

Table of Contents

1. -6dB Bandwidth2

2. 99% Occupied Bandwidth9

3. Duty Cycle16

5. Power Spectral Density23

6. Bandedge30

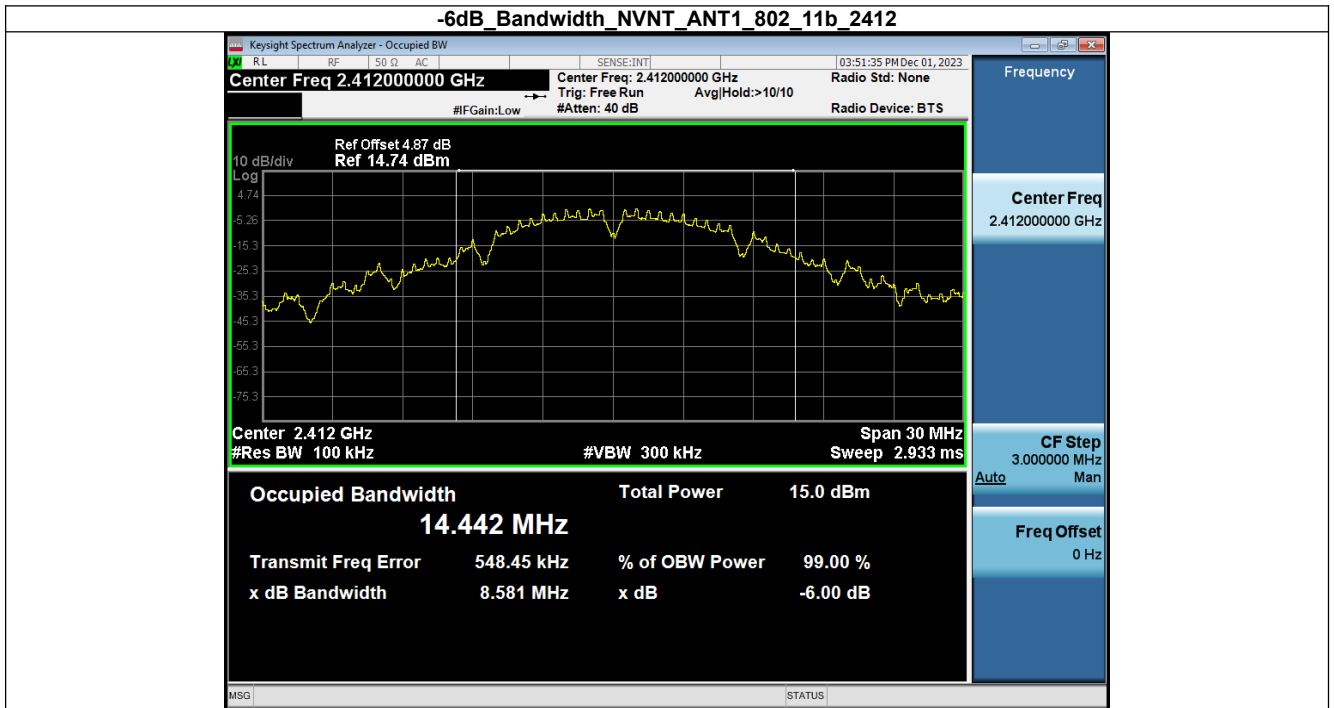
7. Spurious Emission38

231201 FCC ID WIFI2.4

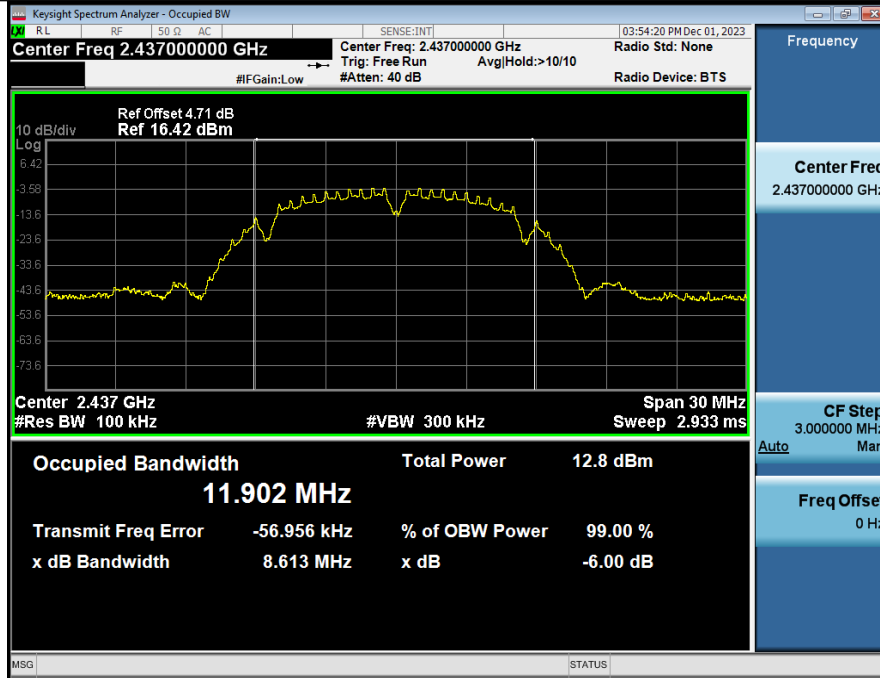
FCC_2.4G_WIFI (Part15.247) Test Data

1. -6dB Bandwidth

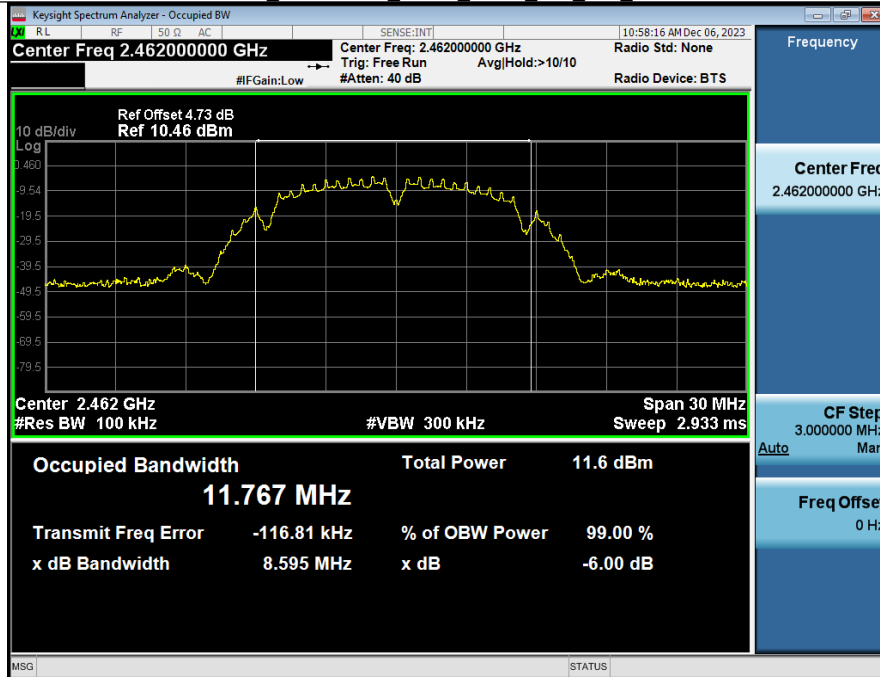
Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412	8.58	500	Pass
NVNT	ANT1	802.11b	2437.00	8.61	500	Pass
NVNT	ANT1	802.11b	2462.00	8.59	500	Pass
NVNT	ANT1	802.11g	2412	15.36	500	Pass
NVNT	ANT1	802.11g	2437.00	16.11	500	Pass
NVNT	ANT1	802.11g	2462.00	15.50	500	Pass
NVNT	ANT1	802.11n(HT20)	2412	16.04	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.30	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	15.73	500	Pass
NVNT	ANT1	802.11n(HT40)	2422	33.85	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	36.40	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	35.53	500	Pass



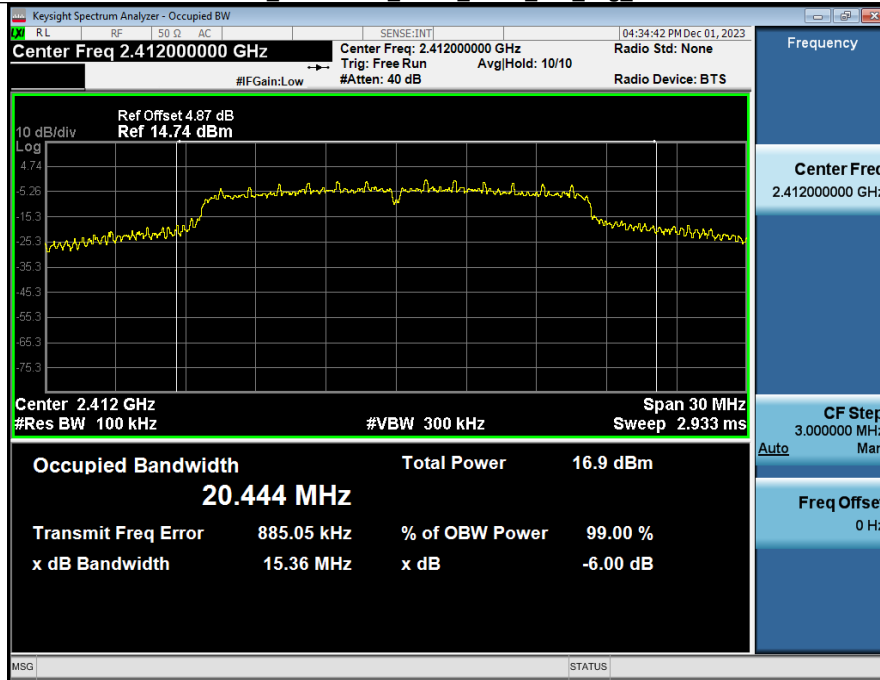
-6dB Bandwidth_NVNT_ANT1_802_11b_2437



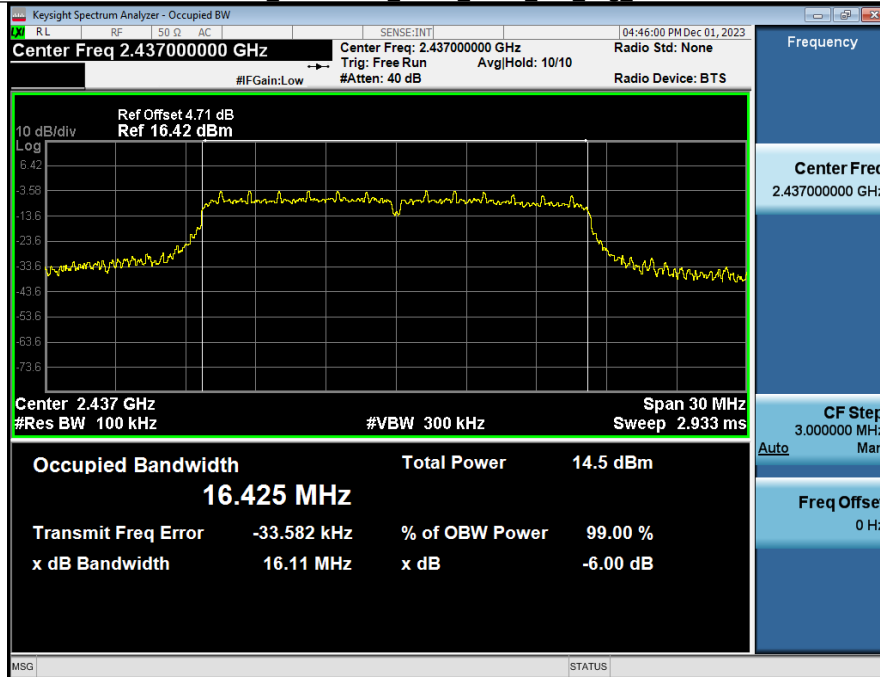
-6dB Bandwidth_NVNT_ANT1_802_11b_2462



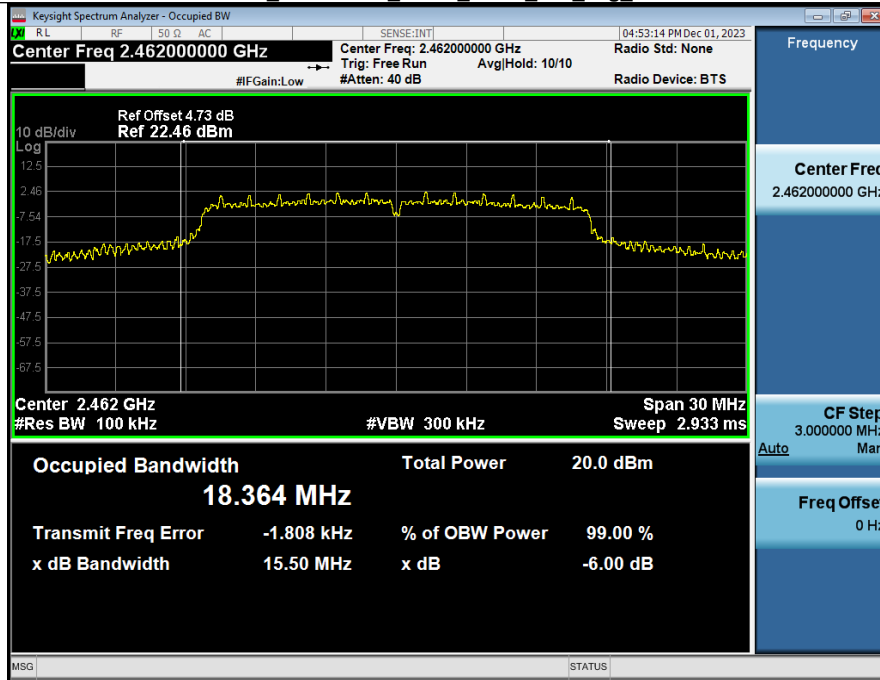
-6dB Bandwidth_NVNT_ANT1_802_11g_2412



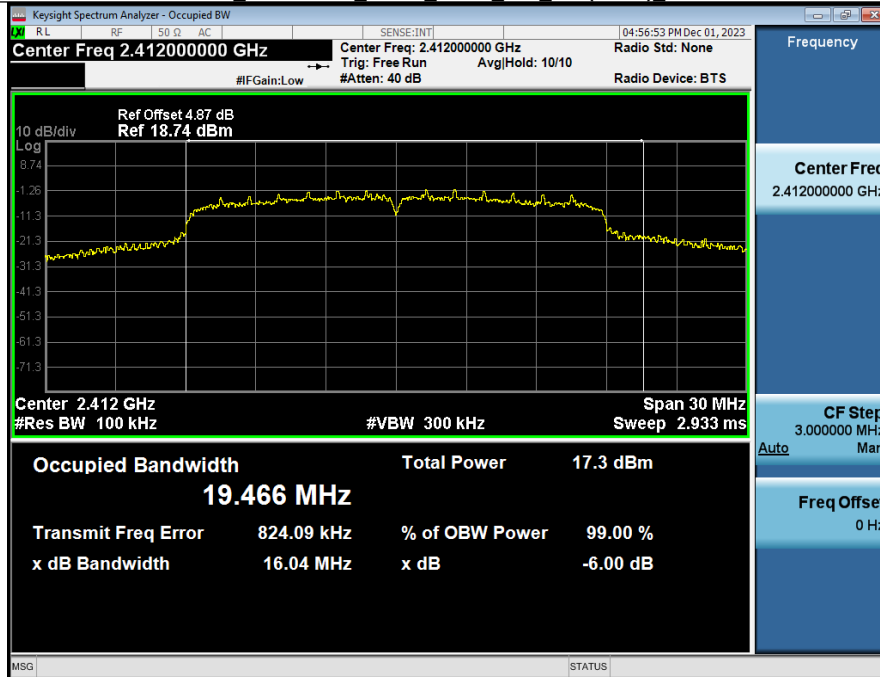
-6dB Bandwidth_NVNT_ANT1_802_11g_2437



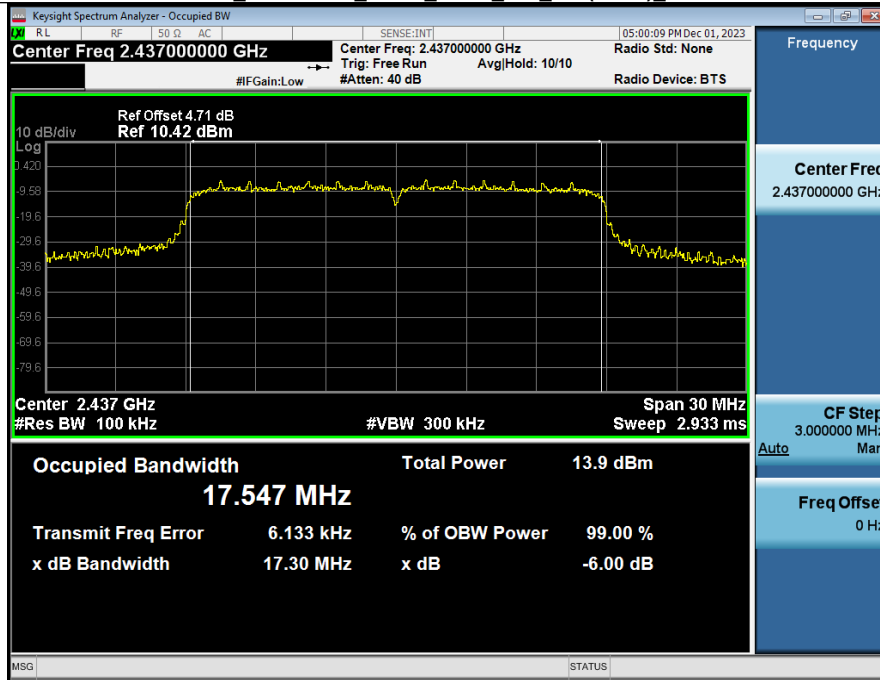
-6dB_Bandwidth_NVNT_ANT1_802_11g_2462



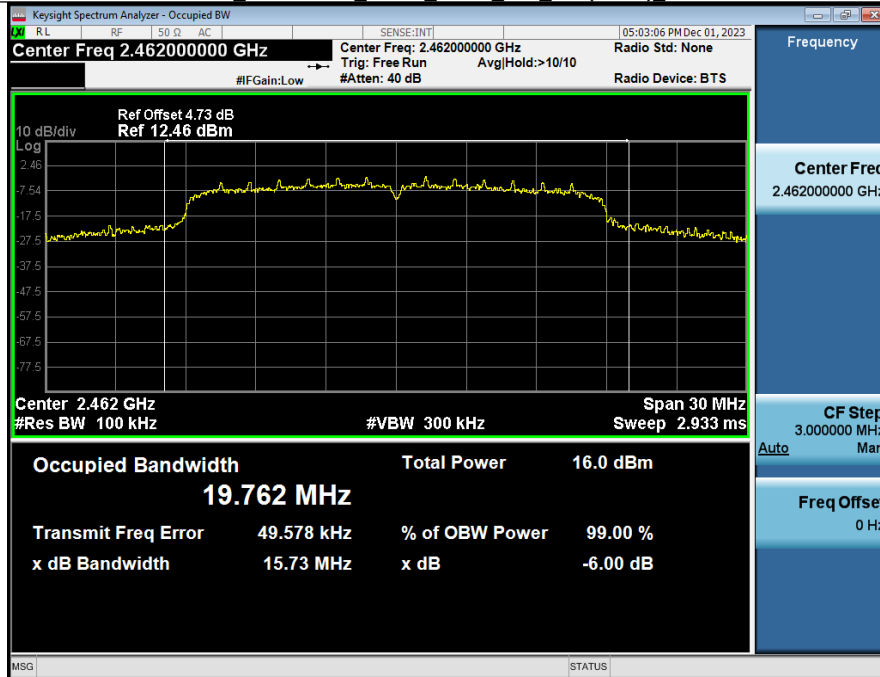
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



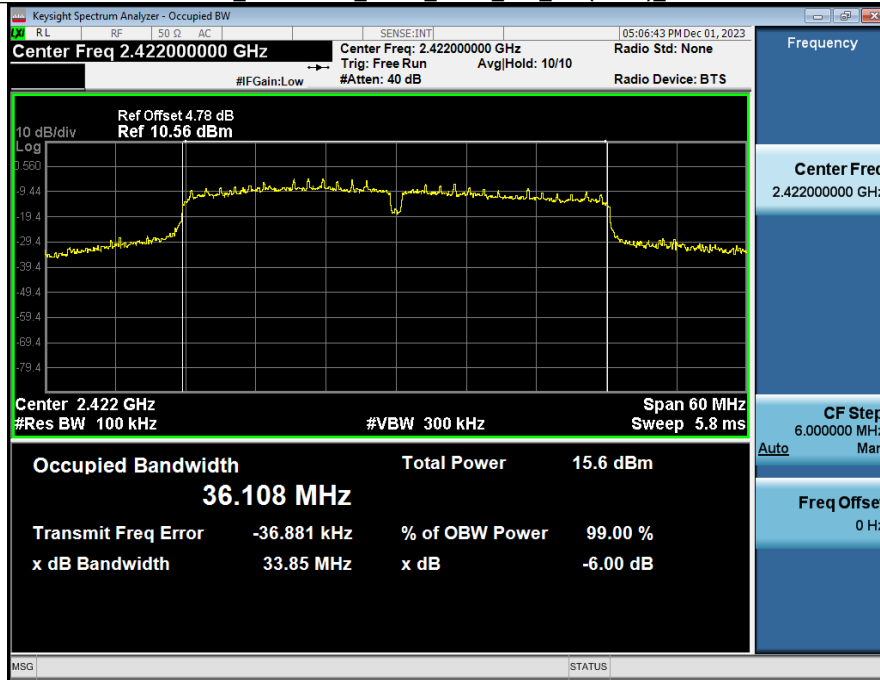
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



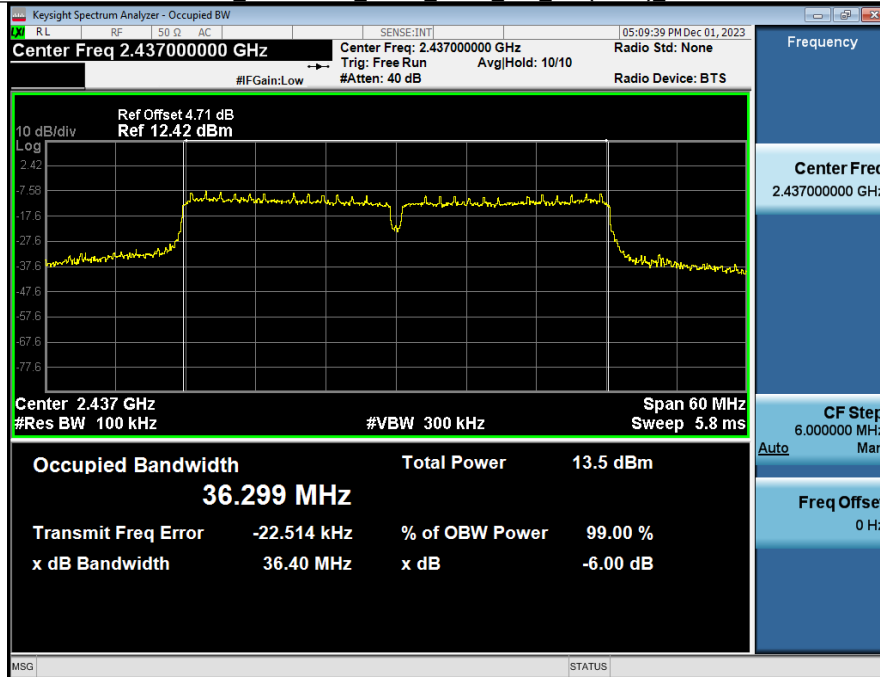
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



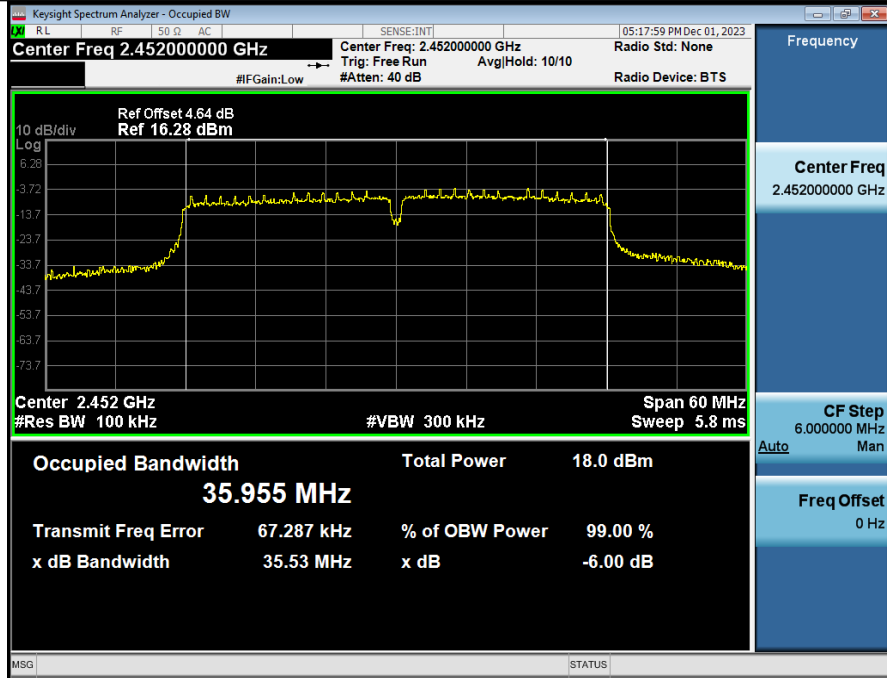
-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437

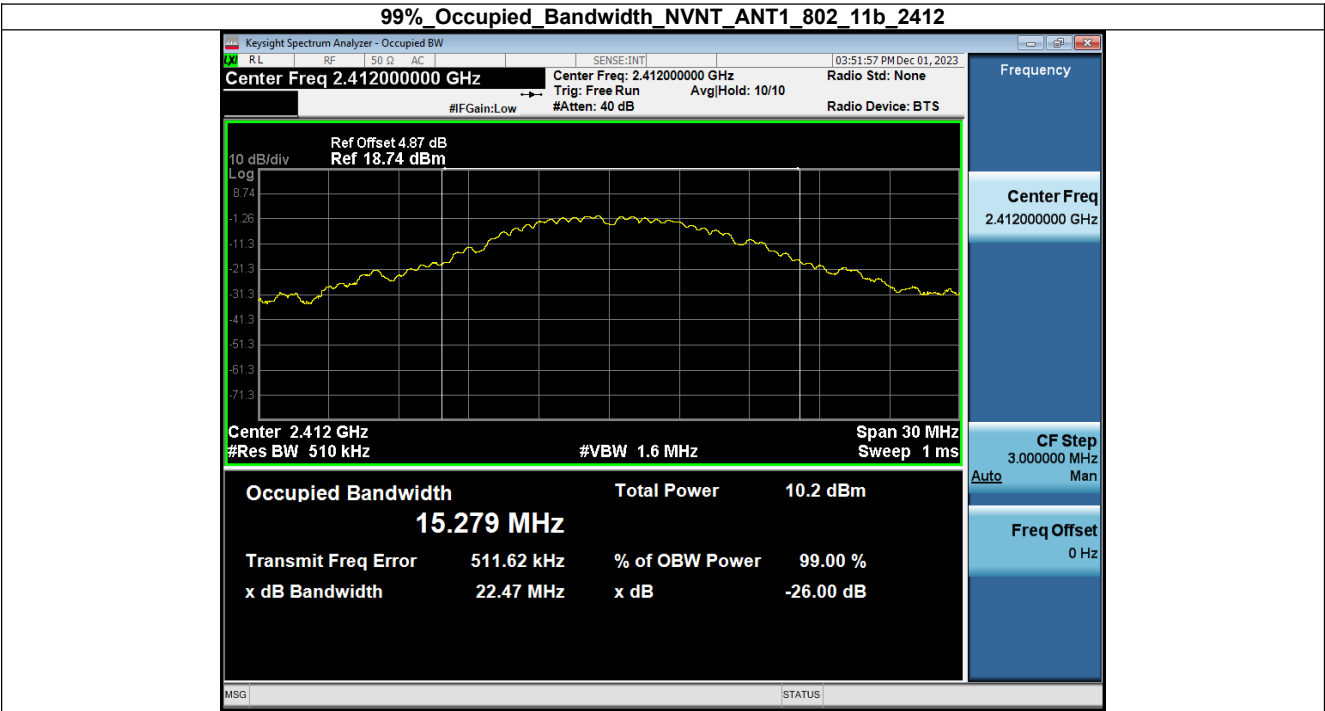


-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452

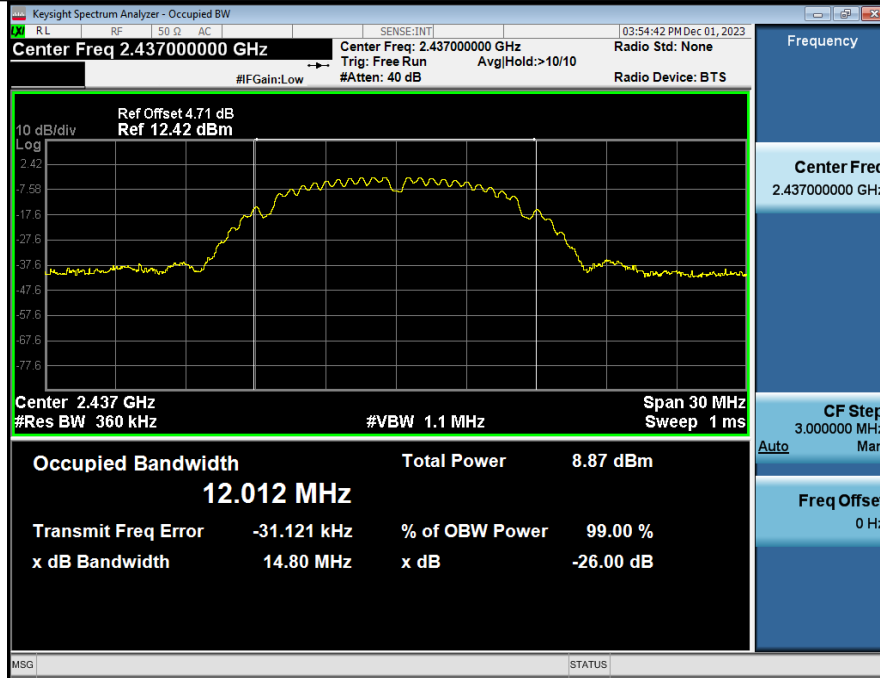


2. 99% Occupied Bandwidth

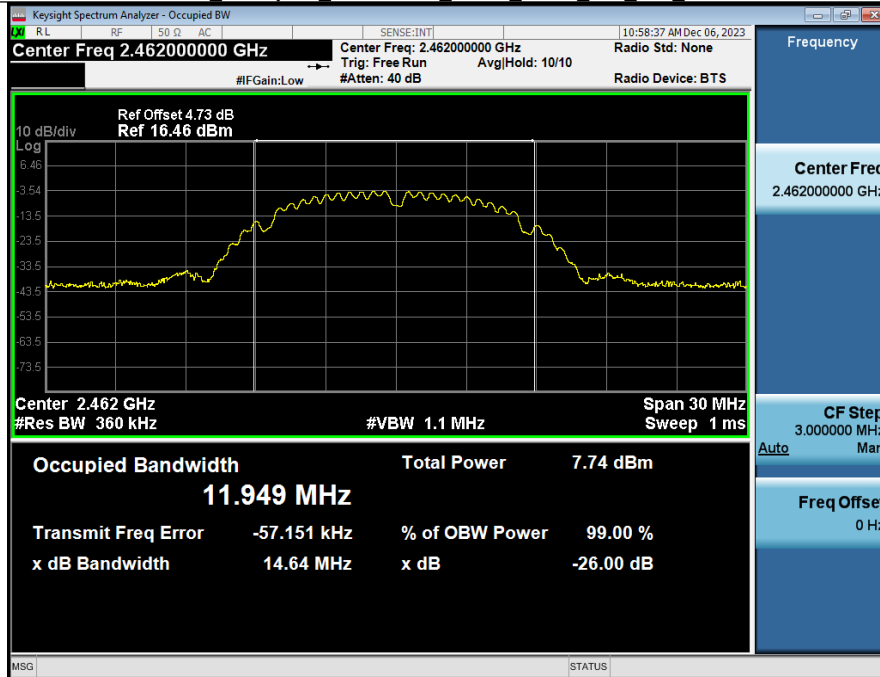
Condition	Antenna	Modulation	Frequency (MHz)	99%%BW(MHz)
NVNT	ANT1	802.11b	2412	15.279
NVNT	ANT1	802.11b	2437.00	12.012
NVNT	ANT1	802.11b	2462.00	11.949
NVNT	ANT1	802.11g	2412	21.896
NVNT	ANT1	802.11g	2437.00	17.211
NVNT	ANT1	802.11g	2462.00	20.477
NVNT	ANT1	802.11n(HT20)	2412	20.581
NVNT	ANT1	802.11n(HT20)	2437.00	17.975
NVNT	ANT1	802.11n(HT20)	2462.00	20.826
NVNT	ANT1	802.11n(HT40)	2422	36.828
NVNT	ANT1	802.11n(HT40)	2437.00	37.583
NVNT	ANT1	802.11n(HT40)	2452.00	36.385



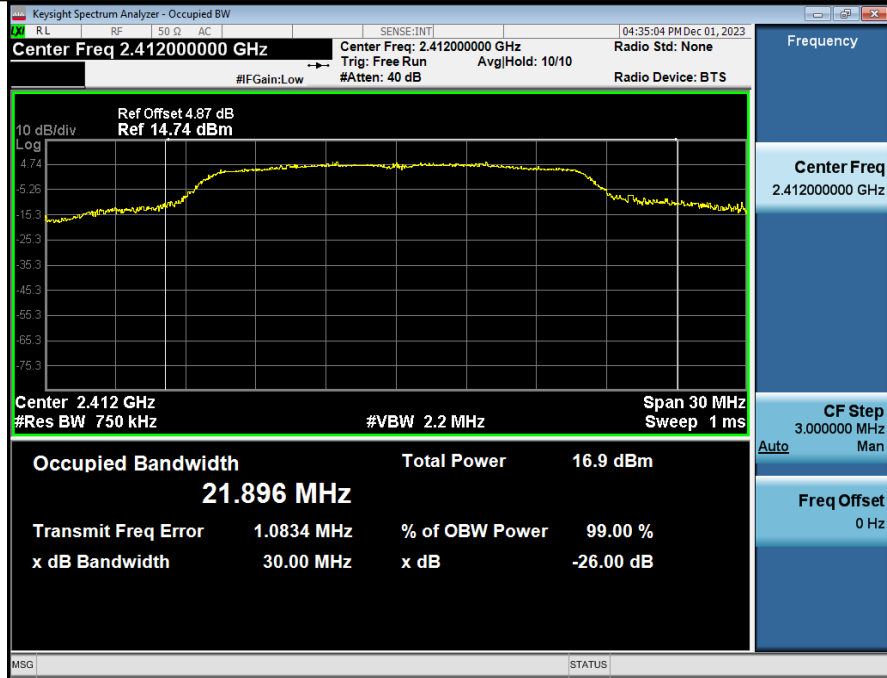
99% Occupied Bandwidth NVNT_ANT1_802_11b_2437



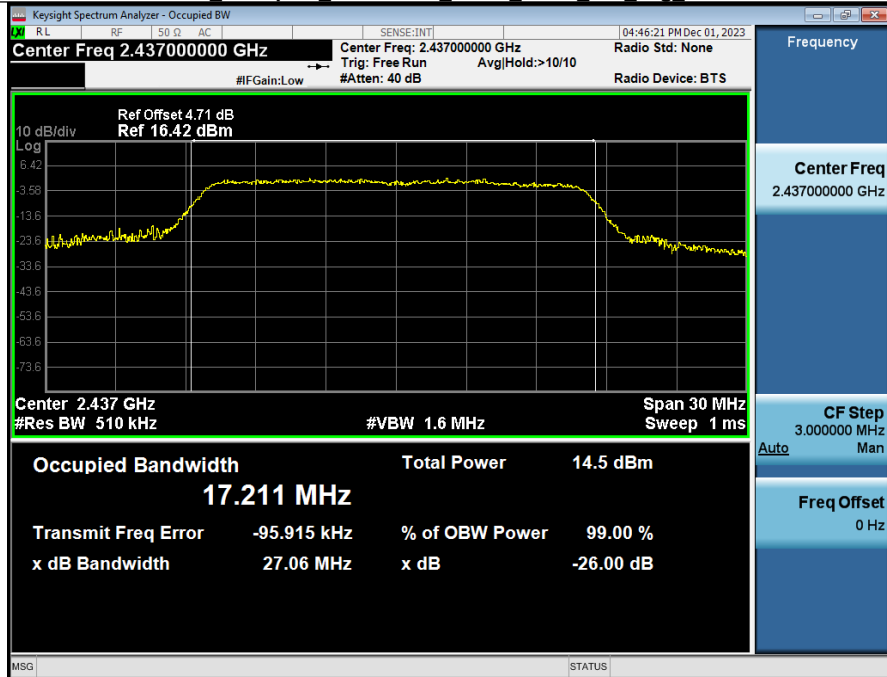
99% Occupied Bandwidth NVNT_ANT1_802_11b_2462



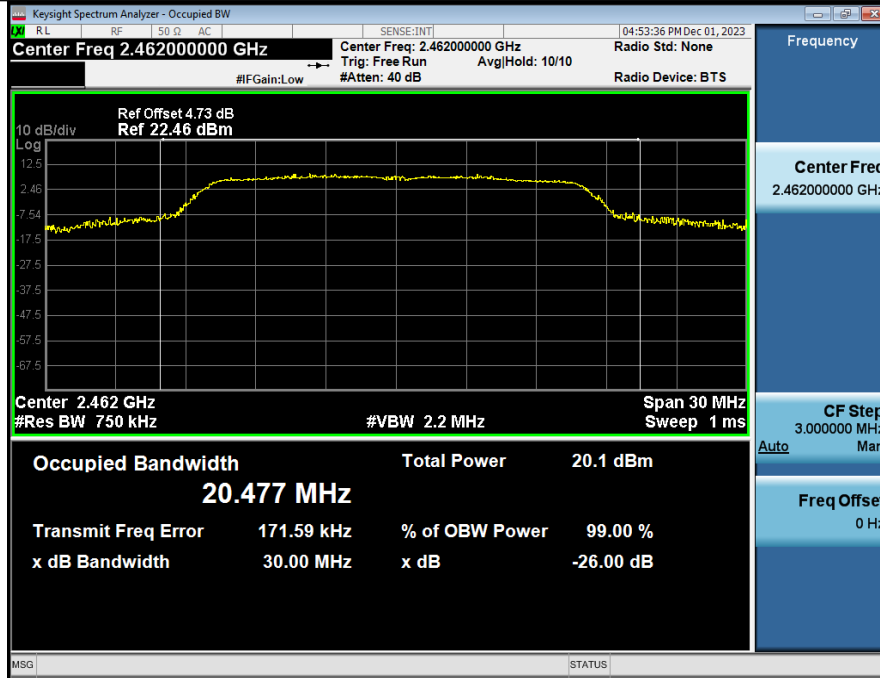
99% Occupied Bandwidth NVNT_ANT1_802_11g_2412



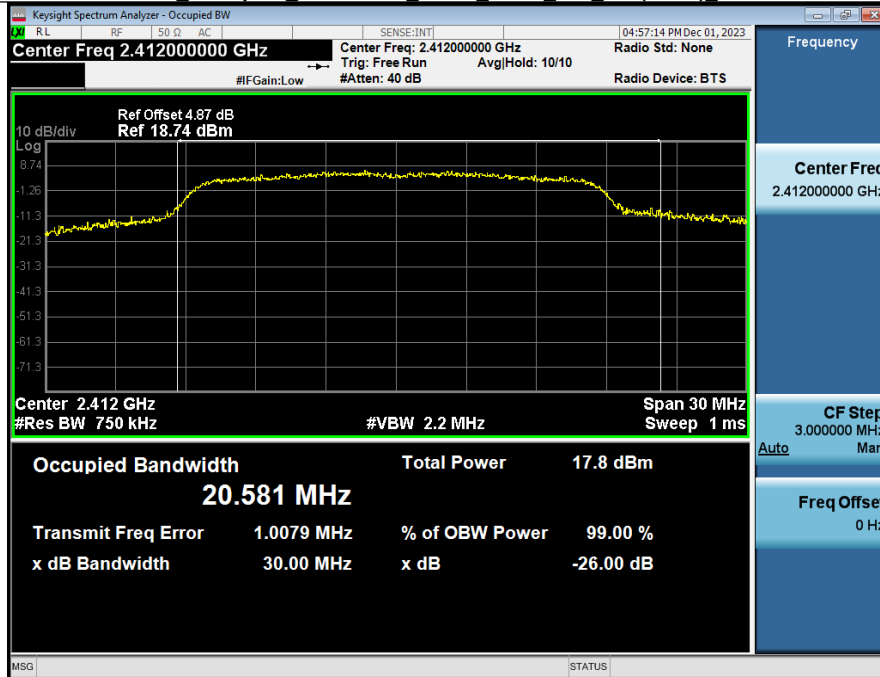
99% Occupied Bandwidth NVNT_ANT1_802_11g_2437



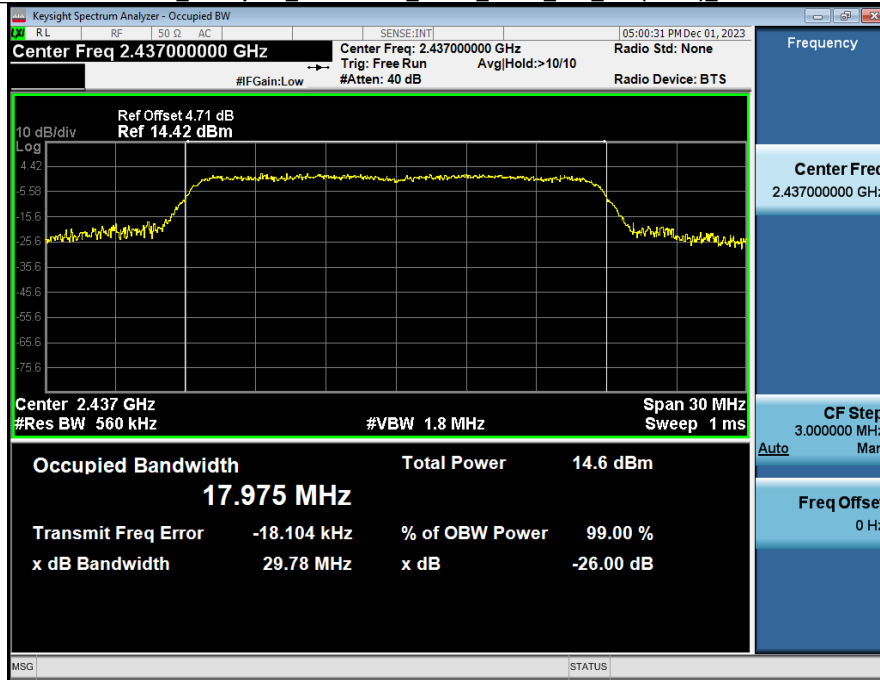
99% Occupied Bandwidth NVNT_ANT1_802_11g_2462



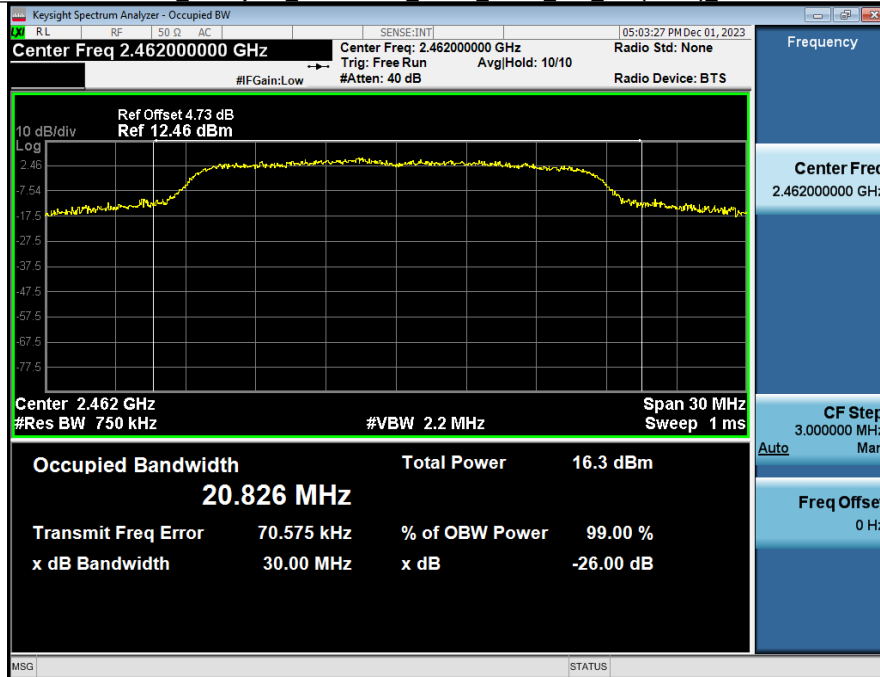
99% Occupied Bandwidth NVNT_ANT1_802_11n(HT20)_2412



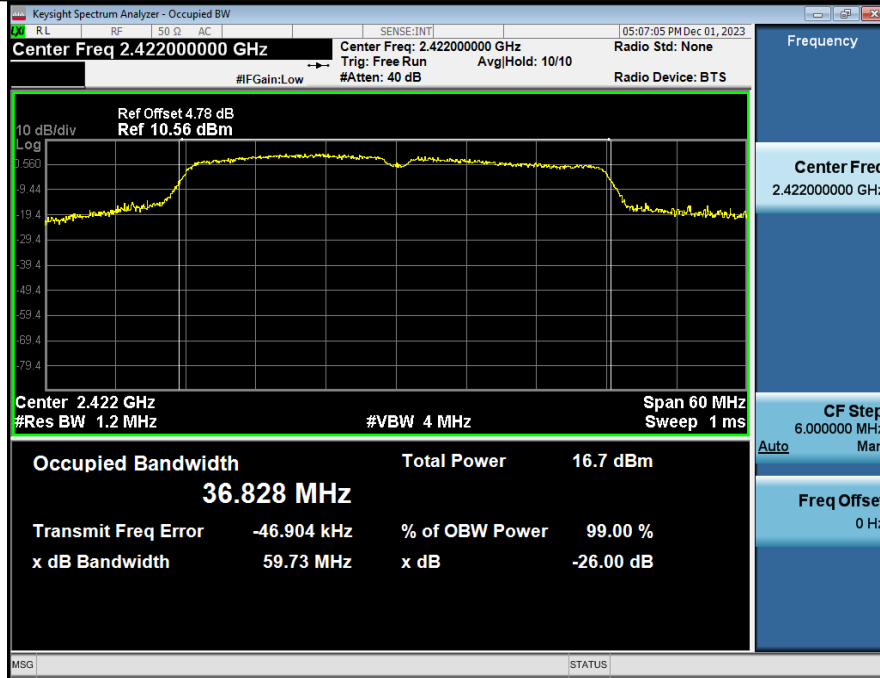
99% Occupied Bandwidth NVNT_ANT1_802_11n(HT20)_2437



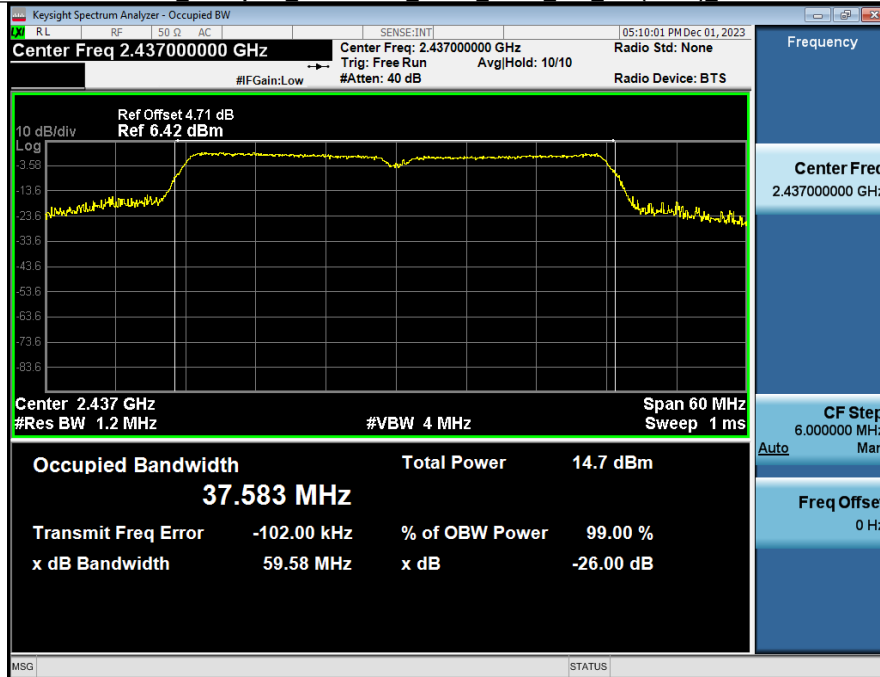
99% Occupied Bandwidth NVNT_ANT1_802_11n(HT20)_2462

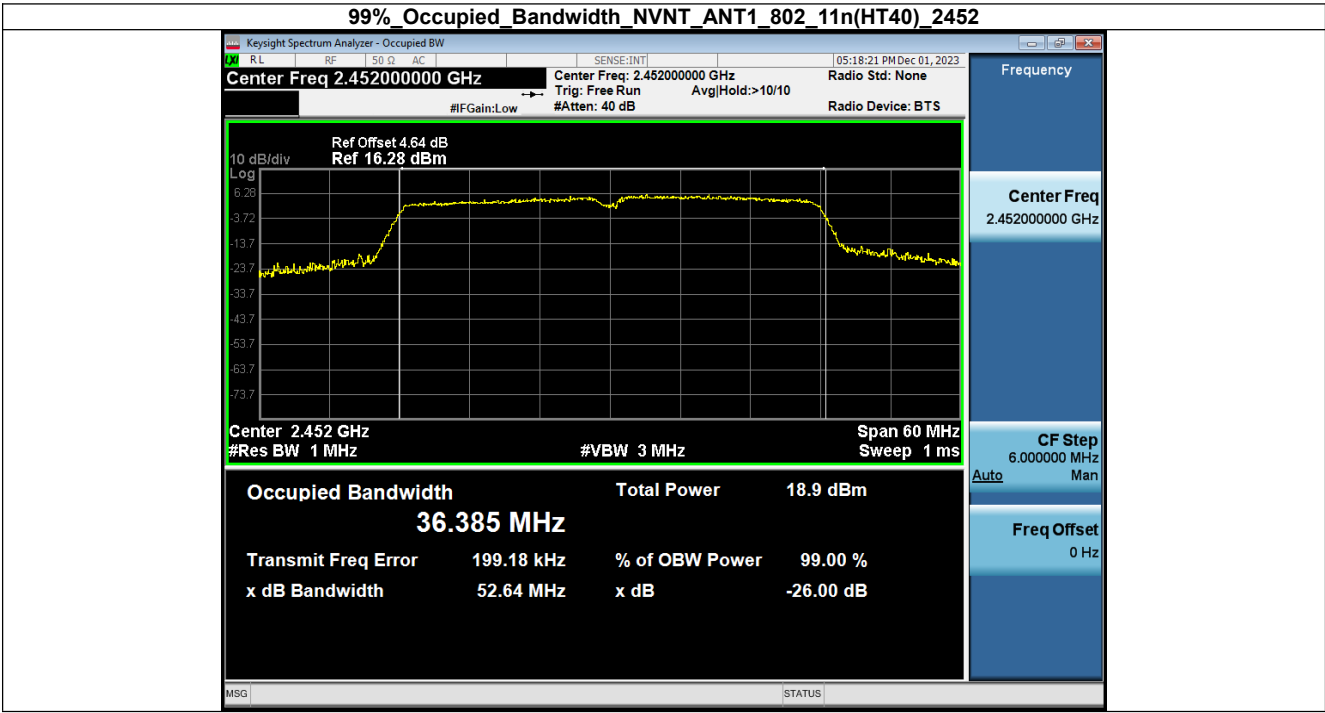


99% Occupied Bandwidth NVNT_ANT1_802_11n(HT40)_2422



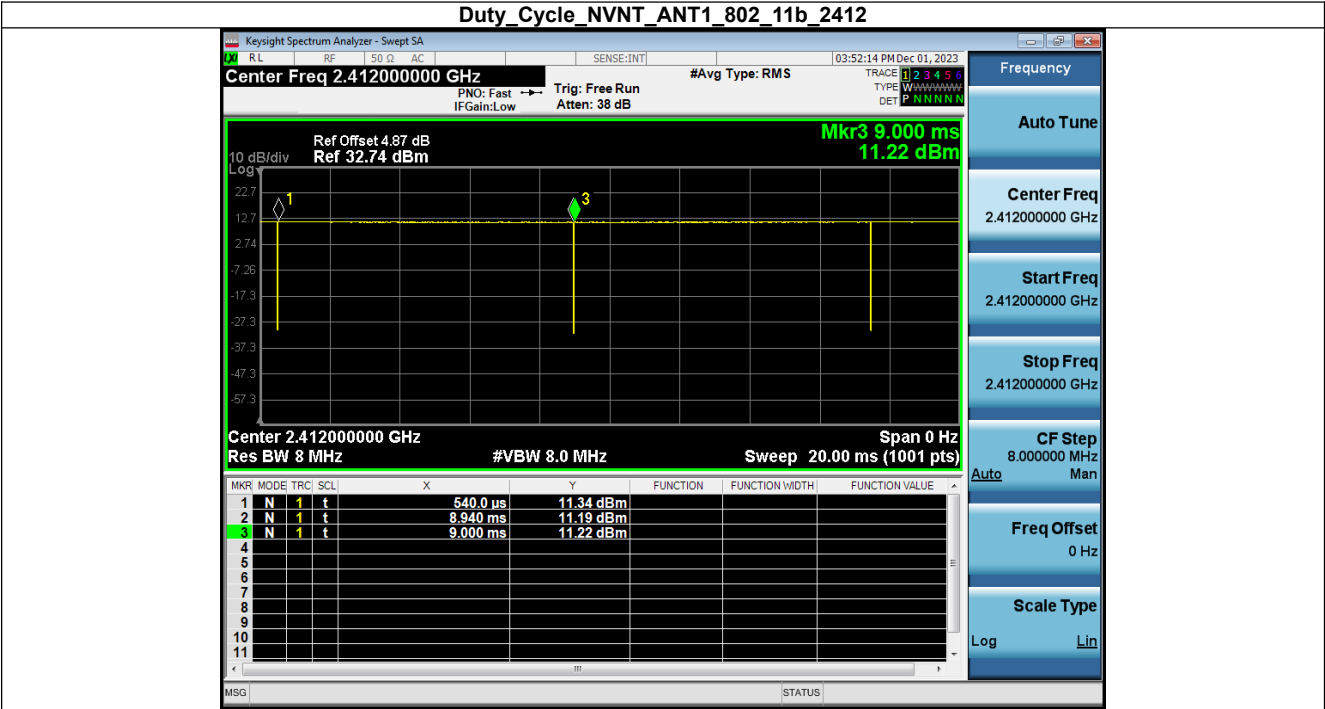
99% Occupied Bandwidth NVNT_ANT1_802_11n(HT40)_2437



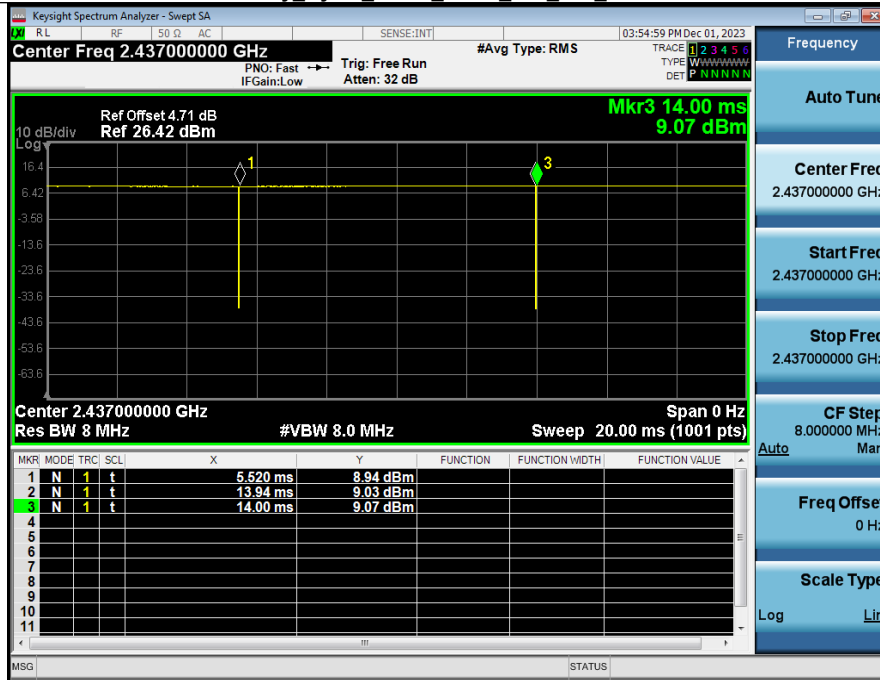


3. Duty Cycle

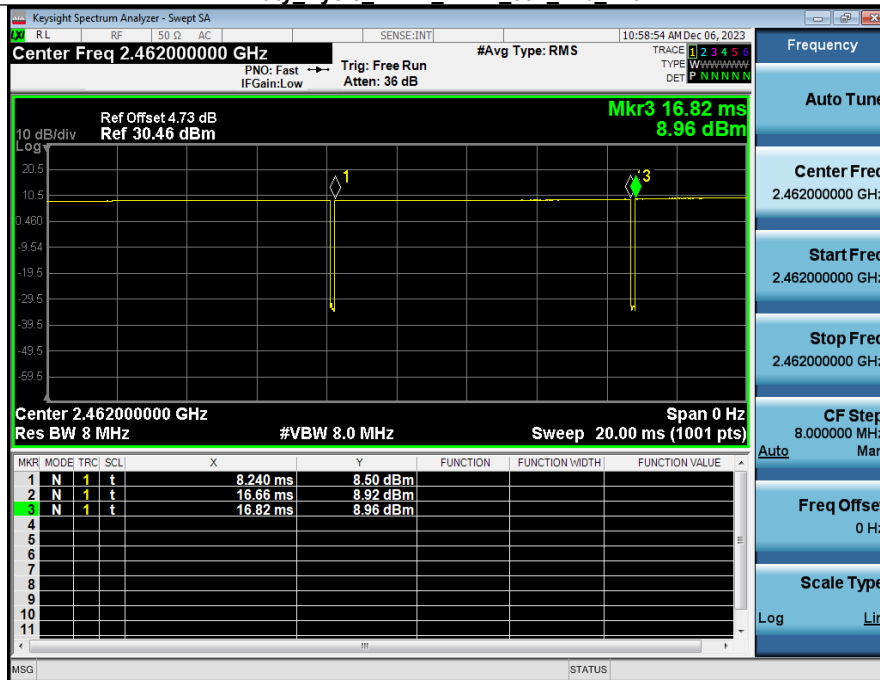
Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412	99.53	0.00
NVNT	ANT1	802.11b	2437.00	99.53	0.00
NVNT	ANT1	802.11b	2462.00	98.37	0.00
NVNT	ANT1	802.11g	2412	98.61	0.00
NVNT	ANT1	802.11g	2437.00	97.22	0.12
NVNT	ANT1	802.11g	2462.00	98.61	0.00
NVNT	ANT1	802.11n(HT20)	2412	98.36	0.00
NVNT	ANT1	802.11n(HT20)	2437.00	96.77	0.14
NVNT	ANT1	802.11n(HT20)	2462.00	96.77	0.14
NVNT	ANT1	802.11n(HT40)	2422	93.75	0.28
NVNT	ANT1	802.11n(HT40)	2437.00	93.75	0.28
NVNT	ANT1	802.11n(HT40)	2452.00	96.88	0.14



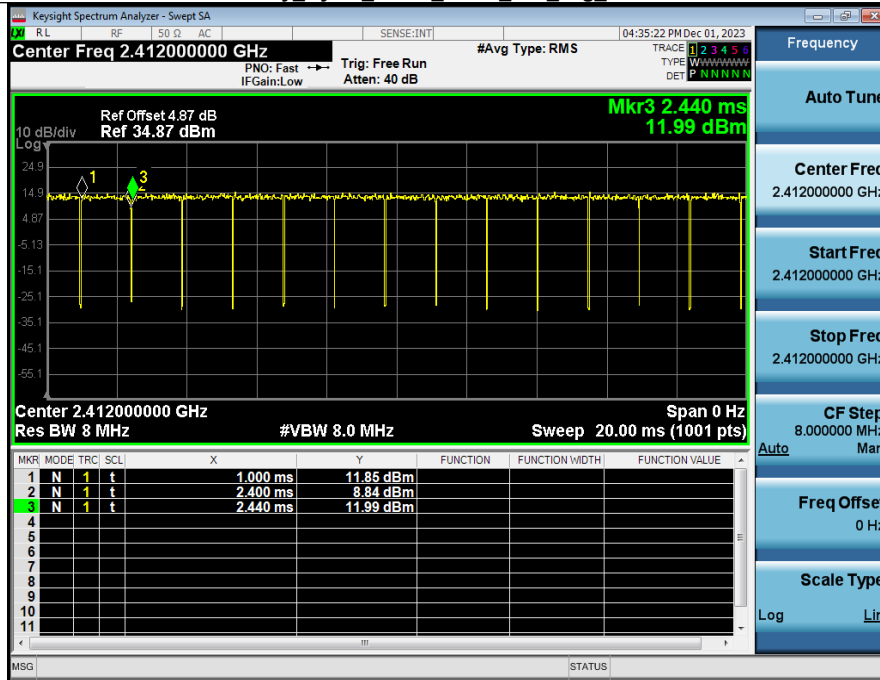
Duty Cycle NVNT_ANT1_802_11b_2437



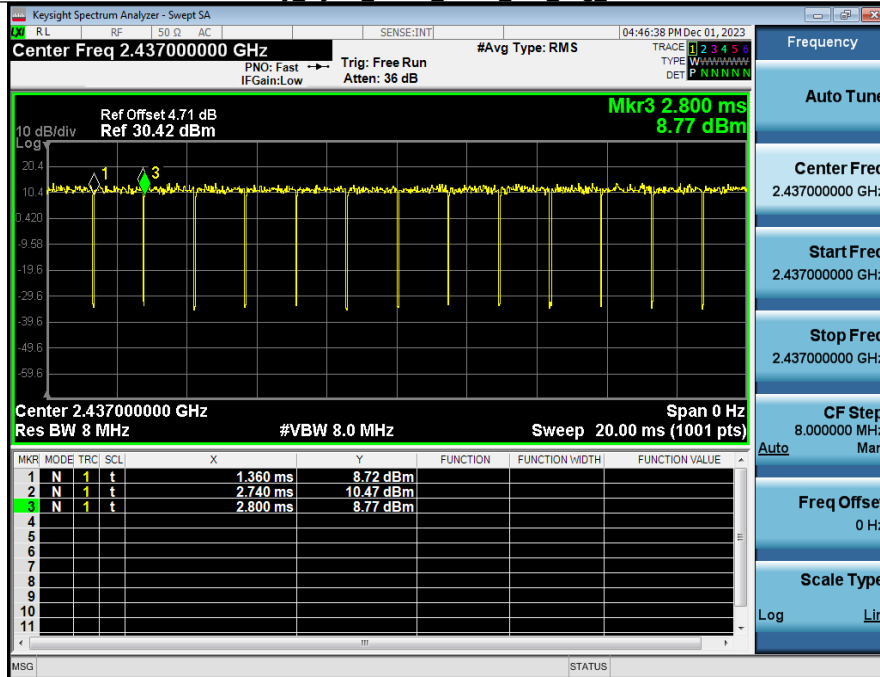
Duty Cycle NVNT_ANT1_802_11b_2462



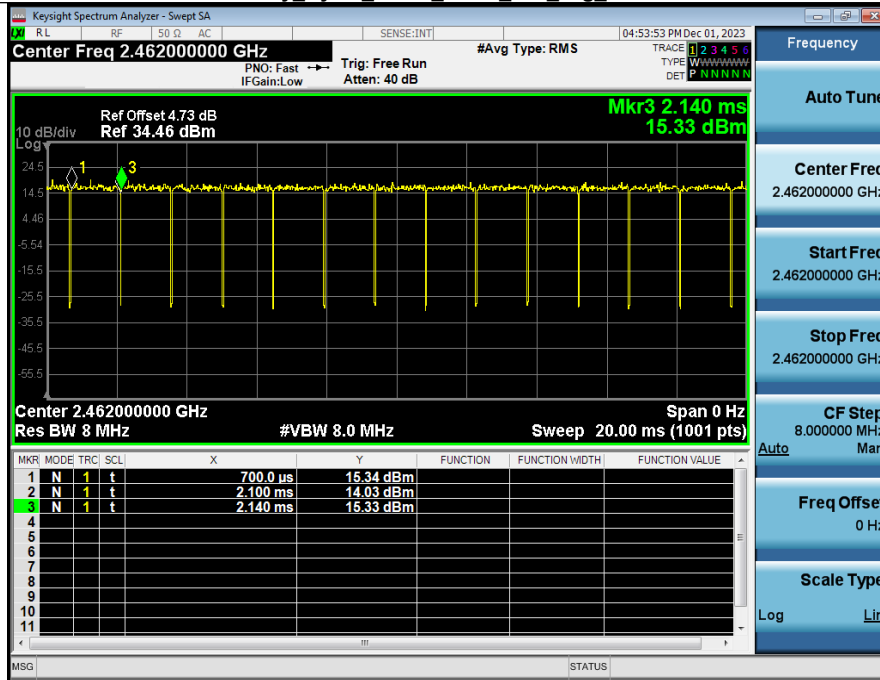
Duty Cycle NVNT ANT1_802_11g_2412



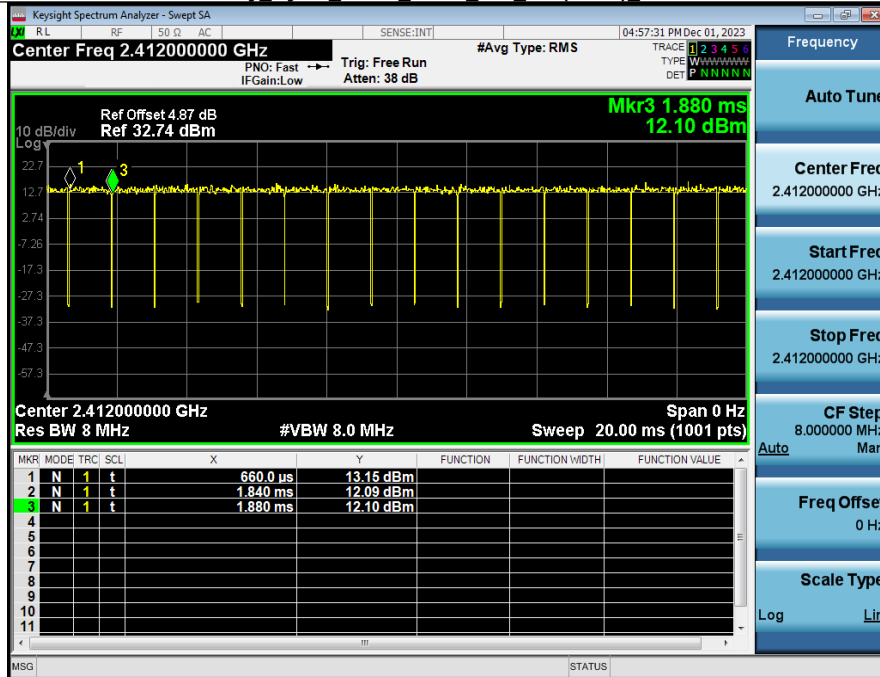
Duty Cycle NVNT ANT1_802_11g_2437



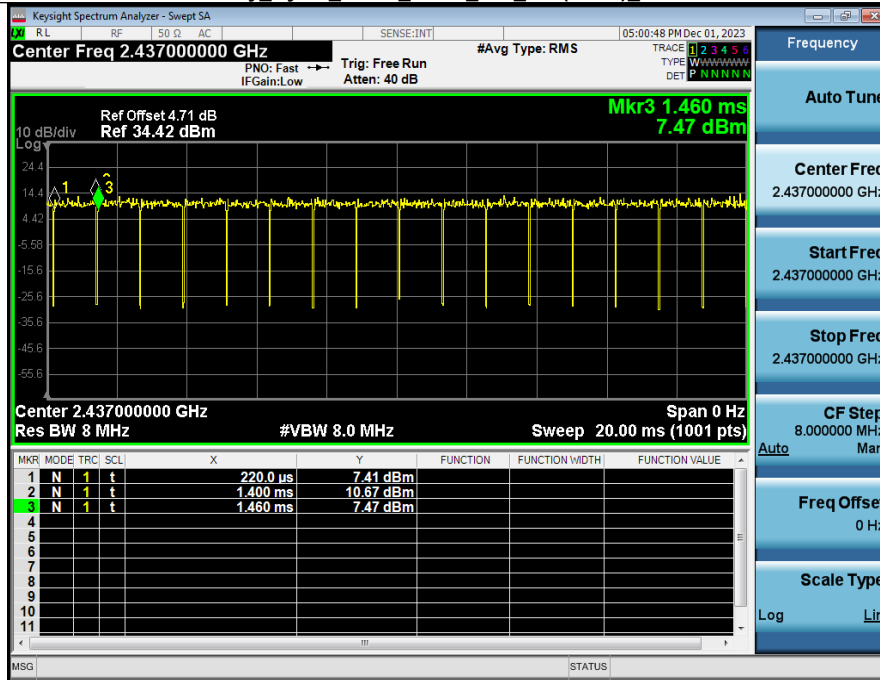
Duty Cycle NVNT ANT1_802_11g_2462



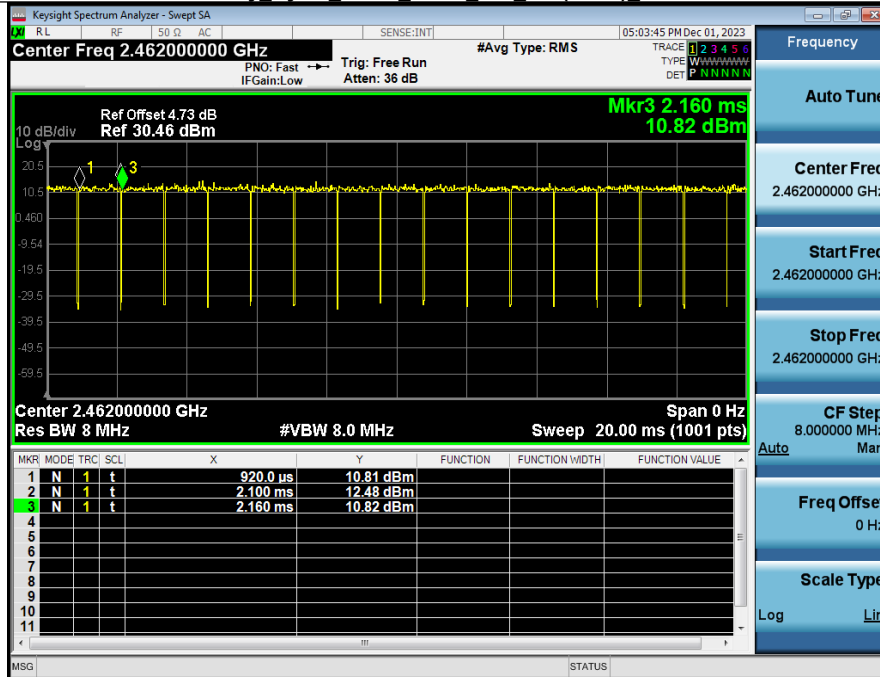
Duty Cycle NVNT ANT1_802_11n(HT20)_2412



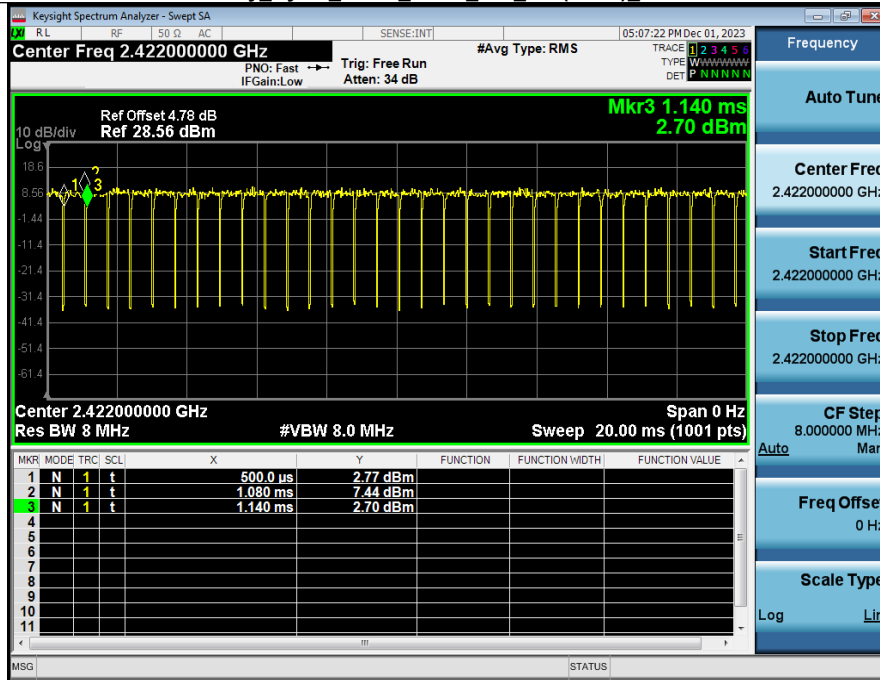
Duty Cycle NVNT_ANT1_802_11n(HT20)_2437



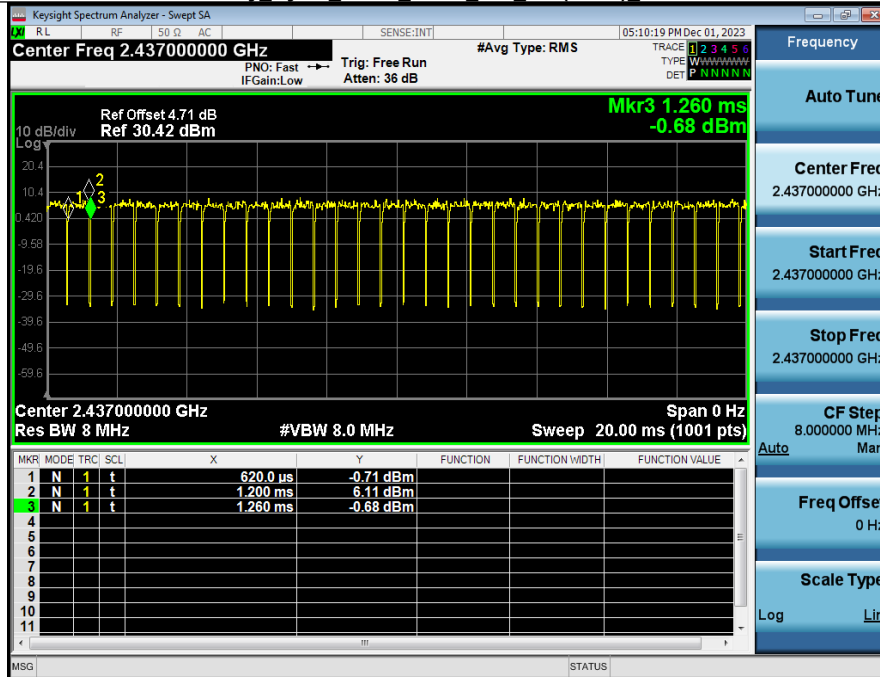
Duty Cycle NVNT_ANT1_802_11n(HT20)_2462



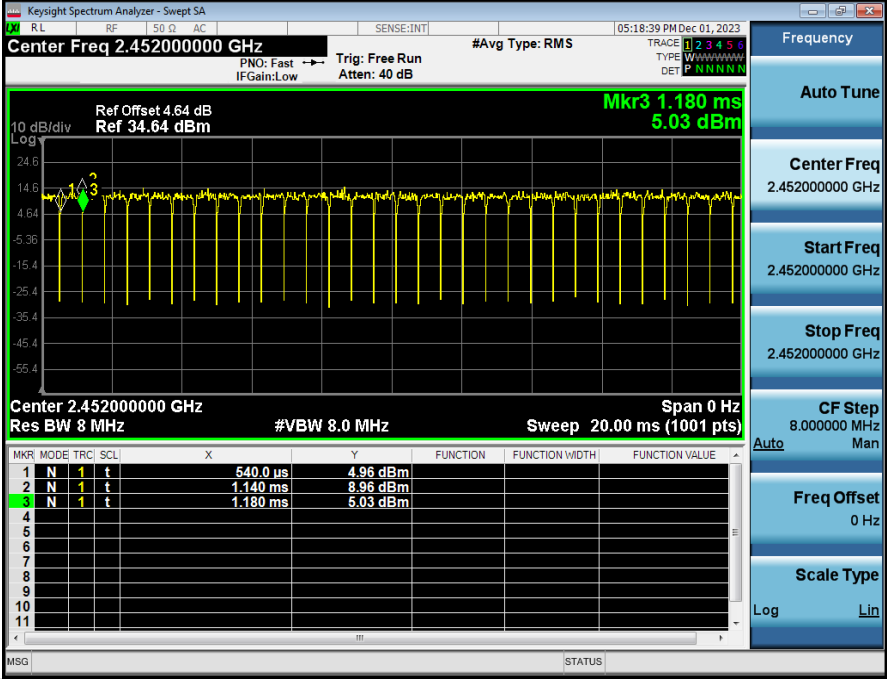
Duty Cycle NVNT_ANT1_802_11n(HT40)_2422



Duty Cycle NVNT_ANT1_802_11n(HT40)_2437



Duty Cycle NVNT_ANT1_802_11n(HT40)_2452



5. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/30kHz)	Duty factor(dB)	RB factor(dB)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412	-4.96	N/A	-10.00	-14.96	8	
NVNT	ANT1	802.11b	2437.00	-7.31	N/A	-10.00	-17.31	8	
NVNT	ANT1	802.11b	2462.00	-8.00	N/A	-10.00	-18.00	8	
NVNT	ANT1	802.11g	2412	-5.37	N/A	-10.00	-15.37	8	
NVNT	ANT1	802.11g	2437.00	-8.52	N/A	-10.00	-18.52	8	
NVNT	ANT1	802.11g	2462.00	-2.02	N/A	-10.00	-12.02	8	
NVNT	ANT1	802.11n(HT20)	2412	-5.31	N/A	-10.00	-15.31	8	
NVNT	ANT1	802.11n(HT20)	2437.00	-9.63	N/A	-10.00	-19.63	8	
NVNT	ANT1	802.11n(HT20)	2462.00	-6.85	N/A	-10.00	-16.85	8	
NVNT	ANT1	802.11n(HT40)	2422	-9.81	N/A	-10.00	-19.81	8	
NVNT	ANT1	802.11n(HT40)	2437.00	-12.68	N/A	-10.00	-22.68	8	
NVNT	ANT1	802.11n(HT40)	2452.00	-8.58	N/A	-10.00	-18.58	8	



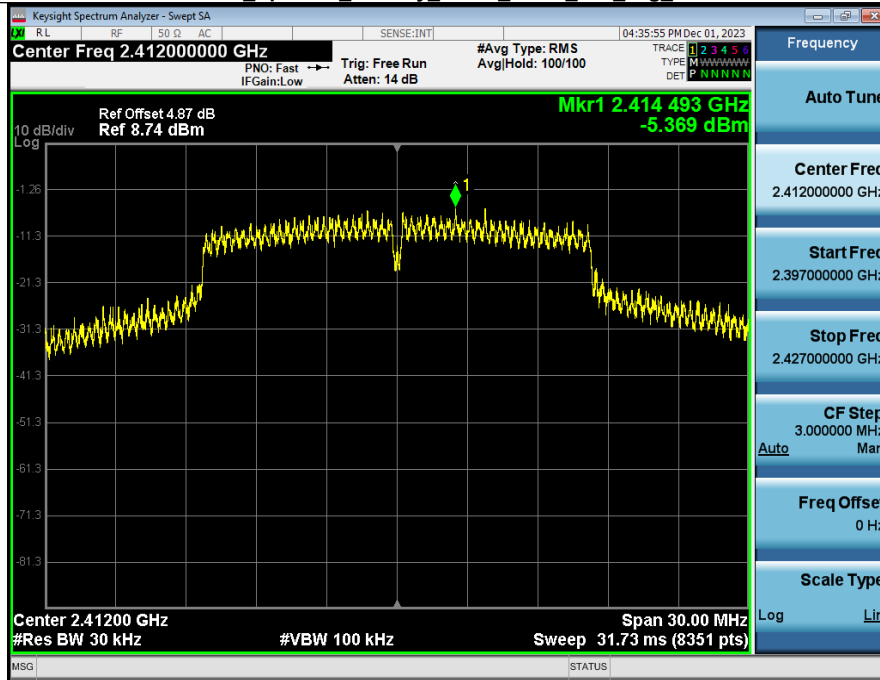
Power Spectral Density NVNT_ANT1_802_11b_2437



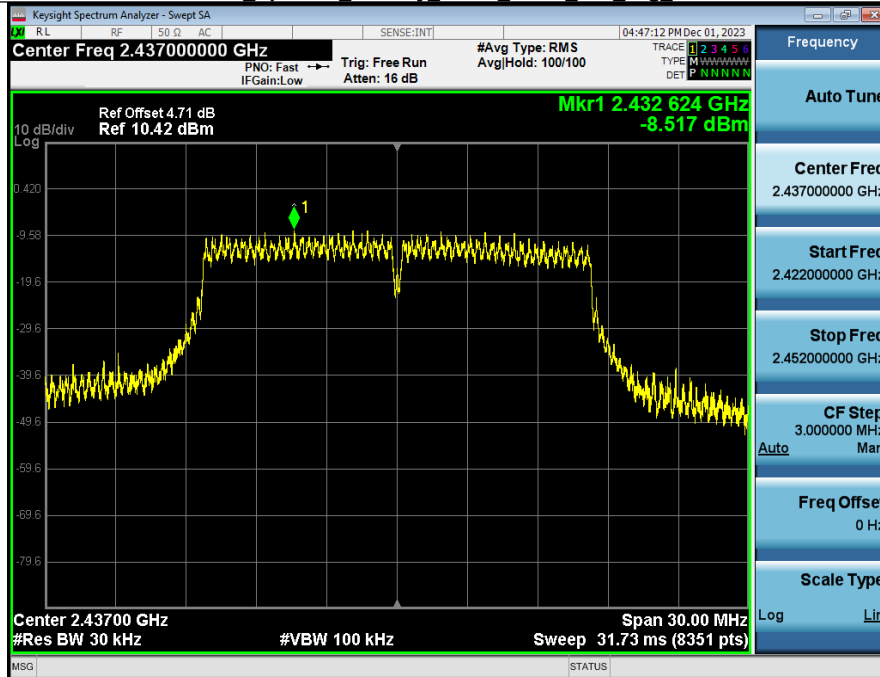
Power Spectral Density NVNT_ANT1_802_11b_2462



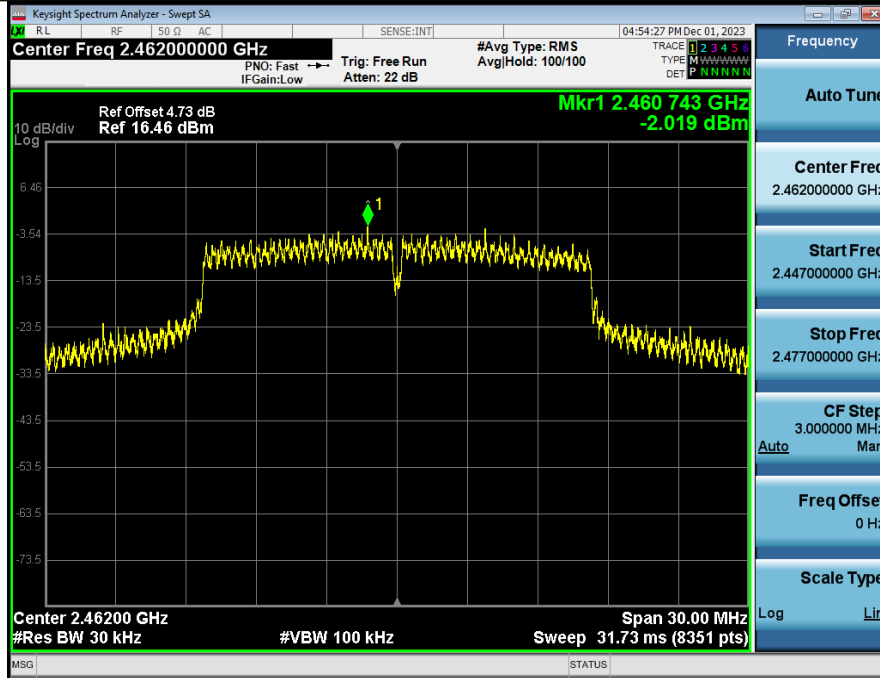
Power Spectral Density NVNT_ANT1_802_11g_2412



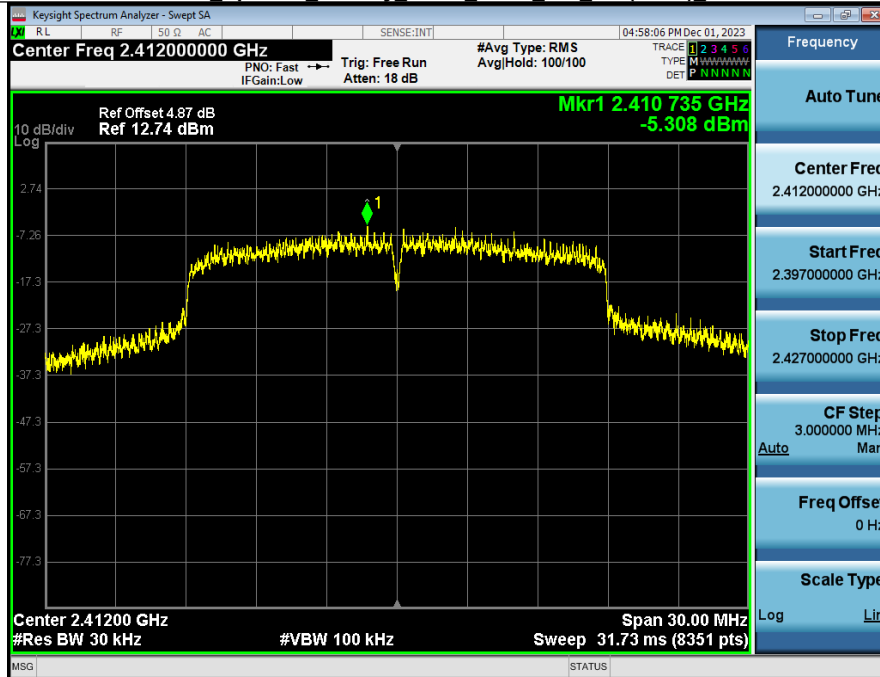
Power Spectral Density NVNT_ANT1_802_11g_2437



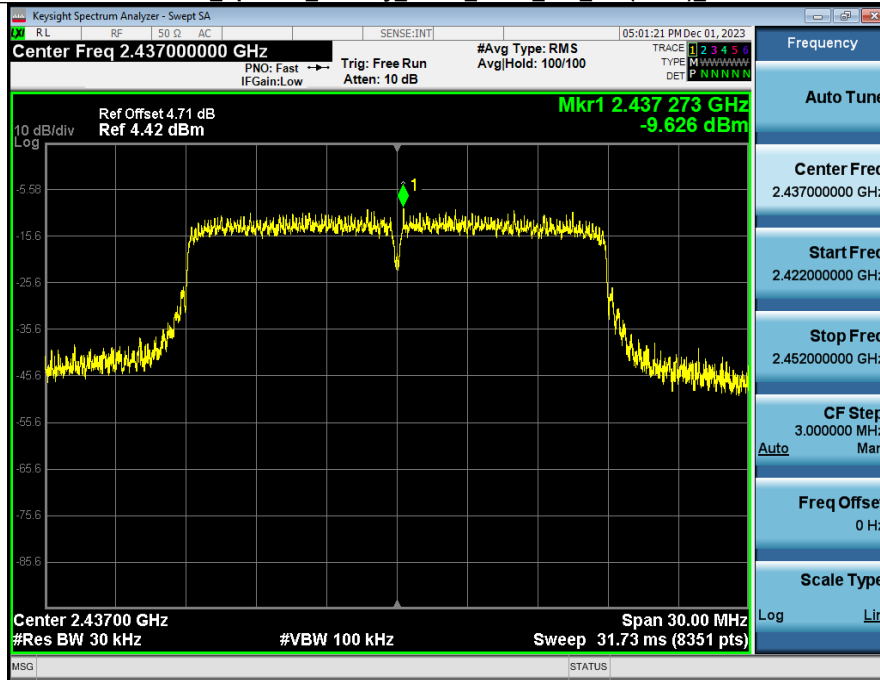
Power Spectral Density NVNT_ANT1_802_11g_2462



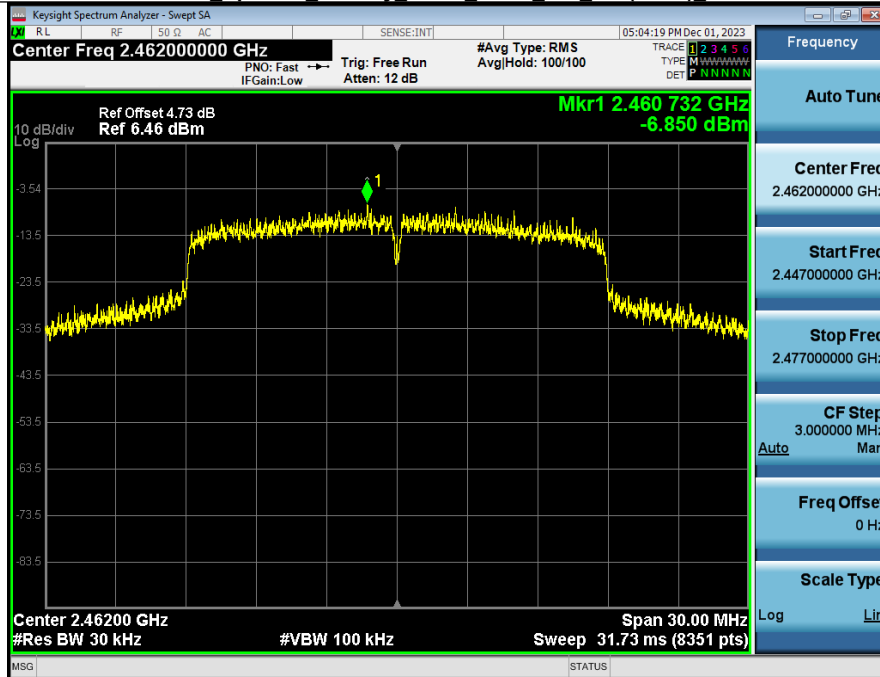
Power Spectral Density NVNT_ANT1_802_11n(HT20)_2412



Power Spectral Density NVNT_ANT1_802_11n(HT20)_2437



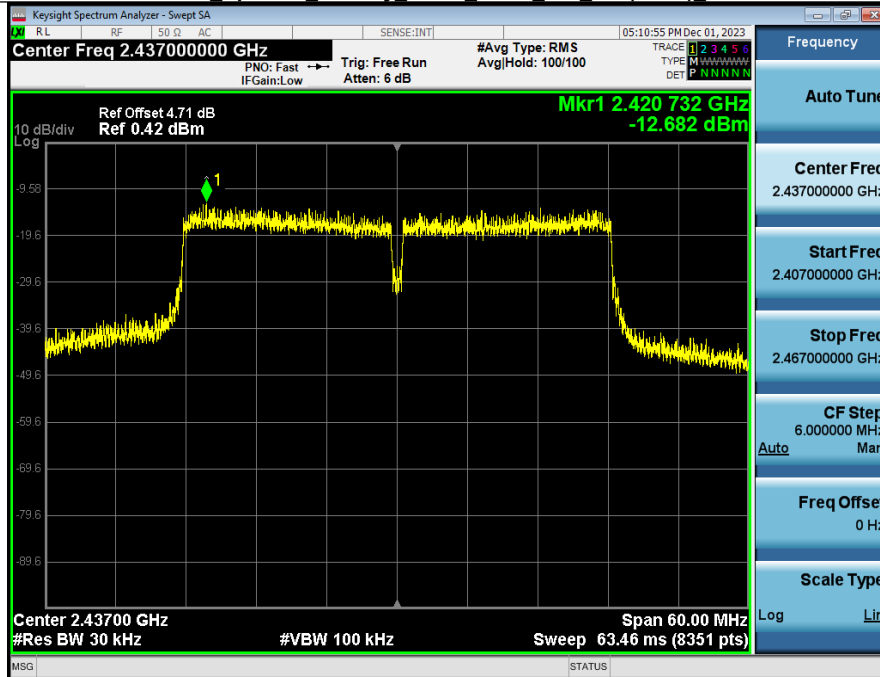
Power Spectral Density NVNT_ANT1_802_11n(HT20)_2462



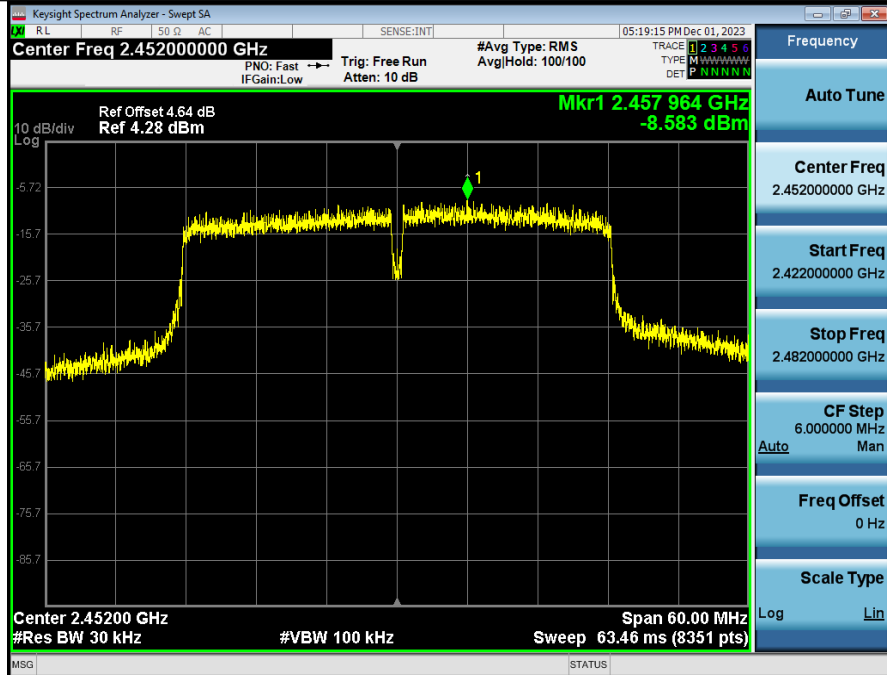
Power Spectral Density NVNT_ANT1_802_11n(HT40)_2422



Power Spectral Density NVNT_ANT1_802_11n(HT40)_2437

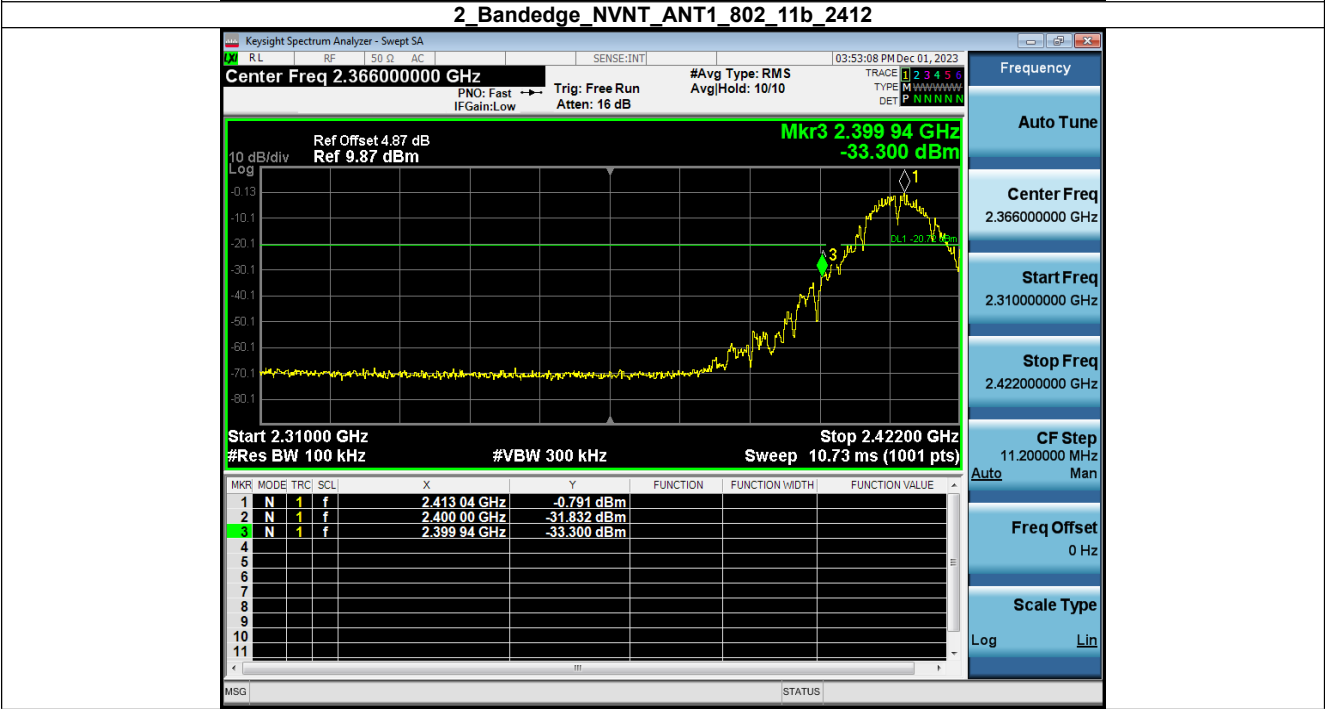


Power Spectral Density_NVNT_ANT1_802_11n(HT40)_2452



6. Bandedge

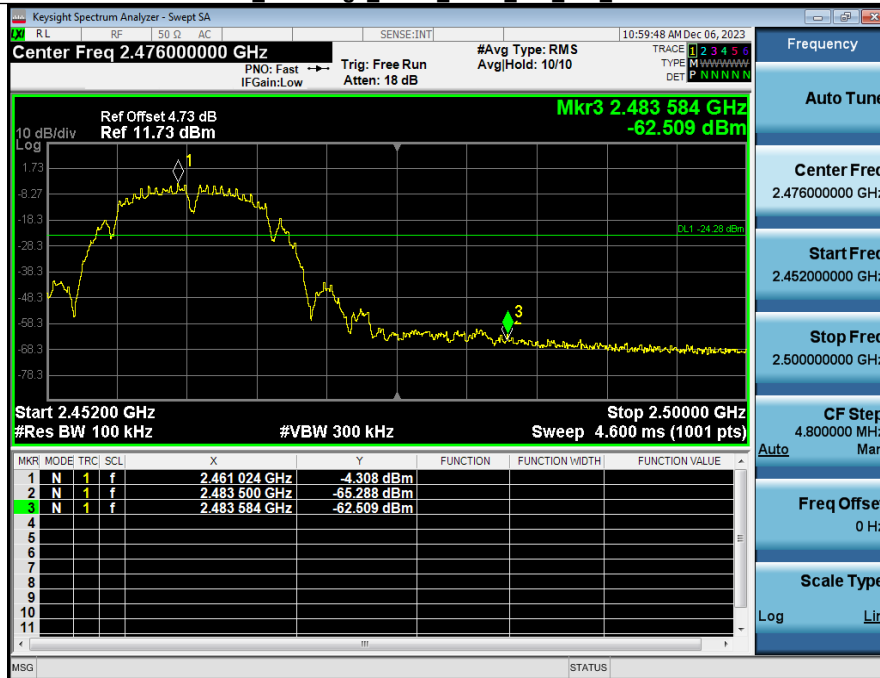
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412	2399.936	-33.300	-20.724	Pass
NVNT	ANT1	802.11b	2462.00	2483.584	-62.509	-24.275	Pass
NVNT	ANT1	802.11g	2412	2399.152	-22.823	-20.701	Pass
NVNT	ANT1	802.11g	2462.00	2484.256	-33.146	-18.392	Pass
NVNT	ANT1	802.11n(HT20)	2412	2399.264	-24.605	-20.921	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.584	-36.576	-21.967	Pass
NVNT	ANT1	802.11n(HT40)	2422	2397.912	-29.869	-25.293	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2483.884	-34.238	-23.447	Pass



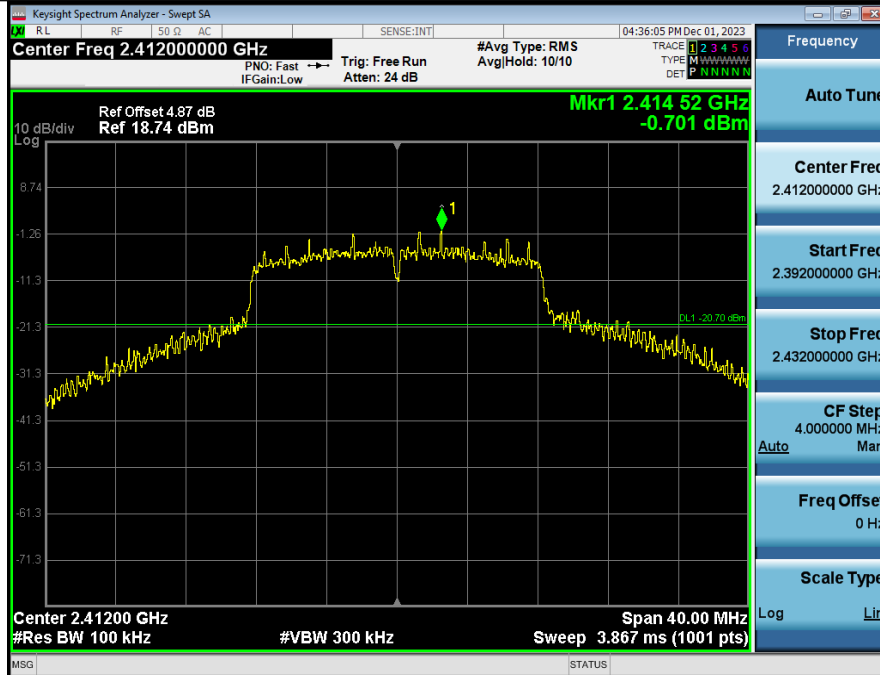
1 Reference Level NVNT_ANT1_802_11b_2462



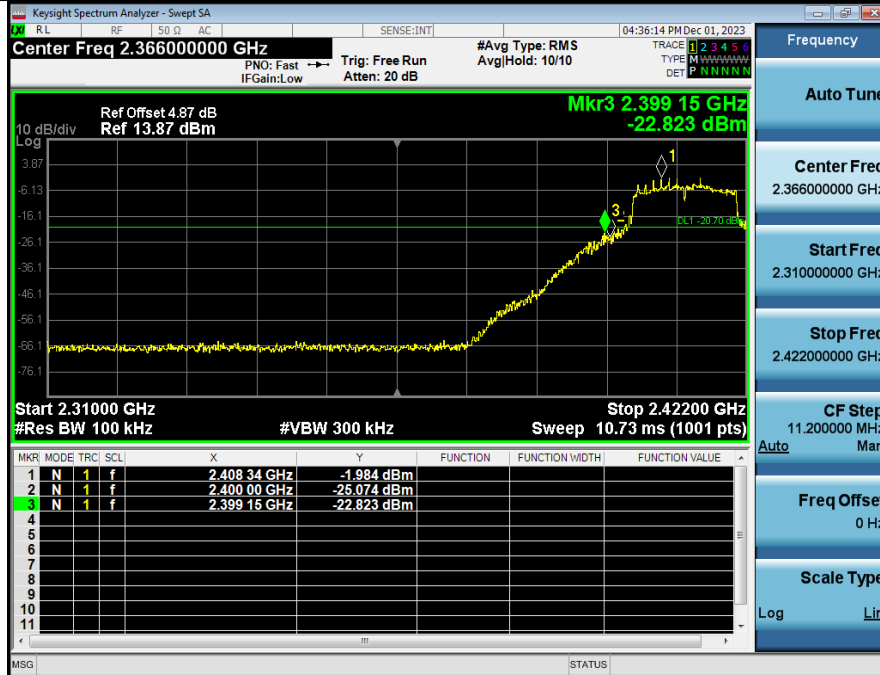
2 Bandedge NVNT_ANT1_802_11b_2462



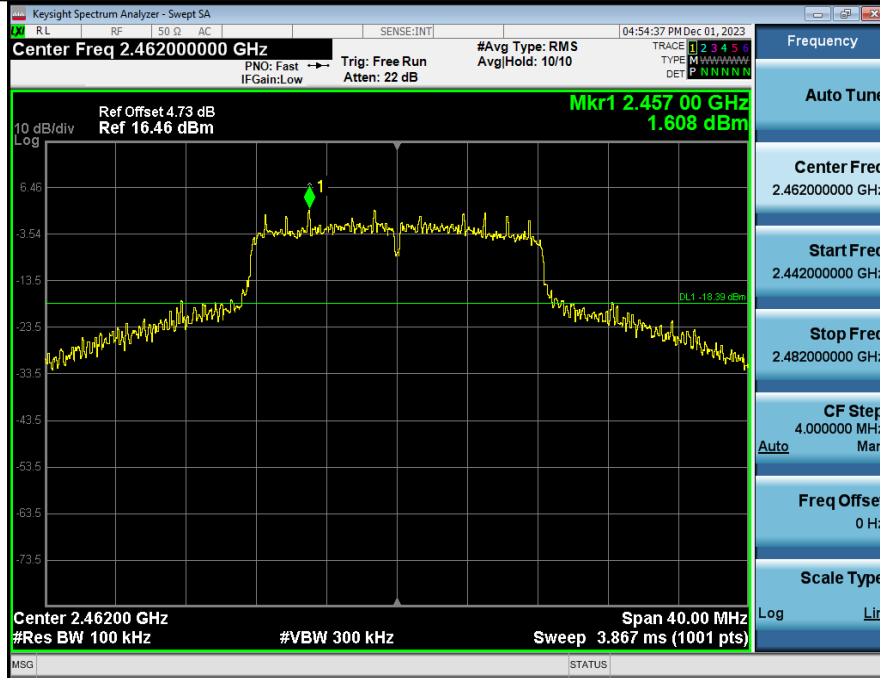
1_Reference_Level_NVNT_ANT1_802_11g_2412



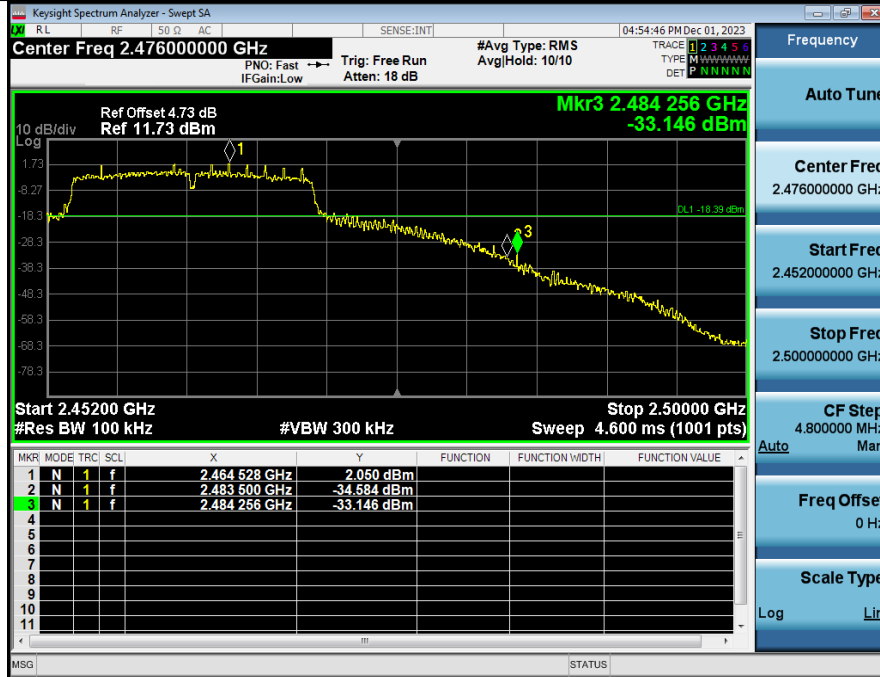
2_Bandedge_NVNT_ANT1_802_11g_2412



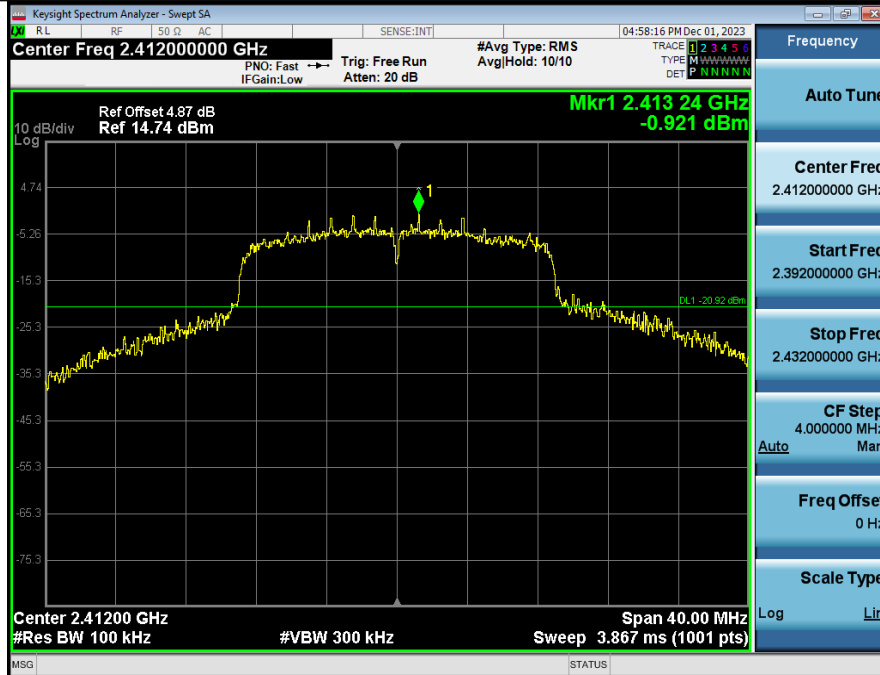
1_Reference_Level_NVNT_ANT1_802_11g_2462



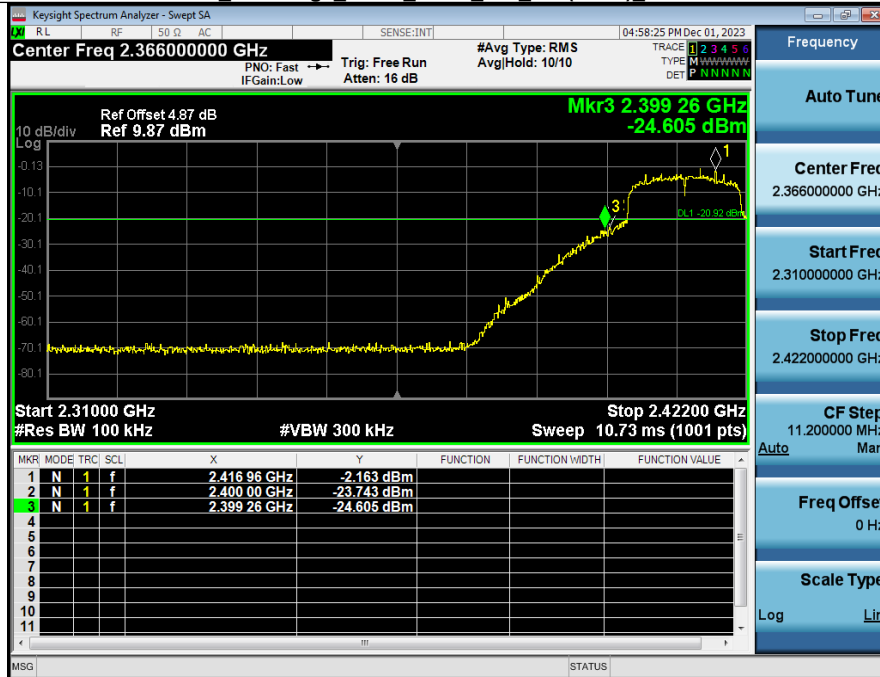
2_Bandedge_NVNT_ANT1_802_11g_2462



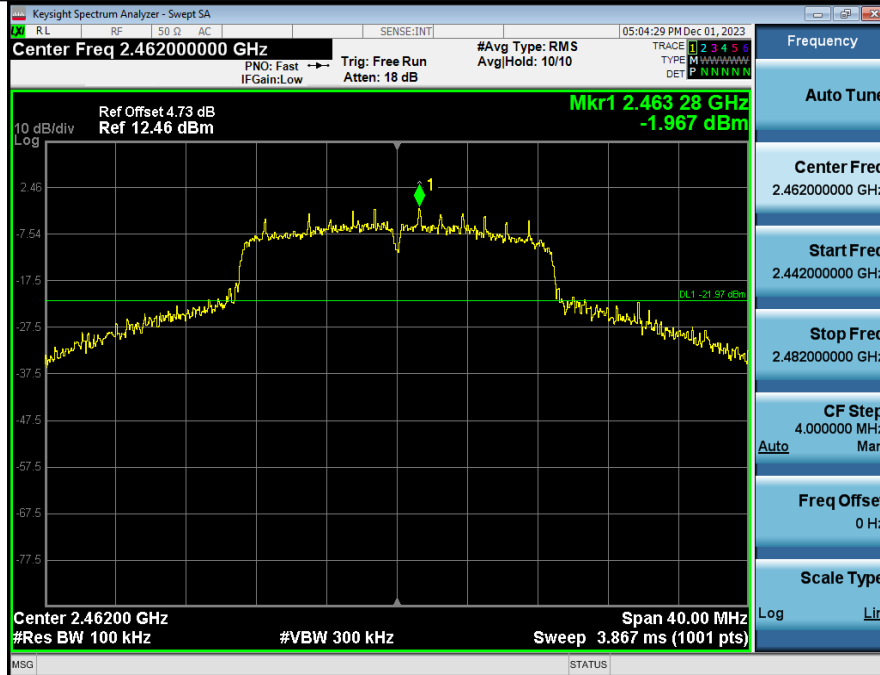
1 Reference Level_NVNT_ANT1_802_11n(HT20)_2412



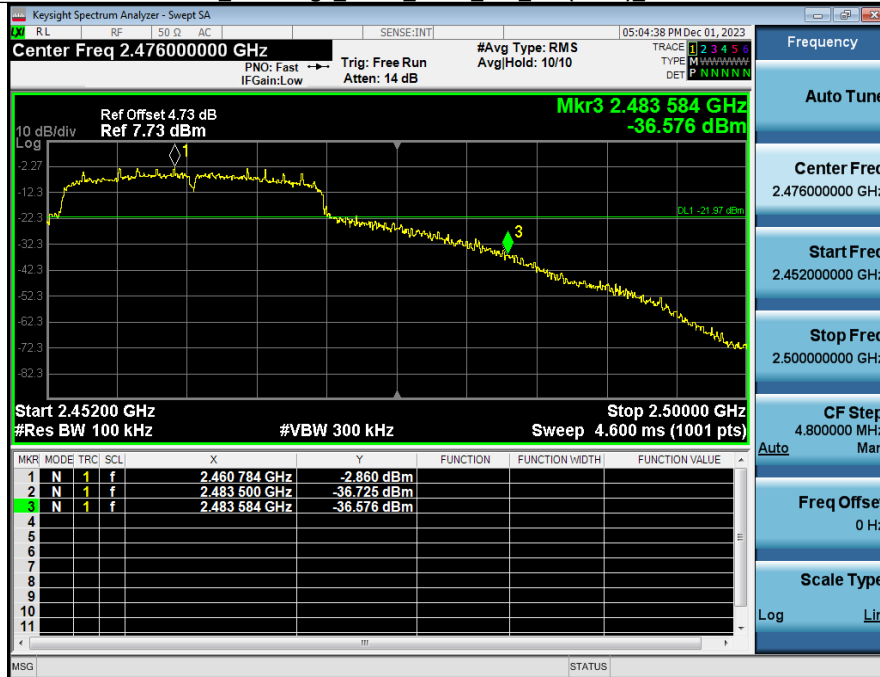
2 Bandedge_NVNT_ANT1_802_11n(HT20)_2412



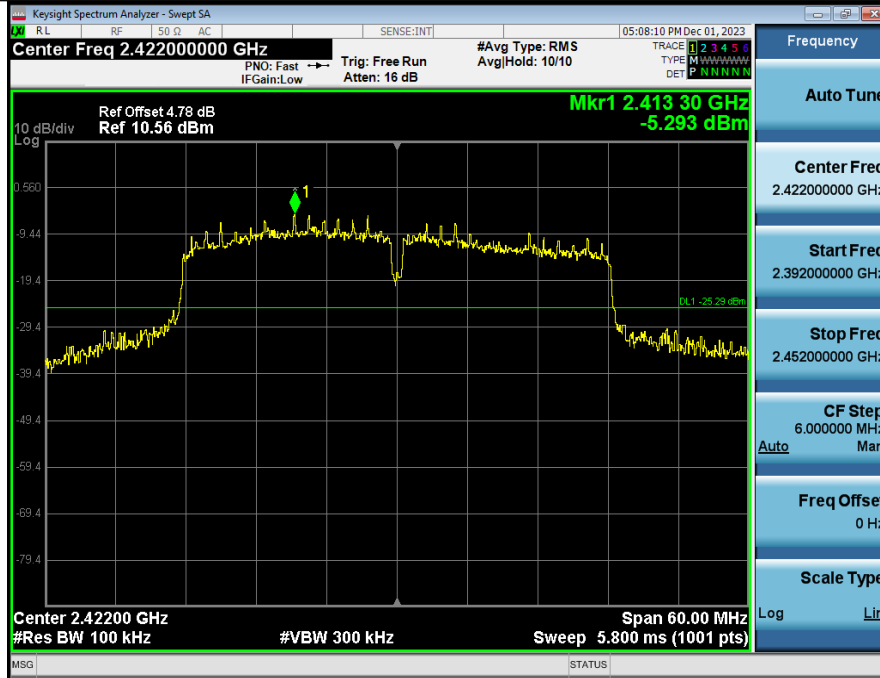
1 Reference Level_NVNT_ANT1_802_11n(HT20)_2462



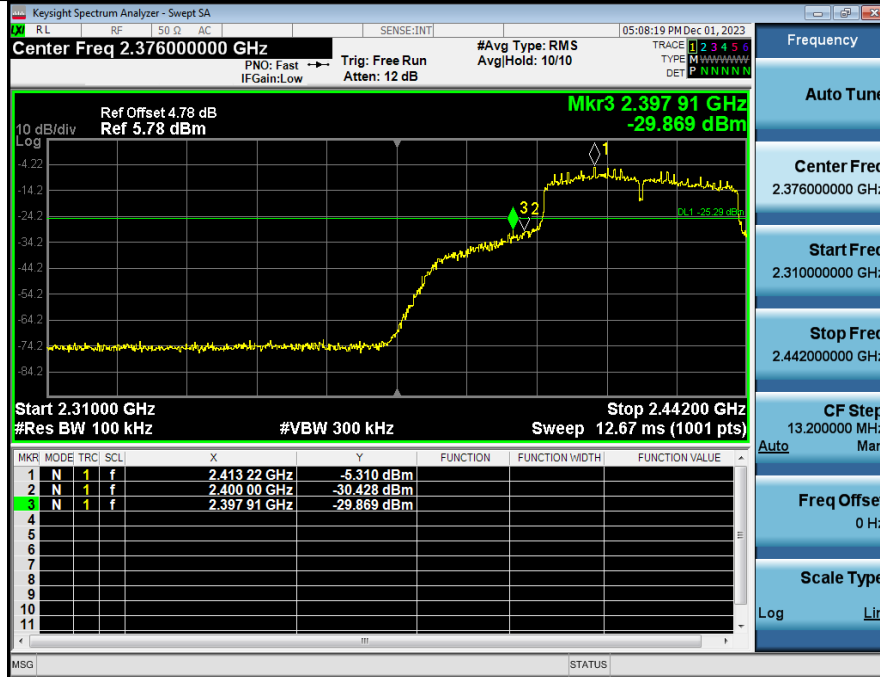
2 Bandedge_NVNT_ANT1_802_11n(HT20)_2462



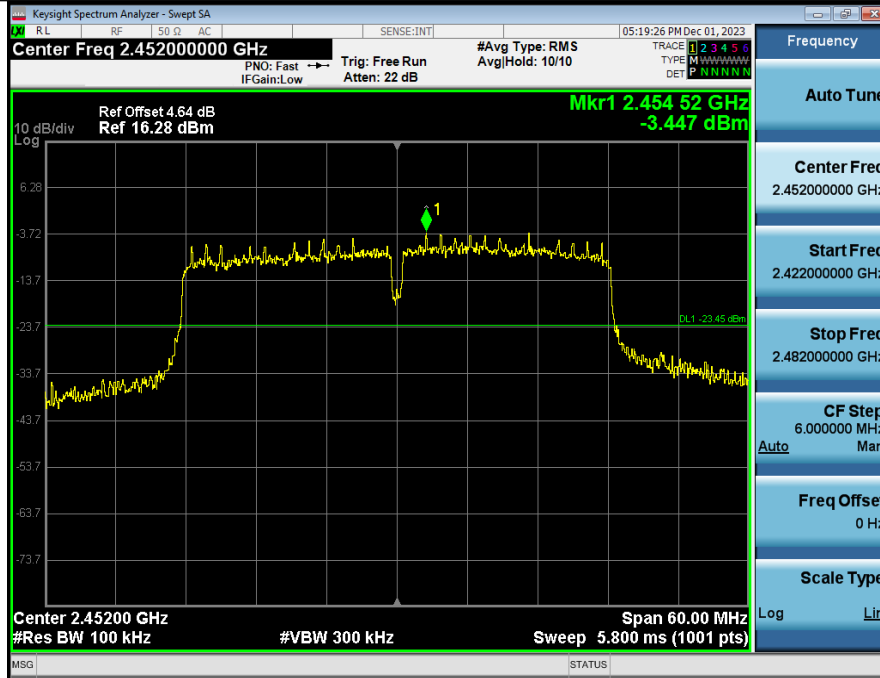
1 Reference Level_NVNT_ANT1_802_11n(HT40)_2422



2 Bandedge_NVNT_ANT1_802_11n(HT40)_2422



1 Reference Level_NVNT_ANT1_802_11n(HT40)_2452

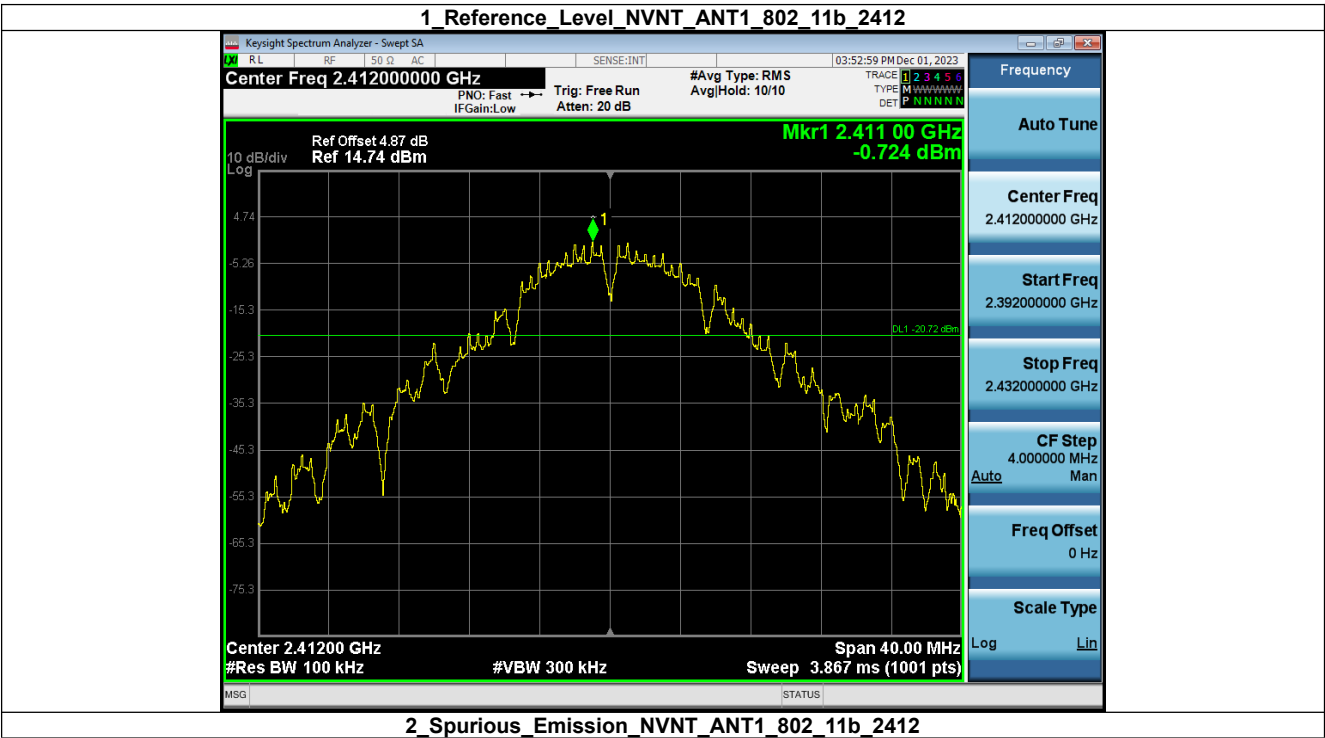


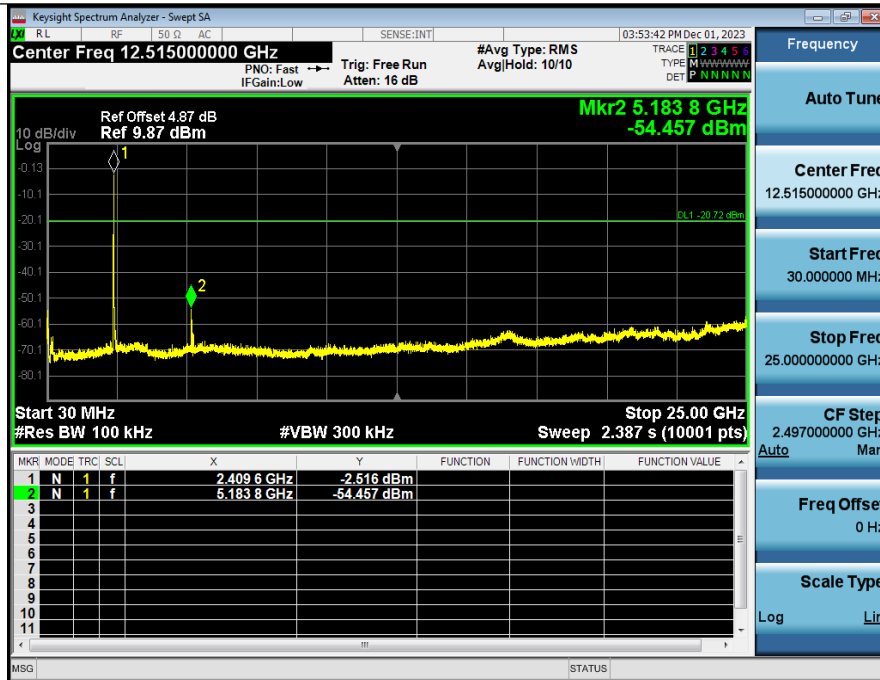
2 Bandedge_NVNT_ANT1_802_11n(HT40)_2452



7. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412	5183.808	-54.457	-20.724	Pass
NVNT	ANT1	802.11b	2437.00	49.976	-52.794	-23.453	Pass
NVNT	ANT1	802.11b	2462.00	706.687	-33.692	-24.275	Pass
NVNT	ANT1	802.11g	2412	24822.713	-54.706	-20.701	Pass
NVNT	ANT1	802.11g	2437.00	30.000	-51.713	-23.872	Pass
NVNT	ANT1	802.11g	2462.00	30.000	-51.484	-18.392	Pass
NVNT	ANT1	802.11n(HT20)	2412	52.473	-55.569	-20.921	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	52.473	-56.207	-24.949	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	49.976	-55.368	-21.967	Pass
NVNT	ANT1	802.11n(HT40)	2422	1752.930	-42.072	-25.293	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	52.473	-54.959	-28.128	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	24922.593	-56.042	-23.447	Pass

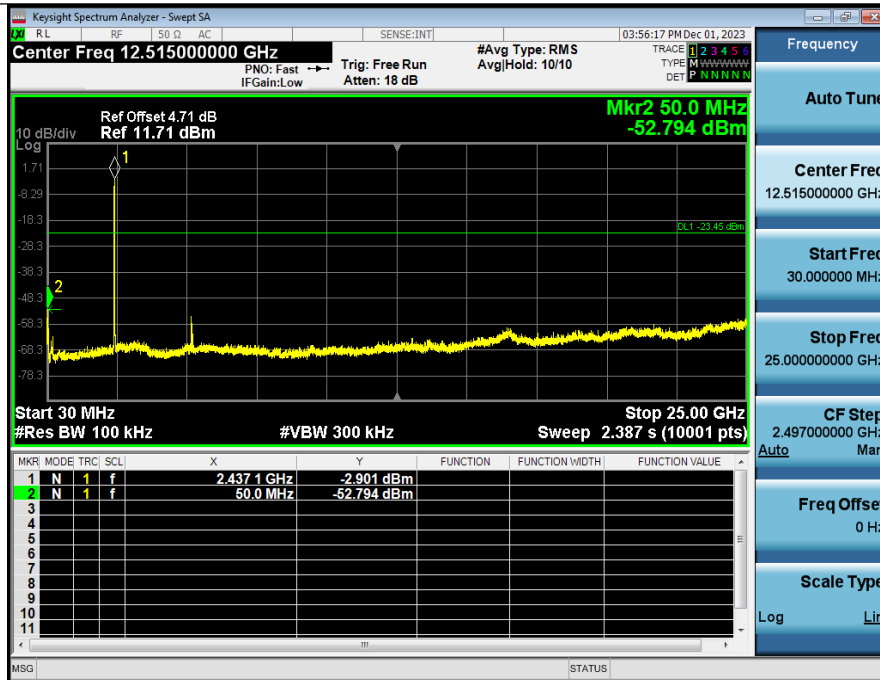




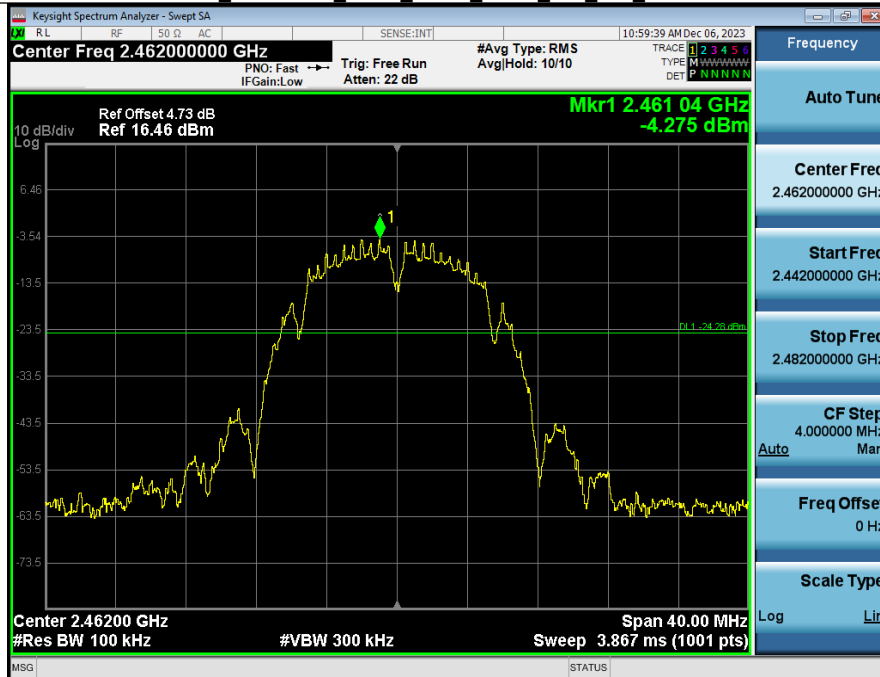
1 Reference_Level_NVNT_ANT1_802_11b_2437



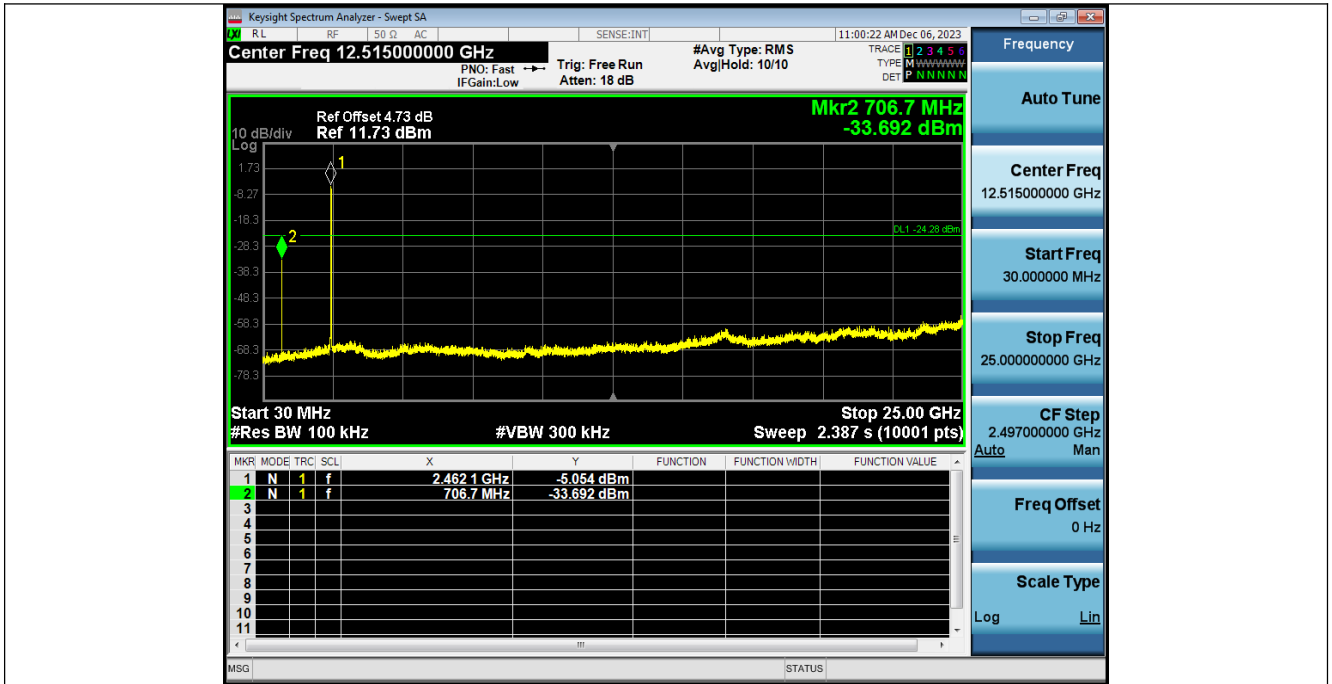
2 Spurious_Emission_NVNT_ANT1_802_11b_2437



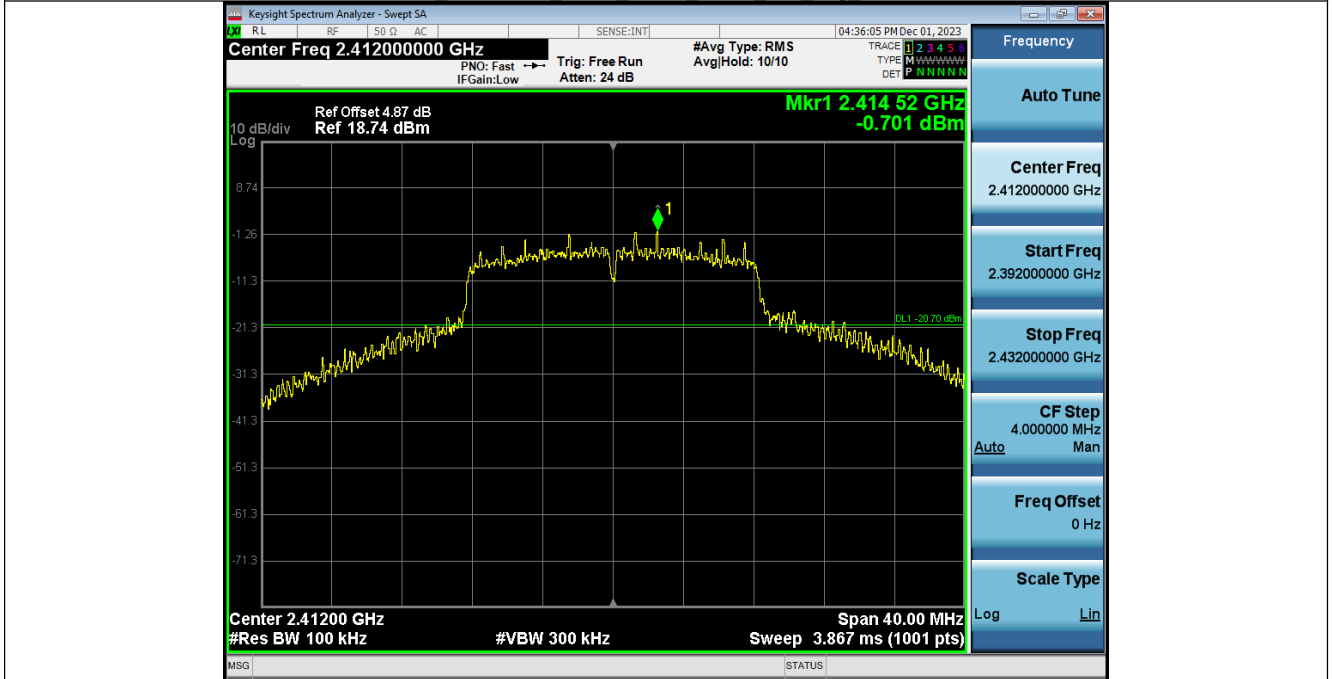
1 Reference Level NVNT_ANT1_802_11b_2462



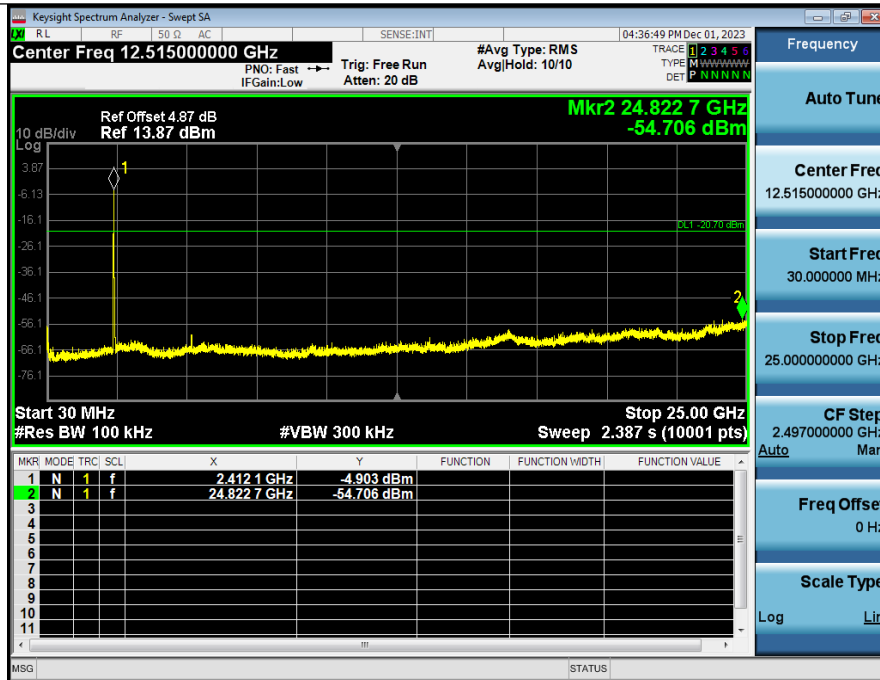
2 Spurious Emission_NVNT_ANT1_802_11b_2462



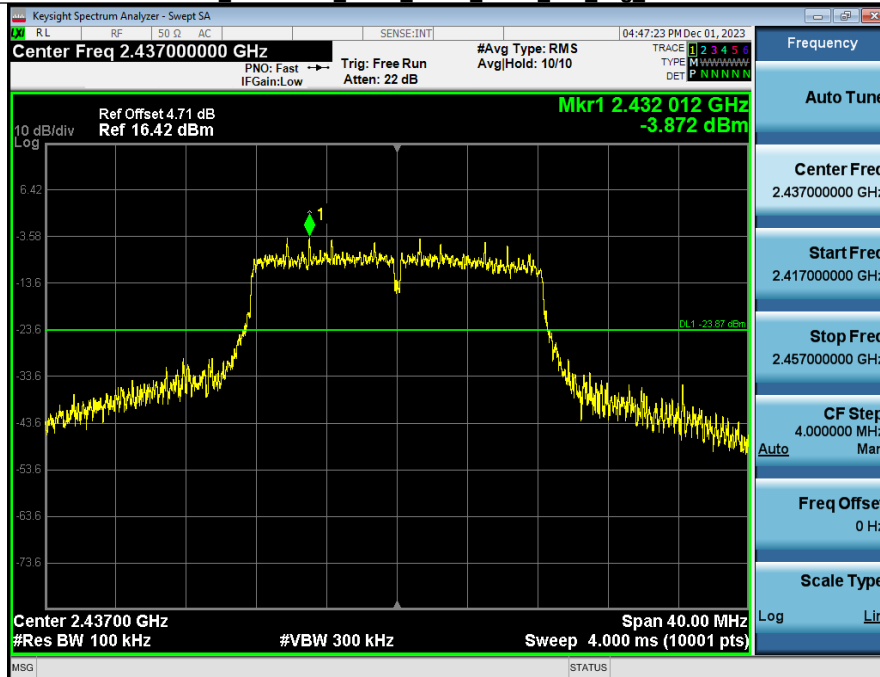
1 Reference Level NVNT_ANT1_802_11g_2412



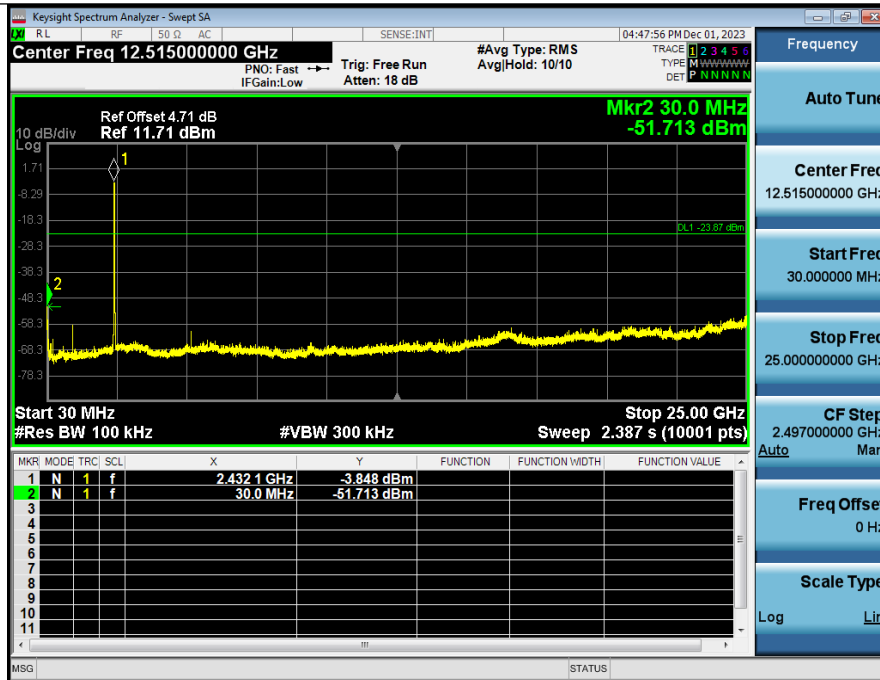
2 Spurious Emission NVNT_ANT1_802_11g_2412



1 Reference Level NVNT_ANT1_802_11g_2437



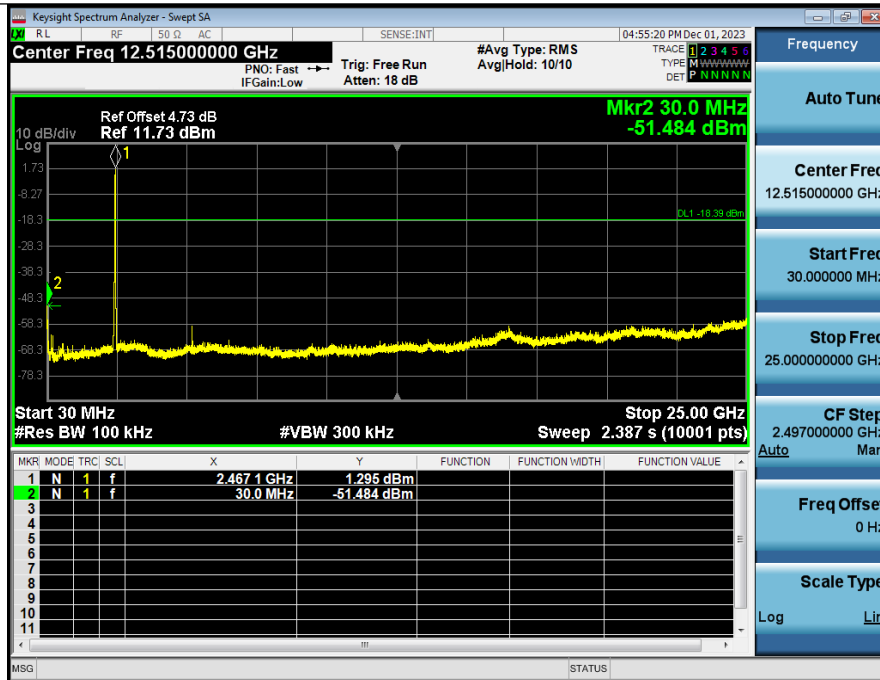
2 Spurious Emission NVNT_ANT1_802_11g_2437



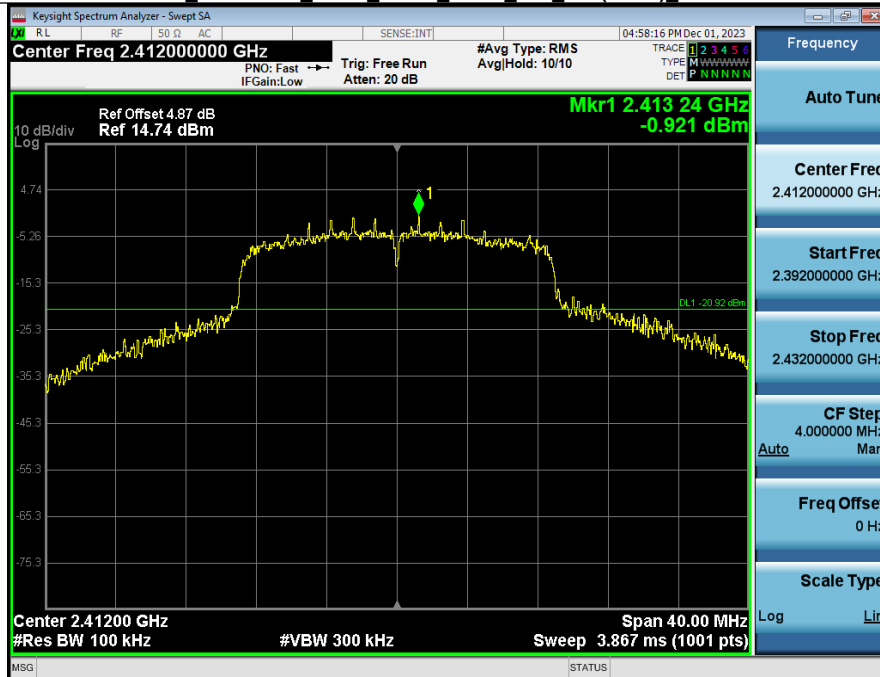
1 Reference Level NVNT_ANT1_802_11g_2462



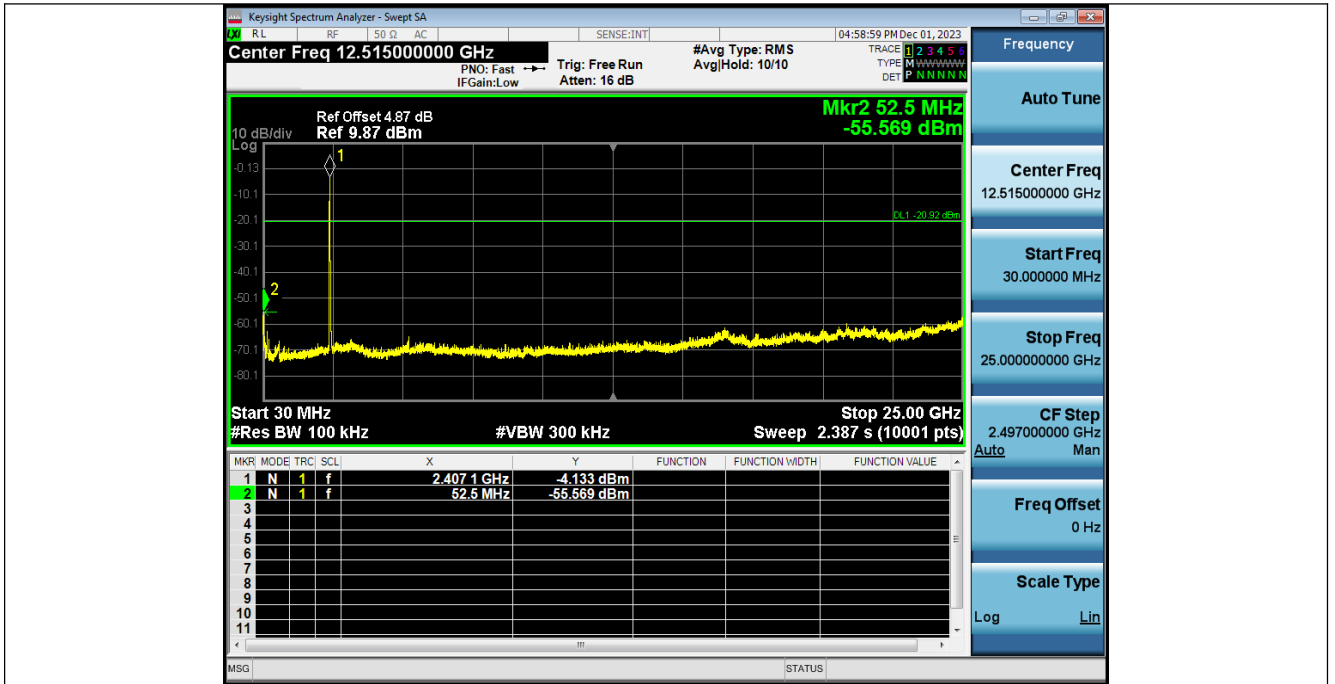
2 Spurious Emission NVNT_ANT1_802_11g_2462



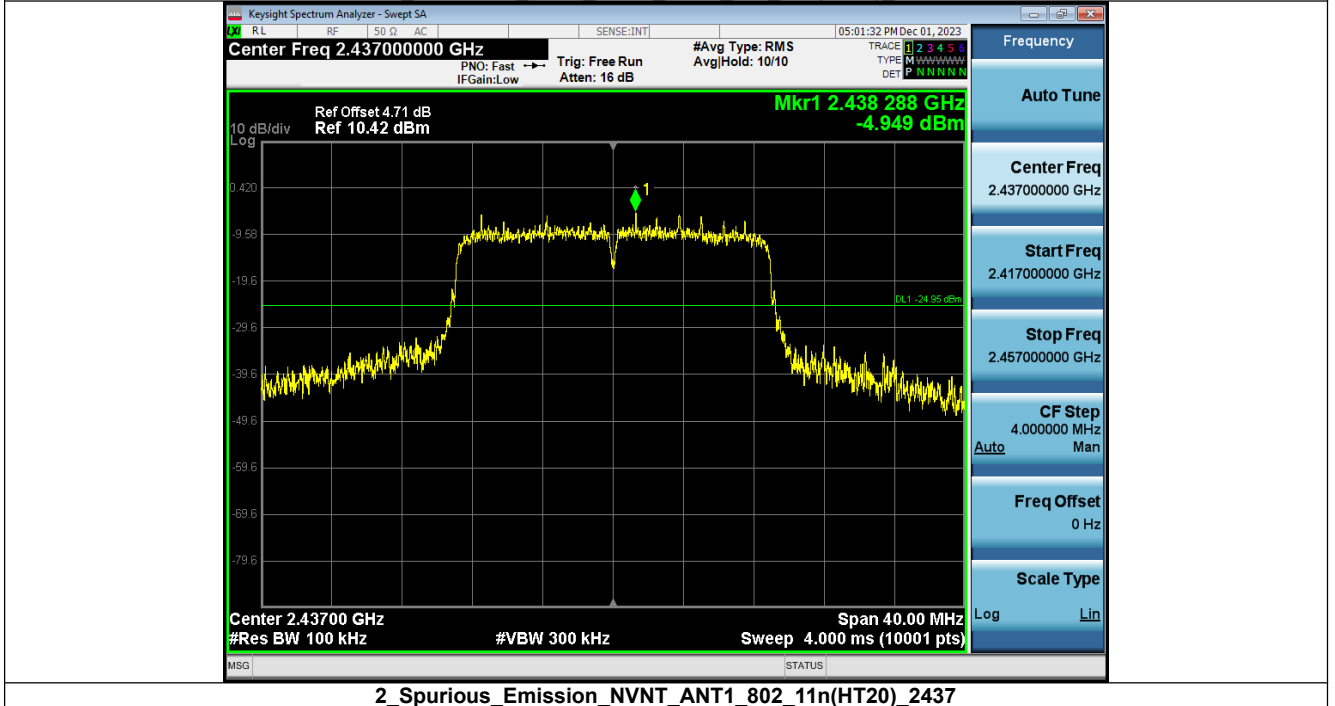
1 Reference Level NVNT_ANT1_802_11n(HT20)_2412



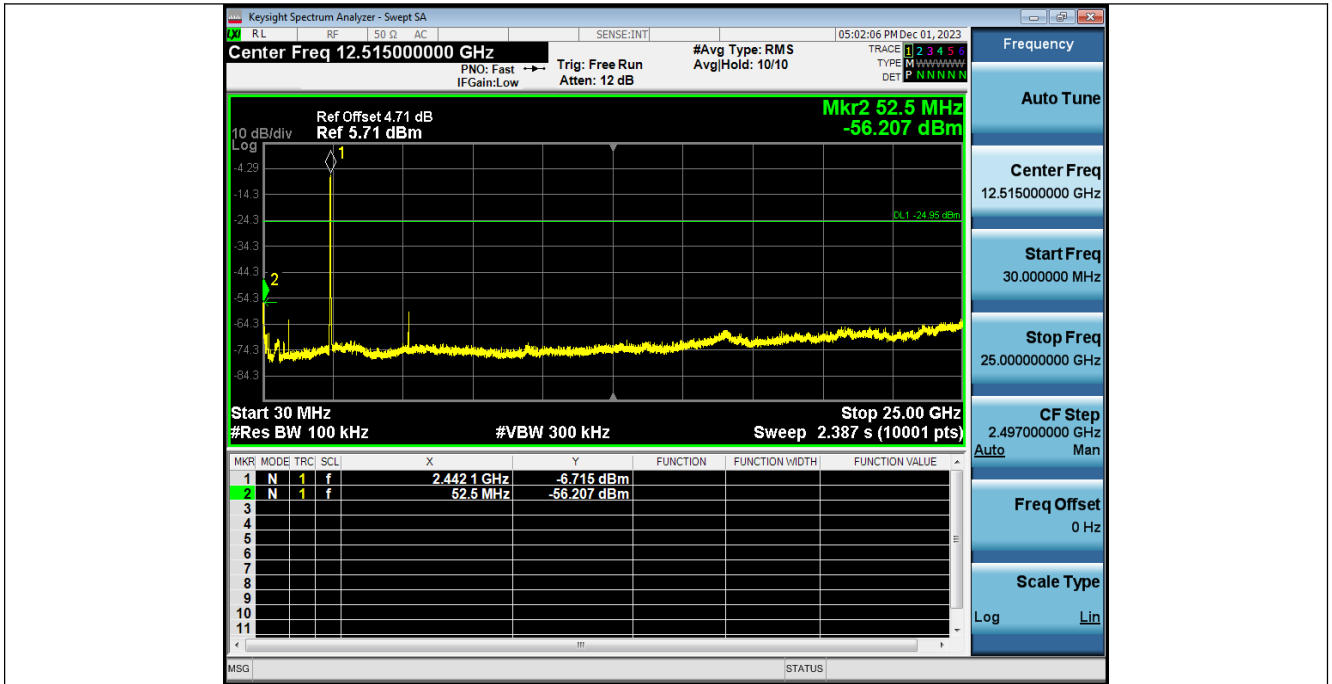
2 Spurious Emission NVNT_ANT1_802_11n(HT20)_2412



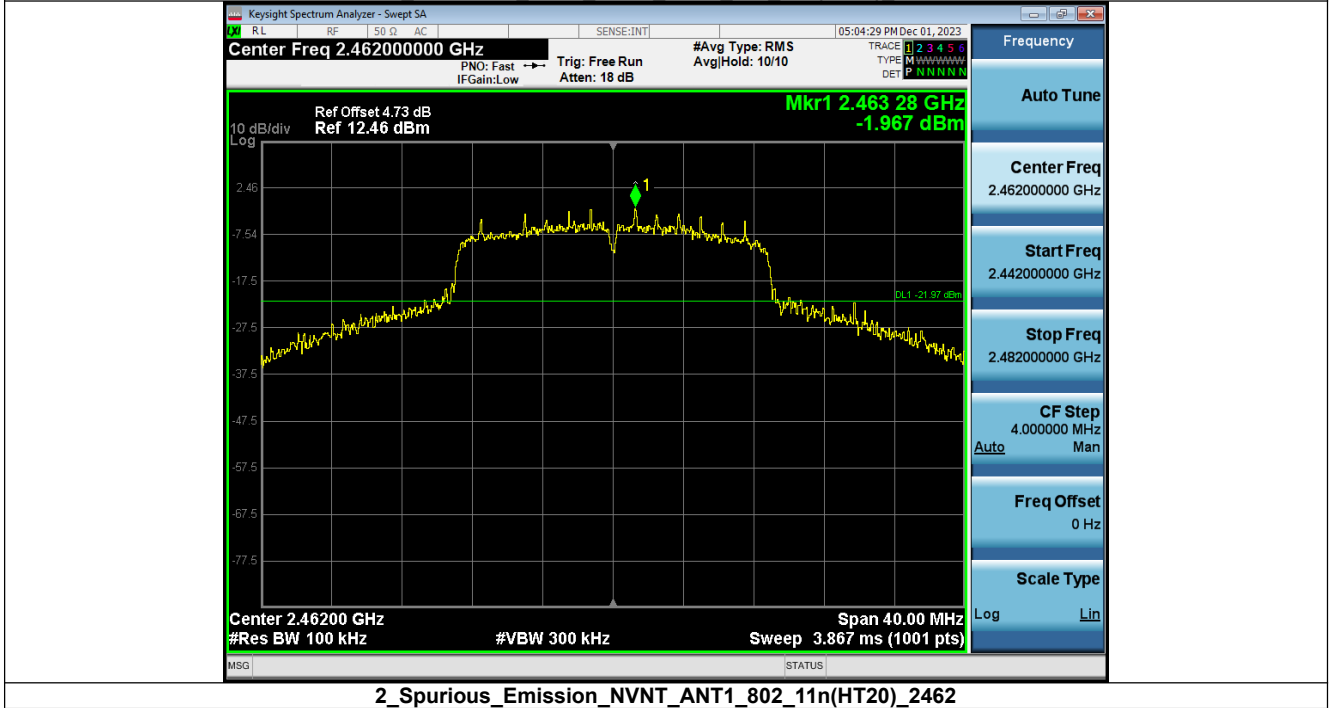
1 Reference Level NVNT_ANT1_802_11n(HT20)_2437

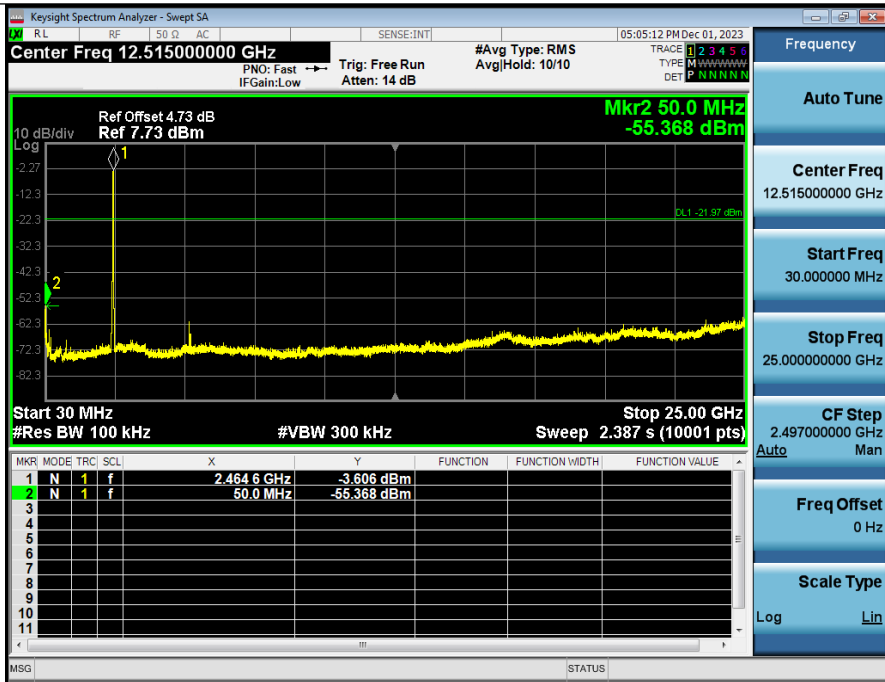


2 Spurious Emission NVNT_ANT1_802_11n(HT20)_2437

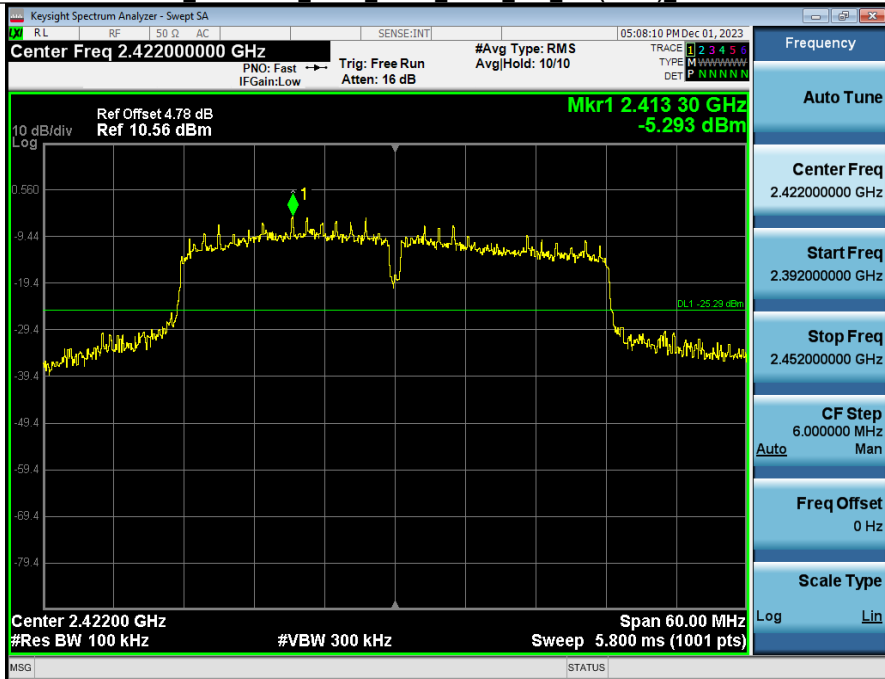


1 Reference Level NVNT_ANT1_802_11n(HT20)_2462

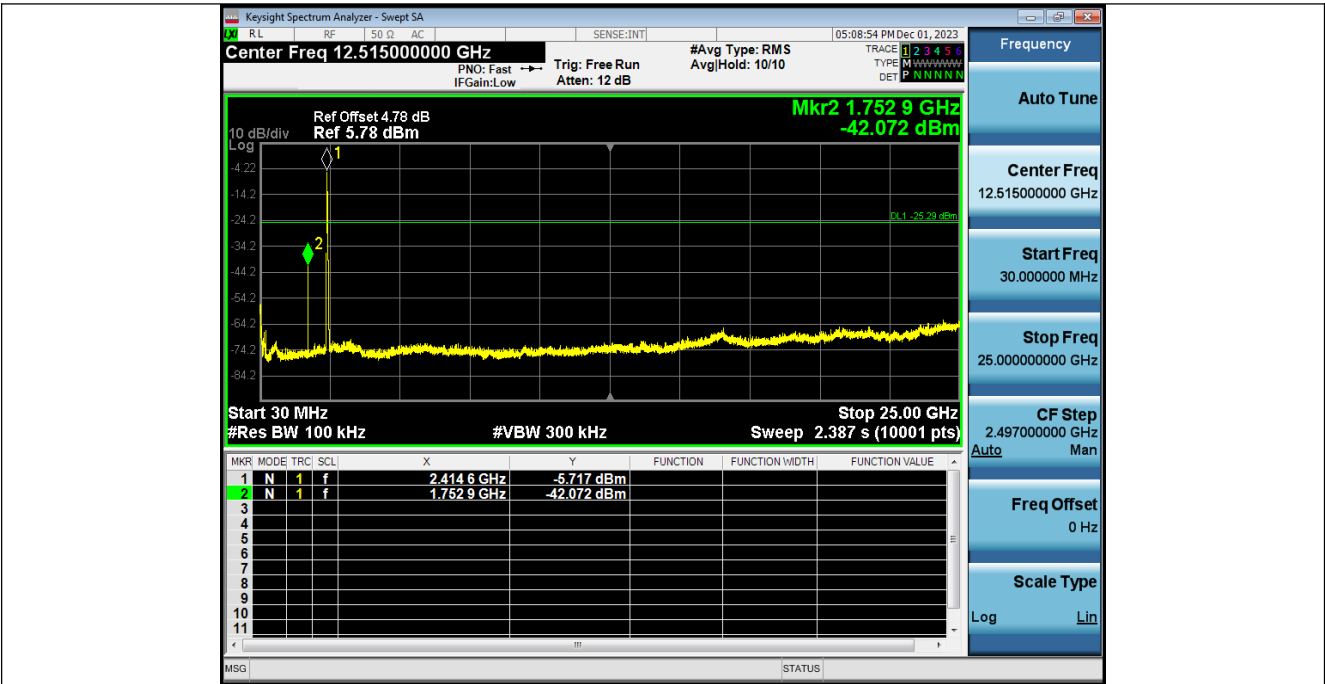




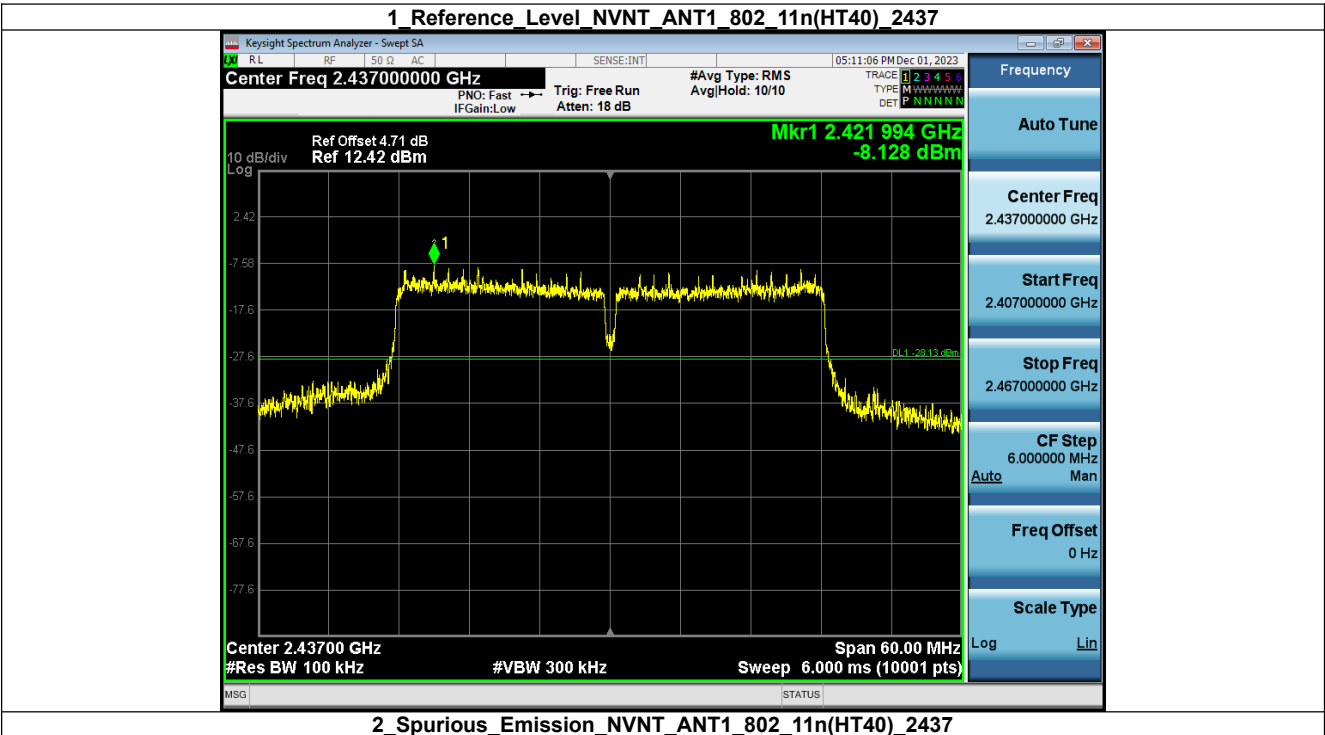
1 Reference Level NVNT_ANT1_802_11n(HT40)_2422



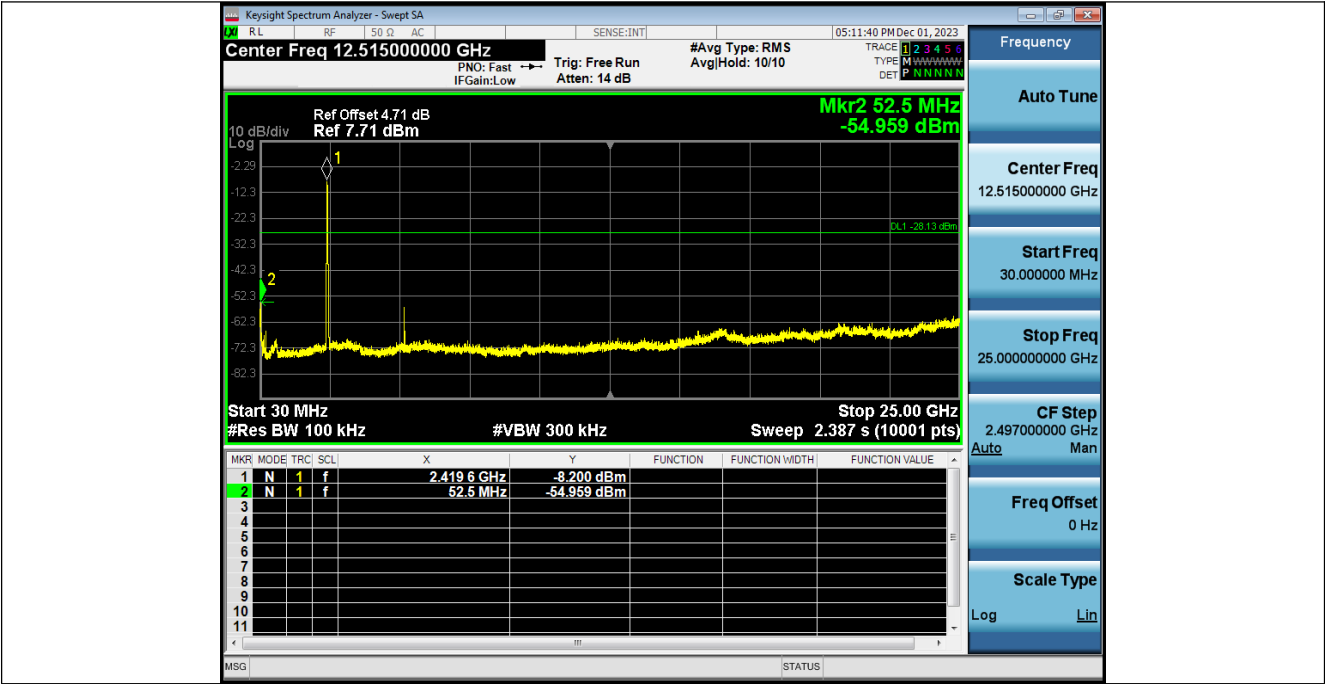
2 Spurious Emission NVNT_ANT1_802_11n(HT40)_2422



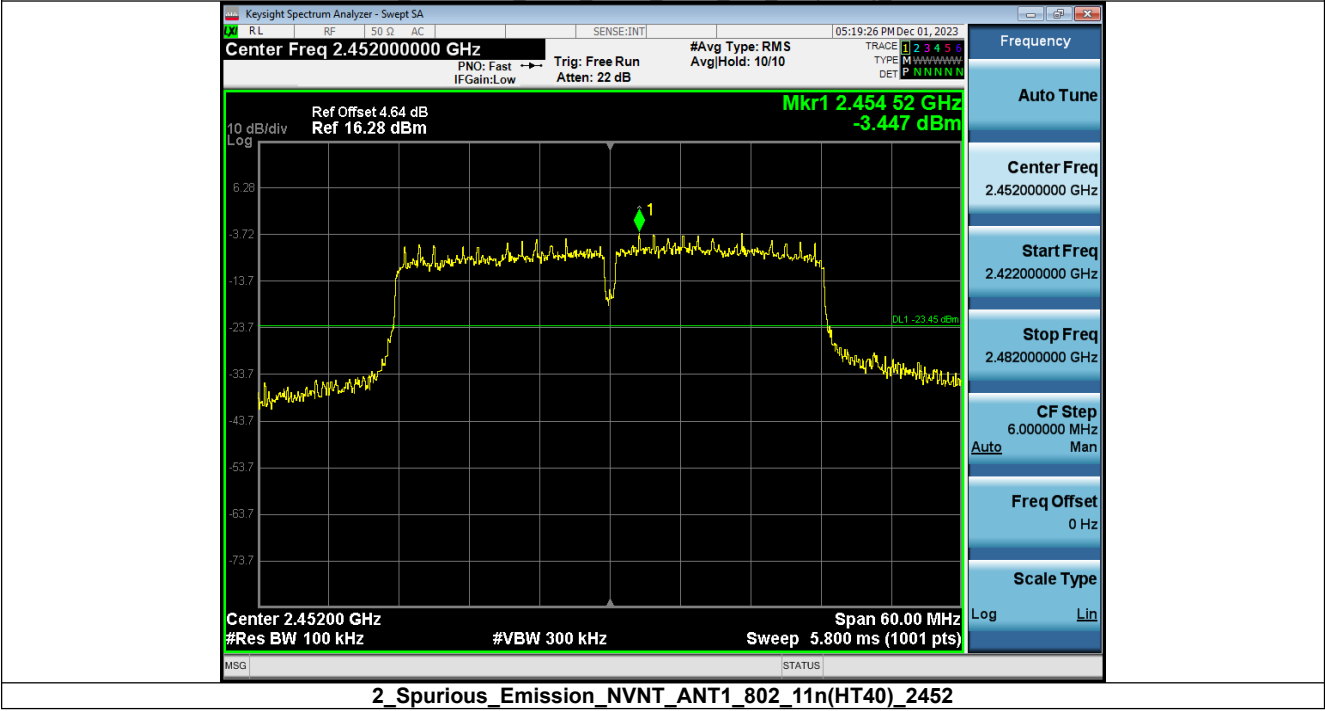
1 Reference Level NVNT_ANT1_802_11n(HT40)_2437



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

