RF TEST REPORT

Report No.: SHATBL2608026W03

Applicant	:	Acer Gadget Inc.
Product Name	:	Acer Dual-Mode Wireless Mouse
Brand Name	:	ACER
Model Name	:	OMR293
Series Model	:	/
FCC ID	:	2A2P5-OMR293
Test Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.249
Date of Receipt	:	Aug.13, 2026
Date of Test	:	Aug.14, 2026~Aug.28, 2026
Issue Date	:	Aug.31, 2026

Report Prepared by : Emily

(Emily)

Report Approved by : Guozheng Li

(Guozheng Li)

Authorized Signatory : Terry Yang

(Terry Yang)

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REVISION HISTORY

Rev.	Issue Date	Report No.	Effect Page	Contents
00	Aug.31, 2026	SHATBL2608026W03	ALL	Initial Release

DECLARATION OF REPORT

1. The device has been tested by ATBL, and the test results show that the equipment under test (EUT) is in compliance with the requirements of 47 CFR 15.249. And it is applicable only to the tested sample identified in the report.

2. This report shall not be reproduced except in full, without the written approval of ATBL, this document only be altered or revised by ATBL, personal only, and shall be noted in the revision of the document.

3. The general information of EUT in this report is provided by the customer or manufacture, ATBL is only responsible for the test data but not for the information provided by the customer or manufacture.

4. The results in this report is only apply to the sample as tested under conditions. The customer or manufacturer is responsible for ensuring that the additional production units of this model have the same electrical and mechanical components.

5. In this report, '☐' indicates that EUT does not support content after '☐', and '☑' indicates that it supports content after '☑'

SUMMARY OF TEST RESULT

Report Section	Standard Section	Test Item	Judgment	Remark
3.1	§15.249&15.209	Radiated Emission	Compliant	--
3.2	§15.249	Band Edges	Compliant	--
3.3	§15.215	20dB Bandwidth	Compliant	--
3.4	§15.207	AC Power-Line Conducted Emission	N/A	--
3.5	§15.203	Antenna Requirement	Compliant	--

Note:
(1).'N/A' denotes test is not applicable in this Test Report.

1. GENERAL DESCRIPTION

1.1. Applicant

Name : Acer Gadget Inc.

Address : 24F., No. 112, Sec. 1, Xintai 5th Rd., Xizhi Dist.New Taipei City 221 Taiwan

1.2. Manufacturer

Name : Acer Gadget Inc.

Address : 24F., No. 112, Sec. 1, Xintai 5th Rd., Xizhi Dist.New Taipei City 221 Taiwan

1.3. Factory

Name : Dongguan Boyye Industrial Co.,Ltd

Address : No. 21, Jinlang First Street, Diaolang Village, Huangjiang Town, Dongguan, China

1.4. General Information of EUT

General Information	
Equipment Name	Acer Dual-Mode Wireless Mouse
Brand Name	ACER
Model Name	OMR293
Series Model	/
Model Difference	/
Antenna Gain	2.34dBi
Antenna Type	PCB Antenna
Power Source	DC 1.5V From Battery
Sample No	2608055003
Battery	Rated Voltage:1.5V Charge Limit Voltage:/ Capacity:/
Hardware version	VER1.0
Software version	VER1.0
Connecting I/O Port(s)	Refer to the remark below.

Remark:

The above information of EUT was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.5. Equipment Specification

Equipment Specification	
Operation Frequency	2402MHz to 2480MHz
Maximum field strength	83.9dBuV/m(PK)@3m
Modulation	GFSK
Number of channels	40CH
Antenna Designation	PCB Antenna (Met 15.203 Antenna requirement)

1.6. Modification of EUT

No modifications are made to the EUT during all test items.

1.7. Laboratory Information

Company Name:	Shanghai ATBL Technology Co., Ltd.
Address:	5-6/F., Unit 1, No 8, FreeTrade One Life Science No. 160, Basheng Road, Pudong New District, Shanghai, China
Telephone:	+86(0)21-51298625
FCC-Registration Number:	485917
Designation Number:	CN1306
A2LA-Lab Cert. No.:	6184.01
ISED Designation Number:	27371

1.8. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

47 CFR Part 15 Subpart C §15.249

ANSI C63.10-2020+Cor 1-2023

Remark:

All test items were verified and recorded according to the standards and without any deviation during the test.

2. TEST CONFIGURATION OF EUT

2.1. Carrier Frequency Channel

Frequency Band	Channel	Frequency MHz	Channel	Frequency MHz	Channel	Frequency MHz
2402 - 2480 MHz	**01**	**2402**	15	2430	29	2458
	02	2404	16	2432	30	2460
	03	2406	17	2434	31	2462
	04	2408	18	2436	32	2464
	05	2410	19	2438	33	2466
	06	2412	**20**	**2440**	34	2468
	07	2414	21	2442	35	2470
	08	2416	22	2444	36	2472
	09	2418	23	2446	37	2474
	10	2420	24	2448	38	2476
	11	2422	25	2450	39	2478
	12	2424	26	2452	**40**	**2480**
	13	2426	27	2454	--	--
	14	2428	28	2456	--	--

Remark:

Low Channel: **CH1_2402MHz**; Middle Channel:**CH20_2440MHz**; High Channel: **CH40_2480MHz**.

2.2. Test Modes

NO.	TEST MODE DESCRIPTION
1	Low channel
2	Middle channel
3	High channel

Note:

1. Only the result of the worst case was recorded in the report, if no other cases.
2. For Radiated Emission, 3axis were chosen for testing for each applicable mode.
3. The EUT adjusts the frequency through the button.

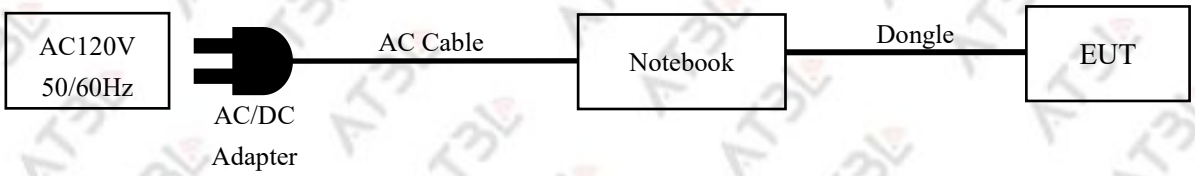
2.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

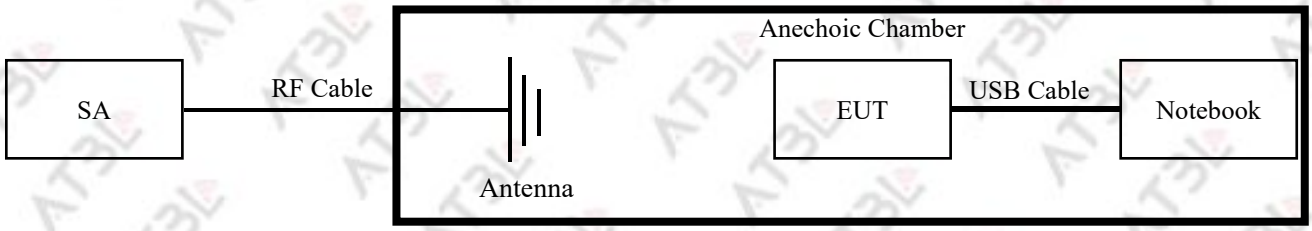
Temperature	Normal Temperature:	25°C
	High Temperature:	40°C
	Low Temperature:	0°C
Voltage	Normal Voltage:	1.5V
Other	Relative Humidity:	55%
	Air Pressure:	102kPa

2.4. Block Diagram of Test System

2.4.1. For AC Power-Line Conducted Emission



2.4.2. For Radiated Spurious Emission



2.4.3. For Conducted Test

2.5. Description of Support Units

NO.	Unit	Brand	Model	S/N
1	RF Cable	PASTERNACK	PE300	5cm
2	Laptop	Lenovo	T480	PF-16A6N8

2.6. Test Software and Power Level

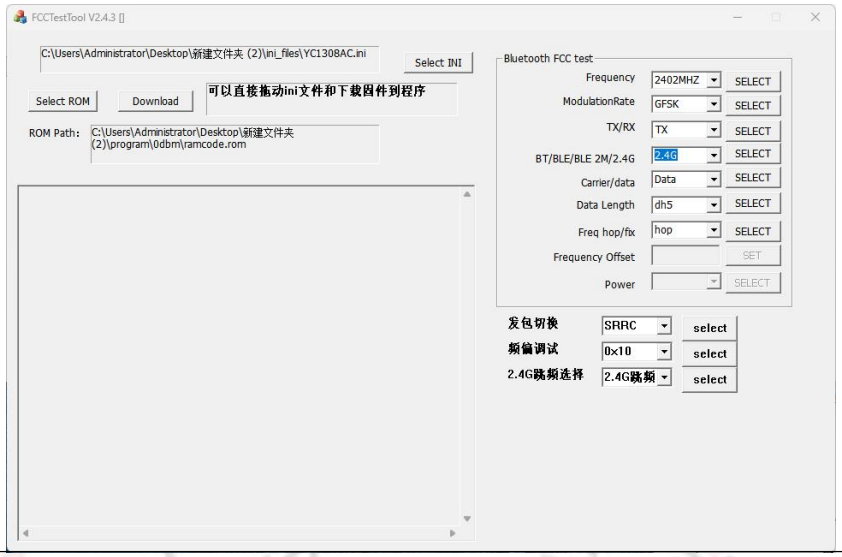
EUT Configure mode No.	Test conditions for modulation technology
Mode A	GFSK
RF Power Setting Value	
Channel	GFSK
	Power setting
0	Default
20	Default
40	Default

Note:

1.For the test results, the EUT had been tested with all conditions, and the worst-case mode of data will Recording in the report.

2.Frequency setting is done through physical buttons,the power of the EUT cannot be adjusted.

Fixed-frequency control software



2.7. EUT Operating Conditions

For AC power-line conducted emission, the EUT was connected under the large package sizes transmission.

For radiated spurious emission and conducted test, the engineering test program was provided and make the EUT to continuous transmit/receive.

2.8. Equipment List

2.8.1. For AC Power-Line Conducted Emission

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until	Calibrated due until	Cal. Interval
EMI Test Receiver	R&S	ESPI	100679	SHATBL-E012	2026.03.31	2027.03.30	1 year
LISN	R&S	ENV216	101300	SHATBL-E013	2026.03.31	2027.03.30	1 year
LISN	R&S	ENV216	100333	SHATBL-E041	2026.03.31	2027.03.30	1 year
CE Cable	Chuangcexing	2M	EMI0014	SHATBL-E014	N/A	N/A	N/A
Temperature & Humidity	Deli	Deli	EMI0015	SHATBL-E015	2026.08.08	2027.08.07	1 year
Testing Software	FALA	EZ-EMC(Ver.EMC-CON 3A1.1)	EMI0044	SHATBL-E044	N/A	N/A	N/A

2.8.2. For Radiated Spurious Emission

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until	Calibrated due until	Cal. Interval
Signal analyzer	Agilent	N9020A	MY50200811	SHATBL-E017	2026.03.31	2027.03.30	1 year
Amplifier	JPT	JPA0118-55-303A	1910001800055000	SHATBL-E006	2026.03.31	2027.03.30	1 year
Amplifier	JPT	JPA-10M1G32	21010100035001	SHATBL-E005	2026.03.31	2027.03.30	1 year
Antenna/Turn table Controller	Brilliant	N/A	N/A	SHATBL-E007	N/A	N/A	N/A
Loop Antenna(9kHz-30MHz)	Daze	ZN30900C	20077	SHATBL-E042	2026.05.20	2027.05.19	1 year
Bilog Antenna	SCHWARZBECK	VULB 9168	01174	SHATBL-E008	2026.05.20	2027.05.19	1 year
Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120D	02334	SHATBL-E009	2026.05.20	2027.05.19	1 year
Horn Antenna	COM-POWER	AH-1840	10100008	SHATBL-E043	2026.08.08	2027.08.07	1 year
Thermometer	DeLi	N/A	N/A	SHATBL-E015	2026.08.08	2027.08.07	1 year
Test Software	FALA	EMC-RI(Ver.4A2)	N/A	N/A	N/A	N/A	N/A
Wideband radio communication tester	R&S	CMW500	101331	SHATBL-W044	2026.08.08	2027.08.07	1 year
Spectrum analyzer	R&S	FSV40-N	101761	SHATBL-W036	2026.08.08	2027.08.07	1 year
Filter box	XH microwave	RSE01	N/A	SHATBL-W030	2026.08.08	2027.08.07	N/A

2.8.3. For Conducted Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until	Calibrated due until	Cal. Interval
Power sensor	Anritsu	MA2411B	1911006	SHATBL-W031	2026.08.08	2027.08.07	1 year
Adjustable Attenuator	Agilent	8494B	MY42144015	SHATBL-W009	2026.08.08	2027.08.07	1 year
Adjustable Attenuator	Agilent	8496B	MY42143776	SHATBL-W010	2026.08.08	2027.08.07	1 year
Environmental Test Chamber	KSON	THS-B6C-150	9159K	SHATBL-W019	2026.03.31	2027.03.30	1 year
Signal analyzer	Keysight	N9020A	MY50510136	SHATBL-W003	2026.08.08	2027.08.07	1 year
Vector signal generator	Agilent	N5182A	MY48180764	SHATBL-W043	2026.08.08	2027.08.07	1 year
Analog signal generator	Keysight	N5182B	MY57300196	SHATBL-W005	2026.08.08	2027.08.07	1 year
Wideband radio communication tester	R&S	CMW500	101331	SHATBL-W007	2026.08.08	2027.08.07	1 year
Switch Box	Cesheng	smu 1003	WCS20221215	SHATBL-W046	2026.03.31	2027.03.30	1 year
Thermometer	DeLi	N/A	N/A	SHATBL-W011	2026.08.08	2027.08.07	1 year
Test Software	Cesheng	WCS-WCN	N/A	SHATBL-W021	2026.08.08	2027.08.07	N/A

Remark:

Calibration duration for above equipments is 1 year.

2.9. Measurement Uncertainty

The reported uncertainty of measurement y±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of *k*=2, providing a level of confidence of approximately 95 %.

No.	Item		Uncertainty
1	Conducted Output Power		1.27dB
2	Power spectral density		1.28dB
3	Conducted Frequency Stability		10.14Hz
4	Conducted spurious emissions		1.73dB
5	RF Cable Loss		1.22dB
6	Radiated Spurious Emission 9KHz-30MHz		2.35dB
7	Radiated Spurious Emission 30MHz-1GHz		2.59dB
8	Radiated Spurious Emission 1GHz-18GHz		2.62dB
9	Radiated Spurious Emission 18GHz - 40GHz		2.80dB
10	Occupied bandwidth		23.20Hz
11	Conducted Emissions	9kHz ~ 150kHz	3.4dB
		150kHz ~ 30MHz	3.73dB

3. TEST RESULT

3.1. Radiated Emission

3.1.1. Radiated Emission Limit

Standard FCC15.249

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
900-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

Standard FCC 15.209

Frequency (MHz)	Distance Meters	Field Strengths Limit	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(kHz)	---
0.490 ~ 1.705	30	24000/F(kHz)	---
1.705 ~ 30	30	30	---
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	Other:74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Remark:

(1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.1.2. Test Procedure

1.The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.

2.Power on the EUT and all the supporting units.

The turntable was rotated by 360 degrees to determine the position of the highest radiation.

3.The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.

4.For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.

5.Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.

6. For emissions above 1GHz, use minimum resolution bandwidth of 1 MHz. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

7.When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.

8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.

9.For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

10.In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High - Low scan is not required in this case.

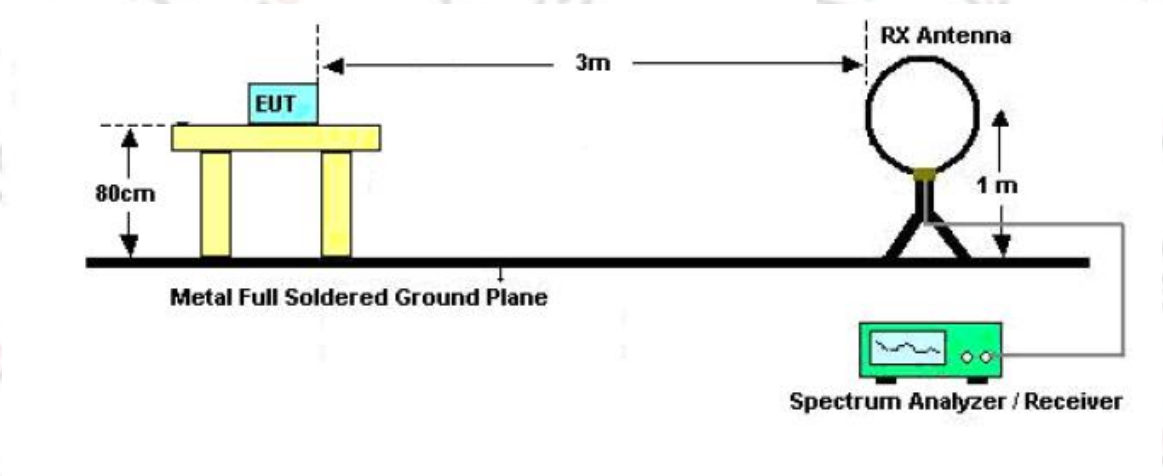
The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz RBW 1MHz/ VBW 3MHz for Peak, RBW 1MHz/10Hz for Average

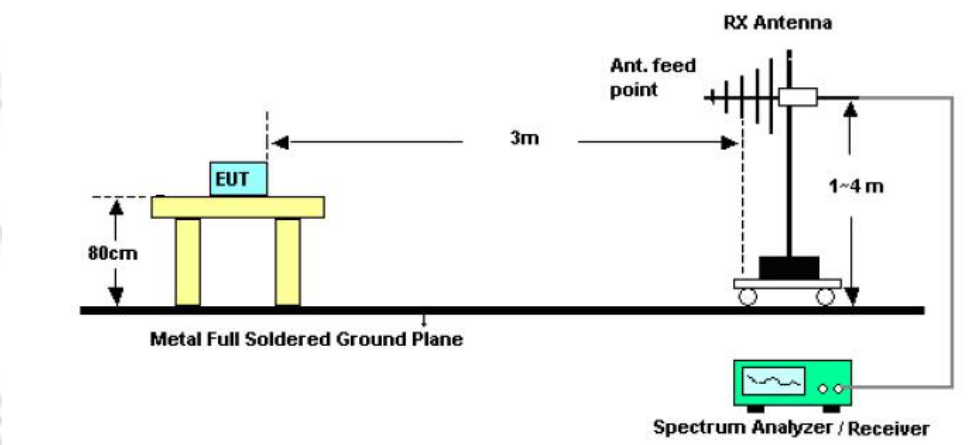
Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP

3.1.3. Test Setup

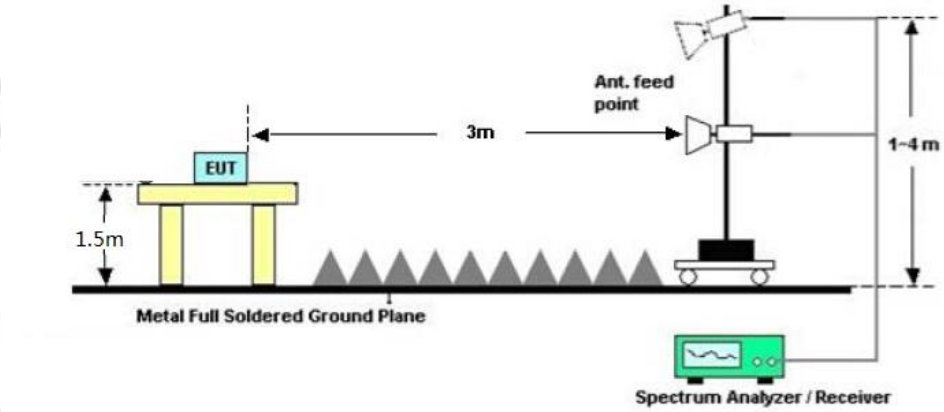
Radiated Emission Test-Setup Frequency Below 30MHz



RADIATED EMISSION TEST SETUP 30MHz-1000MHz



RADIATED EMISSION TEST SETUP ABOVE 1000MHz



3.1.4. Test Result

For 9 kHz ~ 30 MHz

Note:

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

2.The all data rate modes had been test, but only worse test data was recorded in the test report.

For 30 MHz ~ 1 GHz:

Note:

1.All modes have been tested, only worst case(GFSK 2402MHz)mode was recorded in the test report.

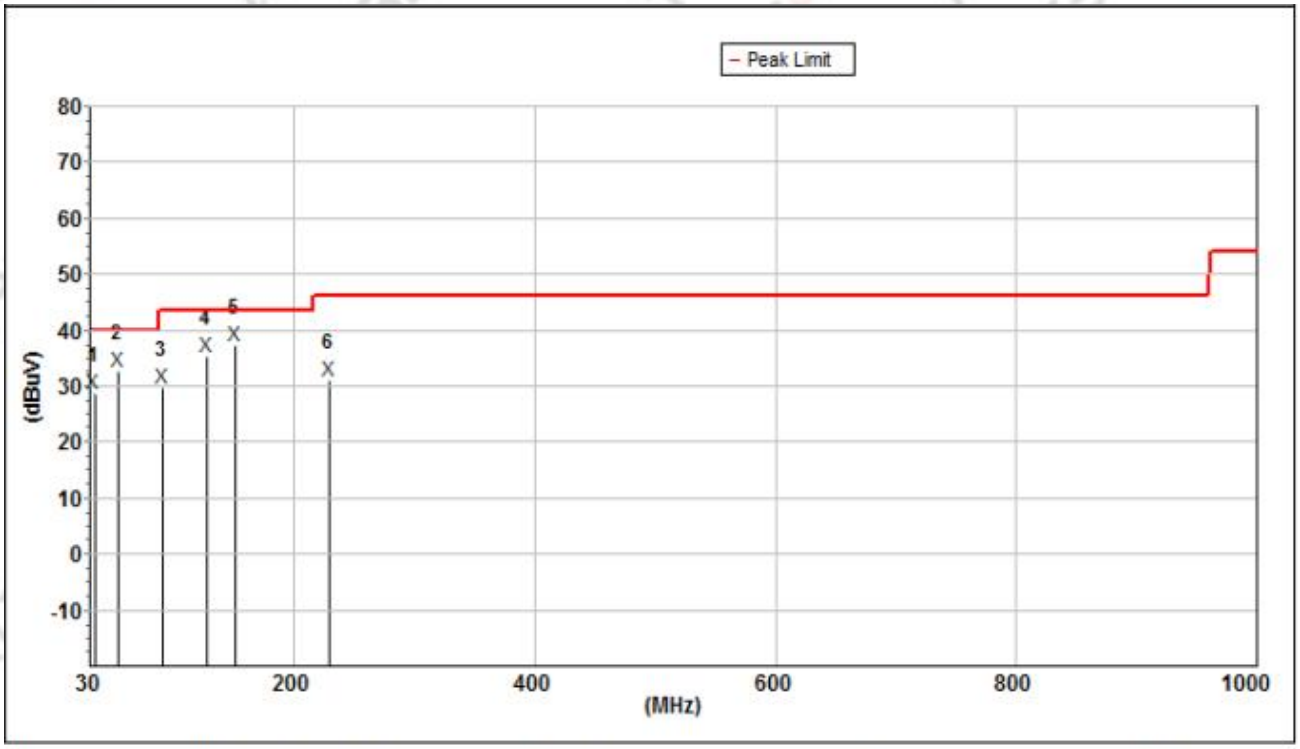
2.Emission Level = Reading Value + Correction Factor.

3.Correction Factor= Antenna Factor+ Cable Factor-Amplifier Gain.

4.The emission levels of other frequencies were less than 20dB margin against the limit.

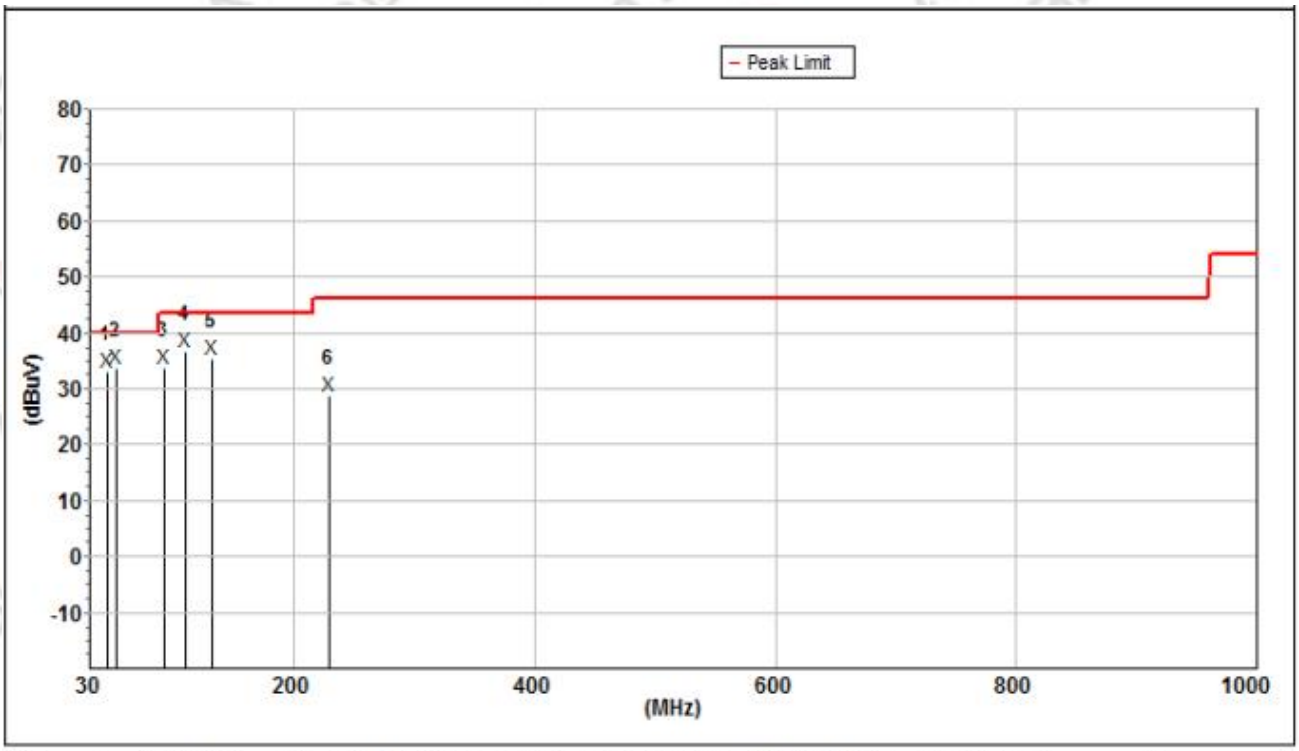
5.Margin value = Emission level-Limit value.

Polarization	Horizontal	Mode	GFSK 2402MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	33.445	70.5	-41.8	28.7	40.0	11.3	H
2	53.131	75.1	-42.4	32.7	40.0	7.3	H
3	90.855	71.8	-42.1	29.7	43.5	13.8	H
4	126.772	69.4	-34.1	35.3	43.5	8.2	H
5	151.597	73.3	-36.0	37.3	43.5	6.2	H
6	229.293	59.3	-28.2	31.1	46.0	14.9	H

Polarization	Vertical	Mode	GFSK 2402MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	45.058	77.7	-44.6	33.1	40.0	6.9	V
2	52.575	77.2	-43.5	33.7	40.0	6.3	V
3	92.139	73.4	-39.8	33.6	43.5	9.9	V
4	110.182	69.9	-33.3	36.6	43.5	6.9	V
5	131.758	71.9	-36.5	35.4	43.5	8.1	V
6	229.293	55.6	-27.0	28.6	46.0	17.4	V

For 1GHz ~ 18GHz:

Note:

1.The all data rate modes had been test, but only worse test data was recorded in the test report.

2.We used the filter to test and the main frequency was filtered out.

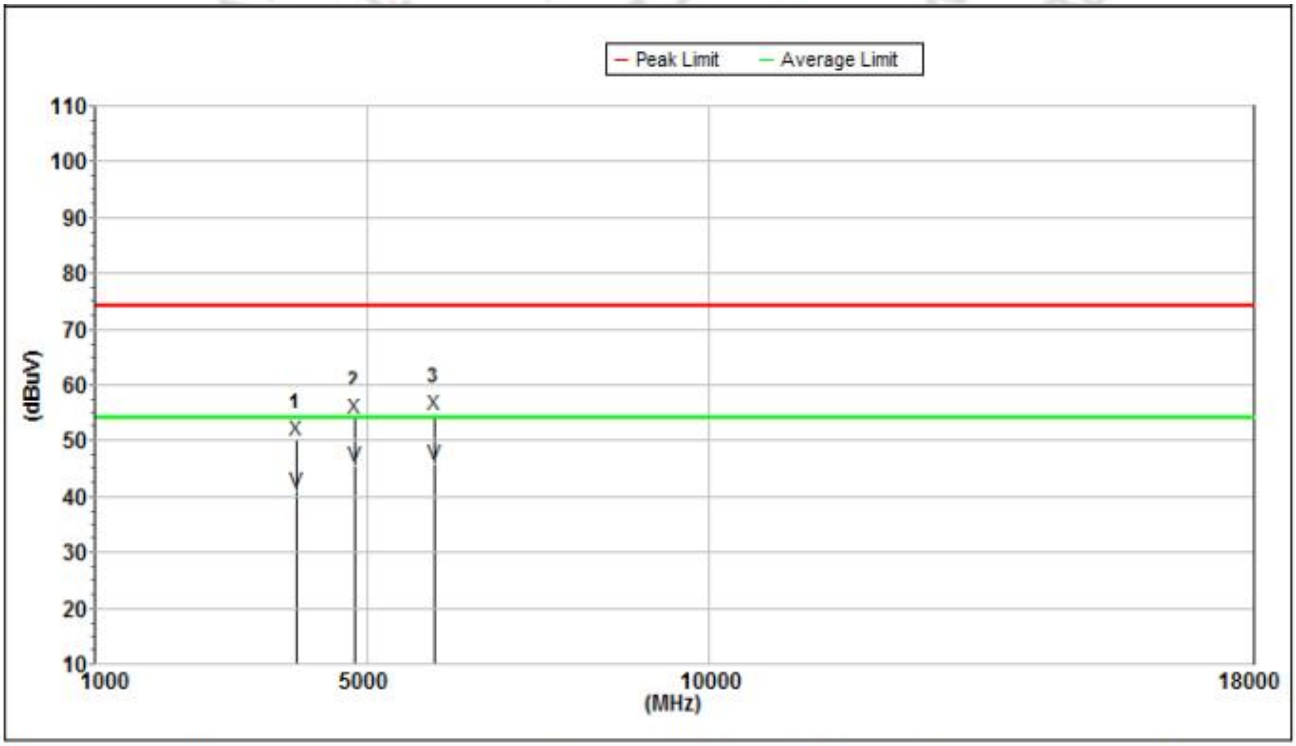
3.Emission Level= Reading Value+ Correction Factor.

4.Correction Factor= Antenna Factor+ Cable Factor-Amplifier Gain.

5.The emission levels of other frequencies were less than 20dB margin against the limit.

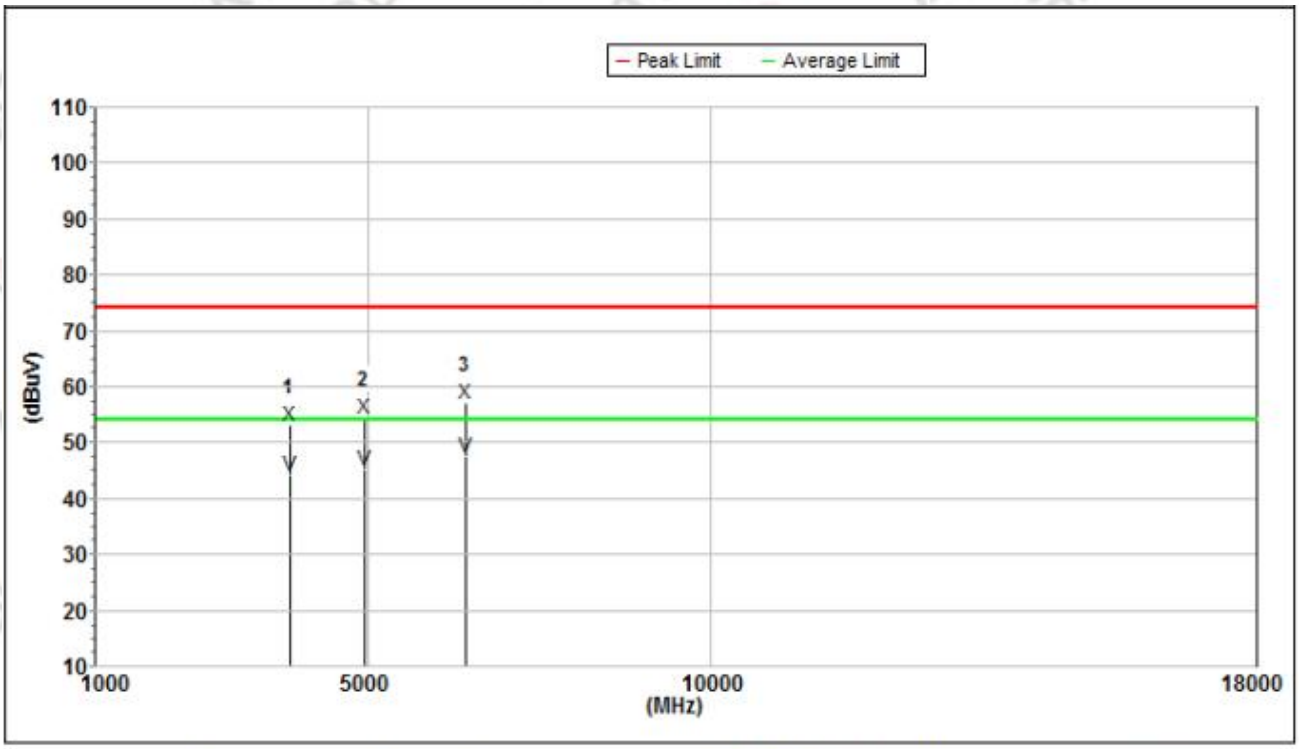
6.Margin value = Emission level-Limit value.

Polarization	Horizontal	Mode	GFSK 2402MHz



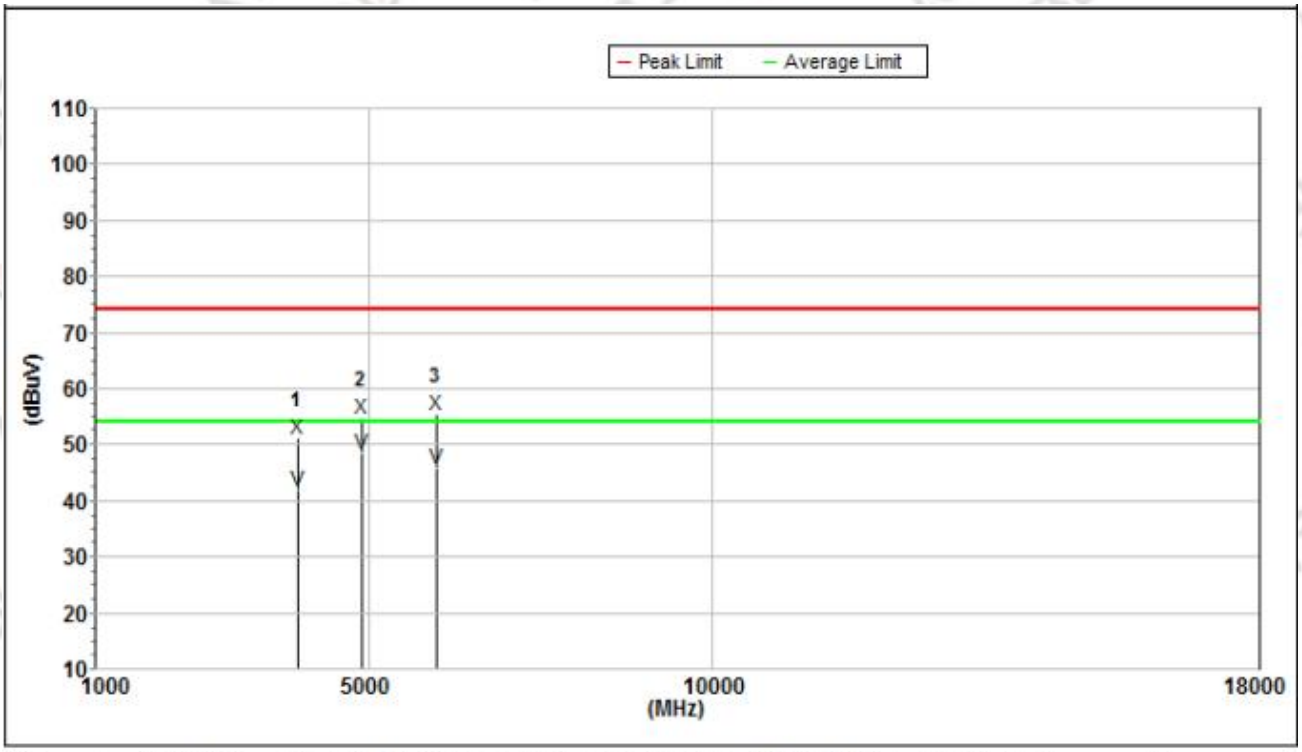
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	3950.000	58.6	-8.5	50.1	74.0	23.9	H
2	4807.500	60.5	-6.3	54.2	74.0	19.8	H
3	5987.500	57.9	-3.1	54.8	74.0	19.2	H
Avg							
1	3950.000	49.3	-8.5	40.8	54.0	13.2	H
2	4807.500	51.9	-6.3	45.6	54.0	8.4	H
3	5987.500	48.9	-3.1	45.8	54.0	8.2	H

Polarization	Vertical	Mode	GFSK 2402MHz



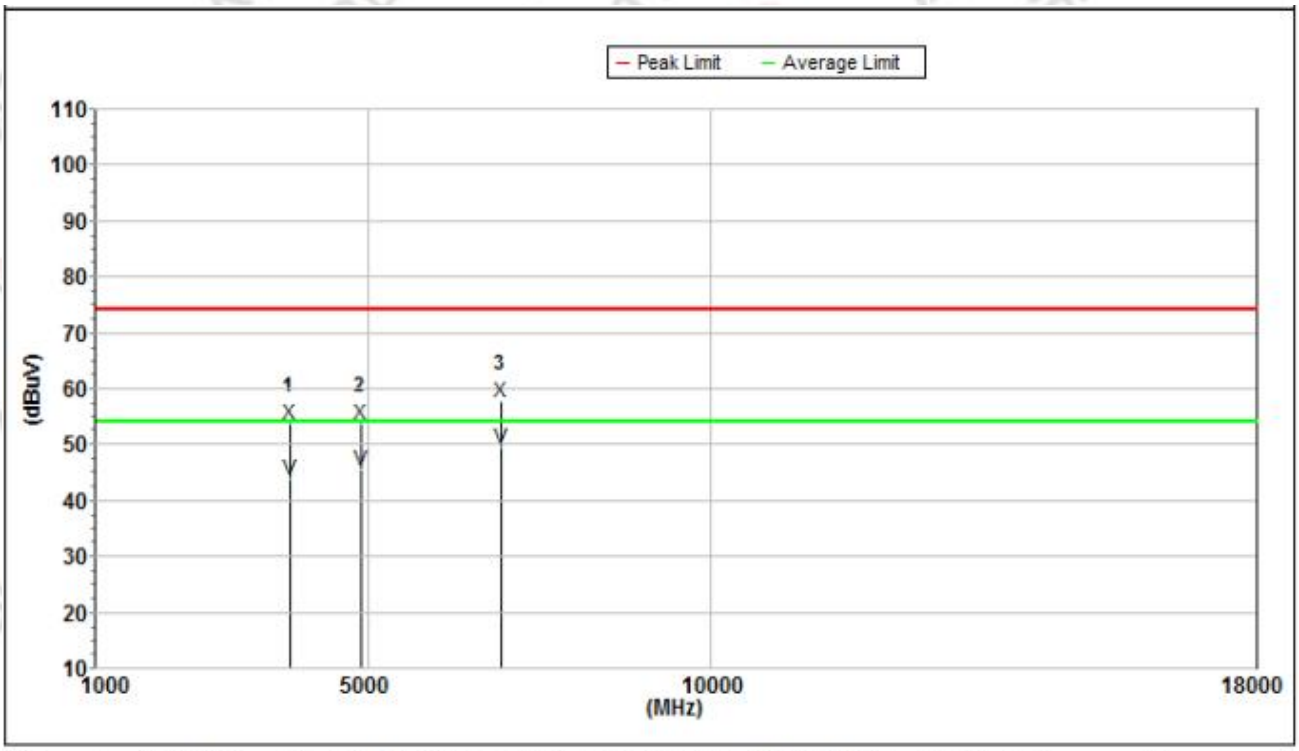
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	3867.500	59.5	-6.3	53.2	74.0	20.8	V
2	4952.500	58.6	-4.2	54.4	74.0	19.6	V
3	6414.000	57.5	-0.3	57.2	74.0	16.8	V
Avg							
1	3867.500	50.5	-6.3	44.2	54.0	9.8	V
2	4952.500	49.4	-4.2	45.2	54.0	8.8	V
3	6414.000	47.9	-0.3	47.6	54.0	6.4	V

Polarization	Horizontal	Mode	GFSK 2440MHz



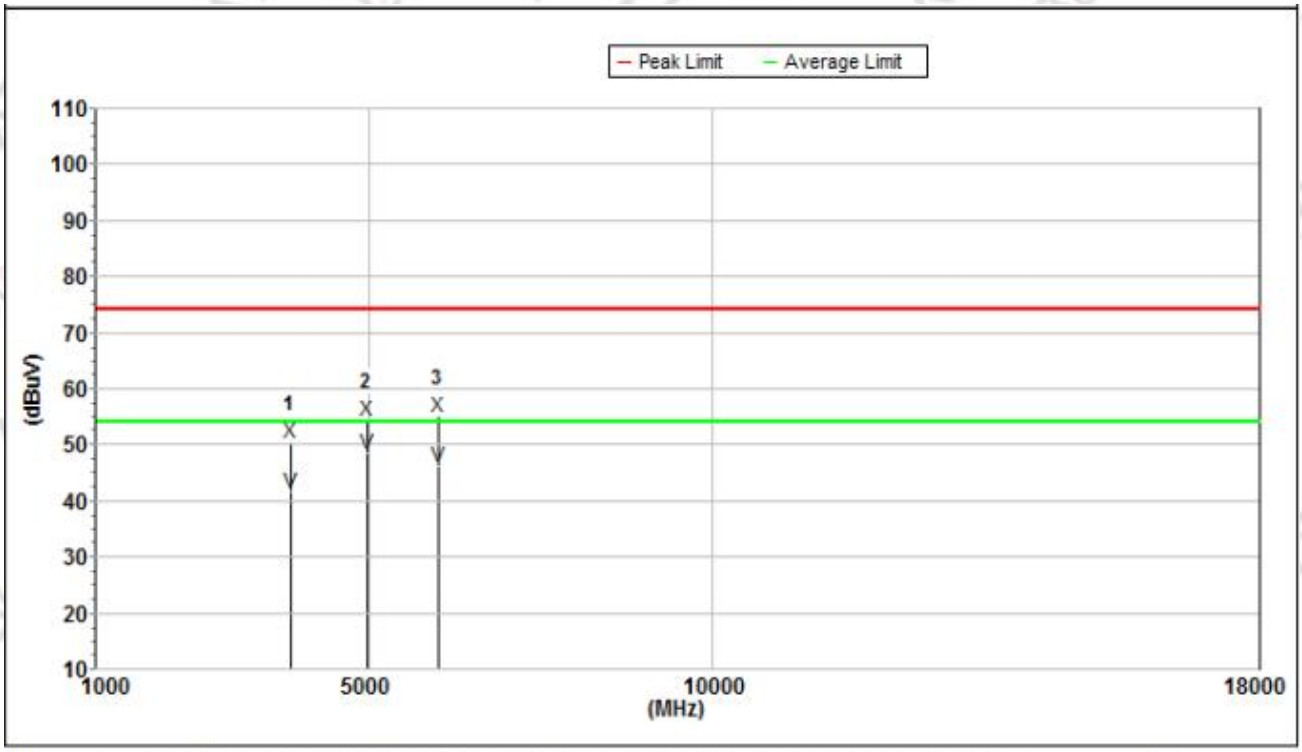
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	3962.500	59.4	-8.4	51.0	74.0	23.0	H
2	4882.500	60.6	-6.0	54.6	74.0	19.4	H
3	5995.000	58.4	-3.1	55.3	74.0	18.7	H
Avg							
1	3962.500	50.2	-8.4	41.8	54.0	12.2	H
2	4882.500	54.5	-6.0	48.5	54.0	5.5	H
3	5995.000	48.9	-3.1	45.8	54.0	8.2	H

Polarization	Vertical	Mode	GFSK 2440MHz



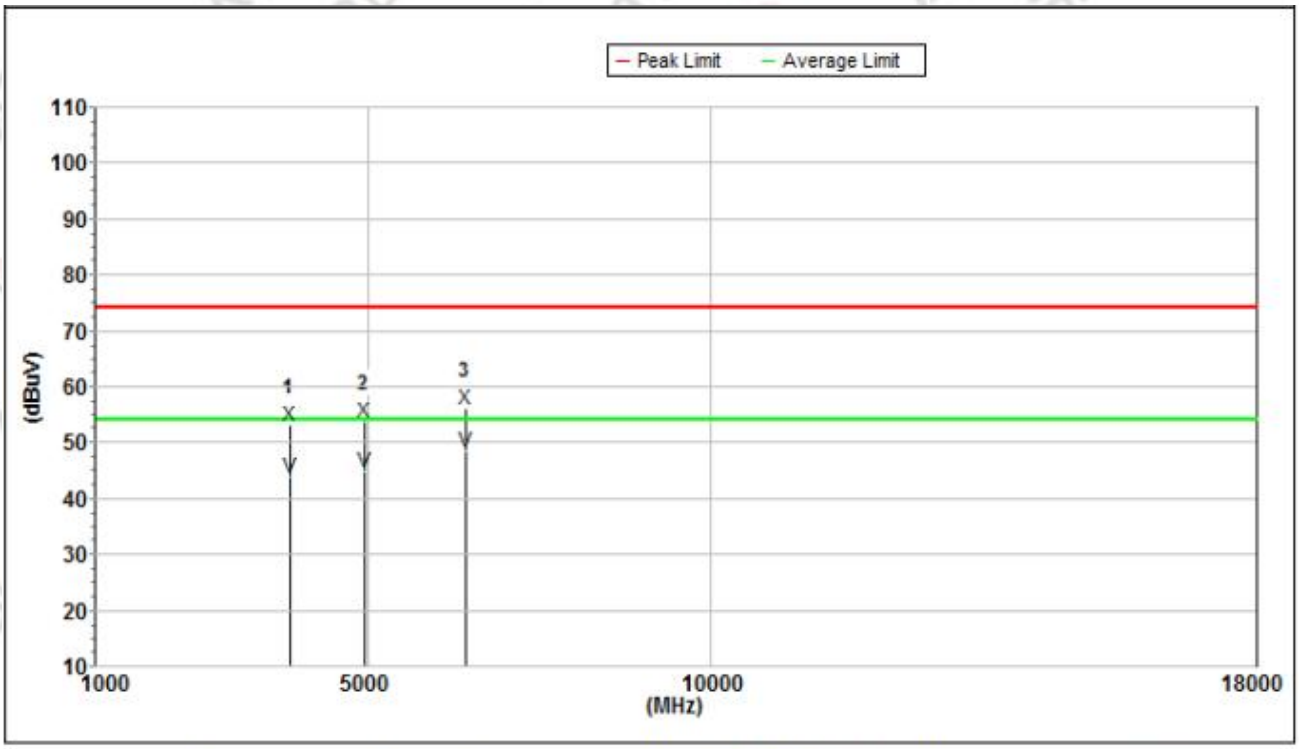
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	3862.500	60.0	-6.3	53.7	74.0	20.3	V
2	4882.500	58.0	-4.3	53.7	74.0	20.3	V
3	6942.000	56.9	0.7	57.6	74.0	16.4	V
Avg							
1	3862.500	50.1	-6.3	43.8	54.0	10.2	V
2	4882.500	49.8	-4.3	45.5	54.0	8.5	V
3	6942.000	48.7	0.7	49.4	54.0	4.6	V

Polarization	Horizontal	Mode	GFSK 2480MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	3865.000	59.3	-9.0	50.3	74.0	23.7	H
2	4962.500	60.1	-5.6	54.5	74.0	19.5	H
3	5997.500	58.2	-3.1	55.1	74.0	18.9	H
Avg							
1	3865.000	50.7	-9.0	41.7	54.0	12.3	H
2	4962.500	54.0	-5.6	48.4	54.0	5.6	H
3	5997.500	49.2	-3.1	46.1	54.0	7.9	H

Polarization	Vertical	Mode	GFSK 2480MHz



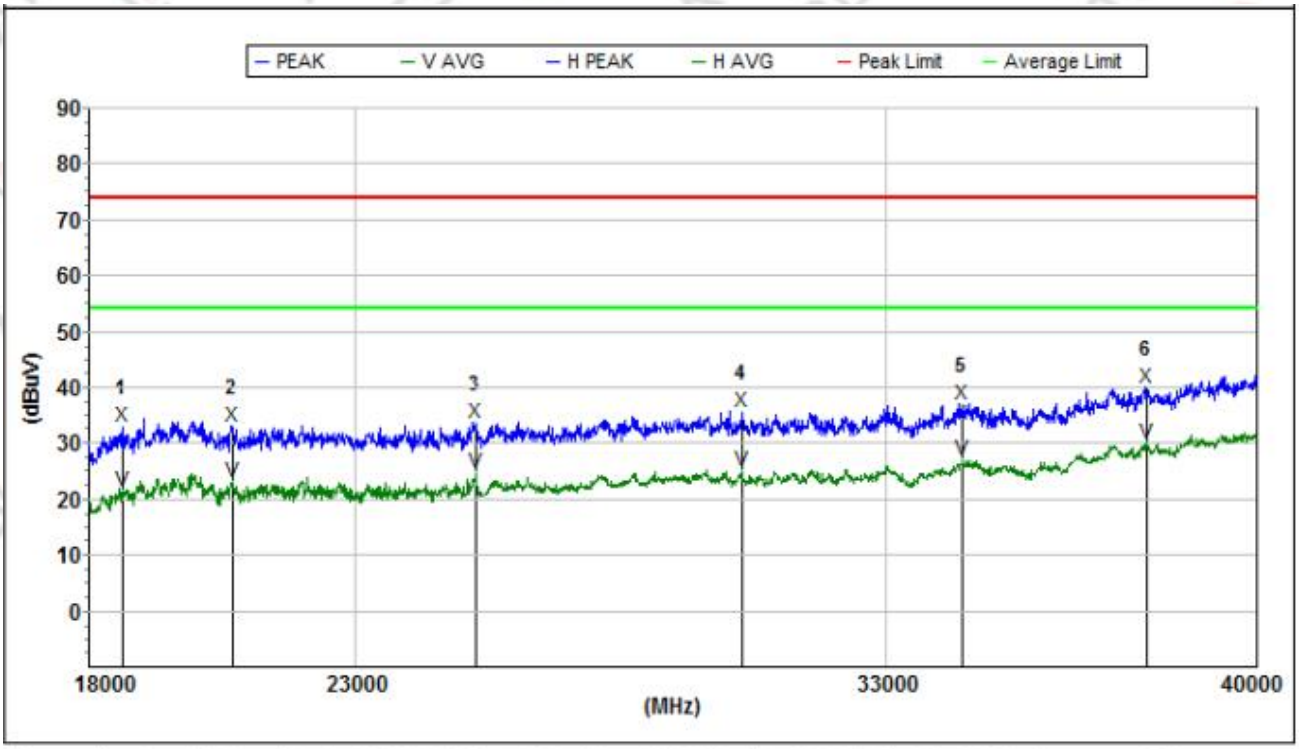
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	3862.500	59.3	-6.3	53.0	74.0	21.0	V
2	4940.000	58.1	-4.2	53.9	74.0	20.1	V
3	6414.000	56.5	-0.3	56.2	74.0	17.8	V
Avg							
1	3862.500	50.3	-6.3	44.0	54.0	10.0	V
2	4940.000	49.0	-4.2	44.8	54.0	9.2	V
3	6414.000	48.9	-0.3	48.6	54.0	5.4	V

For 18GHz-40GHz:

Note:

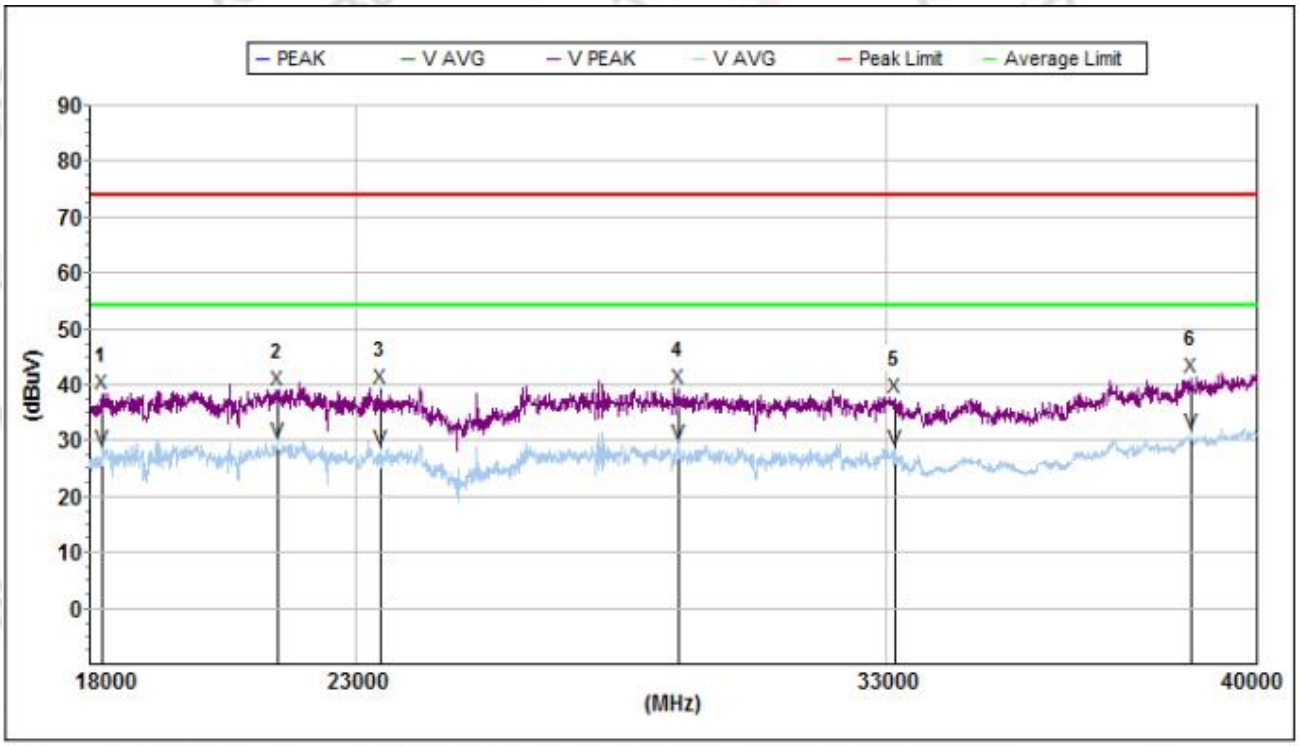
All modes have been tested, only worst (GFSK 2402MHz)mode was recorded in the test report.

Polarization	Horizontal	Mode	GFSK 2402MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	18638.000	55.1	-21.9	33.2	74.0	40.8	H
2	20706.000	54.1	-20.9	33.2	74.0	40.8	H
3	25293.000	53.2	-19.5	33.7	74.0	40.3	H
4	30298.000	52.8	-17.0	35.8	74.0	38.2	H
5	34456.000	55.6	-18.5	37.1	74.0	36.9	H
6	37943.000	56.3	-16.4	39.9	74.0	34.1	H
Avg							
1	18638.000	43.6	-21.9	21.7	54.0	32.3	H
2	20706.000	44.2	-20.9	23.3	54.0	30.7	H
3	25293.000	44.4	-19.5	24.9	54.0	29.1	H
4	30298.000	42.2	-17.0	25.2	54.0	28.8	H
5	34456.000	45.6	-18.5	27.1	54.0	26.9	H
6	37943.000	46.4	-16.4	30.0	54.0	24.0	H

Polarization	Vertical	Mode	GFSK 2402MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	18242.000	38.4	0.0	38.4	74.0	35.6	V
2	21542.000	39.1	0.0	39.1	74.0	34.9	V
3	23478.000	39.2	0.0	39.2	74.0	34.8	V
4	29099.000	39.2	0.0	39.2	74.0	34.8	V
5	33169.000	37.8	0.0	37.8	74.0	36.2	V
6	38768.000	41.3	0.0	41.3	74.0	32.7	V
Avg							
1	18242.000	28.5	0.0	28.5	54.0	25.5	V
2	21542.000	29.8	0.0	29.8	54.0	24.2	V
3	23478.000	28.6	0.0	28.6	54.0	25.4	V
4	29099.000	29.4	0.0	29.4	54.0	24.6	V
5	33169.000	28.5	0.0	28.5	54.0	25.5	V
6	38768.000	31.4	0.0	31.4	54.0	22.6	V

Field Strength of Fundamental

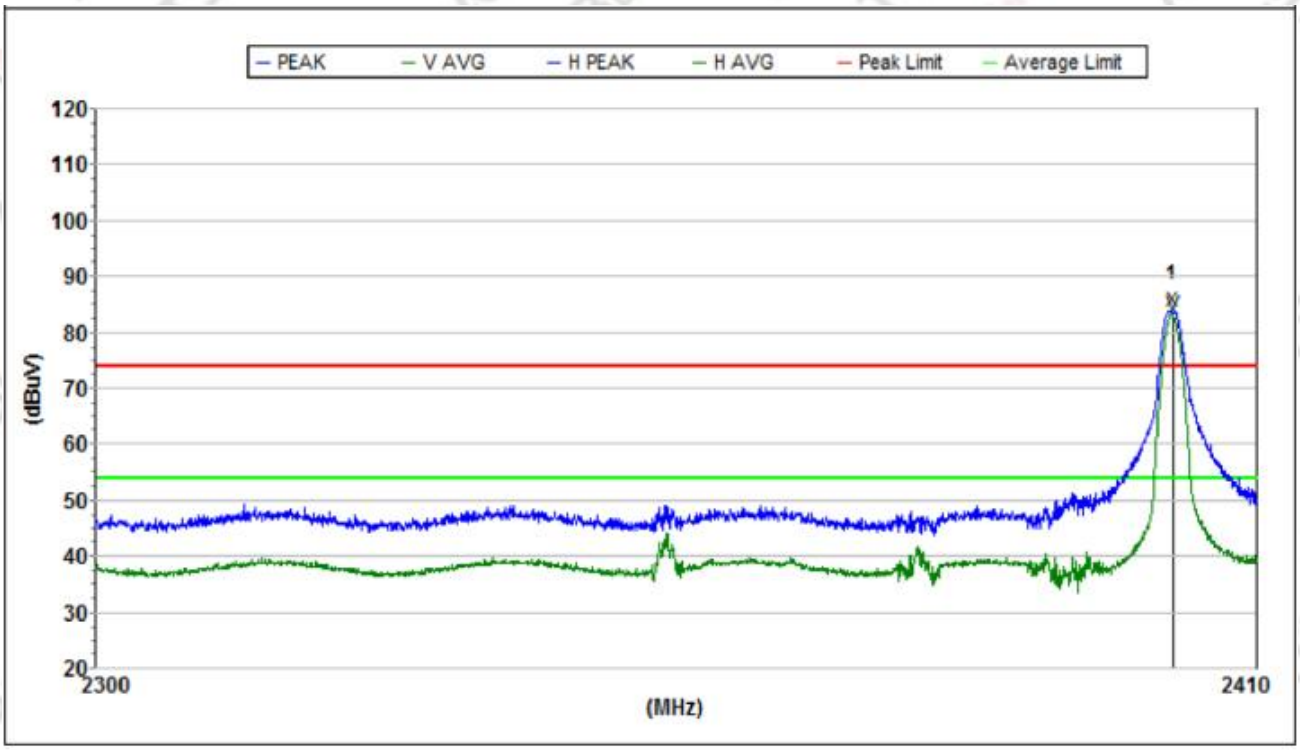
Note:

1). Level= Reading Value+ Correction Factor.

2).Correction Factor = Antenna Factor+ Cable Factor-Amplifier Gain.

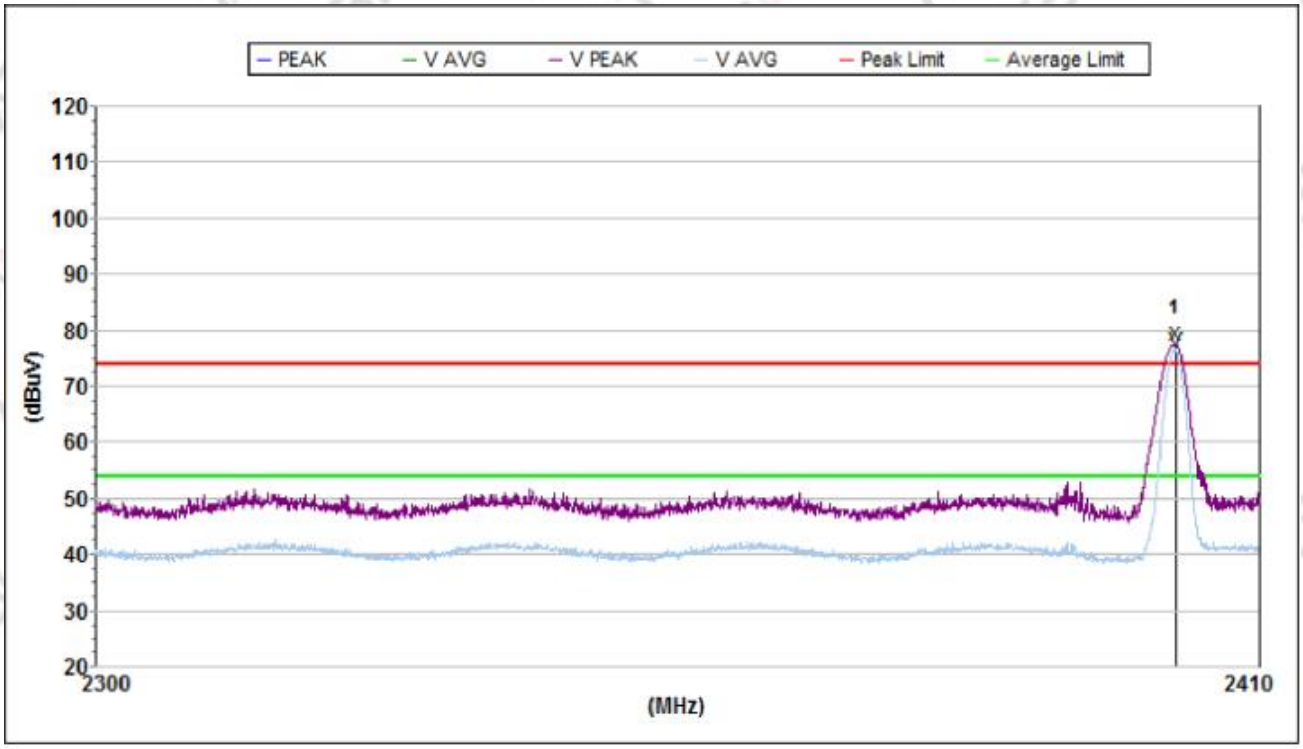
3).Over Limit =Limit -Level

Polarization	Horizontal	Mode	GFSK 2402MHz



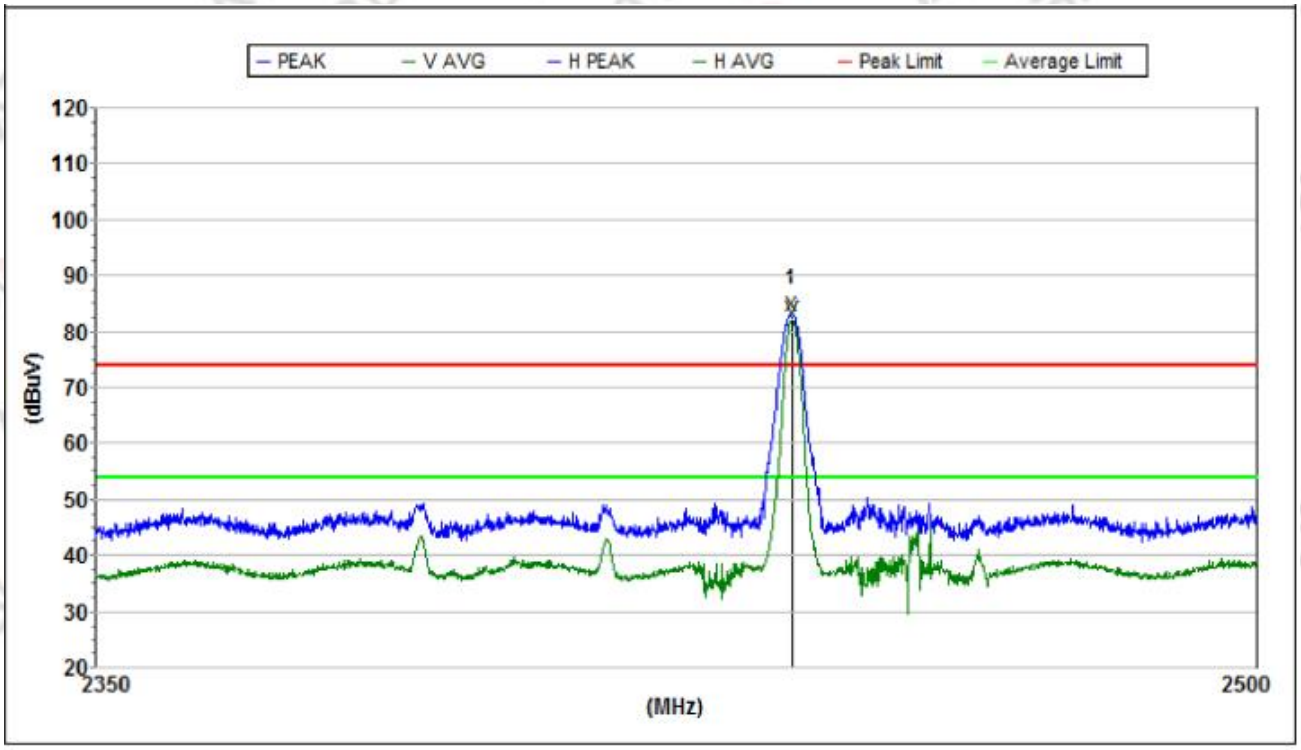
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2402.080	98.1	-14.2	83.9	114.0	30.1	H
Avg							
1	2402.080	97.4	-14.2	83.2	94.0	10.8	H

Polarization	Vertical	Mode	GFSK 2402MHz



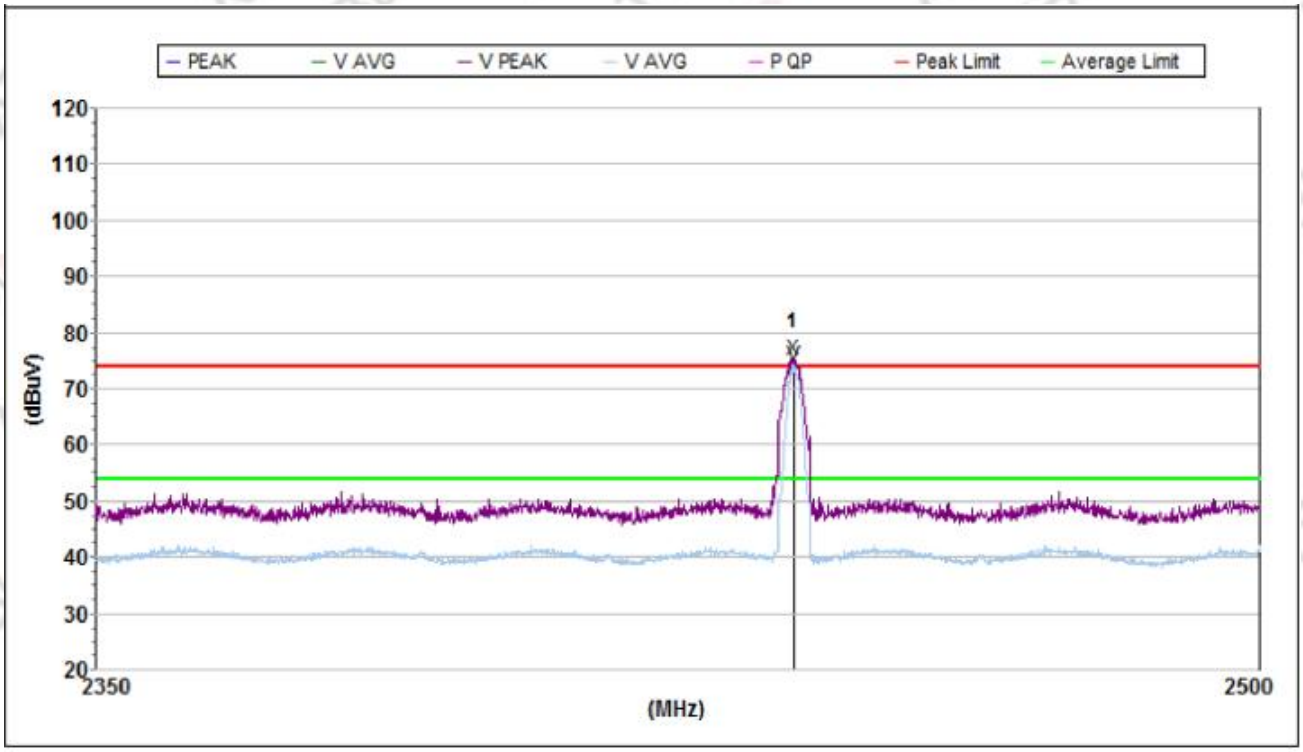
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2402.135	88.6	-11.3	77.3	114.0	36.7	V
Avg							
1	2402.135	87.6	-11.3	76.3	94.0	17.7	V

Polarization	Horizontal	Mode	GFSK 2440MHz



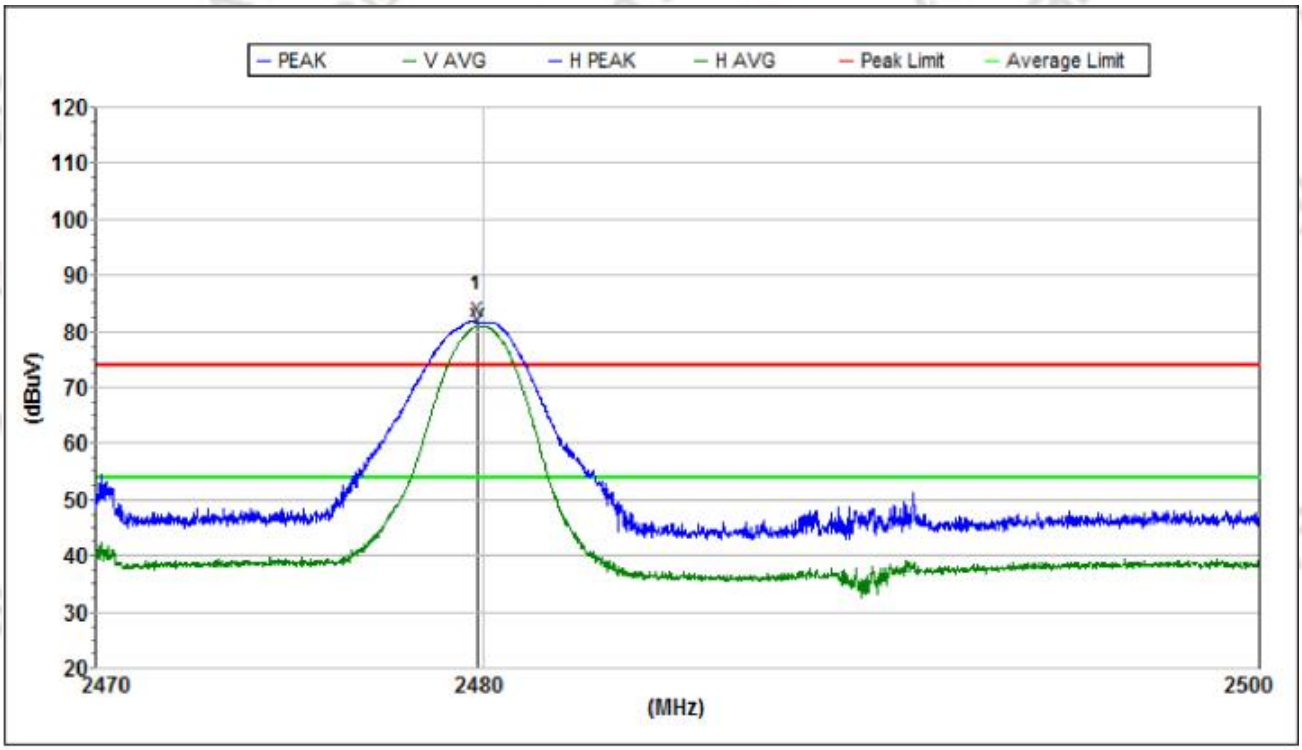
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2440.000	97.1	-14.3	82.8	114.0	31.2	H
Avg							
1	2440.000	96.5	-14.3	82.2	94.0	11.8	H

Polarization	Vertical	Mode	GFSK 2440MHz



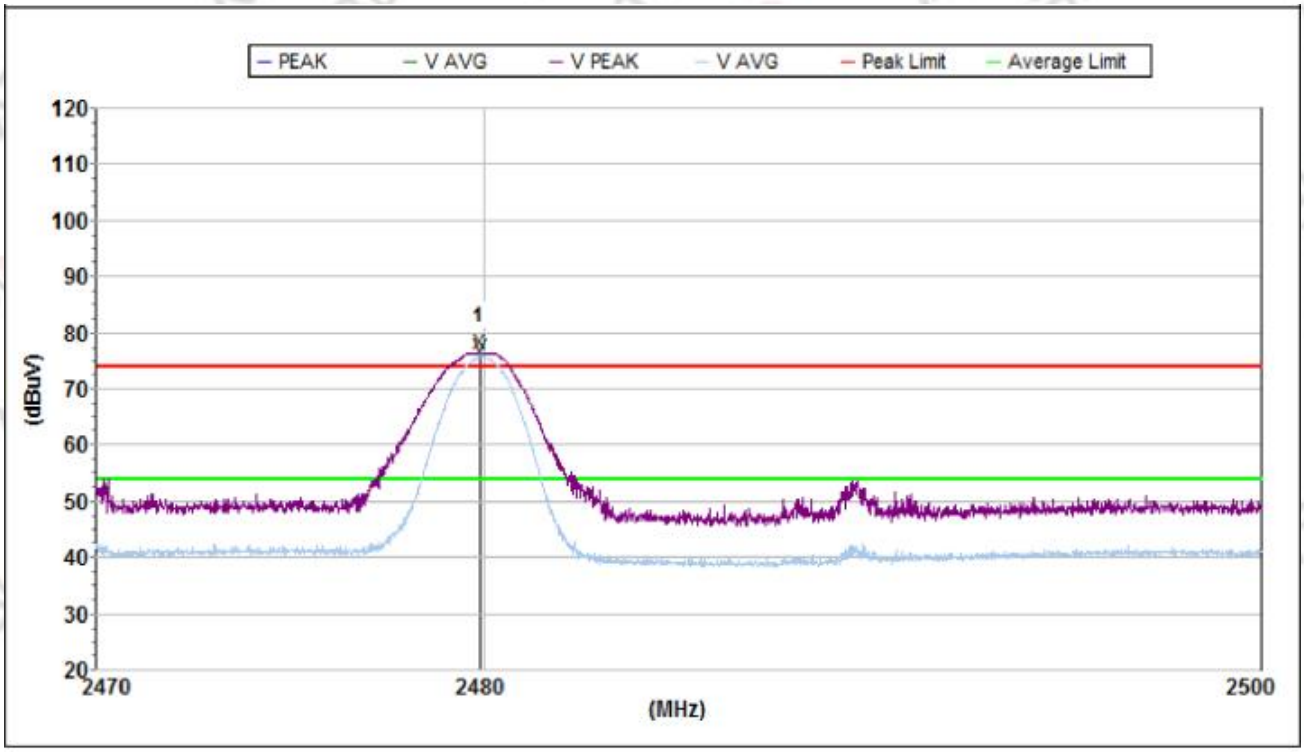
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2440.000	86.9	-11.5	75.4	114.0	38.6	V
Avg							
1	2440.000	85.9	-11.5	74.4	94.0	19.6	V

Polarization	Horizontal	Mode	GFSK 2480MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2479.855	96.0	-14.3	81.7	114.0	32.3	H
Avg							
1	2479.855	95.3	-14.3	81.0	94.0	13.0	H

Polarization	Vertical	Mode	GFSK 2480MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2479.885	88.0	-11.6	76.4	114.0	37.6	V
Avg							
1	2479.885	87.2	-11.6	75.6	94.0	18.4	V

3.2. Band edge Test

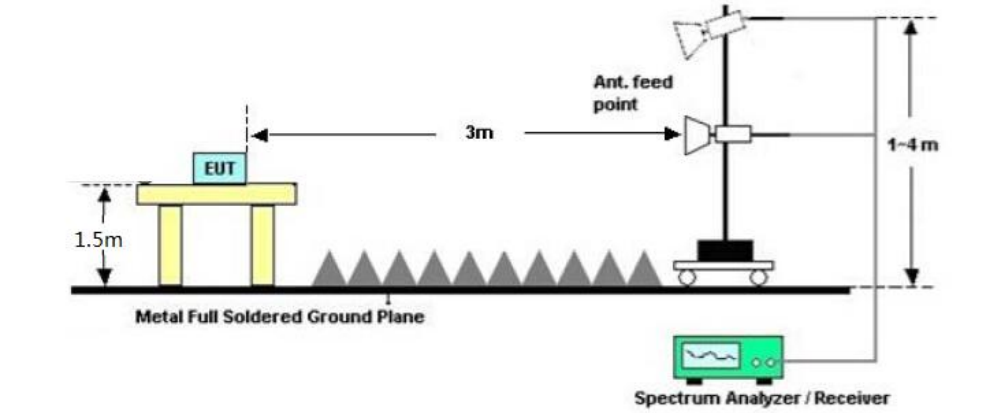
3.2.1. Limit

Frequency Band	Limit of the Field Strength (dBμV/m)	
	Peak	Average
f≤2390MHz	74	54
f≥2483.5MHz	74	54

3.2.2. Test Procedure

1.The EUT operates at transmitting mode. The operate channel is tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.
2.Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission: (a) PEAK: RBW=1MHz, VBW=3MHz / Sweep=AUTO
(b) AVERAGE: RBW=1MHz ; VBW=1/on time(1KHz) / Sweep=AUTO

3.2.3. Test Setup



3.2.4. Test Result

Note:

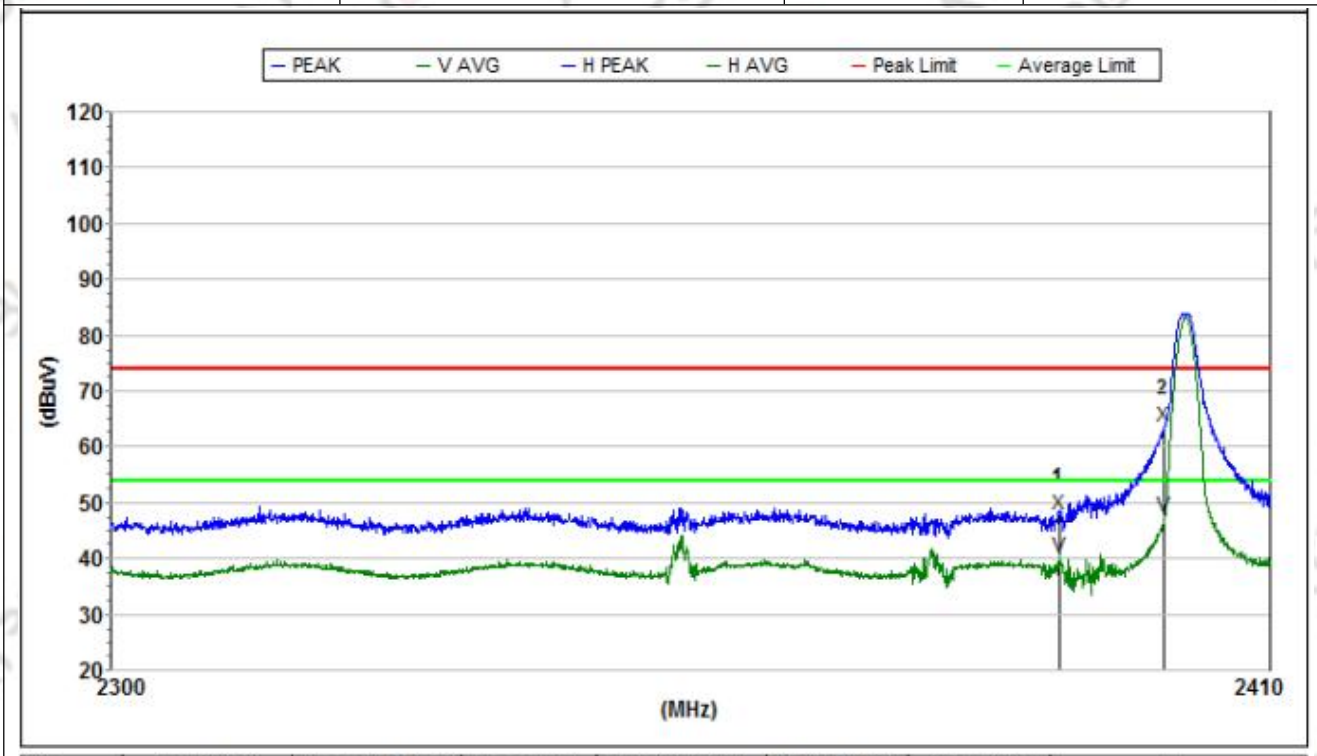
1.All data rate modes had been test, only worst case mode was recorded in the test report.

2.Emission Level= Reading Value+ Correction Factor.

3.Correction Factor= Antenna Factor+ Cable Factor-Amplifier Gain.

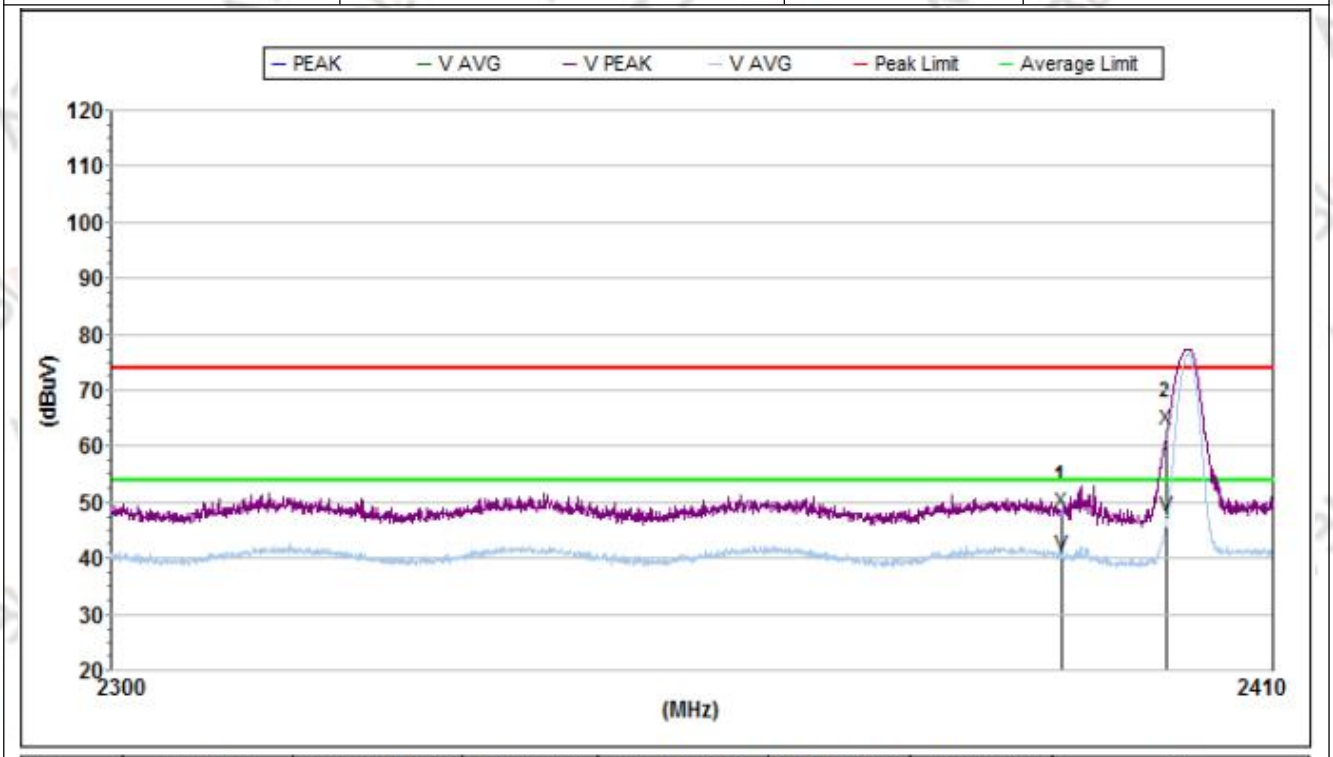
4.Margin value = Emission level-Limit value.

Polarization	Horizontal	Mode	GFSK 2402MHz



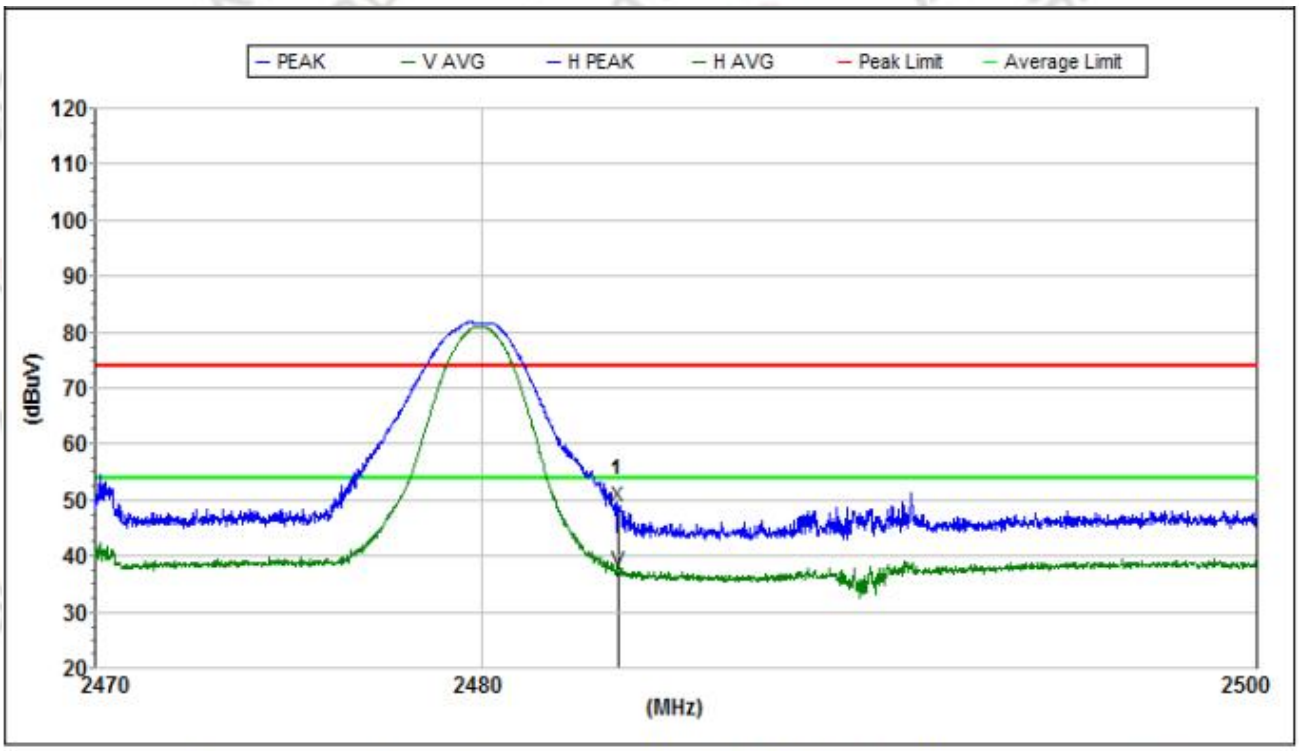
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2390.000	62.1	-14.2	47.9	74.0	26.1	H
2	2400.000	78.1	-14.2	63.9	74.0	10.1	H
Avg							
1	2390.000	54.6	-14.2	40.4	54.0	13.6	H
2	2400.000	61.9	-14.2	47.7	54.0	6.3	H

Polarization	Vertical	Mode	GFSK 2402MHz



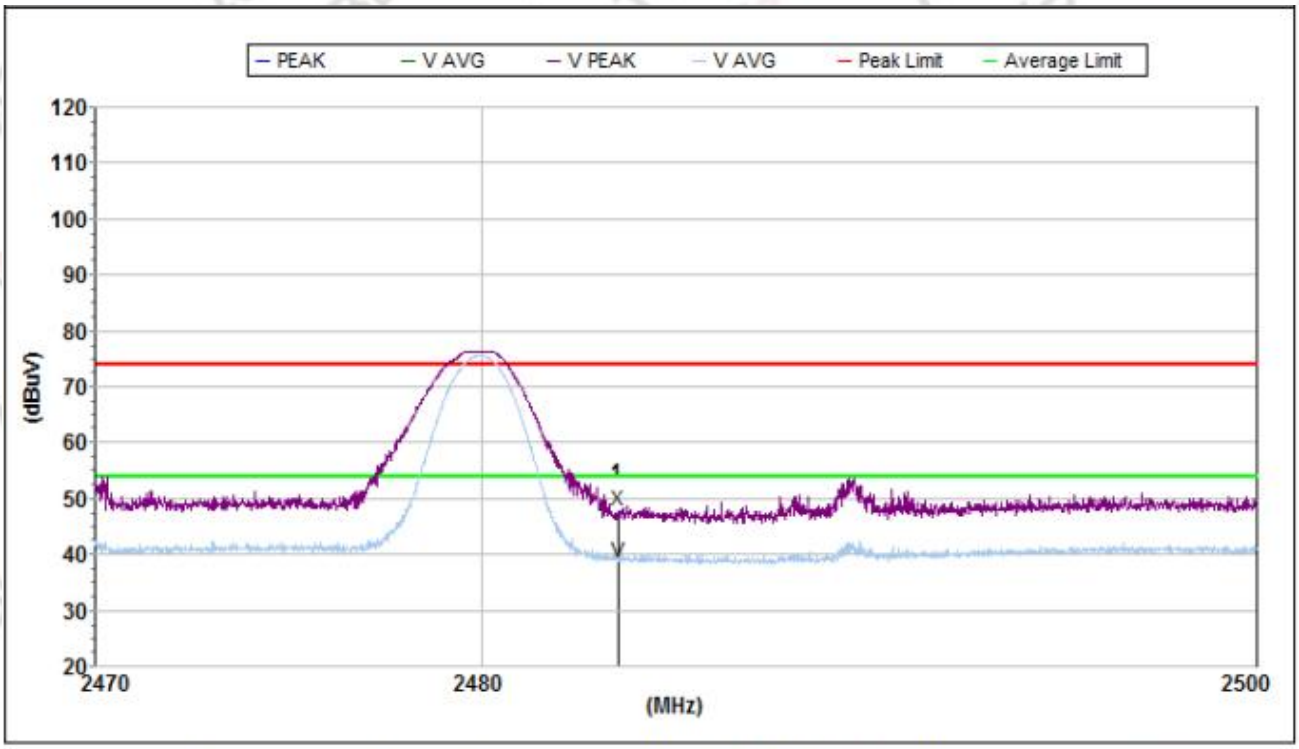
Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2390.000	59.7	-11.3	48.4	74.0	25.6	V
2	2400.000	74.3	-11.3	63.0	74.0	11.0	V
Avg							
1	2390.000	52.1	-11.3	40.8	54.0	13.2	V
2	2400.000	58.9	-11.3	47.6	54.0	6.4	V

Polarization	Horizontal	Mode	GFSK 2480MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2483.500	63.3	-14.3	49.0	74.0	25.0	H
Avg							
1	2483.500	51.8	-14.3	37.5	54.0	16.5	H

Polarization	Vertical	Mode	GFSK 2480MHz



Mk.	Freq.(MHz)	Reading(dBuV/m)	Factor(dB)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Pol.
Peak:							
1	2483.500	59.5	-11.7	47.8	74.0	26.2	V
Avg							
1	2483.500	50.6	-11.7	38.9	54.0	15.1	V

3.3. 20dB Bandwidth

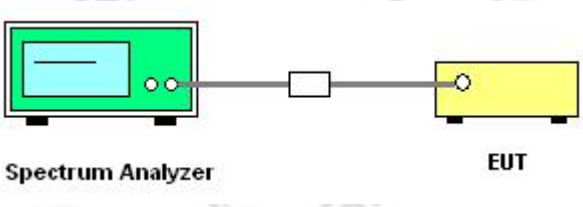
3.3.1. Limit

There is no limit requirement for 20dB Bandwidth.

3.3.2. Test Procedure

1. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
2. Set SPA Centre Frequency = Operation Frequency, RBW= 30 KHz, VBW≥3×RBW.
3. Set SPA Trace 1 Max hold, then View.

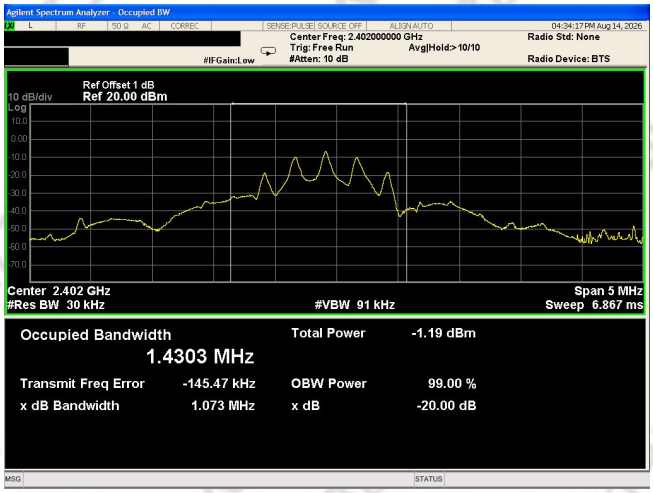
3.3.3. Test Setup



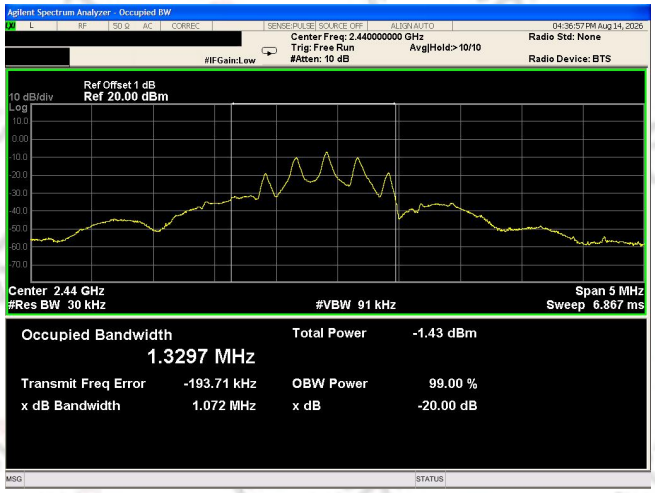
3.3.4. Test Result of 20dB Bandwidth

TEST ITEM	20dB Bandwidth
TEST MODULATION	GFSK

Test Data (MHz)		Criteria
Low Channel	1.073	PASS
Middle Channel	1.072	PASS
High Channel	1.073	PASS



Low Channel



Middle Channel

High Channel

N/A

N/A

3.4. AC Power-Line Conducted Emission

3.4.1. Limit

47 CFR 15.207(a): 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 or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table:

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

3.4.2. Test Procedure

1.The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.

2.Connect EUT to the power mains through a line impedance stabilization network (LISN).

3.All the support units are connecting to the other LISN.

4.The LISN provides 50 ohm coupling impedance for the measuring instrument.

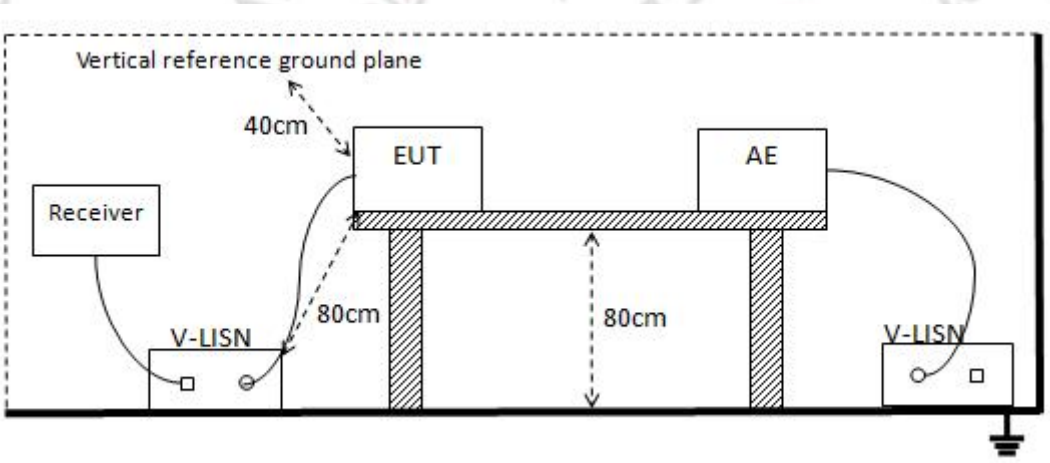
5.The FCC states that a 50 ohm, 50 microhenry LISN should be used.

6.Both sides of AC line were checked for maximum conducted interference.

7.The frequency range from 150 kHz to 30 MHz was searched.

8.Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9 kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

3.4.3. Test Setup



3.4.4. Test Result of AC Power-Line Conducted Emission

Note:EUT is only power by battery, So it is not applicable for this test.

3.5. Antenna Requirement

3.5.1. Standard Requirement

According to *47 CFR 15.203*, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

3.5.2. EUT Antenna

The antenna used for the EUT is PCB Antenna, which meets the antenna requirements.

4. TEST SETUP PHOTOGRAPHS

Please refer to the Appendix C.

5. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

External Please refer to the Appendix D.

Internal Please refer to the Appendix D.

※※※※※END OF THE REPORT※※※※※