

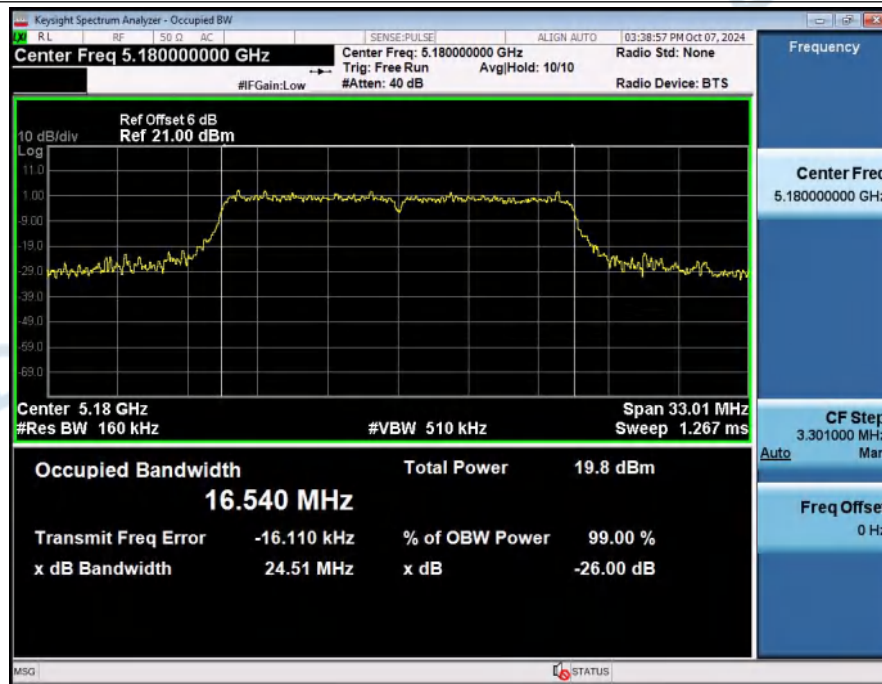
Appendix-5.2GWIFI

HT240920009--IR3 V2--5.2G--FCC FCC_5.2G_WIFI (Part15.407) Test Data

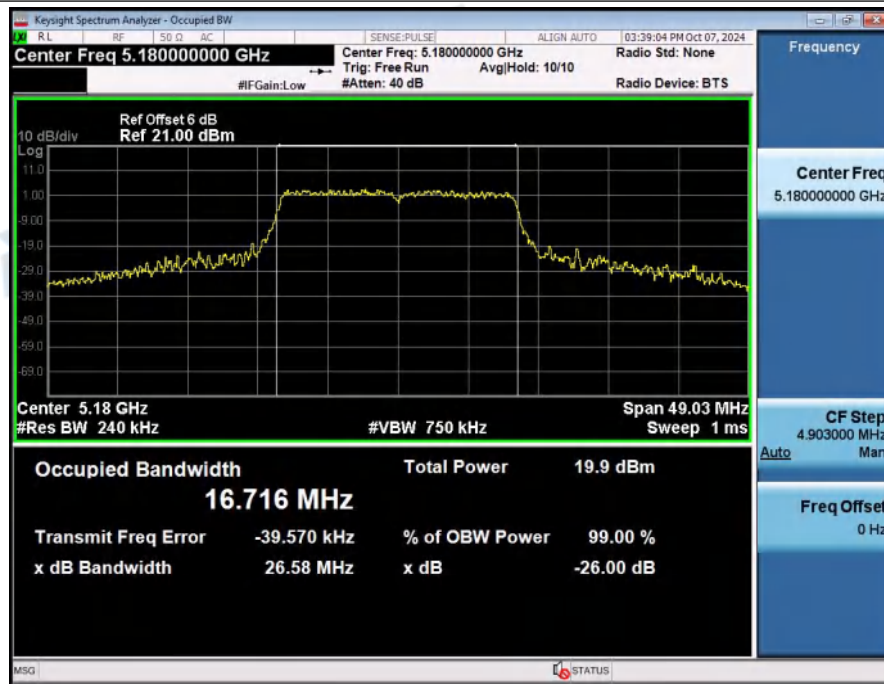
1. -26dB and 99% Emission Bandwidth

Condition	Antenna	Modulation	Frequency(MHz)	-26dB_Emission_Bandwidth(MHz)	Occupied Bandwidth(MHz)
NVNT	ANT1	802.11a	5180.00	26.58	16.54
NVNT	ANT1	802.11a	5200.00	28.60	16.56
NVNT	ANT1	802.11a	5240.00	27.89	16.55
NVNT	ANT1	802.11n(HT20)	5180.00	25.62	17.64
NVNT	ANT1	802.11n(HT20)	5200.00	30.07	17.63
NVNT	ANT1	802.11n(HT20)	5240.00	26.61	17.61
NVNT	ANT1	802.11ac(VHT20)	5180.00	30.09	17.62
NVNT	ANT1	802.11ac(VHT20)	5200.00	32.84	17.70
NVNT	ANT1	802.11ac(VHT20)	5240.00	27.46	17.62
NVNT	ANT1	802.11n(HT40)	5190.00	48.39	36.19
NVNT	ANT1	802.11n(HT40)	5230.00	48.97	36.24
NVNT	ANT1	802.11ac(VHT40)	5190.00	49.79	36.26
NVNT	ANT1	802.11ac(VHT40)	5230.00	48.84	36.31
NVNT	ANT1	802.11ac(VHT80)	5210.00	94.22	75.83

99%_OCB_NVNT_ANT1_802_11a_5180



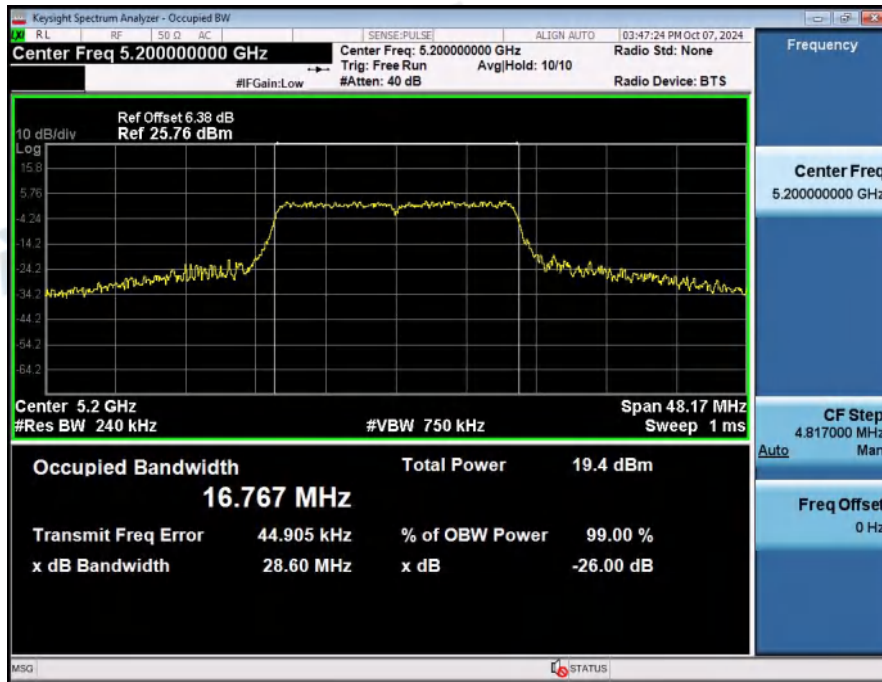
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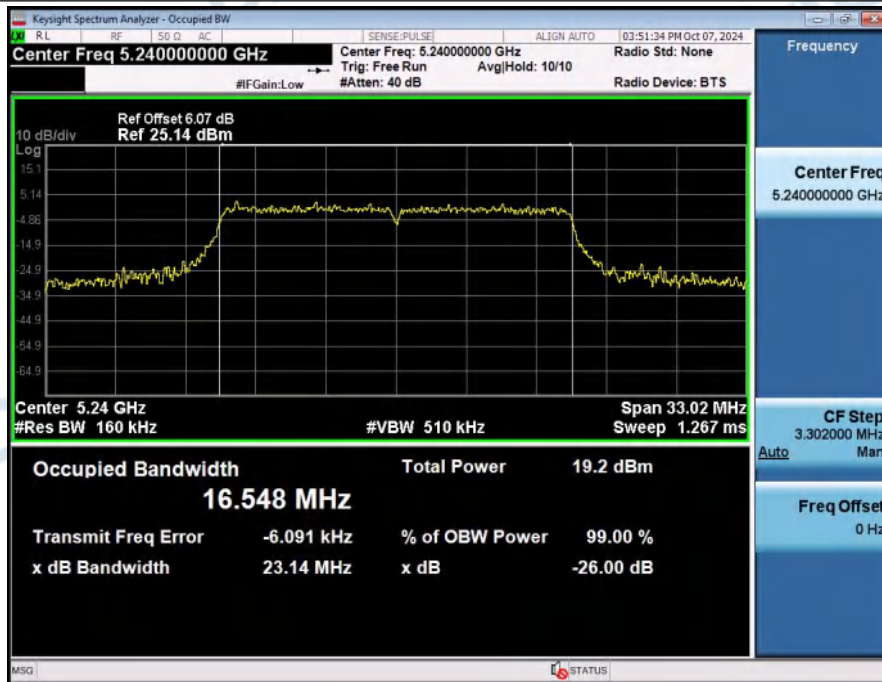
99%_OCB_NVNT_ANT1_802_11a_5200



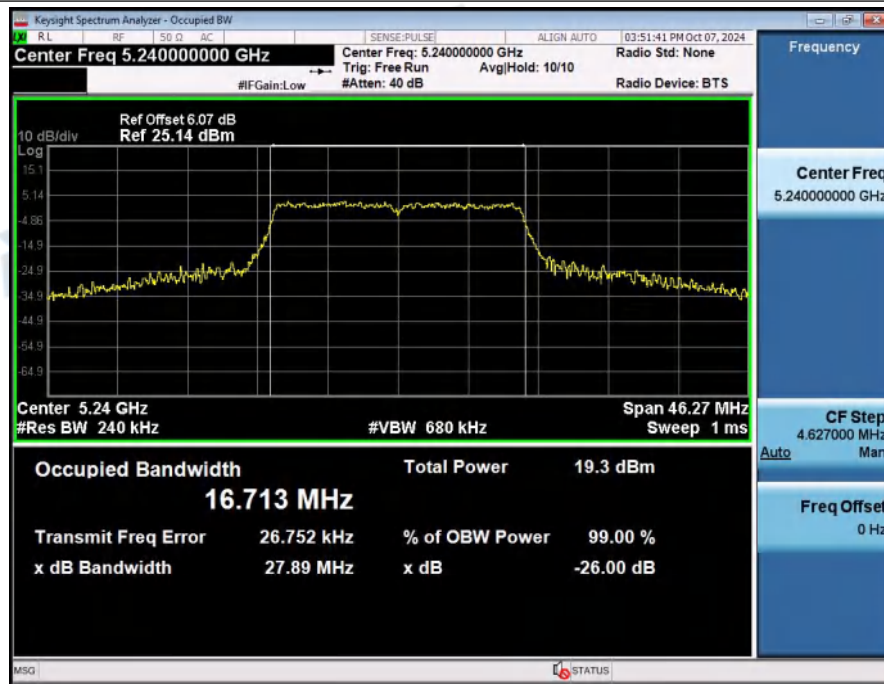
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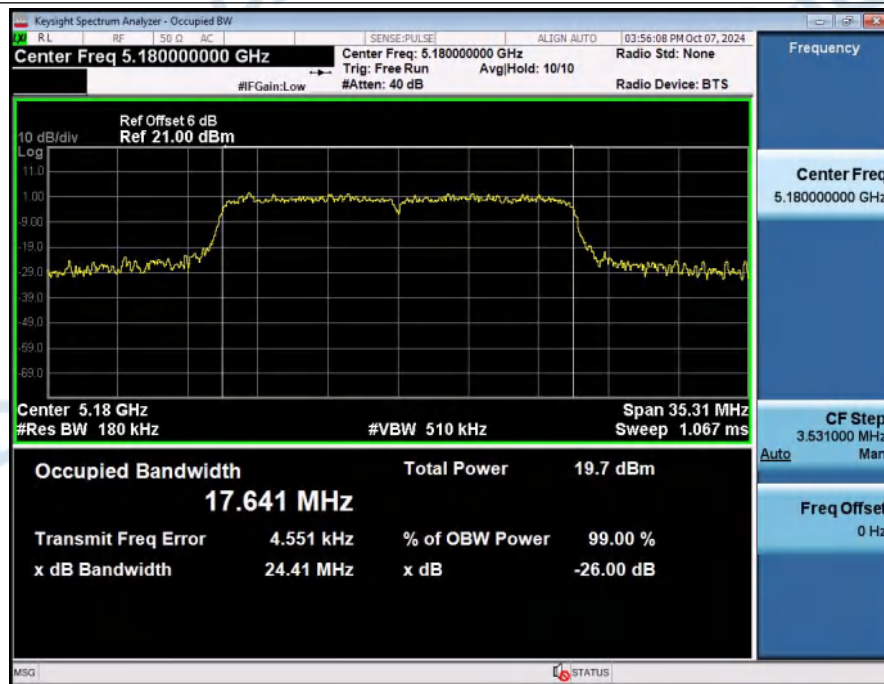
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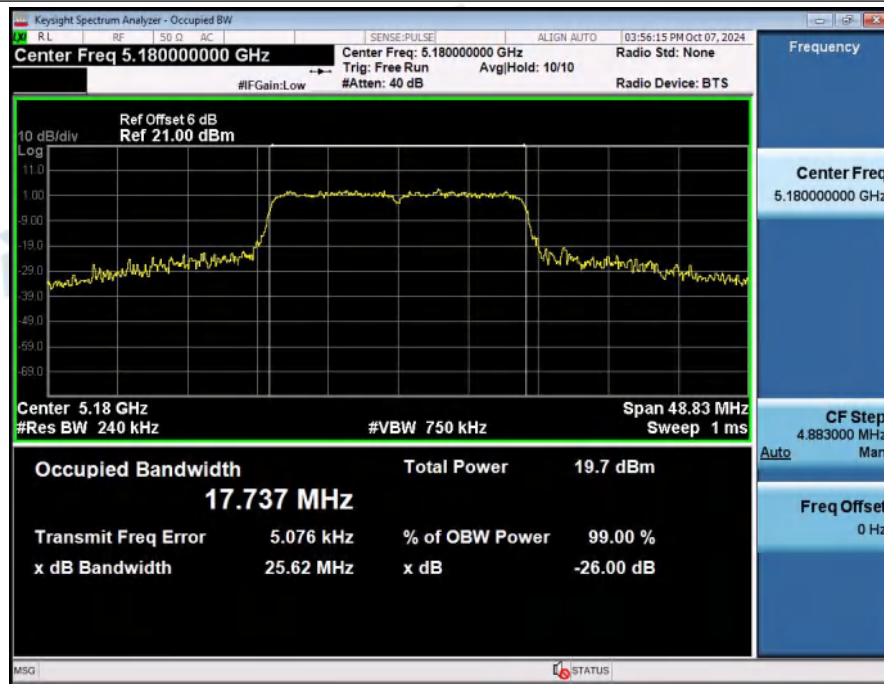
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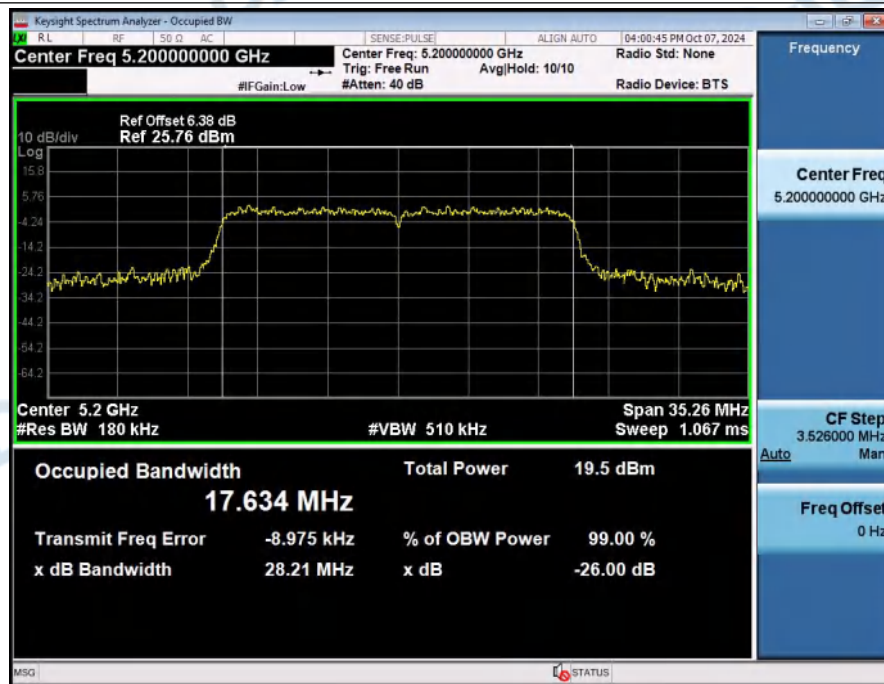
99%_OCB_NVNT_ANT1_802_11n(HT20)_5180



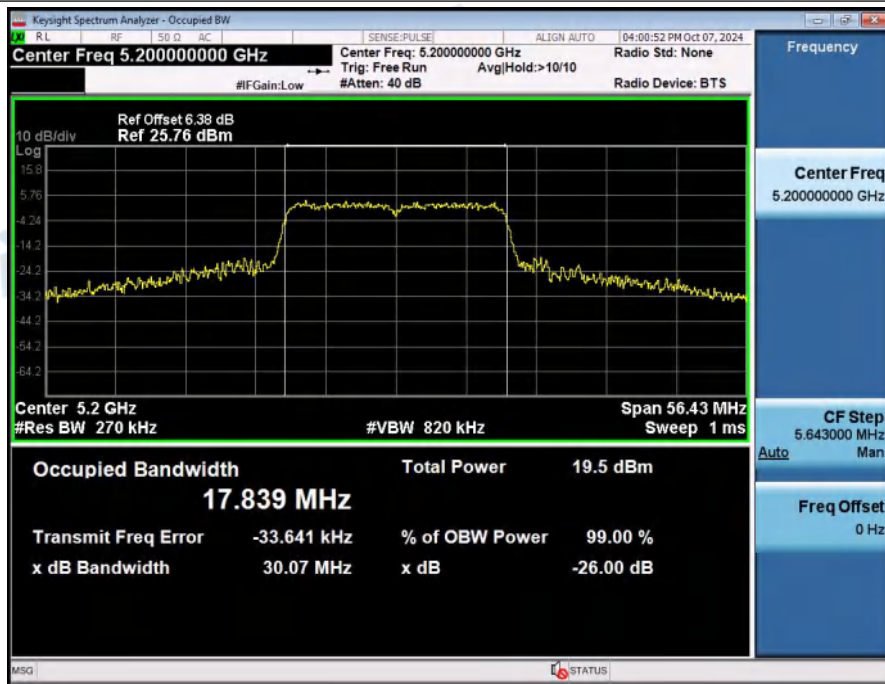
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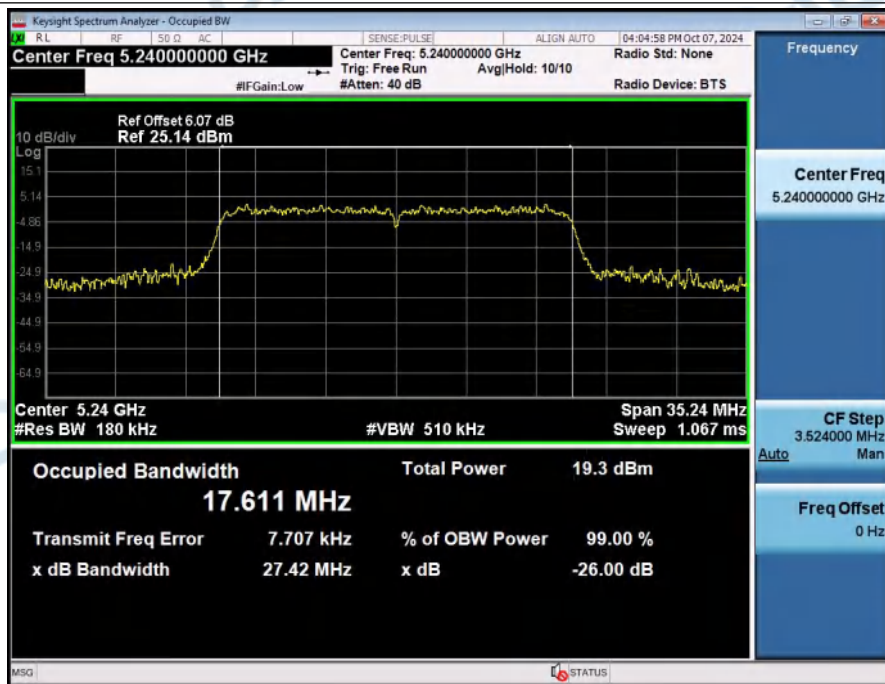
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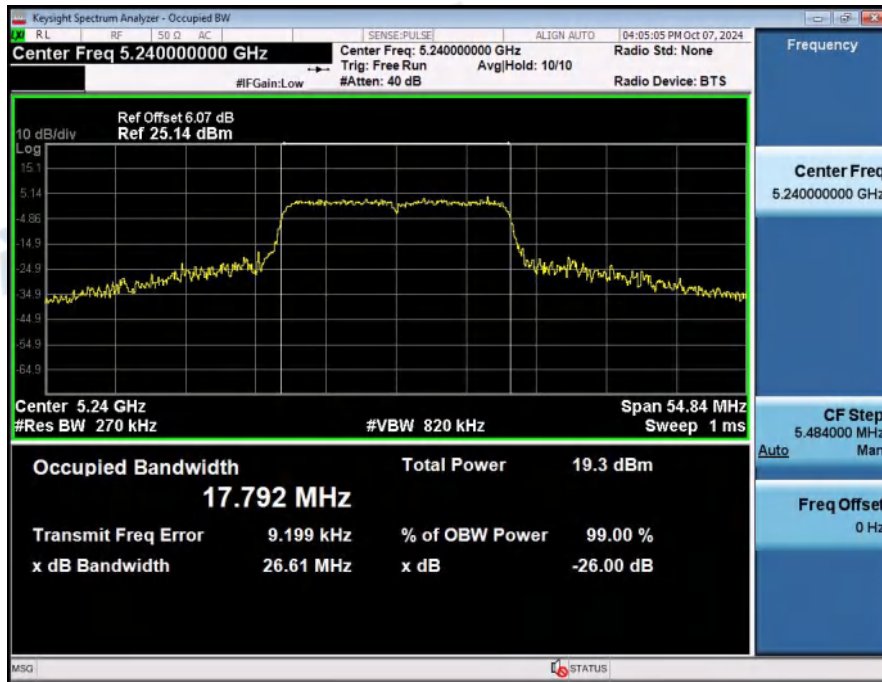
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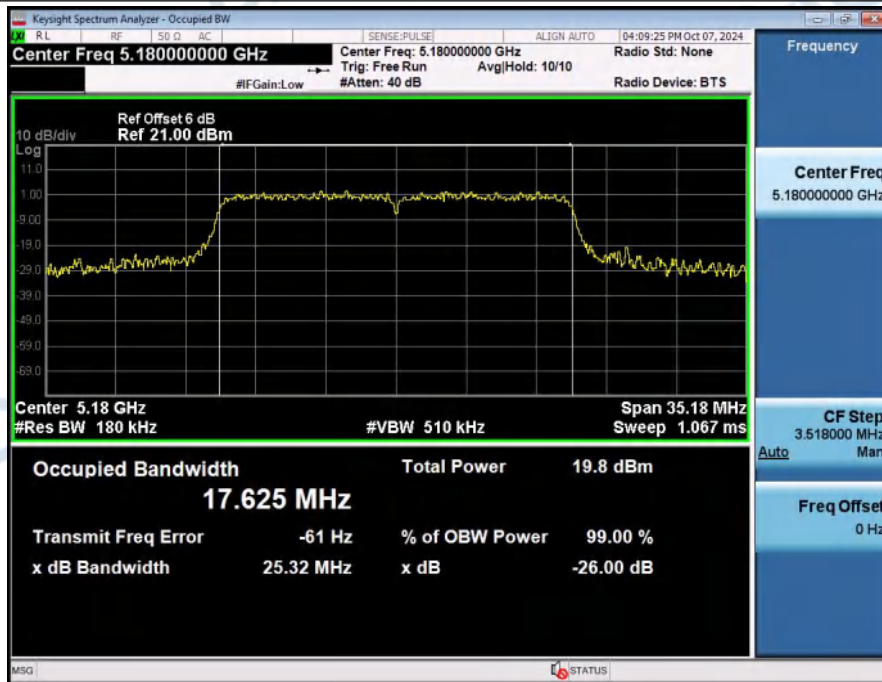
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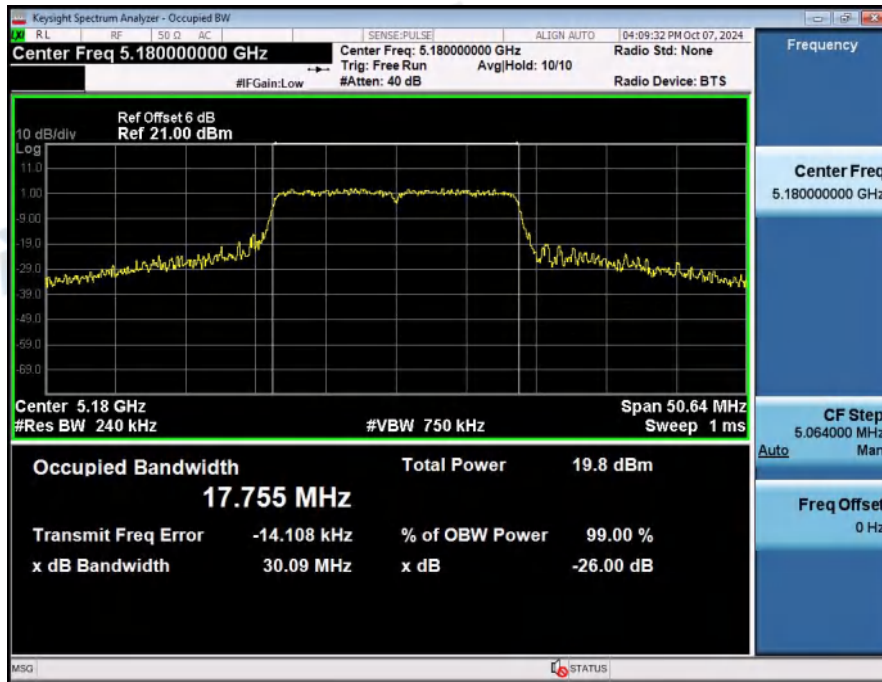
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99%_OCB_NVNT_ANT1_802_11ac(VHT20)_5180



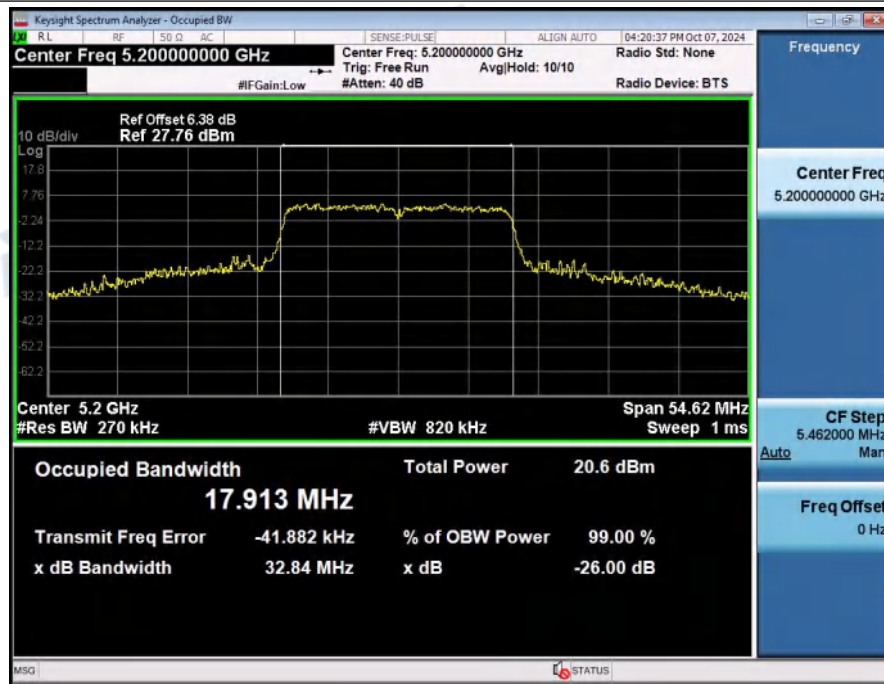
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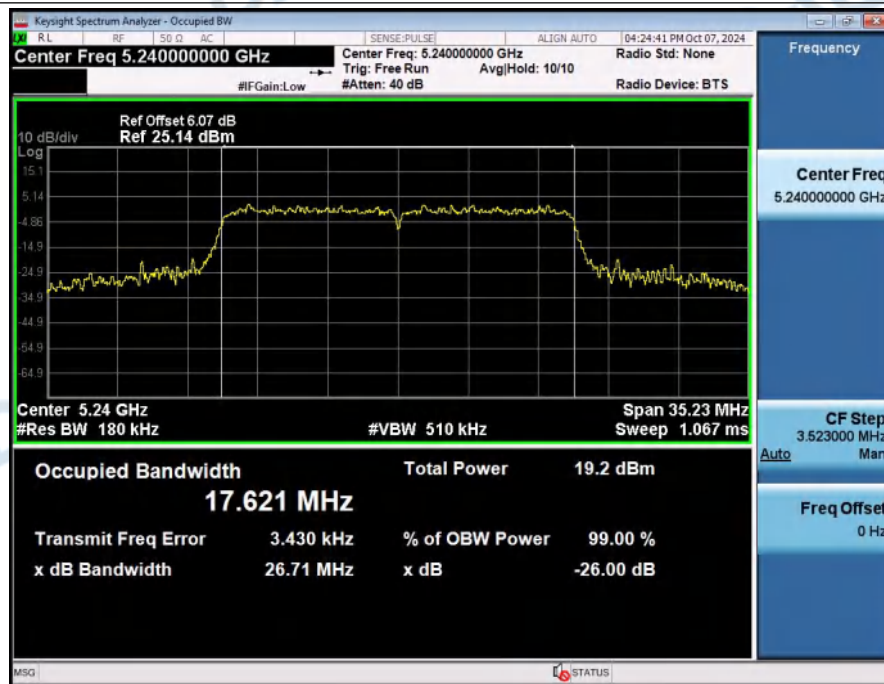
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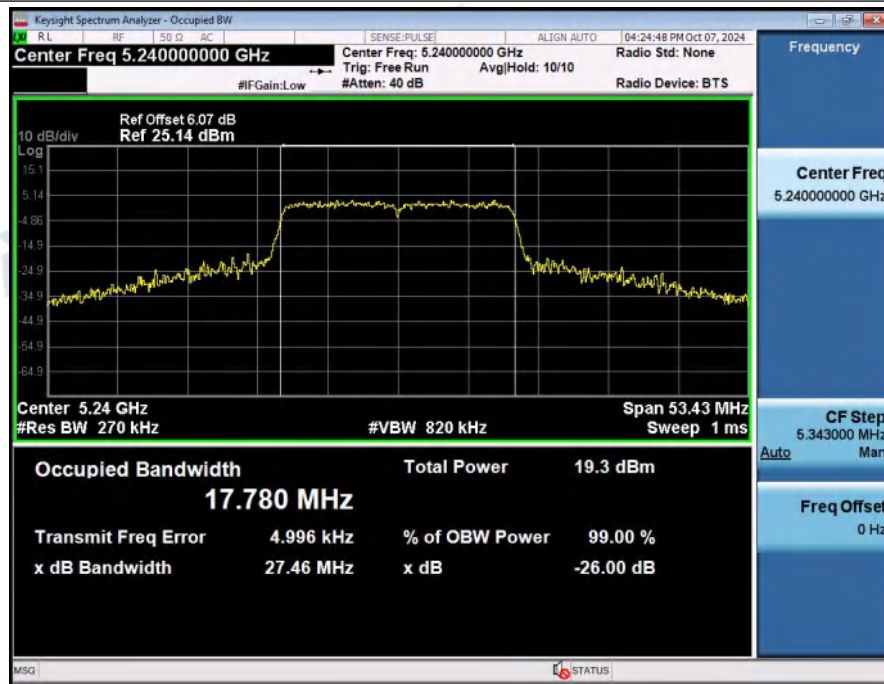
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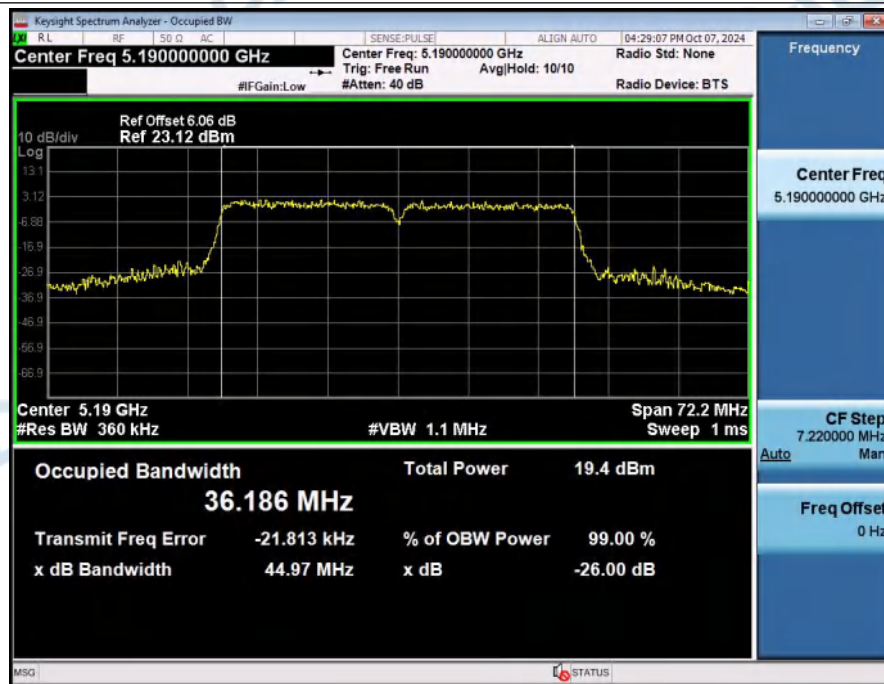
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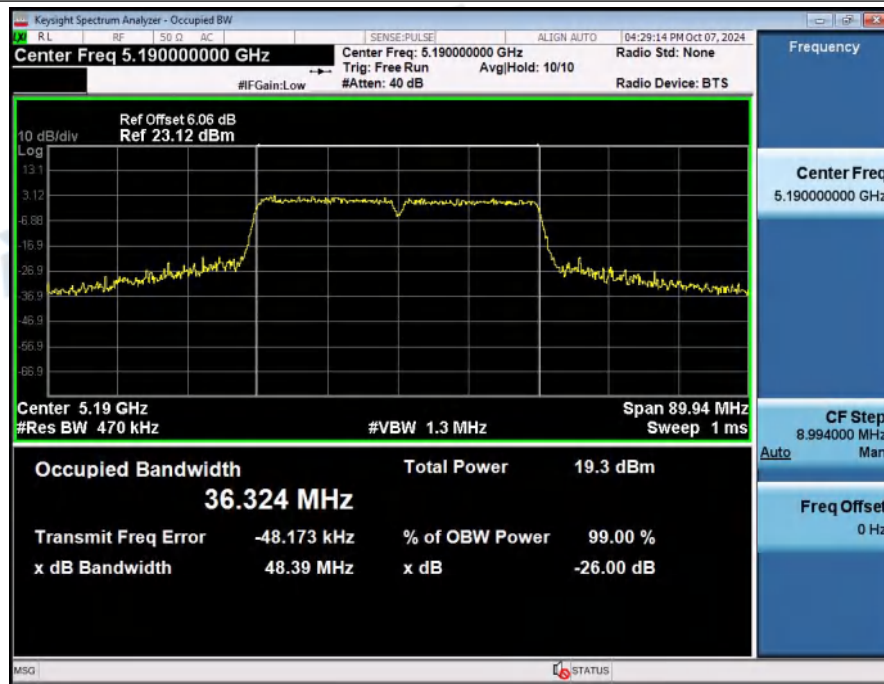
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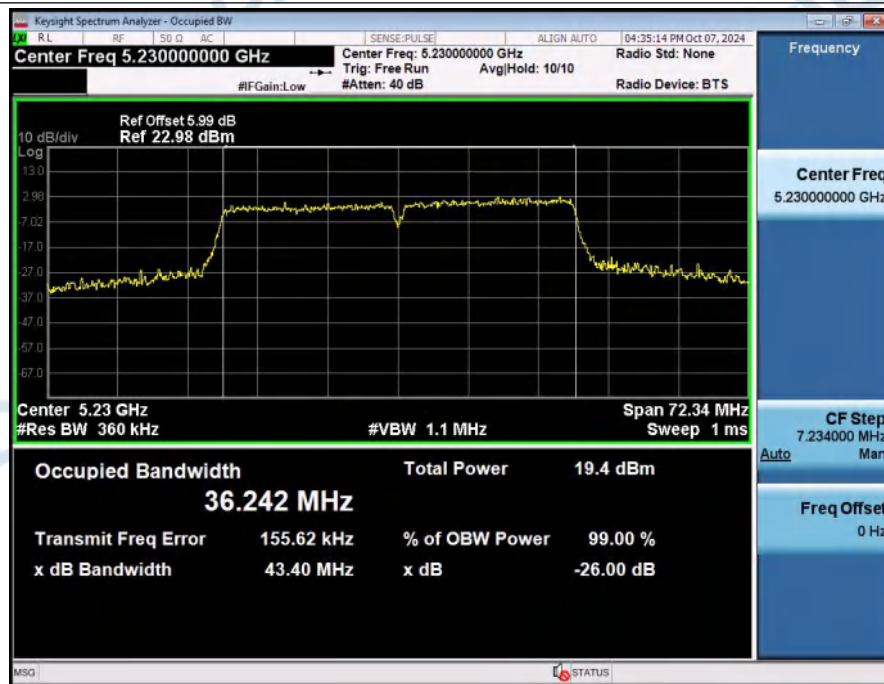
99%_OCB_NVNT_ANT1_802_11n(HT40)_5190



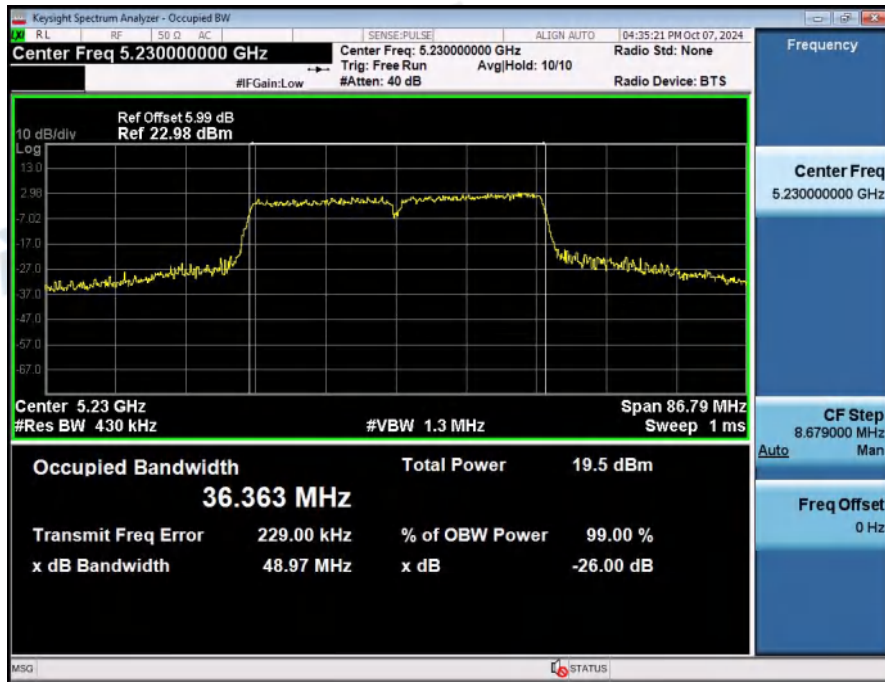
-26BW_NVNT_ANT1_802_11n(HT40)_5190



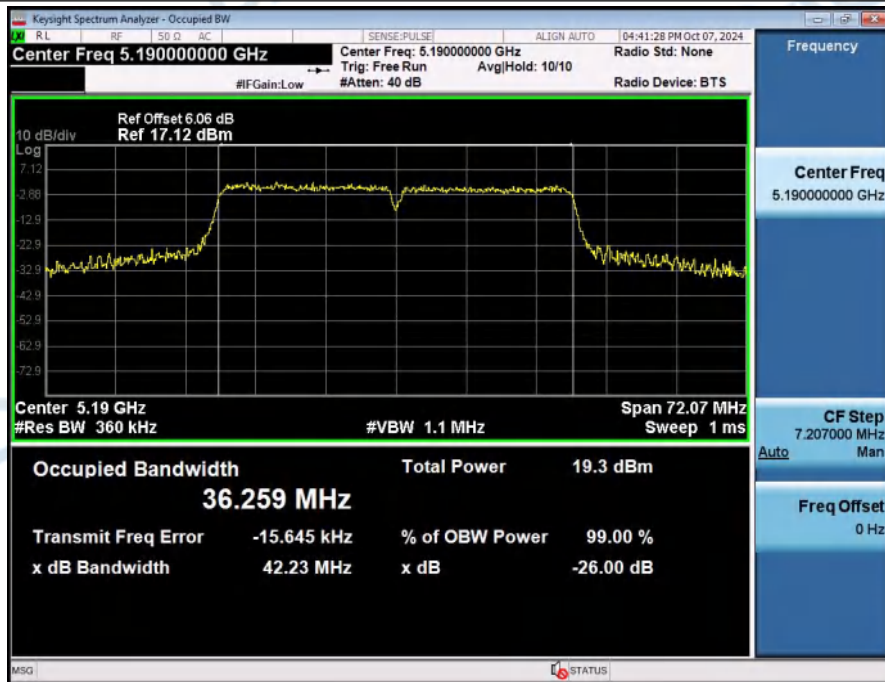
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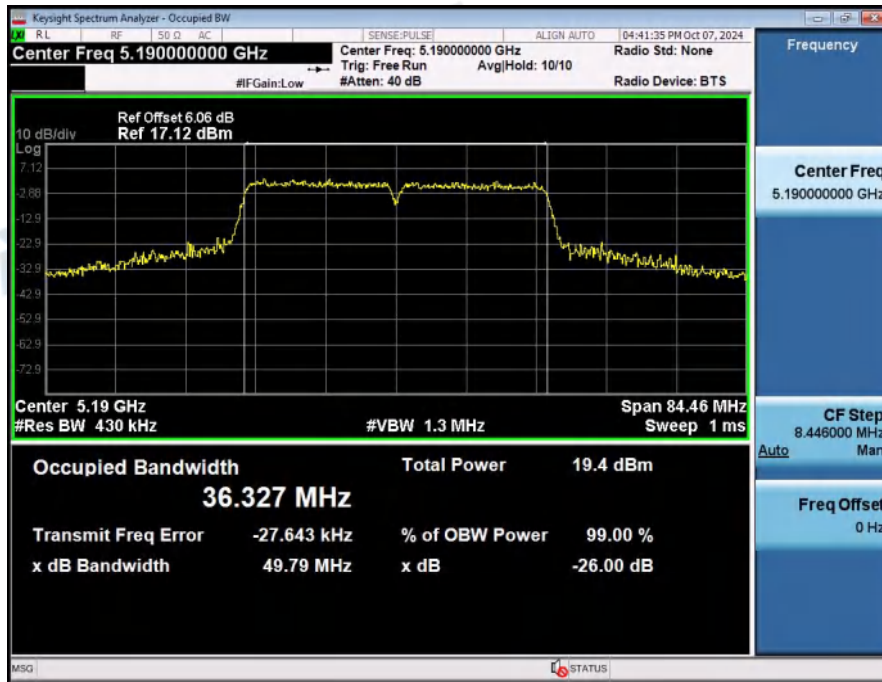
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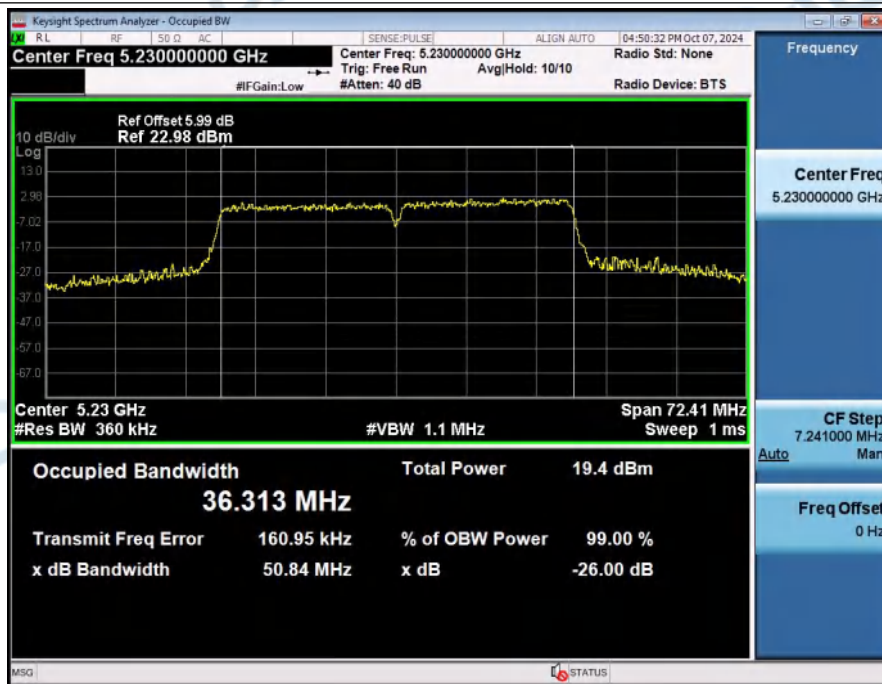
99%_OCB_NVNT_ANT1_802_11ac(VHT40)_5190



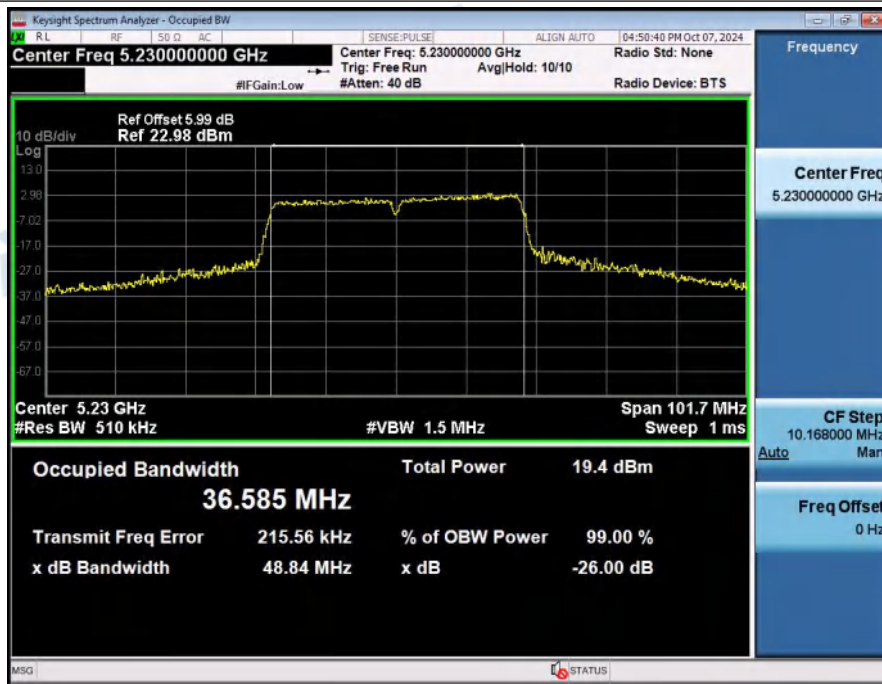
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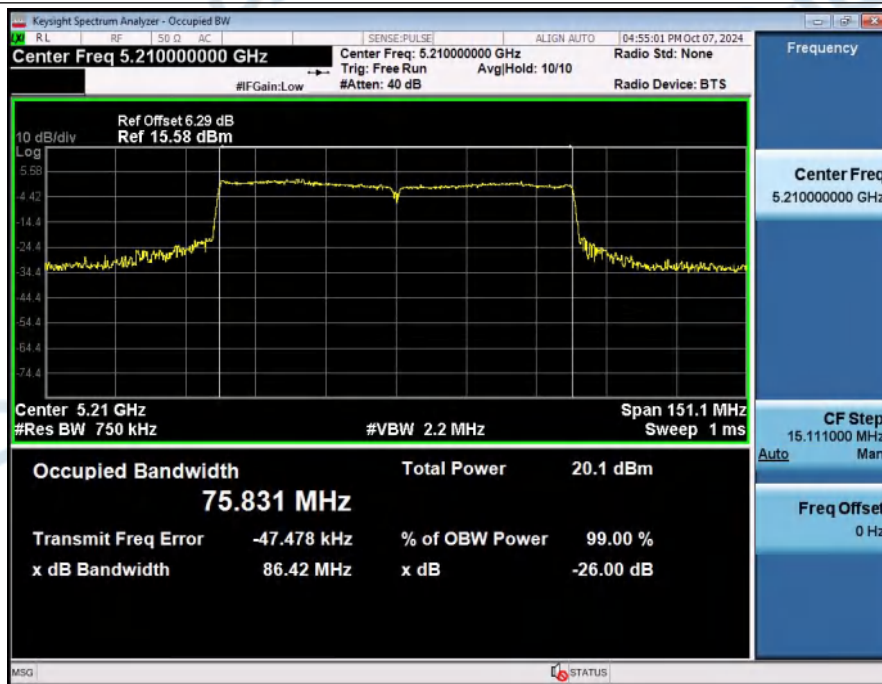
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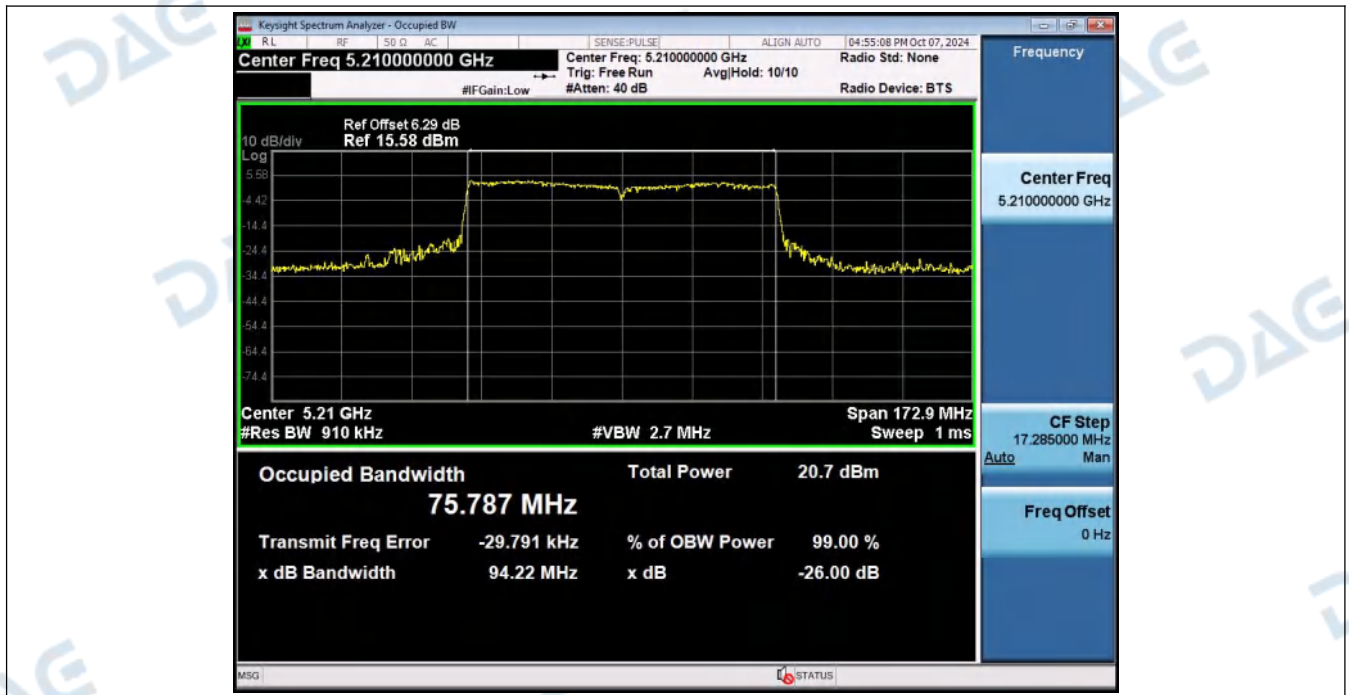
-26BW_NVNT_ANT1_802_11ac(VHT40)_5230



99%_OCB_NVNT_ANT1_802_11ac(VHT80)_5210



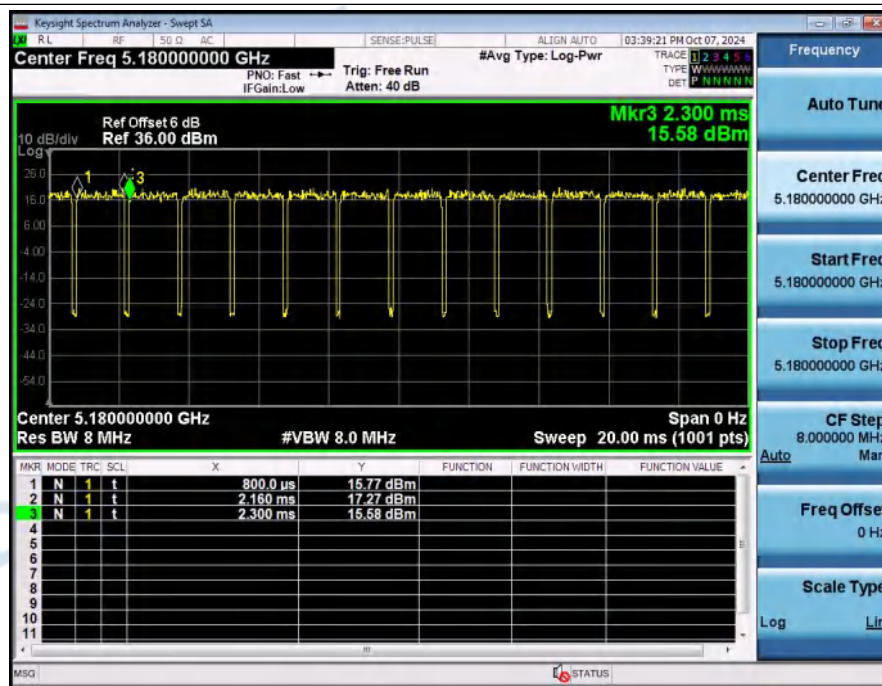
-26BW_NVNT_ANT1_802_11ac(VHT80)_5210



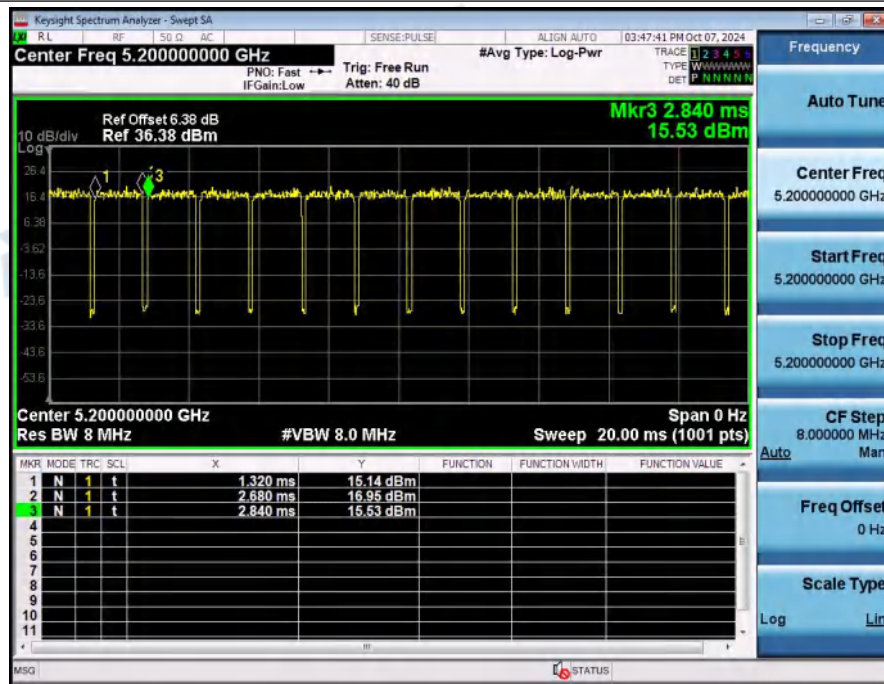
2. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5180.00	90.67	0.43
NVNT	ANT1	802.11a	5200.00	89.47	0.48
NVNT	ANT1	802.11a	5240.00	90.67	0.43
NVNT	ANT1	802.11n(HT20)	5180.00	90.14	0.45
NVNT	ANT1	802.11n(HT20)	5200.00	90.14	0.45
NVNT	ANT1	802.11n(HT20)	5240.00	88.73	0.52
NVNT	ANT1	802.11ac(VHT20)	5180.00	88.89	0.51
NVNT	ANT1	802.11ac(VHT20)	5200.00	88.89	0.51
NVNT	ANT1	802.11ac(VHT20)	5240.00	90.14	0.45
NVNT	ANT1	802.11n(HT40)	5190.00	82.05	0.86
NVNT	ANT1	802.11n(HT40)	5230.00	82.05	0.86
NVNT	ANT1	802.11ac(VHT40)	5190.00	82.05	0.86
NVNT	ANT1	802.11ac(VHT40)	5230.00	82.05	0.86
NVNT	ANT1	802.11ac(VHT80)	5210.00	69.57	1.58

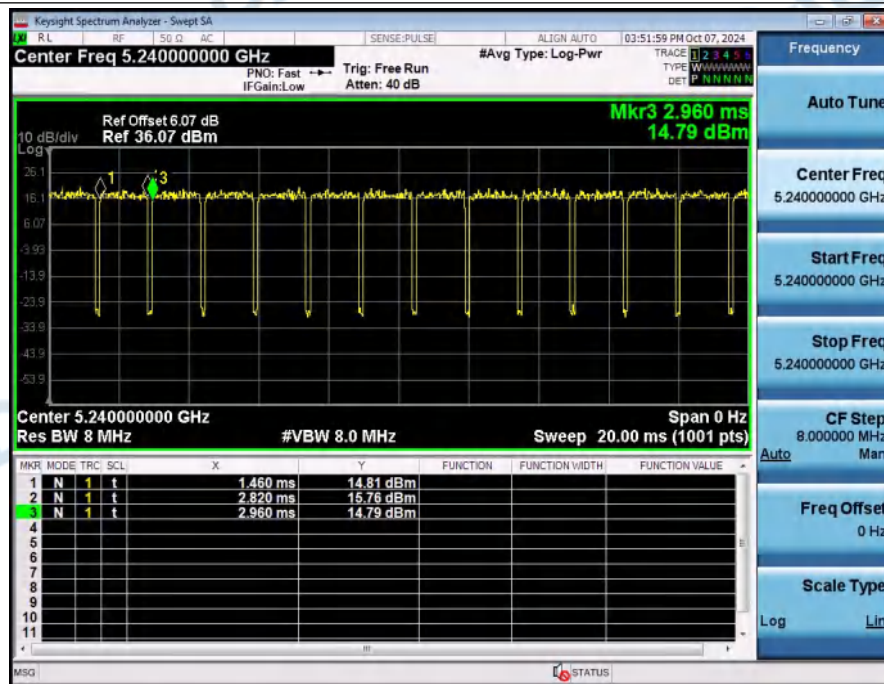
Duty_Cycle_NVNT_ANT1_802_11a_5180



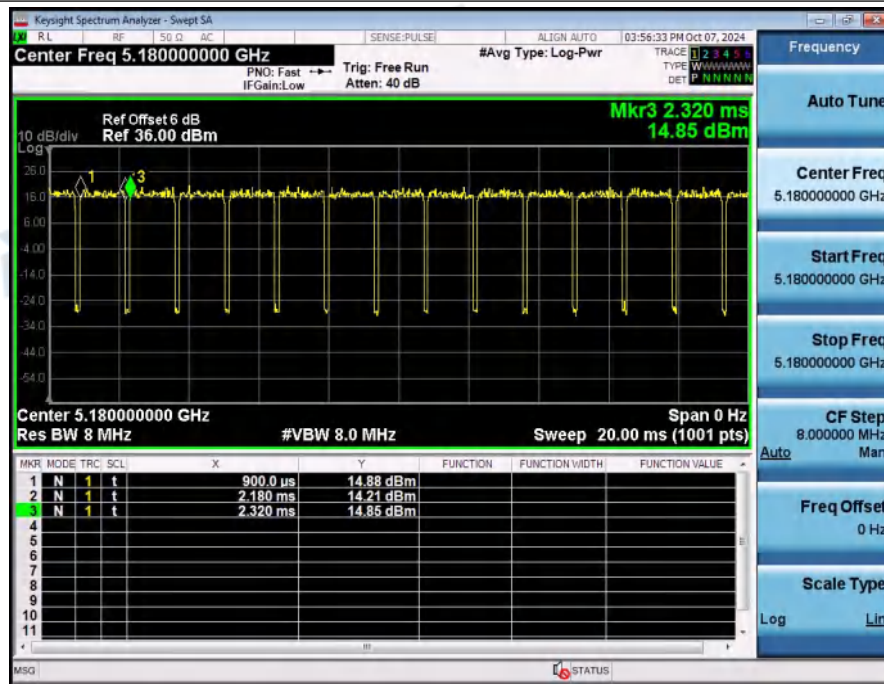
Duty_Cycle_NVNT_ANT1_802_11a_5200



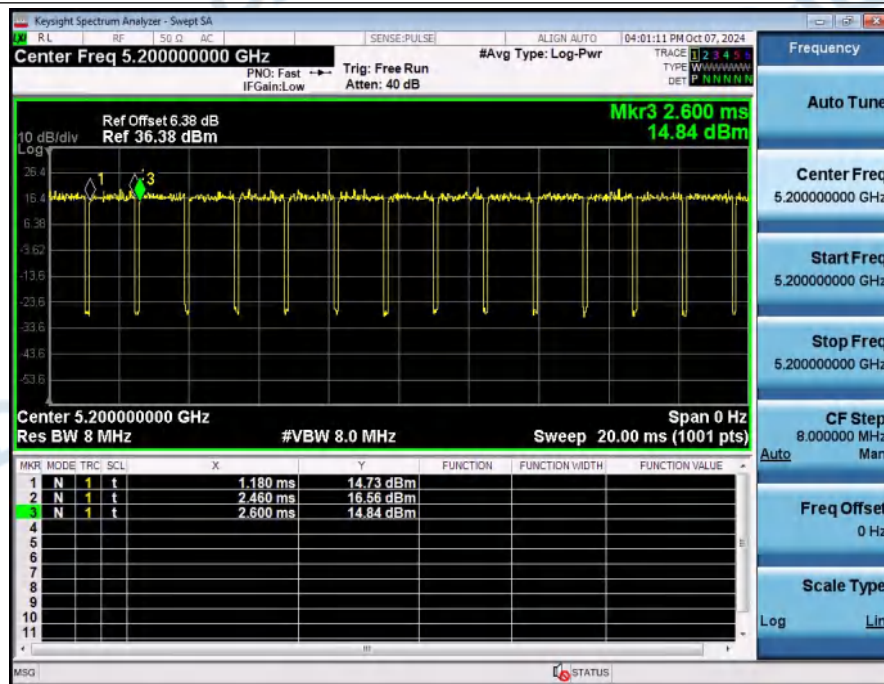
Duty_Cycle_NVNT_ANT1_802_11a_5240



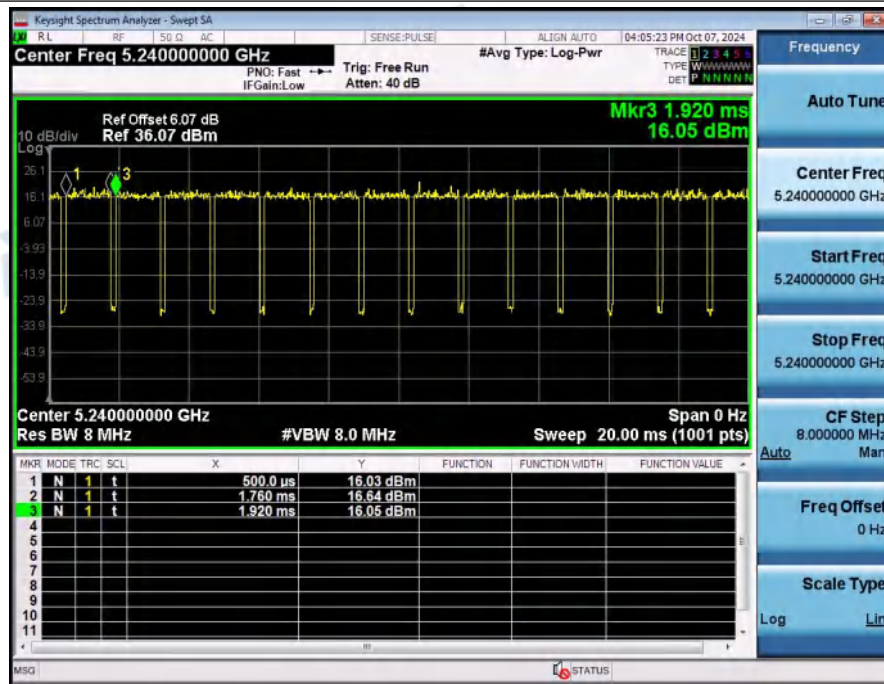
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_5180



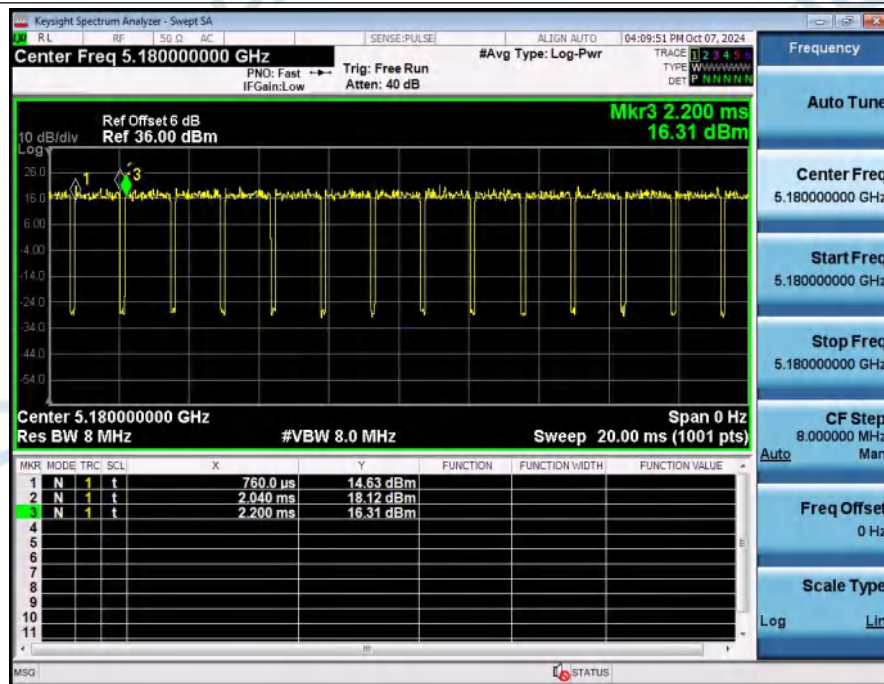
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_5200



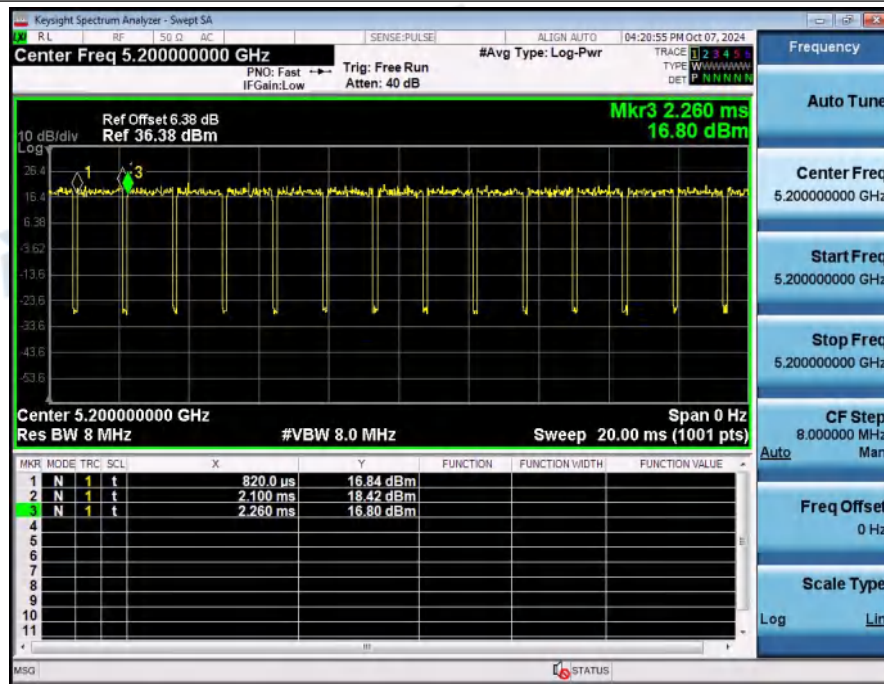
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_5240



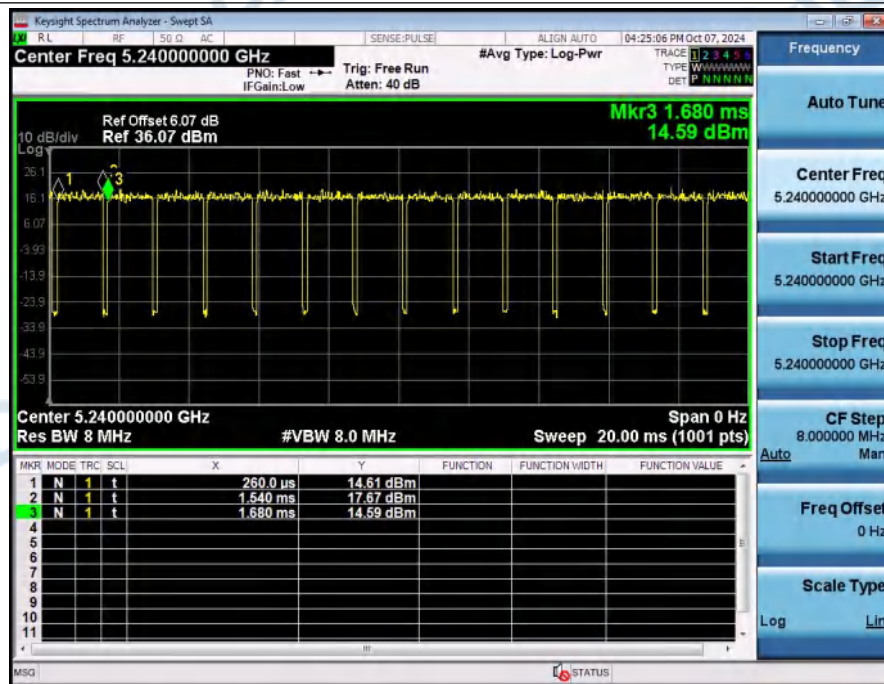
Duty_Cycle_NVNT_ANT1_802_11ac(VHT20)_5180



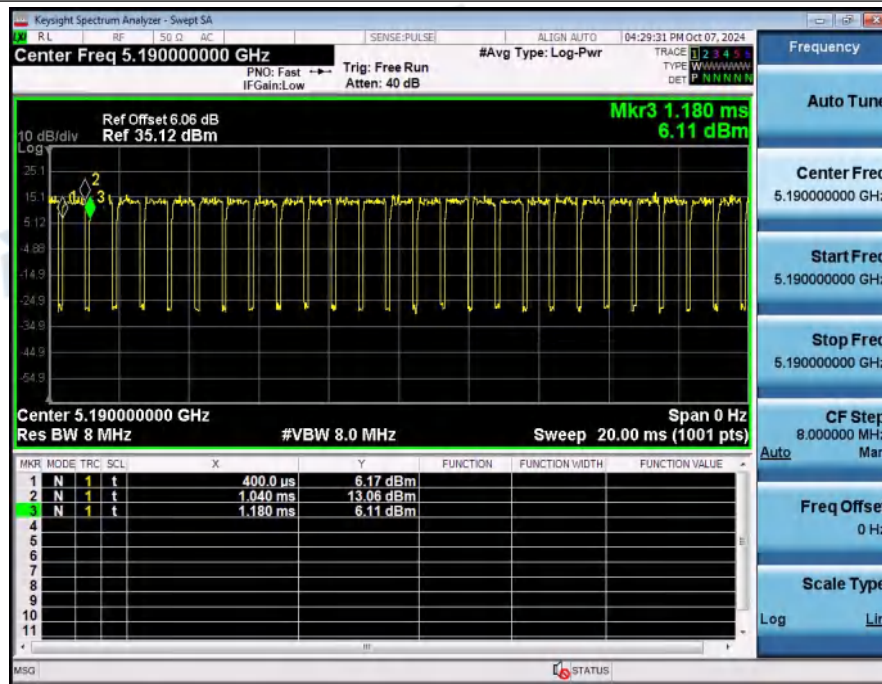
Duty_Cycle_NVNT_ANT1_802_11ac(VHT20)_5200



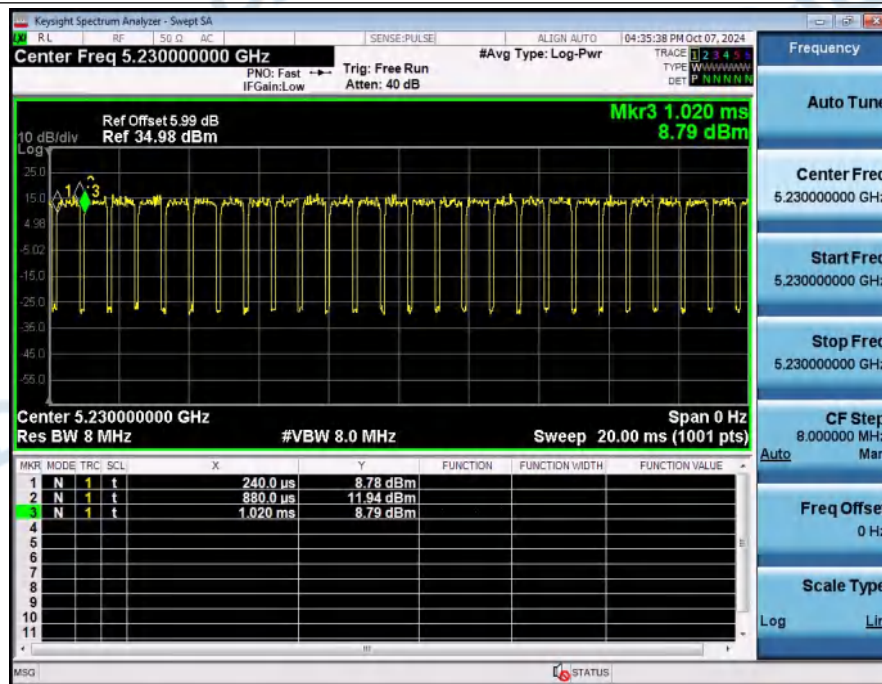
Duty_Cycle_NVNT_ANT1_802_11ac(VHT20)_5240



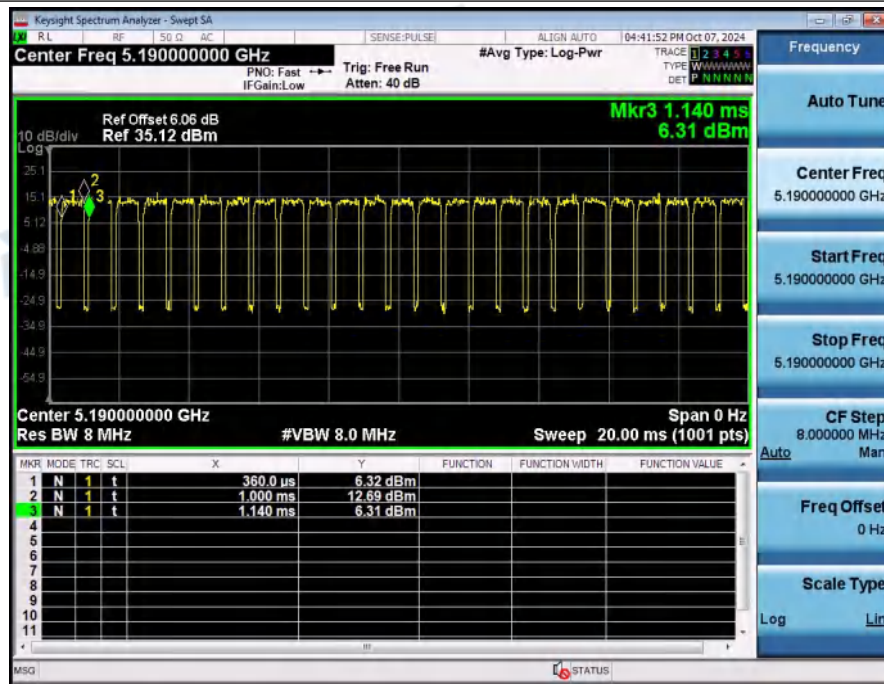
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5190



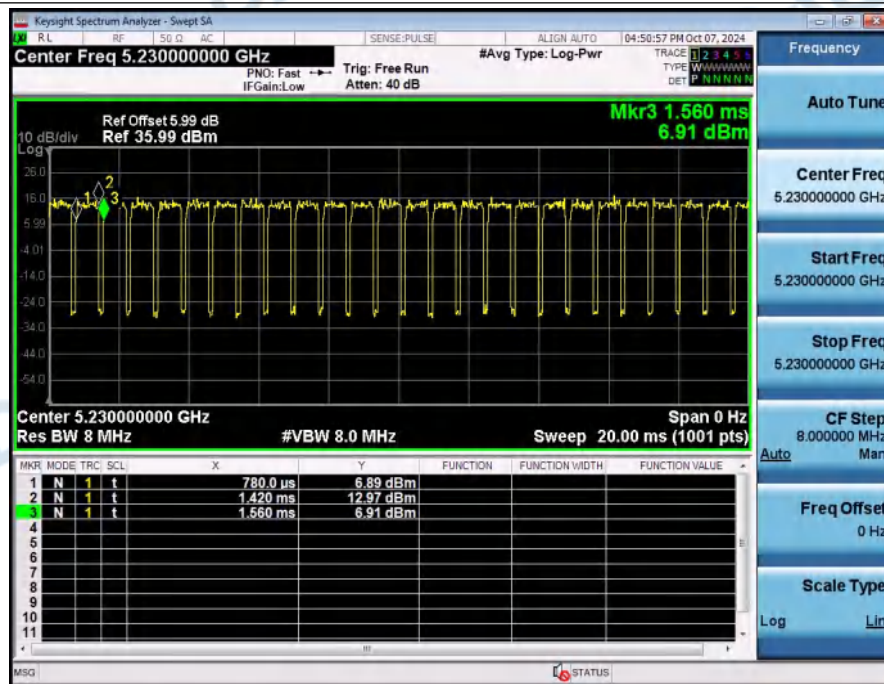
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5230



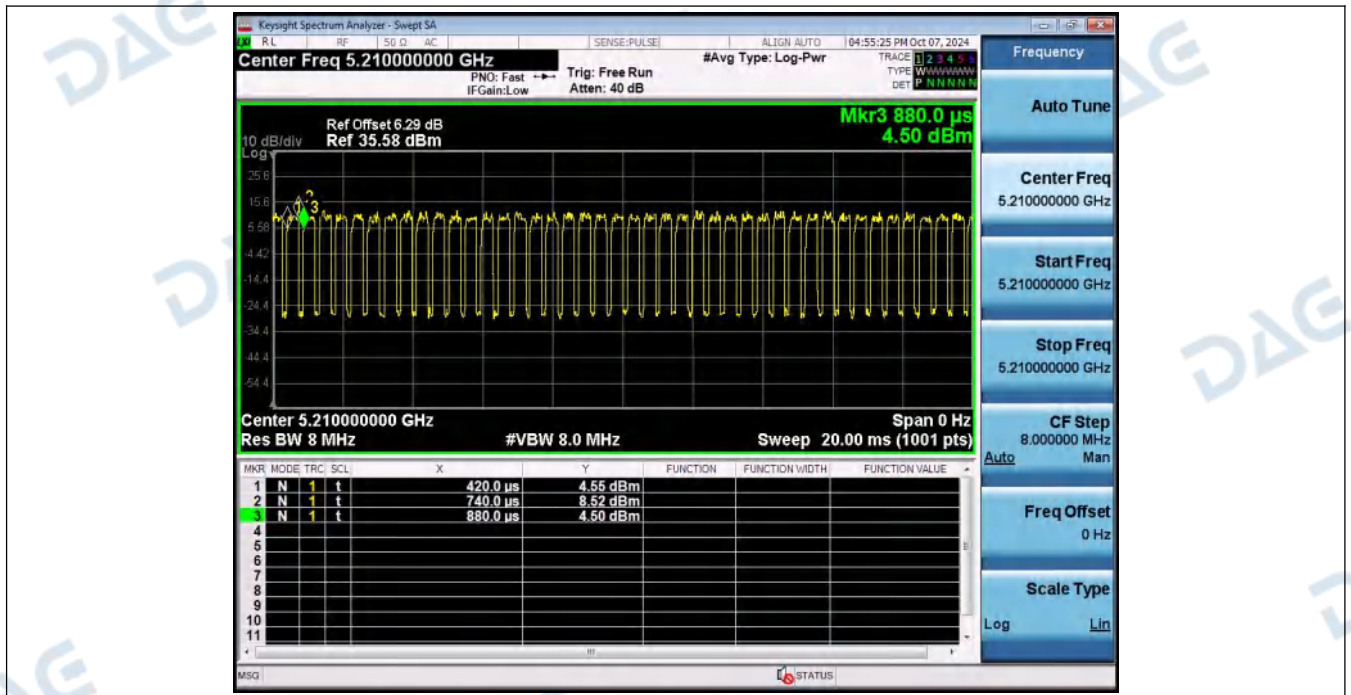
Duty_Cycle_NVNT_ANT1_802_11ac(VHT40)_5190



Duty_Cycle_NVNT_ANT1_802_11ac(VHT40)_5230



Duty_Cycle_NVNT_ANT1_802_11ac(VHT80)_5210



3. Maximum Conducted Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	12.78	0.43	13.21	24	Pass
NVNT	ANT1	802.11a	5200.00	12.55	0.48	13.03	24	Pass
NVNT	ANT1	802.11a	5240.00	12.26	0.43	12.69	24	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	12.54	0.45	12.99	24	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	12.53	0.45	12.98	24	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	12.36	0.52	12.88	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	12.72	0.51	13.23	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	13.58	0.51	14.09	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	12.38	0.45	12.83	24	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	11.93	0.86	12.79	24	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	12.25	0.86	13.11	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	12.00	0.86	12.86	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	12.10	0.86	12.96	24	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	11.84	1.58	13.42	24	Pass

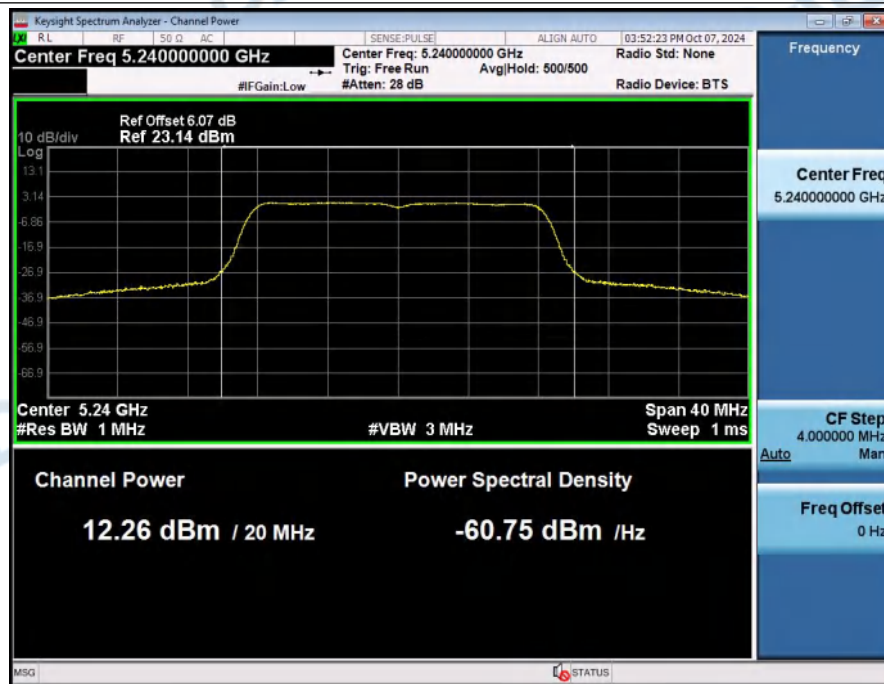
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Maximum_Conducted_Output_Power_NVNT_ANT1_802_11a_5200_20M



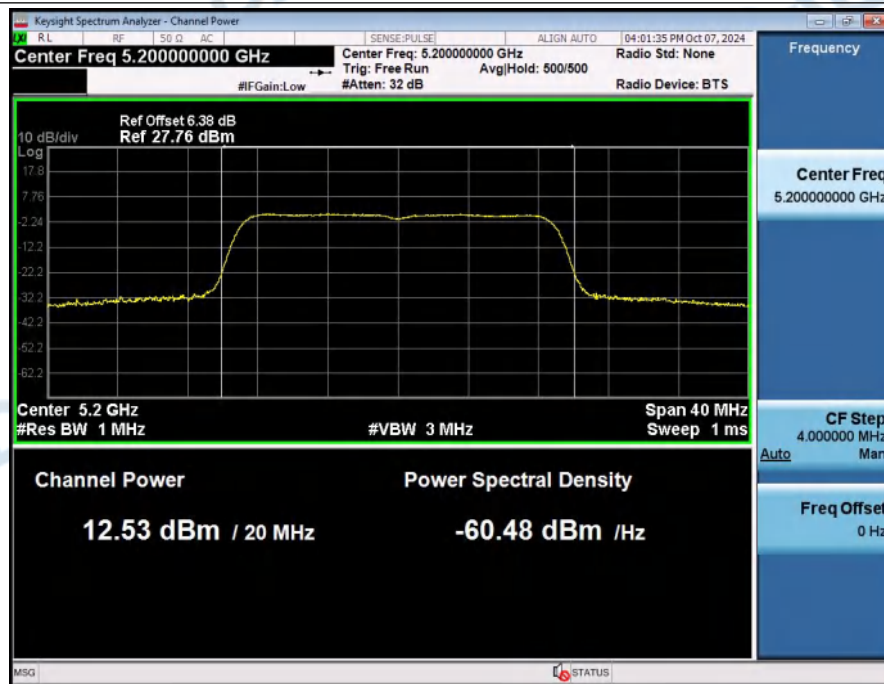
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Maximum_Conducted_Output_Power_NVNT_ANT1_802_11n(HT20)_5180_20M



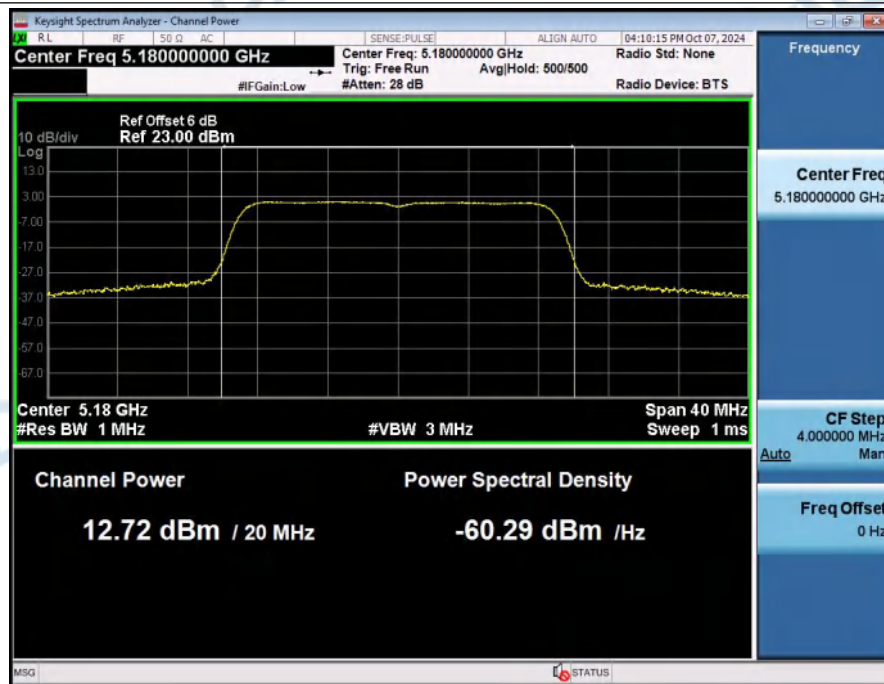
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Maximum_Conducted_Output_Power_NVNT_ANT1_802_11n(HT20)_5240_20M



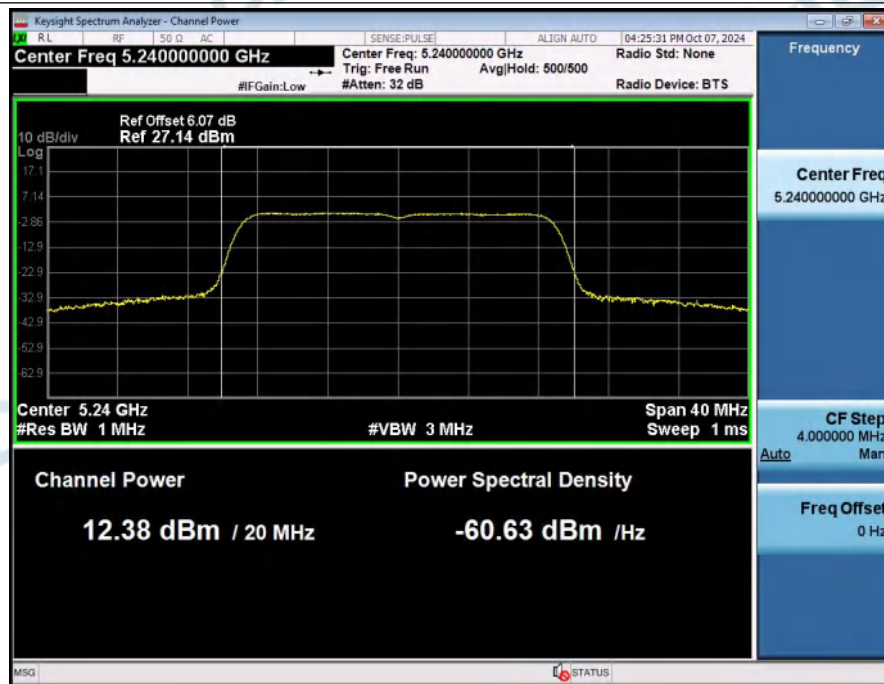
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT20)_5180_20M



Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT20)_5200_20M



Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT20)_5240_20M



Maximum_Conducted_Output_Power_NVNT_ANT1_802_11n(HT40)_5190_40M



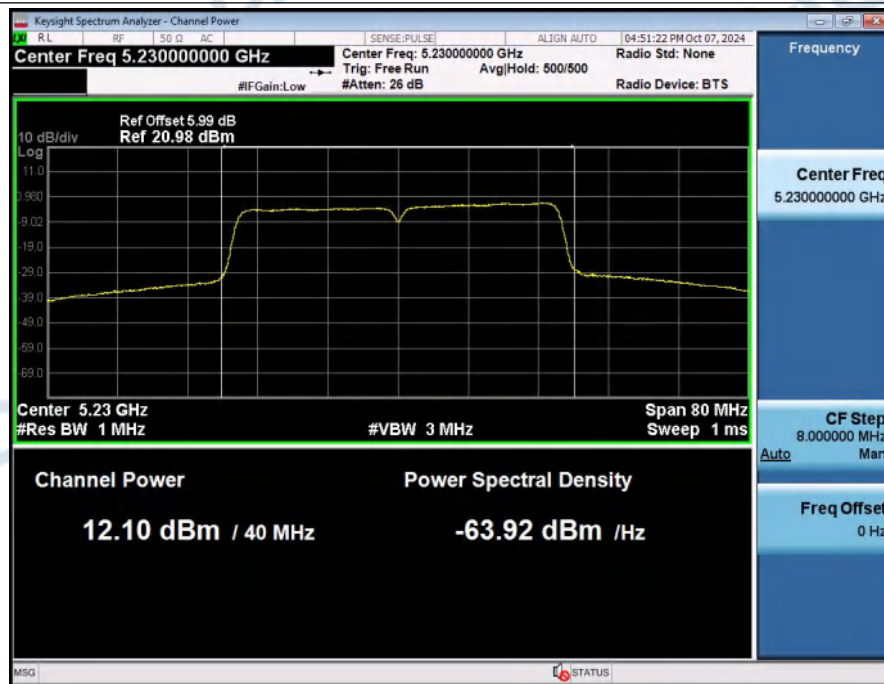
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11n(HT40)_5230_40M



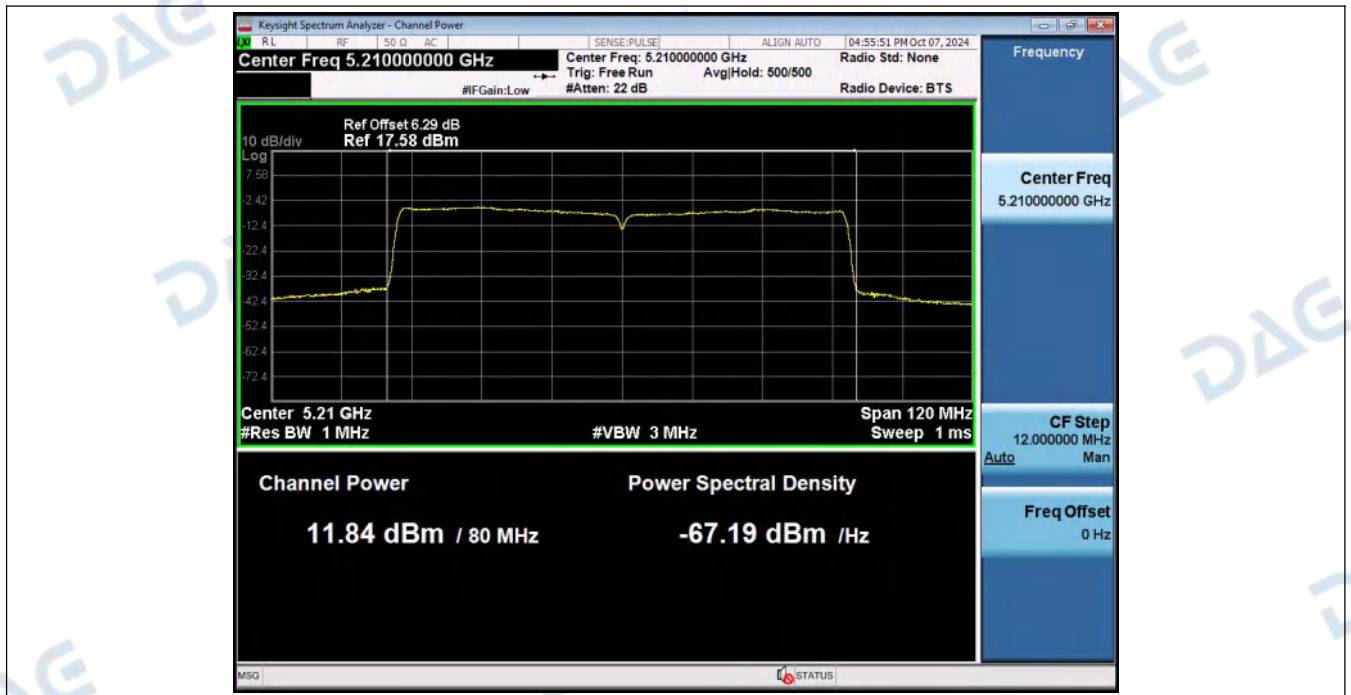
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT40)_5190_40M



Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT40)_5230_40M



Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT80)_5210_80M



4. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/MHz)	Duty factor(dB)	Total PSD(dBm/MHz)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	-4.76	0.43	-4.33	11	Pass
NVNT	ANT1	802.11a	5200.00	-3.92	0.48	-3.44	11	Pass
NVNT	ANT1	802.11a	5240.00	-4.30	0.43	-3.87	11	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	-4.47	0.45	-4.02	11	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	-4.69	0.45	-4.24	11	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	-4.57	0.52	-4.05	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	-4.82	0.51	-4.31	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	-3.44	0.51	-2.92	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	-3.27	0.45	-2.82	11	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	-11.87	0.86	-11.01	11	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	-12.94	0.86	-12.08	11	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	-11.10	0.86	-10.24	11	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	-10.87	0.86	-10.01	11	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	-22.43	1.58	-20.85	11	Pass

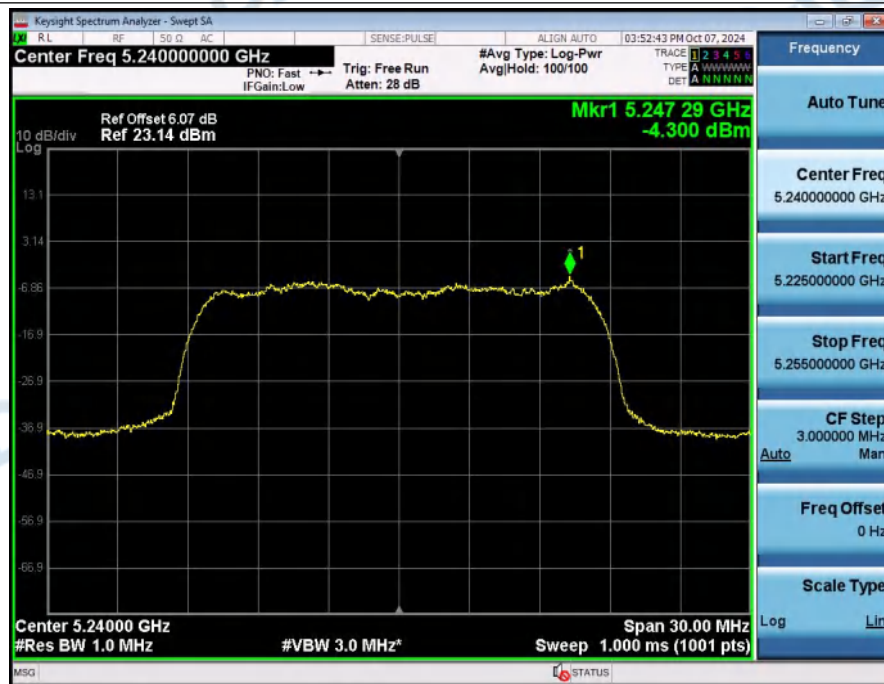
Power_Spectral_Density_NVNT_ANT1_802_11a_5180



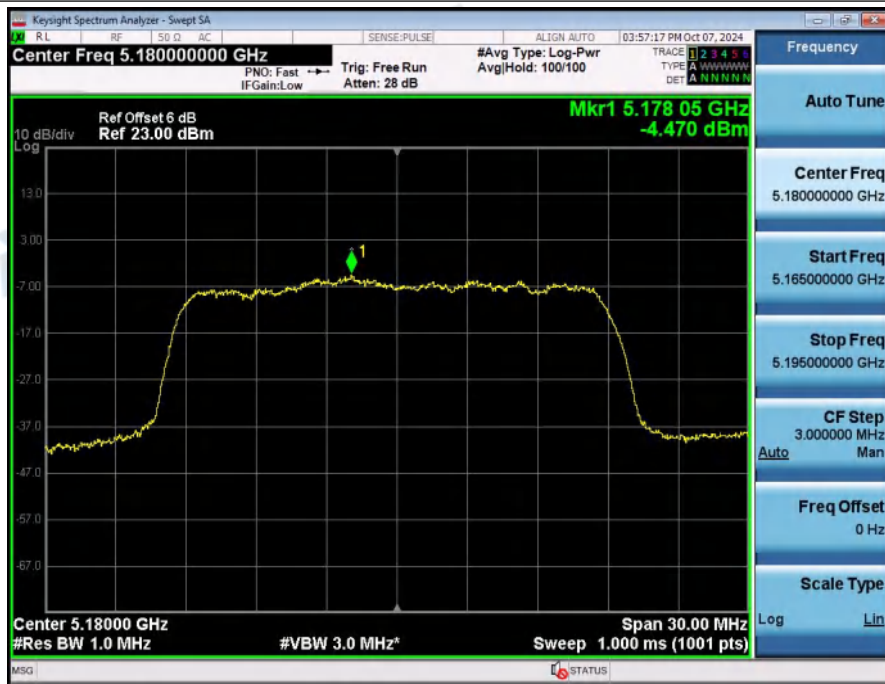
Power_Spectral_Density_NVNT_ANT1_802_11a_5200



Power_Spectral_Density_NVNT_ANT1_802_11a_5240



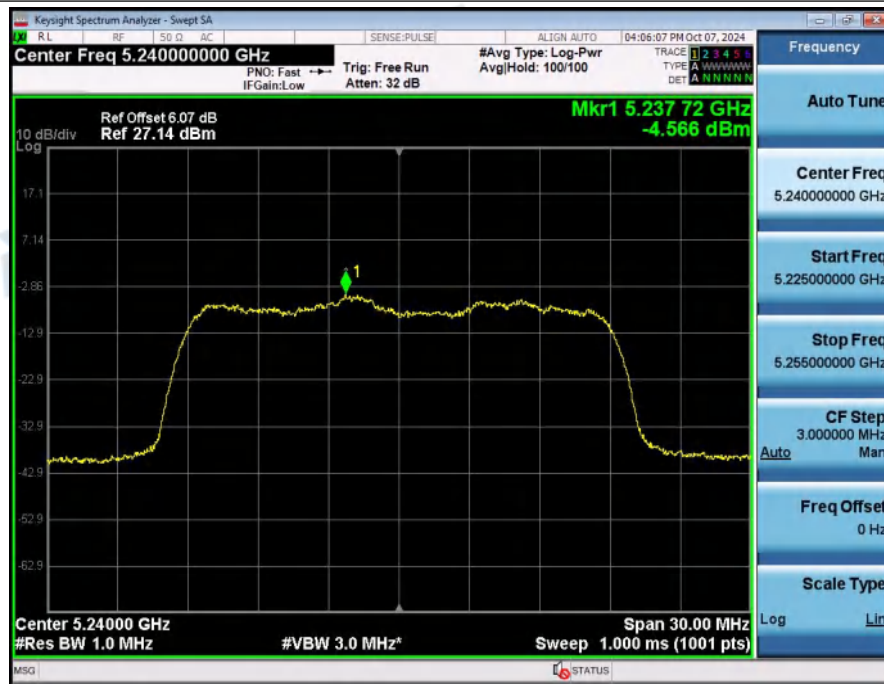
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5180



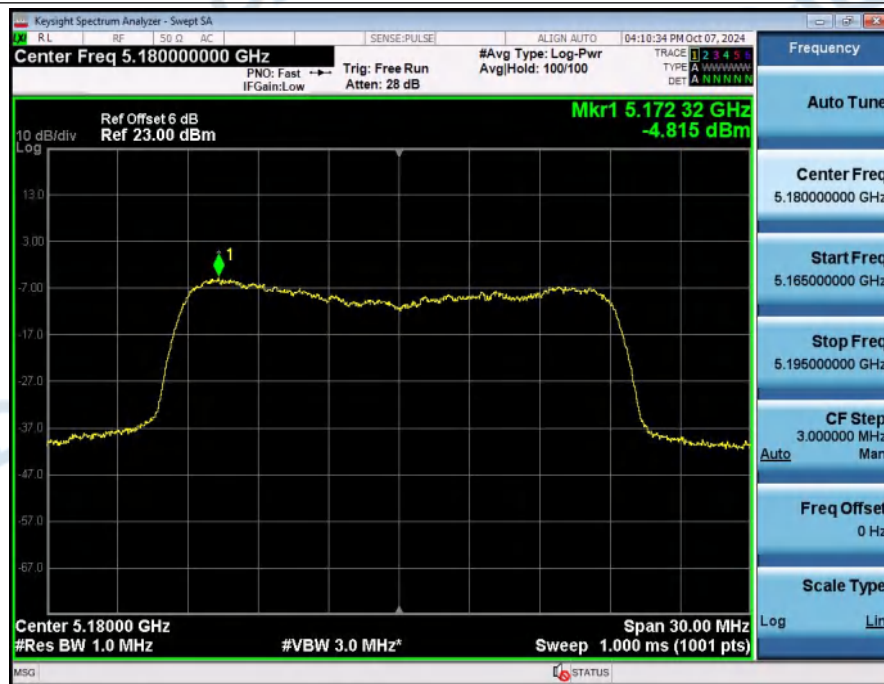
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5200



Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5240



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT20)_5180



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT20)_5200



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT20)_5240



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5190



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5230



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT40)_5190



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT40)_5230



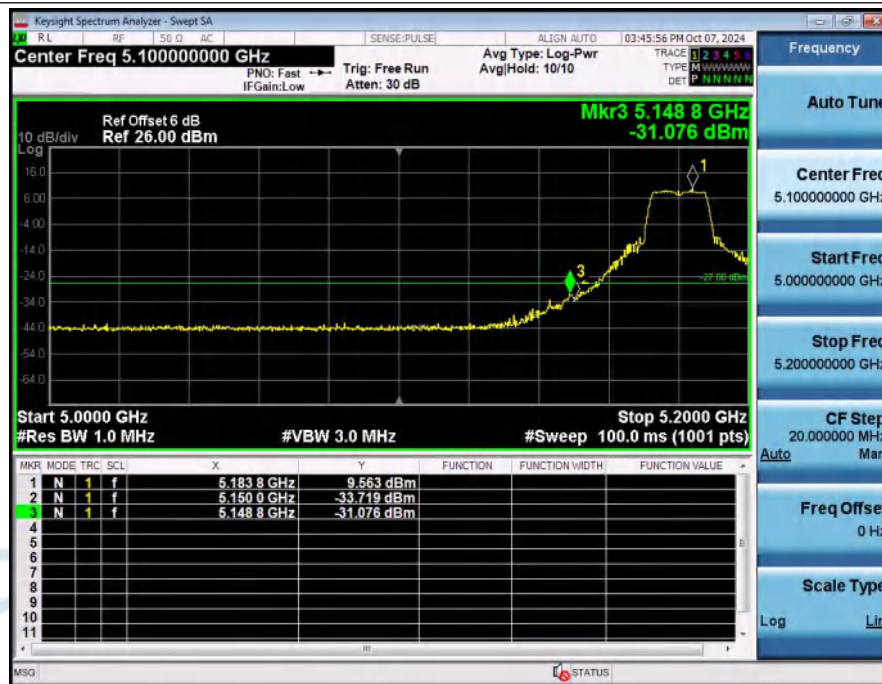
Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT80)_5210



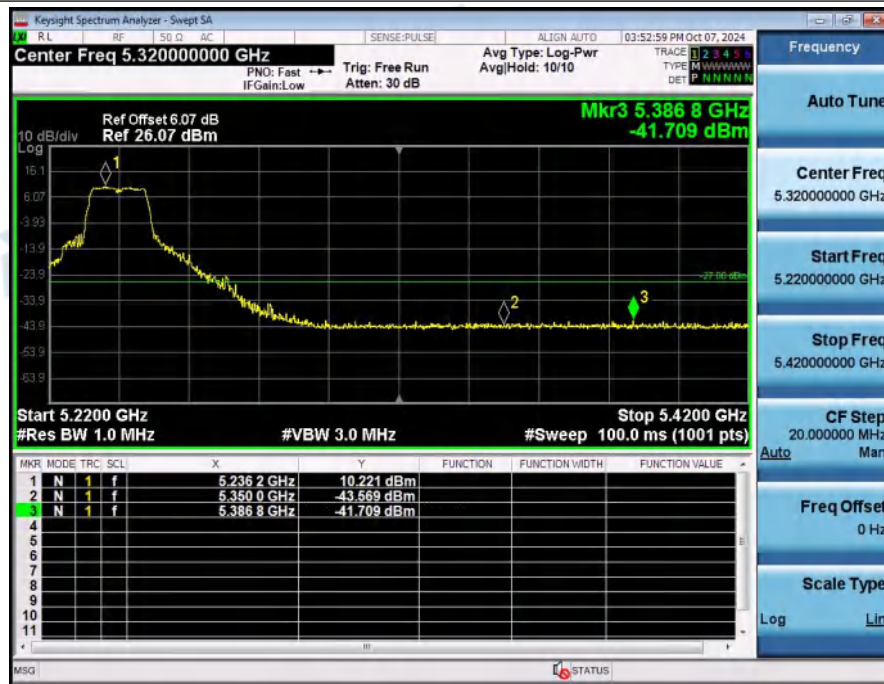
5. Bandedge

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark Frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	5148.80	-31.08	-27	Pass
NVNT	ANT1	802.11a	5240.00	5386.80	-41.71	-27	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	5149.40	-27.75	-27	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	5359.60	-41.50	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	5004.80	-33.28	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	5358.80	-42.33	-27	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	5149.52	-30.35	-27	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	5360.15	-41.84	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	5149.10	-36.84	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	5385.14	-41.85	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	5147.42	-29.76	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	5360.78	-41.52	-27	Pass

Bandedge_NVNT_ANT1_802_11a_5180



Bandedge_NVNT_ANT1_802_11a_5240



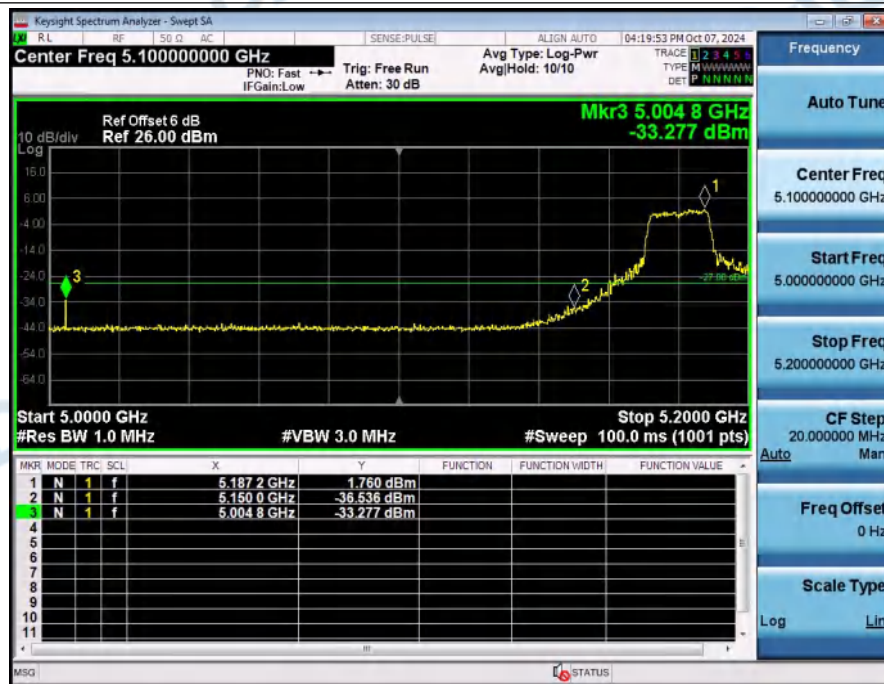
Bandedge_NVNT_ANT1_802_11n(HT20)_5180



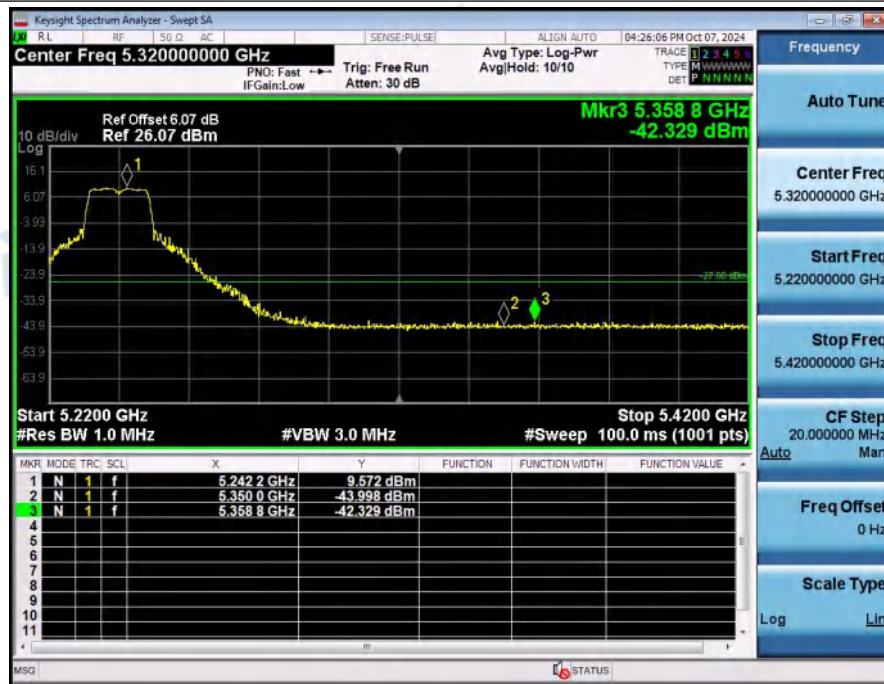
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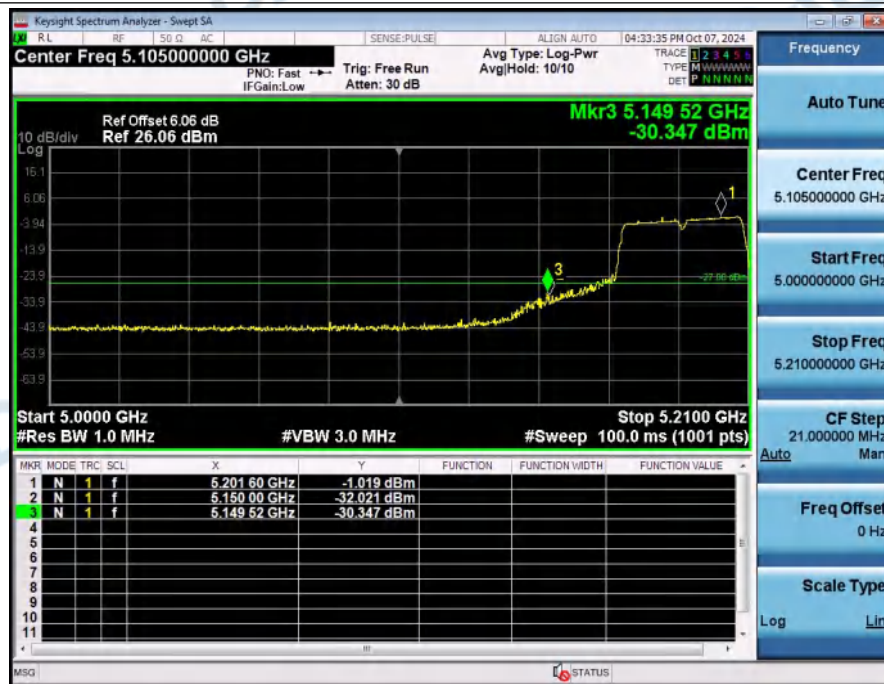
Bandedge_NVNT_ANT1_802_11ac(VHT20)_5180



Bandedge_NVNT_ANT1_802_11ac(VHT20)_5240



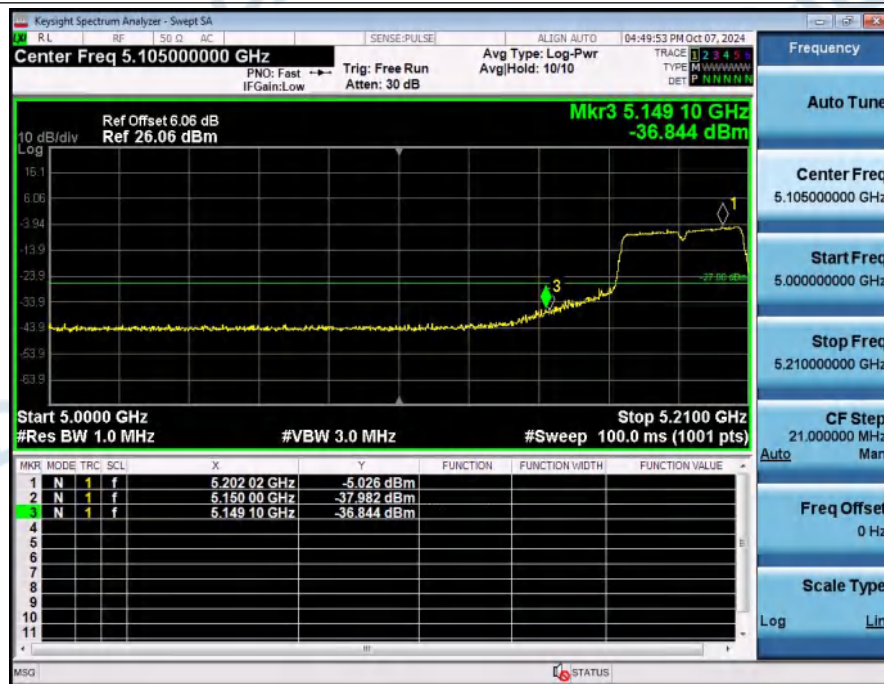
Bandedge_NVNT_ANT1_802_11n(HT40)_5190



Bandedge_NVNT_ANT1_802_11n(HT40)_5230



Bandedge_NVNT_ANT1_802_11ac(VHT40)_5190



Bandedge_NVNT_ANT1_802_11ac(VHT40)_5230



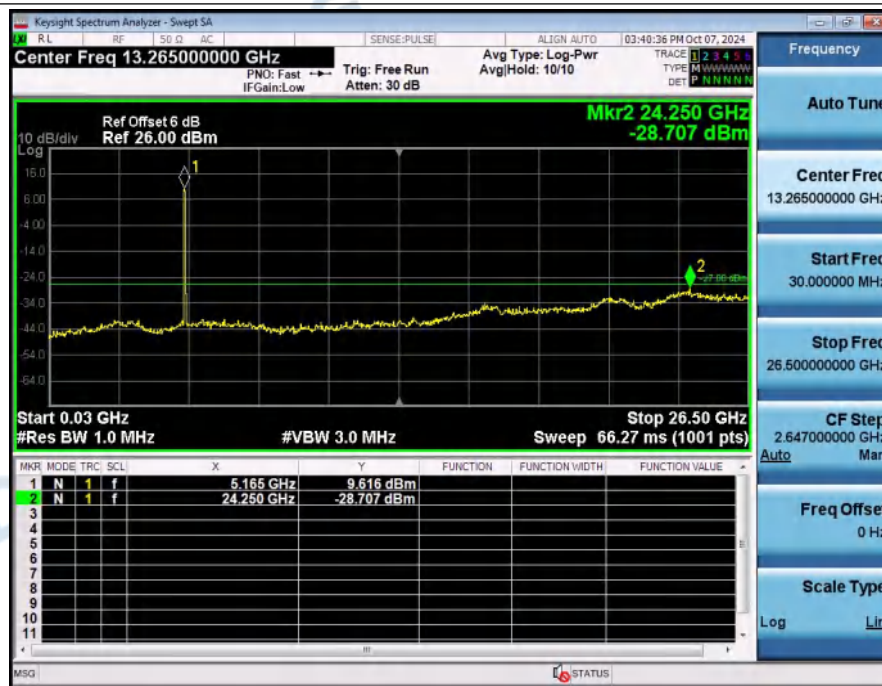
Bandedge_NVNT_ANT1_802_11ac(VHT80)_5210



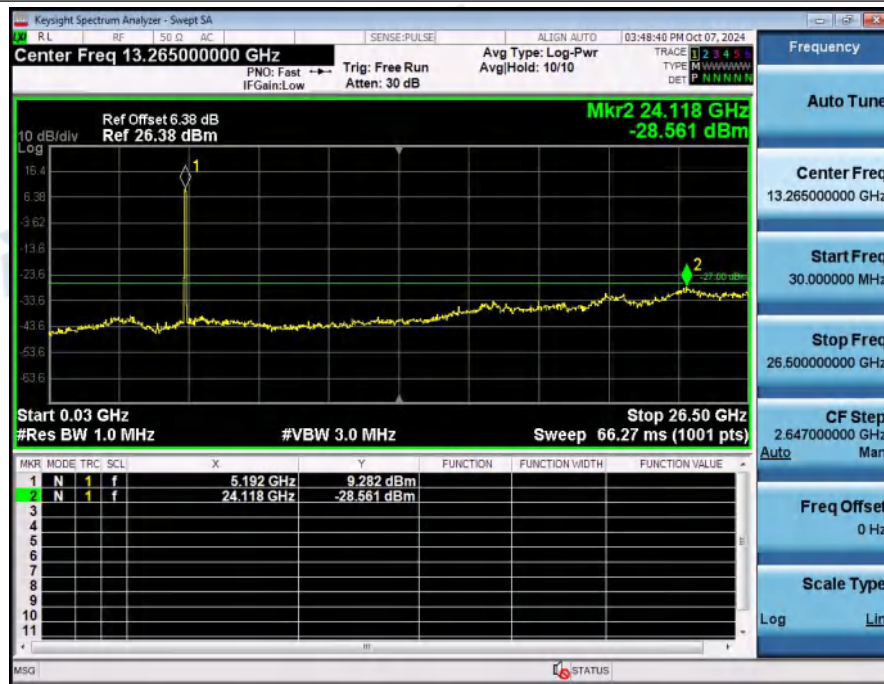
6. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark Frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	24250.05	-28.71	-27	Pass
NVNT	ANT1	802.11a	5200.00	24117.70	-28.56	-27	Pass
NVNT	ANT1	802.11a	5240.00	24302.99	-29.18	-27	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	24011.82	-28.92	-27	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	24329.46	-28.43	-27	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	24408.87	-29.58	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	24117.70	-28.50	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	24170.64	-29.30	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	24302.99	-29.18	-27	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	24170.64	-28.41	-27	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	24435.34	-28.88	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	24091.23	-29.62	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	24144.17	-28.42	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	24355.93	-28.91	-27	Pass

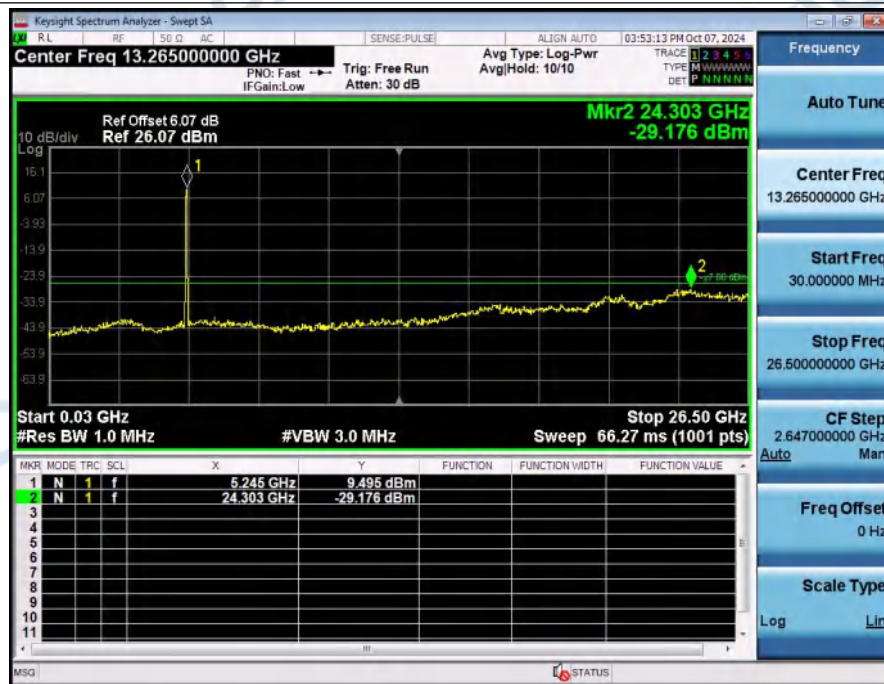
Spurious_Emission_NVNT_ANT1_802_11a_5180_20M



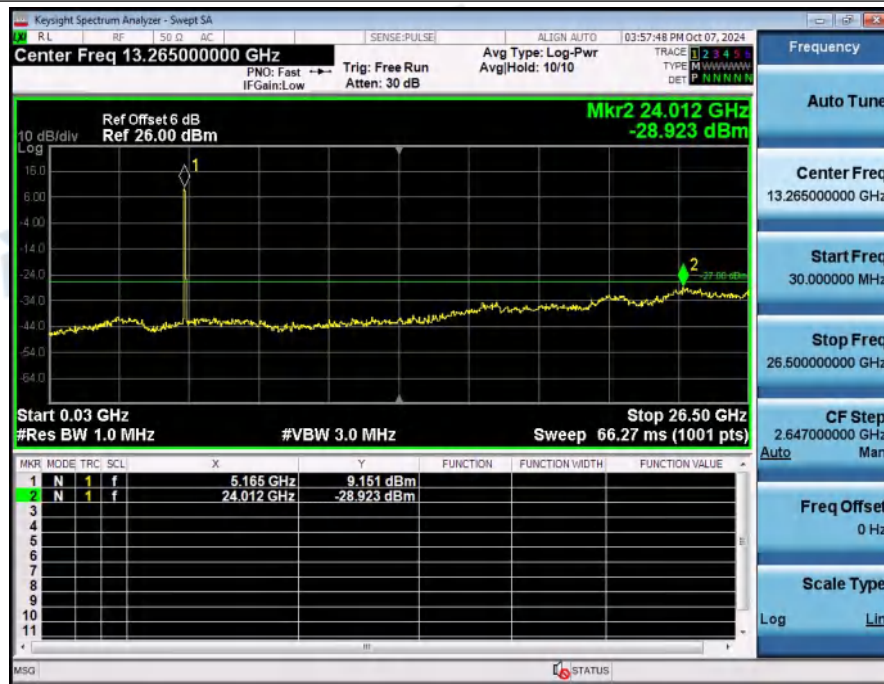
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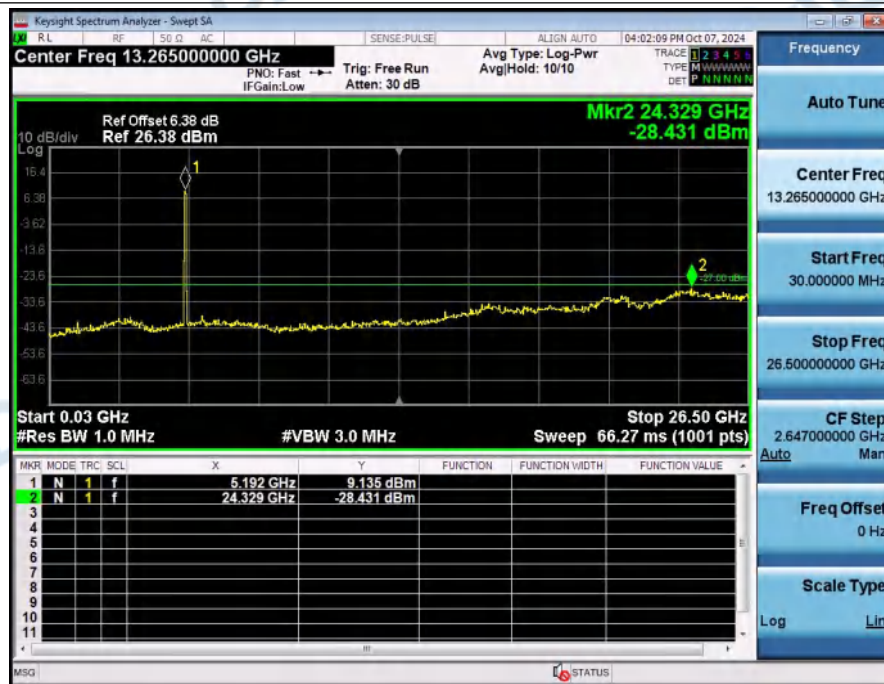
Spurious_Emission_NVNT_ANT1_802_11a_5240_20M



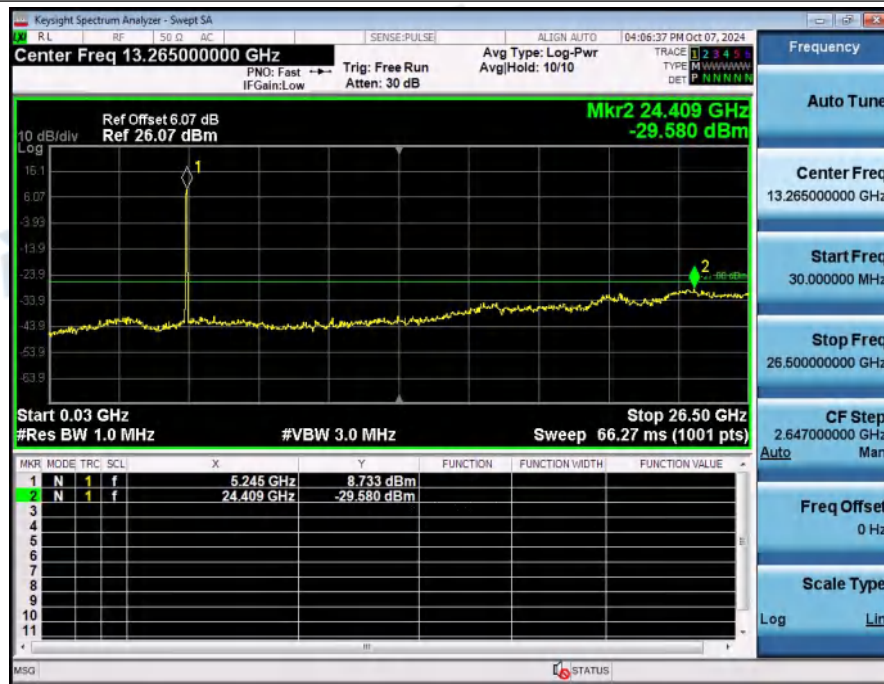
Spurious_Emission_NVNT_ANT1_802_11n(HT20)_5180_20M



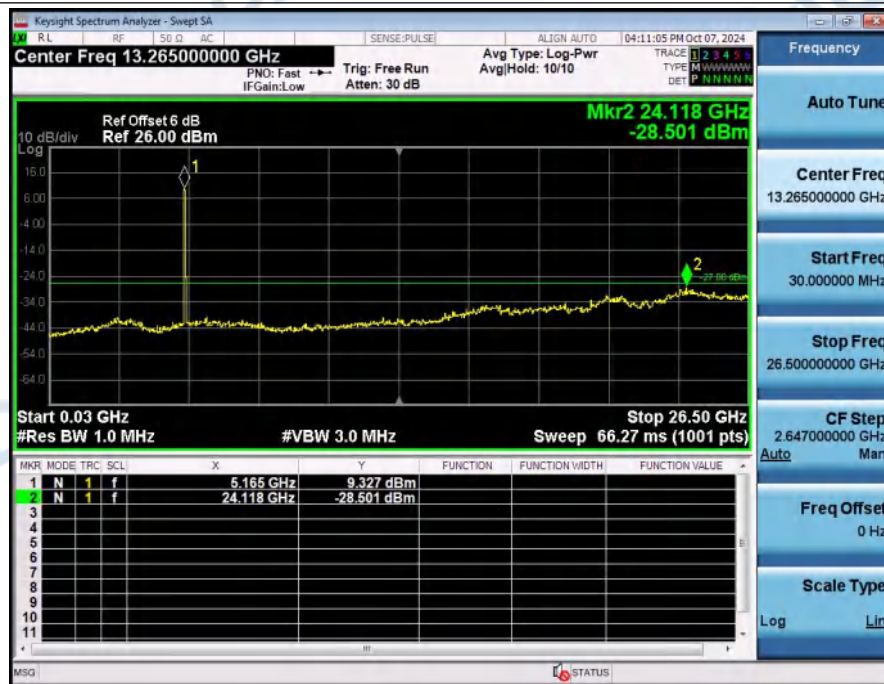
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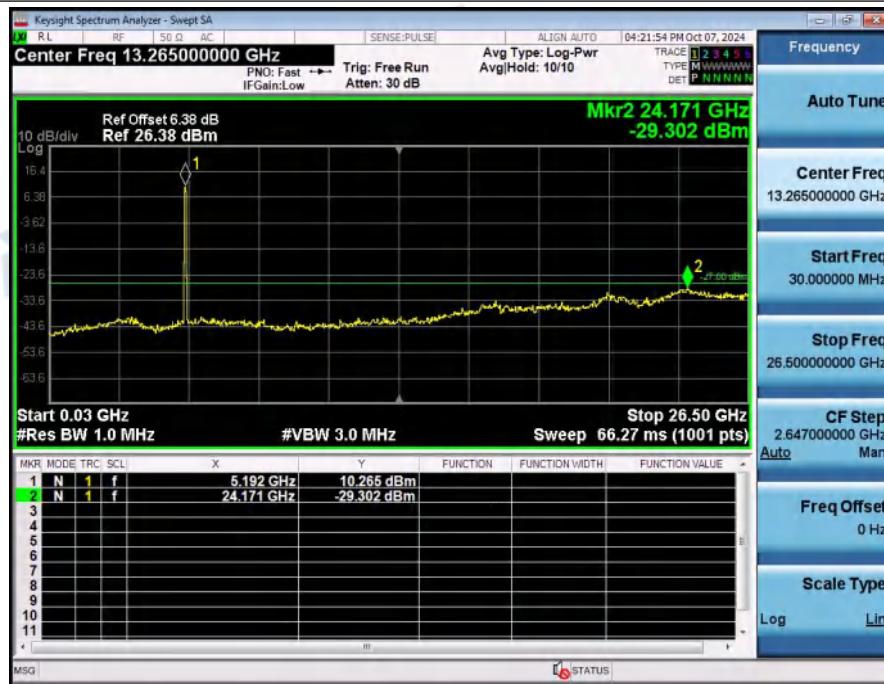
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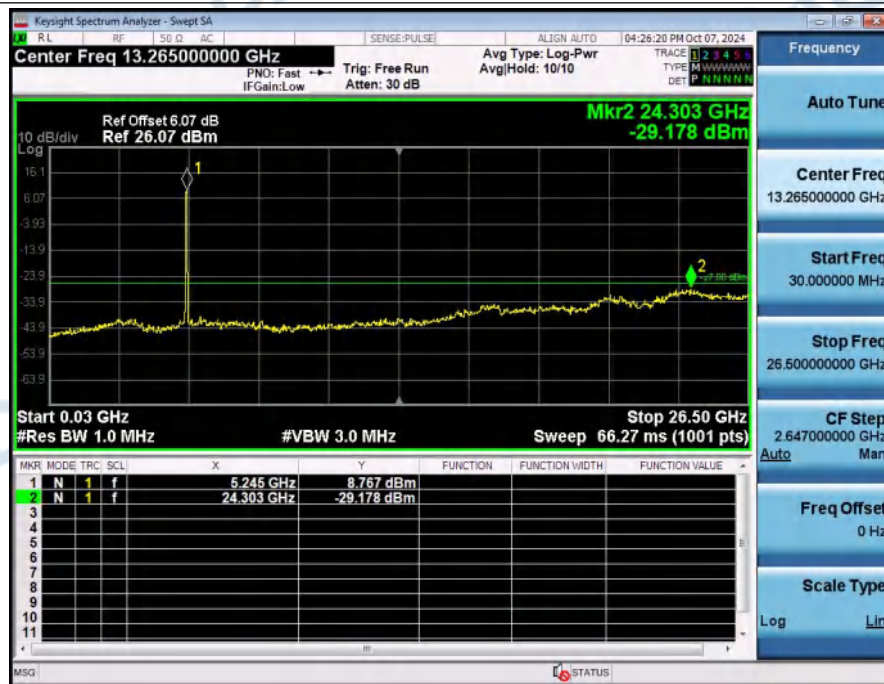
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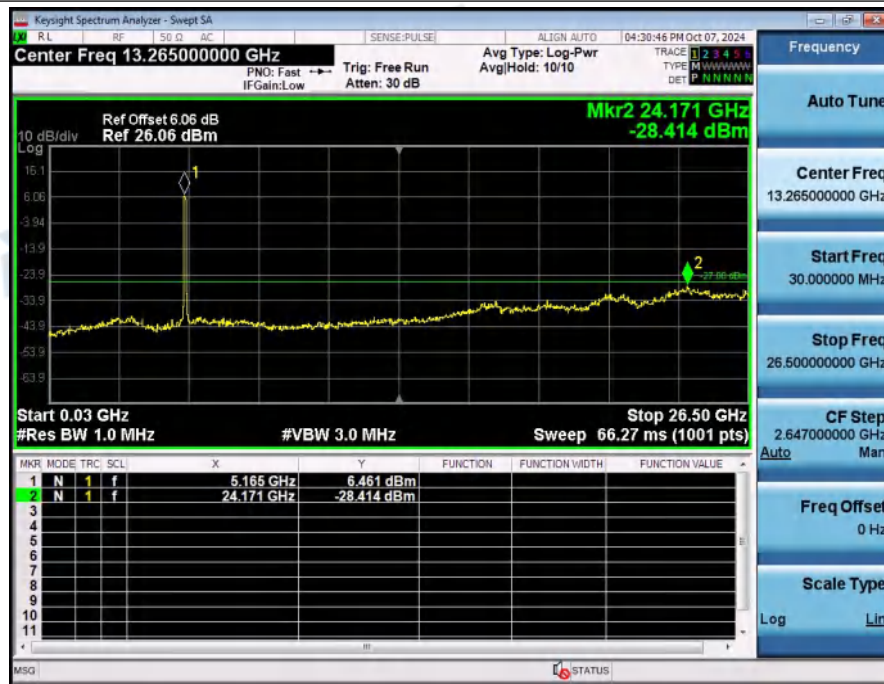
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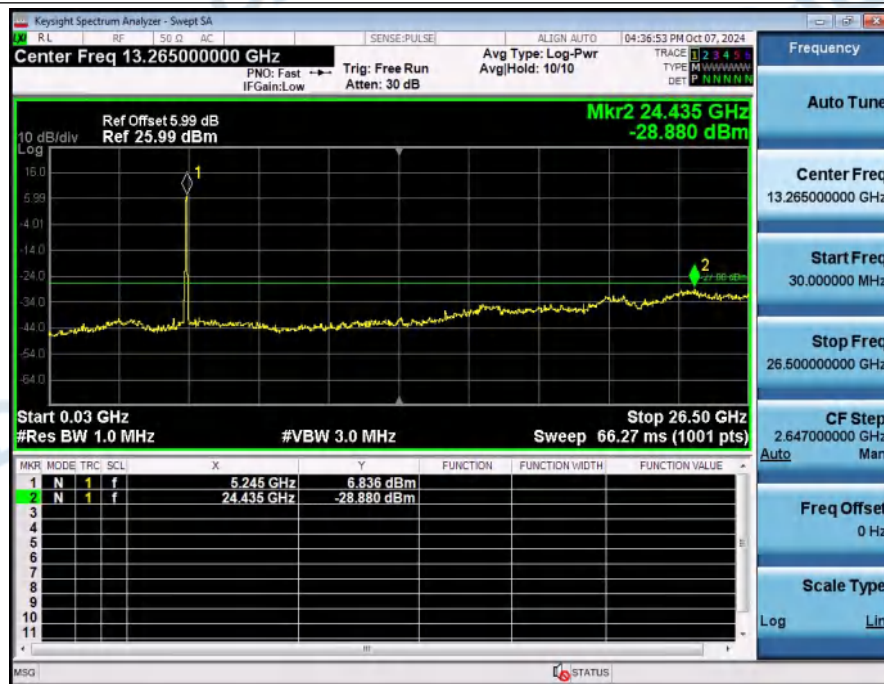
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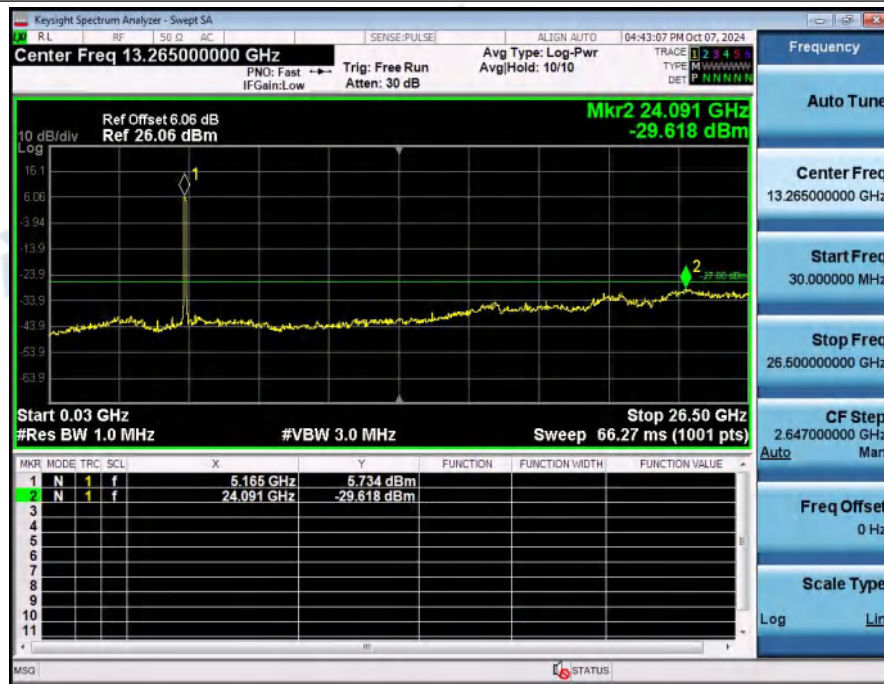
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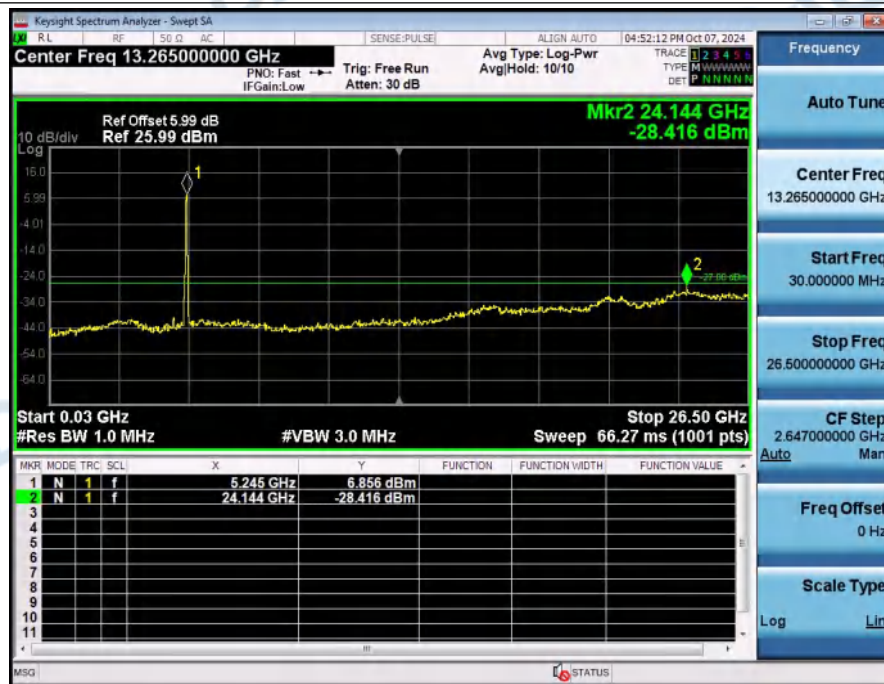
Spurious_Emission_NVNT_ANT1_802_11n(HT40)_5230_40M



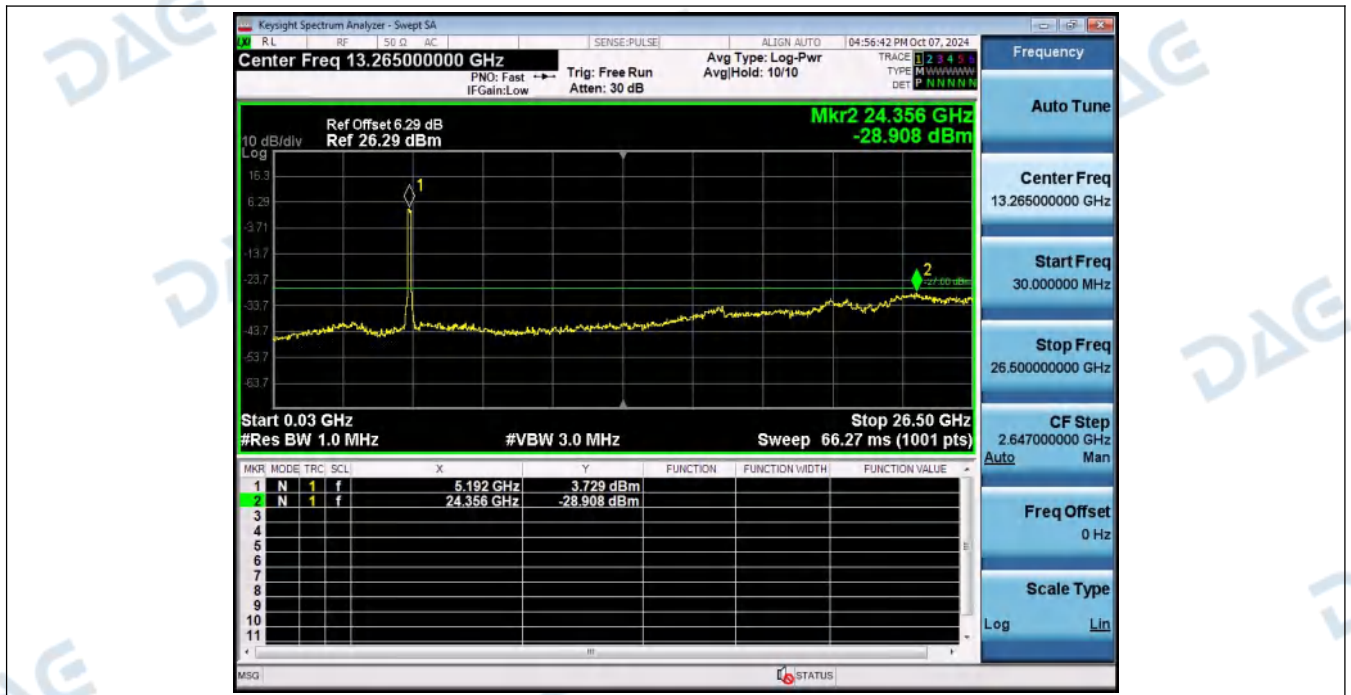
Spurious_Emission_NVNT_ANT1_802_11ac(VHT40)_5190_40M



Spurious_Emission_NVNT_ANT1_802_11ac(VHT40)_5230_40M



Spurious_Emission_NVNT_ANT1_802_11ac(VHT80)_5210_80M



7. Frequency Stability

Condition	Antenna	Modulation	Frequency (MHz)	Fc(MHz)	Fl(MHz)	Fh(MHz)	Limit(MHz)	Result
55degrees C&&3.80V	ANT1	802.11a	5180.00	5180.024	5171.320	5188.728	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5180.00	5179.976	5171.592	5188.360	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5180.00	5179.990	5171.740	5188.240	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5180.00	5179.976	5171.824	5188.128	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5180.00	5179.984	5171.900	5188.068	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5180.00	5179.972	5171.948	5187.996	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5180.00	5179.974	5172.000	5187.948	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5180.00	5179.968	5172.044	5187.892	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5180.00	5179.960	5172.096	5187.824	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5180.00	5179.922	5172.132	5187.712	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5180.00	5179.958	5172.176	5187.740	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11a	5200.00	5200.034	5191.320	5208.748	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5200.00	5200.028	5191.612	5208.444	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5200.00	5200.018	5191.760	5208.276	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5200.00	5200.016	5191.848	5208.184	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5200.00	5200.016	5191.904	5208.128	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5200.00	5200.010	5191.956	5208.064	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5200.00	5200.014	5192.008	5208.020	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5200.00	5200.002	5192.056	5207.948	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5200.00	5200.010	5192.100	5207.920	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5200.00	5200.012	5192.144	5207.880	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5200.00	5200.002	5192.184	5207.820	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11a	5240.00	5240.040	5231.348	5248.732	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5240.00	5240.006	5231.612	5248.400	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5240.00	5240.000	5231.748	5248.252	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5240.00	5239.994	5231.828	5248.160	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5240.00	5239.988	5231.896	5248.080	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5240.00	5239.972	5231.948	5247.996	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5240.00	5239.992	5231.996	5247.988	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5240.00	5239.978	5232.044	5247.912	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5240.00	5239.978	5232.092	5247.864	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5240.00	5239.972	5232.136	5247.808	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5240.00	5239.970	5232.180	5247.760	5150~5250	Pass