

Appendix

Test Data

for BTEK250110050A01-T05

Start date	2025/2/8	Finish date	2025/3/5
Temperature	27.0℃	Humidity	47%
RF specifications	5.2G WIFI	Test Engineer	Zora



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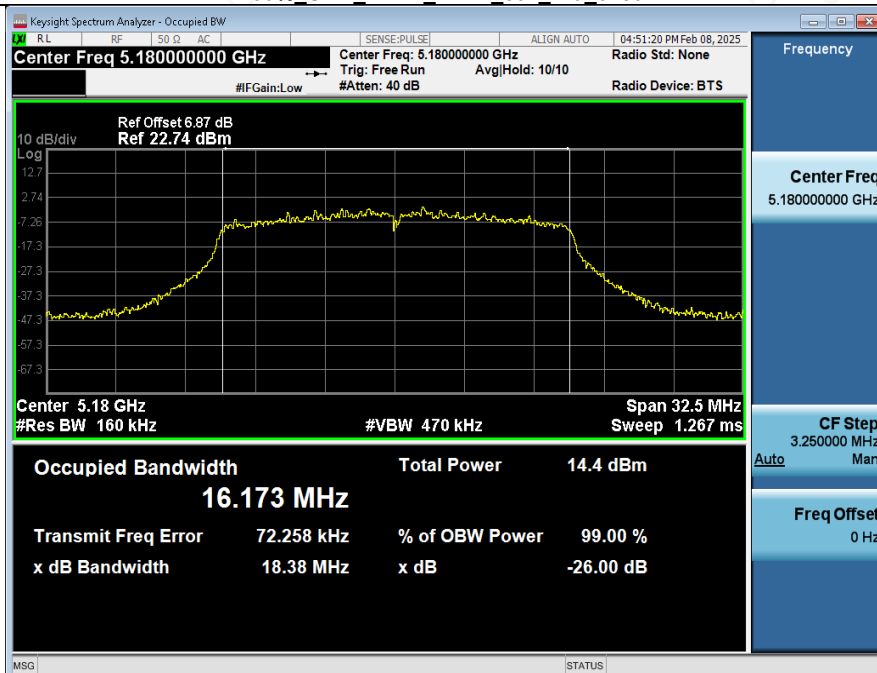
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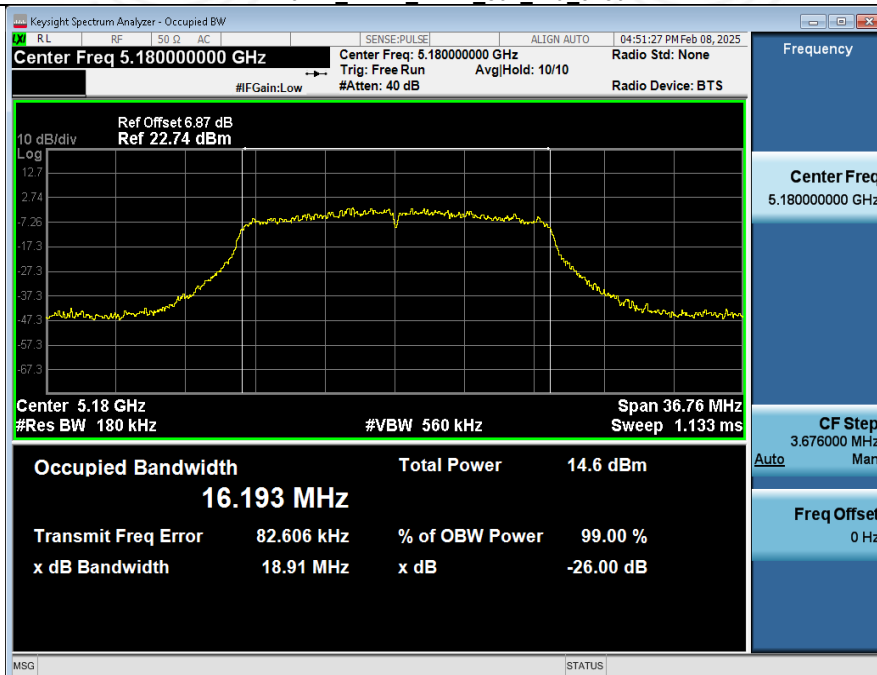
1. -26dB and 99% Emission Bandwidth

Condition	Antenna	Modulation	Frequency(MHz)	-26dB Emission Bandwidth(MHz)	Occupied Bandwidth(MHz)
NVNT	ANT1	802.11a	5180.00	18.91	16.17
NVNT	ANT1	802.11a	5200.00	18.94	16.17
NVNT	ANT1	802.11a	5240.00	19.04	16.17
NVNT	ANT1	802.11n(HT20)	5180.00	20.13	17.30
NVNT	ANT1	802.11n(HT20)	5200.00	19.90	17.27
NVNT	ANT1	802.11n(HT20)	5240.00	19.63	17.32
NVNT	ANT1	802.11n(HT40)	5190.00	37.79	35.21
NVNT	ANT1	802.11n(HT40)	5230.00	37.95	35.14

99%_OCB_NVNT_ANT1_802_11a_5180

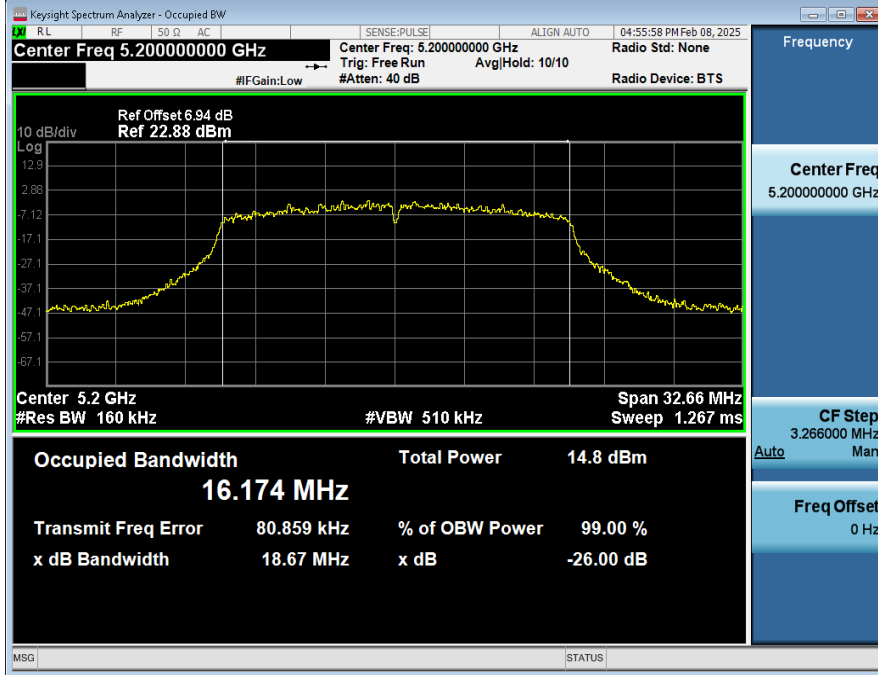


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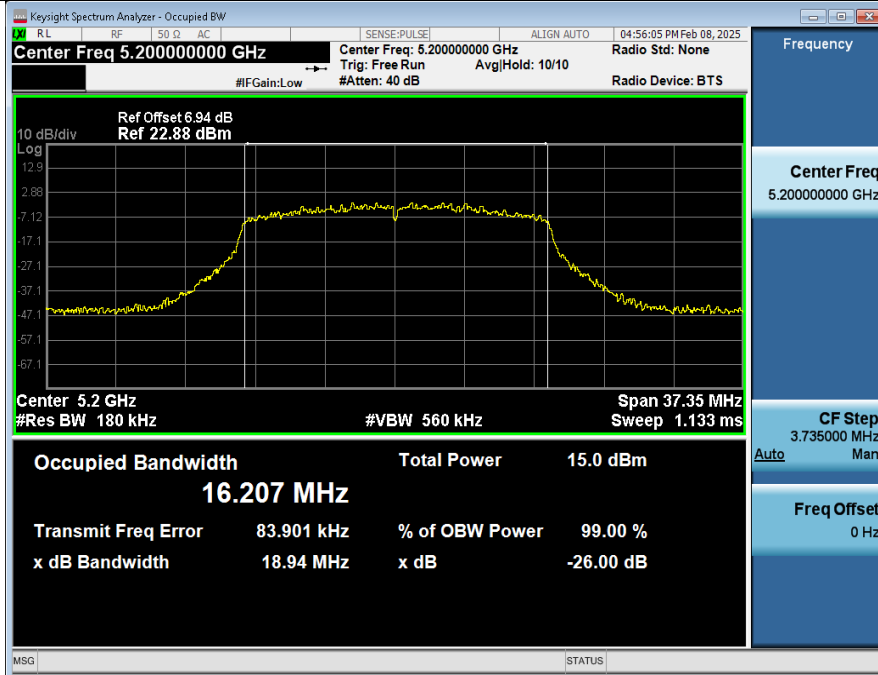


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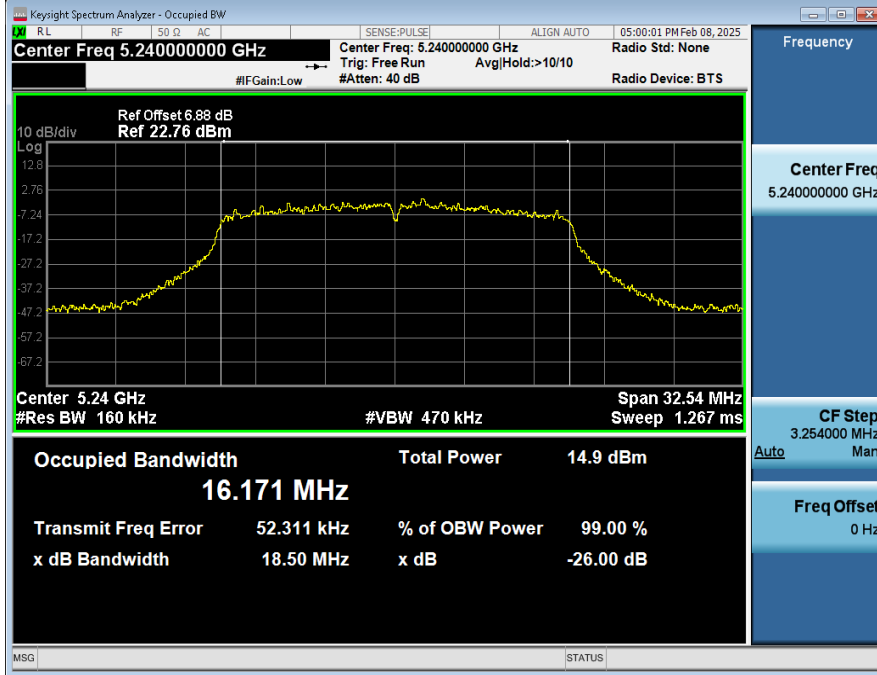


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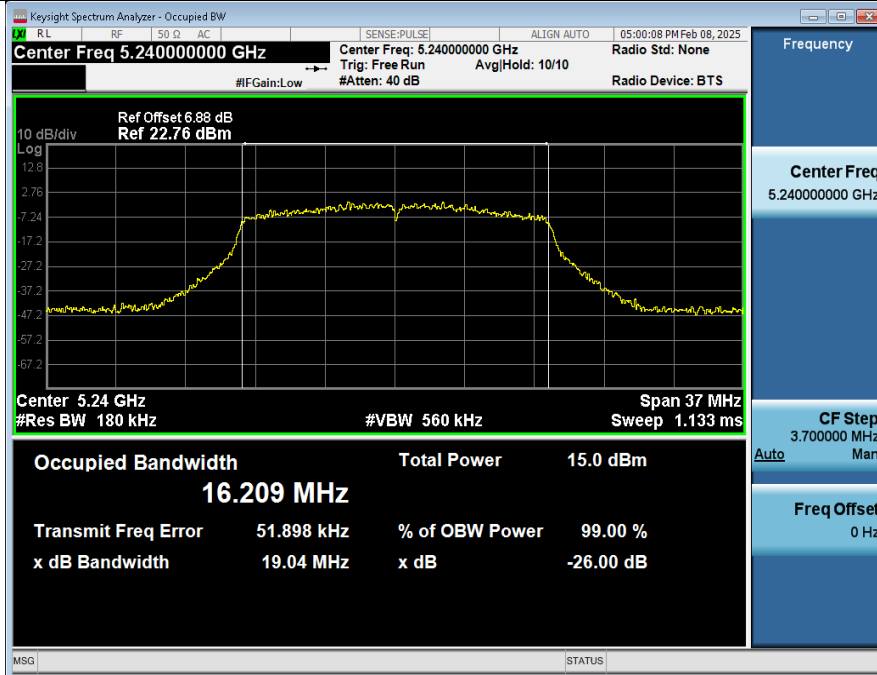


99%_OCB_NVNT_ANT1_802_11a_5240





-26BW_NVNT_ANT1_802_11a_5240

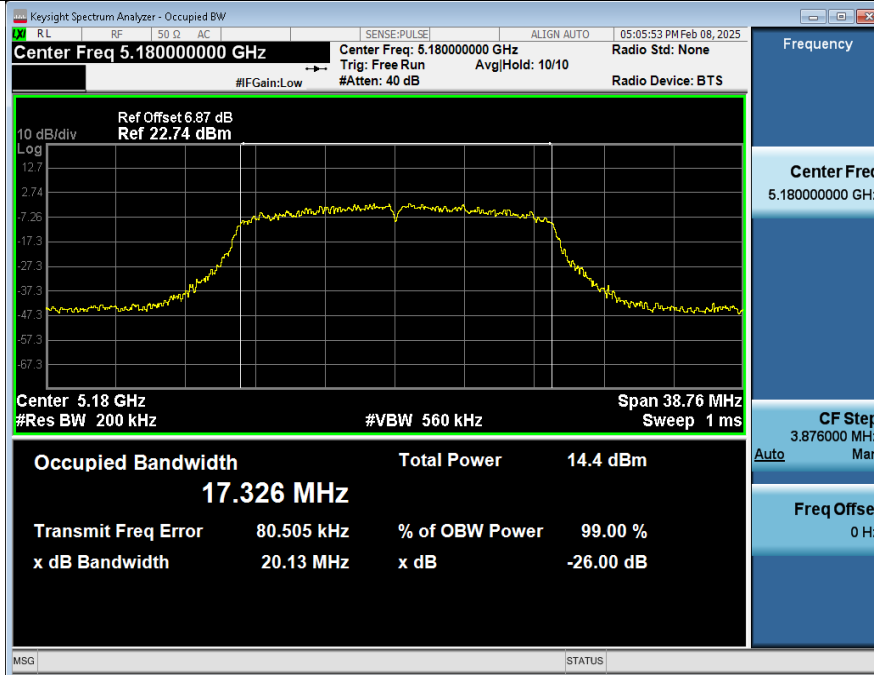


99%_OCB_NVNT_ANT1_802_11n(HT20)_5180





-26BW_NVNT_ANT1_802_11n(HT20)_5180



99%_OCB_NVNT_ANT1_802_11n(HT20)_5200



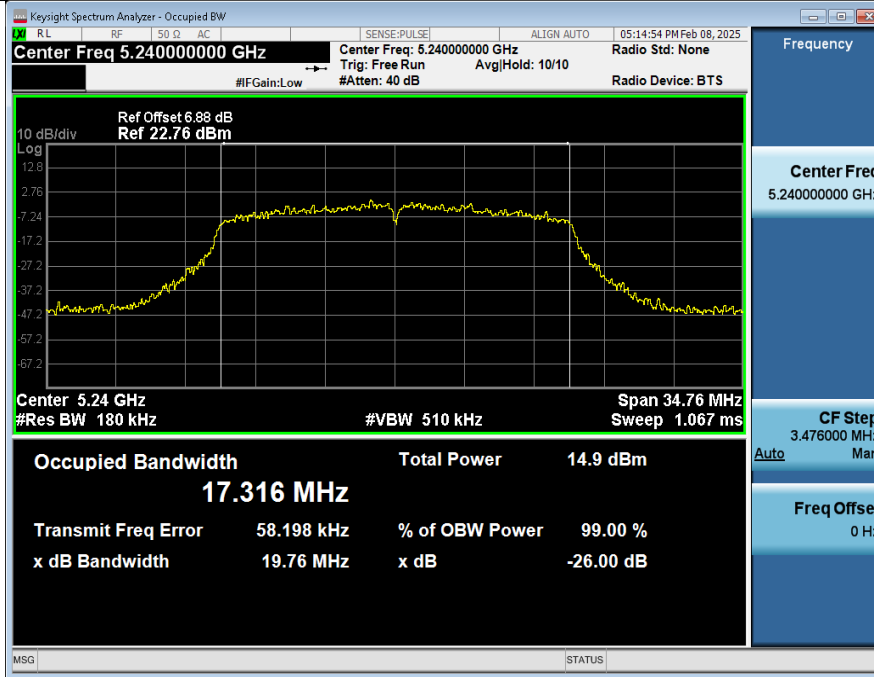


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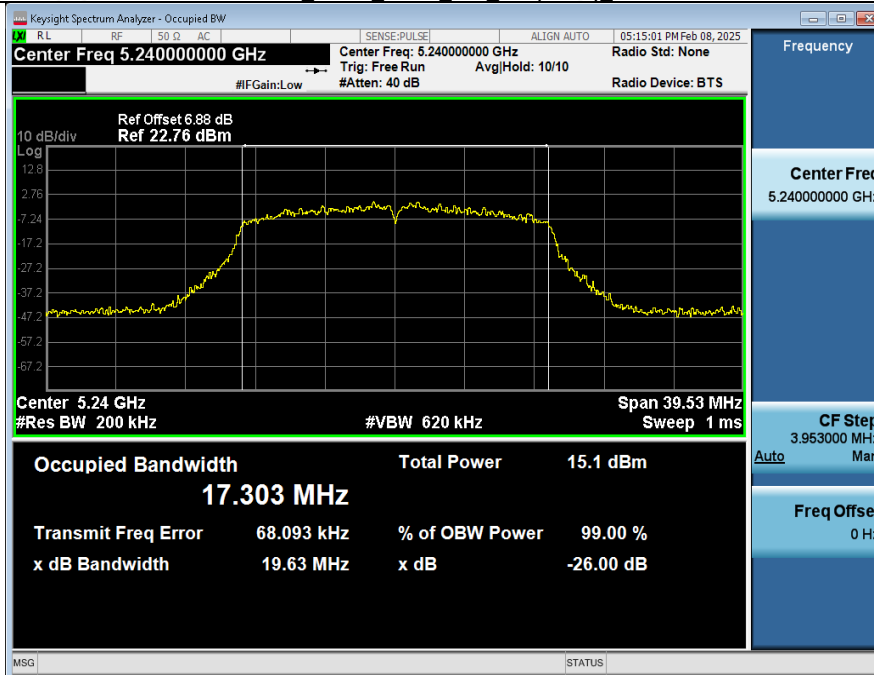


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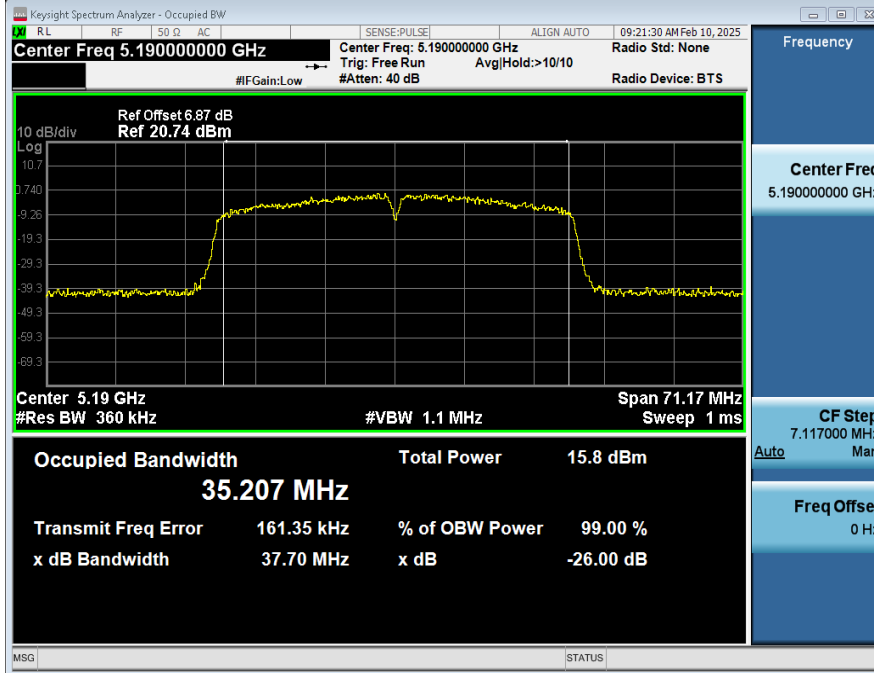


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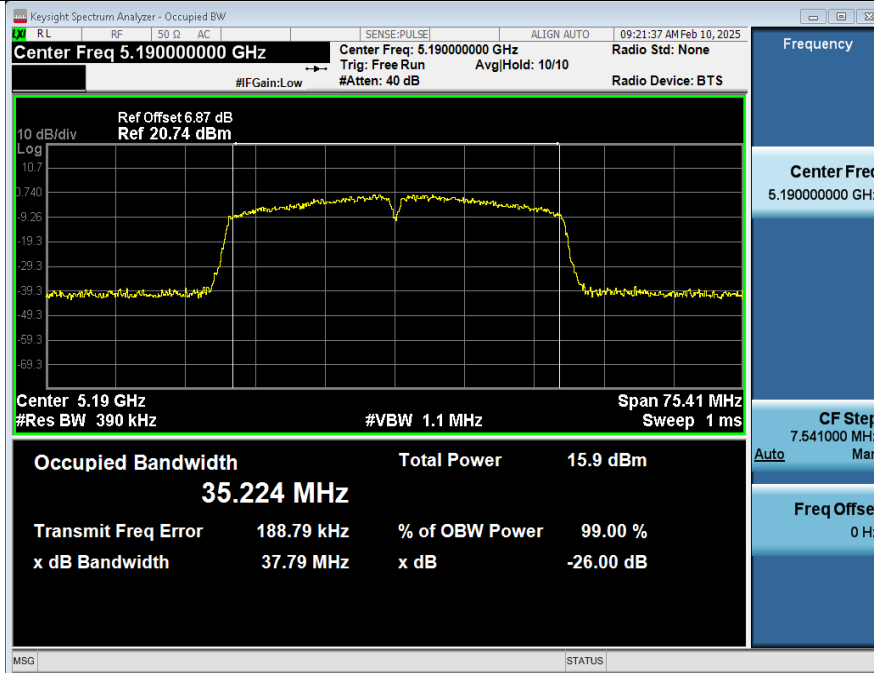


99%_OCB_NVNT_ANT1_802_11n(HT40)_5190



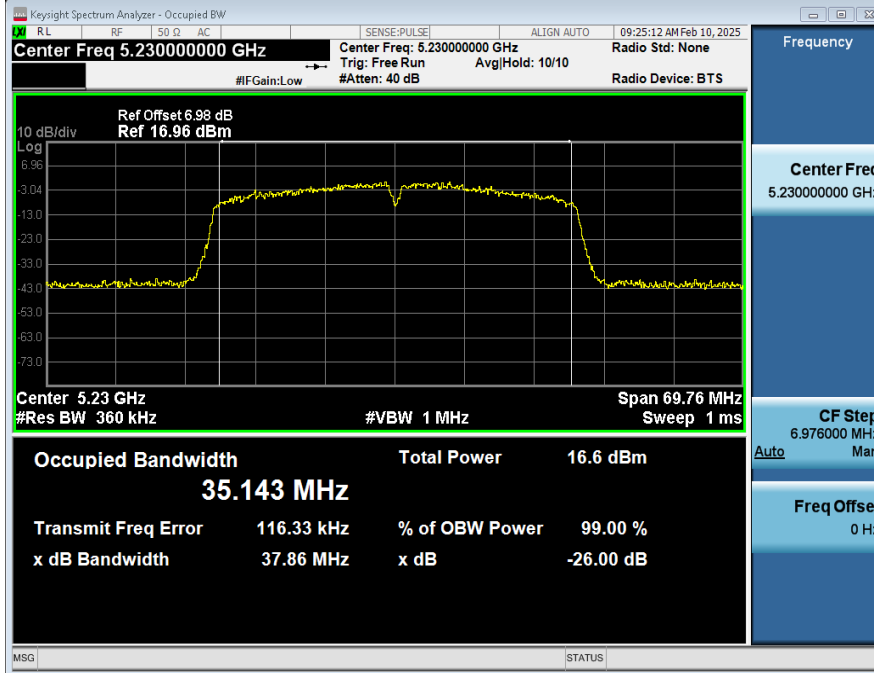


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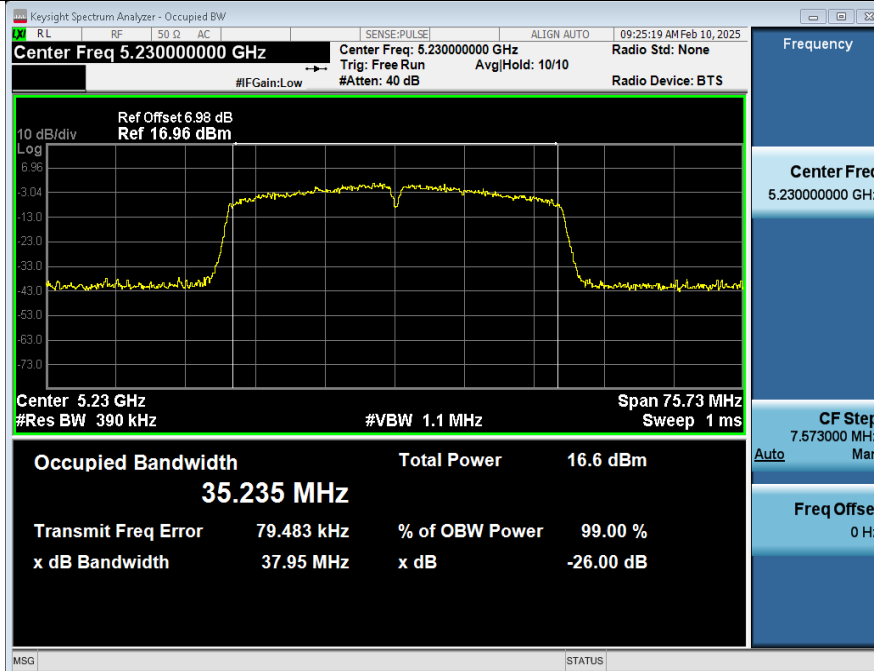


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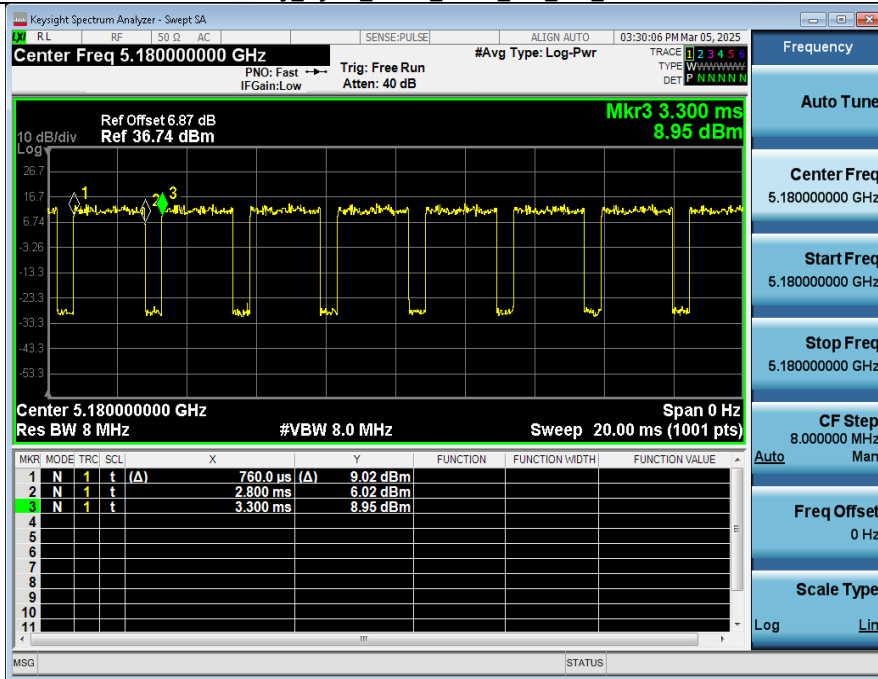
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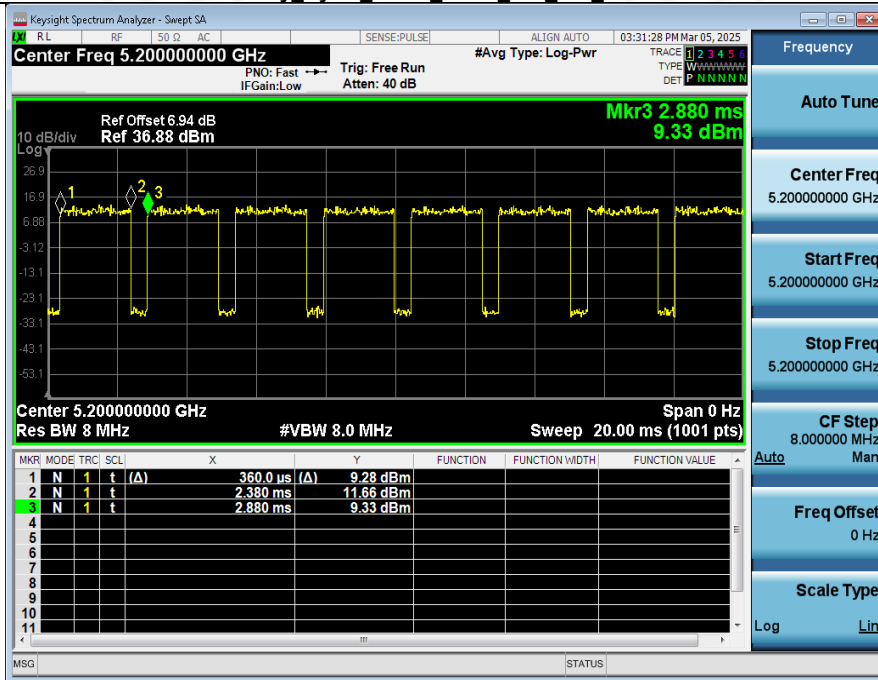
2. Duty Cycle

Condition	Antenna	Modulation	Frequency (MHz)	Duty cycle(%)	Duty_factor
NVNT	ANT1	802.11a	5180.00	80.31	0.95
NVNT	ANT1	802.11a	5200.00	80.16	0.96
NVNT	ANT1	802.11a	5240.00	80.16	0.96
NVNT	ANT1	802.11n(HT20)	5180.00	78.33	1.06
NVNT	ANT1	802.11n(HT20)	5200.00	78.99	1.02
NVNT	ANT1	802.11n(HT20)	5240.00	79.17	1.01
NVNT	ANT1	802.11n(HT40)	5190.00	64.79	1.89
NVNT	ANT1	802.11n(HT40)	5230.00	65.28	1.85

Duty_Cycle_NVNT_ANT1_802_11a_5180

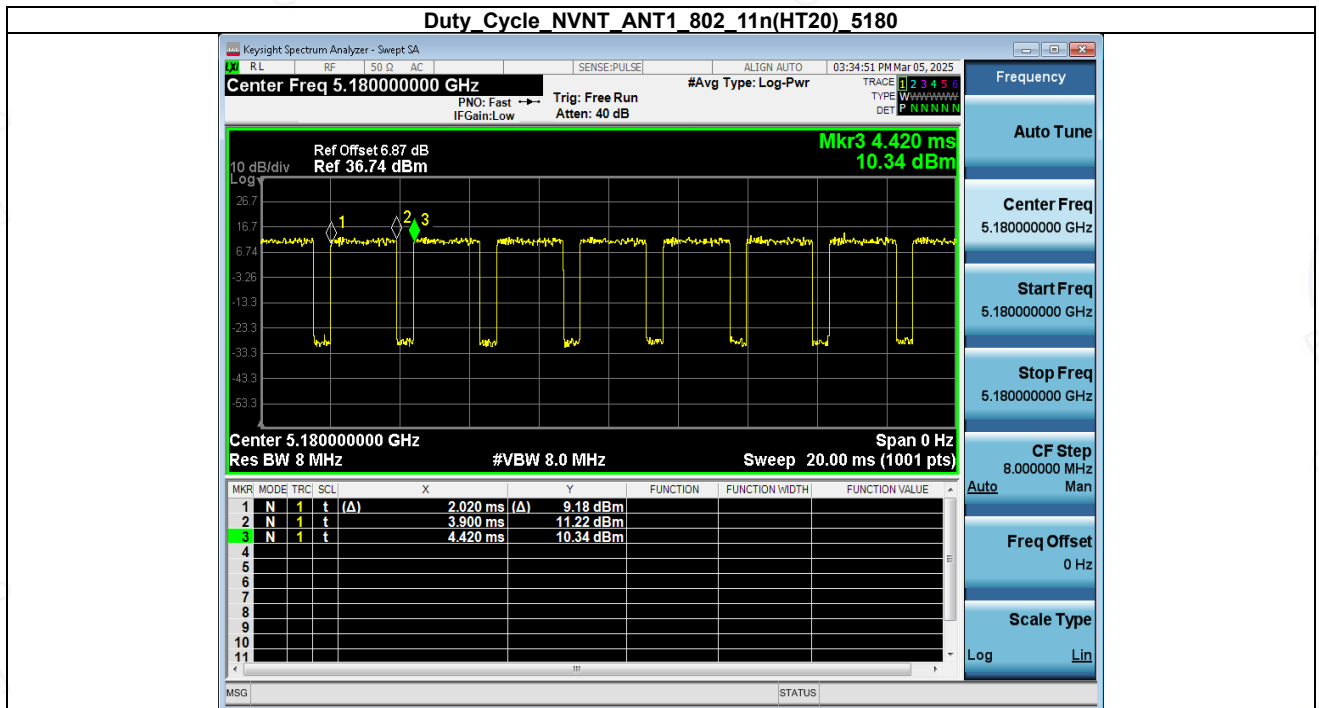
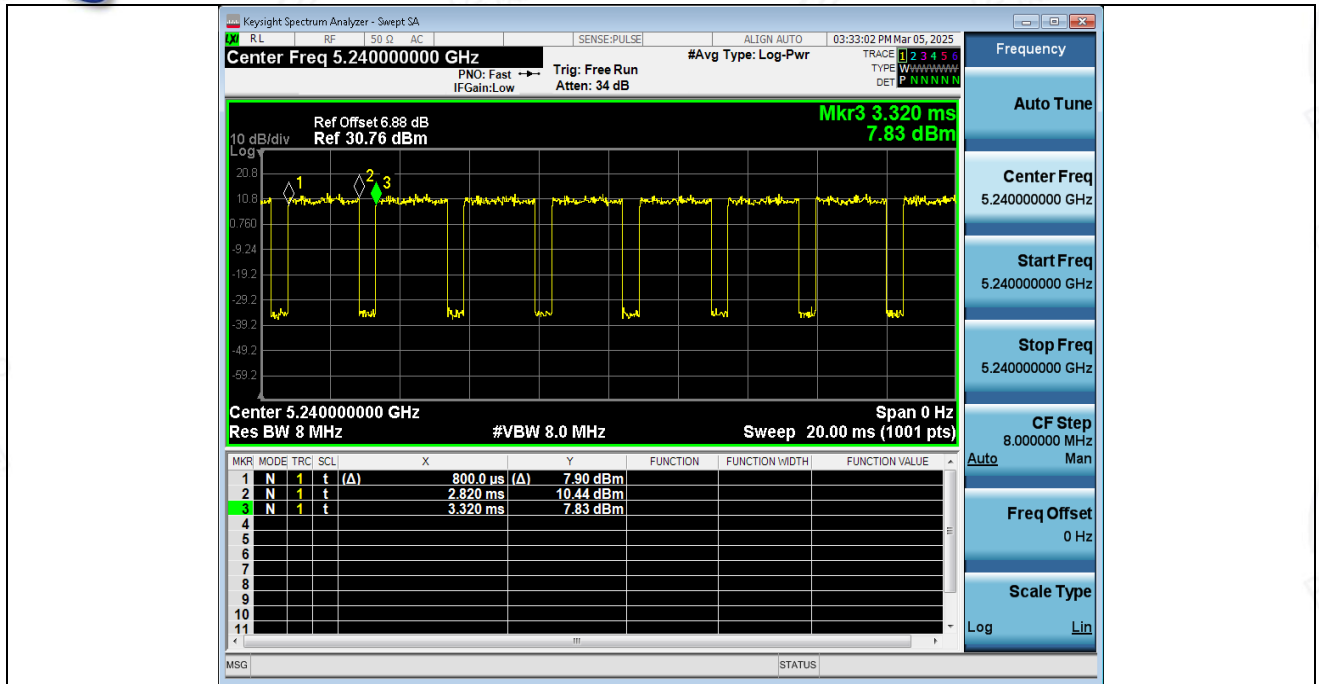


Duty_Cycle_NVNT_ANT1_802_11a_5200



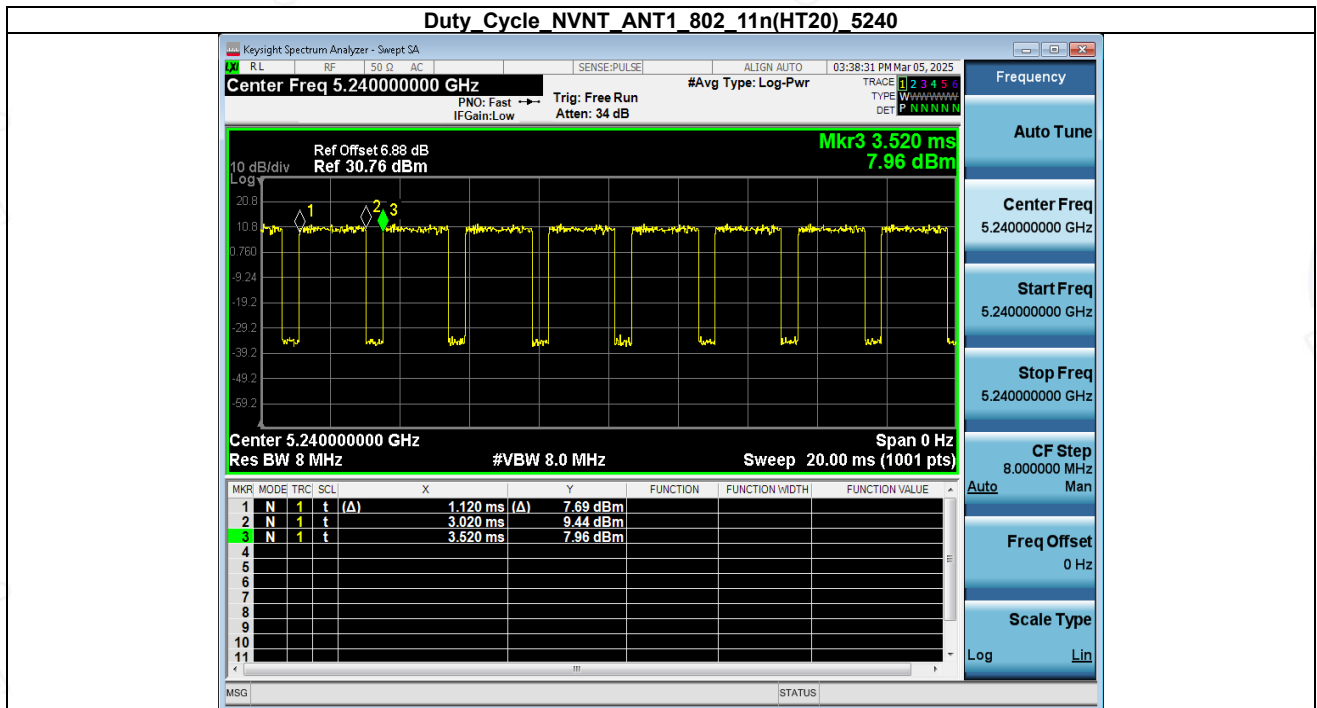
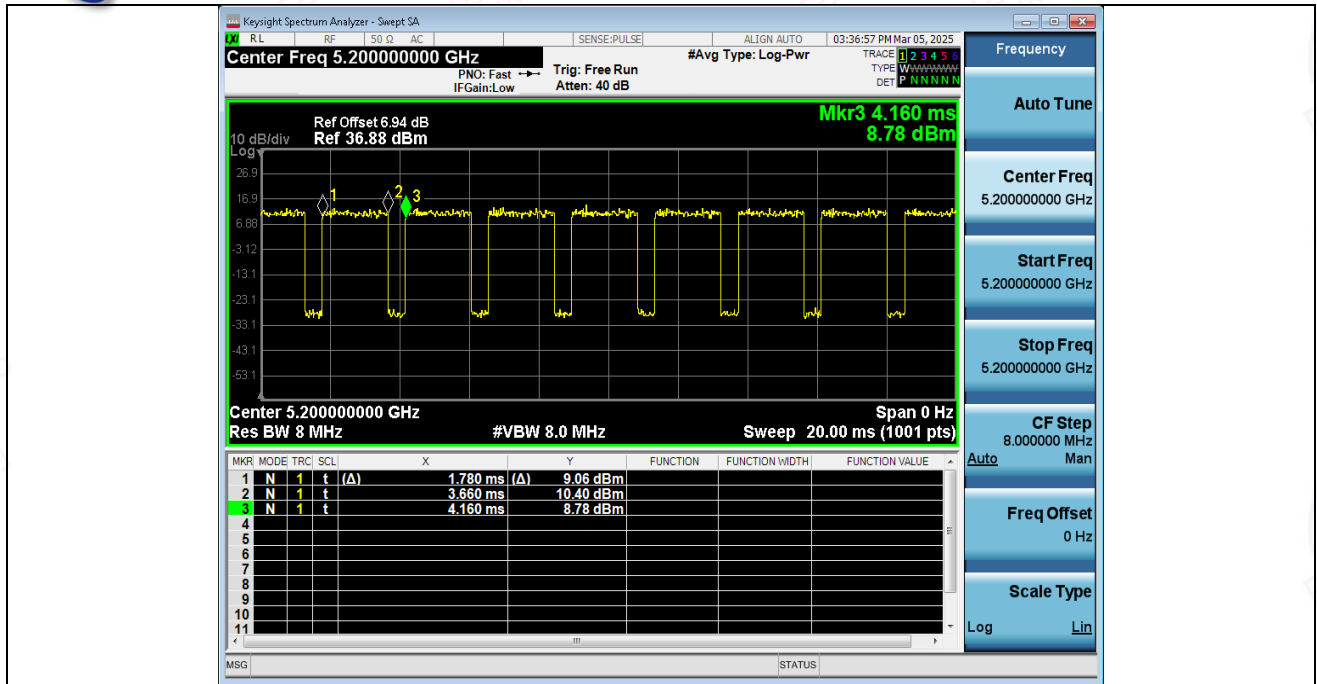
Duty_Cycle_NVNT_ANT1_802_11a_5240





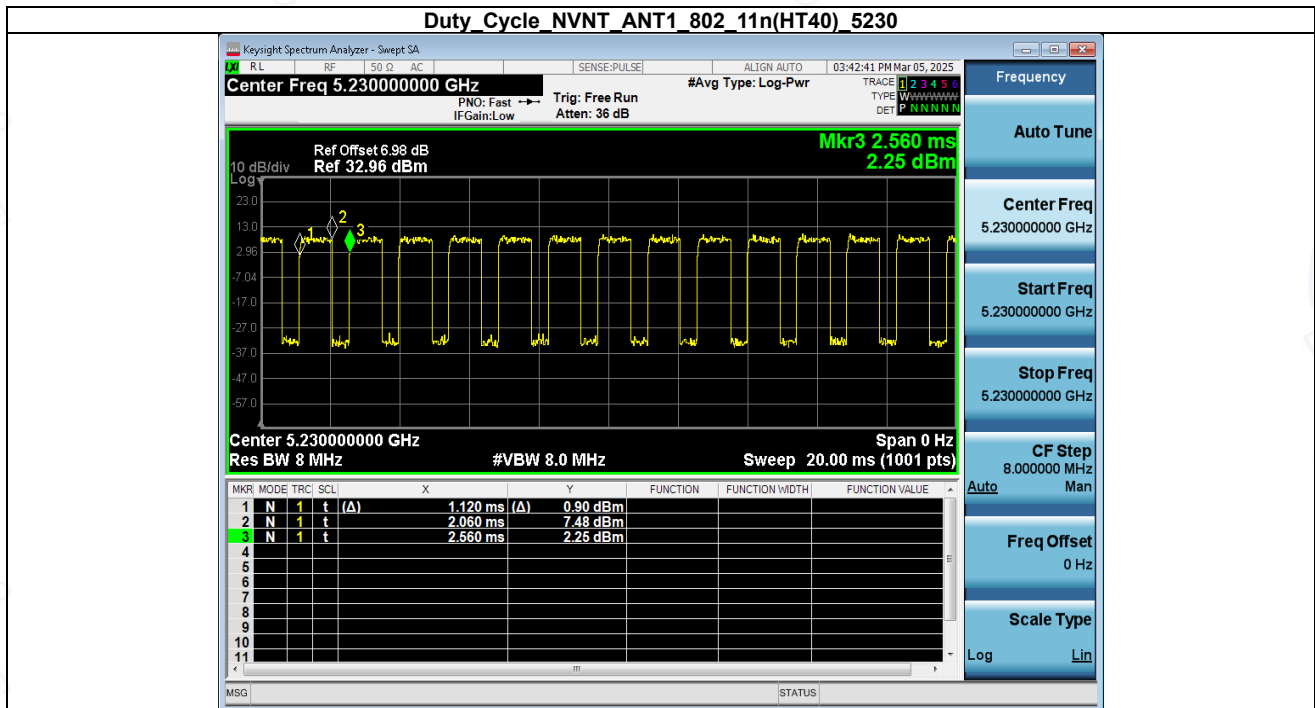
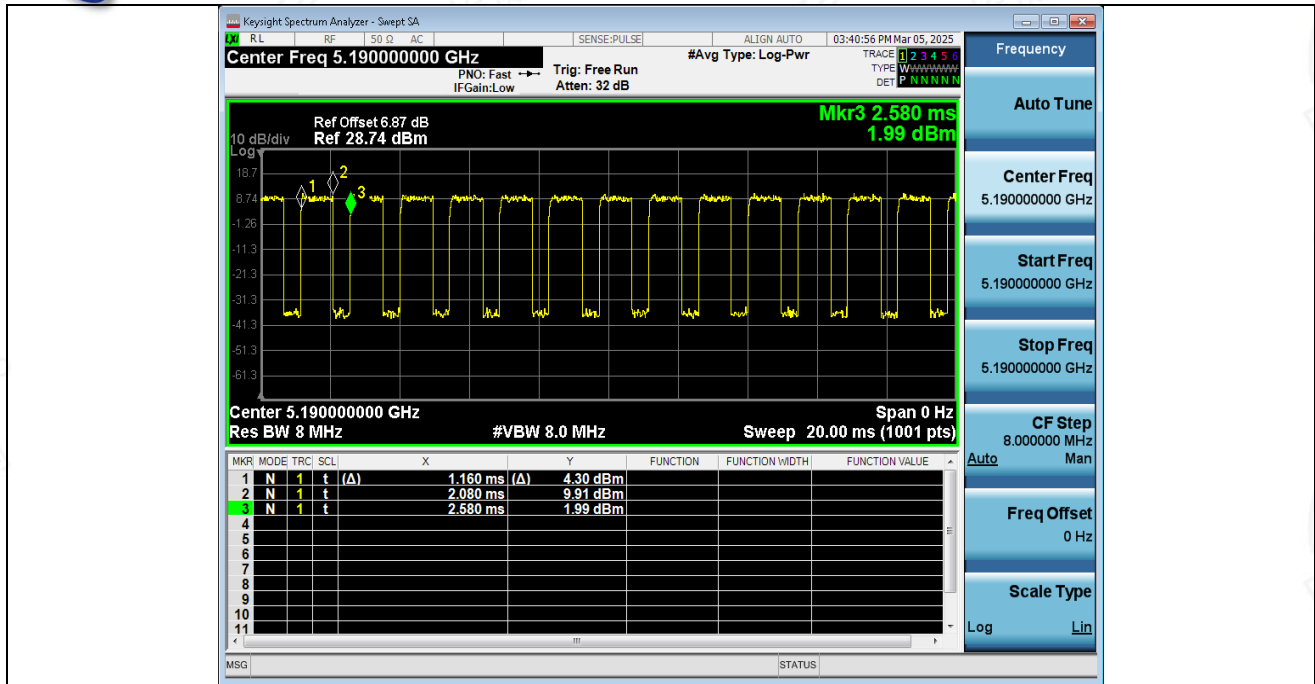
Duty Cycle NVNT_ANT1_802_11n(HT20)_5200





Duty_Cycle_NVNT_ANT1_802_11n(HT40)_5190





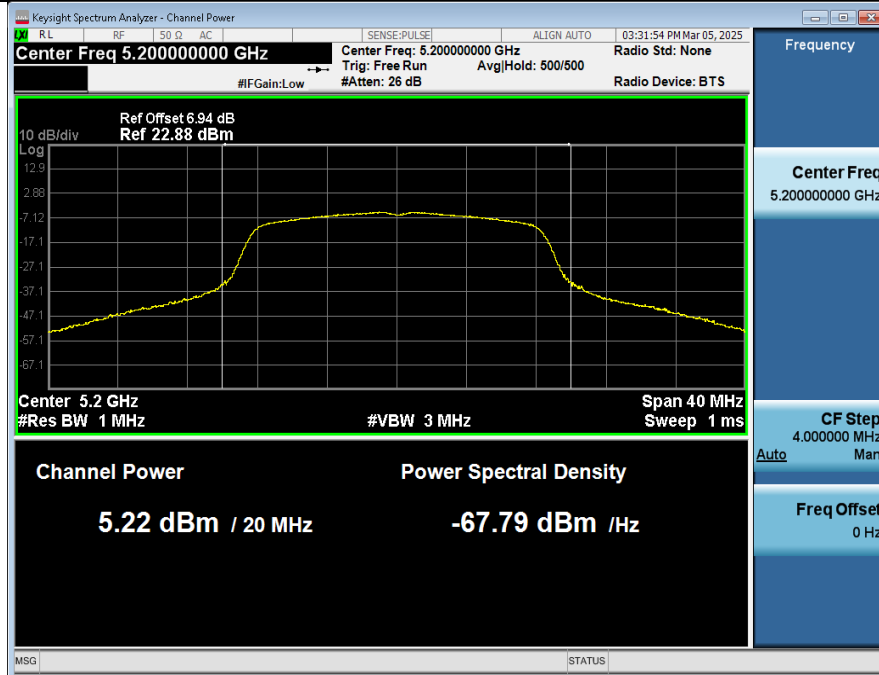
3. Maximum Conducted Output Power

Condition	Antenna	Modulation	Frequency (MHz)	Conducted Power(dBm)	Duty factor(dB)	Total Power(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	4.88	0.95	5.83	24	Pass
NVNT	ANT1	802.11a	5200.00	5.22	0.96	6.18	24	Pass
NVNT	ANT1	802.11a	5240.00	4.13	0.96	5.09	24	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	4.83	1.06	5.89	24	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	5.01	1.02	6.03	24	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	4.00	1.01	5.01	24	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	4.34	1.89	6.23	24	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	3.50	1.85	5.35	24	Pass

Maximum Conducted Output Power_NVNT_ANT1_802_11a_5180_20M

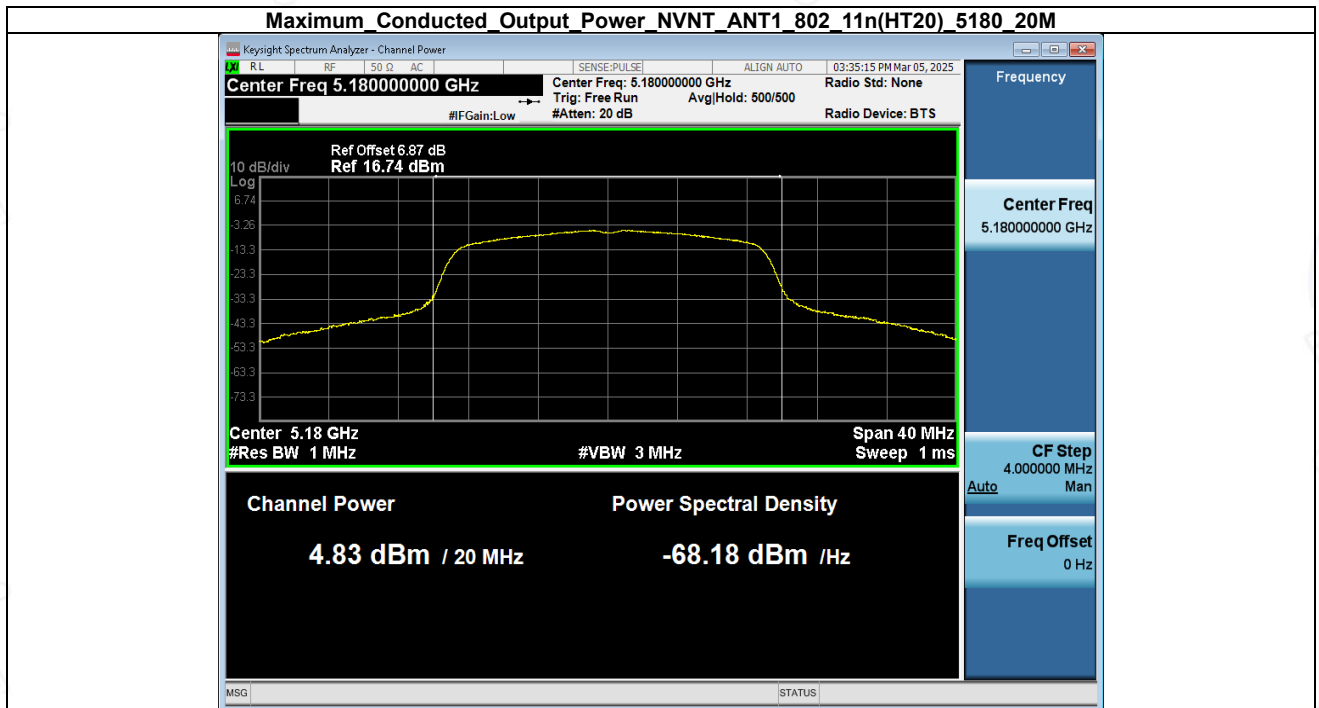
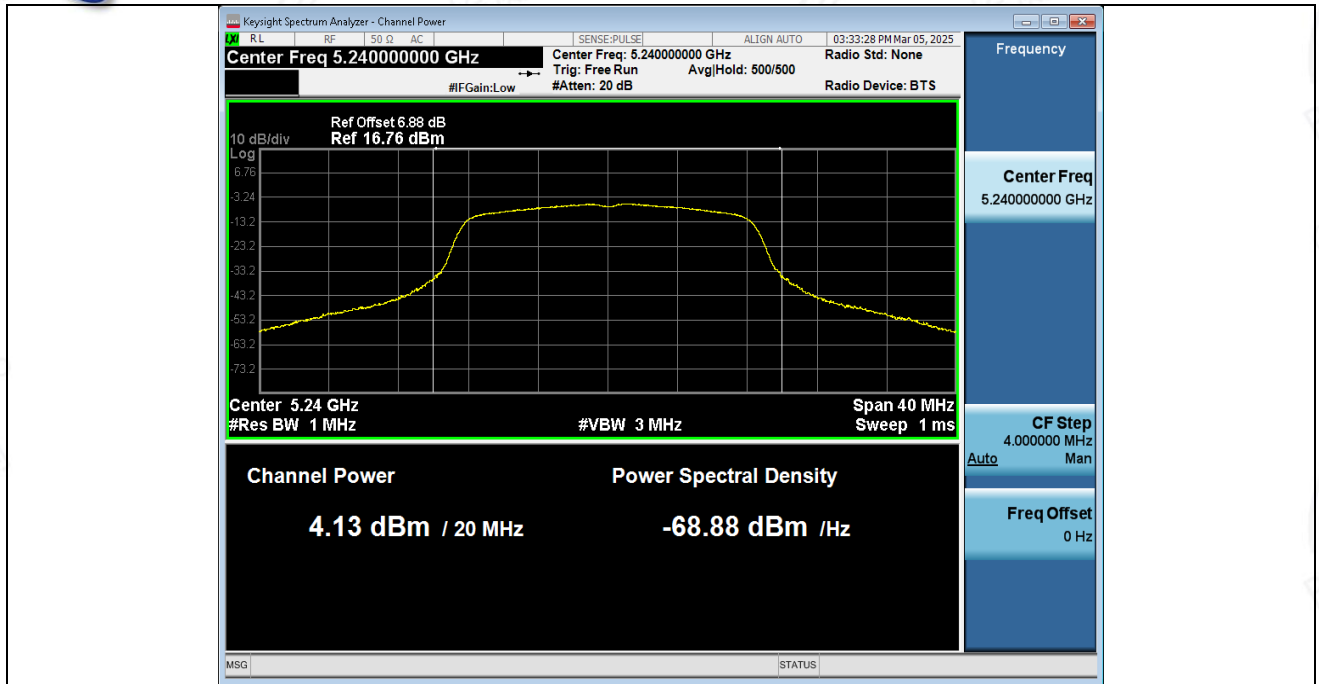


Maximum Conducted Output Power_NVNT_ANT1_802_11a_5200_20M



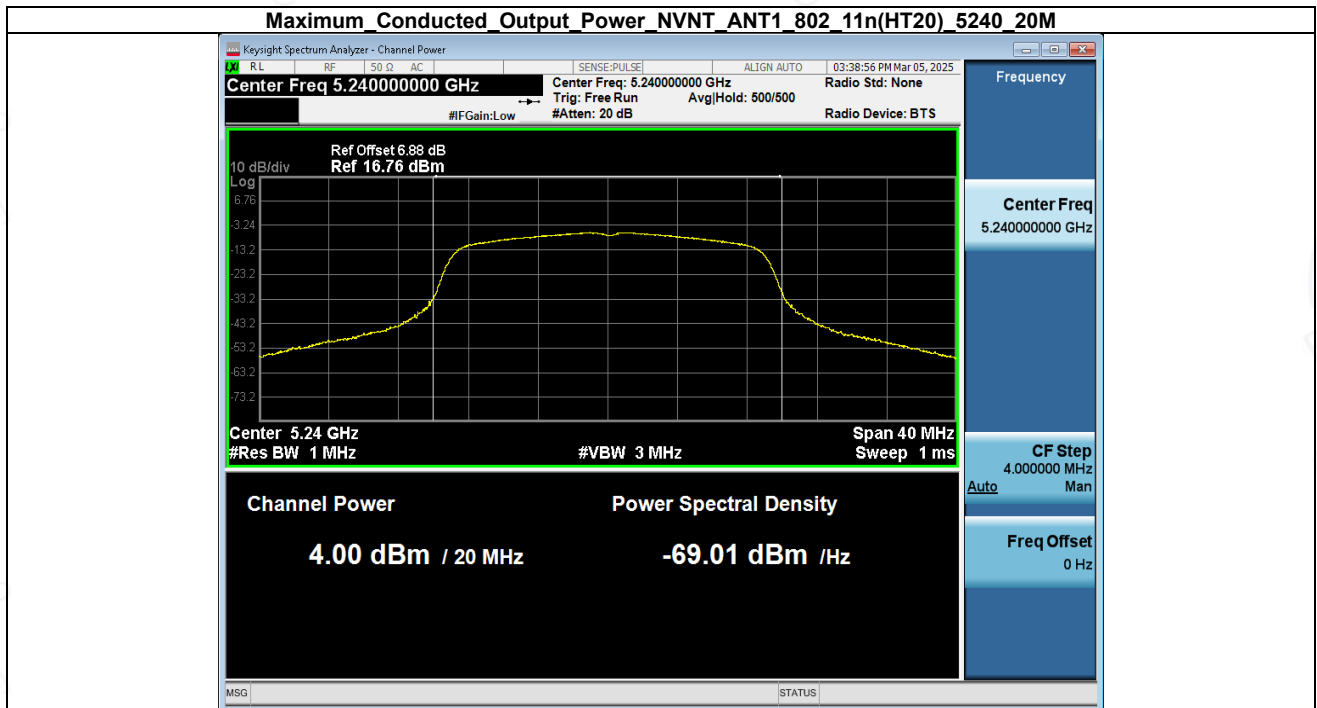
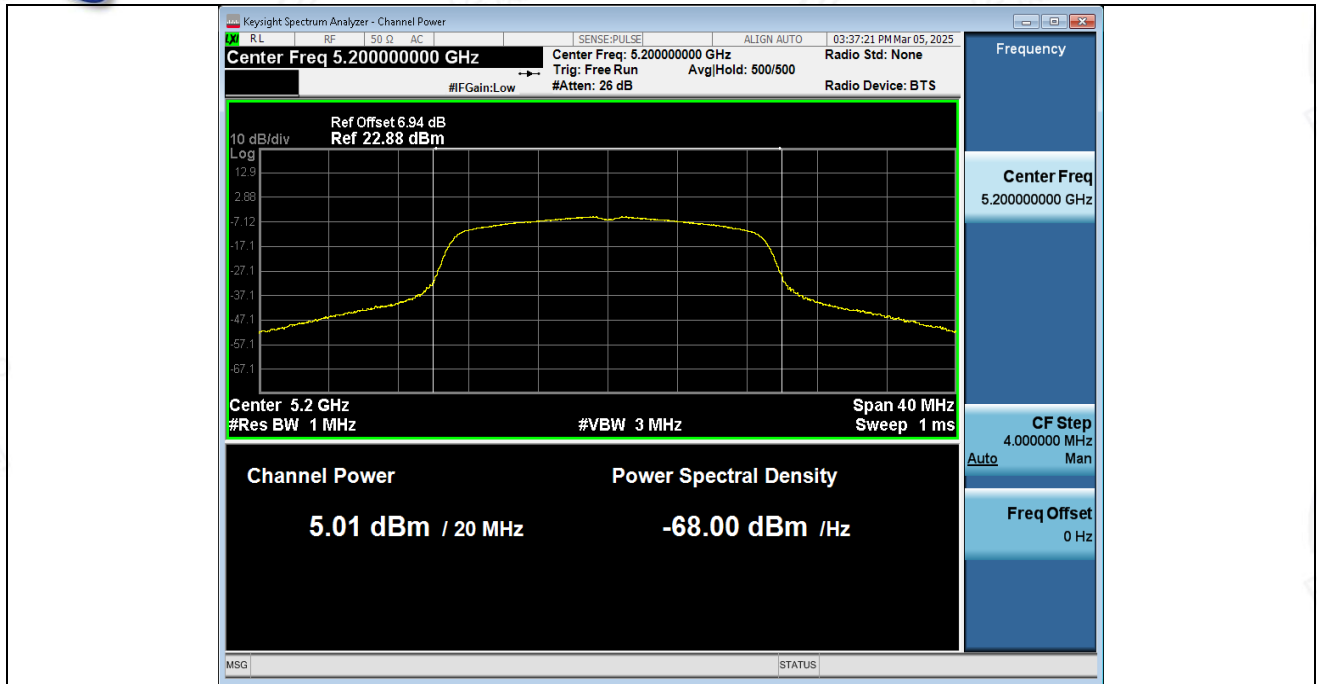
Maximum Conducted Output Power_NVNT_ANT1_802_11a_5240_20M





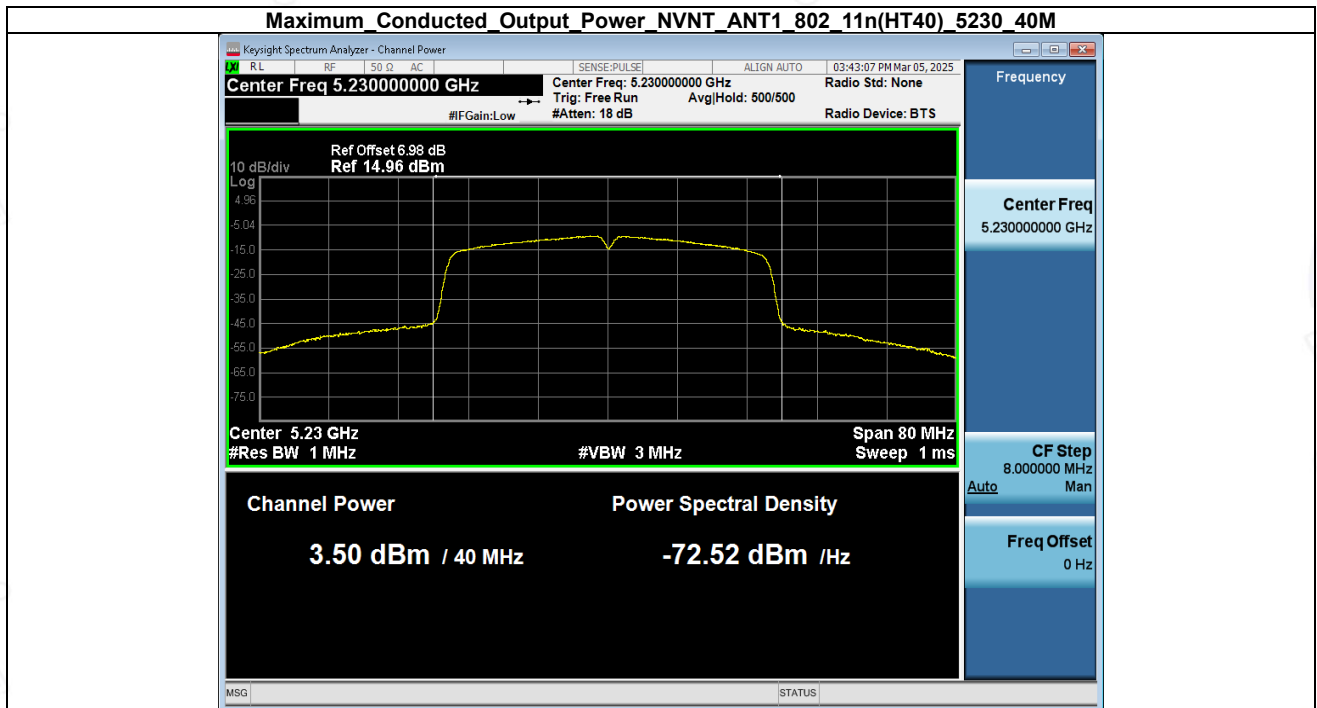
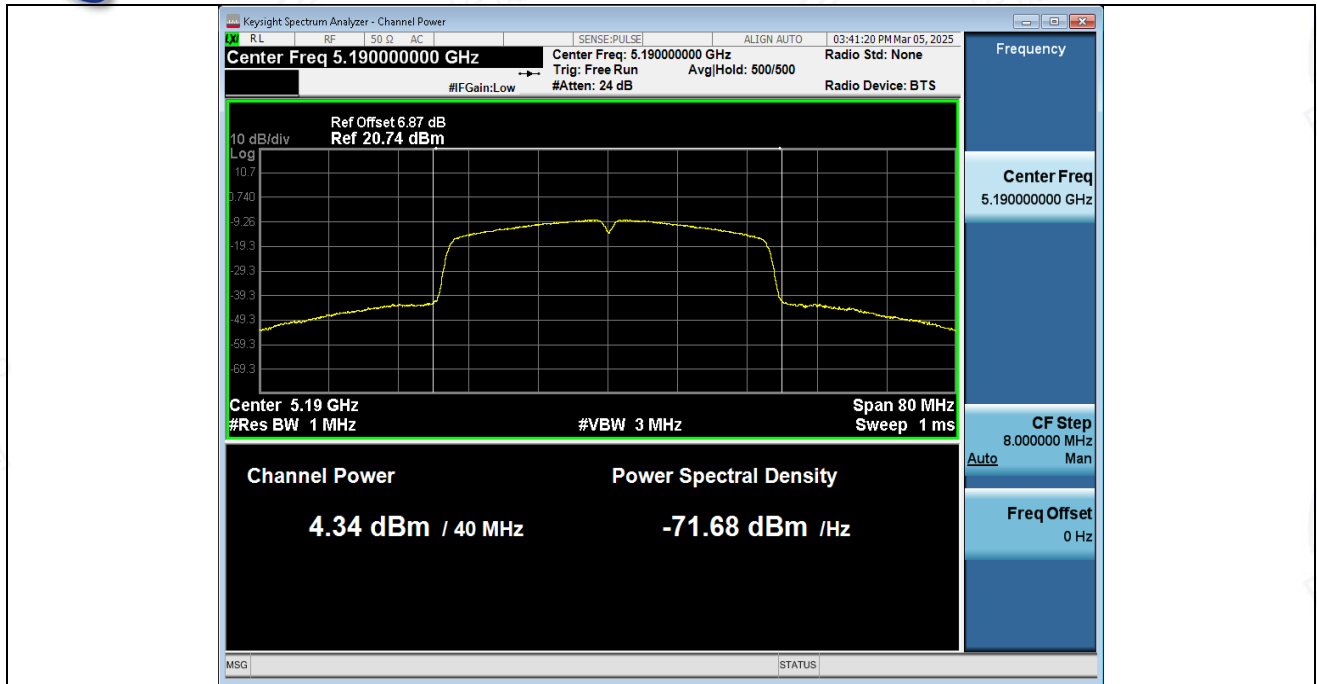
Maximum Conducted Output Power_NVNT_ANT1_802_11n(HT20)_5200_20M





Maximum_Conducted_Output_Power_NVNT_ANT1_802_11n(HT40)_5190_40M

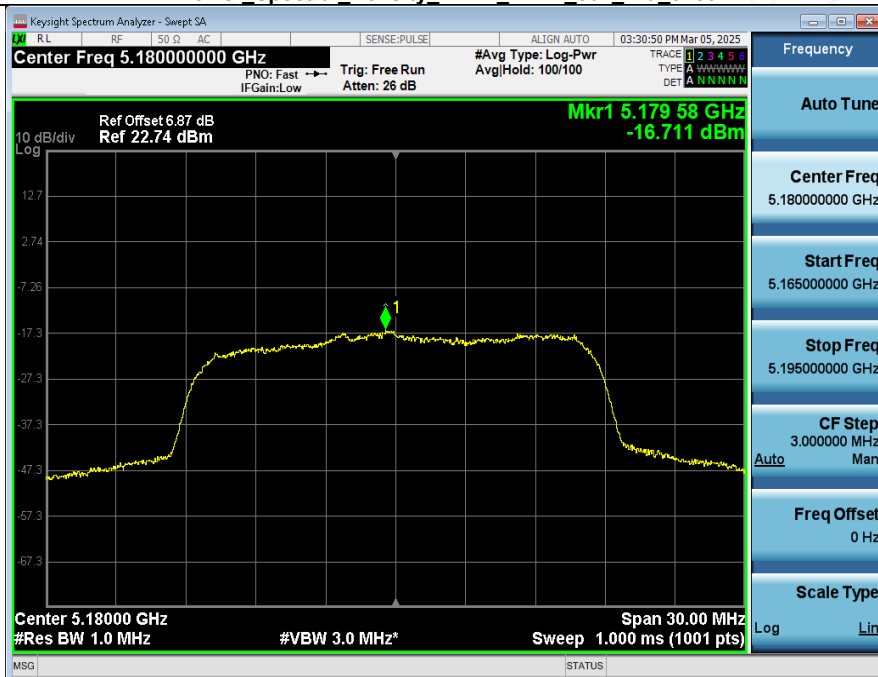




4. Power Spectral Density

Condition	Antenna	Modulation	Frequency (MHz)	PSD(dBm/MHz)	Duty factor(dB)	Total PSD(dBm/MHz)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	-16.71	0.95	-15.76	11	Pass
NVNT	ANT1	802.11a	5200.00	-14.19	0.96	-13.23	11	Pass
NVNT	ANT1	802.11a	5240.00	-15.74	0.96	-14.78	11	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	-18.14	1.06	-17.08	11	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	-18.20	1.02	-17.18	11	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	-19.73	1.01	-18.72	11	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	-23.63	1.89	-21.74	11	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	-25.06	1.85	-23.21	11	Pass

Power_Spectral_Density_NVNT_ANT1_802_11a_5180

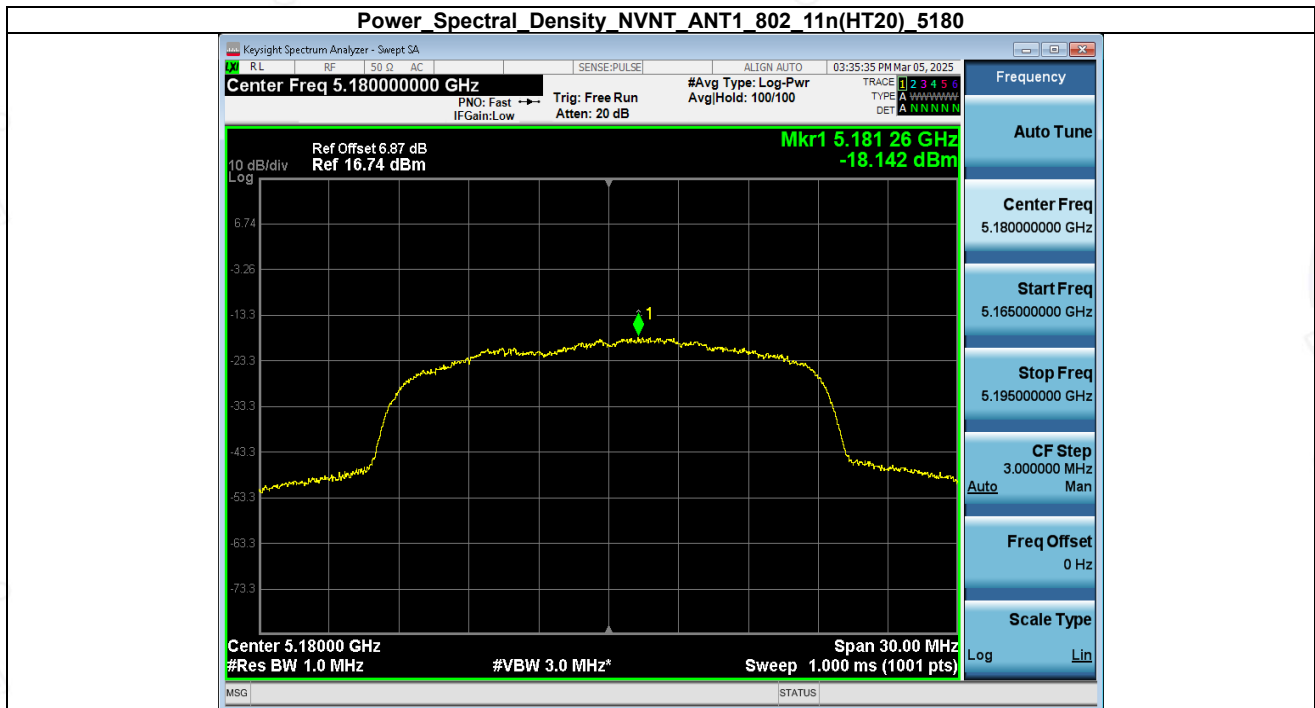


Power_Spectral_Density_NVNT_ANT1_802_11a_5200



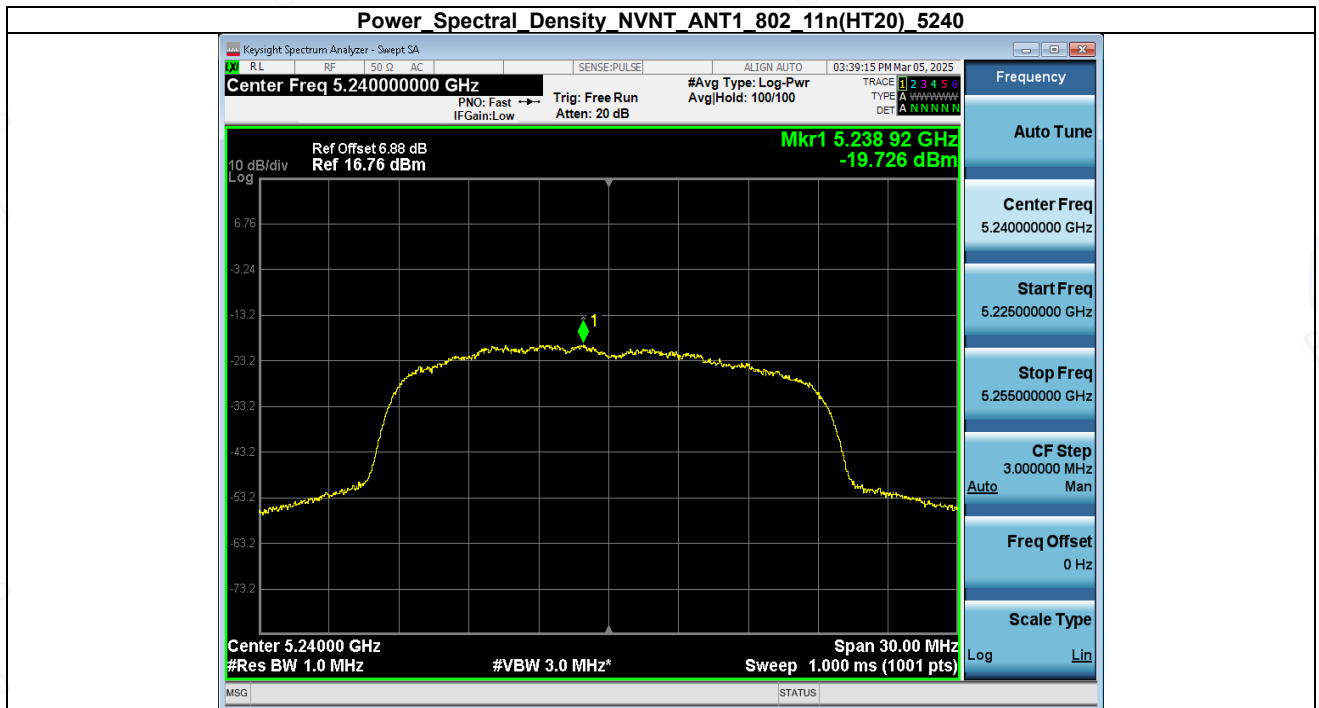
Power_Spectral_Density_NVNT_ANT1_802_11a_5240

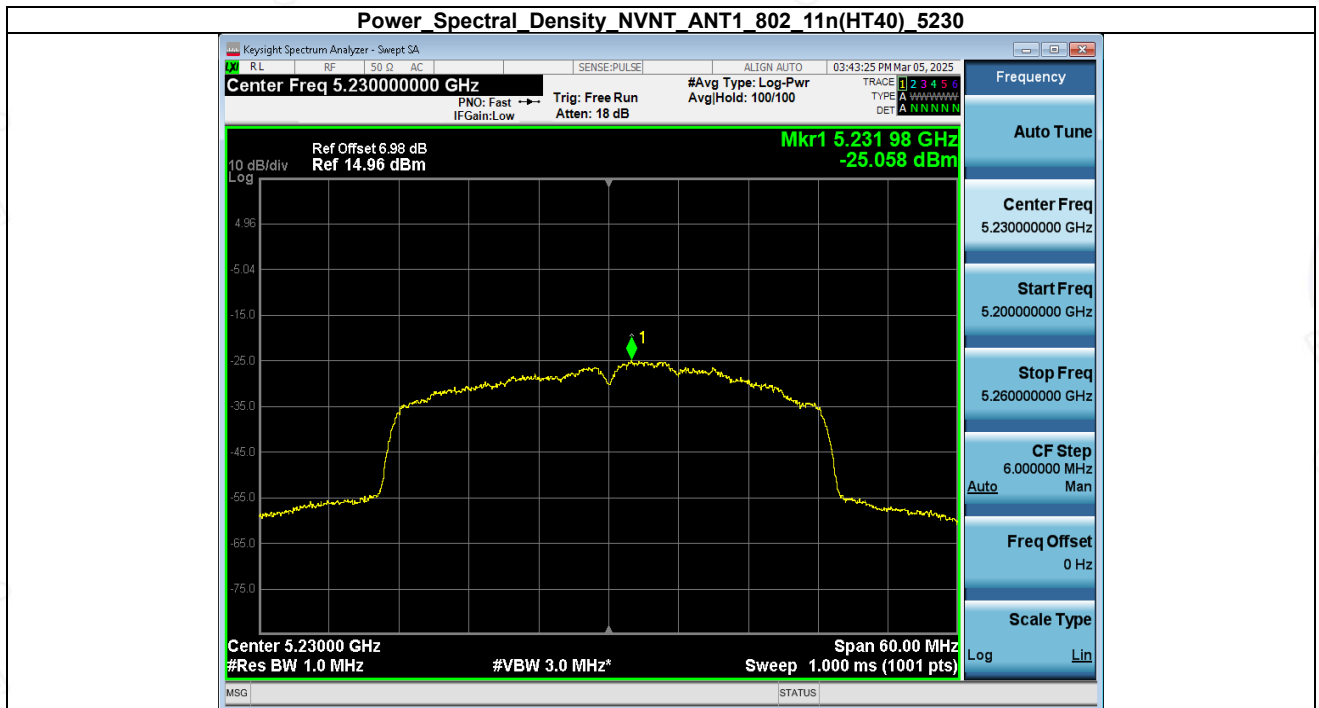




Power Spectral Density NVNT_ANT1_802_11n(HT20)_5200



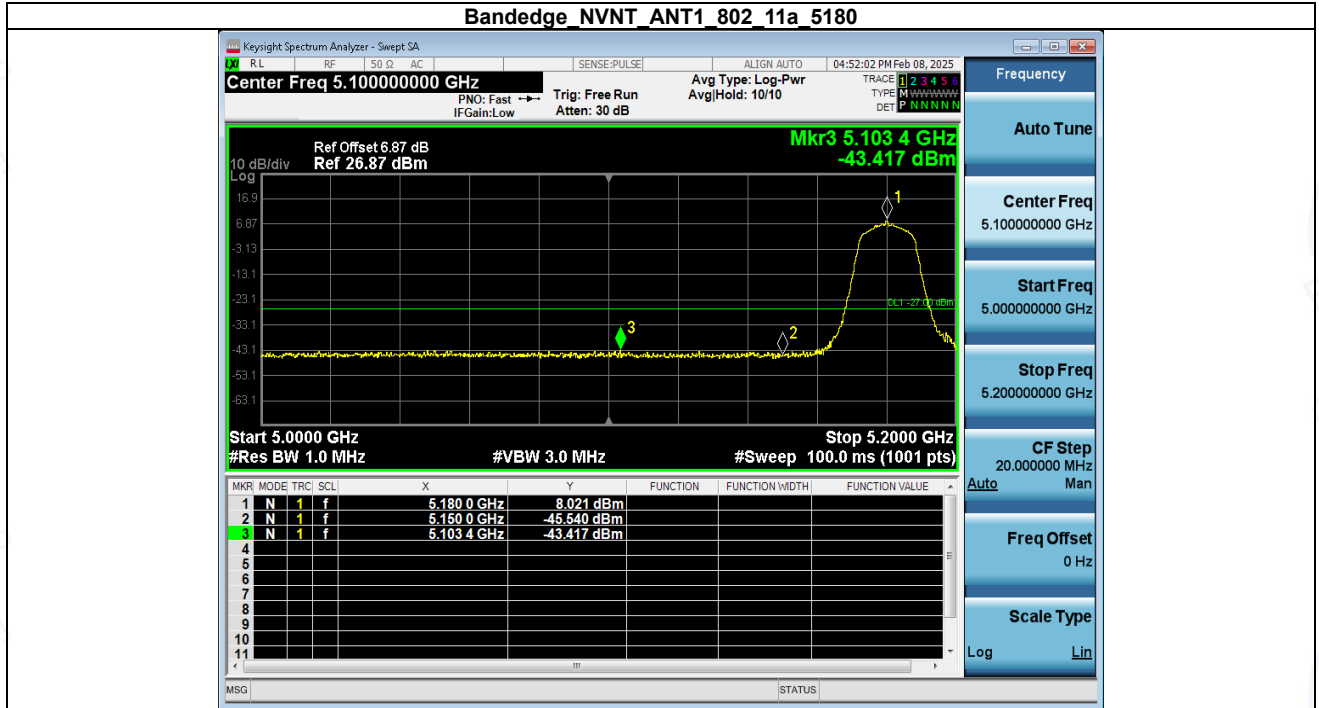




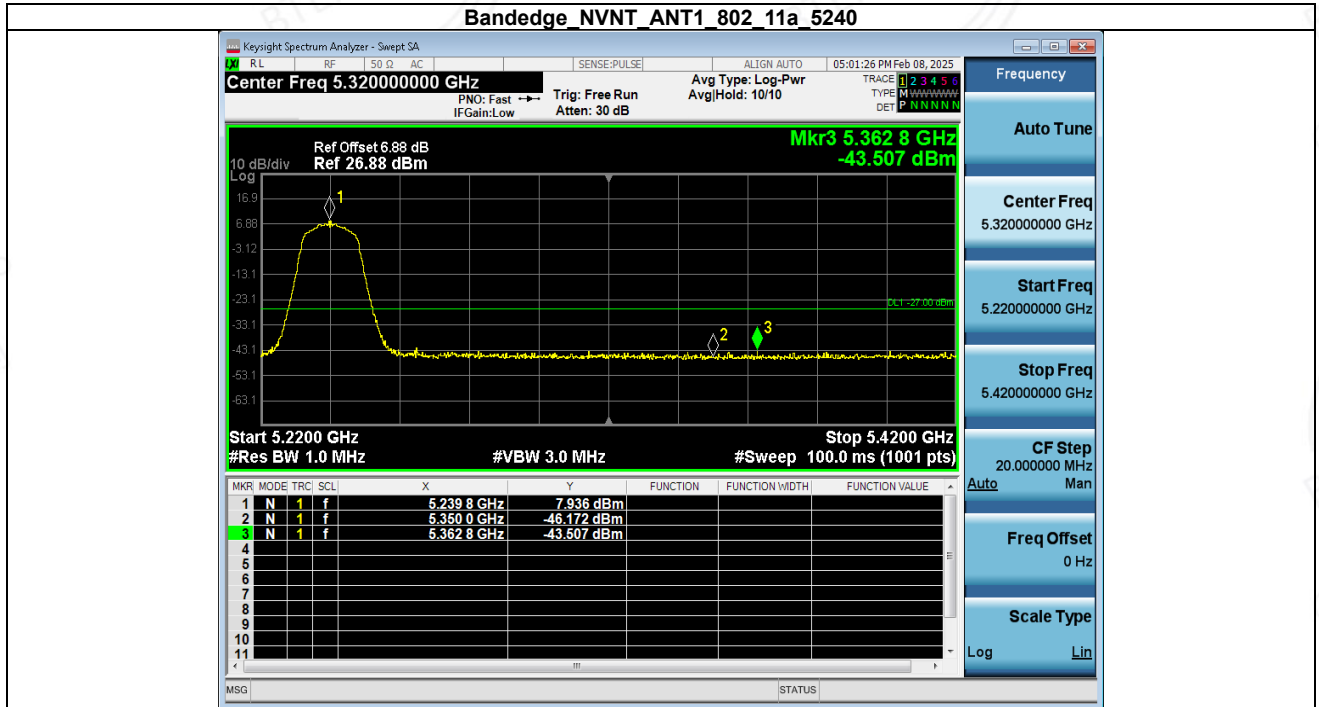
5. Bandedge

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark Frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	5103.40	-43.42	-27	Pass
NVNT	ANT1	802.11a	5240.00	5362.80	-43.51	-27	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	5011.20	-43.25	-27	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	5374.60	-43.35	-27	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	5071.40	-41.76	-27	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	5361.41	-42.17	-27	Pass

Bandedge_NVNT_ANT1_802_11a_5180

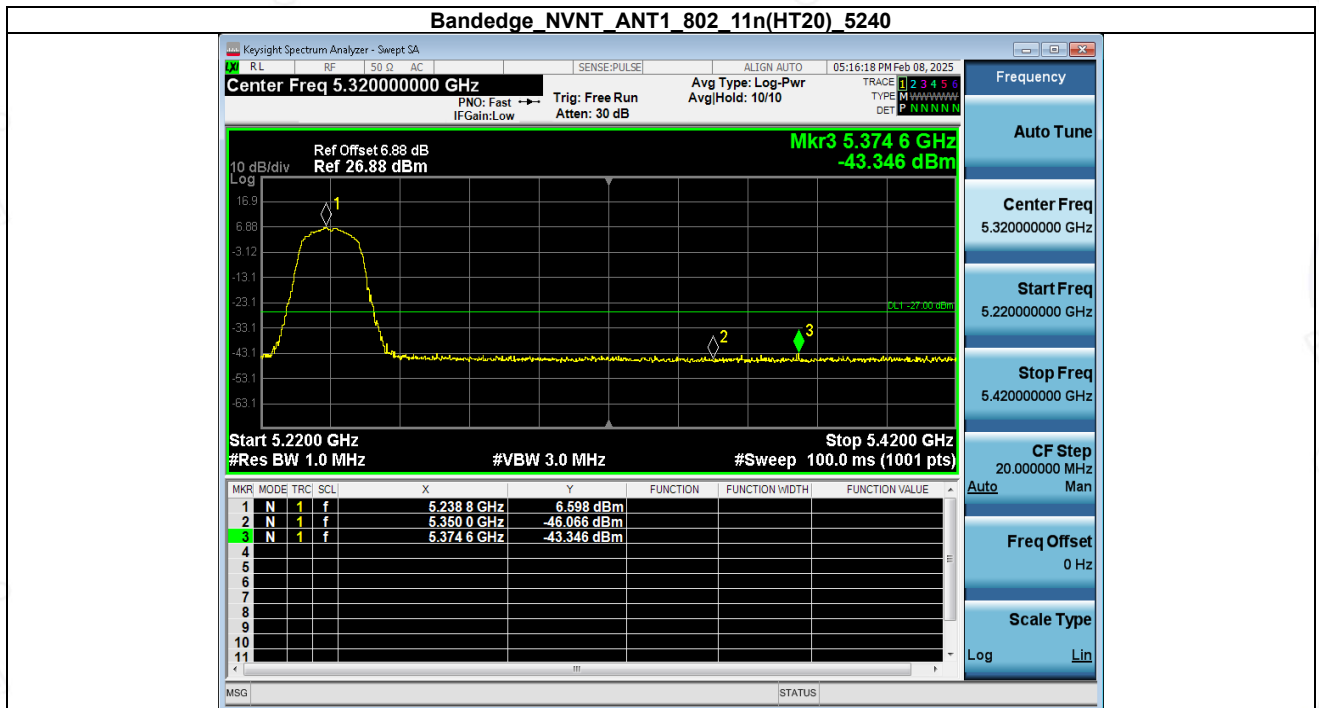
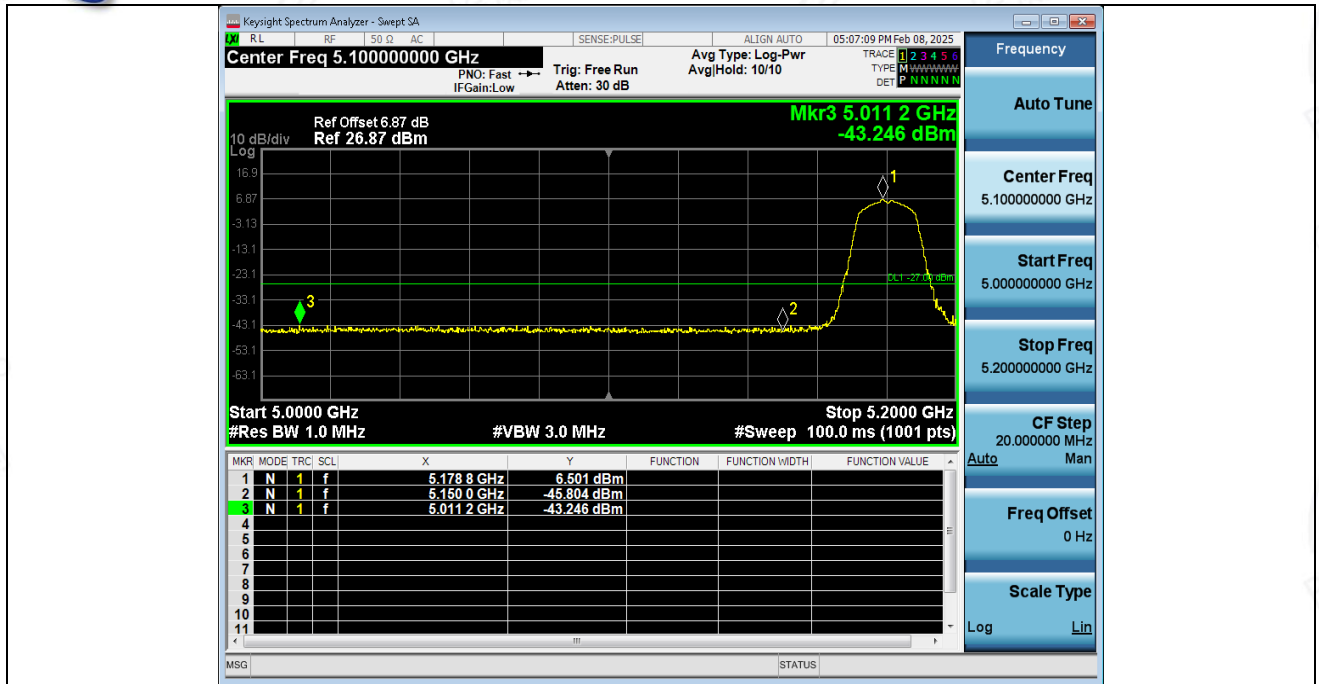


Bandedge_NVNT_ANT1_802_11a_5240



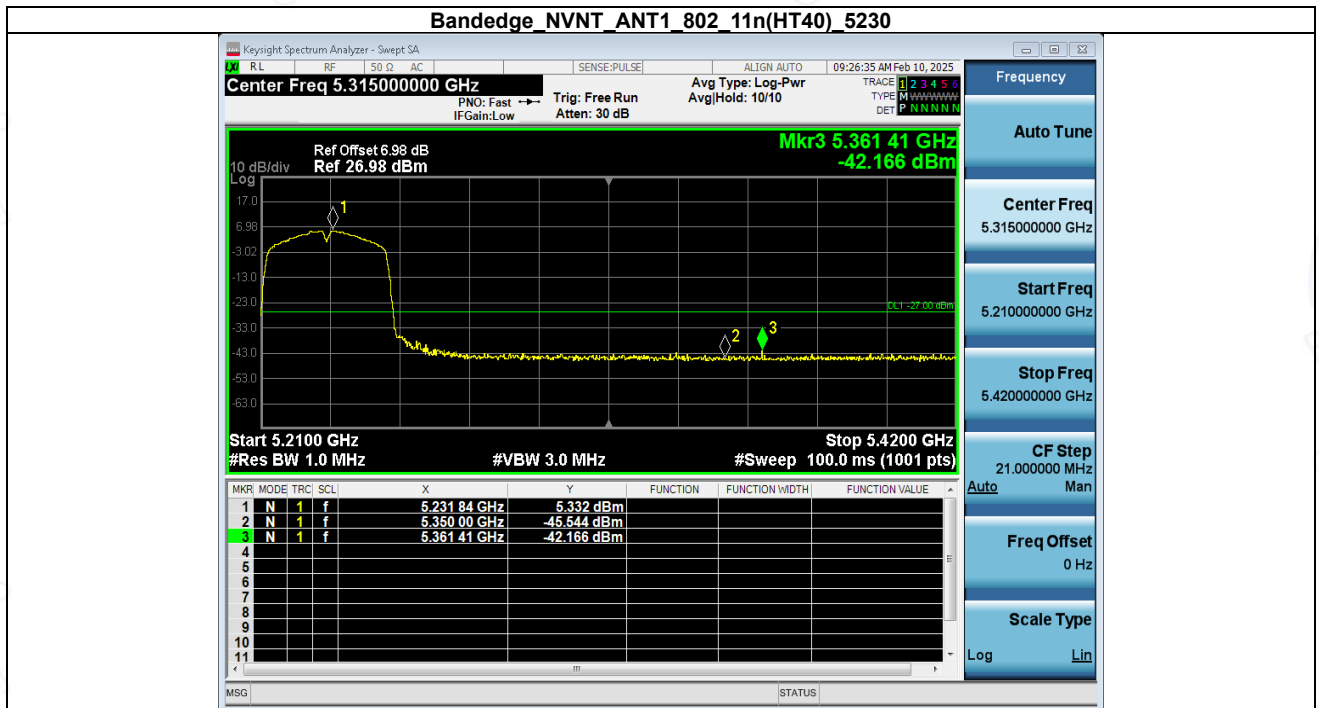
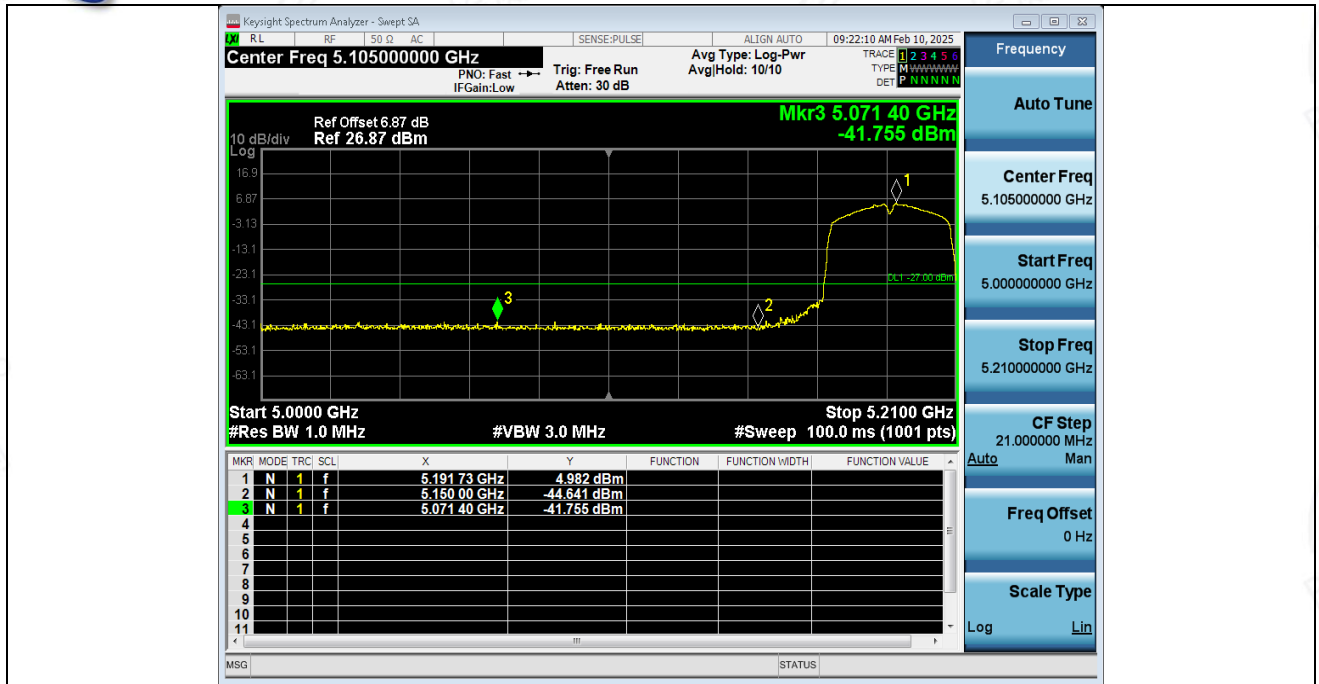
Bandedge_NVNT_ANT1_802_11n(HT20)_5180





Bandedge_NVNT_ANT1_802_11n(HT40)_5190

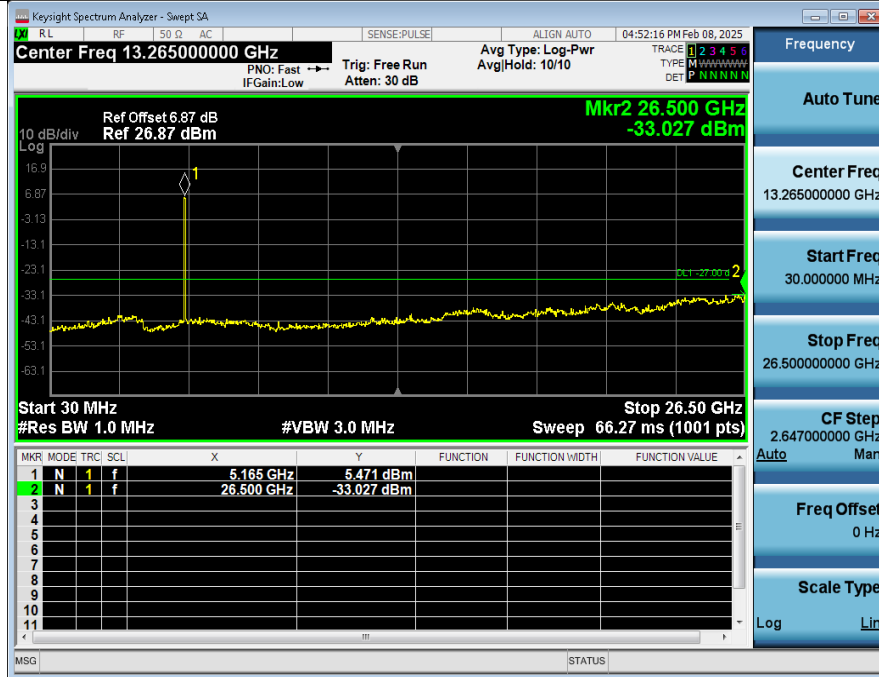




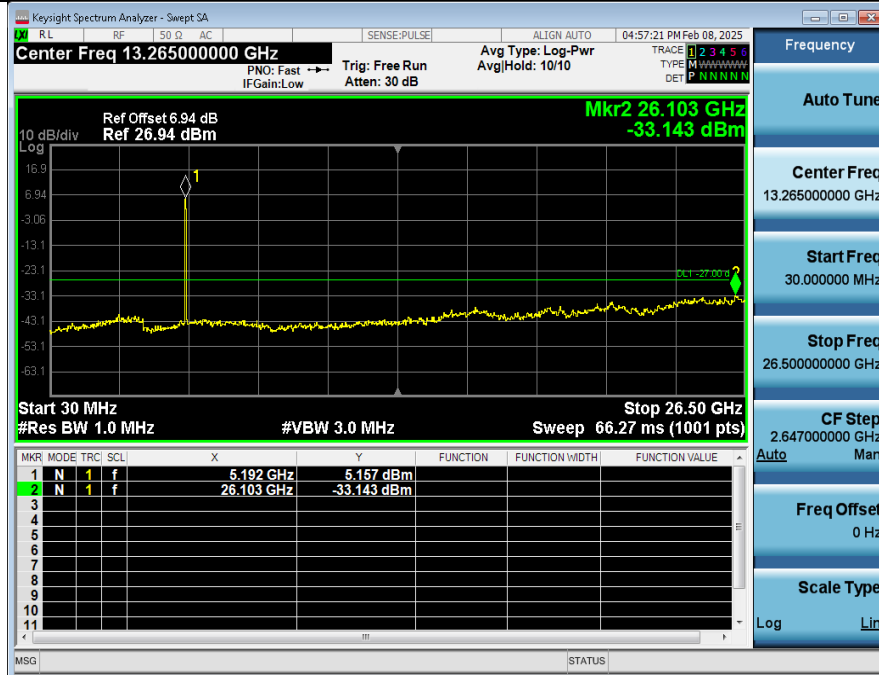
6. Spurious Emission

Condition	Antenna	Modulation	TX_Frequency (MHz)	Max. Mark Frequency(MHz)	Spurious level(dBm)	limit(dBm)	Result
NVNT	ANT1	802.11a	5180.00	26500.00	-33.03	-27	Pass
NVNT	ANT1	802.11a	5200.00	26102.95	-33.14	-27	Pass
NVNT	ANT1	802.11a	5240.00	26208.83	-32.85	-27	Pass
NVNT	ANT1	802.11n(HT20)	5180.00	26235.30	-32.53	-27	Pass
NVNT	ANT1	802.11n(HT20)	5200.00	25679.43	-33.12	-27	Pass
NVNT	ANT1	802.11n(HT20)	5240.00	24885.33	-32.92	-27	Pass
NVNT	ANT1	802.11n(HT40)	5190.00	26208.83	-31.44	-27	Pass
NVNT	ANT1	802.11n(HT40)	5230.00	24567.69	-33.02	-27	Pass

Spurious_Emission_NVNT_ANT1_802_11a_5180_20M

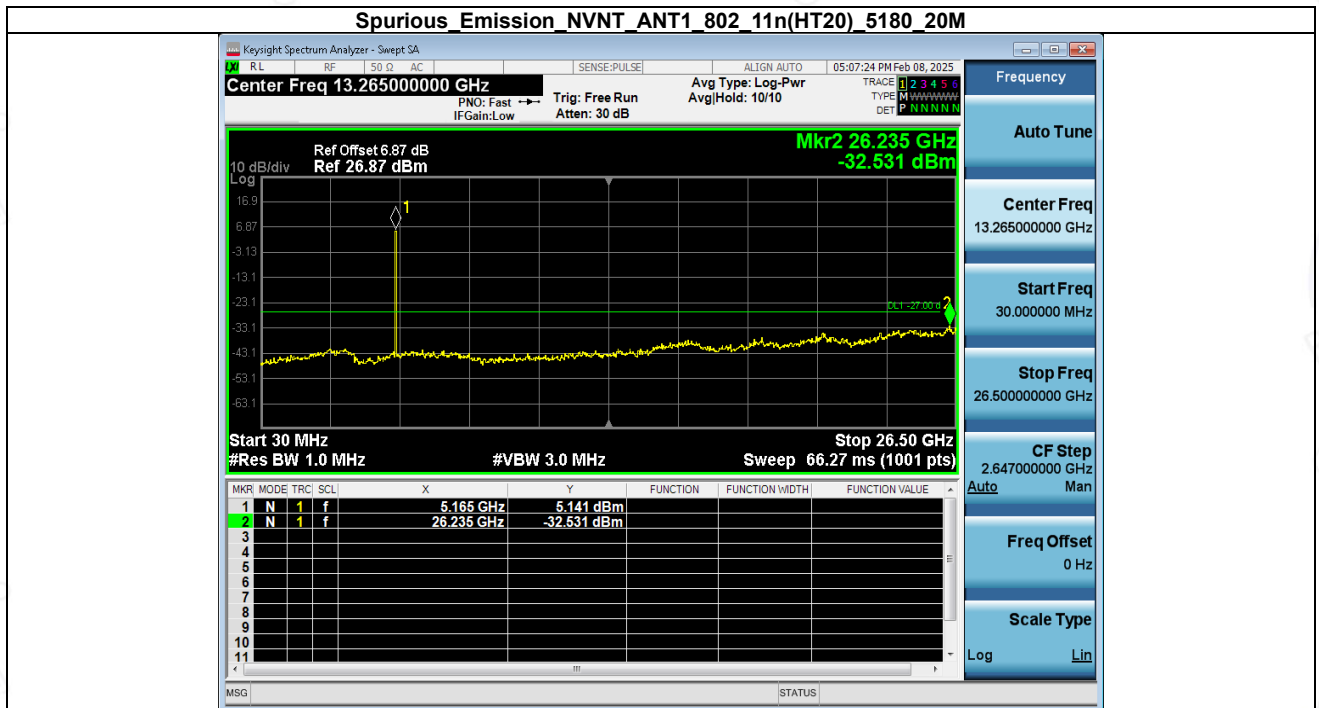
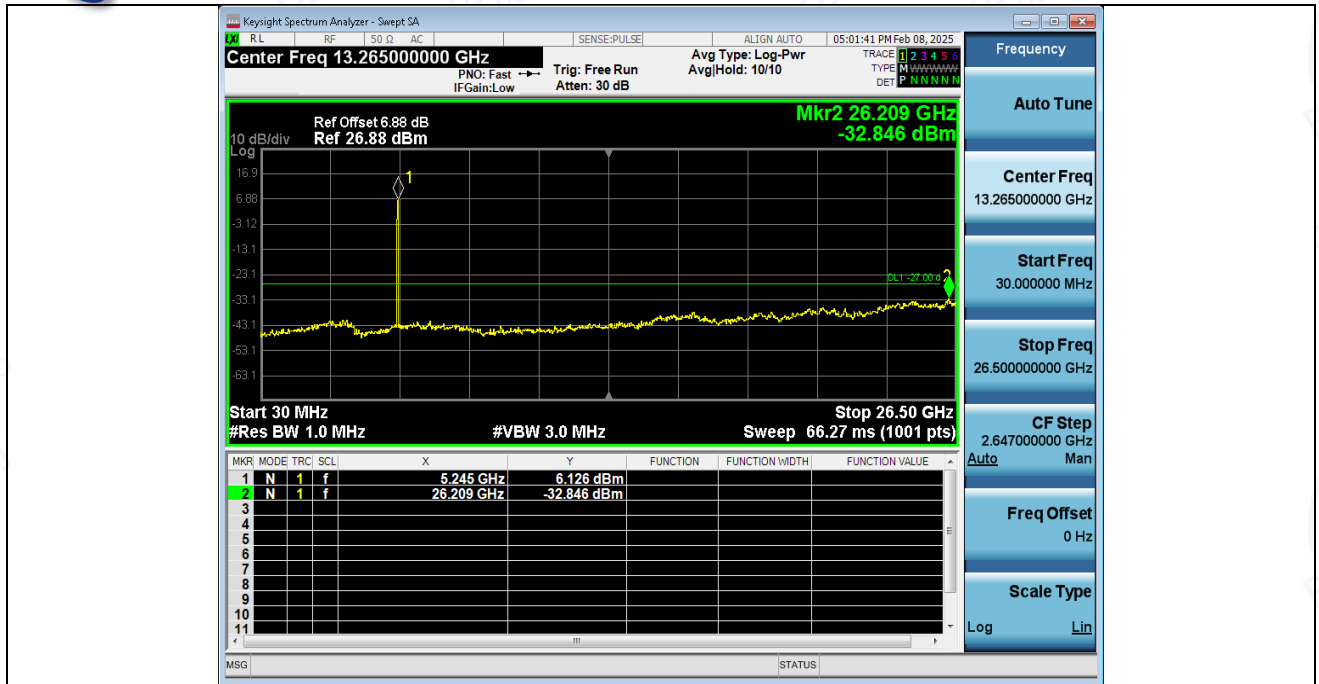


Spurious_Emission_NVNT_ANT1_802_11a_5200_20M



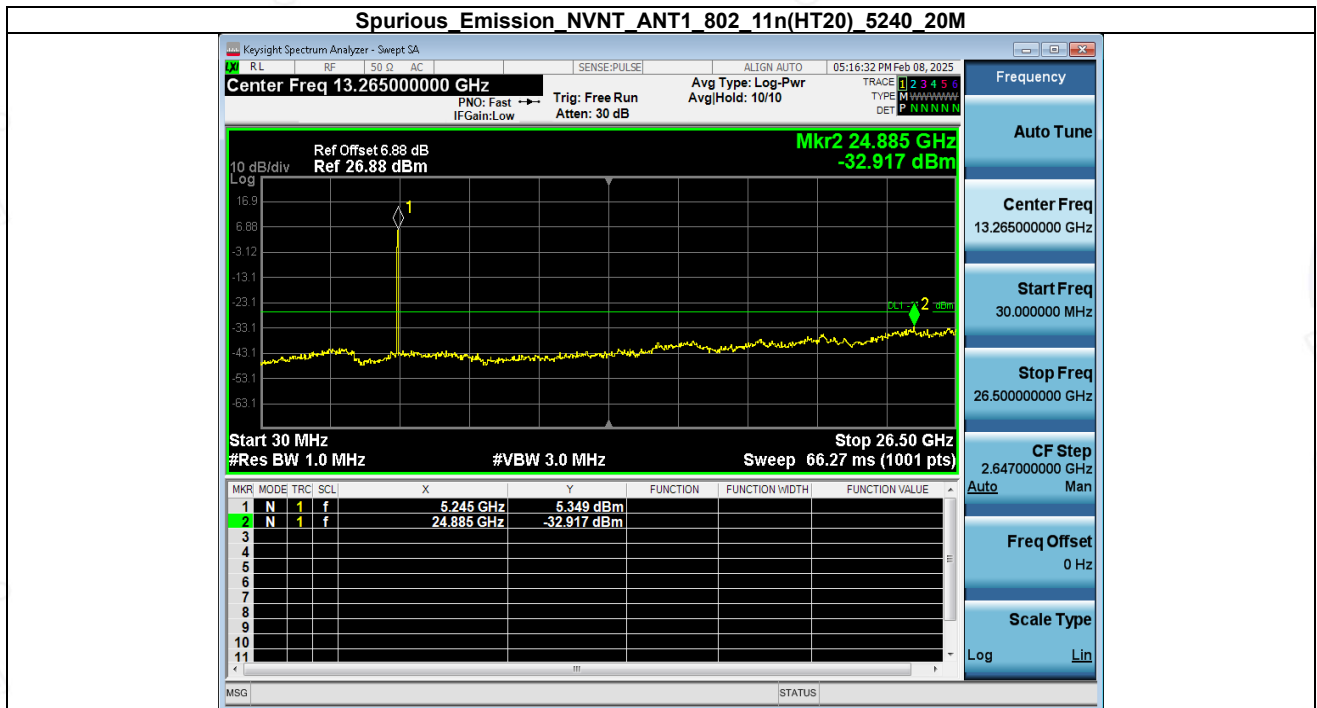
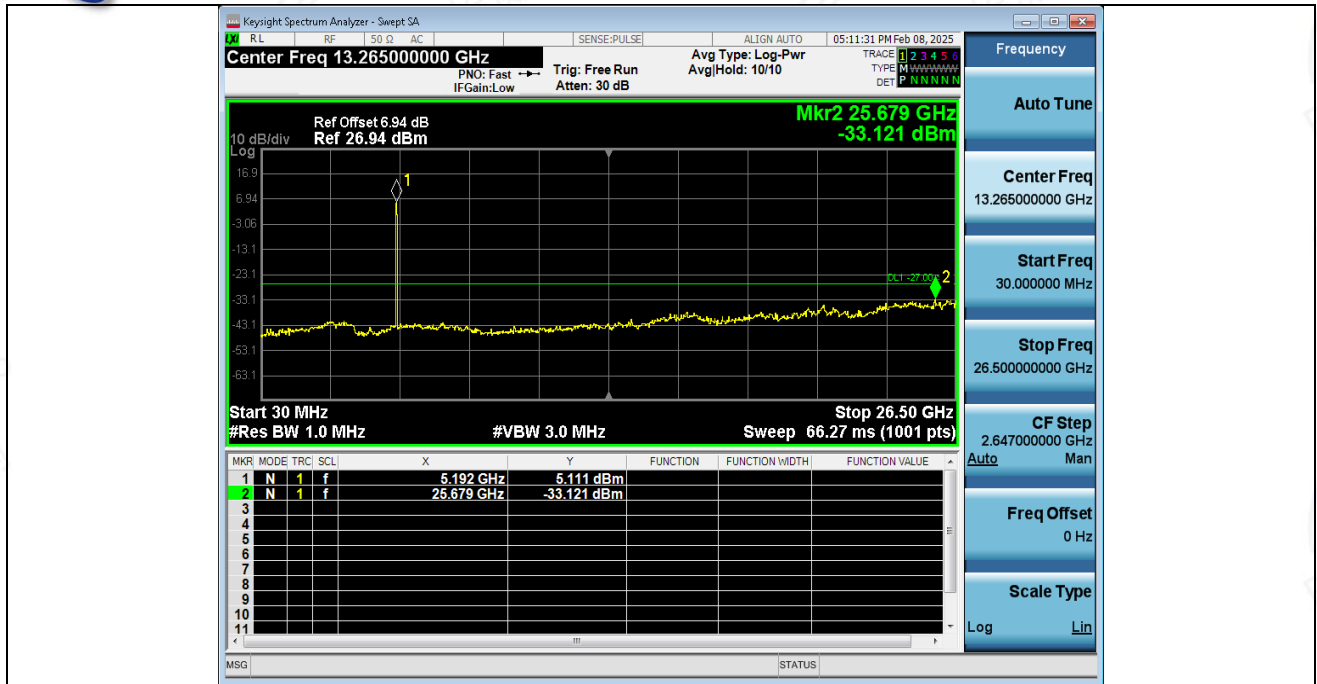
Spurious_Emission_NVNT_ANT1_802_11a_5240_20M





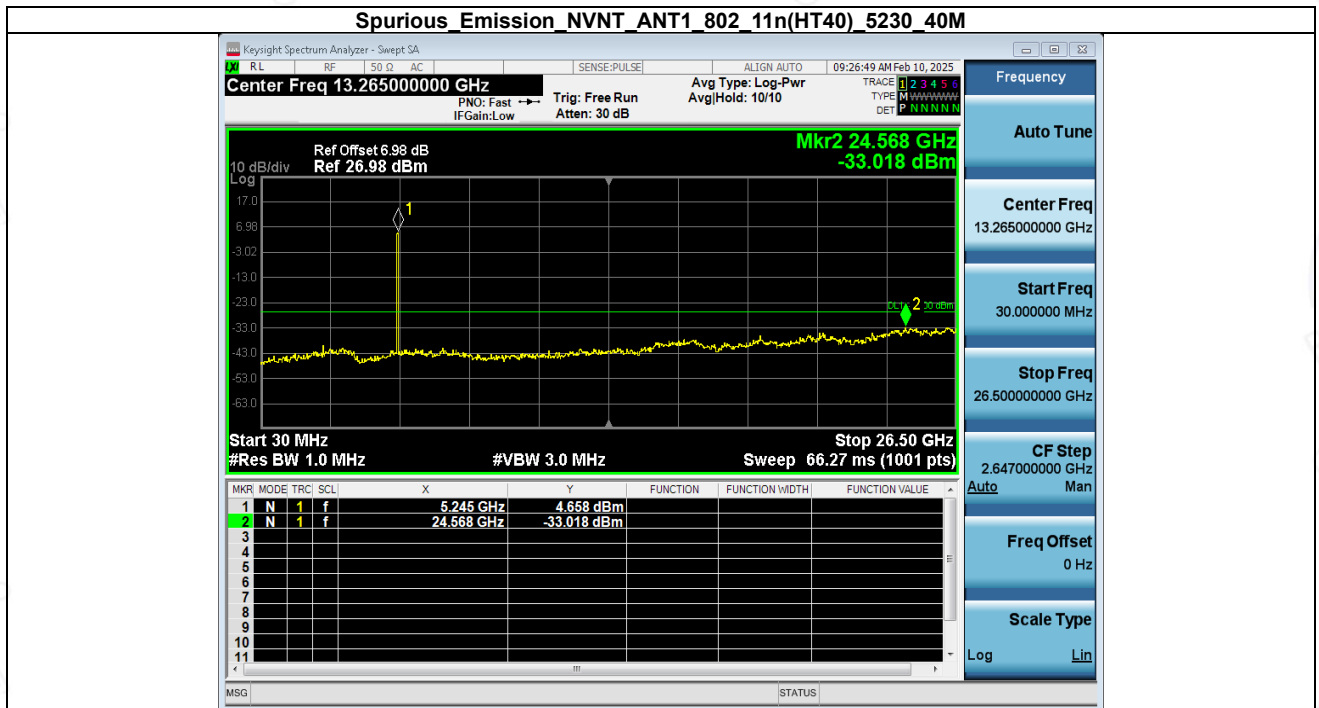
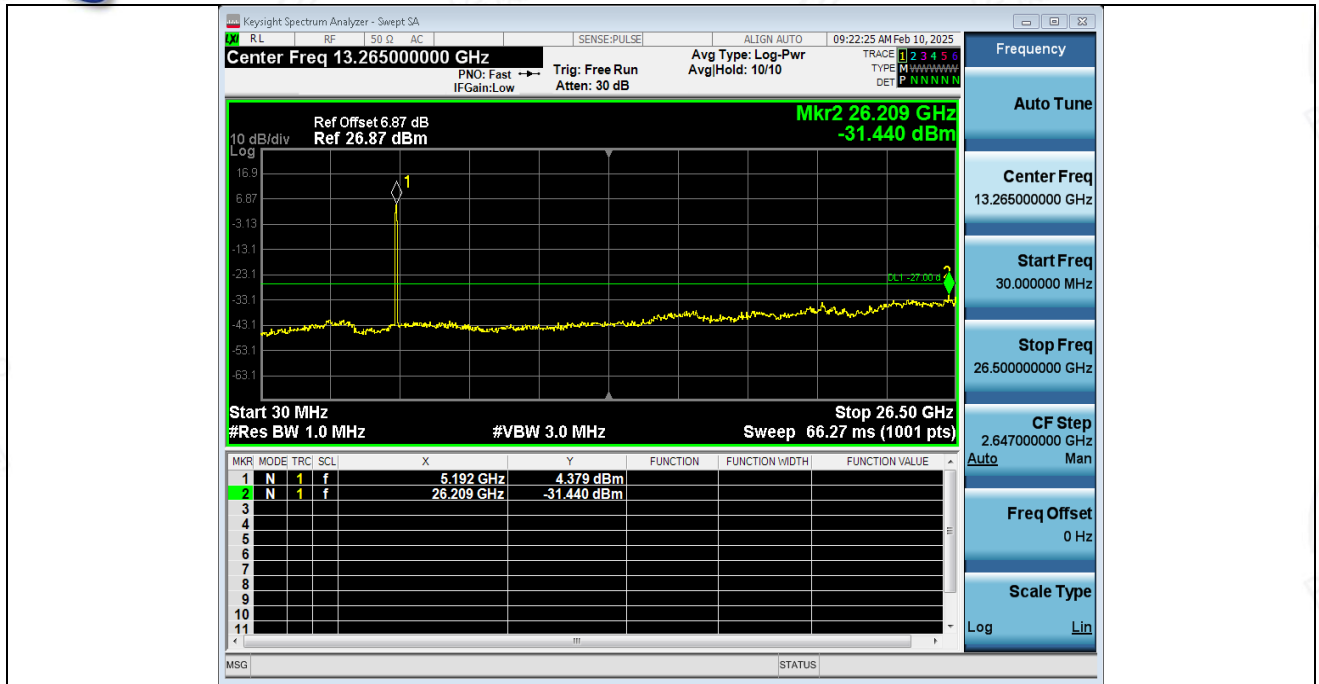
Spurious Emission_NVNT_ANT1_802_11n(HT20)_5200_20M





Spurious Emission_NVNT_ANT1_802_11n(HT40)_5190_40M





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	5180.084	5171.732	5188.436	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5180.00	5180.086	5171.948	5188.224	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5180.00	5180.080	5172.068	5188.092	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5180.00	5180.078	5172.172	5187.984	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5180.00	5180.074	5172.260	5187.888	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5180.00	5180.084	5172.368	5187.800	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5180.00	5180.100	5172.456	5187.744	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5180.00	5180.096	5172.532	5187.660	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5180.00	5180.096	5172.604	5187.588	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5180.00	5180.084	5172.676	5187.492	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5180.00	5180.094	5172.744	5187.444	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11a	5200.00	5200.088	5191.748	5208.428	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5200.00	5200.078	5191.960	5208.196	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5200.00	5200.084	5192.080	5208.088	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5200.00	5200.092	5192.172	5208.012	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5200.00	5200.074	5192.264	5207.884	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5200.00	5200.084	5192.352	5207.816	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5200.00	5200.082	5192.432	5207.732	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5200.00	5200.072	5192.512	5207.632	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5200.00	5200.072	5192.580	5207.564	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5200.00	5200.050	5192.656	5207.444	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5200.00	5200.068	5192.728	5207.408	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11a	5240.00	5240.058	5231.724	5248.392	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11a	5240.00	5240.058	5231.936	5248.180	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11a	5240.00	5240.054	5232.052	5248.056	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5240.00	5240.050	5232.148	5247.952	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11a	5240.00	5240.074	5232.256	5247.892	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11a	5240.00	5240.062	5232.344	5247.780	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11a	5240.00	5240.046	5232.424	5247.668	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11a	5240.00	5240.044	5232.500	5247.588	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11a	5240.00	5240.044	5232.592	5247.496	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11a	5240.00	5240.052	5232.660	5247.444	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11a	5240.00	5240.050	5232.728	5247.372	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.068	5171.188	5188.948	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.086	5171.396	5188.776	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.084	5171.536	5188.632	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.090	5171.676	5188.504	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.114	5171.792	5188.436	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.130	5171.908	5188.352	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.128	5171.996	5188.260	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.116	5172.092	5188.140	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11n(HT20)	5180.00	5180.130	5172.192	5188.068	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT20)	5180.00	5180.130	5172.292	5187.968	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11n(HT20)	5180.00	5180.160	5172.368	5187.952	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.064	5191.192	5208.936	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.072	5191.388	5208.756	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.074	5191.516	5208.632	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.078	5191.628	5208.528	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.092	5191.752	5208.432	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.076	5191.848	5208.304	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.090	5191.932	5208.248	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.086	5192.032	5208.140	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11n(HT20)	5200.00	5200.078	5192.124	5208.032	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT20)	5200.00	5200.090	5192.220	5207.960	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11n(HT20)	5200.00	5200.098	5192.320	5207.876	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.028	5231.156	5248.900	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.036	5231.360	5248.712	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.046	5231.492	5248.600	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.056	5231.616	5248.496	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.050	5231.724	5248.376	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.052	5231.832	5248.272	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.058	5231.924	5248.192	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.048	5232.016	5248.080	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11n(HT20)	5240.00	5240.036	5232.104	5247.968	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT20)	5240.00	5240.002	5232.168	5247.836	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11n(HT20)	5240.00	5240.038	5232.248	5247.828	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.104	5172.176	5208.032	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.148	5172.544	5207.752	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.168	5172.816	5207.520	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.164	5173.112	5207.216	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.160	5173.368	5206.952	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.200	5173.576	5206.824	5150~5250	Pass

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-5degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.200	5173.776	5206.624	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.212	5173.968	5206.456	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11n(HT40)	5190.00	5190.220	5174.208	5206.232	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT40)	5190.00	5190.232	5174.400	5206.064	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11n(HT40)	5190.00	5190.248	5174.608	5205.888	5150~5250	Pass
55degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.080	5212.176	5247.984	5150~5250	Pass
45degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.068	5212.488	5247.648	5150~5250	Pass
35degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.080	5212.784	5247.376	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.056	5213.040	5247.072	5150~5250	Pass
15degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.044	5213.272	5246.816	5150~5250	Pass
5degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.032	5213.480	5246.584	5150~5250	Pass
-5degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.080	5213.672	5246.488	5150~5250	Pass
-15degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.020	5213.888	5246.152	5150~5250	Pass
25degrees C&&4.37V	ANT1	802.11n(HT40)	5230.00	5230.012	5214.080	5245.944	5150~5250	Pass
25degrees C&&3.80V	ANT1	802.11n(HT40)	5230.00	5230.008	5214.240	5245.776	5150~5250	Pass
25degrees C&&3.23V	ANT1	802.11n(HT40)	5230.00	5229.972	5214.400	5245.544	5150~5250	Pass

