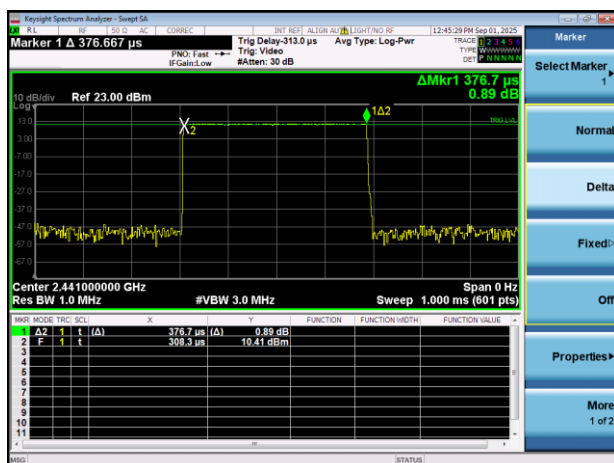
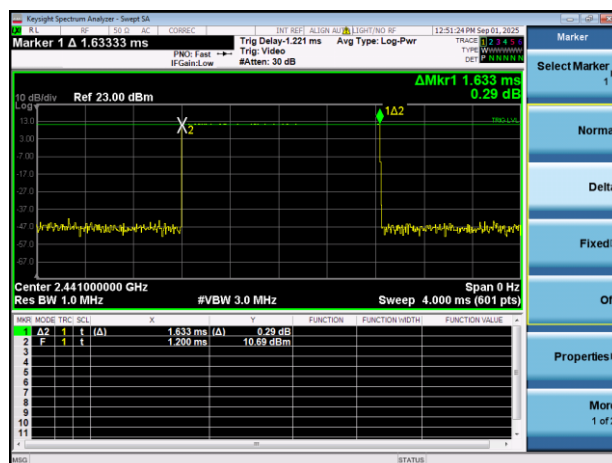


Test Plots

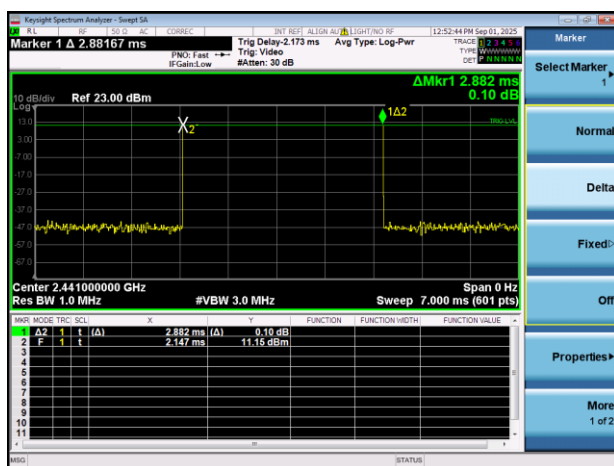
GFSK DH1



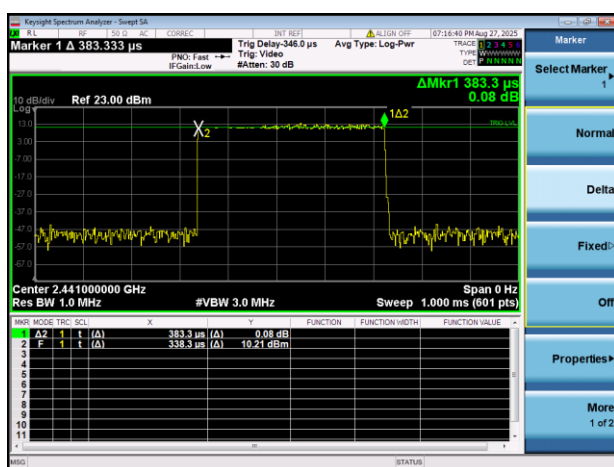
GFSK DH3



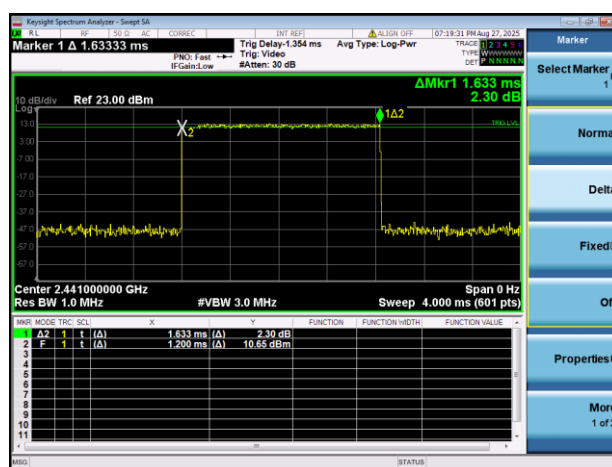
GFSK DH5



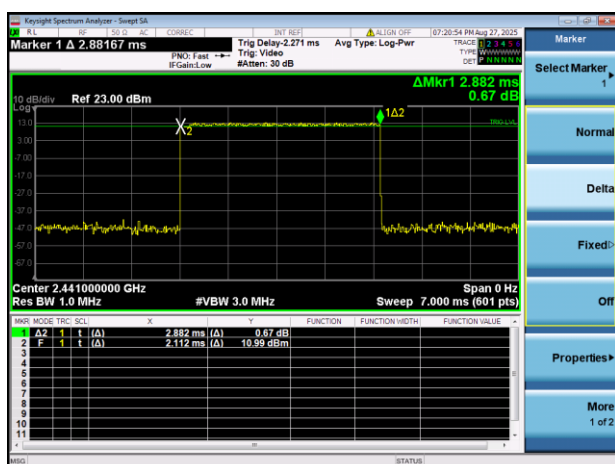
8-DPSK DH1



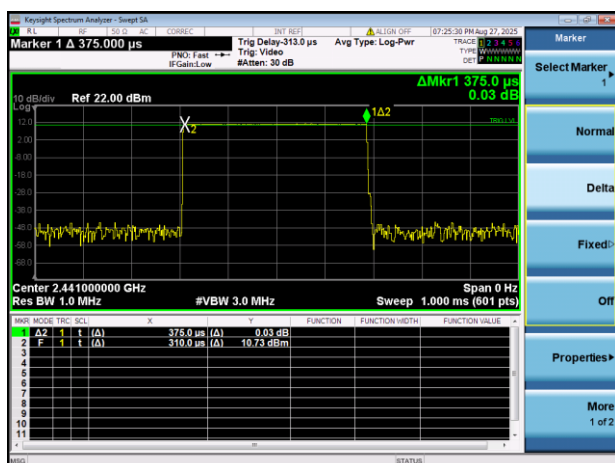
8-DPSK DH3



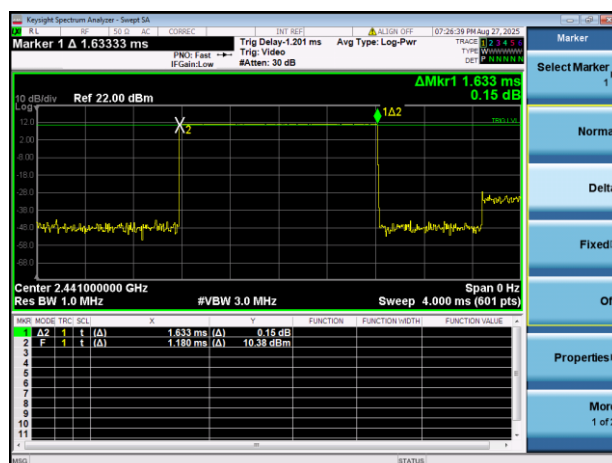
8-DPSK DH5



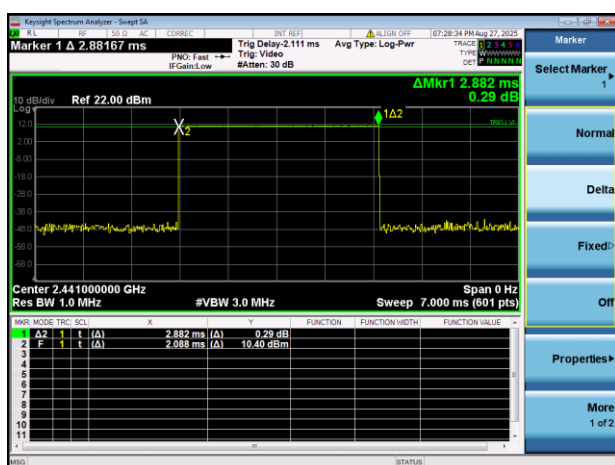
AFH Mode DH1



AFH Mode DH3



AFH Mode DH5



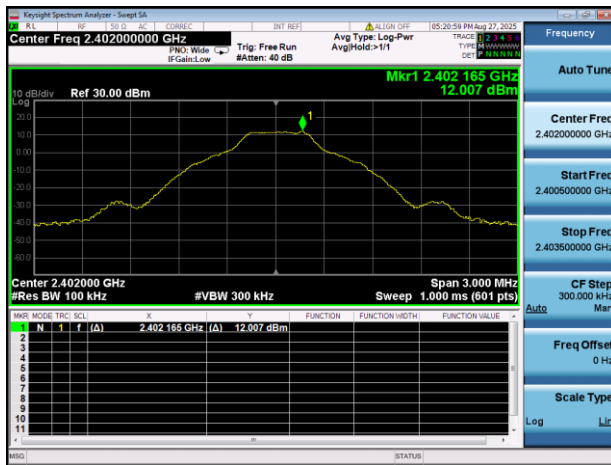
A.6 Conducted Spurious Emissions & Authorized-band band-edge

Test Data

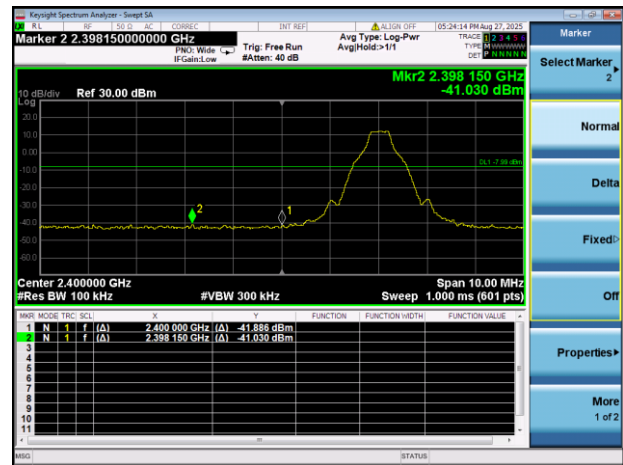
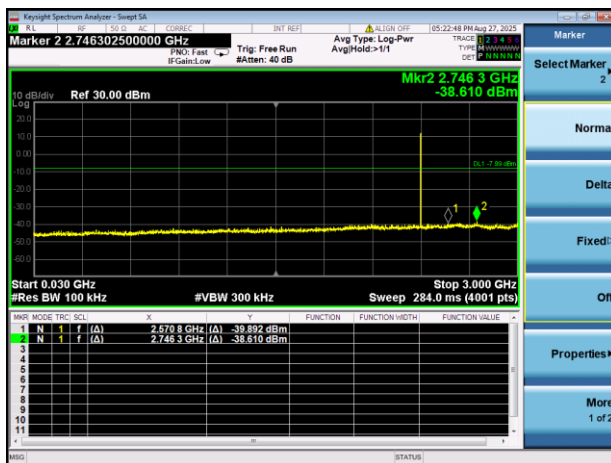
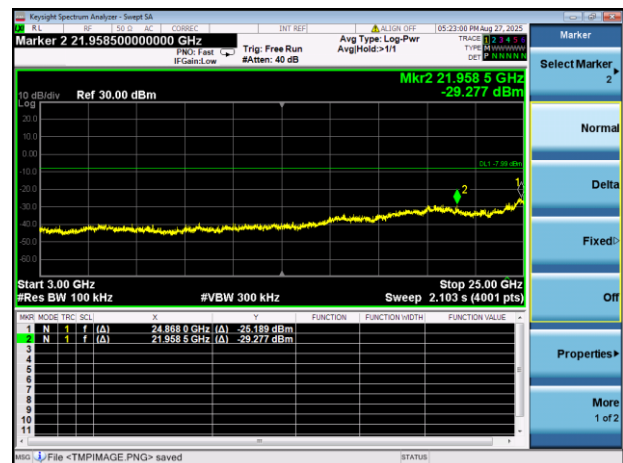
GFSK				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-25.19	12.01	-7.99	Pass
Middle	-25.00	11.08	-8.92	Pass
High	-24.93	11.08	-8.92	Pass
8-DPSK				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-24.45	12.23	-7.77	Pass
Middle	-25.38	11.50	-8.50	Pass
High	-25.54	11.43	-8.57	Pass
Hopping Mode				
Mode	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
GFSK	-24.37	12.54	-7.46	Pass
8-DPSK	-25.93	12.86	-7.14	Pass

Test Plots

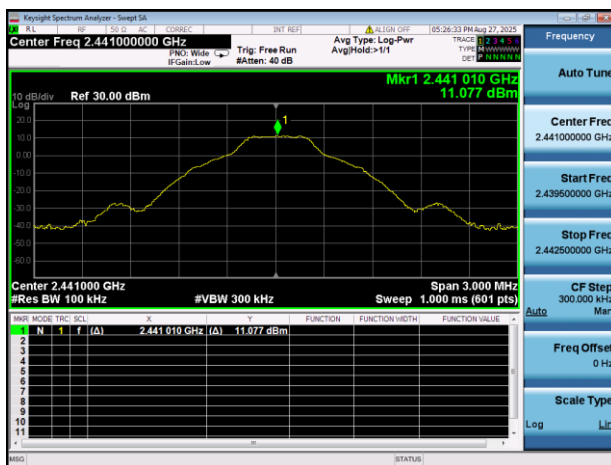
GFSK LOW CHANNEL, CARRIER LEVEL



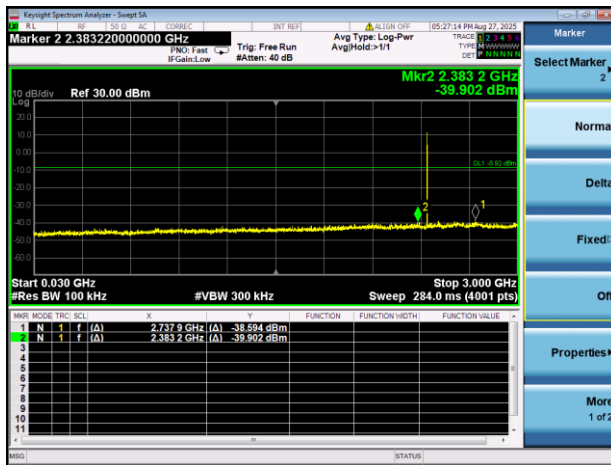
GFSK LOW CHANNEL, BAND EDGE

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

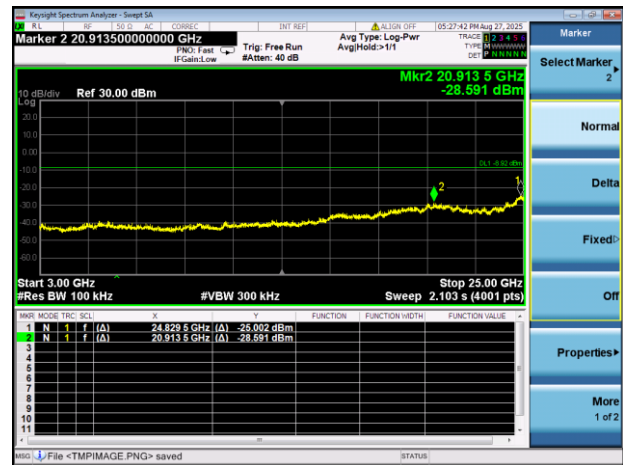
GFSK MIDDLE CHANNEL, CARRIER LEVEL



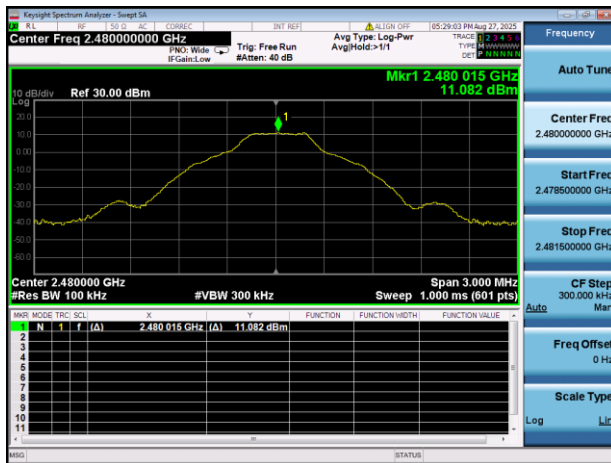
GFSK MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



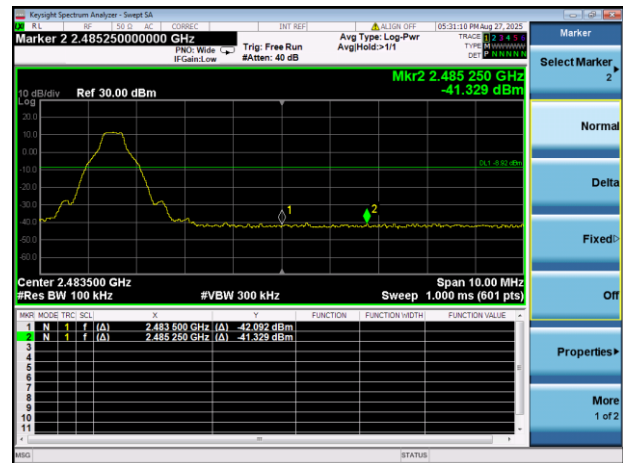
GFSK MIDDLE CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



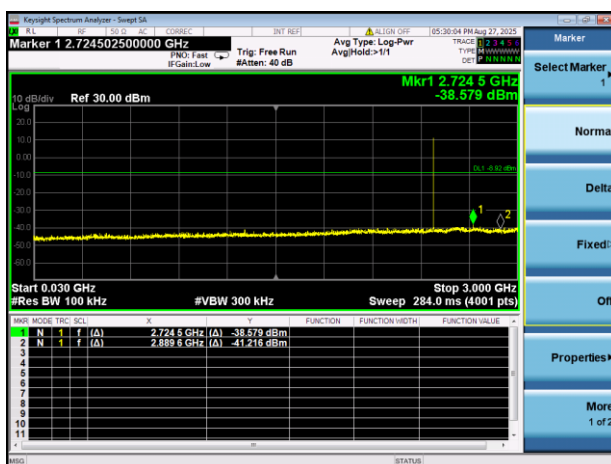
GFSK HIGH CHANNEL, CARRIER LEVEL



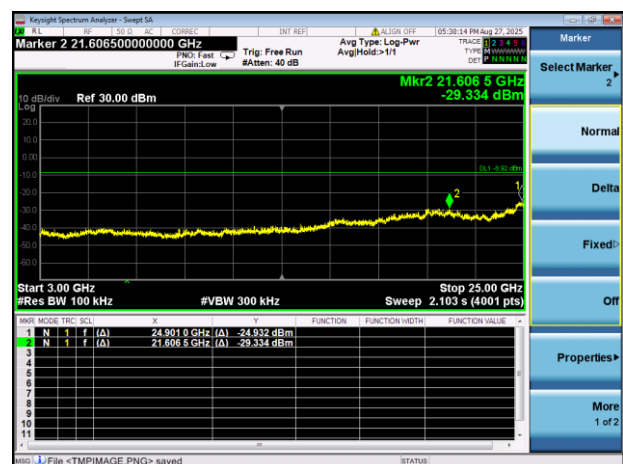
GFSK HIGH CHANNEL, BAND EDGE



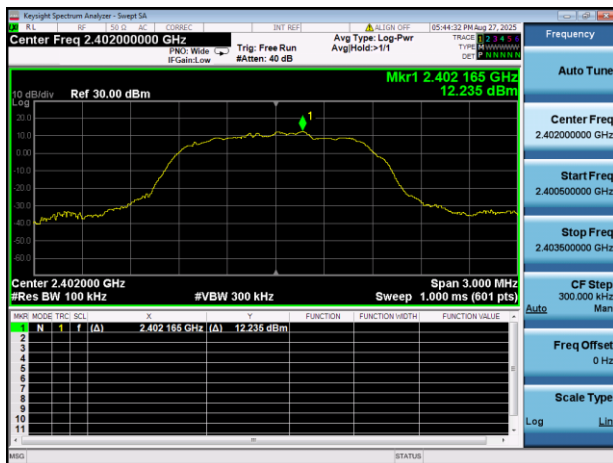
GFSK HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



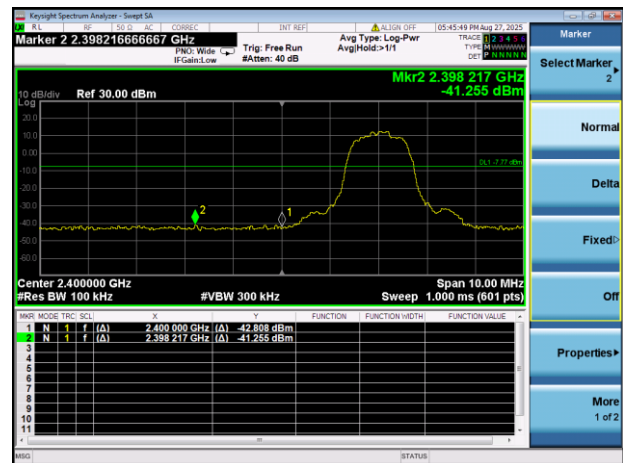
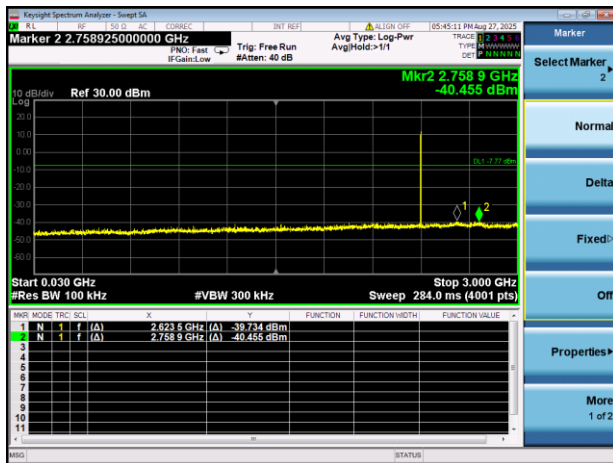
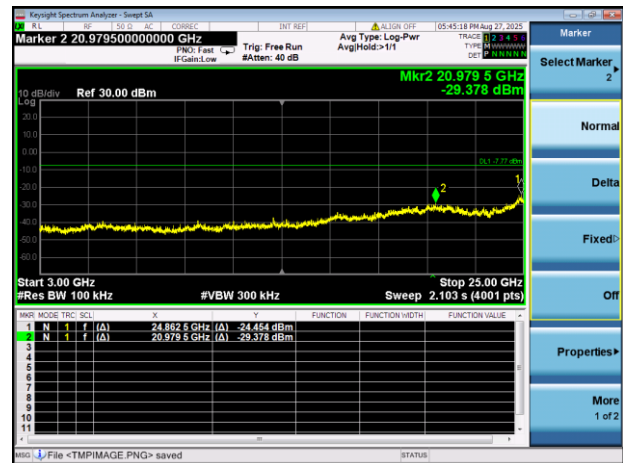
GFSK HIGH CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



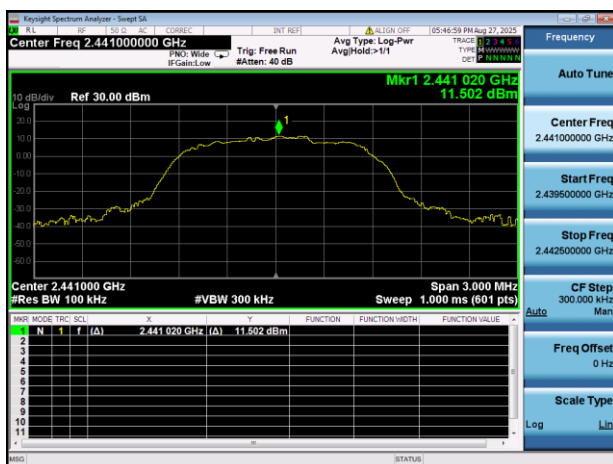
8-DPSK LOW CHANNEL, CARRIER LEVEL



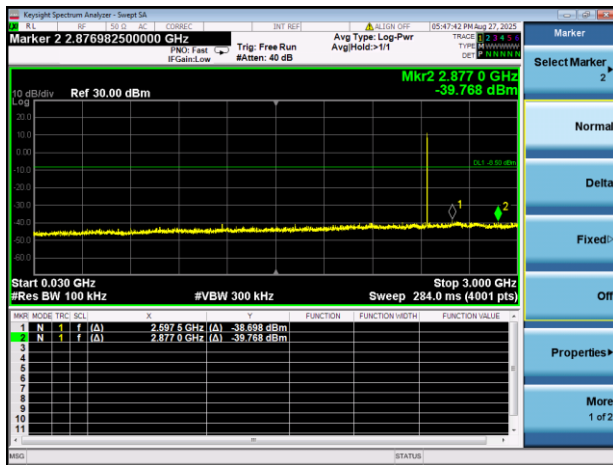
8-DPSK LOW CHANNEL, BAND EDGE

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

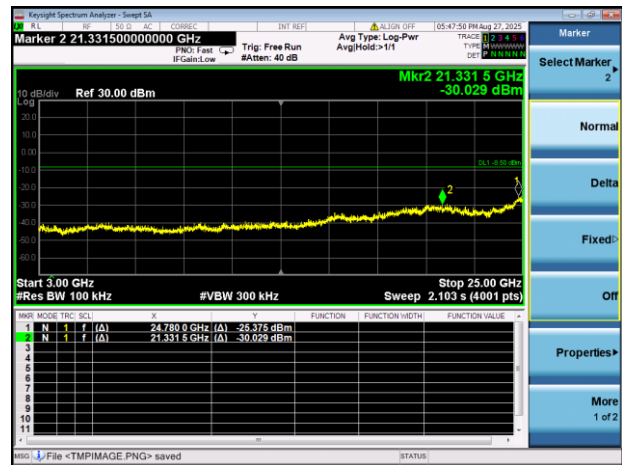
8-DPSK MIDDLE CHANNEL, CARRIER LEVEL



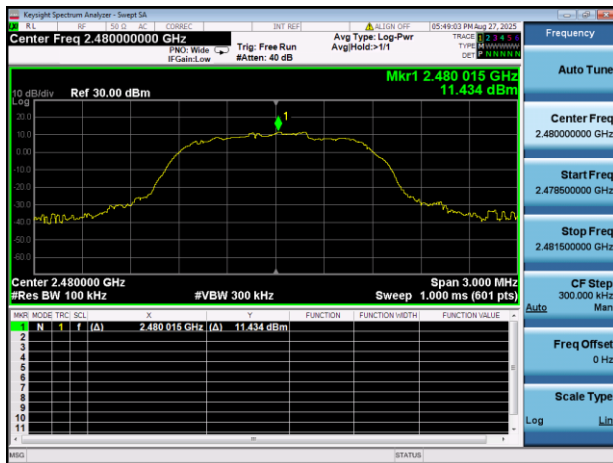
8-DPSK MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



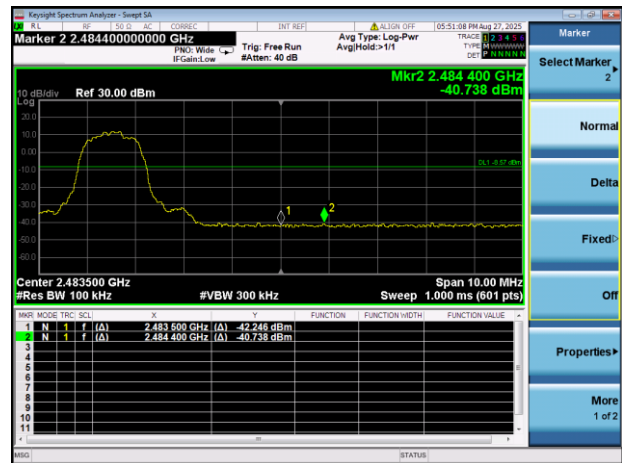
8-DPSK MIDDLE CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



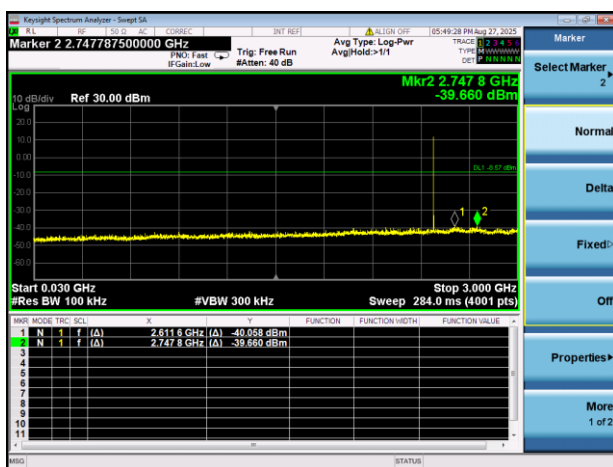
8-DPSK HIGH CHANNEL, CARRIER LEVEL



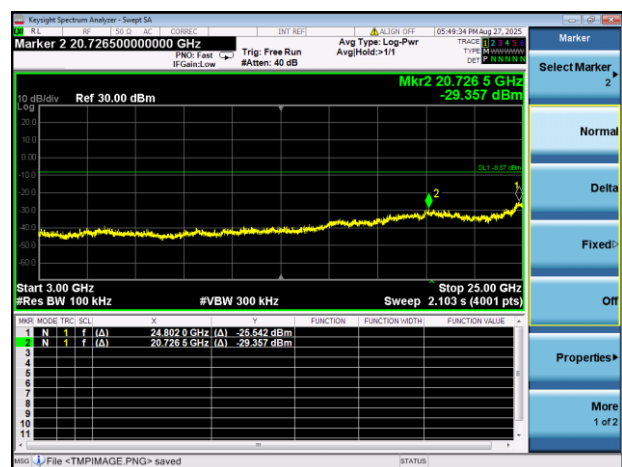
8-DPSK HIGH CHANNEL, BAND EDGE



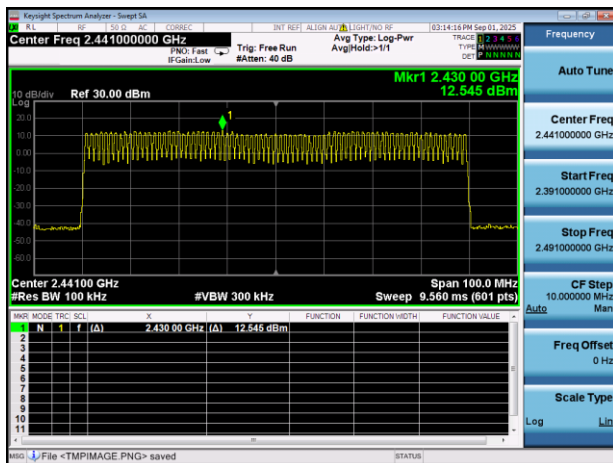
8-DPSK HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



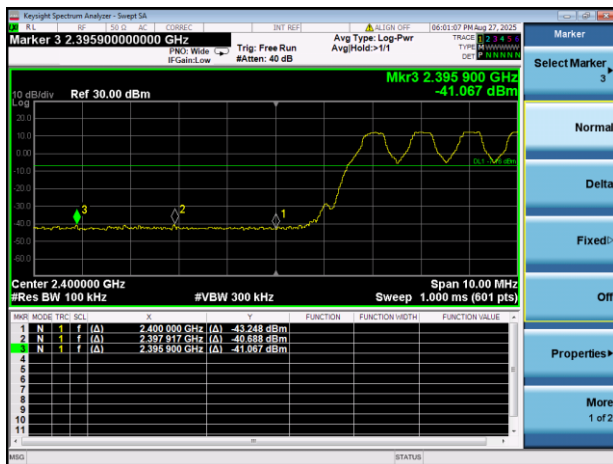
8-DPSK HIGH CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



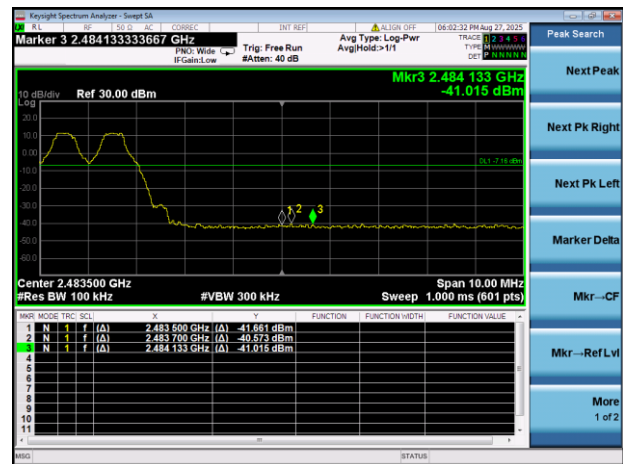
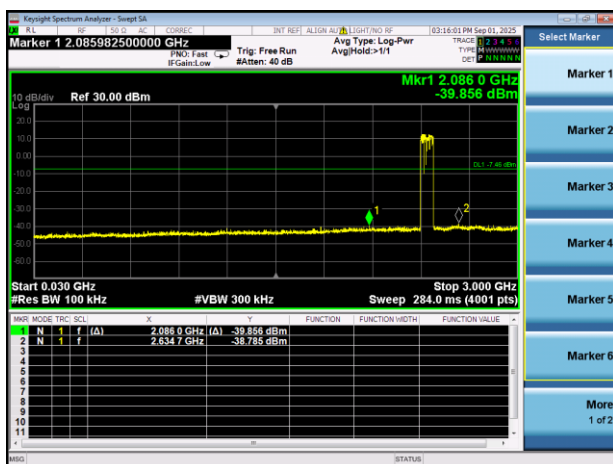
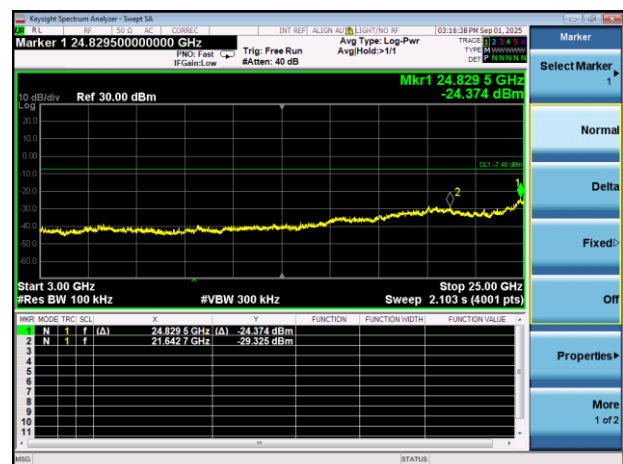
GFSK HOPPING, CARRIER LEVEL



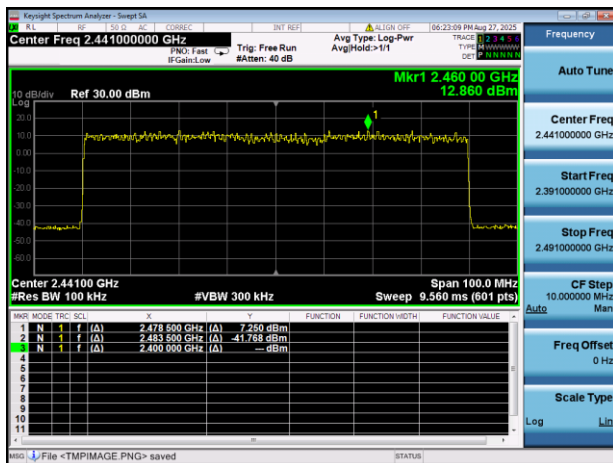
GFSK HOPPING BAND EDGE (LOW)



GFSK HOPPING BAND EDGE (HIGH)

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

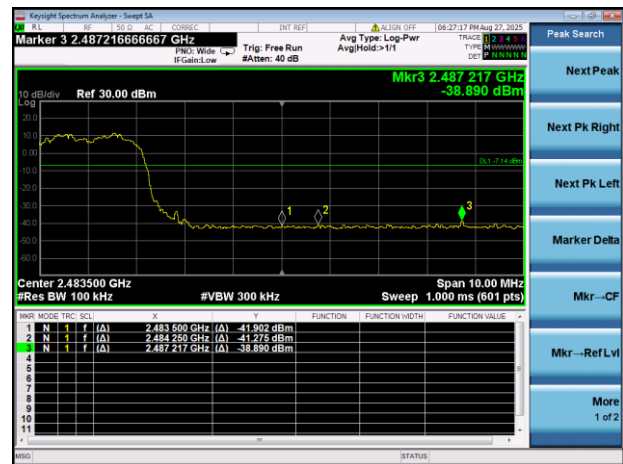
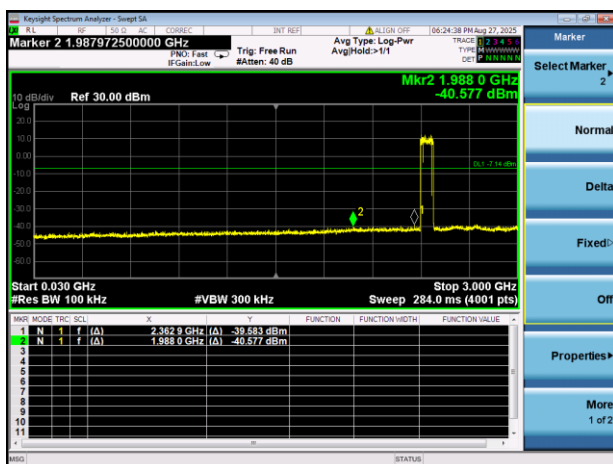
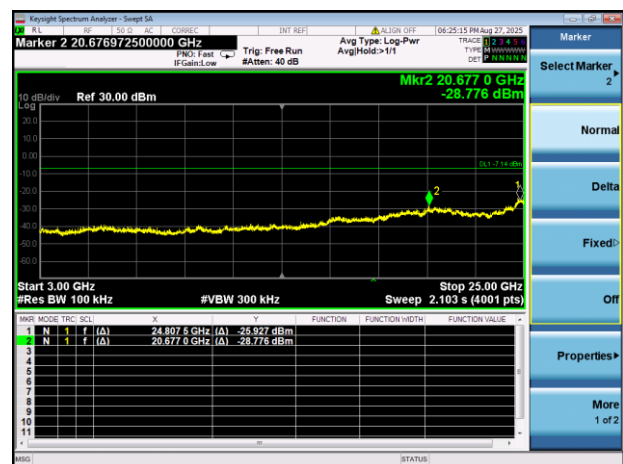
8-DPSK HOPPING, CARRIER LEVEL



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

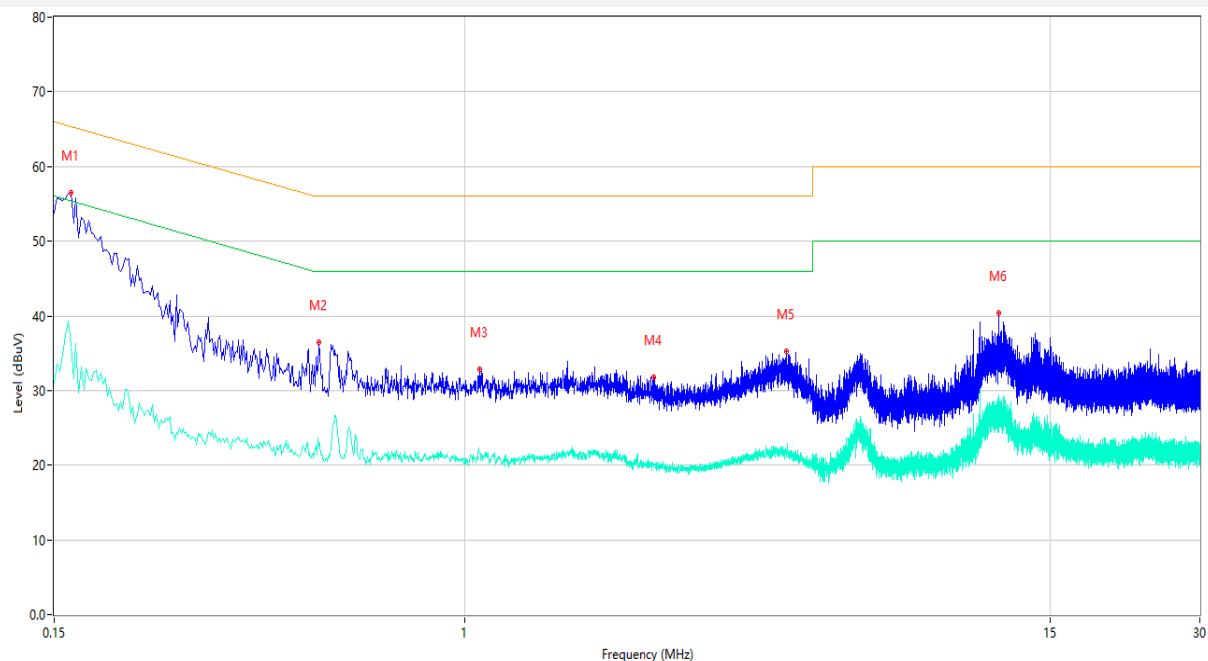
Note 1: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

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)

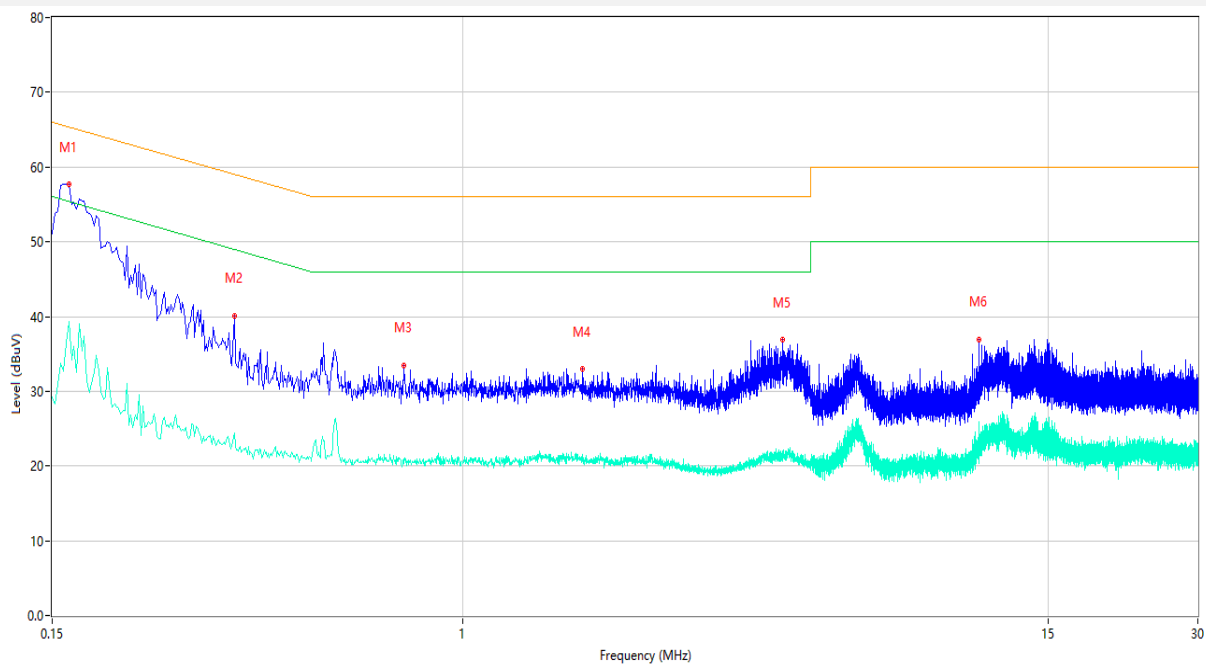
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.162	56.48	10.07	65.36	8.88	Peak	L	Pass
1**	0.162	36.09	10.07	55.36	19.27	AV	L	Pass
2	0.510	36.43	10.15	56.00	19.57	Peak	L	Pass
2**	0.510	22.60	10.15	46.00	23.40	AV	L	Pass
3	1.072	32.80	10.20	56.00	23.20	Peak	L	Pass
3**	1.072	21.67	10.20	46.00	24.33	AV	L	Pass
4	2.396	31.74	10.37	56.00	24.26	Peak	L	Pass
4**	2.396	20.10	10.37	46.00	25.90	AV	L	Pass
5	4.442	35.18	10.43	56.00	20.82	Peak	L	Pass
5**	4.442	21.78	10.43	46.00	24.22	AV	L	Pass
6	11.820	40.42	11.03	60.00	19.58	Peak	L	Pass
6**	11.820	29.45	11.03	50.00	20.55	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.162	57.69	10.15	65.36	7.67	Peak	N	Pass
1**	0.162	39.26	10.15	55.36	16.10	AV	N	Pass
2	0.348	40.14	10.16	59.01	18.87	Peak	N	Pass
2**	0.348	24.39	10.16	49.01	24.62	AV	N	Pass
3	0.762	33.52	10.23	56.00	22.48	Peak	N	Pass
3**	0.762	20.31	10.23	46.00	25.69	AV	N	Pass
4	1.744	33.03	10.24	56.00	22.97	Peak	N	Pass
4**	1.744	20.85	10.24	46.00	25.15	AV	N	Pass
5	4.390	36.88	10.40	56.00	19.12	Peak	N	Pass
5**	4.390	22.01	10.40	46.00	23.99	AV	N	Pass
6	10.894	36.98	10.97	60.00	23.02	Peak	N	Pass
6**	10.894	25.84	10.97	50.00	24.16	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.

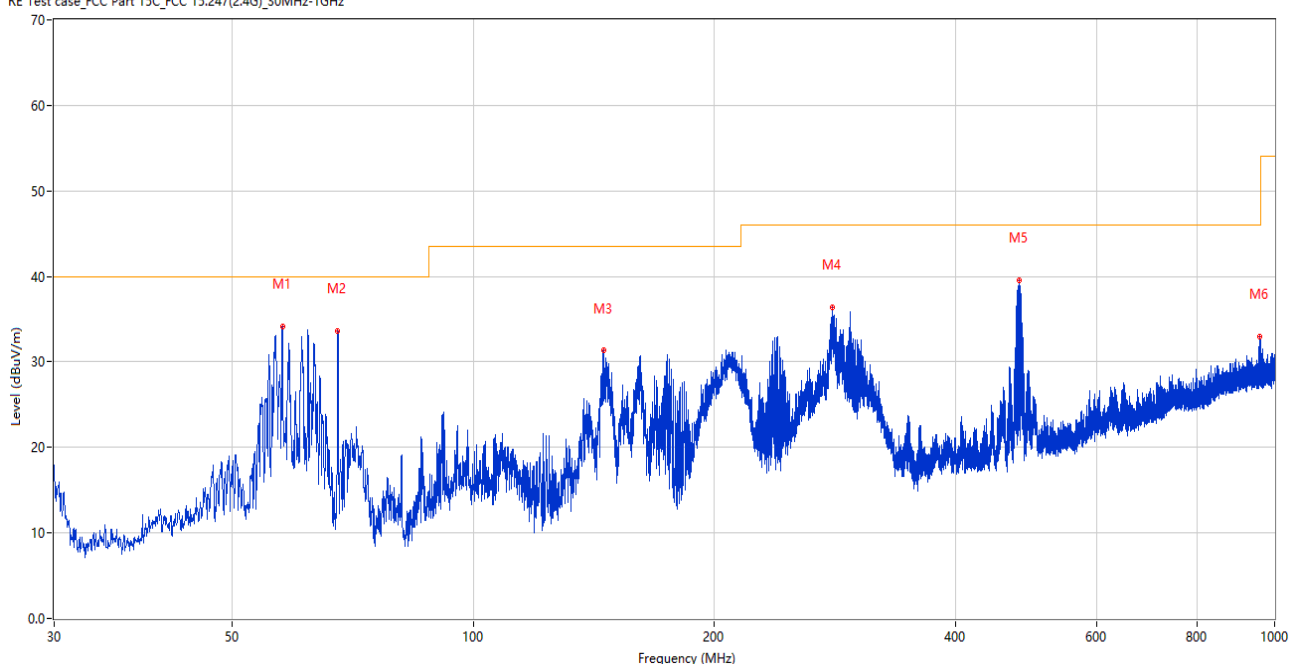
Note 4: Results (dBuV/m) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

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

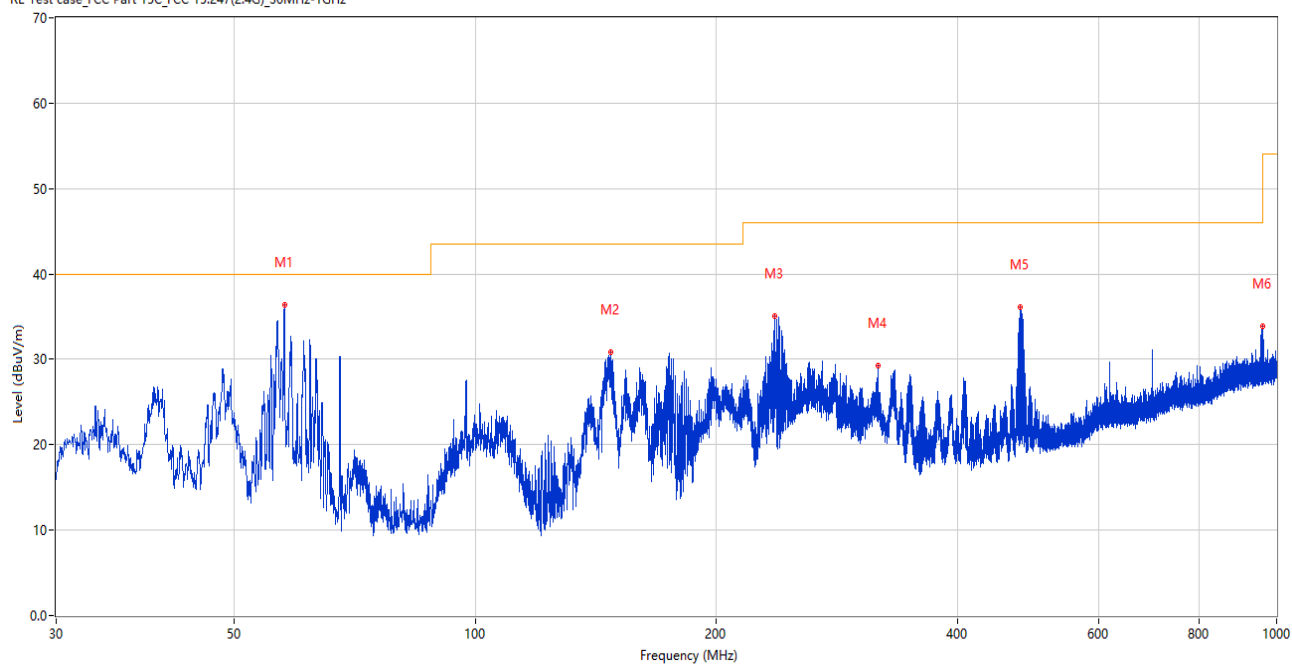
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	57.791	34.11	-25.61	40.0	5.89	Peak	358.00	200	Horizontal	Pass
2	67.782	33.67	-28.24	40.0	6.33	Peak	23.00	200	Horizontal	Pass
3	145.333	31.31	-29.59	43.5	12.19	Peak	253.00	100	Horizontal	Pass
4	280.890	36.34	-23.62	46.0	9.66	Peak	265.00	100	Horizontal	Pass
5	479.983	39.53	-18.70	46.0	6.47	Peak	37.00	100	Horizontal	Pass
6	958.872	32.90	-8.73	46.0	13.10	Peak	360.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC 15.247(2.4G)_30MHz-1GHz



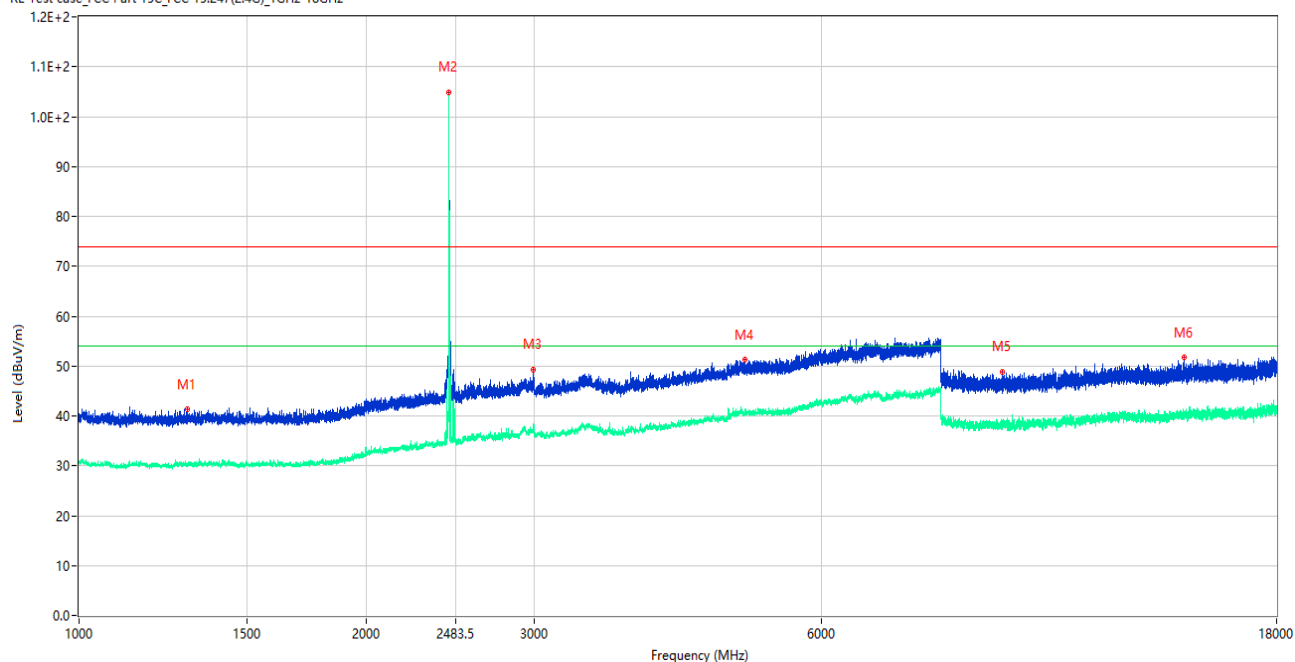
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	57.791	36.42	-25.61	40.0	3.58	Peak	93.00	100	Vertical	Pass
2	147.758	30.84	-29.61	43.5	12.66	Peak	191.00	200	Vertical	Pass
3	236.658	35.06	-24.71	46.0	10.94	Peak	166.00	100	Vertical	Pass
4	318.332	29.21	-22.81	46.0	16.79	Peak	1.00	100	Vertical	Pass
5	478.867	36.07	-18.77	46.0	9.93	Peak	243.00	200	Vertical	Pass
6	962.170	33.91	-8.72	54.0	20.09	Peak	0.00	200	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

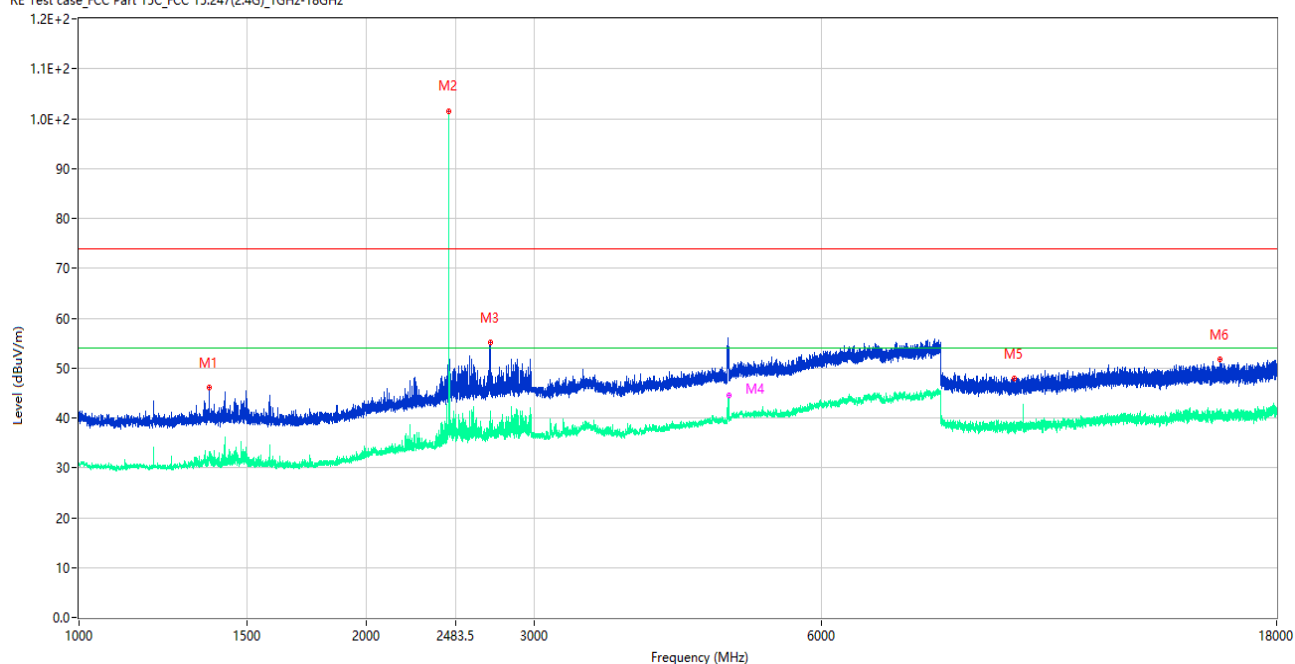
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1300.250	41.40	-15.60	74.0	32.60	Peak	130.00	150	Horizontal	Pass
1**	1300.250	30.28	-15.60	54.0	23.72	AV	130.00	150	Horizontal	Pass
2	2441.250	104.95	-12.40	74.0	-30.95	Peak	237.00	150	Horizontal	N/A
2**	2441.250	104.39	-12.40	54.0	-50.39	AV	237.00	150	Horizontal	N/A
3	2994.250	49.36	-8.93	74.0	24.64	Peak	107.00	150	Horizontal	Pass
3**	2994.250	37.37	-8.93	54.0	16.63	AV	107.00	150	Horizontal	Pass
4	4991.500	51.23	-2.35	74.0	22.77	Peak	1.00	150	Horizontal	Pass
4**	4991.500	40.37	-2.35	54.0	13.63	AV	1.00	150	Horizontal	Pass
5	9273.500	48.79	-5.05	74.0	25.21	Peak	125.00	150	Horizontal	Pass
5**	9273.500	38.82	-5.05	54.0	15.18	AV	125.00	150	Horizontal	Pass
6	14399.000	51.65	-2.35	74.0	22.35	Peak	310.00	150	Horizontal	Pass
6**	14399.000	40.59	-2.35	54.0	13.41	AV	310.00	150	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

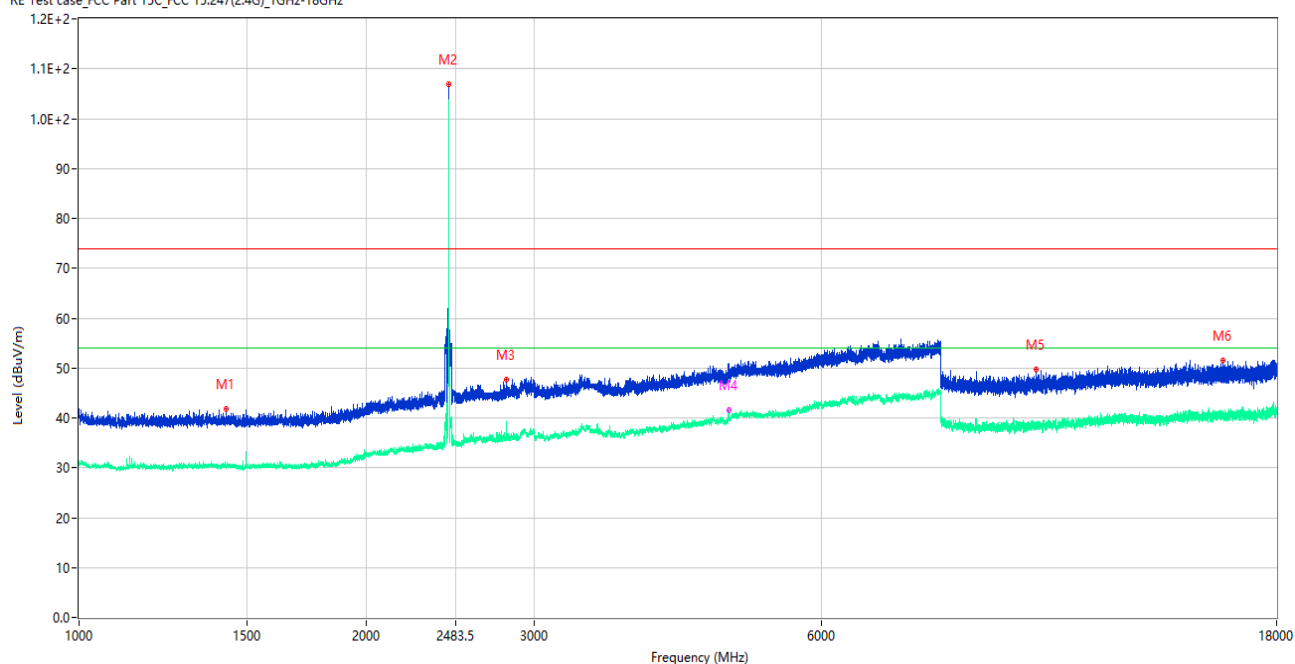
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1370.250	46.00	-15.92	74.0	28.00	Peak	98.00	150	Vertical	Pass
1**	1370.250	31.68	-15.92	54.0	22.32	AV	98.00	150	Vertical	Pass
2	2441.000	101.57	-12.39	74.0	-27.57	Peak	251.00	150	Vertical	N/A
2**	2441.000	100.19	-12.39	54.0	-46.19	AV	251.00	150	Vertical	N/A
3	2698.500	55.04	-10.57	74.0	18.96	Peak	88.00	150	Vertical	Pass
3**	2698.500	36.13	-10.57	54.0	17.87	AV	88.00	150	Vertical	Pass
4	4795.000	51.74	-3.08	74.0	22.26	Peak	92.00	150	Vertical	Pass
4**	4795.000	44.28	-3.08	54.0	9.72	AV	92.00	150	Vertical	Pass
5	9546.500	47.82	-2.52	74.0	26.18	Peak	174.00	150	Vertical	Pass
5**	9546.500	38.88	-2.52	54.0	15.12	AV	174.00	150	Vertical	Pass
6	15716.500	51.70	-1.79	74.0	22.30	Peak	0.00	150	Vertical	Pass
6**	15716.500	40.73	-1.79	54.0	13.27	AV	0.00	150	Vertical	Pass

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

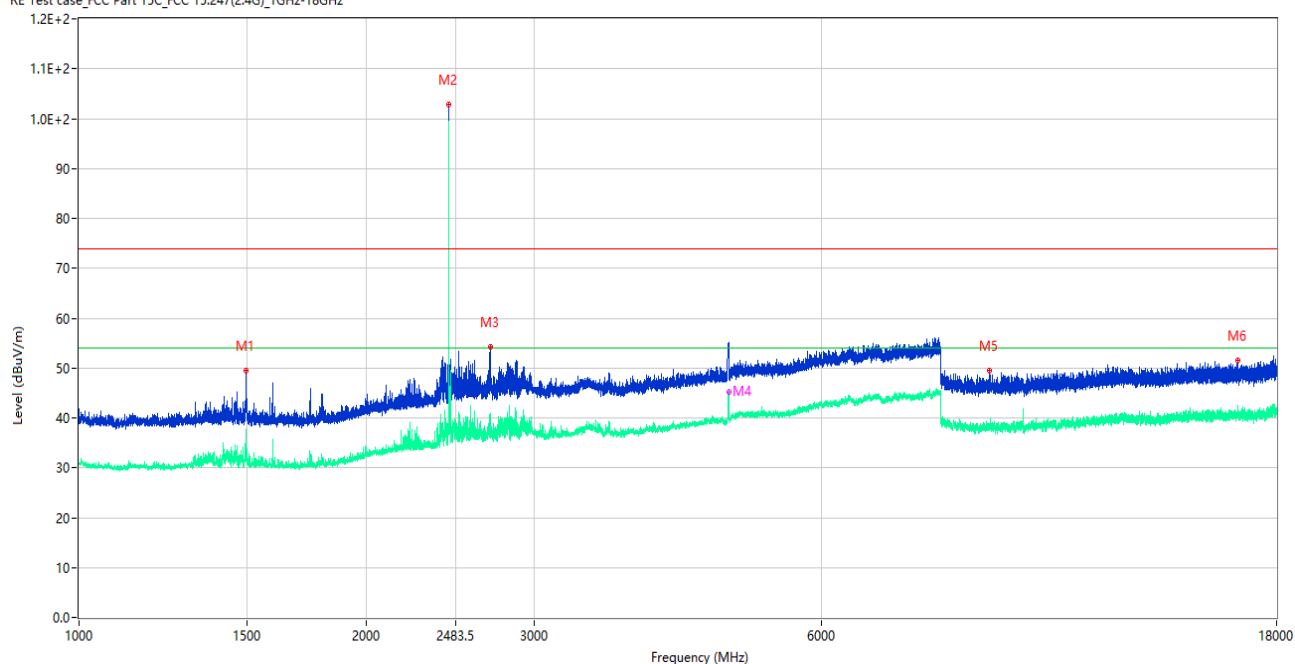
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1425.250	41.77	-15.97	74.0	32.23	Peak	141.00	150	Horizontal	Pass
1**	1425.250	30.39	-15.97	54.0	23.61	AV	141.00	150	Horizontal	Pass
2	2441.250	106.94	-12.40	74.0	-32.94	Peak	236.00	150	Horizontal	N/A
2**	2441.250	103.66	-12.40	54.0	-49.66	AV	236.00	150	Horizontal	N/A
3	2806.250	47.75	-10.09	74.0	26.25	Peak	42.00	150	Horizontal	Pass
3**	2806.250	37.03	-10.09	54.0	16.97	AV	42.00	150	Horizontal	Pass
4	4798.500	49.25	-2.99	74.0	24.75	Peak	360.00	150	Horizontal	Pass
4**	4798.500	41.61	-2.99	54.0	12.39	AV	360.00	150	Horizontal	Pass
5	10080.000	49.73	-3.81	74.0	24.27	Peak	124.00	150	Horizontal	Pass
5**	10080.000	38.51	-3.81	54.0	15.49	AV	124.00	150	Horizontal	Pass
6	15800.500	51.56	-1.44	74.0	22.44	Peak	214.00	150	Horizontal	Pass
6**	15800.500	40.44	-1.44	54.0	13.56	AV	214.00	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	1495.500	49.52	-16.17	74.0	24.48	Peak	113.00	150	Vertical	Pass
1**	1495.500	36.38	-16.17	54.0	17.62	AV	113.00	150	Vertical	Pass
2	2441.250	102.85	-12.40	74.0	-28.85	Peak	252.00	150	Vertical	N/A
2**	2441.250	99.43	-12.40	54.0	-45.43	AV	252.00	150	Vertical	N/A
3	2700.000	54.16	-10.52	74.0	19.84	Peak	131.00	150	Vertical	Pass
3**	2700.000	36.02	-10.52	54.0	17.98	AV	131.00	150	Vertical	Pass
4	4796.000	54.86	-3.10	74.0	19.14	Peak	70.00	150	Vertical	Pass
4**	4796.000	45.15	-3.10	54.0	8.85	AV	70.00	150	Vertical	Pass
5	9005.000	49.42	-4.58	74.0	24.58	Peak	206.00	150	Vertical	Pass
5**	9005.000	37.88	-4.58	54.0	16.12	AV	206.00	150	Vertical	Pass
6	16399.000	51.52	-1.44	74.0	22.48	Peak	0.00	150	Vertical	Pass
6**	16399.000	40.86	-1.44	54.0	13.14	AV	0.00	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

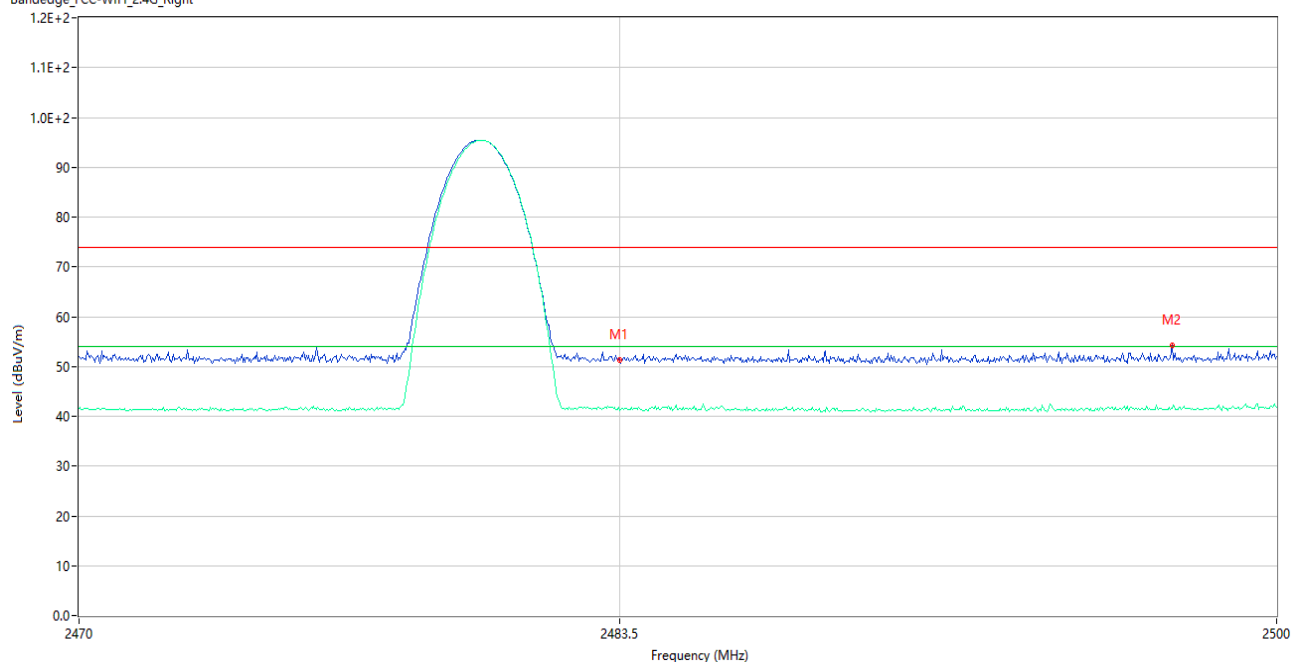
GFSK LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2390.000	50.65	-4.87	74.0	23.35	Peak	31.27	150	Horizontal	Pass
1**	2390.000	40.44	-4.87	54.0	13.56	AV	31.27	150	Horizontal	Pass
2	2349.500	52.35	-5.01	74.0	21.65	Peak	0.00	150	Horizontal	Pass
2**	2349.500	40.27	-5.01	54.0	13.73	AV	0.00	150	Horizontal	Pass

GFSK HIGH CHANNEL

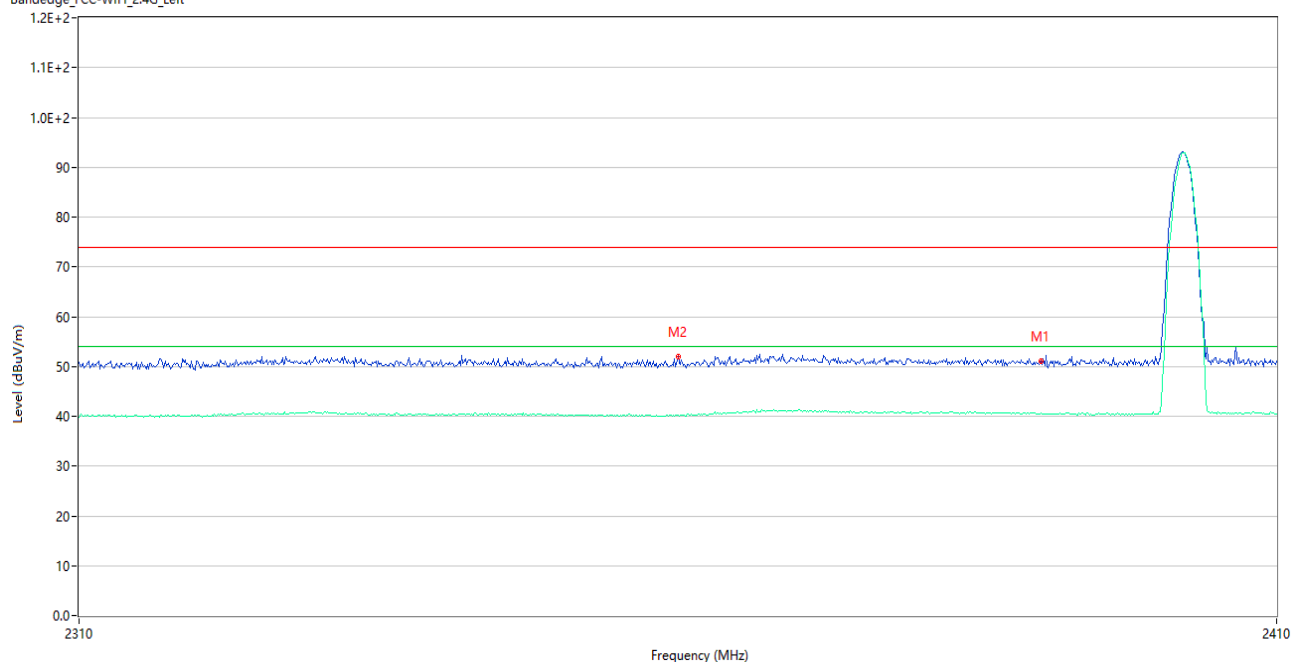
Bandedge_FCC-WIFI_2.4G_Right



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	51.22	-3.78	74.0	22.78	Peak	332.00	150	Vertical	Pass
1**	2483.500	41.24	-3.78	54.0	12.76	AV	332.00	150	Vertical	Pass
2	2497.360	54.23	-3.96	74.0	19.77	Peak	86.00	150	Vertical	Pass
2**	2497.360	41.61	-3.96	54.0	12.39	AV	86.00	150	Vertical	Pass

8-DPSK LOW CHANNEL

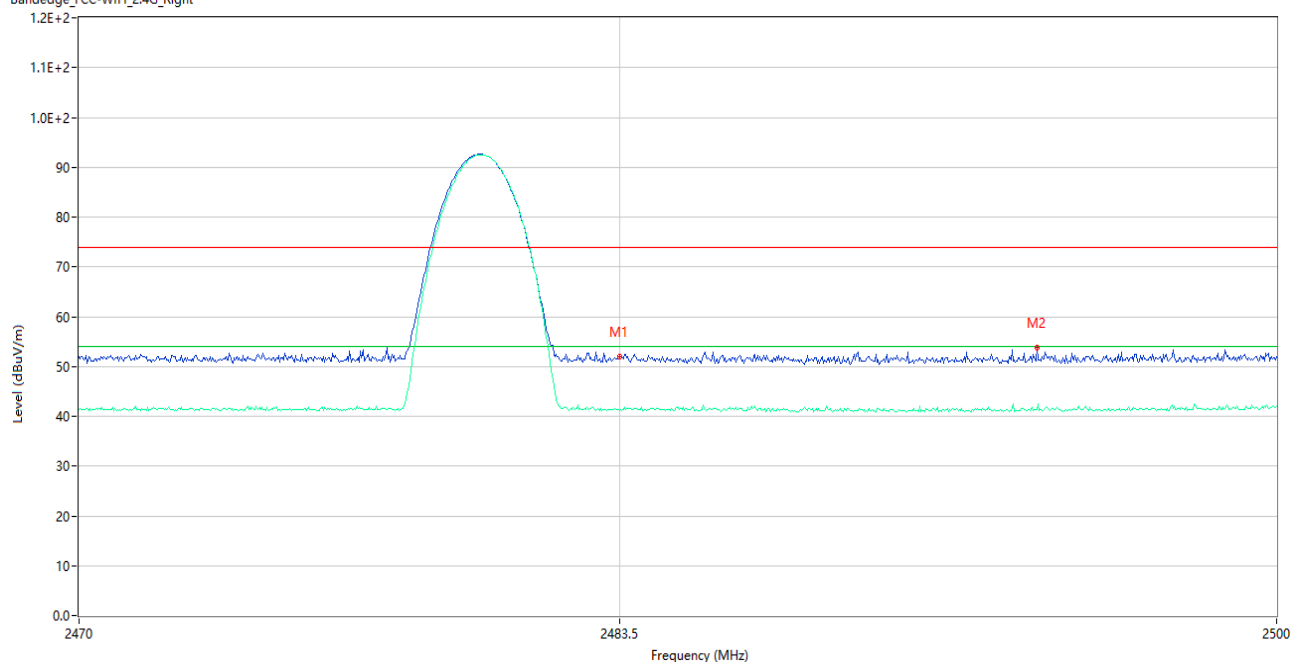
Bandedge_FCC-WIFI_2.4G_Left



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2390.000	51.14	-4.87	74.0	22.86	Peak	0.29	150	Horizontal	Pass
1**	2390.000	40.66	-4.87	54.0	13.34	AV	0.29	150	Horizontal	Pass
2	2359.500	51.99	-5.06	74.0	22.01	Peak	68.00	150	Horizontal	Pass
2**	2359.500	40.33	-5.06	54.0	13.67	AV	68.00	150	Horizontal	Pass

8-DPSK HIGH CHANNEL

Bandedge_FCC-WIFI_2.4G_Right



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	51.54	-3.78	74.0	22.46	Peak	0.00	150	Vertical	Pass
1**	2483.500	41.14	-3.78	54.0	12.86	AV	0.00	150	Vertical	Pass
2	2493.970	53.86	-3.91	74.0	20.14	Peak	86.00	150	Vertical	Pass
2**	2493.970	41.46	-3.91	54.0	12.54	AV	86.00	150	Vertical	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SH2580913-AR-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SH2580913-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SH2580913-AI.PDF”.

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--END OF REPORT--