

5 TEST SETUP PHOTOS

Please refer to Setup Photo file

6 PHOTOS OF THE EUT

Please refer to external photos file and internal photos file

Appendix-ANT1

HT250729014--AM9--2.4G--FCC

FCC_2.4G_WIFI (Part15.247) Test Data

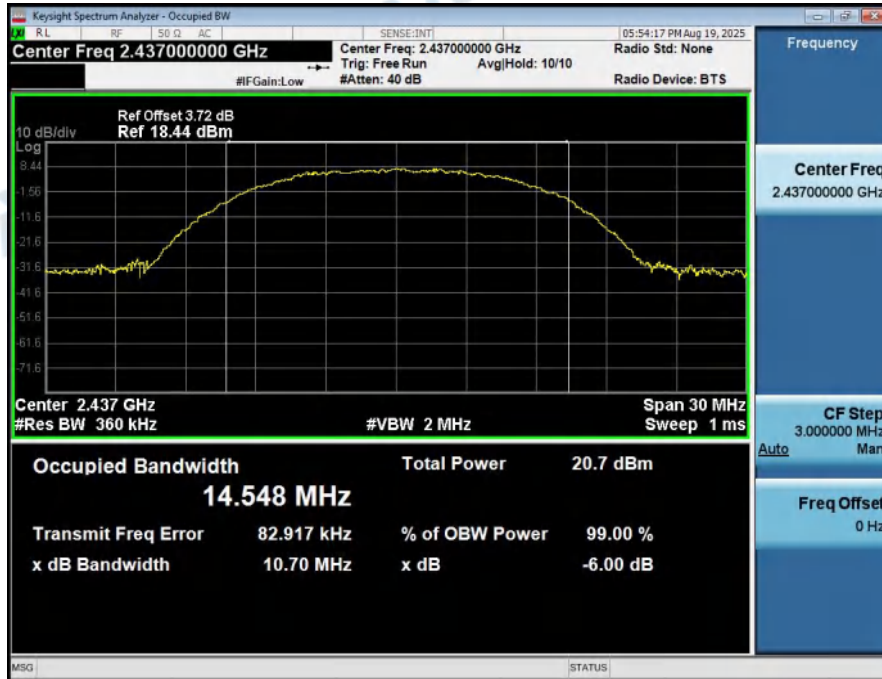
1. -6dB Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	-6dB BW(MHz)	limit(kHz)	Result
NVNT	ANT1	802.11b	2412.00	10.61	500	Pass
NVNT	ANT1	802.11b	2437.00	10.70	500	Pass
NVNT	ANT1	802.11b	2462.00	10.67	500	Pass
NVNT	ANT1	802.11g	2412.00	16.33	500	Pass
NVNT	ANT1	802.11g	2437.00	16.33	500	Pass
NVNT	ANT1	802.11g	2462.00	16.30	500	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	17.74	500	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	17.74	500	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	17.75	500	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	17.48	500	Pass
NVNT	ANT1	802.11ax(HE20)	2437.00	17.55	500	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	17.47	500	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	36.38	500	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	36.33	500	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	36.44	500	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	36.08	500	Pass
NVNT	ANT1	802.11ax(HE40)	2437.00	36.22	500	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	36.16	500	Pass

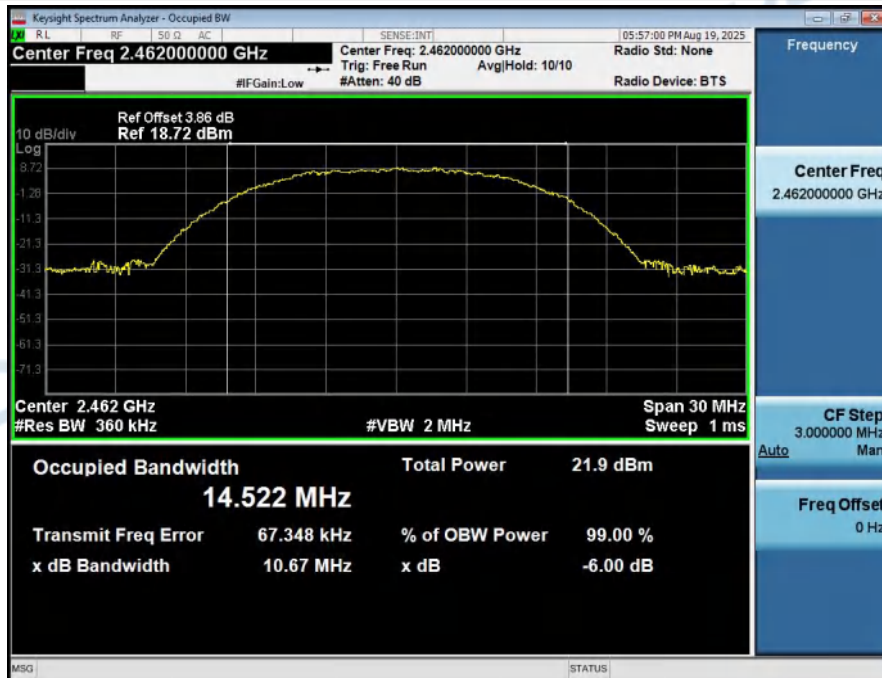
-6dB_Bandwidth_NVNT_ANT1_802_11b_2412



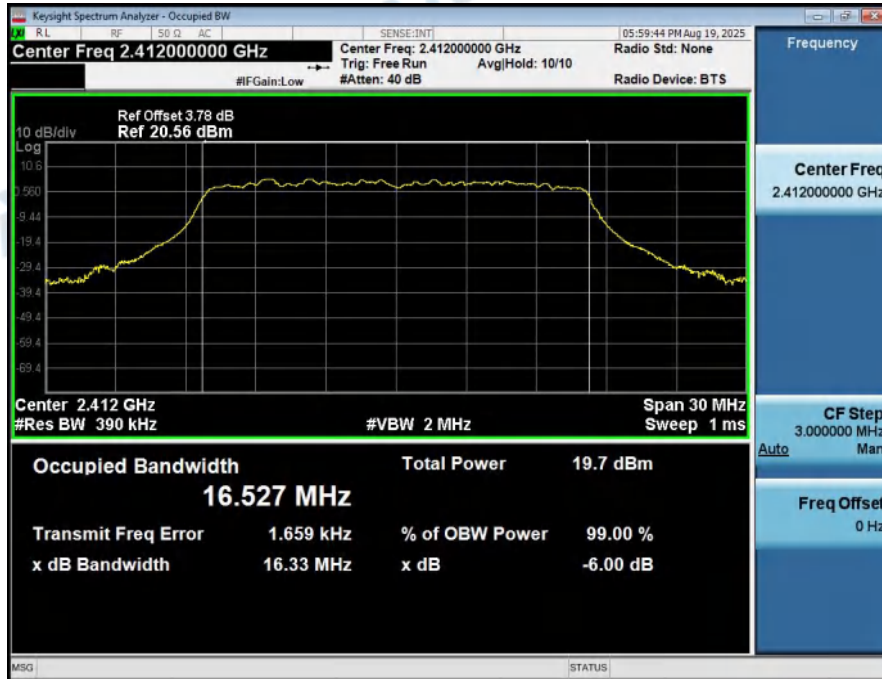
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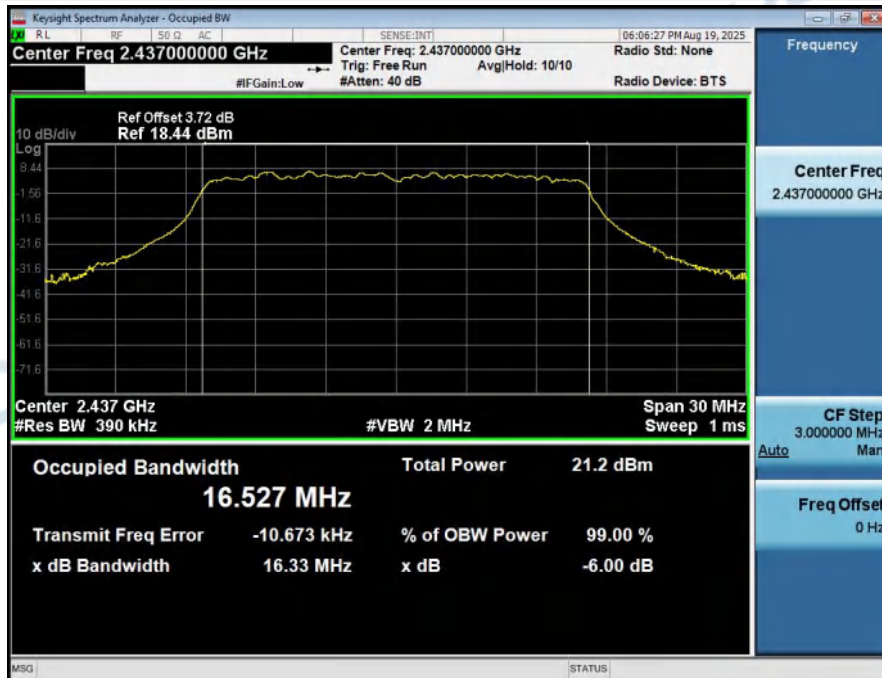
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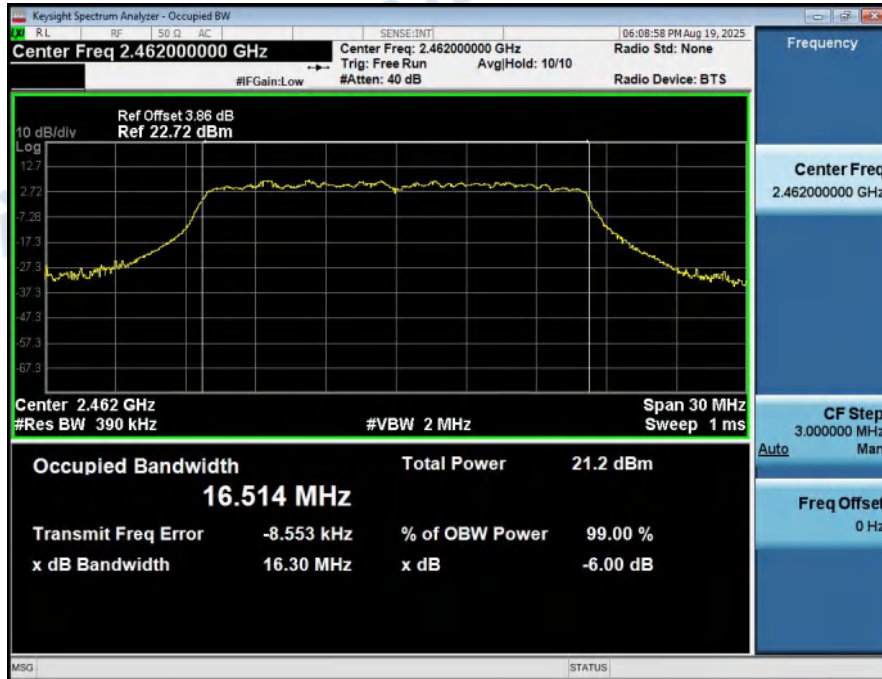
-6dB_Bandwidth_NVNT_ANT1_802_11g_2412



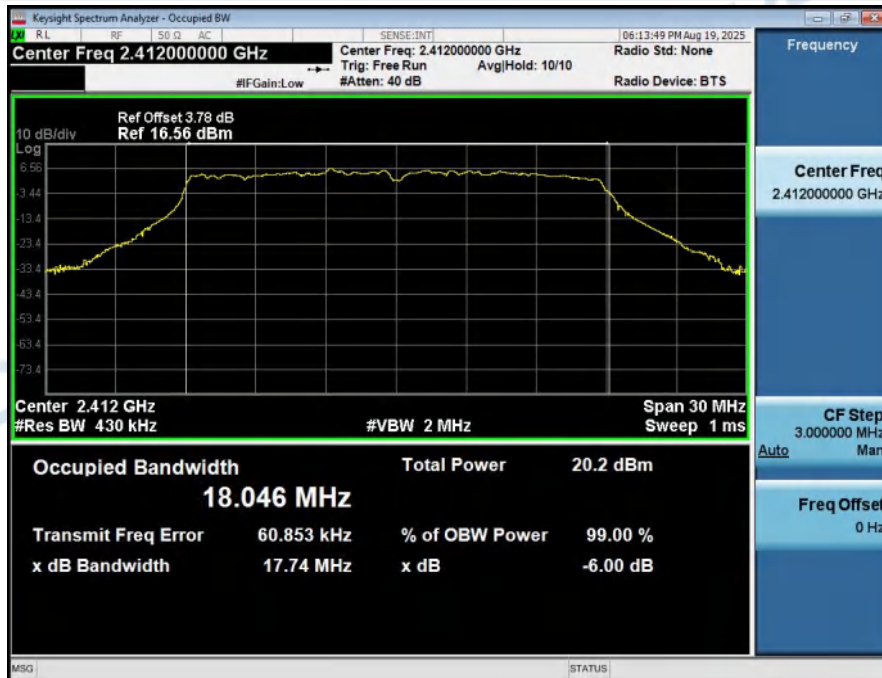
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-6dB_Bandwidth_NVNT_ANT1_802_11g_2462



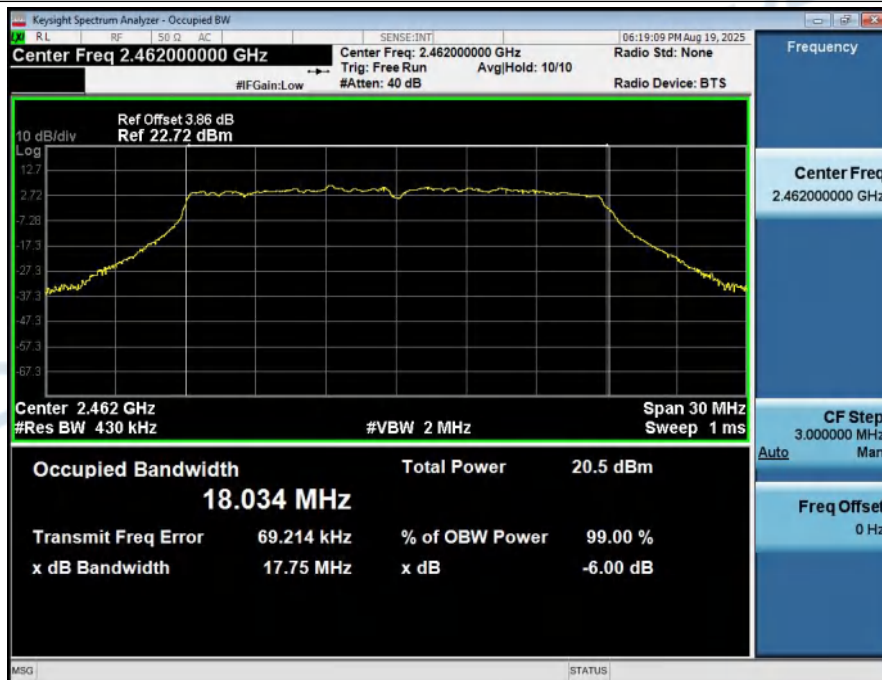
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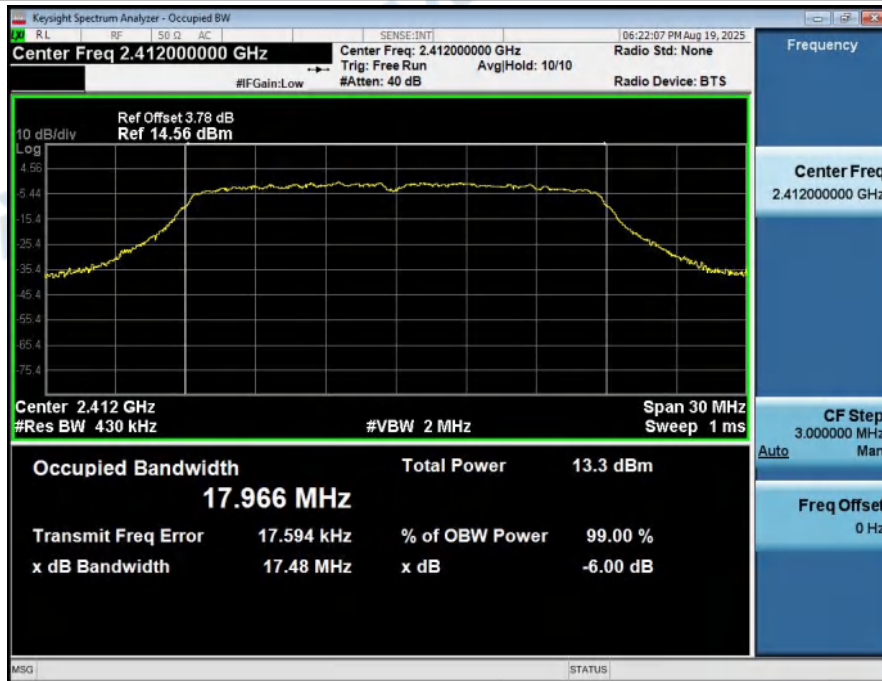
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-6dB_Bandwidth_NVNT_ANT1_802_11n(HT20)_2462



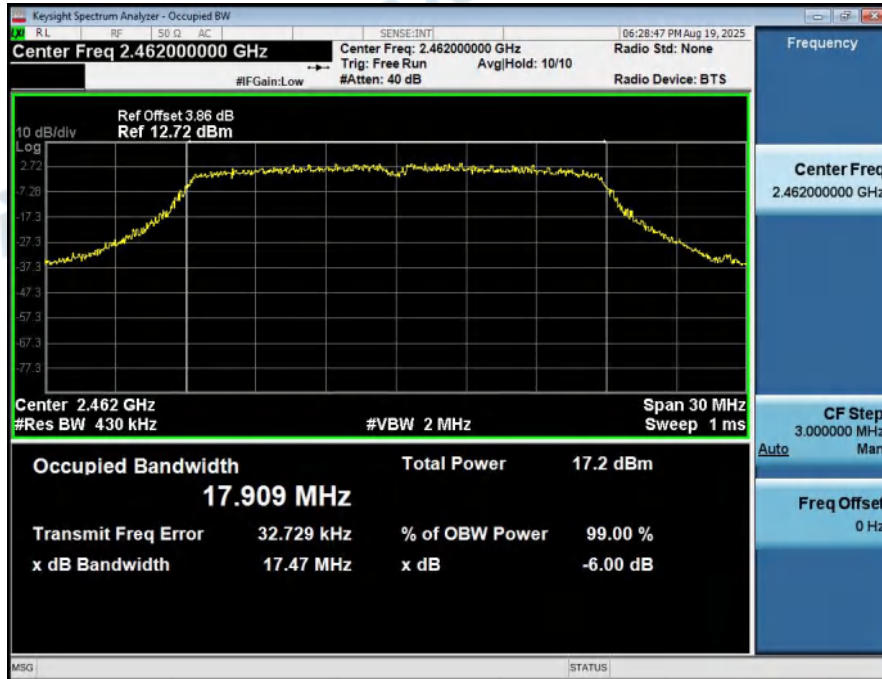
-6dB_Bandwidth_NVNT_ANT1_802_11ax(HE20)_2412



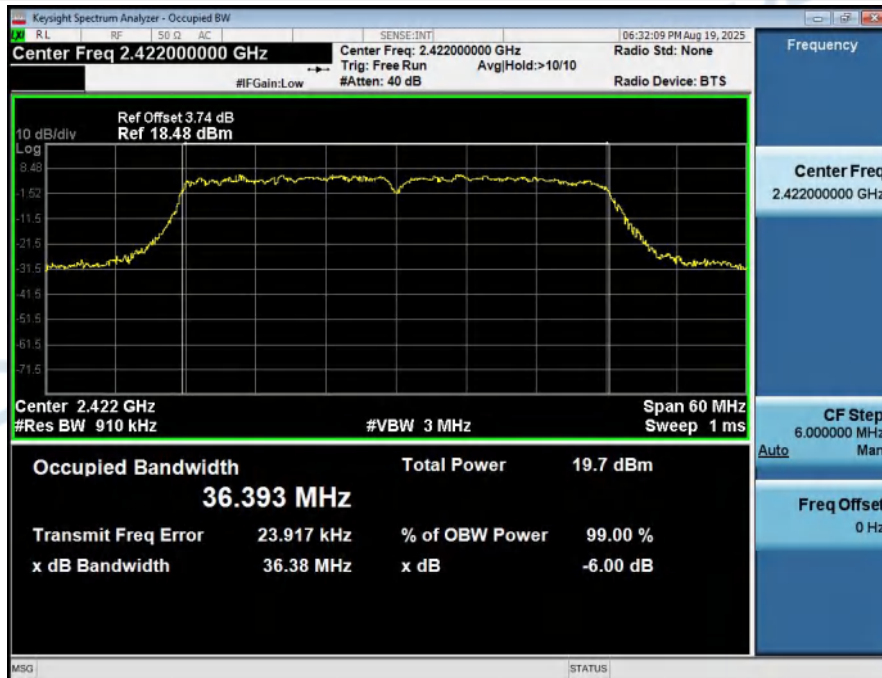
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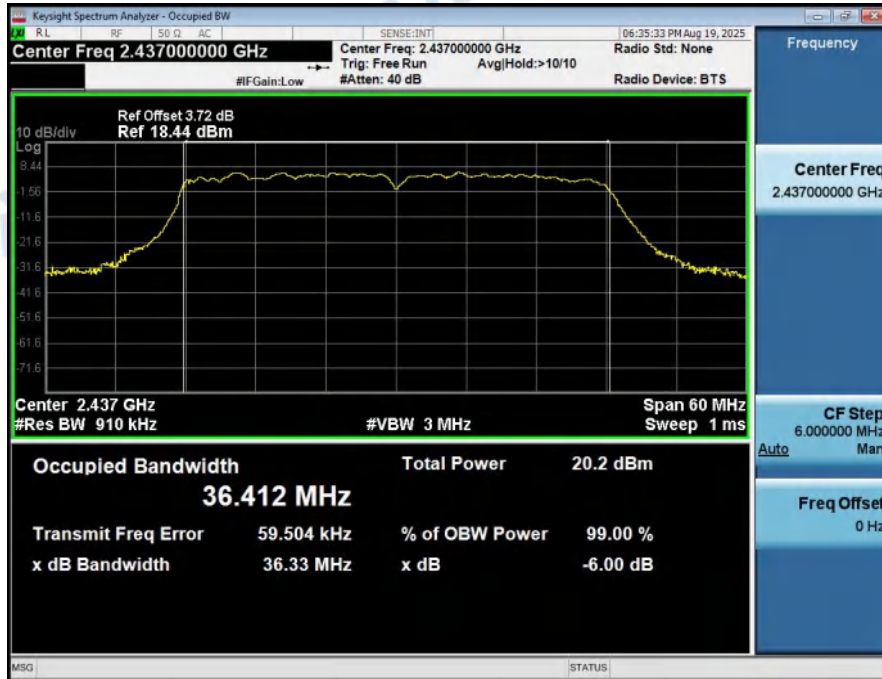
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-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



-6dB_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



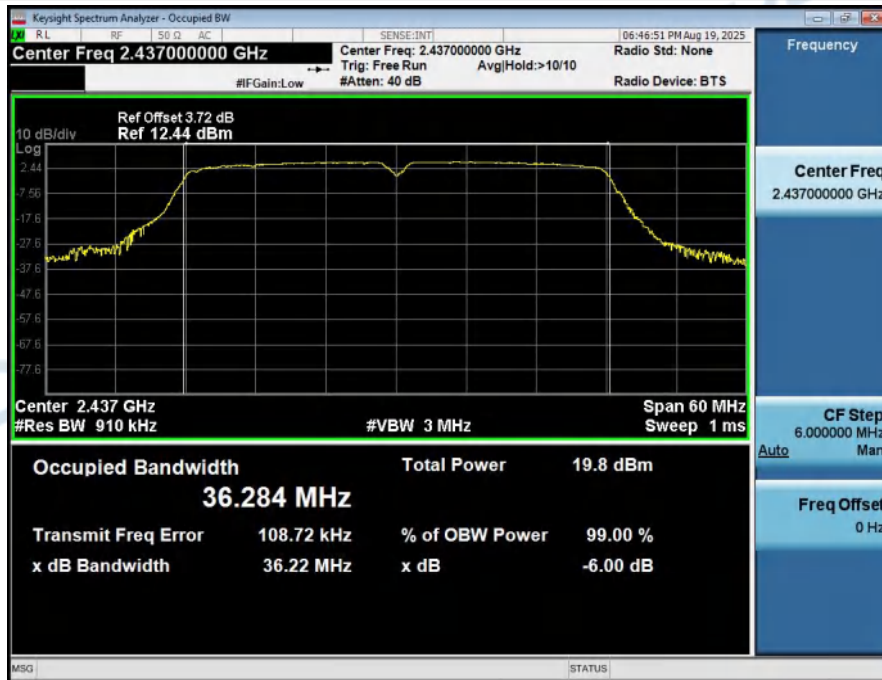
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-6dB_Bandwidth_NVNT_ANT1_802_11ax(HE40)_2422



-6dB_Bandwidth_NVNT_ANT1_802_11ax(HE40)_2437



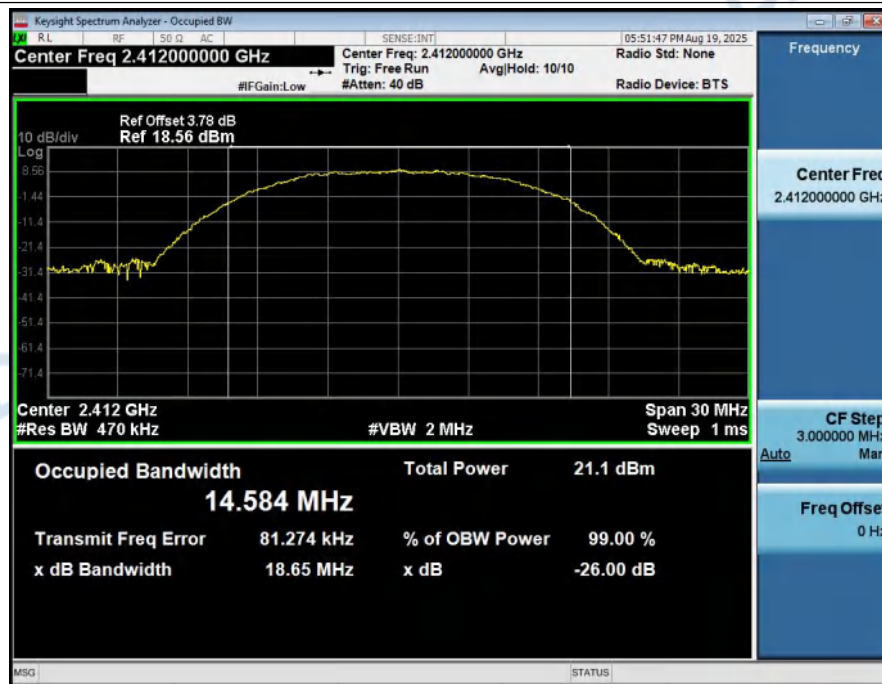
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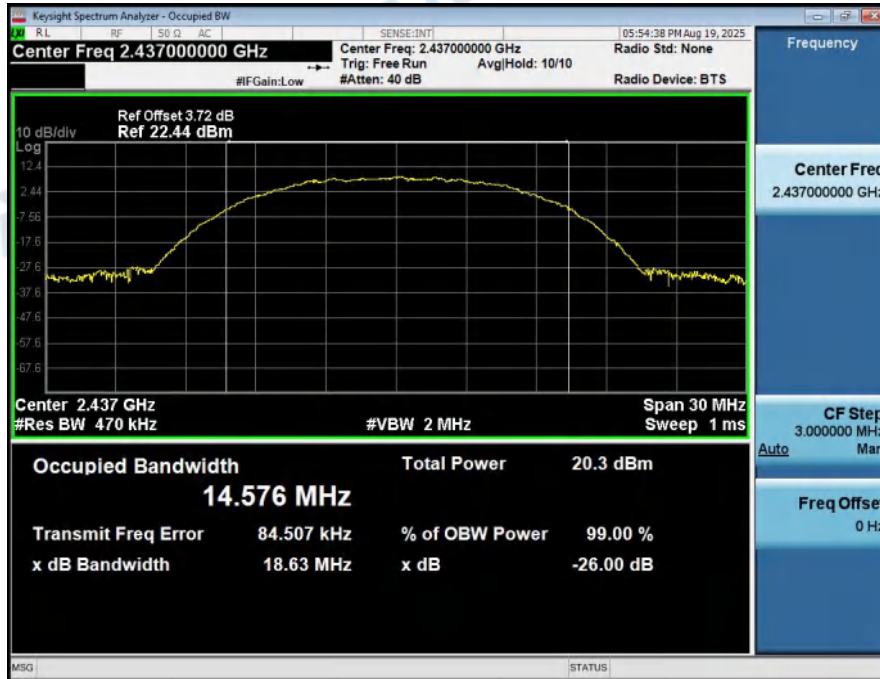
2. 99% Occupied Bandwidth

Condition	Antenna	Modulation	Frequency (MHz)	99% BW (MHz)
NVNT	ANT1	802.11b	2412.00	14.584
NVNT	ANT1	802.11b	2437.00	14.576
NVNT	ANT1	802.11b	2462.00	14.564
NVNT	ANT1	802.11g	2412.00	16.589
NVNT	ANT1	802.11g	2437.00	16.581
NVNT	ANT1	802.11g	2462.00	16.591
NVNT	ANT1	802.11n(HT20)	2412.00	18.060
NVNT	ANT1	802.11n(HT20)	2437.00	18.114
NVNT	ANT1	802.11n(HT20)	2462.00	18.113
NVNT	ANT1	802.11ax(HE20)	2412.00	18.113
NVNT	ANT1	802.11ax(HE20)	2437.00	18.032
NVNT	ANT1	802.11ax(HE20)	2462.00	18.040
NVNT	ANT1	802.11n(HT40)	2422.00	36.601
NVNT	ANT1	802.11n(HT40)	2437.00	36.494
NVNT	ANT1	802.11n(HT40)	2452.00	36.633
NVNT	ANT1	802.11ax(HE40)	2422.00	36.282
NVNT	ANT1	802.11ax(HE40)	2437.00	36.286
NVNT	ANT1	802.11ax(HE40)	2452.00	36.251

99%_Occupied_Bandwidth_NVNT_ANT1_802_11b_2412



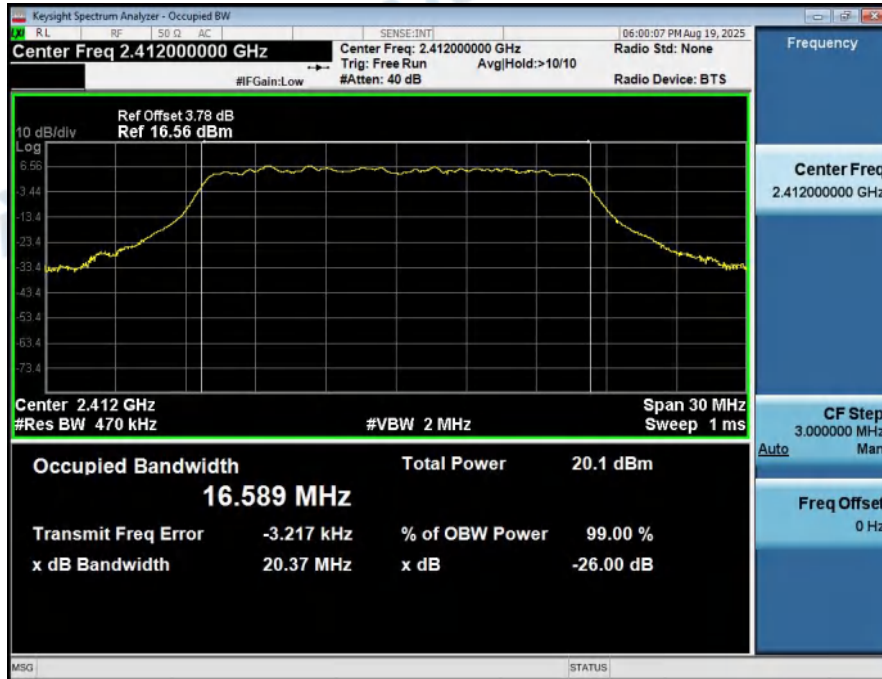
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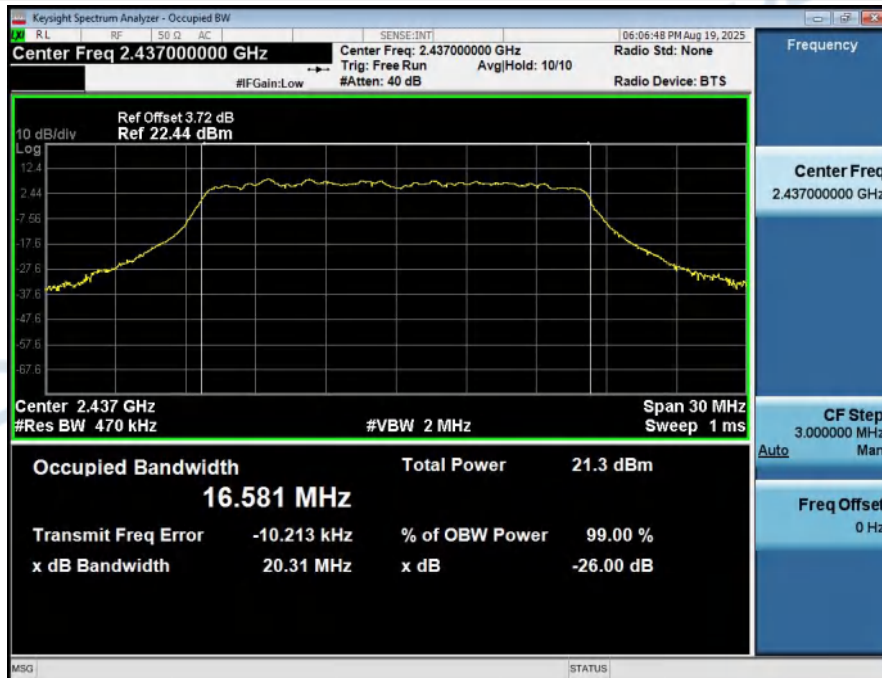
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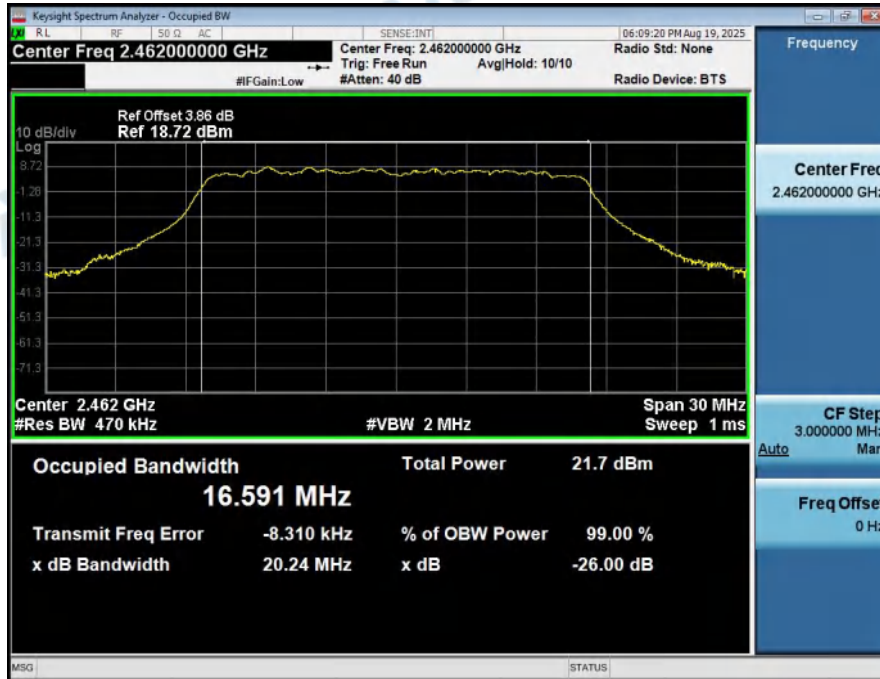
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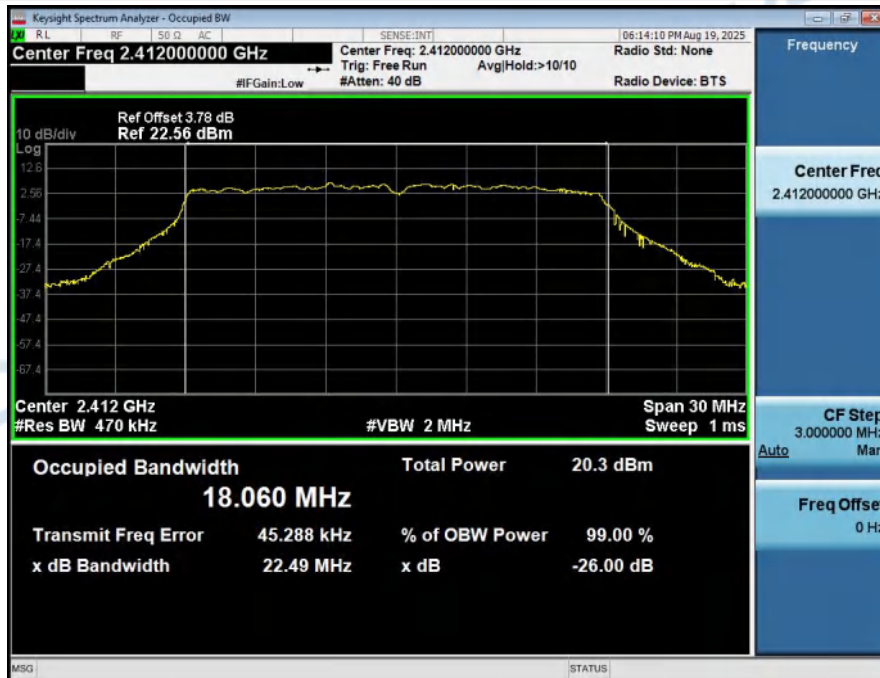
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99%_Occupied_Bandwidth_NVNT_ANT1_802_11g_2462



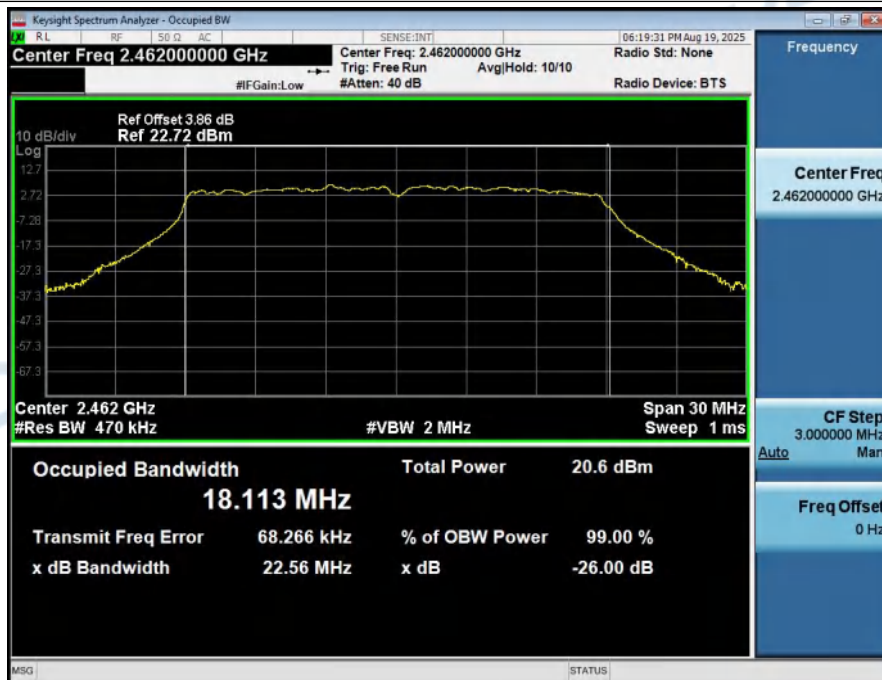
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2412



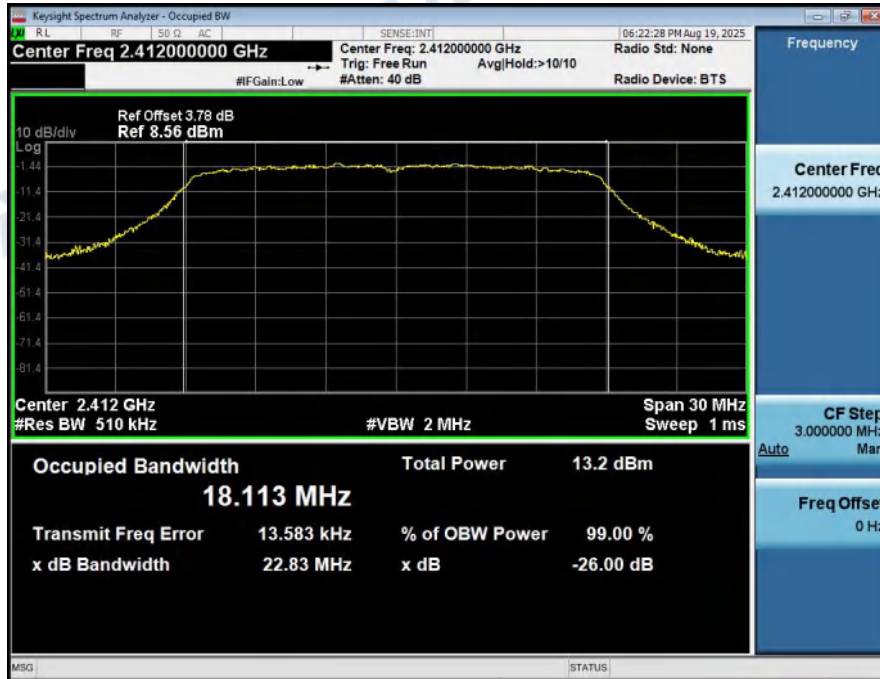
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT20)_2437



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



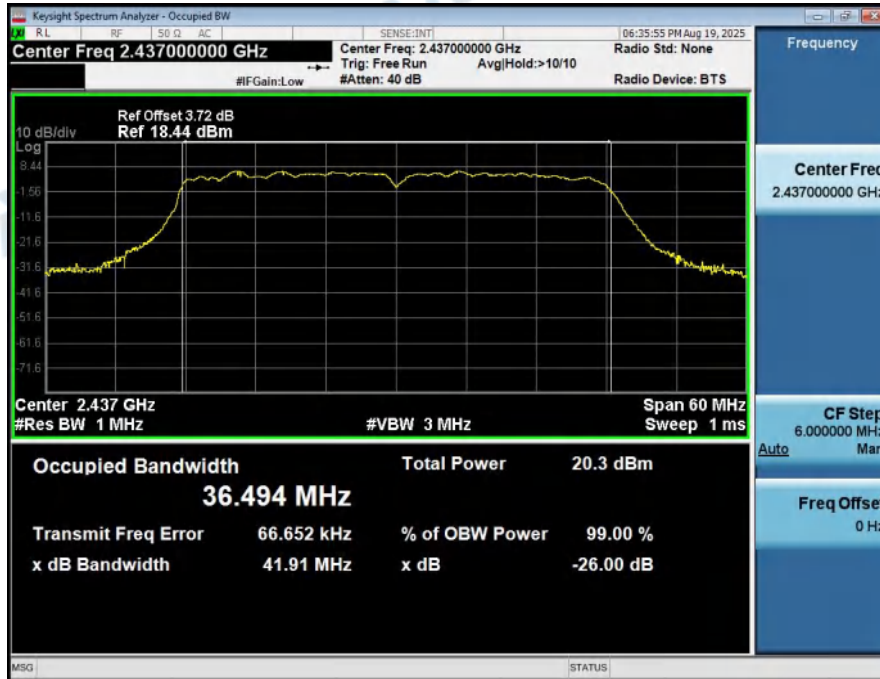
99%_Occupied_Bandwidth_NVNT_ANT1_802_11ax(HE20)_2462



99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



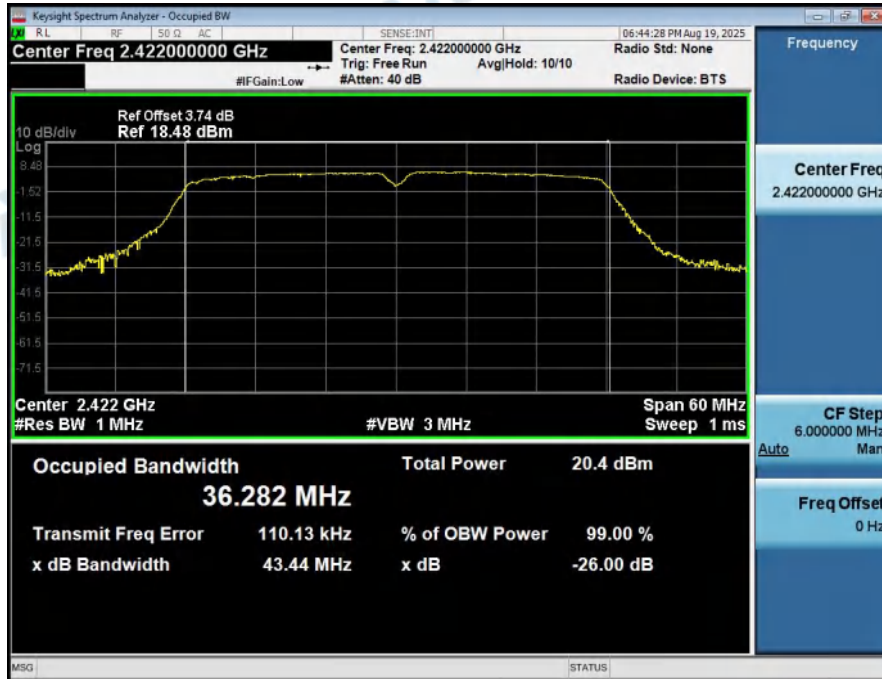
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99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2452



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	66.67	1.76
NVNT	ANT1	802.11b	2437.00	66.20	1.79
NVNT	ANT1	802.11b	2462.00	66.20	1.79
NVNT	ANT1	802.11g	2412.00	29.41	5.31
NVNT	ANT1	802.11g	2437.00	24.24	6.15
NVNT	ANT1	802.11g	2462.00	24.24	6.15
NVNT	ANT1	802.11n(HT20)	2412.00	24.24	6.15
NVNT	ANT1	802.11n(HT20)	2437.00	24.24	6.15
NVNT	ANT1	802.11n(HT20)	2462.00	24.24	6.15
NVNT	ANT1	802.11ax(HE20)	2412.00	72.73	1.38
NVNT	ANT1	802.11ax(HE20)	2437.00	73.03	1.36
NVNT	ANT1	802.11ax(HE20)	2462.00	71.91	1.43
NVNT	ANT1	802.11n(HT40)	2422.00	16.67	7.78
NVNT	ANT1	802.11n(HT40)	2437.00	16.67	7.78
NVNT	ANT1	802.11n(HT40)	2452.00	16.67	7.78
NVNT	ANT1	802.11ax(HE40)	2422.00	57.14	2.43
NVNT	ANT1	802.11ax(HE40)	2437.00	56.14	2.51
NVNT	ANT1	802.11ax(HE40)	2452.00	56.14	2.51

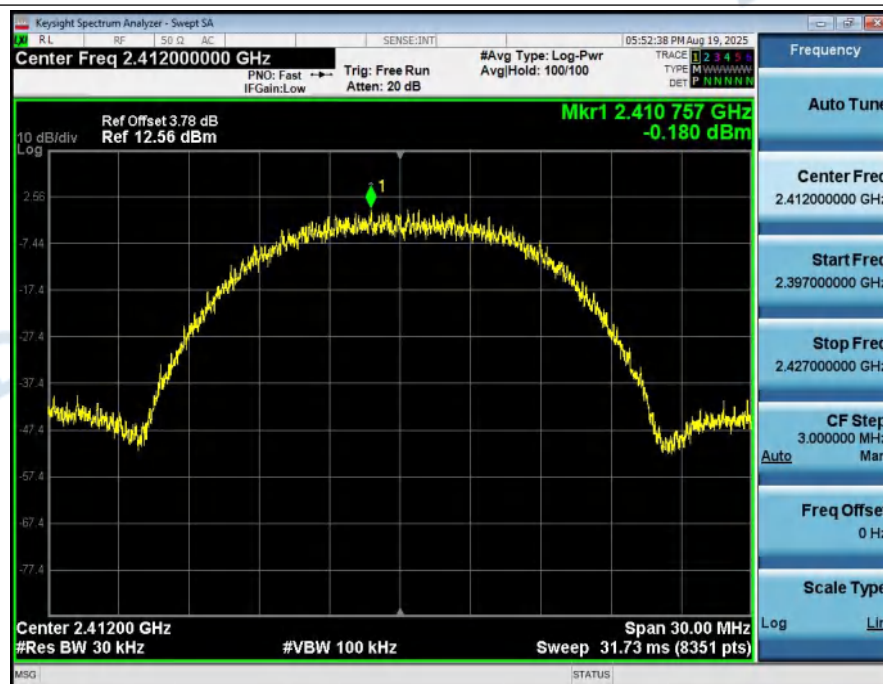
4. MAX. Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Detector	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11b	2412.00	Peak	20.55	N/A	20.55	30	Pass
NVNT	ANT1	802.11b	2437.00	Peak	19.91	N/A	19.91	30	Pass
NVNT	ANT1	802.11b	2462.00	Peak	21.06	N/A	21.06	30	Pass
NVNT	ANT1	802.11g	2412.00	Peak	21.39	N/A	21.39	30	Pass
NVNT	ANT1	802.11g	2437.00	Peak	21.07	N/A	21.07	30	Pass
NVNT	ANT1	802.11g	2462.00	Peak	21.68	N/A	21.68	30	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	Peak	20.08	N/A	20.08	30	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	Peak	19.91	N/A	19.91	30	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	Peak	19.84	N/A	19.84	30	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	Peak	18.83	N/A	18.83	30	Pass
NVNT	ANT1	802.11ax(HE20)	2437.00	Peak	17.47	N/A	17.47	30	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	Peak	19.31	N/A	19.31	30	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	Peak	19.73	N/A	19.73	30	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	Peak	19.56	N/A	19.56	30	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	Peak	20.04	N/A	20.04	30	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	Peak	18.95	N/A	18.95	30	Pass
NVNT	ANT1	802.11ax(HE40)	2437.00	Peak	18.61	N/A	18.61	30	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	Peak	19.13	N/A	19.13	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	-0.18	8	Pass
NVNT	ANT1	802.11b	2437.00	-0.68	8	Pass
NVNT	ANT1	802.11b	2462.00	0.28	8	Pass
NVNT	ANT1	802.11g	2412.00	-2.11	8	Pass
NVNT	ANT1	802.11g	2437.00	-1.86	8	Pass
NVNT	ANT1	802.11g	2462.00	-1.47	8	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	-1.63	8	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	-1.85	8	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	-1.42	8	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	-3.84	8	Pass
NVNT	ANT1	802.11ax(HE20)	2437.00	-4.10	8	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	-3.65	8	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	-4.11	8	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	-4.31	8	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	-4.03	8	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	-6.25	8	Pass
NVNT	ANT1	802.11ax(HE40)	2437.00	-7.12	8	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	-6.07	8	Pass

Power_Spectral_Density_NVNT_ANT1_802_11b_2412



Power_Spectral_Density_NVNT_ANT1_802_11b_2437



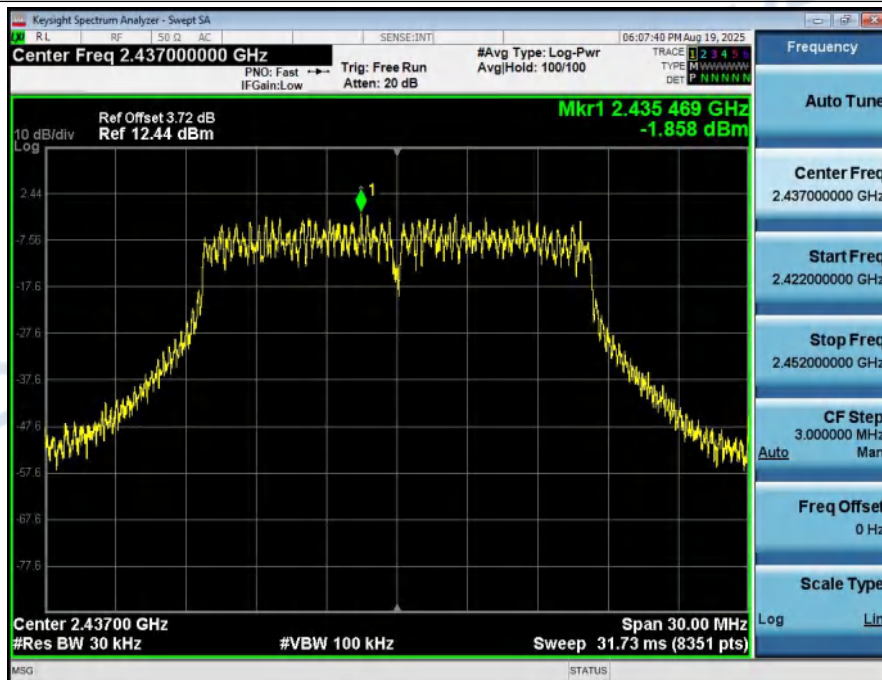
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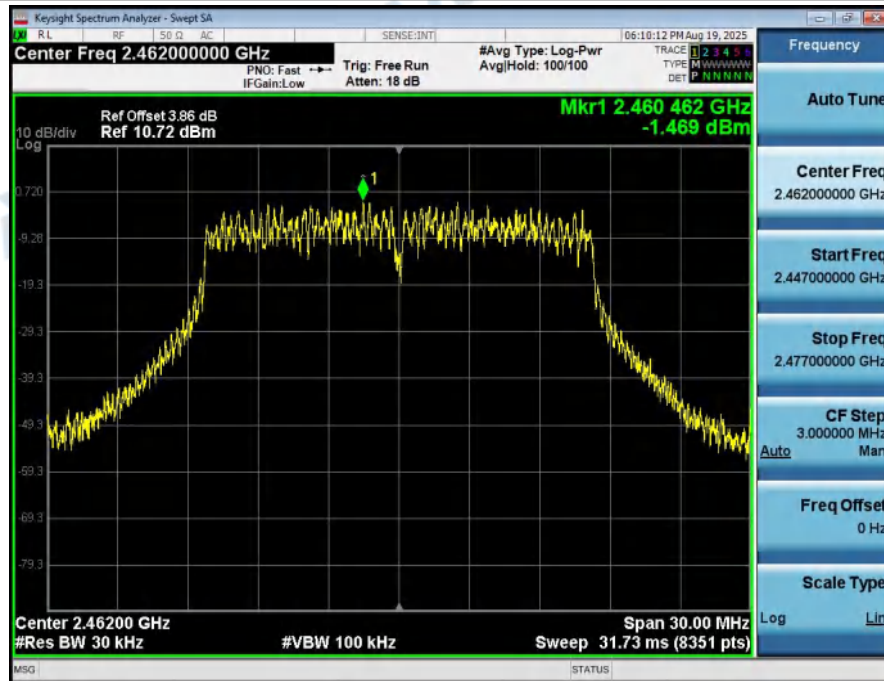
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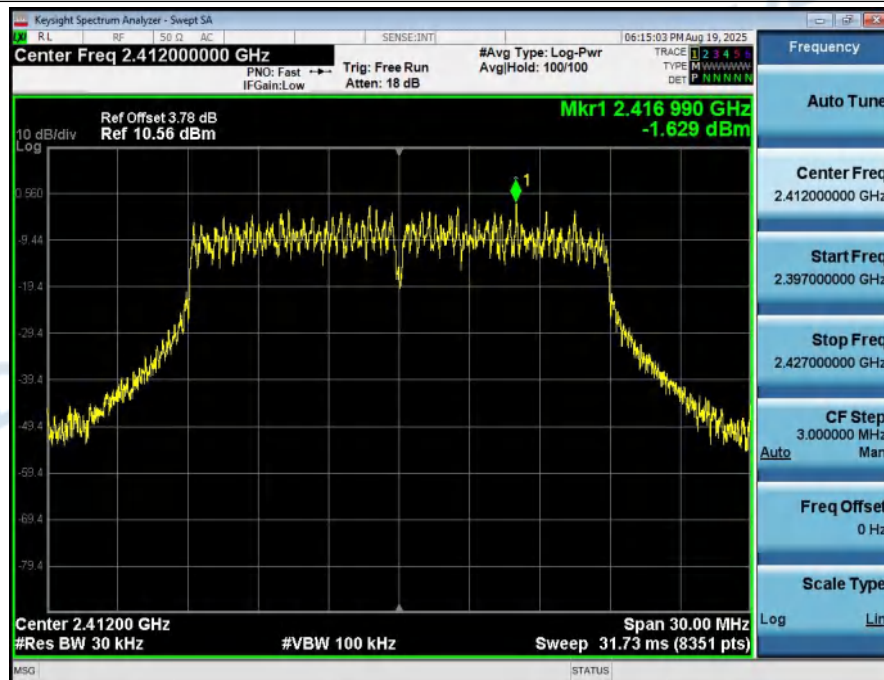
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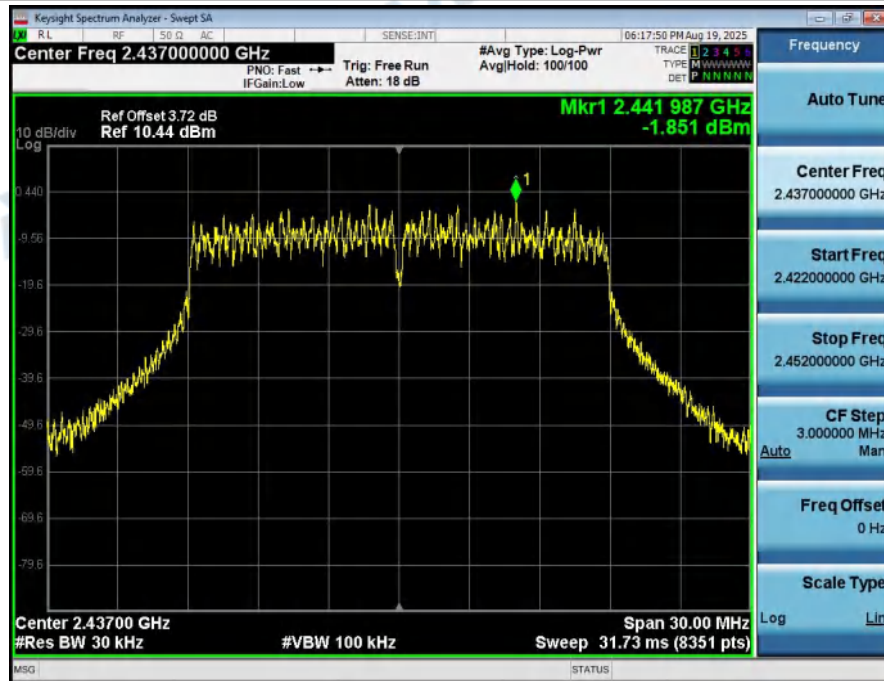
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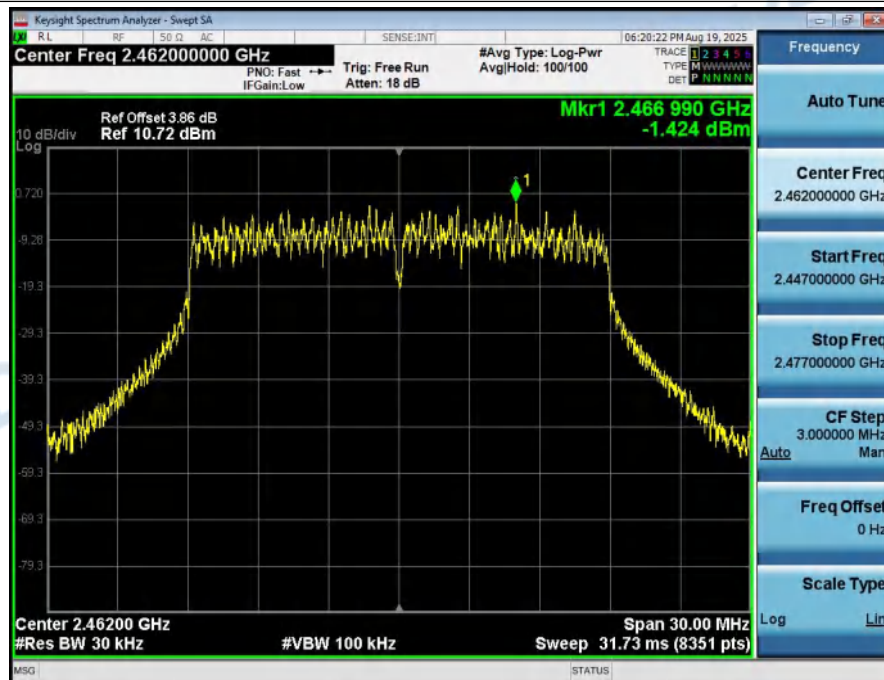
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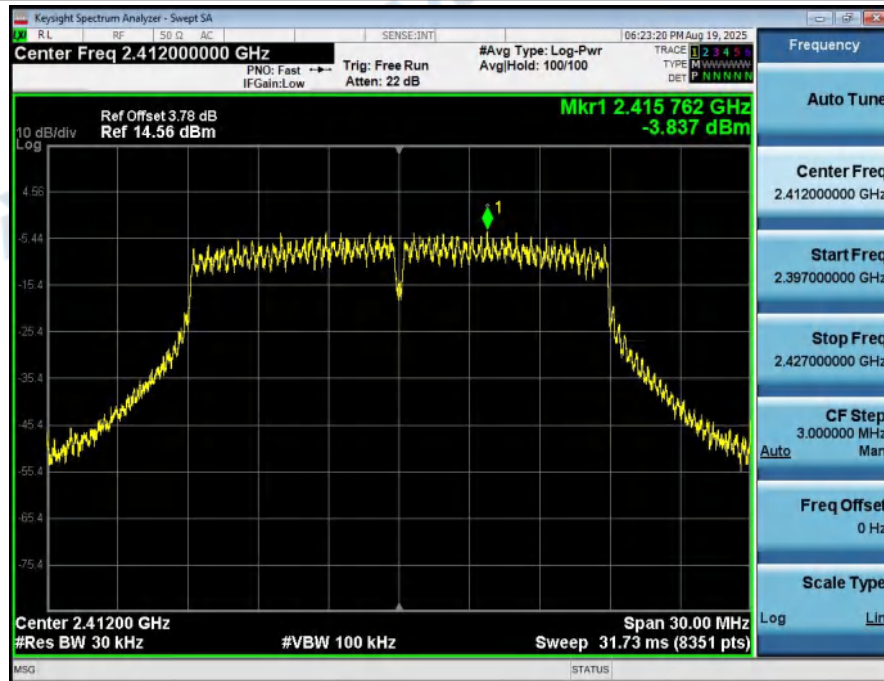
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Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_2462



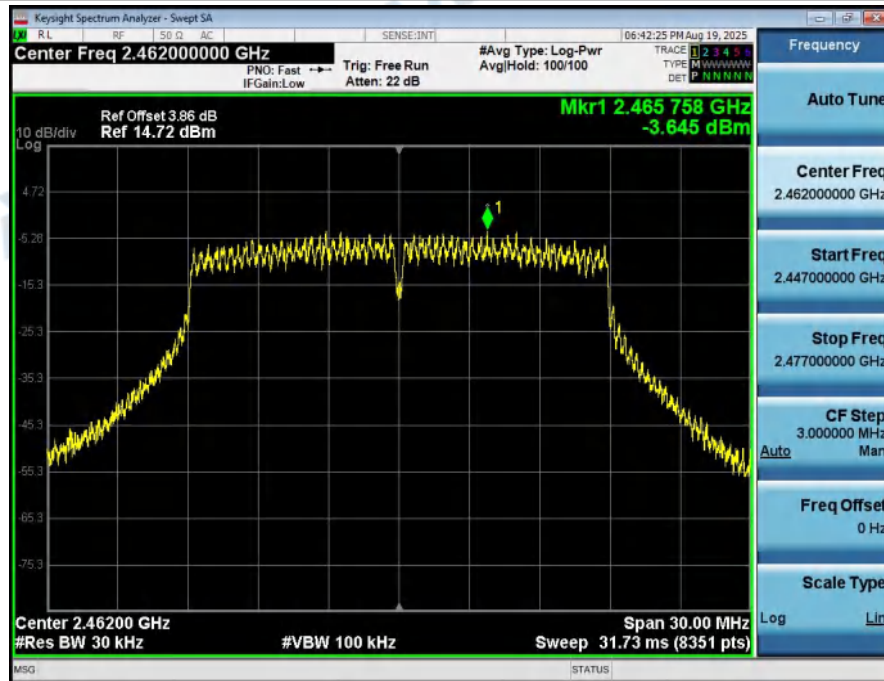
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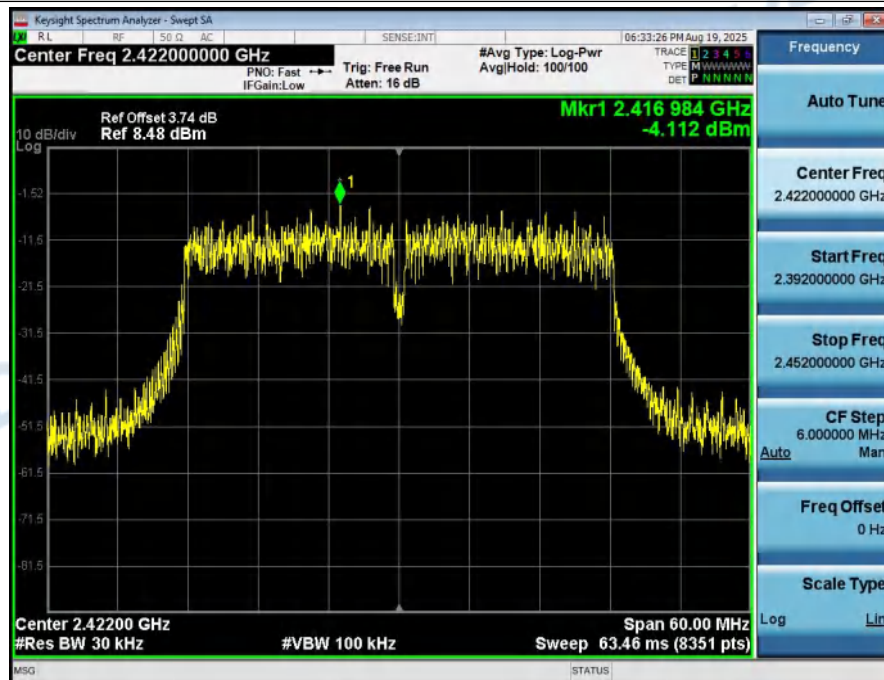
Power_Spectral_Density_NVNT_ANT1_802_11ax(HE20)_2437



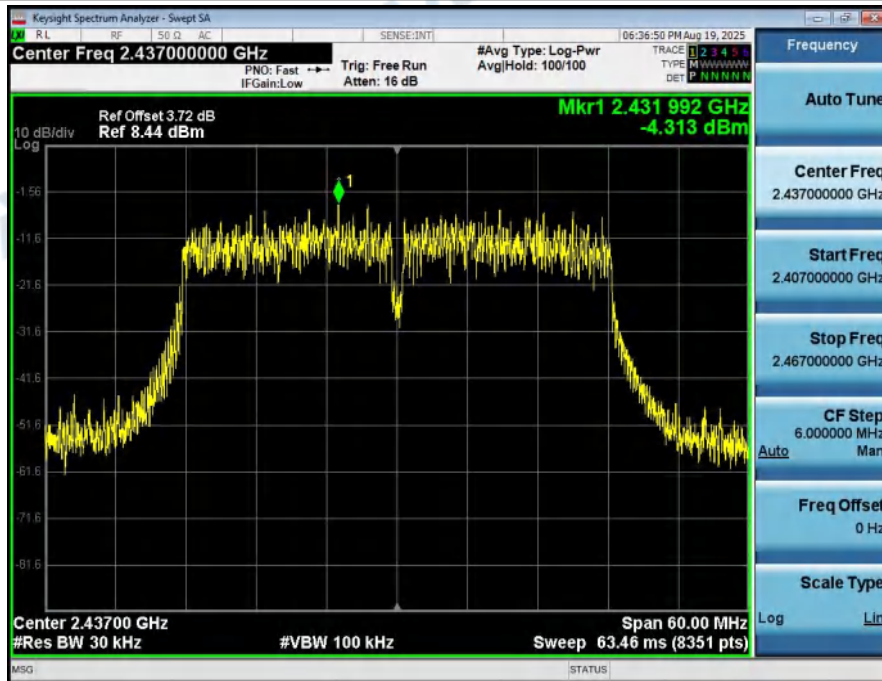
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Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2422



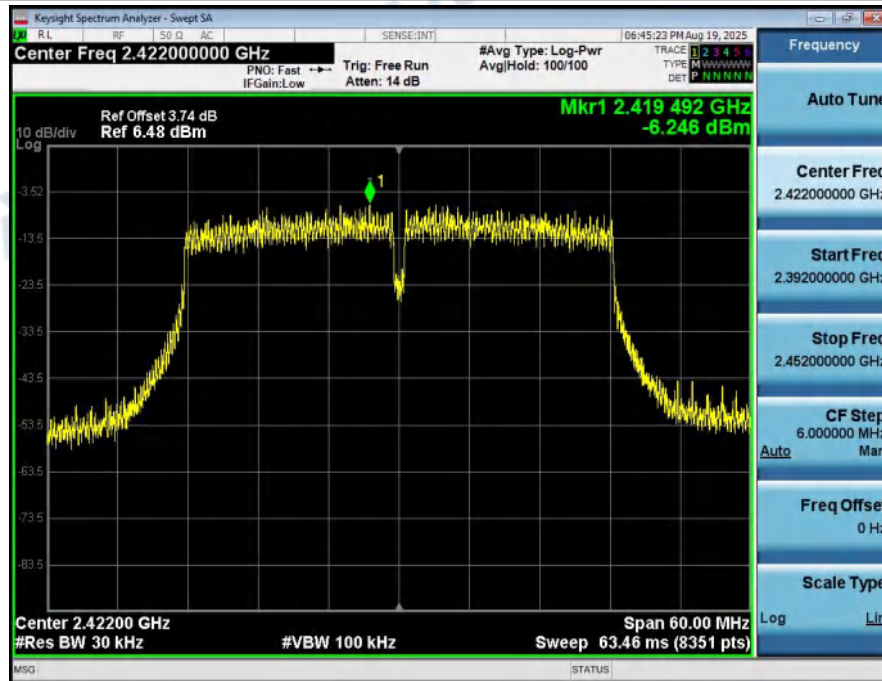
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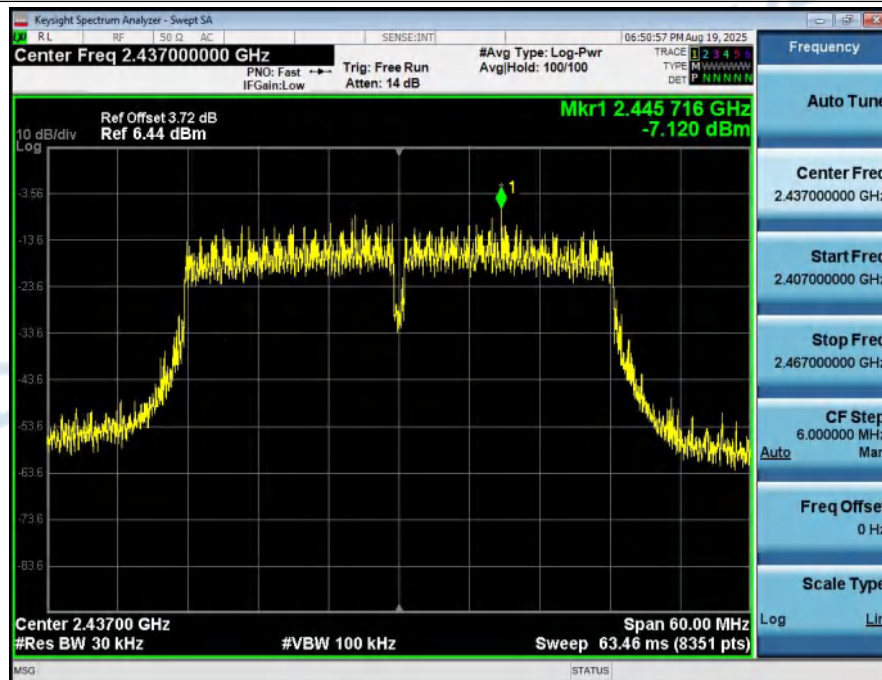
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_2452



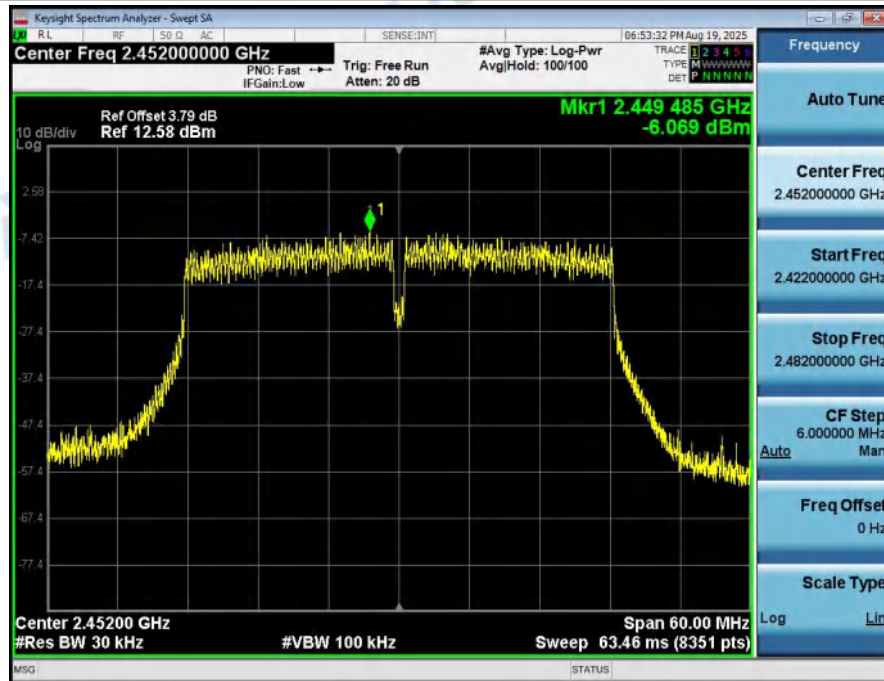
Power_Spectral_Density_NVNT_ANT1_802_11ax(HE40)_2422



Power_Spectral_Density_NVNT_ANT1_802_11ax(HE40)_2437



Power_Spectral_Density_NVNT_ANT1_802_11ax(HE40)_2452



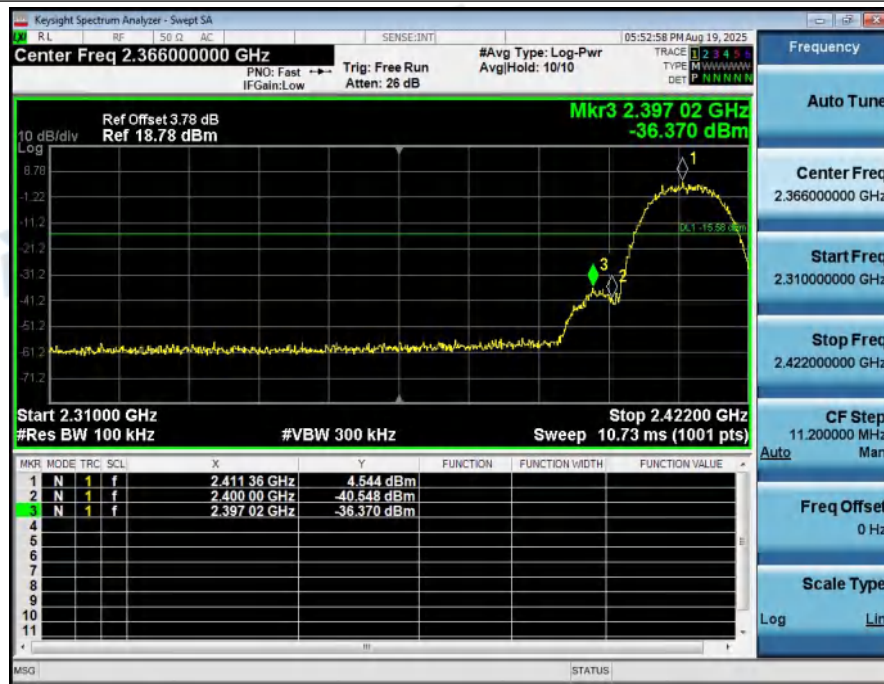
6. Bandedge

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	4.421	-36.370	-15.579	Pass
NVNT	ANT1	802.11b	2462.00	2497.936	5.130	-51.153	-14.870	Pass
NVNT	ANT1	802.11g	2412.00	2399.936	4.037	-36.642	-15.963	Pass
NVNT	ANT1	802.11g	2462.00	2484.352	3.720	-50.192	-16.280	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	2399.824	3.041	-35.926	-16.959	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	2485.456	2.810	-47.218	-17.190	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	2399.936	1.734	-36.621	-18.266	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	2483.584	1.780	-53.793	-18.220	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	2396.988	-0.056	-38.248	-20.056	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	2484.496	-0.045	-40.727	-20.045	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	2399.892	-1.211	-40.929	-21.211	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	2489.460	-1.102	-48.830	-21.102	Pass

1_Reference_Level_NVNT_ANT1_802_11b_2412



2_Bandedge_NVNT_ANT1_802_11b_2412



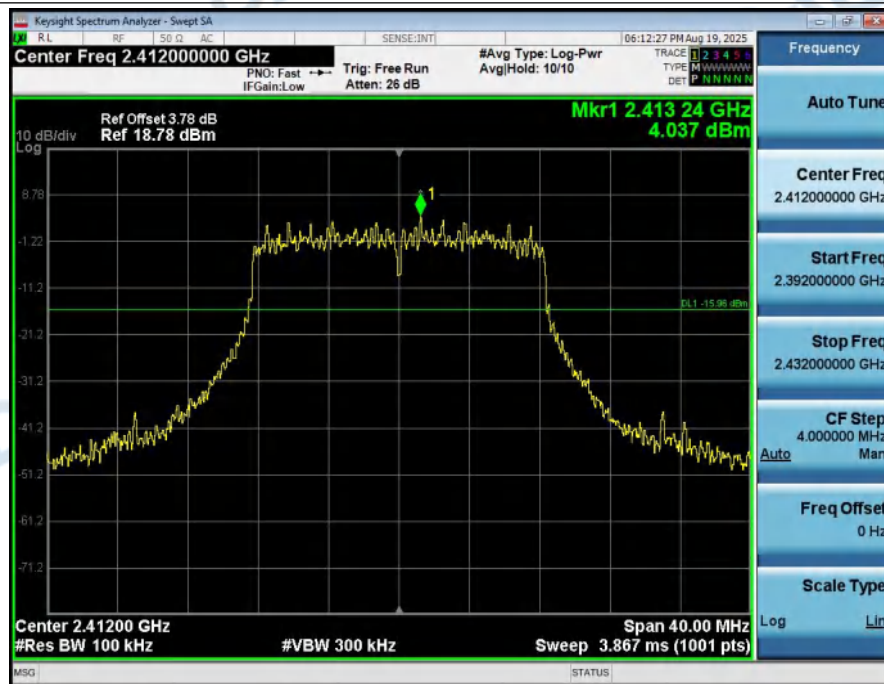
1_Reference_Level_NVNT_ANT1_802_11b_2462



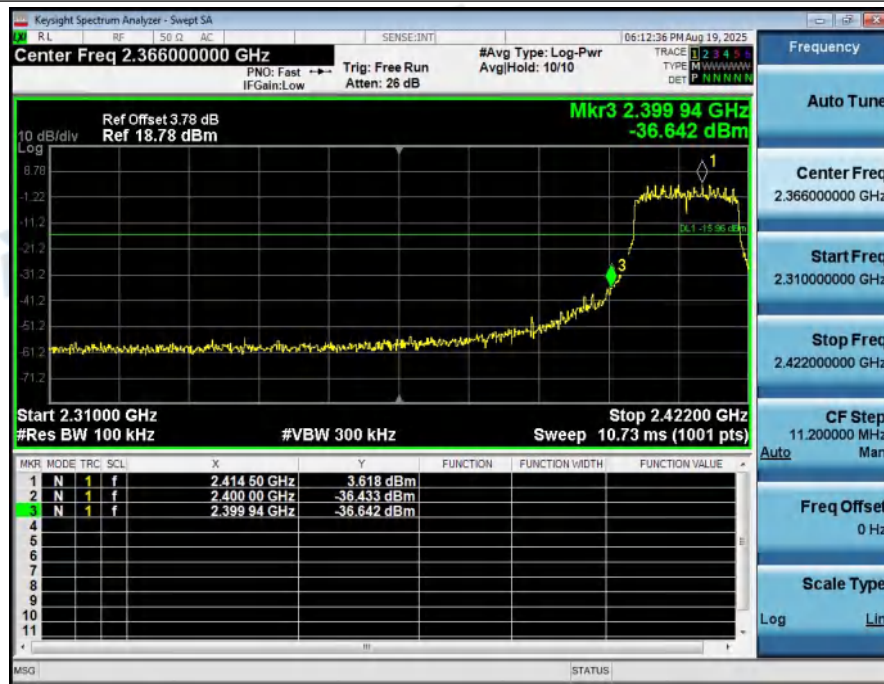
2_Bandedge_NVNT_ANT1_802_11b_2462



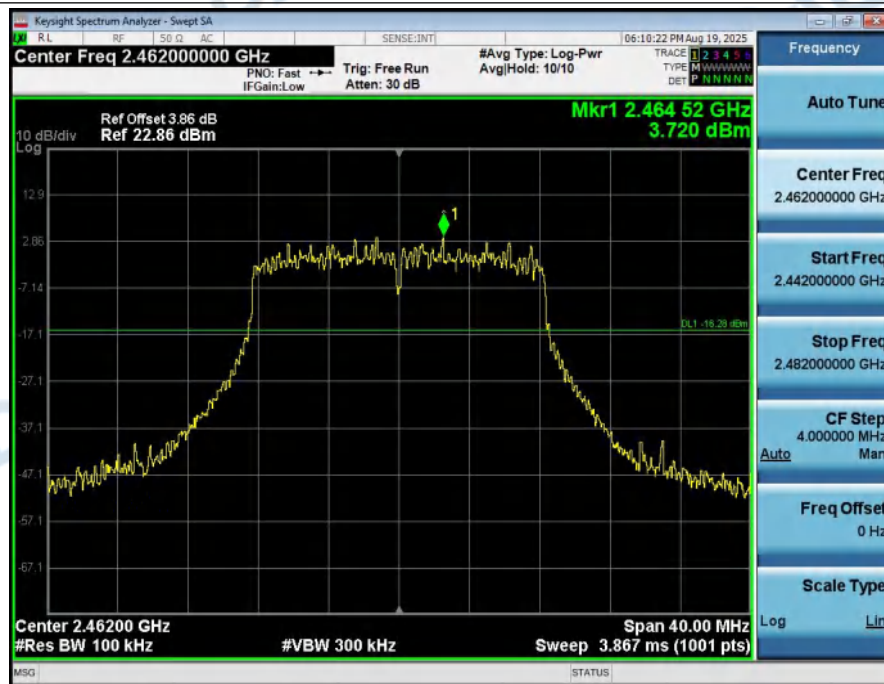
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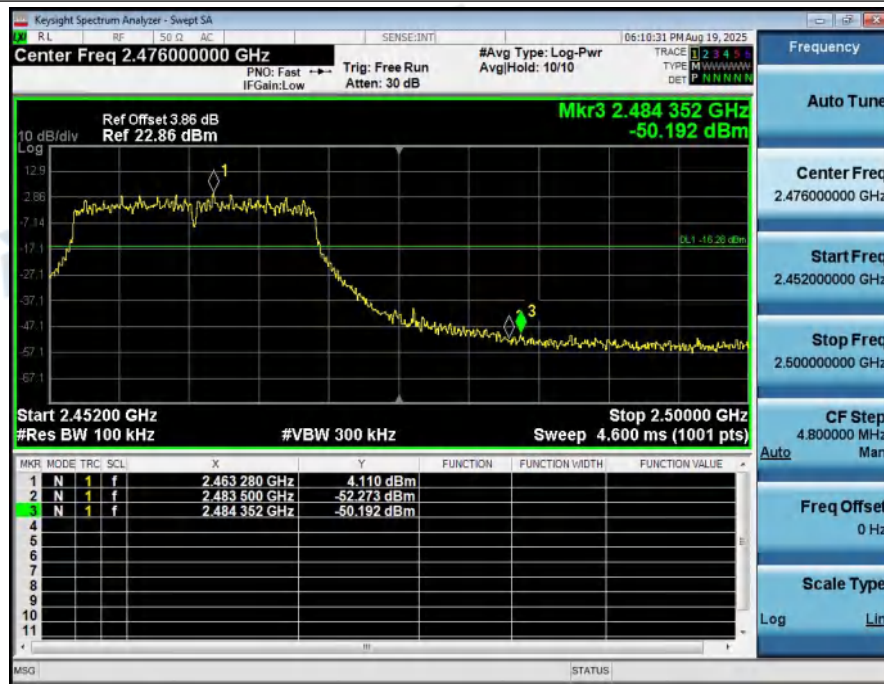
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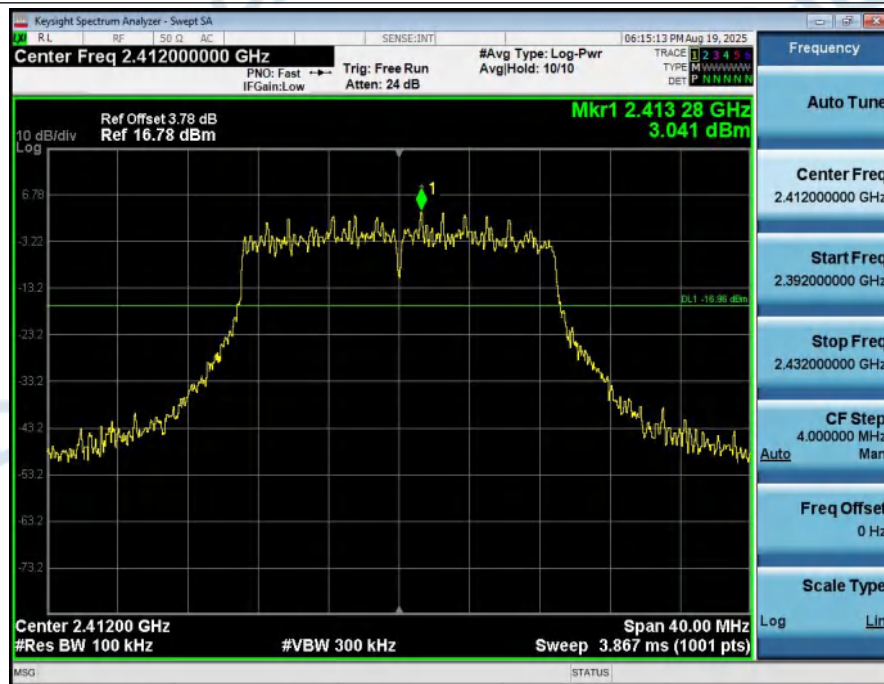
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2_Bandedge_NVNT_ANT1_802_11g_2462



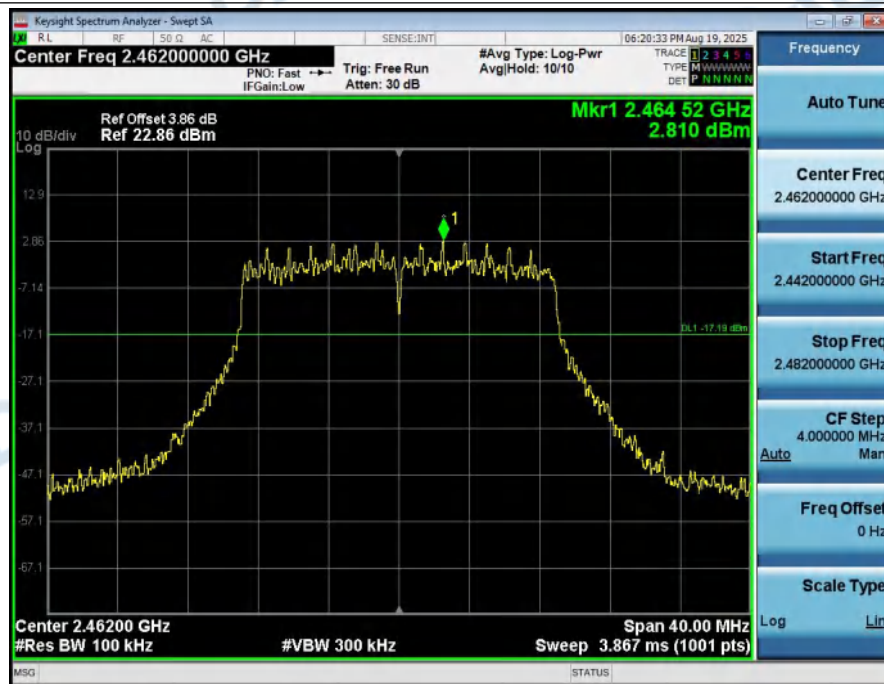
1_Reference_Level_NVNT_ANT1_802_11n(HT20)_2412



2_Bandedge_NVNT_ANT1_802_11n(HT20)_2412



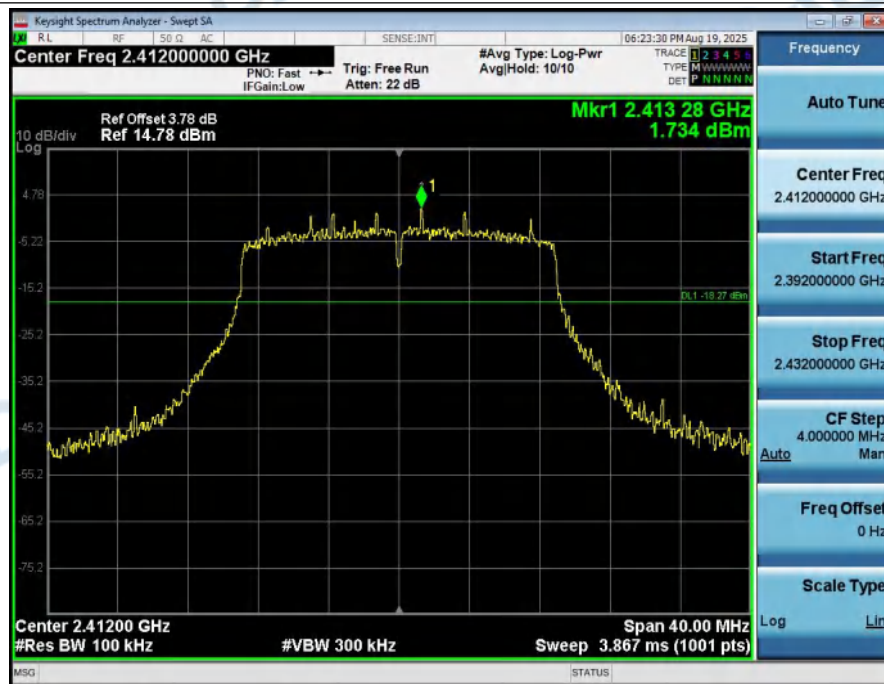
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2_Bandedge_NVNT_ANT1_802_11n(HT20)_2462



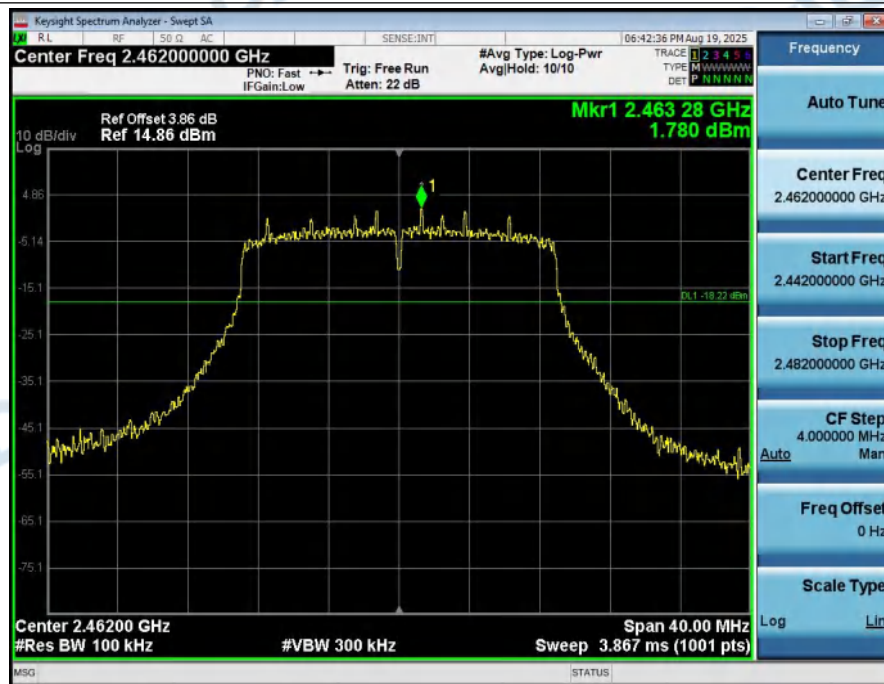
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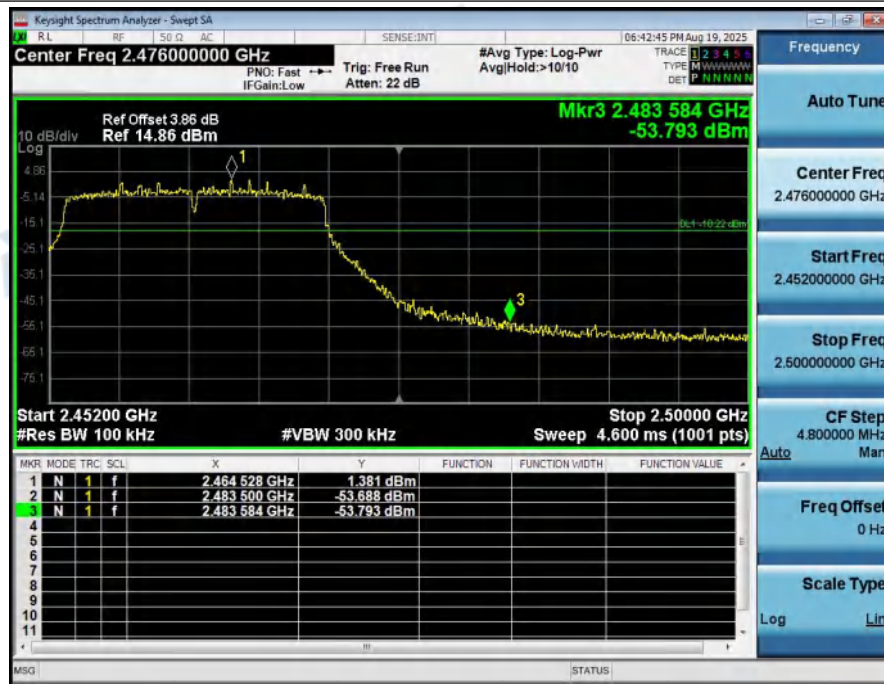
2_Bandedge_NVNT_ANT1_802_11ax(HE20)_2412



1_Reference_Level_NVNT_ANT1_802_11ax(HE20)_2462



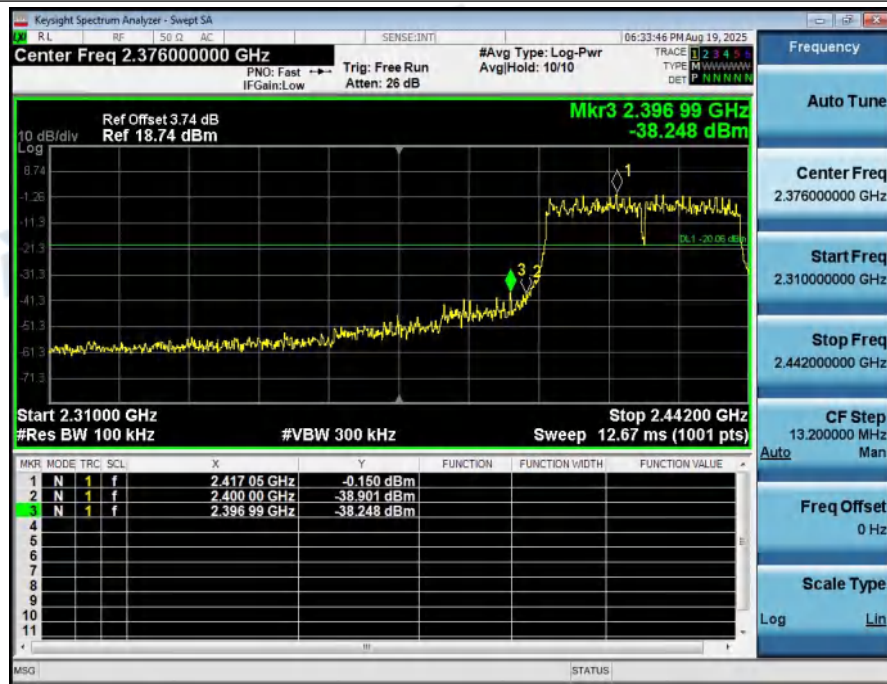
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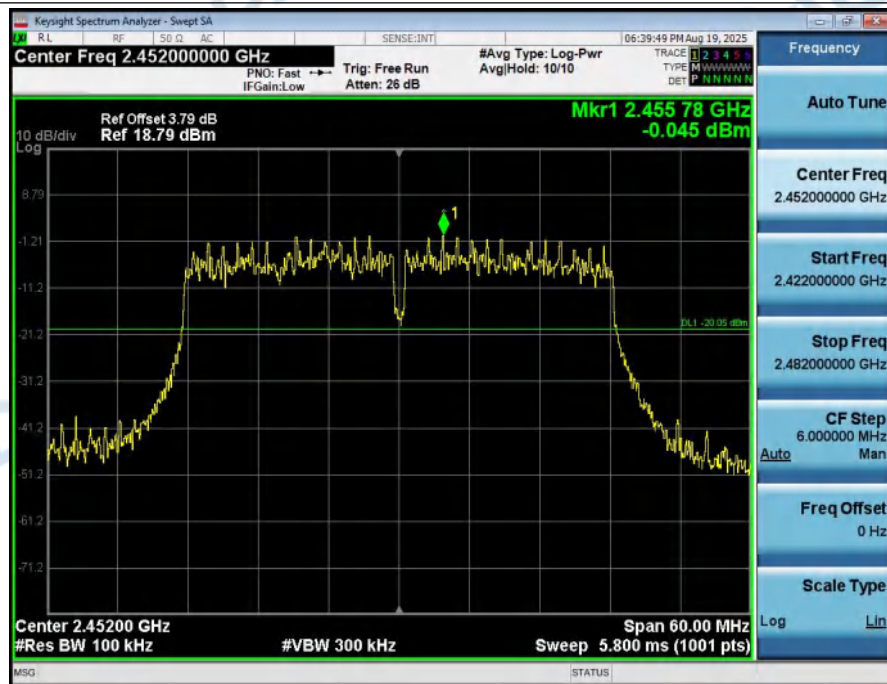
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



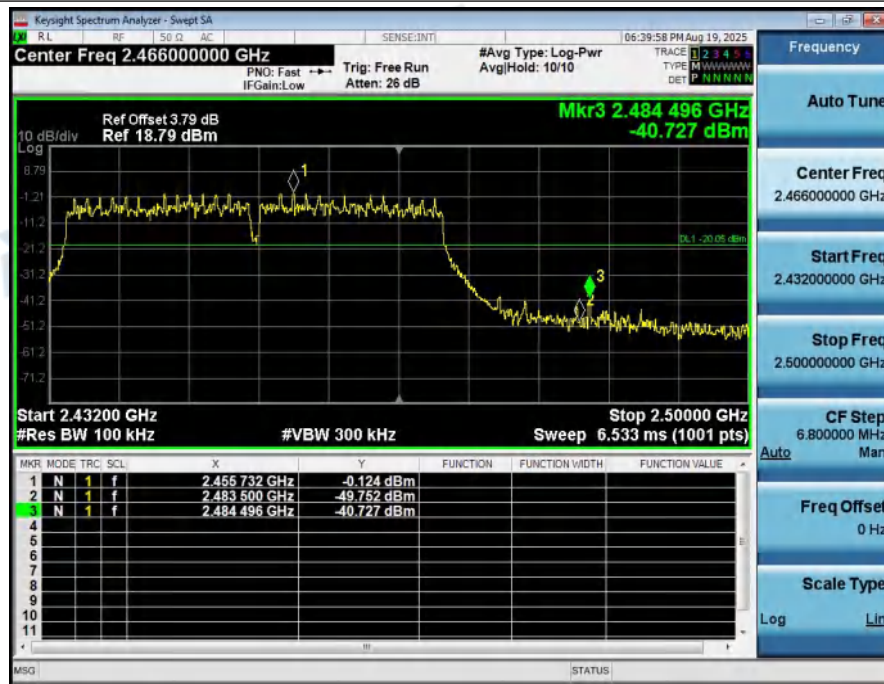
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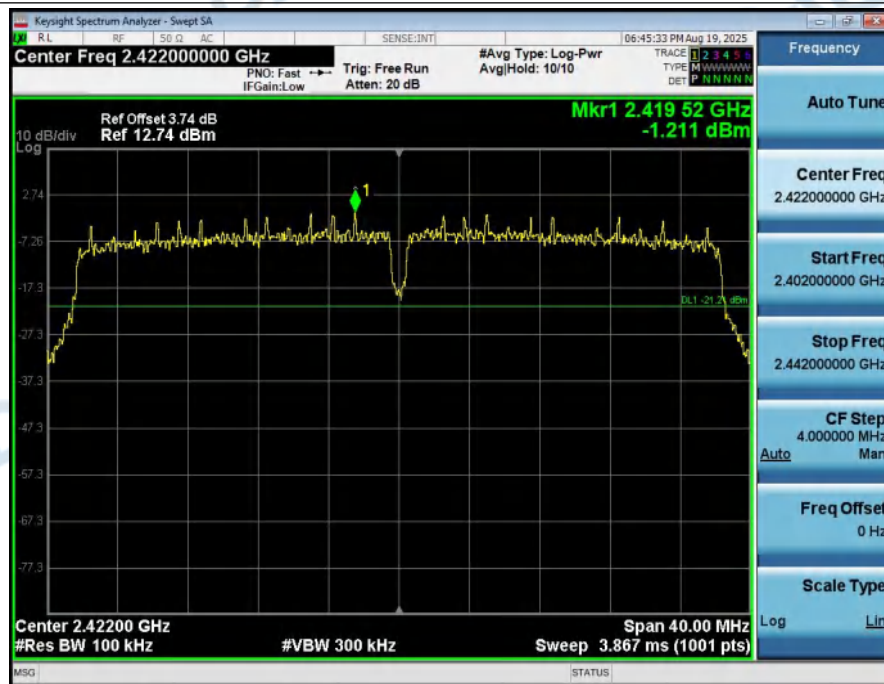
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2452



2_Bandedge_NVNT_ANT1_802_11n(HT40)_2452



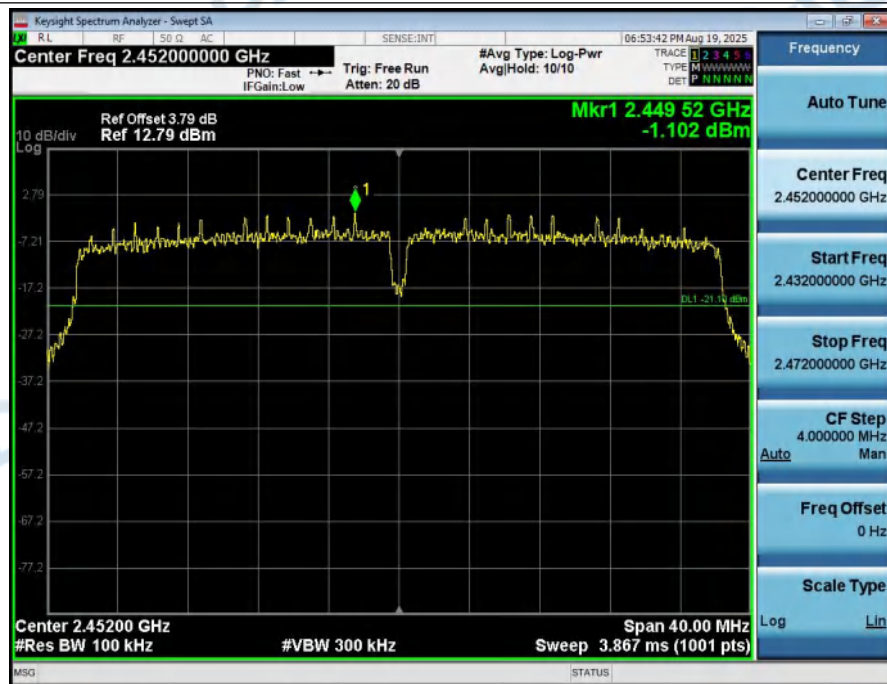
1_Reference_Level_NVNT_ANT1_802_11ax(HE40)_2422



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



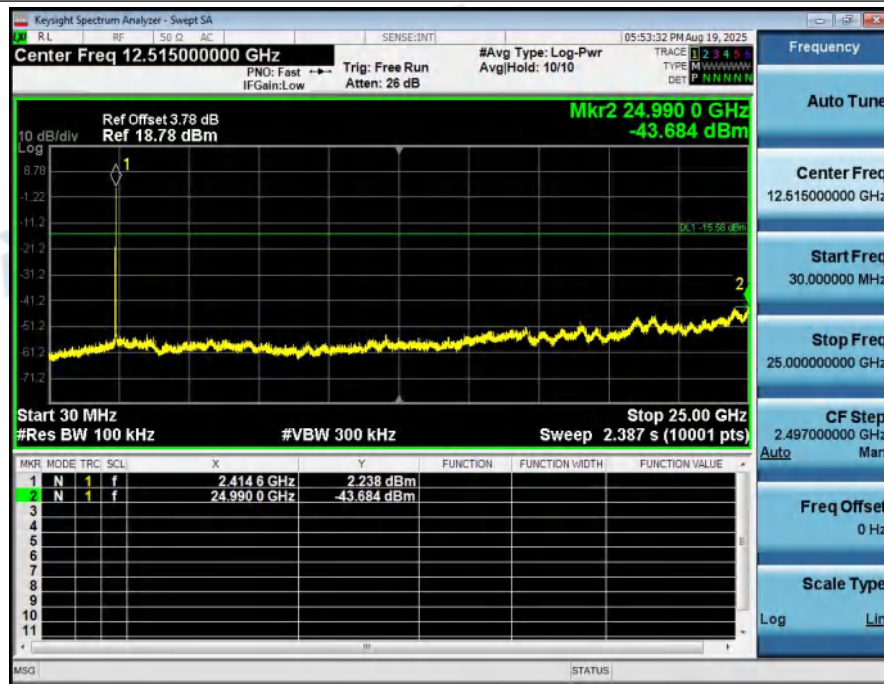
7. Spurious Emission

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	24990.012	4.421	-43.684	-15.579	Pass
NVNT	ANT1	802.11b	2437.00	24627.947	3.870	-45.540	-16.130	Pass
NVNT	ANT1	802.11b	2462.00	24982.521	5.130	-37.108	-14.870	Pass
NVNT	ANT1	802.11g	2412.00	24523.073	4.037	-44.098	-15.963	Pass
NVNT	ANT1	802.11g	2437.00	24940.072	3.752	-45.901	-16.248	Pass
NVNT	ANT1	802.11g	2462.00	24947.563	3.720	-39.538	-16.280	Pass
NVNT	ANT1	802.11n(HT20)	2412.00	25000.000	3.041	-45.001	-16.959	Pass
NVNT	ANT1	802.11n(HT20)	2437.00	24987.515	2.805	-45.243	-17.195	Pass
NVNT	ANT1	802.11n(HT20)	2462.00	24962.545	2.810	-39.483	-17.190	Pass
NVNT	ANT1	802.11ax(HE20)	2412.00	24982.521	1.734	-47.437	-18.266	Pass
NVNT	ANT1	802.11ax(HE20)	2437.00	24483.121	0.000	-48.295	-20.000	Pass
NVNT	ANT1	802.11ax(HE20)	2462.00	24395.726	1.780	-48.375	-18.220	Pass
NVNT	ANT1	802.11n(HT40)	2422.00	24982.521	-0.056	-43.542	-20.056	Pass
NVNT	ANT1	802.11n(HT40)	2437.00	24997.503	-0.457	-43.193	-20.457	Pass
NVNT	ANT1	802.11n(HT40)	2452.00	24932.581	-0.045	-44.110	-20.045	Pass
NVNT	ANT1	802.11ax(HE40)	2422.00	24962.545	-1.211	-49.293	-21.211	Pass
NVNT	ANT1	802.11ax(HE40)	2437.00	24975.030	-7.263	-56.016	-27.263	Pass
NVNT	ANT1	802.11ax(HE40)	2452.00	24463.145	-1.102	-49.923	-21.102	Pass

1_Reference_Level_NVNT_ANT1_802_11b_2412



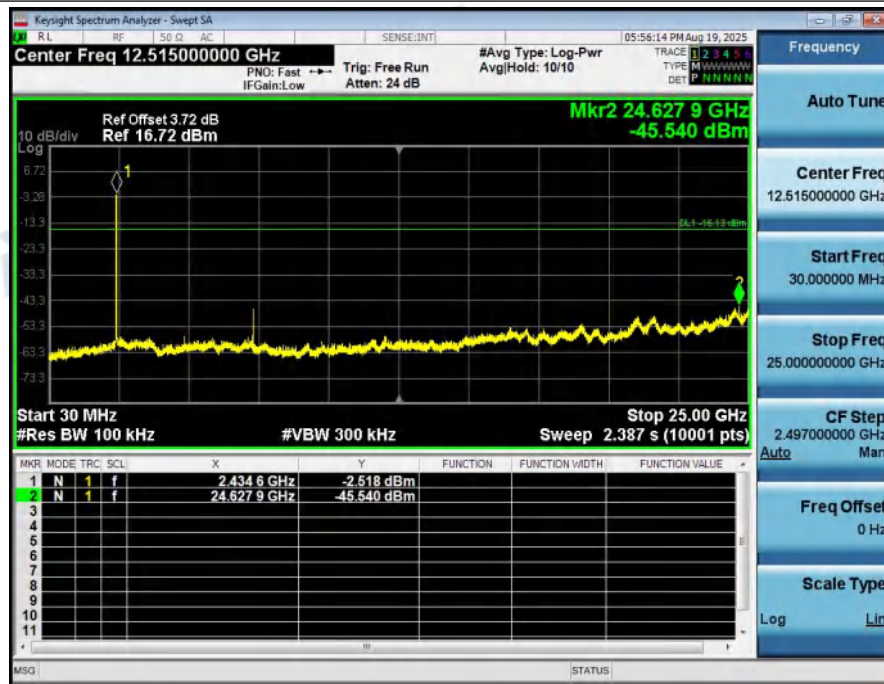
2_Spurious_Emission_NVNT_ANT1_802_11b_2412



1_Reference_Level_NVNT_ANT1_802_11b_2437



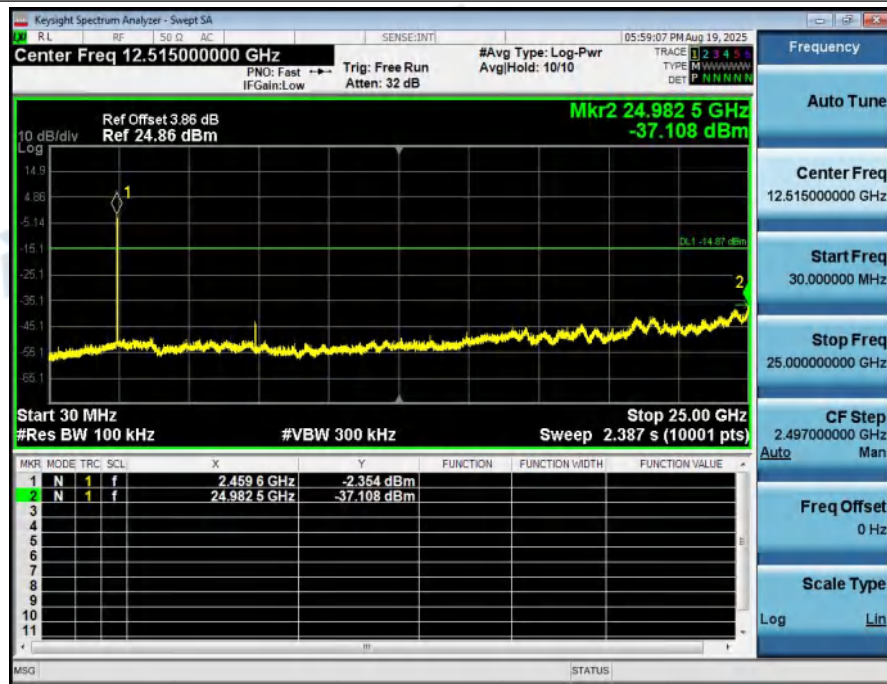
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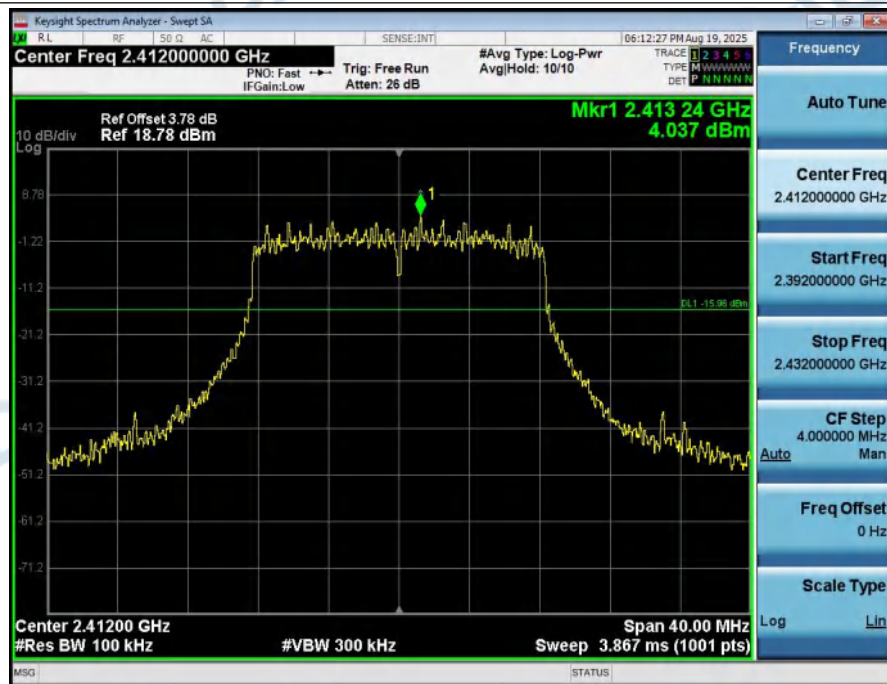
1_Reference_Level_NVNT_ANT1_802_11b_2462



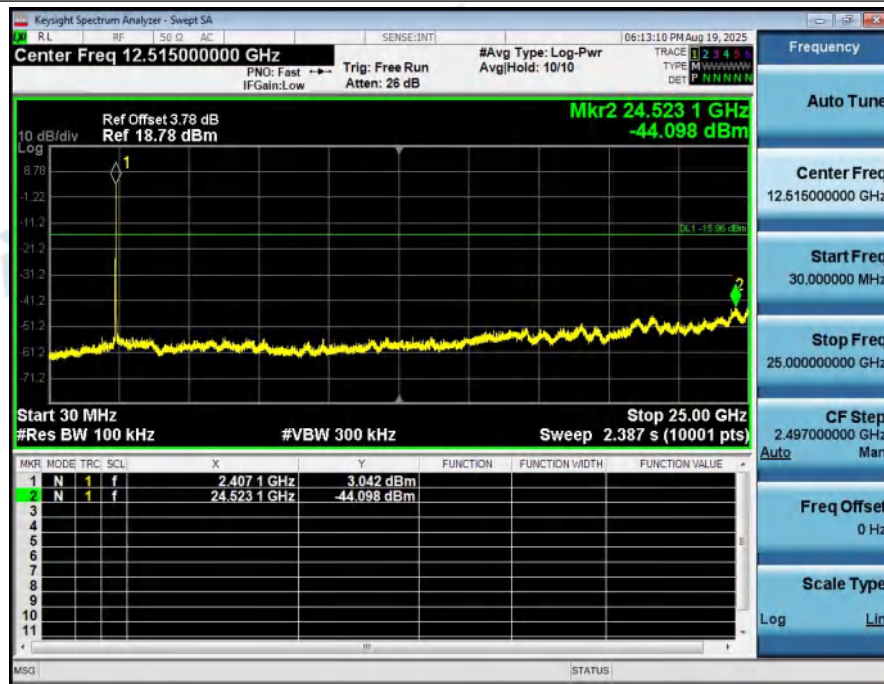
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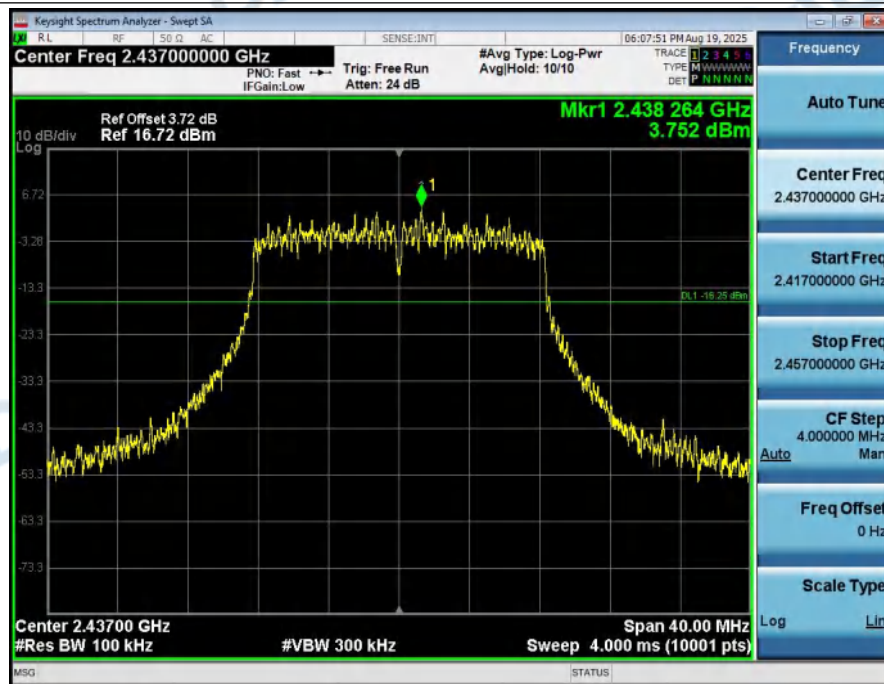
1_Reference_Level_NVNT_ANT1_802_11g_2412



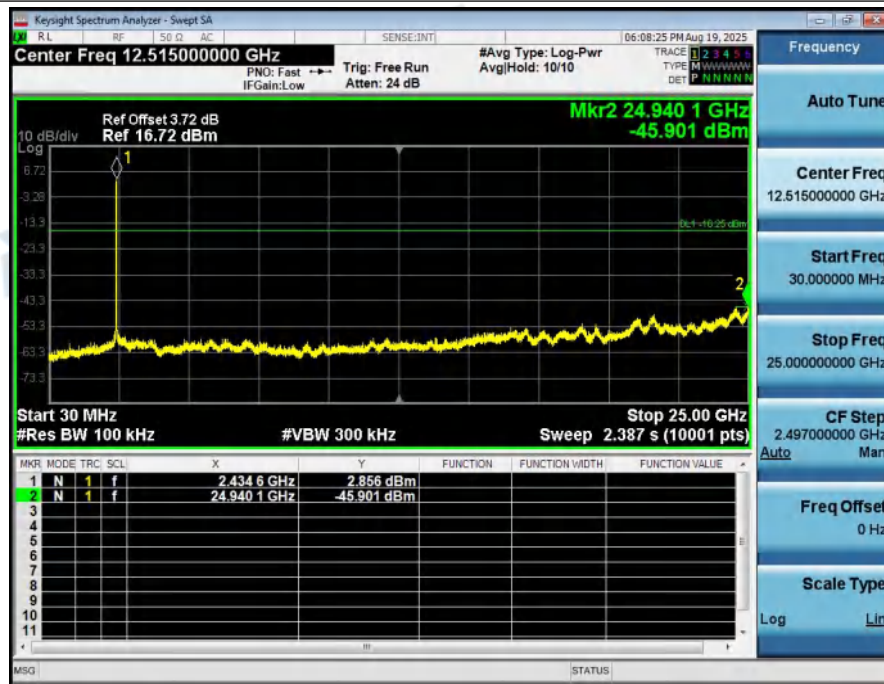
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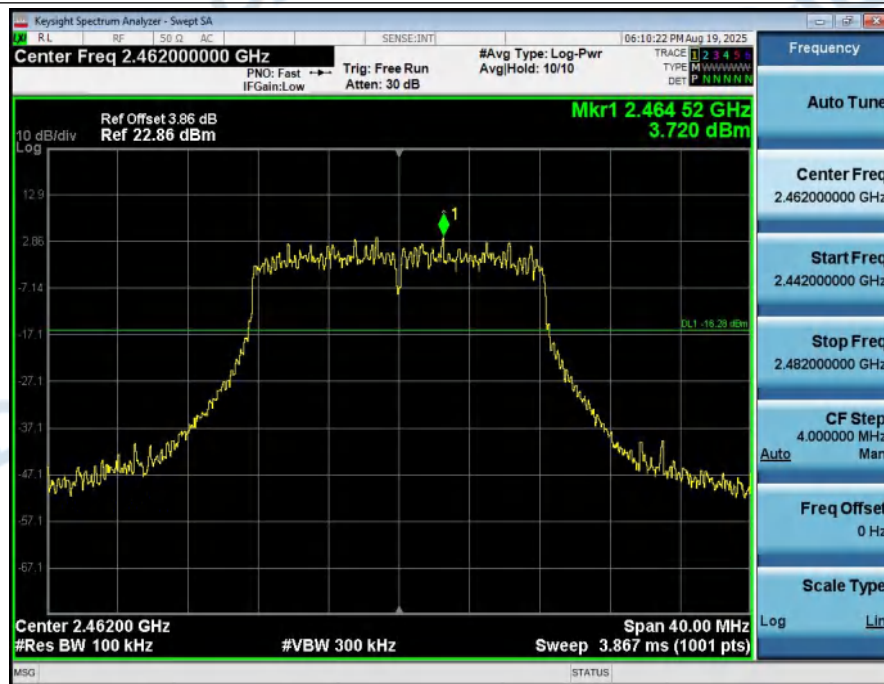
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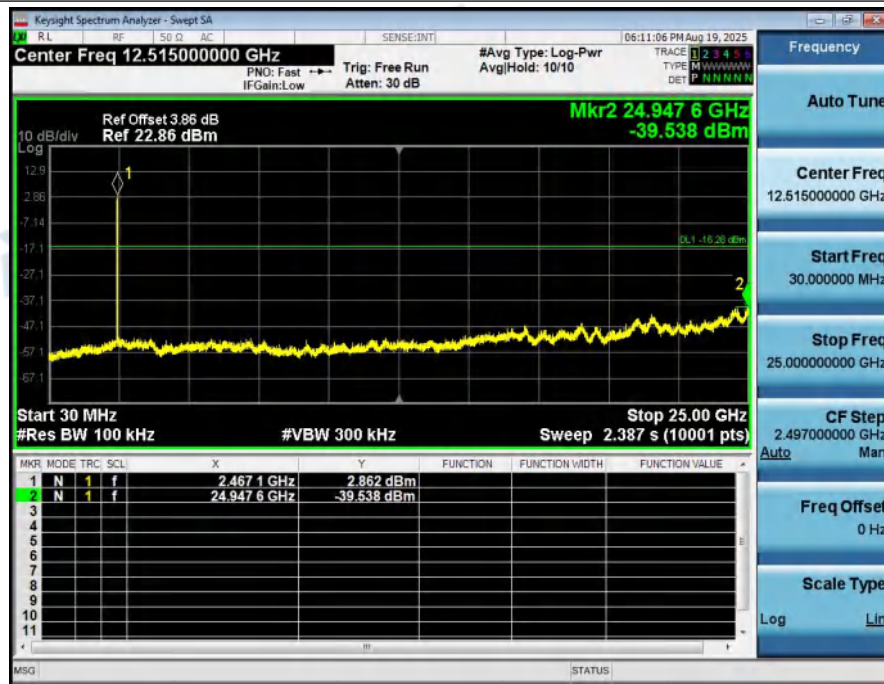
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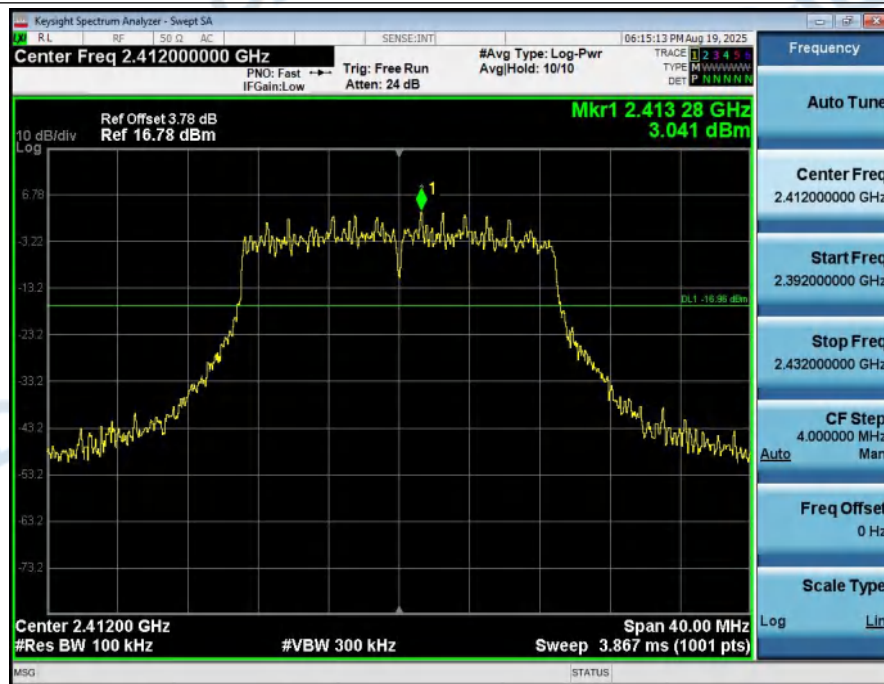
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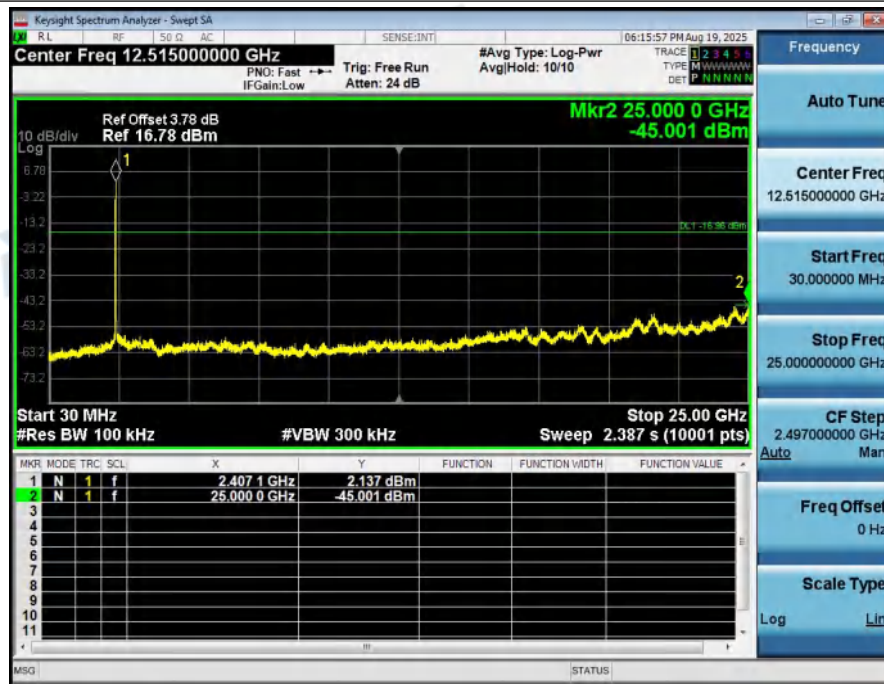
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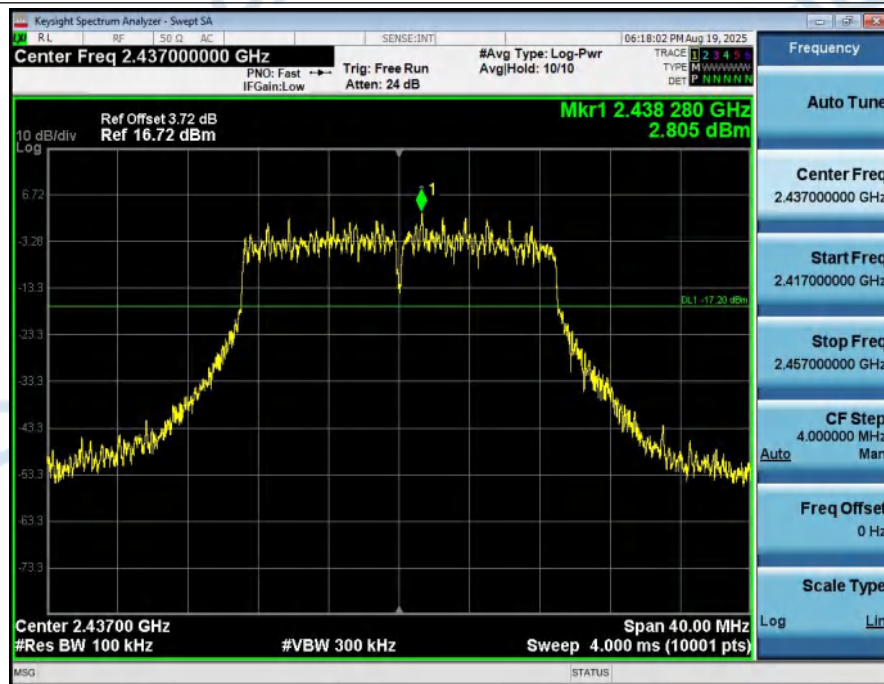
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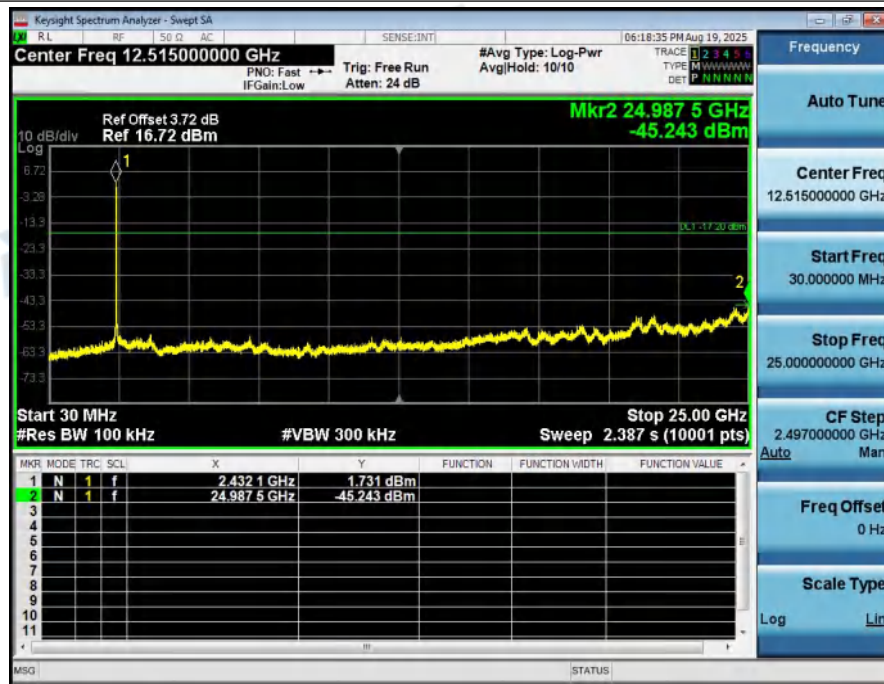
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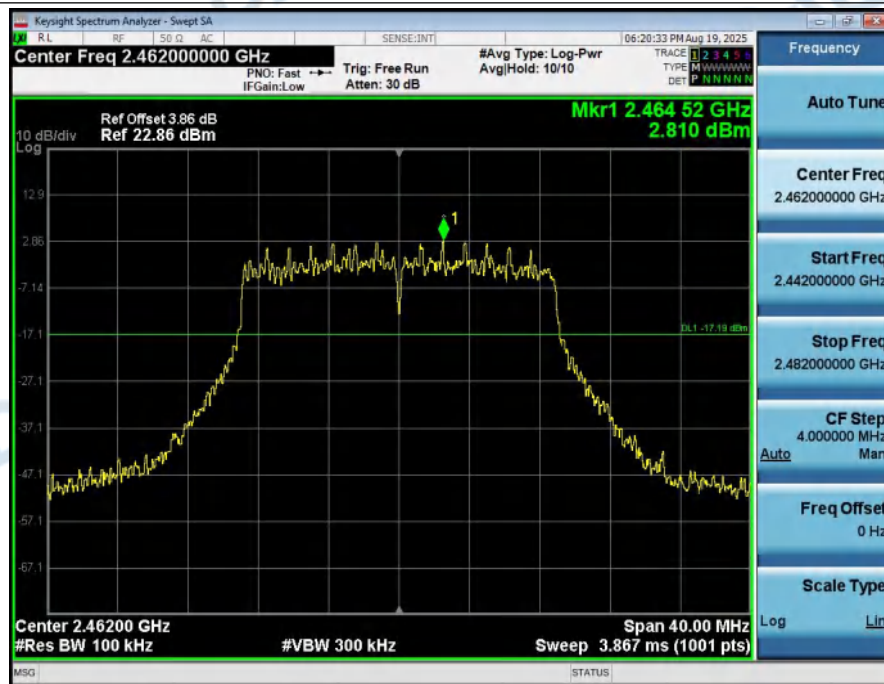
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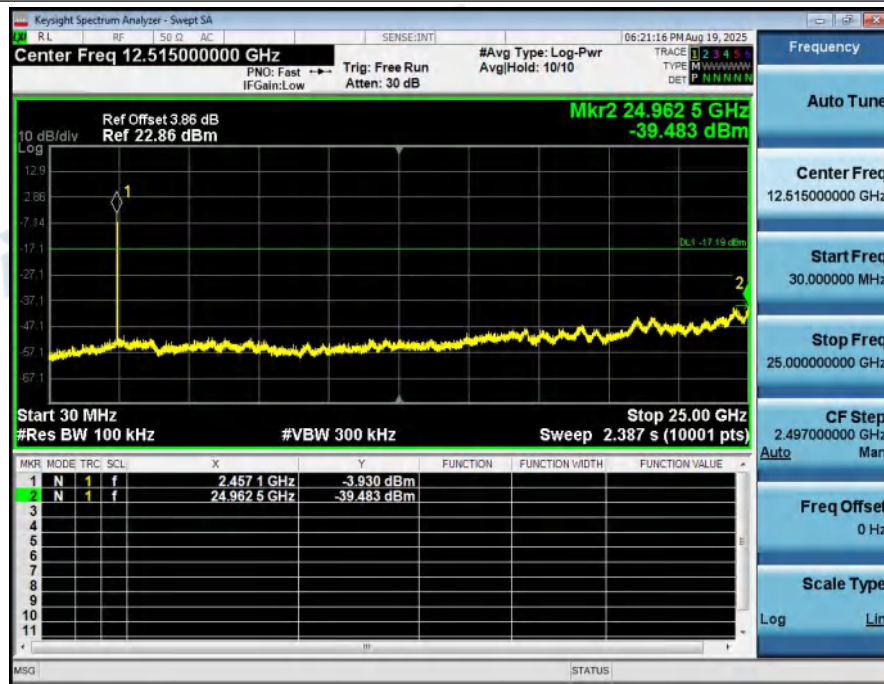
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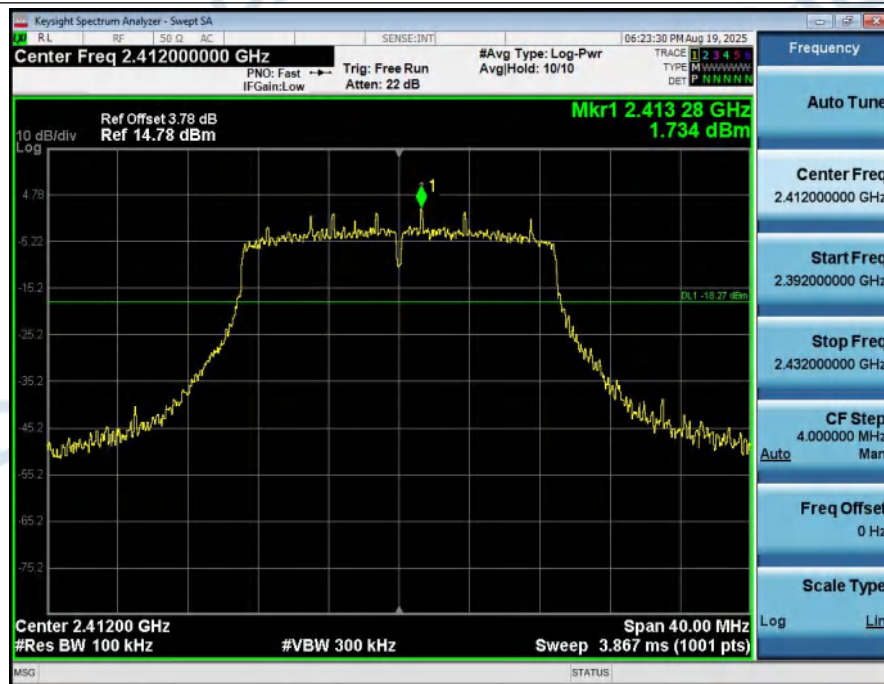
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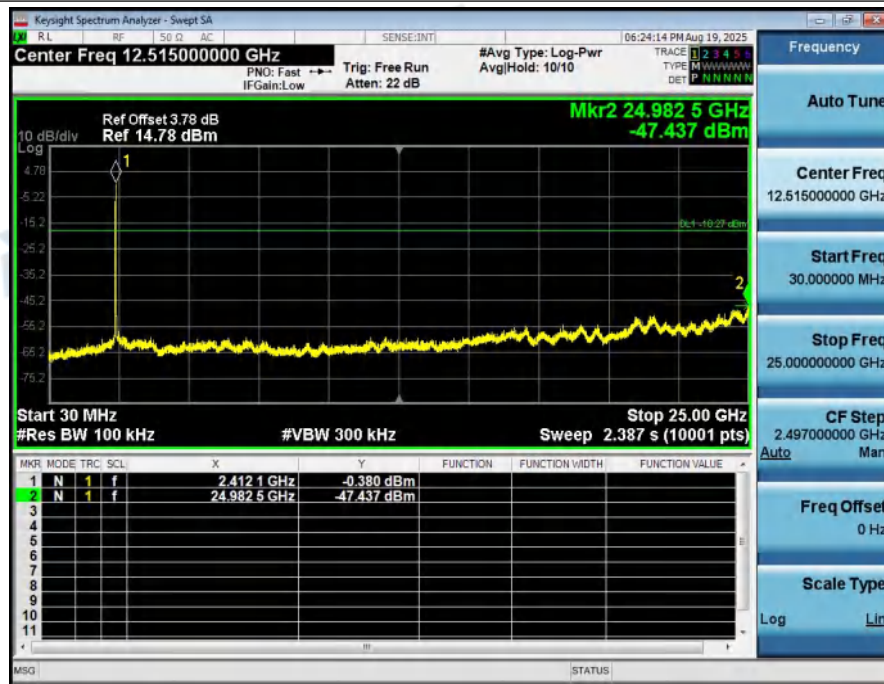
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1_Reference_Level_NVNT_ANT1_802_11ax(HE20)_2412



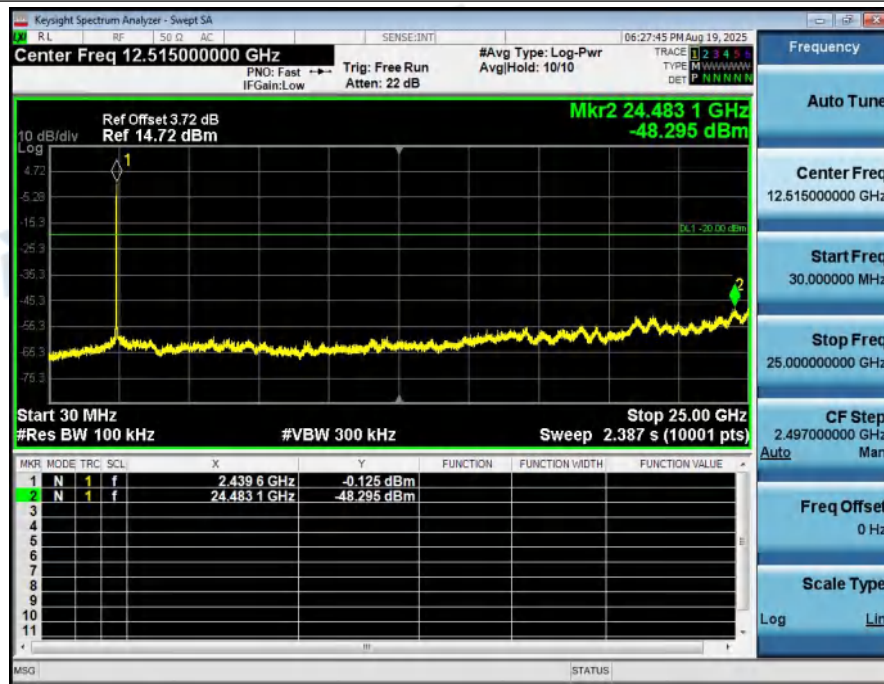
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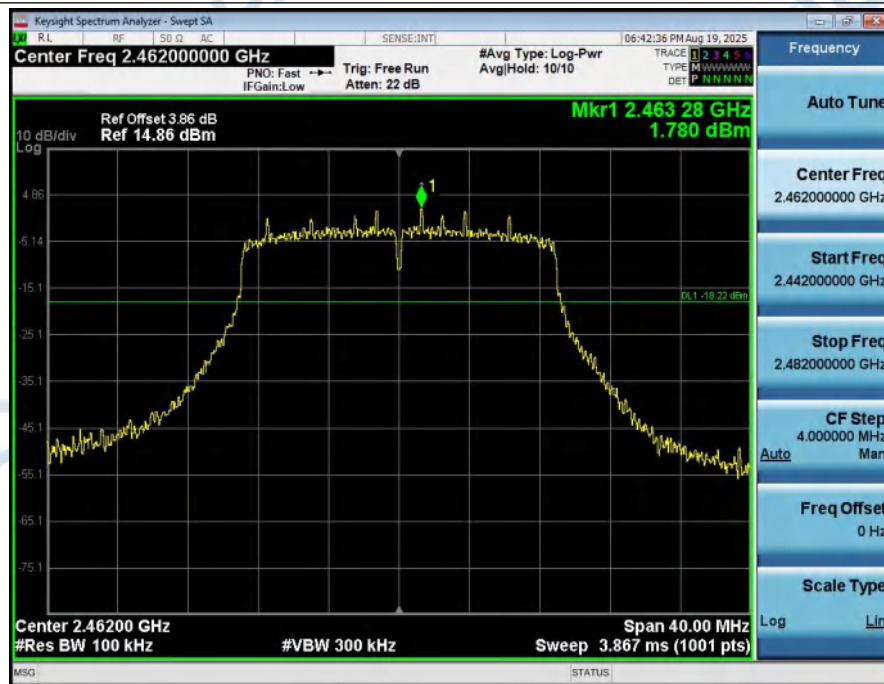
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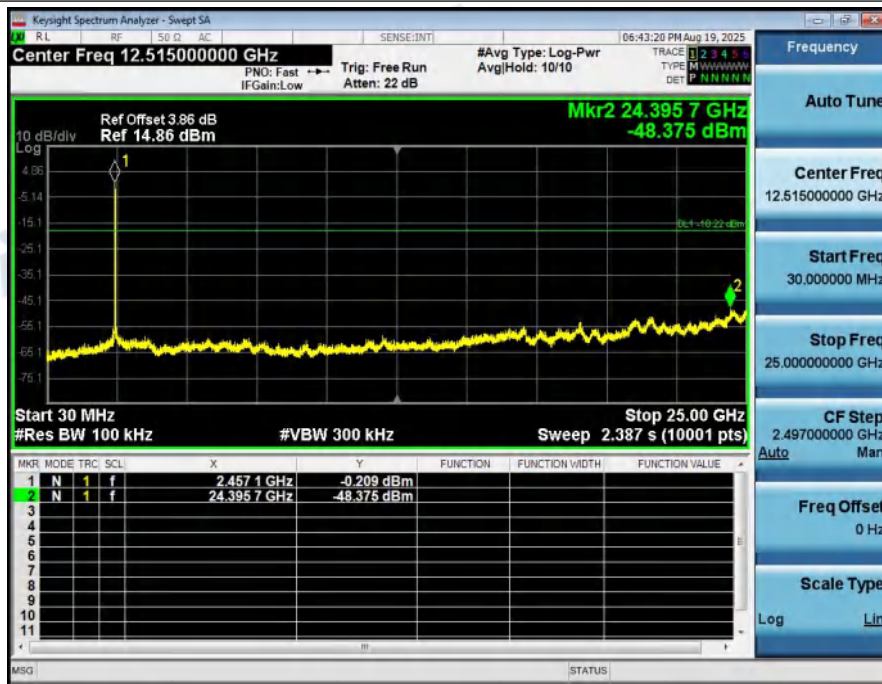
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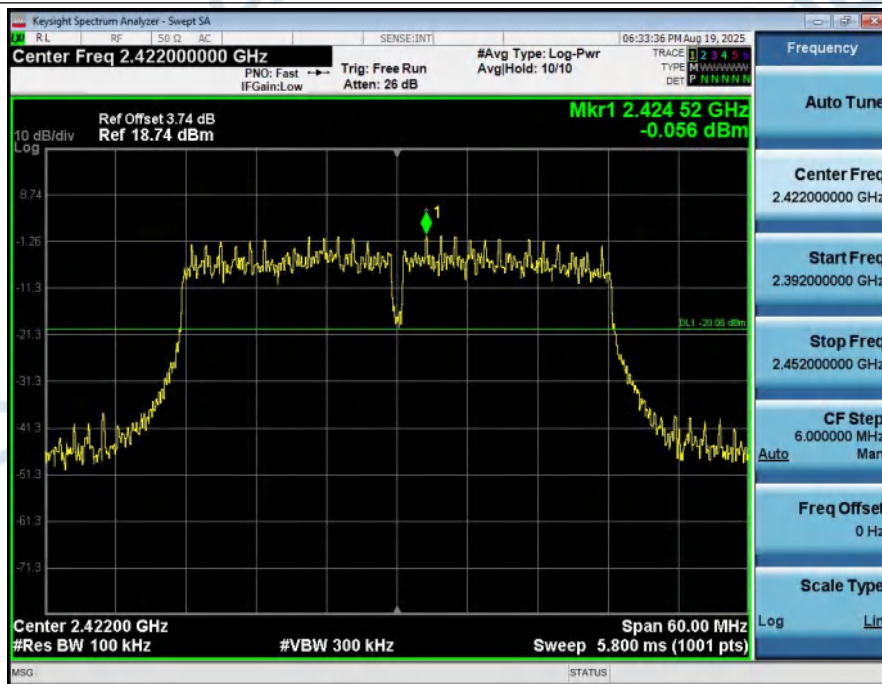
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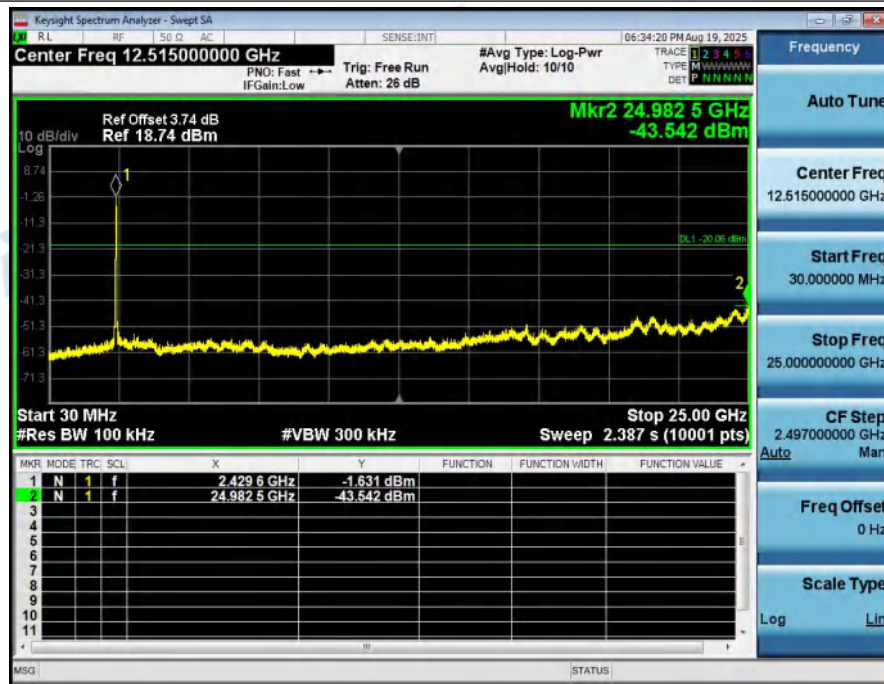
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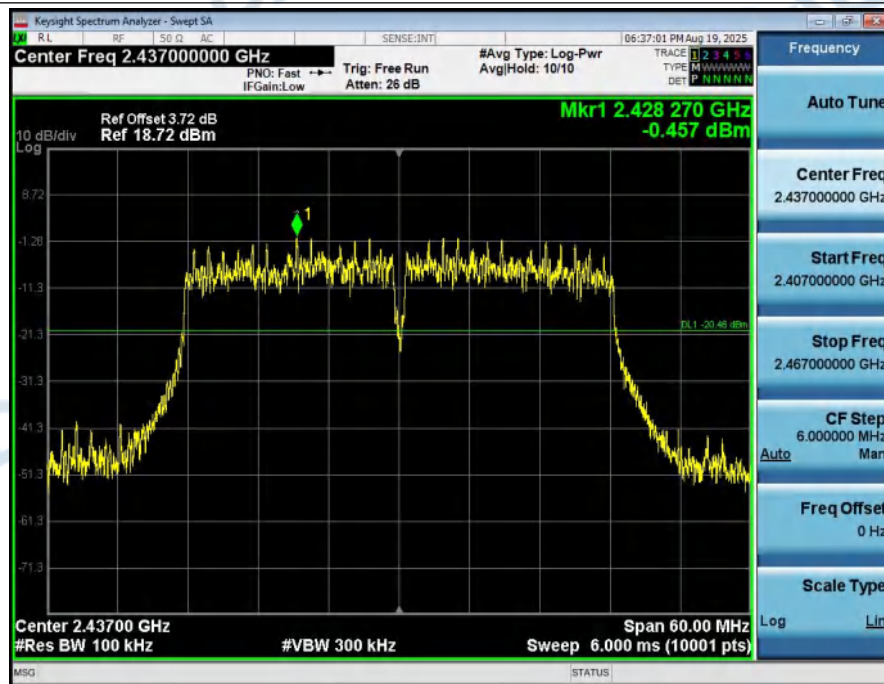
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2422



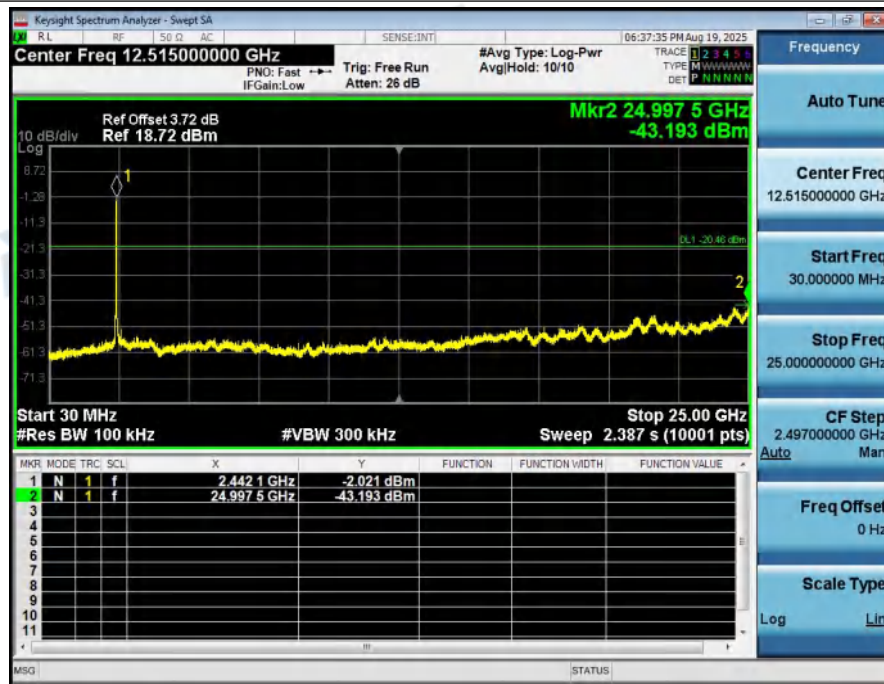
2_Spurious_Emission_NVNT_ANT1_802_11n(HT40)_2422



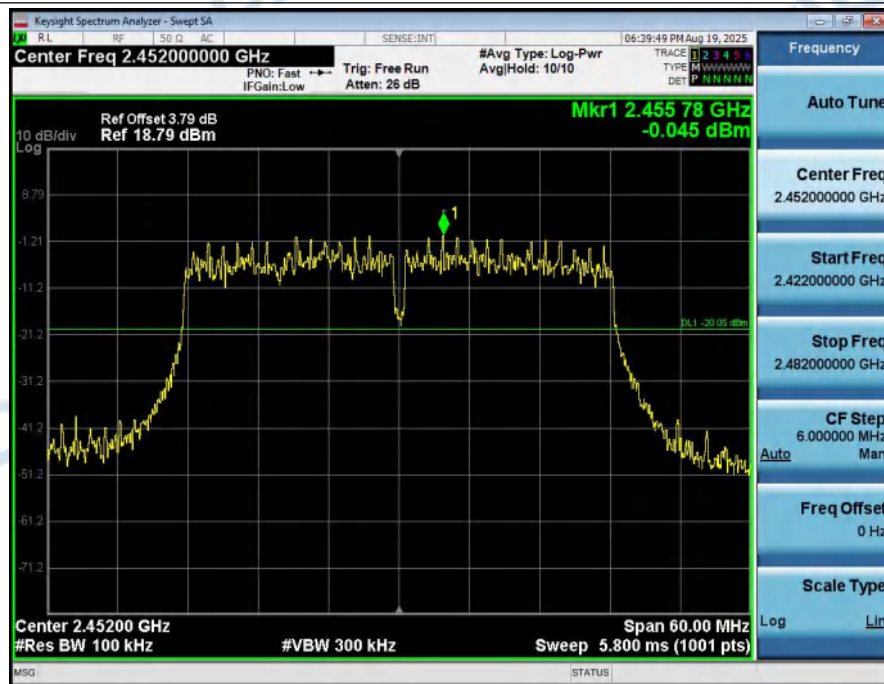
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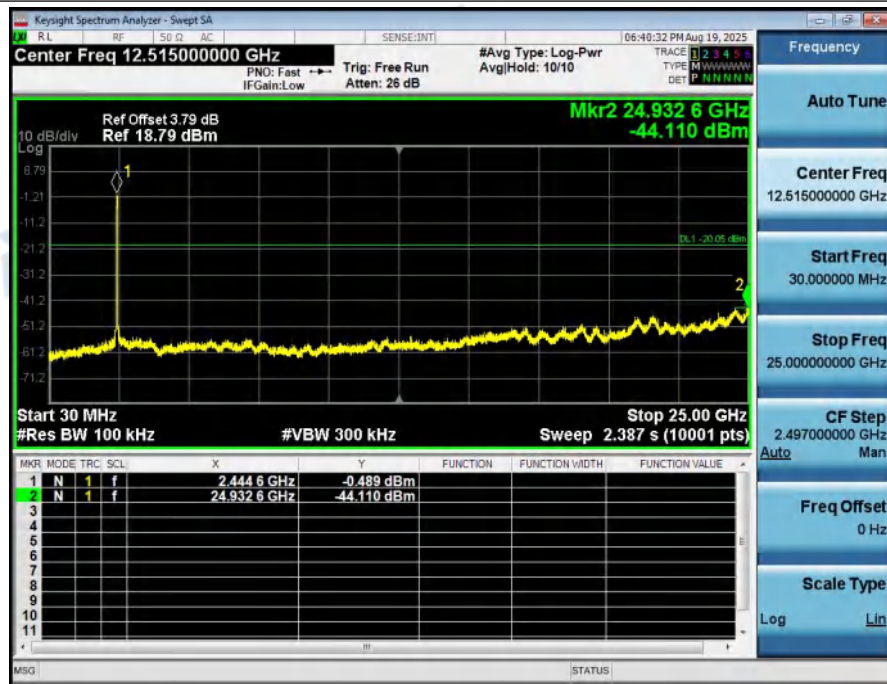
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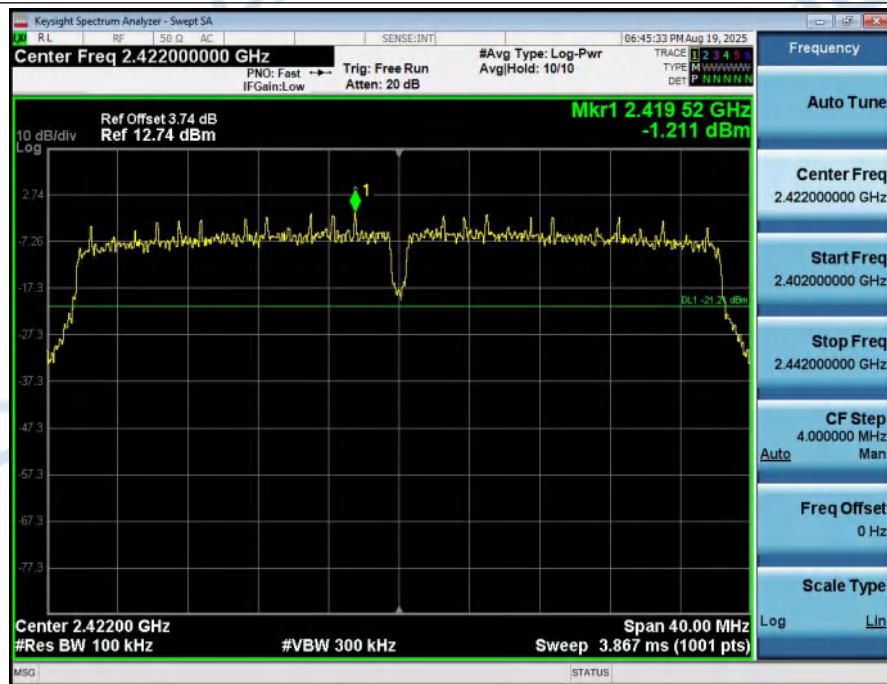
1_Reference_Level_NVNT_ANT1_802_11n(HT40)_2452



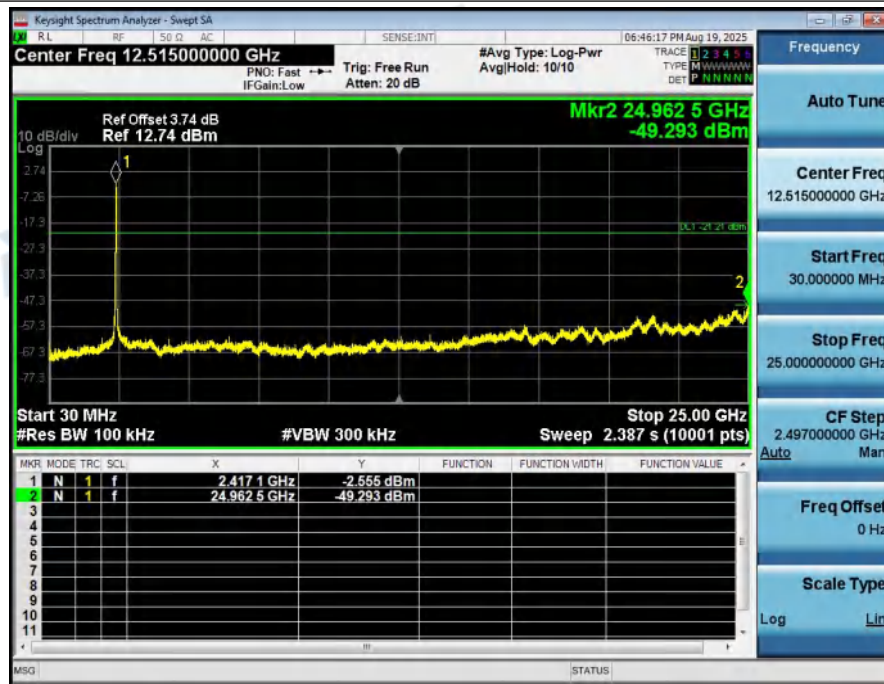
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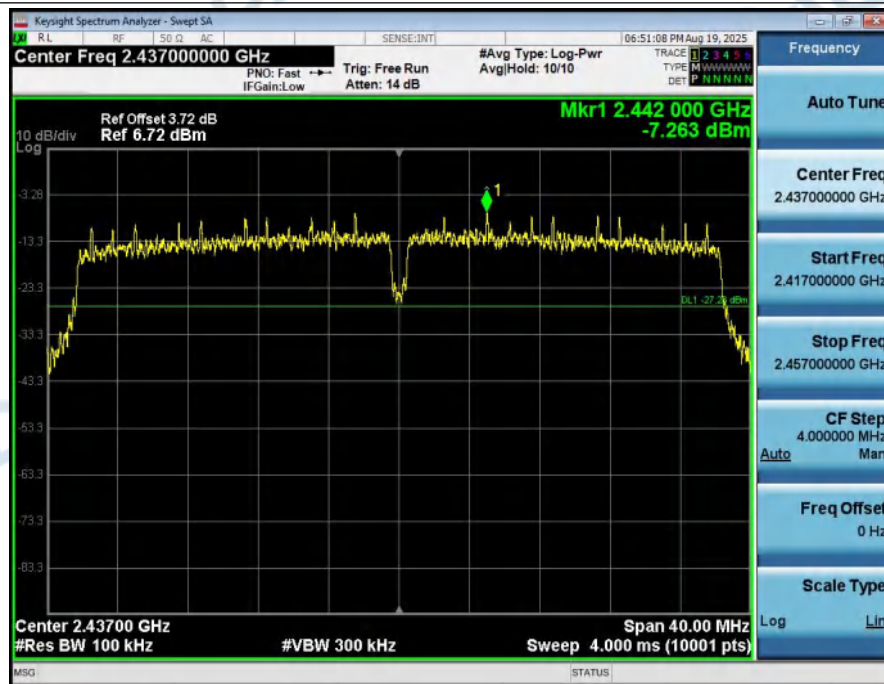
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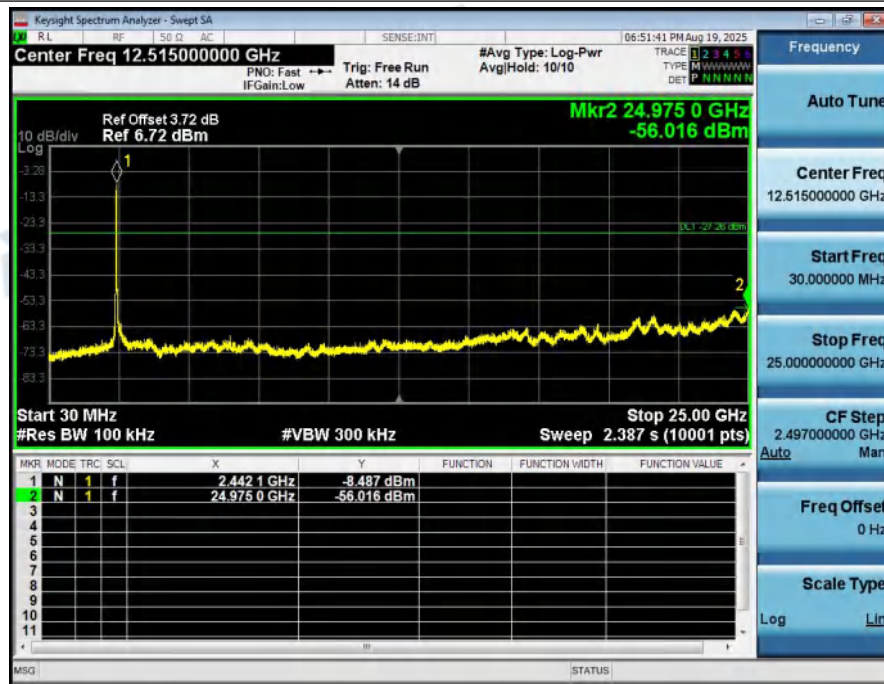
2_Spurious_Emission_NVNT_ANT1_802_11ax(HE40)_2422



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

