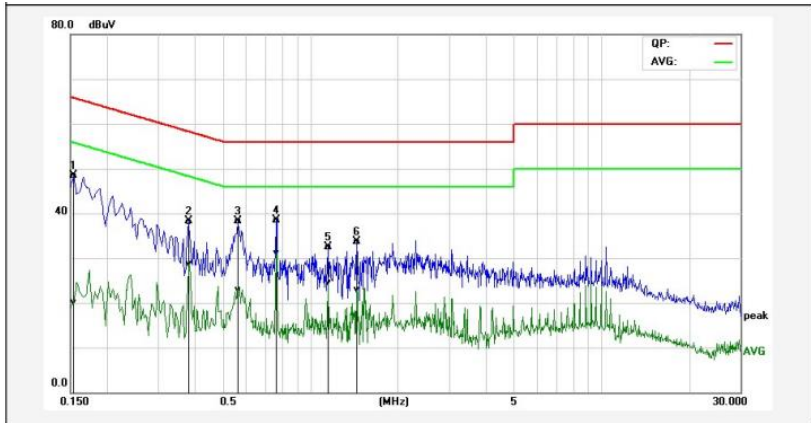
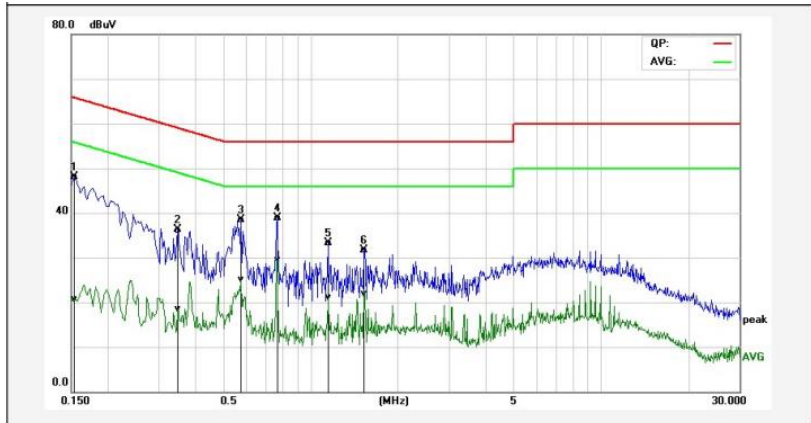


Appendix A: Test Results of BDR&EDR

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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 :	Mode10	Test Voltage :	AC 120V/60Hz																																																																																				
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 <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>0.1539</td><td>38.94</td><td>10.61</td><td>9.50</td><td>48.44</td><td>20.11</td><td>65.78</td><td>55.79</td><td>-17.34</td><td>-35.68</td><td>Pass</td></tr><tr><td>2P</td><td>0.3820</td><td>28.70</td><td>19.13</td><td>9.50</td><td>38.20</td><td>28.63</td><td>58.23</td><td>48.24</td><td>-20.03</td><td>-19.61</td><td>Pass</td></tr><tr><td>3P</td><td>0.5660</td><td>28.84</td><td>13.44</td><td>9.50</td><td>38.34</td><td>22.94</td><td>56.00</td><td>46.00</td><td>-17.66</td><td>-23.06</td><td>Pass</td></tr><tr><td>4*</td><td>0.7660</td><td>29.06</td><td>21.55</td><td>9.48</td><td>38.54</td><td>31.03</td><td>56.00</td><td>46.00</td><td>-17.46</td><td>-14.97</td><td>Pass</td></tr><tr><td>5P</td><td>1.1539</td><td>23.17</td><td>15.05</td><td>9.38</td><td>32.55</td><td>24.43</td><td>56.00</td><td>46.00</td><td>-23.45</td><td>-21.57</td><td>Pass</td></tr><tr><td>6P</td><td>1.4460</td><td>24.30</td><td>13.53</td><td>9.36</td><td>33.66</td><td>22.89</td><td>56.00</td><td>46.00</td><td>-22.34</td><td>-23.11</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	0.1539	38.94	10.61	9.50	48.44	20.11	65.78	55.79	-17.34	-35.68	Pass	2P	0.3820	28.70	19.13	9.50	38.20	28.63	58.23	48.24	-20.03	-19.61	Pass	3P	0.5660	28.84	13.44	9.50	38.34	22.94	56.00	46.00	-17.66	-23.06	Pass	4*	0.7660	29.06	21.55	9.48	38.54	31.03	56.00	46.00	-17.46	-14.97	Pass	5P	1.1539	23.17	15.05	9.38	32.55	24.43	56.00	46.00	-23.45	-21.57	Pass	6P	1.4460	24.30	13.53	9.36	33.66	22.89	56.00	46.00	-22.34	-23.11	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	0.1539	38.94	10.61	9.50	48.44	20.11	65.78	55.79	-17.34	-35.68	Pass																																																																												
2P	0.3820	28.70	19.13	9.50	38.20	28.63	58.23	48.24	-20.03	-19.61	Pass																																																																												
3P	0.5660	28.84	13.44	9.50	38.34	22.94	56.00	46.00	-17.66	-23.06	Pass																																																																												
4*	0.7660	29.06	21.55	9.48	38.54	31.03	56.00	46.00	-17.46	-14.97	Pass																																																																												
5P	1.1539	23.17	15.05	9.38	32.55	24.43	56.00	46.00	-23.45	-21.57	Pass																																																																												
6P	1.4460	24.30	13.53	9.36	33.66	22.89	56.00	46.00	-22.34	-23.11	Pass																																																																												
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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	0.1539	38.61	11.24	9.40	48.01	20.64	65.78	55.79	-17.77	-35.15	Pass																																																																												
2P	0.3500	26.80	9.07	9.40	36.20	18.47	58.96	48.96	-22.76	-30.49	Pass																																																																												
3P	0.5780	29.02	15.64	9.40	38.42	25.04	56.00	46.00	-17.58	-20.96	Pass																																																																												
4*	0.7700	29.57	20.10	9.38	38.95	29.48	56.00	46.00	-17.05	-16.52	Pass																																																																												
5P	1.1500	24.01	11.85	9.28	33.29	21.13	56.00	46.00	-22.71	-24.87	Pass																																																																												
6P	1.5339	22.43	12.64	9.25	31.68	21.89	56.00	46.00	-24.32	-24.11	Pass																																																																												

Correction Factor = insertion loss of LISN + cable loss;

Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit.

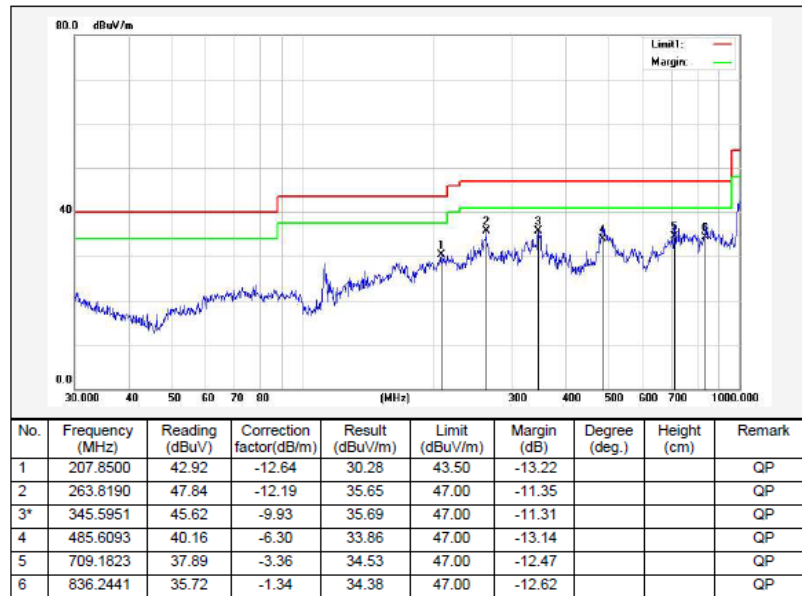
Appendix A.2 Test Results of Radiated Spurious Emission

Below 1G:

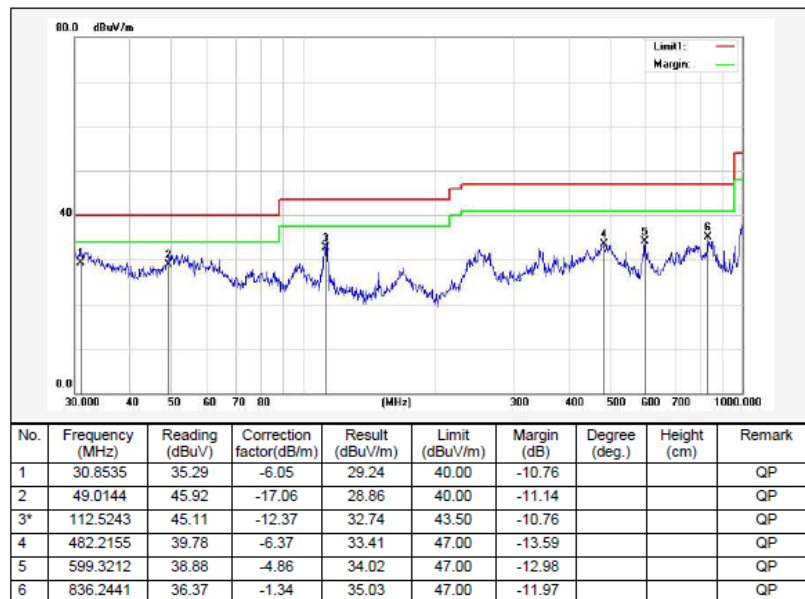
Note: All modes have been tested, and the report only reflects the worst mode.

Test Mode : Mode10 Test Voltage : AC 120V/60Hz

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:
GFSK - Low (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1510	65.3	-25.23	40.07	74	-33.93	peak
2	4808	58.65	-13.33	45.32	74	-28.68	peak
3	9602	60.62	-7.4	53.22	82.39	-29.17	peak
4	10418	54.5	-4.09	50.41	82.39	-31.98	peak
5	11472	53.63	-2.21	51.42	74	-22.58	peak
6	13070	53.54	-0.16	53.38	82.39	-29.01	peak

GFSK - Low (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4808	61.3	-13.33	47.97	74	-26.03	peak
2	8174	55.54	-7.68	47.86	74	-26.14	peak
3	9602	58.87	-7.4	51.47	82.39	-30.92	peak
4	11404	53.34	-1.87	51.47	74	-22.53	peak
5	12730	53.22	-0.78	52.44	82.39	-29.95	peak
6	13682	53.54	1.4	54.94	82.39	-27.45	peak

GFSK - Middle (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	6542	58.35	-10.22	48.13	82.39	-34.26	peak
2	7426	57.63	-7.09	50.54	74	-23.46	peak
3	9738	62.55	-6.35	56.2	82.39	-26.19	peak
4	10418	57.5	-4.09	53.41	82.39	-28.98	peak
5	11472	54.13	-2.21	51.92	74	-22.08	peak
6	12458	54.9	-1.59	53.31	74	-20.69	peak

GFSK - Middle (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3516	61.25	-17.23	44.02	82.39	-38.37	peak
2	5182	58.55	-12.66	45.89	82.39	-36.5	peak
3	6882	57.77	-8.82	48.95	82.39	-33.44	peak
4	8208	55.48	-7.62	47.86	74	-26.14	peak
5	9704	61.69	-6.65	55.04	82.39	-27.35	peak
6	10894	55.18	-3.05	52.13	74	-21.87	peak

GFSK - High (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5046	58.51	-12.62	45.89	74	-28.11	peak
2	7426	56.6	-7.09	49.51	74	-24.49	peak
3	8106	56.72	-7.73	48.99	74	-25.01	peak
4	9908	61.91	-5.28	56.63	82.39	-25.76	peak
5	11098	55.12	-2.54	52.58	74	-21.42	peak
6	12084	54.53	-2.26	52.27	74	-21.73	peak

GFSK - High (worst mode) Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4604	60.89	-14.62	46.27	74	-27.73	peak
2	7392	57.61	-7.13	50.48	74	-23.52	peak
3	9908	63.4	-5.28	58.12	82.39	-24.27	peak
4	11132	55.05	-2.48	52.57	74	-21.43	peak
5	12424	55.51	-1.81	53.7	74	-20.3	peak
6	13070	54.73	-0.16	54.57	82.39	-27.82	peak

 $\pi/4$ DQPSK - Low (worst mode) Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4808	58.9	-13.33	45.57	74	-28.43	peak
2	6032	56.9	-10.1	46.8	82.39	-35.59	peak
3	7392	56.3	-7.13	49.17	74	-24.83	peak
4	9602	59.71	-7.4	52.31	82.39	-30.08	peak
5	11132	55.34	-2.48	52.86	74	-21.14	peak
6	12730	55.09	-0.78	54.31	82.39	-28.08	peak

 $\pi/4$ DQPSK - Low (worst mode) Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3142	63.67	-19.25	44.42	82.39	-37.97	peak
2	4808	61.27	-13.33	47.94	74	-26.06	peak
3	7494	56.54	-7.13	49.41	74	-24.59	peak
4	9602	60.3	-7.4	52.9	82.39	-29.49	peak
5	11404	55.43	-1.87	53.56	74	-20.44	peak
6	12390	55.59	-1.99	53.6	74	-20.4	peak

 $\pi/4$ DQPSK - Middle (worst mode) Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5590	60.37	-12.1	48.27	82.39	-34.12	peak
2	6882	57.96	-8.82	49.14	82.39	-33.25	peak
3	8718	58.97	-8.06	50.91	82.39	-31.48	peak
4	9738	60.15	-6.35	53.8	82.39	-28.59	peak
5	10758	55.94	-3.1	52.84	74	-21.16	peak
6	13070	55.82	-0.16	55.66	82.39	-26.73	peak

 $\pi/4$ DQPSK - Middle (worst mode) Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	6644	61.49	-10.04	51.45	82.39	-30.94	peak
2	7494	58.54	-7.13	51.41	74	-22.59	peak
3	8412	58.46	-7.14	51.32	74	-22.68	peak
4	9738	61.46	-6.35	55.11	82.39	-27.28	peak
5	11404	54.43	-1.87	52.56	74	-21.44	peak
6	12254	55.96	-2.4	53.56	74	-20.44	peak

$\pi/4$ DQPSK - High (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5046	58.75	-12.62	46.13	74	-27.87	peak
2	7562	56.54	-7.22	49.32	74	-24.68	peak
3	8208	57.07	-7.62	49.45	74	-24.55	peak
4	9908	60.66	-5.28	55.38	82.39	-27.01	peak
5	11064	55.04	-2.65	52.39	74	-21.61	peak
6	12390	55.44	-1.99	53.45	74	-20.55	peak

 $\pi/4$ DQPSK - High (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3958	62.49	-15.09	47.4	74	-26.6	peak
2	4604	62.92	-14.62	48.3	74	-25.7	peak
3	7562	56.53	-7.22	49.31	74	-24.69	peak
4	9908	64.18	-5.28	58.9	82.39	-23.49	peak
5	11404	54.87	-1.87	53	74	-21	peak
6	12730	55.64	-0.78	54.86	82.39	-27.53	peak

8DPSK - Low (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4910	58.49	-12.91	45.58	74	-28.42	peak
2	7494	55.96	-7.13	48.83	74	-25.17	peak
3	9602	60.56	-7.4	53.16	82.39	-29.23	peak
4	10418	55.7	-4.09	51.61	82.39	-30.78	peak
5	11404	54.56	-1.87	52.69	74	-21.31	peak
6	12390	54.81	-1.99	52.82	74	-21.18	peak

8DPSK - Low (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3958	61.5	-15.09	46.41	74	-27.59	peak
2	4808	60.53	-13.33	47.2	74	-26.8	peak
3	8276	57.33	-7.36	49.97	74	-24.03	peak
4	9602	61.45	-7.4	54.05	82.39	-28.34	peak
5	11132	55	-2.48	52.52	74	-21.48	peak
6	12390	55.5	-1.99	53.51	74	-20.49	peak

8DPSK - Middle (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3822	62.03	-16.04	45.99	74	-28.01	peak
2	5420	60.11	-12.45	47.66	74	-26.34	peak
3	7426	58.68	-7.09	51.59	74	-22.41	peak
4	9772	60.23	-6.07	54.16	82.39	-28.23	peak
5	10452	57.57	-3.8	53.77	82.39	-28.62	peak
6	11132	54.81	-2.48	52.33	74	-21.67	peak

8DPSK - Middle (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3550	63.24	-16.79	46.45	82.39	-35.94	peak
2	5148	61.64	-12.61	49.03	74	-24.97	peak
3	6780	59.81	-8.99	50.82	82.39	-31.57	peak
4	9738	60.03	-6.35	53.68	82.39	-28.71	peak
5	10758	56.49	-3.1	53.39	74	-20.61	peak
6	11982	55.57	-2.1	53.47	74	-20.53	peak

8DPSK - High (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4298	59.72	-14.54	45.18	74	-28.82	peak
2	7426	56.13	-7.09	49.04	74	-24.96	peak
3	8378	56.8	-7.1	49.7	74	-24.3	peak
4	9908	62.33	-5.28	57.05	82.39	-25.34	peak
5	11438	54.75	-2.04	52.71	74	-21.29	peak
6	12730	54.58	-0.78	53.8	82.39	-28.59	peak

8DPSK - High (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4604	61.24	-14.62	46.62	74	-27.38	peak
2	7562	56.48	-7.22	49.26	74	-24.74	peak
3	8208	56.85	-7.62	49.23	74	-24.77	peak
4	9908	62.63	-5.28	57.35	82.39	-25.04	peak
5	11506	55.51	-2.38	53.13	74	-20.87	peak
6	12390	55.71	-1.99	53.72	74	-20.28	peak

Node:

- 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..
- Radiated emissions measured in frequency above 1GHz were made with an instrument using peak/average detector mode.
- Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
- Result formula:
Correction Factor = antenna factor + cable loss – amplifier gain;
Reading = Reading Amplitude in the instrument;
Result = Correction Factor + Reading;
Margin (dB) = result in dBuV/m – limit in dBuV/m.
- 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. 102.39dBuV/m) minus 20dB.

Restricted band Requirements							
GFSK - Low (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.14	65.05	-21.04	44.01	74	-29.99	peak
2	2387.22	55.55	-21.04	34.51	54	-19.49	AVG
3	2390	61.48	-21.03	40.45	74	-33.55	peak
4	2390	51.08	-21.03	30.05	54	-23.95	AVG
5	2401.96	123.91	-20.99	102.92	116.2	-13.28	peak
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.166	54.38	-21.04	33.34	54	-20.66	AVG
2	2388.09	64.71	-21.03	43.68	74	-30.32	peak
3	2390	60.72	-21.03	39.69	74	-34.31	peak
4	2390	50.84	-21.03	29.81	54	-24.19	AVG
5	2401.96	123.8	-20.99	102.81	116.2	-13.39	peak
GFSK - High (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2479.85	123.86	-20.91	102.95	116.2	-13.25	peak
2	2483.5	71.87	-20.91	50.96	74	-23.04	peak
3	2483.5	61.15	-20.91	40.24	54	-13.76	AVG
4	2498.931	62.91	-20.92	41.99	54	-12.01	AVG
5	2499.25	69.28	-20.92	48.36	74	-25.64	peak
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2479.85	123.41	-20.91	102.5	116.2	-13.70	peak
2	2483.5	72.08	-20.91	51.17	74	-22.83	peak
3	2483.5	60.94	-20.91	40.03	54	-13.97	AVG
4	2498.92	61.99	-20.92	41.07	54	-12.93	AVG
5	2499	68.89	-20.92	47.97	74	-26.03	peak

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

Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit

$\pi/4$ DQPSK - Low (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.246	55.28	-21.04	34.24	54	-19.76	AVG
2	2387.33	65.54	-21.04	44.5	74	-29.5	peak
3	2390	62.87	-21.03	41.84	74	-32.16	peak
4	2390	51.57	-21.03	30.54	54	-23.46	AVG
5	2402.34	123.65	-20.99	102.66	116.2	-13.54	peak
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.271	54.33	-21.04	33.29	54	-20.71	AVG
2	2387.71	64.49	-21.03	43.46	74	-30.54	peak
3	2390	62.87	-21.03	41.84	74	-32.16	peak
4	2390	51.08	-21.03	30.05	54	-23.95	AVG
5	2402.34	123.83	-20.99	102.84	116.2	-13.36	peak
$\pi/4$ DQPSK - High (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.1	123.93	-20.91	103.02	116.2	-13.18	peak
2	2483.5	81.6	-20.91	60.69	74	-13.31	peak
3	2483.5	64.33	-20.91	43.42	54	-10.58	AVG
4	2484.75	75.73	-20.91	54.82	74	-19.18	peak
5	2484.79	59.78	-20.91	38.87	54	-15.13	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2479.85	123.31	-20.91	102.39	116.2	-13.80	peak
2	2483.5	76.07	-20.91	55.16	74	-18.84	peak
3	2483.5	62.64	-20.91	41.73	54	-12.27	AVG
4	2483.95	74.84	-20.91	53.93	74	-20.07	peak
5	2483.95	60.55	-20.91	39.64	54	-14.36	AVG

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

Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit

8DPSK - Low (worst mode)							
Horizontal							
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2387.201	55.28	-21.04	34.24	54	-19.76	AVG
2	2387.52	64.4	-21.03	43.37	74	-30.63	peak
3	2390	61.97	-21.03	40.94	74	-33.06	peak
4	2390	51.6	-21.03	30.57	54	-23.43	AVG
5	2402.15	123.77	-20.99	102.78	116.2	-13.42	peak
Vertical							
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2387.231	54.09	-21.04	33.05	54	-20.95	AVG
2	2387.71	64.51	-21.03	43.48	74	-30.52	peak
3	2390	63.04	-21.03	42.01	74	-31.99	peak
4	2390	51.03	-21.03	30	54	-24	AVG
5	2402.15	123.85	-20.99	102.86	116.2	-13.34	peak
8DPSK - High (worst mode)							
Horizontal							
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2480.05	123.98	-20.91	103.07	116.2	-13.13	peak
2	2483.5	81.15	-20.91	60.24	74	-13.76	peak
3	2483.5	63.95	-20.91	43.04	54	-10.96	AVG
4	2484.5	75.99	-20.91	55.08	74	-18.92	peak
5	2484.5	60.57	-20.91	39.66	54	-14.34	AVG
Vertical							
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2480	123.91	-20.91	103	116.2	-13.20	peak
2	2483.5	79.49	-20.91	58.58	74	-15.42	peak
3	2483.5	64.02	-20.91	43.11	54	-10.89	AVG
4	2484.2	75.41	-20.91	54.5	74	-19.5	peak
5	2484.2	61.32	-20.91	40.41	54	-13.59	AVG

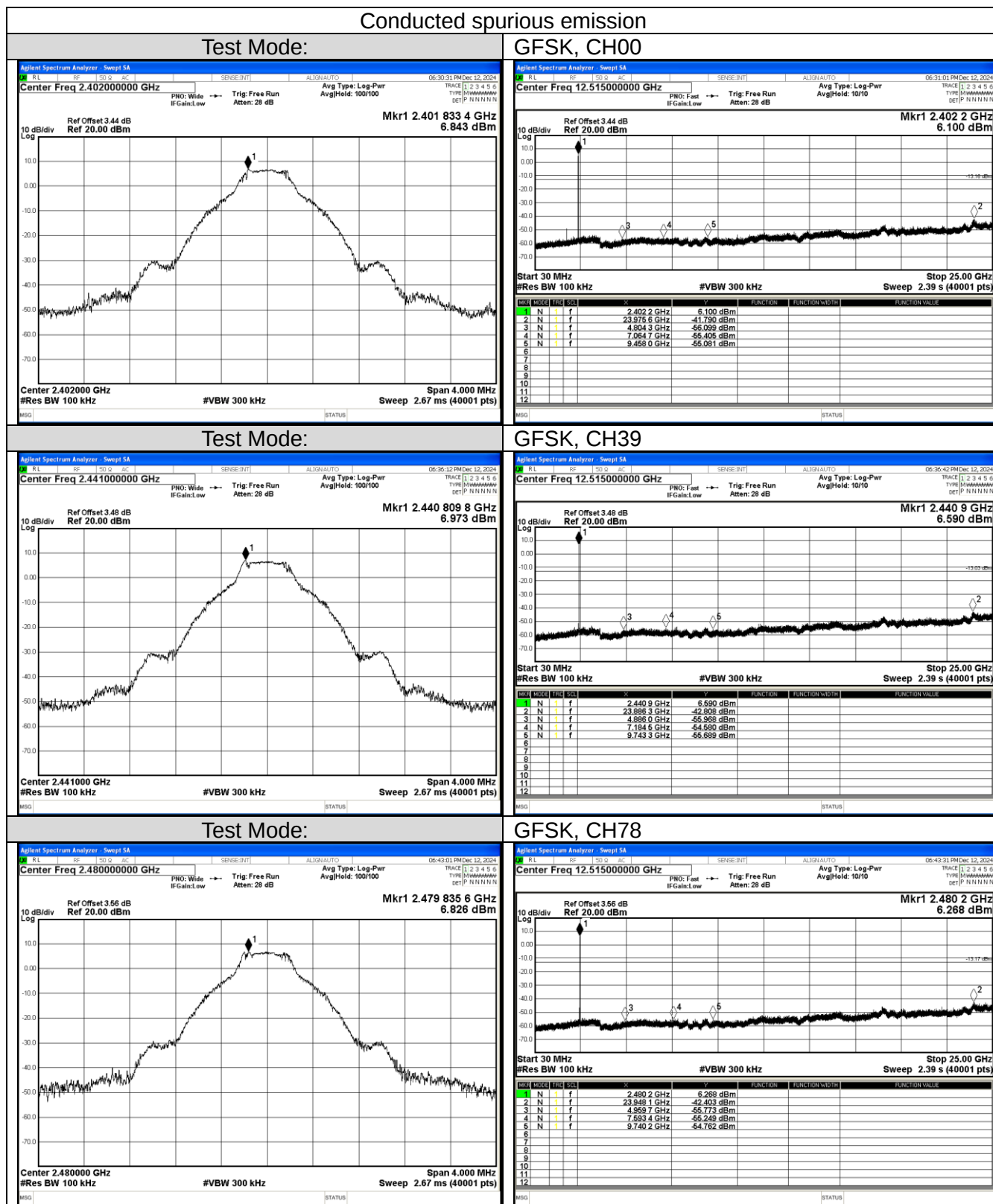
Correction Factor = antenna factor + cable loss – amplifier gain;

Reading = Reading Amplitude in the instrument;

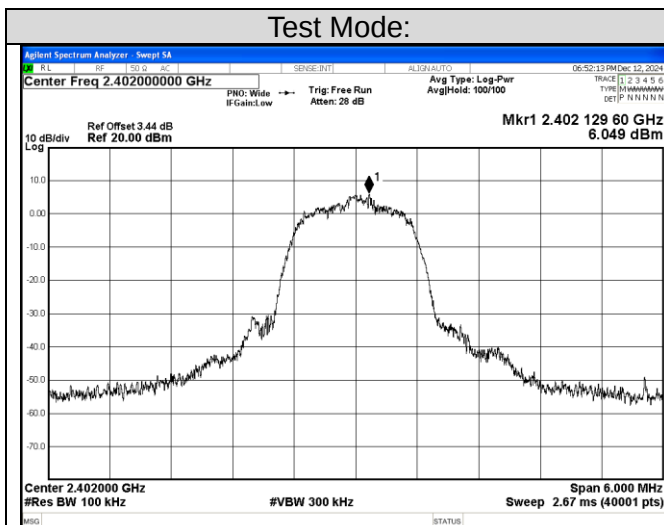
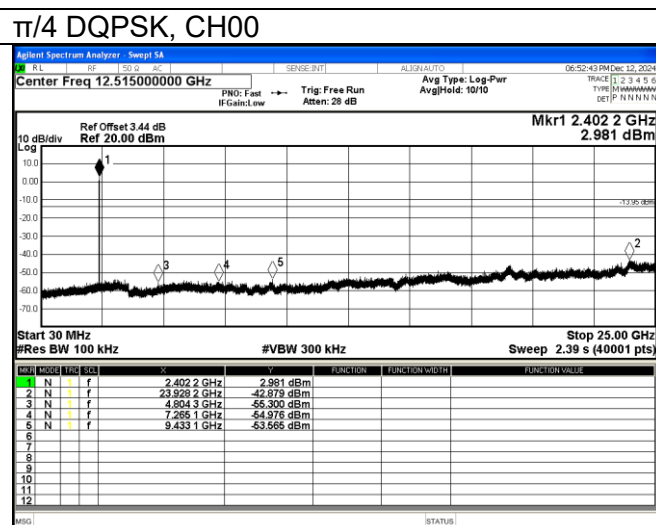
Result = Correction Factor + Reading;

Margin = Result – Limit

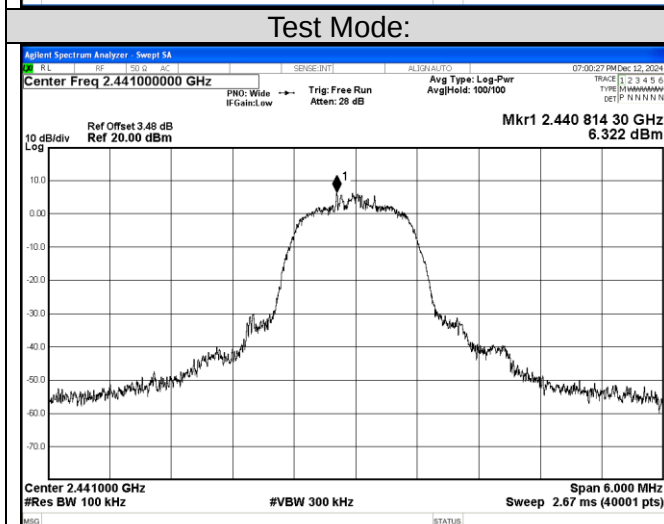
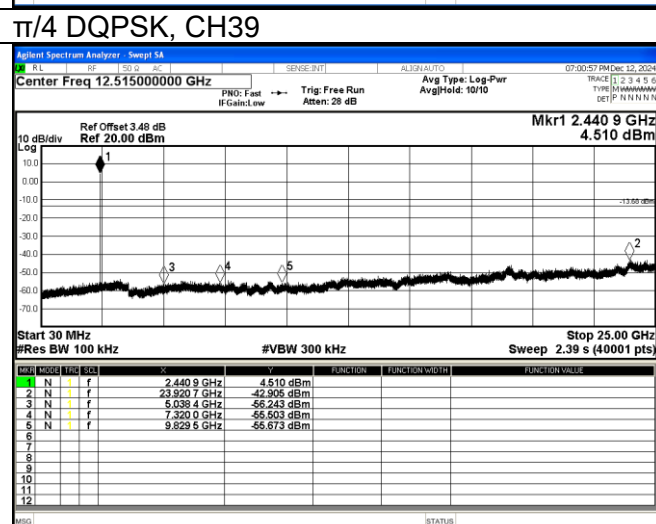
Appendix A.3 Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth



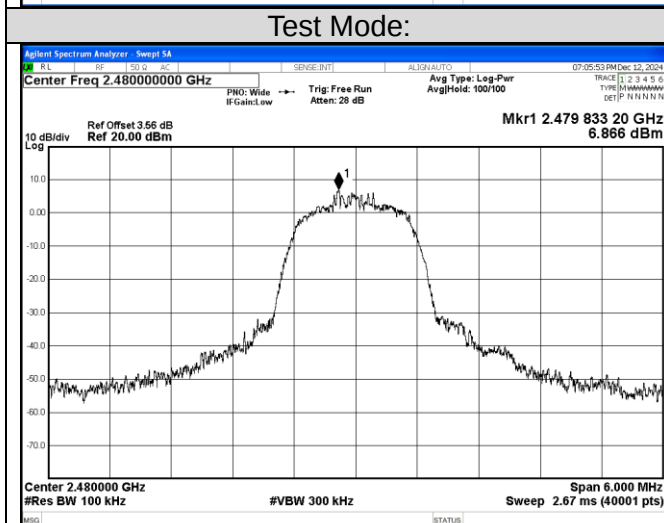
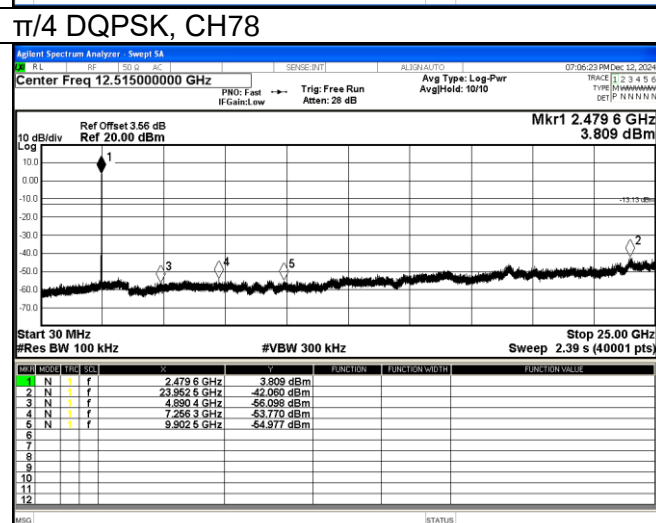
Test Mode:


 $\pi/4$ DQPSK, CH00


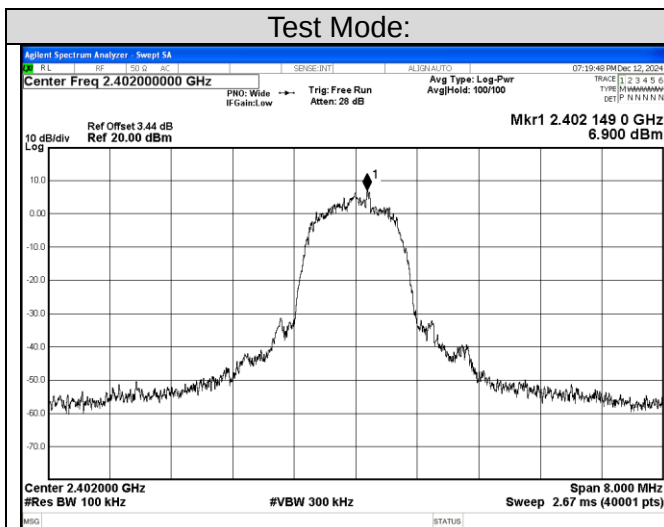
Test Mode:


 $\pi/4$ DQPSK, CH39


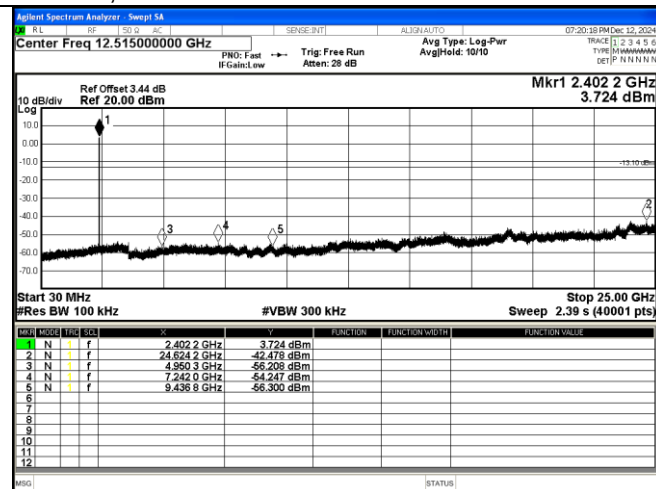
Test Mode:


 $\pi/4$ DQPSK, CH78


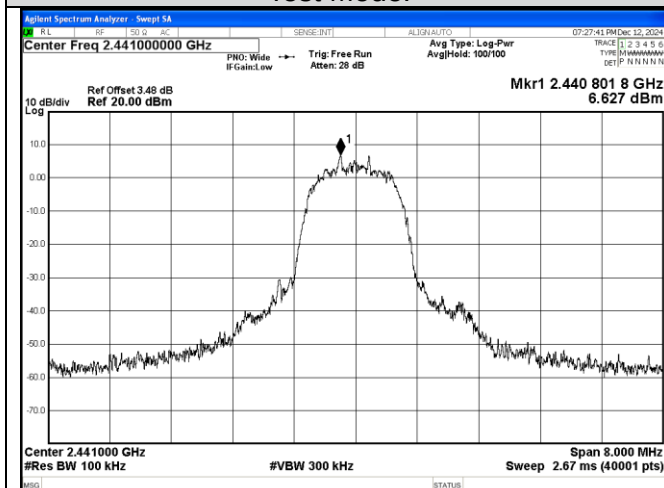
Test Mode:



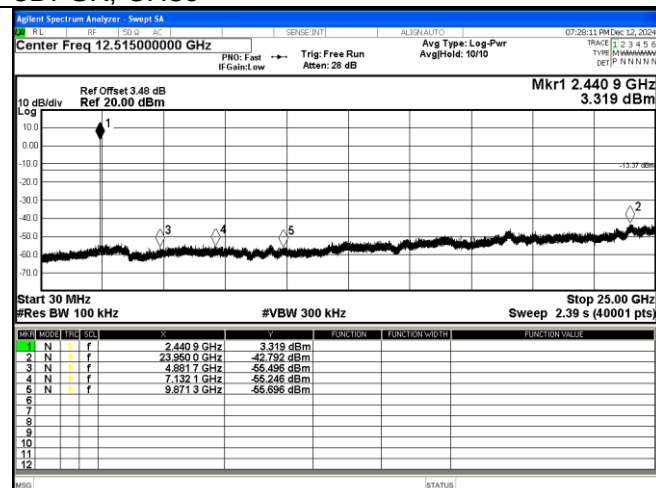
8DPSK, CH00



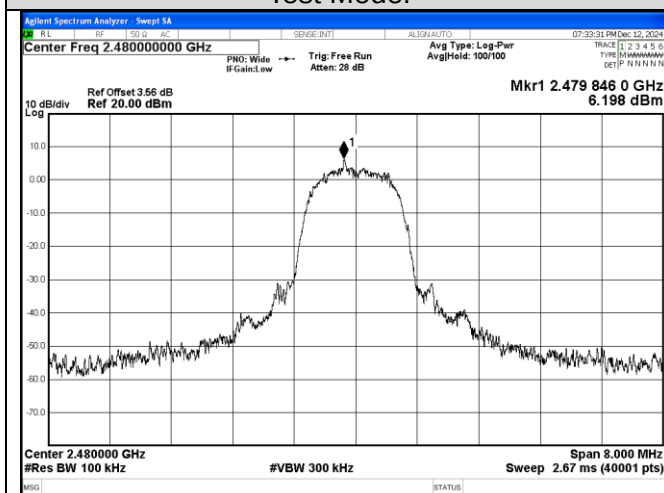
Test Mode:



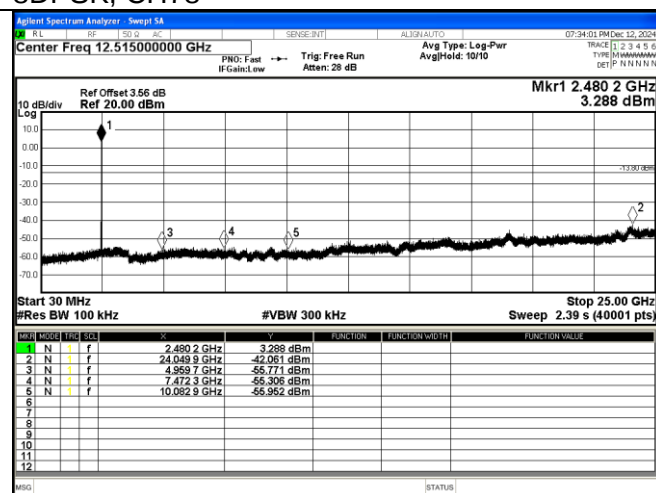
8DPSK, CH39



Test Mode:



8DPSK, CH78

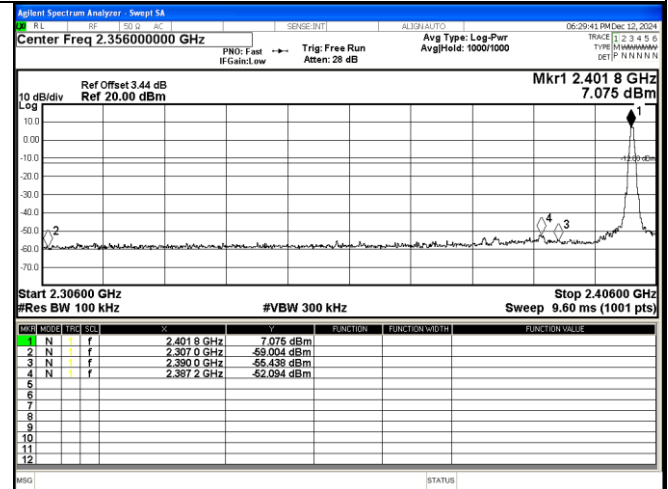
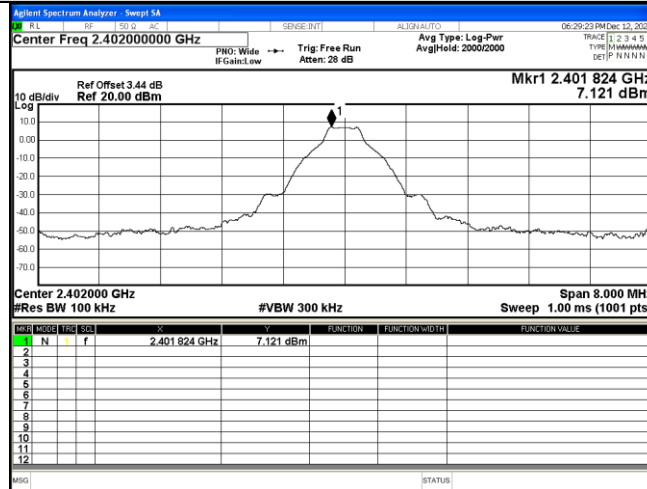




For Band edge (it's also the reference level for conducted spurious emission)

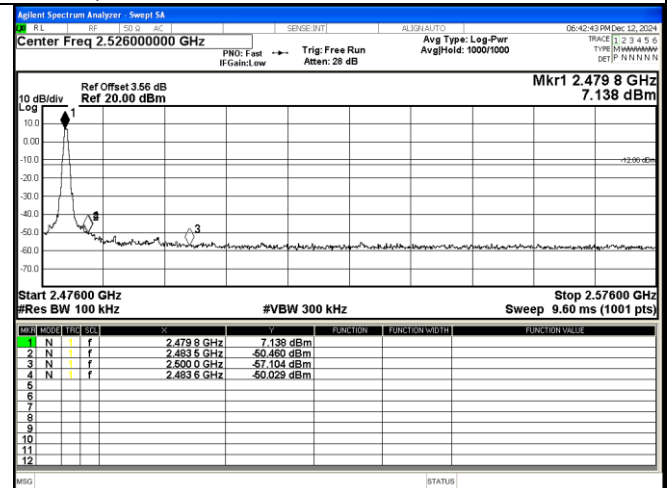
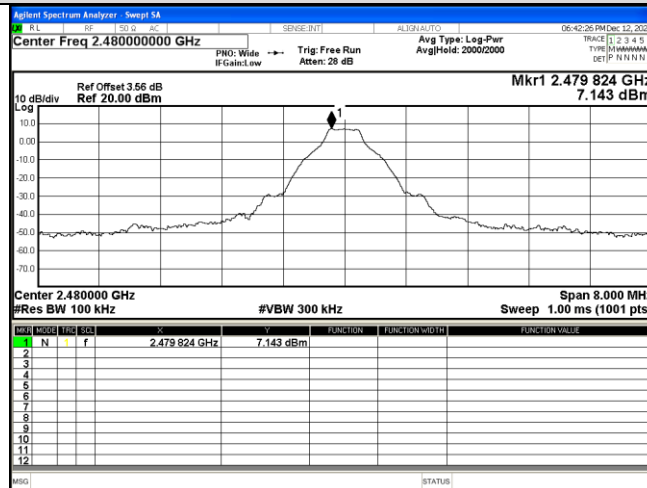
Test Mode:

GFSK, CH00



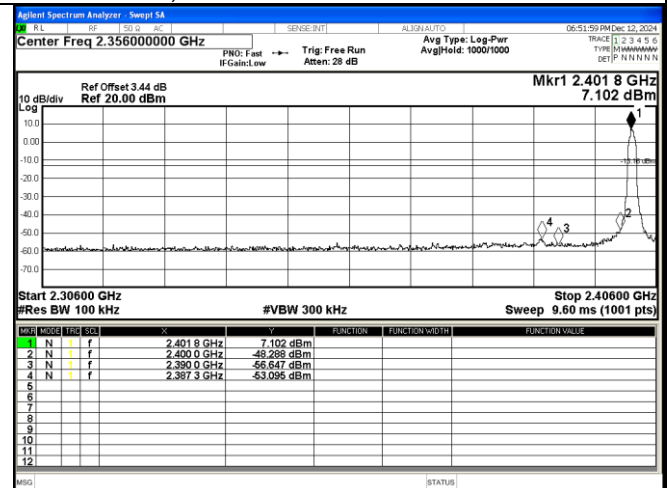
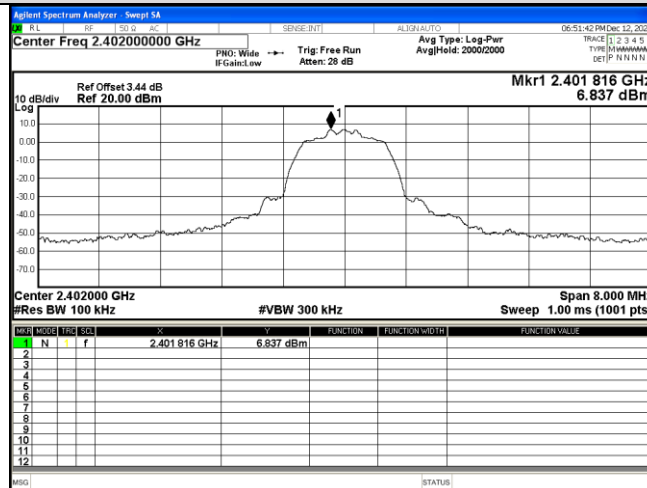
Test Mode:

GFSK, CH78

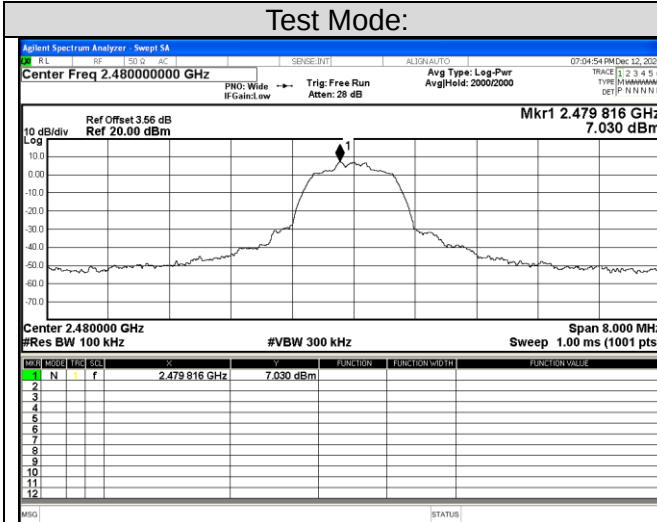
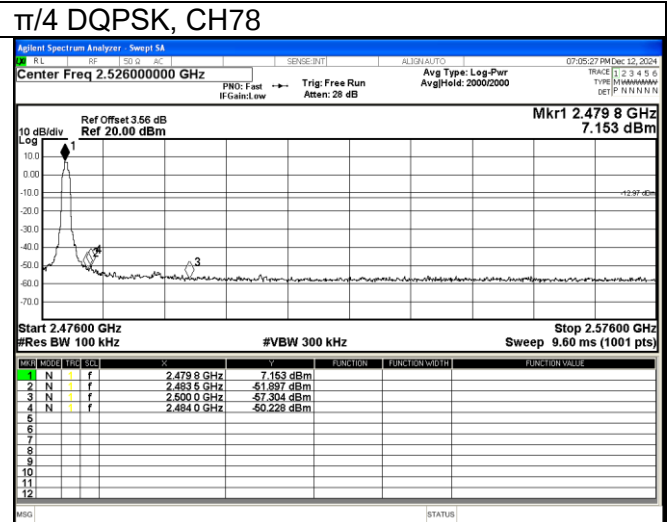


Test Mode:

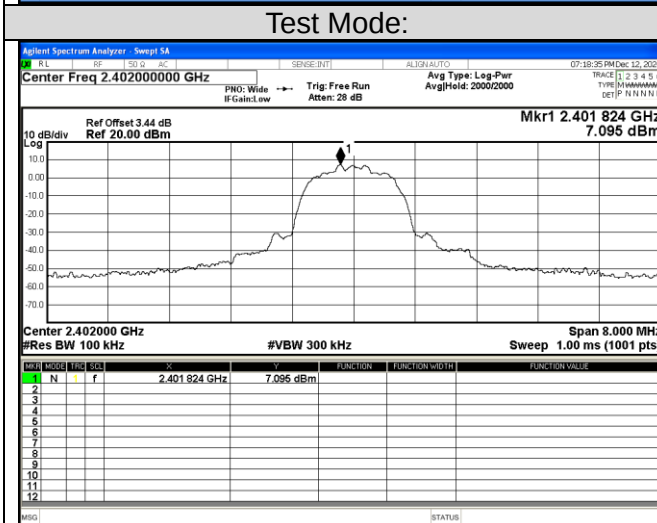
$\pi/4$ DQPSK, CH00



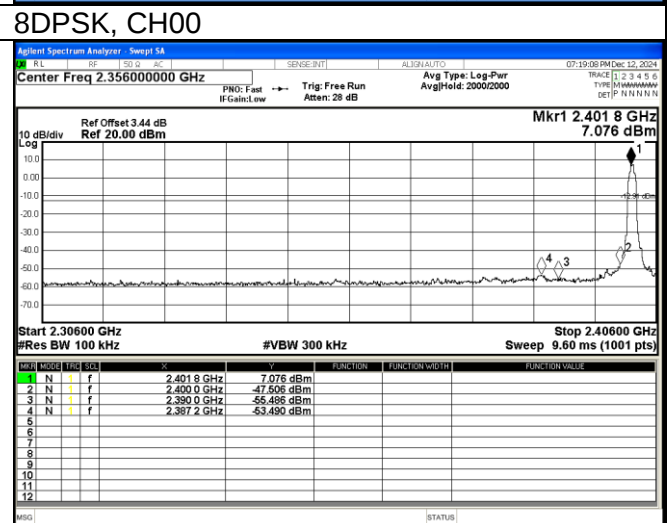
Test Mode:


 $\pi/4$ DQPSK, CH78


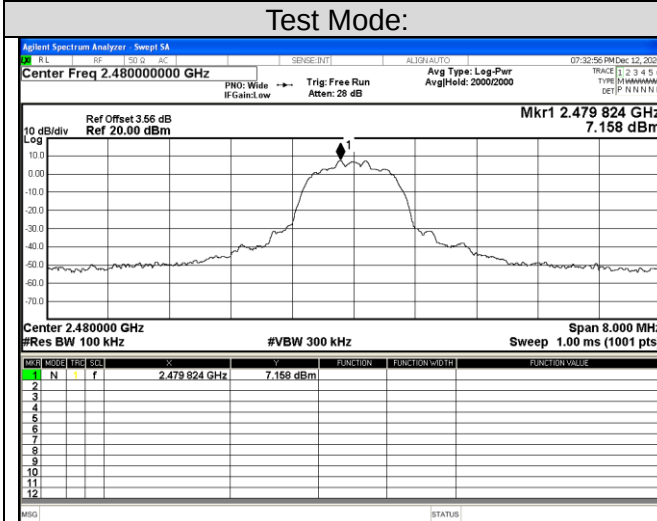
Test Mode:



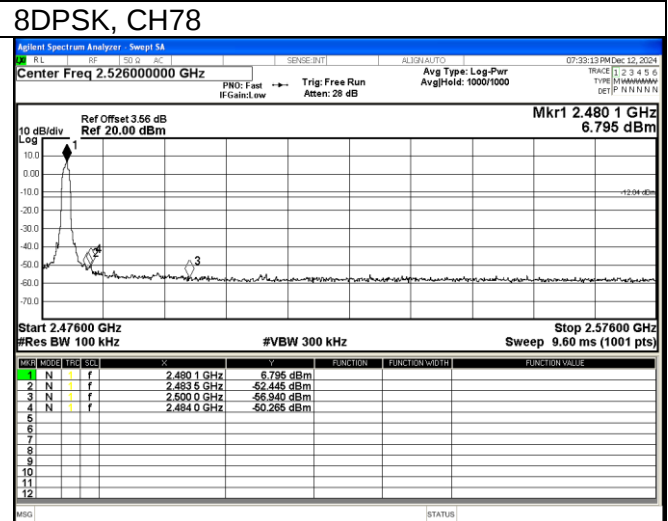
8DPSK, CH00



Test Mode:

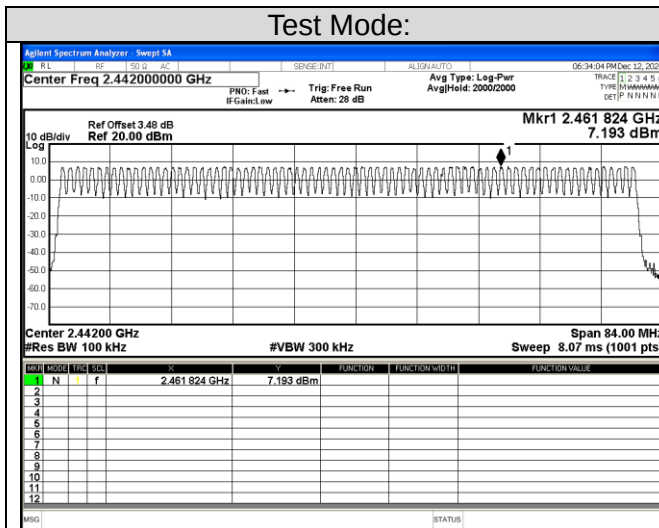


8DPSK, CH78

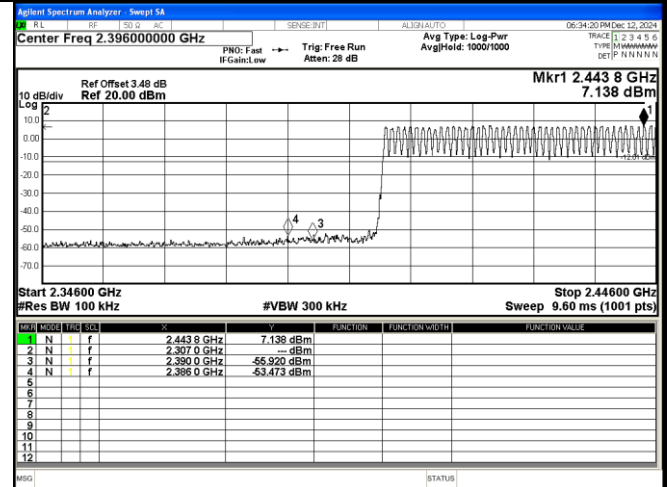




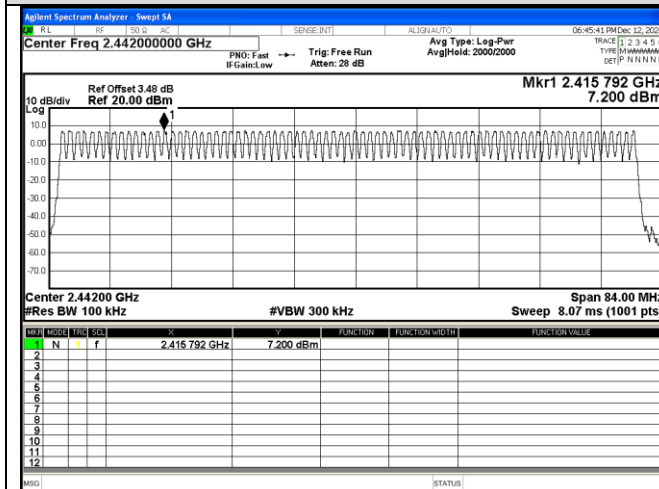
Test Mode:



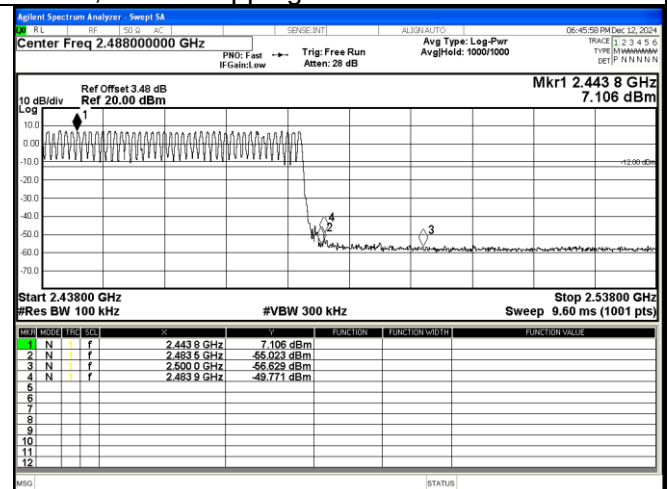
GFSK, CH00 Hopping



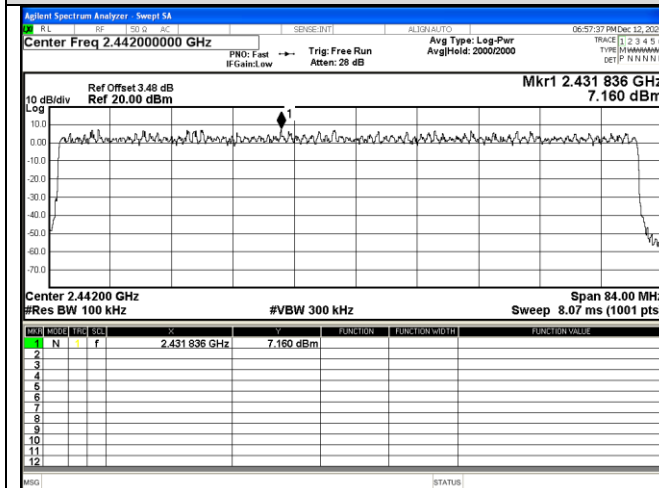
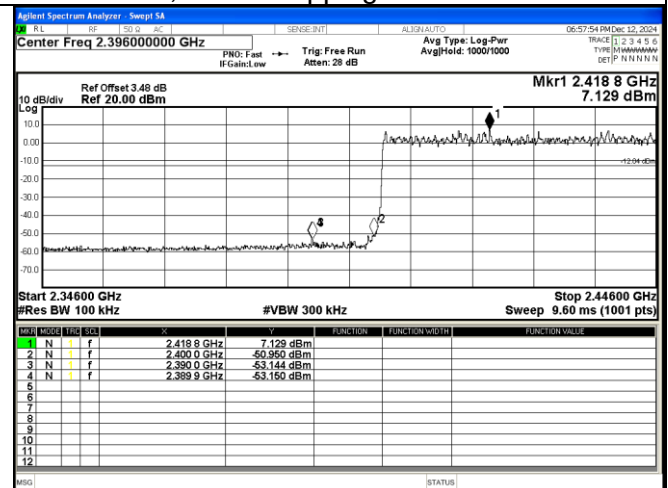
Test Mode:



GFSK, CH78 Hopping

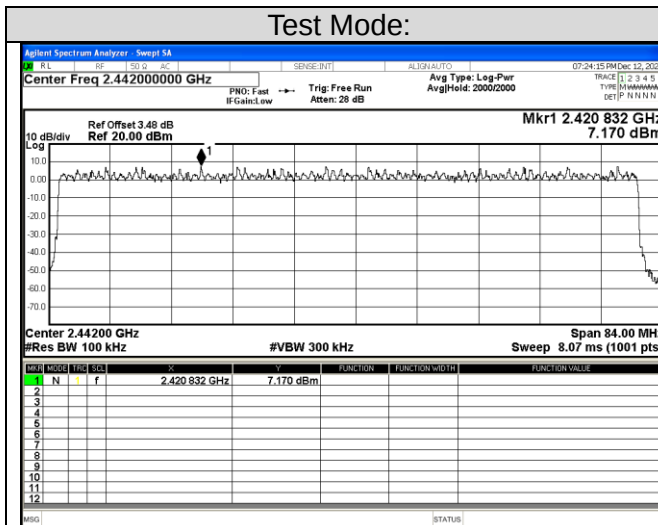
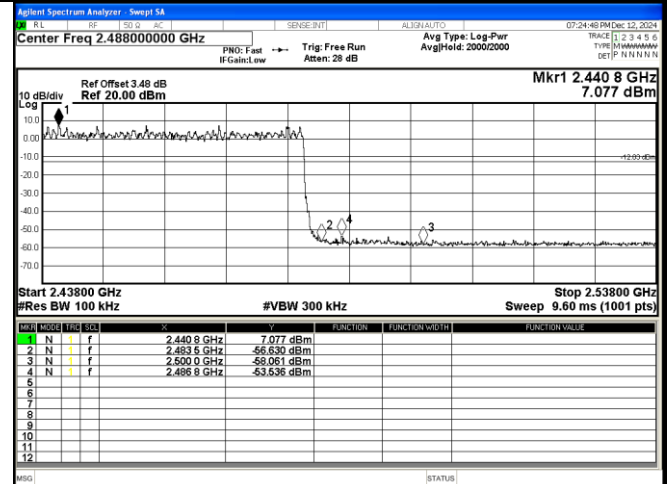


Test Mode:

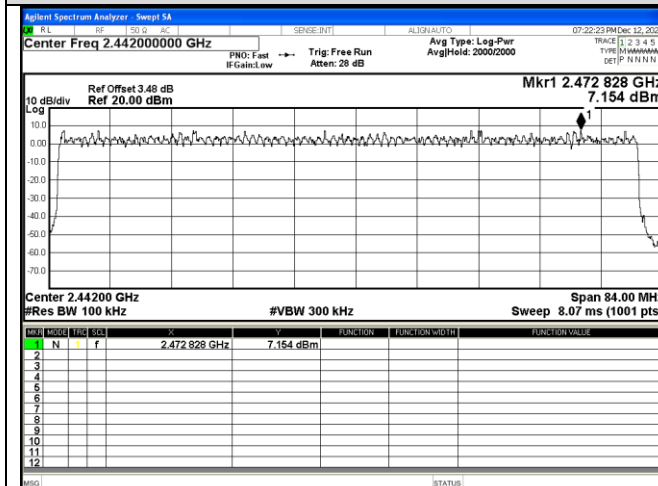
 $\pi/4$ DQPSK, CH00 Hopping



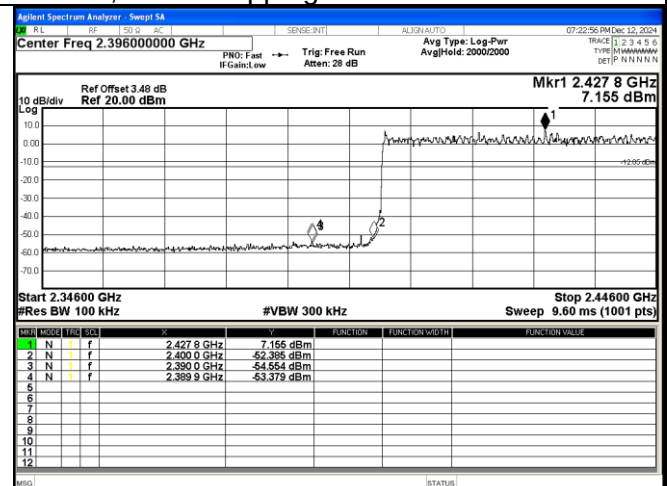
Test Mode:

 $\pi/4$ DQPSK, CH78 Hopping

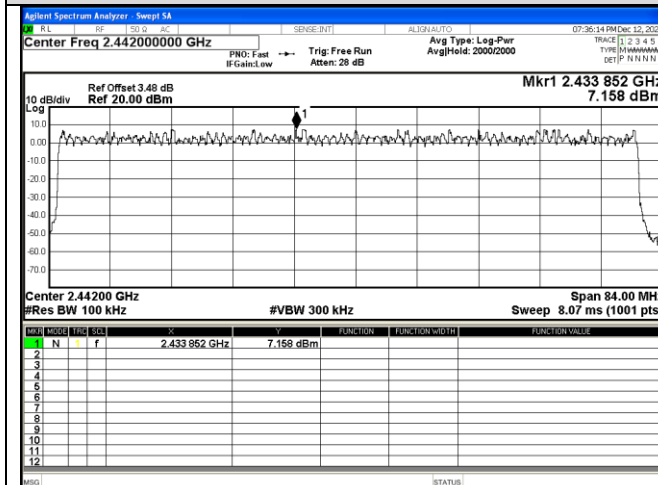
Test Mode:



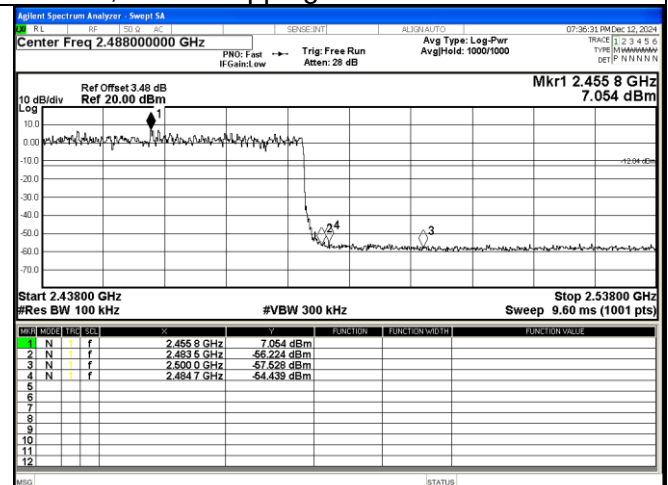
8DPSK, CH00 Hopping



Test Mode:

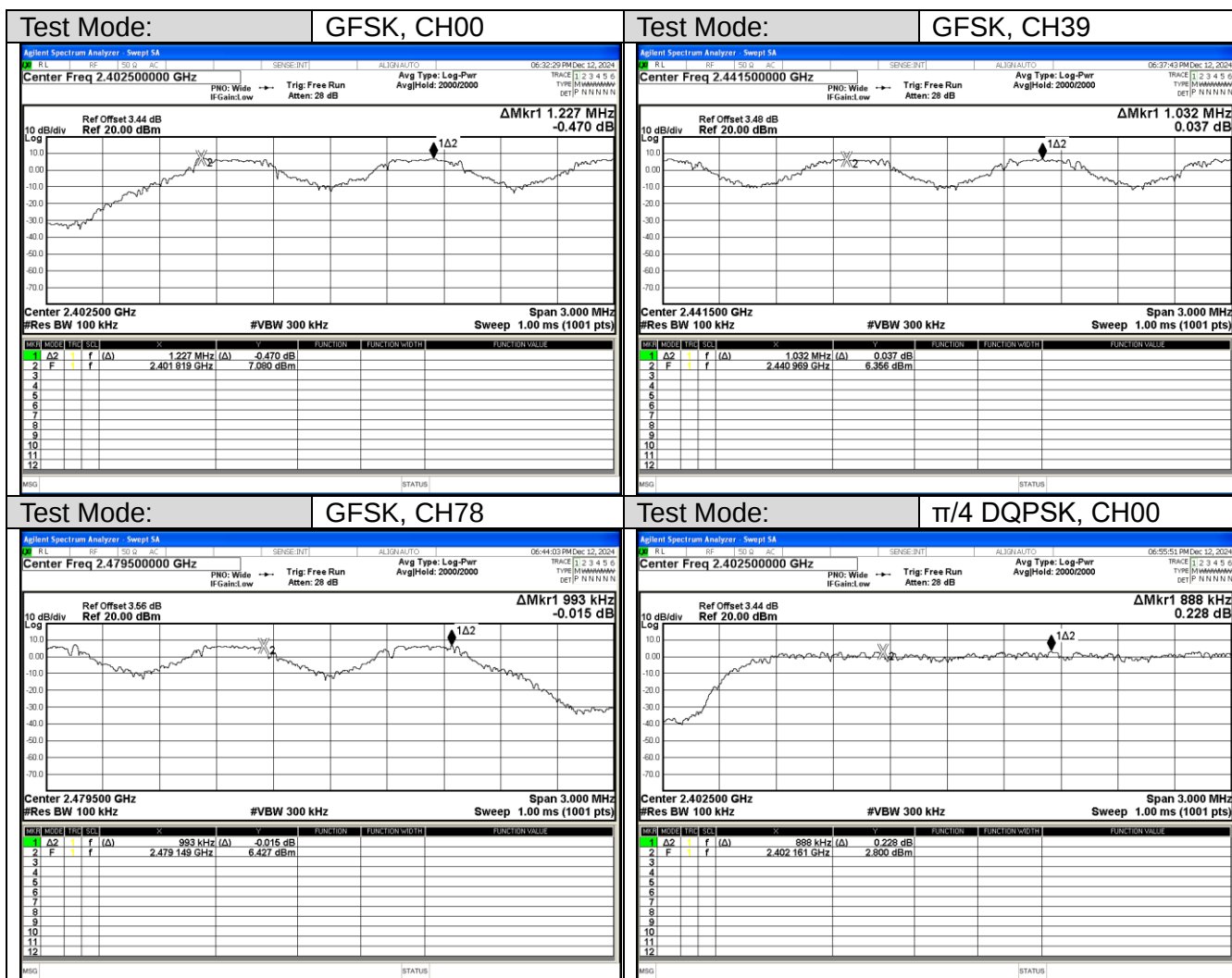


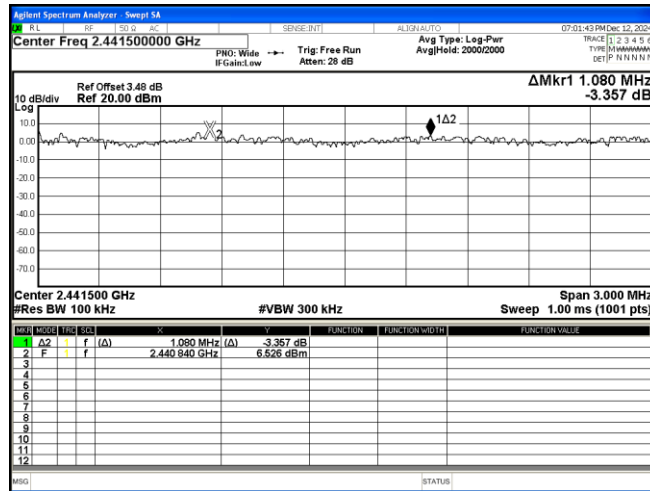
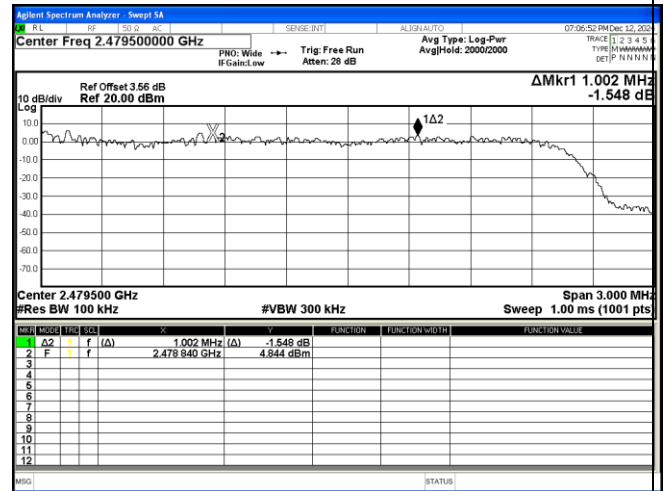
8DPSK, CH78 Hopping



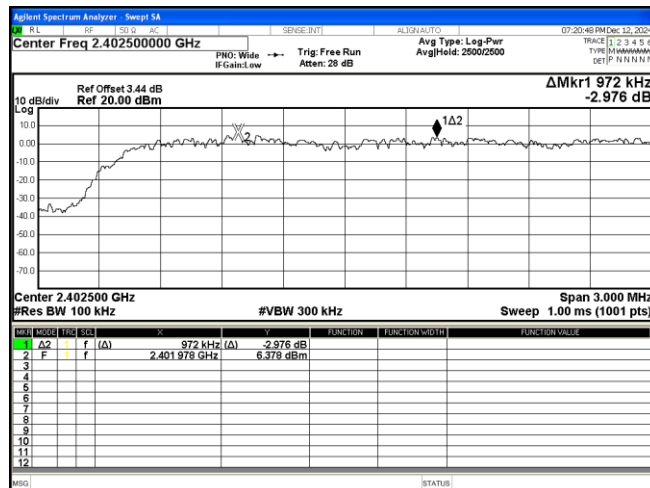
Appendix A.4 Test Results of Carrier Frequency Separation

Mode	HFS (MHz)	Limit (MHz)	Verdict
GFSK, CH00	1.227	0.63	Pass
GFSK, CH39	1.032	0.632	Pass
GFSK, CH78	0.993	0.748	Pass
$\pi/4$ DQPSK, CH00	0.888	0.854	Pass
$\pi/4$ DQPSK, CH39	1.08	0.867	Pass
$\pi/4$ DQPSK, CH78	1.002	0.85	Pass
8DPSK, CH00	0.972	0.824	Pass
8DPSK, CH39	1.104	0.916	Pass
8DPSK, CH78	1.008	0.908	Pass

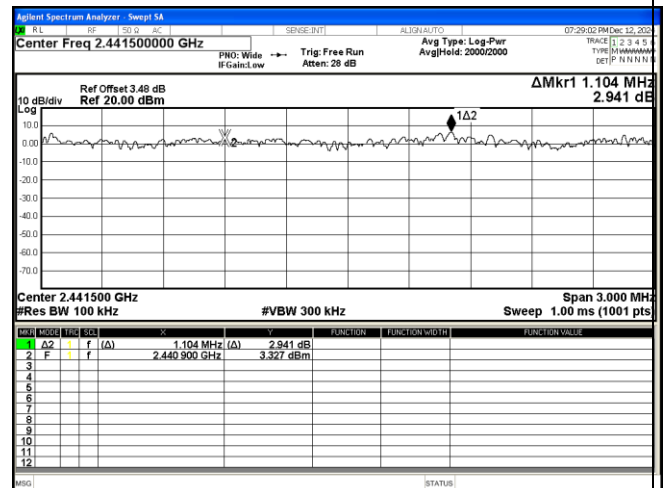


Test Mode: $\pi/4$ DQPSK, CH39

Test Mode: $\pi/4$ DQPSK, CH78


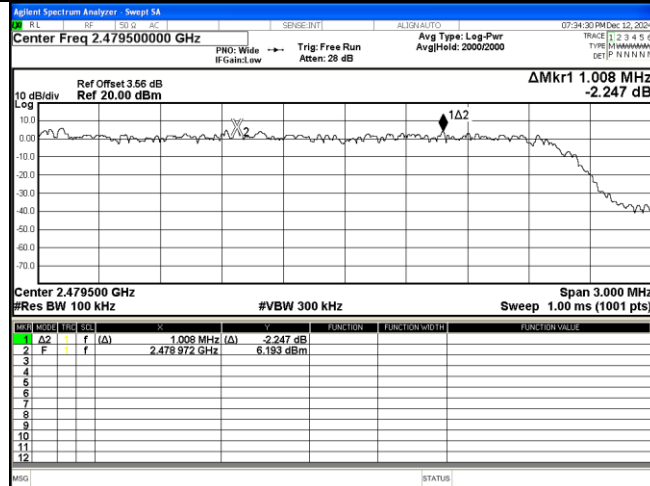
Test Mode: 8DPSK, CH00



Test Mode: 8DPSK, CH39

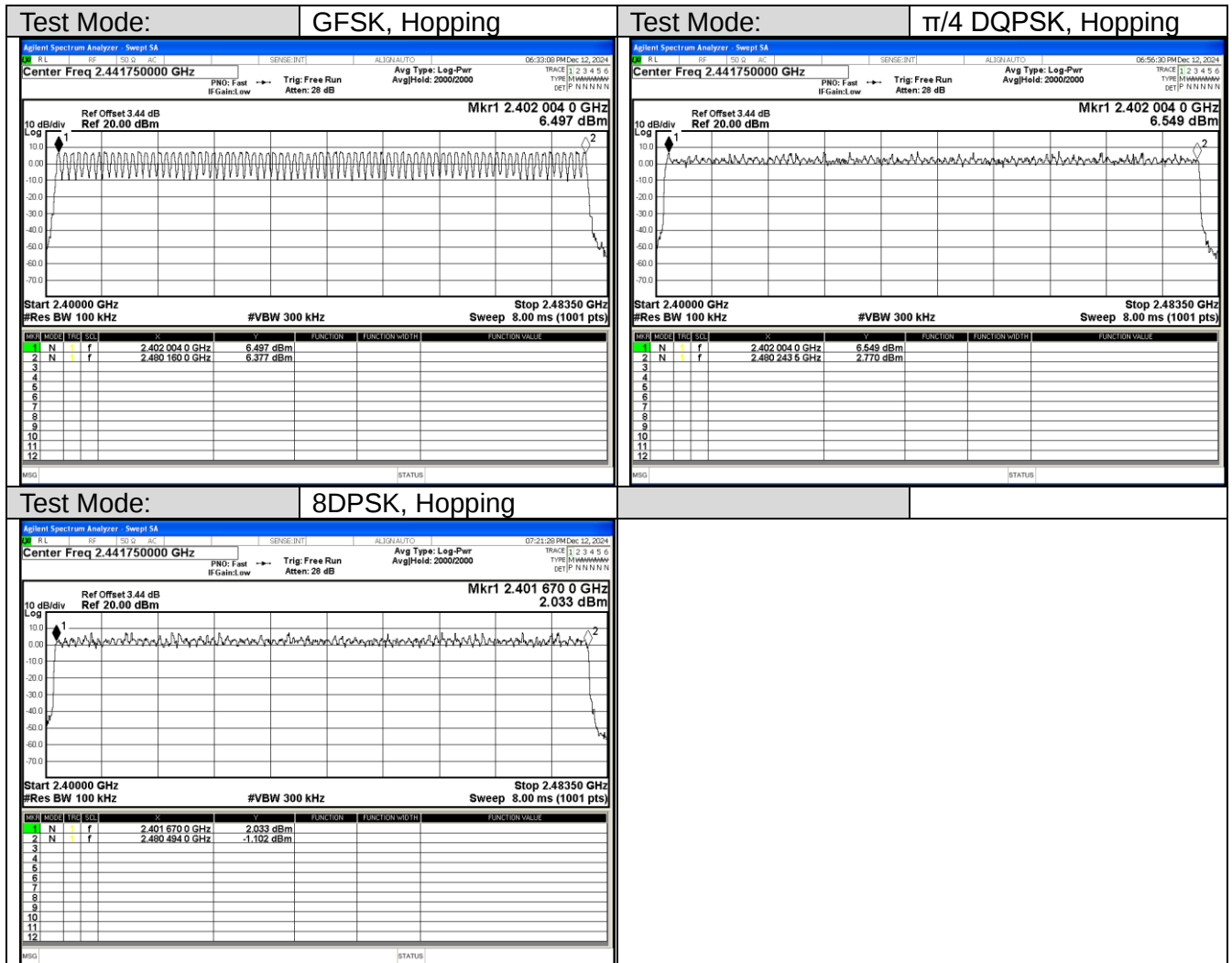


Test Mode: 8DPSK, CH78



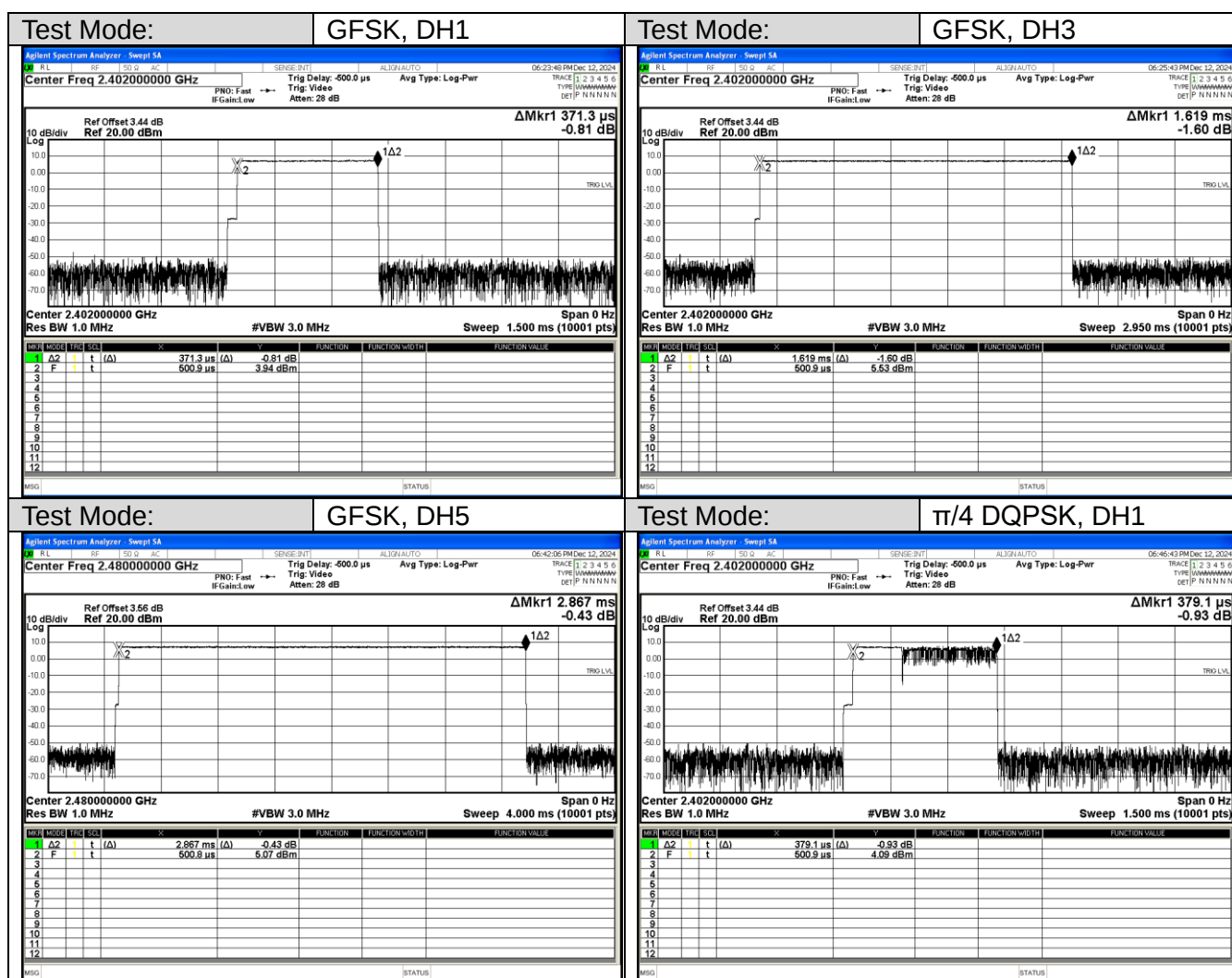
Appendix A.5 Test Results of Number of Hopping Frequency

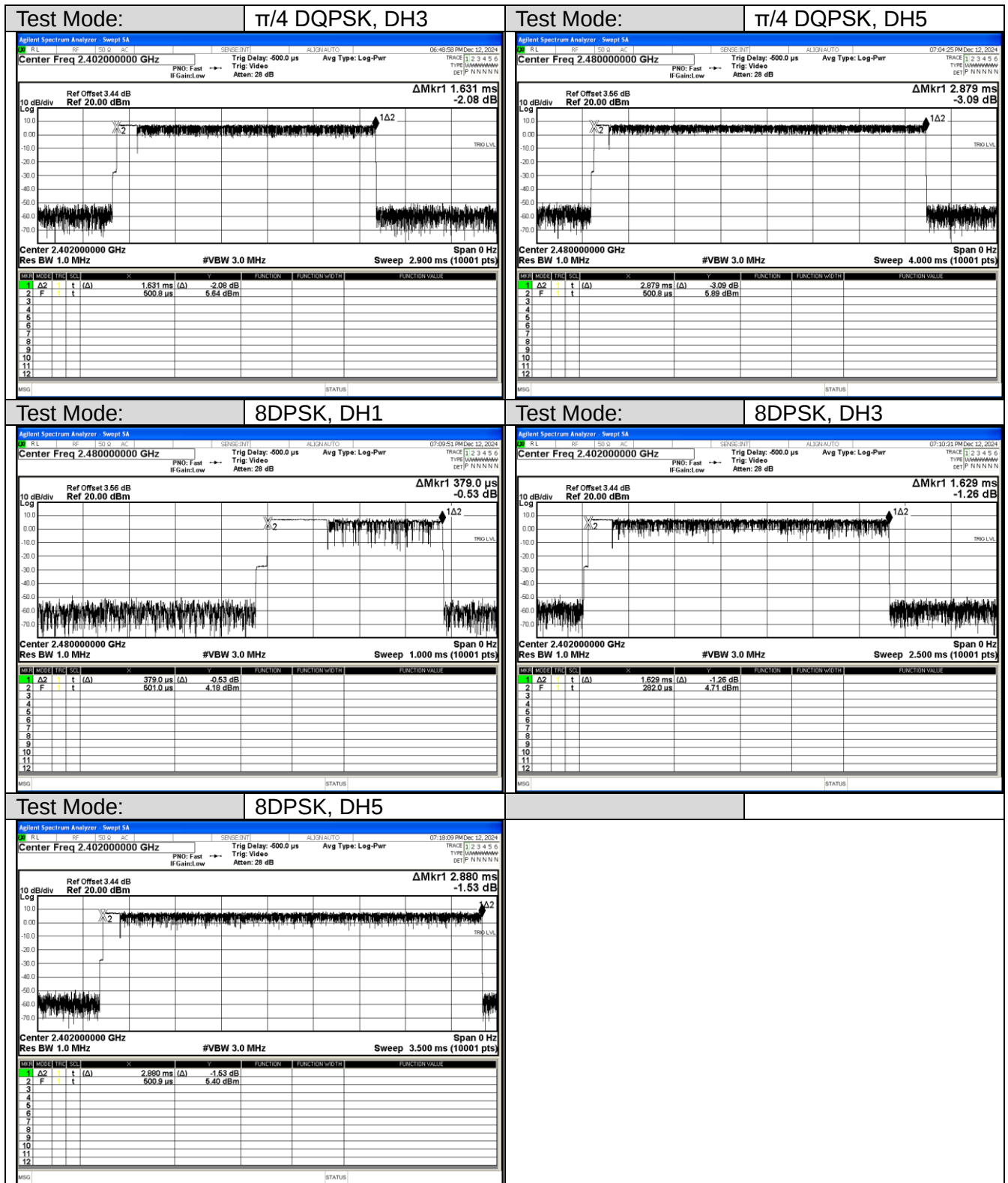
Mode	Hopping Number	Limit	Verdict
GFSK, Hopping	79	15	Pass
$\pi/4$ DQPSK, Hopping	79	15	Pass
8DPSK, Hopping	79	15	Pass



Appendix A.6 Test Results of Time of Occupancy

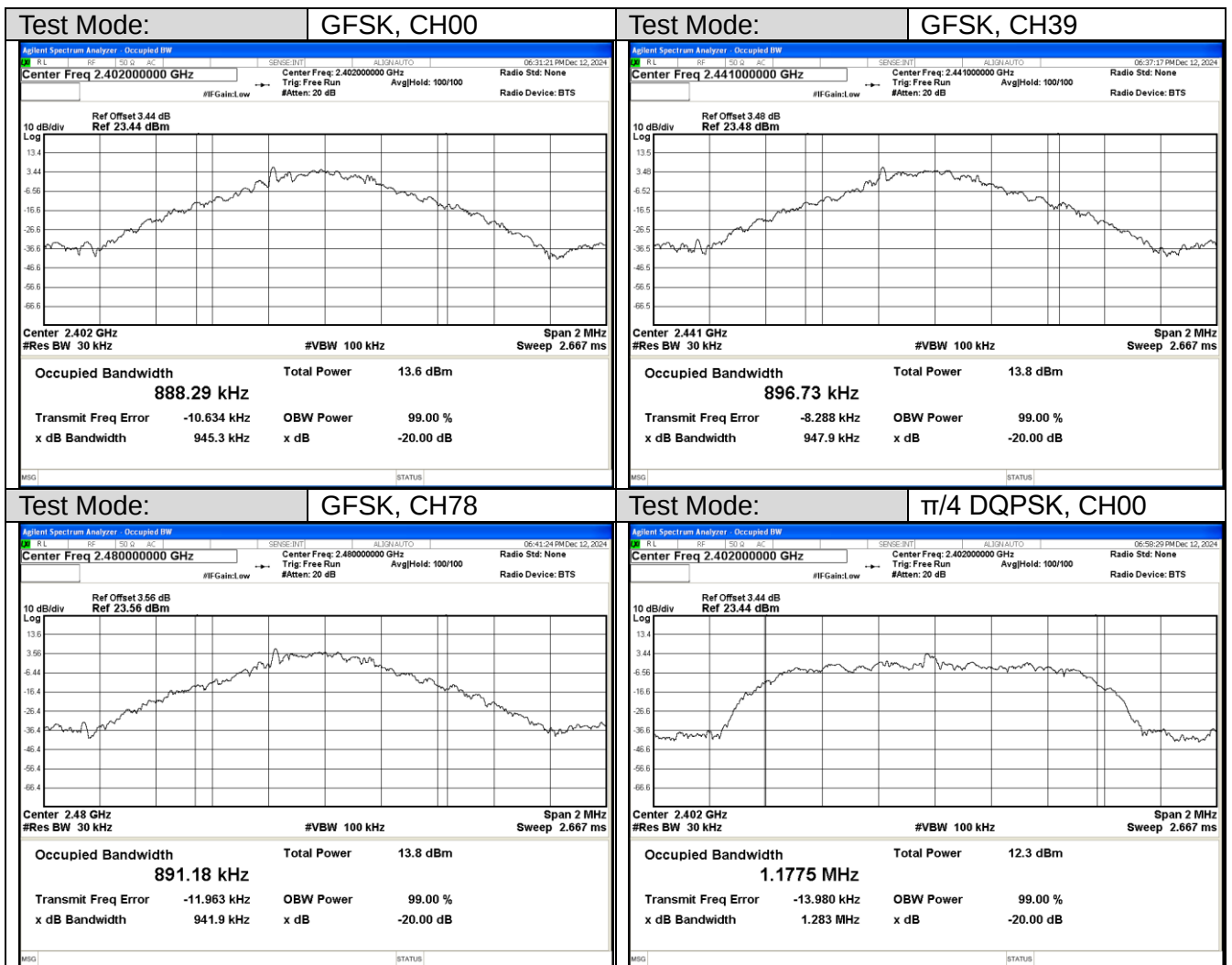
Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
GFSK, DH1	2441	0.371	117.315	31600	400	Pass
GFSK, DH3	2441	1.619	255.796	31600	400	Pass
GFSK, DH5	2441	2.867	271.811	31600	400	Pass
$\pi/4$ DQPSK, DH1	2441	0.379	119.78	31600	400	Pass
$\pi/4$ DQPSK, DH3	2441	1.631	257.692	31600	400	Pass
$\pi/4$ DQPSK, DH5	2441	2.879	272.91	31600	400	Pass
8DPSK, DH1	2441	0.379	119.732	31600	400	Pass
8DPSK, DH3	2441	1.629	257.332	31600	400	Pass
8DPSK, DH5	2441	2.88	272.99	31600	400	Pass

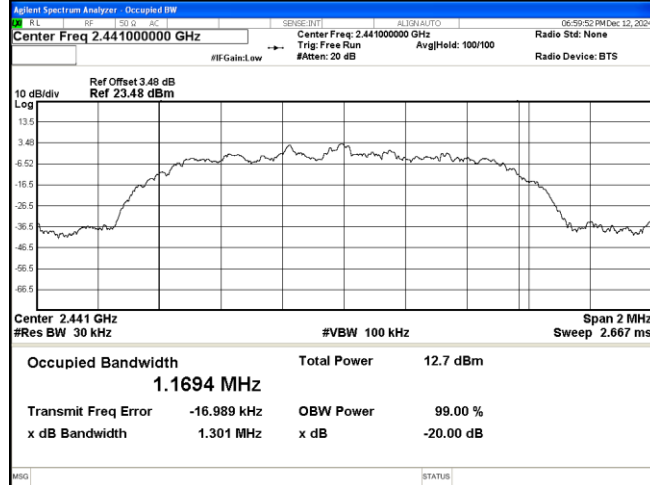
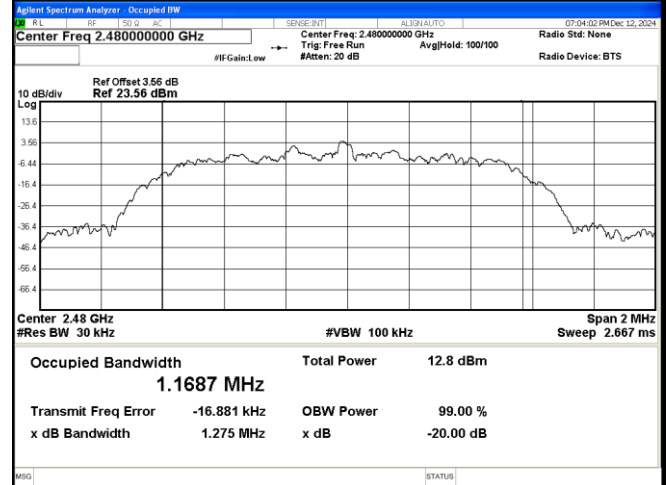




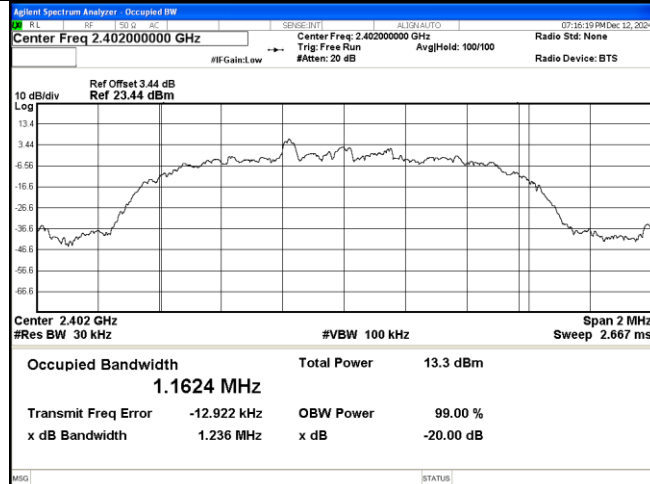
Appendix A.7 Test Results of 20dB & 99% BANDWIDTH

Mode	Frequency [MHz]	99% Bandwidth [MHz]	20dB Bandwidth [MHz]
GFSK	2402	0.8883	0.9453
GFSK	2441	0.8967	0.9479
GFSK	2480	0.8912	0.9419
$\pi/4$ DQPSK	2402	1.1775	1.2828
$\pi/4$ DQPSK	2441	1.1694	1.3005
$\pi/4$ DQPSK	2480	1.1687	1.2753
8DPSK	2402	1.1624	1.2364
8DPSK	2441	1.1769	1.2549
8DPSK	2480	1.1727	1.2958

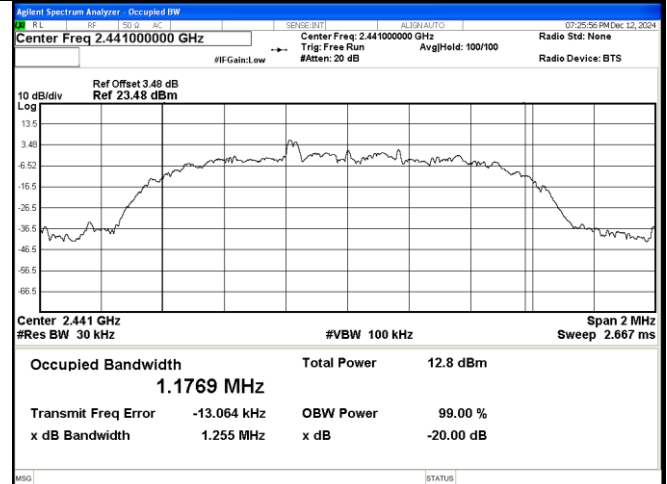


Test Mode: $\pi/4$ DQPSK, CH39Test Mode: $\pi/4$ DQPSK, CH78

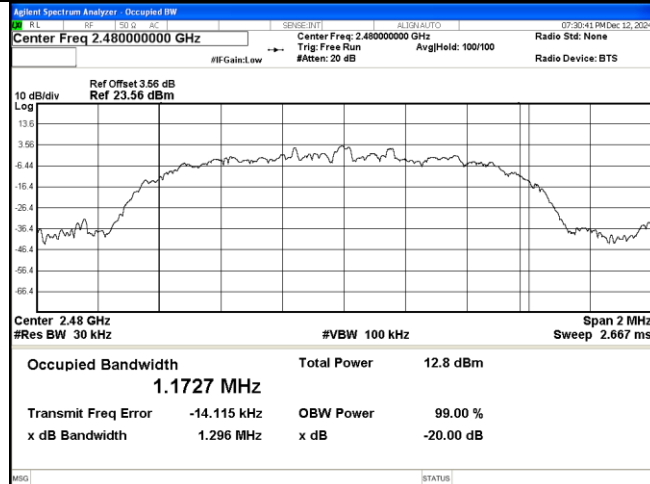
Test Mode: 8DPSK, CH00



Test Mode: 8DPSK, CH39



Test Mode: 8DPSK, CH78



Appendix A.8 Test Results of Maximum Conducted Output Power

For FCC:

Mode	Frequency [MHz]	Measured of Conducted Power		Limit [W]
		dBm	W	
GFSK	2402	7.410	0.0055	< 0.125
	2441	7.464	0.0056	< 0.125
	2480	7.467	0.0056	< 0.125
$\pi/4$ DQPSK	2402	8.211	0.0066	< 0.125
	2441	8.251	0.0067	< 0.125
	2480	8.298	0.0068	< 0.125
8DPSK	2402	8.889	0.0077	< 0.125
	2441	8.961	0.0079	< 0.125
	2480	8.951	0.0079	< 0.125

Note:

- 1) The cable loss is taken into account in results.
 - 2) Antenna gain(G) of Bluetooth: 2.69 dBi
- e.i.r.p.=P(Peak power)+ G, which is far below the 4 W