CH00									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
2310.00	34.66	28.05	6.62	37.65	31.68	74.00	-42.32	Vertical	Peak
2389.96	34.67	27.65	6.75	37.87	31.20	74.00	-42.80	Vertical	
2310.00	33.23	28.05	6.62	37.65	30.25	74.00	-43.75	Horizontal	
2389.96	35.52	27.65	6.75	37.87	32.05	74.00	-41.95	Horizontal	

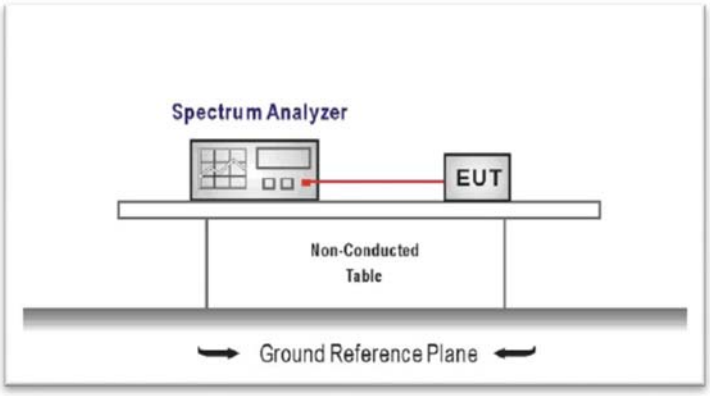
CH78									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
2483.50	57.28	27.26	6.83	37.87	53.50	74.00	-20.50	Vertical	Peak
2500.00	34.68	27.20	6.84	37.87	30.85	74.00	-43.15	Vertical	
2483.50	57.70	27.26	6.83	37.87	53.92	74.00	-20.08	Horizontal	
2500.00	35.39	27.20	6.84	37.87	31.56	74.00	-42.44	Horizontal	
2483.50	28.45	27.26	6.83	37.87	24.67	54.00	-29.33	Vertical	Average
2500.00	21.35	27.20	6.84	37.87	17.52	54.00	-36.48	Vertical	
2483.50	29.41	27.26	6.83	37.87	25.63	54.00	-28.37	Horizontal	
2500.00	21.75	27.20	6.84	37.87	17.92	54.00	-36.08	Horizontal	

5.10. Bandedge and Spurious Emission (conducted)

LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d):
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

TEST CONFIGURATION



TEST PROCEDURE

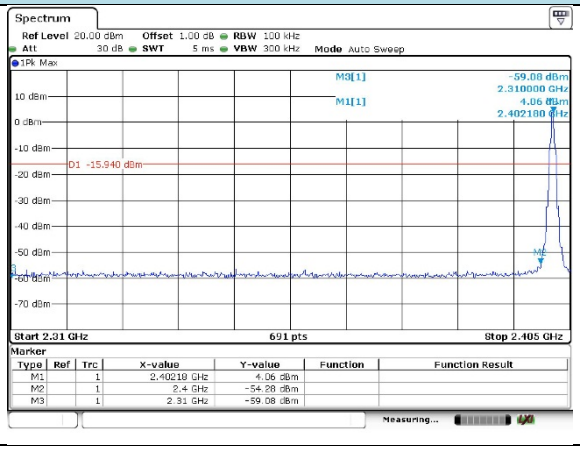
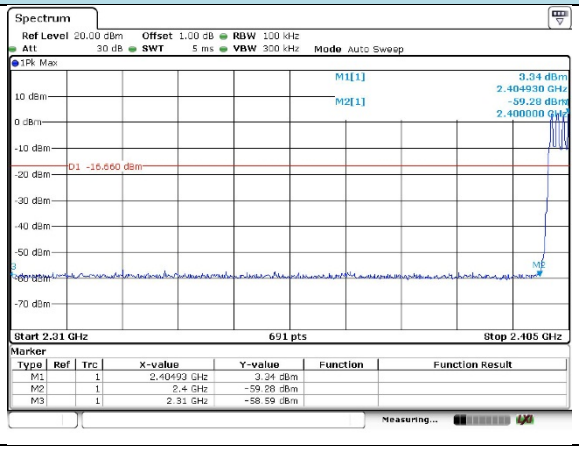
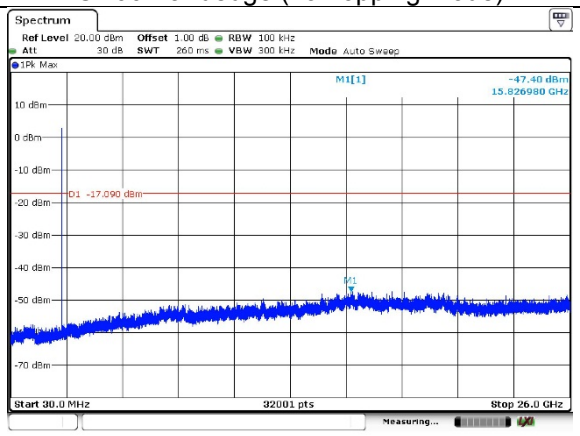
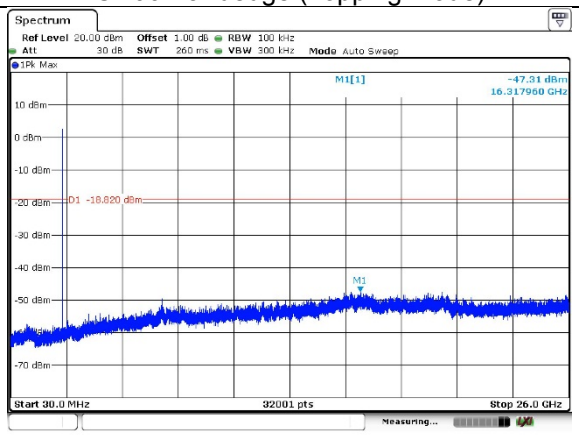
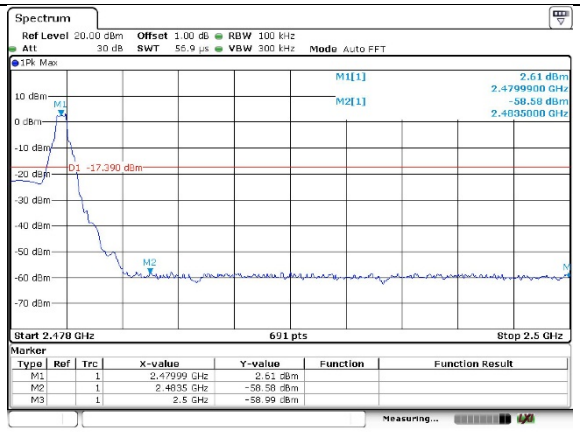
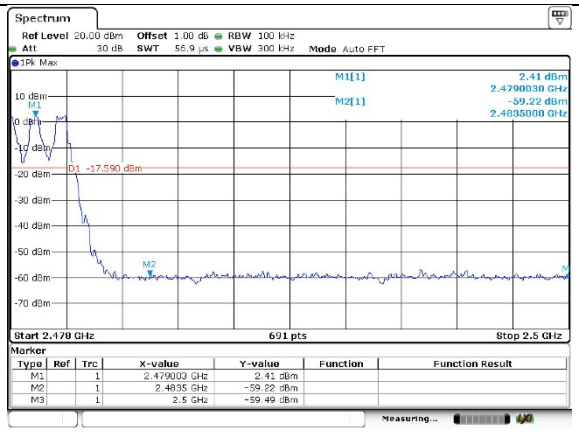
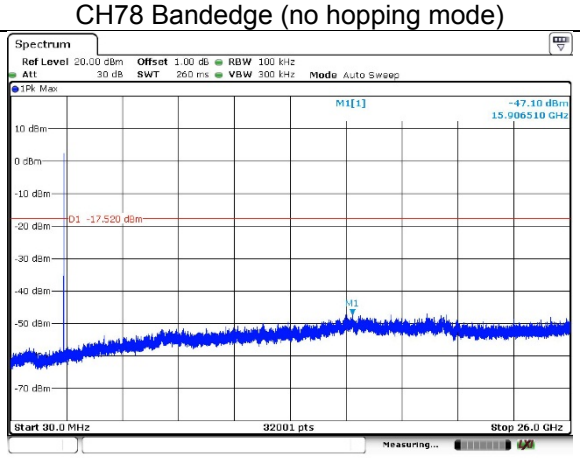
1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously
3. Use the following spectrum analyzer settings:
   RBW = 100 kHz, VBW ≥ RBW
   Sweep = auto, Detector function = peak, Trace = max hold
4. Measure and record the results in the test report.

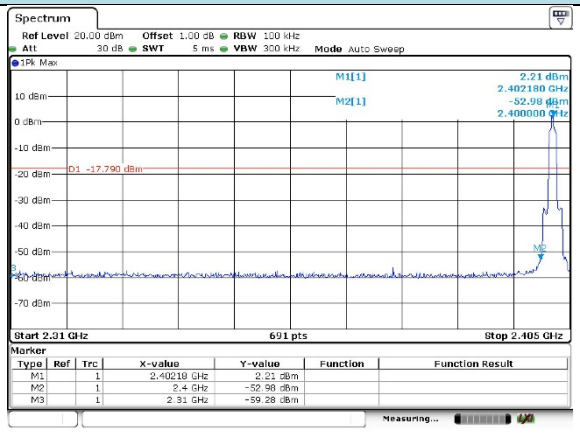
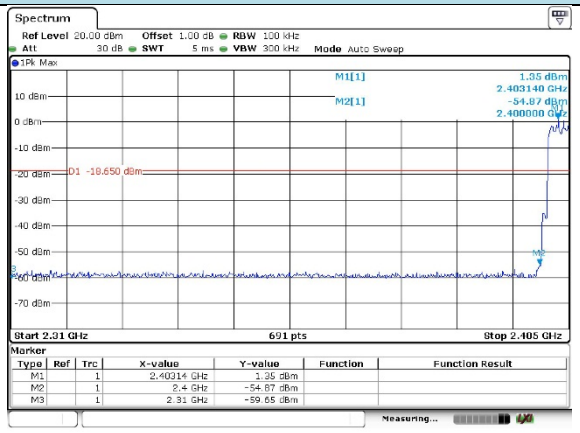
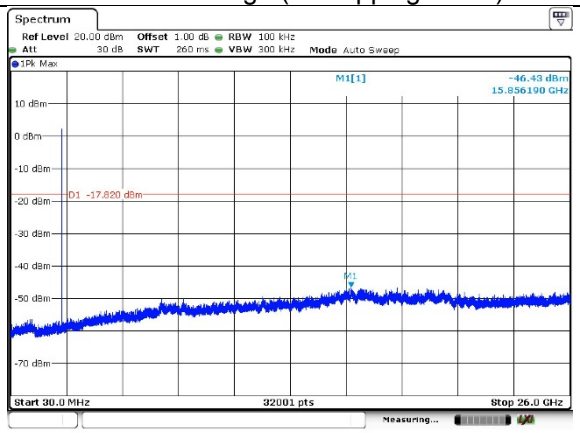
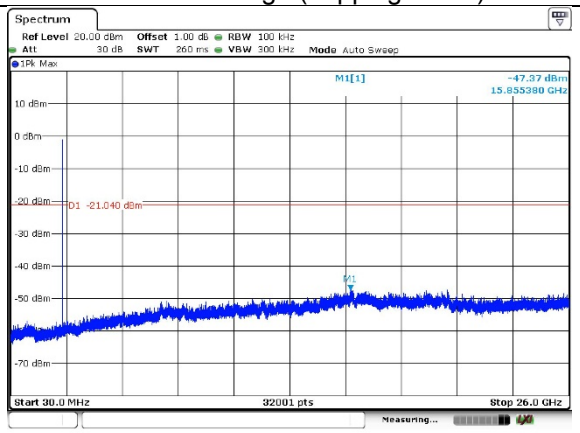
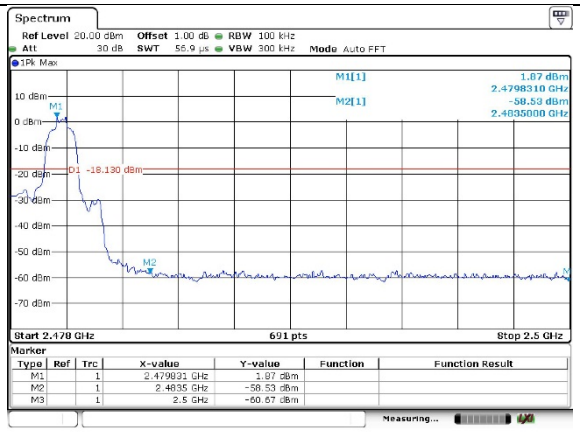
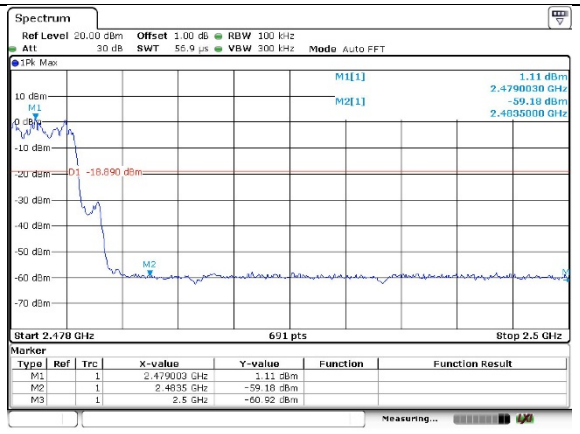
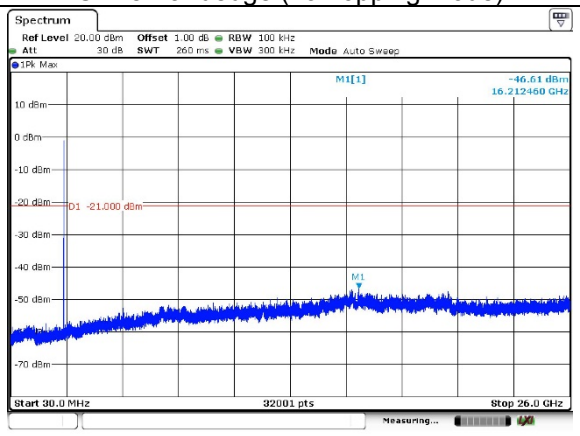
TEST MODE:

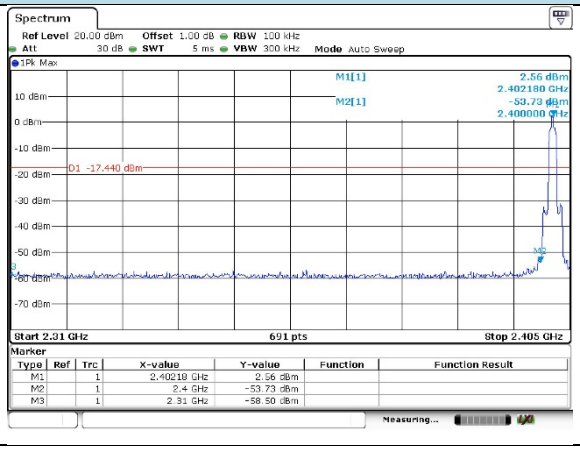
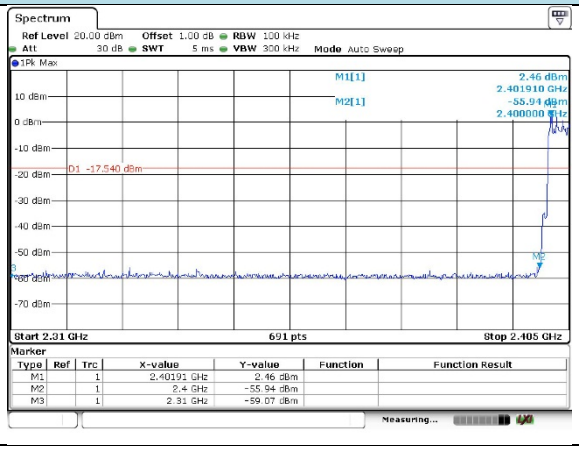
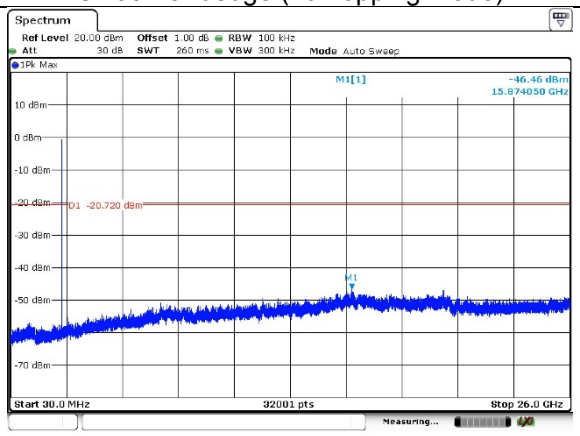
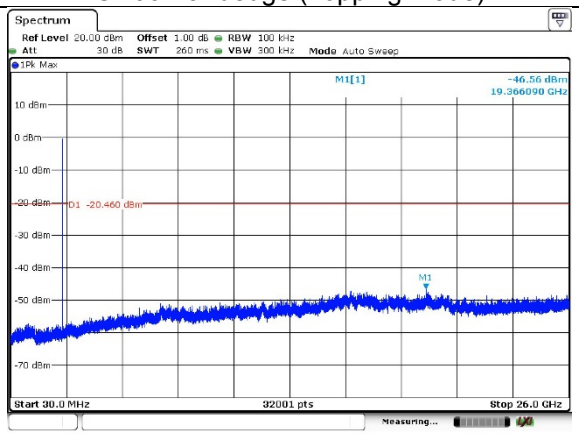
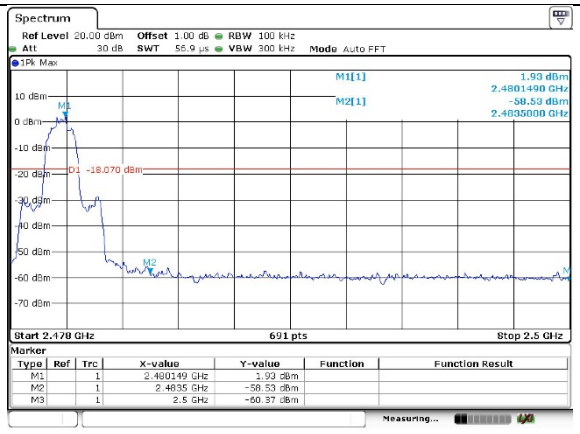
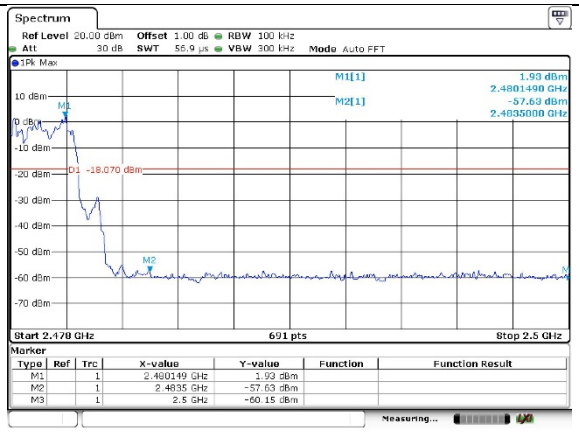
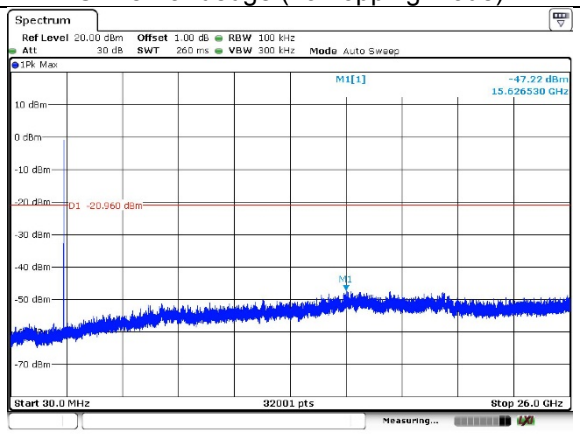
Please refer to the clause 3.3

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

GFSK	
	
CH00 Bandedge (no hopping mode)	CH00 Bandedge (hopping mode)
	
CH00 SE	CH39 SE
	
CH78 Bandedge (no hopping mode)	CH78 Bandedge (hopping mode)
	No Plot
CH78 SE	-

π/4DQPSK	
	
CH00 Bandedge (no hopping mode)	CH00 Bandedge (hopping mode)
	
CH00 SE	CH39 SE
	
CH78 Bandedge (no hopping mode)	CH78 Bandedge (hopping mode)
	No Plot
CH78 SE	-

8DPSK	
	
CH00 Bandedge (no hopping mode)	CH00 Bandedge (hopping mode)
	
CH00 SE	CH39 SE
	
CH78 Bandedge (no hopping mode)	CH78 Bandedge (hopping mode)
	No Plot
CH78 SE	-

5.11. Spurious Emission (radiated)

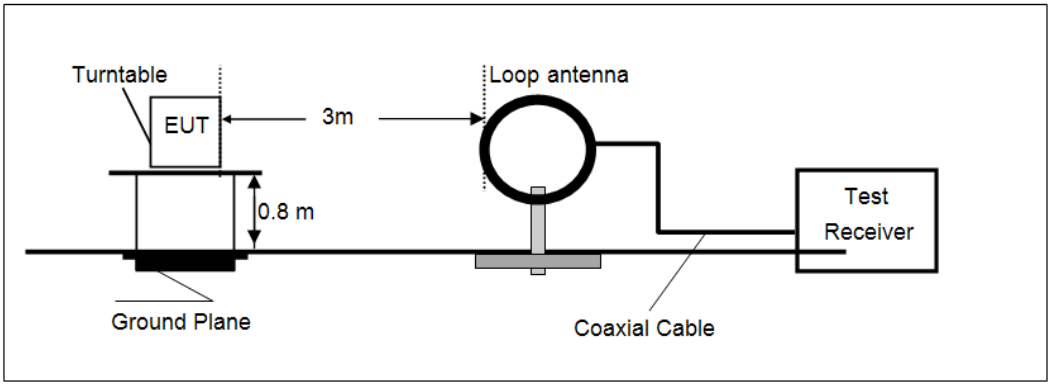
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

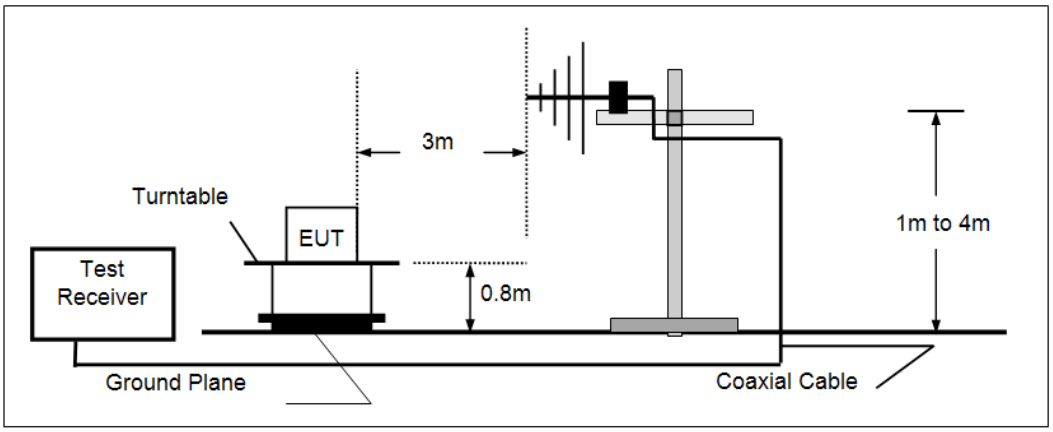
Frequency	Limit (dBuV/m @3m)	Value
30 MHz ~ 88 MHz	40.00	Quasi-peak
88 MHz ~ 216 MHz	43.50	Quasi-peak
216 MHz ~ 960 MHz	46.00	Quasi-peak
960 MHz ~ 1 GHz	54.00	Quasi-peak
Above 1 GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

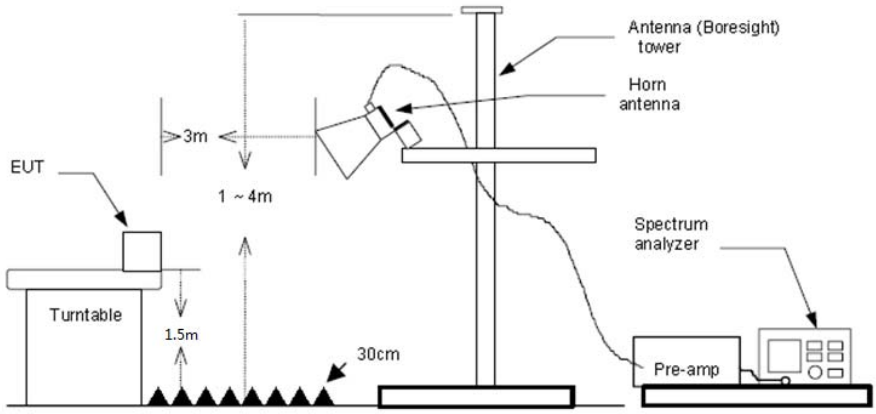
- Below 30 MHz



- 30 MHz ~1000 MHz



- Above 1 GHz



TEST PROCEDURE

1. The EUT was tested according to ANSI C63.10:2013 for compliance to FCC 47CFR 15.247 requirements.
2. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated360 degrees to determine the position of the maximum emission level.
3. The EUT waspositioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna.
5. Use the following spectrum analyzer settings
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Below 1 GHz, RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold; *If the emission level of the EUT measured by the peak detectoris 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, theemission measurement will be repeated using the quasi-peak detector and reported.*
   (3) Above 1 GHz, RBW=1 MHz, VBW=3 MHz for Peak value
   RBW=1 MHz, VBW=10 Hz for Average value.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

Note:

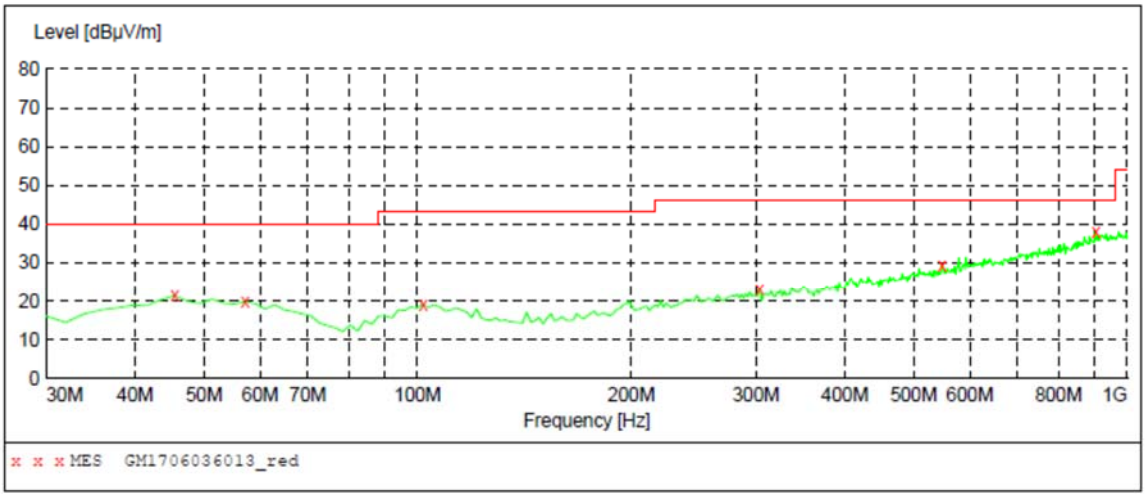
1) Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2) The emission levels of other frequencies are very lower than the limit and not show in test report.
3) Below 1 GHz,Have pre-scan all modulation mode, found the GFSK modulation High channel which it was worst case, so only the worst case's data on the test report.
4) Above 1 GHz,Have pre-scan all modulation mode, found the GFSK modulation which it was worst case, so only the worst case's data on the test report

➢ **9 kHz ~ 30 MHz**

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

➢ **30 MHz ~ 1 GHz**

Polarization:	Vertical

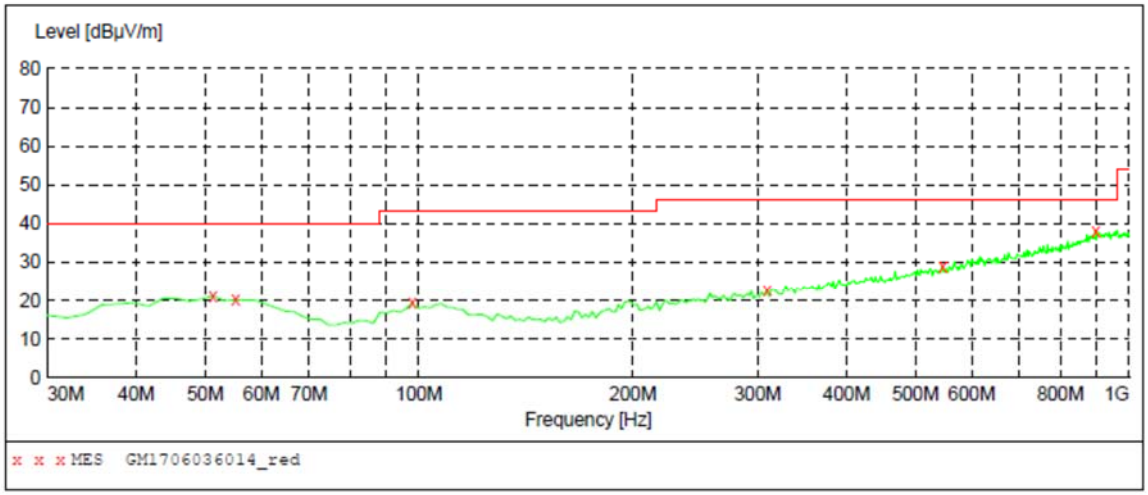


MEASUREMENT RESULT: "GM1706036013_red"

6/3/2017 10:03AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.520000	21.40	-8.8	40.0	18.6	QP	100.0	165.00	VERTICAL
57.160000	19.80	-9.4	40.0	20.2	QP	100.0	182.00	VERTICAL
101.780000	19.20	-10.5	43.5	24.3	QP	100.0	205.00	VERTICAL
303.540000	23.30	-7.2	46.0	22.7	QP	100.0	6.00	VERTICAL
547.980000	29.40	-0.8	46.0	16.6	QP	100.0	61.00	VERTICAL
903.000000	38.20	6.8	46.0	7.8	QP	100.0	153.00	VERTICAL

Polarization:	Horizontal



MEASUREMENT RESULT: "GM1706036014_red"

6/3/2017 10:06AM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
51.340000	21.20	-8.8	40.0	18.8	QP	100.0	27.00	HORIZONTAL
55.220000	20.20	-9.2	40.0	19.8	QP	100.0	267.00	HORIZONTAL
97.900000	19.30	-10.8	43.5	24.2	QP	100.0	187.00	HORIZONTAL
309.360000	22.80	-7.1	46.0	23.2	QP	300.0	232.00	HORIZONTAL
546.040000	29.00	-0.8	46.0	17.0	QP	100.0	132.00	HORIZONTAL
897.180000	38.20	6.7	46.0	7.8	QP	100.0	239.00	HORIZONTAL

➢ **Above 1 GHz**

CH00 for *GFSK*									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
3463.29	41.45	28.71	8.06	38.46	39.76	74.00	-34.24	Vertical	Peak
4809.50	55.21	31.58	9.55	36.93	59.41	74.00	-14.59	Vertical	
7209.02	39.36	36.21	11.87	35.07	52.37	74.00	-21.63	Vertical	
4809.50	43.53	31.58	9.55	36.93	47.73	54.00	-6.27	Vertical	Average
7209.02	27.35	36.21	11.87	35.07	40.36	54.00	-13.64	Vertical	
1711.05	36.68	25.22	5.79	36.95	30.74	74.00	-43.26	Horizontal	Peak
3923.37	35.44	29.70	8.67	38.16	35.65	74.00	-38.35	Horizontal	
4809.50	56.02	31.58	9.55	36.93	60.22	74.00	-13.78	Horizontal	
7209.02	39.66	36.21	11.87	35.07	52.67	74.00	-21.33	Horizontal	
4809.50	40.01	31.58	9.55	36.93	44.21	54.00	-9.79	Horizontal	Average

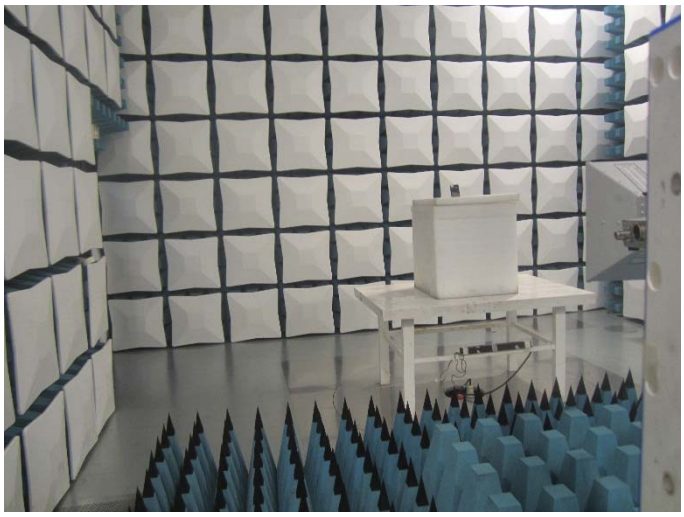
CH39 for *GFSK*									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1144.44	38.57	25.86	4.53	36.60	32.36	74.00	-41.64	Vertical	Peak
1923.61	37.18	25.54	6.15	37.24	31.63	74.00	-42.37	Vertical	
4883.52	57.41	31.43	9.59	36.73	61.70	74.00	-12.30	Vertical	
4883.52	36.62	31.43	9.59	36.73	40.91	54.00	-13.09	Vertical	Average
1672.30	37.23	25.12	5.71	36.87	31.19	74.00	-42.81	Horizontal	Peak
3893.52	36.41	29.69	8.63	38.17	36.56	74.00	-37.44	Horizontal	
4883.52	50.66	31.43	9.59	36.73	54.95	74.00	-19.05	Horizontal	
6833.77	32.03	34.24	11.64	34.96	42.95	74.00	-31.05	Horizontal	
4883.52	34.90	31.43	9.59	36.73	39.19	54.00	-14.81	Horizontal	Average

CH78 for *GFSK*									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin Limit (dB)	Polarization	Test value
1201.15	37.90	26.30	4.66	36.57	32.29	74.00	-41.71	Vertical	Peak
1958.19	37.57	25.89	6.21	37.27	32.40	74.00	-41.60	Vertical	
4958.68	55.22	31.46	9.64	36.52	59.80	74.00	-14.20	Vertical	
7451.57	39.28	36.20	12.24	34.86	52.86	74.00	-21.14	Vertical	
4958.68	37.50	31.46	9.64	36.52	42.08	54.00	-11.92	Vertical	Average
7451.57	26.82	36.20	12.24	34.86	40.40	54.00	-13.60	Vertical	
4958.68	54.97	31.46	9.64	36.52	59.55	74.00	-14.45	Horizontal	Peak
7451.57	38.41	36.20	12.24	34.86	51.99	74.00	-22.01	Horizontal	
4958.68	37.50	31.46	9.64	36.52	42.08	54.00	-11.92	Horizontal	Average
7451.57	23.04	36.20	12.24	34.86	36.62	54.00	-17.38	Horizontal	

6. Test Setup Photos of the EUT

Conducted Emission (AC Mains)

Radiated Emission



7. External and Internal Photos of the EUT

Reference to Test Report No.: TRE1705024001.

.....End of Report.....