

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

HT250724009--G3200--5.2G--FCC FCC_5.2G_WIFI (Part15.407) Test Data

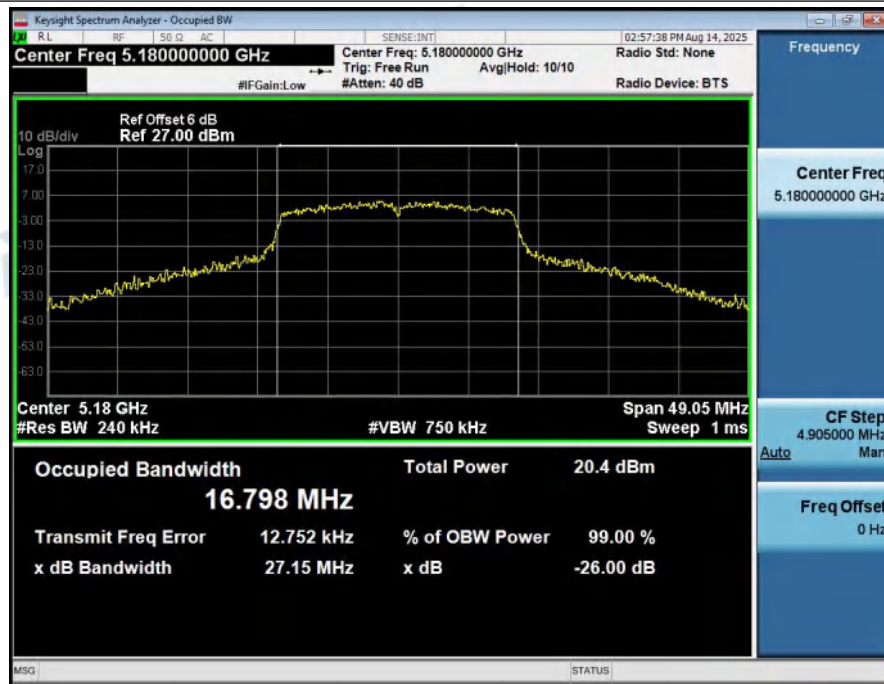
1. -26dB and 99% Emission Bandwidth

Condition	Antenna	Modulation	Frequency(MHz)	-26dB_Emission_Bandwidth(MHz)	Occupied Bandwidth(MHz)
NVNT	ANT1	802.11a	5180.00	27.15	16.59
NVNT	ANT1	802.11a	5200.00	27.28	16.64
NVNT	ANT1	802.11a	5240.00	28.33	16.59
NVNT	ANT1	802.11n(HT20)	5180.00	29.31	17.83
NVNT	ANT1	802.11n(HT20)	5200.00	29.08	17.78
NVNT	ANT1	802.11n(HT20)	5240.00	30.13	17.77
NVNT	ANT1	802.11ac(VHT20)	5180.00	29.12	17.82
NVNT	ANT1	802.11ac(VHT20)	5200.00	26.33	17.84
NVNT	ANT1	802.11ac(VHT20)	5240.00	27.91	17.83
NVNT	ANT1	802.11n(HT40)	5190.00	66.38	36.70
NVNT	ANT1	802.11n(HT40)	5230.00	58.01	36.49
NVNT	ANT1	802.11ac(VHT40)	5190.00	66.42	36.66
NVNT	ANT1	802.11ac(VHT40)	5230.00	51.35	36.50
NVNT	ANT1	802.11ac(VHT80)	5210.00	128.19	75.87

99%_OCB_NVNT_ANT1_802_11a_5180



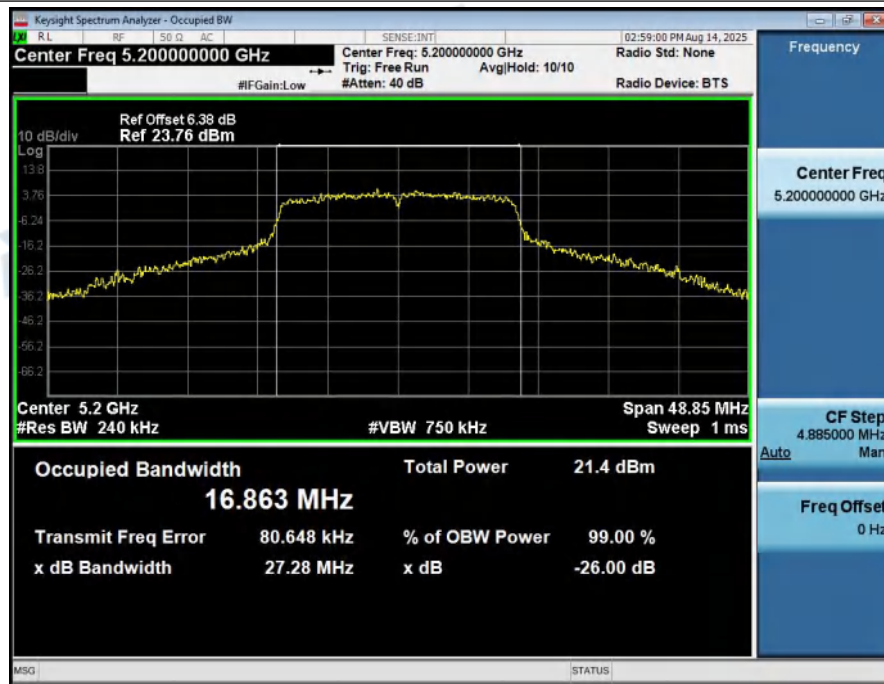
-26BW_NVNT_ANT1_802_11a_5180



99%_OCB_NVNT_ANT1_802_11a_5200



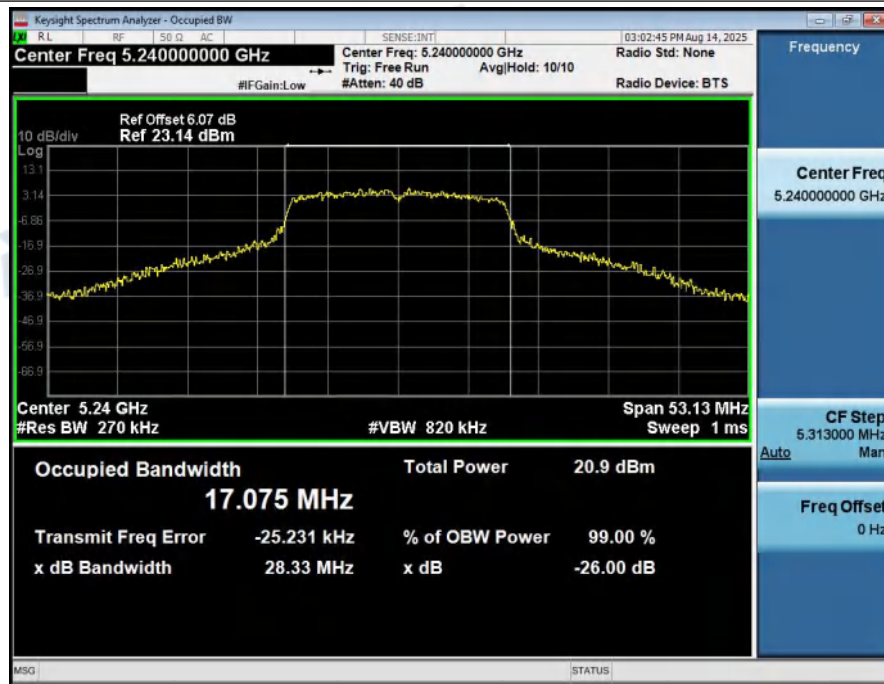
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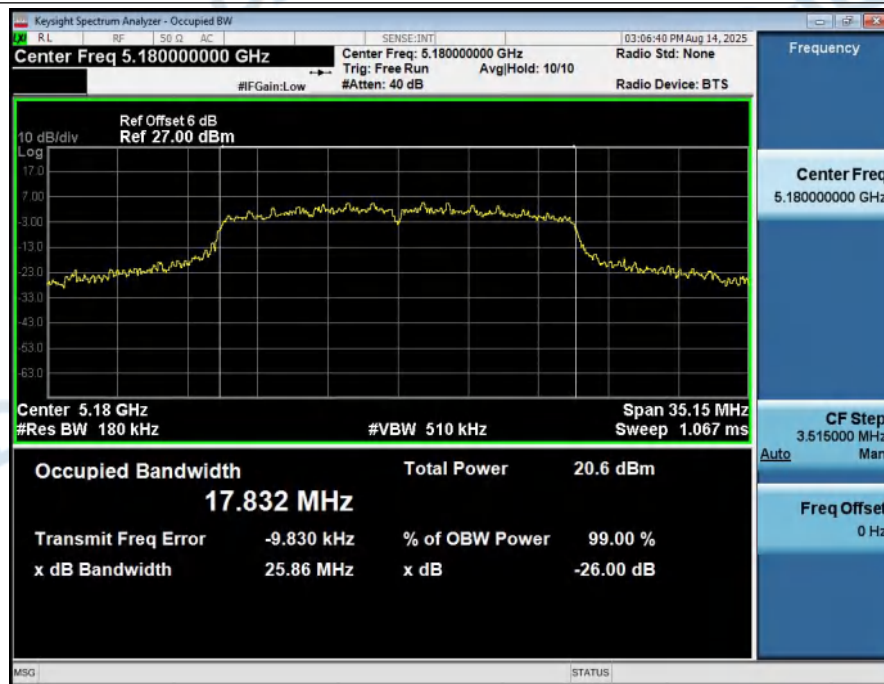
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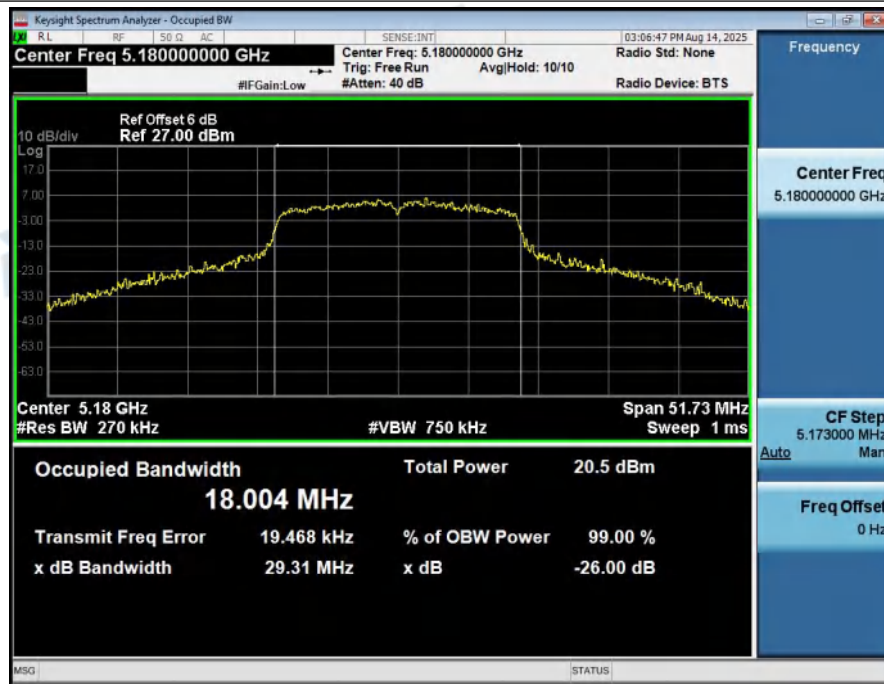
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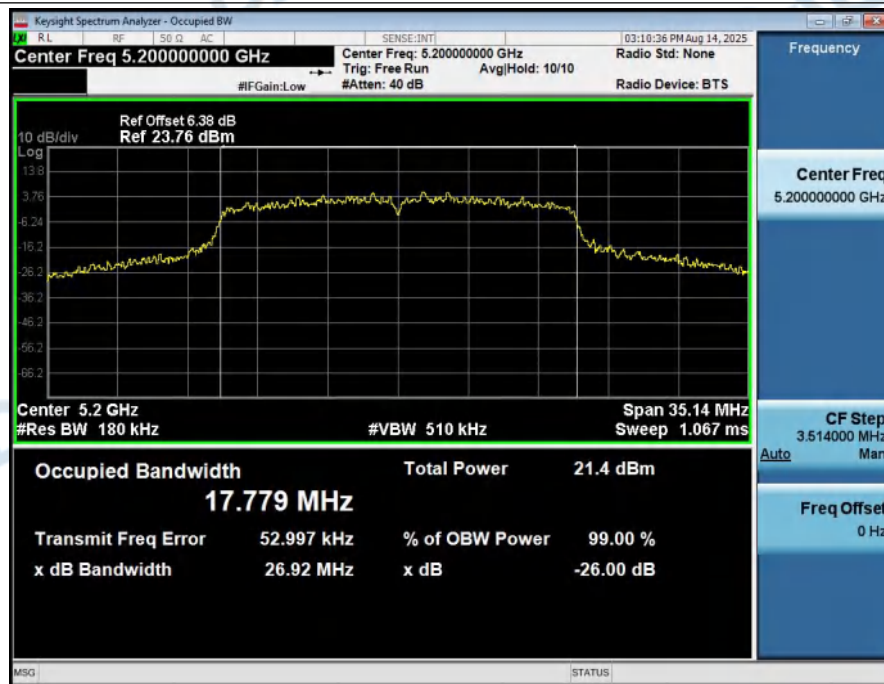
99%_OCB_NVNT_ANT1_802_11n(HT20)_5180



-26BW_NVNT_ANT1_802_11n(HT20)_5180



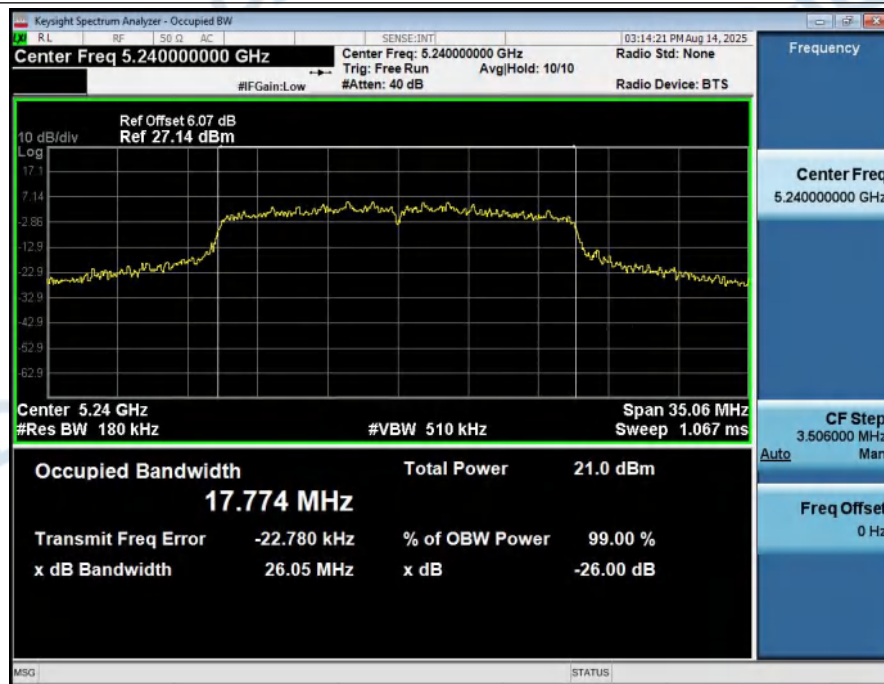
99%_OCB_NVNT_ANT1_802_11n(HT20)_5200



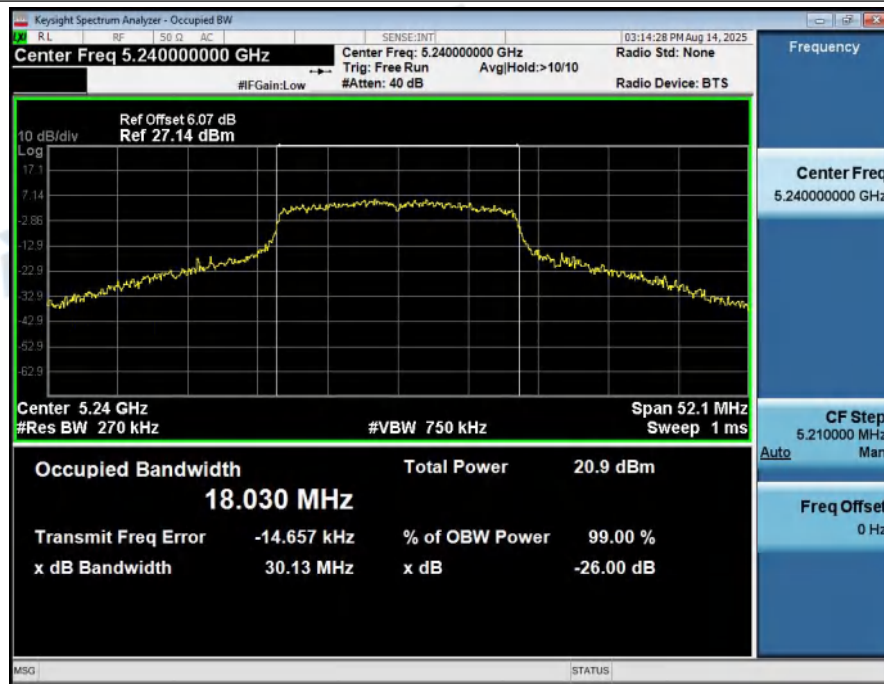
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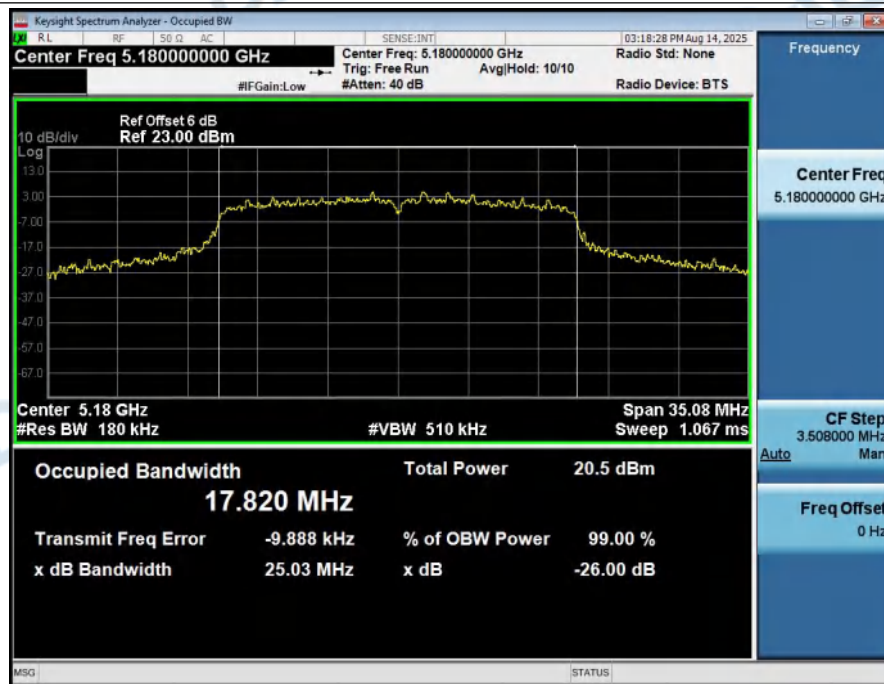
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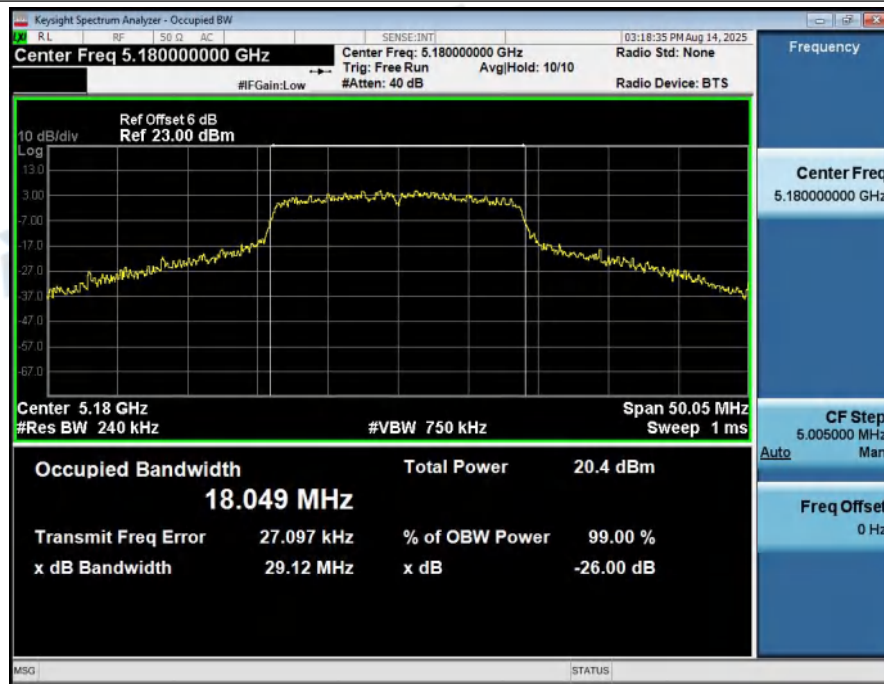
-26BW_NVNT_ANT1_802_11n(HT20)_5240



99%_OCB_NVNT_ANT1_802_11ac(VHT20)_5180



-26BW_NVNT_ANT1_802_11ac(VHT20)_5180



99%_OCB_NVNT_ANT1_802_11ac(VHT20)_5200



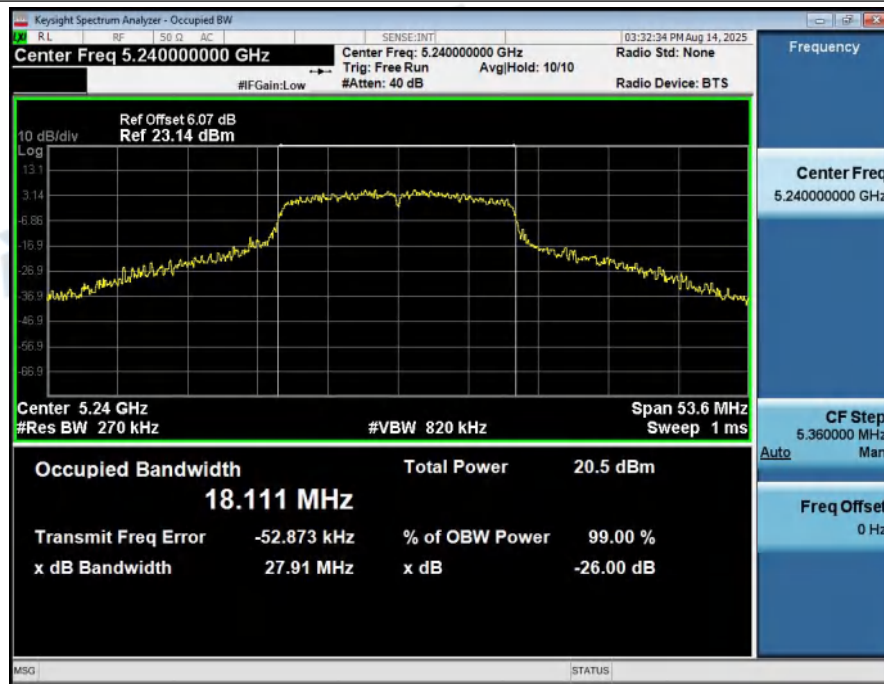
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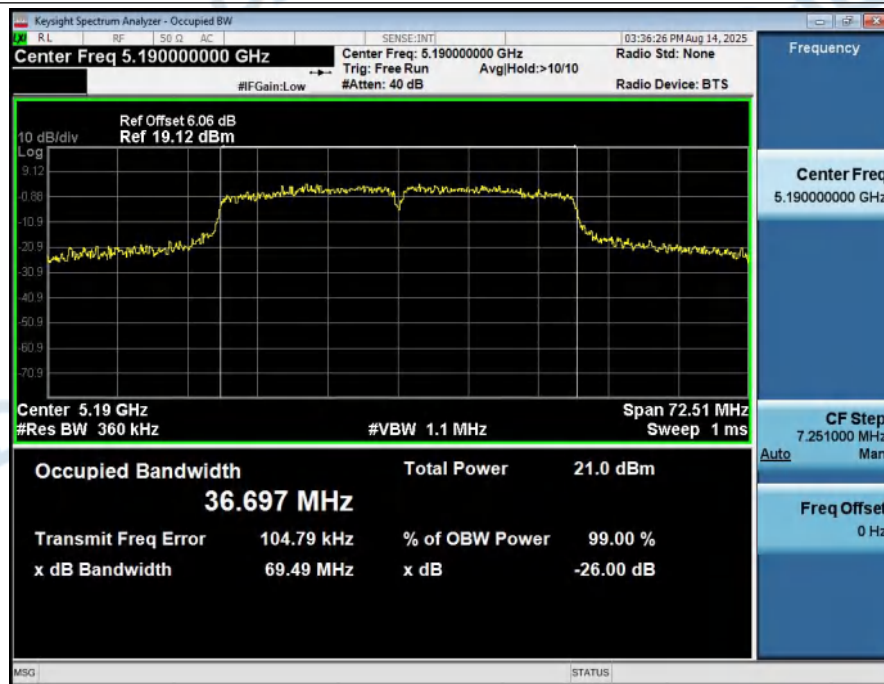
99%_OCB_NVNT_ANT1_802_11ac(VHT20)_5240



-26BW_NVNT_ANT1_802_11ac(VHT20)_5240



99%_OCB_NVNT_ANT1_802_11n(HT40)_5190



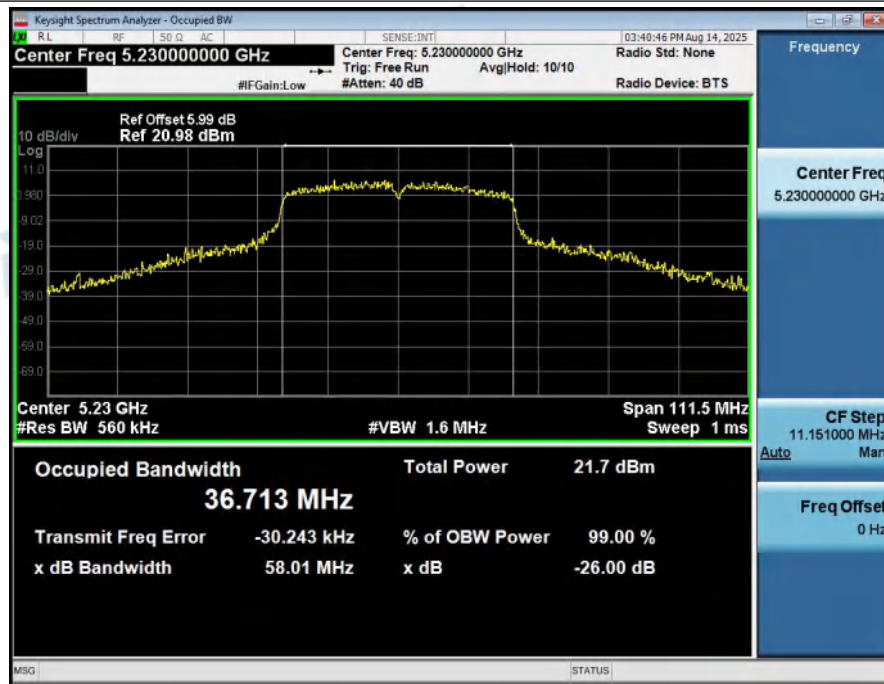
-26BW_NVNT_ANT1_802_11n(HT40)_5190



99%_OCB_NVNT_ANT1_802_11n(HT40)_5230



-26BW_NVNT_ANT1_802_11n(HT40)_5230



99%_OCB_NVNT_ANT1_802_11ac(VHT40)_5190



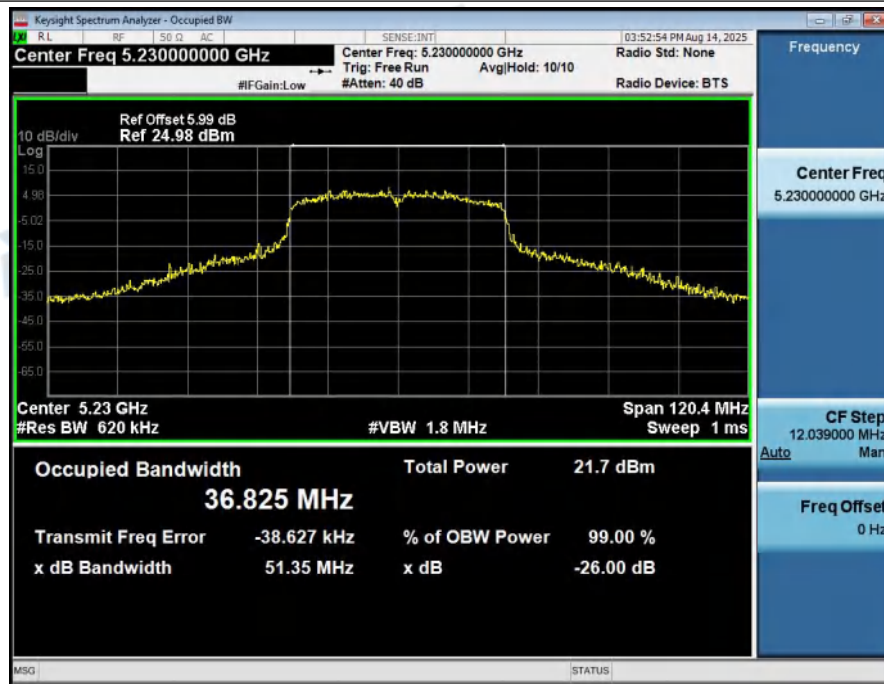
-26BW_NVNT_ANT1_802_11ac(VHT40)_5190



99%_OCB_NVNT_ANT1_802_11ac(VHT40)_5230



-26BW_NVNT_ANT1_802_11ac(VHT40)_5230



99%_OCB_NVNT_ANT1_802_11ac(VHT80)_5210



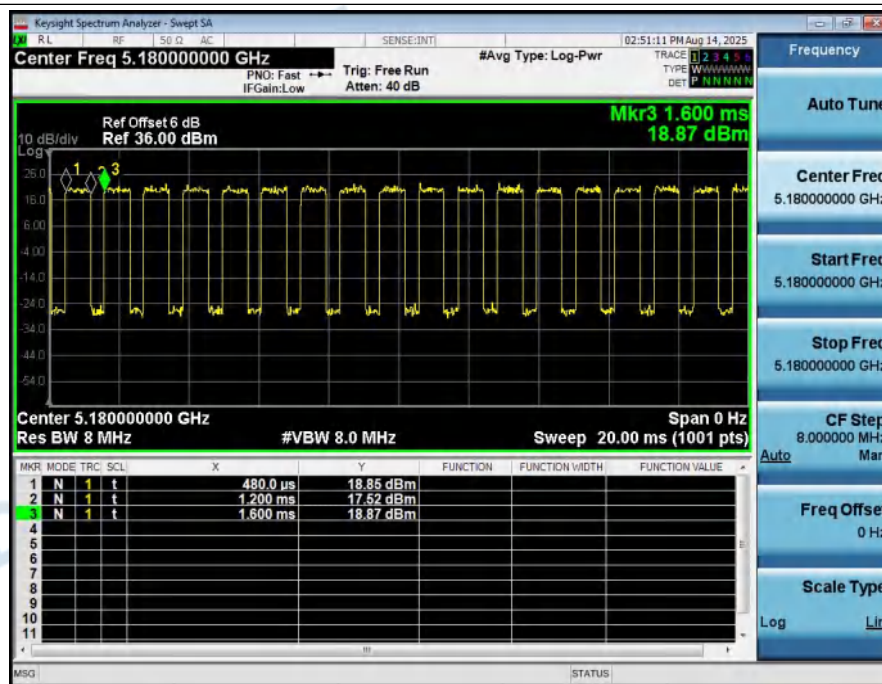
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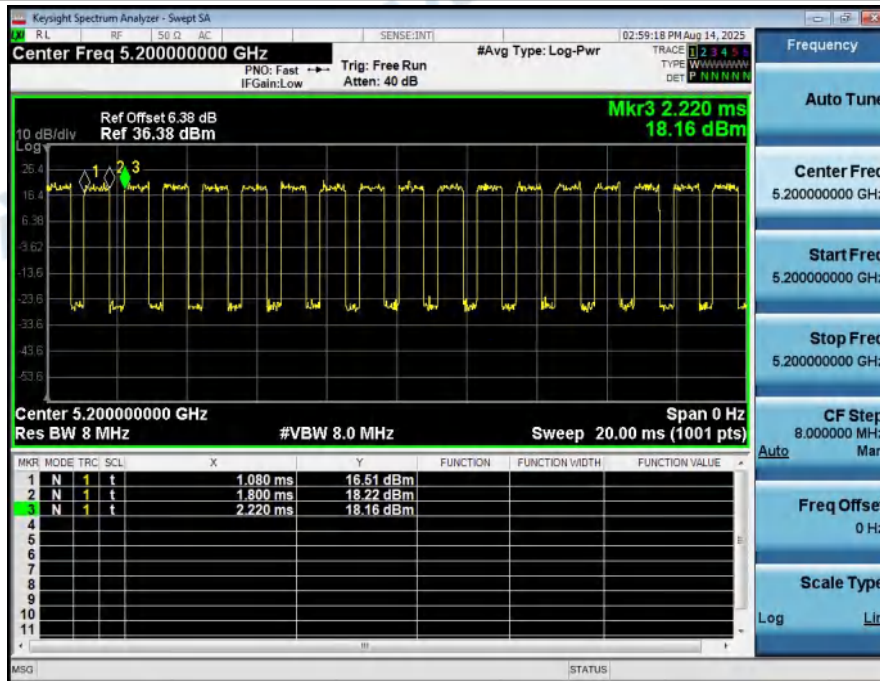
2. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5180.00	64.29	1.92
NVNT	ANT1	802.11a	5200.00	63.16	2.00
NVNT	ANT1	802.11a	5240.00	64.29	1.92
NVNT	ANT1	802.11n(HT20)	5180.00	61.82	2.09
NVNT	ANT1	802.11n(HT20)	5200.00	61.82	2.09
NVNT	ANT1	802.11n(HT20)	5240.00	61.11	2.14
NVNT	ANT1	802.11ac(VHT20)	5180.00	59.62	2.25
NVNT	ANT1	802.11ac(VHT20)	5200.00	59.62	2.25
NVNT	ANT1	802.11ac(VHT20)	5240.00	59.62	2.25
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	60.00	2.22
NVNT	ANT1	802.11ac(VHT80)	5210.00	41.67	3.80

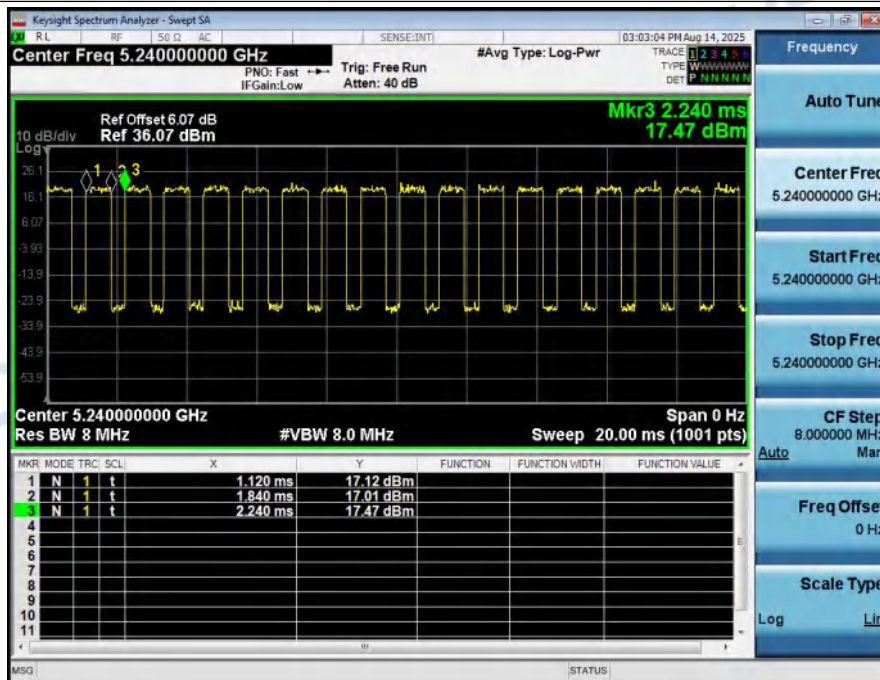
Duty_Cycle_NVNT_ANT1_802_11a_5180



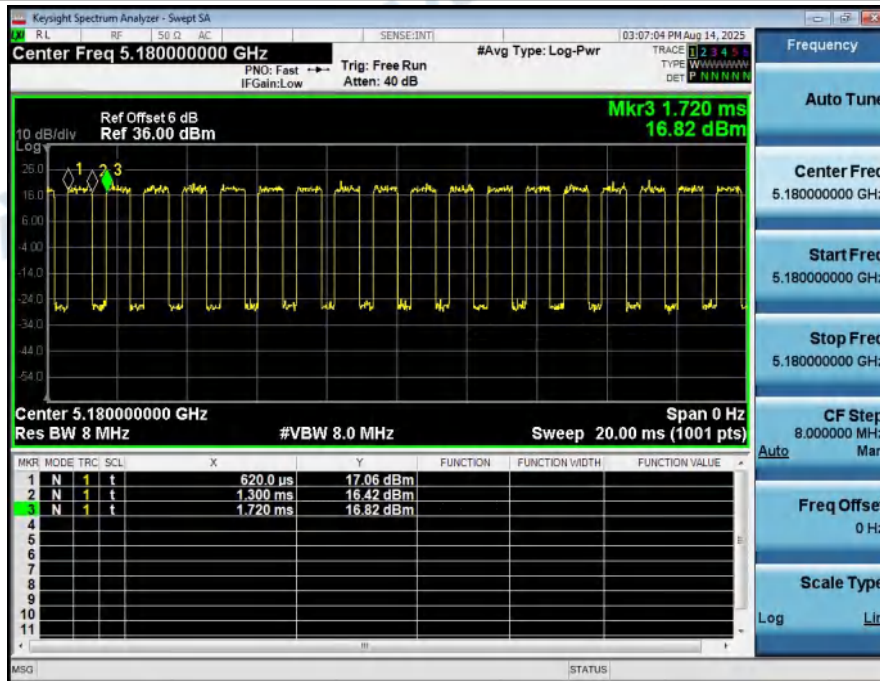
Duty_Cycle_NVNT_ANT1_802_11a_5200



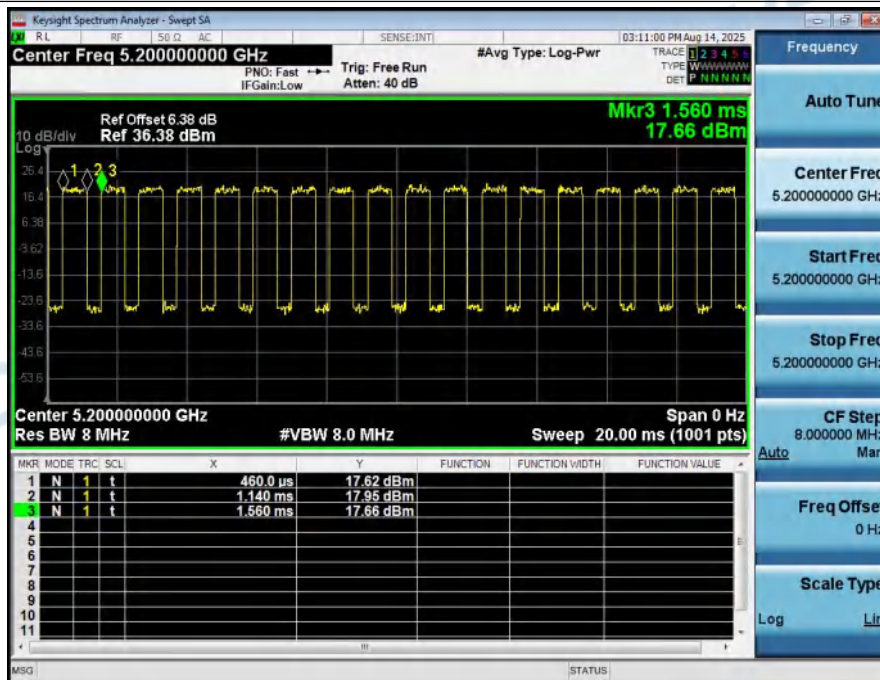
Duty_Cycle_NVNT_ANT1_802_11a_5240



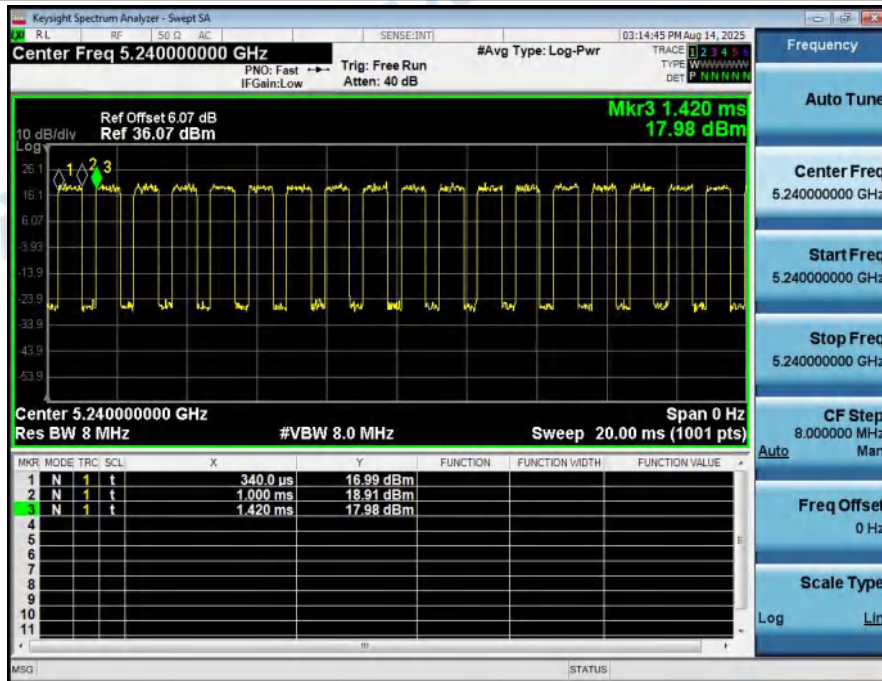
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_5180



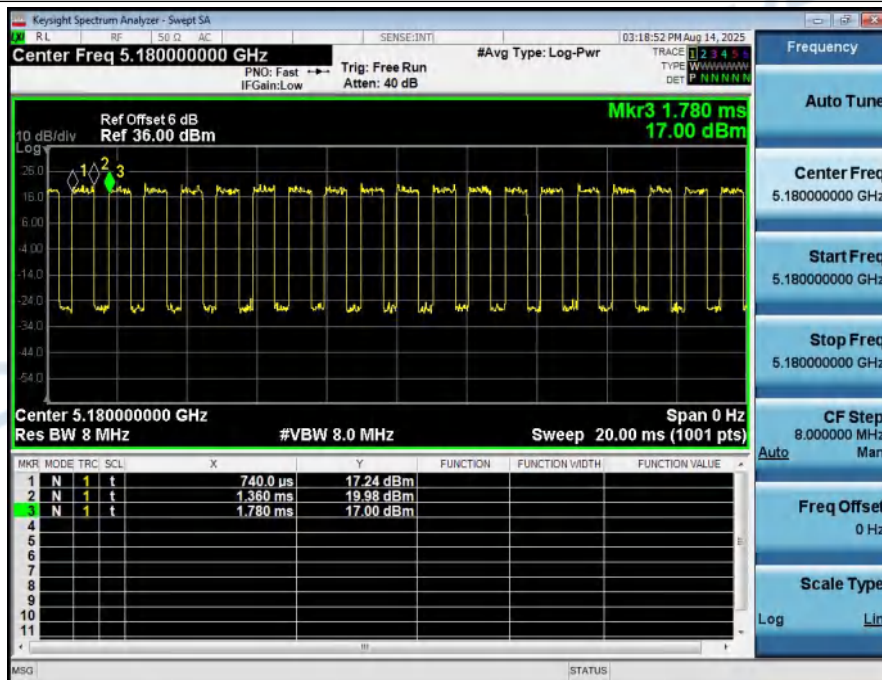
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_5200



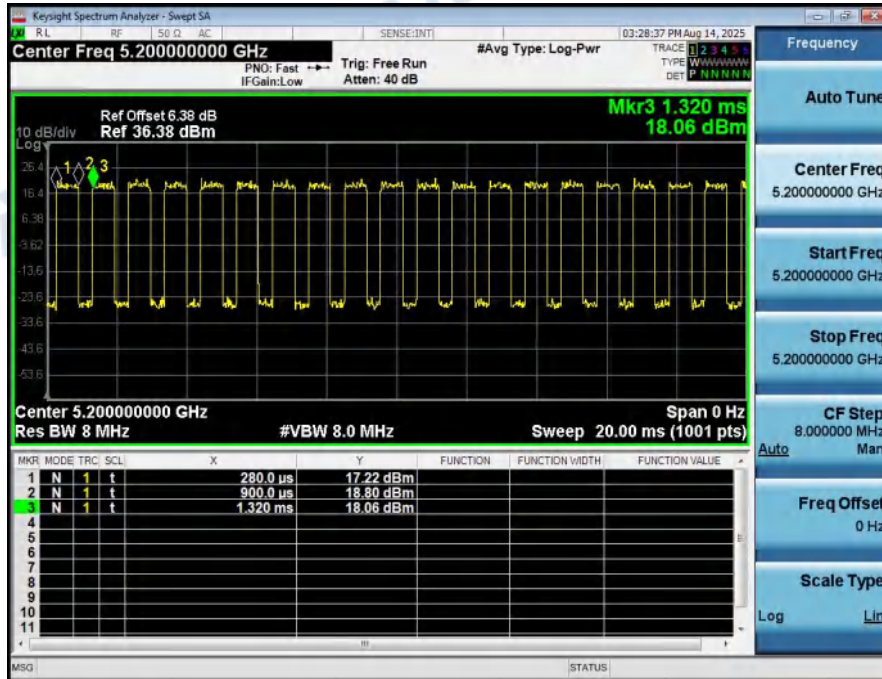
Duty_Cycle_NVNT_ANT1_802_11n(HT20)_5240



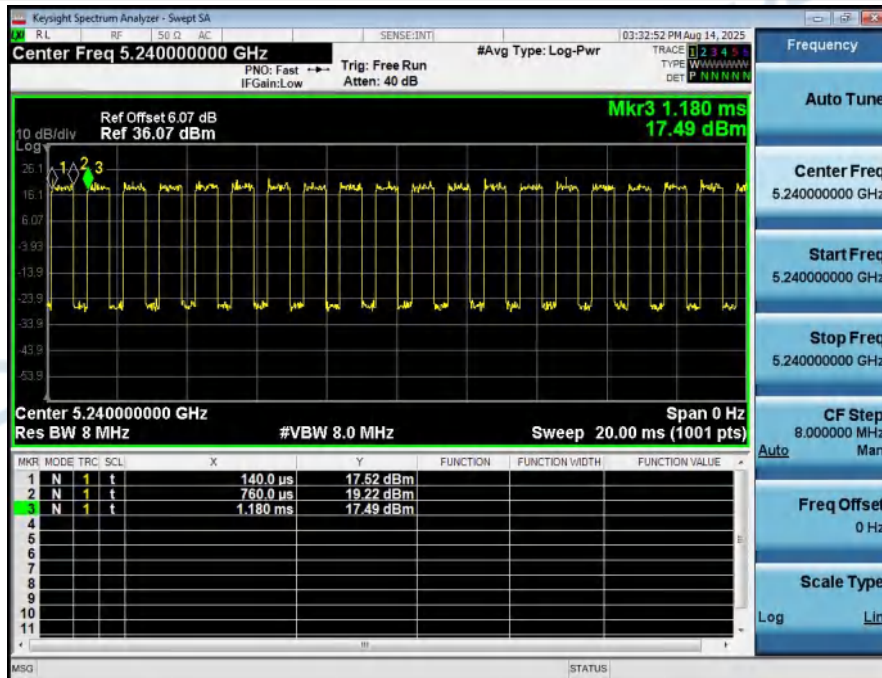
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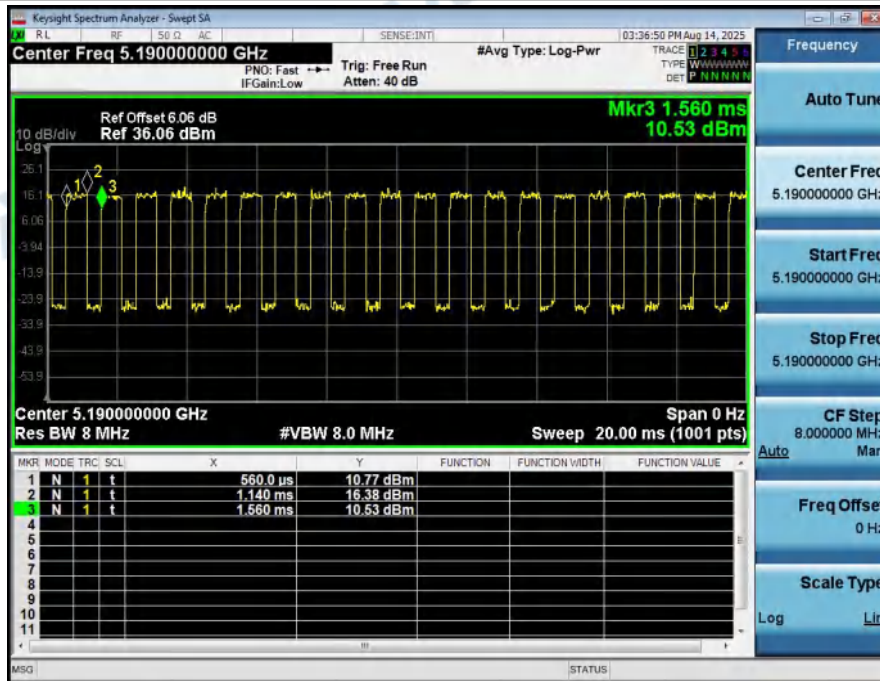
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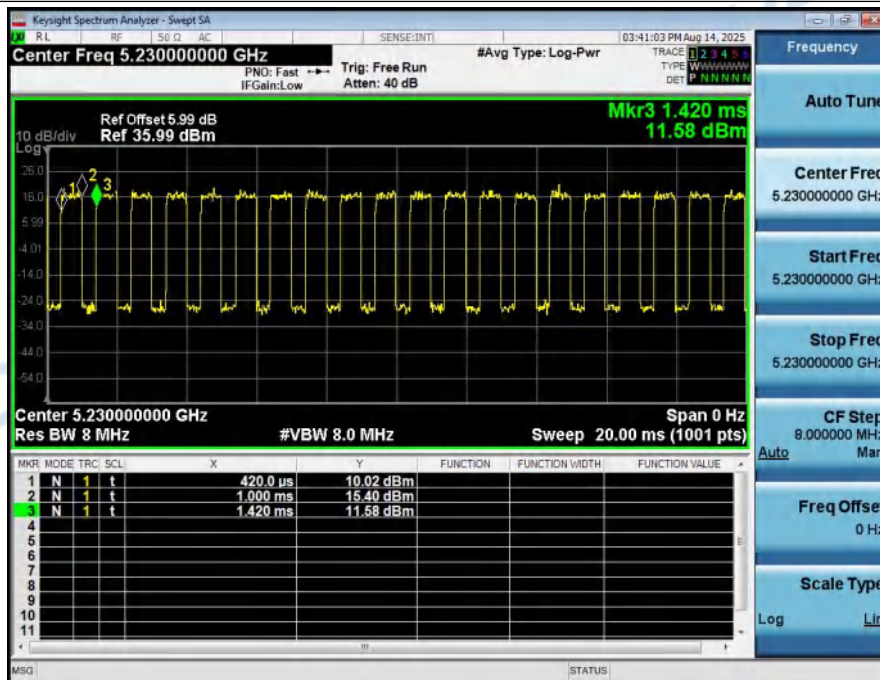
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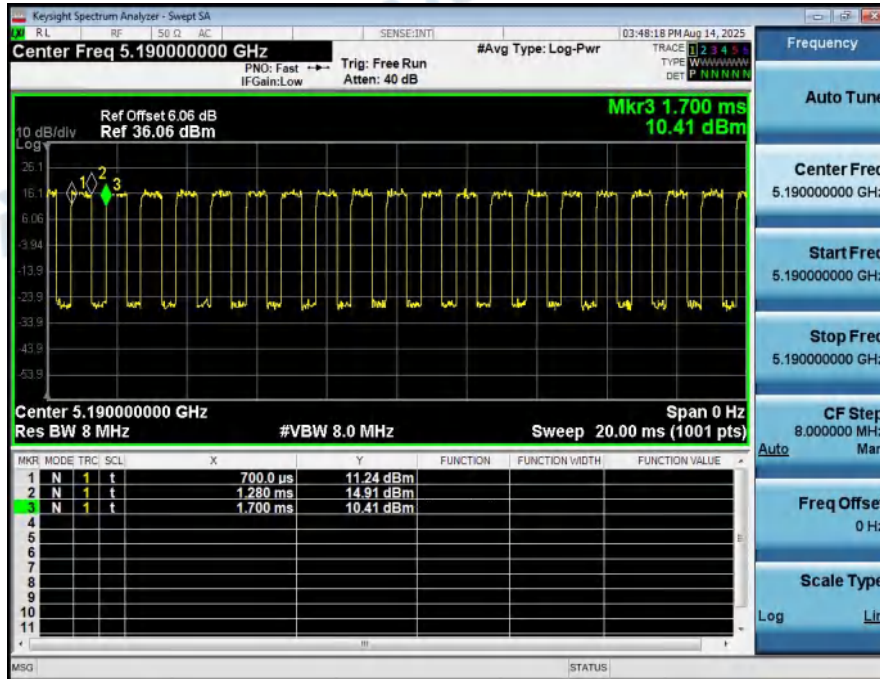
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5190



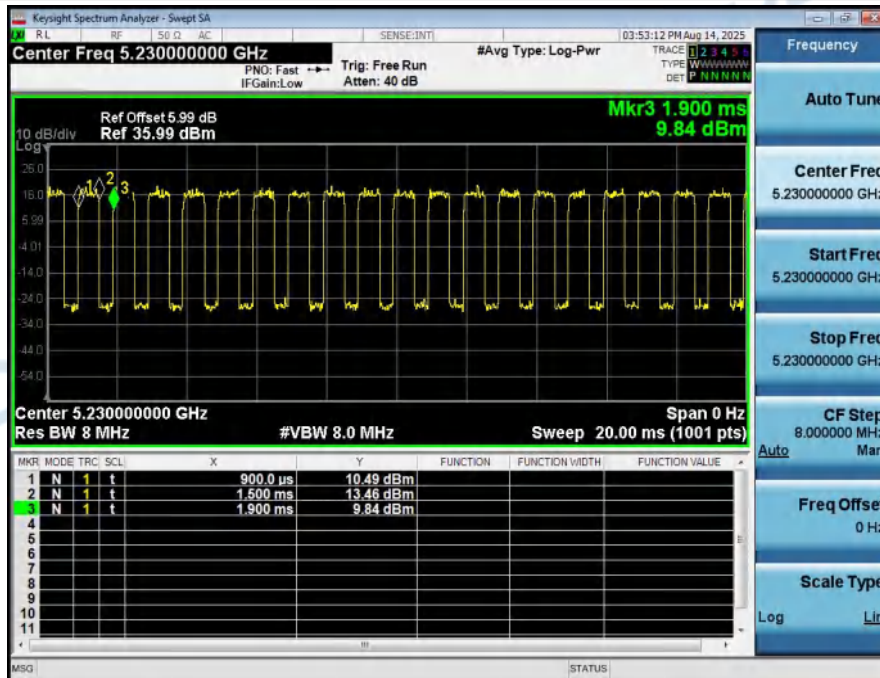
Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5230



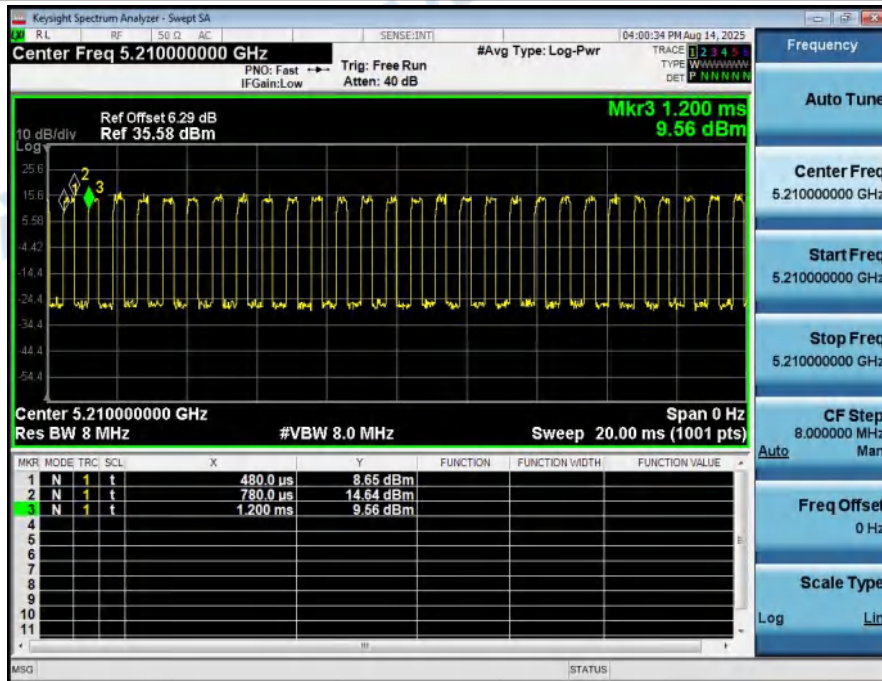
Duty_Cycle_NVNT_ANT1_802_11ac(VHT40)_5190



Duty_Cycle_NVNT_ANT1_802_11ac(VHT40)_5230



Duty_Cycle_NVNT_ANT1_802_11ac(VHT80)_5210



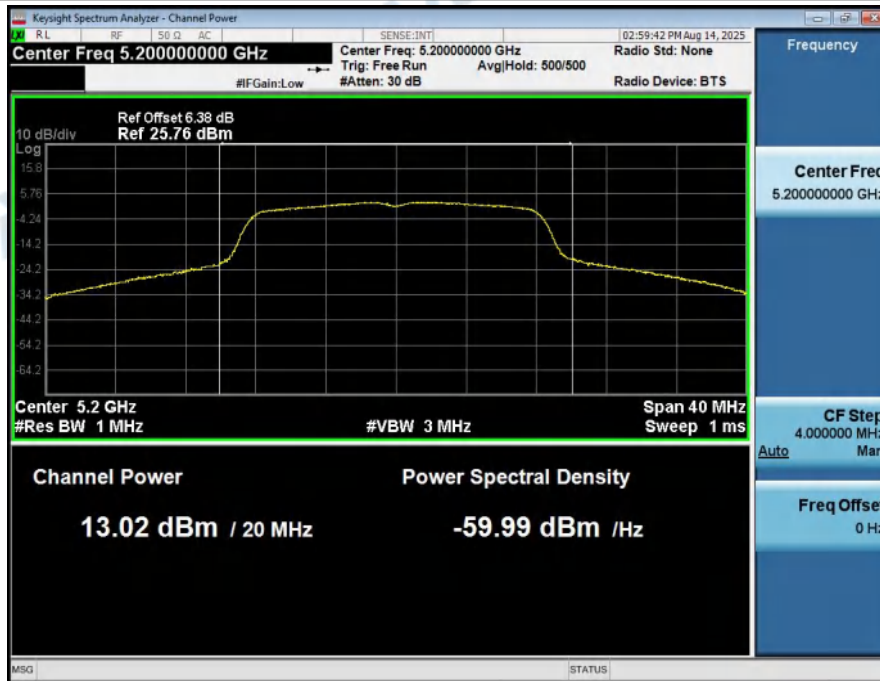
3. Maximum Conducted Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	11.92	1.92	13.84	24	Pass
NVNT	ANT1	802.11a	5200.00	13.02	2.00	15.02	24	Pass
NVNT	ANT1	802.11a	5240.00	12.43	1.92	14.35	24	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	11.69	2.09	13.78	24	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	12.94	2.09	15.03	24	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	12.42	2.14	14.56	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	11.98	2.25	14.23	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	12.64	2.25	14.89	24	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	12.23	2.25	14.48	24	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	12.15	2.37	14.52	24	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	12.45	2.37	14.82	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	12.05	2.37	14.42	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	12.67	2.22	14.89	24	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	11.31	3.80	15.11	24	Pass

Maximum_Conducted_Output_Power_NVNT_ANT1_802_11a_5180_20M



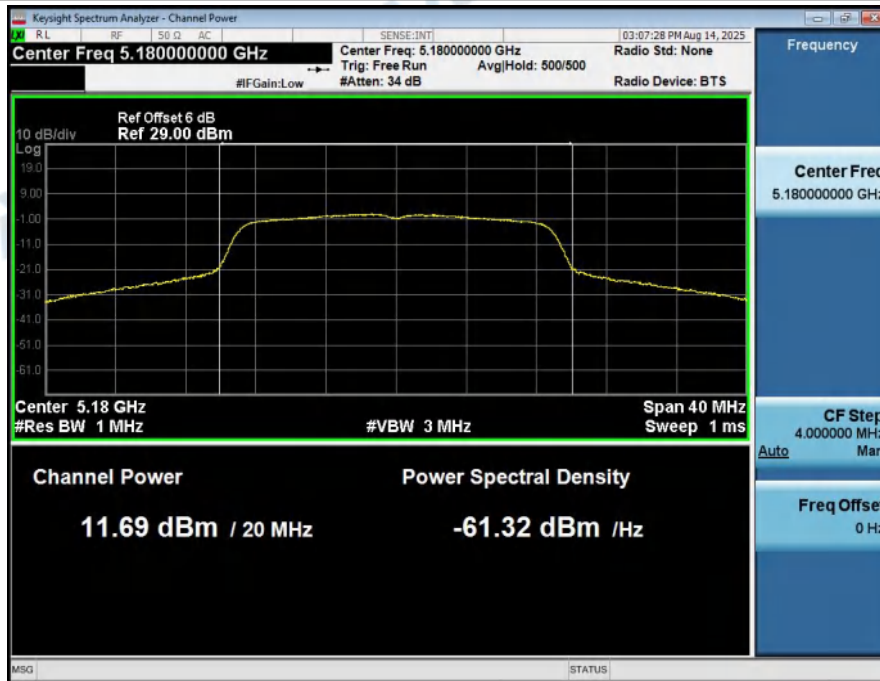
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11a_5200_20M



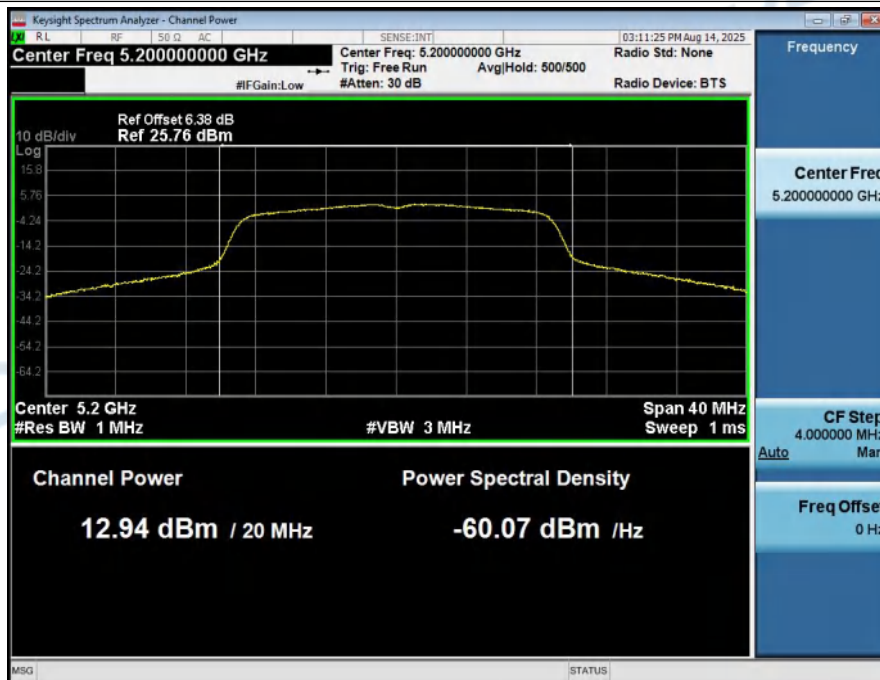
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11a_5240_20M



Maximum_Conducted_Output_Power_NVNT_ANT1_802_11n(HT20)_5180_20M



Maximum_Conducted_Output_Power_NVNT_ANT1_802_11n(HT20)_5200_20M



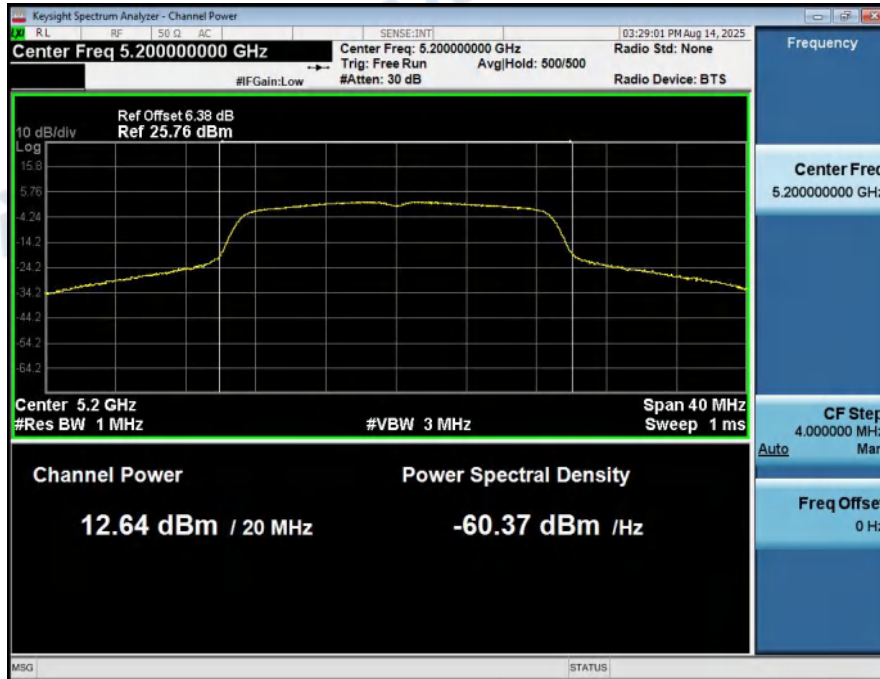
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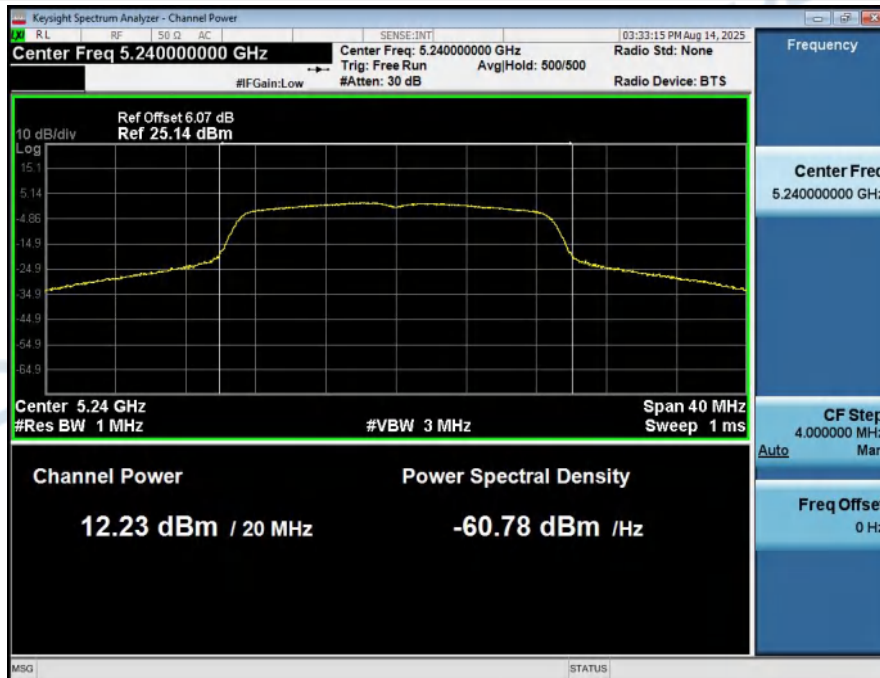
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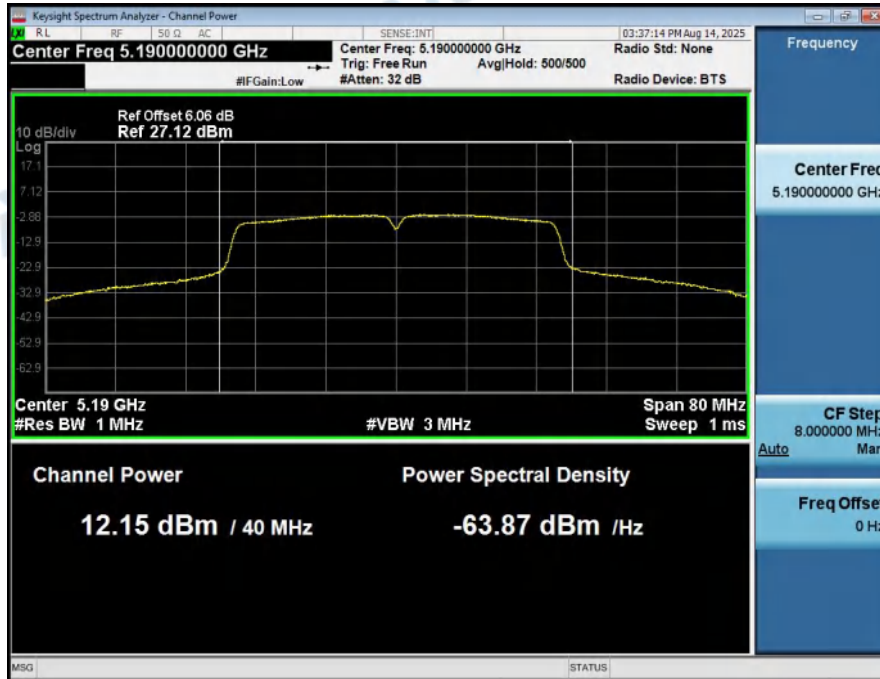
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT20)_5200_20M



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



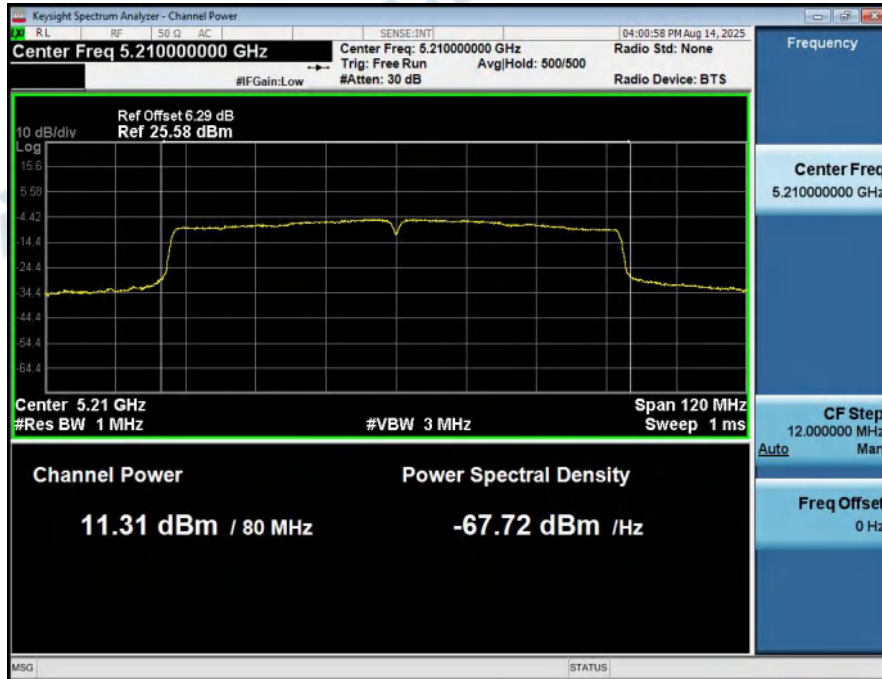
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Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT40)_5230_40M



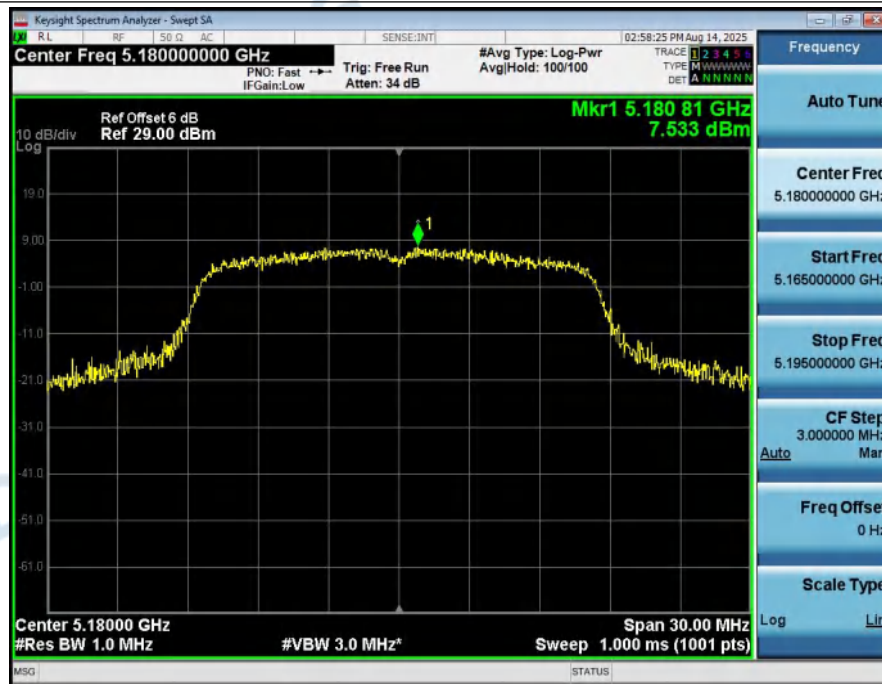
Maximum_Conducted_Output_Power_NVNT_ANT1_802_11ac(VHT80)_5210_80M



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	7.53	1.92	9.45	11	Pass
NVNT	ANT1	802.11a	5200.00	8.85	2.00	10.85	11	Pass
NVNT	ANT1	802.11a	5240.00	8.52	1.92	10.44	11	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	8.03	2.09	10.12	11	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	8.88	2.09	10.97	11	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	8.58	2.14	10.72	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	8.67	2.25	10.92	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	9.32	2.25	11.57	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	9.51	2.25	11.76	11	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	6.72	2.37	9.09	11	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	6.62	2.37	8.99	11	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	6.59	2.37	8.96	11	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	6.41	2.22	8.63	11	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	3.21	3.80	7.00	11	Pass

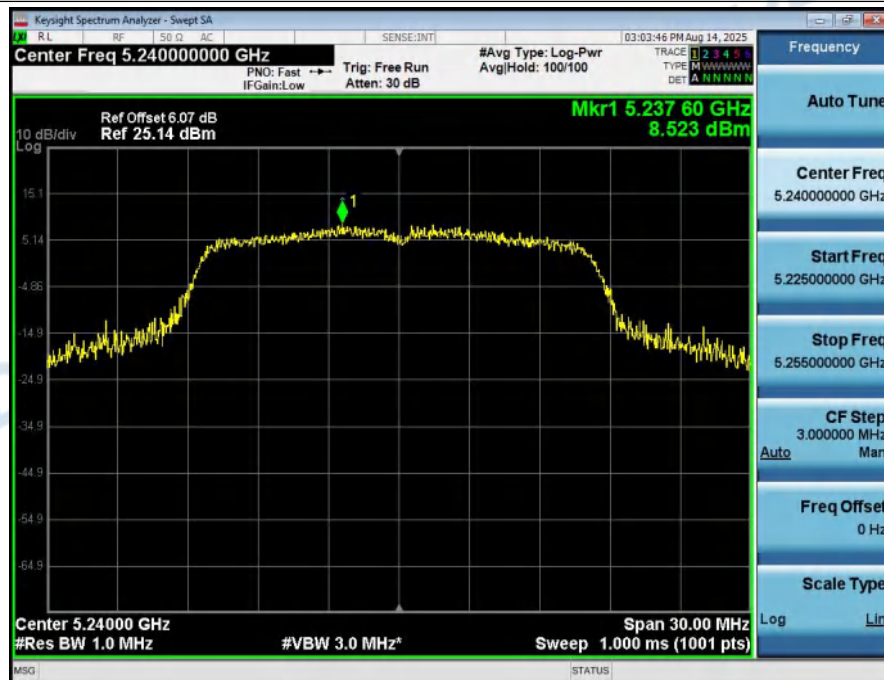
Power_Spectral_Density_NVNT_ANT1_802_11a_5180



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



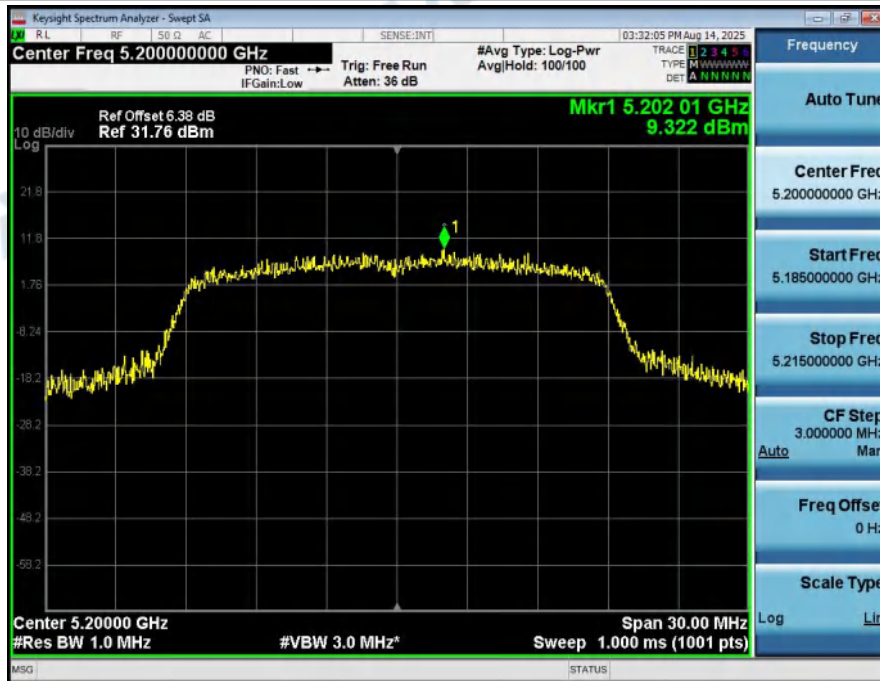
Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5240



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	5149.00	-31.76	-27	Pass
NVNT	ANT1	802.11a	5240.00	5395.00	-39.45	-27	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	5149.00	-30.08	-27	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	5397.20	-39.93	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	5142.20	-29.24	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	5351.40	-33.39	-27	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	5148.68	-38.03	-27	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	5391.65	-40.02	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	5144.48	-38.03	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	5398.16	-40.24	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	5149.52	-32.09	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	5358.26	-40.88	-27	Pass

Bandedge_NVNT_ANT1_802_11a_5180



Bandedge_NVNT_ANT1_802_11a_5240



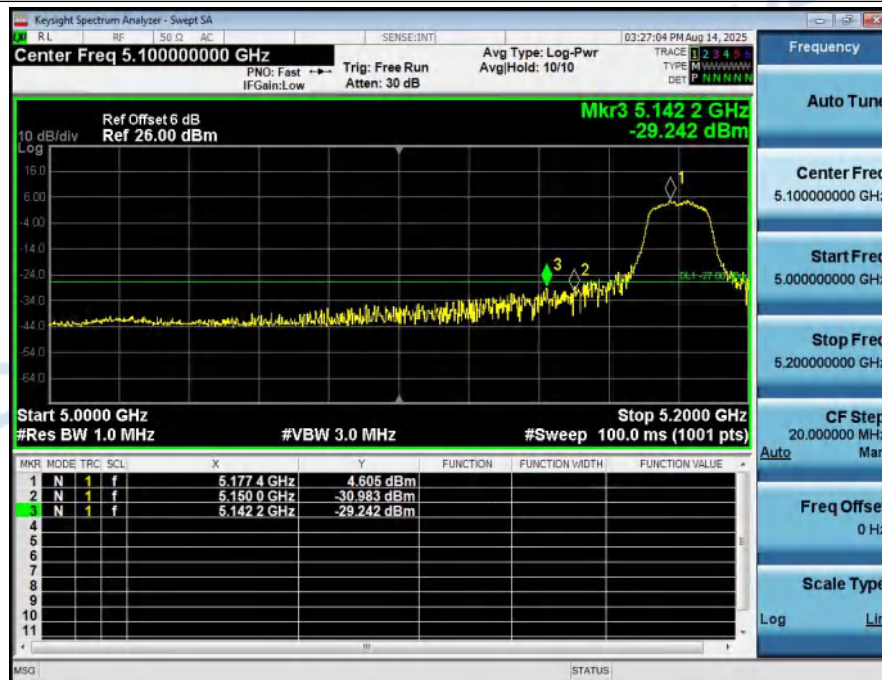
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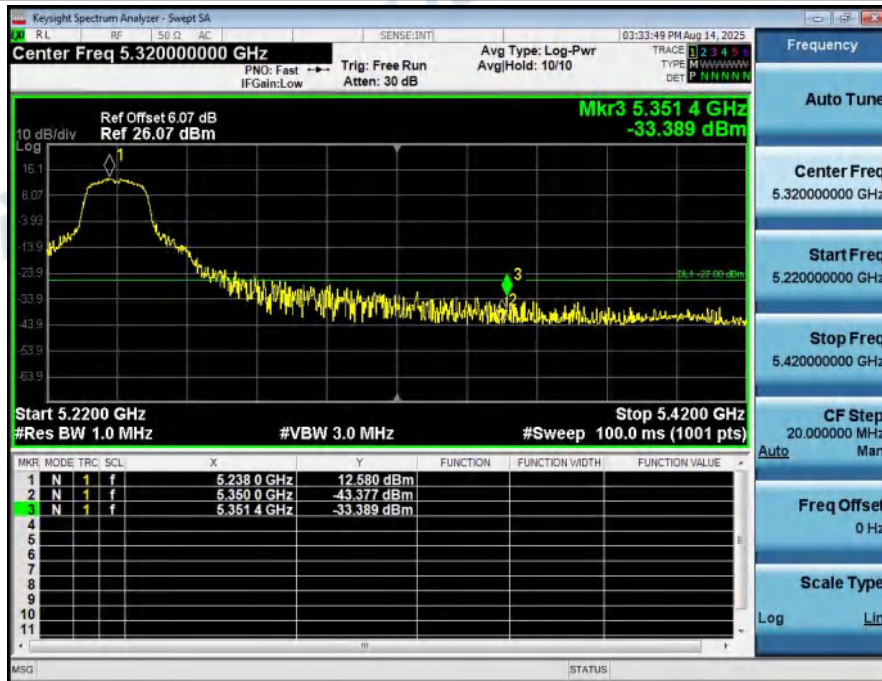
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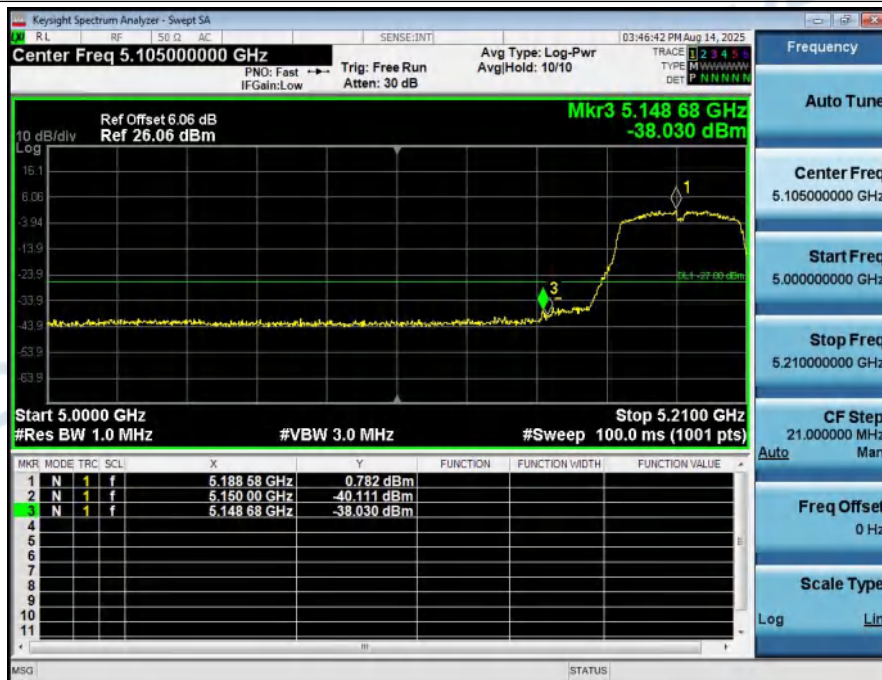
Bandedge_NVNT_ANT1_802_11ac(VHT20)_5180



Bandedge_NVNT_ANT1_802_11ac(VHT20)_5240



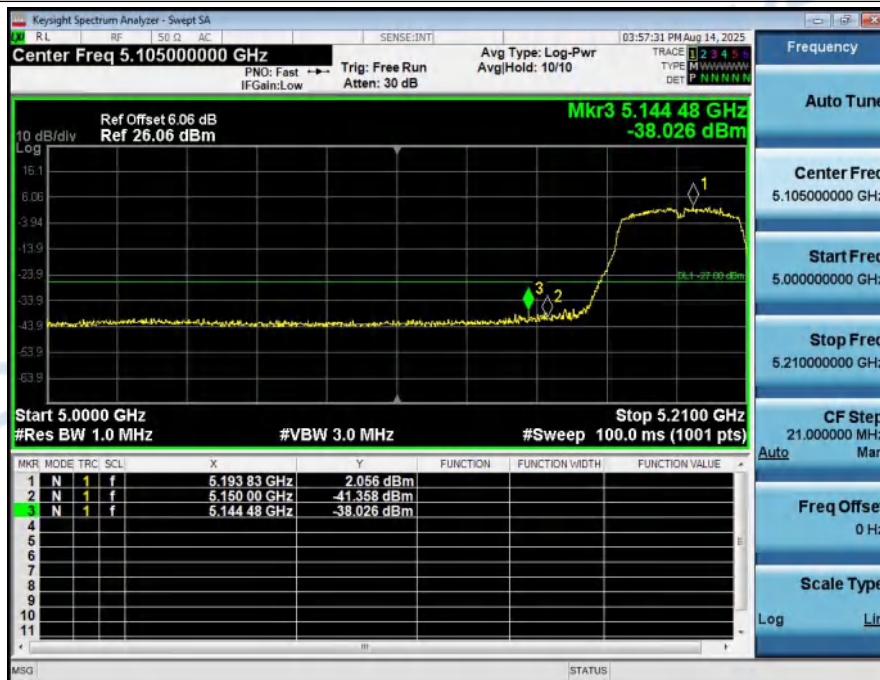
Bandedge_NVNT_ANT1_802_11n(HT40)_5190



Bandedge_NVNT_ANT1_802_11n(HT40)_5230



Bandedge_NVNT_ANT1_802_11ac(VHT40)_5190



Bandedge_NVNT_ANT1_802_11ac(VHT40)_5230



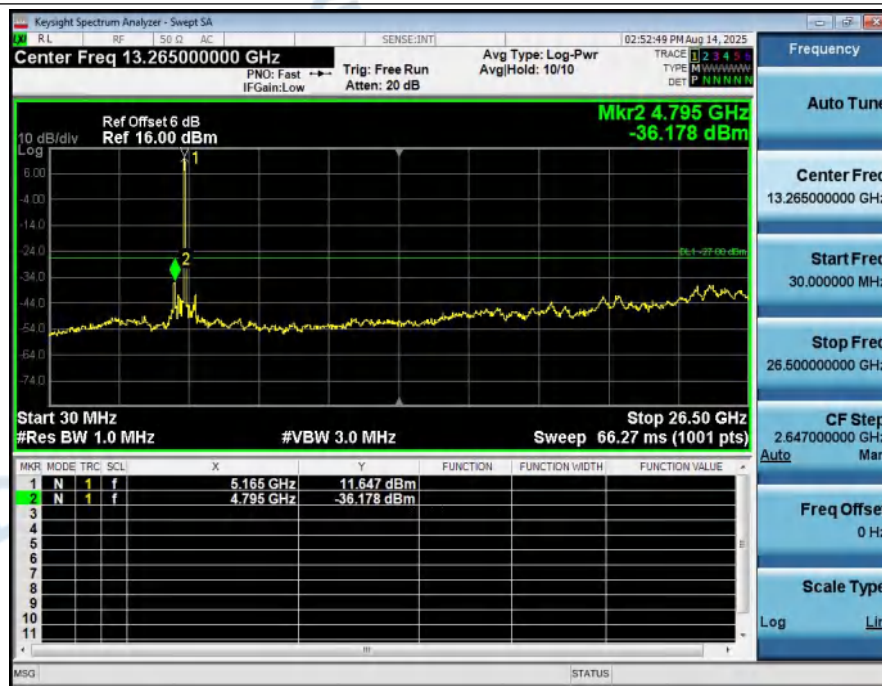
Bandedge_NVNT_ANT1_802_11ac(VHT80)_5210



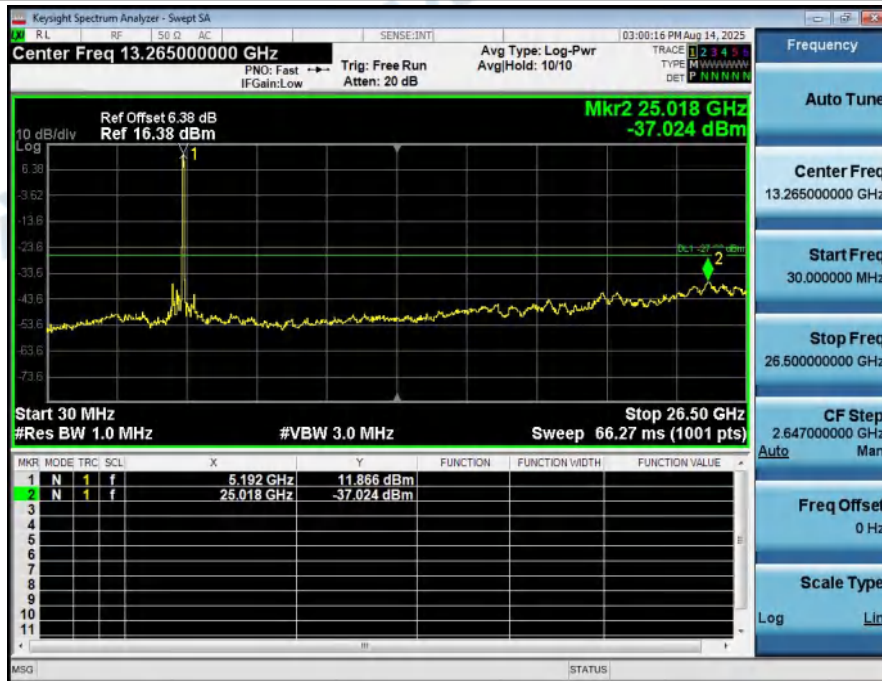
6. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark Frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	4794.60	-36.18	-27	Pass
NVNT	ANT1	802.11a	5200.00	25017.68	-37.02	-27	Pass
NVNT	ANT1	802.11a	5240.00	24991.21	-36.85	-27	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	4768.13	-37.65	-27	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	25097.09	-37.45	-27	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	24991.21	-37.42	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5180.00	25044.15	-36.89	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5200.00	25070.62	-36.91	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5240.00	25017.68	-37.31	-27	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	24964.74	-37.29	-27	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	25097.09	-37.46	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5190.00	25017.68	-37.64	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5230.00	25123.56	-37.60	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5210.00	24911.80	-36.65	-27	Pass

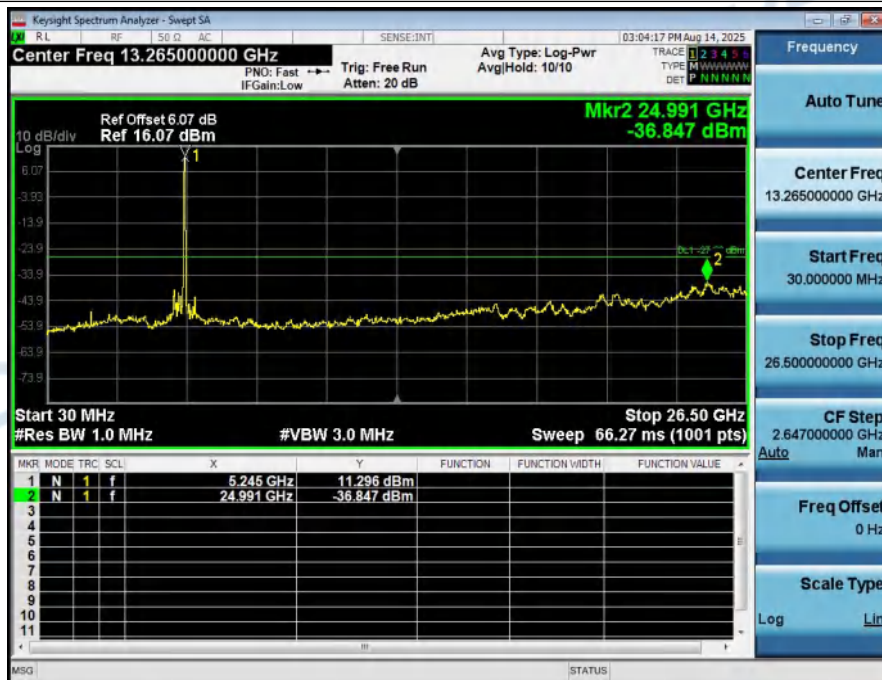
Spurious_Emission_NVNT_ANT1_802_11a_5180_20M



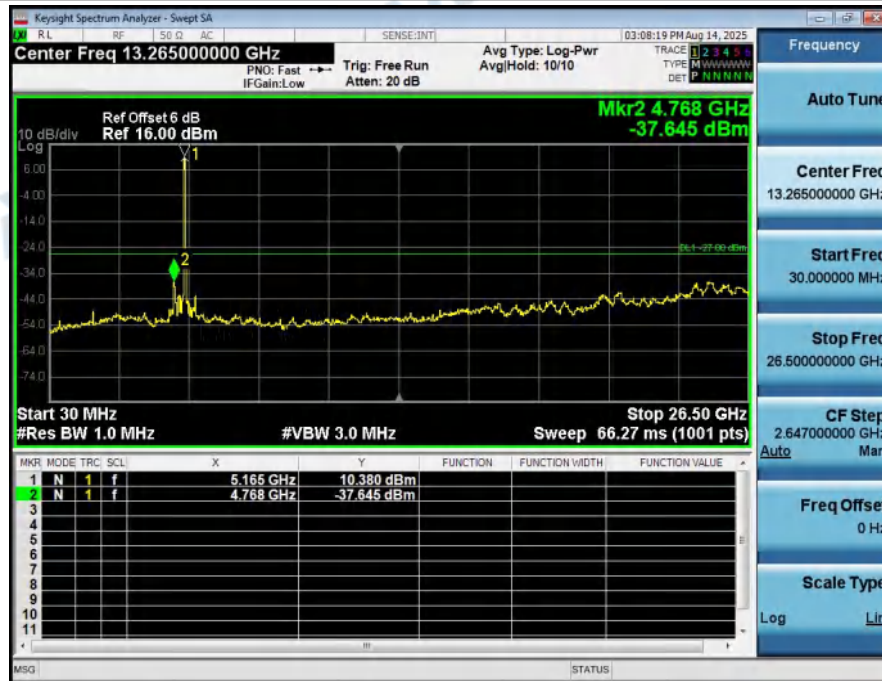
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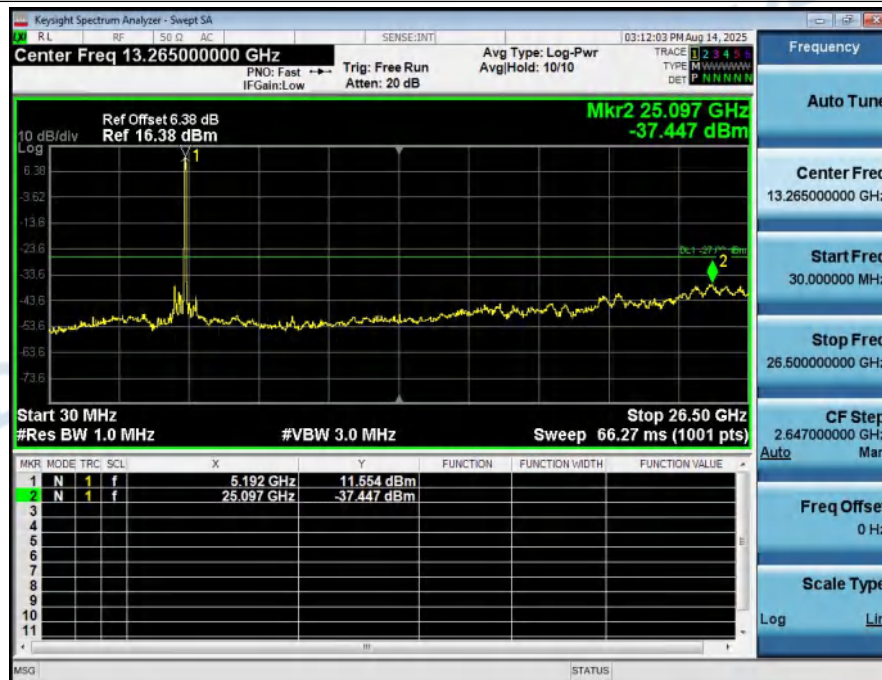
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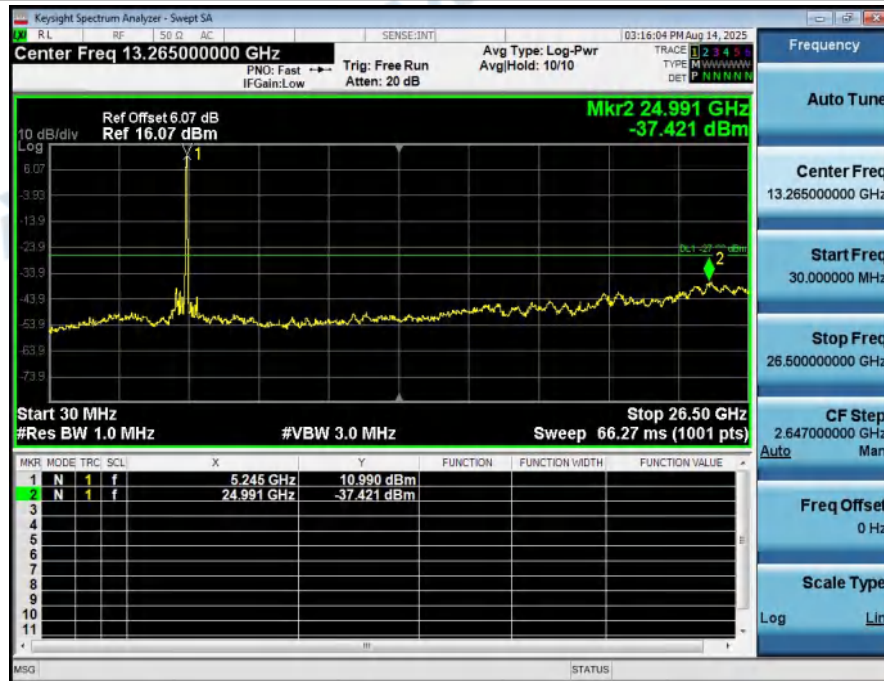
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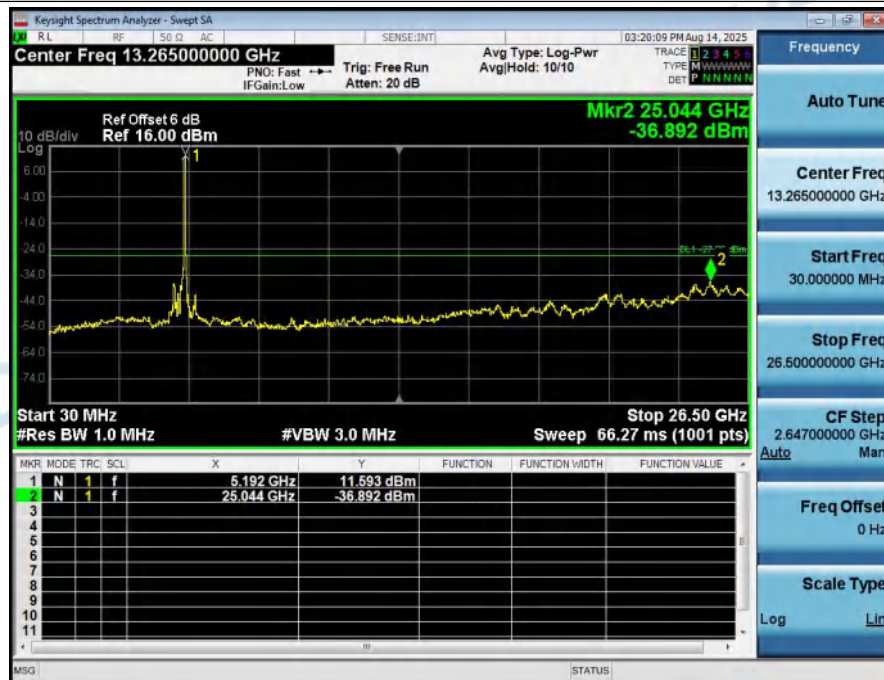
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Spurious_Emission_NVNT_ANT1_802_11n(HT20)_5240_20M



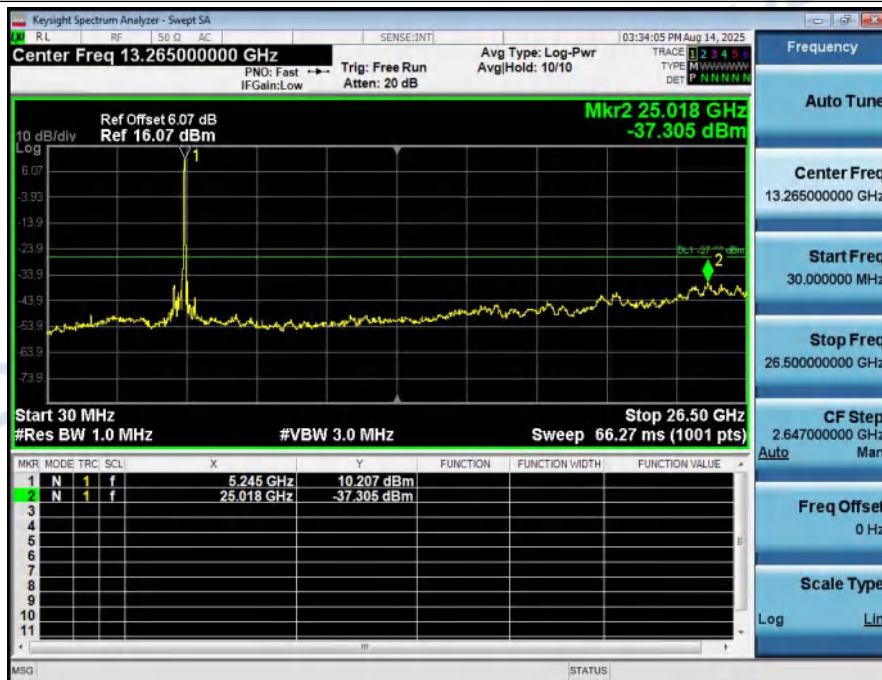
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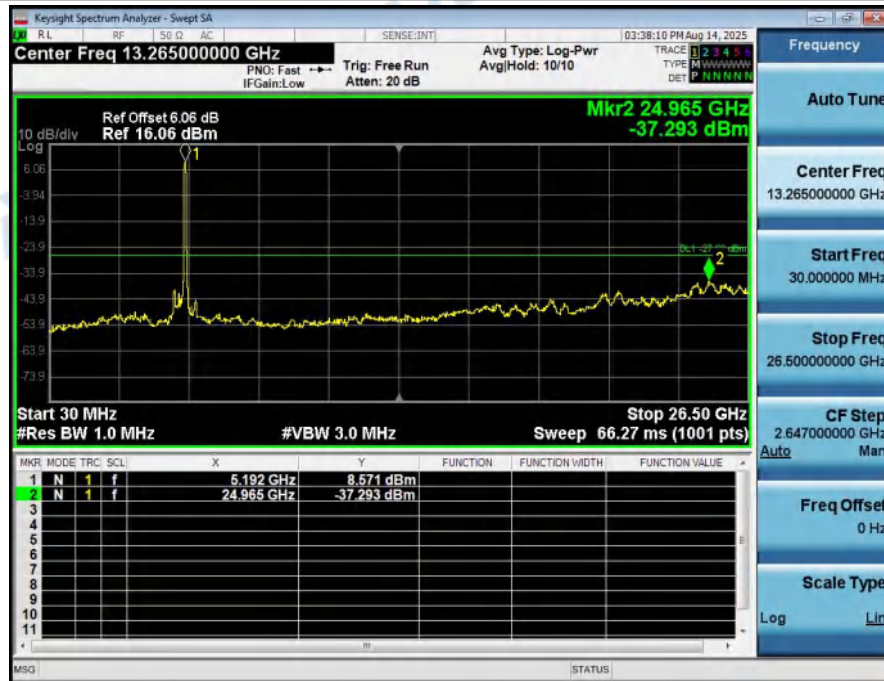
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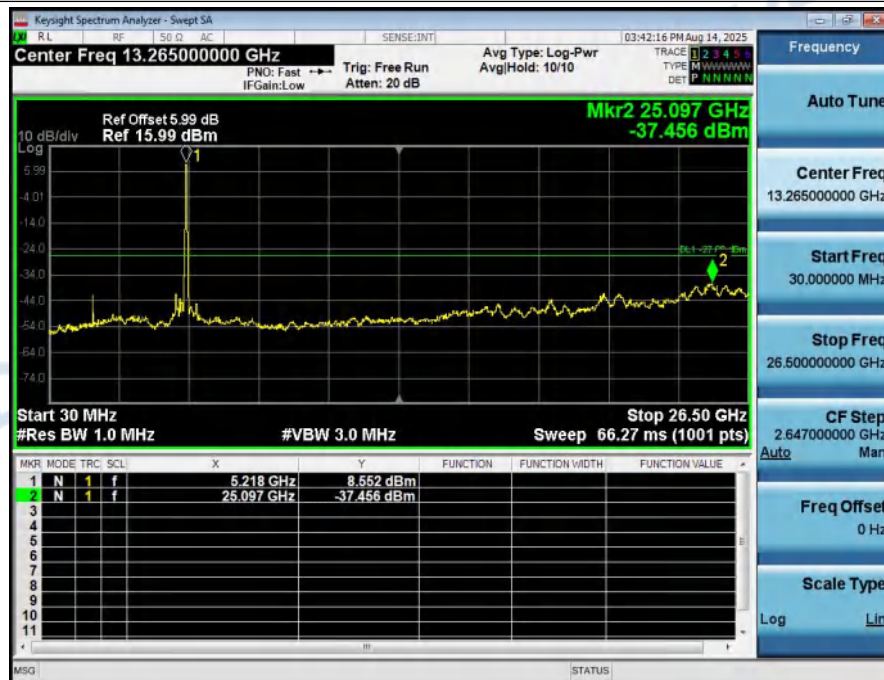
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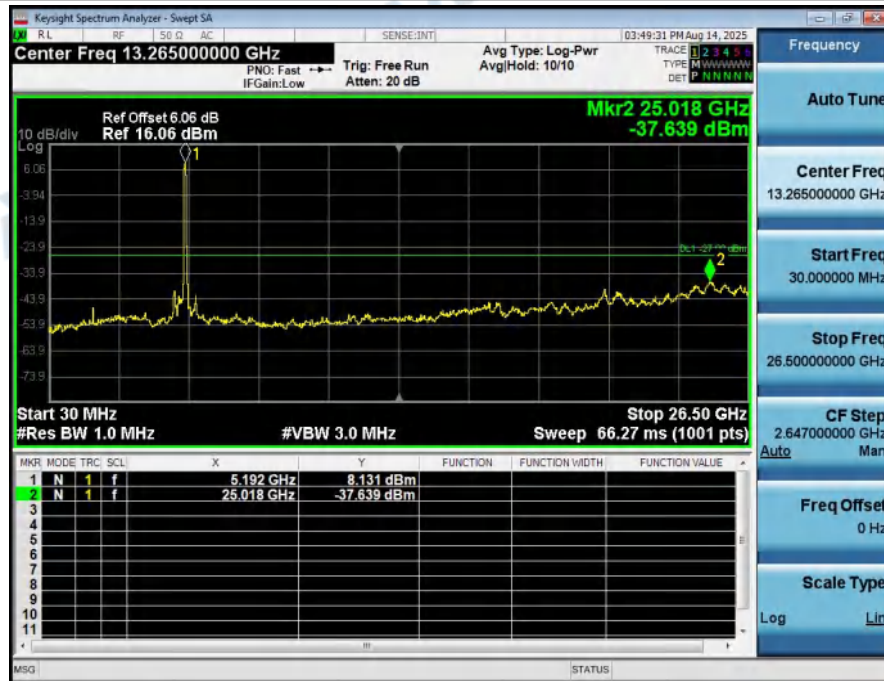
Spurious_Emission_NVNT_ANT1_802_11n(HT40)_5190_40M



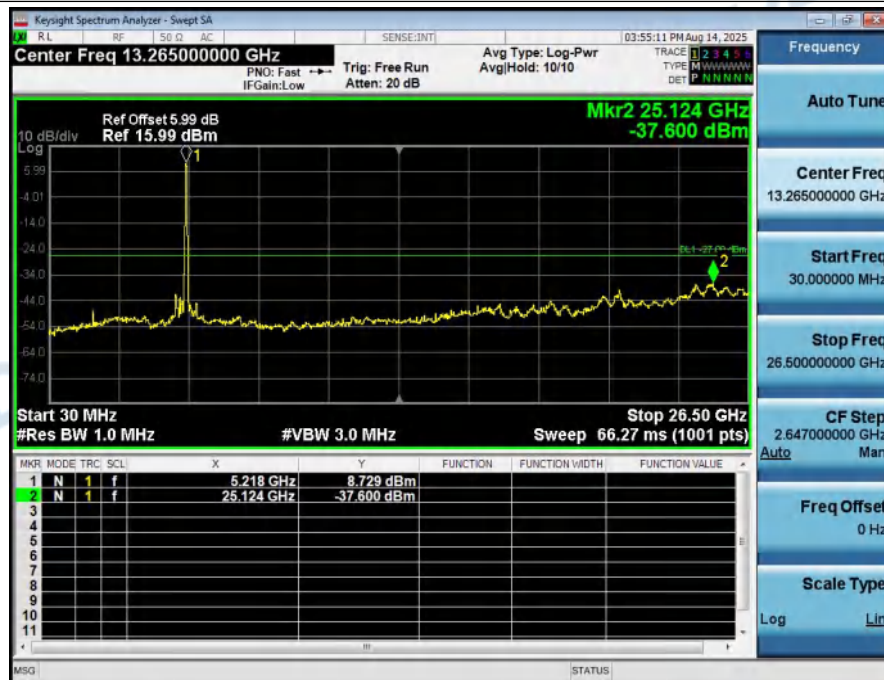
Spurious_Emission_NVNT_ANT1_802_11n(HT40)_5230_40M



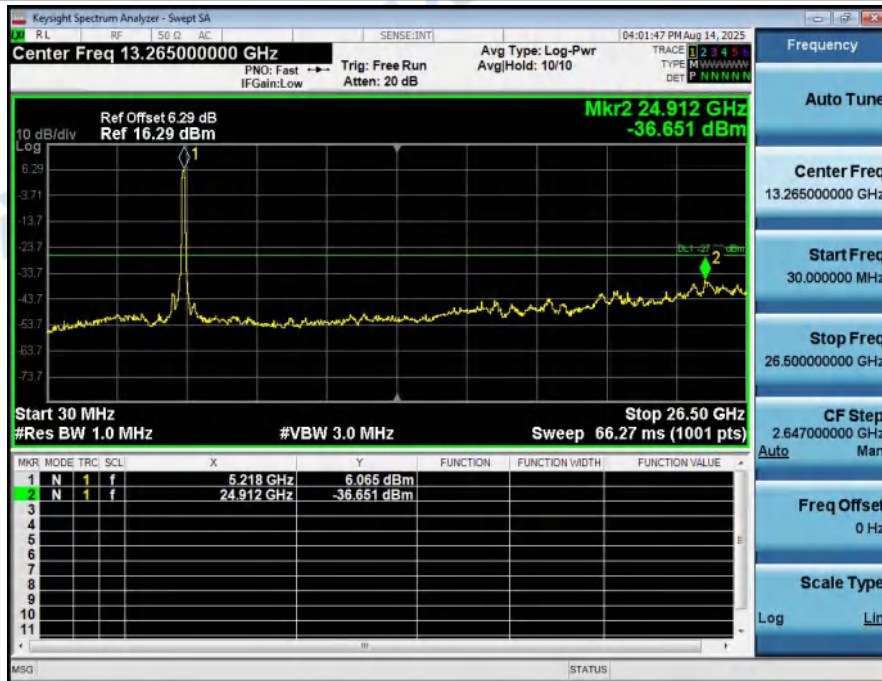
Spurious_Emission_NVNT_ANT1_802_11ac(VHT40)_5190_40M



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	5180.346	5169.008	5191.684	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5180.00	5179.942	5171.072	5188.812	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5180.00	5180.006	5171.612	5188.400	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5180.00	5179.970	5171.784	5188.156	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5180.00	5179.982	5171.880	5188.084	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5180.00	5179.986	5171.960	5188.012	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5180.00	5179.976	5172.040	5187.912	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5180.00	5179.978	5172.096	5187.860	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5180.00	5179.972	5172.156	5187.788	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5180.00	5179.970	5172.220	5187.720	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5180.00	5179.962	5172.288	5187.636	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11a	5200.00	5200.274	5190.796	5209.752	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5200.00	5200.062	5191.616	5208.508	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5200.00	5200.048	5191.812	5208.284	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5200.00	5200.036	5191.920	5208.152	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5200.00	5200.044	5192.024	5208.064	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5200.00	5200.056	5192.108	5208.004	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5200.00	5200.060	5192.180	5207.940	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5200.00	5200.050	5192.256	5207.844	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5200.00	5200.044	5192.320	5207.768	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5200.00	5200.052	5192.400	5207.704	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5200.00	5200.058	5192.460	5207.656	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11a	5240.00	5240.080	5230.496	5249.664	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5240.00	5239.948	5231.480	5248.416	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5240.00	5239.954	5231.712	5248.196	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5240.00	5239.970	5231.848	5248.092	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5240.00	5239.980	5231.932	5248.028	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5240.00	5239.958	5232.000	5247.916	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5240.00	5239.978	5232.076	5247.880	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5240.00	5239.948	5232.120	5247.776	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5240.00	5239.934	5232.196	5247.672	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5240.00	5239.930	5232.244	5247.616	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5240.00	5239.942	5232.312	5247.572	5150~5250	Pass