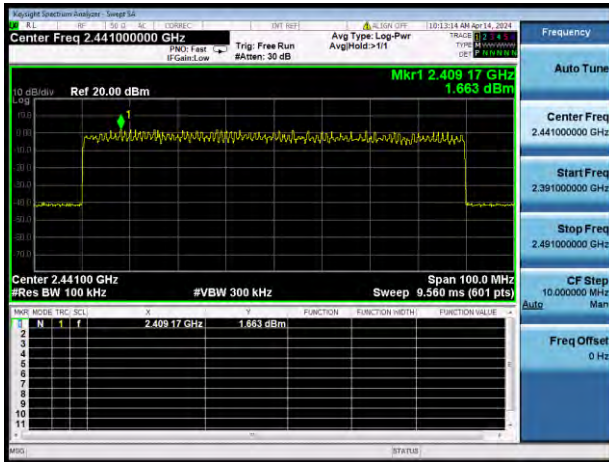


### 8-DPSK HOPPING, CARRIER LEVEL



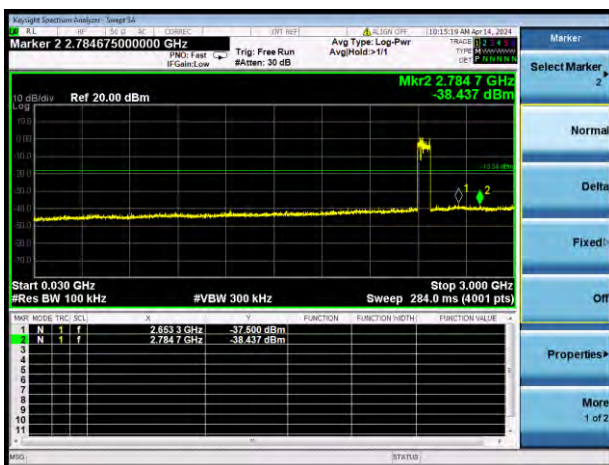
### 8-DPSK Hopping BAND EDGE (LOW)



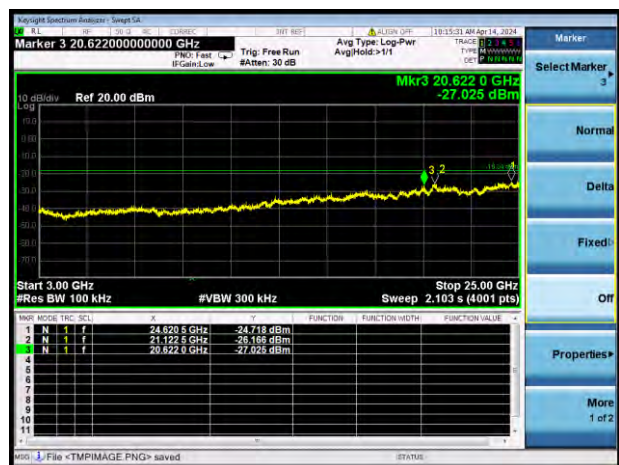
### 8-DPSK Hopping BAND EDGE (HIGH)



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



### 8-DPSK Hopping Mode, SPURIOUS 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 $\mu$ H/50 $\Omega$  line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB $\mu$ 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 <sup>1</sup>: The EUT was tested in charging mode.

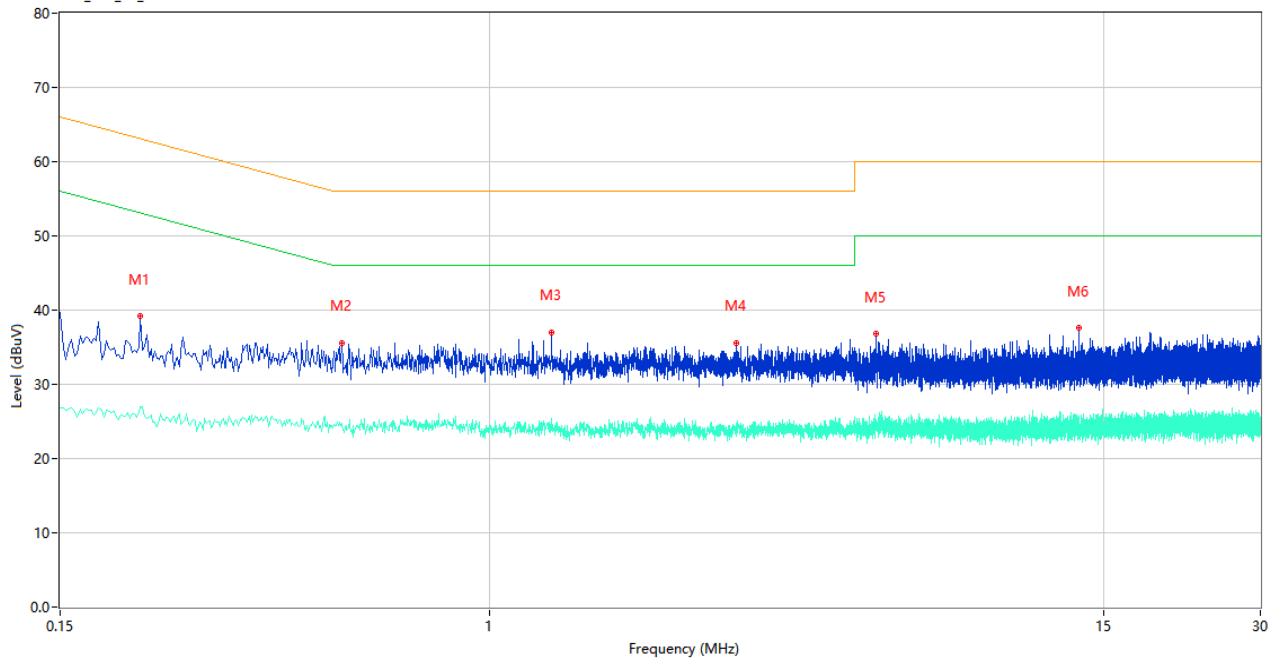
Note <sup>2</sup>: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the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

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

#### Test Data and Plots

##### PHASE L

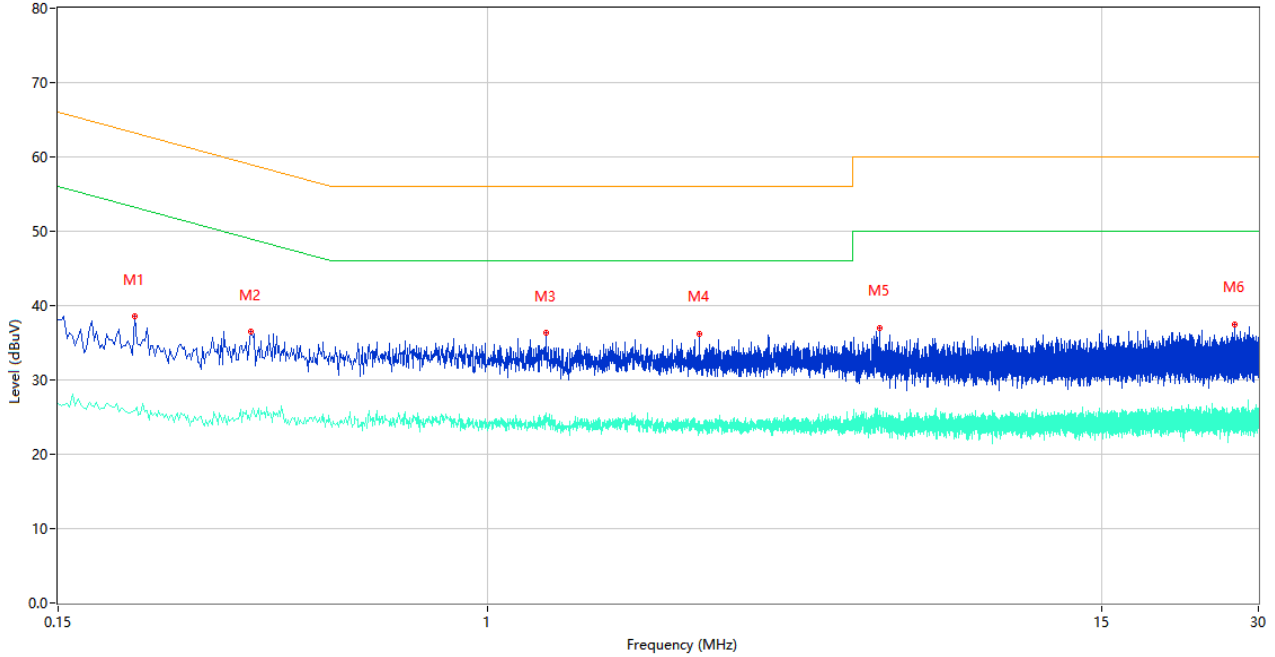
CE Test case\_FCC\_CE\_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.214	39.14	9.77	63.05	23.91	Peak	L	Pass
1**	0.214	27.00	9.77	53.05	26.05	AV	L	Pass
2	0.520	35.56	10.00	56.00	20.44	Peak	L	Pass
2**	0.520	24.81	10.00	46.00	21.19	AV	L	Pass
3	1.312	37.04	10.38	56.00	18.96	Peak	L	Pass
3**	1.312	24.52	10.38	46.00	21.48	AV	L	Pass
4	2.968	35.59	10.23	56.00	20.41	Peak	L	Pass
4**	2.968	23.45	10.23	46.00	22.55	AV	L	Pass
5	5.500	36.82	10.37	60.00	23.18	Peak	L	Pass
5**	5.500	25.31	10.37	50.00	24.69	AV	L	Pass
6	13.494	37.54	10.47	60.00	22.46	Peak	L	Pass
6**	13.494	25.20	10.47	50.00	24.80	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	0.210	38.50	9.77	63.21	24.71	Peak	N	Pass
1**	0.210	25.80	9.77	53.21	27.41	AV	N	Pass
2	0.352	36.45	10.75	58.92	22.47	Peak	N	Pass
2**	0.352	25.31	10.75	48.92	23.61	AV	N	Pass
3	1.292	36.29	10.50	56.00	19.71	Peak	N	Pass
3**	1.292	24.56	10.50	46.00	21.44	AV	N	Pass
4	2.548	36.25	10.09	56.00	19.75	Peak	N	Pass
4**	2.548	23.86	10.09	46.00	22.14	AV	N	Pass
5	5.626	37.06	10.42	60.00	22.94	Peak	N	Pass
5**	5.626	25.00	10.42	50.00	25.00	AV	N	Pass
6	27.068	37.46	10.92	60.00	22.54	Peak	N	Pass
6**	27.068	25.97	10.92	50.00	24.03	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 ( $\mu\text{V}/\text{m}$ )	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 (dB $\mu\text{V}/\text{m}$ ) = 20\*log[Field Strength ( $\mu\text{V}/\text{m}$ )].
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 <sup>1</sup>: The symbol of "--" in the table which means not application.

Note <sup>2</sup>: 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 <sup>3</sup>: The EUT was tested in Link mode and the charging.

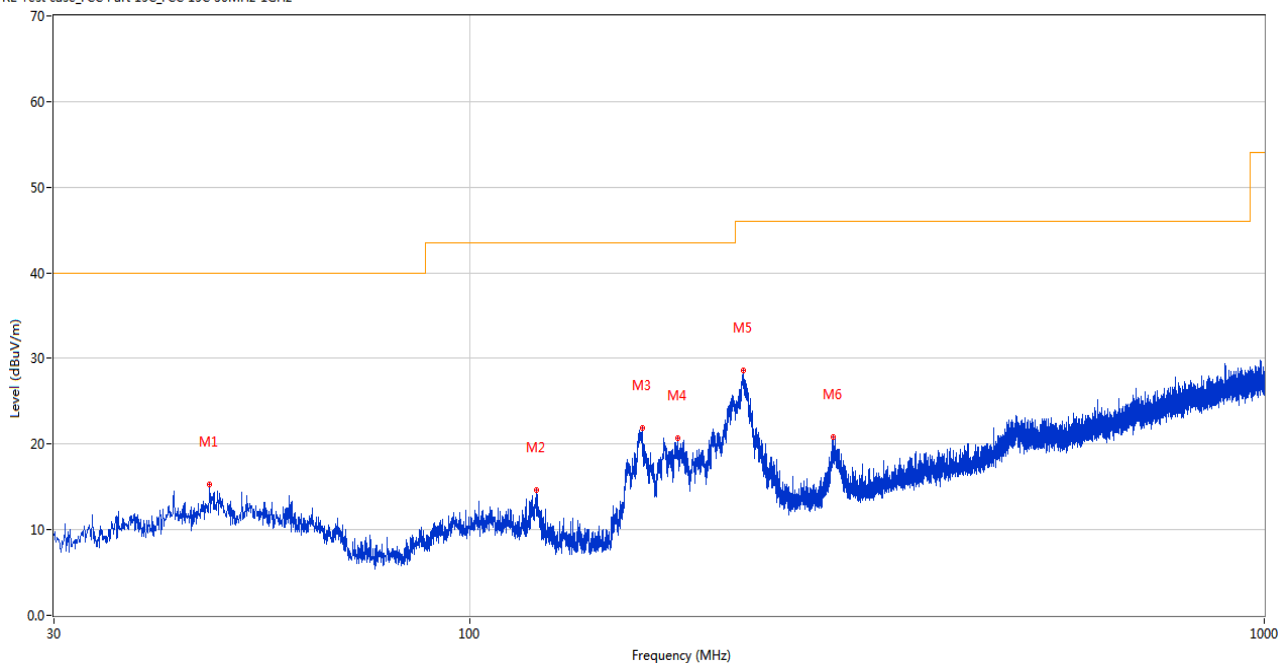
Note <sup>4</sup>: Results (dBuV/m) = Original reading level of Spectrum Analyzer (dBuV/m) + Factor (dB)

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

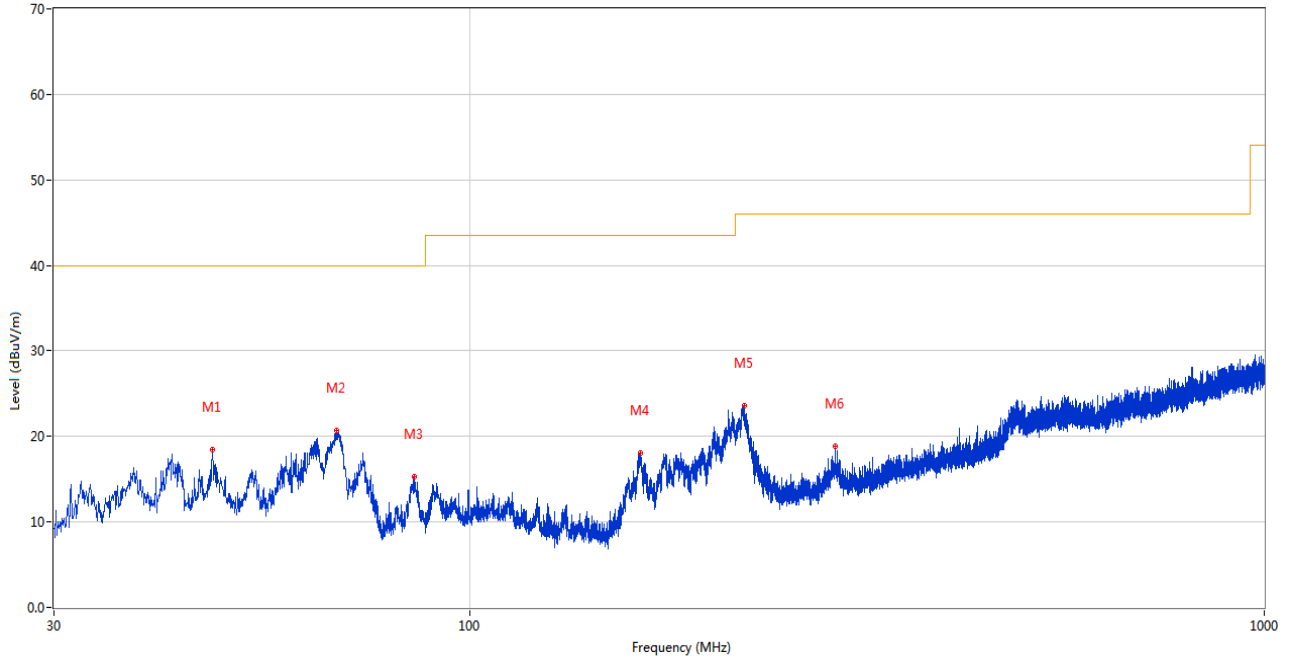
RE Test case\_FCC Part 15C\_FCC 15C 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	47.120	15.26	-22.86	40.0	24.74	Peak	134.80	100	Horizontal	Pass
2	121.326	14.64	-25.80	43.5	28.86	Peak	326.40	100	Horizontal	Pass
3	165.024	21.85	-26.77	43.5	21.65	Peak	260.90	200	Horizontal	Pass
4	182.630	20.64	-25.40	43.5	22.86	Peak	304.70	200	Horizontal	Pass
5	221.284	28.64	-23.88	46.0	17.36	Peak	149.40	100	Horizontal	Pass
6	286.468	20.77	-22.07	46.0	25.23	Peak	149.40	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case\_FCC Part 15C\_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	47.508	18.41	-22.76	40.0	21.59	Peak	2.30	100	Vertical	Pass
2	68.121	20.65	-25.91	40.0	19.35	Peak	252.70	100	Vertical	Pass
3	85.145	15.24	-27.48	40.0	24.76	Peak	323.30	100	Vertical	Pass
4	164.151	18.04	-26.82	43.5	25.46	Peak	336.40	200	Vertical	Pass
5	221.527	23.62	-23.89	46.0	22.38	Peak	2.30	100	Vertical	Pass
6	288.651	18.82	-21.94	46.0	27.18	Peak	107.70	200	Vertical	Pass

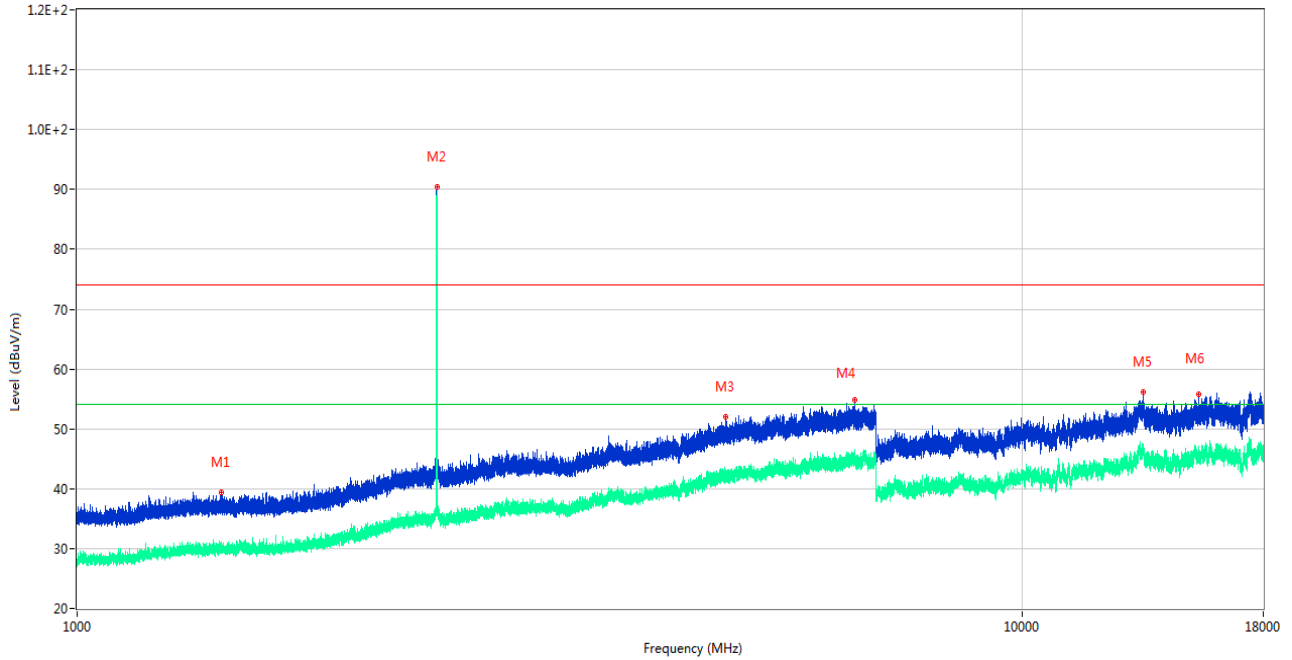


Note 1: The marked spikes near 2400 MHz with circle should be ignored because they are Fundamental signal.

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**

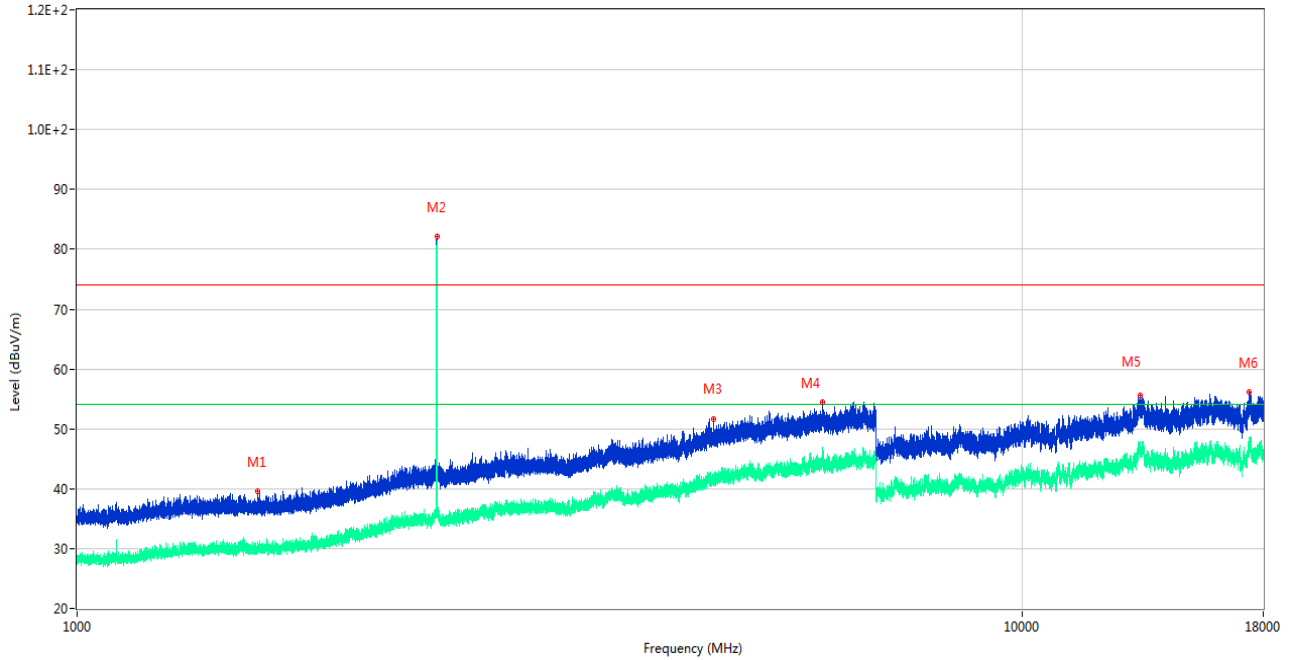
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1422.700	39.48	-16.90	74.0	34.52	Peak	134.00	100	Horizontal	Pass
1**	1422.700	30.56	-16.90	54.0	23.44	AV	134.00	100	Horizontal	Pass
2	2402.000	90.45	-9.74	74.0	-16.45	Peak	280.00	200	Horizontal	N/A
2**	2402.000	89.77	-9.74	54.0	-35.77	AV	280.00	200	Horizontal	N/A
3	4859.600	52.05	-3.06	74.0	21.95	Peak	0.00	200	Horizontal	Pass
3**	4859.600	41.43	-3.06	54.0	12.57	AV	0.00	200	Horizontal	Pass
4	6648.600	54.92	-1.25	74.0	19.08	Peak	137.00	100	Horizontal	Pass
4**	6648.600	44.37	-1.25	54.0	9.63	AV	137.00	100	Horizontal	Pass
5	13429.088	56.19	0.40	74.0	17.81	Peak	198.00	150	Horizontal	Pass
5**	13429.088	45.75	0.40	54.0	8.25	AV	198.00	150	Horizontal	Pass
6	15398.362	55.71	0.73	74.0	18.29	Peak	286.00	150	Horizontal	Pass
6**	15398.362	45.79	0.73	54.0	8.21	AV	286.00	150	Horizontal	Pass

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT V

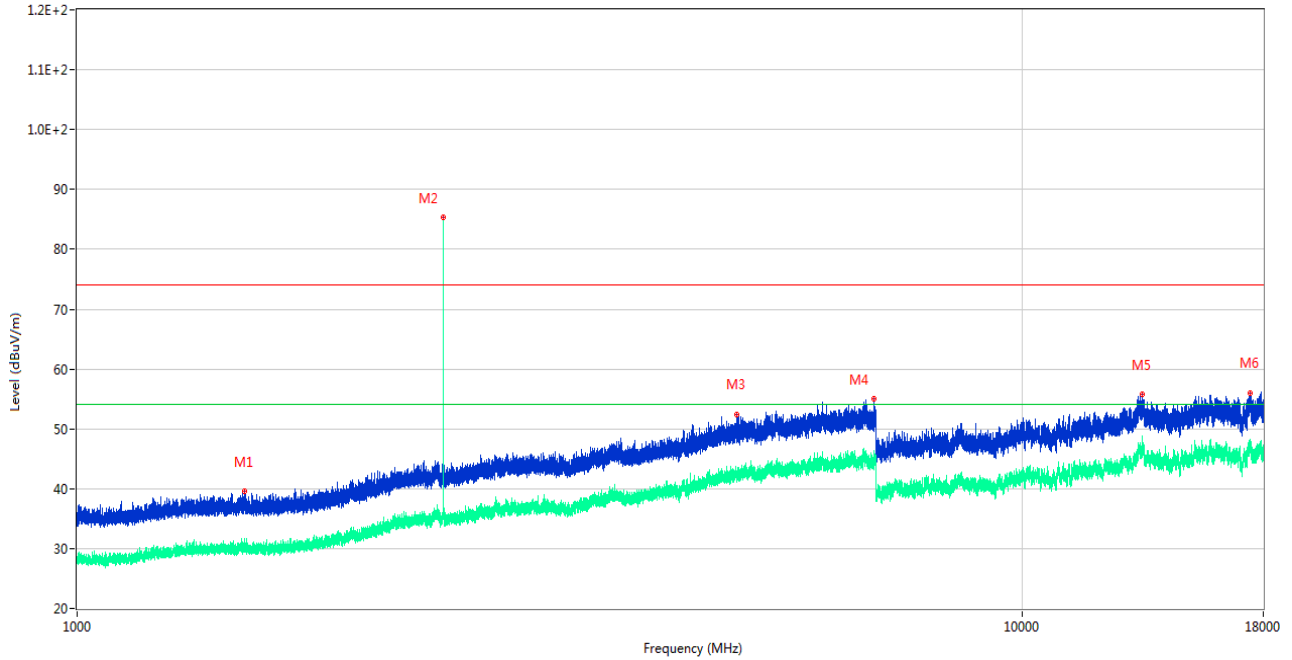
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1554.500	39.56	-17.17	74.0	34.44	Peak	312.00	400	Vertical	Pass
1**	1554.500	29.64	-17.17	54.0	24.36	AV	312.00	400	Vertical	Pass
2	2401.900	82.05	-9.75	74.0	-8.05	Peak	186.00	150	Vertical	N/A
2**	2401.900	81.19	-9.75	54.0	-27.19	AV	186.00	150	Vertical	N/A
3	4721.200	51.67	-3.38	74.0	22.33	Peak	32.00	150	Vertical	Pass
3**	4721.200	40.71	-3.38	54.0	13.29	AV	32.00	150	Vertical	Pass
4	6151.600	54.55	0.20	74.0	19.45	Peak	299.00	200	Vertical	Pass
4**	6151.600	45.30	0.20	54.0	8.70	AV	299.00	200	Vertical	Pass
5	13346.138	55.63	1.03	74.0	18.37	Peak	138.00	150	Vertical	Pass
5**	13346.138	45.56	1.03	54.0	8.44	AV	138.00	150	Vertical	Pass
6	17396.775	56.07	3.06	74.0	17.93	Peak	138.00	300	Vertical	Pass
6**	17396.775	46.55	3.06	54.0	7.45	AV	138.00	300	Vertical	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

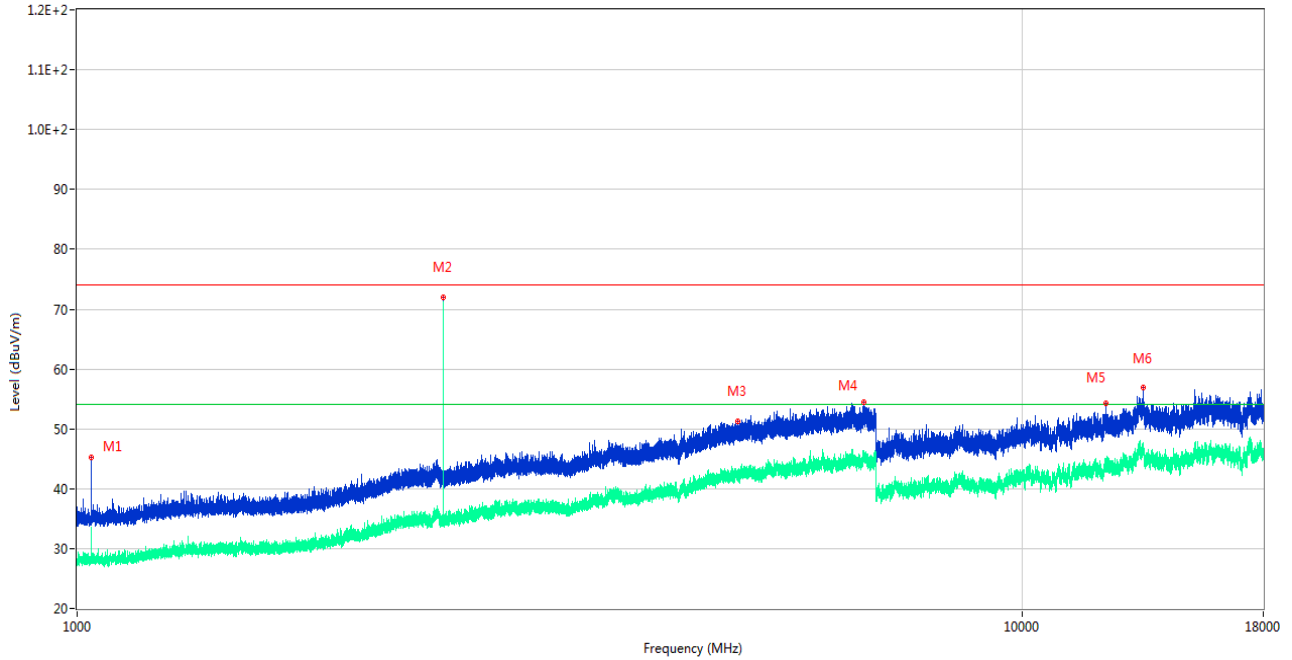
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1502.100	39.54	-17.01	74.0	34.46	Peak	190.00	400	Horizontal	Pass
1**	1502.100	30.21	-17.01	54.0	23.79	AV	190.00	400	Horizontal	Pass
2	2441.000	85.29	-12.38	74.0	-11.29	Peak	248.00	150	Horizontal	N/A
2**	2441.000	84.48	-12.38	54.0	-30.48	AV	248.00	150	Horizontal	N/A
3	4985.800	52.42	-2.05	74.0	21.58	Peak	241.00	100	Horizontal	Pass
3**	4985.800	42.08	-2.05	54.0	11.92	AV	241.00	100	Horizontal	Pass
4	6976.200	55.09	1.60	74.0	18.91	Peak	65.00	200	Horizontal	Pass
4**	6976.200	45.42	1.60	54.0	8.58	AV	65.00	200	Horizontal	Pass
5	13400.475	55.75	0.53	74.0	18.25	Peak	199.00	150	Horizontal	Pass
5**	13400.475	45.86	0.53	54.0	8.14	AV	199.00	150	Horizontal	Pass
6	17418.562	56.04	3.72	74.0	17.96	Peak	360.00	200	Horizontal	Pass
6**	17418.562	47.50	3.72	54.0	6.50	AV	360.00	200	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

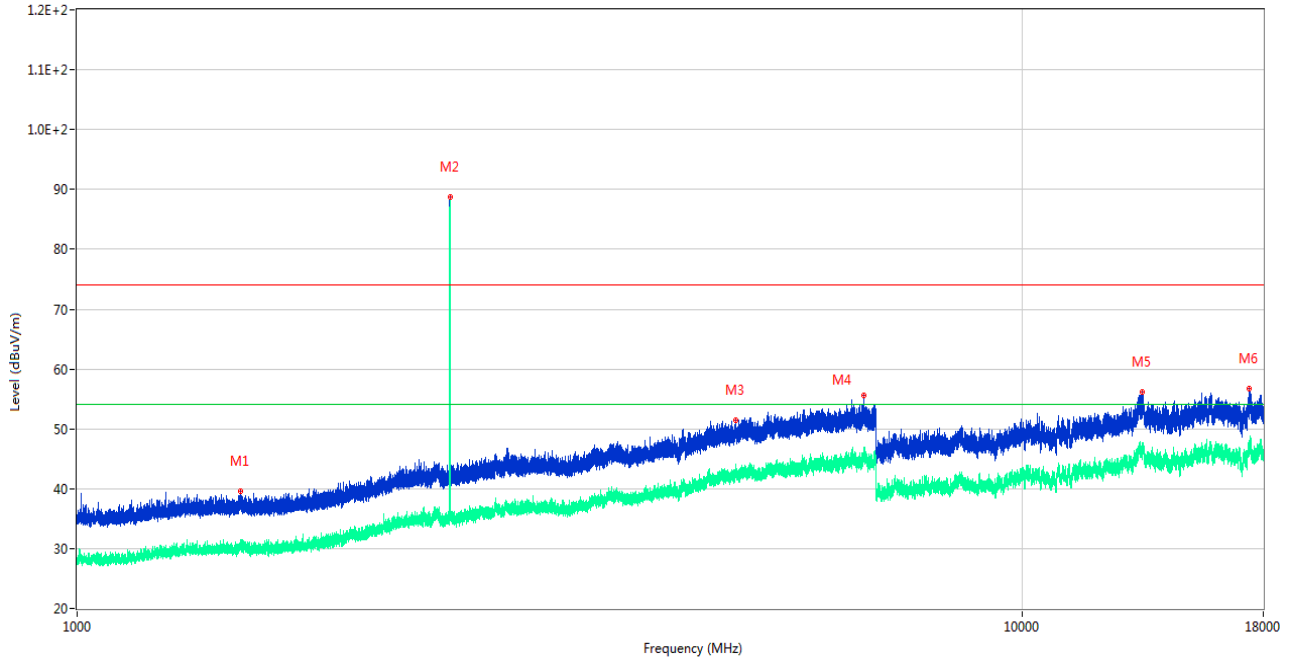
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1034.100	45.21	-17.77	74.0	28.79	Peak	80.00	100	Vertical	Pass
1**	1034.100	28.88	-17.77	54.0	25.12	AV	80.00	100	Vertical	Pass
2	2440.800	72.04	-12.38	74.0	1.96	Peak	134.00	150	Vertical	N/A
2**	2440.800	70.83	-12.38	54.0	-16.83	AV	134.00	150	Vertical	N/A
3	4999.600	51.33	-2.39	74.0	22.67	Peak	338.00	200	Vertical	Pass
3**	4999.600	42.92	-2.39	54.0	11.08	AV	338.00	200	Vertical	Pass
4	6805.600	54.45	2.07	74.0	19.55	Peak	360.00	200	Vertical	Pass
4**	6805.600	45.45	2.07	54.0	8.55	AV	360.00	200	Vertical	Pass
5	12272.463	54.27	1.53	74.0	19.73	Peak	251.00	300	Vertical	Pass
5**	12272.463	43.80	1.53	54.0	10.20	AV	251.00	300	Vertical	Pass
6	13432.762	56.84	0.41	74.0	17.16	Peak	105.00	200	Vertical	Pass
6**	13432.762	47.47	0.41	54.0	6.53	AV	105.00	200	Vertical	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT H

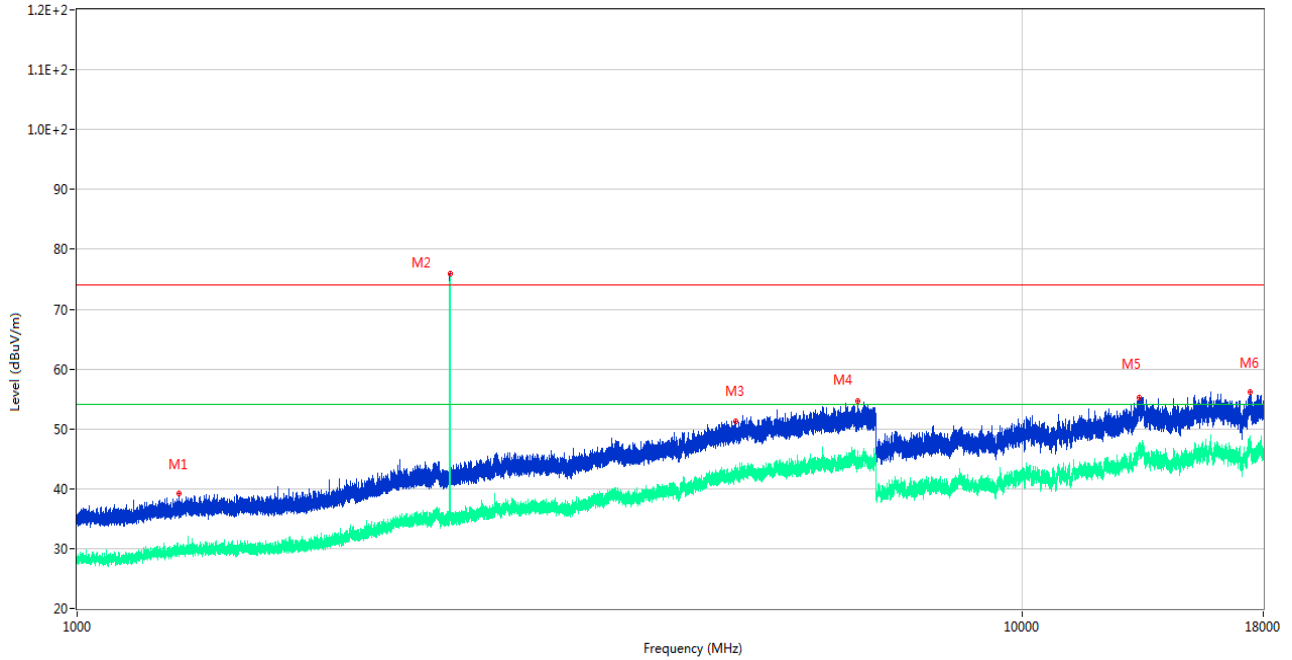
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1489.300	39.58	-16.75	74.0	34.42	Peak	127.00	100	Horizontal	Pass
1**	1489.300	30.12	-16.75	54.0	23.88	AV	127.00	100	Horizontal	Pass
2	2480.000	88.77	-11.30	74.0	-14.77	Peak	240.00	100	Horizontal	N/A
2**	2480.000	88.16	-11.30	54.0	-34.16	AV	240.00	100	Horizontal	N/A
3	4979.000	51.53	-1.57	74.0	22.47	Peak	0.00	100	Horizontal	Pass
3**	4979.000	42.25	-1.57	54.0	11.75	AV	0.00	100	Horizontal	Pass
4	6806.800	55.55	2.22	74.0	18.45	Peak	322.00	100	Horizontal	Pass
4**	6806.800	45.82	2.22	54.0	8.18	AV	322.00	100	Horizontal	Pass
5	13415.963	56.20	0.41	74.0	17.80	Peak	0.00	150	Horizontal	Pass
5**	13415.963	47.08	0.41	54.0	6.92	AV	0.00	150	Horizontal	Pass
6	17391.526	56.81	2.91	74.0	17.19	Peak	125.00	200	Horizontal	Pass
6**	17391.526	46.71	2.91	54.0	7.29	AV	125.00	200	Horizontal	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V

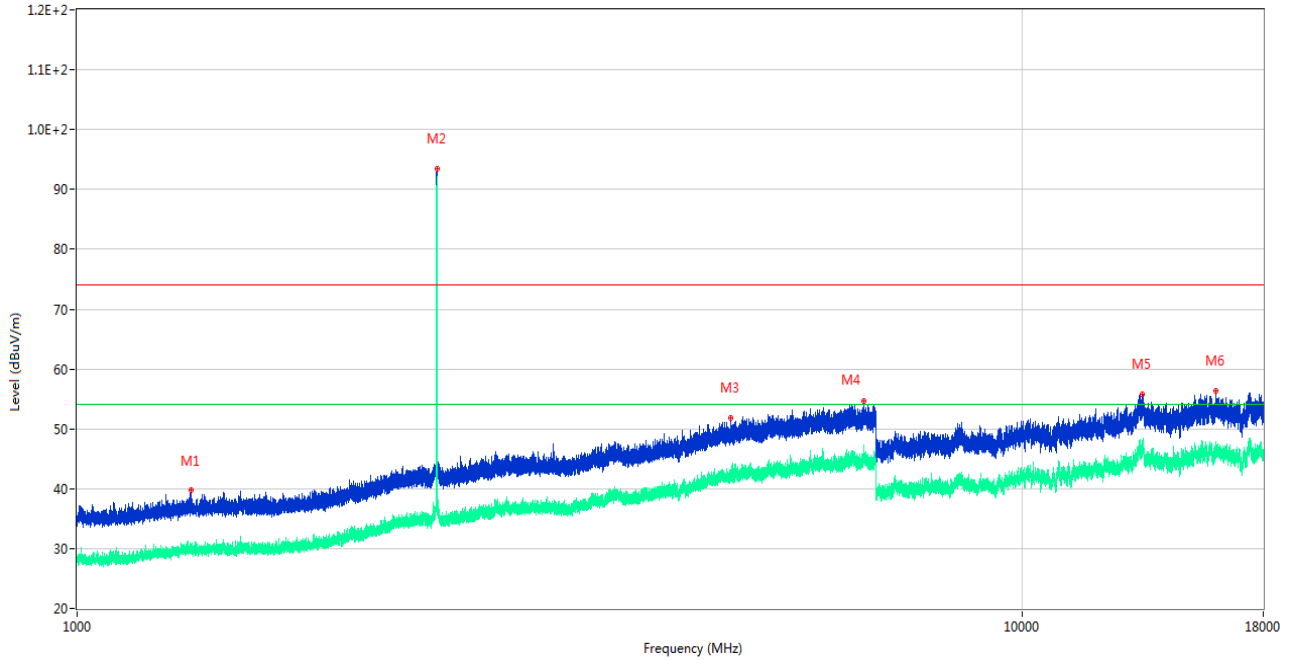
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1280.700	39.13	-17.36	74.0	34.87	Peak	360.00	100	Vertical	Pass
1**	1280.700	29.52	-17.36	54.0	24.48	AV	360.00	100	Vertical	Pass
2	2480.100	75.99	-11.29	74.0	-1.99	Peak	331.00	200	Vertical	N/A
2**	2480.100	75.19	-11.29	54.0	-21.19	AV	331.00	200	Vertical	N/A
3	4979.800	51.31	-1.58	74.0	22.69	Peak	148.00	200	Vertical	Pass
3**	4979.800	42.94	-1.58	54.0	11.06	AV	148.00	200	Vertical	Pass
4	6701.600	54.66	-0.85	74.0	19.34	Peak	179.00	400	Vertical	Pass
4**	6701.600	44.10	-0.85	54.0	9.90	AV	179.00	400	Vertical	Pass
5	13313.325	55.13	0.88	74.0	18.87	Peak	269.00	150	Vertical	Pass
5**	13313.325	46.87	0.88	54.0	7.13	AV	269.00	150	Vertical	Pass
6	17425.388	56.14	3.61	74.0	17.86	Peak	0.00	200	Vertical	Pass
6**	17425.388	47.01	3.61	54.0	6.99	AV	0.00	200	Vertical	Pass

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

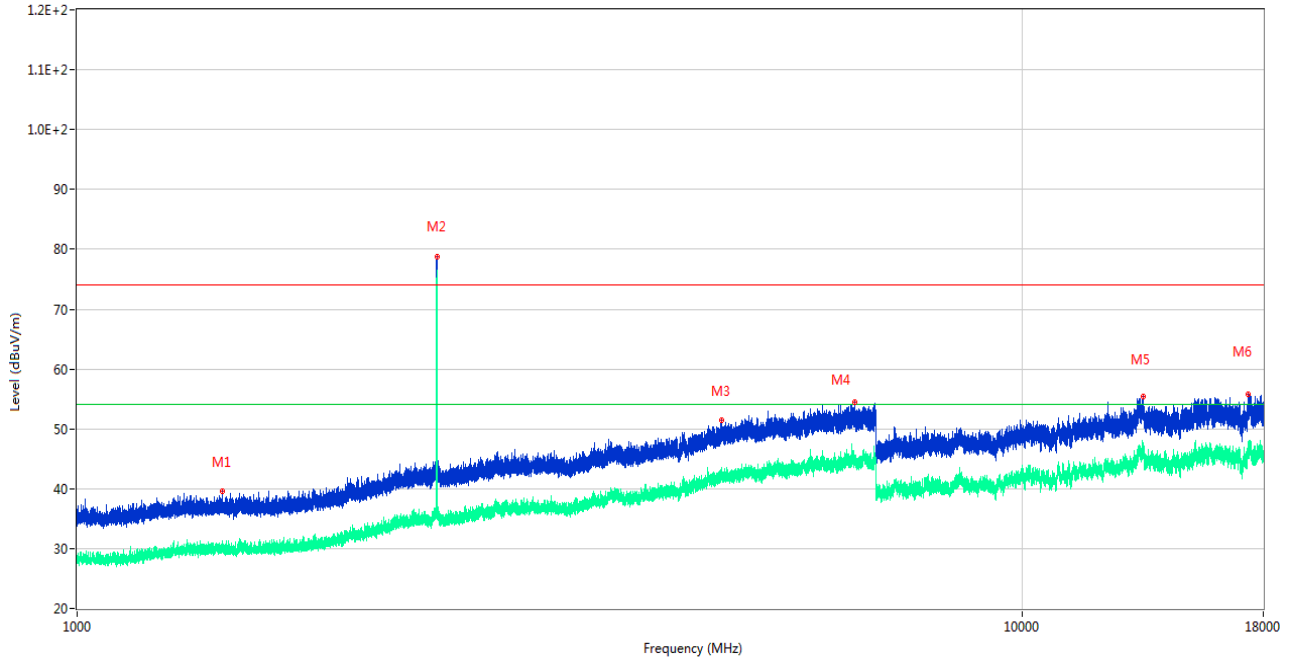
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1319.100	39.68	-17.19	74.0	34.32	Peak	61.00	300	Horizontal	Pass
1**	1319.100	29.88	-17.19	54.0	24.12	AV	61.00	300	Horizontal	Pass
2	2402.000	93.51	-9.74	74.0	-19.51	Peak	121.00	100	Horizontal	N/A
2**	2402.000	91.00	-9.74	54.0	-37.00	AV	121.00	100	Horizontal	N/A
3	4914.600	51.85	-2.84	74.0	22.15	Peak	250.00	100	Horizontal	Pass
3**	4914.600	42.16	-2.84	54.0	11.84	AV	250.00	100	Horizontal	Pass
4	6805.400	54.63	2.00	74.0	19.37	Peak	306.00	400	Horizontal	Pass
4**	6805.400	45.83	2.00	54.0	8.17	AV	306.00	400	Horizontal	Pass
5	13408.874	55.73	0.51	74.0	18.27	Peak	173.00	150	Horizontal	Pass
5**	13408.874	47.05	0.51	54.0	6.95	AV	173.00	150	Horizontal	Pass
6	16042.276	56.39	0.77	74.0	17.61	Peak	217.00	300	Horizontal	Pass
6**	16042.276	45.92	0.77	54.0	8.08	AV	217.00	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

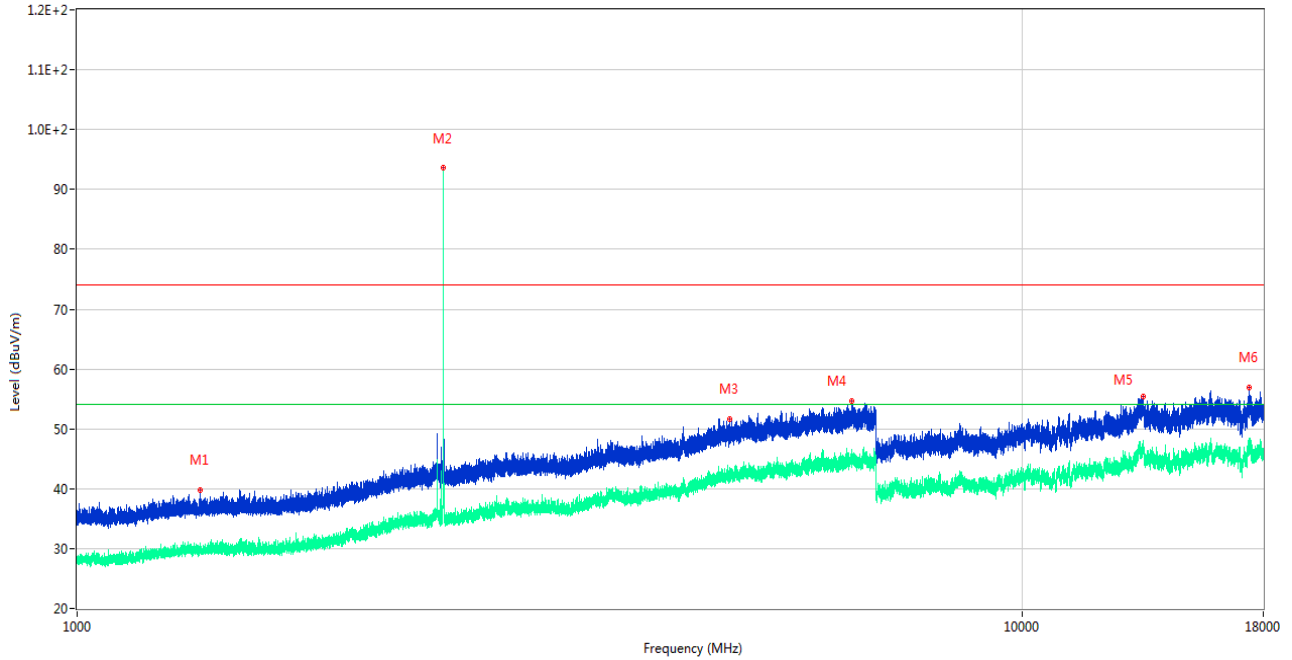


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1425.700	39.57	-16.93	74.0	34.43	Peak	186.00	200	Vertical	Pass
1**	1425.700	31.29	-16.93	54.0	22.71	AV	186.00	200	Vertical	Pass
2	2402.200	78.82	-9.74	74.0	-4.82	Peak	186.00	200	Vertical	N/A
2**	2402.200	75.83	-9.74	54.0	-21.83	AV	186.00	200	Vertical	N/A
3	4812.800	51.44	-2.06	74.0	22.56	Peak	0.00	200	Vertical	Pass
3**	4812.800	42.57	-2.06	54.0	11.43	AV	0.00	200	Vertical	Pass
4	6654.400	54.54	-0.29	74.0	19.46	Peak	95.00	100	Vertical	Pass
4**	6654.400	44.90	-0.29	54.0	9.10	AV	95.00	100	Vertical	Pass
5	13440.113	55.37	0.47	74.0	18.63	Peak	294.00	150	Vertical	Pass
5**	13440.113	45.85	0.47	54.0	8.15	AV	294.00	150	Vertical	Pass
6	17351.625	55.85	1.96	74.0	18.15	Peak	340.00	200	Vertical	Pass
6**	17351.625	46.40	1.96	54.0	7.60	AV	340.00	200	Vertical	Pass



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

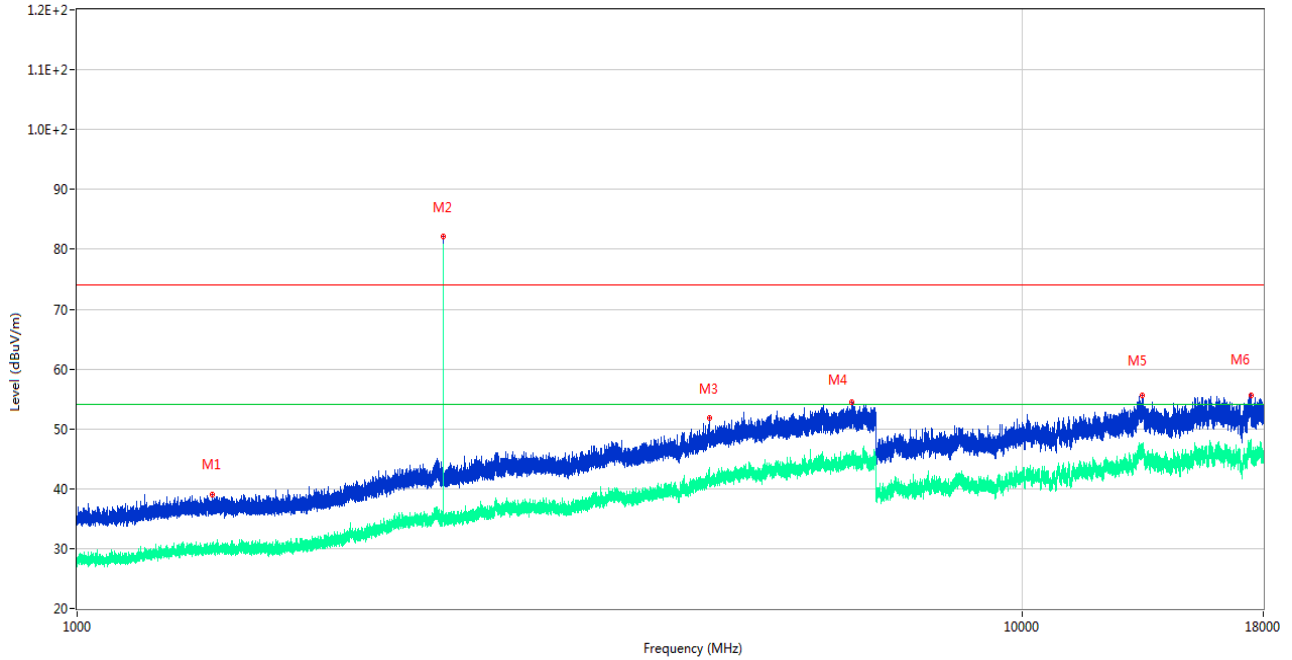
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1350.200	39.82	-17.02	74.0	34.18	Peak	88.00	100	Horizontal	Pass
1**	1350.200	30.08	-17.02	54.0	23.92	AV	88.00	100	Horizontal	Pass
2	2440.900	93.55	-12.38	74.0	-19.55	Peak	267.00	100	Horizontal	N/A
2**	2440.900	92.64	-12.38	54.0	-38.64	AV	267.00	100	Horizontal	N/A
3	4898.800	51.68	-3.04	74.0	22.32	Peak	286.00	100	Horizontal	Pass
3**	4898.800	41.69	-3.04	54.0	12.31	AV	286.00	100	Horizontal	Pass
4	6608.600	54.59	0.27	74.0	19.41	Peak	0.00	400	Horizontal	Pass
4**	6608.600	45.30	0.27	54.0	8.70	AV	0.00	400	Horizontal	Pass
5	13444.312	55.35	0.55	74.0	18.65	Peak	19.00	150	Horizontal	Pass
5**	13444.312	47.41	0.55	54.0	6.59	AV	19.00	150	Horizontal	Pass
6	17408.063	56.94	3.40	74.0	17.06	Peak	191.00	300	Horizontal	Pass
6**	17408.063	46.56	3.40	54.0	7.44	AV	191.00	300	Horizontal	Pass

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

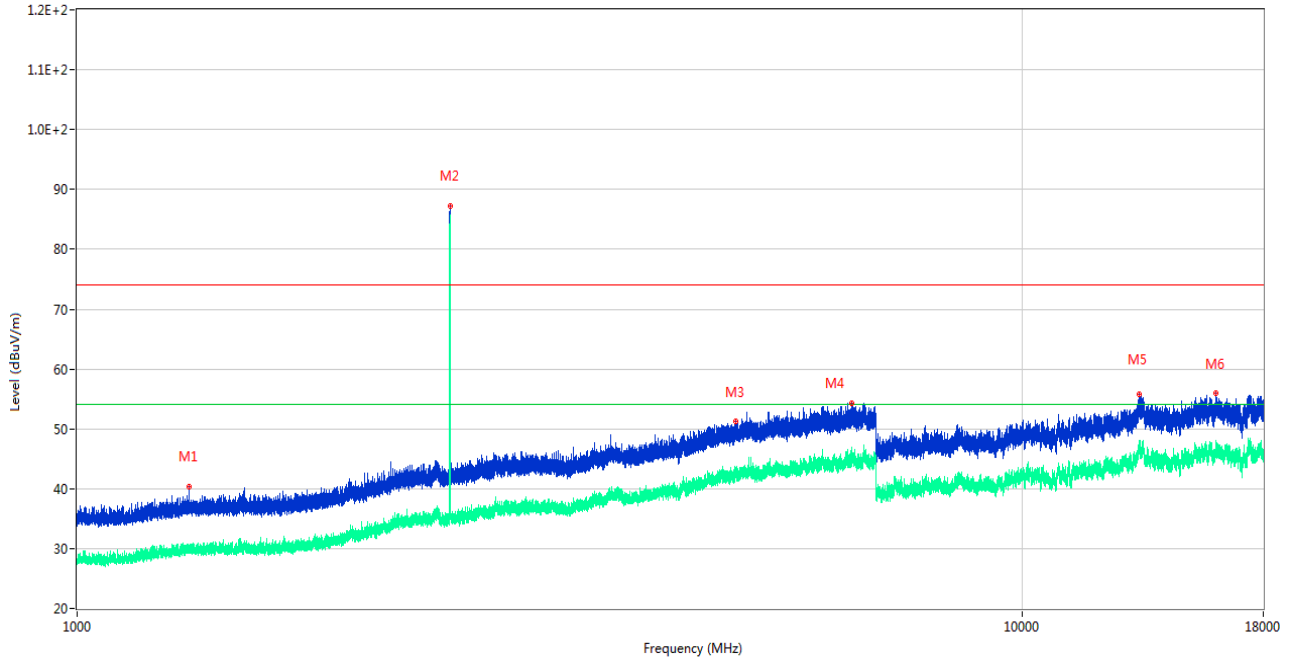
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1388.800	39.10	-17.08	74.0	34.90	Peak	334.00	100	Vertical	Pass
1**	1388.800	29.67	-17.08	54.0	24.33	AV	334.00	100	Vertical	Pass
2	2441.200	82.08	-12.38	74.0	-8.08	Peak	160.00	200	Vertical	N/A
2**	2441.200	80.58	-12.38	54.0	-26.58	AV	160.00	200	Vertical	N/A
3	4664.400	51.76	-2.53	74.0	22.24	Peak	159.00	150	Vertical	Pass
3**	4664.400	41.47	-2.53	54.0	12.53	AV	159.00	150	Vertical	Pass
4	6608.200	54.48	0.22	74.0	19.52	Peak	299.00	100	Vertical	Pass
4**	6608.200	45.26	0.22	54.0	8.74	AV	299.00	100	Vertical	Pass
5	13412.025	55.51	0.47	74.0	18.49	Peak	307.00	150	Vertical	Pass
5**	13412.025	46.58	0.47	54.0	7.42	AV	307.00	150	Vertical	Pass
6	17461.088	55.54	2.85	74.0	18.46	Peak	360.00	300	Vertical	Pass
6**	17461.088	46.29	2.85	54.0	7.71	AV	360.00	300	Vertical	Pass

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

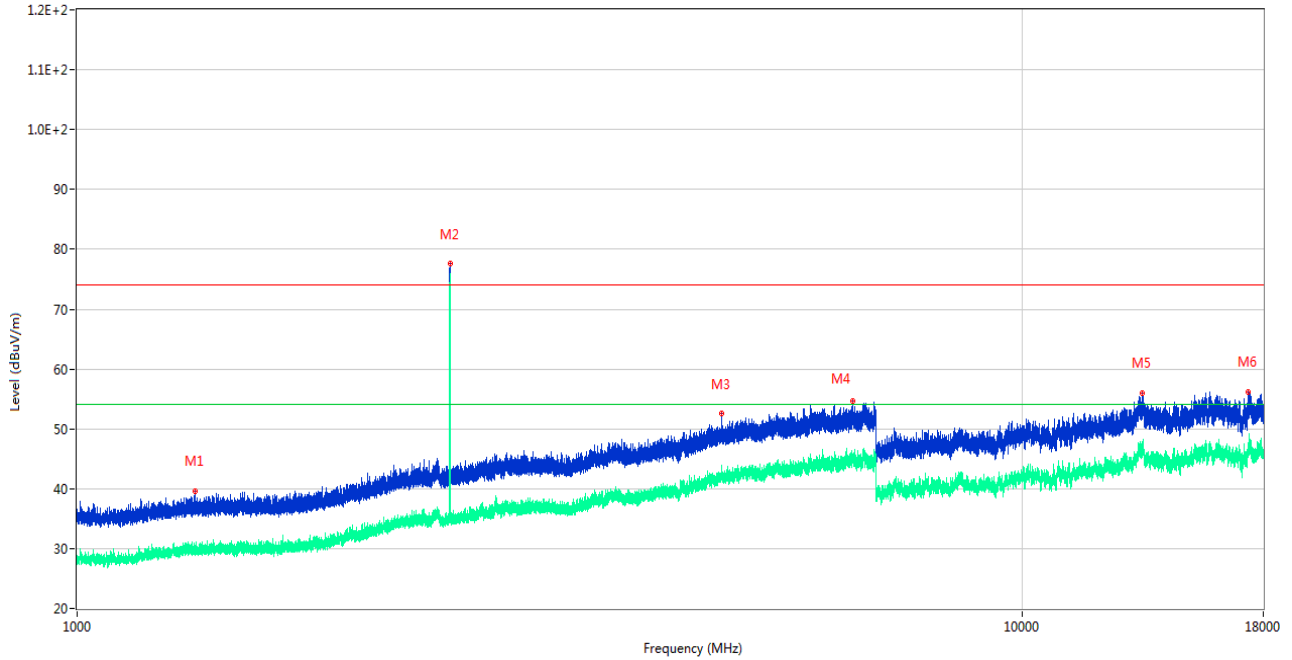
RE Test case\_FCC Part 15C\_FCC 15.247(2.4G)\_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1314.000	40.36	-16.86	74.0	33.64	Peak	15.00	100	Horizontal	Pass
1**	1314.000	29.52	-16.86	54.0	24.48	AV	15.00	100	Horizontal	Pass
2	2480.100	87.27	-11.29	74.0	-13.27	Peak	242.00	150	Horizontal	N/A
2**	2480.100	85.66	-11.29	54.0	-31.66	AV	242.00	150	Horizontal	N/A
3	4981.800	51.19	-1.61	74.0	22.81	Peak	244.00	100	Horizontal	Pass
3**	4981.800	42.96	-1.61	54.0	11.04	AV	244.00	100	Horizontal	Pass
4	6611.000	54.27	0.76	74.0	19.73	Peak	113.00	200	Horizontal	Pass
4**	6611.000	46.07	0.76	54.0	7.93	AV	113.00	200	Horizontal	Pass
5	13296.525	55.81	0.84	74.0	18.19	Peak	192.00	150	Horizontal	Pass
5**	13296.525	47.84	0.84	54.0	6.16	AV	192.00	150	Horizontal	Pass
6	16029.412	55.90	0.71	74.0	18.10	Peak	231.00	200	Horizontal	Pass
6**	16029.412	46.50	0.71	54.0	7.50	AV	231.00	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)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1332.500	39.66	-17.12	74.0	34.34	Peak	40.00	400	Vertical	Pass
1**	1332.500	29.35	-17.12	54.0	24.65	AV	40.00	400	Vertical	Pass
2	2479.900	77.57	-11.32	74.0	-3.57	Peak	325.00	100	Vertical	N/A
2**	2479.900	75.32	-11.32	54.0	-21.32	AV	325.00	100	Vertical	N/A
3	4809.600	52.54	-2.11	74.0	21.46	Peak	17.00	100	Vertical	Pass
3**	4809.600	42.11	-2.11	54.0	11.89	AV	17.00	100	Vertical	Pass
4	6612.400	54.56	0.49	74.0	19.44	Peak	297.00	300	Vertical	Pass
4**	6612.400	45.29	0.49	54.0	8.71	AV	297.00	300	Vertical	Pass
5	13396.013	56.00	0.61	74.0	18.00	Peak	26.00	150	Vertical	Pass
5**	13396.013	45.79	0.61	54.0	8.21	AV	26.00	150	Vertical	Pass
6	17340.074	56.17	1.53	74.0	17.83	Peak	325.00	200	Vertical	Pass
6**	17340.074	46.49	1.53	54.0	7.51	AV	325.00	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  $f \geq 1$  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 <sup>1</sup>: The lowest and highest channels are tested to verify the band edge emissions. Please refer to the following the plots for emissions values.

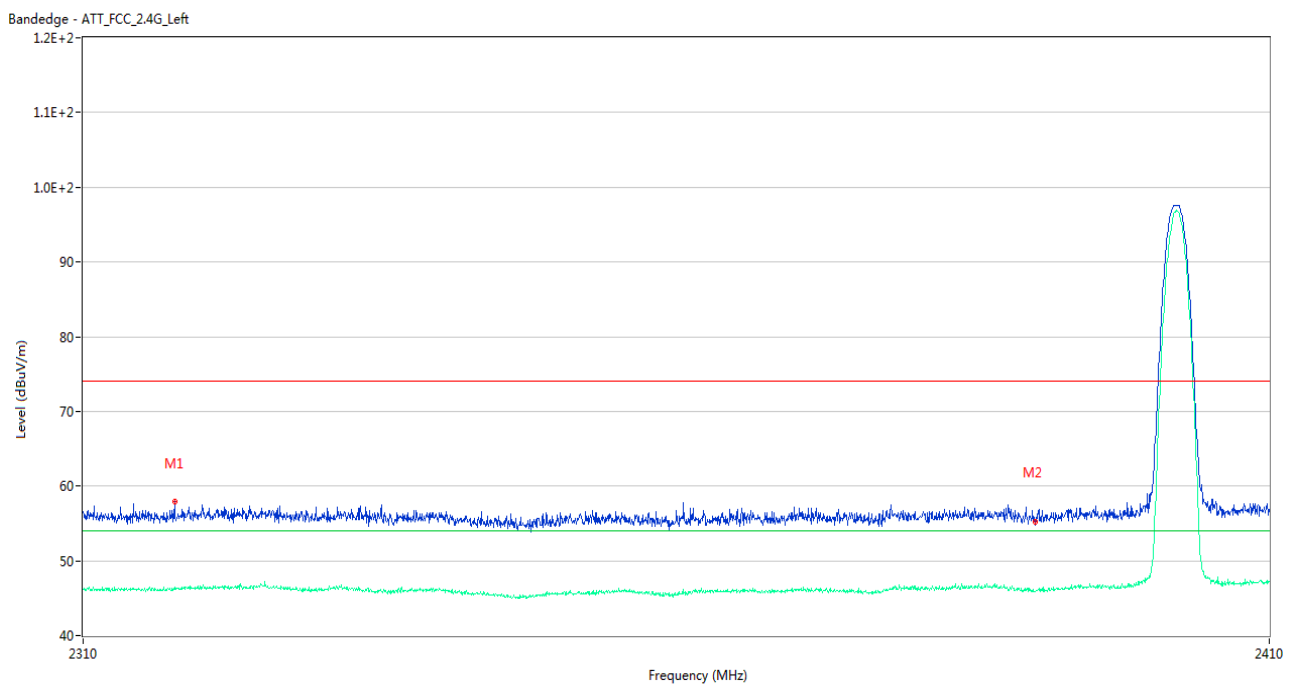
Note <sup>2</sup>: The test data all are tested in the vertical and horizontal antenna which the trace is max hold. So these plots have shown the worst case.

Note <sup>3</sup>: 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 <sup>4</sup>: The Level (dBuV/m) has been corrected by factor.

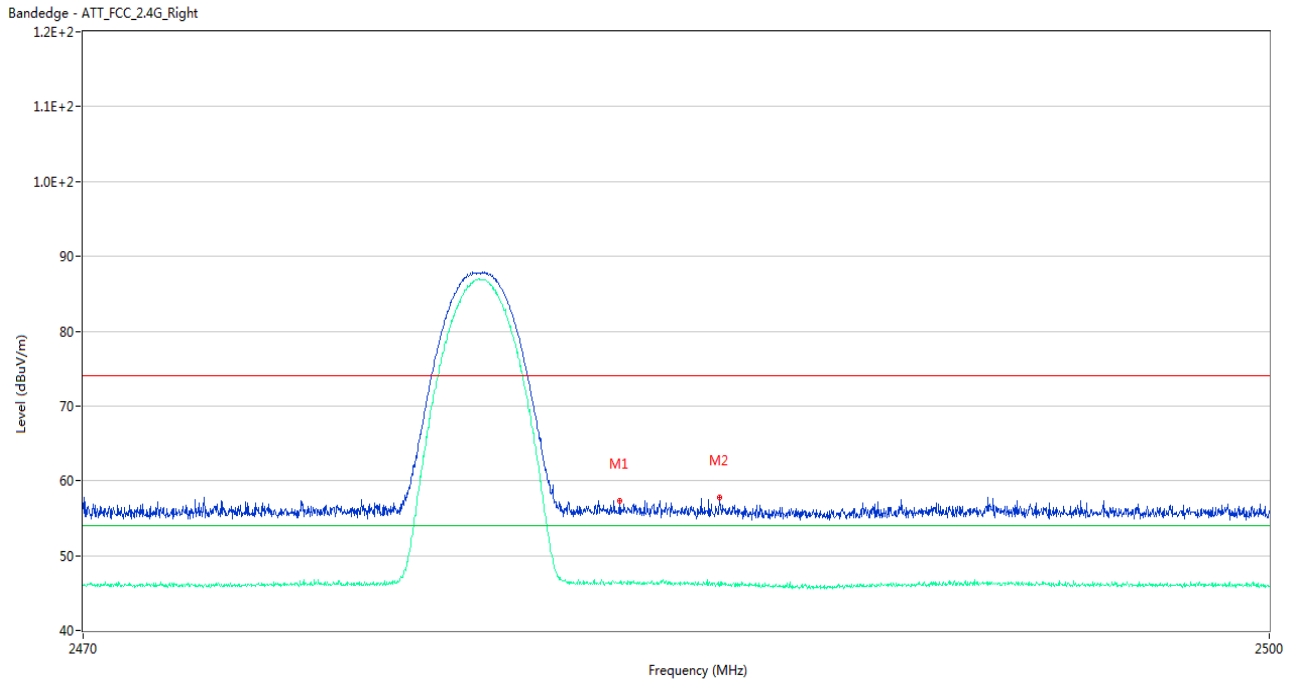
#### Test Data and Plots

##### GFSK LOW CHANNEL



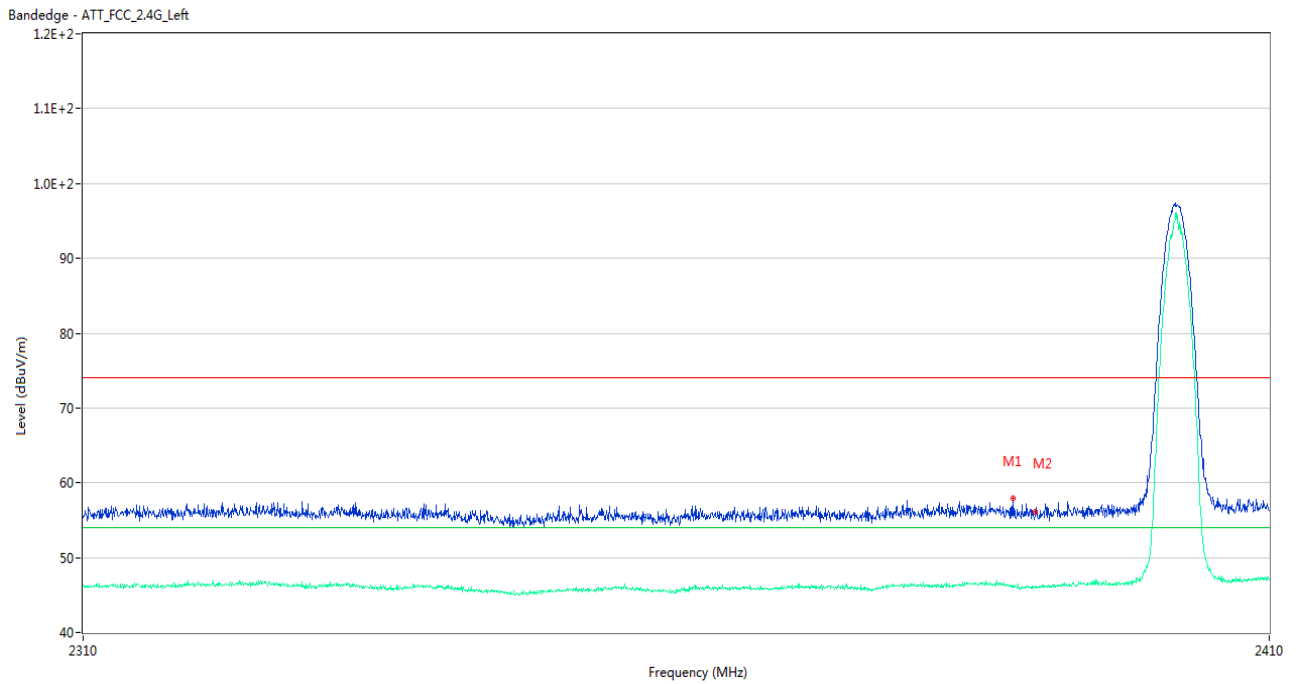
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2317.550	57.98	1.43	74.0	16.02	Peak	270.00	100	Horizontal	Pass
1**	2317.550	46.50	1.43	54.0	7.50	AV	270.00	100	Horizontal	Pass
2	2389.950	55.20	1.92	74.0	18.80	Peak	286.00	100	Horizontal	Pass
2**	2389.950	45.81	1.92	54.0	8.19	AV	286.00	100	Horizontal	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	2483.515	57.27	2.11	74.0	16.73	Peak	39.00	200	Horizontal	Pass
1**	2483.515	46.30	2.11	54.0	7.70	AV	39.00	200	Horizontal	Pass
2	2486.050	57.81	1.93	74.0	16.19	Peak	39.00	200	Horizontal	Pass
2**	2486.050	45.91	1.93	54.0	8.09	AV	39.00	200	Horizontal	Pass

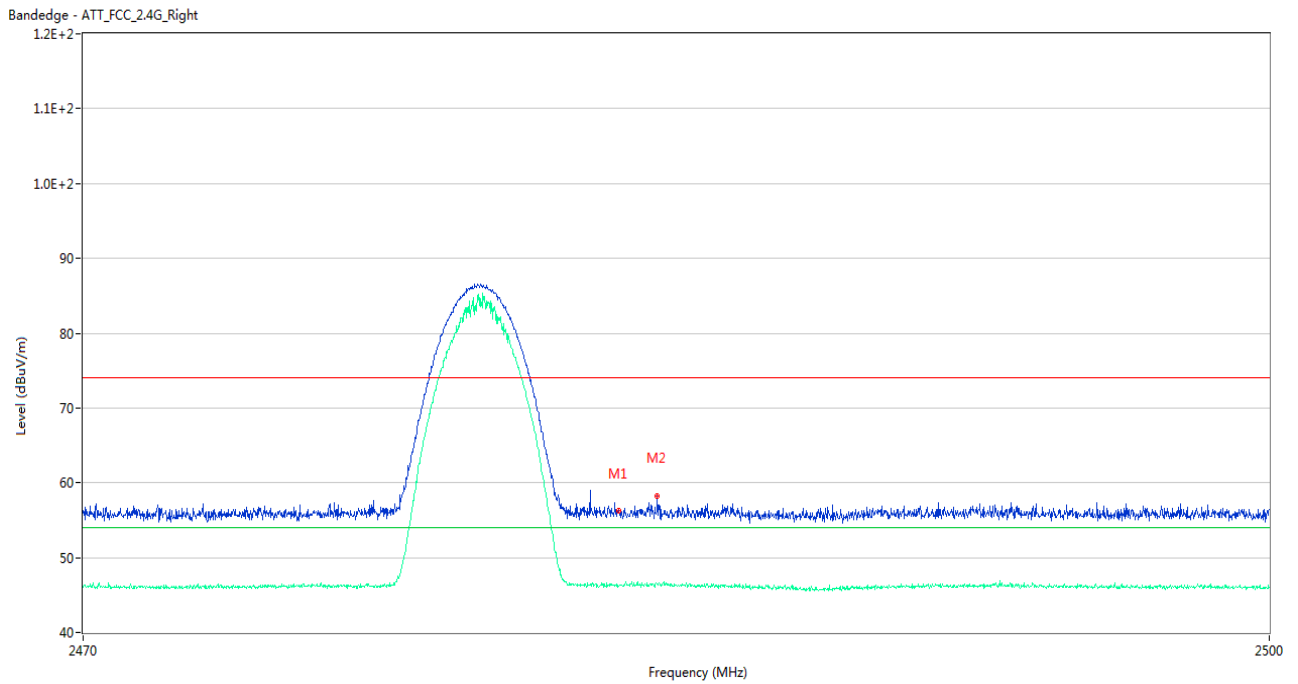
8-DPSK LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2388.000	57.87	2.07	74.0	16.13	Peak	56.00	200	Horizontal	Pass
1**	2388.000	46.28	2.07	54.0	7.72	AV	56.00	200	Horizontal	Pass
2	2389.950	56.08	1.92	74.0	17.92	Peak	0.00	150	Horizontal	Pass
2**	2389.950	46.22	1.92	54.0	7.78	AV	0.00	150	Horizontal	Pass



8-DPSK HIGH CHANNEL

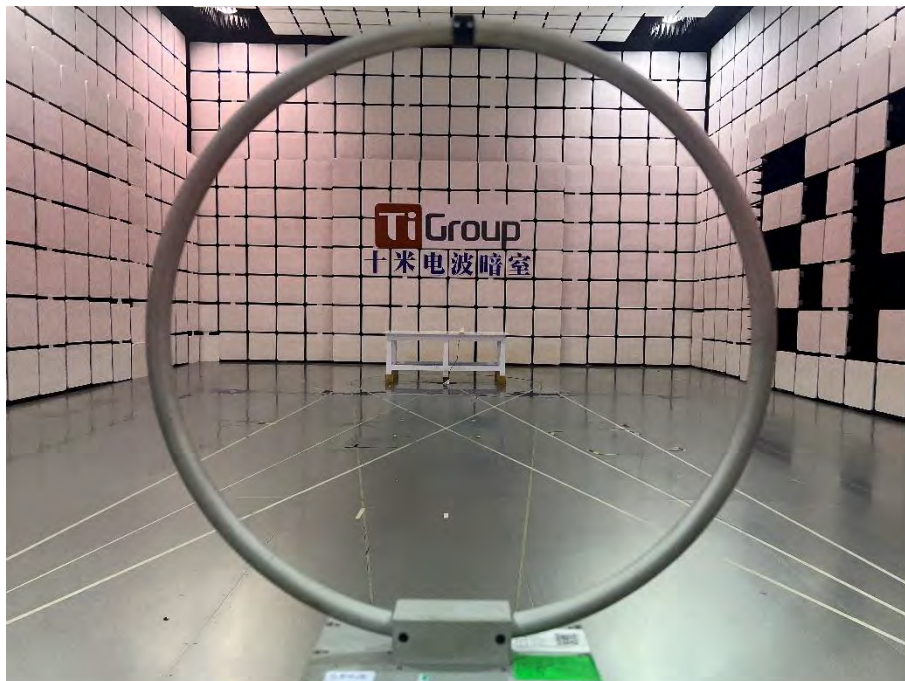


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	56.26	2.11	74.0	17.74	Peak	44.00	150	Horizontal	Pass
1**	2483.500	46.14	2.11	54.0	7.86	AV	44.00	150	Horizontal	Pass
2	2484.475	58.29	2.12	74.0	15.71	Peak	135.00	100	Horizontal	Pass
2**	2484.475	46.43	2.12	54.0	7.57	AV	135.00	100	Horizontal	Pass

## ANNEX A TEST SETUP PHOTOS

### 1 Radiated Test Photo

Below 30MHz



Close-up



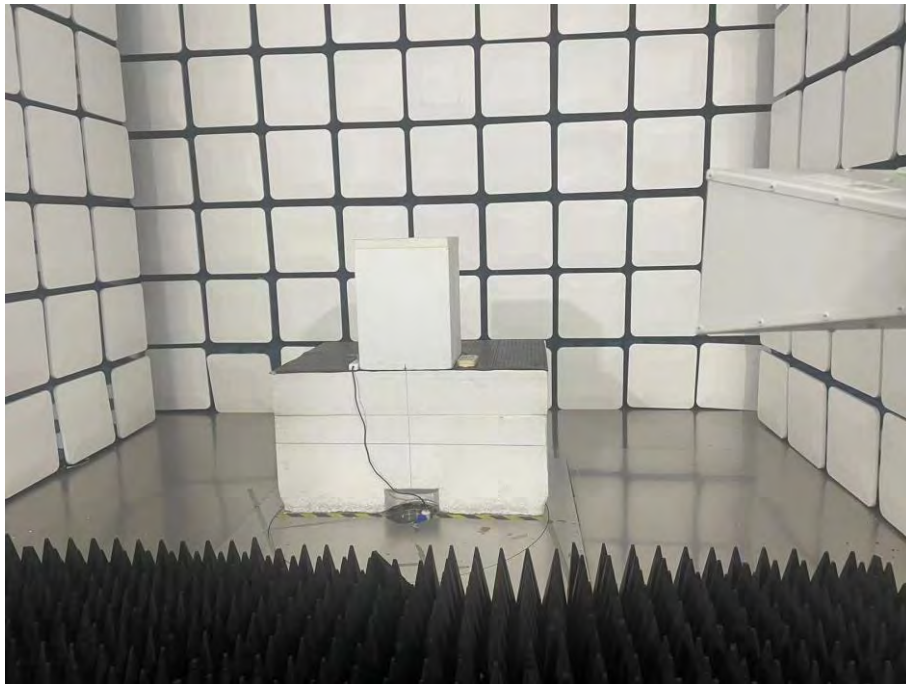
30MHz-1GHz



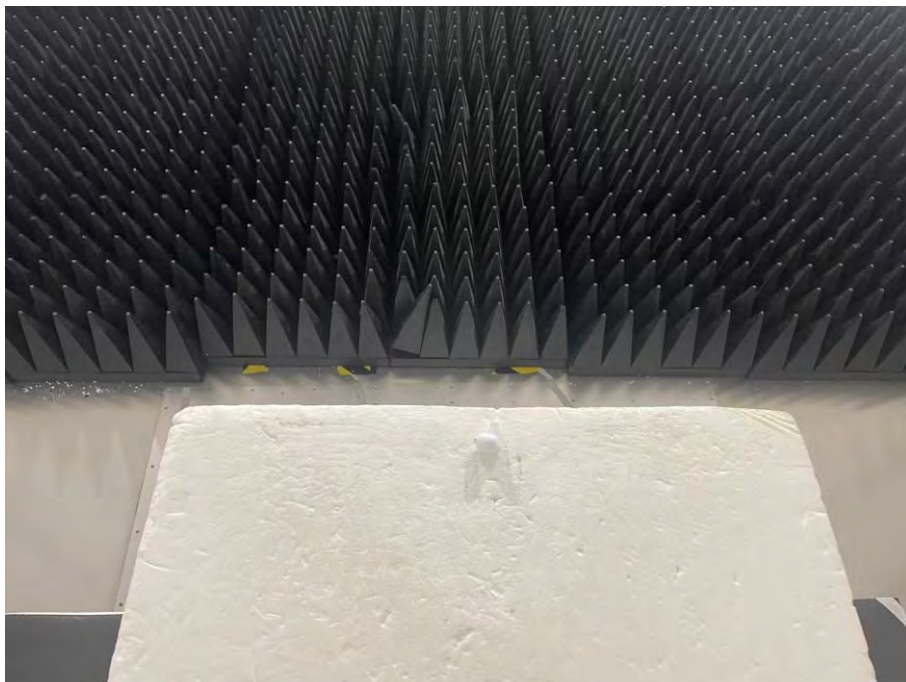
Close-up



Above 1GHz



Close-up



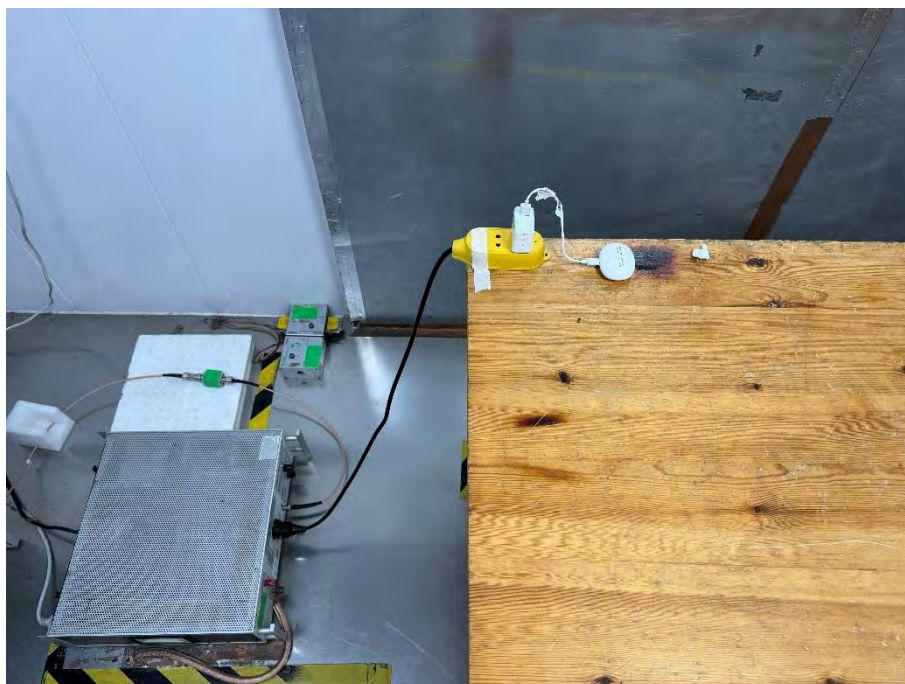
## 2 Conducted Test Photo

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





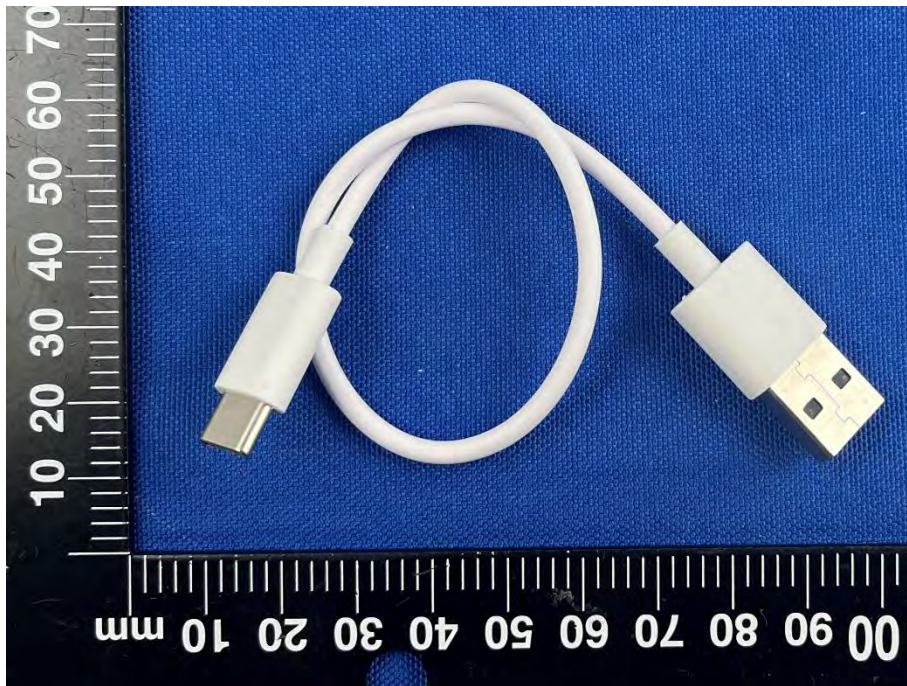
TOP VIEW OF EUT



BOTTOM VIEW OF EUT



Accessory-Type-C Cable

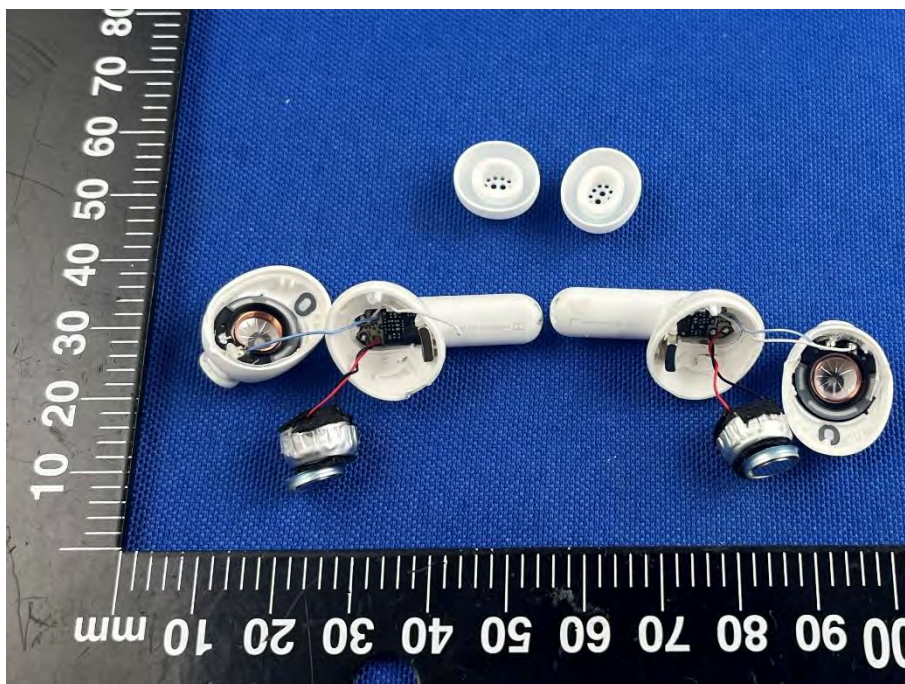


Accessory-Charging case



## ANNEX C EUT INTERNAL PHOTOS

EUT UNCOVER VIEW 1



EUT UNCOVER VIEW 2



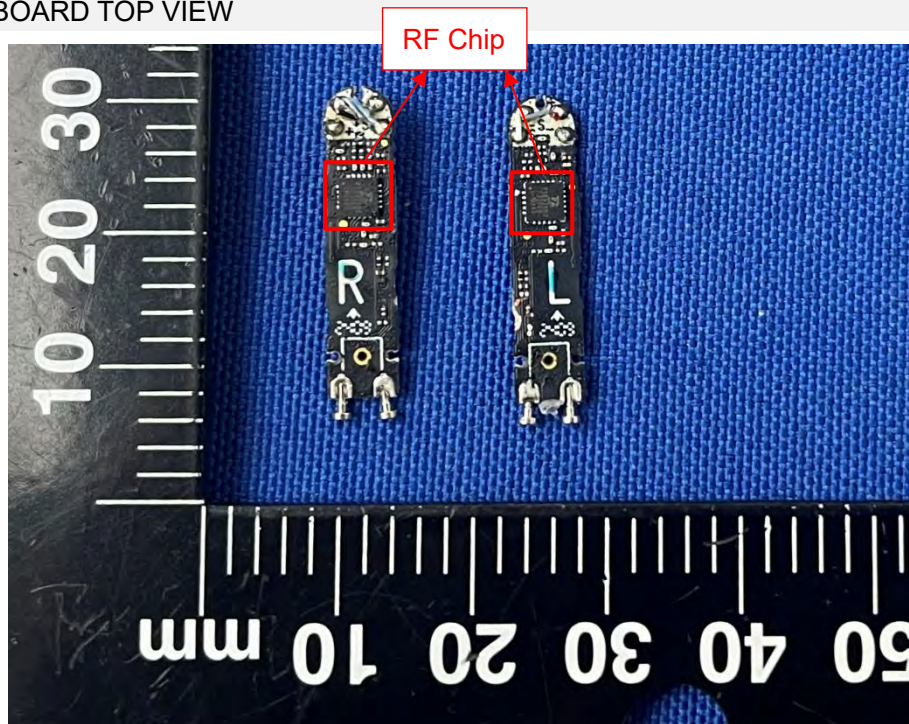
EUT UNCOVER VIEW 3



EUT UNCOVER VIEW 4



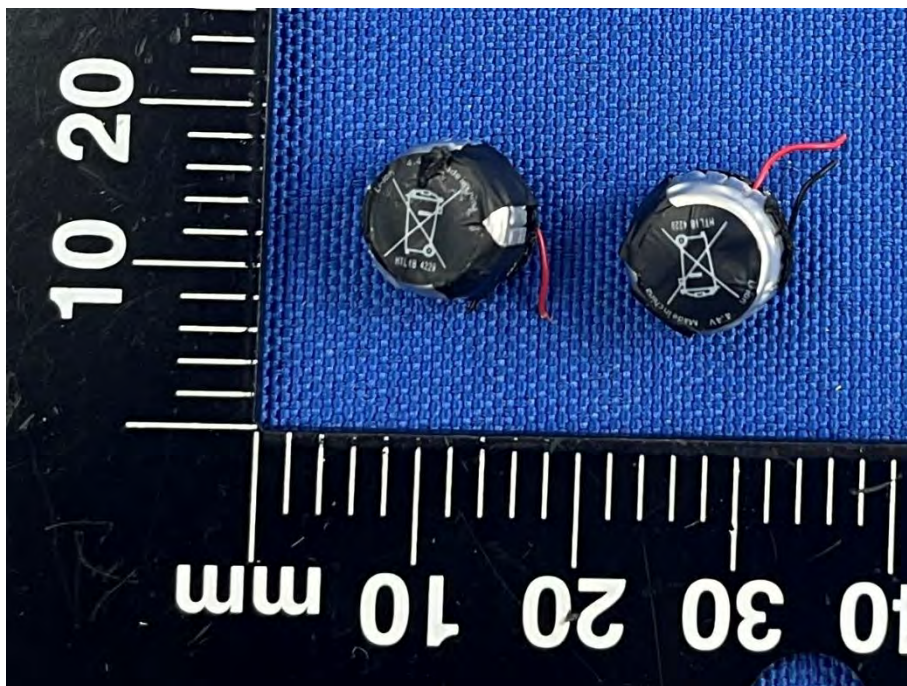
MAIN BOARD TOP VIEW



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--