

TEST REPORT

Application No.: KSCR2512002605AT

Applicant: Hangzhou Hikvision Digital Technology Co., Ltd.

Address of Applicant: No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China

Manufacturer: Hangzhou Hikvision Digital Technology Co., Ltd.

Address of Manufacturer: No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China

Factory:
1. Hangzhou Hikvision Technology Co., Ltd.
2. Hangzhou Hikvision Electronics Co., Ltd.
3. Chongqing Hikvision technology Co., Ltd.

Address of Factory:
1. No.700, Dongliu Road, Binjiang District, Hangzhou City, Zhejiang, 310052, China.
2. No.299, Qiushi Road, Tonglu Economic Development Zone, Tonglu County, Hangzhou, Zhejiang, 310052, China.
3. No. 118, Haikang Road, Area C, Jianqiao Industrial Park, Dadukou District, Chongqing, 401325, China.

Equipment Under Test (EUT):

EUT Name: Network Camera

Model No.: DS-2CV2141G2-IDW; DS-2CV1143G2-IDWF

Trade Mark: HIKVISION

Standard(s) : MIC Item 19 of Article 2 Paragraph 1

Test Method MIC Notice No.88 Appendix No.43

Date of Receipt: 2025-12-01

Date of Test: 2025-12-08 to 2025-12-15

Date of Issue: 2025-12-15

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record

Version	Description	Date	Remark
00	Original	2025-12-15	/

Authorized for issue by:

Tested By

Kass Gao

Kass Gao /Project Engineer

Approved By

Terry Hou

Terry Hou /Reviewer

2 Test Summary

Radio Spectrum Technical Requirement				
Item	Standard	Method	Requirement	Result
Antenna Requirement	MIC Item 19 of Article 2 Paragraph 1	N/A	MIC Item 19 of Article 2 Paragraph 1	Pass
Interference prevention capability		MIC Notice No.88 Appendix No.43	MIC Item 19 of Article 2 Paragraph 1	Pass
Carrier sense capability		MIC Notice No.88 Appendix No.43	MIC Item 19 of Article 2 Paragraph 1	Pass
RF accessibility		N/A	MIC Item 19 of Article 2 Paragraph 1	Pass

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Frequency Error	MIC Item 19 of Article 2 Paragraph 1	MIC Notice No.88 Appendix No.43	MIC Item 19 of Article 2 Paragraph 1	Pass
Occupied Bandwidth(99%)		MIC Notice No.88 Appendix No.43	MIC Item 19 of Article 2 Paragraph 1	Pass
Antenna Power		MIC Notice No.88 Appendix No.43	MIC Item 19 of Article 2 Paragraph 1	Pass
Spurious emission Intensity		MIC Notice No.88 Appendix No.43	MIC Item 19 of Article 2 Paragraph 1	Pass
Limit of secondary radiated emissions		MIC Notice No.88 Appendix No.43	MIC Item 19 of Article 2 Paragraph 1	Pass

Declaration of EUT Family Grouping:

Note: There are series models mentioned in this report, and they are identical in electrical and electronic characters. Only the model DS-2CV1143G2-IDWF was tested since their differences were the model number.

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC 12V by Adapter Adapter information: Model: TS-A012-120100A1 Input: AC 100-240V~50/60Hz 0.4A Output: DC 12V 1A
Operation Frequency:	802.11b/g/n(HT20)/ax(HE20): 2412MHz to 2472MHz, 802.11n(HT40): 2422MHz to 2462MHz
Modulation Type:	802.11b: DSSS (DBPSK, DQPSK, CCK), 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM), 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Channel Spacing:	5MHz
Number of Channels:	802.11b/g/n(HT20)/ax(HE20): 13, 802.11n(HT40):9
Rated Power:	802.11b: 2.30mW/MHz 802.11g: 1.00W/MHz 802.11n20: 1.10mW/MHz 802.11n40: 0.67mW/MHz 802.11ax20: 0.86mW/MHz
Antenna Type:	External Antenna
Antenna Gain:	1.85dBi (Provided by the manufacturer)

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	LENOVO	K27	EB24537645

4.3 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%

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

4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

- **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

- **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Item	Equipment	Manufacturer	Model	Serial Number	Cal Date	Cal. Due Date	Cal body	Certifier
1	Spectrum Analyzer	Keysight	N9020A	MY55370209	07/09/2025	07/08/2026	SGS	(c)
2	Spectrum Analyzer	Keysight	N9020A	MY53420174	07/09/2025	07/08/2026	SGS	(c)
3	Spectrum Analyzer	Keysight	N9030B	MY61330164	01/15/2025	01/14/2026	SGS	(c)
4	Signal Generator	R&S	SMBV100B	103571	02/19/2025	02/18/2026	SGS	(c)
5	Signal Generator	R&S	SMW200A	110074	07/09/2025	07/08/2026	SGS	(c)
6	Signal Generator	Agilent	N5182A	MY50142015	07/08/2025	07/07/2026	SGS	(c)
7	Radio Communication Test Station	Anritsu	MT8000A	6262012849	07/09/2025	07/08/2026	SGS	(c)
8	Radio Communication Analyzer	Anritsu	MT8821C	6201692222	02/19/2025	02/18/2026	SGS	(c)
9	Universal Radio Communication Tester	R&S	CMW500	159275	07/08/2025	07/07/2026	LISAI	(c)
10	Switcher	TST	FY562	N/A	01/15/2025	01/14/2026	SGS	(c)
11	Conducted Test Cable	Thermax	RF01-RF04	N/A	01/14/2025	01/13/2026	SGS	(c)
12	Temp. / Humidity Chamber	TERCHY	MHK-120AK	X30109	07/15/2025	07/14/2026	SGS	(c)
13	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	1032844	02/26/2025	02/25/2026	SGS	(c)
14	Software	BST	TST-PASS	N/A	NCR	NCR	N/A	/

Remark:

(a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) in Japan (hereinafter referred to as "NICT") 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 NICT or a designated calibration 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, Item 2

Notice: Calibration duration for above equipments is 1 year.

6 Radio Spectrum Technical Requirement

6.1 Radio Technical Requirements Specification

Table 1: Radio Technical Requirements Specification for 2.4 GHz band wide-band low-power data communication system (Item 19 of Article 2-1)

Items	Technical standard
Assigned frequency or designated frequency	2400-2483.5MHz
Communication method	One-way communication, simplex, semi-duplex, or duplex operation of digital signal transmission including spread spectrum
Tolerance of frequency ($\times 10^{-6}$)	± 50
Tolerance of occupied bandwidth	FH: 83.5MHz or less FH + DS: 83.5MHz or less FH + OFDM: 83.5MHz or less OFDM: 40MHz or less Others: 26MHz or less
Antenna power	Designated value (1) FH, FH+DS, FH+OFDM: 3mW/MHz (used in the range of 2427 - 2470.75 MHz) (2) OFDM, DS other than (1) 10mW/MHz (3) Other than (1) & (2) 10mW/MHz (4) OFDM OBW 26 - 40MHz: 5mW/MHz, Tolerance: +20%
Antenna gain	1) 12.14 dBi or less in principle 2) In case of directional antenna (1) FH, FH+DS or FH+OFDM using 2427-2470.75 MHz EIRP $\leq$ 16.91 dBm/MHz (2) OFDM or DS other than (1) EIRP $\leq$ 22.14 dBm/MHz (3) Other than (1) and (2): 22.14 dBm or less (4) OFDM OBW 26 - 40MHz: 19.14dBm/MHz (5) Half-power angle of directional antenna (e) in case of the item 2): $e \leq 360/A$ (The A is 10 in maximum.)
Tolerance of spurious emission intensity	(1) Below 2387 MHz: 2.5 μ W/MHz (2) 2387 to 2400 MHz: 25 μ W/MHz (3) 2483.5 through 2496.5 MHz: 25 μ W/MHz (4) Over 2496.5 MHz: 2.5 μ W/MHz
Spreading bandwidth	Not regulated
Spreading rate of spectrum	Not regulated
Limit of secondary radiated emissions	(1) Below 1 GHz: 4nW (2) 1 GHz or higher: 20nW
Interference prevention function	Shall have the function of automatic transmission and reception of identification sign.
Structure	Shall be of the structure that the RF and modulator sections excluding antenna cannot easily be opened.
Note	DS: Direct spread FH: Frequency hopping OFDM: Orthogonal frequency division multiplexing

6.2 E.U.T. test conditions

Environment:	Temperature:	5 -35.0 °C	
	Humidity:	45-85 % RH	
	Atmospheric Pressure:	99.2 -102.0 kPa	
Power supply:	Test Voltage: rated voltage and ±10% of the rated voltage. The product is supplied by DC 12V. The fluctuation of input voltage to the circuit of RF unit of test equipment is under ±1%, when input voltage to the test equipment is fluctuated by ±10%. So, all measurement has been conducted by only rated voltage DC 12V.		
	Test Mode Classify	Power Supply	Measured Value
	TM 1	DC 12.0V	DC 3.3V
	TM 2	DC 13.2V	DC 3.3V
	TM 3	DC 10.8V	DC 3.3V
Test frequencies:	If the EUT can be set to 3 or more different (carrier) frequencies in 1 allocated band, testing shall be performed using the Lowest and the Highest frequency (L and H). If there are 2 or fewer frequencies, testing shall be performed with the available frequencies.		

6.3 Antenna Requirement

6.3.1 Test Requirement:

MIC Item 19 of Article 2 Paragraph 1

6.3.2 Conclusion

Standard requirement:

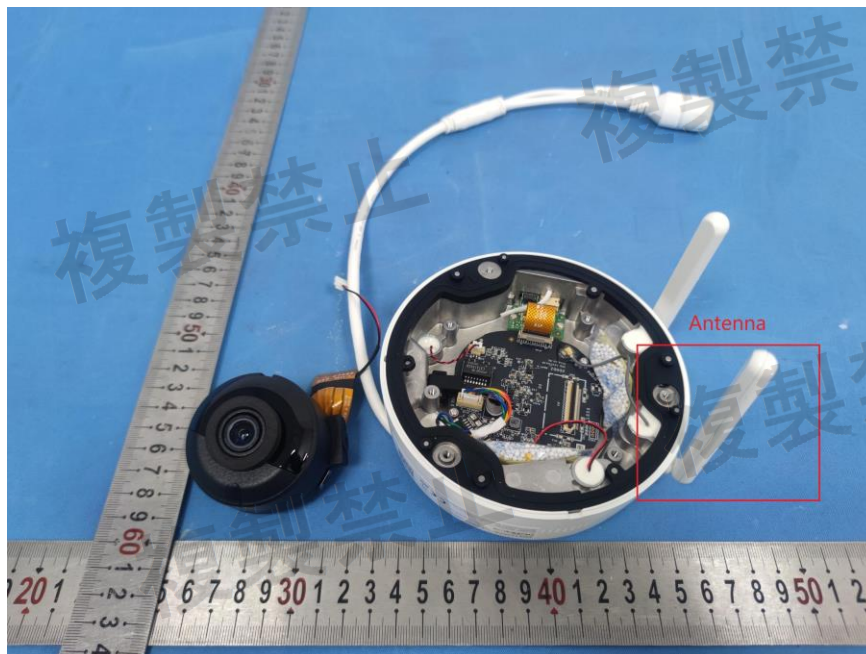
Applicable for equipment with an antenna terminal, including testing terminals. If an antenna connector is available, all relevant tests will be carried out conducted. If not, tests will be carried out in an anechoic room or with a suitable test-fixture.

EUT Details:

The antenna is External Antenna and no consideration of replacement.

Result:

As the antenna and circuits can be separated on the microstrip, all relevant tests are measured on the conducted sample.



6.4 Interference prevention capability

6.4.1 Test Requirement:

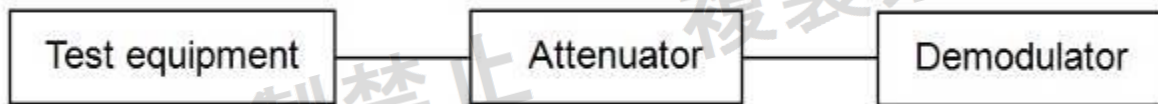
MIC Item 19 of Article 2 Paragraph 1

Limit:

Article 9-4 of the Ordinance Regulating Radio Equipment

Identification: ≥ 48 bits

6.4.2 Test Setup Diagram



6.4.3 Conclusion

Standard Requirement:

- 1) Measurement system diagram as shown above and test equipment keep transmitting identification code.
- 2) Condition of measuring instrument
 - (1) Demodulator must be able to demodulate the transmitting signal emitted by test equipment and to indicate the identification code.
- 3) Condition of test equipment The mode of normal use.
- 4) Measuring operation procedure
 - (1) When test equipment has the function to transmit identification code automatically:
 - A) Transmit the predetermined identification code from test equipment.
 - B) Confirm the transmitted identification code by demodulator.

EUT Details:

The unit does meet the requirements (Good).

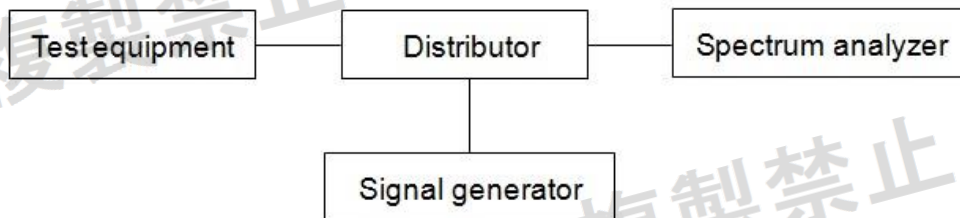
08:3B:C1:5B:F0:9C

6.5 Carrier sense capability

6.5.1 Test Requirement:

MIC Item 19 of Article 2 Paragraph 1

6.5.2 Test Setup Diagram



6.5.3 Conclusion

Standard Requirement:

1. Measurement system diagram

(1) Test with test equipment only

2. Condition of measuring instrument

(1) Set the standard signal generator as follows:

Carrier frequency: Center frequency of receiving frequency band of test equipment.

Modulation: No modulation.(note1)

Output level: regulated level on antenna input of test equipment

Note 1: The un-modulated carrier in the center frequency, when the carrier sense function of test equipment is not worked, if necessary, change the frequency or modulate it.

(2) Set the spectrum analyzer as follows:

Center frequency: Center frequency of the bandwidth used.(note2)

Sweep frequency band: 50MHz(note2)

Resolution bandwidth: Approximately 1 MHz

Video bandwidth: Comparable level with resolution bandwidth

Trigger condition: Free-run

Detective mode: positive peak

Note 2: Under 26MHz of OFDM or other modulated method that with transmit function, set sweep frequency band as 0Hz, detective mode as sample, center frequency as the carrier frequency from 13MHz to 19MHz.

3. Condition of test equipment

Set the test equipment at the test frequency and the test spread code, and set it to the receiving mode in the beginning. When using external test device, connect with the test equipment by line connection.

4. Measuring operation procedure

(1) Test with test equipment only:

a. Set the spectrum analyzer according to (2) of 2).

b. Set the test equipment to the transmitting operation with the output of standard signal generator OFF and confirm that it emits over 26MHz occupied frequency bandwidth OFDM radio wave, by using spectrum analyzer.

c. Set the test equipment to the receiving mode.

d. With the output of standard signal generator ON, set the test equipment to the transmitting operation, and confirm that it does not emit over 26MHz occupied frequency bandwidth OFDM radio wave, by using spectrum analyzer.

6.5.4 Result

The product shall not transmit radio wave when receiving over 100mV/m. The unit does meet the requirements.

Please Refer to Appendix for Details

6.6 RF accessibility

6.6.1 Test Requirement:

MIC Item 19 of Article 2 Paragraph 1

6.6.2 Conclusion

Standard Requirement:

The EUT shall be constructed in such a way that sensitive RF parts, (like modulation and oscillator parts) cannot be reached easily by the user. These parts shall be covered by soldered metal caps or glue or by other mechanical covers. If the covers are fixed with screws, these shall be not the common type(s) like a Phillips, but special versions like Torx, so that the user cannot open the device with common tools.

EUT Details:

Protective Structure:

☐	1.Sealed with special screws.
☐	2.Plastic chassis is being welded using ultrasonic waves.
☐	3.Chassis is glued using a special adhesive.
☐	4.Metal covers are spot-fused.
☐	5.Cover is specially interlocked
☒	6.RF and Modulation components are covered with shielding case and this shielding case is soldered.
☐	7.Shield case is welded at RF and modulation parts, and ID-ROM is welded using the BGA Method.
☐	8.Shield case is welded at RF and modulation parts, and ID-ROM is glued at its lead with a special adhesive.
☐	9.Shield case is welded at RF and modulation parts, and ID-ROM is glued with a non-transparent laminating agent.
☐	10.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.



7 Radio Spectrum Matter Test Results

7.1 Frequency Error

Test Requirement: MIC Item 19 of Article 2 Paragraph 1

Test Method: MIC Notice No.88 Appendix No.43

Limit: Tolerance of frequency: $\pm 50\text{E-}6$

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25.5 °C

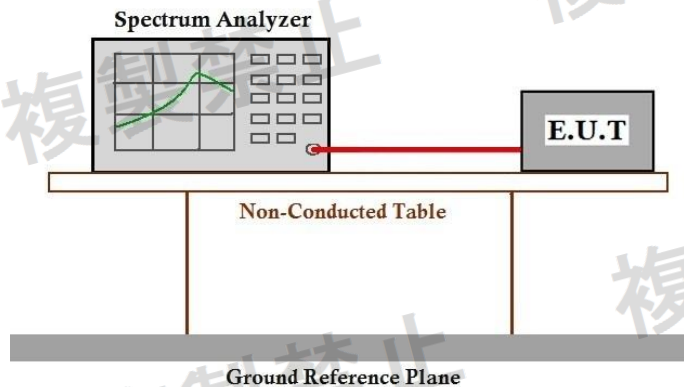
Humidity: 51.3 % RH

Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

1. Test Conditions:

Spectrum Analyzer is used for measurement.

2. EUT conditions:

Modulation/Spread/Hopping OFF, CW Tx

3. Spectrum Analyzer conditions:

Frequency: Test Frequency

Span 1MHz

RBW 10 kHz (Modulation OFF),

VBW 10 kHz (Modulation OFF),

Sweep Time Auto

Detector mode Positive peak

Indication mode Max hold

Alternative method:

Frequency: Test Frequency

Span 2 times channel bandwidth

RBW 100 kHz (Modulation ON),

VBW 100 kHz (Modulation ON),

Sweep Time Auto

Detector mode Positive peak

Indication mode Max hold

Please Refer to Appendix for Details

7.2 Occupied Bandwidth (99%)

Test Requirement MIC Item 19 of Article 2 Paragraph 1
Test Method: MIC Notice No.88 Appendix No.43
Limit: FH: 83.5MHz or less; OFDM: 40MHz or less; Others: 26MHz or less

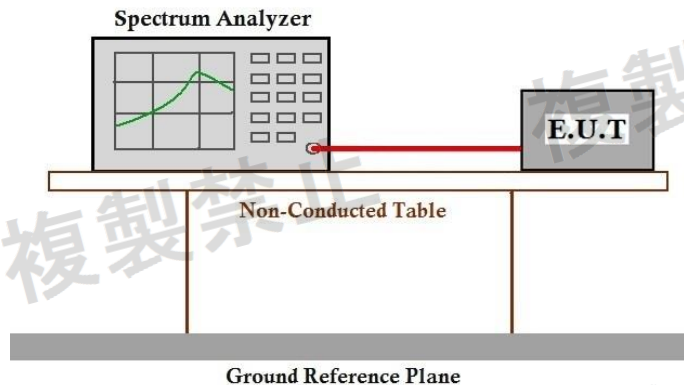
7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 25.5 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode Keep the EUT in continuously transmitting mode.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

1. Test Conditions:

Spectrum Analyzer is used for measurement.

2. EUT conditions:

Modulation/Spread/Hopping ON, Modulation Tx

For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.

3. Spectrum Analyzer conditions:

Frequency: Test Frequency

Span 83.5 MHz (FHSS); 40/60 MHz (OFDM; DSSS); 2-5 times OBW (Others)

RBW 1 MHz (FHSS); 300kHz (OFDM; DSSS); 3% OBW (Others)

VBW 1 MHz (FHSS); 300kHz (OFDM; DSSS); 3 times RBW (Others)

Sweep Time Auto

detector mode Positive peak

Indication mode Max hold

OBW 99%

Please Refer to Appendix for Details

7.3 Antenna Power

Test Requirement

Test Method:

Limit:

MIC Item 19 of Article 2 Paragraph 1

MIC Notice No.88 Appendix No.43

Designated value

- (1) FH, FH+DS, FH+OFDM: 3mW/MHz
(used in the range of 2427 - 2470.75 MHz)
 - (2) OFDM, DS other than (1) 10mW/MHz
 - (3) Other than (1) & (2) 10mW
 - (4) OFDM OBW 26 - 40MHz: 5mW/MHz
- Tolerance: +20%

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.5 °C

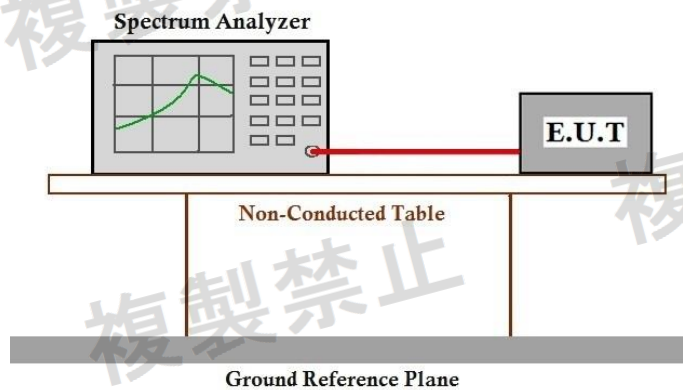
Humidity: 51.3 % RH

Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

1. Test Conditions:

Spectrum Analyzer is used for measurement.

2. EUT conditions:

Modulation/Spread/Hopping ON, Modulation Tx

For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.

3. Spectrum Analyzer conditions:

Center frequency: Test frequency

Sweep frequency width: About twice the occupied frequency bandwidth

RBW: 1MHz, VBW: 1MHz

Sweep time: Auto, Sweep mode: Continuous sweep

Detection mode: positive peak

Display mode: Max hold

Center frequency The frequency that gives the maximum power (searched frequency)

Sweep frequency width: 0Hz

RBW: 1MHz, VBW: 1MHz

Sweep mode: Continuous sweep

Please Refer to Appendix for Details

7.4 Spurious emission Intensity

Test Requirement	MIC Item 19 of Article 2 Paragraph 1
Test Method:	MIC Notice No.88 Appendix No.43
Limit:	(1) Below 2387 MHz: 2.5 μ W/MHz (2) 2387 to 2400 MHz: 25 μ W/MHz (3) 2483.5 through 2496.5 MHz: 25 μ W/MHz (4) Over 2496.5 MHz: 2.5 μ W/MHz

7.4.1 E.U.T. Operation

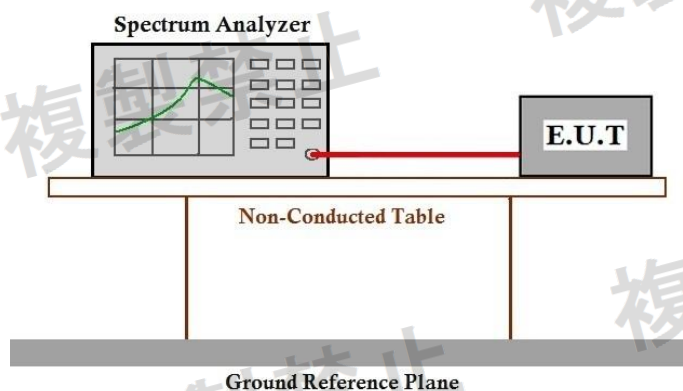
Operating Environment:

Temperature: 25.5 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	TX mode_Keep the EUT in continuously transmitting mode.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

1. Test Conditions:

Spectrum Analyzer is used for measurement.

2. EUT conditions:

Modulation/Spread/Hopping ON, Modulation Tx

For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.

3. Spectrum Analyzer conditions:

Step 1

All spurious are measured from 30 MHz to 12.5 GHz by peak mode.

Step 2

IF the value measured by Step1 is 2 dB or less, measure in average mode.

Test setup for Step 1:

Frequency: 30 MHz - 2400 MHz, 2483.5 MHz -12.5 GHz

RBW 1 MHz

VBW 1 MHz

Sweep Time Auto

detector mode Positive peak

Indication mode Max hold

Test setup for Step 2:

Frequency: Spurious Frequency

RBW 1 MHz

VBW 1 MHz

Sweep Time Auto

detector mode Sample

Indication mode Max hold

Please Refer to Appendix for Details

7.5 Limit of secondary radiated emissions

Test Requirement MIC Item 19 of Article 2 Paragraph 1
Test Method: MIC Notice No.88 Appendix No.43
Limit: (1) Below 1 GHz : 4 nW or less
(2) 1 GHz and over : 20 nW or less

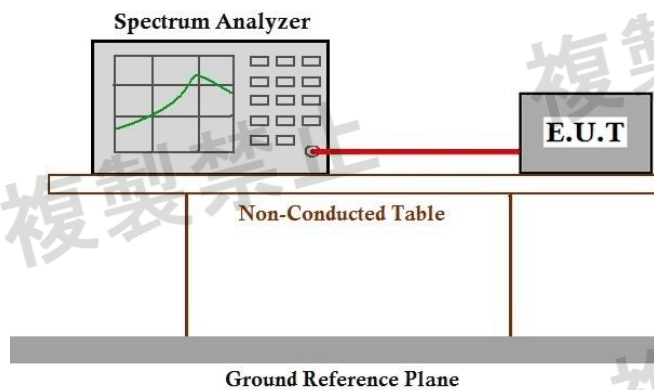
7.5.1 E.U.T. Operation

Operating Environment:
Temperature: 25.5 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	RX mode_ Keep the EUT in receiving mode.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

1. Test Conditions:

Spectrum Analyzer is used for measurement.

2. EUT conditions:

Modulation/Spread/Hopping ON

For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.

3. Spectrum Analyzer conditions:

Step 1

All spurious are measured from 30 MHz to 12.5 GHz by peak mode.

Step 2

IF the value measured by Step1 is 2 dB or less, measure in average mode.

Test setup for Step 1:

Frequency: 30 MHz - 2400 MHz, 2483.5 MHz -12.5 GHz

RBW 100 kHz (30 - 1GHz), 1 MHz (over 1GHz)

VBW 100 kHz (30 - 1GHz), 1 MHz (over 1GHz)

Sweep Time Auto

detector mode Positive peak

Indication mode Max hold

Test setup for Step 2:

Frequency: Spurious Frequency

Span 0 Hz

RBW 100 kHz (30 - 1GHz), 1 MHz (over 1GHz)

VBW 100 kHz (30 - 1GHz), 1 MHz (over 1GHz)

Sweep Time Auto

detector mode Sample

Indication mode Max hold

Please Refer to Appendix for Details

8 Test Setup Photo

RF Conducted Test Setup



9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2512002605AT.

10 Appendix

1. Frequency Error

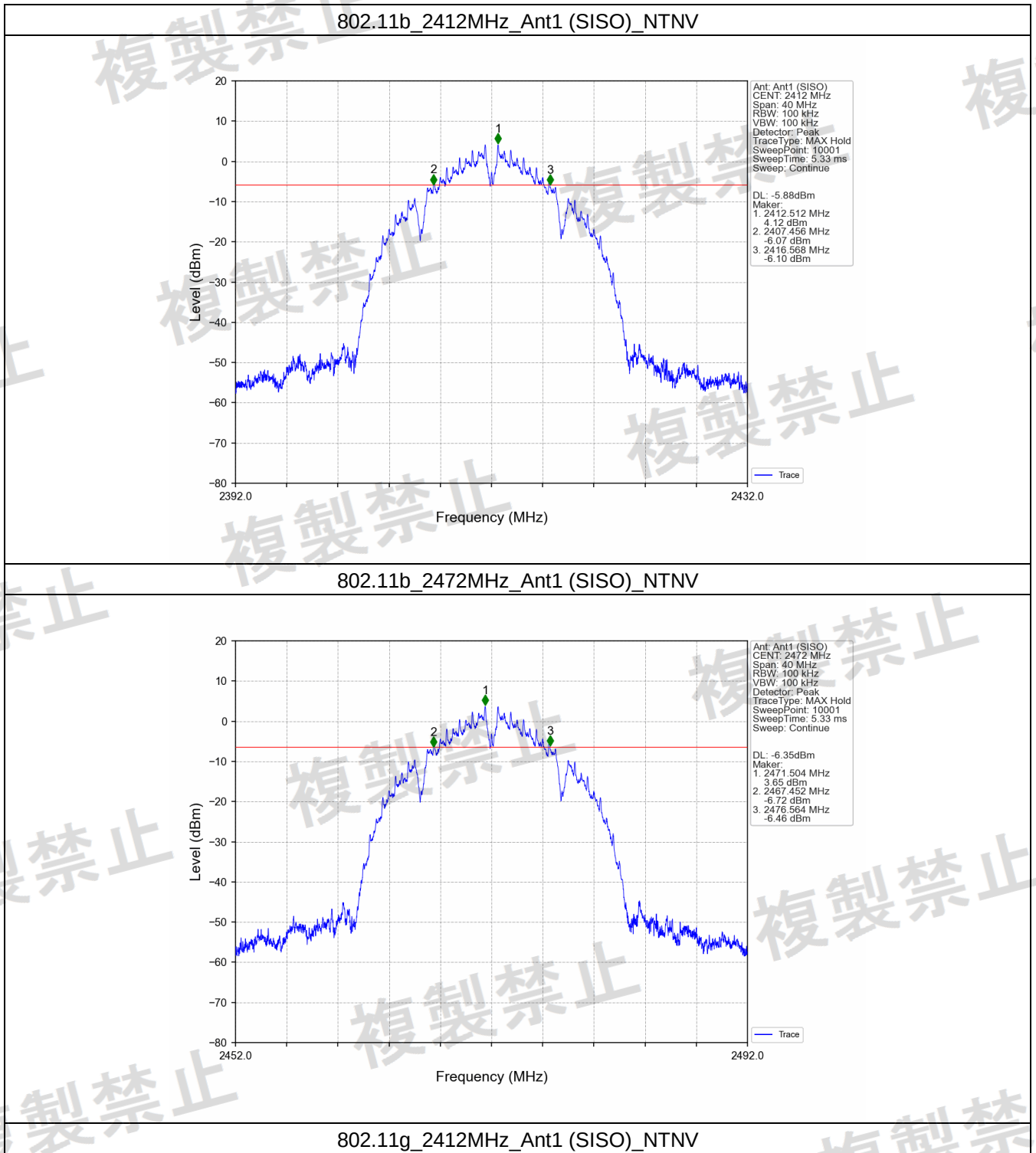
1.1 Test Result

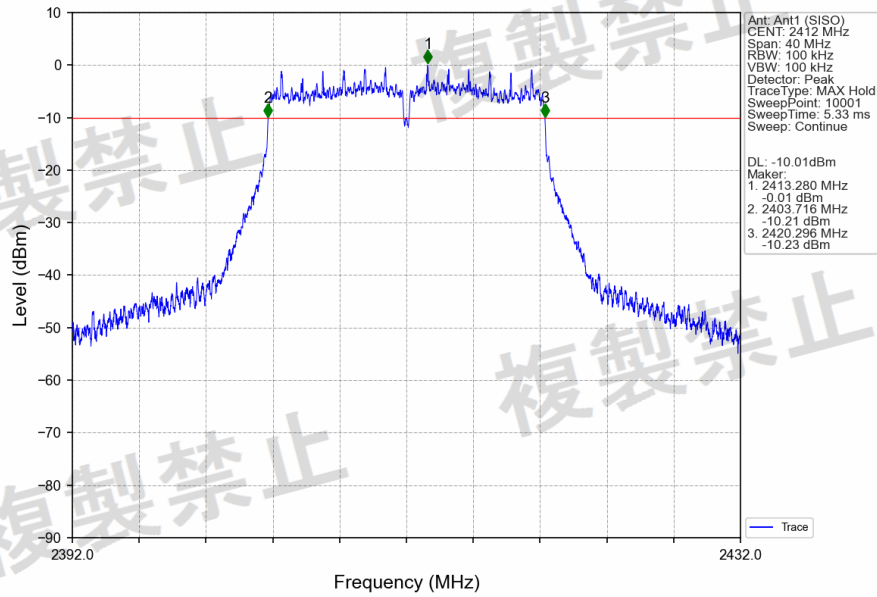
1.1.1 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	Measured Frequency (MHz)	Tolerance (ppm)		Verdict
							Result	Limit	
NTNV	802.11b	SISO	2412	/	/	2412.012	4.98	-50 to 50	Pass
			2472	/	/	2472.008	3.24	-50 to 50	Pass
	802.11g	SISO	2412	/	/	2412.006	2.49	-50 to 50	Pass
			2472	/	/	2472.004	1.62	-50 to 50	Pass
	802.11n (HT20)	SISO	2412	/	/	2412.024	9.95	-50 to 50	Pass
			2472	/	/	2472.020	8.09	-50 to 50	Pass
	802.11n (HT40)	SISO	2422	/	/	2422.060	24.77	-50 to 50	Pass
			2462	/	/	2461.904	-38.99	-50 to 50	Pass
	802.11ax (HE20)	SISO	2412	SU	/	2412.000	0.00	-50 to 50	Pass
			2472	SU	/	2472.026	10.52	-50 to 50	Pass

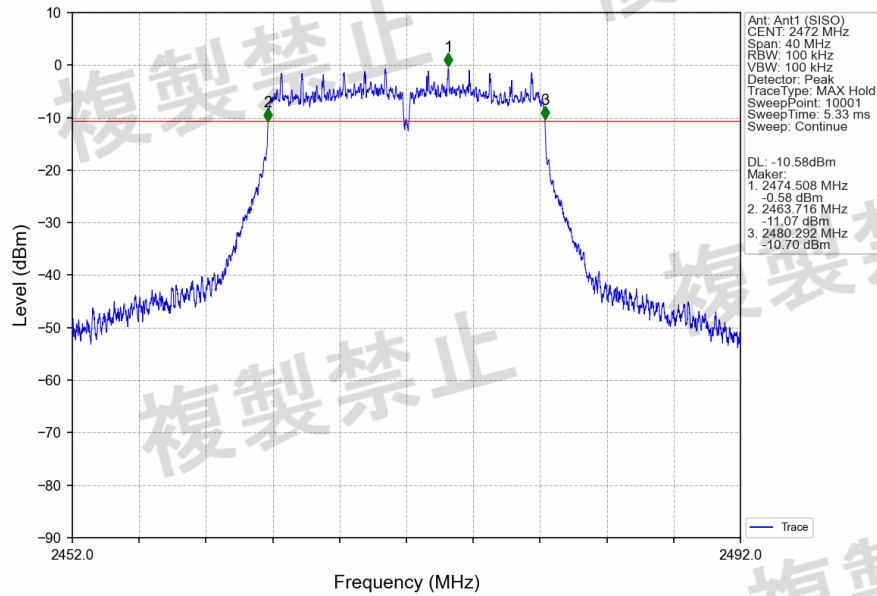
1.2 Test Graph

1.2.1 Ant1

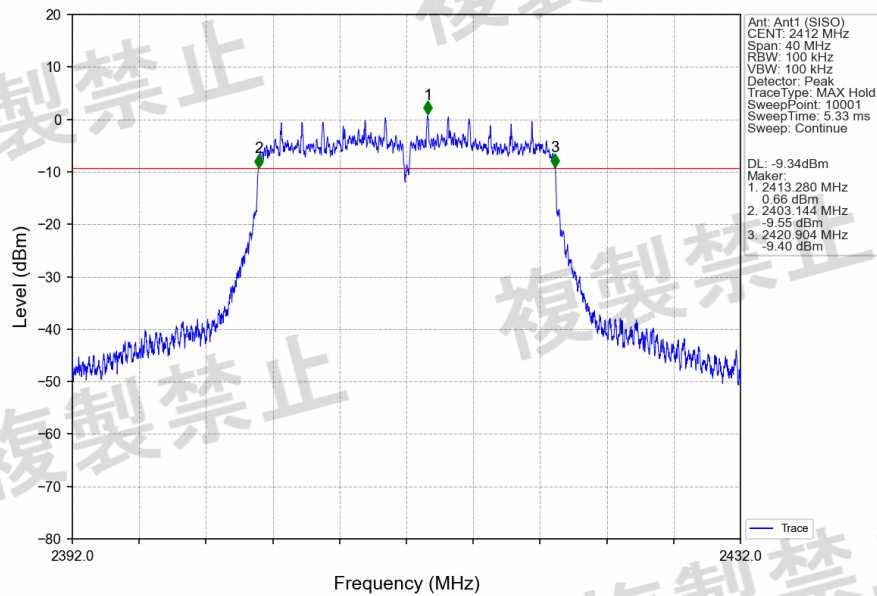




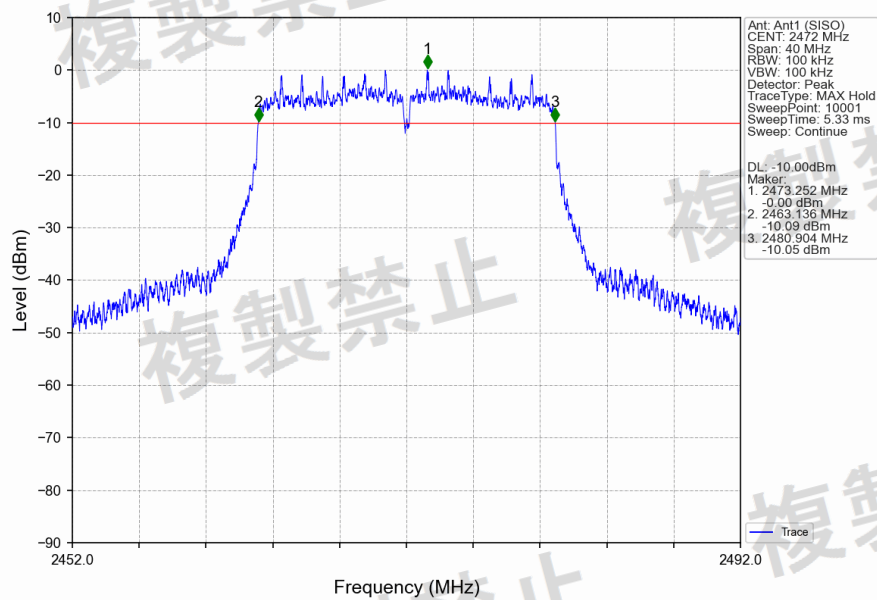
802.11g_2472MHz_Ant1 (SISO)_NTNV



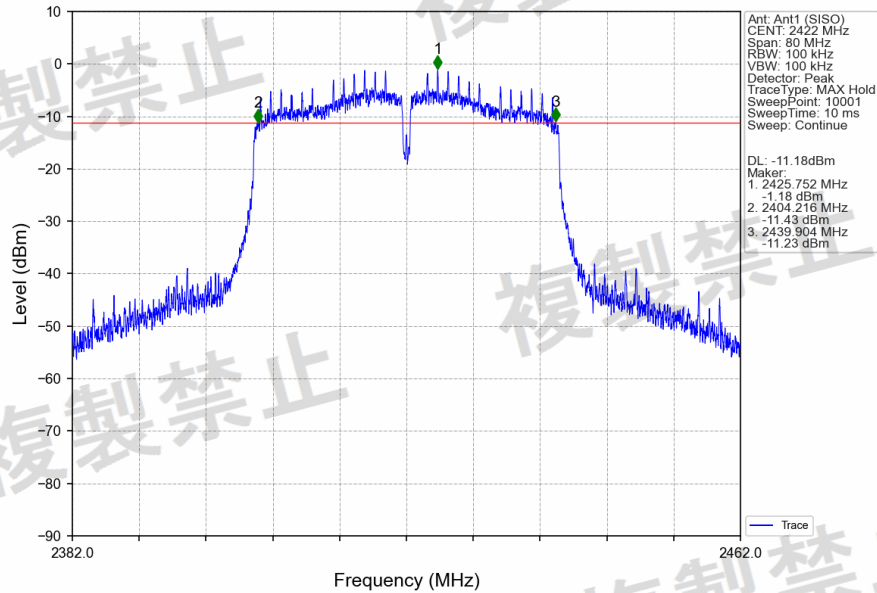
802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV



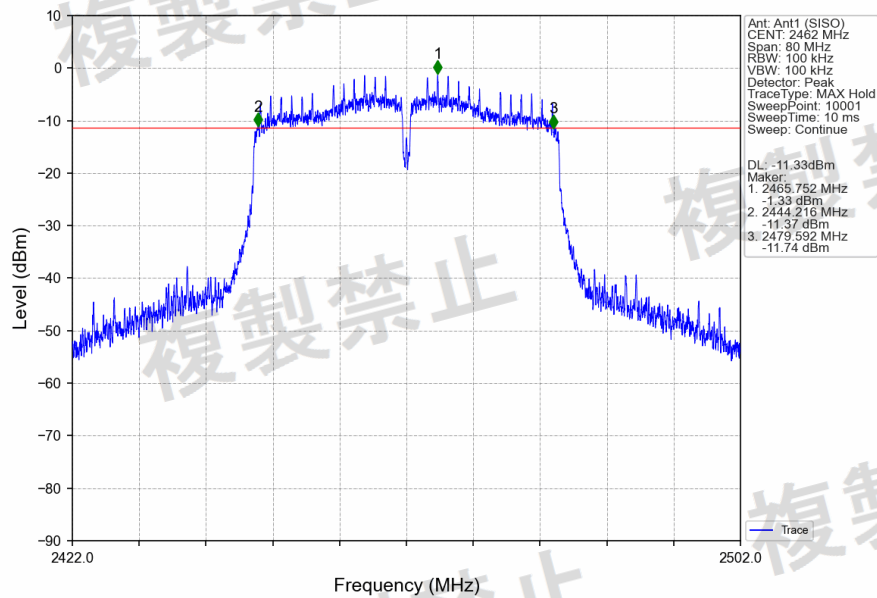
802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV



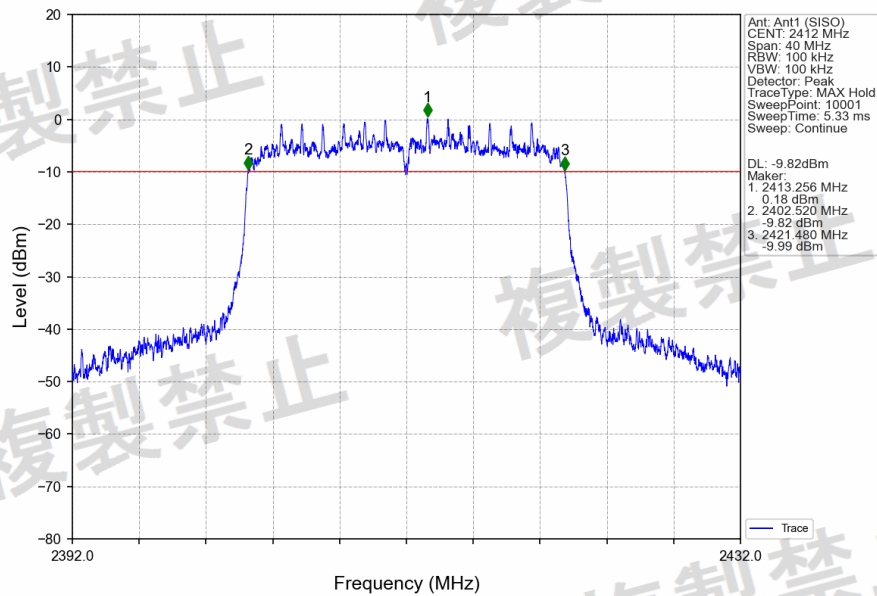
802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV



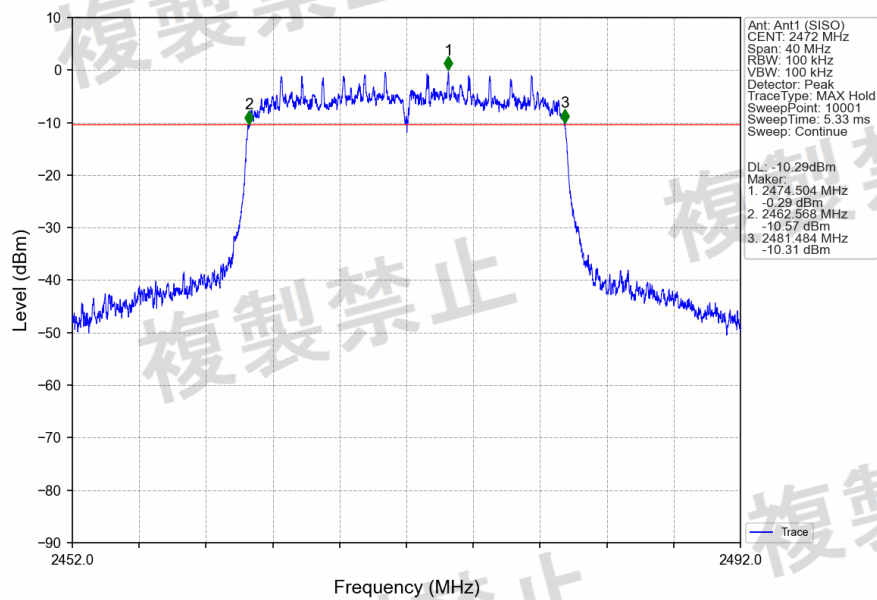
802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV



802.11ax(HE20)_2412MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HE20)_2472MHz_SU_/_Ant1 (SISO)_NTNV



2. Occupied Bandwidth

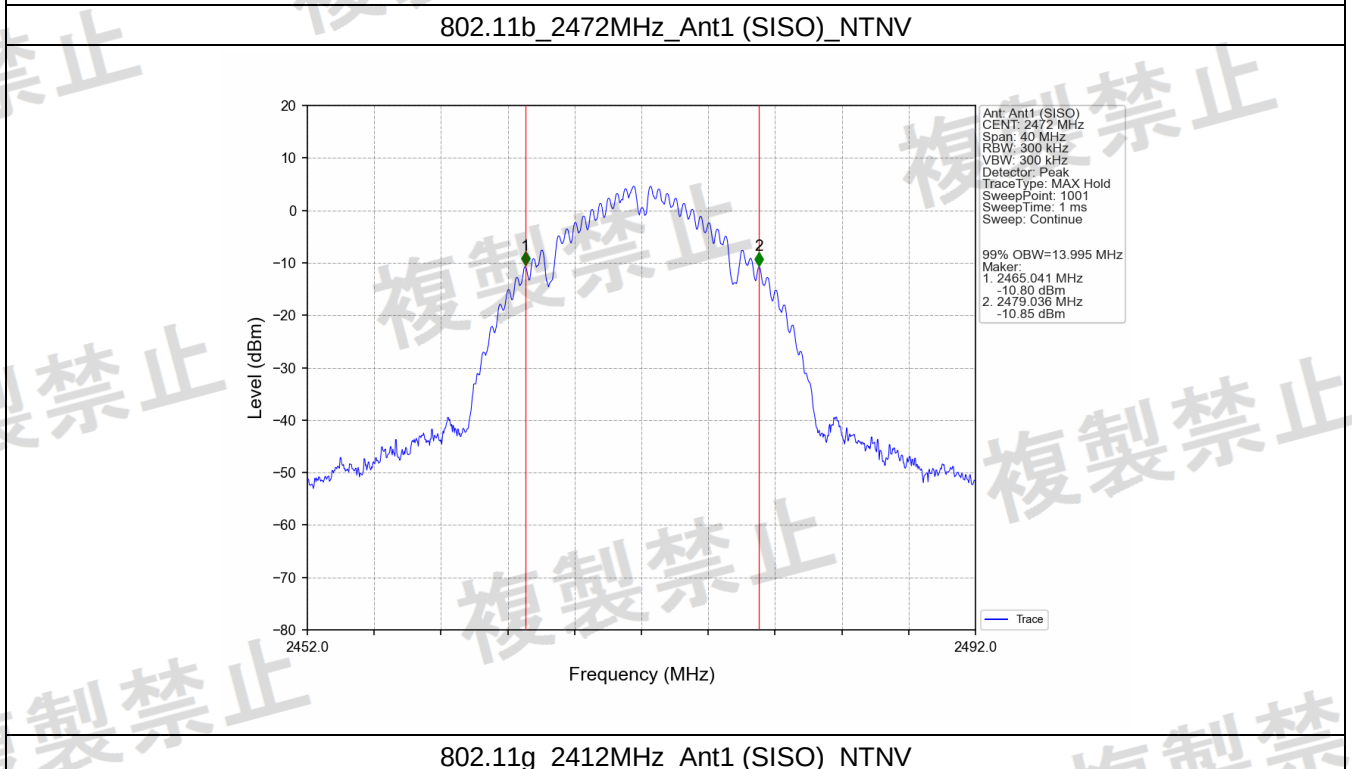
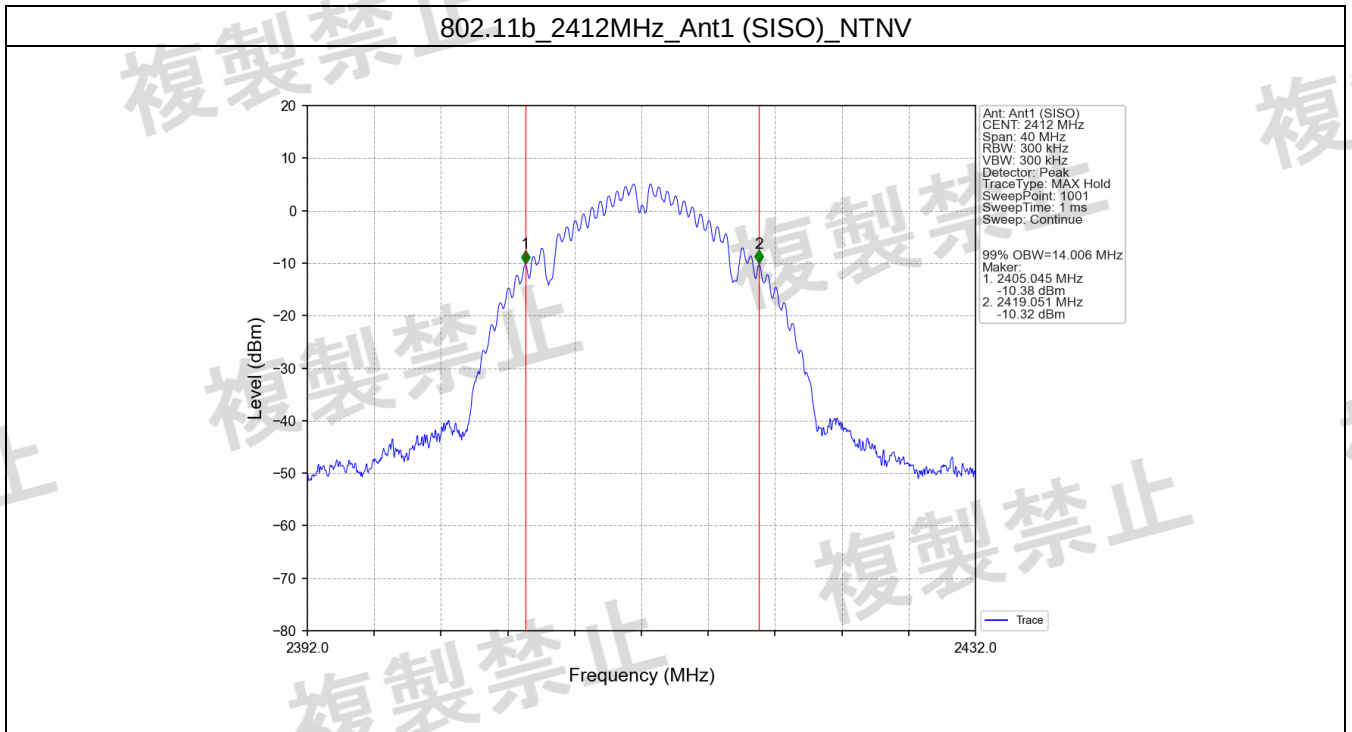
2.1 Test Result

2.1.1 OBW

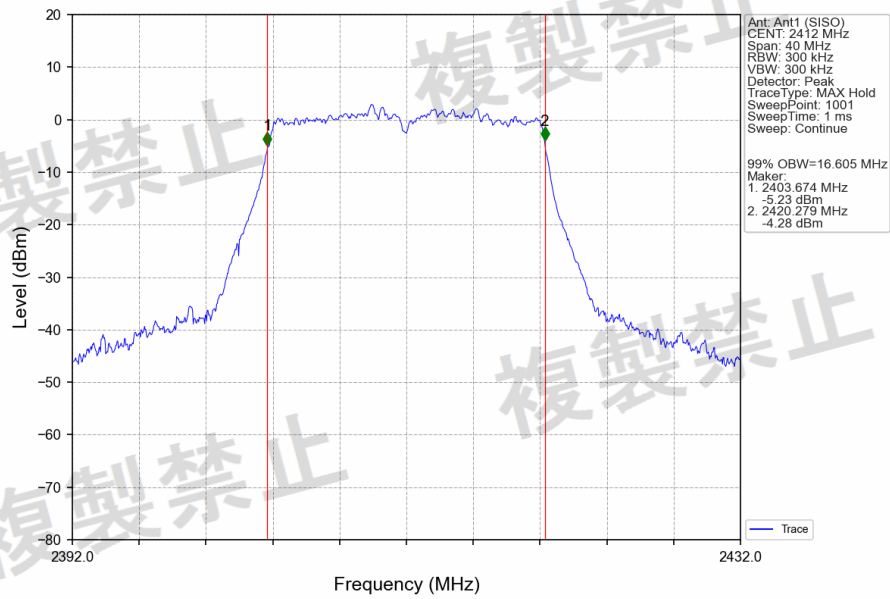
ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	99% Occupied Bandwidth (MHz)		Verdict
						ANT1	Limit	
NTNV	802.11b	SISO	2412	/	/	14.006	<=26	Pass
			2472	/	/	13.995	<=26	Pass
	802.11g	SISO	2412	/	/	16.605	<=26	Pass
			2472	/	/	16.600	<=26	Pass
	802.11n (HT20)	SISO	2412	/	/	17.627	<=26	Pass
			2472	/	/	17.639	<=26	Pass
	802.11n (HT40)	SISO	2422	/	/	35.574	<=40	Pass
			2462	/	/	35.568	<=40	Pass
	802.11ax (HE20)	SISO	2412	SU	/	18.742	<=26	Pass
			2472	SU	/	18.743	<=26	Pass

2.2 Test Graph

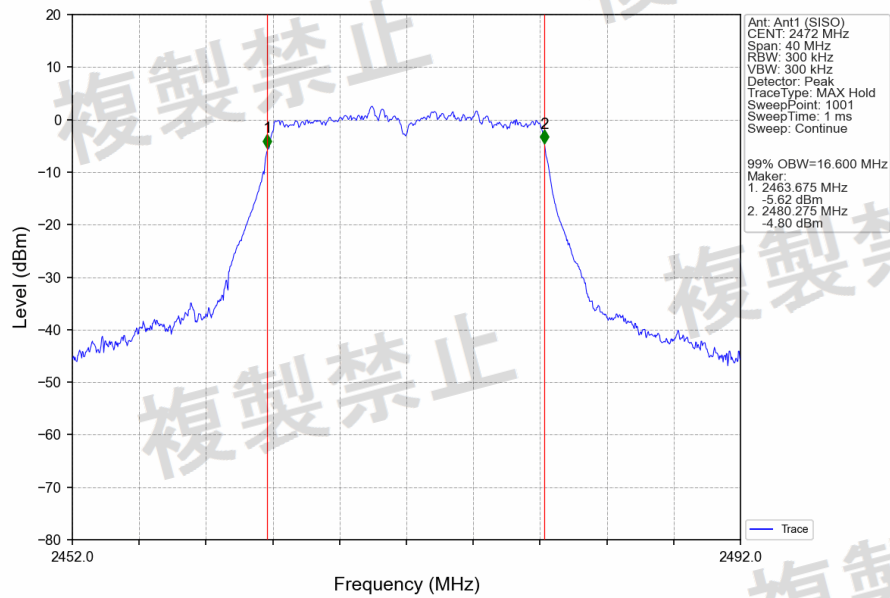
2.2.1 OBW



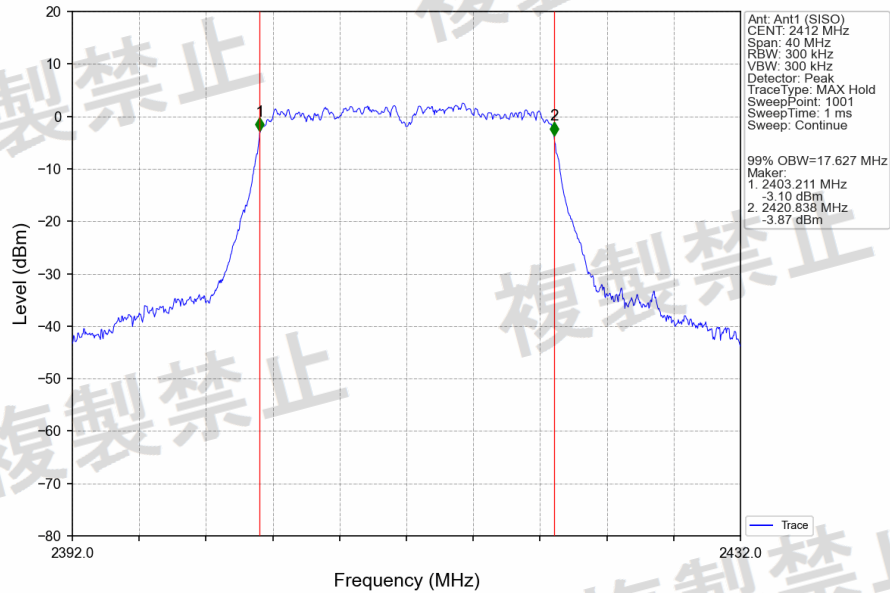
802.11g_2412MHz_Ant1 (SISO)_NTNV



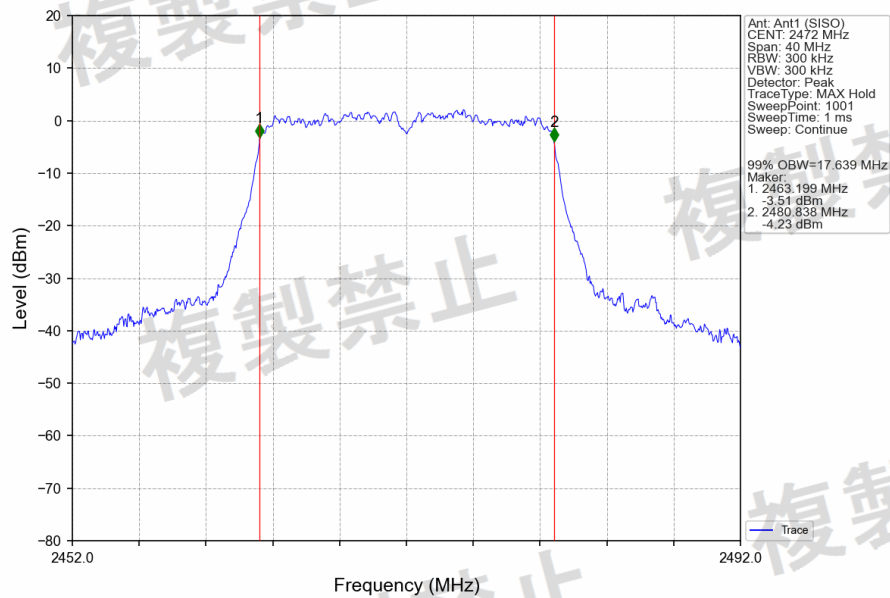
802.11g_2472MHz_Ant1 (SISO)_NTNV



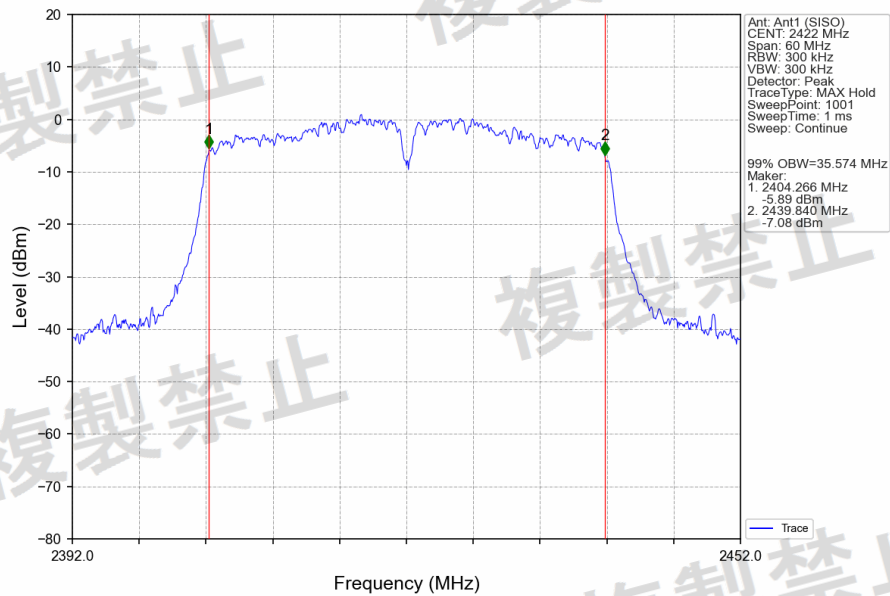
802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV



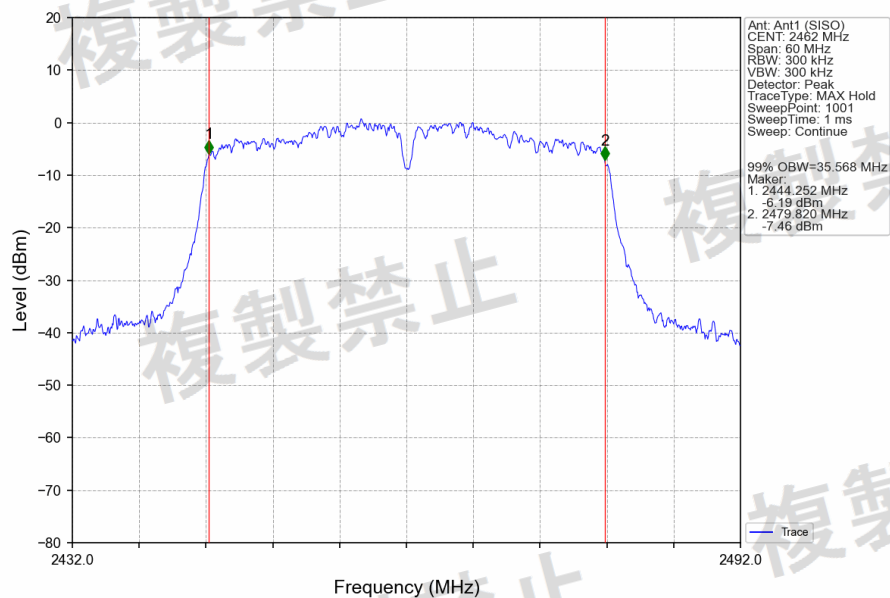
802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV



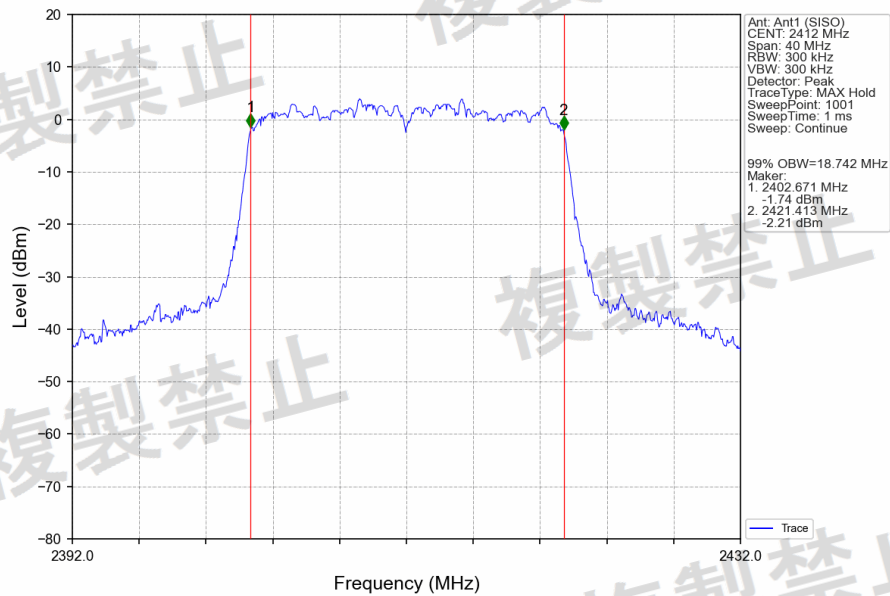
802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV



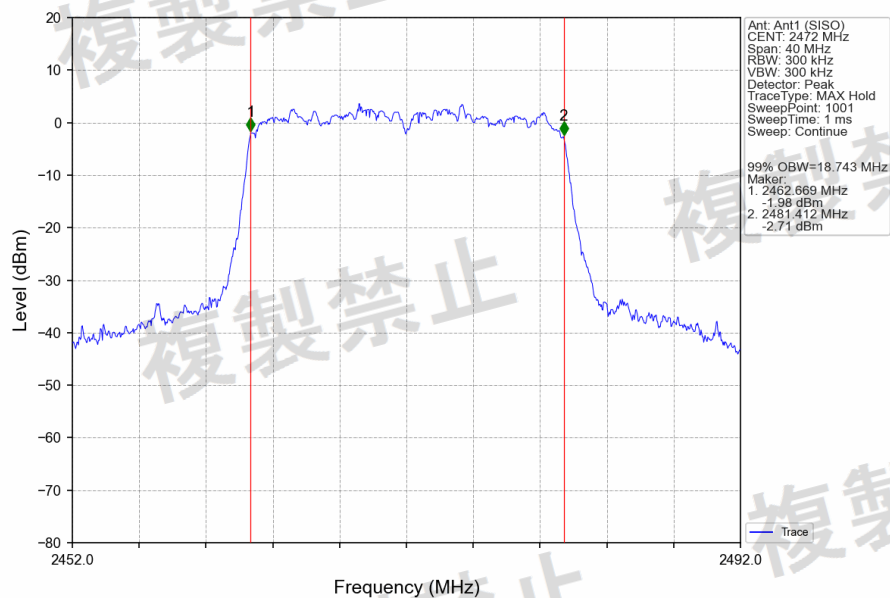
802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV



802.11ax(HE20)_2412MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HE20)_2472MHz_SU_/_Ant1 (SISO)_NTNV



3. Antenna Power

3.1 Test Result

3.1.1 Power

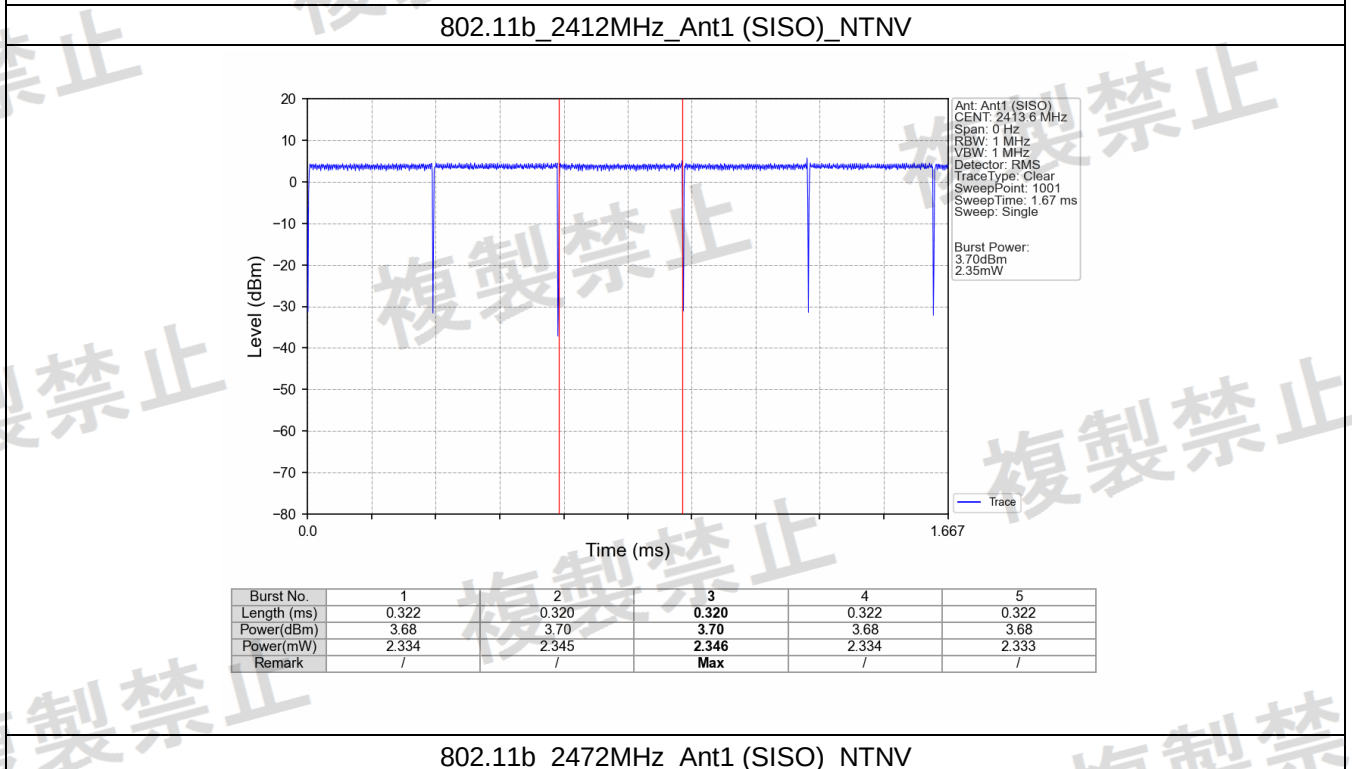
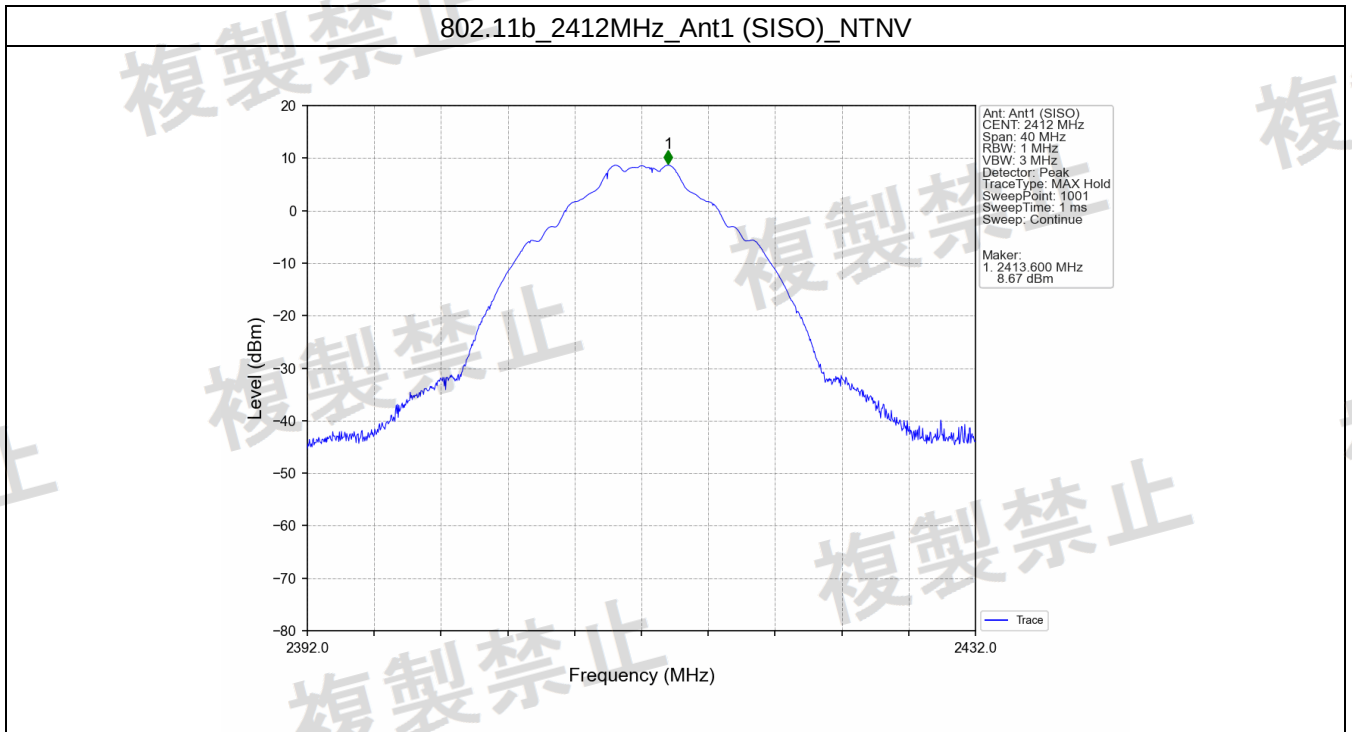
ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Antenna Power (mW/MHz)		Nominal Power (mW/MHz)	Tolerance (%)		Verdict
							Measured	Limit		Measured	Limit	
NTNV	802.11b	SISO	2412	/	/	1	2.346	≤ 10.00	2.300	2.00	≤ 20	Pass
			2472	/	/	1	2.150	≤ 10.00	2.300	-6.52	≤ 20	Pass
	802.11g	SISO	2412	/	/	1	1.014	≤ 10.00	1.000	1.40	≤ 20	Pass
			2472	/	/	1	0.931	≤ 10.00	1.000	-6.90	≤ 20	Pass
	802.11n (HT20)	SISO	2412	/	/	1	1.066	≤ 10.00	1.100	-3.09	≤ 20	Pass
			2472	/	/	1	0.976	≤ 10.00	1.100	-11.27	≤ 20	Pass
	802.11n (HT40)	SISO	2422	/	/	1	0.670	≤ 5.00	0.670	0.00	≤ 20	Pass
			2462	/	/	1	0.641	≤ 5.00	0.670	-4.33	≤ 20	Pass
	802.11ax (HE20)	SISO	2412	SU	/	1	0.865	≤ 10.00	0.860	0.58	≤ 20	Pass
			2472	SU	/	1	0.792	≤ 10.00	0.860	-7.91	≤ 20	Pass

3.1.2 EIRP

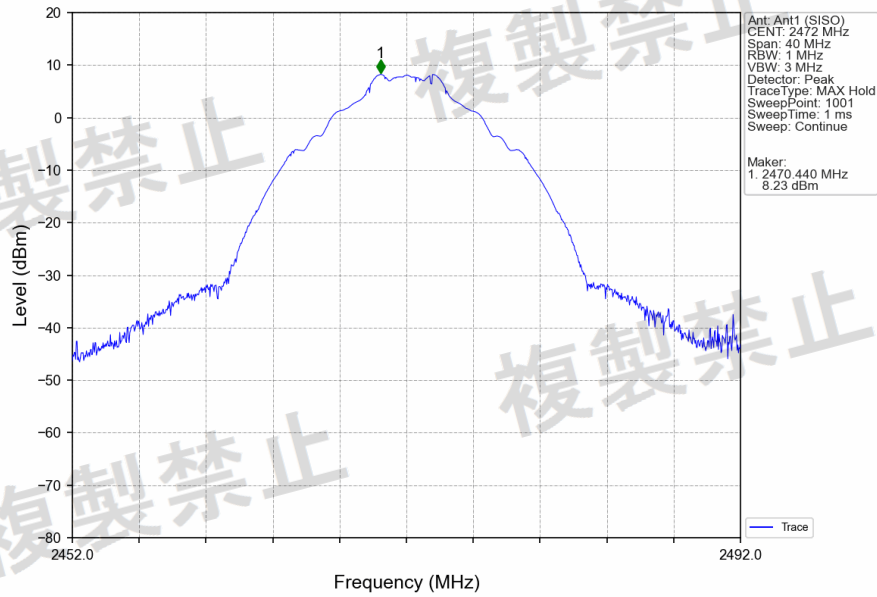
ENV	Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Gain (dBi)	EIRP (dBm/MHz)		Verdict
								Result	Limit	
NTNV	802.11b	SISO	2412	/	/	1	1.85	5.55	≤ 12.14	Pass
			2472	/	/	1	1.85	5.18	≤ 12.14	Pass
	802.11g	SISO	2412	/	/	1	1.85	1.91	≤ 12.14	Pass
			2472	/	/	1	1.85	1.54	≤ 12.14	Pass
	802.11n (HT20)	SISO	2412	/	/	1	1.85	2.13	≤ 12.14	Pass
			2472	/	/	1	1.85	1.75	≤ 12.14	Pass
	802.11n (HT40)	SISO	2422	/	/	1	1.85	0.11	≤ 9.13	Pass
			2462	/	/	1	1.85	-0.08	≤ 9.13	Pass
	802.11ax (HE20)	SISO	2412	SU	/	1	1.85	1.22	≤ 12.14	Pass
			2472	SU	/	1	1.85	0.84	≤ 12.14	Pass

3.2 Test Graph

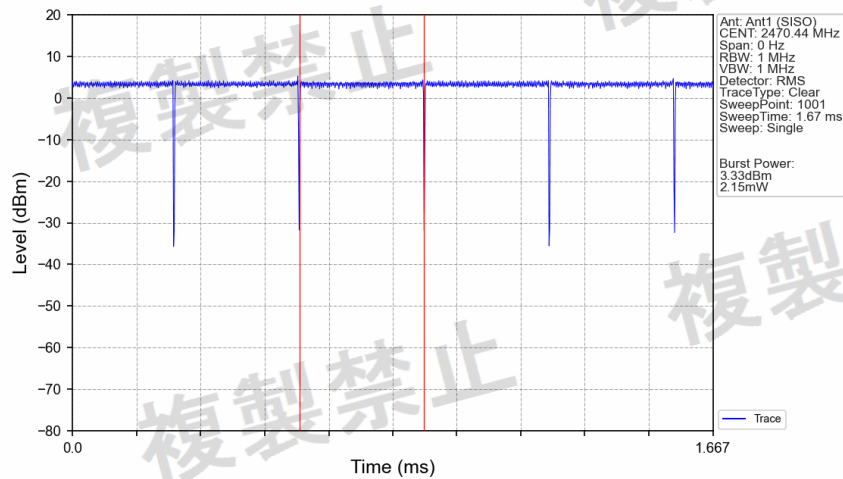
3.2.1 Power



802.11b_2472MHz_Ant1 (SISO)_NTNV

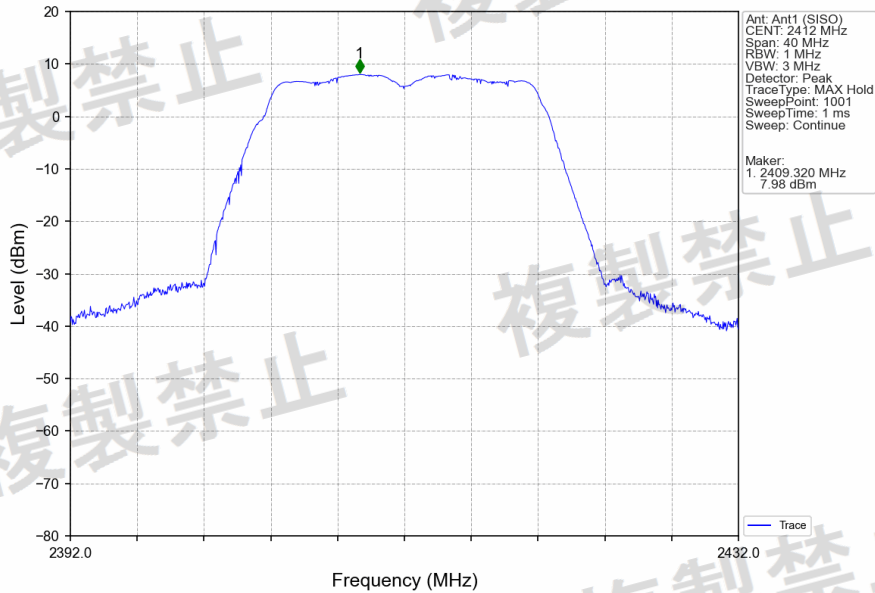


802.11b_2472MHz_Ant1 (SISO)_NTNV

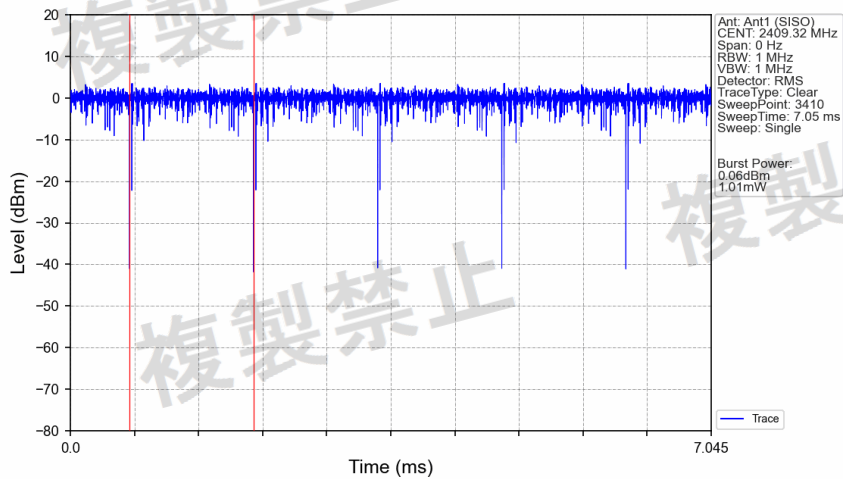


Burst No.	1	2	3	4
Length (ms)	0.322	0.322	0.322	0.322
Power(dBm)	3.32	3.33	3.32	3.32
Power(mW)	2.149	2.150	2.149	2.148
Remark	/	Max	/	/

802.11g_2412MHz_Ant1 (SISO)_NTNV

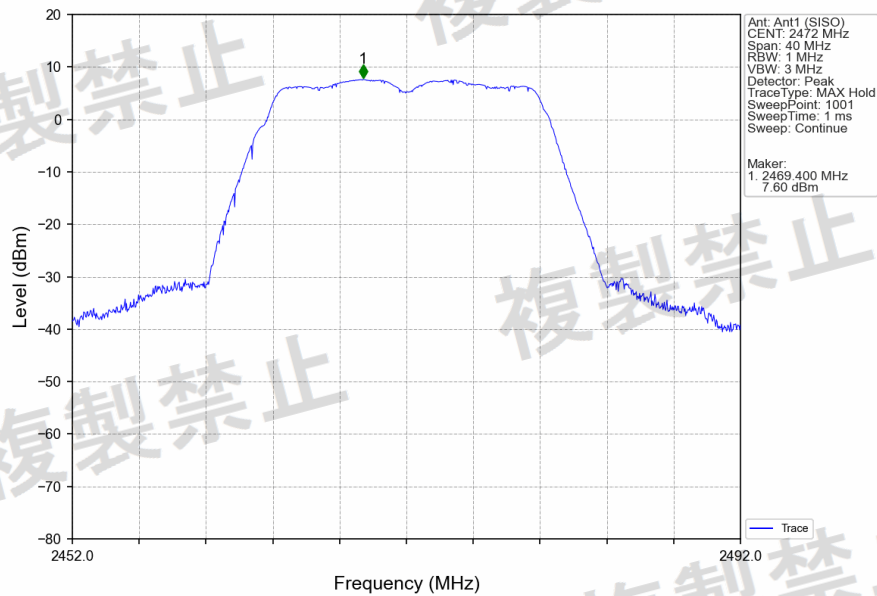


802.11g_2412MHz_Ant1 (SISO)_NTNV

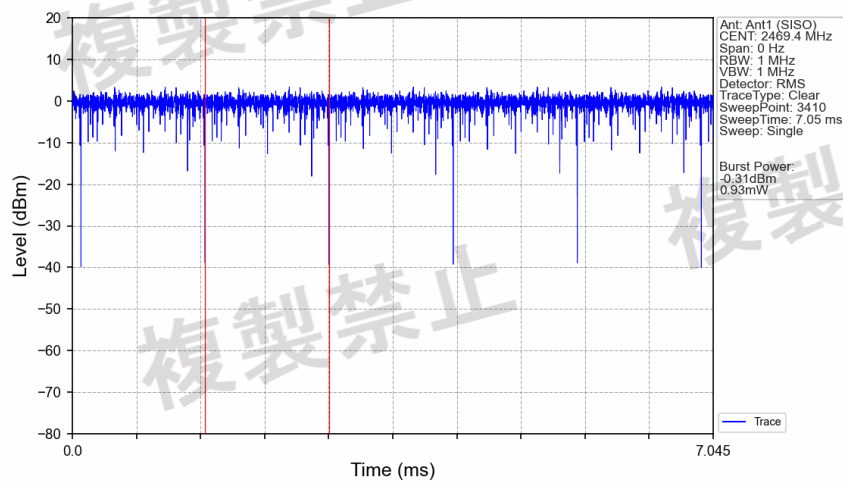


Burst No.	1	2	3	4
Length (ms)	1.360	1.360	1.360	1.360
Power(dBm)	0.06	0.06	0.06	0.06
Power(mW)	1.014	1.014	1.014	1.013
Remark	Max	/	/	/

802.11g_2472MHz_Ant1 (SISO)_NTNV

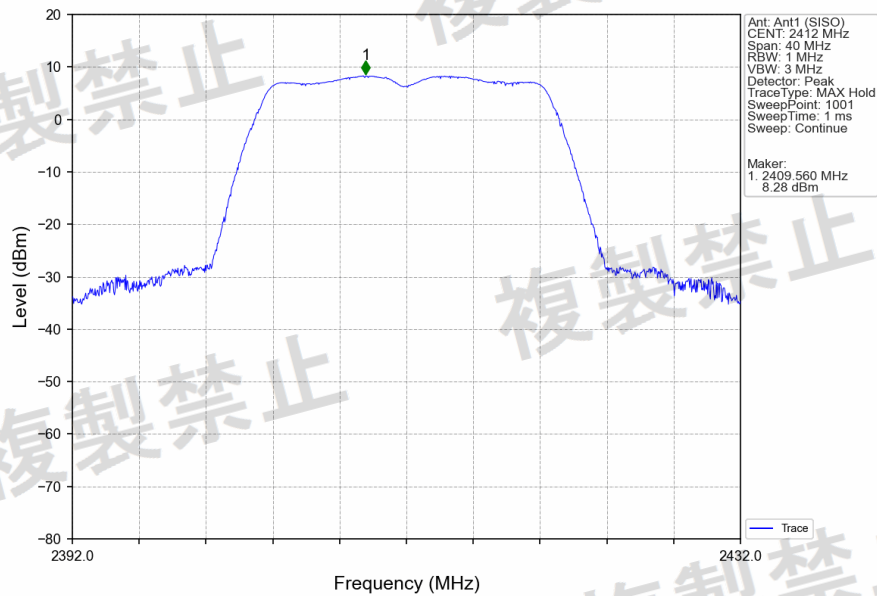


802.11g_2472MHz_Ant1 (SISO)_NTNV

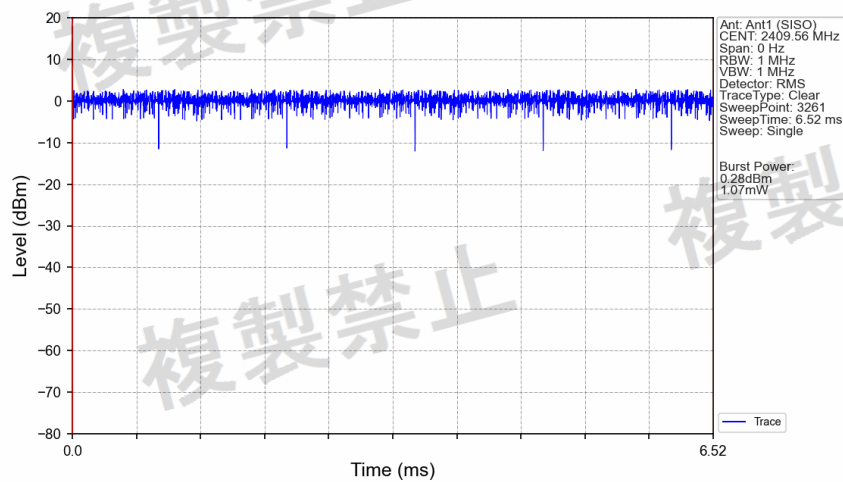


Burst No.	1	2	3	4	5
Length (ms)	1.360	1.360	1.360	1.360	1.360
Power(dBm)	-0.31	-0.31	-0.31	-0.32	-0.31
Power(mW)	0.930	0.931	0.930	0.929	0.931
Remark	/	Max	/	/	/

802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV

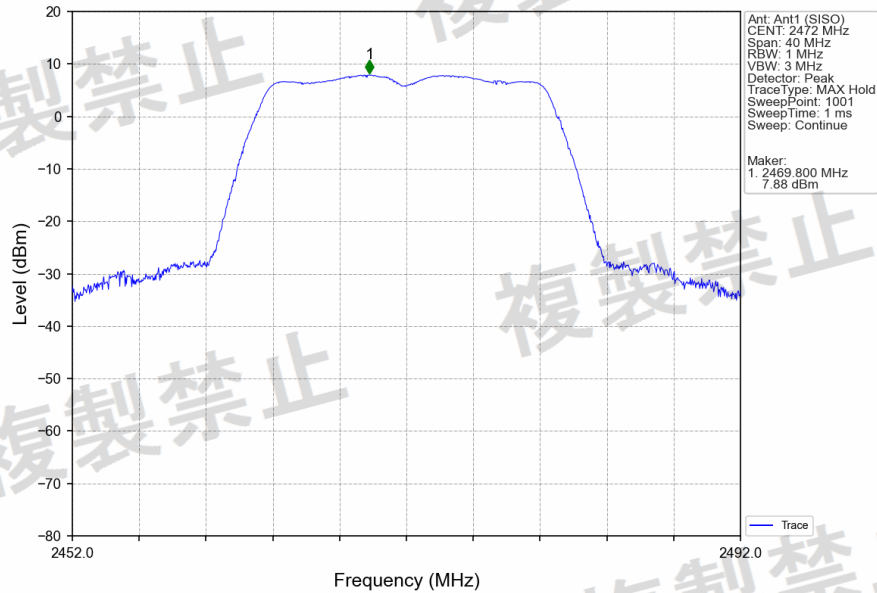


802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV

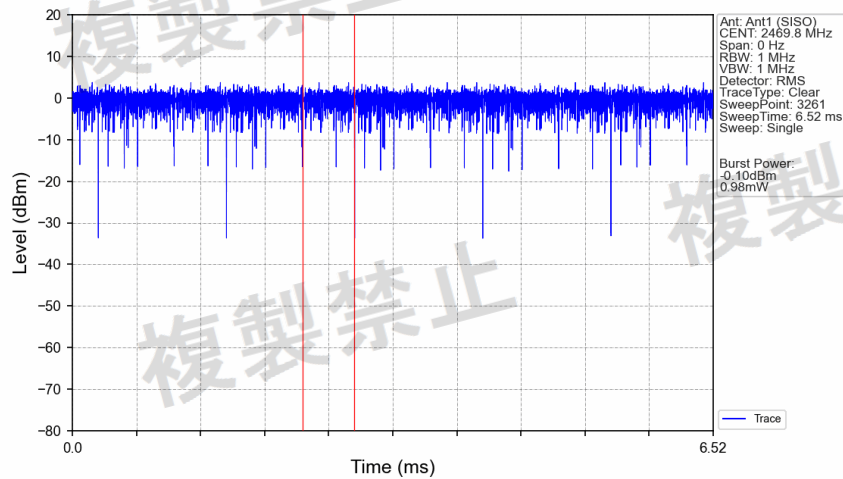


Burst No.	1
Length (ms)	6.520
Power(dBm)	0.28
Power(mW)	1.066
Remark	Max

802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV

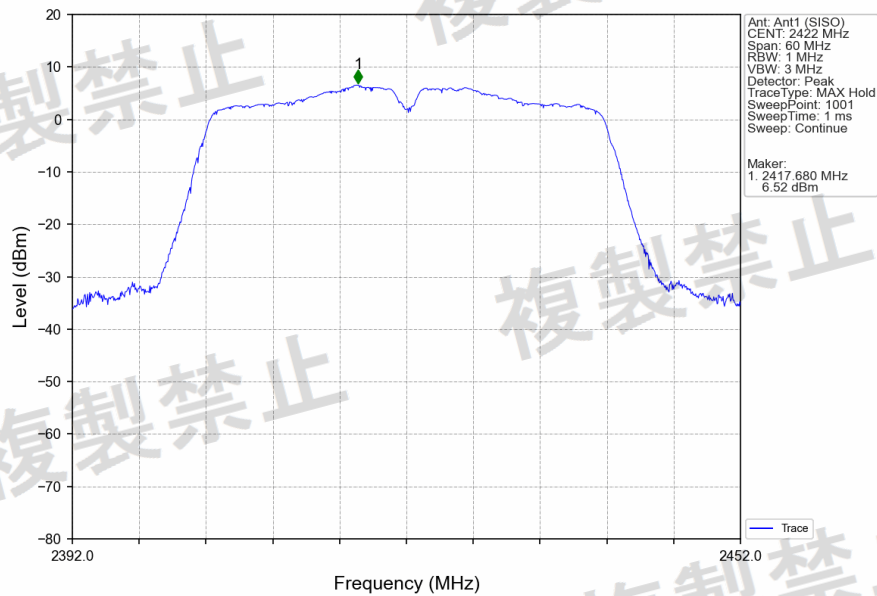


802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV

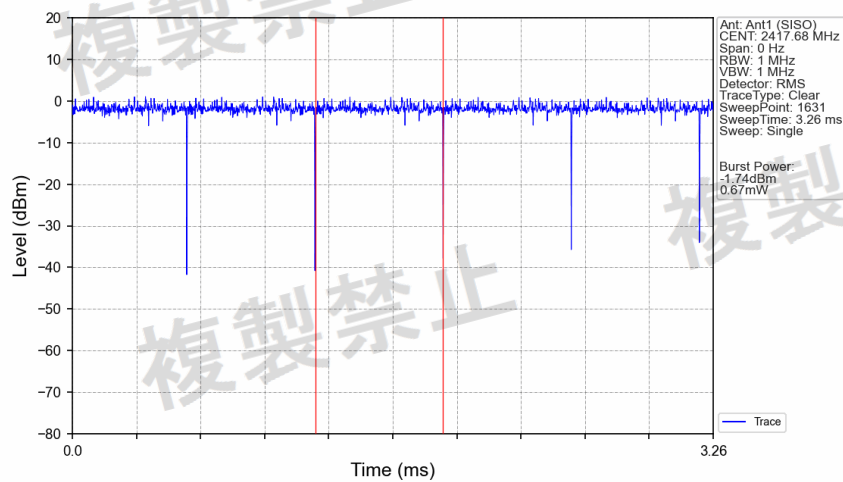


Burst No.	1	2	3	4	5	6	7	8
Length (ms)	0.764	0.528	0.764	0.528	0.764	0.528	0.764	0.528
Power(dBm)	-0.14	-0.10	-0.14	-0.10	-0.14	-0.11	-0.14	-0.11
Power(mW)	0.968	0.976	0.968	0.976	0.968	0.976	0.967	0.974
Remark	/	/	/	Max	/	/	/	/

802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV

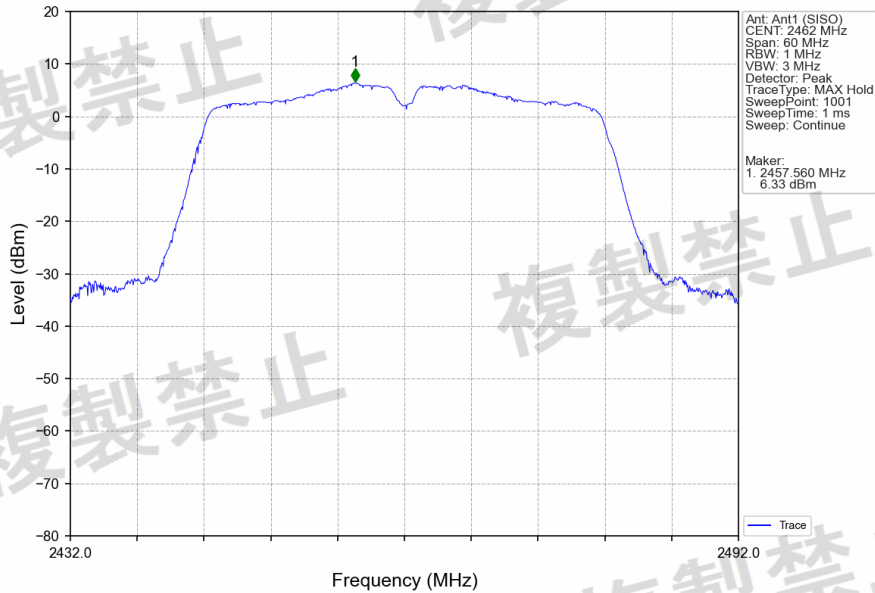


802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV

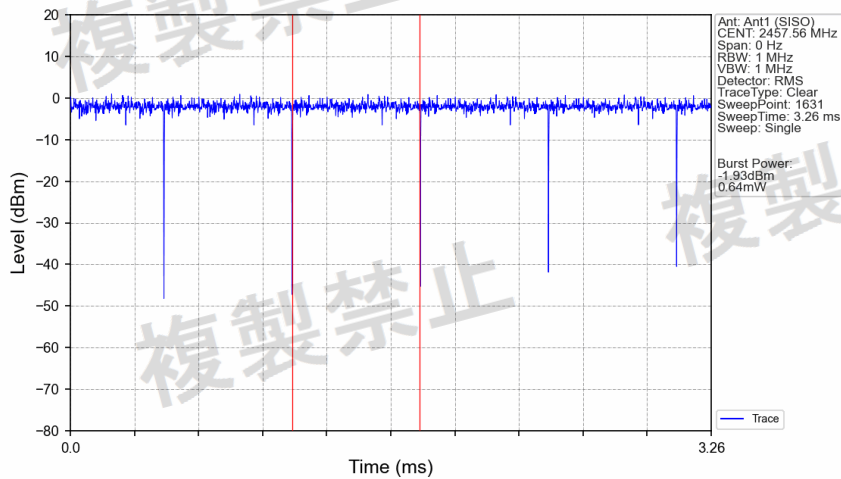


Burst No.	1	2	3	4
Length (ms)	0.648	0.648	0.648	0.648
Power(dBm)	-1.74	-1.74	-1.74	-1.74
Power(mW)	0.670	0.670	0.670	0.670
Remark	/	Max	/	/

802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV

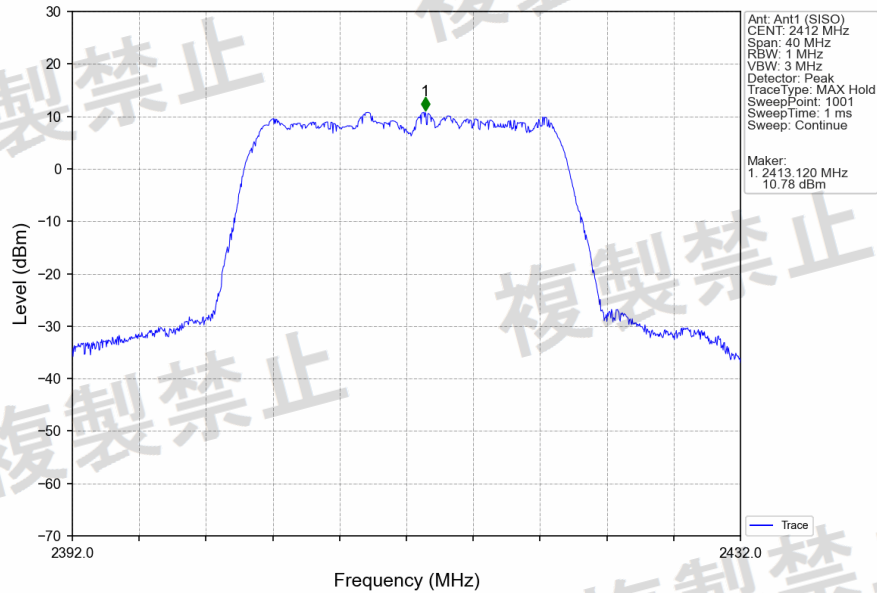


802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV

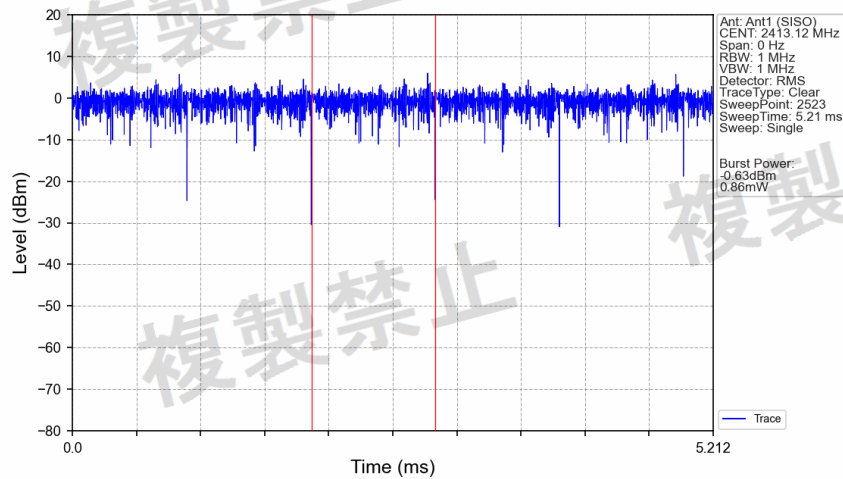


Burst No.	1	2	3	4
Length (ms)	0.648	0.648	0.648	0.648
Power(dBm)	-1.93	-1.93	-1.93	-1.94
Power(mW)	0.641	0.641	0.640	0.640
Remark	/	Max	/	/

802.11ax(HE20)_2412MHz_SU_/_Ant1 (SISO)_NTNV

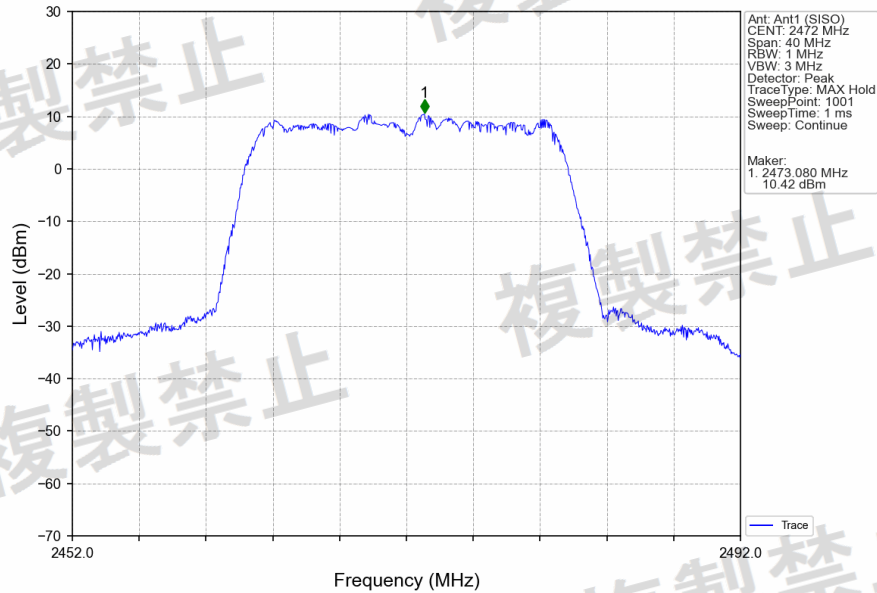


802.11ax(HE20)_2412MHz_SU_/_Ant1 (SISO)_NTNV

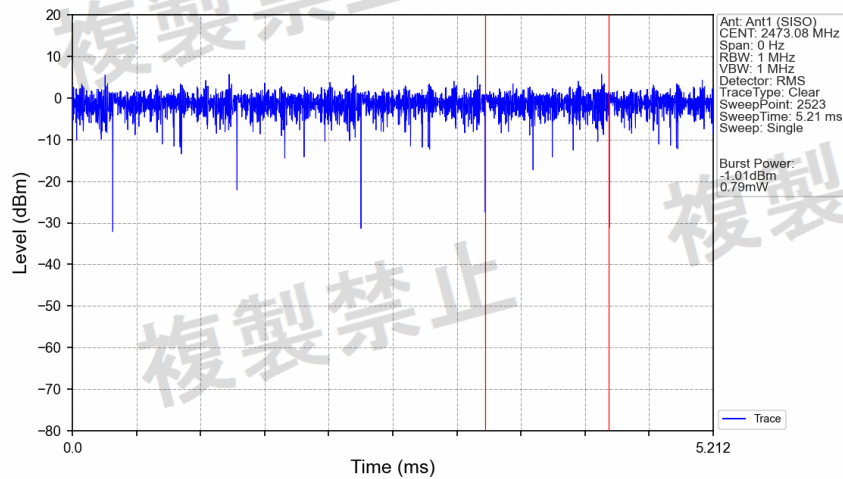


Burst No.	1	2	3	4
Length (ms)	1.006	1.004	1.006	1.004
Power(dBm)	-0.65	-0.63	-0.65	-0.65
Power(mW)	0.860	0.865	0.861	0.862
Remark	/	Max	/	/

802.11ax(HE20)_2472MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HE20)_2472MHz_SU_/_Ant1 (SISO)_NTNV



Burst No.	1	2	3	4
Length (ms)	1.006	1.004	1.006	1.004
Power(dBm)	-1.03	-1.03	-1.03	-1.01
Power(mW)	0.789	0.789	0.789	0.792
Remark	/	/	/	Max

4. Spurious Emission Intensity

4.1 Test Result

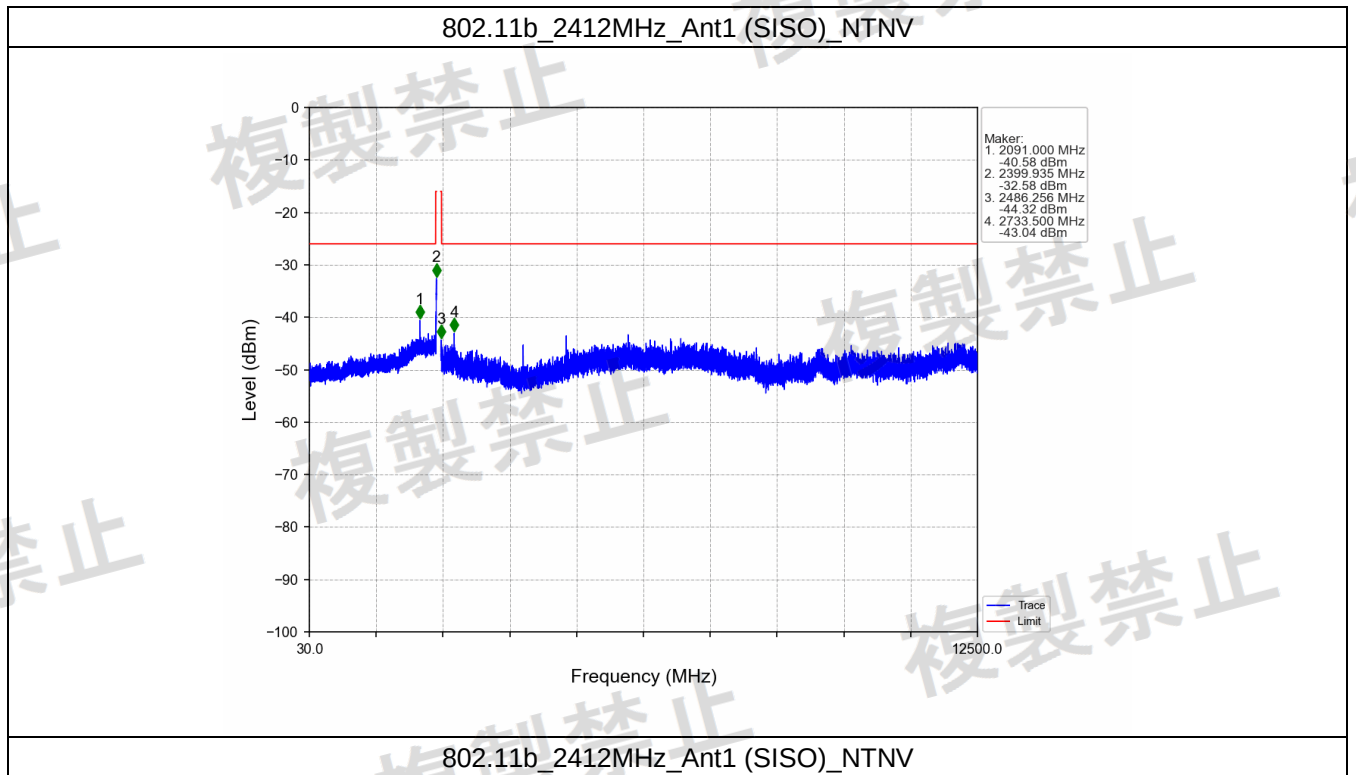
4.1.1 TxSe_NTNV

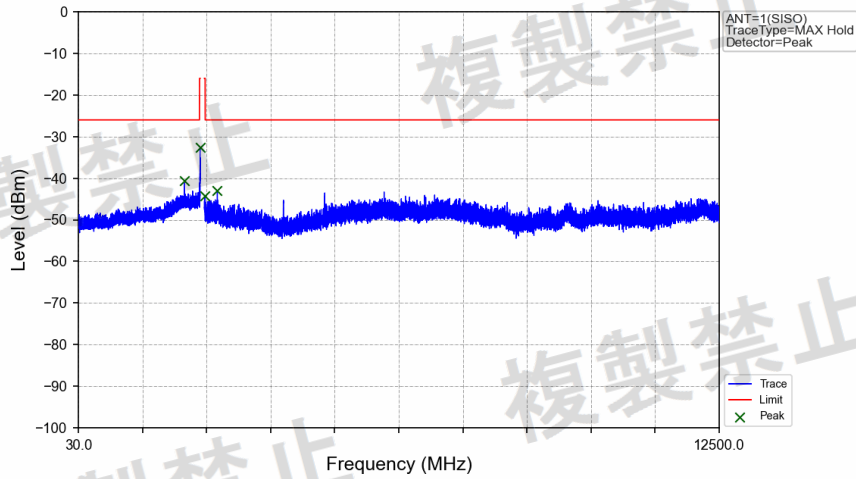
NTNV														
Mode	TX Type	Freq. (MHz)	RU	RU Pos	ANT	Freq. Range		Marker					Limit (uW /MHz)	Verdict
						Start (MHz)	Stop (MHz)	Freq. (MHz)	PK Power (dBm /MHz)	PK Power (uW /MHz)	AV Power (dBm /MHz)	AV Power (uW /MHz)		
802.11b	SISO	2412	/	/	1	30	2387	2091	-40.58	0.087	/	/	2.5	Pass
						2387	2400	2399.935	-32.58	0.552	/	/	25	Pass
						2483.5	2496.5	2486.256	-44.32	0.037	/	/	25	Pass
						2496.5	12500	2733.5	-43.04	0.050	/	/	2.5	Pass
		2472	/	/	1	30	2387	2143.5	-41.90	0.065	/	/	2.5	Pass
						2387	2400	2391.68	-46.43	0.023	/	/	25	Pass
						2483.5	2496.5	2483.942	-32.17	0.607	/	/	25	Pass
						2496.5	12500	2802	-44.56	0.035	/	/	2.5	Pass
802.11g	SISO	2412	/	/	1	30	2387	2086.5	-43.44	0.045	/	/	2.5	Pass
						2387	2400	2399.103	-30.97	0.800	/	/	25	Pass
						2483.5	2496.5	2490.884	-45.02	0.031	/	/	25	Pass
						2496.5	12500	6330	-43.72	0.042	/	/	2.5	Pass
		2472	/	/	1	30	2387	2331	-43.83	0.041	/	/	2.5	Pass
						2387	2400	2392.304	-44.56	0.035	/	/	25	Pass
						2483.5	2496.5	2483.539	-28.52	1.406	/	/	25	Pass
						2496.5	12500	6090.5	-44.05	0.039	/	/	2.5	Pass
802.11n (HT20)	SISO	2412	/	/	1	30	2387	2252	-44.81	0.033	/	/	2.5	Pass
						2387	2400	2399.974	-28.40	1.445	/	/	25	Pass
						2483.5	2496.5	2491.105	-47.68	0.017	/	/	25	Pass
						2496.5	12500	4022	-45.48	0.028	/	/	2.5	Pass
		2472	/	/	1	30	2387	2143	-45.47	0.028	/	/	2.5	Pass
						2387	2400	2392.018	-48.39	0.014	/	/	25	Pass
						2483.5	2496.5	2483.513	-25.34	2.924	/	/	25	Pass
						2496.5	12500	2497	-43.84	0.041	/	/	2.5	Pass
802.11n (HT40)	SISO	2422	/	/	1	30	2387	2386.5	-38.76	0.133	/	/	2.5	Pass
						2387	2400	2399.961	-30.00	1.000	/	/	25	Pass
						2483.5	2496.5	2485.398	-47.32	0.019	/	/	25	Pass
						2496.5	12500	12187	-47.36	0.018	/	/	2.5	Pass
		2462	/	/	1	30	2387	2119	-46.18	0.024	/	/	2.5	Pass
						2387	2400	2397.387	-47.03	0.020	/	/	25	Pass
						2483.5	2496.5	2483.552	-26.45	2.265	/	/	25	Pass
						2496.5	12500	2498.5	-38.34	0.147	/	/	2.5	Pass
802.11ax	SISO	2412	SU	/	1	30	2387	2035.5	-43.91	0.041	/	/	2.5	Pass

(HE20)					2387	2400	2399.974	-28.35	1.462	/	/	25	Pass
					2483.5	2496.5	2488.778	-45.06	0.031	/	/	25	Pass
					2496.5	12500	12136.5	-43.05	0.050	/	/	2.5	Pass
	2472	SU	/	1	30	2387	1952.5	-38.89	0.129	/	/	2.5	Pass
					2387	2400	2399.883	-47.29	0.019	/	/	25	Pass
					2483.5	2496.5	2483.513	-25.40	2.884	/	/	25	Pass
					2496.5	12500	2497	-41.08	0.078	/	/	2.5	Pass

4.2 Test Graph

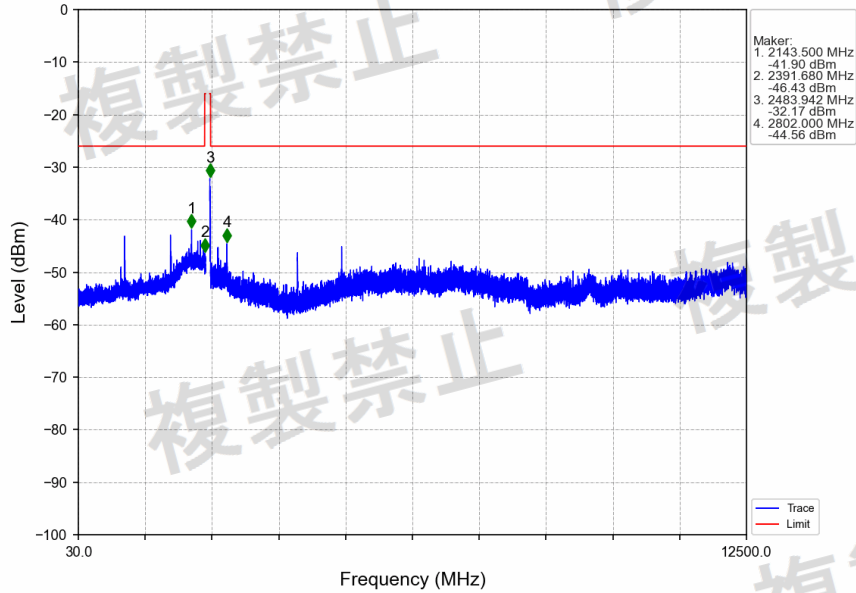
4.2.1 TxSe_NTNV



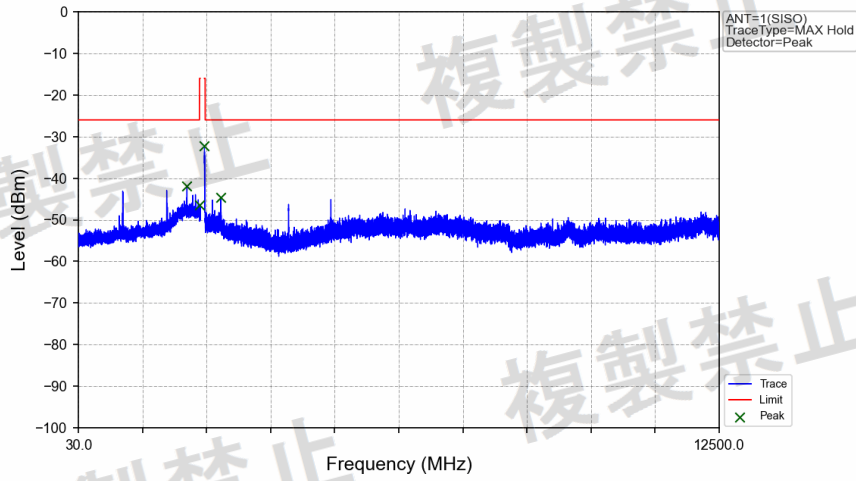


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2091.000	-40.58	/	-26	Pass
2387	2400	1	1	2399.935	-32.58	/	-16	Pass
2483.5	2496.5	1	1	2486.256	-44.32	/	-16	Pass
2496.5	12500	1	1	2733.500	-43.04	/	-26	Pass

802.11b_2472MHz_Ant1 (SISO)_NTNV

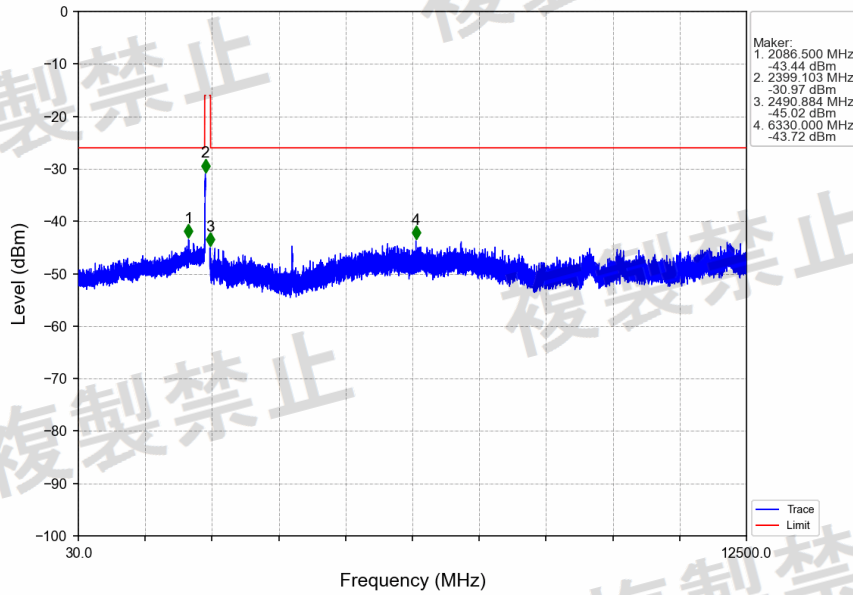


802.11b_2472MHz_Ant1 (SISO)_NTNV

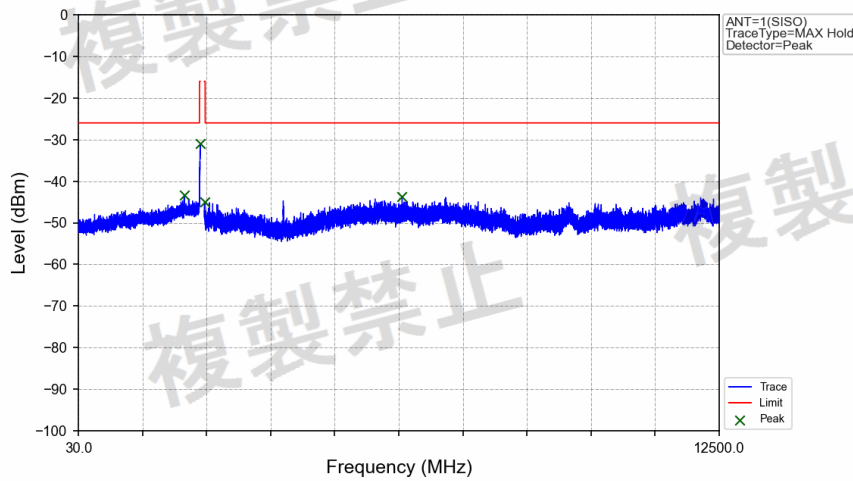


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2143.500	-41.90	/	-26	Pass
2387	2400	1	1	2391.680	-46.43	/	-16	Pass
2483.5	2496.5	1	1	2483.942	-32.17	/	-16	Pass
2496.5	12500	1	1	2802.000	-44.56	/	-26	Pass

802.11g_2412MHz_Ant1 (SISO)_NTNV

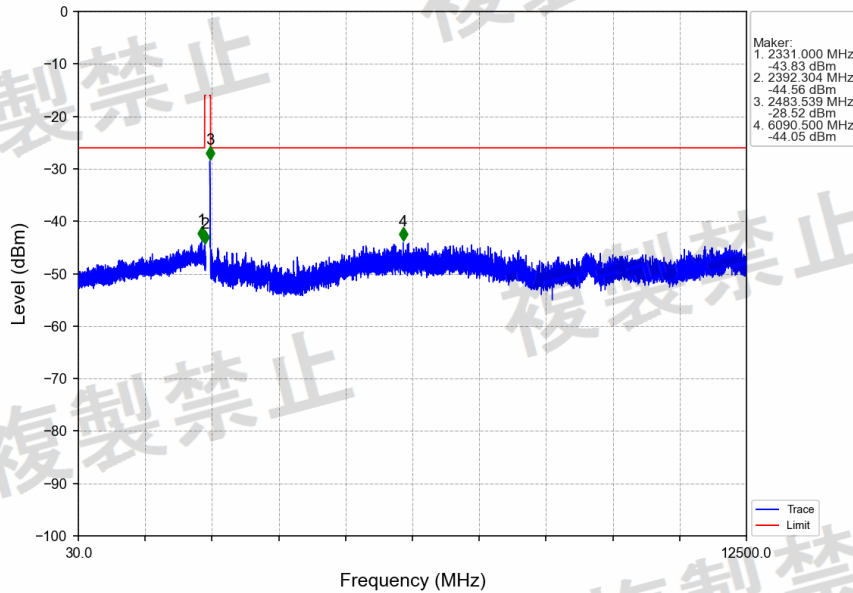


802.11g_2412MHz_Ant1 (SISO)_NTNV

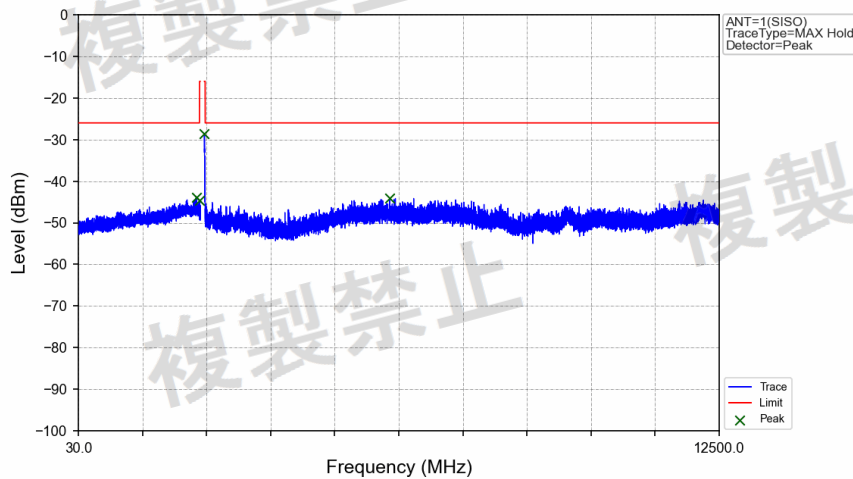


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2086.500	-43.44	/	-26	Pass
2387	2400	1	1	2399.103	-30.97	/	-16	Pass
2483.5	2496.5	1	1	2490.884	-45.02	/	-16	Pass
2496.5	12500	1	1	6330.000	-43.72	/	-26	Pass

802.11g_2472MHz_Ant1 (SISO)_NTNV

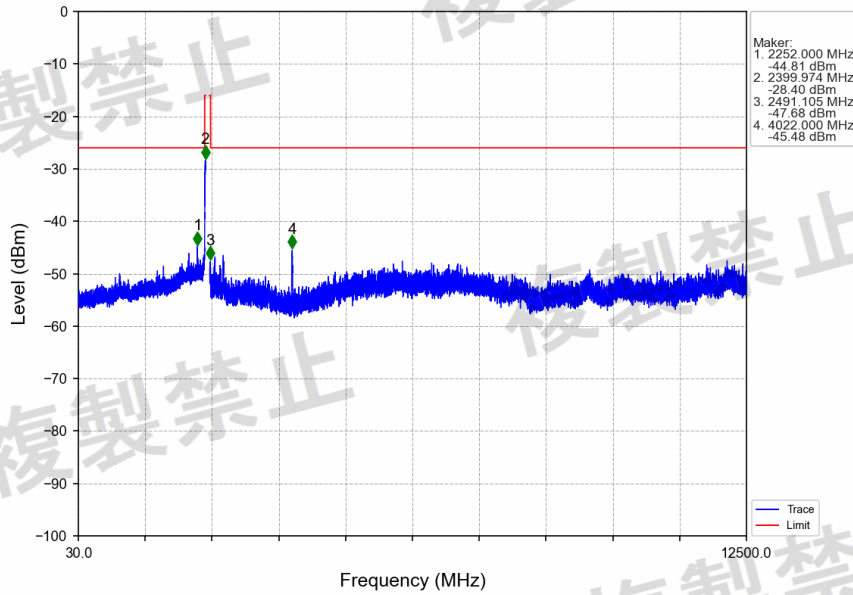


802.11g_2472MHz_Ant1 (SISO)_NTNV

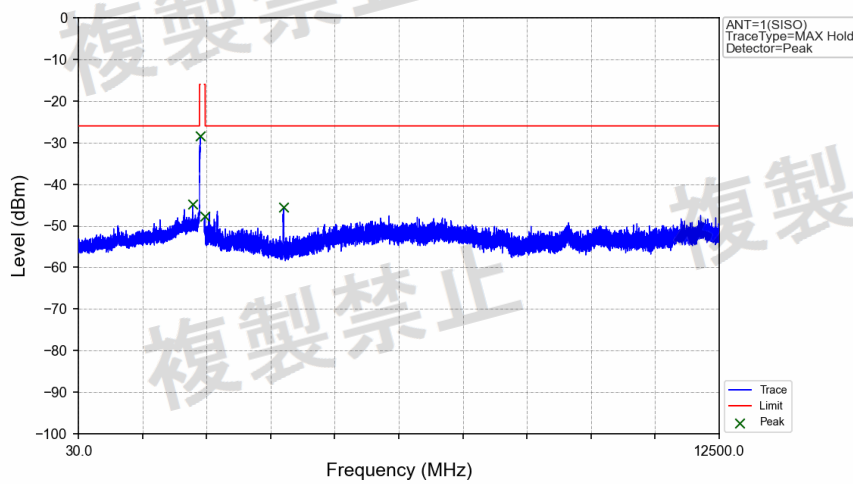


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2331.000	-43.83	/	-26	Pass
2387	2400	1	1	2392.304	-44.56	/	-16	Pass
2483.5	2496.5	1	1	2483.539	-28.52	/	-16	Pass
2496.5	12500	1	1	6090.500	-44.05	/	-26	Pass

802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV

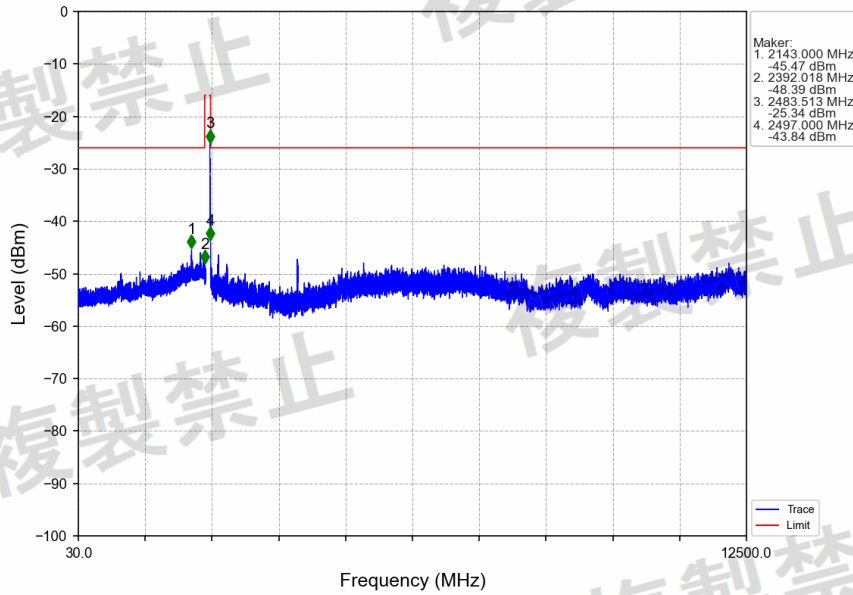


802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV

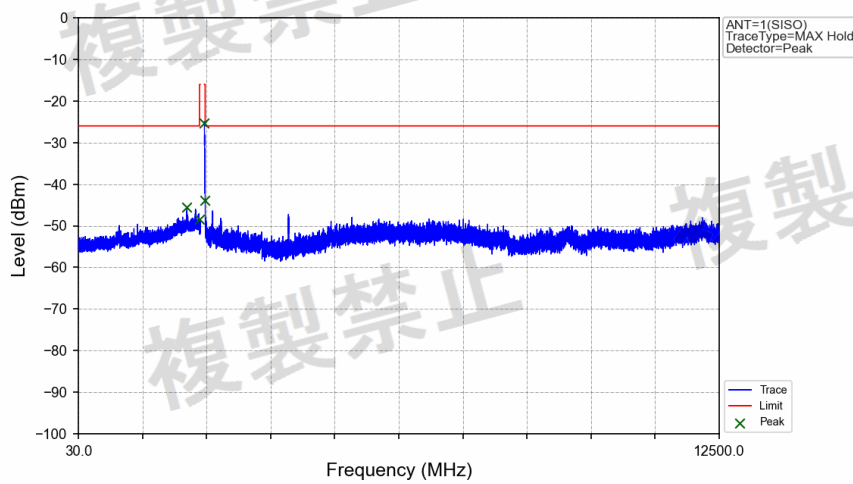


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2252.000	-44.81	/	-26	Pass
2387	2400	1	1	2399.974	-28.40	/	-16	Pass
2483.5	2496.5	1	1	2491.105	-47.68	/	-16	Pass
2496.5	12500	1	1	4022.000	-45.48	/	-26	Pass

802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV

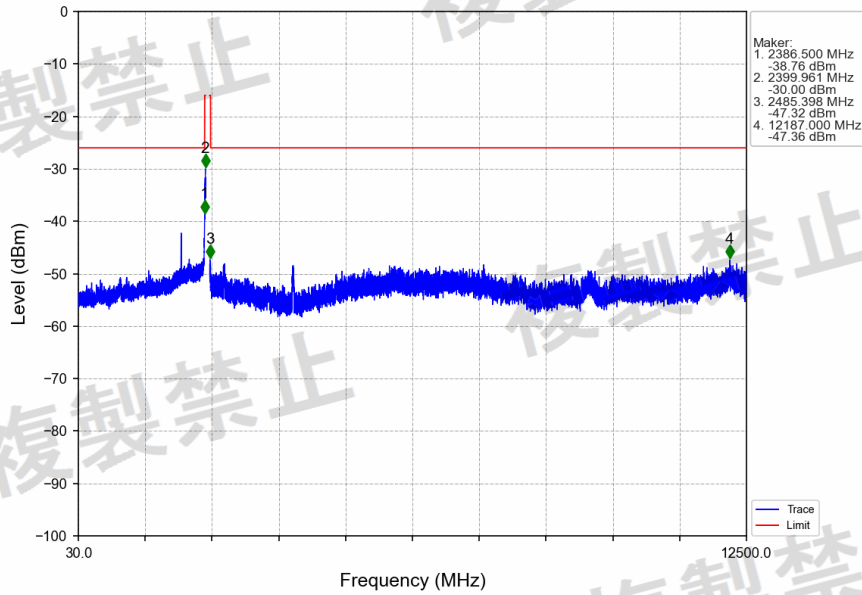


802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV

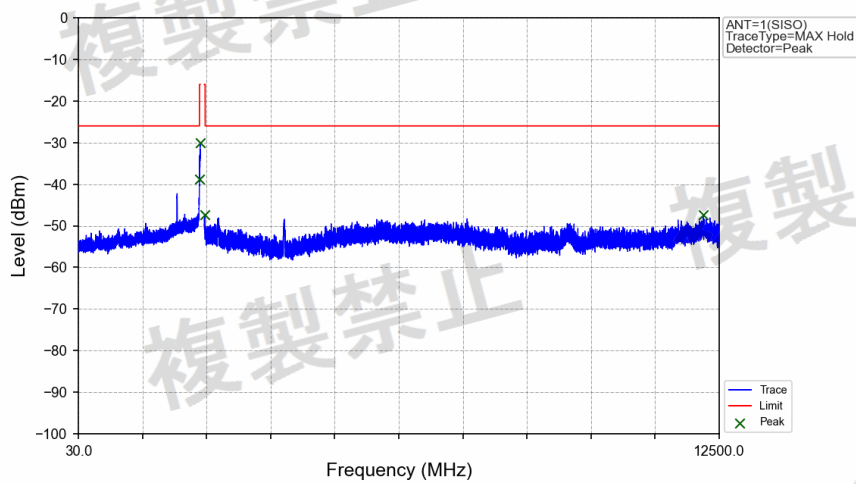


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2143.000	-45.47	/	-26	Pass
2387	2400	1	1	2392.018	-48.39	/	-16	Pass
2483.5	2496.5	1	1	2483.513	-25.34	/	-16	Pass
2496.5	12500	1	1	2497.000	-43.84	/	-26	Pass

802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV

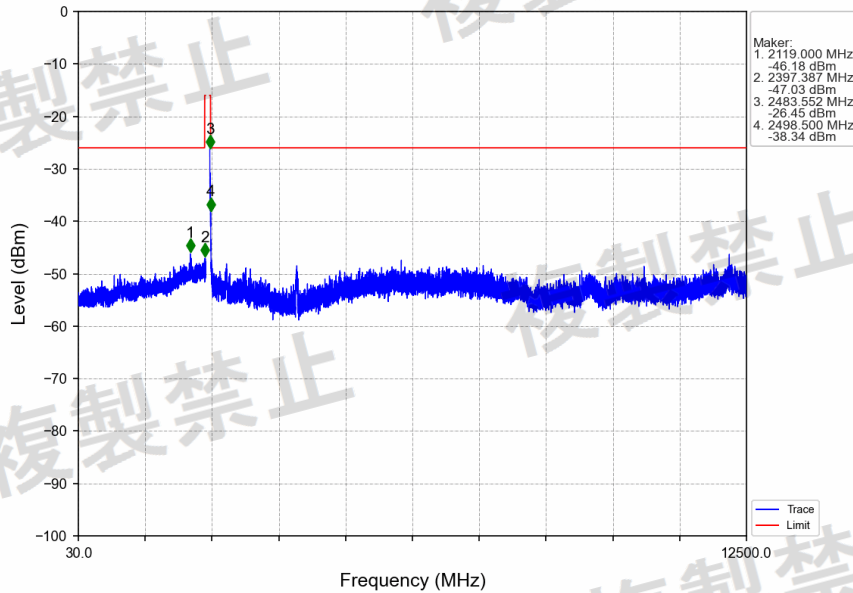


802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV

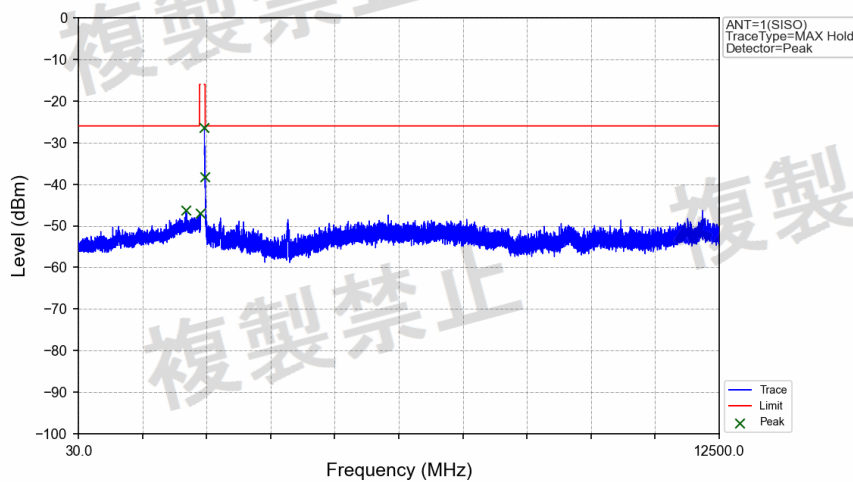


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2386.500	-38.76	/	-26	Pass
2387	2400	1	1	2399.961	-30.00	/	-16	Pass
2483.5	2496.5	1	1	2485.398	-47.32	/	-16	Pass
2496.5	12500	1	1	12187.000	-47.36	/	-26	Pass

802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV

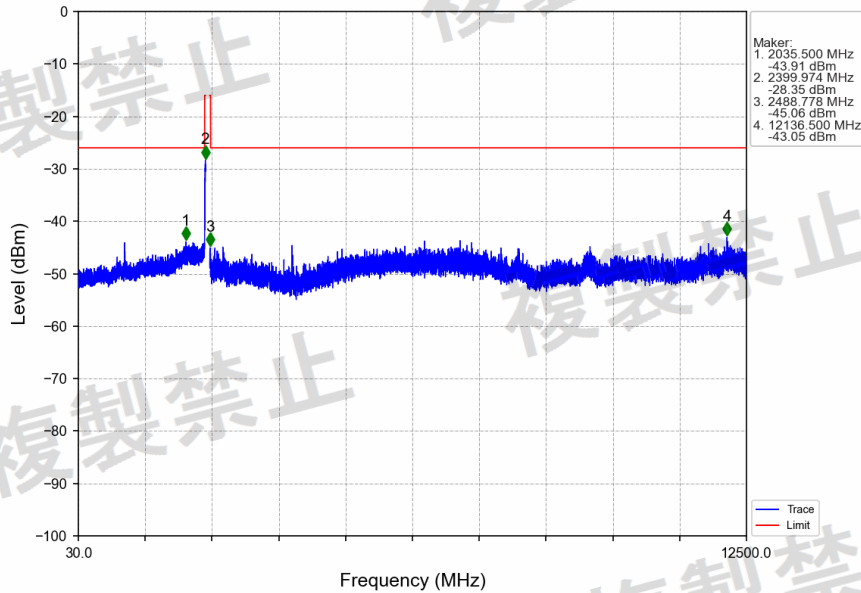


802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV

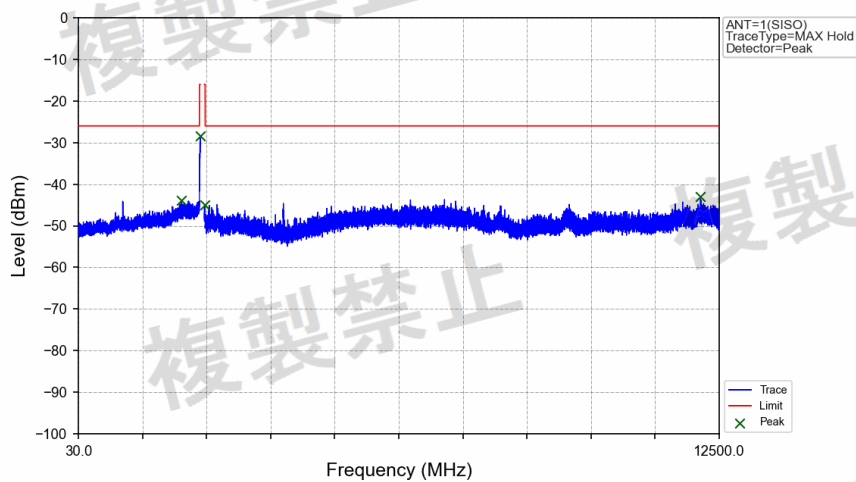


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2119.000	-46.18	/	-26	Pass
2387	2400	1	1	2397.387	-47.03	/	-16	Pass
2483.5	2496.5	1	1	2483.552	-26.45	/	-16	Pass
2496.5	12500	1	1	2498.500	-38.34	/	-26	Pass

802.11ax(HE20)_2412MHz_SU_/_Ant1 (SISO)_NTNV

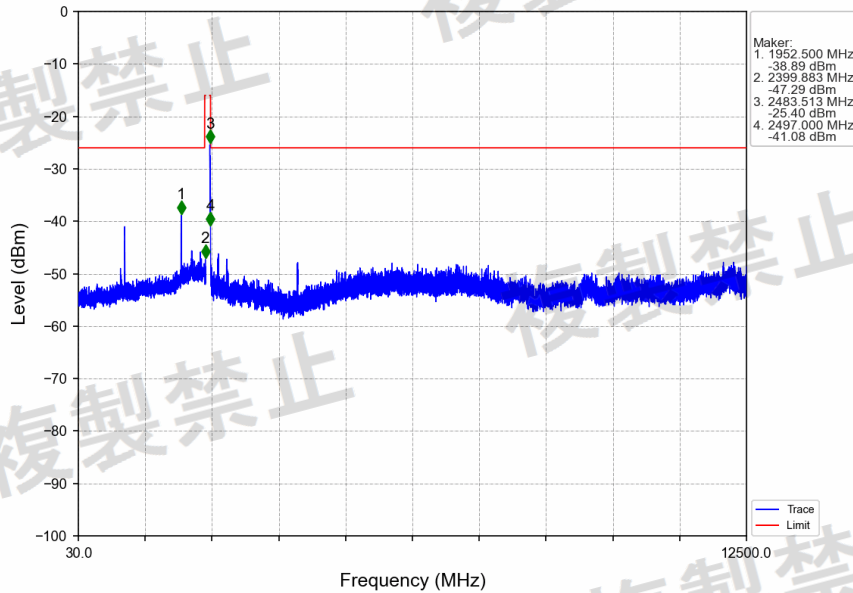


802.11ax(HE20)_2412MHz_SU_/_Ant1 (SISO)_NTNV

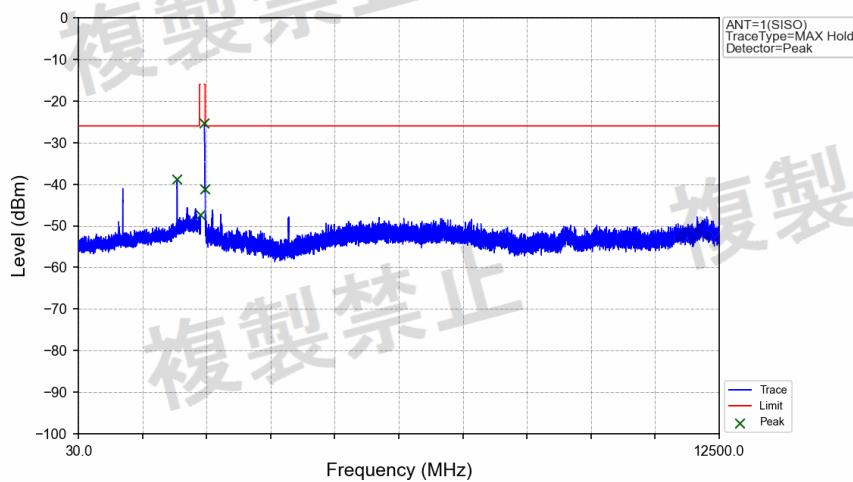


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	2035.500	-43.91	/	-26	Pass
2387	2400	1	1	2399.974	-28.35	/	-16	Pass
2483.5	2496.5	1	1	2488.778	-45.06	/	-16	Pass
2496.5	12500	1	1	12136.500	-43.05	/	-26	Pass

802.11ax(HE20)_2472MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HE20)_2472MHz_SU_/_Ant1 (SISO)_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	2387	1	1	1952.500	-38.89	/	-26	Pass
2387	2400	1	1	2399.883	-47.29	/	-16	Pass
2483.5	2496.5	1	1	2483.513	-25.40	/	-16	Pass
2496.5	12500	1	1	2497.000	-41.08	/	-26	Pass

5. Secondary Radiated Emission

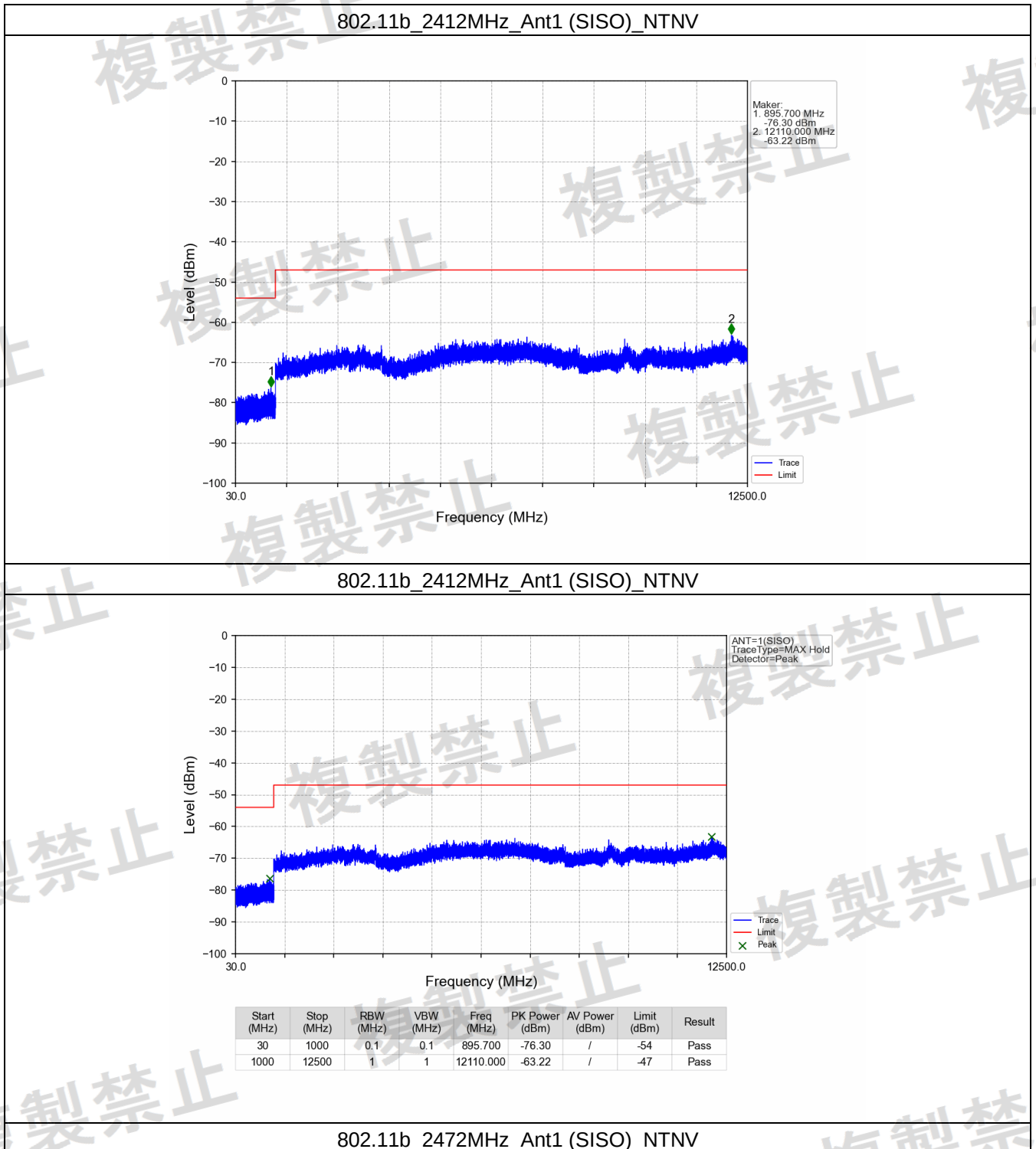
5.1 Test Result

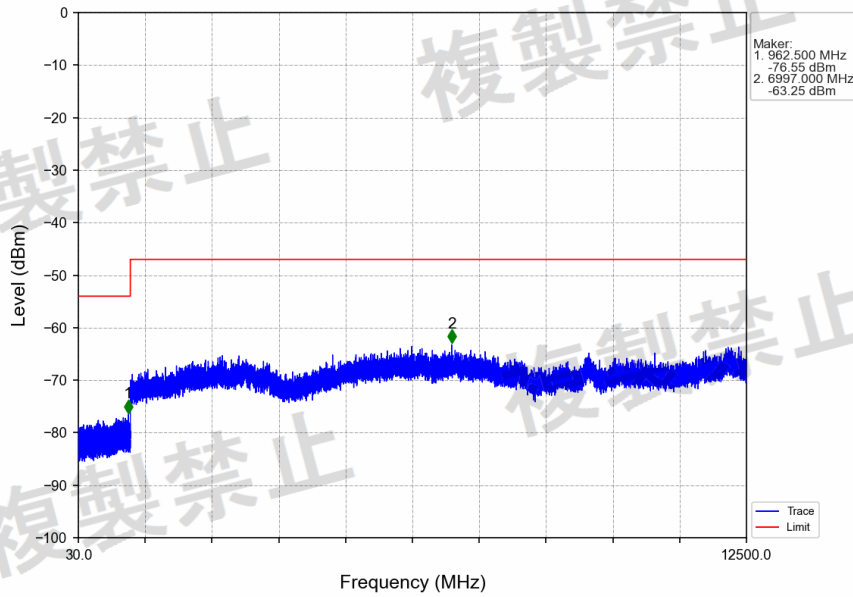
5.1.1 RxSe_NTNV

NTNV														
Mode	TX Type	Freq. (MHz)	RU	RU Pos	ANT	Freq. Range		Marker					Limit (nW)	Verdict
						Start (MHz)	Stop (MHz)	Freq. (MHz)	PK Power (dBm)	PK Power (nW)	AV Power (dBm)	AV Power (nW)		
802.11b	SISO	2412	/	/	1	30	1000	895.7	-76.30	0.023	/	/	4	Pass
						1000	12500	12110	-63.22	0.476	/	/	20	Pass
		2472	/	/	1	30	1000	962.5	-76.55	0.022	/	/	4	Pass
						1000	12500	6997	-63.25	0.473	/	/	20	Pass
802.11g	SISO	2412	/	/	1	30	1000	748.95	-76.55	0.022	/	/	4	Pass
						1000	12500	5952.5	-63.11	0.489	/	/	20	Pass
		2472	/	/	1	30	1000	784.55	-76.91	0.020	/	/	4	Pass
						1000	12500	11813	-63.07	0.493	/	/	20	Pass
802.11n (HT20)	SISO	2412	/	/	1	30	1000	791.2	-76.64	0.022	/	/	4	Pass
						1000	12500	12230	-63.54	0.443	/	/	20	Pass
		2472	/	/	1	30	1000	965.4	-76.44	0.023	/	/	4	Pass
						1000	12500	5928	-63.61	0.436	/	/	20	Pass
802.11n (HT40)	SISO	2422	/	/	1	30	1000	881.9	-77.32	0.019	/	/	4	Pass
						1000	12500	7040	-62.70	0.537	/	/	20	Pass
		2462	/	/	1	30	1000	944.15	-76.62	0.022	/	/	4	Pass
						1000	12500	6789.5	-63.80	0.417	/	/	20	Pass
802.11ax (HE20)	SISO	2412	SU	/	1	30	1000	794.25	-76.61	0.022	/	/	4	Pass
						1000	12500	5980.5	-63.44	0.453	/	/	20	Pass
		2472	SU	/	1	30	1000	806.1	-76.59	0.022	/	/	4	Pass
						1000	12500	6869	-63.29	0.469	/	/	20	Pass

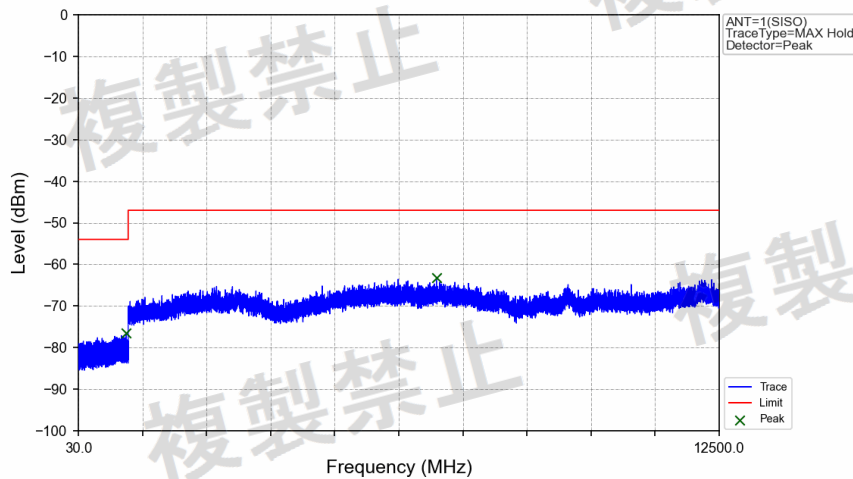
5.2 Test Graph

5.2.1 RxSe_NTNV



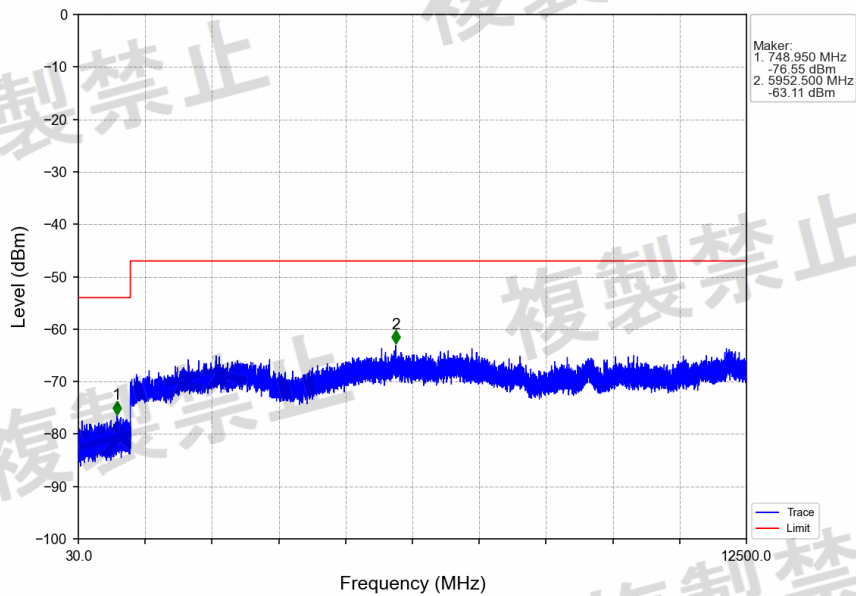


802.11b_2472MHz_Ant1 (SISO)_NTNV

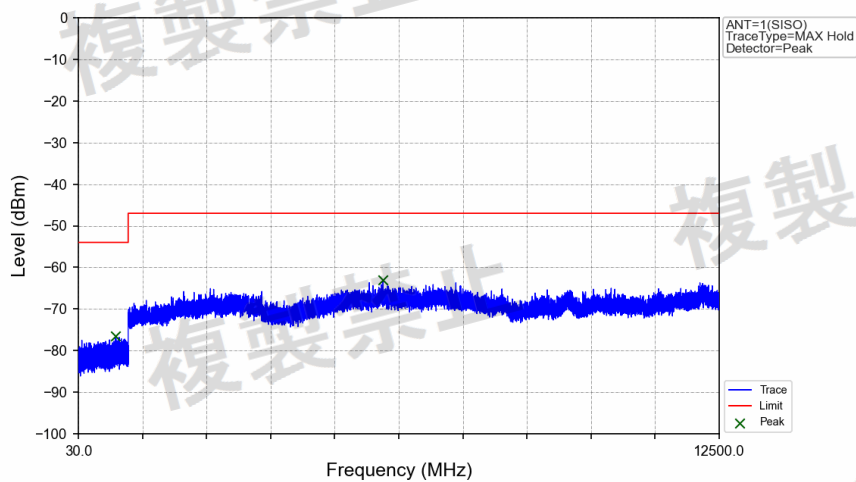


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	962.500	-76.55	/	-54	Pass
1000	12500	1	1	6997.000	-63.25	/	-47	Pass

802.11g_2412MHz_Ant1 (SISO)_NTNV

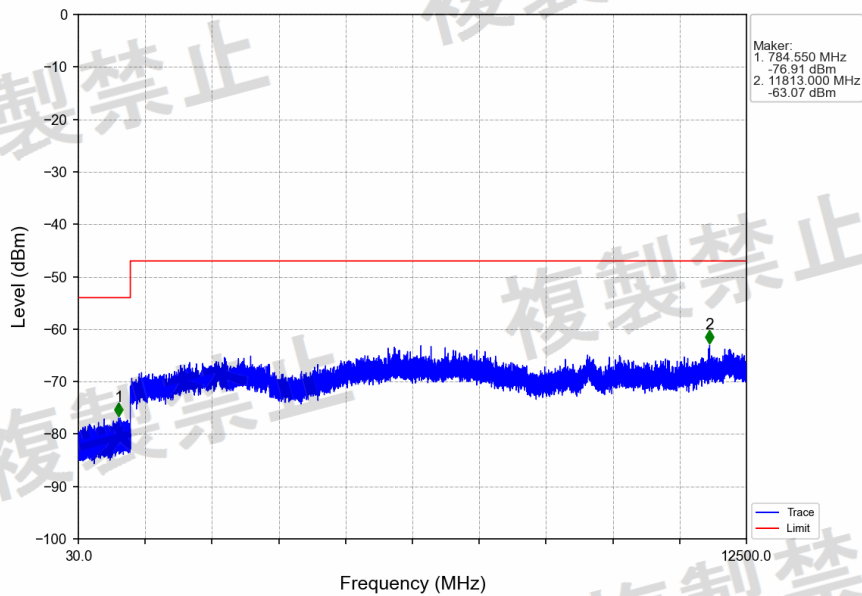


802.11g_2412MHz_Ant1 (SISO)_NTNV

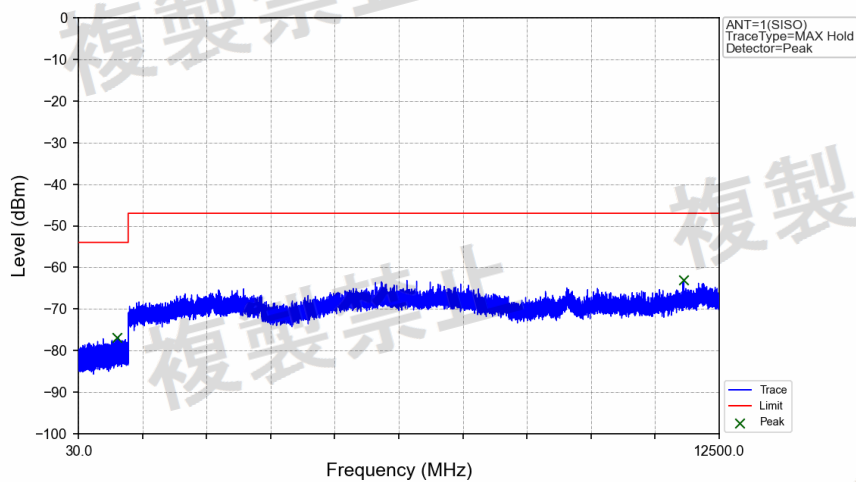


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	748.950	-76.55	/	-54	Pass
1000	12500	1	1	5952.500	-63.11	/	-47	Pass

802.11g_2472MHz_Ant1 (SISO)_NTNV

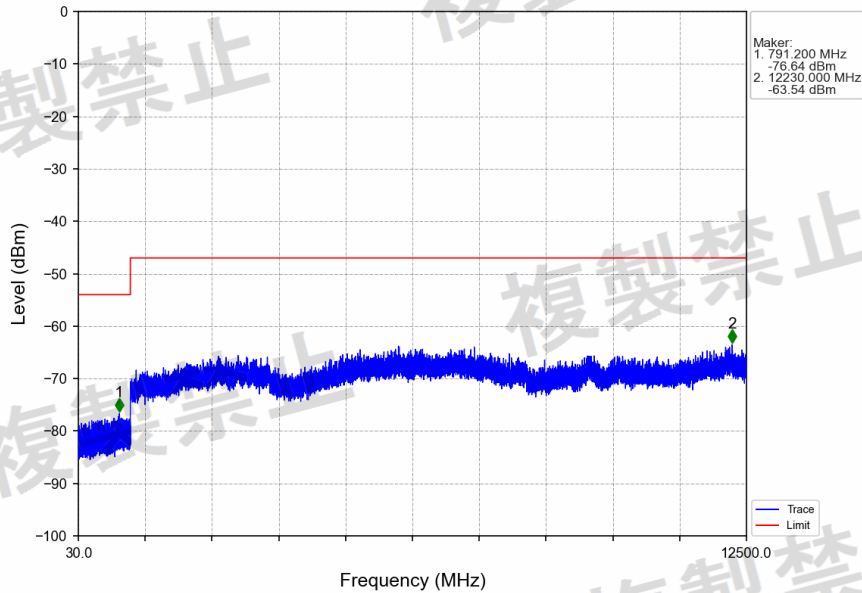


802.11g_2472MHz_Ant1 (SISO)_NTNV

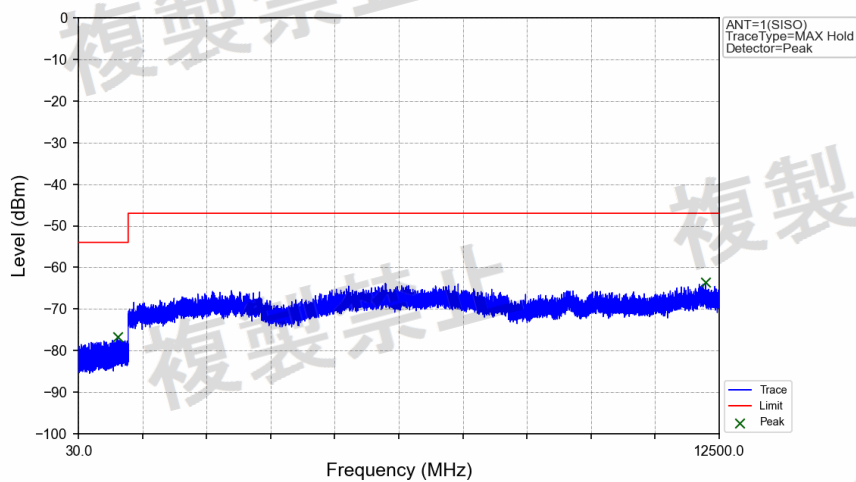


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	784.550	-76.91	/	-54	Pass
1000	12500	1	1	11813.000	-63.07	/	-47	Pass

802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV

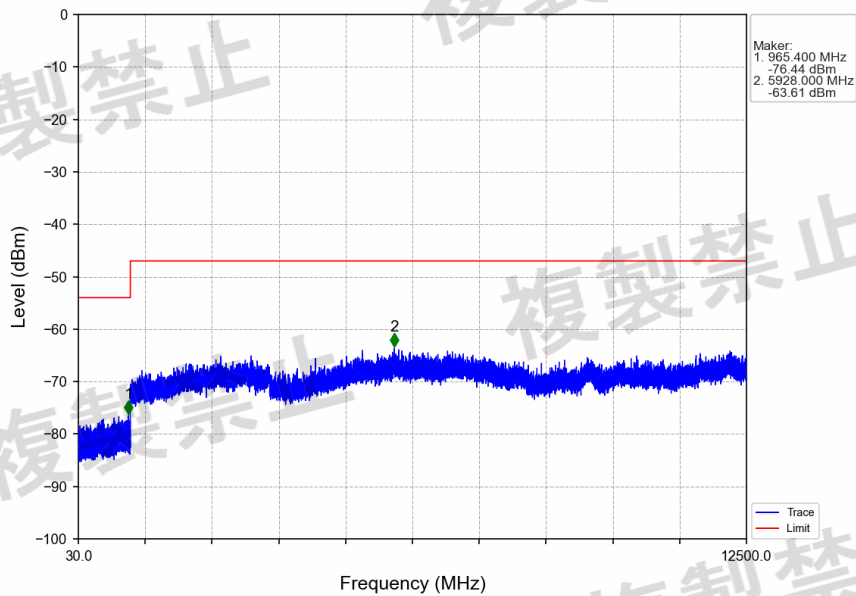


802.11n(HT20)_2412MHz_Ant1 (SISO)_NTNV

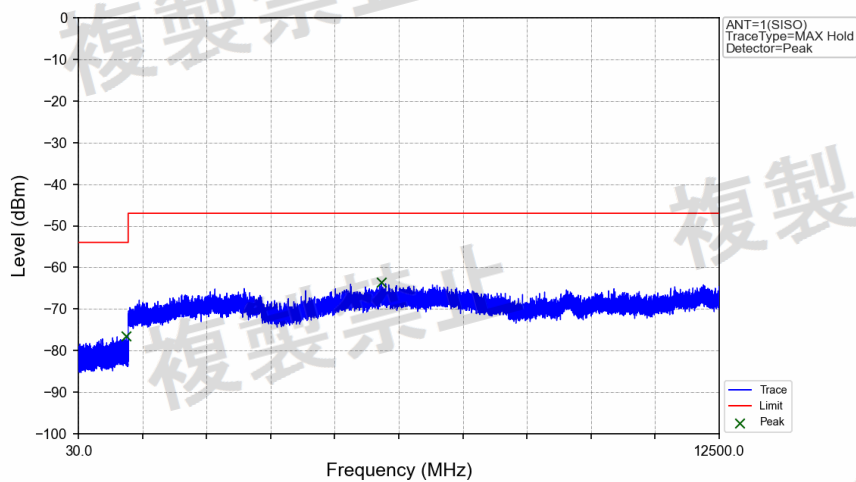


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	791.200	-76.64	/	-54	Pass
1000	12500	1	1	12230.000	-63.54	/	-47	Pass

802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV

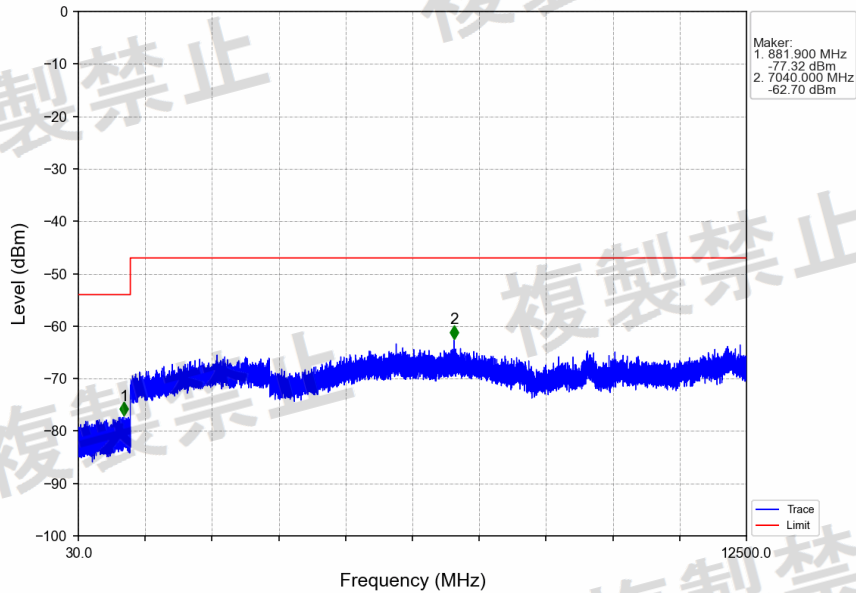


802.11n(HT20)_2472MHz_Ant1 (SISO)_NTNV

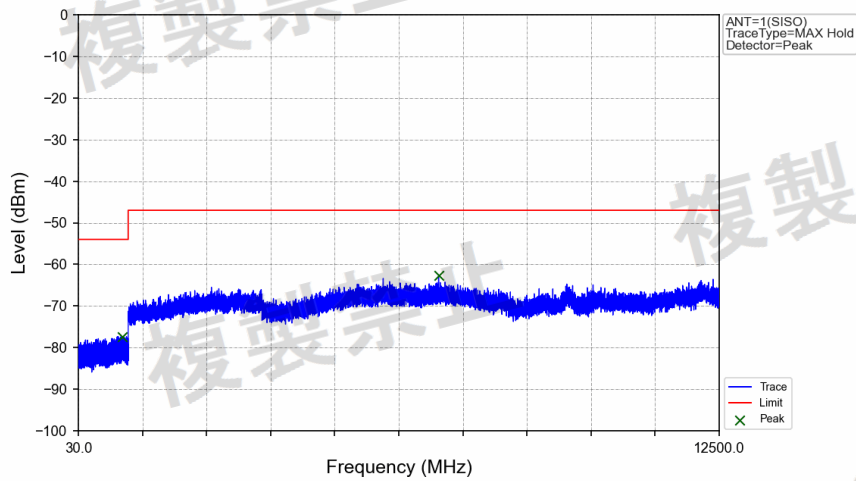


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	965.400	-76.44	/	-54	Pass
1000	12500	1	1	5928.000	-63.61	/	-47	Pass

802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV

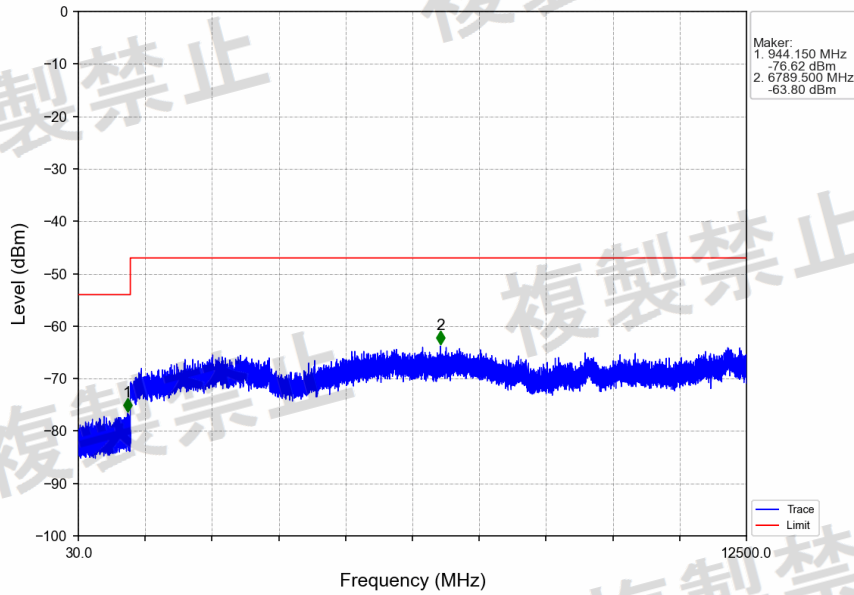


802.11n(HT40)_2422MHz_Ant1 (SISO)_NTNV

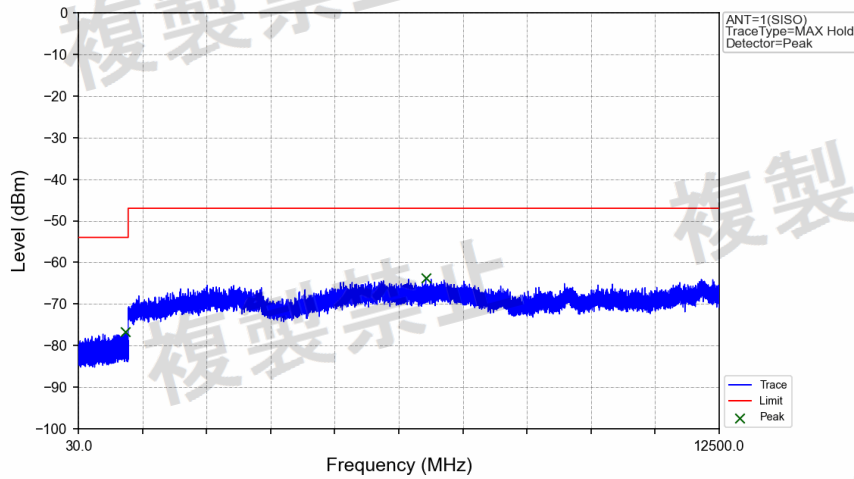


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	881.900	-77.32	/	-54	Pass
1000	12500	1	1	7040.000	-62.70	/	-47	Pass

802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV

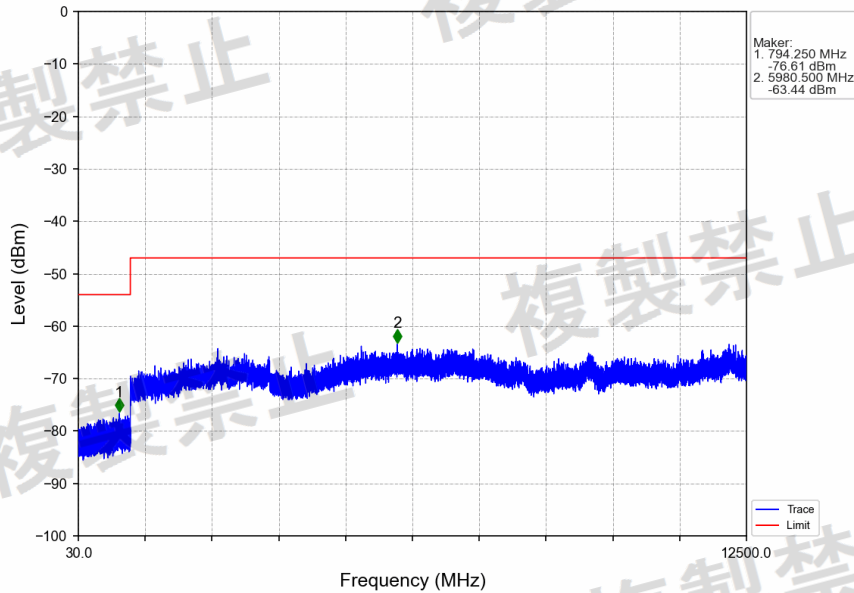


802.11n(HT40)_2462MHz_Ant1 (SISO)_NTNV

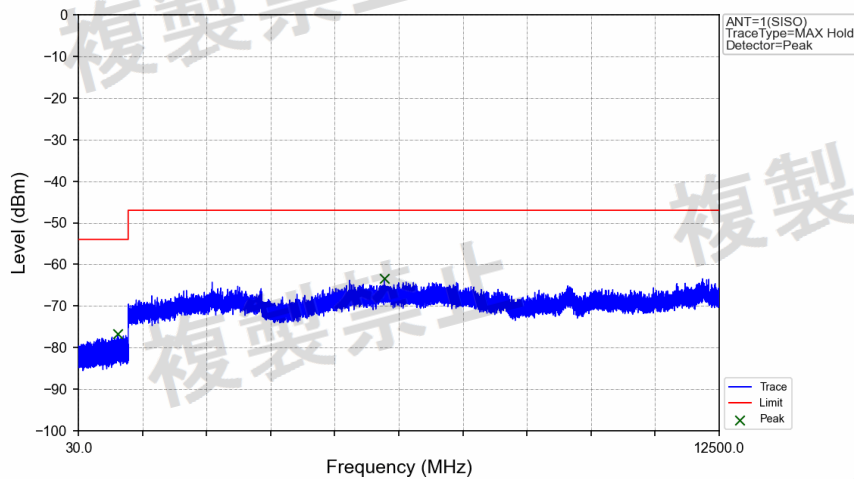


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	944.150	-76.62	/	-54	Pass
1000	12500	1	1	6789.500	-63.80	/	-47	Pass

802.11ax(HE20)_2412MHz_SU_/_Ant1 (SISO)_NTNV

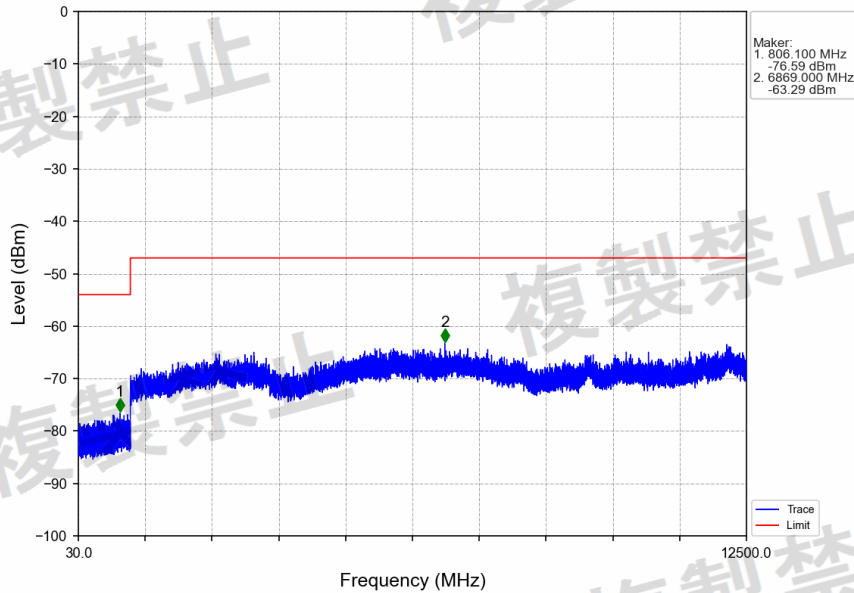


802.11ax(HE20)_2412MHz_SU_/_Ant1 (SISO)_NTNV

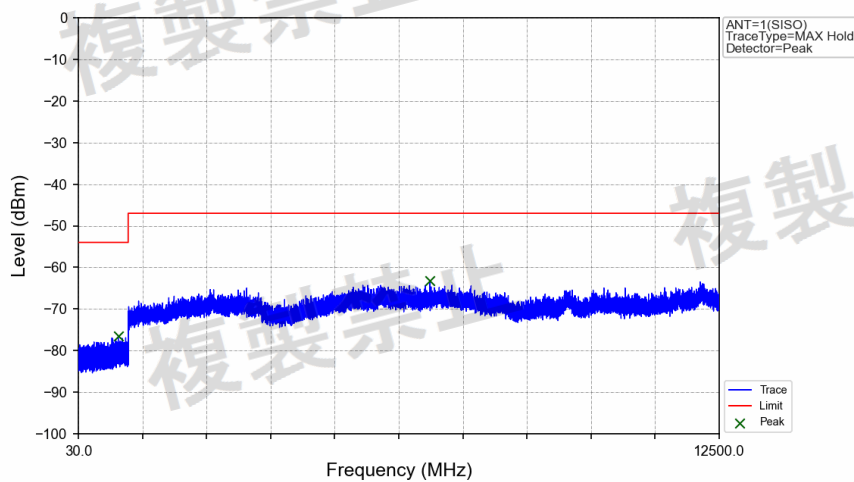


Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	794.250	-76.61	/	-54	Pass
1000	12500	1	1	5980.500	-63.44	/	-47	Pass

802.11ax(HE20)_2472MHz_SU_/_Ant1 (SISO)_NTNV



802.11ax(HE20)_2472MHz_SU_/_Ant1 (SISO)_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	VBW (MHz)	Freq (MHz)	PK Power (dBm)	AV Power (dBm)	Limit (dBm)	Result
30	1000	0.1	0.1	806.100	-76.59	/	-54	Pass
1000	12500	1	1	6869.000	-63.29	/	-47	Pass

6. Carrier sense capability

6.1 Test Result

ENV	Mode	Frequency (MHz)	Result (dBm)	Pcs (dBm)	Verdict
NTNV	802.11b	2412	-52.59	-43.01	Pass
	802.11b	2472	-52.71	-43.22	Pass
	802.11n (HT40)	2422	-52.36	-43.04	Pass
	802.11n (HT40)	2462	-52.22	-43.19	Pass

Ramark:

Note1: $Pcs (dBm) = 22.79 + \text{Antenna gain(dBi)} - 20Lg(F_{MHz})$.

Note2: Test result shows the worst case.

- End of the Report -