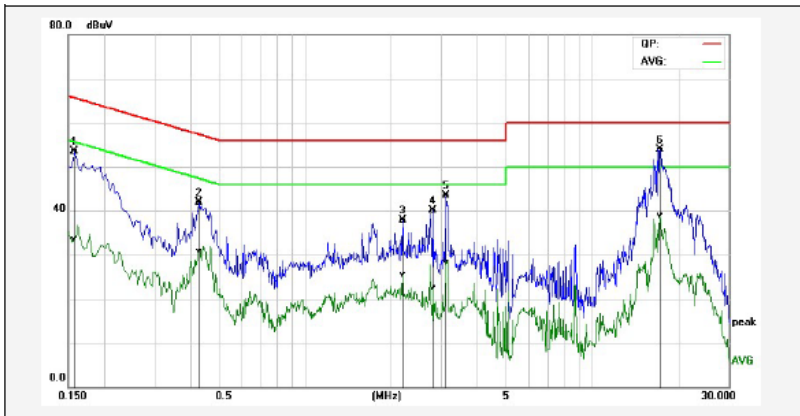
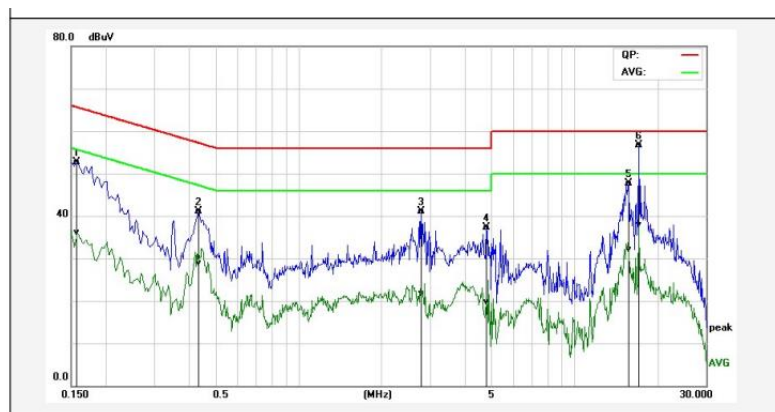


Appendix A: Test Results of BDR&EDR

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 MEASURED IN 100 KHZ BANDWIDTH.....	14
APPENDIX A.5 TEST RESULTS OF NUMBER OF HOPPING FREQUENCY	23
APPENDIX A.6 TEST RESULTS OF TIME OF OCCUPANCY.....	24
APPENDIX A.7 TEST RESULTS OF 20DB & 99% BANDWIDTH	26
APPENDIX A.8 TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER.....	28

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 :	Mode 10	Test Voltage :	DC 3.3V																																																																																																
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 <table><tr><th>No.</th><th>Frequency</th><th>QuasiPeak reading</th><th>Average reading</th><th>Correction factor</th><th>QuasiPeak result</th><th>Average result</th><th>QuasiPeak limit</th><th>Average limit</th><th>QuasiPeak margin</th><th>Average margin</th><th>Remark</th></tr><tr><td></td><td>(MHz)</td><td>(dBuV)</td><td>(dBuV)</td><td>(dB)</td><td>(dBuV)</td><td>(dBuV)</td><td>(dBuV)</td><td>(dBuV)</td><td>(dB)</td><td>(dB)</td><td></td></tr><tr><td>1P</td><td>0.1580</td><td>43.99</td><td>24.01</td><td>9.50</td><td>53.49</td><td>33.51</td><td>65.56</td><td>55.57</td><td>-12.07</td><td>-22.06</td><td>Pass</td></tr><tr><td>2P</td><td>0.4300</td><td>32.48</td><td>21.28</td><td>9.50</td><td>41.98</td><td>30.78</td><td>57.25</td><td>47.25</td><td>-15.27</td><td>-16.47</td><td>Pass</td></tr><tr><td>3P</td><td>2.2100</td><td>28.62</td><td>16.21</td><td>9.28</td><td>37.90</td><td>25.49</td><td>56.00</td><td>46.00</td><td>-18.10</td><td>-20.51</td><td>Pass</td></tr><tr><td>4P</td><td>2.8179</td><td>30.82</td><td>13.30</td><td>9.22</td><td>40.04</td><td>22.52</td><td>56.00</td><td>46.00</td><td>-15.96</td><td>-23.48</td><td>Pass</td></tr><tr><td>5P</td><td>3.1220</td><td>34.41</td><td>19.21</td><td>9.19</td><td>43.60</td><td>28.40</td><td>56.00</td><td>46.00</td><td>-12.40</td><td>-17.60</td><td>Pass</td></tr><tr><td>6*</td><td>17.2099</td><td>44.51</td><td>29.53</td><td>9.44</td><td>53.95</td><td>38.97</td><td>60.00</td><td>50.00</td><td>-6.05</td><td>-11.03</td><td>Pass</td></tr></table>				No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark		(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)		1P	0.1580	43.99	24.01	9.50	53.49	33.51	65.56	55.57	-12.07	-22.06	Pass	2P	0.4300	32.48	21.28	9.50	41.98	30.78	57.25	47.25	-15.27	-16.47	Pass	3P	2.2100	28.62	16.21	9.28	37.90	25.49	56.00	46.00	-18.10	-20.51	Pass	4P	2.8179	30.82	13.30	9.22	40.04	22.52	56.00	46.00	-15.96	-23.48	Pass	5P	3.1220	34.41	19.21	9.19	43.60	28.40	56.00	46.00	-12.40	-17.60	Pass	6*	17.2099	44.51	29.53	9.44	53.95	38.97	60.00	50.00	-6.05	-11.03	Pass
No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark																																																																																								
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1P	0.1580	43.99	24.01	9.50	53.49	33.51	65.56	55.57	-12.07	-22.06	Pass																																																																																								
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1P	0.1580	43.30	26.69	9.40	52.70	36.09	65.56	55.57	-12.86	-19.48	Pass																																																																																								
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3P	2.7940	32.00	12.54	9.12	41.12	21.66	56.00	46.00	-14.88	-24.34	Pass																																																																																								
4P	4.7980	28.28	10.66	9.00	37.28	19.66	56.00	46.00	-18.72	-26.34	Pass																																																																																								
5P	15.7700	38.63	22.94	9.12	47.75	32.06	60.00	50.00	-12.25	-17.94	Pass																																																																																								
6*	17.1700	47.49	28.81	9.14	56.63	37.95	60.00	50.00	-3.37	-12.05	Pass																																																																																								

Correction Factor = insertion loss of LISN + cable loss;

Reading = Reading Amplitude in the instrument;

Result = Correction Factor + Reading;

Margin = Result – Limit.

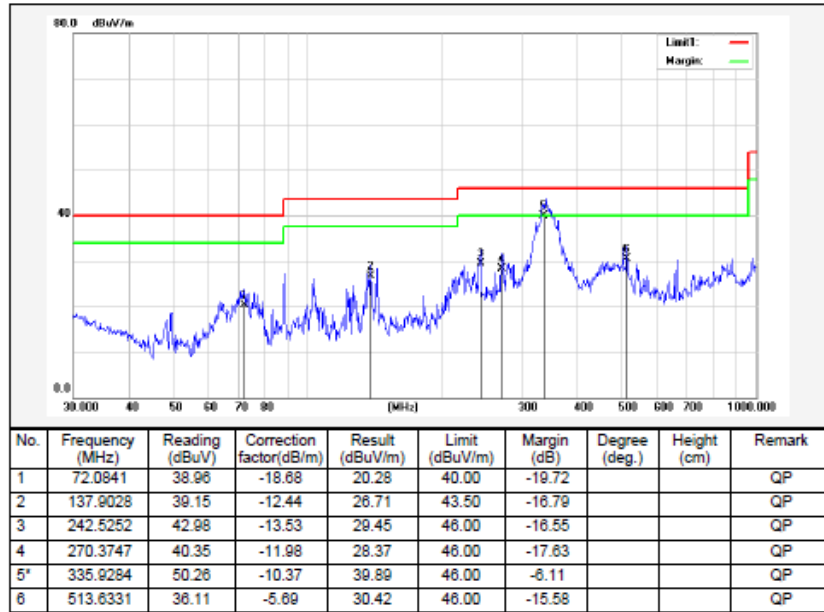
Appendix A.2 Test Results of Radiated Spurious Emission

Below 1G:

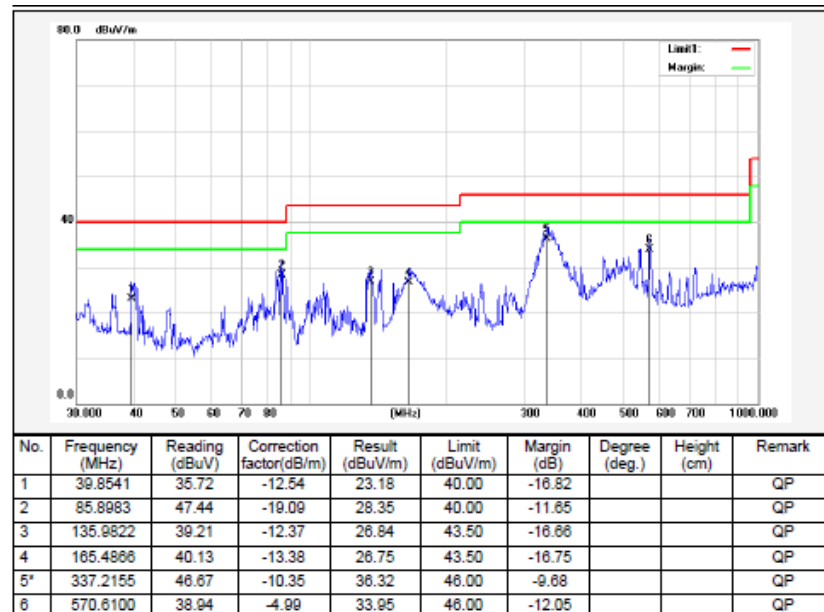
Note: All modes have been tested, and the report only reflects the worst mode.

Test Mode : Mode 5 Test Voltage : DC 3.3V

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	4808	60	-13.33	46.67	74	-27.33	peak
2	4808	49.75	-13.33	36.42	54	-17.58	AVG
3	11472	53.44	-2.21	51.23	74	-22.77	peak
4	11472	40.32	-2.21	38.11	54	-15.89	AVG
5	13682	53.63	1.40	55.03	74	-18.97	peak
6	13682	39.54	1.40	40.94	54	-13.06	AVG
7	15382	51.98	7.02	59	74	-15	peak
8	15382	35.03	7.02	42.05	54	-11.95	AVG
9	16742	52.97	7.30	60.27	74	-13.73	peak
10	16742	36.88	7.30	44.18	54	-9.82	AVG
11	18000	51	10.19	61.19	74	-12.81	peak
12	18000	31.96	10.19	42.15	54	-11.85	AVG

GFSK - Low (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7562	55.04	-7.22	47.82	74	-26.18	peak
2	7562	45.79	-7.22	38.57	54	-15.43	AVG
3	8820	56.67	-7.83	48.84	74	-25.16	peak
4	8820	48.47	-7.83	40.64	54	-13.36	AVG
5	11064	54.96	-2.65	52.31	74	-21.69	peak
6	11064	45.06	-2.65	42.41	54	-11.59	AVG
7	12628	53.97	-0.70	53.27	74	-20.73	peak
8	12628	42.17	-0.70	41.47	54	-12.53	AVG
9	15178	53.78	6.43	60.21	74	-13.79	peak
10	15178	38.39	6.43	44.82	54	-9.18	AVG
11	18000	51.7	10.19	61.89	74	-12.11	peak
12	18000	35.57	10.19	45.76	54	-8.24	AVG

GFSK - Middle (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8344	55.98	-7.20	48.78	74	-25.22	peak
2	8344	46.72	-7.20	39.52	54	-14.48	AVG
3	10486	54.94	-3.53	51.41	74	-22.59	peak
4	10486	43.86	-3.53	40.33	54	-13.67	AVG
5	13070	54.66	-0.16	54.5	74	-19.5	peak
6	13070	42.62	-0.16	42.46	54	-11.54	AVG
7	15348	53.39	6.93	60.32	74	-13.68	peak
8	15348	36.52	6.93	43.45	54	-10.55	AVG
9	16742	52.94	7.30	60.24	74	-13.76	peak
10	16742	37.75	7.30	45.05	54	-8.95	AVG
11	18000	51.59	10.19	61.78	74	-12.22	peak
12	18000	34.43	10.19	44.62	54	-9.38	AVG

GFSK - Middle (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8242	55.81	-7.48	48.33	74	-25.67	peak
2	8242	45.54	-7.48	38.06	54	-15.94	AVG
3	11132	54.25	-2.48	51.77	74	-22.23	peak
4	11132	43.44	-2.48	40.96	54	-13.04	AVG
5	13036	54.29	-0.29	54	74	-20	peak
6	13036	42.6	-0.29	42.31	54	-11.69	AVG
7	15212	52.5	6.63	59.13	74	-14.87	peak
8	15212	35.38	6.63	42.01	54	-11.99	AVG
9	16776	39.44	7.44	46.88	54	-7.12	AVG
10	16776	52.86	7.49	60.35	74	-13.65	peak
11	18000	51.21	10.19	61.4	74	-12.6	peak
12	18000	35.23	10.19	45.42	54	-8.58	AVG

GFSK - High (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7358	55.76	-7.23	48.53	74	-25.47	peak
2	7358	45.42	-7.23	38.19	54	-15.81	AVG
3	9806	56.55	-5.84	50.71	74	-23.29	peak
4	9806	44.86	-5.84	39.02	54	-14.98	AVG
5	11132	54.4	-2.48	51.92	74	-22.08	peak
6	11132	43.87	-2.48	41.39	54	-12.61	AVG
7	13070	54.93	-0.16	54.77	74	-19.23	peak
8	13070	43.94	-0.16	43.78	54	-10.22	AVG
9	15212	53.23	6.63	59.86	74	-14.14	peak
10	15212	39.32	6.63	45.95	54	-8.05	AVG
11	16776	53.64	7.49	61.13	74	-12.87	peak
12	16776	36.19	7.49	43.68	54	-10.32	AVG

GFSK - High (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3992	60.06	-15.01	45.05	74	-28.95	peak
2	3992	55.98	-15.01	40.97	54	-13.03	AVG
3	7562	55.84	-7.22	48.62	74	-25.38	peak
4	7562	52.01	-7.22	44.79	54	-9.21	AVG
5	10350	54.49	-4.13	50.36	74	-23.64	peak
6	10350	48.88	-4.13	44.75	54	-9.25	AVG
7	11438	53.74	-2.04	51.7	74	-22.3	peak
8	11438	45.5	-2.04	43.46	54	-10.54	AVG
9	15212	52.66	6.63	59.29	74	-14.71	peak
10	15212	37.05	6.63	43.68	54	-10.32	AVG
11	18000	51.72	10.19	61.91	74	-12.09	peak
12	18000	33.2	10.19	43.39	54	-10.61	AVG

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

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4808	59.41	-13.33	46.08	74	-27.92	peak
2	4808	49.47	-13.33	36.14	54	-17.86	AVG
3	11132	54.95	-2.48	52.47	74	-21.53	peak
4	11132	42.42	-2.48	39.94	54	-14.06	AVG
5	12458	55.43	-1.59	53.84	74	-20.16	peak
6	12458	44.5	-1.59	42.91	54	-11.09	AVG
7	15756	52.97	6.55	59.52	74	-14.48	peak
8	15756	38.08	6.55	44.63	54	-9.37	AVG
9	16742	52.82	7.30	60.12	74	-13.88	peak
10	16742	38.67	7.30	45.97	54	-8.03	AVG
11	18000	52.52	10.19	62.71	74	-11.29	peak
12	18000	35.89	10.19	46.08	54	-7.92	AVG

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

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3958	59.64	-15.09	44.55	74	-29.45	peak
2	3958	52.06	-15.09	36.97	54	-17.03	AVG
3	5998	57.55	-10.12	47.43	74	-26.57	peak
4	5998	49.3	-10.12	39.18	54	-14.82	AVG
5	11438	54.13	-2.04	52.09	74	-21.91	peak
6	11438	42.4	-2.04	40.36	54	-13.64	AVG
7	15348	53.5	6.93	60.43	74	-13.57	peak
8	15348	36.74	6.93	43.67	54	-10.33	AVG
9	16742	52.69	7.30	59.99	74	-14.01	peak
10	16742	36.92	7.30	44.22	54	-9.78	AVG
11	17932	51.99	9.79	61.78	74	-12.22	peak
12	17932	36.77	9.79	46.56	54	-7.44	AVG

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

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4910	56.82	-12.91	43.91	74	-30.09	peak
2	4910	51.32	-12.91	38.41	54	-15.59	AVG
3	7562	55.39	-7.22	48.17	74	-25.83	peak
4	7562	47.94	-7.22	40.72	54	-13.28	AVG
5	8820	55.74	-7.83	47.91	74	-26.09	peak
6	8820	49.99	-7.83	42.16	54	-11.84	AVG
7	11778	54.36	-2.61	51.75	74	-22.25	peak
8	11778	44.99	-2.61	42.38	54	-11.62	AVG
9	15314	52.12	6.82	58.94	74	-15.06	peak
10	15314	39.75	6.82	46.57	54	-7.43	AVG
11	17694	51.86	9.05	60.91	74	-13.09	peak
12	17694	38.77	9.05	47.82	54	-6.18	AVG

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

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3992	60.08	-15.01	45.07	74	-28.93	peak
2	3992	52.6	-15.01	37.59	54	-16.41	AVG
3	5998	57.17	-10.12	47.05	74	-26.95	peak
4	5998	50	-10.12	39.88	54	-14.12	AVG
5	7562	56.06	-7.22	48.84	74	-25.16	peak
6	7562	49.63	-7.22	42.41	54	-11.59	AVG
7	13070	54.6	-0.16	54.44	74	-19.56	peak
8	13070	45	-0.16	44.84	54	-9.16	AVG
9	15178	53.1	6.43	59.53	74	-14.47	peak
10	15178	40.13	6.43	46.56	54	-7.44	AVG
11	18000	51.29	10.19	61.48	74	-12.52	peak
12	18000	37.23	10.19	47.42	54	-6.58	AVG

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

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5964	56.93	-10.23	46.7	74	-27.3	peak
2	5964	47.65	-10.23	37.42	54	-16.58	AVG
3	7426	55.45	-7.09	48.36	74	-25.64	peak
4	7426	46.7	-7.09	39.61	54	-14.39	AVG
5	8378	55.99	-7.10	48.89	74	-25.11	peak
6	8378	49.29	-7.10	42.19	54	-11.81	AVG
7	12424	55.93	-1.81	54.12	74	-19.88	peak
8	12424	46.39	-1.81	44.58	54	-9.42	AVG
9	15280	52.56	6.75	59.31	74	-14.69	peak
10	15280	38.97	6.75	45.72	54	-8.28	AVG
11	18000	51.21	10.19	61.4	74	-12.6	peak
12	18000	37.62	10.19	47.81	54	-6.19	AVG

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

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3992	59.03	-15.01	44.02	74	-29.98	peak
2	3992	52.5	-15.01	37.49	54	-16.51	AVG
3	7630	55.07	-7.44	47.63	74	-26.37	peak
4	7630	47.25	-7.44	39.81	54	-14.19	AVG
5	10486	54.48	-3.53	50.95	74	-23.05	peak
6	10486	45.59	-3.53	42.06	54	-11.94	AVG
7	13070	54.65	-0.16	54.49	74	-19.51	peak
8	13070	44.88	-0.16	44.72	54	-9.28	AVG
9	15212	51.94	6.63	58.57	74	-15.43	peak
10	15212	40.22	6.63	46.85	54	-7.15	AVG
11	18000	50.71	10.19	60.9	74	-13.1	peak
12	18000	35.48	10.19	45.67	54	-8.33	AVG

8DPSK - Low (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4808	58.42	-13.33	45.09	74	-28.91	peak
2	4808	50.32	-13.33	36.99	54	-17.01	AVG
3	7426	55.99	-7.09	48.9	74	-25.1	peak
4	7426	47.27	-7.09	40.18	54	-13.82	AVG
5	8378	56.27	-7.10	49.17	74	-24.83	peak
6	8378	46.75	-7.10	39.65	54	-14.35	AVG
7	11064	55.58	-2.65	52.93	74	-21.07	peak
8	11064	43.11	-2.65	40.46	54	-13.54	AVG
9	15212	52.88	6.63	59.51	74	-14.49	peak
10	15212	36.59	6.63	43.22	54	-10.78	AVG
11	17796	52.47	8.92	61.39	74	-12.61	peak
12	17796	36.39	8.92	45.31	54	-8.69	AVG

8DPSK - Low (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3992	58.94	-15.01	43.93	74	-30.07	peak
2	3992	51.29	-15.01	36.28	54	-17.72	AVG
3	6168	55.53	-9.92	45.61	74	-28.39	peak
4	6168	49.91	-9.92	39.99	54	-14.01	AVG
5	8378	55.21	-7.10	48.11	74	-25.89	peak
6	8378	47.58	-7.10	40.48	54	-13.52	AVG
7	12594	53.38	-0.73	52.65	74	-21.35	peak
8	12594	43.17	-0.73	42.44	54	-11.56	AVG
9	15212	53.27	6.63	59.9	74	-14.1	peak
10	15212	37.38	6.63	44.01	54	-9.99	AVG
11	17830	51.88	9.12	61	74	-13	peak
12	17830	36.23	9.12	45.35	54	-8.65	AVG

8DPSK - Middle (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5046	57.93	-12.62	45.31	74	-28.69	peak
2	5046	49.3	-12.62	36.68	54	-17.32	AVG
3	7562	58	-7.22	50.78	74	-23.22	peak
4	7562	46.98	-7.22	39.76	54	-14.24	AVG
5	10690	53.96	-2.89	51.07	74	-22.93	peak
6	10690	43.28	-2.89	40.39	54	-13.61	AVG
7	12424	55.07	-1.81	53.26	74	-20.74	peak
8	12424	44.07	-1.81	42.26	54	-11.74	AVG
9	15246	52.52	6.70	59.22	74	-14.78	peak
10	15246	38.16	6.70	44.86	54	-9.14	AVG
11	17898	51.61	9.59	61.2	74	-12.8	peak
12	17898	36.15	9.59	45.74	54	-8.26	AVG

8DPSK - Middle (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	3958	59.74	-15.09	44.65	74	-29.35	peak
2	3958	53.28	-15.09	38.19	54	-15.81	AVG
3	5998	57.29	-10.12	47.17	74	-26.83	peak
4	5998	50.45	-10.12	40.33	54	-13.67	AVG
5	10112	55	-4.19	50.81	74	-23.19	peak
6	10112	46.88	-4.19	42.69	54	-11.31	AVG
7	12866	54.29	-0.73	53.56	74	-20.44	peak
8	12866	44.55	-0.73	43.82	54	-10.18	AVG
9	15348	52.2	6.93	59.13	74	-14.87	peak
10	15348	38.12	6.93	45.05	54	-8.95	AVG
11	17830	51.73	9.12	60.85	74	-13.15	peak
12	17830	38.14	9.12	47.26	54	-6.74	AVG

8DPSK - High (worst mode) Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4910	57.07	-12.91	44.16	74	-29.84	peak
2	4910	50.39	-12.91	37.48	54	-16.52	AVG
3	6134	56.68	-9.98	46.7	74	-27.3	peak
4	6134	49.49	-9.98	39.51	54	-14.49	AVG
5	8412	55.31	-7.14	48.17	74	-25.83	peak
6	8412	48.73	-7.14	41.59	54	-12.41	AVG
7	11472	53.85	-2.21	51.64	74	-22.36	peak
8	11472	45.92	-2.21	43.71	54	-10.29	AVG
9	15348	52.05	6.93	58.98	74	-15.02	peak
10	15348	39.89	6.93	46.82	54	-7.18	AVG
11	17864	51.97	9.35	61.32	74	-12.68	peak
12	17864	37.38	9.35	46.73	54	-7.27	AVG

8DPSK - High (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4910	57.91	-12.91	45	74	-29	peak
2	4910	49.4	-12.91	36.49	54	-17.51	AVG
3	6134	55.88	-9.98	45.9	74	-28.1	peak
4	6134	49.52	-9.98	39.54	54	-14.46	AVG
5	7460	55.08	-7.09	47.99	74	-26.01	peak
6	7460	47.35	-7.09	40.26	54	-13.74	AVG
7	11098	55.35	-2.54	52.81	74	-21.19	peak
8	11098	45.28	-2.54	42.74	54	-11.26	AVG
9	15246	52.41	6.70	59.11	74	-14.89	peak
10	15246	38.11	6.70	44.81	54	-9.19	AVG
11	18000	51.45	10.19	61.64	74	-12.36	peak
12	18000	36.4	10.19	46.59	54	-7.41	AVG

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. 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.

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	2386.19	67.15	-21.05	46.1	74	-27.9	peak
2	2386.19	57.52	-21.05	36.47	54	-17.53	AVG
3	2390	64.01	-21.03	42.98	74	-31.02	peak
4	2390	55.92	-21.03	34.89	54	-19.11	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2344.2	65.01	-21.21	43.8	74	-30.2	peak
2	2344.2	54.72	-21.21	33.51	54	-20.49	AVG
3	2390	65.43	-21.03	44.4	74	-29.6	peak
4	2390	56.79	-21.03	35.76	54	-18.24	AVG
GFSK - High (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5	63.89	-20.91	42.98	74	-31.02	peak
2	2483.5	53.07	-20.91	32.16	54	-21.84	AVG
3	2483.95	70.01	-20.91	49.1	74	-24.9	peak
4	2483.95	55.7	-20.91	34.79	54	-19.21	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5	64.78	-20.91	43.87	74	-30.13	peak
2	2483.5	54.38	-20.91	33.47	54	-20.53	AVG
3	2484.6	68.82	-20.91	47.91	74	-26.09	peak
4	2484.6	56.77	-20.91	35.86	54	-18.14	AVG

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	2377.45	62.02	-21.08	40.94	74	-33.06	peak
2	2377.45	53.59	-21.08	32.51	54	-21.49	AVG
3	2390	60.03	-21.03	39	74	-35	peak
4	2390	55.11	-21.03	34.08	54	-19.92	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2382.77	62.77	-21.05	41.72	74	-32.28	peak
2	2382.77	53.9	-21.05	32.85	54	-21.15	AVG
3	2390	60.3	-21.03	39.27	74	-34.73	peak
4	2390	55.75	-21.03	34.72	54	-19.28	AVG
$\pi/4$ DQPSK - High (worst mode)							
Horizontal							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5	81.29	-20.91	60.38	74	-13.62	peak
2	2483.5	55.72	-20.91	34.81	54	-19.19	AVG
3	2484.65	71.97	-20.91	51.06	74	-22.94	peak
4	2484.65	54.43	-20.91	33.52	54	-20.48	AVG
Vertical							
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.5	67.04	-20.91	46.13	74	-27.87	peak
2	2483.5	54.62	-20.91	33.71	54	-20.29	AVG
3	2486.9	68.2	-20.91	47.29	74	-26.71	peak
4	2486.9	55.17	-20.91	34.26	54	-19.74	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	2361.87	60.48	-21.15	39.33	74	-34.67	peak
2	2361.87	55.77	-21.15	34.62	54	-19.38	AVG
3	2390	59.47	-21.03	38.44	74	-35.56	peak
4	2390	53.18	-21.03	32.15	54	-21.85	AVG
Vertical							
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2369.47	62.36	-21.12	41.24	74	-32.76	peak
2	2369.47	56.6	-21.12	35.48	54	-18.52	AVG
3	2390	62.09	-21.03	41.06	74	-32.94	peak
4	2390	54.76	-21.03	33.73	54	-20.27	AVG
8DPSK - High (worst mode)							
Horizontal							
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5	81.16	-20.91	60.25	74	-13.75	peak
2	2483.5	56.71	-20.91	35.8	54	-18.2	AVG
3	2484.75	72.28	-20.91	51.37	74	-22.63	peak
4	2484.75	55.48	-20.91	34.57	54	-19.43	AVG
Vertical							
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.5	71.78	-20.91	50.87	74	-23.13	peak
2	2483.5	53.59	-20.91	32.68	54	-21.32	AVG
3	2484.15	71.17	-20.91	50.26	74	-23.74	peak
4	2484.15	56.66	-20.91	35.75	54	-18.25	AVG

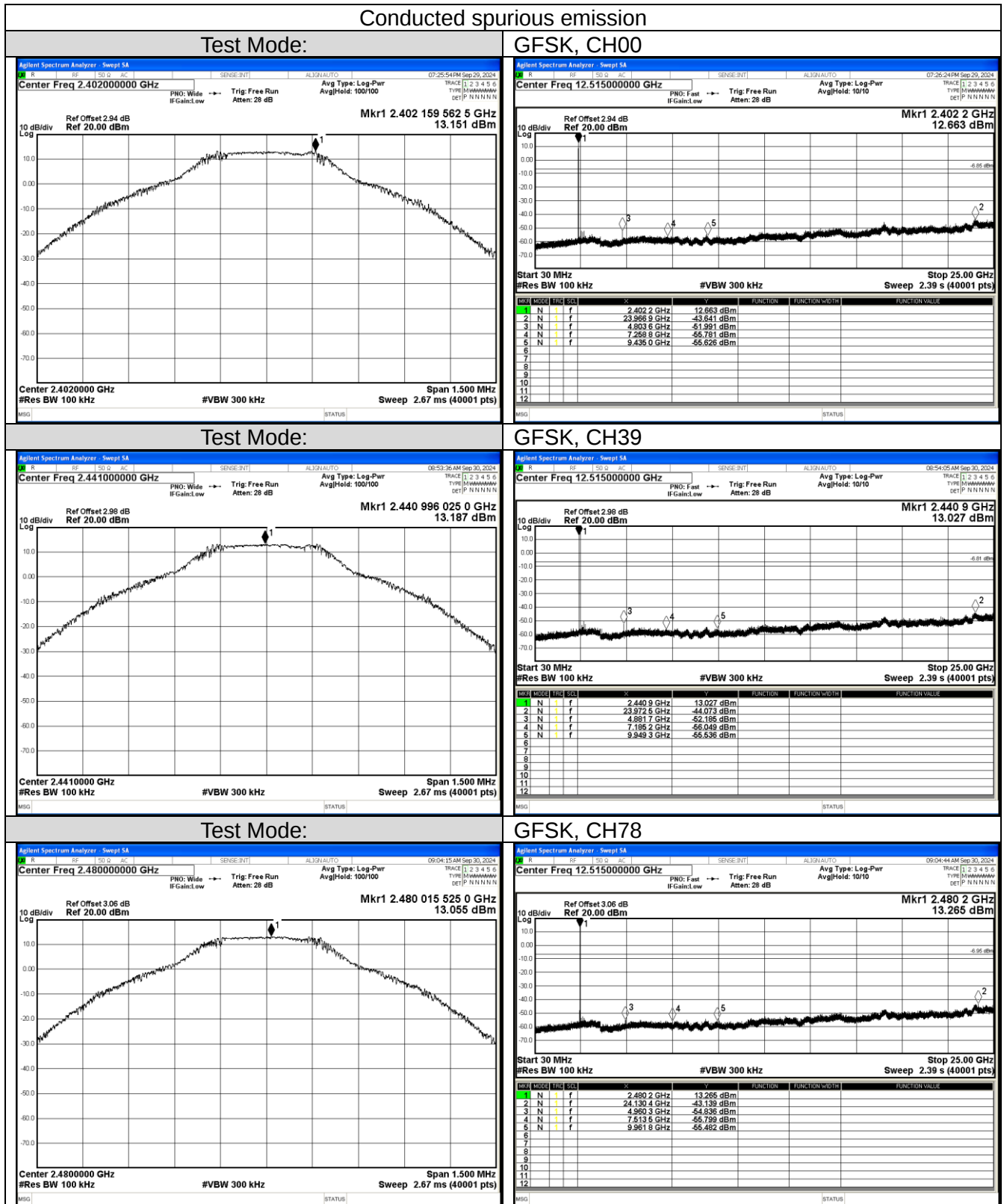
Correction Factor = antenna factor + cable loss – amplifier gain;

Reading = Reading Amplitude in the instrument;

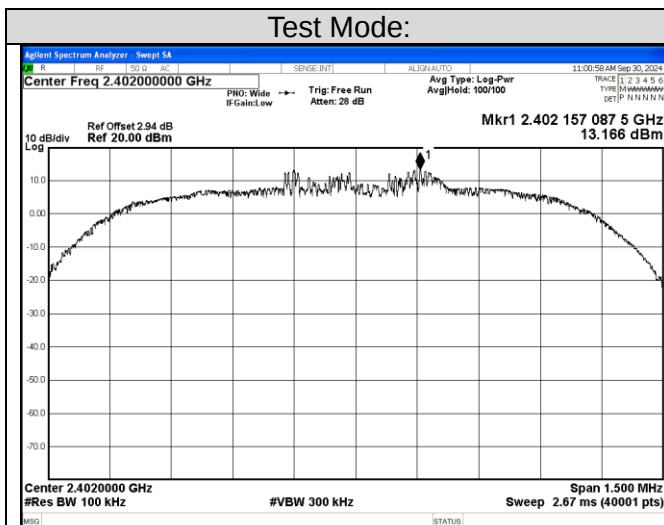
Result = Correction Factor + Reading;

Margin = Result – Limit

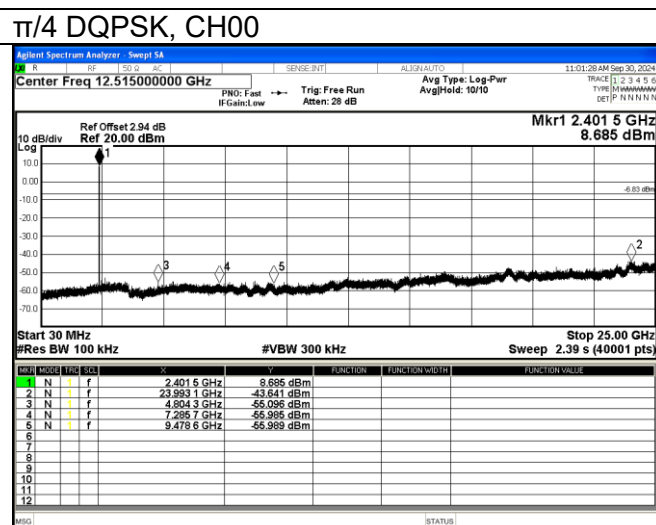
Appendix A.3 Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth



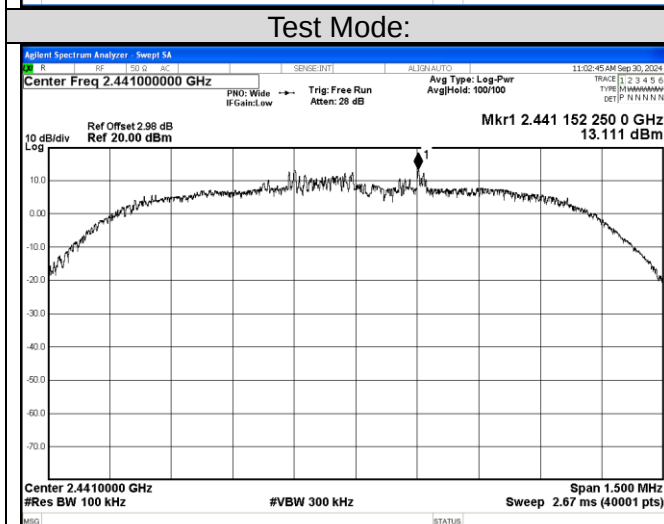
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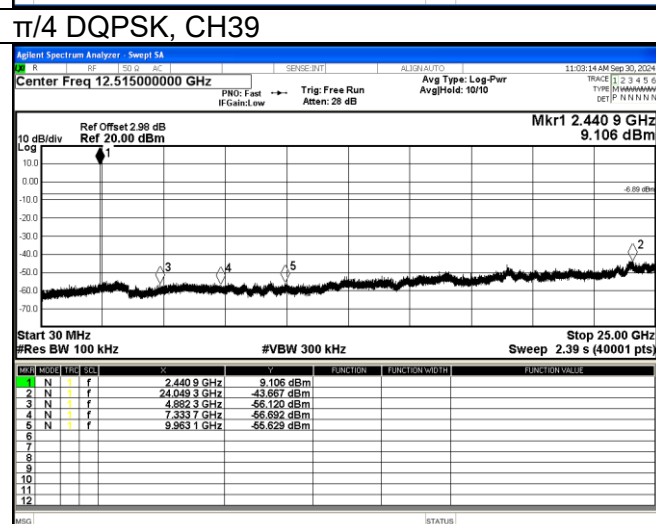
$\pi/4$ DQPSK, CH00



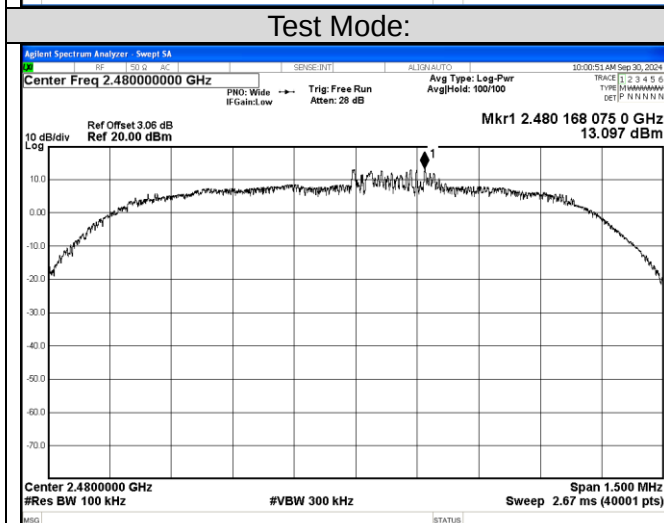
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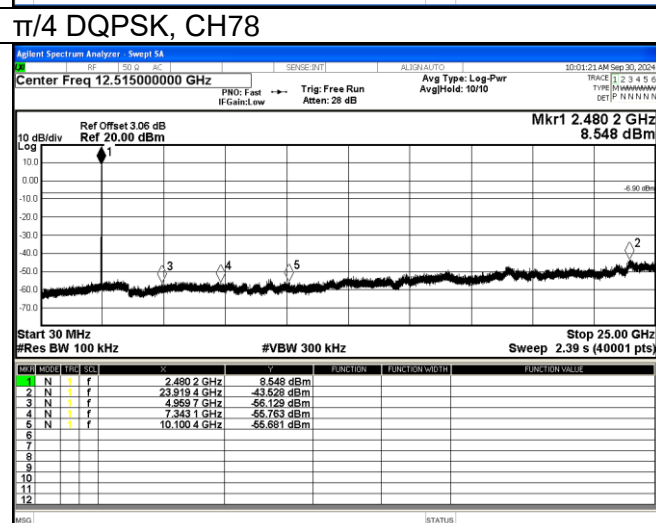
$\pi/4$ DQPSK, CH39



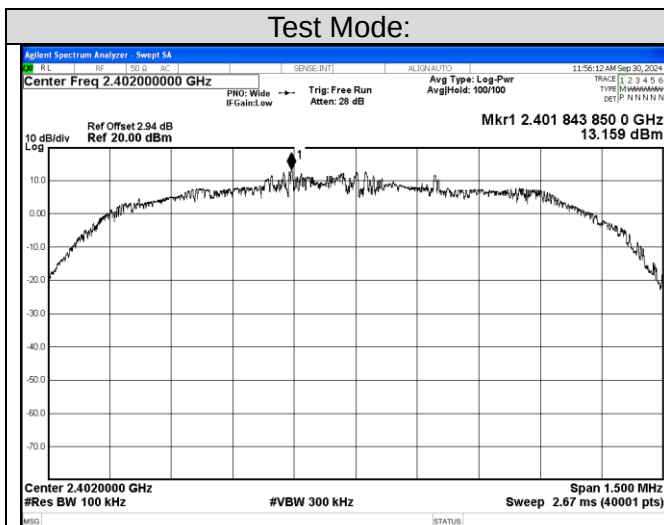
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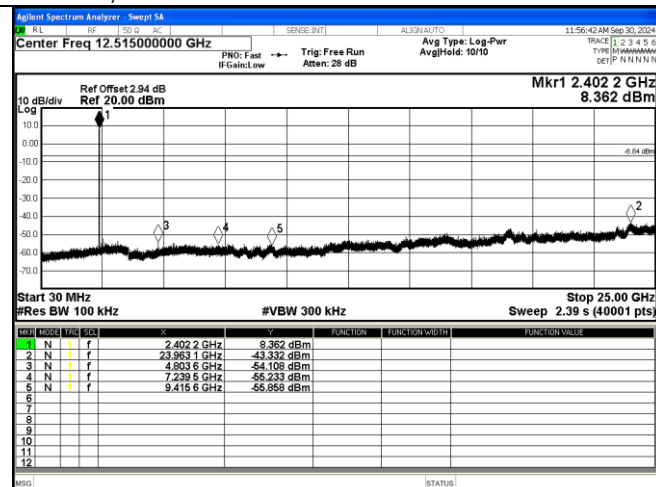
$\pi/4$ DQPSK, CH78



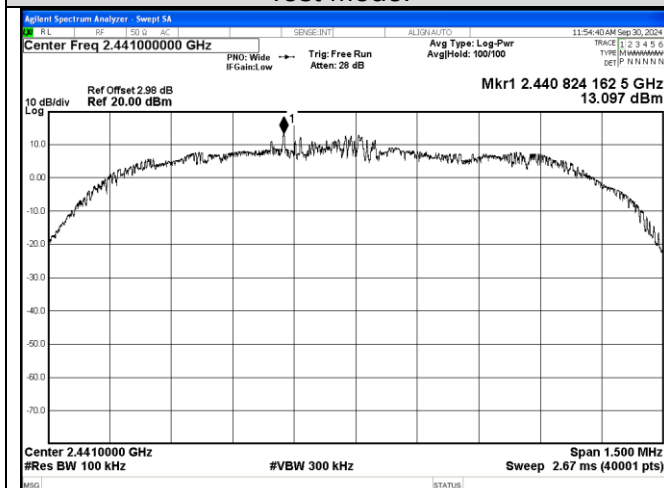
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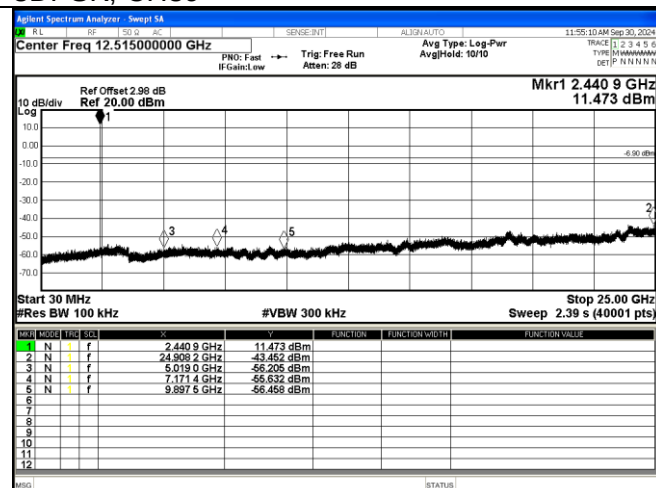
8DPSK, CH00



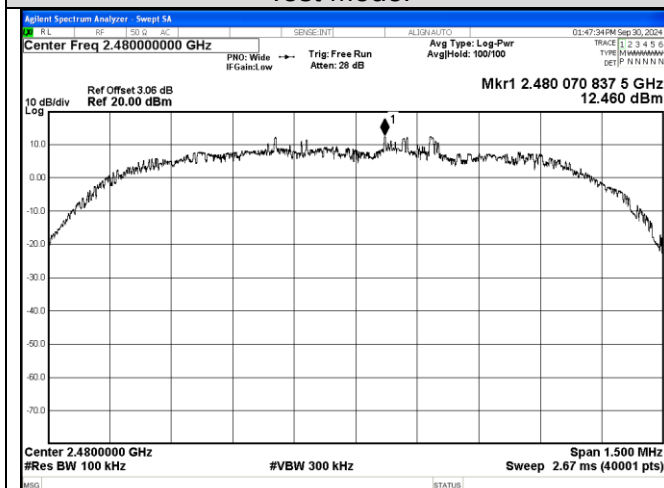
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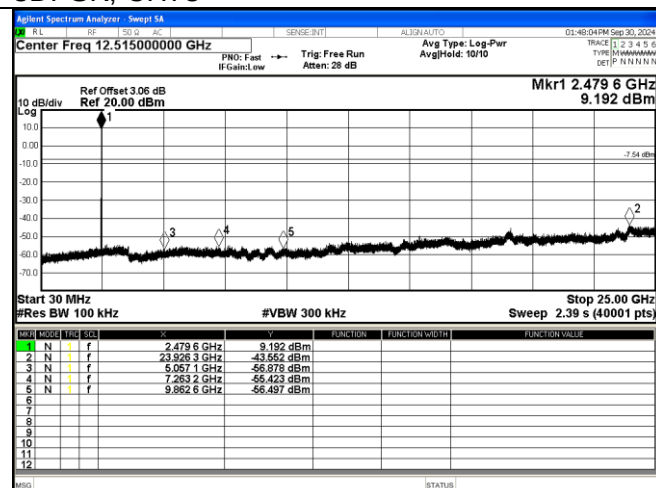
8DPSK, CH39



Test Mode:



8DPSK, CH78

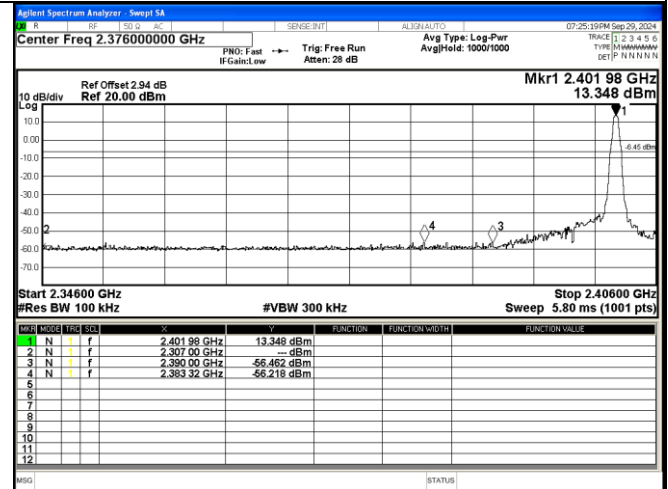
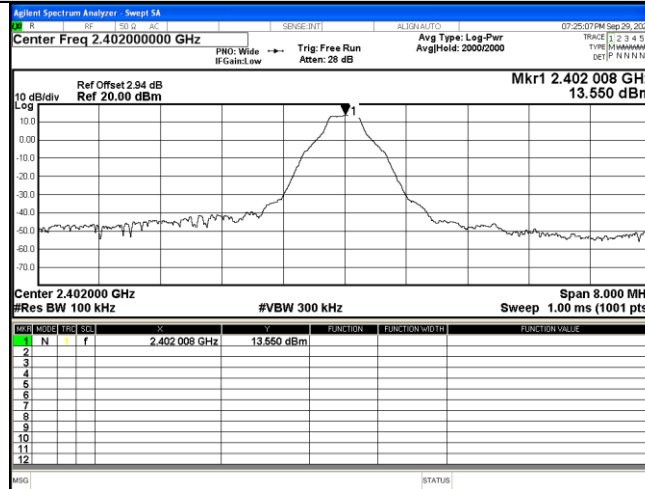




For Band edge (it's also the reference level for conducted spurious emission)

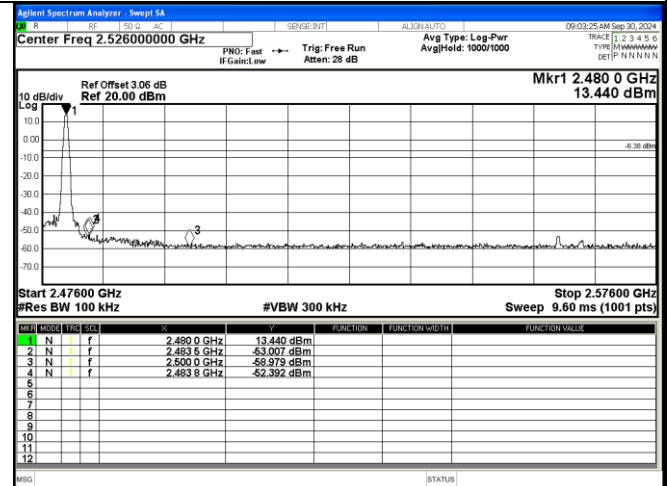
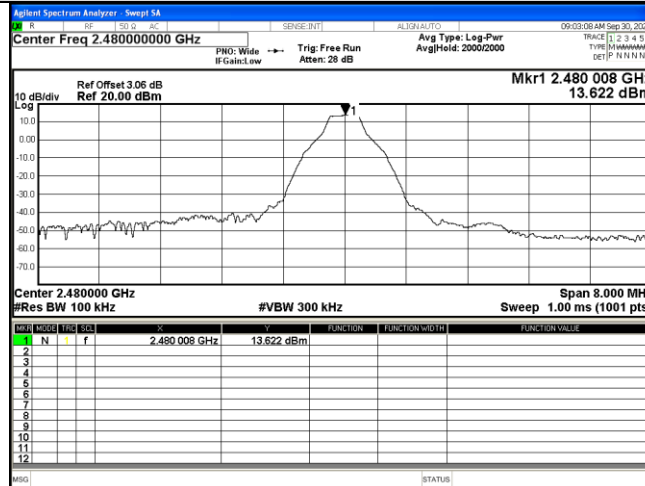
Test Mode:

GFSK, CH00

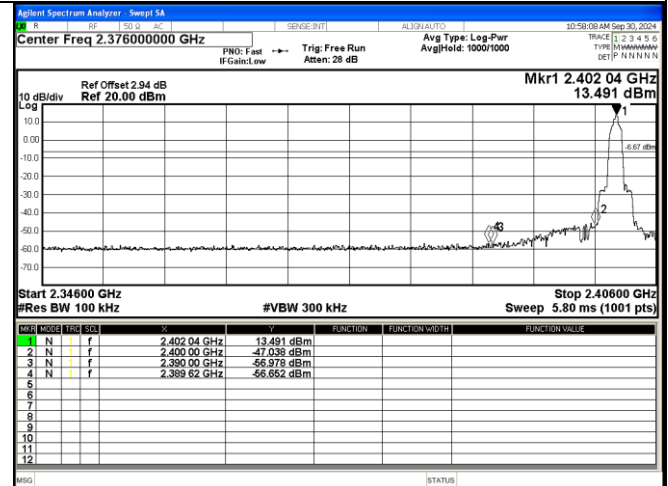
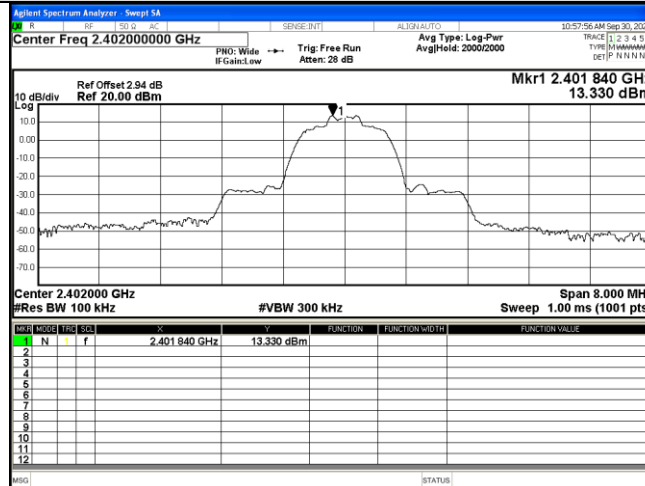


Test Mode:

GFSK, CH78

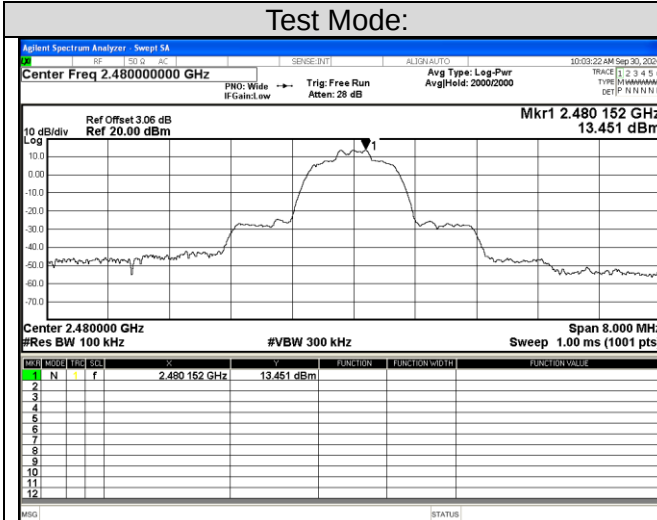
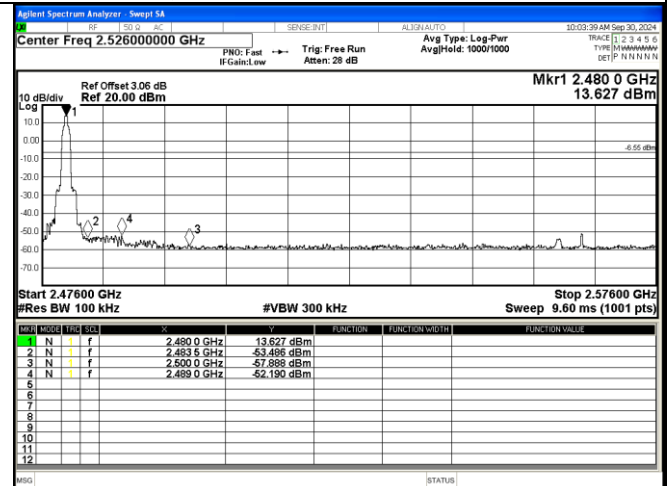


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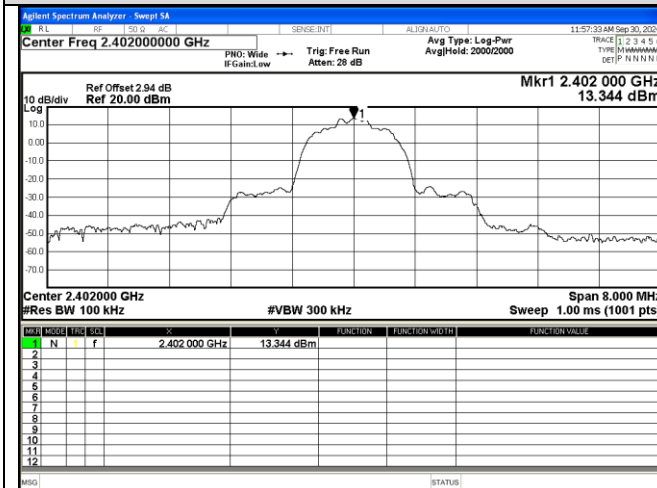
 $\pi/4$ DQPSK, CH00



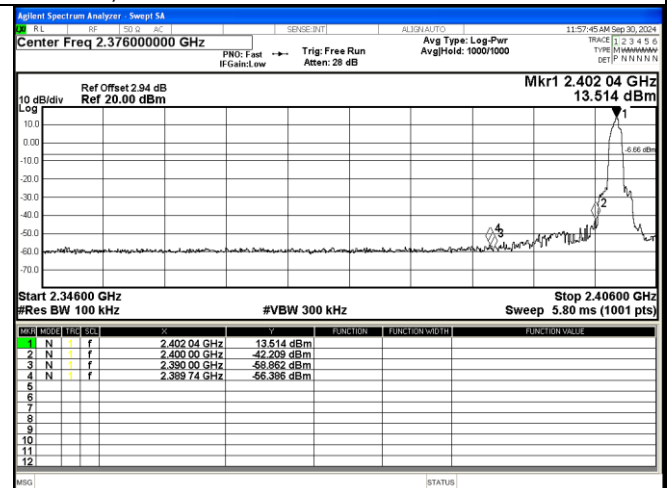
Test Mode:

 $\pi/4$ DQPSK, CH78

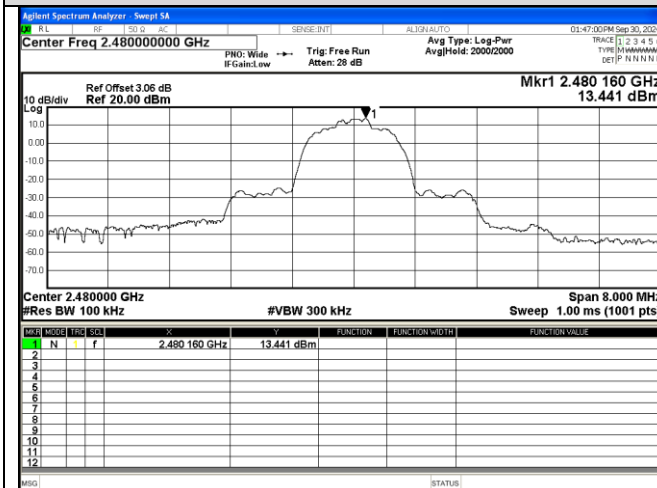
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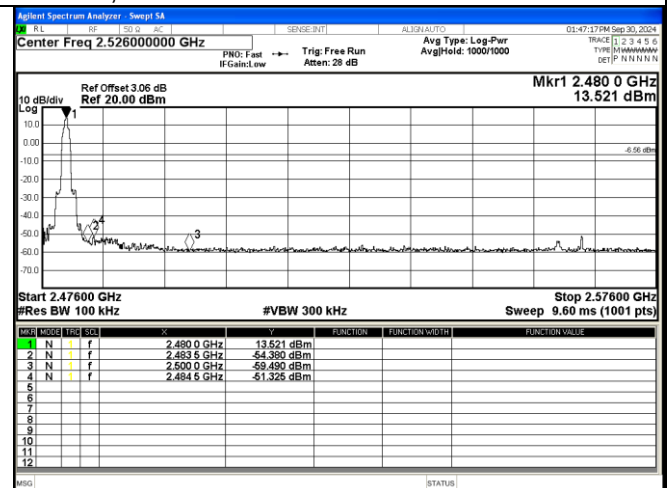
8DPSK, CH00



Test Mode:

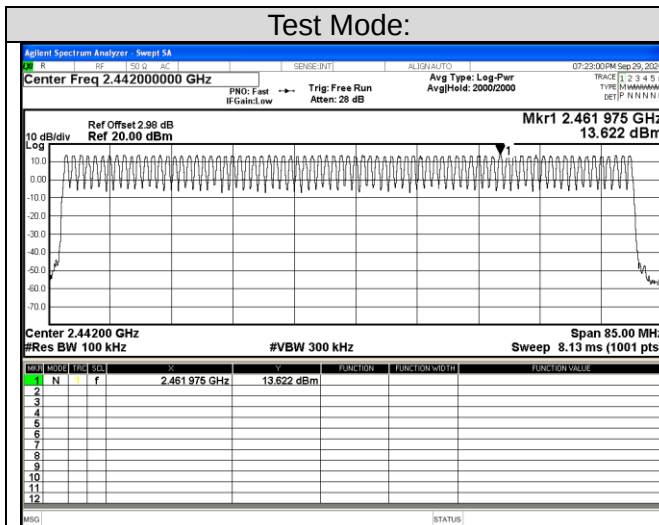


8DPSK, CH78

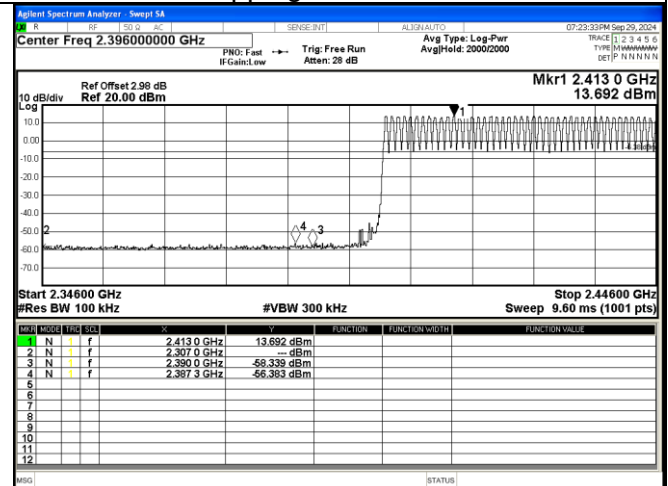




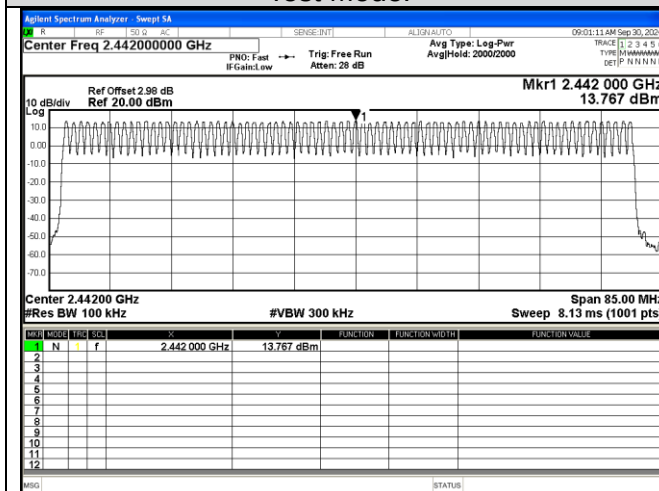
Test Mode:



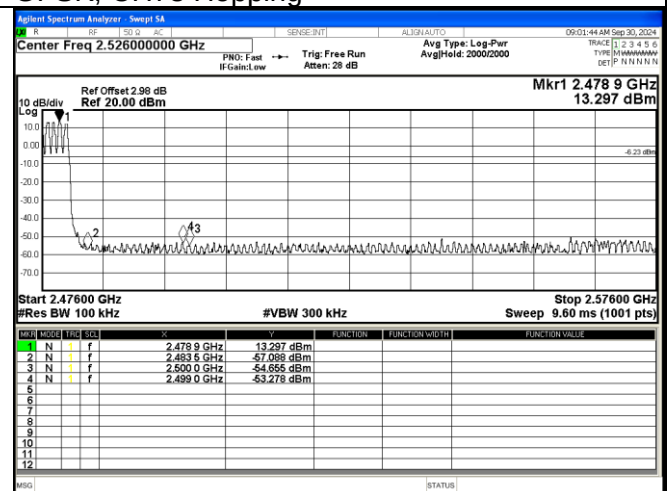
GFSK, CH00 Hopping



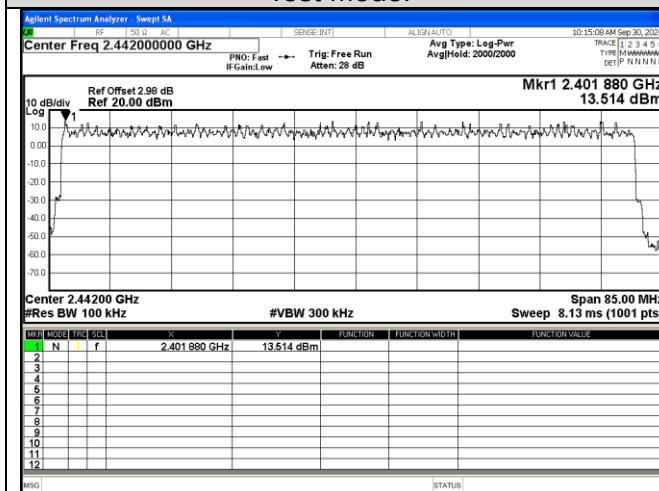
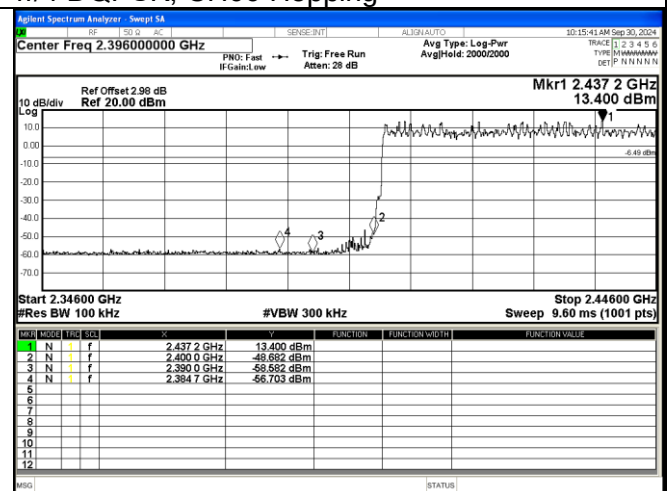
Test Mode:



GFSK, CH78 Hopping

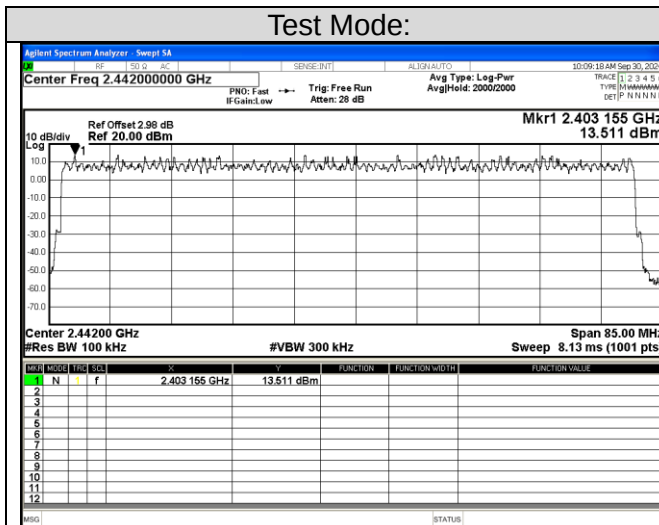
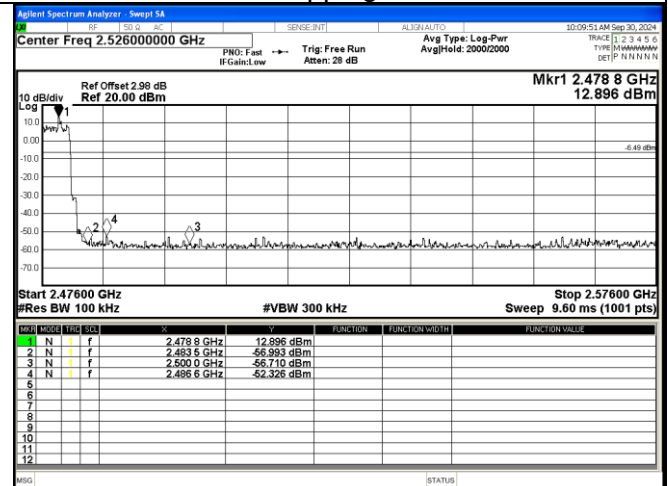


Test Mode:

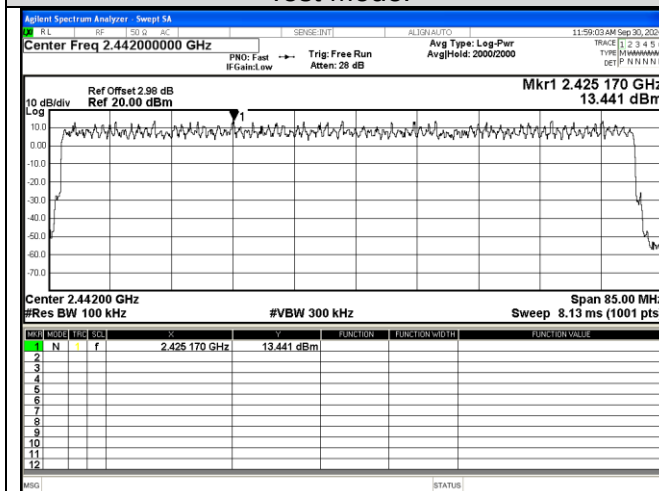
 $\pi/4$ DQPSK, CH00 Hopping



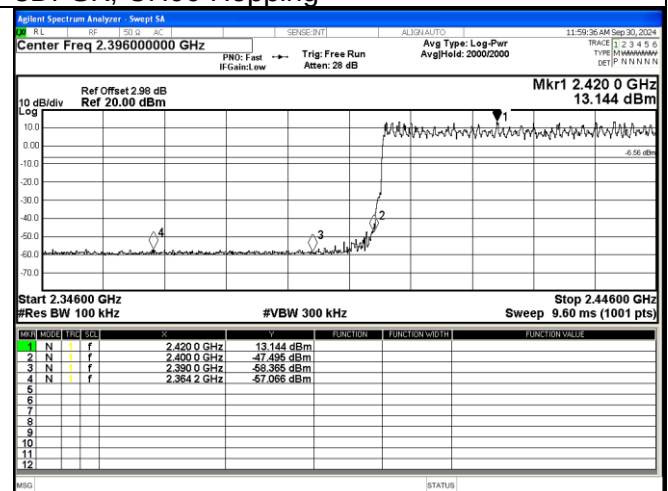
Test Mode:

 $\pi/4$ DQPSK, CH78 Hopping

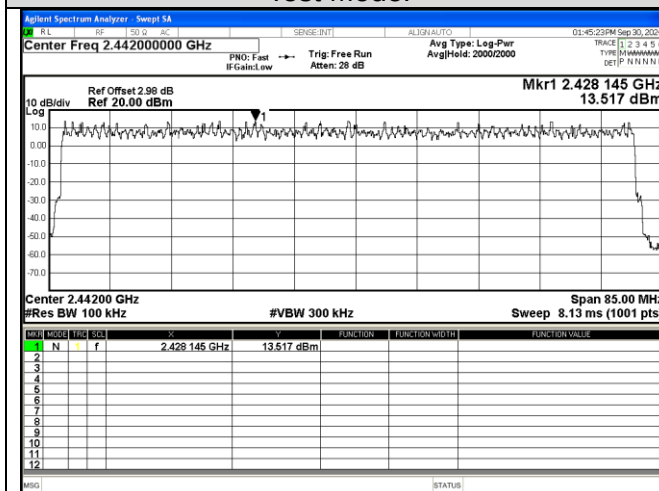
Test Mode:



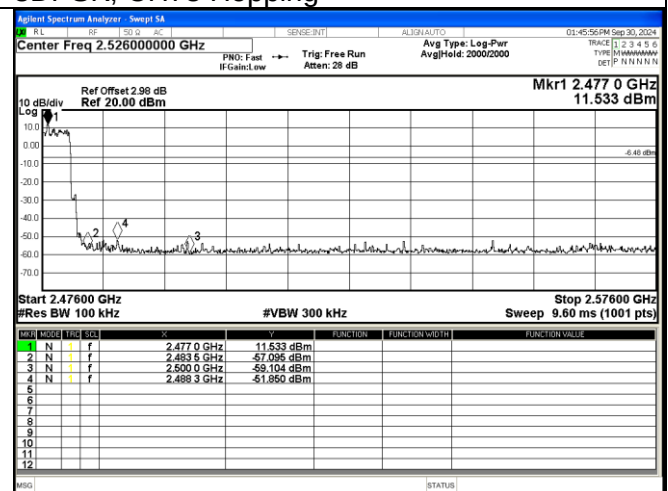
8DPSK, CH00 Hopping



Test Mode:

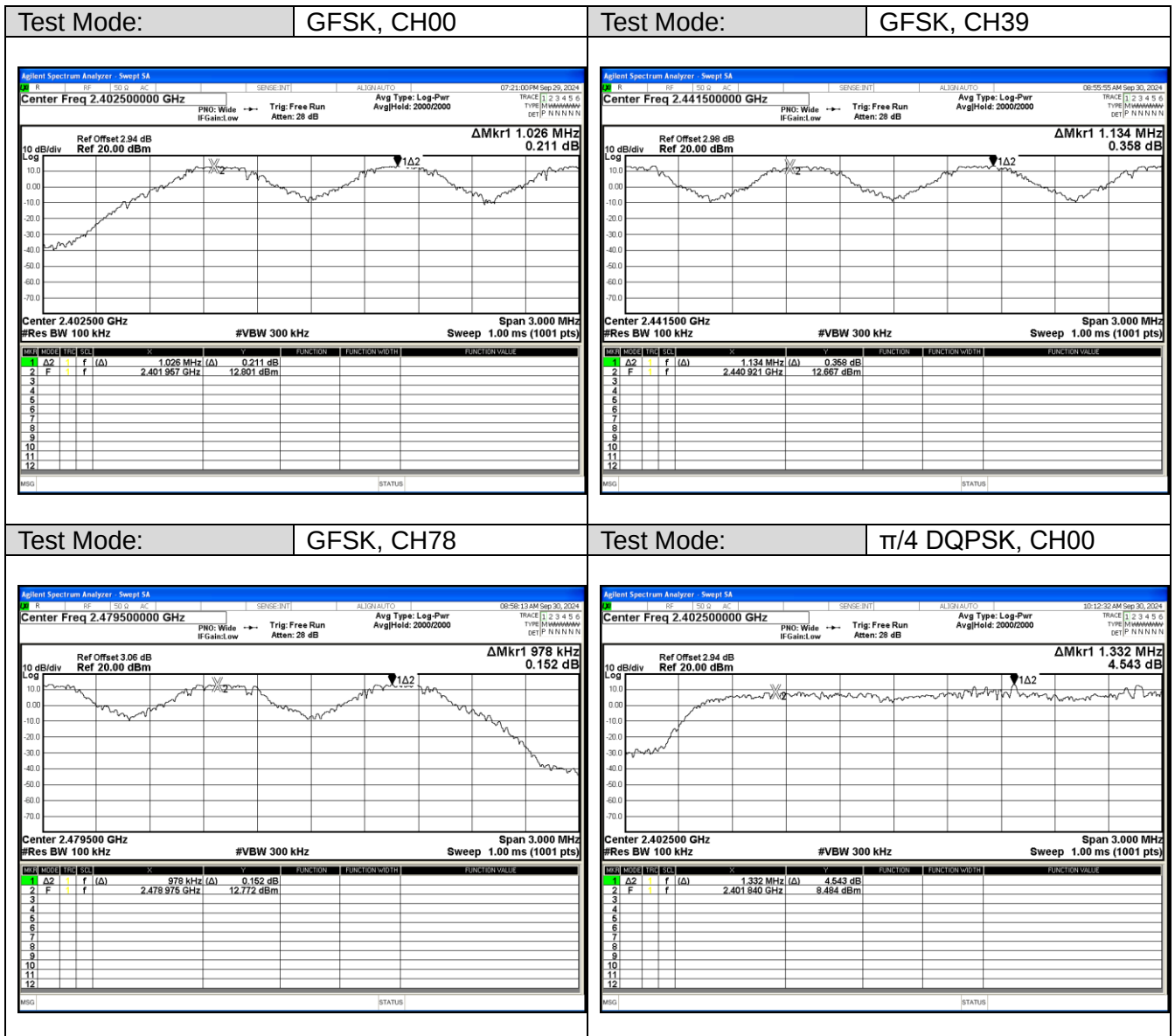


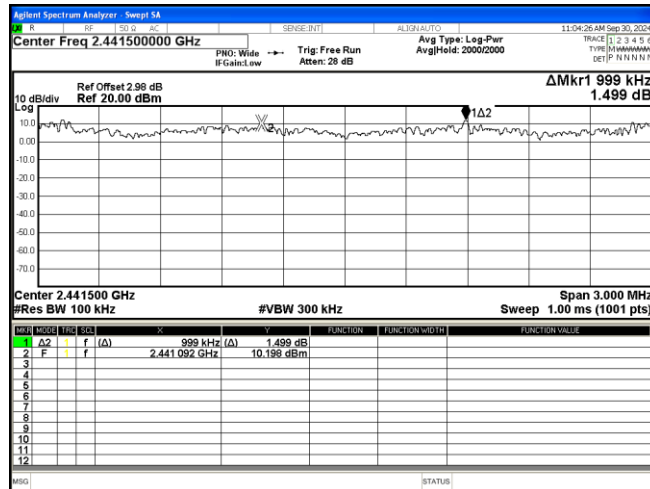
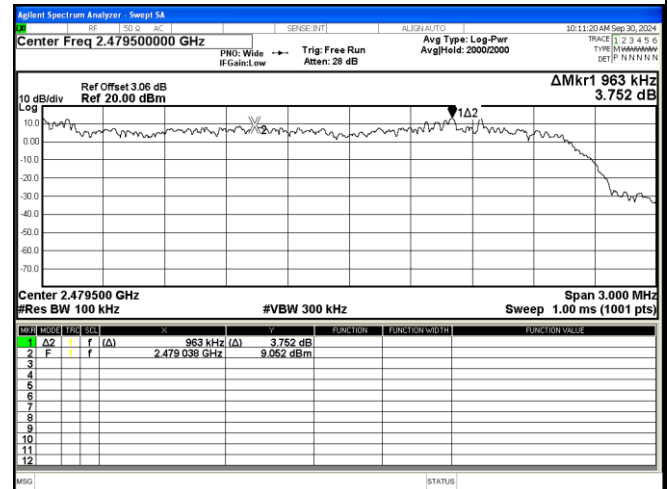
8DPSK, CH78 Hopping



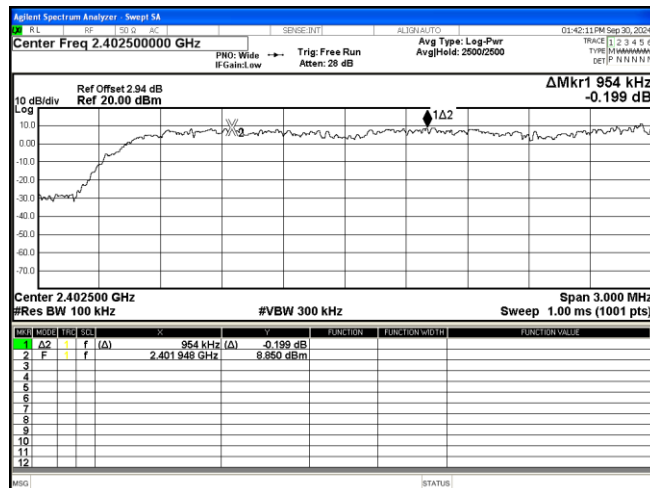
Appendix A.4 Test Results of Carrier Frequency Separation

Mode	HFS (MHz)	Limit (MHz)	Verdict
GFSK, CH00	1.026	0.537	Pass
GFSK, CH39	1.134	0.564	Pass
GFSK, CH78	0.978	0.564	Pass
$\pi/4$ DQPSK, CH00	1.332	0.848	Pass
$\pi/4$ DQPSK, CH39	0.999	0.849	Pass
$\pi/4$ DQPSK, CH78	0.963	0.848	Pass
8DPSK, CH00	0.954	0.845	Pass
8DPSK, CH39	1.092	0.824	Pass
8DPSK, CH78	0.882	0.845	Pass

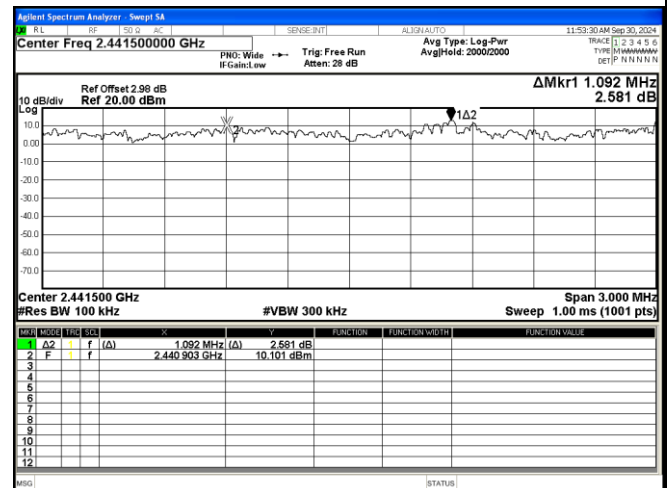


Test Mode: $\pi/4$ DQPSK, CH39Test Mode: $\pi/4$ DQPSK, CH78

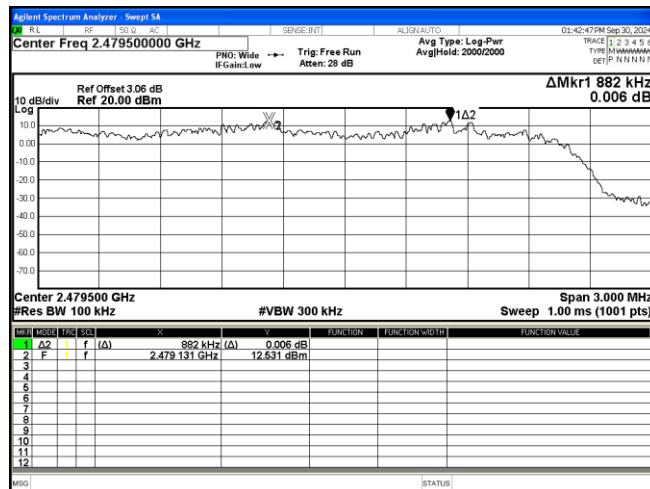
Test Mode: 8DPSK, CH00



Test Mode: 8DPSK, CH39

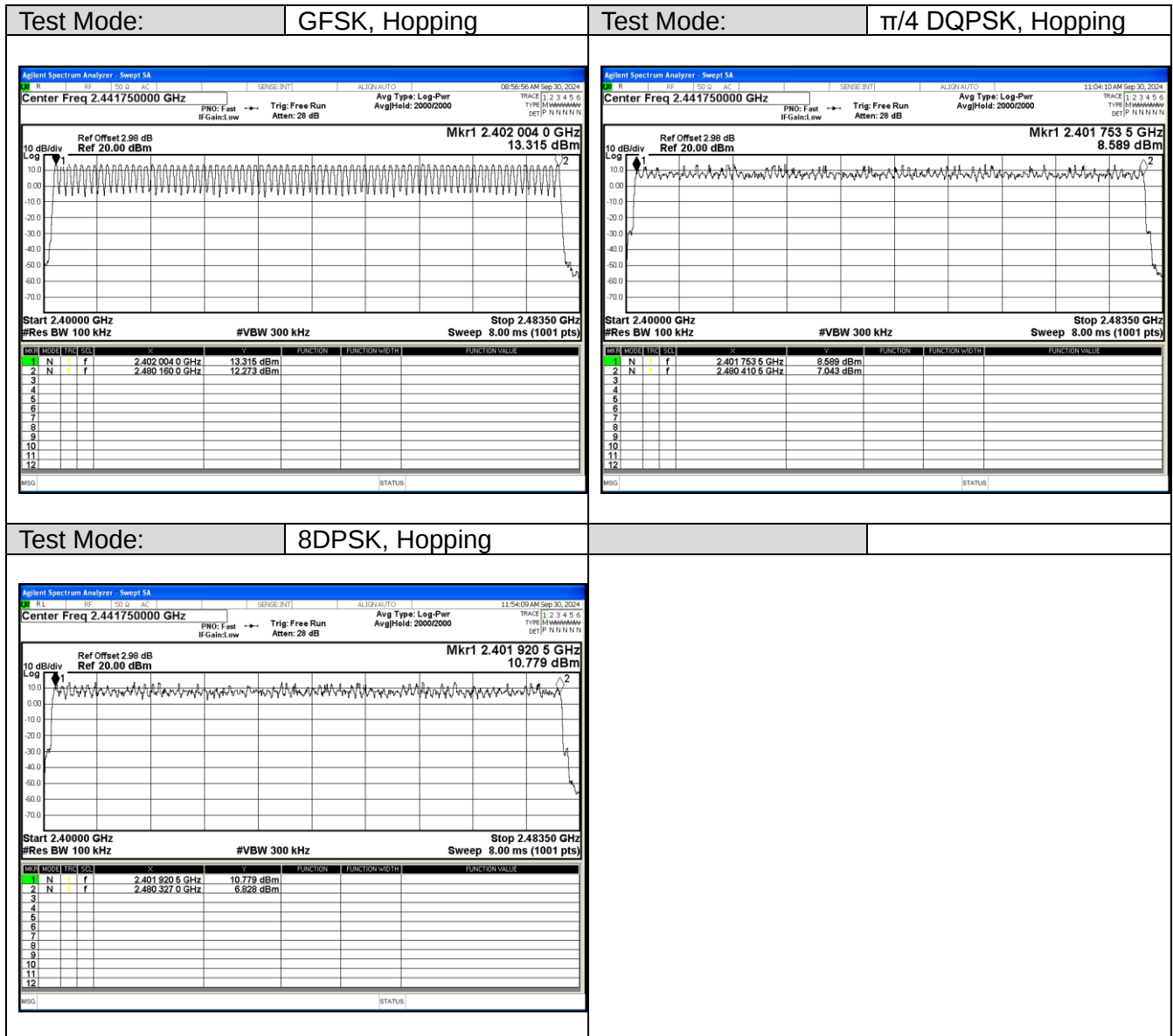


Test Mode: 8DPSK, CH78



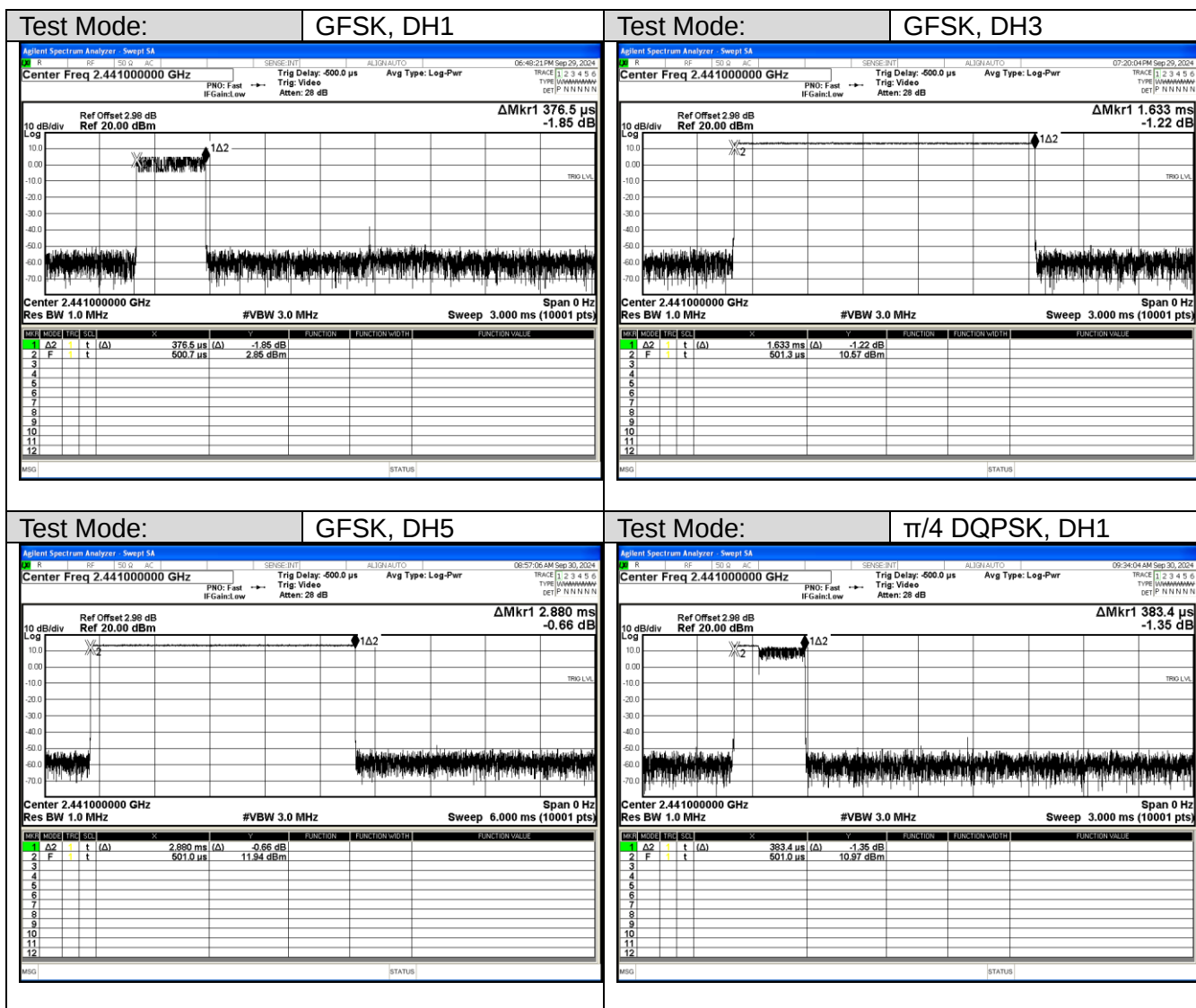
Appendix A.5 Test Results of Number of Hopping Frequency

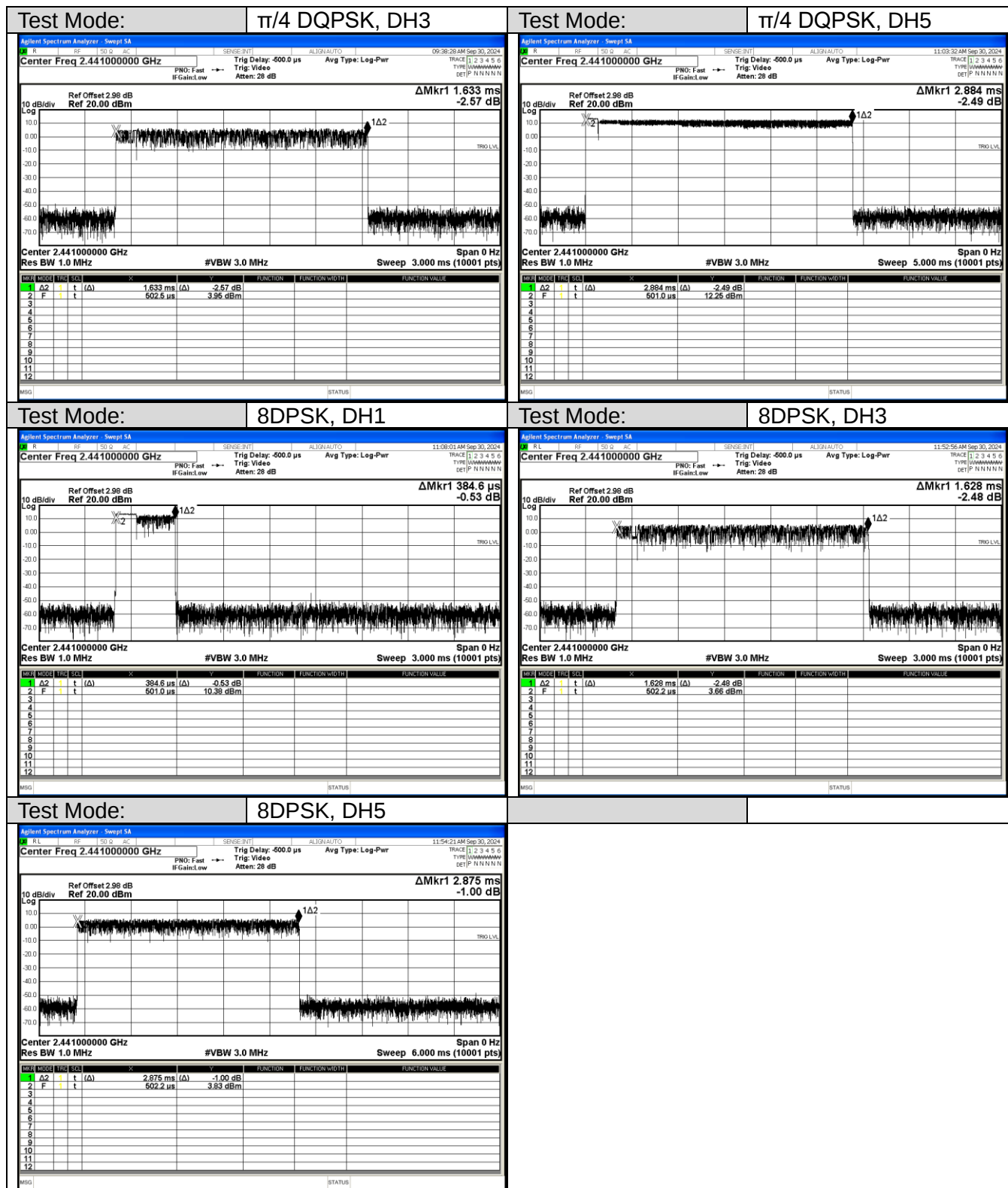
Mode	Hopping Number	Limit	Verdict
GFSK, Hopping	79	15	Pass
$\pi/4$ DQPSK, Hopping	79	15	Pass
8DPSK, Hopping	79	15	Pass



Appendix A.6 Test Results of Time of Occupancy

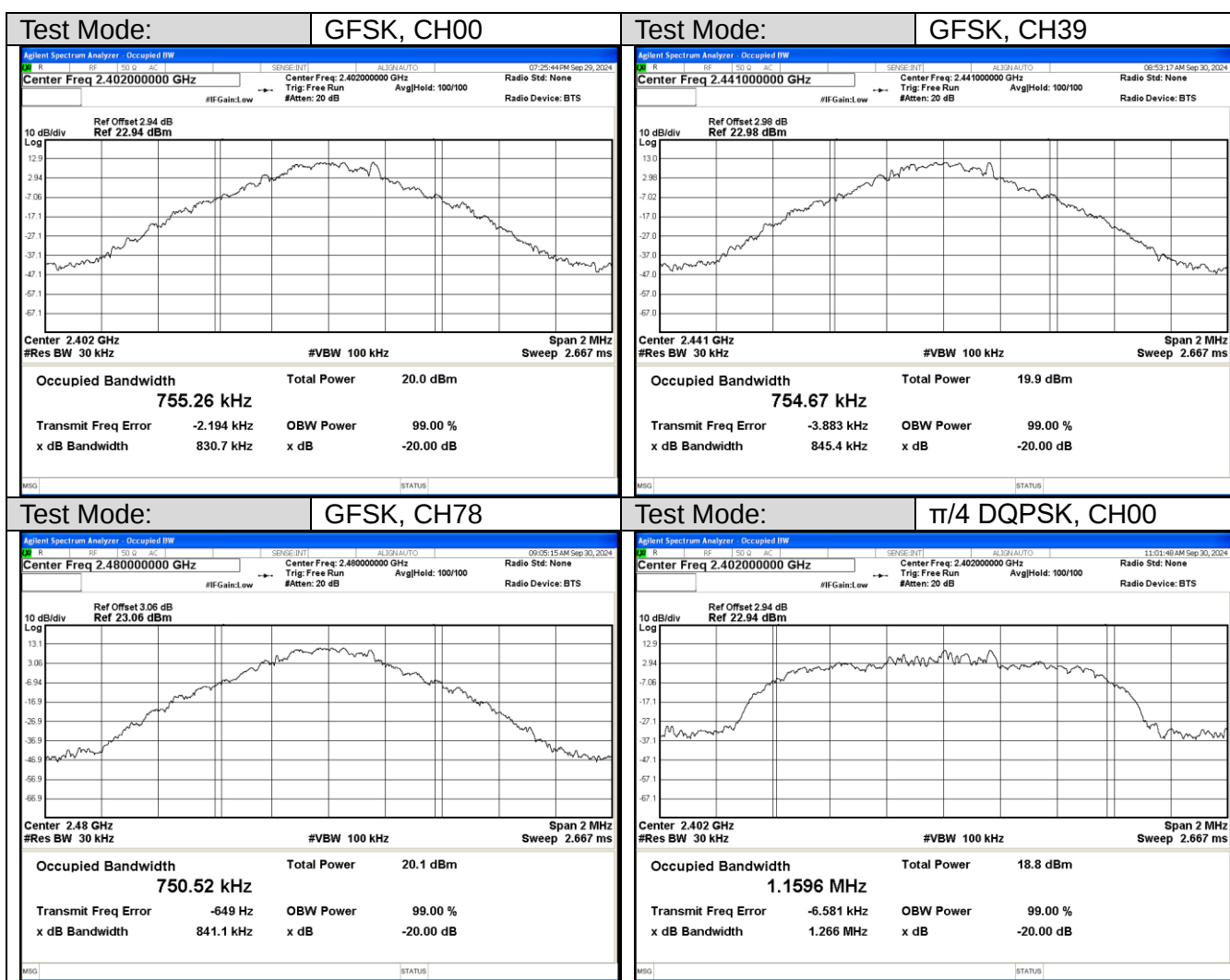
Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
GFSK, DH1	2441	0.377	118.974	31600	400	Pass
GFSK, DH3	2441	1.633	257.951	31600	400	Pass
GFSK, DH5	2441	2.88	273.024	31600	400	Pass
$\pi/4$ DQPSK, DH1	2441	0.383	121.154	31600	400	Pass
$\pi/4$ DQPSK, DH3	2441	1.633	257.998	31600	400	Pass
$\pi/4$ DQPSK, DH5	2441	2.884	273.356	31600	400	Pass
8DPSK, DH1	2441	0.385	121.534	31600	400	Pass
8DPSK, DH3	2441	1.628	257.192	31600	400	Pass
8DPSK, DH5	2441	2.875	272.512	31600	400	Pass

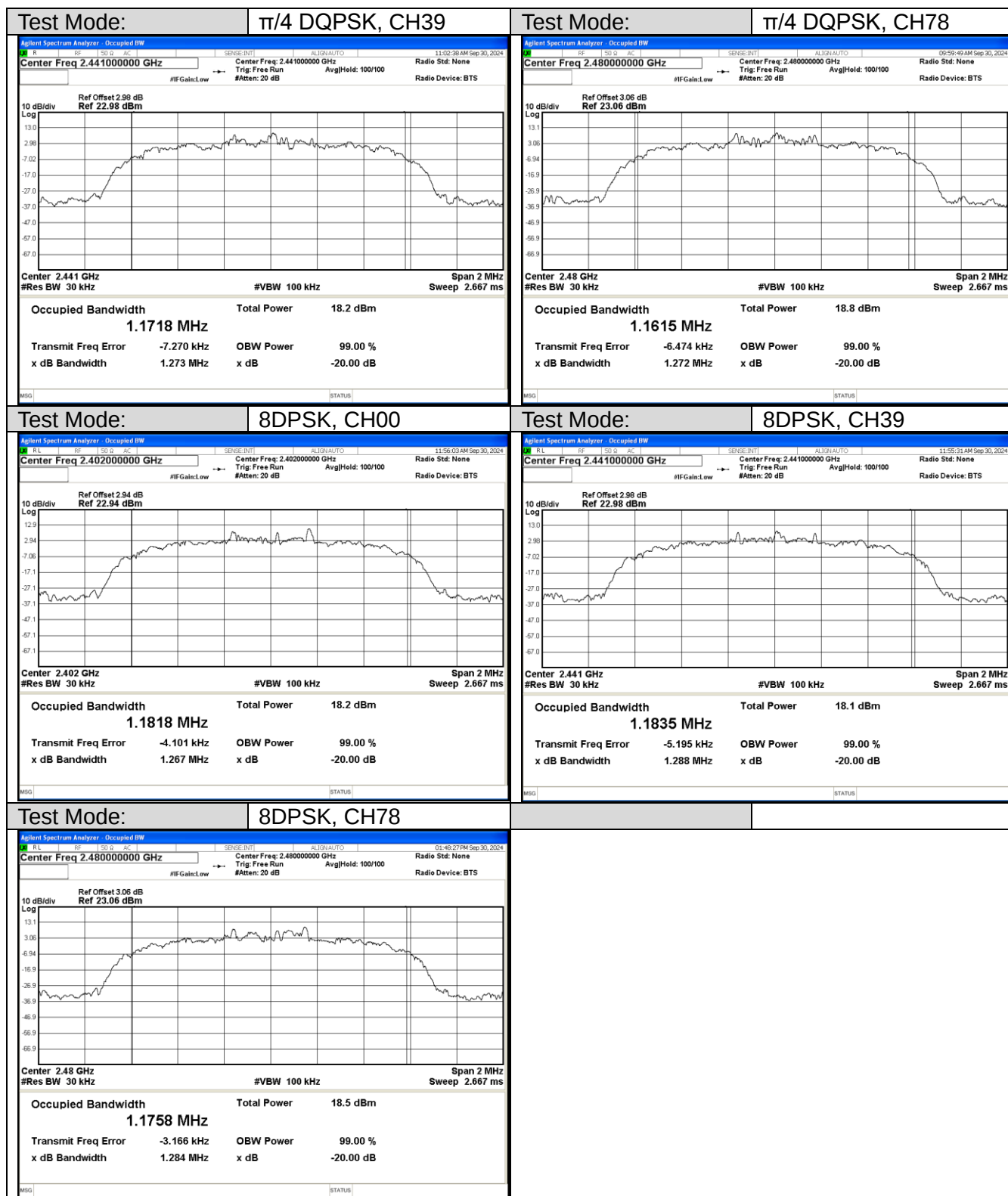




Appendix A.7 Test Results of 20dB & 99% BANDWIDTH

Mode	Frequency [MHz]	99% Bandwidth [MHz]	20dB Bandwidth [MHz]
GFSK	2402	0.7553	0.8307
GFSK	2441	0.7547	0.8454
GFSK	2480	0.7505	0.8411
$\pi/4$ DQPSK	2402	1.1596	1.266
$\pi/4$ DQPSK	2441	1.1718	1.2729
$\pi/4$ DQPSK	2480	1.1615	1.272
8DPSK	2402	1.1818	1.2675
8DPSK	2441	1.1835	1.2879
8DPSK	2480	1.1758	1.2835





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	13.723	0.0236	< 0.125
	2441	13.715	0.0235	< 0.125
	2480	13.765	0.0238	< 0.125
$\pi/4$ DQPSK	2402	13.556	0.0227	< 0.125
	2441	13.461	0.0222	< 0.125
	2480	13.673	0.0233	< 0.125
8DPSK	2402	13.777	0.0239	< 0.125
	2441	13.734	0.0236	< 0.125
	2480	13.775	0.0239	< 0.125

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G) of Bluetooth: 3.01 dBi
e.i.r.p.=P(Peak power)+ G, which is far below the 4 W

For ISCED:

Mode	Frequency [MHz]	Conducted Power	EIRP	Limit [dBm]
		dBm	dBm	
GFSK	2402	13.723	16.733	< 21
	2441	13.715	16.725	< 21
	2480	13.765	16.775	< 21
$\pi/4$ DQPSK	2402	13.556	16.566	< 21
	2441	13.461	16.471	< 21
	2480	13.673	16.683	< 21
8DPSK	2402	13.777	16.787	< 21
	2441	13.734	16.754	< 21
	2480	13.775	16.785	< 21

Note:

- 1) The cable loss is taken into account in results.
- 2) Antenna gain(G) of Bluetooth: 3.01 dBi
e.i.r.p.=P(Peak power)+ G, which is far below the 4 W