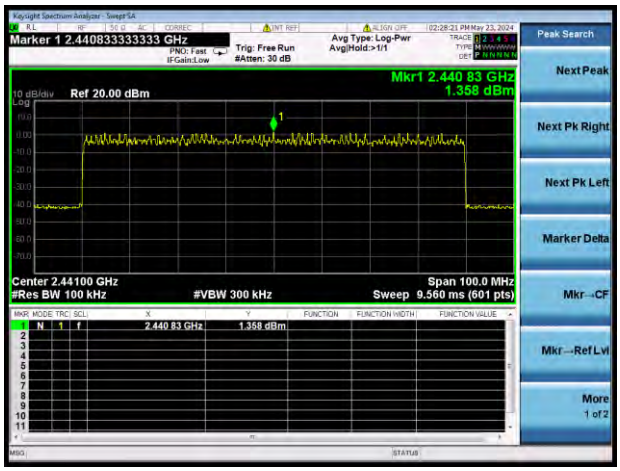
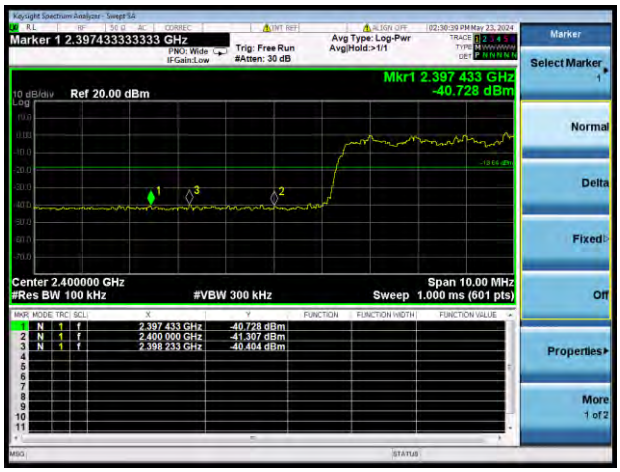
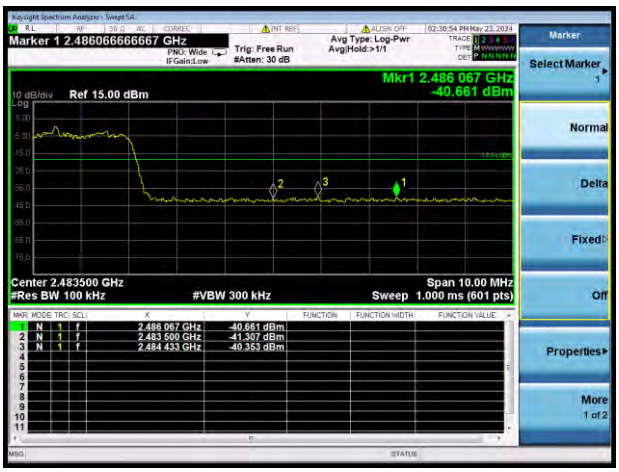
π/4-DQPSK HOPPING, CARRIER LEVEL



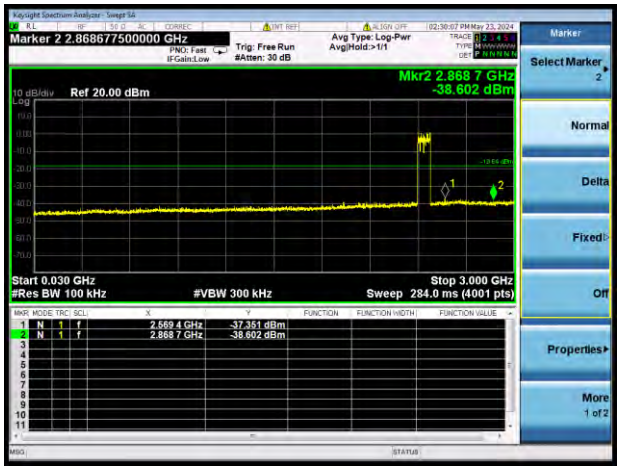
π/4-DQPSK Hopping BAND EDGE (LOW)



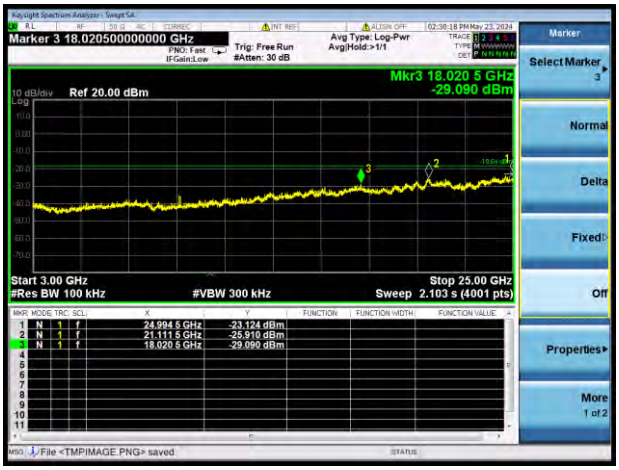
π/4-DQPSK Hopping BAND EDGE (HIGH)



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



π/4-DQPSK Hopping Mode, SPURIOUS
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 50μH/50Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dBμV)	
	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

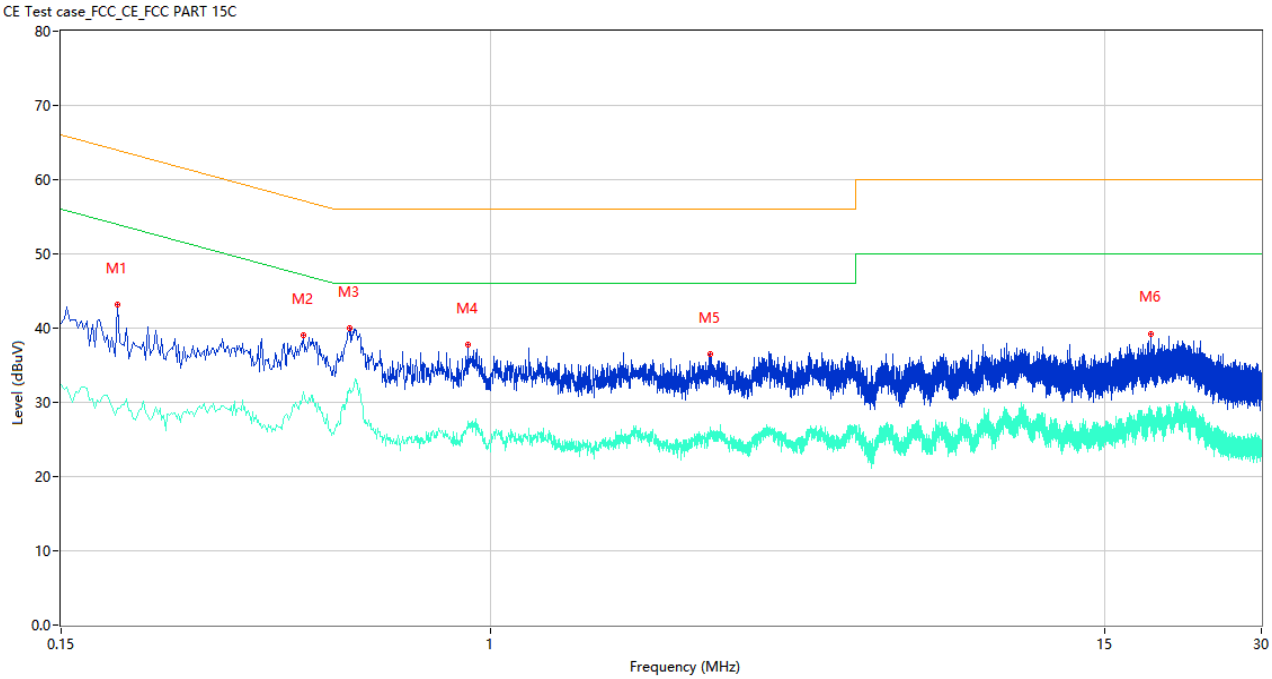
Note [1]: The EUT was tested in charging mode.

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)

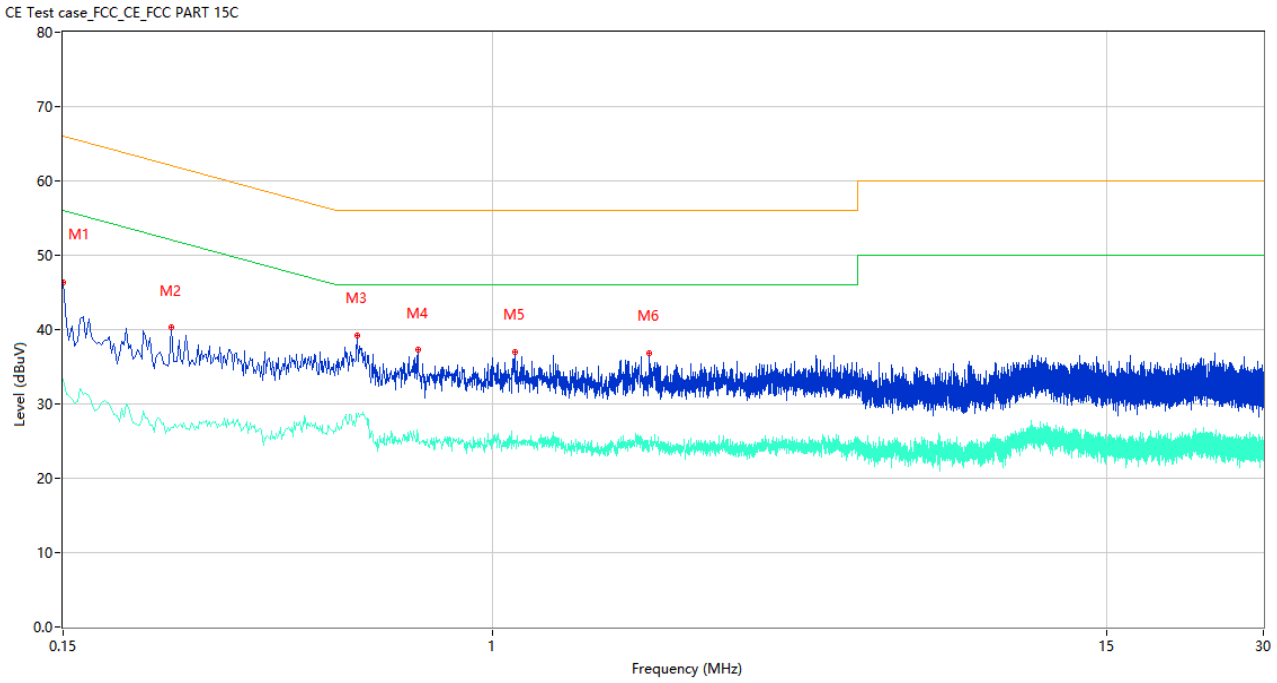
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.192	43.17	9.77	63.95	20.78	Peak	L	Pass
1**	0.192	29.22	9.77	53.95	24.73	AV	L	Pass
2	0.438	39.04	10.15	57.10	18.06	Peak	L	Pass
2**	0.438	31.41	10.15	47.10	15.69	AV	L	Pass
3	0.536	39.96	10.01	56.00	16.04	Peak	L	Pass
3**	0.536	31.89	10.01	46.00	14.11	AV	L	Pass
4	0.904	37.75	10.16	56.00	18.25	Peak	L	Pass
4**	0.904	26.44	10.16	46.00	19.56	AV	L	Pass
5	2.640	36.50	10.14	56.00	19.50	Peak	L	Pass
5**	2.640	26.45	10.14	46.00	19.55	AV	L	Pass
6	18.454	39.23	10.68	60.00	20.77	Peak	L	Pass
6**	18.454	27.31	10.68	50.00	22.69	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.150	46.34	9.78	66.00	19.66	Peak	N	Pass
1**	0.150	33.35	9.78	56.00	22.65	AV	N	Pass
2	0.242	40.32	9.77	62.03	21.71	Peak	N	Pass
2**	0.242	26.80	9.77	52.03	25.23	AV	N	Pass
3	0.550	39.29	10.03	56.00	16.71	Peak	N	Pass
3**	0.550	28.20	10.03	46.00	17.80	AV	N	Pass
4	0.718	37.22	10.48	56.00	18.78	Peak	N	Pass
4**	0.718	25.89	10.48	46.00	20.11	AV	N	Pass
5	1.102	37.02	10.02	56.00	18.98	Peak	N	Pass
5**	1.102	25.10	10.02	46.00	20.90	AV	N	Pass
6	1.998	36.86	10.22	56.00	19.14	Peak	N	Pass
6**	1.998	24.16	10.22	46.00	21.84	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 ≥ 1 GHz, 100 kHz for f < 1 GHz
VBW ≥ 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.

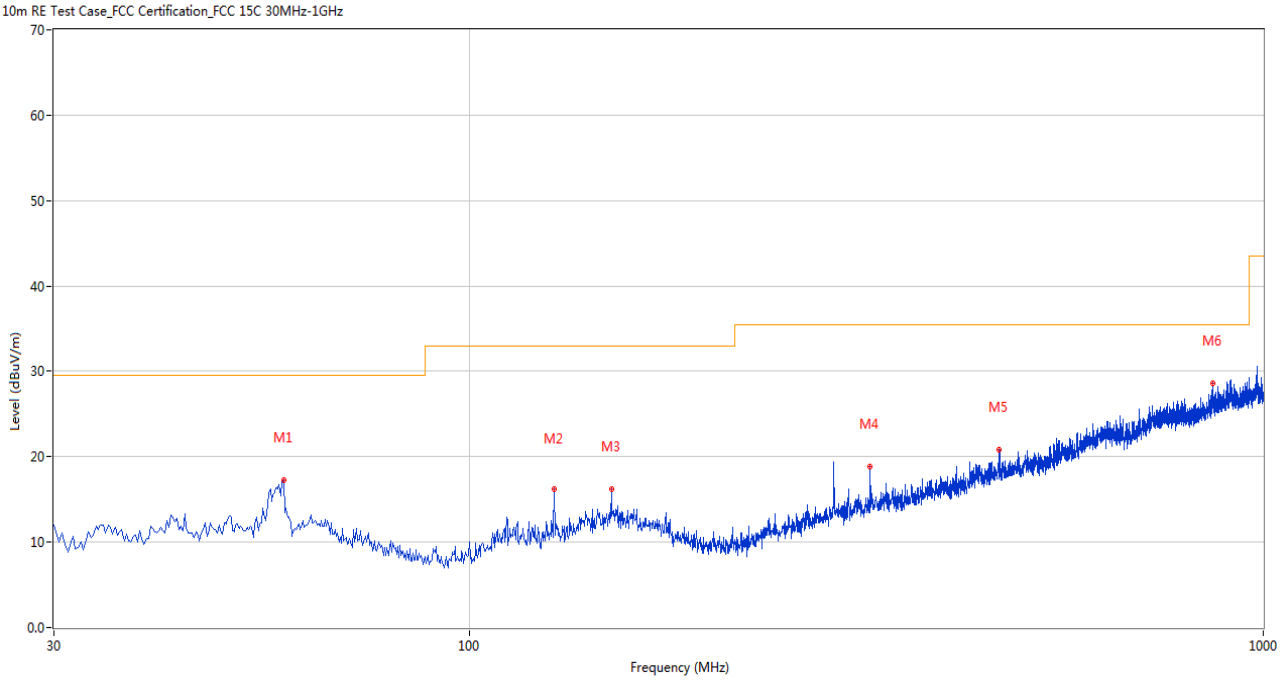
Note [3]: The EUT was tested in Link mode and the charging.

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.

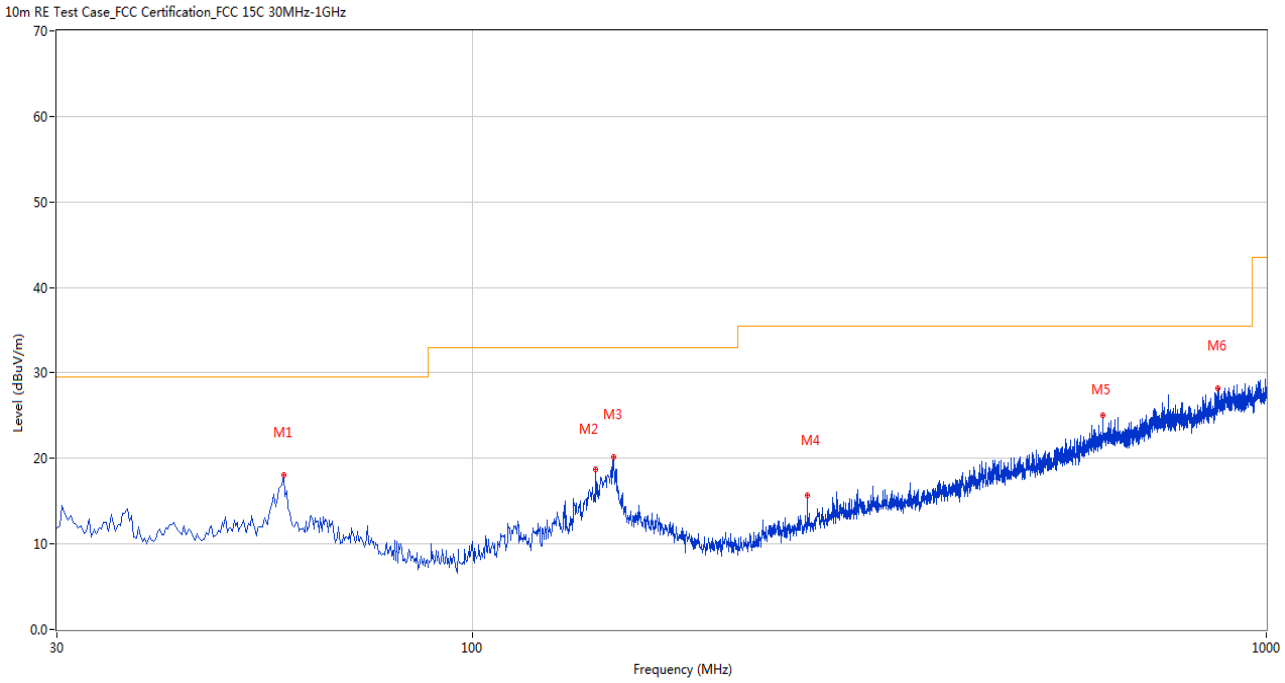
Test Data and Plots

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	58.365	17.31	-26.37	29.5	12.19	Peak	0.00	200	Horizontal	Pass
2	127.946	15.08	-27.49	33.0	17.92	Peak	243.00	100	Horizontal	Pass
3	150.977	16.25	-25.75	33.0	16.75	Peak	107.00	200	Horizontal	Pass
4	319.958	18.85	-24.11	35.5	16.65	Peak	0.00	200	Horizontal	Pass
5	465.421	20.84	-20.26	35.5	14.66	Peak	85.00	200	Horizontal	Pass
6	862.779	28.63	-11.46	35.5	6.87	Peak	0.00	200	Horizontal	Pass

30 MHz to 1 GHz, ANT V

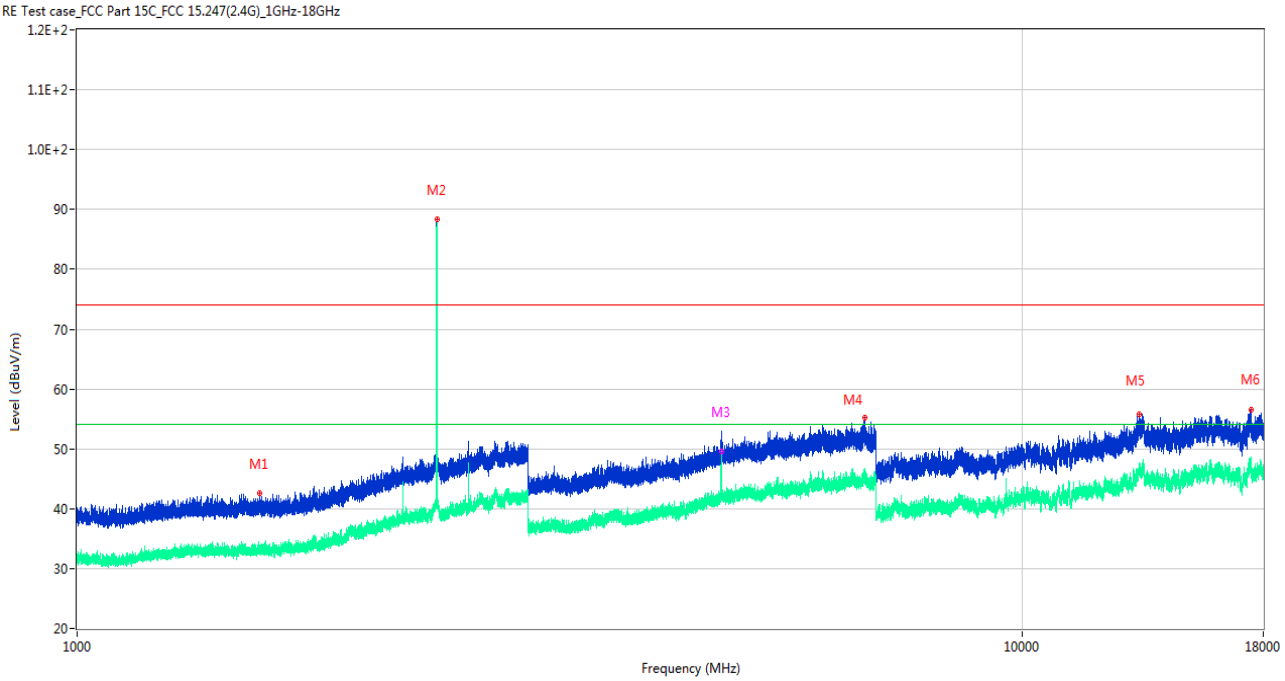


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	57.881	18.03	-26.31	29.5	11.47	Peak	112.00	100	Vertical	Pass
2	143.219	18.76	-26.06	33.0	14.24	Peak	274.00	100	Vertical	Pass
3	150.735	20.17	-25.77	33.0	12.83	Peak	360.00	100	Vertical	Pass
4	264.439	15.63	-26.23	35.5	19.87	Peak	226.00	100	Vertical	Pass
5	622.522	25.05	-16.02	35.5	10.45	Peak	356.00	100	Vertical	Pass
6	870.295	28.18	-11.25	35.5	7.32	Peak	2.00	100	Vertical	Pass

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

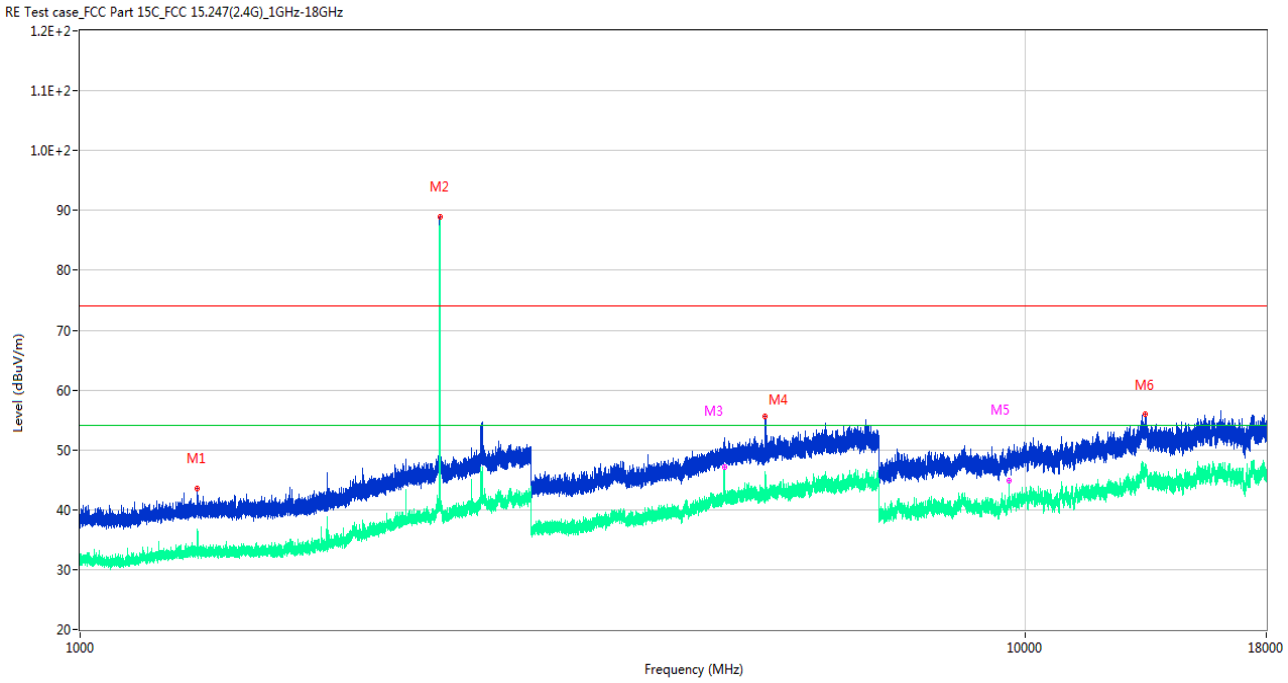
Note 2: The spurious from 18GHz-25GHz is noise only, do not show on the report.

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT H



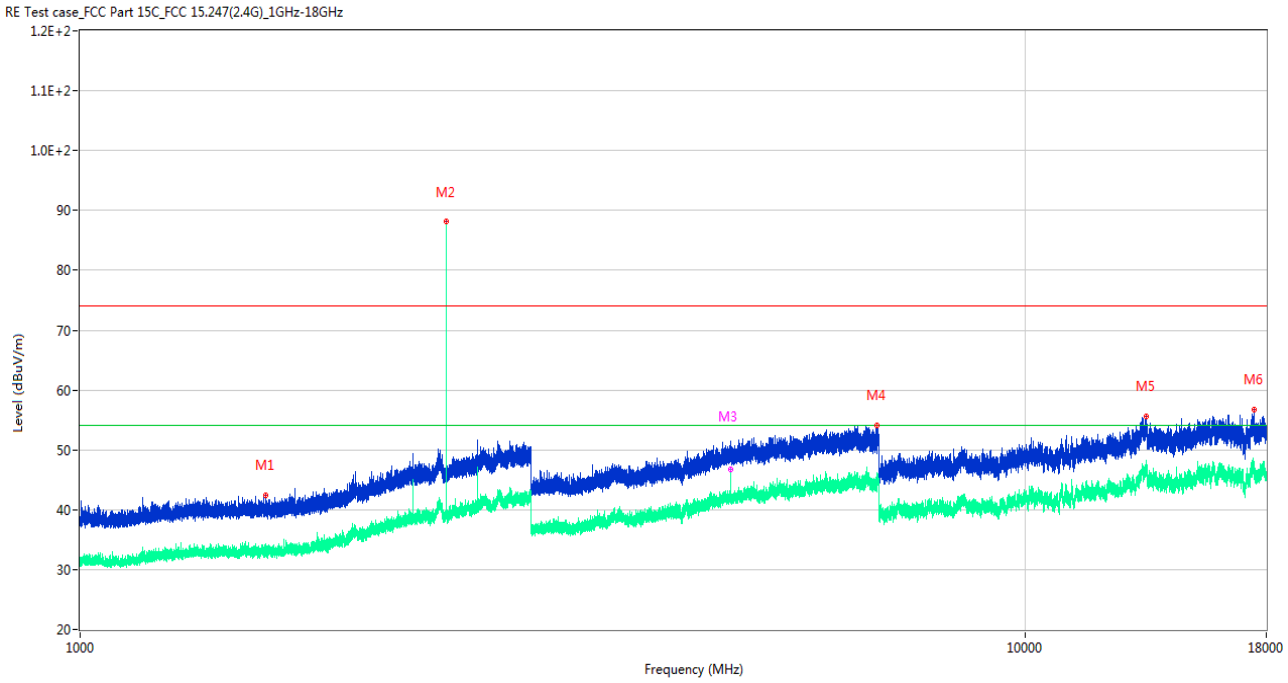
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1560.900	42.51	-16.85	74.0	31.49	Peak	115.00	400	Horizontal	Pass
1**	1560.900	33.13	-16.85	54.0	20.87	AV	115.00	400	Horizontal	Pass
2	2402.200	88.34	-9.74	74.0	-14.34	Peak	249.00	200	Horizontal	N/A
2**	2402.200	87.84	-9.74	54.0	-33.84	AV	249.00	200	Horizontal	N/A
3	4804.000	53.01	-2.85	74.0	20.99	Peak	199.00	150	Horizontal	Pass
3**	4804.000	49.59	-2.85	54.0	4.41	AV	199.00	150	Horizontal	Pass
4	6815.200	55.18	0.60	74.0	18.82	Peak	65.00	300	Horizontal	Pass
4**	6815.200	44.54	0.60	54.0	9.46	AV	65.00	300	Horizontal	Pass
5	13300.200	55.70	0.87	74.0	18.30	Peak	245.00	150	Horizontal	Pass
5**	13300.200	46.94	0.87	54.0	7.06	AV	245.00	150	Horizontal	Pass
6	17457.676	56.60	2.84	74.0	17.40	Peak	331.00	100	Horizontal	Pass
6**	17457.676	46.10	2.84	54.0	7.90	AV	331.00	100	Horizontal	Pass

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT V



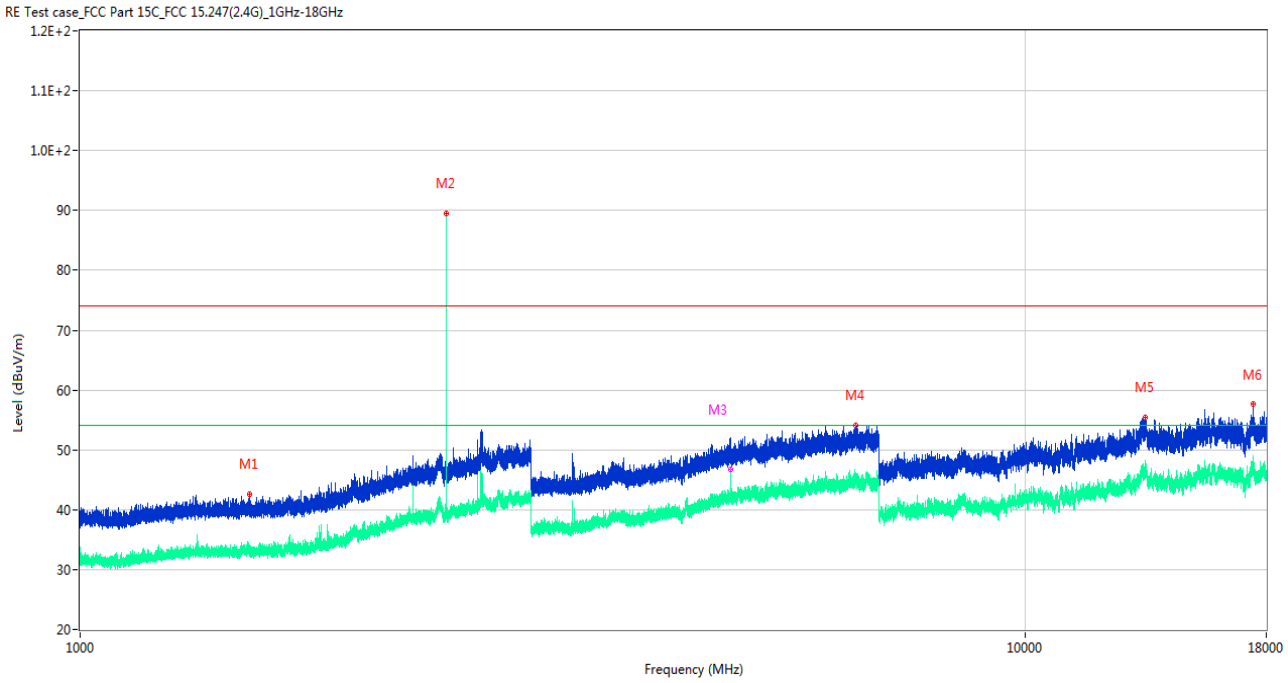
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1329.700	43.58	-17.02	74.0	30.42	Peak	91.00	100	Vertical	Pass
1**	1329.700	34.00	-17.02	54.0	20.00	AV	91.00	100	Vertical	Pass
2	2402.200	88.95	-9.74	74.0	-14.95	Peak	120.00	100	Vertical	N/A
2**	2402.200	88.58	-9.74	54.0	-34.58	AV	120.00	100	Vertical	N/A
3	4804.200	50.98	-2.83	74.0	23.02	Peak	52.00	150	Vertical	Pass
3**	4804.200	47.10	-2.83	54.0	6.90	AV	52.00	150	Vertical	Pass
4	5308.000	55.52	-2.32	74.0	18.48	Peak	74.00	400	Vertical	Pass
4**	5308.000	42.26	-2.32	54.0	11.74	AV	74.00	400	Vertical	Pass
5	9608.200	50.53	-0.01	74.0	23.47	Peak	0.00	150	Vertical	Pass
5**	9608.200	44.83	-0.01	54.0	9.17	AV	0.00	150	Vertical	Pass
6	13412.025	55.94	0.47	74.0	18.06	Peak	250.00	150	Vertical	Pass
6**	13412.025	46.47	0.47	54.0	7.53	AV	250.00	150	Vertical	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H



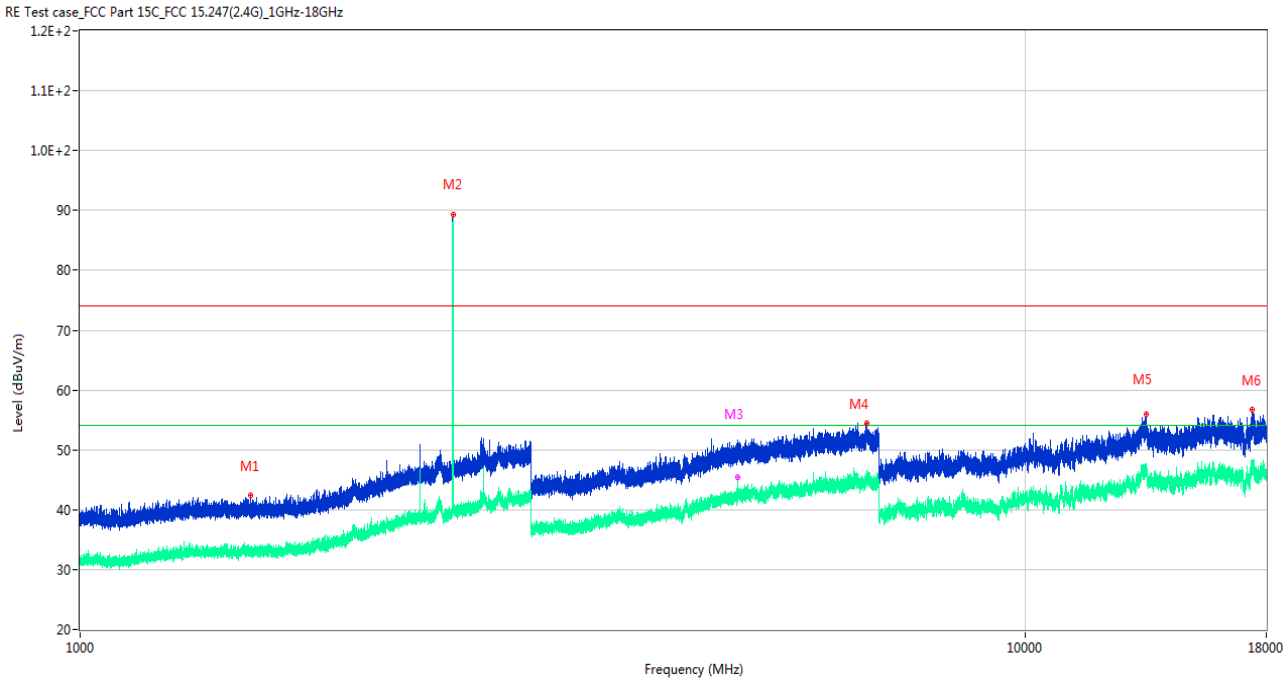
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1570.100	42.50	-17.05	74.0	31.50	Peak	152.00	300	Horizontal	Pass
1**	1570.100	32.73	-17.05	54.0	21.27	AV	152.00	300	Horizontal	Pass
2	2441.100	88.16	-12.38	74.0	-14.16	Peak	244.00	100	Horizontal	N/A
2**	2441.100	87.88	-12.38	54.0	-33.88	AV	244.00	100	Horizontal	N/A
3	4882.200	51.45	-2.60	74.0	22.55	Peak	294.00	150	Horizontal	Pass
3**	4882.200	46.67	-2.60	54.0	7.33	AV	294.00	150	Horizontal	Pass
4	6977.000	54.17	1.70	74.0	19.83	Peak	261.00	200	Horizontal	Pass
4**	6977.000	45.50	1.70	54.0	8.50	AV	261.00	200	Horizontal	Pass
5	13423.313	55.58	0.40	74.0	18.42	Peak	280.00	150	Horizontal	Pass
5**	13423.313	46.08	0.40	54.0	7.92	AV	280.00	150	Horizontal	Pass
6	17456.626	56.72	2.84	74.0	17.28	Peak	165.00	300	Horizontal	Pass
6**	17456.626	46.76	2.84	54.0	7.24	AV	165.00	300	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1511.400	42.60	-17.21	74.0	31.40	Peak	5.00	200	Vertical	Pass
1**	1511.400	33.03	-17.21	54.0	20.97	AV	5.00	200	Vertical	Pass
2	2440.900	89.57	-12.38	74.0	-15.57	Peak	120.00	200	Vertical	N/A
2**	2440.900	89.19	-12.38	54.0	-35.19	AV	120.00	200	Vertical	N/A
3	4882.200	51.95	-2.60	74.0	22.05	Peak	153.00	150	Vertical	Pass
3**	4882.200	46.76	-2.60	54.0	7.24	AV	153.00	150	Vertical	Pass
4	6627.600	54.13	0.17	74.0	19.87	Peak	230.00	400	Vertical	Pass
4**	6627.600	45.74	0.17	54.0	8.26	AV	230.00	400	Vertical	Pass
5	13418.325	55.46	0.40	74.0	18.54	Peak	333.00	150	Vertical	Pass
5**	13418.325	46.54	0.40	54.0	7.46	AV	333.00	150	Vertical	Pass
6	17420.925	57.62	3.73	74.0	16.38	Peak	333.00	200	Vertical	Pass
6**	17420.925	46.91	3.73	54.0	7.09	AV	333.00	200	Vertical	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT H

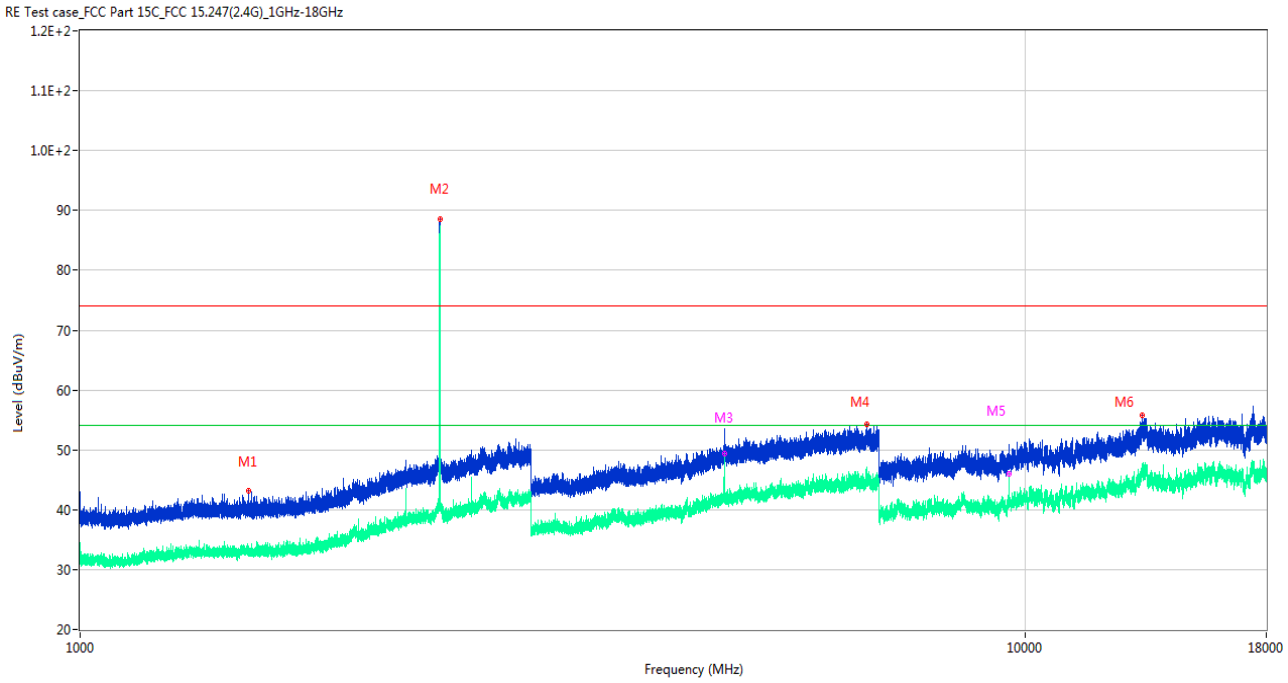


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1516.000	42.37	-17.18	74.0	31.63	Peak	179.00	200	Horizontal	Pass
1**	1516.000	32.98	-17.18	54.0	21.02	AV	179.00	200	Horizontal	Pass
2	2480.100	89.38	-11.29	74.0	-15.38	Peak	291.00	150	Horizontal	N/A
2**	2480.100	89.07	-11.29	54.0	-35.07	AV	291.00	150	Horizontal	N/A
3	4960.000	50.35	-2.23	74.0	23.65	Peak	314.00	150	Horizontal	Pass
3**	4960.000	45.42	-2.23	54.0	8.58	AV	314.00	150	Horizontal	Pass
4	6807.000	54.52	2.15	74.0	19.48	Peak	360.00	200	Horizontal	Pass
4**	6807.000	45.91	2.15	54.0	8.09	AV	360.00	200	Horizontal	Pass
5	13423.838	56.01	0.40	74.0	17.99	Peak	0.00	150	Horizontal	Pass
5**	13423.838	46.93	0.40	54.0	7.07	AV	0.00	150	Horizontal	Pass
6	17404.912	56.65	3.31	74.0	17.35	Peak	296.00	300	Horizontal	Pass
6**	17404.912	46.72	3.31	54.0	7.28	AV	296.00	300	Horizontal	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V

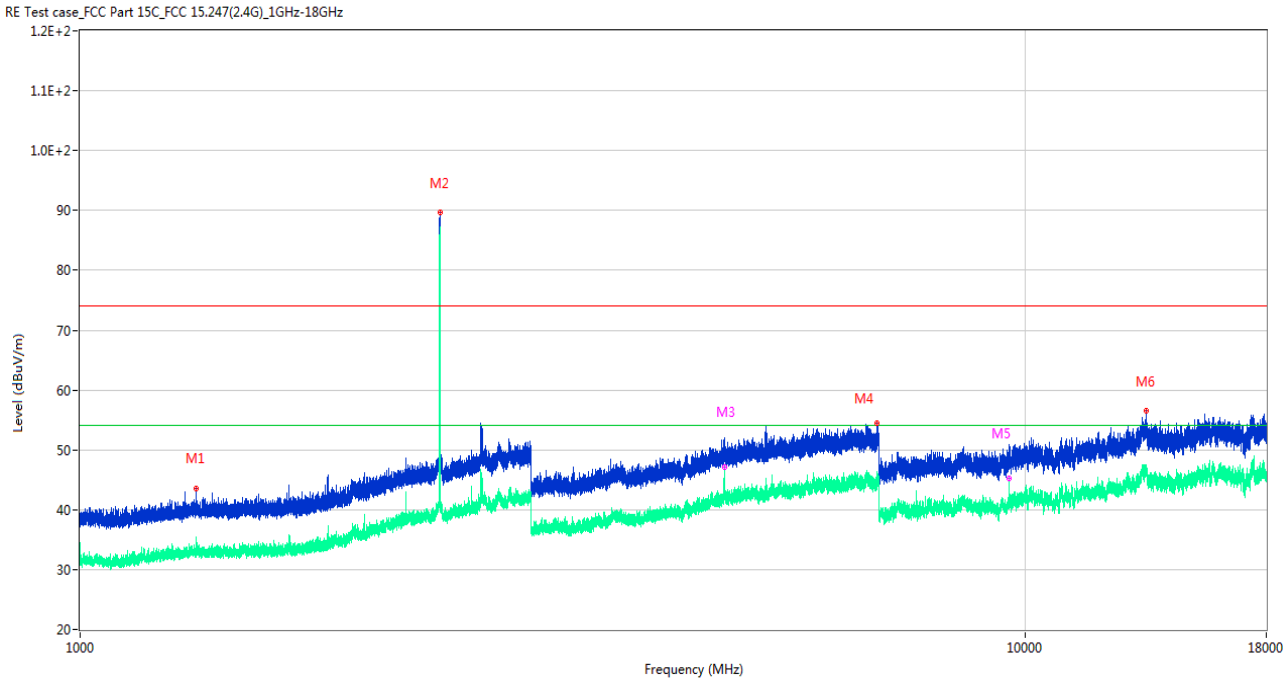
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1333.000	43.56	-17.12	74.0	30.44	Peak	61.00	300	Vertical	Pass
1**	1333.000	33.52	-17.12	54.0	20.48	AV	61.00	300	Vertical	Pass
2	2479.900	90.57	-11.32	74.0	-16.57	Peak	121.00	150	Vertical	N/A
2**	2479.900	90.01	-11.32	54.0	-36.01	AV	121.00	150	Vertical	N/A
3	4960.200	52.15	-2.26	74.0	21.85	Peak	247.00	150	Vertical	Pass
3**	4960.200	48.06	-2.26	54.0	5.94	AV	247.00	150	Vertical	Pass
4	6790.600	54.29	0.77	74.0	19.71	Peak	18.00	400	Vertical	Pass
4**	6790.600	45.72	0.77	54.0	8.28	AV	18.00	400	Vertical	Pass
5	13317.262	55.44	0.89	74.0	18.56	Peak	227.00	150	Vertical	Pass
5**	13317.262	46.15	0.89	54.0	7.85	AV	227.00	150	Vertical	Pass
6	17431.425	56.27	3.40	74.0	17.73	Peak	354.00	400	Vertical	Pass
6**	17431.425	46.65	3.40	54.0	7.35	AV	354.00	400	Vertical	Pass

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



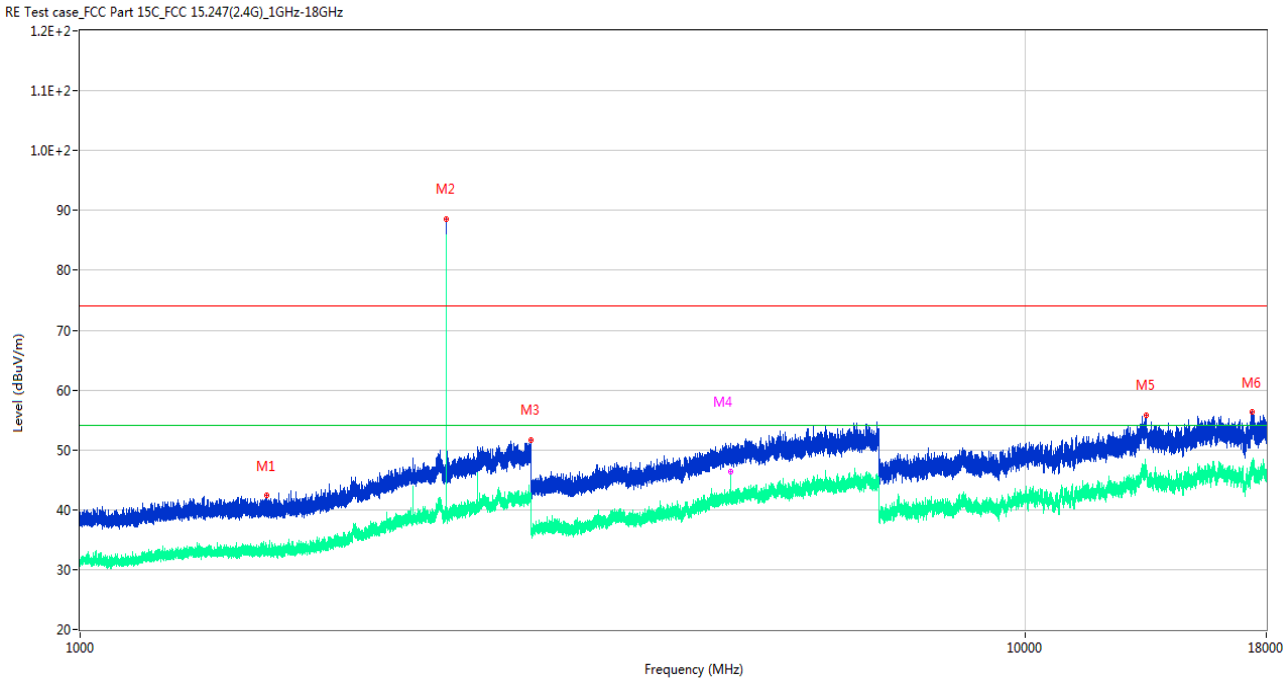
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1506.500	43.12	-16.83	74.0	30.88	Peak	334.00	100	Horizontal	Pass
1**	1506.500	33.40	-16.83	54.0	20.60	AV	334.00	100	Horizontal	Pass
2	2402.100	88.56	-9.74	74.0	-14.56	Peak	214.00	200	Horizontal	N/A
2**	2402.100	87.43	-9.74	54.0	-33.43	AV	214.00	200	Horizontal	N/A
3	4804.200	53.55	-2.83	74.0	20.45	Peak	210.00	150	Horizontal	Pass
3**	4804.200	49.30	-2.83	54.0	4.70	AV	210.00	150	Horizontal	Pass
4	6793.800	54.29	1.13	74.0	19.71	Peak	151.00	200	Horizontal	Pass
4**	6793.800	45.96	1.13	54.0	8.04	AV	151.00	200	Horizontal	Pass
5	9608.200	49.97	-0.01	74.0	24.03	Peak	22.00	150	Horizontal	Pass
5**	9608.200	45.97	-0.01	54.0	8.03	AV	22.00	150	Horizontal	Pass
6	13317.787	55.74	0.90	74.0	18.26	Peak	73.00	150	Horizontal	Pass
6**	13317.787	46.23	0.90	54.0	7.77	AV	73.00	150	Horizontal	Pass

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



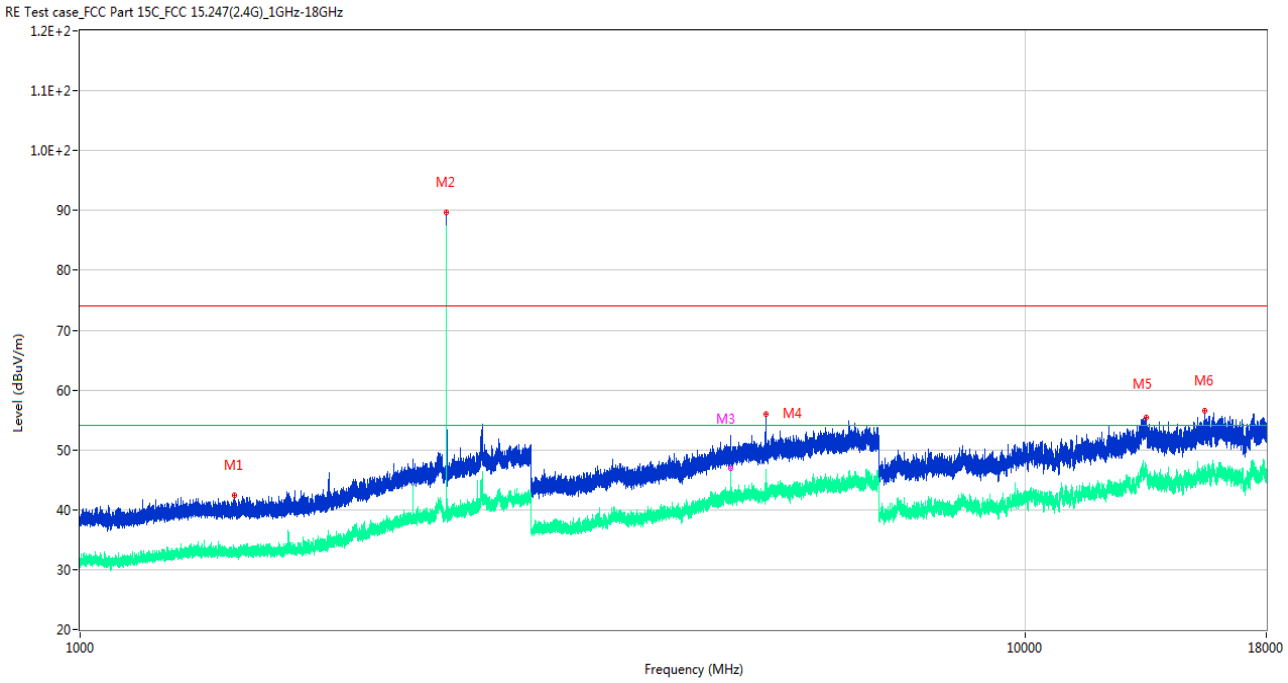
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1327.800	43.56	-17.08	74.0	30.44	Peak	332.00	400	Vertical	Pass
1**	1327.800	34.29	-17.08	54.0	19.71	AV	332.00	400	Vertical	Pass
2	2401.900	89.63	-9.75	74.0	-15.63	Peak	121.00	100	Vertical	N/A
2**	2401.900	86.93	-9.75	54.0	-32.93	AV	121.00	100	Vertical	N/A
3	4804.200	52.04	-2.83	74.0	21.96	Peak	360.00	150	Vertical	Pass
3**	4804.200	47.08	-2.83	54.0	6.92	AV	360.00	150	Vertical	Pass
4	6966.200	54.52	-0.01	74.0	19.48	Peak	146.00	400	Vertical	Pass
4**	6966.200	44.41	-0.01	54.0	9.59	AV	146.00	400	Vertical	Pass
5	9608.200	50.93	-0.01	74.0	23.07	Peak	0.00	150	Vertical	Pass
5**	9608.200	45.21	-0.01	54.0	8.79	AV	0.00	150	Vertical	Pass
6	13430.925	56.52	0.40	74.0	17.48	Peak	248.00	150	Vertical	Pass
6**	13430.925	47.16	0.40	54.0	6.84	AV	248.00	150	Vertical	Pass

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



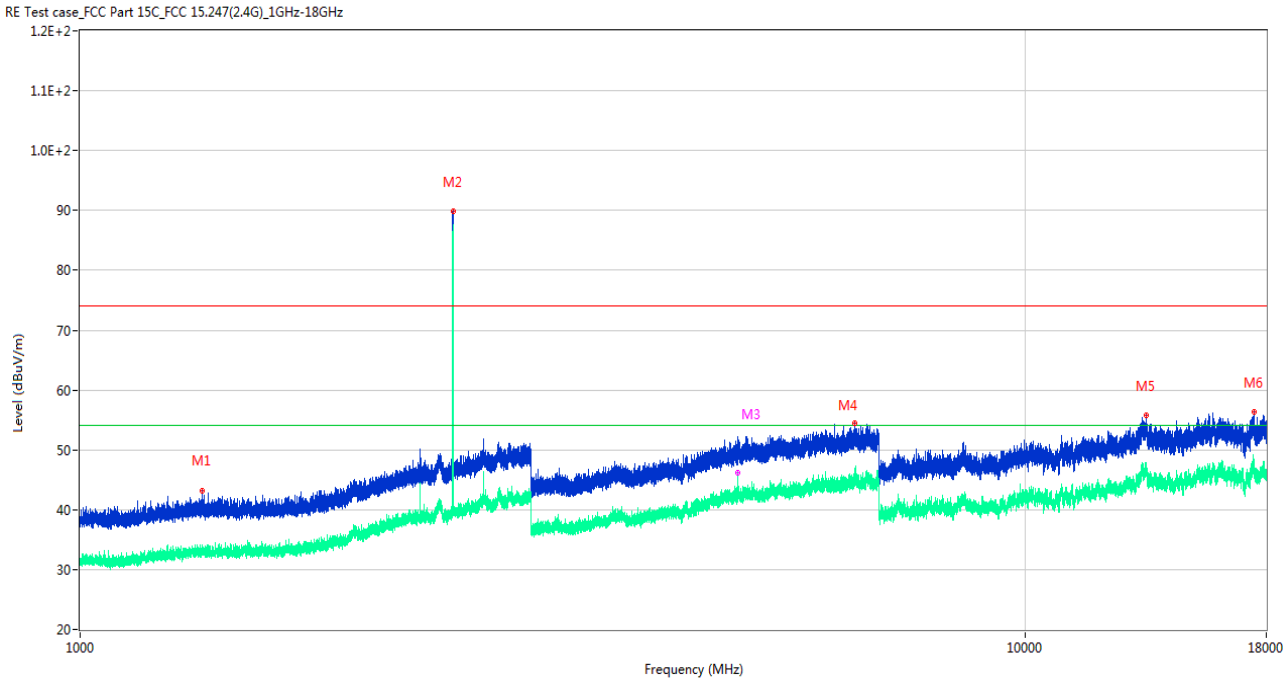
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1574.400	42.36	-17.13	74.0	31.64	Peak	80.00	200	Horizontal	Pass
1**	1574.400	32.84	-17.13	54.0	21.16	AV	80.00	200	Horizontal	Pass
2	2440.800	88.55	-12.38	74.0	-14.55	Peak	216.00	150	Horizontal	N/A
2**	2440.800	85.27	-12.38	54.0	-31.27	AV	216.00	150	Horizontal	N/A
3	2997.400	51.69	-9.21	74.0	22.31	Peak	339.00	150	Horizontal	Pass
3**	2997.400	41.57	-9.21	54.0	12.43	AV	339.00	150	Horizontal	Pass
4	4882.000	50.58	-2.61	74.0	23.42	Peak	212.00	150	Horizontal	Pass
4**	4882.000	46.45	-2.61	54.0	7.55	AV	212.00	150	Horizontal	Pass
5	13420.425	55.75	0.40	74.0	18.25	Peak	360.00	150	Horizontal	Pass
5**	13420.425	46.33	0.40	54.0	7.67	AV	360.00	150	Horizontal	Pass
6	17399.400	56.33	3.16	74.0	17.67	Peak	285.00	300	Horizontal	Pass
6**	17399.400	46.41	3.16	54.0	7.59	AV	285.00	300	Horizontal	Pass

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



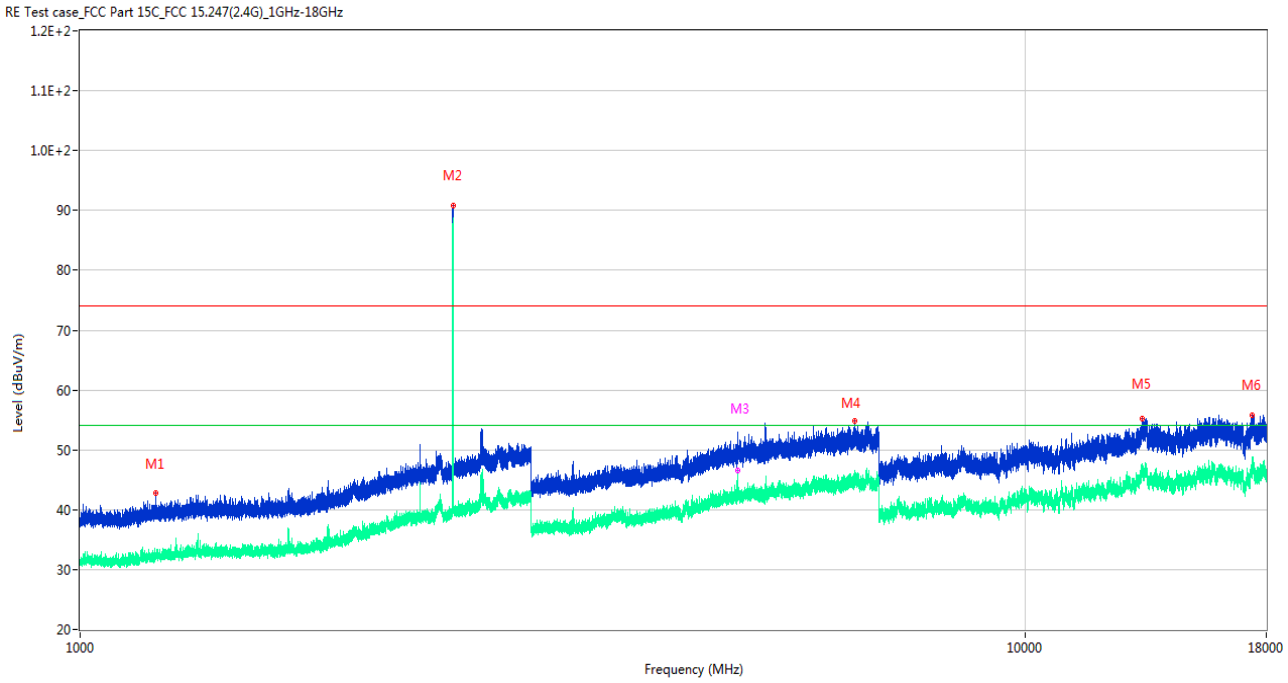
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1458.100	42.45	-16.95	74.0	31.55	Peak	236.00	200	Vertical	Pass
1**	1458.100	33.42	-16.95	54.0	20.58	AV	236.00	200	Vertical	Pass
2	2440.900	89.69	-12.38	74.0	-15.69	Peak	121.00	100	Vertical	N/A
2**	2440.900	87.03	-12.38	54.0	-33.03	AV	121.00	100	Vertical	N/A
3	4882.200	50.49	-2.60	74.0	23.51	Peak	272.00	150	Vertical	Pass
3**	4882.200	46.84	-2.60	54.0	7.16	AV	272.00	150	Vertical	Pass
4	5318.600	55.94	-2.39	74.0	18.06	Peak	102.00	100	Vertical	Pass
4**	5318.600	42.92	-2.39	54.0	11.08	AV	102.00	100	Vertical	Pass
5	13426.725	55.45	0.40	74.0	18.55	Peak	360.00	150	Vertical	Pass
5**	13426.725	46.80	0.40	54.0	7.20	AV	360.00	150	Vertical	Pass
6	15506.250	56.58	1.32	74.0	17.42	Peak	260.00	300	Vertical	Pass
6**	15506.250	46.74	1.32	54.0	7.26	AV	260.00	300	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)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1345.500	43.25	-16.89	74.0	30.75	Peak	75.00	400	Horizontal	Pass
1**	1345.500	32.70	-16.89	54.0	21.30	AV	75.00	400	Horizontal	Pass
2	2479.800	89.82	-11.33	74.0	-15.82	Peak	290.00	150	Horizontal	N/A
2**	2479.800	86.59	-11.33	54.0	-32.59	AV	290.00	150	Horizontal	N/A
3	4960.200	51.64	-2.26	74.0	22.36	Peak	244.00	150	Horizontal	Pass
3**	4960.200	46.17	-2.26	54.0	7.83	AV	244.00	150	Horizontal	Pass
4	6607.400	54.44	0.11	74.0	19.56	Peak	157.00	300	Horizontal	Pass
4**	6607.400	44.59	0.11	54.0	9.41	AV	157.00	300	Horizontal	Pass
5	13437.750	55.76	0.45	74.0	18.24	Peak	62.00	150	Horizontal	Pass
5**	13437.750	46.13	0.45	54.0	7.87	AV	62.00	150	Horizontal	Pass
6	17462.137	56.30	2.86	74.0	17.70	Peak	82.00	100	Horizontal	Pass
6**	17462.137	46.44	2.86	54.0	7.56	AV	82.00	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)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1203.100	42.76	-17.74	74.0	31.24	Peak	173.00	200	Vertical	Pass
1**	1203.100	32.52	-17.74	54.0	21.48	AV	173.00	200	Vertical	Pass
2	2480.000	90.85	-11.30	74.0	-16.85	Peak	118.00	200	Vertical	N/A
2**	2480.000	88.21	-11.30	54.0	-34.21	AV	118.00	200	Vertical	N/A
3	4960.000	51.28	-2.23	74.0	22.72	Peak	136.00	150	Vertical	Pass
3**	4960.000	46.58	-2.23	54.0	7.42	AV	136.00	150	Vertical	Pass
4	6610.000	54.89	0.56	74.0	19.11	Peak	309.00	300	Vertical	Pass
4**	6610.000	46.32	0.56	54.0	7.68	AV	309.00	300	Vertical	Pass
5	13298.099	55.28	0.85	74.0	18.72	Peak	360.00	150	Vertical	Pass
5**	13298.099	46.38	0.85	54.0	7.62	AV	360.00	150	Vertical	Pass
6	17393.887	55.86	2.97	74.0	18.14	Peak	80.00	200	Vertical	Pass
6**	17393.887	47.00	2.97	54.0	7.00	AV	80.00	200	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 ≥ 1 GHz, 100 kHz for f < 1 GHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

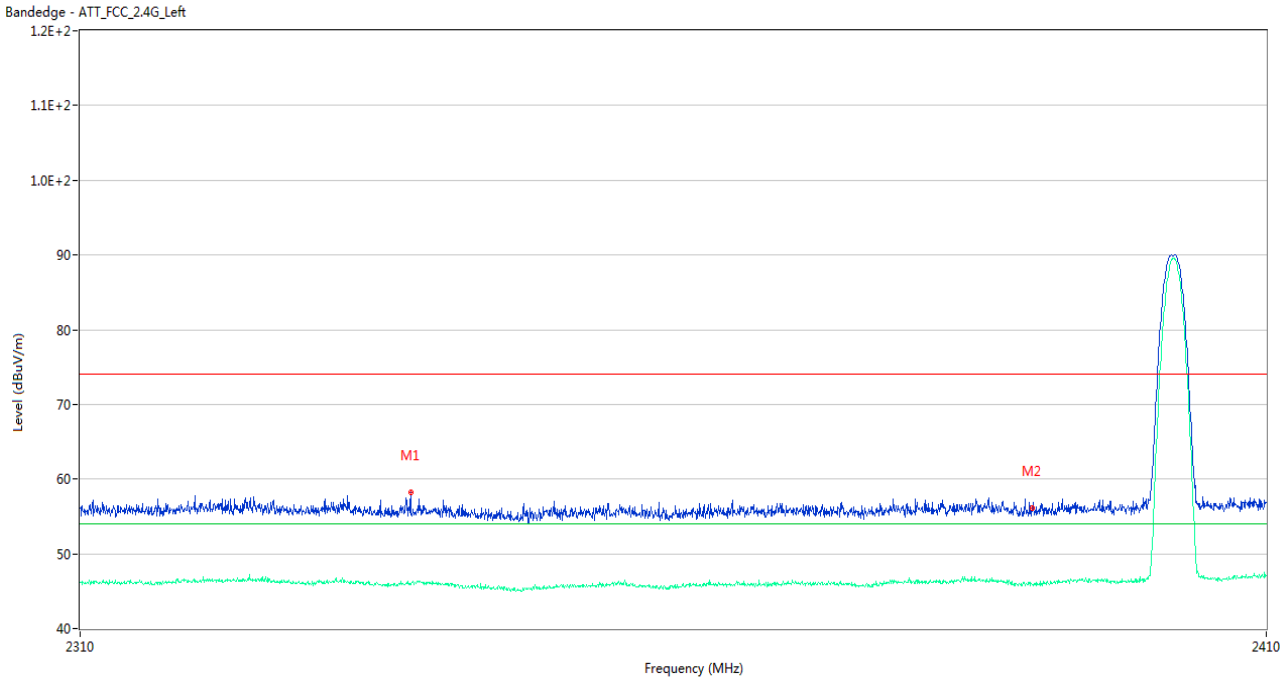
For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported, Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

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.

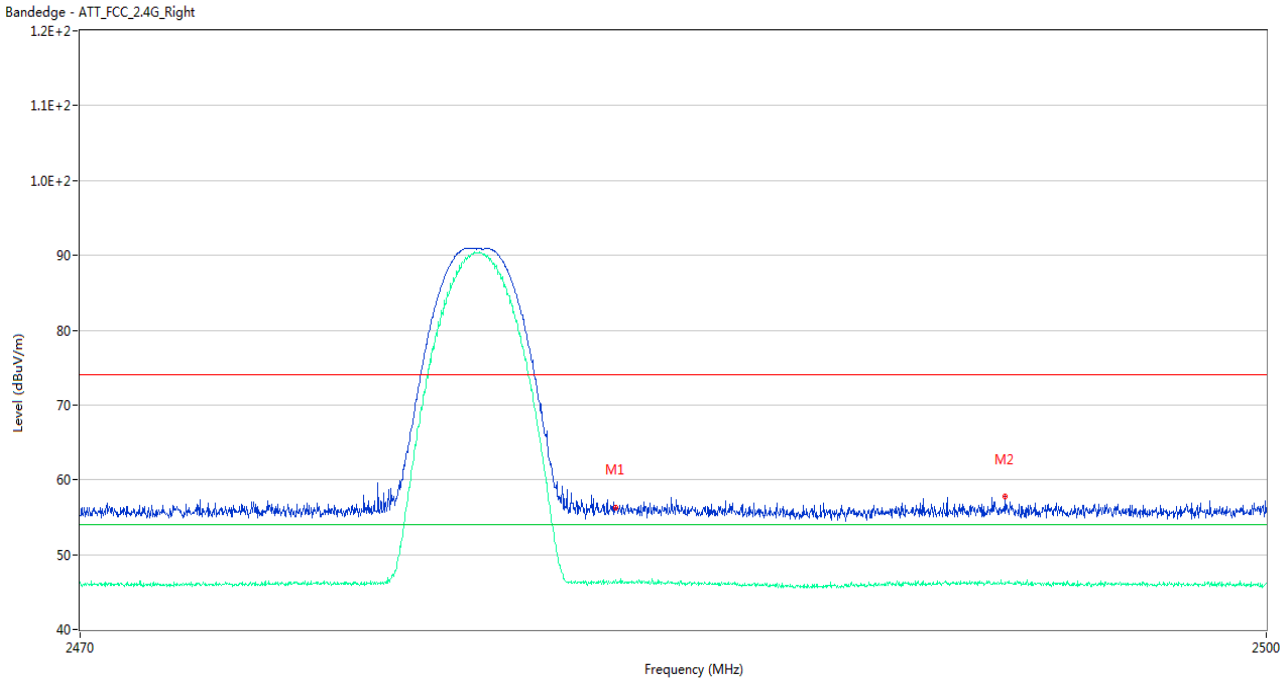
Test Data and Plots

GFSK LOW CHANNEL



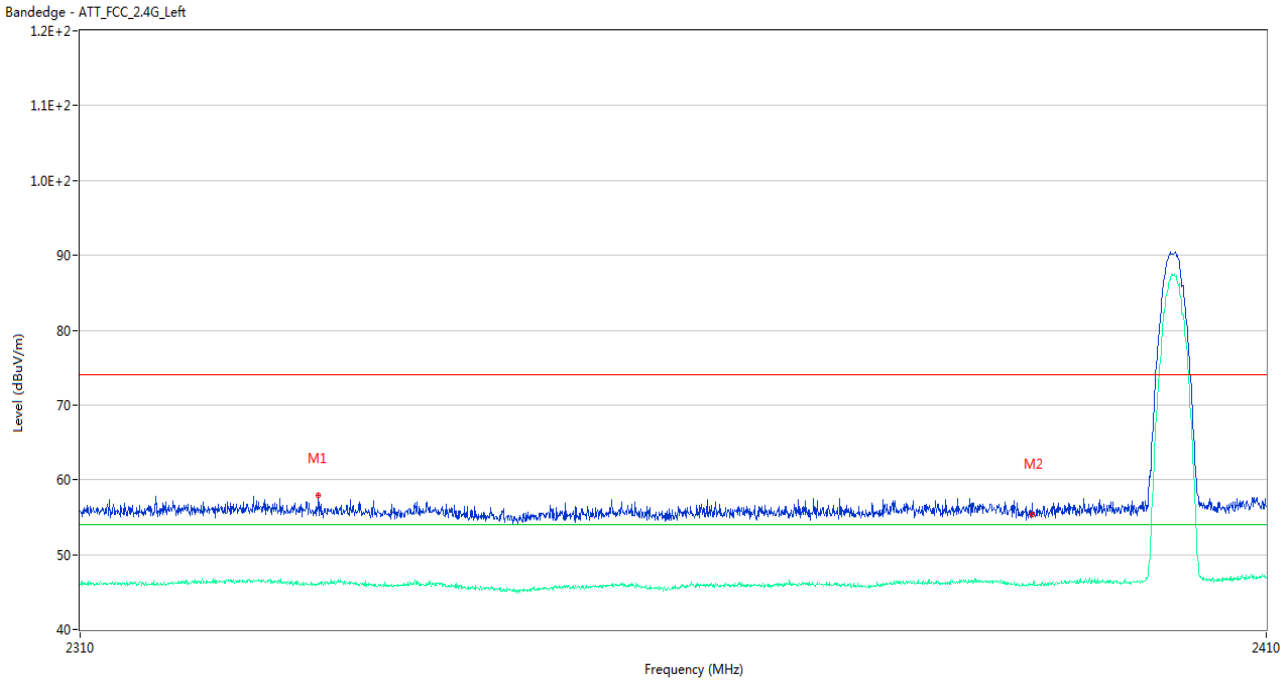
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2337.450	58.21	1.29	74.0	15.79	Peak	127.00	150	Vertical	Pass
1**	2337.450	45.86	1.29	54.0	8.14	AV	127.00	150	Vertical	Pass
2	2389.950	56.07	1.92	74.0	17.93	Peak	316.00	150	Vertical	Pass
2**	2389.950	45.90	1.92	54.0	8.10	AV	316.00	150	Vertical	Pass

GFSK HIGH CHANNEL



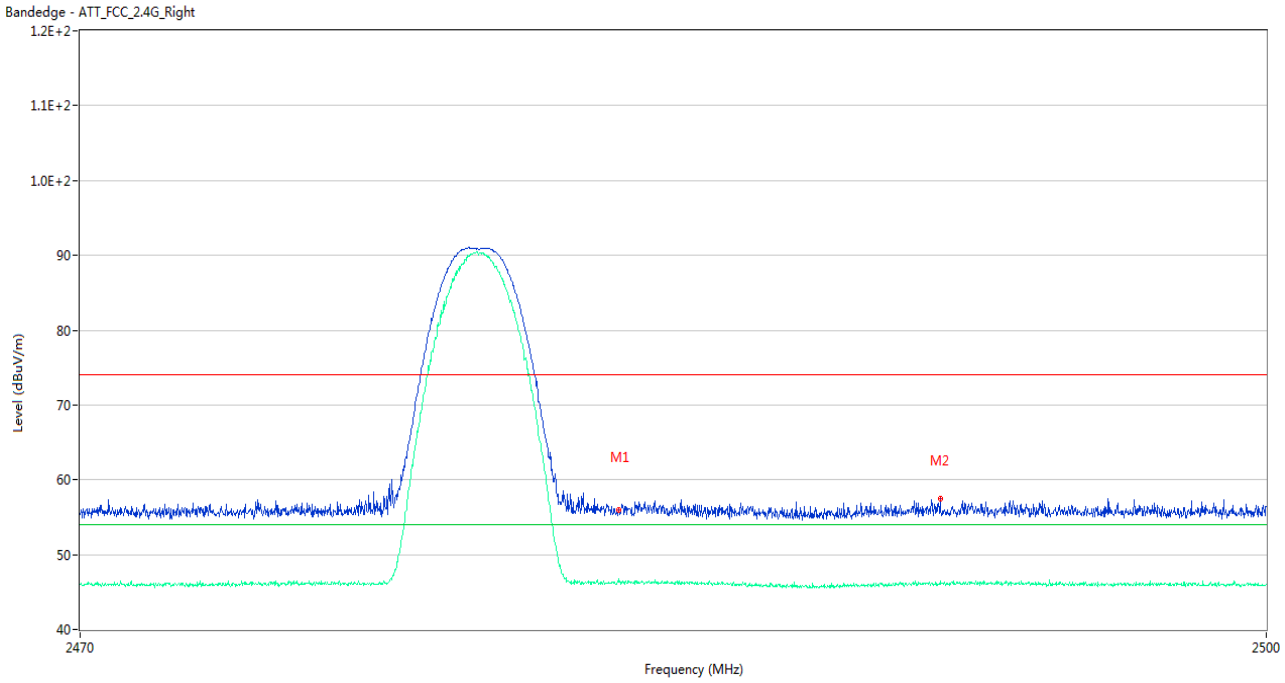
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	56.32	2.11	74.0	17.68	Peak	48.00	100	Vertical	Pass
1**	2483.500	46.57	2.11	54.0	7.43	AV	48.00	100	Vertical	Pass
2	2493.370	57.74	1.88	74.0	16.26	Peak	81.00	100	Vertical	Pass
2**	2493.370	46.29	1.88	54.0	7.71	AV	81.00	100	Vertical	Pass

π/4-DQPSK LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2329.750	57.88	1.29	74.0	16.12	Peak	325.00	200	Vertical	Pass
1**	2329.750	46.07	1.29	54.0	7.93	AV	325.00	200	Vertical	Pass
2	2389.950	55.41	1.92	74.0	18.59	Peak	312.00	200	Vertical	Pass
2**	2389.950	46.08	1.92	54.0	7.92	AV	312.00	200	Vertical	Pass

π/4-DQPSK HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.575	56.01	2.11	74.0	17.99	Peak	127.00	150	Vertical	Pass
1**	2483.575	46.35	2.11	54.0	7.65	AV	127.00	150	Vertical	Pass
2	2491.720	57.53	1.87	74.0	16.47	Peak	50.00	100	Vertical	Pass
2**	2491.720	46.48	1.87	54.0	7.52	AV	50.00	100	Vertical	Pass

ANNEX A TEST SETUP PHOTOS

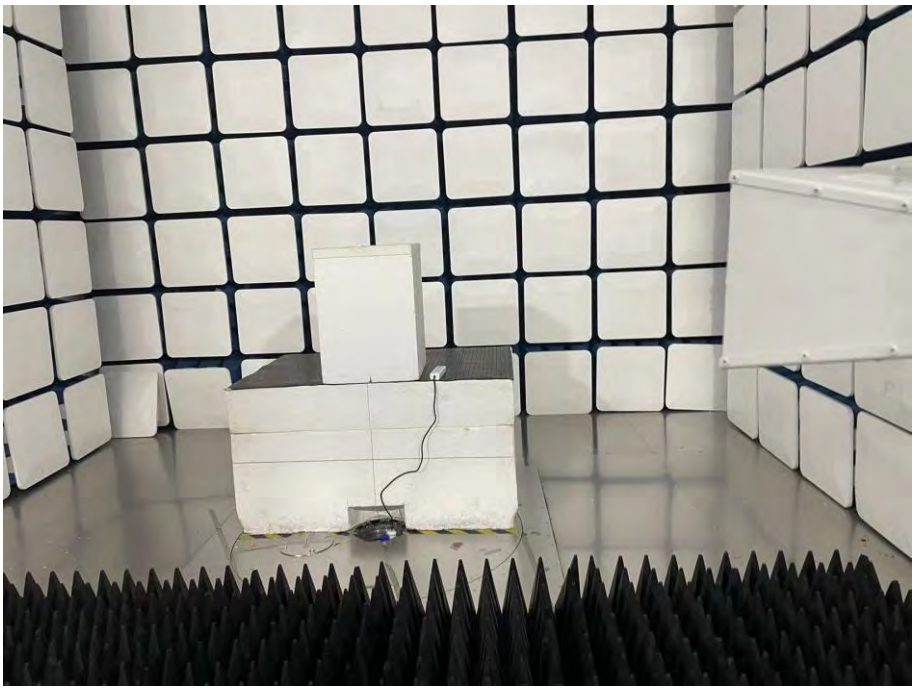
1 Radiated Test Photo

Below 30MHz

30MHz-1GHz

Close-up

Above 1GHz



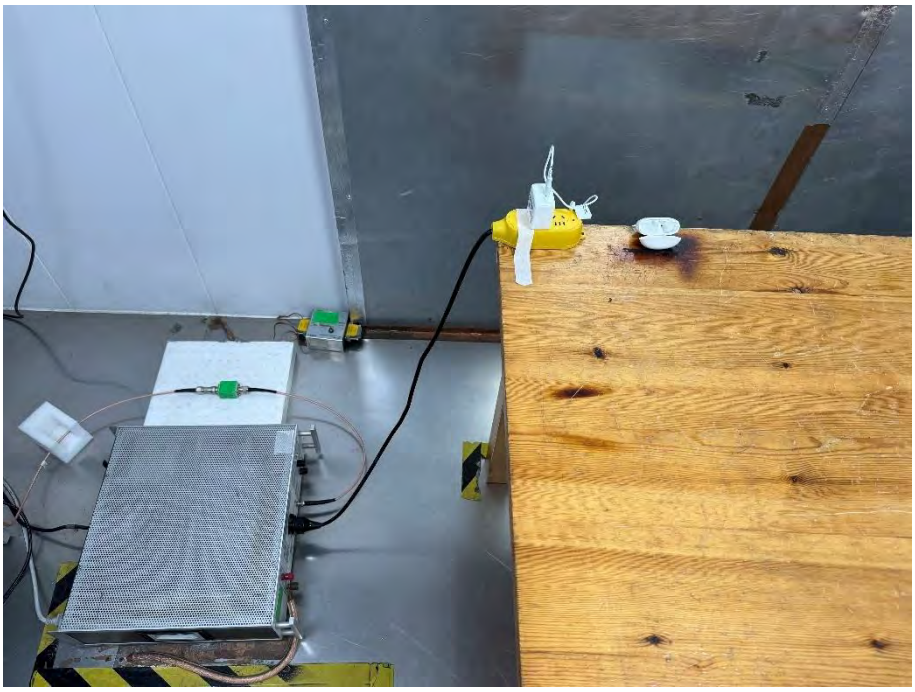
Close-up

2 Conducted Test Photo

Conducted Test

3 Conducted Emissions

Test Photo 1



Test 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

BOTTOM VIEW OF EUT

Accessory-Type-C Cable

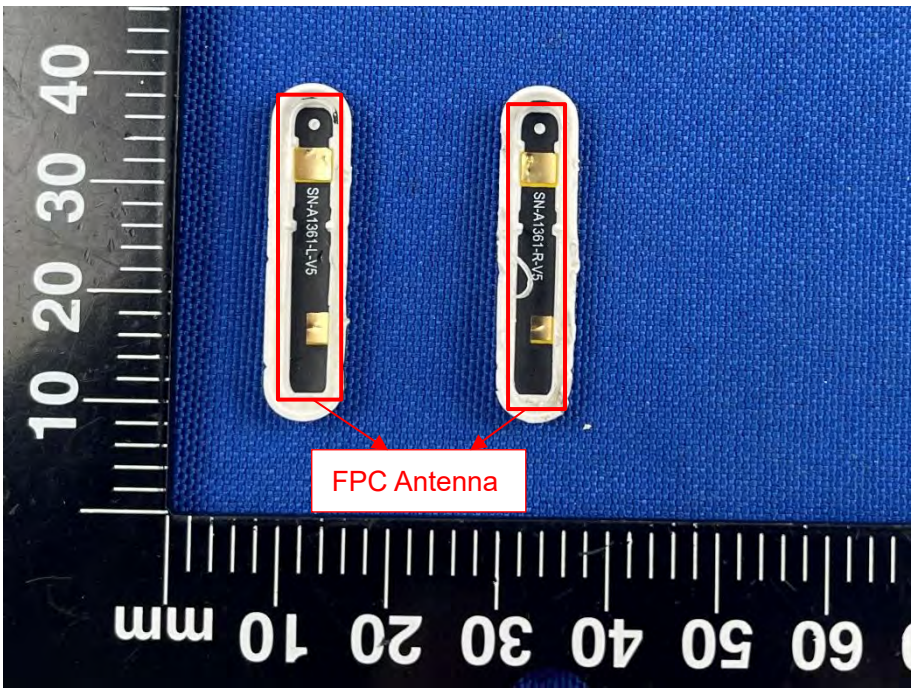
Accessory-Charging Case

ANNEX C EUT INTERNAL PHOTOS

EUT UNCOVER VIEW 1

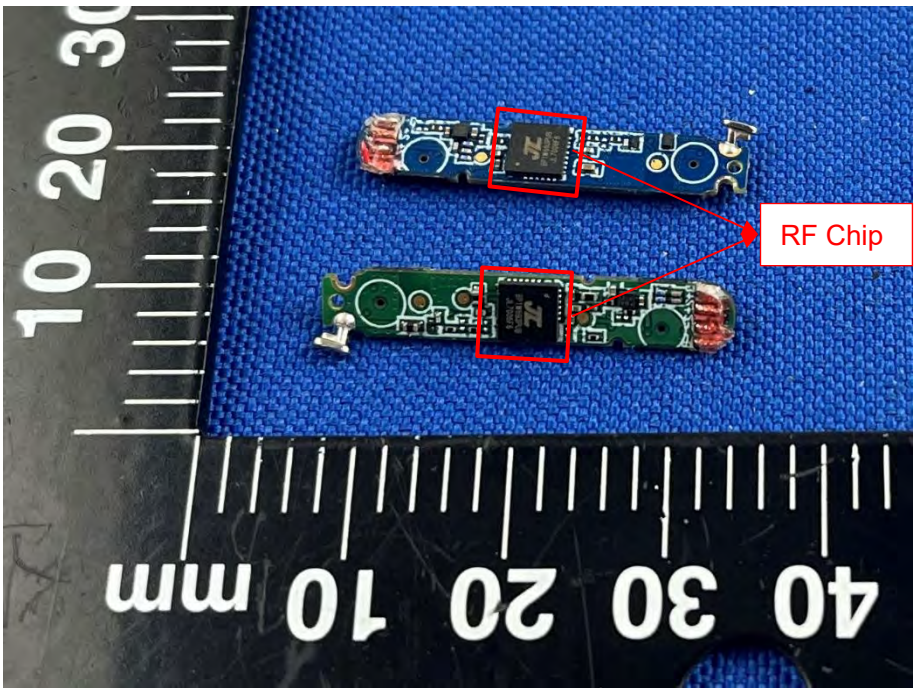
EUT UNCOVER VIEW 2

CLOSE-UP

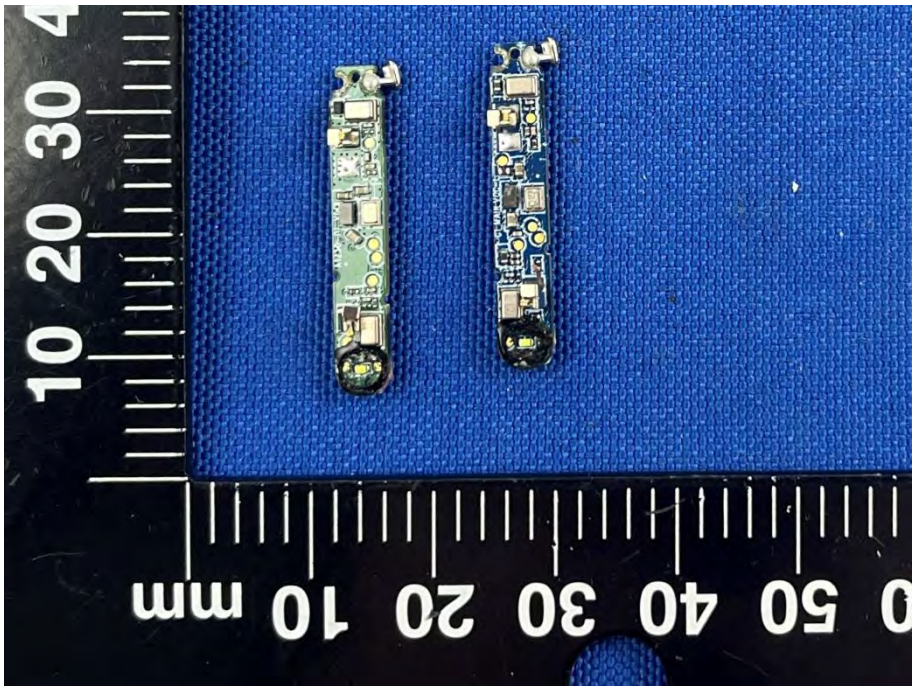


EUT UNCOVER VIEW 3

MAIN BOARD TOP VIEW

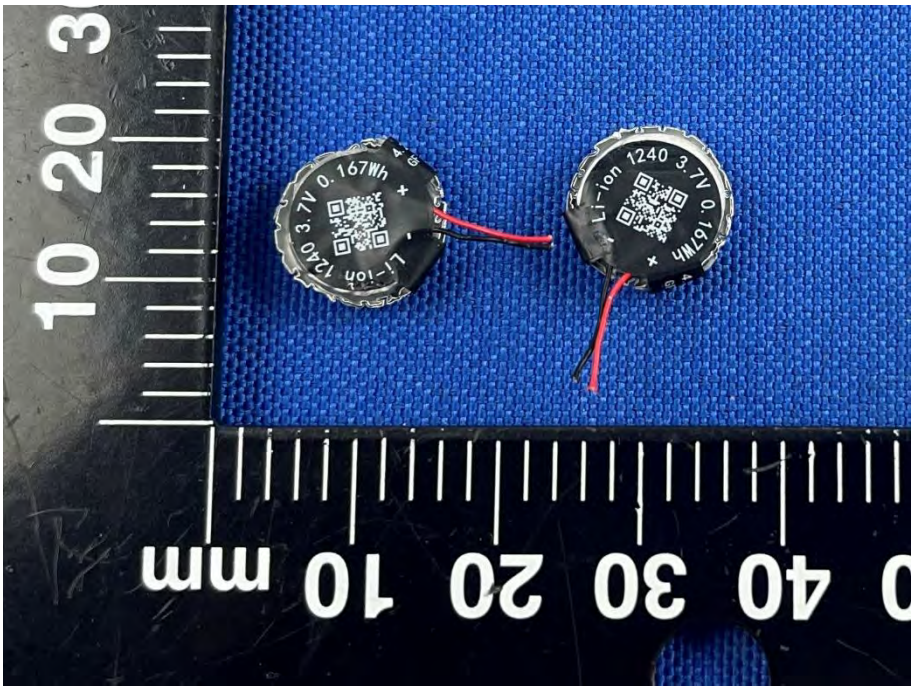


MAIN BOARD REAR VIEW



BATTERY (FRONT)

BATTERY (REAR)



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2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
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7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--END OF REPORT--