

TEST REPORT

On behalf of

Keeson Technology Corporation Limited

REMOTE CONTROL

Model No.: RC302B, RC302C, RC302D

FCC ID: 2AK23RC302B

Prepared For: Keeson Technology Corporation Limited
No.1508, Xiushui Road, WangJiangjing Town,
Xiuzhou District, Jiaxing City, Zhejiang Province,China

Prepared By: Audix Technology (Shanghai) Co., Ltd.
3F, Building 34, No. 680 Guiping Rd.,
Caohejing, Hi-Tech Park,
Shanghai 200233, China

Tel: +86-21-64955500



File No. : C1D2602003
Report No. : ACI-F26042
Date of Test : 2026.02.11-14
Date of Report : 2026.02.25

The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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APPENDIX II PHOTOGRAPHS OF EUT	TOTAL 20 PAGES

TEST REPORT

Applicant : Keeson Technology Corporation Limited
EUT Description : REMOTE CONTROL
(A) Model No. : RC302B, RC302C, RC302D
(B) Power Supply : DC 4.5V (From battery AAA*3)
(C) Test Voltage : DC 4.5V (Battery)

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART C
AND ANSI C63.10:2020*

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report also shows that the EUT (M/N: Refer to Sec2.1), which was tested is technically compliance with the FCC limits.

This report applies to above tested Sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

Date of Test : 2026.02.11-14 Date of Report : 2026.02.25

Producer :

Huimin Yan

HUIMIN YAN / Assistant

Review :

Jarey Lu

JAREY LU / Deputy Assistant Manager


For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory :

Kamp Chen

Authorized Signature(s) KAMP CHEN / Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The result is determined according to the decision rules of customer selection in the ASC-403 application service form.

1. According to IEC GUIDE 115 Procedure 2 and ILAC-G8, the uncertainties value is not used in determining the PASS/FAIL results.

2. If the required specification or standard already contains the decision rules, it will be carried out in accordance with the regulations or standard documents or the requirements of the competent units. If the required specification or standard does not contain a decision rule, the same paragraph 1.

3. If your company has a required decision rule, it will be implemented in accordance with the requirements and ISO/IEC Guide 98-4 specifications.

The EUT have been tested according to the applicable standards as referenced below:

Description / Test Item	Test Standard	Results	Meets Limit
EMISSION			
Conducted Emission	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2020	Pass	N/A
Radiated Emission	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2020	Pass	15.209(a) 15.205(a)(c)
6 dB Bandwidth Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2020	Pass	15.247(a)(2)
Maximum Peak Output Power Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2020	Pass	15.247(b)(3)
Emission Limitations Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2020	Pass	15.247(d)
Band Edge Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2020	Pass	15.247(d)
Power Spectral Density Measurement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2020	Pass	15.247(e)
Antenna Requirement	FCC RULES AND REGULATIONS PART 15 SUBPART C AND ANSI C63.10:2020	Pass	15.203
N/A is an abbreviation for Not Applicable.			

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description : REMOTE CONTROL

Model Number : RC302B, RC302C, RC302D

Type of EUT : ☒ Production ☐ Pre-product ☐ Pro-type

Note#1 : The only difference is the plastic casing structure; the internal motherboard components and circuit design are exactly the same. The manufacturer states that the above differences do not affect RF and EMC performance.

Note#2 : According to the difference, we test performed on the model “RC302D” to do the test.

Test Model : RC302D

Radio Tech : GFSK

Channel Freq. : GFSK: 2403MHz-2480MHz; total 78 channels.

Modulation : GFSK.

Antenna Info. : Antenna Type: PCB Antenna
Antenna Gain: 0 dBi

Note#3 : The Antenna information was provided by the customer.

Applicant : Keeson Technology Corporation Limited
No.1508, Xiushui Road, WangJiangjing Town,
Xiuzhou District, Jiaxing City, Zhejiang Province,China

2.2 EUT Specifications Assessed in Current Report

Mode	Modulation	Data Rate(Mbps)
GFSK	GFSK	1

Channel List			
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
01	2403	40	2442
02	2404	41	2443
03	2405	42	2444
...	...	...	...
...	...	...	...
...	...	...	...
37	2439	76	2478
38	2440	77	2479
39	2441	78	2480

2.3 Test Information

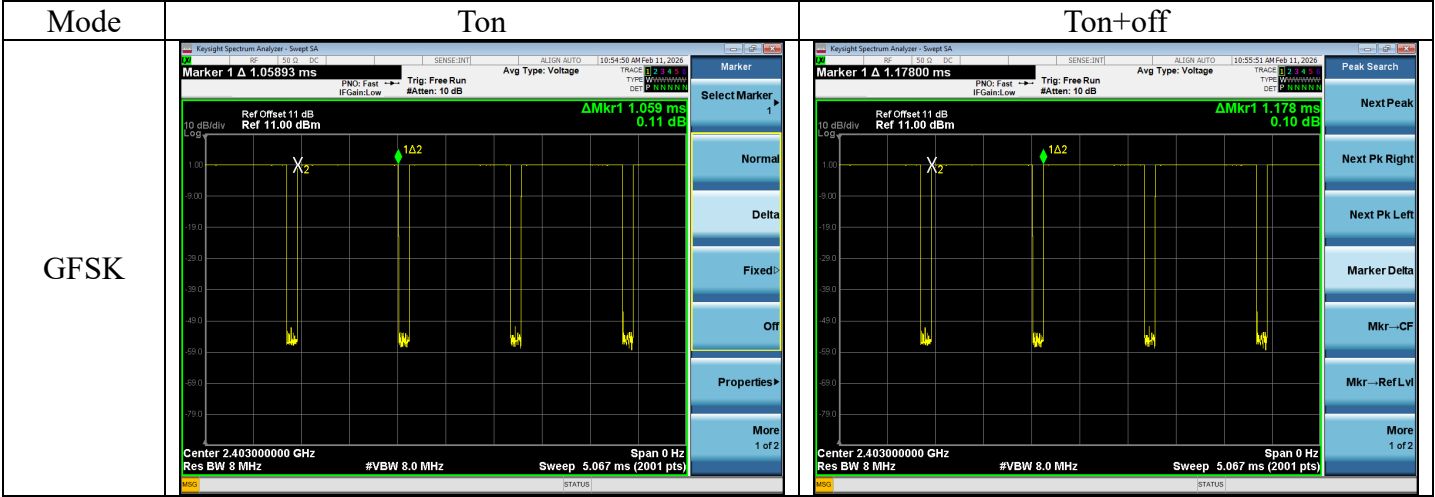
The special firmware was download into the EUT, and press the button to make EUT work on TX mode(modulated mode) and select test channel.

Mode	data rate (Mbps)	Power Setting	Test Channel		Frequency (MHz)
GFSK	1	Default	Low:	01	2403
		Default	Middle:	40	2442
		Default	High:	78	2480

Note: The setting information was provided by the customer.

2.4 Duty Cycle Check

Mode	Transmission Duration (ms)	Transmission Period (ms)	Duty Cycle (%)
GFSK	1.059	1.178	89.9



2.5 Sample Description

Test Item	Model Number	Sample Number	Date of receipted
Radiated Emission	RC302D	E20260203-01-02/03	2026.02.03
Conducted RF Test	RC302D	E20260203-01-03/03	2026.02.03

2.6 Supported equipment

N/A

2.7 Description of Test Facility

Name of Firm	: Audix Technology (Shanghai) Co., Ltd.
Site Location	: 3F, Building 34, No. 680 Guiping Rd., Caohejing, Hi-Tech Park, Shanghai 200233, China
Accredited by NVLAP, Lab Code	: 200371-0
FCC Designation Number	: CN5027
Test Firm Registration Number	: 954668

3 RADIATED EMISSION TEST

3.1 Test Equipment

The following test equipment are used during the radiated emission test in a semi-anechoic chamber:

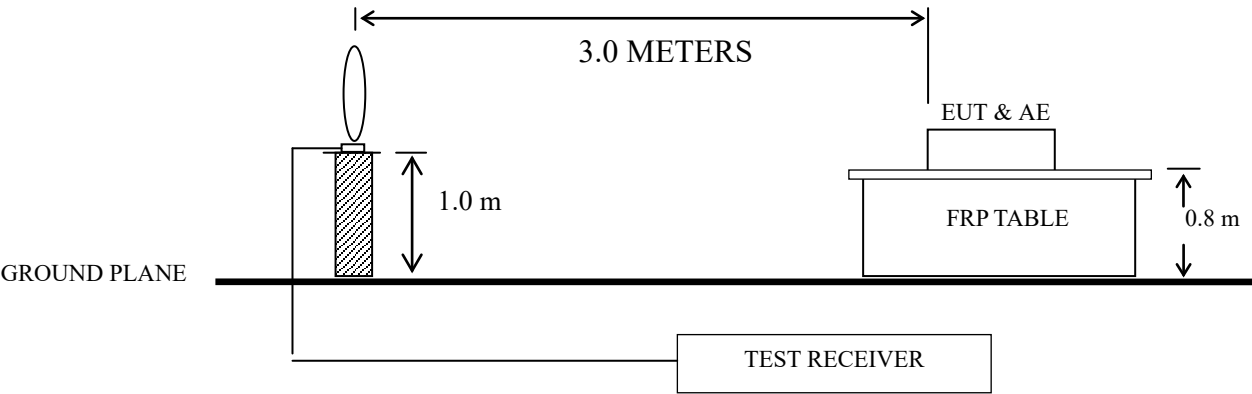
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESCI	101303	2025.02.22	1 Year
2.	Preamplifier	HP	8447D	2944A06849	2025.02.22	1 Year
3.	Preamplifier	HP	8449B	3008A00864	2025.02.22	1 Year
4.	Loop Antenna	Schaffner	HLA6120	1193	2025.08.04	1 Year
5.	Bi-log Antenna	Schwarz beck	VULB 9168	707+AT-N063 7	2025.08.06	1 Year
6.	Spectrum	Agilent	N9010A	MY52221182	2025.07.03	1 Year
7.	Horn Antenna	EMCO	3115	96074878	2025.08.13	1 Year
8.	Horn Antenna	ETS	3116	00062643	2025.01.21	2Year
9.	RE Cable-1m+ Coaxial Switch	HARBOUR+ ANRITSU	RE Cable-1m+ MP59B	RE-1m-00x+ 6200655086	2025.02.22	1 Year
10.	RE Cable-3m+ RE Cable-10m	TIMES+SCHA FFNER	LMR400-NMNM -3.0M+RG 212U-MIL C 17	20250211-0001 +RE-10m-001	2025.02.22	1 Year
11.	Coaxial Cable(CH.3)	Mini-Circuits	FLC-2FT- SMSM+	21112086	2025.02.22	1 Year
12.	RE Cable-5m	TIMES	SFT205-SMNM- 5.0M	20250211-0001	2025.02.22	1 Year
13.	Software	Audix	e3	e3.v9.210616	--	--

3.2 Block Diagram of Test Setup

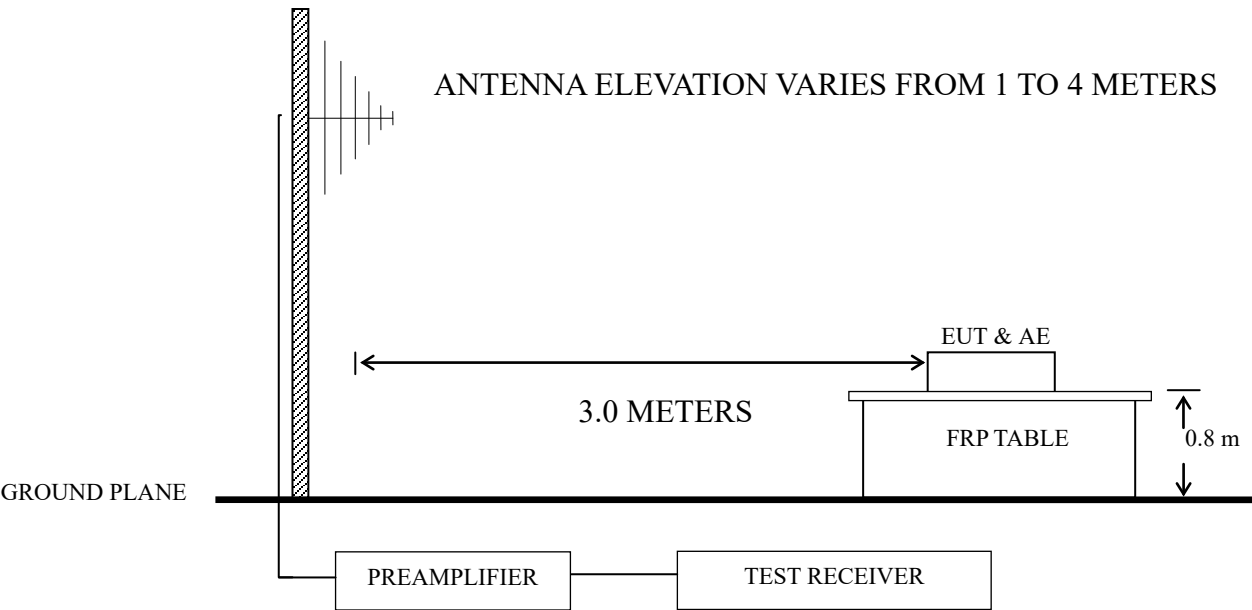
3.2.1 EUT & Peripherals



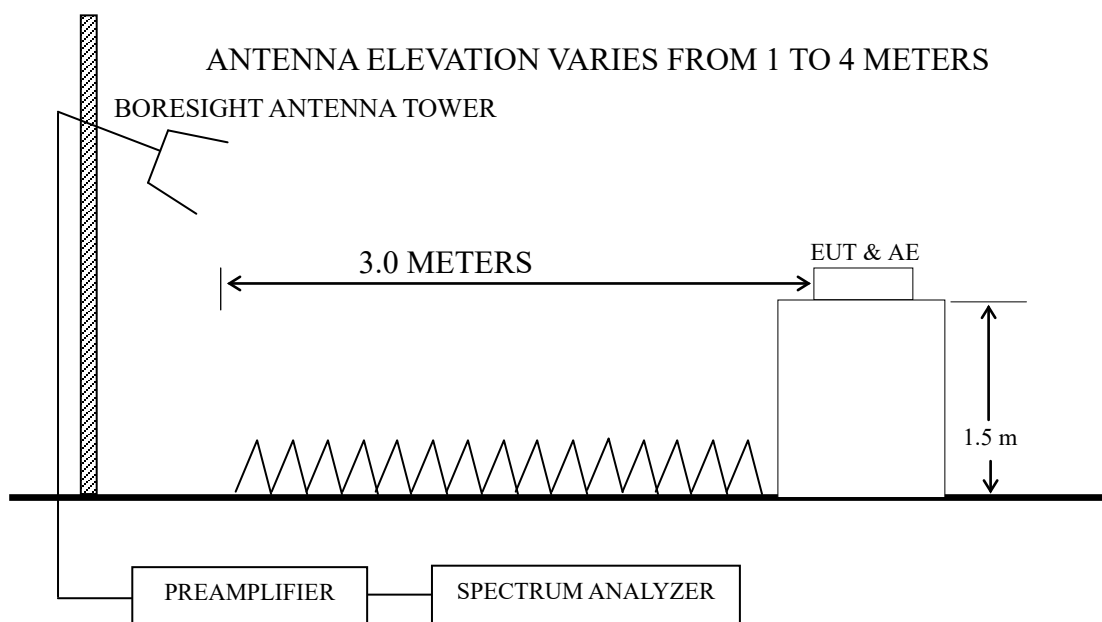
3.2.2 9kHz to 30MHz



3.2.3 Below 1GHz



3.2.4 Above 1GHz



3.3 Radiated Emission Limit

§15.209:

Frequency (MHz)	Distance (m)	Field strength limits (μV/m)	
		(μV/m)	dB(μV/m)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0
NOTE 1 - Emission Level dB (μV/m) = 20 log Emission Level (μV/m) NOTE 2 - The tighter limit applies at the band edges. NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system. NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz. NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT			

3.4 Test Configuration

The EUT (listed in Sec.2.1) and the simulators (listed in Sec.2.2) were installed as shown on Sec.3.2 to meet FCC requirements and operating in a manner that tends to maximize its emission level in a normal application.

3.5 Operating Condition of EUT

3.5.1 Setup the EUT as shown in Sec. 3.2.

3.5.2 Turn EUT on.

3.5.3 According to section 2.2 to select the test mode, then test.

3.5.4 Repeat step 3.5.2 and 3.5.3, until the test of all modes finished.

3.6 Test Procedures

Radiated emission test applies to harmonics/spurs that fall in the restricted bands listed in Section 15.205. The maximum permitted average field strength is listed in Section 15.209. A pre-amp is necessary for this measurement. For measurement above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.

The EUT was placed on a turntable. Below 1 GHz, the table height is 80 cm above the reference ground plane. Above 1 GHz, the table height is 1.5 m. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (Calibrated Bilog Antenna) or Horn antenna was used as receiving antenna. Both horizontal and vertical polarizations of the antenna

were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.10:2020 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESCI was set at 200Hz from 9kHz to 150Hz, set 9kHz from 150kHz to 30MHz, and set 120 kHz from 30MHz to 1000MHz.

The bandwidth of Agilent N9010A was set at 1MHz for above 1GHz.

The frequency range from 9 kHz to 25 GHz (Up to 10th harmonics from fundamental frequency) was checked.

All the test results are listed in Sec.3.7.

3.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Frequency range: below 1GHz (Worst case emission)

No.	Operation	Mode	Channel	Frequency	Data Page
1.	Transmitting	GFSK	01	2403MHz	P15-16

Frequency range: above 1GHz
(1GHz-18GHz)

No.	Operation	Mode	Channel	Frequency	Data Page
1.	Transmitting	GFSK	01	2403 MHz	P17-20
2.			40	2442 MHz	P21-24
3.			78	2480 MHz	P25-28

(18G-25GHz)

No.	Operation	Mode	Channel	Frequency	Data Page
1.	Transmitting	GFSK	78	2480 MHz	P29-30

Band-Edge and Restricted bands:

No.	Operation	Mode	Channel	Frequency	Data Page
1.	Transmitting	GFSK	01	2403 MHz	P31-32
2.			78	2480 MHz	P33-34

NOTE 1 – Emission Level (dBμV/m) = Read Level (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB) - Preamp Factor (dB)

Margin (dB) = Limits (dBμV/m) - Emission Level (dBμV/m).

NOTE 2 – “QP” means “Quasi-Peak” values.

NOTE 3 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 4 – The emission levels which not reported are too low against the official limit.

NOTE 5 – The emission levels recorded below is data of EUT configured in Side direction, for this direction was the maximum emission direction during the test. The data of Lying & Standing direction are too low against the official limit to be reported.

NOTE 6 – All reading are Quasi-Peak values below or equal to 1GHz, Peak and Average values above 1GHz.

For above 1GHz test, if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.

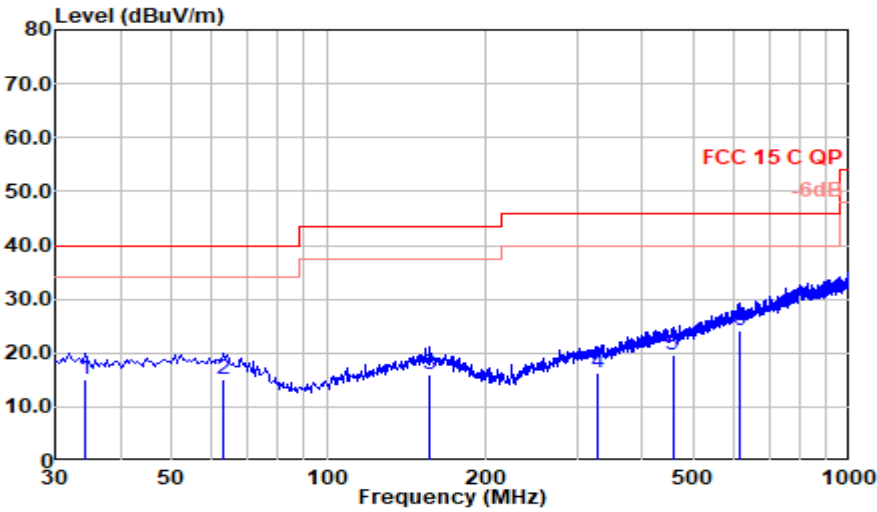
NOTE 7 – The frequency range 2310-2390MHz & 2483.5-2500MHz were tested for Restricted bands.

NOTE 8 – For the Emission 9kHz to 30MHz, the emissions were too low against to the limit.

Radiated emission < 1GHz

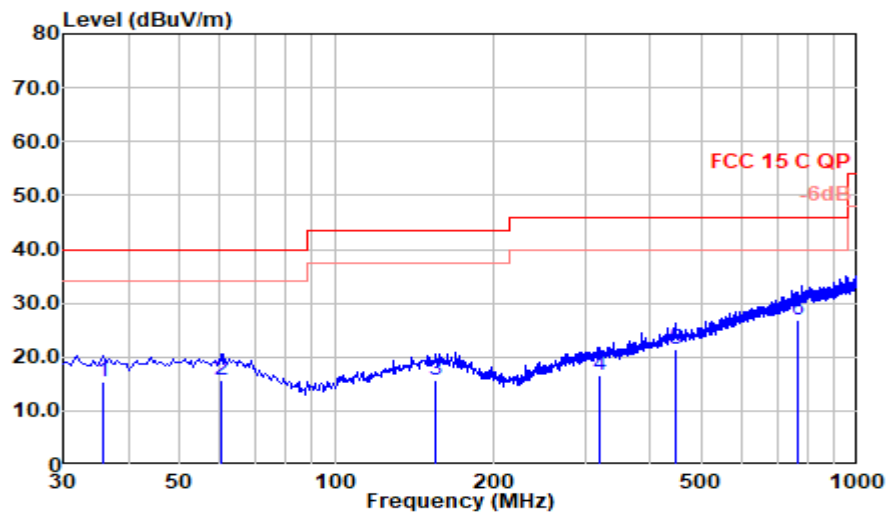
Test Date:	2026.02.13	Temp./Hum.:	22°C/51%RH	Test By:	JareyLu
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Mode: GFSK CH2403MHz



Polarization at Horizontal

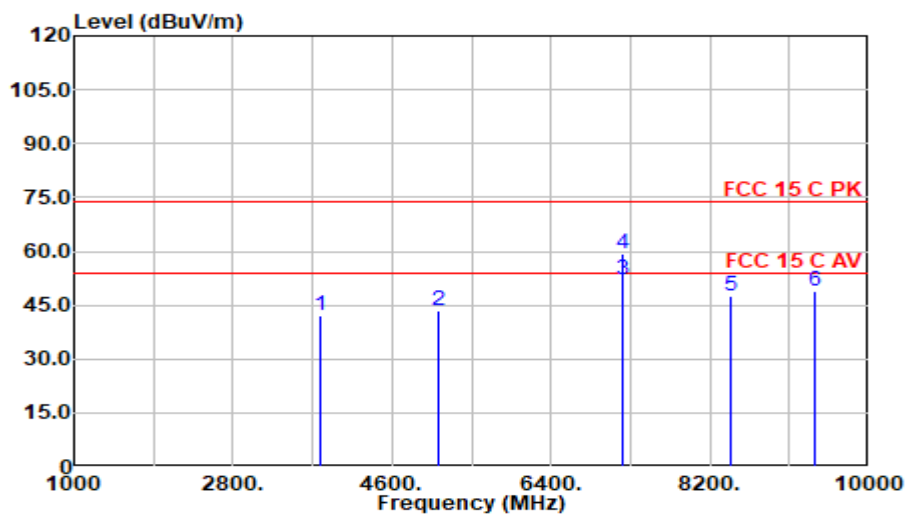
Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
34.365	24.31	19.50	0.72	29.57	14.95	40.00	25.05	QP
62.980	24.29	19.30	0.93	29.45	15.07	40.00	24.93	QP
157.070	24.34	19.40	1.40	29.00	16.14	43.50	27.36	QP
327.305	22.40	20.15	2.10	28.48	16.17	46.00	29.83	QP
457.770	23.09	23.20	2.50	29.16	19.63	46.00	26.37	QP
613.940	24.06	25.98	3.00	28.81	24.22	46.00	21.78	QP

Mode: GFSK CH2403MHz**Polarization at Vertical**

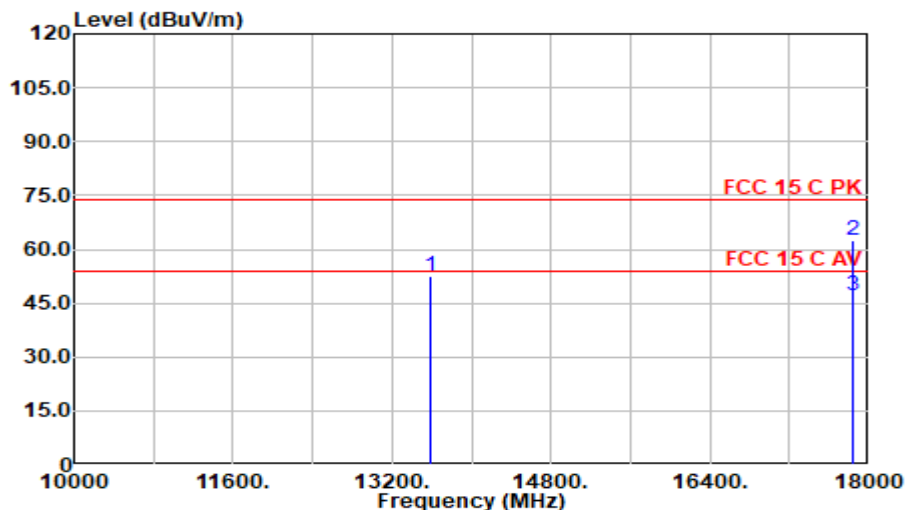
Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
35.820	24.76	19.42	0.73	29.57	15.34	40.00	24.66	QP
60.070	24.81	19.40	0.91	29.46	15.66	40.00	24.34	QP
155.615	23.84	19.44	1.39	29.00	15.67	43.50	27.83	QP
320.030	23.16	19.90	2.09	28.41	16.75	46.00	29.25	QP
447.585	24.91	23.05	2.47	29.09	21.35	46.00	24.65	QP
765.745	23.66	28.19	3.18	28.04	26.98	46.00	19.02	QP

Radiated Emission > 1GHz

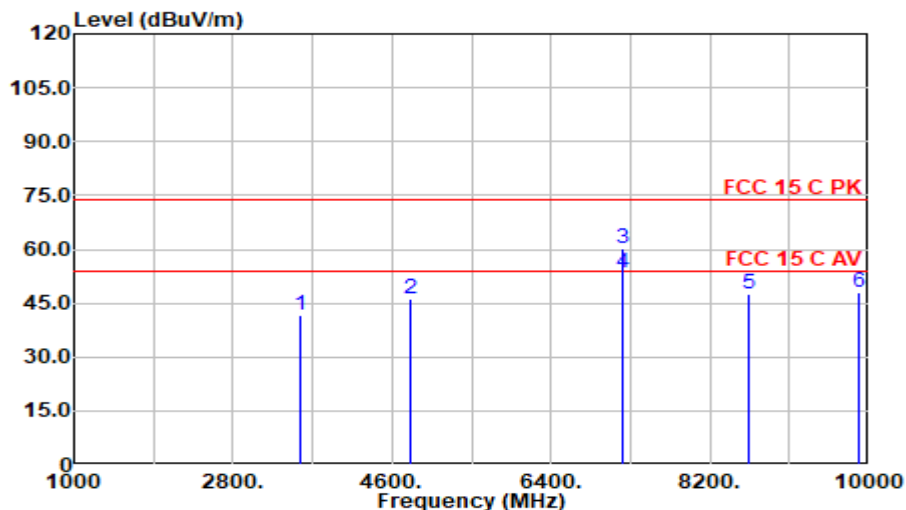
Test Date:	2026.02.13-14	Temp./Hum.:	22°C/51%RH	Test By:	JareyLu
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Mode: GFSK CH2403MHz**Polarization at Horizontal**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
3779.500	43.19	31.58	3.51	35.96	42.31	74.00	31.69	Peak
5135.250	42.85	32.74	4.26	36.54	43.31	74.00	30.69	Peak
7209.025	48.56	35.54	5.02	36.99	52.13	54.00	1.87	Average
7209.250	55.73	35.54	5.02	36.99	59.30	74.00	14.70	Peak
8439.625	42.09	37.48	5.25	37.30	47.52	74.00	26.48	Peak
9387.375	43.55	37.33	5.36	37.18	49.06	74.00	24.94	Peak

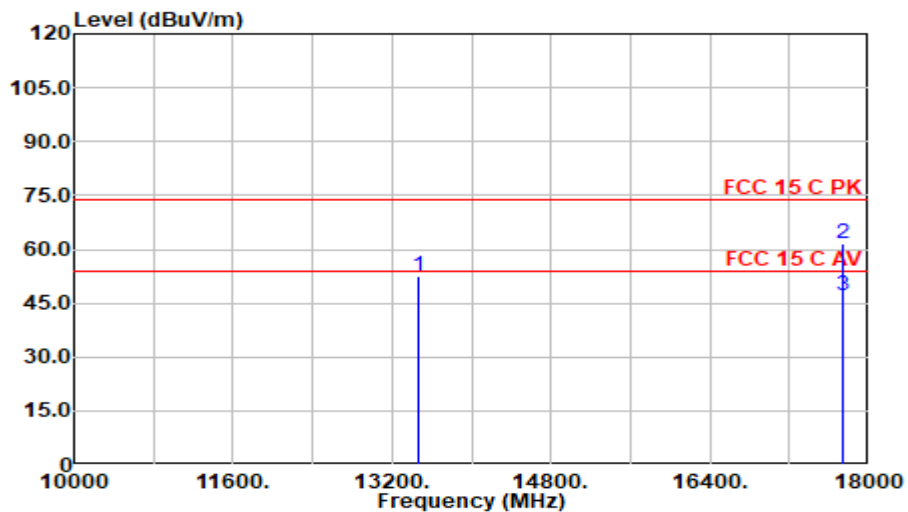
Mode: GFSK CH2403MHz**Polarization at Horizontal**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13582.130	41.70	39.96	6.89	35.88	52.67	74.00	21.33	Peak
17836.380	42.98	45.77	8.01	34.46	62.30	74.00	11.70	Peak
17836.380	27.90	45.77	8.01	34.46	47.22	54.00	6.78	Average

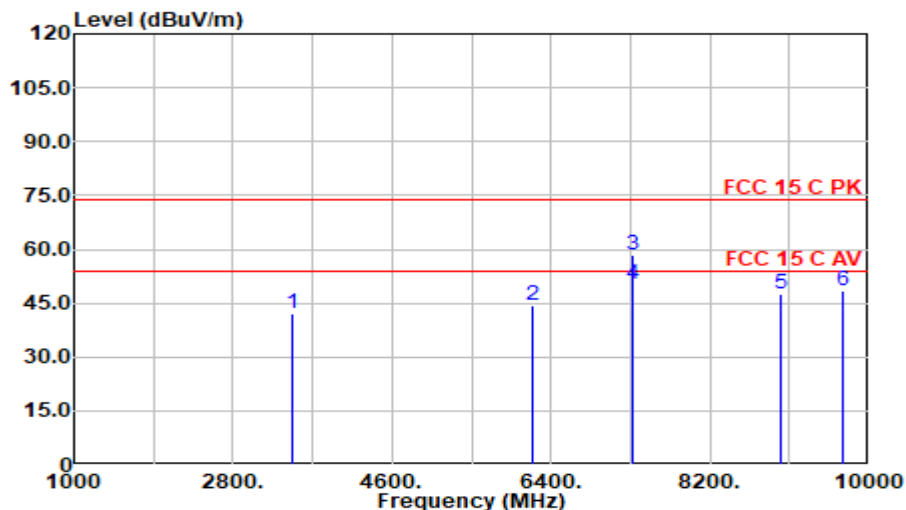
Mode: GFSK CH2403MHz

Polarization at Vertical

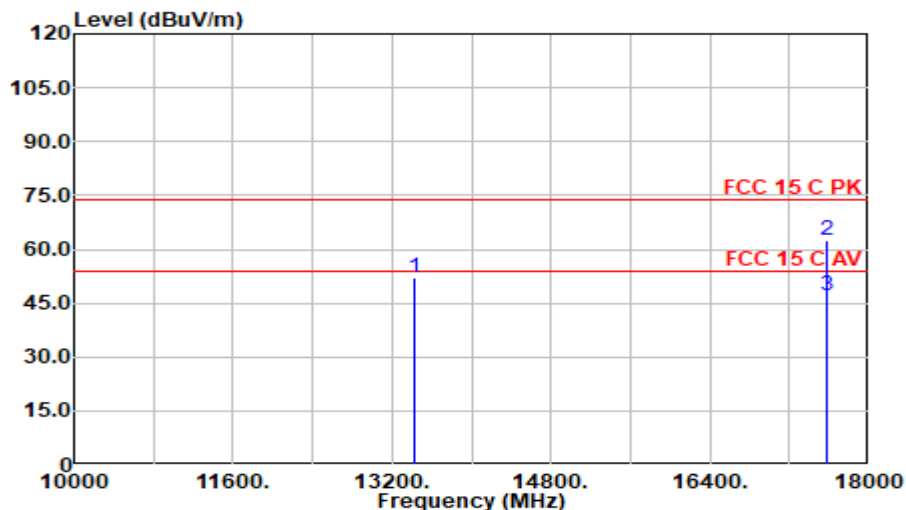
Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
3558.500	43.73	30.50	3.38	35.82	41.80	74.00	32.20	Peak
4805.875	46.51	32.21	4.09	36.43	46.39	74.00	27.61	Peak
7207.125	56.78	35.53	5.02	36.99	60.34	74.00	13.66	Peak
7208.925	50.07	35.54	5.02	36.99	53.64	54.00	0.36	Average
8643.625	42.34	37.40	5.25	37.30	47.69	74.00	26.31	Peak
9895.250	42.13	37.59	5.50	37.03	48.18	74.00	25.82	Peak

Mode: GFSK CH2403MHz**Polarization at Vertical**

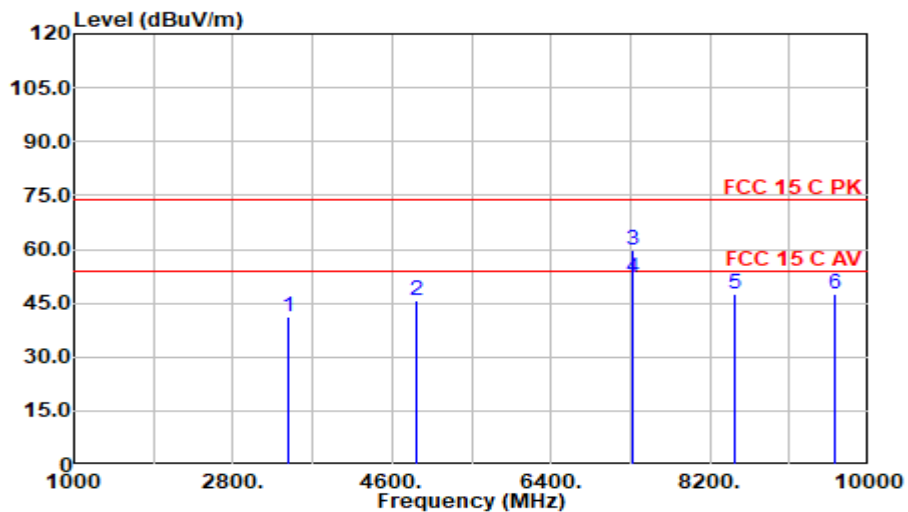
Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13469.500	41.94	39.71	6.84	35.90	52.58	74.00	21.42	Peak
17734.380	42.65	45.37	7.98	34.50	61.50	74.00	12.50	Peak
17734.380	28.46	45.37	7.98	34.50	47.31	54.00	6.69	Average

Mode: GFSK CH2442MHz**Polarization at Horizontal**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
3460.750	44.04	30.60	3.33	35.75	42.22	74.00	31.78	Peak
6187.125	42.50	33.87	4.83	36.82	44.39	74.00	29.61	Peak
7324.000	54.37	35.95	5.04	37.04	58.32	74.00	15.68	Peak
7326.000	46.51	35.95	5.04	37.04	50.47	54.00	3.53	Average
8994.250	42.23	37.51	5.24	37.30	47.69	74.00	26.31	Peak
9708.250	42.94	37.30	5.45	37.08	48.60	74.00	25.40	Peak

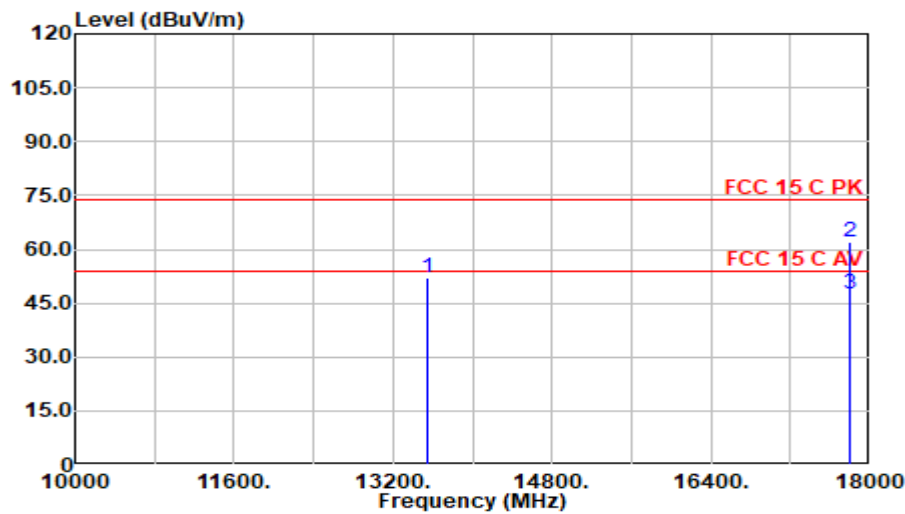
Mode: GFSK CH2442MHz**Polarization at Horizontal**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13418.500	41.84	39.56	6.82	35.91	52.30	74.00	21.70	Peak
17577.130	44.67	44.29	7.94	34.57	62.34	74.00	11.66	Peak
17577.130	29.57	44.29	7.94	34.57	47.24	54.00	6.76	Average

Mode: GFSK CH2442MHz**Polarization at Vertical**

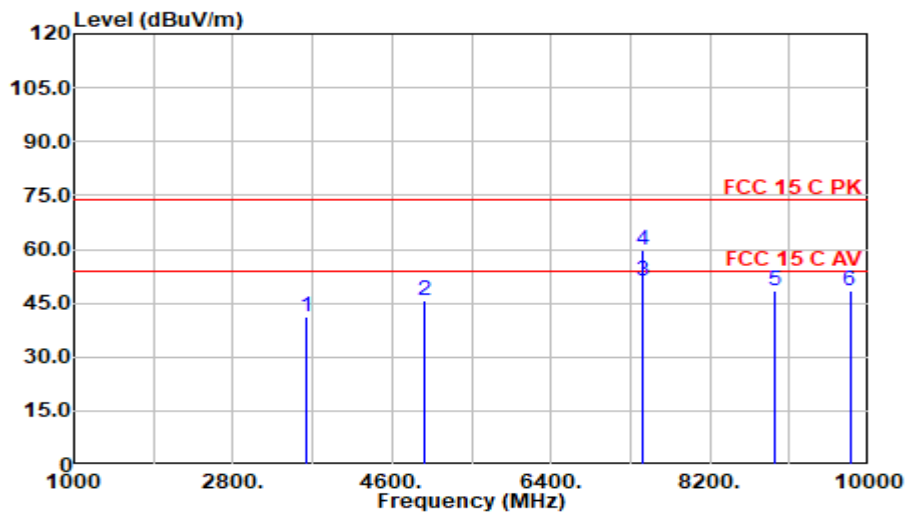
Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
3433.125	43.26	30.57	3.31	35.73	41.41	74.00	32.59	Peak
4882.375	45.62	32.30	4.14	36.46	45.60	74.00	28.40	Peak
7324.000	55.65	35.95	5.04	37.04	59.60	74.00	14.40	Peak
7326.063	48.14	35.95	5.04	37.04	52.10	54.00	1.90	Average
8488.500	42.34	37.42	5.25	37.30	47.72	74.00	26.28	Peak
9610.500	41.74	37.40	5.43	37.11	47.45	74.00	26.55	Peak

Mode: GFSK CH2442MHz

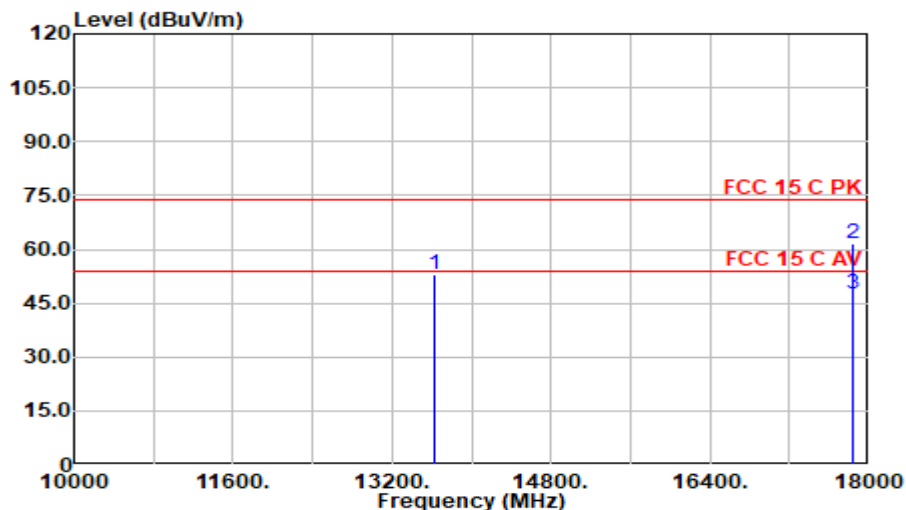


Polarization at Vertical

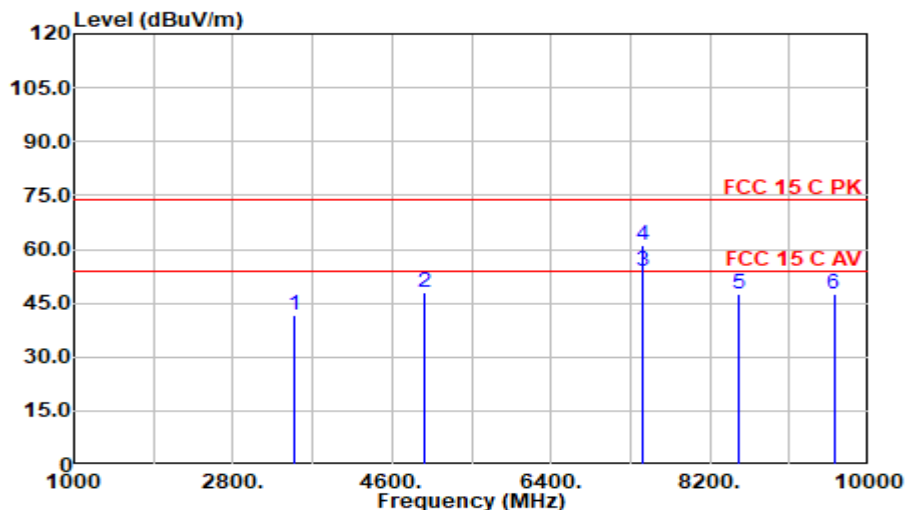
Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13556.630	41.08	39.91	6.87	35.89	51.98	74.00	22.02	Peak
17800.250	42.96	45.70	8.00	34.48	62.18	74.00	11.82	Peak
17800.250	28.40	45.70	8.00	34.48	47.62	54.00	6.38	Average

Mode: GFSK CH2480MHz**Polarization at Horizontal**

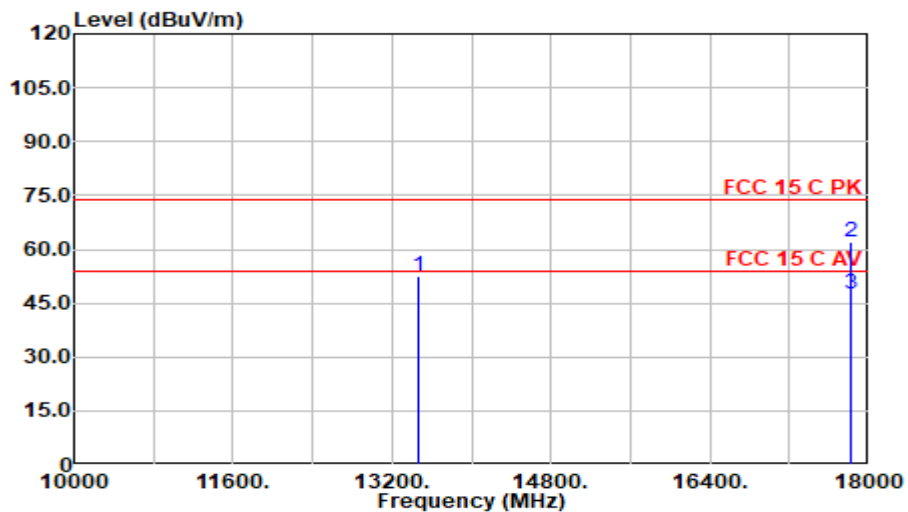
Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
3624.375	43.27	30.55	3.42	35.86	41.38	74.00	32.62	Peak
4958.875	45.72	32.22	4.18	36.49	45.63	74.00	28.37	Peak
7439.987	47.22	36.10	5.06	37.08	51.29	54.00	2.71	Average
7440.875	55.73	36.10	5.06	37.08	59.81	74.00	14.19	Peak
8936.875	43.02	37.57	5.24	37.30	48.53	74.00	25.47	Peak
9784.750	42.40	37.44	5.47	37.06	48.24	74.00	25.76	Peak

Mode: GFSK CH2480MHz**Polarization at Horizontal**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13628.880	42.09	40.06	6.90	35.87	53.18	74.00	20.82	Peak
17832.130	42.41	45.76	8.01	34.47	61.71	74.00	12.29	Peak
17832.130	28.14	45.76	8.01	34.47	47.45	54.00	6.55	Average

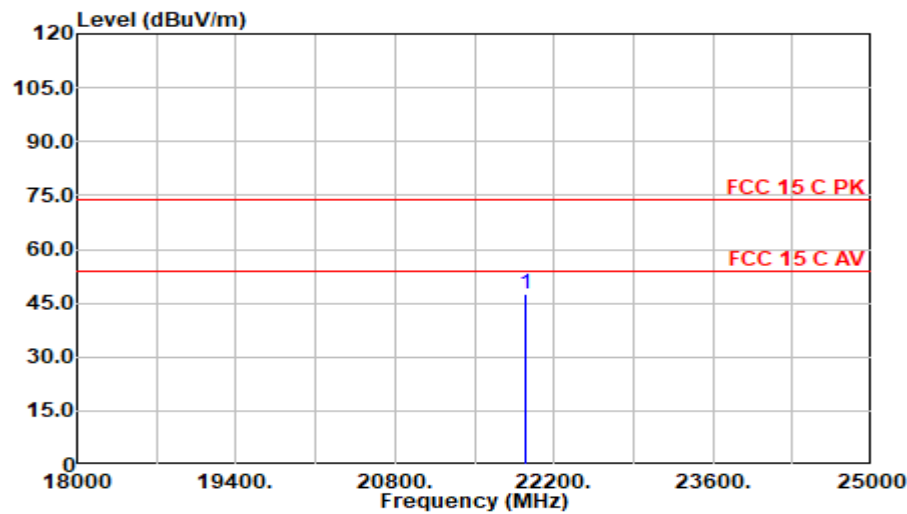
Mode: GFSK CH2480MHz**Polarization at Vertical**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
3484.125	43.30	30.60	3.34	35.76	41.48	74.00	32.52	Peak
4958.875	47.99	32.22	4.18	36.49	47.90	74.00	26.10	Peak
7440.013	49.65	36.10	5.06	37.08	53.72	54.00	0.28	Average
7440.875	57.21	36.10	5.06	37.08	61.29	74.00	12.71	Peak
8537.375	42.28	37.40	5.25	37.30	47.63	74.00	26.37	Peak
9604.125	42.05	37.40	5.43	37.12	47.77	74.00	26.23	Peak

Mode: GFSK CH2480MHz**Polarization at Vertical**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
13467.380	41.93	39.70	6.84	35.90	52.57	74.00	21.43	Peak
17825.750	42.58	45.75	8.01	34.47	61.86	74.00	12.14	Peak
17825.750	28.26	45.75	8.01	34.47	47.55	54.00	6.45	Average

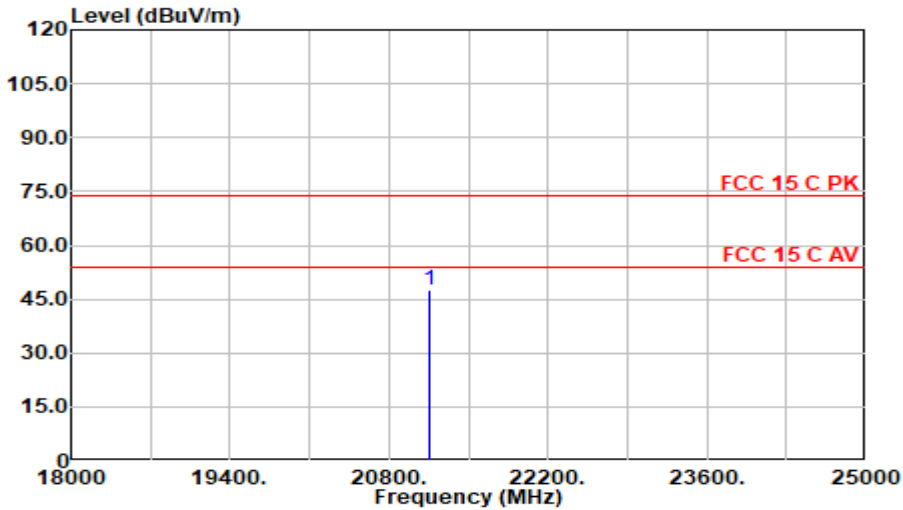
Mode: GFSK CH2480MHz



Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
21954.000	46.78	44.98	8.37	52.80	47.33	74.00	26.67	Peak

Mode: GFSK CH2480MHz

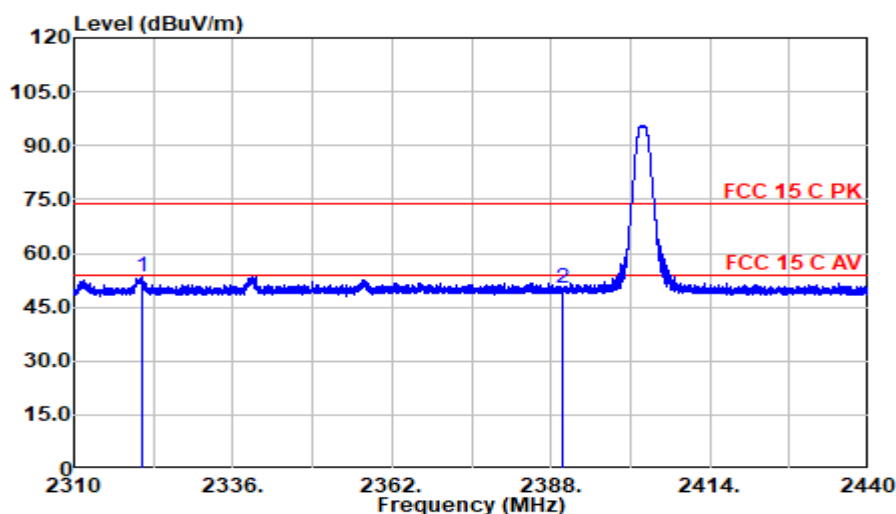


Polarization at Vertical

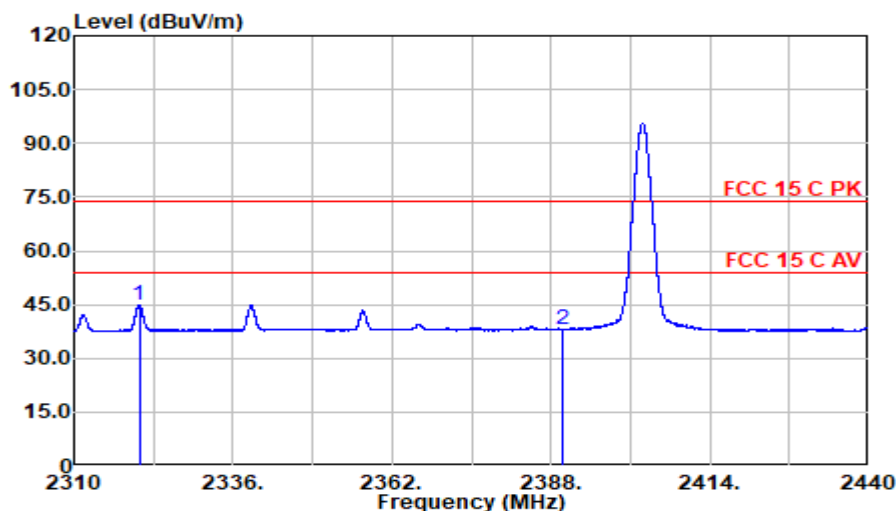
Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
21164.000	47.01	45.23	8.16	52.80	47.61	74.00	26.39	Peak

Band-Edge and Restricted bands:

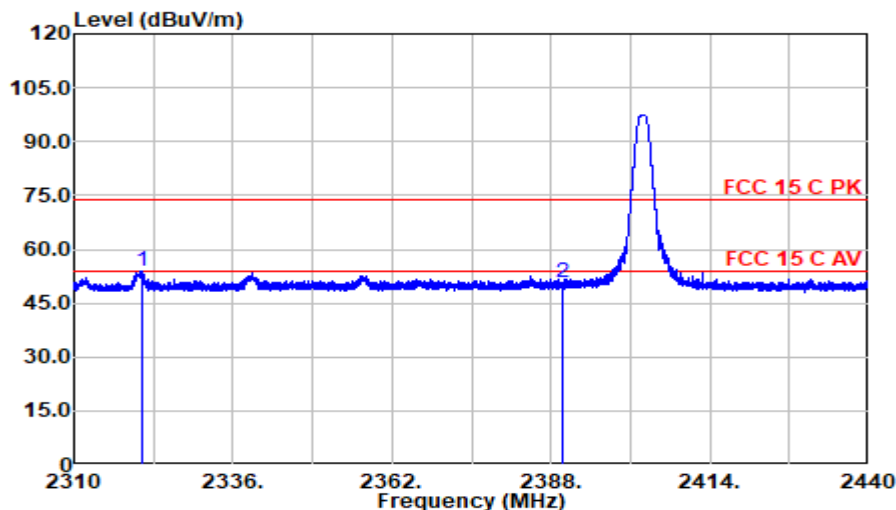
Test Date:	2026.02.13	Temp./Hum.:	22°C/51%RH	Test By:	JareyLu
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Mode: GFSK CH2403MHz**Polarization at Horizontal**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2321.164	59.32	27.57	2.67	36.22	53.34	74.00	20.66	Peak
2390.000	55.86	27.80	2.71	36.13	50.24	74.00	23.76	Peak

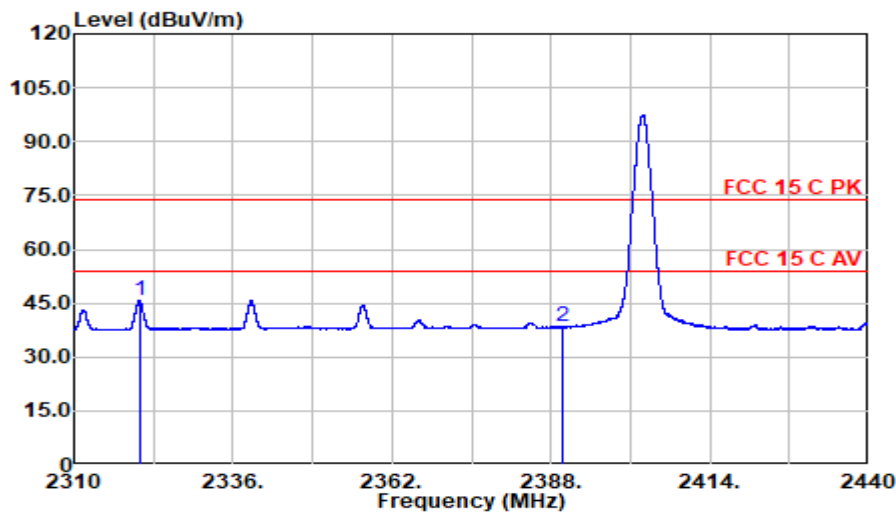
Mode: GFSK CH2403MHz**Polarization at Horizontal**

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2320.644	50.87	27.57	2.67	36.22	44.89	54.00	9.11	Average
2390.000	43.73	27.80	2.71	36.13	38.12	54.00	15.88	Average

Mode: GFSK CH2403MHz

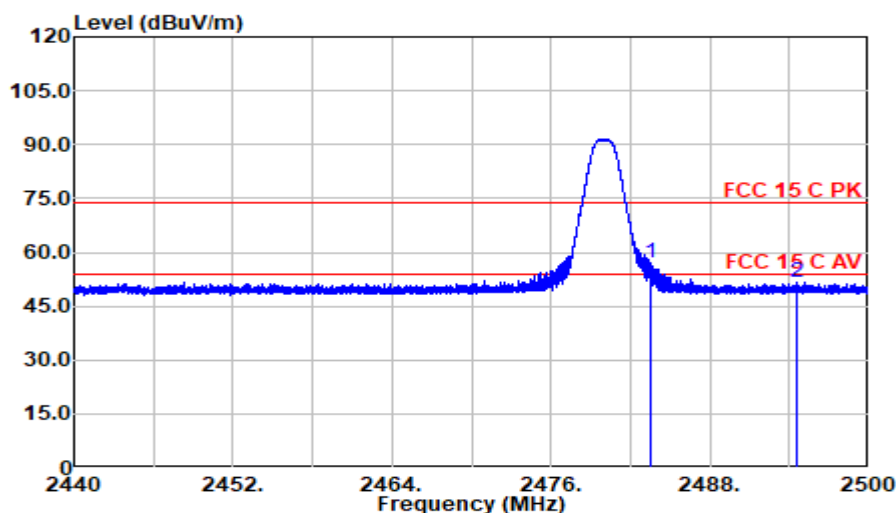
Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2321.212	60.04	27.57	2.67	36.22	54.06	74.00	19.94	Peak
2390.000	56.16	27.80	2.71	36.13	50.54	74.00	23.46	Peak

Mode: GFSK CH2403MHz

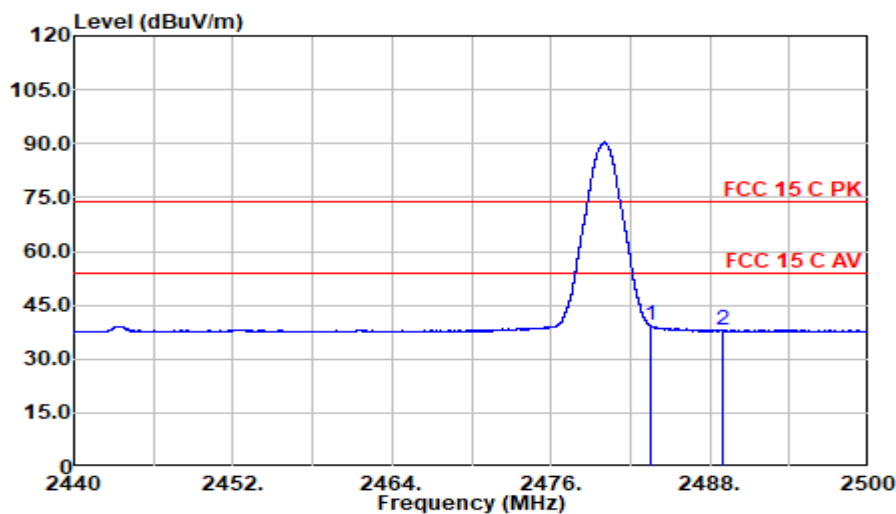
Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2320.692	51.81	27.57	2.67	36.22	45.83	54.00	8.17	Average
2390.000	44.02	27.80	2.71	36.13	38.40	54.00	15.60	Average

Mode: GFSK CH2480MHz

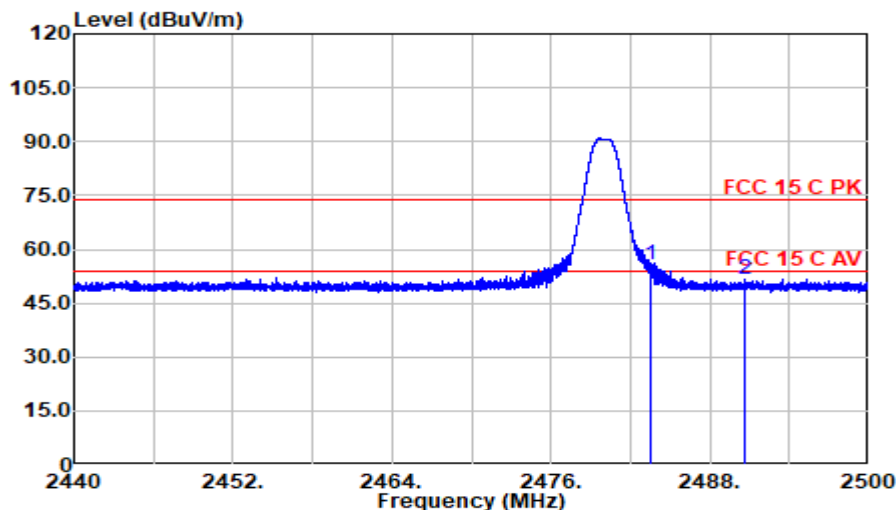
Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	62.77	27.50	2.76	36.01	57.03	74.00	16.97	Peak
2494.577	57.49	27.50	2.77	35.99	51.77	74.00	22.23	Peak

Mode: GFSK CH2480MHz

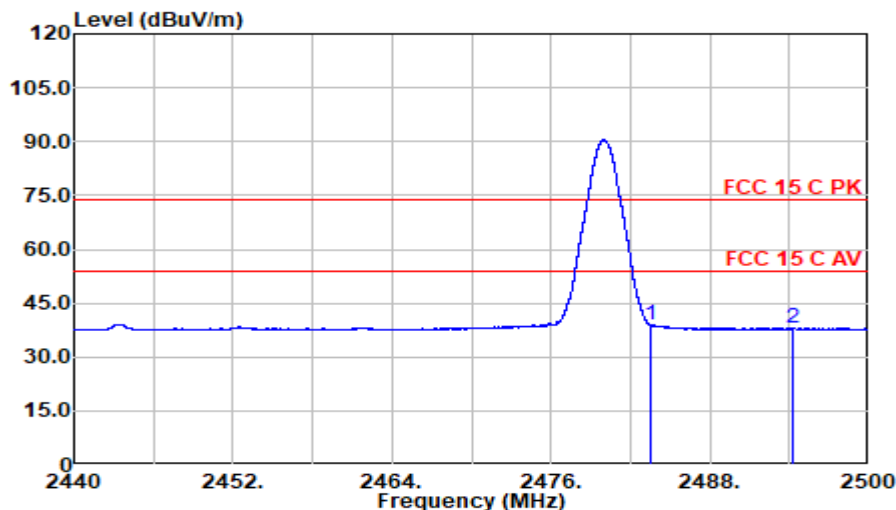
Polarization at Horizontal

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	45.04	27.50	2.76	36.01	39.30	54.00	14.70	Average
2488.923	43.97	27.50	2.76	36.00	38.23	54.00	15.77	Average

Mode: GFSK CH2480MHz

Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	61.57	27.50	2.76	36.01	55.82	74.00	18.18	Peak
2490.595	57.50	27.50	2.77	36.00	51.77	74.00	22.23	Peak

Mode: GFSK CH2480MHz

Polarization at Vertical

Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
2483.500	44.71	27.50	2.76	36.01	38.96	54.00	15.04	Average
2494.323	43.76	27.50	2.77	35.99	38.04	54.00	15.96	Average

4 6 dB BANDWIDTH MEASUREMENT

4.1 Test Equipment

The following test equipment was used during the Emission Bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A	MY52221182	2025.08.09	1 Year
2.	RF Cable	Mini-Circuits	FLC-3FT-SM SM+	22022838	2025.08.09	1 Year
3.	10 dB Attenuator	Mini-Circuits	BW-S10W2+	001	2025.09.21	1 Year

4.2 Block Diagram of Test Setup



4.3 Specification Limits (§15.247(a)(2))

The minimum 6 dB bandwidth shall be at least 500 kHz.

4.4 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

4.5 Test Procedure

The transmitter output was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with settings: RBW = 100kHz, VBW $\geq 3 \times$ RBW.

The 6 dB bandwidth is defined as the total spectrum the power of which is lower than peak power minus 6 dB .

The test procedure is defined in ANSI C63.10:2020 (the 11.8.2 Measurement Procedure “Option 2” was used).

4.6 Test Results

PASSED.

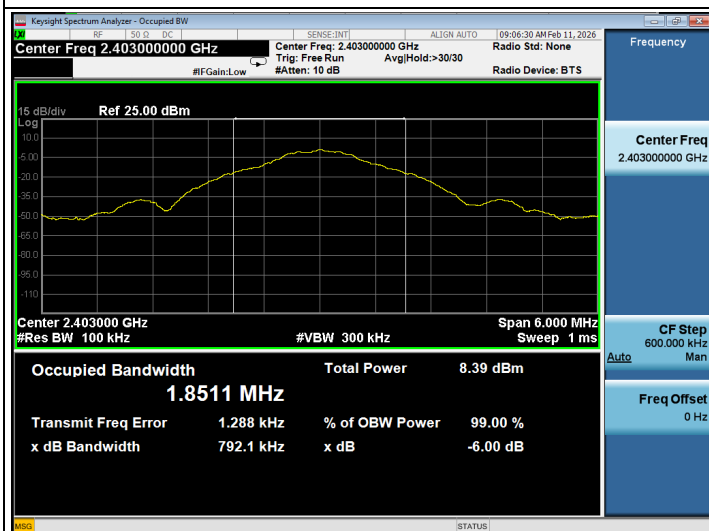
All the test results are attached in next pages.

Test Date:	2026.02.11	Temp./Hum.:	23°C/51%RH	Test By:	JareyLu
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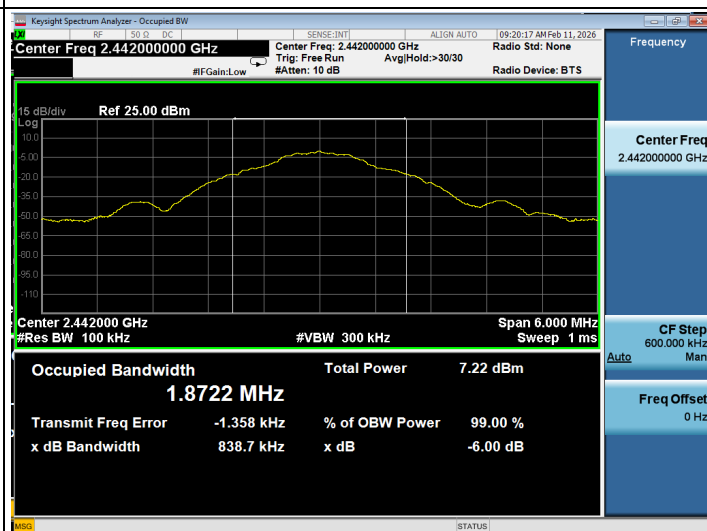
Mode	Channel	Frequency (MHz)	6dB Bandwidth (kHz)	Limit
GFSK	01	2403	792.1	500 kHz
	40	2442	838.7	500 kHz
	78	2480	858.3	500 kHz

GFSK

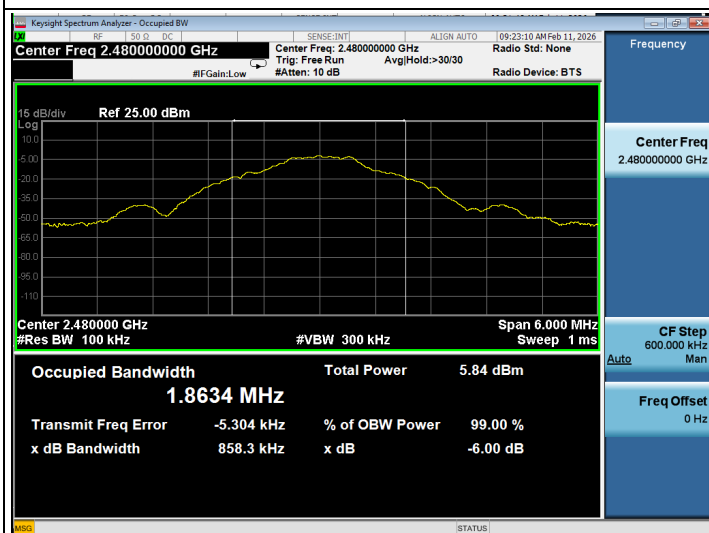
CH2403



CH2442



CH2480



5 MAXIMUM PEAK OUTPUT POWER MEASUREMENT

5.1 Test Equipment

The same as Section. 4.1.

5.2 Block Diagram of Test Setup

The Same as Section. 4.2.

5.3 Specification Limits ((§15.247(b)(3))

The Limits of maximum Peak Output Power for digital modulation in 2400-2483.5 MHz is: 1 Watt. (30 dBm)

5.4 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

5.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

- a) $RBW \geq DTS \text{ Bandwidth}$.
- b) $VBW \geq [3 \times RBW]$.
- c) $Span \geq [3 \times RBW]$.
- d) Sweep time = auto.
- e) Detector = peak.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

The test procedure is defined in ANSI C63.10:2020 (11.9.1.1 Measurement Procedure “ $RBW \geq DTS \text{ bandwidth}$ ” was used).

5.6 Test Results

PASSED.

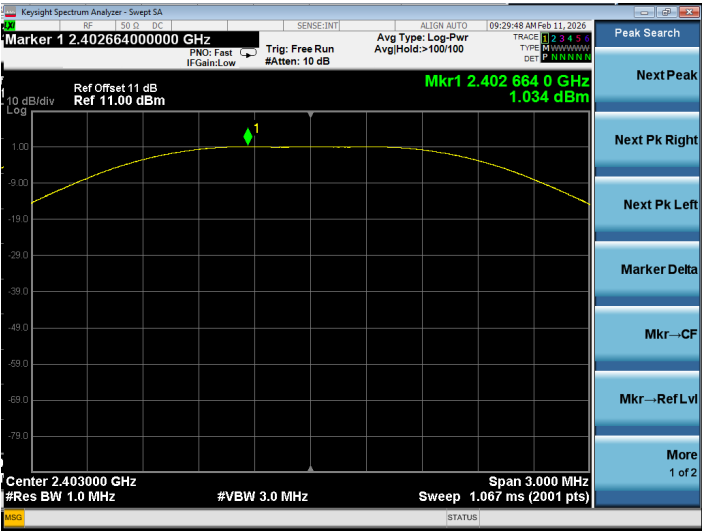
All the test results are listed below.

Test Date:	2026.02.11	Temp./Hum.:	23°C/51%RH	Test By:	JareyLu
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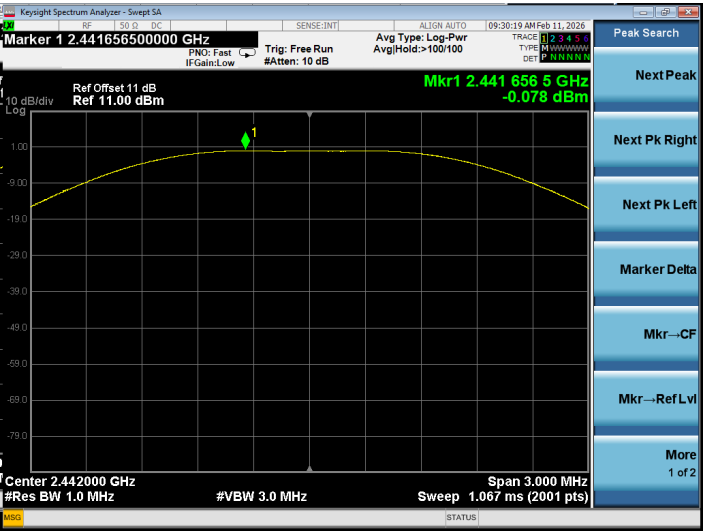
Mode	Channel	Frequency (MHz)	Peak Output Power (dBm)	Limit
GFSK	01	2403	1.034	30 dBm
	40	2442	-0.078	30 dBm
	78	2480	-1.745	30 dBm

GFSK

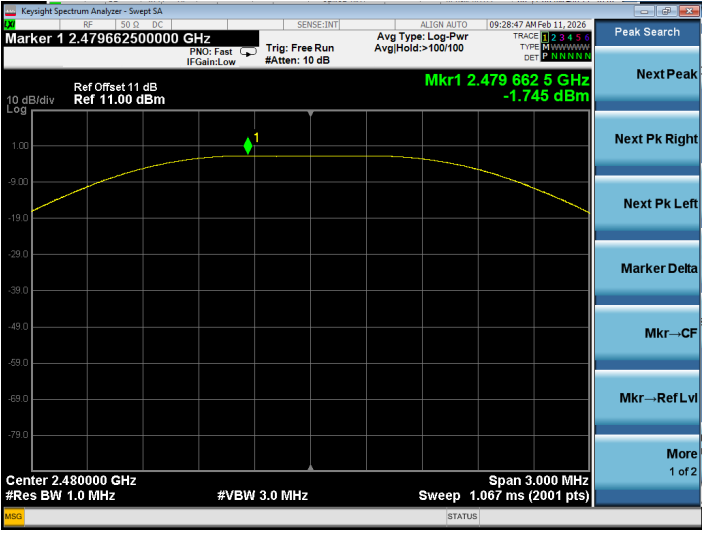
CH2403



CH2442



CH2480



6 EMISSION LIMITATIONS MEASUREMENT

6.1 Test Equipment

The same as Section. 4.1.

6.2 Block Diagram of Test Setup

The Same as Section. 4.2.

6.3 Specification Limits (§15.247(d))

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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). (※ This test result attaching to Section. 3.7)

6.4 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

6.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

Establish a reference level by using the following procedure:

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set the span to ≥ 1.5 times the DTS bandwidth.
- c) Set the RBW = 100 kHz.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum PSD level.

Note that the channel found to contain the maximum PSD level can be used to establish the reference level.

Establish an emission level by using the following procedure:

- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW $\geq [3 \times \text{RBW}]$.
- d) Detector = peak.

- e) Sweep time = auto couple.
 - f) Trace mode = max hold.
 - g) Allow trace to fully stabilize.
 - h) Use the peak marker function to determine the maximum amplitude level.
- Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Scan up through 10th harmonic.

The test procedure is defined in ANSI C63.10:2020 (11.11.2 Reference level measurement and 11.11.3 Emission level measurement was used).

6.6 Test Results

PASSED.

The test data was attached in the next pages.

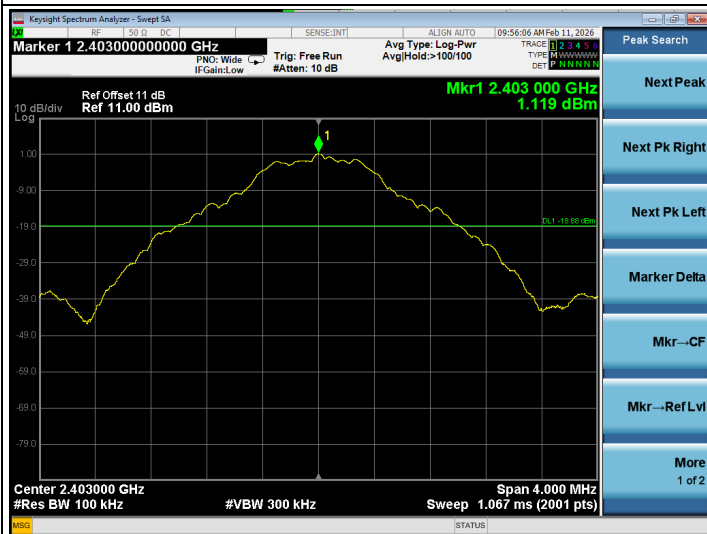
Test Date:	2026.02.11	Temp./Hum.:	23°C/51%RH	Test By:	JareyLu
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Mode	Channel	Frequency (MHz)	Data Page
GFSK	01	2403	P44
	40	2442	P45
	78	2480	P46

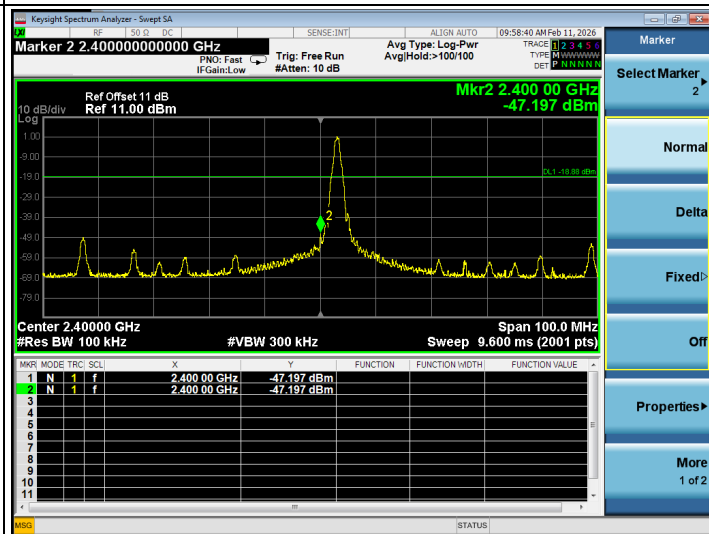
GFSK

CH2403

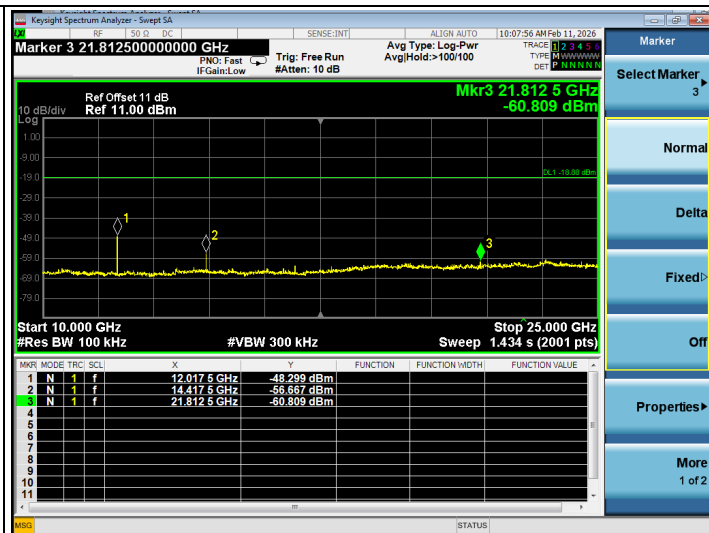
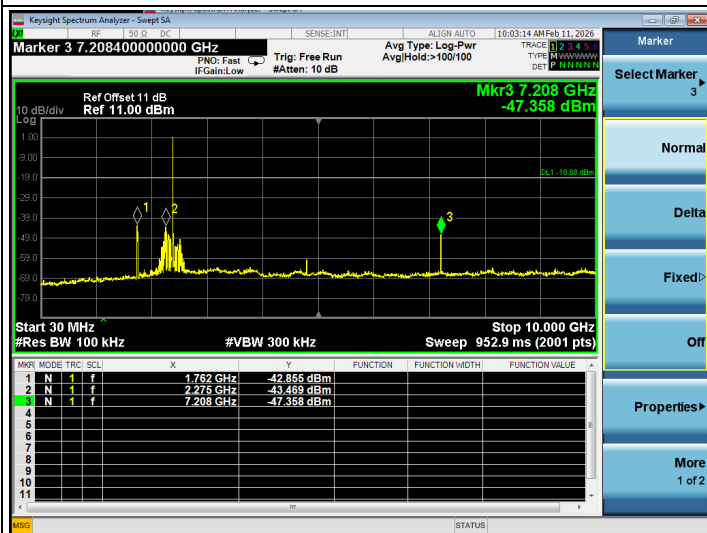
Reference Level



Lower Edge



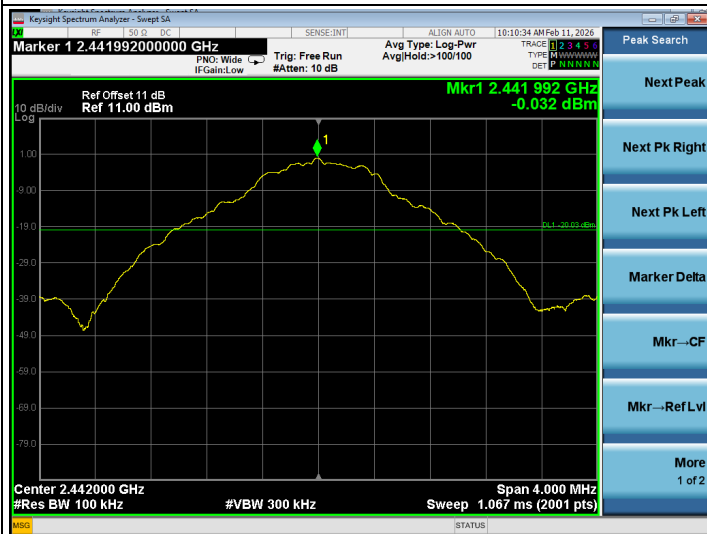
Emission Level



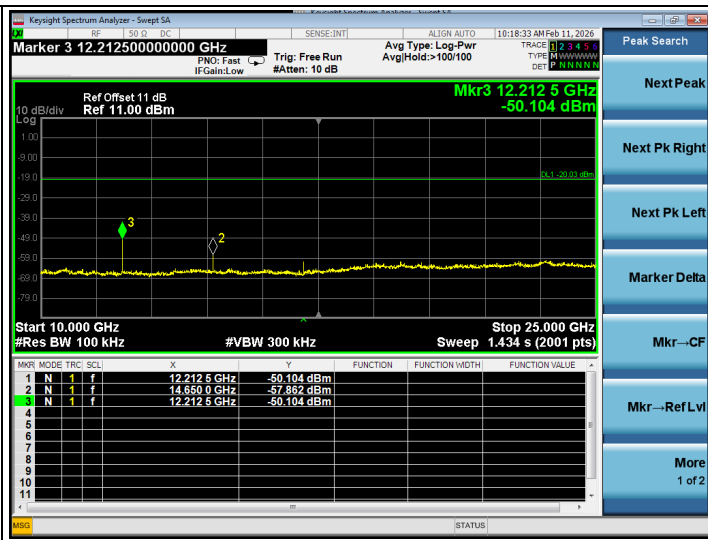
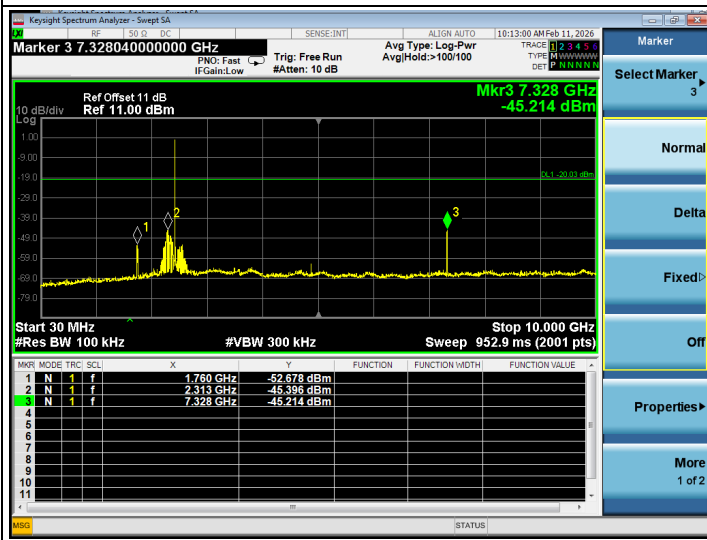
GFSK

CH2442

Reference Level



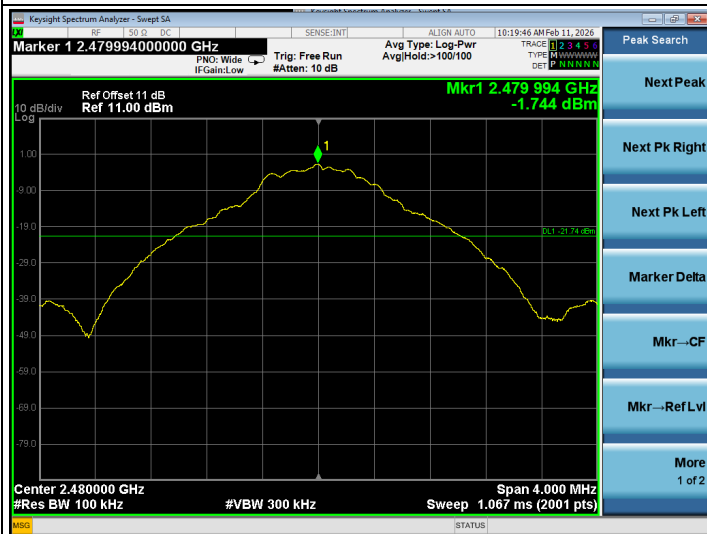
Emission Level



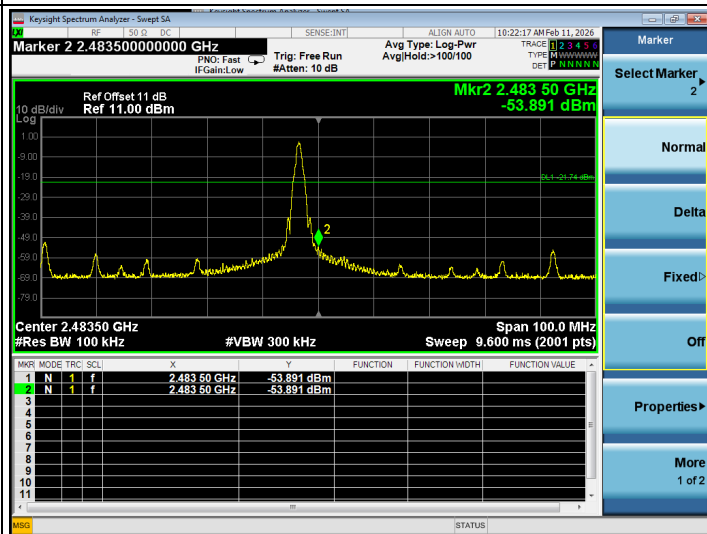
GFSK

CH2480

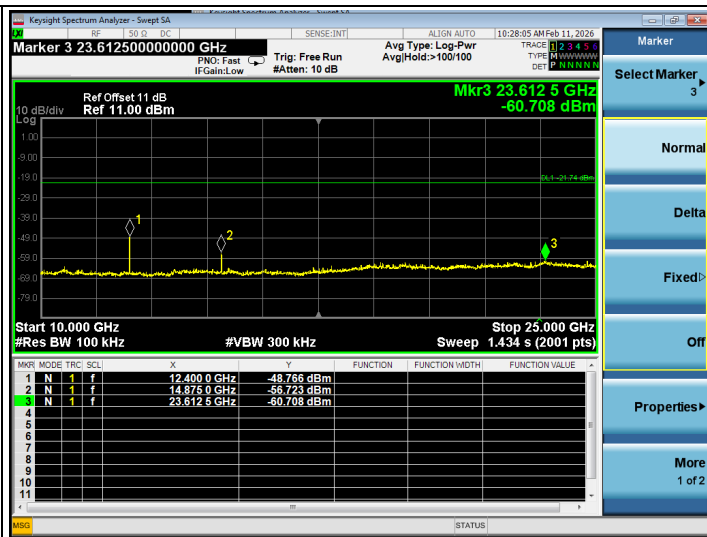
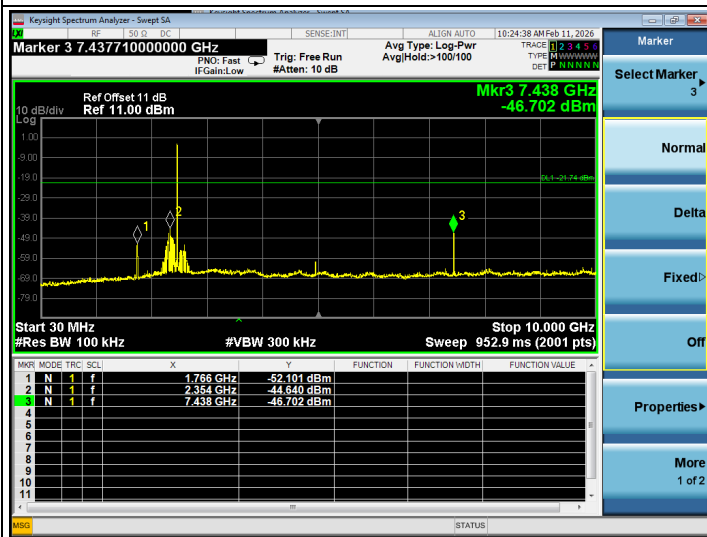
Reference Level



Higher Edge



Emission Level



7 POWER SPECTRAL DENSITY MEASUREMENT

7.1 Test Equipment

The same as Section. 4.1.

7.2 Block Diagram of Test Setup

The Same as section 4.2.

7.3 Specification Limits (§15.247(e))

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band.

7.4 Operating Condition of EUT

The software as section 2.3 was used to enable the EUT to change the test mode one by one.

7.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

The test procedure is defined in ANSI C63.10:2020 (11.10.2 Measurement Procedure “Method PKPSD (peak PSD)” was used).

7.6 Test Results

PASSED.

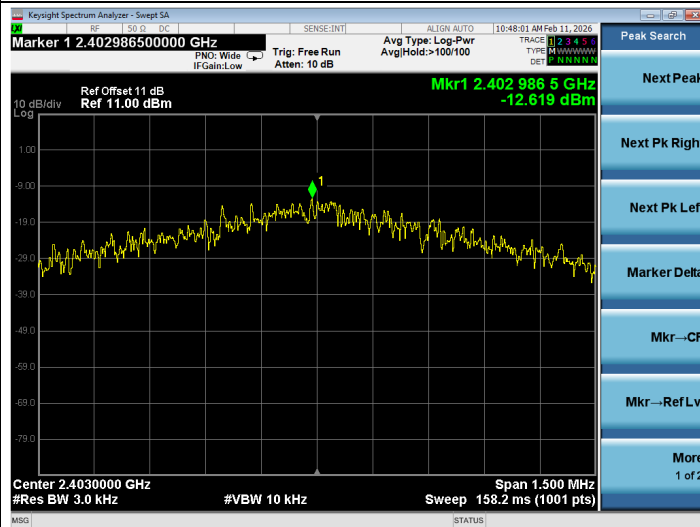
All the test results are attached in next pages.

Test Date:	2026.02.11	Temp./Hum.:	23°C/51%RH	Test By:	JareyLu
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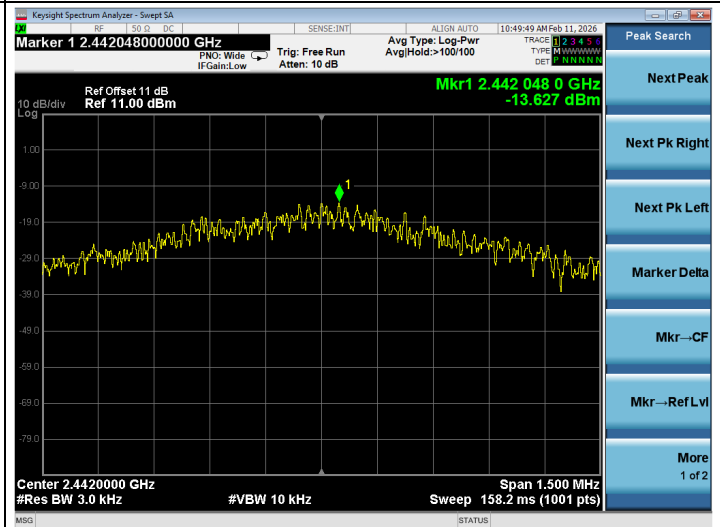
Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
GFSK	01	2403	-12.619	8
	40	2442	-13.627	8
	78	2480	-14.875	8

GFSK

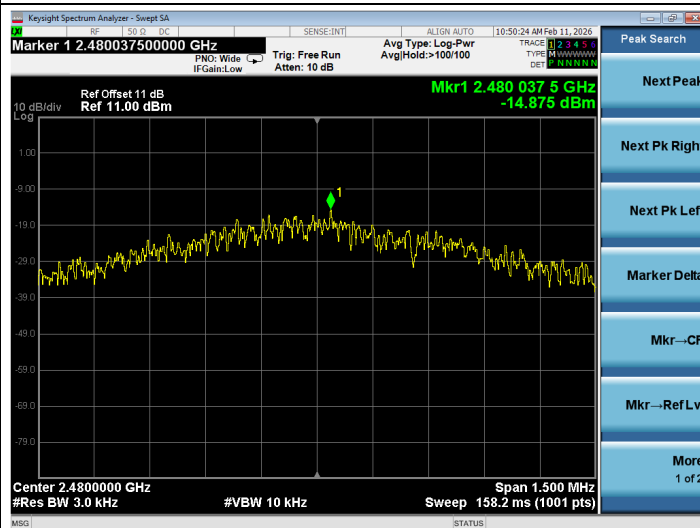
CH2403



CH2442



CH2480



8 ANTENNA REQUIREMENT

8.1 Specification Limits (§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.

8.2 Result

According to KDB 353028 D1, the following describes the three ways that can be used to demonstrate compliance to Section 15.203:

- a) Antenna permanently attached.
- b) Unique (non-standard) antenna connector.
- c) Professional installation.

For this product, the antenna is:

- ☒ Antenna permanently attached
- ☐ Unique (non-standard) antenna connector
- ☐ Professional installation
- ☐ not meet any of ways list above

that

- ☒ compliant
- ☐ not compliant

with the requirement of Section 15.203.

9 DEVIATION TO TEST SPECIFICATIONS

None.

10 MEASUREMENT UNCERTAINTY LIST

The measurement uncertainty was estimated for test on the EUT according to CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage of K=2.

The uncertainties value is not used in determining the PASS/FAIL results.

Test Items/Facilities	Frequency/Equipment/Unit	Uncertainty
Conducted Emission No.1 Shielded Room	9kHz~150kHz	±3.1 dB
	150kHz~30MHz	±2.6 dB
Conducted Emission No.3 Shielded Room	9kHz~150kHz	±3.1 dB
	150kHz~30MHz	±2.6 dB
Radiated Emission	30MHz~200MHz, Horizontal	±3.8 dB
	30MHz~200MHz, Vertical	±4.1 dB
	200MHz~1000MHz, Horizontal	±3.6 dB
	200MHz~1000MHz, Vertical	±5.1 dB
	1GHz~6GHz	±5.3 dB
	6GHz~18GHz	±5.3 dB
	18GHz~40GHz	±3.5 dB
Output Power Test	50MHz~18GHz	0.77 dB
Power Density Test	9kHz~6GHz	1.08 dB
RF Frequency Test	9kHz~40GHz	6×10^{-4}
Bandwidth Test	9kHz~6GHz	1.5×10^{-3}
RF Radiated Power Test	30MHz~1000MHz	3.06 dB
Conducted Output Power Test	50MHz~18GHz	0.83 dB
AC Voltage(<10kHz) Test	120V~230V	0.04 %
DC Power Test	0V~30V	0.4 %
Temperature	-40°C~+100°C	0.52 °C
Humidity	30%~95%	2.6 %

---END of REPORT---