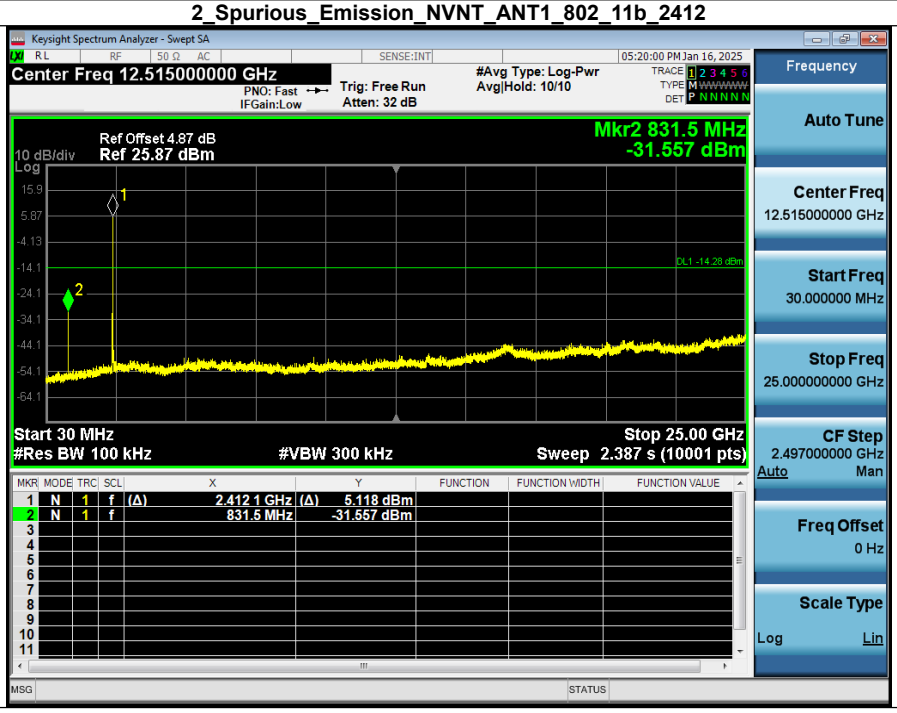


7. Spurious Emission

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	831.537	5.719	-31.557	-14.281	Pass
NVNT	ANT1	802.11b	2437.00	24912.605	5.262	-39.556	-14.738	Pass
NVNT	ANT1	802.11b	2462.00	24992.509	6.528	-41.813	-13.472	Pass
NVNT	ANT1	802.11g	2412.00	24985.018	2.313	-46.705	-17.687	Pass
NVNT	ANT1	802.11g	2437.00	24975.030	1.738	-42.927	-18.262	Pass
NVNT	ANT1	802.11g	2462.00	24990.012	2.216	-43.011	-17.784	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	24967.539	1.851	-42.422	-18.149	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	24985.018	1.007	-42.378	-18.993	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	908.944	2.662	-44.065	-17.338	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	24290.852	-0.564	-45.338	-20.564	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	24458.151	-0.950	-50.987	-20.950	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	24975.030	-1.178	-49.986	-21.178	Pass

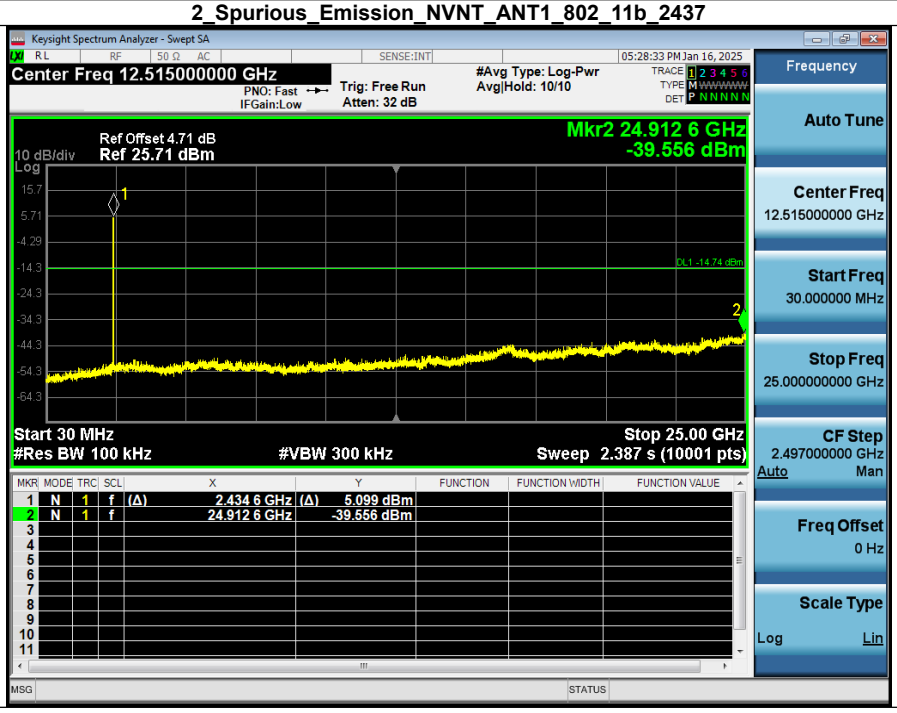
1_Reference_Level_NVNT_ANT1_802_11b_2412

2_Spurious_Emission_NVNT_ANT1_802_11b_2412



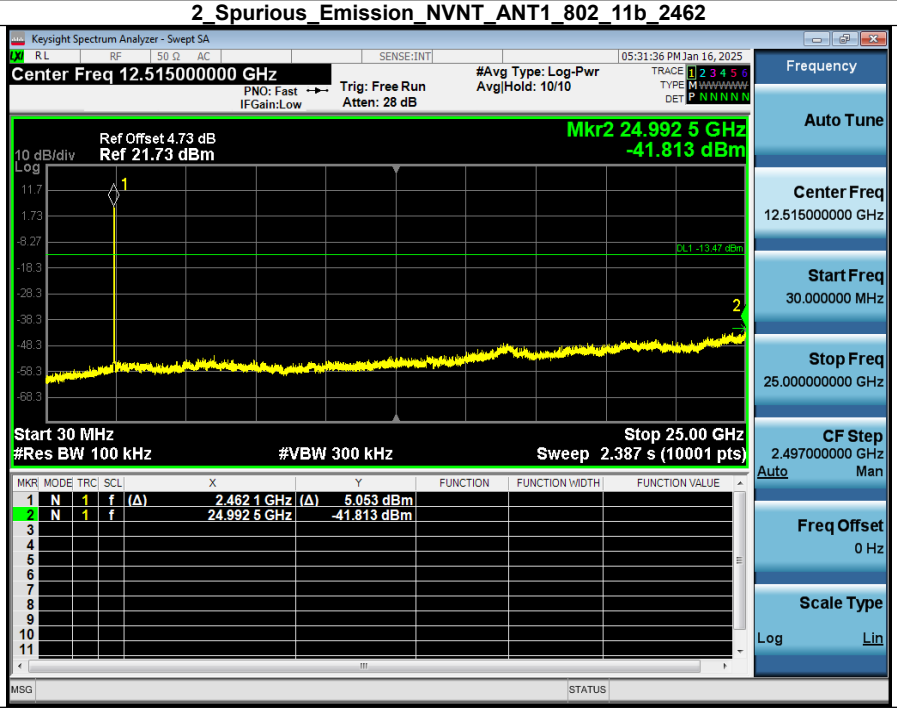
1_Reference_Level_NVNT_ANT1_802_11b_2437

2_Spurious_Emission_NVNT_ANT1_802_11b_2437

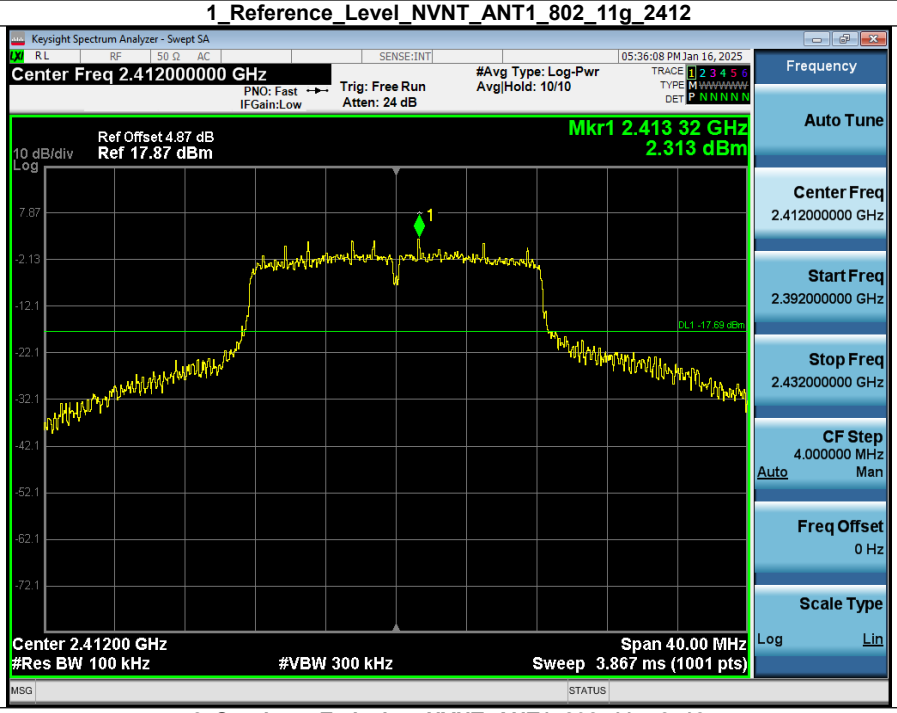


1_Reference_Level_NVNT_ANT1_802_11b_2462

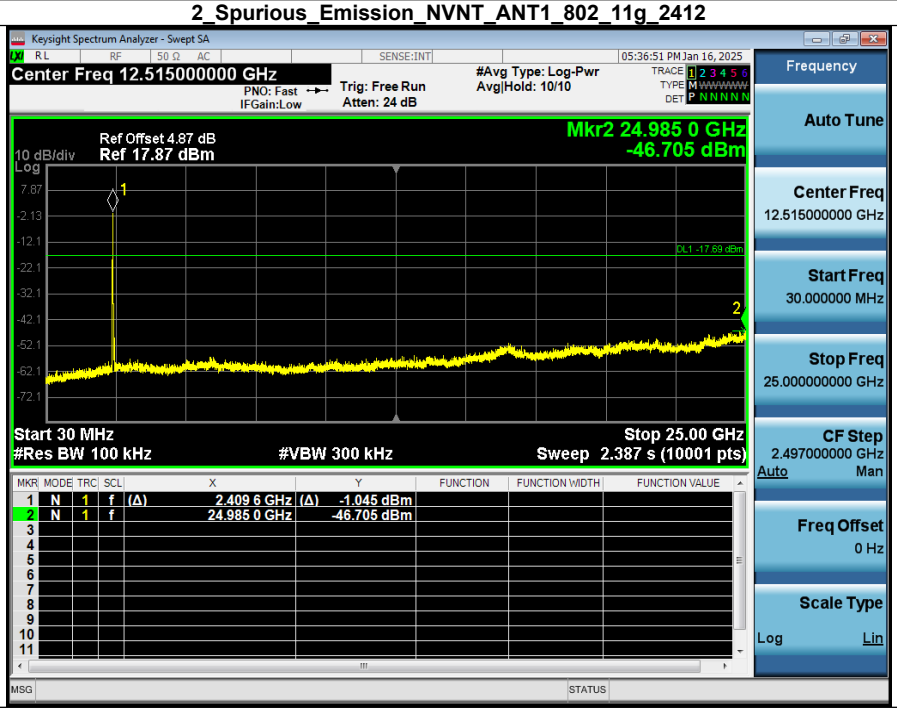
2_Spurious_Emission_NVNT_ANT1_802_11b_2462



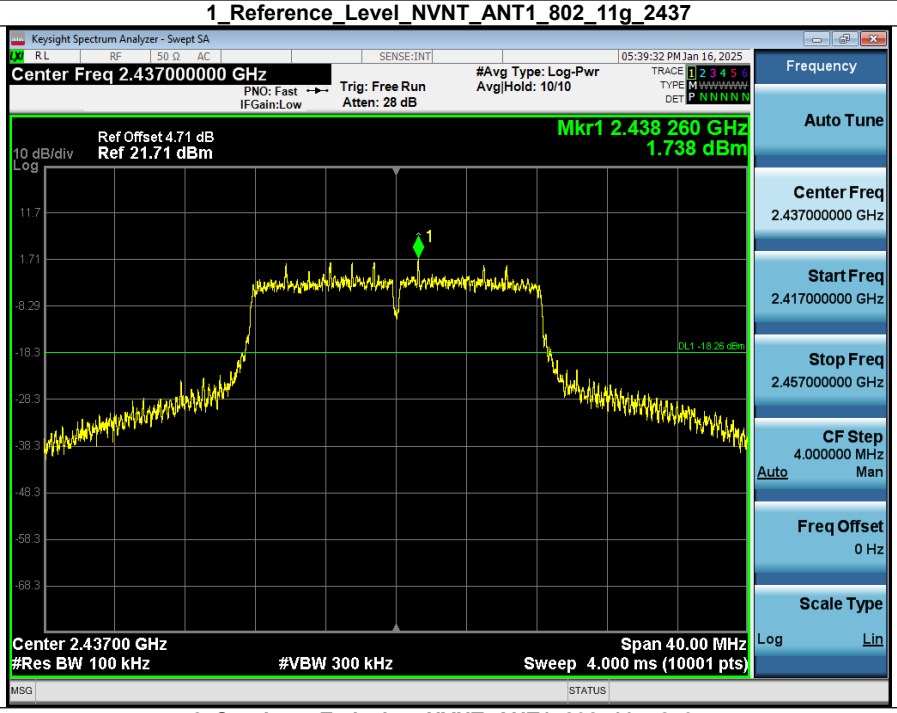
1_Reference_Level_NVNT_ANT1_802_11g_2412



2_Spurious_Emission_NVNT_ANT1_802_11g_2412



1_Reference_Level_NVNT_ANT1_802_11g_2437



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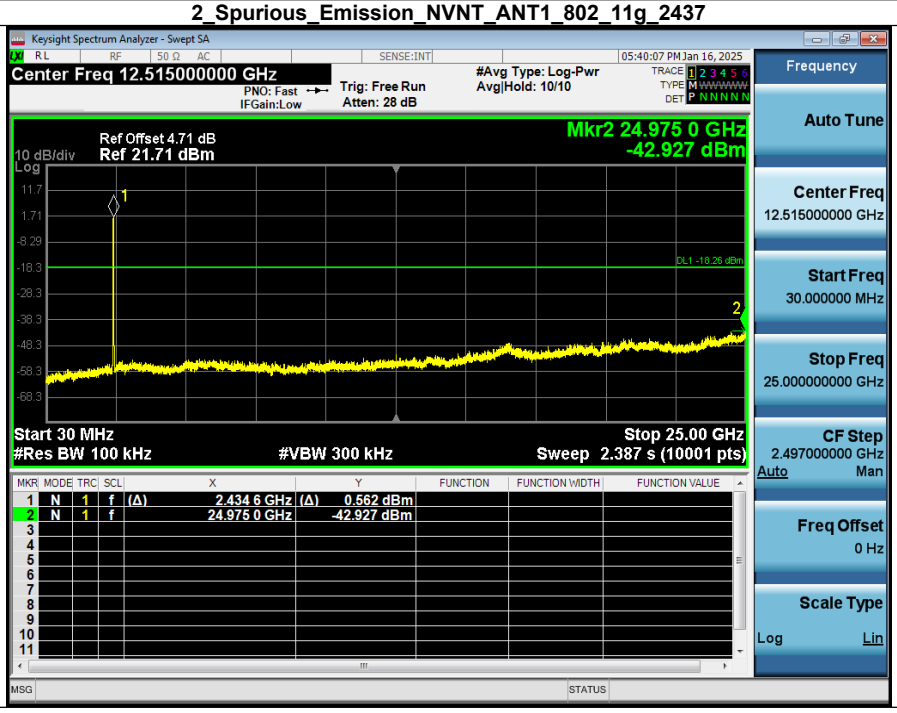
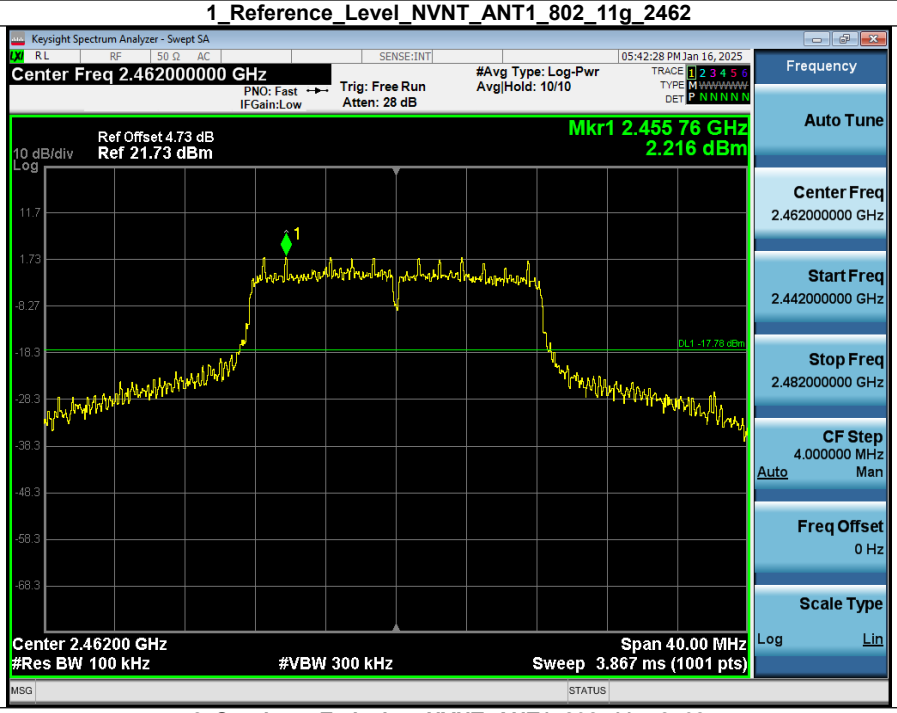
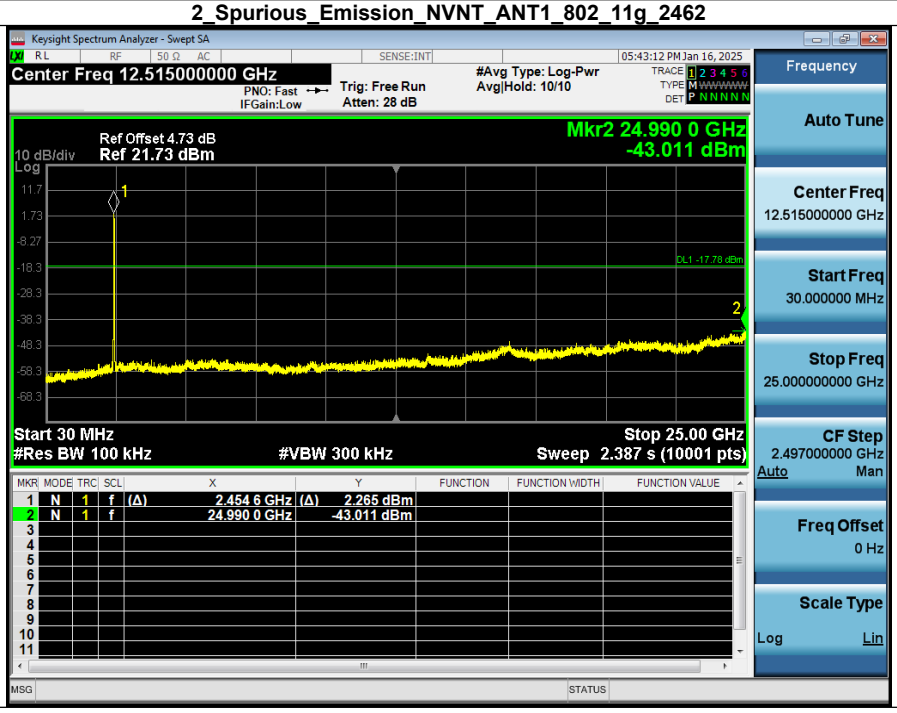


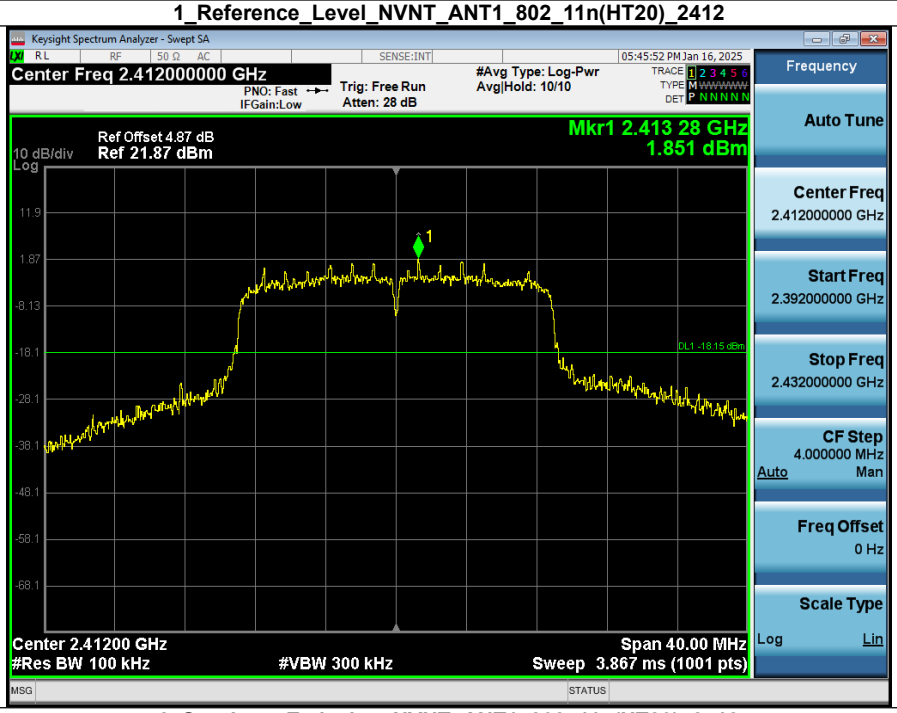
1_Reference_Level_NVNT_ANT1_802_11g_2462



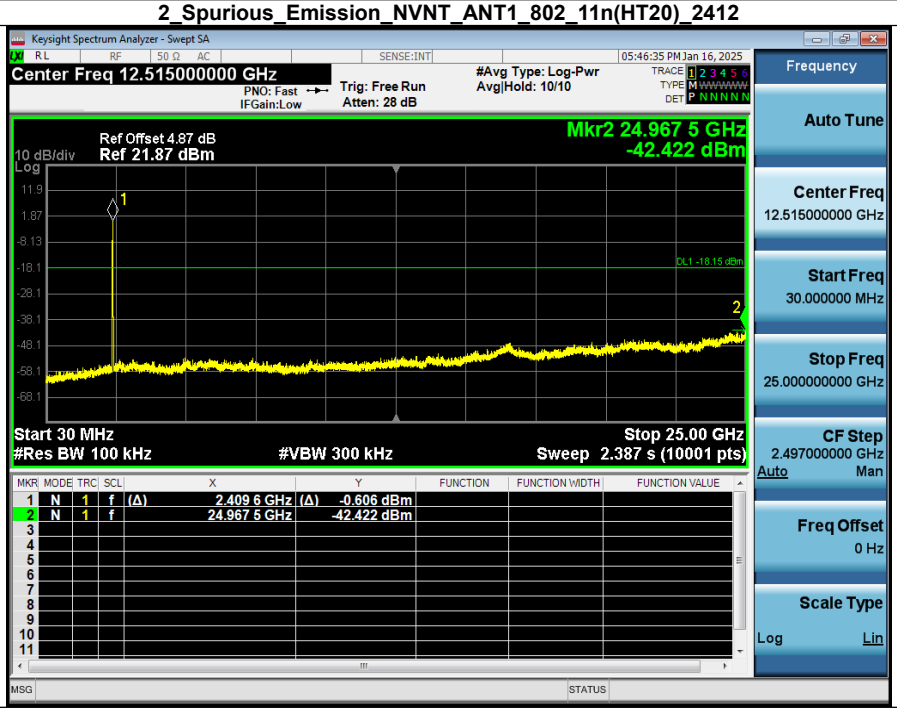
2_Spurious_Emission_NVNT_ANT1_802_11g_2462



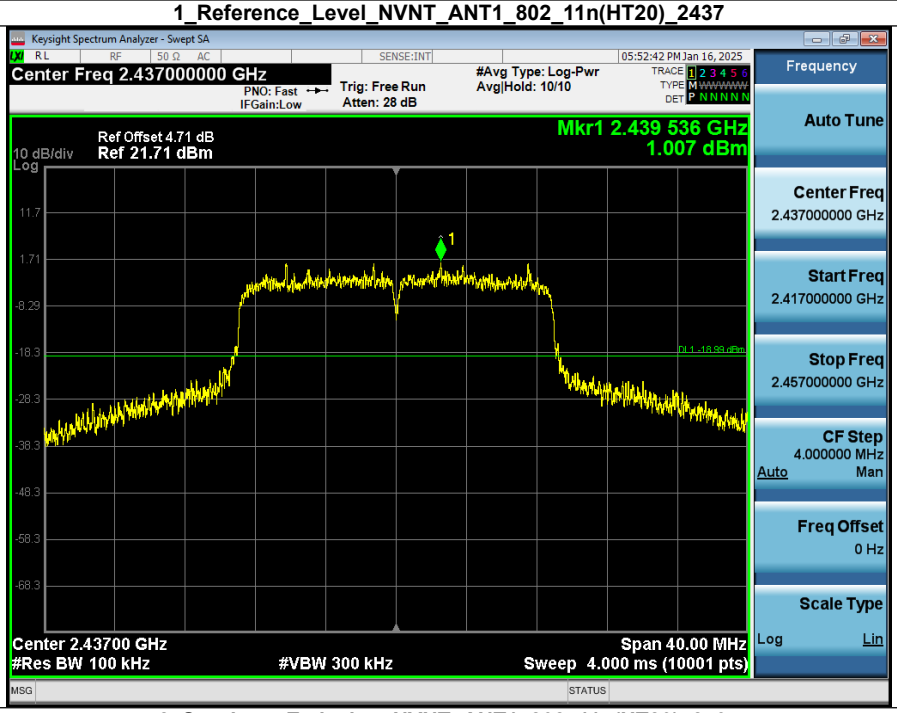
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



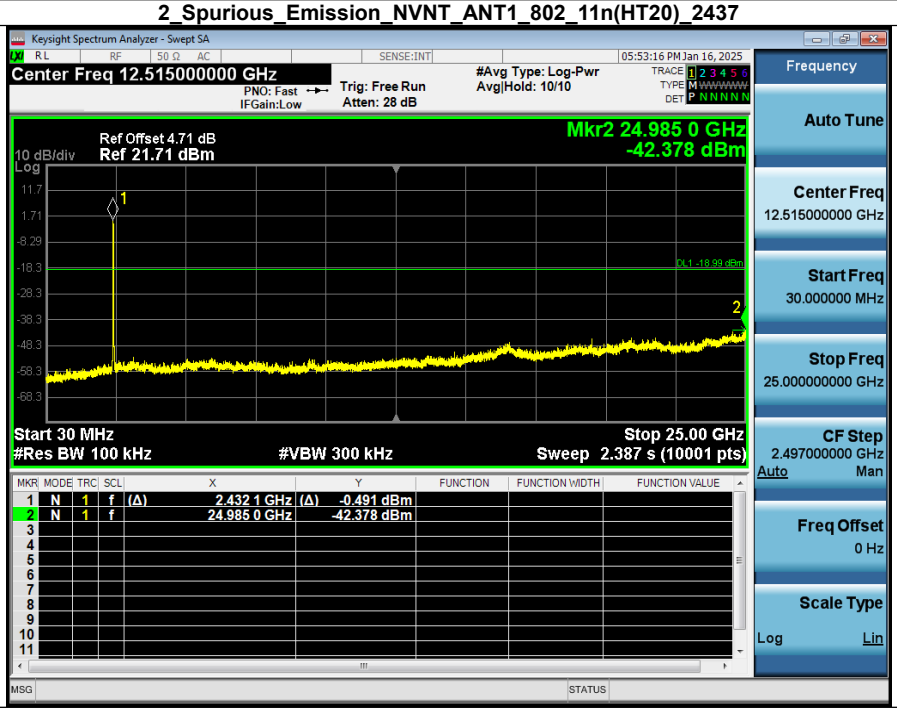
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2412



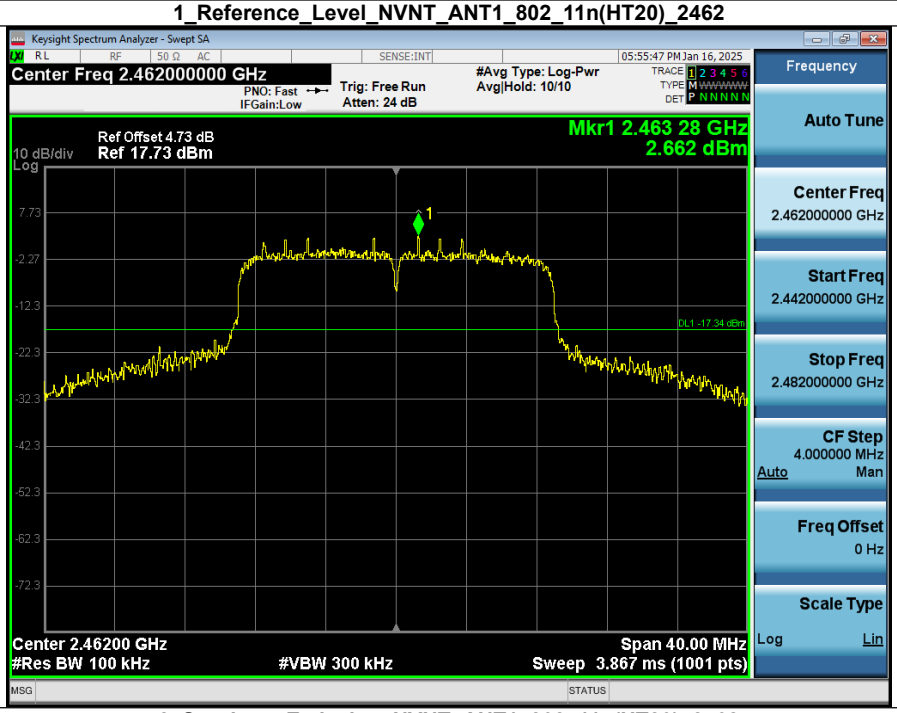
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2437



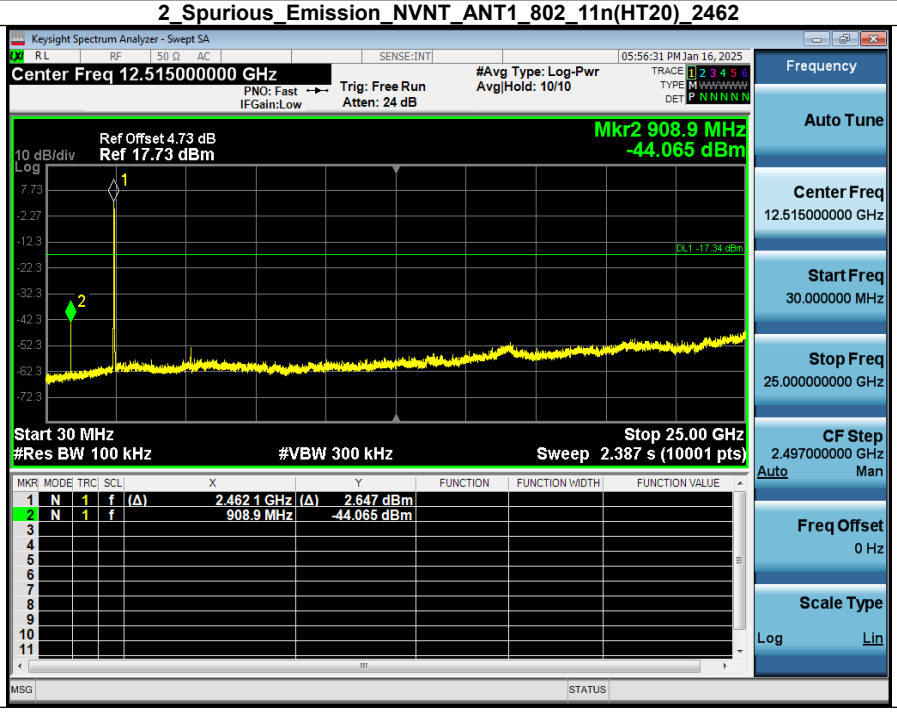
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2437



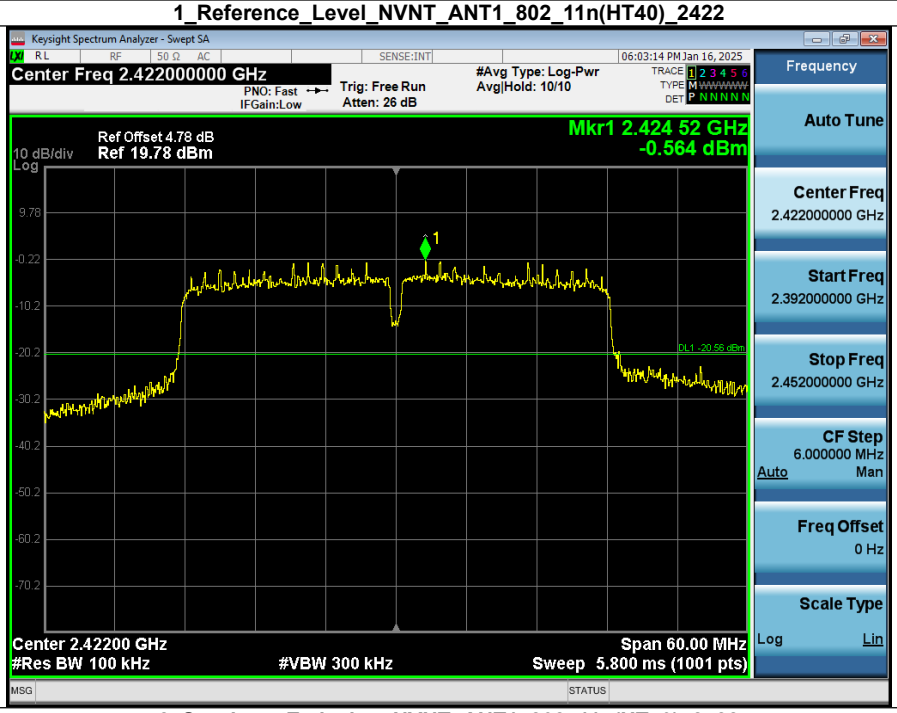
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2462



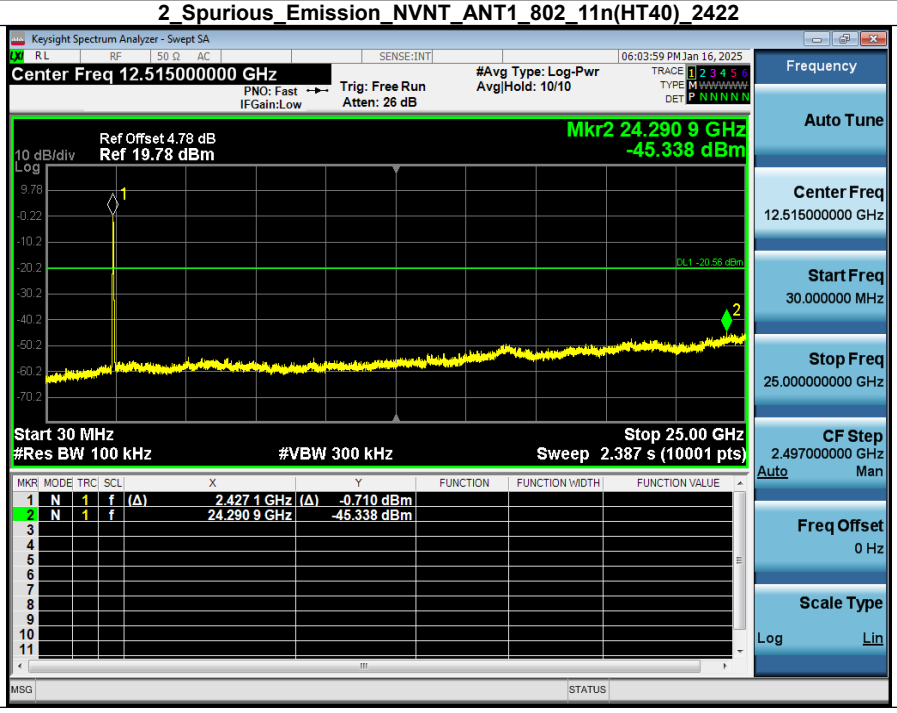
2_Spurious_Emission_NVNT_ANT1_802_11n(HT20)_2462



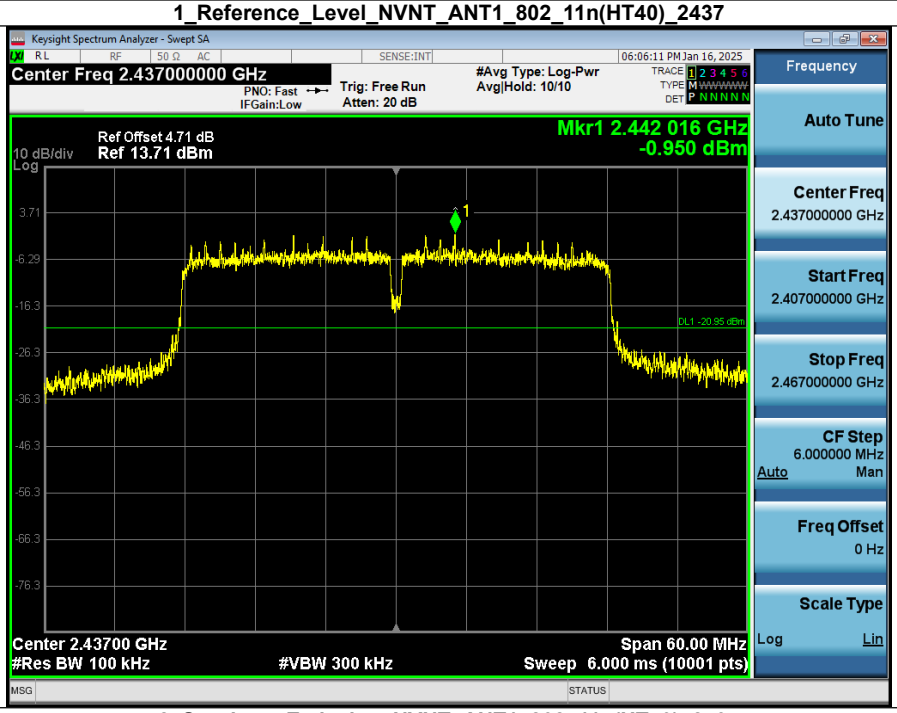
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



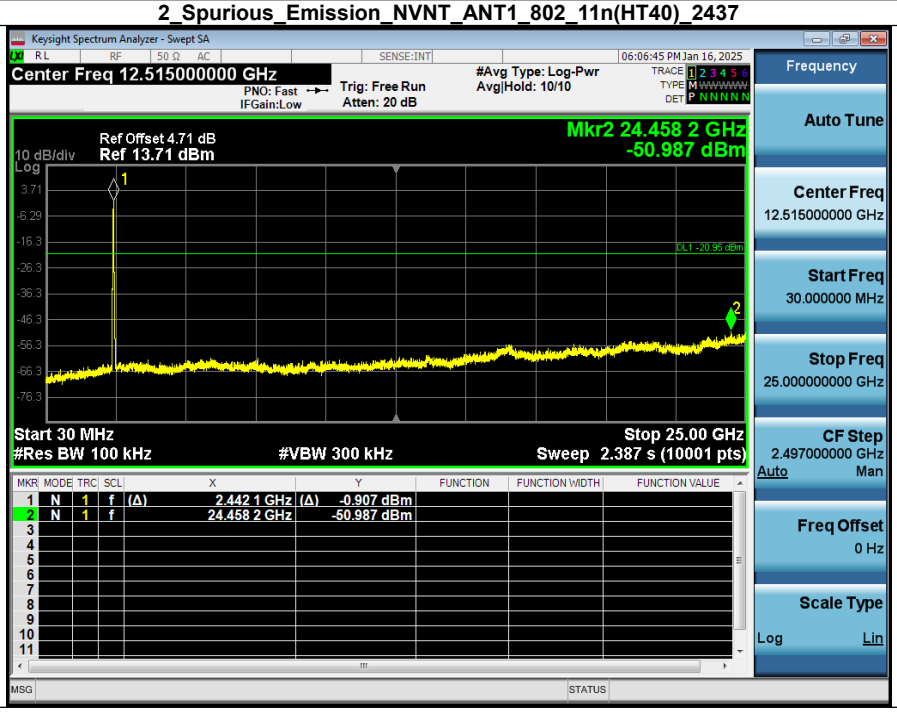
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2422



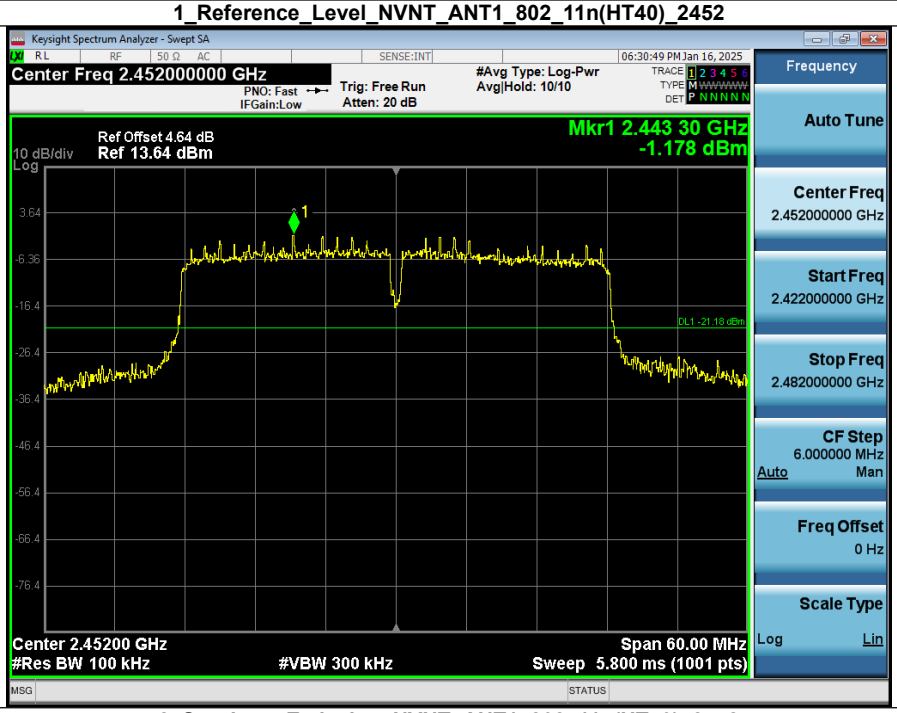
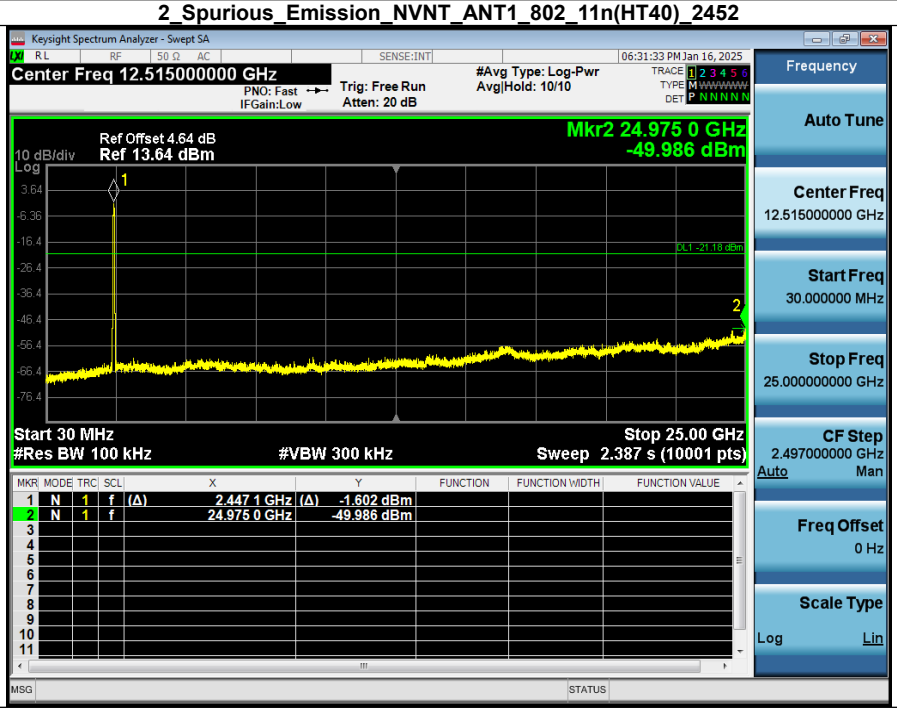
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2437



2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2437



1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2452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