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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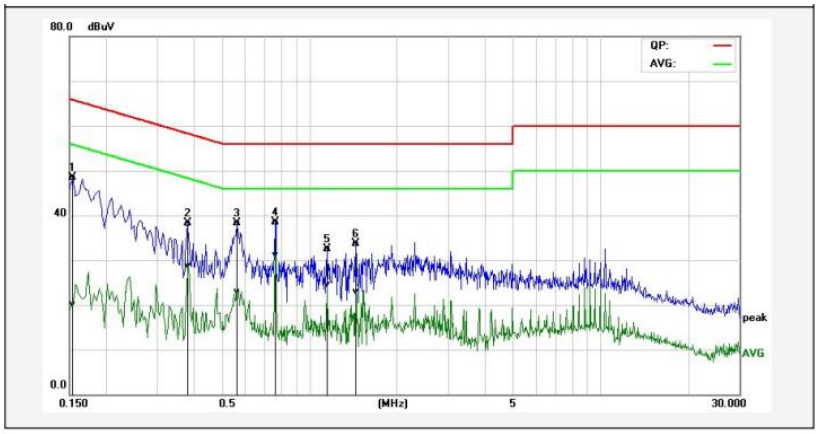
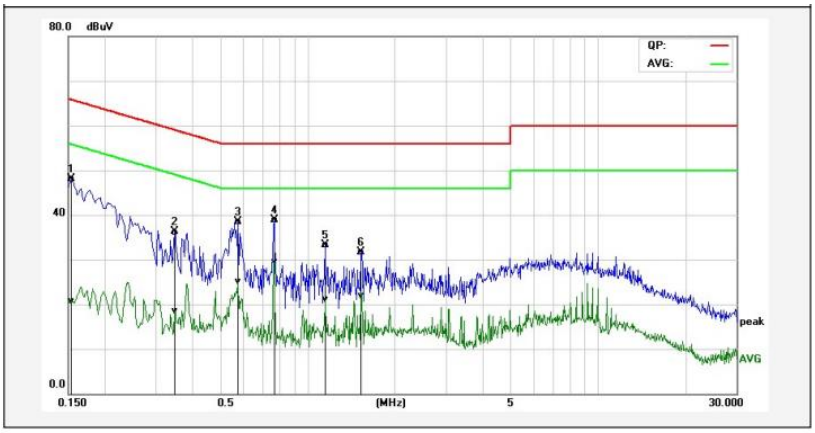


No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1P	0.1539	38.94	10.61	9.50	48.44	20.11	65.78	55.79	-17.34	-35.68	Pass
2P	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

N



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

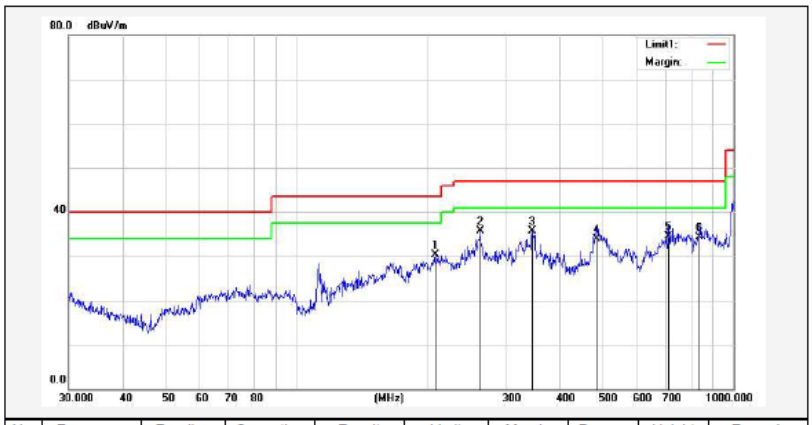
Correction Factor = insertion loss of LISN + cable loss;
Reading = Reading Amplitude in the instrument;
Result = Correction Factor + Reading;
Margin = Result – Limit.

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



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	207.8500	42.92	-12.64	30.28	43.50	-13.22			QP
2	263.8190	47.84	-12.19	35.65	47.00	-11.35			QP
3*	345.5951	45.62	-9.93	35.69	47.00	-11.31			QP
4	485.6093	40.16	-6.30	33.86	47.00	-13.14			QP
5	709.1823	37.89	-3.36	34.53	47.00	-12.47			QP
6	836.2441	35.72	-1.34	34.38	47.00	-12.62			QP

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.8535	35.29	-6.05	29.24	40.00	-10.76			QP
2	49.0144	45.92	-17.06	28.86	40.00	-11.14			QP
3*	112.5243	45.11	-12.37	32.74	43.50	-10.76			QP
4	482.2155	39.78	-6.37	33.41	47.00	-13.59			QP
5	599.3212	38.88	-4.86	34.02	47.00	-12.98			QP
6	836.2441	36.37	-1.34	35.03	47.00	-11.97			QP

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	2394	67.41	-21.01	46.4	80.47	-33.99	peak
2	4808	64.23	-13.33	50.9	74	-23.1	peak
3	7188	60.81	-8.03	52.78	80.47	-27.61	peak
4	9602	63.93	-7.4	56.53	80.47	-23.86	peak
5	11404	53.96	-1.87	52.09	74	-21.91	peak
6	12730	53.82	-0.78	53.04	80.47	-27.35	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	2394	68.29	-21.01	47.28	80.47	-33.11	peak
2	4808	62	-13.33	48.67	74	-25.33	peak
3	7188	60.49	-8.03	52.46	80.47	-27.93	peak
4	9602	64.48	-7.4	57.08	80.47	-23.31	peak
5	11098	54.64	-2.54	52.1	74	-21.9	peak
6	13070	53.75	-0.16	53.59	80.47	-26.8	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	4910	62.59	-12.91	49.68	74	-24.32	peak
2	5998	58.05	-10.12	47.93	80.47	-32.46	peak
3	7290	61.39	-7.54	53.85	74	-20.15	peak
4	9772	61.87	-6.07	55.8	80.47	-24.59	peak
5	11064	55.64	-2.65	52.99	74	-21.01	peak
6	11812	54.64	-2.56	52.08	74	-21.92	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	6168	56.34	-9.92	46.42	80.47	-33.97	peak
2	7290	60.21	-7.54	52.67	74	-21.33	peak
3	8854	55.67	-7.88	47.79	80.47	-32.6	peak
4	9738	63.08	-6.35	56.73	80.47	-23.66	peak
5	10588	53.67	-2.7	50.97	80.47	-29.42	peak
6	11404	53.56	-1.87	51.69	74	-22.31	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	2394	66.72	-21.01	45.71	80.47	-34.68	peak
2	7188	58.81	-8.03	50.78	80.47	-29.61	peak
3	9602	59.42	-7.4	52.02	80.47	-28.37	peak
4	10452	54.33	-3.8	50.53	80.47	-29.86	peak
5	11710	54.36	-2.7	51.66	74	-22.34	peak
6	12730	53.14	-0.78	52.36	80.47	-28.03	peak

GFSK - High (worst mode) Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2394	66.68	-21.01	45.67	80.47	-34.72	peak
2	4808	60.5	-13.33	47.17	74	-26.83	peak
3	7188	56.34	-8.03	48.31	80.47	-32.08	peak
4	9602	62.34	-7.4	54.94	80.47	-25.45	peak
5	11132	53.76	-2.48	51.28	74	-22.72	peak
6	12730	53.55	-0.78	52.77	80.47	-27.62	peak

π/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	3992	58.23	-15.01	43.22	74	-30.78	peak
2	6950	55.31	-8.79	46.52	80.47	-33.87	peak
3	8208	55.39	-7.62	47.77	74	-26.23	peak
4	9602	64.26	-7.4	56.86	80.47	-23.53	peak
5	11132	53.47	-2.48	50.99	74	-23.01	peak
6	12730	53.75	-0.78	52.97	80.47	-27.42	peak

π/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	3992	59.88	-15.01	44.87	74	-29.13	peak
2	7222	54.01	-7.87	46.14	80.47	-34.25	peak
3	8378	54.56	-7.1	47.46	74	-26.54	peak
4	9602	64.84	-7.4	57.44	80.47	-22.95	peak
5	11472	53.15	-2.21	50.94	74	-23.06	peak
6	12424	53.97	-1.81	52.16	74	-21.84	peak

π/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	3992	58.23	-15.01	43.22	74	-30.78	peak
2	4910	56.86	-12.91	43.95	74	-30.05	peak
3	7392	53.78	-7.13	46.65	74	-27.35	peak
4	9772	61.07	-6.07	55	80.47	-25.39	peak
5	11132	53.47	-2.48	50.99	74	-23.01	peak
6	12424	54.22	-1.81	52.41	74	-21.59	peak

π/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	5080	56.79	-12.5	44.29	74	-29.71	peak
2	6950	54.72	-8.79	45.93	80.47	-34.46	peak
3	8378	54.56	-7.1	47.46	74	-26.54	peak
4	9772	62.29	-6.07	56.22	80.47	-24.17	peak
5	10350	54.12	-4.13	49.99	80.47	-30.4	peak
6	12424	53.97	-1.81	52.16	74	-21.84	peak

π/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	4876	57.02	-13	44.02	74	-29.98	peak
2	6168	55.68	-9.92	45.76	80.47	-34.63	peak
3	7460	54.63	-7.09	47.54	74	-26.46	peak
4	9908	65.78	-5.28	60.5	80.47	-19.89	peak
5	11098	53.68	-2.54	51.14	74	-22.86	peak
6	12458	54.29	-1.59	52.7	74	-21.3	peak

π/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	59.47	-15.09	44.38	74	-29.62	peak
2	4876	58.65	-13	45.65	74	-28.35	peak
3	8276	55.76	-7.36	48.4	74	-25.6	peak
4	9908	67.03	-5.28	61.75	80.47	-18.64	peak
5	11132	53.74	-2.48	51.26	74	-22.74	peak
6	12730	54.08	-0.78	53.3	80.47	-27.09	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	2394	63.64	-21.01	42.63	80.47	-37.76	peak
2	4808	60.26	-13.33	46.93	74	-27.07	peak
3	7188	58.44	-8.03	50.41	80.47	-29.98	peak
4	9602	64.14	-7.4	56.74	80.47	-23.65	peak
5	11302	53.45	-2.14	51.31	74	-22.69	peak
6	12730	53.5	-0.78	52.72	80.47	-27.67	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	2394	62.63	-21.01	41.62	80.47	-38.77	peak
2	4808	58.9	-13.33	45.57	74	-28.43	peak
3	7188	59.37	-8.03	51.34	80.47	-29.05	peak
4	9602	65.37	-7.4	57.97	80.47	-22.42	peak
5	12458	54.5	-1.59	52.91	74	-21.09	peak
6	13716	52.23	1.55	53.78	80.47	-26.61	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	5998	57.56	-10.12	47.44	80.47	-32.95	peak
2	8344	57.32	-7.2	50.12	74	-23.88	peak
3	9772	61.74	-6.07	55.67	80.47	-24.72	peak
4	10418	56.39	-4.09	52.3	80.47	-28.09	peak
5	11438	54.83	-2.04	52.79	74	-21.21	peak
6	12254	54.74	-2.4	52.34	74	-21.66	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	3482	58.19	-17.48	40.71	80.47	-39.68	peak
2	5964	55.86	-10.23	45.63	80.47	-34.76	peak
3	7562	57.28	-7.22	50.06	74	-23.94	peak
4	8344	55.6	-7.2	48.4	74	-25.6	peak
5	9738	61.65	-6.35	55.3	80.47	-25.09	peak
6	11642	54.98	-2.79	52.19	74	-21.81	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	4944	58.73	-12.85	45.88	74	-28.12	peak
2	7426	59.86	-7.09	52.77	74	-21.23	peak
3	7426	58.76	-7.09	51.67	54	-2.33	AVG
4	8208	55.31	-7.62	47.69	74	-26.31	peak
5	9908	64.81	-5.28	59.53	80.47	-20.86	peak
6	11404	54.02	-1.87	52.15	74	-21.85	peak
7	13036	53.22	-0.29	52.93	80.47	-27.46	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	3958	59.99	-15.09	44.9	74	-29.1	peak
2	7426	57.72	-7.09	50.63	74	-23.37	peak
3	9908	66.94	-5.28	61.66	80.47	-18.73	peak
4	11064	53.68	-2.65	51.03	74	-22.97	peak
5	12696	53.02	-0.74	52.28	74	-21.72	peak
6	13716	52.19	1.55	53.74	80.47	-26.65	peak

Node:

1. Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported..
2. Radiated emissions measured in frequency above 1GHz were made with an instrument using peak/average detector mode.
3. Average test would be performed if the peak result were greater than the average limit or as required by the applicant.
4. 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.

5. According to section part 15.247(d), frequencies other than those required by part 15.205(a) are limited to the level of the intended emission (min. 100.47) minus 20dB.

Restricted band Requirements							
GFSK - Low (worst mode)							
Horizontal							
No.	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV)**	**Factor(dB/m)**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
1	2383.15	68.1	-21.05	47.05	74	-26.95	peak
2	2383.39	58.09	-21.05	37.04	54	-16.96	AVG
3	2390	65.03	-21.03	44	74	-30	peak
4	2390	53.9	-21.03	32.87	54	-21.13	AVG
5	2402.15	121.46	-20.99	100.47	116.2	-15.73	peak
Vertical							
No.	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV)**	**Factor(dB/m)**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
1	2378	59.43	-21.07	38.36	54	-15.64	AVG
2	2378.21	68.56	-21.07	47.49	74	-26.51	peak
3	2390	65.45	-21.03	44.42	74	-29.58	peak
4	2390	55.09	-21.03	34.06	54	-19.94	AVG
5	2402.15	123.12	-20.99	102.13	116.2	-14.07	peak
GFSK - High (worst mode)							
Horizontal							
No.	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV)**	**Factor(dB/m)**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
1	2479.8	121.65	-20.91	100.74	116.2	-15.46	peak
2	2483.5	66.21	-20.91	45.3	74	-28.7	peak
3	2483.5	54.49	-20.91	33.58	54	-20.42	AVG
4	2492.2	52.9	-20.92	31.98	54	-22.02	AVG
5	2492.3	66.4	-20.92	45.48	74	-28.52	peak
Vertical							
No.	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV)**	**Factor(dB/m)**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
1	2479.8	121.66	-20.91	100.75	116.2	-15.45	peak
2	2483.5	66.26	-20.91	45.35	74	-28.65	peak
3	2483.5	54.08	-20.91	33.17	54	-20.83	AVG
4	2490.7	65.97	-20.92	45.05	74	-28.95	peak
5	2490.7	50.25	-20.92	29.33	54	-24.67	AVG

Correction Factor = antenna factor + cable loss – amplifier gain;
Reading = Reading Amplitude in the instrument;
Result = Correction Factor + Reading;
Margin = Result – Limit

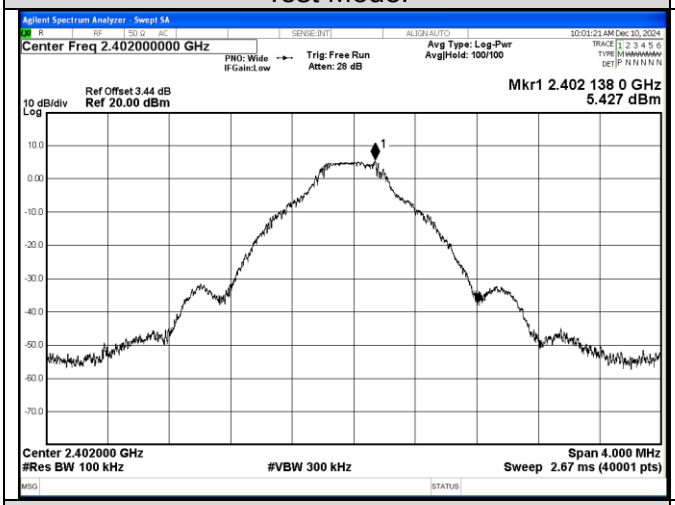
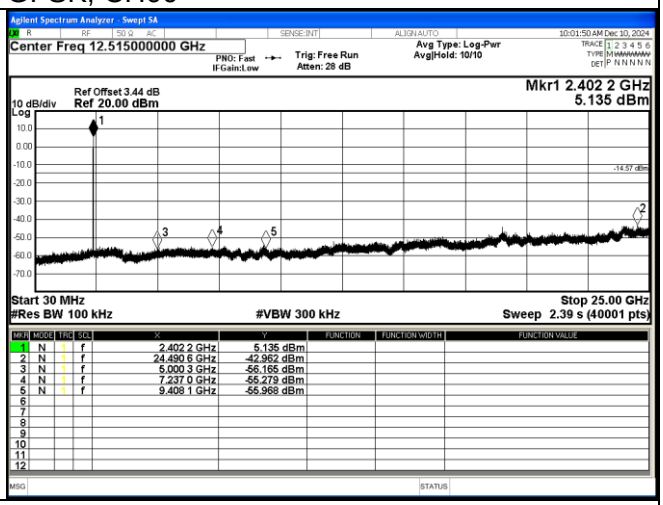
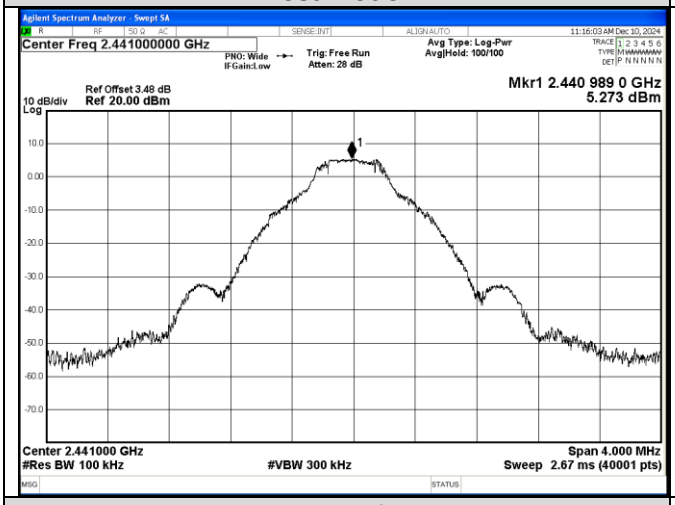
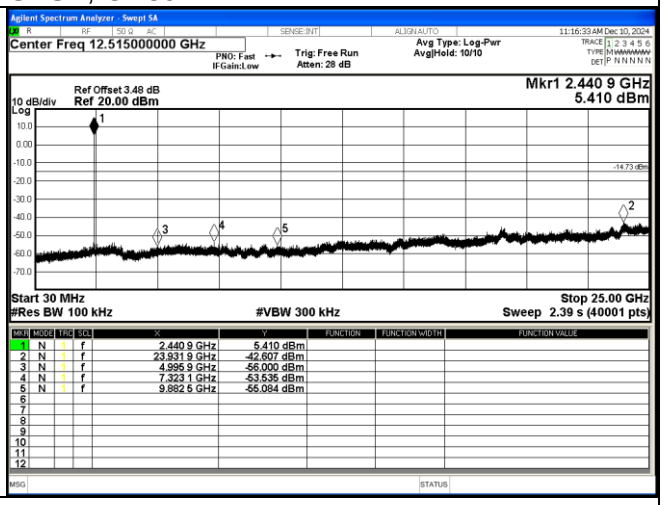
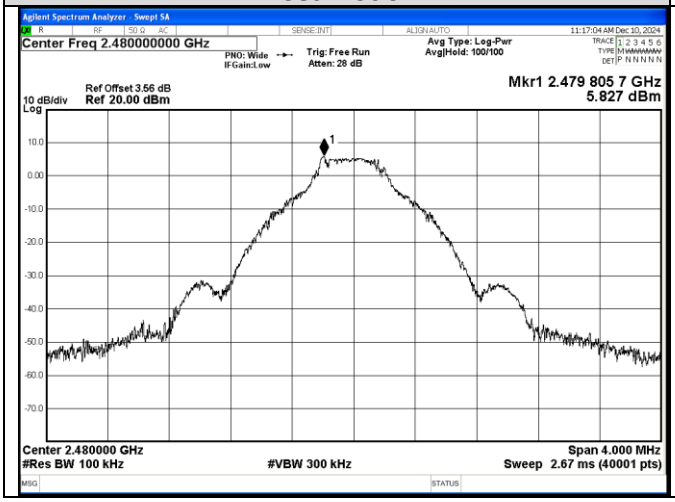
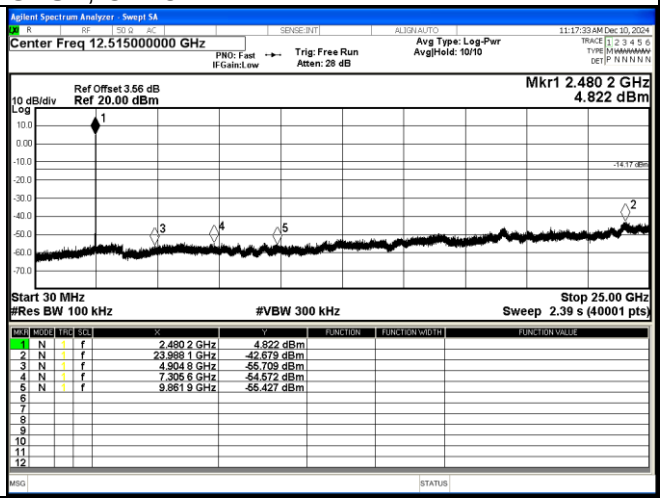
π/4 DQPSK - Low (worst mode)							
Horizontal							
No.	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV)**	**Factor(dB/m)**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
1	2377.89	56.88	-21.07	35.81	54	-18.19	AVG
2	2378.59	66.29	-21.07	45.22	74	-28.78	peak
3	2390	63.11	-21.03	42.08	74	-31.92	peak
4	2390	53.71	-21.03	32.68	54	-21.32	AVG
5	2401.96	123.53	-20.99	102.54	116.2	-13.66	peak
Vertical							
No.	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV)**	**Factor(dB/m)**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
1	2383.41	55.5	-21.05	34.45	54	-19.55	AVG
2	2383.72	65.77	-21.05	44.72	74	-29.28	peak
3	2390	64.77	-21.03	43.74	74	-30.26	peak
4	2390	53.05	-21.03	32.02	54	-21.98	AVG
5	2402.34	121.48	-20.99	100.49	116.2	-15.71	peak
π/4 DQPSK - High (worst mode)							
Horizontal							
No.	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV)**	**Factor(dB/m)**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
1	2479.8	121.38	-20.91	100.47	116.2	-15.73	peak
2	2483.5	65.27	-20.91	44.36	74	-29.64	peak
3	2483.5	53.82	-20.91	32.91	54	-21.09	AVG
4	2490.8	51.21	-20.92	30.29	54	-23.71	AVG
5	2490.85	65.85	-20.92	44.93	74	-29.07	peak
Vertical							
No.	**Frequency**	**Reading**	**Correct**	**Result**	**Limit**	**Margin**	**Remark**
	(MHz)	**(dBuV)**	**Factor(dB/m)**	**(dBuV/m)**	**(dBuV/m)**	**(dB)**	
1	2479.8	123.12	-20.91	102.21	116.2	-13.99	peak
2	2483.5	74.37	-20.91	53.46	74	-20.54	peak
3	2483.5	58.86	-20.91	37.95	54	-16.05	AVG
4	2491.45	65.94	-20.92	45.02	74	-28.98	peak
5	2492.158	53.37	-20.92	32.45	54	-21.55	AVG

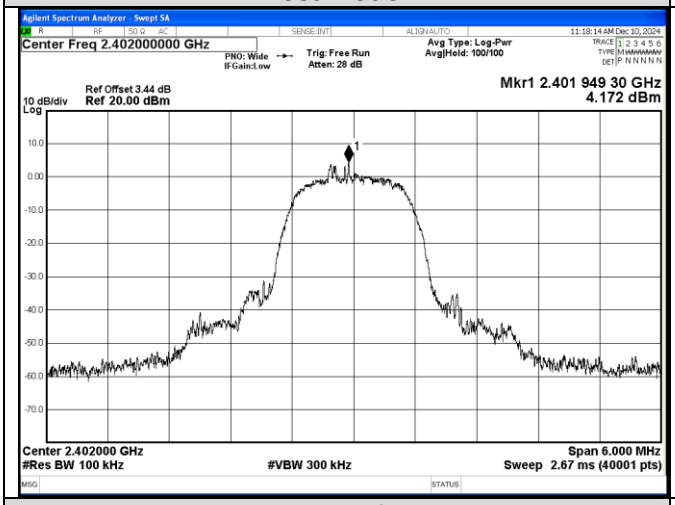
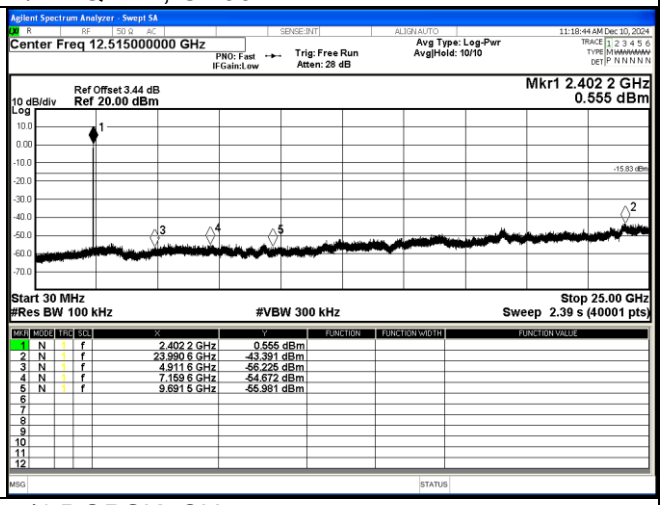
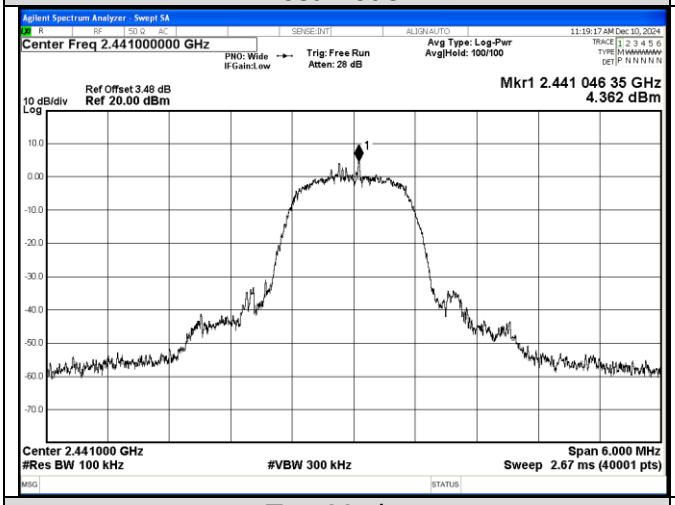
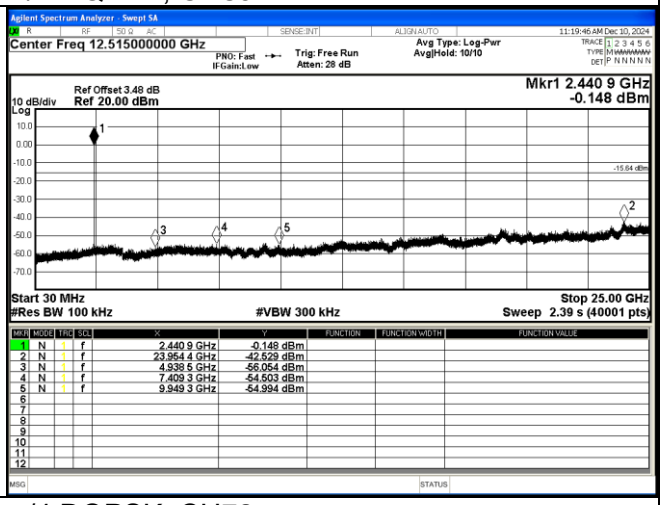
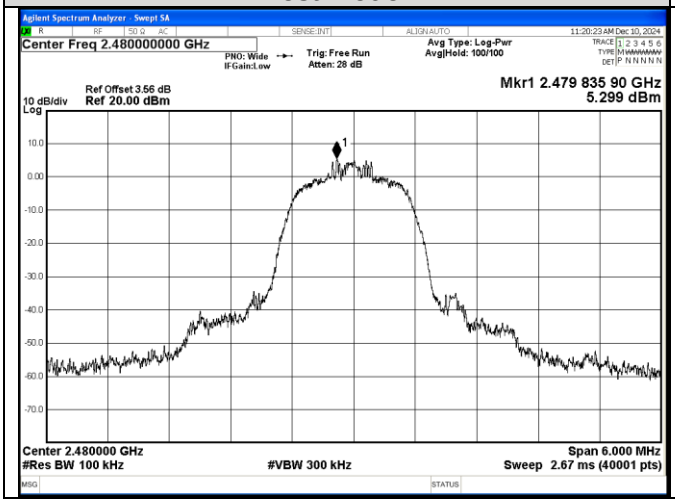
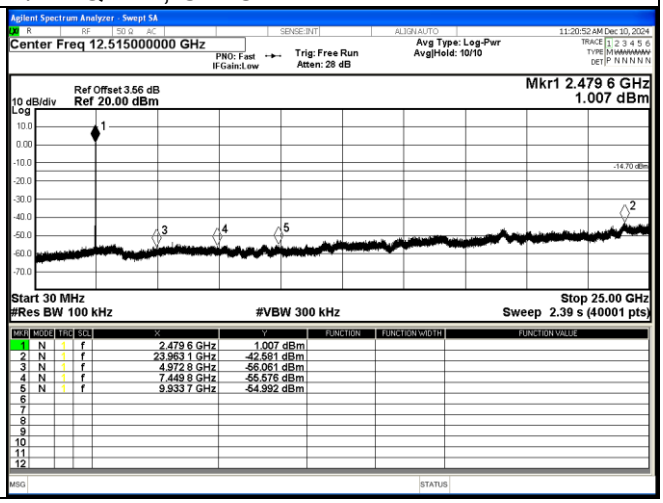
Correction Factor = antenna factor + cable loss – amplifier gain;
Reading = Reading Amplitude in the instrument;
Result = Correction Factor + Reading;
Margin = Result – Limit

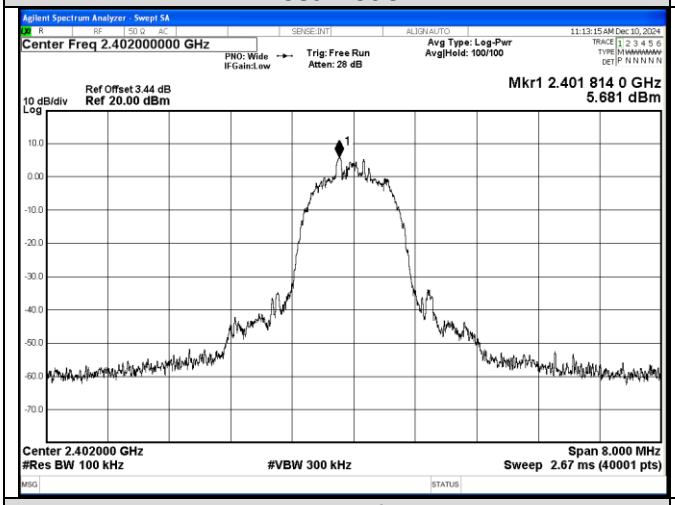
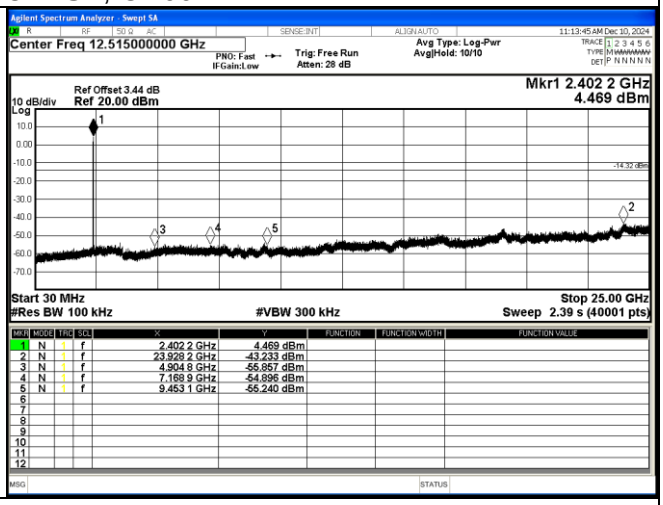
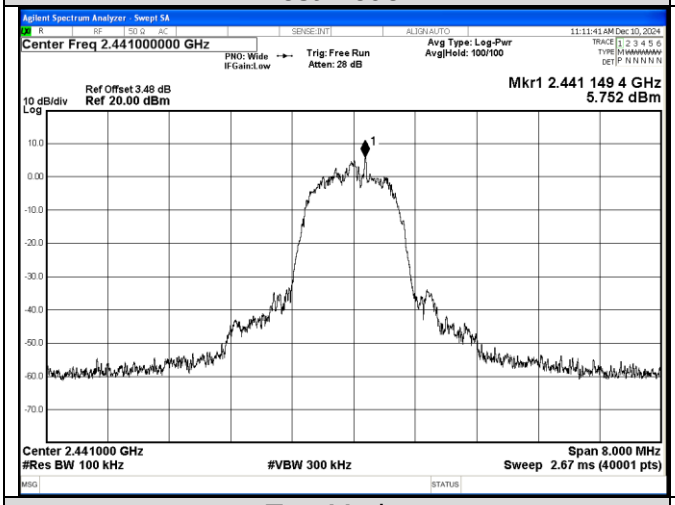
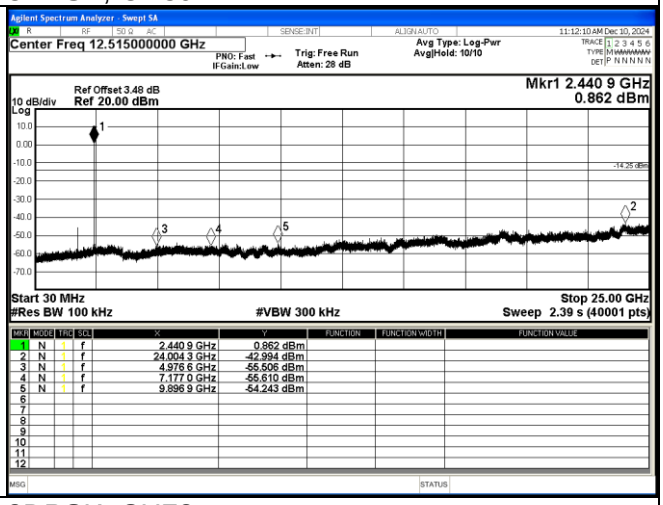
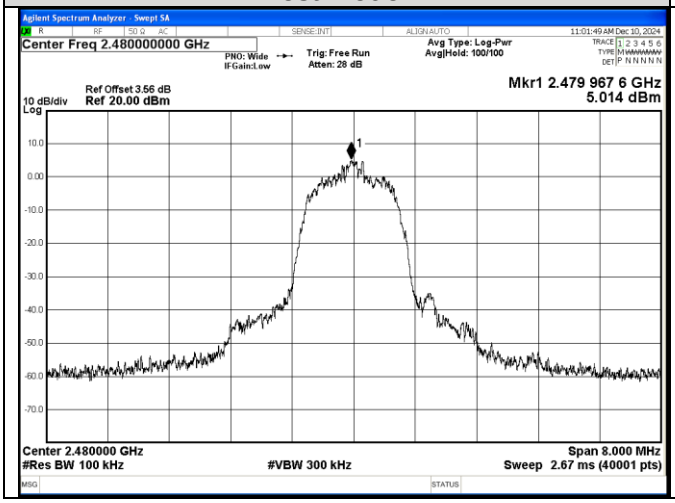
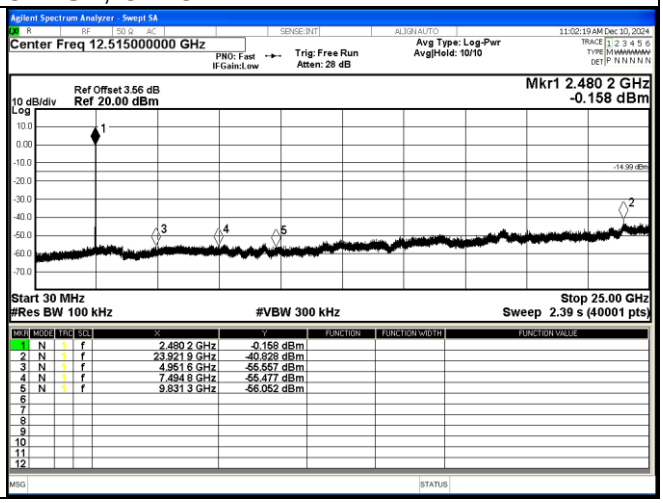
8DPSK - Low (worst mode)							
Horizontal							
No.	**Frequency (MHz)**	**Reading (dBuV)**	**Correct Factor(dB/m)**	**Result (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Remark**
1	2378.02	66.62	-21.07	45.55	74	-28.45	peak
2	2378.06	55.8	-21.07	34.73	54	-19.27	AVG
3	2390	62.54	-21.03	41.51	74	-32.49	peak
4	2390	53.09	-21.03	32.06	54	-21.94	AVG
5	2402.34	121.62	-20.99	100.63	116.2	-15.57	peak
Vertical							
No.	**Frequency (MHz)**	**Reading (dBuV)**	**Correct Factor(dB/m)**	**Result (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Remark**
1	2383.321	57	-21.05	35.95	54	-18.05	AVG
2	2383.72	67.04	-21.05	45.99	74	-28.01	peak
3	2390	63.97	-21.03	42.94	74	-31.06	peak
4	2390	53.71	-21.03	32.68	54	-21.32	AVG
5	2401.96	123.66	-20.99	102.67	116.2	-13.53	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	2479.85	121.89	-20.91	100.98	116.2	-15.22	peak
2	2483.5	67.13	-20.91	46.22	74	-27.78	peak
3	2483.5	52.9	-20.91	31.99	54	-22.01	AVG
4	2498.786	53.95	-20.92	33.03	54	-20.97	AVG
5	2498.9	67.01	-20.92	46.09	74	-27.91	peak
Vertical							
No.	**Frequency (MHz)**	**Reading (dBuV)**	**Correct Factor(dB/m)**	**Result (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Remark**
1	2479.8	123.13	-20.91	102.22	116.2	-13.98	peak
2	2483.5	74.91	-20.91	54	74	-20	peak
3	2483.5	57.66	-20.91	36.75	54	-17.25	AVG
4	2498.946	57.5	-20.92	36.58	54	-17.42	AVG
5	2499.2	67.42	-20.92	46.5	74	-27.5	peak

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

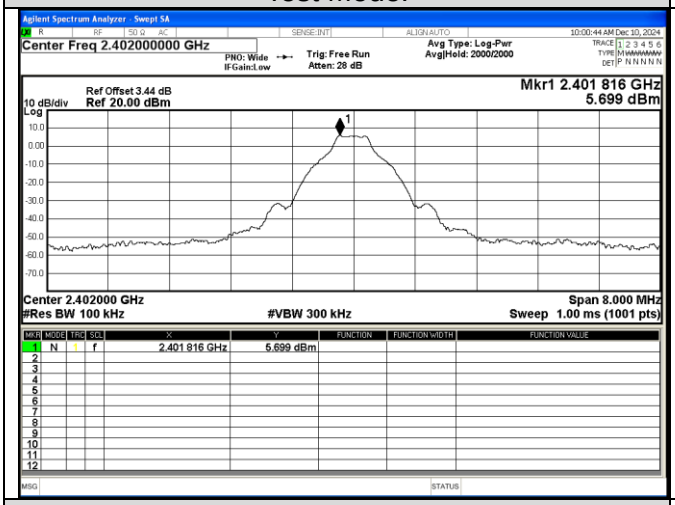
Conducted spurious emission	
Test Mode:	GFSK, CH00
	
Test Mode:	GFSK, CH39
	
Test Mode:	GFSK, CH78
	

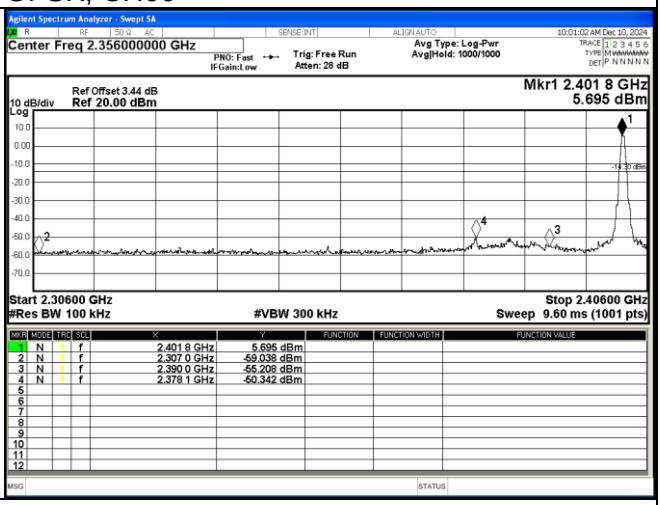
Test Mode:	π/4 DQPSK, CH00
	
Test Mode:	π/4 DQPSK, CH39
	
Test Mode:	π/4 DQPSK, CH78
	

Test Mode:	8DPSK, CH00
	
Test Mode:	8DPSK, CH39
	
Test Mode:	8DPSK, CH78
	

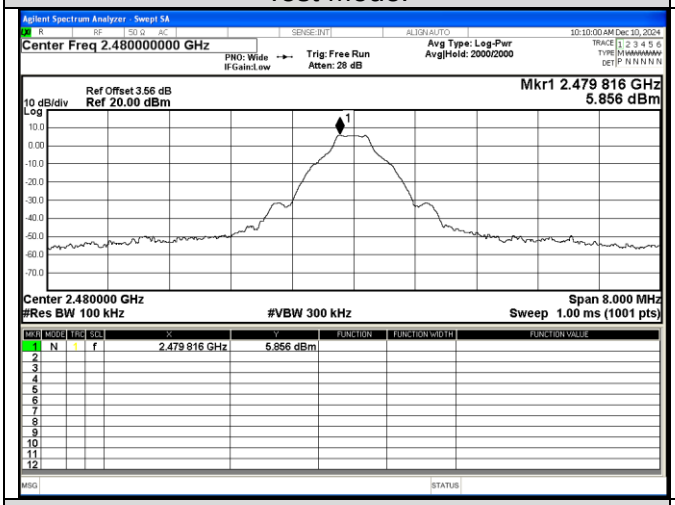
For Band edge (it's also the reference level for conducted spurious emission)

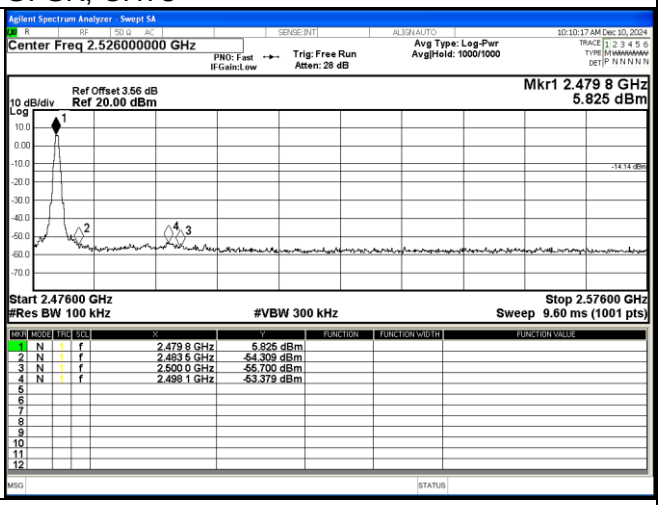
Test Mode: GFSK, CH00



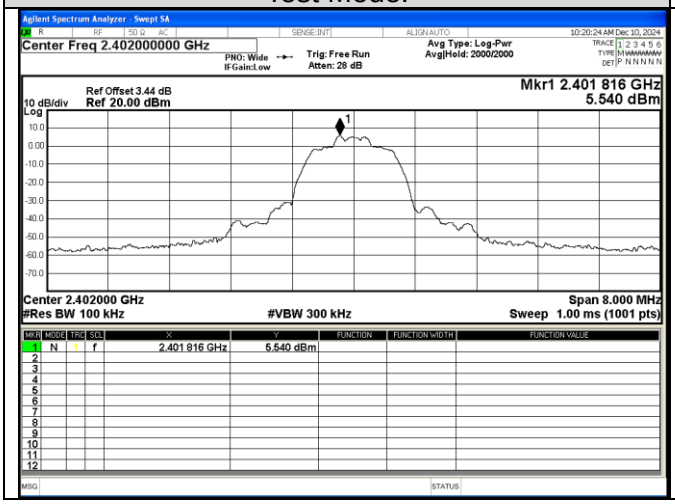


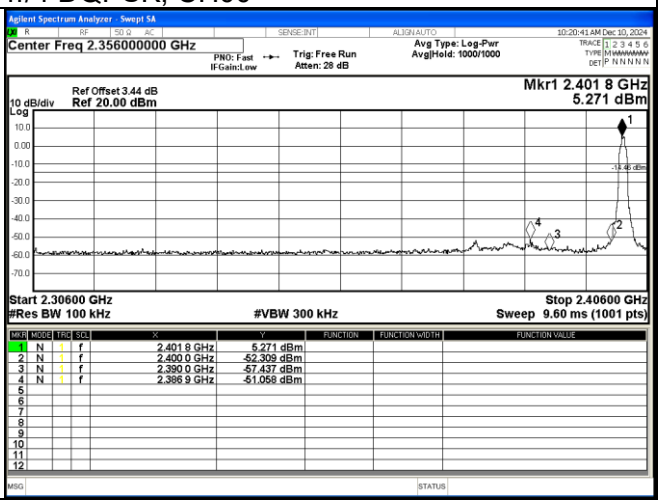
Test Mode: GFSK, CH78

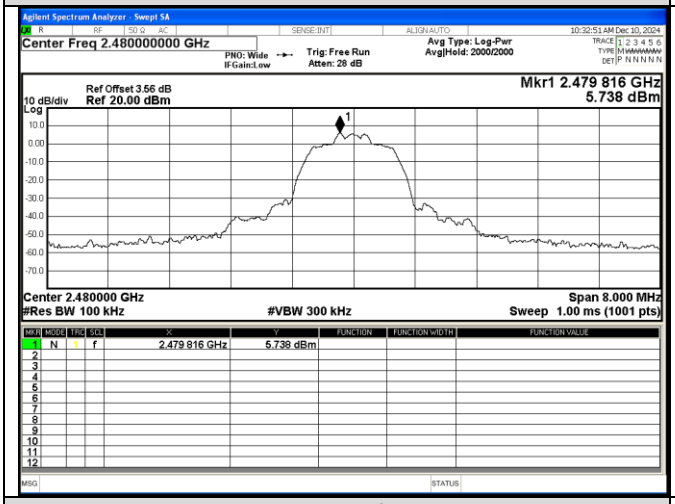
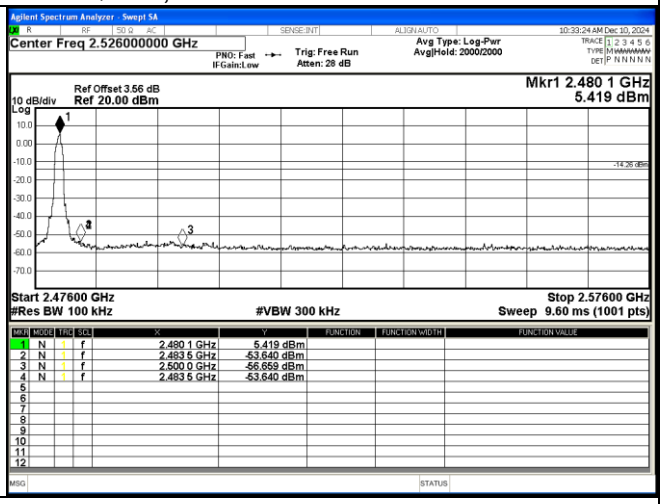
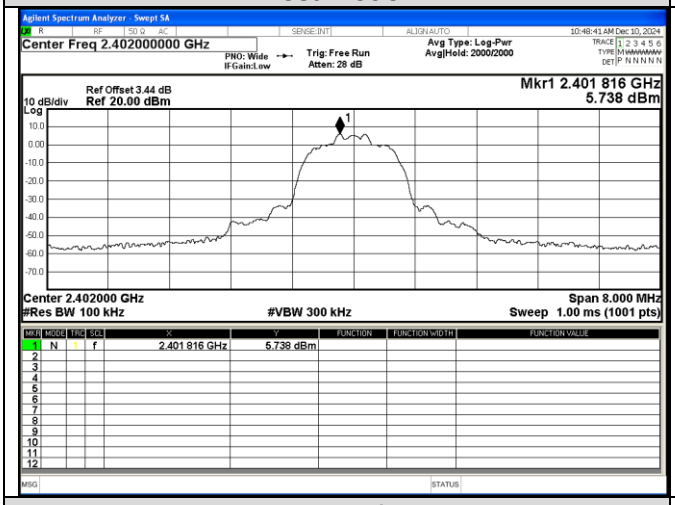
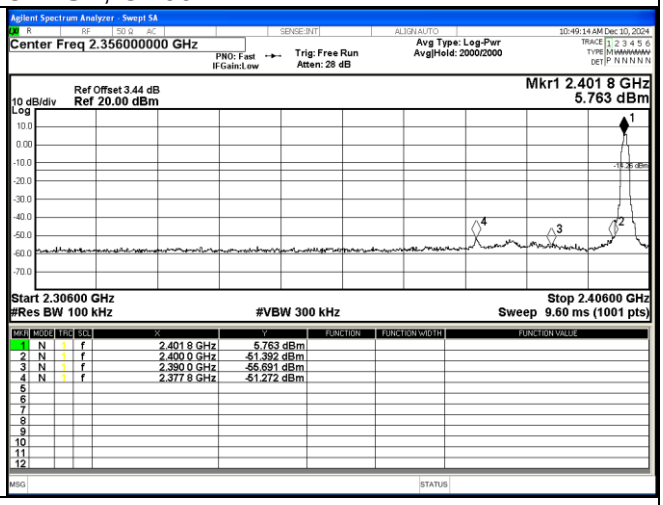
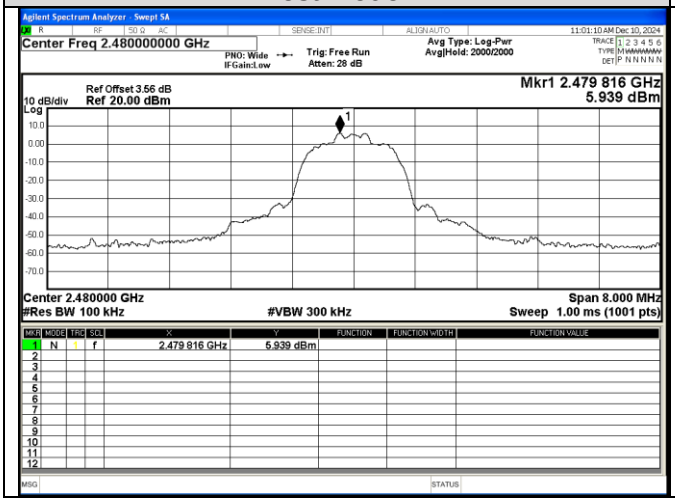
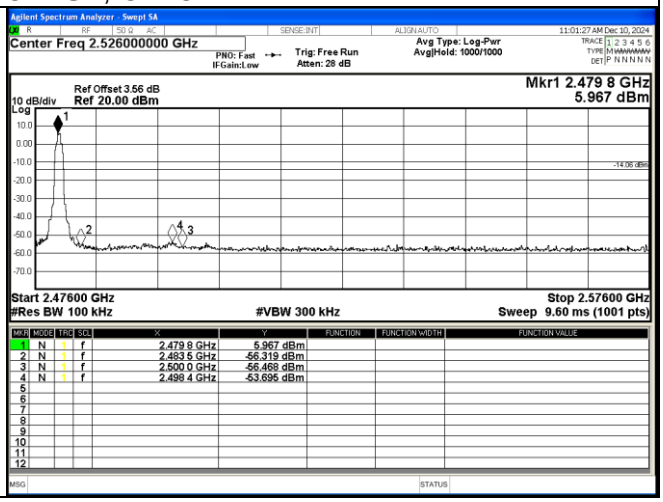


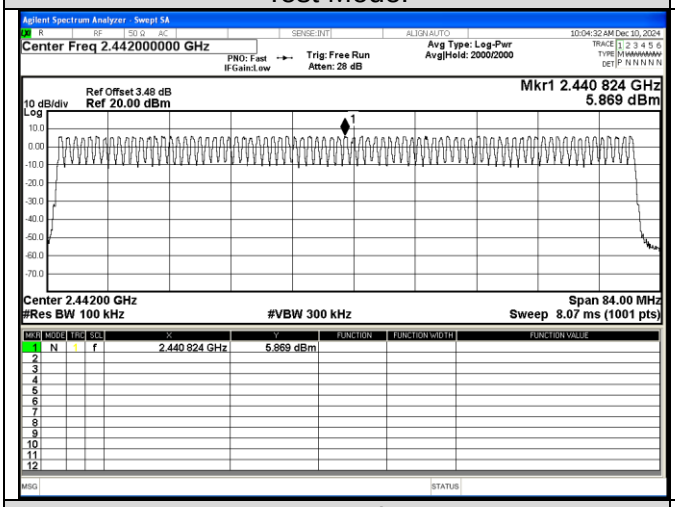
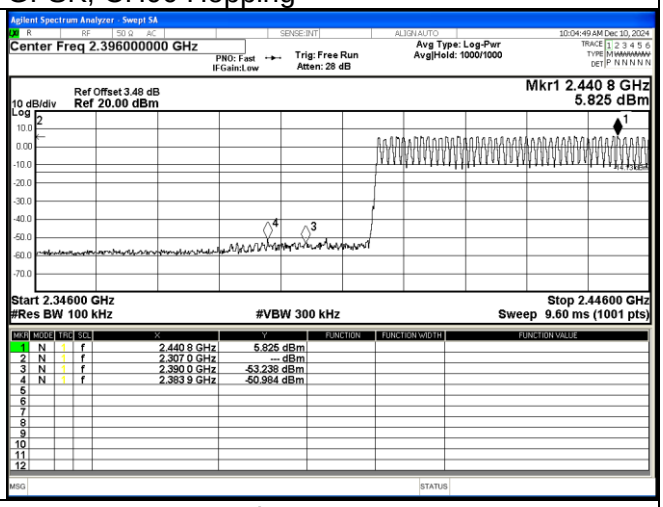
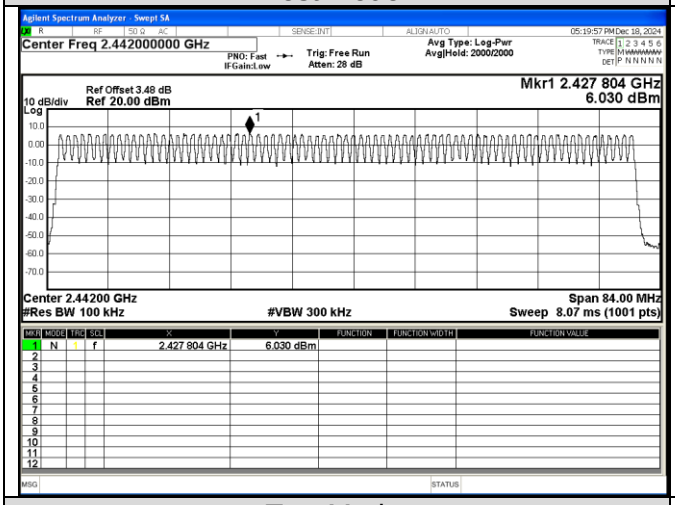
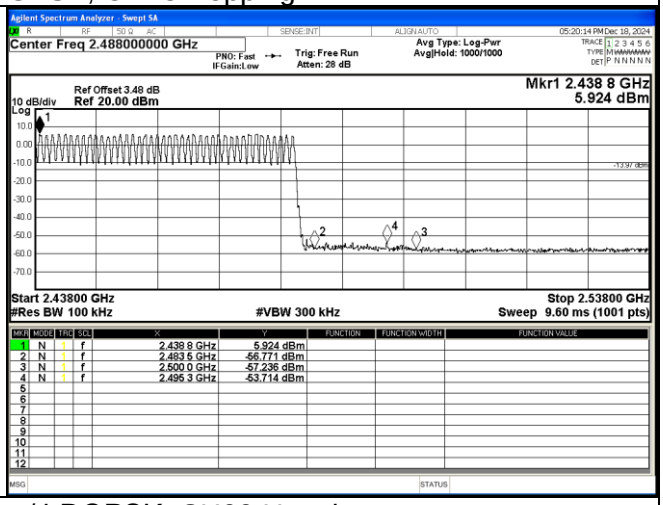
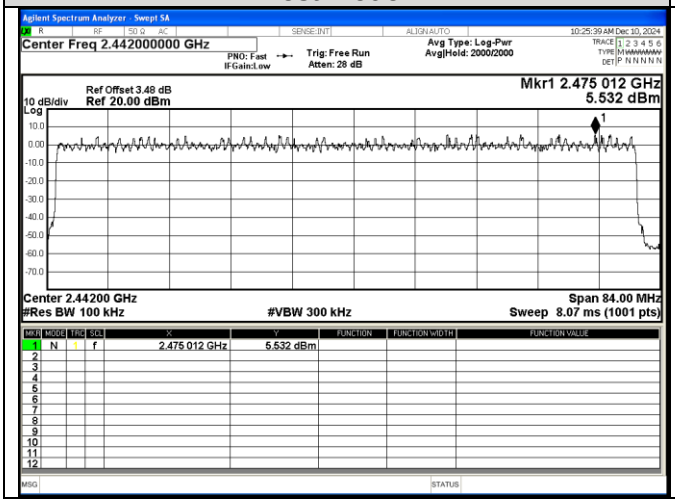
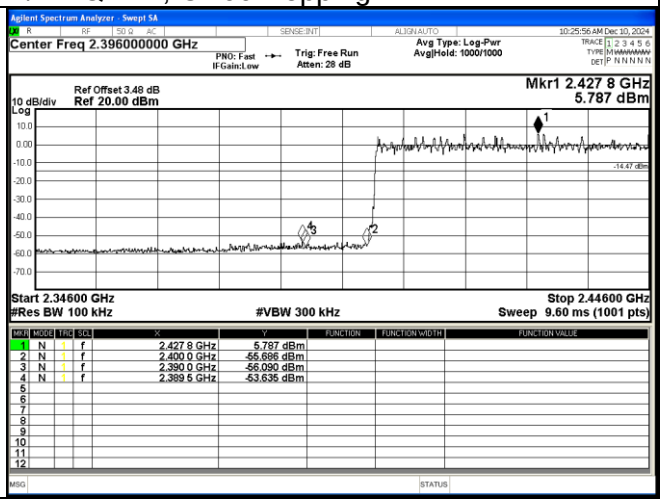


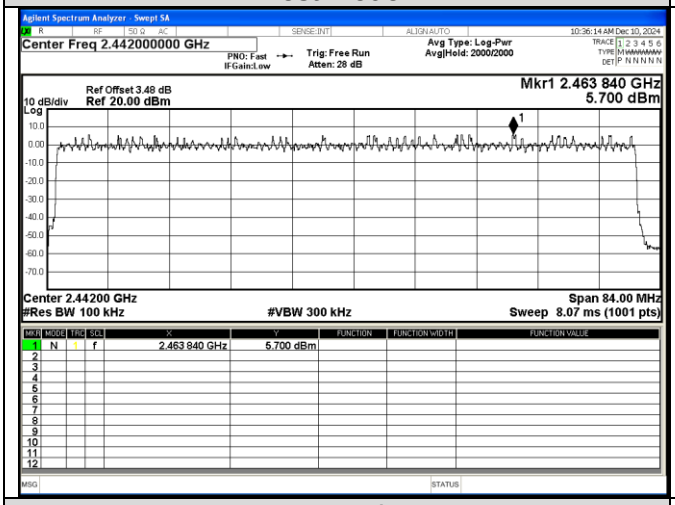
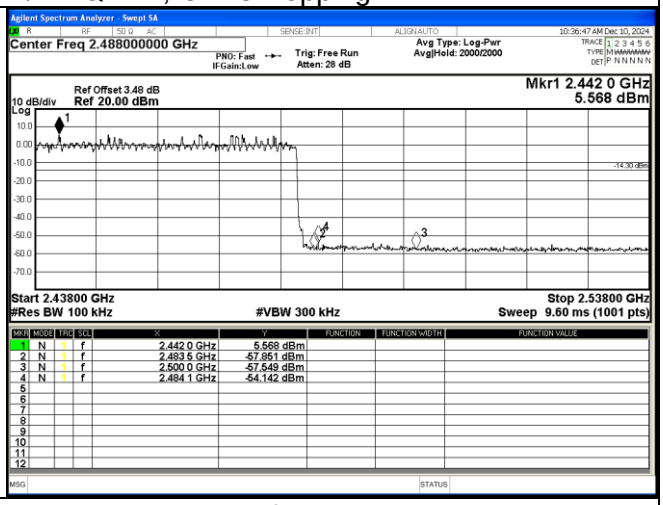
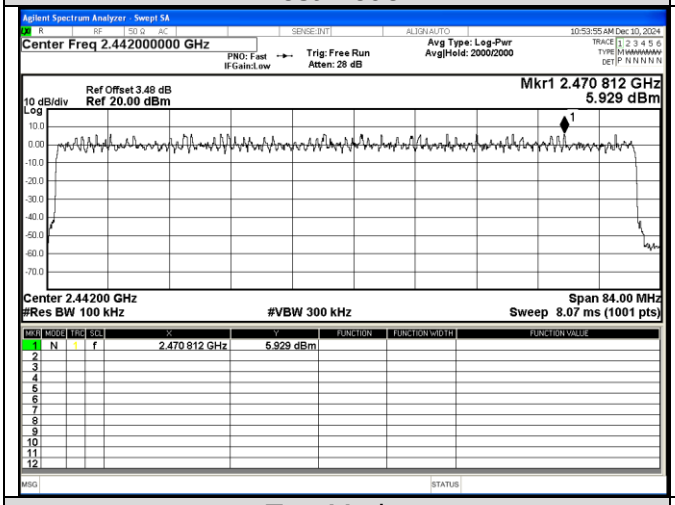
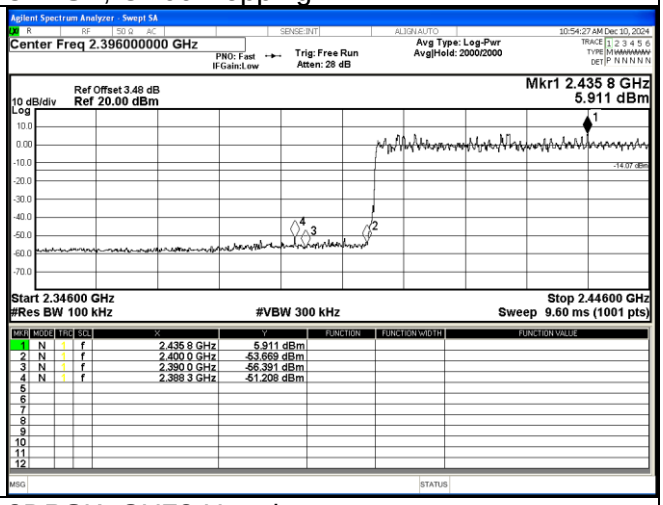
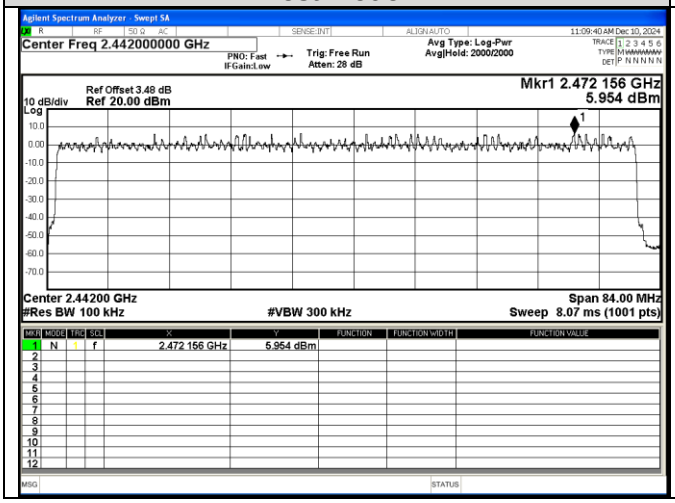
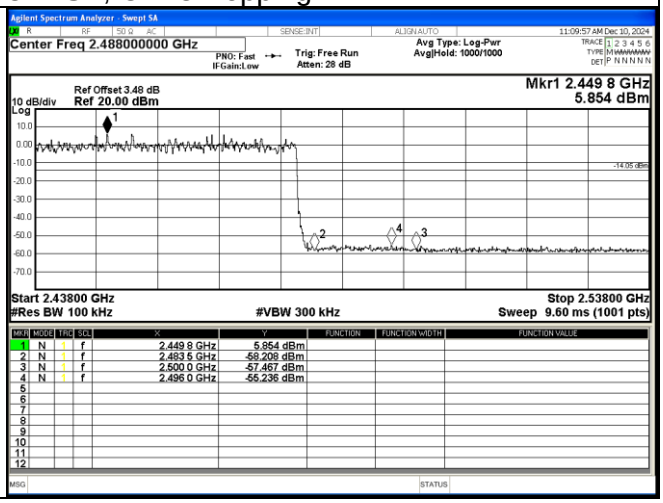
Test Mode: π/4 DQPSK, CH00





Test Mode:	π/4 DQPSK, CH78
	
Test Mode:	8DPSK, CH00
	
Test Mode:	8DPSK, CH78
	

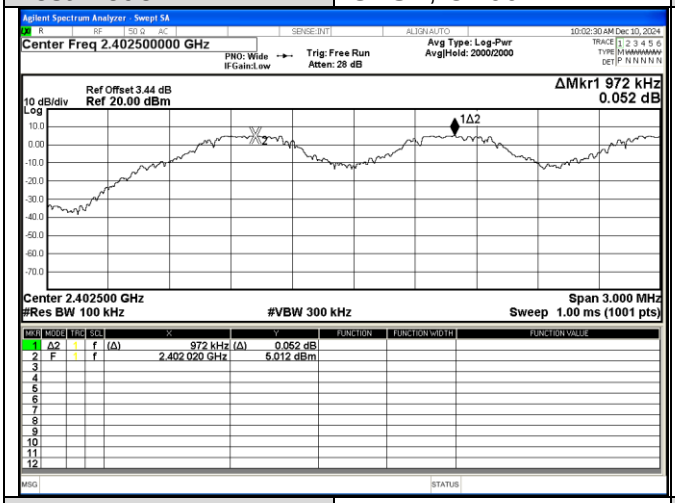
Test Mode:	GFSK, CH00 Hopping
	
Test Mode:	GFSK, CH78 Hopping
	
Test Mode:	π/4 DQPSK, CH00 Hopping
	

Test Mode:	π/4 DQPSK, CH78 Hopping
	
Test Mode:	8DPSK, CH00 Hopping
	
Test Mode:	8DPSK, CH78 Hopping
	

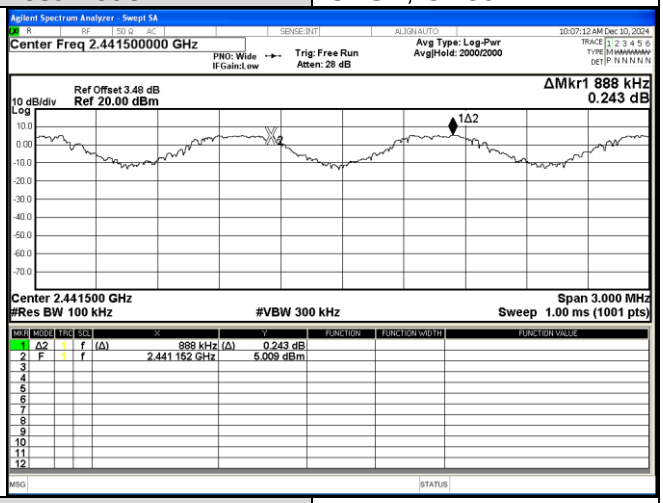
Appendix A.4 Test Results of Carrier Frequency Separation

Mode	HFS (MHz)	Limit (MHz)	Verdict
GFSK, CH00	0.972	0.621	Pass
GFSK, CH39	0.888	0.613	Pass
GFSK, CH78	0.771	0.677	Pass
π/4 DQPSK, CH00	1.02	0.817	Pass
π/4 DQPSK, CH39	0.888	0.852	Pass
π/4 DQPSK, CH78	1.176	0.816	Pass
8DPSK, CH00	1.05	0.827	Pass
8DPSK, CH39	1.047	0.795	Pass
8DPSK, CH78	0.876	0.849	Pass

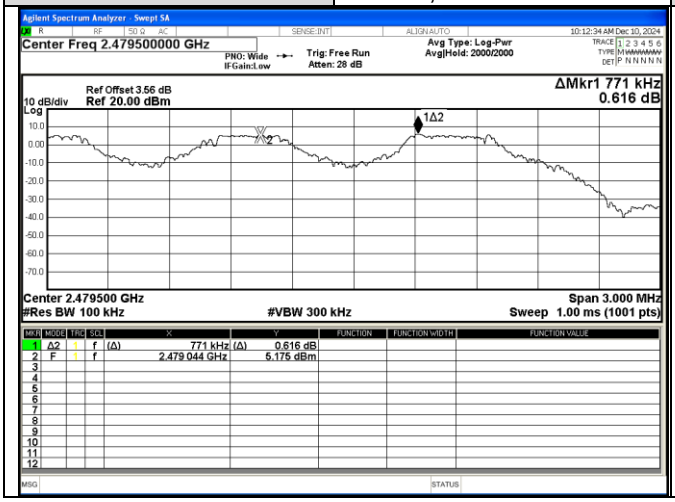
Test Mode: GFSK, CH00



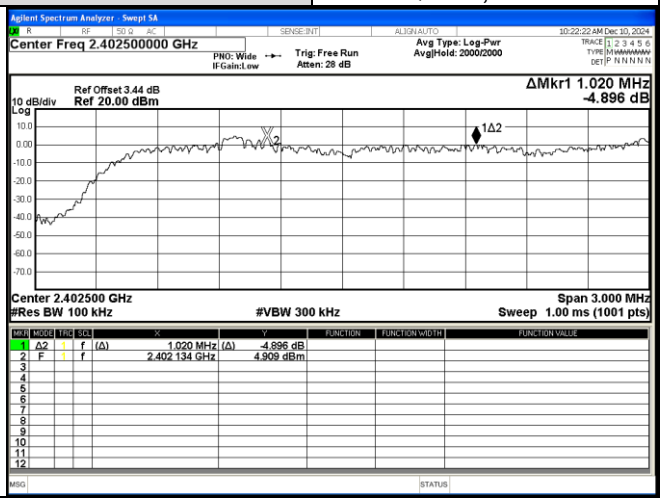
Test Mode: GFSK, CH39



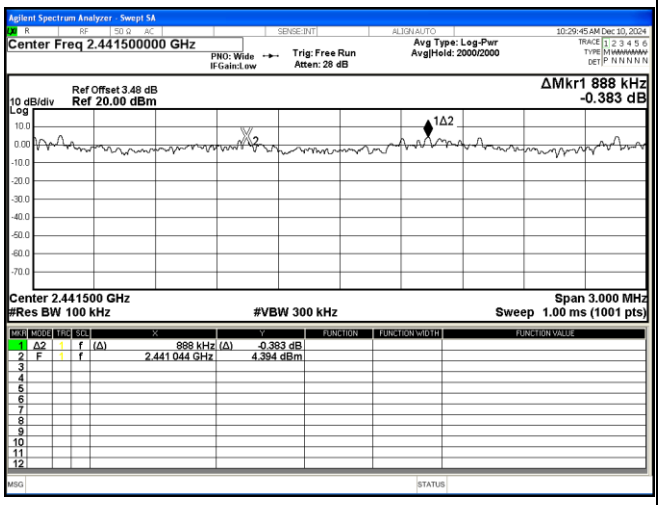
Test Mode: GFSK, CH78

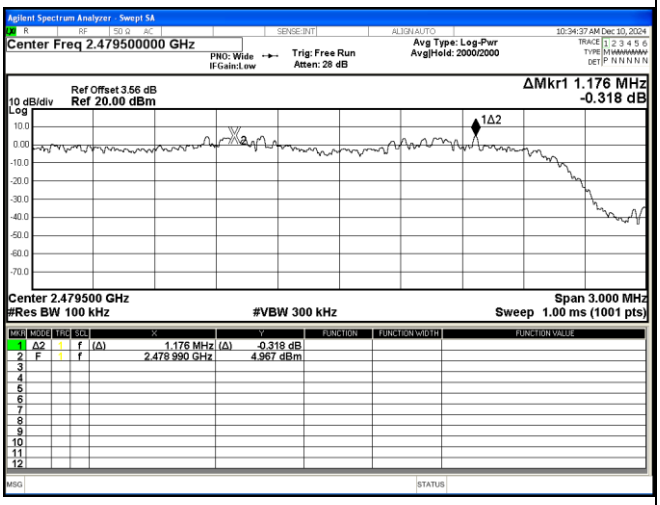


Test Mode: π/4 DQPSK, CH00

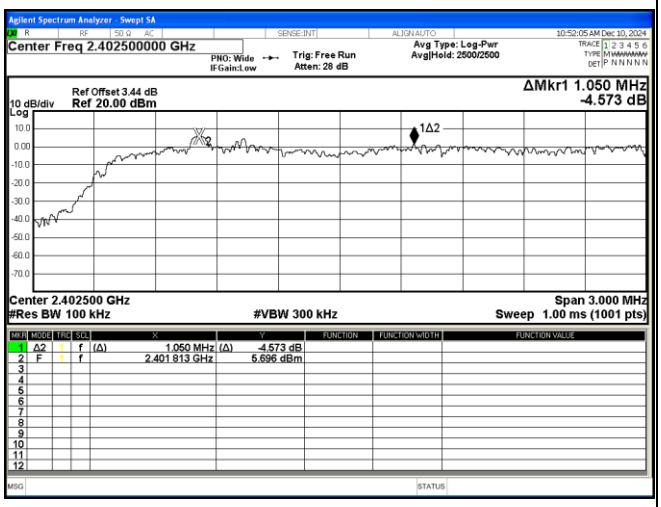


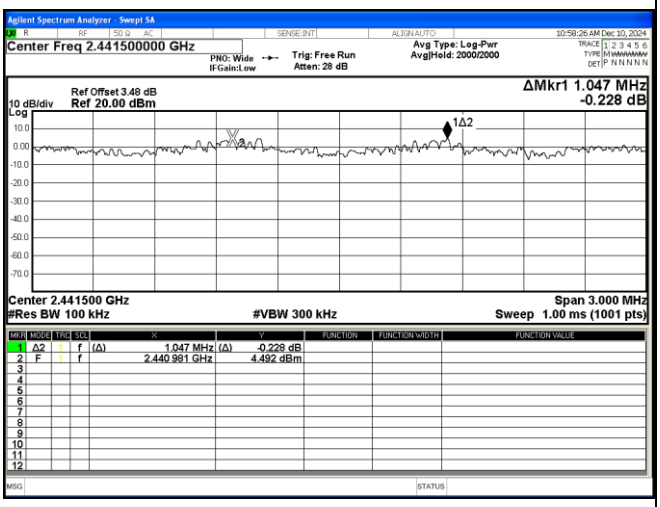
Test Mode:	π/4 DQPSK, CH39	Test Mode:	π/4 DQPSK, CH78



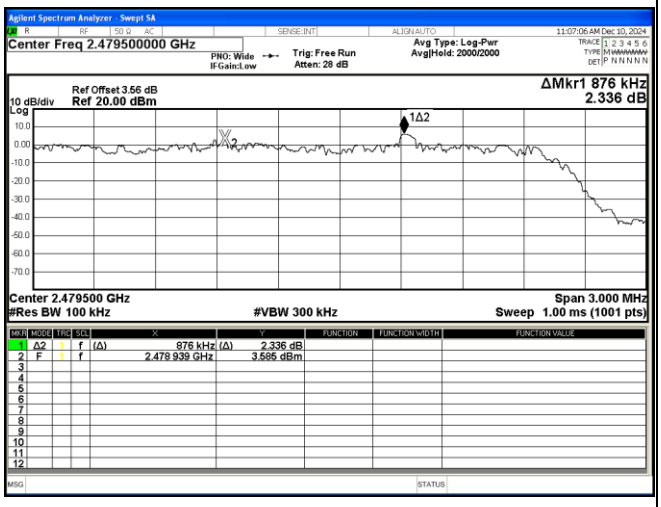


Test Mode:	8DPSK, CH00	Test Mode:	8DPSK, CH39





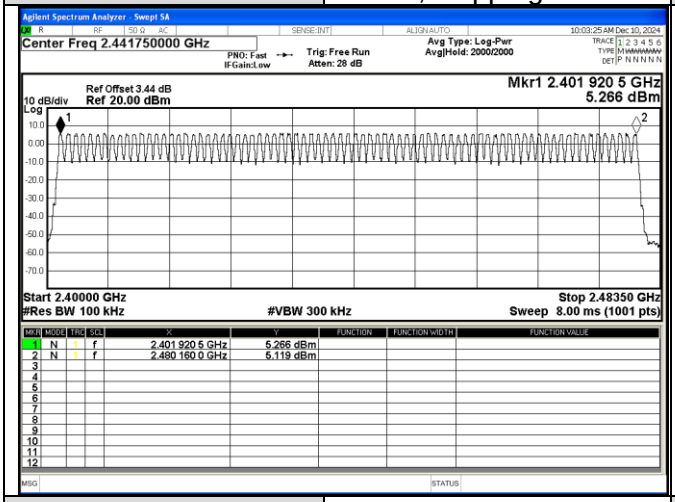
Test Mode:	8DPSK, CH78		

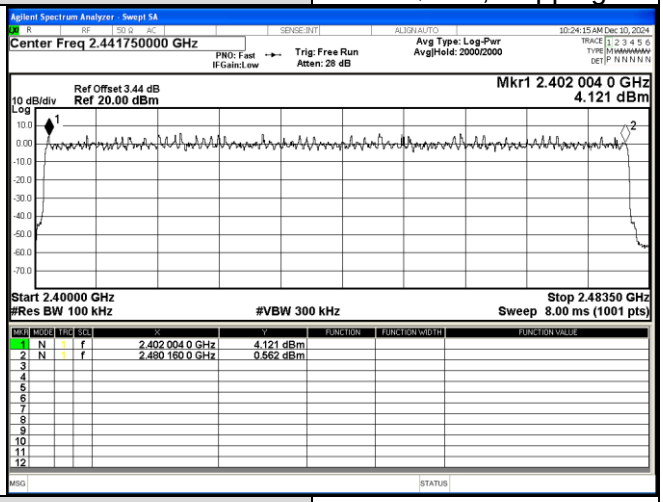


Appendix A.5 Test Results of Number of Hopping Frequency

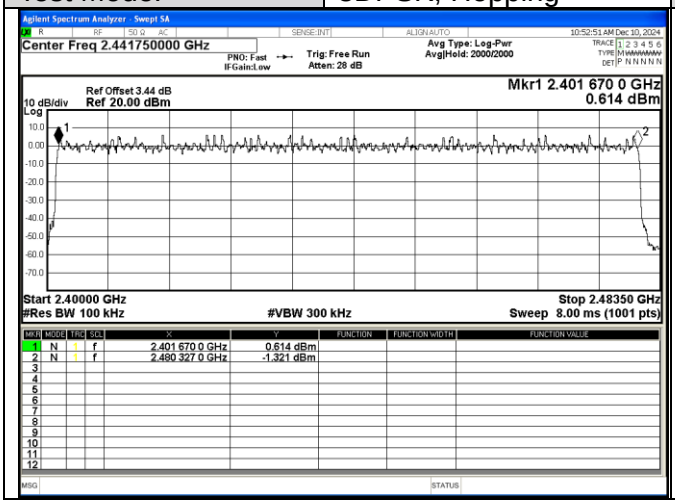
Mode	Hopping Number	Limit	Verdict
GFSK, Hopping	79	15	Pass
π/4 DQPSK, Hopping	79	15	Pass
8DPSK, Hopping	79	15	Pass

Test Mode:	GFSK, Hopping	Test Mode:	π/4 DQPSK, Hopping





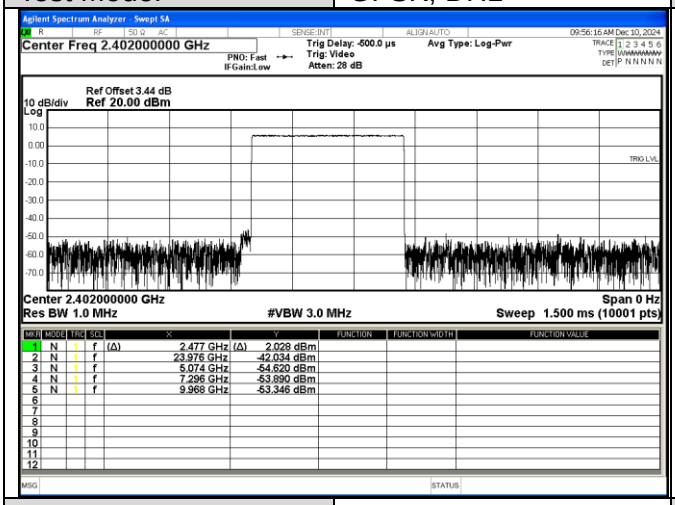
Test Mode:	8DPSK, Hopping		



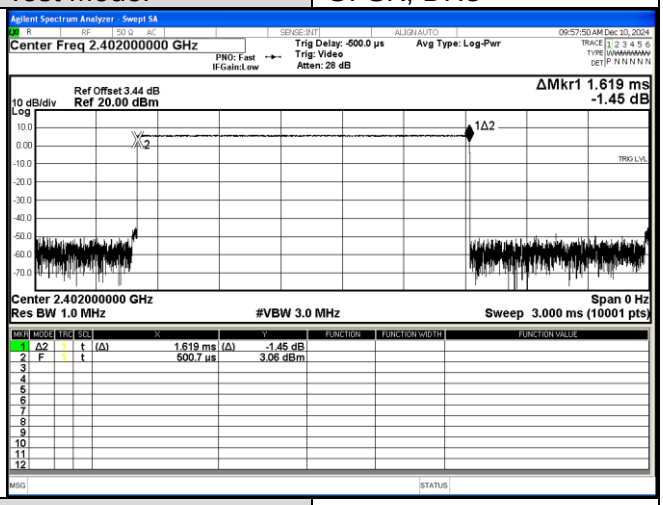
Appendix A.6 Test Results of Time of Occupancy

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	255.865	31600	400	Pass
GFSK, DH5	2441	2.867	271.811	31600	400	Pass
π/4 DQPSK, DH1	2441	0.379	119.732	31600	400	Pass
π/4 DQPSK, DH3	2441	1.631	257.658	31600	400	Pass
π/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	257.36	31600	400	Pass
8DPSK, DH5	2441	2.88	273.038	31600	400	Pass

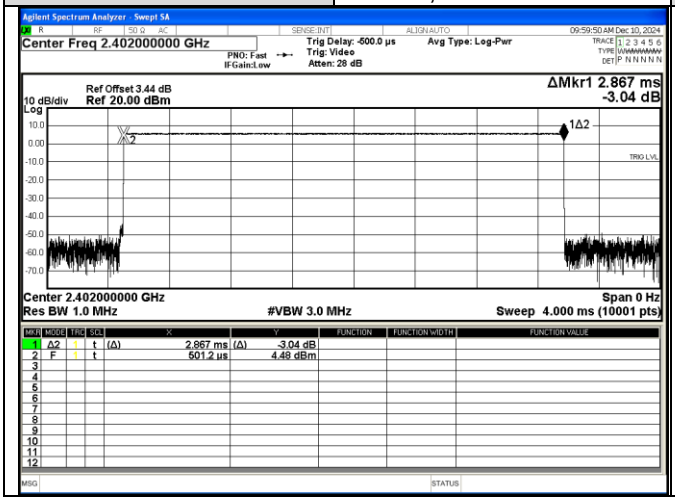
Test Mode: GFSK, DH1



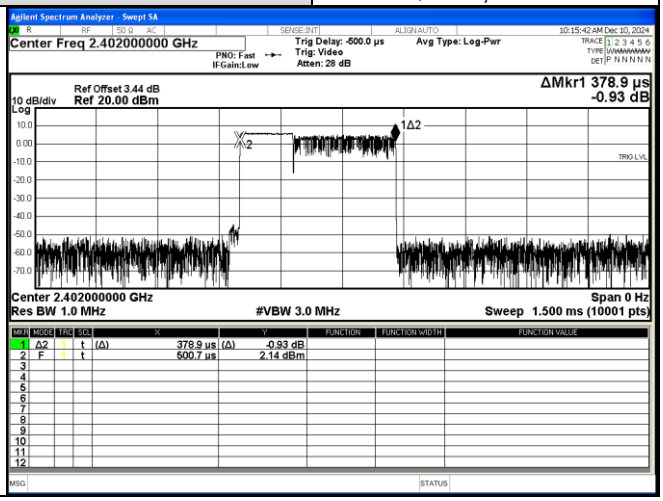
Test Mode: GFSK, DH3



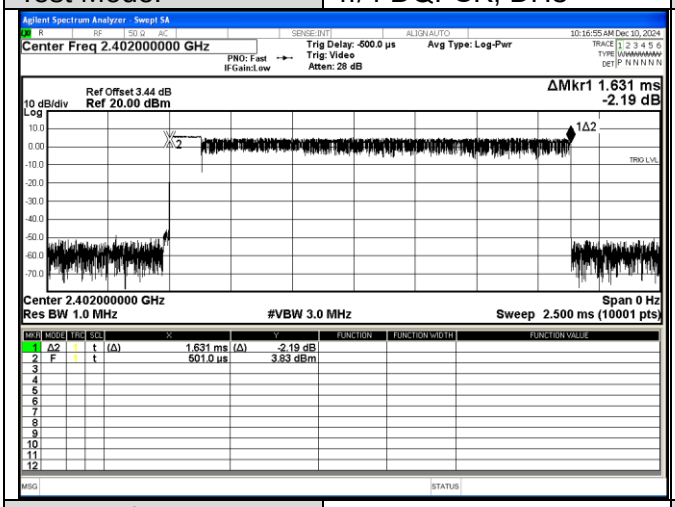
Test Mode: GFSK, DH5

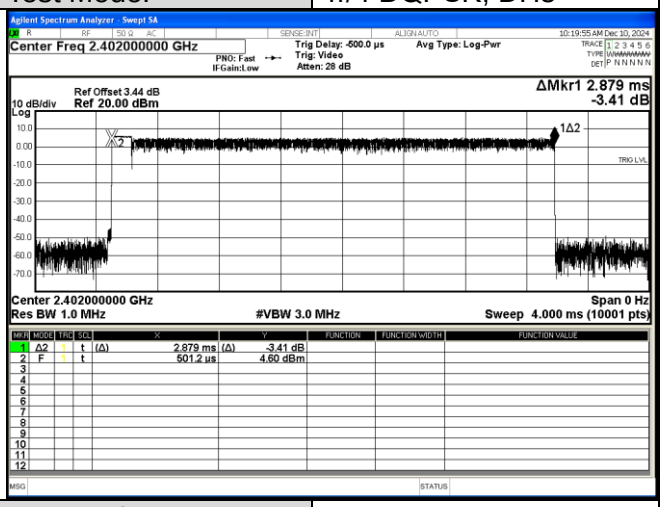


Test Mode: π/4 DQPSK, DH1

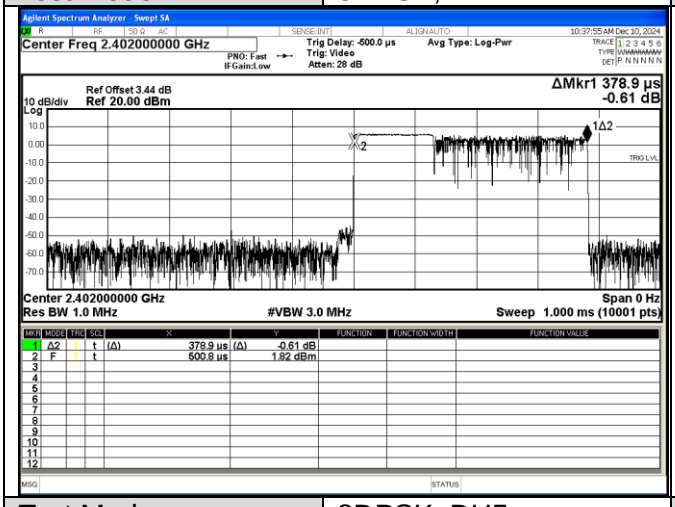


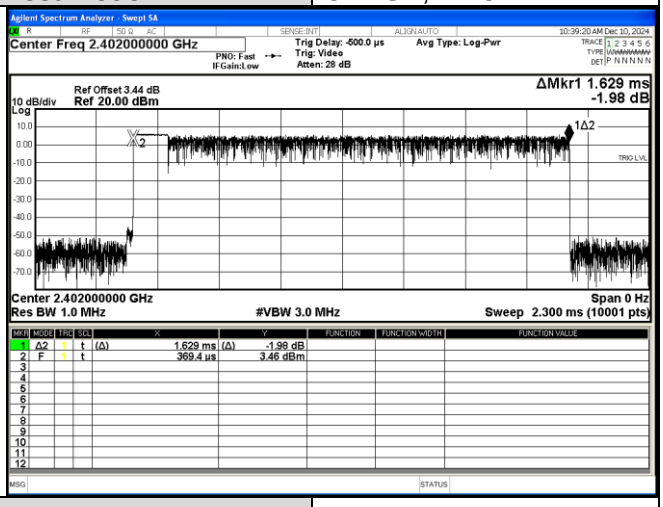
Test Mode:	π/4 DQPSK, DH3	Test Mode:	π/4 DQPSK, DH5



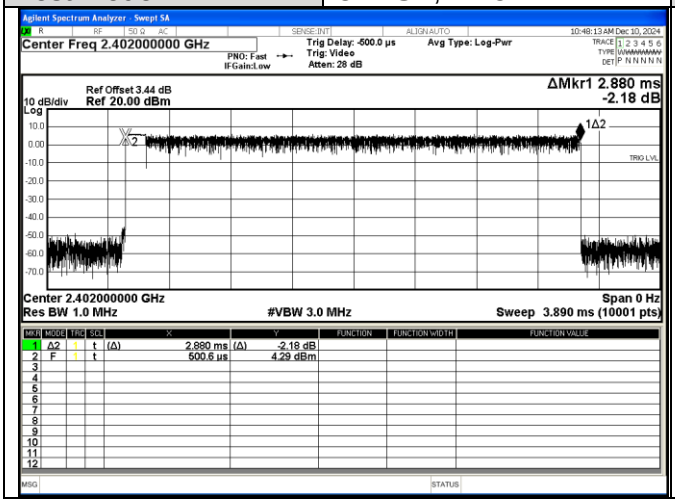


Test Mode:	8DPSK, DH1	Test Mode:	8DPSK, DH3





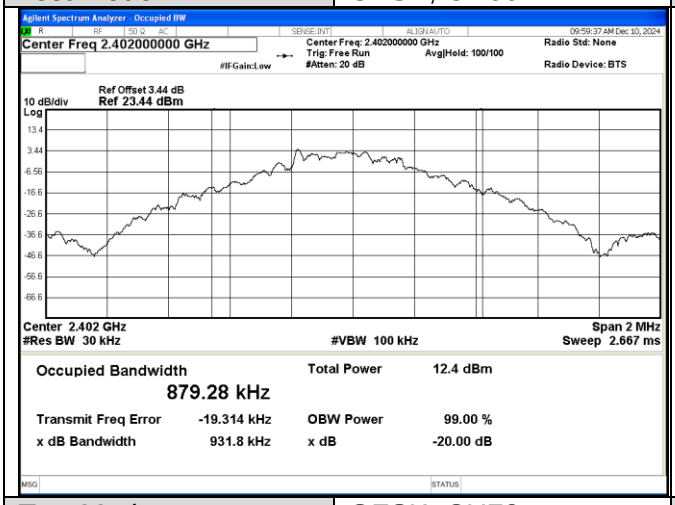
Test Mode:	8DPSK, DH5

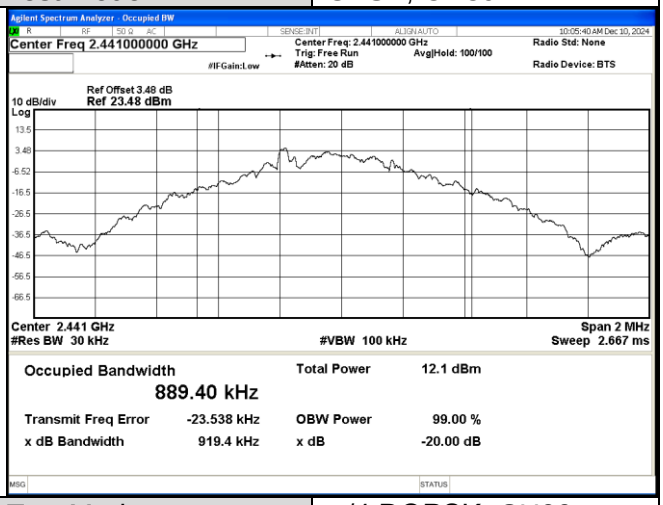


Appendix A.7 Test Results of 20dB & 99% BANDWIDTH

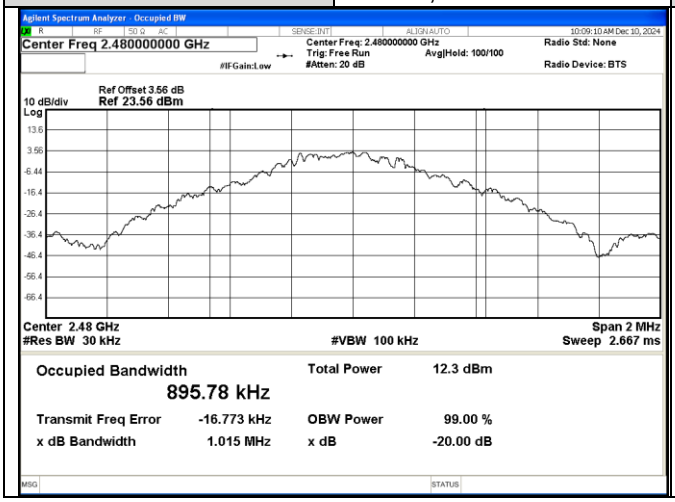
Mode	Frequency [MHz]	99% Bandwidth [MHz]	20dB Bandwidth [MHz]
GFSK	2402	0.8793	0.9318
GFSK	2441	0.8894	0.9194
GFSK	2480	0.8958	1.0149
π/4 DQPSK	2402	1.1598	1.2258
π/4 DQPSK	2441	1.1606	1.2786
π/4 DQPSK	2480	1.157	1.2241
8DPSK	2402	1.1707	1.2405
8DPSK	2441	1.1486	1.1923
8DPSK	2480	1.1744	1.2733

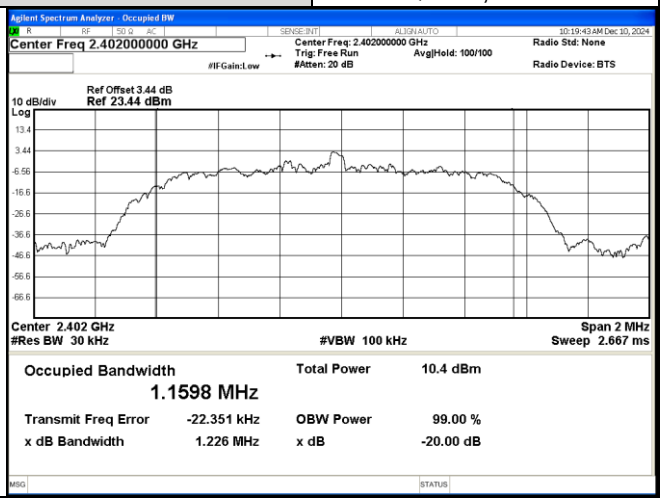
Test Mode:	GFSK, CH00	Test Mode:	GFSK, CH39



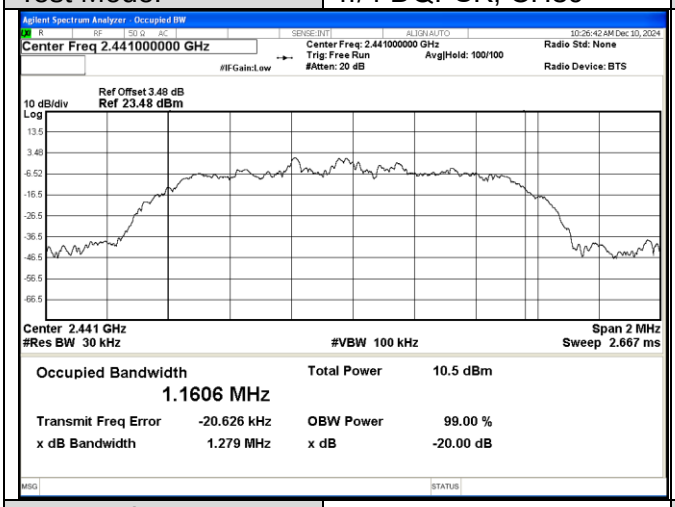


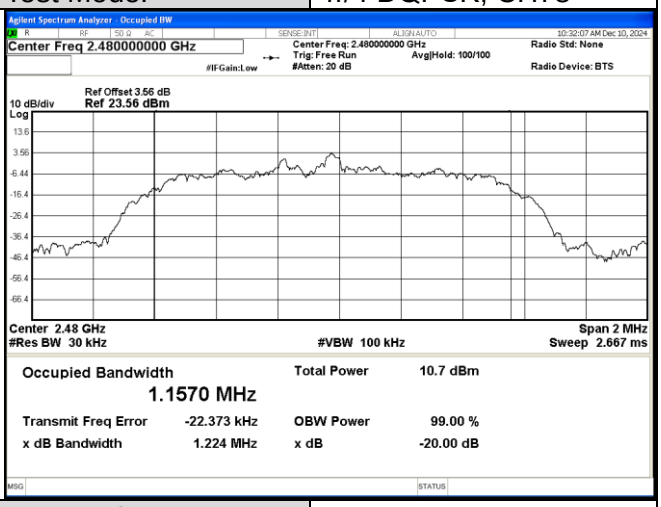
Test Mode:	GFSK, CH78	Test Mode:	π/4 DQPSK, CH00



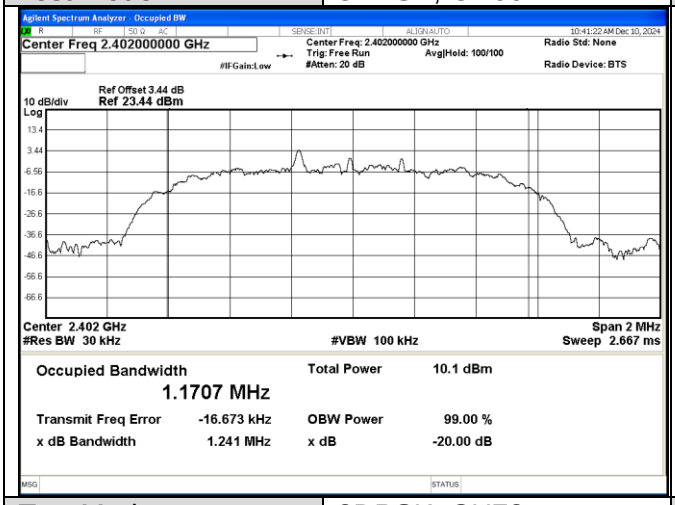


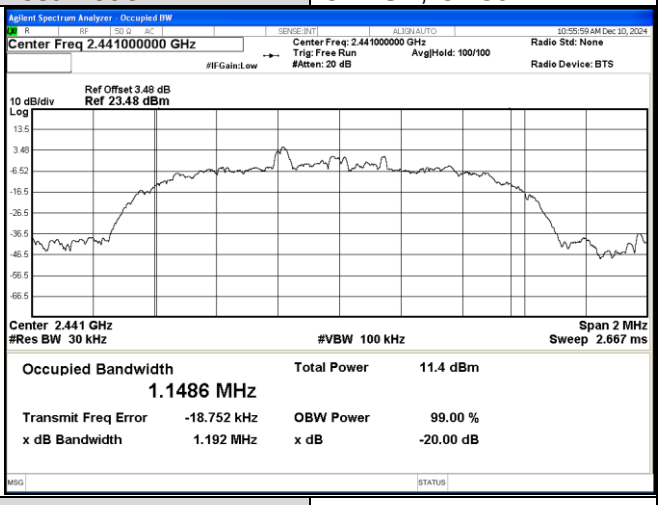
Test Mode:	π/4 DQPSK, CH39	Test Mode:	π/4 DQPSK, CH78



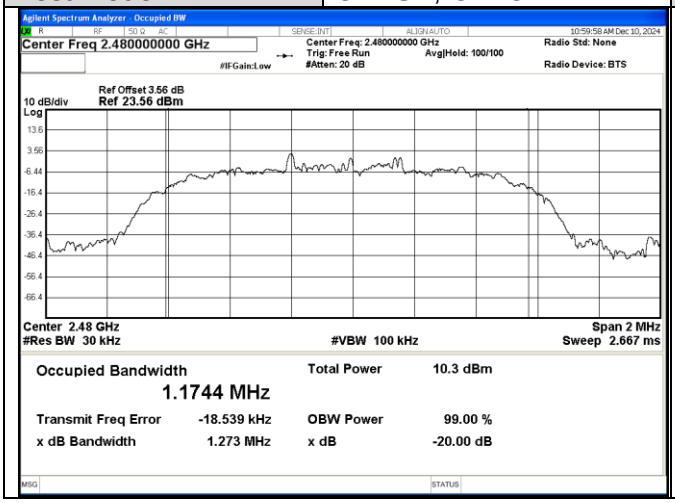


Test Mode:	8DPSK, CH00	Test Mode:	8DPSK, CH39





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	5.898	0.0039	< 0.125
	2441	6.138	0.0041	< 0.125
	2480	6.100	0.0041	< 0.125
π/4 DQPSK	2402	5.920	0.0039	< 0.125
	2441	6.142	0.0041	< 0.125
	2480	6.118	0.0041	< 0.125
8DPSK	2402	6.286	0.0043	< 0.125
	2441	6.508	0.0045	< 0.125
	2480	6.498	0.0045	< 0.125

Note:
1) The cable loss is taken into account in results.
2) Antenna gain(G) of Bluetooth: 2.50 dBi
e.i.r.p.=P(Peak power)+ G, which is far below the 4 W