

FCC ID:2BUXG-AL4MW301W

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	9.25	500	Pass
NVNT	ANT1	802.11b	2437.00	9.25	500	Pass
NVNT	ANT1	802.11b	2462.00	9.25	500	Pass
NVNT	ANT1	802.11g	2412.00	16.37	500	Pass
NVNT	ANT1	802.11g	2437.00	16.39	500	Pass
NVNT	ANT1	802.11g	2462.00	16.41	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.62	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.58	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.65	500	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	18.87	500	Pass
NVNT	ANT1	802.11ax(HE20)	2437.00	18.95	500	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	18.85	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	35.79	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	36.13	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	36.13	500	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	37.59	500	Pass
NVNT	ANT1	802.11ax(HE40)	2437.00	37.63	500	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	37.69	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_11ax(HE20)_2412



-6dB Bandwidth NVNT_ANT1_802_11ax(HE20)_2437



-6dB Bandwidth NVNT_ANT1_802_11ax(HE20)_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



-6dB Bandwidth_NVNT_ANT1_802_11ax(HE40)_2422



-6dB Bandwidth NVNT_ANT1_802_11ax(HE40)_2437



-6dB Bandwidth NVNT_ANT1_802_11ax(HE40)_2452



2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99% BW (MHz)
NVNT	ANT1	802.11b	2412.00	13.634
NVNT	ANT1	802.11b	2437.00	13.584
NVNT	ANT1	802.11b	2462.00	13.678
NVNT	ANT1	802.11g	2412.00	17.372
NVNT	ANT1	802.11g	2437.00	17.310
NVNT	ANT1	802.11g	2462.00	13.662
NVNT	ANT1	802.11n(HT20)	2412.00	19.791
NVNT	ANT1	802.11n(HT20)	2437.00	20.257
NVNT	ANT1	802.11n(HT20)	2462.00	20.095
NVNT	ANT1	802.11ax(HE20)	2412.00	19.990
NVNT	ANT1	802.11ax(HE20)	2437.00	20.006
NVNT	ANT1	802.11ax(HE20)	2462.00	20.025
NVNT	ANT1	802.11n(HT40)	2422.00	36.933
NVNT	ANT1	802.11n(HT40)	2437.00	36.735
NVNT	ANT1	802.11n(HT40)	2452.00	36.894
NVNT	ANT1	802.11ax(HE40)	2422.00	38.176
NVNT	ANT1	802.11ax(HE40)	2437.00	38.239
NVNT	ANT1	802.11ax(HE40)	2452.00	38.244

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 11ax(HE20) 2412



99% Occupied Bandwidth NVNT_ANT1_802_11ax(HE20)_2437



99% Occupied Bandwidth NVNT_ANT1_802_11ax(HE20)_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



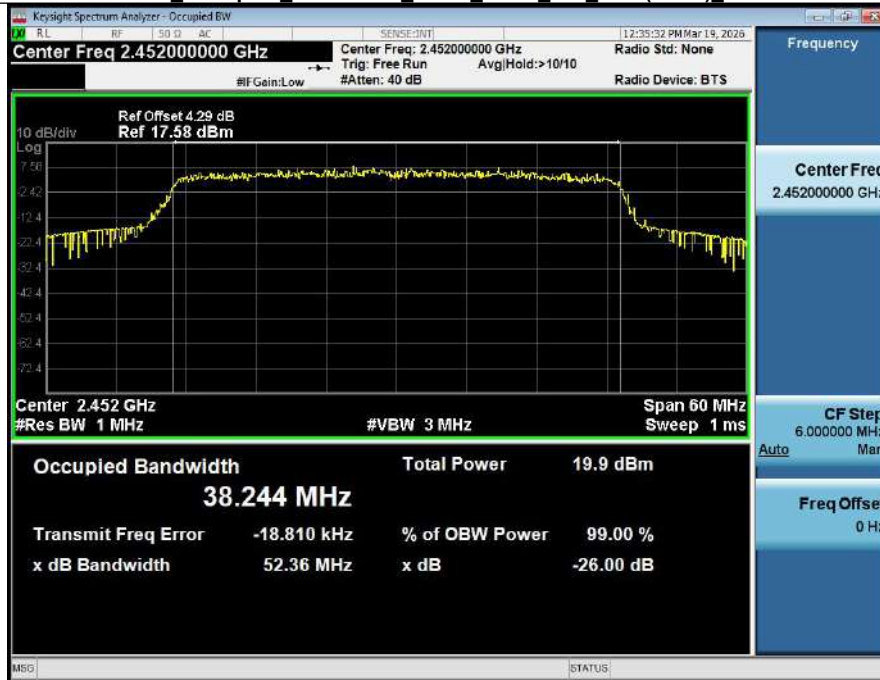
99% Occupied Bandwidth NVNT ANT1 802 11ax(HE40) 2422



99% Occupied Bandwidth NVNT_ANT1_802_11ax(HE40)_2437



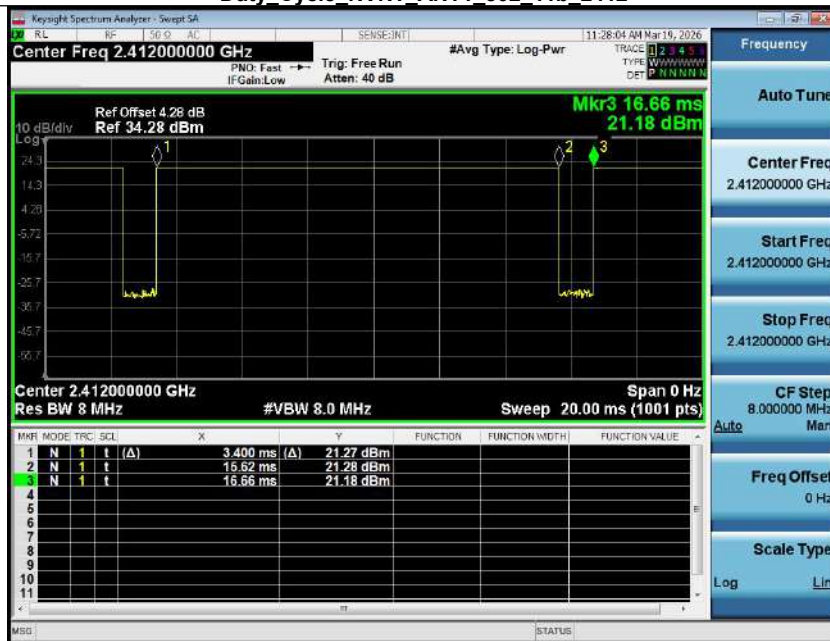
99% Occupied Bandwidth NVNT_ANT1_802_11ax(HE40)_2452



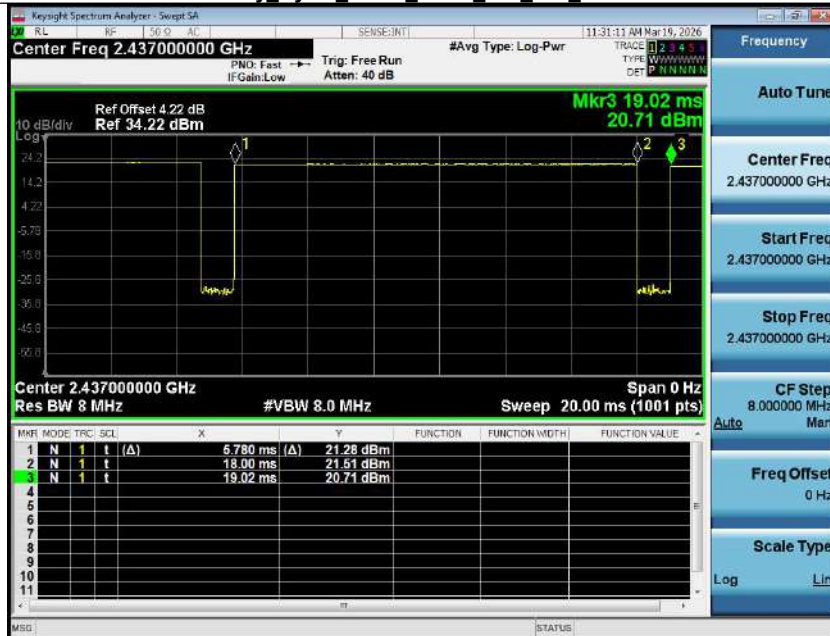
3. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty factor(dB)
NVNT	ANT1	802.11b	2412.00	92.31	0.35
NVNT	ANT1	802.11b	2437.00	92.45	0.34
NVNT	ANT1	802.11b	2462.00	92.45	0.34
NVNT	ANT1	802.11g	2412.00	69.44	1.58
NVNT	ANT1	802.11g	2437.00	79.31	1.01
NVNT	ANT1	802.11g	2462.00	74.19	1.30
NVNT	ANT1	802.11n(HT20)	2412.00	94.44	0.25
NVNT	ANT1	802.11n(HT20)	2437.00	96.91	0.14
NVNT	ANT1	802.11n(HT20)	2462.00	95.90	0.18
NVNT	ANT1	802.11ax(HE20)	2412.00	92.90	0.32
NVNT	ANT1	802.11ax(HE20)	2437.00	95.36	0.21
NVNT	ANT1	802.11ax(HE20)	2462.00	93.51	0.29
NVNT	ANT1	802.11n(HT40)	2422.00	70.59	1.51
NVNT	ANT1	802.11n(HT40)	2437.00	70.59	1.51
NVNT	ANT1	802.11n(HT40)	2452.00	66.67	1.76
NVNT	ANT1	802.11ax(HE40)	2422.00	53.33	2.73
NVNT	ANT1	802.11ax(HE40)	2437.00	61.54	2.11
NVNT	ANT1	802.11ax(HE40)	2452.00	57.14	2.43

Duty Cycle NVNT ANT1 802 11b 2412



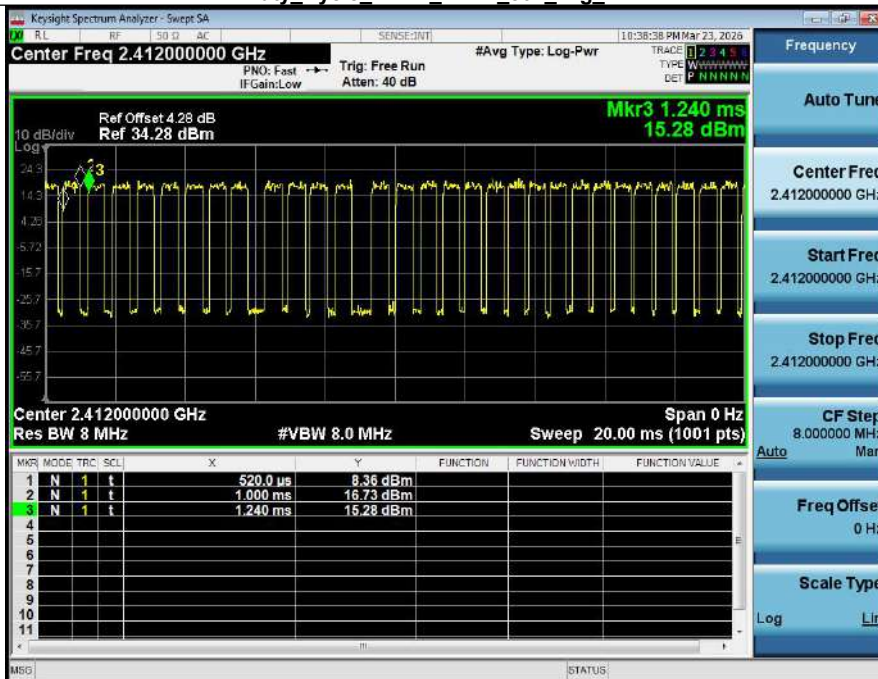
Duty Cycle NVNT ANT1 802 11b 2437



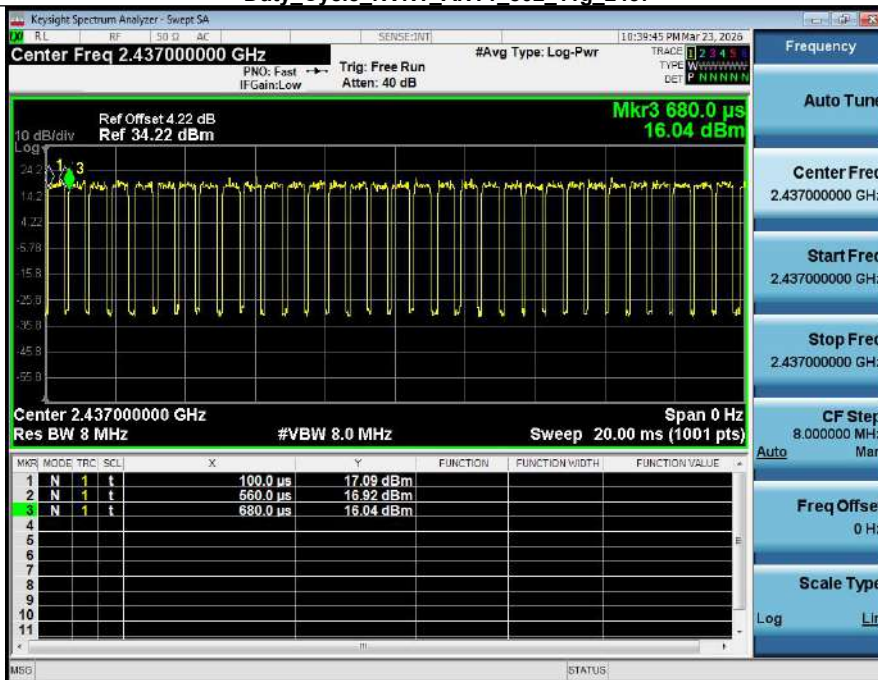
Duty Cycle NVNT ANT1_802_11b_2462



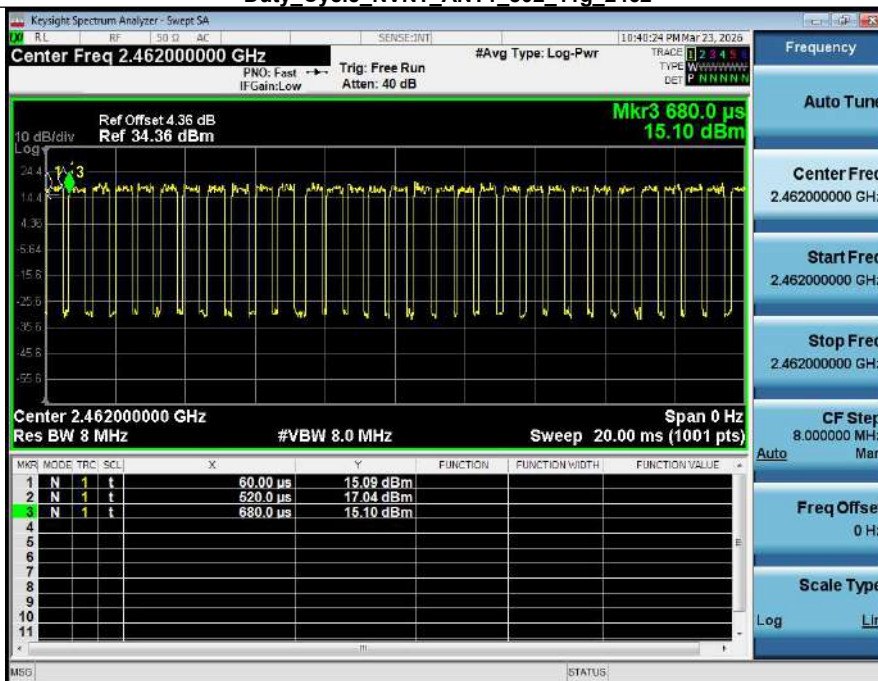
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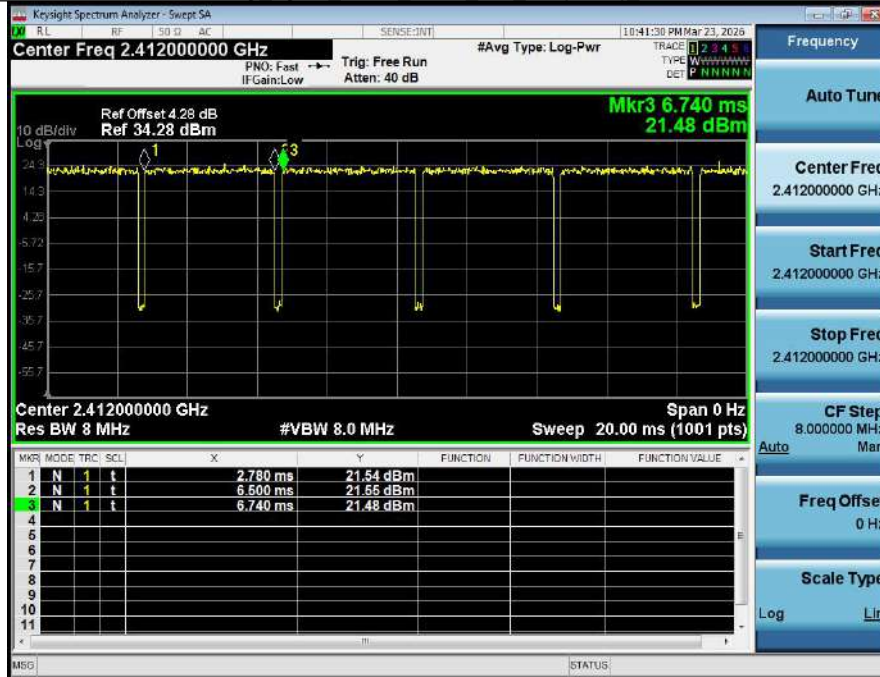
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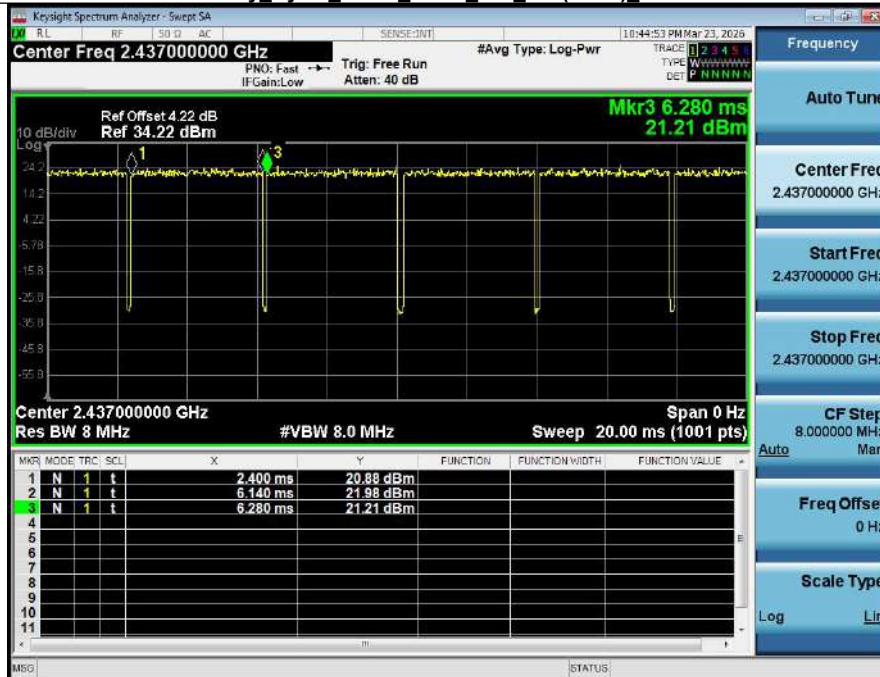
Duty Cycle NVNT_ANT1_802_11g_2462



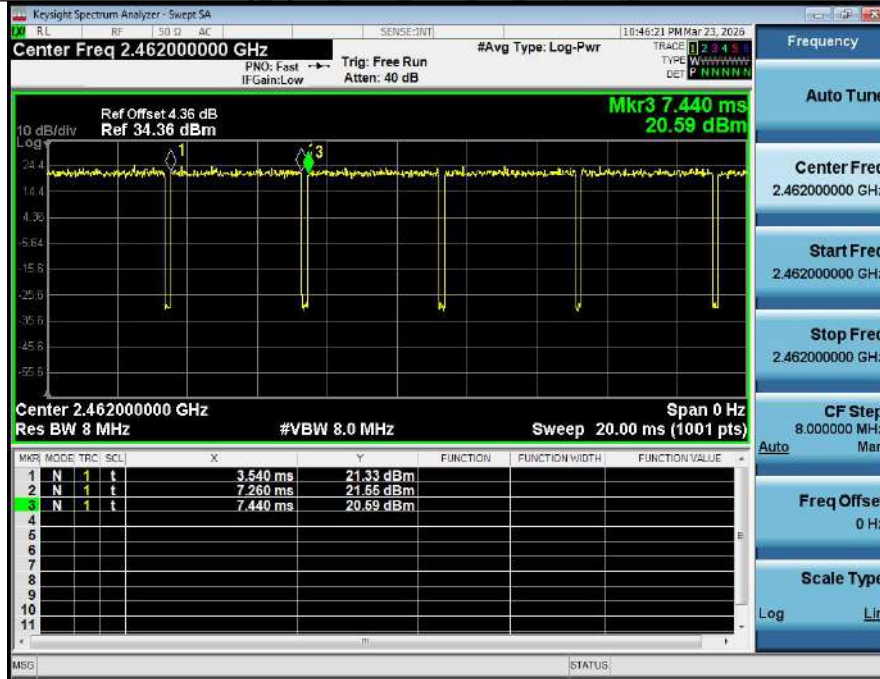
Duty Cycle NVNT ANT1_802_11n(HT20)_2412



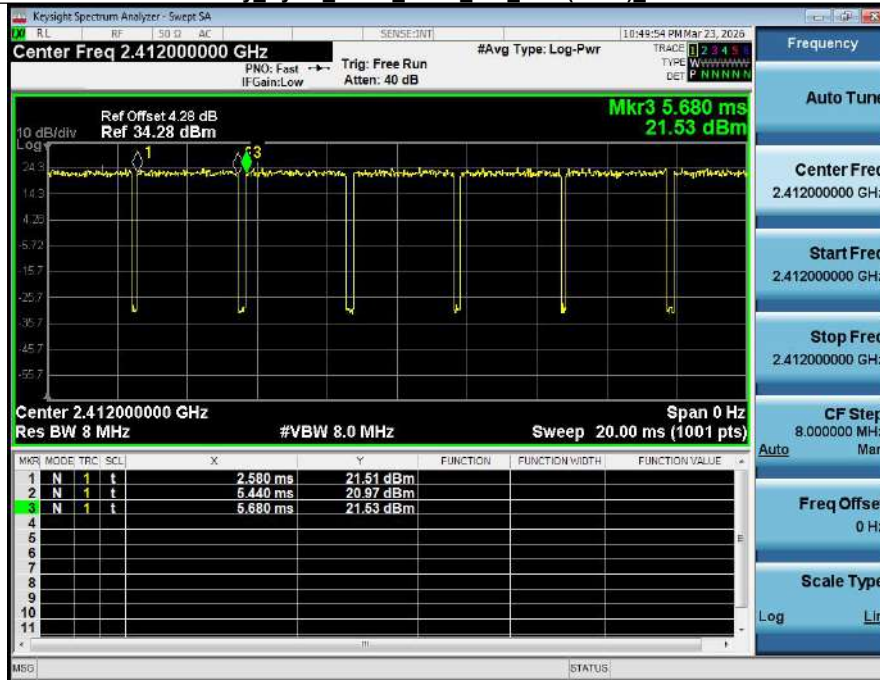
Duty Cycle NVNT ANT1_802_11n(HT20)_2437



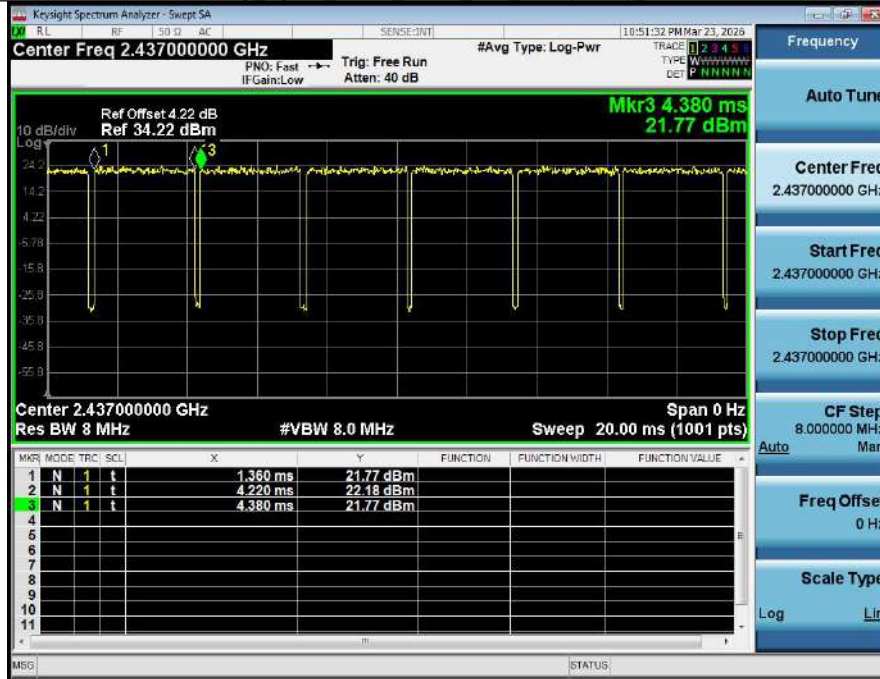
Duty Cycle NVNT ANT1_802_11n(HT20)_2462



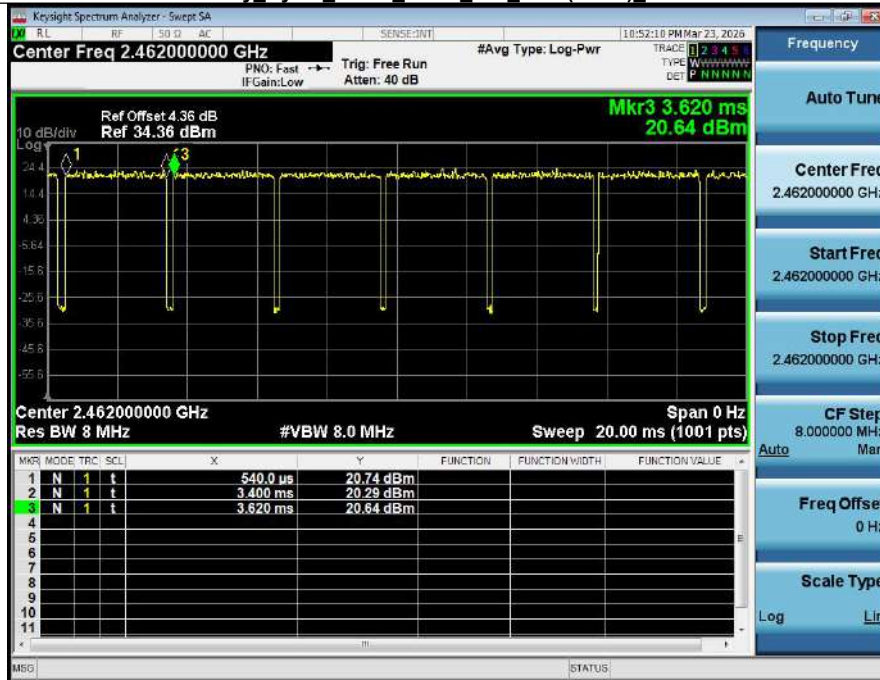
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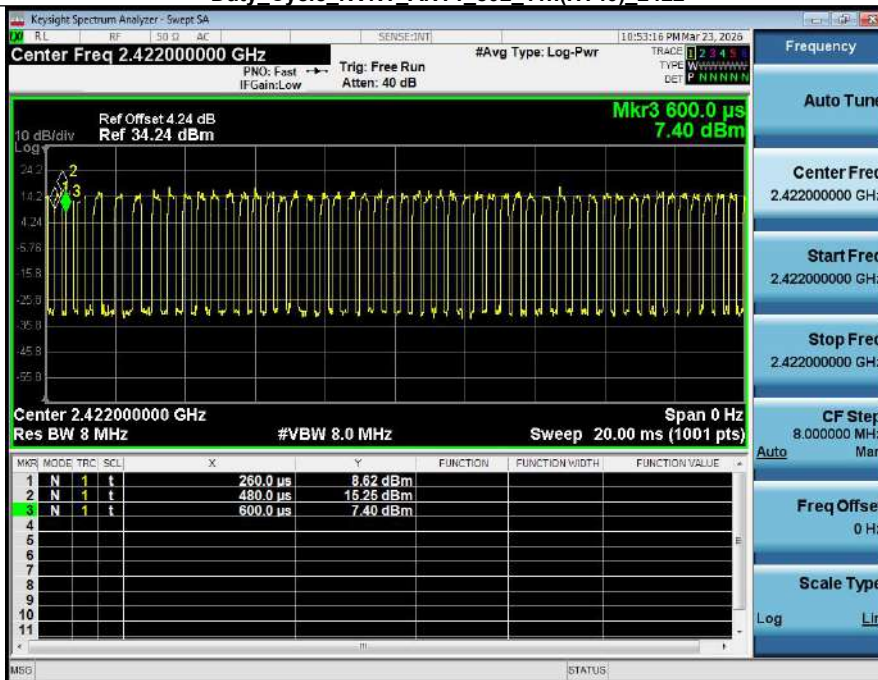
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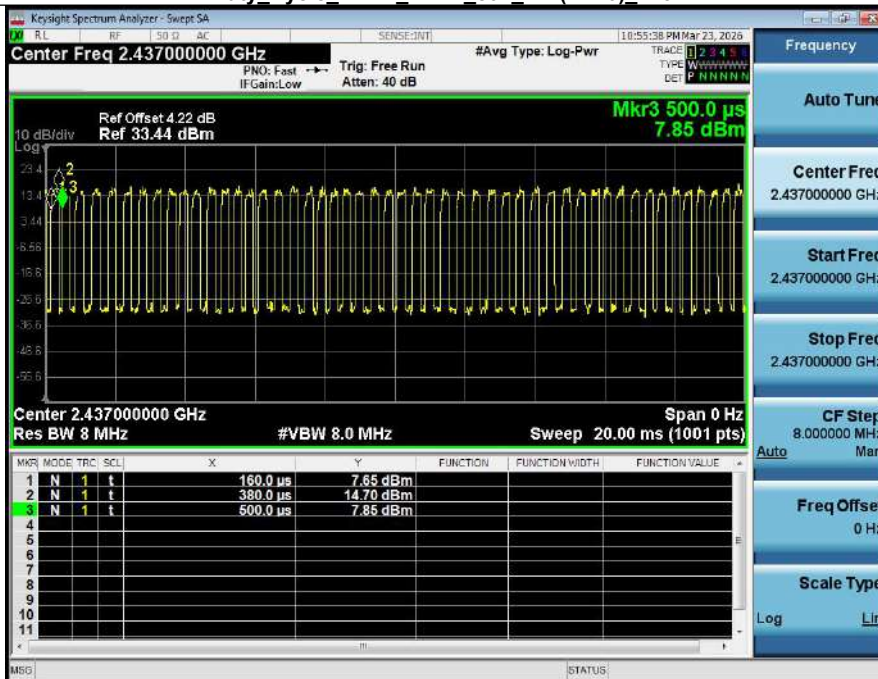
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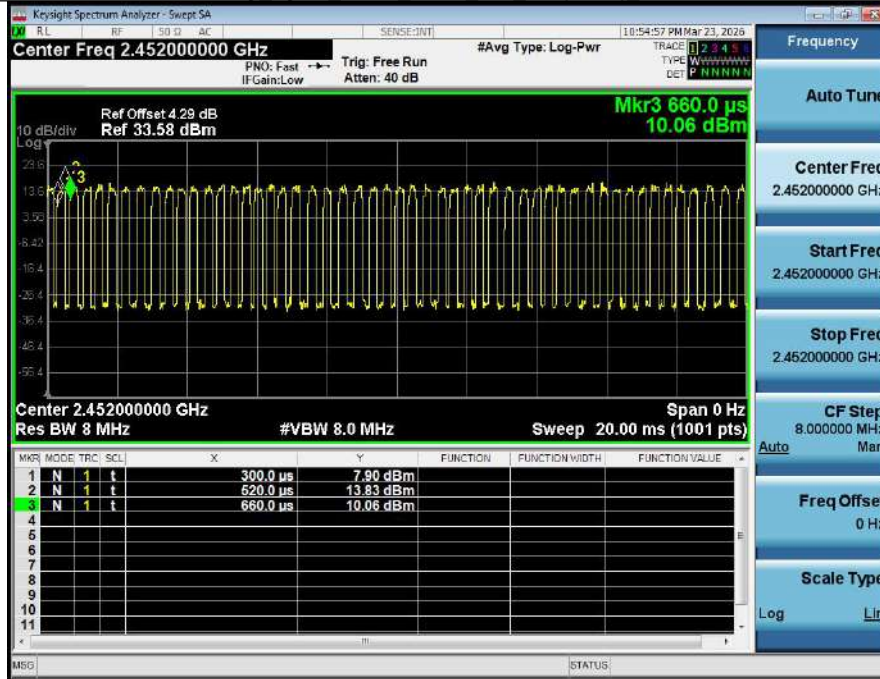
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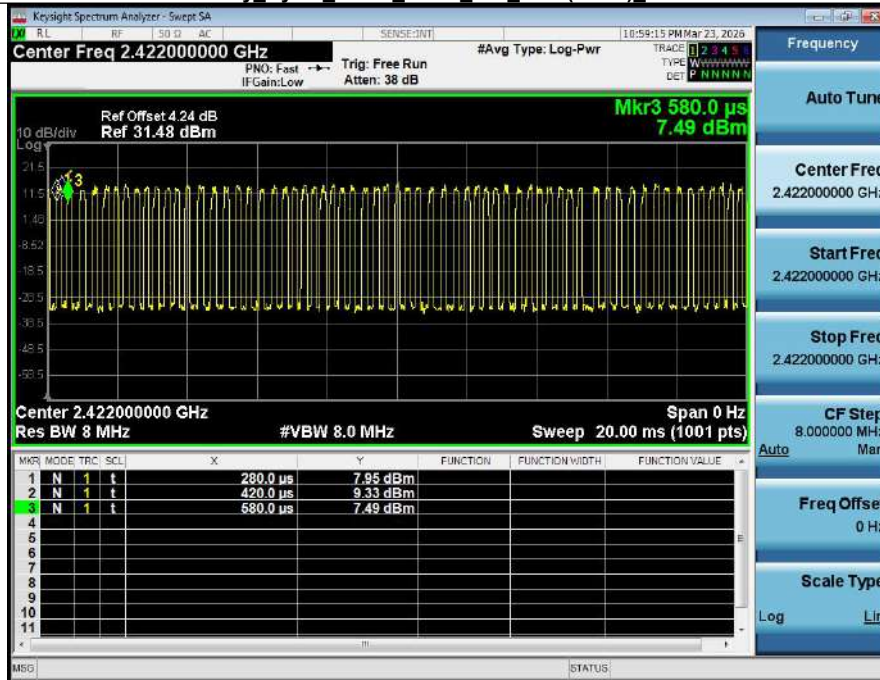
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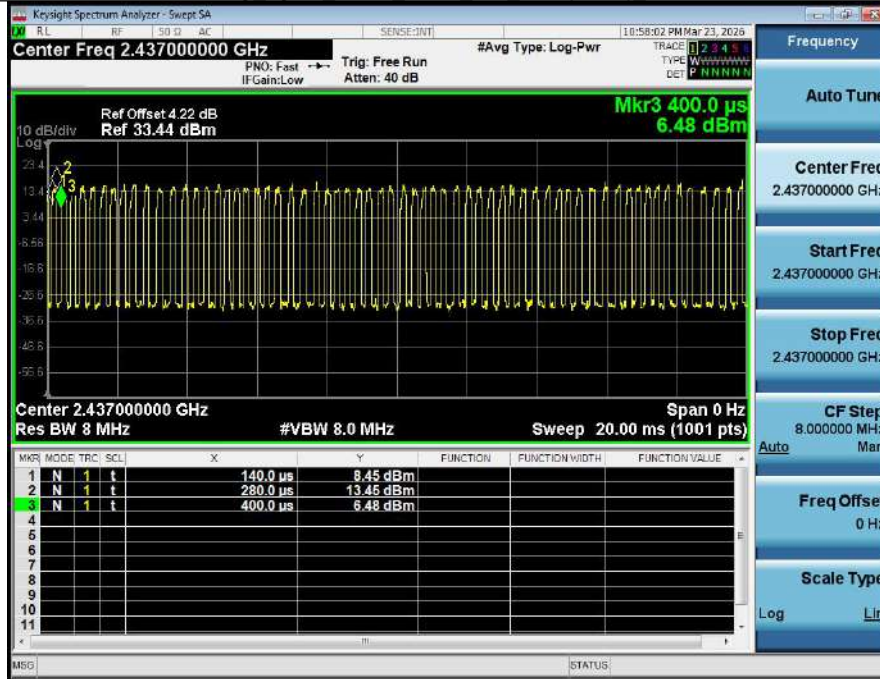
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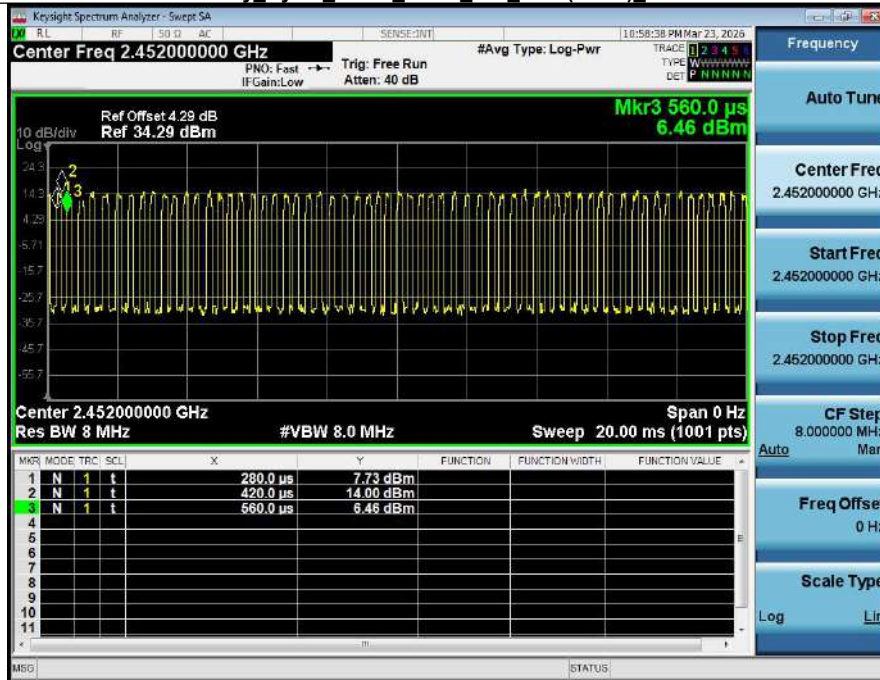
Duty Cycle NVNT ANT1_802_11ax(HE40)_2422



Duty Cycle NVNT_ANT1_802_11ax(HE40)_2437



Duty Cycle NVNT_ANT1_802_11ax(HE40)_2452

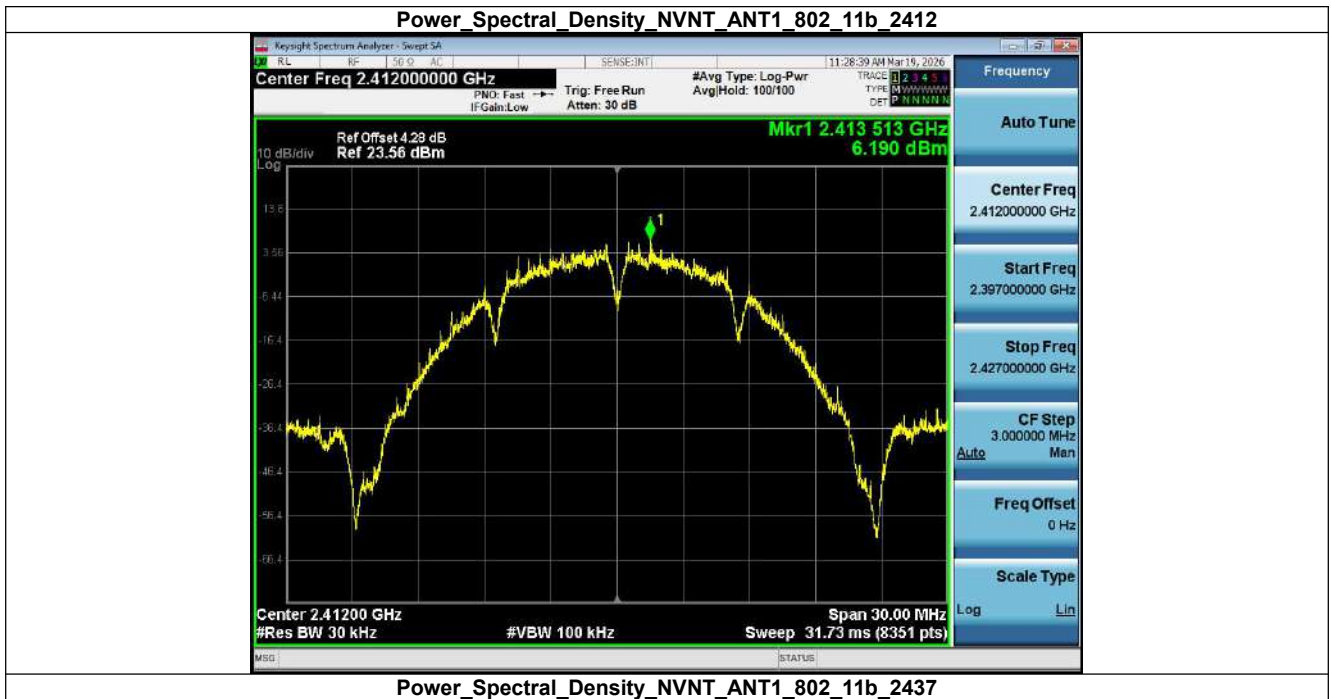


4. MAX. Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	Peak	20.60	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	20.16	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	19.85	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	19.67	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	20.34	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	19.87	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	24.72	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	25.07	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	24.60	30	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	Peak	26.12	30	Pass
NVNT	ANT1	802.11ax(HE20)	2437.00	Peak	26.35	30	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	Peak	26.07	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	Peak	19.07	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	Peak	19.91	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	Peak	19.55	30	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	Peak	18.41	30	Pass
NVNT	ANT1	802.11ax(HE40)	2437.00	Peak	19.01	30	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	Peak	18.79	30	Pass

5. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	SA_PSD(dBm/30k Hz)	RB factor(dB)	PSD(dBm/3kHz)	limit(dBm/3kHz)	Result
NVNT	ANT1	802.11b	2412.00	6.19	-10.00	-3.81	8	Pass
NVNT	ANT1	802.11b	2437.00	6.34	-10.00	-3.66	8	Pass
NVNT	ANT1	802.11b	2462.00	4.96	-10.00	-5.04	8	Pass
NVNT	ANT1	802.11g	2412.00	-3.16	-10.00	-13.16	8	Pass
NVNT	ANT1	802.11g	2437.00	-2.48	-10.00	-12.48	8	Pass
NVNT	ANT1	802.11g	2462.00	6.21	-10.00	-3.79	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	3.16	-10.00	-6.84	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	2.98	-10.00	-7.02	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2.78	-10.00	-7.22	8	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	3.89	-10.00	-6.11	8	Pass
NVNT	ANT1	802.11ax(HE20)	2437.00	2.30	-10.00	-7.70	8	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	2.60	-10.00	-7.39	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-5.13	-10.00	-15.13	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-4.41	-10.00	-14.41	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-4.76	-10.00	-14.76	8	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	-6.38	-10.00	-16.38	8	Pass
NVNT	ANT1	802.11ax(HE40)	2437.00	-5.61	-10.00	-15.61	8	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	-5.88	-10.00	-15.88	8	Pass

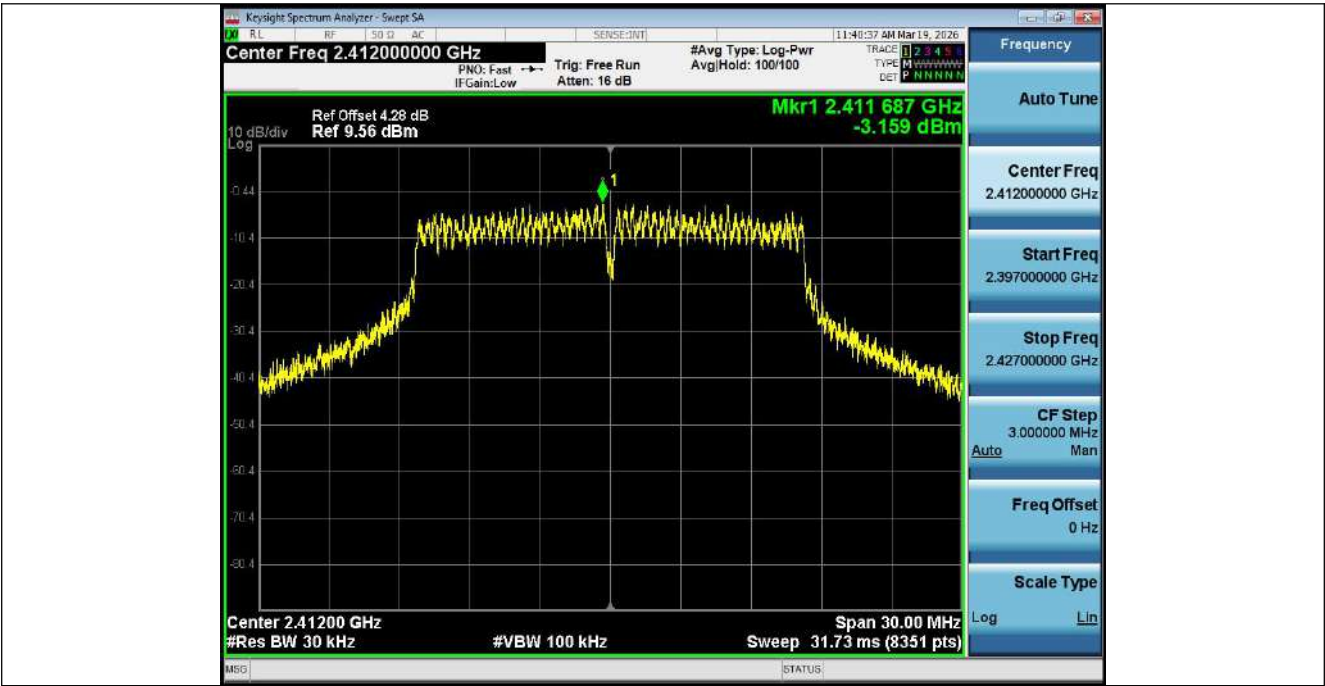




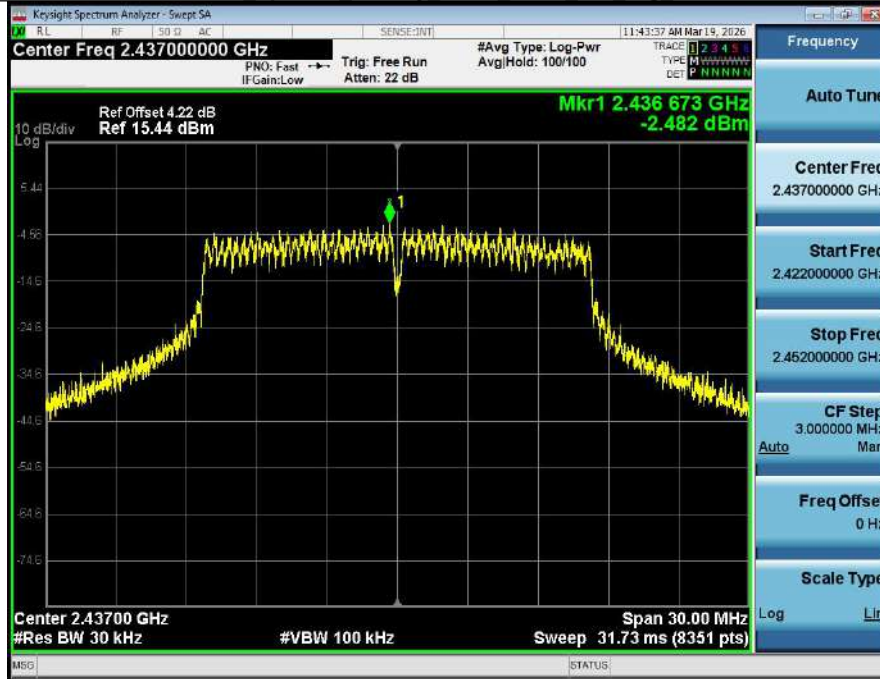
Power_Spectral_Density_NVNT_ANT1_802_11b_2462



Power_Spectral_Density_NVNT_ANT1_802_11g_2412



Power Spectral Density NVNT_ANT1_802_11g_2437



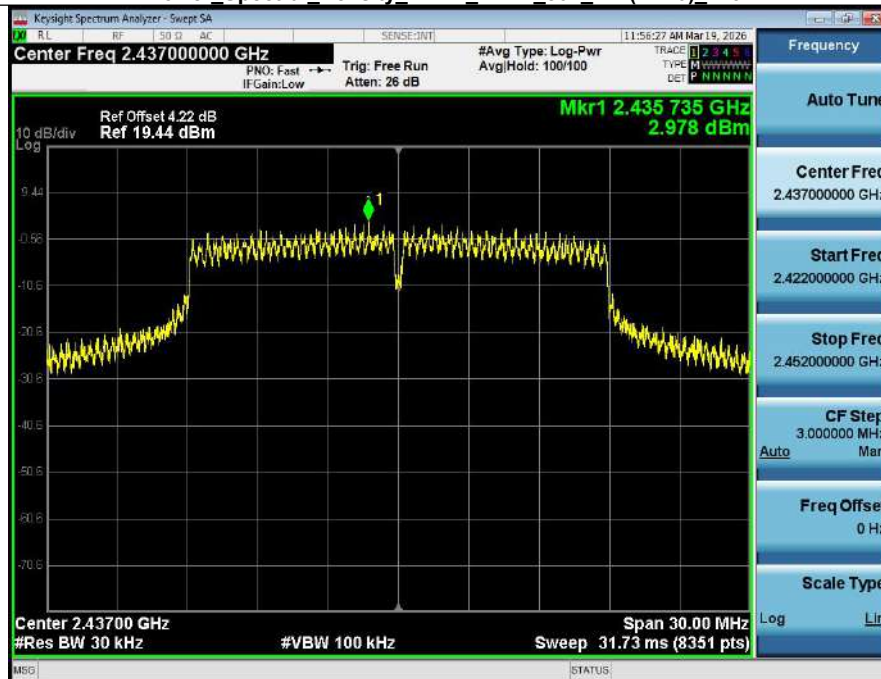
Power Spectral Density NVNT_ANT1_802_11g_2462



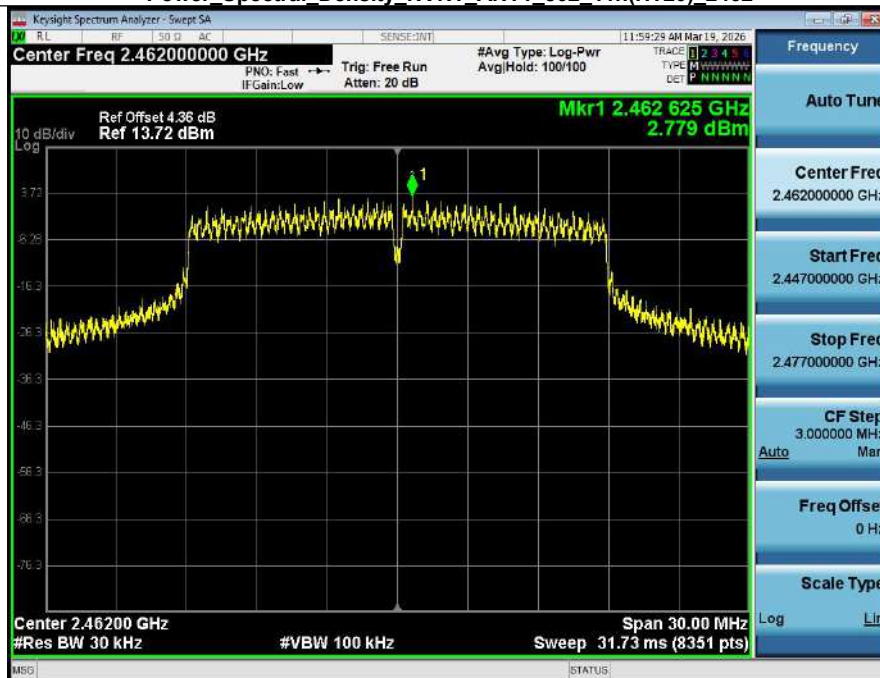
Power Spectral Density NVNT ANT1_802_11n(HT20)_2412



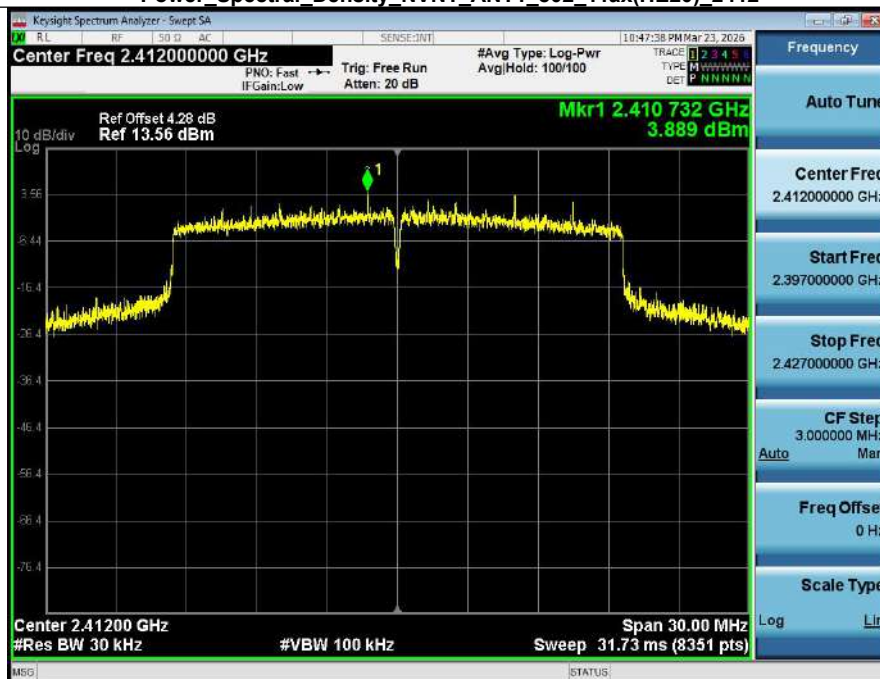
Power Spectral Density NVNT ANT1_802_11n(HT20)_2437



Power Spectral Density NVNT ANT1_802_11n(HT20)_2462



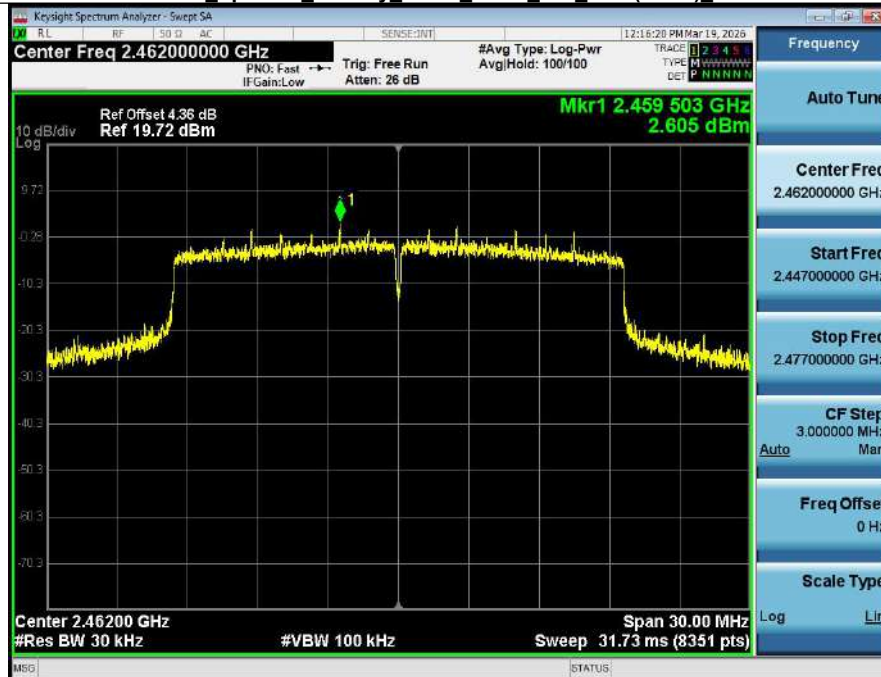
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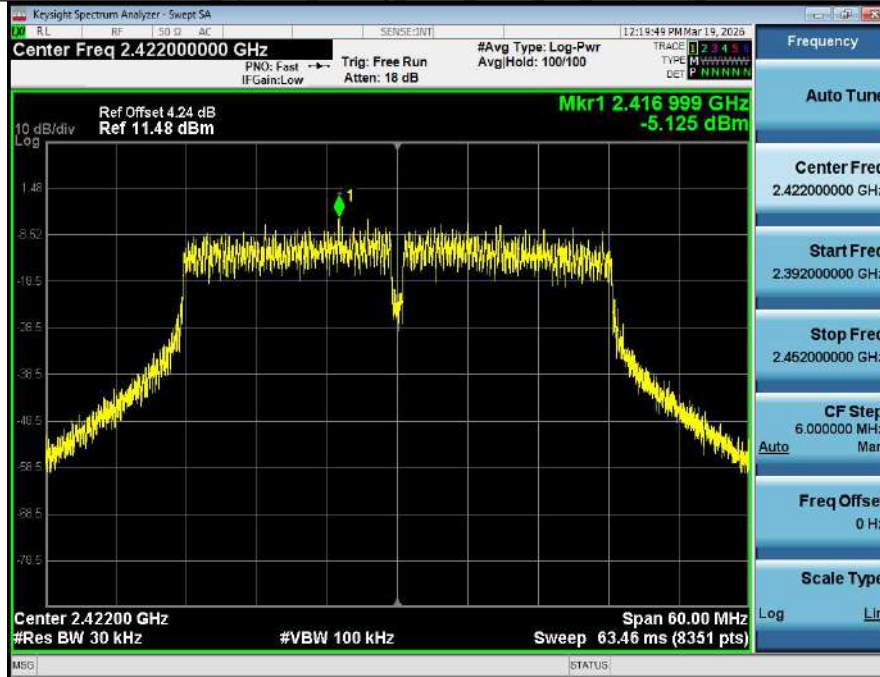
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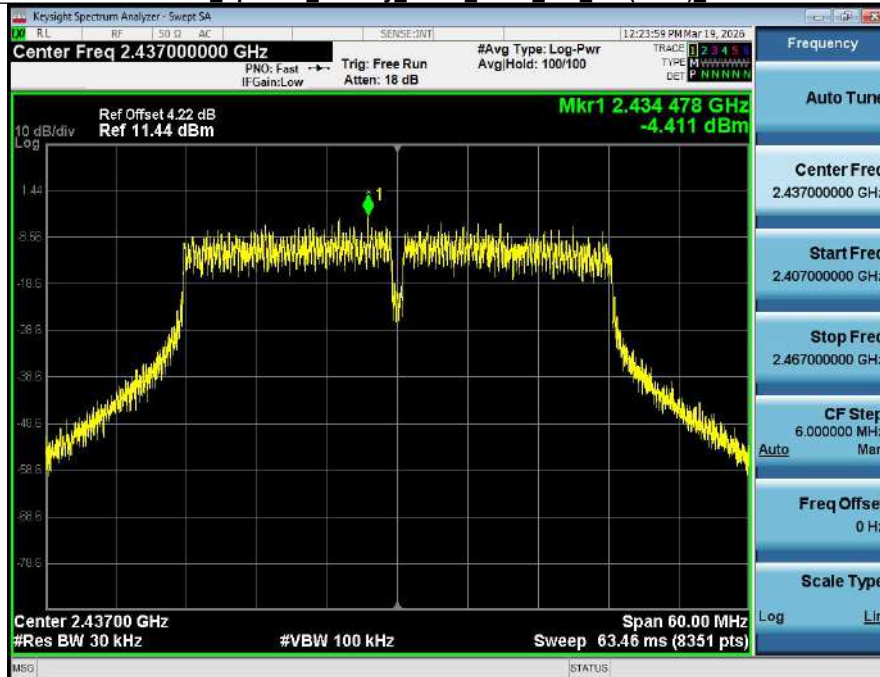
Power Spectral Density NVNT ANT1 802 11ax(HE20) 2462



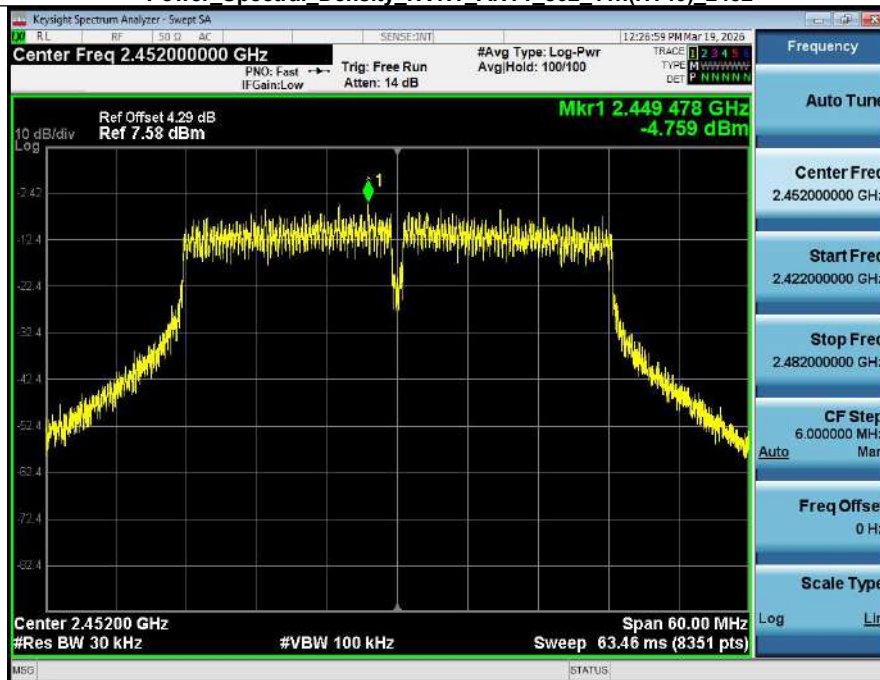
Power Spectral Density NVNT ANT1_802_11n(HT40)_2422



Power Spectral Density NVNT ANT1_802_11n(HT40)_2437



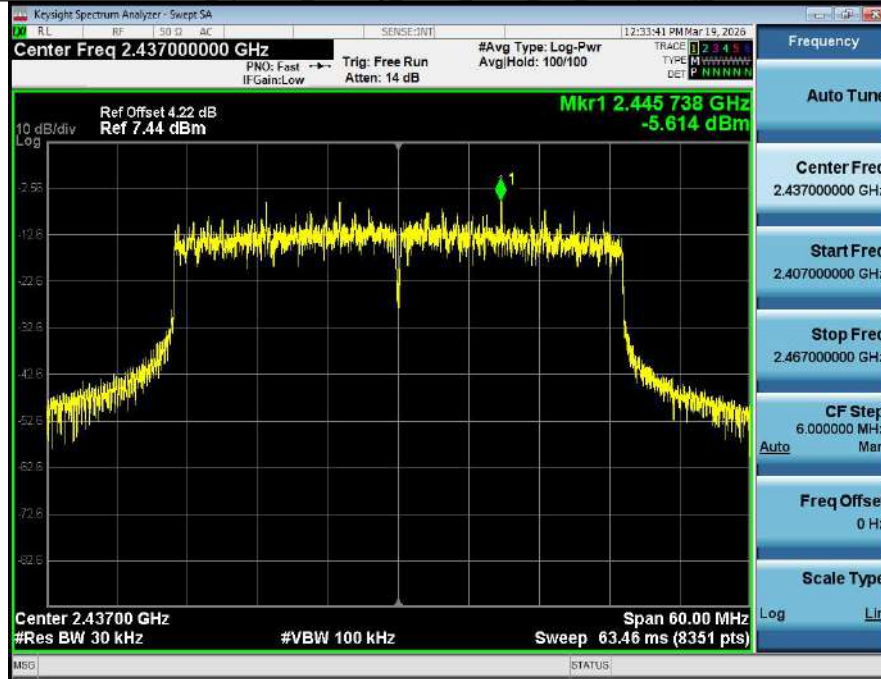
Power Spectral Density NVNT ANT1_802_11n(HT40)_2452



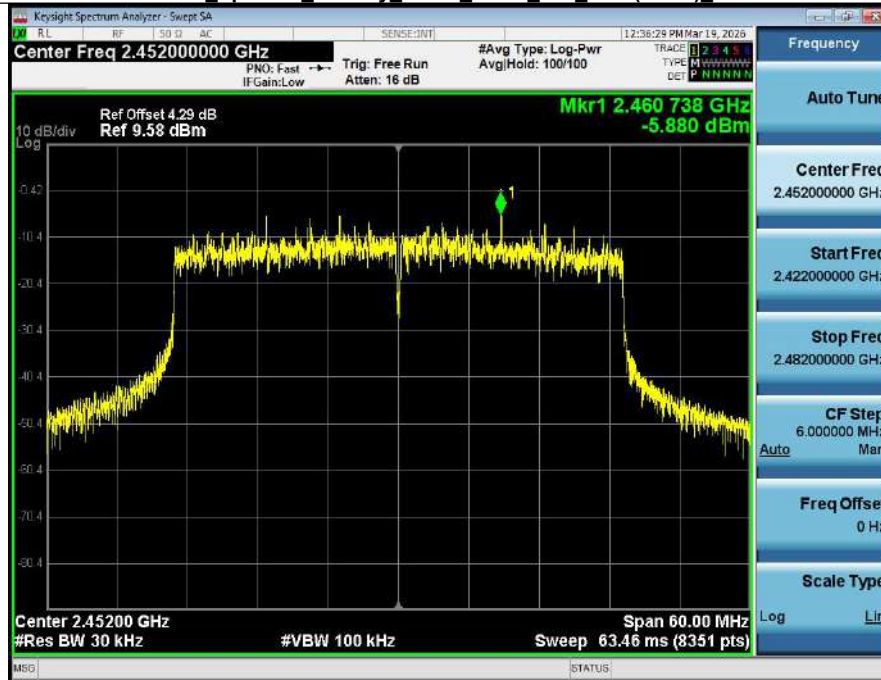
Power Spectral Density NVNT ANT1_802_11ax(HE40)_2422



Power Spectral Density NVNT ANT1 802 11ax(HE40) 2437



Power Spectral Density NVNT ANT1 802 11ax(HE40) 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	2397.024	9.710	-29.977	-10.290	Pass
NVNT	ANT1	802.11b	2462.00	2488.048	8.549	-49.419	-11.451	Pass
NVNT	ANT1	802.11g	2412.00	2399.376	1.932	-28.345	-18.068	Pass
NVNT	ANT1	802.11g	2462.00	2486.992	8.944	-49.369	-11.056	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.600	7.449	-17.620	-12.551	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2483.920	6.989	-29.548	-13.011	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	2399.040	7.748	-18.789	-12.252	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	2483.584	7.317	-26.215	-12.683	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2399.496	-1.090	-34.556	-21.090	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2484.496	-0.681	-43.818	-20.681	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	2399.760	-2.003	-34.244	-22.003	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	2483.748	-1.643	-42.021	-21.643	Pass

Remark: Cable loss has been added to the spectrum for evaluation. The graph only shows the loss corresponding to the main frequency.

1 Reference Level NVNT ANT1 802 11b 2412



2 Bandedge_NVNT_ANT1_802_11b_2412



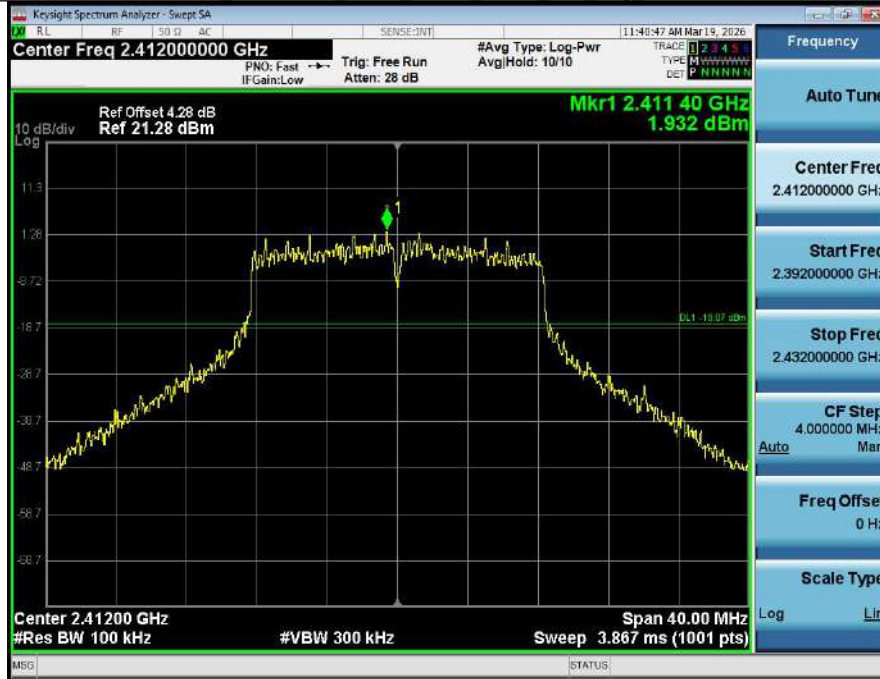
1 Reference Level NVNT_ANT1_802_11b_2462



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_11ax(HE20)_2412



2 Bandedge_NVNT ANT1_802_11ax(HE20)_2412



1 Reference Level NVNT ANT1_802_11ax(HE20)_2462



2 Bandedge_NVNT ANT1_802_11ax(HE20)_2462



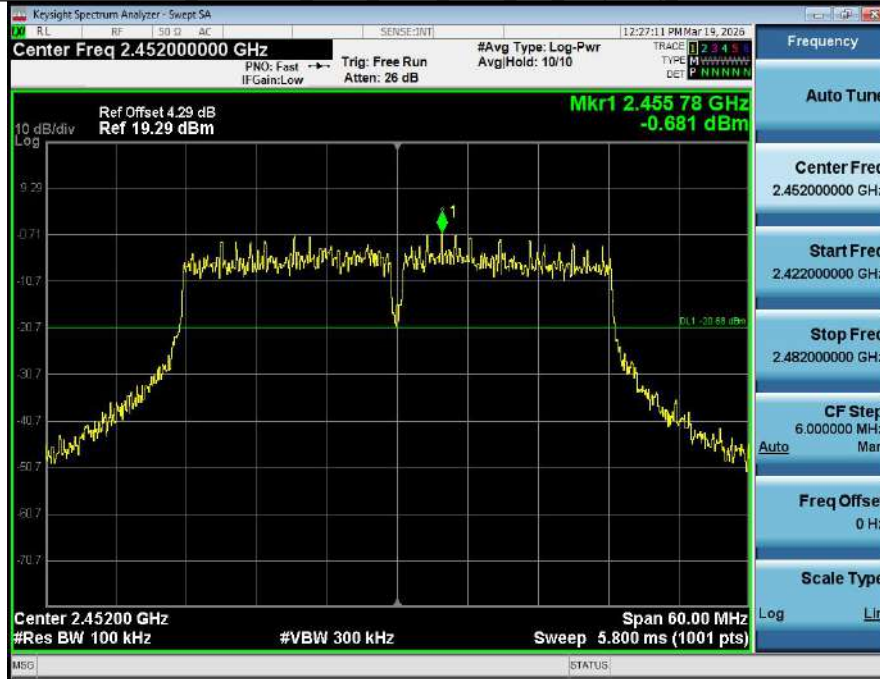
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2 Bandedge NVNT_ANT1_802_11n(HT40)_2422



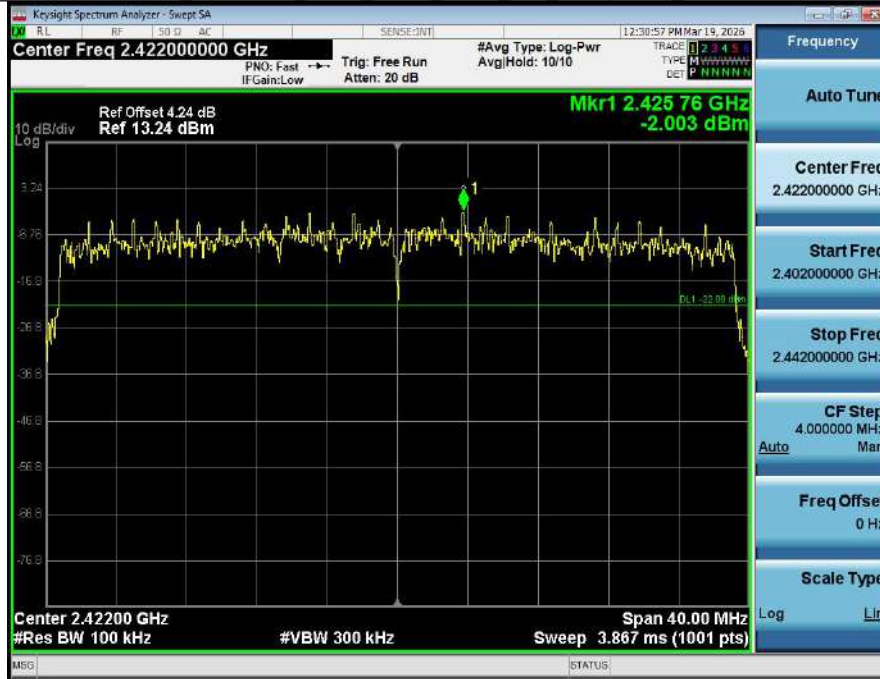
1 Reference Level NVNT_ANT1_802_11n(HT40)_2452



2 Bandedge NVNT_ANT1_802_11n(HT40)_2452



1 Reference Level NVNT ANT1_802_11ax(HE40)_2422



2 Bandedge_NVNT ANT1_802_11ax(HE40)_2422



1 Reference Level NVNT ANT1_802_11ax(HE40)_2452



2 Bandedge_NVNT_ANT1_802_11ax(HE40)_2452



7. Spurious Emission

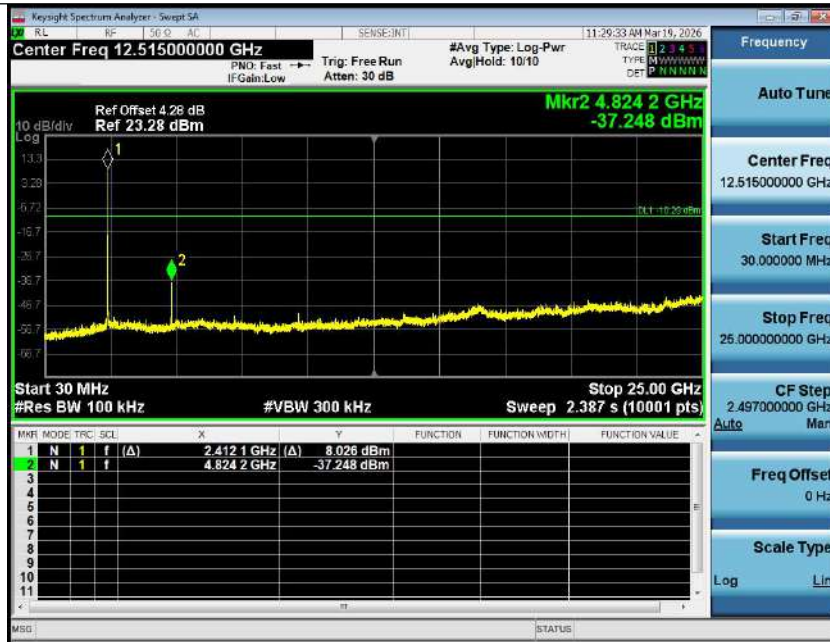
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark_freq(MHz)	Ref_level(dBm)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	4824.240	9.710	-37.248	-10.290	Pass
NVNT	ANT1	802.11b	2437.00	4874.180	8.668	-36.702	-11.332	Pass
NVNT	ANT1	802.11b	2462.00	4924.120	8.549	-35.679	-11.451	Pass
NVNT	ANT1	802.11g	2412.00	24947.563	1.932	-42.013	-18.068	Pass
NVNT	ANT1	802.11g	2437.00	24987.515	2.997	-47.657	-17.003	Pass
NVNT	ANT1	802.11g	2462.00	4924.120	8.944	-35.521	-11.056	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	4824.240	7.449	-43.674	-12.551	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	24985.018	6.170	-36.915	-13.830	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	24960.048	6.989	-42.538	-13.011	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	24950.060	7.748	-42.890	-12.252	Pass
NVNT	ANT1	802.11ax(HE20)	2437.00	24940.072	6.817	-42.474	-13.183	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	24990.012	7.317	-37.566	-12.683	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	4844.216	-1.090	-50.897	-21.090	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	24987.515	-0.262	-44.915	-20.262	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	24977.527	-0.681	-44.937	-20.681	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	24975.030	-2.003	-51.125	-22.003	Pass
NVNT	ANT1	802.11ax(HE40)	2437.00	3897.853	-1.453	-49.359	-21.453	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	24980.024	-1.643	-51.569	-21.643	Pass

Remark: Cable loss has been added to the spectrum for evaluation. The graph only shows the loss corresponding to the main frequency.

1 Reference_Level_NVNT_ANT1_802_11b_2412



2 Spurious_Emission_NVNT_ANT1_802_11b_2412



1 Reference Level NVNT_ANT1_802_11b_2437



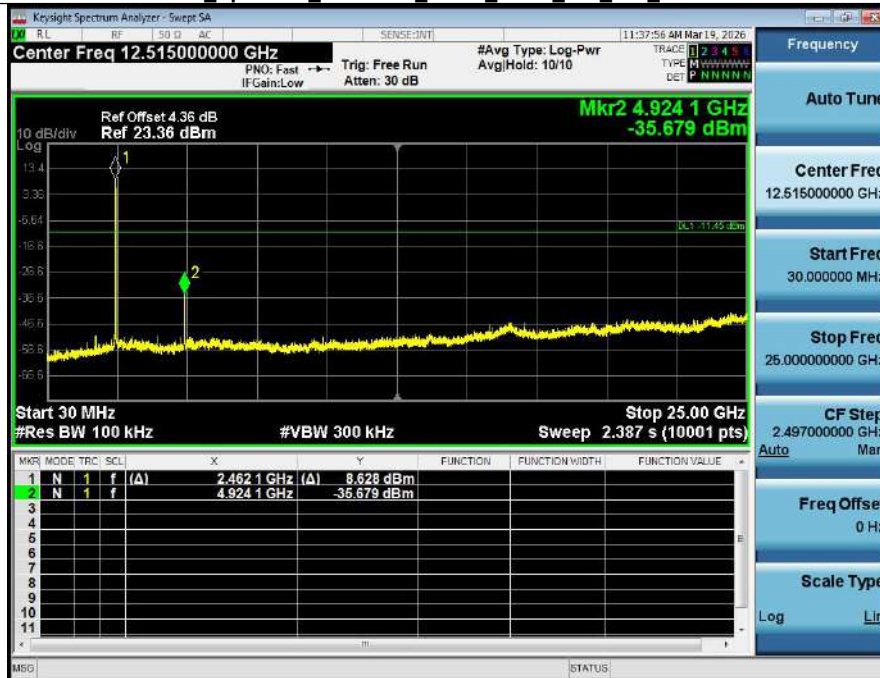
2_Spurious_Emission_NVNT_ANT1_802_11b_2437



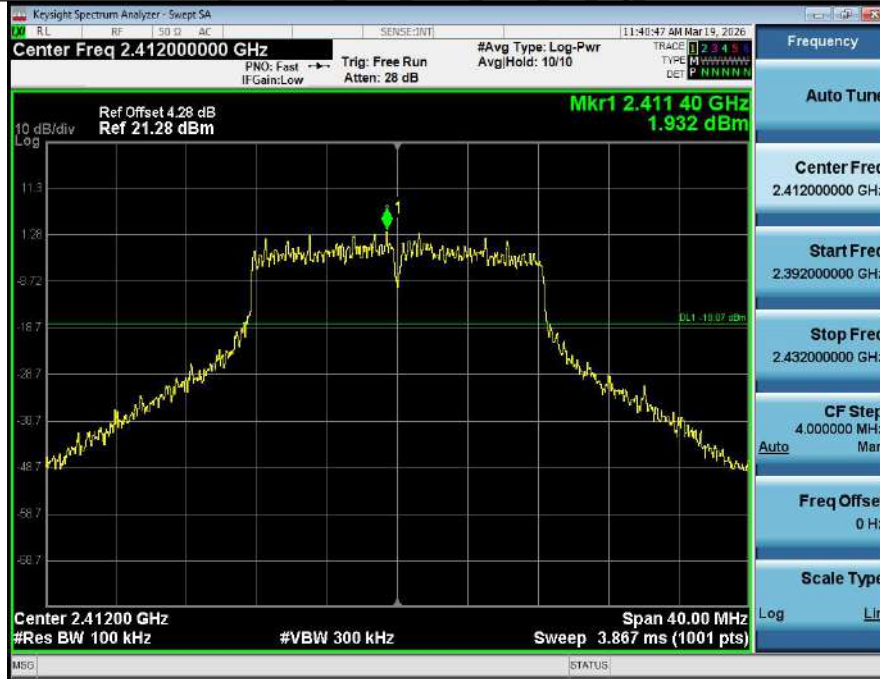
1 Reference Level NVNT_ANT1_802_11b_2462



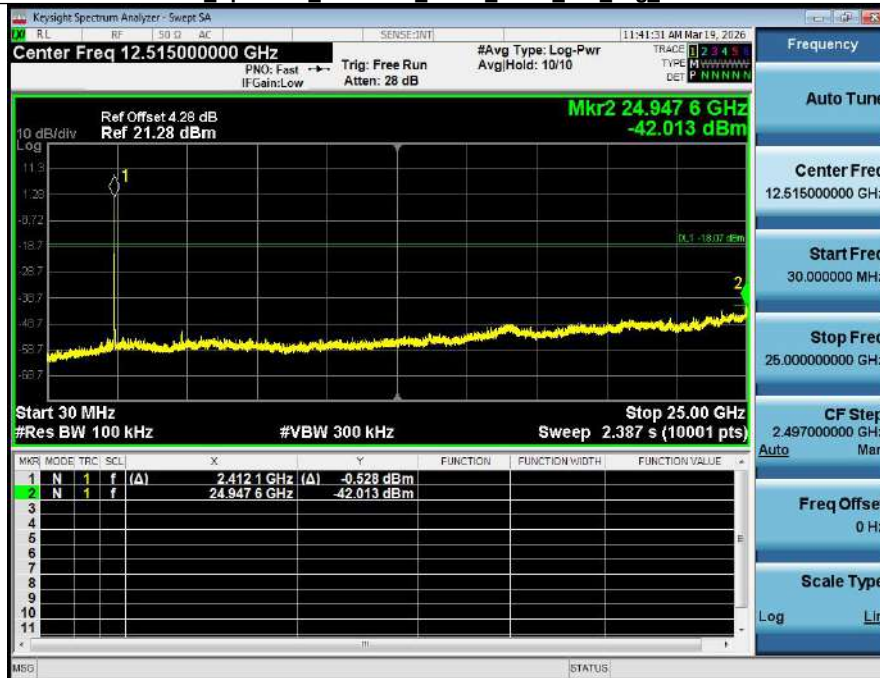
2 Spurious Emission NVNT_ANT1_802_11b_2462



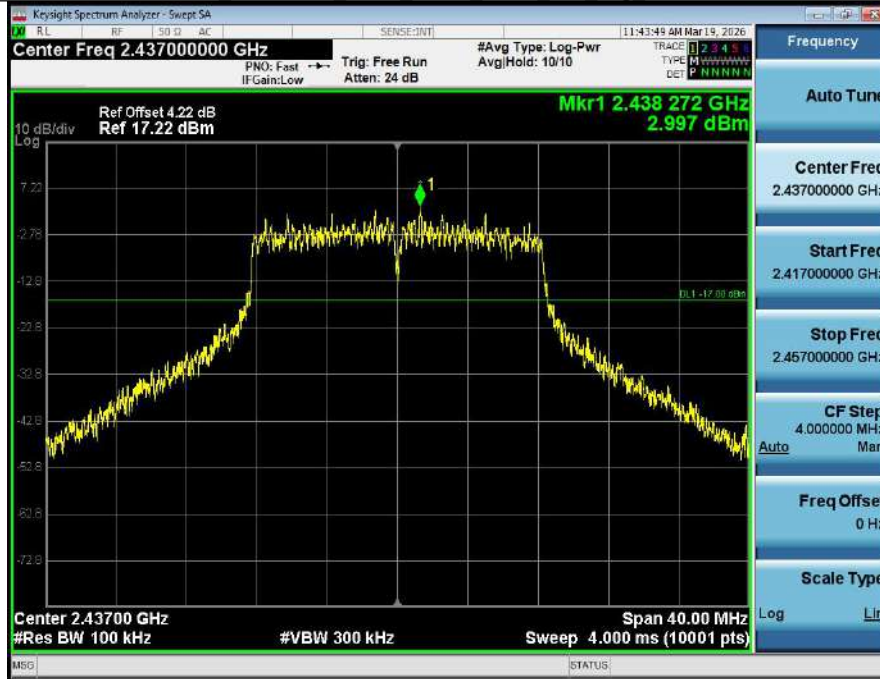
1 Reference Level NVNT_ANT1_802_11g_2412



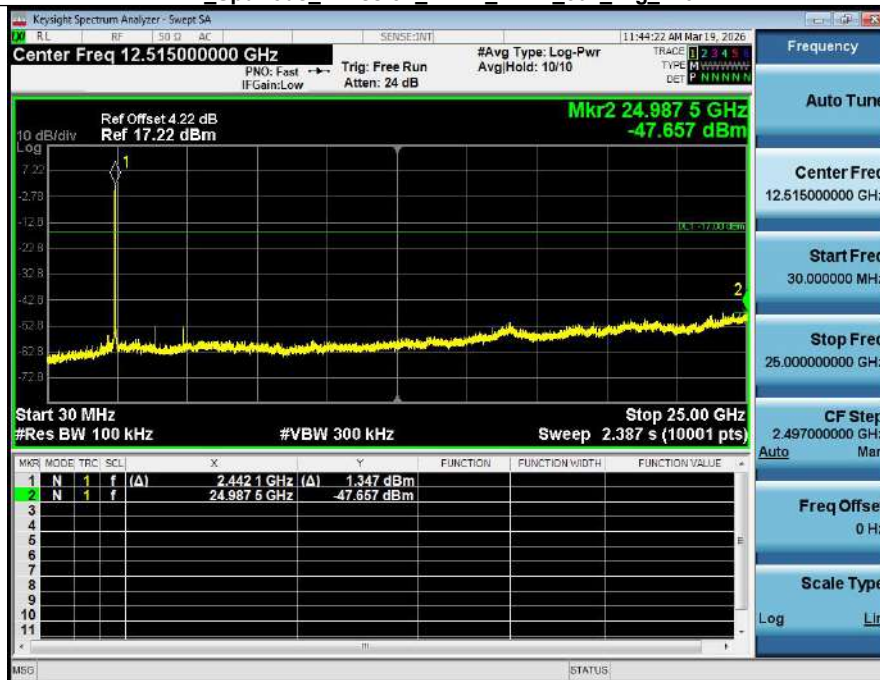
2 Spurious Emission NVNT_ANT1_802_11g_2412



1 Reference Level NVNT_ANT1_802_11g_2437



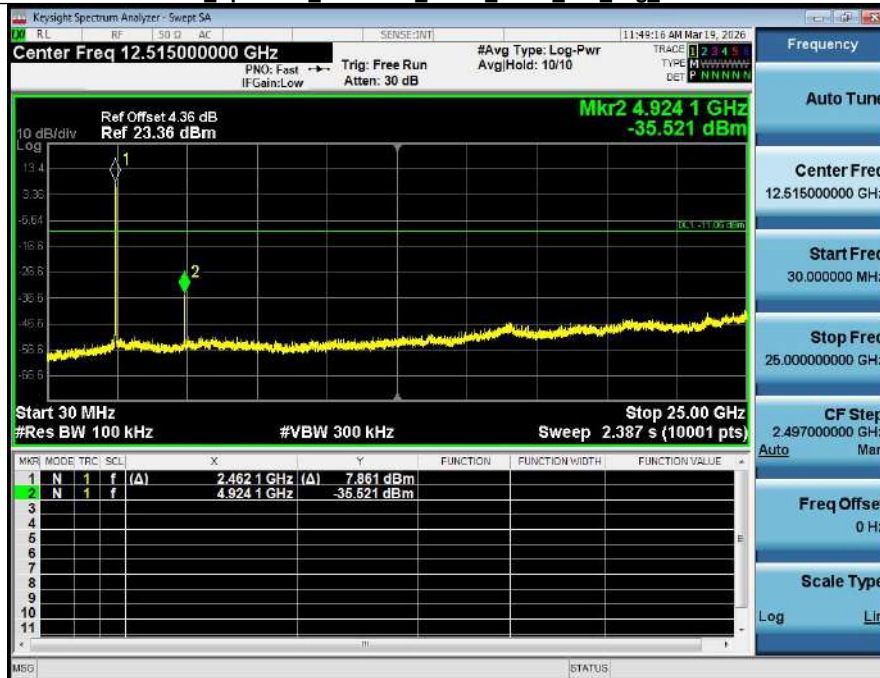
2 Spurious Emission NVNT_ANT1_802_11g_2437



1 Reference Level NVNT_ANT1_802_11g_2462



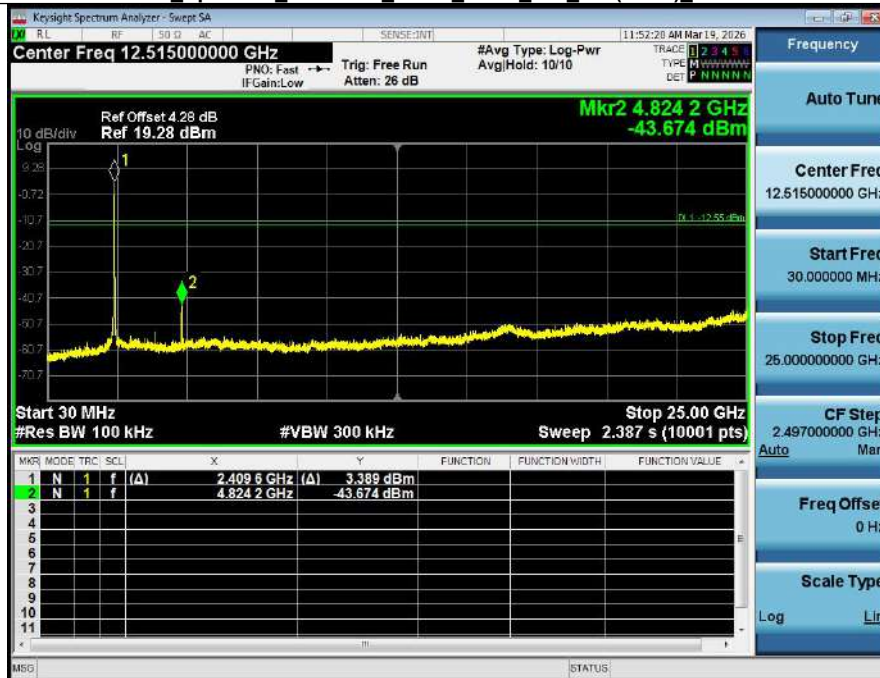
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1 Reference Level NVNT_ANT1_802_11n(HT20)_2412



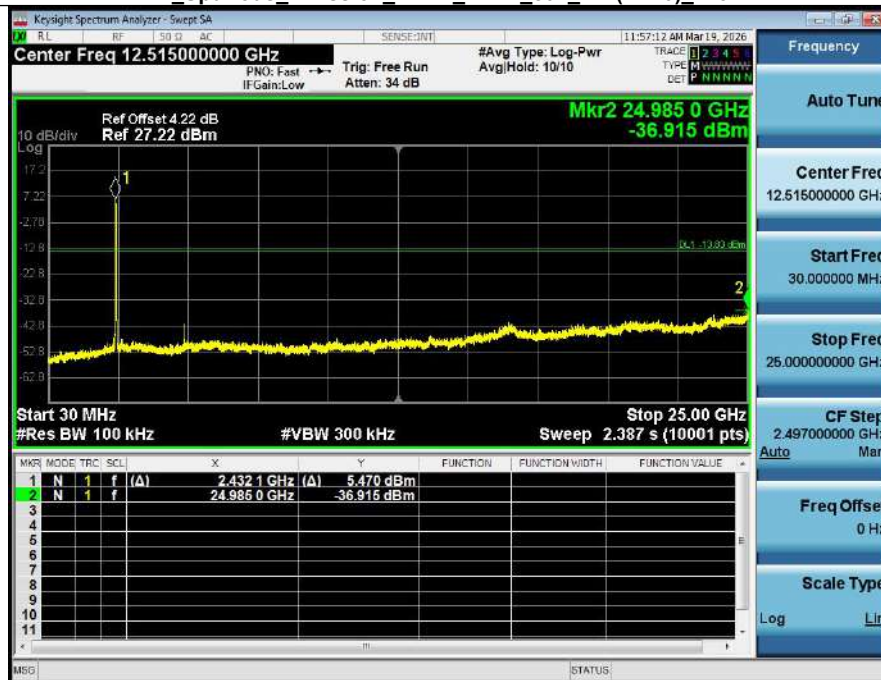
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1 Reference Level NVNT_ANT1_802_11n(HT20) 2437



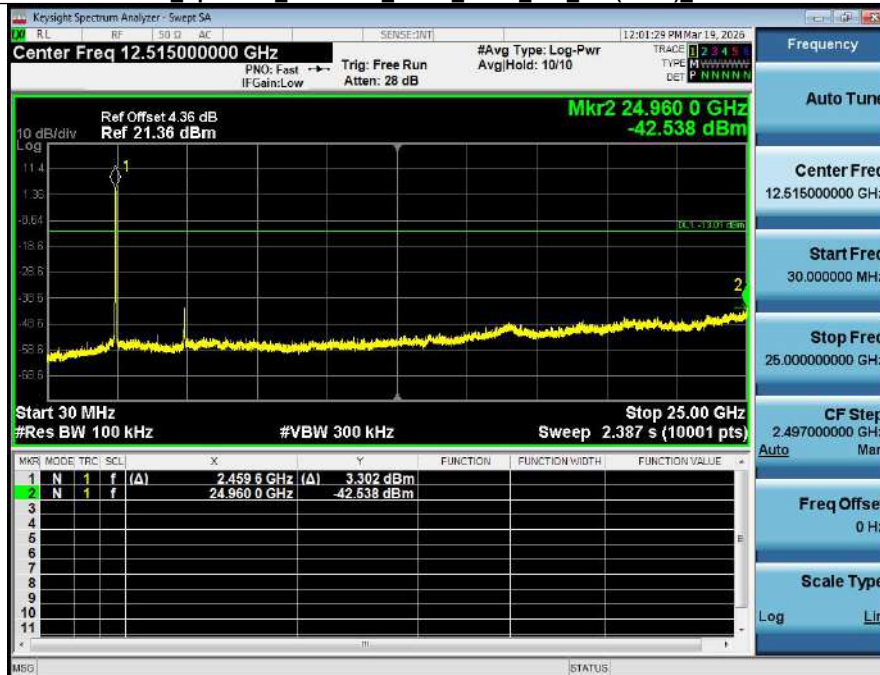
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1 Reference Level NVNT_ANT1_802_11n(HT20) 2462



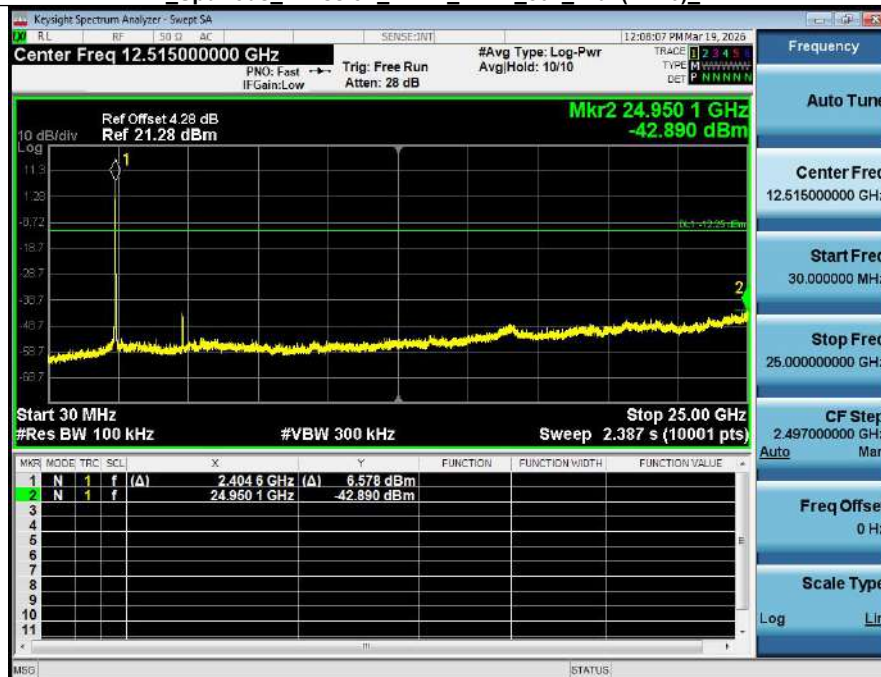
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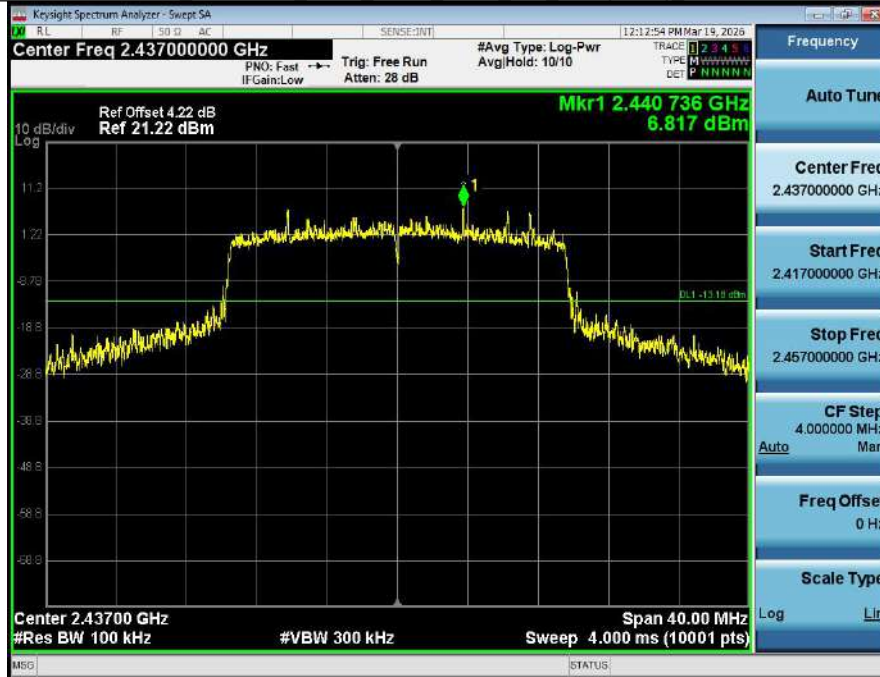
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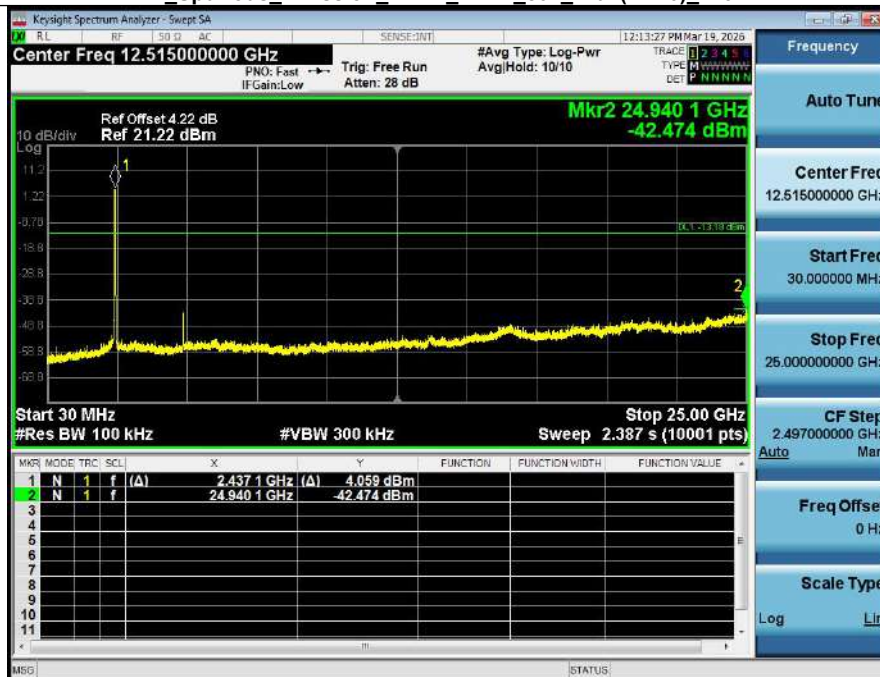
2 Spurious Emission NVNT ANT1_802_11ax(HE20)_2412



1 Reference Level NVNT ANT1_802_11ax(HE20)_2437



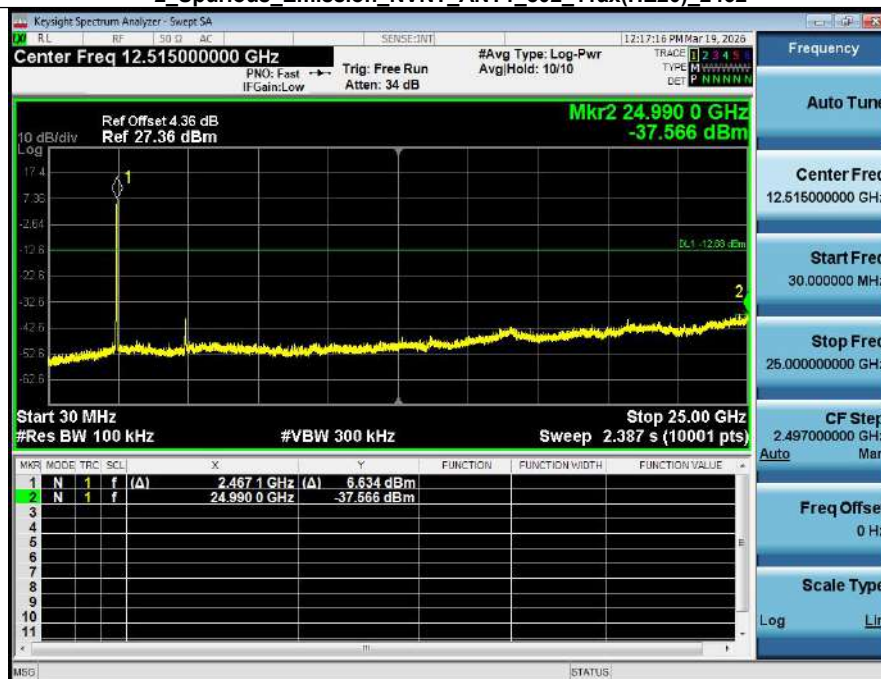
2 Spurious Emission NVNT ANT1_802_11ax(HE20)_2437



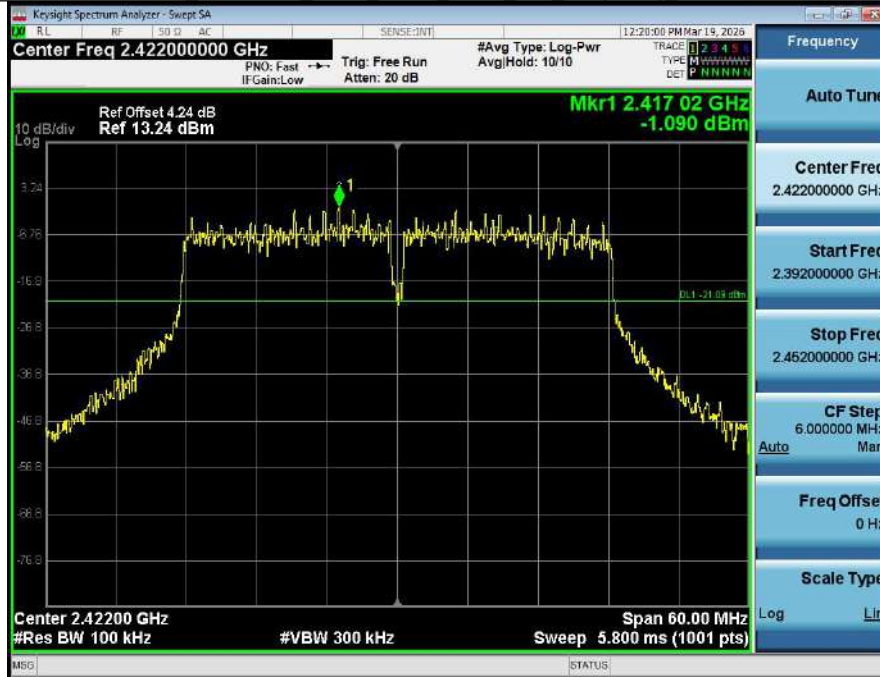
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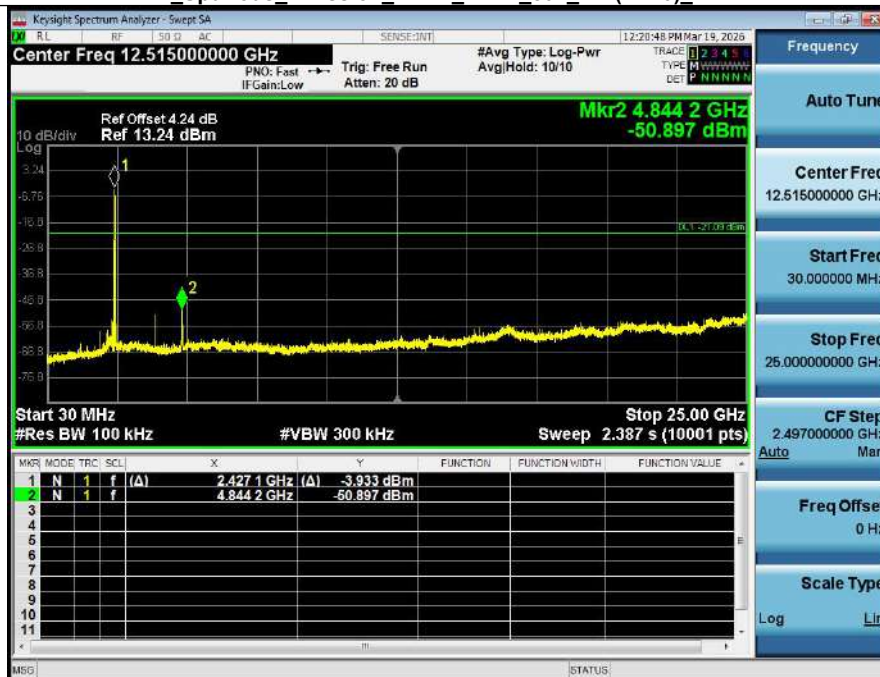
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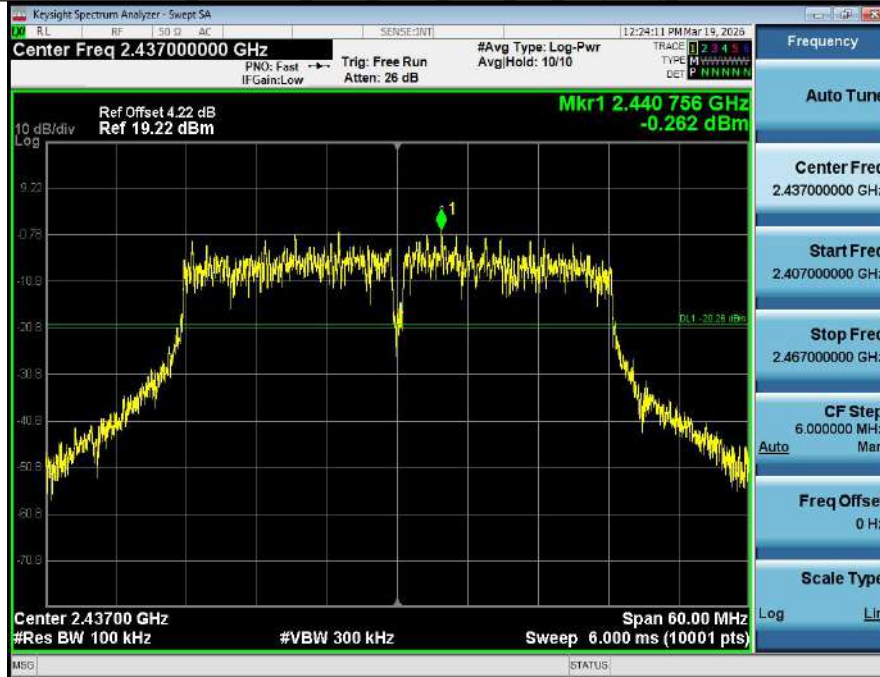
1 Reference Level NVNT_ANT1_802_11n(HT40) 2422



2 Spurious Emission NVNT_ANT1_802_11n(HT40) 2422



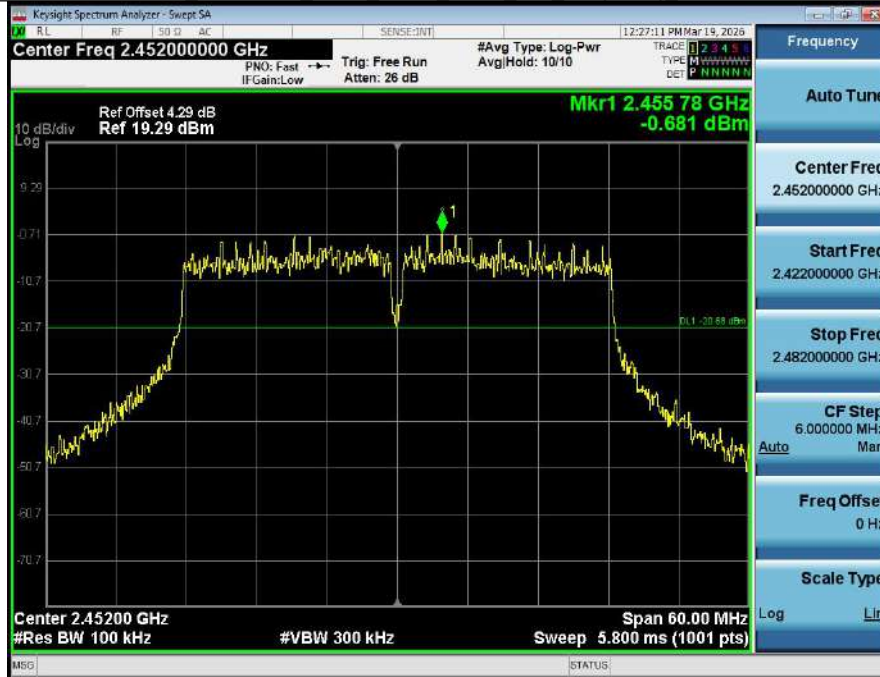
1 Reference Level NVNT_ANT1_802_11n(HT40) 2437



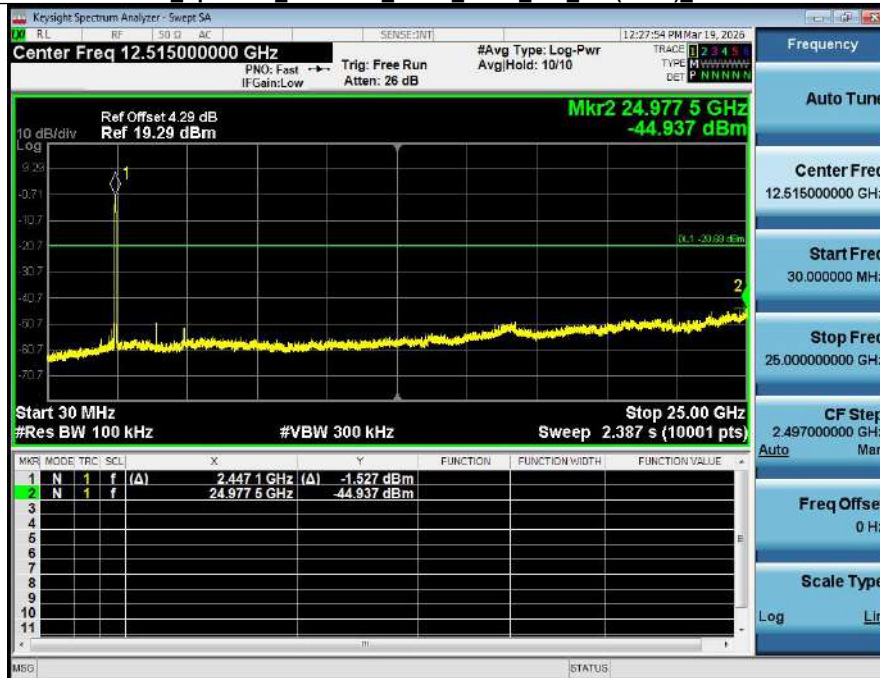
2 Spurious Emission NVNT_ANT1_802_11n(HT40) 2437



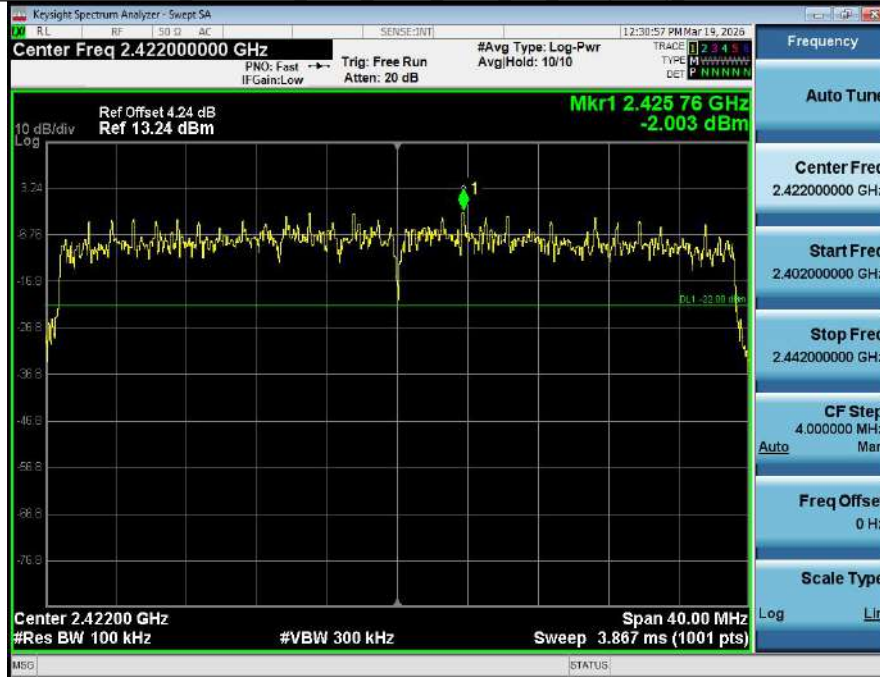
1 Reference Level NVNT_ANT1_802_11n(HT40) 2452



2 Spurious Emission NVNT_ANT1_802_11n(HT40) 2452



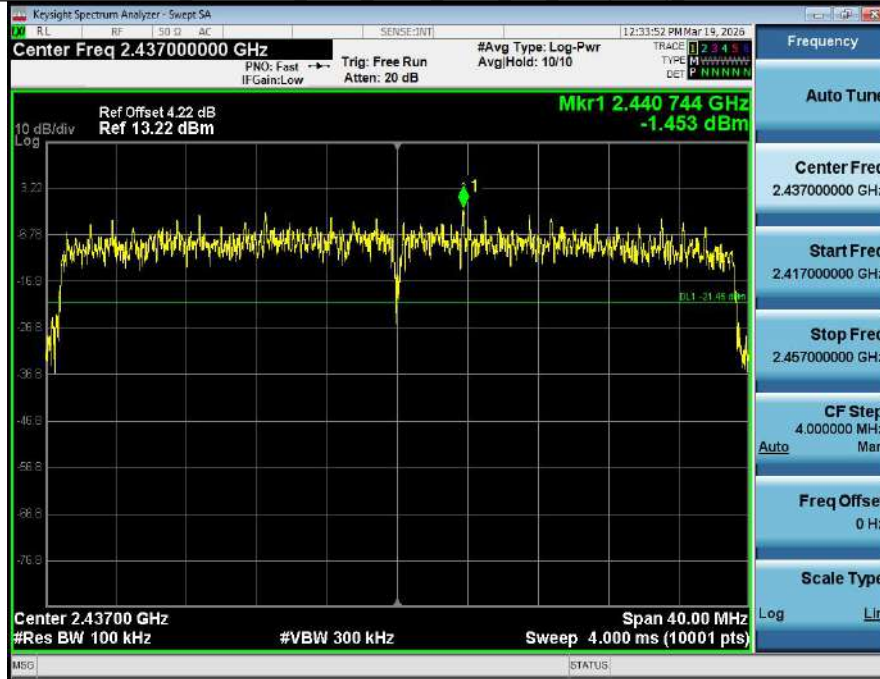
1 Reference Level NVNT ANT1_802_11ax(HE40)_2422



2 Spurious Emission NVNT ANT1_802_11ax(HE40)_2422



1 Reference Level NVNT ANT1_802_11ax(HE40)_2437



2 Spurious Emission NVNT ANT1_802_11ax(HE40)_2437



1 Reference Level NVNT ANT1_802_11ax(HE40)_2452



2 Spurious Emission NVNT ANT1_802_11ax(HE40)_2452

