

Test Report

Applicant: Dalian Golden Hualu Digital Technology Co.,Ltd.

Product Name: Wireless Speaker

Product Model: WB5331

Brand Name: CHL

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

Date of Issue: 2026-01-26

Beijing TIRT Technology Service Co.,Ltd Shenzhen Branch
1st Floor,South Flat,Building 7,Tongfuyu Industrial Zone,Xinhe
Avenue,Gonghe Community, Shajing Street ,BaoAn District, Shenzhen,
Guangdong, China

E-Mail:business@tirt.com.cn

<http://www.tirt.com.cn>

Prepared By:	Reviewed By:	Approved By:	
Star Yang	Stone Tang	Robben Chen	
			

RF TEST REPORT

According to

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

Applicant:	Dalian Golden Hualu Digital Technology Co.,Ltd.
Address:	No.1 Hua Road,Qixianling,High-Tech Industrial Zone,Dalian,Liaoning Province, China
Manufacturer:	Dalian Golden Hualu Digital Technology Co.,Ltd.
Address:	No.1 Hua Road,Qixianling,High-Tech Industrial Zone,Dalian,Liaoning Province, China
Factory:	Dalian Golden Hualu Digital Technology Co.,Ltd.
Address:	No.1 Hua Road,Qixianling,High-Tech Industrial Zone,Dalian,Liaoning Province, China
Sample No:	1000072127
Product Name:	Wireless Speaker
Brand Name:	CHL
Model No.:	WB5331
Test No.:	WB5331

Date of Receipt:	2025/12/23
Date of Test:	2025/12/23~2026/01/20
Issued Date:	2026/01/26
Testing Lab:	TIRT

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History of the test report

Report No.	Version	Description	Issued Date	Note
ITEZA2-202500768RF1	V1.0	Original Report.	2026-01-26	Valid

1. General Information

1.1. Description of Device (EUT)

EUT	: Wireless Speaker
Model No.	: WB5331
Power supply	: DC 5V from Fast charger or DC 3.7V from battery
Radio Technology	: Bluetooth V5.2
Operation frequency	: 2402MHz -2480MHz
Number of channels	: 40
Data Rate	: 1Mbps, 2Mbps
Modulation	: GFSK
Stated power	: 1.5mW
Antenna Type	: Internal antenna, max gain 2.32dBi Antenna information is provided by applicant. Testing lab is not responsible for the accuracy of the information.
Software Version	: 1.0.0
Hardware version	: V1.0

1.2. Accessories of Device (EUT)

Accessories : /
Manufacturer :
Model : /
Ratings : //

1.3. Ancillary Equipment Details

Bellow Equipment are provided by the lab

No.	Description	Manufacturer	Model	Serial Number	Certification or SDoC
1	PC	DELL	3511	N/A	N/A

1.4. Additions, Deviations and Exclusions from Standards

None

1.5. Model differences

N/A

2. Summary of test

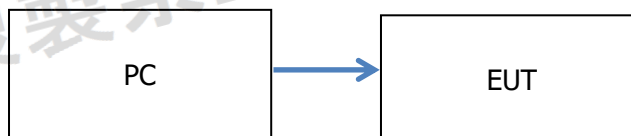
2.1. Summary of test result

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 (7)	Occupied Frequency Bandwidth	Pass
3.2 (6)	Spurious Emissions	Pass
/	Equivalent Isotropic Radiated Power	Pass
/	3dB Beam Bandwidth	N/A
/	Interference prevention function	Pass
Receiver Parameters		
3.3 (1)	Secondary Radiated Emissions	Pass
N/A is an abbreviation for Not Applicable.		

2.2. The standard of Calibration Equipment

- Calibration conducted by the National institute of information and Communications Technology NICT or a designated calibration agency under Article 102-18 paragraph.
 - Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992).
 - Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph.
 - 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	Data rate	Channel	Frequency(MHz)
Carrier Tx Mode	1Mbps, 2Mbps	CH0	2402
		CH39	2480
GFSK Rx Mode		CH0	2402
		CH39	2480

2.5. Test Conditions

Temperature range	5-35℃
Humidity range	45-85%
Pressure range	86-106kPa

2.6. Test Voltage

Voltage mode	Input Voltage	Radio Unit Voltage
DC	DC 2.7V	DC 3.3V
	DC 3.3V	DC 3.3V
	DC 4.8V	DC 3.3V

Note: 1 The radio unit Voltage with the IC regulator.

2 The radio unit less than 1%, so the test only rated voltage (Normal voltage DC 3.3V).

2.7. Test Facility

Company:	Beijing TIRT Technology Service Co.,Ltd Shenzhen Branch
Address:	1st Floor, South Flat, Building 7, Tongfuyu Industrial Zone, Xinxhe Avenue, Gonghe Community, Shajing Street, BaoAn District, Shenzhen, Guangdong, China
CNAS Registration Number:	CNAS L14158
A2LA Registration Number:	6049.01
FCC Designation Number:	CN1366
Test Firm Registration Number:	820690
Telephone:	+86-0755-27087573

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

Item	MU
Frequency Error	±1.9%
Antenna Power	±0.743dB
Occupied Bandwidth	±0.0196%
Spread Bandwidth	±0.0196%
Transmitter Spurious Emission Strength and Unwanted Emission Intensity	30MHz-1GHz:±0.746dB 1GHz-13GHz: ±1.328dB
Receiver Spurious Emission and Unwanted Emission Intensity	30MHz-1GHz:±0.746dB 1GHz-26GHz: ±1.328dB

3. Antenna Power

3.1. Test Equipment

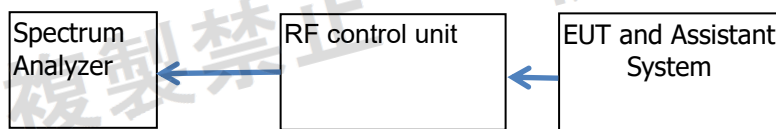
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54484584	2025.11.10	2026.11.09
2	RF control unit	Tonscend	JS0806-1	19K8060206	2025.11.12	2026.11.11

Note: The test equipment is calibrated by HUAJUE MEDICAL TESTING AND METROLOGY (SHENZHEN) CO.,LTD. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

3.2. Limit

Limit	10mW or less
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 by suitable attenuator, set the Spectrum Analyzer as below:

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

Resolution BW: 3 MHz.

Video BW: 8 MHz.

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

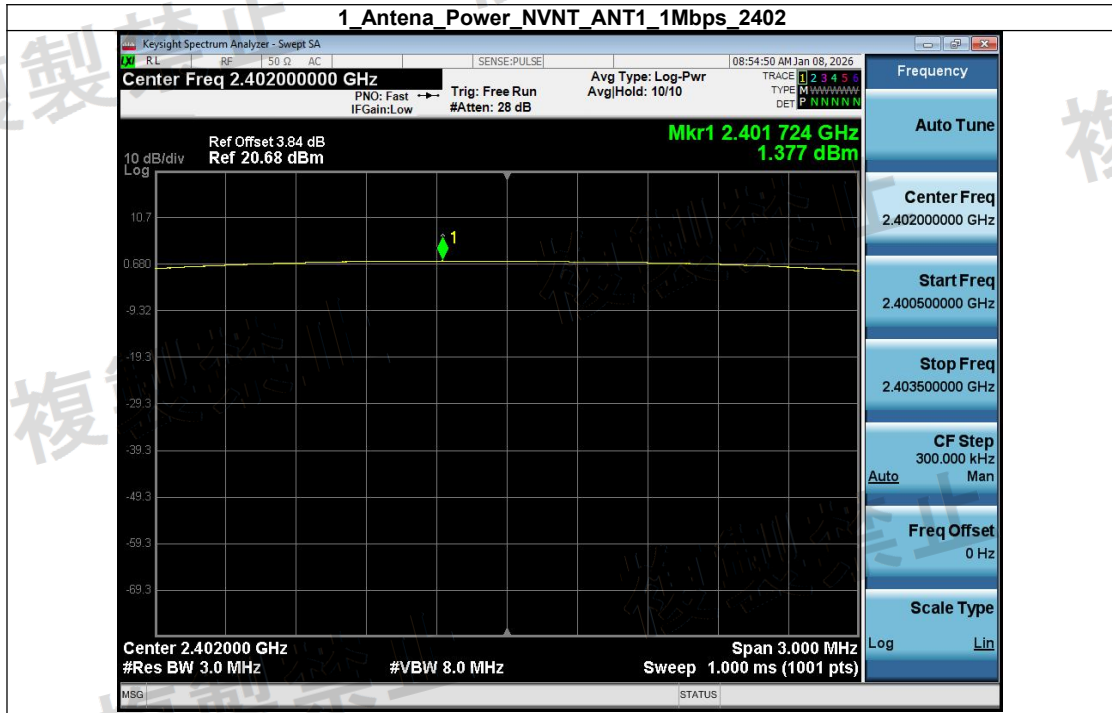
Detector: Peak.

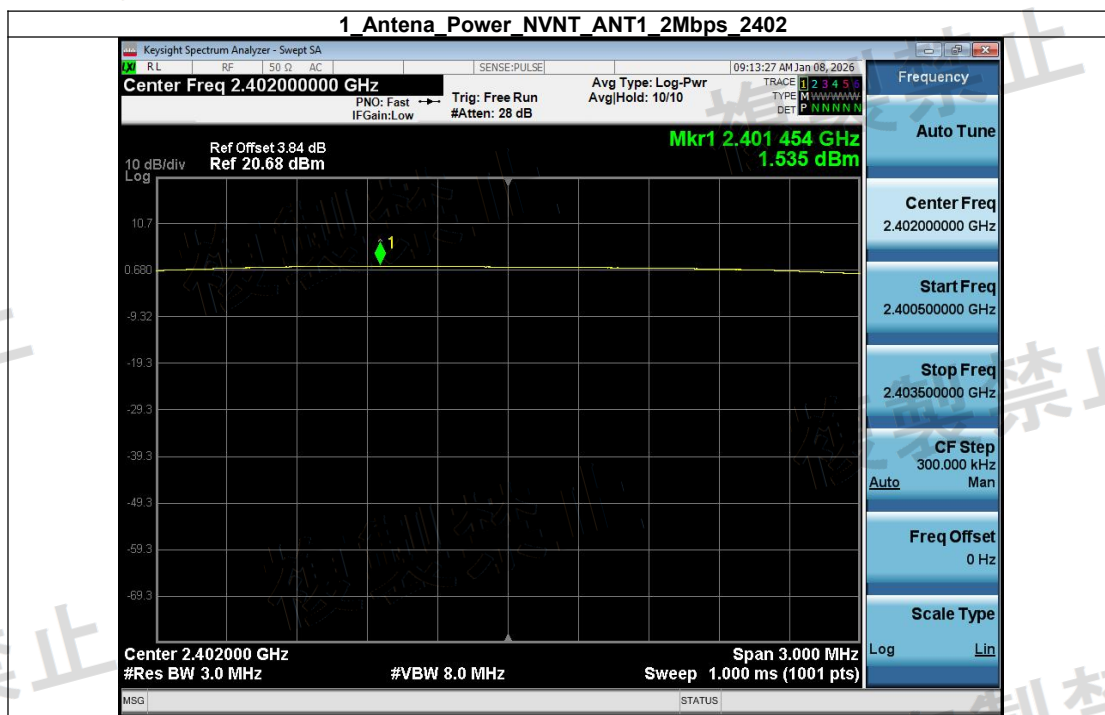
Trace Mode: Max Hold.

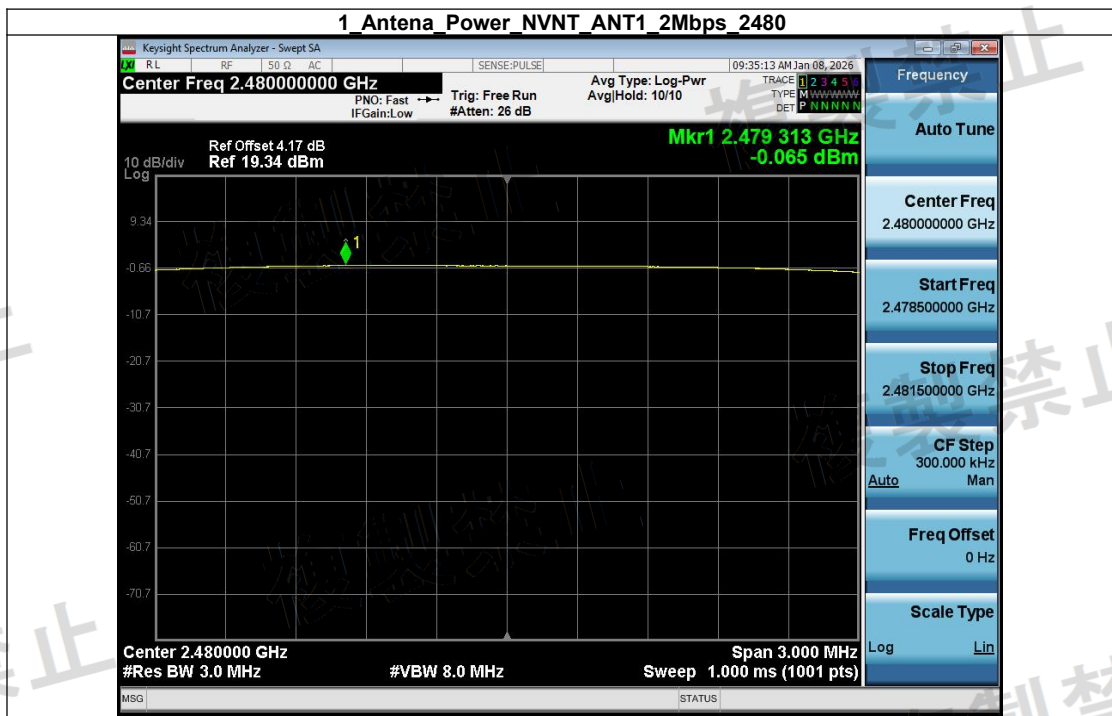
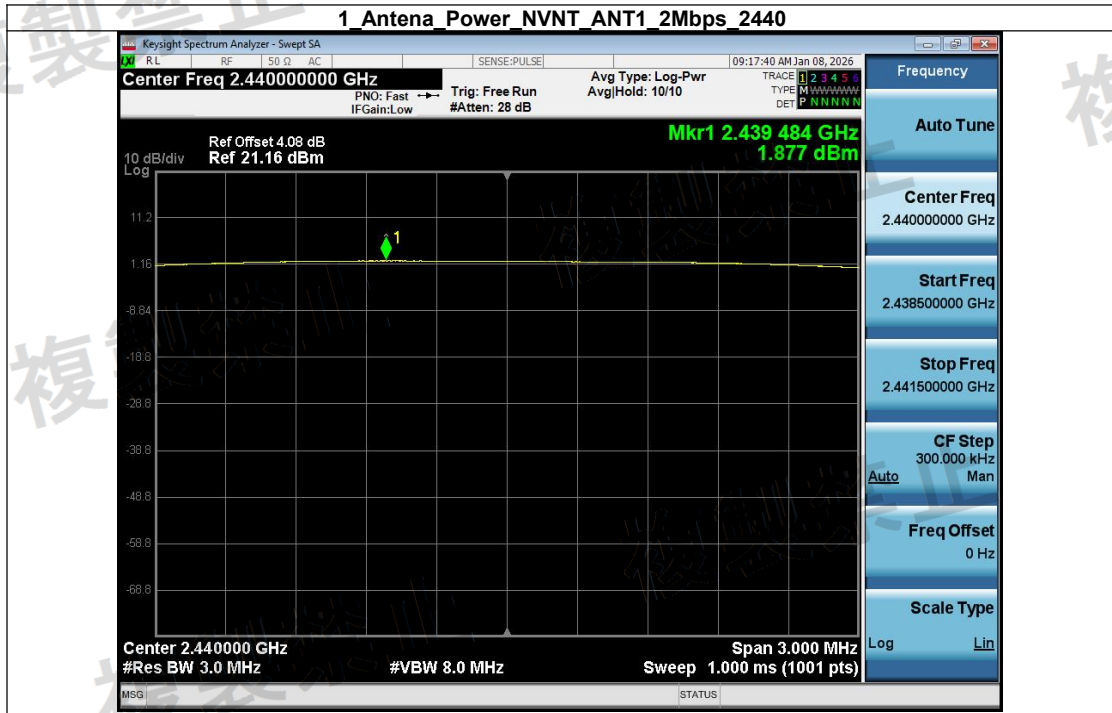
- (4)When the trace is complete, find the peak value of the power envelope and record.

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	1.3770	1.3731	1.5000	10	-8.46	+20	Pass
NVNT	ANT1	1Mbps	2440.00	1.6860	1.4743	1.5000	10	-1.71	+20	Pass
NVNT	ANT1	1Mbps	2480.00	1.6590	1.4652	1.5000	10	-2.32	+20	Pass
NVNT	ANT1	2Mbps	2402.00	1.5350	1.4240	1.5000	10	-5.07	+20	Pass
NVNT	ANT1	2Mbps	2440.00	1.8770	1.5406	1.5000	10	2.71	+20	Pass
NVNT	ANT1	2Mbps	2480.00	-0.0650	0.9851	1.5000	10	-34.32	+20	Pass







4. Frequency Tolerance

4.1. Test Equipment

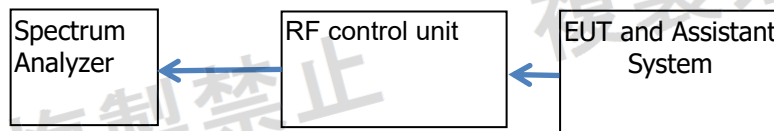
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54484584	2025.11.10	2026.11.09
2	RF control unit	Tonscend	JS0806-1	19K8060206	2025.11.12	2026.11.11

Note: The test equipment is calibrated by HUAJUE MEDICAL TESTING AND METROLOGY (SHENZHEN) CO.,LTD. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

4.2. Limit

+/- 50x 10⁻⁶ or less(50ppm)

4.3. Block diagram of test setup

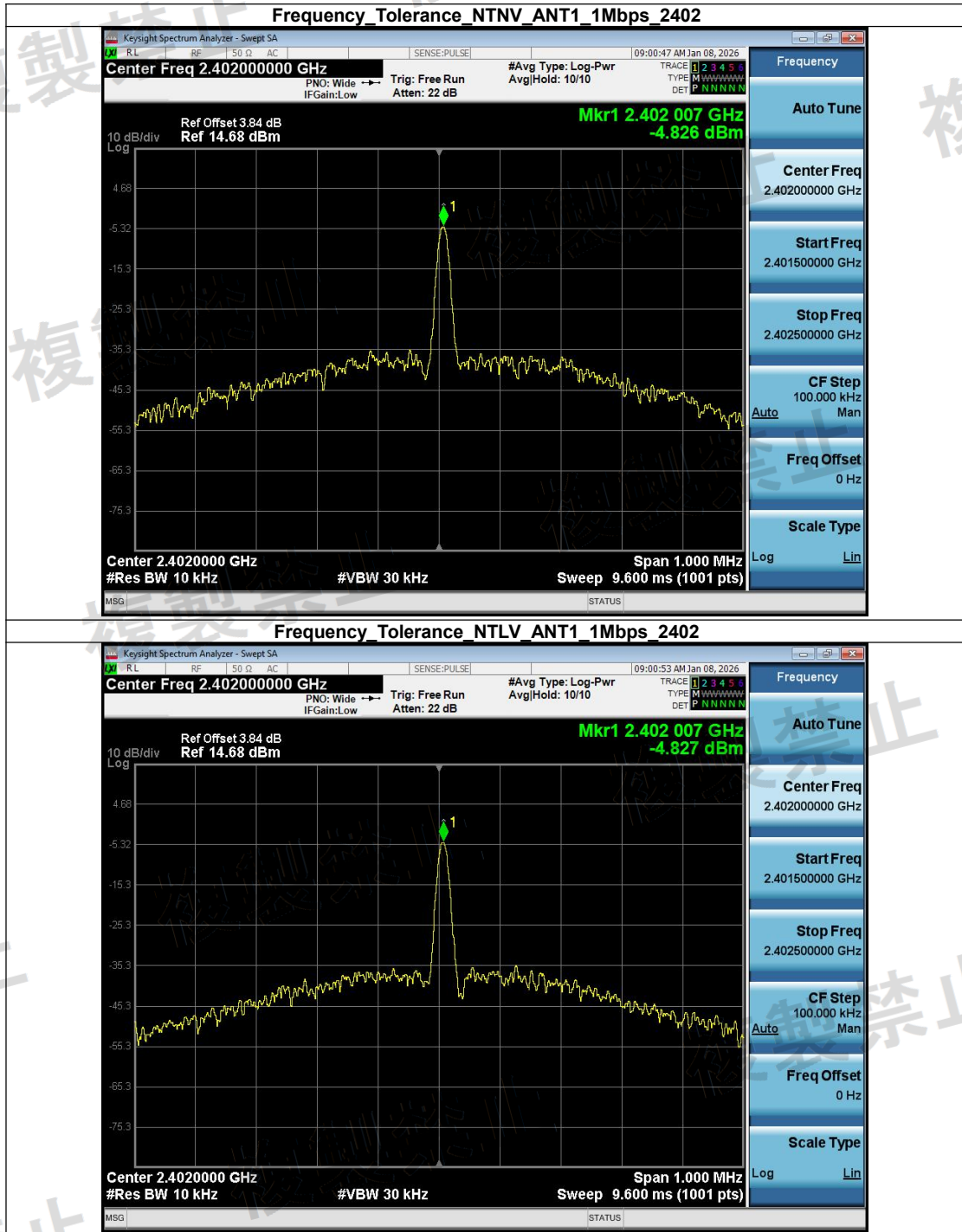


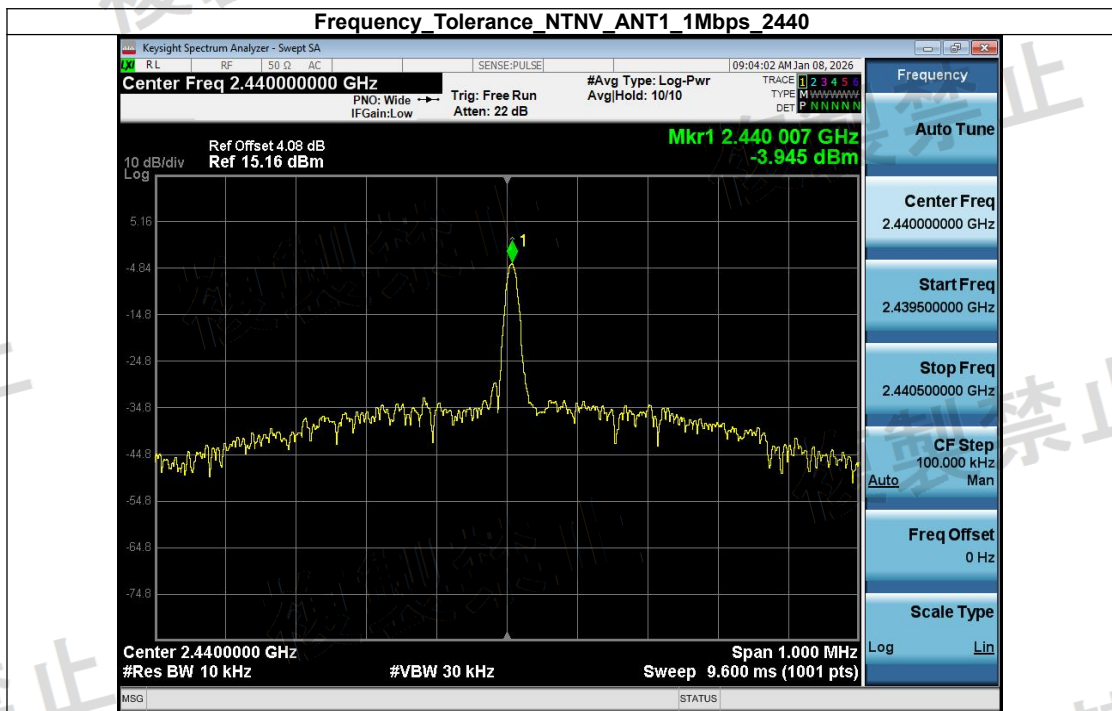
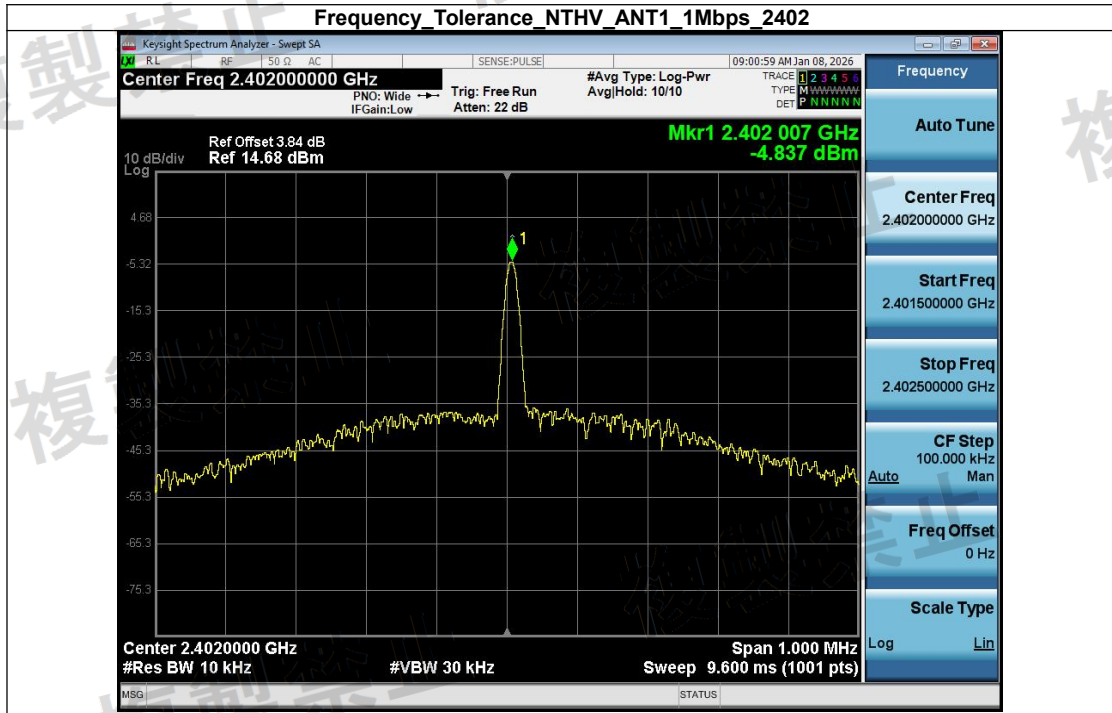
4.4. Test Procedure

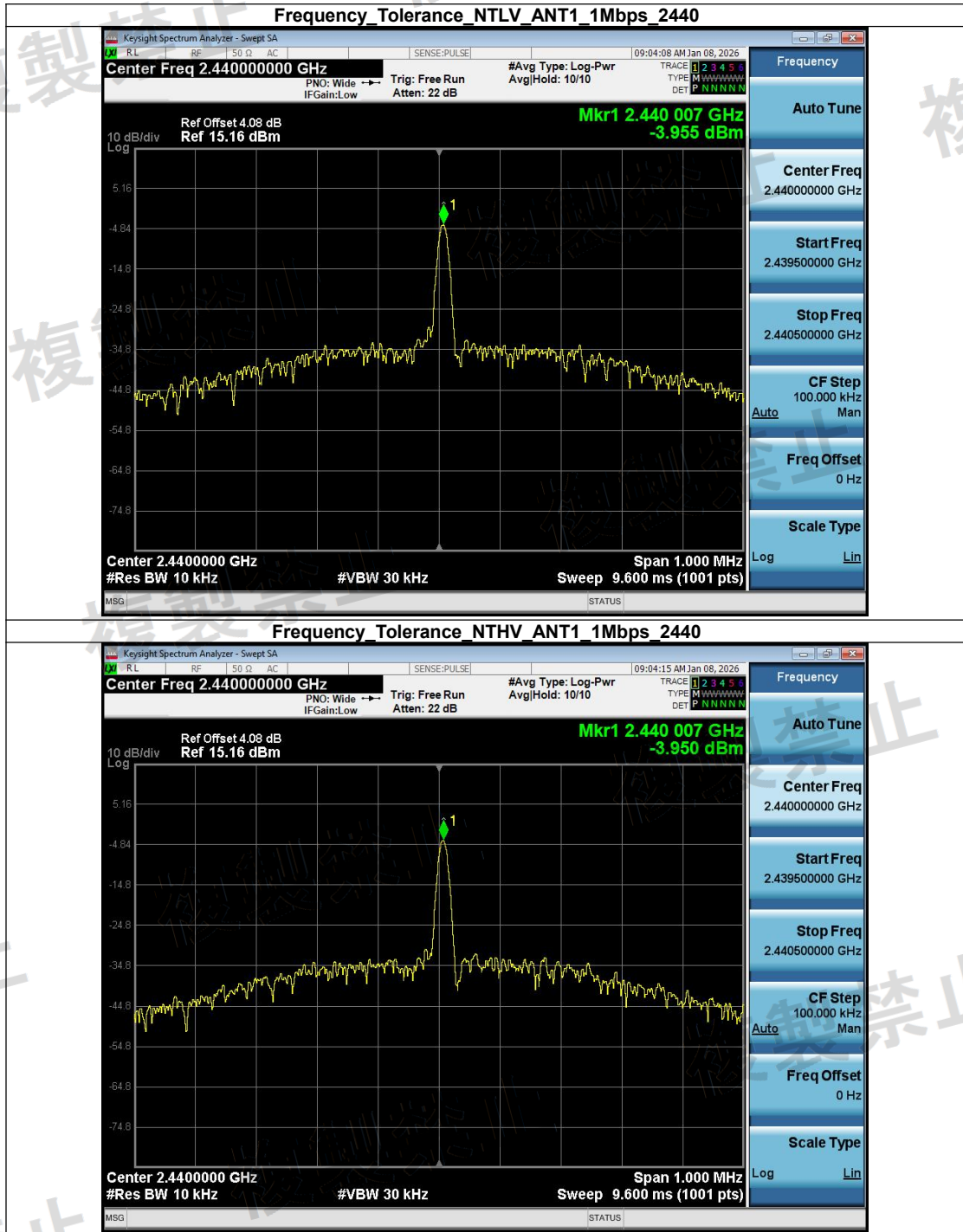
- (1) Configure EUT and assistant system according clause 2.3 and 4.3
- (2) Set EUT work in carrier Tx mode as described in clause 2.4
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 - Centre Frequency: The centre frequency of the channel under test.
 - Resolution BW: 10 KHz.
 - Video BW: 30 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.

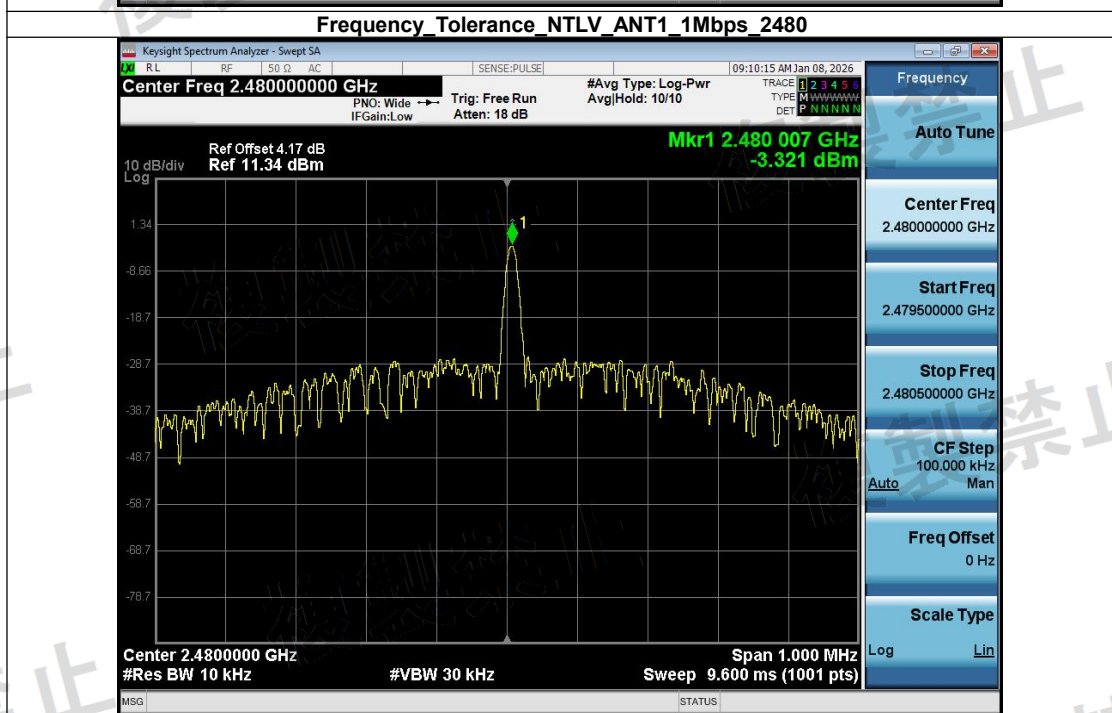
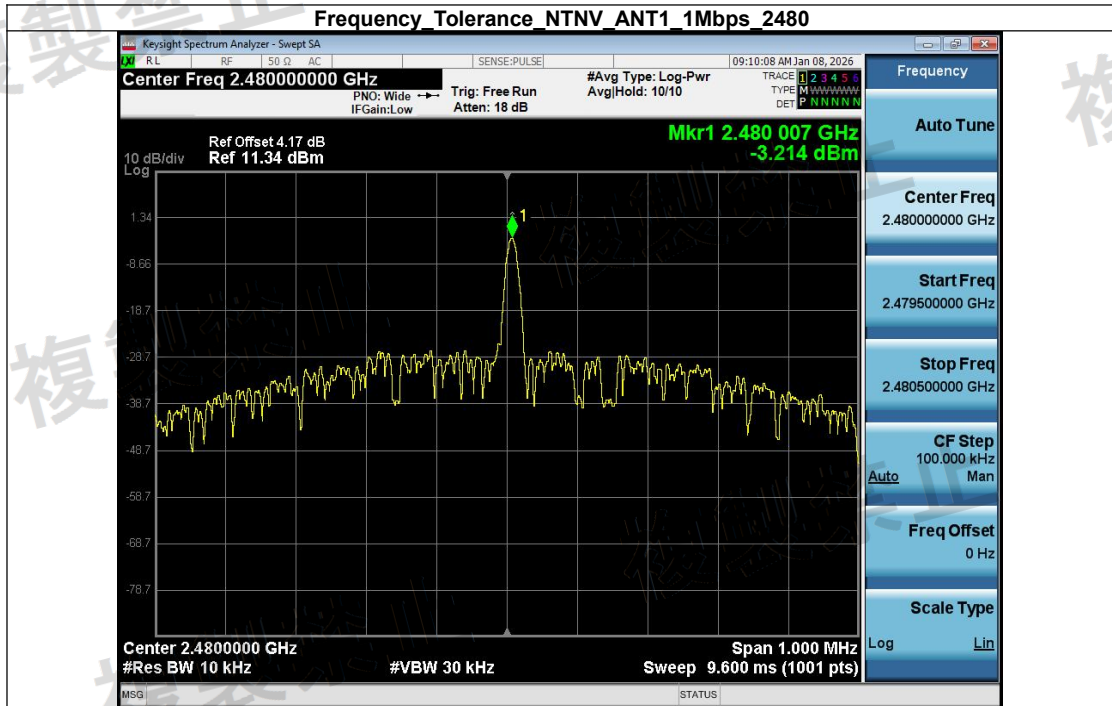
4.5. Test result

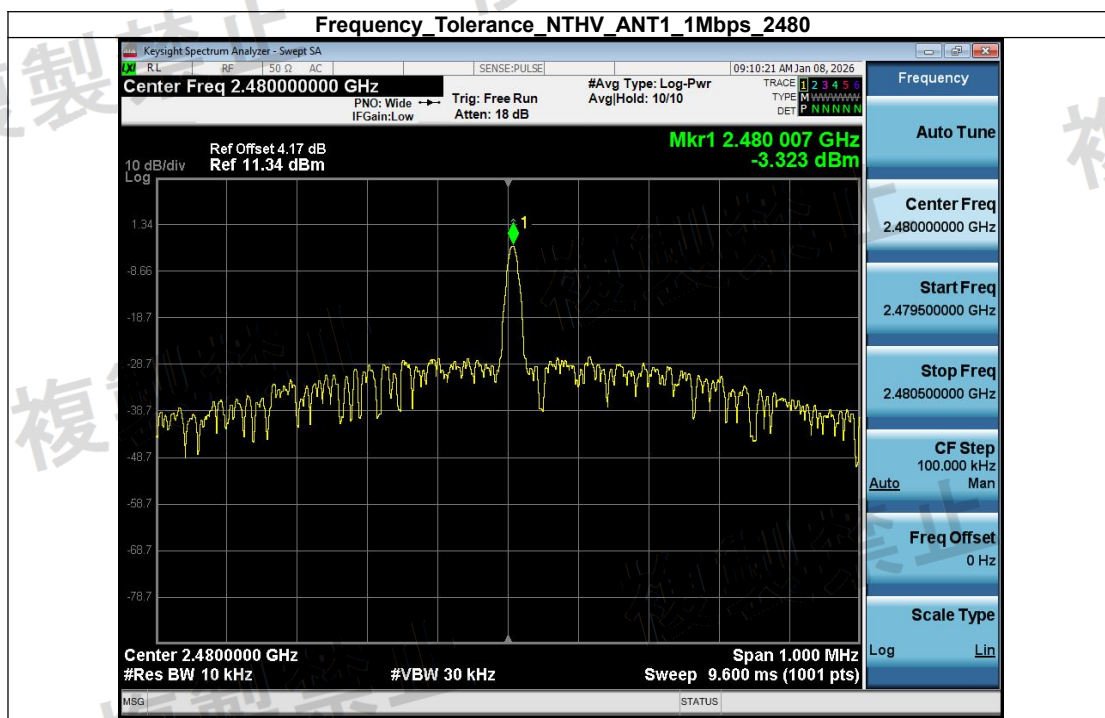
Condition	Antenna	Modulation	Frequency (MHz)	Test Frequency(MHz)	Frequency Tolerance(ppm)	Limit(ppm)	Result
NTNV	ANT1	1Mbps	2402.00	2402.007	2.914	± 50	Pass
NTLV	ANT1	1Mbps	2402.00	2402.007	2.914	± 50	Pass
NTHV	ANT1	1Mbps	2402.00	2402.007	2.914	± 50	Pass
NTNV	ANT1	1Mbps	2440.00	2440.007	2.869	± 50	Pass
NTLV	ANT1	1Mbps	2440.00	2440.007	2.869	± 50	Pass
NTHV	ANT1	1Mbps	2440.00	2440.007	2.869	± 50	Pass
NTNV	ANT1	1Mbps	2480.00	2480.007	2.823	± 50	Pass
NTLV	ANT1	1Mbps	2480.00	2480.007	2.823	± 50	Pass
NTHV	ANT1	1Mbps	2480.00	2480.007	2.823	± 50	Pass











5. Occupied Frequency Bandwidth

5.1. Test Equipment

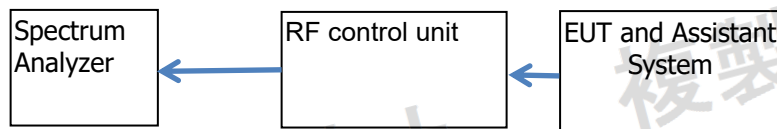
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54484584	2025.11.10	2026.11.09
2	RF control unit	Tonscend	JS0806-1	19K8060206	2025.11.12	2026.11.11

Note: The test equipment is calibrated by HUAJUE MEDICAL TESTING AND METROLOGY (SHENZHEN) CO.,LTD. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

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.

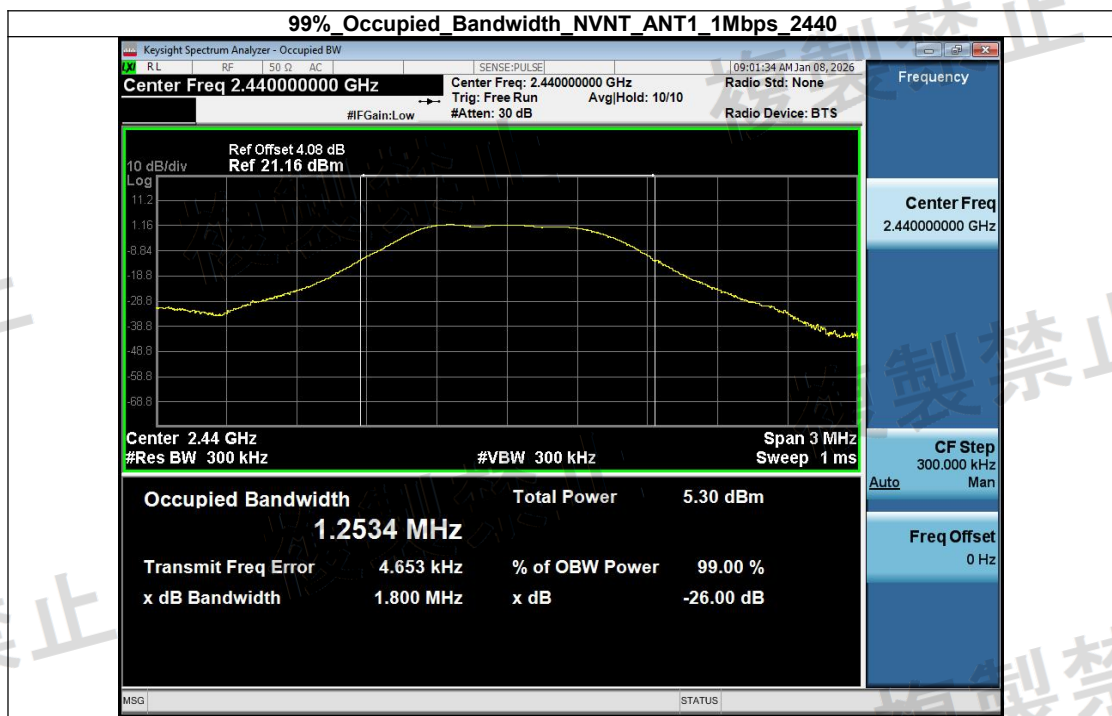
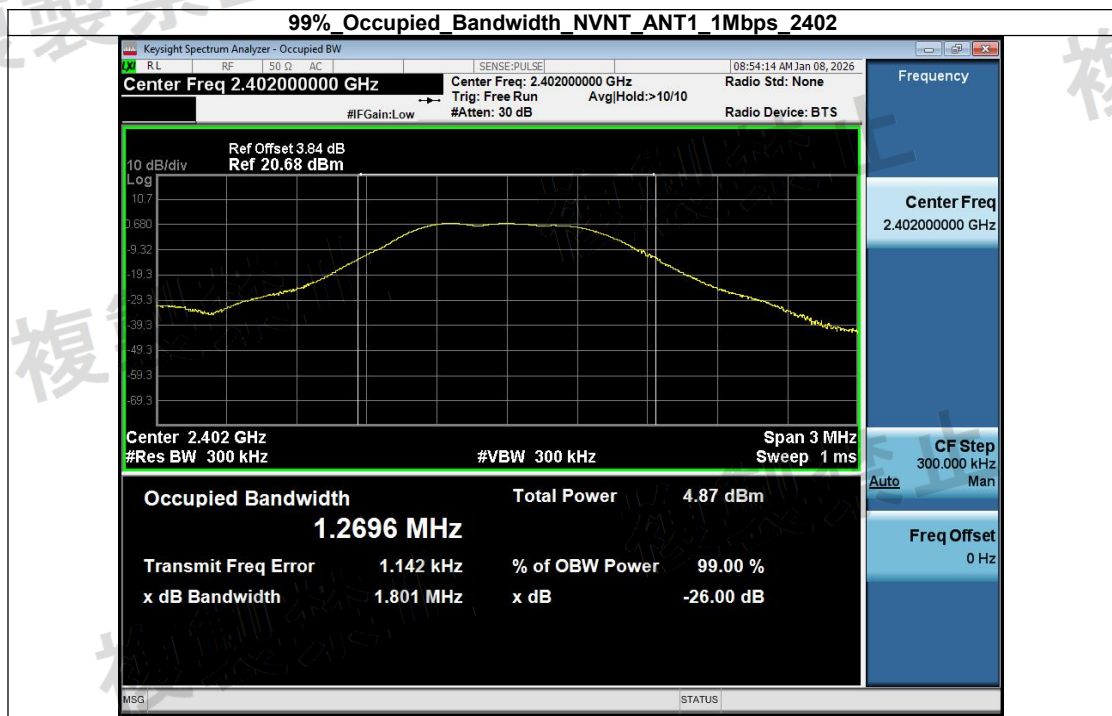
Detector: Peak.

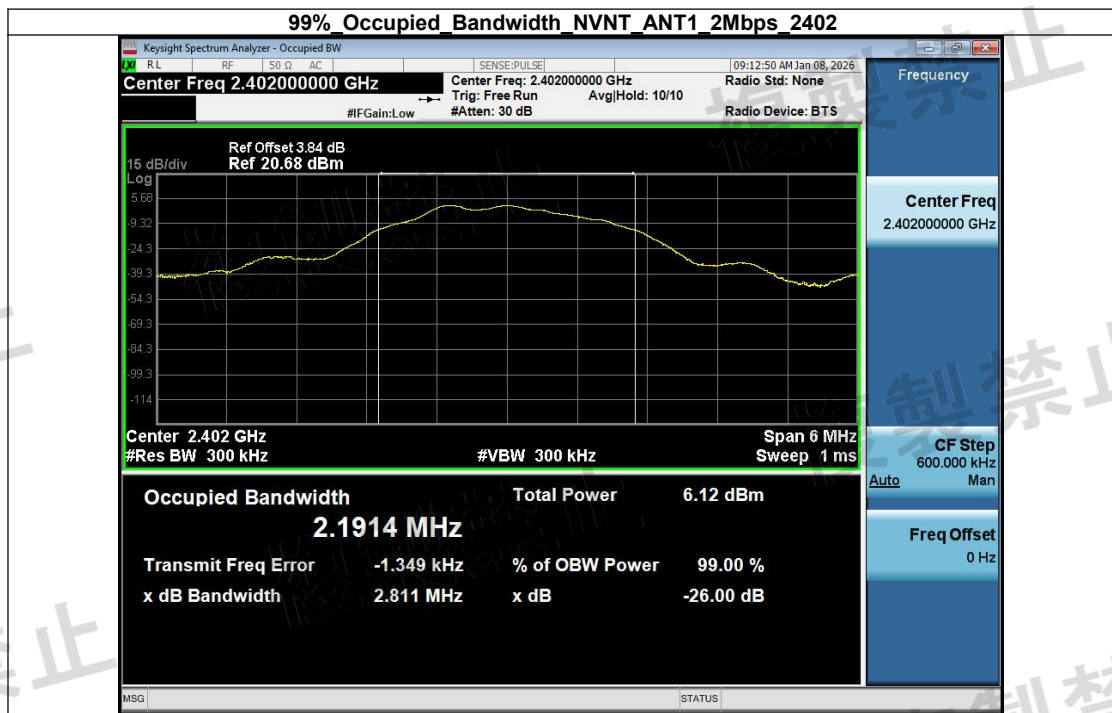
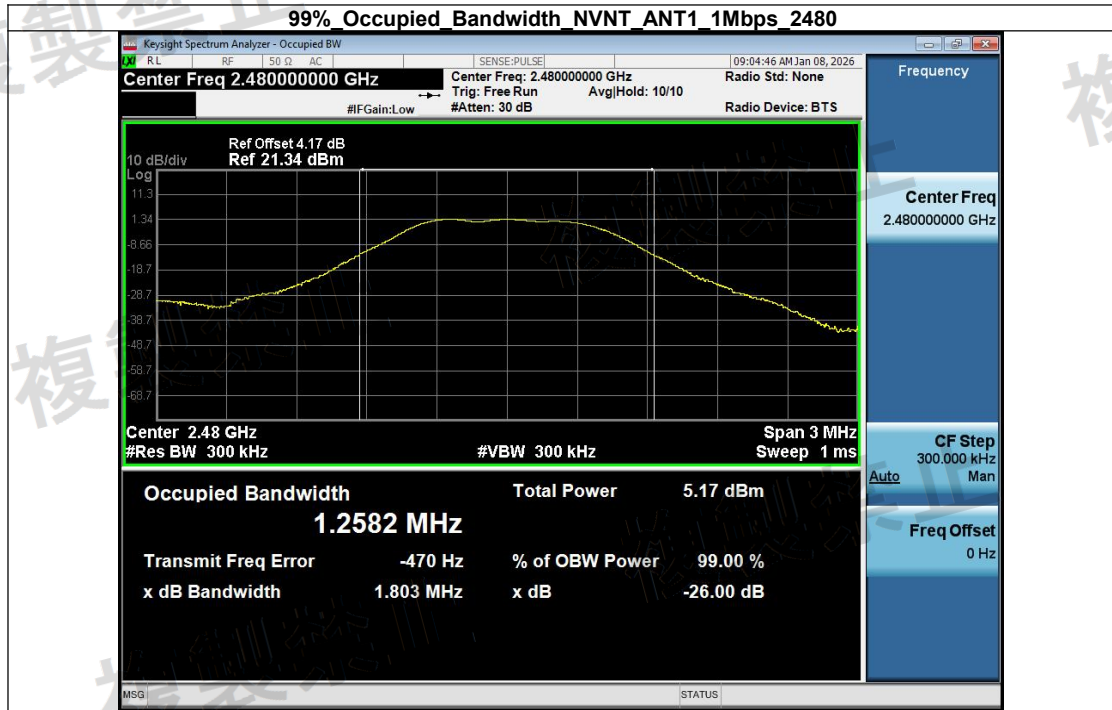
Trace Mode: Max Hold.

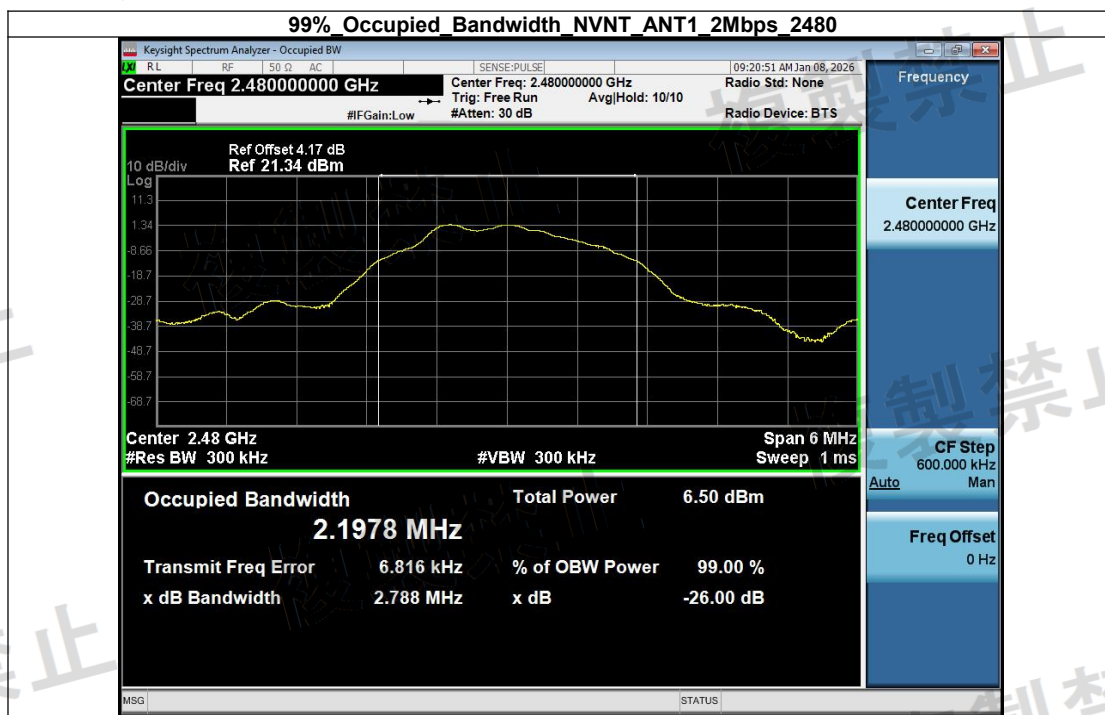
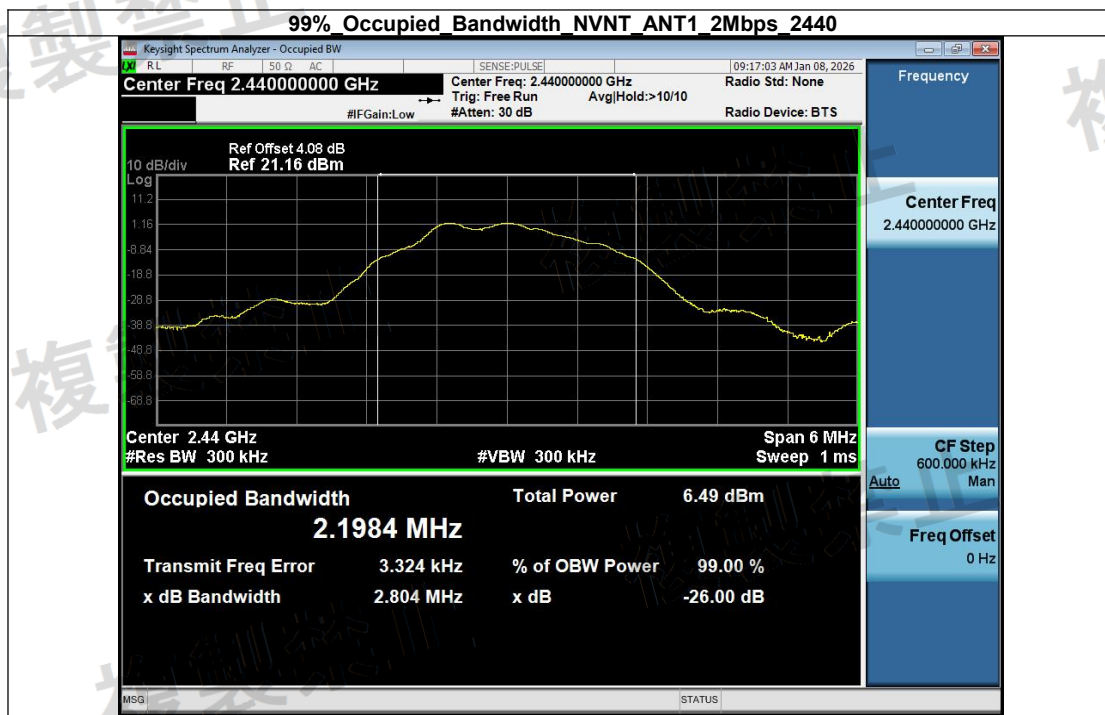
- (4) When the trace is complete, measure the occupied bandwidth (99% bandwidth) with spectrum analyzer's bandwidth measure function.

5.5. Test result

Condition	Antenna	Rate	Frequency(MHz)	Occupied Bandwidth(MHz)	Limit(MHz)	Result
NVNT	ANT1	1Mbps	2402.00	1.27	<26	Pass
NVNT	ANT1	1Mbps	2440.00	1.25	<26	Pass
NVNT	ANT1	1Mbps	2480.00	1.26	<26	Pass
NVNT	ANT1	2Mbps	2402.00	2.19	<26	Pass
NVNT	ANT1	2Mbps	2440.00	2.20	<26	Pass
NVNT	ANT1	2Mbps	2480.00	2.20	<26	Pass







6. Transmitter Spurious Emissions (conducted)

6.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54484584	2025.11.10	2026.11.09
2	RF control unit	Tonscend	JS0806-1	19K8060206	2025.11.12	2026.11.11

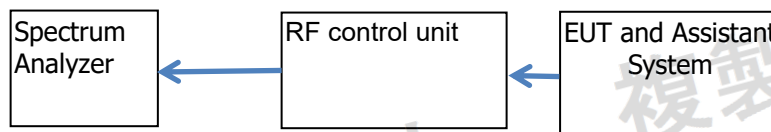
Note: The test equipment is calibrated by HUAJUE MEDICAL TESTING AND METROLOGY (SHENZHEN) CO.,LTD. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

6.2. 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 μW or less
- $2,387\text{MHz} > f$ and $2,496.5\text{MHz} < f$ 2.5 μW or less

6.3. Block diagram of test setup



6.4. 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:

Below 1GHz: Resolution BW: 100KHz.
Video BW: 100KH.
Detector: Peak.
Trace Mode: Max Hold.

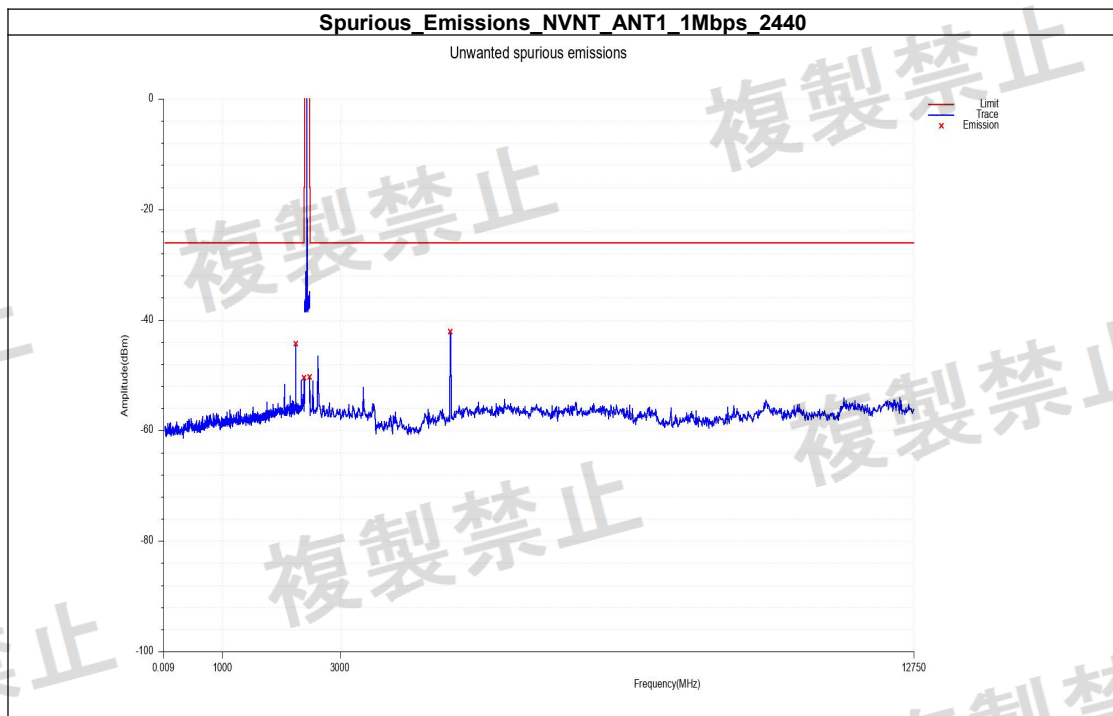
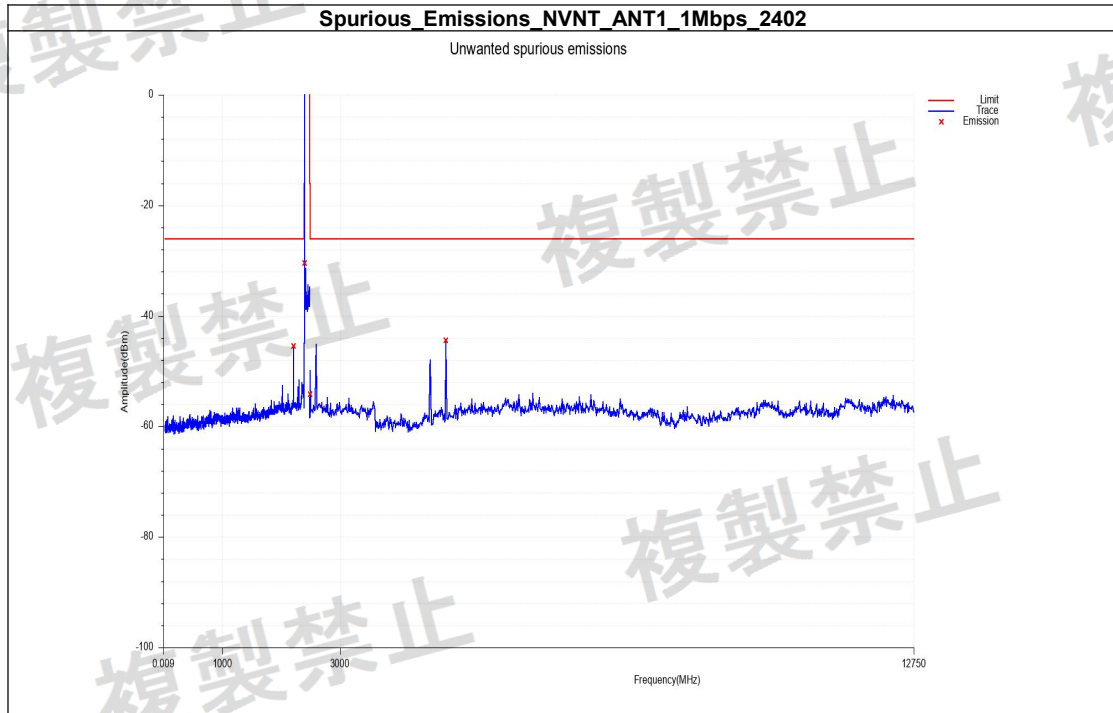
Above 1GHz: Resolution BW: 1MHz.
Video BW: 1MHz.
Detector: Peak.
Trace Mode: Max Hold.

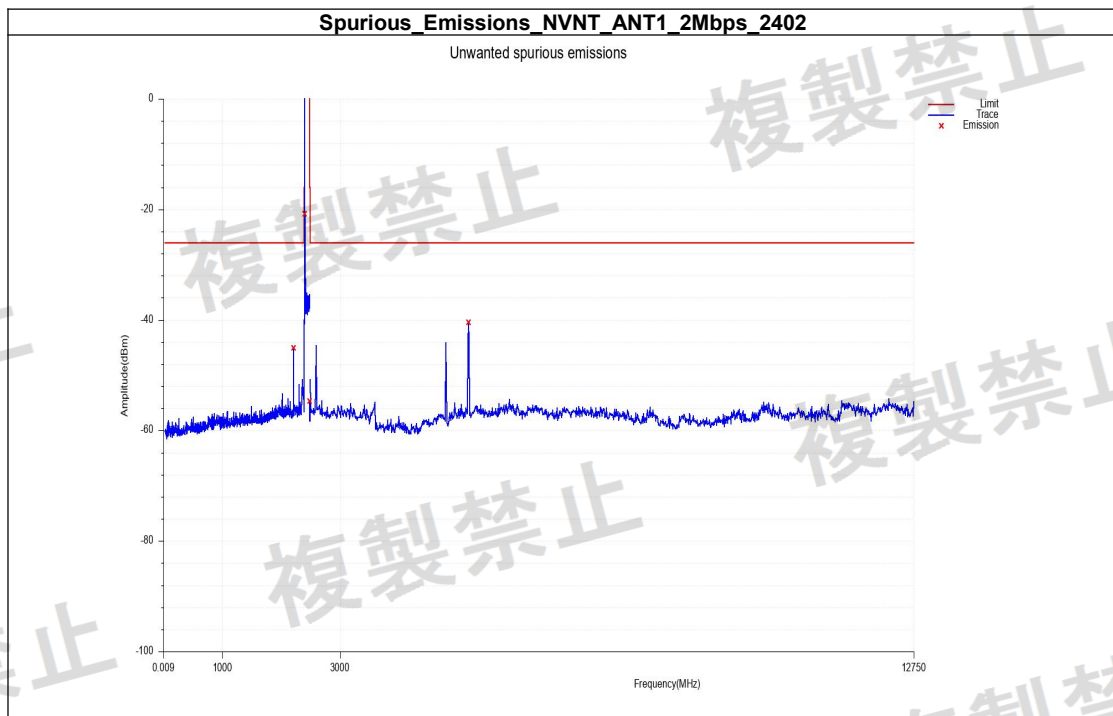
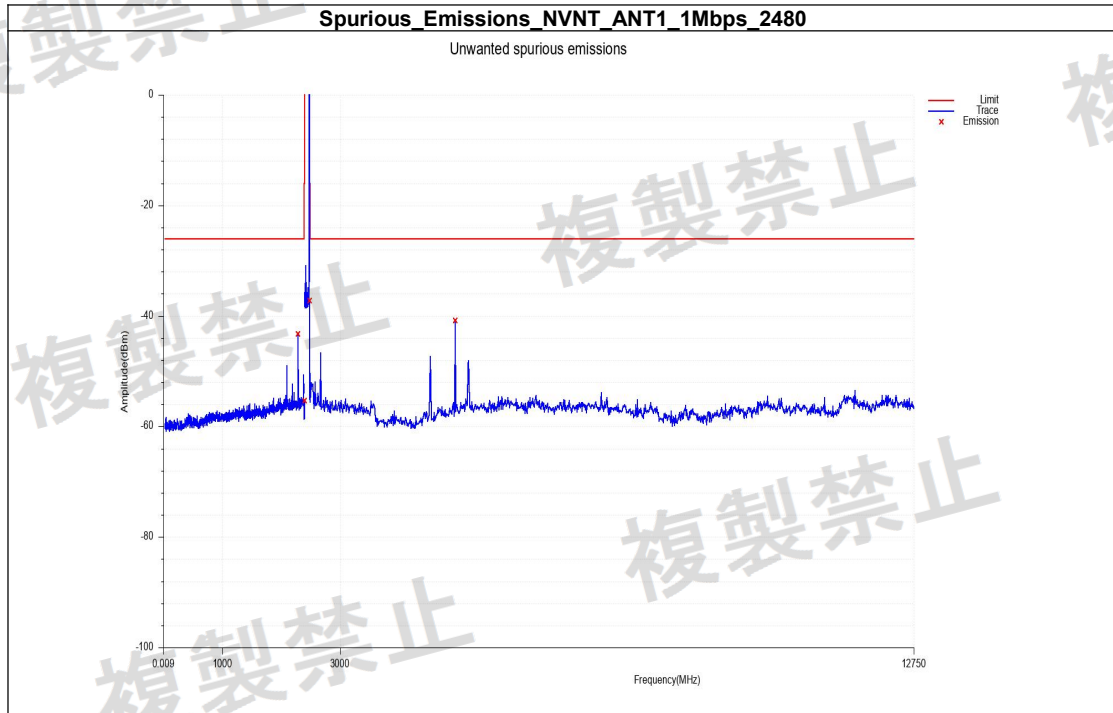
- All the emissions from 30MHz to 13GHz were measured and record.

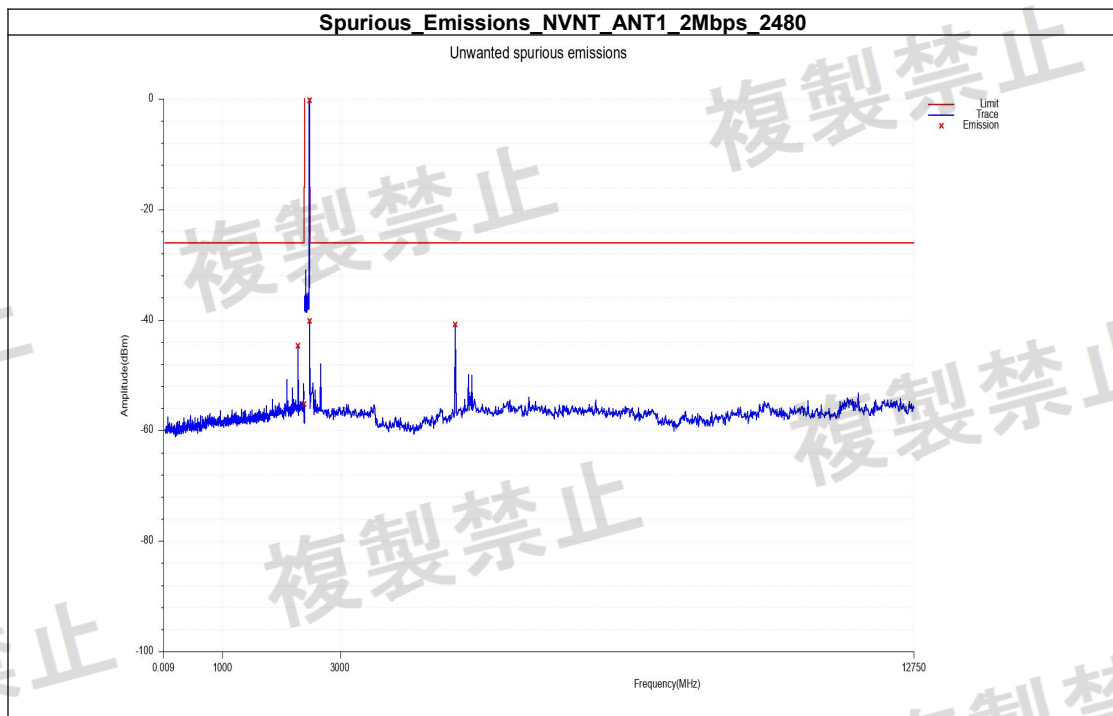
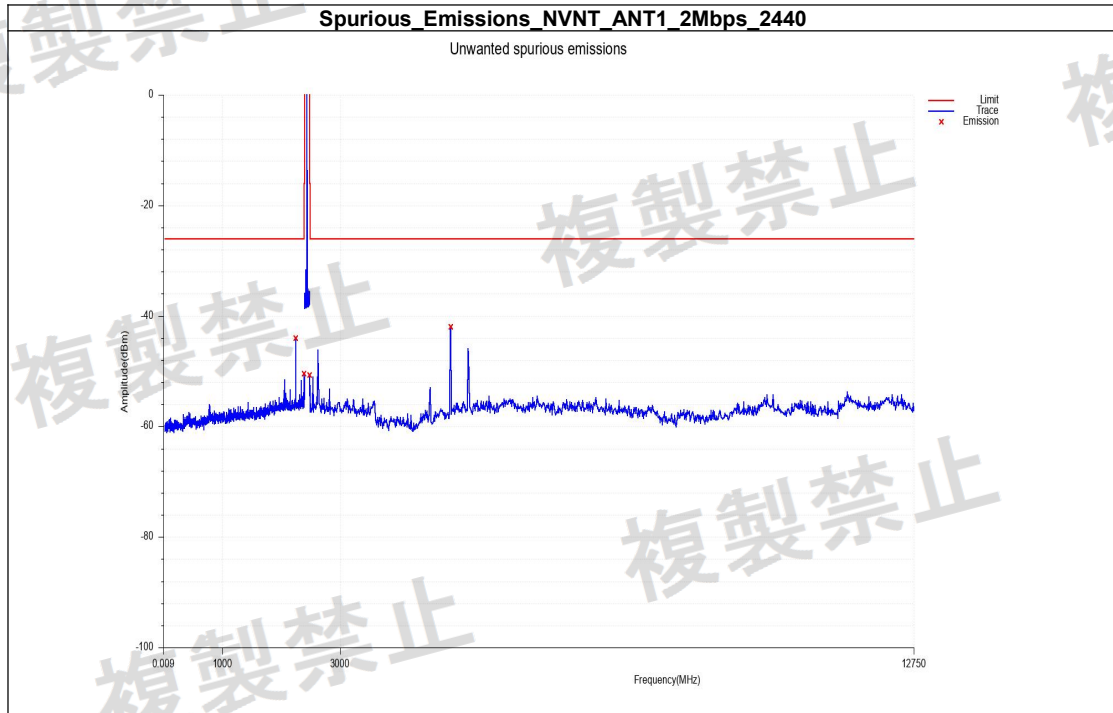
6.5. Test result

Pass. (See below original test data)

Condition	Antenna	Mode	Frequency (MHz)	Frequency Area(MHz)	RBW (kHz)	Spur. Fre. (MHz)	Spur. Level(dB m/MHz)	Limit(dB m/MHz)	Spur. Level	Llimit	Result
NVNT	ANT1	1Mbps	2402.00	30.00~2387.00	1000	2210.22	-45.40	-26	0.0288 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2402.00	2387.00~2400.00	1000	2399.99	-30.43	-16	0.9050 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2402.00	2400.00~2483.50	/	/	/	/	/	/	/
NVNT	ANT1	1Mbps	2402.00	2483.50~2496.50	1000	2494.51	-54.14	-16	0.0038 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2402.00	2496.50~1275.00	1000	4803.54	-44.43	-26	0.0360 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2440.00	30.00~2387.00	1000	2247.94	-44.35	-26	0.0367 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2440.00	2387.00~2400.00	1000	2391.86	-50.45	-16	0.0090 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2440.00	2400.00~2483.50	/	/	/	/	/	/	/
NVNT	ANT1	1Mbps	2440.00	2483.50~2496.50	1000	2487.87	-50.32	-16	0.0092 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2440.00	2496.50~1275.00	1000	4875.31	-42.15	-26	0.0609 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2480.00	30.00~2387.00	1000	2288.01	-43.25	-26	0.0473 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2480.00	2387.00~2400.00	1000	2395.24	-55.27	-16	0.0029 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2480.00	2400.00~2483.50	/	/	/	/	/	/	/
NVNT	ANT1	1Mbps	2480.00	2483.50~2496.50	1000	2483.50	-37.22	-16	0.1896 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	1Mbps	2480.00	2496.50~1275.00	1000	4957.34	-40.84	-26	0.0824 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2402.00	30.00~2387.00	1000	2210.22	-45.04	-26	0.0313 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2402.00	2387.00~2400.00	1000	2400.00	-20.74	-16	8.4387 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2402.00	2400.00~2483.50	/	/	/	/	/	/	/
NVNT	ANT1	2Mbps	2402.00	2483.50~2496.50	1000	2484.18	-54.72	-16	0.0033 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2402.00	2496.50~1275.00	1000	5182.92	-40.41	-26	0.0909 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2440.00	30.00~2387.00	1000	2247.94	-44.09	-26	0.0390 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2440.00	2387.00~2400.00	1000	2391.98	-50.51	-16	0.0088 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2440.00	2400.00~2483.50	/	/	/	/	/	/	/
NVNT	ANT1	2Mbps	2440.00	2483.50~2496.50	1000	2485.64	-50.66	-16	0.0085 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2440.00	2496.50~1275.00	1000	4885.57	-42.00	-26	0.0631 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2480.00	30.00~2387.00	1000	2288.01	-44.70	-26	0.0339 μ W/MHz	2.5 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2480.00	2387.00~2400.00	1000	2388.82	-55.25	-16	0.0029 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2480.00	2400.00~2483.50	/	/	/	/	/	/	/
NVNT	ANT1	2Mbps	2480.00	2483.50~2496.50	1000	2483.51	-40.14	-16	0.0967 μ W/MHz	25 μ W/MHz	Pass
NVNT	ANT1	2Mbps	2480.00	2496.50~1275.00	1000	4957.34	-40.87	-26	0.0819 μ W/MHz	2.5 μ W/MHz	Pass







7. Interference prevention function

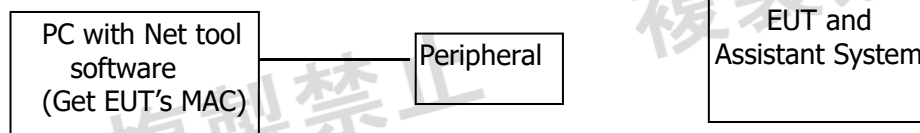
7.1. Limit

Item	Limits
Identification	≥48 bits

7.2. Measuring ID Code Software

Item	Limits
MAC IP List	MAC Scan

7.3. Block diagram of test setup



7.4. Test Procedure

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

7.5. Test result

EUT:	Wireless Speaker	Tested by:	Aaron Long
Temperature:	24℃	MAC address:	00:16:F5:5E:49:45
Humidity:	56%RH		
Test result:	Conform		

8. Secondary Radiated Emissions

8.1. Test Equipment

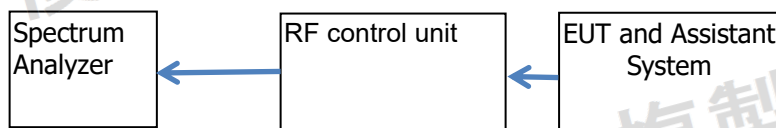
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54484584	2025.11.10	2026.11.09
2	RF control unit	Tonscend	JS0806-1	19K8060206	2025.11.12	2026.11.11

Note: The test equipment is calibrated by HUAJUE MEDICAL TESTING AND METROLOGY (SHENZHEN) CO.,LTD. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

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

8.3. Block diagram of test setup



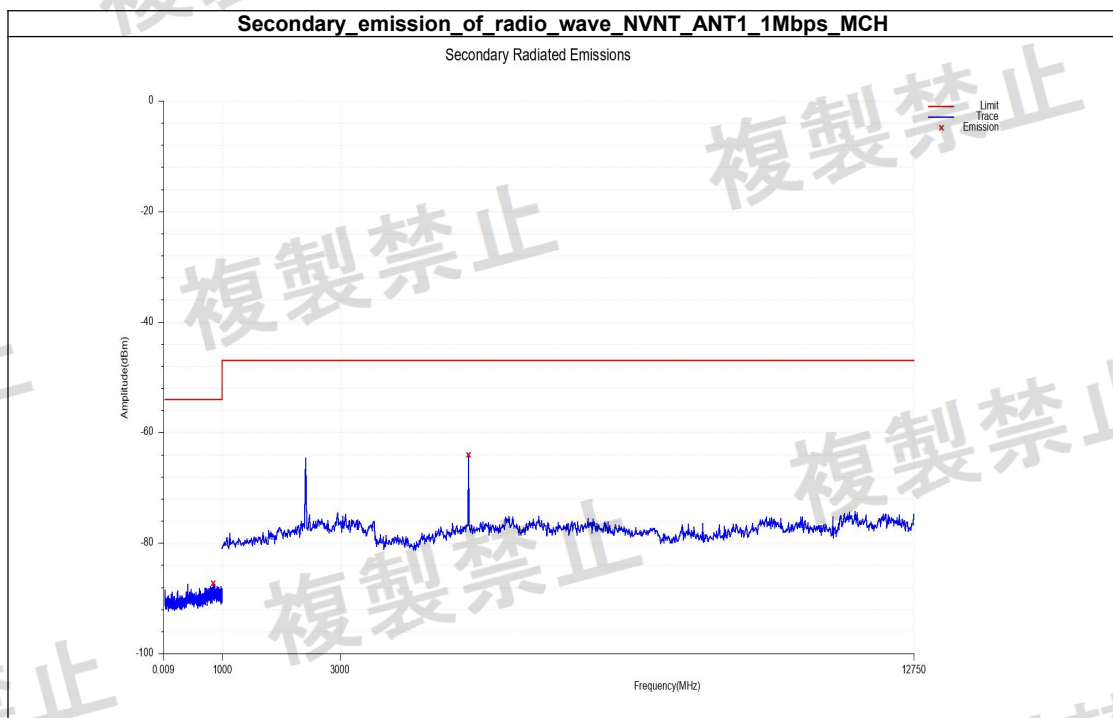
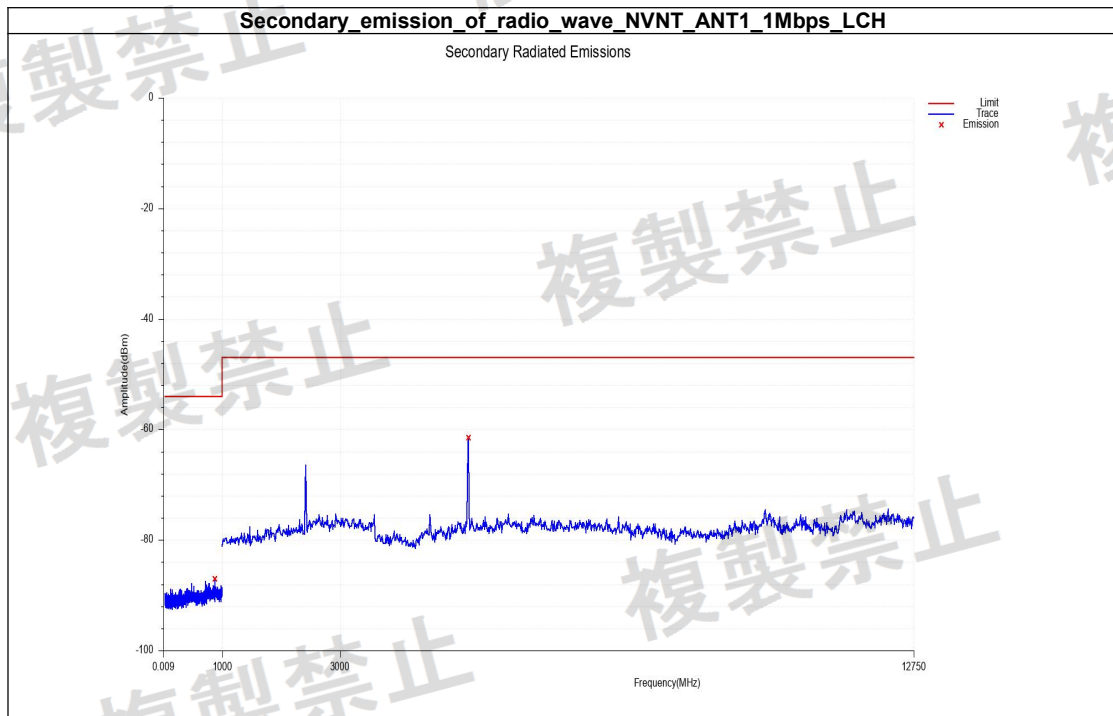
8.4. Test Procedure

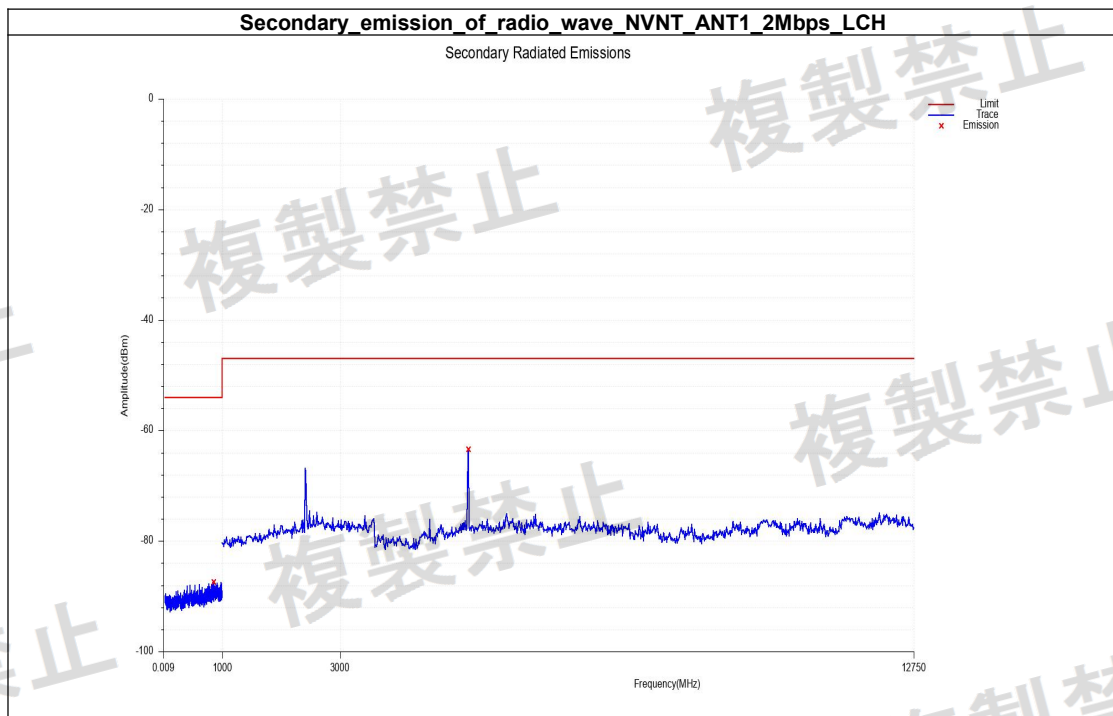
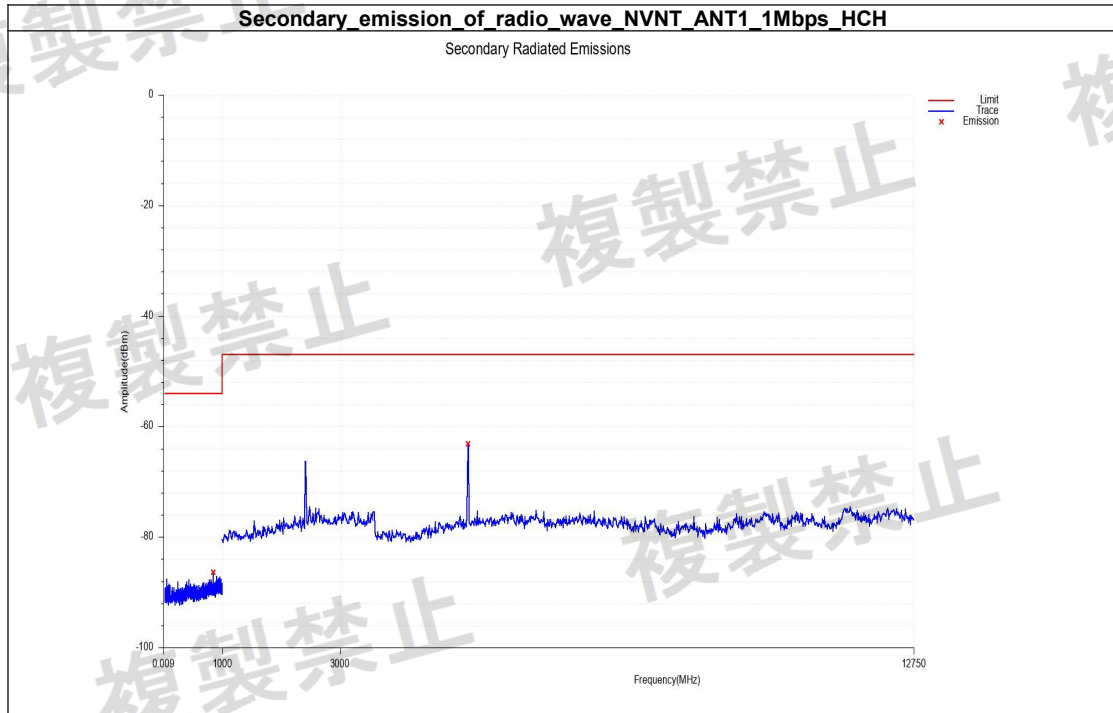
- (1) Configure EUT and assistant system according clause 2.3 and 13.3
- (2) Set EUT work in test mode as described in clause 2.4
- (3) Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
 Resolution BW: 100 KHz for frequency below 1GHz 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.

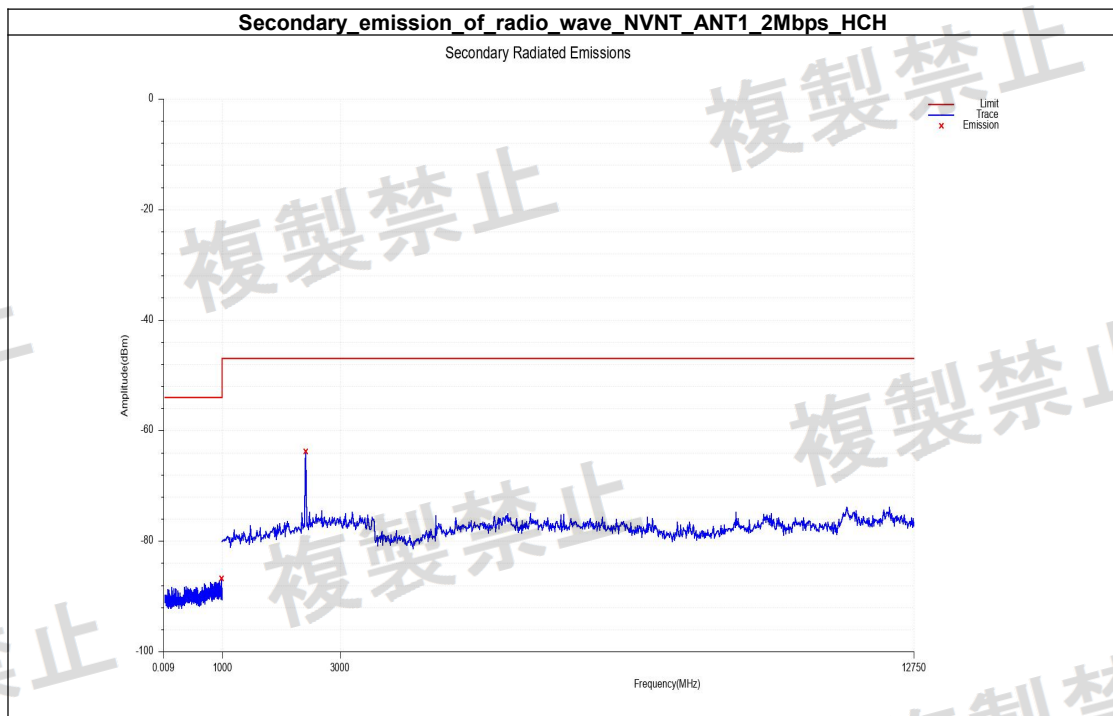
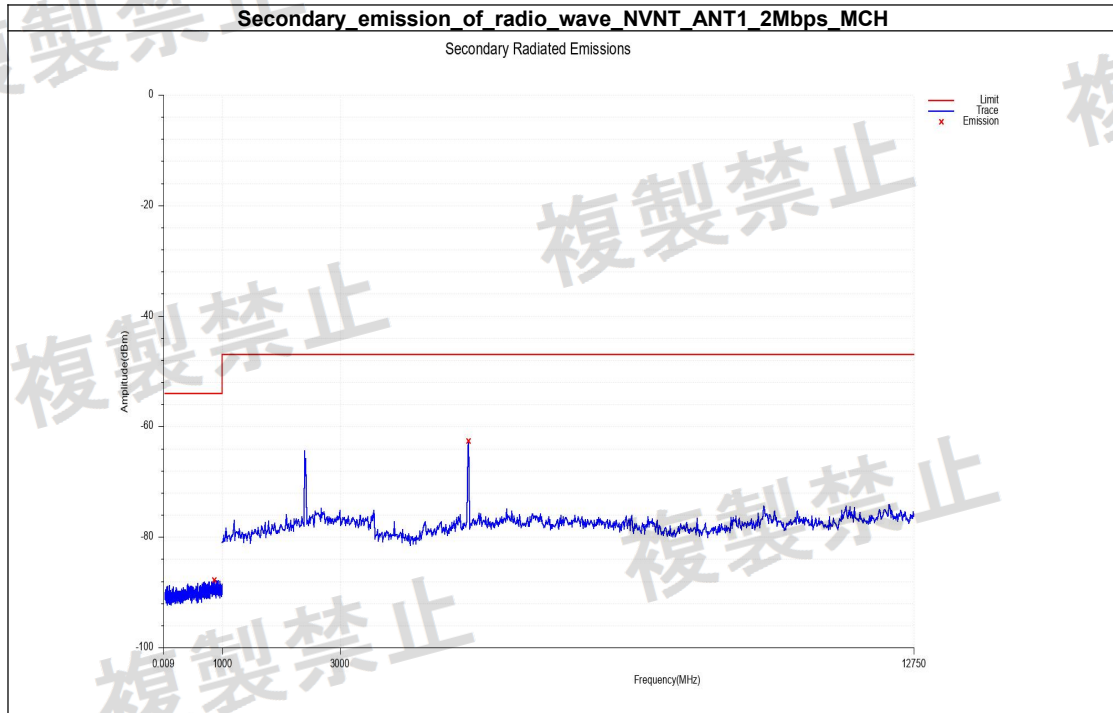
8.5. Test result

Pass. (See below original test data)

Condition	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
NVNT	ANT1	1Mbps	LCH	30.0~1000.0	100	875.84	-86.99	0.0019 nW	4 nW	NO	/	/	Pass
NVNT	ANT1	1Mbps	LCH	1000.0~12750.0	1000	5183.00	-61.47	0.7122 nW	20 nW	NO	/	/	Pass
NVNT	ANT1	1Mbps	MCH	30.0~1000.0	100	843.83	-87.26	0.0018 nW	4 nW	NO	/	/	Pass
NVNT	ANT1	1Mbps	MCH	1000.0~12750.0	1000	5183.00	-64.00	0.3979 nW	20 nW	NO	/	/	Pass
NVNT	ANT1	1Mbps	HCH	30.0~1000.0	100	844.80	-86.41	0.0022 nW	4 nW	NO	/	/	Pass
NVNT	ANT1	1Mbps	HCH	1000.0~12750.0	1000	5171.25	-63.22	0.4763 nW	20 nW	NO	/	/	Pass
NVNT	ANT1	2Mbps	LCH	30.0~1000.0	100	855.47	-87.40	0.0018 nW	4 nW	NO	/	/	Pass
NVNT	ANT1	2Mbps	LCH	1000.0~12750.0	1000	5183.00	-63.38	0.4591 nW	20 nW	NO	/	/	Pass
NVNT	ANT1	2Mbps	MCH	30.0~1000.0	100	870.02	-87.82	0.0016 nW	4 nW	NO	/	/	Pass
NVNT	ANT1	2Mbps	MCH	1000.0~12750.0	1000	5183.00	-62.59	0.5505 nW	20 nW	NO	/	/	Pass
NVNT	ANT1	2Mbps	HCH	30.0~1000.0	100	986.42	-86.83	0.0020 nW	4 nW	NO	/	/	Pass
NVNT	ANT1	2Mbps	HCH	1000.0~12750.0	1000	2421.75	-63.75	0.4218 nW	20 nW	NO	/	/	Pass







9. Equivalent Isotropic Radiated Power

9.1. Test Equipment

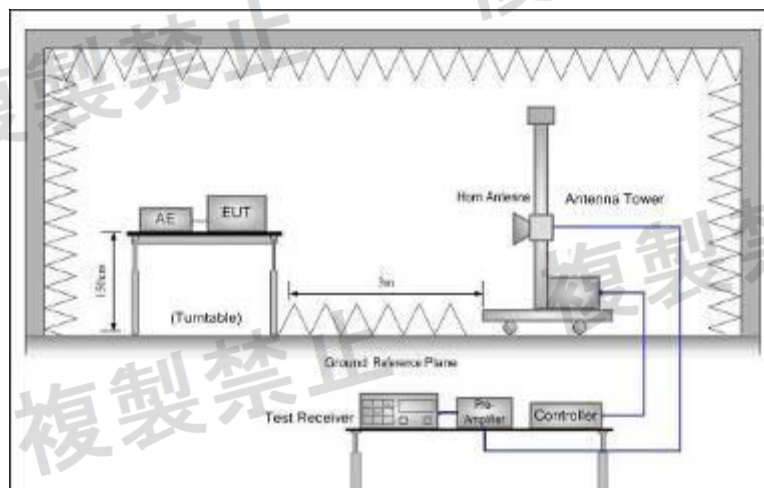
Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54484584	2025.11.10	2026.11.09
2	RF control unit	Tonscend	JS0806-1	19K8060206	2025.11.12	2026.11.11
3	Horn Antenna	SCHWARZBECK	BBHA9170	00956	2025.05.18	2026.05.17

Note: The test equipment is calibrated by HUAJUE MEDICAL TESTING AND METROLOGY (SHENZHEN) CO.,LTD. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

9.2. Limit

EIRP: 12.14dBm/MHz

9.3. Block diagram of test setup



9.4. Test Procedure

Step 1

Set the test equipment at test frequency, and in continuous transmitting mode or intermittent burst mode (constant frequency and constant burst time). Stop the spread.

Step 2

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

Step 3

In the frequency derived in D), 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. 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 4

Remove the test equipment from the turntable, set the opening of substitution antenna at the same location as the opening of the test equipment, and receive by outputting radio wave of the same frequency from the standard signal generator for substitution.

Step 5

Adjust at the maximum power point, turning the substitution antenna.

Step 6

Change the height of the measurement antenna from the ground by $\pm 50\text{cm}$ with a central focus on the substitution antenna, and adjust the direction of measurement antenna to the location that the received power is maximum.

Step 7

Adjust output of standard signal generator and record the power P_s that is equal to "E". Or record P_s by counting backward from the difference with "E" as the close value to "E" (within $\pm 1\text{dB}$).

Step 8

EIRP is derived from the following calculating formula:

$$\text{EIRP} = G_s - L_F + P_s$$

G_s ; Absolute gain of substitution antenna (dBi).

L_F ; Loss of electric supply line between standard signal generator and substitution antenna (dB).

P_s ; Output of standard signal generator (dBm).

Step 9

Spectrum Analyzer as below:

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

Frequency Span: 0Hz

Resolution BW: 1MHz

Video BW: 3MHz

Detector: Peak.

Sweep mode: Continuous sweep

9.5. Test result

Condition	Antenna	Mode	Frequency	Measured Power(dBm)	Antenna Gain(dBi)	EIRP(dBm)	EIRP Limit(dBm)	Result
NVNT	ANT1	1Mbps	2402.00	1.38	2.32	3.70	12.14	Pass
NVNT	ANT1	1Mbps	2440.00	1.69	2.32	4.01	12.14	Pass
NVNT	ANT1	1Mbps	2480.00	1.66	2.32	3.98	12.14	Pass
NVNT	ANT1	2Mbps	2402.00	1.53	2.32	3.85	12.14	Pass
NVNT	ANT1	2Mbps	2440.00	1.88	2.32	4.20	12.14	Pass
NVNT	ANT1	2Mbps	2480.00	-0.07	2.32	2.25	12.14	Pass

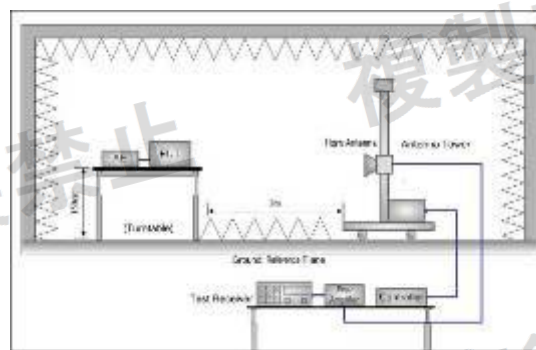
10.3dB Beam Bandwidth

10.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Calibration	Due Calibration
1	Spectrum analyzer	Agilent	N9020A	MY54484584	2025.11.10	2026.11.09
2	RF control unit	Tonscend	JS0806-1	19K8060206	2025.11.12	2026.11.11
3	Horn Antenna	SCHWARZBECK	BBHA9170	00956	2025.05.18	2026.05.17

Note: The test equipment is calibrated by HUAJUE MEDICAL TESTING AND METROLOGY (SHENZHEN) CO.,LTD. Calibration standard: Article 24-2, Paragraph 4 of the Radio Act, method c

10.2. Block diagram of test setup



10.3. 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 OFDM, 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

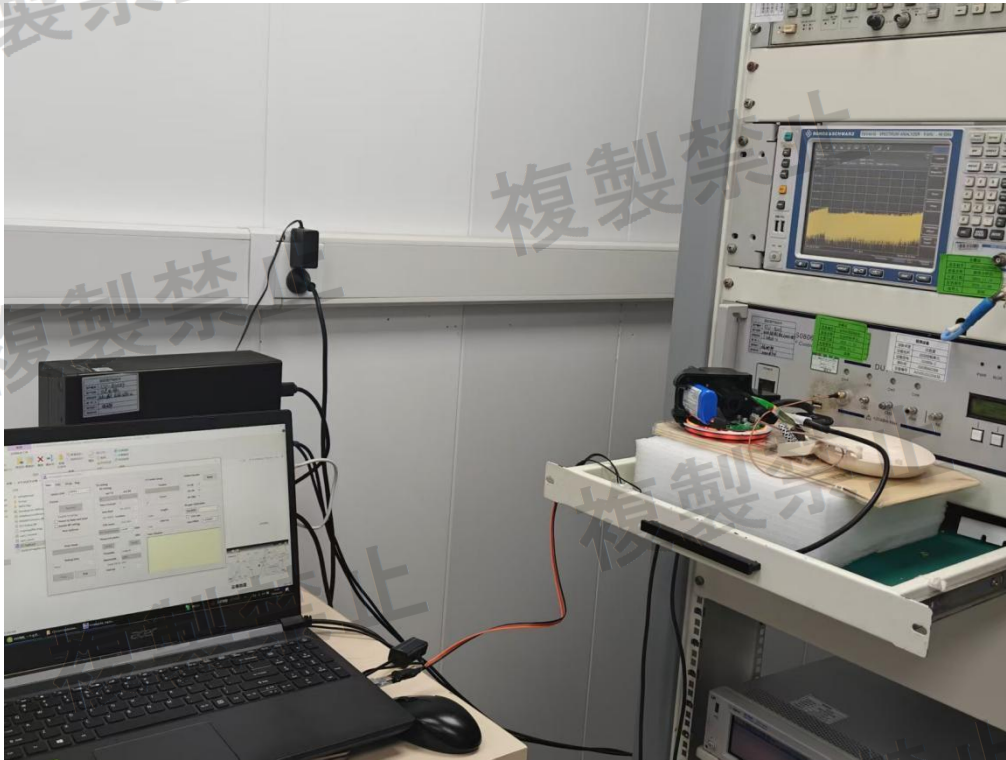
Detector: Peak.

Sweep mode: Continuous sweep

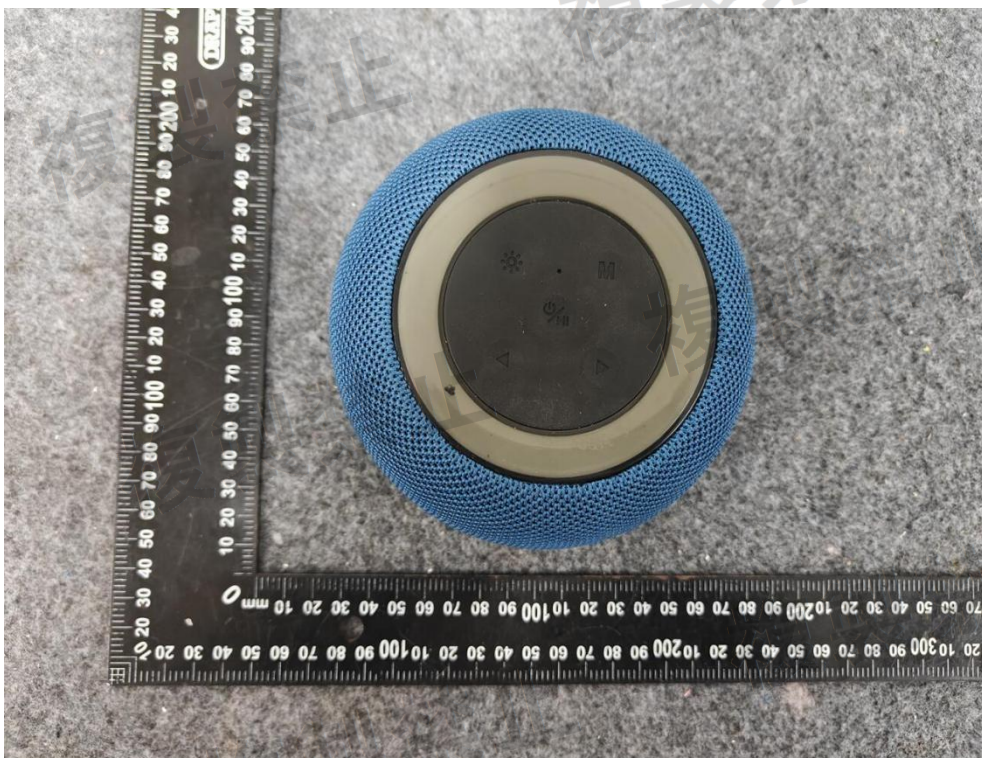
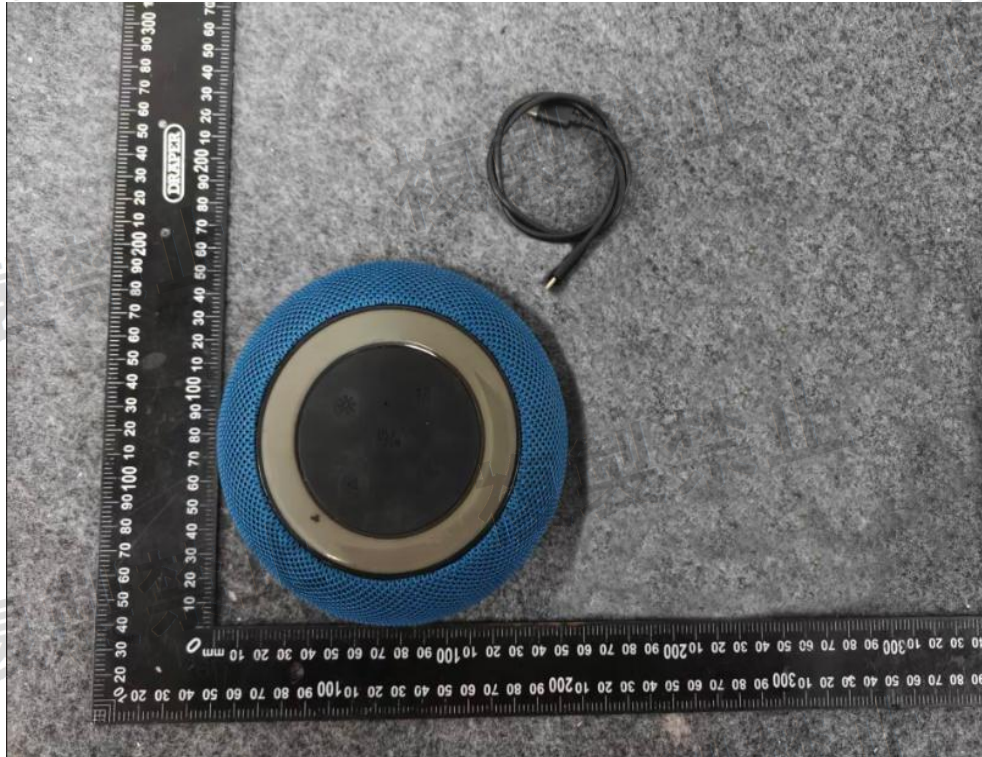
Input level: the amplitude of transmission signal is set around max. line area of mixer.

10.4. Test result

Not applicable (the EIRP less than 12.14dBm).

11. Photos of test setup

12. EUT Photo

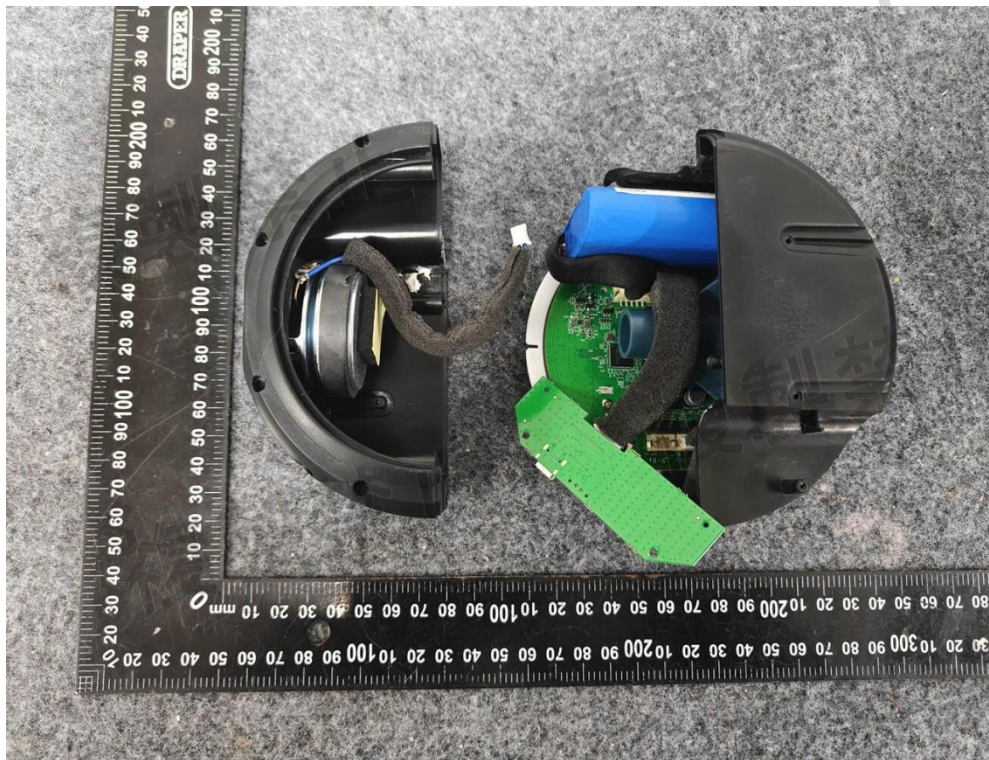


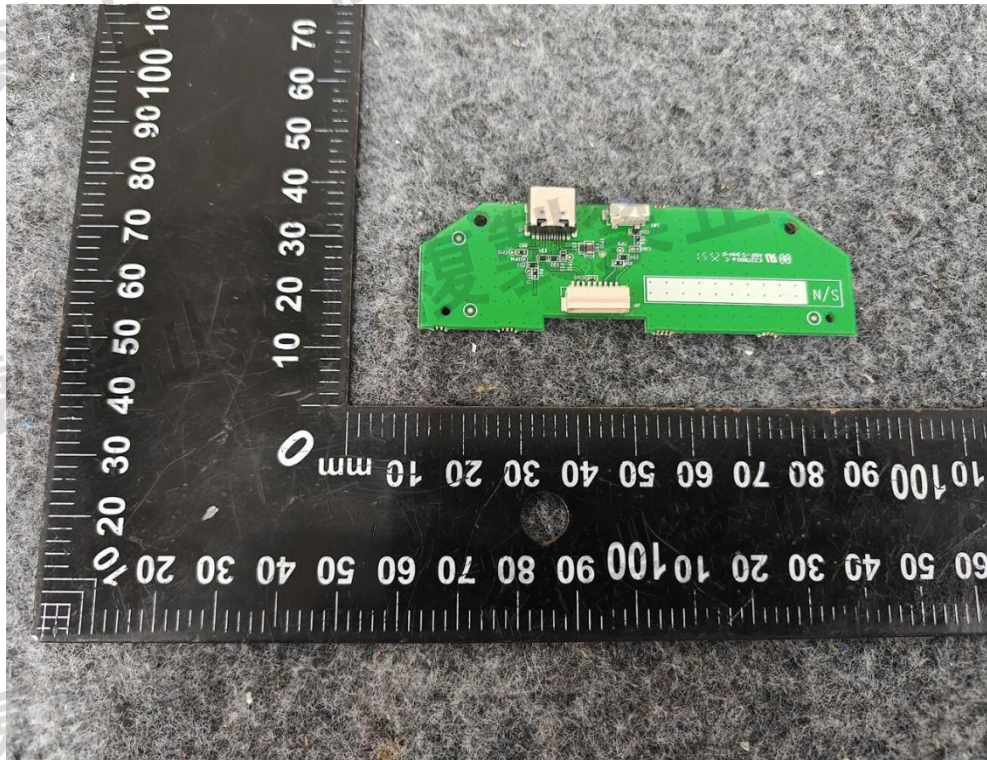




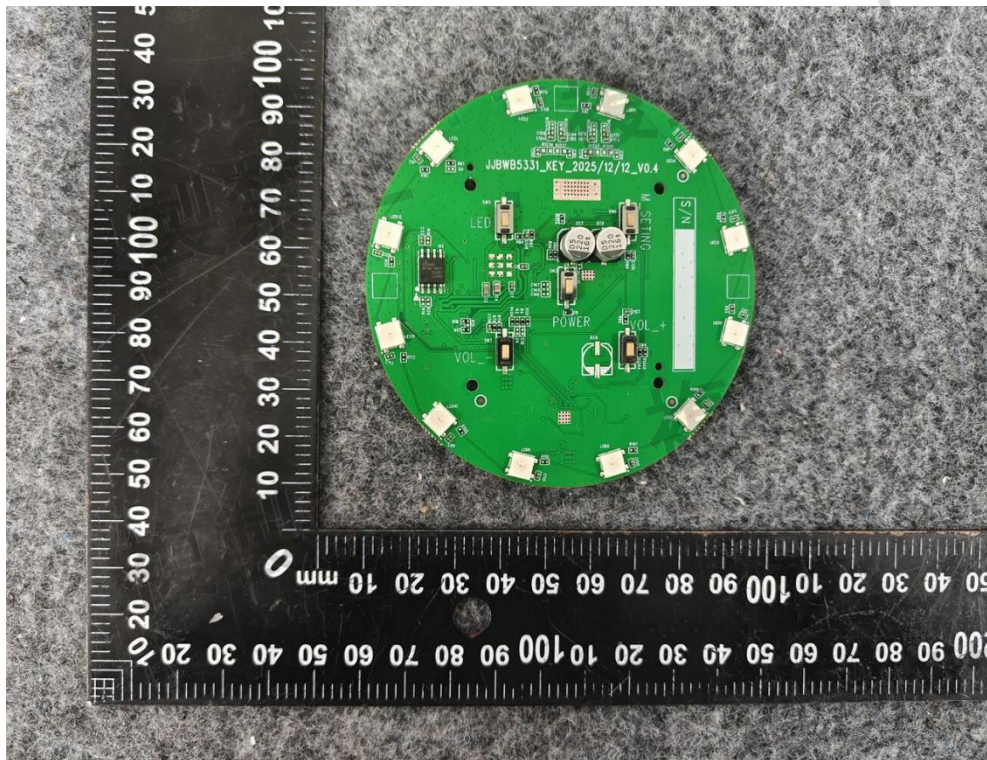
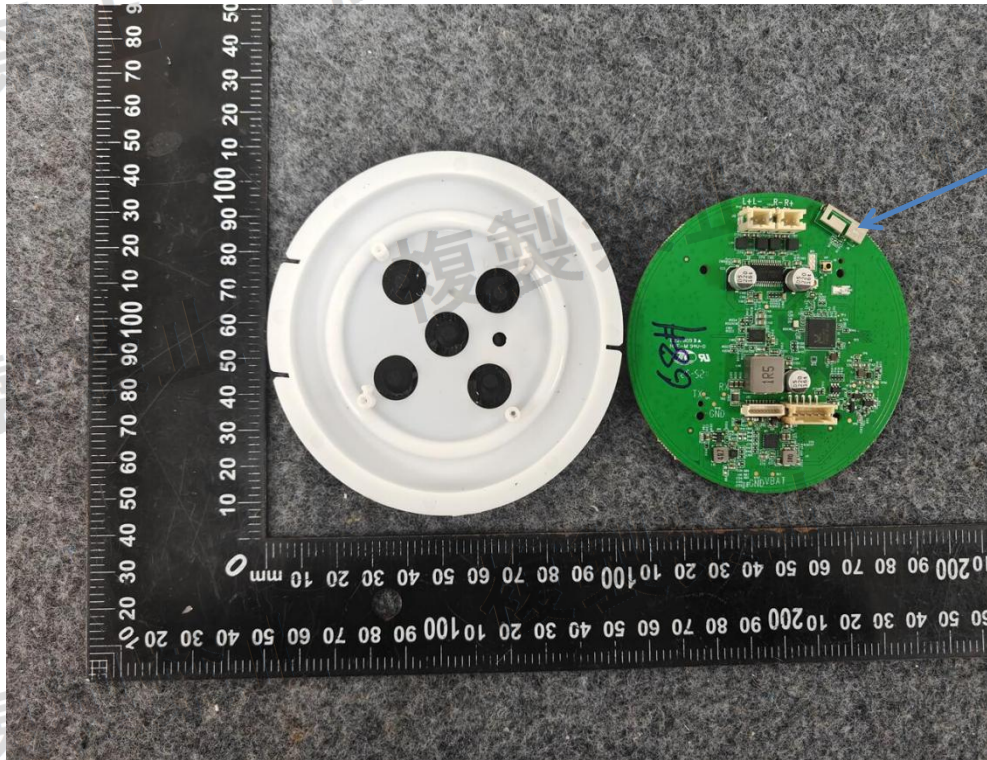


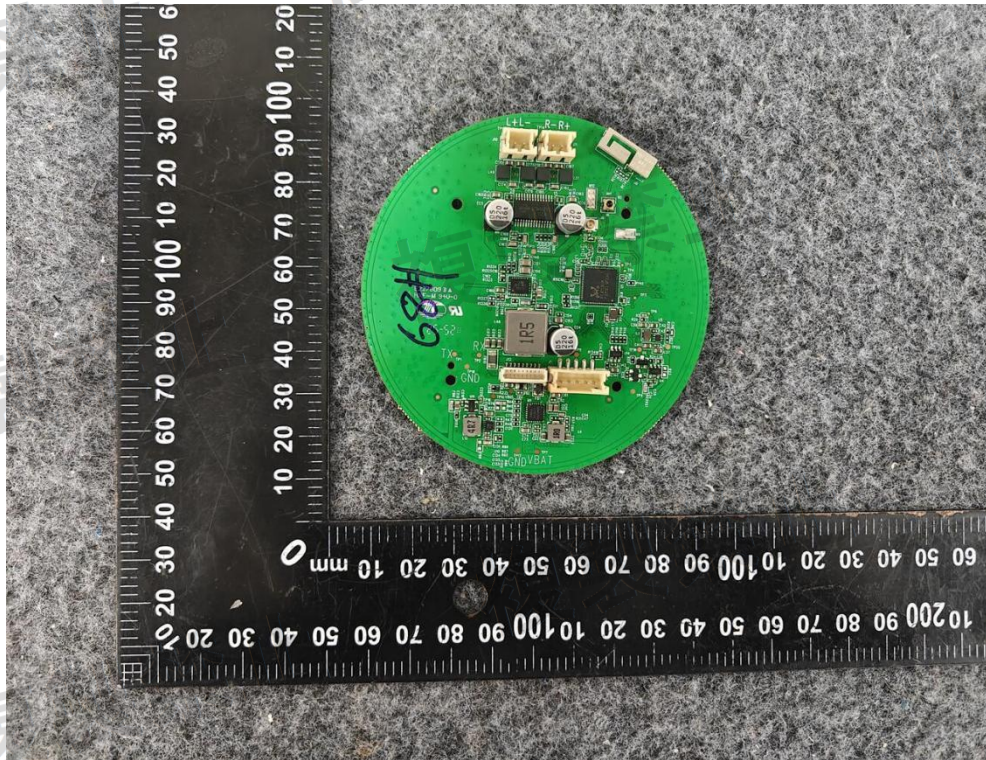












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