8-DPSK LOW CHANNEL, CARRIER LEVEL

8-DPSK LOW CHANNEL, BAND EDGE

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

8-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

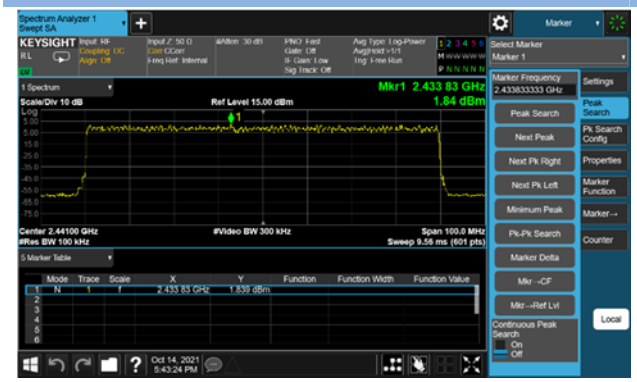
GFSK HOPPING BAND EDGE (LOW)

GFSK HOPPING BAND EDGE (HIGH)

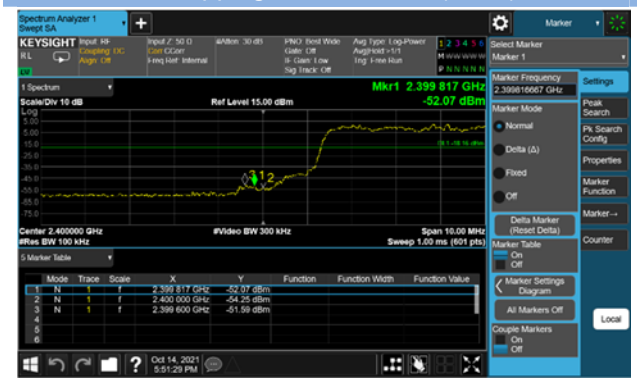
GFSK Hopping Mode, SPURIOUS 30 MHz ~ 3 GHz

GFSK Hopping Mode, SPURIOUS 30 3GHz ~ 25 GHz

π/4-DQPSK HOPPING, CARRIER LEVEL



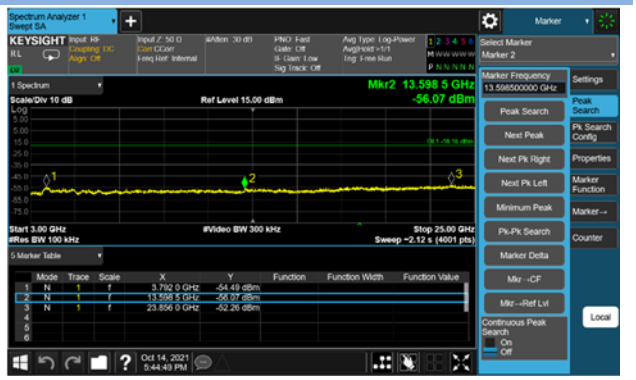
π/4-DQPSK Hopping BAND EDGE (LOW)



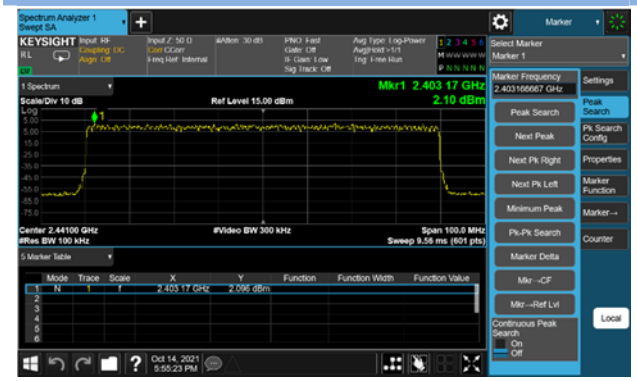
π/4-DQPSK Hopping BAND EDGE (HIGH)

π/4-DQPSK Hopping Mode, SPURIOUS 30 MHz ~ 3 GHz

π/4-DQPSK Hopping Mode, SPURIOUS 30 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 GHz

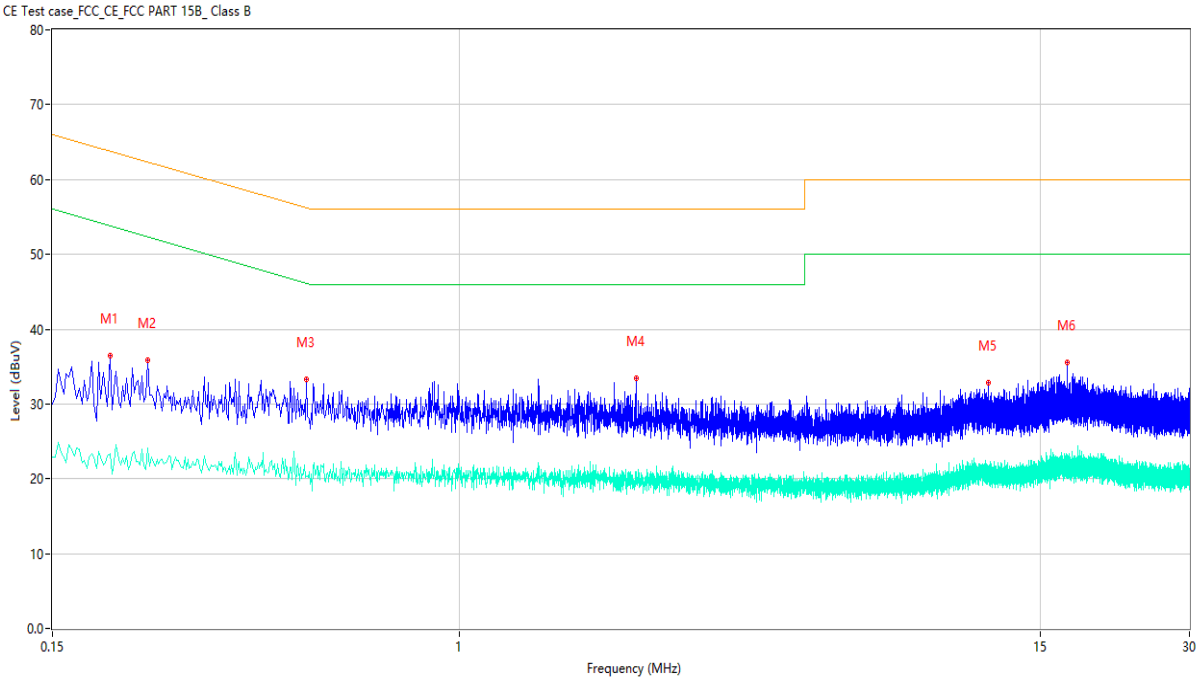
8-DPSK Hopping Mode, SPURIOUS 30 3GHz ~ 25 GHz

A.7 Conducted Emissions

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)

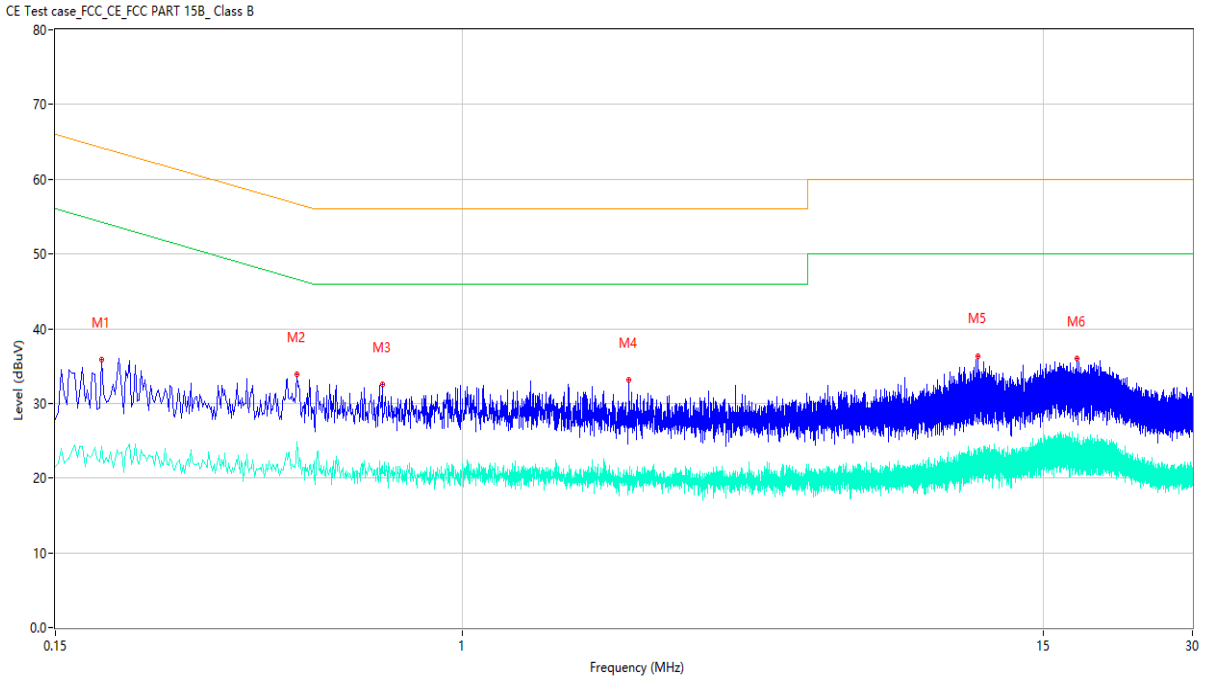
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.196	36.47	10.26	63.78	-27.31	Peak	L	Pass
1**	0.196	23.41	10.26	53.78	-30.37	AV	L	Pass
2	0.234	35.85	10.34	62.31	-26.46	Peak	L	Pass
2**	0.234	24.04	10.34	52.31	-28.27	AV	L	Pass
3	0.490	33.26	10.15	56.17	-22.91	Peak	L	Pass
3**	0.490	20.41	10.15	46.17	-25.76	AV	L	Pass
4	2.274	33.41	10.21	56.00	-22.59	Peak	L	Pass
4**	2.274	20.68	10.21	46.00	-25.32	AV	L	Pass
5	11.754	32.81	10.09	60.00	-27.19	Peak	L	Pass
5**	11.754	20.52	10.09	50.00	-29.48	AV	L	Pass
6	16.978	35.52	10.70	60.00	-24.48	Peak	L	Pass
6**	16.978	21.73	10.70	50.00	-28.27	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.186	35.86	10.21	64.21	-28.35	Peak	N	Pass
1**	0.186	24.30	10.21	54.21	-29.91	AV	N	Pass
2	0.462	33.93	10.33	56.66	-22.73	Peak	N	Pass
2**	0.462	24.91	10.33	46.66	-21.75	AV	N	Pass
3	0.688	32.56	10.25	56.00	-23.44	Peak	N	Pass
3**	0.688	21.74	10.25	46.00	-24.26	AV	N	Pass
4	2.174	33.19	10.31	56.00	-22.81	Peak	N	Pass
4**	2.174	20.31	10.31	46.00	-25.69	AV	N	Pass
5	11.036	36.37	10.13	60.00	-23.63	Peak	N	Pass
5**	11.036	22.80	10.13	50.00	-27.20	AV	N	Pass
6	17.502	35.96	10.77	60.00	-24.04	Peak	N	Pass
6**	17.502	23.59	10.77	50.00	-26.41	AV	N	Pass

A.8 Radiated Spurious Emission

Test Data and Plots

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

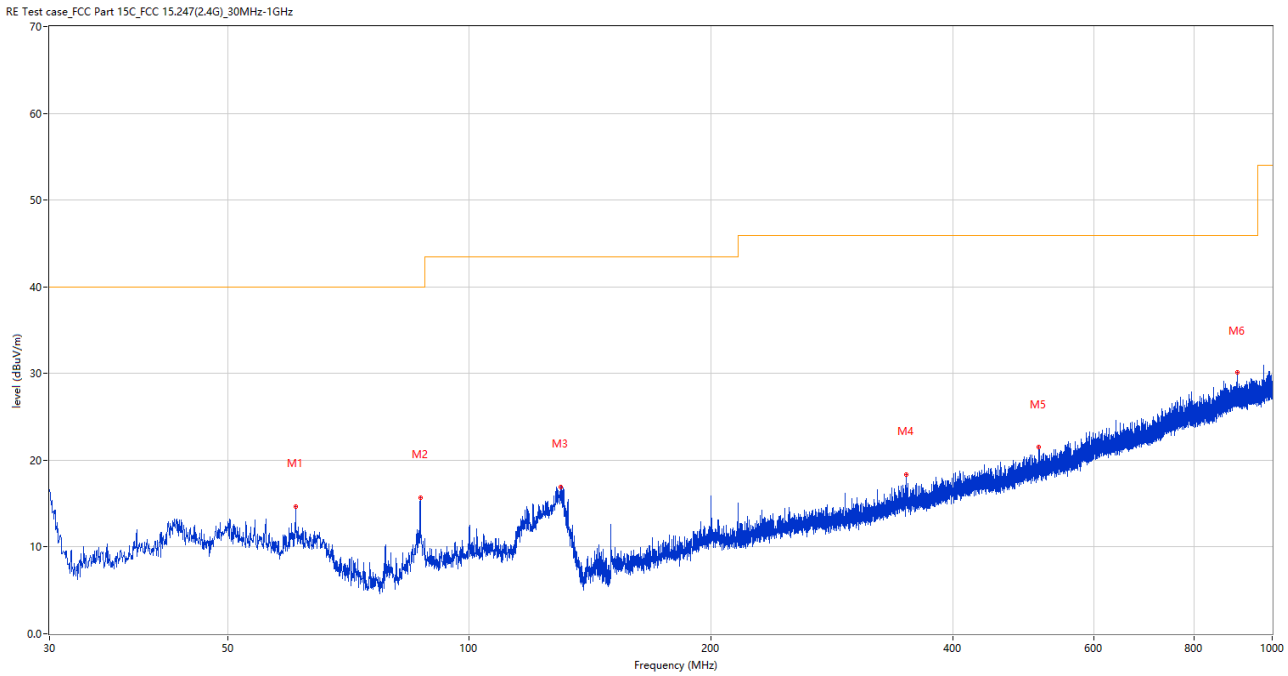
Note [2]: For the test data above 1 GHz, according the ANSI C63.10-2013, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note [3]: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and DH5-Hopping mode is the worst.

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

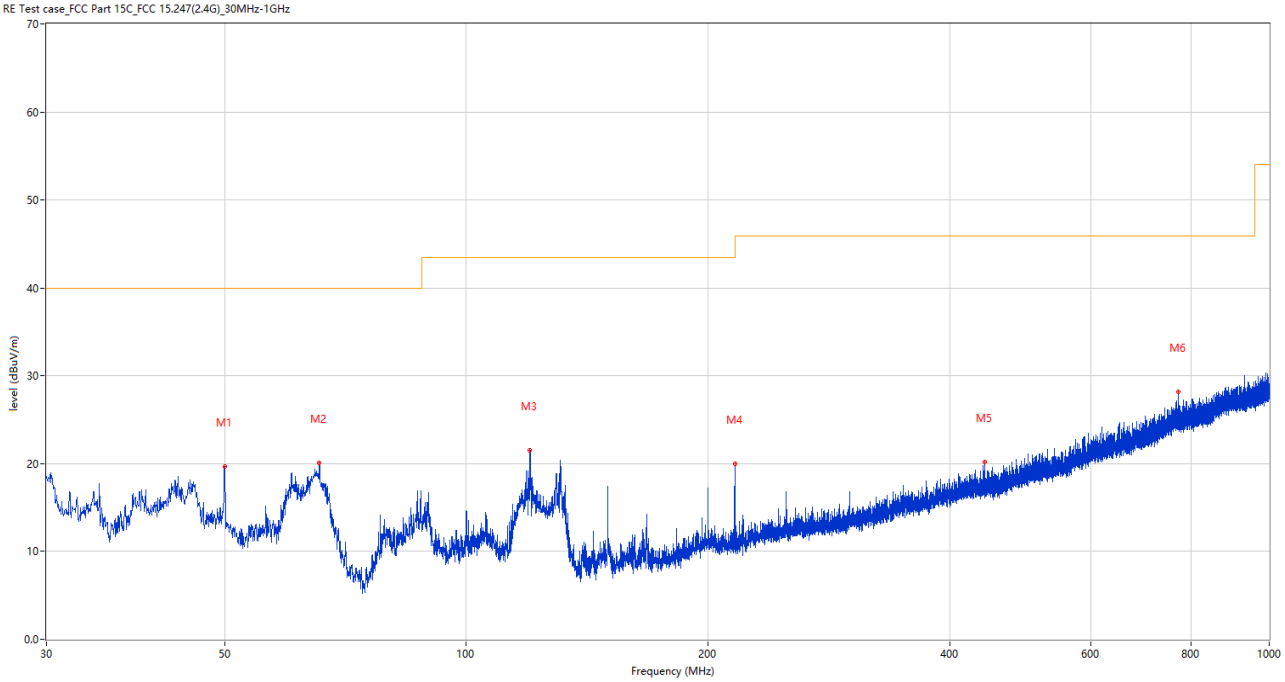
The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	60.749	14.67	-27.53	40.0	-25.33	Peak	24.00	200	Horizontal	Pass
2	86.891	15.70	-30.34	40.0	-24.30	Peak	106.00	200	Horizontal	Pass
3	129.910	16.88	-30.98	43.5	-26.62	Peak	235.00	200	Horizontal	Pass
4	350.003	18.32	-22.03	46.0	-27.68	Peak	45.00	100	Horizontal	Pass
5	512.430	21.51	-18.46	46.0	-24.49	Peak	326.00	100	Horizontal	Pass
6	905.279	30.14	-10.19	46.0	-15.86	Peak	0.00	200	Horizontal	Pass

30 MHz to 1 GHz, ANT V



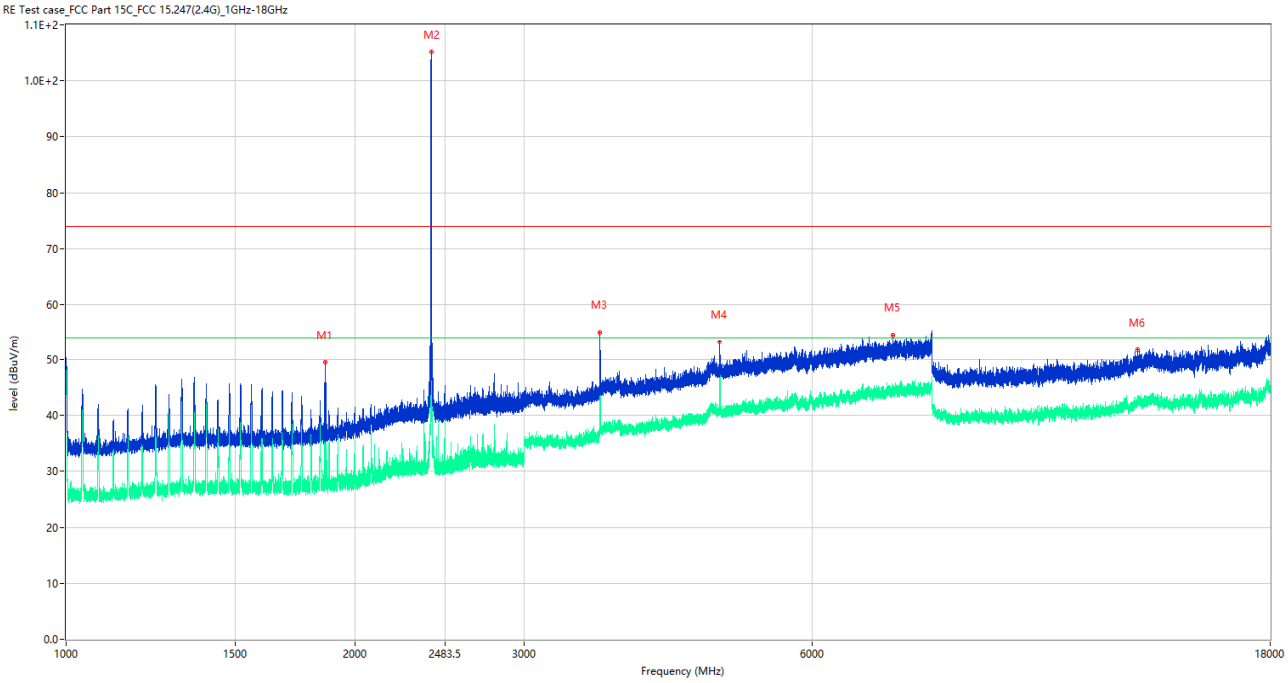
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	50.031	19.70	-26.01	40.0	-20.30	Peak	331.00	100	Vertical	Pass
2	65.599	20.07	-28.17	40.0	-19.93	Peak	360.00	100	Vertical	Pass
3	120.016	21.52	-29.54	43.5	-21.98	Peak	0.00	200	Vertical	Pass
4	215.998	19.95	-26.26	43.5	-23.55	Peak	0.00	200	Vertical	Pass
5	442.686	20.16	-20.15	46.0	-25.84	Peak	0.00	200	Vertical	Pass
6	770.595	28.11	-12.76	46.0	-17.89	Peak	307.00	200	Vertical	Pass

Test Data and Plots (1 GHz ~ 10th Harmonic)

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

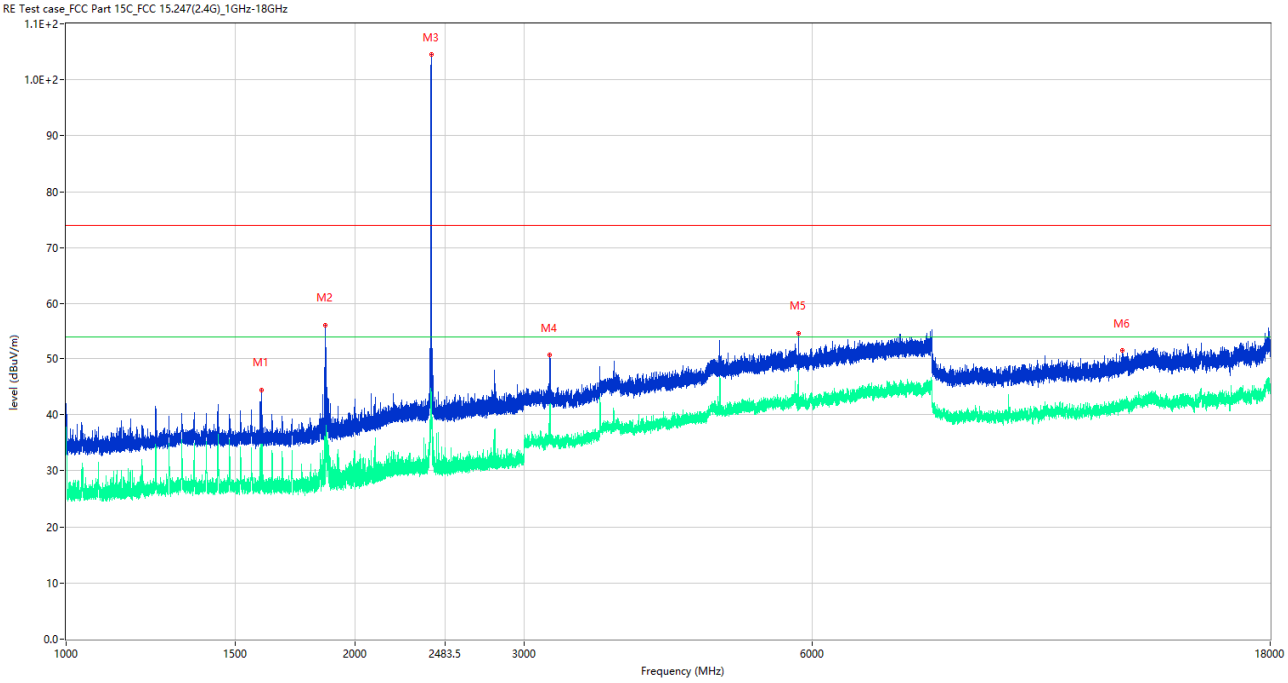
Note 2: The spurious from 18GHz-25GHz is noise only, do not show on the report.

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT H



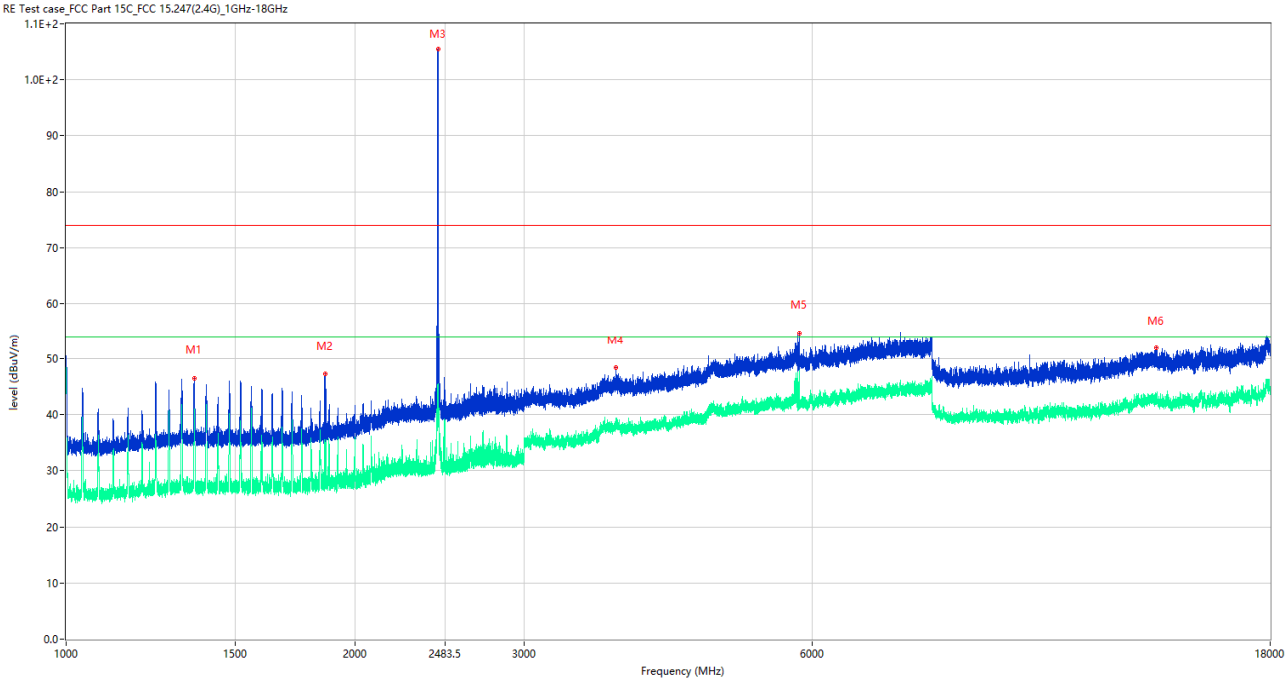
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1863.800	49.57	-16.91	74.0	-24.43	Peak	292.00	100	Horizontal	Pass
1**	1863.800	28.16	-16.91	54.0	-25.84	AV	292.00	100	Horizontal	Pass
2	2402.100	105.24	-12.87	74.0	31.24	Peak	210.00	100	Horizontal	N/A
2**	2402.100	105.05	-12.87	54.0	51.05	AV	210.00	100	Horizontal	N/A
3	3602.750	53.55	-4.85	74.0	-20.45	Peak	246.00	100	Horizontal	Pass
3**	3602.750	49.59	-4.85	54.0	-4.41	AV	246.00	100	Horizontal	Pass
4	4803.500	53.30	-1.96	74.0	-20.70	Peak	84.00	100	Horizontal	Pass
4**	4803.500	45.28	-1.96	54.0	-8.72	AV	84.00	100	Horizontal	Pass
5	7271.000	54.44	0.85	74.0	-19.56	Peak	271.00	100	Horizontal	Pass
5**	7271.000	44.64	0.85	54.0	-9.36	AV	271.00	100	Horizontal	Pass
6	13092.000	51.71	0.33	74.0	-22.29	Peak	22.00	100	Horizontal	Pass
6**	13092.000	41.95	0.33	54.0	-12.05	AV	22.00	100	Horizontal	Pass

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT V



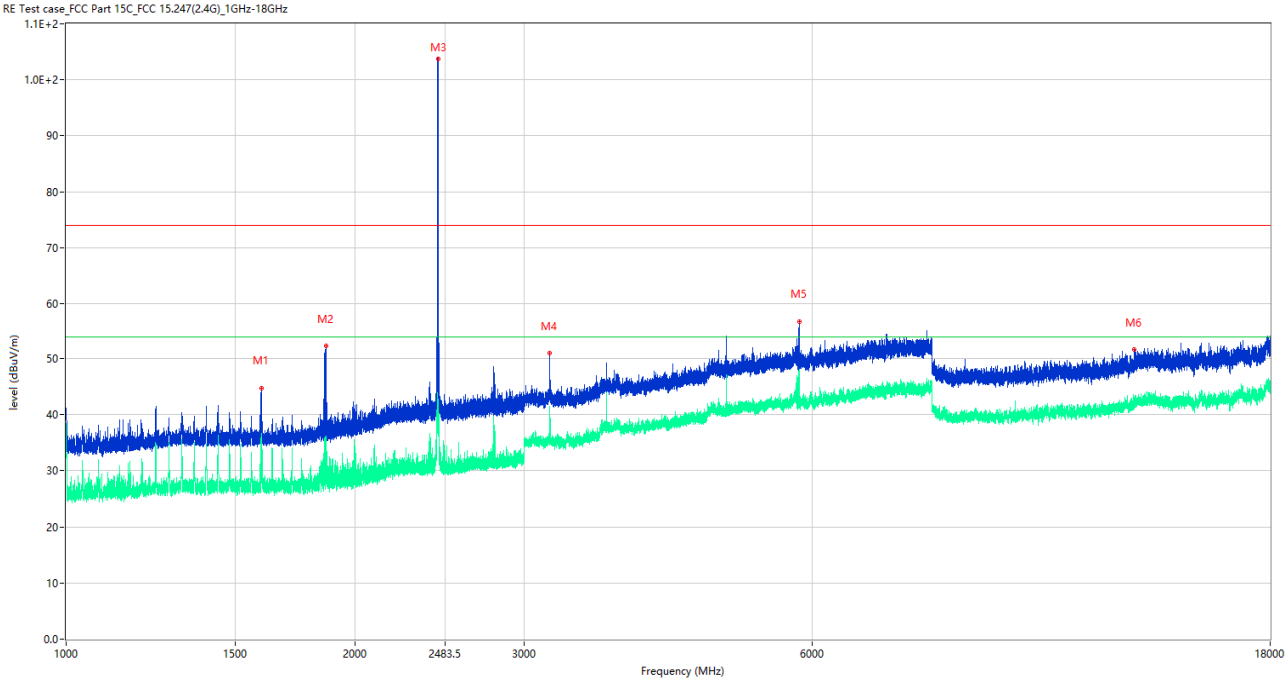
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.800	44.35	-17.78	74.0	-29.65	Peak	350.00	100	Vertical	Pass
1**	1599.800	36.25	-17.78	54.0	-17.75	AV	350.00	100	Vertical	Pass
2	1864.500	56.06	-16.92	74.0	-17.94	Peak	196.00	100	Vertical	Pass
2**	1864.500	33.88	-16.92	54.0	-20.12	AV	196.00	100	Vertical	Pass
3	2401.800	104.52	-12.88	74.0	30.52	Peak	112.00	100	Vertical	N/A
3**	2401.800	103.21	-12.88	54.0	49.21	AV	112.00	100	Vertical	N/A
4	3193.250	50.68	-7.93	74.0	-23.32	Peak	157.00	100	Vertical	Pass
4**	3193.250	35.21	-7.93	54.0	-18.79	AV	157.00	100	Vertical	Pass
5	5804.250	54.71	-1.20	74.0	-19.29	Peak	107.00	100	Vertical	Pass
5**	5804.250	46.53	-1.20	54.0	-7.47	AV	107.00	100	Vertical	Pass
6	12613.000	51.42	-1.57	74.0	-22.58	Peak	94.00	100	Vertical	Pass
6**	12613.000	41.22	-1.57	54.0	-12.78	AV	94.00	100	Vertical	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H



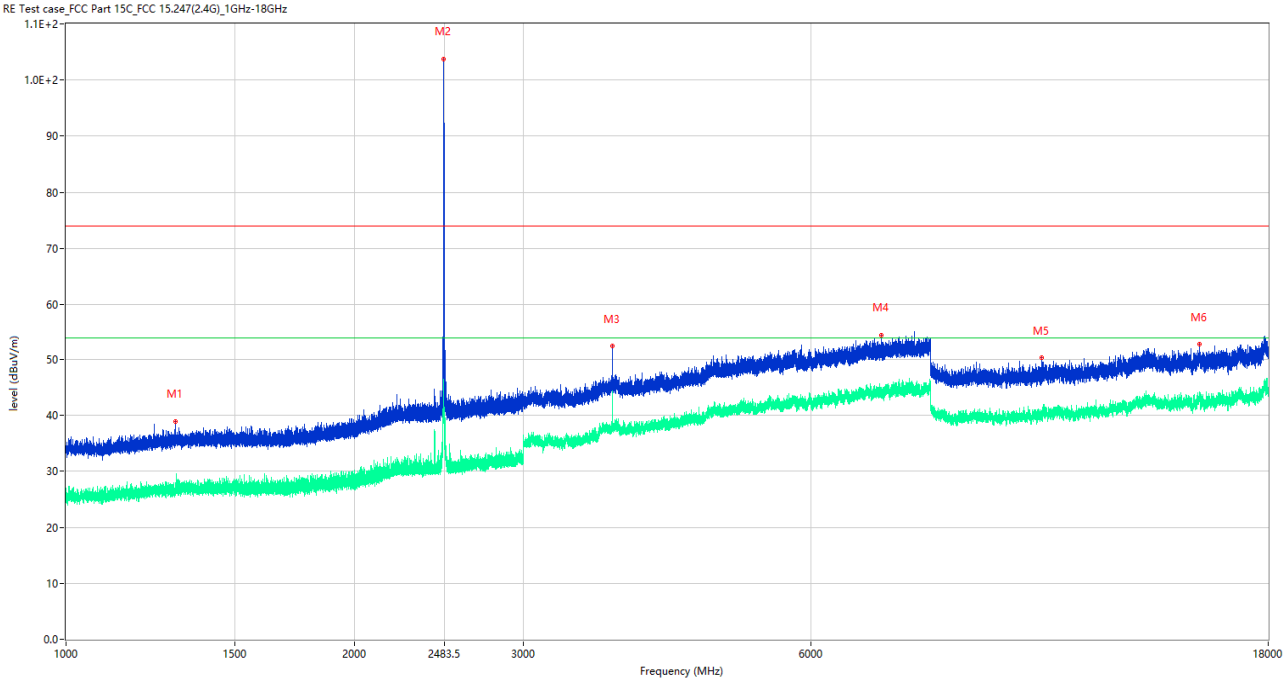
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1359.700	46.55	-17.67	74.0	-27.45	Peak	144.00	100	Horizontal	Pass
1**	1359.700	42.61	-17.67	54.0	-11.39	AV	144.00	100	Horizontal	Pass
2	1862.700	47.31	-16.90	74.0	-26.69	Peak	298.00	100	Horizontal	Pass
2**	1862.700	27.28	-16.90	54.0	-26.72	AV	298.00	100	Horizontal	Pass
3	2441.200	105.57	-12.91	74.0	31.57	Peak	209.00	100	Horizontal	N/A
3**	2441.200	105.30	-12.91	54.0	51.30	AV	209.00	100	Horizontal	N/A
4	3746.250	48.42	-3.95	74.0	-25.58	Peak	358.00	100	Horizontal	Pass
4**	3746.250	37.92	-3.95	54.0	-16.08	AV	358.00	100	Horizontal	Pass
5	5811.000	54.75	-1.20	74.0	-19.25	Peak	360.00	100	Horizontal	Pass
5**	5811.000	48.00	-1.20	54.0	-6.00	AV	360.00	100	Horizontal	Pass
6	13684.500	51.88	1.26	74.0	-22.12	Peak	190.00	100	Horizontal	Pass
6**	13684.500	42.65	1.26	54.0	-11.35	AV	190.00	100	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V



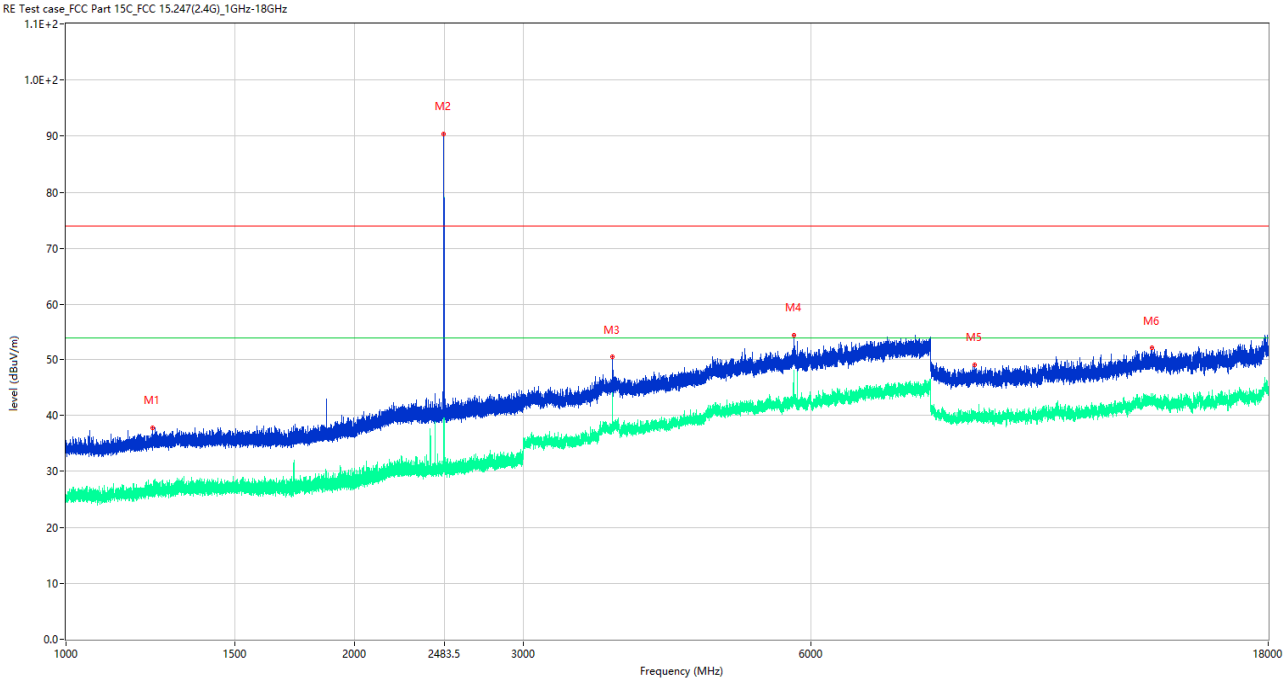
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1600.000	44.64	-17.79	74.0	-29.36	Peak	349.00	100	Vertical	Pass
1**	1600.000	38.01	-17.79	54.0	-15.99	AV	349.00	100	Vertical	Pass
2	1866.300	52.21	-16.94	74.0	-21.79	Peak	281.00	100	Vertical	Pass
2**	1866.300	28.50	-16.94	54.0	-25.50	AV	281.00	100	Vertical	Pass
3	2441.000	103.75	-12.90	74.0	29.75	Peak	110.00	100	Vertical	N/A
3**	2441.000	103.53	-12.90	54.0	49.53	AV	110.00	100	Vertical	N/A
4	3194.750	50.91	-7.95	74.0	-23.09	Peak	157.00	100	Vertical	Pass
4**	3194.750	37.17	-7.95	54.0	-16.83	AV	157.00	100	Vertical	Pass
5	5809.000	56.72	-1.20	74.0	-17.28	Peak	72.00	100	Vertical	Pass
5**	5809.000	50.04	-1.20	54.0	-3.96	AV	72.00	100	Vertical	Pass
6	13001.000	51.62	-0.62	74.0	-22.38	Peak	14.00	100	Vertical	Pass
6**	13001.000	41.66	-0.62	54.0	-12.34	AV	14.00	100	Vertical	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT H



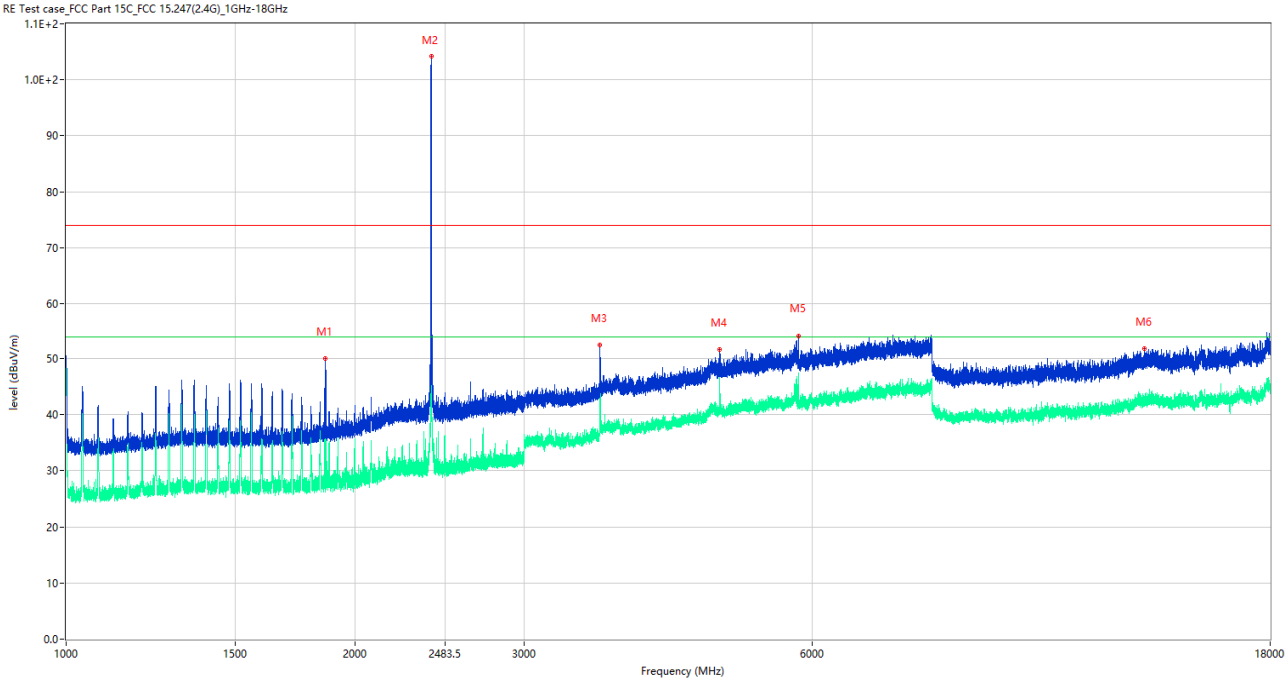
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1302.200	38.90	-17.56	74.0	-35.10	Peak	13.00	100	Horizontal	Pass
1**	1302.200	26.85	-17.56	54.0	-27.15	AV	13.00	100	Horizontal	Pass
2	2480.100	103.79	-12.61	74.0	29.79	Peak	80.00	100	Horizontal	N/A
2**	2480.100	103.51	-12.61	54.0	49.51	AV	80.00	100	Horizontal	N/A
3	3719.500	52.37	-3.86	74.0	-21.63	Peak	76.00	100	Horizontal	Pass
3**	3719.500	45.19	-3.86	54.0	-8.81	AV	76.00	100	Horizontal	Pass
4	7094.250	54.50	1.00	74.0	-19.50	Peak	334.00	100	Horizontal	Pass
4**	7094.250	44.14	1.00	54.0	-9.86	AV	334.00	100	Horizontal	Pass
5	10430.500	50.37	-3.72	74.0	-23.63	Peak	85.00	100	Horizontal	Pass
5**	10430.500	40.03	-3.72	54.0	-13.97	AV	85.00	100	Horizontal	Pass
6	15258.000	52.79	0.79	74.0	-21.21	Peak	70.00	100	Horizontal	Pass
6**	15258.000	44.07	0.79	54.0	-9.93	AV	70.00	100	Horizontal	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V



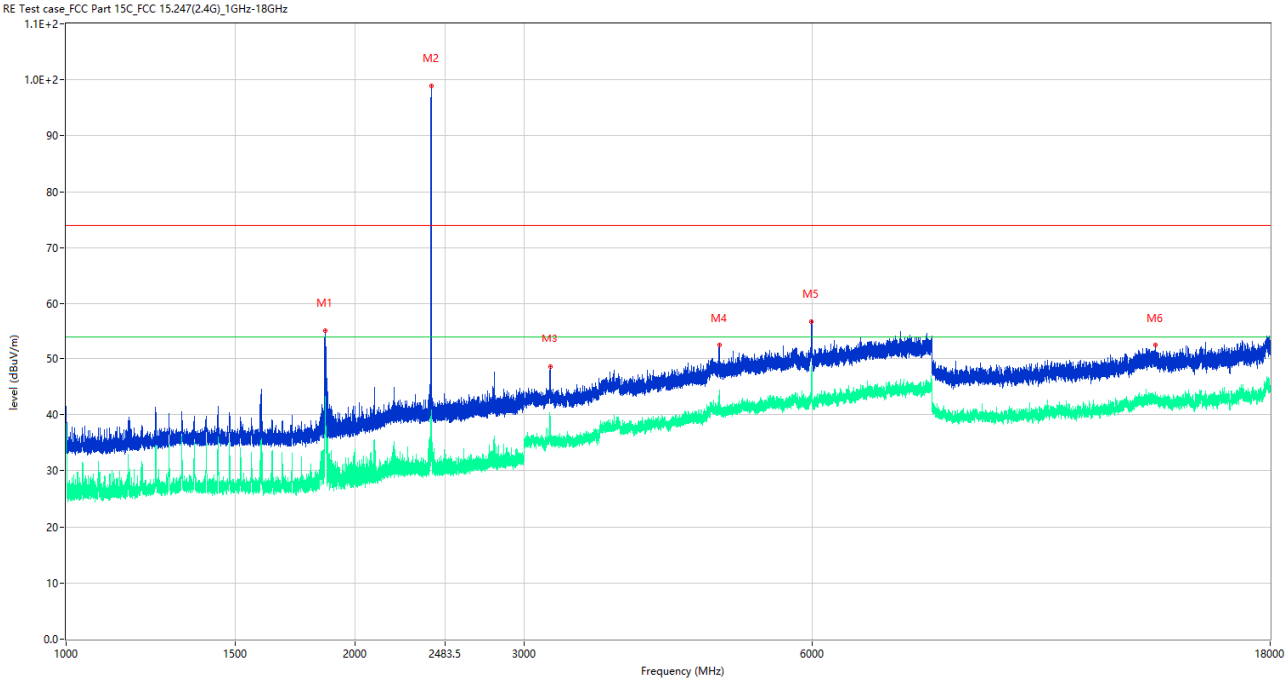
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1232.400	37.81	-18.12	74.0	-36.19	Peak	309.00	100	Vertical	Pass
1**	1232.400	26.15	-18.12	54.0	-27.85	AV	309.00	100	Vertical	Pass
2	2480.200	90.40	-12.61	74.0	16.40	Peak	282.00	100	Vertical	N/A
2**	2480.200	90.10	-12.61	54.0	36.10	AV	282.00	100	Vertical	N/A
3	3720.250	50.46	-3.84	74.0	-23.54	Peak	120.00	100	Vertical	Pass
3**	3720.250	46.11	-3.84	54.0	-7.89	AV	120.00	100	Vertical	Pass
4	5755.000	54.53	-0.54	74.0	-19.47	Peak	24.00	100	Vertical	Pass
4**	5755.000	46.94	-0.54	54.0	-7.06	AV	24.00	100	Vertical	Pass
5	8886.000	49.00	-3.24	74.0	-25.00	Peak	145.00	100	Vertical	Pass
5**	8886.000	39.71	-3.24	54.0	-14.29	AV	145.00	100	Vertical	Pass
6	13600.500	52.04	0.50	74.0	-21.96	Peak	127.00	100	Vertical	Pass
6**	13600.500	42.73	0.50	54.0	-11.27	AV	127.00	100	Vertical	Pass

π/4-DQPSK LOW CHANNEL 1 GHz to 18 GHz, ANT H



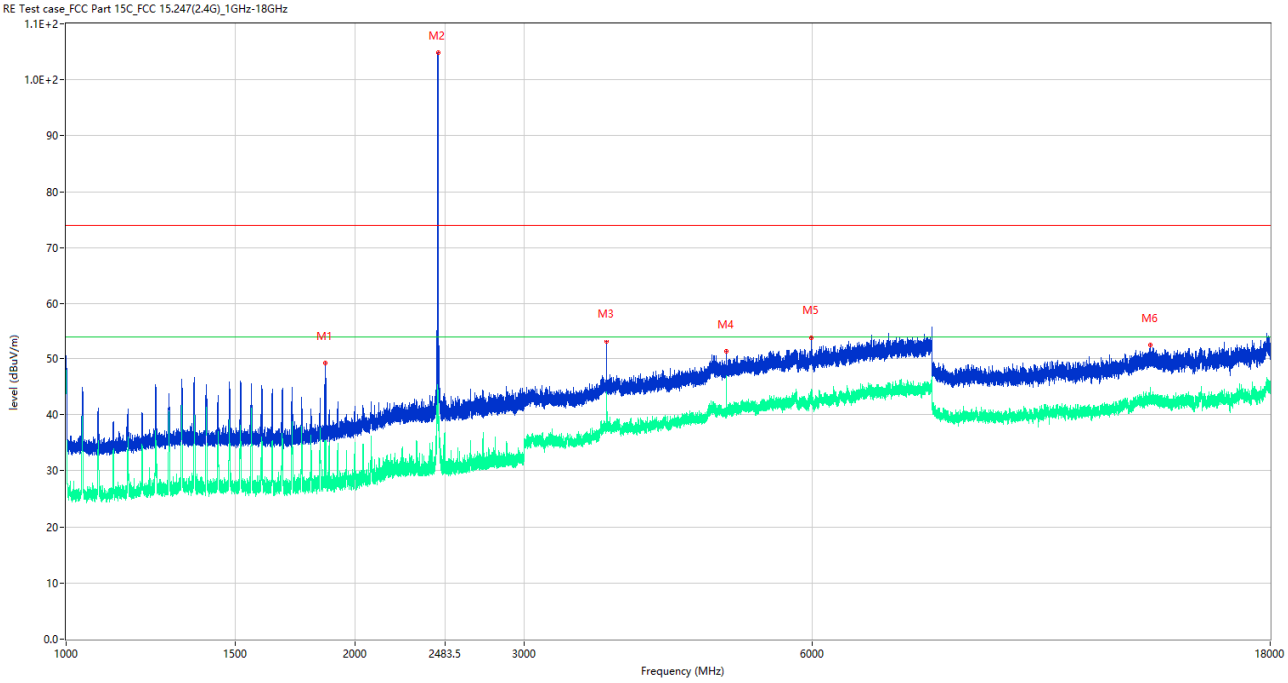
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1863.800	50.04	-16.91	74.0	-23.96	Peak	293.00	100	Horizontal	Pass
1**	1863.800	29.72	-16.91	54.0	-24.28	AV	293.00	100	Horizontal	Pass
2	2402.000	104.25	-12.87	74.0	30.25	Peak	209.00	100	Horizontal	N/A
2**	2402.000	101.62	-12.87	54.0	47.62	AV	209.00	100	Horizontal	N/A
3	3603.250	52.38	-4.84	74.0	-21.62	Peak	62.00	100	Horizontal	Pass
3**	3603.250	48.92	-4.84	54.0	-5.08	AV	62.00	100	Horizontal	Pass
4	4803.500	51.63	-1.96	74.0	-22.37	Peak	85.00	100	Horizontal	Pass
4**	4803.500	45.32	-1.96	54.0	-8.68	AV	85.00	100	Horizontal	Pass
5	5802.750	54.20	-1.20	74.0	-19.80	Peak	183.00	100	Horizontal	Pass
5**	5802.750	43.48	-1.20	54.0	-10.52	AV	183.00	100	Horizontal	Pass
6	13319.500	51.80	0.50	74.0	-22.20	Peak	288.00	100	Horizontal	Pass
6**	13319.500	42.64	0.50	54.0	-11.36	AV	288.00	100	Horizontal	Pass

π/4-DQPSK LOW CHANNEL 1 GHz to 18 GHz, ANT V



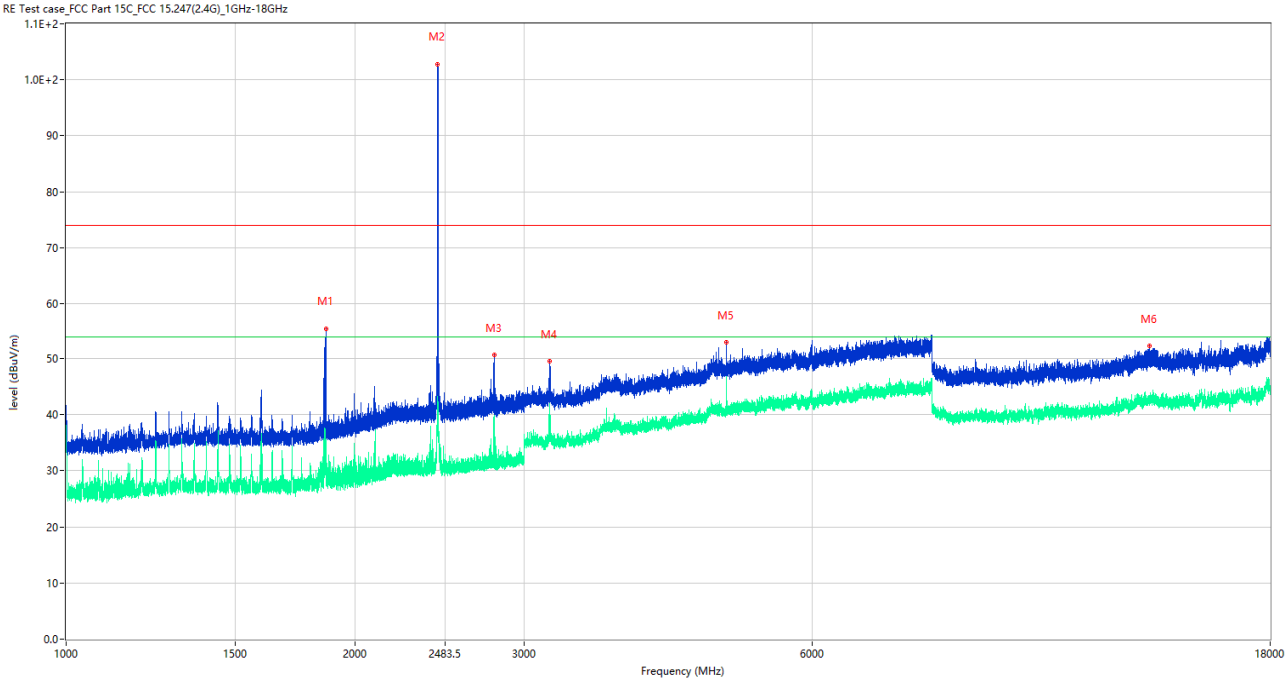
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1861.100	55.22	-16.88	74.0	-18.78	Peak	191.00	100	Vertical	Pass
1**	1861.100	48.56	-16.88	54.0	-5.44	AV	191.00	100	Vertical	Pass
2	2401.800	98.90	-12.88	74.0	24.90	Peak	354.00	100	Vertical	N/A
2**	2401.800	95.65	-12.88	54.0	41.65	AV	354.00	100	Vertical	N/A
3	3196.000	48.63	-7.97	74.0	-25.37	Peak	160.00	100	Vertical	Pass
3**	3196.000	35.69	-7.97	54.0	-18.31	AV	160.00	100	Vertical	Pass
4	4798.250	52.36	-1.98	74.0	-21.64	Peak	306.00	100	Vertical	Pass
4**	4798.250	41.46	-1.98	54.0	-12.54	AV	306.00	100	Vertical	Pass
5	5980.000	56.74	-0.15	74.0	-17.26	Peak	186.00	100	Vertical	Pass
5**	5980.000	46.55	-0.15	54.0	-7.45	AV	186.00	100	Vertical	Pass
6	13678.500	52.43	1.27	74.0	-21.57	Peak	329.00	100	Vertical	Pass
6**	13678.500	42.40	1.27	54.0	-11.60	AV	329.00	100	Vertical	Pass

π/4-DQPSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H



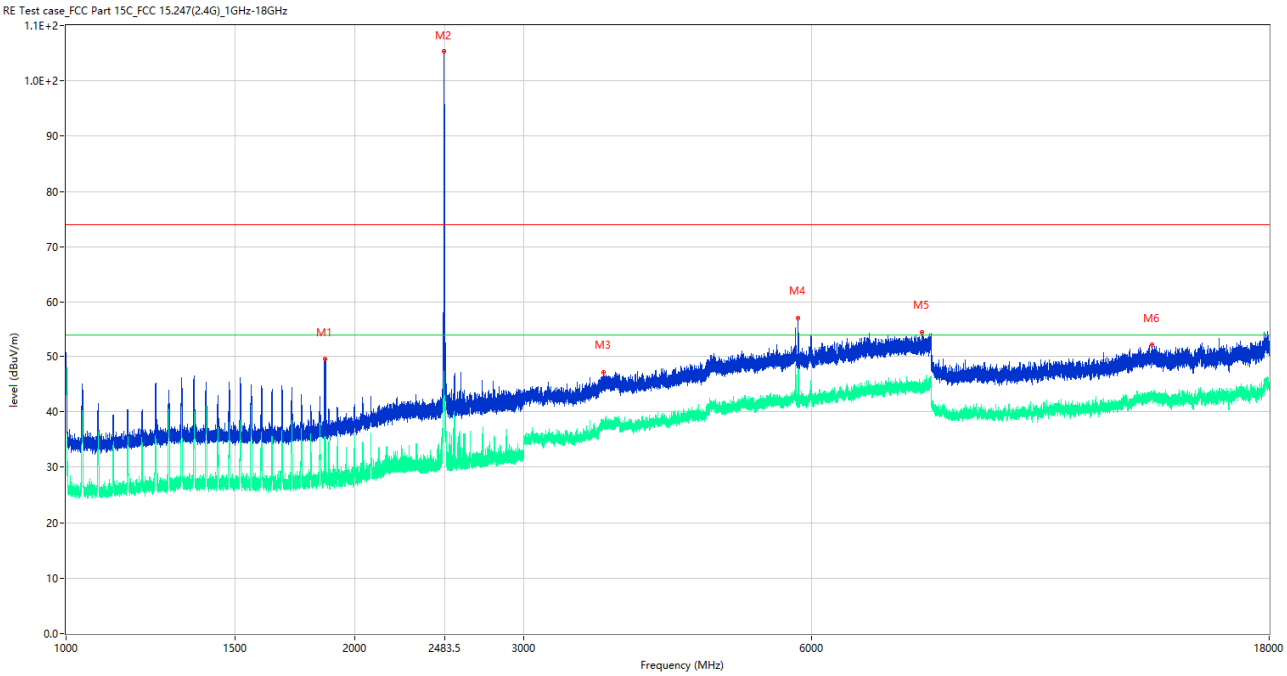
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1862.300	49.14	-16.89	74.0	-24.86	Peak	295.00	100	Horizontal	Pass
1**	1862.300	28.16	-16.89	54.0	-25.84	AV	295.00	100	Horizontal	Pass
2	2441.100	104.93	-12.91	74.0	30.93	Peak	208.00	100	Horizontal	N/A
2**	2441.100	101.69	-12.91	54.0	47.69	AV	208.00	100	Horizontal	N/A
3	3661.250	53.14	-4.44	74.0	-20.86	Peak	66.00	100	Horizontal	Pass
3**	3661.250	48.88	-4.44	54.0	-5.12	AV	66.00	100	Horizontal	Pass
4	4881.500	51.24	-2.28	74.0	-22.76	Peak	107.00	100	Horizontal	Pass
4**	4881.500	43.14	-2.28	54.0	-10.86	AV	107.00	100	Horizontal	Pass
5	5983.000	53.80	-0.24	74.0	-20.20	Peak	112.00	100	Horizontal	Pass
5**	5983.000	41.98	-0.24	54.0	-12.02	AV	112.00	100	Horizontal	Pass
6	13511.500	52.43	0.37	74.0	-21.57	Peak	97.00	100	Horizontal	Pass
6**	13511.500	42.50	0.37	54.0	-11.50	AV	97.00	100	Horizontal	Pass

π/4-DQPSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V



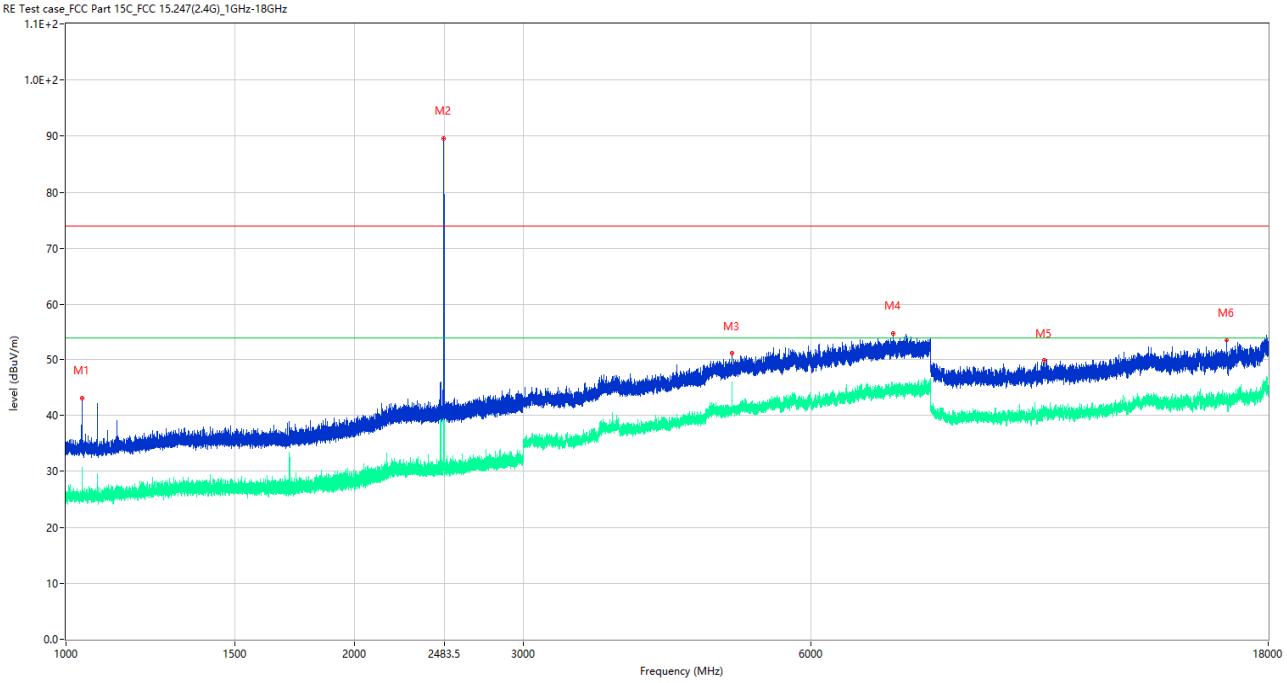
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1865.700	55.46	-16.93	74.0	-18.54	Peak	188.00	100	Vertical	Pass
1**	1865.700	27.34	-16.93	54.0	-26.66	AV	188.00	100	Vertical	Pass
2	2440.800	102.80	-12.89	74.0	28.80	Peak	113.00	100	Vertical	N/A
2**	2440.800	99.40	-12.89	54.0	45.40	AV	113.00	100	Vertical	N/A
3	2792.900	50.69	-10.77	74.0	-23.31	Peak	113.00	100	Vertical	Pass
3**	2792.900	32.80	-10.77	54.0	-21.20	AV	113.00	100	Vertical	Pass
4	3193.750	49.45	-7.94	74.0	-24.55	Peak	165.00	100	Vertical	Pass
4**	3193.750	38.49	-7.94	54.0	-15.51	AV	165.00	100	Vertical	Pass
5	4882.500	52.88	-2.28	74.0	-21.12	Peak	126.00	100	Vertical	Pass
5**	4882.500	47.70	-2.28	54.0	-6.30	AV	126.00	100	Vertical	Pass
6	13474.000	52.31	0.42	74.0	-21.69	Peak	0.00	100	Vertical	Pass
6**	13474.000	43.11	0.42	54.0	-10.89	AV	0.00	100	Vertical	Pass

π/4-DQPSK HIGH CHANNEL 1 GHz to 18 GHz, ANT H



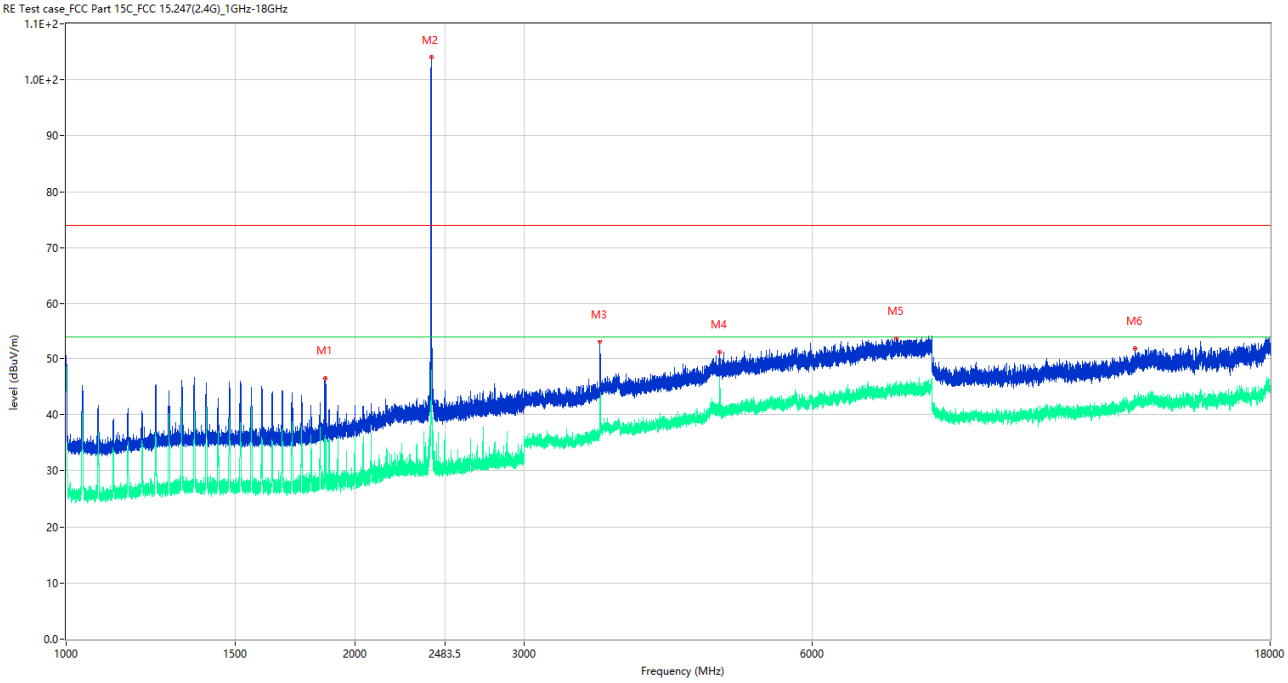
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1862.400	49.58	-16.90	74.0	-24.42	Peak	83.00	100	Horizontal	Pass
1**	1862.400	28.08	-16.90	54.0	-25.92	AV	83.00	100	Horizontal	Pass
2	2479.900	105.32	-12.61	74.0	31.32	Peak	83.00	100	Horizontal	N/A
2**	2479.900	102.21	-12.61	54.0	48.21	AV	83.00	100	Horizontal	N/A
3	3638.000	47.15	-4.85	74.0	-26.85	Peak	81.00	100	Horizontal	Pass
3**	3638.000	37.61	-4.85	54.0	-16.39	AV	81.00	100	Horizontal	Pass
4	5800.250	57.02	-1.20	74.0	-16.98	Peak	91.00	100	Horizontal	Pass
4**	5800.250	48.74	-1.20	54.0	-5.26	AV	91.00	100	Horizontal	Pass
5	7814.500	54.58	1.31	74.0	-19.42	Peak	316.00	100	Horizontal	Pass
5**	7814.500	43.91	1.31	54.0	-10.09	AV	316.00	100	Horizontal	Pass
6	13571.000	52.14	0.42	74.0	-21.86	Peak	123.00	100	Horizontal	Pass
6**	13571.000	42.77	0.42	54.0	-11.23	AV	123.00	100	Horizontal	Pass

π/4-DQPSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V



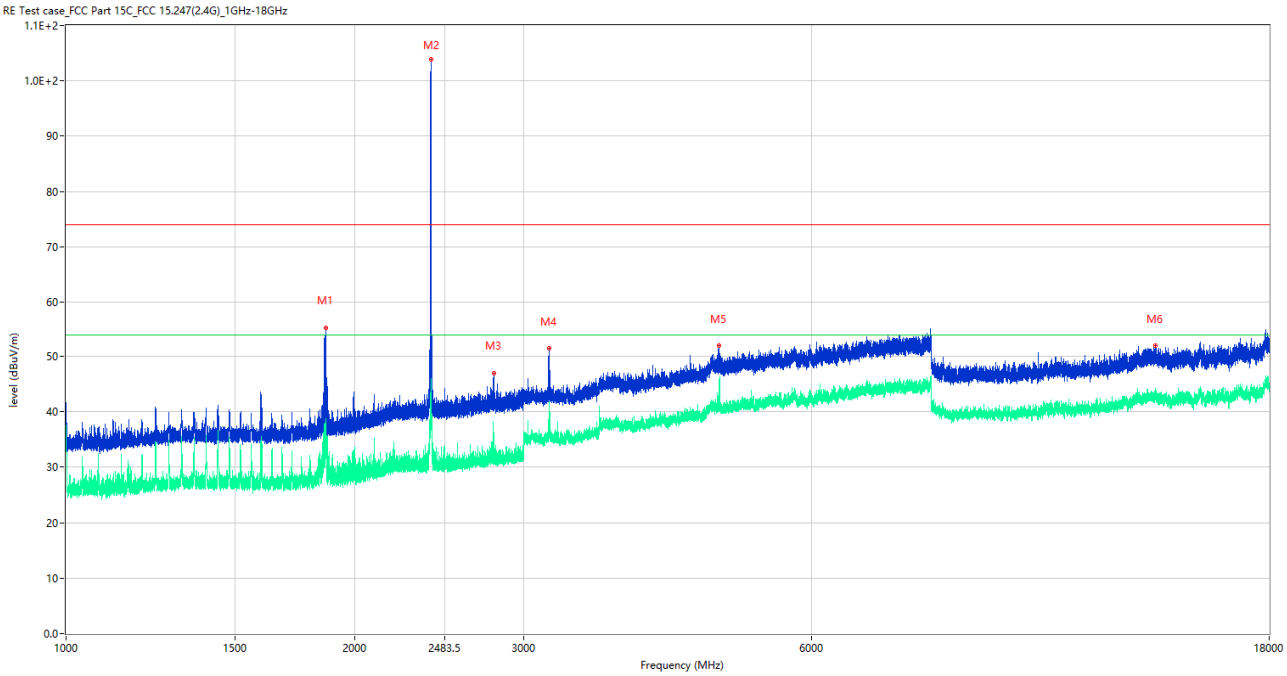
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1038.500	43.03	-18.32	74.0	-30.97	Peak	321.00	100	Vertical	Pass
1**	1038.500	25.75	-18.32	54.0	-28.25	AV	321.00	100	Vertical	Pass
2	2480.000	89.59	-12.61	74.0	15.59	Peak	164.00	100	Vertical	N/A
2**	2480.000	86.58	-12.61	54.0	32.58	AV	164.00	100	Vertical	N/A
3	4960.250	51.12	-2.10	74.0	-22.88	Peak	155.00	100	Vertical	Pass
3**	4960.250	45.33	-2.10	54.0	-8.67	AV	155.00	100	Vertical	Pass
4	7301.250	54.79	0.57	74.0	-19.21	Peak	99.00	100	Vertical	Pass
4**	7301.250	44.31	0.57	54.0	-9.69	AV	99.00	100	Vertical	Pass
5	10512.000	49.89	-2.99	74.0	-24.11	Peak	210.00	100	Vertical	Pass
5**	10512.000	40.72	-2.99	54.0	-13.28	AV	210.00	100	Vertical	Pass
6	16289.000	53.56	-0.75	74.0	-20.44	Peak	106.00	100	Vertical	Pass
6**	16289.000	42.74	-0.75	54.0	-11.26	AV	106.00	100	Vertical	Pass

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



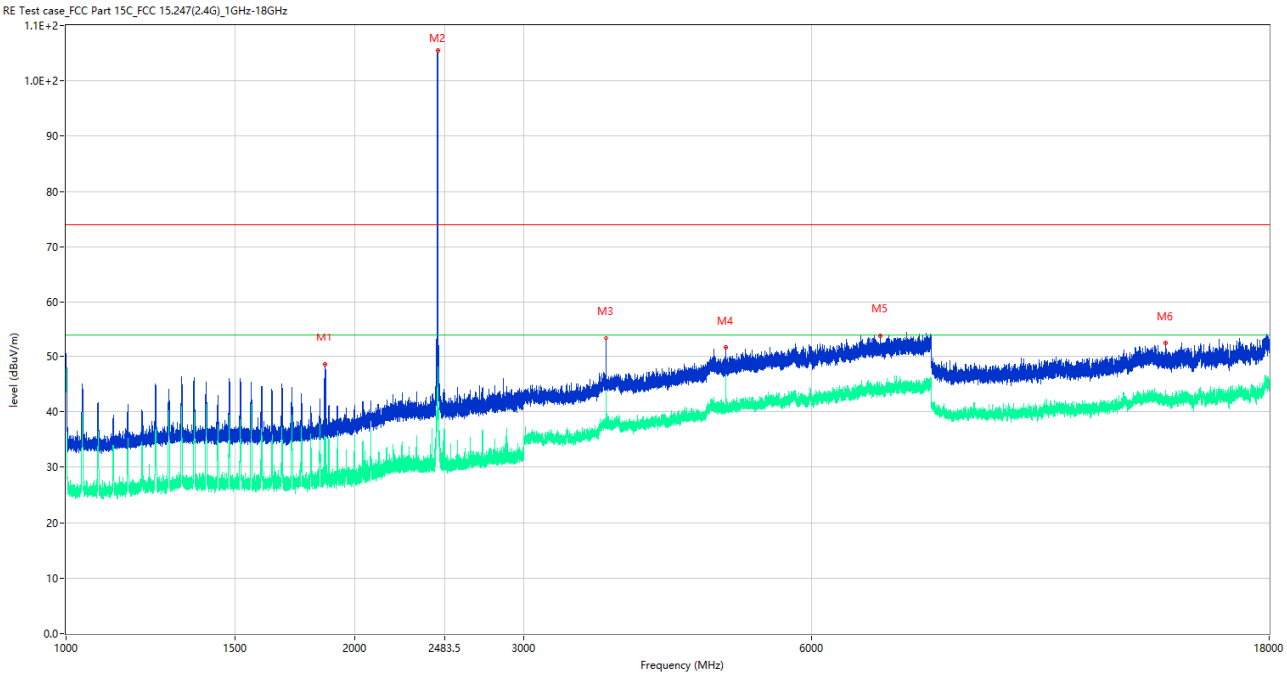
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1863.900	46.54	-16.91	74.0	-27.46	Peak	286.00	100	Horizontal	Pass
1**	1863.900	31.95	-16.91	54.0	-22.05	AV	286.00	100	Horizontal	Pass
2	2402.000	103.98	-12.87	74.0	29.98	Peak	84.00	100	Horizontal	N/A
2**	2402.000	100.46	-12.87	54.0	46.46	AV	84.00	100	Horizontal	N/A
3	3603.000	53.06	-4.85	74.0	-20.94	Peak	245.00	100	Horizontal	Pass
3**	3603.000	47.99	-4.85	54.0	-6.01	AV	245.00	100	Horizontal	Pass
4	4803.750	51.22	-1.96	74.0	-22.78	Peak	126.00	100	Horizontal	Pass
4**	4803.750	46.56	-1.96	54.0	-7.44	AV	126.00	100	Horizontal	Pass
5	7329.750	53.63	1.22	74.0	-20.37	Peak	86.00	100	Horizontal	Pass
5**	7329.750	45.25	1.22	54.0	-8.75	AV	86.00	100	Horizontal	Pass
6	13017.000	51.74	-0.54	74.0	-22.26	Peak	274.00	100	Horizontal	Pass

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



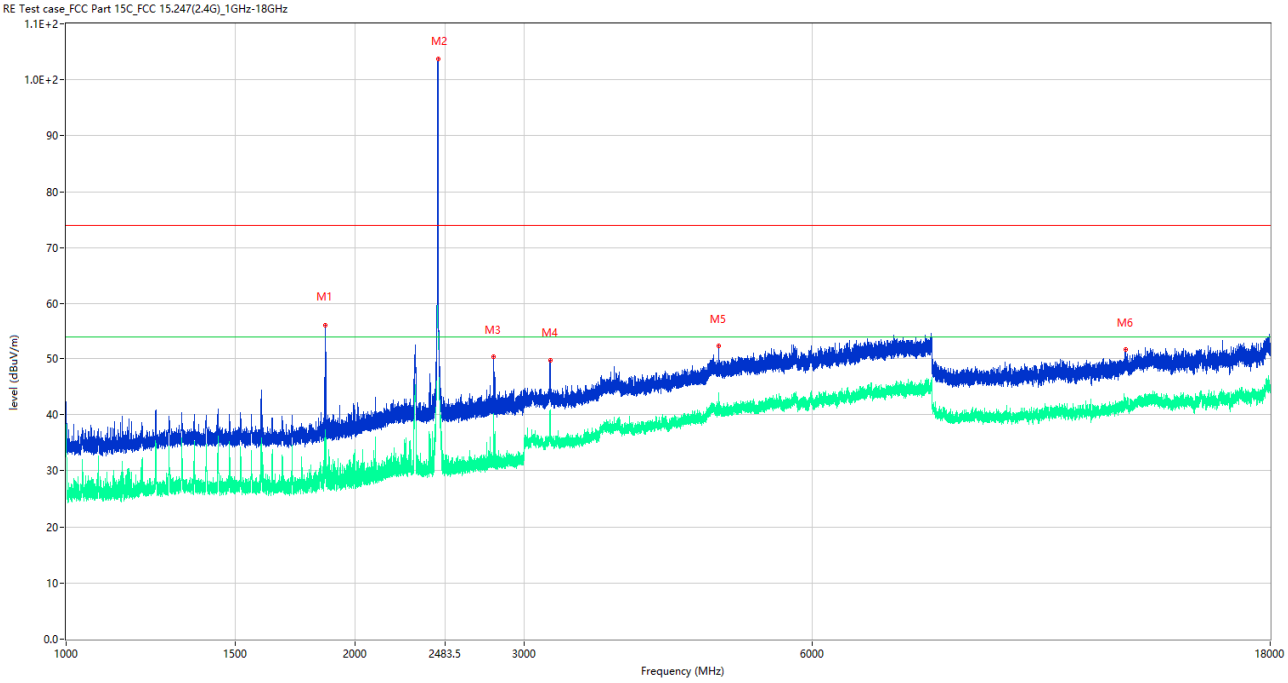
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1865.700	55.27	-16.93	74.0	-18.73	Peak	296.00	100	Vertical	Pass
1**	1865.700	39.44	-16.93	54.0	-14.56	AV	296.00	100	Vertical	Pass
2	2401.900	103.88	-12.88	74.0	29.88	Peak	114.00	100	Vertical	N/A
2**	2401.900	100.57	-12.88	54.0	46.57	AV	114.00	100	Vertical	N/A
3	2797.200	46.89	-10.96	74.0	-27.11	Peak	116.00	100	Vertical	Pass
3**	2797.200	33.03	-10.96	54.0	-20.97	AV	116.00	100	Vertical	Pass
4	3188.750	51.45	-7.88	74.0	-22.55	Peak	156.00	100	Vertical	Pass
4**	3188.750	41.71	-7.88	54.0	-12.29	AV	156.00	100	Vertical	Pass
5	4803.250	51.90	-1.96	74.0	-22.10	Peak	88.00	100	Vertical	Pass
5**	4803.250	41.95	-1.96	54.0	-12.05	AV	88.00	100	Vertical	Pass
6	13703.999	51.94	1.06	74.0	-22.06	Peak	66.00	100	Vertical	Pass
6**	13703.999	42.74	1.06	54.0	-11.26	AV	66.00	100	Vertical	Pass

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



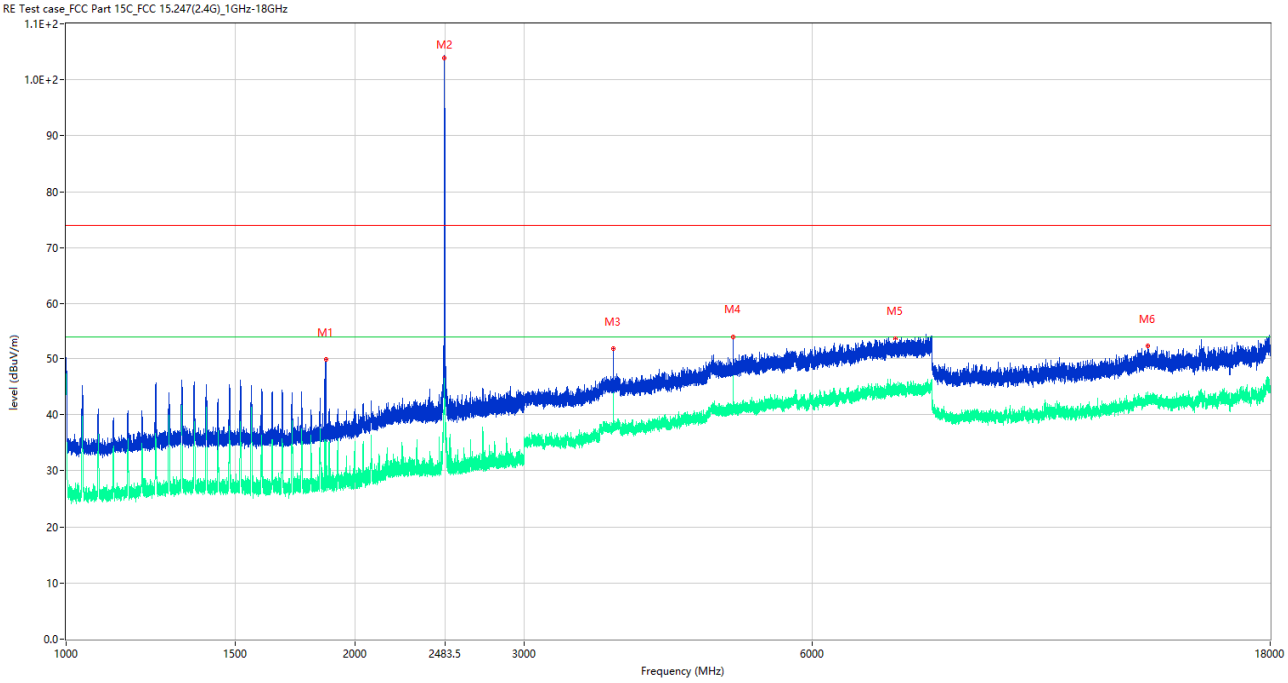
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1864.100	48.52	-16.91	74.0	-25.48	Peak	312.00	100	Horizontal	Pass
1**	1864.100	34.33	-16.91	54.0	-19.67	AV	312.00	100	Horizontal	Pass
2	2441.000	105.51	-12.90	74.0	31.51	Peak	82.00	100	Horizontal	N/A
2**	2441.000	102.61	-12.90	54.0	48.61	AV	82.00	100	Horizontal	N/A
3	3661.750	53.35	-4.44	74.0	-20.65	Peak	64.00	100	Horizontal	Pass
3**	3661.750	48.51	-4.44	54.0	-5.49	AV	64.00	100	Horizontal	Pass
4	4881.750	51.63	-2.28	74.0	-22.37	Peak	106.00	100	Horizontal	Pass
4**	4881.750	46.38	-2.28	54.0	-7.62	AV	106.00	100	Horizontal	Pass
5	7073.000	53.93	0.48	74.0	-20.07	Peak	132.00	100	Horizontal	Pass
5**	7073.000	43.41	0.48	54.0	-10.59	AV	132.00	100	Horizontal	Pass
6	14038.500	52.42	1.35	74.0	-21.58	Peak	51.00	100	Horizontal	Pass
6**	14038.500	42.26	1.35	54.0	-11.74	AV	51.00	100	Horizontal	Pass

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



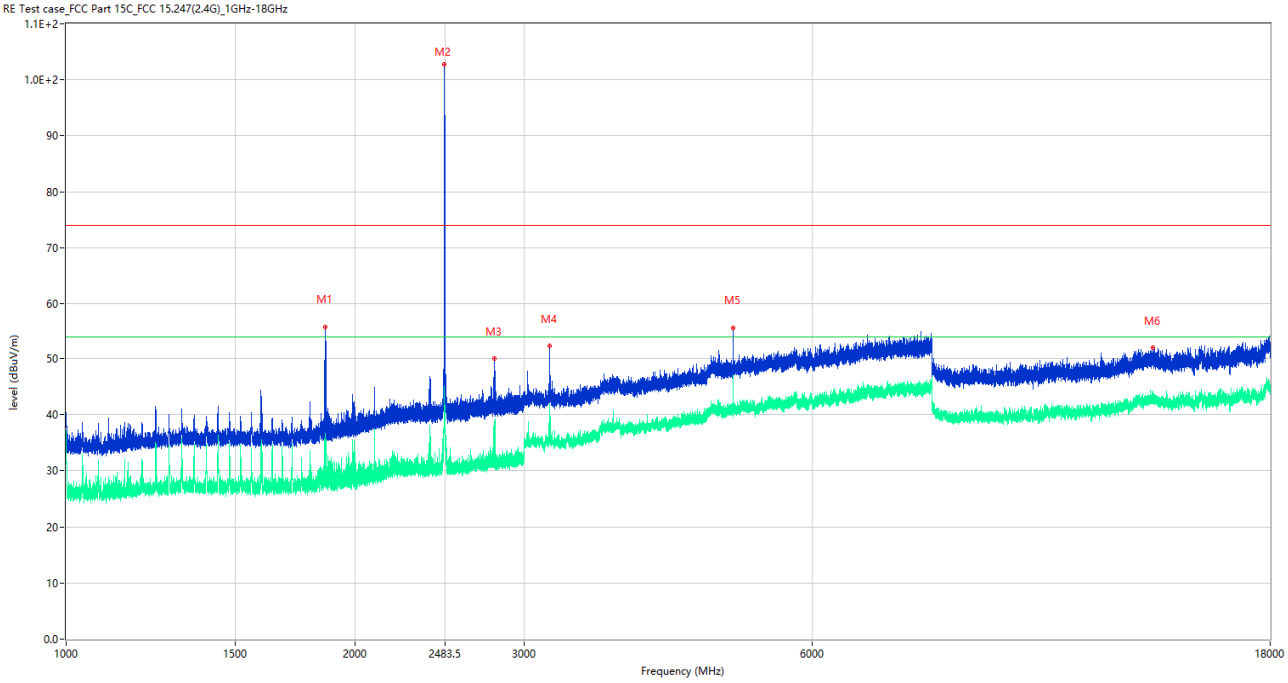
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1863.600	56.19	-16.91	74.0	-17.81	Peak	301.00	100	Vertical	Pass
1**	1863.600	44.28	-16.91	54.0	-9.72	AV	301.00	100	Vertical	Pass
2	2441.000	103.72	-12.90	74.0	29.72	Peak	112.00	100	Vertical	N/A
2**	2441.000	100.47	-12.90	54.0	46.47	AV	112.00	100	Vertical	N/A
3	2790.200	50.36	-10.65	74.0	-23.64	Peak	166.00	100	Vertical	Pass
3**	2790.200	33.44	-10.65	54.0	-20.56	AV	166.00	100	Vertical	Pass
4	3195.250	49.76	-7.96	74.0	-24.24	Peak	160.00	100	Vertical	Pass
4**	3195.250	35.43	-7.96	54.0	-18.57	AV	160.00	100	Vertical	Pass
5	4788.750	52.30	-1.96	74.0	-21.70	Peak	308.00	100	Vertical	Pass
5**	4788.750	42.20	-1.96	54.0	-11.80	AV	308.00	100	Vertical	Pass
6	12724.500	51.65	-1.54	74.0	-22.35	Peak	92.00	100	Vertical	Pass
6**	12724.500	42.96	-1.54	54.0	-11.04	AV	92.00	100	Vertical	Pass

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



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1865.000	49.93	-16.93	74.0	-24.07	Peak	287.00	100	Horizontal	Pass
1**	1865.000	27.06	-16.93	54.0	-26.94	AV	287.00	100	Horizontal	Pass
2	2480.000	103.94	-12.61	74.0	29.94	Peak	245.00	100	Horizontal	N/A
2**	2480.000	100.93	-12.61	54.0	46.93	AV	245.00	100	Horizontal	N/A
3	3720.000	51.77	-3.84	74.0	-22.23	Peak	69.00	100	Horizontal	Pass
3**	3720.000	46.90	-3.84	54.0	-7.10	AV	69.00	100	Horizontal	Pass
4	4960.000	54.07	-2.10	74.0	-19.93	Peak	105.00	100	Horizontal	Pass
4**	4960.000	49.85	-2.10	54.0	-4.15	AV	105.00	100	Horizontal	Pass
5	7325.000	53.65	1.23	74.0	-20.35	Peak	186.00	100	Horizontal	Pass
5**	7325.000	44.29	1.23	54.0	-9.71	AV	186.00	100	Horizontal	Pass
6	13415.000	52.25	0.66	74.0	-21.75	Peak	100.00	100	Horizontal	Pass
6**	13415.000	42.54	0.66	54.0	-11.46	AV	100.00	100	Horizontal	Pass

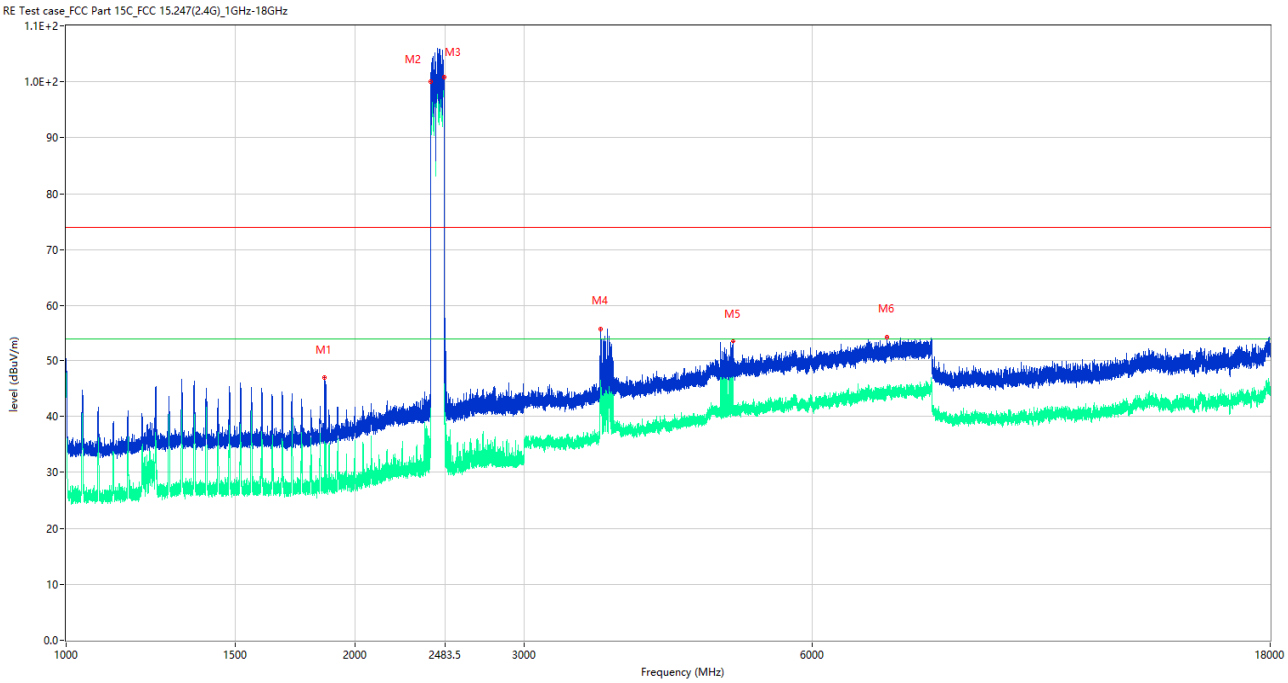
8-DPSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1864.300	55.82	-16.92	74.0	-18.18	Peak	187.00	100	Vertical	Pass
1**	1864.300	36.06	-16.92	54.0	-17.94	AV	187.00	100	Vertical	Pass
2	2479.900	102.75	-12.61	74.0	28.75	Peak	77.00	100	Vertical	N/A
2**	2479.900	99.60	-12.61	54.0	45.60	AV	77.00	100	Vertical	N/A
3	2795.500	50.07	-10.89	74.0	-23.93	Peak	259.00	100	Vertical	Pass
3**	2795.500	31.35	-10.89	54.0	-22.65	AV	259.00	100	Vertical	Pass
4	3194.000	52.26	-7.94	74.0	-21.74	Peak	157.00	100	Vertical	Pass
4**	3194.000	42.14	-7.94	54.0	-11.86	AV	157.00	100	Vertical	Pass
5	4960.250	55.58	-2.10	74.0	-18.42	Peak	247.00	100	Vertical	Pass
5**	4960.250	52.18	-2.10	54.0	-7.82	AV	247.00	100	Vertical	Pass
6	13595.000	51.99	0.48	74.0	-22.01	Peak	150.00	100	Vertical	Pass
6**	13595.000	42.54	0.48	54.0	-11.46	AV	150.00	100	Vertical	Pass

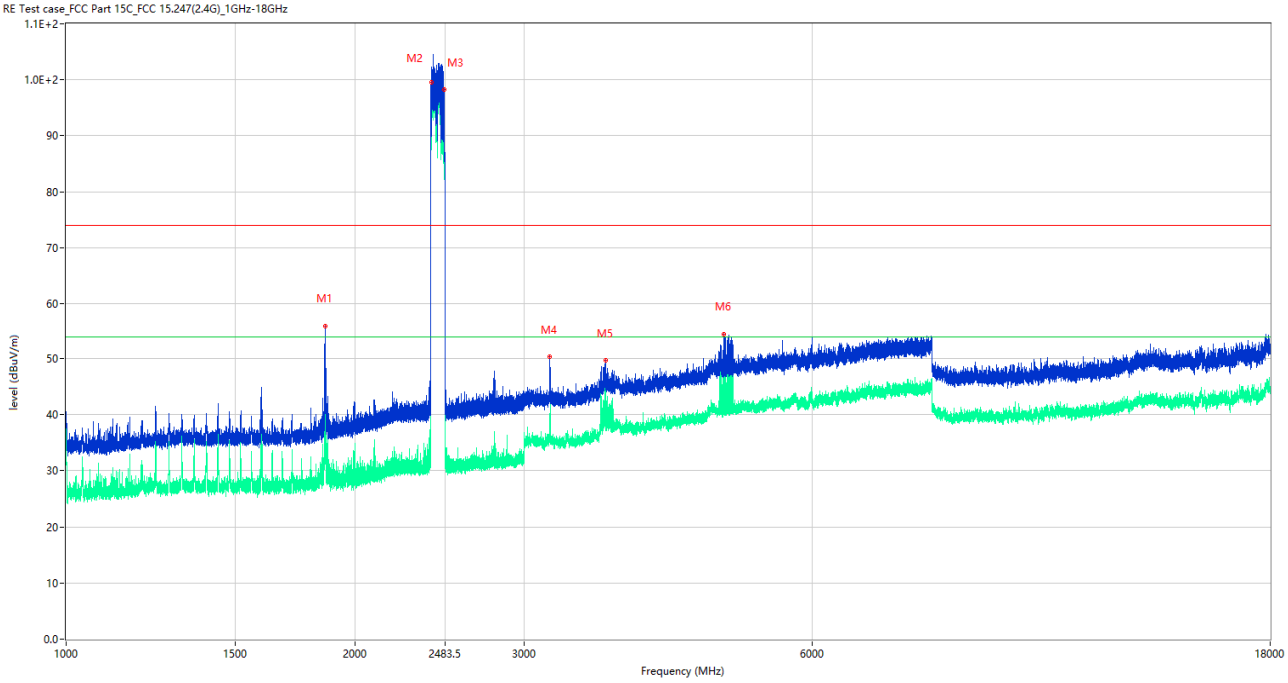
Hopping Mode:

GFSK MODE 1 GHz to 18 GHz, ANT H



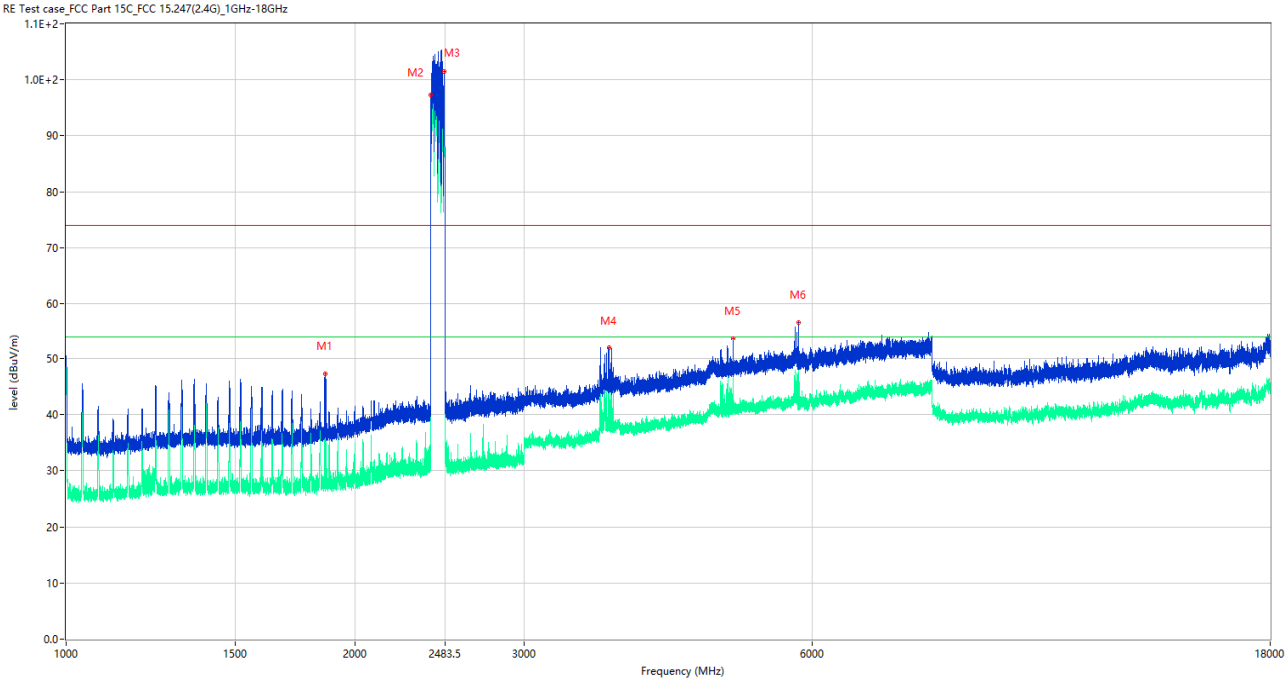
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1860.200	46.98	-16.87	74.0	-27.02	Peak	128.00	100	Horizontal	Pass
1**	1860.200	36.60	-16.87	54.0	-17.40	AV	128.00	100	Horizontal	Pass
2	2401.300	100.09	-12.89	74.0	26.09	Peak	89.00	100	Horizontal	N/A
2**	2401.300	97.14	-12.89	54.0	43.14	AV	89.00	100	Horizontal	N/A
3	2476.800	100.85	-12.72	74.0	26.85	Peak	101.00	100	Horizontal	N/A
3**	2476.800	99.29	-12.72	54.0	45.29	AV	101.00	100	Horizontal	N/A
4	3609.250	55.87	-4.79	74.0	-18.13	Peak	65.00	100	Horizontal	Pass
4**	3609.250	53.72	-4.79	54.0	-8.28	AV	65.00	100	Horizontal	Pass
5	4958.750	53.57	-2.13	74.0	-20.43	Peak	107.00	100	Horizontal	Pass
5**	4958.750	49.10	-2.13	54.0	-4.90	AV	107.00	100	Horizontal	Pass
6	7174.000	54.43	0.52	74.0	-19.57	Peak	138.00	100	Horizontal	Pass
6**	7174.000	45.12	0.52	54.0	-8.88	AV	138.00	100	Horizontal	Pass

GFSK MODE 1 GHz to 18 GHz, ANT V



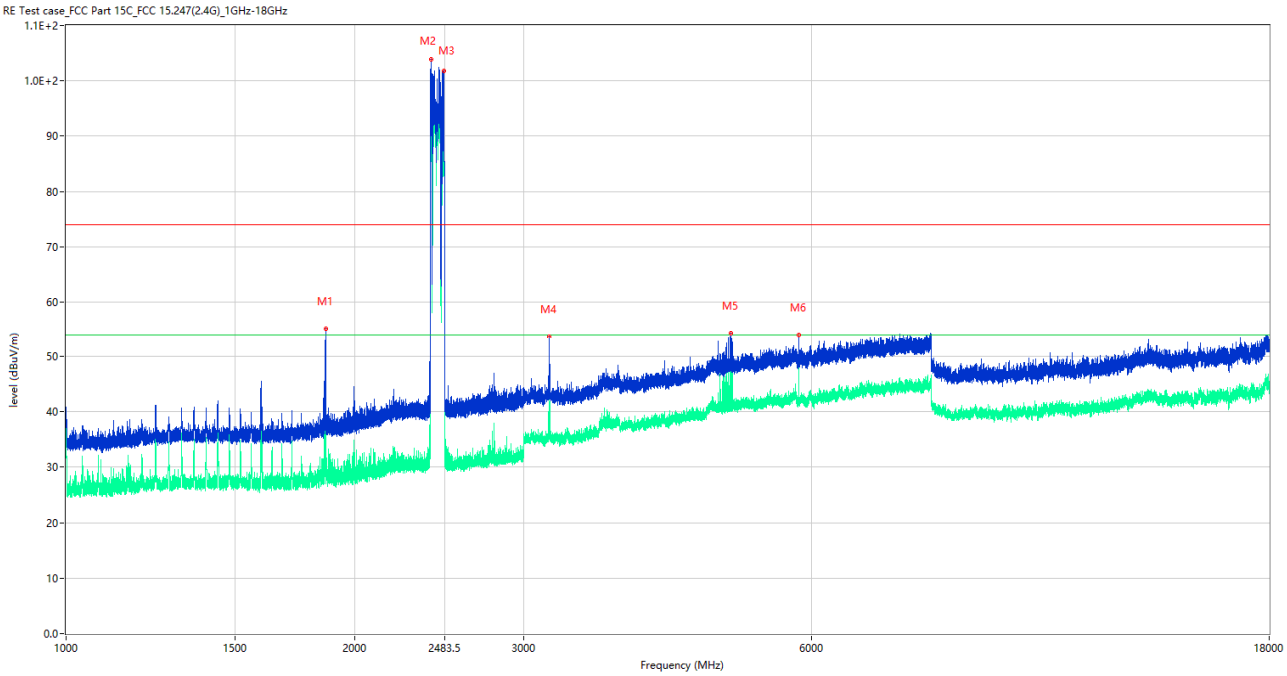
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1862.700	55.95	-16.90	74.0	-18.05	Peak	193.00	100	Vertical	Pass
1**	1862.700	40.72	-16.90	54.0	-13.28	AV	193.00	100	Vertical	Pass
2	2401.500	99.49	-12.88	74.0	25.49	Peak	67.00	100	Vertical	N/A
2**	2401.500	95.75	-12.88	54.0	41.75	AV	67.00	100	Vertical	N/A
3	2479.200	98.21	-12.64	74.0	24.21	Peak	119.00	100	Vertical	N/A
3**	2479.200	97.81	-12.64	54.0	43.81	AV	119.00	100	Vertical	N/A
4	3195.000	50.39	-7.95	74.0	-23.61	Peak	166.00	100	Vertical	Pass
4**	3195.000	35.70	-7.95	54.0	-18.30	AV	166.00	100	Vertical	Pass
5	3648.250	49.67	-4.65	74.0	-24.33	Peak	174.00	100	Vertical	Pass
5**	3648.250	46.03	-4.65	54.0	-7.97	AV	174.00	100	Vertical	Pass
6	4852.500	54.51	-2.06	74.0	-19.49	Peak	122.00	100	Vertical	Pass
6**	4852.500	50.84	-2.06	54.0	-3.16	AV	122.00	100	Vertical	Pass

π/4-DQPSK MODE 1 GHz to 18 GHz, ANT H



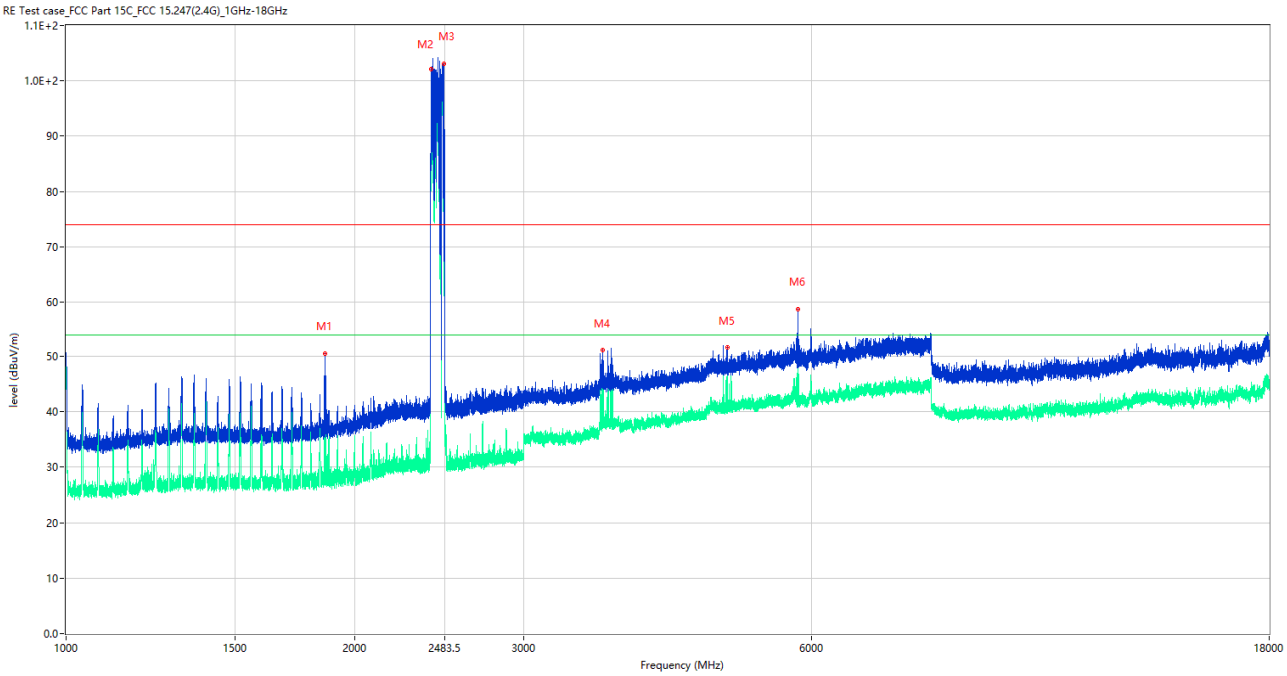
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1862.300	47.27	-16.89	74.0	-26.73	Peak	319.00	100	Horizontal	Pass
1**	1862.300	27.91	-16.89	54.0	-26.09	AV	319.00	100	Horizontal	Pass
2	2401.400	97.34	-12.88	74.0	23.34	Peak	49.00	100	Horizontal	N/A
2**	2401.400	91.72	-12.88	54.0	37.72	AV	49.00	100	Horizontal	N/A
3	2478.200	101.53	-12.67	74.0	27.53	Peak	265.00	100	Horizontal	N/A
3**	2478.200	98.50	-12.67	54.0	44.50	AV	265.00	100	Horizontal	N/A
4	3678.500	51.96	-4.42	74.0	-22.04	Peak	68.00	100	Horizontal	Pass
4**	3678.500	47.94	-4.42	54.0	-6.06	AV	68.00	100	Horizontal	Pass
5	4960.000	53.75	-2.10	74.0	-20.25	Peak	102.00	100	Horizontal	Pass
5**	4960.000	48.50	-2.10	54.0	-5.50	AV	102.00	100	Horizontal	Pass
6	5807.000	56.64	-1.20	74.0	-17.36	Peak	314.00	100	Horizontal	Pass
6**	5807.000	50.77	-1.20	54.0	-3.23	AV	314.00	100	Horizontal	Pass

π/4-DQPSK MODE 1 GHz to 18 GHz, ANT V



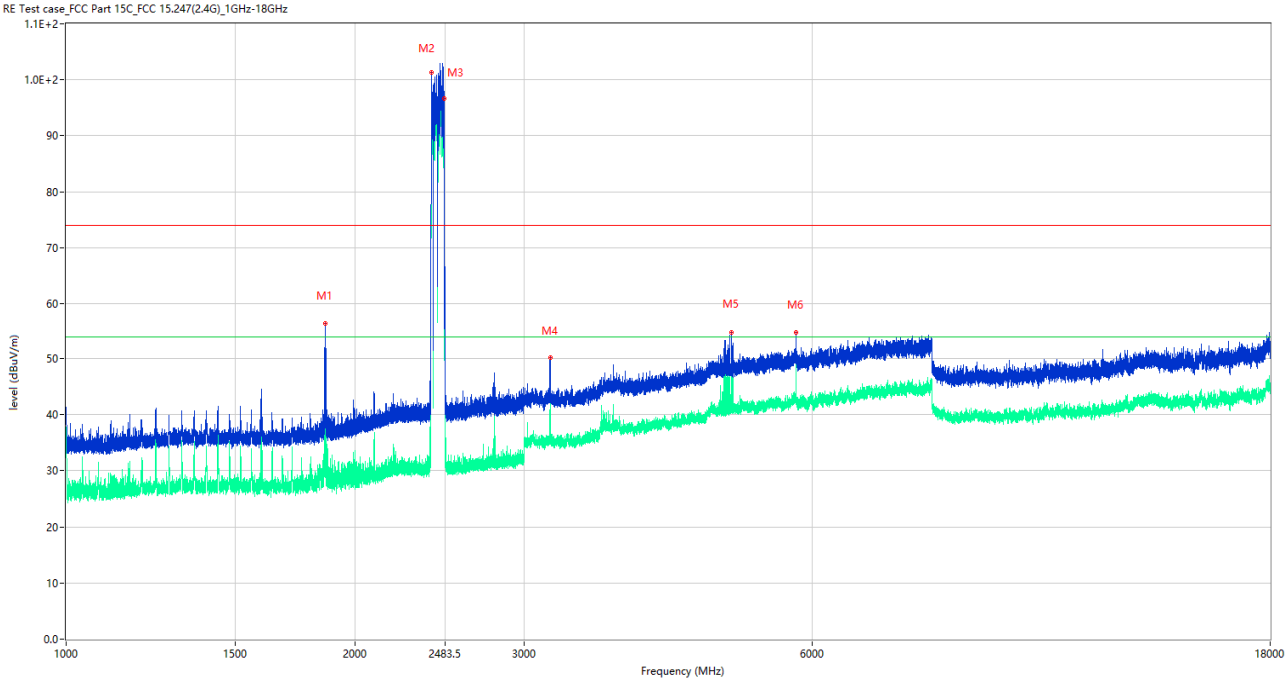
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1865.100	55.21	-16.93	74.0	-18.79	Peak	296.00	100	Vertical	Pass
1**	1865.100	27.48	-16.93	54.0	-26.52	AV	296.00	100	Vertical	Pass
2	2401.900	103.95	-12.88	74.0	29.95	Peak	112.00	100	Vertical	N/A
2**	2401.900	100.36	-12.88	54.0	46.36	AV	112.00	100	Vertical	N/A
3	2476.100	101.85	-12.75	74.0	27.85	Peak	75.00	100	Vertical	N/A
3**	2476.100	98.72	-12.75	54.0	44.72	AV	75.00	100	Vertical	N/A
4	3189.250	53.74	-7.88	74.0	-20.26	Peak	157.00	100	Vertical	Pass
4**	3189.250	35.23	-7.88	54.0	-18.77	AV	157.00	100	Vertical	Pass
5	4939.750	54.28	-2.36	74.0	-19.72	Peak	127.00	100	Vertical	Pass
5**	4939.750	45.72	-2.36	54.0	-8.28	AV	127.00	100	Vertical	Pass
6	5810.750	54.07	-1.20	74.0	-19.93	Peak	199.00	100	Vertical	Pass
6**	5810.750	47.65	-1.20	54.0	-6.35	AV	199.00	100	Vertical	Pass

8-DPSK MODE 1 GHz to 18 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1861.700	50.57	-16.89	74.0	-23.43	Peak	287.00	100	Horizontal	Pass
1**	1861.700	26.68	-16.89	54.0	-27.32	AV	287.00	100	Horizontal	Pass
2	2406.200	102.05	-12.81	74.0	28.05	Peak	242.00	100	Horizontal	N/A
2**	2406.200	98.87	-12.81	54.0	44.87	AV	242.00	100	Horizontal	N/A
3	2476.300	103.02	-12.74	74.0	29.02	Peak	76.00	100	Horizontal	N/A
3**	2476.300	99.77	-12.74	54.0	45.77	AV	76.00	100	Horizontal	N/A
4	3628.250	51.09	-4.81	74.0	-22.91	Peak	109.00	100	Horizontal	Pass
4**	3628.250	45.41	-4.81	54.0	-8.59	AV	109.00	100	Horizontal	Pass
5	4894.000	51.56	-2.28	74.0	-22.44	Peak	107.00	100	Horizontal	Pass
5**	4894.000	47.14	-2.28	54.0	-6.86	AV	107.00	100	Horizontal	Pass
6	5807.500	58.76	-1.20	74.0	-15.24	Peak	15.00	100	Horizontal	Pass
6**	5807.500	52.52	-1.20	54.0	-6.48	AV	15.00	100	Horizontal	Pass

8-DPSK MODE 1 GHz to 18 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1861.600	56.38	-16.89	74.0	-17.62	Peak	188.00	100	Vertical	Pass
1**	1861.600	39.25	-16.89	54.0	-14.75	AV	188.00	100	Vertical	Pass
2	2405.000	101.30	-12.83	74.0	27.30	Peak	96.00	100	Vertical	N/A
2**	2405.000	98.23	-12.83	54.0	44.23	AV	96.00	100	Vertical	N/A
3	2479.200	96.59	-12.64	74.0	22.59	Peak	93.00	100	Vertical	N/A
3**	2479.200	91.71	-12.64	54.0	37.71	AV	93.00	100	Vertical	N/A
4	3196.750	50.14	-7.98	74.0	-23.86	Peak	159.00	100	Vertical	Pass
4**	3196.750	34.75	-7.98	54.0	-19.25	AV	159.00	100	Vertical	Pass
5	4937.750	54.92	-2.32	74.0	-19.08	Peak	257.00	100	Vertical	Pass
5**	4937.750	48.24	-2.32	54.0	-5.76	AV	257.00	100	Vertical	Pass
6	5761.750	54.80	-0.48	74.0	-19.20	Peak	127.00	100	Vertical	Pass
6**	5761.750	48.97	-0.48	54.0	-5.03	AV	127.00	100	Vertical	Pass

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

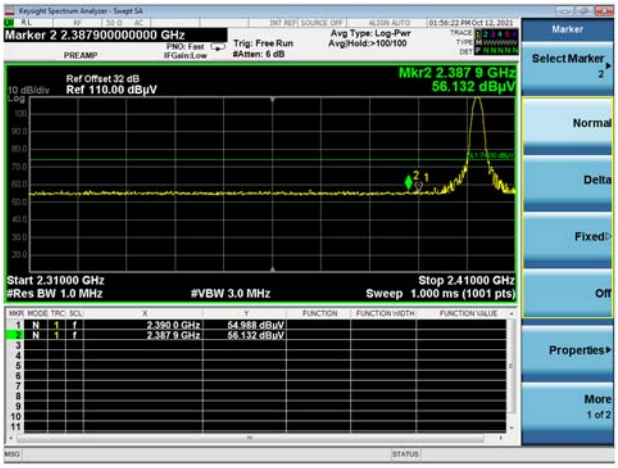
Note [1]: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.
Note [2]: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.
Note [3]: According the ANSI C63.10-2013, 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

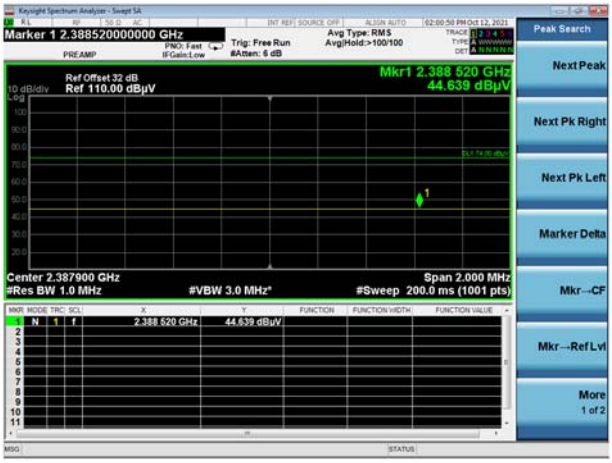
Test Mode	Test Channel	Frequency (MHz)	Level (dBuV/m)	Factor (dB)	Limit Line (dBuV/m)	Margin (dB)	Remark	Verdict
GFSK	Low	2390.00	56.132	32	74	17.868	PEAK	Pass
		2390.00	44.639	32	54	9.361	AVERAGE	Pass
GFSK	HIGH	2483.50	66.782	32	74	7.218	PEAK	Pass
		2483.50	44.600	32	54	9.400	AVERAGE	Pass
π/4-DQPSK	Low	2390.00	56.499	32	74	17.501	PEAK	Pass
		2390.00	44.544	32	54	9.456	AVERAGE	Pass
π/4-DQPSK	HIGH	2483.50	64.535	32	74	9.465	PEAK	Pass
		2483.50	45.819	32	54	8.181	AVERAGE	Pass
8-DPSK	Low	2390.00	56.016	32	74	17.984	PEAK	Pass
		2390.00	44.592	32	54	9.408	AVERAGE	Pass
8-DPSK	HIGH	2483.50	63.537	32	74	10.463	PEAK	Pass
		2483.50	46.288	32	54	7.712	AVERAGE	Pass

Test Plots

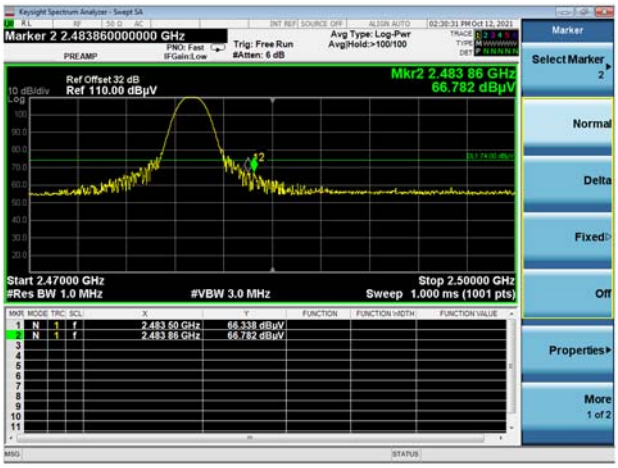
GFSK LOW CHANNEL, PEAK



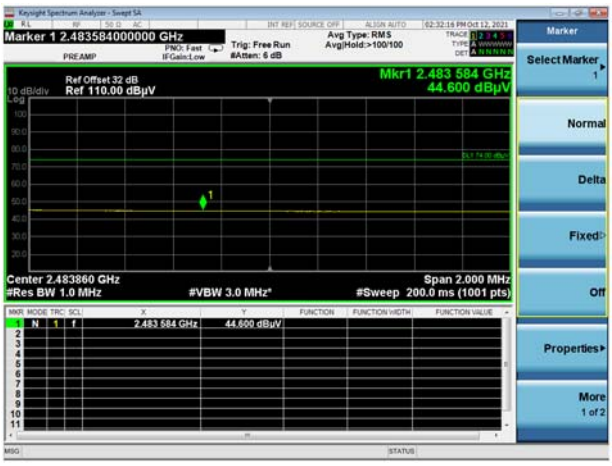
GFSK LOW CHANNEL, AVERAGE



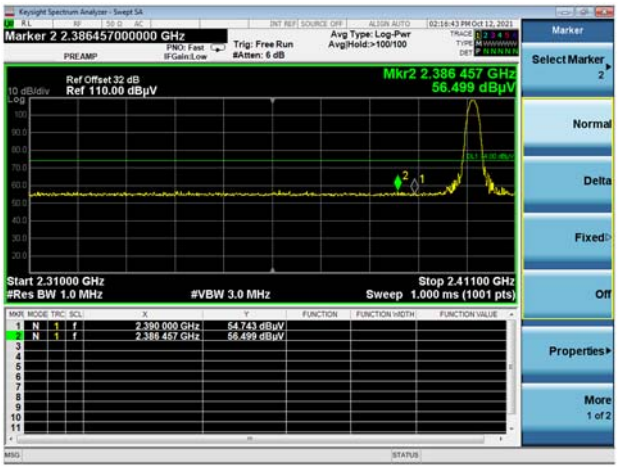
GFSK HIGH CHANNEL, PEAK



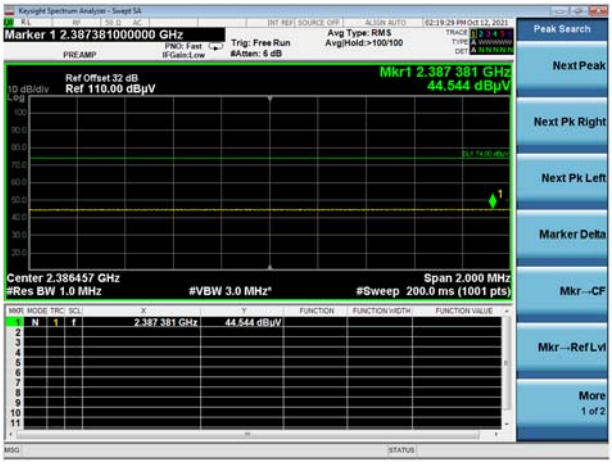
GFSK HIGH CHANNEL, AVERAGE



π/4-DQPSK LOW CHANNEL, PEAK

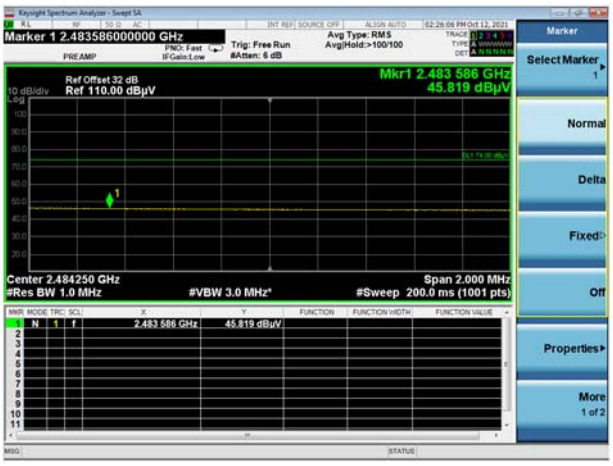


π/4-DQPSK LOW CHANNEL, AVERAGE

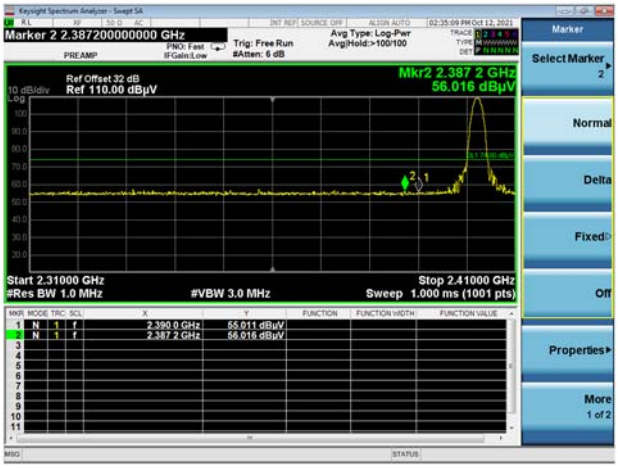


π/4-DQPSK HIGH CHANNEL, PEAK

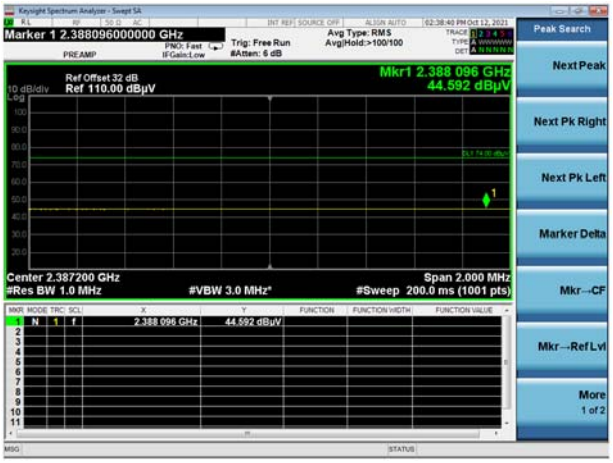
π/4-DQPSK HIGH CHANNEL, AVERAGE



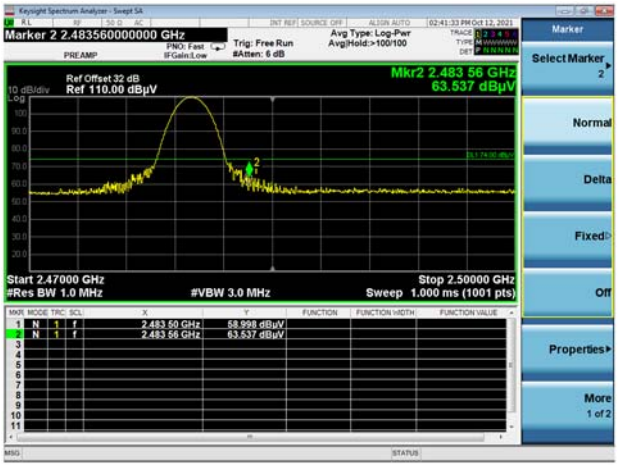
8-DPSK LOW CHANNEL, PEAK



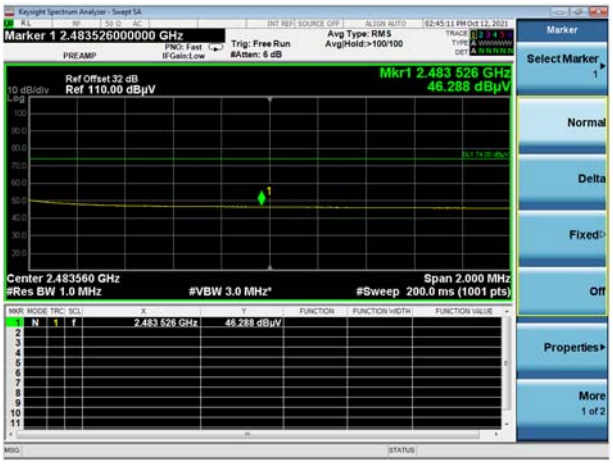
8-DPSK LOW CHANNEL, AVERAGE



8-DPSK HIGH CHANNEL, PEAK



8-DPSK HIGH CHANNEL, AVERAGE



ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-EC21A0060-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-EC21A0060-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-EC21A0060-AI.PDF”.

--END OF REPORT--