



MIC public notice 88 TEST REPORT

On Behalf of

Shenzhen Information Infinity Co., Ltd.

Multifunctional Bluetooth speaker

Model No.: Monster Sound base YS02

Prepared for : Shenzhen Information Infinity Co., Ltd.
Address : 1st Floor, Building B, Clean Sunshine Park, No.15, Keji North 2nd Road, Songpingshan Community

Prepared By : Shenzhen PSI Testing Co., Ltd.
Address : 1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road, Shajing Subdistrict, Bao'an District, Shenzhen, Guangdong, China

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TABLE OF CONTENTS

Description	Page
1. General Information	6
1.1. Description of Device (EUT)	6
1.2. Accessories of Device (EUT)	7
1.3. Ancillary Equipment Details	7
1.4. Test Lab Information	7
2. Summary of test	8
2.1. Test Standard Description	8
2.2. Summary of test result	8
2.3. Block Diagram	9
2.4. Test mode	9
2.5. Software test version and power setting information	9
2.6. Test Conditions	10
2.7. Test Voltage	10
2.8. Measurement Uncertainty (95% confidence levels, k=2)	10
3. Antenna Power	11
3.1. Test Equipment	11
3.2. Limit	11
3.3. Block diagram of test setup	11
3.4. Test Procedure	11
3.5. Test result	11
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	15
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	18
5.5. Test result	18
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	22
6.5. Test result	22
7. Transmitter Spurious Emissions (Conducted)	26
7.1. Test Equipment	26
7.2. Limit	26
7.3. Block diagram of test setup	26
7.4. Test Procedure	26

7.5. Test result	27
8. Transmission rate	31
8.1. Limit	31
8.2. Block diagram of test setup	31
8.3. Test Procedure	31
8.4. Test result	31
9. Process gain	32
9.1. Limit	32
9.2. Block diagram of test setup	32
9.3. Test Procedure	32
9.4. Test result	32
10. Number of carriers	33
10.1. Limit	33
10.2. Block diagram of test setup	33
10.3. Test Procedure	33
10.4. Test result	33
11. Carrier sensing function	34
11.1. Limit	34
11.2. Block diagram of test setup	34
11.3. Test Procedure	34
11.4. Test result	34
12. Interference prevention function	35
12.1. Limit	35
12.2. Test Equipment	35
12.3. Measuring ID Code Software	35
12.4. Block diagram of test setup	35
12.5. Test Procedure	35
12.6. Test result	35
13. Secondary Radiated Emissions	36
13.1. Test Equipment	36
13.2. Limit	36
13.3. Block diagram of test setup	36
13.4. Test Procedure	36
13.5. Test result	37
14. 3dB Beam Bandwidth	41
14.1. Test Equipment	41
14.2. Block diagram of test setup	41
14.3. Test Procedure	41
14.4. Test result	42
15. Test setup photo	43
16. EUT Photos	43

TEST REPORT DECLARATION

Applicant : Shenzhen Information Infinity Co., Ltd.
Address : 1st Floor, Building B, Clean Sunshine Park, No.15, Keji North 2nd Road,
Songpingshan Community
Manufacturer : Shenzhen Timely Joy Technology Co., Ltd.
Address : Room 414, Building T3 ,Lijincheng Center, Yousong Community,
LonghuaSub-district, Longhua District, Shenzhen City
EUT name : Multifunctional Bluetooth speaker
(A) Model No. : Monster Sound base YS02
(B) Trademark : 魔声 Monster

Measurement Standard Used:

MIC public notice 88:2004, annex 43 and annex 1, Article 2, Paragraph 1, Item 19

Test Result: PASS

The device described above is tested by Shenzhen PSI Testing Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the MIC public notice 88:2004, annex 43 and annex 1 limits both conducted and radiated emissions. The test results are contained in this test report and Shenzhen PSI Testing Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests.

After the test, our opinion is that EUT compliance with the requirement of the above standards.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen PSI Testing Co., Ltd.

Tested by (name + signature)..... Jensen Wang
Test Engineer

Jensen Wang

Approved by (name + signature)..... Simple Guan
Project Manager

Simple Guan

Date of issue..... July 7, 2026

Revision History

Revision	Issue Date	Revisions	Revised By
V0	July 7, 2026	Initial released Issue	Jensen Wang

1. General Information

1.1. Description of Device (EUT)

EUT	: Multifunctional Bluetooth speaker
Model No.	: Monster Sound base YS02
Diff	: N/A
Power supply	: DC 5V from USB, DC 3.7V from battery
Radio Technology	: Bluetooth V5.4 LE
Operation frequency	: 2402MHz -2480MHz
Number of channels	: 40
Modulation	: GFSK
Channel spacing	: 2MHz
Stated power	: 2mW
Antenna Type	: Internal Antenna, max gain -0.58dBi
Software version	: V1.0
Hardware version	: V1.0
Note	: Antenna information is provided by applicant. : Testing lab is not responsible for the accuracy of the information.

1.2. Accessories of Device (EUT)

Accessories : N/A
Manufacturer : N/A
Model : N/A
Ratings : N/A

1.3. Ancillary Equipment Details

No.	Description	Manufacturer	Model	Serial Number	Certification
1.	Notebook PC	Dell	Latitude 3490	N/A	N/A
2.	USB TO TTL	N/A	CP2102 MODULES	N/A	N/A
3	N/A	N/A	N/A	N/A	N/A

1.4. Test Lab Information

Shenzhen PSI Testing Co., Ltd.

1-2/F., Building 5, Yudafu Industrial Park, No.10, Xingye West Road, Shajing Subdistrict,
Bao'an District, Shenzhen, Guangdong, China

August 30, 2023 File on A2LA
Certificate Number: 6975.01

2. Summary of test

2.1. Test Standard Description

MIC Notice No.88 Appendix No. 43

Second-Generation Low-Power Data Communication System/Wireless LAN System

2.2. Summary of test result

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	N/A
3.2 (7)	Occupied Frequency Bandwidth	Pass
3.2 (8)	Spread Bandwidth	Just for reported
3.2 (9)	Process Gain	N/A
3.2 (10)	Number of Carriers	N/A
3.2 (11)	Dwell Time	N/A
3.2 (6)	Spurious Emissions	Pass
/	Interference prevention function	Pass
/	Carrier Sensing function 1	N/A*
	Carrier Sensing function 2	N/A**
/	Equivalent Isotropic Radiated Power	Pass
/	3dB Beam Bandwidth	N/A***
Receiver Parameters		
3.3 (1)	Secondary Radiated Emissions	Pass

Note:

1. N/A is an abbreviation for Not Applicable.
 2. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.
 3. This device have more than 1 subcamier in 1MHz, compliance with the requirement.
 - *: Application to transmitting devices which EIRP is less than (2.14dBi + antenna power limit) and the shortage of EIRP is compensated by the antenna power. Not applicable to this product.
 - ***: Application to transmitting devices with OFDM modulation and the occupied bandwidth greater than 26MHz.
 - ***: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm.
 4. Test Equipment calibration method:
 - a) Calibration conducted by the National institute of information and Communications Technology NICT or a designated calibration agency under Article 102-18 paragraph.
 - b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No.51 of1992).
 - c) Calibration conducted in foreign countries, which shall be eguivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph.
 - 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.
- The all calibration corresponds to c) described above.

2.3. Block Diagram



2.4. Test mode

The test software is used to control the operation of the EUT in the continuous transmission mode, and select the test channel and wireless mode:

Mode	Channel	Frequency(MHz)
Carrier Tx Mode	CH0	2402
	CH19	2440
	CH39	2480
GFSK Tx Mode	CH0	2402
	CH19	2440
	CH39	2480

2.5. Software test version and power setting information

Mode	The client 's preset testing software is used to control the operation of EUT in continuous transmission mode and select the testing channel, wireless mode:		
Power level setup by client			
Mode	Channel	Frequency (MHz)	Soft Set
GFSK	CH0	2402	TX level is set as default
	CH19	2440	TX level is set as default
	CH39	2480	TX level is set as default

2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35℃	26℃
Humidity range:	25-75%	54%
Pressure range:	86-106kPa	101kPa

2.7. Test Voltage

Voltage mode	Input Voltage	Radio Unit Voltage
DC	DC 3.37V	DC 3.3V
	DC 3.7V	DC 3.3V
	DC 4.07V	DC 3.3V
Note: 1 The radio unit Voltage with the IC. 2 During external power source is varied by $\pm 10\%$, power supply to the RF circuit of EUT (excluding power source) is less than $\pm 1\%$. So the test only rated voltage (Normal voltage DC 3.7V).		

2.8. Measurement Uncertainty (95% confidence levels, k=2)

Item	MU
Bandwidth	968Hz
Antenna Power	0.41dB
Frequency Tolerance	$\pm 0.5\text{ppm}$
Conducted spurious emission	1.26dB

3. Antenna Power

3.1. Test Equipment

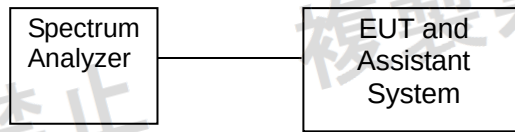
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	N9020A	MY51281067	2025.12.18	1 Year

Note: The test equipment is calibrated by China Certification & Inspection (Group) Co., Ltd.

3.2. Limit

Limit	10mW
Tolerance	+20%, No Low Limit

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 2.4
- (3) Connected the EUT's antenna port to the spectrum analyzer

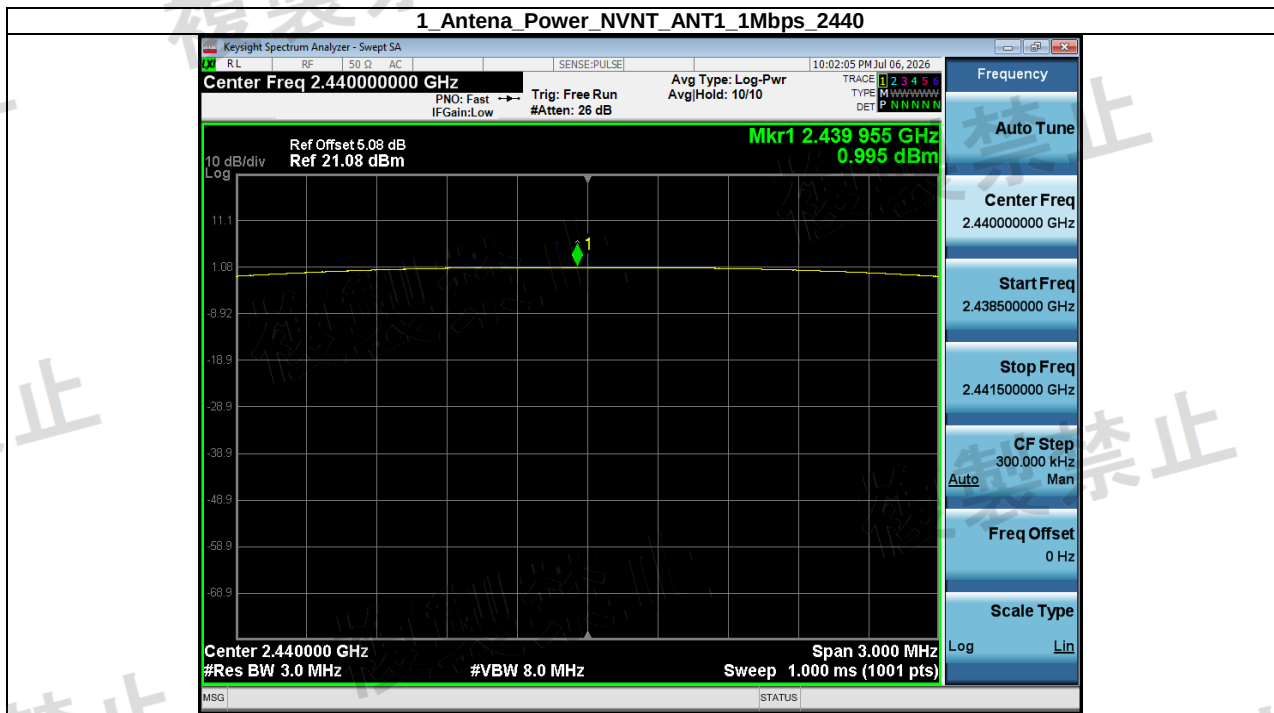
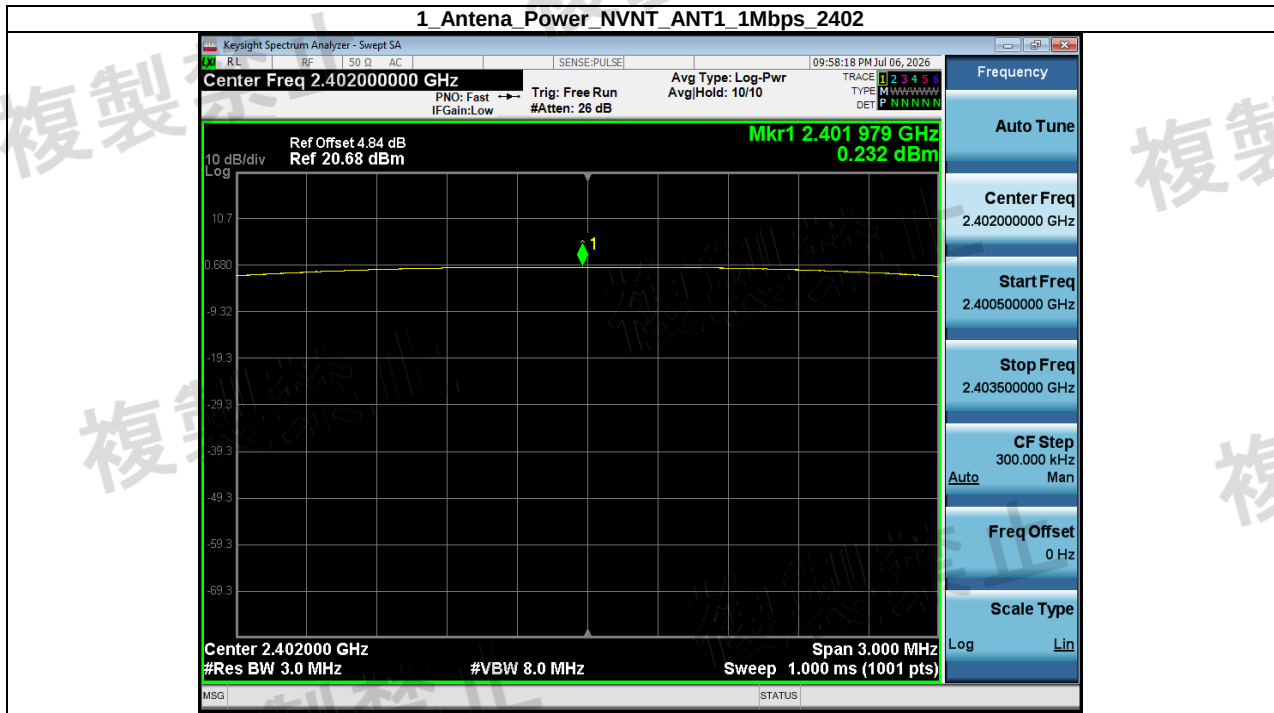
- (4) Set the spectrum as follows:

Set RBW =3.0MHz, VBW =8.0MHz, Detector = peak, Trace mode = max hold, Sweep = auto couple

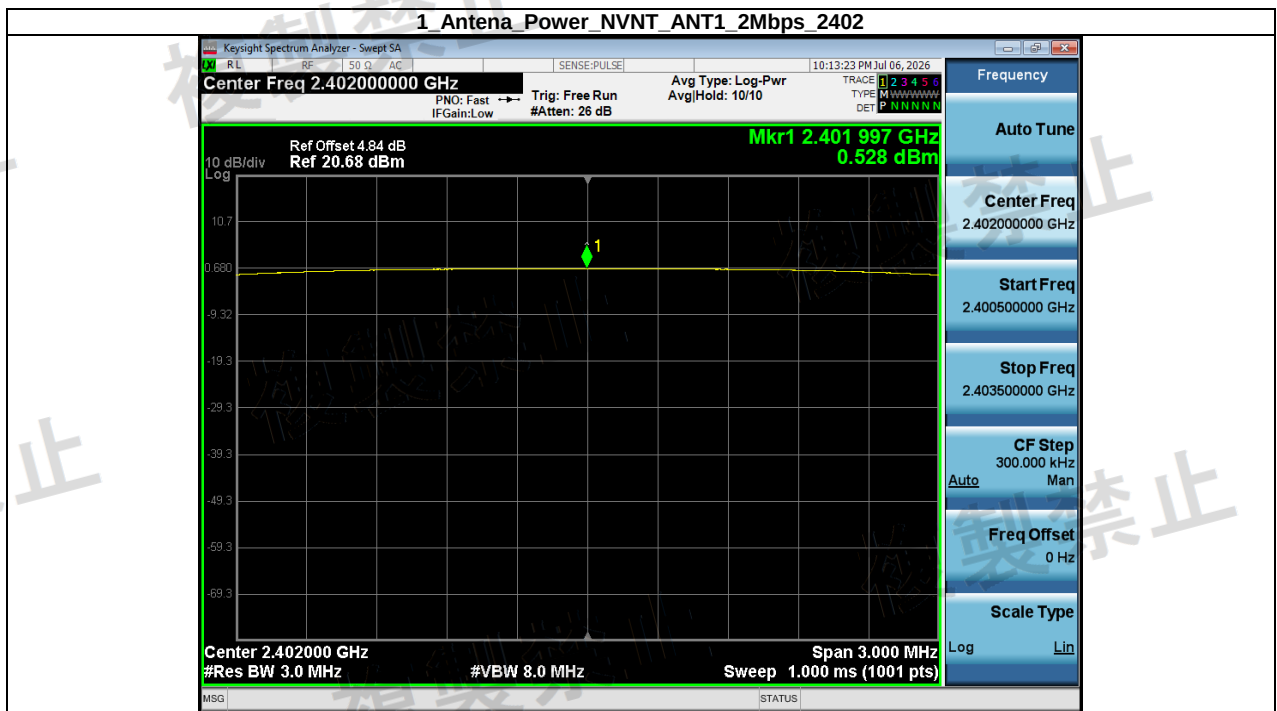
- (5) When the trace is complete, find the peak value of the power envelope and record.

3.5. Test result

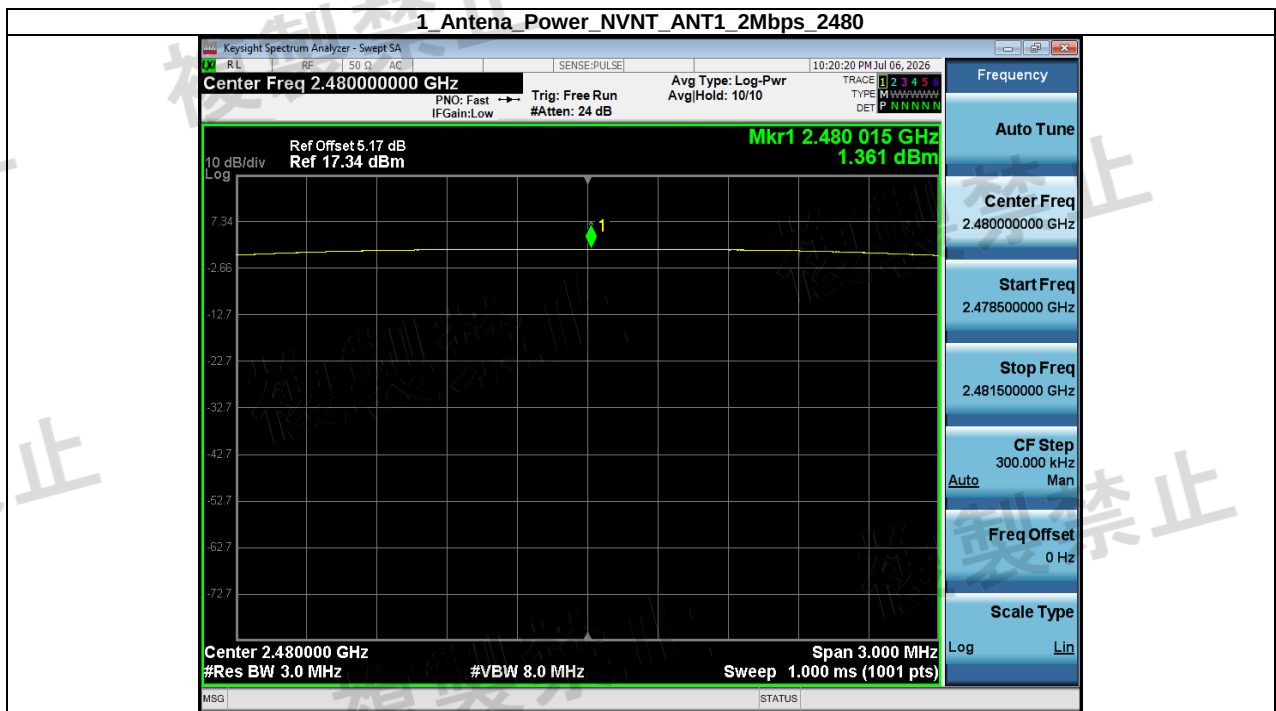
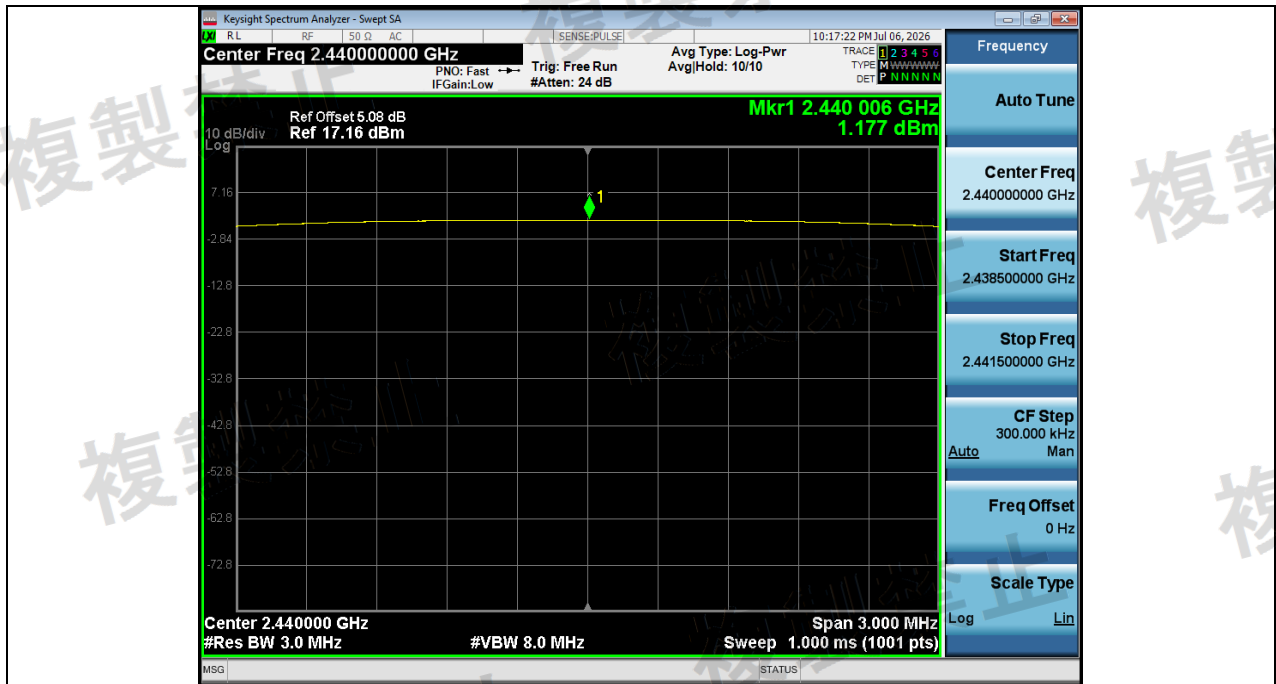
Condition	Antenna	Rate	Frequency	Measured Power(dBm)	Antenna Power(mW)	Rated Power(mW)	Power Limit(mW)	Power Tolerance(%)	Tolerance Limit(%)	Result
NVNT	ANT1	1Mbps	2402.00	0.2320	1.0549	2.0000	10	-47.26	+20	Pass
NVNT	ANT1	1Mbps	2440.00	0.9950	1.2575	2.0000	10	-37.13	+20	Pass
NVNT	ANT1	1Mbps	2480.00	1.2660	1.3384	2.0000	10	-33.08	+20	Pass
NVNT	ANT1	2Mbps	2402.00	0.5280	1.1293	2.0000	10	-43.54	+20	Pass
NVNT	ANT1	2Mbps	2440.00	1.1770	1.3113	2.0000	10	-34.44	+20	Pass
NVNT	ANT1	2Mbps	2480.00	1.3610	1.3680	2.0000	10	-31.60	+20	Pass



1_Antena_Power_NVNT_ANT1_1Mbps_2480



1_Antena_Power_NVNT_ANT1_2Mbps_2440



Condition	Antenna	Mode	Frequency	Measured Power(dBm)	Antenna Gain(dBi)	EIRP(dBm)	EIRP Limit(dBm)	Result
NVNT	ANT1	1Mbps	2402.00	0.23	-0.58	-0.35	12.14	Pass
NVNT	ANT1	1Mbps	2440.00	0.99	-0.58	0.41	12.14	Pass
NVNT	ANT1	1Mbps	2480.00	1.27	-0.58	0.69	12.14	Pass
NVNT	ANT1	2Mbps	2402.00	0.53	-0.58	-0.05	12.14	Pass
NVNT	ANT1	2Mbps	2440.00	1.18	-0.58	0.60	12.14	Pass
NVNT	ANT1	2Mbps	2480.00	1.36	-0.58	0.78	12.14	Pass

EIRP= Measured Power+ Antenna Gain

4. Frequency Tolerance

4.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	N9020A	MY51281067	2025.12.18	1 Year
Note: The test equipment is calibrated by China Certification & Inspection (Group) Co., Ltd.						

4.2. Limit

+/- 50x 10⁻⁶ or less(±50ppm)

4.3. Block diagram of test setup

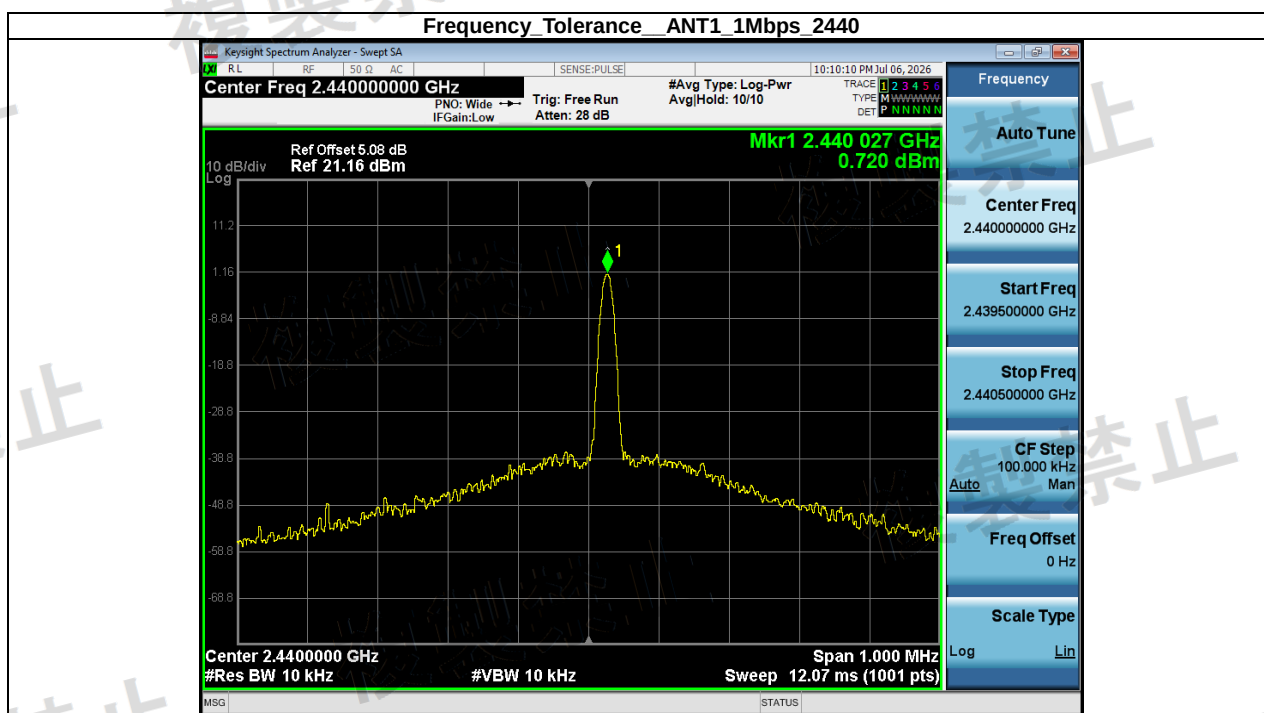
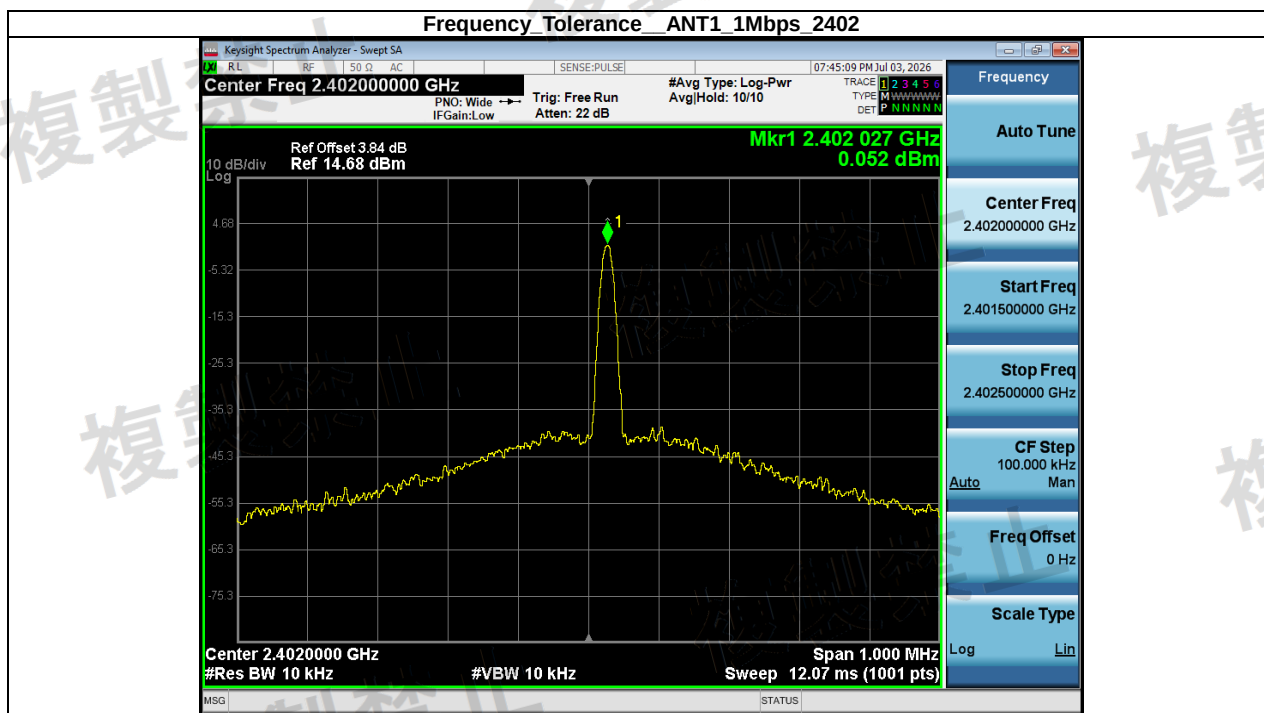


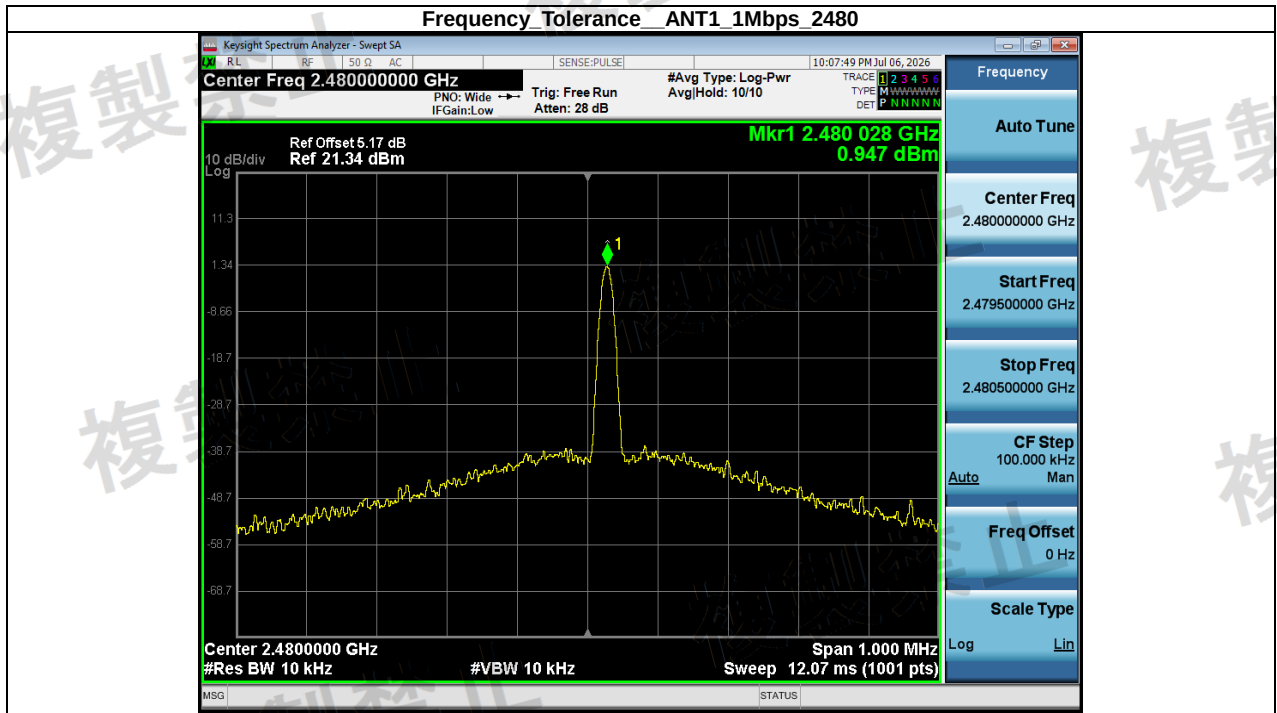
4.4. Test Procedure

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 2.4
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: 10 KHz.
Video BW: 10 KHz.
Span: 1MHz.
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

Condition	Antenna	Modulation	Frequency (MHz)	Test Frequency(MHz)	Frequency Tolerance(ppm)	Limit(ppm)	Result
NVNT	ANT1	Carrier mode	2402	2402.026	10.824	±50	Pass
NVNT	ANT1	Carrier mode	2440.00	2440.027	11.066	±50	Pass
NVNT	ANT1	Carrier mode	2480	2480.028	11.290	±50	Pass





5. Occupied Frequency Bandwidth

5.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	N9020A	MY51281067	2025.12.18	1 Year

Note: The test equipment is calibrated by China Certification & Inspection (Group) Co., Ltd.

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

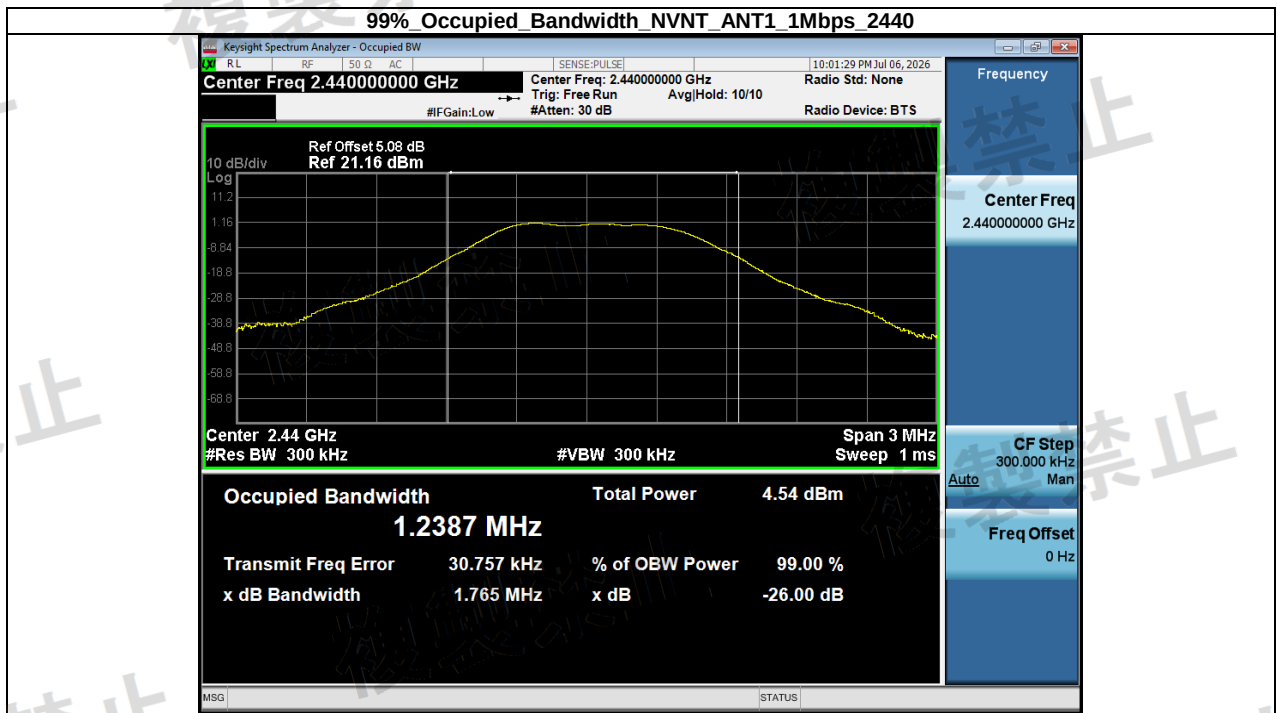
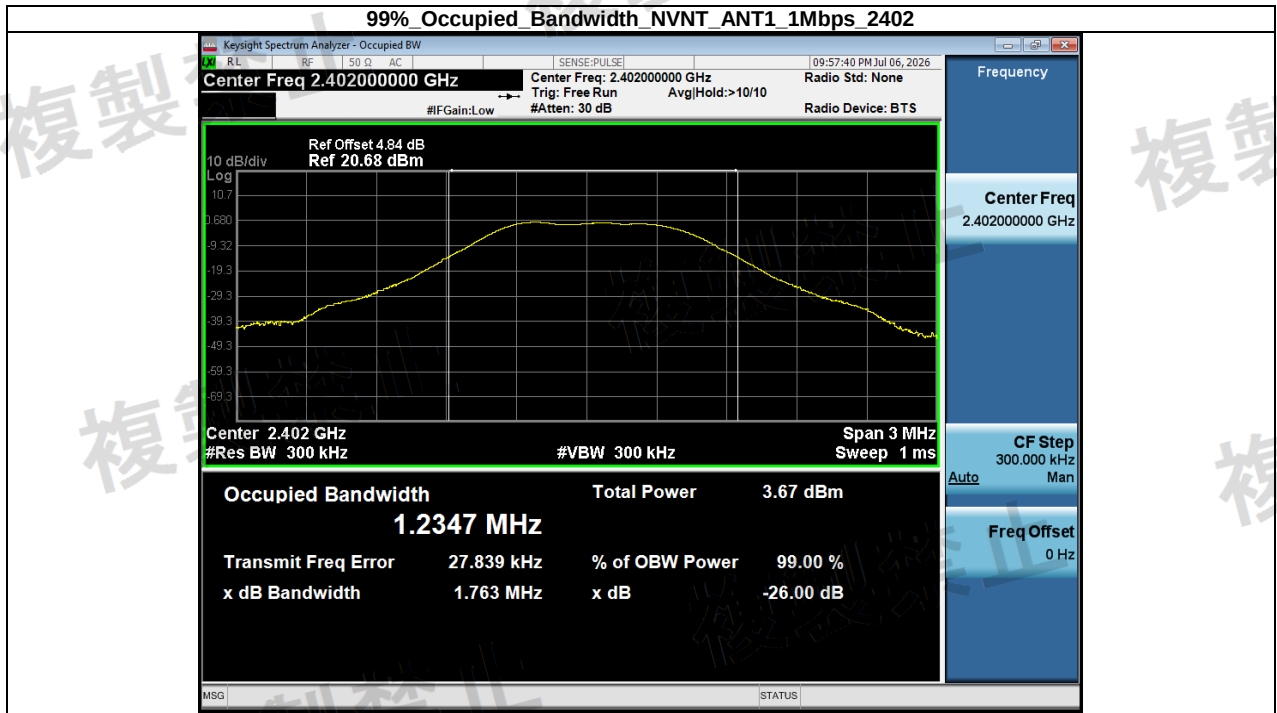


5.4. Test Procedure

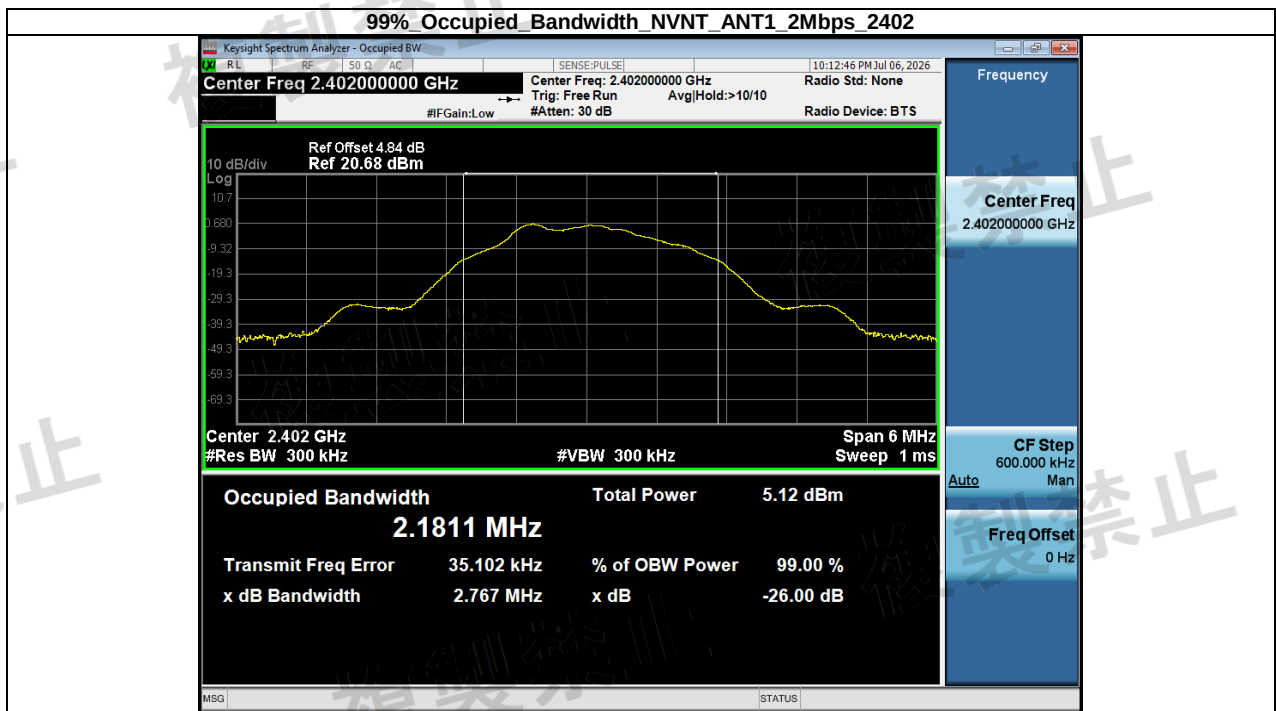
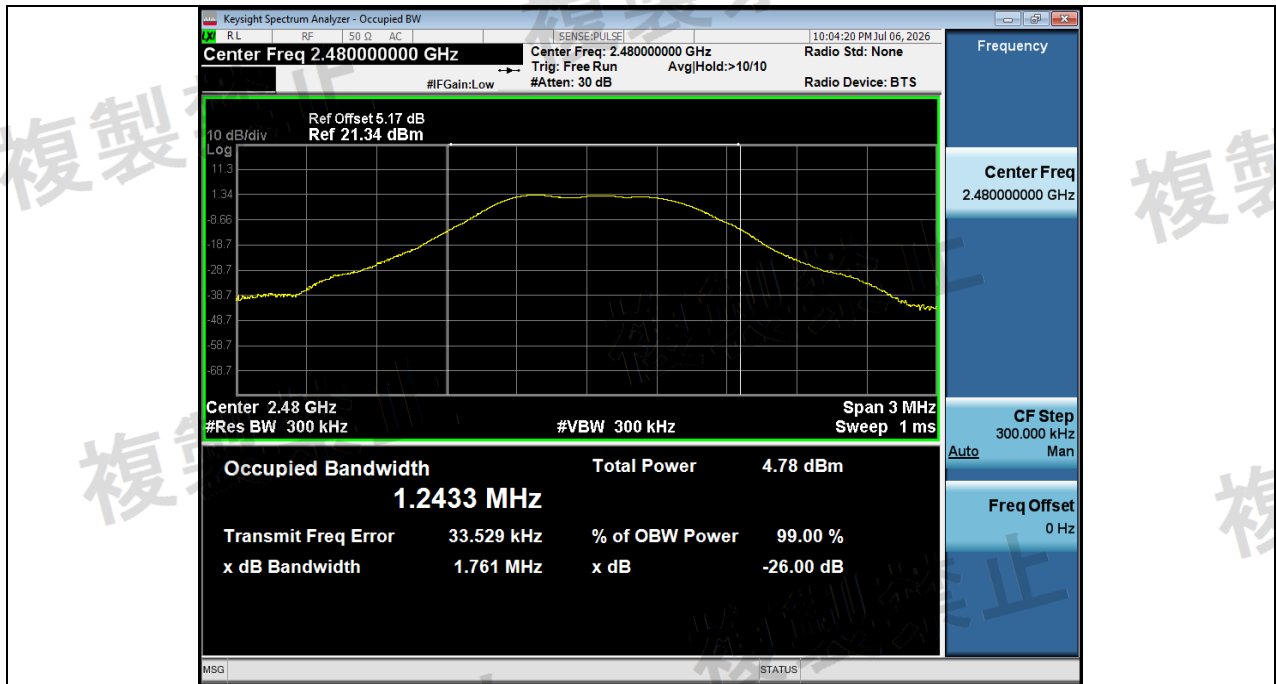
1. Configure EUT and assistant system according clause 2.3 and 5.3
2. Set EUT work in test mode as described in clause 2.4
3. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
Centre Frequency: The centre frequency of the channel under test.
Resolution BW: 300 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 occupied bandwidth (99% bandwidth) with spectrum analyzer's bandwidth measure function.

5.5. Test result

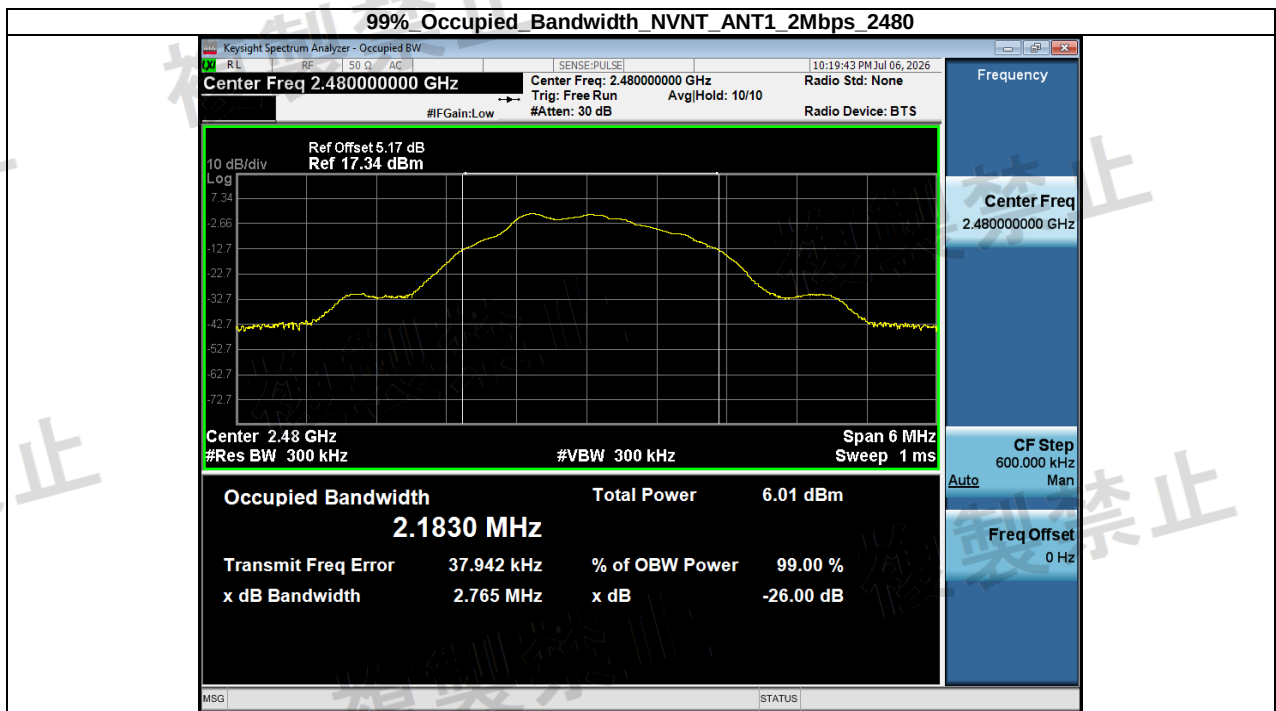
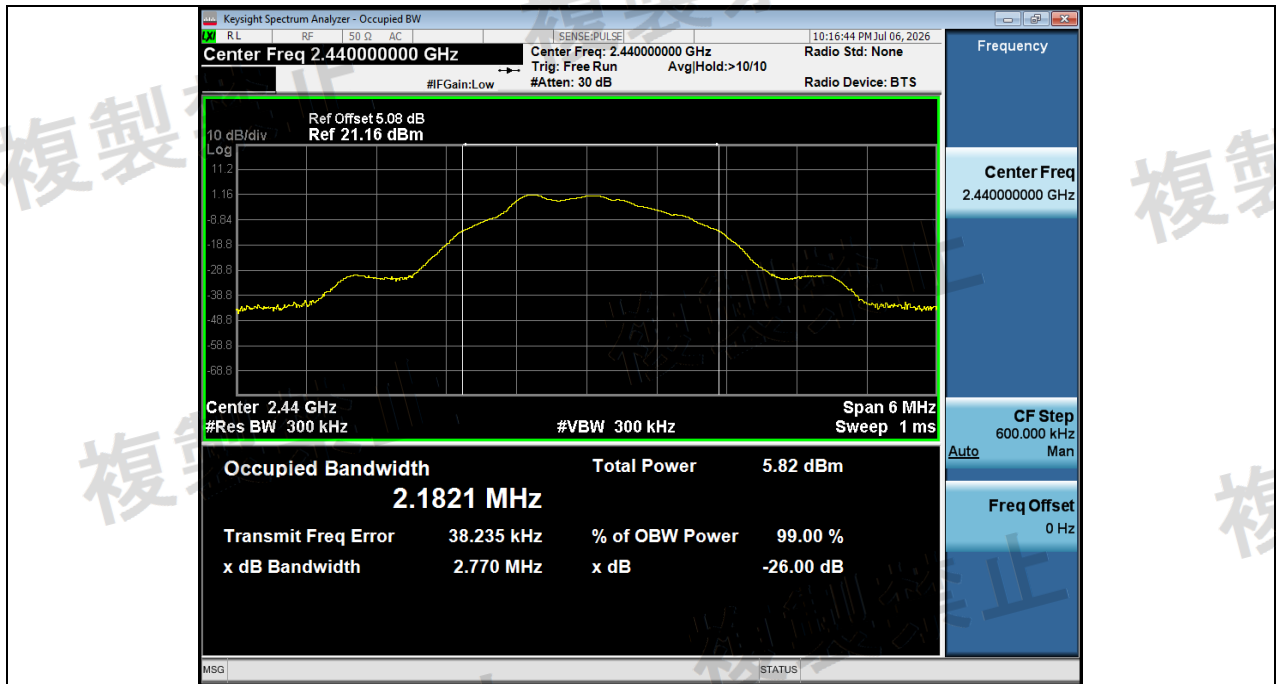
Condition	Antenna	Rate	Frequency(MHz)	Occupied Bandwidth(MHz)	Limit(MHz)	Result
NVNT	ANT1	1Mbps	2402.00	1.23	<26	Pass
NVNT	ANT1	1Mbps	2440.00	1.24	<26	Pass
NVNT	ANT1	1Mbps	2480.00	1.24	<26	Pass
NVNT	ANT1	2Mbps	2402.00	2.18	<26	Pass
NVNT	ANT1	2Mbps	2440.00	2.18	<26	Pass
NVNT	ANT1	2Mbps	2480.00	2.18	<26	Pass



99% Occupied Bandwidth NVNT_ANT1_1Mbps_2480



99%_Occupied_Bandwidth_NVNT_ANT1_2Mbps_2440



6. Spread Bandwidth

6.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	N9020A	MY51281067	2025.12.18	1 Year
Note: The test equipment is calibrated by China Certification & Inspection (Group) Co., Ltd.						

6.2. Limit

N/A.

6.3. Block diagram of test setup

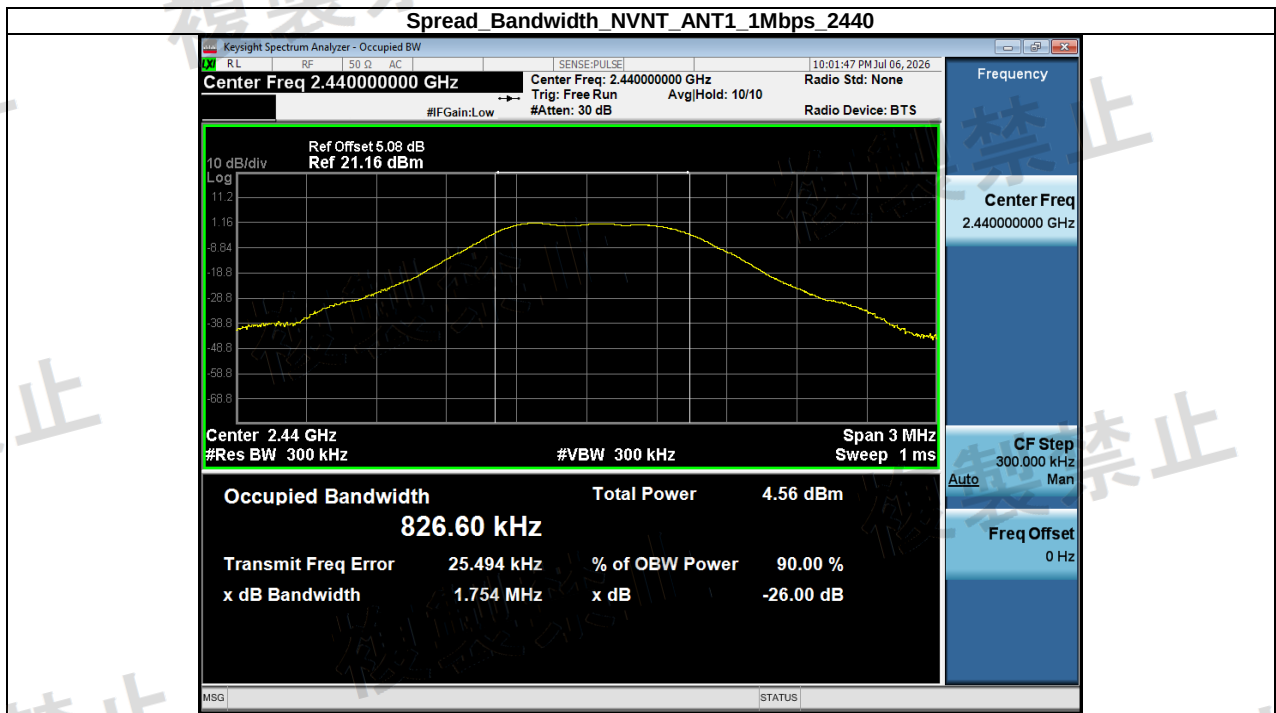
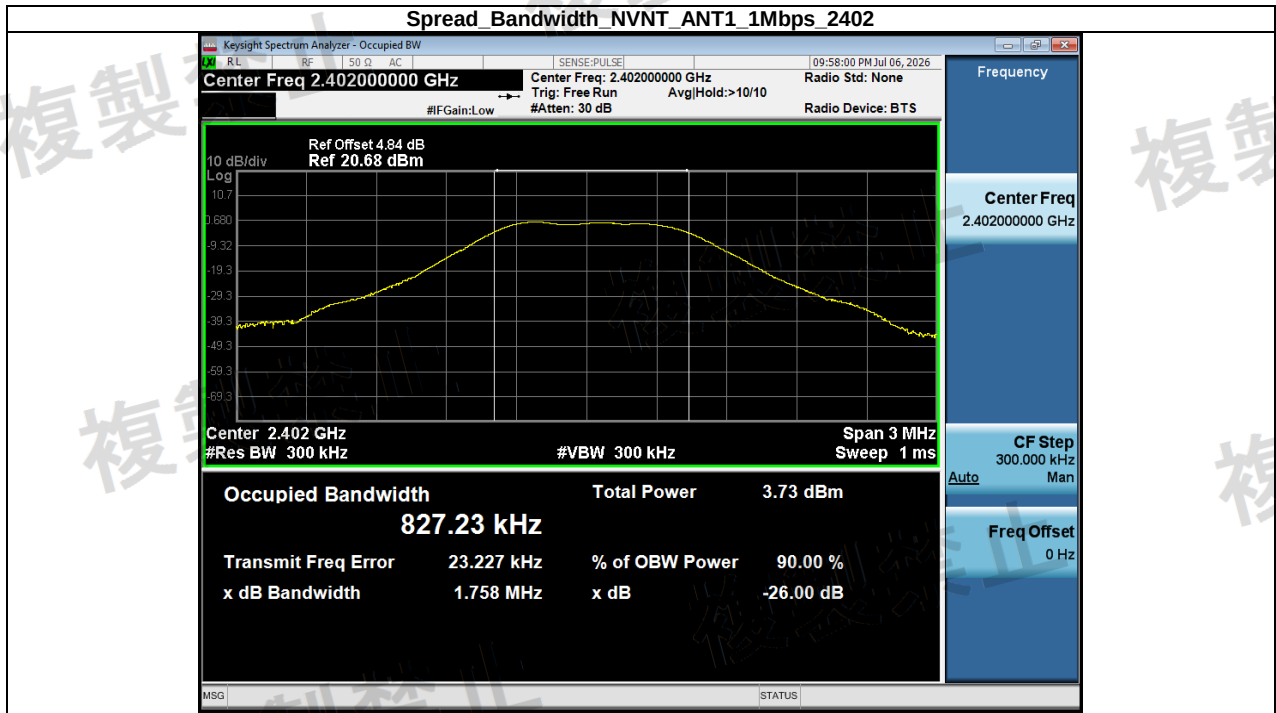


6.4. Test Procedure

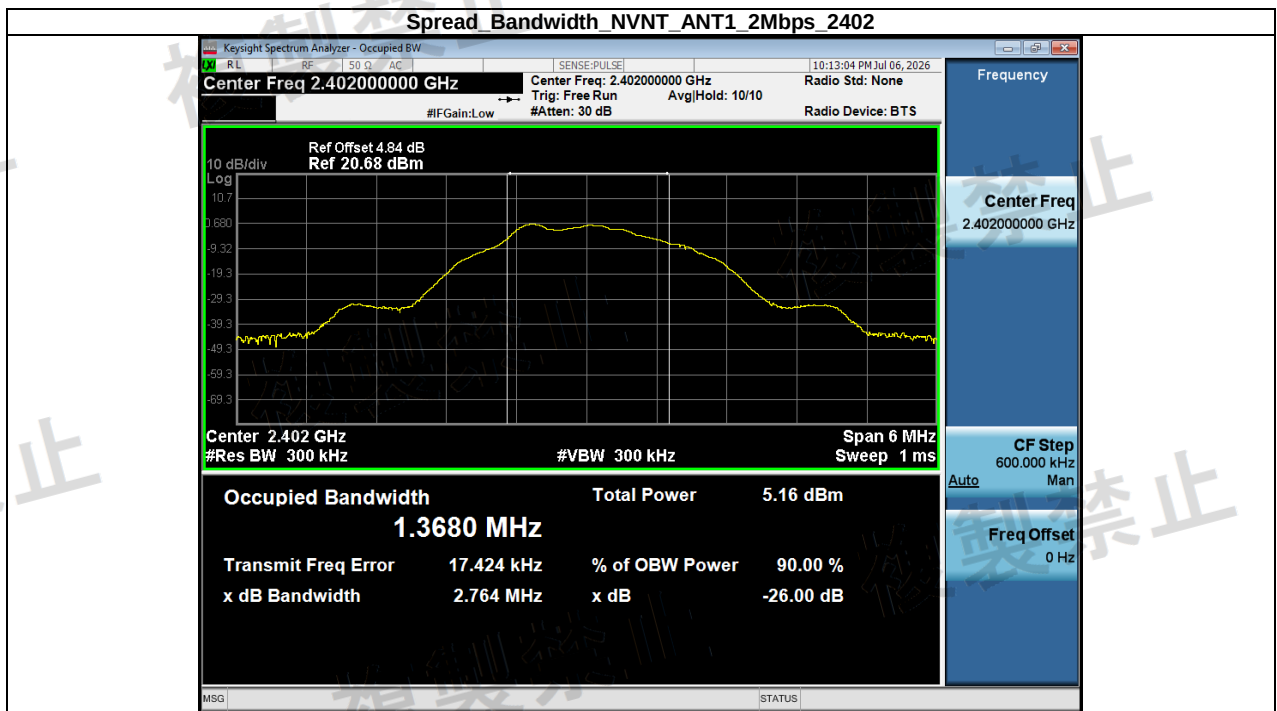
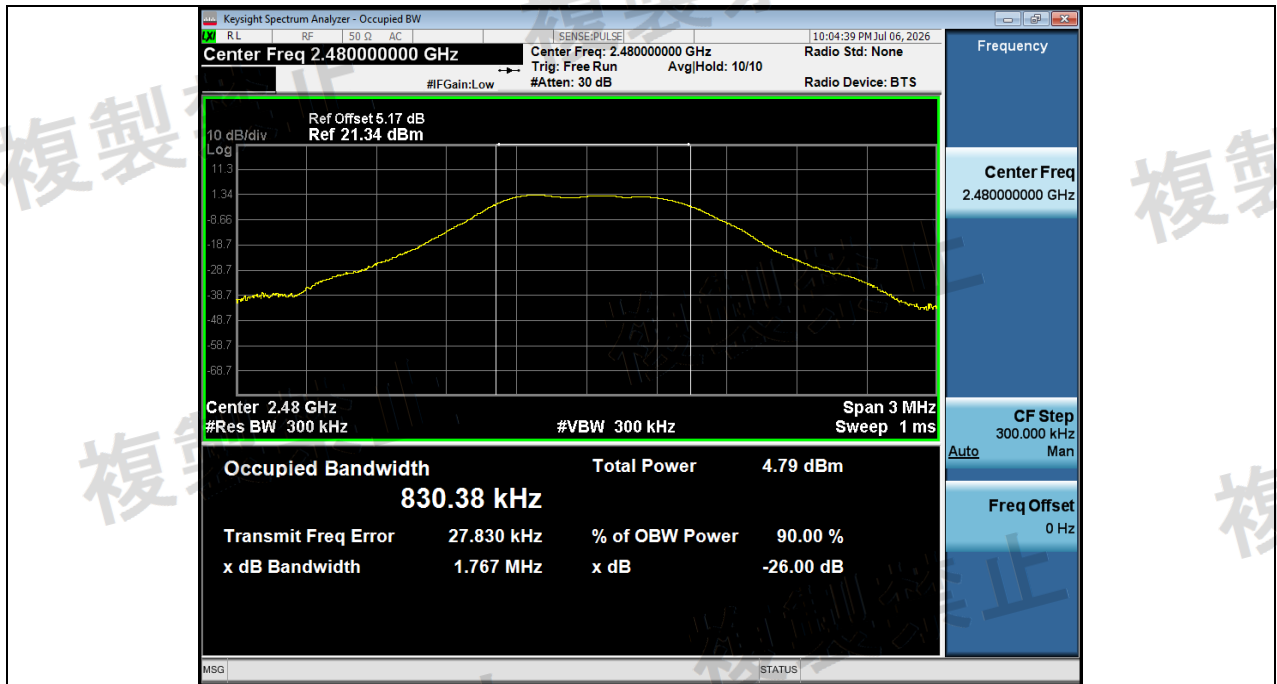
1. Configure EUT and assistant system according clause 2.3 and 6.3
2. Set EUT work in test mode as described in clause 2.4
3. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 Centre Frequency: The centre frequency of the channel under test.
 Resolution BW: 300 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

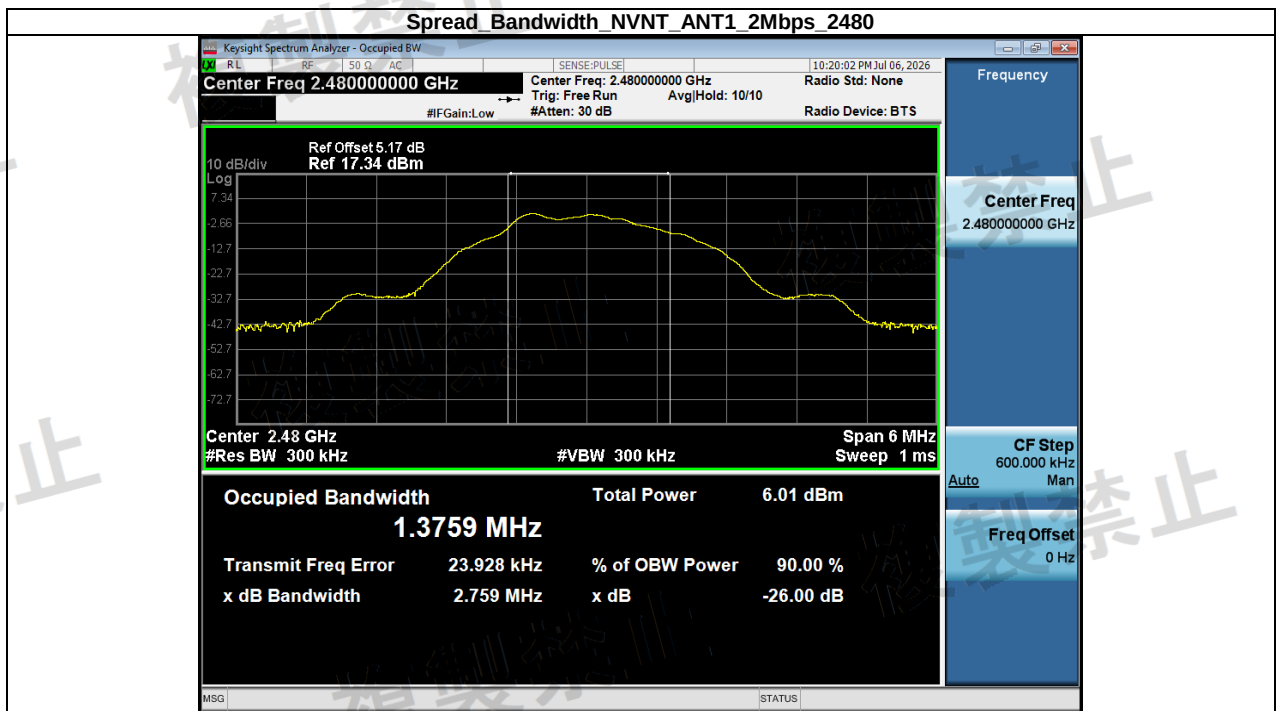
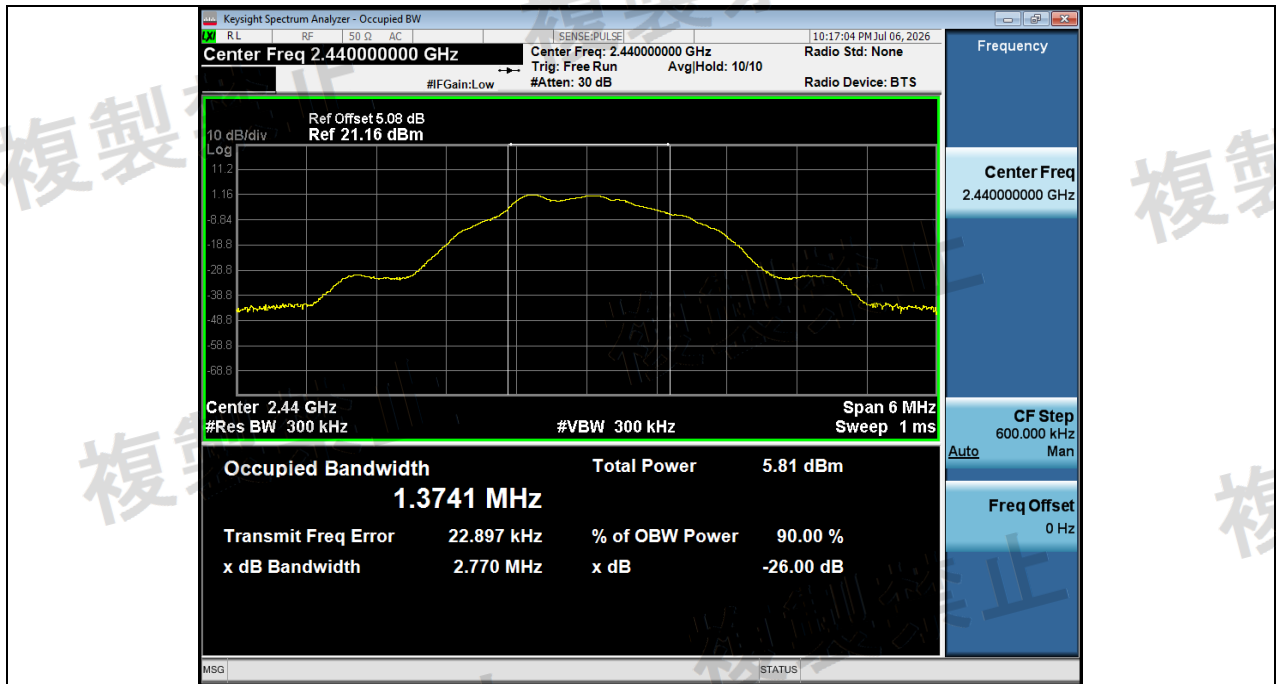
Condition	Antenna	Rate	Frequency(MHz)	Spread Bandwidth(MHz)
NVNT	ANT1	1Mbps	2402.00	0.83
NVNT	ANT1	1Mbps	2440.00	0.83
NVNT	ANT1	1Mbps	2480.00	0.83
NVNT	ANT1	2Mbps	2402.00	1.37
NVNT	ANT1	2Mbps	2440.00	1.37
NVNT	ANT1	2Mbps	2480.00	1.38



Spread_Bandwidth_NVNT_ANT1_1Mbps_2480



Spread_Bandwidth_NVNT_ANT1_2Mbps_2440



7. Transmitter Spurious Emissions (Conducted)

7.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	N9020A	MY51281067	2025.12.18	1 Year

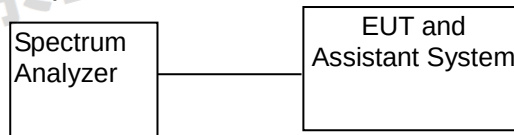
Note: The test equipment is calibrated by China Certification & Inspection (Group) Co., Ltd.

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:

- $2,387\text{MHz} \leq f \leq 2,400\text{MHz}$ and $2,483.5\text{MHz} < f \leq 2,496.5\text{MHz}$ 25 $\mu\text{W}/\text{MHz}$ or less
- $2,387\text{MHz} > f$ and $2,496.5\text{MHz} < f$ 2.5 $\mu\text{W}/\text{MHz}$ or less

7.3. Block diagram of test setup

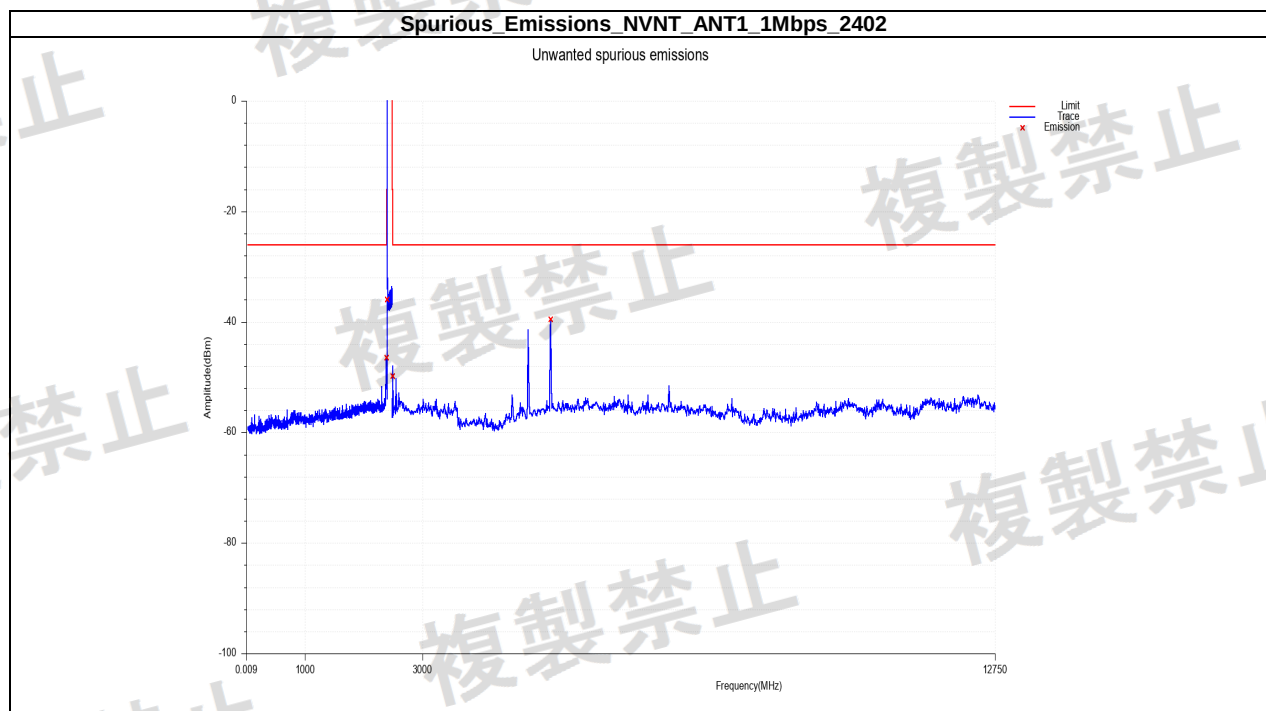


7.4. Test Procedure

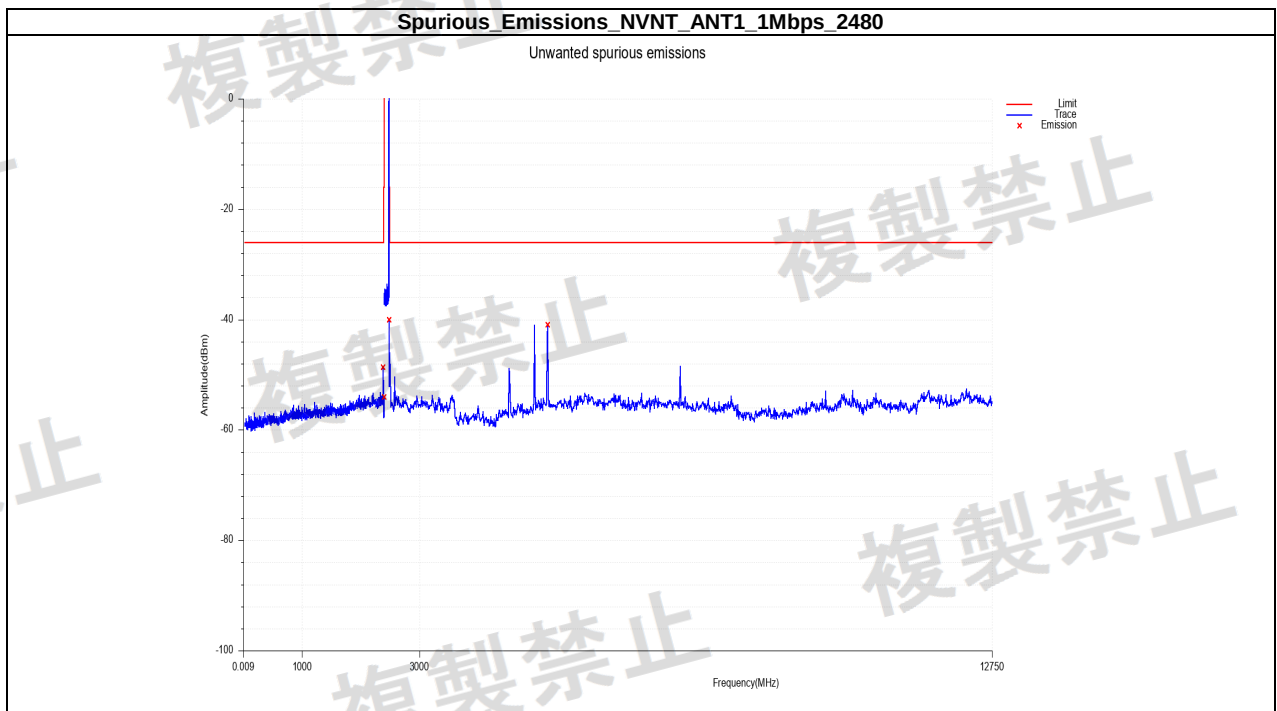
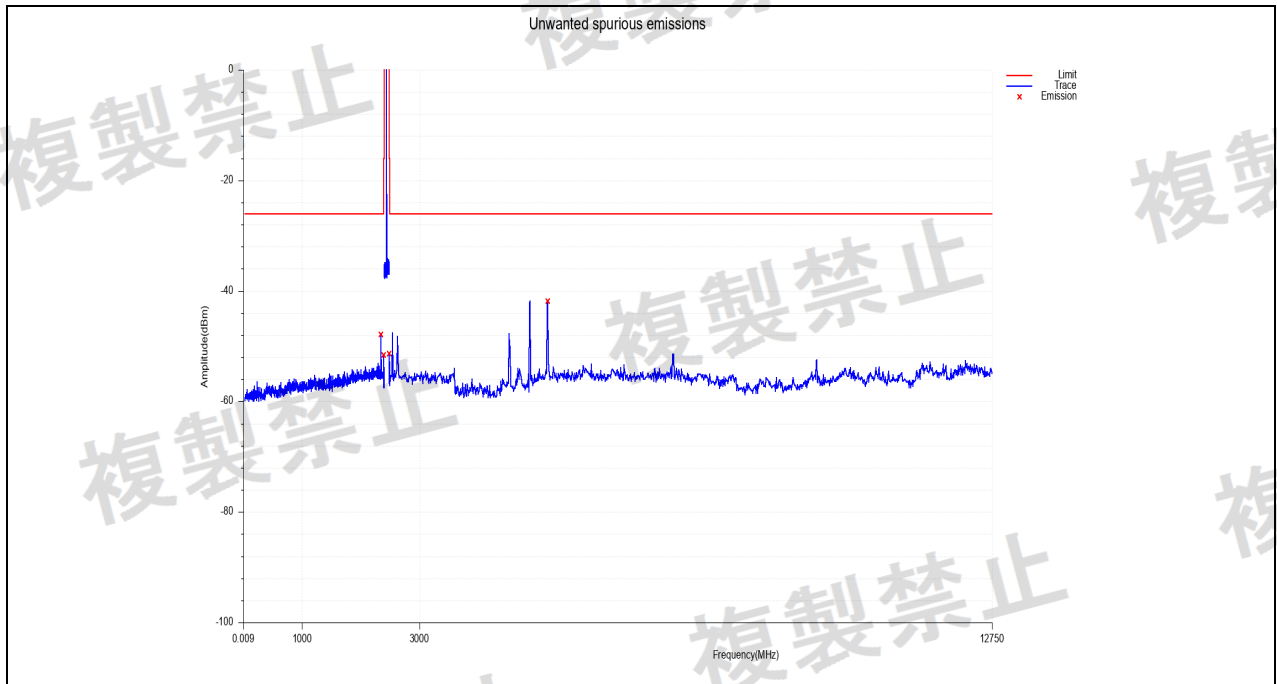
- Configure EUT and assistant system according clause 2.3 and 7.3
- Set EUT work in test mode as described in clause 2.4
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 - Resolution BW: 1MHz.
 - Video BW: 1MHz.
 - Detector: Peak.
 - Trace Mode: Max Hold.
- All the emissions from 30MHz to 13GHz were measured and record.
- Software Name: RTS, Manufacturer: TACHOY, Version: V1.0.0

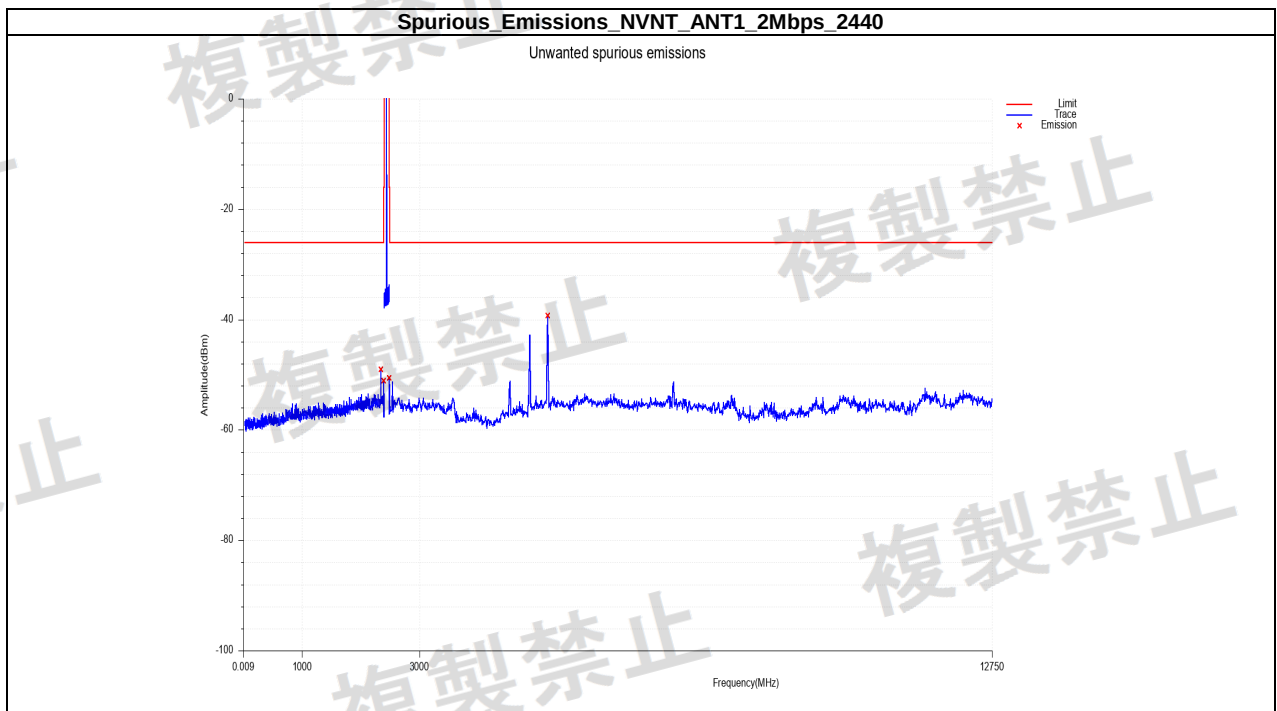
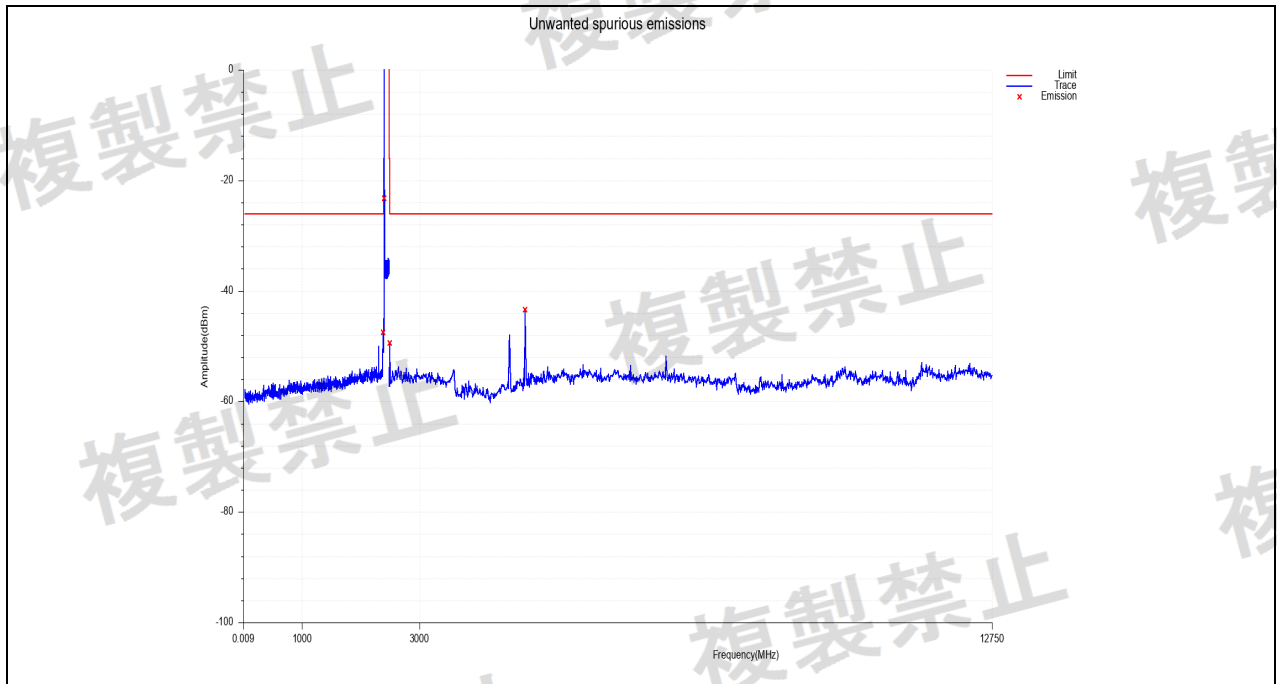
7.5. Test result

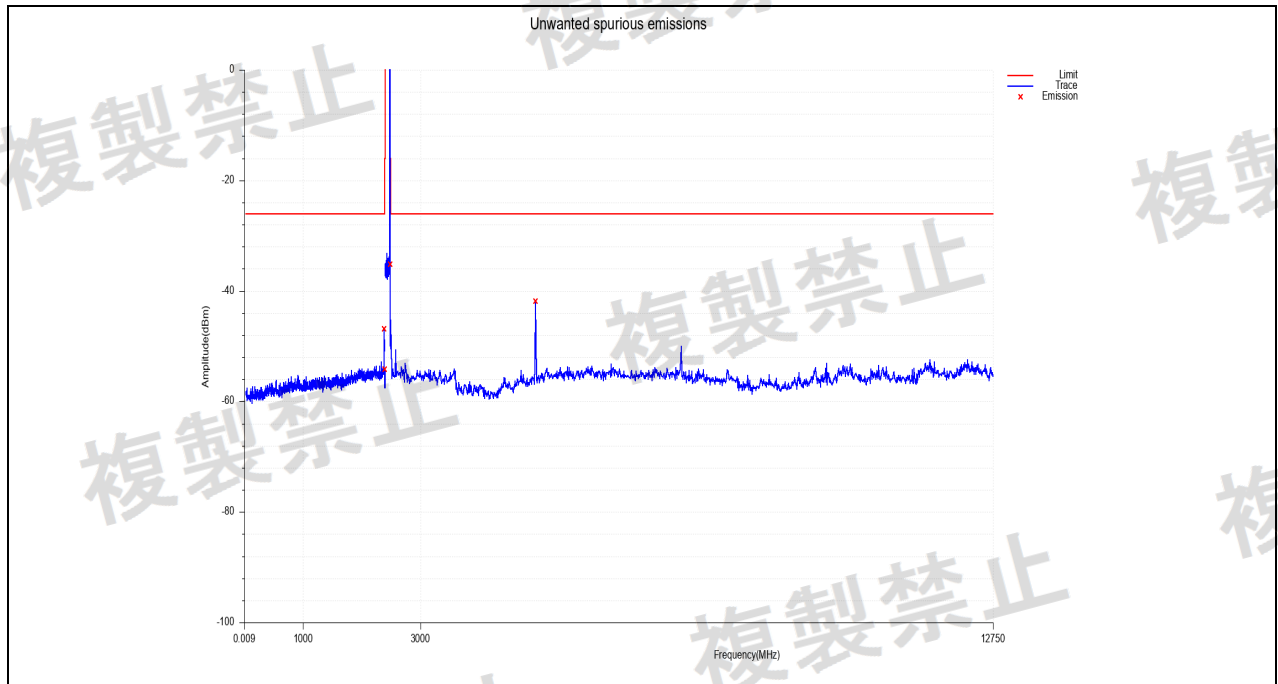
Antenna	Mode	Frequency (MHz)	Frequency Area(MHz)	RBW (kHz)	Spur. Fre.(MHz)	Spur. Level (dBm/MHz)	Limit (dBm/MHz)	Spur. Level	Llimit	Result
ANT1	1Mbps	2402.00	30.00~2387.00	1000	2387.00	-46.50	-26	0.0223μW/MHz	2.5μW/MHz	Pass
ANT1	1Mbps	2402.00	2387.00~2400.00	1000	2400.00	-35.95	-16	0.2538μW/MHz	25μW/MHz	Pass
ANT1	1Mbps	2402.00	2400.00~2483.50	/	/	/	/	/	/	/
ANT1	1Mbps	2402.00	2483.50~2496.50	1000	2496.32	-49.78	-16	0.0105μW/MHz	25μW/MHz	Pass
ANT1	1Mbps	2402.00	2496.50~12750.00	1000	5182.92	-39.55	-26	0.1110μW/MHz	2.5μW/MHz	Pass
ANT1	1Mbps	2440.00	30.00~2387.00	1000	2344.57	-47.84	-26	0.0164μW/MHz	2.5μW/MHz	Pass
ANT1	1Mbps	2440.00	2387.00~2400.00	1000	2392.24	-51.62	-16	0.0068μW/MHz	25μW/MHz	Pass
ANT1	1Mbps	2440.00	2400.00~2483.50	/	/	/	/	/	/	/
ANT1	1Mbps	2440.00	2483.50~2496.50	1000	2487.65	-51.37	-16	0.0072μW/MHz	25μW/MHz	Pass
ANT1	1Mbps	2440.00	2496.50~12750.00	1000	5182.92	-41.84	-26	0.0654μW/MHz	2.5μW/MHz	Pass
ANT1	1Mbps	2480.00	30.00~2387.00	1000	2384.64	-48.66	-26	0.0136μW/MHz	2.5μW/MHz	Pass
ANT1	1Mbps	2480.00	2387.00~2400.00	1000	2395.15	-54.05	-16	0.0039μW/MHz	25μW/MHz	Pass
ANT1	1Mbps	2480.00	2400.00~2483.50	/	/	/	/	/	/	/
ANT1	1Mbps	2480.00	2483.50~2496.50	1000	2483.54	-40.08	-16	0.0981μW/MHz	25μW/MHz	Pass
ANT1	1Mbps	2480.00	2496.50~12750.00	1000	5182.92	-41.01	-26	0.0792μW/MHz	2.5μW/MHz	Pass
ANT1	2Mbps	2402.00	30.00~2387.00	1000	2382.29	-47.53	-26	0.0176μW/MHz	2.5μW/MHz	Pass
ANT1	2Mbps	2402.00	2387.00~2400.00	1000	2400.00	-23.25	-16	4.7323μW/MHz	25μW/MHz	Pass
ANT1	2Mbps	2402.00	2400.00~2483.50	/	/	/	/	/	/	/
ANT1	2Mbps	2402.00	2483.50~2496.50	1000	2496.50	-49.46	-16	0.0113μW/MHz	25μW/MHz	Pass
ANT1	2Mbps	2402.00	2496.50~12750.00	1000	4803.54	-43.33	-26	0.0464μW/MHz	2.5μW/MHz	Pass
ANT1	2Mbps	2440.00	30.00~2387.00	1000	2344.57	-49.07	-26	0.0123μW/MHz	2.5μW/MHz	Pass
ANT1	2Mbps	2440.00	2387.00~2400.00	1000	2392.38	-51.04	-16	0.0078μW/MHz	25μW/MHz	Pass
ANT1	2Mbps	2440.00	2400.00~2483.50	/	/	/	/	/	/	/
ANT1	2Mbps	2440.00	2483.50~2496.50	1000	2487.56	-50.61	-16	0.0086μW/MHz	25μW/MHz	Pass
ANT1	2Mbps	2440.00	2496.50~12750.00	1000	5182.92	-39.26	-26	0.1186μW/MHz	2.5μW/MHz	Pass
ANT1	2Mbps	2480.00	30.00~2387.00	1000	2384.64	-46.92	-26	0.0203μW/MHz	2.5μW/MHz	Pass
ANT1	2Mbps	2480.00	2387.00~2400.00	1000	2393.70	-54.20	-16	0.0038μW/MHz	25μW/MHz	Pass
ANT1	2Mbps	2480.00	2400.00~2483.50	/	/	/	/	/	/	/
ANT1	2Mbps	2480.00	2483.50~2496.50	1000	2485.51	-35.14	-16	0.3064μW/MHz	25μW/MHz	Pass
ANT1	2Mbps	2480.00	2496.50~12750.00	1000	4957.34	-41.79	-26	0.0661μW/MHz	2.5μW/MHz	Pass



Spurious Emissions_NVNT_ANT1_1Mbps_2440





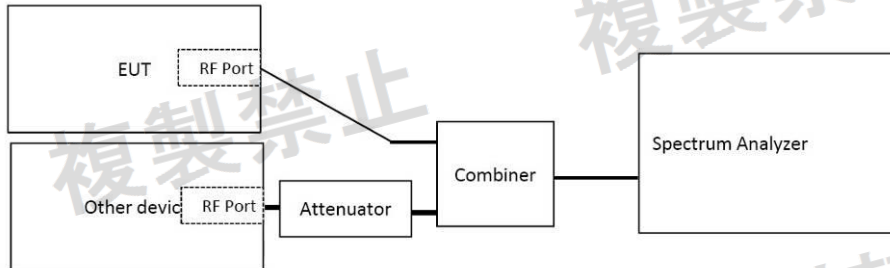


8. Transmission rate

8.1. Limit

The maximum transmission burst length is limited to 4ms.

8.2. Block diagram of test setup



8.3. Test Procedure

The device was configured to transmit maximum length packets at the fastest and slowest data rate (2MB/s and 1Mb/s).

8.4. Test result

Not applicable.

9. Process gain

9.1. Limit

Process gain (value obtained by dividing the spread bandwidth by a frequency equal to the transmission rate of the modulation signal; this also applies hereafter) in the spread spectrum system shall be 5 or more.

9.2. Block diagram of test setup



9.3. 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 2.4

9.4. Test result

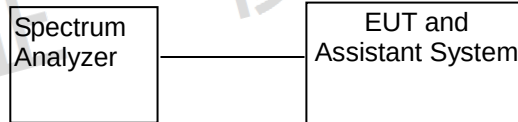
Not applicable.

10. Number of carriers

10.1. Limit

The OFDM system shall have one or more carriers per 1 MHz bandwidth.

10.2. Block diagram of test setup



10.3. 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 2.4

10.4. Test result

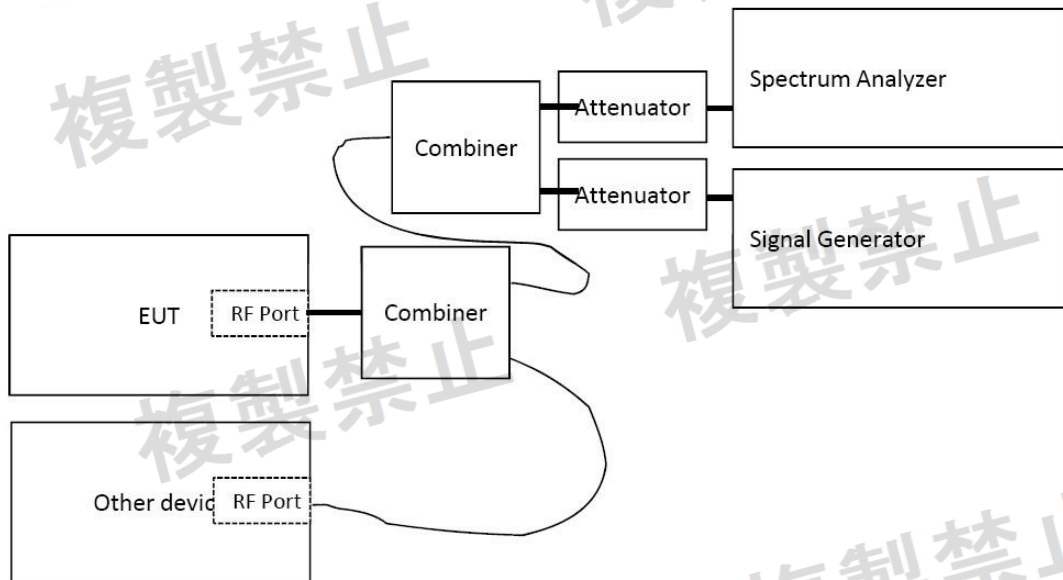
Not Applicable

11. Carrier sensing function

11.1. Limit

The device shall not transmit radio wave when receiving 100Mw/m

11.2. Block diagram of test setup



11.3. Test Procedure

The device is configured to communicate with another device as shown below. Once the communications link is established the signal generator is configured to produce a CW signal at the center frequency of the operating channel. The level of the signal generator is increased from a level approximately 30dB lower than the required carrier sense detection threshold (calculated based on the lowest antenna gain to be used with the device) until the device stops transmitting. This level is recorded as the carrier sense detection threshold.

11.4. Test result

Not Applicable

12. Interference prevention function

12.1. Limit

Item	Limits
Identification	≥48 bits

12.2. Test Equipment

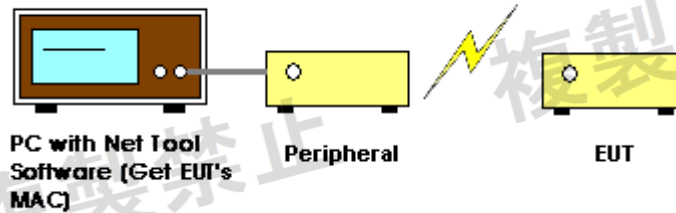
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Comprehensive Test Instrument	Rohde&Schwarz	CMW 500	145266	2025.12.18	1 Year
2.	Multifunctional Bluetooth speaker PC	Dell	Latitude 3490	N/A	N/A	N/A

Note: The test equipment is calibrated by China Certification & Inspection (Group) Co., Ltd.

12.3. Measuring ID Code Software

Item	Limits
MAC IP List	MAC Scan

12.4. Block diagram of test setup



12.5. Test Procedure

- In the case that the EUT has the function of automatically transmitting the identification code: a. Transmit the predetermined identification codes form EUT. b. Check the transmitted identification codes with the demodulator.
- In the case of receiving the identification ocde: a. Transmit the predetermined identification codes form the counterpart. b . Check if communication is normal. c. Transmit the signals other than predetermined ID codes form the counterpart. d. check if the EUT stops the transmission, or if it displays that idnetification codes are different from the predetermined ones.

12.6. Test result

Temperature:	26℃	Humidity:	54%RH
Mac:	D4:5B:E5:2C:3B:5A	Test result:	Conform

13. Secondary Radiated Emissions

13.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum analyzer	Agilent	N9020A	MY51281067	2025.12.18	1 Year

Note: The test equipment is calibrated by China Certification & Inspection (Group) Co., Ltd.

13.2. 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 1 GHz and 20 nW or less at a frequency of 1 GHz or higher as measured using the circuit.

13.3. Block diagram of test setup

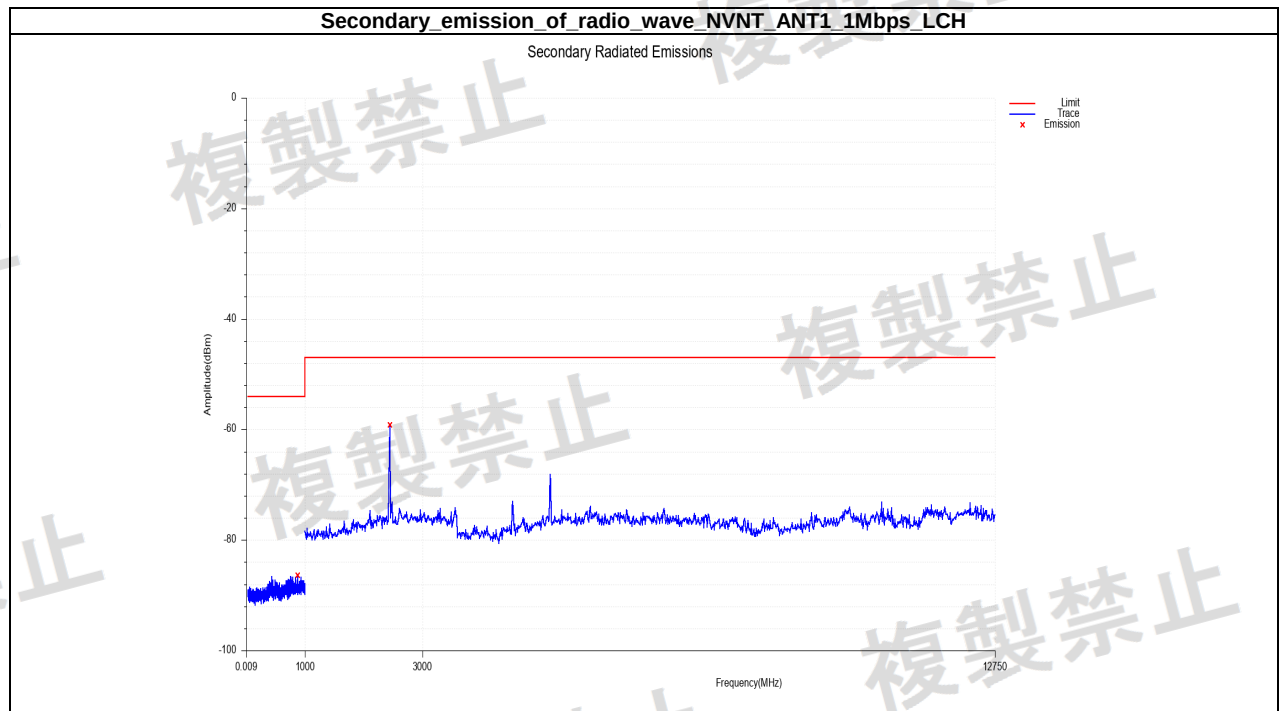


13.4. Test Procedure

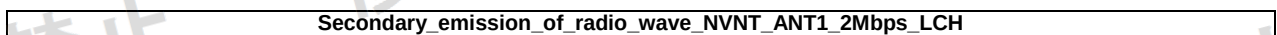
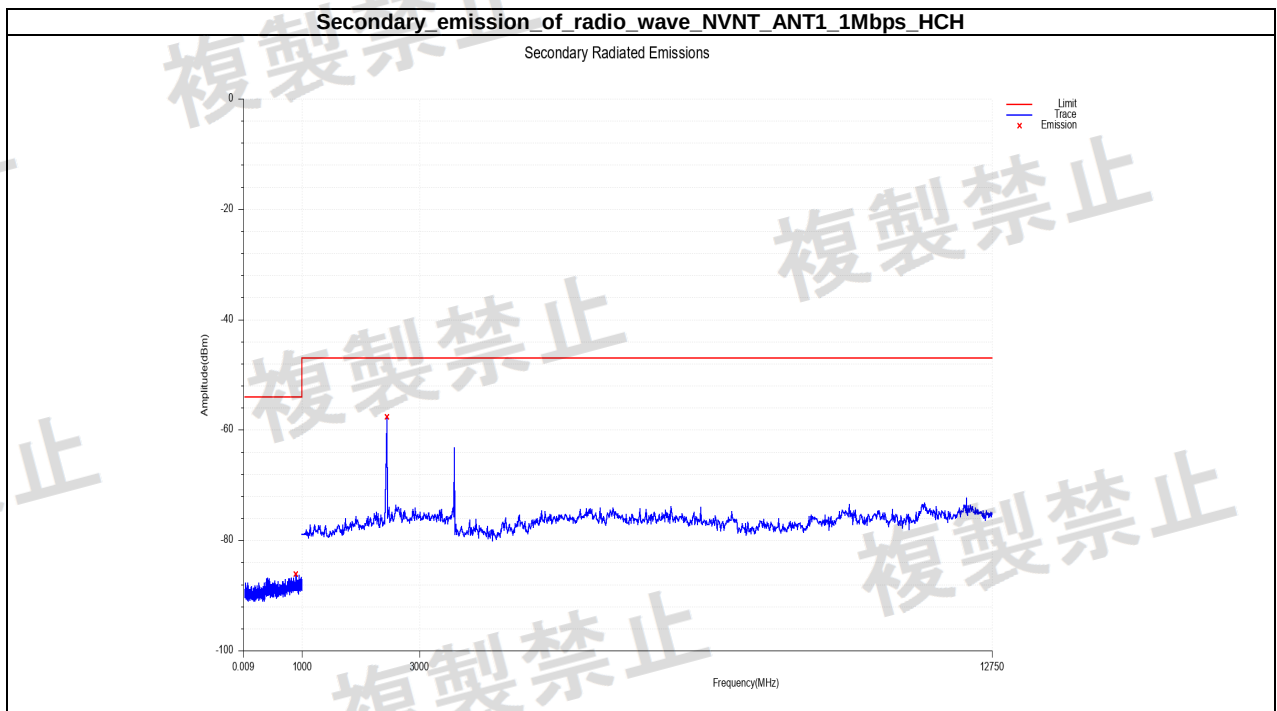
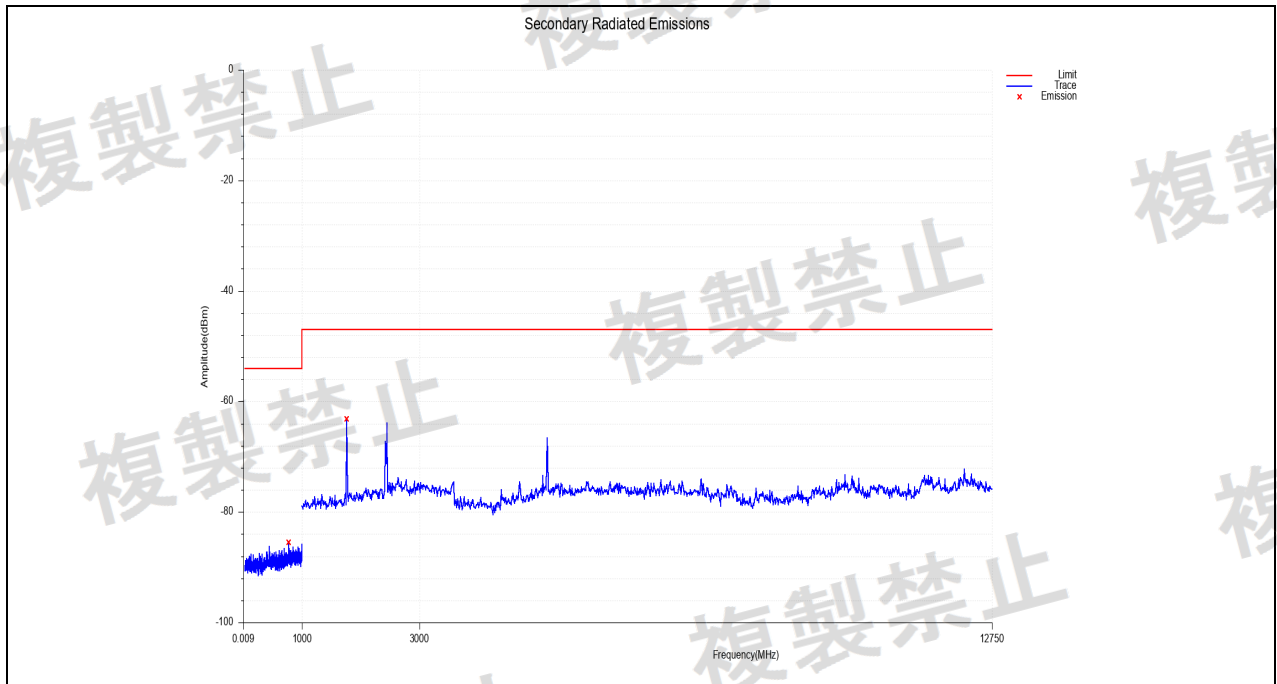
1. Configure EUT and assistant system according clause 2.3 and 8.3
2. Set EUT work in test mode as described in clause 2.4
3. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 Resolution BW: 100 KHz for frequency below 1GHz and 1MHz 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. All the emissions from 30MHz to 13GHz were measured and record.
5. Software Name: RTS, Manufacturer: TACHOY, Version: V1.0.0

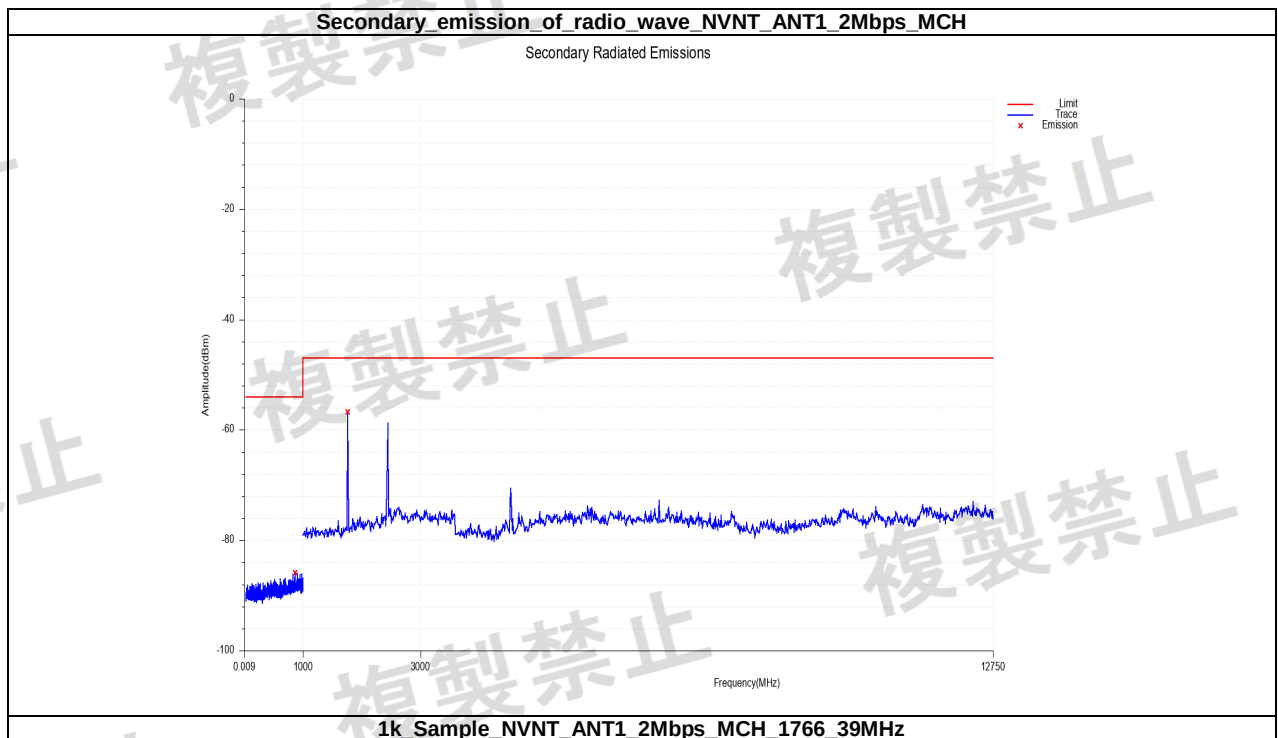
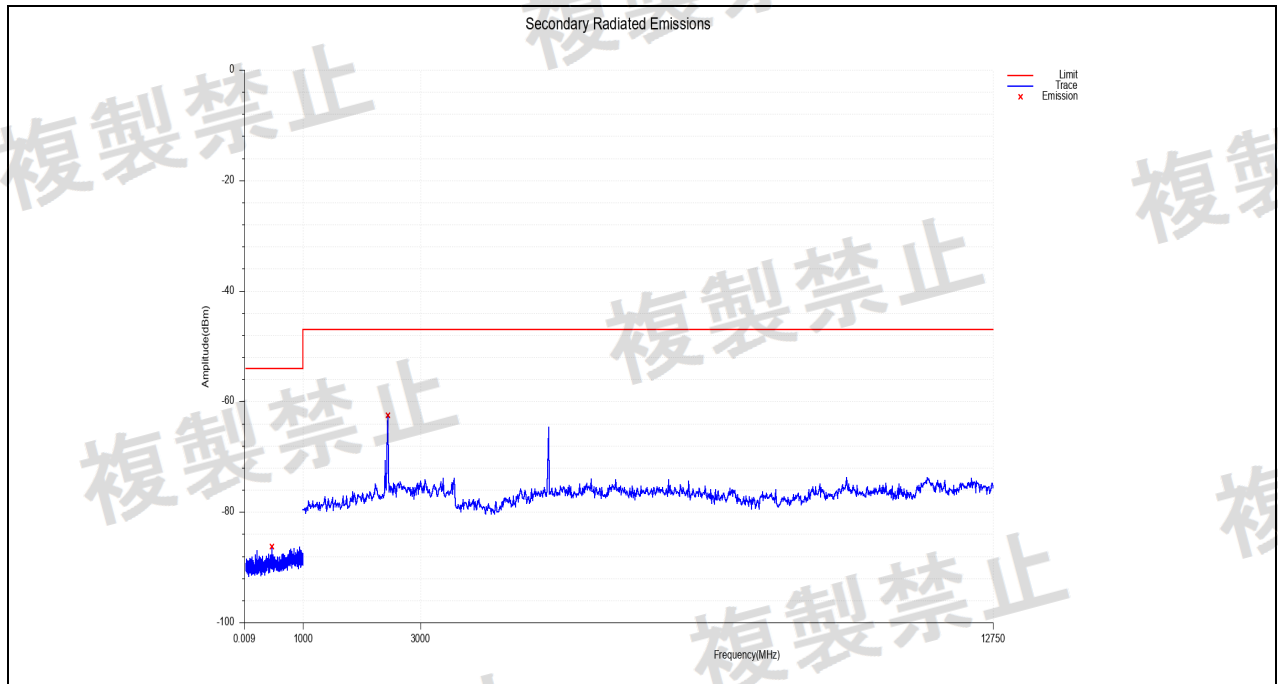
13.5. Test result

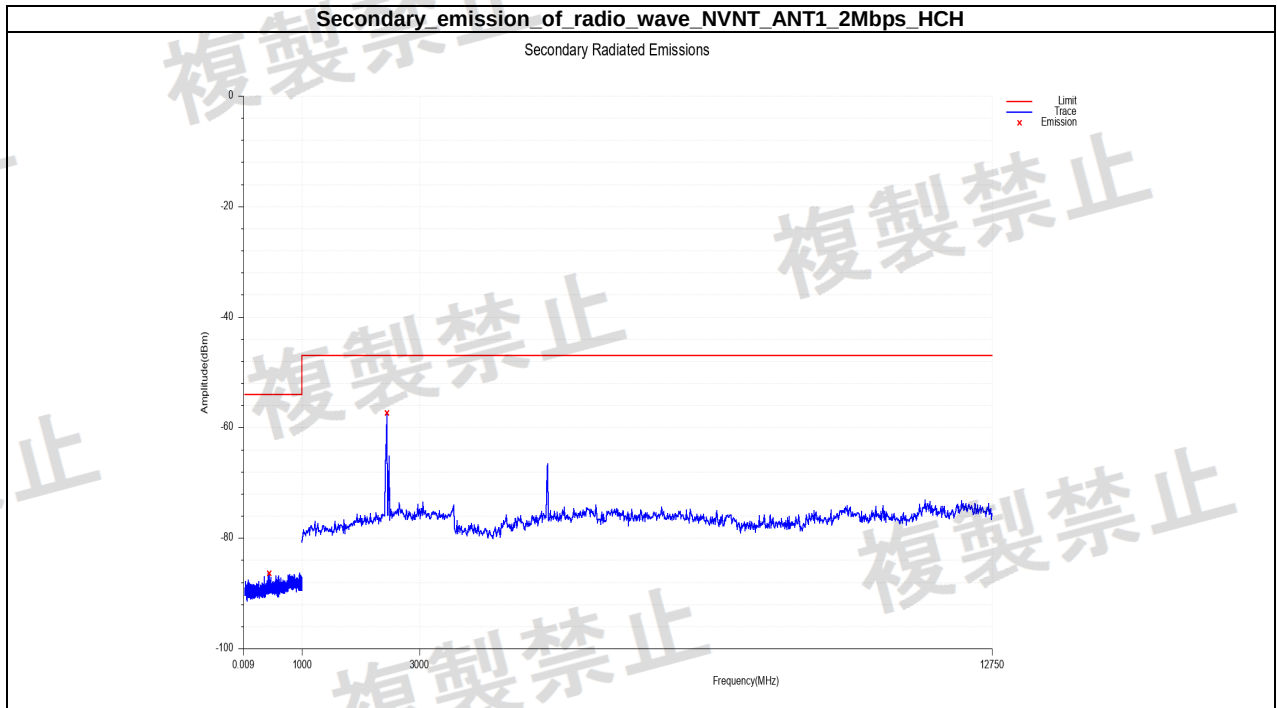
ANT	Mode	Channel	Range(MHz)	RBW(kHz)	Spur. Freq.(MHz)	Spur. Lev.(dBm)	Spur. Lev	Limit	Over 1/10 Limit	Read Lev.(dBm)	Read Lev.	Result
ANT1	1Mbps	LCH	30.0~1000.0	100	877.78	-86.46	0.0022nW	4nW	NO	/	/	Pass
ANT1	1Mbps	LCH	1000.0~12750.0	1000	2445.25	-59.13	1.2221nW	20nW	NO	/	/	Pass
ANT1	1Mbps	MCH	30.0~1000.0	100	775.93	-85.53	0.0027nW	4nW	NO	/	/	Pass
ANT1	1Mbps	MCH	1000.0~12750.0	1000	1763.75	-63.18	0.4803nW	20nW	NO	/	/	Pass
ANT1	1Mbps	HCH	30.0~1000.0	100	895.24	-86.18	0.0024nW	4nW	NO	/	/	Pass
ANT1	1Mbps	HCH	1000.0~12750.0	1000	2445.25	-57.70	1.6979nW	20nW	NO	/	/	Pass
ANT1	2Mbps	LCH	30.0~1000.0	100	471.35	-86.21	0.0023nW	4nW	NO	/	/	Pass
ANT1	2Mbps	LCH	1000.0~12750.0	1000	2445.25	-62.51	0.5604nW	20nW	NO	/	/	Pass
ANT1	2Mbps	MCH	30.0~1000.0	100	869.05	-85.93	0.0025nW	4nW	NO	/	/	Pass
ANT1	2Mbps	MCH	1000.0~12750.0	1000	1766.39	-56.73	2.1248nW	20nW	YES	-89.27	0.0011nW	Pass
ANT1	2Mbps	HCH	30.0~1000.0	100	446.13	-86.35	0.0023nW	4nW	NO	/	/	Pass
ANT1	2Mbps	HCH	1000.0~12750.0	1000	2445.25	-57.33	1.8487nW	20nW	NO	/	/	Pass



Secondary emission of radio wave NVNT ANT1 1Mbps MCH







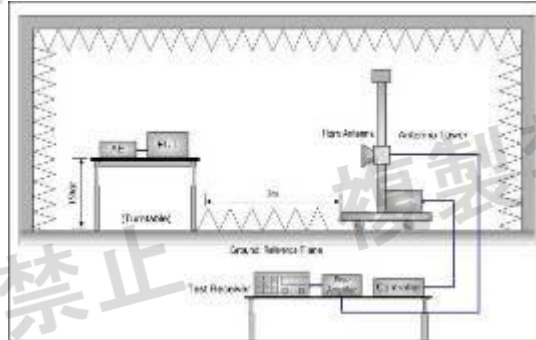
14.3dB Beam Bandwidth

14.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum analyzer	ROHDE&SCHWARZ	FSU	1166.1660.26	2025.12.18	1 Year
2	Horn Antenna	Schwarzbeck	BBHA 9120 D	2106	2024.12.25	1 Year

Note: The test equipment is calibrated by China Certification & Inspection (Group) Co., Ltd.

14.2. Block diagram of test setup



14.3. Test Procedure

Step 1

Set the test equipment at test frequency, and transmit.

Step 2

Stop the modulation, and make it "continuous transmission of unmodulated wave" in principle. If it is impossible, make it "intermittent burst transmission of unmodulated wave"

Step 3

Polarized wave side of measurement antenna is the same using mode as test equipment.

Step 4

Set the height and direction of test equipment and measurement antenna approximately facing each other.

Step 5

Set the spectrum analyzer according to "Spectrum set" and set as reference level and receive.

Step 6

Adjust at the maximum received power point, turning the test equipment horizontally and vertically.

Step 7

Change the height of the measurement antenna from the ground by $\pm 50\text{cm}$ with a central focus on the antenna of test equipment, and search the location that the power is maximum by adjusting the direction of measurement antenna. Set the indicator of spectrum analyzer at this point as "E".

Step 8

By using EIRP (P_E) that is measured at 9, calculate allowed main beam angle (θ_0) between the horizontal plane and vertical plane of the test equipment as follows.

Allowed main beam angle (θ_0) = $360/A$

θ_0 : Allowed transmitter antenna beamwidth angle in degree of test equipment

P_E : EIRP of test equipment (dBm)

A: A is defined as EIRP divides by the summation of antenna gain 2.14dBi transmitter antenna and average power 10mW (In case of using ODFM, or DS, or FHSS, or DS and complex with FHSS, or OFDM and complex with FHSS, 10mW/MHz. However, in FHSS or DS and complex with FHSS, or OFDM and complex with FHSS, when using the frequency from 2,427MHz to 2,470.75MHz, 3mW/MHz) antenna power. In case the value is lower than 1, set A as 1.

Step 9

Turn the test equipment in horizontal direction, from main beam direction with the beam angle except main beam angle (θ_0) calculated by (step 8), over all surroundings as much as possible. Confirm that received power is decreased more than 3dB from the maximum point value of received power(E).

Step 10

Return the test equipment to position (step 6), incline the test equipment in vertical direction, from main beam direction with the beam angle except main beam angle (θ_0) calculated by (step 8), widely as much as possible (over 90 degrees. However, it is able to according to "6. other condition", too.) Confirm that received power is 3dB lower than the maximum point value of received power (E).

Step 9

Spectrum Analyzer as below:

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

Frequency Span: 0Hz

Resolution BW: 1MHz

Video BW: 1KHz

Y-Axis: 5dB/Div

Detector: Peak.

Sweep mode: Continuous sweep

Input level: the amplitude of transmission signal is set around max. line area of mixer.

14.4. Test result

Not applicable.

Note: This test item is not applied for radio equipment with equivalent isotropic radiation power lower than 12.14dBm.

15. Test setup photo

Reference to the **appendix I Test Setup Photo** for details.

16. EUT Photos

Reference to the **appendix II external photos** and **appendix III internal photos** for details.

-----END OF REPORT-----