

JAPAN RADIO TEST REPORT

Report Reference No.: 26EJSB04014 02051

Date Sample(s) Received: 2026-04-11

Date Tested: From 2026-04-23 to 2026-05-14

Date of issue.....: 2026-05-14

Testing Laboratory.....: DongGuan ShuoXin Electronic Technology Co., Ltd.

Address: Zone A, 1F, No. 6, XinGang Road YuanGang Street, XinAn
District, ChangAn Town, DongGuan City, GuangDong, China

Applicant's name: Voyetra Turtle Beach, Inc.

Address: 15822 Bernardo Center Drive, Suite 105, San Diego, CA 92127,
USA

Test specification:

Test item description: Wireless Transmitter

Trade Mark: N/A

Model/Type reference: CWAA0040

Ratings: I/P: 5VDC

Responsible Engineer :

Leo Chen

Leo Chen

Authorized Signatory:

Smile Wang

Smile Wang

TABLE OF CONTENTS

1.	Summary of test results	5
2.	General test information.....	6
2.1.	Description of EUT	6
2.2.	Assistant equipment used for test	7
2.3.	Block diagram of EUT configuration for test	7
2.4.	Test environment conditions	9
2.5.	Measurement uncertainty	9
3.	Antenna Power	10
3.1.	Test Equipment	10
3.2.	Limit.....	10
3.3.	Block diagram of test setup	11
3.4.	Test Procedure	11
3.5.	Test result.....	12
3.6.	Original Test Data	13
4.	Frequency Tolerance.....	15
4.1.	Test Equipment	15
4.2.	Limit.....	15
4.3.	Block diagram of test setup	15
4.4.	Test Procedure	15
4.5.	Test result.....	16
4.6.	Original test data	17
5.	Occupied Frequency Bandwidth.....	18
5.1.	Test Equipment	18
5.2.	Limit.....	18
5.3.	Block diagram of test setup	18
5.4.	Test Procedure	19
5.5.	Test result.....	19
5.6.	Original test data	20
6.	Spread Bandwidth.....	22
6.1.	Test Equipment	22
6.2.	Limit.....	22
6.3.	Block diagram of test setup	22
6.4.	Test Procedure	23
6.5.	Test result.....	23
7.	Transmitter Spurious Emissions (conducted).....	24
7.1.	Test Equipment	24

7.2.	Limit.....	24
7.3.	Block diagram of test setup	25
7.4.	Test Procedure	25
7.5.	Test result.....	26
7.6.	Original test data	27
8.	Limitation of Collateral Emission of Receiver	42
8.1.	Test Equipment	42
8.2.	Limit.....	42
8.3.	Block diagram of test setup	42
8.4.	Test Procedure	43
8.5.	Test result.....	43
8.6.	Original test data	44
9.	Interference prevention function	50
9.1.	In case identification code is transmitted.....	50
9.2.	In case identification code is received	50
9.3.	Measuring Equipment Conditions.....	50
9.4.	Conditions of EUT	50
9.5.	Measurement Procedure	50
10.	Transmission Antenna Gain (EIRP Antenna Power) Measurement	51
10.1.	Limit.....	51
10.2.	Measuring Instruments And Setting	51
10.3.	Test Procedures	51
10.4.	Test Setup Layout.....	52
10.5.	Test Deviation.....	52
10.6.	EUT Operation During Test.....	52
10.7.	Results of Transmission Antenna Gain	52
11.	Transmission Radiation Angle Width (3dB Beamwidth) Measurement.....	53
11.1.	Limit.....	53
11.2.	Measuring Instruments And Setting	53
11.3.	Test Procedures	53
11.4.	Test Setup Layout.....	54
11.5.	Test Deviation.....	54
11.6.	EUT Operation During Test.....	54
11.7.	Test Result Of Transmission Radiation Angle Width (3dB Beamwidth).....	54
12.	Construction Protection Confirmation Method.....	55
12.1.	Limit.....	55
12.2.	Result.....	55

TEST REPORT DECLARE

Applicant	:	Voyetra Turtle Beach, Inc.
Address	:	15822 Bernardo Center Drive, Suite 105, San Diego, CA 92127, USA
Equipment under Test	:	Wireless Transmitter
Model No	:	CWAA0040
Trade Mark	:	N/A
Manufacturer	:	Voyetra Turtle Beach, Inc.
Address	:	15822 Bernardo Center Drive, Suite 105, San Diego, CA 92127, USA
Test Standard Used	:	Article 49-20 and the relevant articles of the Ordinance Regulating Radio Equipment
Test method	:	MIC notice No.88 Appendix No.43

We Declare:

The equipment described above is tested by DongGuan ShuoXin Electronic Technology Co., Ltd. and in the configuration tested the equipment complied with the standard specified above. The test results are contained in this test report and DongGuan ShuoXin Electronic Technology Co.,Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

1. Summary of test results

CLAUSE	TEST PARAMETER	RESULTS
Transmitter Parameters		
3.2 (2)	Antenna Power	PASS
3.2 (3)	Tolerances for Antenna Power	PASS
3.2 (4)	Frequency Tolerance	PASS
3.2 (5)	Transmission Rate	PASS
3.2 (6)	Spurious Emissions	PASS
3.2 (7)	Occupied Frequency Bandwidth	PASS
3.2 (8)	Spread Bandwidth	N/A
3.2 (10)	Number of Carriers	PASS
3.2 (12)	Interference prevention function	PASS
3.2 (13)	Transmission antenna gain	PASS
3.2 (14)	Transmission radiation angle width	N/A
Receiver Parameters		
3.3 (1)	Limitation of Collateral Emission of Receiver	PASS

N/A is an abbreviation for Not Applicable.

2. General test information

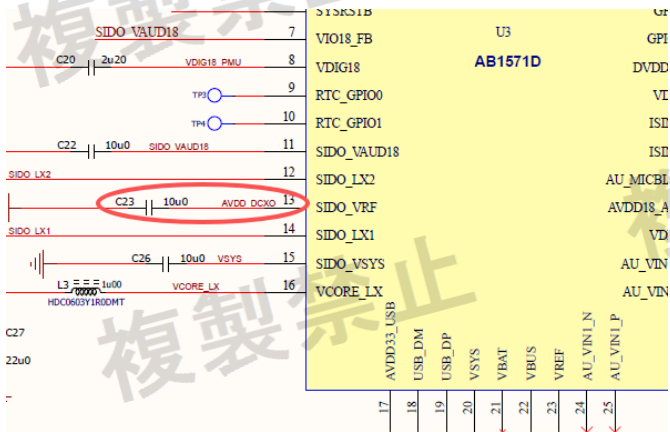
2.1. Description of EUT

EUT* Name	:	Wireless Transmitter
Model Number	:	CWAA0040
Trade Mark	:	N/A
EUT function description	:	Please reference user manual of this device
Power supply	:	DC 5V
Radio Specification	:	BLE
Operation frequency	:	2402MHz -2480MHz
Modulation	:	GFSK
Transmission Rate	:	1Mbps, 2Mbps
Antenna Type	:	PCB Antenna Total maximum PK gain: 3dBi (Provide by manufacturer)
Date of Receipt	:	2026/04/11
Sample Type	:	Series production
Software version	:	1.0
Hardware version	:	1.0

Note: EUT is the ab. of equipment under test.

EUT and Module input voltage test			
	Low (-10%)	Normal	Hight (+10%)
EUT Setup Value (Vdc)	4.50	5.00	5.50
Module Vdd Power Measurement Value (Vdc)	1.1	1.1	1.1
Voltage error (%)	0	/	0
Limit (%)	1	/	1
Judgment	PASS	/	PASS
The normal voltage settings are respectively adopted during the test. Because the voltage error are less than 1%.			

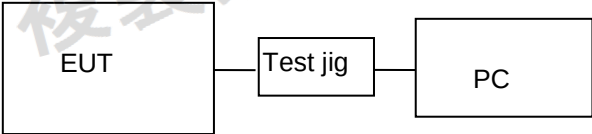
Measuring point



2.2. Assistant equipment used for test

Description of Assistant equipment	Manufacturer	Model number or Type	Other
Notebook	Lenovo	Thinkbook 15	/

2.3. Block diagram of EUT configuration for test



EUT’s Bluetooth module was connected to a special test jig provided by manufacturer which has a standard SPI connector to connect to control PC, and the control PC will run a special test software “Airoha.Tool.Kit.exe” provided by manufacturer to control EUT work in test mode as blow table.

Channel List					
CH	Frequency	CH	Frequency	CH	Frequency
0	2402	16	2434	32	2466
1*	2404	17	2436	33	2468
2	2406	18	2438	34	2470
3	2408	19	2440	35	2472
4	2410	20	2442	36	2474
5	2412	21	2444	37	2476
6	2414	22	2446	38*	2478
7	2416	23	2448	39	2480
8	2418	24	2450		
9	2420	25	2452		
10	2422	26	2454		
11	2424	27	2456		
12	2426	28	2458		
13	2428	29	2460		
14	2430	30	2462		
15	2432	31	2464		

* Represents the starting frequency of GFSK 2M at 2404 MHz and the ending frequency at 2478 MHz.

Tested mode, channel, and data rate information

Mode	Channel	Frequency (MHz)
Carrier Tx Mode	CH0	2402
	CH19	2440
	CH39	2480
GFSK 1M Tx Mode	CH0	2402
	CH19	2440
	CH39	2480
GFSK 2M Tx Mode	CH1	2404
	CH19	2440
	CH38	2478
GFSK 1M Rx Mode	CH0	2402
	CH19	2440
	CH39	2480
GFSK 2M Rx Mode	CH1	2404
	CH19	2440
	CH38	2478

2.4. Test environment conditions

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

	Normal Conditions
Temperature range	21-25°C
Humidity range	50-65%
Pressure range	86-106kPa
Power supply	DC 5.0V

2.5. Measurement uncertainty

Test Item	Uncertainty
RF Output power, conducted	±0.5B
Occupied Channel Bandwidth	±1%
Uncertainty for radio frequency	1×10 ⁻⁹
Power Spectral Density, Conducted	±1.3B
Unwanted Emissions, Conducted	±0.6dB
Temperature	±0.2°C
Humidity	±1%
DC and Low frequency voltage	±0.4
Time	±1%
Duty Cycle	±1%

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



3. Antenna Power

3.1. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated until	Calibration body	classification
Spectrum analyzer	Agilent	N9010A	MY55150427	2025/05/16	2026/05/15	Jingheng	(c)
Multimeter	FLUKE	15B+	42320912WS	2025/11/13	2026/11/12	Jingheng	(c)
Attenuator	Mini-Circuits	BW-S10W2	101109	N/A	N/A	N/A	N/A
RF Cable	Micable	C10-01-01-1	100309	N/A	N/A	N/A	N/A

Remark:

(a) Calibration conducted by the National Institute of Information and Communications Technology(NITC) in Japan (hereinafter referred to as “NITC”) or a designated calibration agency under Article 102-18 paragraph(1) in JRL

(b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act(Act No.51 of 1992)

(c) Calibration conducted in countries except Japan, which shall be equivalent to the calibration Conducted by the NITC or a designation agency under Article 102-18 paragraph(1)

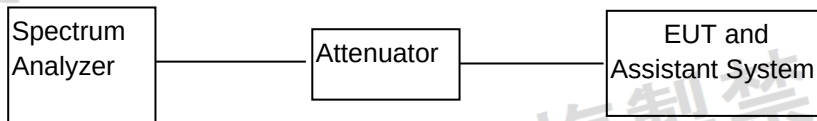
(d) Calibration, etc. conducted by using measuring instruments and other equipment listed in the right column of appended table No.3, which shall have been given any type of calibration, etc. listed above from(a) to (c).

From JRL Article 24-2, paragraph 4, item2

3.2. Limit

Limit	10mW
Tolerance	+20%

3.3. Block diagram of test setup



3.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.3 and 3.3
- (2) Set EUT work in test mode as described in clause 2.3
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum

Analyzer as below:

Centre Frequency: The centre frequency of the channel under test.

Resolution BW: 3MHz.

Video BW: 3MHz.

Span: Wide enough to cover the complete power envelope of the signal of the EUT.

Detector: Peak.

Trace Mode: Max Hold.

- (4) When the trace is complete, find the peak value of the power envelope and record.

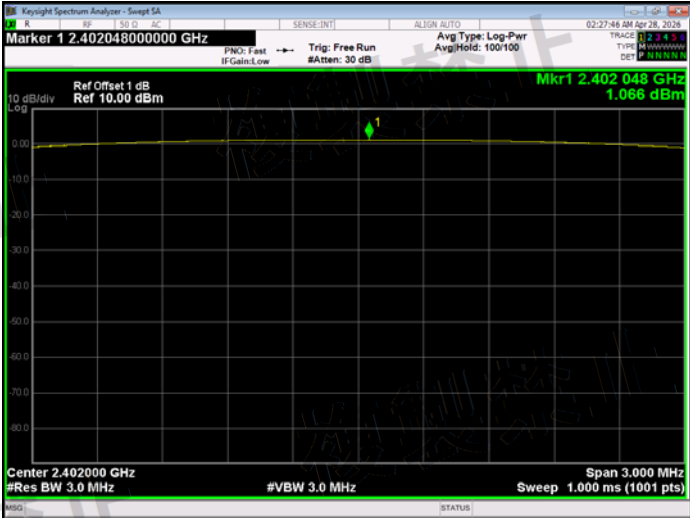
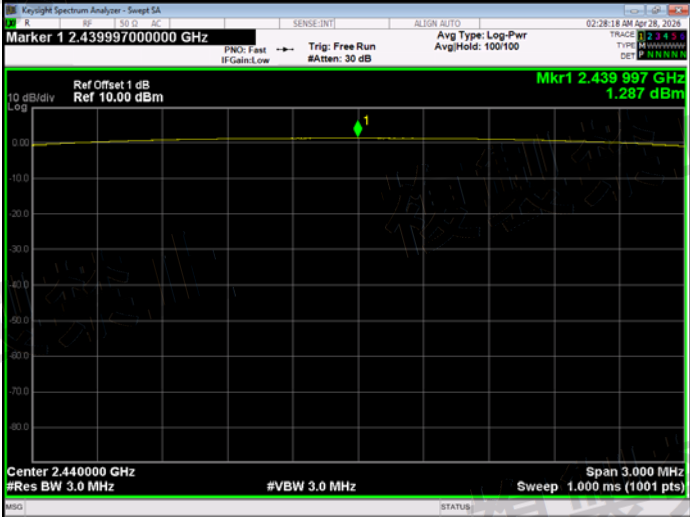
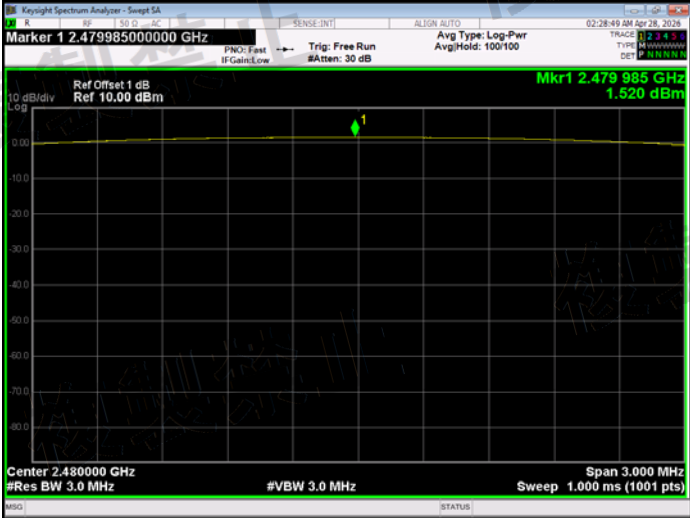
Note: The cable loss and attenuator loss have been put into spectrum analyzer as amplitude offset.

3.5. Test result

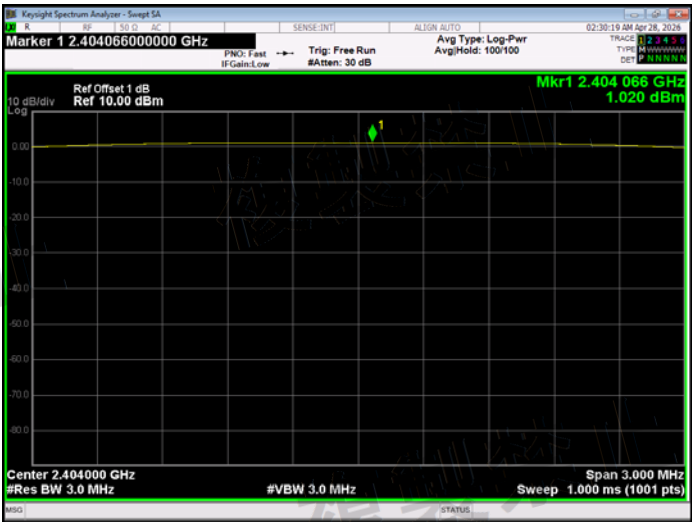
Voltage (V)	Mode	Frequency	Measured	Result	Limit	Conclusion
		MHz	dBm	mW	mW	
5.0	GFSK (1M TX mode)	2402	1.066	1.278	10	PASS
		2440	1.287	1.345	10	PASS
		2480	1.520	1.419	10	PASS
	GFSK (2M TX mode)	2404	1.020	1.265	10	PASS
		2440	1.261	1.337	10	PASS
		2478	1.472	1.403	10	PASS

Stated power	2.0 mW					
Voltage (V)	Mode	Frequency	Result	Tolerance	Limit	Conclusion
		MHz	mW	%	%	
5.0	GFSK (1M TX mode)	2402	1.278	-36.09	+20	PASS
		2440	1.345	-32.75	+20	PASS
		2480	1.419	-29.05	+20	PASS
	GFSK (2M TX mode)	2404	1.265	-36.76	+20	PASS
		2440	1.337	-33.15	+20	PASS
		2478	1.403	-29.83	+20	PASS

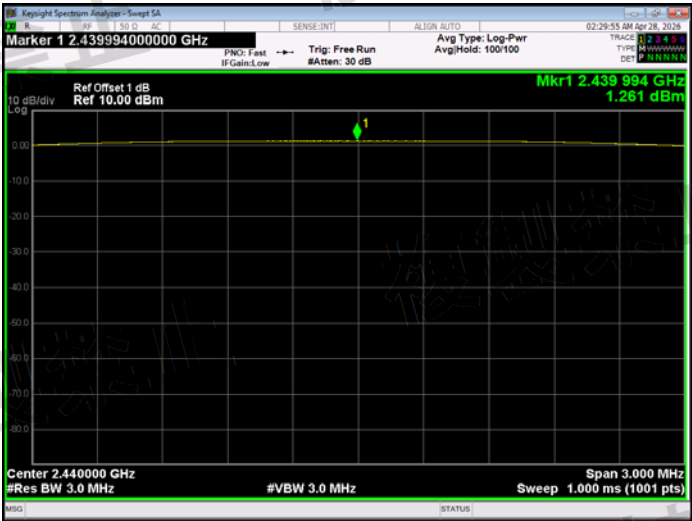
3.6. Original Test Data

1M 2402MHz	
1M 2440MHz	
1M 2480MHz	

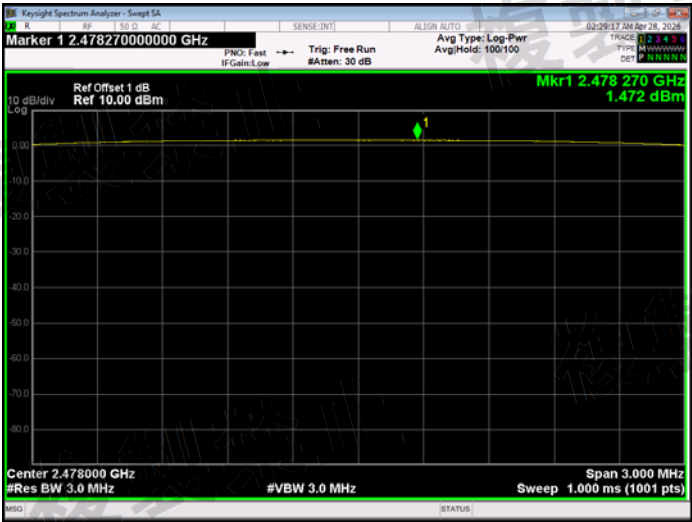
2M 2404MHz



2M 2440MHz



2M 2478MHz



4. Frequency Tolerance

4.1. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated until	Calibration body	classification
Spectrum analyzer	Agilent	N9010A	MY55150427	2025/05/16	2026/05/15	Jingheng	(c)
Multimeter	FLUKE	15B+	42320912WS	2025/11/13	2026/11/12	Jingheng	(c)
Attenuator	Mini-Circuits	BW-S10W2	101109	N/A	N/A	N/A	N/A
RF Cable	Micable	C10-01-01-1	100309	N/A	N/A	N/A	N/A

Remark:

(a) Calibration conducted by the National Institute of Information and Communications Technology(NITC) in Japan (hereinafter referred to as “NITC”) or a designated calibration agency under Article 102-18 paragraph(1) in JRL

(b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act(Act No.51 of 1992)

(c) Calibration conducted in countries except Japan, which shall be equivalent to the calibration Conducted by the NITC or a designation agency under Article 102-18 paragraph(1)

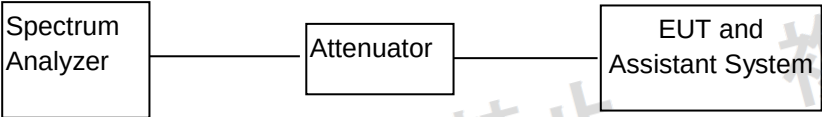
(d) Calibration, etc. conducted by using measuring instruments and other equipment listed in the night column of appended table No.3,whice shall have been given any type of calibration, etc. listed above from(a) to (c).

From JRL Article 24-2,paragraph 4,item2

4.2. Limit

+/- 50x 10⁻⁶ or less (50ppm)

4.3. Block diagram of test setup



4.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.3 and 4.3
- (2) Set EUT work in carrier Tx mode as described in clause 2.3
- (3) Connected the EUT’s antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 - Centre Frequency: The centre frequency of the channel under test.
 - Resolution BW: 1 KHz.
 - Video BW: 3 KHz.
 - Detector: Peak.
 - Trace Mode: Max Hold.
- (4) When the trace is complete, find the peak value of the power envelope and record the frequency.

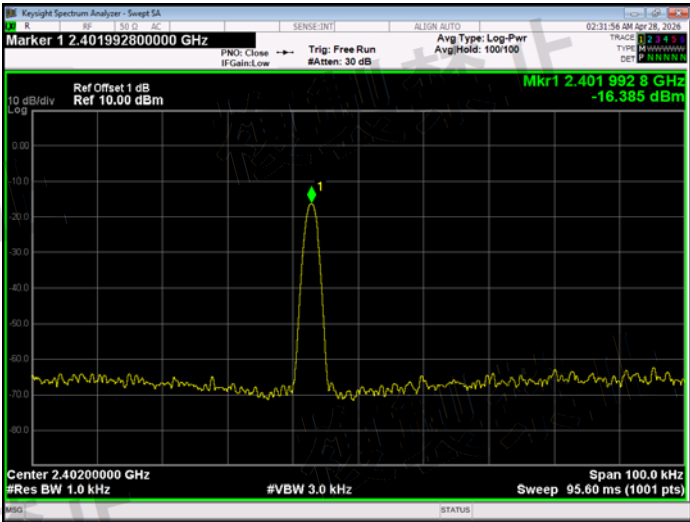
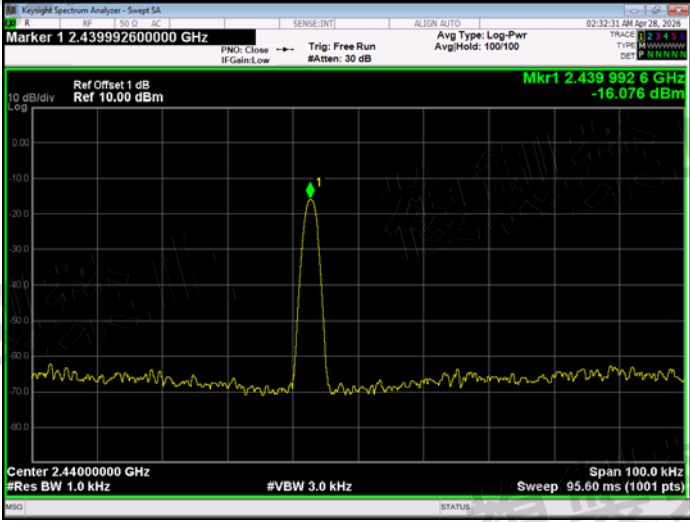
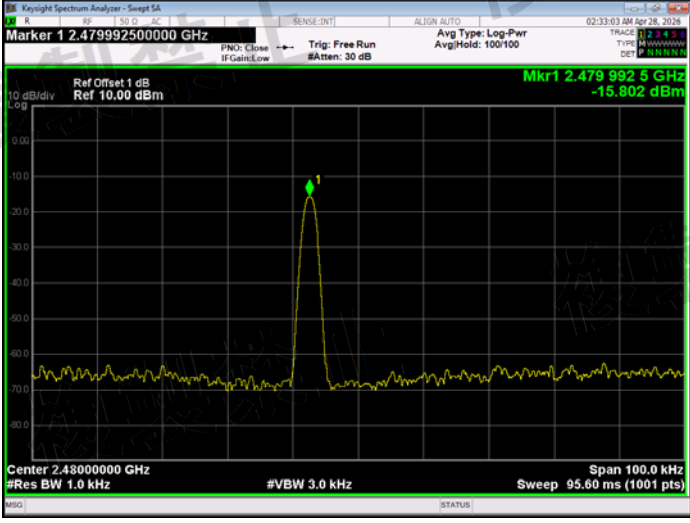


4.5. Test result

Voltage (V)	Mode	Frequency	Result			Limit
		MHz	Measured (MHz)	Tolerance (kHz)	Tolerance (ppm)	ppm
5.0	Carrier Tx Mode	2402	2401.9928	-7.20	-2.998	± 50
		2440	2439.9926	-7.40	-3.033	± 50
		2480	2479.9925	-7.50	-3.024	± 50

Conclusion : PASS

4.6. Original test data

2402MHz	
2440MHz	
2480MHz	

5. Occupied Frequency Bandwidth

5.1. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated until	Calibration body	classification
Spectrum analyzer	Agilent	N9010A	MY55150427	2025/05/16	2026/05/15	Jingheng	(c)
Multimeter	FLUKE	15B+	42320912WS	2025/11/13	2026/11/12	Jingheng	(c)
Attenuator	Mini-Circuits	BW-S10W2	101109	N/A	N/A	N/A	N/A
RF Cable	Micable	C10-01-01-1	100309	N/A	N/A	N/A	N/A

Remark:

(a)Calibration conducted by the National Institute of Information and Communications Technology(NITC) in Japan (hereinafter referred to as “NITC”) or a designated calibration agency under Article 102-18 paragraph(1) in JRL

(b)Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act(Act No.51 of 1992)

(c)Calibration conducted in countries except Japan, which shall be equivalent to the calibration Conducted by the NITC or a designation agency under Article 102-18 paragraph(1)

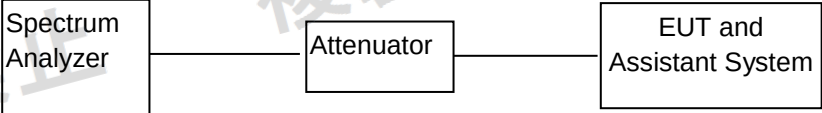
(d)Calibration, etc. conducted by using measuring instruments and other equipment listed in the night column of appended table No.3,whice shall have been given any type of calibration, etc. listed above from(a) to (c).

From JRL Article 24-2,paragraph 4,item2

5.2. Limit

Permissible value for occupied bandwidth using the FH system, a hybrid system combining DS and FH systems, or a hybrid system combining FH and OFDM systems shall be 83.5 MHz or less, while necessary bandwidth (minimum occupied bandwidth sufficient to ensure information transmission of required quality at a required transmission rate for the system used under specified conditions for a given emission type) using a system other than any of the above shall be 26 MHz or less.

5.3. Block diagram of test setup



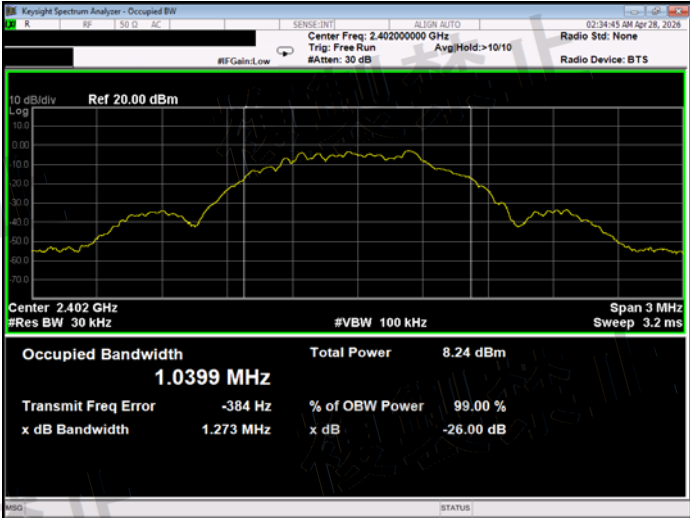
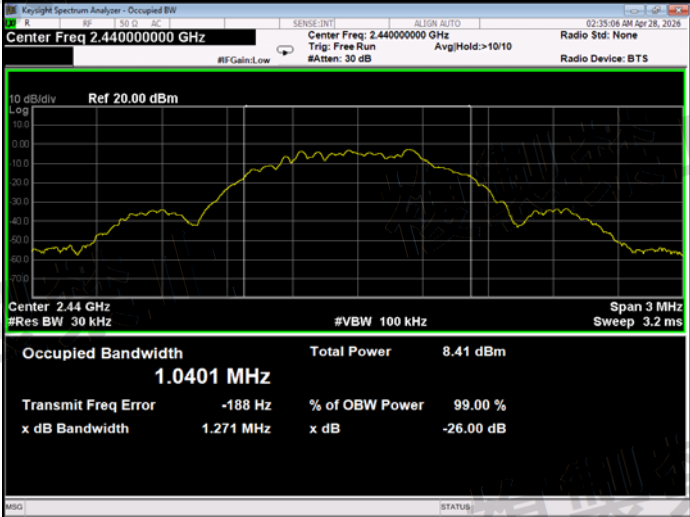
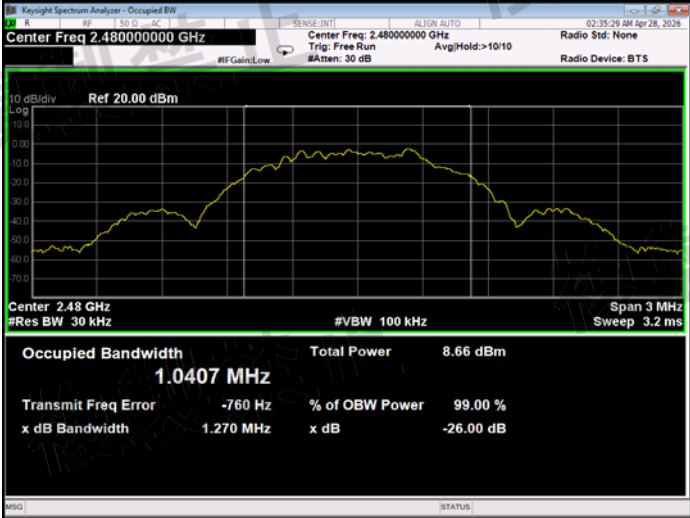
5.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.3 and 5.3
- (2) Set EUT work in test mode as described in clause 2.3
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 - Centre Frequency: The centre frequency of the channel under test.
 - Resolution BW: 30 KHz
 - Video BW: 100 KHz
 - Span: Wide enough to cover the complete power envelope of the signal of the EUT.
 - Detector: Peak.
 - Trace Mode: Max Hold.
- (4) When the trace is complete, measure the occupied bandwidth (99% bandwidth) with spectrum analyzer's bandwidth measure function.

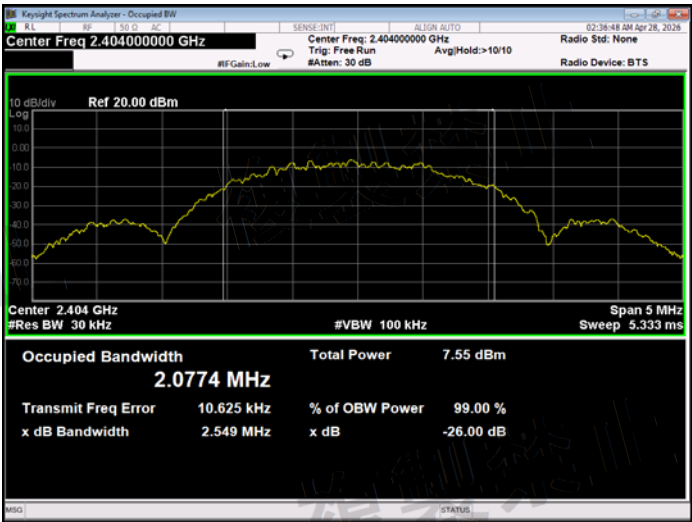
5.5. Test result

Voltage (V)	Mode	Frequency	Result	Limit
		MHz	MHz	MHz
5.0	GFSK (1M TX mode)	2402	1.0399	<=26
		2440	1.0401	<=26
		2480	1.0407	<=26
	GFSK (2M TX mode)	2404	2.0774	<=26
		2440	2.0784	<=26
		2478	2.0778	<=26
Conclusion : PASS				

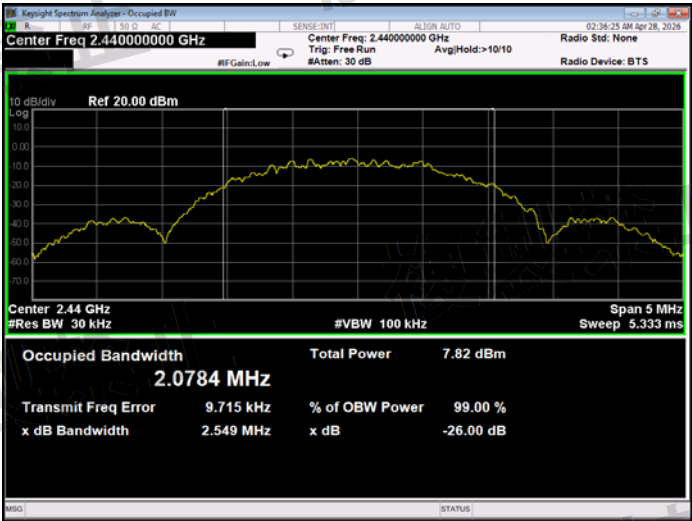
5.6. Original test data

1M 2402MHz	
1M 2440MHz	
1M 2480MHz	

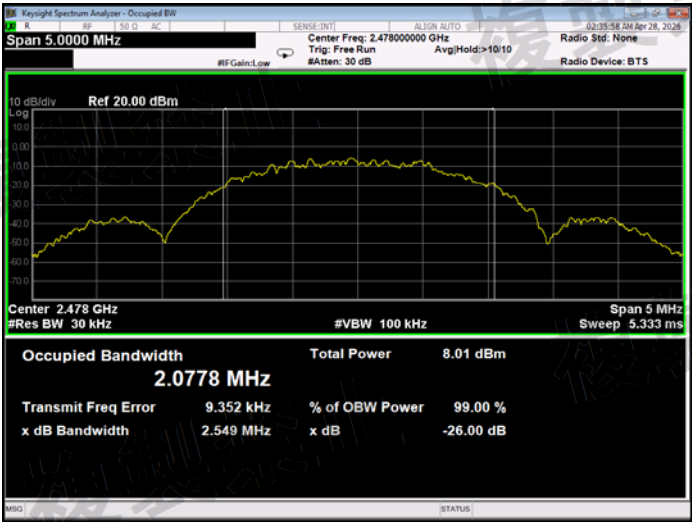
2M 2404MHz



2M 2440MHz



2M 2478MHz



6. Spread Bandwidth

6.1. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated until	Calibration body	classification
Spectrum analyzer	Agilent	N9010A	MY55150427	2025/05/16	2026/05/15	Jingheng	(c)
Multimeter	FLUKE	15B+	42320912WS	2025/11/13	2026/11/12	Jingheng	(c)
Attenuator	Mini-Circuits	BW-S10W2	101109	N/A	N/A	N/A	N/A
RF Cable	Micable	C10-01-01-1	100309	N/A	N/A	N/A	N/A

Remark:

(a)Calibration conducted by the National Institute of Information and Communications Technology(NITC) in Japan (hereinafter referred to as “NITC”) or a designated calibration agency under Article 102-18 paragraph(1) in JRL

(b)Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act(Act No.51 of 1992)

(c)Calibration conducted in countries except Japan, which shall be equivalent to the calibration Conducted by the NITC or a designation agency under Article 102-18 paragraph(1)

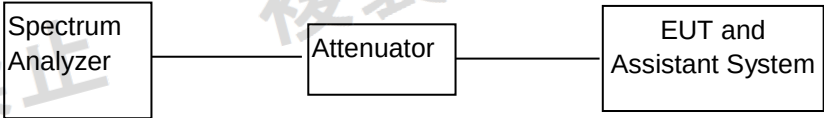
(d)Calibration, etc. conducted by using measuring instruments and other equipment listed in the right column of appended table No.3,whice shall have been given any type of calibration, etc. listed above from(a) to (c).

From JRL Article 24-2,paragraph 4,item2

6.2. Limit

In spread spectrum systems, spread bandwidth (which refers to a frequency bandwidth with an upper limit and lower limit such that each of the mean powers radiated above the upper frequency limit and below the lower frequency limit is equal to 5 % of the total mean power radiated; this also applies hereafter) shall be 500 kHz or more.

6.3. Block diagram of test setup



6.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.4 and 6.3
- (2) Set EUT work in test mode as described in clause 2.4
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
Centre Frequency: The centre frequency of the channel under test.
Resolution BW: 100 kHz.
Video BW: 300 kHz.
Span: Wide enough to cover the complete power envelope of the signal of the EUT.
Detector: Peak.
Trace Mode: Max Hold.
- (4) When the trace is complete, measure the spread bandwidth (90% bandwidth) with spectrum analyzer's bandwidth measure function.

6.5. Test result

Not Applicable



7. Transmitter Spurious Emissions (conducted)

7.1. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated until	Calibration body	classification
Spectrum analyzer	Agilent	N9010A	MY55150427	2025/05/16	2026/05/15	Jingheng	(c)
Multimeter	FLUKE	15B+	42320912WS	2025/11/13	2026/11/12	Jingheng	(c)
Attenuator	Mini-Circuits	BW-S10W2	101109	N/A	N/A	N/A	N/A
RF Cable	Micable	C10-01-01-1	100309	N/A	N/A	N/A	N/A

Remark:

(a)Calibration conducted by the National Institute of Information and Communications Technology(NITC) in Japan (hereinafter referred to as “NITC”) or a designated calibration agency under Article 102-18 paragraph(1) in JRL

(b)Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act(Act No.51 of 1992)

(c)Calibration conducted in countries except Japan, which shall be equivalent to the calibration Conducted by the NITC or a designation agency under Article 102-18 paragraph(1)

(d)Calibration, etc. conducted by using measuring instruments and other equipment listed in the night column of appended table No.3,whice shall have been given any type of calibration, etc. listed above from(a) to (c).

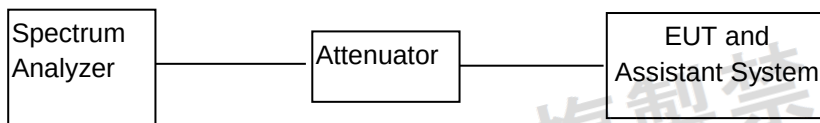
From JRL Article 24-2,paragraph 4,item2

7.2. Limit

Permissible mean power of spurious emission of each frequency supplied to a feeder, that is, mean power of spurious emission in the 1 MHz bandwidth at frequency f other than frequency band used shall be as follows:

- a. $2,387\text{MHz} \leq f \leq 2,400\text{MHz}$ and $2,483.5\text{MHz} < f \leq 2,496.5\text{MHz}$ 25 μW or less
- b. $2,387\text{MHz} > f$ and $2,496.5\text{MHz} < f$ 2.5 μW or less

7.3. Block diagram of test setup



7.4. Test Procedure

- (1) Configure EUT and assistant system according clause 2.4 and 7.3
- (2) Set EUT work in test mode as described in clause 2.4
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 - Resolution BW: 1MHz. Video BW: 1MHz.
 - Detector: Peak. Trace Mode: Max Hold.
- (4) Sufficient number of measurements and samples are taken when measuring at average.
- (5) All the emissions from 30MHz to 13GHz were measured and record.

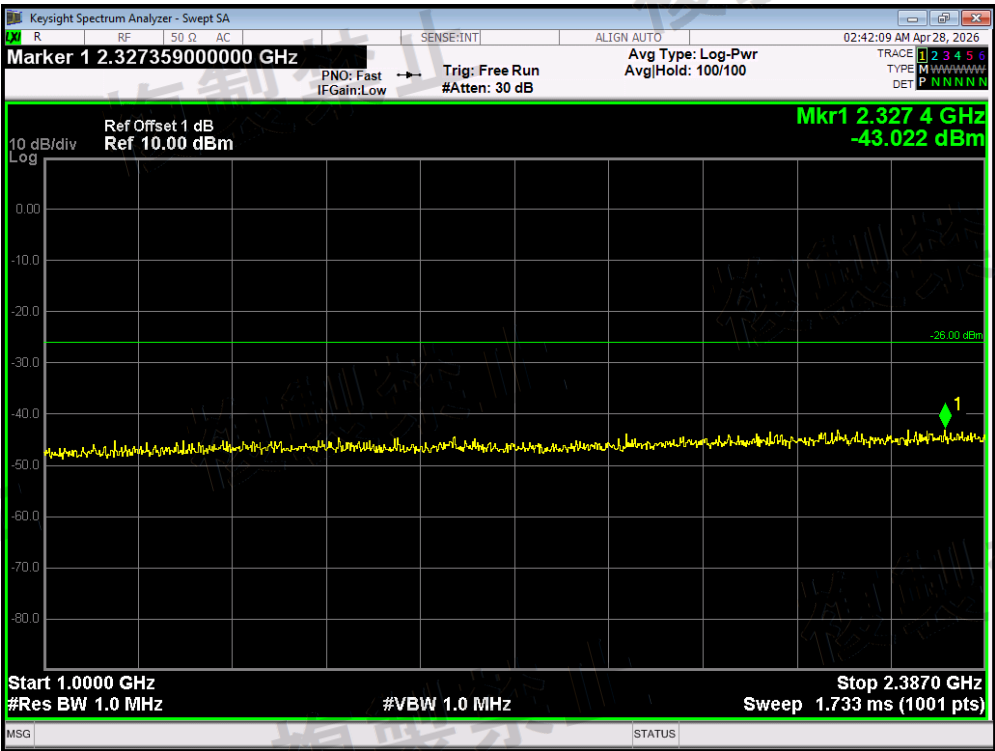
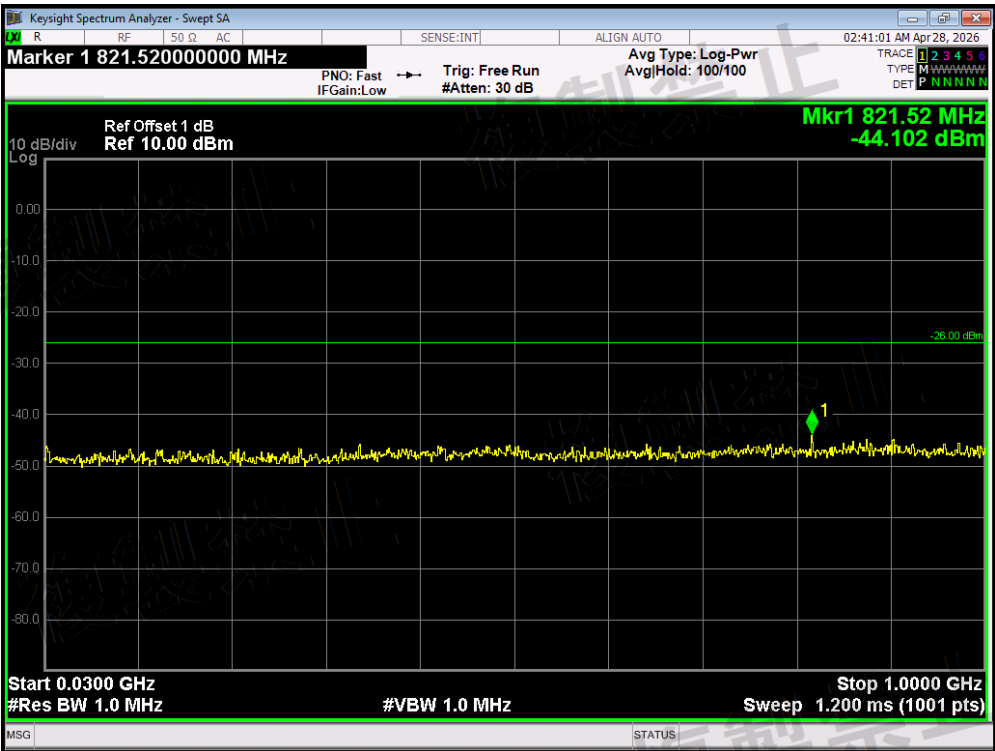
7.5. Test result

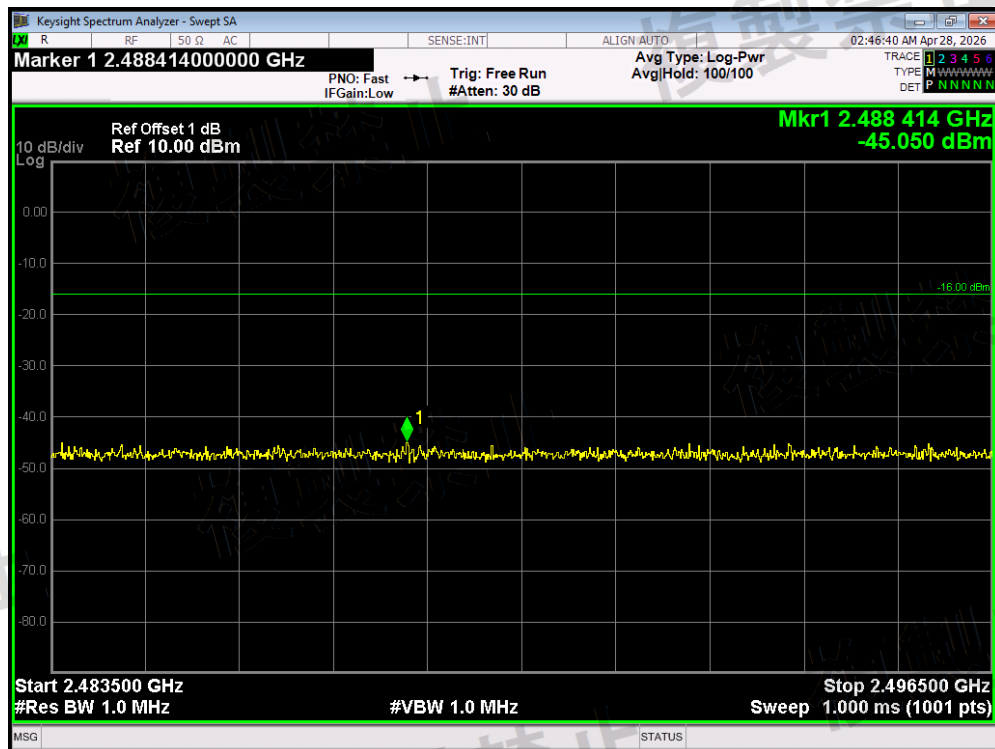
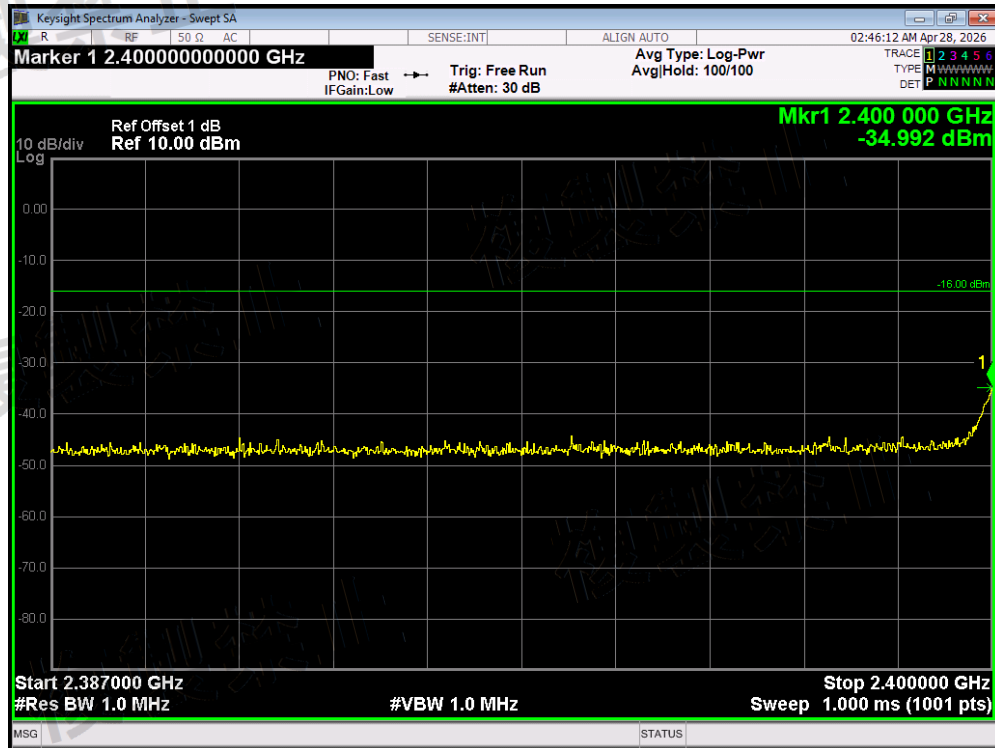
Voltage (V)	Mode	CH	Frequency (MHz)	Reading (dBm/MHz)	Limit (dBm/MHz)	Result
Normal	GFSK (1M TX mode)	CH0	30-1000	-44.102	-26	PASS
			1000-2387	-43.022	-26	PASS
			2387-2400	-34.992	-16	PASS
			2483.5-2496.5	-45.050	-16	PASS
			2496.5-12500	-41.599	-26	PASS
		CH19	30-1000	-44.613	-26	PASS
			1000-2387	-43.072	-26	PASS
			2387-2400	-45.264	-16	PASS
			2483.5-2496.5	-44.822	-16	PASS
			2496.5-12500	-41.742	-26	PASS
		CH39	30-1000	-44.072	-26	PASS
			1000-2387	-42.977	-26	PASS
			2387-2400	-44.689	-16	PASS
			2483.5-2496.5	-44.645	-16	PASS
			2496.5-12500	-41.055	-26	PASS

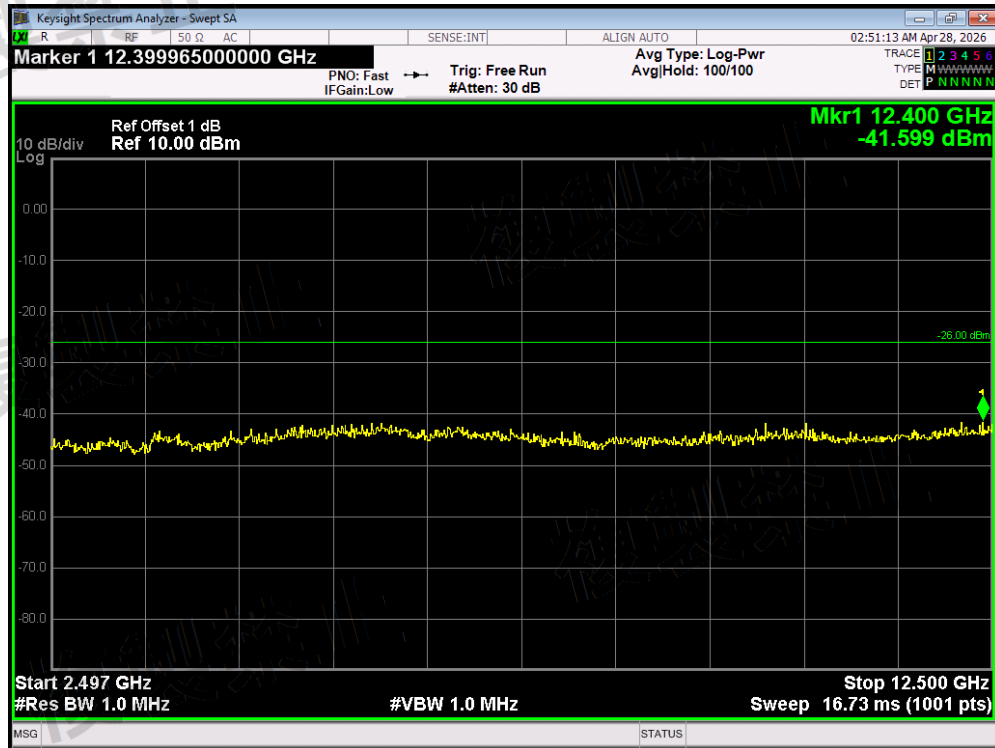
Voltage (V)	Mode	CH	Frequency (MHz)	Reading (dBm/MHz)	Limit (dBm/MHz)	Result
Normal	GFSK (2M TX mode)	CH1	30-1000	-44.232	-26	PASS
			1000-2387	-42.429	-26	PASS
			2387-2400	-44.433	-16	PASS
			2483.5-2496.5	-44.996	-16	PASS
			2496.5-12500	-41.053	-26	PASS
		CH19	30-1000	-45.670	-26	PASS
			1000-2387	-42.406	-26	PASS
			2387-2400	-44.632	-16	PASS
			2483.5-2496.5	-43.902	-16	PASS
			2496.5-12500	-41.044	-26	PASS
		CH38	30-1000	-44.336	-26	PASS
			1000-2387	-42.770	-26	PASS
			2387-2400	-44.625	-16	PASS
			2483.5-2496.5	-42.716	-16	PASS
			2496.5-12500	-40.844	-26	PASS

7.6. Original test data

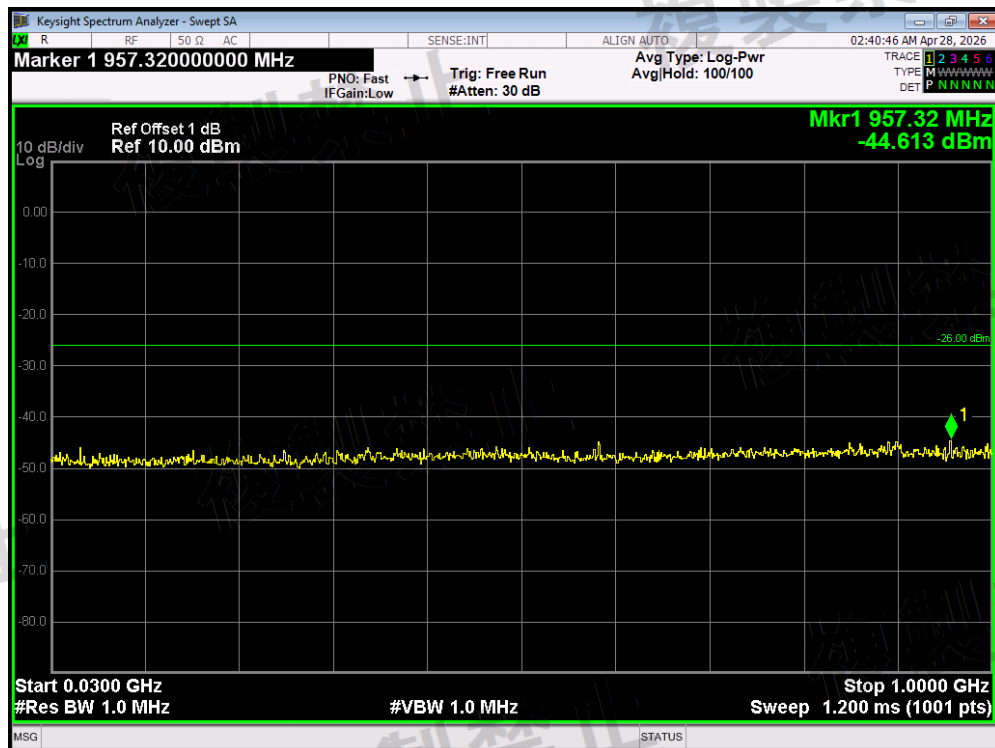
1M CH0

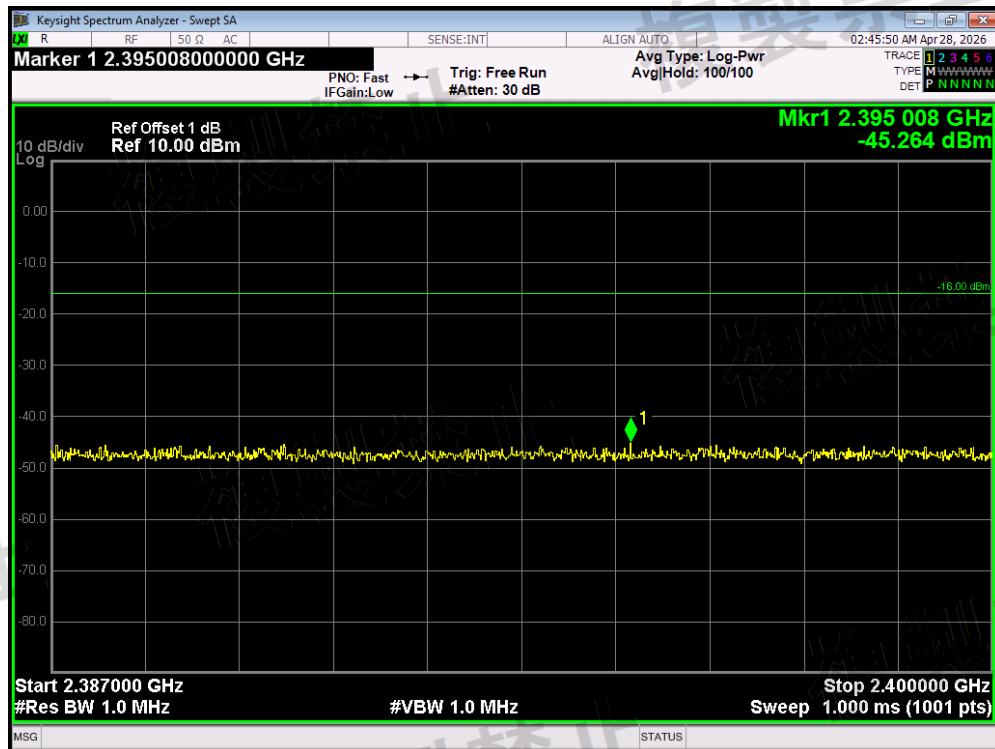
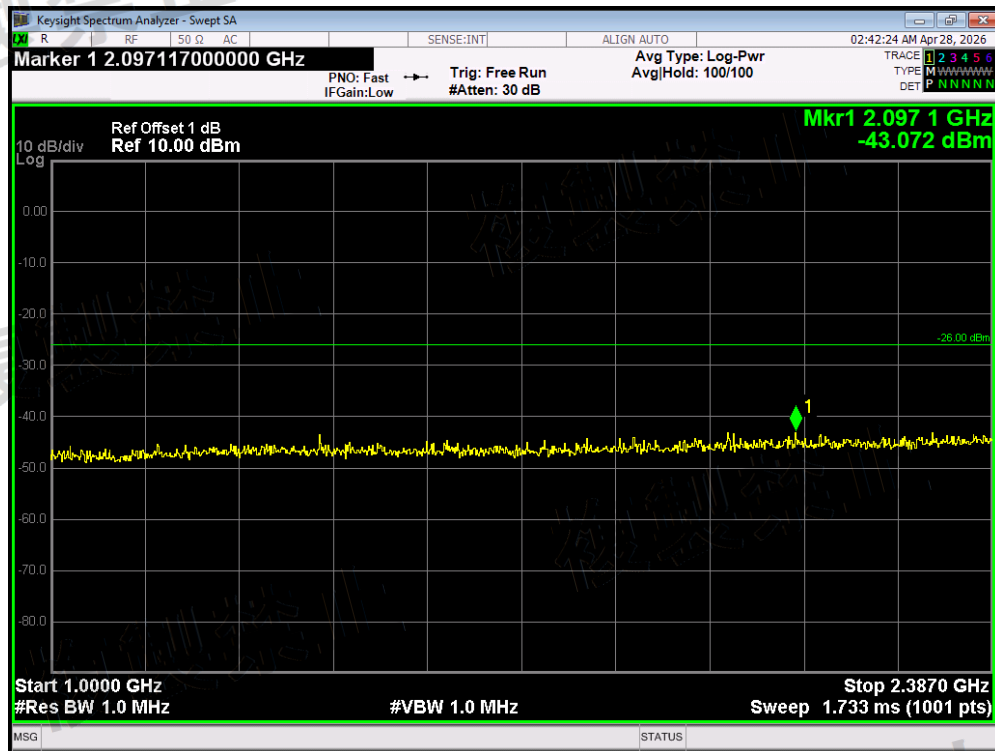


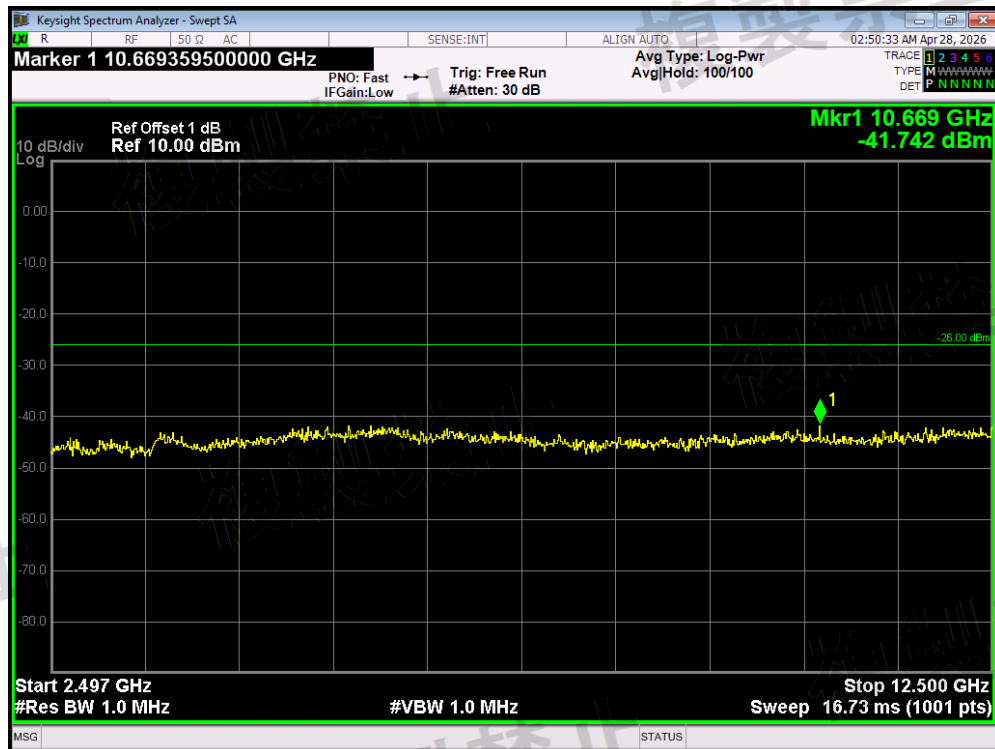
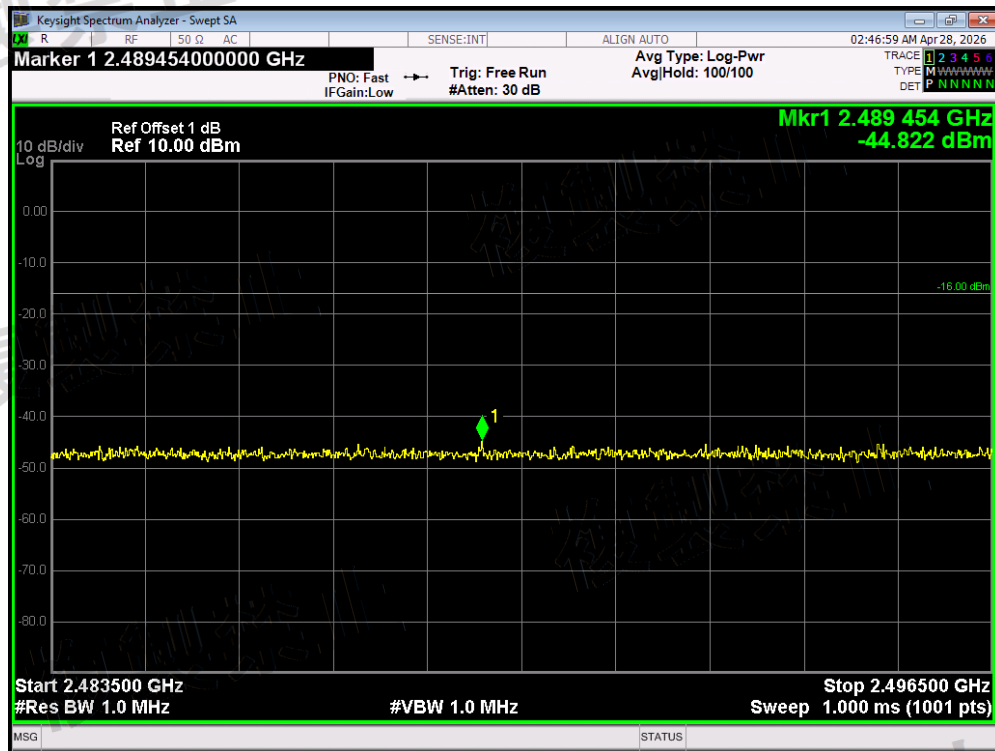




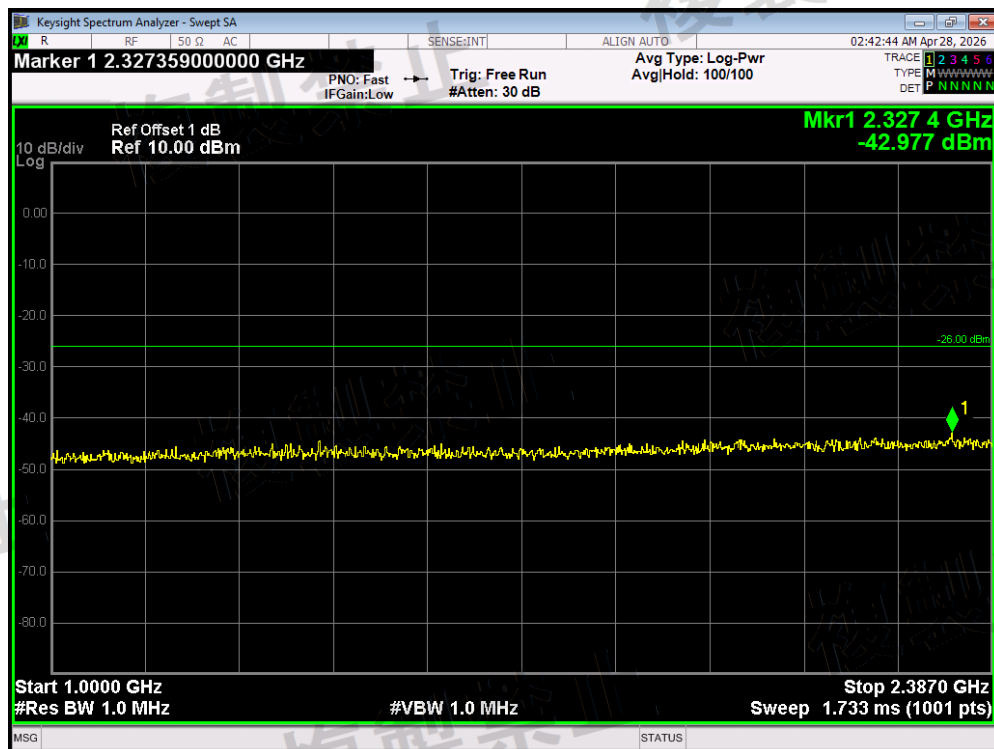
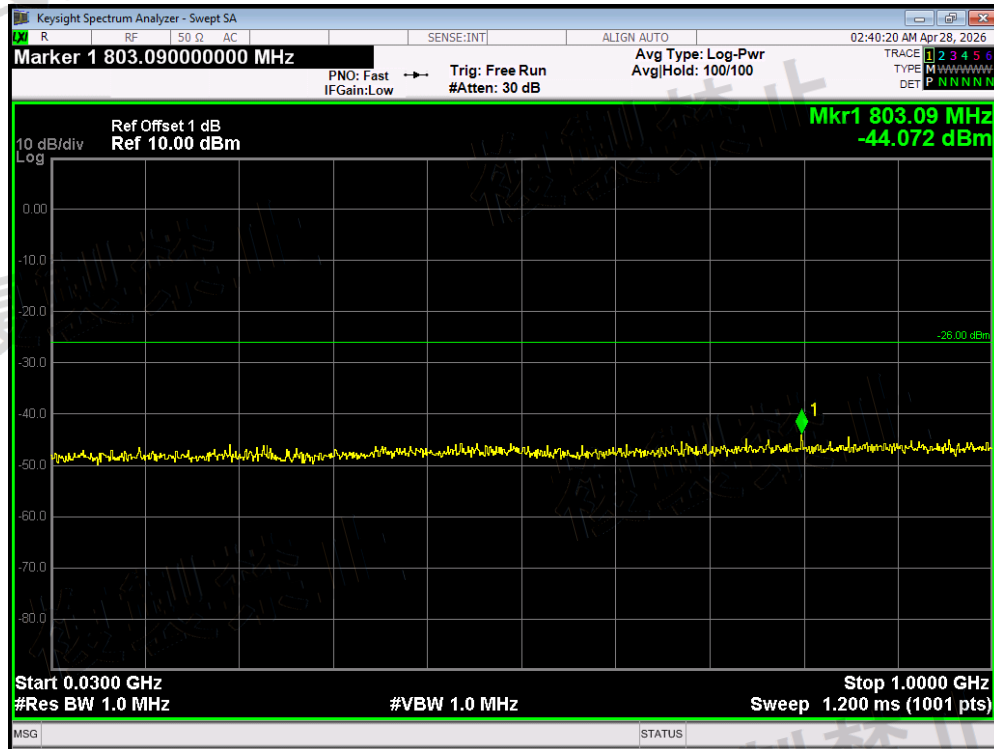
1M CH19

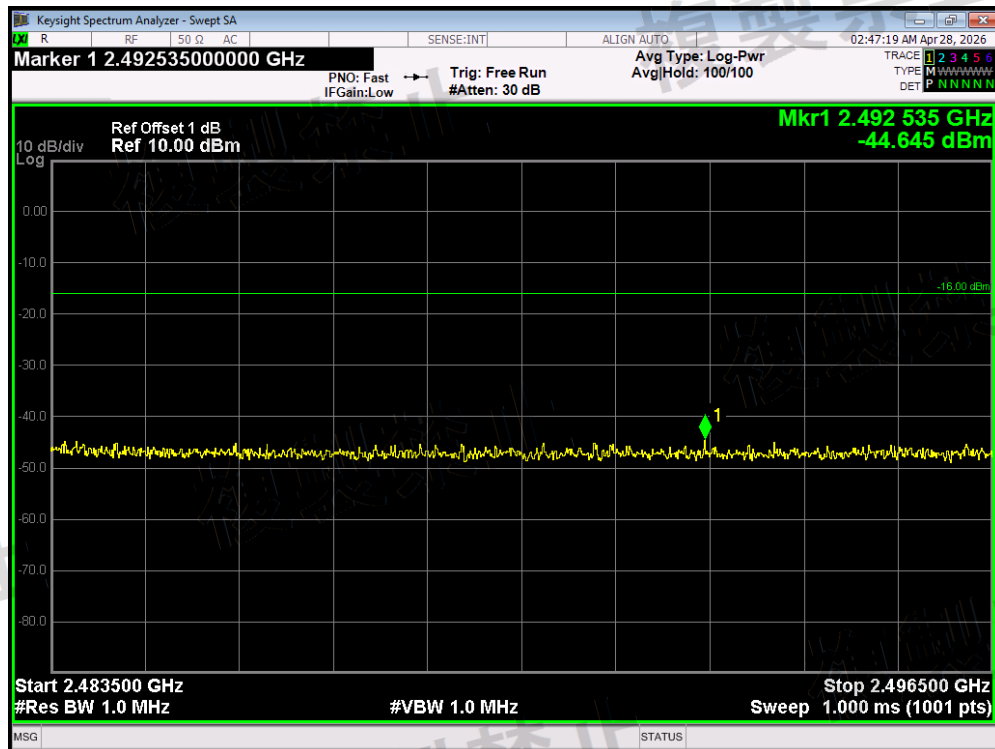
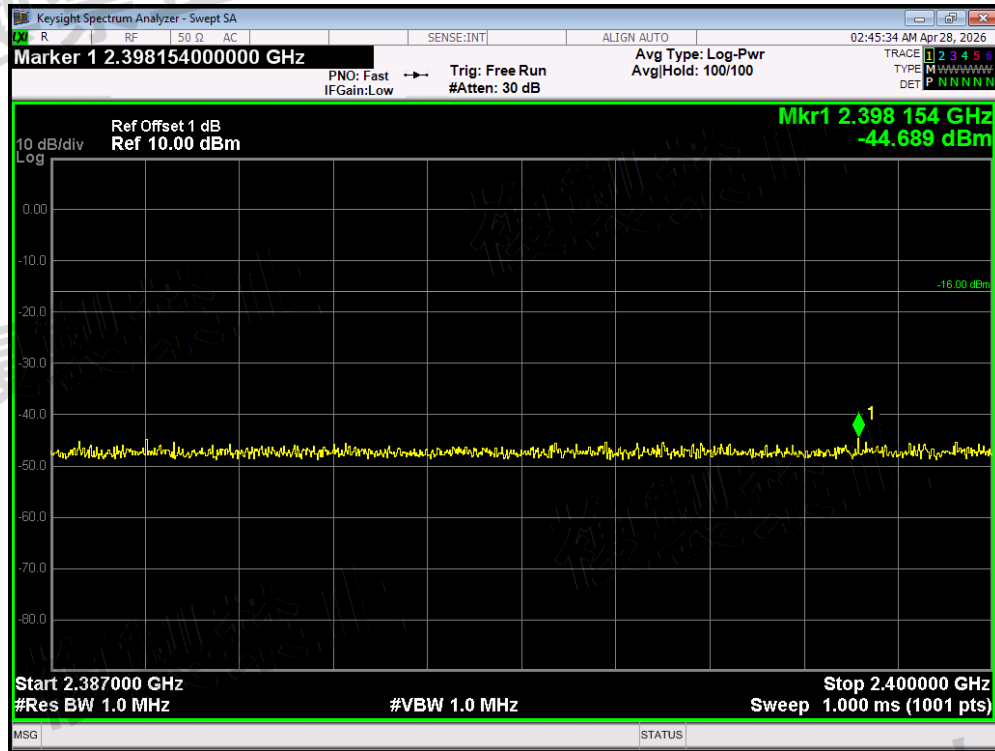


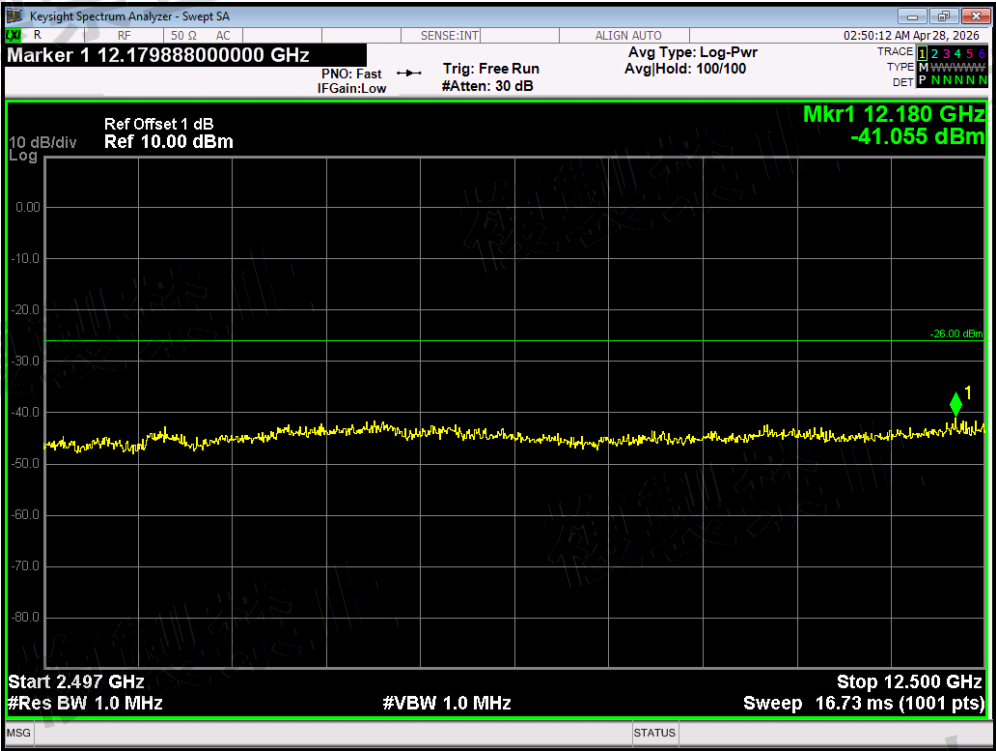




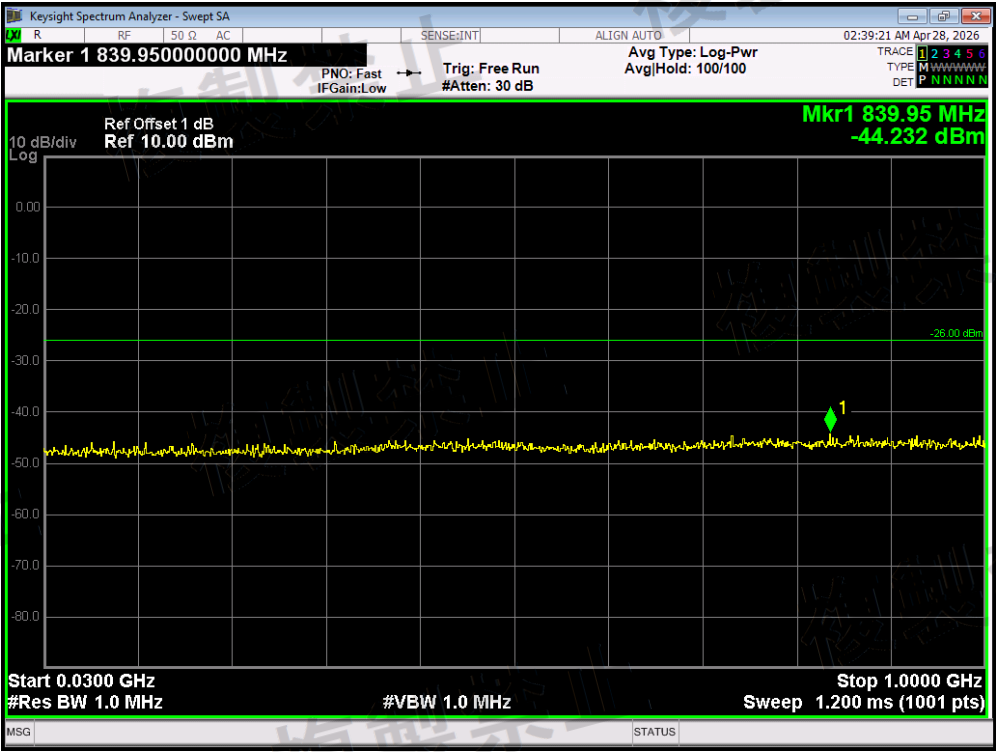
1M CH39

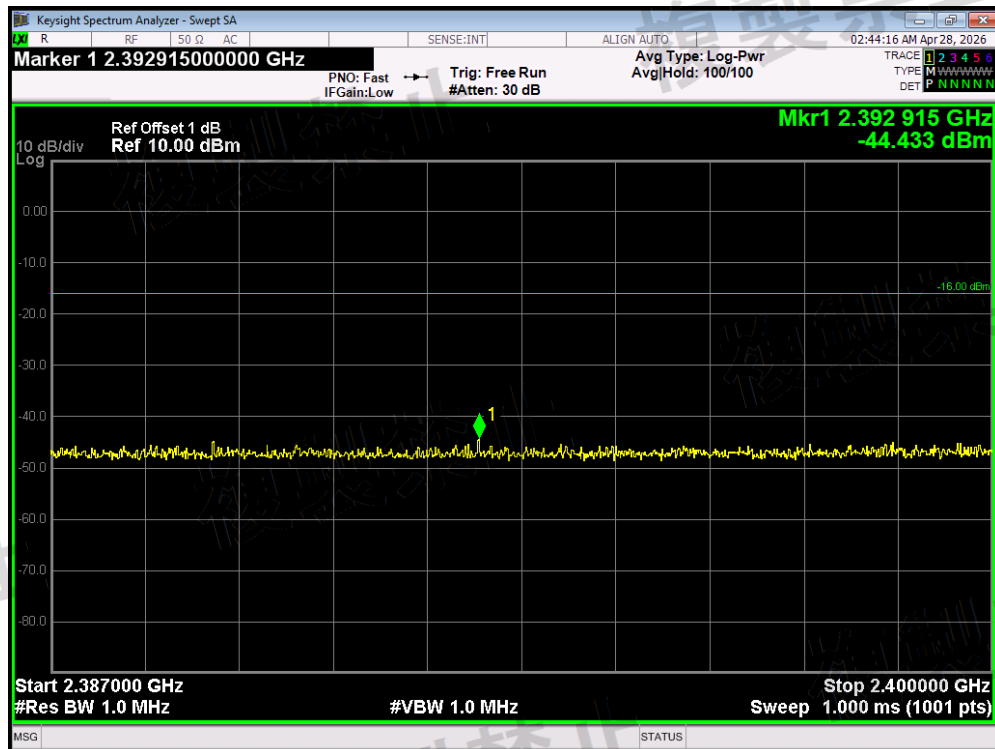
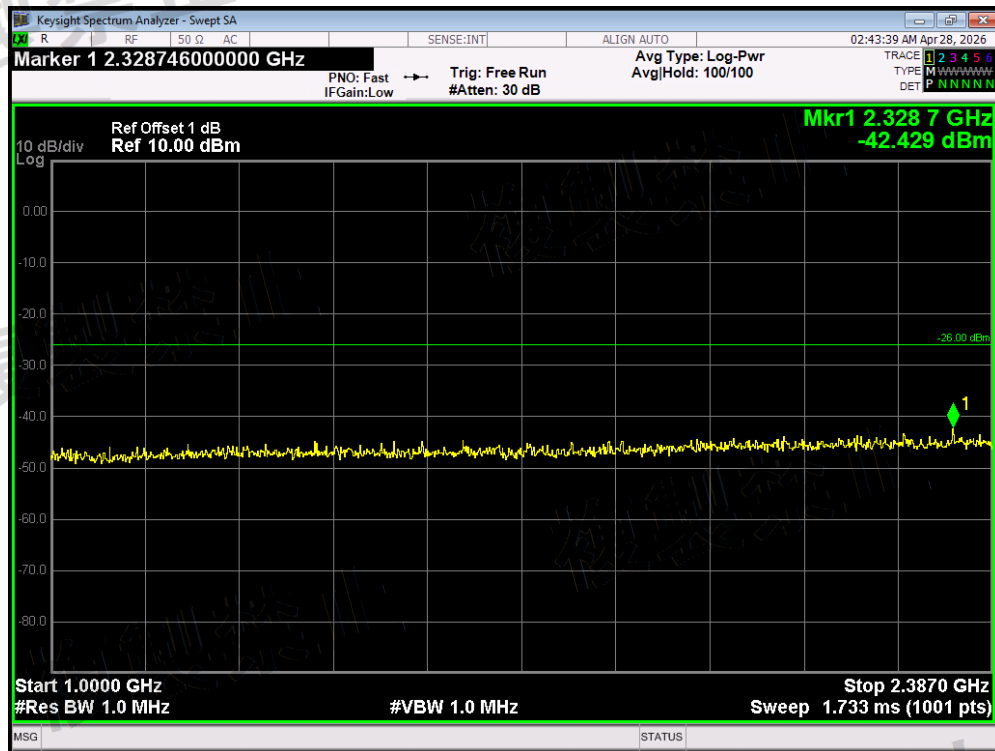


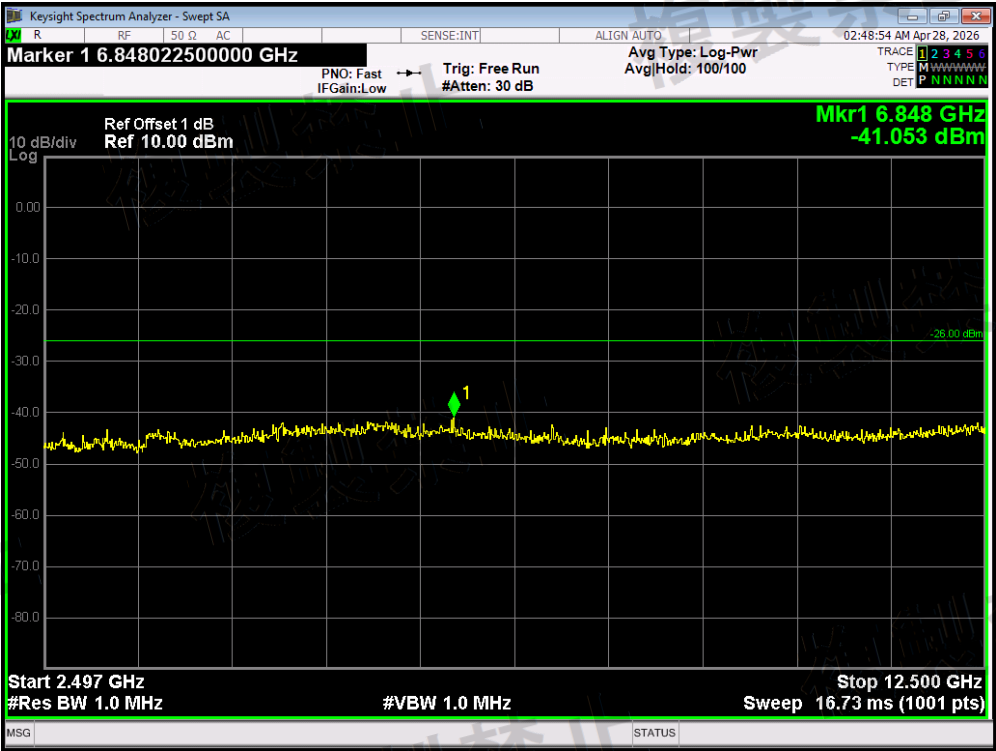
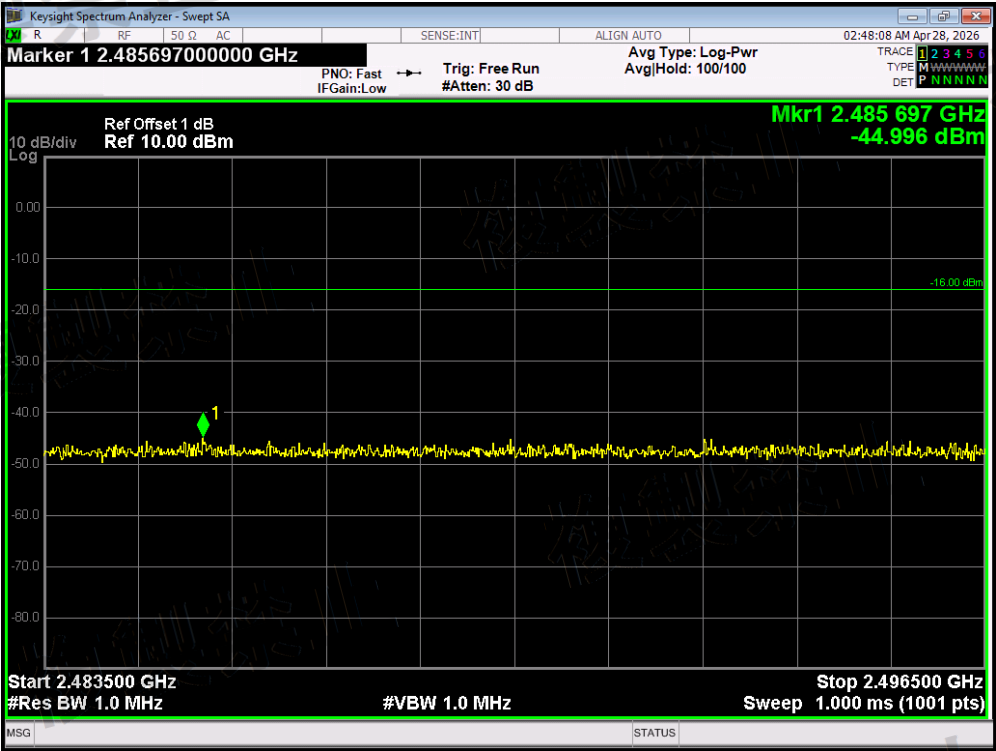




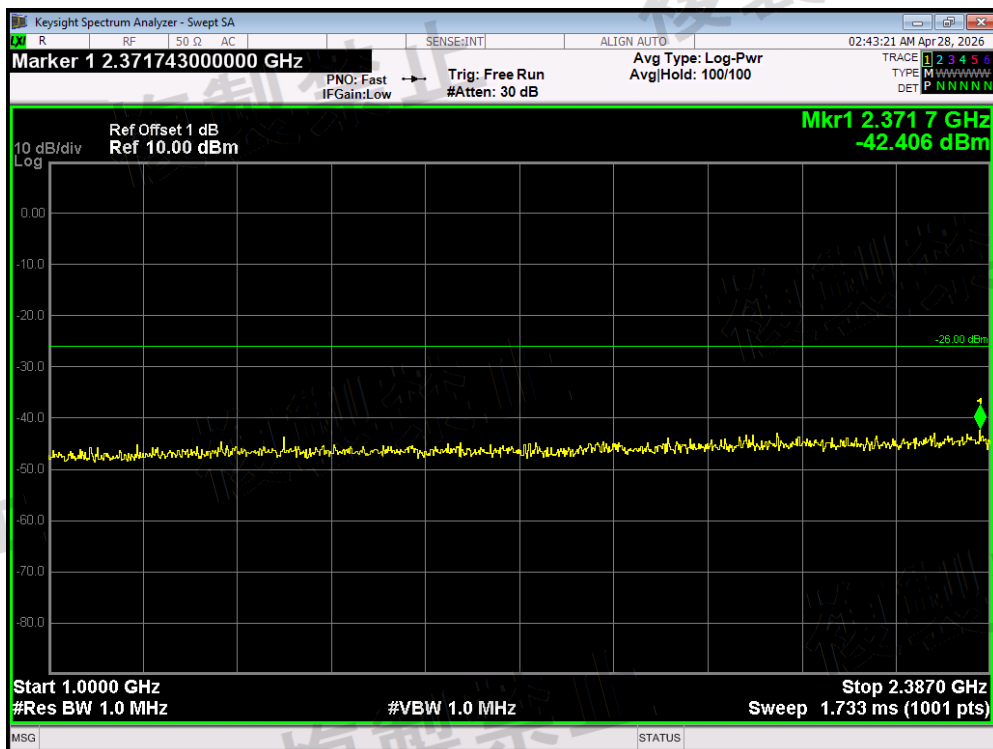
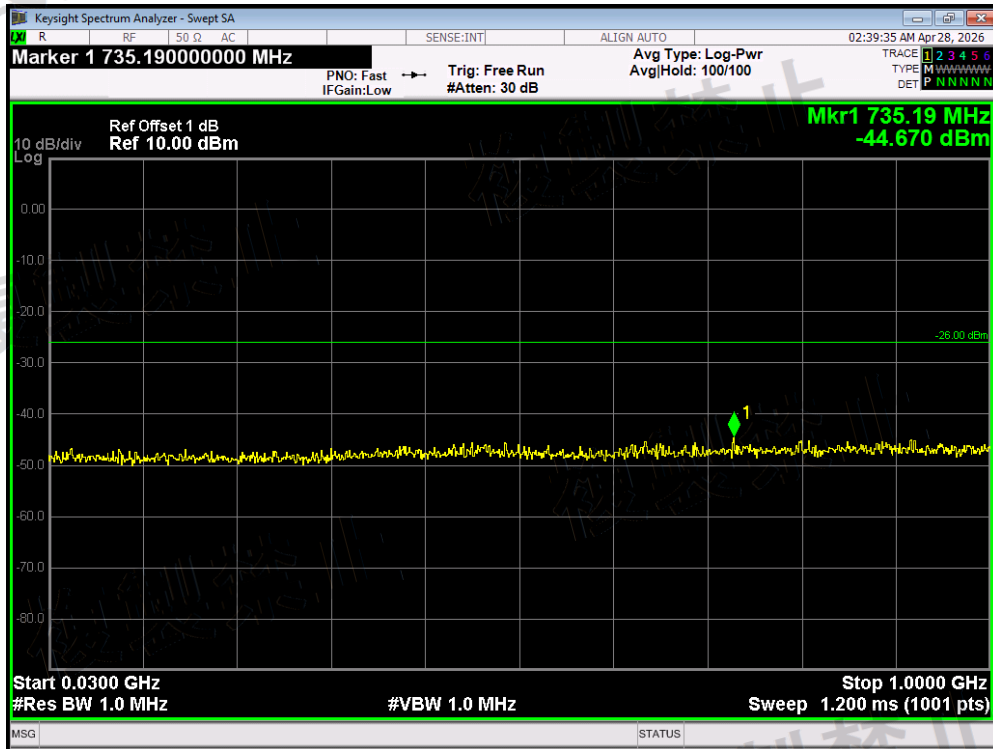
2M CH1

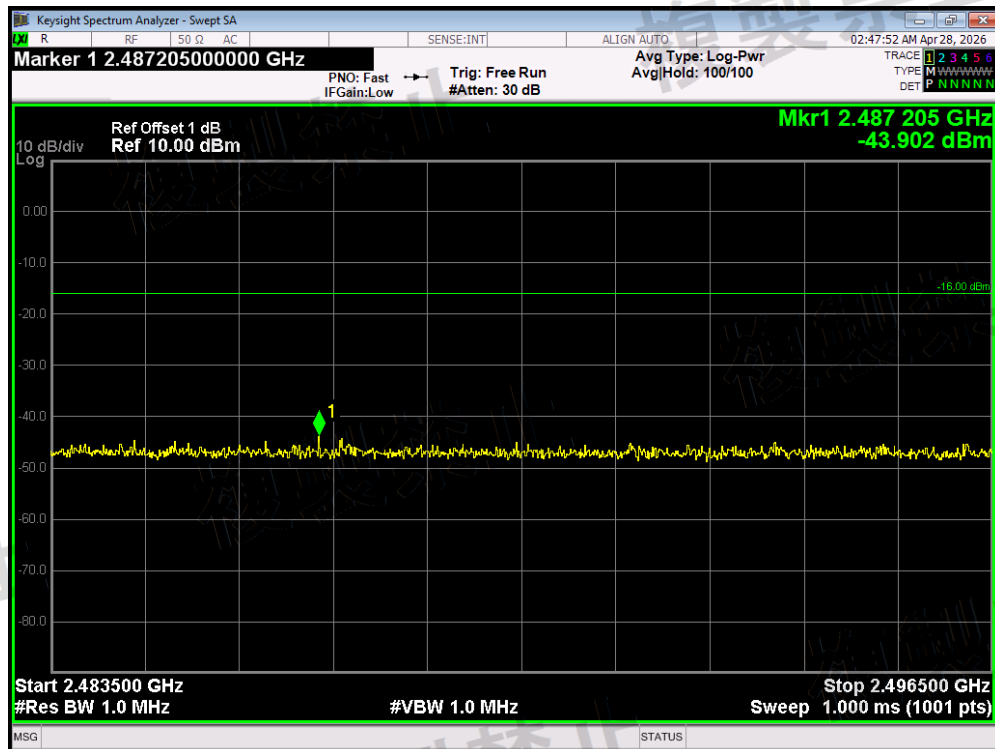
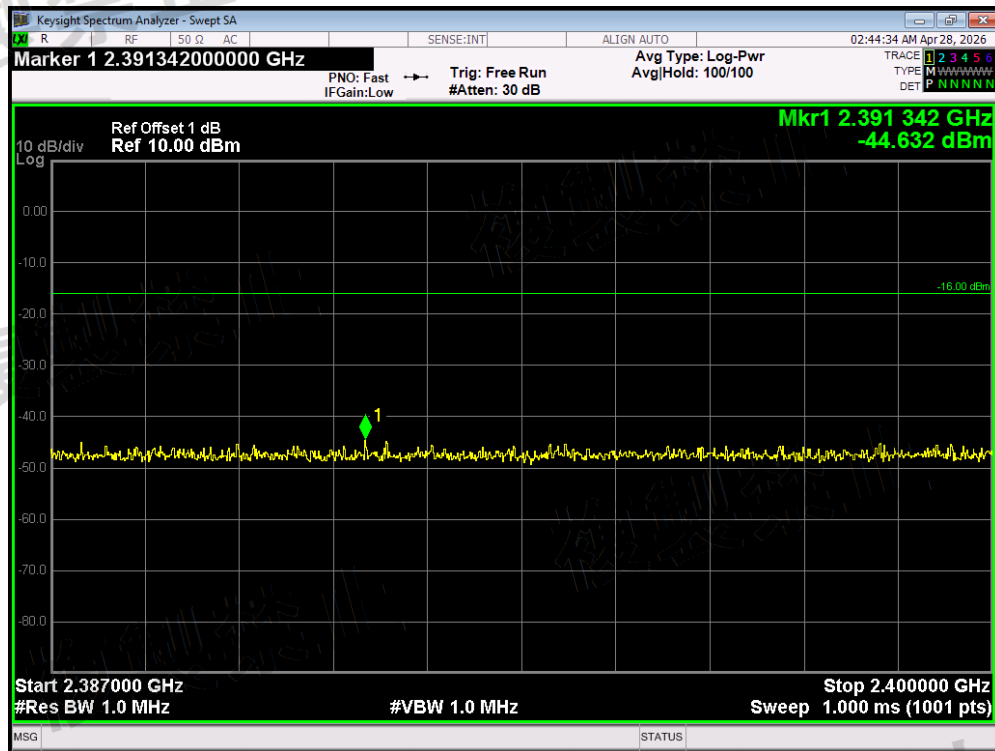


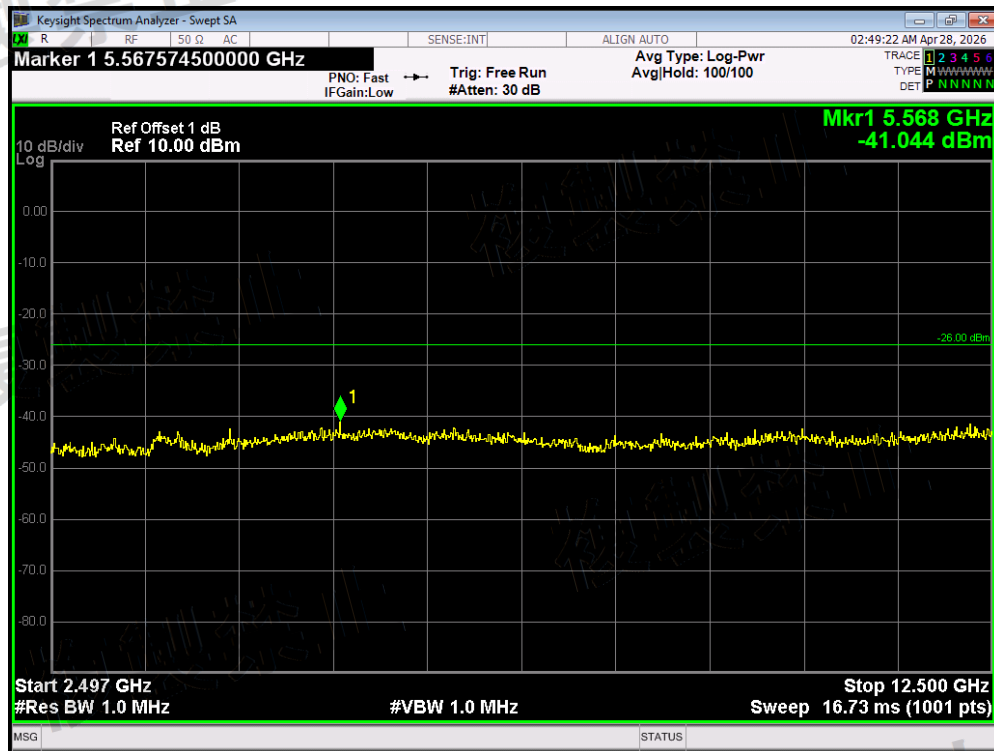




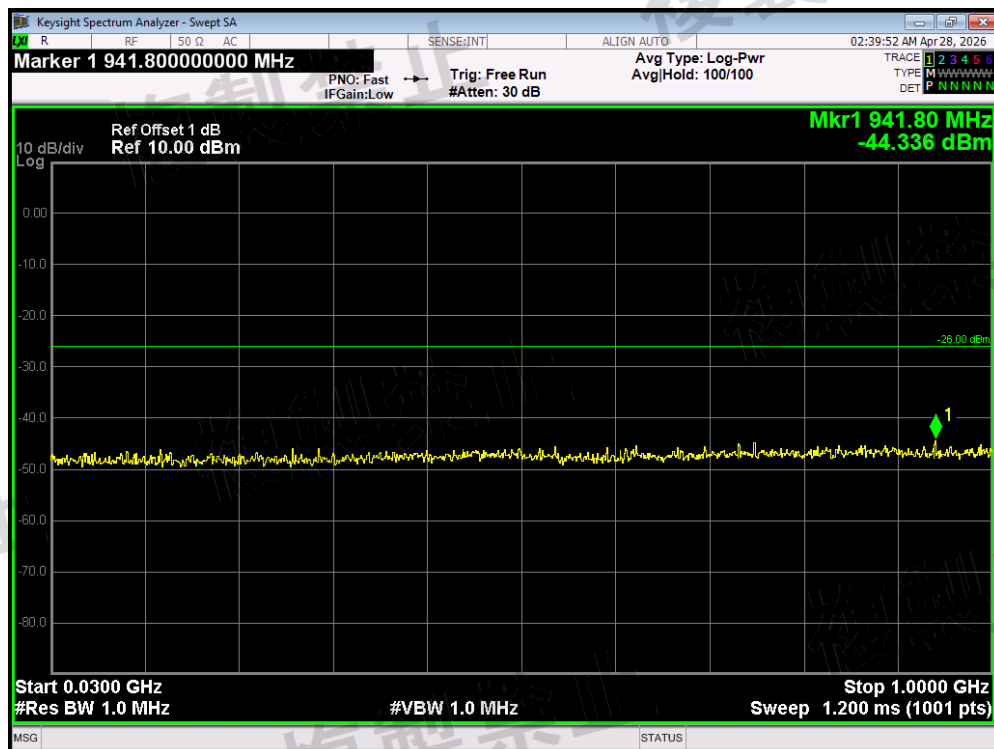
2M CH19

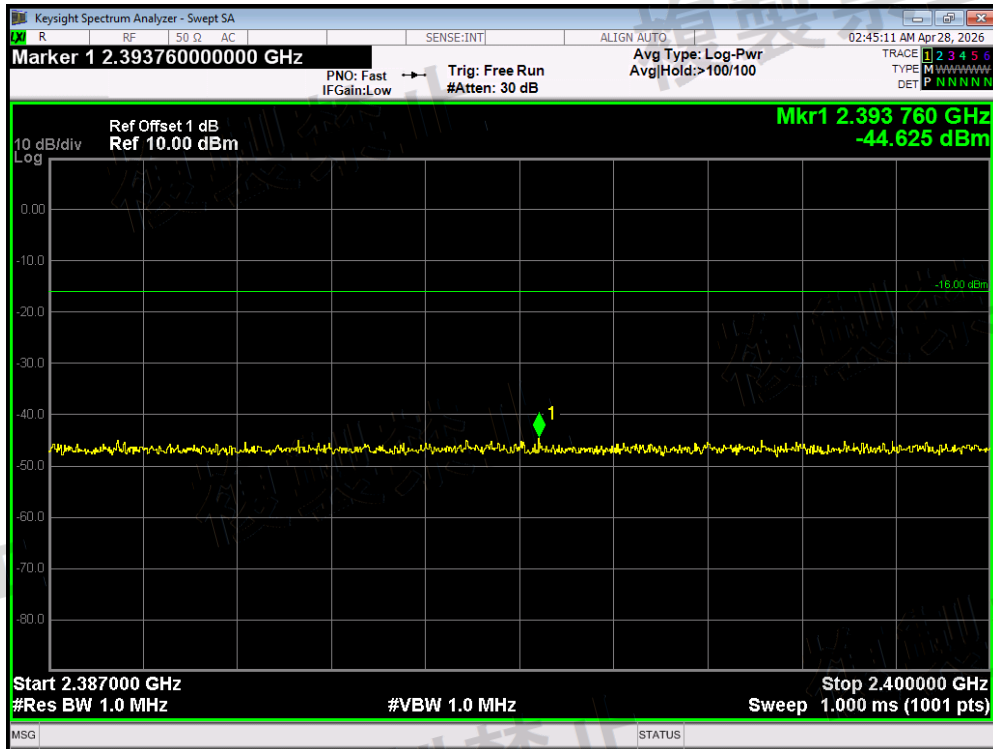
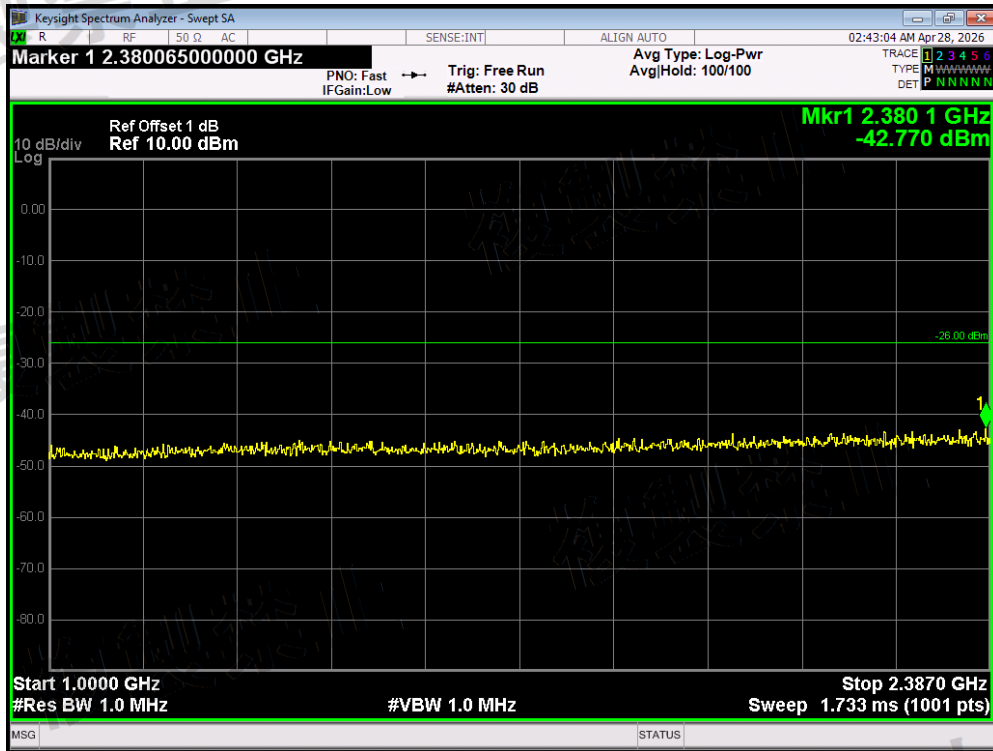


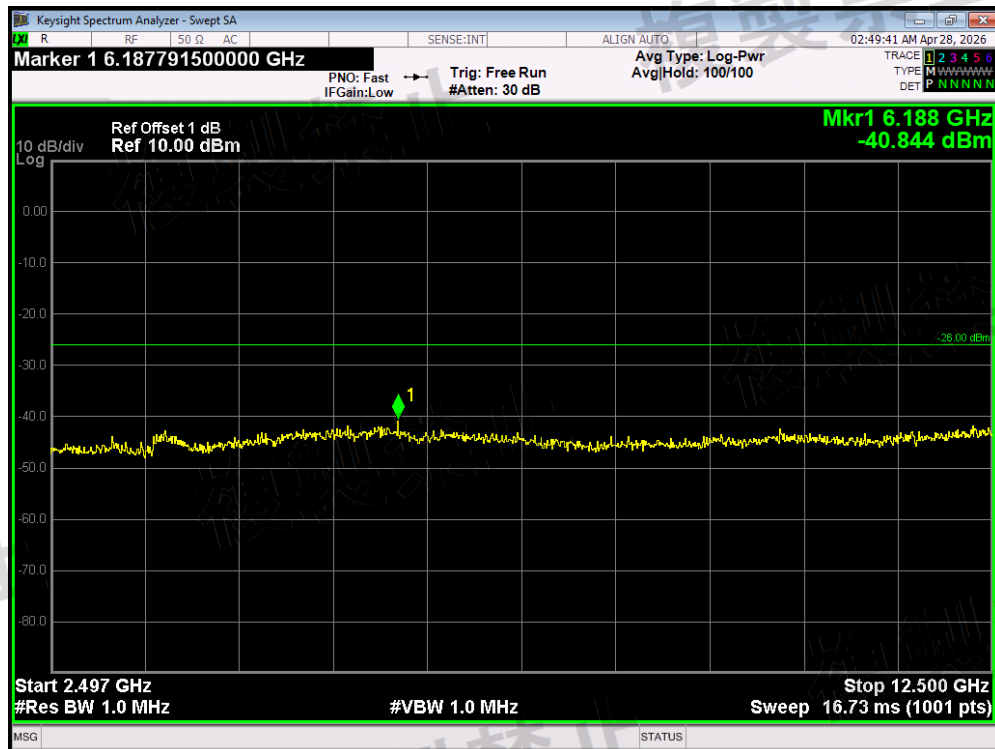
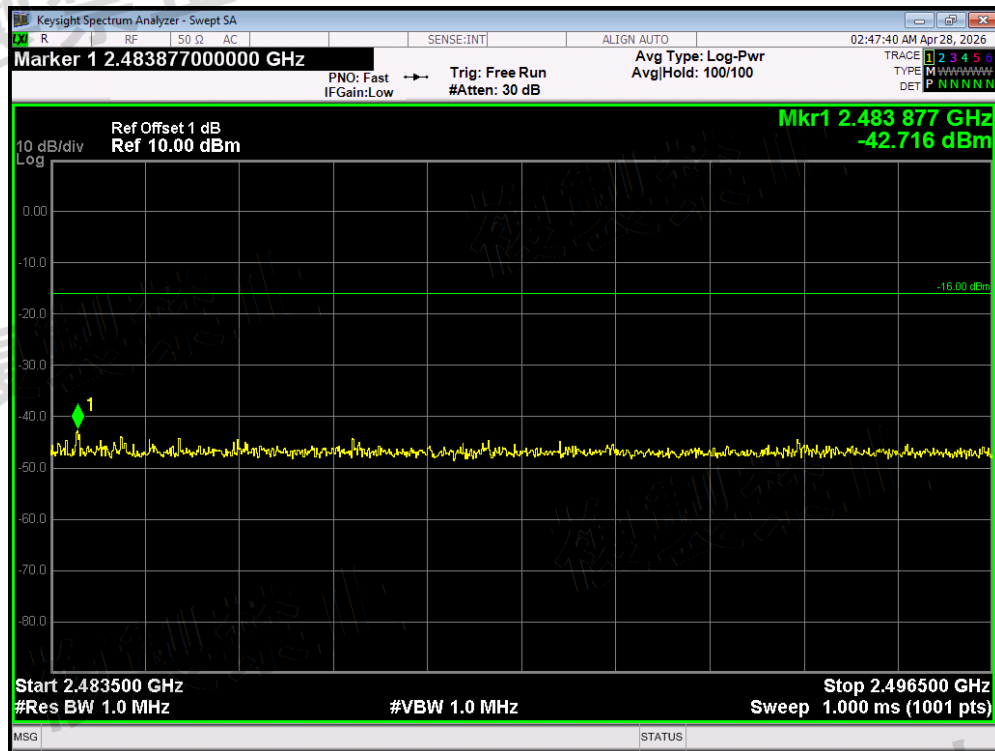




2M CH38







8. Limitation of Collateral Emission of Receiver

8.1. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated until	Calibration body	classification
Spectrum analyzer	Agilent	N9010A	MY55150427	2025/05/16	2026/05/15	Jingheng	(c)
Multimeter	FLUKE	15B+	42320912WS	2025/11/13	2026/11/12	Jingheng	(c)
Attenuator	Mini-Circuits	BW-S10W2	101109	N/A	N/A	N/A	N/A
RF Cable	Micable	C10-01-01-1	100309	N/A	N/A	N/A	N/A

Remark:

(a)Calibration conducted by the National Institute of Information and Communications Technology(NITC) in Japan (hereinafter referred to as “NITC”) or a designated calibration agency under Article 102-18 paragraph(1) in JRL

(b)Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act(Act No.51 of 1992)

(c)Calibration conducted in countries except Japan, which shall be equivalent to the calibration Conducted by the NITC or a designation agency under Article 102-18 paragraph(1)

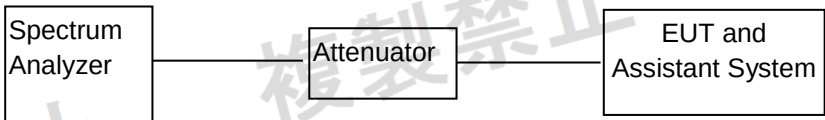
(d)Calibration, etc. conducted by using measuring instruments and other equipment listed in the night column of appended table No.3,whice shall have been given any type of calibration, etc. listed above from(a) to (c).

From JRL Article 24-2,paragraph 4,item2

8.2. Limit

The limit on secondary emissions radiated from the receiving equipment within which the function of other radio equipment will not be impaired shall be, in terms of the power of a dummy antenna circuit that has the same electrical constant as the receiving antenna, 4 nW or less at a frequency below 1GHz and 20nW or less at a frequency of 1 GHz or higher as measured using the circuit.

8.3. Block diagram of test setup



8.4. Test Procedure

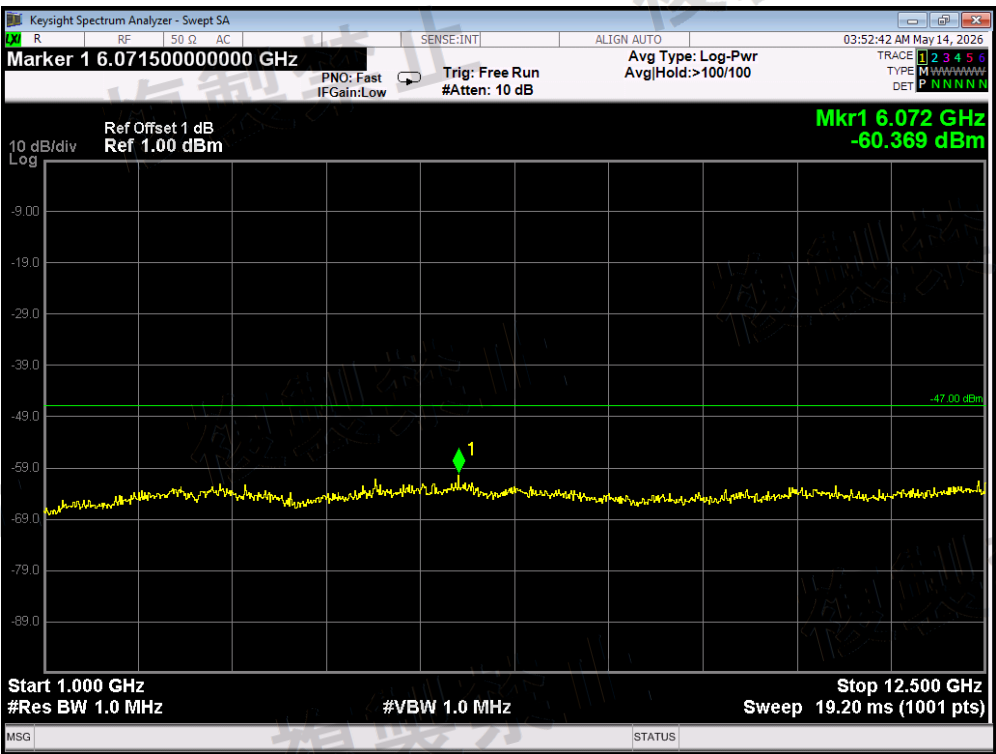
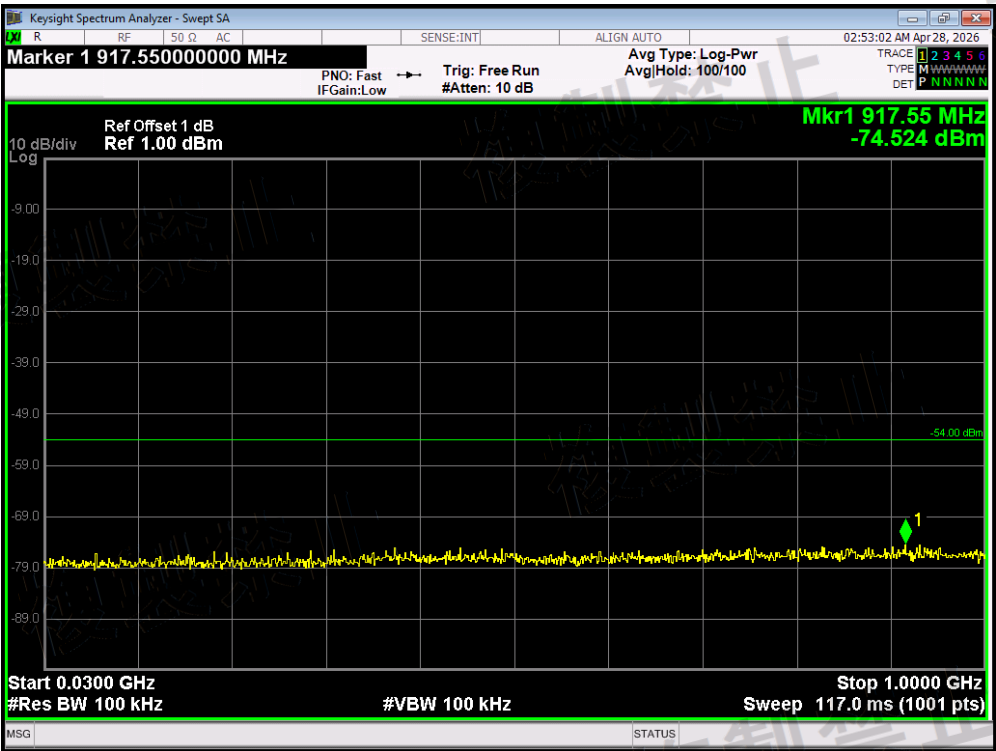
- (1) Configure EUT and assistant system according clause 2.3 and 8.3
- (2) Set EUT work in test mode as described in clause 2.3
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 Resolution BW: 100 KHz for frequency below 1GHz and 1MHz for frequency above 1GHz
 Video BW: 100 KHz for frequency below 1GHz and 1MHz for frequency above 1GHz
 Detector: Peak Trace Mode: Max Hold.
- (4) Sufficient number of measurements and samples are taken when measuring at average.
- (5) All the emissions from 30MHz to 13GHz were measured and record.

8.5. Test result

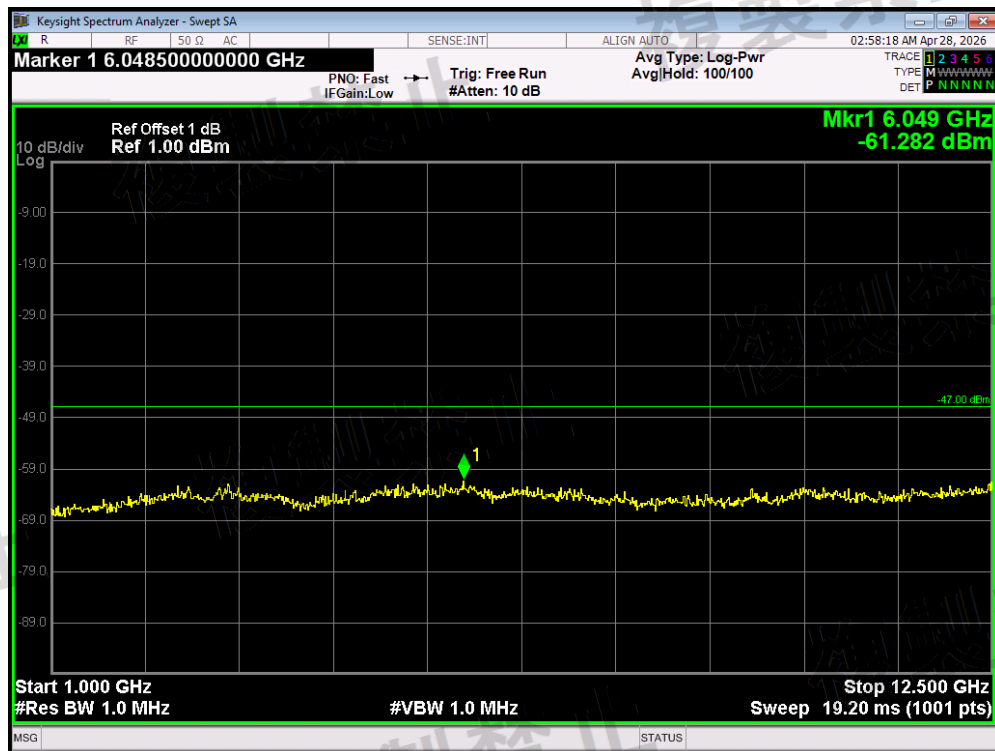
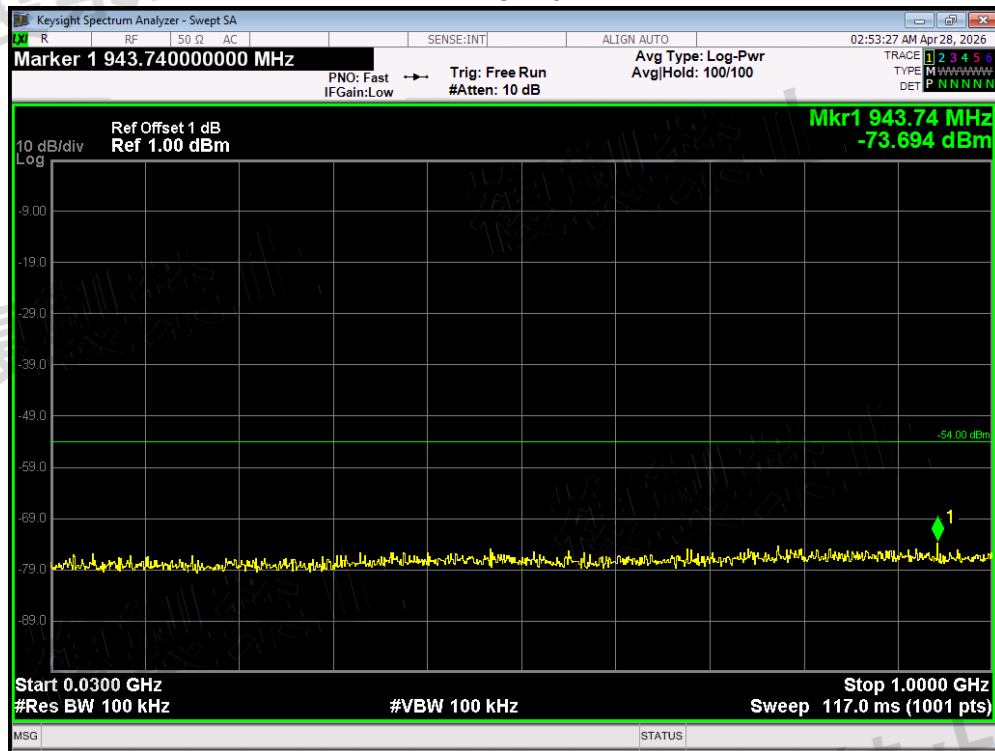
Voltage (V)	Mode	CH	Frequency (MHz)	Reading (dBm)	Limit (dBm)	Result
Normal	GFSK (1M TX mode)	CH 0	30-1000	-74.524	-54	PASS
			1000-12500	-60.369	-47	PASS
		CH 19	30-1000	-73.694	-54	PASS
			1000-12500	-61.282	-47	PASS
		CH 39	30-1000	-74.135	-54	PASS
			1000-12500	-61.256	-47	PASS
	GFSK (2M TX mode)	CH 1	30-1000	-74.435	-54	PASS
			1000-12500	-60.626	-47	PASS
		CH 19	30-1000	-73.817	-54	PASS
			1000-12500	-60.728	-47	PASS
		CH 38	30-1000	-74.601	-54	PASS
			1000-12500	-61.593	-47	PASS

8.6. Original test data

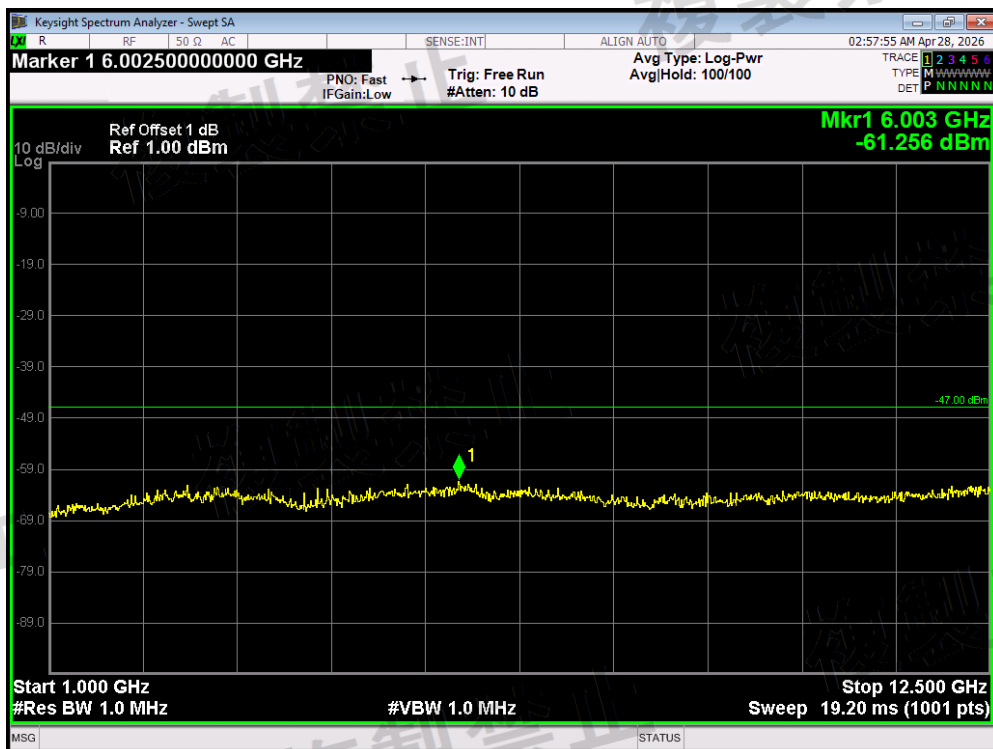
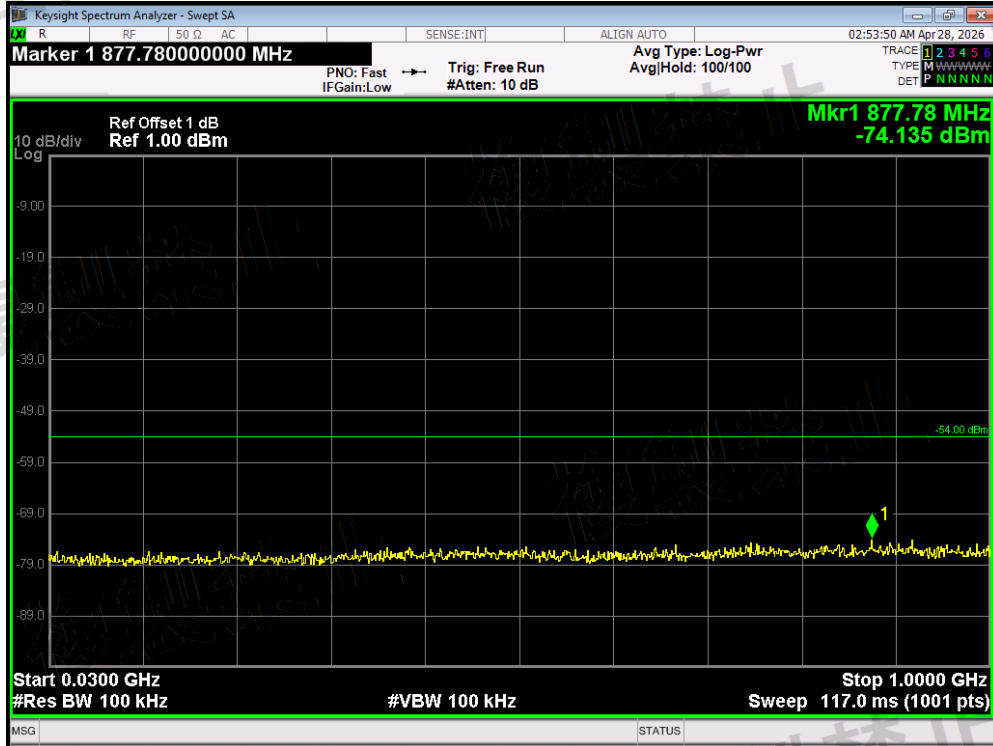
1M CH0



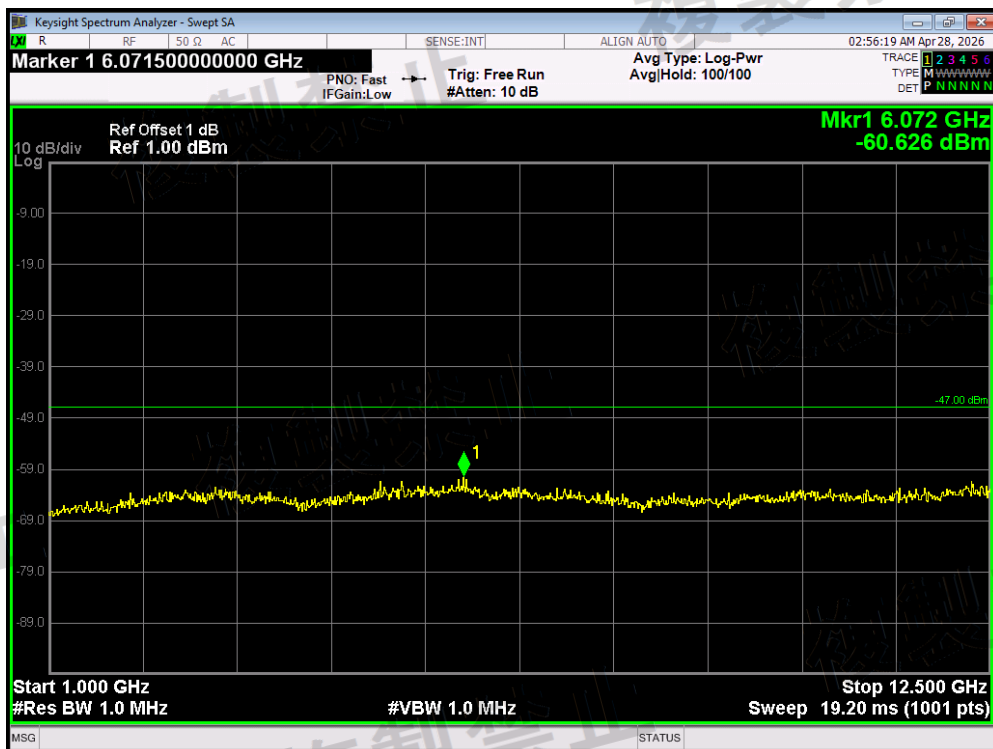
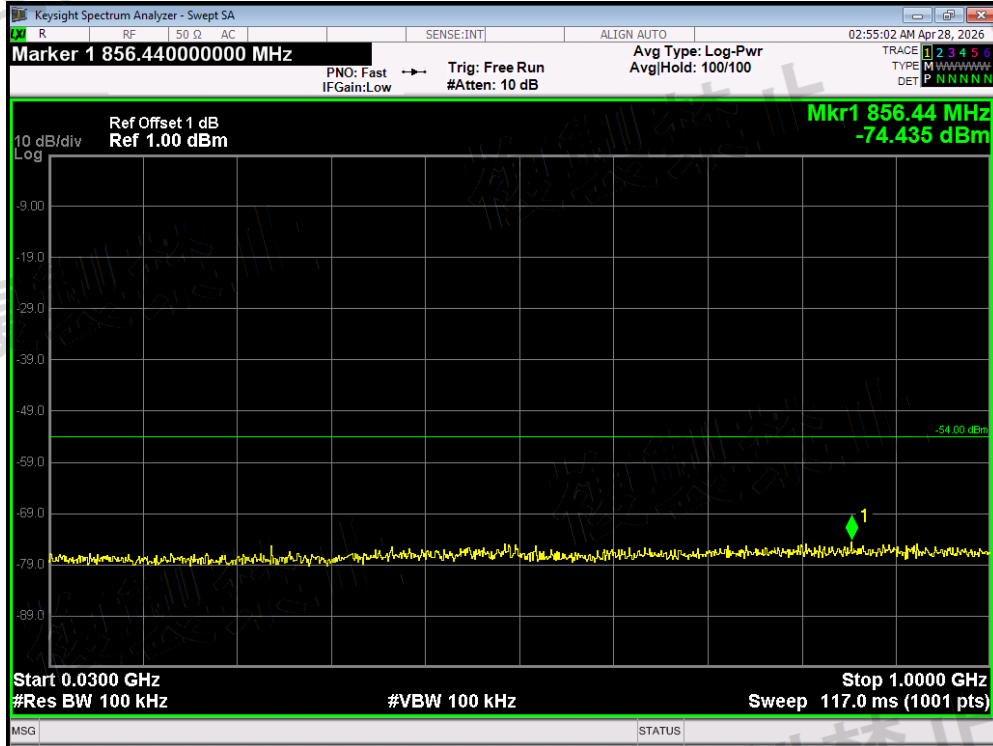
1M CH19



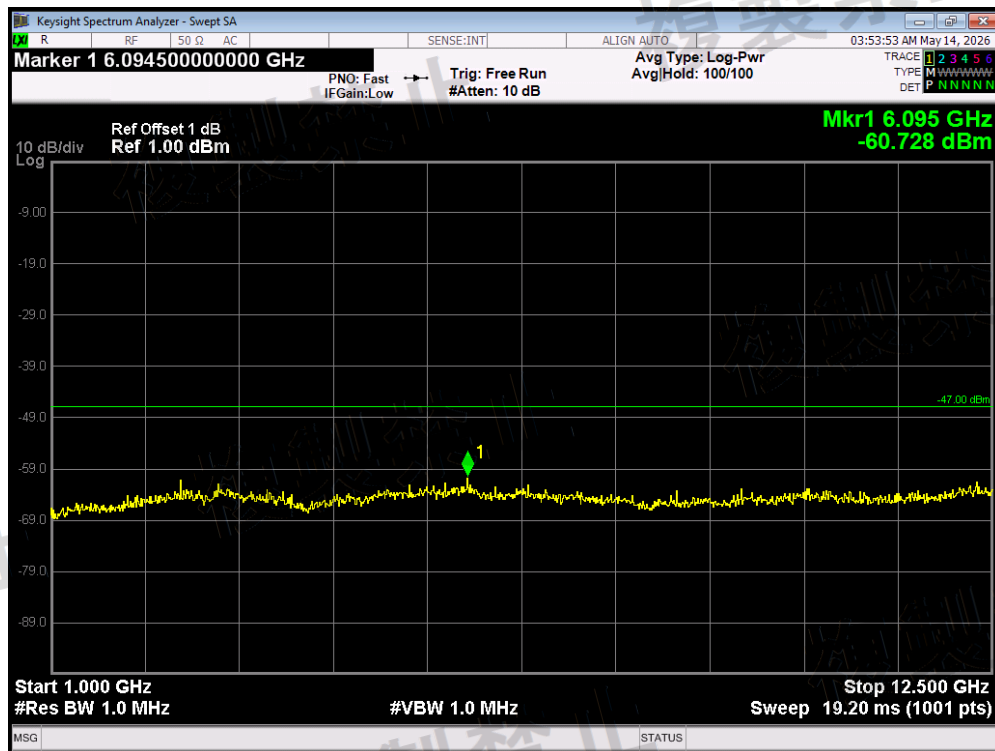
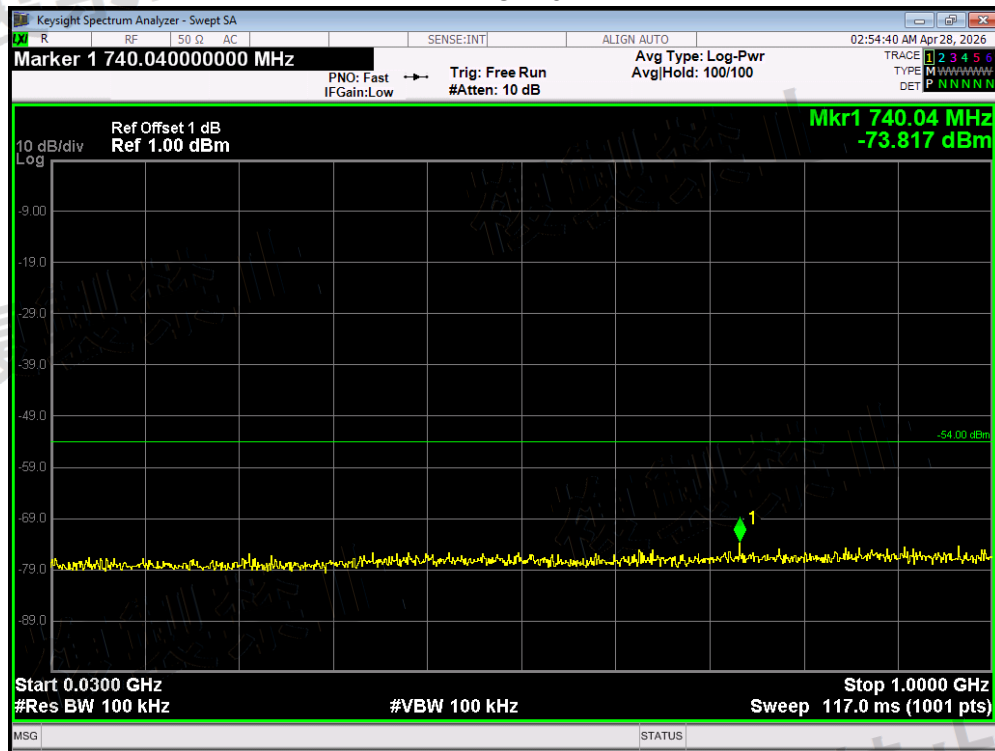
1M CH39



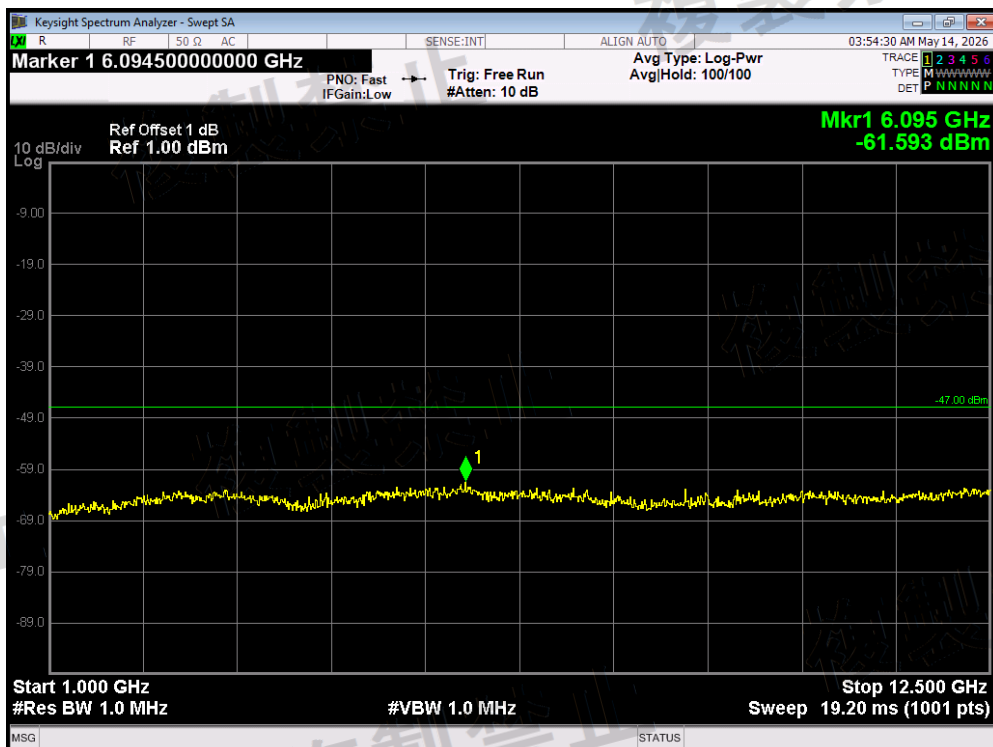
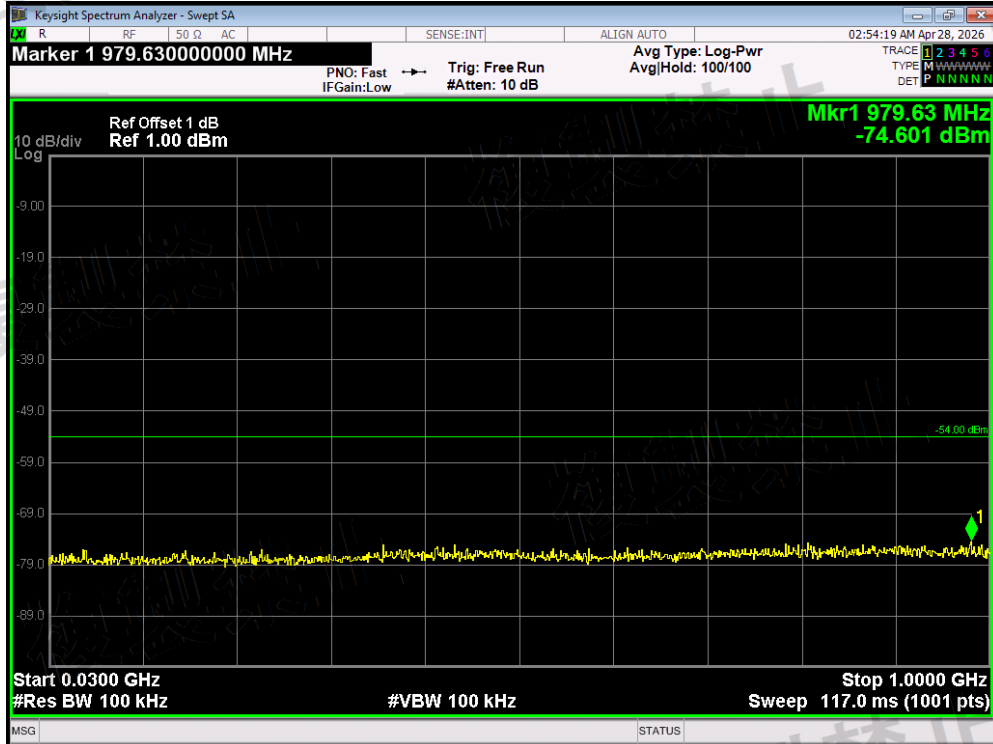
2M CH1



2M CH19

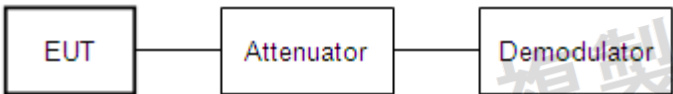


2M CH38

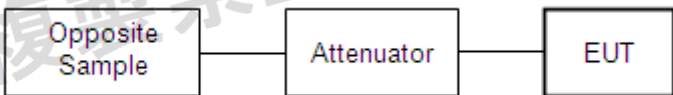


9. Interference prevention function

9.1. In case identification code is transmitted



9.2. In case identification code is received



9.3. Measuring Equipment Conditions

- a. The Demodulator shall demodulate the TX-signal transmitted by the EUT and be able to display the contents of the identification code.
- b. The opposite sample shall be able to transmit TX-signal equivalent to the TX-signal transmitted by the EUT.

9.4. Conditions of EUT

The EUT is set on the usual operating mode.

9.5. Measurement Procedure

- (1) In case the EUT possesses function to transmit identification code automatically
 - a. Predetermined identification code is transmitted by the EUT.
 - b. Verify the transmitted identification code.
- (2) In case the EUT possesses function to receive identification code automatically
 - a. Predetermined identification code is transmitted by the opposite sample.
 - b. Verify the working of the normal communication.
 - c. Other code than the predetermined identification code is transmitted by the opposite sample.
 - d. Verify the EUT to stop transmitting or to display that the ID code is different.

Radio interface prevention function

	Normal voltage	Low voltage	High voltage
Result	OK	/	/

Mac address: 21:85:1D:91:47:22



N/A
21:85:1D:91:47:22
NOT BONDED -34 dBm

10. Transmission Antenna Gain (EIRP Antenna Power) Measurement

10.1. Limit

Item	Limits
EIRP Power Density	$\leq 16.91 \text{ dBm/MHz}$ (FH form 2427 - 2470.75 MHz) $\leq 22.14 \text{ dBm/MHz}$ (OFDM, DS from 2400~2483.5MHz) $\leq 22.14 \text{ dBm}$ (Other from 2400~2483.5MHz)
Note: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm/MHz, but Antenna Power(Conducted) limit is 10 mW/MHz (10 dBm/MHz), So the test item will not be applied to the transmission antenna which has a gain of 2.14dBi or less	

10.2. Measuring Instruments And Setting

Please refer to section 5 in this report. The following table is the setting of spectrum analyzer.

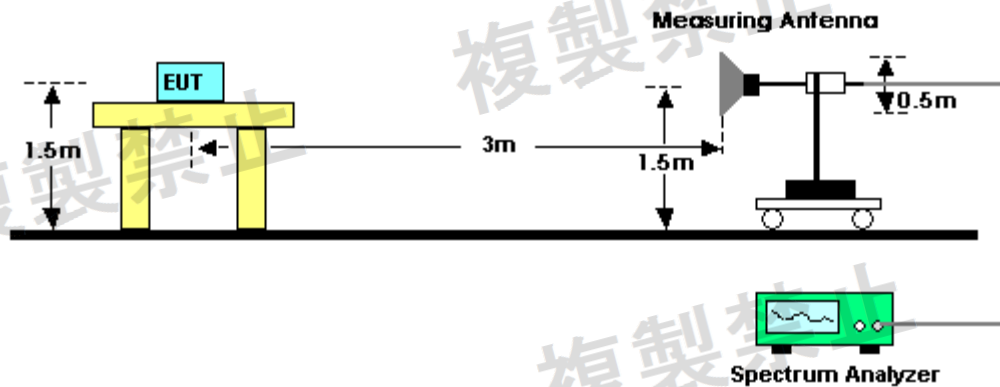
Spectrum Parameter	Setting
Attenuation	Auto
RB/VB	1 MHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

10.3. Test Procedures

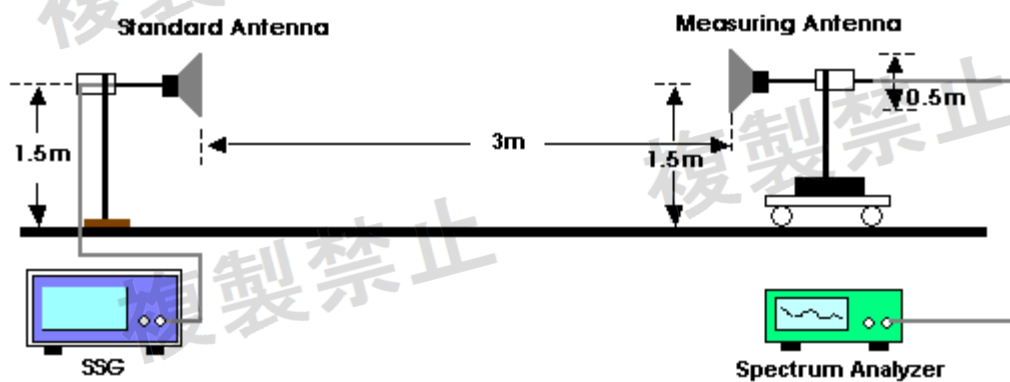
- Set EUT and measuring antenna at the same height and roughly facing each other.
- Move the measuring antenna height up and down within $\pm 50 \text{ cm}$ of EUT height and swing it to find the maximum output of the measuring antenna. The output level at the spectrum analyzer is read as "E".
- Remove the EUT from the turn table and put the replacing antenna facing to measuring antenna at same height. Set the standard signal generator (SSG) at same frequency and transmit on then receive the signal
- Swing the replacing antenna give a maximum receiving level.
- Move the measuring antenna height up and down within $\pm 50 \text{ cm}$ of replacing antenna height and swing it to find the maximum receiving level.
- Set SSG output power at Pt to give the equivalent output level of "E" or calculate Pt with SSG output which gives the nearest of "E" and difference ($\pm 1 \text{ dB}$). Record the Pt.
- Calculate EIRP by the formula below $\text{EIRP} = G_t - L + P_t$.
 Gt: gain of replacing antenna (dBi)
 L: feeder loss between SSG and replacing antenna
 Pt: Output power of the SSG
- If the antenna for the EUT has circular polarization, sum of V-field and H-field will be result if measuring antenna is linear polarization.

10.4. Test Setup Layout

For EUT radiation measurement



For standard antenna measurement



10.5. Test Deviation

There is no deviation with the original standard.

10.6. EUT Operation During Test

The EUT was programmed to be in continuously transmitting mode.

10.7. Results of Transmission Antenna Gain

The test item will not be applied to the transmission antenna which has a EIRP of 12.14 dBm or less

11. Transmission Radiation Angle Width (3dB Beamwidth) Measurement

11.1. Limit

Item	Limits
3dB antenna beam width	$360/A$ (If $A < 1$; then $A=1$) $A = \{\text{EIRP Power [mW]} / 16.36 \text{ for DS, OFDM}\}$ or $A = \{\text{EIRP Power [mW]} / 4.9 \text{ for FH}\}$
Note: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm/MHz, but Antenna Power(Conducted) limit is 10 mW/MHz (10 dBm/MHz), So the test item will not be applied to the transmission antenna which has a gain of 2.14dBi or less	

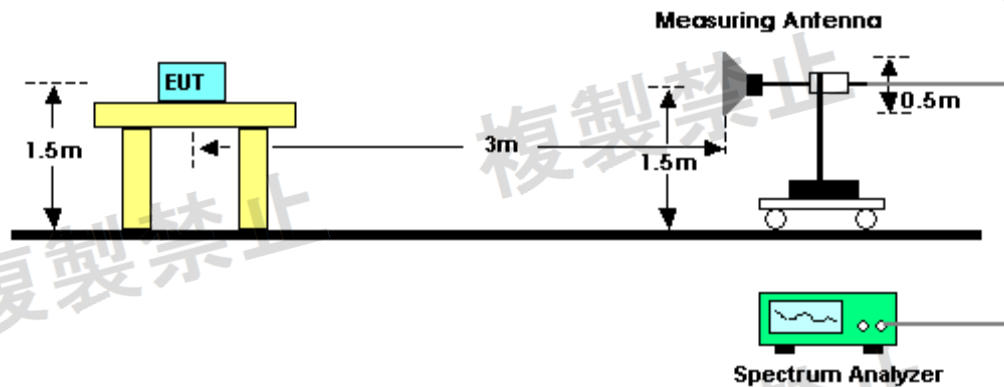
11.2. Measuring Instruments And Setting

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	0 MHz
RB	1 MHz
VB	1 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

11.3. Test Procedures

1. Set EUT and measuring antenna at the same height and roughly facing each other.
2. Set spectrum analyzer with condition in section 4.7.2 and tune reference level to observe receiving signal position.
3. Rotate directions of the EUT horizontally and vertically to find the maximum receiving power.
4. Move the measuring antenna height up and down within $\pm 50\text{cm}$ of EUT height and swing it to find the maximum output of measuring antenna. The output level at the spectrum analyzer is read as "E"
5. Calculate permitted radiation angle in horizontal and vertical using EIRP measured in another test method.
6. Calculate 3dB antenna beam width by the formula below $360/A$ (If $A < 1$; then $A=1$).
 $A = \{\text{EIRP Power [mW]} / 16.36 \text{ for DS, OFDM}\}$ or
 $A = \{\text{EIRP Power [mW]} / 4.9 \text{ for FH}\}$

11.4. Test Setup Layout



11.5. Test Deviation

There is no deviation with the original standard.

11.6. EUT Operation During Test

The EUT was programmed to be in continuously transmitting mode.

11.7. Test Result Of Transmission Radiation Angle Width (3dB Beamwidth)

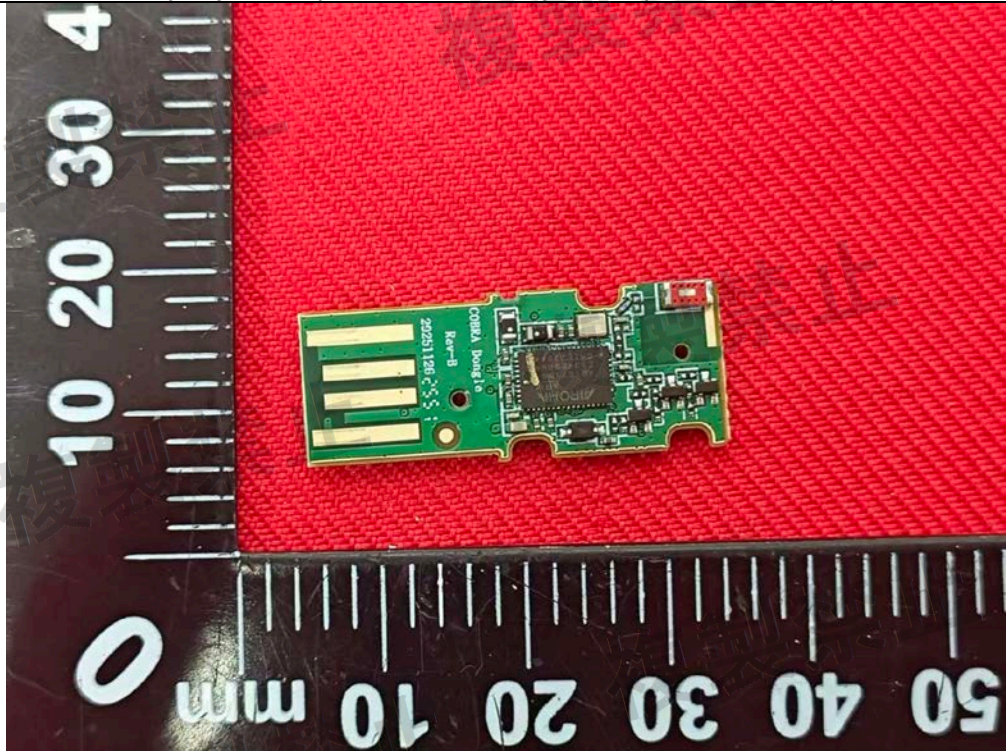
The test item will not be applied to the transmission antenna which has a EIRP of 12.14 dBm or less.

12. Construction Protection Confirmation Method

12.1. Limit

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

12.2. Result
Confirmation Method

Protected Method	Use surface mount technology
Description	RF and Modulation parts are mounted on PCB with surface mount technology, and there is no any adjustable parts on PCB or adjustable parts are not exposed
Photo	

END OF REPORT