

**TEST REPORT**

Report Reference No. : HTT202511831Y2

Compiled by

( position+printed name+signature) : Heber He

*Heber He*

Supervised by

( position+printed name+signature) : Bruce Zhu

*Bruce Zhu*

Approved by

( position+printed name+signature) : Kevin Yang

*Kevin Yang*

Date of issue : Dec. 03, 2025

Testing Laboratory Name : Shenzhen HTT Technology Co., Ltd.

Address : 1F, B Building, Huafeng International Robotics Industrial Park,  
Gushu, Xixiang Street, Bao'an District, Shenzhen

Distributed by : JEDIC CO., LTD.

Address : 900-1 AZA-SHINMACHI. OAZA-IRUKADESHINDEN KOMAKI-CITY.  
AICHI JAPAN

Test specification :

Standard : Ordinance Article 2 paragraph 1 item (19)

Test item description : LED Smart Stable Light Gateway

Trade Mark :



Xiamen Viantek Technology.Co.,LTD

Manufactured by : Room 601, No. 294, Lianqian West Road, Siming District, Xiamen  
City, Fujian Province, China

Model/Type reference..... : DTP-AP-03WIFI

Serial Model..... : VN-GW02, VN-GW03

Rating(s) : DC 5.0V

Result : PASS



Report No.: HTT202511831Y2

## TEST REPORT

**Test Report No. :**

**HTT202511831Y2**

Dec. 03, 2025

Date of issue

Equipment under Test : LED Smart Stable Light Gateway

Model Name : DTP-AP-03WIFI

Serial Model : VN-GW02, VN-GW03

Model difference : Only differences in color and model.

Trade Mark



Applicant : JEDIC CO., LTD.

Address

: 900-1 AZA-SHINMACHI. OAZA-IRUKADESHINDEN  
KOMAKI-CITY. AICHI JAPAN

Manufactured by

: Xiamen Viantek Technology.Co.,LTD

Address

: Room 601, No. 294, Lianqian West Road, Siming District, Xiamen  
City, Fujian Province, China

**Test Result:**

**PASS**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



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## 1. SUMMARY

### 1.1. Test Standards

The tests were performed according to following standards:

[ARIB STD-T66](#): Second-Generation Low-Power Data Communication System/Wireless LAN System

[MIC Notice No.88 Appendix No. 43](#): 2.4 GHz band wide-band low-power data communication system

### 1.2. Test Description

| ARIB STD-T66        |                                                    |          |
|---------------------|----------------------------------------------------|----------|
| CLAUSE              | Description of Test (Transmitter Parameters)       | Result   |
| 3.2 (2)             | Antenna Power                                      | Complies |
| 3.2 (3)             | Tolerances for Antenna Power                       | Complies |
| 3.2 (4)             | Frequency Tolerance                                | Complies |
| 3.2 (5)             | Transmission Rate                                  | Complies |
| 3.2 (7)             | Occupied Frequency Bandwidth                       | Complies |
| 3.2 (8)             | Spread Bandwidth                                   | Complies |
| 3.2 (11)            | Dwell Time                                         | N/A      |
| 3.2 (6)             | Spurious Emissions                                 | Complies |
| 3.6                 | Transmission Antenna Gain (EIRP Antenna Power)     | Complies |
| 3.6                 | Transmission Radiated Angle Width (3dB Beam width) | N/A      |
| /                   | Interference prevention function                   | Complies |
| /                   | Carrier Sensing function                           | Complies |
| Receiver Parameters |                                                    |          |
| 3.3 (1)             | Secondary Radiated Emissions                       | Complies |

Note: (1) N/A is an abbreviation for Not Applicable.  
(2) N/T means this test item is not tested.

Note: 1: "N/A" denotes test is not applicable in this Test Report

2: MIC Public Notice 88:2004, annex 1 and annex 43

3: MIC Ordinance Regulating Radio Equipment Section 4.17 of Article 49.20

4: Referenced in the standard ARIB STD-T66

5: This device has more than 1 sub-carrier in 1MHz.

### 1.3. Test Facility

#### 1.3.1 Address of the test laboratory

Shenzhen HTT Technology Co., Ltd.

1F, B Building, Huafeng International Robotics Industrial Park, Gushu, Xixiang Street, Bao'an District, Shenzhen

### 1.4. Measurement Uncertainty

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR100028-1 [2] and shall correspond to an expansion factor (coverage factor)  $K=1.96$  or  $K=2$  (which provide confidence levels of respectively 95% and 95.5% in the case where the distributions characterizing the actual measurement uncertainties are normal).

| Parameter                           | Uncertainty               |
|-------------------------------------|---------------------------|
| Frequency error / 99%&90% bandwidth | $\pm 1.62 \times 10^{-6}$ |
| Total RF power, conducted           | $\pm 0.8\text{dB}$        |
| Spurious emissions, conducted       | $\pm 0.8\text{dB}$        |
| DC and low frequency voltages       | $\pm 0.05\%$              |
| Humidity                            | $\pm 5\%$                 |
| Temperature                         | $\pm 1^\circ\text{C}$     |



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## 2. GENERAL INFORMATION

### 2.1. Environmental Conditions

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

|         |                    |         |
|---------|--------------------|---------|
| Voltage | Normal Voltage     | DC 5.0V |
|         | High Voltage       | DC 5.5V |
|         | Low Voltage        | DC 4.5V |
| Other   | Normal Temperature | 25°C    |
|         | Relative Humidity  | 55 %    |
|         | Air Pressure       | 989 hPa |

### 2.2. General Description of EUT

|                         |                                                                                                                                                                                          |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:           | LED Smart Stable Light Gateway                                                                                                                                                           |
| Model:                  | DTP-AP-03WIFI                                                                                                                                                                            |
| Date of sample receipt: | Nov. 10, 2025                                                                                                                                                                            |
| Date of Test:           | Nov. 10, 2025 ~ Dec. 03, 2025                                                                                                                                                            |
| Trade Mark:             |                                                                                                        |
| Frequency Range:        | IEEE 802.11b: 2412MHz~2472MHz<br>IEEE 802.11g: 2412MHz~2472MHz<br>IEEE 802.11n HT20: 2412MHz~2472MHz<br>IEEE 802.11n HT40: 2422MHz~2462MHz                                               |
| Channel Number:         | IEEE 802.11b: 13<br>IEEE 802.11g: 13<br>IEEE 802.11n HT20: 13<br>IEEE 802.11n HT40: 9                                                                                                    |
| Channel Separation:     | 5 MHz                                                                                                                                                                                    |
| Type of Modulation:     | IEEE 802.11b: DSSS (DBPSK/DQPSK/CCK)<br>IEEE 802.11g: OFDM (BPSK/QPSK/16QAM/64QAM)<br>IEEE 802.11n HT20: OFDM (BPSK/QPSK/16QAM/64QAM)<br>IEEE 802.11n HT40: OFDM (BPSK/QPSK/16QAM/64QAM) |
| Rated Power:            | IEEE 802.11b: 0.29 mW/MHz<br>IEEE 802.11g: 0.29 mW/MHz<br>IEEE 802.11n HT20: 0.46 mW/MHz<br>IEEE 802.11n HT40: 0.13 mW/MHz                                                               |
| Antenna Type:           | FPC Antenna                                                                                                                                                                              |
| Antenna Gain:           | 2.36 dBi                                                                                                                                                                                 |
| Hardware Version:       | DTA-AP-03WIFI-V1.3                                                                                                                                                                       |
| Software version:       | RLT-0.9                                                                                                                                                                                  |

Note: For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



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### 2.3. Description of Test Modes

The EUT has been tested under typical operating condition. The Applicant provides communication tools software to control the EUT for staying in continuous transmitting and receiving mode for testing.

Operation Frequency List WIFI on 2.4G Band:

| Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|-----------------|---------|-----------------|
| 1       | 2412            | 8       | 2447            |
| 2       | 2417            | 9       | 2452            |
| 3       | 2422            | 10      | 2457            |
| 4       | 2427            | 11      | 2462            |
| 5       | 2432            | 12      | 2467            |
| 6       | 2437            | 13      | 2472            |
| 7       | 2442            |         |                 |

Note: Test performed at the lowest/middle/highest frequencies selected in the list above for EUT supported while working on specified mode.

### 2.4. Measurement Instruments List

#### RF Conducted Test:

| Item | Test Equipment                                 | Manufacturer | Model No.    | Serial No. | Cal. Institution | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
|------|------------------------------------------------|--------------|--------------|------------|------------------|---------------------|-------------------------|
| 1    | Oscilloscope                                   | TEK          | TDS3012B     | HTT-004    | LISAI            | April 22, 2025      | April 21, 2026          |
| 2    | MXA signal analyzer                            | Agilent      | N9020A       | HTT-E024   | LISAI            | April 22, 2025      | April 21, 2026          |
| 3    | EMI Test Receiver                              | R&S          | ESCI 7       | HTT-E022   | LISAI            | April 22, 2025      | April 21, 2026          |
| 4    | DC Power                                       | Agilent      | E3632A       | HTT-E023   | LISAI            | April 22, 2025      | April 21, 2026          |
| 5    | Analog signal generator                        | Agilent      | N5181A       | HTT-E025   | LISAI            | April 22, 2025      | April 21, 2026          |
| 6    | Vector signal generator                        | Agilent      | N5182A       | HTT-E026   | LISAI            | April 22, 2025      | April 21, 2026          |
| 7    | USB RF Power Sensor                            | Keysight     | U2021XA      | HTT-E027   | LISAI            | April 22, 2025      | April 21, 2026          |
| 8    | Spectrum Analyzer                              | KEYSIGHT     | FSP          | HTT-E037   | LISAI            | April 22, 2025      | April 21, 2026          |
| 9    | RF Switch Box                                  | Shongyi      | RFSW3003328  | HTT-E047   | LISAI            | April 22, 2025      | April 21, 2026          |
| 10   | Programmable Constant Temp & Humi Test Chamber | SERTEP       | STP-HWS225 B | HTT-092    | LISAI            | April 22, 2025      | April 21, 2026          |
| 11   | Temperature and humidity meter                 | Anbiao       | TH10R        | HTT-074    | LISAI            | April 22, 2025      | April 21, 2026          |

Cal. Institution: LiSai-Guangzhou LiSai Calibration and Testing Co.,LTD.

Calibration by the calibration agencies listed in the table correspond to paragraph 4 (ii) (c) of Article 24-2 in the Radio Law".

☐ (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18-1 of the Radio Act.

☐ (b) Calibration conducted based on the regulations of Article 135 or 144 of the Measurement Act.

☒ (c) Calibration conducted in foreign countries, which is equivalent to calibration conducted by the NICT or a designated calibration agency under Article 102-18-1 of the Radio Act.

☐ (d) Calibration, etc. conducted by using measuring instruments and other facilities listed at the bottom of appended table 3 of the Radio Act, which is to have been calibrated as described in (a) through (c) above.



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## 2.5. Table for Parameters of Test Software Setting

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Power Parameters:

| Test Software Version | AmebaD_mptool_2V2 |         |         |
|-----------------------|-------------------|---------|---------|
| Frequency             | 2412MHz           | 2442MHz | 2472MHz |
| IEEE 802.11b          | Default           | Default | Default |
| IEEE 802.11g          | Default           | Default | Default |
| IEEE 802.11n HT20     | Default           | Default | Default |

| Test Software Version | AmebaD_mptool_2V2 |         |         |
|-----------------------|-------------------|---------|---------|
| Frequency             | 2422MHz           | 2442MHz | 2462MHz |
| IEEE 802.11n HT40     | Default           | Default | Default |

## 2.6. Description of Test Modes

| Tested channel, Frequency and Modulation Information                                                                                                 |          |                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------|
| CH1                                                                                                                                                  | 2412 MHz | DSSS (IEEE 802.11b)      |
| CH7                                                                                                                                                  | 2442 MHz | DSSS (IEEE 802.11b)      |
| CH13                                                                                                                                                 | 2472 MHz | DSSS (IEEE 802.11b)      |
| CH1                                                                                                                                                  | 2412 MHz | OFDM (IEEE 802.11g)      |
| CH7                                                                                                                                                  | 2442 MHz | OFDM (IEEE 802.11g)      |
| CH13                                                                                                                                                 | 2472 MHz | OFDM (IEEE 802.11g)      |
| CH1                                                                                                                                                  | 2412 MHz | OFDM (IEEE 802.11n HT20) |
| CH7                                                                                                                                                  | 2442 MHz | OFDM (IEEE 802.11n HT20) |
| CH13                                                                                                                                                 | 2472 MHz | OFDM (IEEE 802.11n HT20) |
| CH3                                                                                                                                                  | 2422 MHz | OFDM (IEEE 802.11n HT40) |
| CH7                                                                                                                                                  | 2442 MHz | OFDM (IEEE 802.11n HT40) |
| CH11                                                                                                                                                 | 2462 MHz | OFDM (IEEE 802.11n HT40) |
| Note: According exploratory test, EUT has maximum output power, All the test modes were tested, but only the worst case was recorded in this report. |          |                          |

## 2.7. Test Voltage

### POWER SUPPLY VOLTAGE FLUCTUATION TEST

| Voltage Fluctuation Test | Normal Voltage | High Voltage +10% of Normal Voltage | Low Voltage -10% of Normal Voltage |
|--------------------------|----------------|-------------------------------------|------------------------------------|
| Input to EUT             | DC 5.00V       | DC 5.50V                            | DC 4.50V                           |
| Output to RF Module      | DC 3.30V       | DC 3.30V                            | DC 3.30V                           |
| Voltage Variation (%)    | --             | --                                  | --                                 |

Note:

Voltage Variation (%)

= (Output high or Low Voltage - Output Normal Voltage) / Output Normal Voltage \* 100

During the input supply voltage to the EUT from the external power source is varied by +/- 10%, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/-1%. Exempt extremely high and low supply voltage condition test, EUT only operated in normal voltage to test all regulations.

The sample power supply was confirmed that input voltage variation at the radio unit in the radio equipment to be tested is less than +1% against a variation of +10% at the input voltage from the external power supply to the radio equipment, and the radio equipment was designed so as to be operated in a specified voltage variation limit within +10%, Radio can only tested at rated voltage.



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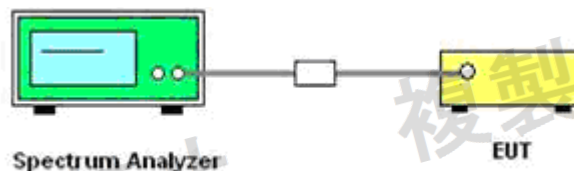
### 3. Test conditions and Results

#### 3.1. Frequency Error

##### LIMIT

Tolerance of frequency shall be  $\pm 50 \times 10^{-6}$ .

##### TEST CONFIGURATION



##### TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: non-modulation

Spectrum Condition:

Frequency: test frequency

Span: 1 MHz

RBW: 10 KHz

VBW: 10 KHz

Sweep time: Auto

Detector mode: Positive peak

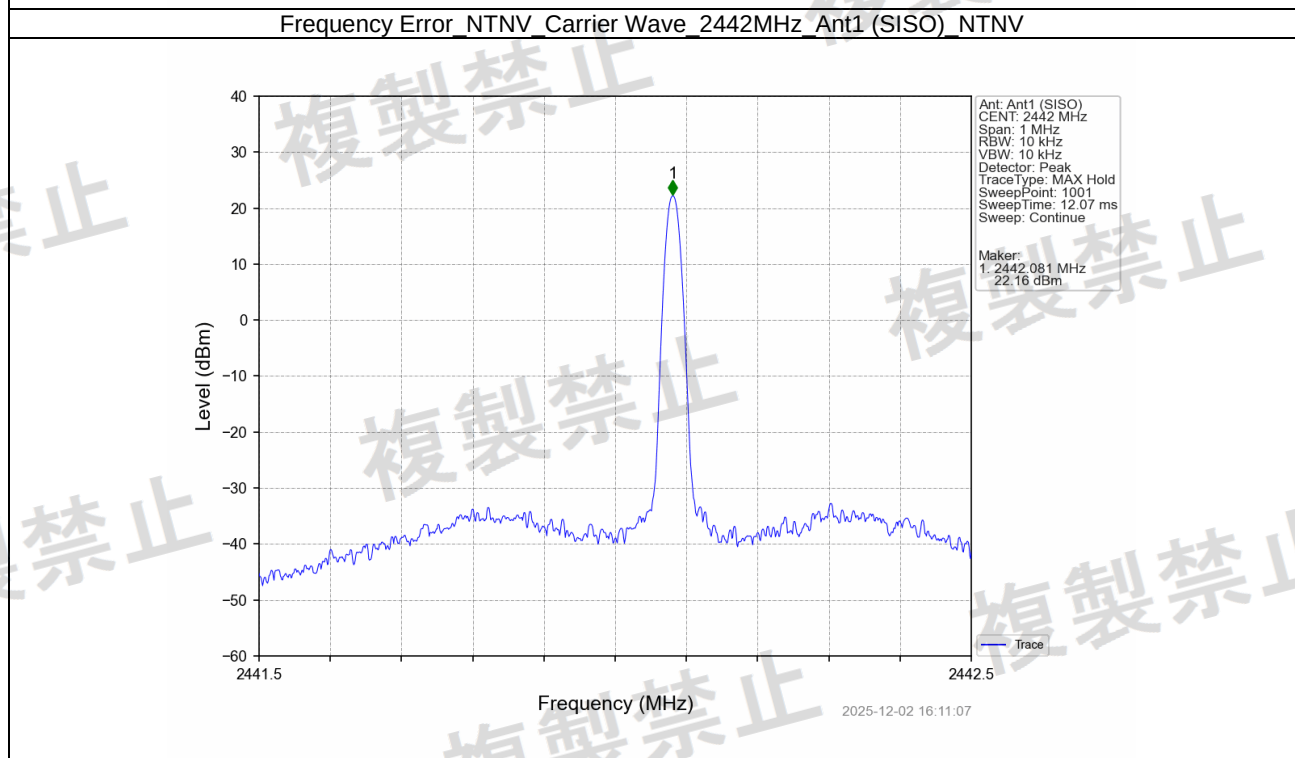
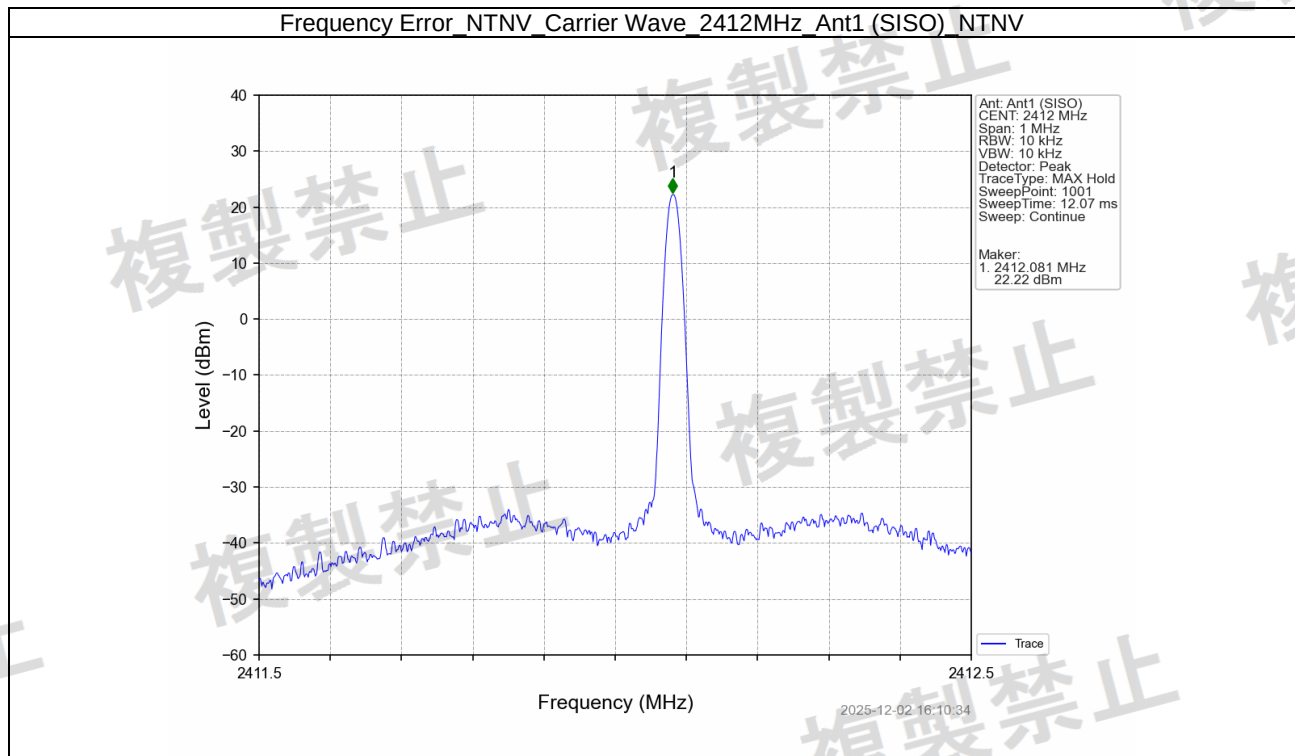
Indication mode: max hold

##### TEST RESULTS

| Ant1 |              |         |                 |                          |                 |           |         |
|------|--------------|---------|-----------------|--------------------------|-----------------|-----------|---------|
| ENV  | Mode         | TX Type | Frequency (MHz) | Measured Frequency (MHz) | Tolerance (ppm) |           | Verdict |
|      |              |         |                 |                          | Result          | Limit     |         |
| NTNV | Carrier Wave | SISO    | 2412            | 2412.081                 | 33.58           | -50 to 50 | Pass    |
|      |              |         | 2442            | 2442.081                 | 33.17           | -50 to 50 | Pass    |
|      |              |         | 2472            | 2472.081                 | 32.77           | -50 to 50 | Pass    |
|      |              |         | 2422            | 2422.078                 | 32.20           | -50 to 50 | Pass    |
|      |              |         | 2462            | 2462.079                 | 32.09           | -50 to 50 | Pass    |



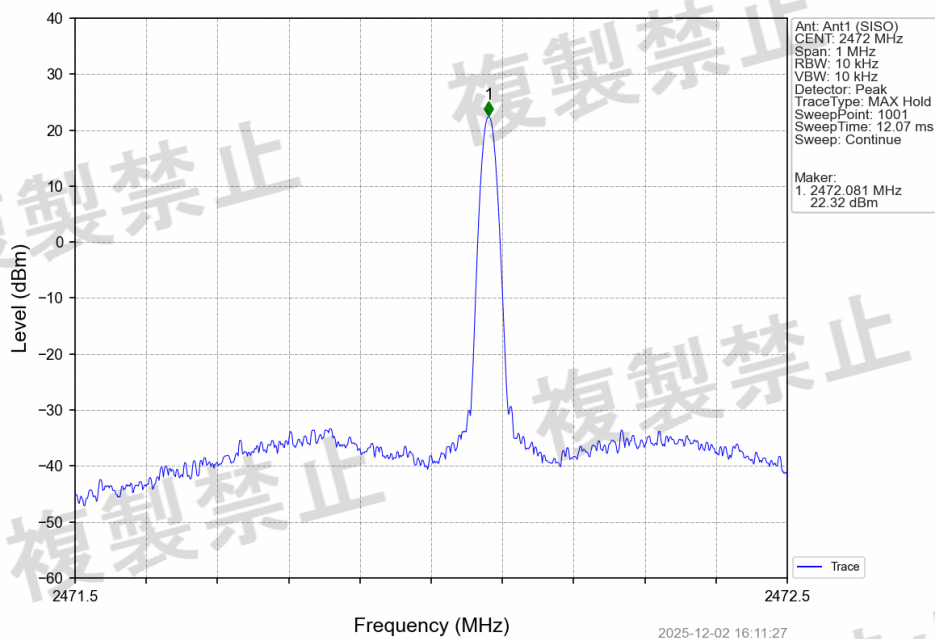
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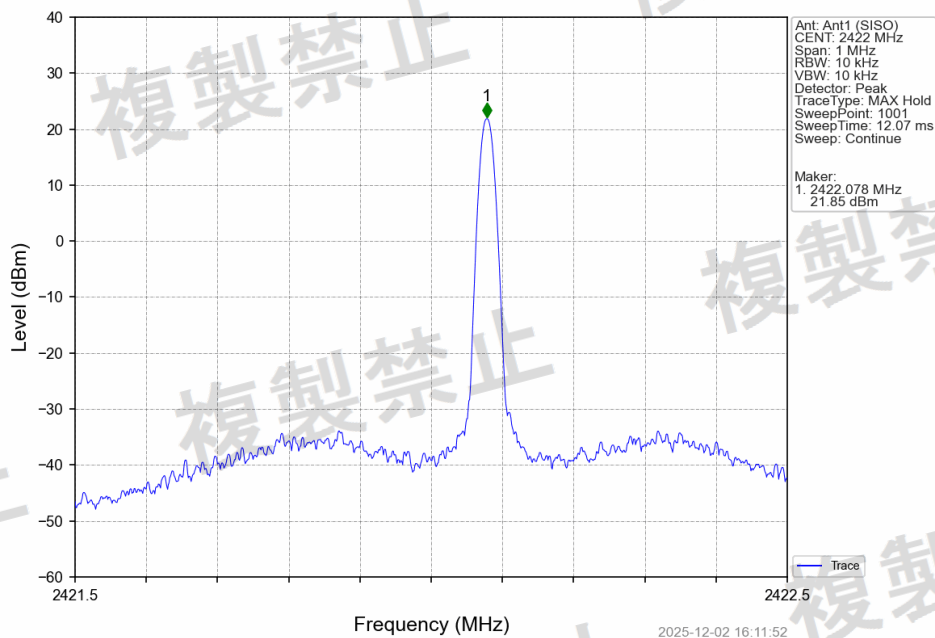


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Frequency Error\_NTNV\_Carrier Wave 2472MHz\_Ant1 (SISO) NTNv

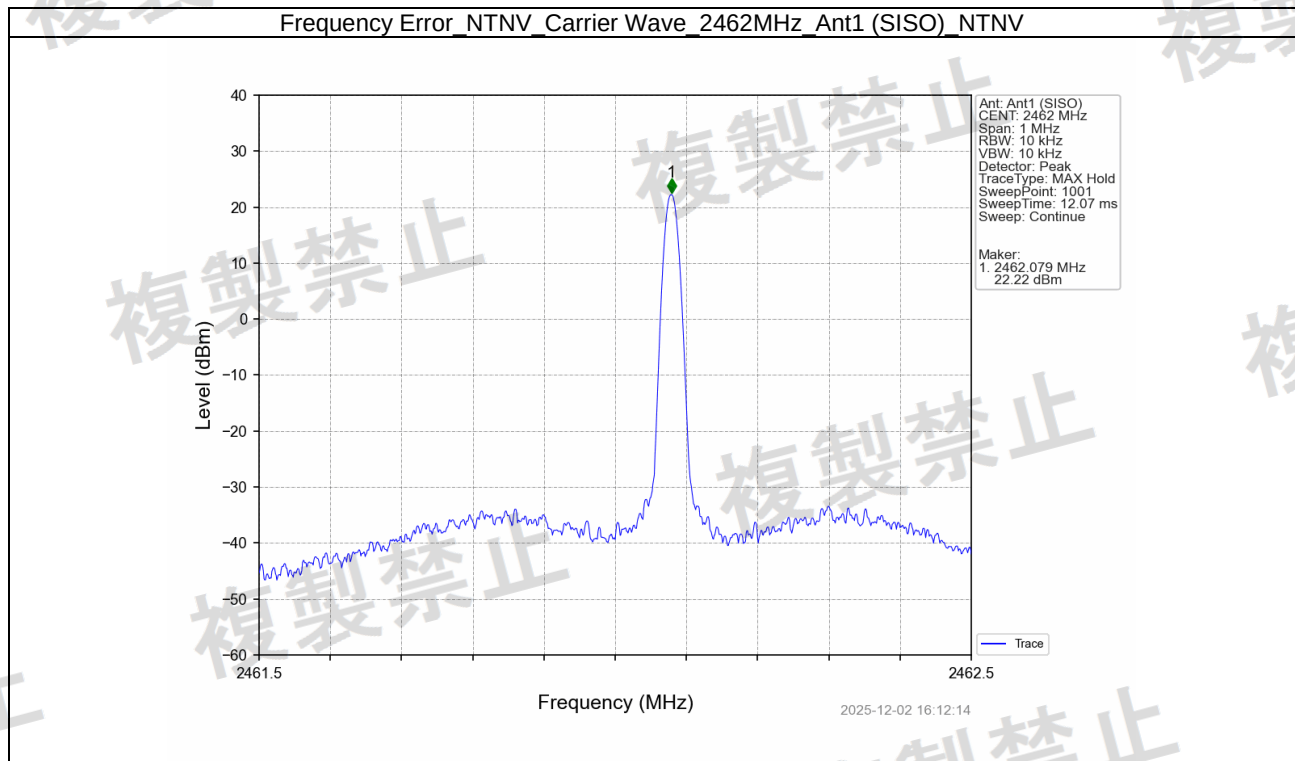


Frequency Error\_NTNV\_Carrier Wave 2422MHz\_Ant1 (SISO) NTNv





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### 3.2. Antenna Output Power and Output Power Tolerance

#### LIMIT

- $\leq 3 \text{ mW /MHz}$  (FHSS from 2402-2480 MHz)
- $\leq 10 \text{ mW/MHz}$  (OFDM, DSSS from 2400-2483.5 MHz)
- $\leq 5 \text{ mW/MHz}$  (OFDM  $26\text{MHz} \leq \text{OBW} \leq 40\text{MHz}$ )
- $\leq 10 \text{ mW}$  (other from 2400-2483.5 MHz)

The Output Power Tolerance must be within +20%.

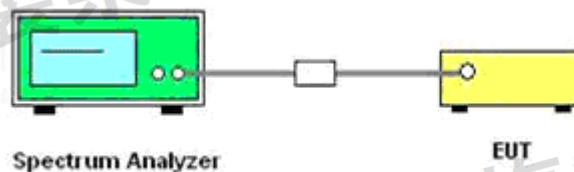
E.i.r.p:

$\leq 12.14\text{dBm/MHz}$  (OFDM, DS for 2400-2483.5MHz)

$\leq 9.13\text{dBm/MHz}$  (OFDM  $26\text{MHz} \leq \text{OBW} \leq 40\text{MHz}$ )

Note: E.I.R.P will not be applied to the transmission antenna which has a gain of 2.14dBi or less.

#### TEST CONFIGURATION



#### TEST PROCEDURE

Step 1:

Connect the UUT to the spectrum analyzer as TEST CONFIGURATION and use the following settings:

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

RBW: 1 MHz

VBW: 1 MHz

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

Detector: Peak

Trace Mode: Max Hold

Step 2:

When the trace is complete, find the peak value of the power envelope and record the frequency.

Step 3:

Make the following changes to the settings of the spectrum analyzer:

Centre Frequency: Equal to the frequency recorded in step 2.

Span: 0 MHz

RBW: 1 MHz

VBW: 1 MHz

Detector: RMS

Trace Mode: Clear Write



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## TEST RESULTS

### Conducted Power

| ENV  | Mode           | TX Type | Frequency (MHz) | ANT | Antenna Power (mW/MHz) |         | Nominal Power (mW/MHz) | Tolerance (%) |       | Verdict |
|------|----------------|---------|-----------------|-----|------------------------|---------|------------------------|---------------|-------|---------|
|      |                |         |                 |     | Measured               | Limit   |                        | Measured      | Limit |         |
| NTNV | 802.11b        | SISO    | 2412            | 1   | 0.290                  | <=10.00 | 0.290                  | 0.00          | + 20  | Pass    |
|      |                |         | 2442            | 1   | 0.311                  | <=10.00 | 0.290                  | 7.24          | + 20  | Pass    |
|      |                |         | 2472            | 1   | 0.314                  | <=10.00 | 0.290                  | 8.28          | + 20  | Pass    |
|      | 802.11g        | SISO    | 2412            | 1   | 0.292                  | <=10.00 | 0.290                  | 0.69          | + 20  | Pass    |
|      |                |         | 2442            | 1   | 0.333                  | <=10.00 | 0.290                  | 14.83         | + 20  | Pass    |
|      |                |         | 2472            | 1   | 0.320                  | <=10.00 | 0.290                  | 10.34         | + 20  | Pass    |
|      | 802.11n (HT20) | SISO    | 2412            | 1   | 0.249                  | <=10.00 | 0.460                  | -45.87        | + 20  | Pass    |
|      |                |         | 2442            | 1   | 0.313                  | <=10.00 | 0.460                  | -31.96        | + 20  | Pass    |
|      |                |         | 2472            | 1   | 0.298                  | <=10.00 | 0.460                  | -35.22        | + 20  | Pass    |
|      | 802.11n (HT40) | SISO    | 2422            | 1   | 0.131                  | <=5.00  | 0.130                  | 0.77          | + 20  | Pass    |
|      |                |         | 2442            | 1   | 0.138                  | <=5.00  | 0.130                  | 6.15          | + 20  | Pass    |
|      |                |         | 2462            | 1   | 0.154                  | <=5.00  | 0.130                  | 18.46         | + 20  | Pass    |

Note:

- 1). Test Result: Pass.
- 2). All test modes have been tested and we only record the worst result.

### EIRP:

| Mode           | Channel (MHz) | ANT | Average burst power | Gain | EIRP Result | EIRP Limit |
|----------------|---------------|-----|---------------------|------|-------------|------------|
|                |               |     | dBm/MHz             |      |             |            |
| 802.11b        | 2412          | 1   | -5.38               | 2.36 | -3.02       | 12.14      |
|                | 2442          | 1   | -5.07               | 2.36 | -2.71       | 12.14      |
|                | 2472          | 1   | -5.03               | 2.36 | -2.67       | 12.14      |
| 802.11g        | 2412          | 1   | -5.35               | 2.36 | -2.99       | 12.14      |
|                | 2442          | 1   | -4.78               | 2.36 | -2.42       | 12.14      |
|                | 2472          | 1   | -4.95               | 2.36 | -2.59       | 12.14      |
| 802.11n (HT20) | 2412          | 1   | -6.04               | 2.36 | -3.68       | 12.14      |
|                | 2442          | 1   | -5.04               | 2.36 | -2.68       | 12.14      |
|                | 2472          | 1   | -5.26               | 2.36 | -2.90       | 12.14      |
| 802.11n (HT40) | 2422          | 1   | -8.83               | 2.36 | -6.47       | 9.13       |
|                | 2442          | 1   | -8.60               | 2.36 | -6.24       | 9.13       |
|                | 2462          | 1   | -8.12               | 2.36 | -5.76       | 9.13       |

EIRP=Antenna conducted power + Antenna gain



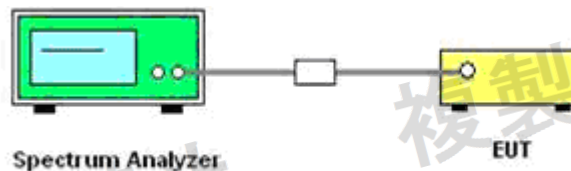
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### 3.3. OCCUPIED BANDWIDTH AND SPREADING BANDWIDTH

#### LIMIT

- Occupied bandwidth: FH $\leq$ 83.5 MHz; OFDM $\leq$ 40 MHz; DS $\leq$ 26 MHz; Others $\leq$ 26 MHz
- Spread Bandwidth:  $\geq$  500 kHz (FH, DS)
- Spread factor $>$ 5.

#### TEST CONFIGURATION



#### TEST PROCEDURE

Setting of SA is following as follow:

| Technology         | 99% Occupied Bandwidth        | 90% Spread Bandwidth          |
|--------------------|-------------------------------|-------------------------------|
| BT                 | RBW = 1 MHz / VBW = 1 MHz     | RBW = 1 MHz / VBW = 1 MHz     |
| BT LE              | RBW = 30 KHz / VBW = 30 KHz   | RBW = 30 KHz / VBW = 30 KHz   |
| WLAN (BW = 20 MHz) | RBW = 300 KHz / VBW = 300 KHz | RBW = 300 KHz / VBW = 300 KHz |
| WLAN (BW = 40 MHz) | RBW = 300 KHz / VBW = 300 KHz | RBW = 300 KHz / VBW = 300 KHz |

Sweep time: Auto

Sweep Mode: Continuous sweep

Detect mode: Positive peak

Trace mode: Max hold

EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 99% of occupied bandwidth to measure occupied bandwidth.

EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 90% of occupied bandwidth to measure spread bandwidth.

Spread Factor=Spread Bandwidth/modulation rate.

The modulation rate: MR=1.375Mbps for 802.11b

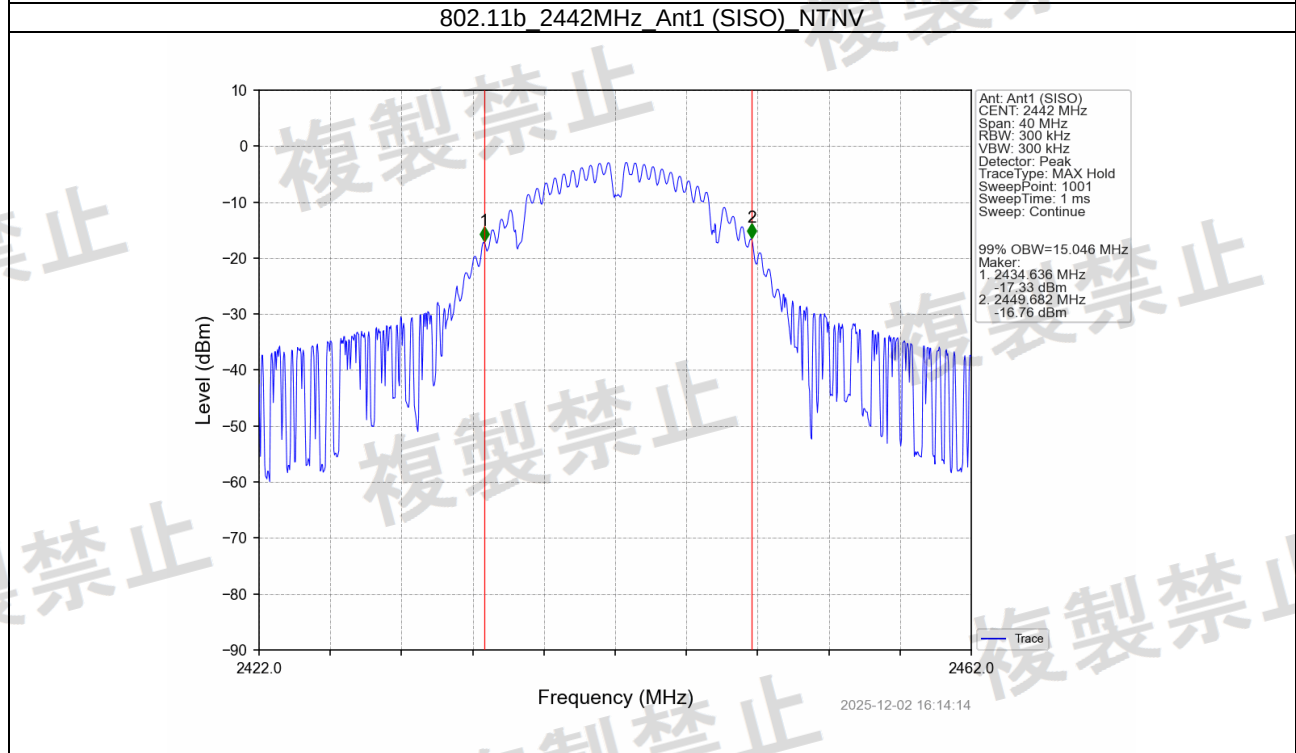
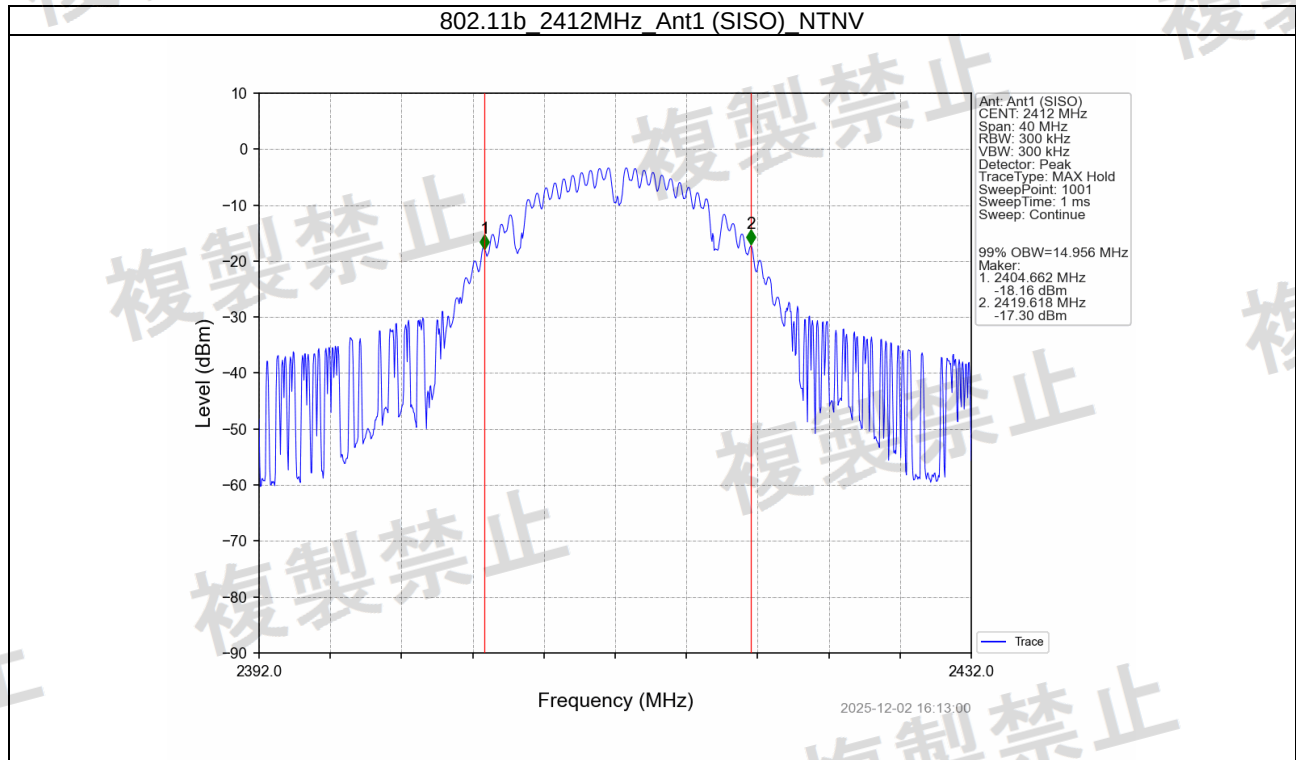
#### TEST RESULTS

##### **99% Occupied Bandwidth**

| ENV  | Mode           | TX Type | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |           | Verdict |
|------|----------------|---------|-----------------|------------------------------|-----------|---------|
|      |                |         |                 | ANT1                         | Limit     |         |
| NTNV | 802.11b        | SISO    | 2412            | 14.956                       | $\leq$ 26 | Pass    |
|      |                |         | 2442            | 15.046                       | $\leq$ 26 | Pass    |
|      |                |         | 2472            | 15.053                       | $\leq$ 26 | Pass    |
|      | 802.11g        | SISO    | 2412            | 16.902                       | $\leq$ 26 | Pass    |
|      |                |         | 2442            | 16.805                       | $\leq$ 26 | Pass    |
|      |                |         | 2472            | 16.749                       | $\leq$ 26 | Pass    |
|      | 802.11n (HT20) | SISO    | 2412            | 17.775                       | $\leq$ 26 | Pass    |
|      |                |         | 2442            | 17.962                       | $\leq$ 26 | Pass    |
|      |                |         | 2472            | 17.836                       | $\leq$ 26 | Pass    |
|      | 802.11n (HT40) | SISO    | 2422            | 35.821                       | $\leq$ 40 | Pass    |
|      |                |         | 2442            | 35.823                       | $\leq$ 40 | Pass    |
|      |                |         | 2462            | 35.834                       | $\leq$ 40 | Pass    |



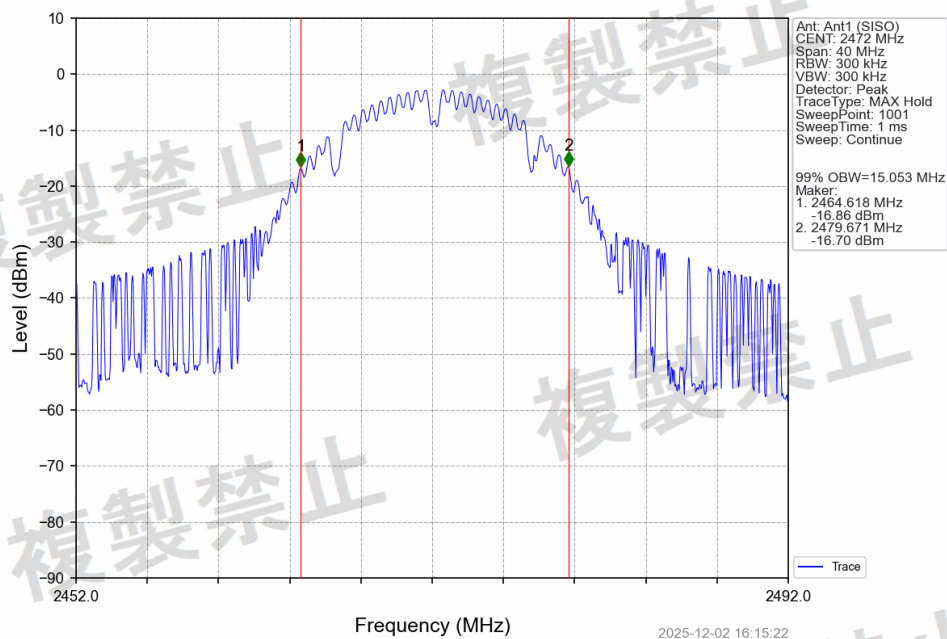
Report No.: HTT202511831Y2



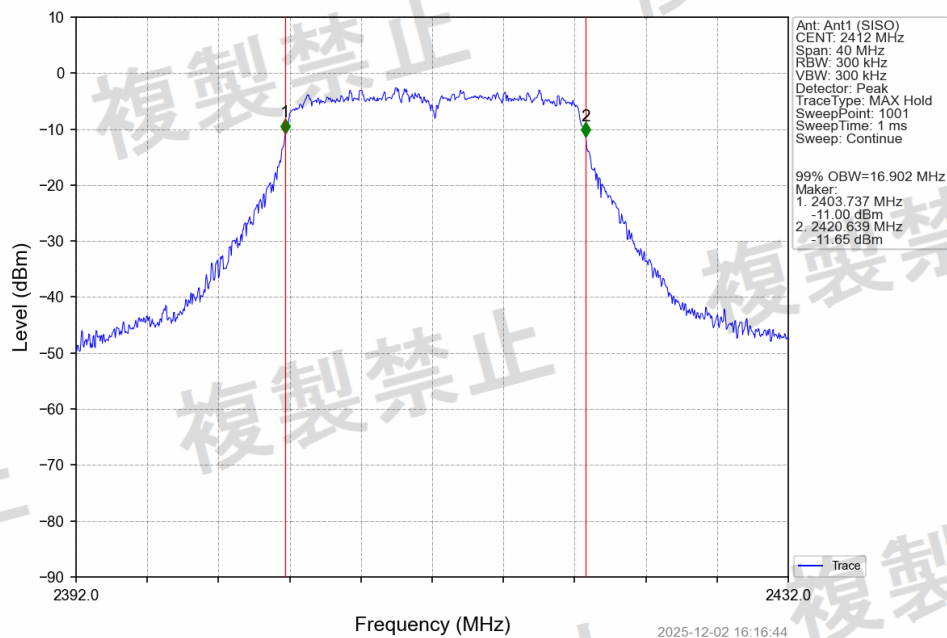


Report No.: HTT202511831Y2

802.11b 2472MHz\_Ant1 (SISO) NTN



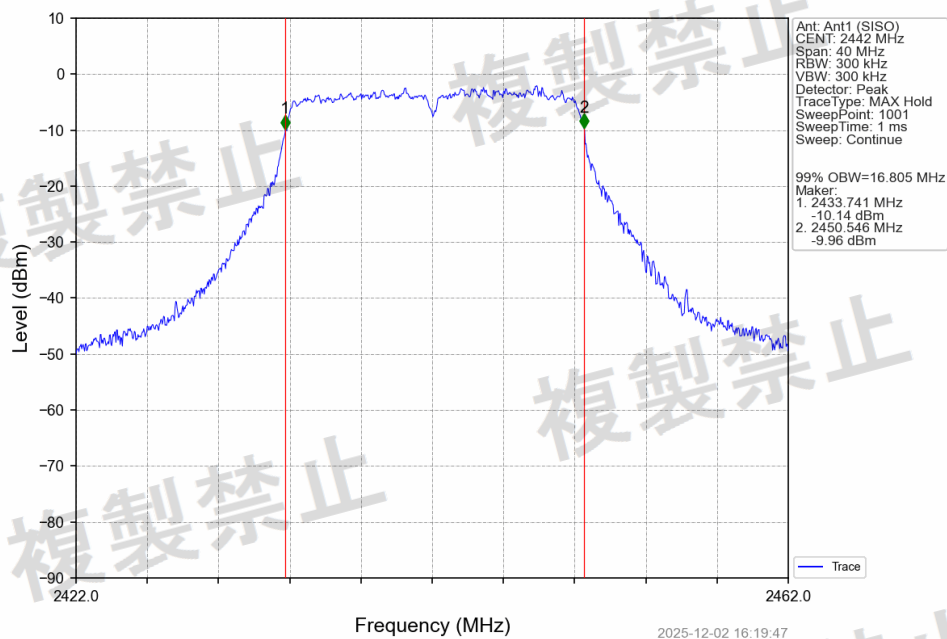
802.11g 2412MHz\_Ant1 (SISO) NTN



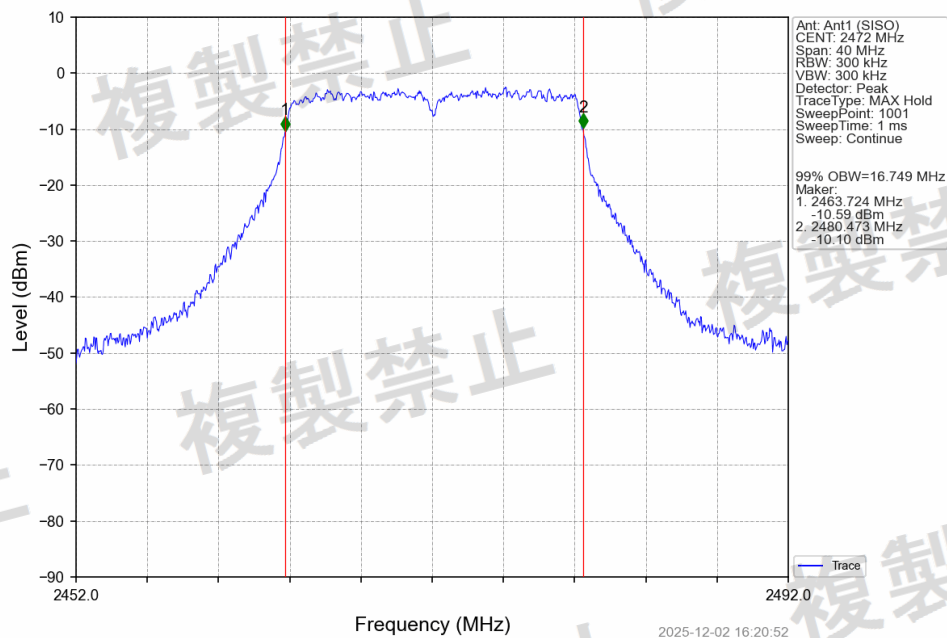


Report No.: HTT202511831Y2

802.11g 2442MHz Ant1 (SISO) NTN



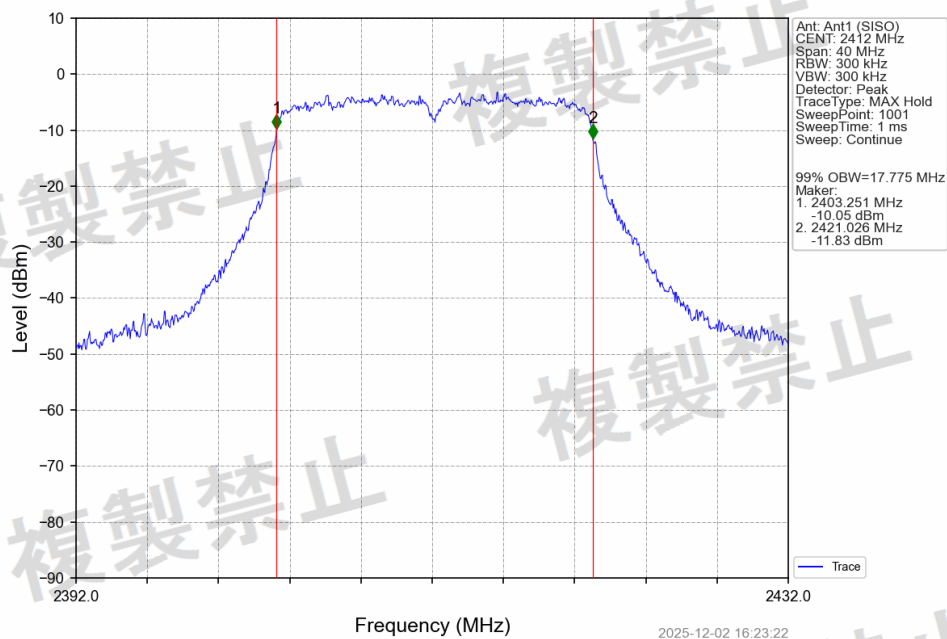
802.11g 2472MHz Ant1 (SISO) NTN



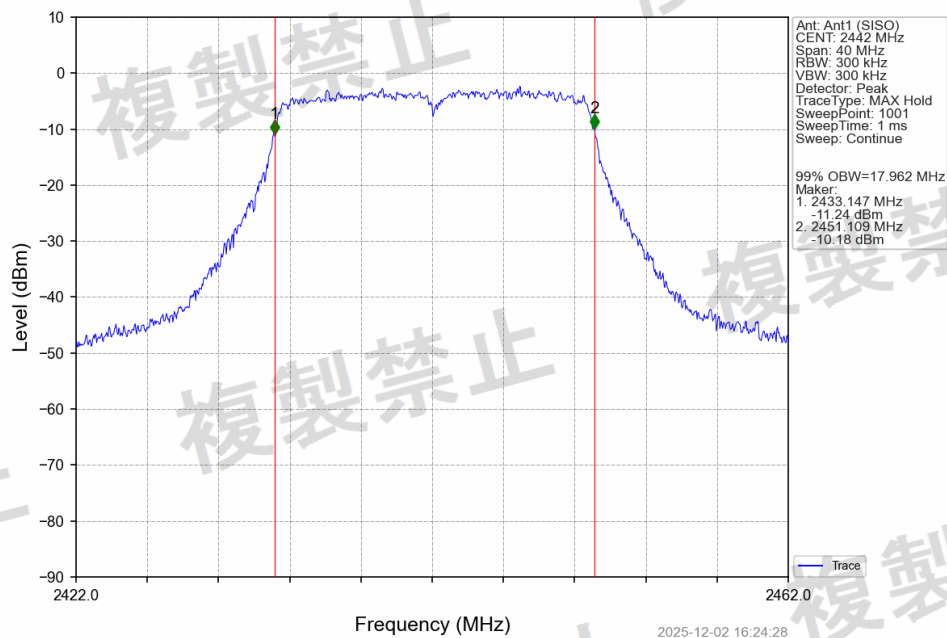


Report No.: HTT202511831Y2

802.11n(HT20) 2412MHz Ant1 (SISO) NTN



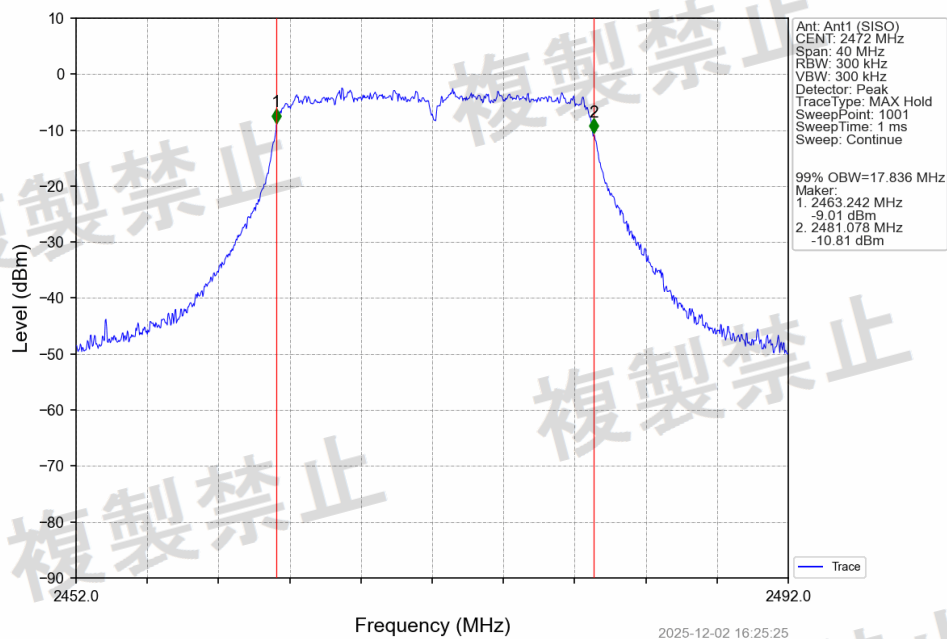
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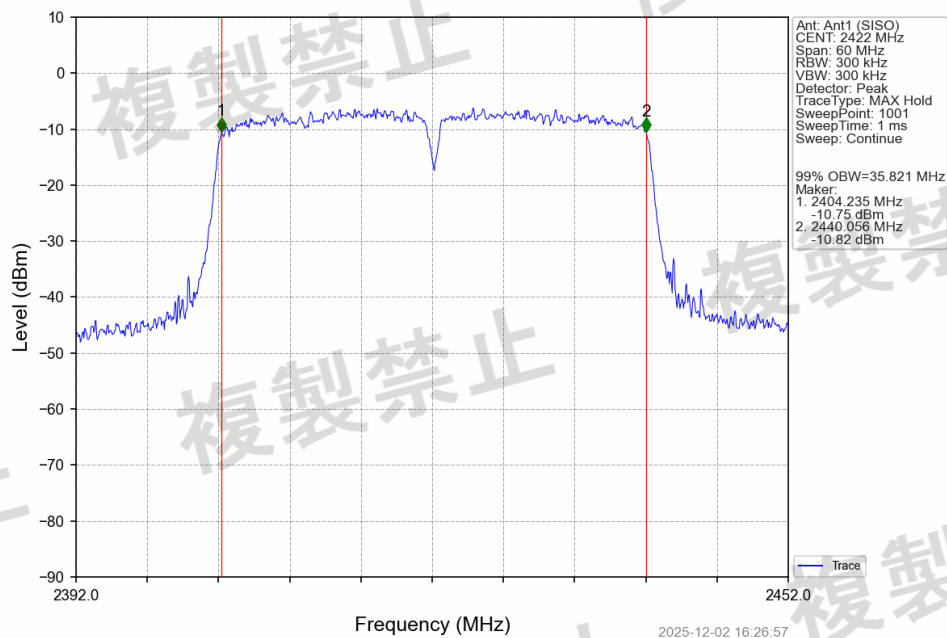


Report No.: HTT202511831Y2

802.11n(HT20) 2472MHz Ant1 (SISO) NTV



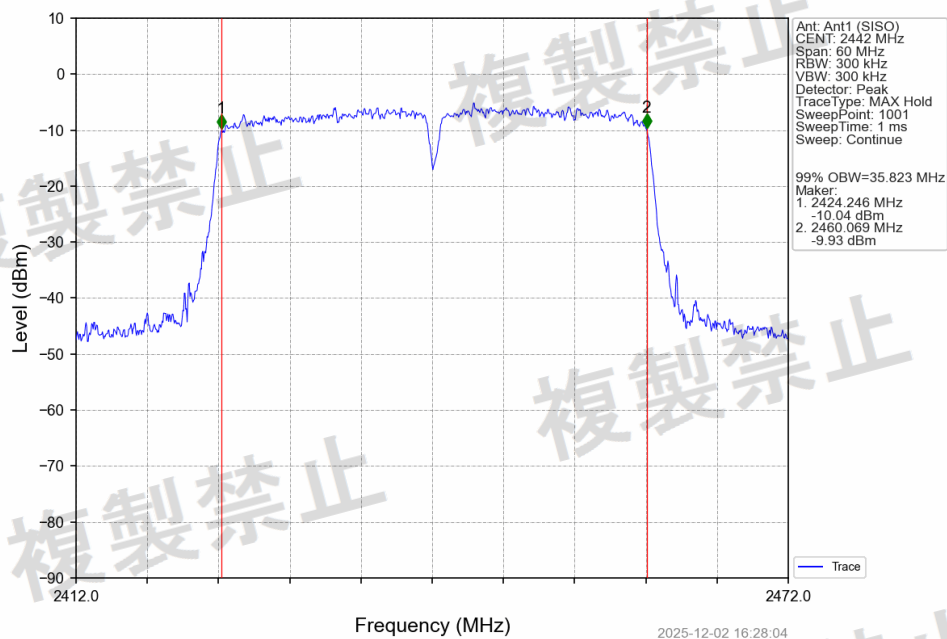
802.11n(HT40) 2422MHz Ant1 (SISO) NTV



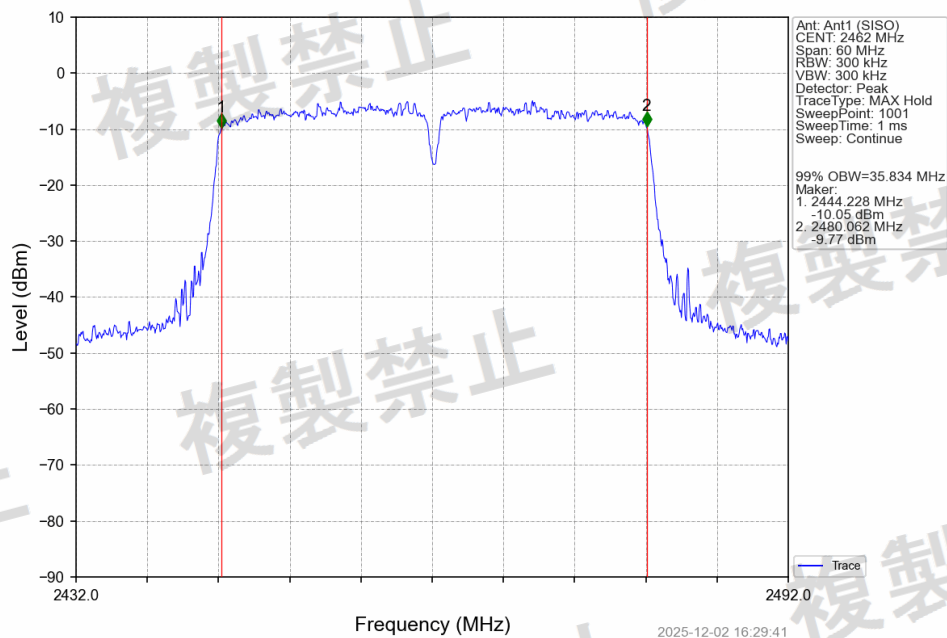


Report No.: HTT202511831Y2

802.11n(HT40) 2442MHz Ant1 (SISO) NTN



802.11n(HT40) 2462MHz Ant1 (SISO) NTN





Report No.: HTT202511831Y2

**90% Spread Bandwidth**

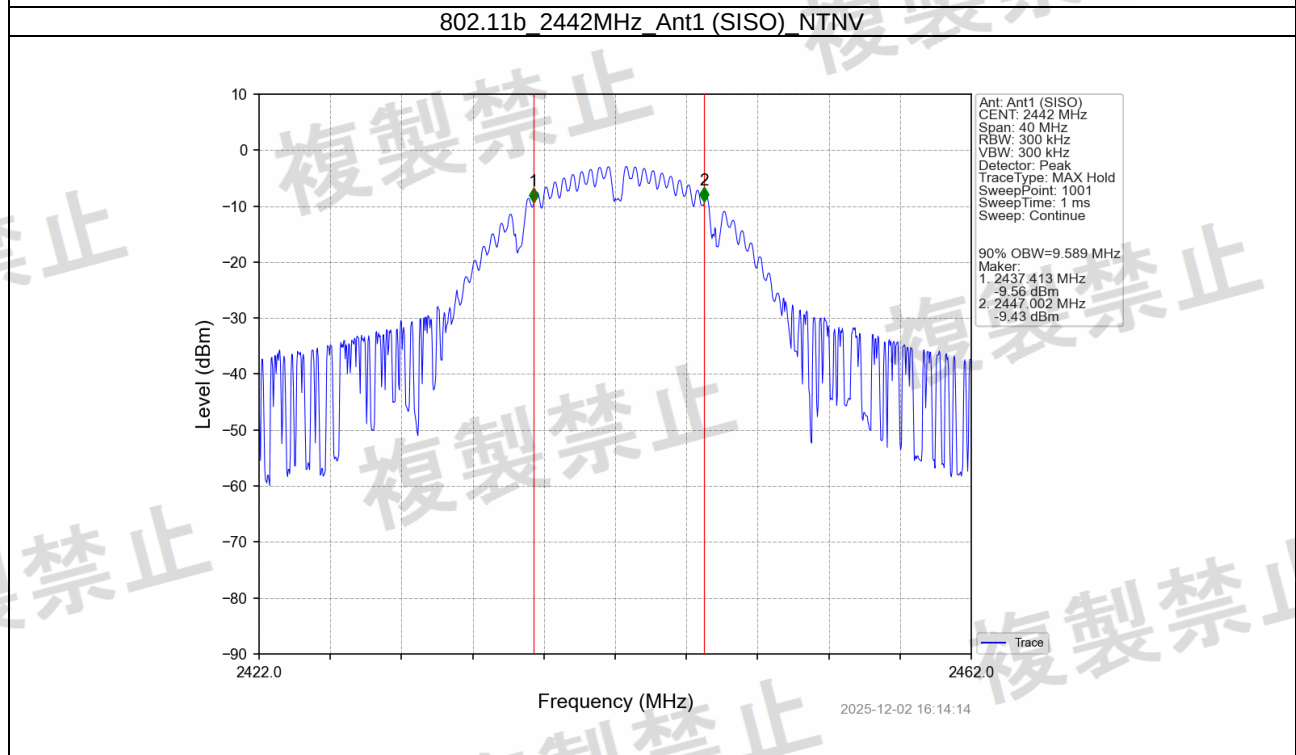
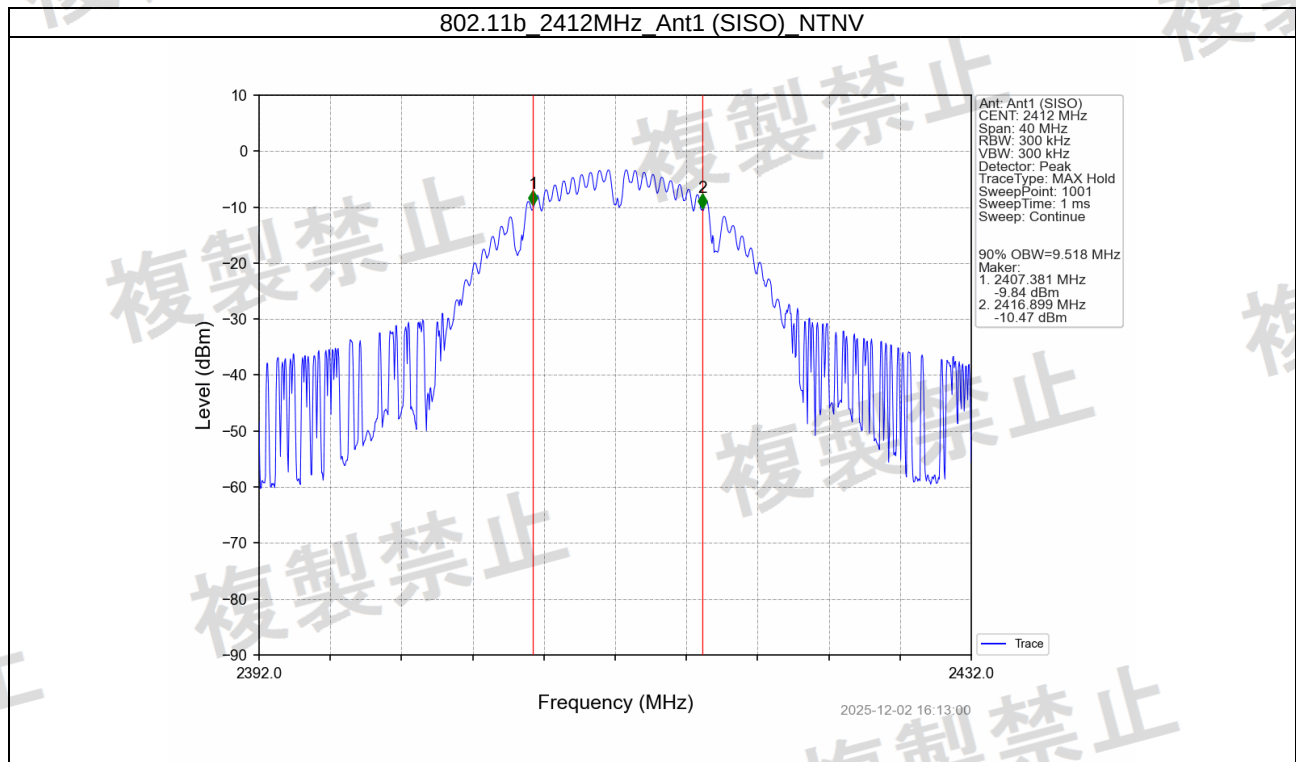
| ENV  | Mode           | TX Type | Frequency (MHz) | Spread Bandwidth (MHz) |            | Verdict |
|------|----------------|---------|-----------------|------------------------|------------|---------|
|      |                |         |                 | ANT1                   | Limit      |         |
| NTNV | 802.11b        | SISO    | 2412            | 9.518                  | $\geq 0.5$ | Pass    |
|      |                |         | 2442            | 9.589                  | $\geq 0.5$ | Pass    |
|      |                |         | 2472            | 9.551                  | $\geq 0.5$ | Pass    |
|      | 802.11g        | SISO    | 2412            | 14.552                 | $\geq 0.5$ | Pass    |
|      |                |         | 2442            | 14.578                 | $\geq 0.5$ | Pass    |
|      |                |         | 2472            | 14.690                 | $\geq 0.5$ | Pass    |
|      | 802.11n (HT20) | SISO    | 2412            | 15.489                 | $\geq 0.5$ | Pass    |
|      |                |         | 2442            | 15.578                 | $\geq 0.5$ | Pass    |
|      |                |         | 2472            | 15.583                 | $\geq 0.5$ | Pass    |
|      | 802.11n (HT40) | SISO    | 2422            | 31.486                 | $\geq 0.5$ | Pass    |
|      |                |         | 2442            | 31.512                 | $\geq 0.5$ | Pass    |
|      |                |         | 2462            | 31.495                 | $\geq 0.5$ | Pass    |

| ENV  | Mode    | TX Type | Frequency (MHz) | Spread Factor |          | Verdict |
|------|---------|---------|-----------------|---------------|----------|---------|
|      |         |         |                 | ANT1          | Limit    |         |
| NTNV | 802.11b | SISO    | 2412            | 6.920         | $\geq 5$ | Pass    |
|      |         |         | 2442            | 6.970         | $\geq 5$ | Pass    |
|      |         |         | 2472            | 6.950         | $\geq 5$ | Pass    |

Note1: Spread Factor = Spread Bandwidth / Symbol Rate, For 802.11b mode, Symbol Rate = 1.375



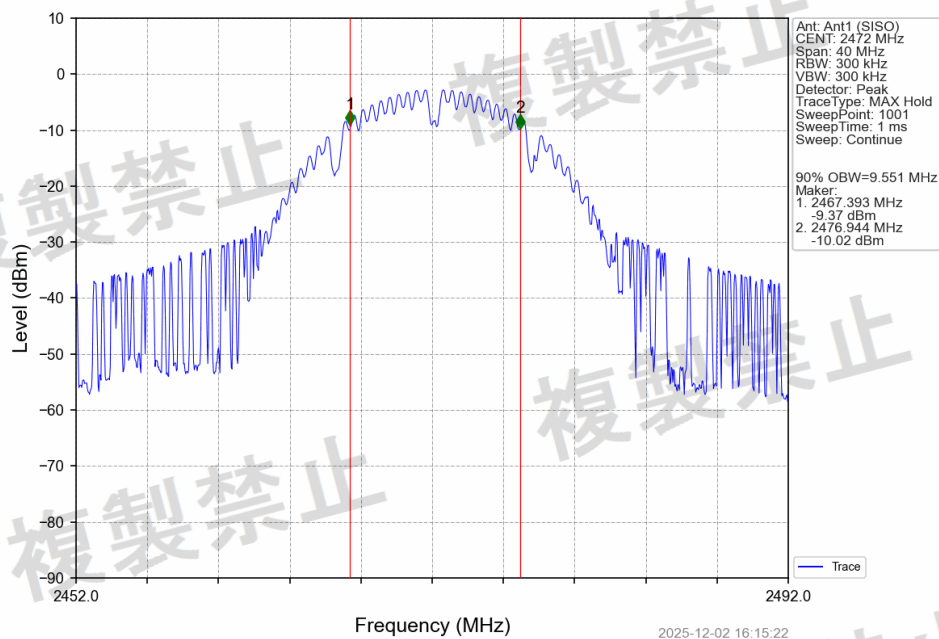
Report No.: HTT202511831Y2



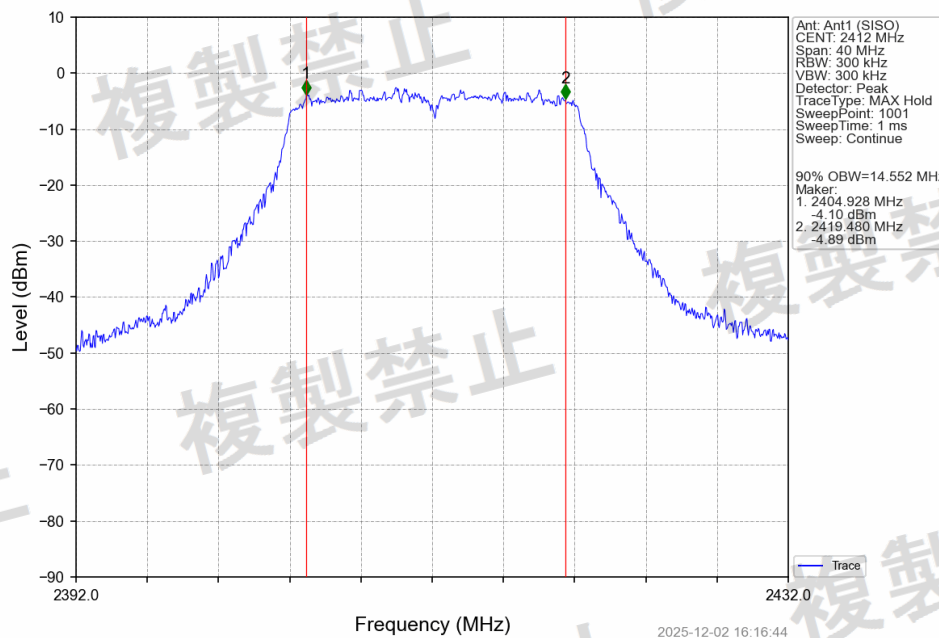


Report No.: HTT202511831Y2

802.11b 2472MHz\_Ant1 (SISO) NTN



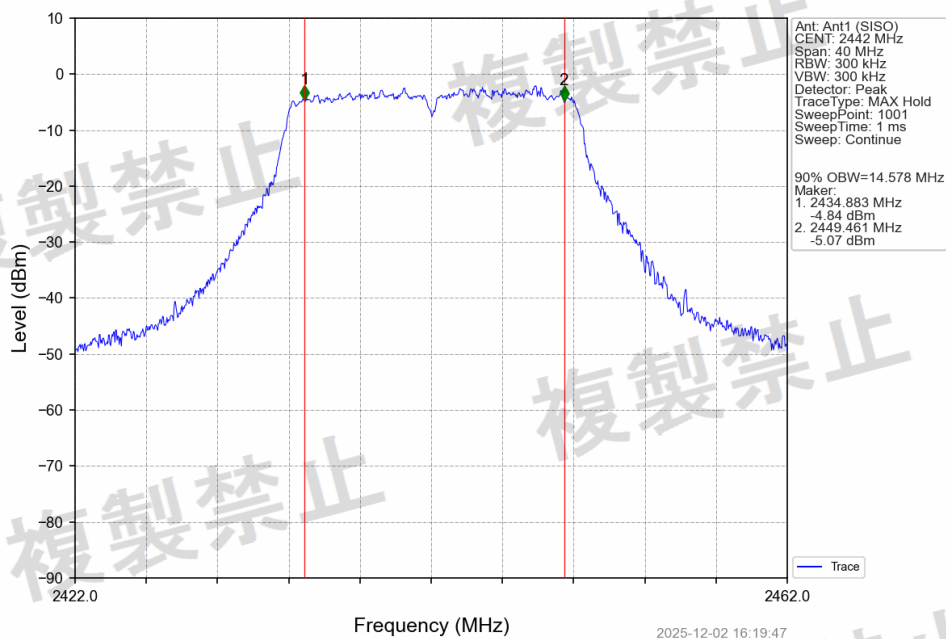
802.11g 2412MHz\_Ant1 (SISO) NTN



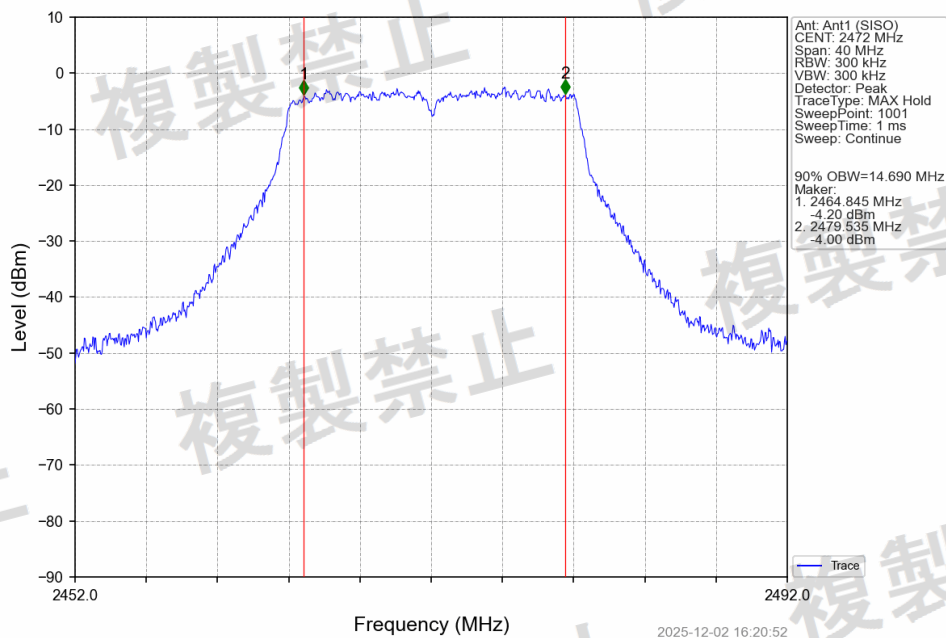


Report No.: HTT202511831Y2

802.11g 2442MHz\_Ant1 (SISO) NTN



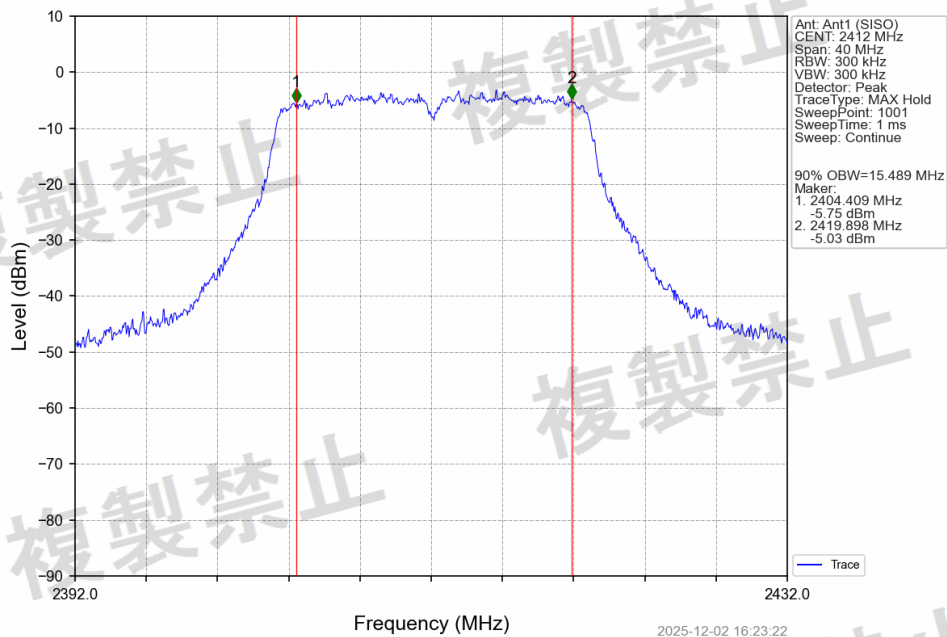
802.11g 2472MHz\_Ant1 (SISO) NTN



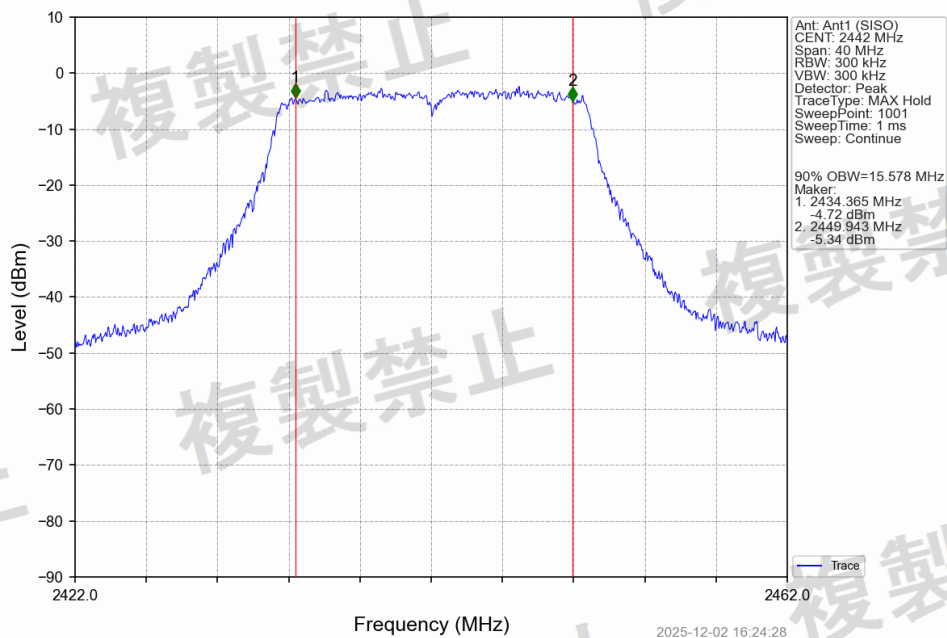


Report No.: HTT202511831Y2

802.11n(HT20) 2412MHz Ant1 (SISO) NTN



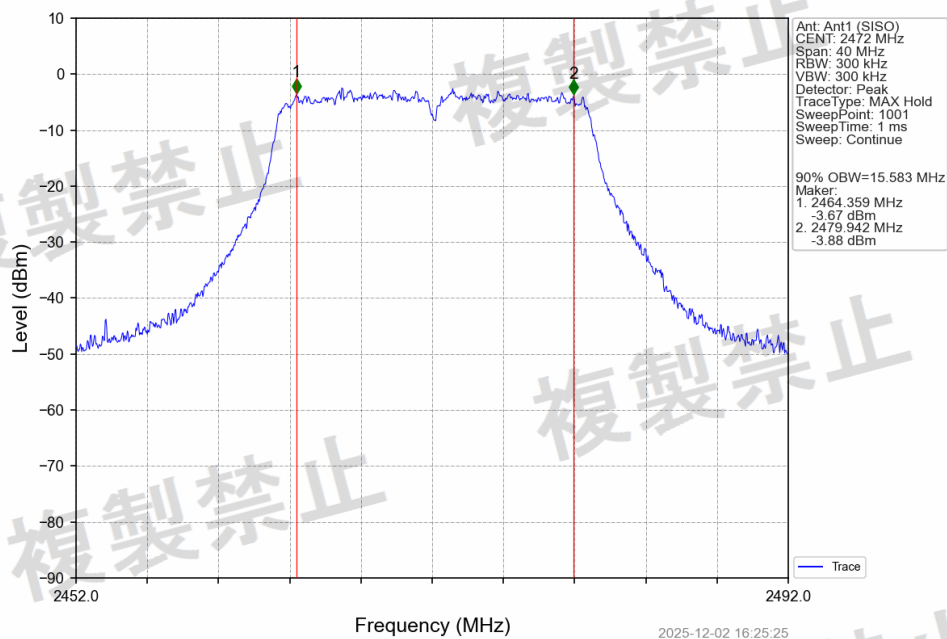
802.11n(HT20) 2442MHz Ant1 (SISO) NTN



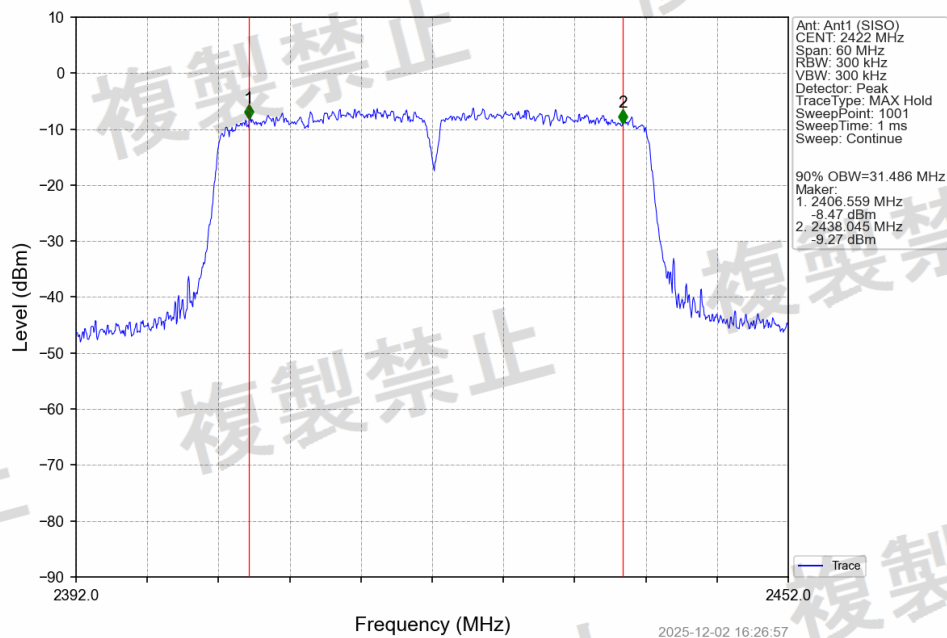


Report No.: HTT202511831Y2

802.11n(HT20) 2472MHz Ant1 (SISO) NTN



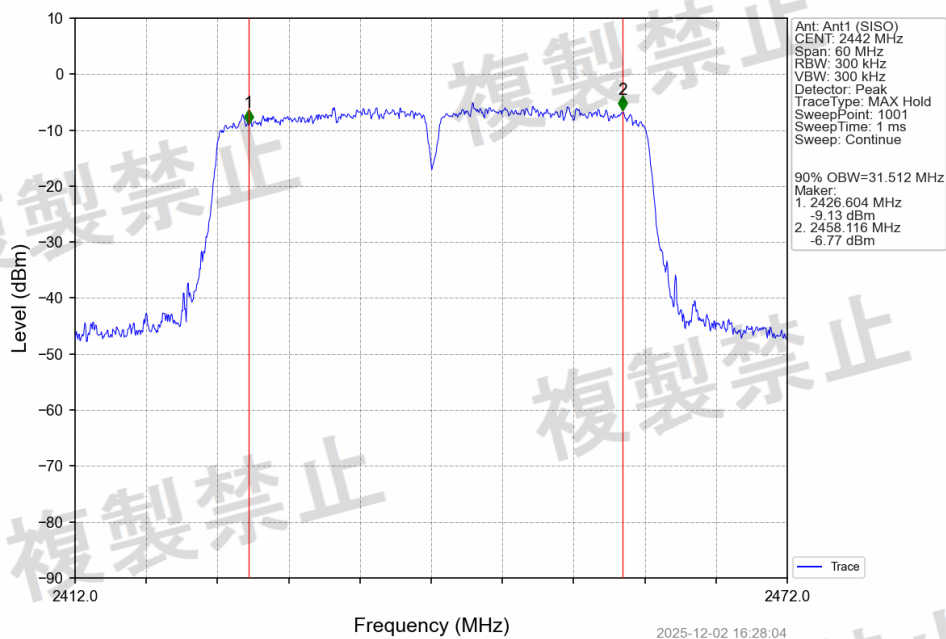
802.11n(HT40) 2422MHz Ant1 (SISO) NTN



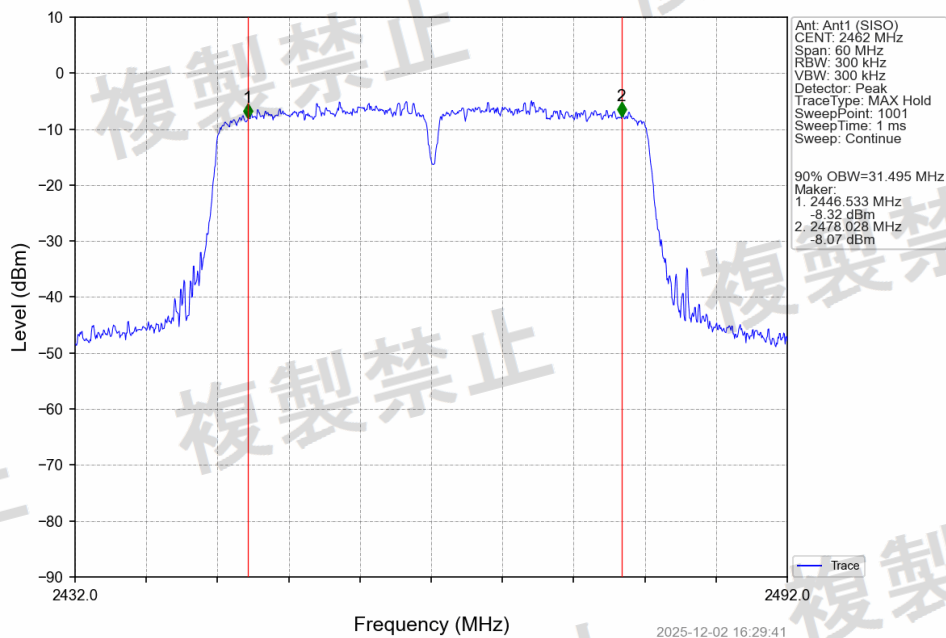


Report No.: HTT202511831Y2

802.11n(HT40) 2442MHz Ant1 (SISO) NTN



802.11n(HT40) 2462MHz Ant1 (SISO) NTN





Report No.: HTT202511831Y2

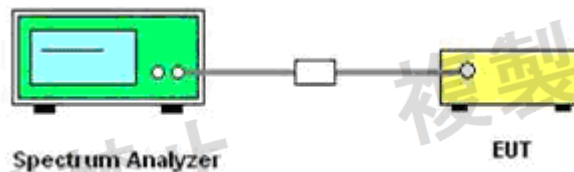
### 3.4. Unwanted Emission Strength

#### LIMIT

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

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

#### TEST CONFIGURATION



#### TEST PROCEDURE

The EUT was directly connected to the spectrum analyser and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: modulation

Spectrum Condition:

- Frequency: 30MHz-13GHz
- RBW: 1MHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)
- VBW: 1MHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

#### TEST RESULTS

| NTNV    |         |             |     |             |            |             |                     |                    |                     |                 |         |                    |  |
|---------|---------|-------------|-----|-------------|------------|-------------|---------------------|--------------------|---------------------|-----------------|---------|--------------------|--|
| Mode    | TX Type | Freq. (MHz) | 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       | 2384.5      | -30.77              | 0.838              | /                   | /               | 2.5     | Pass               |  |
|         |         |             |     | 2387        | 2400       | 2399.883    | -21.50              | 7.079              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2483.5      | 2496.5     | 2483.734    | -38.11              | 0.155              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2496.5      | 12500      | 2616.5      | -52.88              | 0.005              | /                   | /               | 2.5     | Pass               |  |
|         |         | 2442        | 1   | 30          | 2387       | 2384.5      | -37.90              | 0.162              | /                   | /               | 2.5     | Pass               |  |
|         |         |             |     | 2387        | 2400       | 2399.454    | -34.61              | 0.346              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2483.5      | 2496.5     | 2483.89     | -33.40              | 0.457              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2496.5      | 12500      | 2498.5      | -35.93              | 0.255              | /                   | /               | 2.5     | Pass               |  |
|         |         | 2472        | 1   | 30          | 2387       | 2339        | -51.58              | 0.007              | /                   | /               | 2.5     | Pass               |  |
|         |         |             |     | 2387        | 2400       | 2398.609    | -40.12              | 0.097              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2483.5      | 2496.5     | 2483.526    | -19.88              | 10.280             | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2496.5      | 12500      | 2558.5      | -39.17              | 0.121              | /                   | /               | 2.5     | Pass               |  |
| 802.11g | SISO    | 2412        | 1   | 30          | 2387       | 2383.5      | -47.58              | 0.017              | /                   | /               | 2.5     | Pass               |  |
|         |         |             |     | 2387        | 2400       | 2399.974    | -22.58              | 5.521              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2483.5      | 2496.5     | 2491.664    | -46.39              | 0.023              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2496.5      | 12500      | 2540.5      | -47.67              | 0.017              | /                   | /               | 2.5     | Pass               |  |
|         |         | 2442        | 1   | 30          | 2387       | 2386        | -48.61              | 0.014              | /                   | /               | 2.5     | Pass               |  |
|         |         |             |     | 2387        | 2400       | 2396.75     | -47.87              | 0.016              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2483.5      | 2496.5     | 2495.057    | -46.72              | 0.021              | /                   | /               | 25      | Pass               |  |
|         |         |             |     | 2496.5      | 12500      | 2573.5      | -47.28              | 0.019              | /                   | /               | 2.5     | Pass               |  |
|         |         | 2472        | 1   | 30          | 2387       | 2347        | -48.45              | 0.014              | /                   | /               | 2.5     | Pass               |  |
|         |         |             |     | 2387        | 2400       | 2399.35     | -47.69              | 0.017              | /                   | /               | 25      | Pass               |  |
|         |         |             |     |             |            |             |                     |                    |                     |                 |         |                    |  |
|         |         |             |     |             |            |             |                     |                    |                     |                 |         |                    |  |



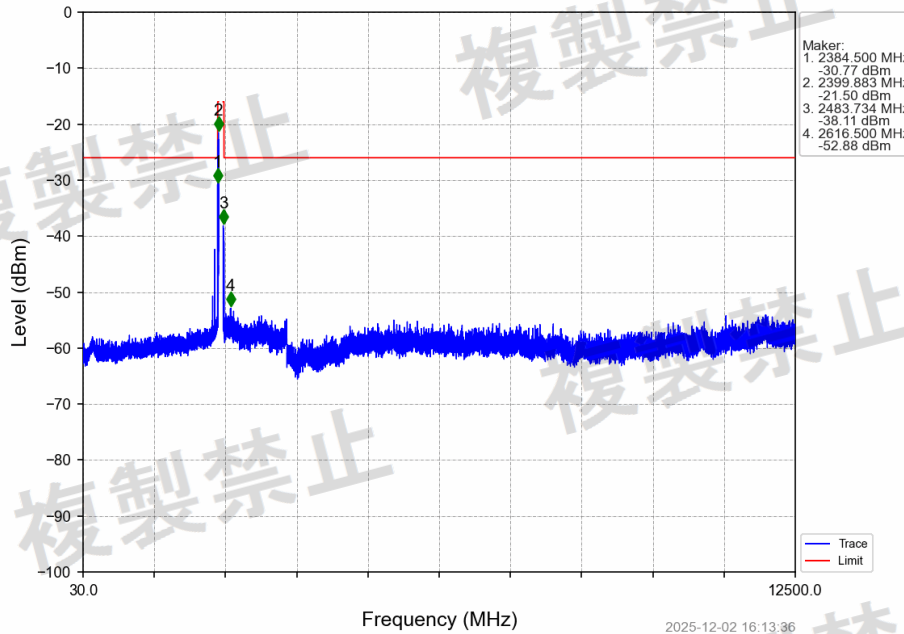
Report No.: HTT202511831Y2

|                   |      |      |   |        |        |          |        |        |   |   |     |      |
|-------------------|------|------|---|--------|--------|----------|--------|--------|---|---|-----|------|
| 802.11n<br>(HT20) | SISO | 2412 | 1 | 2483.5 | 2496.5 | 2483.513 | -20.89 | 8.147  | / | / | 25  | Pass |
|                   |      |      |   | 2496.5 | 12500  | 2510     | -46.75 | 0.021  | / | / | 2.5 | Pass |
|                   |      |      |   | 30     | 2387   | 2383     | -48.44 | 0.014  | / | / | 2.5 | Pass |
|                   |      |      |   | 2387   | 2400   | 2399.974 | -24.45 | 3.589  | / | / | 25  | Pass |
|                   |      |      |   | 2483.5 | 2496.5 | 2490.403 | -46.69 | 0.021  | / | / | 25  | Pass |
|                   |      | 2442 | 1 | 2496.5 | 12500  | 2635.5   | -46.66 | 0.022  | / | / | 2.5 | Pass |
|                   |      |      |   | 30     | 2387   | 2328.5   | -48.10 | 0.015  | / | / | 2.5 | Pass |
|                   |      |      |   | 2387   | 2400   | 2395.749 | -47.27 | 0.019  | / | / | 25  | Pass |
|                   |      |      |   | 2483.5 | 2496.5 | 2484.176 | -46.27 | 0.024  | / | / | 25  | Pass |
|                   |      |      |   | 2496.5 | 12500  | 11867.5  | -46.77 | 0.021  | / | / | 2.5 | Pass |
|                   |      | 2472 | 1 | 30     | 2387   | 2381     | -49.09 | 0.012  | / | / | 2.5 | Pass |
|                   |      |      |   | 2387   | 2400   | 2396.49  | -48.16 | 0.015  | / | / | 25  | Pass |
|                   |      |      |   | 2483.5 | 2496.5 | 2483.578 | -19.20 | 12.023 | / | / | 25  | Pass |
|                   |      |      |   | 2496.5 | 12500  | 2498     | -45.83 | 0.026  | / | / | 2.5 | Pass |
|                   |      |      |   | 30     | 2387   | 2384     | -43.40 | 0.046  | / | / | 2.5 | Pass |
| 802.11n<br>(HT40) | SISO | 2422 | 1 | 2387   | 2400   | 2399.883 | -30.17 | 0.962  | / | / | 25  | Pass |
|                   |      |      |   | 2483.5 | 2496.5 | 2492.951 | -46.55 | 0.022  | / | / | 25  | Pass |
|                   |      |      |   | 2496.5 | 12500  | 11981.5  | -47.50 | 0.018  | / | / | 2.5 | Pass |
|                   |      | 2442 | 1 | 30     | 2387   | 2385.5   | -48.14 | 0.015  | / | / | 2.5 | Pass |
|                   |      |      |   | 2387   | 2400   | 2395.255 | -43.68 | 0.043  | / | / | 25  | Pass |
|                   |      |      |   | 2483.5 | 2496.5 | 2483.591 | -41.41 | 0.072  | / | / | 25  | Pass |
|                   |      |      |   | 2496.5 | 12500  | 2605     | -47.43 | 0.018  | / | / | 2.5 | Pass |
|                   |      | 2462 | 1 | 30     | 2387   | 2350.5   | -48.56 | 0.014  | / | / | 2.5 | Pass |
|                   |      |      |   | 2387   | 2400   | 2392.2   | -47.95 | 0.016  | / | / | 25  | Pass |
|                   |      |      |   | 2483.5 | 2496.5 | 2484.592 | -28.27 | 1.489  | / | / | 25  | Pass |
|                   |      |      |   | 2496.5 | 12500  | 2497     | -43.50 | 0.045  | / | / | 2.5 | Pass |

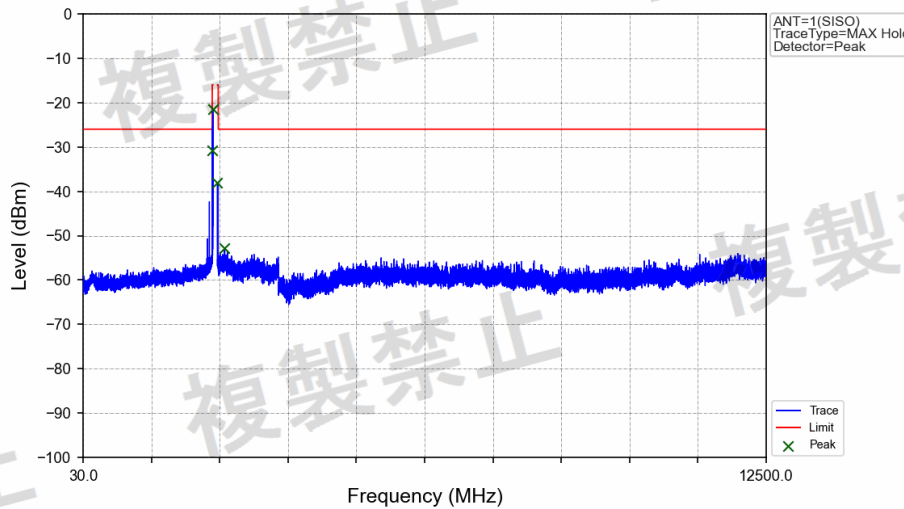


Report No.: HTT202511831Y2

802.11b 2412MHz\_Ant1 (SISO) NTN



802.11b 2412MHz\_Ant1 (SISO) NTN

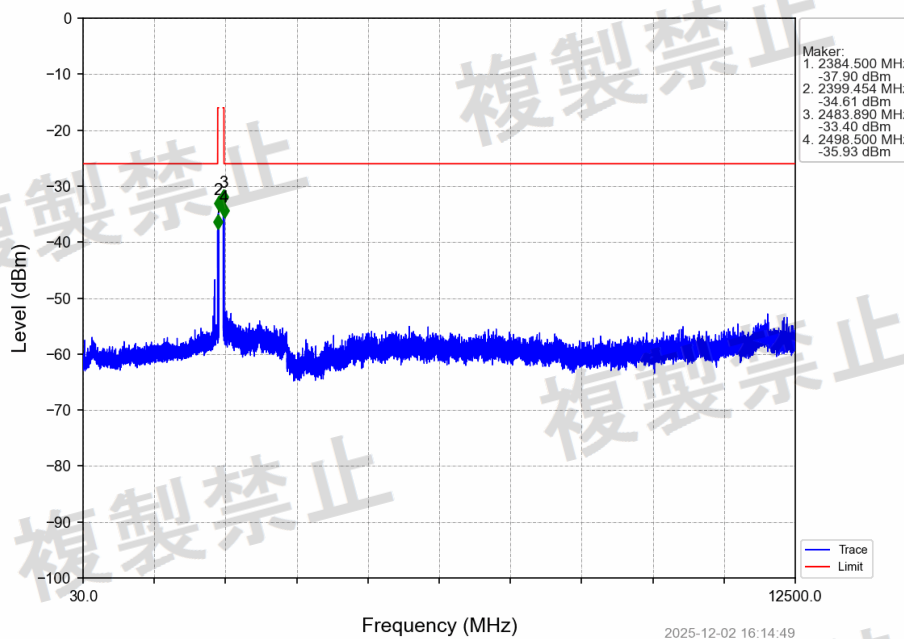


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2384.500   | -30.77         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2399.883   | -21.50         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2483.734   | -38.11         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2616.500   | -52.88         | /              | -26         | Pass   |

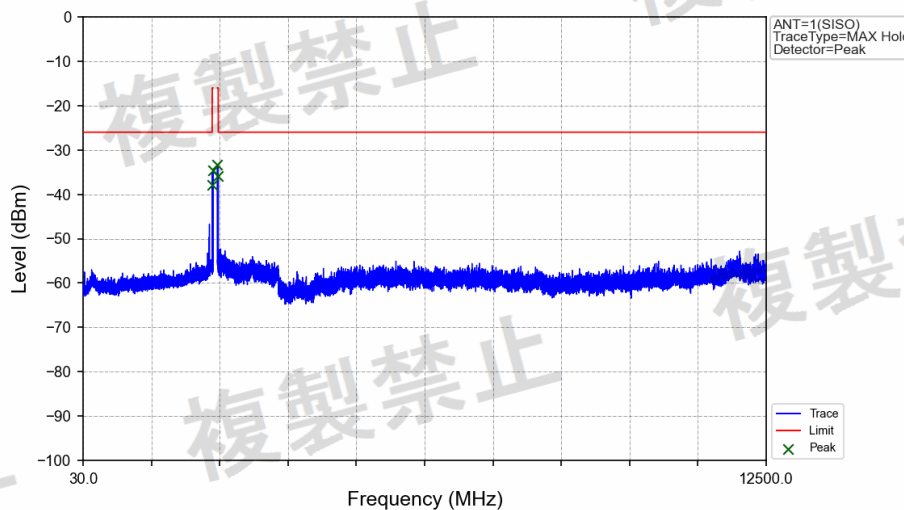


Report No.: HTT202511831Y2

802.11b 2442MHz\_Ant1 (SISO) NTN



802.11b 2442MHz\_Ant1 (SISO) NTN

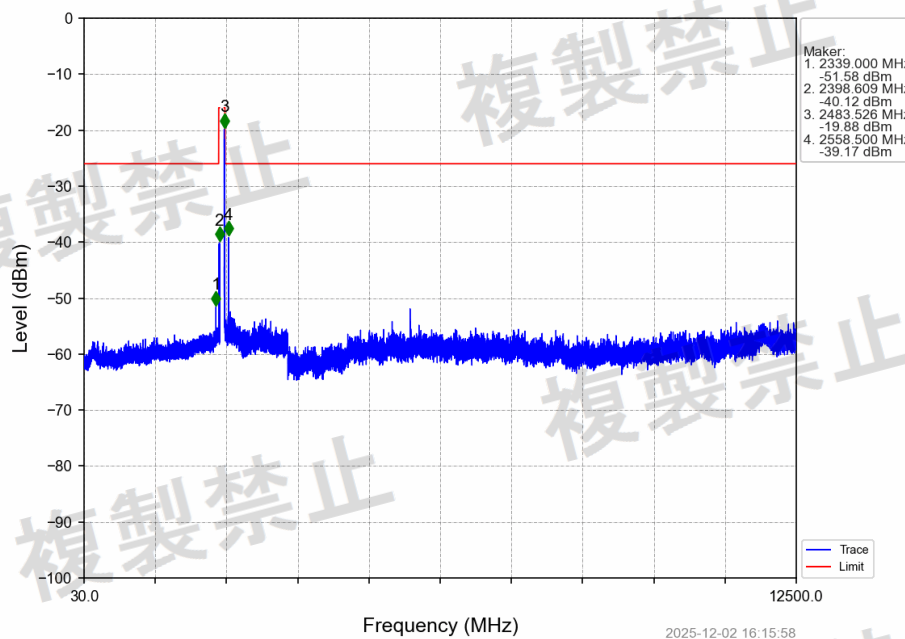


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2384.500   | -37.90         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2399.454   | -34.61         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2483.890   | -33.40         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2498.500   | -35.93         | /              | -26         | Pass   |

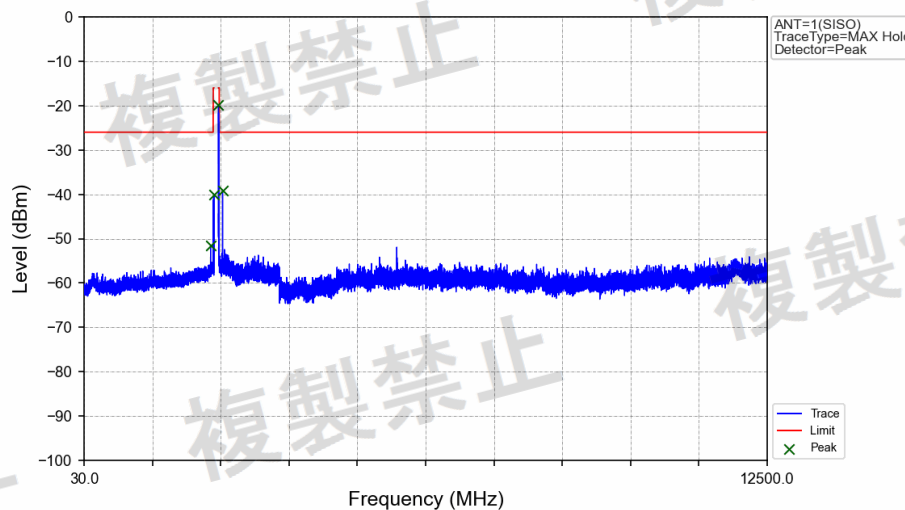


Report No.: HTT202511831Y2

802.11b 2472MHz\_Ant1 (SISO) NTN



802.11b 2472MHz\_Ant1 (SISO) NTN

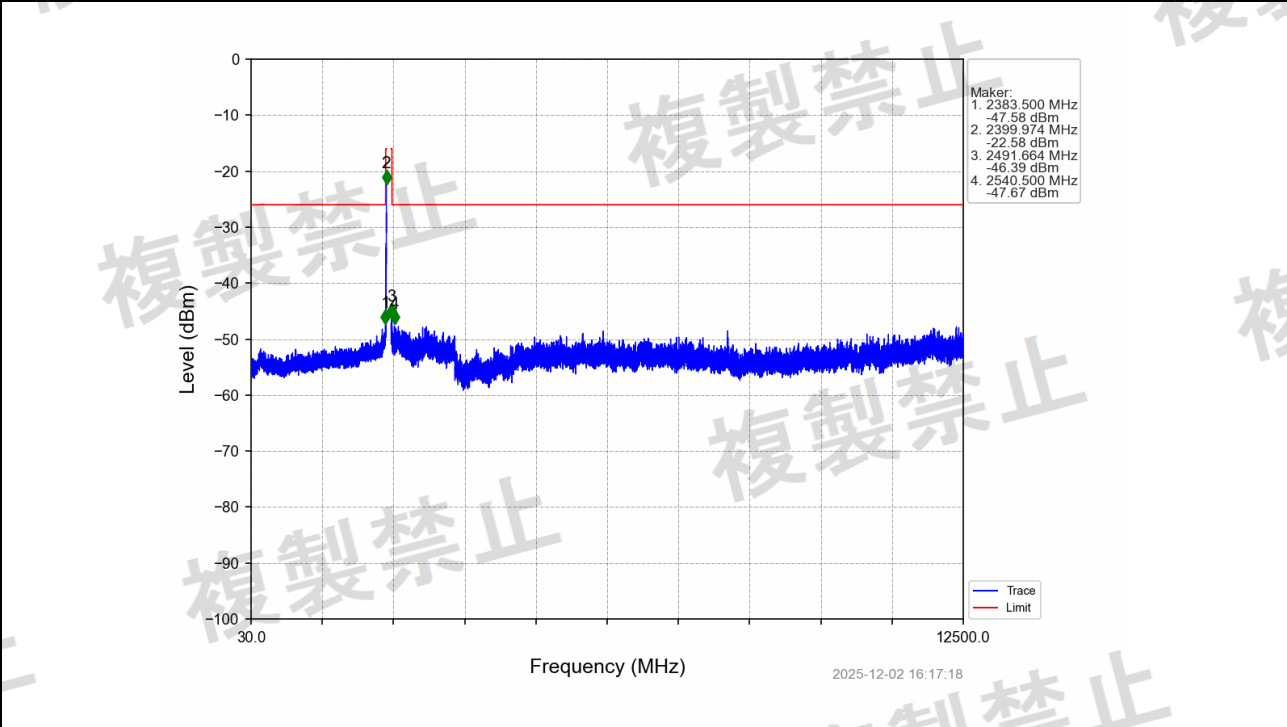


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2339.000   | -51.58         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2398.609   | -40.12         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2483.526   | -19.88         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2558.500   | -39.17         | /              | -26         | Pass   |

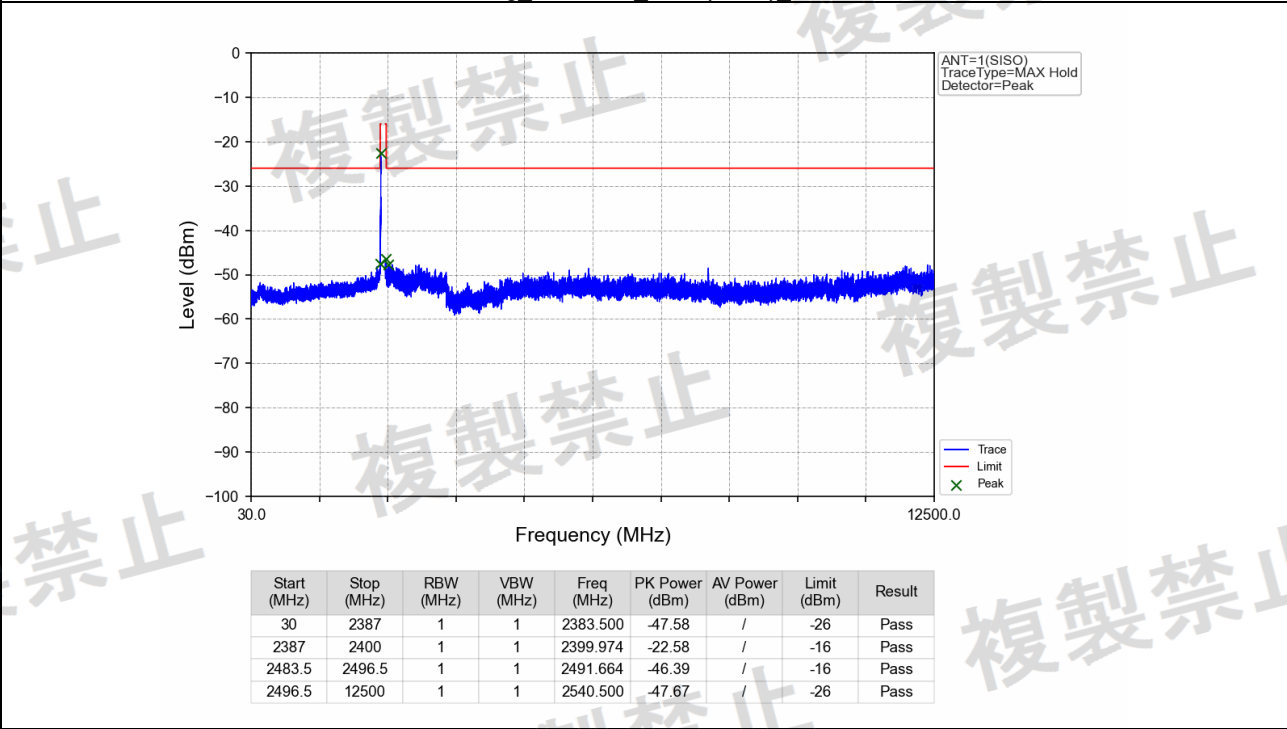


Report No.: HTT202511831Y2

802.11g 2412MHz\_Ant1 (SISO) NTN



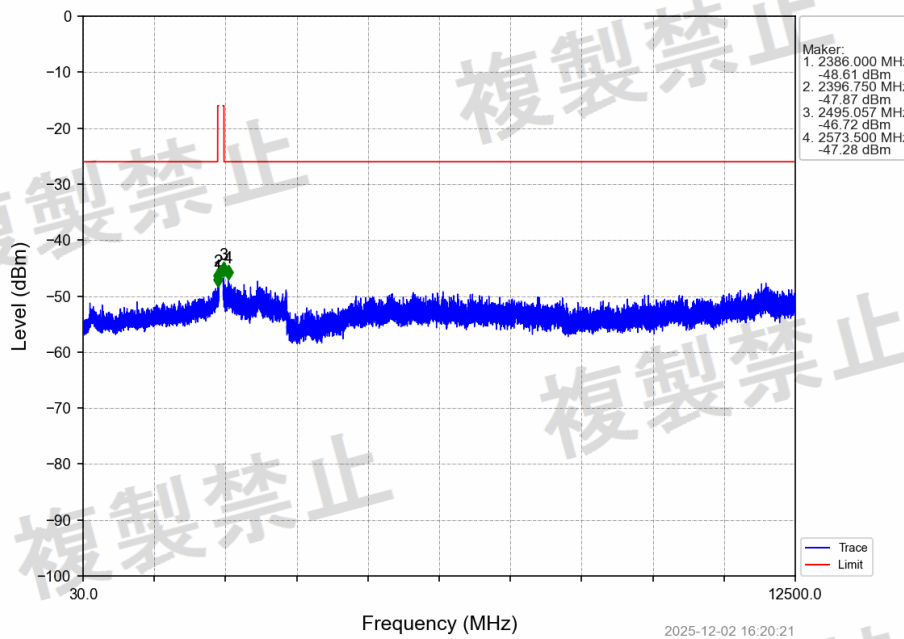
802.11g 2412MHz\_Ant1 (SISO) NTN



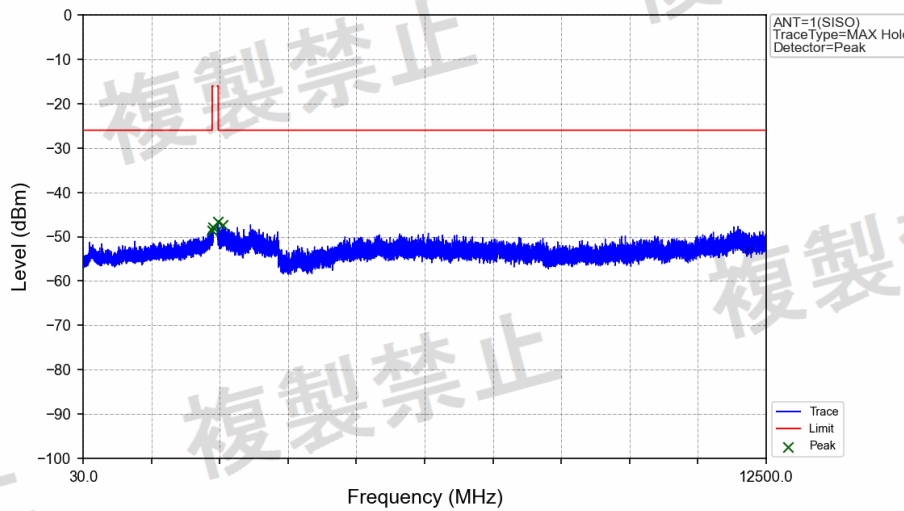


Report No.: HTT202511831Y2

802.11g 2442MHz\_Ant1 (SISO) NTN



802.11g 2442MHz\_Ant1 (SISO) NTN

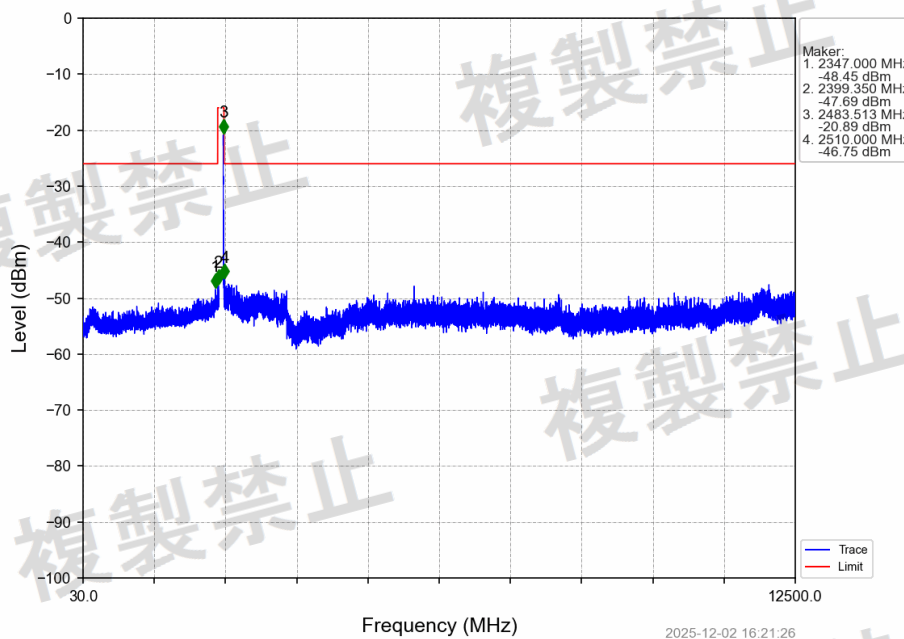


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2386.000   | -48.61         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2396.750   | -47.87         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2495.057   | -46.72         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2573.500   | -47.28         | /              | -26         | Pass   |

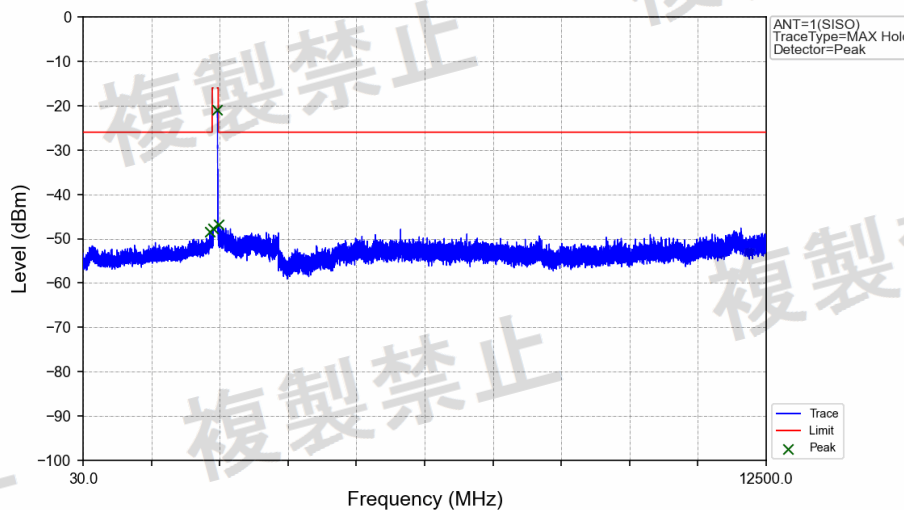


Report No.: HTT202511831Y2

802.11g 2472MHz\_Ant1 (SISO) NTN



802.11g 2472MHz\_Ant1 (SISO) NTN

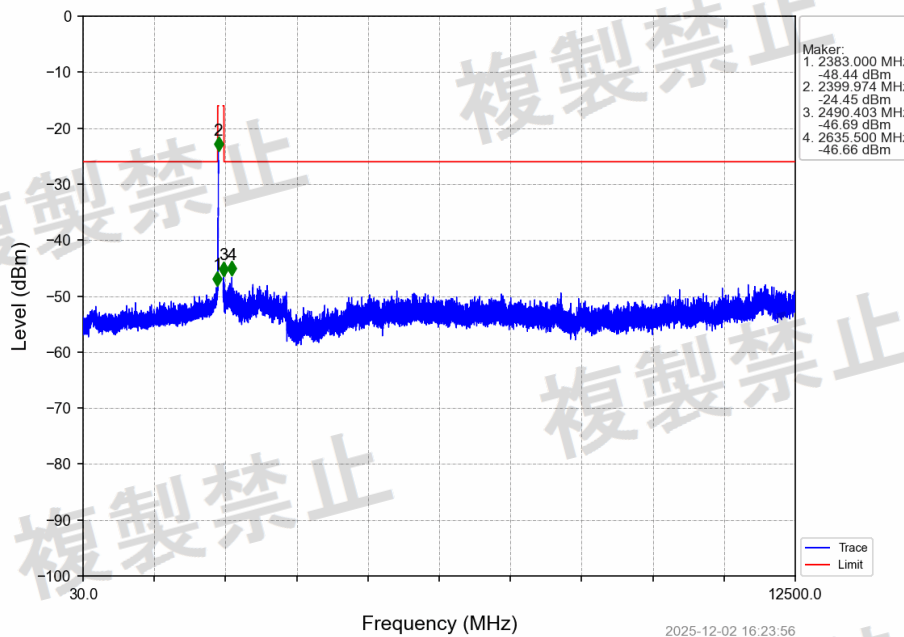


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2347.000   | -48.45         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2399.350   | -47.69         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2483.513   | -20.89         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2510.000   | -46.75         | /              | -26         | Pass   |

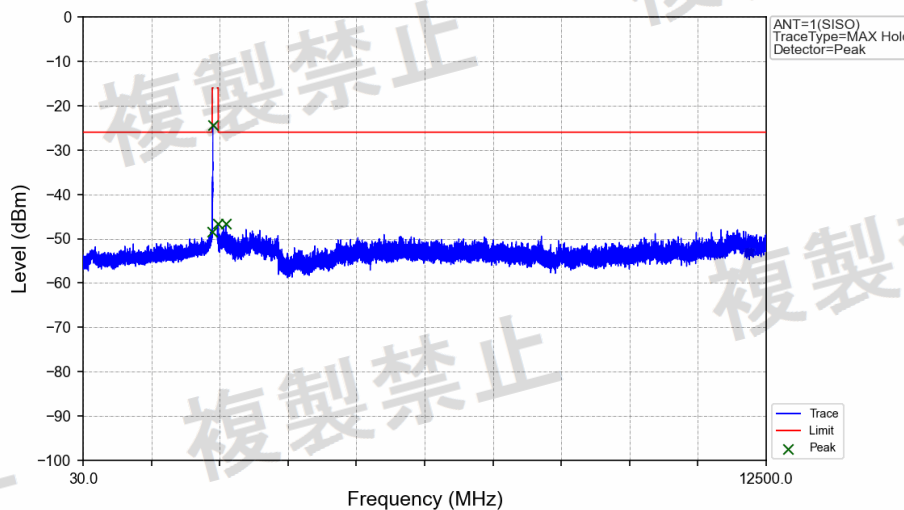


Report No.: HTT202511831Y2

802.11n(HT20) 2412MHz Ant1 (SISO) NTNV



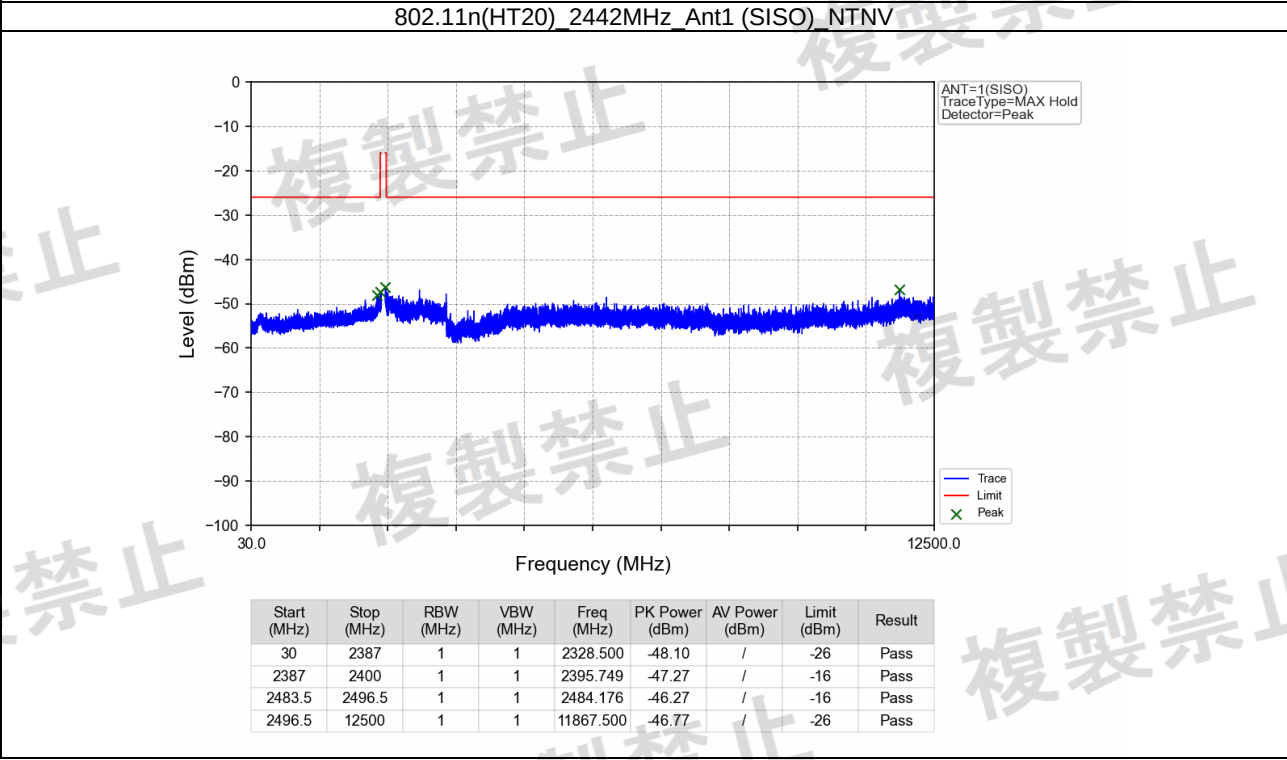
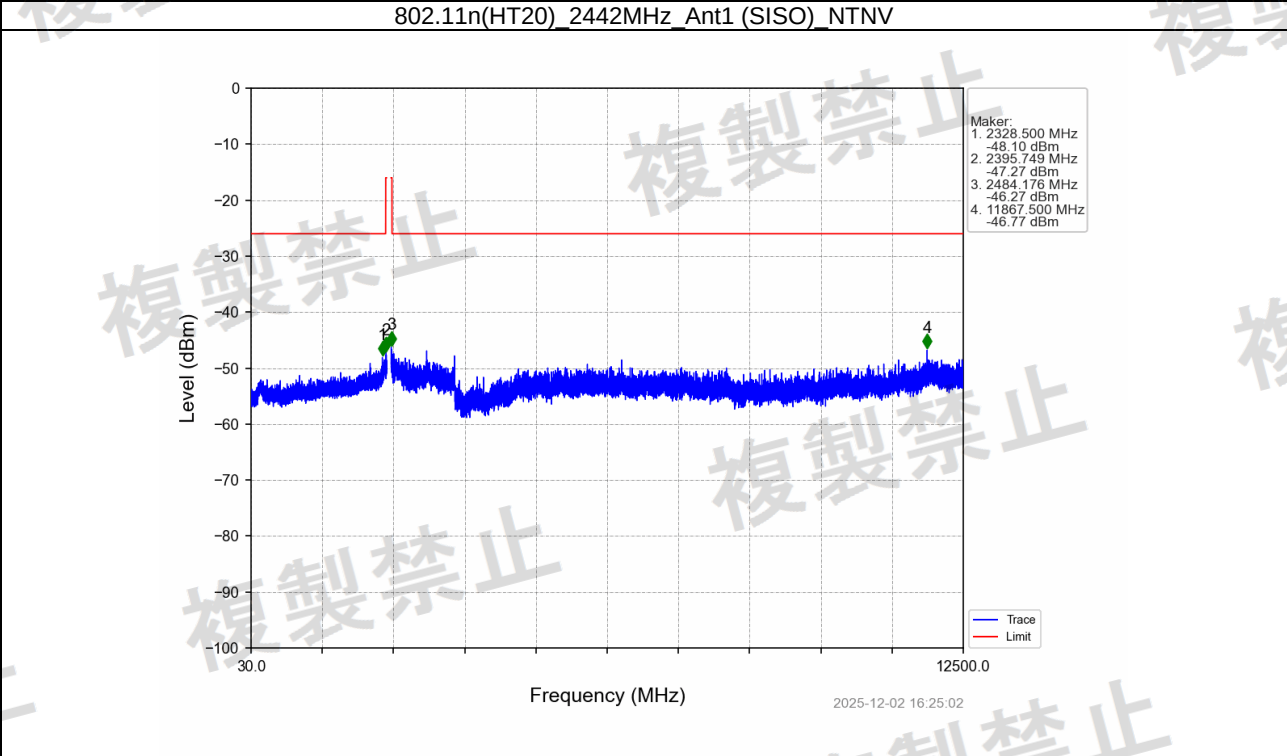
802.11n(HT20) 2412MHz Ant1 (SISO) NTNV



| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2383.000   | -48.44         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2399.974   | -24.45         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2490.403   | -46.69         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2635.500   | -46.66         | /              | -26         | Pass   |



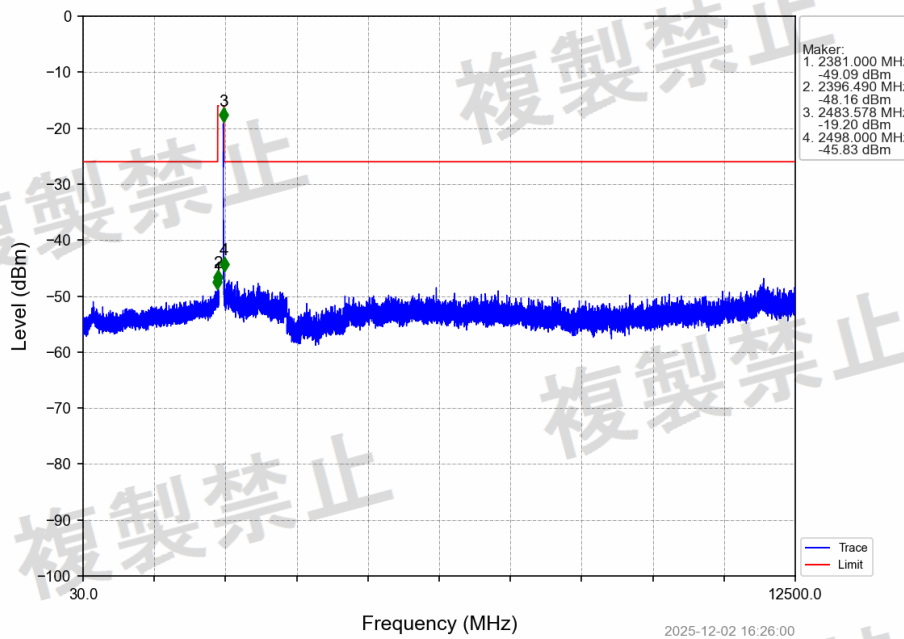
Report No.: HTT202511831Y2



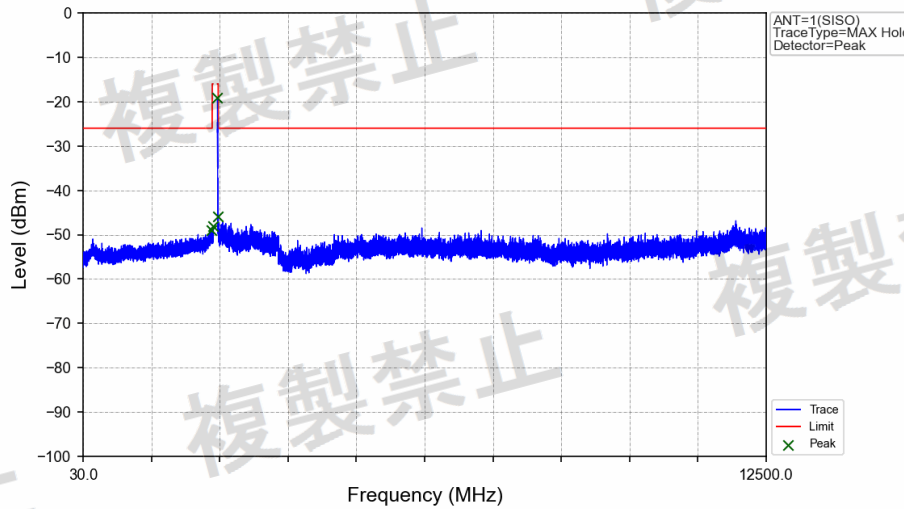


Report No.: HTT202511831Y2

802.11n(HT20) 2472MHz Ant1 (SISO) NTNV



802.11n(HT20) 2472MHz Ant1 (SISO) NTNV

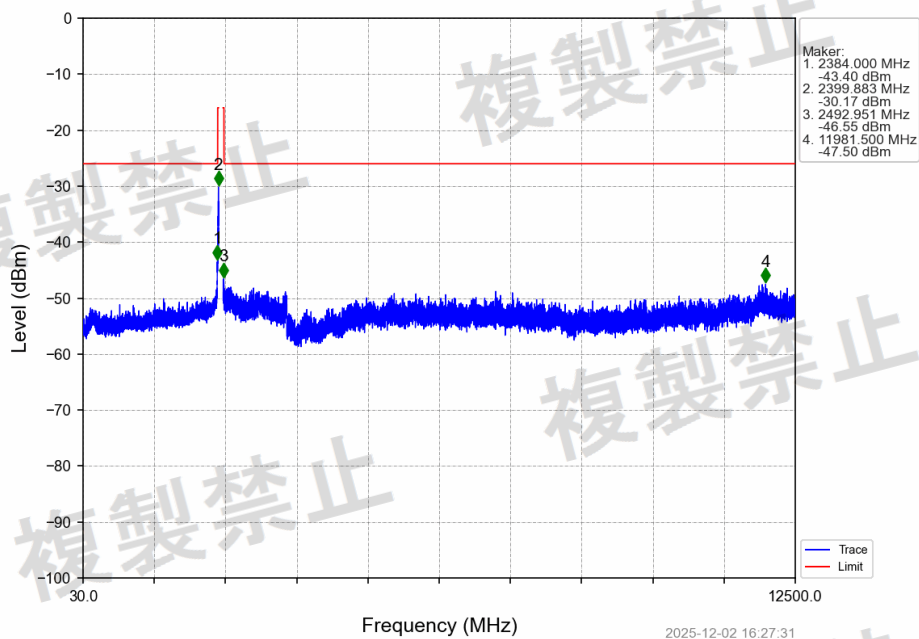


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2381.000   | -49.09         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2396.490   | -48.16         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2483.578   | -19.20         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2498.000   | -45.83         | /              | -26         | Pass   |

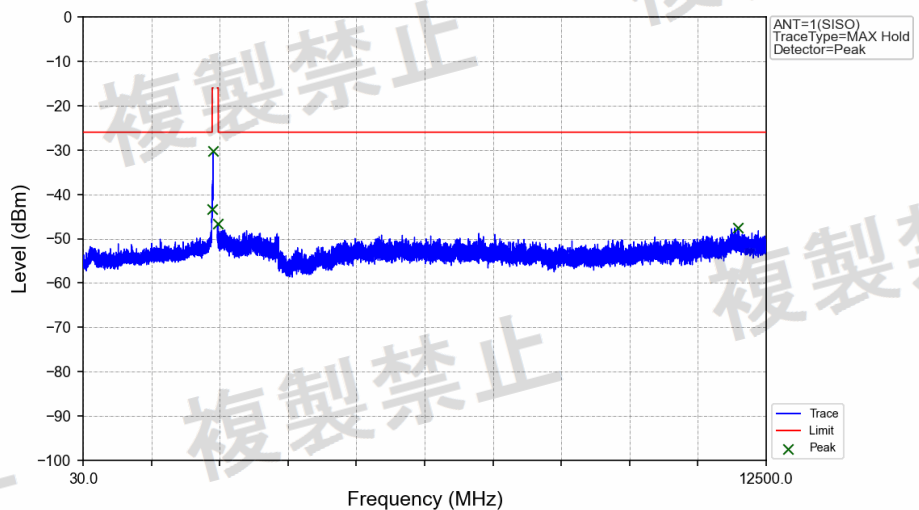


Report No.: HTT202511831Y2

802.11n(HT40) 2422MHz Ant1 (SISO) NTNV



802.11n(HT40) 2422MHz Ant1 (SISO) NTNV

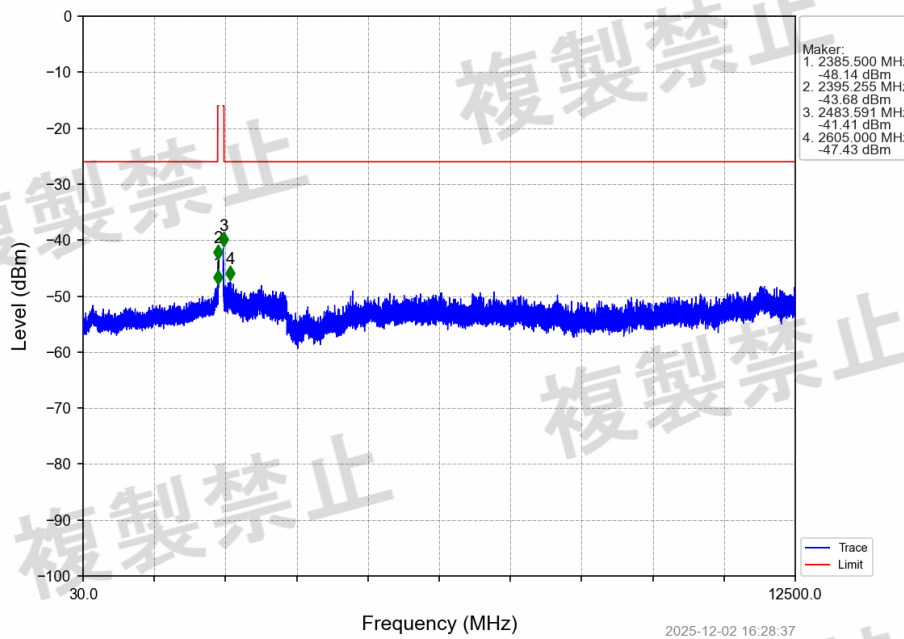


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2384.000   | -43.40         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2399.883   | -30.17         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2492.951   | -46.55         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 11981.500  | -47.50         | /              | -26         | Pass   |

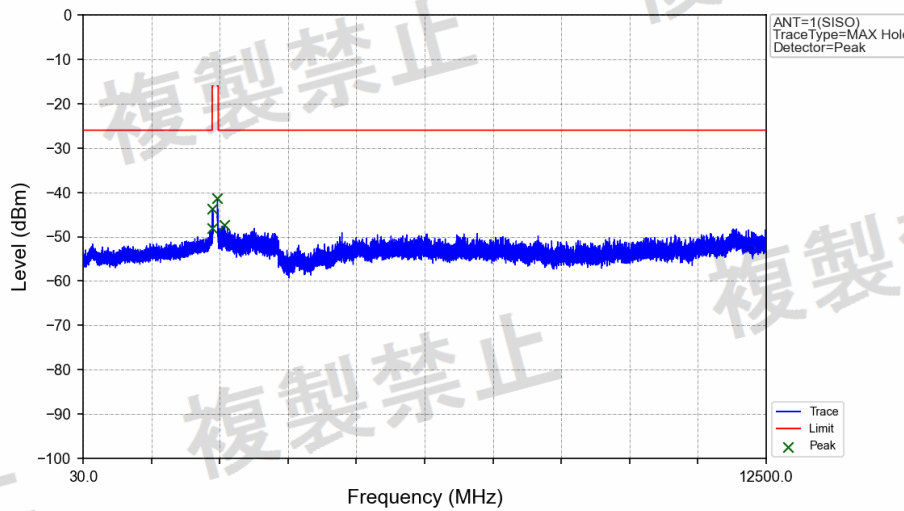


Report No.: HTT202511831Y2

802.11n(HT40) 2442MHz Ant1 (SISO) NTNV



802.11n(HT40) 2442MHz Ant1 (SISO) NTNV

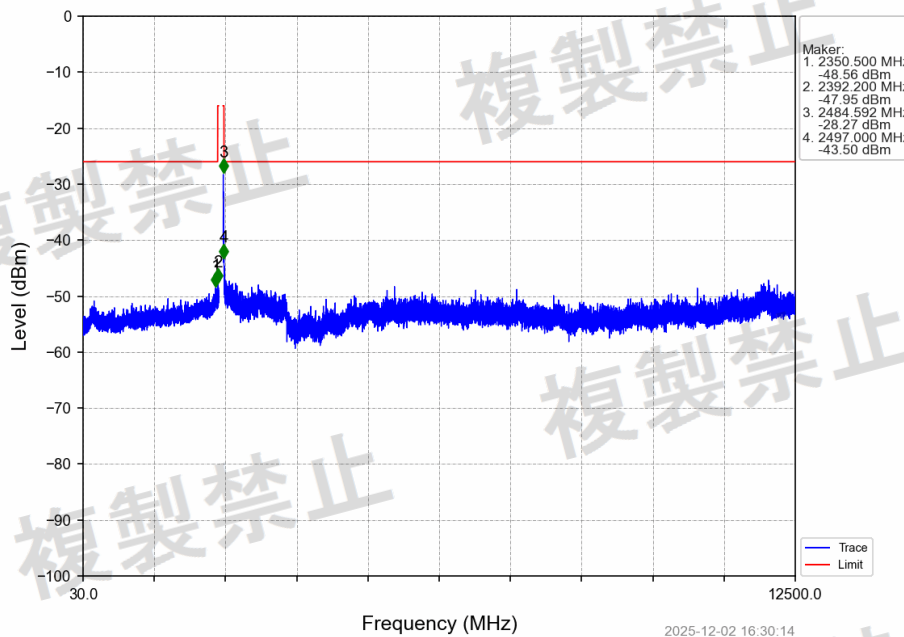


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 2387       | 1         | 1         | 2385.500   | -48.14         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2395.255   | -43.68         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2483.591   | -41.41         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2605.000   | -47.43         | /              | -26         | Pass   |

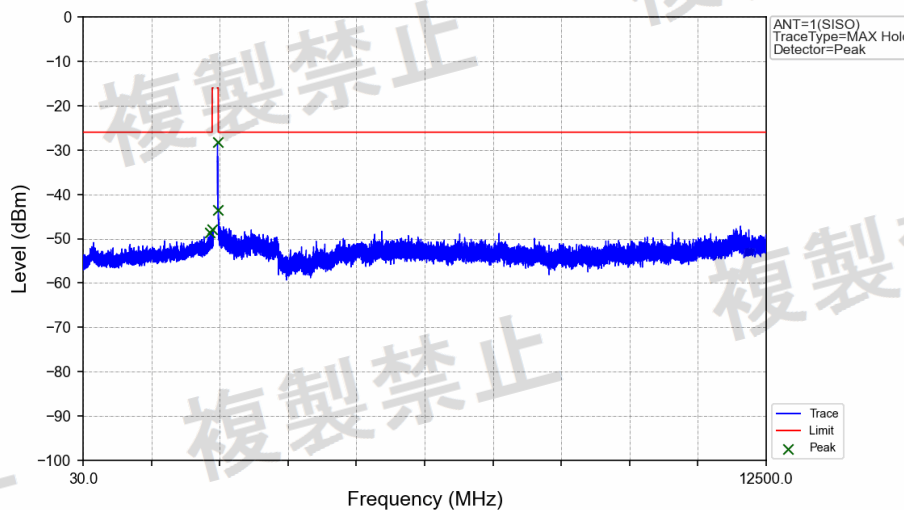


Report No.: HTT202511831Y2

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         | 2350.500   | -48.56         | /              | -26         | Pass   |
| 2387        | 2400       | 1         | 1         | 2392.200   | -47.95         | /              | -16         | Pass   |
| 2483.5      | 2496.5     | 1         | 1         | 2484.592   | -28.27         | /              | -16         | Pass   |
| 2496.5      | 12500      | 1         | 1         | 2497.000   | -43.50         | /              | -26         | Pass   |



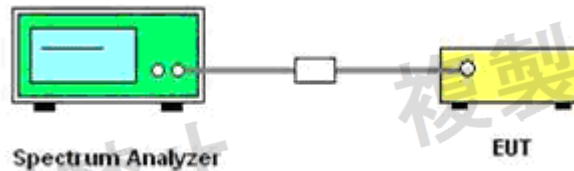
Report No.: HTT202511831Y2

### 3.5. Secondary Radiated Emission Strength

#### 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, 4nW or less at a frequency below 1 GHz and 20nW or less at a frequency of 1 GHz or higher as measured using the circuit.

#### TEST CONFIGURATION



#### TEST PROCEDURE

The EUT was directly connected to the spectrum analyser and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: modulation

Spectrum Condition:

Frequency: 30MHz-12.75GHz

RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)

VBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)

Sweep time: Auto

Detector mode: Positive peak

Indication mode: max hold

#### TEST RESULTS

| NTNV           |         |             |     |             |            |             |                |               |                |               |            |         |
|----------------|---------|-------------|-----|-------------|------------|-------------|----------------|---------------|----------------|---------------|------------|---------|
| Mode           | TX Type | Freq. (MHz) | 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       | 961.95      | -77.19         | 0.019         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 2436        | -54.96         | 3.192         | -72.35         | 0.058         | 20         | Pass    |
|                |         | 2442        | 1   | 30          | 1000       | 954.25      | -76.69         | 0.021         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 2440        | -54.61         | 3.459         | -77.65         | 0.017         | 20         | Pass    |
|                |         | 2472        | 1   | 30          | 1000       | 707.5       | -77.08         | 0.020         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 1748        | -53.95         | 4.027         | -79.35         | 0.012         | 20         | Pass    |
| 802.11g        | SISO    | 2412        | 1   | 30          | 1000       | 164.4       | -77.14         | 0.019         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 12134.5     | -63.03         | 0.498         | /              | /             | 20         | Pass    |
|                |         | 2442        | 1   | 30          | 1000       | 889.65      | -76.94         | 0.020         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 3109        | -61.69         | 0.678         | /              | /             | 20         | Pass    |
|                |         | 2472        | 1   | 30          | 1000       | 196.1       | -77.19         | 0.019         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 3071.5      | -63.37         | 0.460         | /              | /             | 20         | Pass    |
| 802.11n (HT20) | SISO    | 2412        | 1   | 30          | 1000       | 208.9       | -77.54         | 0.018         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 12433       | -63.70         | 0.427         | /              | /             | 20         | Pass    |
|                |         | 2442        | 1   | 30          | 1000       | 198.15      | -77.29         | 0.019         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 3115        | -62.56         | 0.555         | /              | /             | 20         | Pass    |
|                |         | 2472        | 1   | 30          | 1000       | 846.35      | -76.98         | 0.020         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 12431       | -63.46         | 0.451         | /              | /             | 20         | Pass    |
| 802.11n (HT40) | SISO    | 2422        | 1   | 30          | 1000       | 717.7       | -77.12         | 0.019         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 3099.5      | -63.33         | 0.465         | /              | /             | 20         | Pass    |
|                |         | 2442        | 1   | 30          | 1000       | 198.35      | -77.45         | 0.018         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 11881       | -63.13         | 0.486         | /              | /             | 20         | Pass    |
|                |         | 2462        | 1   | 30          | 1000       | 203.65      | -76.93         | 0.020         | /              | /             | 4          | Pass    |
|                |         |             |     | 1000        | 12500      | 203.65      | -76.93         | 0.020         | /              | /             | 4          | Pass    |



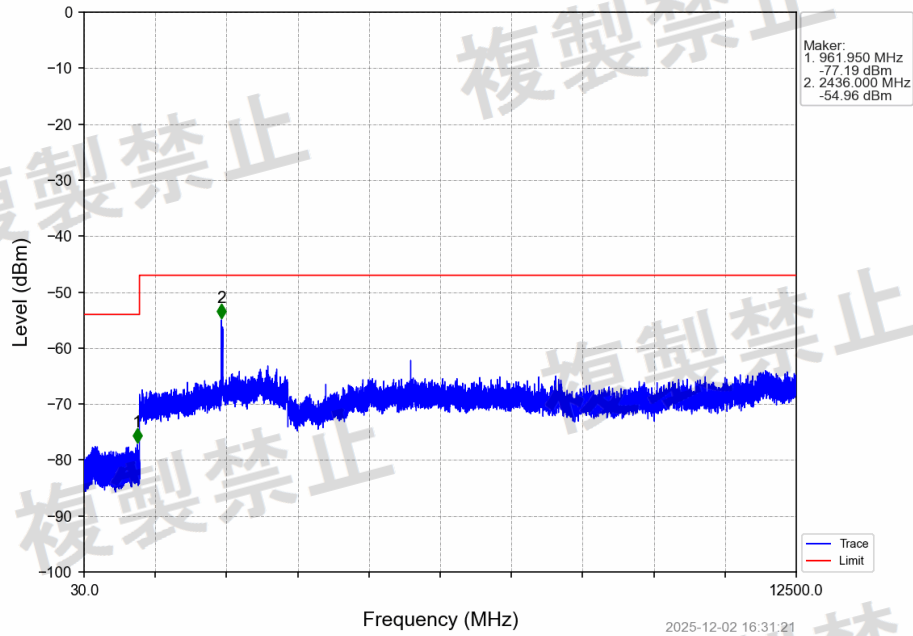
Report No.: HTT202511831Y2

|  |  |  |      |       |       |        |       |   |   |    |      |
|--|--|--|------|-------|-------|--------|-------|---|---|----|------|
|  |  |  | 1000 | 12500 | 11952 | -63.03 | 0.498 | / | / | 20 | Pass |
|--|--|--|------|-------|-------|--------|-------|---|---|----|------|

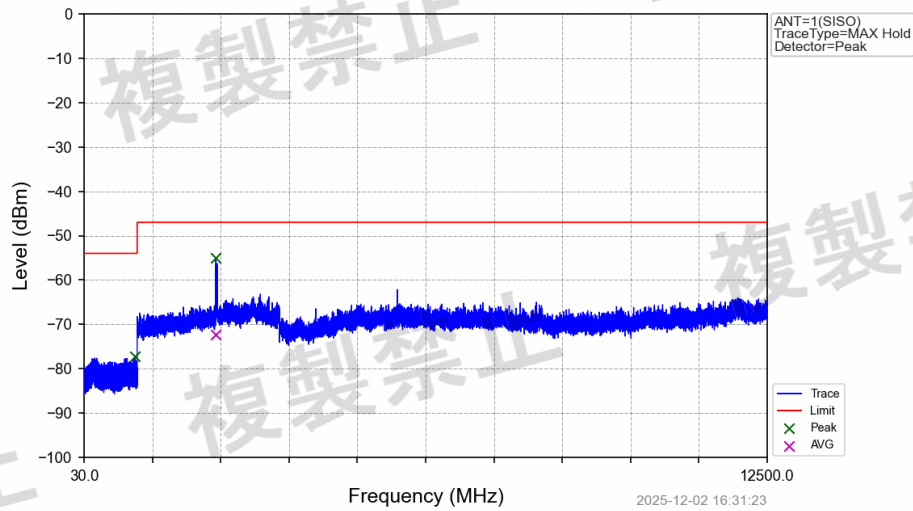


Report No.: HTT202511831Y2

802.11b 2412MHz\_Ant1 (SISO) NTN



802.11b 2412MHz\_Ant1 (SISO) NTN

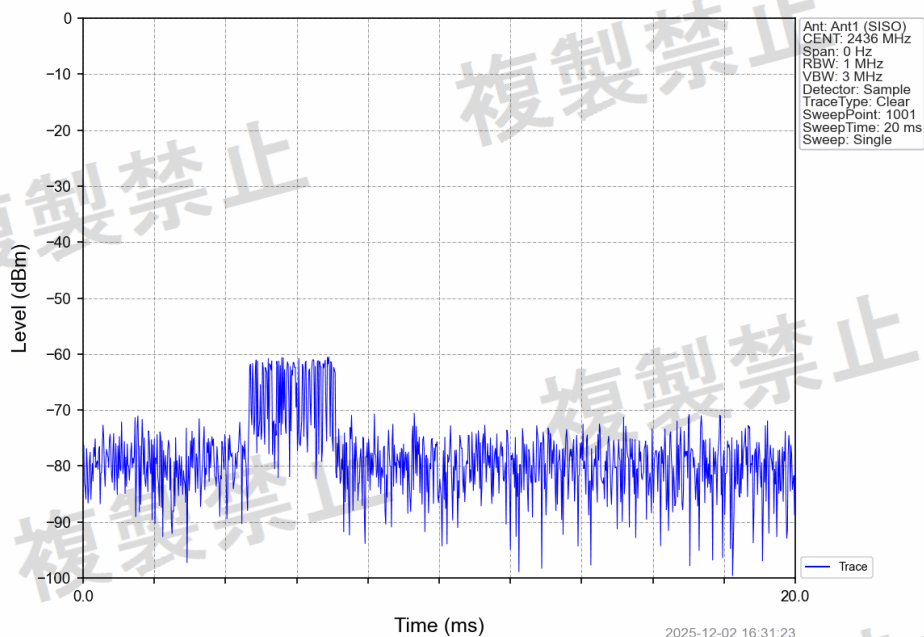


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 1000       | 0.1       | 0.1       | 961.950    | -77.19         | /              | -54         | Pass   |
| 1000        | 12500      | 1         | 1         | 2436.000   | -54.96         | -72.35         | -47         | Pass   |

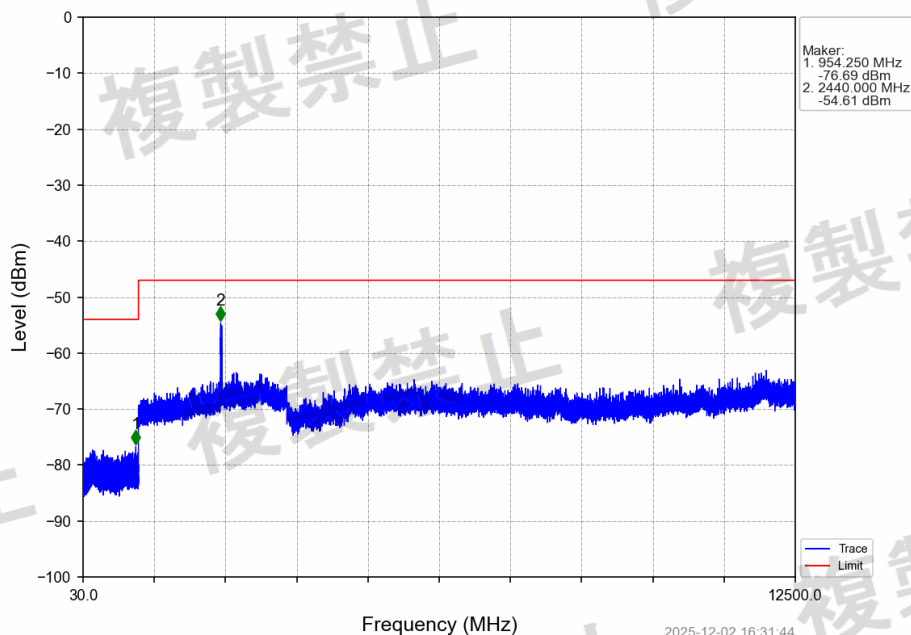


Report No.: HTT202511831Y2

802.11b 2412MHz\_Ant1 (SISO) NTN



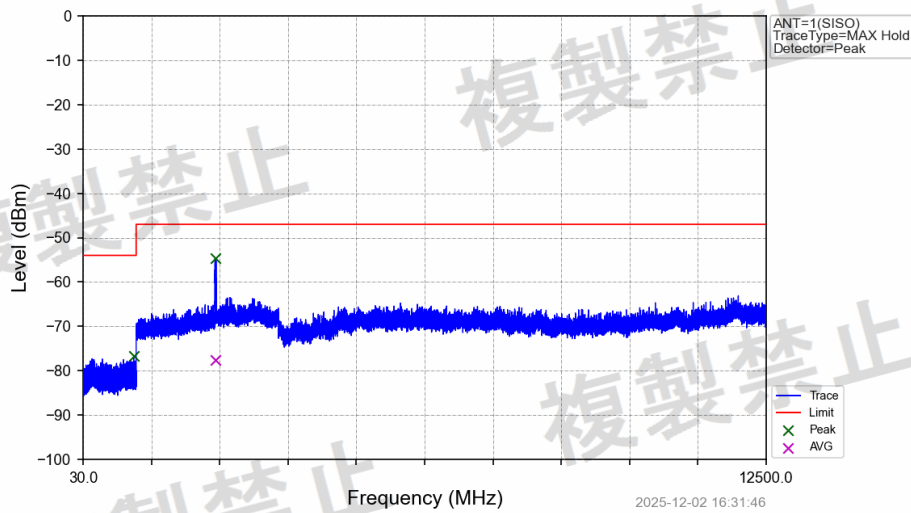
802.11b 2442MHz\_Ant1 (SISO) NTN





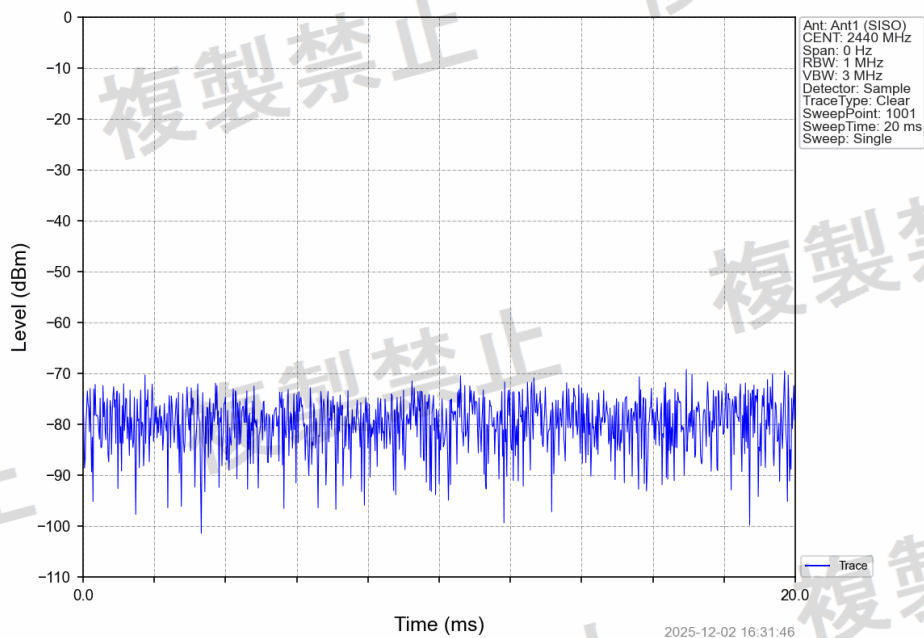
Report No.: HTT202511831Y2

802.11b 2442MHz Ant1 (SISO) NTN



| 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       | 954.250    | -76.69         | /              | -54         | Pass   |
| 1000        | 12500      | 1         | 1         | 2440.000   | -54.61         | -77.65         | -47         | Pass   |

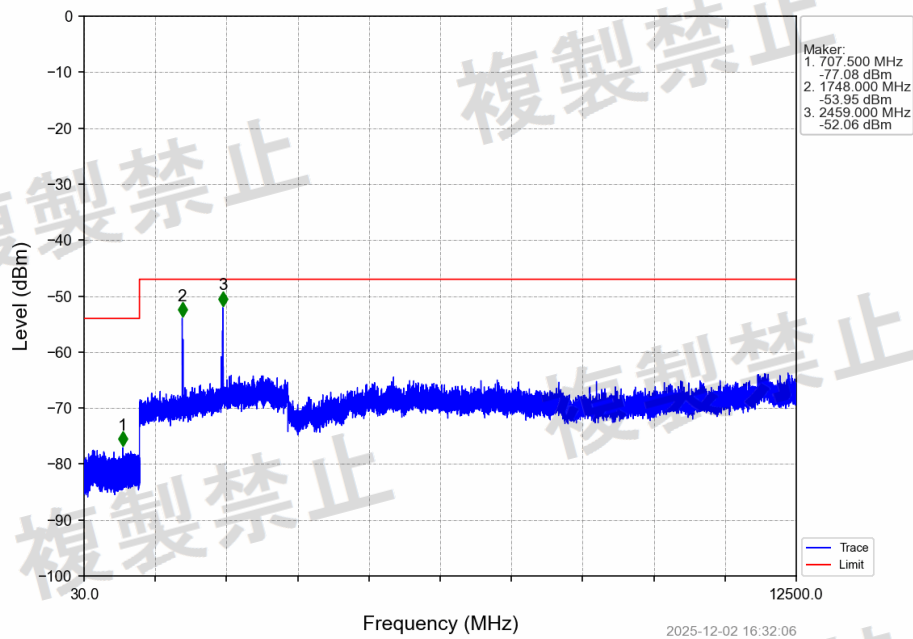
802.11b 2442MHz Ant1 (SISO) NTN



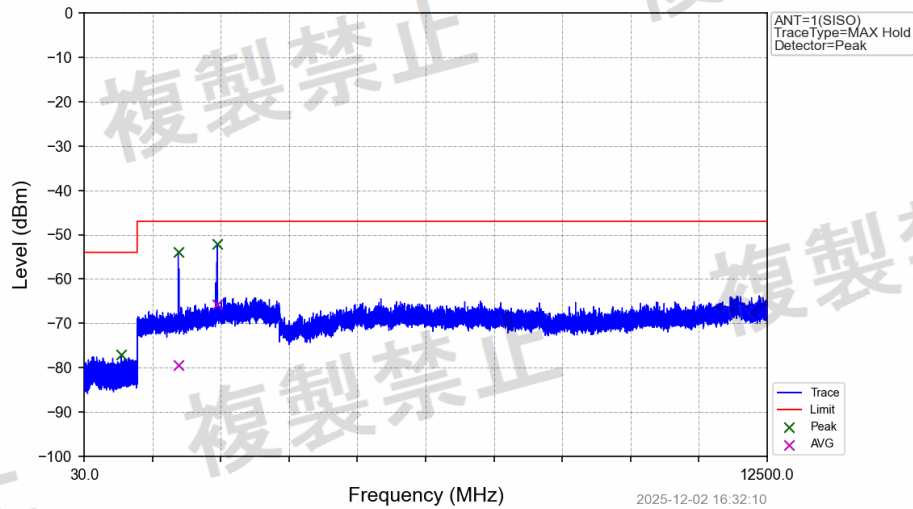


Report No.: HTT202511831Y2

802.11b 2472MHz\_Ant1 (SISO) NTN



802.11b 2472MHz\_Ant1 (SISO) NTN

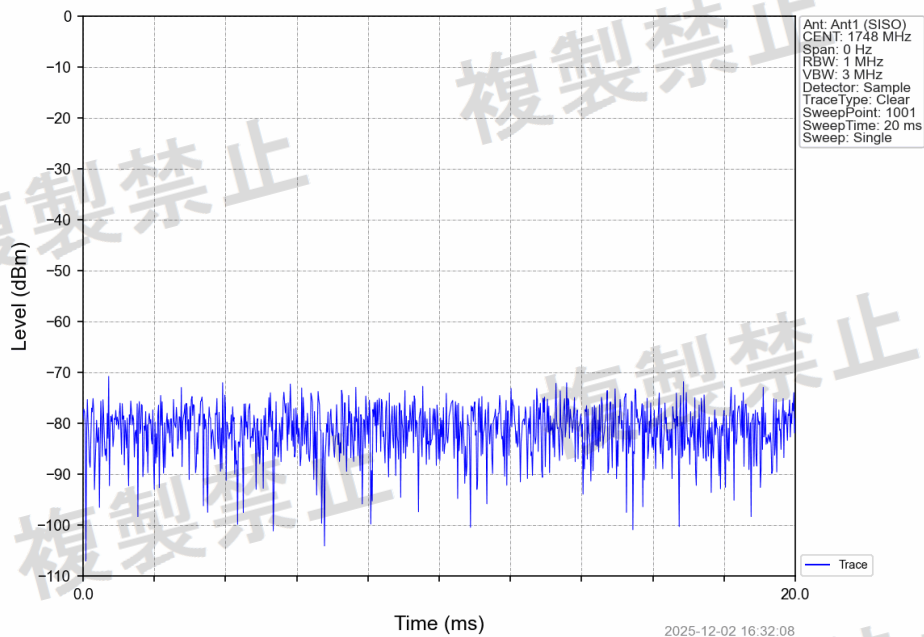


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 1000       | 0.1       | 0.1       | 707.500    | -77.08         | /              | -54         | Pass   |
| 1000        | 12500      | 1         | 1         | 1748.000   | -53.95         | -79.35         | -47         | Pass   |
| 1000        | 12500      | 1         | 1         | 2459.000   | -52.06         | -65.84         | -47         | Pass   |

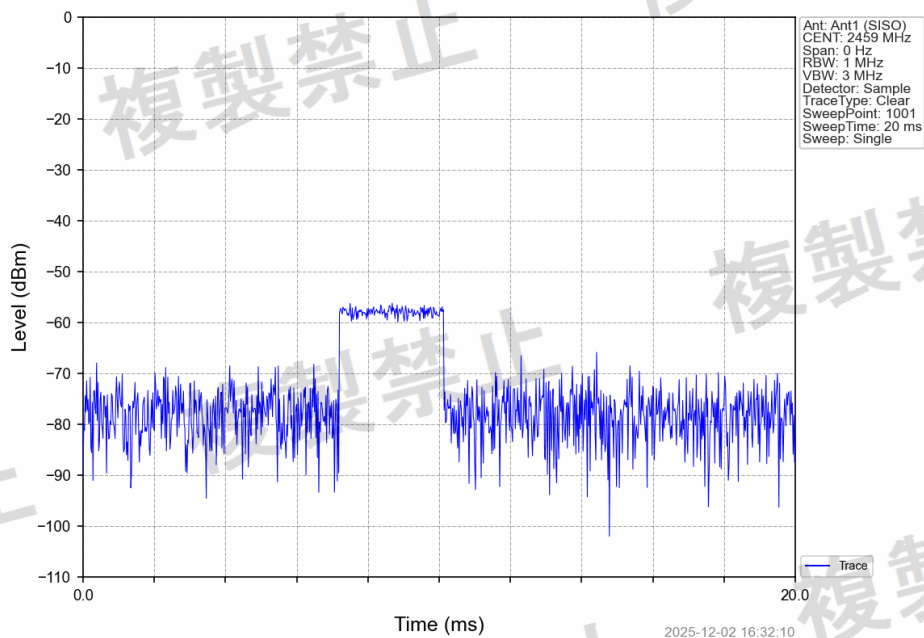


Report No.: HTT202511831Y2

802.11b 2472MHz\_Ant1 (SISO) NTN



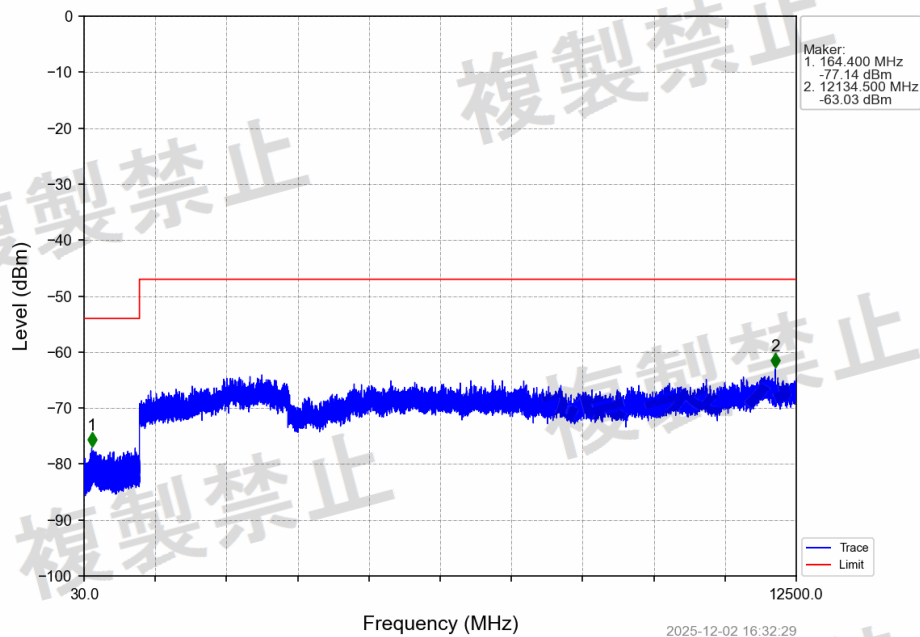
802.11b 2472MHz\_Ant1 (SISO) NTN



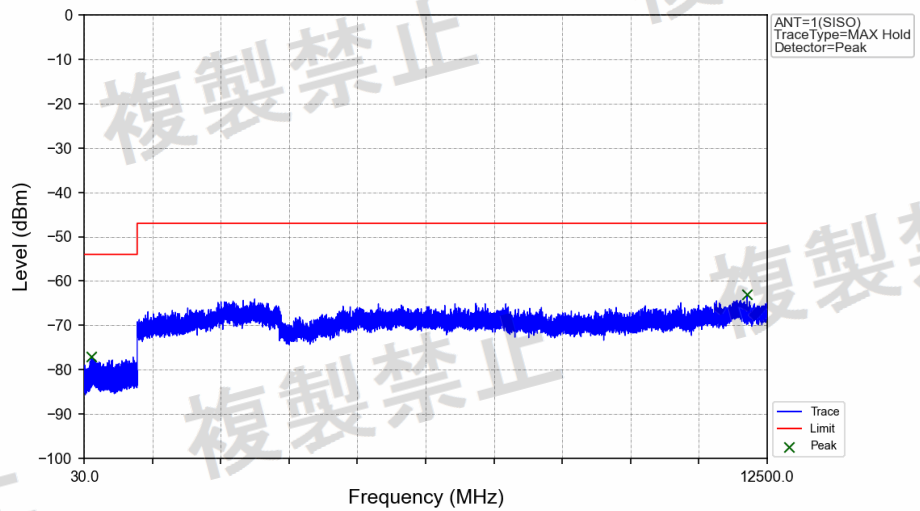


Report No.: HTT202511831Y2

802.11g 2412MHz Ant1 (SISO) NTN



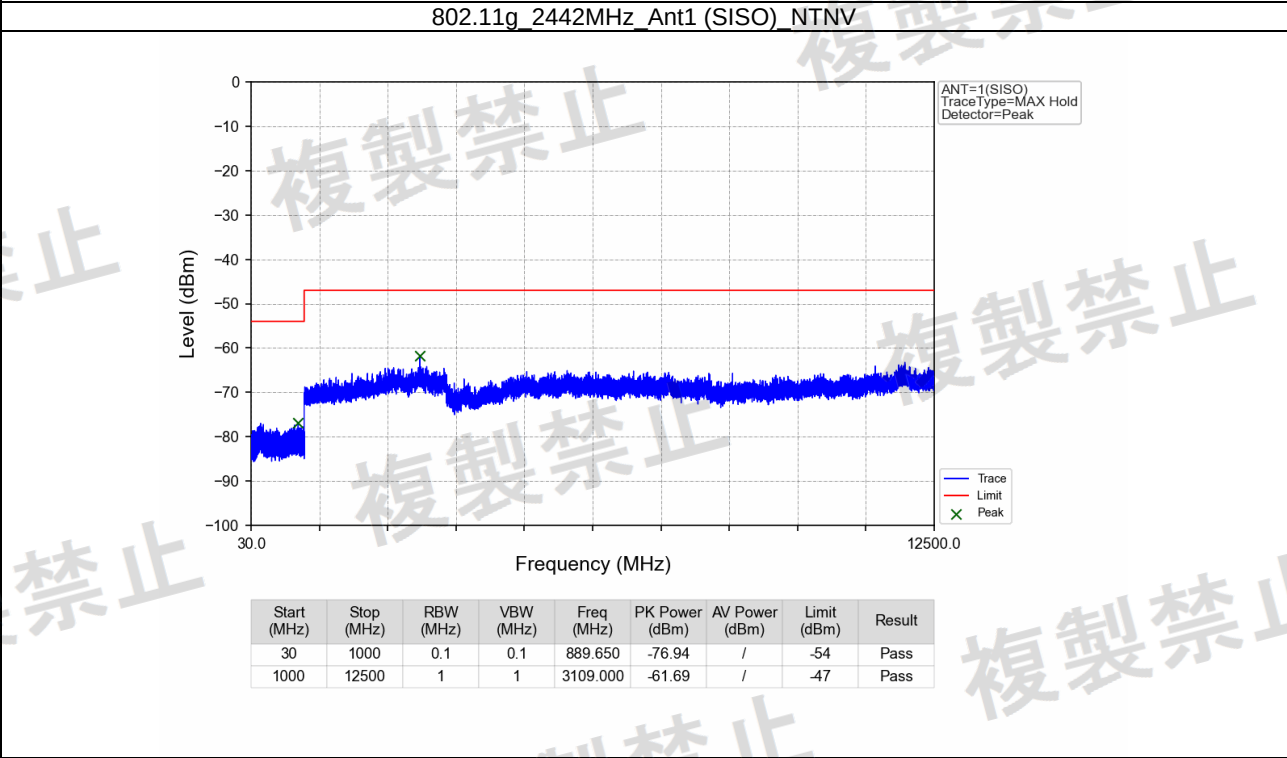
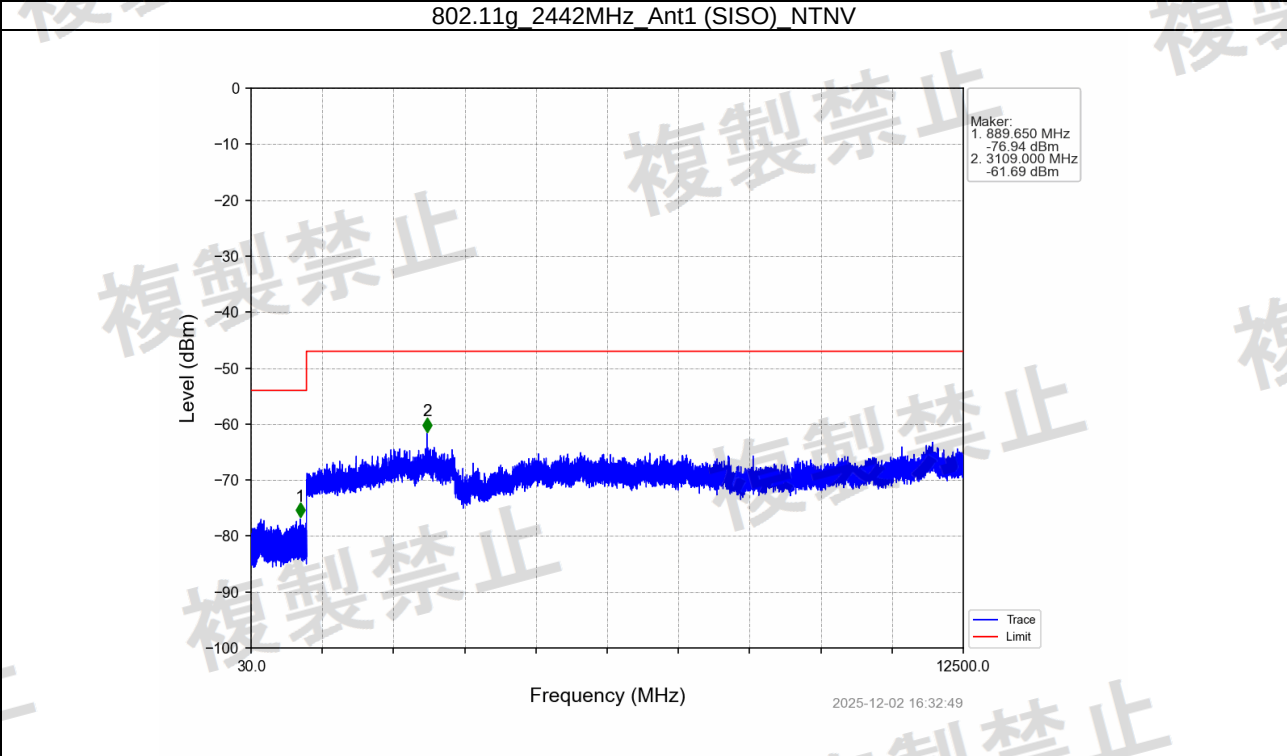
802.11g 2412MHz Ant1 (SISO) NTN



| 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       | 164.400    | -77.14         | /              | -54         | Pass   |
| 1000        | 12500      | 1         | 1         | 12134.500  | -63.03         | /              | -47         | Pass   |



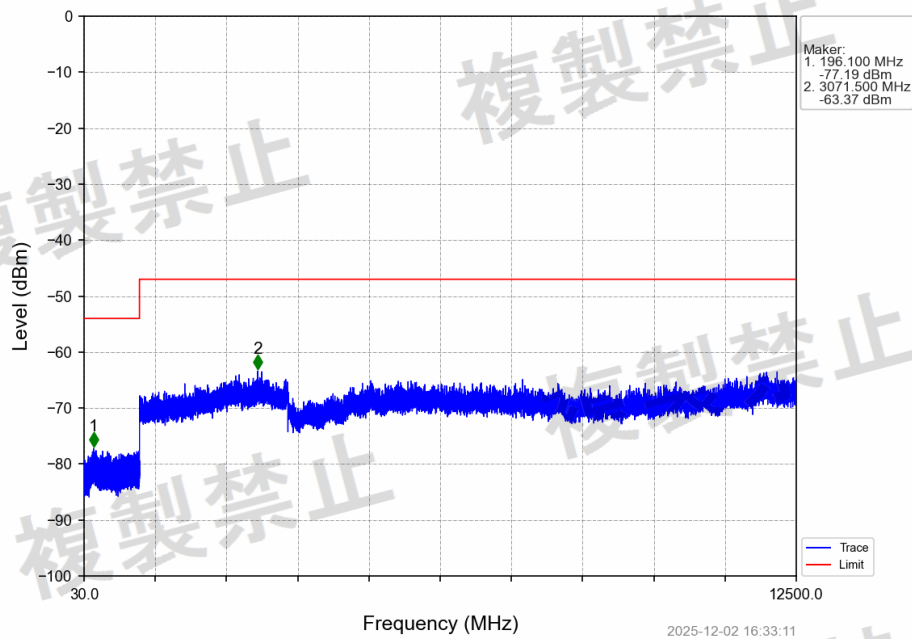
Report No.: HTT202511831Y2



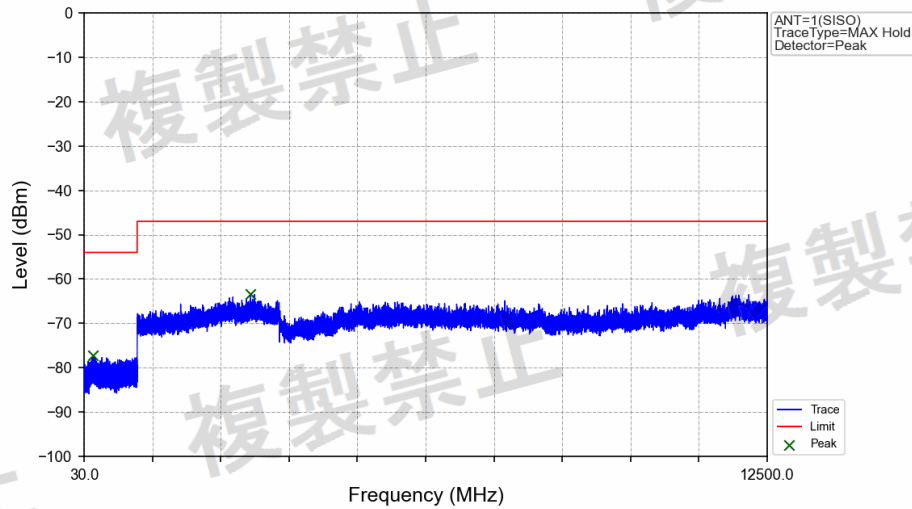


Report No.: HTT202511831Y2

802.11g 2472MHz Ant1 (SISO) NTN



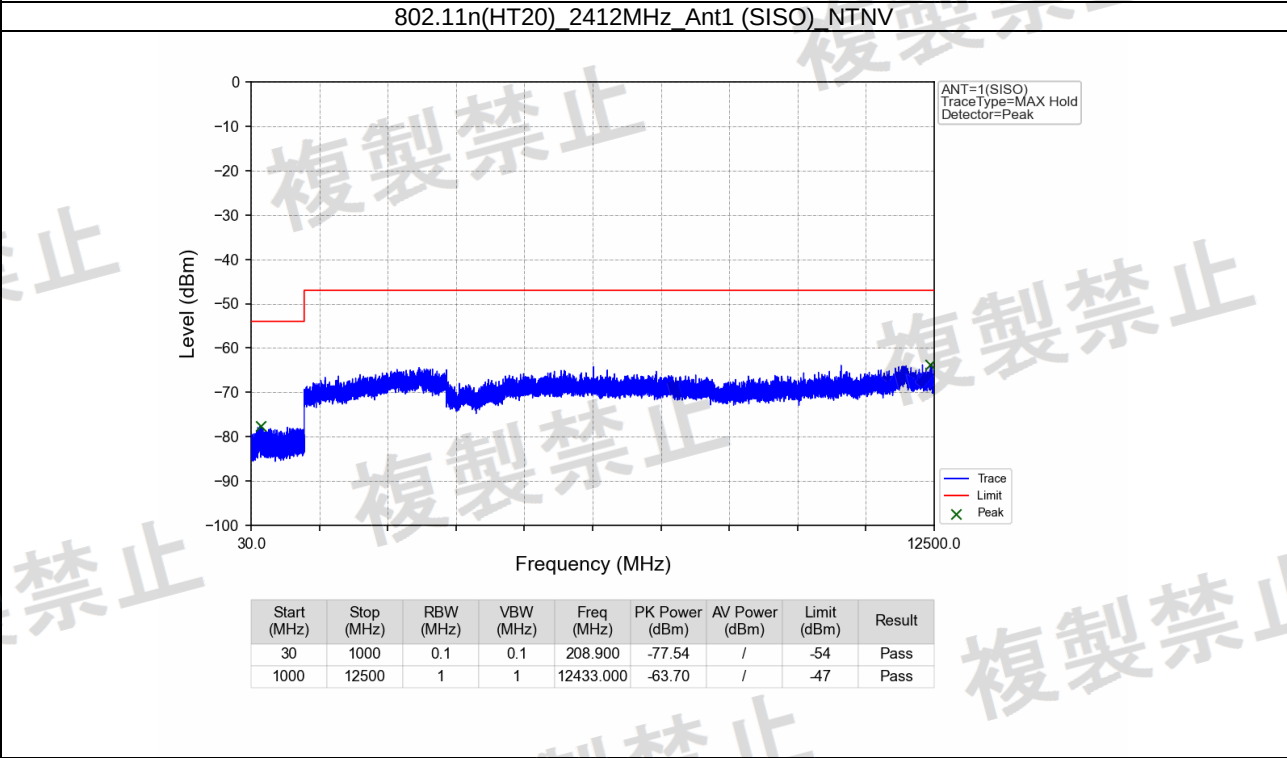
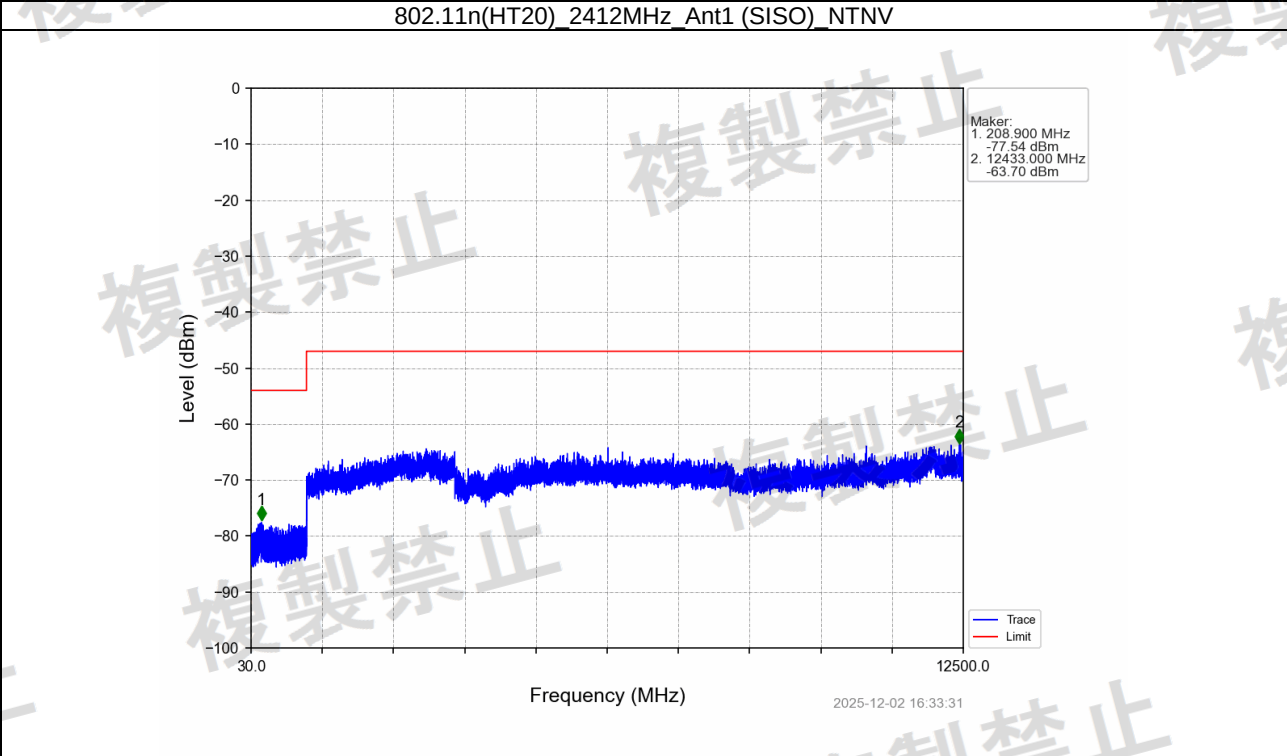
802.11g 2472MHz Ant1 (SISO) NTN



| 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       | 196.100    | -77.19         | /              | -54         | Pass   |
| 1000        | 12500      | 1         | 1         | 3071.500   | -63.37         | /              | -47         | Pass   |



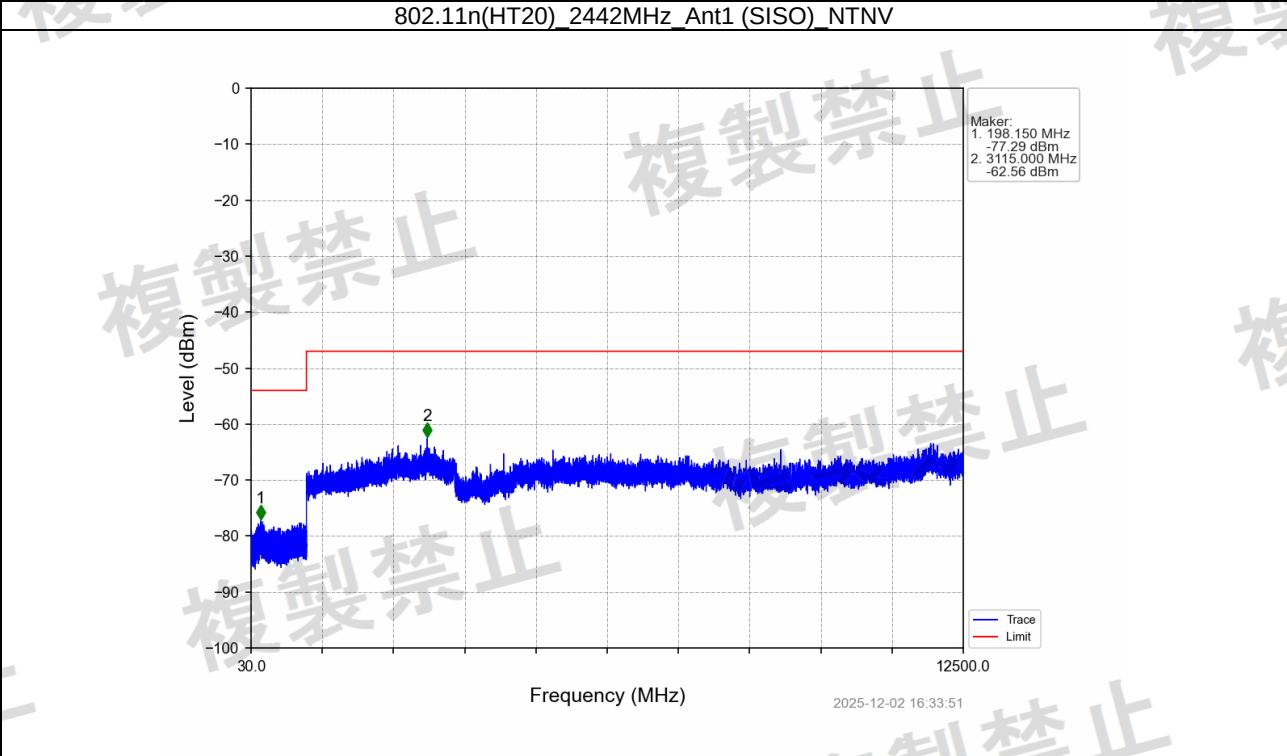
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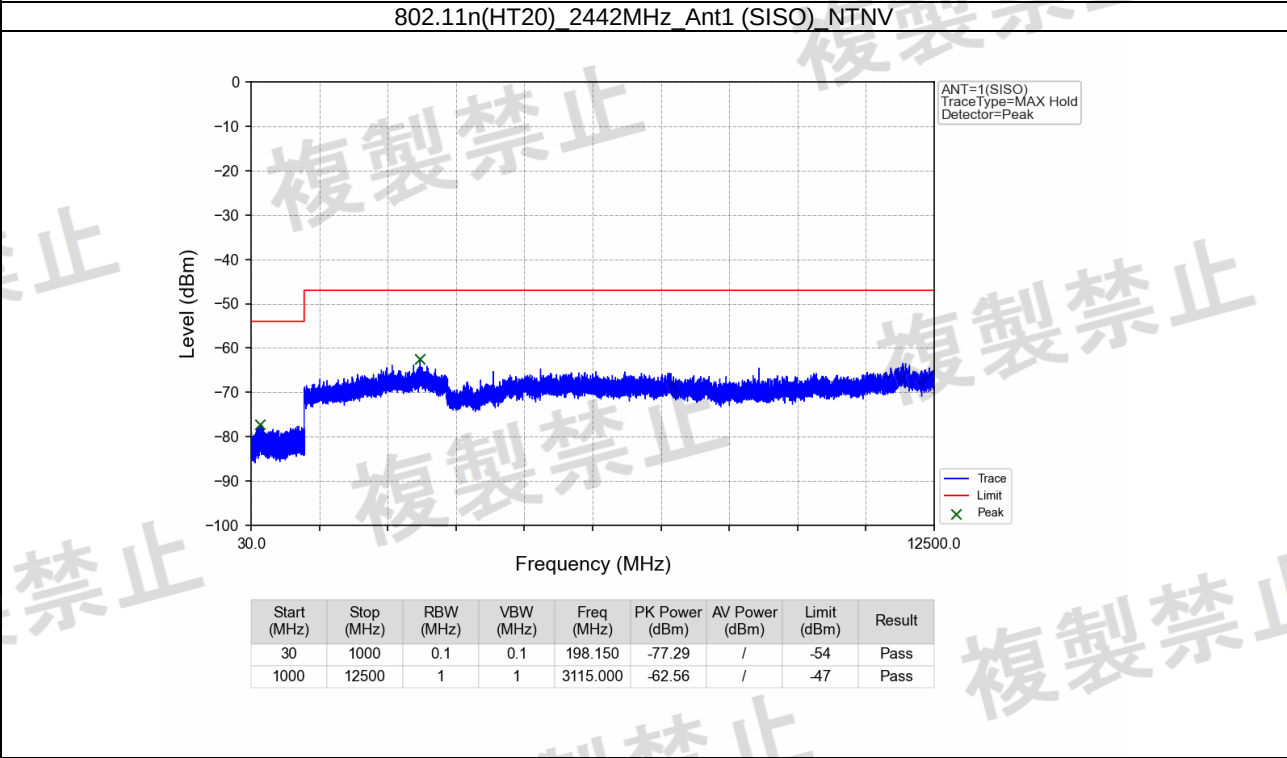


Report No.: HTT202511831Y2

802.11n(HT20) 2442MHz Ant1 (SISO) NTNV

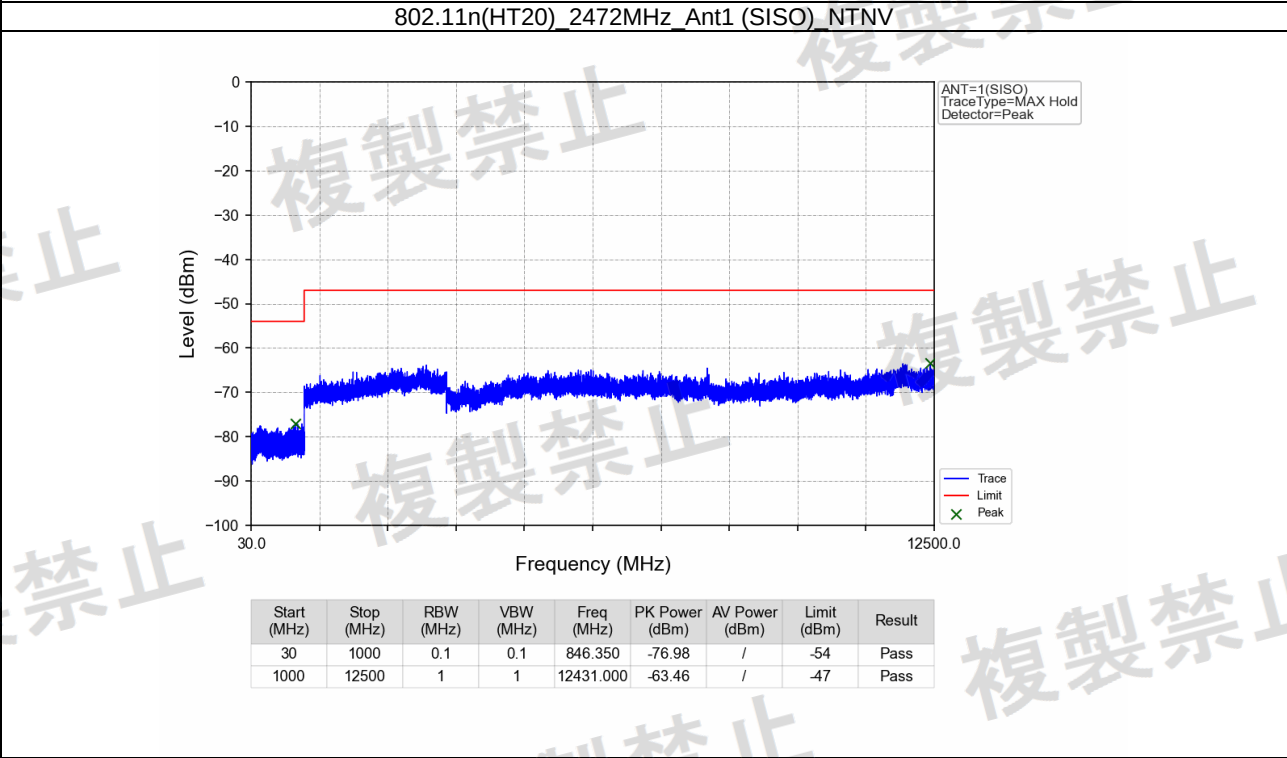
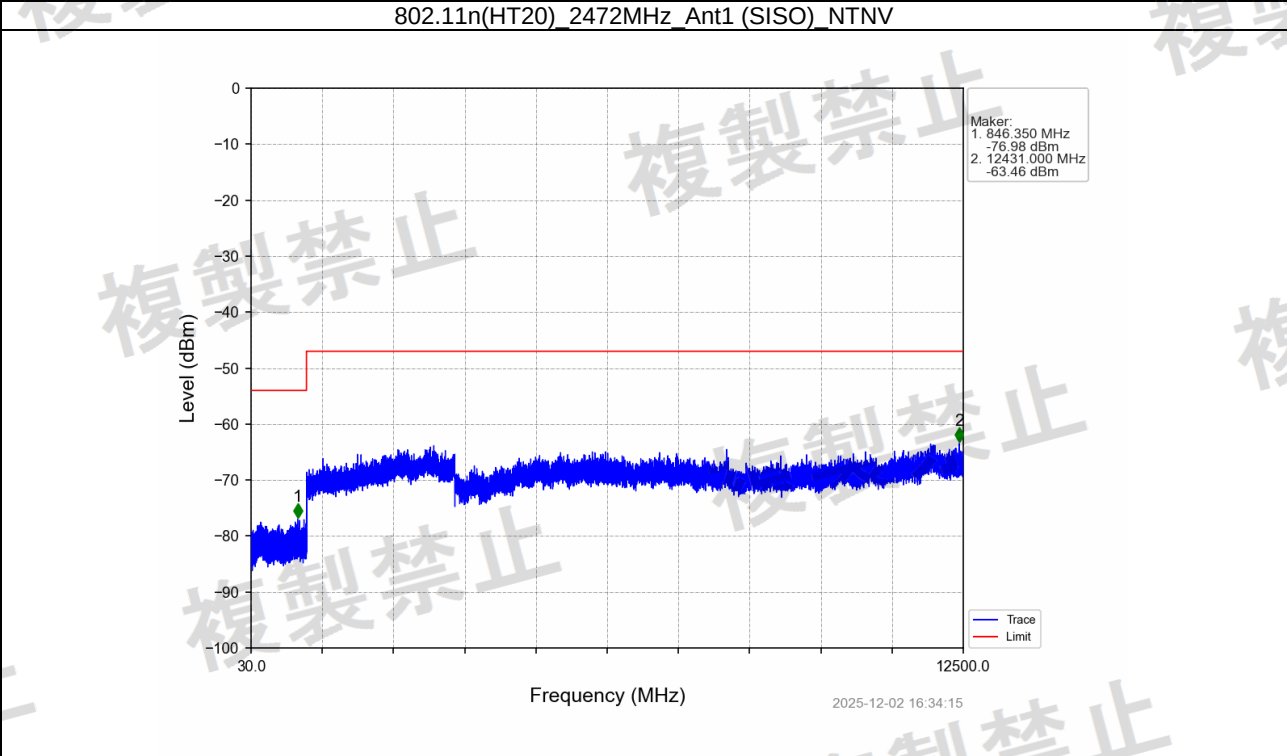


802.11n(HT20) 2442MHz Ant1 (SISO) NTNV





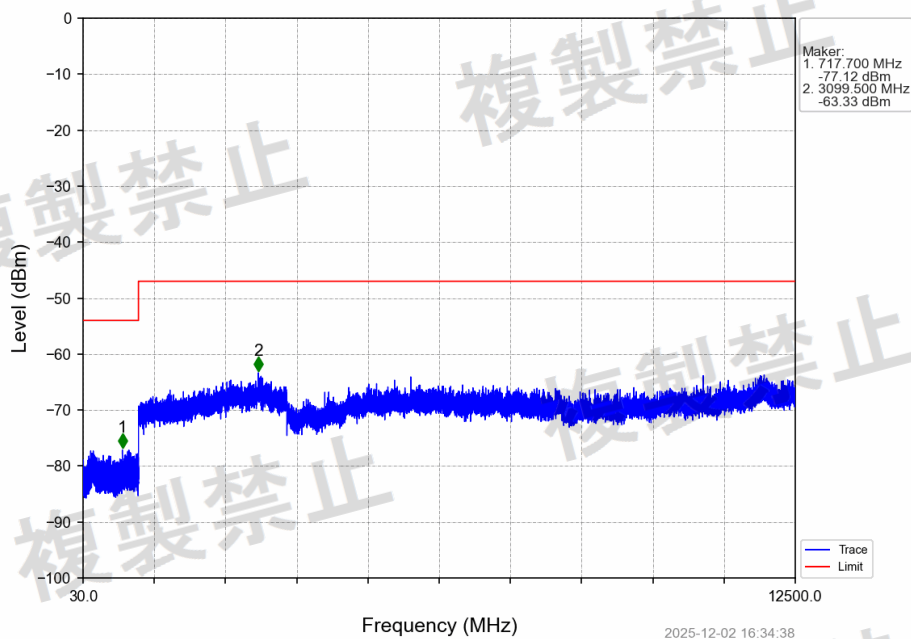
Report No.: HTT202511831Y2



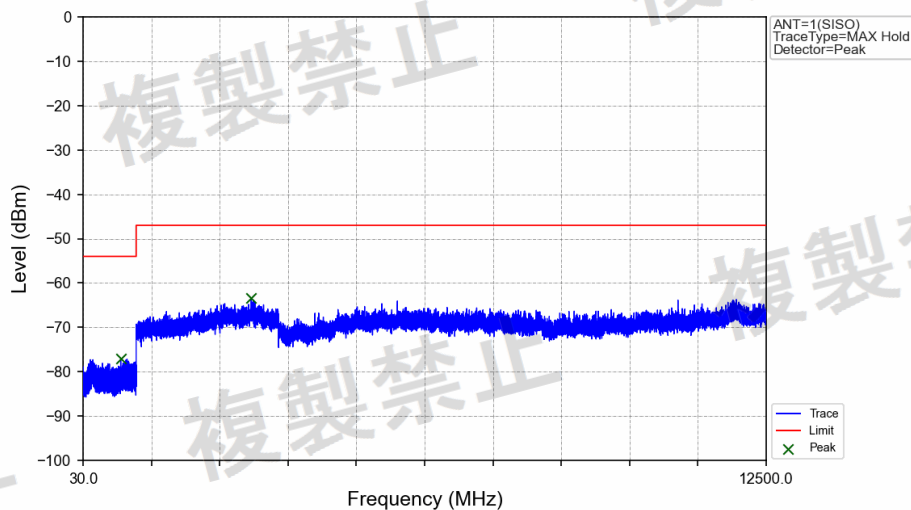


Report No.: HTT202511831Y2

802.11n(HT40) 2422MHz Ant1 (SISO) NTNV



802.11n(HT40) 2422MHz Ant1 (SISO) NTNV

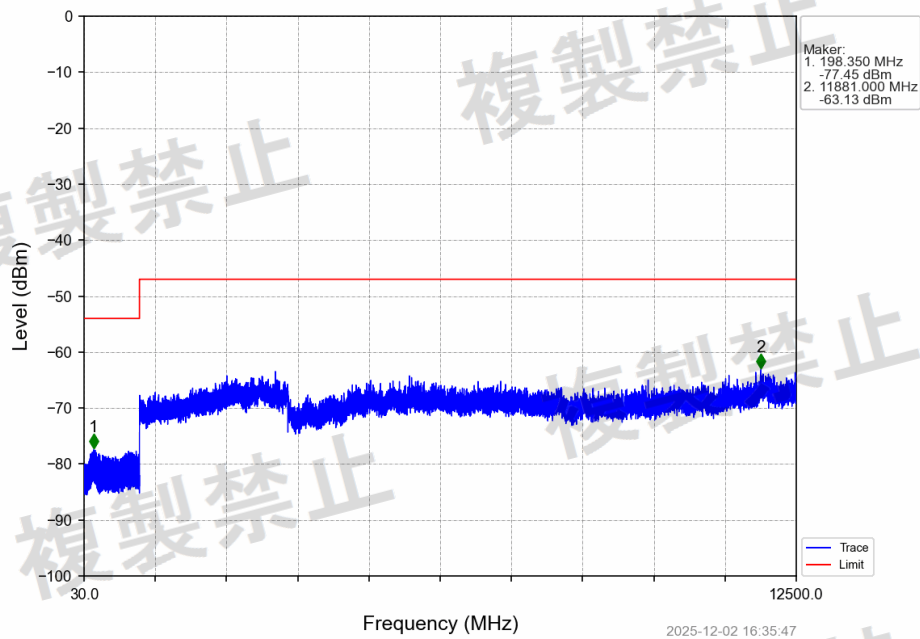


| Start (MHz) | Stop (MHz) | RBW (MHz) | VBW (MHz) | Freq (MHz) | PK Power (dBm) | AV Power (dBm) | Limit (dBm) | Result |
|-------------|------------|-----------|-----------|------------|----------------|----------------|-------------|--------|
| 30          | 1000       | 0.1       | 0.1       | 717.700    | -77.12         | /              | -54         | Pass   |
| 1000        | 12500      | 1         | 1         | 3099.500   | -63.33         | /              | -47         | Pass   |

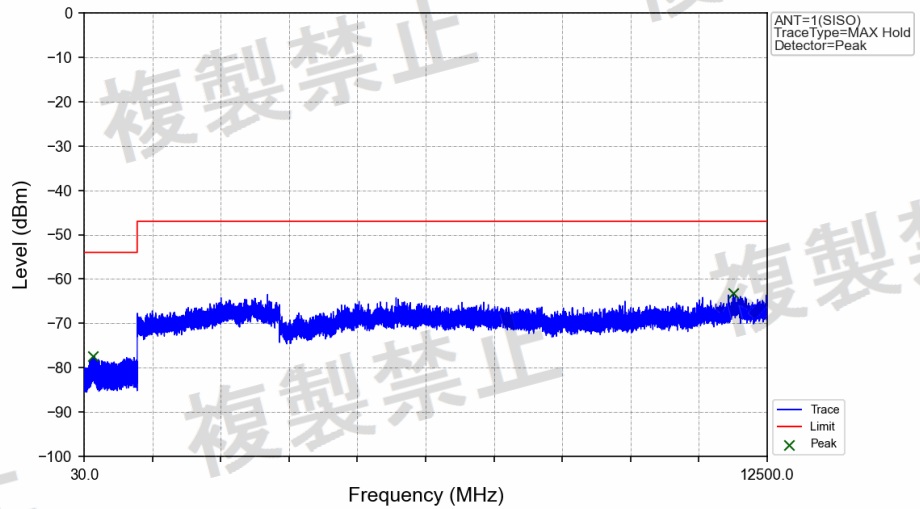


Report No.: HTT202511831Y2

802.11n(HT40) 2442MHz Ant1 (SISO) NTNV



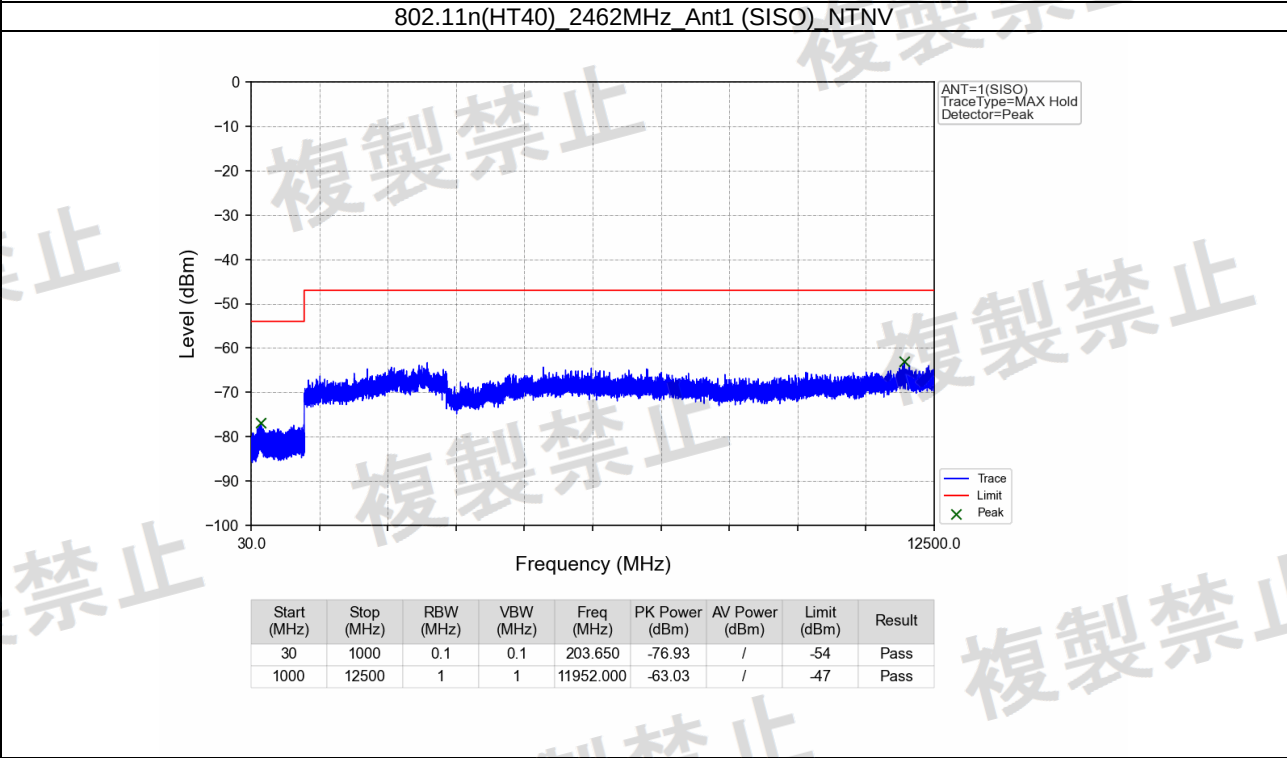
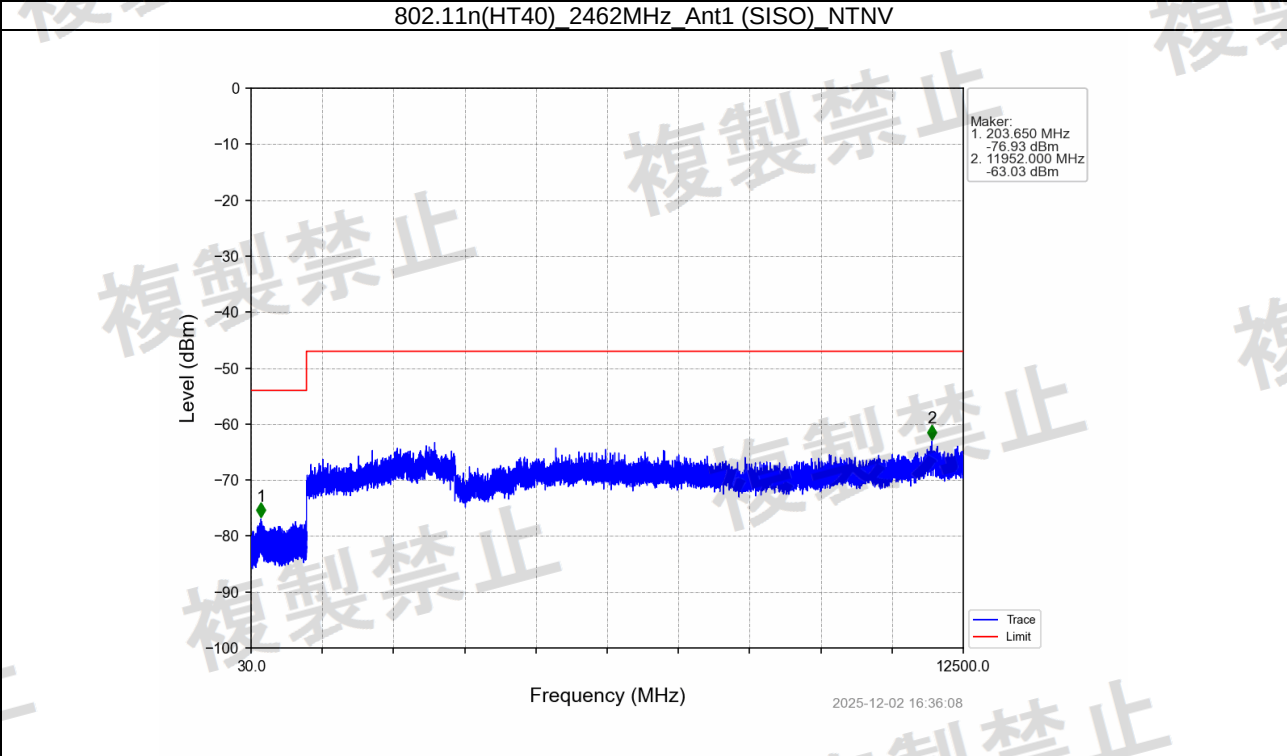
802.11n(HT40) 2442MHz Ant1 (SISO) NTNV



| 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       | 198.350    | -77.45         | /              | -54         | Pass   |
| 1000        | 12500      | 1         | 1         | 11881.000  | -63.13         | /              | -47         | Pass   |



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### 3.6. Construction Protection Method

#### REQUIREMENT

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

#### CONFIRMATION METHOD

All high-frequency section and modulation section was packaged in one IC, it can not be easily open.



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### 3.7. Interference Prevention Function

#### REQUIREMENT

Clarify the one automatically to transmit and to receive identification code with the wireless equipment of the wireless station used in the same premises.

| Item                | Limits         |
|---------------------|----------------|
| Identification code | $\geq 48$ bits |

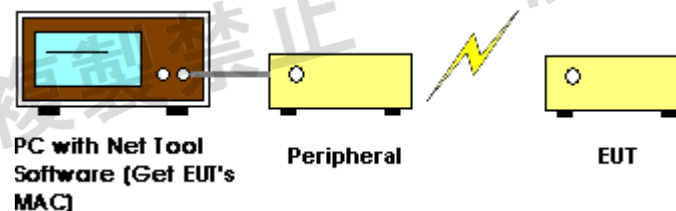
#### CONFIRMATION METHOD

A communication link was made where the ID code is correct (Identical).

#### TEST PROCEDURE

1. 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.
2. 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 other signals 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.

#### TEST CONFIGURATION



#### TEST RESULTS

PASS

MAC Address: B2: A3: D6: C0: E5: 5A



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### 3.8. Carrier Sensing function

#### LIMIT

| Item          | Limits                                                                                                                                         |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrier Sense | Good - EUT stop RF transmission signal after carrier inject to EUT.<br>(On $22.79 + Gr - 20 \cdot \log(f)$ [dBm] (Gr: dBi; f: MHz) or 100mV/m) |

#### INSTRUMENTS SETTING

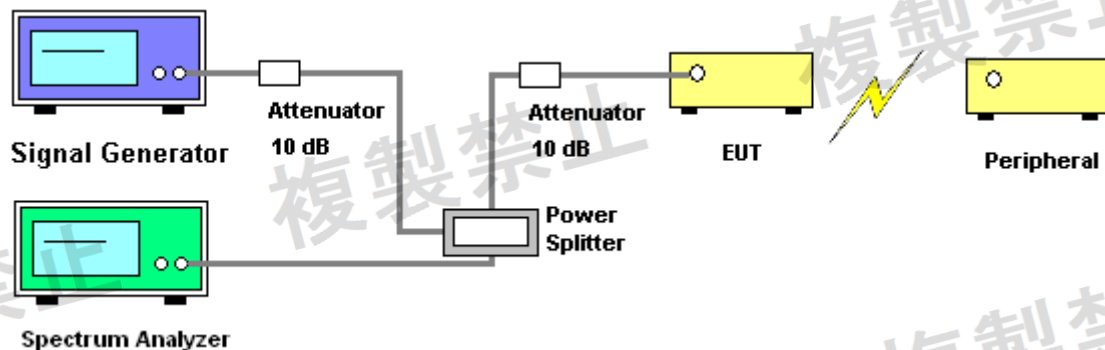
The following table is the setting of spectrum analyser and receiver.

| Spectrum Parameter | Setting    |
|--------------------|------------|
| Attenuation        | Auto       |
| RB / VB            | 1 MHz      |
| Span               | 0 MHz      |
| Sweep              | Continuous |
| Detector           | Peak       |
| Trigger mode       | Video      |

#### TEST PROCEDURE

1. SSG adjusted the frequency as same as the EUT transmitted signal and emitted the absence of modulation from SSG and power level is (On  $22.79 + Gr - 20 \cdot \log(f)$  [dBm] (Gr: dBi; f: MHz). Then turn off the RF signal of SSG.
2. EUT have transmitted the maximum modulation signal and fixed channelize.
3. Setting of SA is following as: RB: 1MHz / VB: 1MHz / SPAN: 50MHz / AT: 10dB / Ref: 0dBm / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak.
4. SSG RF Signal On.
5. EUT shall be stop the transmitted any signal and SSG RF Signal Off. Then EUT will be continuous transmitted signal.

#### TEST CONFIGURATION



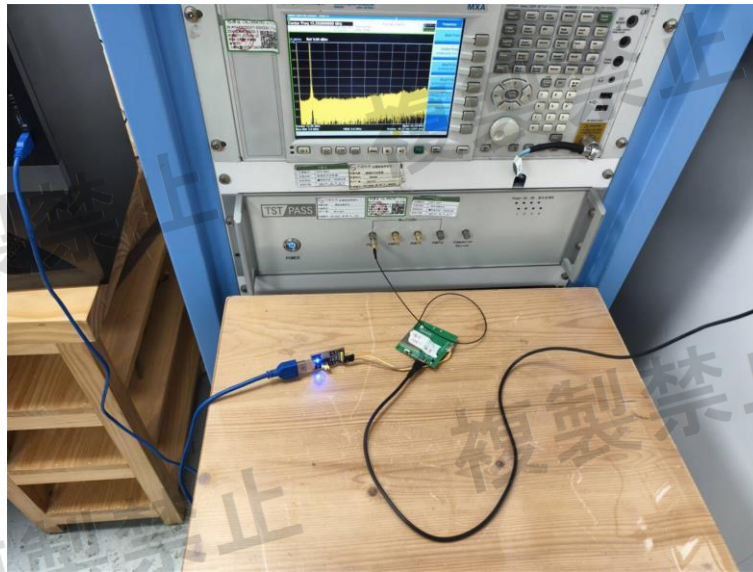
#### TEST RESULTS

| Test mode         | Test frequency (MHz) | Interference signal level (dBm) | Test result |
|-------------------|----------------------|---------------------------------|-------------|
| IEEE 802.11n HT40 | 2462                 | -53.26                          | Good        |



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#### 4. Test Setup Photos of the EUT





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## 5. External and Internal Photos of the EUT

Reference to the test report No. HTT202511831Y1.

\*\*\*\*\*THE END\*\*\*\*\*