

Appendix-ANT2

HT250724009--G3200--5.2G--FCC-1 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	29.59	16.60
NVNT	ANT1	802.11a	5200.00	26.99	16.59
NVNT	ANT1	802.11a	5240.00	29.29	16.66
NVNT	ANT1	802.11n(HT20)	5180.00	29.38	17.75
NVNT	ANT1	802.11n(HT20)	5200.00	28.68	17.76
NVNT	ANT1	802.11n(HT20)	5240.00	29.32	17.83
NVNT	ANT1	802.11ac(VHT20)	5180.00	29.08	17.80
NVNT	ANT1	802.11ac(VHT20)	5200.00	28.27	17.81
NVNT	ANT1	802.11ac(VHT20)	5240.00	30.18	17.83
NVNT	ANT1	802.11n(HT40)	5190.00	60.36	36.64
NVNT	ANT1	802.11n(HT40)	5230.00	60.36	36.59
NVNT	ANT1	802.11ac(VHT40)	5190.00	62.22	36.49
NVNT	ANT1	802.11ac(VHT40)	5230.00	55.96	36.56
NVNT	ANT1	802.11ac(VHT80)	5210.00	110.66	75.79

99%_OCB_NVNT_ANT1_802_11a_5180



-26BW_NVNT_ANT1_802_11a_5180



99%_OCB_NVNT_ANT1_802_11a_5200



-26BW_NVNT_ANT1_802_11a_5200



99%_OCB_NVNT_ANT1_802_11a_5240



-26BW_NVNT_ANT1_802_11a_5240



99%_OCB_NVNT_ANT1_802_11n(HT20)_5180



-26BW_NVNT_ANT1_802_11n(HT20)_5180



99%_OCB_NVNT_ANT1_802_11n(HT20)_5200



-26BW_NVNT_ANT1_802_11n(HT20)_5200



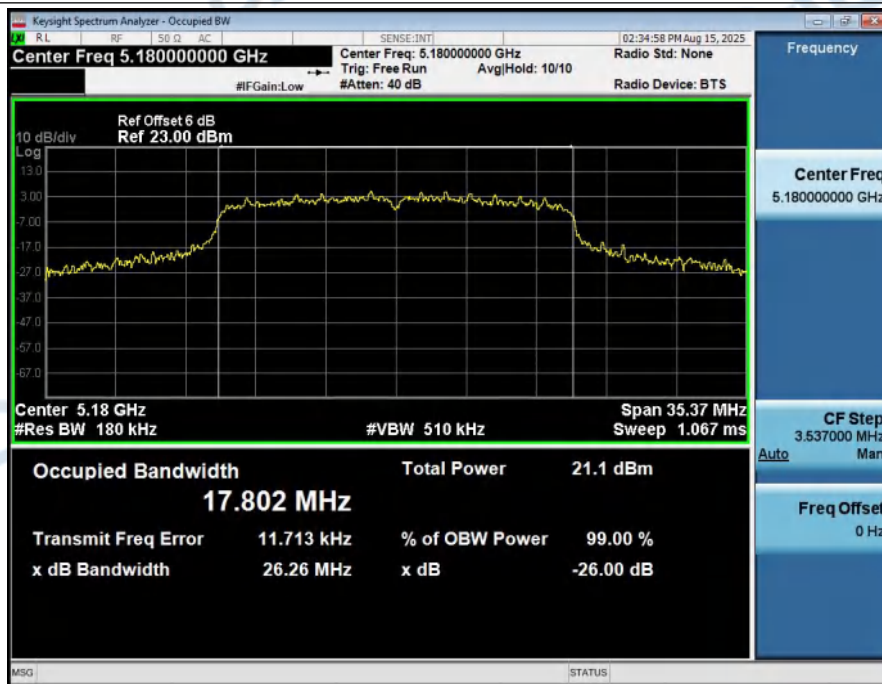
99%_OCB_NVNT_ANT1_802_11n(HT20)_5240



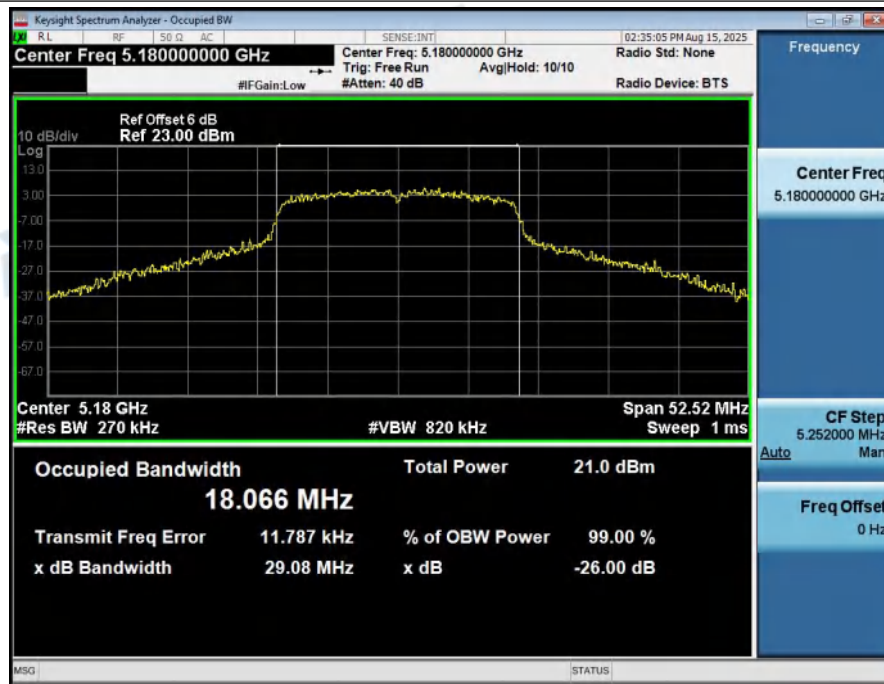
-26BW_NVNT_ANT1_802_11n(HT20)_5240



99%_OCB_NVNT_ANT1_802_11ac(VHT20)_5180



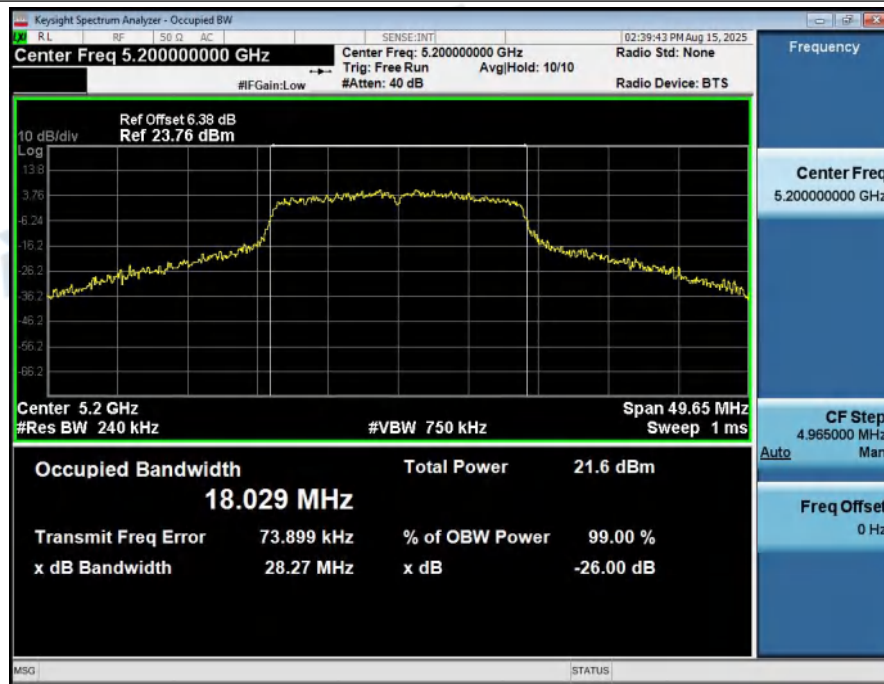
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99%_OCB_NVNT_ANT1_802_11ac(VHT20)_5200



-26BW_NVNT_ANT1_802_11ac(VHT20)_5200



99%_OCB_NVNT_ANT1_802_11ac(VHT20)_5240



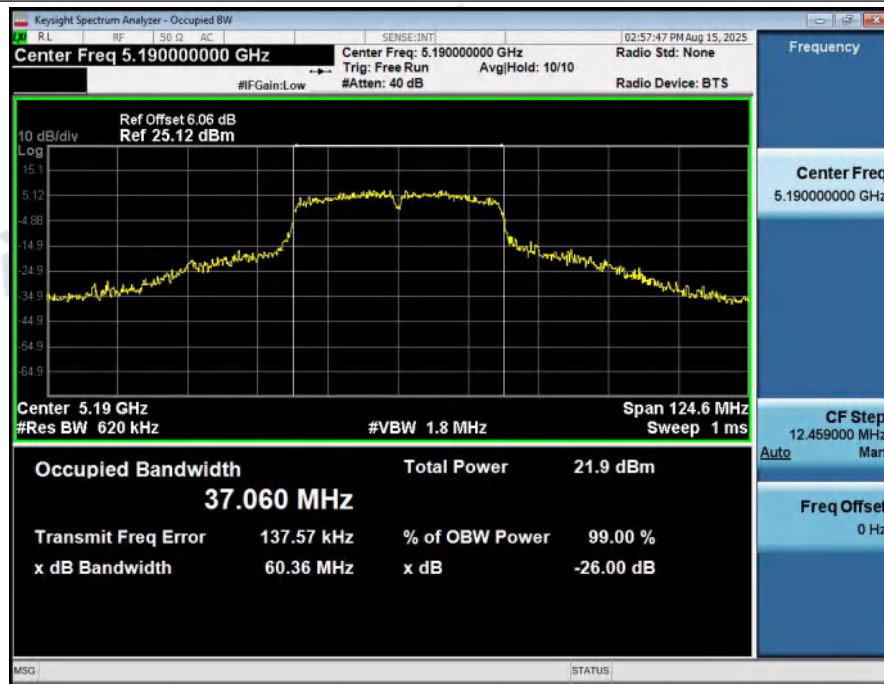
-26BW_NVNT_ANT1_802_11ac(VHT20)_5240



99%_OCB_NVNT_ANT1_802_11n(HT40)_5190



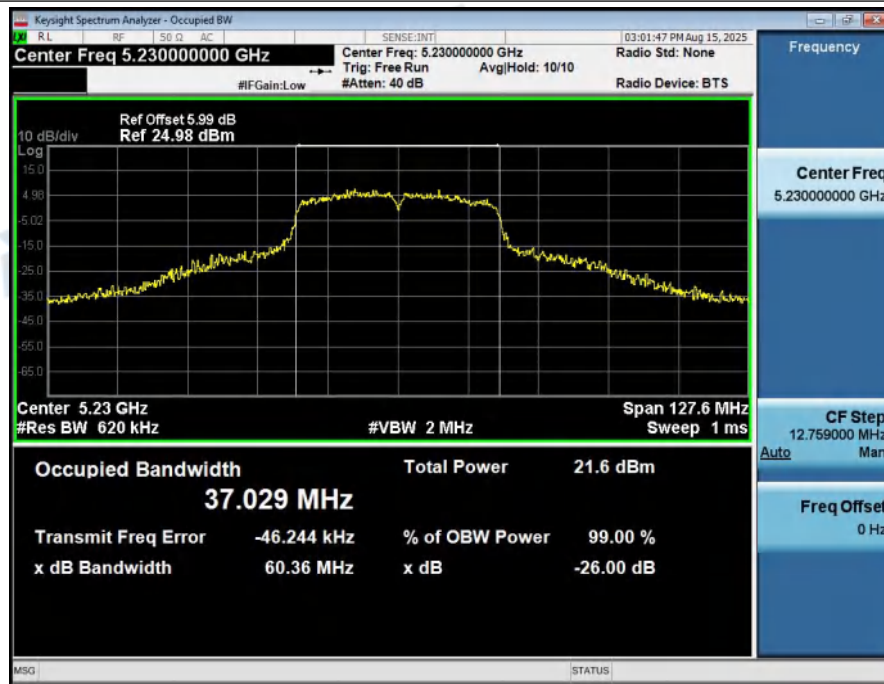
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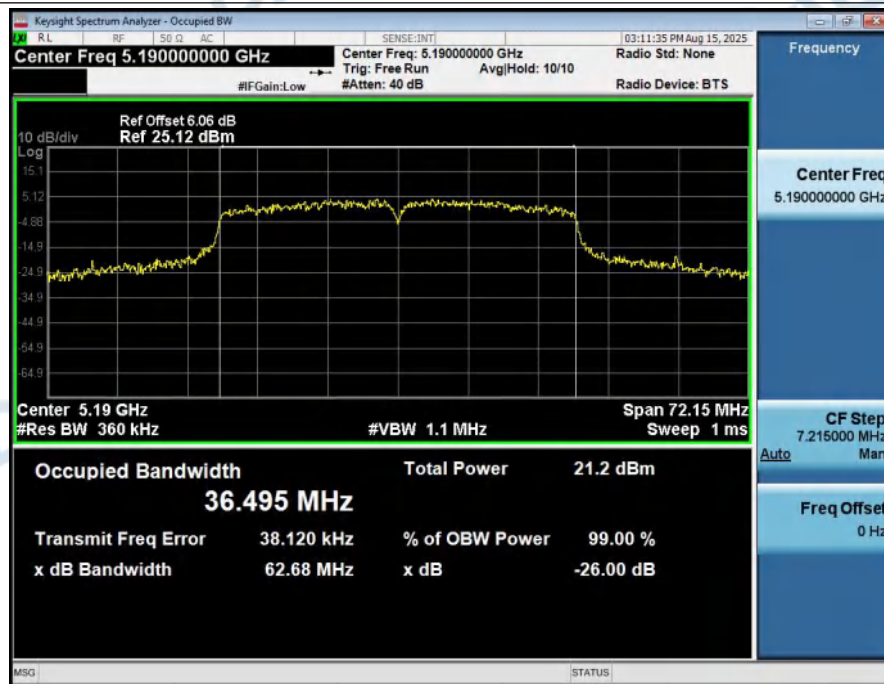
99%_OCB_NVNT_ANT1_802_11n(HT40)_5230



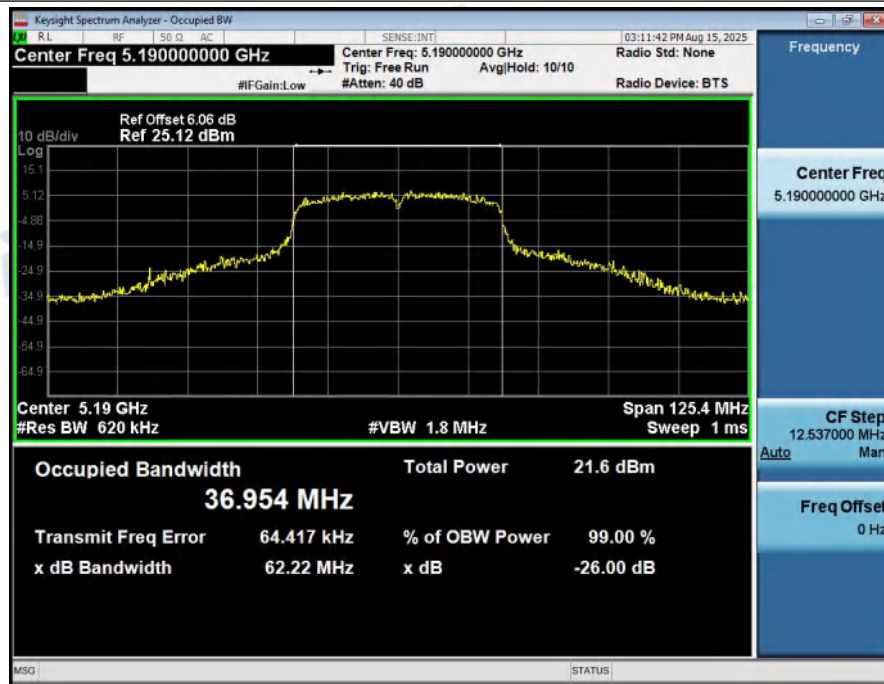
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99%_OCB_NVNT_ANT1_802_11ac(VHT40)_5190



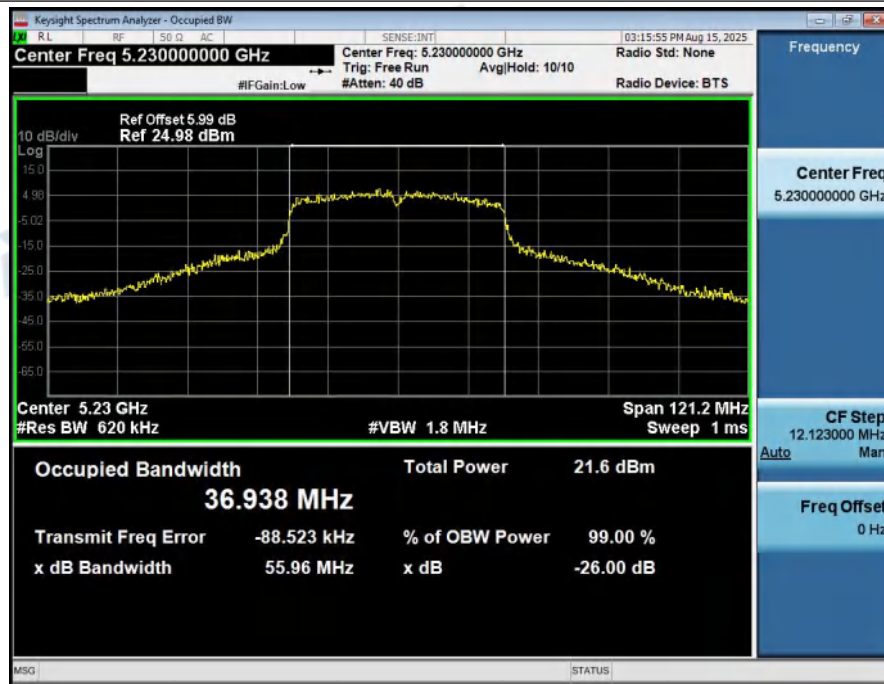
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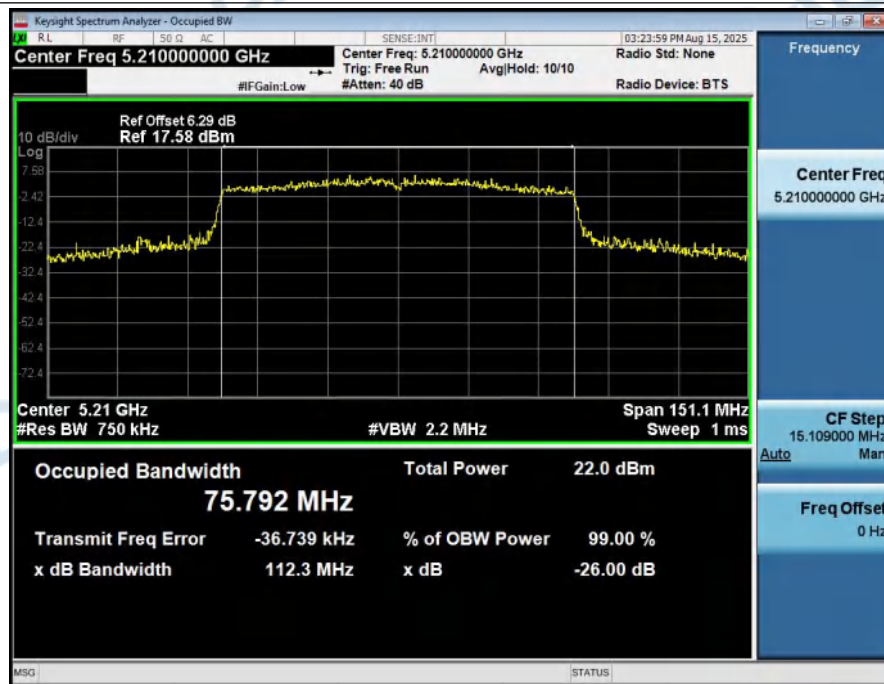
99%_OCB_NVNT_ANT1_802_11ac(VHT40)_5230



-26BW_NVNT_ANT1_802_11ac(VHT40)_5230



99%_OCB_NVNT_ANT1_802_11ac(VHT80)_5210



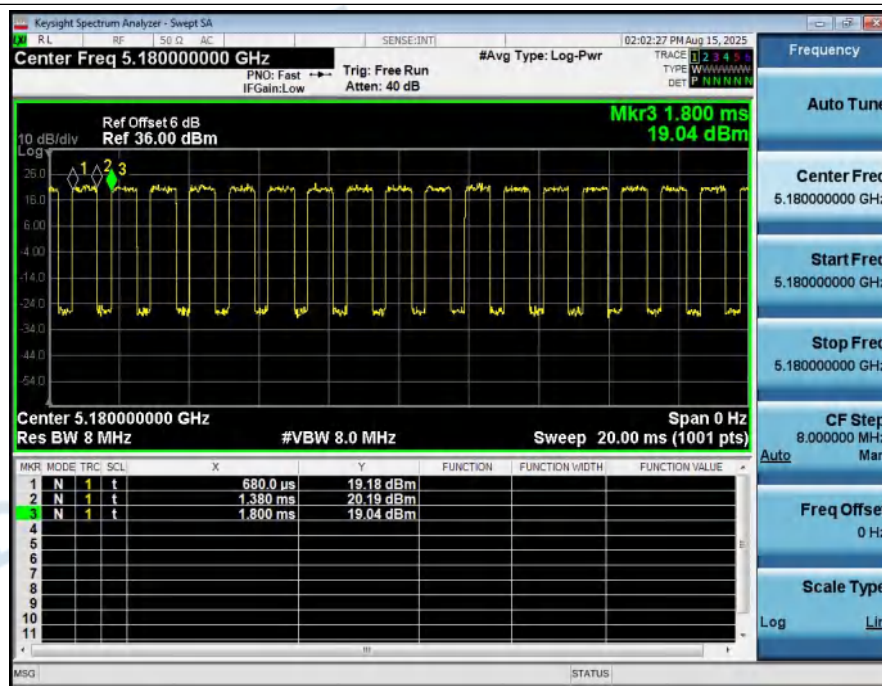
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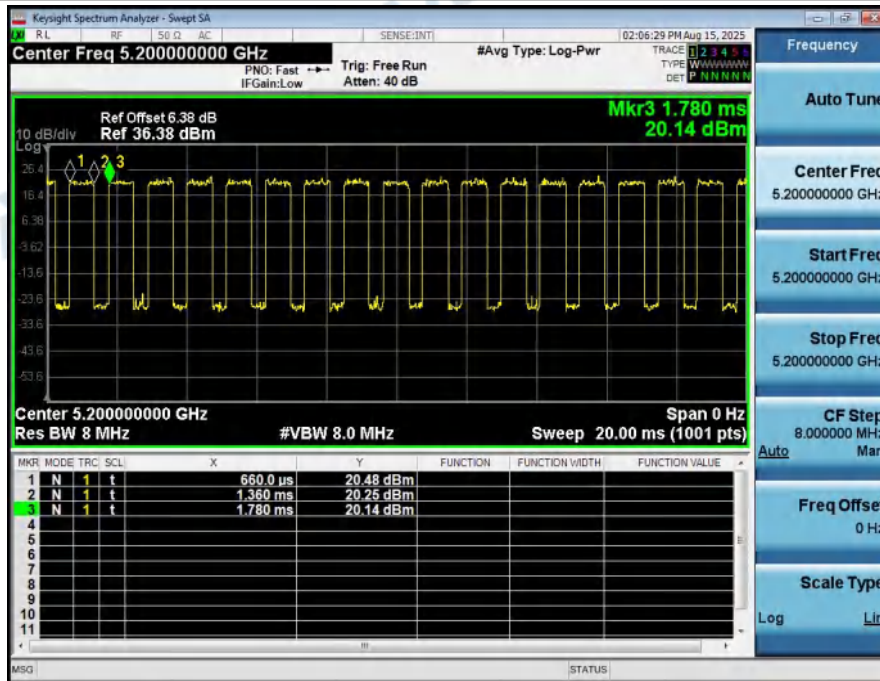
2. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5180.00	62.50	2.04
NVNT	ANT1	802.11a	5200.00	62.50	2.04
NVNT	ANT1	802.11a	5240.00	64.29	1.92
NVNT	ANT1	802.11n(HT20)	5180.00	62.96	2.01
NVNT	ANT1	802.11n(HT20)	5200.00	62.96	2.01
NVNT	ANT1	802.11n(HT20)	5240.00	61.82	2.09
NVNT	ANT1	802.11ac(VHT20)	5180.00	60.78	2.16
NVNT	ANT1	802.11ac(VHT20)	5200.00	60.78	2.16
NVNT	ANT1	802.11ac(VHT20)	5240.00	60.78	2.16
NVNT	ANT1	802.11n(HT40)	5190.00	58.00	2.37
NVNT	ANT1	802.11n(HT40)	5230.00	58.00	2.37
NVNT	ANT1	802.11ac(VHT40)	5190.00	58.00	2.37
NVNT	ANT1	802.11ac(VHT40)	5230.00	58.00	2.37
NVNT	ANT1	802.11ac(VHT80)	5210.00	41.67	3.80

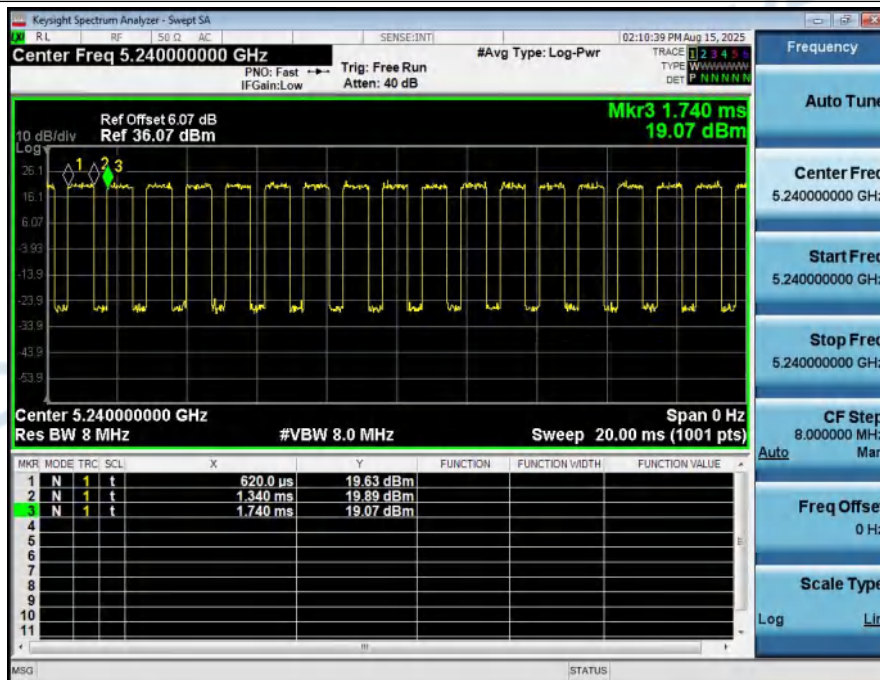
Duty_Cycle_NVNT_ANT1_802_11a_5180



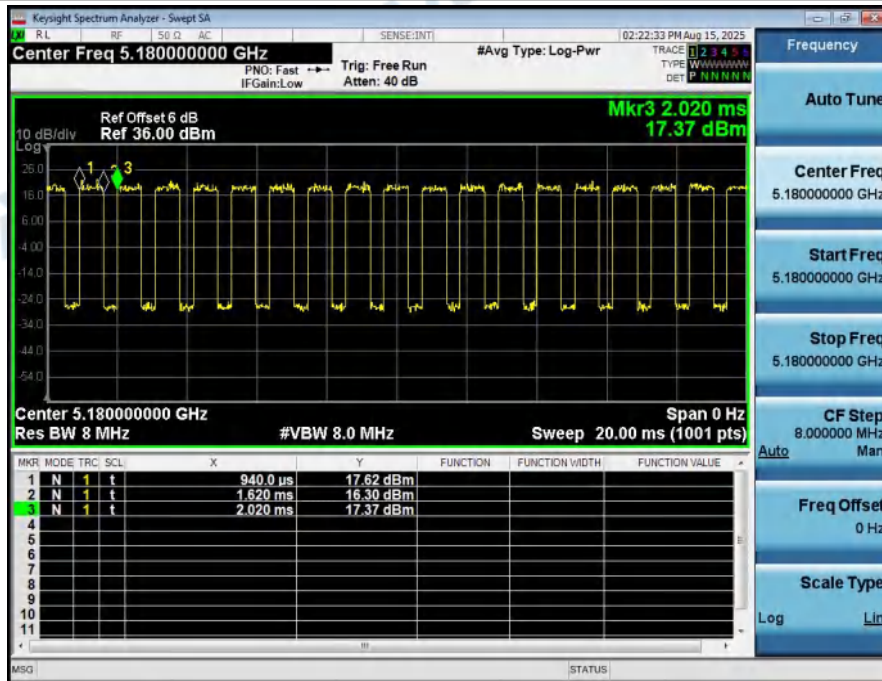
Duty_Cycle_NVNT_ANT1_802_11a_5200



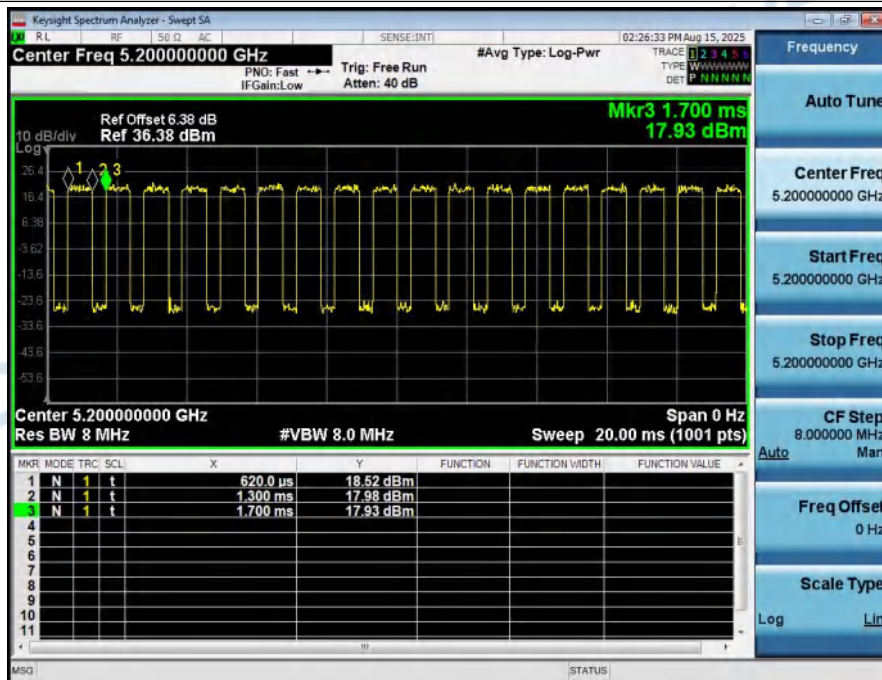
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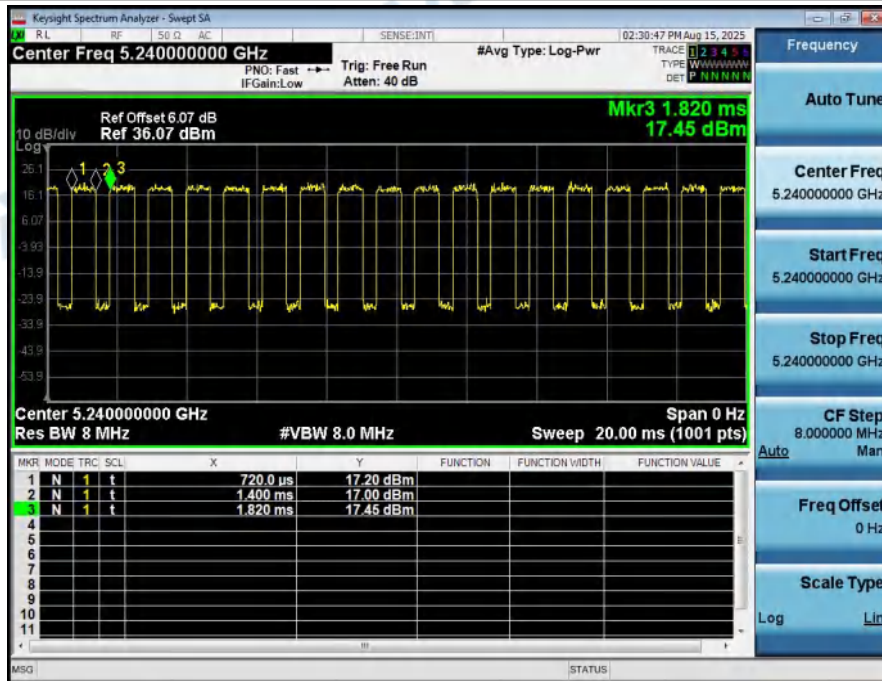
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_5180



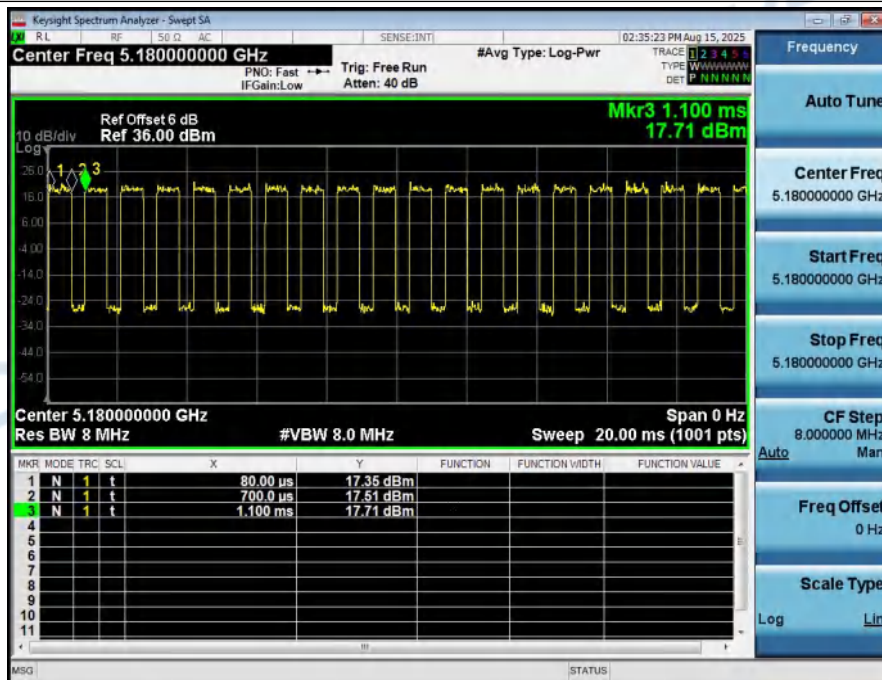
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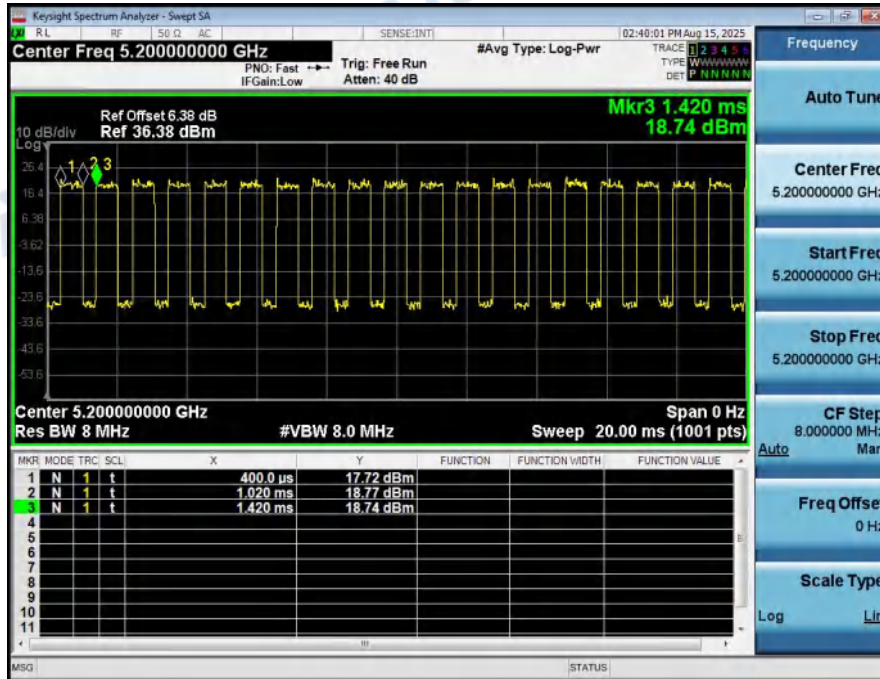
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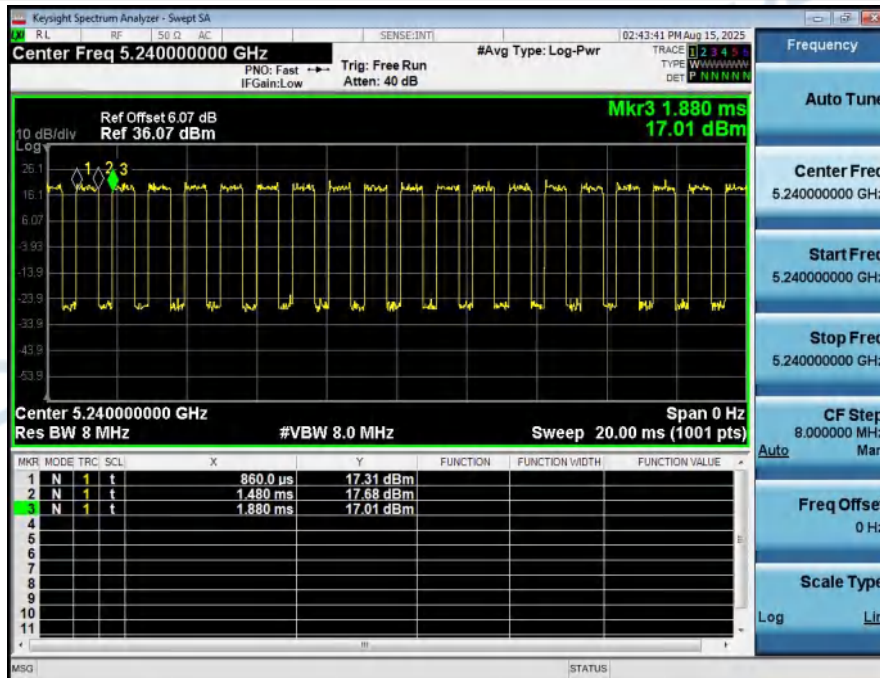
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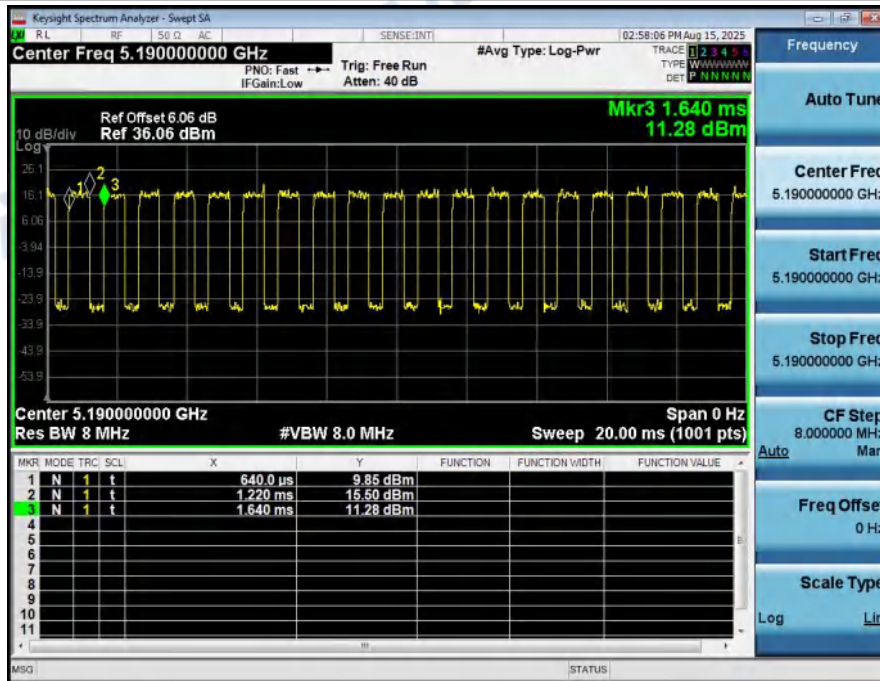
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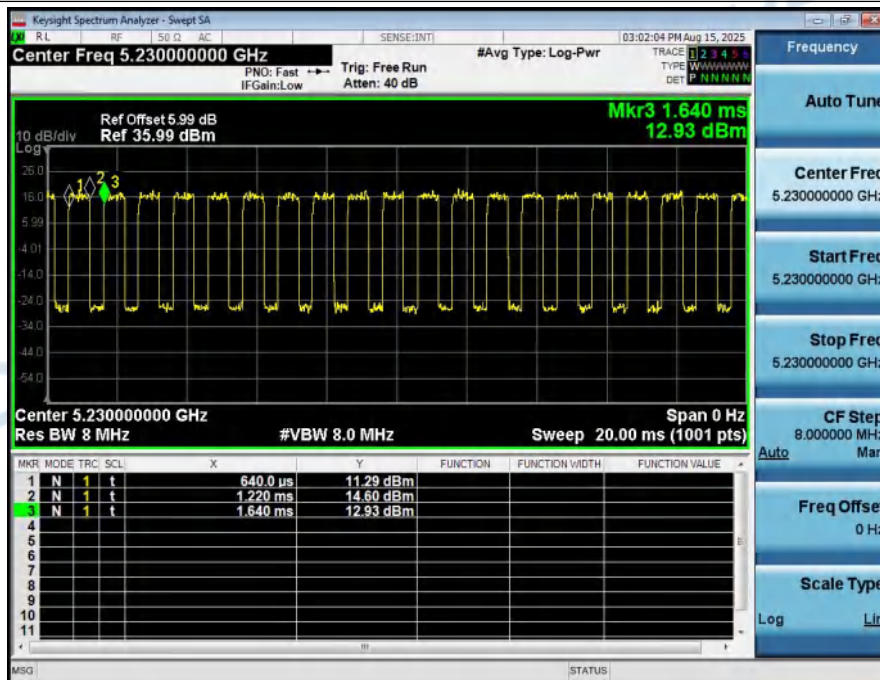
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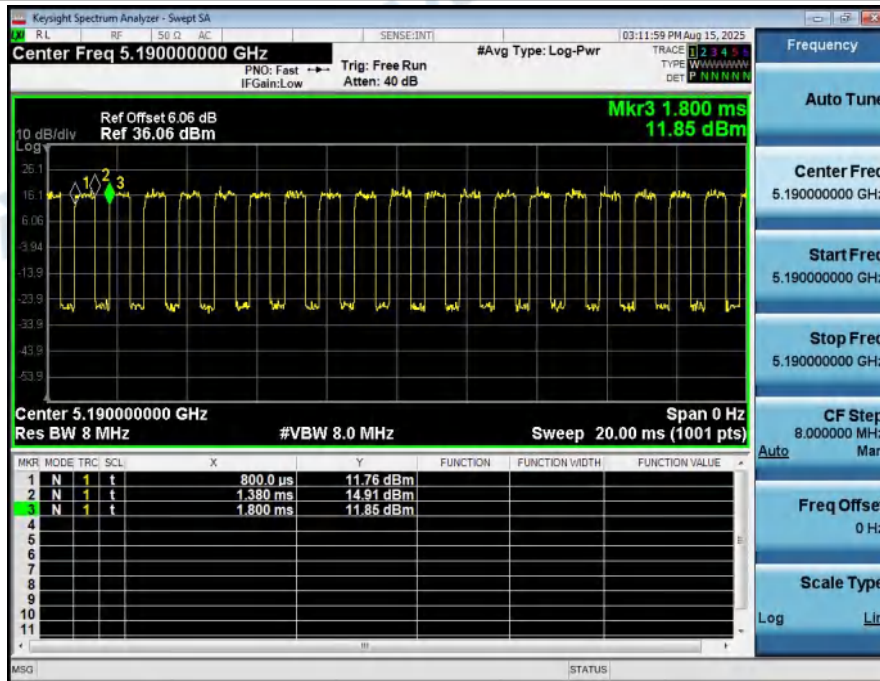
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5190



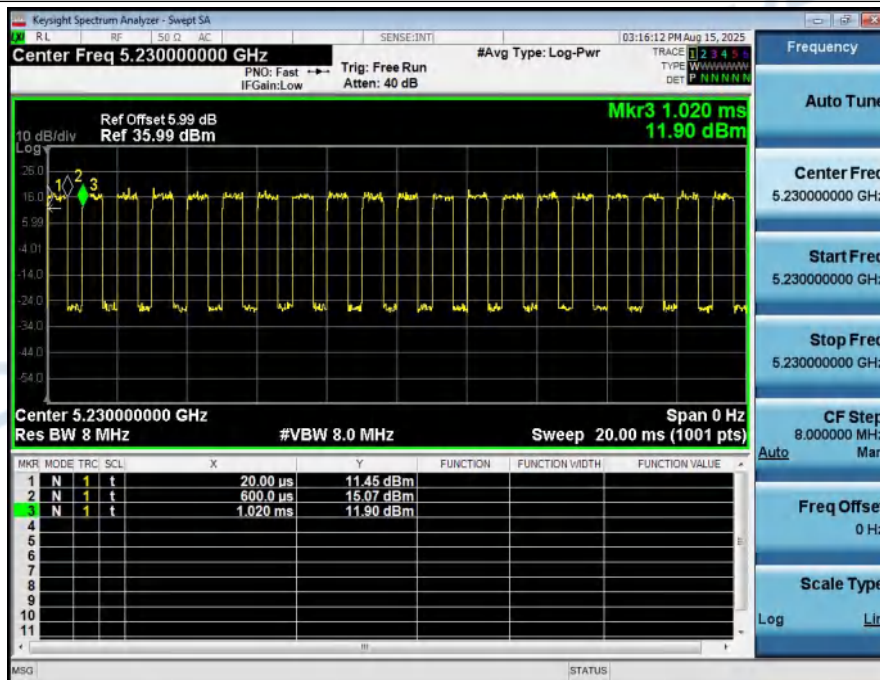
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5230



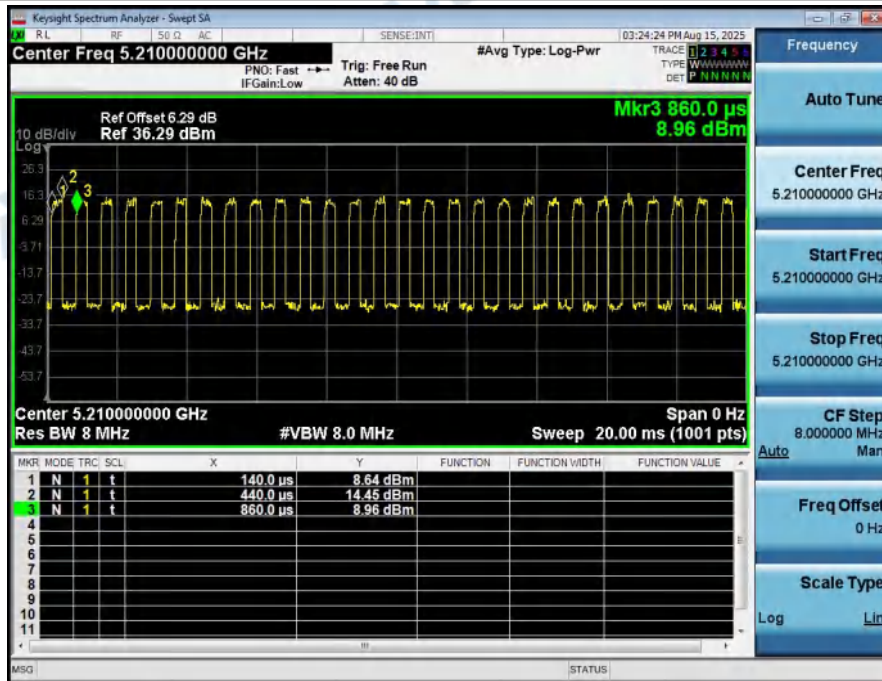
Duty_Cycle_NVNT_ANT1_802_11ac(VHT40)_5190



Duty_Cycle_NVNT_ANT1_802_11ac(VHT40)_5230



Duty_Cycle_NVNT_ANT1_802_11ac(VHT80)_5210



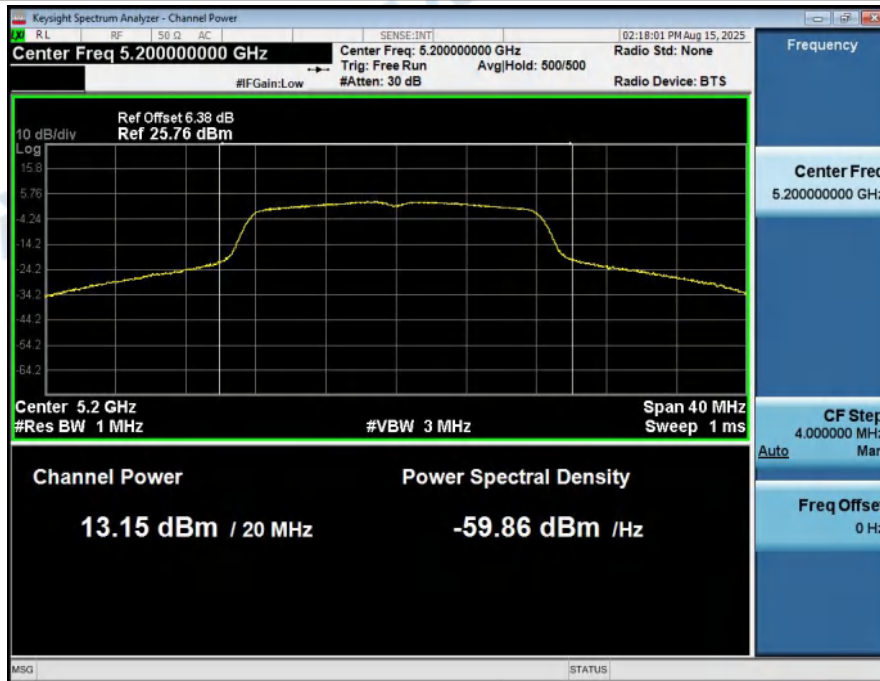
3. Maximum Conducted Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	12.62	2.04	14.66	24	Pass
NVNT	ANT1	802.11a	5200.00	13.15	2.04	15.19	24	Pass
NVNT	ANT1	802.11a	5240.00	12.56	1.92	14.48	24	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	12.66	2.01	14.67	24	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	13.31	2.01	15.32	24	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	12.36	2.09	14.45	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	12.54	2.16	14.70	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	13.20	2.16	15.36	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	12.26	2.16	14.42	24	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	12.60	2.37	14.97	24	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	12.16	2.37	14.53	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	12.43	2.37	14.80	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	12.25	2.37	14.62	24	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	11.14	3.80	14.94	24	Pass

Maximum_Conducted_Output_Power_NVNT_ANT1_802_11a_5180_20M



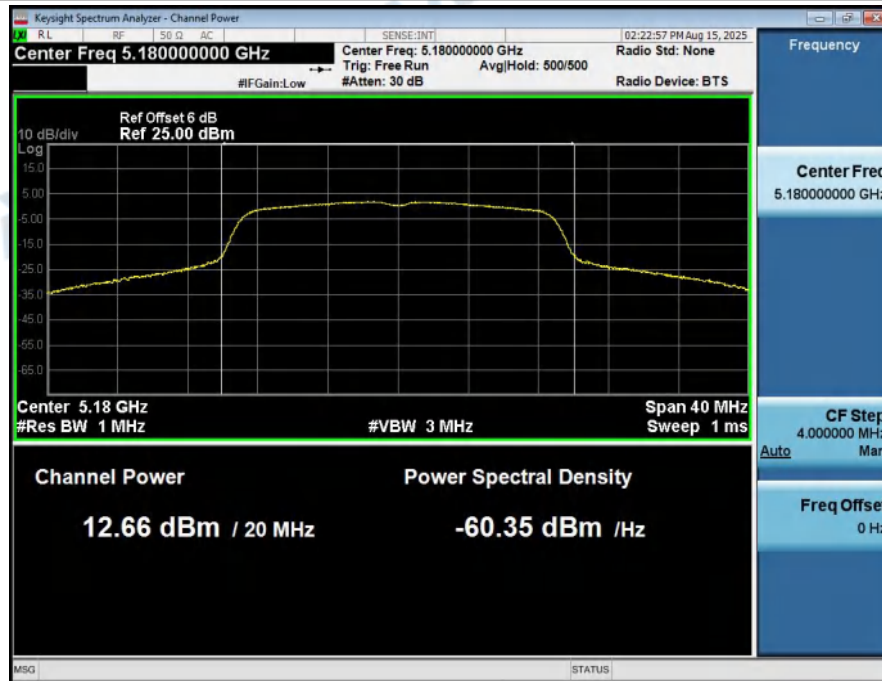
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11a_5200_20M



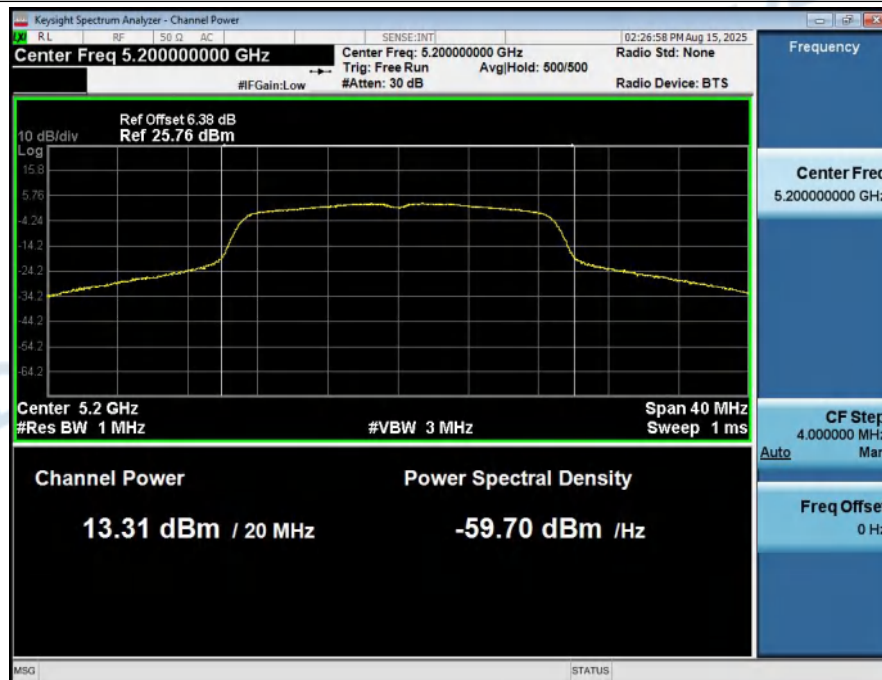
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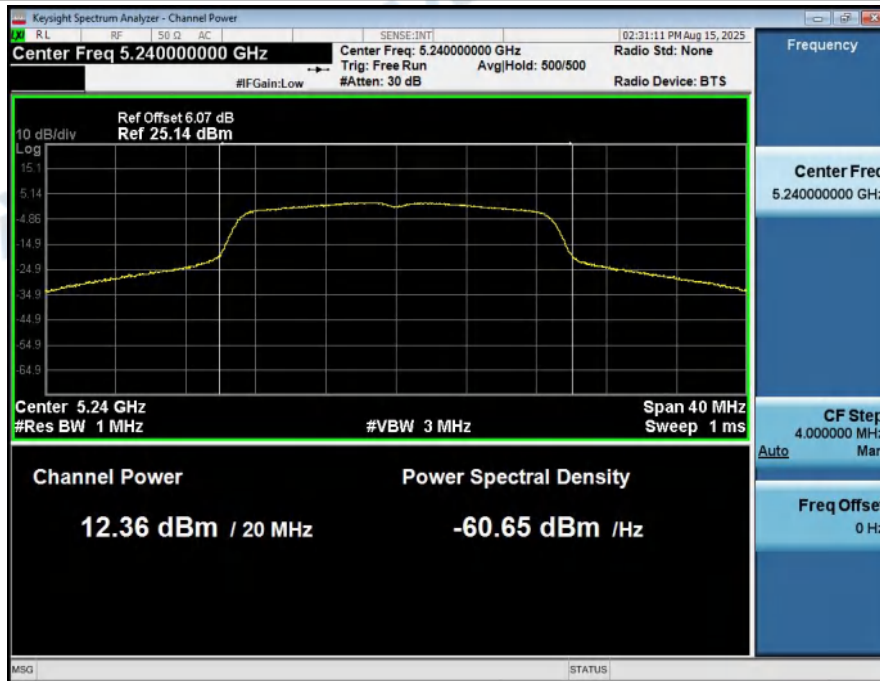
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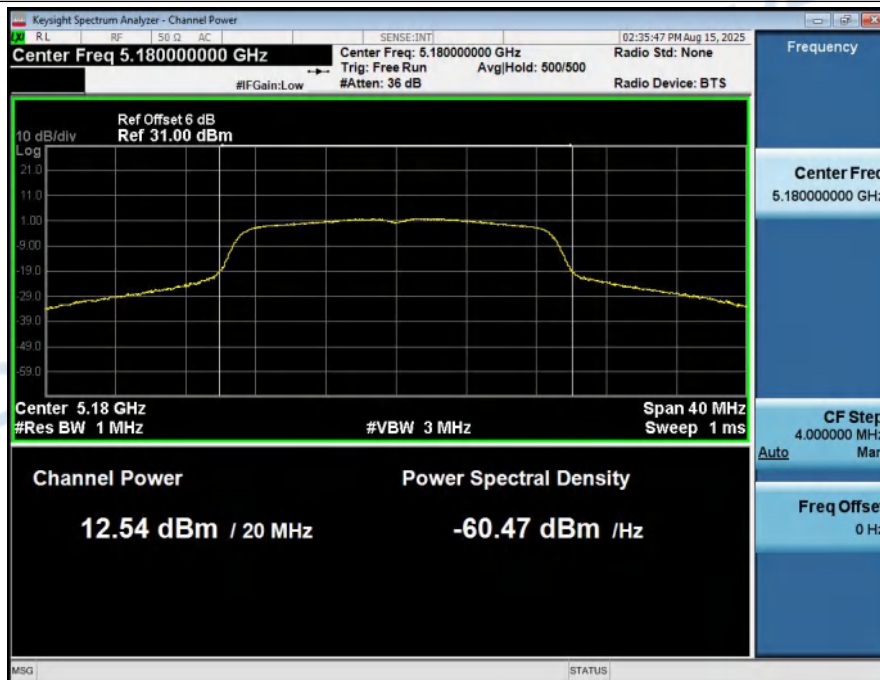
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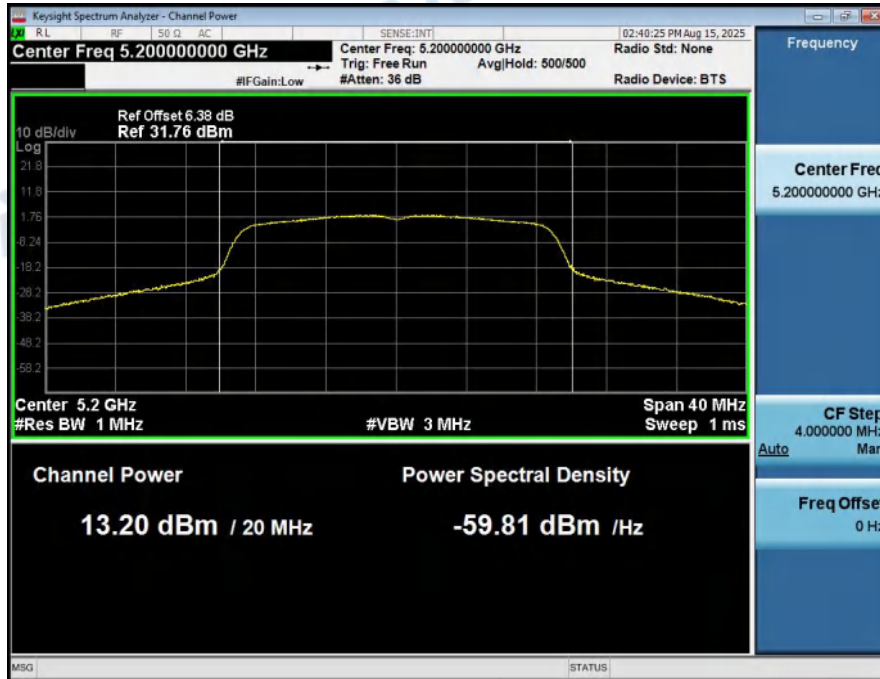
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Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT20)_5180_20M



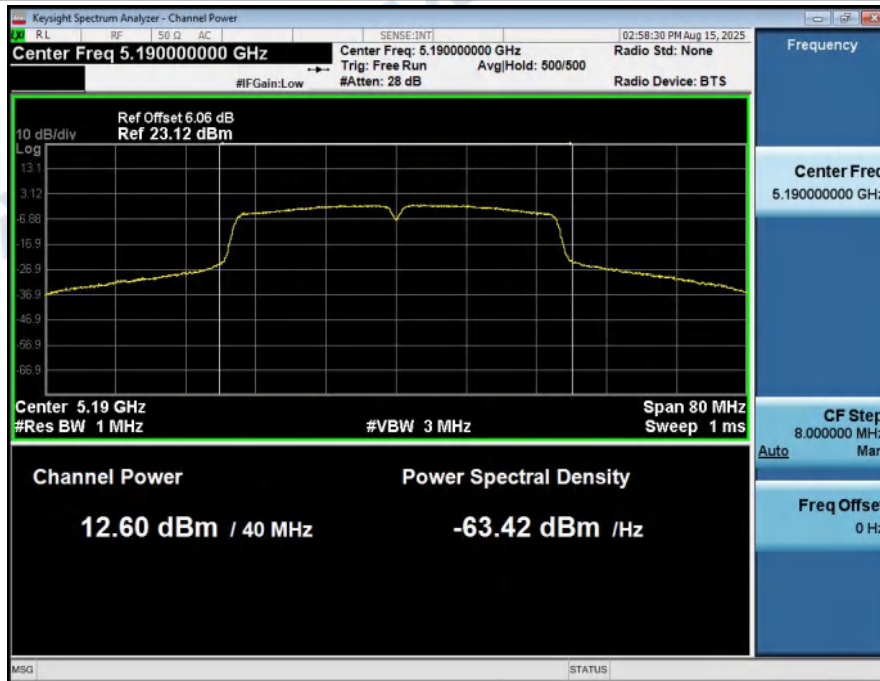
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Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT20)_5240_20M



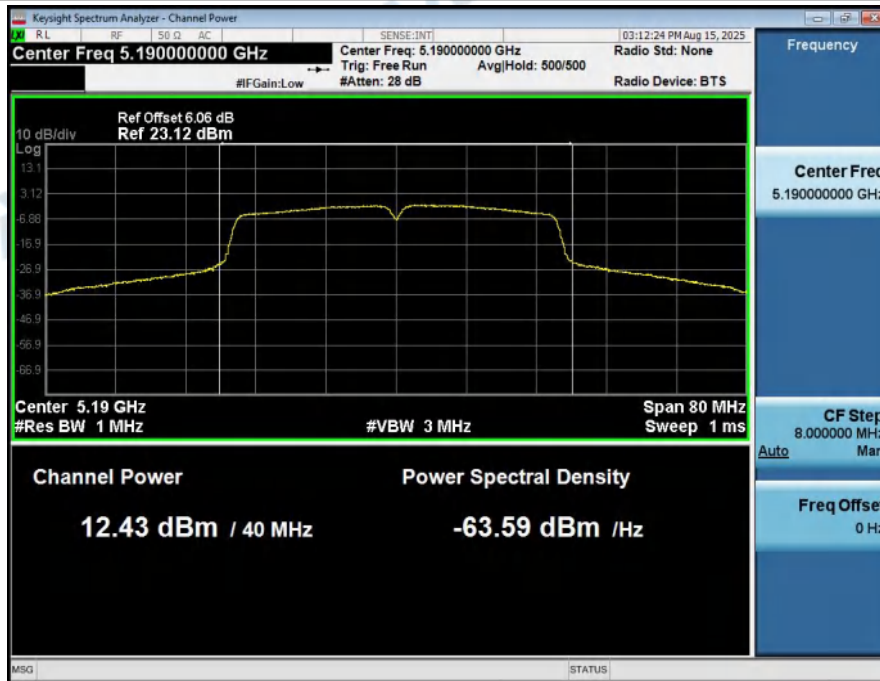
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Maximum_Conducted_Output_Power_NVNT_ANT1_802_11n(HT40)_5230_40M



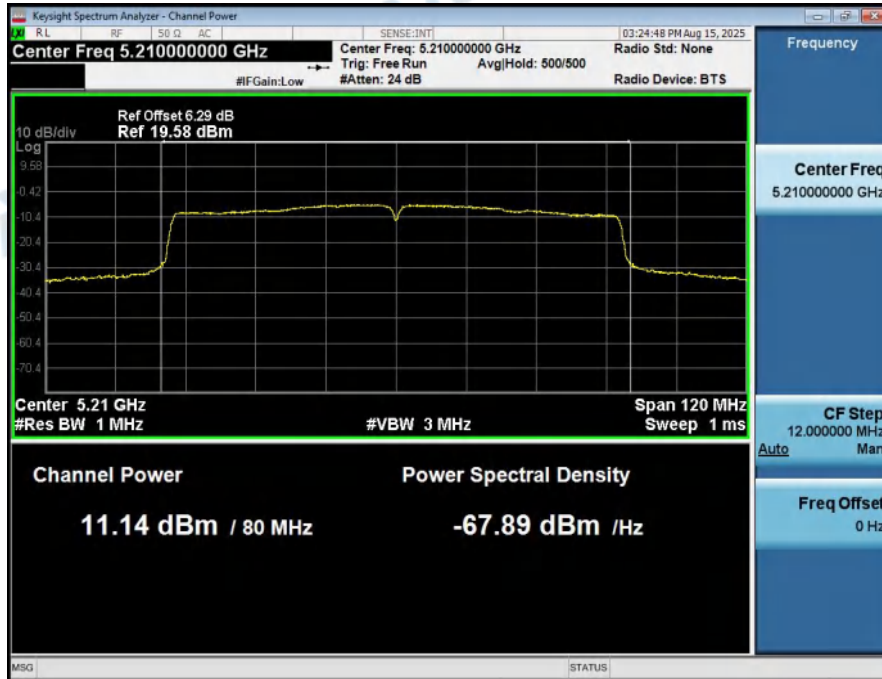
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT40)_5190_40M



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	8.40	2.04	10.44	11	Pass
NVNT	ANT1	802.11a	5200.00	9.14	2.04	11.18	11	Pass
NVNT	ANT1	802.11a	5240.00	8.71	1.92	10.63	11	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	8.63	2.01	10.64	11	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	9.19	2.01	11.20	11	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	8.71	2.09	10.80	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	9.54	2.16	11.70	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	10.09	2.16	12.25	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	8.82	2.16	10.98	11	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	6.64	2.37	9.02	11	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	6.35	2.37	8.72	11	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	6.21	2.37	8.59	11	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	6.66	2.37	9.03	11	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	3.72	3.80	7.52	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



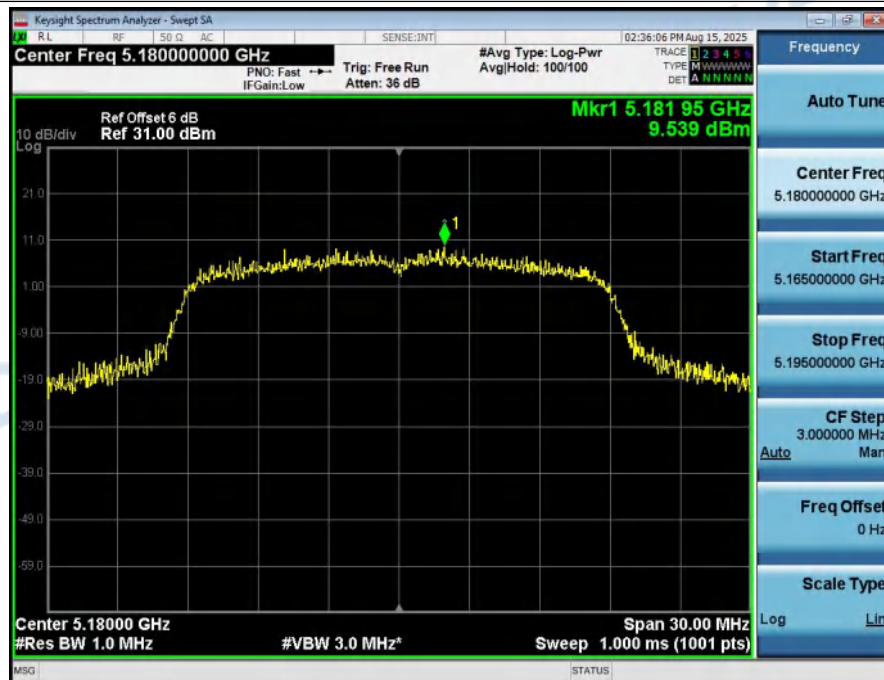
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Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5240



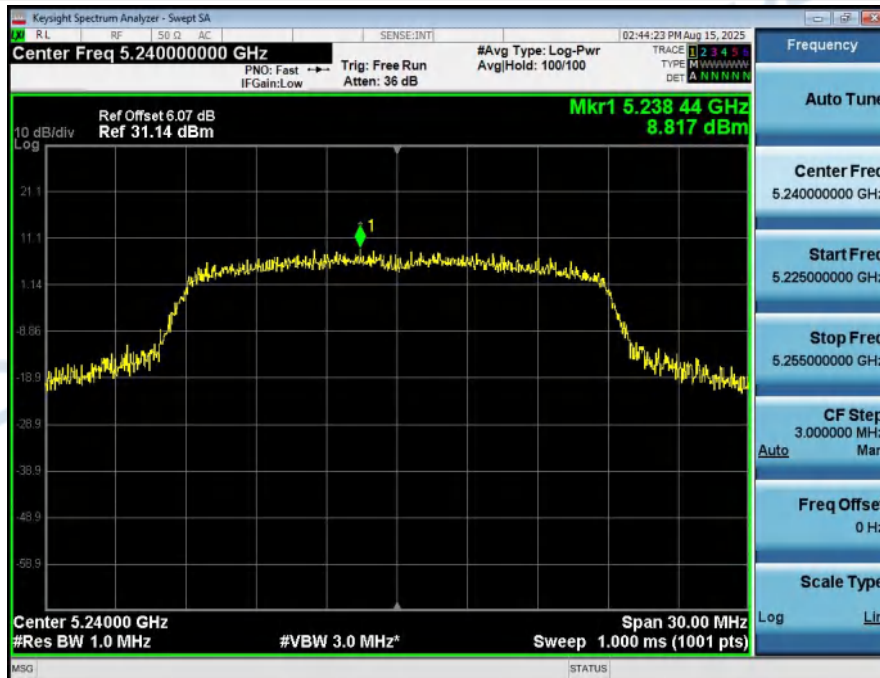
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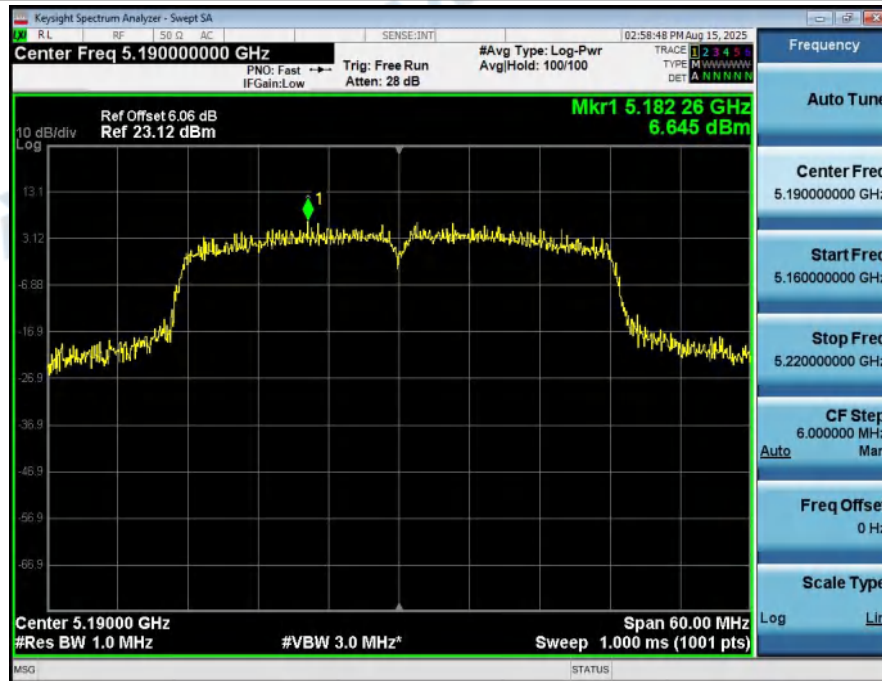
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Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT20)_5240



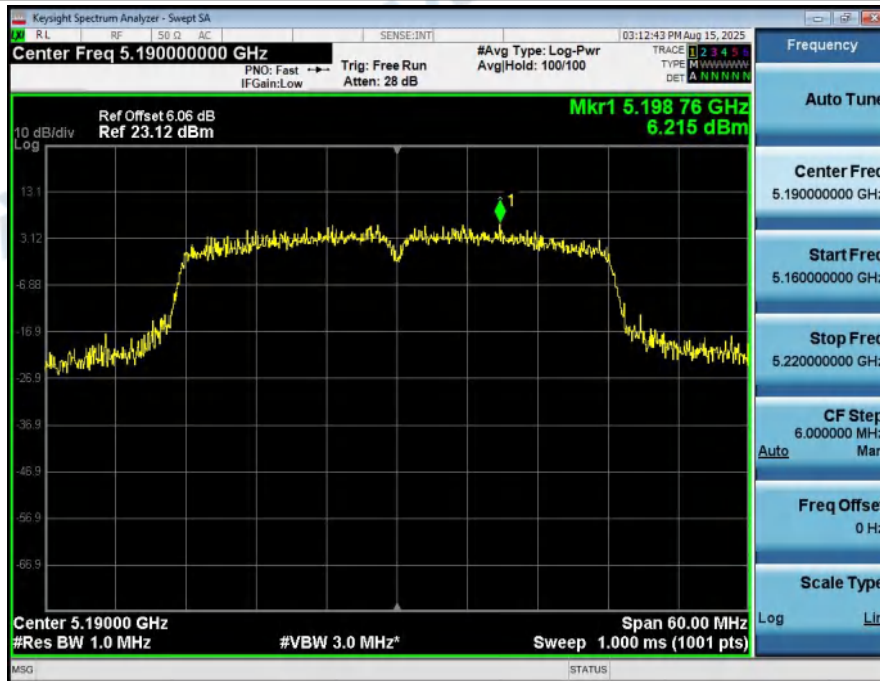
Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5190



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5230



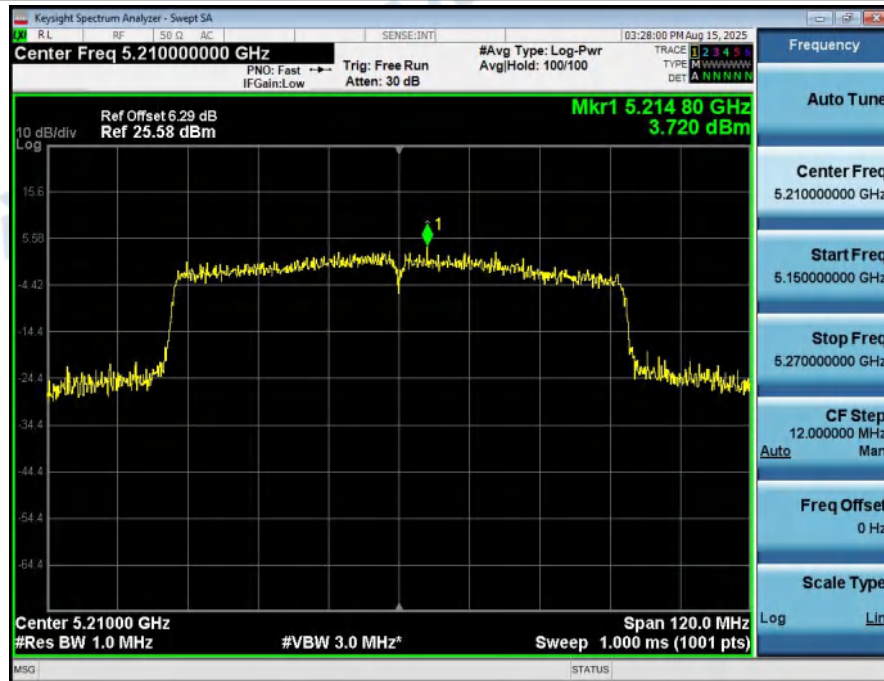
Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT40)_5190



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	5149.80	-31.45	-27	Pass
NVNT	ANT1	802.11a	5240.00	5399.60	-39.08	-27	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	5146.80	-29.01	-27	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	5398.40	-39.13	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	5137.80	-29.35	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	5352.00	-33.05	-27	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	5149.73	-29.17	-27	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	5375.48	-40.66	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	5148.68	-29.63	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	5366.45	-40.74	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	5149.94	-30.67	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	5384.72	-40.83	-27	Pass

Bandedge_NVNT_ANT1_802_11a_5180



Bandedge_NVNT_ANT1_802_11a_5240



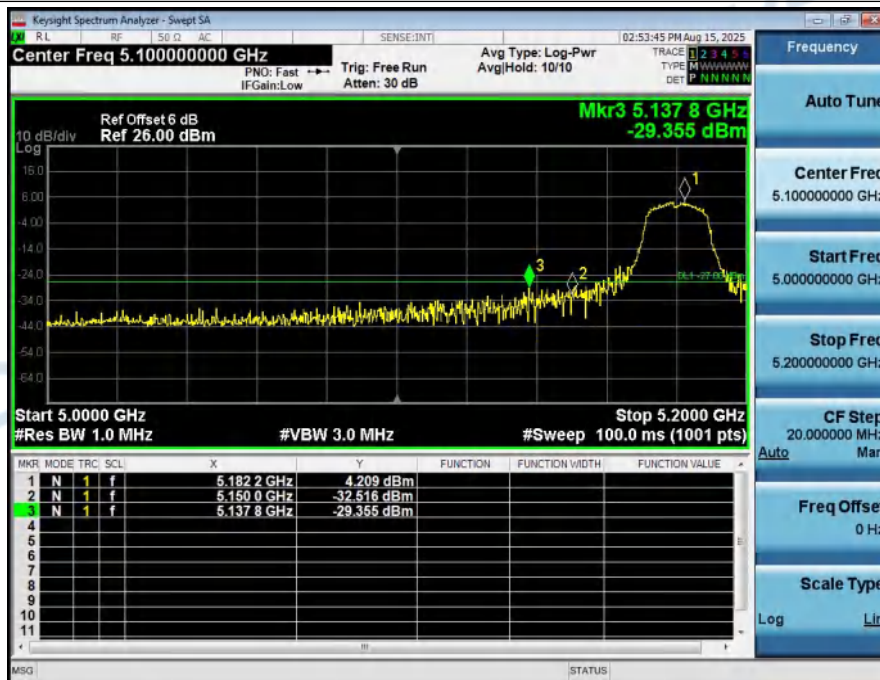
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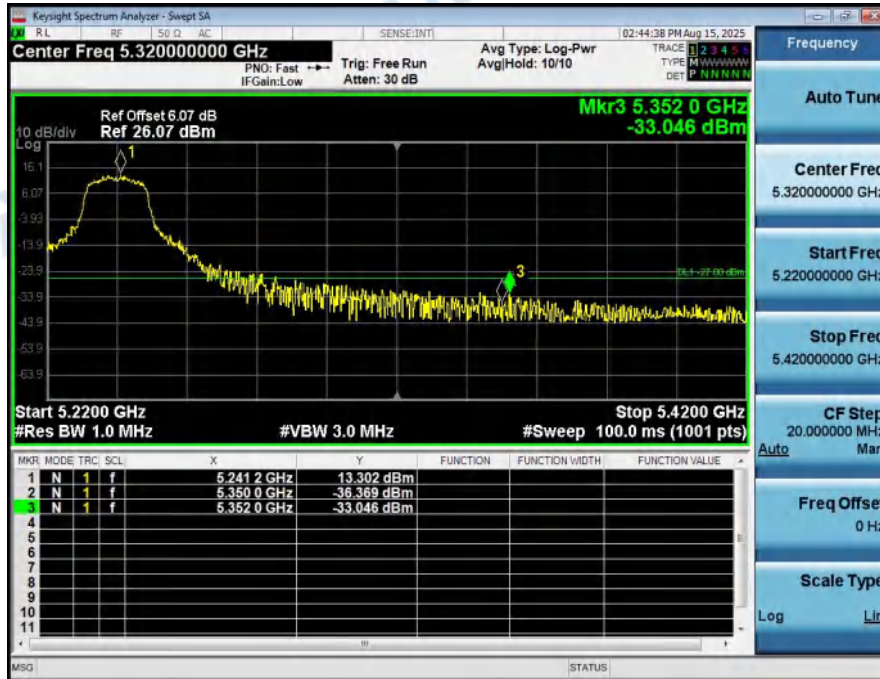
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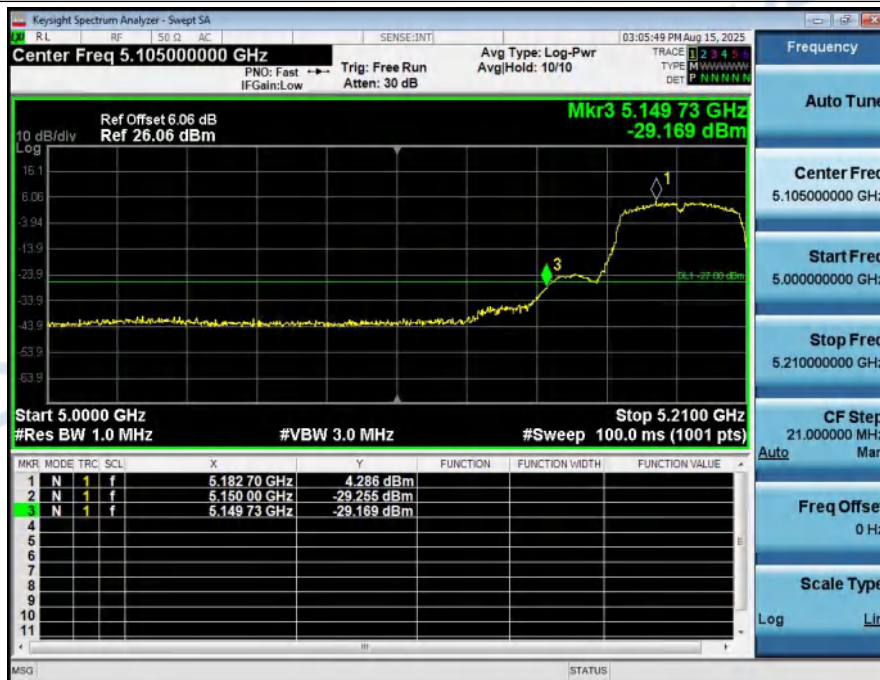
Bandedge_NVNT_ANT1_802_11ac(VHT20)_5180



Bandedge_NVNT_ANT1_802_11ac(VHT20)_5240



Bandedge_NVNT_ANT1_802_11n(HT40)_5190



Bandedge_NVNT_ANT1_802_11n(HT40)_5230



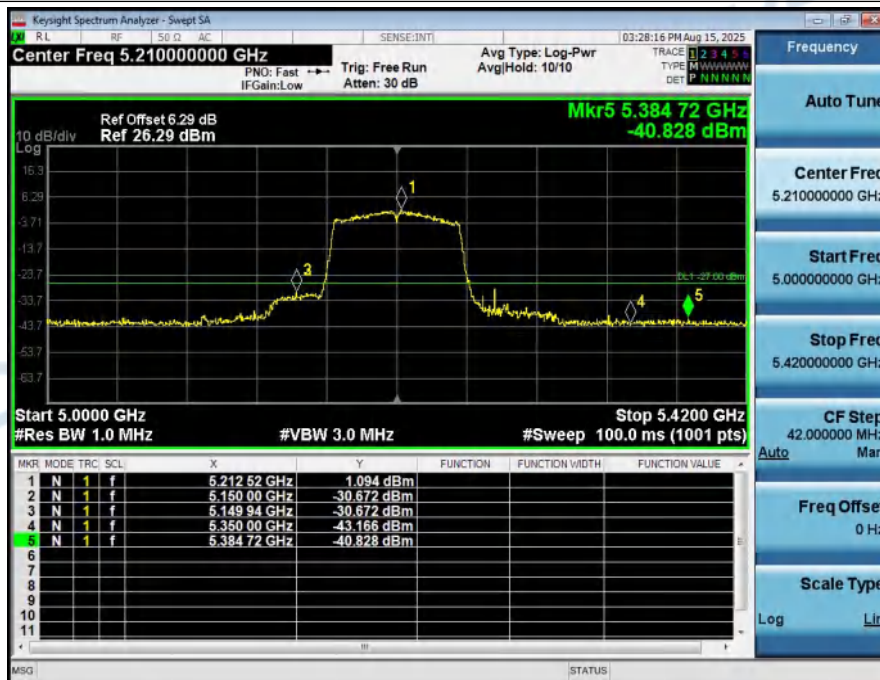
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Bandedge_NVNT_ANT1_802_11ac(VHT40)_5230



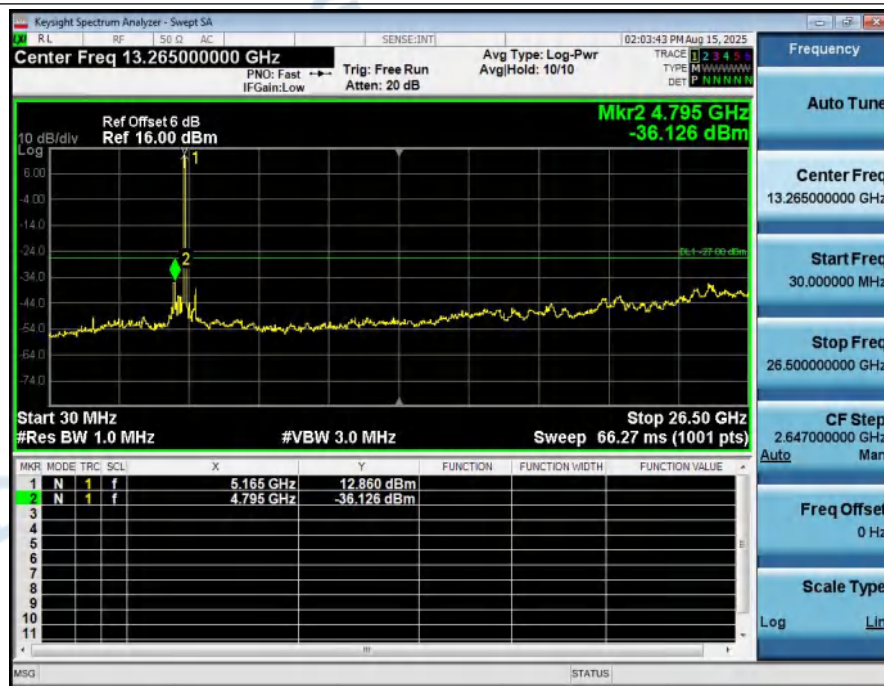
Bandedge_NVNT_ANT1_802_11ac(VHT80)_5210



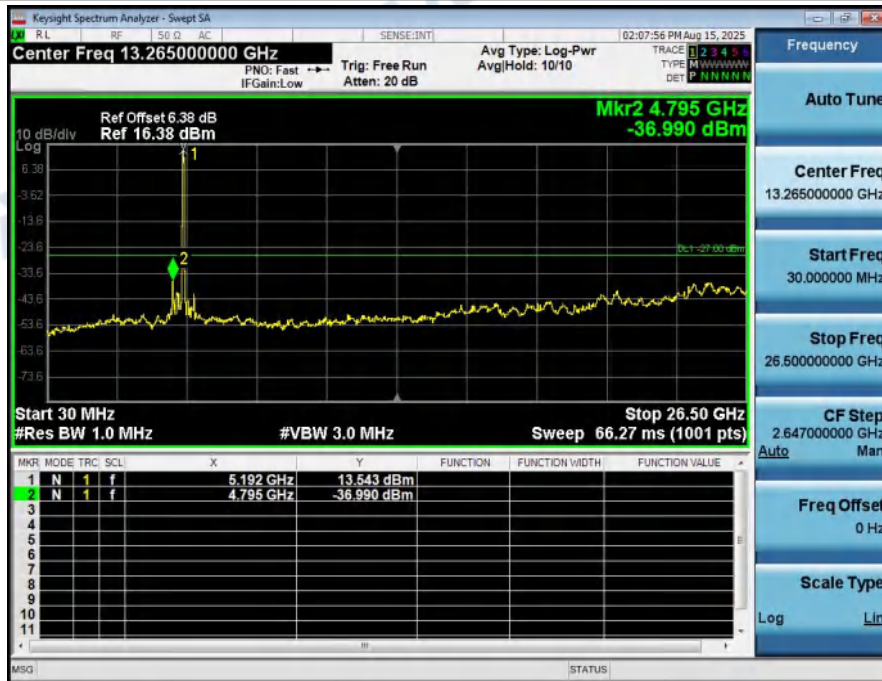
6. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark Frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	4794.60	-36.13	-27	Pass
NVNT	ANT1	802.11a	5200.00	4794.60	-36.99	-27	Pass
NVNT	ANT1	802.11a	5240.00	24991.21	-37.13	-27	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	25044.15	-36.67	-27	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	24991.21	-37.36	-27	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	25097.09	-37.34	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	25017.68	-37.76	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	25044.15	-36.76	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	25097.09	-36.91	-27	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	25017.68	-37.90	-27	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	25044.15	-37.78	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	25044.15	-37.97	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	25070.62	-37.49	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	24964.74	-36.95	-27	Pass

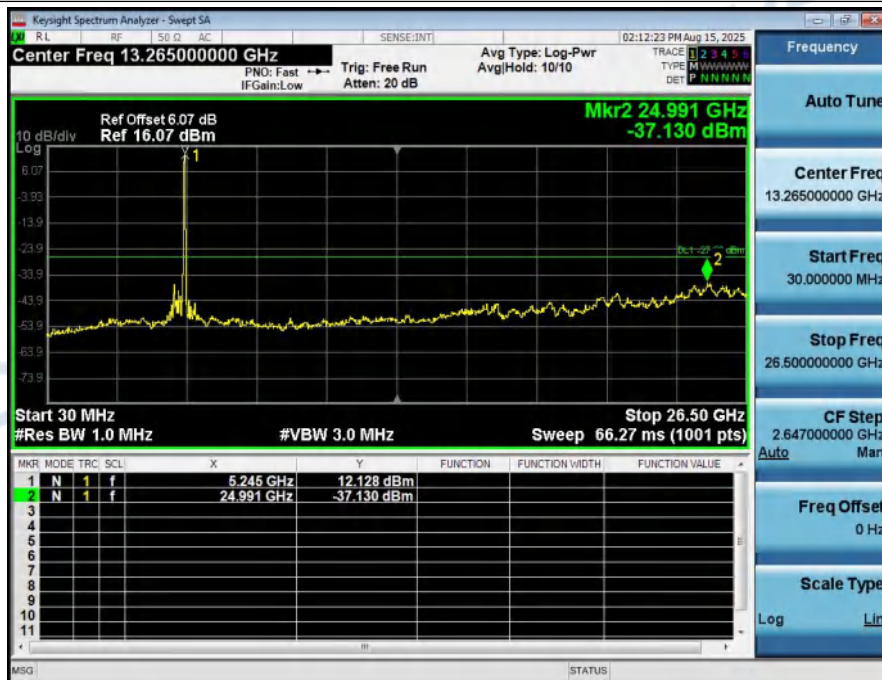
Spurious_Emission_NVNT_ANT1_802_11a_5180_20M



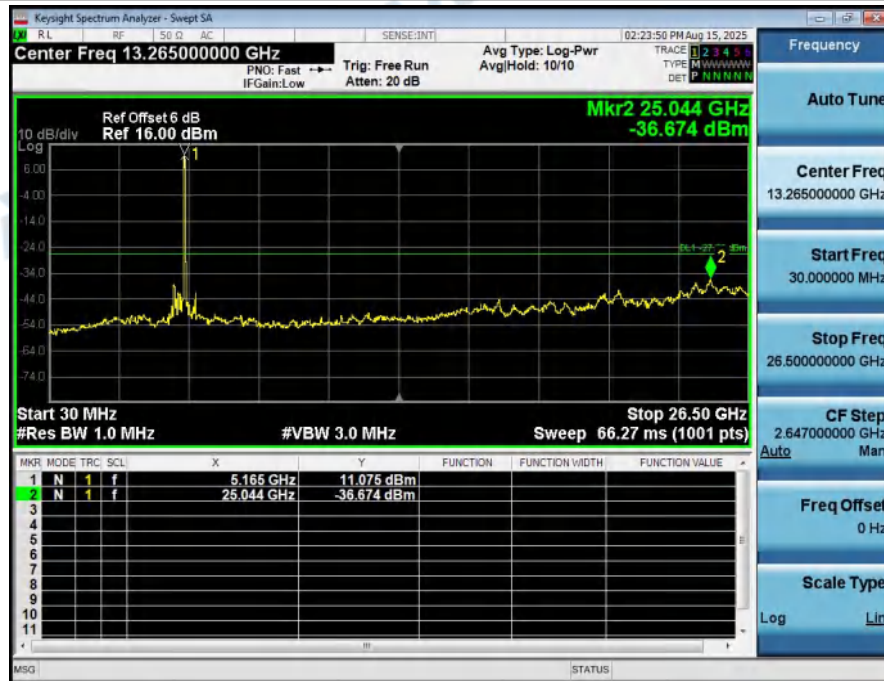
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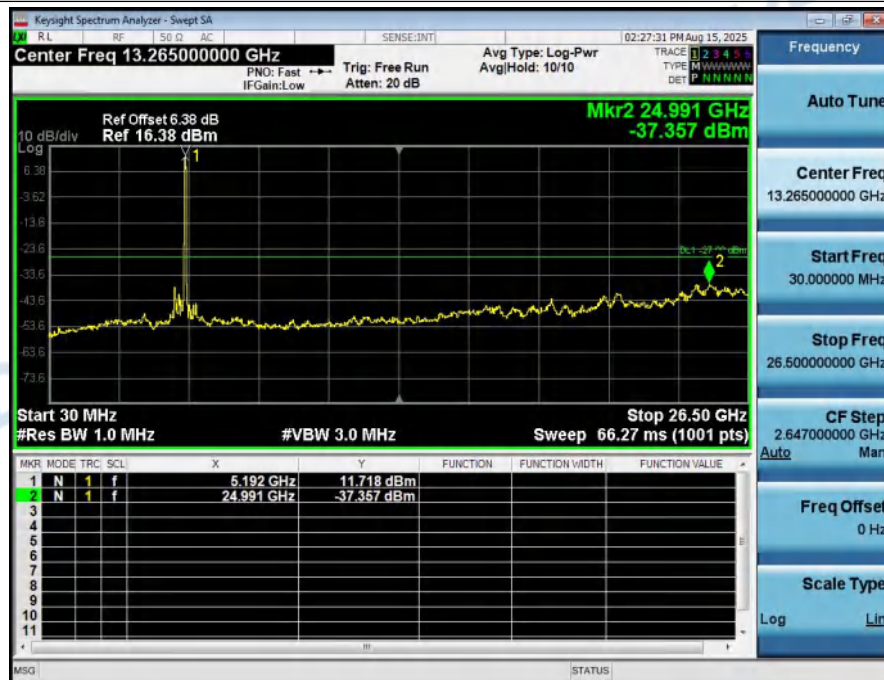
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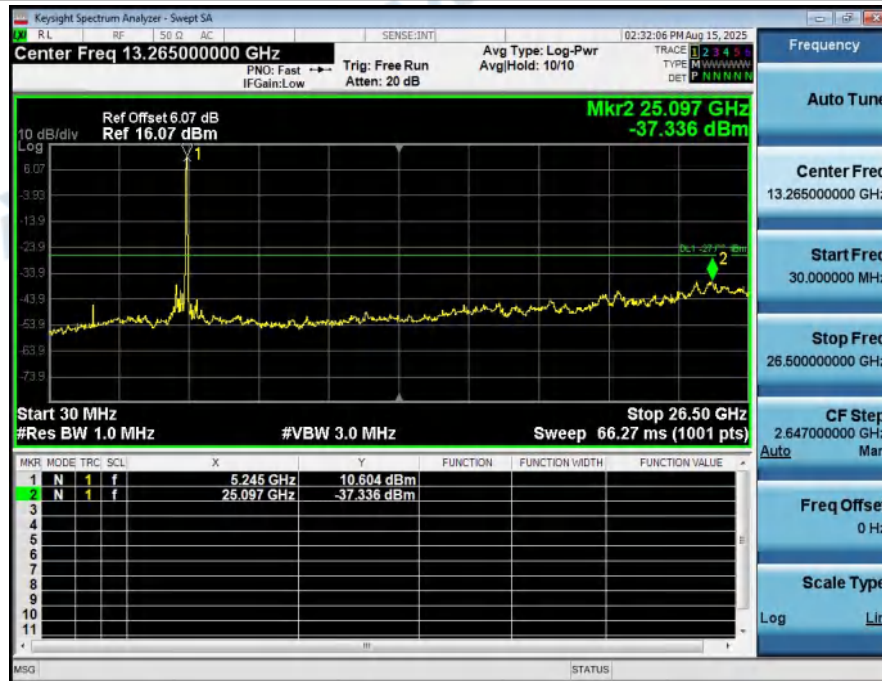
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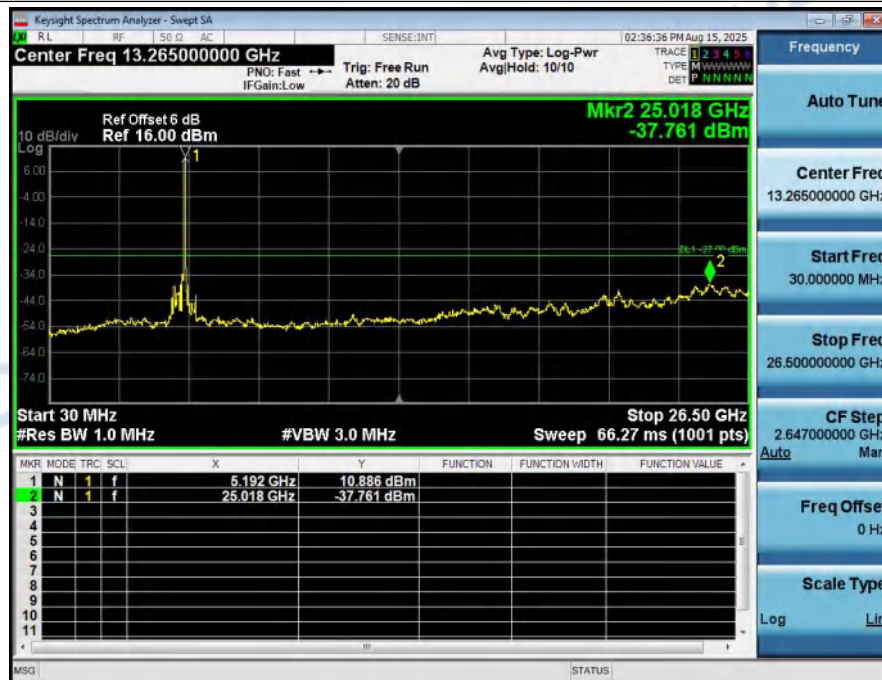
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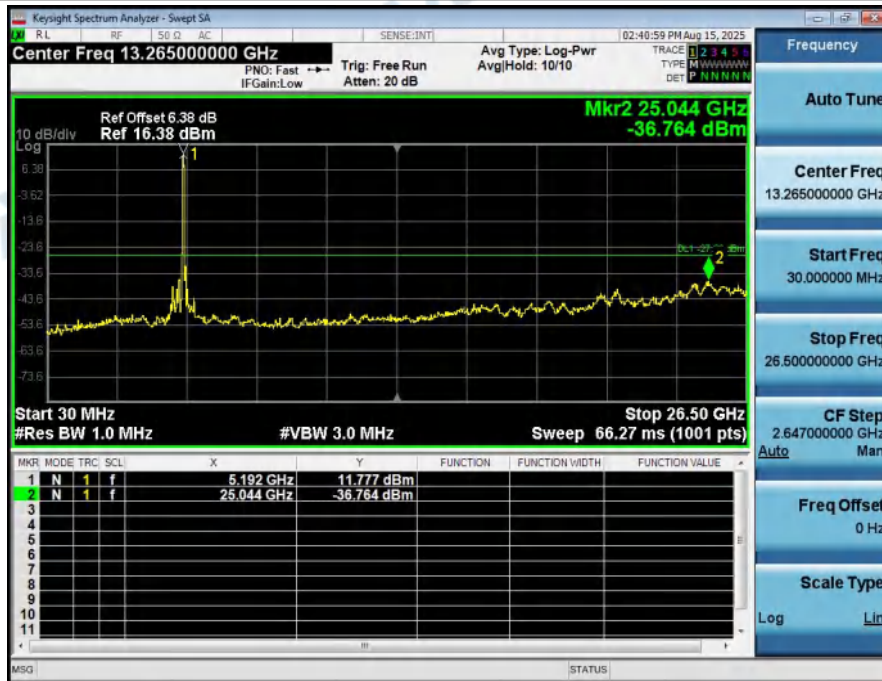
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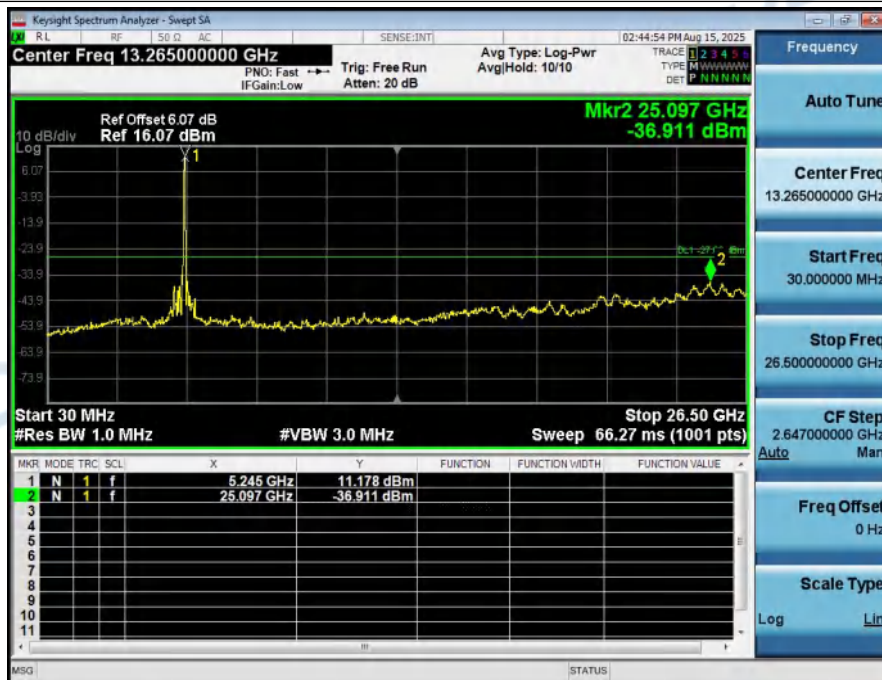
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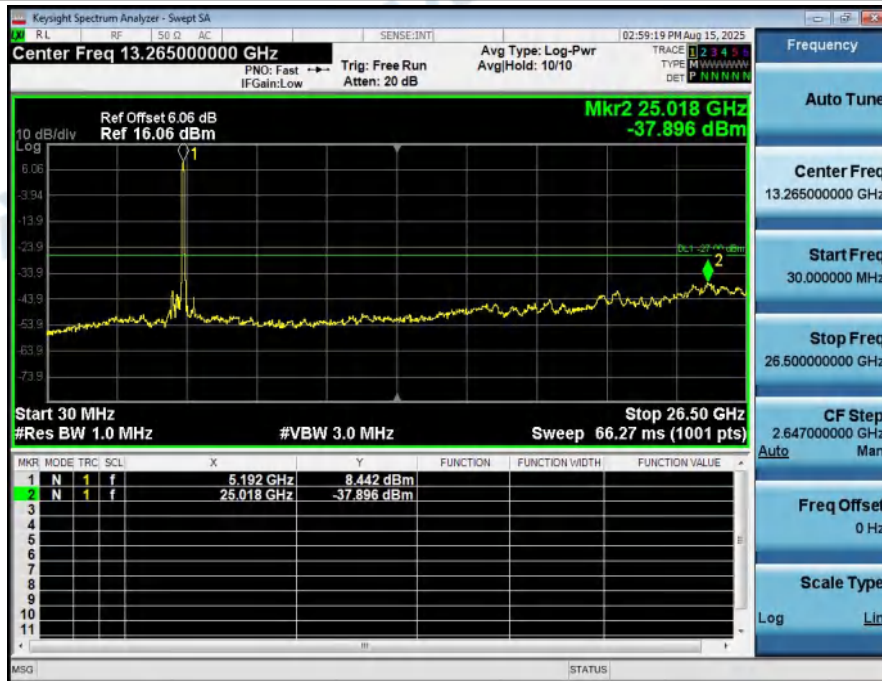
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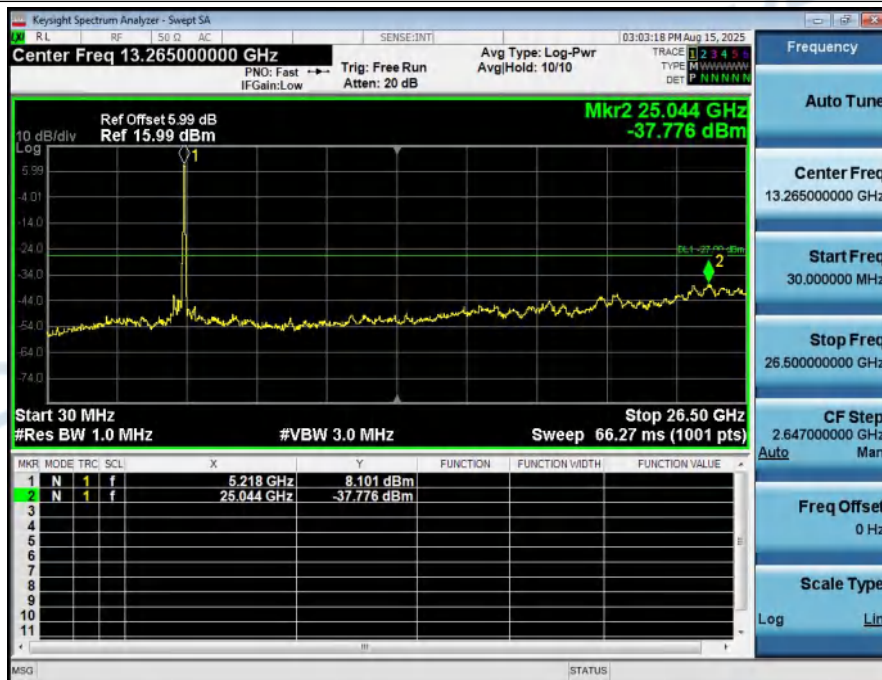
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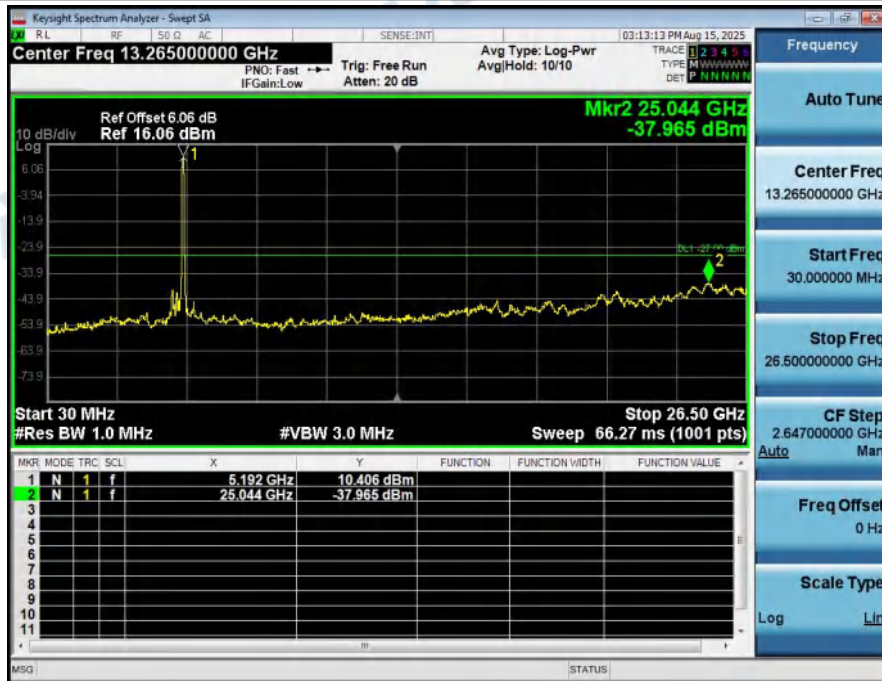
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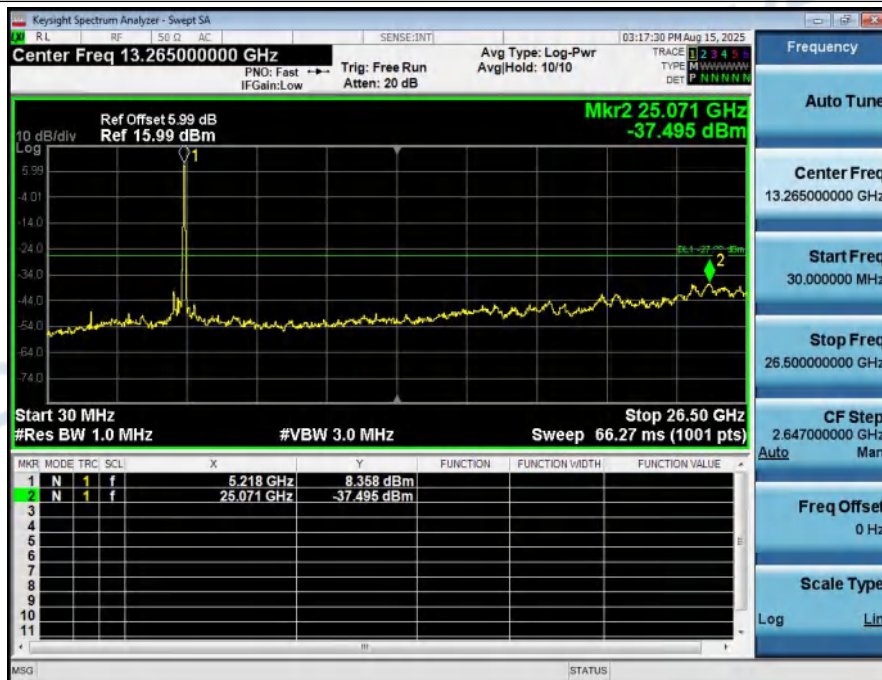
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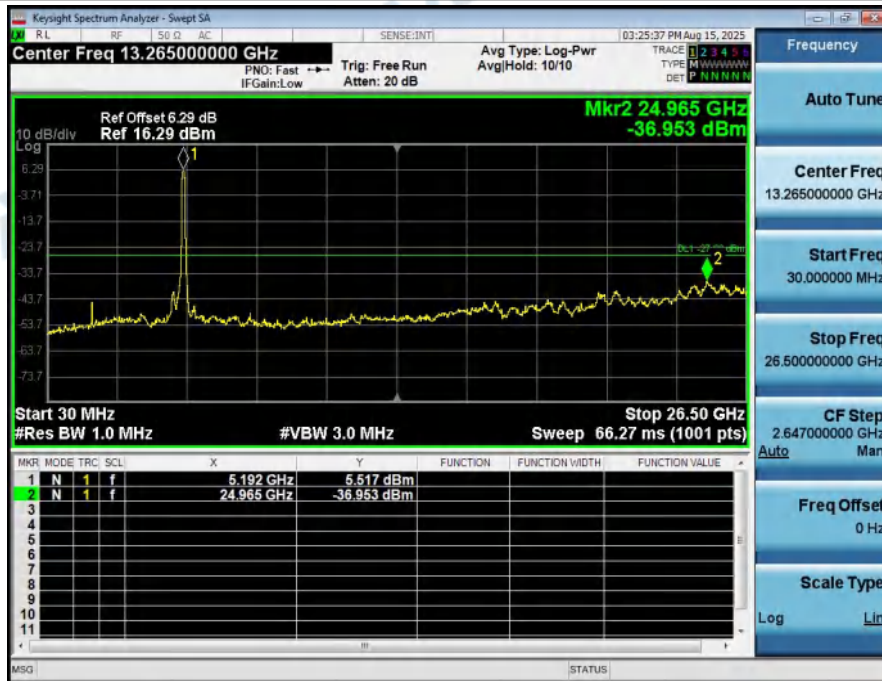
Spurious_Emission_NVNT_ANT1_802_11ac(VHT40)_5190_40M



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	5180.308	5169.396	5191.220	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5180.00	5180.066	5171.308	5188.824	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5180.00	5180.012	5171.656	5188.368	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5180.00	5179.996	5171.804	5188.188	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5180.00	5179.990	5171.892	5188.088	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5180.00	5179.976	5171.964	5187.988	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5180.00	5179.978	5172.028	5187.928	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5180.00	5179.964	5172.092	5187.836	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5180.00	5179.984	5172.172	5187.796	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5180.00	5179.984	5172.244	5187.724	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5180.00	5179.958	5172.300	5187.616	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11a	5200.00	5200.240	5188.416	5212.064	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5200.00	5200.238	5190.856	5209.620	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5200.00	5200.020	5191.532	5208.508	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5200.00	5200.022	5191.772	5208.272	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5200.00	5200.008	5191.864	5208.152	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5200.00	5200.012	5191.964	5208.060	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5200.00	5200.020	5192.060	5207.980	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5200.00	5200.002	5192.120	5207.884	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5200.00	5200.020	5192.200	5207.840	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5200.00	5200.018	5192.268	5207.768	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5200.00	5200.032	5192.332	5207.732	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11a	5240.00	5240.000	5230.412	5249.588	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5240.00	5239.982	5231.492	5248.472	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5240.00	5239.972	5231.724	5248.220	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5240.00	5239.972	5231.836	5248.108	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5240.00	5239.972	5231.928	5248.016	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5240.00	5239.964	5232.000	5247.928	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5240.00	5239.960	5232.064	5247.856	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5240.00	5239.940	5232.124	5247.756	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5240.00	5239.952	5232.200	5247.704	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5240.00	5239.960	5232.256	5247.664	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5240.00	5239.944	5232.324	5247.564	5150~5250	Pass

***** End of Report *****