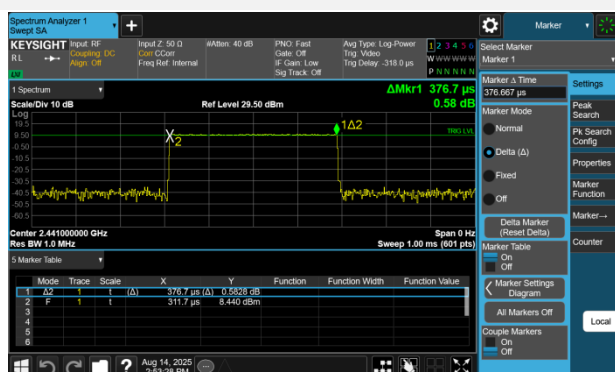
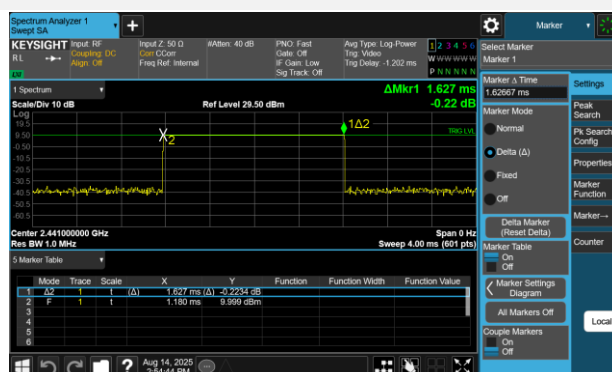


Test Plots

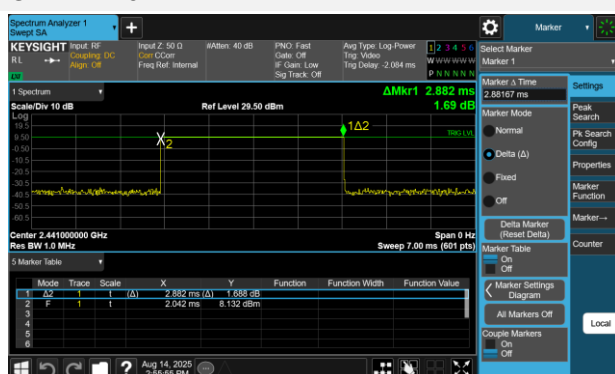
GFSK DH1



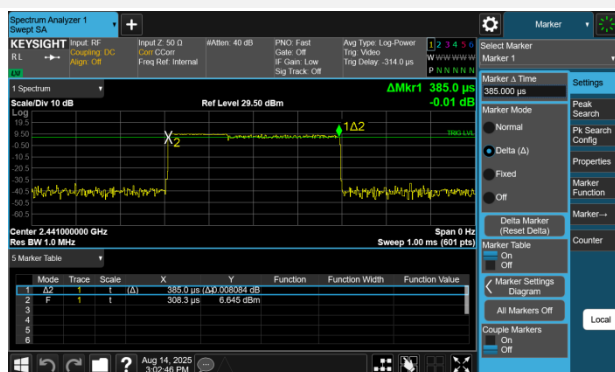
GFSK DH3



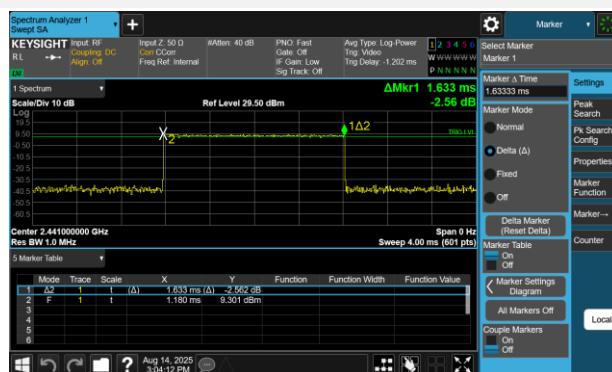
GFSK DH5



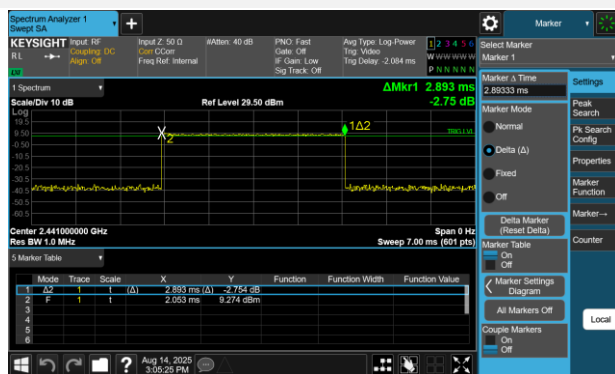
8-DPSK DH1



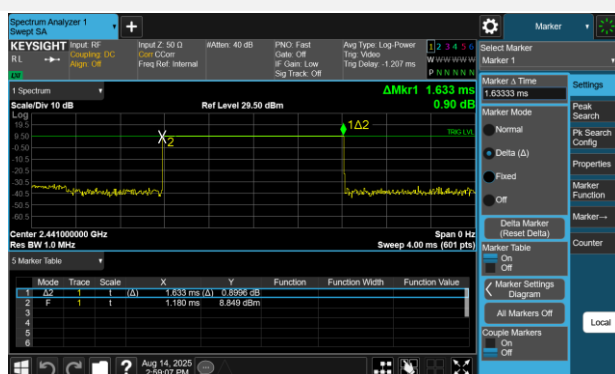
8-DPSK DH3



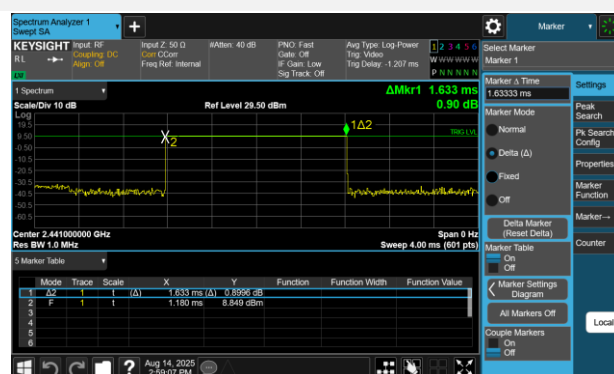
8-DPSK DH5



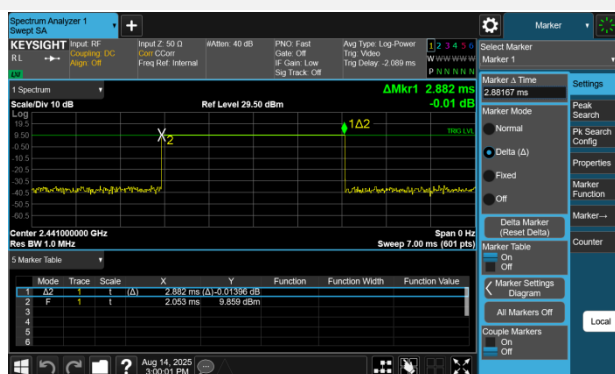
AFH Mode DH1



AFH Mode DH3



AFH Mode DH5



A.6 Conducted Spurious Emissions & Authorized-band band-edge

Test Data

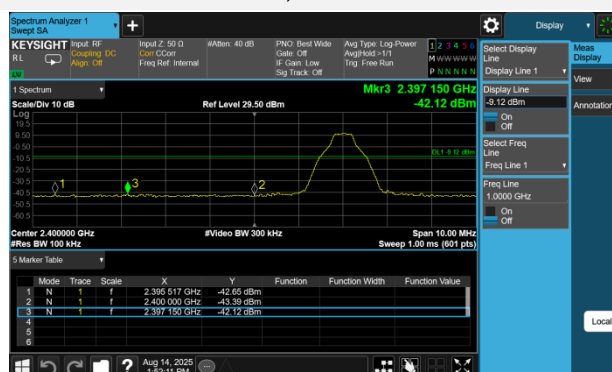
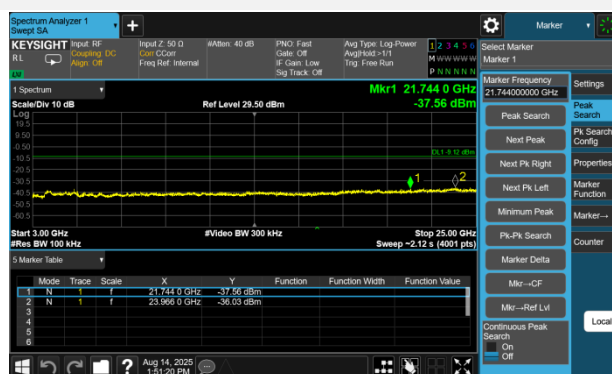
GFSK				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-36.03	10.88	-9.12	Pass
Middle	-36.23	9.75	-10.25	Pass
High	-34.96	9.89	-10.11	Pass
8-DPSK				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-35.95	10.03	-9.97	Pass
Middle	-35.35	9.37	-10.63	Pass
High	-35.74	10.18	-9.82	
Hopping Mode				
Mode	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
GFSK	-35.71	10.51	-9.49	Pass
8-DPSK	-35.52	9.83	-10.17	Pass

Test Plots

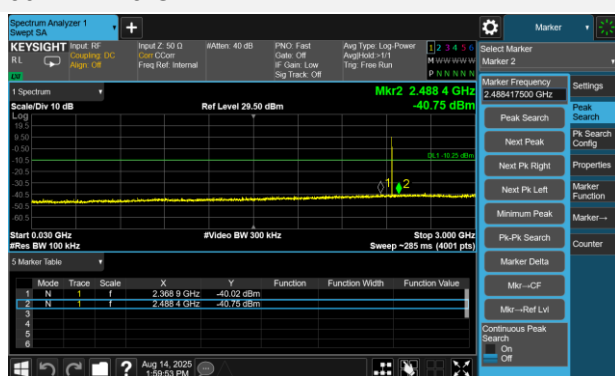
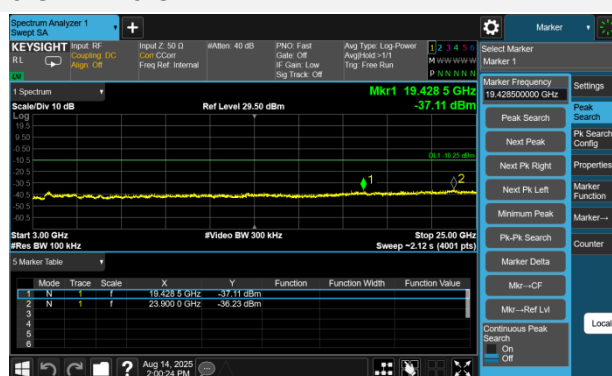
GFSK LOW CHANNEL, CARRIER LEVEL



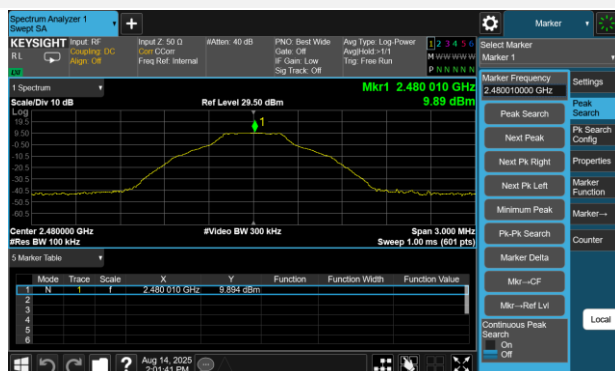
GFSK LOW CHANNEL, BAND EDGE

GFSK LOW CHANNEL, SPURIOUS
30 MHz ~ 3 GHzGFSK LOW CHANNEL, SPURIOUS
3 GHz ~ 25 GHz

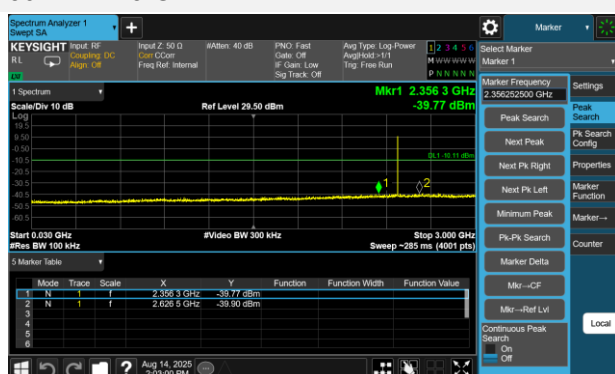
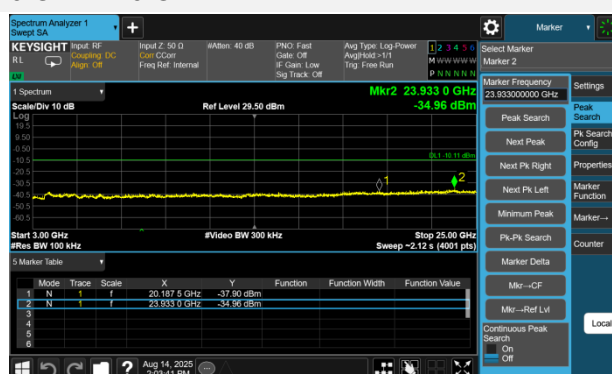
GFSK MIDDLE CHANNEL, CARRIER LEVEL

GFSK MIDDLE CHANNEL, SPURIOUS
30 MHz ~ 3 GHzGFSK MIDDLE CHANNEL, SPURIOUS
3 GHz ~ 25 GHz

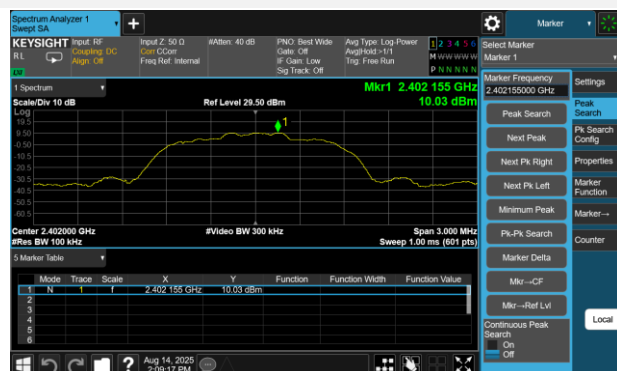
GFSK HIGH CHANNEL, CARRIER LEVEL



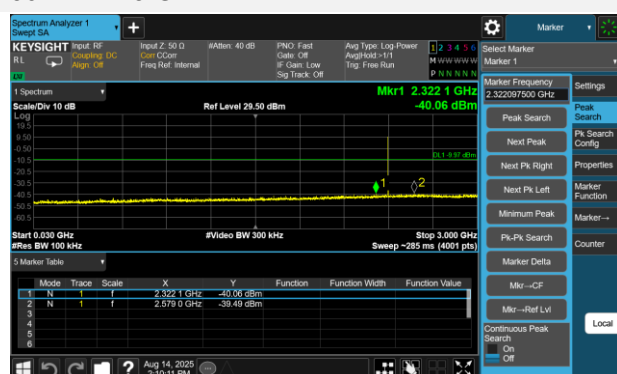
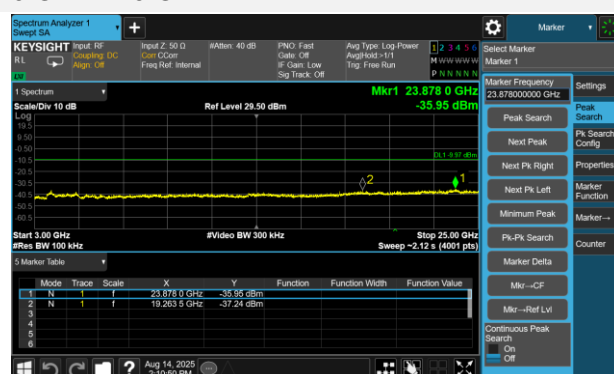
GFSK HIGH CHANNEL, BAND EDGE

GFSK HIGH CHANNEL, SPURIOUS
30 MHz ~ 3 GHzGFSK HIGH CHANNEL, SPURIOUS
3 GHz ~ 25 GHz

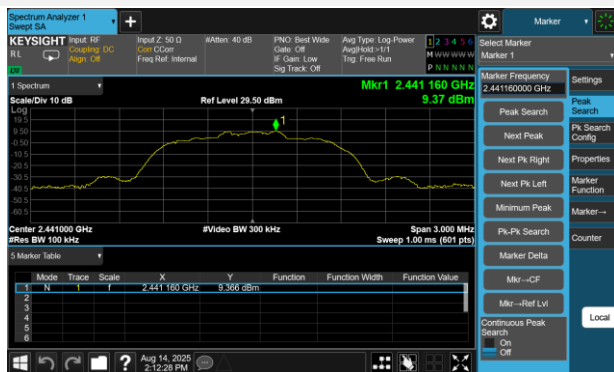
8-DPSK LOW CHANNEL, CARRIER LEVEL



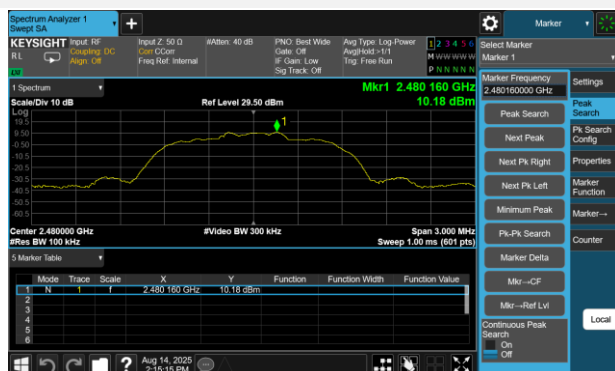
8-DPSK LOW CHANNEL, BAND EDGE

8-DPSK LOW CHANNEL, SPURIOUS
30 MHz ~ 3 GHz8-DPSK LOW CHANNEL, SPURIOUS
3 GHz ~ 25 GHz

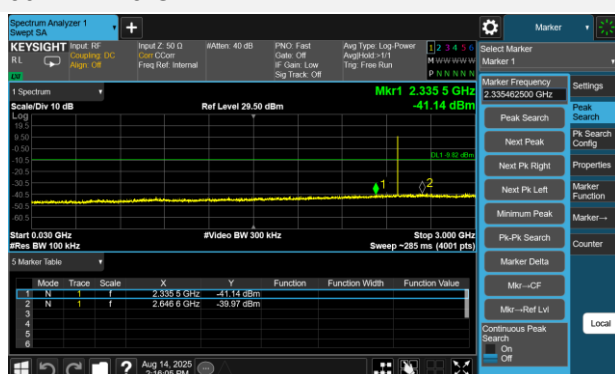
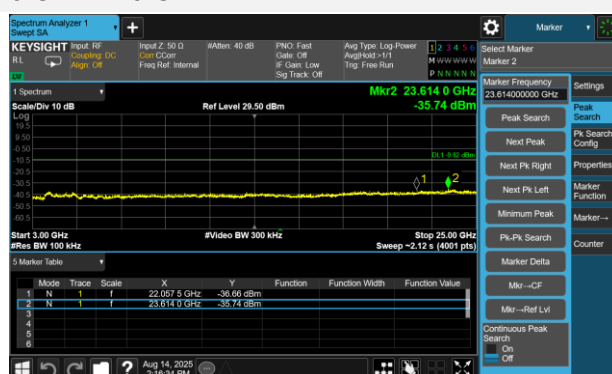
8-DPSK MIDDLE CHANNEL, CARRIER LEVEL

8-DPSK MIDDLE CHANNEL, SPURIOUS
30 MHz ~ 3 GHz8-DPSK MIDDLE CHANNEL, SPURIOUS
3 GHz ~ 25 GHz

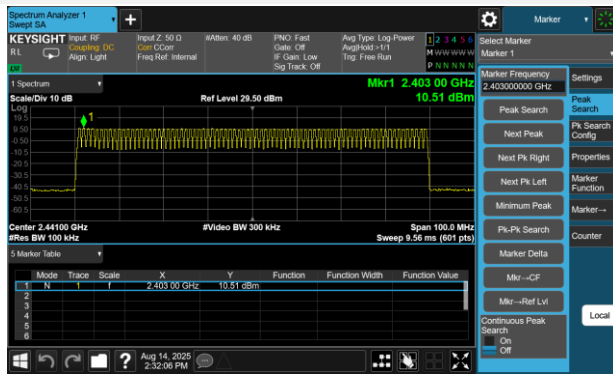
8-DPSK HIGH CHANNEL, CARRIER LEVEL



8-DPSK HIGH CHANNEL, BAND EDGE

8-DPSK HIGH CHANNEL, SPURIOUS
30 MHz ~ 3 GHz8-DPSK HIGH CHANNEL, SPURIOUS
3 GHz ~ 25 GHz

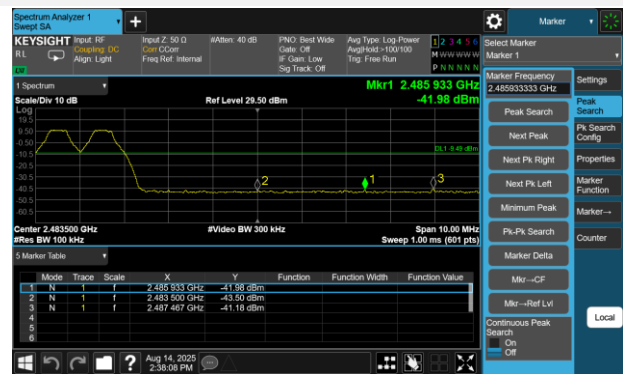
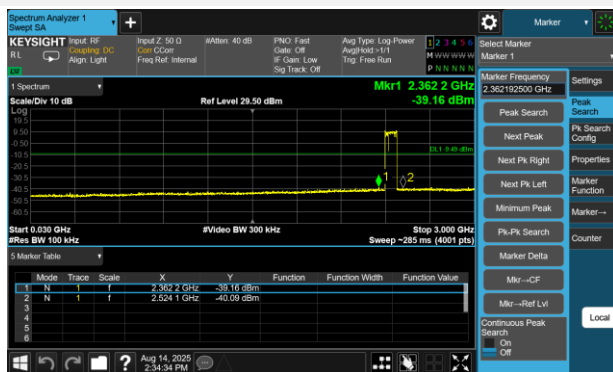
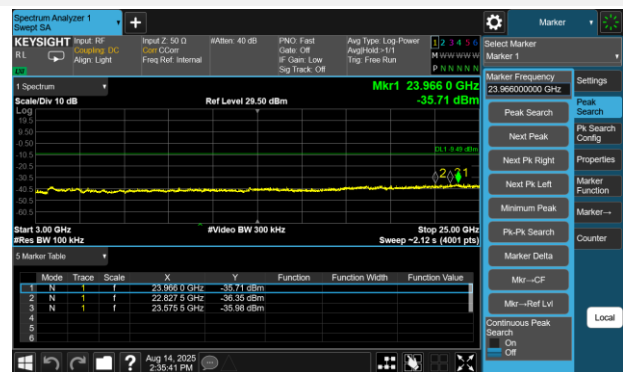
GFSK HOPPING, CARRIER LEVEL



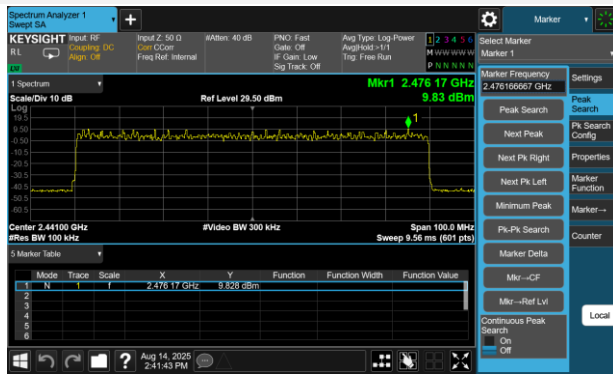
GFSK HOPPING BAND EDGE (LOW)



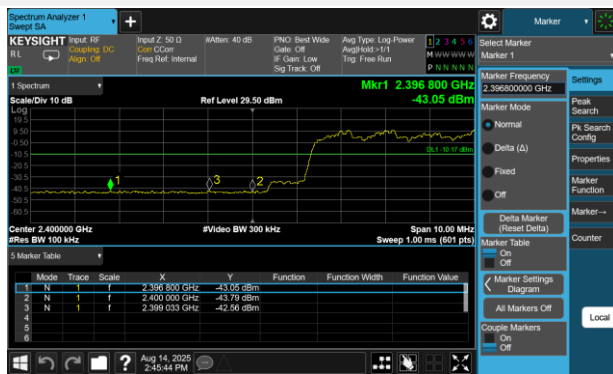
GFSK HOPPING BAND EDGE (HIGH)

GFSK Hopping Mode, SPURIOUS
30 MHz ~ 3 GHzGFSK Hopping Mode, SPURIOUS
3GHz ~ 25 GHz

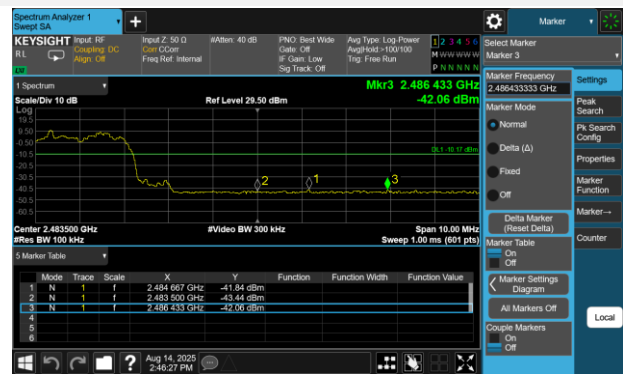
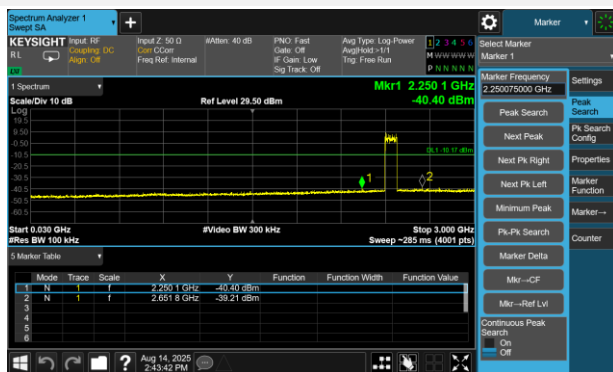
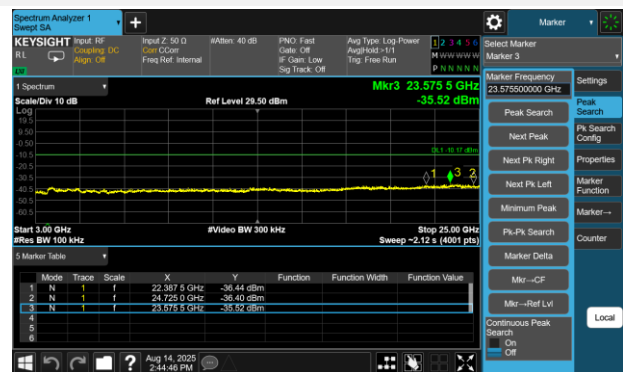
8-DPSK HOPPING, CARRIER LEVEL



8-DPSK Hopping BAND EDGE (LOW)



8-DPSK Hopping BAND EDGE (HIGH)

8-DPSK Hopping Mode, SPURIOUS
30 MHz ~ 3 GHz8-DPSK Hopping Mode, SPURIOUS
3GHz ~ 25 GHz

A.7 Conducted Emission

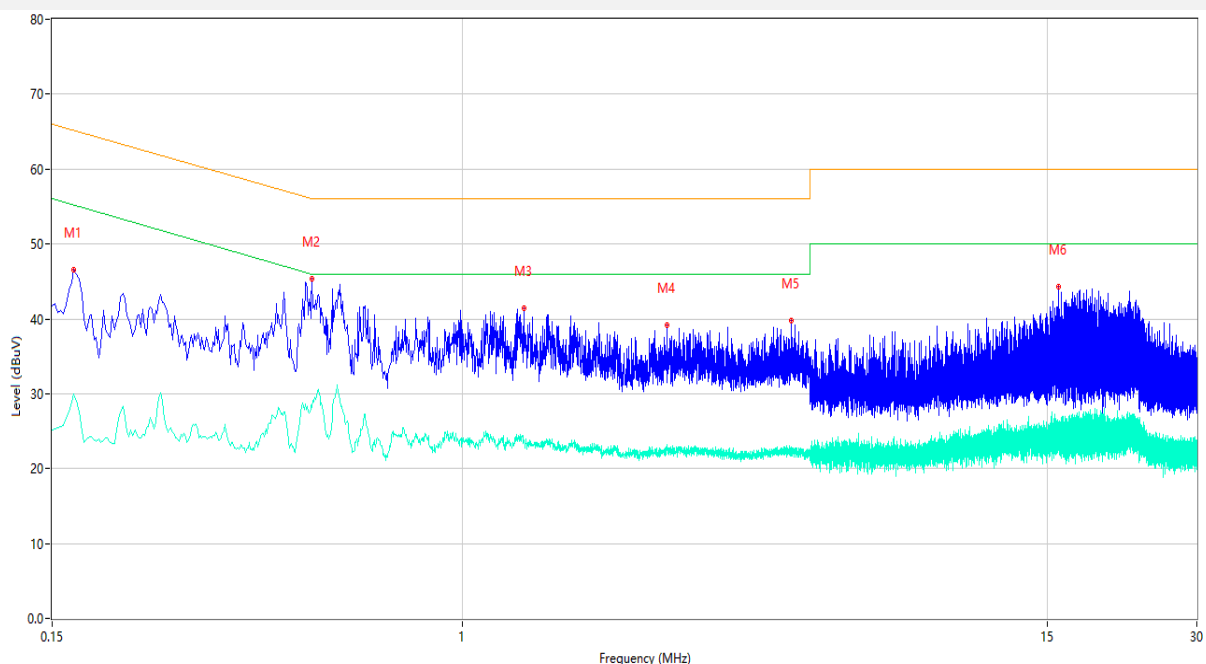
Note 1: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

Note 2: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Note 3: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

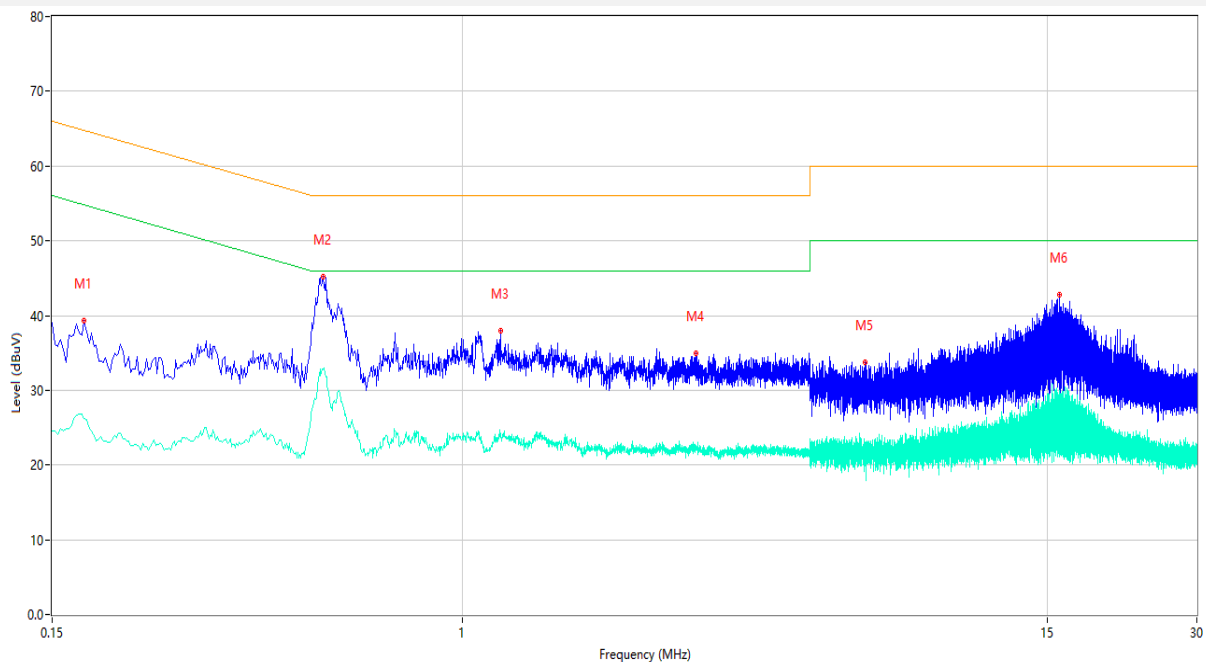
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.166	46.59	10.07	65.16	18.57	Peak	L	Pass
1**	0.166	29.91	10.07	55.16	25.25	AV	L	Pass
2	0.500	45.36	10.15	56.00	10.64	Peak	L	Pass
2**	0.500	28.18	10.15	46.00	17.82	AV	L	Pass
3	1.332	41.41	10.24	56.00	14.59	Peak	L	Pass
3**	1.332	23.78	10.24	46.00	22.22	AV	L	Pass
4	2.586	39.17	10.37	56.00	16.83	Peak	L	Pass
4**	2.586	22.41	10.37	46.00	23.59	AV	L	Pass
5	4.590	39.71	10.43	56.00	16.29	Peak	L	Pass
5**	4.590	22.52	10.43	46.00	23.48	AV	L	Pass
6	15.834	44.22	11.19	60.00	15.78	Peak	L	Pass
6**	15.834	25.85	11.19	50.00	24.15	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.174	39.35	10.15	64.77	25.42	Peak	N	Pass
1**	0.174	26.24	10.15	54.77	28.53	AV	N	Pass
2	0.526	45.21	10.18	56.00	10.79	Peak	N	Pass
2**	0.526	32.91	10.18	46.00	13.09	AV	N	Pass
3	1.194	37.89	10.25	56.00	18.11	Peak	N	Pass
3**	1.194	23.96	10.25	46.00	22.04	AV	N	Pass
4	2.954	34.92	10.30	56.00	21.08	Peak	N	Pass
4**	2.954	22.04	10.30	46.00	23.96	AV	N	Pass
5	6.450	33.76	10.57	60.00	26.24	Peak	N	Pass
5**	6.450	22.80	10.57	50.00	27.20	AV	N	Pass
6	15.900	42.75	11.17	60.00	17.25	Peak	N	Pass
6**	15.900	29.94	11.17	50.00	20.06	AV	N	Pass

A.8 Radiated Spurious Emission

Note 1: The symbol of "--" in the table which means not application.

Note 2: For the test data above 1 GHz, according the ANSI C63.10-2020, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

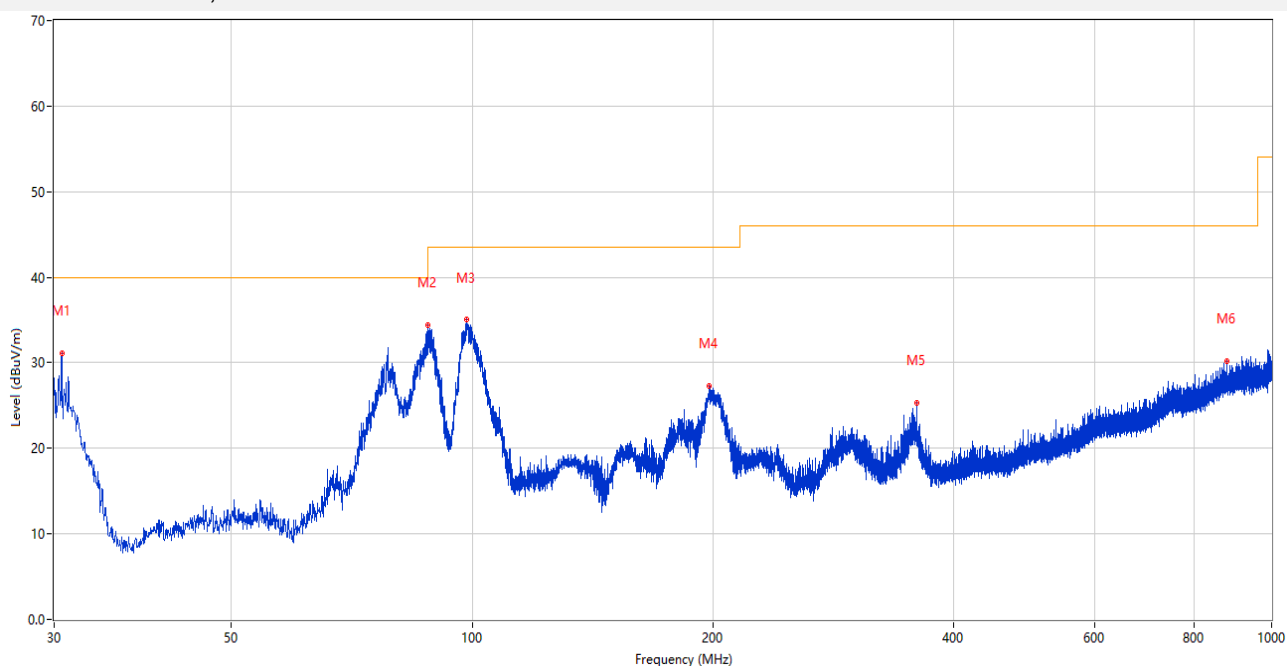
Note 3: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested.

Note 4: Results (dBuV/m) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Note 5: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

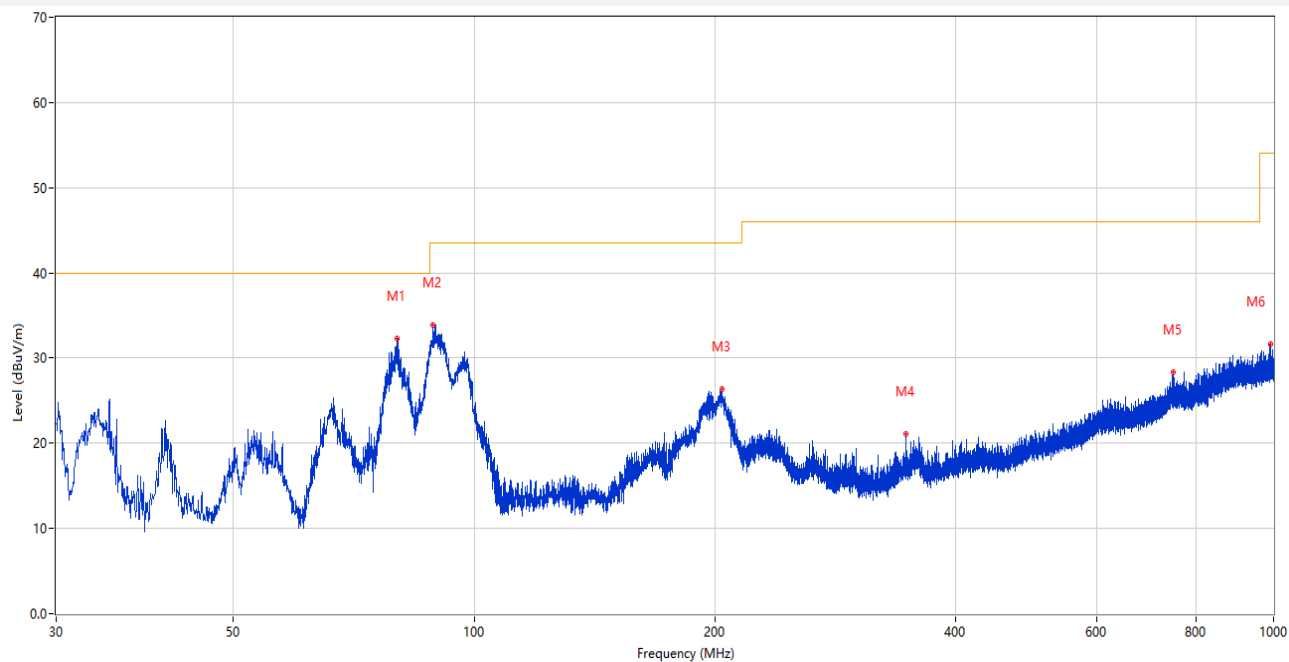
Test Data and Plots

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	30.679	31.14	-29.03	40.0	8.86	Peak	239.00	100	Horizontal	Pass
2	87.957	34.40	-28.71	40.0	5.60	Peak	156.00	200	Horizontal	Pass
3	98.434	35.00	-26.22	43.5	8.50	Peak	181.00	200	Horizontal	Pass
4	198.101	27.29	-25.64	43.5	16.21	Peak	120.00	200	Horizontal	Pass
5	359.558	25.37	-21.86	46.0	20.63	Peak	105.00	100	Horizontal	Pass
6	879.671	30.15	-9.72	46.0	15.85	Peak	282.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V



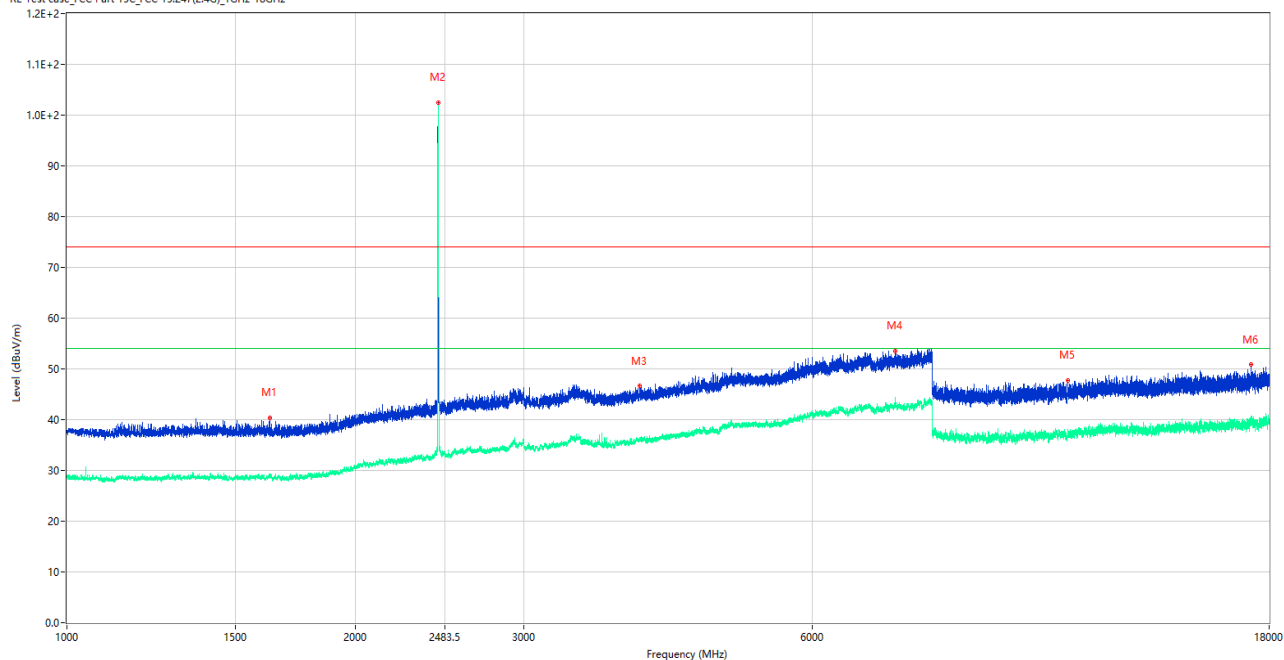
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	80.101	32.33	-30.96	40.0	7.67	Peak	8.00	100	Vertical	Pass
2	88.879	33.92	-28.42	43.5	9.58	Peak	83.00	100	Vertical	Pass
3	204.212	26.33	-26.29	43.5	17.17	Peak	182.00	100	Vertical	Pass
4	346.511	21.12	-21.45	46.0	24.88	Peak	35.00	100	Vertical	Pass
5	747.897	28.29	-11.98	46.0	17.71	Peak	139.00	100	Vertical	Pass
6	990.057	31.64	-8.33	54.0	22.36	Peak	139.00	100	Vertical	Pass

Note 1: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

Note 2: The spurious from 18GHz-25GHz is noise only, do not show on the report.

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

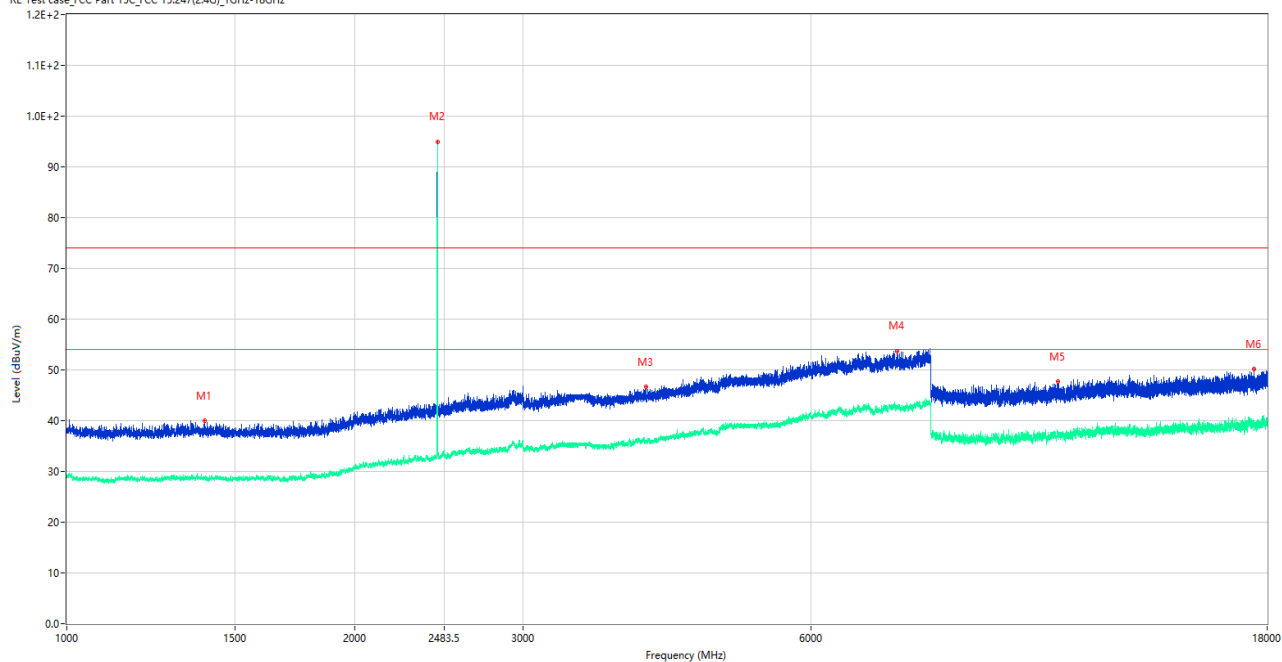
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1629.250	40.37	-16.03	74.0	33.63	Peak	291.00	150	Horizontal	Pass
1**	1629.250	28.94	-16.03	54.0	25.06	AV	291.00	150	Horizontal	Pass
2	2441.000	102.49	-12.39	74.0	-28.49	Peak	37.00	150	Horizontal	N/A
2**	2441.000	100.70	-12.39	54.0	-46.70	AV	37.00	150	Horizontal	N/A
3	3961.000	46.71	-3.97	74.0	27.29	Peak	312.00	150	Horizontal	Pass
3**	3961.000	36.17	-3.97	54.0	17.83	AV	312.00	150	Horizontal	Pass
4	7323.000	53.57	0.70	74.0	20.43	Peak	108.00	150	Horizontal	Pass
4**	7323.000	44.25	0.70	54.0	9.75	AV	108.00	150	Horizontal	Pass
5	11085.000	47.77	-3.82	74.0	26.23	Peak	209.00	150	Horizontal	Pass
5**	11085.000	36.45	-3.82	54.0	17.55	AV	209.00	150	Horizontal	Pass
6	17231.000	50.84	-0.38	74.0	23.16	Peak	237.00	150	Horizontal	Pass
6**	17231.000	40.24	-0.38	54.0	13.76	AV	237.00	150	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

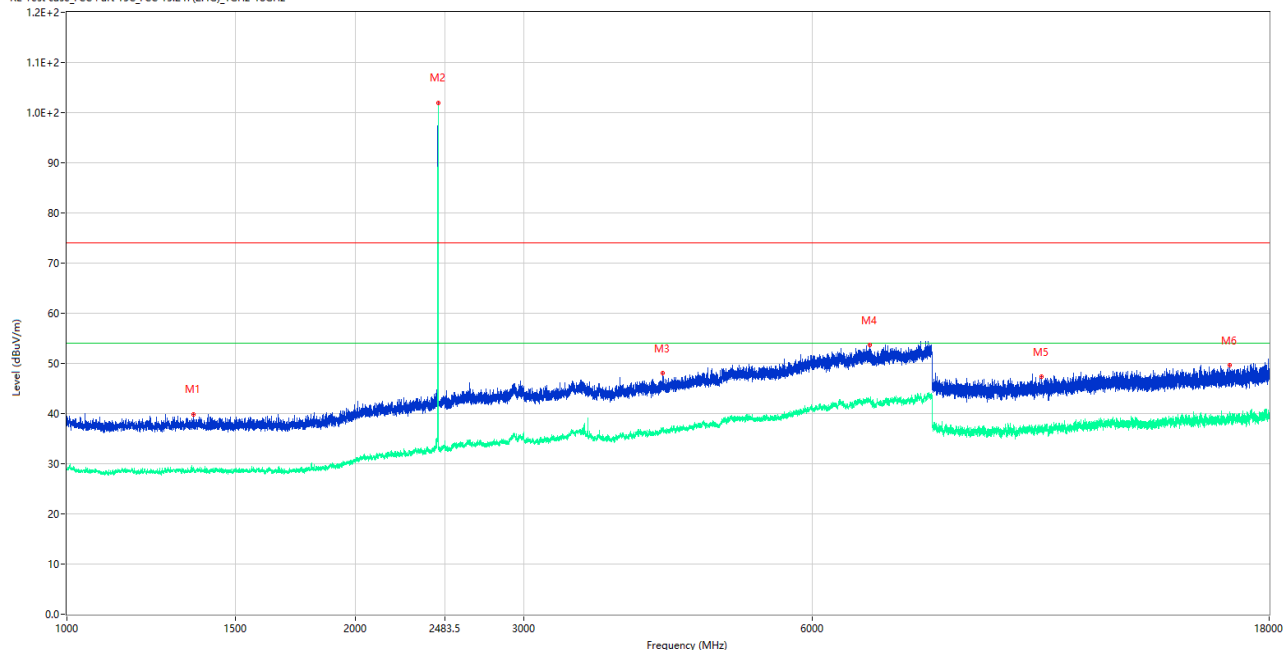
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1394.250	39.98	-16.00	74.0	34.02	Peak	125.00	150	Vertical	Pass
1**	1394.250	28.73	-16.00	54.0	25.27	AV	125.00	150	Vertical	Pass
2	2441.250	94.97	-12.40	74.0	-20.97	Peak	95.00	150	Vertical	N/A
2**	2441.250	94.66	-12.40	54.0	-40.66	AV	95.00	150	Vertical	N/A
3	4030.500	46.61	-4.00	74.0	27.39	Peak	249.00	150	Vertical	Pass
3**	4030.500	36.11	-4.00	54.0	17.89	AV	249.00	150	Vertical	Pass
4	7384.000	53.76	0.72	74.0	20.24	Peak	350.00	150	Vertical	Pass
4**	7384.000	42.48	0.72	54.0	11.52	AV	350.00	150	Vertical	Pass
5	10871.000	47.80	-3.30	74.0	26.20	Peak	92.00	150	Vertical	Pass
5**	10871.000	37.17	-3.30	54.0	16.83	AV	92.00	150	Vertical	Pass
6	17449.001	50.18	0.27	74.0	23.82	Peak	322.00	150	Vertical	Pass
6**	17449.001	39.12	0.27	54.0	14.88	AV	322.00	150	Vertical	Pass

8-DPSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

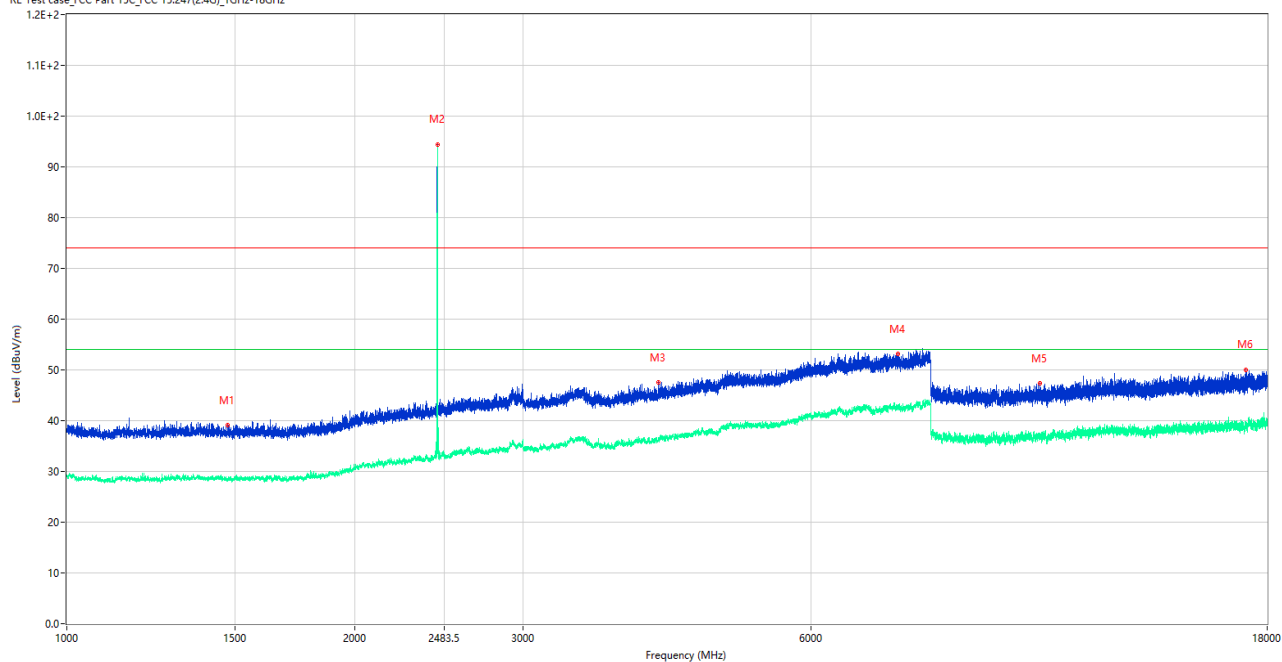
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1356.250	39.85	-15.83	74.0	34.15	Peak	2.00	150	Horizontal	Pass
1**	1356.250	28.99	-15.83	54.0	25.01	AV	2.00	150	Horizontal	Pass
2	2441.000	101.98	-12.39	74.0	-27.98	Peak	36.00	150	Horizontal	N/A
2**	2441.000	99.35	-12.39	54.0	-45.35	AV	36.00	150	Horizontal	N/A
3	4188.500	48.03	-3.76	74.0	25.97	Peak	0.00	150	Horizontal	Pass
3**	4188.500	36.77	-3.76	54.0	17.23	AV	0.00	150	Horizontal	Pass
4	6886.500	53.64	0.62	74.0	20.36	Peak	4.00	150	Horizontal	Pass
4**	6886.500	42.52	0.62	54.0	11.48	AV	4.00	150	Horizontal	Pass
5	10407.999	47.29	-3.21	74.0	26.71	Peak	2.00	150	Horizontal	Pass
5**	10407.999	37.05	-3.21	54.0	16.95	AV	2.00	150	Horizontal	Pass
6	16385.500	49.65	-1.35	74.0	24.35	Peak	2.00	150	Horizontal	Pass
6**	16385.500	39.42	-1.35	54.0	14.58	AV	2.00	150	Horizontal	Pass

8-DPSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1474.000	39.17	-16.31	74.0	34.83	Peak	34.00	150	Vertical	Pass
1**	1474.000	28.43	-16.31	54.0	25.57	AV	34.00	150	Vertical	Pass
2	2441.000	94.39	-12.39	74.0	-20.39	Peak	119.00	150	Vertical	N/A
2**	2441.000	90.39	-12.39	54.0	-36.39	AV	119.00	150	Vertical	N/A
3	4155.000	47.50	-4.66	74.0	26.50	Peak	319.00	150	Vertical	Pass
3**	4155.000	36.21	-4.66	54.0	17.79	AV	319.00	150	Vertical	Pass
4	7399.500	53.20	0.85	74.0	20.80	Peak	176.00	150	Vertical	Pass
4**	7399.500	42.26	0.85	54.0	11.74	AV	176.00	150	Vertical	Pass
5	10412.000	47.29	-3.30	74.0	26.71	Peak	95.00	150	Vertical	Pass
5**	10412.000	37.28	-3.30	54.0	16.72	AV	95.00	150	Vertical	Pass
6	17092.500	50.06	-0.65	74.0	23.94	Peak	235.00	150	Vertical	Pass
6**	17092.500	39.74	-0.65	54.0	14.26	AV	235.00	150	Vertical	Pass

A.9 Band Edge (Restricted-band band-edge)

Note 1: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

Note 2: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

Note 3: According the ANSI C63.10-2020, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 4: The Level (dBuV/m) has been corrected by factor.

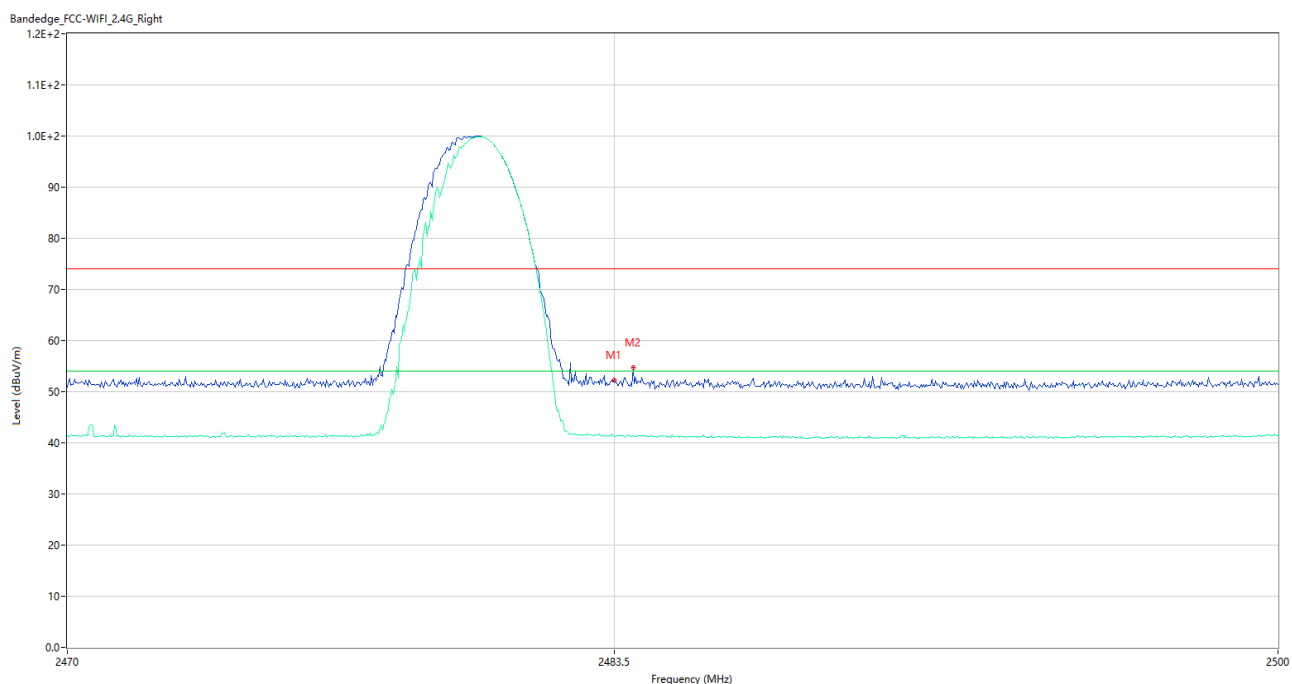
Test Data and Plots

GFSK LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2390.000	50.89	-4.87	74.0	23.11	Peak	165.25	150	Vertical	Pass
1**	2390.000	40.58	-4.87	54.0	13.42	AV	165.25	150	Vertical	Pass
2	2369.900	53.01	-4.01	74.0	20.99	Peak	69.00	150	Vertical	Pass
2**	2369.900	41.32	-4.01	54.0	12.68	AV	69.00	150	Vertical	Pass

GFSK HIGH CHANNEL



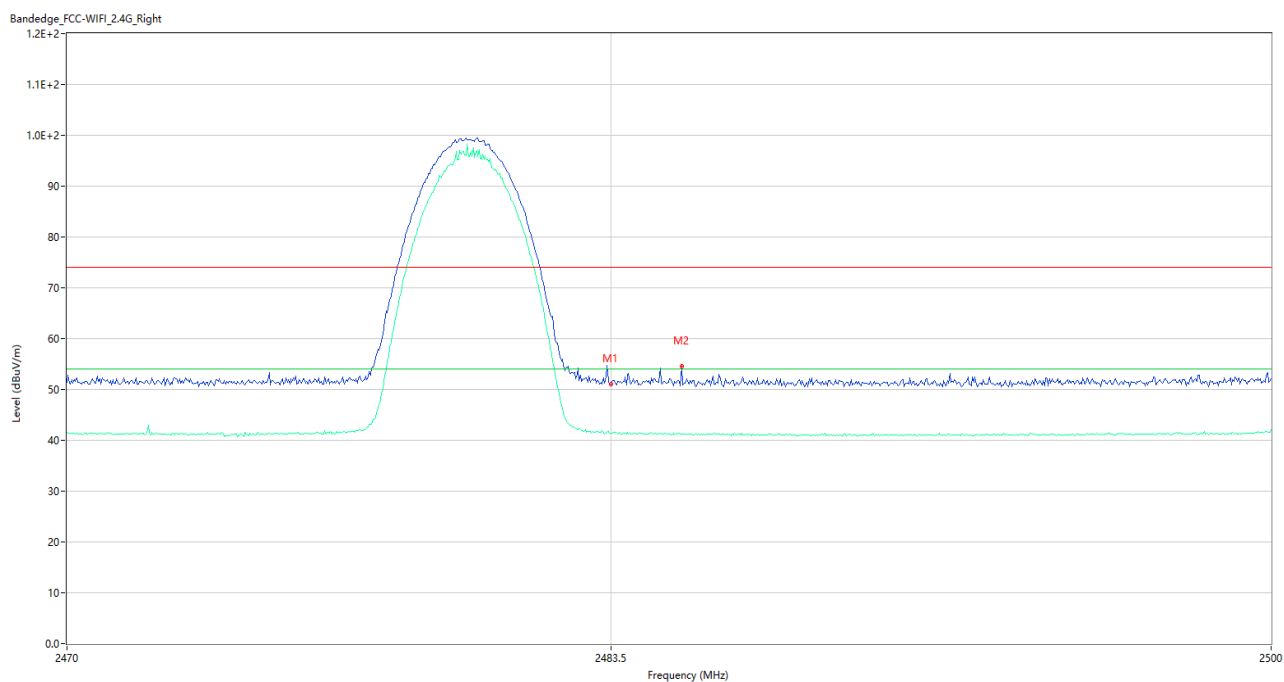
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	52.22	-3.78	74.0	21.78	Peak	0.00	150	Horizontal	Pass
1**	2483.500	41.21	-3.78	54.0	12.79	AV	0.00	150	Horizontal	Pass
2	2483.980	54.80	-3.78	74.0	19.20	Peak	251.00	150	Horizontal	Pass
2**	2483.980	41.41	-3.78	54.0	12.59	AV	251.00	150	Horizontal	Pass

8-DPSK LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2390.000	50.19	-4.87	74.0	23.81	Peak	118.00	150	Horizontal	Pass
1**	2390.000	40.58	-4.87	54.0	13.42	AV	118.00	150	Horizontal	Pass
2	2369.100	51.88	-4.10	74.0	22.12	Peak	72.00	150	Horizontal	Pass
2**	2369.100	40.99	-4.10	54.0	13.01	AV	72.00	150	Horizontal	Pass

8-DPSK HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	50.98	-3.78	74.0	23.02	Peak	130.00	150	Horizontal	Pass
1**	2483.500	41.45	-3.78	54.0	12.55	AV	130.00	150	Horizontal	Pass
2	2485.270	54.59	-3.78	74.0	19.41	Peak	179.00	150	Horizontal	Pass
2**	2485.270	41.28	-3.78	54.0	12.72	AV	179.00	150	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SH2580894-AR-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SH2580894-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SH2580894-AI.PDF”.

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--END OF REPORT--