

Appendix5.3G

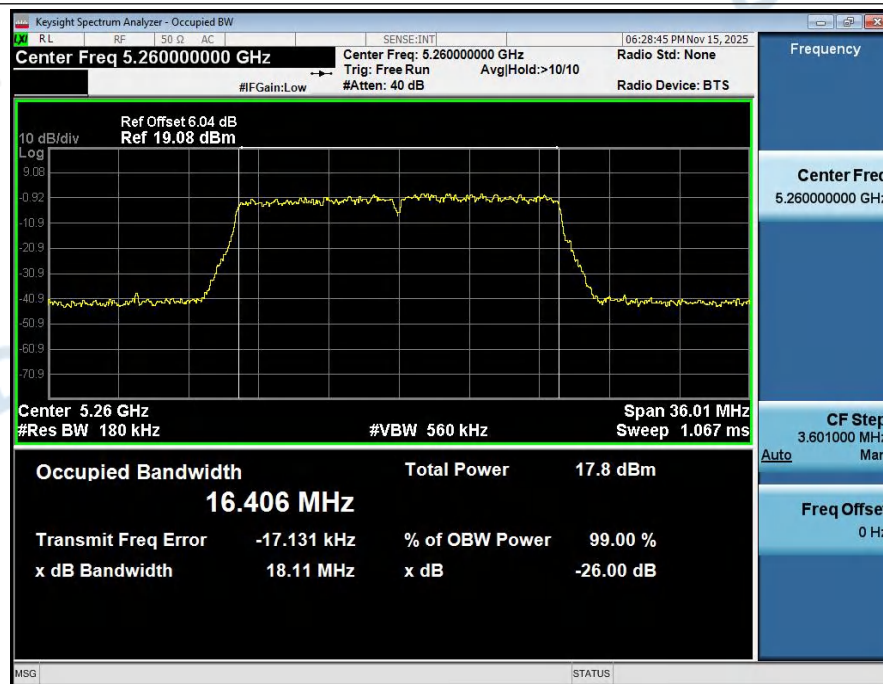
HT250613015--M-055--FCC ID--5.3GWIFI

FCC_5.3G_WIFI (Part15.407) Test Data

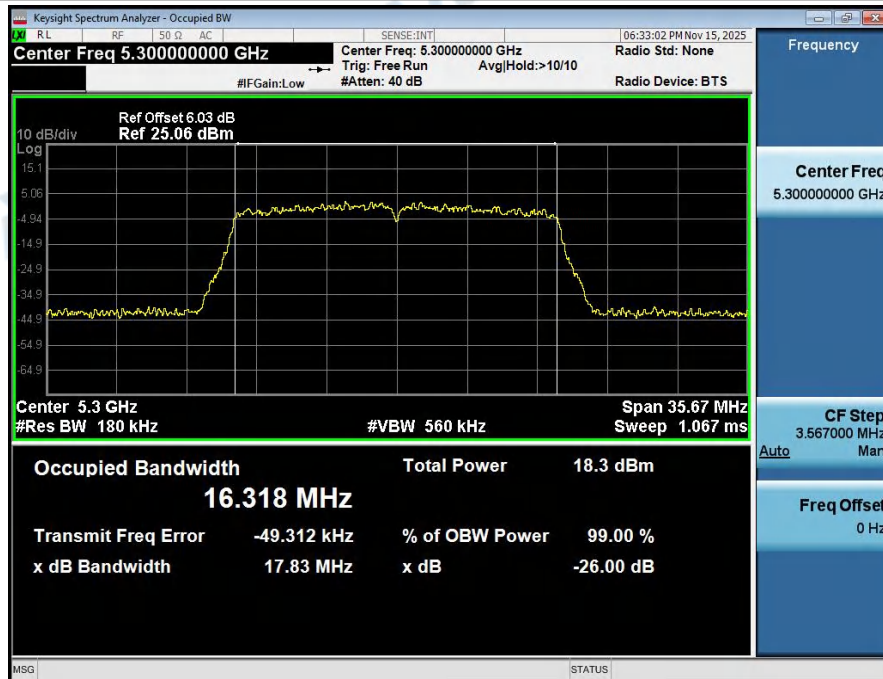
1. -26dB and 99% Emission Bandwidth

Condition	Antenna	Modulation	Frequency(MHz)	-26dB_Emission_Bandwidth(MHz)	Occupied Bandwidth(MHz)
NVNT	ANT1	802.11a	5260.00	18.11	16.37
NVNT	ANT1	802.11a	5300.00	17.83	16.28
NVNT	ANT1	802.11a	5320.00	18.11	16.38
NVNT	ANT1	802.11n(HT20)	5260.00	18.77	17.56
NVNT	ANT1	802.11n(HT20)	5300.00	18.71	17.49
NVNT	ANT1	802.11n(HT20)	5320.00	18.81	17.53
NVNT	ANT1	802.11ac(VHT20)	5260.00	18.87	17.64
NVNT	ANT1	802.11ac(VHT20)	5300.00	18.85	17.55
NVNT	ANT1	802.11ac(VHT20)	5320.00	18.85	17.62
NVNT	ANT1	802.11n(HT40)	5270.00	37.84	35.78
NVNT	ANT1	802.11n(HT40)	5310.00	38.20	35.99
NVNT	ANT1	802.11ac(VHT40)	5270.00	38.68	36.08
NVNT	ANT1	802.11ac(VHT40)	5310.00	38.65	36.24
NVNT	ANT1	802.11ac(VHT80)	5290.00	78.99	75.86

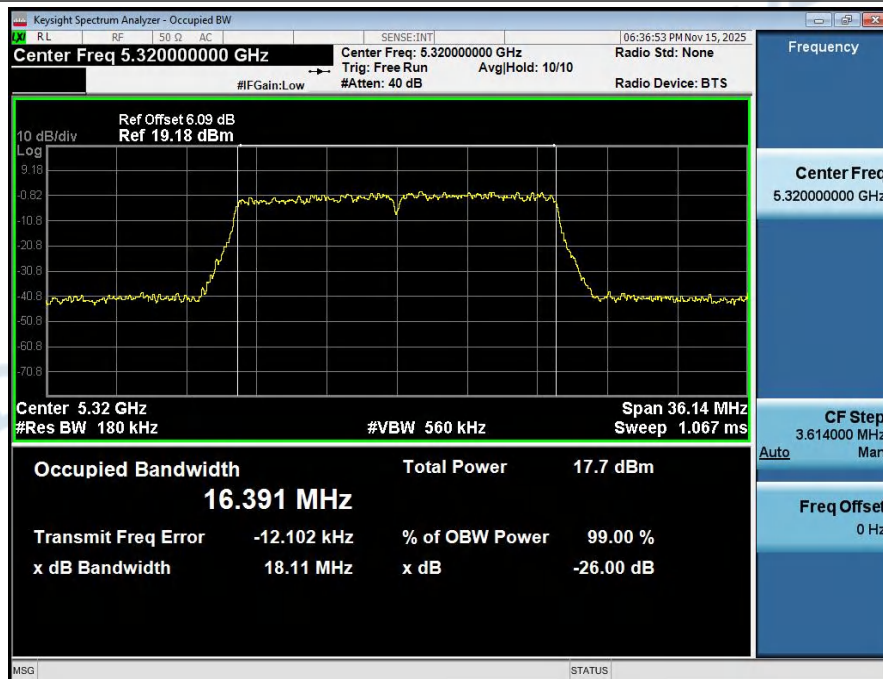
-26BW_NVNT_ANT1_802_11a_5260



-26BW_NVNT_ANT1_802_11a_5300



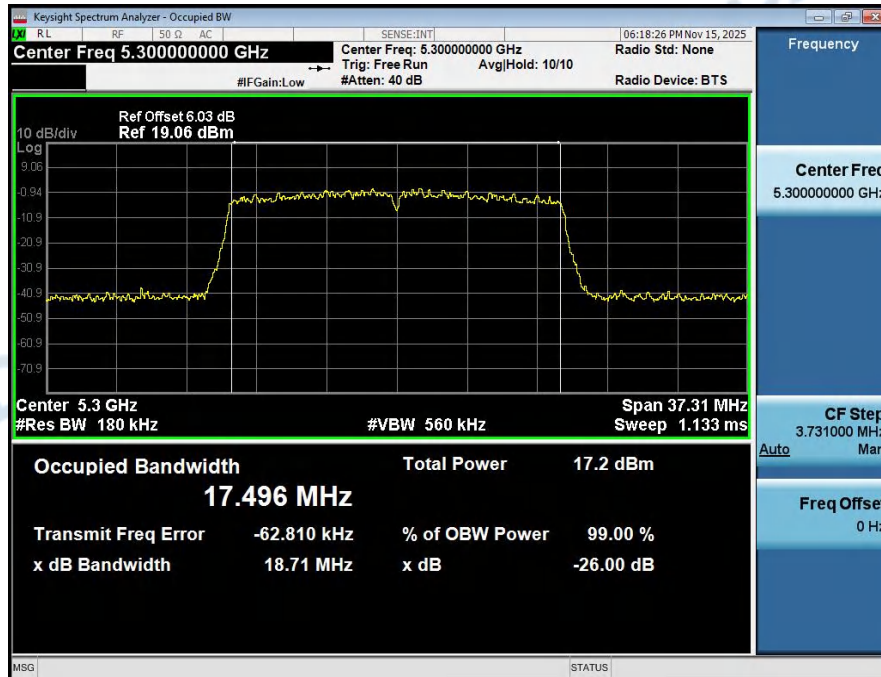
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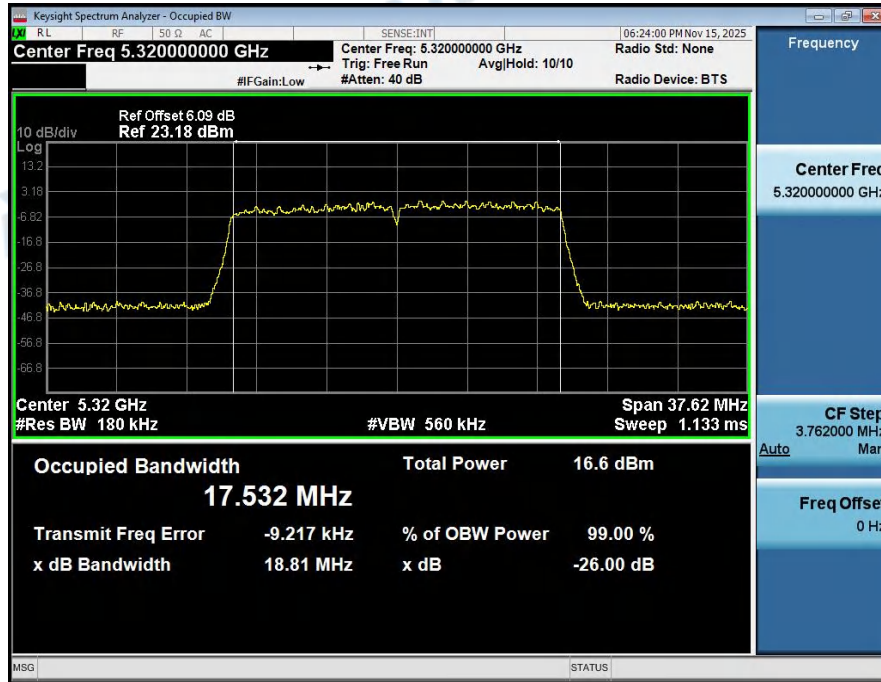
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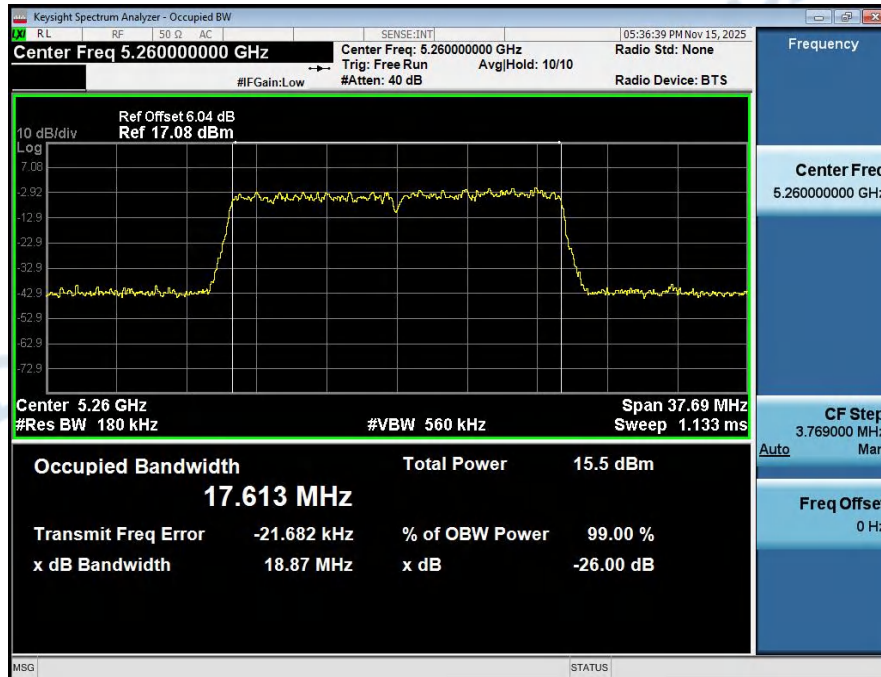
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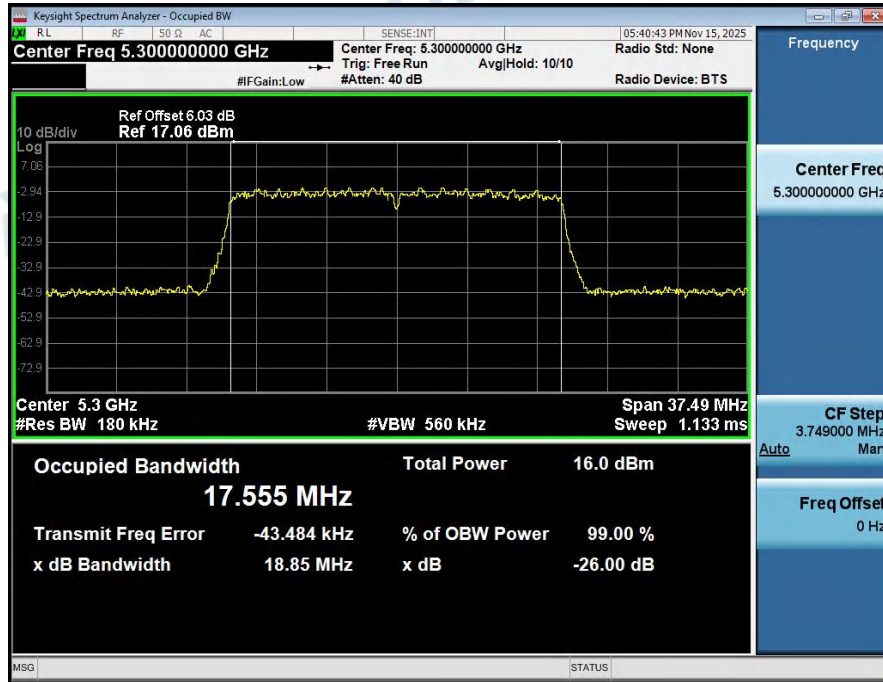
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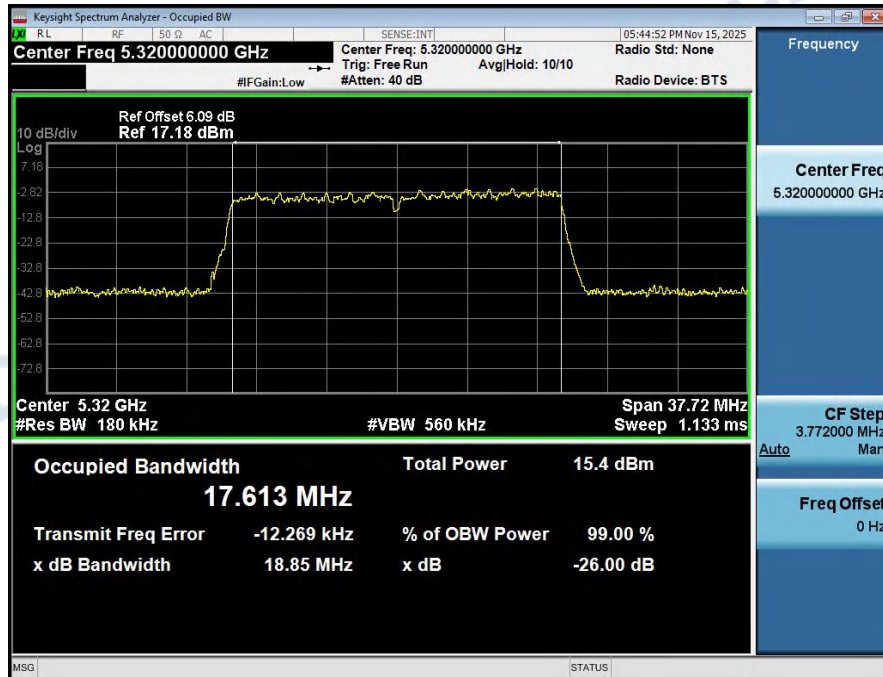
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-26BW_NVNT_ANT1_802_11ac(VHT20)_5300



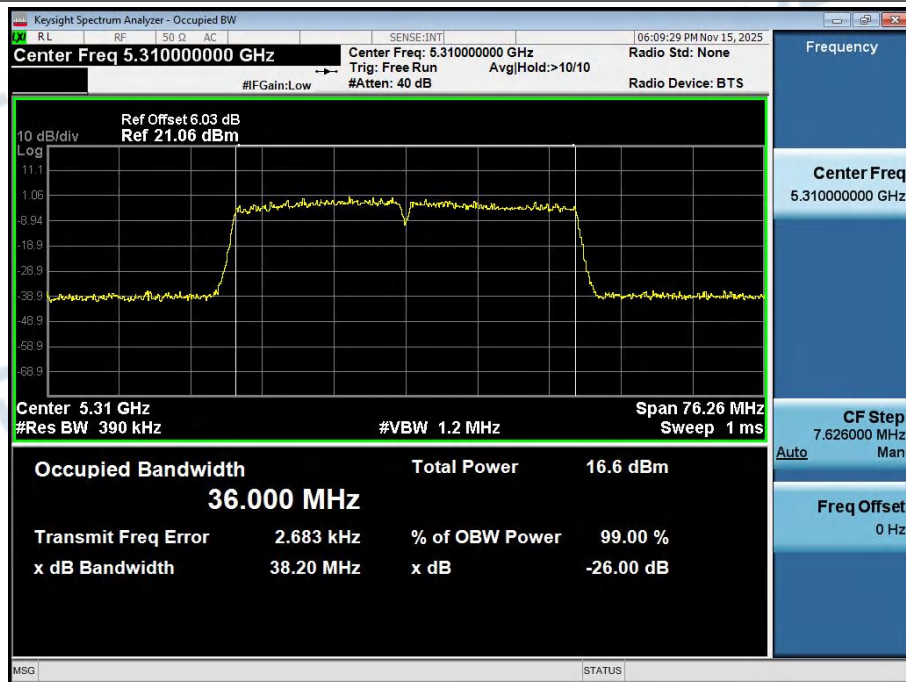
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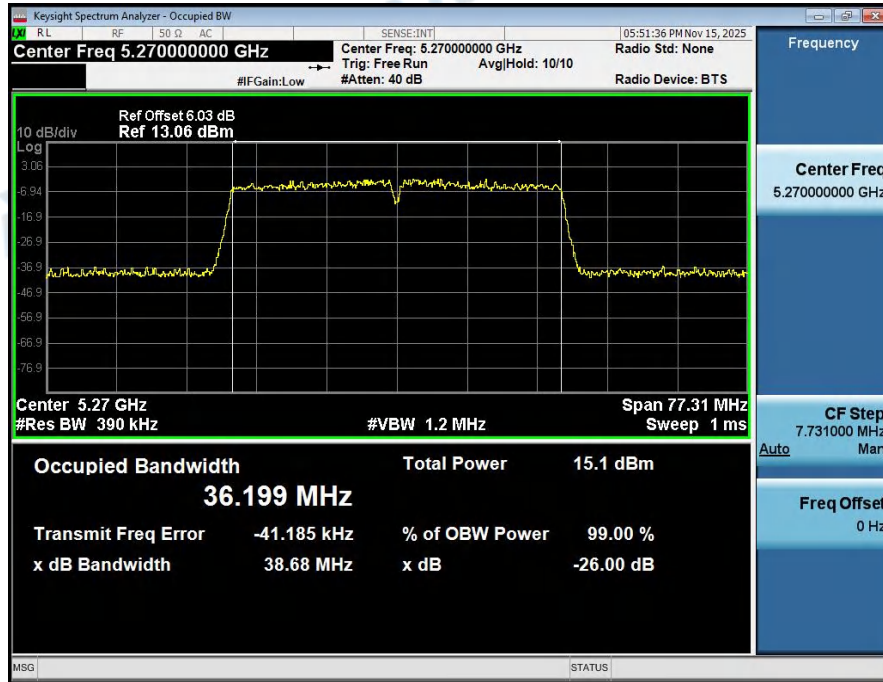
-26BW_NVNT_ANT1_802_11n(HT40)_5270



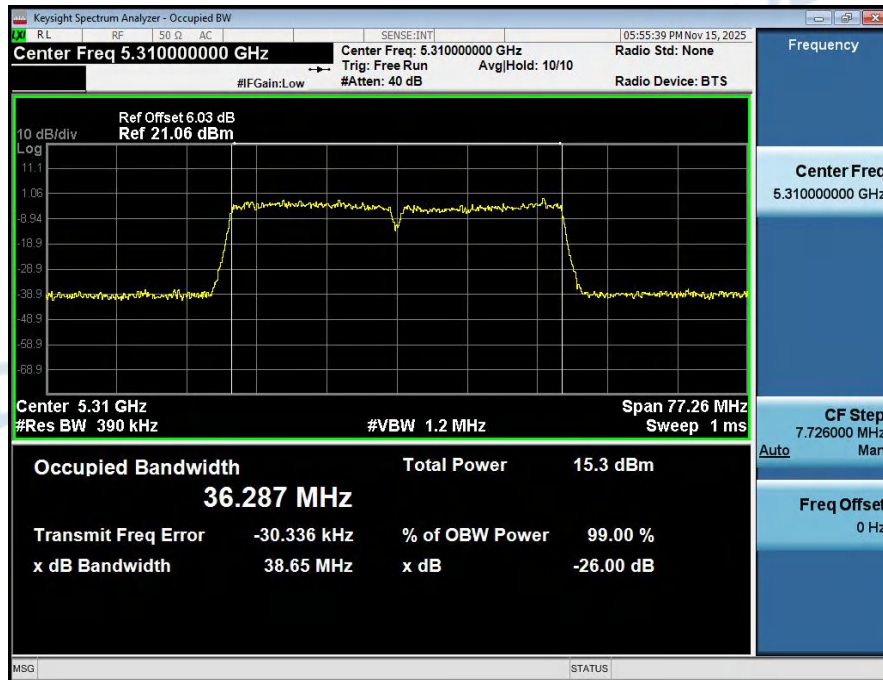
-26BW_NVNT_ANT1_802_11n(HT40)_5310



-26BW_NVNT_ANT1_802_11ac(VHT40)_5270



-26BW_NVNT_ANT1_802_11ac(VHT40)_5310



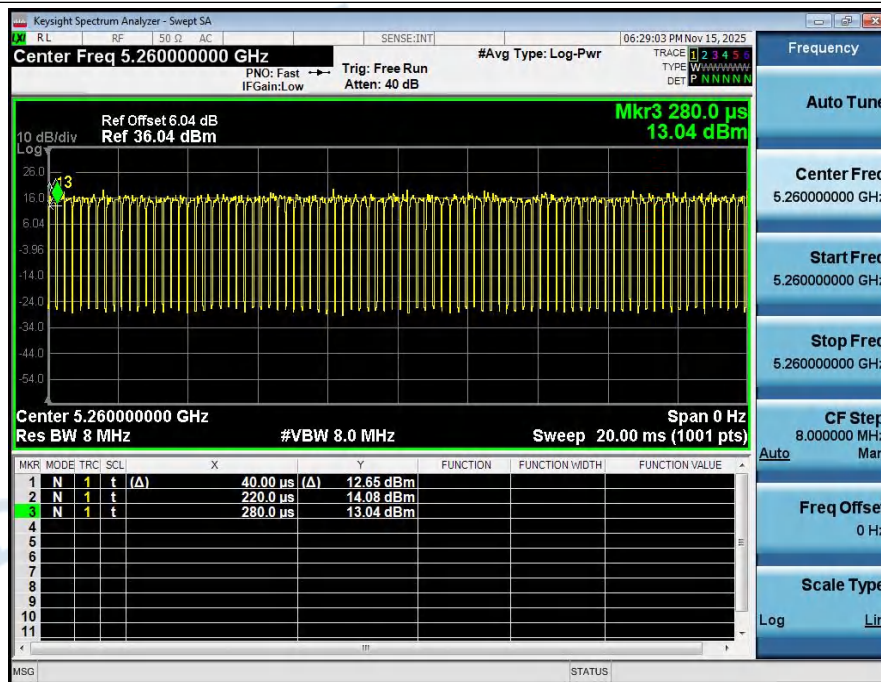
-26BW_NVNT_ANT1_802_11ac(VHT80)_5290



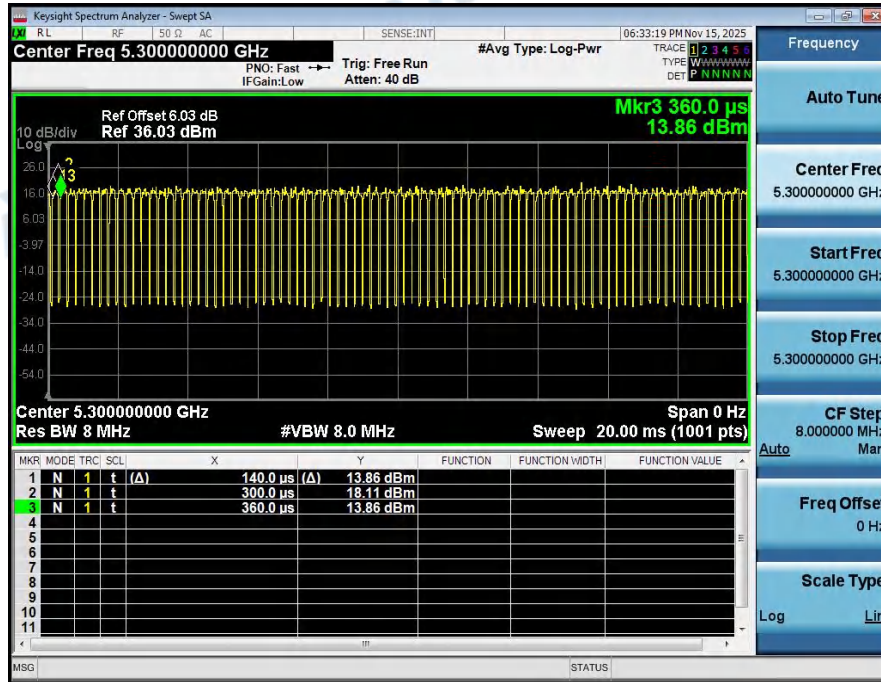
2. Duty Cycle

Condition	Antenna	Modulation	Frequency(MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5260.00	75.00	1.25
NVNT	ANT1	802.11a	5300.00	72.73	1.38
NVNT	ANT1	802.11a	5320.00	75.00	1.25
NVNT	ANT1	802.11n(HT20)	5260.00	72.73	1.38
NVNT	ANT1	802.11n(HT20)	5300.00	72.73	1.38
NVNT	ANT1	802.11n(HT20)	5320.00	72.73	1.38
NVNT	ANT1	802.11ac(VHT20)	5260.00	62.50	2.04
NVNT	ANT1	802.11ac(VHT20)	5300.00	62.50	2.04
NVNT	ANT1	802.11ac(VHT20)	5320.00	71.43	1.46
NVNT	ANT1	802.11n(HT40)	5270.00	62.50	2.04
NVNT	ANT1	802.11n(HT40)	5310.00	71.43	1.46
NVNT	ANT1	802.11ac(VHT40)	5270.00	50.00	3.01
NVNT	ANT1	802.11ac(VHT40)	5310.00	50.00	3.01
NVNT	ANT1	802.11ac(VHT80)	5290.00	60.00	2.22

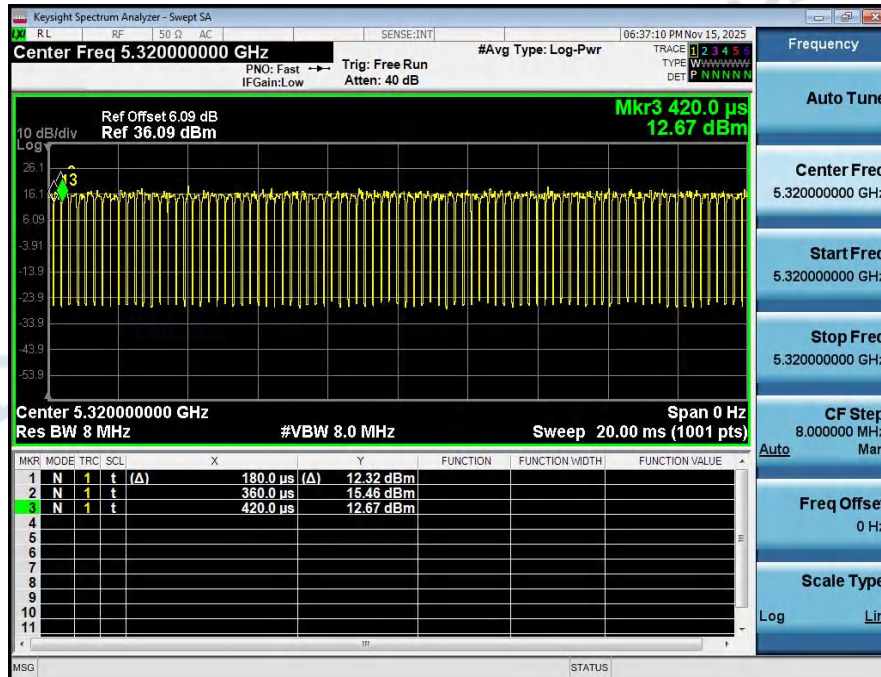
Duty_Cycle_NVNT_ANT1_802_11a_5260



Duty_Cycle_NVNT_ANT1_802_11a_5300



Duty_Cycle_NVNT_ANT1_802_11a_5320

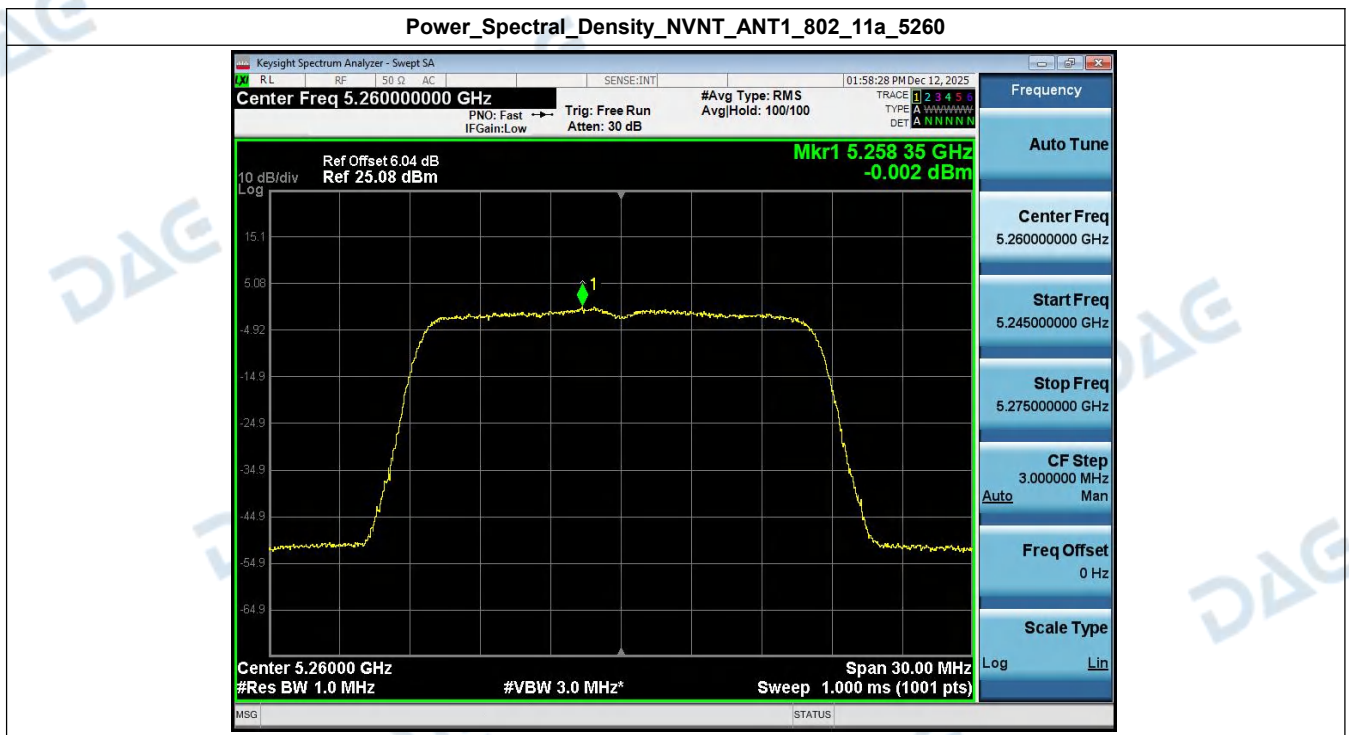


3. Maximum Conducted Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5260.00	9.61	1.25	10.86	23.14	Pass
NVNT	ANT1	802.11a	5300.00	9.98	1.38	11.36	23.12	Pass
NVNT	ANT1	802.11a	5320.00	9.38	1.25	10.63	23.14	Pass
NVNT	ANT1	802.11n(HT20)	5260.00	8.35	1.38	9.73	23.45	Pass
NVNT	ANT1	802.11n(HT20)	5300.00	8.85	1.38	10.23	23.43	Pass
NVNT	ANT1	802.11n(HT20)	5320.00	8.31	1.38	9.69	23.44	Pass
NVNT	ANT1	802.11ac(VHT20)	5260.00	6.83	2.04	8.87	23.46	Pass
NVNT	ANT1	802.11ac(VHT20)	5300.00	7.08	2.04	9.12	23.44	Pass
NVNT	ANT1	802.11ac(VHT20)	5320.00	6.46	1.46	7.92	23.46	Pass
NVNT	ANT1	802.11n(HT40)	5270.00	8.16	2.04	10.20	24	Pass
NVNT	ANT1	802.11n(HT40)	5310.00	7.70	1.46	9.16	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5270.00	6.07	3.01	9.08	24	Pass
NVNT	ANT1	802.11ac(VHT40)	5310.00	6.12	3.01	9.13	24	Pass
NVNT	ANT1	802.11ac(VHT80)	5290.00	5.50	2.22	7.72	24	Pass

4. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/MHz)	Duty factor(dB)	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
NVNT	ANT1	802.11a	5260.00	-0.00	1.25	1.25	11	Pass
NVNT	ANT1	802.11a	5300.00	-0.42	1.38	0.96	11	Pass
NVNT	ANT1	802.11a	5320.00	-0.64	1.25	0.61	11	Pass
NVNT	ANT1	802.11n(HT20)	5260.00	3.44	1.38	4.82	11	Pass
NVNT	ANT1	802.11n(HT20)	5300.00	2.81	1.38	4.19	11	Pass
NVNT	ANT1	802.11n(HT20)	5320.00	2.81	1.38	4.19	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5260.00	3.48	2.04	5.52	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5300.00	2.85	2.04	4.89	11	Pass
NVNT	ANT1	802.11ac(VHT20)	5320.00	2.58	1.46	4.04	11	Pass
NVNT	ANT1	802.11n(HT40)	5270.00	-5.33	2.04	-3.29	11	Pass
NVNT	ANT1	802.11n(HT40)	5310.00	-5.25	1.46	-3.79	11	Pass
NVNT	ANT1	802.11ac(VHT40)	5270.00	0.78	3.01	3.79	11	Pass
NVNT	ANT1	802.11ac(VHT40)	5310.00	0.41	3.01	3.42	11	Pass
NVNT	ANT1	802.11ac(VHT80)	5290.00	-2.70	2.22	-0.48	11	Pass



Power_Spectral_Density_NVNT_ANT1_802_11a_5300



Power_Spectral_Density_NVNT_ANT1_802_11a_5320



Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5260



Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5300



Power_Spectral_Density_NVNT_ANT1_802_11n(HT20)_5320



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT20)_5260



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT20)_5300



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT20)_5320



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5270



Power_Spectral_Density_NVNT_ANT1_802_11n(HT40)_5310



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT40)_5270



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT40)_5310



Power_Spectral_Density_NVNT_ANT1_802_11ac(VHT80)_5290

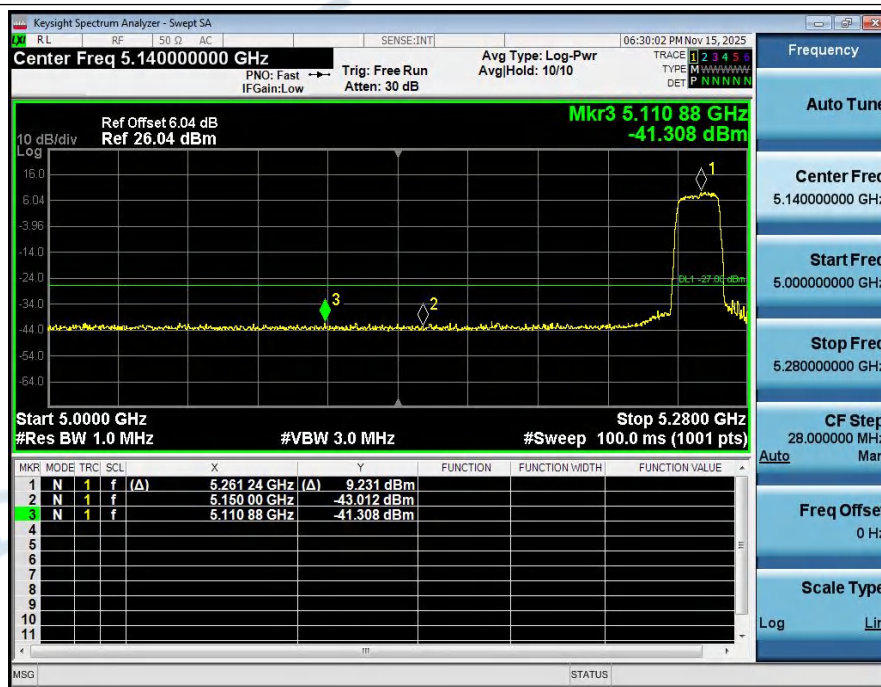


5. Bandedge

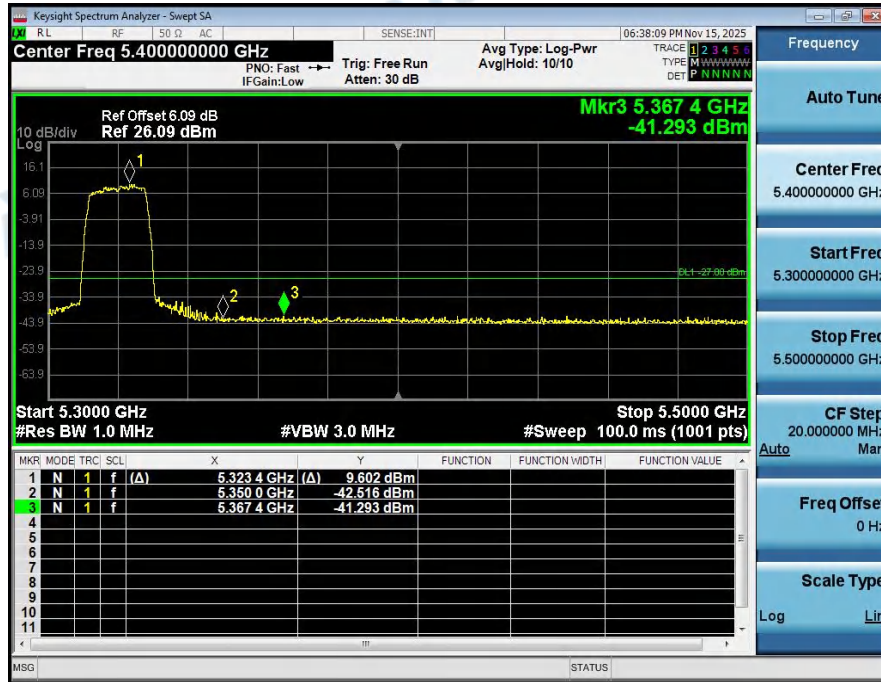
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark Frequency(MHz)	Spurious level (dBm/MHz)	Limit (dBm/MHz)	Result
NVNT	ANT1	802.11a	5260.00	5110.88	-41.31	-27	Pass
NVNT	ANT1	802.11a	5320.00	5367.40	-41.29	-27	Pass
NVNT	ANT1	802.11n(HT20)	5260.00	5083.16	-40.94	-27	Pass
NVNT	ANT1	802.11n(HT20)	5320.00	5363.20	-40.86	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5260.00	5127.40	-41.33	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5320.00	5382.60	-41.02	-27	Pass
NVNT	ANT1	802.11n(HT40)	5270.00	5141.00	-41.34	-27	Pass
NVNT	ANT1	802.11n(HT40)	5310.00	5353.80	-40.92	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5270.00	5127.20	-40.28	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5310.00	5460.40	-39.96	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5290.00	5003.29	-41.00	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5290.00	5360.49	-36.55	-27	Pass

Note: The test data did not compensate for the antenna gain. The test margin is greater than the sum of the antenna gain and the cable loss, therefore the test meets the requirements.

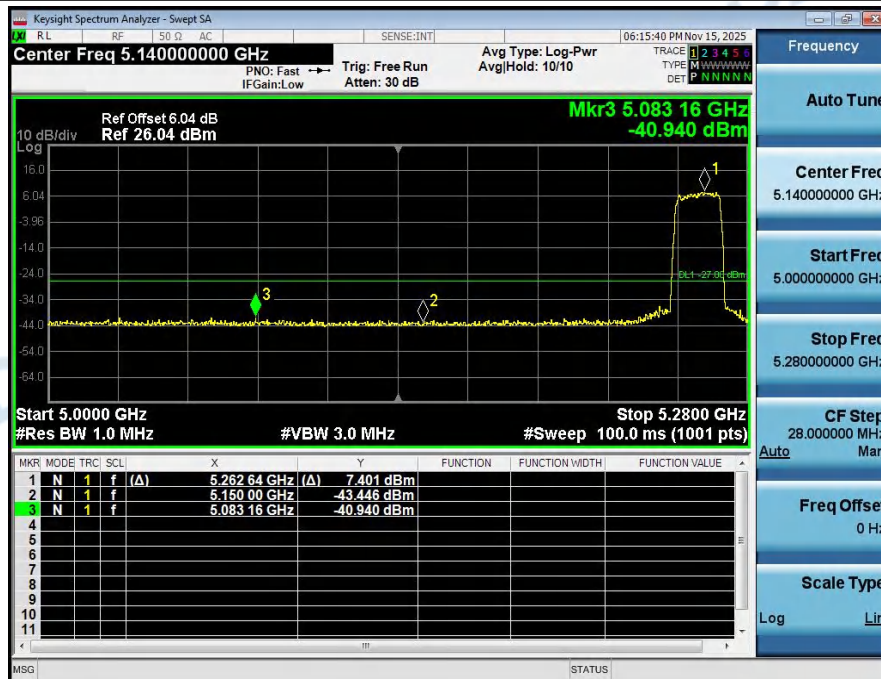
Bandedge_NVNT_ANT1_802_11a_5260



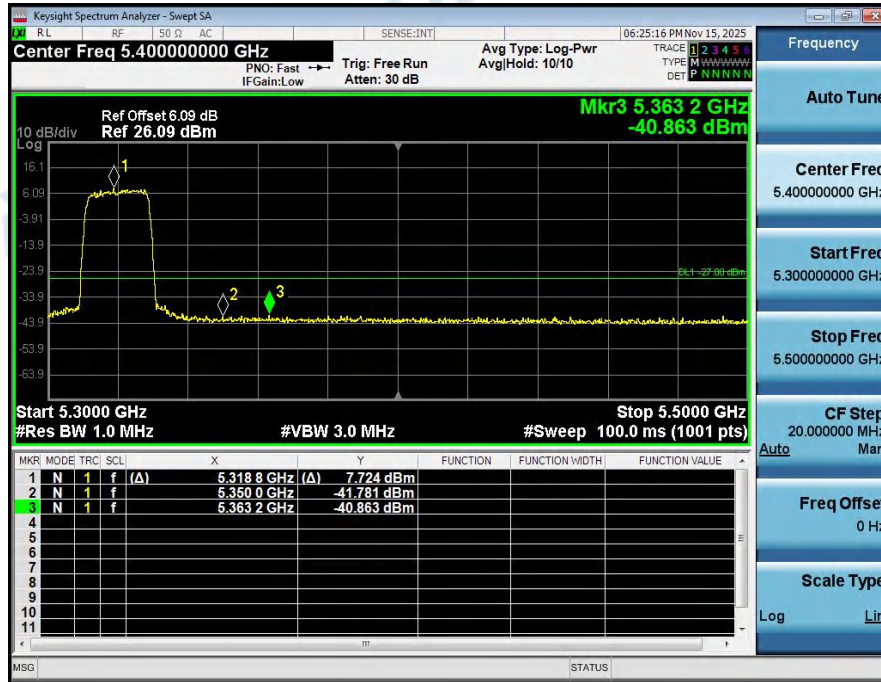
Bandedge_NVNT_ANT1_802_11a_5320



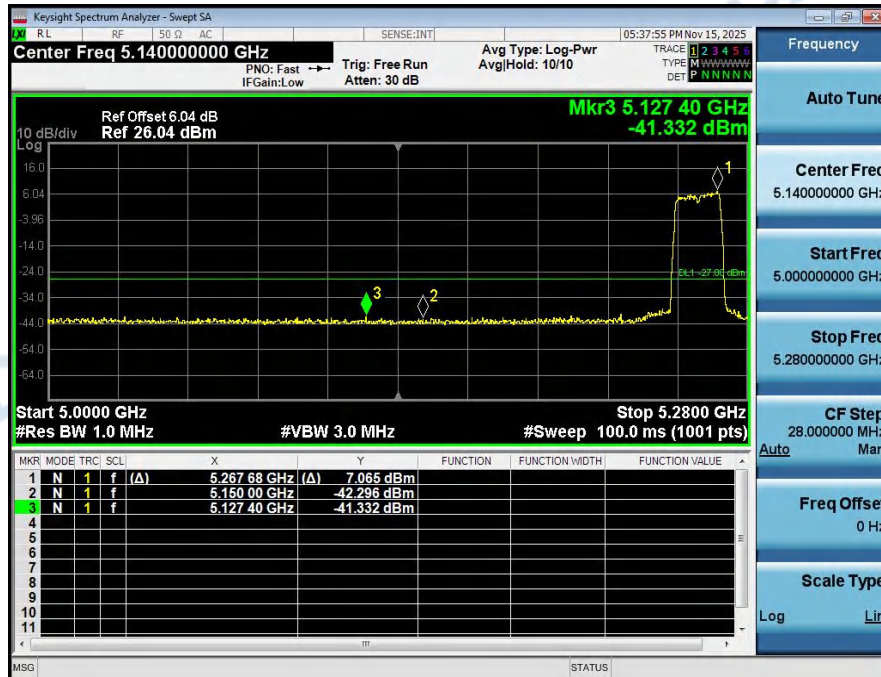
Bandedge_NVNT_ANT1_802_11n(HT20)_5260



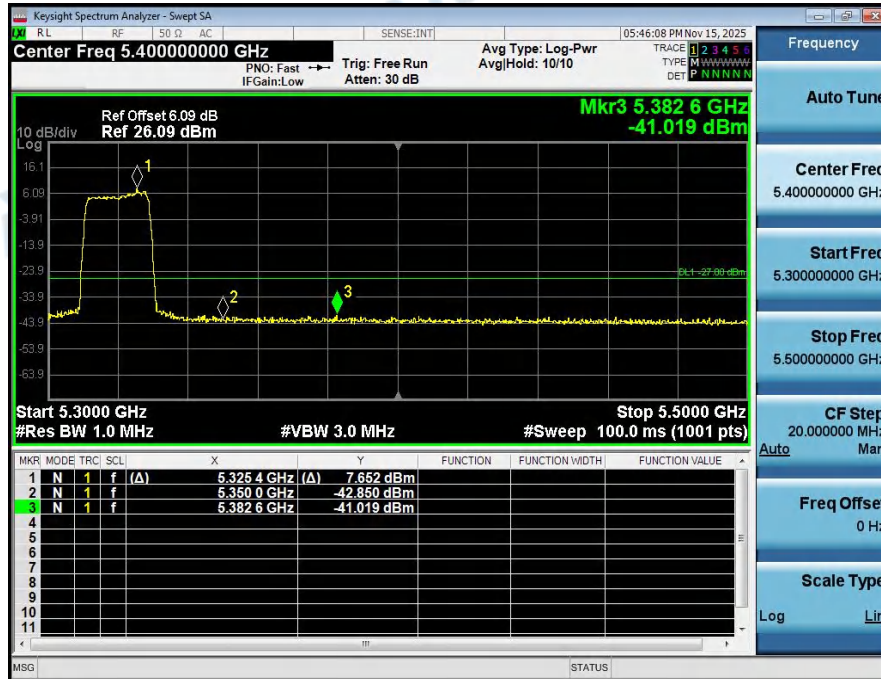
Bandedge_NVNT_ANT1_802_11n(HT20)_5320



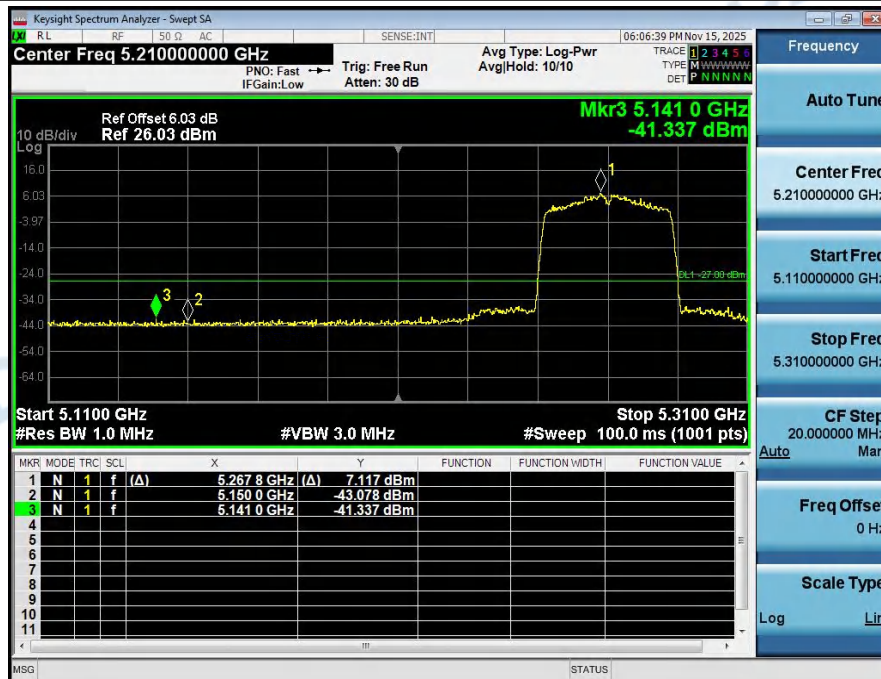
Bandedge_NVNT_ANT1_802_11ac(VHT20)_5260



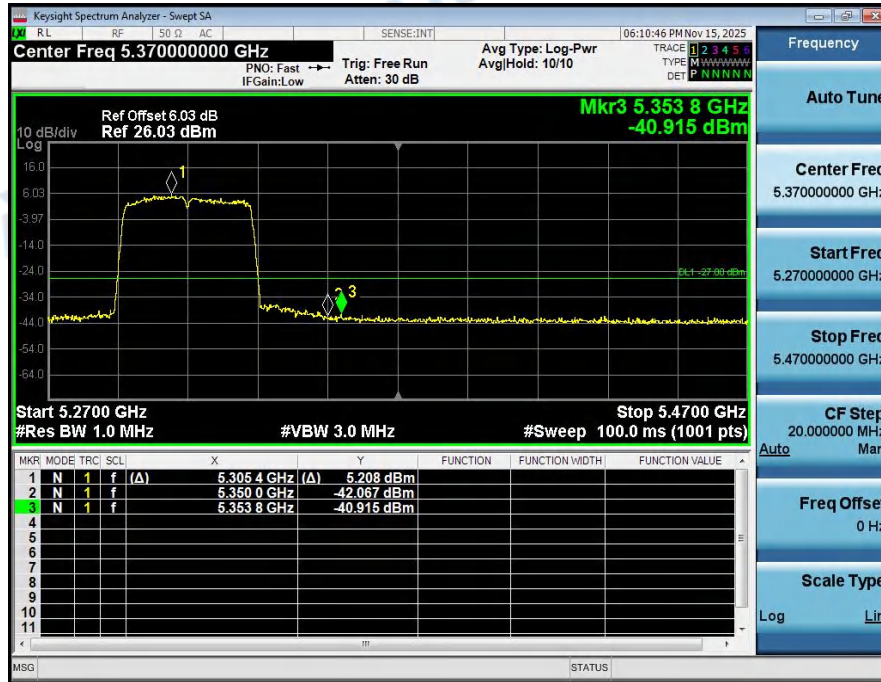
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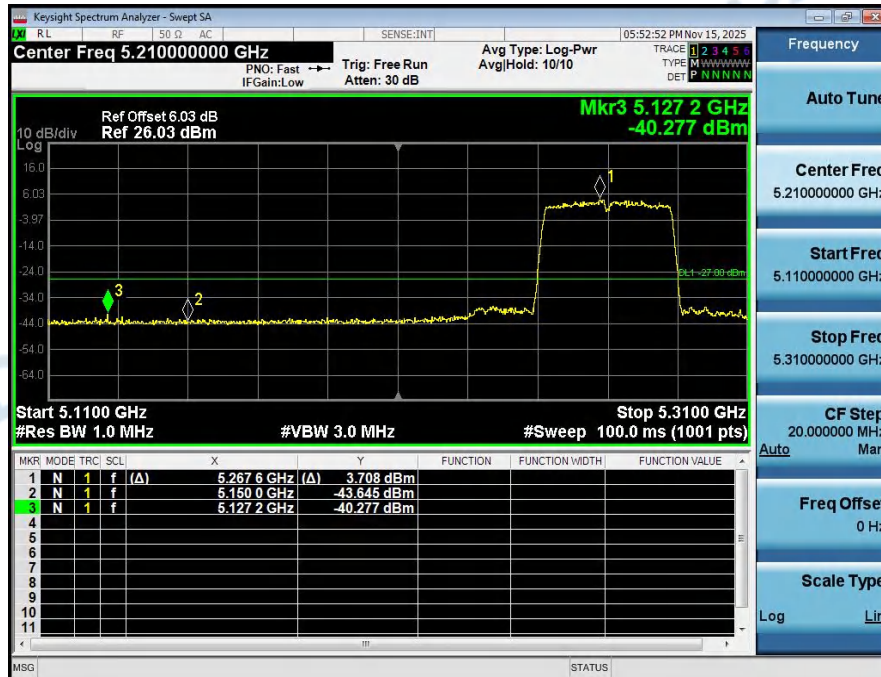
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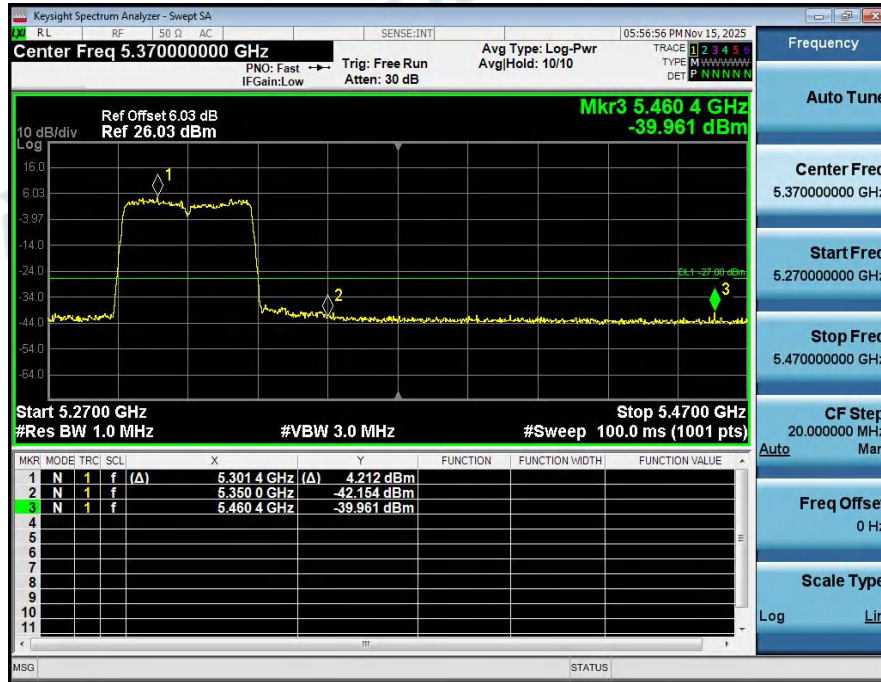
Bandedge_NVNT_ANT1_802_11n(HT40)_5310



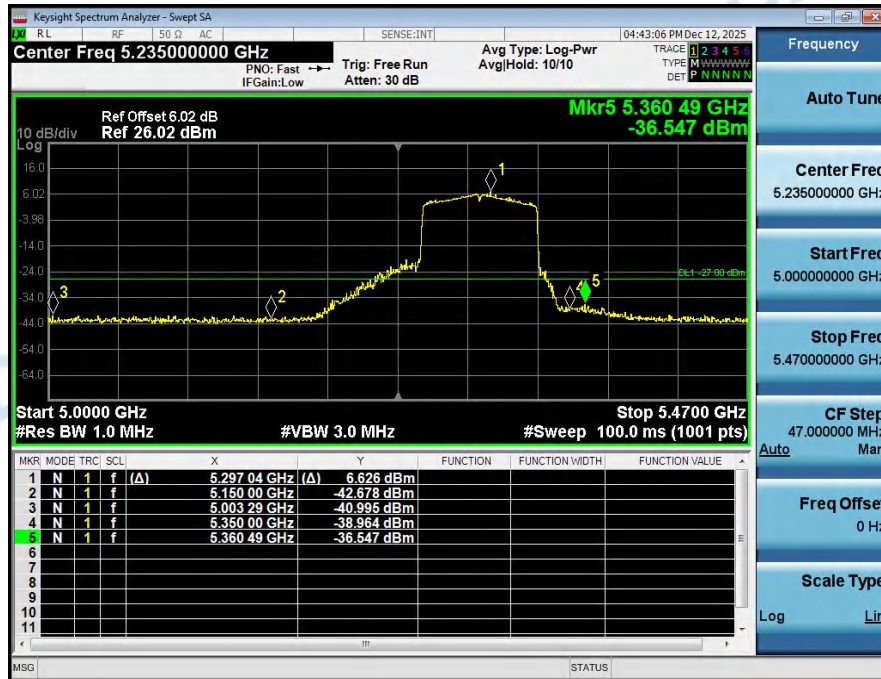
Bandedge_NVNT_ANT1_802_11ac(VHT40)_5270



Bandedge_NVNT_ANT1_802_11ac(VHT40)_5310



Bandedge_NVNT_ANT1_802_11ac(VHT80)_5290

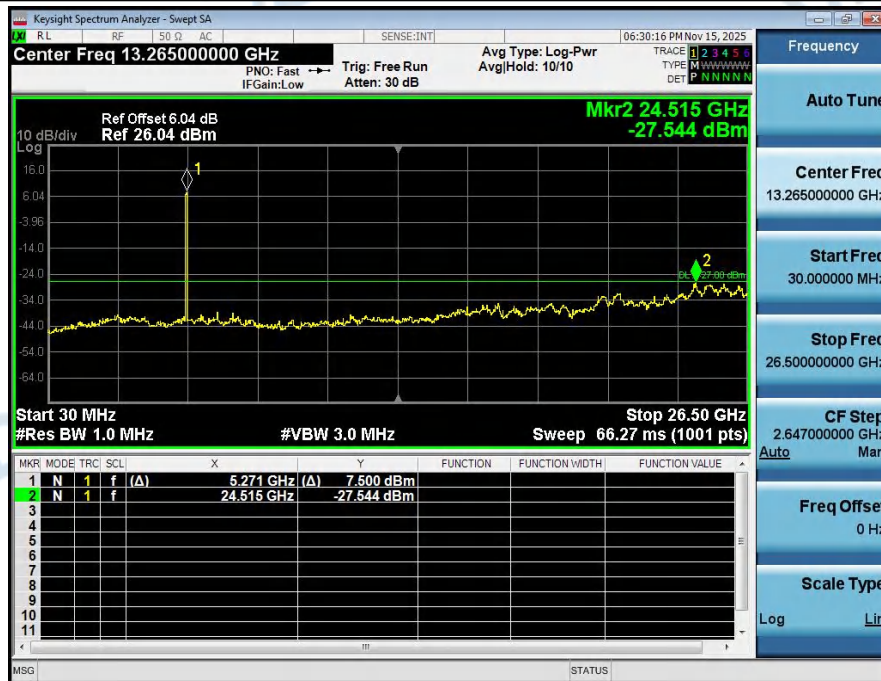


6. Spurious Emission

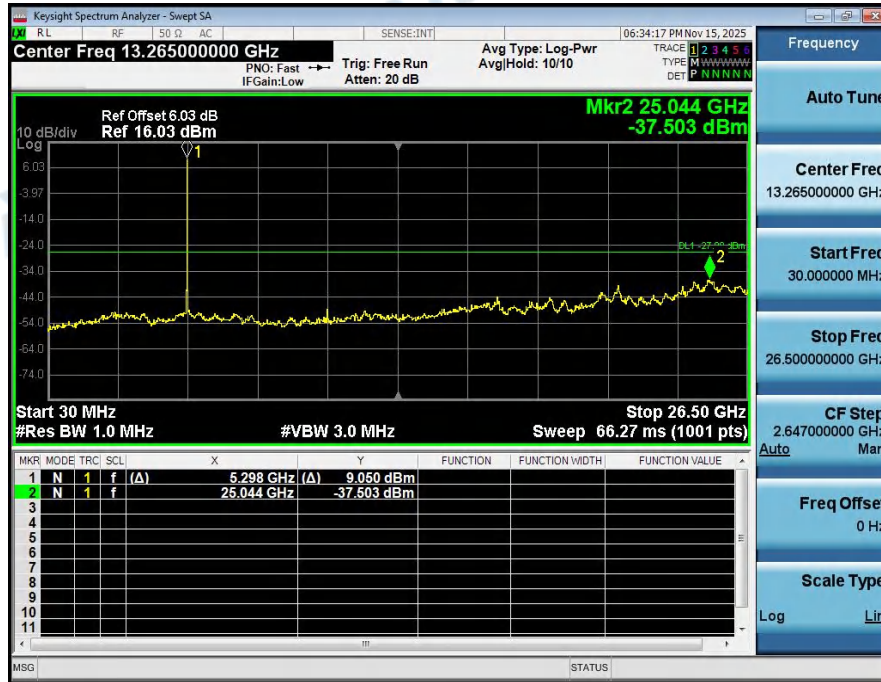
Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark Frequency(MHz)	Spurious level(dBm/MHz)	Limit (dBm/MHz)	Result
NVNT	ANT1	802.11a	5260.00	24514.75	-27.54	-27	Pass
NVNT	ANT1	802.11a	5300.00	25044.15	-37.50	-27	Pass
NVNT	ANT1	802.11a	5320.00	24991.21	-36.66	-27	Pass
NVNT	ANT1	802.11n(HT20)	5260.00	24938.27	-27.50	-27	Pass
NVNT	ANT1	802.11n(HT20)	5300.00	25097.09	-27.60	-27	Pass
NVNT	ANT1	802.11n(HT20)	5320.00	24488.28	-36.84	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5260.00	25070.62	-36.72	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5300.00	25097.09	-37.98	-27	Pass
NVNT	ANT1	802.11ac(VHT20)	5320.00	25017.68	-27.50	-27	Pass
NVNT	ANT1	802.11n(HT40)	5270.00	25044.15	-27.87	-27	Pass
NVNT	ANT1	802.11n(HT40)	5310.00	25097.09	-37.18	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5270.00	25070.62	-27.55	-27	Pass
NVNT	ANT1	802.11ac(VHT40)	5310.00	25070.62	-27.45	-27	Pass
NVNT	ANT1	802.11ac(VHT80)	5290.00	25017.68	-36.95	-27	Pass

Note: The test data did not compensate for the antenna gain. The test margin is greater than the sum of the antenna gain and the cable loss, therefore the test meets the requirements.

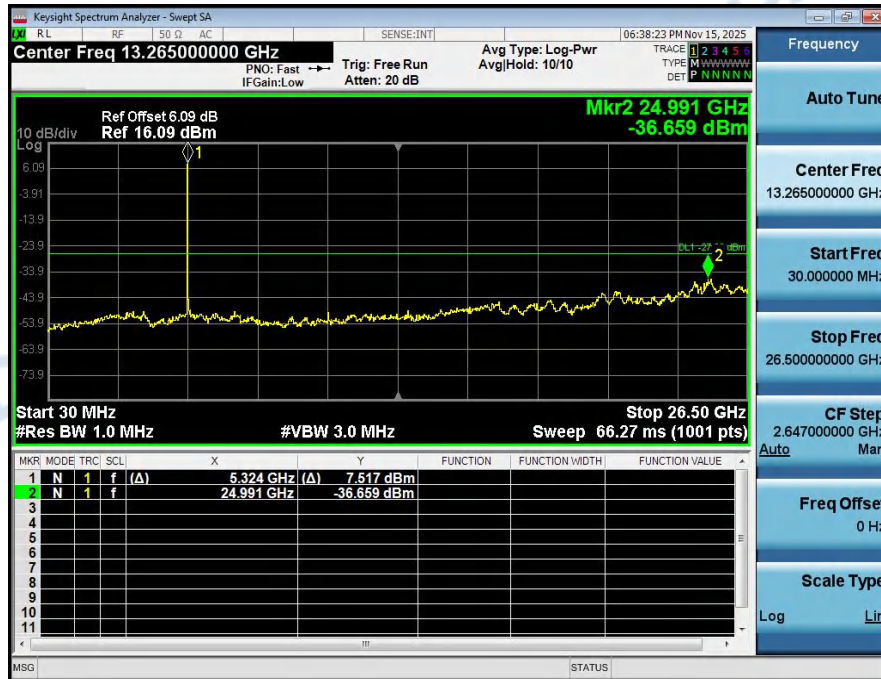
Spurious_Emission_NVNT_ANT1_802_11a_5260



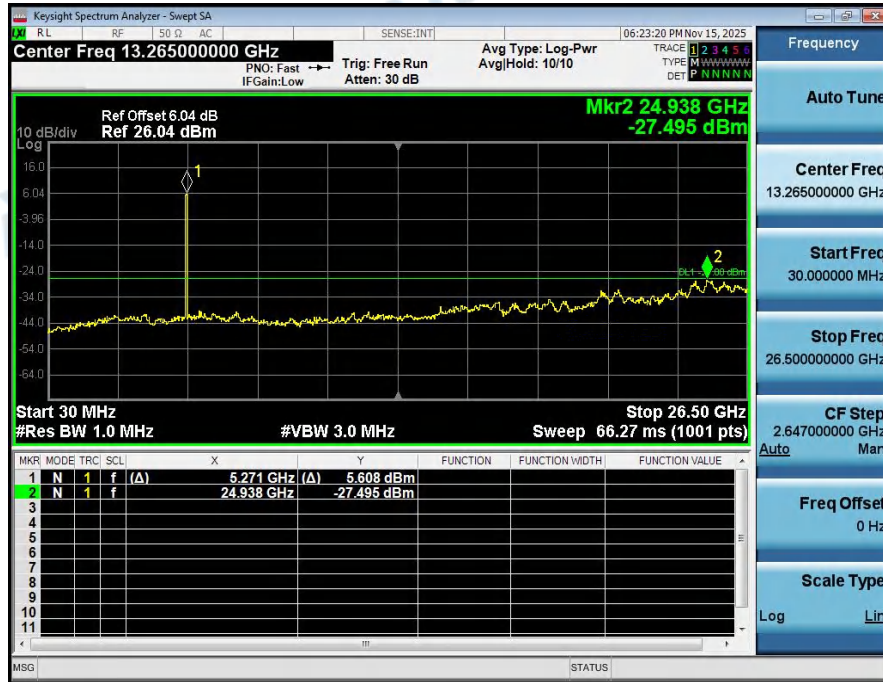
Spurious_Emission_NVNT_ANT1_802_11a_5300



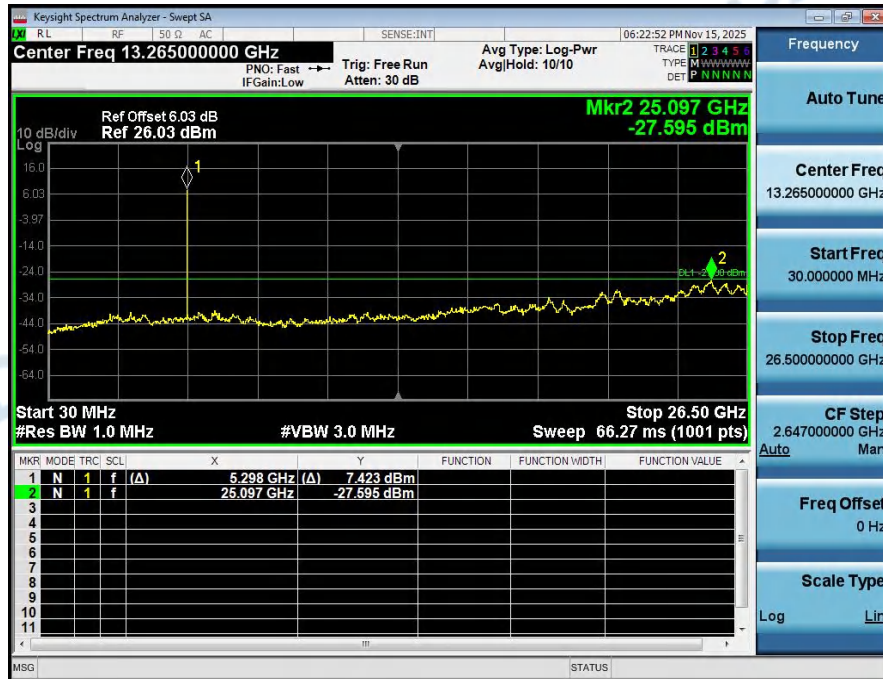
Spurious_Emission_NVNT_ANT1_802_11a_5320



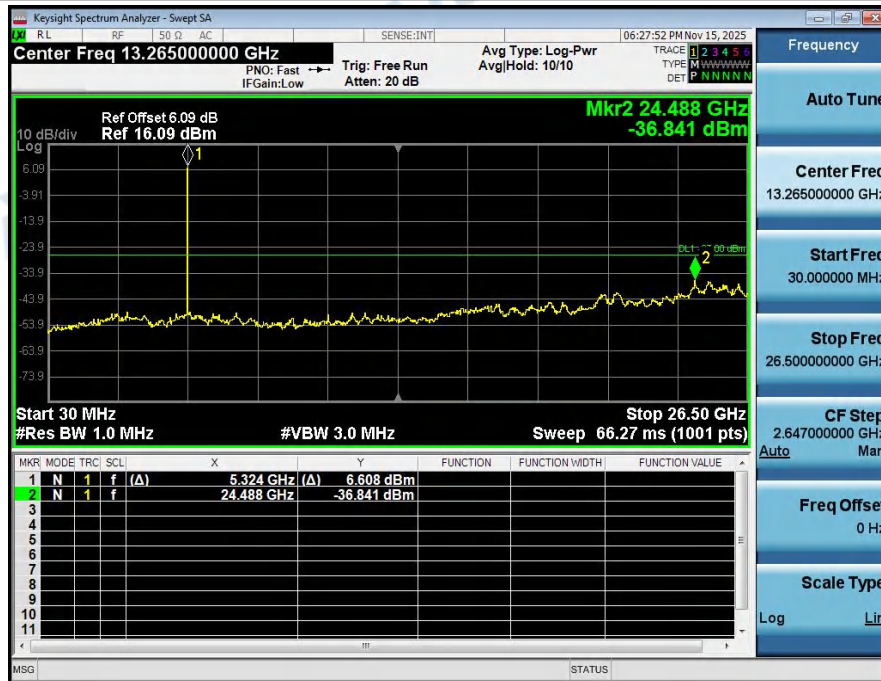
Spurious_Emission_NVNT_ANT1_802_11n(HT20)_5260



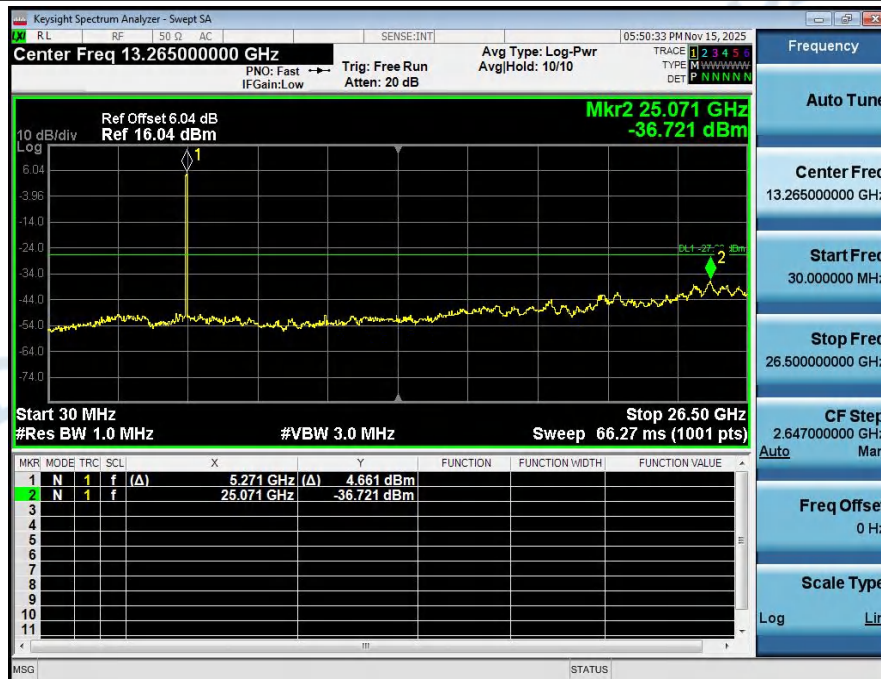
Spurious_Emission_NVNT_ANT1_802_11n(HT20)_5300



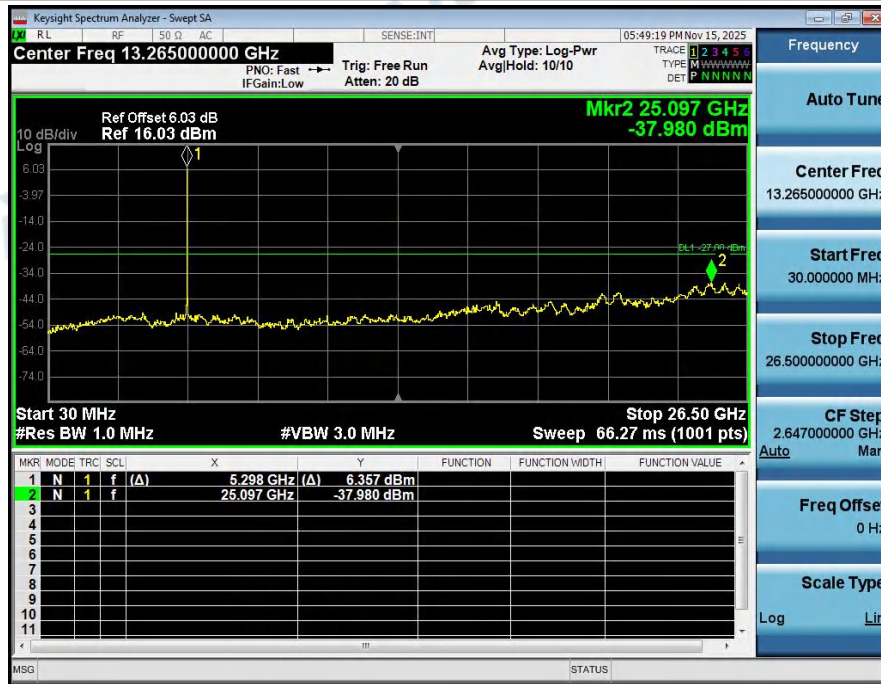
Spurious_Emission_NVNT_ANT1_802_11n(HT20)_5320



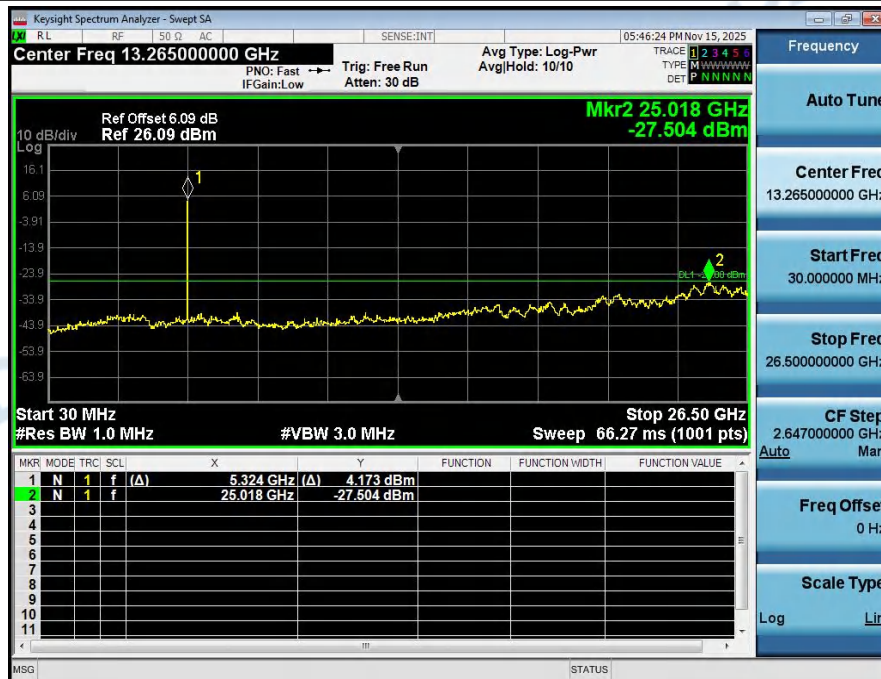
Spurious_Emission_NVNT_ANT1_802_11ac(VHT20)_5260



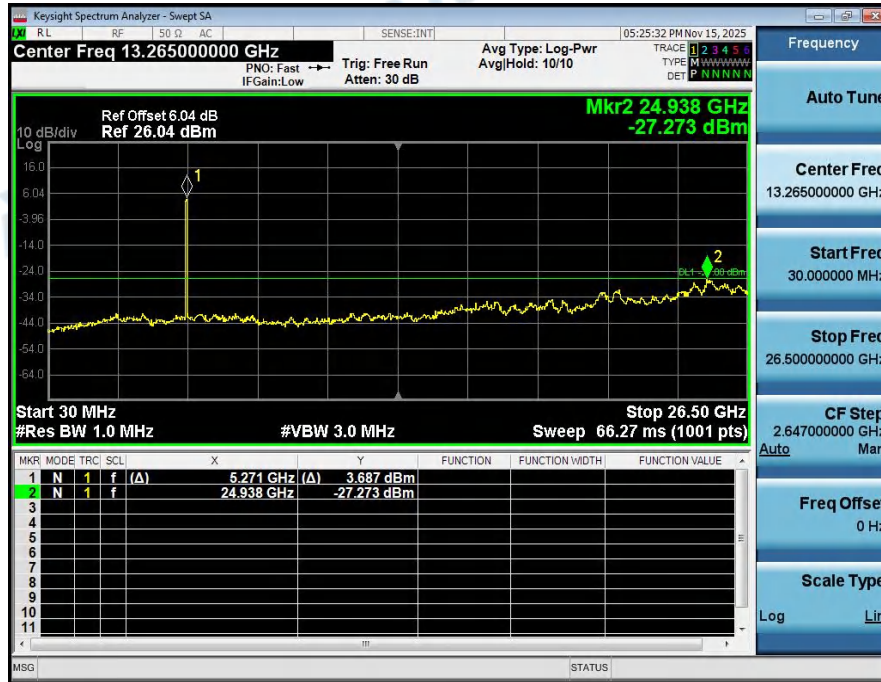
Spurious_Emission_NVNT_ANT1_802_11ac(VHT20)_5300



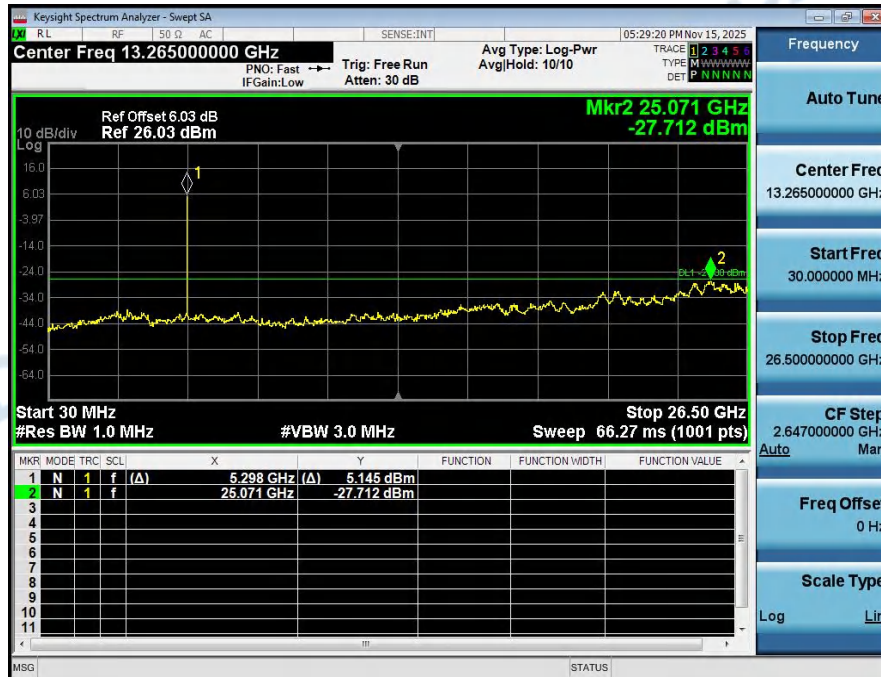
Spurious_Emission_NVNT_ANT1_802_11ac(VHT20)_5320



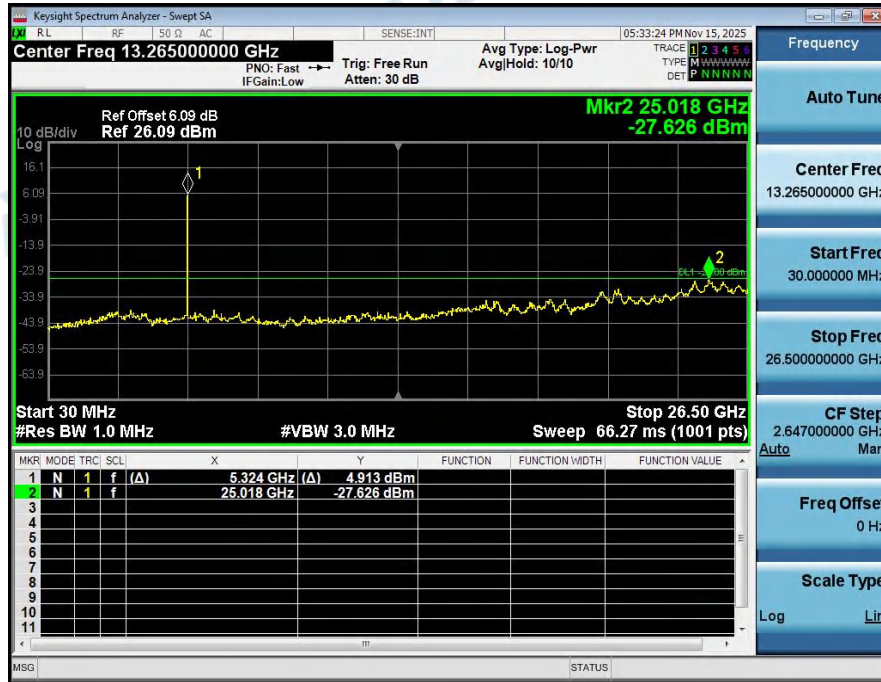
Spurious_Emission_NVNT_ANT1_802_11ax(HE20)_5260



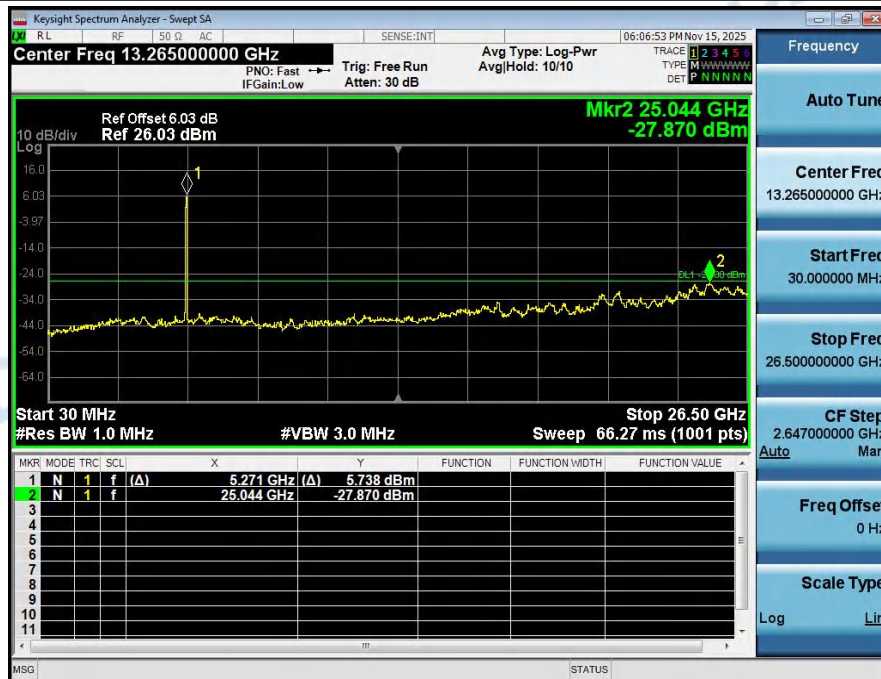
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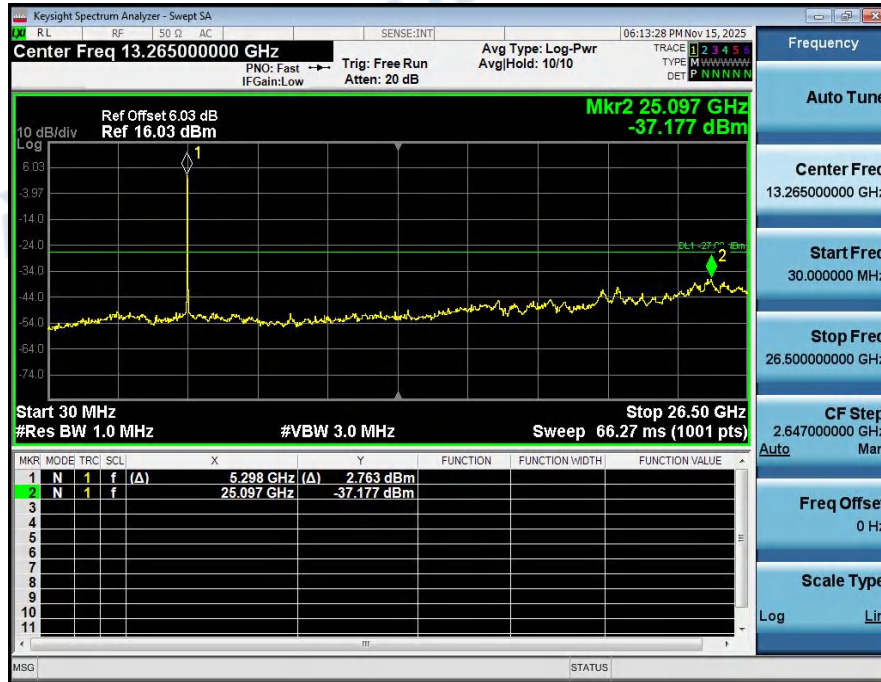
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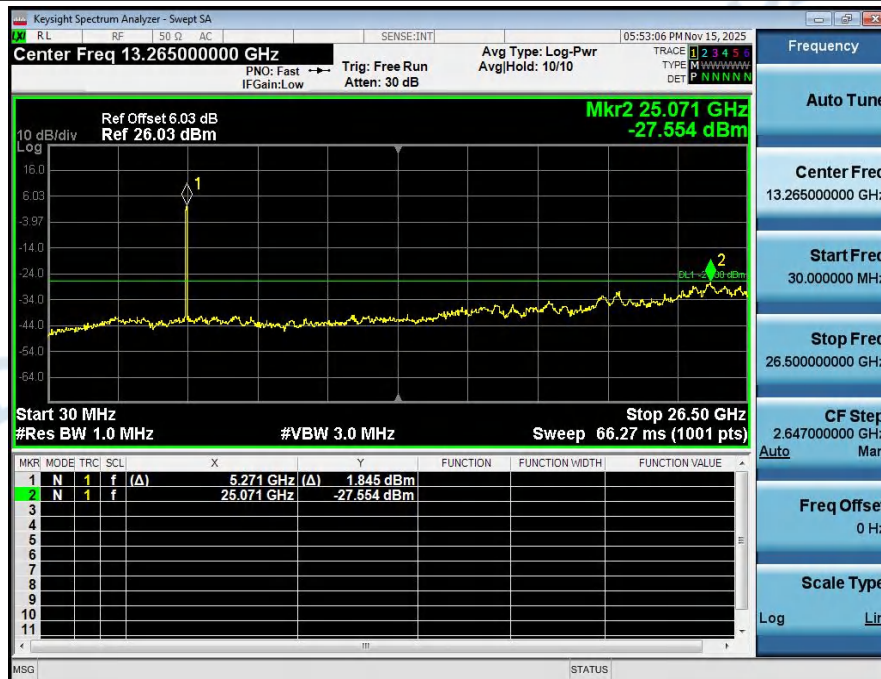
Spurious_Emission_NVNT_ANT1_802_11n(HT40)_5270



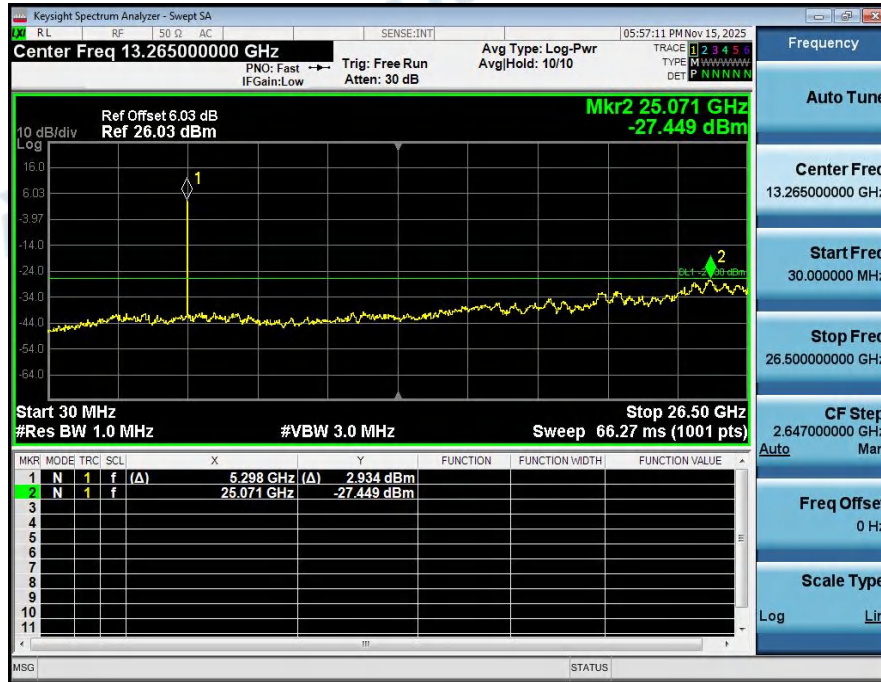
Spurious_Emission_NVNT_ANT1_802_11n(HT40)_5310



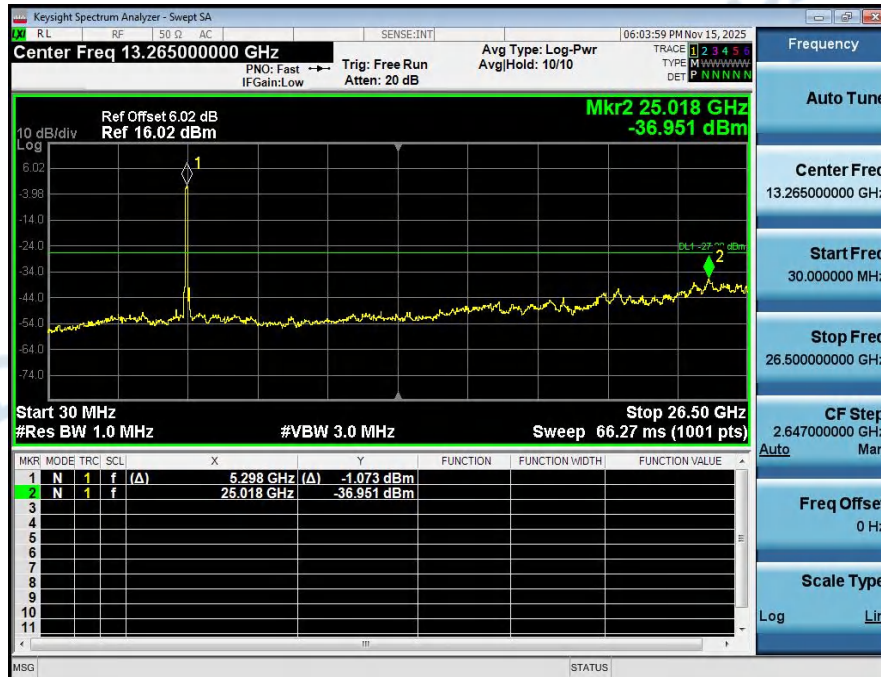
Spurious_Emission_NVNT_ANT1_802_11ac(VHT40)_5270



Spurious_Emission_NVNT_ANT1_802_11ac(VHT40)_5310



Spurious_Emission_NVNT_ANT1_802_11ac(VHT80)_5290



7. Frequency Stability

Condition	Modulation	Frequency(MHz)	Fc(MHz)	Fi(MHz)	Fh(MHz)	Limit(MHz)	Result
55degrees C&&3.80V	802.11a	5260.00	5259.970	5251.608	5268.332	5250~5350	Pass
45degrees C&&3.80V	802.11a	5260.00	5259.986	5251.752	5268.220	5250~5350	Pass
35degrees C&&3.80V	802.11a	5260.00	5259.976	5251.828	5268.124	5250~5350	Pass
25degrees C&&3.80V	802.11a	5260.00	5259.990	5251.908	5268.072	5250~5350	Pass
15degrees C&&3.80V	802.11a	5260.00	5259.998	5251.968	5268.028	5250~5350	Pass
5degrees C&&3.80V	802.11a	5260.00	5260.020	5252.024	5268.016	5250~5350	Pass
-5degrees C&&3.80V	802.11a	5260.00	5260.006	5252.080	5267.932	5250~5350	Pass
-15degrees C&&3.80V	802.11a	5260.00	5260.018	5252.152	5267.884	5250~5350	Pass
25degrees C&&4.37V	802.11a	5260.00	5260.030	5252.204	5267.856	5250~5350	Pass
25degrees C&&3.80V	802.11a	5260.00	5260.038	5252.256	5267.820	5250~5350	Pass
25degrees C&&3.23V	802.11a	5260.00	5260.034	5252.312	5267.756	5250~5350	Pass
55degrees C&&3.80V	802.11a	5300.00	5299.958	5291.644	5308.272	5250~5350	Pass
45degrees C&&3.80V	802.11a	5300.00	5299.940	5291.760	5308.120	5250~5350	Pass
35degrees C&&3.80V	802.11a	5300.00	5299.936	5291.848	5308.024	5250~5350	Pass
25degrees C&&3.80V	802.11a	5300.00	5299.938	5291.928	5307.948	5250~5350	Pass
15degrees C&&3.80V	802.11a	5300.00	5299.940	5292.000	5307.880	5250~5350	Pass
5degrees C&&3.80V	802.11a	5300.00	5299.940	5292.072	5307.808	5250~5350	Pass
-5degrees C&&3.80V	802.11a	5300.00	5299.960	5292.132	5307.788	5250~5350	Pass
-15degrees C&&3.80V	802.11a	5300.00	5299.966	5292.188	5307.744	5250~5350	Pass
25degrees C&&4.37V	802.11a	5300.00	5299.954	5292.252	5307.656	5250~5350	Pass
25degrees C&&3.80V	802.11a	5300.00	5299.940	5292.304	5307.576	5250~5350	Pass
25degrees C&&3.23V	802.11a	5300.00	5299.956	5292.372	5307.540	5250~5350	Pass
55degrees C&&3.80V	802.11a	5320.00	5319.954	5311.600	5328.308	5250~5350	Pass
45degrees C&&3.80V	802.11a	5320.00	5319.976	5311.744	5328.208	5250~5350	Pass
35degrees C&&3.80V	802.11a	5320.00	5319.980	5311.832	5328.128	5250~5350	Pass
25degrees C&&3.80V	802.11a	5320.00	5320.002	5311.916	5328.088	5250~5350	Pass
15degrees C&&3.80V	802.11a	5320.00	5320.004	5311.976	5328.032	5250~5350	Pass
5degrees C&&3.80V	802.11a	5320.00	5320.022	5312.052	5327.992	5250~5350	Pass
-5degrees C&&3.80V	802.11a	5320.00	5320.042	5312.120	5327.964	5250~5350	Pass
-15degrees C&&3.80V	802.11a	5320.00	5320.042	5312.176	5327.908	5250~5350	Pass
25degrees C&&4.37V	802.11a	5320.00	5320.038	5312.208	5327.868	5250~5350	Pass
25degrees C&&3.80V	802.11a	5320.00	5320.016	5312.260	5327.772	5250~5350	Pass
25degrees C&&3.23V	802.11a	5320.00	5320.036	5312.316	5327.756	5250~5350	Pass

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