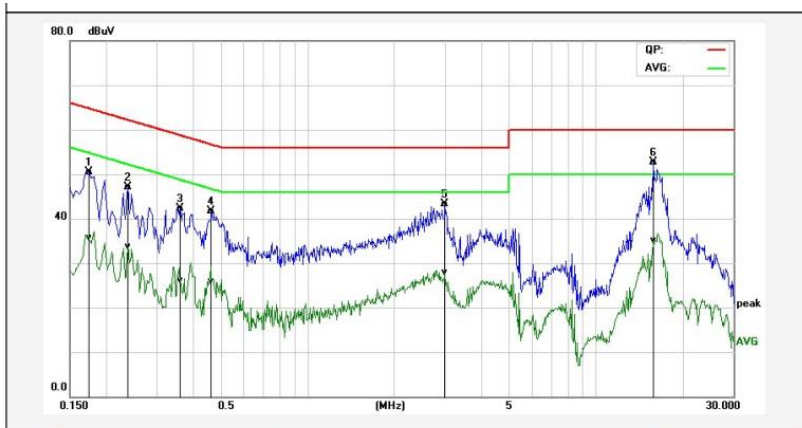
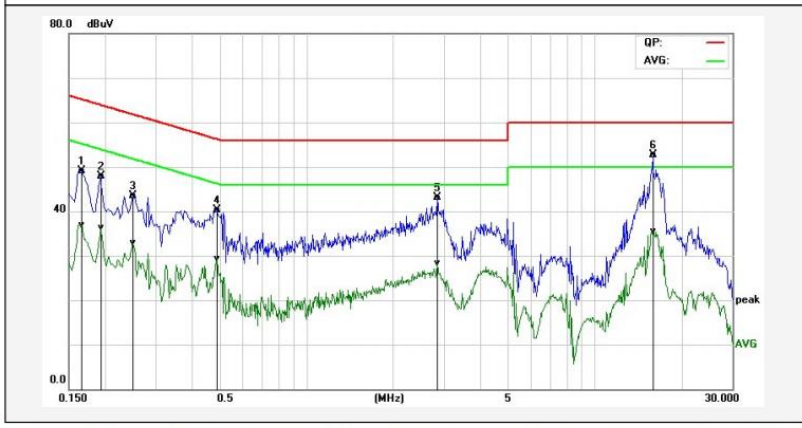


Appendix A: Test Results of NII device

Table of Contents	Page
APPENDIX A.1 TEST RESULTS OF CONDUCTED EMISSION ON AC MAINS	2
APPENDIX A.2 TEST RESULTS OF RADIATED SPURIOUS EMISSION	3
APPENDIX A.3 TEST RESULTS OF CONDUCTED SPURIOUS EMISSIONS AND BAND EDGE	15
APPENDIX A.4 TEST RESULTS OF FREQUENCY STABILITY	34
APPENDIX A.5 TEST RESULTS OF CONDUCTED POWER SPECTRAL DENSITY	42
APPENDIX A.6 TEST RESULTS OF 6DB & 26DB & 99% BANDWIDTH	62
APPENDIX A.7 TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER	87
APPENDIX A.8 TEST RESULTS OF DYNAMIC FREQUENCY SELECTION (DFS)	90

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																																																																																				
L																																																																																							
 <table><tr><th>No.</th><th>Frequency (MHz)</th><th>QuasiPeak reading (dBuV)</th><th>Average reading (dBuV)</th><th>Correction factor (dB)</th><th>QuasiPeak result (dBuV)</th><th>Average result (dBuV)</th><th>QuasiPeak limit (dBuV)</th><th>Average limit (dBuV)</th><th>QuasiPeak margin (dB)</th><th>Average margin (dB)</th><th>Remark</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 (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark	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 (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark																																																																												
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																																																																												
N																																																																																							
 <table><tr><th>No.</th><th>Frequency (MHz)</th><th>QuasiPeak reading (dBuV)</th><th>Average reading (dBuV)</th><th>Correction factor (dB)</th><th>QuasiPeak result (dBuV)</th><th>Average result (dBuV)</th><th>QuasiPeak limit (dBuV)</th><th>Average limit (dBuV)</th><th>QuasiPeak margin (dB)</th><th>Average margin (dB)</th><th>Remark</th></tr><tr><td>1P</td><td>0.1660</td><td>39.71</td><td>27.47</td><td>9.40</td><td>49.11</td><td>36.87</td><td>65.15</td><td>55.16</td><td>-16.04</td><td>-18.29</td><td>Pass</td></tr><tr><td>2P</td><td>0.1940</td><td>38.50</td><td>26.83</td><td>9.40</td><td>47.90</td><td>36.23</td><td>63.86</td><td>53.86</td><td>-15.96</td><td>-17.63</td><td>Pass</td></tr><tr><td>3P</td><td>0.2500</td><td>34.09</td><td>23.58</td><td>9.40</td><td>43.49</td><td>32.98</td><td>61.75</td><td>51.76</td><td>-18.26</td><td>-18.78</td><td>Pass</td></tr><tr><td>4P</td><td>0.4900</td><td>30.99</td><td>20.00</td><td>9.40</td><td>40.39</td><td>29.40</td><td>56.17</td><td>46.17</td><td>-15.78</td><td>-16.77</td><td>Pass</td></tr><tr><td>5P</td><td>2.8540</td><td>34.03</td><td>19.12</td><td>9.11</td><td>43.14</td><td>28.23</td><td>56.00</td><td>46.00</td><td>-12.86</td><td>-17.77</td><td>Pass</td></tr><tr><td>6*</td><td>15.9140</td><td>43.56</td><td>26.29</td><td>9.12</td><td>52.68</td><td>35.41</td><td>60.00</td><td>50.00</td><td>-7.32</td><td>-14.59</td><td>Pass</td></tr></table>				No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark	1P	0.1660	39.71	27.47	9.40	49.11	36.87	65.15	55.16	-16.04	-18.29	Pass	2P	0.1940	38.50	26.83	9.40	47.90	36.23	63.86	53.86	-15.96	-17.63	Pass	3P	0.2500	34.09	23.58	9.40	43.49	32.98	61.75	51.76	-18.26	-18.78	Pass	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
No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark																																																																												
1P	0.1660	39.71	27.47	9.40	49.11	36.87	65.15	55.16	-16.04	-18.29	Pass																																																																												
2P	0.1940	38.50	26.83	9.40	47.90	36.23	63.86	53.86	-15.96	-17.63	Pass																																																																												
3P	0.2500	34.09	23.58	9.40	43.49	32.98	61.75	51.76	-18.26	-18.78	Pass																																																																												
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;

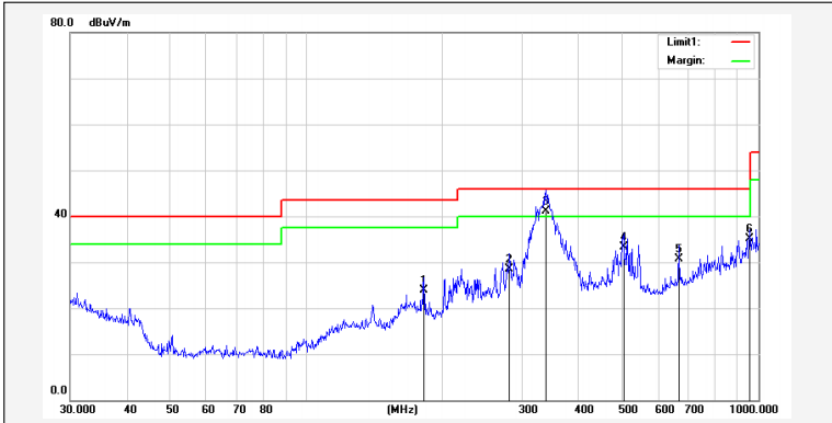
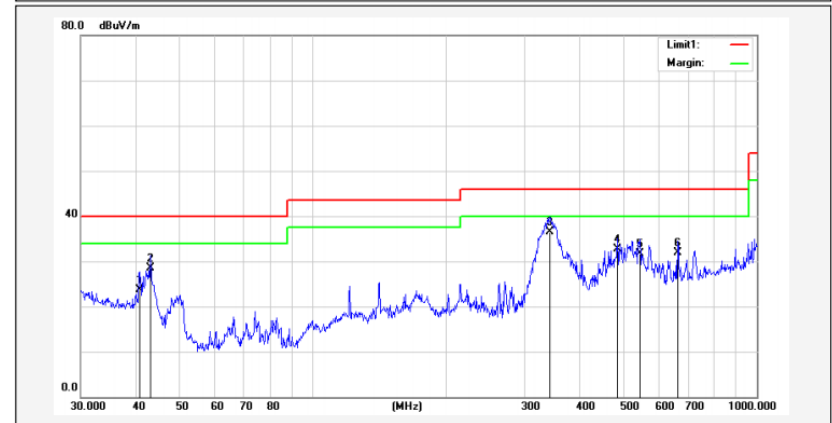
Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit.

Appendix A.2 Test Results of Radiated Spurious Emission

Note: Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 40GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported. All the data rate and configurations have been tested and only the worst case mode (ac(VHT20)) reported.

Below 1G:																																																																															
Test Mode :		Working			Test Voltage :		DC 3.3V																																																																								
Horizontal																																																																															
 <table><thead><tr><th>No.</th><th>Frequency (MHz)</th><th>Reading (dBuV)</th><th>Correction factor(dB/m)</th><th>Result (dBuV/m)</th><th>Limit (dBuV/m)</th><th>Margin (dB)</th><th>Degree (deg.)</th><th>Height (cm)</th><th>Remark</th></tr></thead><tbody><tr><td>1</td><td>181.9202</td><td>38.04</td><td>-14.18</td><td>23.86</td><td>43.50</td><td>-19.64</td><td></td><td></td><td>QP</td></tr><tr><td>2</td><td>281.0075</td><td>39.81</td><td>-11.27</td><td>28.54</td><td>46.00</td><td>-17.46</td><td></td><td></td><td>QP</td></tr><tr><td>3*</td><td>338.9478</td><td>51.43</td><td>-10.31</td><td>41.12</td><td>46.00</td><td>-4.88</td><td></td><td></td><td>QP</td></tr><tr><td>4</td><td>502.9395</td><td>38.82</td><td>-5.61</td><td>33.21</td><td>46.00</td><td>-12.79</td><td></td><td></td><td>QP</td></tr><tr><td>5</td><td>665.8035</td><td>34.33</td><td>-3.59</td><td>30.74</td><td>46.00</td><td>-15.26</td><td></td><td></td><td>QP</td></tr><tr><td>6</td><td>955.4381</td><td>35.60</td><td>-0.43</td><td>35.17</td><td>46.00</td><td>-10.83</td><td></td><td></td><td>QP</td></tr></tbody></table>										No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark	1	181.9202	38.04	-14.18	23.86	43.50	-19.64			QP	2	281.0075	39.81	-11.27	28.54	46.00	-17.46			QP	3*	338.9478	51.43	-10.31	41.12	46.00	-4.88			QP	4	502.9395	38.82	-5.61	33.21	46.00	-12.79			QP	5	665.8035	34.33	-3.59	30.74	46.00	-15.26			QP	6	955.4381	35.60	-0.43	35.17	46.00	-10.83			QP
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark																																																																						
1	181.9202	38.04	-14.18	23.86	43.50	-19.64			QP																																																																						
2	281.0075	39.81	-11.27	28.54	46.00	-17.46			QP																																																																						
3*	338.9478	51.43	-10.31	41.12	46.00	-4.88			QP																																																																						
4	502.9395	38.82	-5.61	33.21	46.00	-12.79			QP																																																																						
5	665.8035	34.33	-3.59	30.74	46.00	-15.26			QP																																																																						
6	955.4381	35.60	-0.43	35.17	46.00	-10.83			QP																																																																						
Vertical																																																																															
 <table><thead><tr><th>No.</th><th>Frequency (MHz)</th><th>Reading (dBuV)</th><th>Correction factor(dB/m)</th><th>Result (dBuV/m)</th><th>Limit (dBuV/m)</th><th>Margin (dB)</th><th>Degree (deg.)</th><th>Height (cm)</th><th>Remark</th></tr></thead><tbody><tr><td>1</td><td>40.7016</td><td>36.88</td><td>-13.14</td><td>23.74</td><td>40.00</td><td>-16.26</td><td></td><td></td><td>QP</td></tr><tr><td>2</td><td>43.0505</td><td>43.51</td><td>-14.94</td><td>28.57</td><td>40.00</td><td>-11.43</td><td></td><td></td><td>QP</td></tr><tr><td>3*</td><td>341.9786</td><td>46.82</td><td>-10.24</td><td>36.58</td><td>46.00</td><td>-9.42</td><td></td><td></td><td>QP</td></tr><tr><td>4</td><td>485.6093</td><td>38.63</td><td>-5.95</td><td>32.68</td><td>46.00</td><td>-13.32</td><td></td><td></td><td>QP</td></tr><tr><td>5</td><td>545.1826</td><td>37.00</td><td>-5.32</td><td>31.68</td><td>46.00</td><td>-14.32</td><td></td><td></td><td>QP</td></tr><tr><td>6</td><td>663.4730</td><td>35.49</td><td>-3.62</td><td>31.87</td><td>46.00</td><td>-14.13</td><td></td><td></td><td>QP</td></tr></tbody></table>										No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark	1	40.7016	36.88	-13.14	23.74	40.00	-16.26			QP	2	43.0505	43.51	-14.94	28.57	40.00	-11.43			QP	3*	341.9786	46.82	-10.24	36.58	46.00	-9.42			QP	4	485.6093	38.63	-5.95	32.68	46.00	-13.32			QP	5	545.1826	37.00	-5.32	31.68	46.00	-14.32			QP	6	663.4730	35.49	-3.62	31.87	46.00	-14.13			QP
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark																																																																						
1	40.7016	36.88	-13.14	23.74	40.00	-16.26			QP																																																																						
2	43.0505	43.51	-14.94	28.57	40.00	-11.43			QP																																																																						
3*	341.9786	46.82	-10.24	36.58	46.00	-9.42			QP																																																																						
4	485.6093	38.63	-5.95	32.68	46.00	-13.32			QP																																																																						
5	545.1826	37.00	-5.32	31.68	46.00	-14.32			QP																																																																						
6	663.4730	35.49	-3.62	31.87	46.00	-14.13			QP																																																																						

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 modes and antenna have been tested, and the report only reflects the worst mode(802.11ac(VHT20) MIMO).

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.

Band I:

802.11 ac20-Low Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2666	63.13	-20.39	42.74	68.2	-25.46	peak
2	3924	59.52	-15.19	44.33	68.2	-23.87	peak
3	6916	57.11	-8.8	48.31	68.2	-19.89	peak
4	7970	57.35	-7.86	49.49	68.2	-18.71	peak
5	10384	56.28	-4.2	52.08	68.2	-16.12	peak
6	11982	54.64	-2.1	52.54	68.2	-15.66	peak

802.11 ac20-Low Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2666	66.68	-20.39	46.29	68.2	-21.91	peak
2	6270	58.26	-9.94	48.32	68.2	-19.88	peak
3	6916	57.91	-8.8	49.11	68.2	-19.09	peak
4	7664	56.45	-7.61	48.84	68.2	-19.36	peak
5	11064	55.12	-2.65	52.47	68.2	-15.73	peak
6	12016	54.95	-2.08	52.87	68.2	-15.33	peak

802.11 ac20-Middle Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2666	63.36	-20.39	42.97	68.2	-25.23	peak
2	6134	57.45	-9.98	47.47	68.2	-20.73	peak
3	7358	56.02	-7.23	48.79	68.2	-19.41	peak
4	9364	56.36	-7.41	48.95	68.2	-19.25	peak
5	11030	54.92	-2.75	52.17	68.2	-16.03	peak
6	11982	54.38	-2.1	52.28	68.2	-15.92	peak

802.11 ac20-Middle Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2666	68.2	-20.39	47.81	68.2	-20.39	peak
2	3958	61.16	-15.09	46.07	68.2	-22.13	peak
3	8038	56.92	-7.79	49.13	68.2	-19.07	peak
4	10894	55.05	-3.05	52	68.2	-16.2	peak
5	12288	54.81	-2.29	52.52	68.2	-15.68	peak
6	12628	53.42	-0.7	52.72	68.2	-15.48	peak

802.11 ac20-High Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	6168	57.19	-9.92	47.27	68.2	-20.93	peak
2	7460	56.97	-7.09	49.88	68.2	-18.32	peak
3	10486	56.2	-3.53	52.67	68.2	-15.53	peak
4	11302	55.06	-2.14	52.92	68.2	-15.28	peak
5	11880	55.02	-2.41	52.61	68.2	-15.59	peak
6	12730	53.45	-0.78	52.67	68.2	-15.53	peak

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1986	68.17	-21.01	47.16	68.2	-21.04	peak
2	3958	60.59	-15.09	45.5	68.2	-22.7	peak
3	7188	56.7	-8.03	48.67	68.2	-19.53	peak
4	8922	57.14	-8.01	49.13	68.2	-19.07	peak
5	10486	55.36	-3.53	51.83	68.2	-16.37	peak
6	11302	55.03	-2.14	52.89	68.2	-15.31	peak

Band II:

Note: All modes and antenna have been tested, and the report only reflects the worst mode (802.11ac (VHT20) MIMO).

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.

802.11 ac20-Low Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3992	60.04	-15.01	45.03	68.2	-23.17	peak
2	6474	57.14	-10.11	47.03	68.2	-21.17	peak
3	7392	56.2	-7.13	49.07	68.2	-19.13	peak
4	10520	55.52	-3.25	52.27	68.2	-15.93	peak
5	11404	54.16	-1.87	52.29	68.2	-15.91	peak
6	12764	53.59	-0.83	52.76	68.2	-15.44	peak

802.11 ac20-Low Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3992	59.37	-15.01	44.36	68.2	-23.84	peak
2	7494	55.65	-7.13	48.52	68.2	-19.68	peak
3	8378	55.54	-7.1	48.44	68.2	-19.76	peak
4	10520	54.83	-3.25	51.58	68.2	-16.62	peak
5	11472	54.8	-2.21	52.59	68.2	-15.61	peak
6	12458	54.09	-1.59	52.5	68.2	-15.7	peak

802.11 ac20-Middle Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3992	58.98	-15.01	43.97	68.2	-24.23	peak
2	7018	56.99	-8.69	48.3	68.2	-19.9	peak
3	9398	55.88	-7.29	48.59	68.2	-19.61	peak
4	11064	54.5	-2.65	51.85	68.2	-16.35	peak
5	12458	53.8	-1.59	52.21	68.2	-15.99	peak
6	13274	52.84	0.1	52.94	68.2	-15.26	peak

802.11 ac20-Middle Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3992	59.88	-15.01	44.87	68.2	-23.33	peak
2	7494	57.04	-7.13	49.91	68.2	-18.29	peak
3	8174	56.43	-7.68	48.75	68.2	-19.45	peak
4	10554	54.41	-2.97	51.44	68.2	-16.76	peak
5	11472	54.02	-2.21	51.81	68.2	-16.39	peak
6	12458	53.63	-1.59	52.04	68.2	-16.16	peak

802.11 ac20-High Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3992	58.9	-15.01	43.89	68.2	-24.31	peak
2	7460	56.02	-7.09	48.93	68.2	-19.27	peak
3	8378	55.59	-7.1	48.49	68.2	-19.71	peak
4	10554	53.81	-2.97	50.84	68.2	-17.36	peak
5	11064	54.17	-2.65	51.52	68.2	-16.68	peak
6	12458	53.96	-1.59	52.37	68.2	-15.83	peak

802.11 ac20-High Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3992	59.82	-15.01	44.81	68.2	-23.39	peak
2	7052	57.42	-8.58	48.84	68.2	-19.36	peak
3	8310	55.99	-7.28	48.71	68.2	-19.49	peak
4	10588	54.24	-2.7	51.54	68.2	-16.66	peak
5	11166	54.63	-2.41	52.22	68.2	-15.98	peak
6	12458	54.52	-1.59	52.93	68.2	-15.27	peak

Band III:

Note: All modes and antenna have been tested, and the report only reflects the worst mode (802.11ac (VHT20) MIMO).

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.

802.11 ac20-Low Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4264	59.03	-14.85	44.18	68.2	-24.02	peak
2	7460	56.6	-7.09	49.51	68.2	-18.69	peak
3	10554	54.42	-2.97	51.45	68.2	-16.75	peak
4	11812	55.19	-2.56	52.63	68.2	-15.57	peak
5	12730	52.75	-0.78	51.97	68.2	-16.23	peak
6	13444	52.65	0.01	52.66	68.2	-15.54	peak

802.11 ac20-Low Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6168	57.2	-9.92	47.28	68.2	-20.92	peak
2	7562	55.48	-7.22	48.26	68.2	-19.94	peak
3	8412	55.47	-7.14	48.33	68.2	-19.87	peak
4	10418	55.91	-4.09	51.82	68.2	-16.38	peak
5	11982	54.8	-2.1	52.7	68.2	-15.5	peak
6	12628	53.17	-0.7	52.47	68.2	-15.73	peak

802.11 ac20-Middle Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7494	55.73	-7.13	48.6	68.2	-19.6	peak
2	8208	56.24	-7.62	48.62	68.2	-19.58	peak
3	9772	55.88	-6.07	49.81	68.2	-18.39	peak
4	10554	54.78	-2.97	51.81	68.2	-16.39	peak
5	11472	53.74	-2.21	51.53	68.2	-16.67	peak
6	12764	54.2	-0.83	53.37	68.2	-14.83	peak

802.11 ac20-Middle Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3958	61.16	-15.09	46.07	68.2	-22.13	peak
2	6814	56.99	-8.86	48.13	68.2	-20.07	peak
3	8820	56.04	-7.83	48.21	68.2	-19.99	peak
4	10520	54.41	-3.25	51.16	68.2	-17.04	peak
5	11404	53.71	-1.87	51.84	68.2	-16.36	peak
6	12458	53.93	-1.59	52.34	68.2	-15.86	peak

802.11 ac20-High Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7494	56.14	-7.13	49.01	68.2	-19.19	peak
2	8378	56.34	-7.1	49.24	68.2	-18.96	peak
3	8990	57.31	-8.13	49.18	68.2	-19.02	peak
4	10588	54.46	-2.7	51.76	68.2	-16.44	peak
5	11744	54.15	-2.66	51.49	68.2	-16.71	peak
6	12730	53.47	-0.78	52.69	68.2	-15.51	peak

802.11 ac20-High Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3992	60.02	-15.01	45.01	68.2	-23.19	peak
2	7630	56.23	-7.44	48.79	68.2	-19.41	peak
3	8854	56.24	-7.88	48.36	68.2	-19.84	peak
4	10214	54.34	-3.78	50.56	68.2	-17.64	peak
5	11438	54.6	-2.04	52.56	68.2	-15.64	peak
6	12458	54.21	-1.59	52.62	68.2	-15.58	peak

Band IV:

Note: All modes and antenna have been tested, and the report only reflects the worst mode (802.11ac (VHT20) MIMO).

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.

802.11 ac20-Low Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7460	55.32	-7.09	48.23	68.2	-19.97	peak
2	8276	55.98	-7.36	48.62	68.2	-19.58	peak
3	8990	56.15	-8.13	48.02	68.2	-20.18	peak
4	10690	54.12	-2.89	51.23	68.2	-16.97	peak
5	11472	53.87	-2.21	51.66	68.2	-16.54	peak
6	12458	54.03	-1.59	52.44	68.2	-15.76	peak

802.11 ac20-Low Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7698	56.45	-7.74	48.71	68.2	-19.49	peak
2	10316	55.3	-4.06	51.24	68.2	-16.96	peak
3	11302	53.92	-2.14	51.78	68.2	-16.42	peak
4	12458	54.13	-1.59	52.54	68.2	-15.66	peak
5	13036	53	-0.29	52.71	68.2	-15.49	peak
6	13750	53.33	1.67	55	68.2	-13.2	peak
7	13750	38.89	1.67	40.56	54	-13.44	AVG

802.11 ac20-Middle Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6882	56.43	-8.82	47.61	68.2	-20.59	peak
2	8242	56.08	-7.48	48.6	68.2	-19.6	peak
3	10554	54.05	-2.97	51.08	68.2	-17.12	peak
4	11302	53.97	-2.14	51.83	68.2	-16.37	peak
5	12458	54.29	-1.59	52.7	68.2	-15.5	peak
6	13410	53.84	-0.19	53.65	68.2	-14.55	peak

802.11 ac20-Middle Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7494	55.19	-7.13	48.06	68.2	-20.14	peak
2	8378	55.39	-7.1	48.29	68.2	-19.91	peak
3	10418	54.88	-4.09	50.79	68.2	-17.41	peak
4	11370	53.43	-1.94	51.49	68.2	-16.71	peak
5	12458	53.7	-1.59	52.11	68.2	-16.09	peak
6	13206	54.16	0.35	54.51	68.2	-13.69	peak
7	13206	40.4	0.35	40.75	54	-13.25	AVG

802.11 ac20-High Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3992	59.21	-15.01	44.2	68.2	-24	peak
2	7018	56.22	-8.69	47.53	68.2	-20.67	peak
3	7358	55.47	-7.23	48.24	68.2	-19.96	peak
4	8174	56.08	-7.68	48.4	68.2	-19.8	peak
5	10724	53.71	-3	50.71	68.2	-17.49	peak
6	12458	54.54	-1.59	52.95	68.2	-15.25	peak

802.11 ac20-High Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2666	66.09	-20.39	45.7	68.2	-22.5	peak
2	3992	59.89	-15.01	44.88	68.2	-23.32	peak
3	7494	55.39	-7.13	48.26	68.2	-19.94	peak
4	8412	55.36	-7.14	48.22	68.2	-19.98	peak
5	10384	55.51	-4.2	51.31	68.2	-16.89	peak
6	12458	54.22	-1.59	52.63	68.2	-15.57	peak

Node:

1. Radiated emissions measured in frequency above 1GHz were made with an instrument using peak/average detector mode.
2. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
3. Margin (dB), result in dBuV/m – limit in dBuV/m.
4. All restricted band have a frequency margin greater than 14.2dB (14.2dB = 68.2dBuV/m-54dBuV/m), meet the 54dBuV/m limit, and do not require AVG.

Restricted band Requirements							
Band I							
Note: Since the distance of band IV exceeds 200 MHz and the distance limit is greater than 20 dB, only band I to band III data is reflected in this document All antennas and bandwidths are tested, and only the worst mode (802.11ac (VHT20) MIMO) is reported in the report.							
802.11 ac (VHT20)-Low (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4990.36	80.17	-13.09	67.08	74	-6.92	peak
2	4990.36	63.42	-13.09	50.33	54	-3.67	AVG
3	5150	74.12	-12.61	61.51	74	-12.49	peak
4	5150	61.75	-12.61	49.14	54	-4.86	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4989.36	84.63	-12.84	71.79	74	-2.21	peak
2	4989.36	64.7	-12.84	51.86	54	-2.14	AVG
3	5150	74.6	-12.61	61.99	74	-12.01	peak
4	5150	61.96	-12.61	49.35	54	-4.65	AVG
802.11 ac (VHT20)-High (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350	74.13	-12.59	61.54	74	-12.46	peak
2	5350	61.3	-12.59	48.71	54	-5.29	AVG
3	5389.28	75.88	-12.53	63.35	74	-10.65	peak
4	5389.28	61.61	-12.53	49.08	54	-4.92	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350	75.51	-12.59	62.92	74	-11.08	peak
2	5350	61.58	-12.59	48.99	54	-5.01	AVG
3	5366.92	76.77	-12.57	64.2	74	-9.8	peak
4	5366.92	62.24	-12.57	49.67	54	-4.33	AVG

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

Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit

Band II							
Note: Since the distance of band IV exceeds 200 MHz and the distance limit is greater than 20 dB, only band I to band III data is reflected in this document All antennas and bandwidths are tested, and only the worst mode (802.11ac (VHT20) MIMO) is reported in the report.							
802.11 ac (VHT20)-Low (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4986.38	76.26	-12.85	63.41	74	-10.59	peak
2	4986.38	61.1	-12.85	48.25	54	-5.75	AVG
3	5150	74.42	-12.61	61.81	74	-12.19	peak
4	5150	62.28	-12.61	49.67	54	-4.33	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4991.48	83.28	-12.84	70.44	74	-3.56	peak
2	4991.48	63.18	-12.84	50.34	54	-3.66	AVG
3	5150	75.77	-12.61	63.16	74	-10.84	peak
4	5150	60.83	-12.61	48.22	54	-5.78	AVG
802.11 ac (VHT20)-High (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350	75.61	-12.59	63.02	74	-10.98	peak
2	5350	59.91	-12.59	47.32	54	-6.68	AVG
3	5370.36	76.51	-12.55	63.96	74	-10.04	peak
4	5370.36	60.66	-12.55	48.11	54	-5.89	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350	75	-12.59	62.41	74	-11.59	peak
2	5350	60.15	-12.59	47.56	54	-6.44	AVG
3	5365.68	76.55	-12.57	63.98	74	-10.02	peak
4	5365.68	60.06	-12.57	47.49	54	-6.51	AVG

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

Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit

Band III							
Note: Since the distance of band IV exceeds 200 MHz and the distance limit is greater than 20 dB, only band I to band III data is reflected in this document All antennas and bandwidths are tested, and only the worst mode (802.11ac (VHT20) MIMO) is reported in the report.							
802.11 ac(VHT20)-Low (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5063.2	76.62	-12.56	64.06	74	-9.94	peak
2	5063.2	60.65	-12.56	48.09	54	-5.91	AVG
3	5150	75.61	-12.61	63	74	-11	peak
4	5150	61.62	-12.61	49.01	54	-4.99	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4996	83.44	-12.97	70.47	74	-3.53	peak
2	4996	63.33	-12.97	50.36	54	-3.64	AVG
3	5350	74.99	-12.59	62.4	74	-11.6	peak
4	5350	61.64	-12.59	49.05	54	-4.95	AVG
802.11 ac (VHT20)-High (worst mode)							
Note: Since the distance restricted band of this part frequency exceeds 200 MHz and the distance limit is greater than 20 dB.							

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

Reading = Reading Amplitude in the instrument;

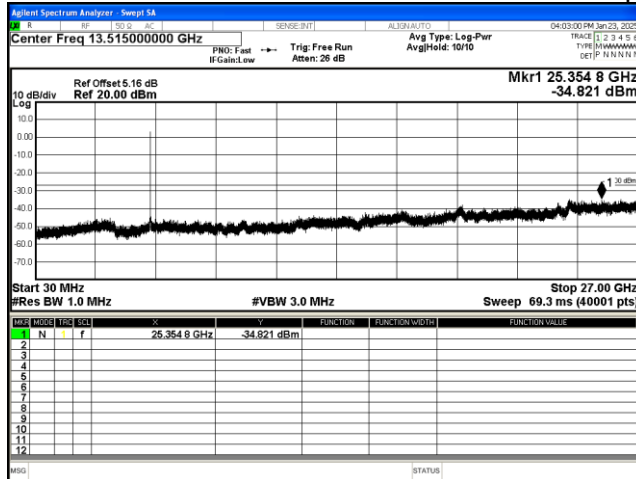
Result = Correction Factor + Reading;

Margin = Result – Limit

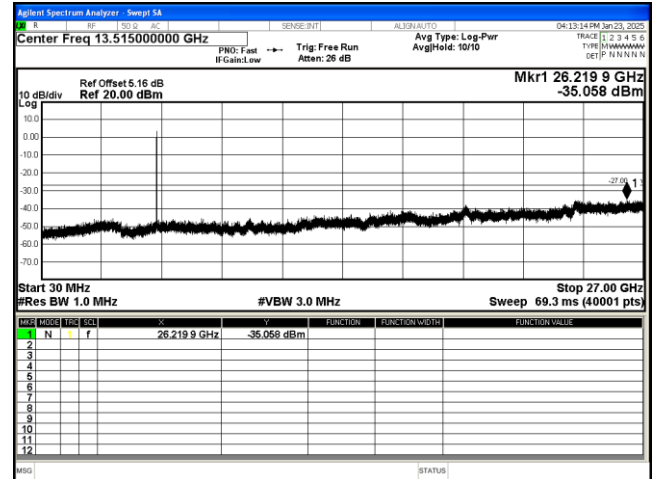
Appendix A.3 Test Results of Conducted Spurious Emissions and Band Edge

All the data rate and antenna configurations have been tested and only the worst-case mode SISO antenna 1 reported.

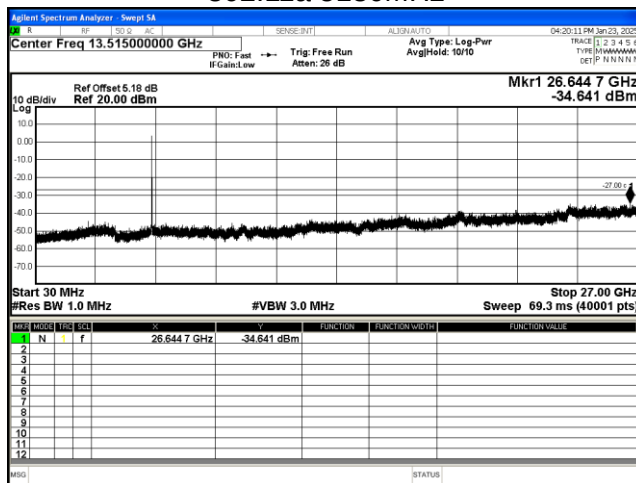
Conducted Spurious Emissions



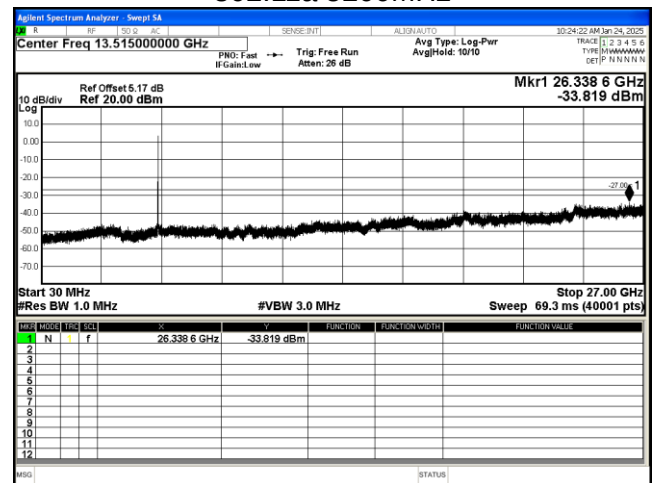
802.11a 5180MHz



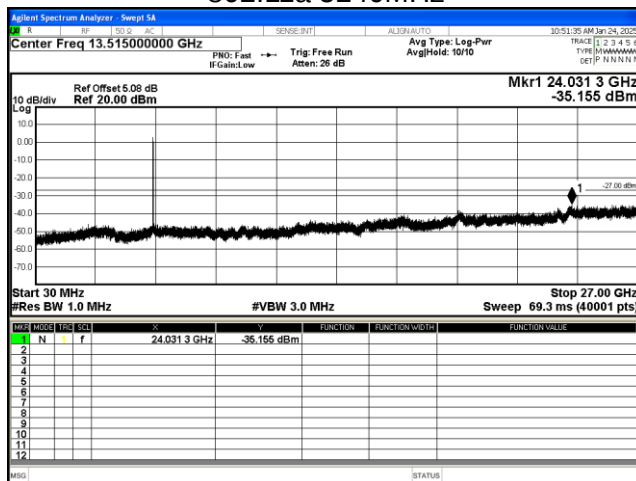
802.11a 5200MHz



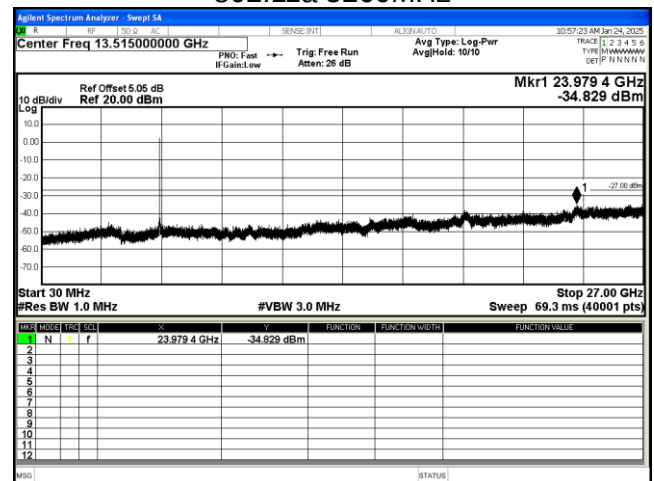
802.11a 5240MHz



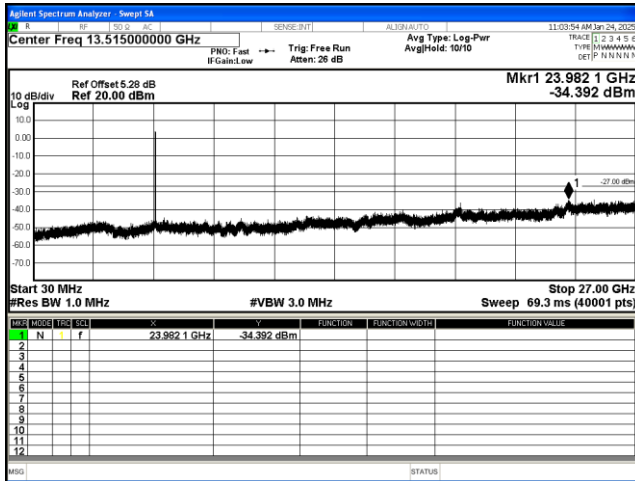
802.11a 5260MHz



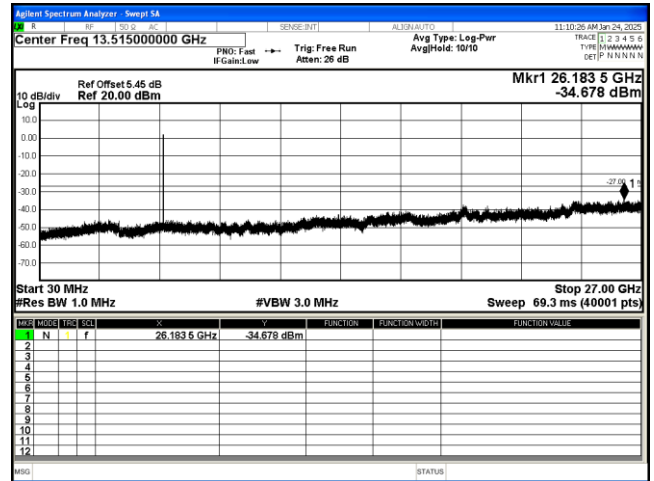
802.11a 5300MHz



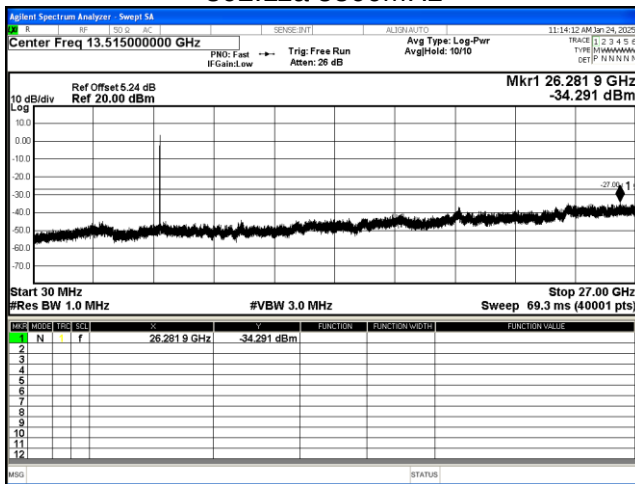
802.11a 5320MHz



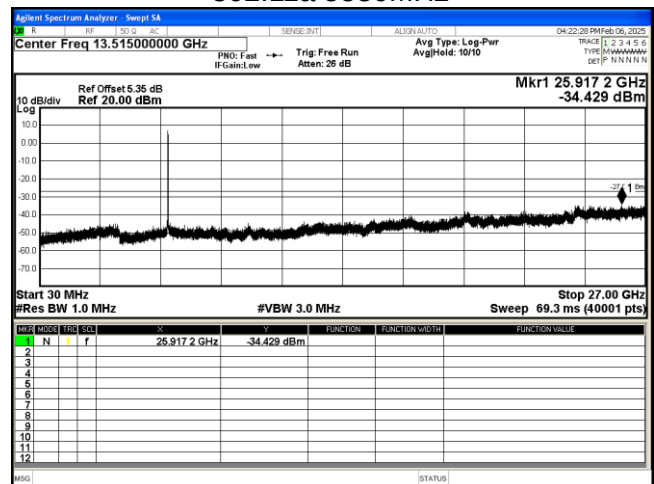
802.11a 5500MHz



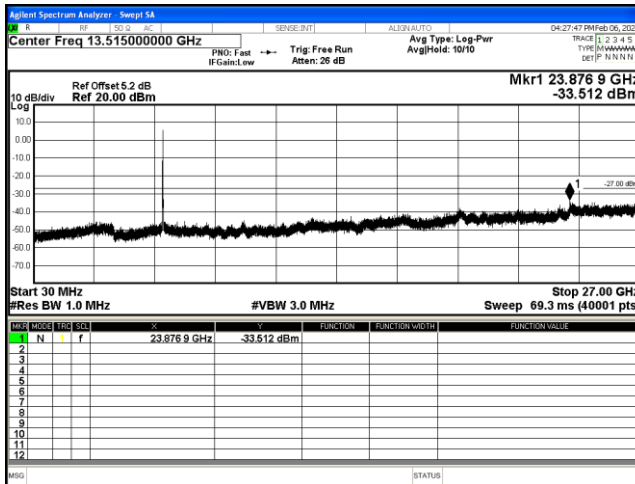
802.11a 5580MHz



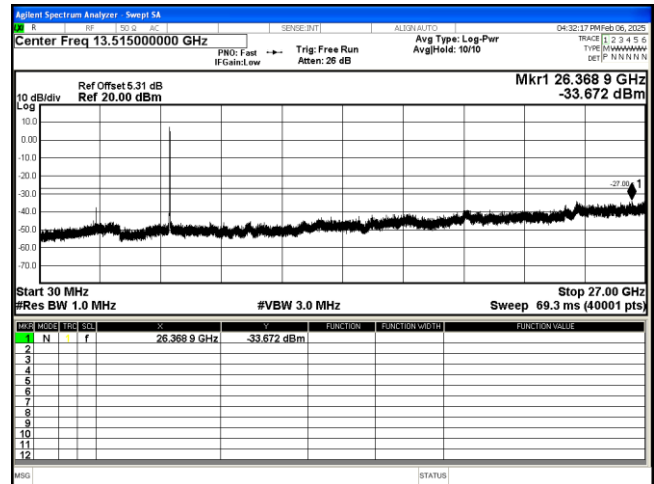
802.11a 5700MHz



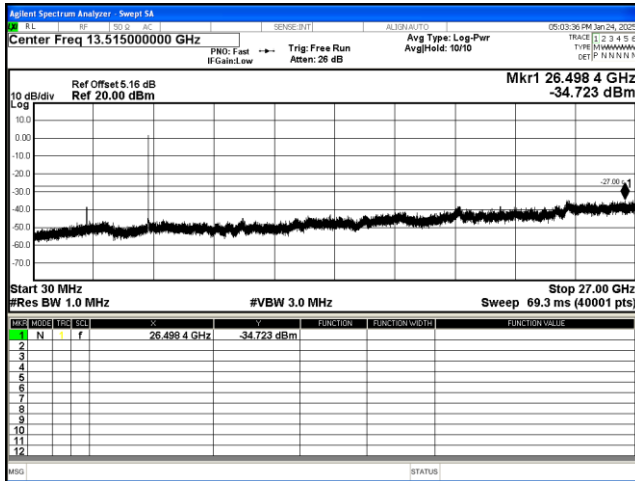
802.11a 5745MHz



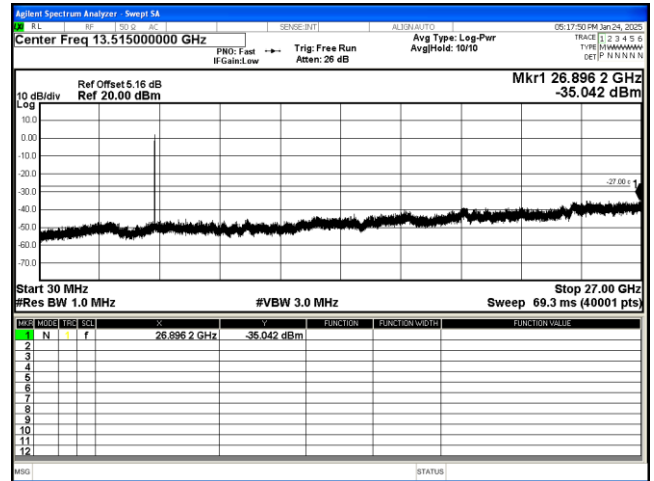
802.11a 5785MHz



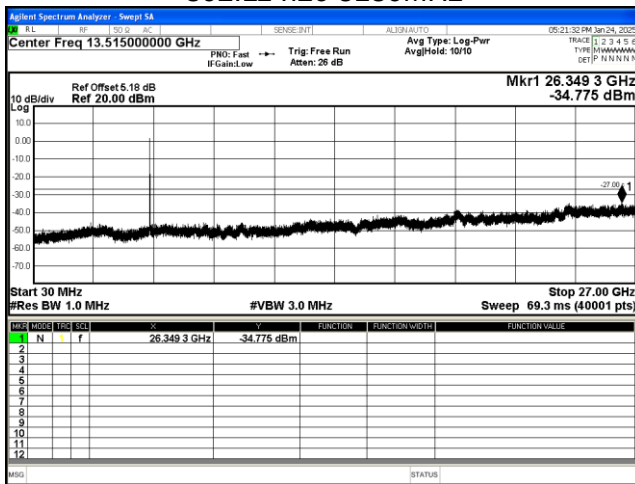
802.11a 5825MHz



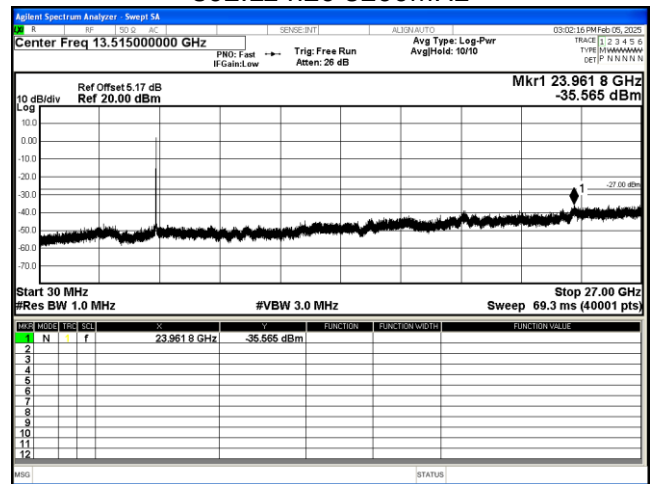
802.11 n20 5180MHz



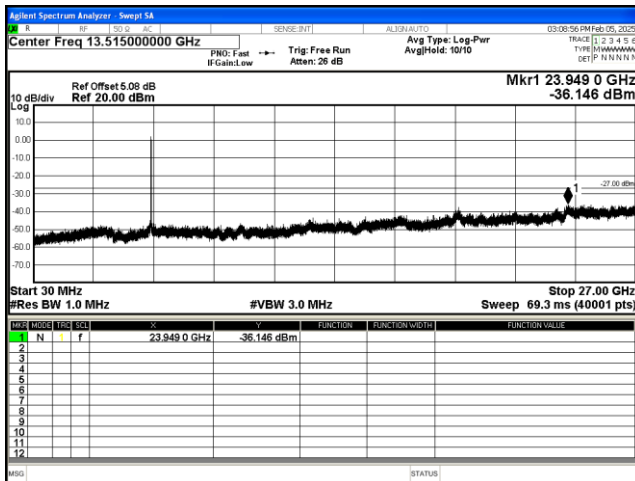
802.11 n20 5200MHz



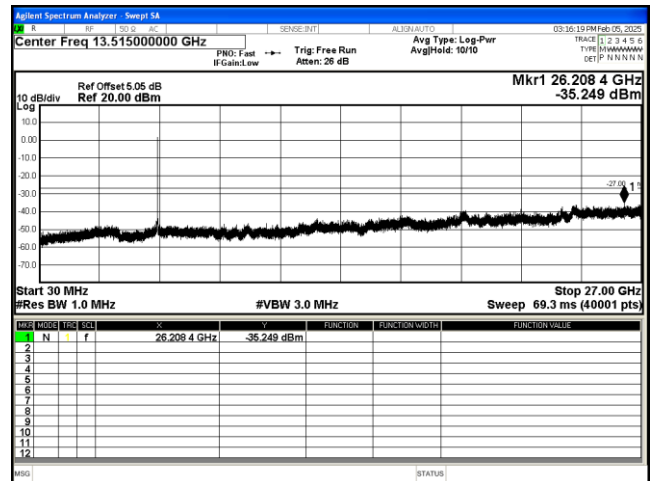
802.11 n20 5240MHz



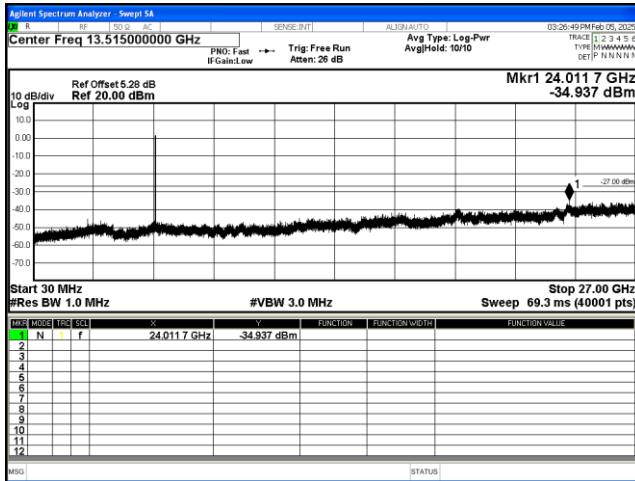
802.11 n20 5260MHz



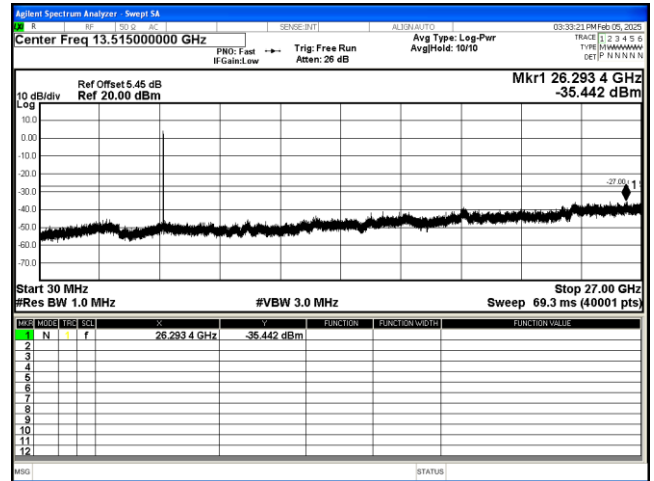
802.11 n20 5300MHz



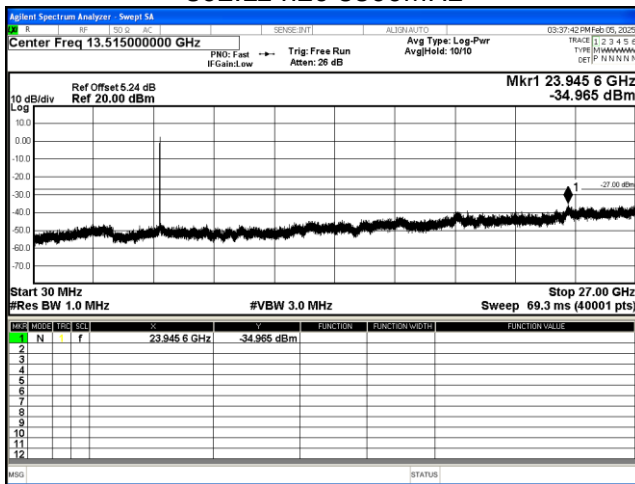
802.11 n20 5320MHz



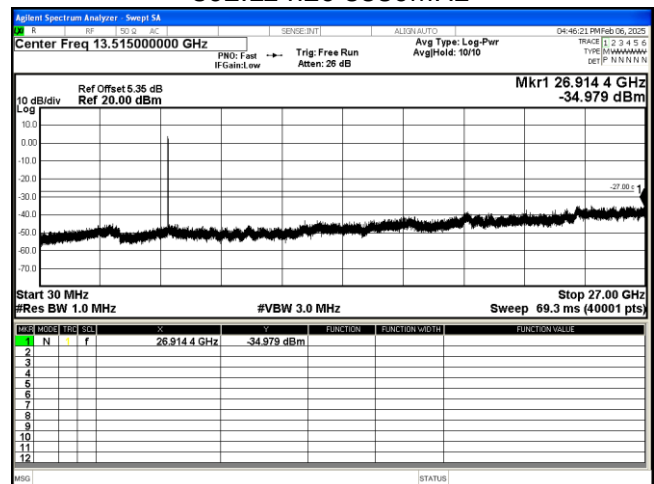
802.11 n20 5500MHz



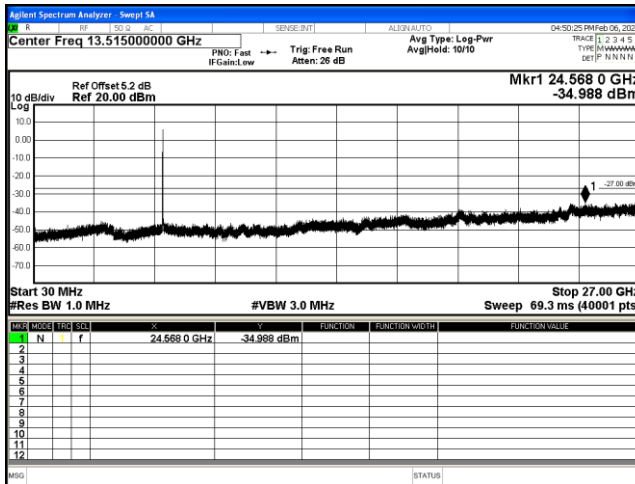
802.11 n20 5580MHz



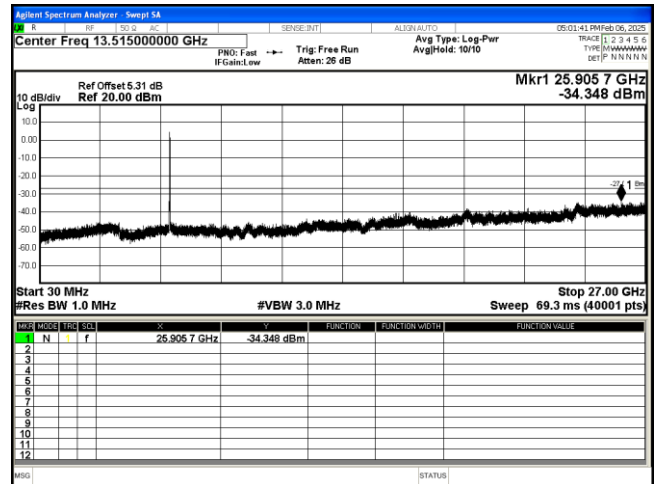
802.11 n20 5700MHz



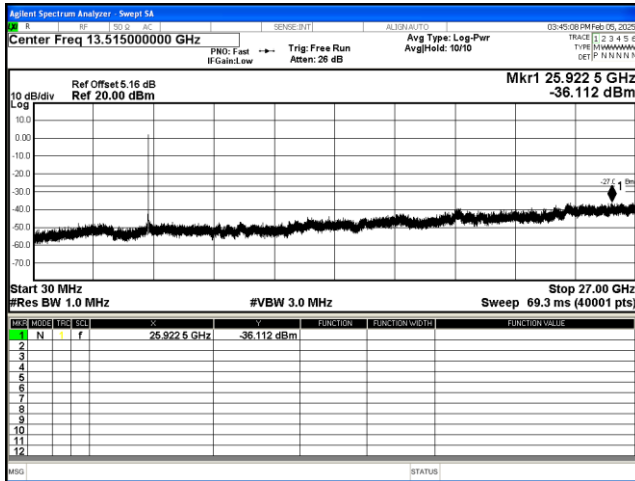
802.11 n20 5745MHz



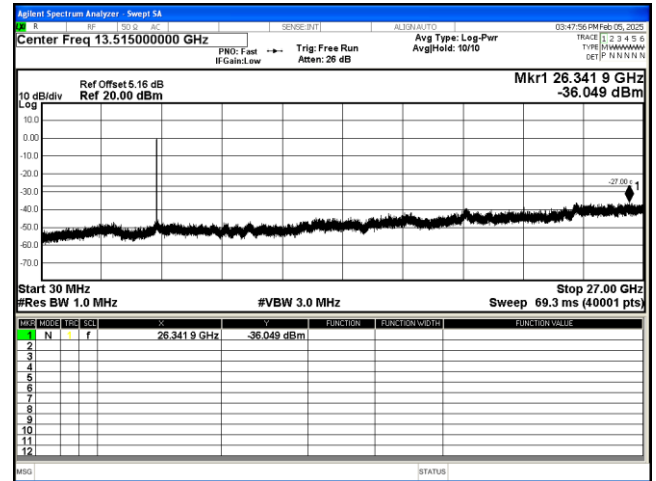
802.11 n20 5785MHz



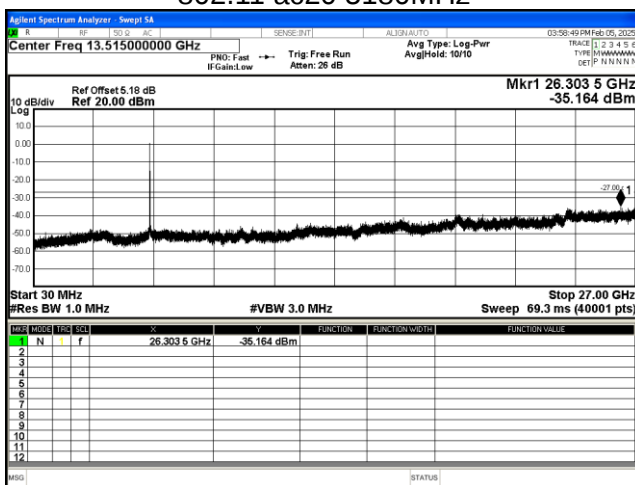
802.11 n20 5825MHz



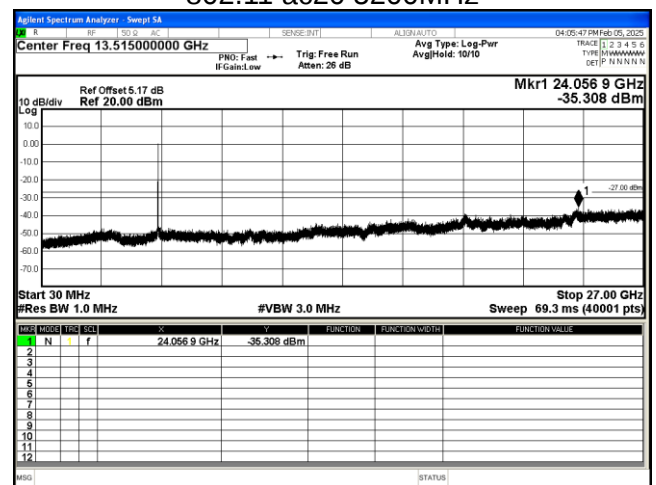
802.11 ac20 5180MHz



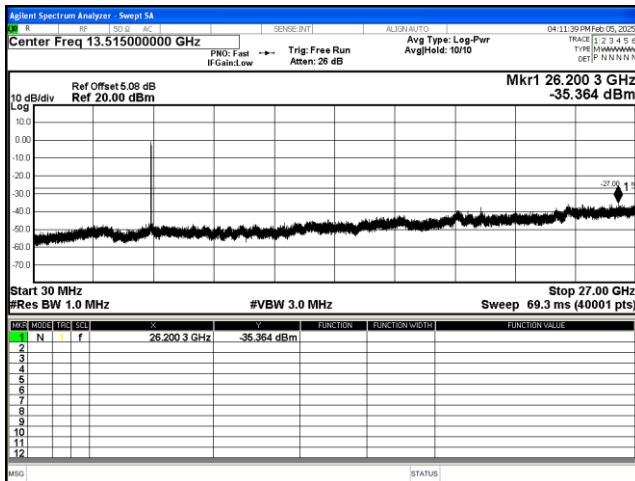
802.11 ac20 5200MHz



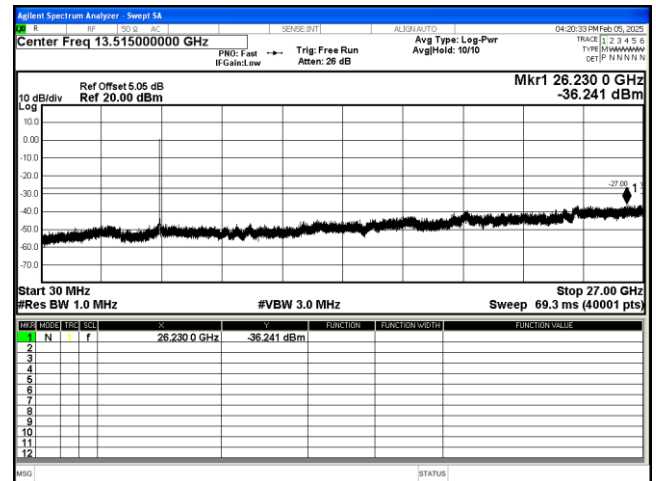
802.11 ac20 5240MHz



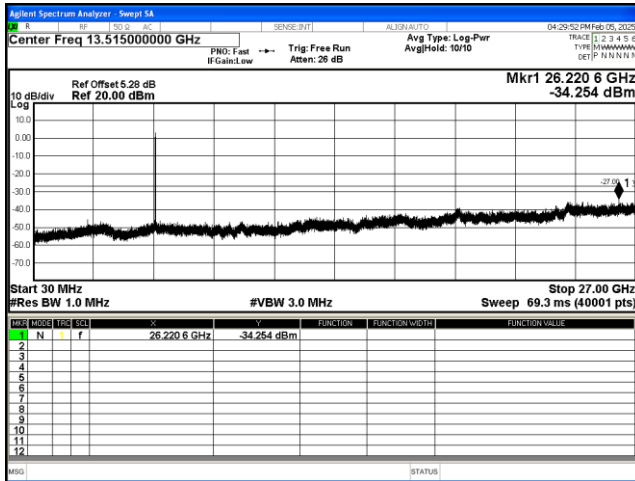
802.11 ac20 5260MHz



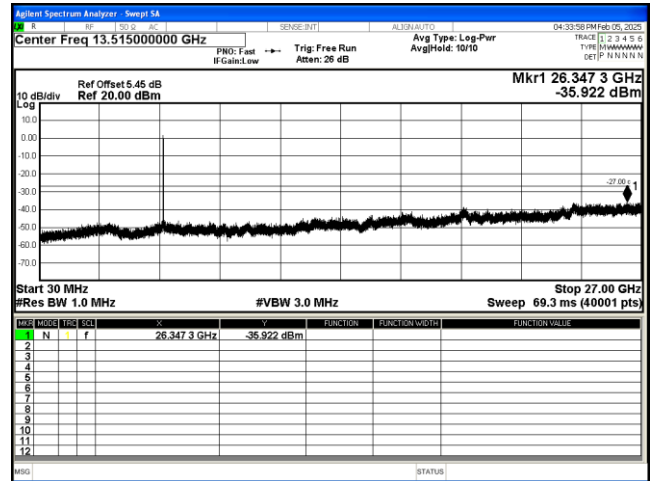
802.11 ac20 5300MHz



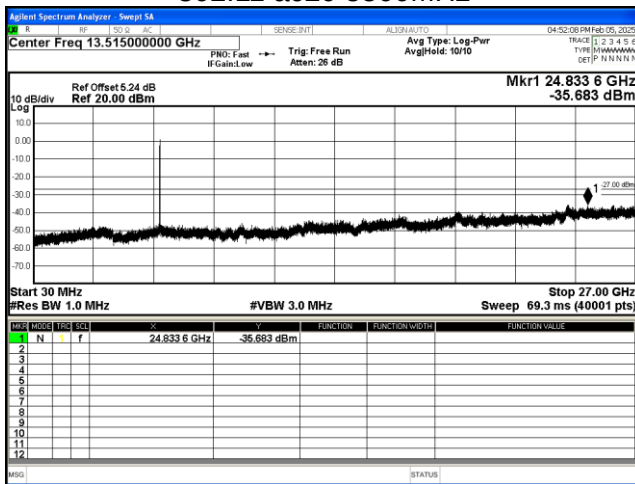
802.11 ac20 5320MHz



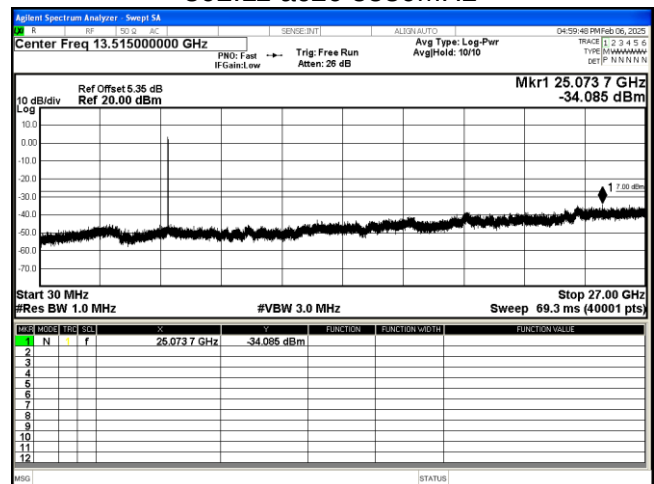
802.11 ac20 5500MHz



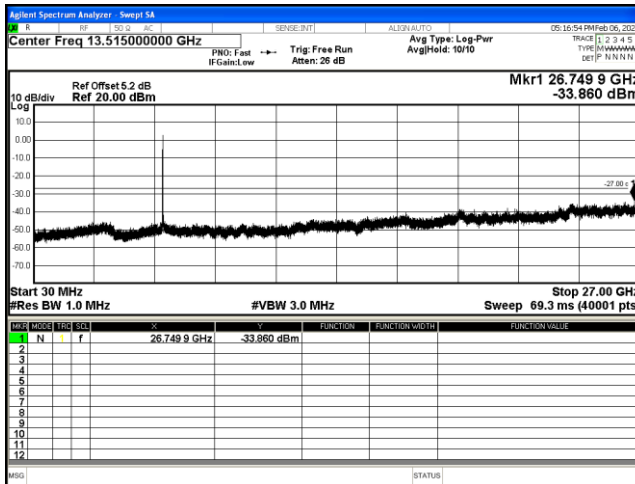
802.11 ac20 5580MHz



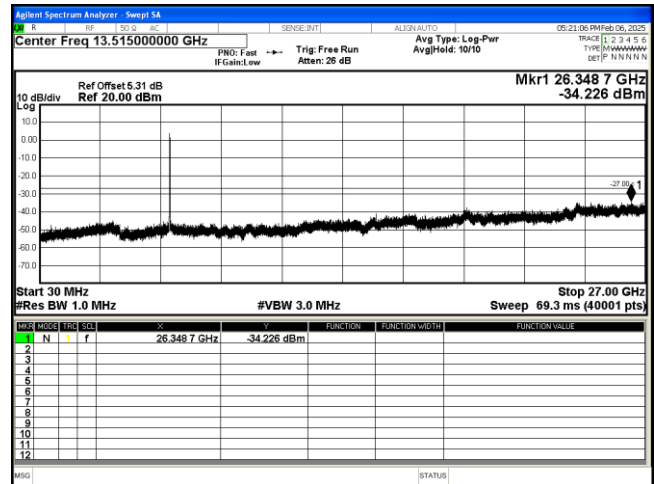
802.11 ac20 5700MHz



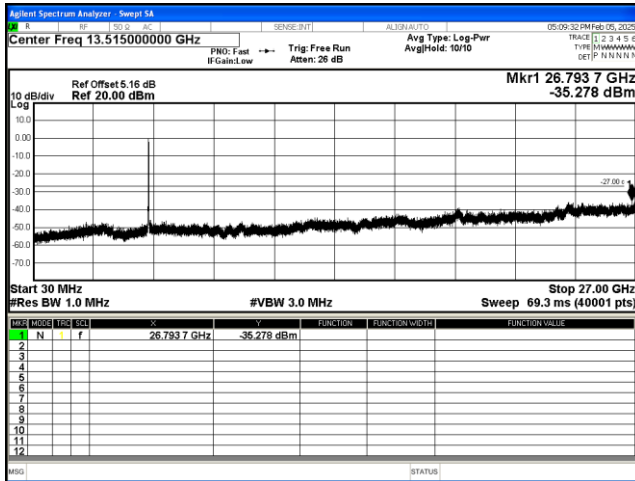
802.11 ac20 5745MHz



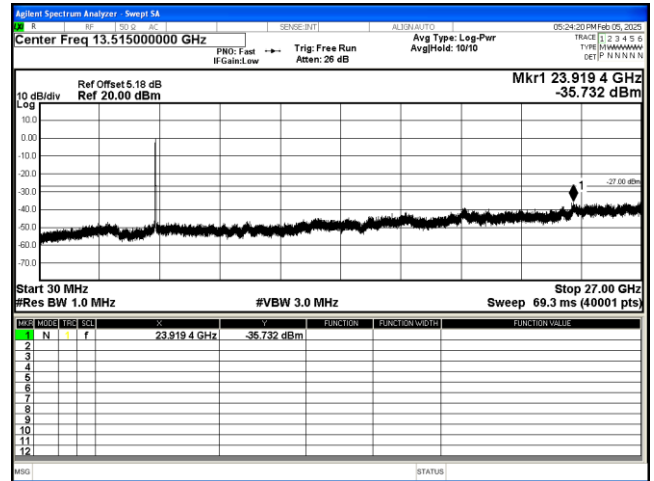
802.11 ac20 5785MHz



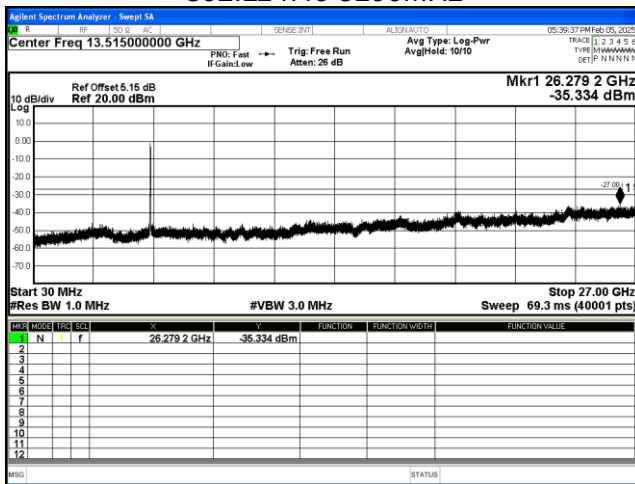
802.11 ac20 5825MHz



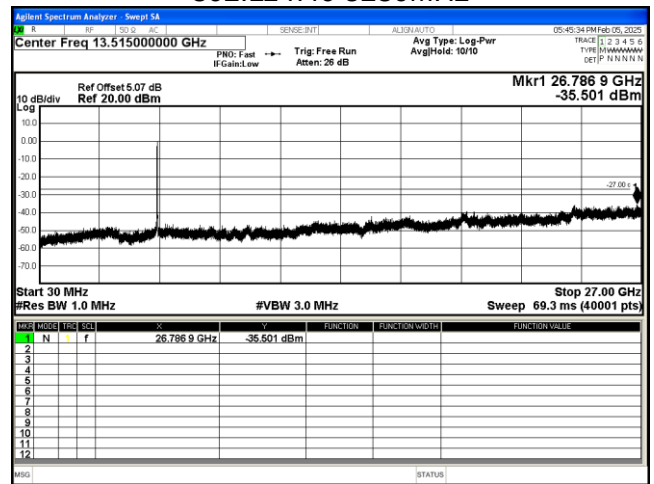
802.11 n40 5190MHz



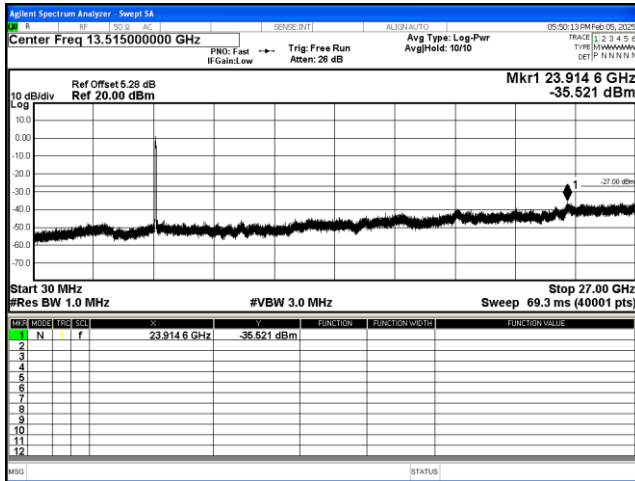
802.11 n40 5230MHz



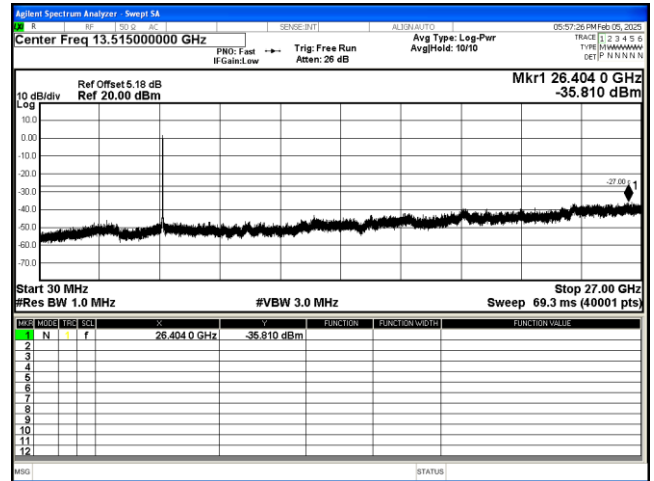
802.11 n40 5270MHz



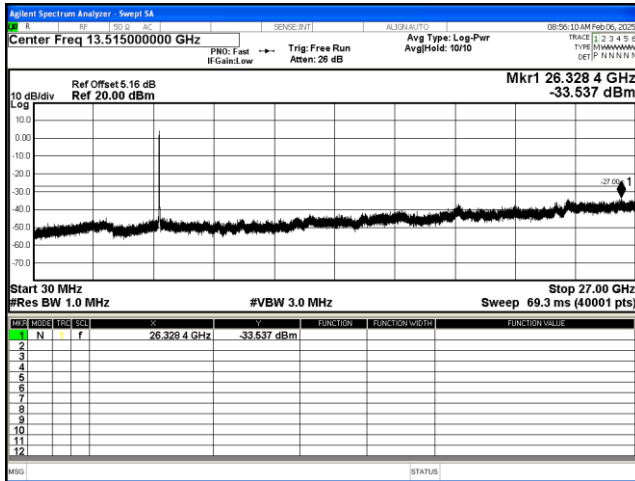
802.11 n40 5310MHz



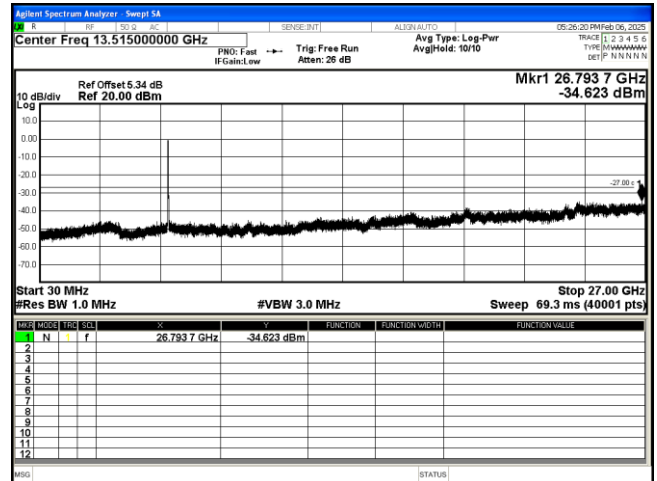
802.11 n40 5510MHz



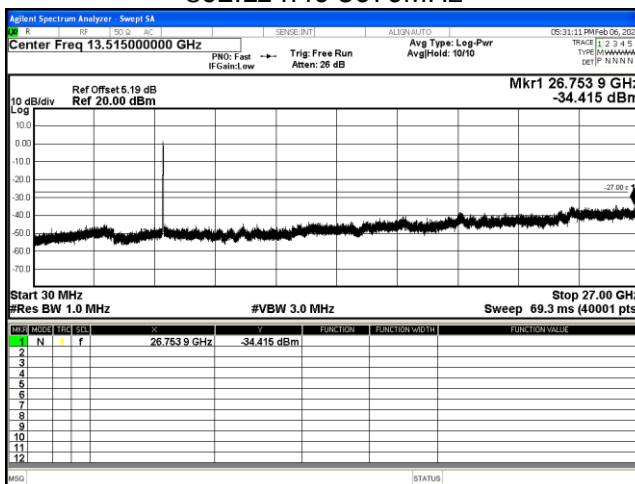
802.11 n40 5550MHz



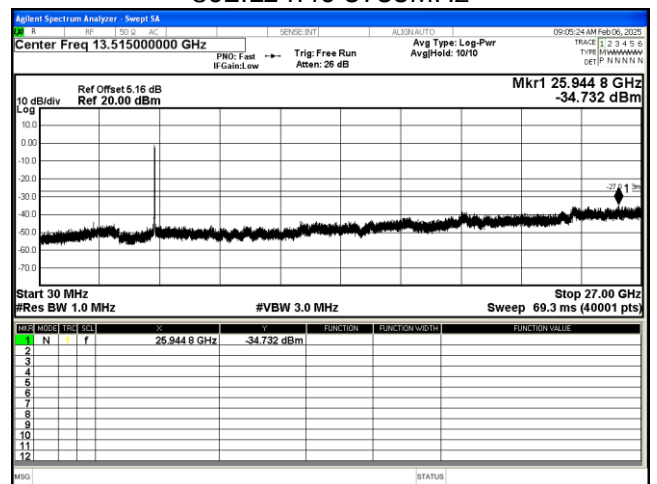
802.11 n40 5670MHz



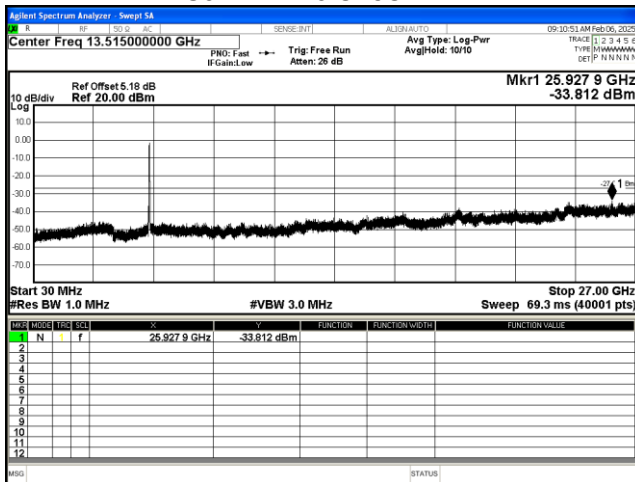
802.11 n40 5755MHz



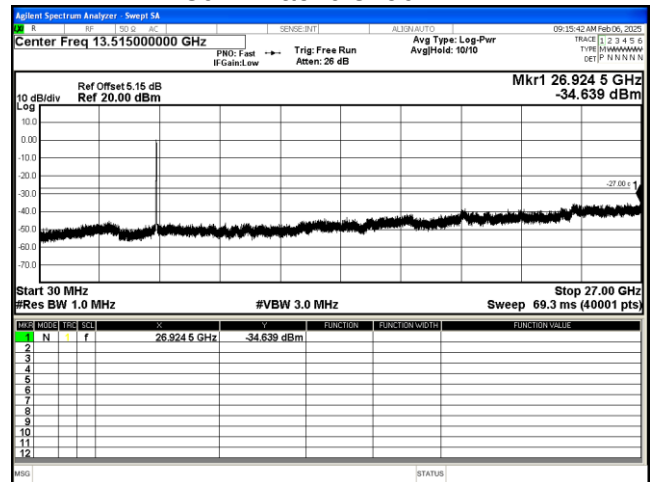
802.11 n40 5795MHz



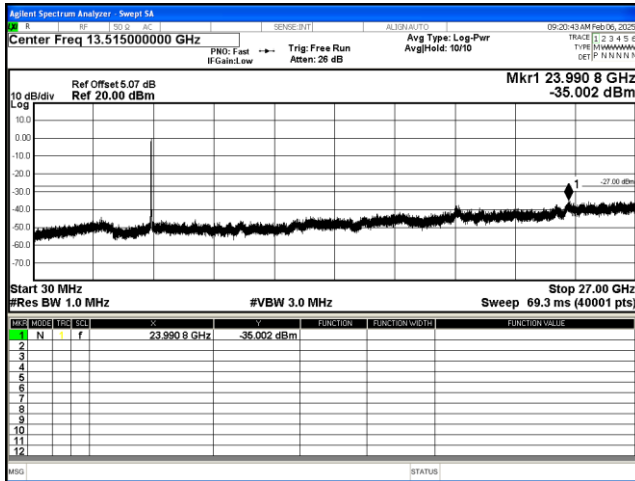
802.11 ac40 5190MHz



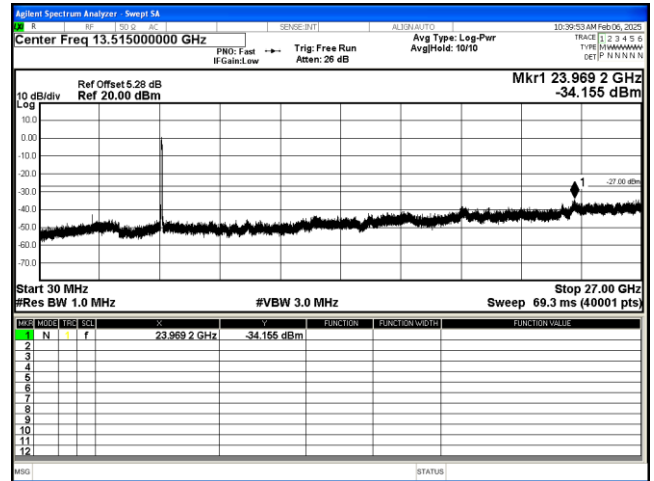
802.11 ac40 5230MHz



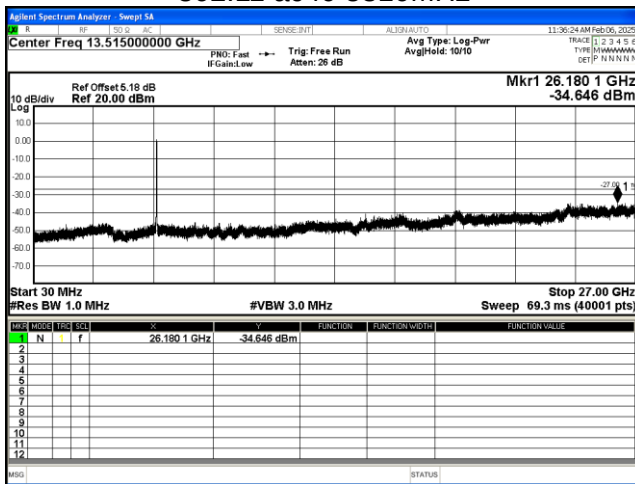
802.11 ac40 5270MHz



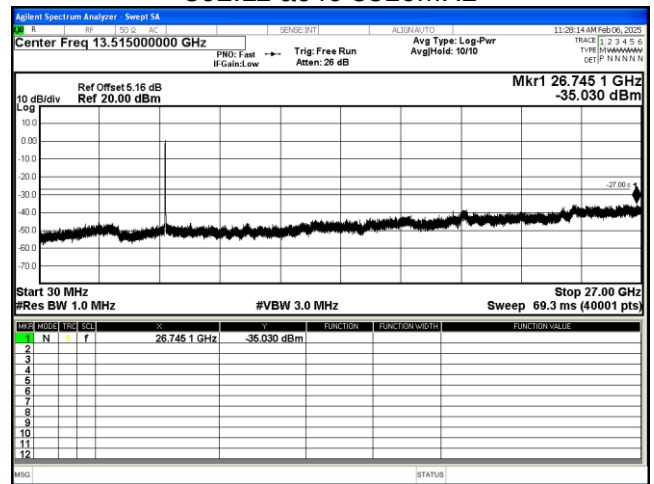
802.11 ac40 5310MHz



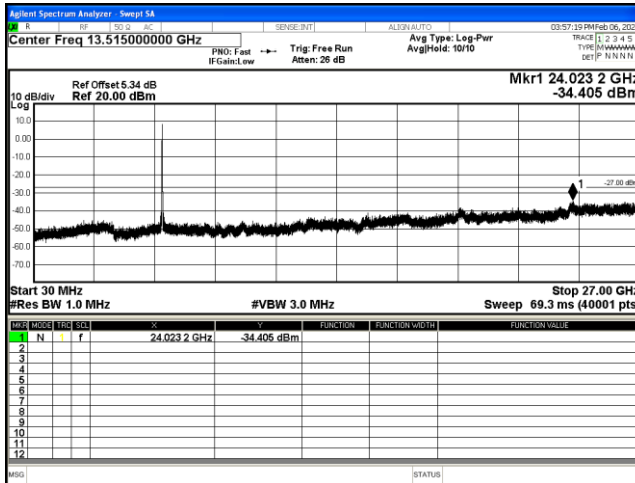
802.11 ac40 5510MHz



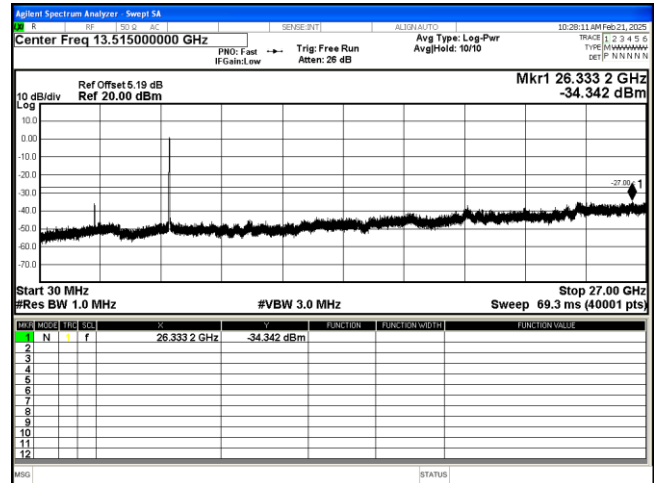
802.11 ac40 5550MHz



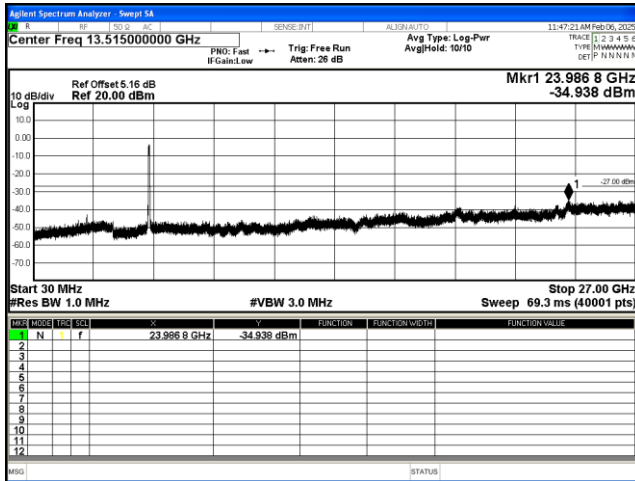
802.11 ac40 5670MHz



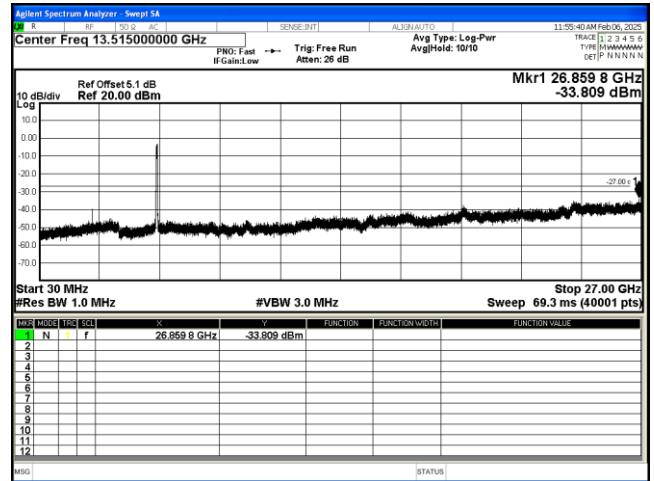
802.11 ac40 5755MHz



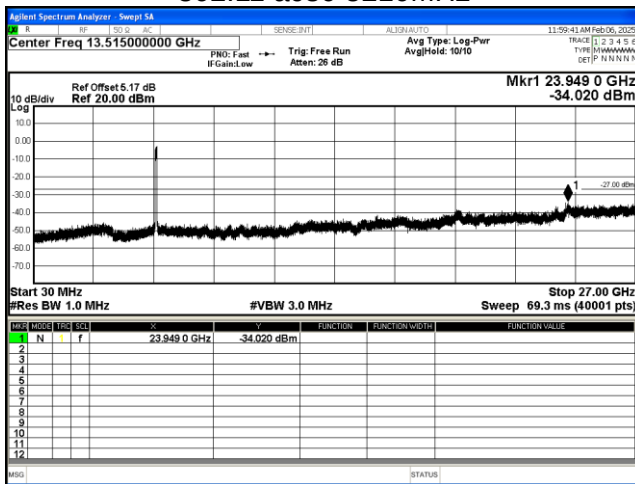
802.11 ac40 5795MHz



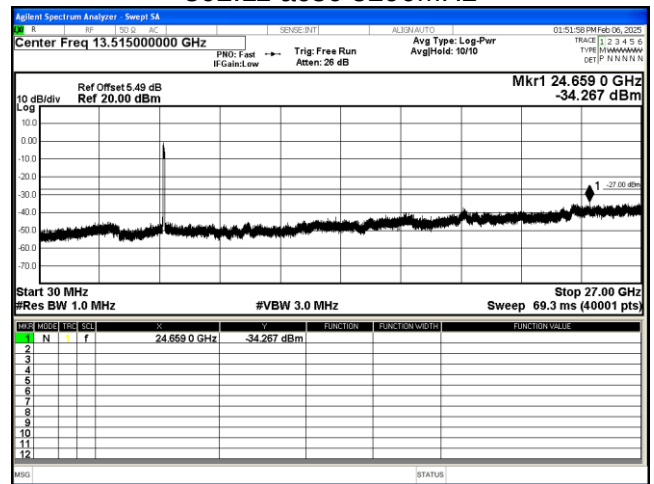
802.11 ac80 5210MHz



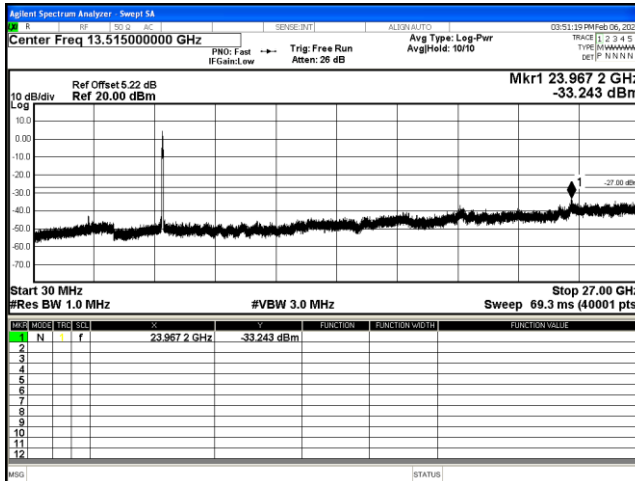
802.11 ac80 5290MHz



802.11 ac80 5530MHz

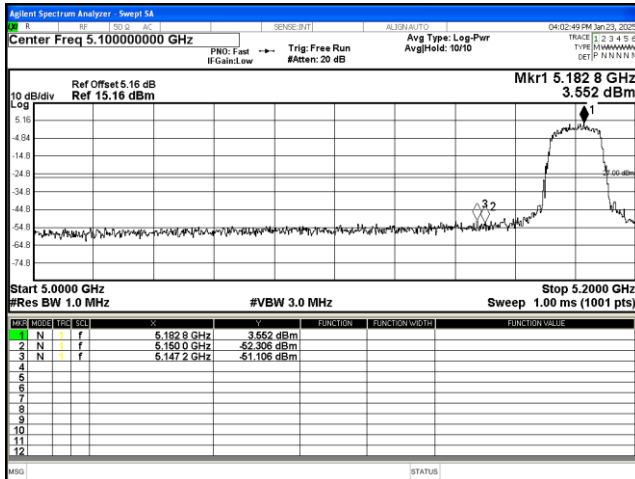


802.11 ac80 5610MHz

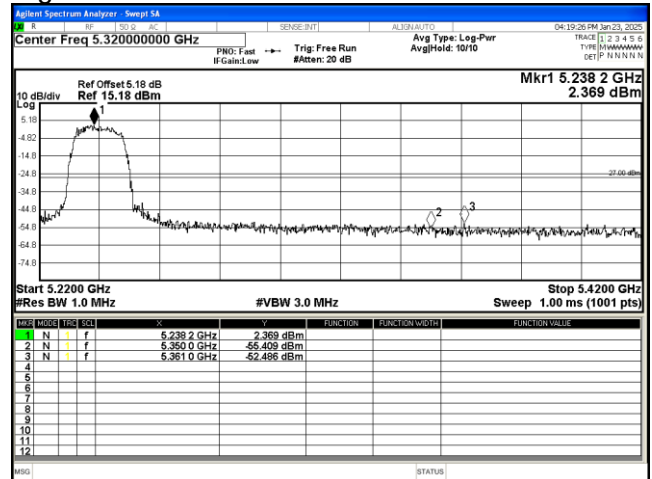


802.11 ac80 5775MHz

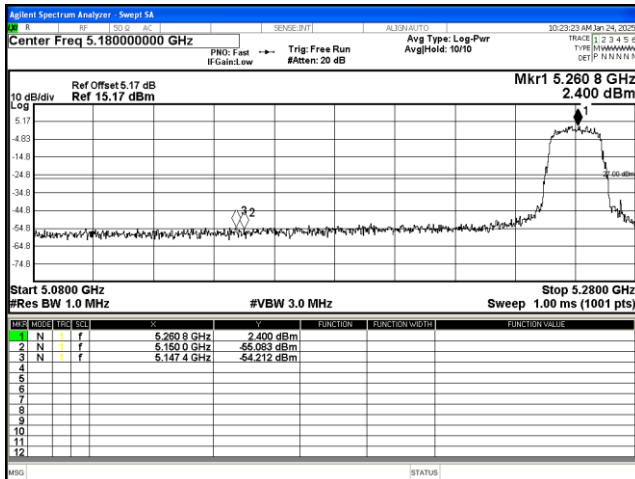
Band Edge



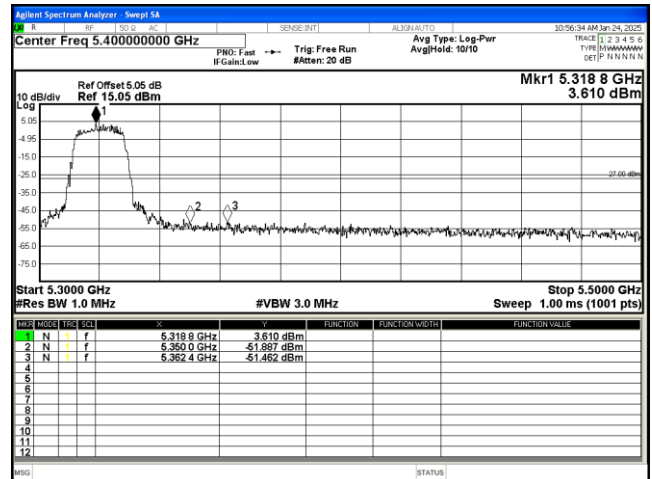
802.11 a 5180MHz



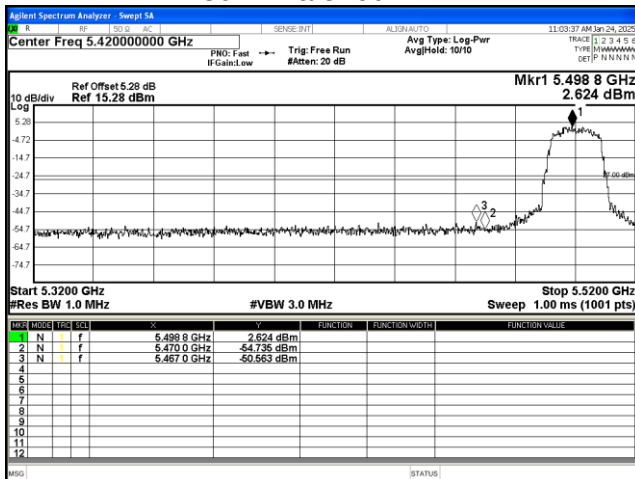
802.11 a 5240MHz



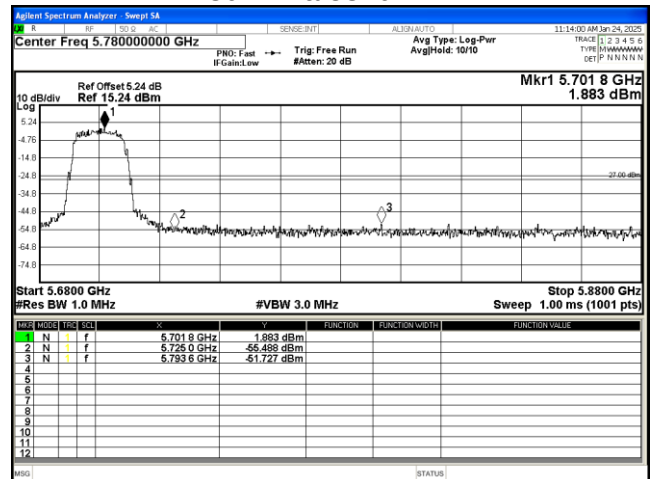
802.11 a 5260MHz



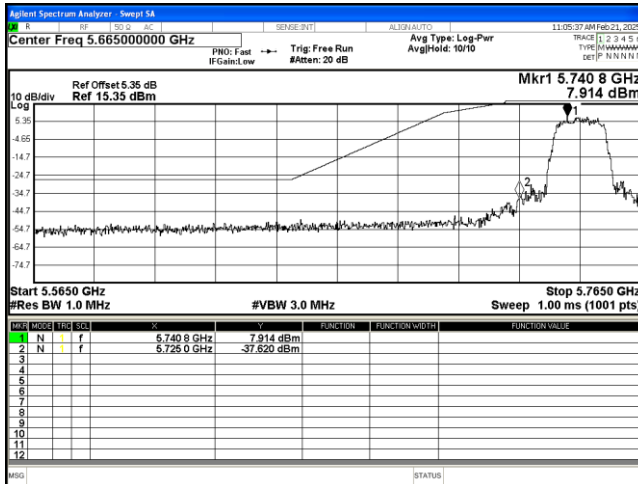
802.11 a 5320MHz



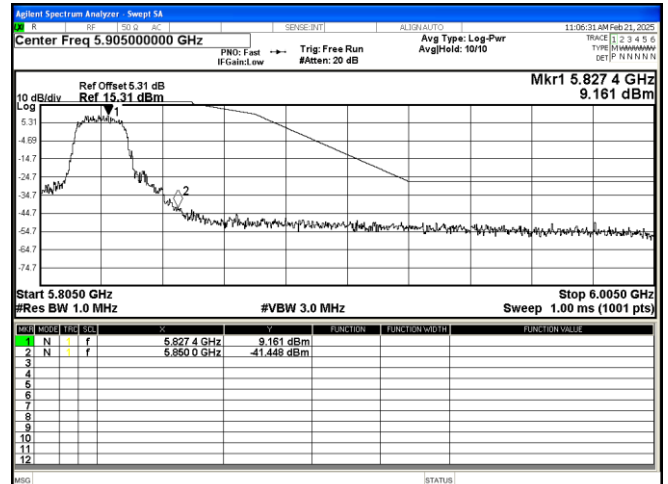
802.11 a 5500MHz



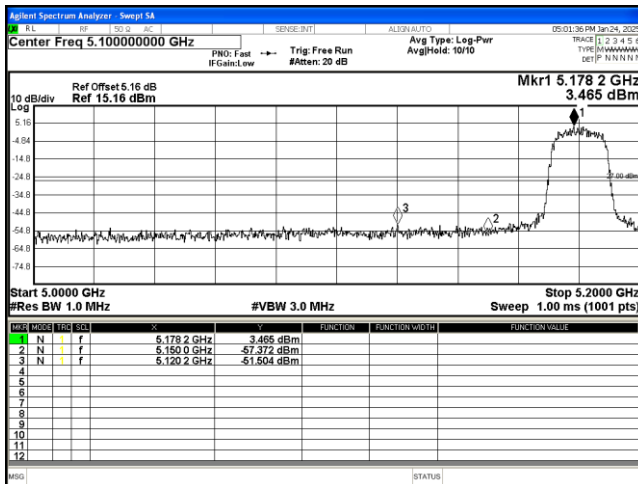
802.11 a 5700MHz



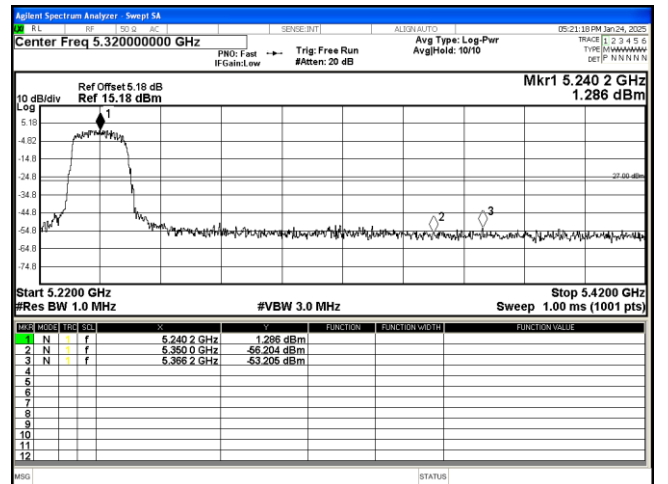
802.11 a 5745MHz



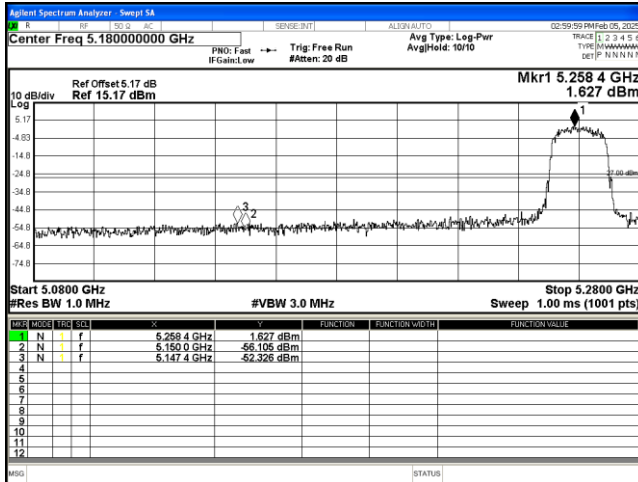
802.11 a 5825MHz



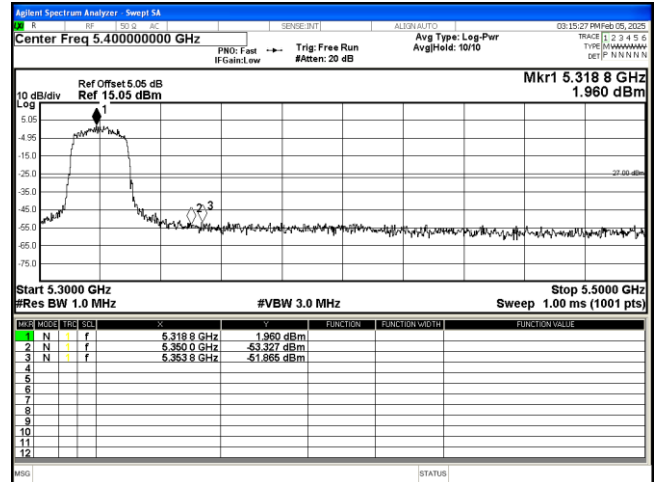
802.11 n20 5180MHz



802.11 n20 5240MHz



802.11 n20 5260MHz



802.11 n20 5320MHz