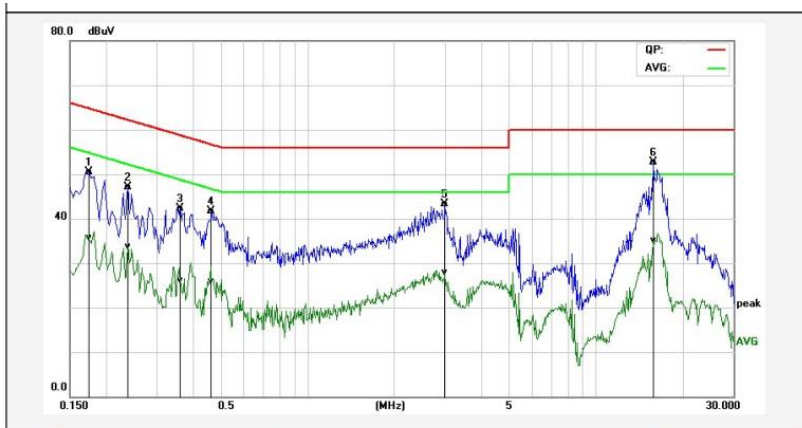
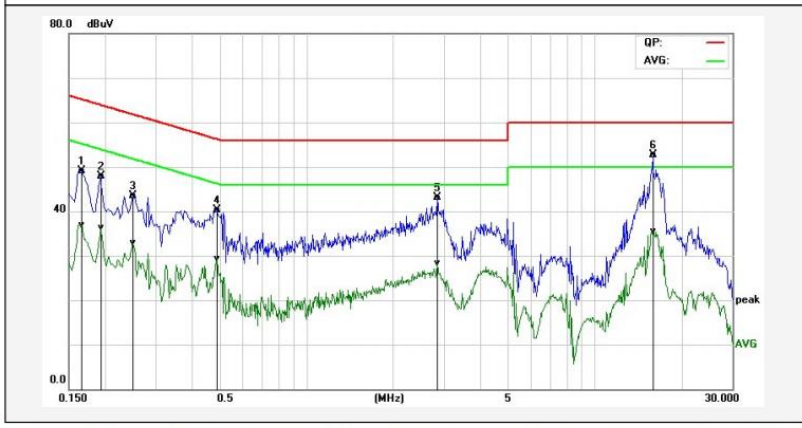


Appendix A: Test Results of DTS device

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Appendix A.1 Test Results of Conducted Emission on AC Mains

Note: All modes have been tested, and the report only reflects the worst mode.

Test Mode :	Working	Test Voltage :	AC 110V/60Hz																																																																																																												
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 <table><tr><th>No.</th><th>Frequency</th><th>QuasiPeak</th><th>Average</th><th>Correction</th><th>QuasiPeak</th><th>Average</th><th>QuasiPeak</th><th>Average</th><th>QuasiPeak</th><th>Average</th><th>Remark</th></tr><tr><th></th><th>(MHz)</th><th>reading</th><th>reading</th><th>factor</th><th>result</th><th>result</th><th>limit</th><th>limit</th><th>margin</th><th>margin</th><th></th></tr><tr><th></th><th></th><th>(dBuV)</th><th>(dBuV)</th><th>(dB)</th><th>(dBuV)</th><th>(dBuV)</th><th>(dBuV)</th><th>(dBuV)</th><th>(dB)</th><th>(dB)</th><th></th></tr><tr><td>1P</td><td>0.1740</td><td>41.10</td><td>26.30</td><td>9.50</td><td>50.60</td><td>35.80</td><td>64.76</td><td>54.77</td><td>-14.16</td><td>-18.97</td><td>Pass</td></tr><tr><td>2P</td><td>0.2380</td><td>37.65</td><td>24.15</td><td>9.50</td><td>47.15</td><td>33.65</td><td>62.16</td><td>52.17</td><td>-15.01</td><td>-18.52</td><td>Pass</td></tr><tr><td>3P</td><td>0.3620</td><td>32.75</td><td>16.68</td><td>9.50</td><td>42.25</td><td>26.18</td><td>58.68</td><td>48.68</td><td>-16.43</td><td>-22.50</td><td>Pass</td></tr><tr><td>4P</td><td>0.4660</td><td>32.13</td><td>16.36</td><td>9.50</td><td>41.63</td><td>25.86</td><td>56.58</td><td>46.58</td><td>-14.95</td><td>-20.72</td><td>Pass</td></tr><tr><td>5P</td><td>3.0020</td><td>34.10</td><td>18.62</td><td>9.20</td><td>43.30</td><td>27.82</td><td>56.00</td><td>46.00</td><td>-12.70</td><td>-18.18</td><td>Pass</td></tr><tr><td>6*</td><td>15.8780</td><td>43.22</td><td>25.76</td><td>9.42</td><td>52.64</td><td>35.18</td><td>60.00</td><td>50.00</td><td>-7.36</td><td>-14.82</td><td>Pass</td></tr></table>				No.	Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark		(MHz)	reading	reading	factor	result	result	limit	limit	margin	margin				(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)		1P	0.1740	41.10	26.30	9.50	50.60	35.80	64.76	54.77	-14.16	-18.97	Pass	2P	0.2380	37.65	24.15	9.50	47.15	33.65	62.16	52.17	-15.01	-18.52	Pass	3P	0.3620	32.75	16.68	9.50	42.25	26.18	58.68	48.68	-16.43	-22.50	Pass	4P	0.4660	32.13	16.36	9.50	41.63	25.86	56.58	46.58	-14.95	-20.72	Pass	5P	3.0020	34.10	18.62	9.20	43.30	27.82	56.00	46.00	-12.70	-18.18	Pass	6*	15.8780	43.22	25.76	9.42	52.64	35.18	60.00	50.00	-7.36	-14.82	Pass
No.	Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark																																																																																																				
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No.	Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark																																																																																																				
	(MHz)	reading	reading	factor	result	result	limit	limit	margin	margin																																																																																																					
		(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)																																																																																																					
1P	0.1660	39.71	27.47	9.40	49.11	36.87	65.15	55.16	-16.04	-18.29	Pass																																																																																																				
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4P	0.4900	30.99	20.00	9.40	40.39	29.40	56.17	46.17	-15.78	-16.77	Pass																																																																																																				
5P	2.8540	34.03	19.12	9.11	43.14	28.23	56.00	46.00	-12.86	-17.77	Pass																																																																																																				
6*	15.9140	43.56	26.29	9.12	52.68	35.41	60.00	50.00	-7.32	-14.59	Pass																																																																																																				

Correction Factor = insertion loss of LISN + cable loss;

Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit

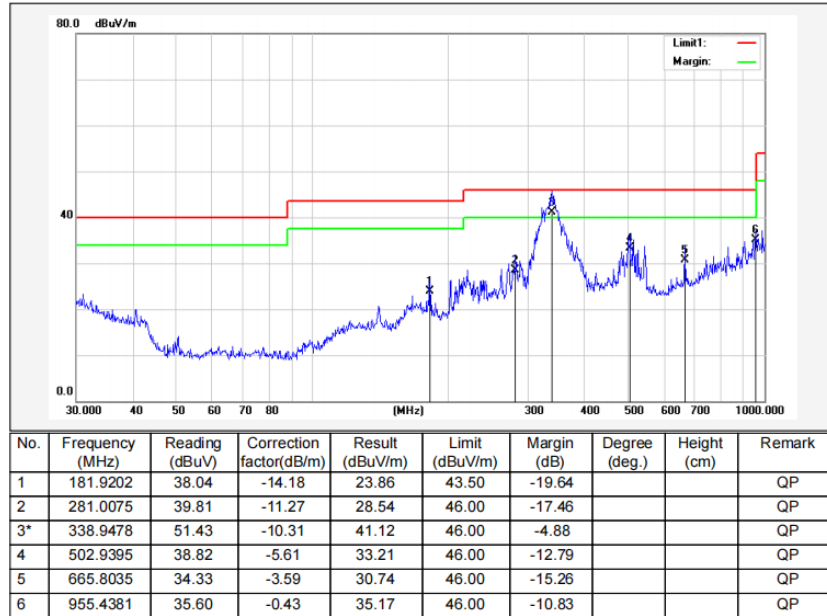
Appendix A.2 Test Results of Radiated Spurious Emission

Below 1GHz:

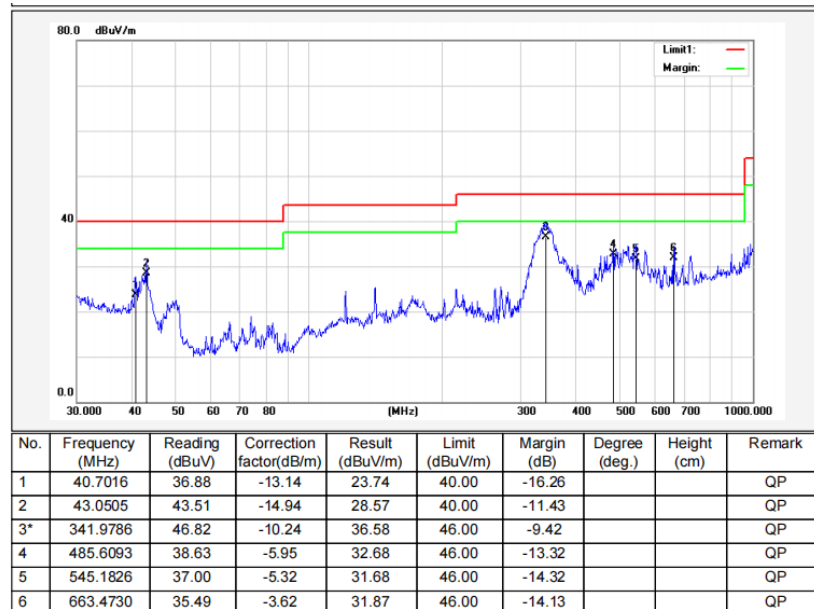
All modes have been tested, and the report only reflects the worst mode.

Test Mode: Working

Horizontal



Vertical



Correction Factor = antenna factor + cable loss – amplifier gain;

Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit.

Above 1GHz:

Note: All models were tested, and only the worst model(802.11n (HT20), MIMO) were reported in the report.

802.11n (HT20)-Low (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3584	60.04	-16.33	43.71	75.01	-31.3	peak
2	3958	59.06	-15.09	43.97	74	-30.03	peak
3	5182	57.53	-12.66	44.87	75.01	-30.14	peak
4	6168	55.8	-9.92	45.88	75.01	-29.13	peak
5	7528	55.89	-7.17	48.72	74	-25.28	peak
6	10078	54.31	-4.37	49.94	75.01	-25.07	peak

802.11n (HT20)-Low (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3958	61.11	-15.09	46.02	74	-27.98	peak
2	4876	57.71	-13	44.71	74	-29.29	peak
3	5658	57.5	-11.88	45.62	75.01	-29.39	peak
4	5998	55.94	-10.12	45.82	75.01	-29.19	peak
5	7562	55.96	-7.22	48.74	74	-25.26	peak
6	10350	53.66	-4.13	49.53	75.01	-25.48	peak

802.11n (HT20)-Middle (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3312	58.45	-18.32	40.13	75.01	-34.88	peak
2	3890	57.19	-15.36	41.83	74	-32.17	peak
3	5216	55.56	-12.66	42.9	75.01	-32.11	peak
4	6032	54.76	-10.1	44.66	75.01	-30.35	peak
5	7528	54.32	-7.17	47.15	74	-26.85	peak
6	8208	53.93	-7.62	46.31	74	-27.69	peak

802.11n (HT20)-Middle (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3958	59.87	-15.09	44.78	74	-29.22	peak
2	4774	59.09	-13.66	45.43	74	-28.57	peak
3	5658	56.83	-11.88	44.95	75.01	-30.06	peak
4	5964	56.36	-10.23	46.13	75.01	-28.88	peak
5	7392	55.82	-7.13	48.69	74	-25.31	peak
6	8412	55.91	-7.14	48.77	74	-25.23	peak

802.11n (HT20)-High (worst mode) Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3992	58.88	-15.01	43.87	74	-30.13	peak
2	4774	58.77	-13.66	45.11	74	-28.89	peak
3	6100	56.18	-10.06	46.12	75.01	-28.89	peak
4	7562	55.49	-7.22	48.27	74	-25.73	peak
5	8242	56.55	-7.48	49.07	74	-24.93	peak
6	9024	57.01	-8.12	48.89	74	-25.11	peak

802.11n (HT20)-High (worst mode) Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3958	59.58	-15.09	44.49	74	-29.51	peak
2	5046	58.01	-12.62	45.39	74	-28.61	peak
3	5998	56.21	-10.12	46.09	75.01	-28.92	peak
4	6746	56.21	-9.21	47	75.01	-28.01	peak
5	7596	55.14	-7.26	47.88	74	-26.12	peak
6	8208	56.2	-7.62	48.58	74	-25.42	peak

Node:

- 1、Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported..
- 2、Radiated emissions measured in frequency above 1GHz were made with an instrument using peak/average detector mode.
- 3、Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
- 4、Margin (dB), result in dBuV/m – limit in dBuV/m.
- 5、According to section part 15.247(d), frequencies other than those required by part 15.205(a) are limited to the level of the intended emission (min. 95.01) minus 20dB.

Restricted band Requirements

Note: All models were tested, and only the worst model(802.11n (HT20), MIMO) were reported in the report.

802.11 n(HT20)-Low (worst mode)

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2343.3	79.24	-21.21	58.03	74	-15.97	peak
2	2343.3	68.29	-21.21	47.08	54	-6.92	AVG
3	2390	77.46	-21.03	56.43	74	-17.57	peak
4	2390	66.25	-21.03	45.22	54	-8.78	AVG
5	2413.2	127.14	-20.97	106.17	125.2	-19.03	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2351.1	78.42	-21.19	57.23	74	-16.77	peak
2	2351.1	68	-21.19	46.81	54	-7.19	AVG
3	2390	76.76	-21.03	55.73	74	-18.27	peak
4	2390	65.34	-21.03	44.31	54	-9.69	AVG
5	2413.8	115.98	-20.97	95.01	125.2	-30.19	peak

802.11 n(HT20)-High (worst mode)

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.28	130.05	-20.91	109.14	125.2	-16.06	peak
2	2483.5	84.68	-20.91	63.77	74	-10.23	peak
3	2483.5	71.02	-20.91	50.11	54	-3.89	AVG
4	2485.84	85.95	-20.91	65.04	74	-8.96	peak
5	2485.84	71.58	-20.91	50.67	54	-3.33	AVG

Vertical

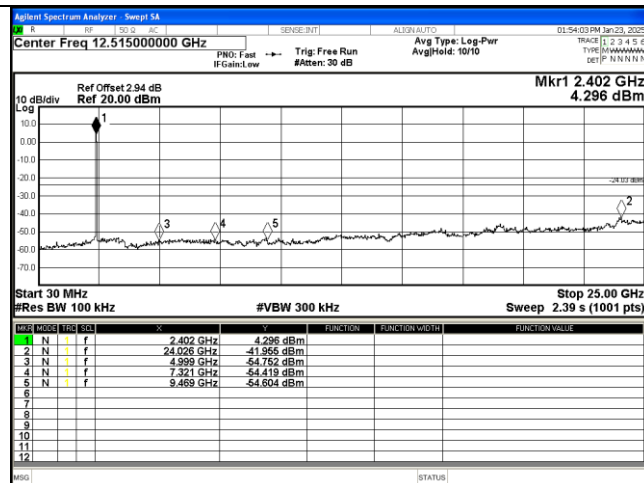
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2460.88	119.12	-20.91	98.21	125.2	-26.99	peak
2	2483.5	77.06	-20.91	56.15	74	-17.85	peak
3	2483.5	66.12	-20.91	45.21	54	-8.79	AVG
4	2489.92	78.55	-20.91	57.64	74	-16.36	peak
5	2489.92	67.29	-20.91	46.38	54	-7.62	AVG

Appendix A.3 Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

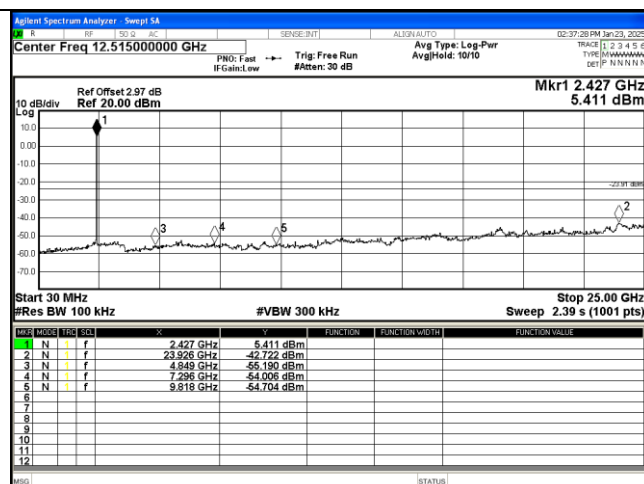
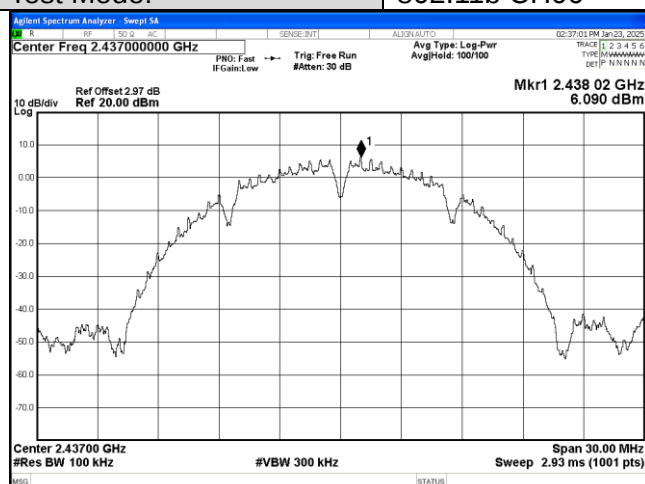
Note: All models were tested, and only the worst model(ANT 1) were reported in the report.

Conducted spurious emission

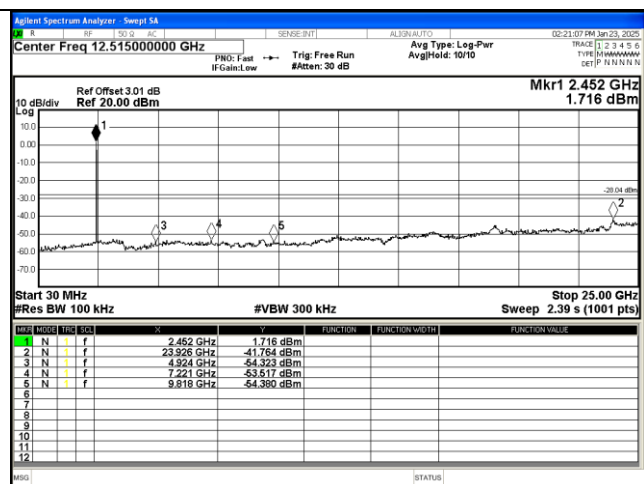
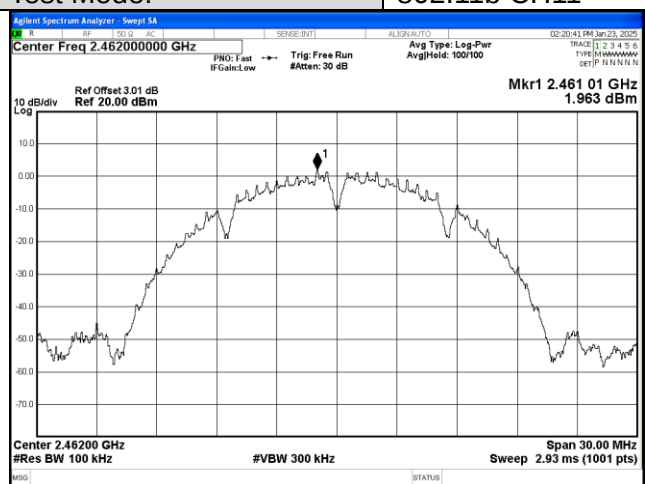
Test Mode: 802.11b CH01

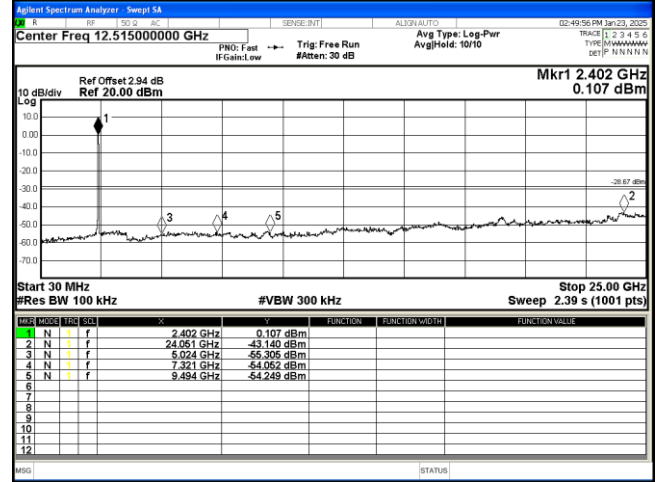
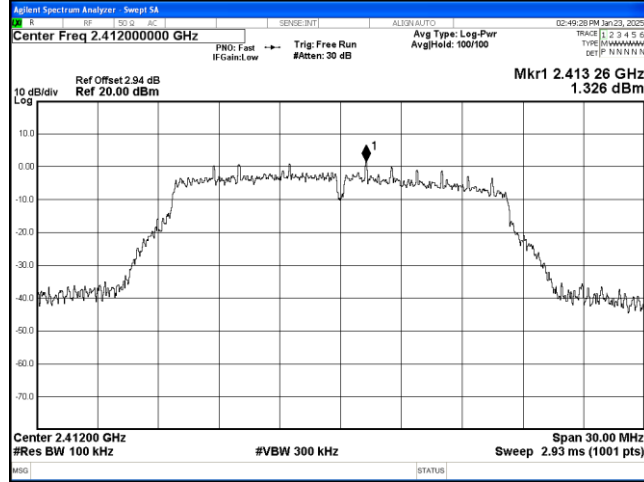
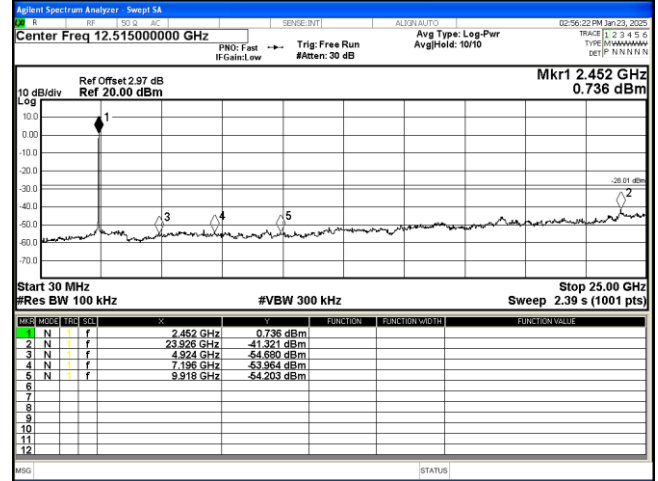
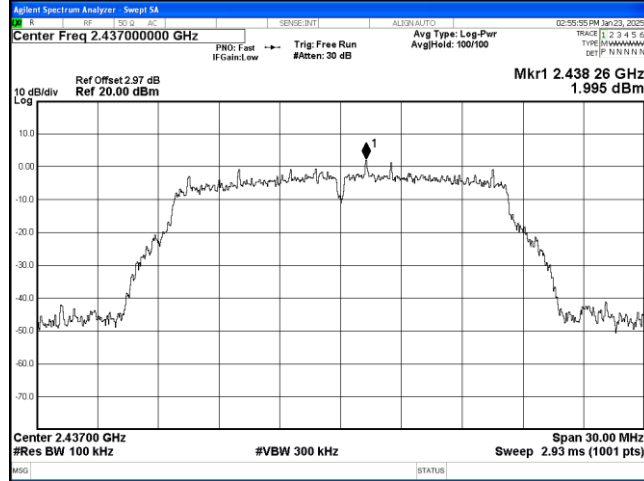
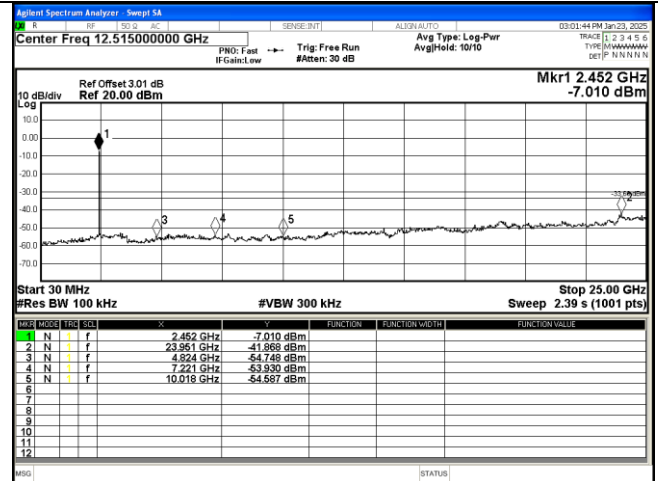
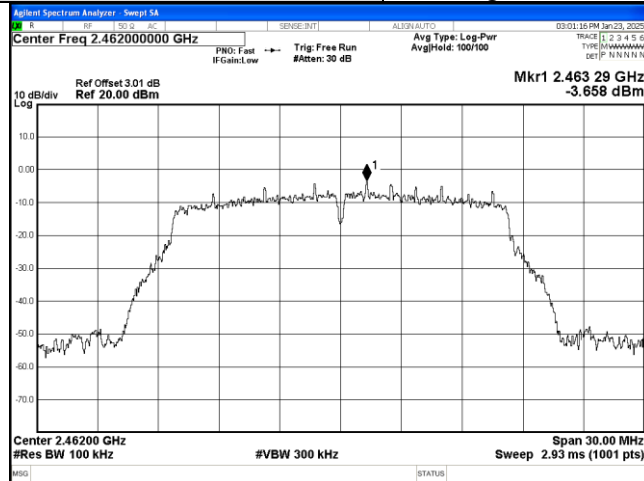


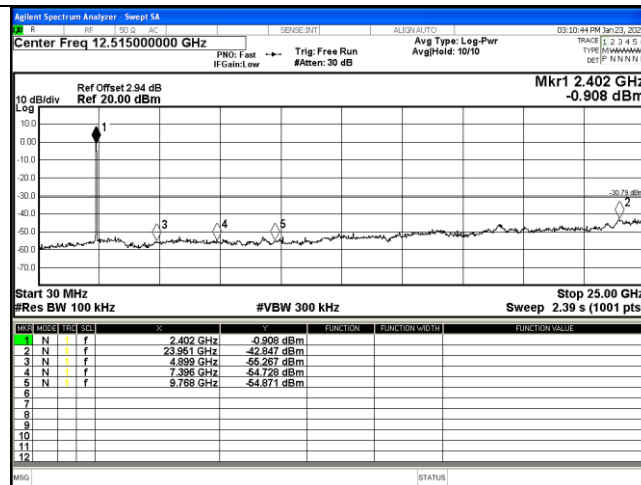
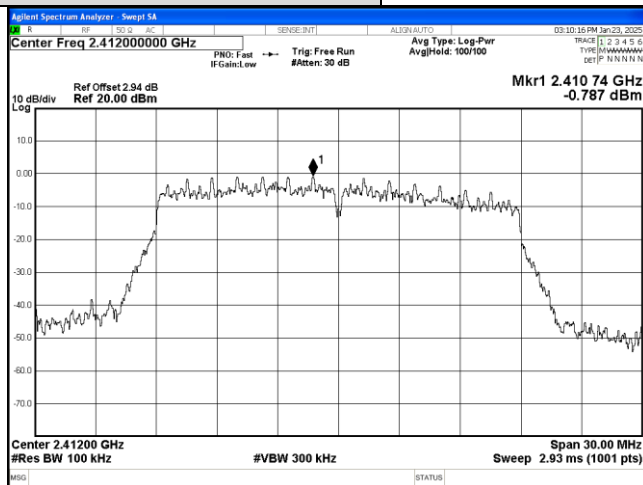
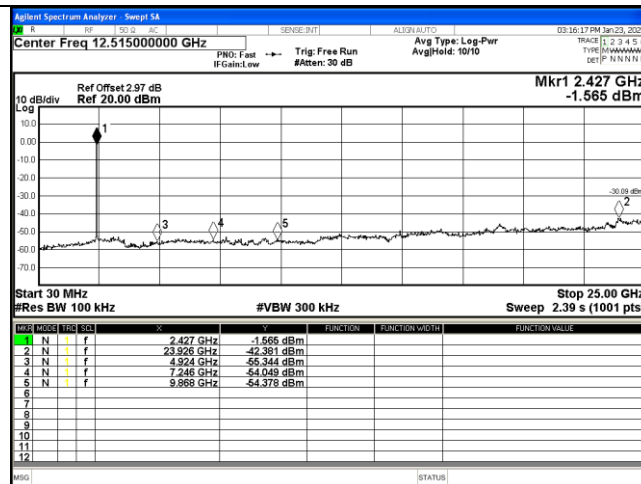
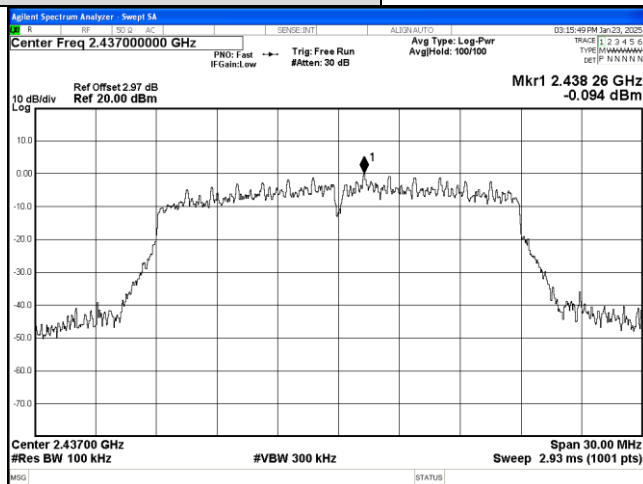
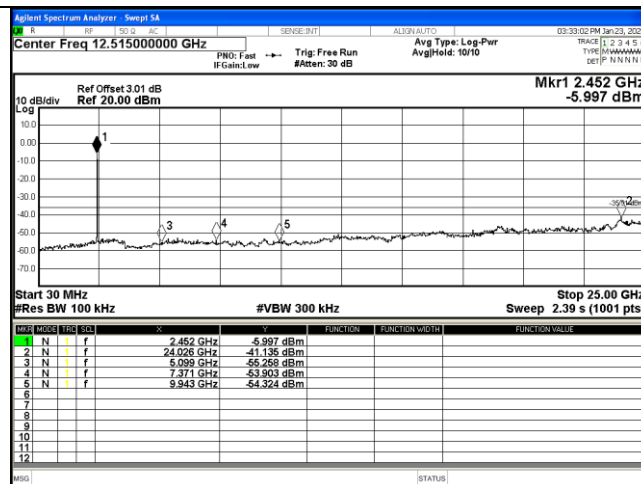
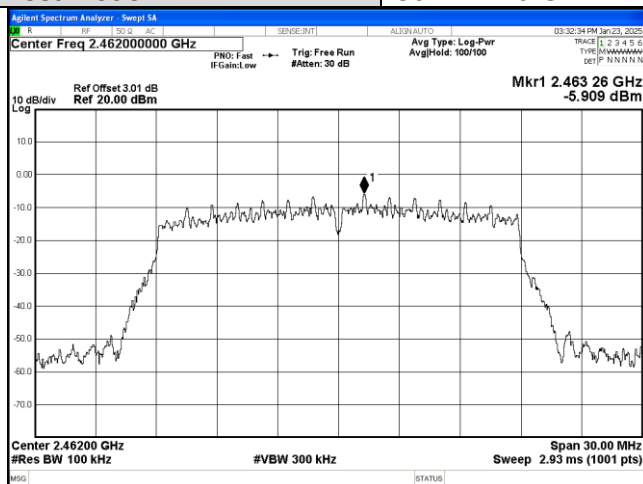
Test Mode: 802.11b CH06

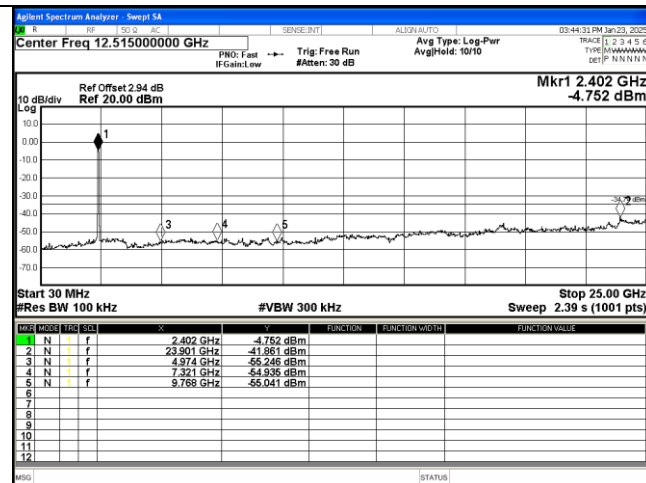
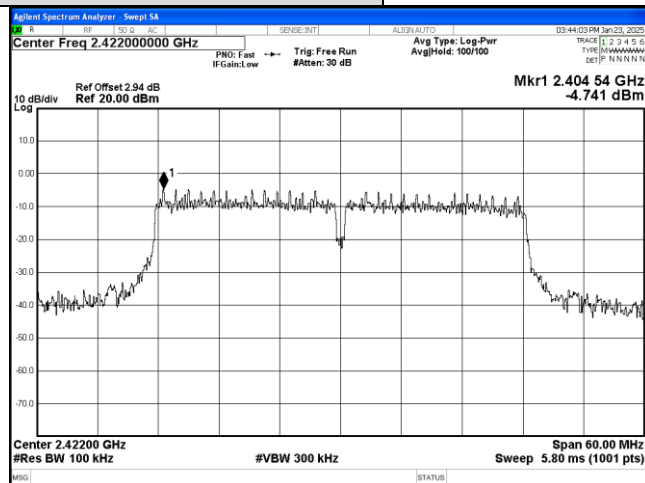
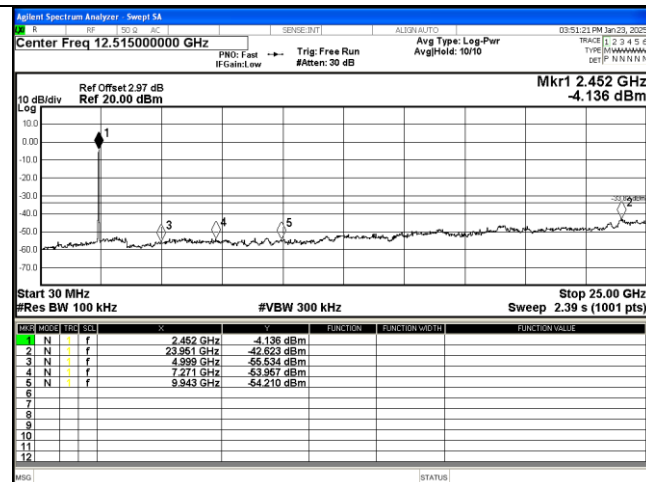
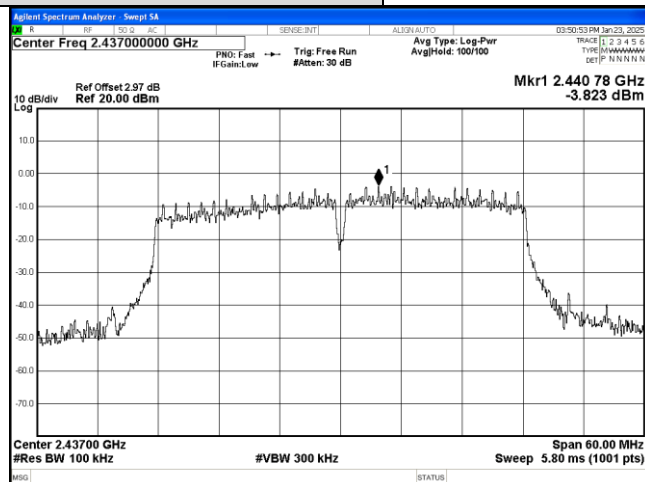
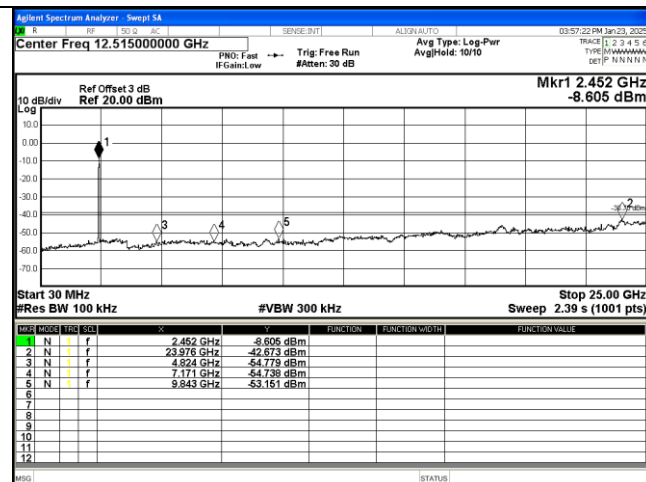
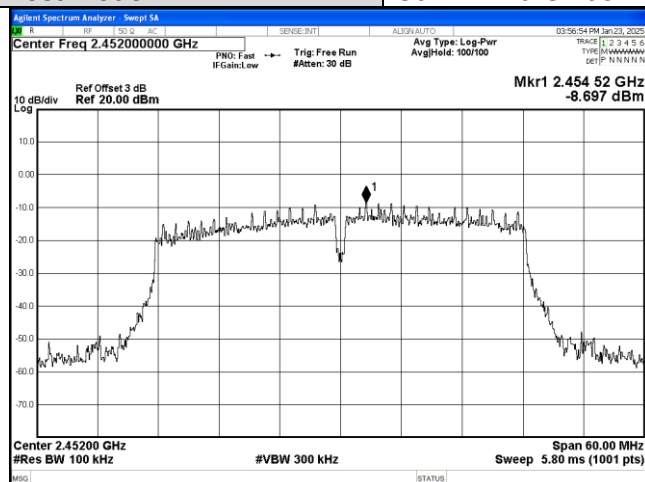


Test Mode: 802.11b CH11



Test Mode: 802.11g CH01

Test Mode: 802.11g CH06

Test Mode: 802.11g CH11


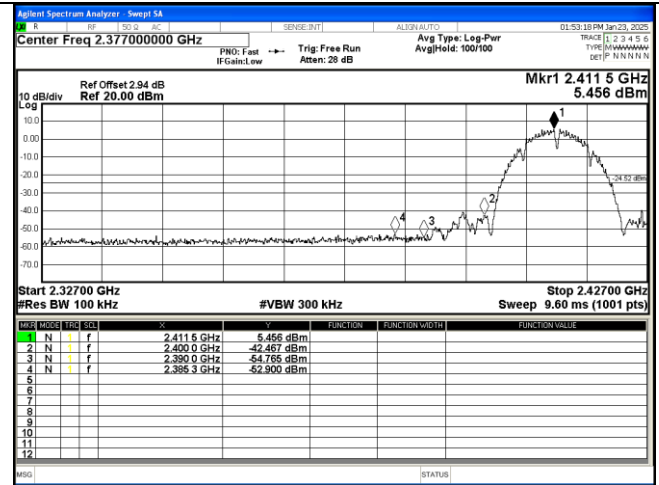
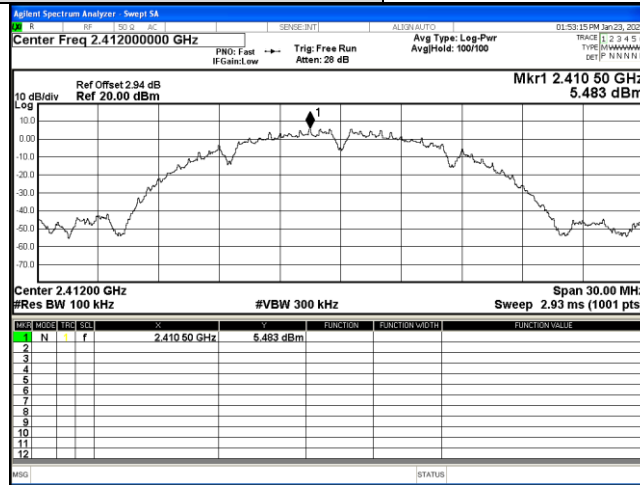
Test Mode: 802.11n20 CH01

Test Mode: 802.11n20 CH06

Test Mode: 802.11n20 CH11


Test Mode: 802.11n40 CH03

Test Mode: 802.11n40 CH06

Test Mode: 802.11n40 CH09


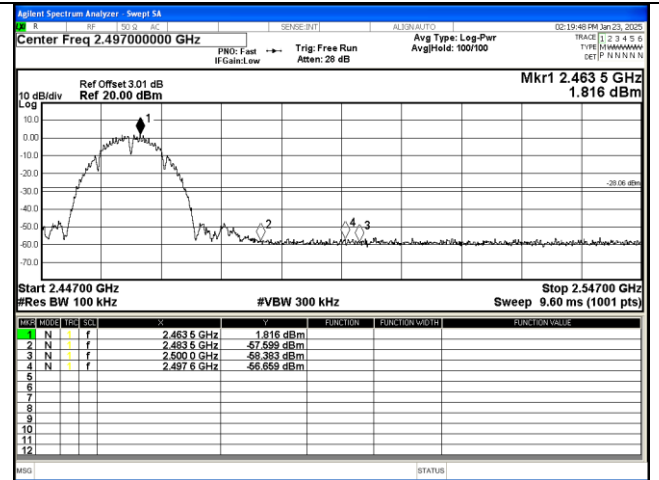
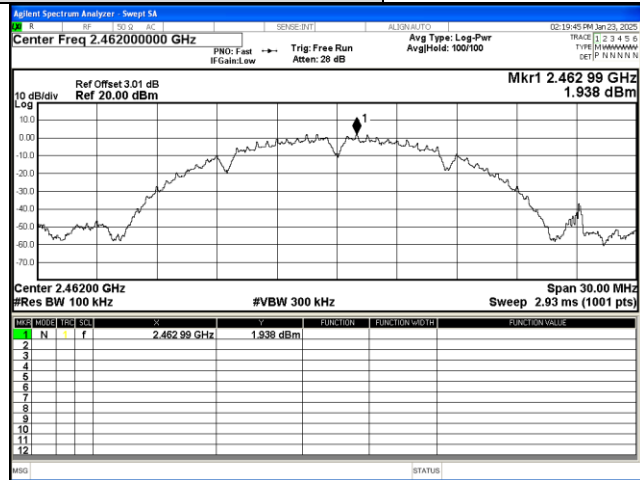


Note: All models were tested, and only the worst model(ANT 1) were reported in the report.
For Band edge(it's also the reference level for conducted spurious emission)

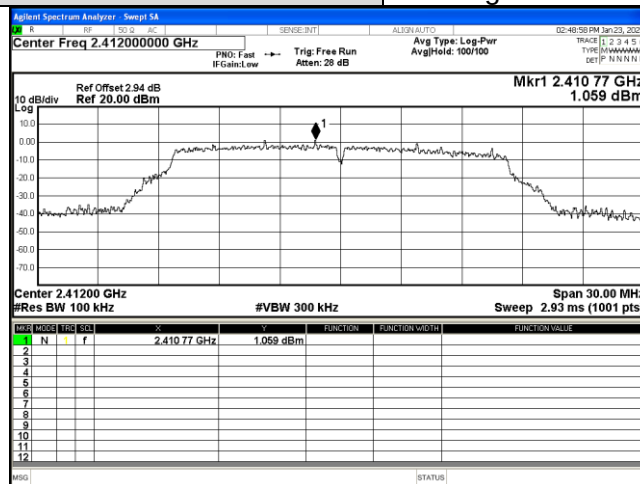
Test Mode: 802.11b CH01

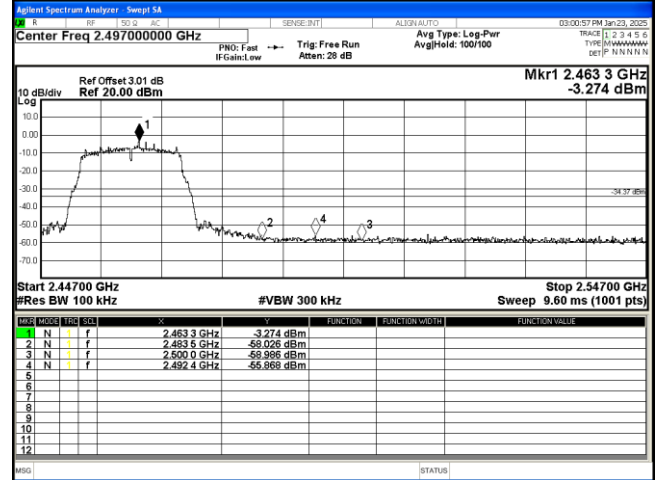
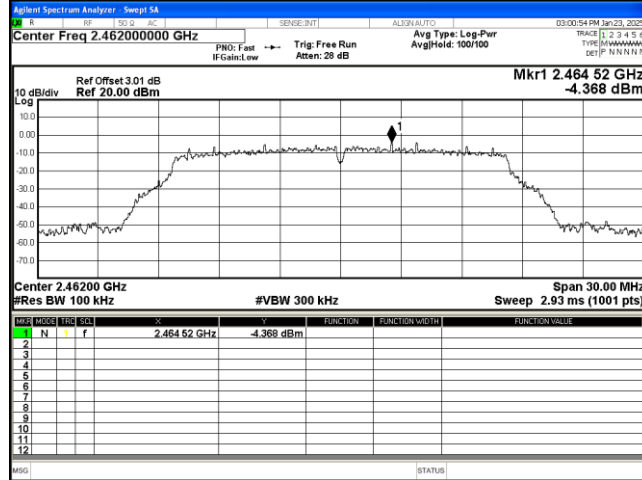
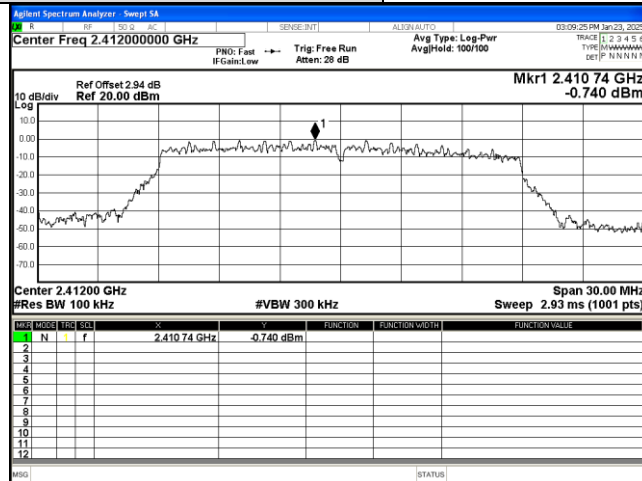
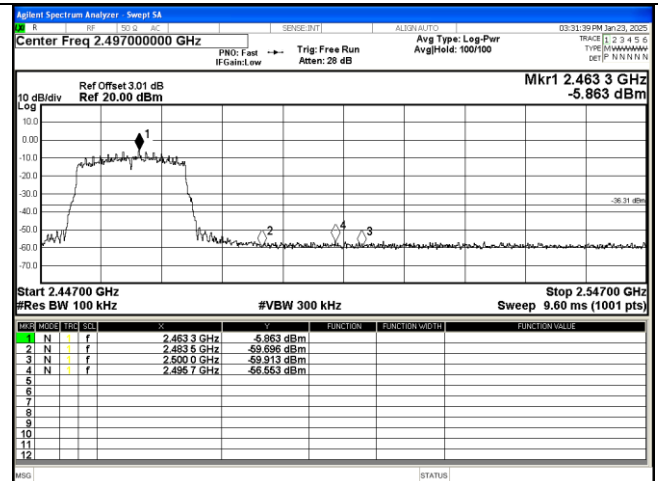
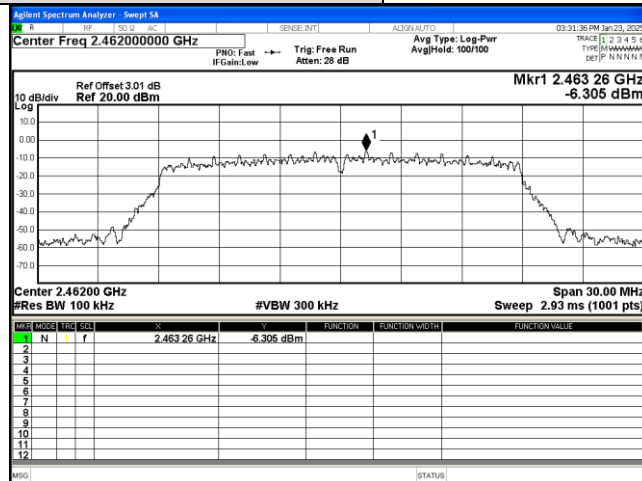


Test Mode: 802.11b CH11

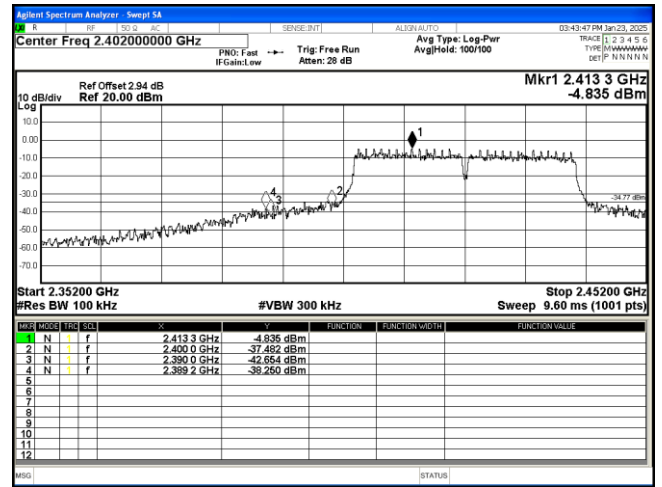
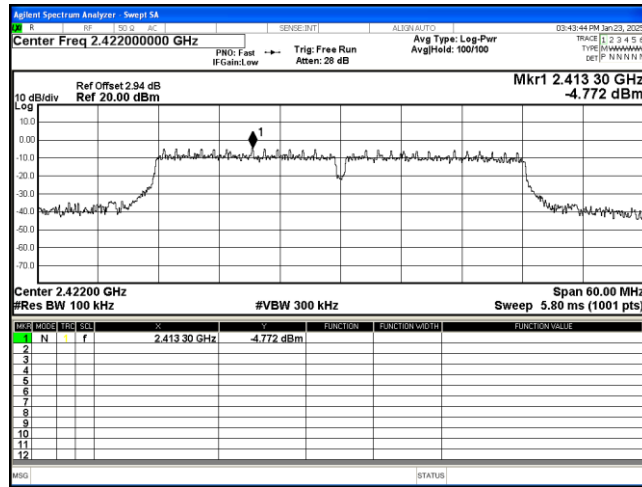


Test Mode: 802.11g CH01

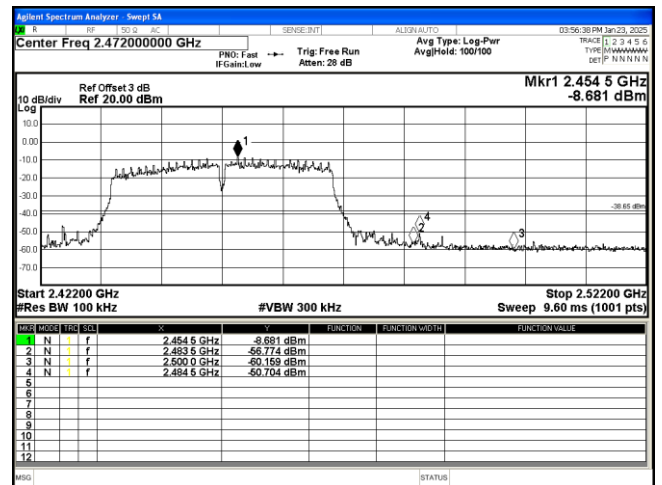
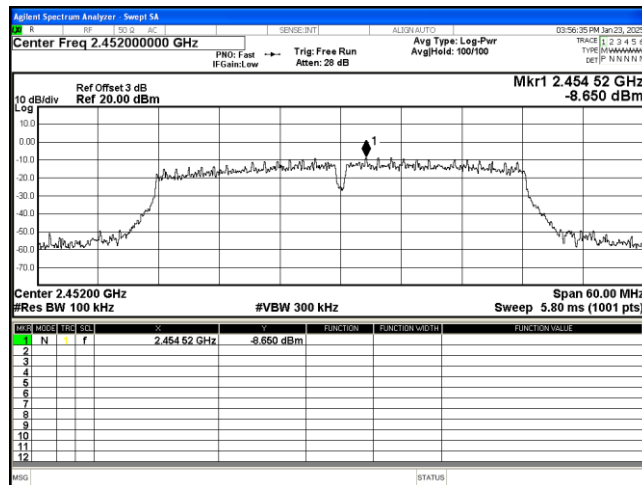


Test Mode: 802.11g CH11

Test Mode: 802.11n20 CH01

Test Mode: 802.11n20 CH11


Test Mode: 802.11n40 CH03



Test Mode: 802.11n40 CH09



Appendix A.4 Test Results of Conducted Power Spectral Density

802.11b					
Frequency	Power Density			Limit (dBm/3KHz)	Result
	(dBm/3kHz)				
	Ant1	Ant2	Total		
CH01	-8.226	-7.64	---	8	Pass
CH06	-7.024	-6.772	---	8	Pass
CH11	-11.412	-12.175	---	8	Pass

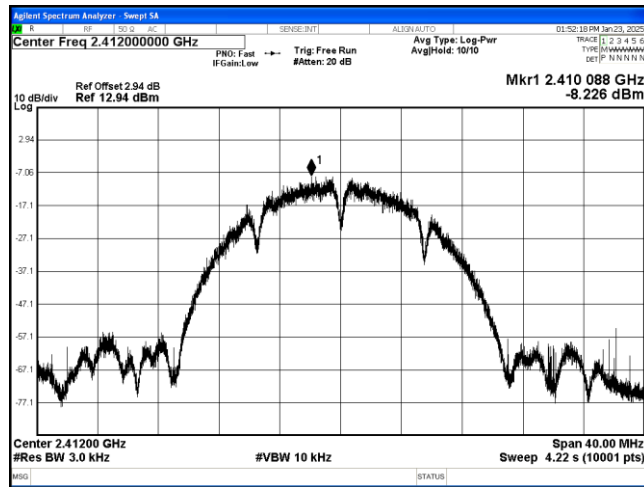
802.11g					
Frequency	Power Density			Limit (dBm/3KHz)	Result
	(dBm/3kHz)				
	Ant1	Ant2	Total		
CH01	-12.386	-10.903	---	8	Pass
CH06	-11.982	-11.881	---	8	Pass
CH11	-17.028	-16.422	---	8	Pass

802.11n20					
Frequency	Power Density			Limit (dBm/3KHz)	Result
	(dBm/3kHz)				
	Ant1	Ant2	Total		
CH01	-15.094	-14.554	-11.805	8	Pass
CH06	-14.992	-14.709	-11.838	8	Pass
CH11	-21.429	-20.7	-18.039	8	Pass

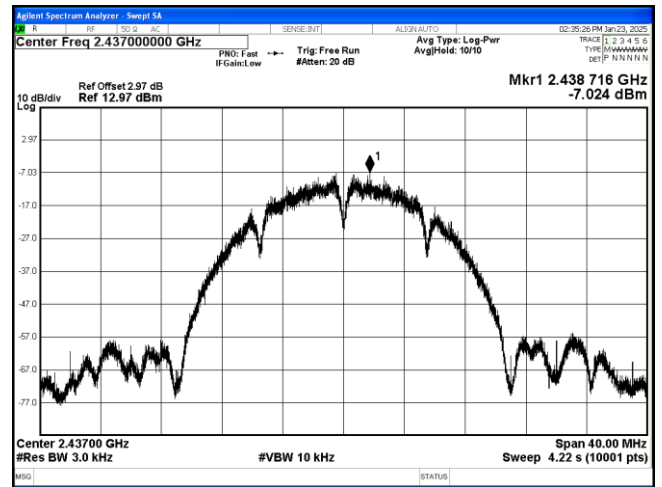
802.11n40					
Frequency	Power Density			Limit (dBm/3KHz)	Result
	(dBm/3kHz)				
	Ant1	Ant2	Total		
CH03	-17.8	-16.182	-13.906	8	Pass
CH06	-16.858	-15.963	-13.377	8	Pass
CH09	-22.232	-21.526	-18.854	8	Pass

ANT1

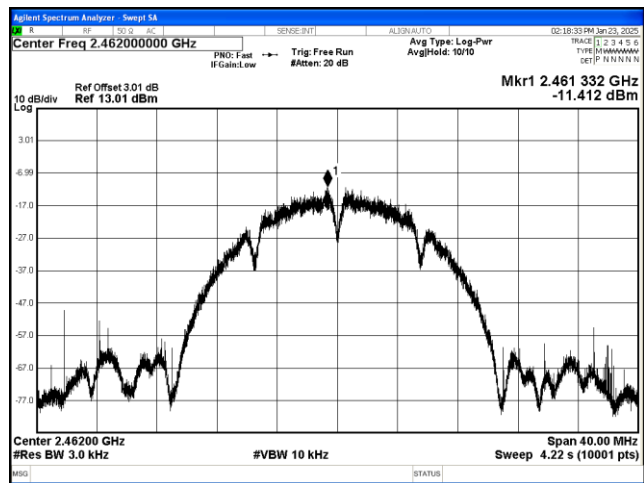
Test Mode: 802.11b CH01



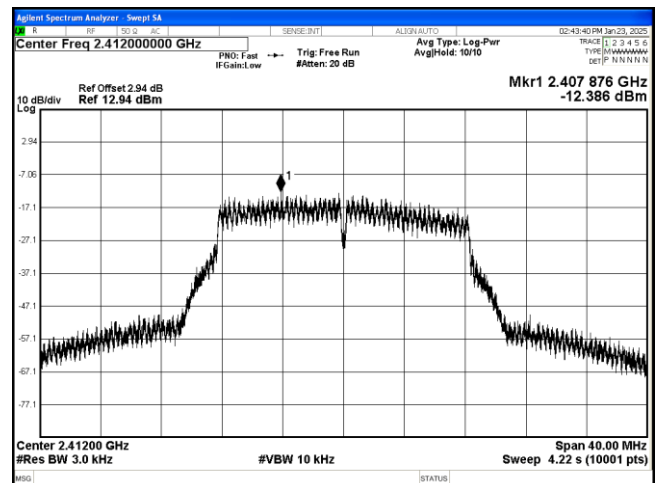
Test Mode: 802.11b CH06



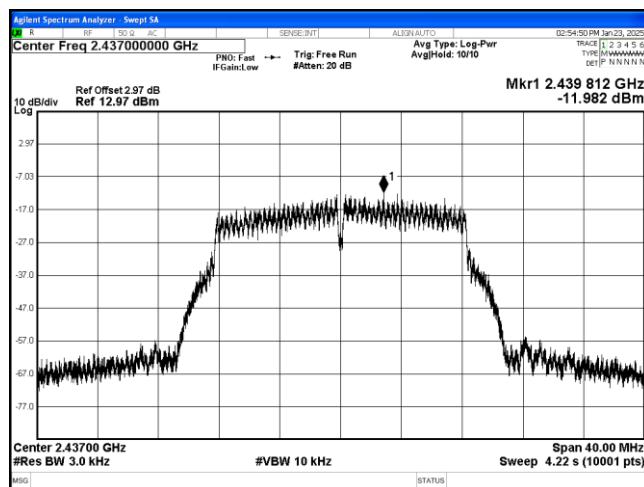
Test Mode: 802.11b CH11



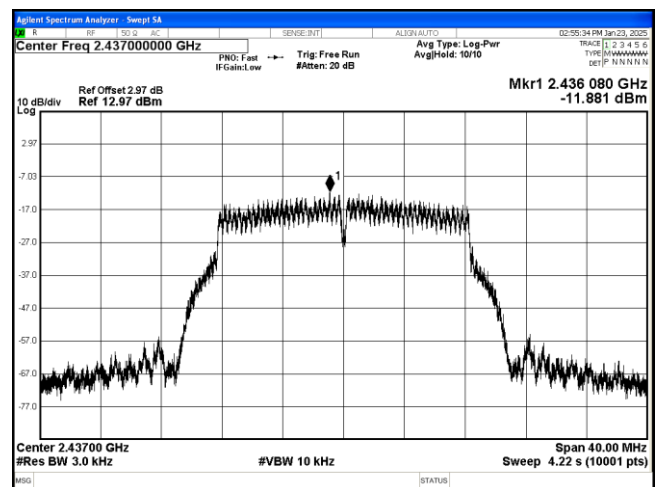
Test Mode: 802.11g CH01

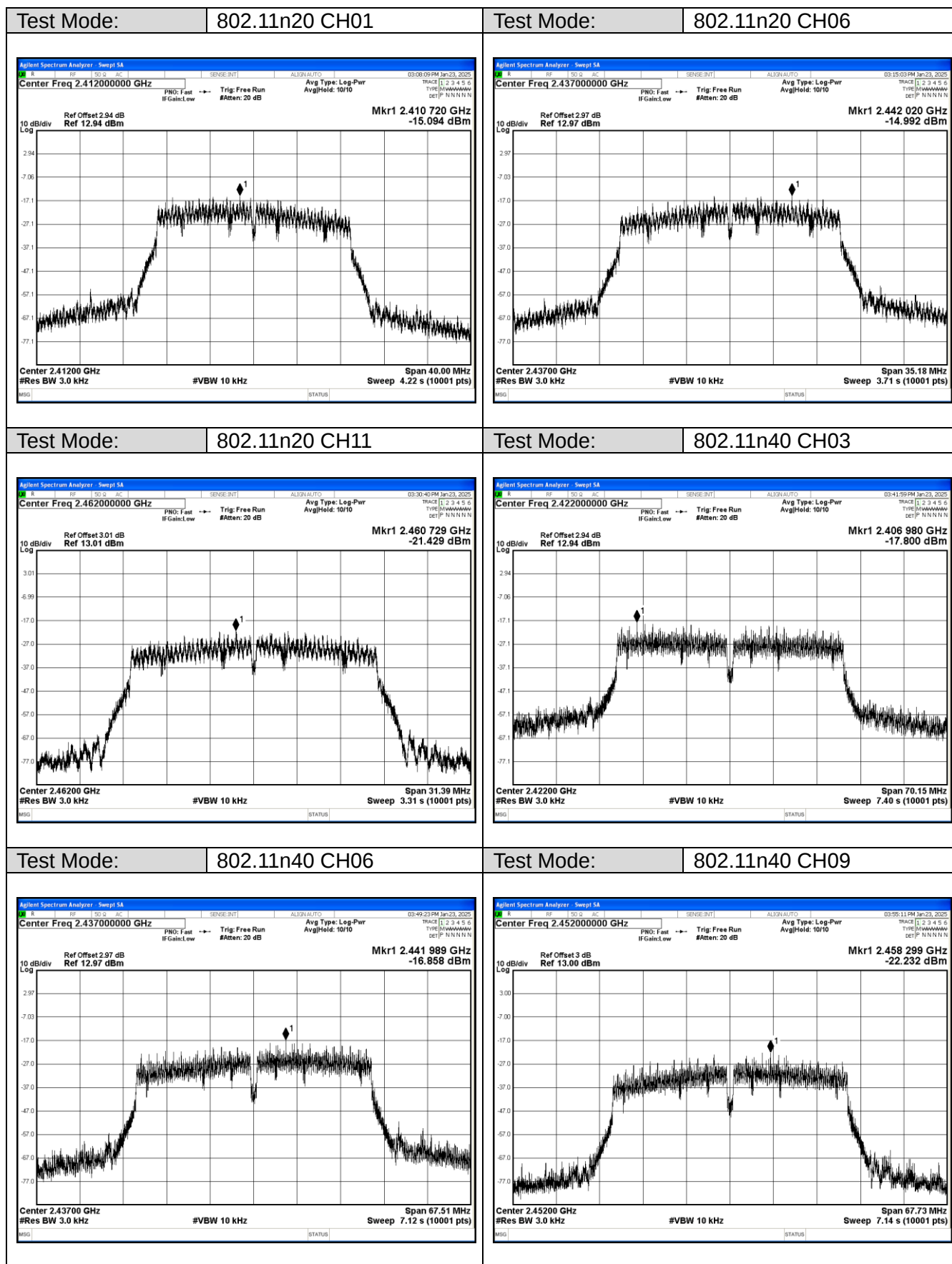


Test Mode: 802.11g CH06

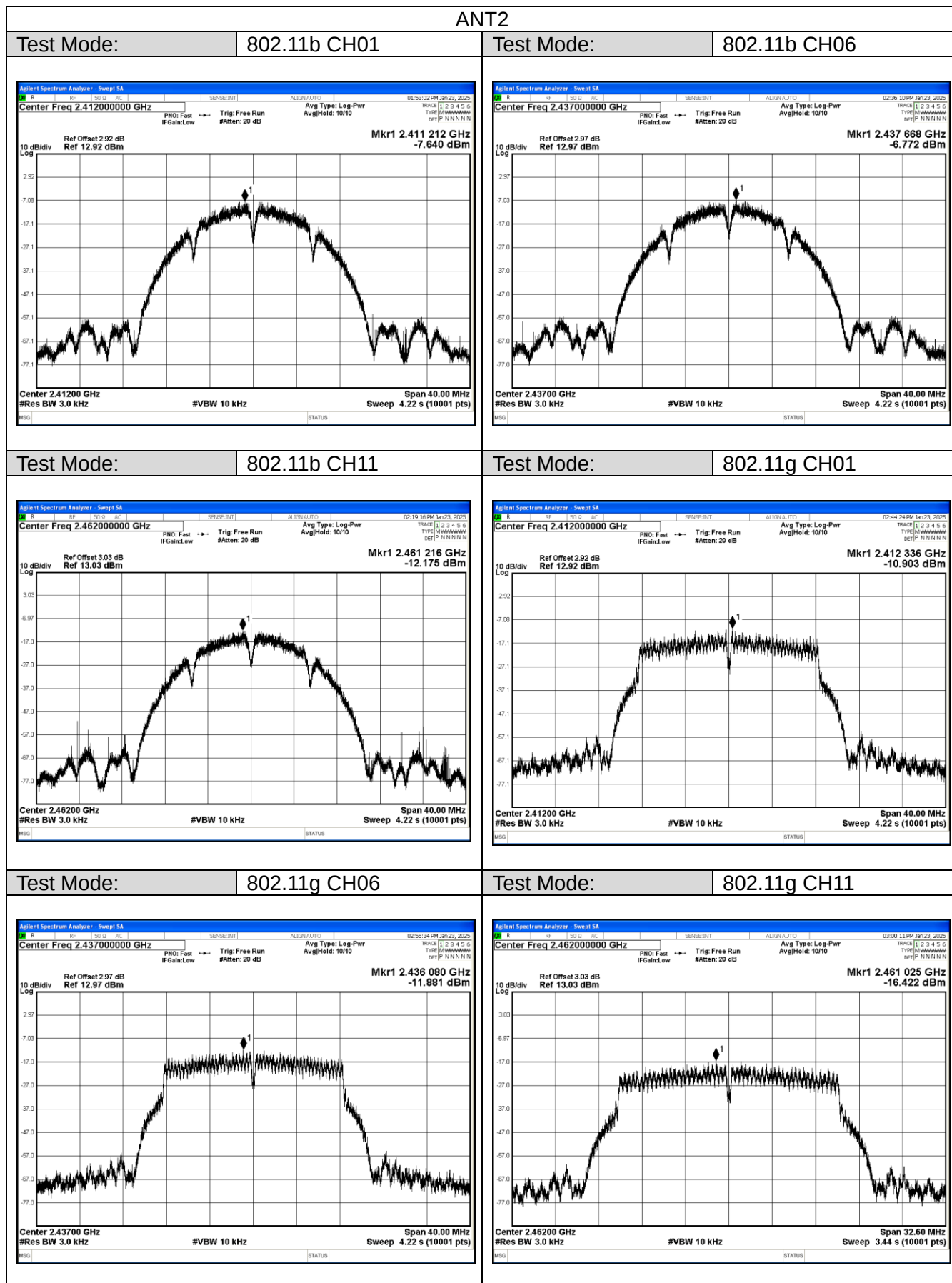


Test Mode: 802.11g CH11

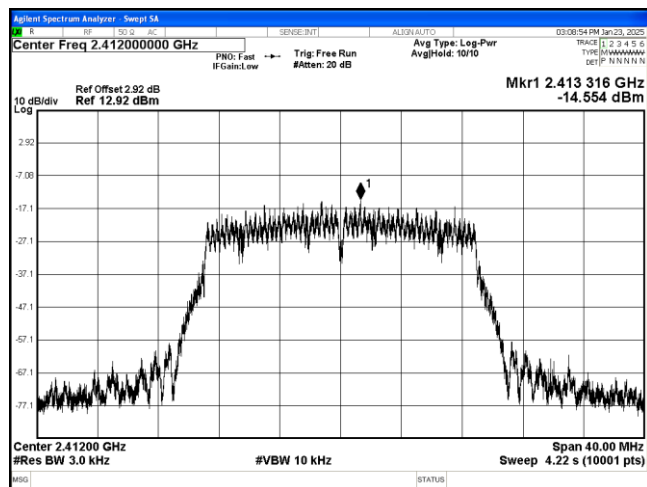




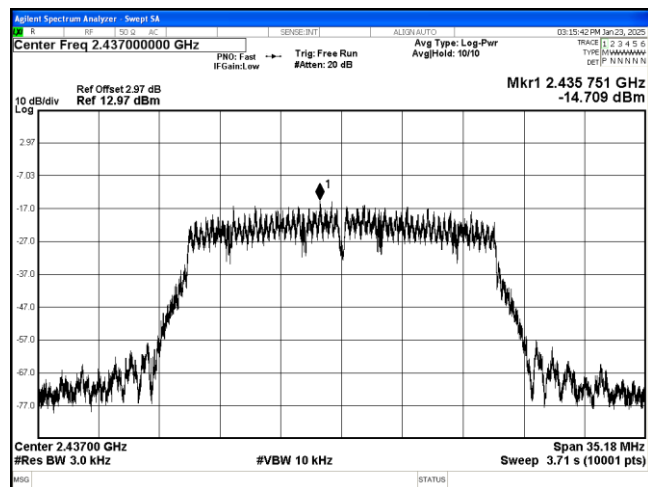
ANT2



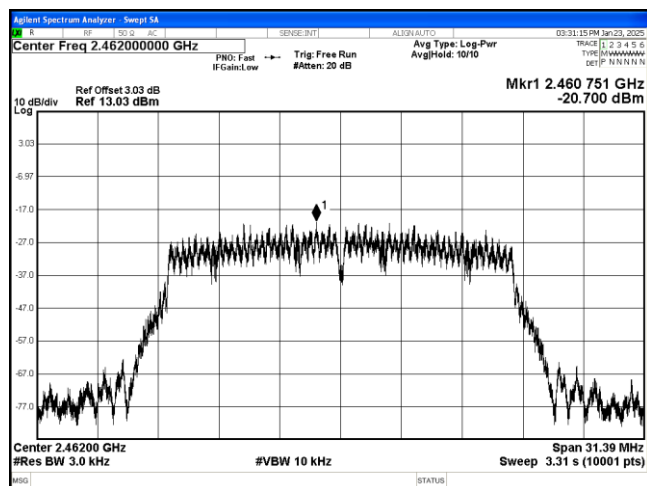
Test Mode: 802.11n20 CH01



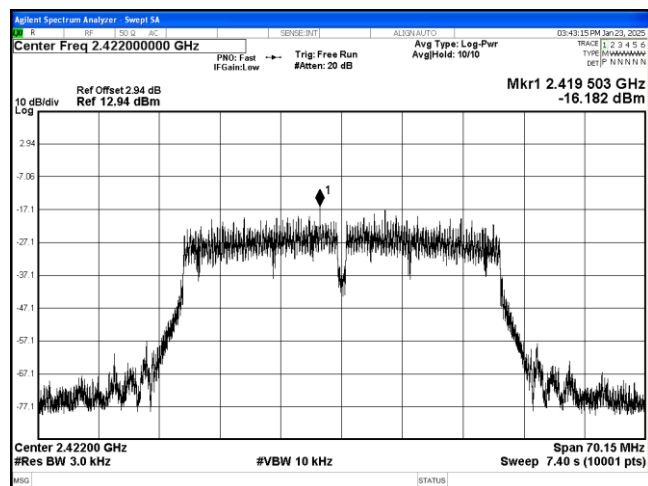
Test Mode: 802.11n20 CH06



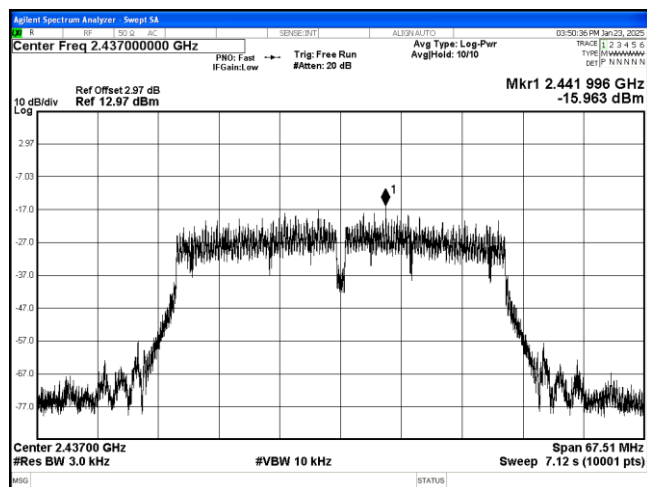
Test Mode: 802.11n20 CH11



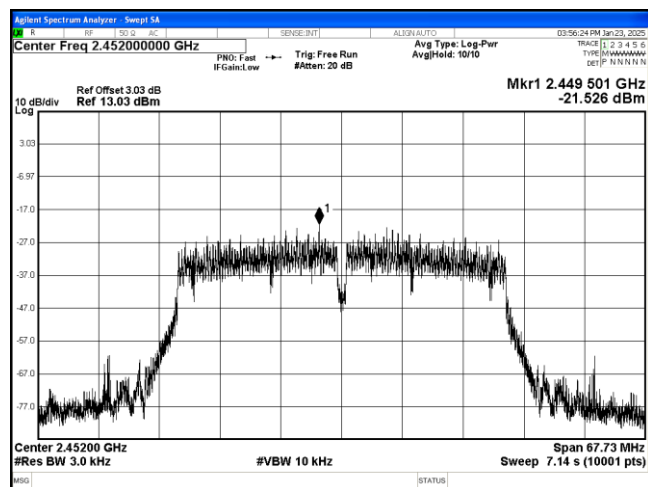
Test Mode: 802.11n40 CH03



Test Mode: 802.11n40 CH06



Test Mode: 802.11n40 CH09



Appendix A.5 Test Results of 6dB and 99% BANDWIDTH

802.11b						
Frequency	99% Bandwidth (MHz)		6dB Bandwidth (MHz)		6dB limit (KHz)	Result
	Ant 1	Ant 2	Ant 1	Ant 2		
CH01	13.369	13.360	7.789	8.057	0.5	Pass
CH06	13.495	13.418	8.088	9.544	0.5	Pass
CH11	13.720	13.702	8.100	8.537	0.5	Pass

802.11g						
Frequency	99% Bandwidth (MHz)		6dB Bandwidth (MHz)		6dB limit (KHz)	Result
	Ant 1	Ant 2	Ant 1	Ant 2		
CH01	16.459	16.427	15.08	16.31	0.5	Pass
CH06	16.458	16.444	15.95	13.62	0.5	Pass
CH11	16.468	16.422	15.30	16.28	0.5	Pass

802.11n20						
Frequency	99% Bandwidth (MHz)		6dB Bandwidth (MHz)		6dB limit (KHz)	Result
	Ant 1	Ant 2	Ant 1	Ant 2		
CH01	17.544	17.613	16.35	14.95	0.5	Pass
CH06	17.263	17.567	14.45	13.77	0.5	Pass
CH11	17.553	17.496	17.18	14.68	0.5	Pass

802.11n40						
Frequency	99% Bandwidth (MHz)		6dB Bandwidth (MHz)		6dB limit (KHz)	Result
	Ant 1	Ant 2	Ant 1	Ant 2		
CH03	36.727	36.079	35.61	35.08	0.5	Pass
CH06	35.925	36.000	35.08	33.76	0.5	Pass
CH09	35.910	35.993	28.83	33.86	0.5	Pass

99% Bandwidth

Ant 1

