

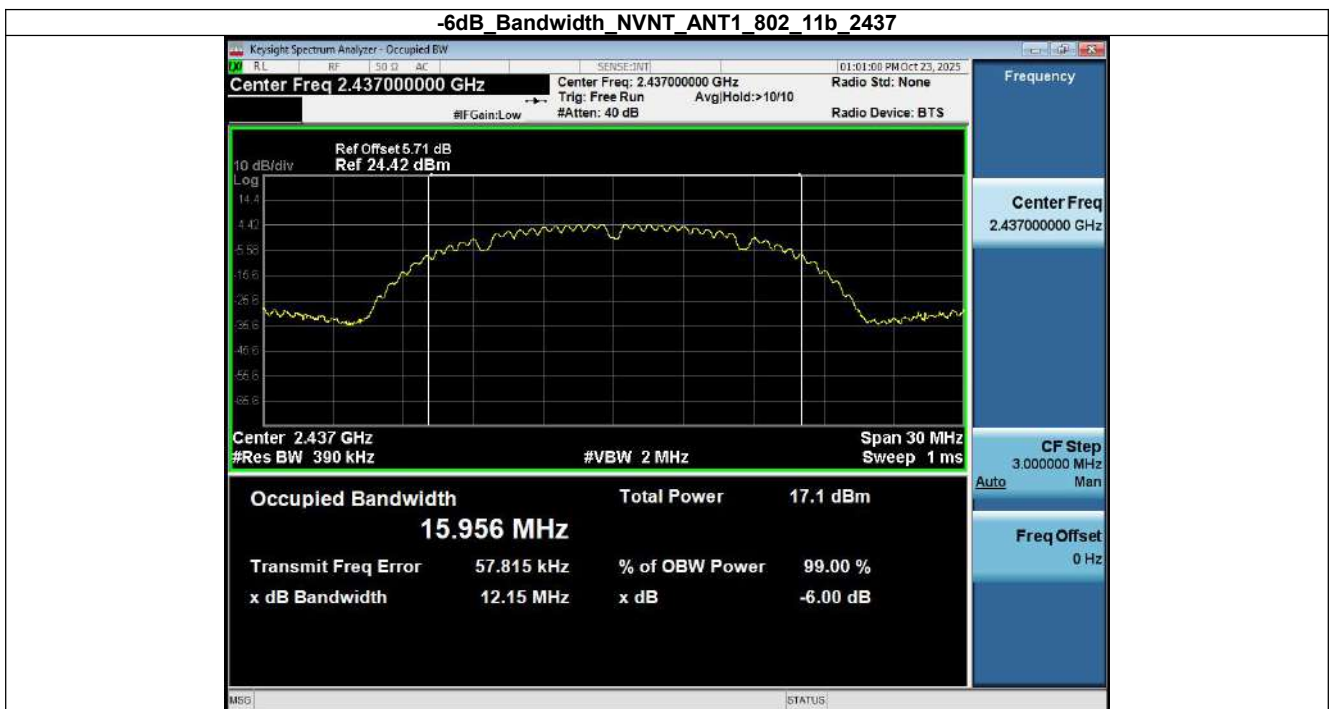
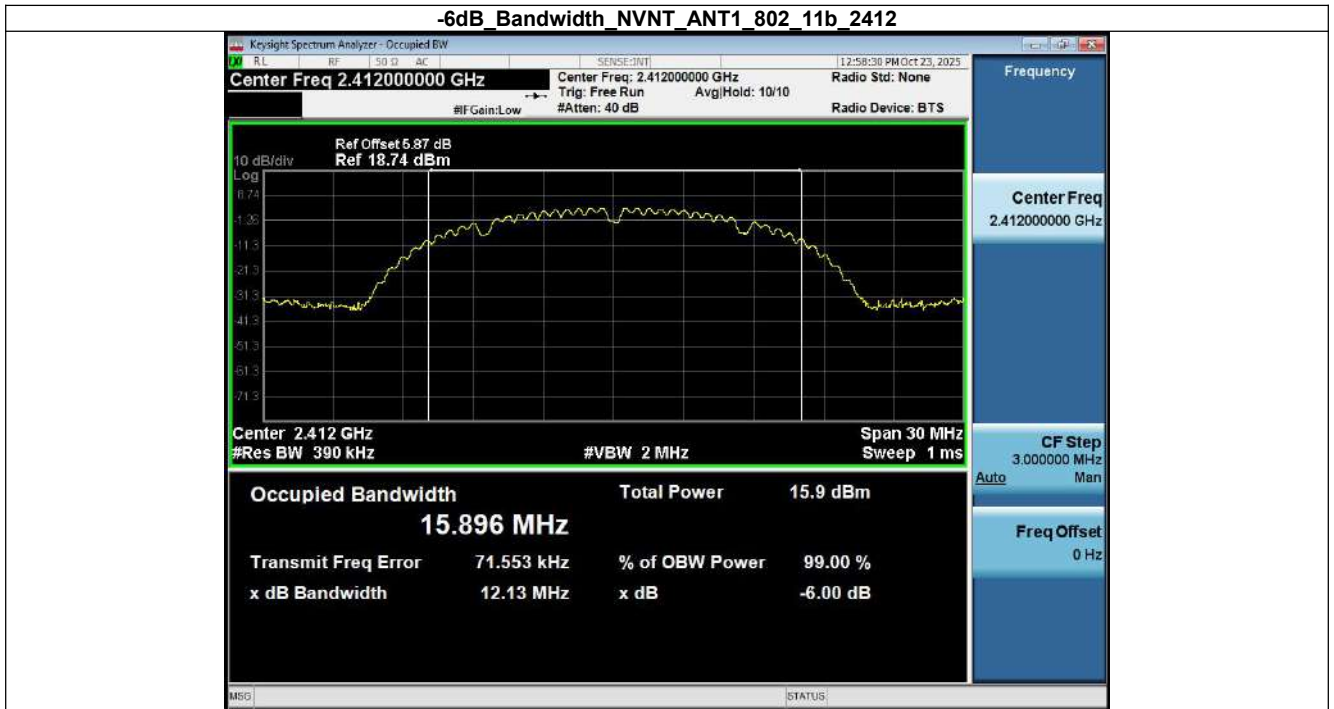
Report No.: NCT25039854E1-1
FCC ID:FCC ID: 2BTH4-F120
FCC_2.4G_WIFI (Part15.247) Test Data

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1. -6dB Bandwidth

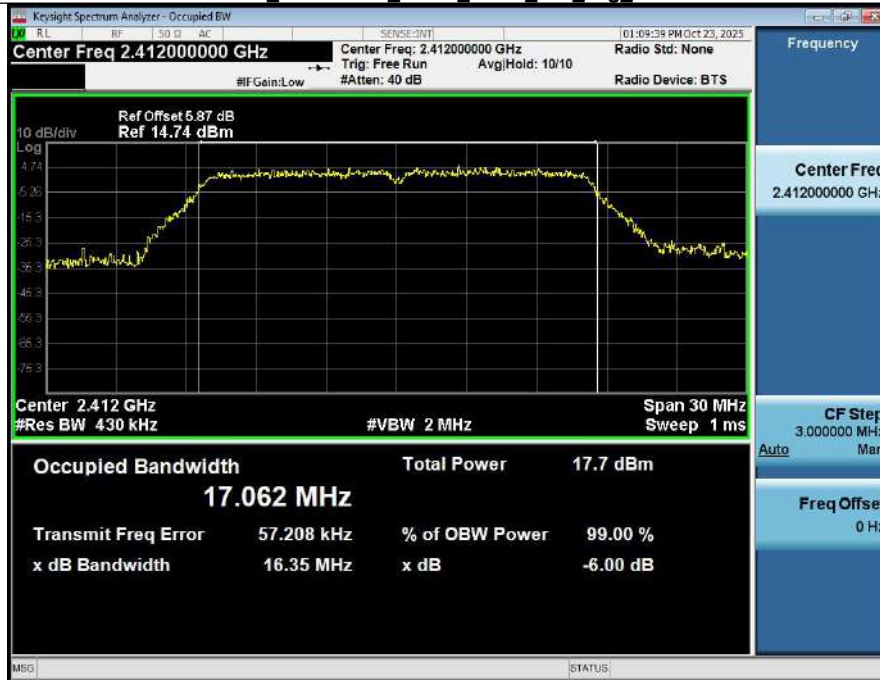
Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	12.13	500	Pass
NVNT	ANT1	802.11b	2437.00	12.15	500	Pass
NVNT	ANT1	802.11b	2462.00	12.18	500	Pass
NVNT	ANT1	802.11g	2412.00	16.35	500	Pass
NVNT	ANT1	802.11g	2437.00	16.36	500	Pass
NVNT	ANT1	802.11g	2462.00	16.58	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.78	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.83	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.62	500	Pass



-6dB_Bandwidth_NVNT_ANT1_802_11b_2462



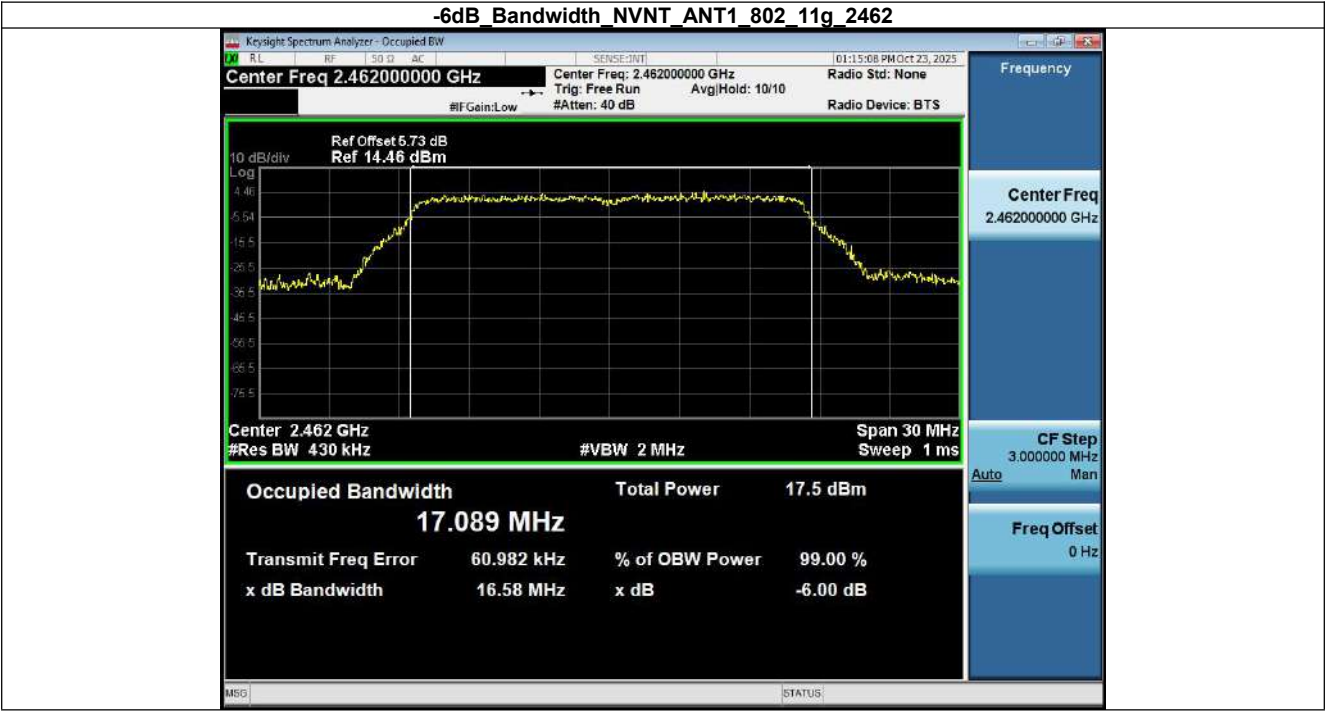
-6dB_Bandwidth_NVNT_ANT1_802_11g_2412



-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

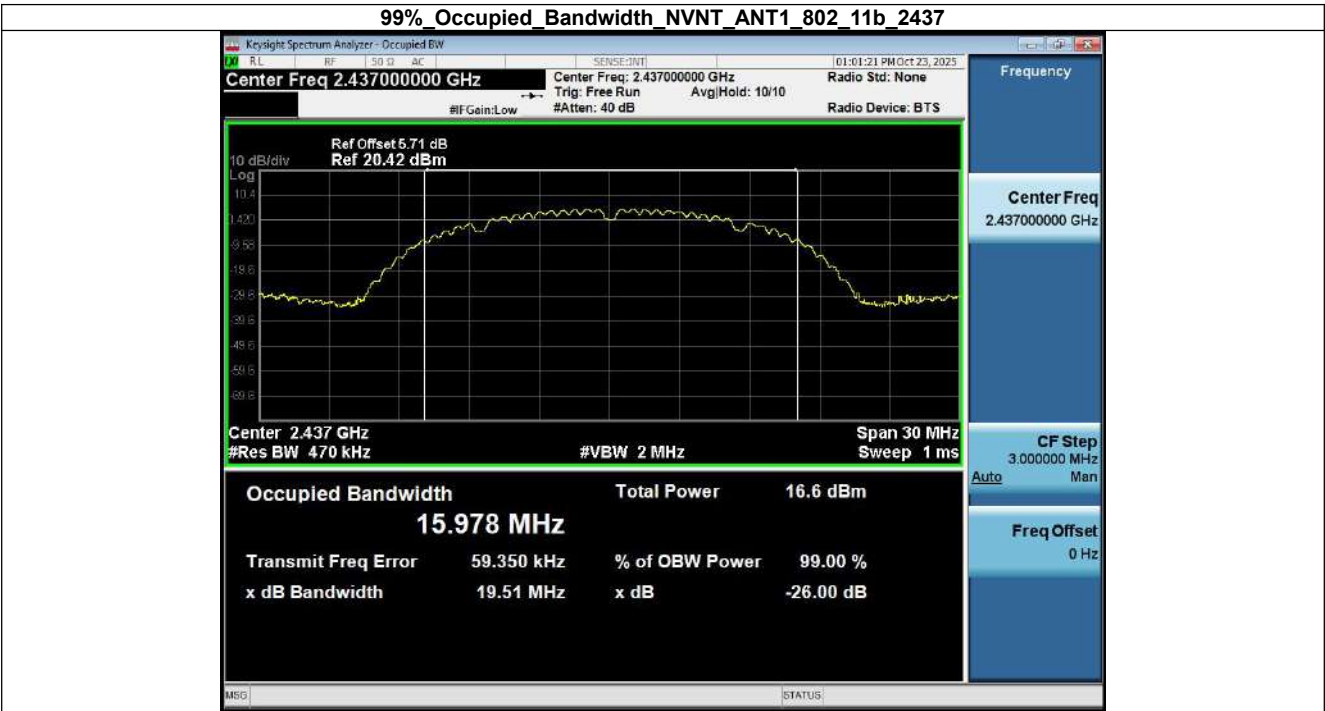
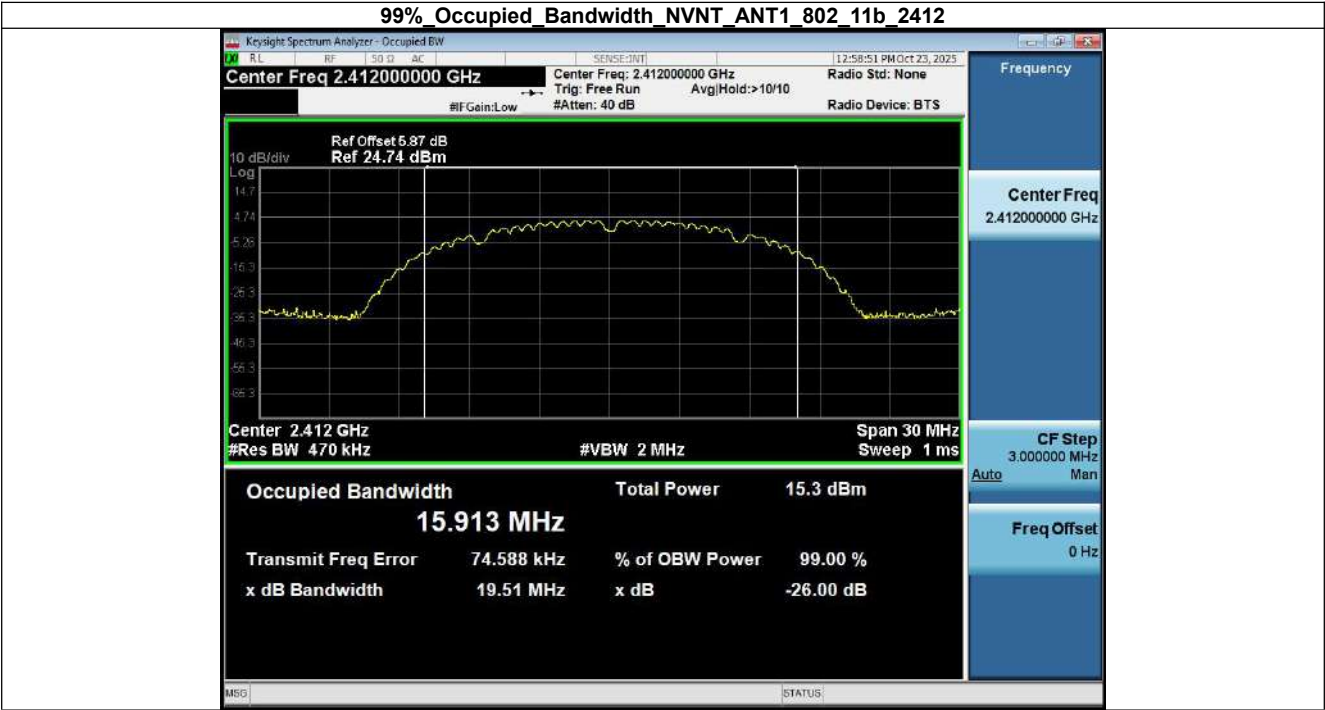


-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99% BW (MHz)
NVNT	ANT1	802.11b	2412.00	15.913
NVNT	ANT1	802.11b	2437.00	15.978
NVNT	ANT1	802.11b	2462.00	15.999
NVNT	ANT1	802.11g	2412.00	17.223
NVNT	ANT1	802.11g	2437.00	17.260
NVNT	ANT1	802.11g	2462.00	17.228
NVNT	ANT1	802.11n(HT20)	2412.00	18.130
NVNT	ANT1	802.11n(HT20)	2437.00	18.110
NVNT	ANT1	802.11n(HT20)	2462.00	18.102



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



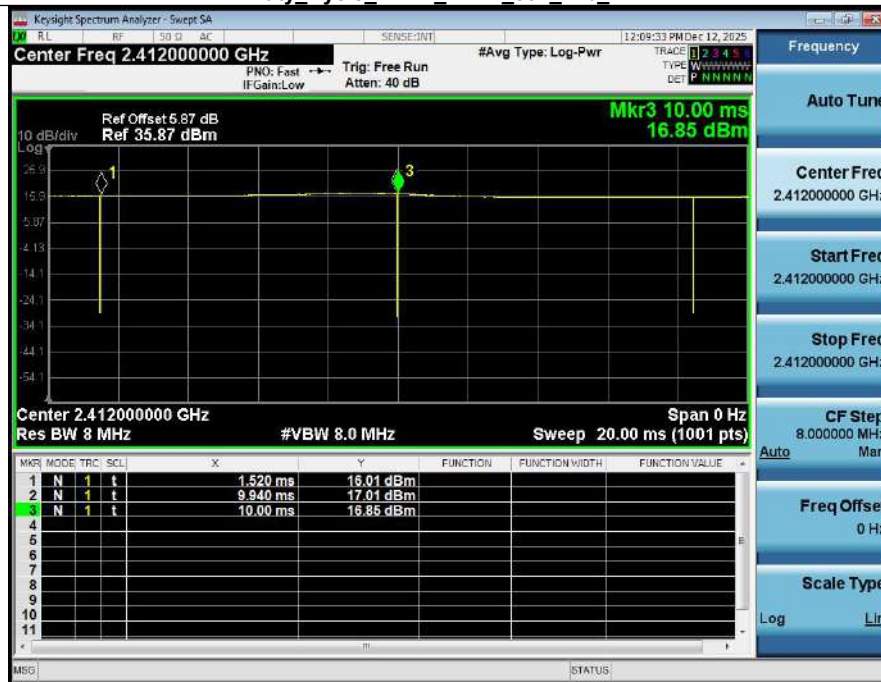
99% Occupied Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



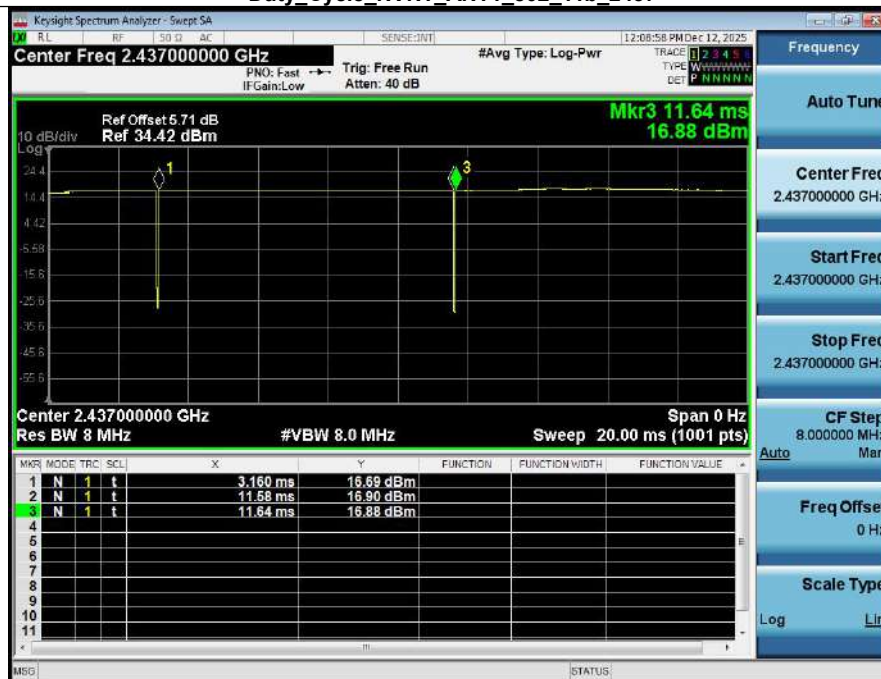
3. Duty Cycle

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	99.53	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	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

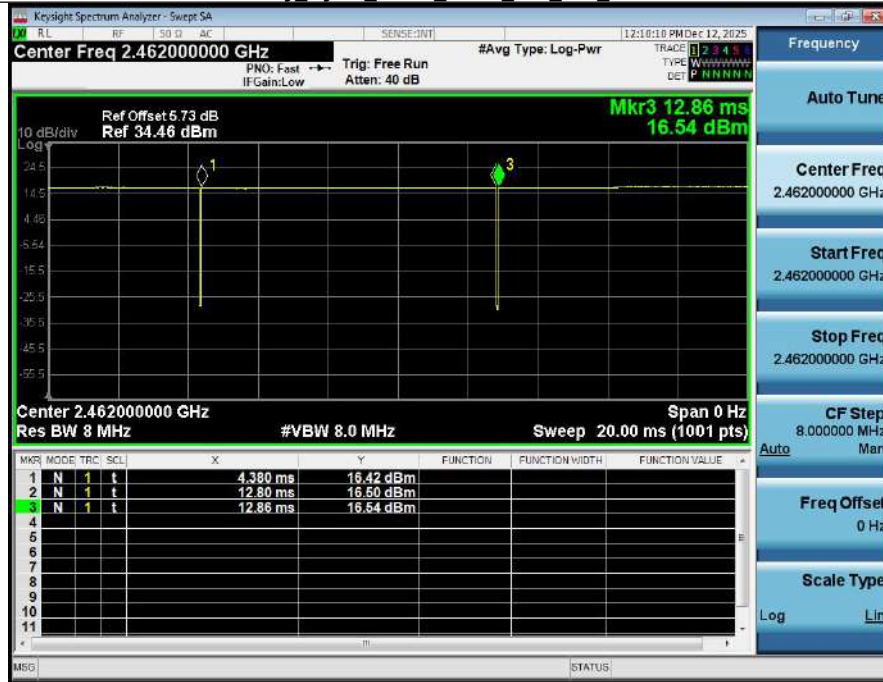
Duty_Cycle_NVNT_ANT1_802_11b_2412



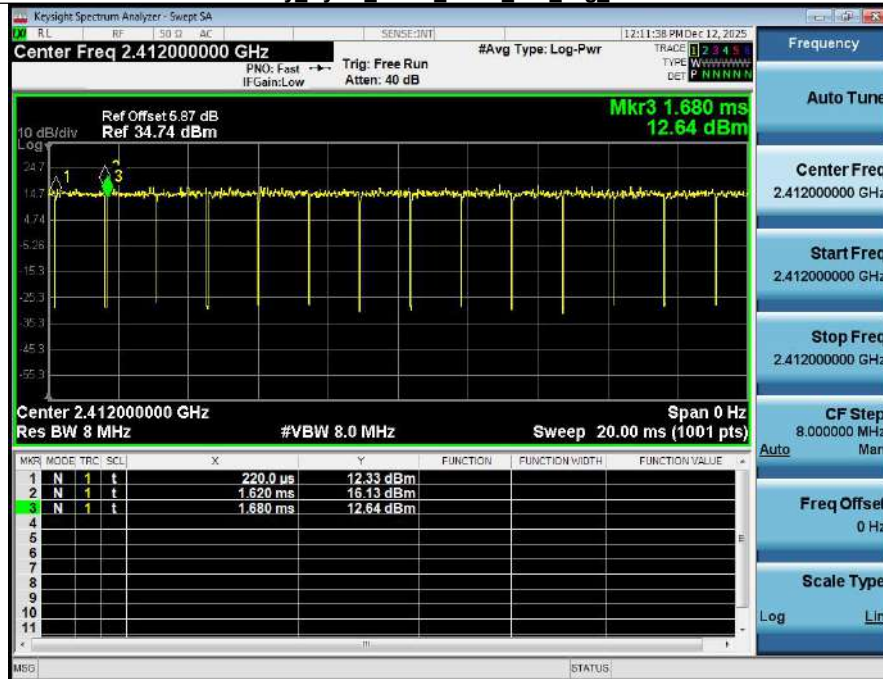
Duty_Cycle_NVNT_ANT1_802_11b_2437



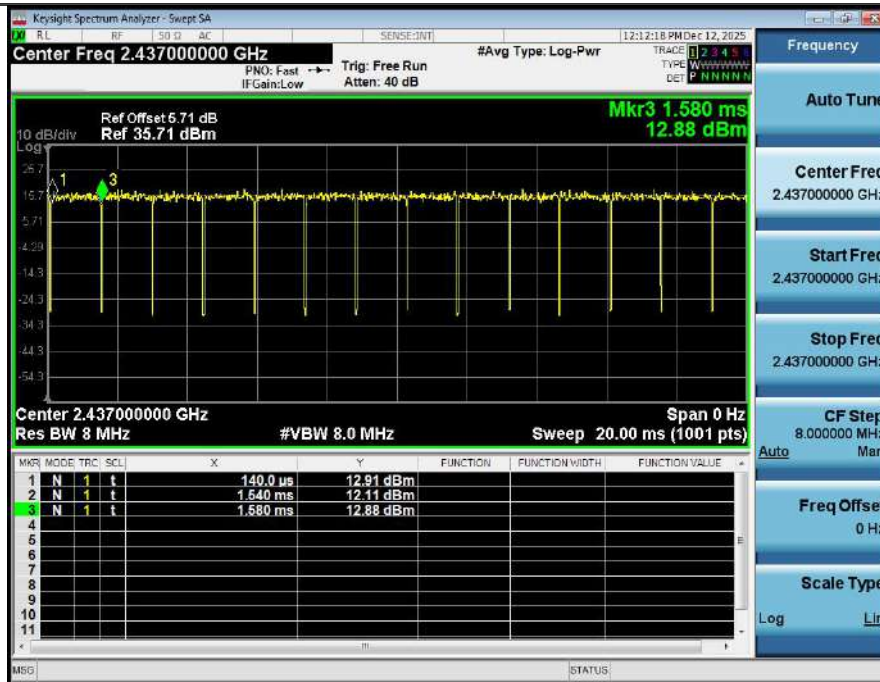
Duty Cycle_NVNT_ANT1_802_11b_2462



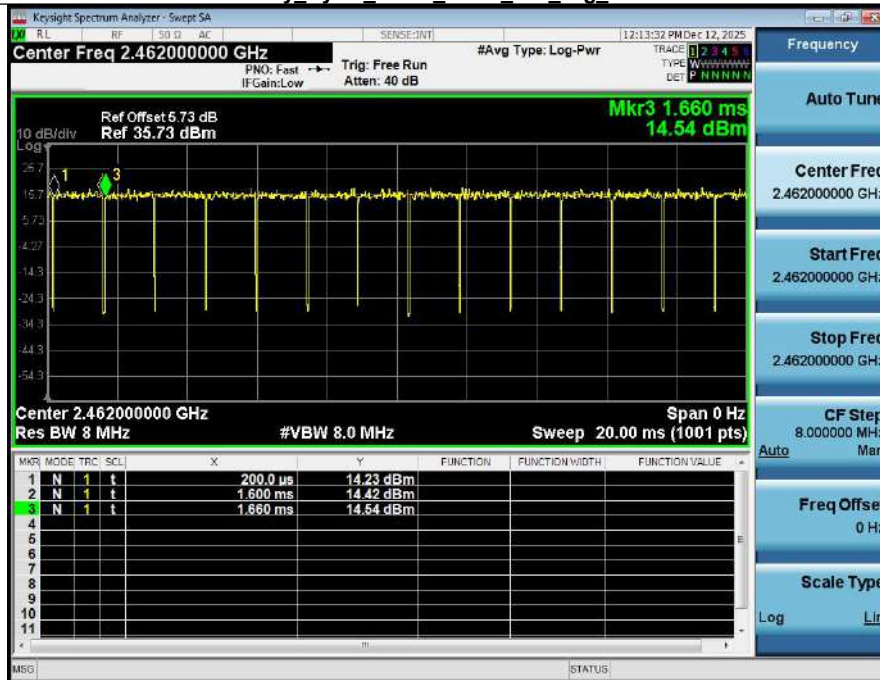
Duty Cycle_NVNT_ANT1_802_11g_2412



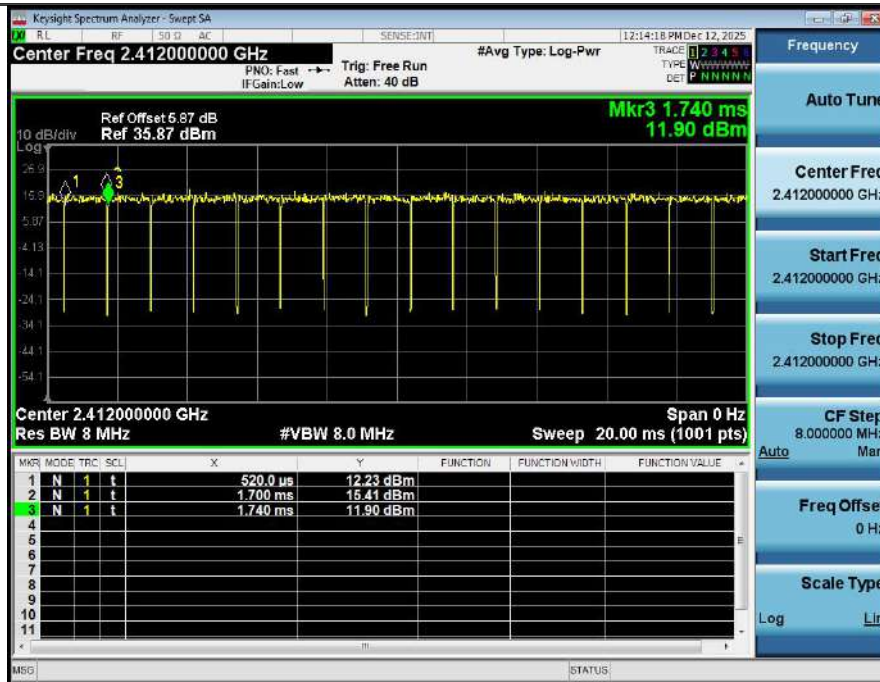
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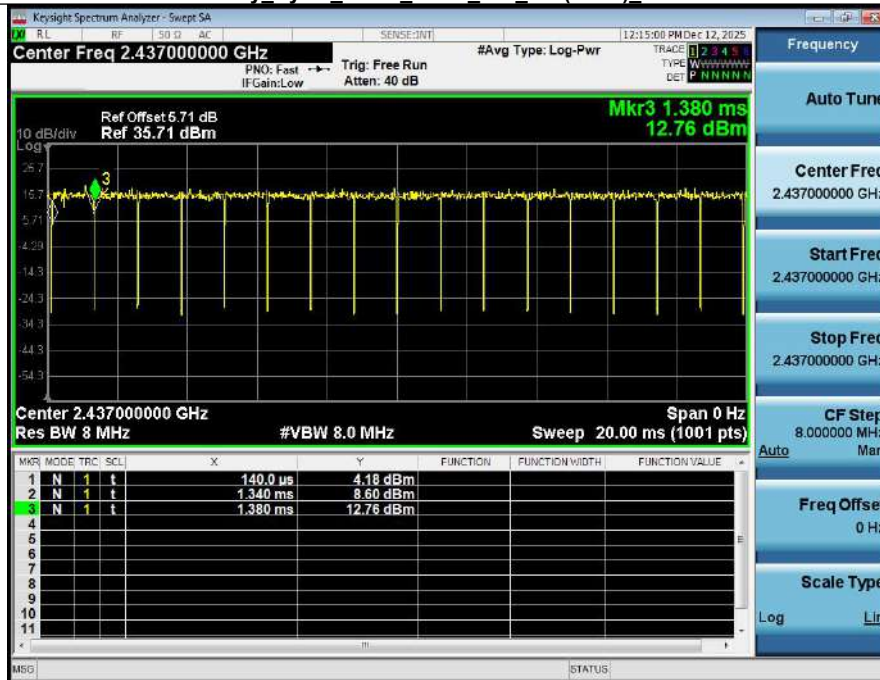
Duty Cycle_NVNT_ANT1_802_11g_2462



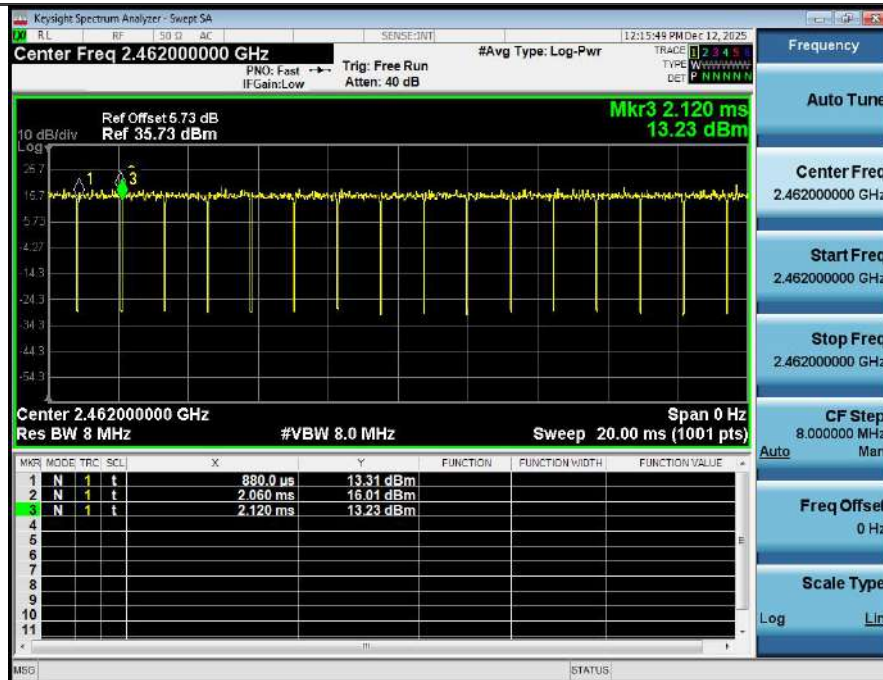
Duty Cycle_NVNT_ANT1_802_11n(HT20)_2412



Duty Cycle_NVNT_ANT1_802_11n(HT20)_2437



Duty Cycle_NVNT_ANT1_802_11n(HT20)_2462



4. MAX. Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	Peak	15.09	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	16.41	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	16.18	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	17.38	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	17.54	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	17.02	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	16.18	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	16.36	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	16.14	30	Pass

5. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	SA_PSD(dBm/30kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	-0.43	8	Pass
NVNT	ANT1	802.11b	2437.00	3.44	8	Pass
NVNT	ANT1	802.11b	2462.00	3.80	8	Pass
NVNT	ANT1	802.11g	2412.00	-4.64	8	Pass
NVNT	ANT1	802.11g	2437.00	-4.87	8	Pass
NVNT	ANT1	802.11g	2462.00	-5.39	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-6.57	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-6.32	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-6.85	8	Pass



Power Spectral Density NVNT_ANT1_802_11b_2462



Power Spectral Density NVNT_ANT1_802_11g_2412



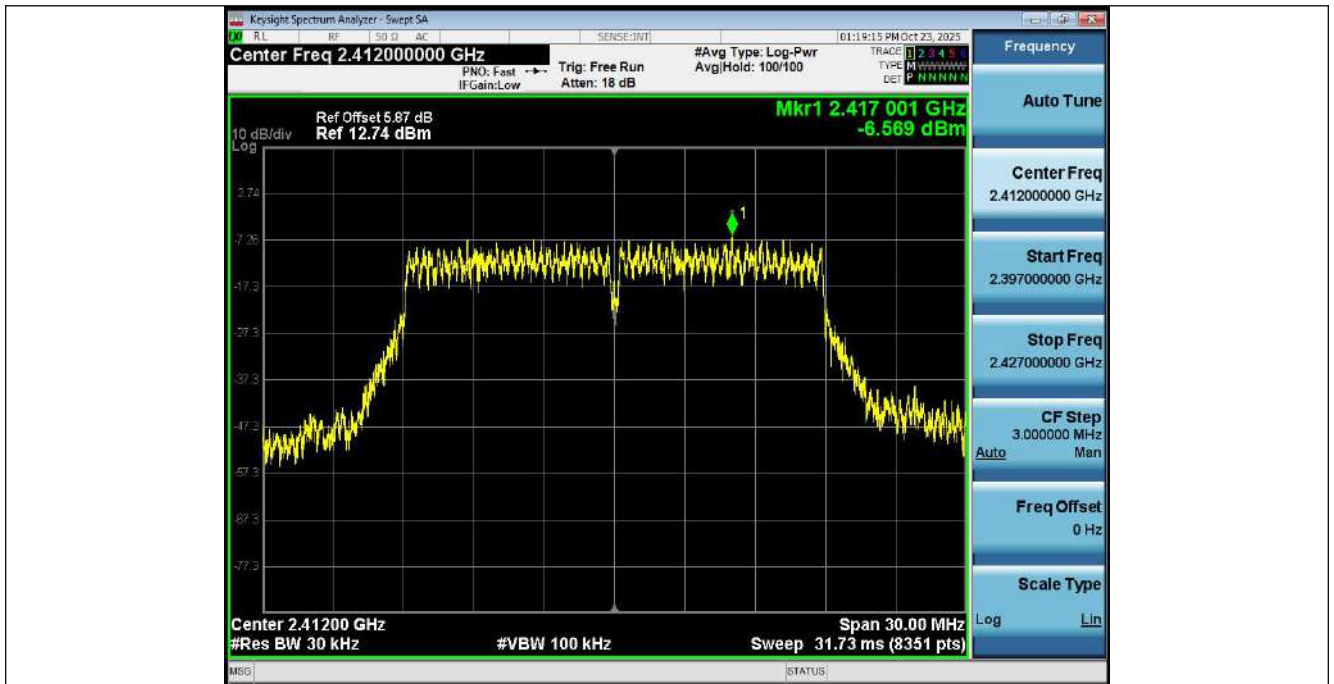
Power Spectral Density NVNT_ANT1_802_11g_2437



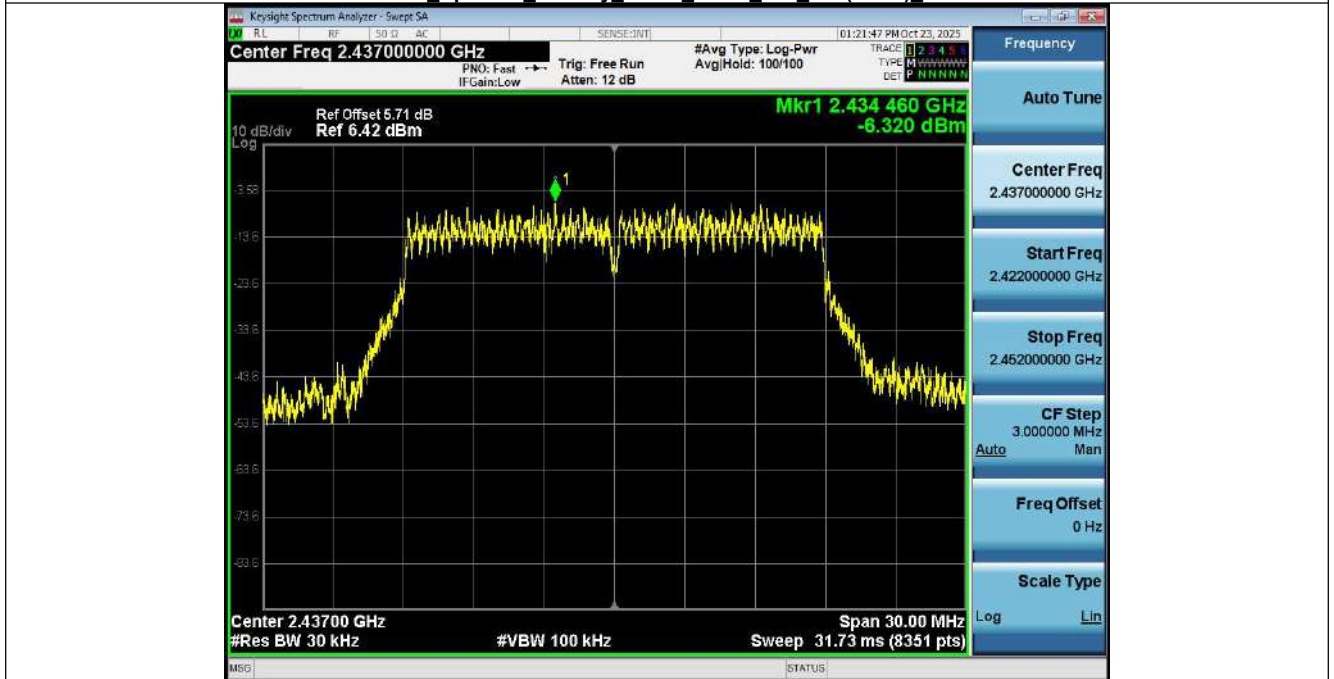
Power_Spectral_Density_NVNT_ANT1_802_11g_2462



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



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	2397.024	2.706	-36.154	-17.294	Pass
NVNT	ANT1	802.11b	2462.00	2498.512	4.088	-46.612	-15.912	Pass
NVNT	ANT1	802.11g	2412.00	2396.352	-0.909	-37.938	-20.909	Pass
NVNT	ANT1	802.11g	2462.00	2483.920	-0.502	-47.604	-20.502	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2396.688	-1.205	-39.360	-21.205	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.632	-1.405	-48.933	-21.405	Pass



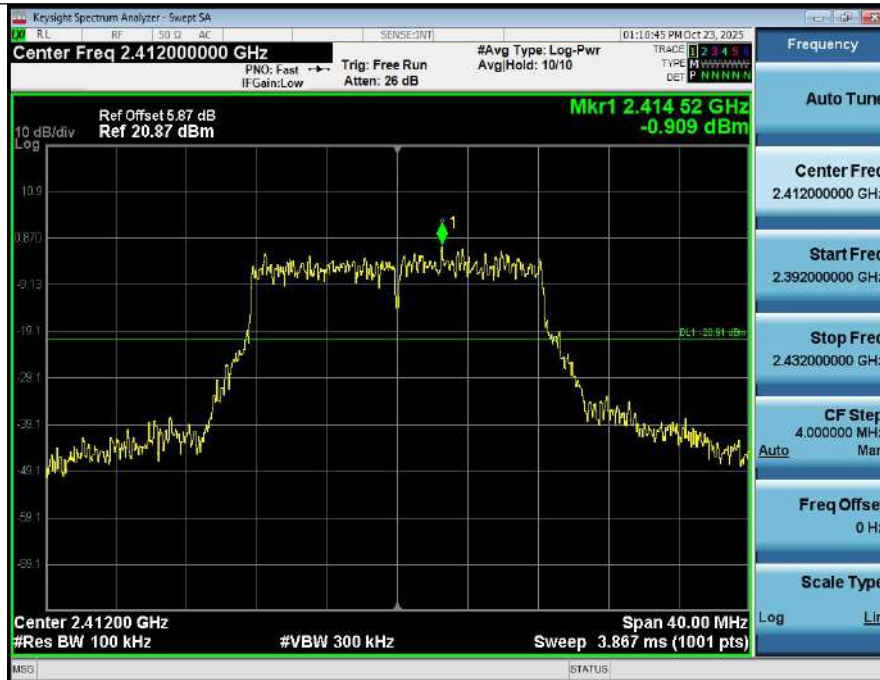
1 Reference Level NVNT ANT1 802 11b 2462



2_Bandedge_NVNT_ANT1_802_11b_2462



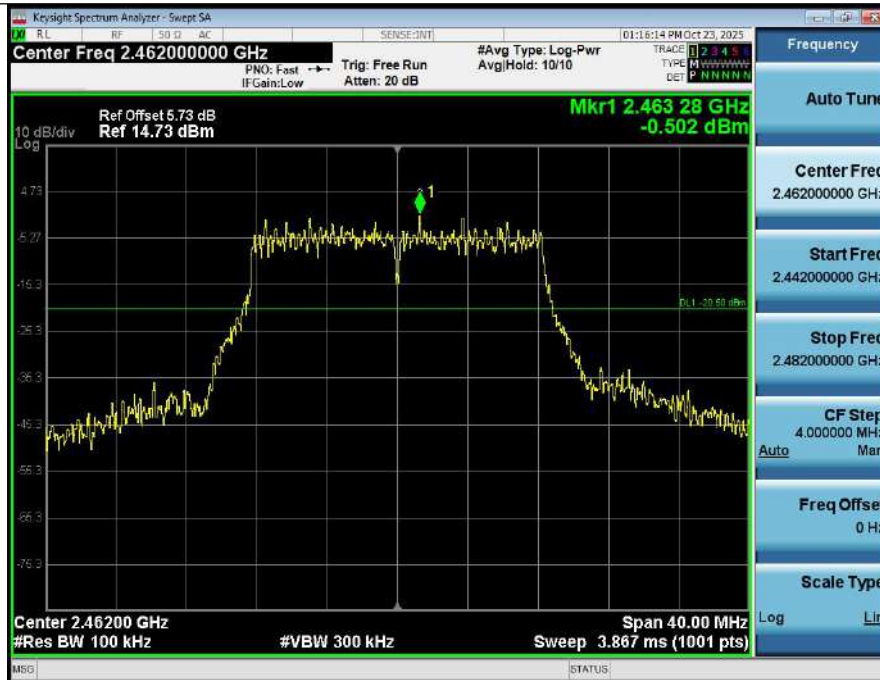
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2_Bandedge_NVNT_ANT1_802_11g_2412



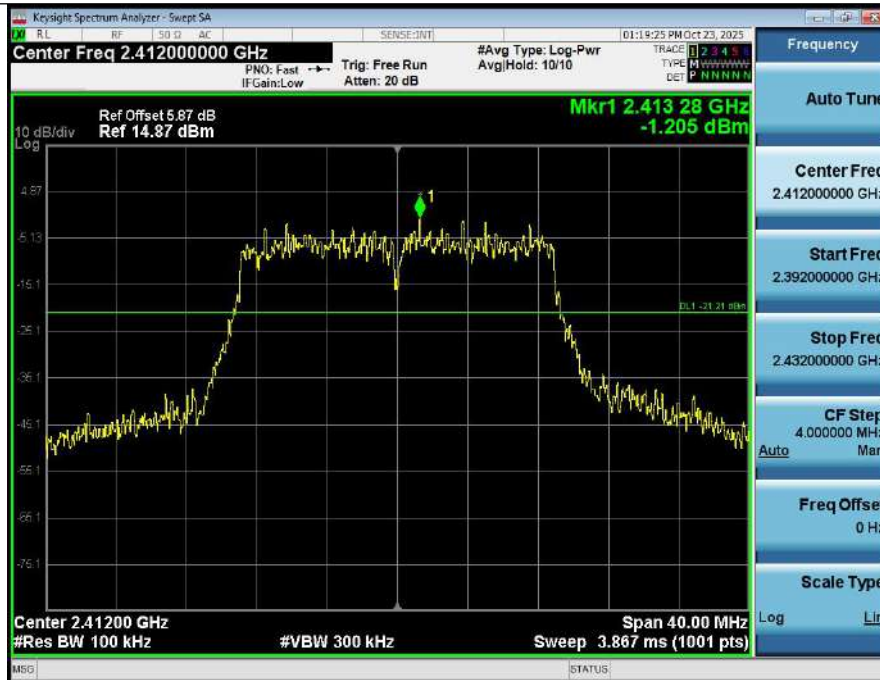
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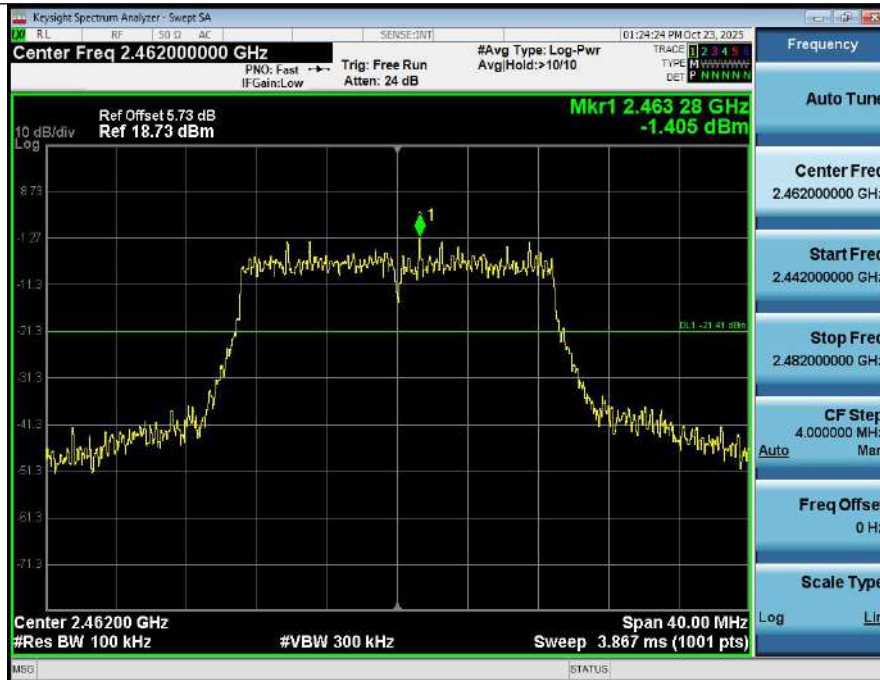
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



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



7. Spurious Emission

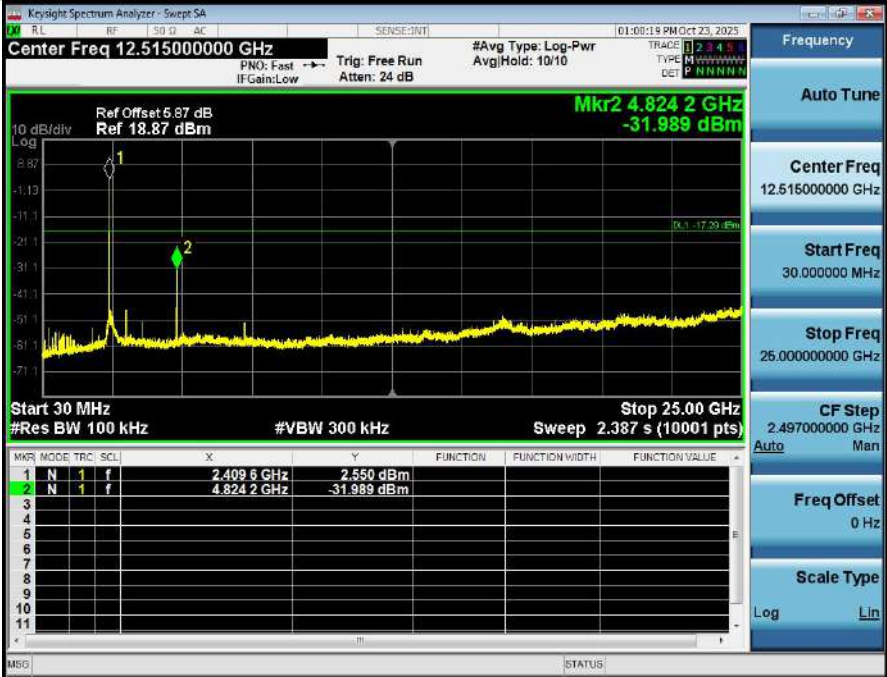
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	4824.240	2.706	-31.989	-17.294	Pass
NVNT	ANT1	802.11b	2437.00	4874.180	4.345	-31.637	-15.655	Pass
NVNT	ANT1	802.11b	2462.00	4924.120	4.088	-31.111	-15.912	Pass
NVNT	ANT1	802.11g	2412.00	24922.593	-0.909	-44.181	-20.909	Pass
NVNT	ANT1	802.11g	2437.00	4871.683	-0.793	-47.624	-20.793	Pass
NVNT	ANT1	802.11g	2462.00	4916.629	-0.502	-46.384	-20.502	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	24952.557	-1.205	-50.047	-21.205	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	913.938	-1.497	-33.864	-21.497	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	24980.024	-1.405	-45.514	-21.405	Pass

Note:The test diagram has integrated cable loss to Offset Settings. The cable loss is compensated in the test data.

1_Reference_Level_NVNT_ANT1_802_11b_2412



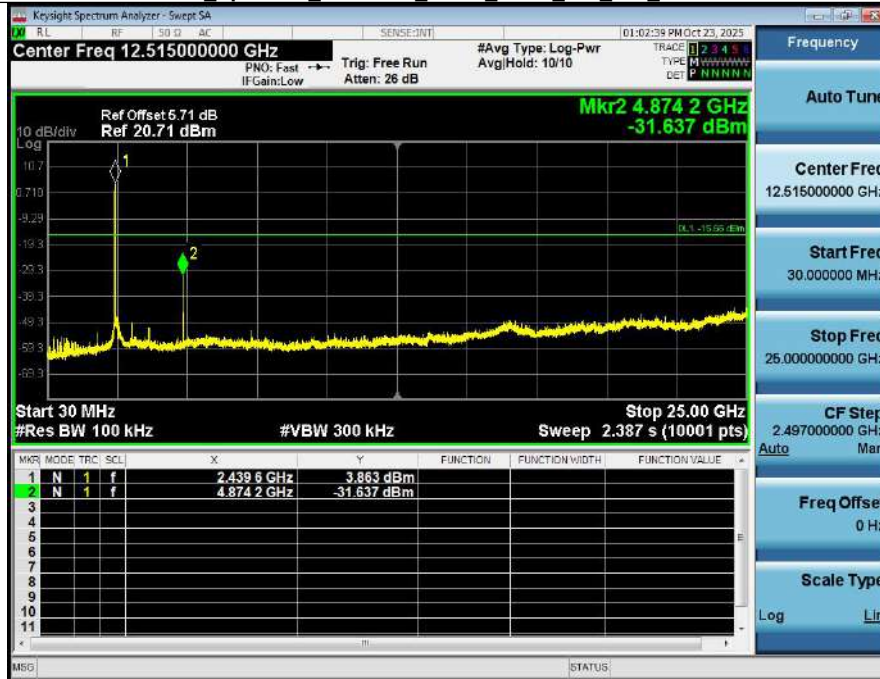
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1 Reference Level NVNT_ANT1_802_11b_2437



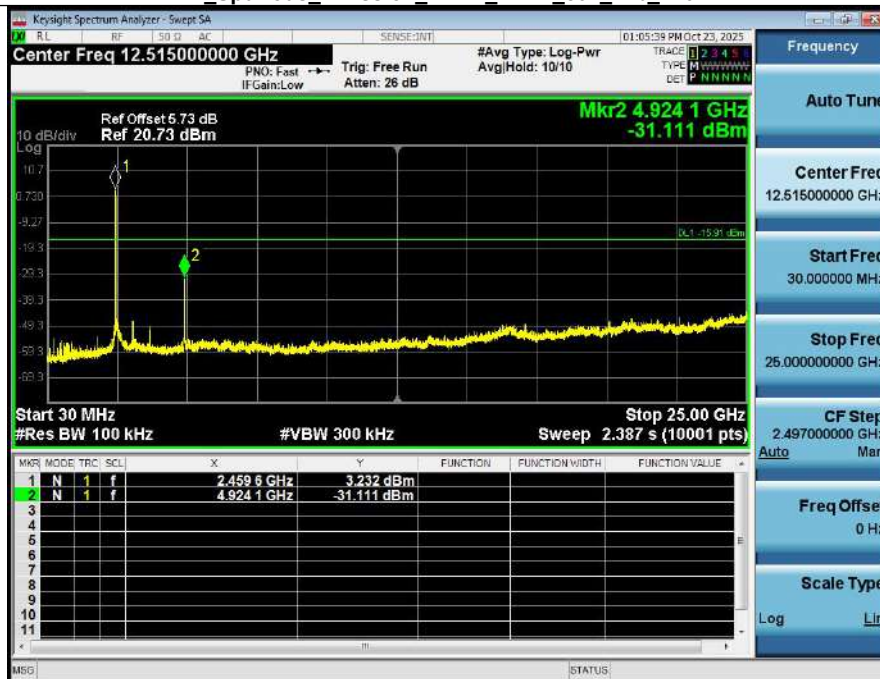
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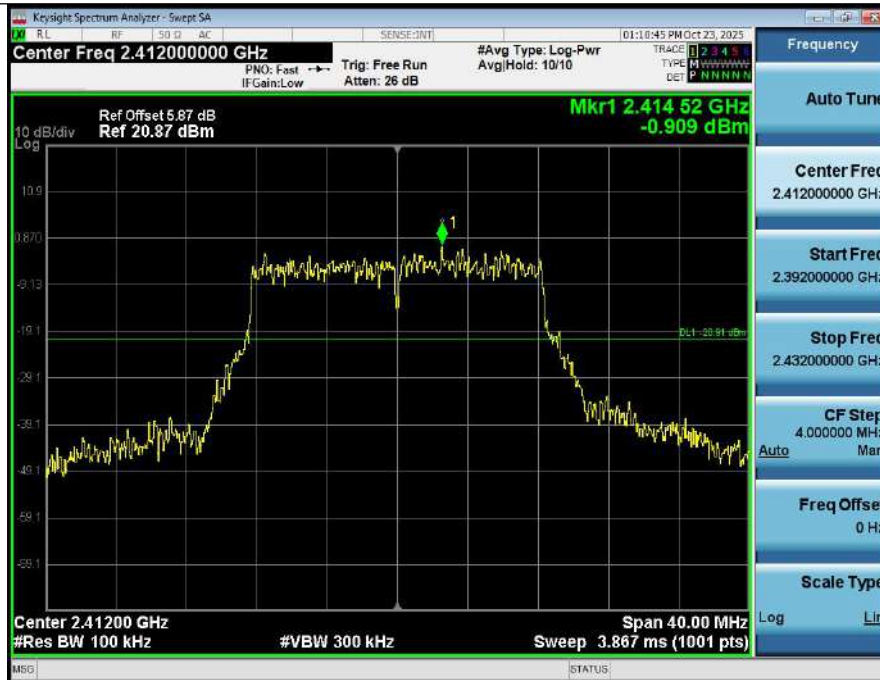
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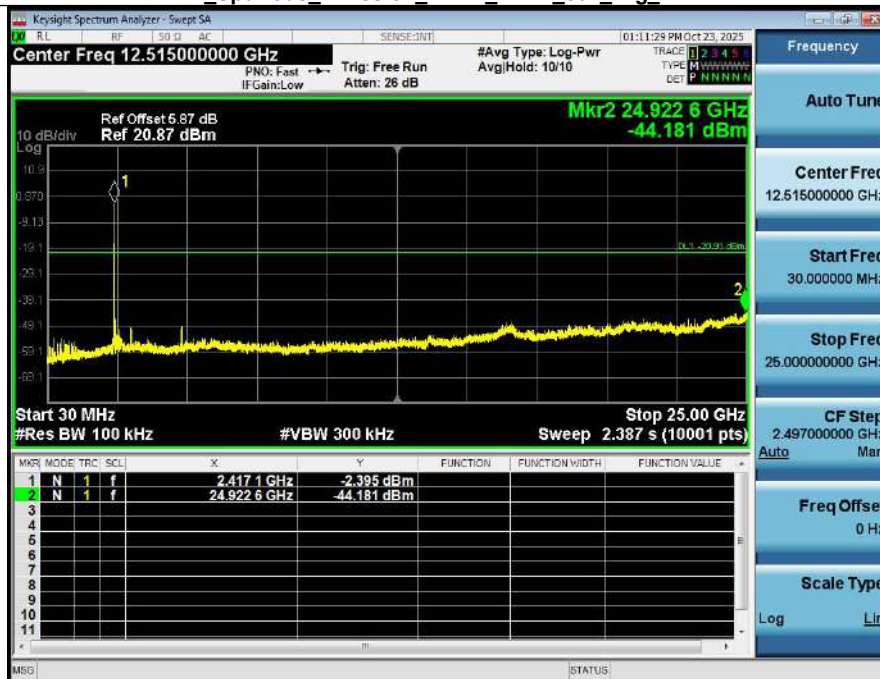
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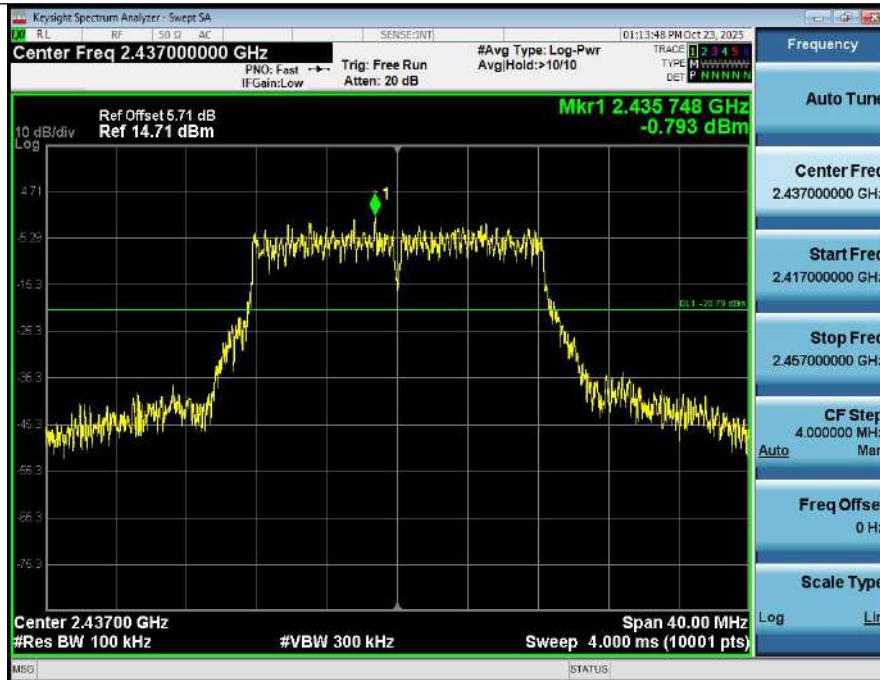
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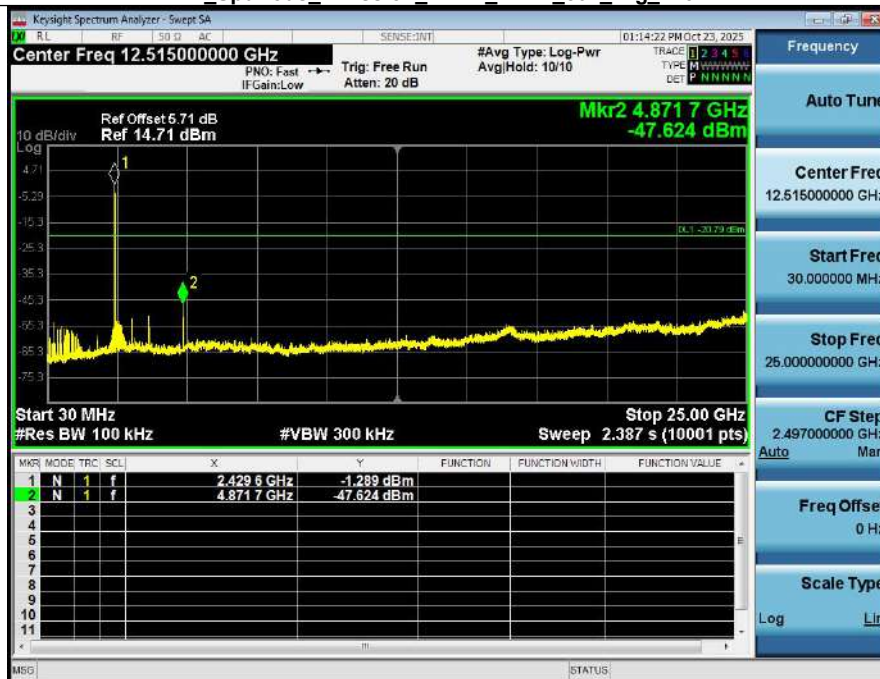
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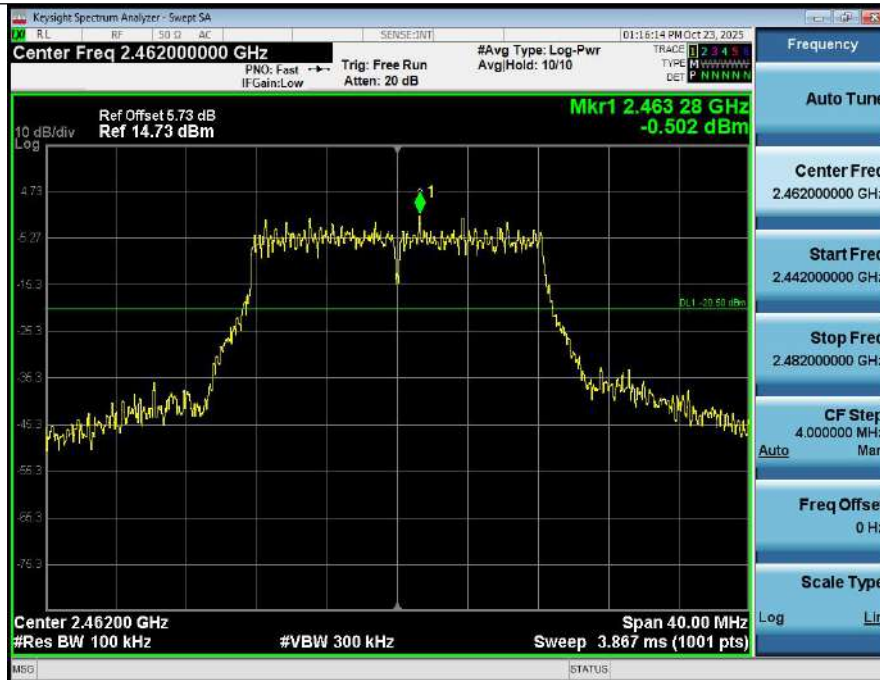
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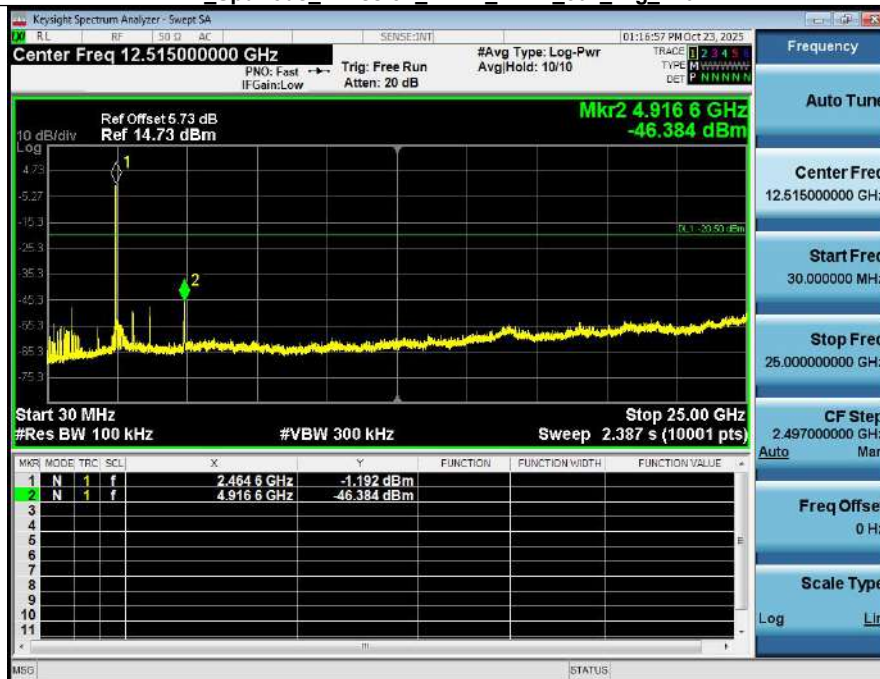
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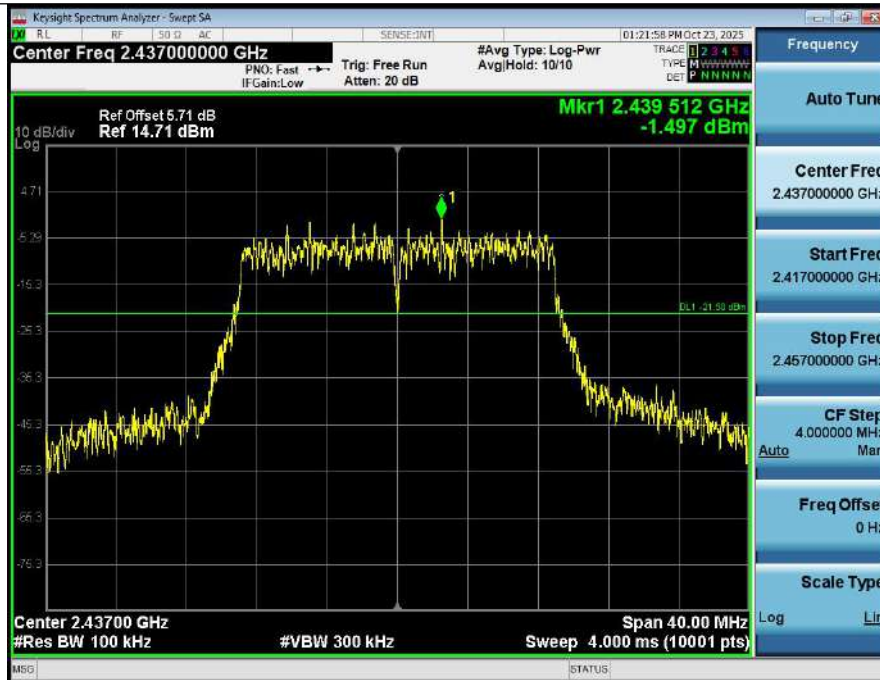
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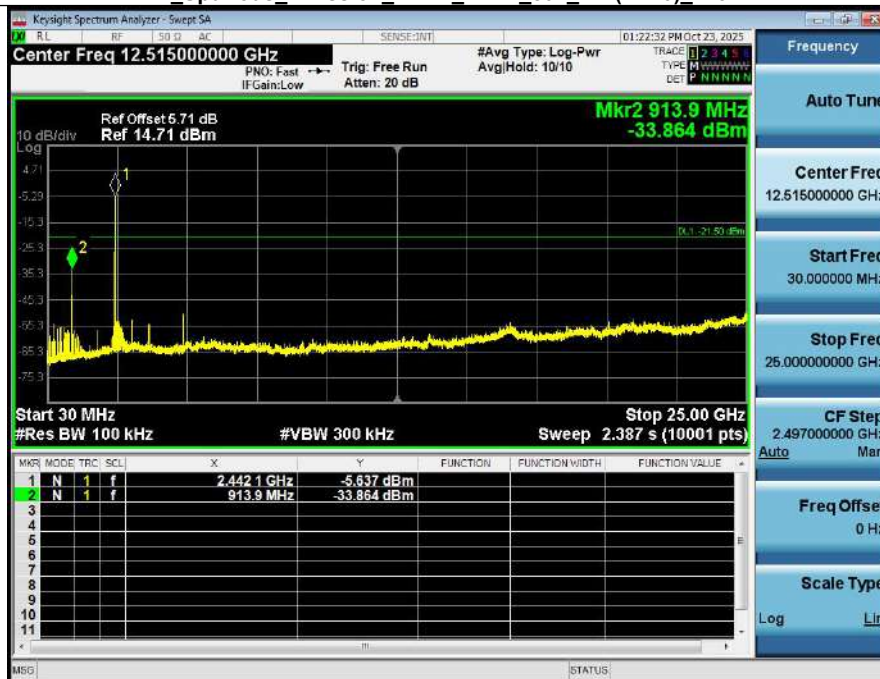
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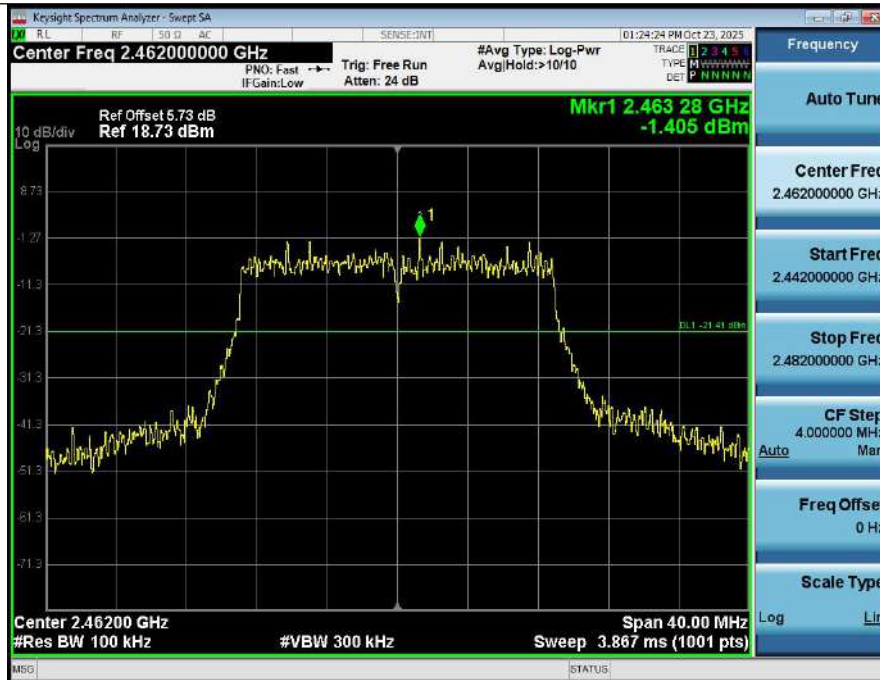
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



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

