

TEST REPORT

Applicant: 3M Company
Address: 3M Center, St. Paul, MN 55144-1000, USA
Equipment Type: 3M™ Respiratory Communication Device
Model Name: RCD-MCU-01
Brand Name: N/A
FCC ID: DGFPSDRCDMCU
ISED Number: 458A-PSDRCDMCU
Test Standard: 47 CFR Part 15 Subpart C
RSS-Gen Issue 5
RSS-247 Issue 4
(refer to section 3.1)
Sample Arrival Date: Jan. 12, 2026
Test Date: Feb. 05, 2026 - Apr. 27, 2026
Date of Issue: Apr. 28, 2026

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Julie Zhu**Checked by:** Ye Hongji**Approved by:** Tolan Tu
(Testing Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Apr. 14, 2026</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Apr. 28, 2026</u>	<u>1. Updated the test date and Section 4.1 Test Equipment List.</u> <u>2. Corrected the note in Section 2.4.</u> <u>3. Updated the EIRP form in ANNEX A.2.</u> <u>4. Updated the Max. 20 dB Bandwidth in ANNEX A.4.</u> <u>5. Updated the ANNEX A.5 Time of Occupancy (Dwell time).</u> <u>6. Added the 9 kHz-30 MHz and 18 GHz-26.5 GHz radiated emission test data and plots in ANNEX A.8.</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☐ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☒ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ Building 2, Intelligent Connected Vehicle Industrial Park, No. 55, Xiangshan Road, Luotian Community, Yanluo Sub-district, Bao'an District, Shenzhen, Guangdong Province, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The CAB identifier number is CN0030.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	3M Company
Address	3M Center, St. Paul, MN 55144-1000, USA

2.2 Manufacturer Information

Manufacturer	3M Company
Address	3M Center, St. Paul, MN 55144-1000, USA

2.3 General Description for Equipment under Test (EUT)

EUT Name	3M™ Respiratory Communication Device
Model Name Under Test	RCD-MCU-01
Series Model Name	N/A
Description of Model name differentiation	N/A
Serial Number	N/A
Hardware Version	R1.1A
Software Version	V0.1.5
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	2.4G ISM Band
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The requirement for the following technical information of the EUT was tested in this report:

Modulation Technology	FHSS
Modulation Type	GFSK
Product Type	☐ Mobile ☒ Portable ☐ Fix Location
Transfer Rate	1 Mbps
Frequency Range	The frequency range used is 2404 MHz - 2474 MHz; The frequency block is 2400 MHz to 2483.5 MHz.
Number of Channel	24 (at intervals of 3 MHz)
Tested Channel	Low (2404 MHz), Middle (2437 MHz), High (2474 MHz)
Antenna Type	PIFA Antenna
Antenna Gain	1.8 dBi
The Max RF Output power	10.70 dBm
Adaptive or non-adaptive	Non-Adaptive

All Channel List:

Channel number	Freq. (MHz)	Channel number	Freq. (MHz)	Channel number	Freq. (MHz)	Channel number	Freq. (MHz)
1	2404	7	2422	13	2440	19	2459
2	2407	8	2425	14	2443	20	2462
3	2410	9	2428	15	2447	21	2465
4	2413	10	2431	16	2450	22	2468
5	2416	11	2434	17	2453	23	2471
6	2419	12	2437	18	2456	24	2474

Note: The modulation is GFSK with FHSS, there are total 24 channels (frequency range is 2404-2474 MHz, channel step is 3 MHz, totally 24channels), when this part works, it will choose 24 channels, each channel band width is 1 MHz, if one channel is chosen, adjacent two channels cannot be chosen to make sure step of working channels is more than 2 MHz. the equipment select the lowest, middle and highest channel from 24 channels, Which are 2404 MHz, 2437 MHz and 2474 MHz. The more information please refer to the manufacturer's instructions.

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C	Intentional radiators of radio frequency equipment
2	RSS-Gen Issue 5	General Requirements for Compliance of Radio Apparatus
3	RSS-247 Issue 4	Digital Transmission Systems, Frequency Hopping Systems and LicenceExempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands
4	ANSI C63.10-2020+ Cor. 1-2023+ C63.10a-2024 + Errata to C63.10a-2024	American National Standard for Procedures for Compliance Testing of Unlicensed Wireless Devices
5	KDB 558074 D01 15.247 Meas Guidance v05r02	Guidance for compliance measurements on digital transmission system, frequency hopping spread spectrum system, and hybrid system devices operating under section 15.247 of the FCC rules

3.2 Verdict

No.	Description	FCC Part No.	ISED Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	RSS-247, 6.5 (c)	--	Pass ^{Note 1}
2	Number of Hopping Frequency	15.247(a)	RSS-247, 6.2.3.1 (b)	ANNEX A.1	Pass
3	Peak Output Power and E.I.R.P	15.247(b)	RSS-247, 6.2.3.2	ANNEX A.2	Pass
4	Occupied Bandwidth	15.247(a)	RSS-247, 6.2.1 (a)	ANNEX A.3	Pass
5	Hopping Frequency Separation	15.247(a)	RSS-247, 6.2.3.1 (a)	ANNEX A.4	Pass
6	Time of Occupancy (Dwell time)	15.247(a)	RSS-247, 6.2.3.1 (b)	ANNEX A.5	Pass
7	Conducted Spurious Emission& Authorized-band band-edge	15.247(d)	RSS-247, 6.6	ANNEX A.6	Pass
8	Conducted Emission	15.207	RSS-GEN, 8.8	ANNEX A.7	Pass
9	Radiated Spurious Emission	15.209 15.247(d)	RSS-247, 6.6	ANNEX A.8	Pass
10	Band Edge (Restricted-band band-edge)	15.209 15.247(d)	RSS-247, 6.6	ANNEX A.9	Pass
11	Receiver Spurious Emissions	--	RSS-Gen, 7.3	--	N/A ^{Note 2}

Note ¹: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.

Note ²: Only radio communication receivers operating in stand-alone mode within the band 30-960 MHz, as well as scanner receivers, are subject to Industry Canada requirements, so this test is not applicable.

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

Relative Humidity	47% to 62%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+20.8°C to +25.6°C
Working Voltage of the EUT	NV (Normal Voltage)	3.9 V

4.1 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY54420186	2025.05.21	2026.05.20
Power meter	R&S	NRP8S	101498	2025.07.07	2026.07.06
Spectrum Analyzer	KEYSIGHT	N9020A	MY56060127	2025.12.25	2026.12.24
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2024.06.15	2027.06.14
Test Antenna-Bi-Log	Schwarzbeck	VULB 9163	01414	2023.11.03	2026.11.02
Test Antenna-Horn	Schwarzbeck	BBHA 9120D	02459	2023.10.26	2026.10.25
Test Antenna-Loop	Schwarzbeck	FMZB 1513-60	00015	2024.05.07	2026.05.06
Anechoic Chamber	YIHENG	C8-966	107	2024.05.12	2027.05.11
EMI Receiver	Keysight	N9038A	MY55330121	2025.12.26	2026.12.25
Filtering unit	balun	SU319F	LW-SZ19D0001F01	N/A	N/A
Switching unit	BALUN	SU319	LW-SZ19D0001S01	N/A	N/A
EMI Receiver	keysight	N9038B	MY61380132	2025.12.26	2026.12.25
LISN	SCHWARZBECK MESS-ELEKTRONIK	NSLK8127	01009	2025.07.15	2026.07.14
Shielded Enclosure	YiHeng Electronic Co., Ltd	4.3m*2.9m*2.4m	235	2024.11.05	2027.11.04

4.2 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410R	BALUN	V2.1.1.488	N/A	The section 4.5.1
BL410E	BALUN	V22.930	N/A	The section 4.5.2&4.5.3&4.5.4&4.5.5

4.2 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Parameters	Uncertainty
Occupied Channel Bandwidth	2.8%
RF output power, conducted	1.28 dB
Power Spectral Density, conducted	1.30 dB
Unwanted Emissions, conducted	1.84 dB
All emissions, radiated	5.36 dB
Temperature	0.8°C
Humidity	4%

4.3 Description of Test Setup

4.4.1 For Antenna Port Test

Conducted value (dBm) = Measurement value (dBm) + cable loss (dB)

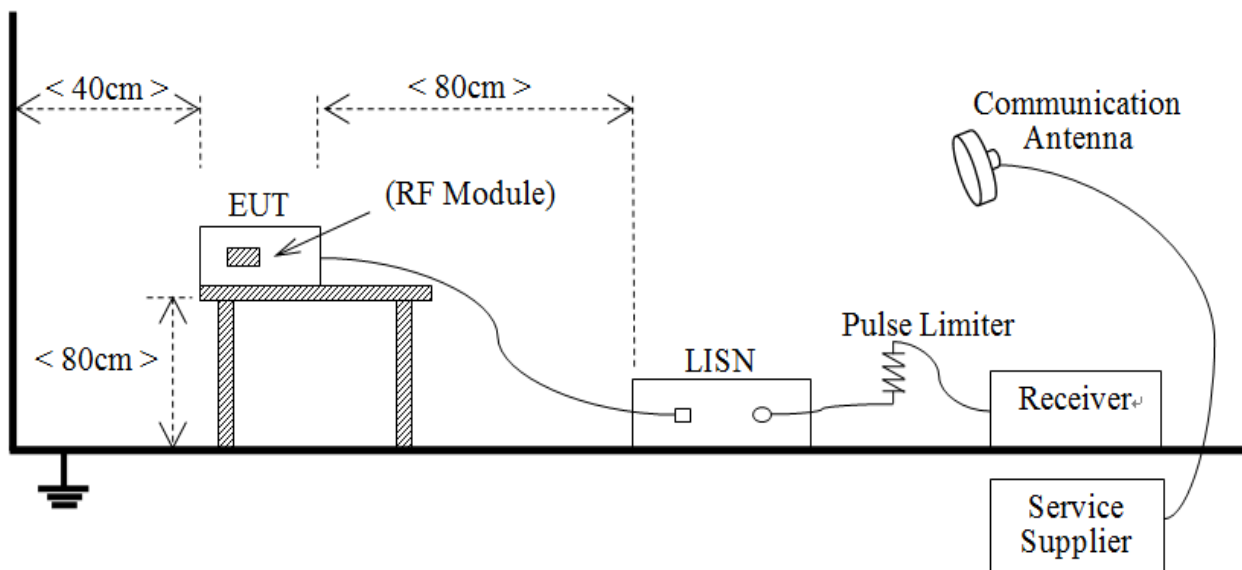
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

Conducted value (dBm) = 10 dBm + 0.5 dB = 10.5 dBm



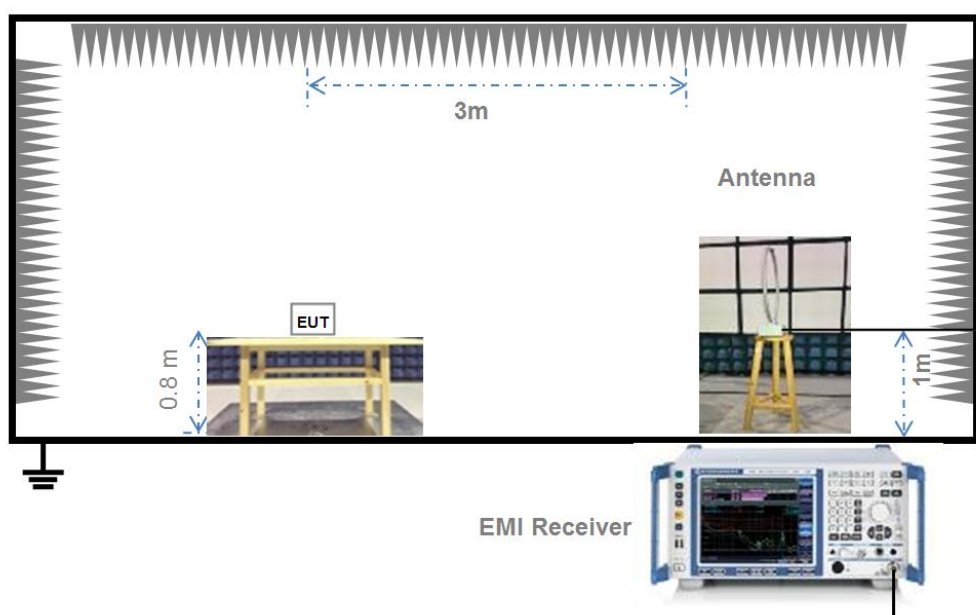
(Diagram 1)

4.4.2 For AC Power Supply Port Test



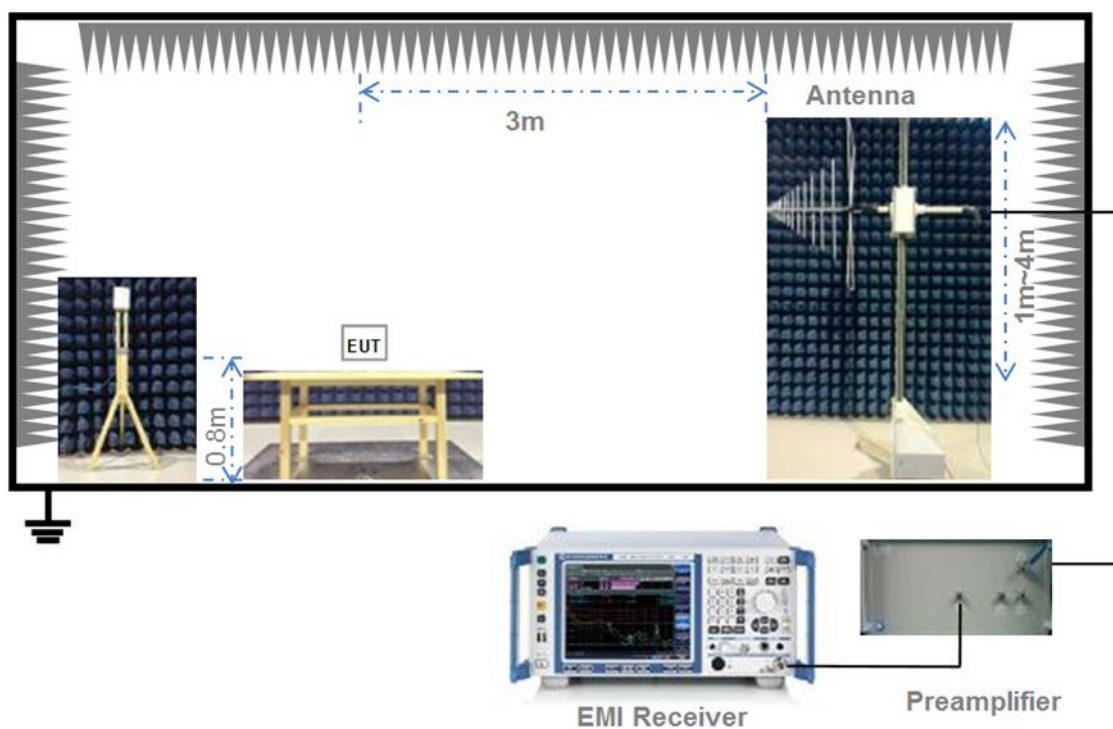
(Diagram 2)

4.4.3 For Radiated Test (Below 30 MHz)



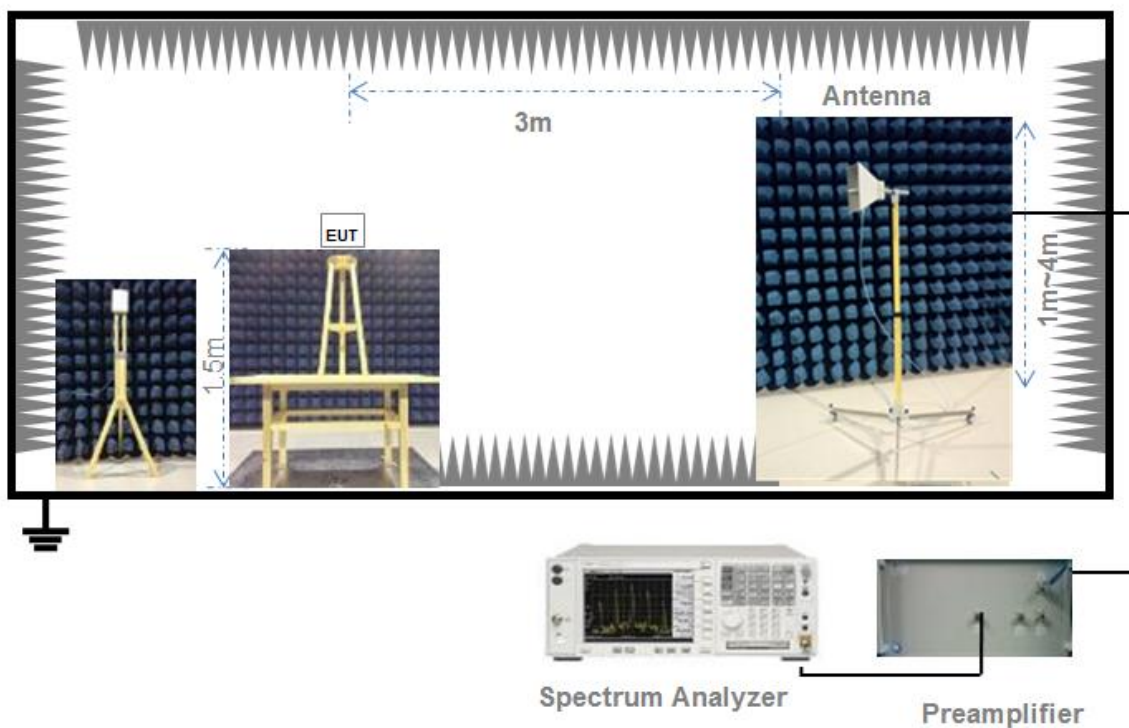
(Diagram 3)

4.4.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.4.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

4.4 Measurement Results Explanation Example

4.5.1 For conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

4.5.2 For radiated band edges and spurious emission test:

Per part 15.35(c), the EUT Bluetooth average emission level could be determined by the peak emission level applying duty cycle correction factor, to represent averaging over the whole pulse train.

The average level is derived from the peak level corrected with “Duty cycle correction factor”.

Average Emission Level (dBuV/m) = Peak Emission Level (dBuV/m) + Duty cycle correction factor (dB)

Duty cycle correction factor (dB) = $20 * \log (\text{Duty cycle})$.

Duty cycle = on time / 100 milliseconds

On time = dwell time * hopping number in 100 ms

For example: bluetooth with dwell time 2.9 ms and 3 hops in 100 ms, then

Duty cycle correction factor (dB) = $20 * \log ((2.9 * 3) / 100) = -21.21 \text{ dB}$

Following shows an average computation example with duty cycle correction factor = -21.21 dB, and the peak emission level is 45.61 dBuV/m.

Example:

Average Emission Level (dBuV/m) = Peak Emission Level (dBuV/m) + duty cycle correction factor (dB)
= $45.61 + (-21.21) = 24.4 \text{ (dBuV/m)}$

5 TEST ITEMS

5.1 Antenna Requirements

5.1.1 Relevant Standards

FCC §15.203 & 15.247(b); RSS-247,6.5 (c)

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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

If directional gain of transmitting antennas is greater than 6 dBi, the power shall be reduced by the same level in dB comparing to gain minus 6 dBi. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

5.1.2 Antenna Anti-Replacement Construction

The Antenna Anti-Replacement as following method:

Protected Method	Description
The antenna is embedded in the product.	The antenna is welded on the mainboard, can't be replaced by the consumer

Reference Documents	Item
Photo	Please refer to the EUT Photo documents.

5.1.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

5.2 Number of Hopping Frequency

5.2.1 Limit

FCC §15.247(a) (1) (iii); RSS-247, 6.2.3.1(b)

Frequency hopping systems operating in the 2400 MHz to 2483.5 MHz bands shall use at least 15 hopping frequencies.

5.2.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = the frequency band of operation

RBW $\geq$ 1% of the span

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize

5.2.4 Test Result

Please refer to ANNEX A.1.

5.3 Peak Output Power and E.I.R.P

5.3.1 Test Limit

FCC § 15.247(b)

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

RSS-247, 6.2.3.2

The following transmitter output power and e.i.r.p. requirements shall apply:

- a. if the hopset uses 75 or more hopping channels, the maximum peak conducted output power shall not exceed 1.0 W.
- b. if the hopset uses less than 75 hopping channels the maximum peak conducted output power shall not exceed 0.125 W.
- c. the e.i.r.p. shall not exceed 4 W, except as provided in sections 6.5 a) and b).

5.3.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

The Bluetooth Module operates at hopping-off test mode. The lowest, middle and highest channels are selected to perform testing to verify the conducted RF output peak power of the Module.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

RBW > the 20 dB bandwidth of the emission being measured

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize.

5.3.4 Test Result

Please refer to ANNEX A.2.

5.4 Occupied Bandwidth

5.4.1 Limit

FCC §15.247(a); RSS-247, 6.2.1 (a)

Measurement of the 20dB bandwidth of the modulated signal.

5.4.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

Use the following spectrum analyzer settings:

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

RBW $\geq$ 1% of the 20 dB bandwidth

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

The EUT should be transmitting at its maximum data rate, Allow the trace to stabilize.

5.4.4 Test Result

Please refer to ANNEX A.3.

5.5 Carrier Frequency Separation

5.5.1 Limit

FCC §15.247(a); RSS-247, 6.2.3.1(a)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

5.5.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

Span = wide enough to capture the peaks of two adjacent channels

Resolution (or IF) Bandwidth (RBW) $\geq 1\%$ of the span

Video (or Average) Bandwidth (VBW) $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels.

5.5.4 Test Result

Please refer to ANNEX A.4.

5.6 Time of Occupancy (Dwell time)

5.6.1 Limit

FCC §15.247(a); RSS-247, 6.2.3.1(b)

Frequency hopping systems in the 2400 MHz - 2483.5 MHz band shall use at least 15 non-overlapping channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

5.6.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.6.3 Test Procedure

The average time of occupancy on any channel within the Period can be calculated with formulas:

$$\{\text{Total of Dwell}\} = \{\text{Pulse Time}\} * \{\text{Number of Hopping Frequency in Period}\}$$

$$\{\text{Period}\} = 0.4s * \{\text{Number of Hopping Frequency}\}$$

The middle channels are selected to perform testing to record the dwell time of each occupation measured in this channel, which is called Pulse Time here.

5.6.4 Test Result

Please refer to ANNEX A.5

5.7 Conducted Spurious Emission & Authorized-band band-edge

5.7.1 Limit

FCC §15.247(d); RSS-247, 6.6

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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.

5.7.2 Test Setup

See section 4.5.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

5.7.3 Test Procedure

Use the following spectrum analyzer settings:

Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

RBW = 100 kHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

Allow the trace to stabilize

5.7.4 Test Result

Please refer to ANNEX A.6.

5.8 Conducted Emission

5.8.1 Limit

FCC §15.207; RSS-GEN, 8.8

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

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

5.8.2 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 B.

5.8.3 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.

5.8.4 Test Result

Please refer to ANNEX A.7.

5.9 Radiated Spurious Emission

5.9.1 Limit

FCC §15.209&15.247(d); RSS-247, 6.6

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).

5.9.2 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 B.

5.9.3 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.

5.9.4 Test Result

Please refer to ANNEX A.8.

5.10 Band Edge (Restricted-band band-edge)

5.10.1 Limit

FCC §15.209&15.247(d); RSS-247, 6.6

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).

5.10.2 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 B.

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

Please refer to ANNEX A.9.

ANNEX A TEST RESULT

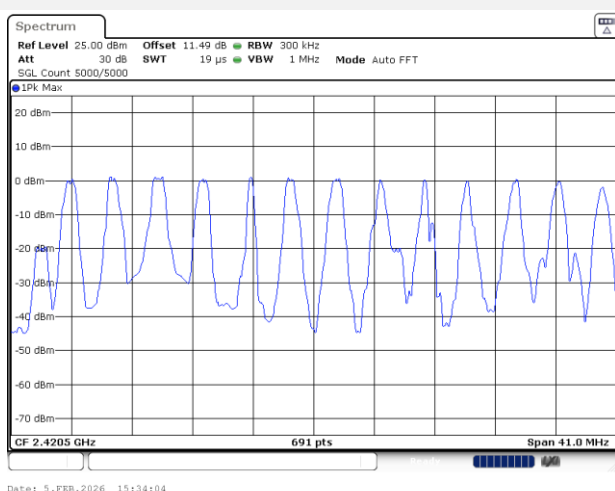
A.1 Number of Hopping Frequency

Test Data

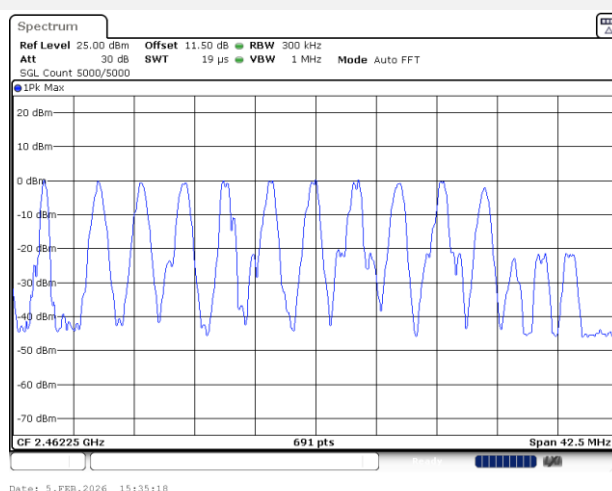
Test Mode	Frequency Block (MHz)	Measured Channel Numbers	Min. Limit	Verdict
GFSK	2400 - 2483.5	24	15	Pass

Test Plots

GFSK 2.4 GHz ~ 2.4415 GHz



GFSK 2.4415 GHz ~ 2.4835 GHz



A.2 Peak Output Power and E.I.R.P

Peak Power Test Data

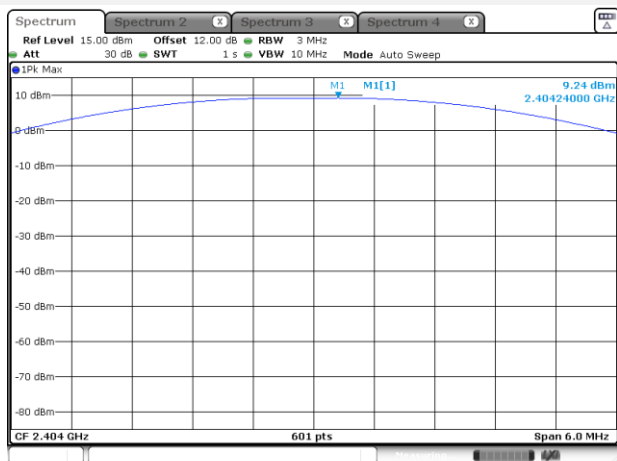
Channel	Measured Output Peak Power		Limit		Verdict
	dBm	mW	dBm	mW	
Low	9.24	8.39	30	1000	Pass
Middle	9.92	9.82			Pass
High	10.70	11.75			Pass

E.I.R.P Test Data (For ISED)

Channel	Peak Power	Antenna Gain	E.I.R.P		Limit		Verdict
	dBm	dBi	dBm	mW	dBm	mW	
Low	9.24	1.80	11.04	12.71	36	4000	Pass
Middle	9.92	1.80	11.72	14.86			Pass
High	10.70	1.80	12.50	17.78			Pass

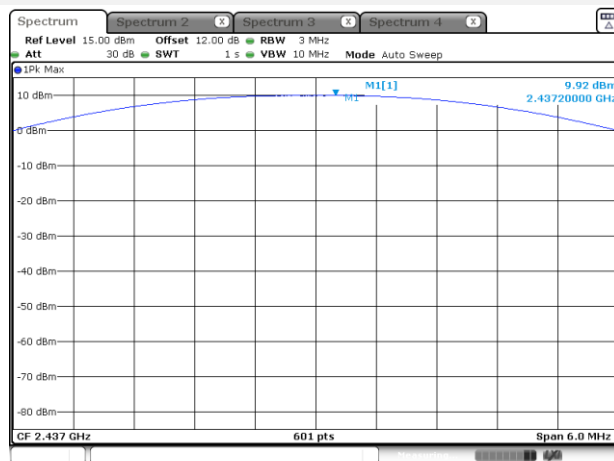
Test Plots

GFSK LOW CHANNEL



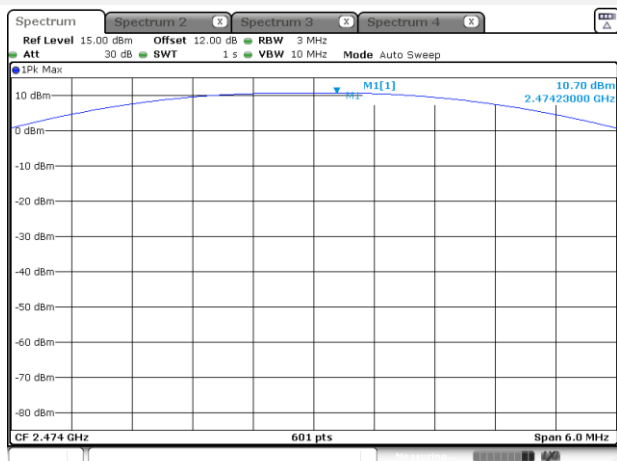
Date: 21.MAR.2026 18:47:27

GFSK MIDDLE CHANNEL



Date: 21.MAR.2026 18:49:39

GFSK HIGH CHANNEL



Date: 21.MAR.2026 18:54:20

A.3 Occupied Bandwidth

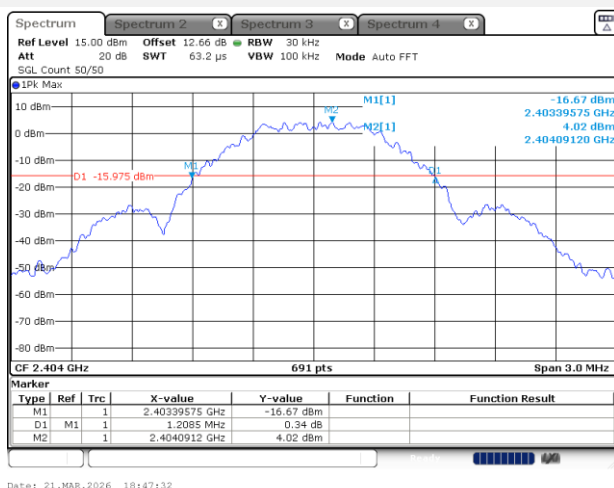
Test Data

Test Mode	GFSK	
Channel	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low Channel	1.208496	1.011577
Middle Channel	1.134766	1.011577
High Channel	1.160889	1.011577

Test Plots

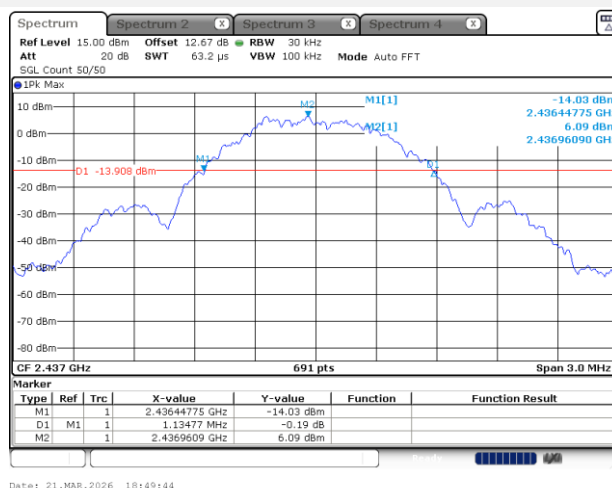
20 dB Bandwidth

GFSK LOW CHANNEL



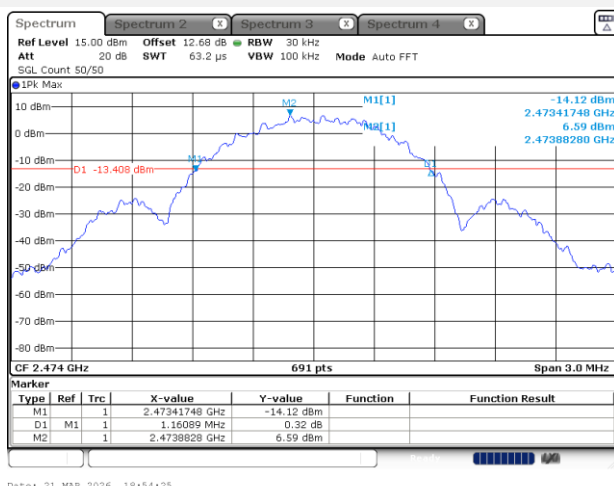
Date: 21.MAR.2026 18:47:32

GFSK MIDDLE CHANNEL



Date: 21.MAR.2026 18:49:44

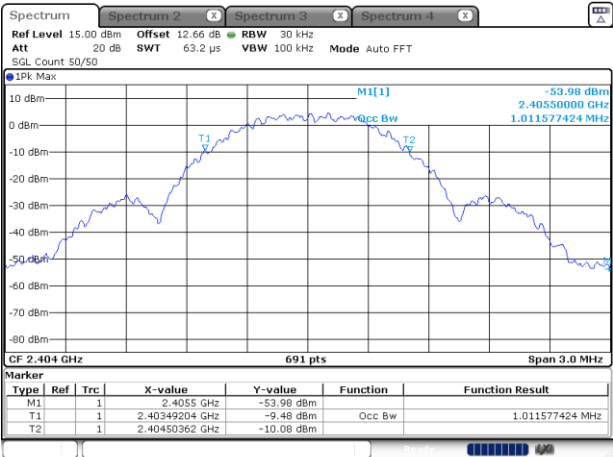
GFSK HIGH CHANNEL



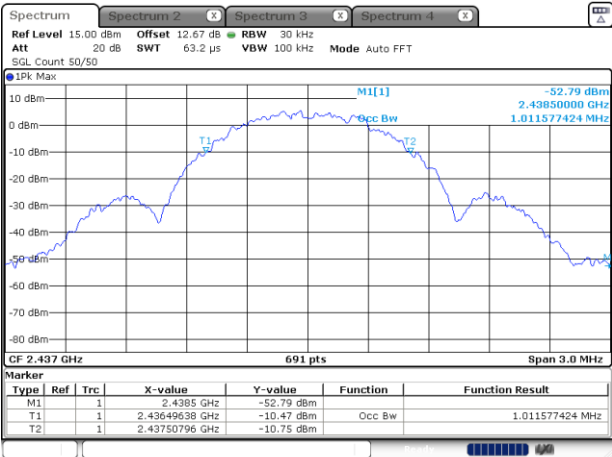
Date: 21.MAR.2026 18:54:25

99% Bandwidth

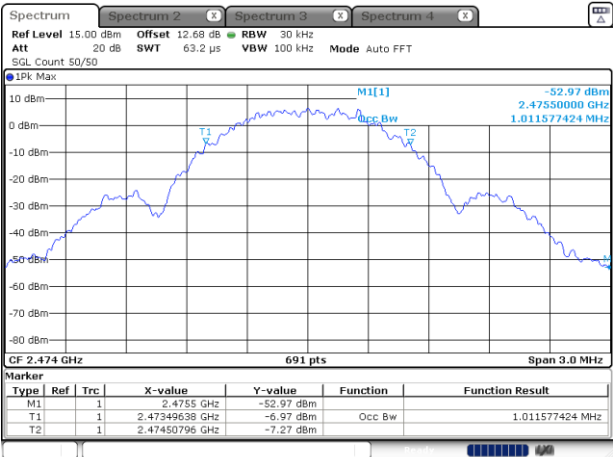
GFSK LOW CHANNEL



GFSK MIDDLE CHANNEL



GFSK HIGH CHANNEL



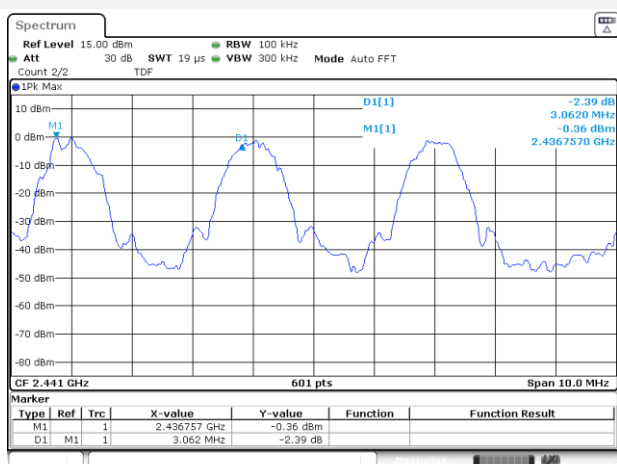
A.4 Hopping Frequency Separation

Test Data

Mode	Frequency separation (MHz)	Max. 20 dB Bandwidth (MHz)	Verdict
GFSK	3.062	1.208	Pass

Test Plot

GFSK



Date: 5.FEB.2026 15:36:04

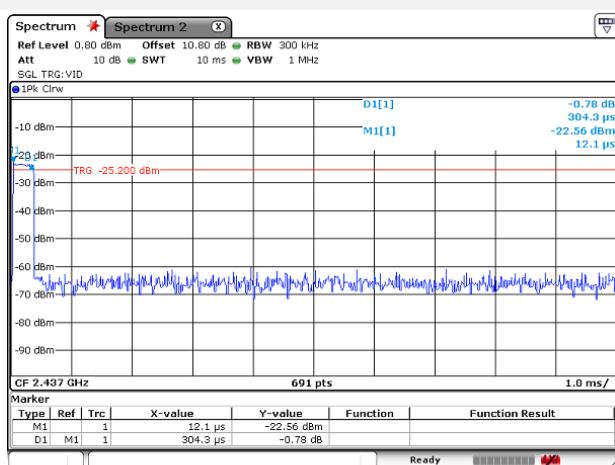
A.5 Time of Occupancy (Dwell time)

Test Data

GFSK			
Pulse Width (ms)	Total of Dwell (ms)	Limit (sec)	Verdict
0.304	1.522	0.4	Pass

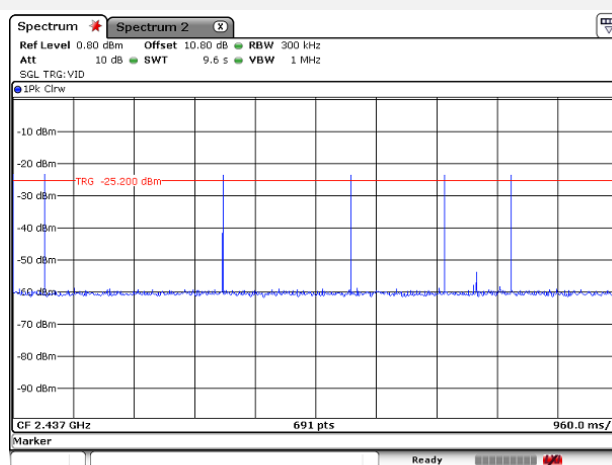
Test Plots

Pulse Width



Date: 27.APR.2026 16:08:16

Total of Dwell



Date: 27.APR.2026 16:09:21

A.6 Conducted Spurious Emissions & Authorized-band band-edge

Test Data

GFSK Mode:

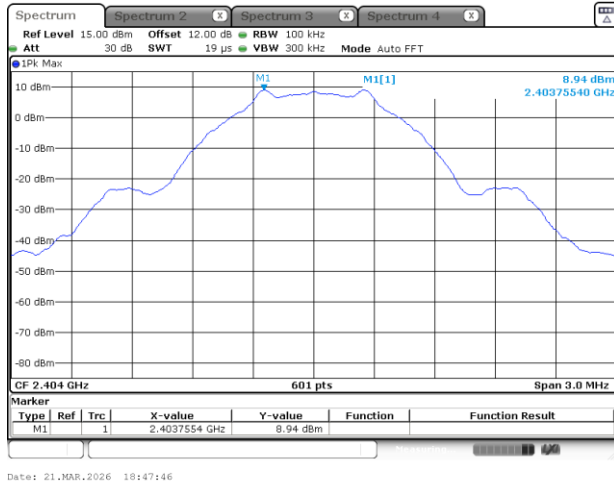
GFSK				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
Low	-38.78	8.94	-11.06	Pass
Middle	-40.21	9.70	-10.30	Pass
High	-39.83	10.66	-9.34	Pass

Hopping Mode:

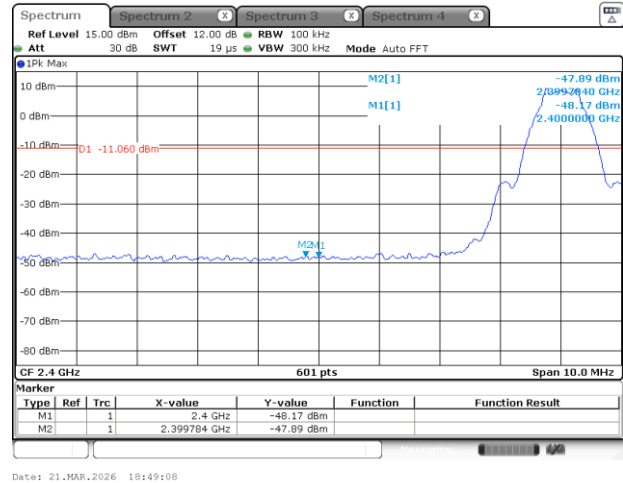
GFSK				
Channel	Measured Max. Out of Band Emission (dBm)	Limit (dBm)		Verdict
		Carrier Level	Calculated 20 dBc Limit	
GFSK	-38.96	15.62	-4.38	Pass

Test Plots

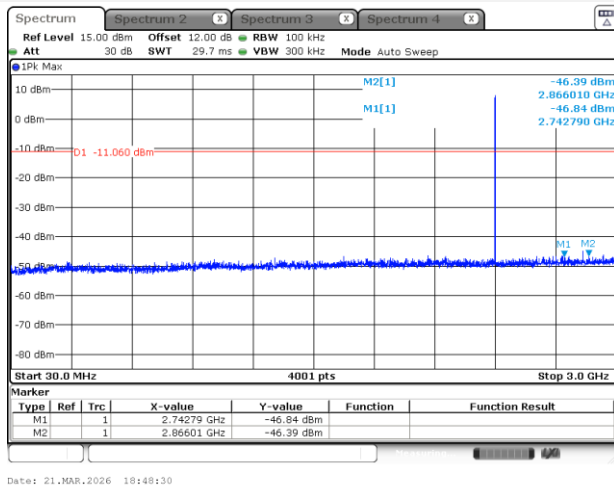
GFSK LOW CHANNEL, CARRIER LEVEL



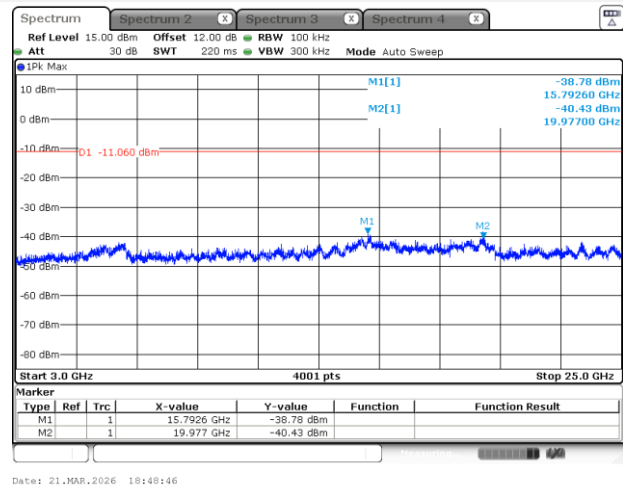
GFSK LOW CHANNEL, BAND EDGE



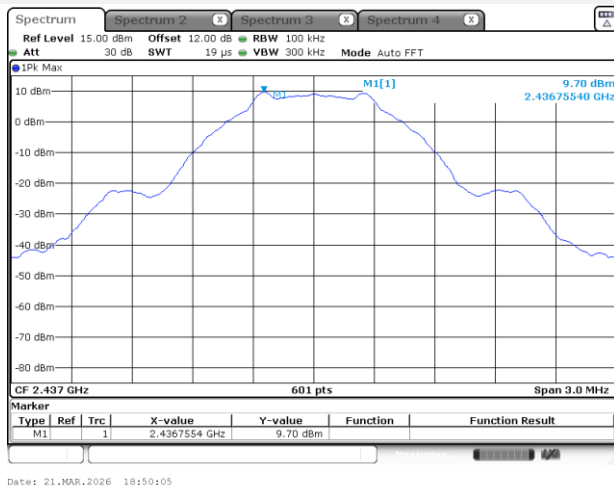
GFSK LOW CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



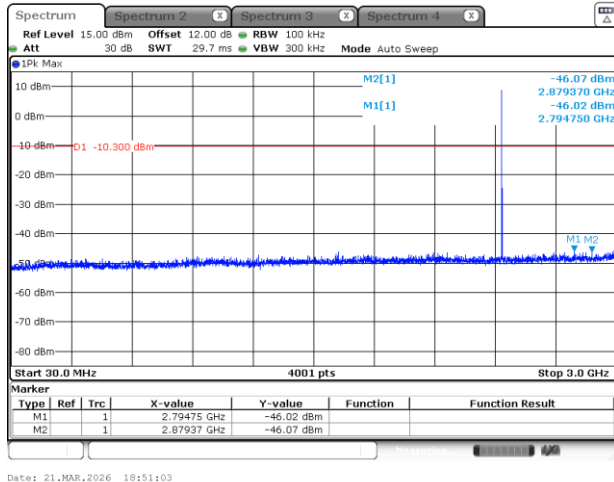
GFSK LOW CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



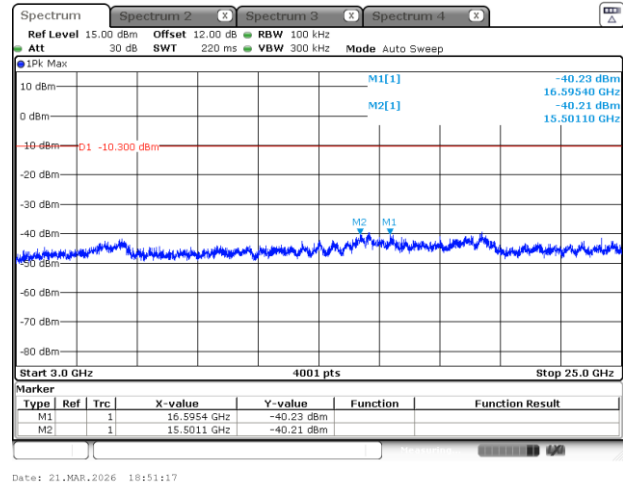
GFSK MIDDLE CHANNEL, CARRIER LEVEL



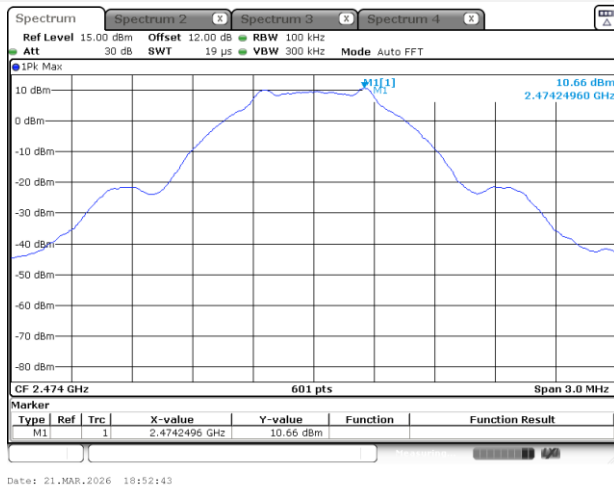
GFSK MIDDLE CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



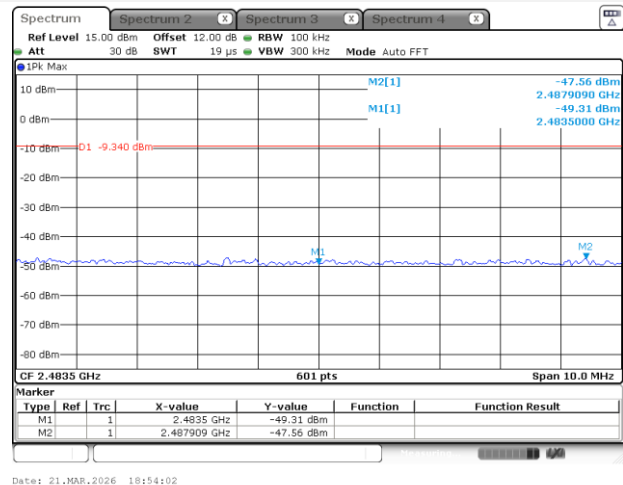
GFSK MIDDLE CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



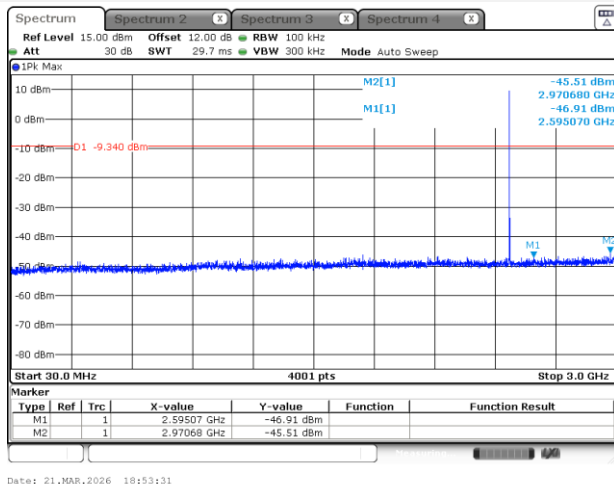
GFSK HIGH CHANNEL, CARRIER LEVEL



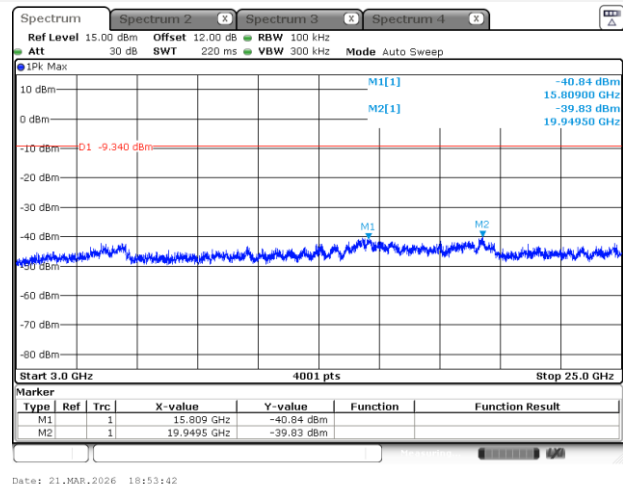
GFSK HIGH CHANNEL, BAND EDGE



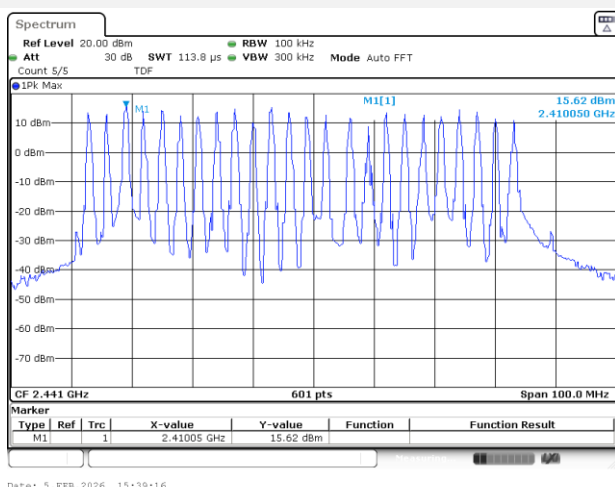
GFSK HIGH CHANNEL, SPURIOUS 30 MHz ~ 3 GHz



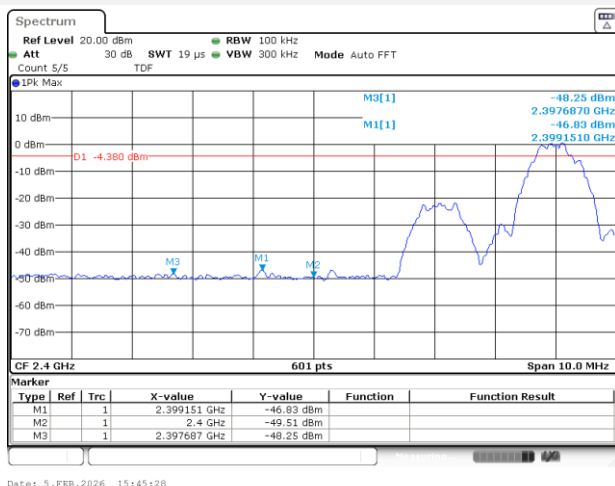
GFSK HIGH CHANNEL, SPURIOUS 3 GHz ~ 25 GHz



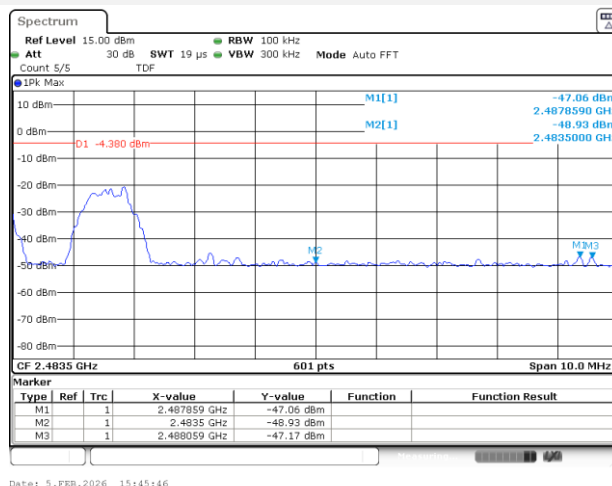
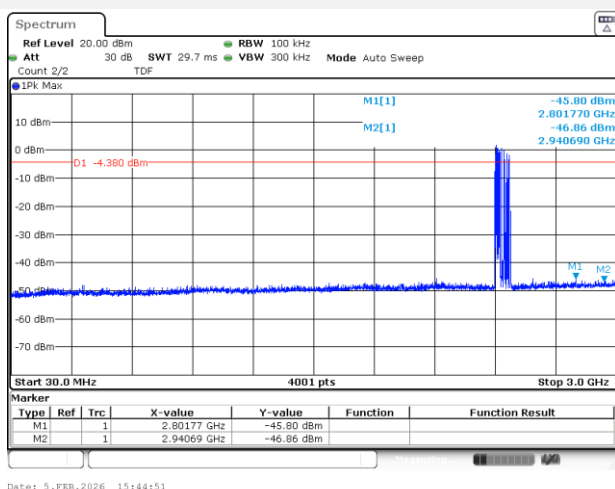
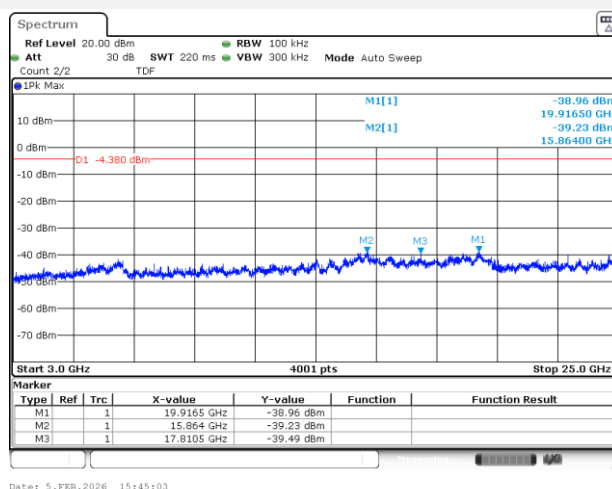
GFSK HOPPING, CARRIER LEVEL



GFSK HOPPING BAND EDGE (LOW)



GFSK HOPPING BAND EDGE (HIGH)

GFSK Hopping Mode, SPURIOUS
30 MHz ~ 3 GHzGFSK Hopping Mode, SPURIOUS
3GHz ~ 25 GHz

A.7 Conducted Emissions

Note¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

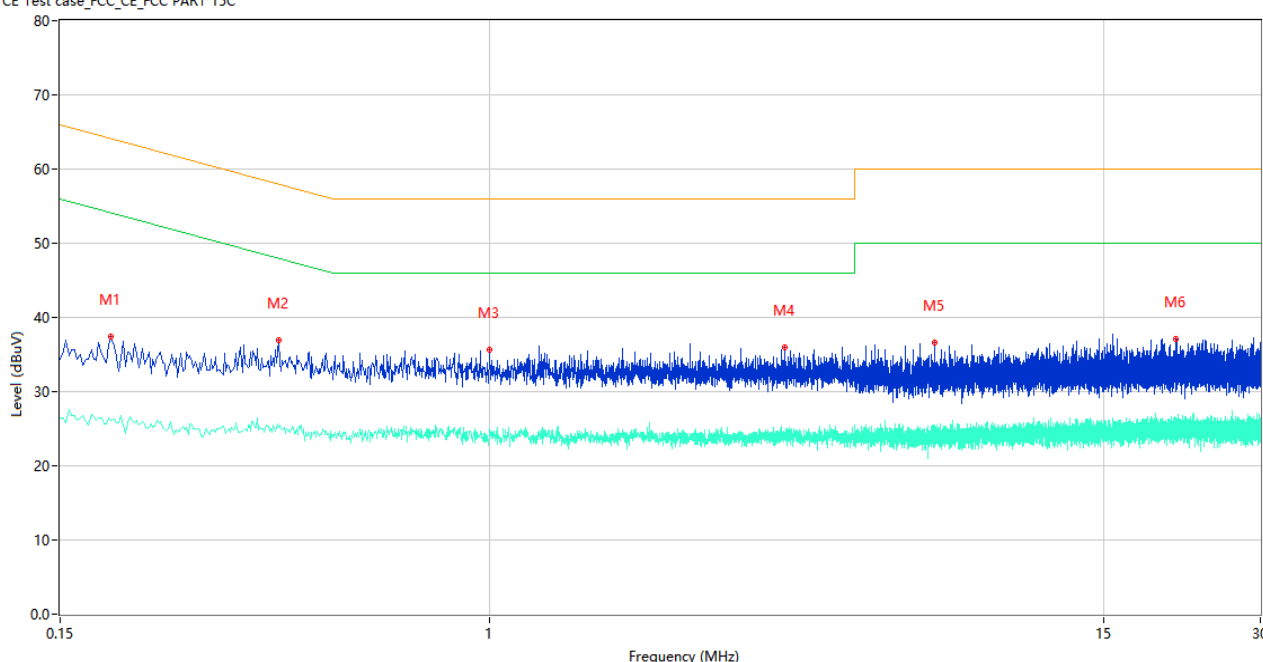
Note²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Note³: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Test Data and Plots

PHASE L

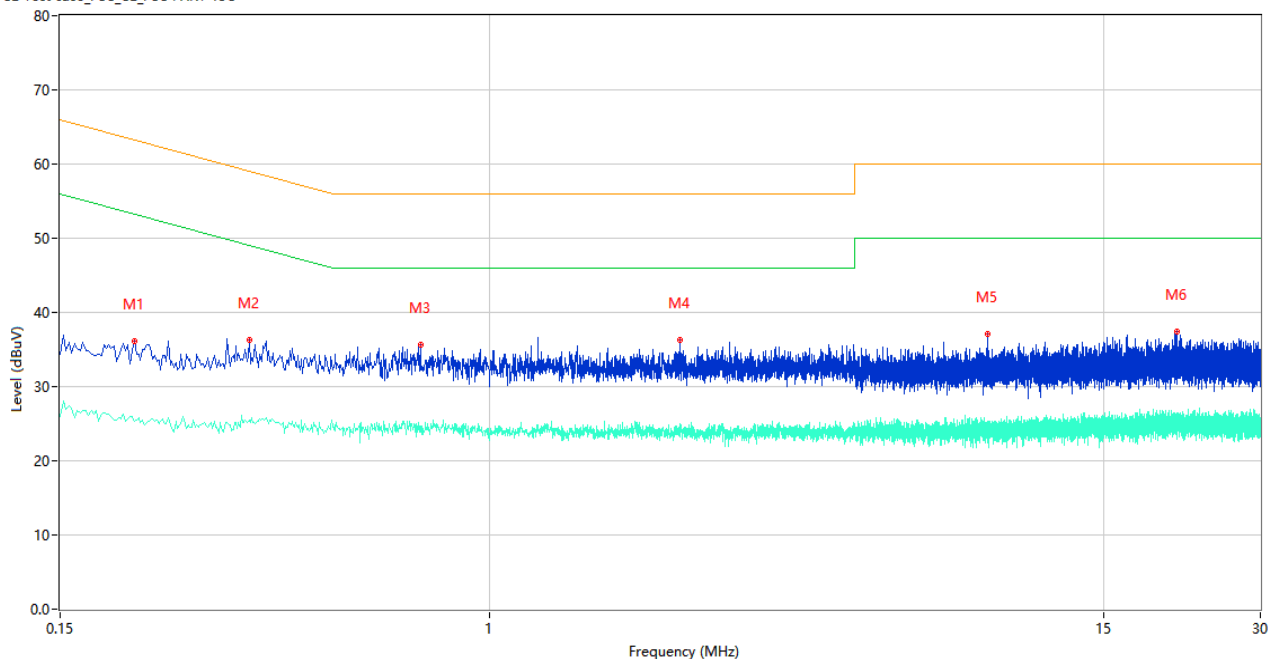
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.188	37.41	9.84	64.12	26.71	Peak	L	Pass
1**	0.188	26.12	9.84	54.12	28.00	AV	L	Pass
2	0.394	36.97	10.64	57.98	21.01	Peak	L	Pass
2**	0.394	25.09	10.64	47.98	22.89	AV	L	Pass
3	1.000	35.64	10.03	56.00	20.36	Peak	L	Pass
3**	1.000	25.06	10.03	46.00	20.94	AV	L	Pass
4	3.672	35.93	10.37	56.00	20.07	Peak	L	Pass
4**	3.672	24.45	10.37	46.00	21.55	AV	L	Pass
5	7.138	36.66	10.26	60.00	23.34	Peak	L	Pass
5**	7.138	24.80	10.26	50.00	25.20	AV	L	Pass
6	20.678	37.12	11.06	60.00	22.88	Peak	L	Pass
6**	20.678	24.48	11.06	50.00	25.52	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	0.208	36.11	9.83	63.28	27.17	Peak	N	Pass
1**	0.208	25.28	9.83	53.28	28.00	AV	N	Pass
2	0.346	36.32	10.74	59.06	22.74	Peak	N	Pass
2**	0.346	25.52	10.74	49.06	23.54	AV	N	Pass
3	0.736	35.59	10.35	56.00	20.41	Peak	N	Pass
3**	0.736	23.88	10.35	46.00	22.12	AV	N	Pass
4	2.314	36.30	10.27	56.00	19.70	Peak	N	Pass
4**	2.314	24.61	10.27	46.00	21.39	AV	N	Pass
5	8.980	37.11	10.50	60.00	22.89	Peak	N	Pass
5**	8.980	24.56	10.50	50.00	25.44	AV	N	Pass
6	20.776	37.48	11.15	60.00	22.52	Peak	N	Pass
6**	20.776	25.57	11.15	50.00	24.43	AV	N	Pass

A.8 Radiated Emission

Note ¹: The symbol of “--” in the table which means not application.

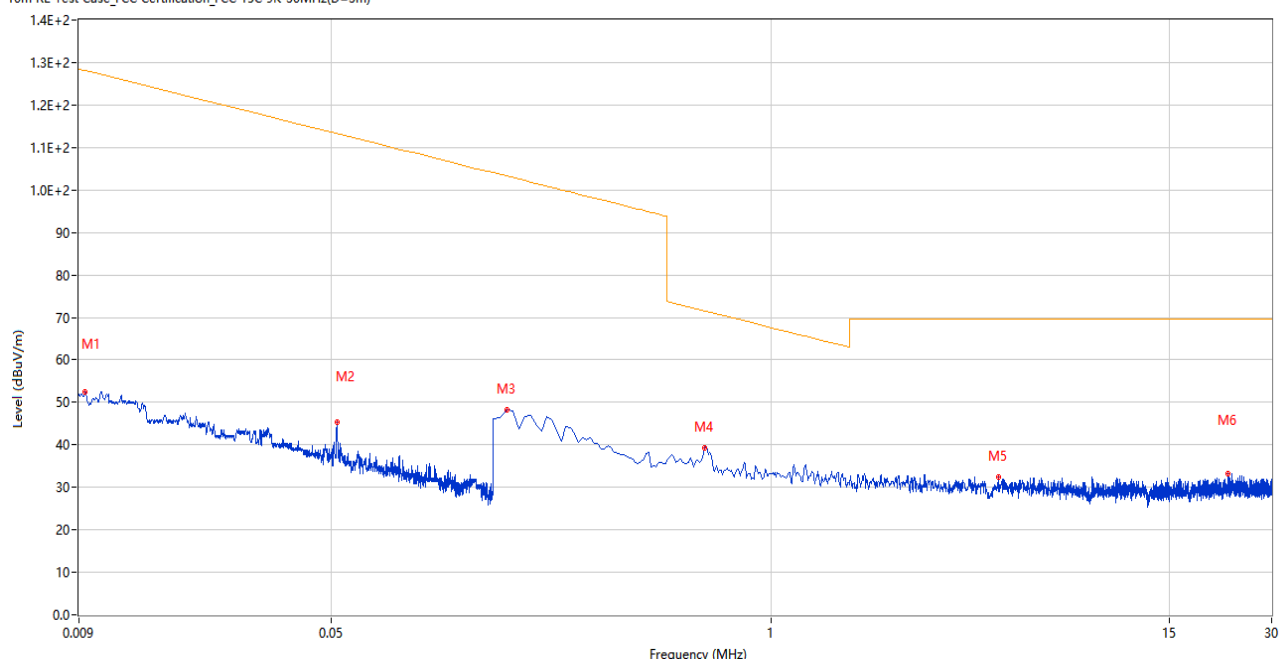
Note ²: For the test data above 1 GHz, according the ANSI C63.10-2020, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

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

Test Data and Plots

9 kHz to 30 MHz, ANT H

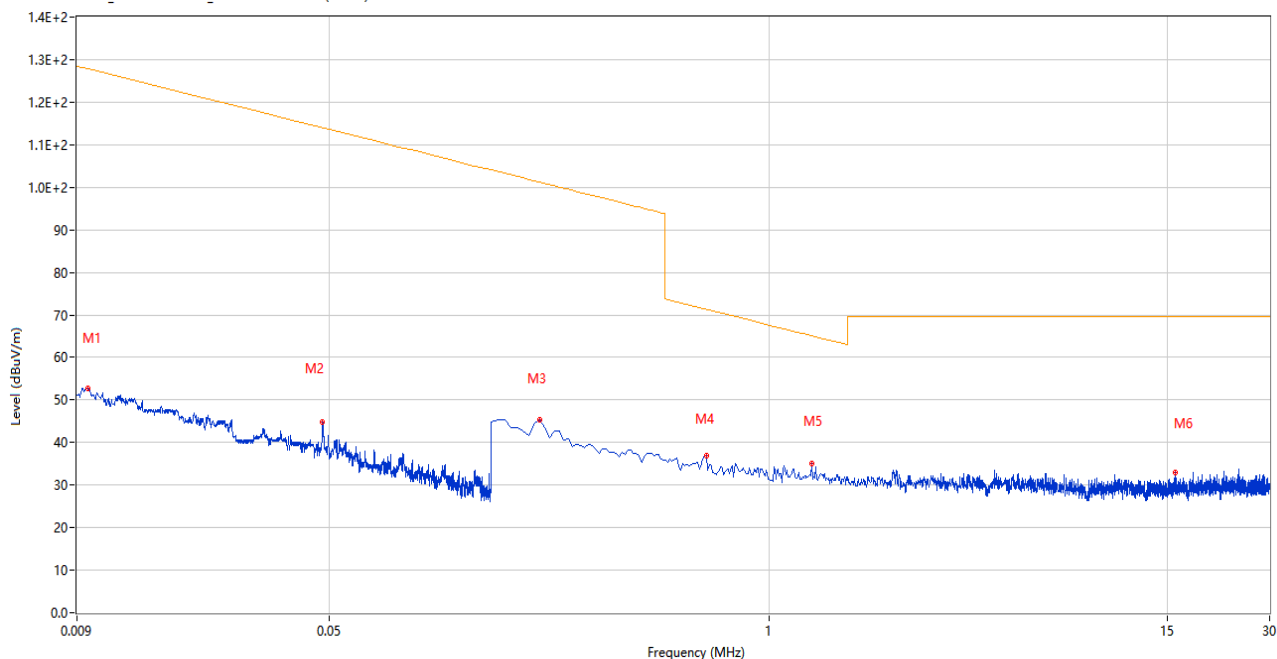
10m RE Test Case_FCC Certification_FCC 15C 9K-30MHz(D=3m)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.009	52.38	19.73	128.2	75.82	Peak	179.00	100	Horizontal	Pass
2	0.052	45.44	19.84	113.3	67.86	Peak	2.00	100	Horizontal	Pass
3	0.165	48.33	19.84	103.3	54.97	Peak	89.00	100	Horizontal	Pass
4	0.635	39.20	19.88	71.5	32.30	Peak	53.00	100	Horizontal	Pass
5	4.680	32.44	20.61	69.5	37.06	Peak	182.00	100	Horizontal	Pass
6	22.321	33.15	21.35	69.5	36.35	Peak	39.00	100	Horizontal	Pass

9 kHz to 30 MHz, ANT V

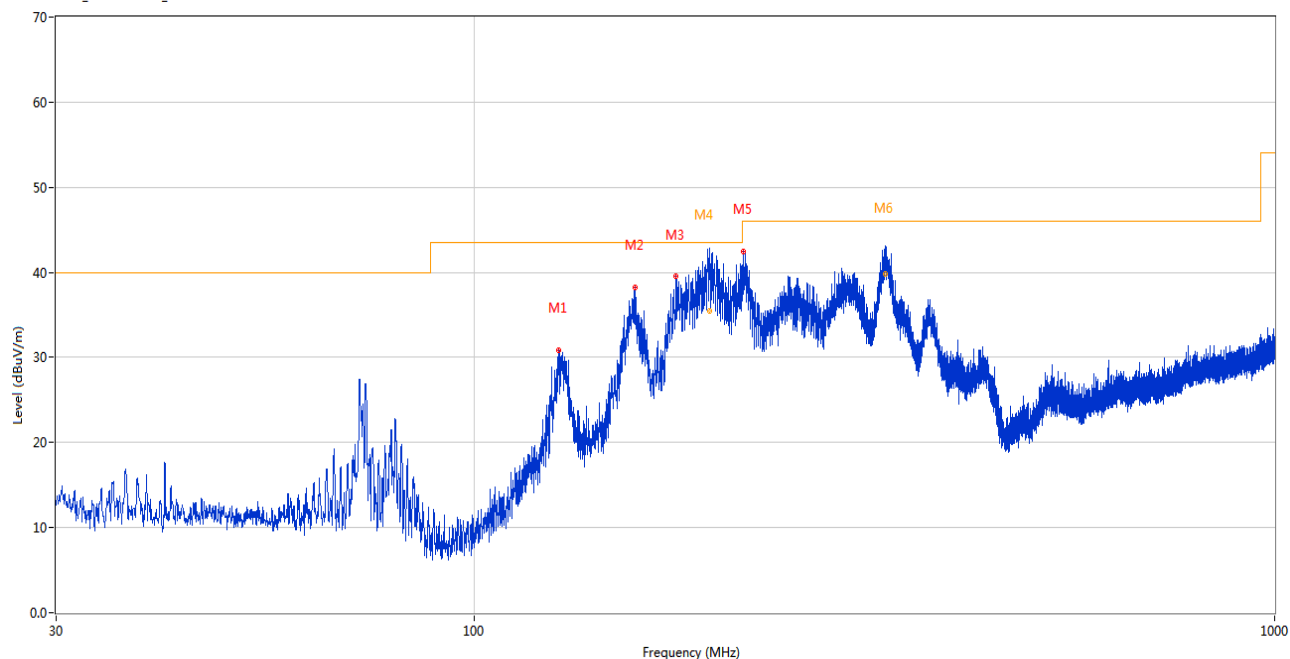
10m RE Test Case_FCC Certification_FCC 15C 9K-30MHz(D=3m)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.010	52.78	19.73	127.9	75.12	Peak	360.00	100	Vertical	Pass
2	0.048	44.76	19.84	114.0	69.24	Peak	6.00	100	Vertical	Pass
3	0.210	45.32	19.84	101.2	55.88	Peak	358.00	100	Vertical	Pass
4	0.650	36.96	19.88	71.3	34.34	Peak	15.00	100	Vertical	Pass
5	1.337	34.94	20.10	65.1	30.16	Peak	306.00	100	Vertical	Pass
6	15.836	33.04	21.09	69.5	36.46	Peak	197.00	100	Vertical	Pass

30 MHz to 1 GHz, ANT H

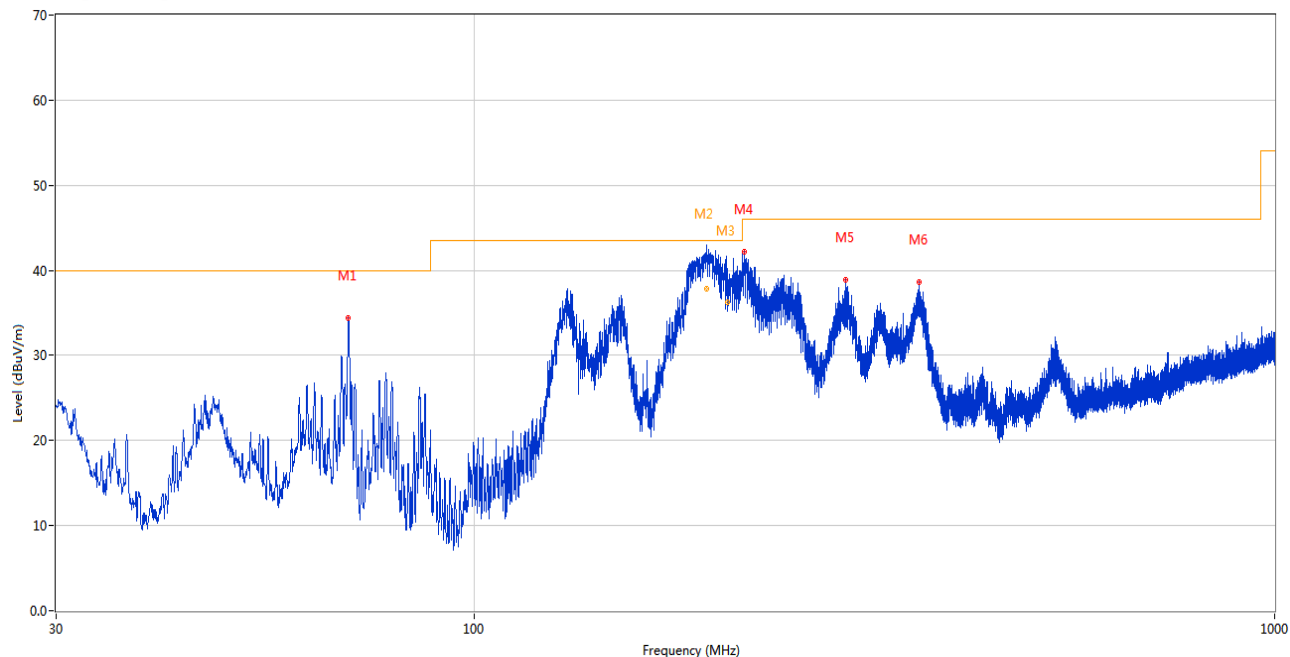
RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	127.485	30.81	-26.15	43.5	12.69	Peak	247.00	100	Horizontal	Pass
2	158.962	38.23	-23.71	43.5	5.27	Peak	89.00	100	Horizontal	Pass
3	178.652	39.52	-25.14	43.5	3.98	Peak	81.00	100	Horizontal	Pass
4	196.869	40.68	-26.66	43.5	2.82	Peak	66.00	151	Horizontal	N/A
4*	196.869	35.49	-26.66	43.5	8.01	QP	66.00	151	Horizontal	Pass
5	216.628	42.48	-26.74	46.0	3.52	Peak	73.00	100	Horizontal	Pass
6	326.137	44.04	-21.24	46.0	1.96	Peak	160.00	100	Horizontal	N/A
6*	326.137	39.82	-21.24	46.0	6.18	QP	160.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz

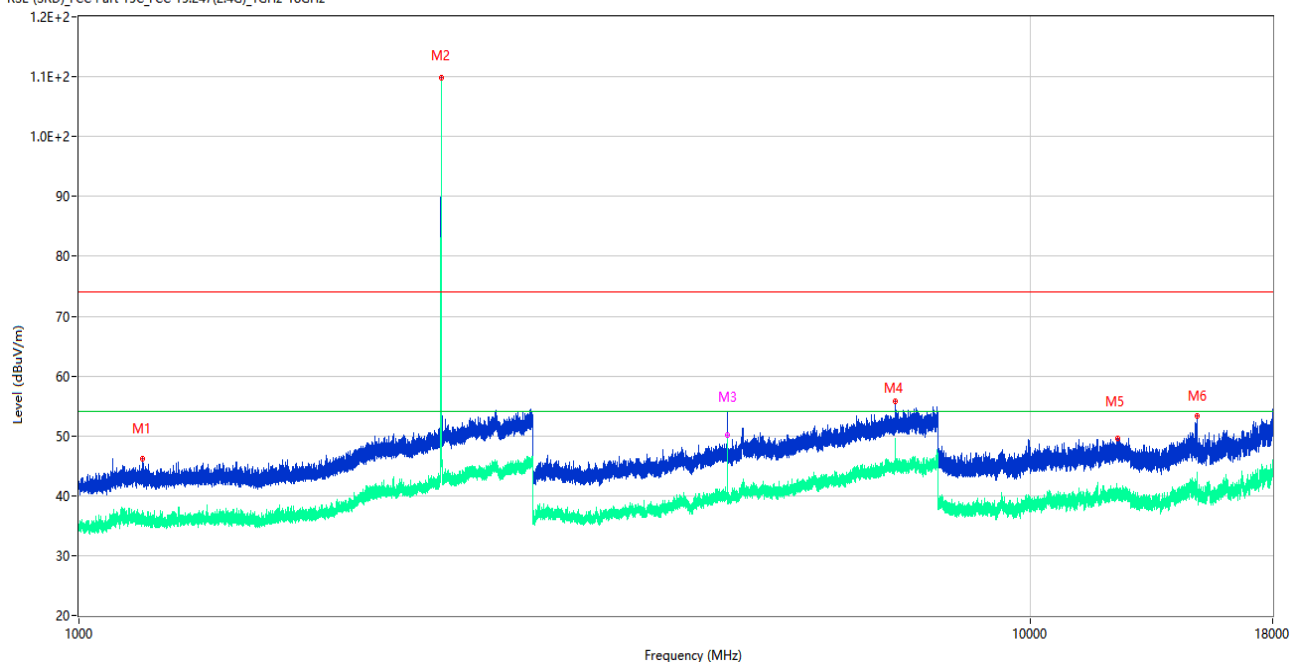


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	69.527	34.44	-26.84	40.0	5.56	Peak	133.00	100	Vertical	Pass
2	195.139	42.18	-26.62	43.5	1.32	Peak	260.00	108	Vertical	N/A
2*	195.139	37.86	-26.62	43.5	5.64	QP	260.00	108	Vertical	Pass
3	206.789	40.67	-26.92	43.5	2.83	Peak	252.00	100	Vertical	N/A
3*	206.789	36.29	-26.92	43.5	7.21	QP	252.00	100	Vertical	Pass
4	217.258	42.23	-26.70	46.0	3.77	Peak	267.00	100	Vertical	Pass
5	290.639	38.85	-22.56	46.0	7.15	Peak	5.00	100	Vertical	Pass
6	359.412	38.63	-20.26	46.0	7.37	Peak	267.00	100	Vertical	Pass

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

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT H

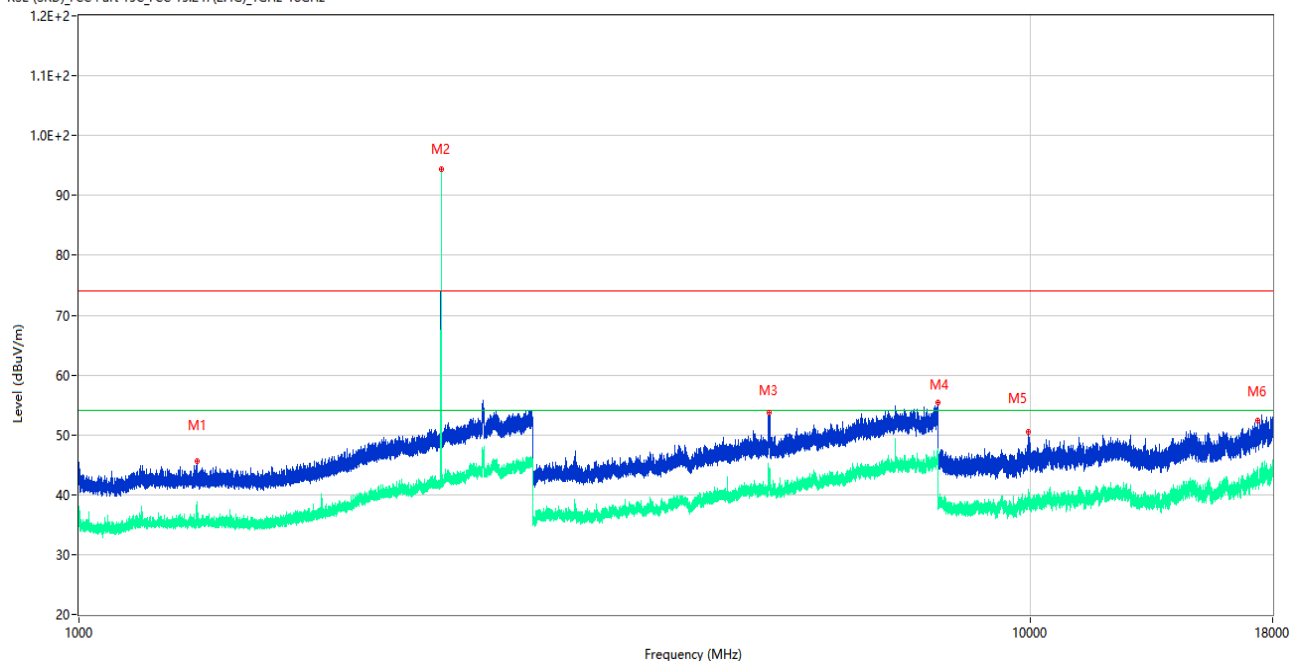
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1166.600	46.21	74.0	27.79	Peak	27.00	400	Horizontal	Pass
1**	1166.600	36.07	54.0	17.93	AV	27.00	400	Horizontal	Pass
2	2404.300	109.85	74.0	-35.85	Peak	27.00	200	Horizontal	N/A
2**	2404.300	109.39	54.0	-55.39	AV	27.00	200	Horizontal	N/A
3	4808.500	53.39	74.0	20.61	Peak	0.00	150	Horizontal	Pass
3**	4808.500	50.12	54.0	3.88	AV	0.00	150	Horizontal	Pass
4	7212.500	55.82	74.0	18.18	Peak	356.00	200	Horizontal	Pass
4**	7212.500	48.09	54.0	5.91	AV	356.00	200	Horizontal	Pass
5	12359.312	49.65	74.0	24.35	Peak	73.00	400	Horizontal	Pass
5**	12359.312	40.56	54.0	13.44	AV	73.00	400	Horizontal	Pass
6	15002.250	53.31	74.0	20.69	Peak	246.00	200	Horizontal	Pass
6**	15002.250	40.96	54.0	13.04	AV	246.00	200	Horizontal	Pass

GFSK LOW CHANNEL 1 GHz to 18 GHz, ANT V

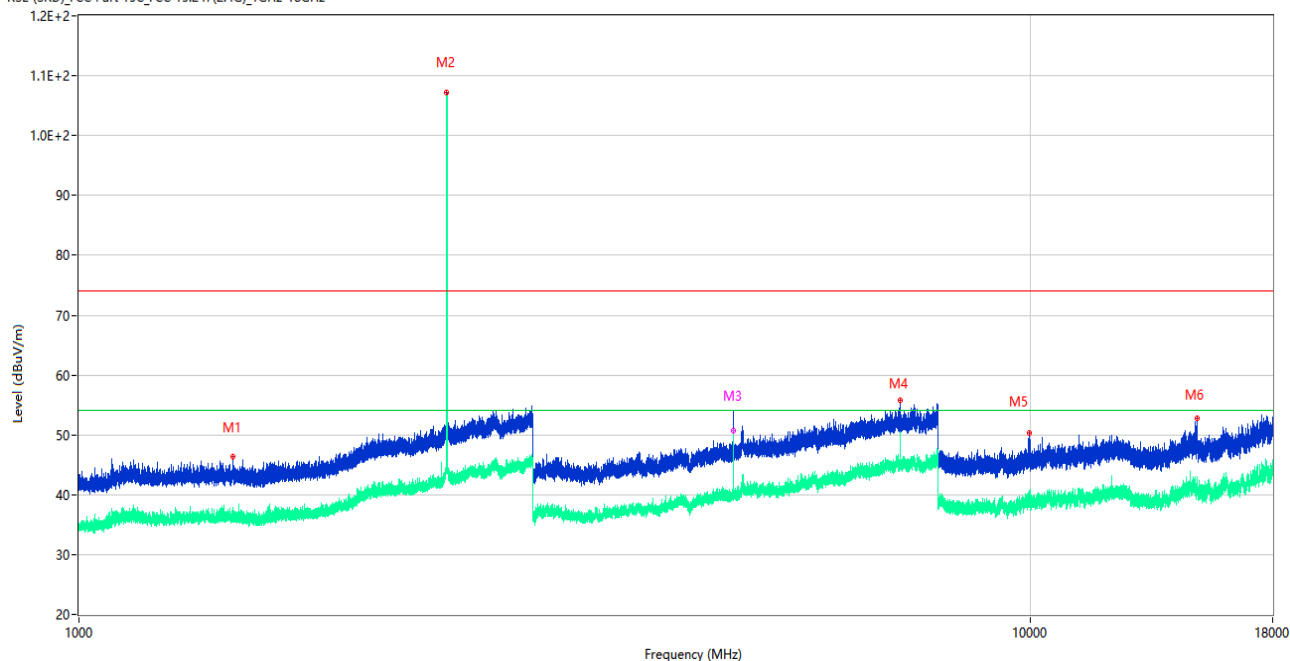
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.600	45.59	74.0	28.41	Peak	290.00	300	Vertical	Pass
1**	1330.600	35.42	54.0	18.58	AV	290.00	300	Vertical	Pass
2	2403.700	94.30	74.0	-20.30	Peak	252.00	150	Vertical	N/A
2**	2403.700	92.88	54.0	-38.88	AV	252.00	150	Vertical	N/A
3	5324.500	53.67	74.0	20.33	Peak	360.00	150	Vertical	Pass
3**	5324.500	42.47	54.0	11.53	AV	360.00	150	Vertical	Pass
4	7997.750	55.36	74.0	18.64	Peak	127.00	200	Vertical	Pass
4**	7997.750	46.89	54.0	7.11	AV	127.00	200	Vertical	Pass
5	9961.987	50.51	74.0	23.49	Peak	220.00	400	Vertical	Pass
5**	9961.987	38.38	54.0	15.62	AV	220.00	400	Vertical	Pass
6	17350.574	52.38	74.0	21.62	Peak	212.00	400	Vertical	Pass
6**	17350.574	43.72	54.0	10.28	AV	212.00	400	Vertical	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT H

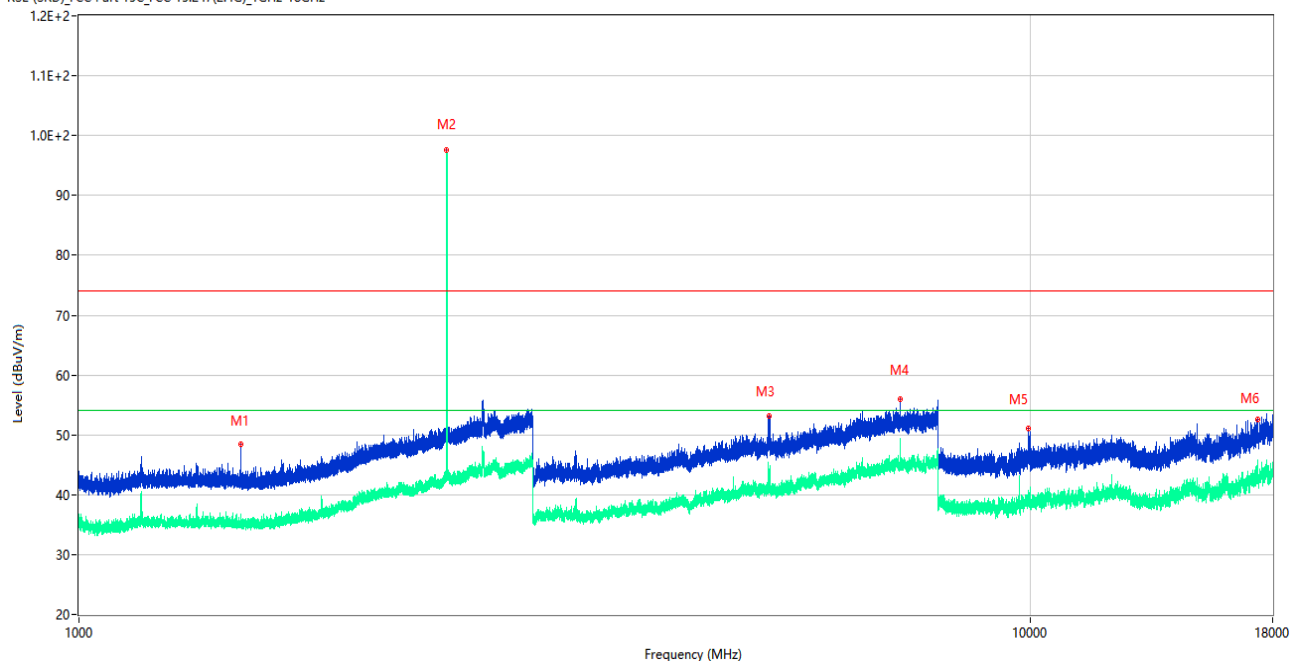
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1451.500	46.30	74.0	27.70	Peak	358.00	300	Horizontal	Pass
1**	1451.500	36.73	54.0	17.27	AV	358.00	300	Horizontal	Pass
2	2437.300	107.22	74.0	-33.22	Peak	29.00	150	Horizontal	N/A
2**	2437.300	106.56	54.0	-52.56	AV	29.00	150	Horizontal	N/A
3	4874.500	54.06	74.0	19.94	Peak	2.00	150	Horizontal	Pass
3**	4874.500	50.71	54.0	3.29	AV	2.00	150	Horizontal	Pass
4	7310.250	55.82	74.0	18.18	Peak	346.00	300	Horizontal	Pass
4**	7310.250	49.31	54.0	4.69	AV	346.00	300	Horizontal	Pass
5	9997.375	50.40	74.0	23.60	Peak	241.00	100	Horizontal	Pass
5**	9997.375	38.28	54.0	15.72	AV	241.00	100	Horizontal	Pass
6	14978.099	52.83	74.0	21.17	Peak	248.00	400	Horizontal	Pass
6**	14978.099	41.35	54.0	12.65	AV	248.00	400	Horizontal	Pass

GFSK MIDDLE CHANNEL 1 GHz to 18 GHz, ANT V

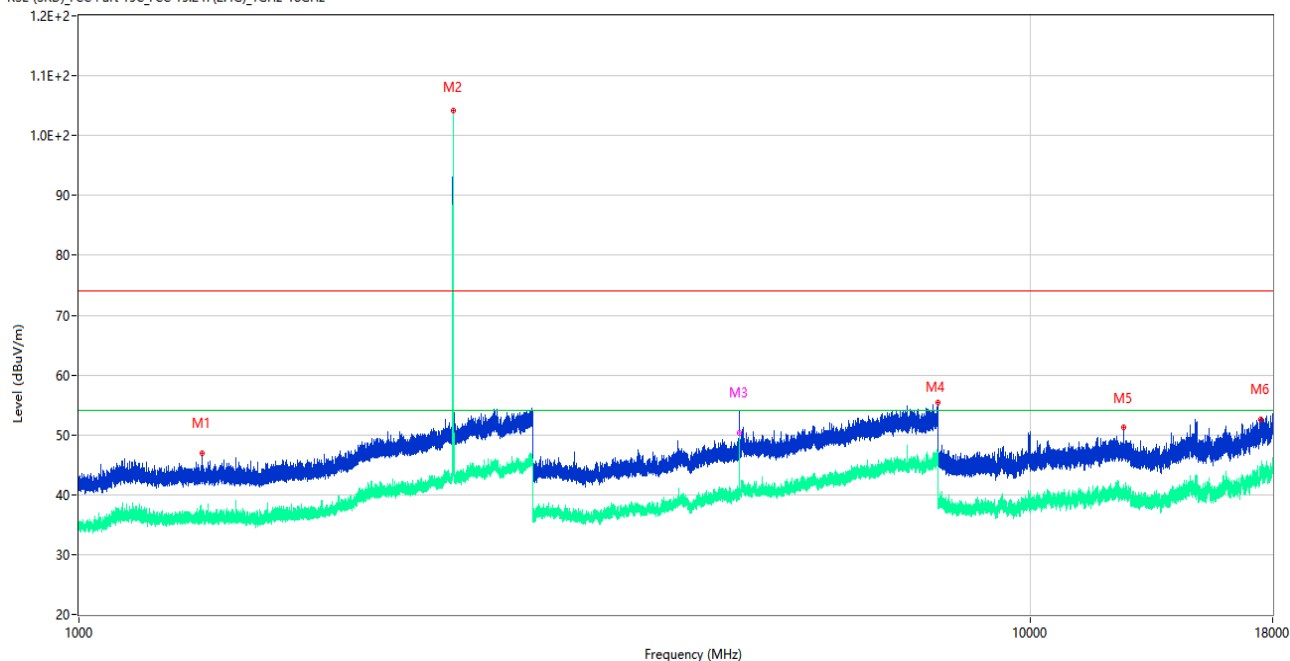
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1480.400	48.35	74.0	25.65	Peak	0.00	100	Vertical	Pass
1**	1480.400	34.50	54.0	19.50	AV	0.00	100	Vertical	Pass
2	2437.200	97.50	74.0	-23.50	Peak	270.00	150	Vertical	N/A
2**	2437.200	96.89	54.0	-42.89	AV	270.00	150	Vertical	N/A
3	5324.750	53.23	74.0	20.77	Peak	1.00	150	Vertical	Pass
3**	5324.750	43.48	54.0	10.52	AV	1.00	150	Vertical	Pass
4	7311.500	55.90	74.0	18.10	Peak	21.00	400	Vertical	Pass
4**	7311.500	49.35	54.0	4.65	AV	21.00	400	Vertical	Pass
5	9974.100	51.03	74.0	22.97	Peak	272.00	200	Vertical	Pass
5**	9974.100	38.50	54.0	15.50	AV	272.00	200	Vertical	Pass
6	17348.999	52.56	74.0	21.44	Peak	360.00	400	Vertical	Pass
6**	17348.999	45.71	54.0	8.29	AV	360.00	400	Vertical	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT H

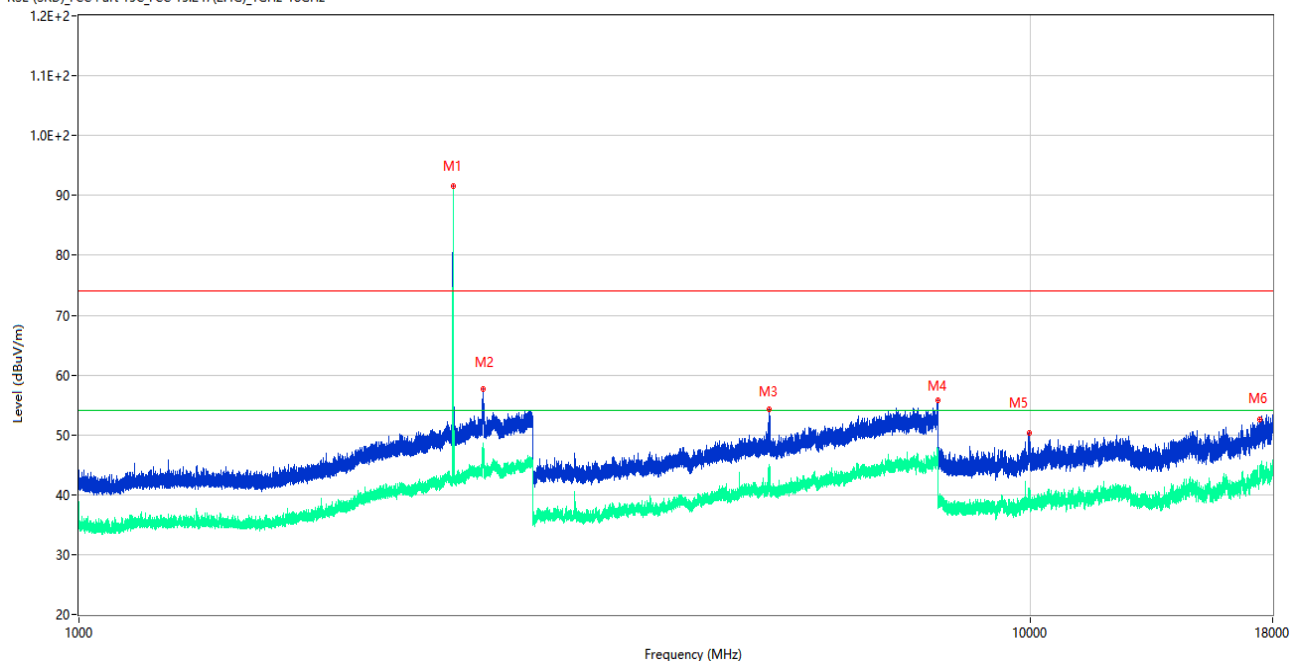
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1346.600	47.02	74.0	26.98	Peak	292.00	300	Horizontal	Pass
1**	1346.600	36.45	54.0	17.55	AV	292.00	300	Horizontal	Pass
2	2473.800	104.13	74.0	-30.13	Peak	29.00	200	Horizontal	N/A
2**	2473.800	103.39	54.0	-49.39	AV	29.00	200	Horizontal	N/A
3	4947.750	54.10	74.0	19.90	Peak	2.00	150	Horizontal	Pass
3**	4947.750	50.30	54.0	3.70	AV	2.00	150	Horizontal	Pass
4	7997.250	55.42	74.0	18.58	Peak	83.00	100	Horizontal	Pass
4**	7997.250	46.75	54.0	7.25	AV	83.00	100	Horizontal	Pass
5	12551.213	51.24	74.0	22.76	Peak	91.00	200	Horizontal	Pass
5**	12551.213	40.27	54.0	13.73	AV	91.00	200	Horizontal	Pass
6	17483.401	52.67	74.0	21.33	Peak	49.00	200	Horizontal	Pass
6**	17483.401	43.18	54.0	10.82	AV	49.00	200	Horizontal	Pass

GFSK HIGH CHANNEL 1 GHz to 18 GHz, ANT V

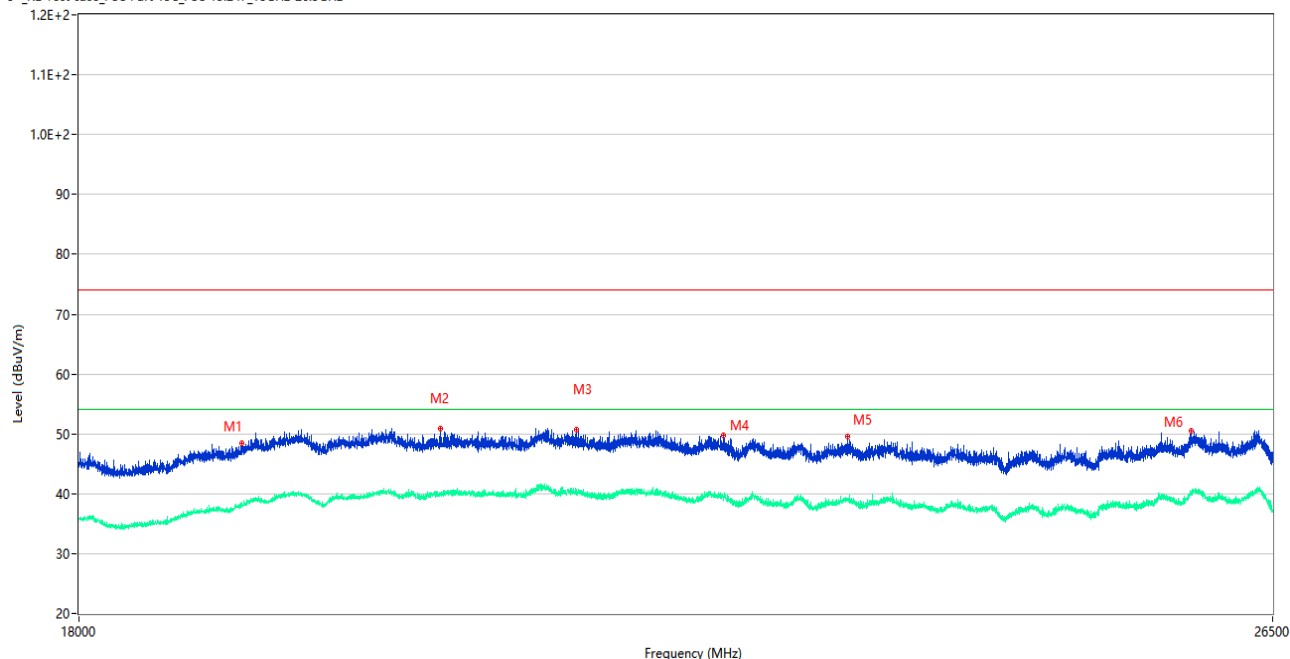
RSE (SRD)_FCC Part 15C_FCC 15.247(2.4G)_1GHz-18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2473.700	91.51	74.0	-17.51	Peak	112.00	150	Vertical	N/A
1**	2473.700	89.98	54.0	-35.98	AV	112.00	150	Vertical	N/A
2	2659.300	57.63	74.0	16.37	Peak	310.00	150	Vertical	Pass
2**	2659.300	45.86	54.0	8.14	AV	310.00	150	Vertical	Pass
3	5322.500	54.36	74.0	19.64	Peak	4.00	150	Vertical	Pass
3**	5322.500	42.49	54.0	11.51	AV	4.00	150	Vertical	Pass
4	7997.500	55.70	74.0	18.30	Peak	219.00	200	Vertical	Pass
4**	7997.500	47.06	54.0	6.94	AV	219.00	200	Vertical	Pass
5	9986.213	50.36	74.0	23.64	Peak	274.00	300	Vertical	Pass
5**	9986.213	40.36	54.0	13.64	AV	274.00	300	Vertical	Pass
6	17440.612	52.55	74.0	21.45	Peak	103.00	400	Vertical	Pass
6**	17440.612	43.12	54.0	10.88	AV	103.00	400	Vertical	Pass

GFSK LOW CHANNEL 18 GHz to 26.5 GHz, ANT H

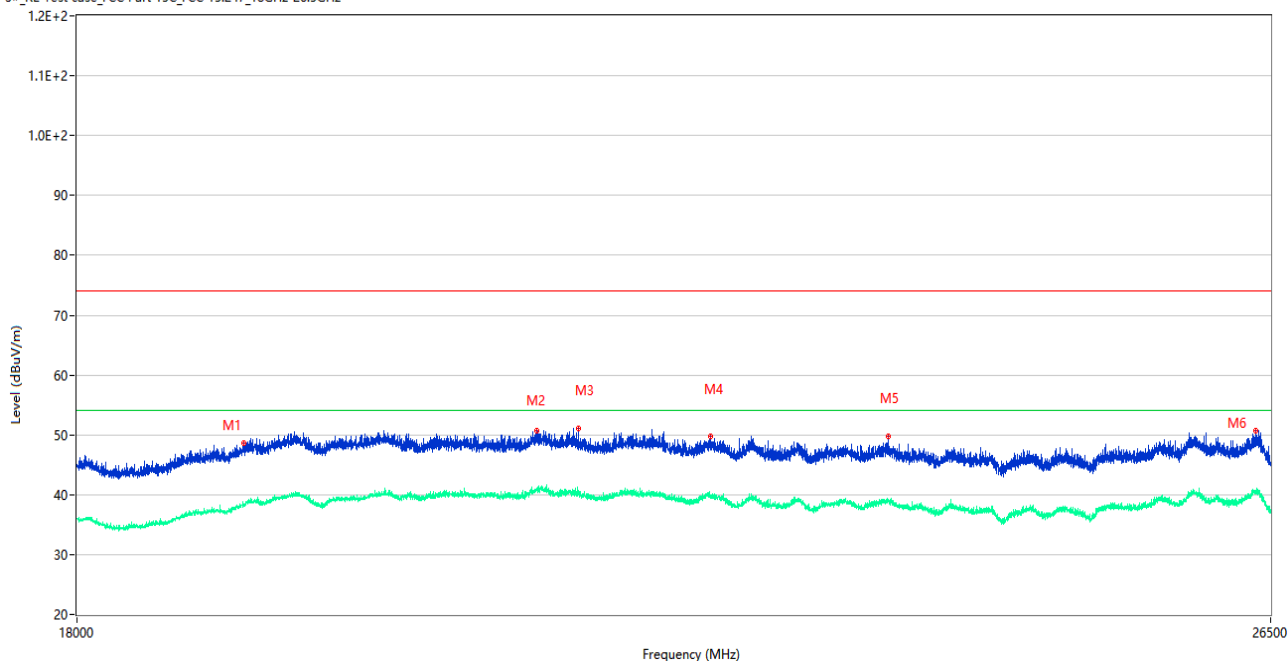
3#_RE Test case_FCC Part 15C_FCC 15.247_18GHz-26.5GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	18973.999	48.44	74.0	25.56	Peak	114.00	150	Horizontal	Pass
1**	18973.999	37.82	54.0	16.18	AV	114.00	150	Horizontal	Pass
2	20238.000	50.92	74.0	23.08	Peak	23.00	150	Horizontal	Pass
2**	20238.000	40.03	54.0	13.97	AV	23.00	150	Horizontal	Pass
3	21152.000	50.72	74.0	23.28	Peak	0.00	150	Horizontal	Pass
3**	21152.000	40.75	54.0	13.25	AV	0.00	150	Horizontal	Pass
4	22180.000	49.69	74.0	24.31	Peak	360.00	150	Horizontal	Pass
4**	22180.000	39.42	54.0	14.58	AV	360.00	150	Horizontal	Pass
5	23089.000	49.50	74.0	24.50	Peak	169.00	150	Horizontal	Pass
5**	23089.000	38.84	54.0	15.16	AV	169.00	150	Horizontal	Pass
6	25810.000	50.52	74.0	23.48	Peak	33.00	150	Horizontal	Pass
6**	25810.000	40.36	54.0	13.64	AV	33.00	150	Horizontal	Pass

GFSK LOW CHANNEL 18 GHz to 26.5 GHz, ANT V

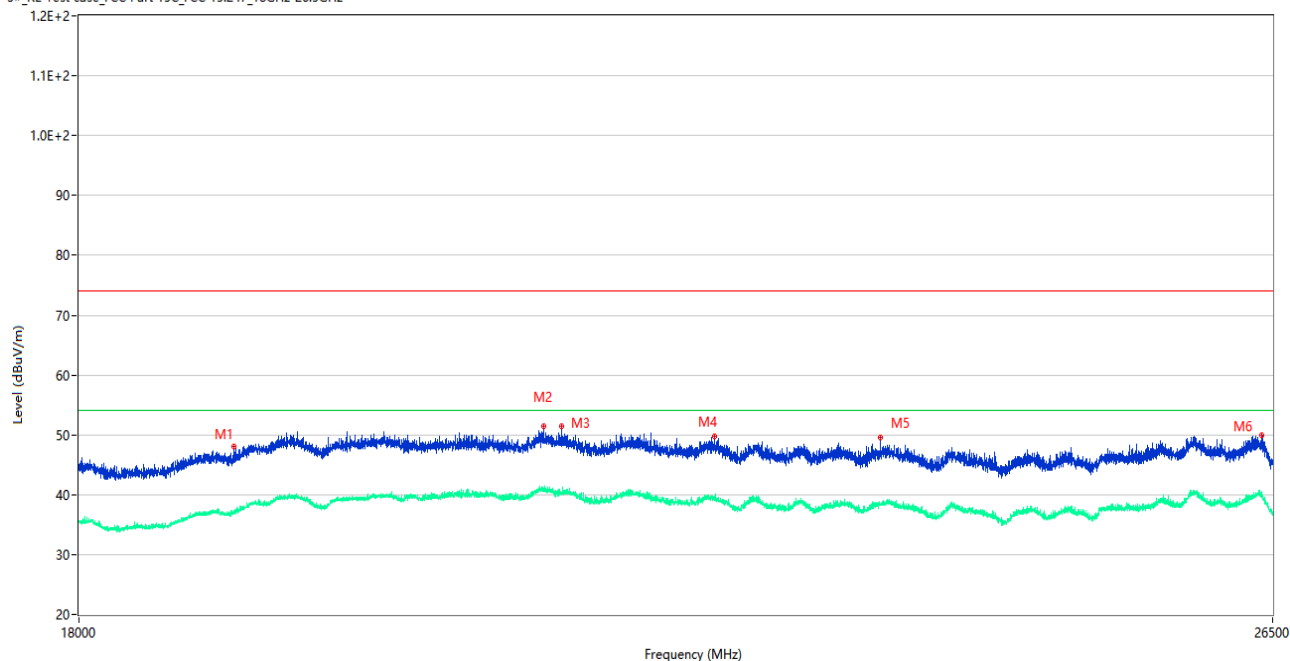
3#_RE Test case_FCC Part 15C_FCC 15.247_18GHz-26.5GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	18998.000	48.71	74.0	25.29	Peak	353.00	150	Vertical	Pass
1**	18998.000	38.22	54.0	15.78	AV	353.00	150	Vertical	Pass
2	20893.000	50.75	74.0	23.25	Peak	292.00	150	Vertical	Pass
2**	20893.000	41.02	54.0	12.98	AV	292.00	150	Vertical	Pass
3	21177.999	51.12	74.0	22.88	Peak	309.00	150	Vertical	Pass
3**	21177.999	40.13	54.0	13.87	AV	309.00	150	Vertical	Pass
4	22104.001	49.83	74.0	24.17	Peak	62.00	150	Vertical	Pass
4**	22104.001	39.91	54.0	14.09	AV	62.00	150	Vertical	Pass
5	23409.000	49.74	74.0	24.26	Peak	139.00	150	Vertical	Pass
5**	23409.000	38.97	54.0	15.03	AV	139.00	150	Vertical	Pass
6	26375.999	50.68	74.0	23.32	Peak	200.00	150	Vertical	Pass
6**	26375.999	40.55	54.0	13.45	AV	200.00	150	Vertical	Pass

GFSK MIDDLE CHANNEL 18 GHz to 26.5 GHz, ANT H

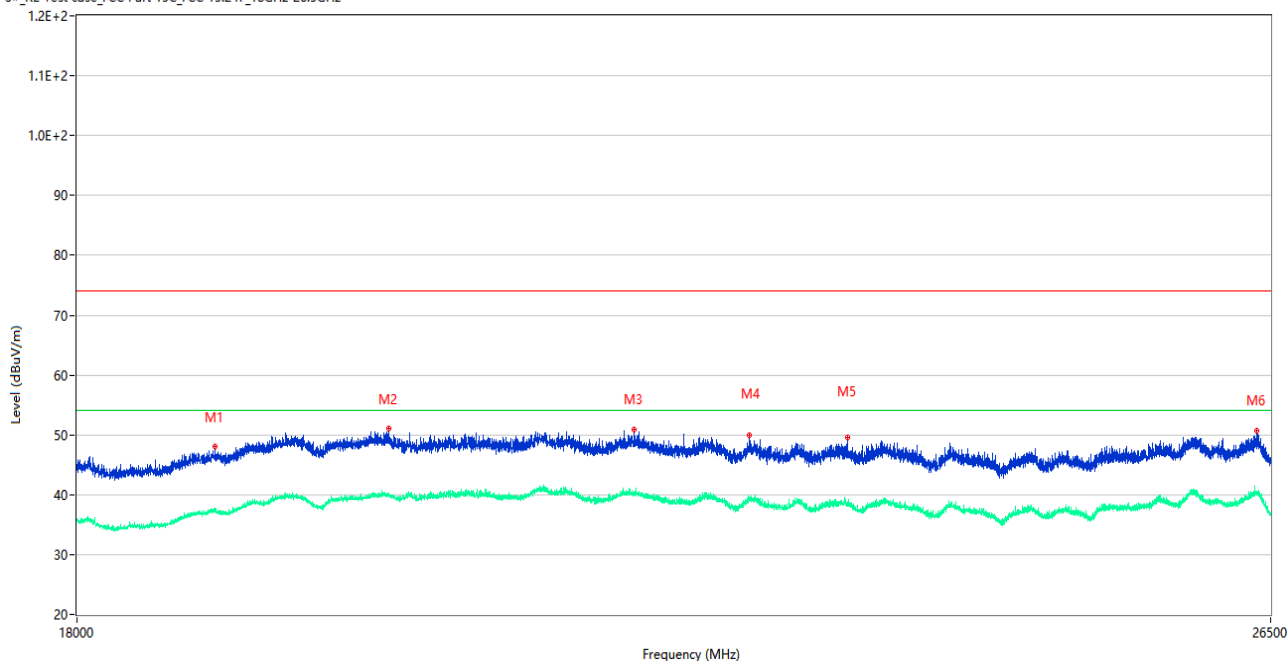
3#_RE Test case_FCC Part 15C_FCC 15.247_18GHz-26.5GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	18929.000	48.12	74.0	25.88	Peak	123.00	150	Horizontal	Pass
1**	18929.000	36.79	54.0	17.21	AV	123.00	150	Horizontal	Pass
2	20924.000	51.38	74.0	22.62	Peak	313.00	150	Horizontal	Pass
2**	20924.000	40.88	54.0	13.12	AV	313.00	150	Horizontal	Pass
3	21045.000	51.45	74.0	22.55	Peak	360.00	150	Horizontal	Pass
3**	21045.000	40.20	54.0	13.80	AV	360.00	150	Horizontal	Pass
4	22116.999	49.76	74.0	24.24	Peak	291.00	150	Horizontal	Pass
4**	22116.999	39.70	54.0	14.30	AV	291.00	150	Horizontal	Pass
5	23335.999	49.49	74.0	24.51	Peak	206.00	150	Horizontal	Pass
5**	23335.999	38.27	54.0	15.73	AV	206.00	150	Horizontal	Pass
6	26407.000	49.89	74.0	24.11	Peak	110.00	150	Horizontal	Pass
6**	26407.000	39.56	54.0	14.44	AV	110.00	150	Horizontal	Pass

GFSK MIDDLE CHANNEL 18 GHz to 26.5 GHz, ANT V

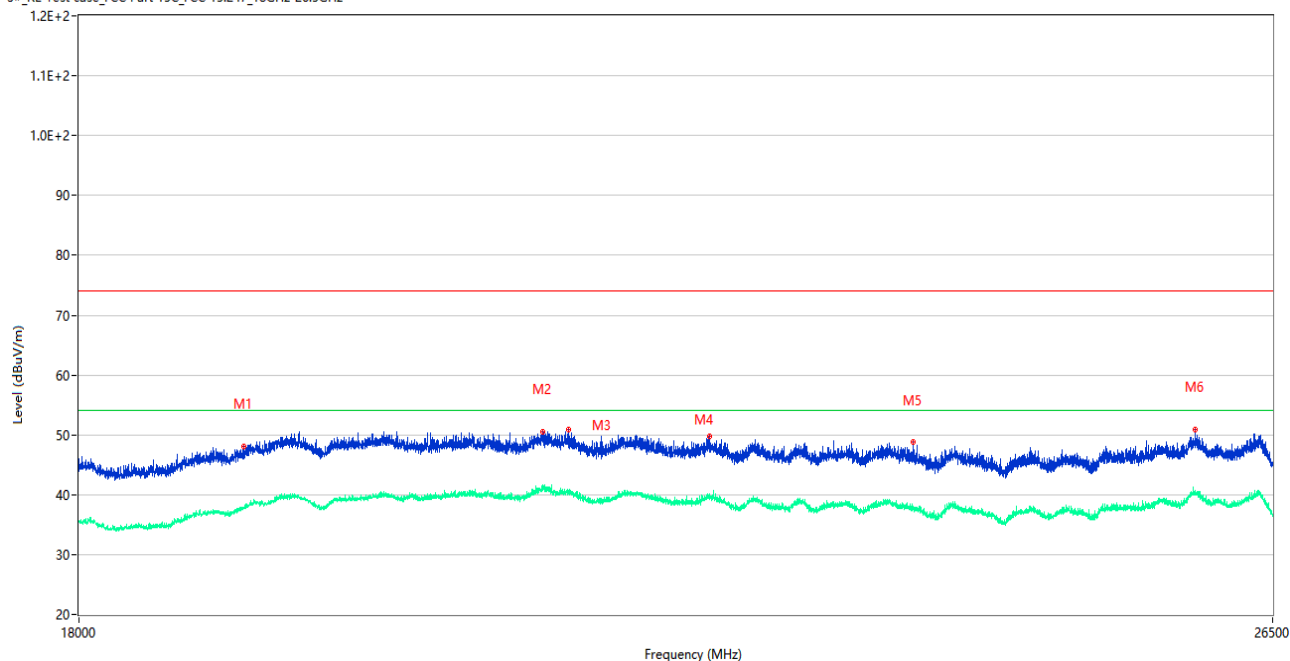
3#_RE Test case_FCC Part 15C_FCC 15.247_18GHz-26.5GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	18825.001	47.98	74.0	26.02	Peak	28.00	150	Vertical	Pass
1**	18825.001	37.31	54.0	16.69	AV	28.00	150	Vertical	Pass
2	19911.000	51.03	74.0	22.97	Peak	303.00	150	Vertical	Pass
2**	19911.000	39.84	54.0	14.16	AV	303.00	150	Vertical	Pass
3	21563.001	50.94	74.0	23.06	Peak	342.00	150	Vertical	Pass
3**	21563.001	40.54	54.0	13.46	AV	342.00	150	Vertical	Pass
4	22384.001	49.93	74.0	24.07	Peak	267.00	150	Vertical	Pass
4**	22384.001	39.19	54.0	14.81	AV	267.00	150	Vertical	Pass
5	23104.999	49.54	74.0	24.46	Peak	324.00	150	Vertical	Pass
5**	23104.999	38.30	54.0	15.70	AV	324.00	150	Vertical	Pass
6	26382.000	50.75	74.0	23.25	Peak	287.00	150	Vertical	Pass
6**	26382.000	40.14	54.0	13.86	AV	287.00	150	Vertical	Pass

GFSK HIGH CHANNEL 18 GHz to 26.5 GHz, ANT H

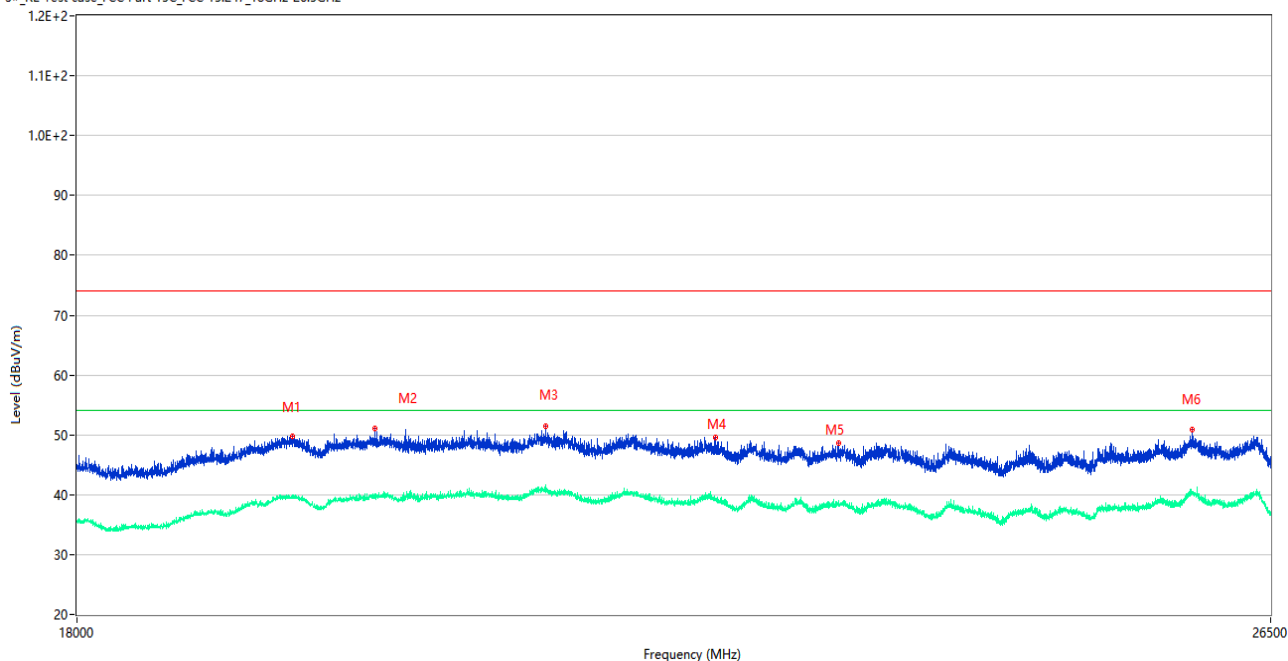
3#_RE Test case_FCC Part 15C_FCC 15.247_18GHz-26.5GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	18987.999	47.98	74.0	26.02	Peak	139.00	150	Horizontal	Pass
1**	18987.999	37.74	54.0	16.26	AV	139.00	150	Horizontal	Pass
2	20918.000	50.53	74.0	23.47	Peak	293.00	150	Horizontal	Pass
2**	20918.000	40.71	54.0	13.29	AV	293.00	150	Horizontal	Pass
3	21097.001	50.87	74.0	23.13	Peak	95.00	150	Horizontal	Pass
3**	21097.001	40.35	54.0	13.65	AV	95.00	150	Horizontal	Pass
4	22077.999	49.70	74.0	24.30	Peak	177.00	150	Horizontal	Pass
4**	22077.999	39.56	54.0	14.44	AV	177.00	150	Horizontal	Pass
5	23586.001	48.85	74.0	25.15	Peak	151.00	150	Horizontal	Pass
5**	23586.001	37.62	54.0	16.38	AV	151.00	150	Horizontal	Pass
6	25842.000	50.85	74.0	23.15	Peak	336.00	150	Horizontal	Pass
6**	25842.000	40.42	54.0	13.58	AV	336.00	150	Horizontal	Pass

GFSK HIGH CHANNEL 18 GHz to 26.5 GHz, ANT V

3#_RE Test case_FCC Part 15C_FCC 15.247_18GHz-26.5GHz



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	19300.000	49.84	74.0	24.16	Peak	62.00	150	Vertical	Pass
1**	19300.000	39.67	54.0	14.33	AV	62.00	150	Vertical	Pass
2	19826.999	51.15	74.0	22.85	Peak	265.00	150	Vertical	Pass
2**	19826.999	40.13	54.0	13.87	AV	265.00	150	Vertical	Pass
3	20953.000	51.37	74.0	22.63	Peak	210.00	150	Vertical	Pass
3**	20953.000	40.43	54.0	13.57	AV	210.00	150	Vertical	Pass
4	22136.001	49.62	74.0	24.38	Peak	191.00	150	Vertical	Pass
4**	22136.001	39.13	54.0	14.87	AV	191.00	150	Vertical	Pass
5	23039.001	48.65	74.0	25.35	Peak	114.00	150	Vertical	Pass
5**	23039.001	38.19	54.0	15.81	AV	114.00	150	Vertical	Pass
6	25834.000	50.94	74.0	23.06	Peak	203.00	150	Vertical	Pass
6**	25834.000	40.46	54.0	13.54	AV	203.00	150	Vertical	Pass

A.9 Band Edge (Restricted-band band-edge)

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.

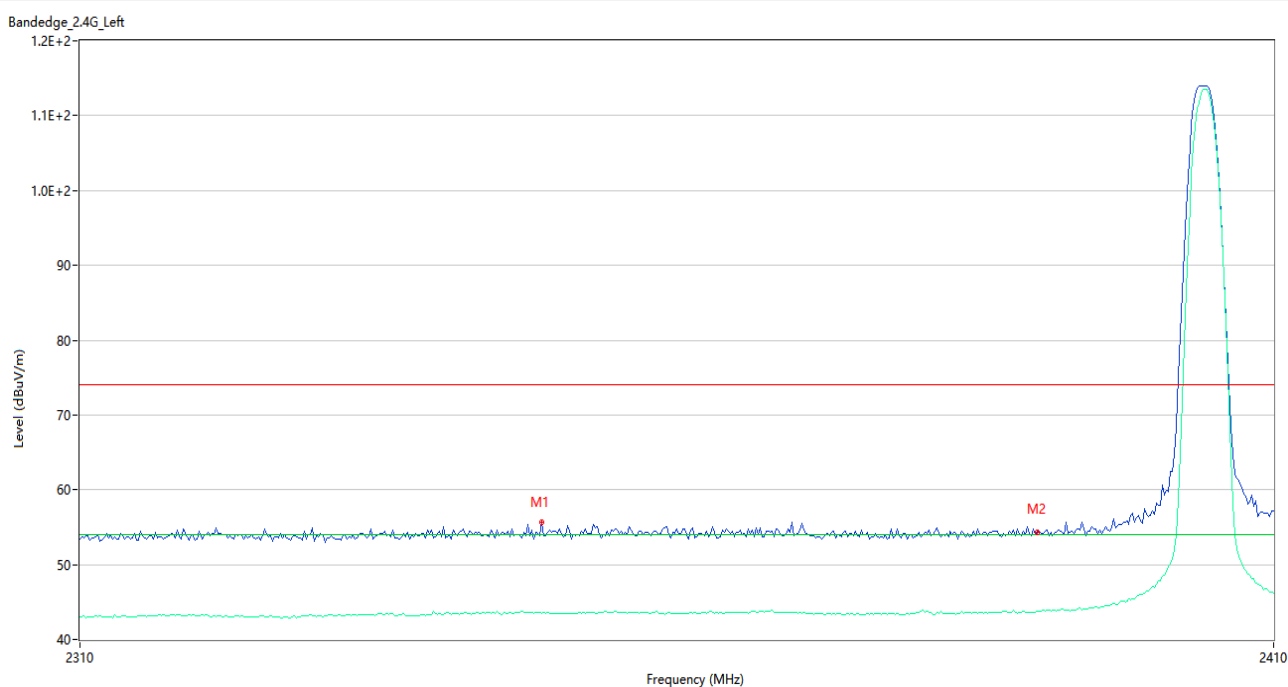
Note ³: According the ANSI C63.10-2020, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

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

Note ⁵: Both horizontal and vertical directions were pre tested, only the worst configuration has been reported in this report.

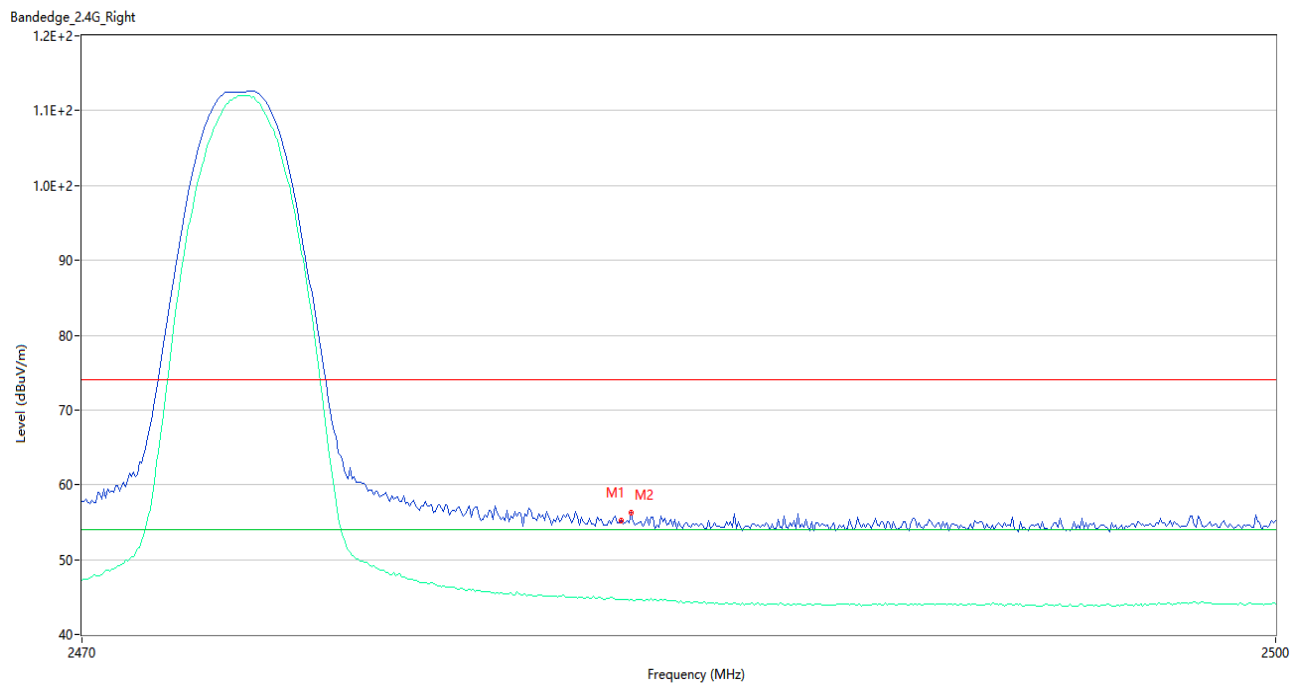
Test Data and Plots

GFSK LOW CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2348.167	55.63	74.0	18.37	Peak	194.00	150	Horizontal	Pass
1**	2348.167	43.53	54.0	10.47	AV	194.00	150	Horizontal	Pass
2	2389.833	54.25	74.0	19.75	Peak	354.00	200	Horizontal	Pass
2**	2389.833	43.70	54.0	10.30	AV	354.00	200	Horizontal	Pass

GFSK HIGH CHANNEL



No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	2483.500	55.28	74.0	18.72	Peak	331.00	100	Horizontal	Pass
1**	2483.500	44.67	54.0	9.33	AV	331.00	100	Horizontal	Pass
2	2483.750	56.23	74.0	17.77	Peak	360.00	100	Horizontal	Pass
2**	2483.750	44.65	54.0	9.35	AV	360.00	100	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “Ti-EE26010168-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “Ti-EE26010168-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “Ti-EE26010168-AI.PDF”.

Statement

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--END OF REPORT--