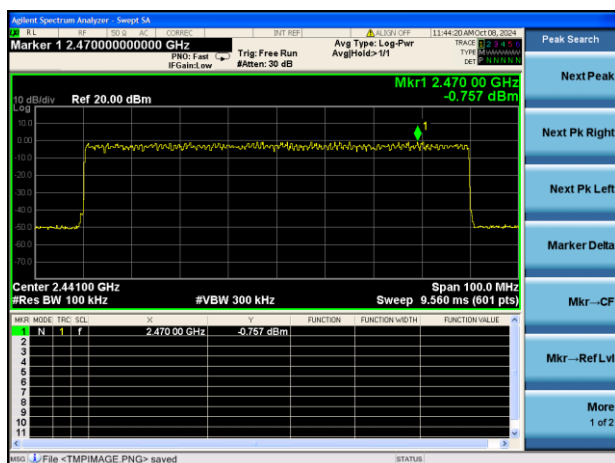
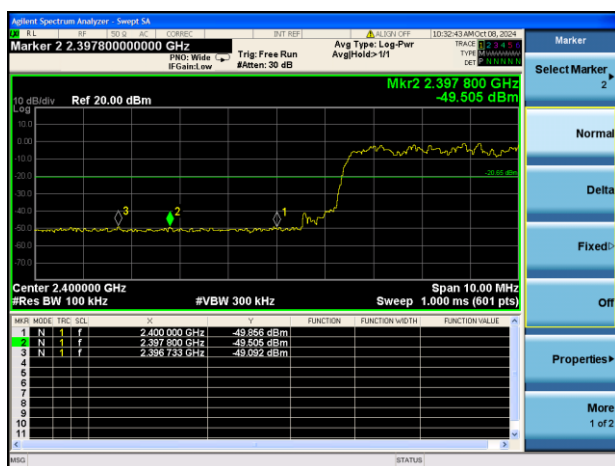


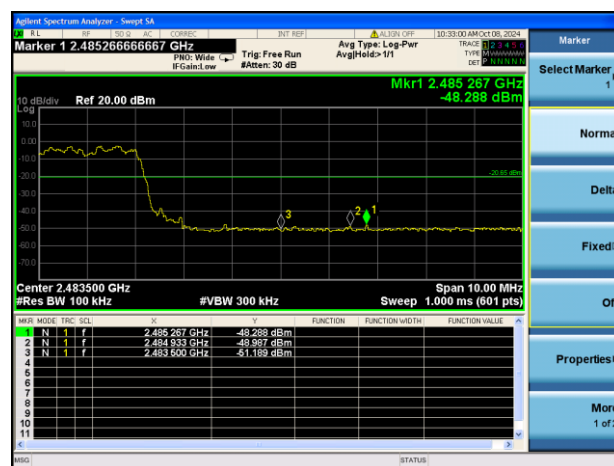
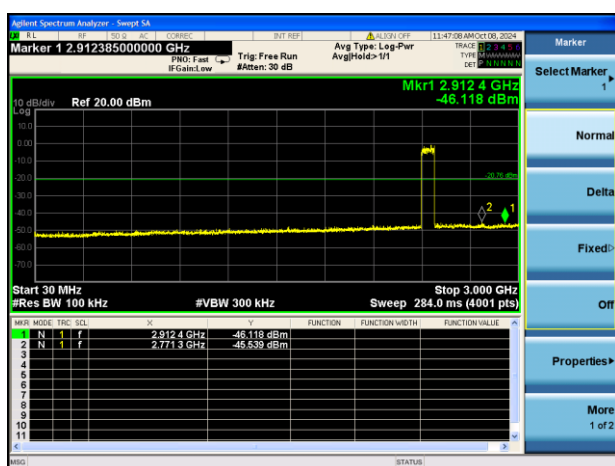
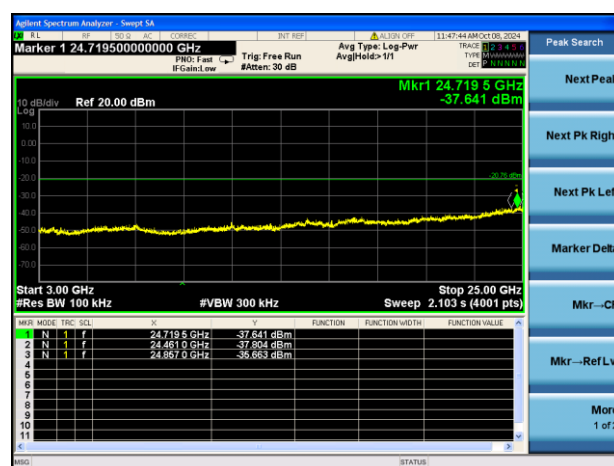
8-DPSK HOPPING, CARRIER LEVEL



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

5.9 Conducted Emission

5.9.1 Limit

FCC §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

5.9.2 Test Setup

See section 4.5.2 for test setup description for the AC power supply port. The photo of test setup please refer to ANNEX A.

5.9.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

5.9.4 Test Result

Note ¹: The EUT was tested in charging mode.

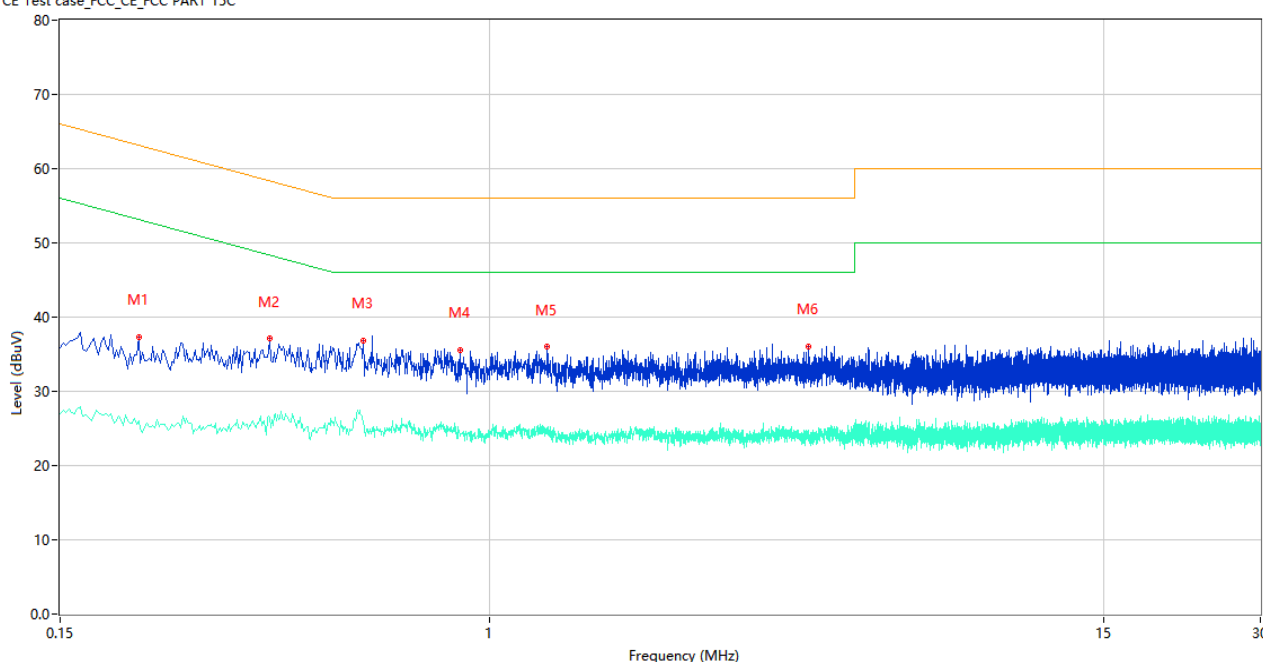
Note ²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration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

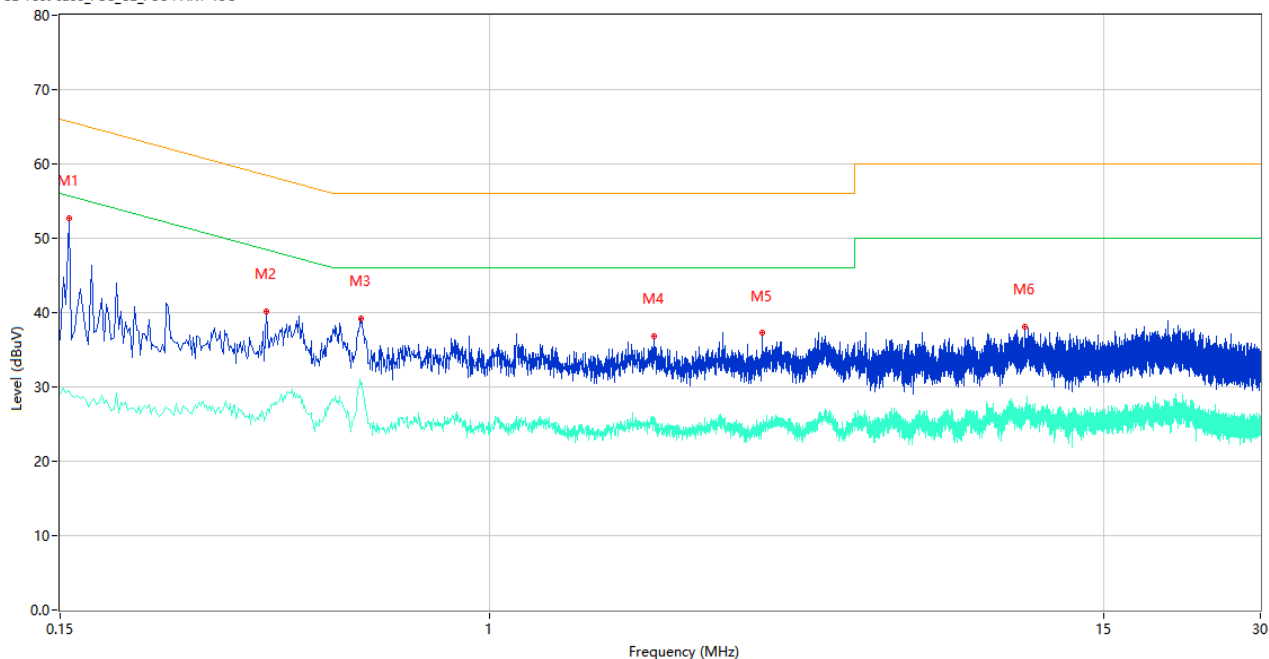
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.212	37.31	9.77	63.13	25.82	Peak	L	Pass
1**	0.212	26.06	9.77	53.13	27.07	AV	L	Pass
2	0.378	37.12	10.64	58.32	21.20	Peak	L	Pass
2**	0.378	26.43	10.64	48.32	21.89	AV	L	Pass
3	0.572	36.81	10.09	56.00	19.19	Peak	L	Pass
3**	0.572	26.04	10.09	46.00	19.96	AV	L	Pass
4	0.878	35.56	10.36	56.00	20.44	Peak	L	Pass
4**	0.878	24.15	10.36	46.00	21.85	AV	L	Pass
5	1.286	36.10	10.50	56.00	19.90	Peak	L	Pass
5**	1.286	24.59	10.50	46.00	21.41	AV	L	Pass
6	4.082	36.10	10.42	56.00	19.90	Peak	L	Pass
6**	4.082	24.32	10.42	46.00	21.68	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.156	52.77	9.78	65.67	12.90	Peak	N	Pass
1**	0.156	29.49	9.78	55.67	26.18	AV	N	Pass
2	0.372	40.20	10.67	58.46	18.26	Peak	N	Pass
2**	0.372	26.41	10.67	48.46	22.05	AV	N	Pass
3	0.566	39.27	10.07	56.00	16.73	Peak	N	Pass
3**	0.566	30.26	10.07	46.00	15.74	AV	N	Pass
4	2.062	36.87	10.33	56.00	19.13	Peak	N	Pass
4**	2.062	25.33	10.33	46.00	20.67	AV	N	Pass
5	3.322	37.30	10.39	56.00	18.70	Peak	N	Pass
5**	3.322	24.87	10.39	46.00	21.13	AV	N	Pass
6	10.584	38.10	10.70	60.00	21.90	Peak	N	Pass
6**	10.584	26.91	10.70	50.00	23.09	AV	N	Pass

5.10 Radiated Spurious Emission

5.10.1 Limit

FCC §15.209&15.247(d)

Radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note:

1. Field Strength (dBμV/m) = 20*log[Field Strength (μV/m)].
2. In the emission tables above, the tighter limit applies at the band edges.
3. For Above 1000 MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
4. For above 1000 MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).

5.10.2 Test Setup

See section 4.5.3 to 4.5.5 for test setup description for the antenna port. The photo of test setup please refer to ANNEX A.

5.10.3 Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported, Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

5.10.4 Test Result

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 was tested in Link mode and the charging.

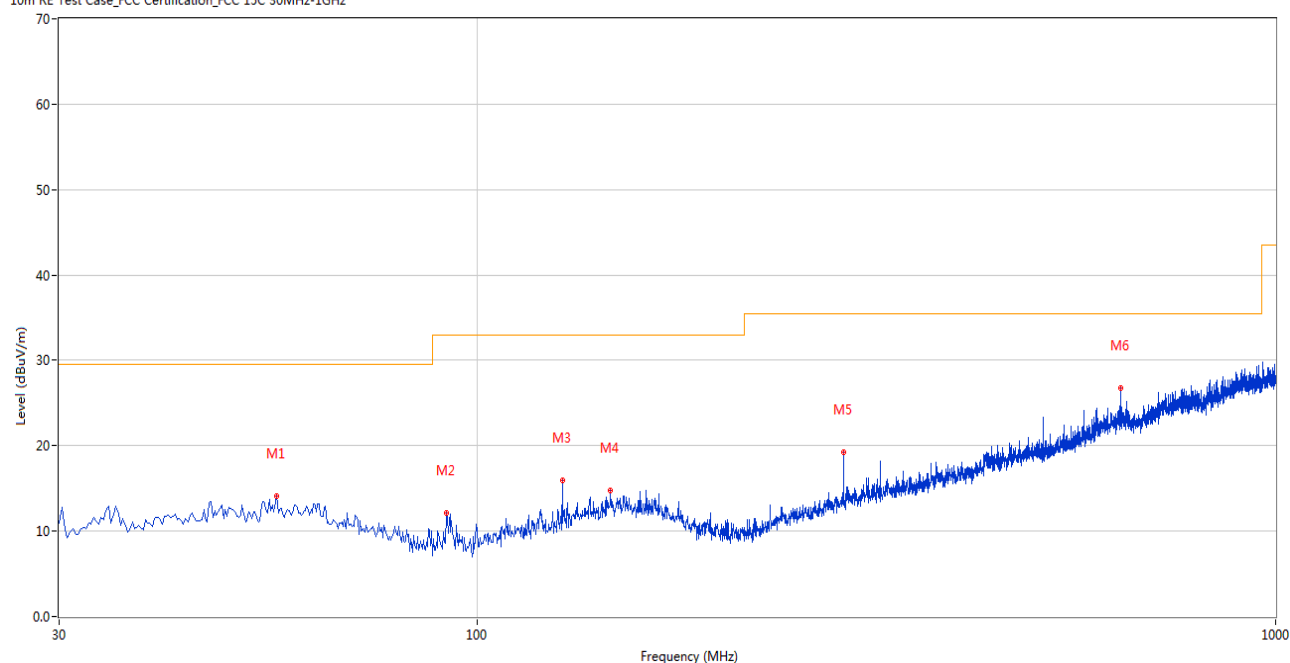
Note ⁴: Results (dBuV/m) = Original reading level of Spectrum Analyzer (dBuV/m) + Factor (dB)

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.

Test Data and Plots

30 MHz to 1 GHz, ANT H

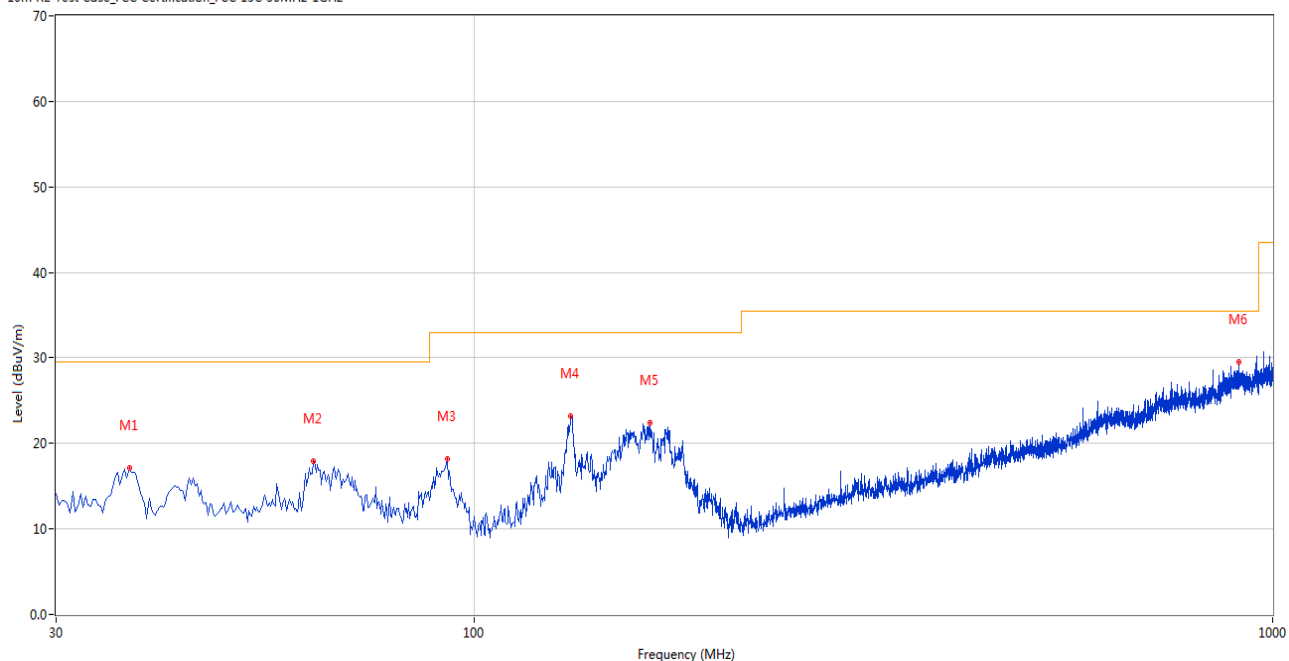
10m RE Test Case_FCC Certification_FCC 15C 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	56.183	14.08	-26.23	29.5	15.42	Peak	291.00	100	Horizontal	Pass
2	91.580	12.14	-31.46	33.0	20.86	Peak	0.00	200	Horizontal	Pass
3	127.946	15.94	-27.27	33.0	17.06	Peak	2.00	200	Horizontal	Pass
4	147.098	14.80	-25.56	33.0	18.20	Peak	0.00	200	Horizontal	Pass
5	287.956	19.28	-25.18	35.5	16.22	Peak	0.00	200	Horizontal	Pass
6	639.978	26.81	-15.87	35.5	8.69	Peak	241.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

10m RE Test Case_FCC Certification_FCC 15C 30MHz-1GHz



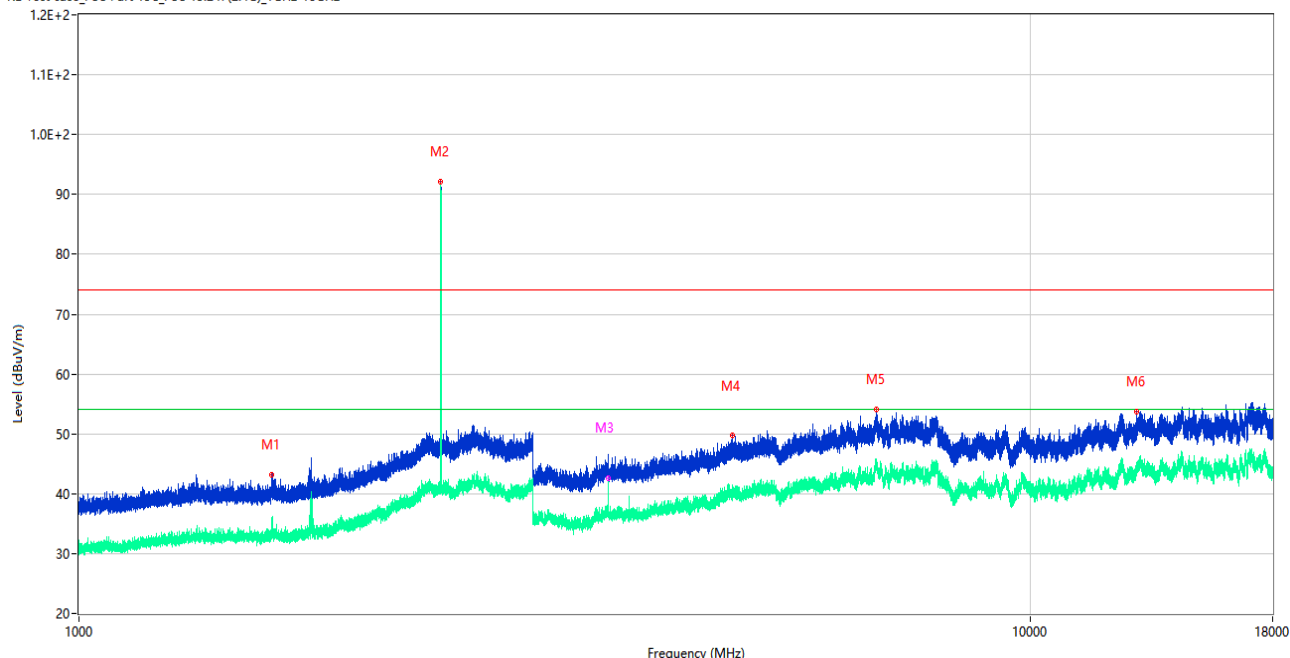
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	37.031	17.09	-27.14	29.5	12.41	Peak	176.00	100	Vertical	Pass
2	62.972	17.96	-26.98	29.5	11.54	Peak	316.00	100	Vertical	Pass
3	92.792	18.19	-31.47	33.0	14.81	Peak	360.00	200	Vertical	Pass
4	132.309	23.18	-26.91	33.0	9.82	Peak	0.00	200	Vertical	Pass
5	166.008	22.47	-25.60	33.0	10.53	Peak	0.00	100	Vertical	Pass
6	907.631	29.59	-10.86	35.5	5.91	Peak	122.00	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 LOW CHANNEL 1 GHz to 18 GHz, ANT H

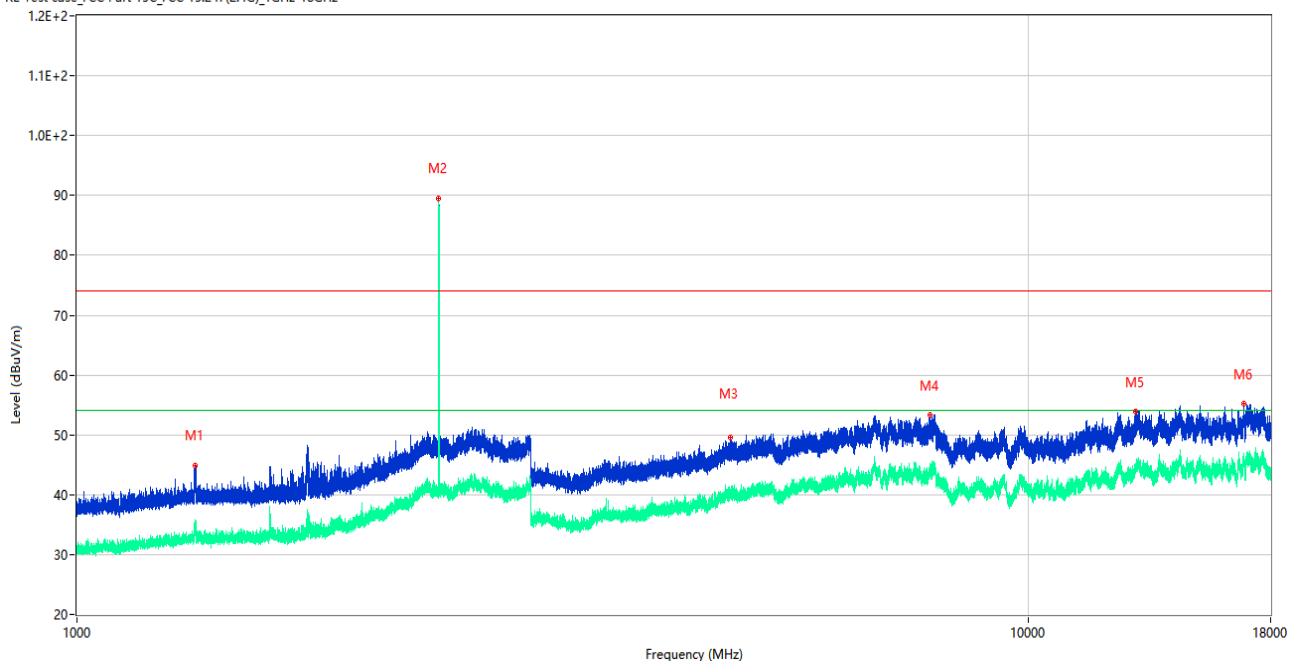
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1594.500	43.25	74.0	30.75	Peak	278.00	400	Horizontal	Pass
1**	1594.500	33.32	54.0	20.68	AV	278.00	400	Horizontal	Pass
2	2402.000	92.20	74.0	-18.20	Peak	223.00	200	Horizontal	N/A
2**	2402.000	91.80	54.0	-37.80	AV	223.00	200	Horizontal	N/A
3	3603.250	45.61	74.0	28.39	Peak	76.00	100	Horizontal	Pass
3**	3603.250	42.67	54.0	11.33	AV	76.00	100	Horizontal	Pass
4	4868.750	49.69	74.0	24.31	Peak	360.00	200	Horizontal	Pass
4**	4868.750	40.44	54.0	13.56	AV	360.00	200	Horizontal	Pass
5	6900.000	54.11	74.0	19.89	Peak	14.00	300	Horizontal	Pass
5**	6900.000	44.15	54.0	9.85	AV	14.00	300	Horizontal	Pass
6	12955.013	53.73	74.0	20.27	Peak	346.00	200	Horizontal	Pass
6**	12955.013	44.66	54.0	9.34	AV	346.00	200	Horizontal	Pass

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT V

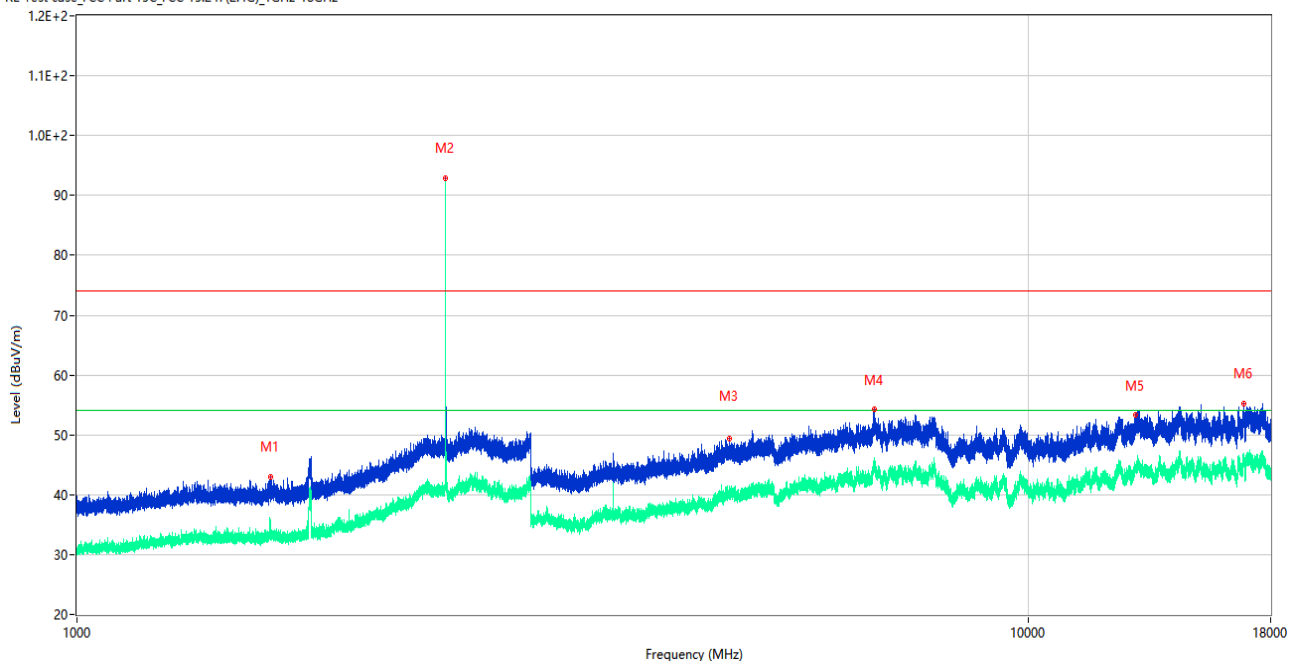
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1329.800	44.94	74.0	29.06	Peak	251.00	300	Vertical	Pass
1**	1329.800	35.56	54.0	18.44	AV	251.00	300	Vertical	Pass
2	2402.200	89.52	74.0	-15.52	Peak	173.00	200	Vertical	N/A
2**	2402.200	89.17	54.0	-35.17	AV	173.00	200	Vertical	N/A
3	4861.250	49.63	74.0	24.37	Peak	234.00	150	Vertical	Pass
3**	4861.250	40.72	54.0	13.28	AV	234.00	150	Vertical	Pass
4	7897.500	53.31	74.0	20.69	Peak	254.00	400	Vertical	Pass
4**	7897.500	44.37	54.0	9.63	AV	254.00	400	Vertical	Pass
5	12966.563	53.83	74.0	20.17	Peak	314.00	100	Vertical	Pass
5**	12966.563	44.06	54.0	9.94	AV	314.00	100	Vertical	Pass
6	16856.550	55.18	74.0	18.82	Peak	254.00	300	Vertical	Pass
6**	16856.550	46.50	54.0	7.50	AV	254.00	300	Vertical	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

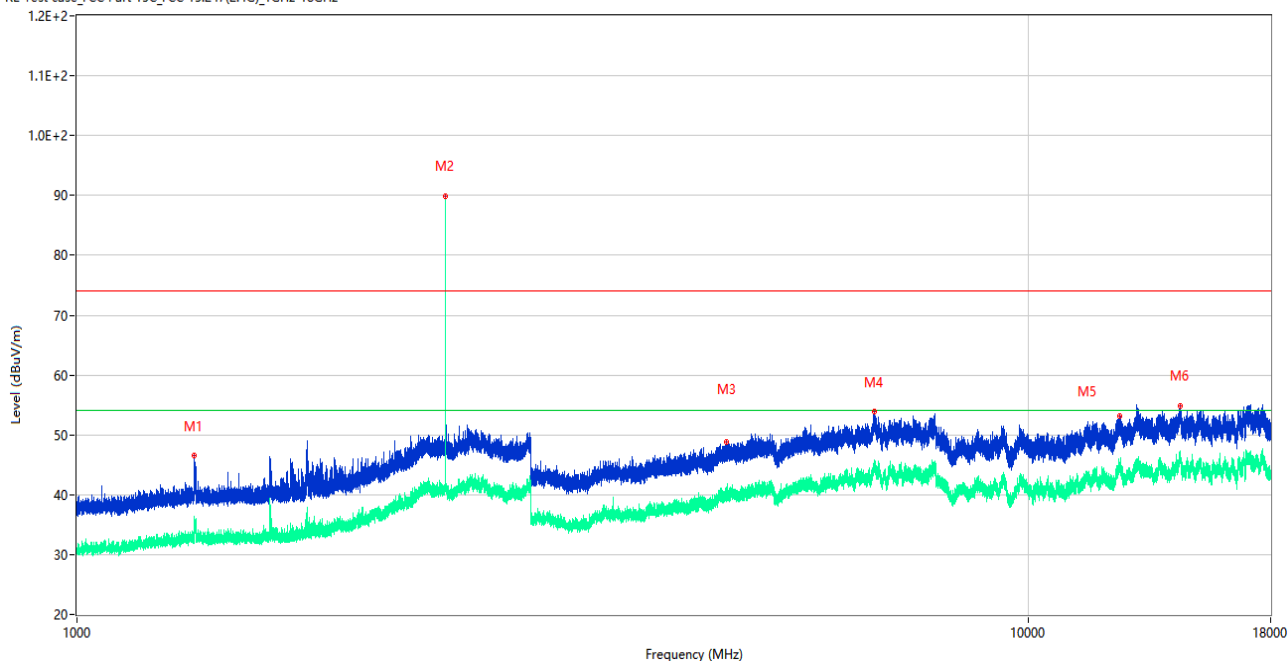
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1598.500	43.00	74.0	31.00	Peak	286.00	300	Horizontal	Pass
1**	1598.500	33.90	54.0	20.10	AV	286.00	300	Horizontal	Pass
2	2440.800	92.88	74.0	-18.88	Peak	103.00	150	Horizontal	N/A
2**	2440.800	91.73	54.0	-37.73	AV	103.00	150	Horizontal	N/A
3	4855.750	49.42	74.0	24.58	Peak	210.00	200	Horizontal	Pass
3**	4855.750	39.42	54.0	14.58	AV	210.00	200	Horizontal	Pass
4	6894.000	54.25	74.0	19.75	Peak	290.00	300	Horizontal	Pass
4**	6894.000	45.14	54.0	8.86	AV	290.00	300	Horizontal	Pass
5	12964.987	53.27	74.0	20.73	Peak	314.00	300	Horizontal	Pass
5**	12964.987	44.49	54.0	9.51	AV	314.00	300	Horizontal	Pass
6	16862.850	55.21	74.0	18.79	Peak	239.00	300	Horizontal	Pass
6**	16862.850	45.86	54.0	8.14	AV	239.00	300	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

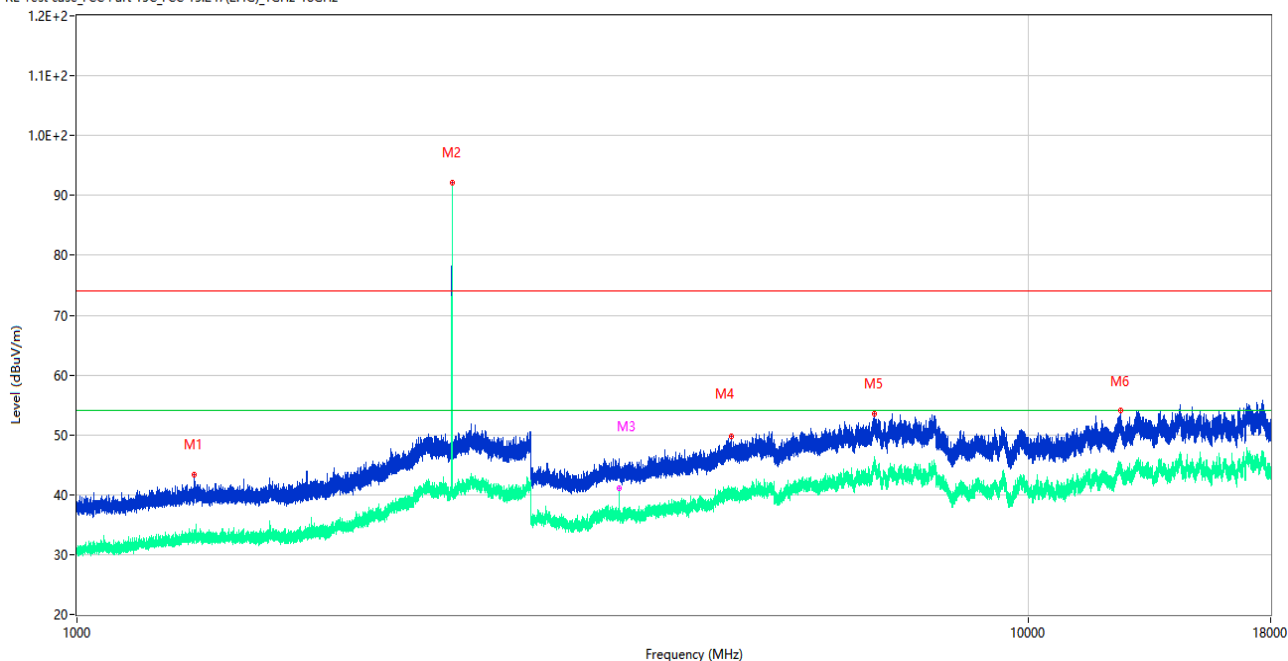
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1329.000	46.47	74.0	27.53	Peak	249.00	100	Vertical	Pass
1**	1329.000	35.13	54.0	18.87	AV	249.00	100	Vertical	Pass
2	2441.200	89.92	74.0	-15.92	Peak	171.00	150	Vertical	N/A
2**	2441.200	89.60	54.0	-35.60	AV	171.00	150	Vertical	N/A
3	4818.250	48.81	74.0	25.19	Peak	295.00	200	Vertical	Pass
3**	4818.250	40.20	54.0	13.80	AV	295.00	200	Vertical	Pass
4	6900.250	53.81	74.0	20.19	Peak	236.00	200	Vertical	Pass
4**	6900.250	44.50	54.0	9.50	AV	236.00	200	Vertical	Pass
5	12484.000	53.13	74.0	20.87	Peak	40.00	400	Vertical	Pass
5**	12484.000	44.89	54.0	9.11	AV	40.00	400	Vertical	Pass
6	14474.362	54.91	74.0	19.09	Peak	173.00	100	Vertical	Pass
6**	14474.362	45.49	54.0	8.51	AV	173.00	100	Vertical	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT H

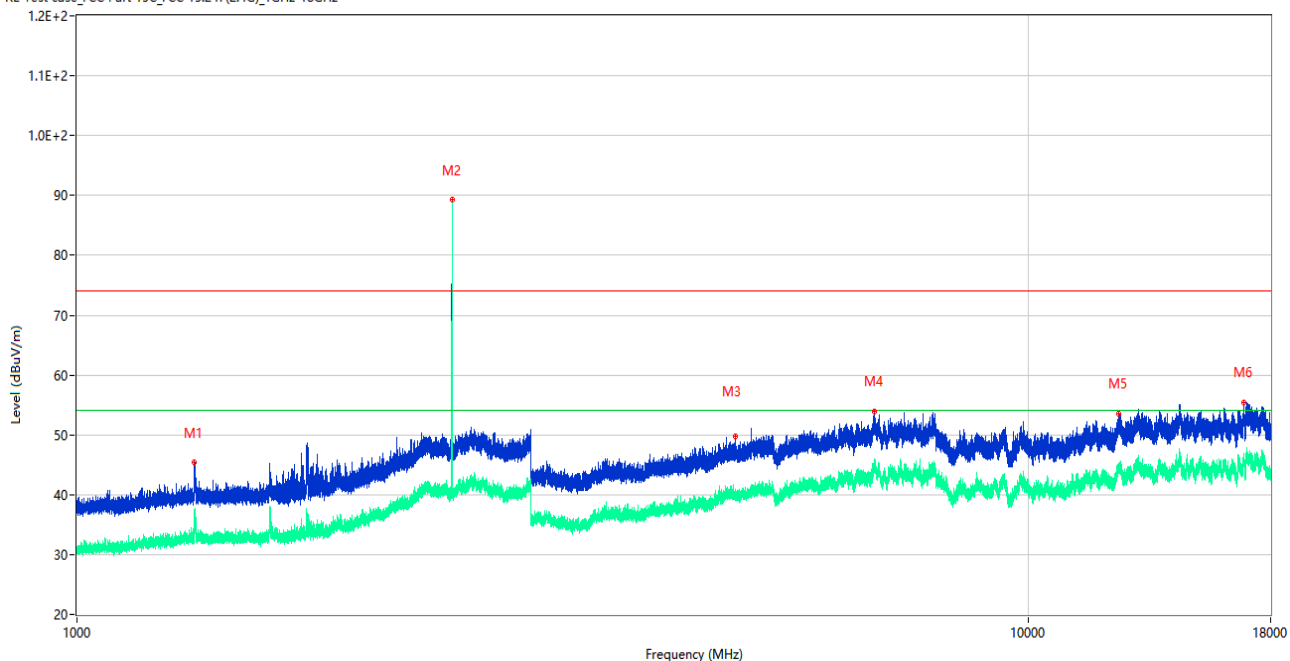
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1328.900	43.36	74.0	30.64	Peak	196.00	200	Horizontal	Pass
1**	1328.900	33.47	54.0	20.53	AV	196.00	200	Horizontal	Pass
2	2480.100	92.20	74.0	-18.20	Peak	108.00	200	Horizontal	N/A
2**	2480.100	91.95	54.0	-37.95	AV	108.00	200	Horizontal	N/A
3	3720.500	44.55	74.0	29.45	Peak	353.00	100	Horizontal	Pass
3**	3720.500	41.05	54.0	12.95	AV	353.00	100	Horizontal	Pass
4	4875.250	49.76	74.0	24.24	Peak	292.00	100	Horizontal	Pass
4**	4875.250	39.66	54.0	14.34	AV	292.00	100	Horizontal	Pass
5	6889.000	53.60	74.0	20.40	Peak	273.00	200	Horizontal	Pass
5**	6889.000	44.50	54.0	9.50	AV	273.00	200	Horizontal	Pass
6	12511.075	54.01	74.0	19.99	Peak	261.00	400	Horizontal	Pass
6**	12511.075	43.84	54.0	10.16	AV	261.00	400	Horizontal	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V

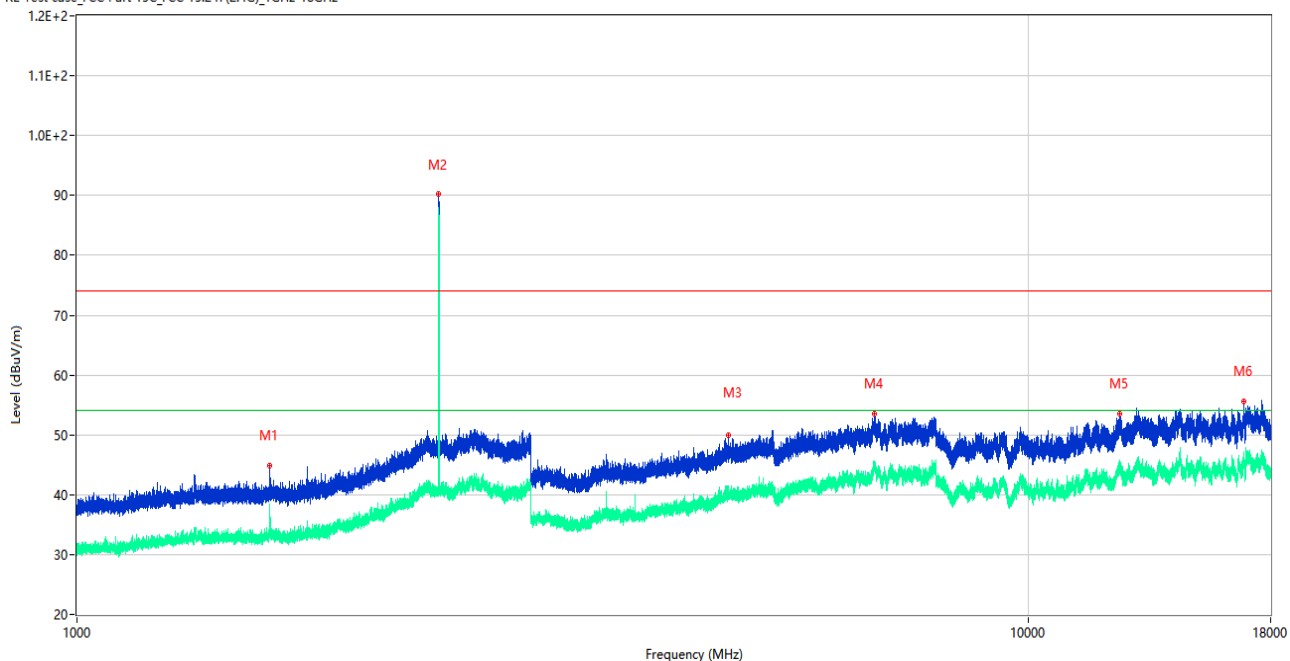
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1328.000	45.41	74.0	28.59	Peak	251.00	200	Vertical	Pass
1**	1328.000	35.41	54.0	18.59	AV	251.00	200	Vertical	Pass
2	2479.900	89.25	74.0	-15.25	Peak	181.00	100	Vertical	N/A
2**	2479.900	88.40	54.0	-34.40	AV	181.00	100	Vertical	N/A
3	4930.500	49.68	74.0	24.32	Peak	195.00	200	Vertical	Pass
3**	4930.500	39.83	54.0	14.17	AV	195.00	200	Vertical	Pass
4	6896.000	53.94	74.0	20.06	Peak	195.00	400	Vertical	Pass
4**	6896.000	44.86	54.0	9.14	AV	195.00	400	Vertical	Pass
5	12462.862	53.60	74.0	20.40	Peak	349.00	400	Vertical	Pass
5**	12462.862	44.66	54.0	9.34	AV	349.00	400	Vertical	Pass
6	16869.412	55.40	74.0	18.60	Peak	13.00	200	Vertical	Pass
6**	16869.412	45.79	54.0	8.21	AV	13.00	200	Vertical	Pass

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

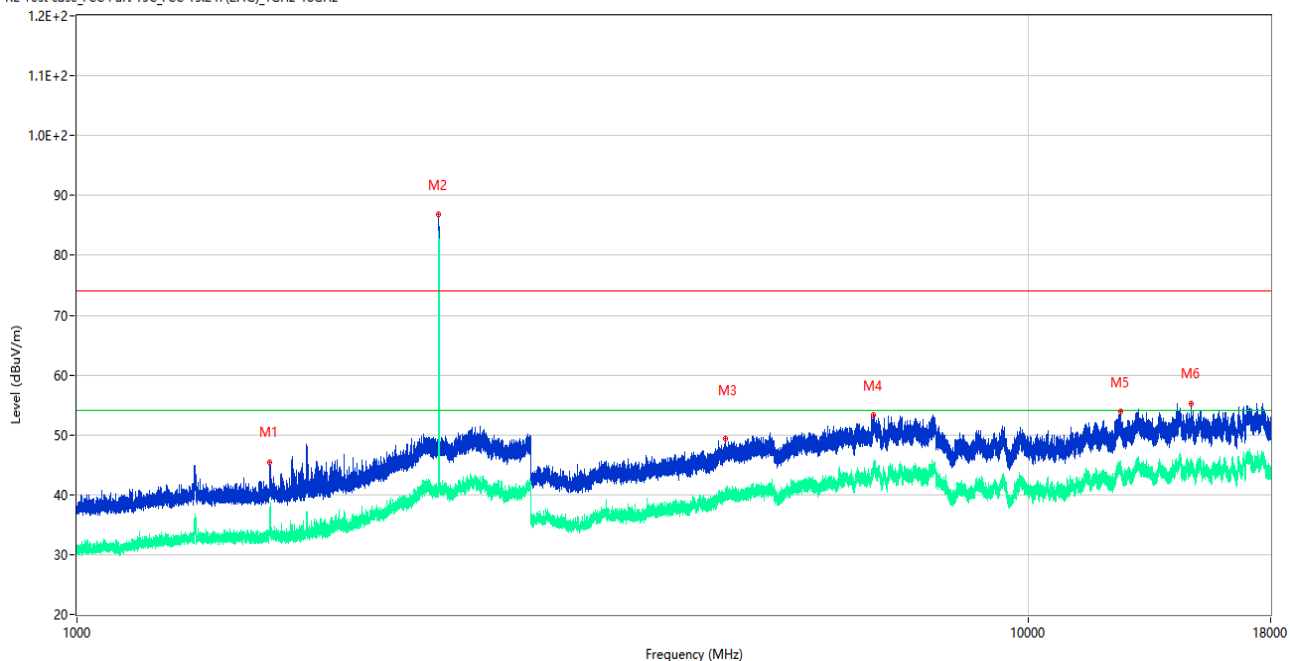
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1594.600	44.92	74.0	29.08	Peak	283.00	100	Horizontal	Pass
1**	1594.600	33.16	54.0	20.84	AV	283.00	100	Horizontal	Pass
2	2402.000	90.15	74.0	-16.15	Peak	310.00	200	Horizontal	N/A
2**	2402.000	87.33	54.0	-33.33	AV	310.00	200	Horizontal	N/A
3	4847.250	49.85	74.0	24.15	Peak	291.00	200	Horizontal	Pass
3**	4847.250	41.39	54.0	12.61	AV	291.00	200	Horizontal	Pass
4	6892.000	53.53	74.0	20.47	Peak	272.00	400	Horizontal	Pass
4**	6892.000	45.25	54.0	8.75	AV	272.00	400	Horizontal	Pass
5	12498.962	53.56	74.0	20.44	Peak	205.00	200	Horizontal	Pass
5**	12498.962	43.98	54.0	10.02	AV	205.00	200	Horizontal	Pass
6	16871.250	55.67	74.0	18.33	Peak	321.00	300	Horizontal	Pass
6**	16871.250	47.12	54.0	6.88	AV	321.00	300	Horizontal	Pass

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

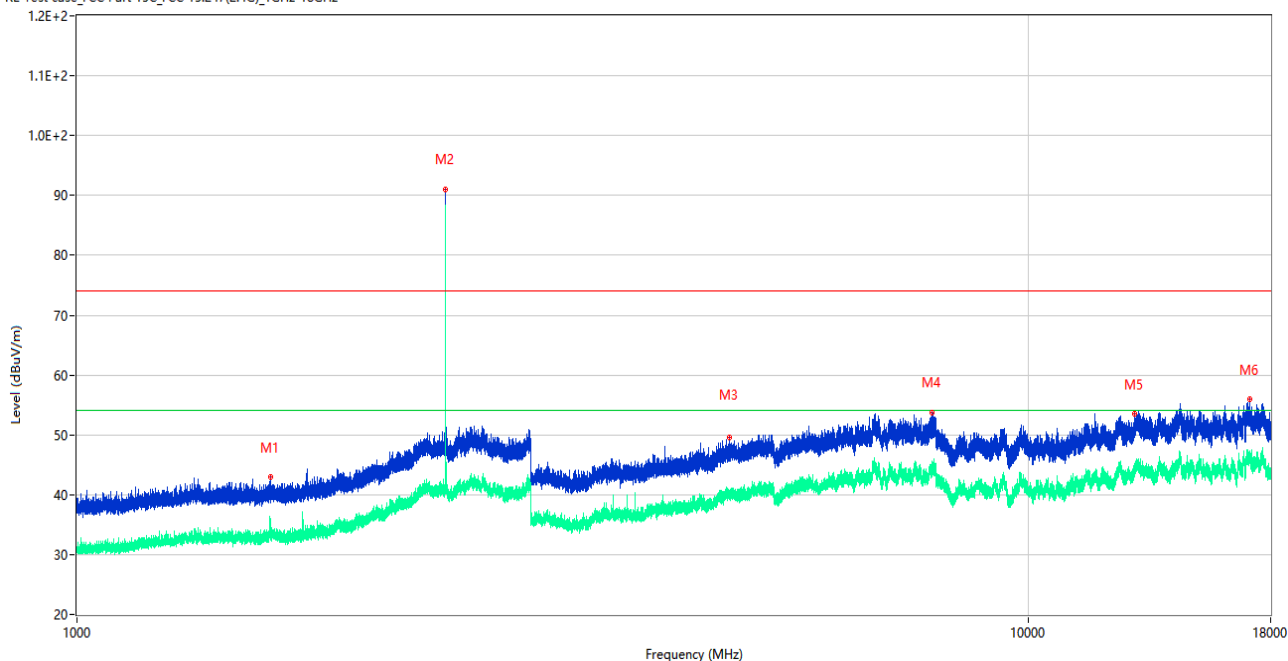
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1594.900	45.49	74.0	28.51	Peak	94.00	100	Vertical	Pass
1**	1594.900	35.66	54.0	18.34	AV	94.00	100	Vertical	Pass
2	2402.200	86.78	74.0	-12.78	Peak	165.00	100	Vertical	N/A
2**	2402.200	83.38	54.0	-29.38	AV	165.00	100	Vertical	N/A
3	4804.500	49.37	74.0	24.63	Peak	120.00	150	Vertical	Pass
3**	4804.500	40.02	54.0	13.98	AV	120.00	150	Vertical	Pass
4	6883.250	53.25	74.0	20.75	Peak	183.00	300	Vertical	Pass
4**	6883.250	45.39	54.0	8.61	AV	183.00	300	Vertical	Pass
5	12517.488	53.82	74.0	20.18	Peak	13.00	100	Vertical	Pass
5**	12517.488	44.74	54.0	9.26	AV	13.00	100	Vertical	Pass
6	14846.850	55.29	74.0	18.71	Peak	134.00	400	Vertical	Pass
6**	14846.850	43.93	54.0	10.07	AV	134.00	400	Vertical	Pass

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

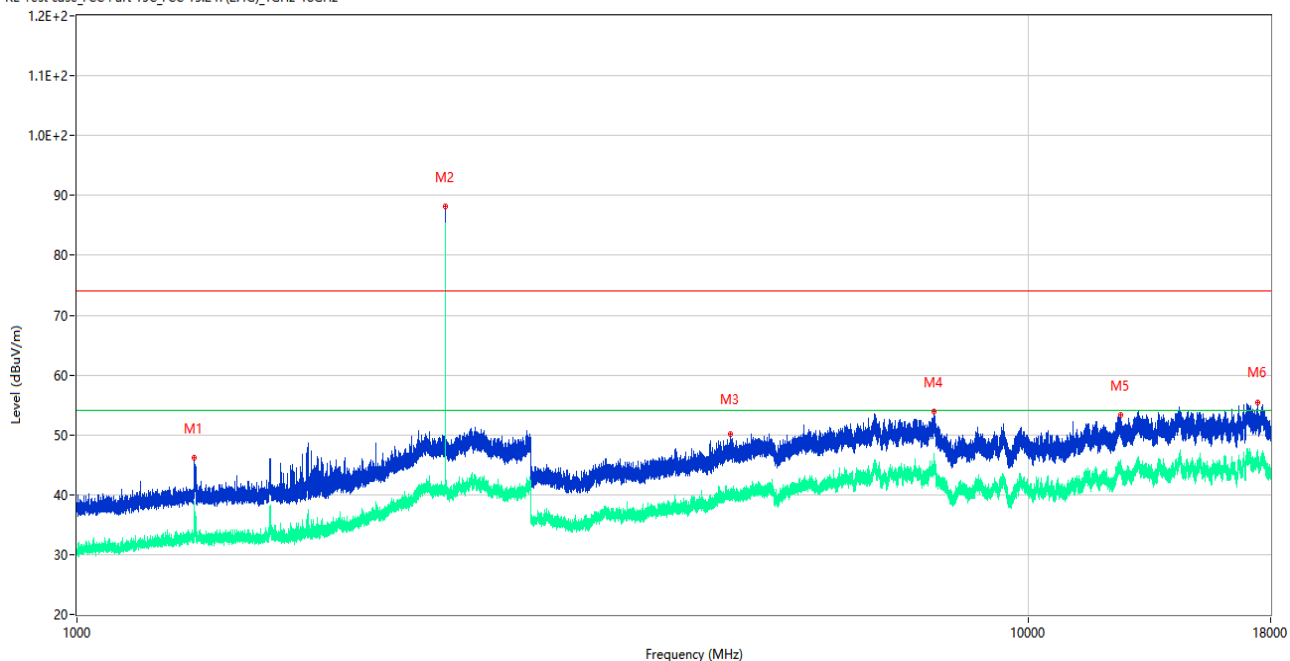
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.500	42.94	74.0	31.06	Peak	263.00	300	Horizontal	Pass
1**	1599.500	33.65	54.0	20.35	AV	263.00	300	Horizontal	Pass
2	2441.200	91.04	74.0	-17.04	Peak	91.00	150	Horizontal	N/A
2**	2441.200	88.34	54.0	-34.34	AV	91.00	150	Horizontal	N/A
3	4860.000	49.48	74.0	24.52	Peak	161.00	100	Horizontal	Pass
3**	4860.000	40.28	54.0	13.72	AV	161.00	100	Horizontal	Pass
4	7934.750	53.72	74.0	20.28	Peak	120.00	300	Horizontal	Pass
4**	7934.750	44.88	54.0	9.12	AV	120.00	300	Horizontal	Pass
5	12935.588	53.47	74.0	20.53	Peak	317.00	200	Horizontal	Pass
5**	12935.588	44.01	54.0	9.99	AV	317.00	200	Horizontal	Pass
6	17118.000	55.92	74.0	18.08	Peak	317.00	400	Horizontal	Pass
6**	17118.000	46.19	54.0	7.81	AV	317.00	400	Horizontal	Pass

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

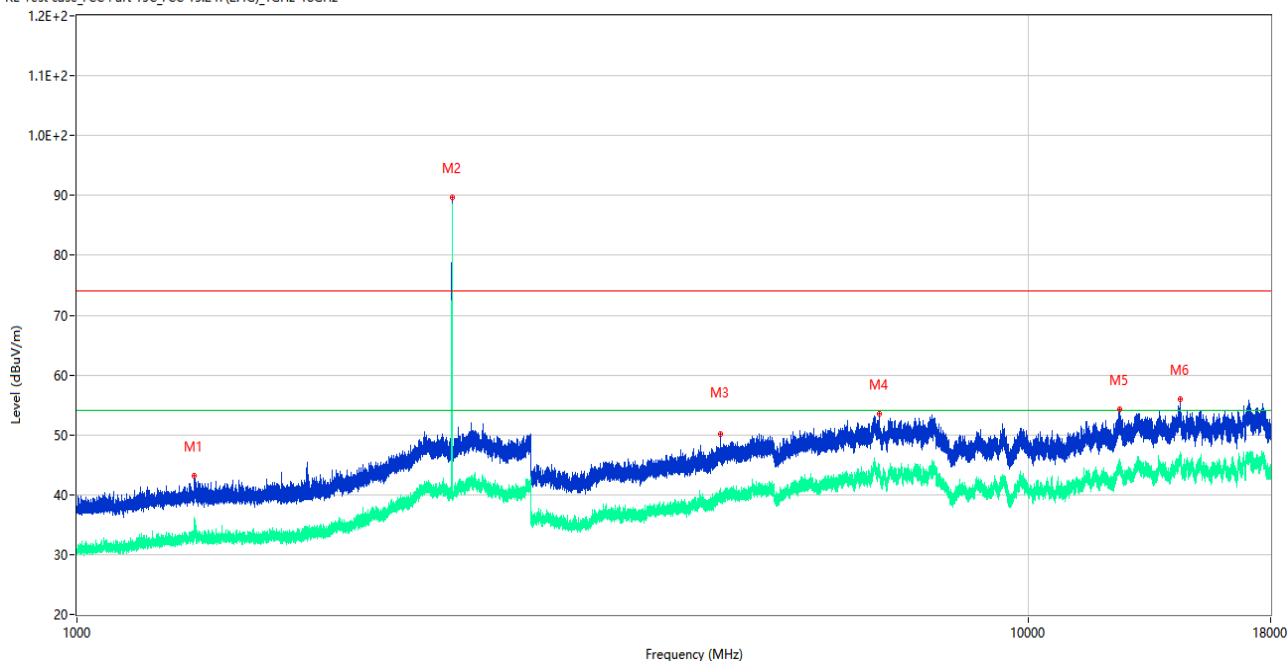
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1328.900	46.12	74.0	27.88	Peak	264.00	200	Vertical	Pass
1**	1328.900	33.81	54.0	20.19	AV	264.00	200	Vertical	Pass
2	2440.900	88.12	74.0	-14.12	Peak	173.00	150	Vertical	N/A
2**	2440.900	85.01	54.0	-31.01	AV	173.00	150	Vertical	N/A
3	4861.750	50.16	74.0	23.84	Peak	303.00	150	Vertical	Pass
3**	4861.750	39.36	54.0	14.64	AV	303.00	150	Vertical	Pass
4	7964.500	53.83	74.0	20.17	Peak	161.00	100	Vertical	Pass
4**	7964.500	44.86	54.0	9.14	AV	161.00	100	Vertical	Pass
5	12514.400	53.31	74.0	20.69	Peak	149.00	100	Vertical	Pass
5**	12514.400	44.49	54.0	9.51	AV	149.00	100	Vertical	Pass
6	17450.062	55.47	74.0	18.53	Peak	205.00	200	Vertical	Pass
6**	17450.062	46.13	54.0	7.87	AV	205.00	200	Vertical	Pass

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

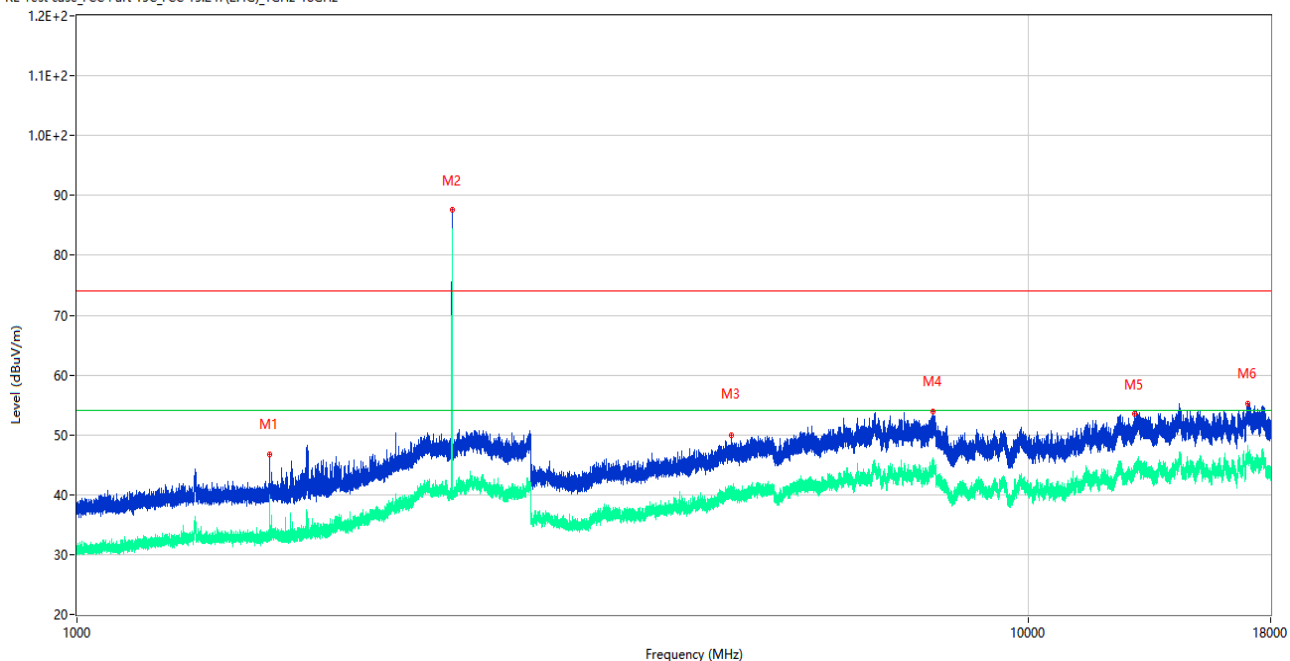
RE Test case_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1329.000	43.15	74.0	30.85	Peak	227.00	100	Horizontal	Pass
1**	1329.000	33.69	54.0	20.31	AV	227.00	100	Horizontal	Pass
2	2480.000	89.59	74.0	-15.59	Peak	84.00	200	Horizontal	N/A
2**	2480.000	88.58	54.0	-34.58	AV	84.00	200	Horizontal	N/A
3	4751.500	50.04	74.0	23.96	Peak	227.00	100	Horizontal	Pass
3**	4751.500	40.14	54.0	13.86	AV	227.00	100	Horizontal	Pass
4	6980.500	53.51	74.0	20.49	Peak	122.00	100	Horizontal	Pass
4**	6980.500	43.70	54.0	10.30	AV	122.00	100	Horizontal	Pass
5	12477.112	54.19	74.0	19.81	Peak	38.00	200	Horizontal	Pass
5**	12477.112	44.68	54.0	9.32	AV	38.00	200	Horizontal	Pass
6	14451.526	55.94	74.0	18.06	Peak	360.00	200	Horizontal	Pass
6**	14451.526	47.20	54.0	6.80	AV	360.00	200	Horizontal	Pass

8-DPSK HIGH 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)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1596.000	46.83	74.0	27.17	Peak	69.00	300	Vertical	Pass
1**	1596.000	33.09	54.0	20.91	AV	69.00	300	Vertical	Pass
2	2479.900	87.55	74.0	-13.55	Peak	179.00	100	Vertical	N/A
2**	2479.900	84.25	54.0	-30.25	AV	179.00	100	Vertical	N/A
3	4880.750	49.89	74.0	24.11	Peak	122.00	200	Vertical	Pass
3**	4880.750	39.52	54.0	14.48	AV	122.00	200	Vertical	Pass
4	7937.500	53.95	74.0	20.05	Peak	310.00	200	Vertical	Pass
4**	7937.500	44.51	54.0	9.49	AV	310.00	200	Vertical	Pass
5	12943.462	53.49	74.0	20.51	Peak	100.00	100	Vertical	Pass
5**	12943.462	43.79	54.0	10.21	AV	100.00	100	Vertical	Pass
6	17043.974	55.30	74.0	18.70	Peak	180.00	400	Vertical	Pass
6**	17043.974	45.65	54.0	8.35	AV	180.00	400	Vertical	Pass

5.11 Band Edge (Restricted-band band-edge)

5.11.1 Limit

FCC §15.209&15.247(d)

Radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

5.11.2 Test Setup

See section 4.5.3 to 4.5.5 for test setup description for the antenna port. The photo of test setup please refer to ANNEX A.

5.11.3 Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported, Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

5.11.4 Test Result

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.

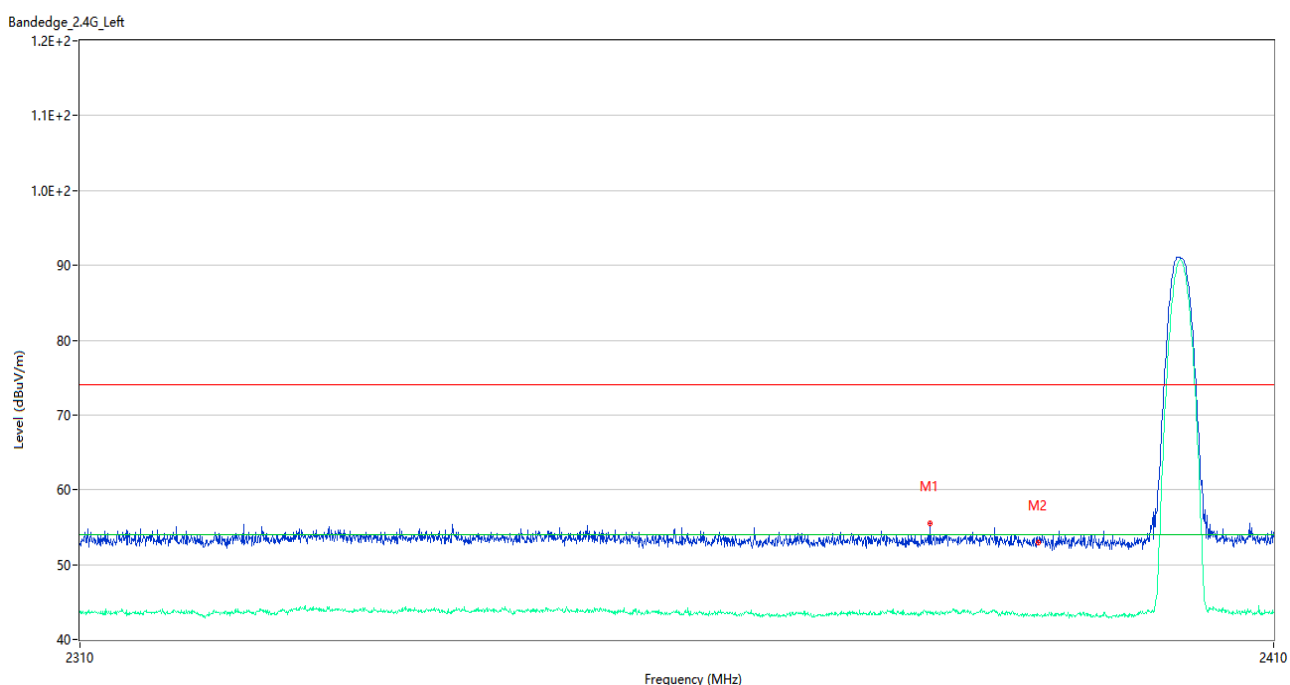
Note ²: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

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.

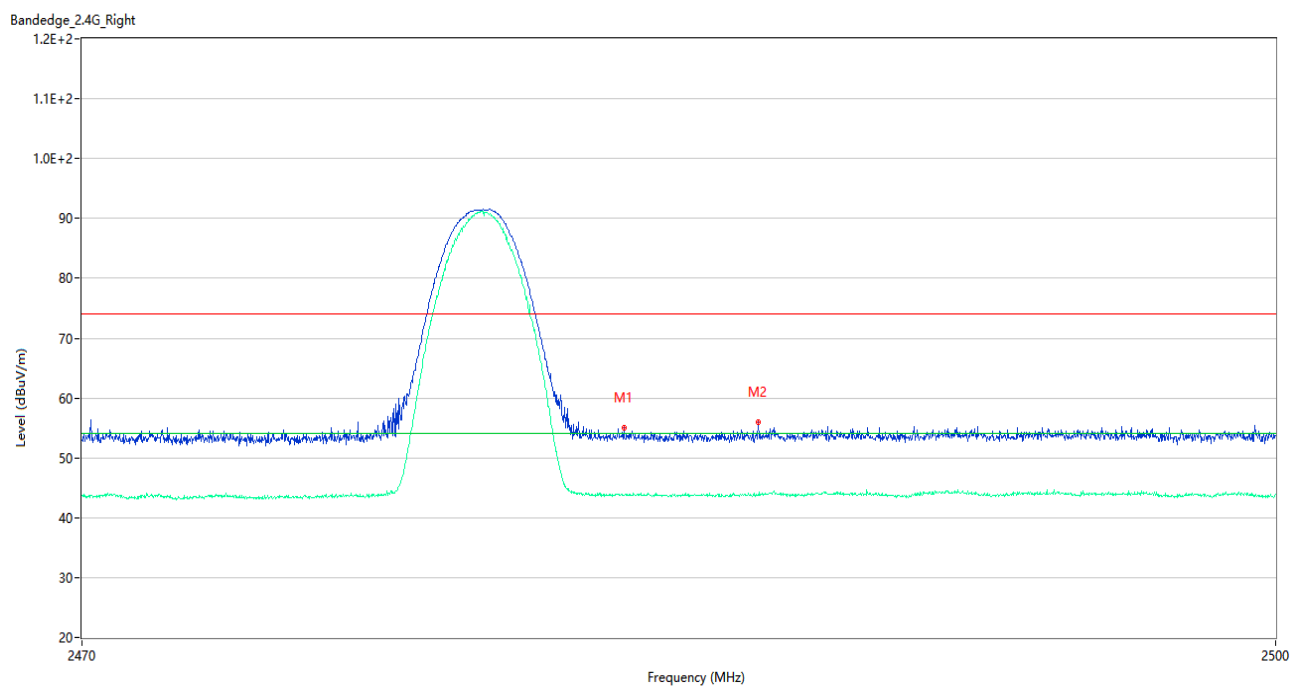
Test Data and Plots

GFSK LOW CHANNEL



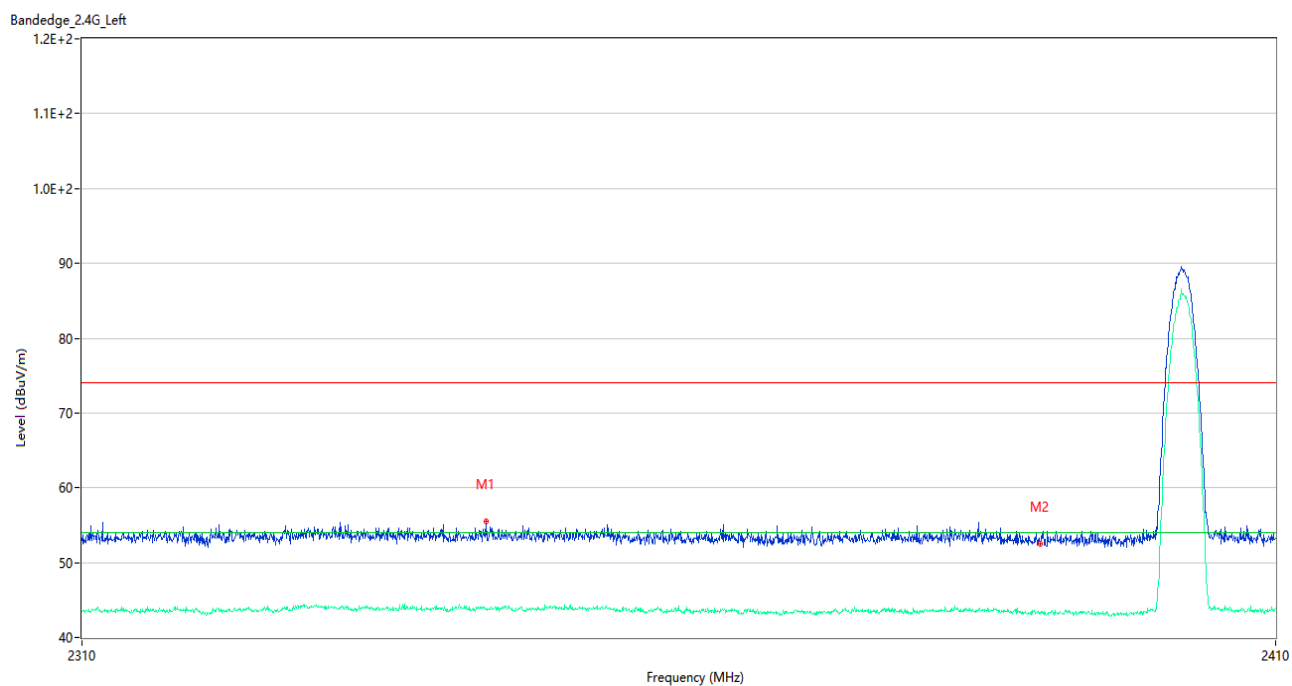
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2380.750	55.45	74.0	18.55	Peak	349.00	100	Horizontal	Pass
1**	2380.750	43.71	54.0	10.29	AV	349.00	100	Horizontal	Pass
2	2389.950	52.94	74.0	21.06	Peak	302.00	150	Horizontal	Pass
2**	2389.950	43.36	54.0	10.64	AV	302.00	150	Horizontal	Pass

GFSK HIGH CHANNEL



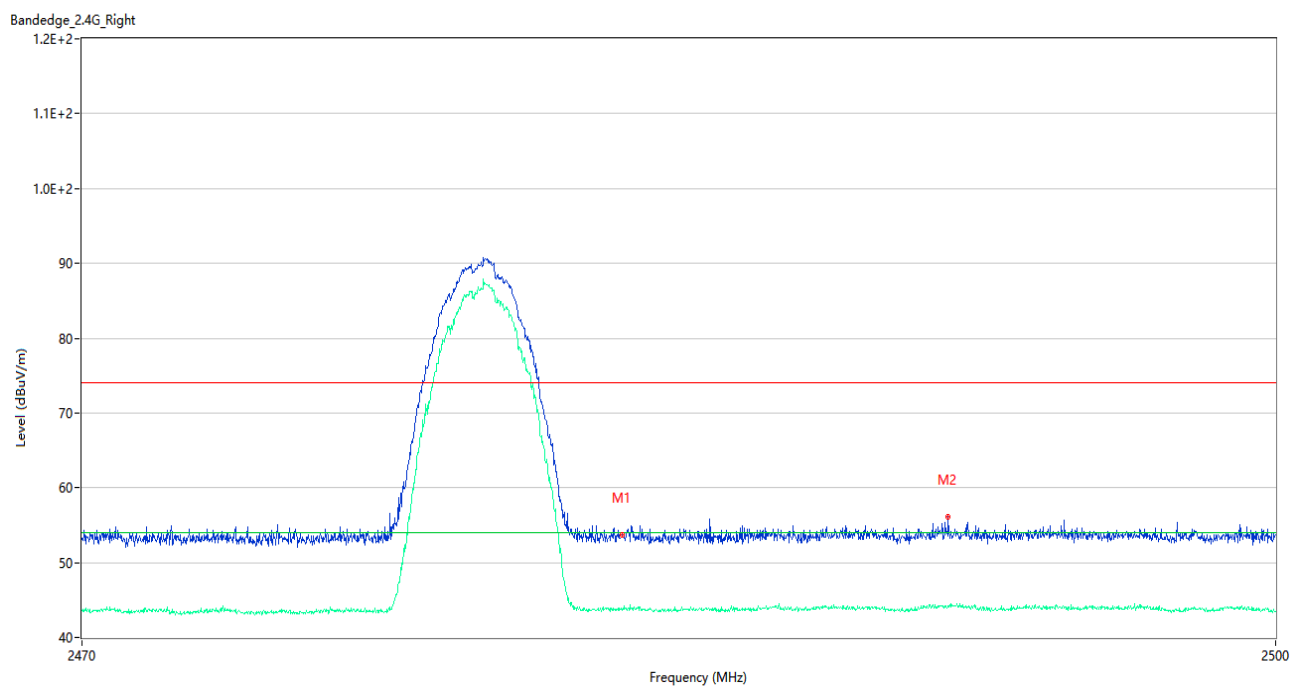
No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.575	55.08	74.0	18.92	Peak	360.00	200	Horizontal	Pass
1**	2483.575	43.73	54.0	10.27	AV	360.00	200	Horizontal	Pass
2	2486.950	55.98	74.0	18.02	Peak	318.00	150	Horizontal	Pass
2**	2486.950	43.81	54.0	10.19	AV	318.00	150	Horizontal	Pass

8-DPSK LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2343.350	55.50	74.0	18.50	Peak	110.00	150	Horizontal	Pass
1**	2343.350	43.77	54.0	10.23	AV	110.00	150	Horizontal	Pass
2	2389.950	52.50	74.0	21.50	Peak	155.00	150	Horizontal	Pass
2**	2389.950	43.24	54.0	10.76	AV	155.00	150	Horizontal	Pass

8-DPSK HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.545	53.71	74.0	20.29	Peak	286.00	100	Horizontal	Pass
1**	2483.545	43.78	54.0	10.22	AV	286.00	100	Horizontal	Pass
2	2491.735	56.10	74.0	17.90	Peak	360.00	100	Horizontal	Pass
2**	2491.735	44.19	54.0	9.81	AV	360.00	100	Horizontal	Pass

ANNEX A TEST SETUP PHOTOS

1 Radiated Test Photo

Below 30MHz



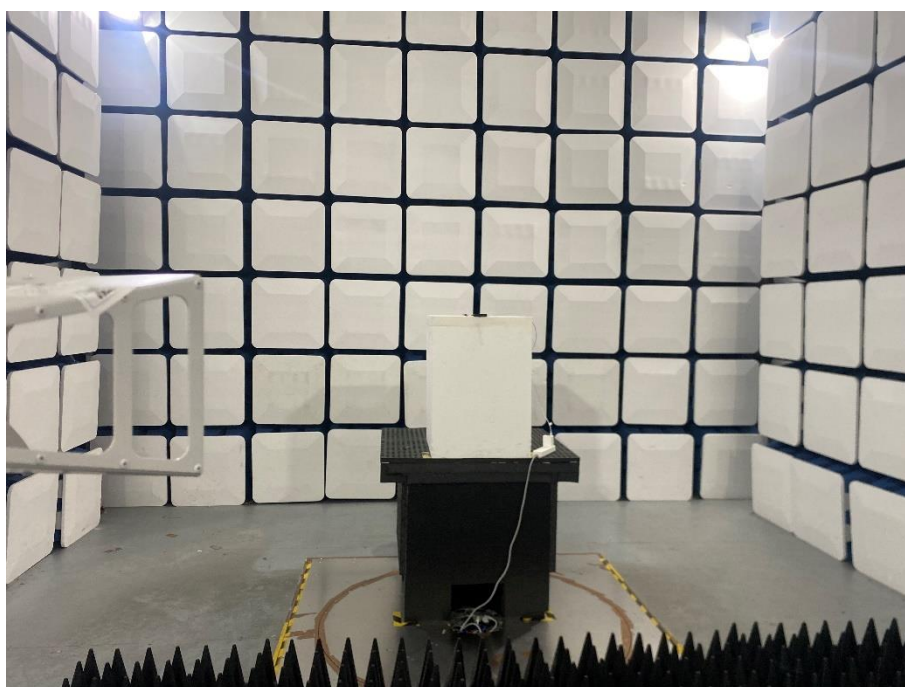
30MHz-1GHz



Close-up



Above 1GHz

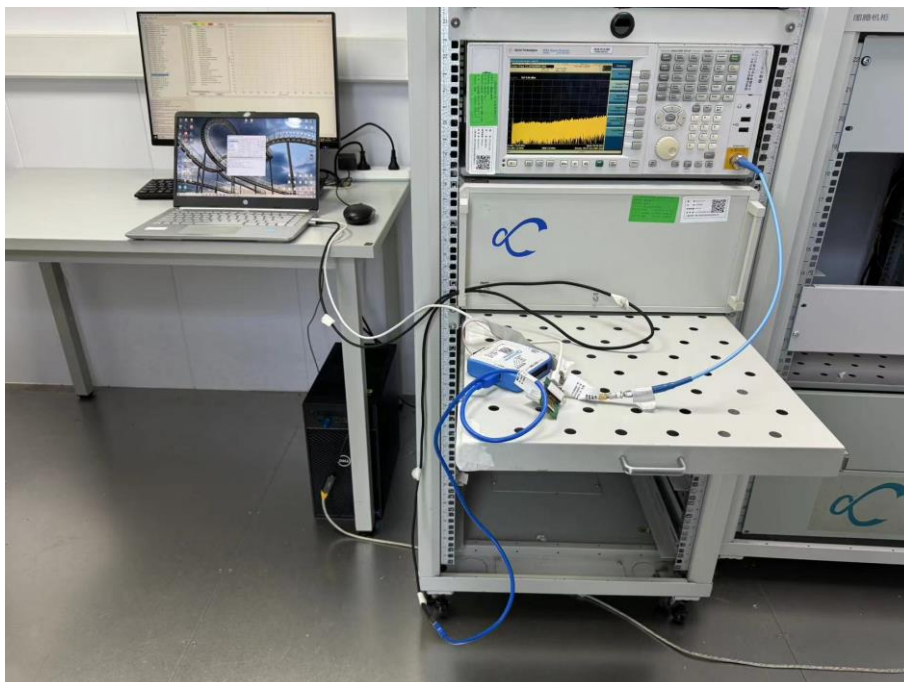


Close-up



2 Conducted Test Photo

Conducted Test



3 Conducted Emission

Photo 1

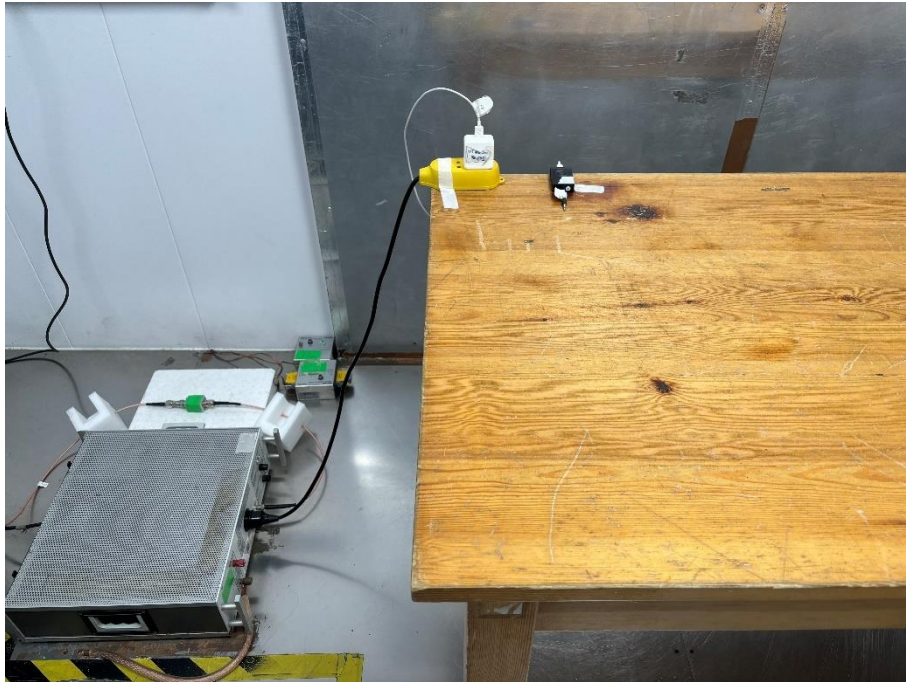
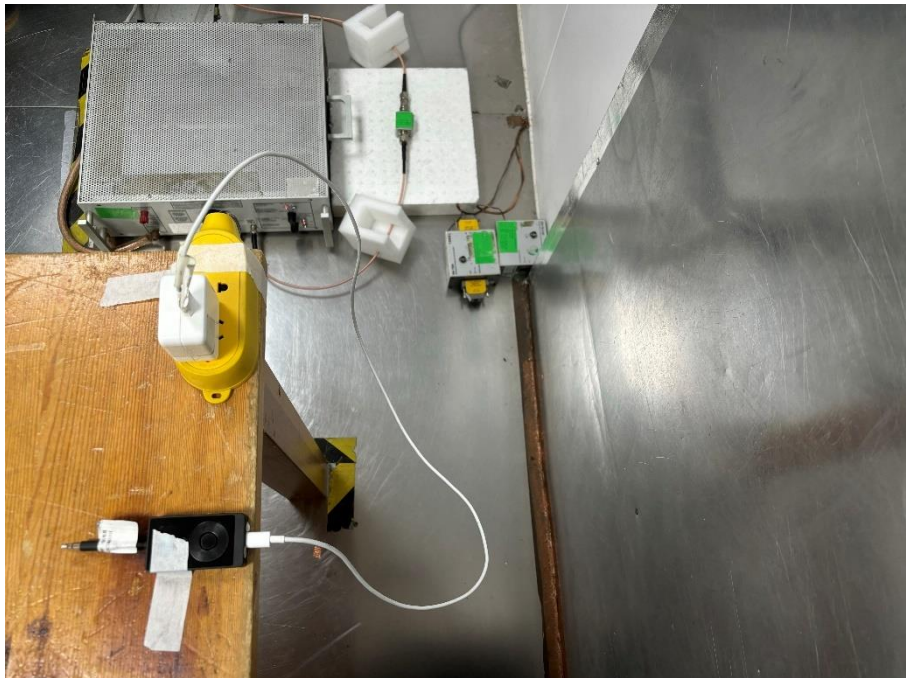


Photo 2



ANNEX B EUT EXTERNAL PHOTOS

FRONT VIEW OF EUT



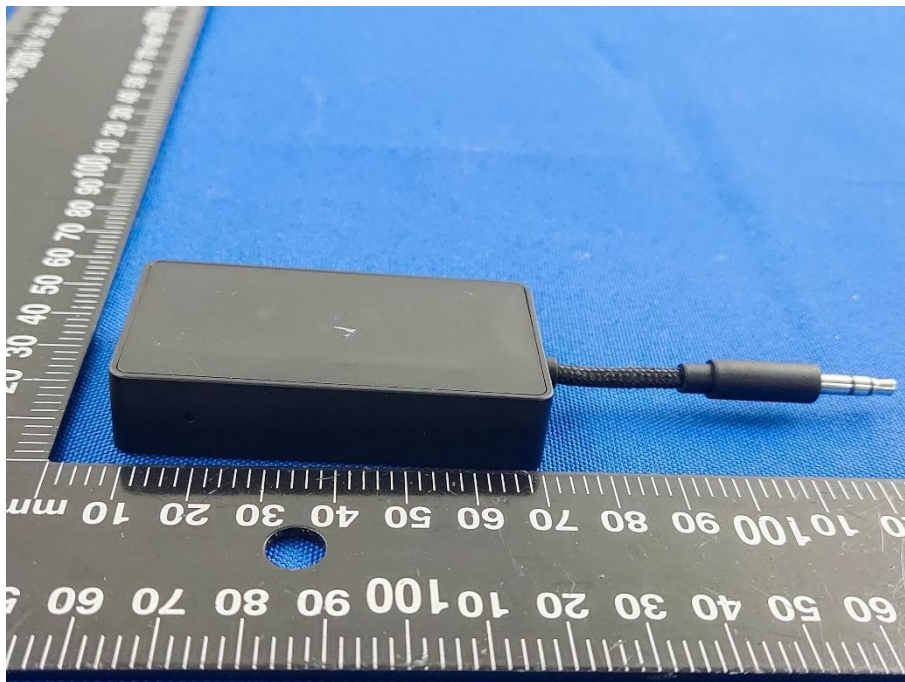
REAR VIEW OF EUT



LEFT VIEW OF EUT



RIGHT VIEW OF EUT



TOP VIEW OF EUT



CLOSE-UP

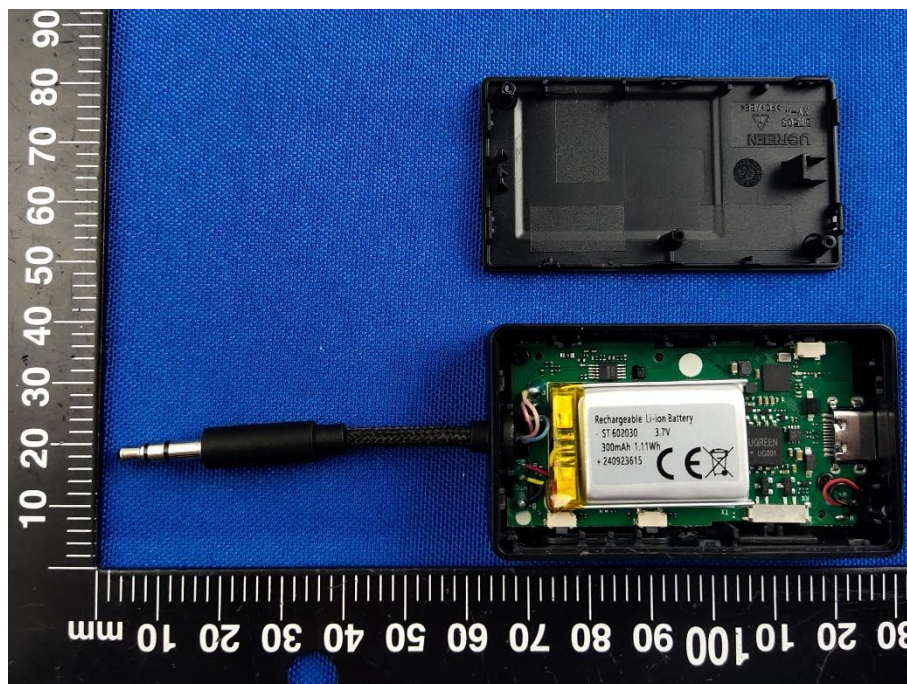


BOTTOM VIEW OF EUT

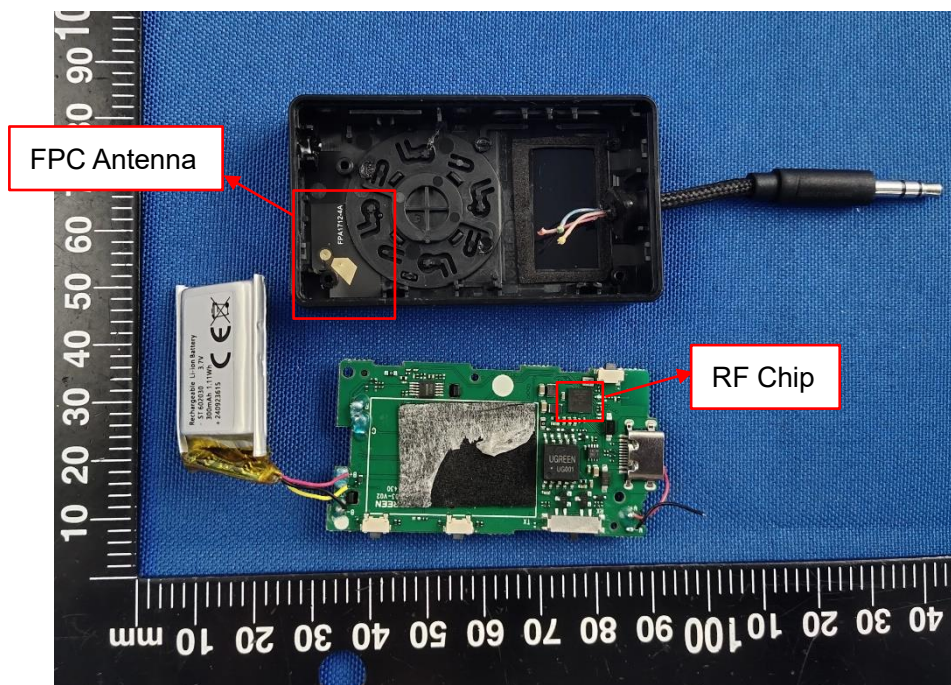


ANNEX C EUT INTERNAL PHOTOS

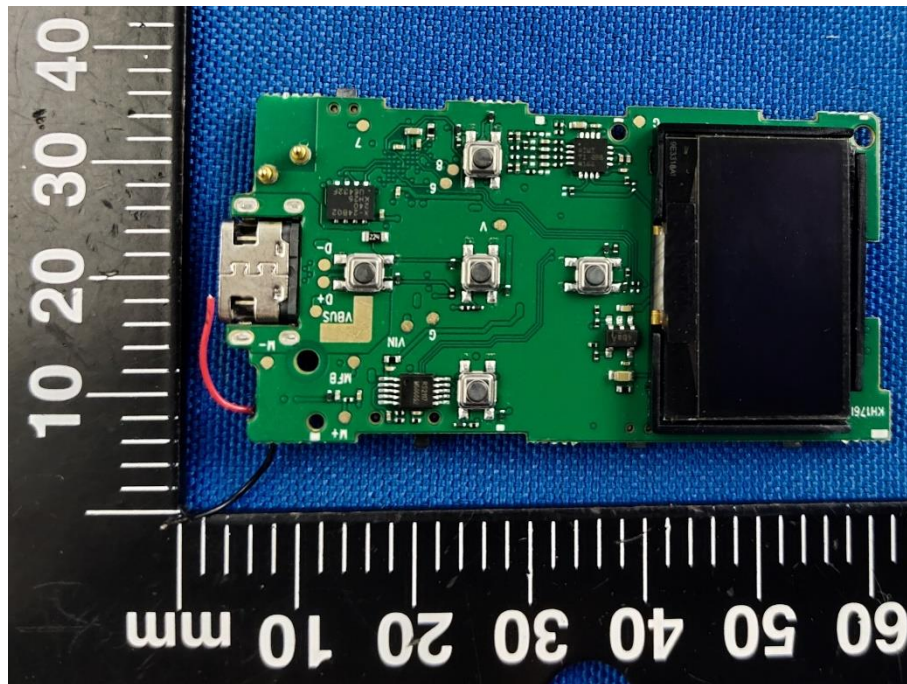
EUT UNCOVER VIEW 1



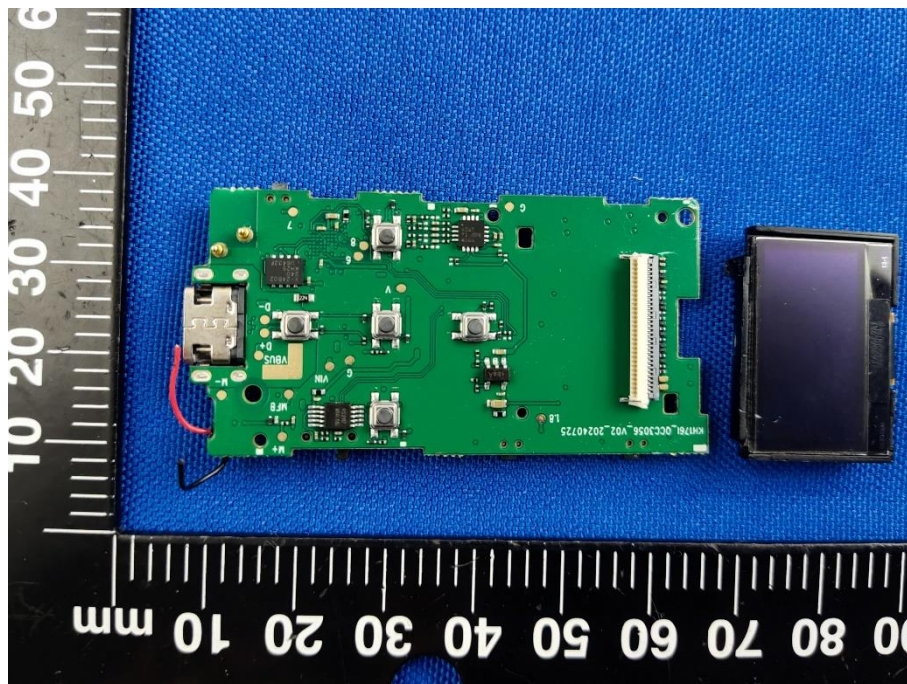
EUT UNCOVER VIEW 2



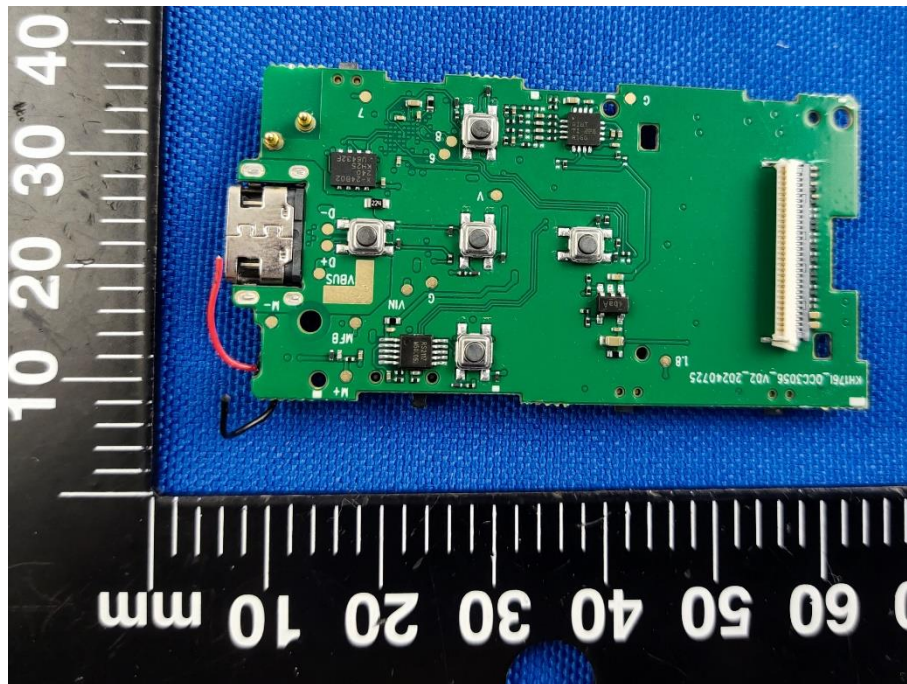
EUT UNCOVER VIEW 3



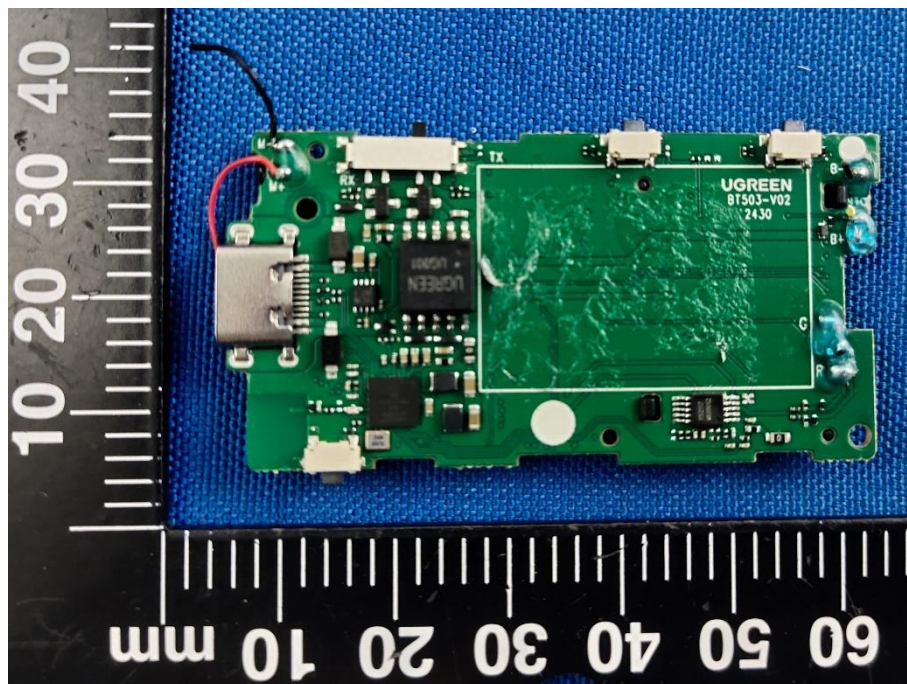
EUT UNCOVER VIEW 4



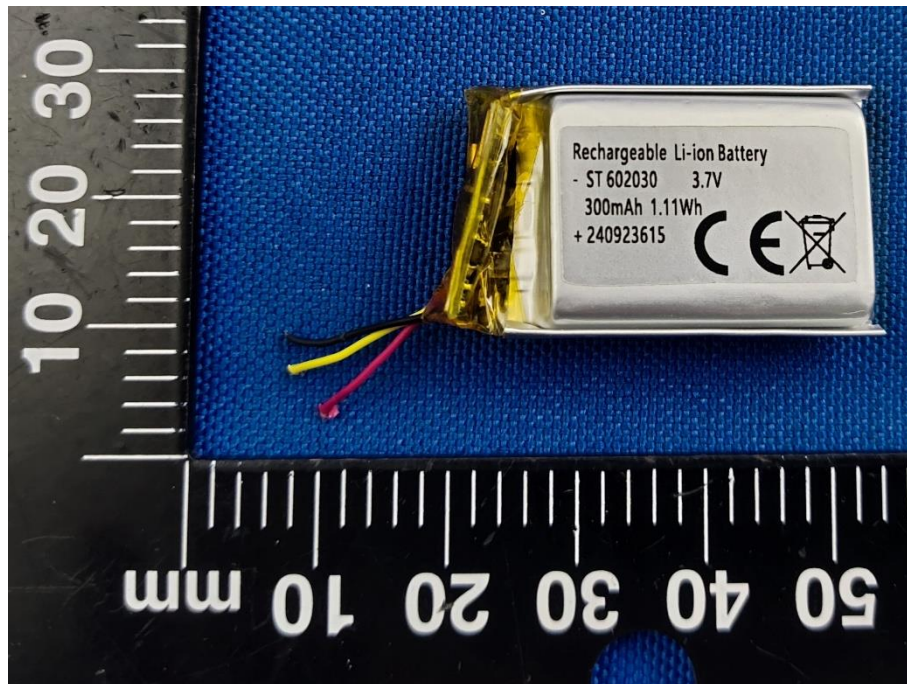
MAIN BOARD TOP VIEW



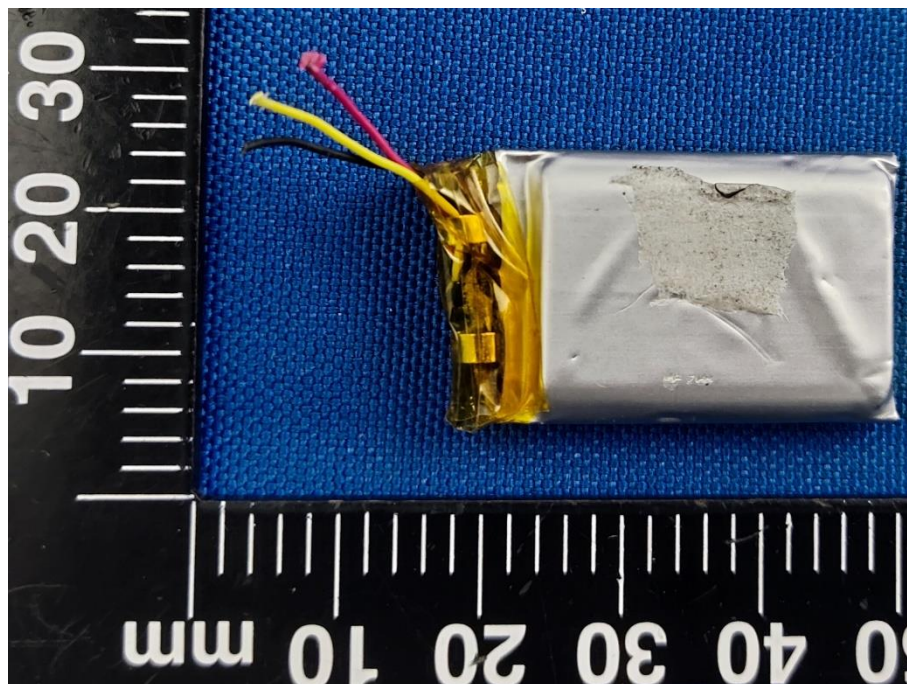
MAIN BOARD REAR VIEW



BATTERY (FRONT)



BATTERY (REAR)



Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
3. For the report with CNAS mark or A2LA mark, the items marked with "☆" are not within the accredited scope.
4. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the "inspection and testing dedicated stamp" or test report stamp.
5. The test data and results are only valid for the tested samples provided by the customer.
6. This report shall not be partially reproduced without the written permission of the laboratory.
7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--END OF REPORT--