



TEST REPORT

Product	:	Digital Camera
Model Name	:	YAS-FXDS300, DB62S, S300
Brand	:	N/A
Report No.	:	PTC25121916201E-MI01
Prepared for		
100 Enterprises International Group Company Limited		
Rm G, 15/F, MG Tower, 133 Hoi Bun Road, Kwun Tong, Kowloon, Hong Kong		
Prepared by		
Precise Testing & Certification (Guangdong) Co., Ltd.		
Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China.		



1. TEST RESULT CERTIFICATION

Applicant's name : 100 Enterprises International Group Company Limited

Address : Rm G, 15/F, MG Tower, 133 Hoi Bun Road, Kwun Tong, Kowloon, Hong Kong

Manufacture's name : 100 Enterprises International Group Company Limited

Address : Rm G, 15/F, MG Tower, 133 Hoi Bun Road, Kwun Tong, Kowloon, Hong Kong

Product name : Digital Camera

Model name : YAS-FXDS300, DB62S, S300

Standards : MIC Notice No.88 Appendix No.43 Article 2, Paragraph 1, Item 19
ARIB STD-T66

Test Date : Dec. 30, 2025 to Jan. 06, 2026

Date of Issue : Jan. 08, 2026

Test Result : Pass

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the MIC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:


Jack Zhou / Engineer

Technical Manager:


Simon Pu / Manager

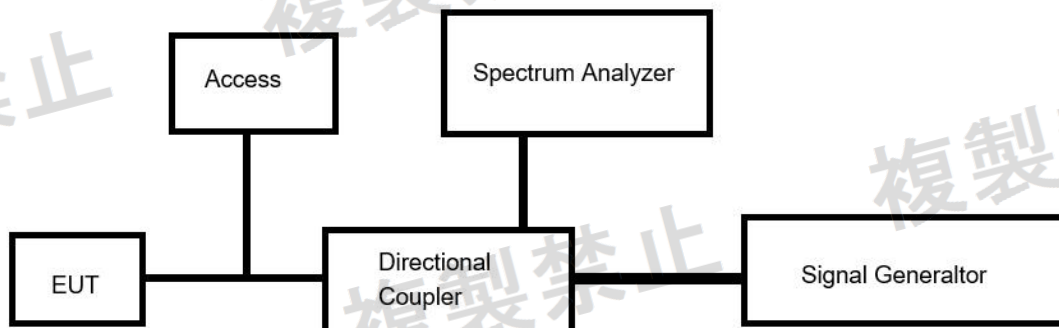


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2 Test Summary

Test Standard	Test Item	Test Method (ARIB STD-T66)	Result
Transmitting equipment			
MIC Notice No.88 Appendix No.43 Article 2, Paragraph 1, Item 19	Antenna Power	3.2 (2)	PASS
	Tolerances for Antenna Power	3.2 (3)	PASS
	Frequency Tolerance	3.2 (4)	PASS
	Occupied Frequency Bandwidth	3.2 (7)	PASS
	Spread Bandwidth	3.2 (8)	PASS
	Spurious emission intensity	3.2 (6)	PASS
	Receiving equipment		
	Secondary Radiated Emissions	3.3 (1)	PASS
	Controlling equipment		
	Interference prevention function	3.4.1 (1)	PASS
Article 49-20	Carrier Sensing function	Article 49-20, Item1-k	Good
Note:			
1:“N/A” is not applicable			
2: All the test items are following the MIC Notice No.88 Appendix No.43 & Appendix No.1			
3:The product complies with the Ordinance Regulating Radio Equipment Article 49.20			
4. Test method is conducted according ARIB STD-T66 which is based on MIC Notice No.88 Appendix No.43 (Item 19, Paragraph 1, Article 2).			



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Digital Camera
Model Number	:	YAS-FXDS300, DB62S, S300
Specification	:	Wifi 2.4G
Operating frequency	:	2412MHz~2472MHz
Modulation	:	CCK/DSSS/OFDM with BPSK / QPSK / 16QAM / 64QAM for 802.11b/g/n
Number of Channel	:	13 Channels for 802.11 b/g/n (HT20) 9 Channels for 802.11 n (HT40)
Antenna installation	:	FPC Antenna
Smart System	:	☒ SISO:(for 802.11 b/g/n20/n40) ☐ MIMO:(for 802.11 b/g/n20/n40)
Antenna Gain	:	Ant1:1.96 dBi
Power supply	:	Li-ion Battery : NP-40 Rated Voltage: 3.7V Rated Capacity:1250mAh DC 5V 2A input via adapter.
Hardware Version	:	V11
Software Version	:	N/A
Model difference	:	all models are different color only. the function is same.



3.2 Channel List

Frequency and Channel list for 802.11 b/g/n (HT20)

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

Test Frequency and Channel for 802.11 b/g/n (HT20):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442	13	2472

Test Frequency and Channel for 802.11n (HT40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
3	2422	7	2442	11	2462



3.3 General condition

Ambient Condition: 25 °C 50 %RH

3.4 Environmental condition of test site

	Normal Test Conditions	Extreme Test Conditions
Temperature	25°C	-10°C ~ 45°C
Relative Humidity	50%	N/A
Supply Voltage	DC 3.7V	DC 3.3V~4.07V

NT: Normal Temperature; LV:Low Voltage 3.3V;NV: Normal Voltage 3.7V;HV:High Voltage 4.07V.

Note: The EUT has voltage regulator chips, so Conduct the test with the rated voltage only.

Test Voltage Information		
Power supply voltage 3.7VDC(Normal)	Power supply voltage 3.3VDC(-10%)	Power supply voltage 4.07VDC(+10%)
RF module voltage DC 3.3V	RF module voltage DC 3.3V	RF module voltage DC 3.3V
When EUT be operated at 10% from the normal supply voltage, the supply voltage of RF part was varied within 1%. All test cased were done under the normal supply voltage. Note: For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.		



3.5 Test Mode

The EUT has been tested under operating condition.

Software used to control the EUT for staying in continuous transmitting and receiving mode is programmed.(Test Software: Manually enter the command, Use the default setting of the fixed frequency software)

IEEE802.11b: Channel 1(2412MHz), Channel 7(2442MHz) and Channel 13(2472MHz) with 11Mbps Worst data rate (worst case) are chosen for the final testing.

IEEE802.11g: Channel 1(2412MHz), Channel 7(2442MHz) and Channel 13(2472MHz) with 54Mbps data rate (the worst case) are chosen for the final testing.

IEEE802.11n(HT20): Channel 1(2412MHz), Channel7(2442MHz) and Channel 13(2472MHz) with 65Mbps Worst data rate (worst case) are chosen for the final testing.

IEEE802.11n(HT40): Channel 1(2422MHz), Channel7(2442MHz) and Channel 13(2462MHz) with 65Mbps Worst data rate (worst case) are chosen for the final testing.

Remark: This device have more than 1 subcarrier in 1MHz, compliance with the requirement.

3.6 Test Site

Precise Testing & Certification (Guangdong) Co., Ltd.

Address: Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China

FCC Registration Number: 790290

A2LA Certificate No.: 4408.01

IC Registration Number: 12191A

3.7 measurement uncertainty

Parameter	Uncertainty
RF output power, conducted	±1.0dB
Power Spectral Density, conducted	±2.2dB
Radio Frequency	± 1 x 10 ⁻⁶
Bandwidth	± 1.5 x 10 ⁻⁶
Time	±2%
Duty Cycle	±2%
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%



3.8 Test Equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Cal. Agency	Last calibration	Calibration Interval
1	EMC Analyzer (9k~26.5GHz)	Agilent	E4407B	MY45109572	CVC	Aug.15,2025	1 Year
2	EMI Test Receiver	Rohde & Schwarz	ESCI	101417	CVC	Aug.15,2025	1 Year
3	Power Meter	Anritsu	ML2495A	0949003	CVC	Aug.15,2025	1 Year
4	Power Sensor	Anritsu	MA2411B	0917017	CVC	Aug.15,2025	1 Year
5	DC Power Source	GW Instek	GPC-303DN	EK880675	CVC	Aug.15,2025	1 Year
6	Frequency Meter	Agilent	53132A	N/A	CVC	Aug.15,2025	1 Year
7	MXA Signal Analyzer (20k~26.5GHz)	Agilent	N9020A	MY51110381	CVC	Aug.15,2025	1 Year
8	Vector Signal Generator	Agilent	N5182A	AT0-71847	CVC	Aug.15,2025	1 Year
9	Analog Signal Generator	HP	83620	3420A01830	CVC	Aug.15,2025	1 Year
10	oscilloscope	Tektronix	TDS3052 B	/	CVC	Aug.15,2025	1 Year
11	Humidity Chamber	AISSRY	ASR-HW2-1000	20230926003	LISAI	Feb.23 ,2025	1 Year
12	hygrothermograph	Defu	TH608	/	LISAI	Aug.15,2025	1 Year
13	Keysight MXA Signal Analyzer	Keysight	9020B	MY63513096	LISAI	Aug.15,2025	1 Year

Note: 1. Calibration by the calibration agencies listed in the table correspond to paragraph 4 (ii) (c) of Article 24-2 in the Radio Law.

2. The full name of calibration agency CVC is CVC Testing Technology Co., Ltd. Measuring Center.

3. The full name of calibration agency LISAI is Guangzhou Lisai Metrology & Test co., Ltd

3.9 Test Configuration





4 FREQUENCY TOLERANCE TEST

4.1 Test Limit

Test Limit	±50 ppm
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4.2 Test Equipment

Same as 3.8.

4.3 Test Configuration

Same as 3.9.

4.4 Test procedures

1. Setting of SA is following as: RB:10kHz/VB:10kHz/SPAN: 1MHz/AT: 30dB.
 - 2.center frequency: The center frequency of testing for EUT.
 - 3.Sweep time: Auto.
 - 4.Sweep mode: Continuous sweep.
 - 5.Detect mode: Peak.
 - 6.mark function: Frequency Counter(Resolution 100Hz).
 7. EUT have transmitted absence of modulation signal and fixed channelize. f is using the mark cursor to mark the peak frequency value, fc is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm and the limit is less than ±50ppm
- Center Frequency: The center frequency of testing for EUT.

4.5 Test Data

PASS

Please refer to the following data.

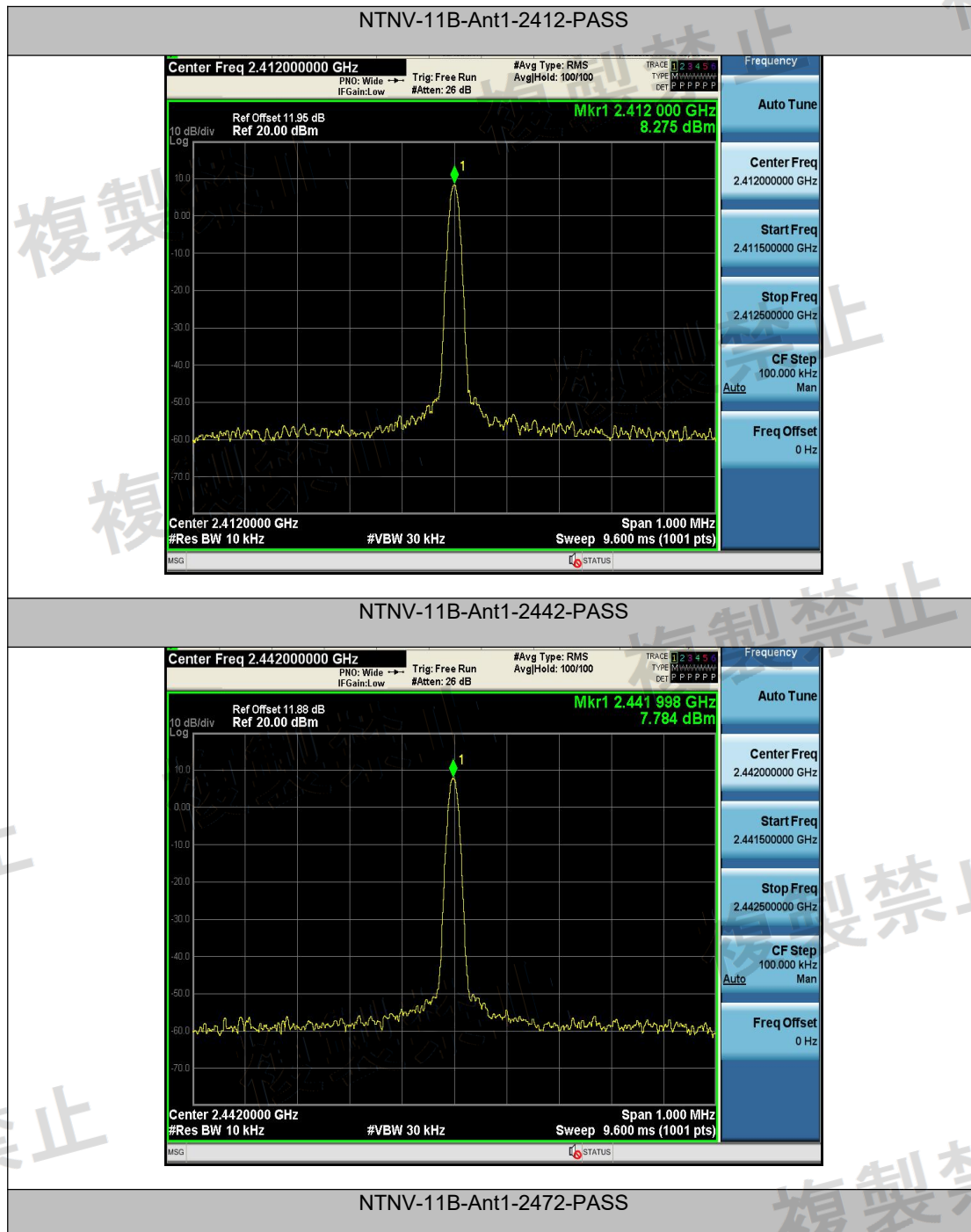
**Normal Voltage:**

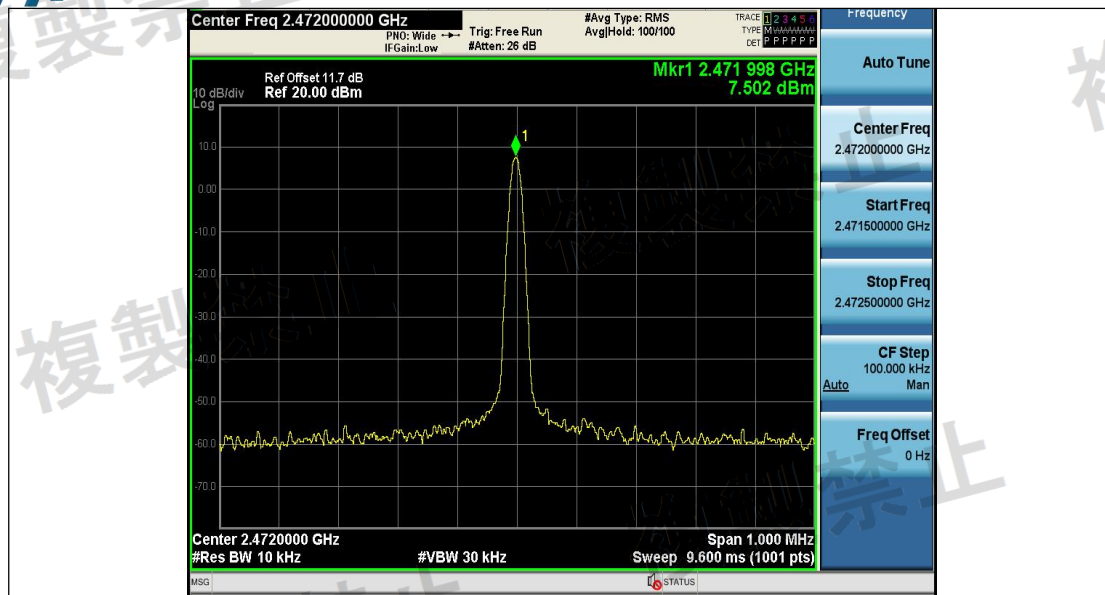
TestCondition	TestMode	Antenna	Frequency[MHz]	CenterFreq [MHz]	Result[ppm]	Limit[ppm]	Verdict
NTNV	11B	Ant1	2412	2412	0.00000	±50	PASS
NTNV	11B	Ant1	2442	2441.998	-0.81900	±50	PASS
NTNV	11B	Ant1	2472	2471.998	-0.80906	±50	PASS
NTNV	11G	Ant1	2412	2411.998	-0.82919	±50	PASS
NTNV	11G	Ant1	2442	2441.998	-0.81900	±50	PASS
NTNV	11G	Ant1	2472	2471.998	-0.80906	±50	PASS
NTNV	11N20SISO	Ant1	2412	2411.998	-0.82919	±50	PASS
NTNV	11N20SISO	Ant1	2442	2441.998	-0.81900	±50	PASS
NTNV	11N20SISO	Ant1	2472	2471.997	-1.21359	±50	PASS
NTNV	11N40SISO	Ant1	2422	2421.997	-1.23865	±50	PASS
NTNV	11N40SISO	Ant1	2442	2441.997	-1.22850	±50	PASS
NTNV	11N40SISO	Ant1	2462	2461.996	-1.62470	±50	PASS



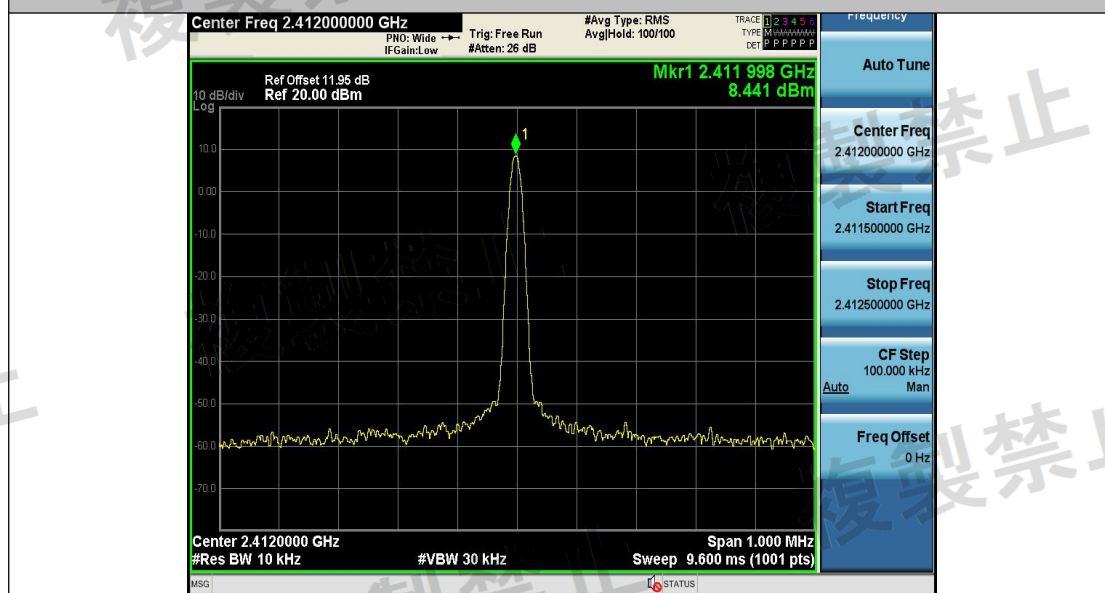
Test Graphs:

Report No.:PTC25121916201E-MI01

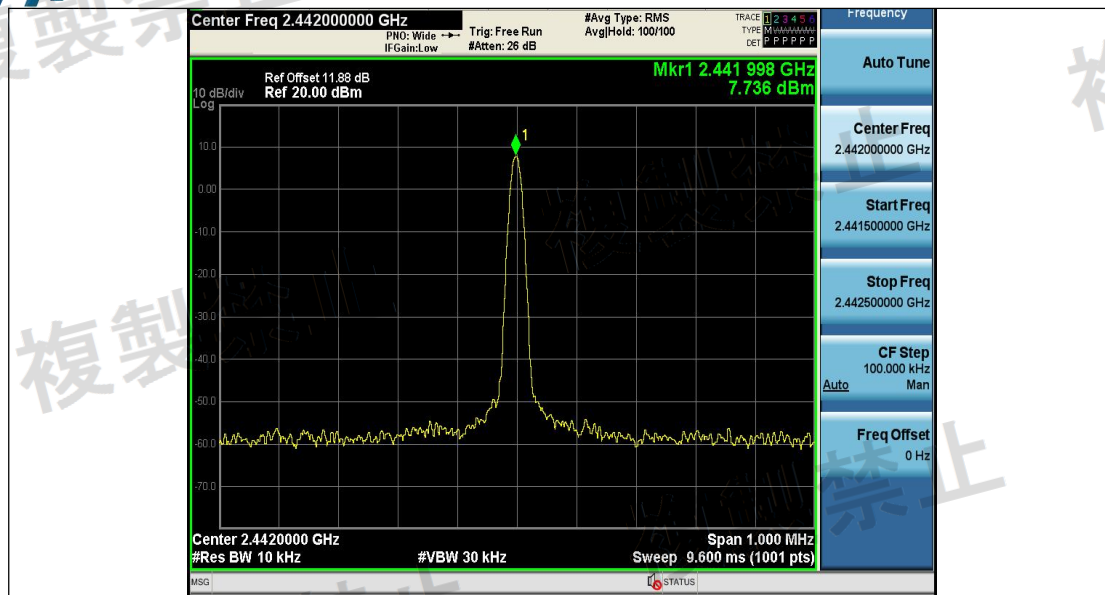




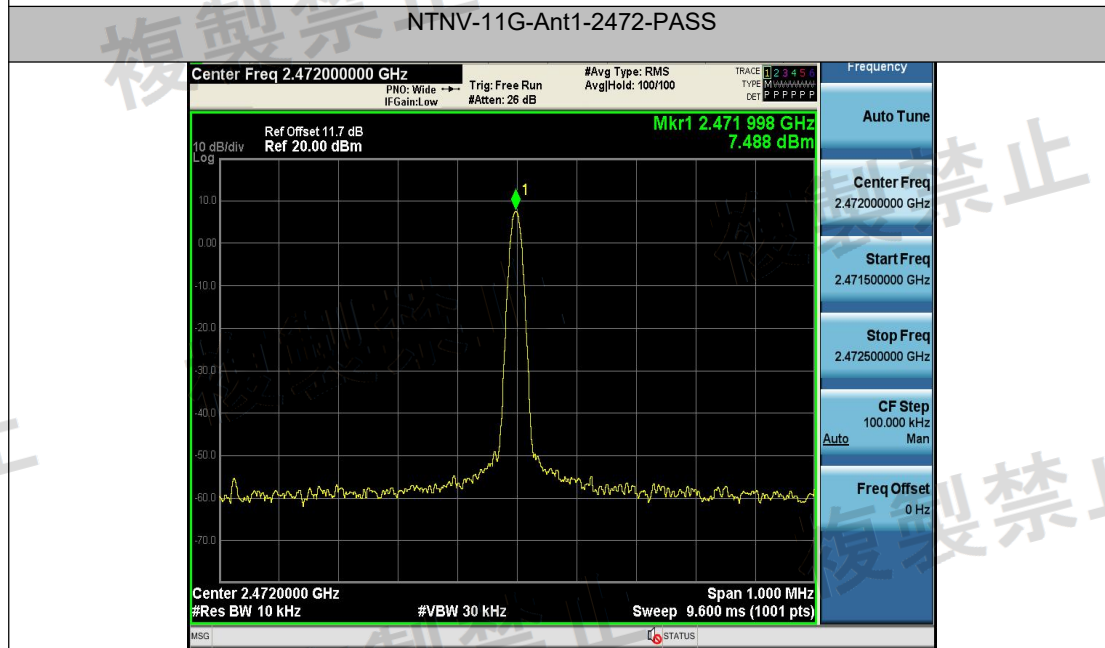
NTNV-11G-Ant1-2412-PASS



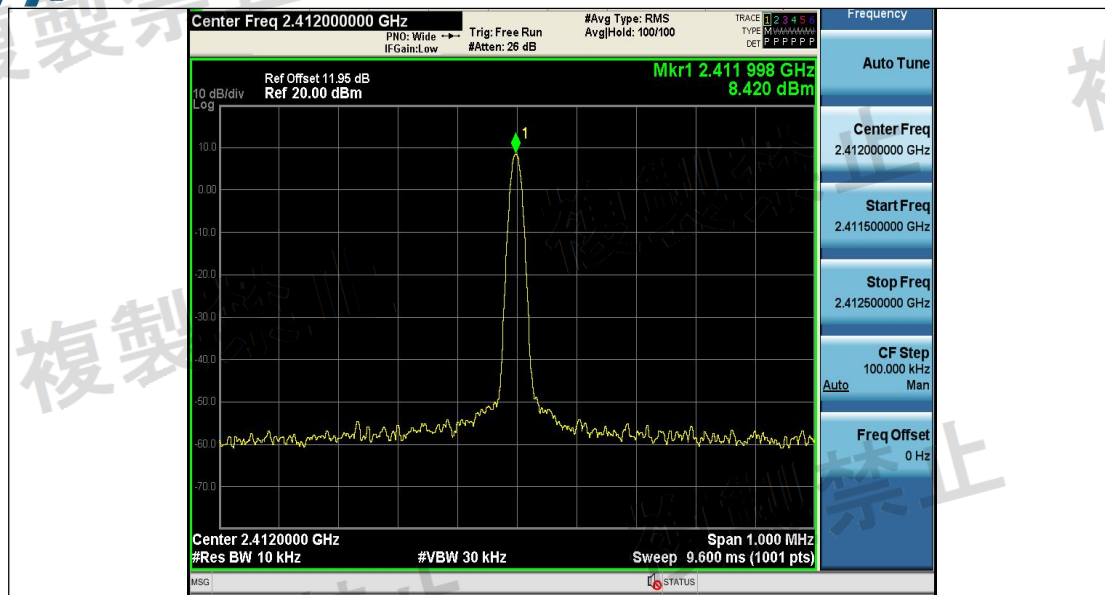
NTNV-11G-Ant1-2442-PASS



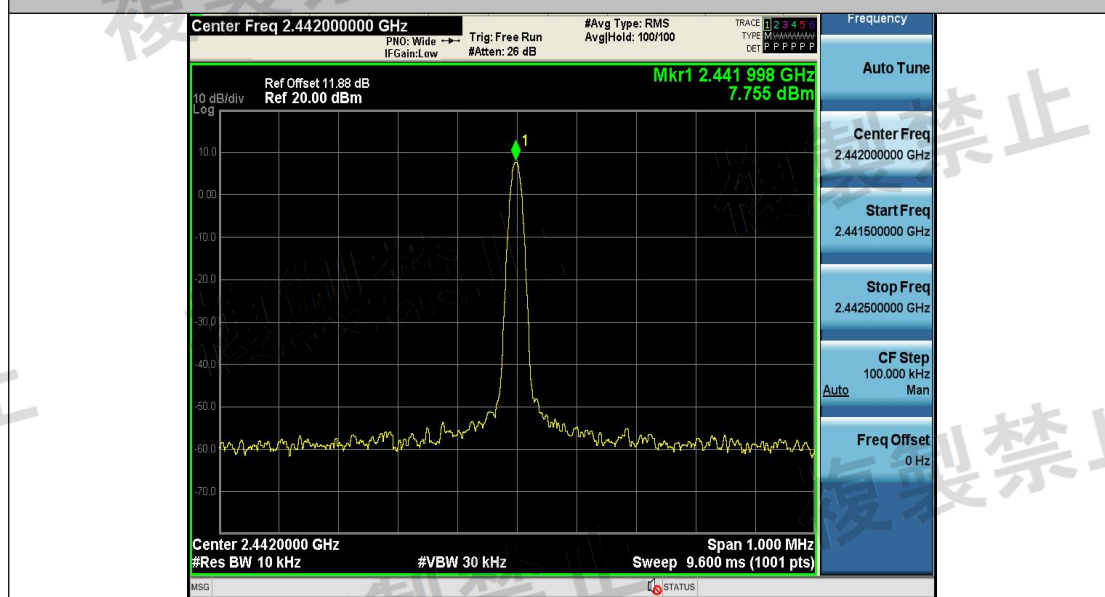
NTNV-11G-Ant1-2472-PASS



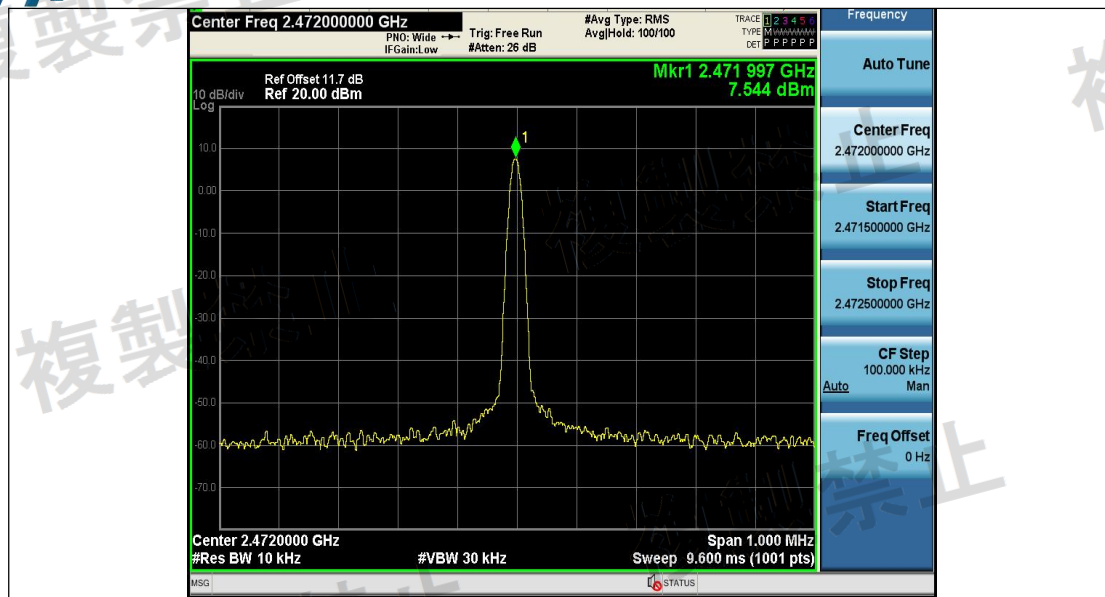
NTNV-11N20SISO-Ant1-2412-PASS



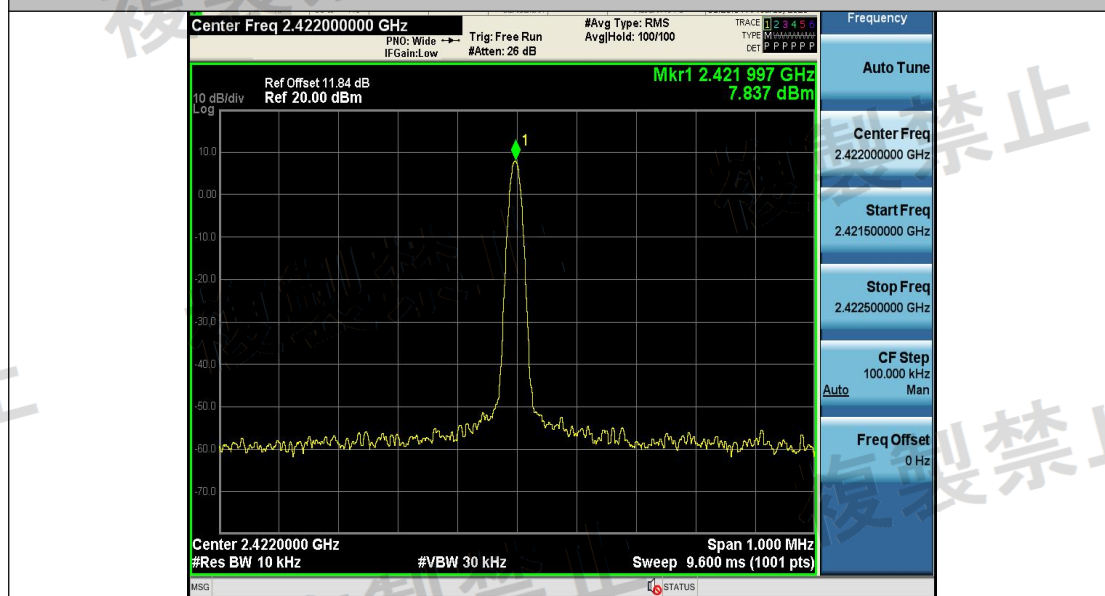
NTNV-11N20SISO-Ant1-2442-PASS



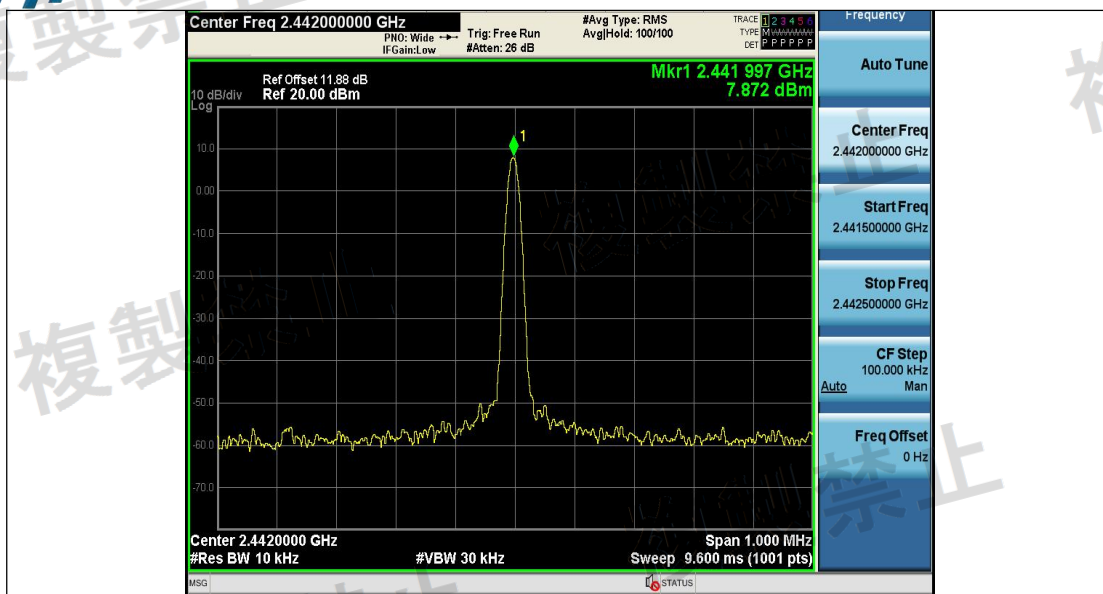
NTNV-11N20SISO-Ant1-2472-PASS



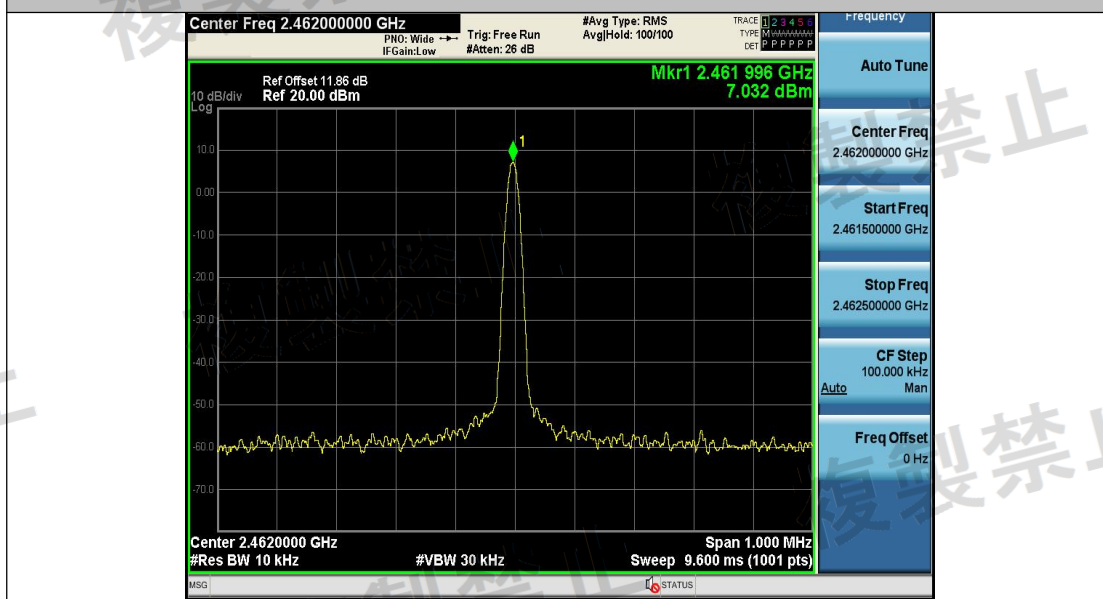
NTNV-11N40SISO-Ant1-2422-PASS



NTNV-11N40SISO-Ant1-2442-PASS



NTNV-11N40SISO-Ant1-2462-PASS





5 OCCUPIED BANDWIDTH (99%) TEST

5.1. Test Limit

Under all test conditions	FH: 83.5 MHz
	FH + DS: 83.5 MHz
	FH + OFDM: 83.5MHz
	OFDM, DS: 26MHz
	Others: 26MHz

5.2. Test Equipment

Same as 3.8 Frequency tolerance measurement.

5.3. Test Configuration

Same as 3.9 Frequency tolerance measurement.

5.4 Test procedure

Test method which surpass to Clause 4 of Annex No.43 of MIC Notification No.88.

1. Setting of SA is following as: RBW:300kHz / VBW:300kHz / SPAN: 40MHz / AT: 30dB / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold.
2. EUT have transmitted the maximum modulation signal and fixed channelize (For DSSS or OFDM Device) or continuous maximum power of hopping mode(For FHSS Device).SA set to 99% of occupied bandwidth to measure occupied bandwidth. The limit is less than 26MHz(For DSSS or OFDM Device) or 83.5MHz(For FHSS Device).
3. Spread Spectrum Factor = Spread Spectrum Bandwidth / modulation rate of EUT.
4. Spread Spectrum Factor limit is greater than 5.

5.5. Test Data

PASS

Please refer to the following data.

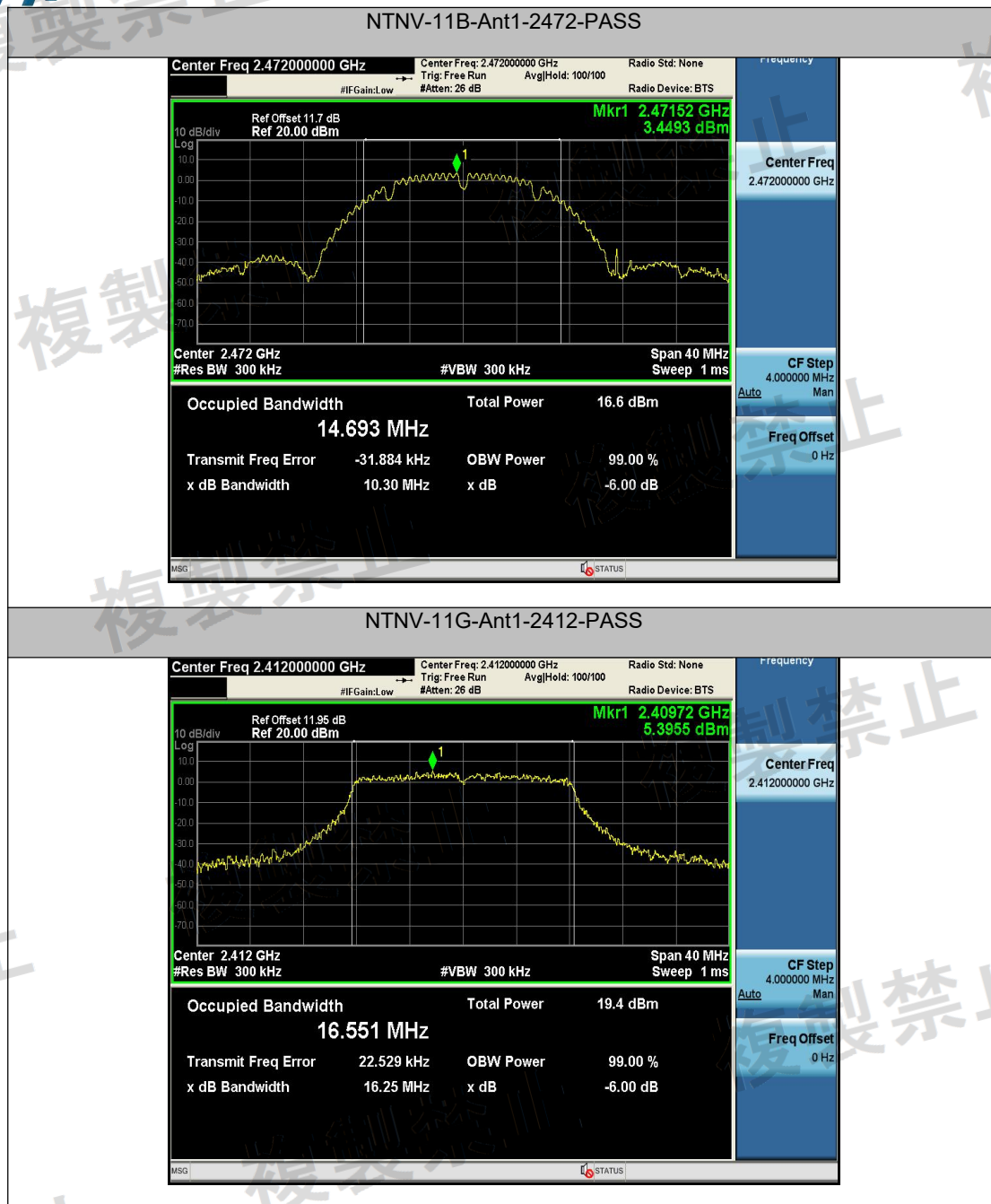
**Normal Voltage:**

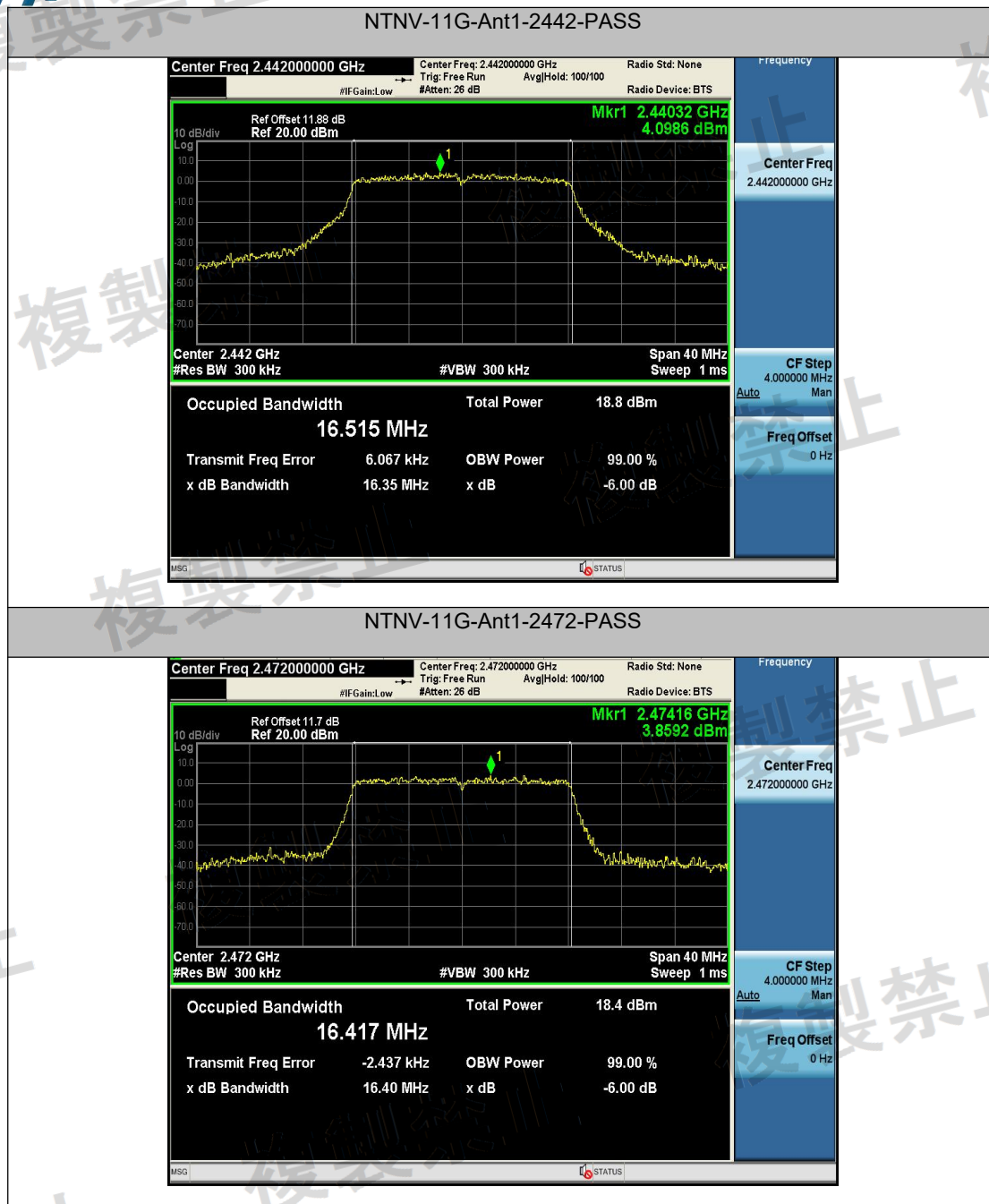
TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	14.800	≤26	PASS
NTNV	11B	Ant1	2442	14.732	≤26	PASS
NTNV	11B	Ant1	2472	14.693	≤26	PASS
NTNV	11G	Ant1	2412	16.551	≤26	PASS
NTNV	11G	Ant1	2442	16.515	≤26	PASS
NTNV	11G	Ant1	2472	16.417	≤26	PASS
NTNV	11N20SISO	Ant1	2412	17.727	≤26	PASS
NTNV	11N20SISO	Ant1	2442	17.713	≤26	PASS
NTNV	11N20SISO	Ant1	2472	17.587	≤26	PASS
NTNV	11N40SISO	Ant1	2422	35.992	26-40	PASS
NTNV	11N40SISO	Ant1	2442	36.034	26-40	PASS
NTNV	11N40SISO	Ant1	2462	36.000	26-40	PASS



Test Graphs:

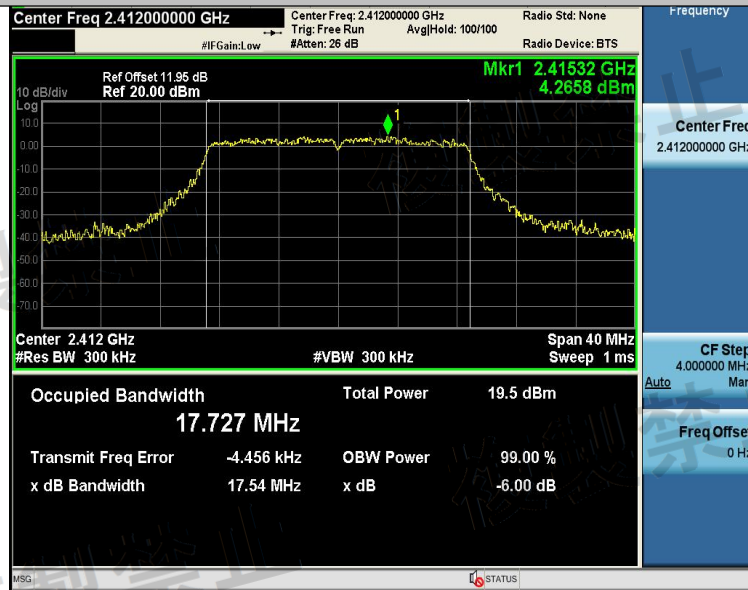




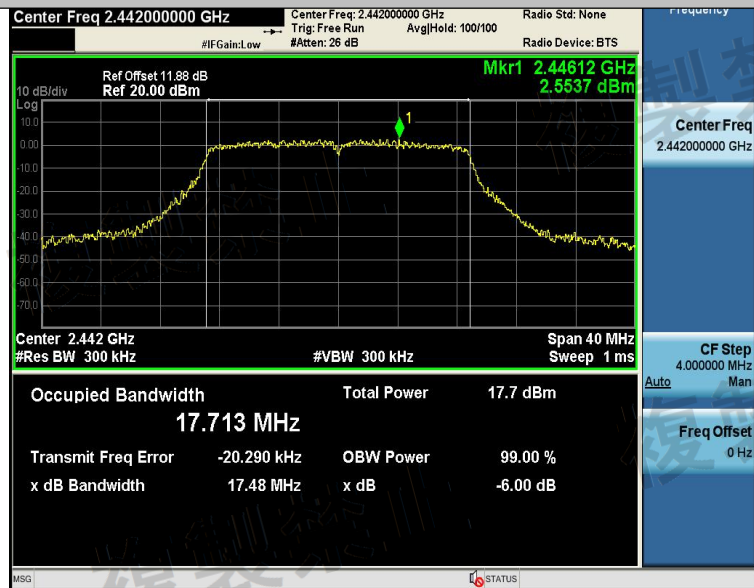




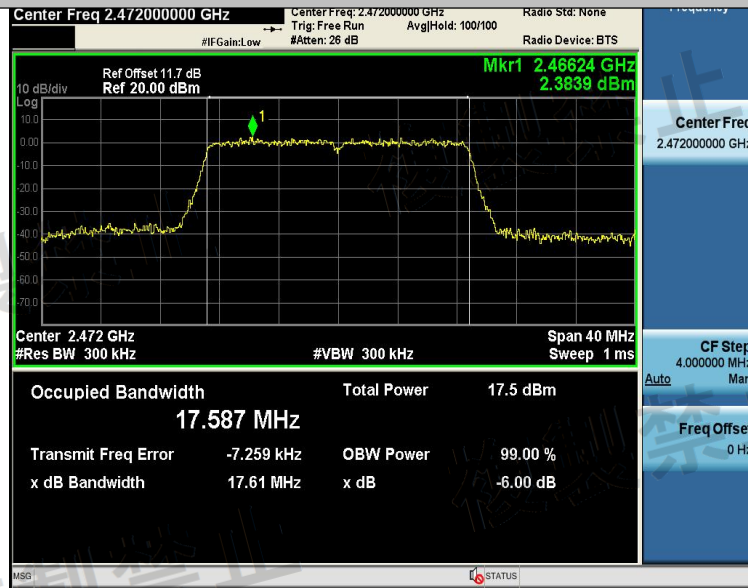
NTNV-11N20SISO-Ant1-2412-PASS



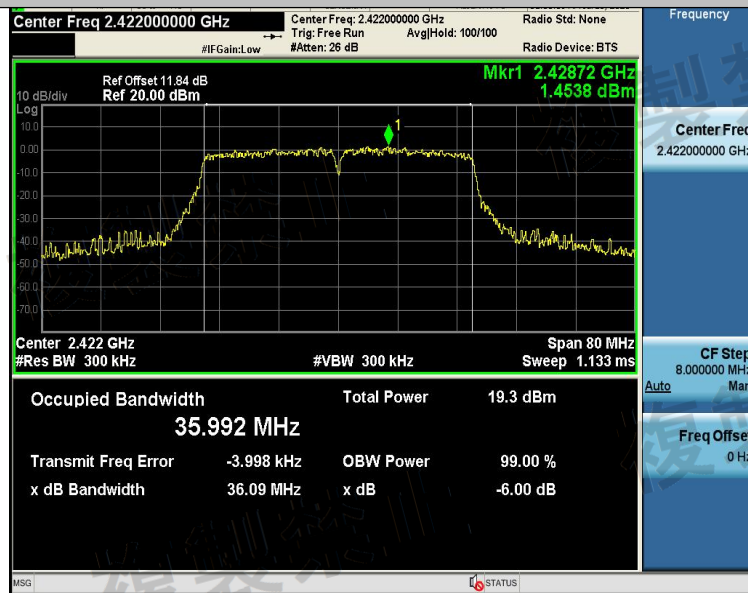
NTNV-11N20SISO-Ant1-2442-PASS



NTNV-11N20SISO-Ant1-2472-PASS

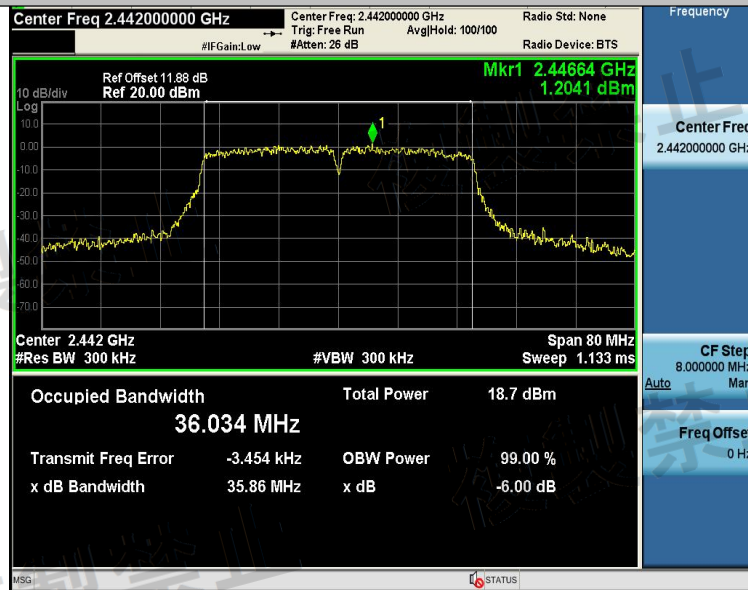


NTNV-11N40SISO-Ant1-2422-PASS

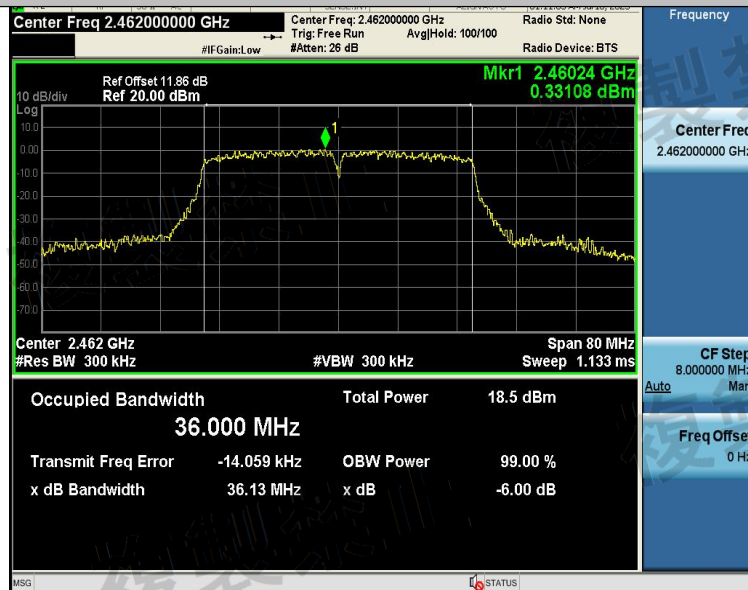




NTNV-11N40SISO-Ant1-2442-PASS



NTNV-11N40SISO-Ant1-2462-PASS





6 SPREAD-SPECTRUM BANDWIDTH (90%) TEST

6.1. Test Limit

Test Limit	Spreading factor: > 5
	Spread bandwidth: $\geq 500\text{KHz}$

6.2. Test Equipment

Same as 3.8 Frequency tolerance measurement.

6.3. Test Configuration

Same as 3.9 Frequency tolerance measurement.

6.4. Test procedure

Test method which surpass to Clause 4 of Annex No.43 of MIC Notification No.88.

1. Setting of SA is following as: RBW:300kHz / VBW:300kHz / SPAN: 40MHz/AT: 30dB/ Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold.
2. EUT have transmitted the maximum modulation signal and fixed channelize (For DSSS or OFDM Device) or continuous maximum power of hopping mode(For FHSS Device). SA set to 90% of occupied bandwidth to measure Spread Spectrum Bandwidth and must greater than 500kHz.
3. Spread Spectrum Factor = Spread Spectrum Bandwidth / modulation rate of EUT.
4. Spread Spectrum Factor limit is greater than 5.

6.5. Test Data

Pass

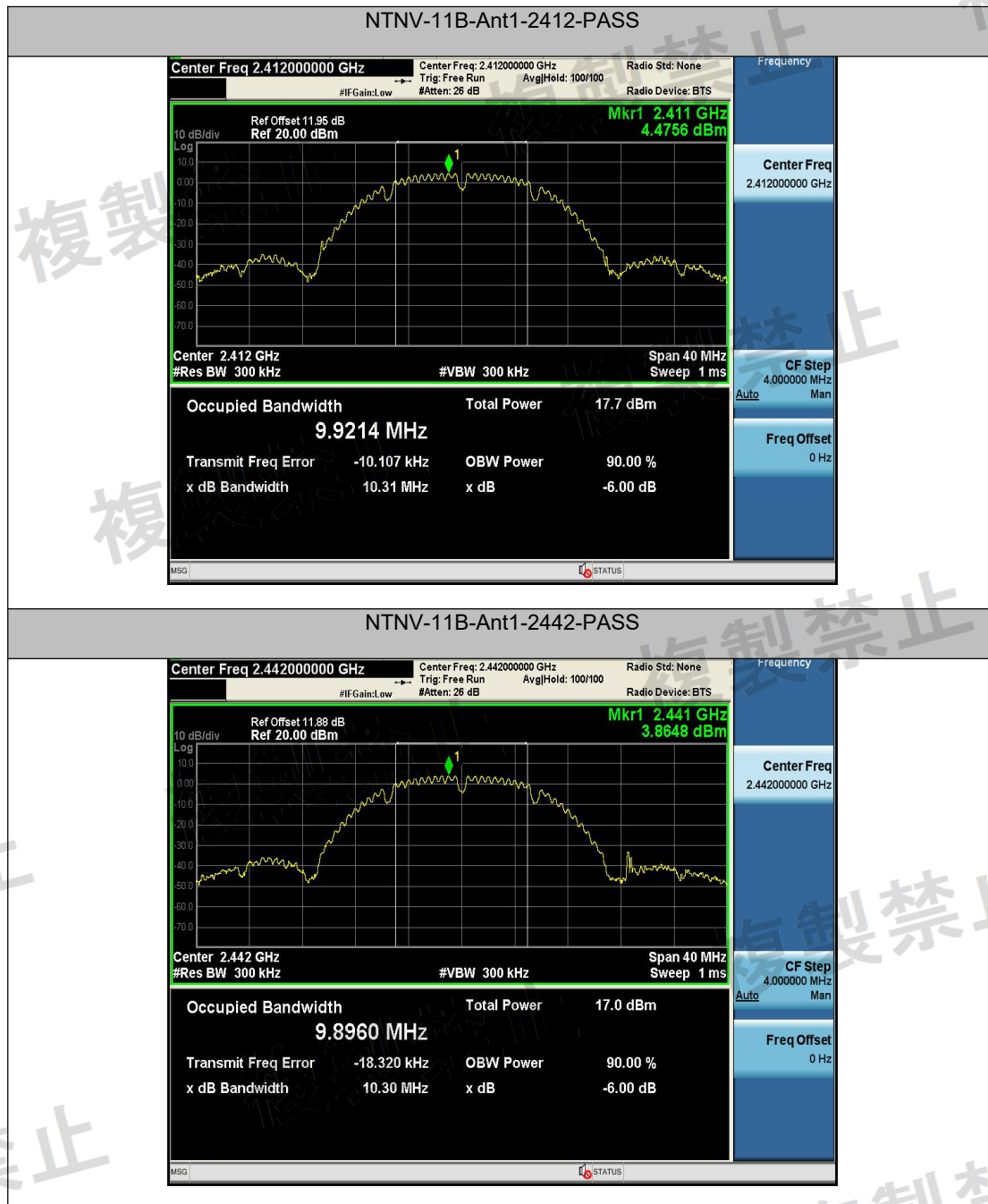
Please refer to the following data.



TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Spread Factor	Limit	Verdict
NTNV	11B	Ant1	2412	9.921	≥ 0.5	7.215	>5	PASS
NTNV	11B	Ant1	2442	9.896	≥ 0.5	7.197	>5	PASS
NTNV	11B	Ant1	2472	9.873	≥ 0.5	7.180	>5	PASS
NTNV	11G	Ant1	2412	14.403	≥ 0.5	---	---	PASS
NTNV	11G	Ant1	2442	14.376	≥ 0.5	---	---	PASS
NTNV	11G	Ant1	2472	14.535	≥ 0.5	---	---	PASS
NTNV	11N20SISO	Ant1	2412	15.483	≥ 0.5	---	---	PASS
NTNV	11N20SISO	Ant1	2442	15.400	≥ 0.5	---	---	PASS
NTNV	11N20SISO	Ant1	2472	15.600	≥ 0.5	---	---	PASS
NTNV	11N40SISO	Ant1	2422	31.584	≥ 0.5	---	---	PASS
NTNV	11N40SISO	Ant1	2442	31.091	≥ 0.5	---	---	PASS
NTNV	11N40SISO	Ant1	2462	32.610	≥ 0.5	---	---	PASS

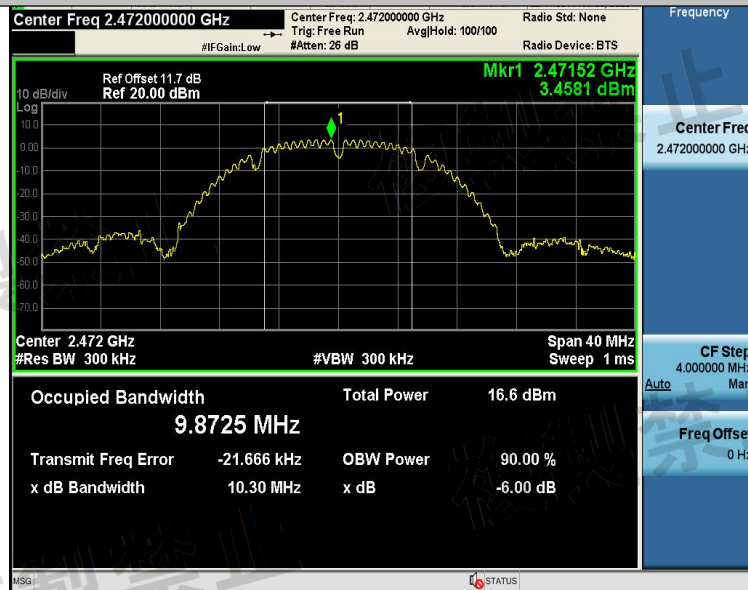


Test Graphs:

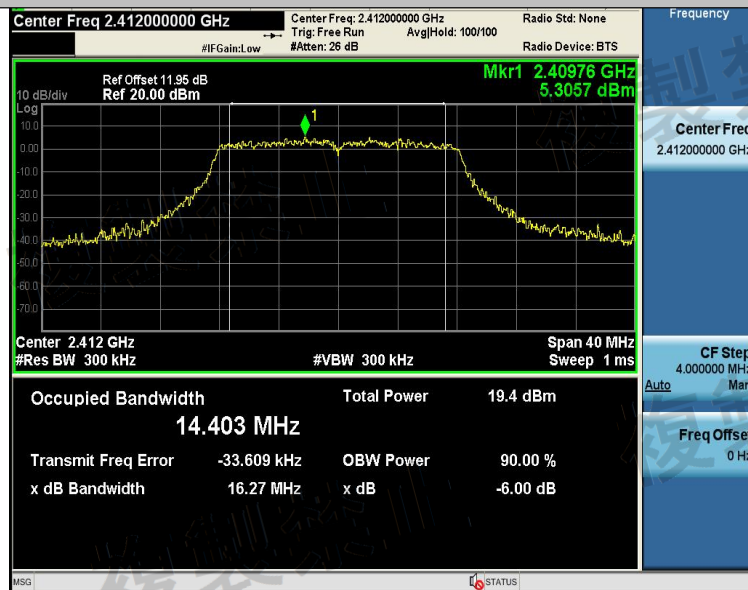




NTNV-11B-Ant1-2472-PASS

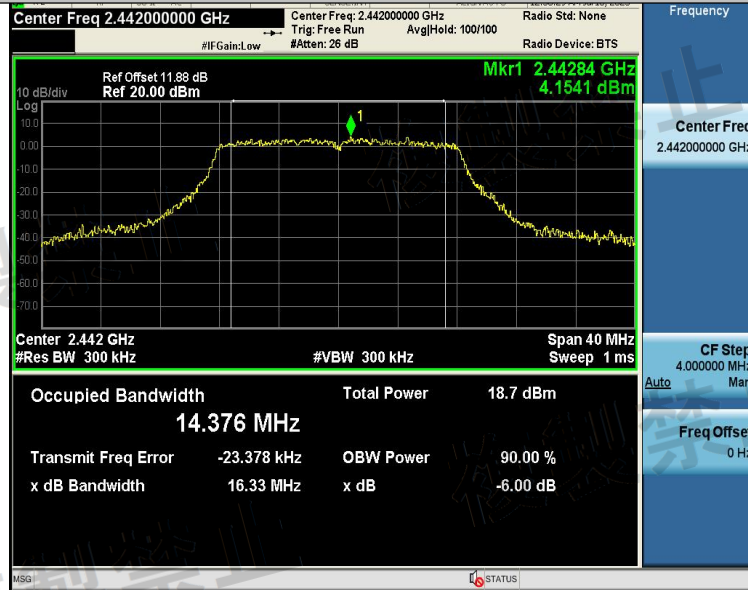


NTNV-11G-Ant1-2412-PASS

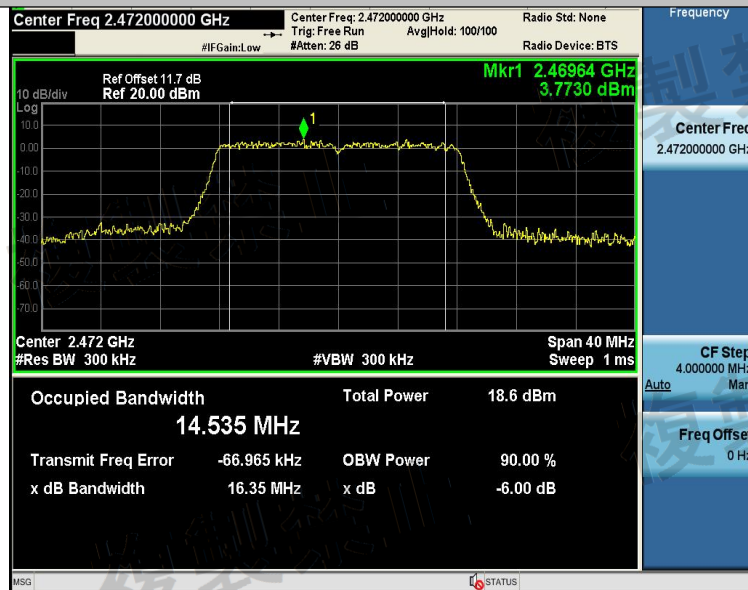




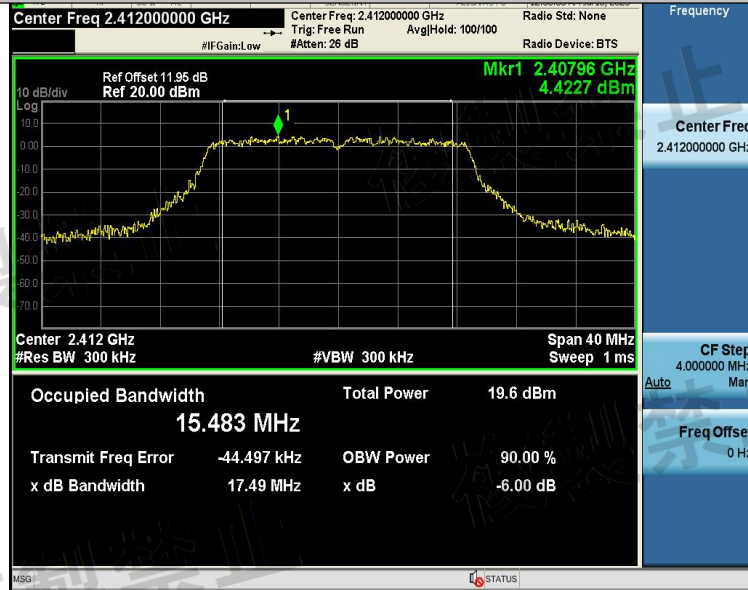
NTNV-11G-Ant1-2442-PASS



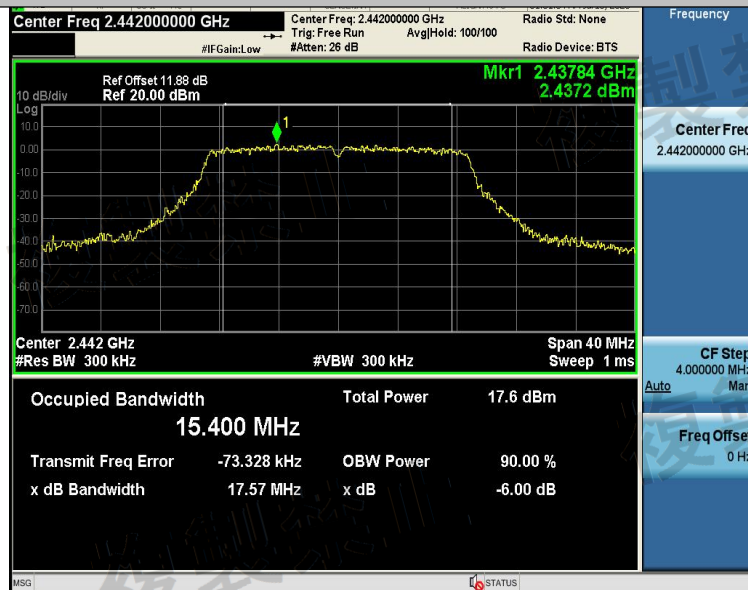
NTNV-11G-Ant1-2472-PASS



NTNV-11N20SISO-Ant1-2412-PASS

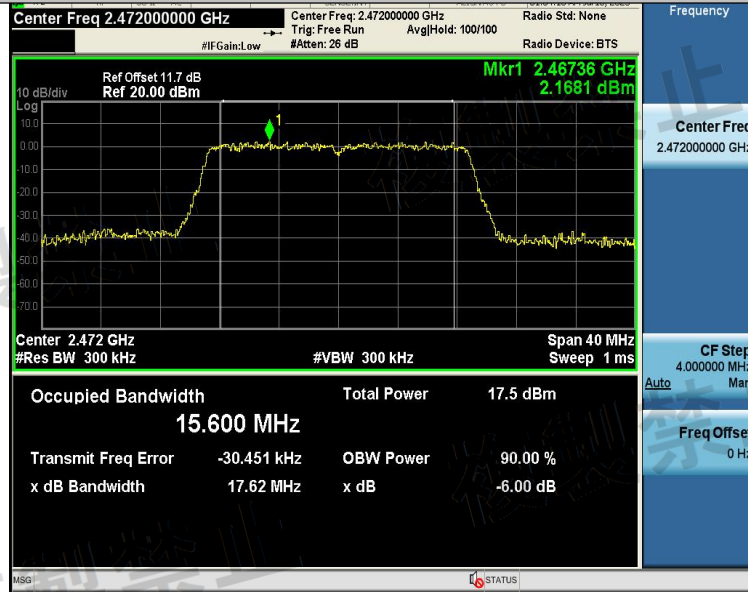


NTNV-11N20SISO-Ant1-2442-PASS

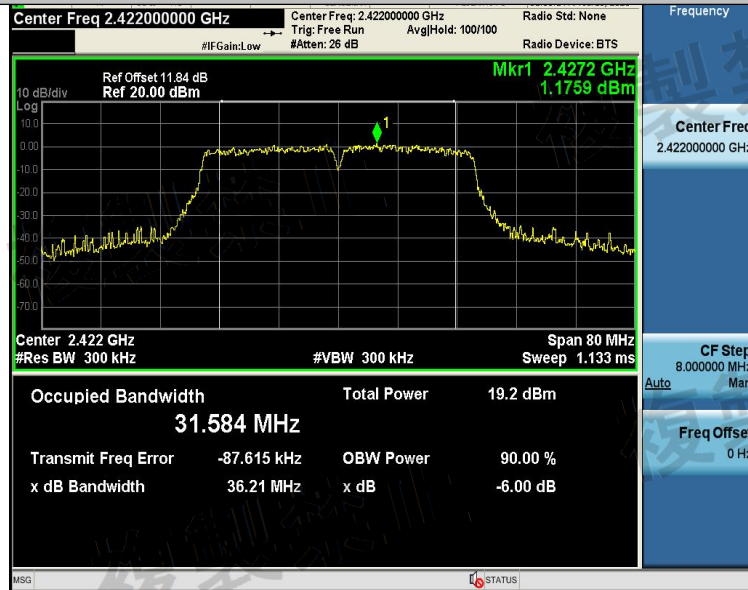


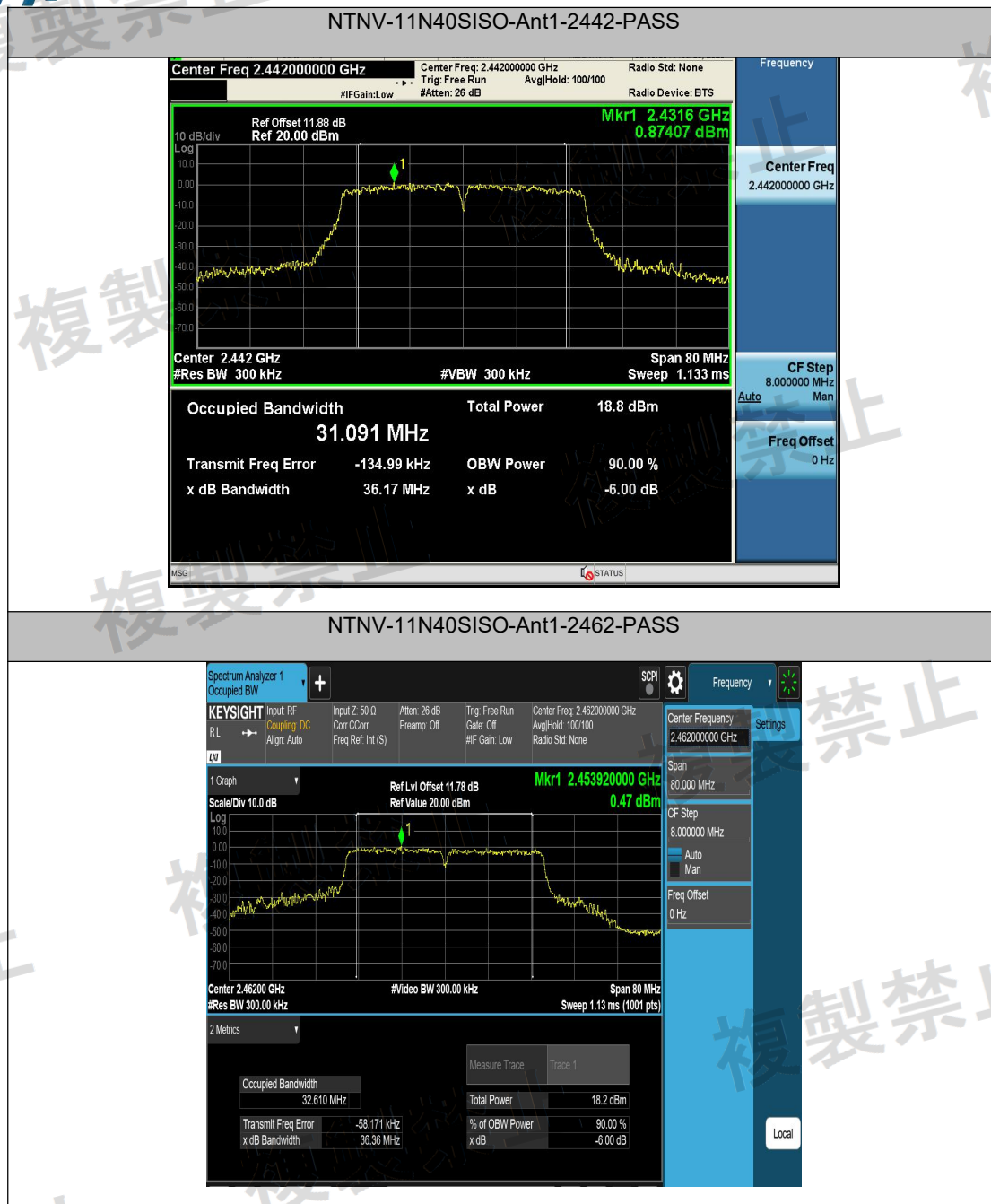


NTNV-11N20SISO-Ant1-2472-PASS



NTNV-11N40SISO-Ant1-2422-PASS





Note: That only normal voltage's plots reported in the report.



7 SPURIOUS EMISSIONS INTENSITY TEST

7.1. Test Equipment

Same as 3.8 Frequency tolerance measurement.

7.2. Test Configuration

Same as 3.9 Frequency tolerance measurement.

7.3. Test Limits

Item	Limits
TX Spurious Emission	$\leq 2.5 \mu\text{W/MHz}$ ($30 \leq f \leq 1000 \text{ MHz}$) ,
	$\leq 2.5 \mu\text{W/MHz}$ ($1000 \text{ MHz} \leq f < 2387 \text{ MHz}$; $2496.5 \text{ MHz} < f$)
	$\leq 25 \mu\text{W/MHz}$ ($2387 \text{ MHz} \leq f < 2400 \text{ MHz}$) and ($2483.5 \text{ MHz} < f \leq 2496.5 \text{ MHz}$)

7.4. Test procedure

1. EUT have transmitted the maximum modulation signal and fixed channelize.
2. Setting of SA is following as: RBW/VBW:1 MHz(RBW/VBW:30kHz,30MHz~1GHz) /AT: 10dB / Sweep time: Auto / Sweep Mode: Continuous sweep /Detect mode: Positive peak / Trace mode: Max hold.
3. Setting of SA is following as start frequency and stop frequency Then to mark peak reading value + cable loss shall be less than limit.

7.5. Test Data

Scanning Bandwidth	:	30~ 1000MHz
		1000~ 2387MHz
		2387~2400 MHz
		2483.5~2496.5 MHz
		2496.5~13000Mhz.

Pass

Please refer to the following data.

- 1.Note:SA set to from 2.4965GHz to 13GHz, plot shows from 2.497GHz to 13GHz as of SA's default format.

**Normal Voltage:**

TestCondition	TestMode	Antenna	Frequen cy[MHz]	Freq.Range [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	11B	Ant1	2412	30~2387	-44.09	≤-26	0.03899	≤2.5	PASS
NTNV	11B	Ant1	2412	2387~2400	-22.10	≤-16	6.16595	≤25	PASS
NTNV	11B	Ant1	2412	2483.5~2496.5	-36.33	≤-16	0.23281	≤25	PASS
NTNV	11B	Ant1	2412	2496.5~13000	-44.62	≤-26	0.03451	≤2.5	PASS
NTNV	11B	Ant1	2442	30~2387	-45.92	≤-26	0.02559	≤2.5	PASS
NTNV	11B	Ant1	2442	2387~2400	-37.04	≤-16	0.19770	≤25	PASS
NTNV	11B	Ant1	2442	2483.5~2496.5	-36.69	≤-16	0.21429	≤25	PASS
NTNV	11B	Ant1	2442	2496.5~13000	-44.48	≤-26	0.03565	≤2.5	PASS
NTNV	11B	Ant1	2472	30~2387	-46.49	≤-26	0.02244	≤2.5	PASS
NTNV	11B	Ant1	2472	2387~2400	-36.77	≤-16	0.21038	≤25	PASS
NTNV	11B	Ant1	2472	2483.5~2496.5	-23.93	≤-16	4.04576	≤25	PASS
NTNV	11B	Ant1	2472	2496.5~13000	-44.49	≤-26	0.03556	≤2.5	PASS
NTNV	11G	Ant1	2412	30~2387	-44.10	≤-26	0.03890	≤2.5	PASS
NTNV	11G	Ant1	2412	2387~2400	-18.87	≤-16	12.9717 9	≤25.1	PASS
NTNV	11G	Ant1	2412	2483.5~2496.5	-36.58	≤-16	0.21979	≤25	PASS
NTNV	11G	Ant1	2412	2496.5~13000	-43.73	≤-26	0.04236	≤2.5	PASS
NTNV	11G	Ant1	2442	30~2387	-45.43	≤-26	0.02864	≤2.5	PASS
NTNV	11G	Ant1	2442	2387~2400	-36.57	≤-16	0.22029	≤25	PASS
NTNV	11G	Ant1	2442	2483.5~2496.5	-36.79	≤-16	0.20941	≤25	PASS
NTNV	11G	Ant1	2442	2496.5~13000	-39.29	≤-26	0.11776	≤2.5	PASS
NTNV	11G	Ant1	2472	30~2387	-45.90	≤-26	0.02570	≤2.5	PASS
NTNV	11G	Ant1	2472	2387~2400	-37.25	≤-16	0.18836	≤25	PASS
NTNV	11G	Ant1	2472	2483.5~2496.5	-23.94	≤-16	4.03645	≤25	PASS
NTNV	11G	Ant1	2472	2496.5~13000	-44.72	≤-26	0.03373	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2412	30~2387	-44.92	≤-26	0.03221	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2412	2387~2400	-16.60	≤-16	21.8776 2	≤25.1	PASS
NTNV	11N20SI SO	Ant1	2412	2483.5~2496.5	-36.28	≤-16	0.23550	≤25	PASS
NTNV	11N20SI SO	Ant1	2412	2496.5~13000	-44.56	≤-26	0.03499	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2442	30~2387	-44.76	≤-26	0.03342	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2442	2387~2400	-37.30	≤-16	0.18621	≤25	PASS
NTNV	11N20SI SO	Ant1	2442	2483.5~2496.5	-37.03	≤-16	0.19815	≤25	PASS
NTNV	11N20SI SO	Ant1	2442	2496.5~13000	-44.49	≤-26	0.03556	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2472	30~2387	-46.26	≤-26	0.02366	≤2.5	PASS
NTNV	11N20SI SO	Ant1	2472	2387~2400	-36.71	≤-16	0.21330	≤25	PASS
NTNV	11N20SI SO	Ant1	2472	2483.5~2496.5	-28.01	≤-16	1.58125	≤25	PASS
NTNV	11N20SI SO	Ant1	2472	2496.5~13000	-44.34	≤-26	0.03681	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2422	30~2387	-35.22	≤-26	0.30061	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2422	2387~2400	-23.42	≤-16	4.54988	≤25	PASS
NTNV	11N40SI SO	Ant1	2422	2483.5~2496.5	-36.79	≤-16	0.20941	≤25	PASS
NTNV	11N40SI SO	Ant1	2422	2496.5~13000	-42.53	≤-26	0.05585	≤2.5	PASS

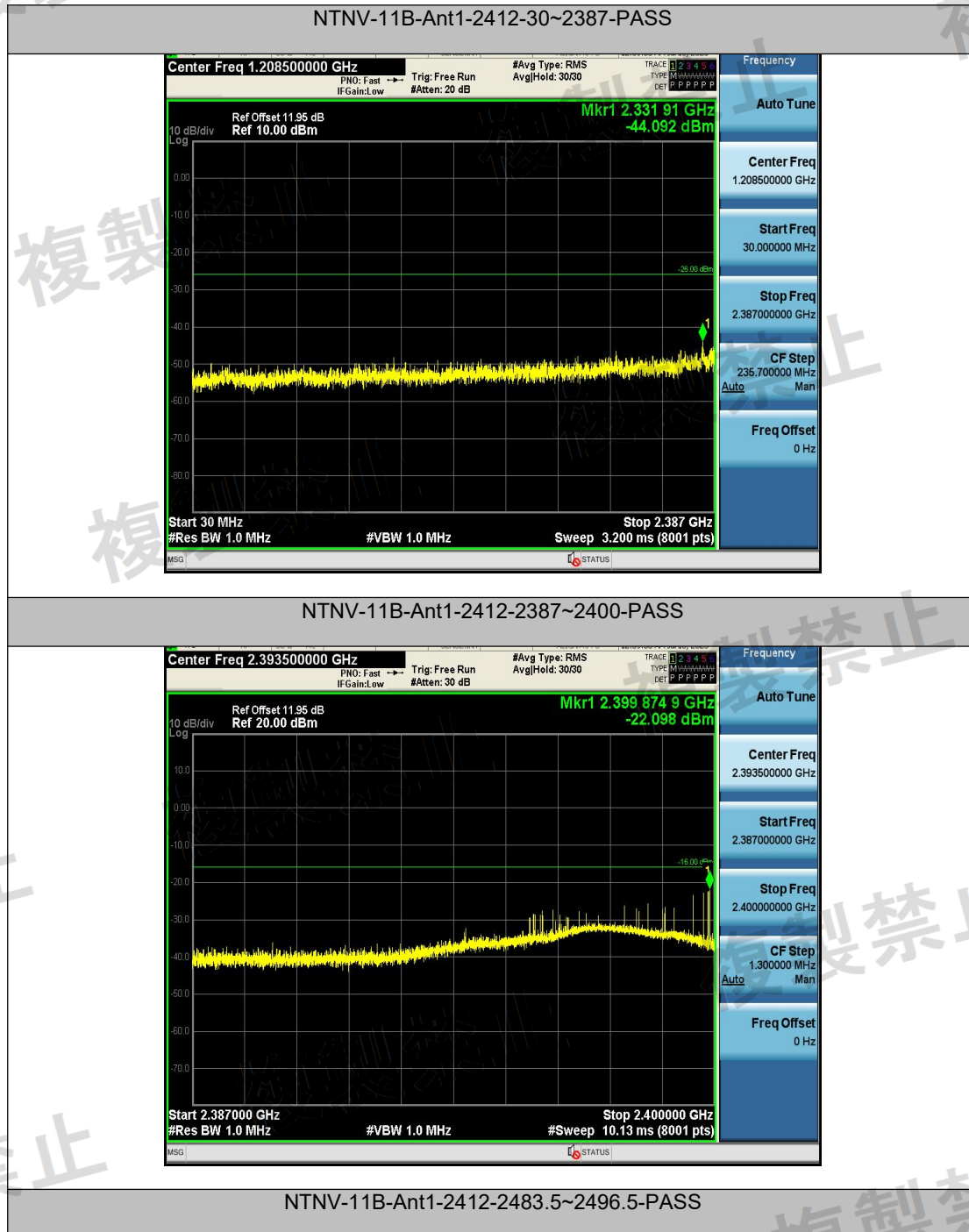


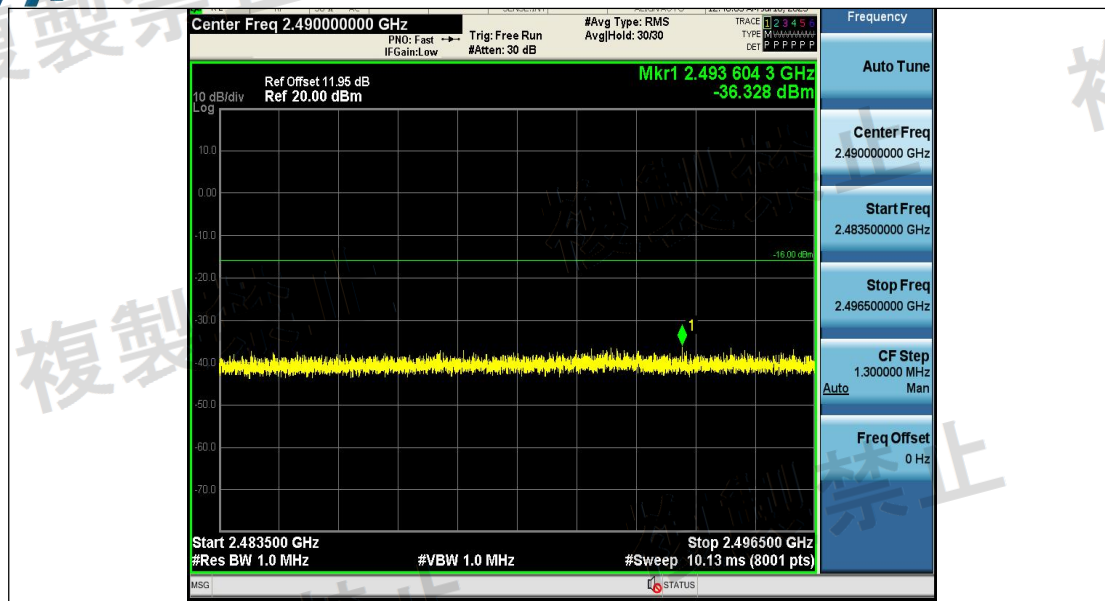
NTNV	11N40SI SO	Ant1	2442	30~2387	-45.61	≤-26	0.02748	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2442	2387~2400	-33.09	≤-16	0.49091	≤25	PASS
NTNV	11N40SI SO	Ant1	2442	2483.5~2496.5	-36.04	≤-16	0.24889	≤25	PASS
NTNV	11N40SI SO	Ant1	2442	2496.5~13000	-43.75	≤-26	0.04217	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2462	30~2387	-45.40	≤-26	0.02884	≤2.5	PASS
NTNV	11N40SI SO	Ant1	2462	2387~2400	-36.40	≤-16	0.22909	≤25	PASS
NTNV	11N40SI SO	Ant1	2462	2483.5~2496.5	-21.80	≤-16	6.60693	≤25	PASS
NTNV	11N40SI SO	Ant1	2462	2496.5~13000	-40.34	≤-26	0.09247	≤2.5	PASS



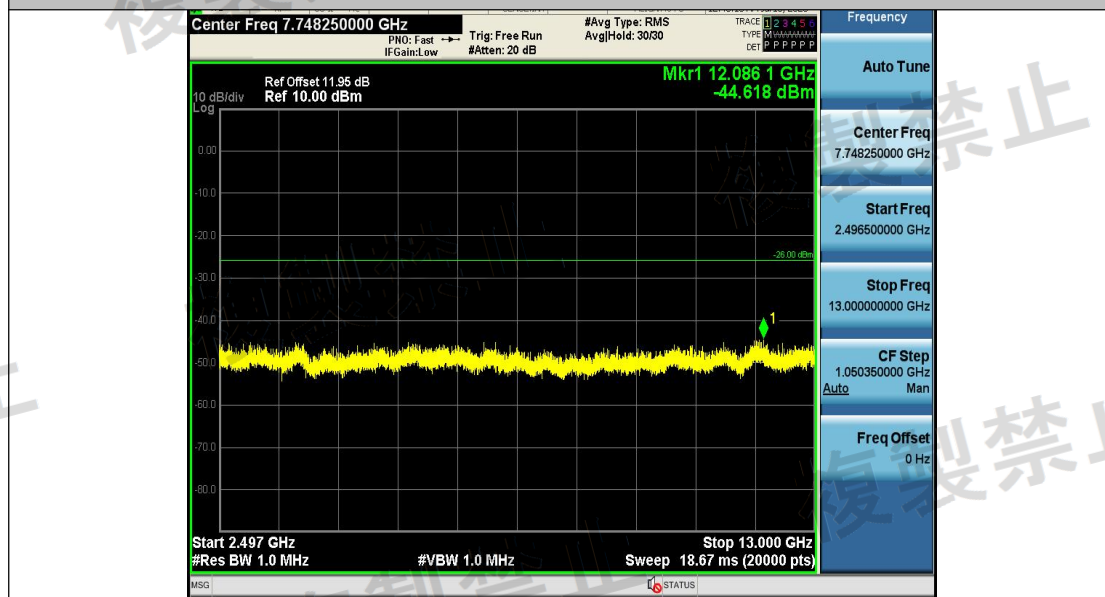
Test Graphs:

Report No.:PTC25121916201E-MI01

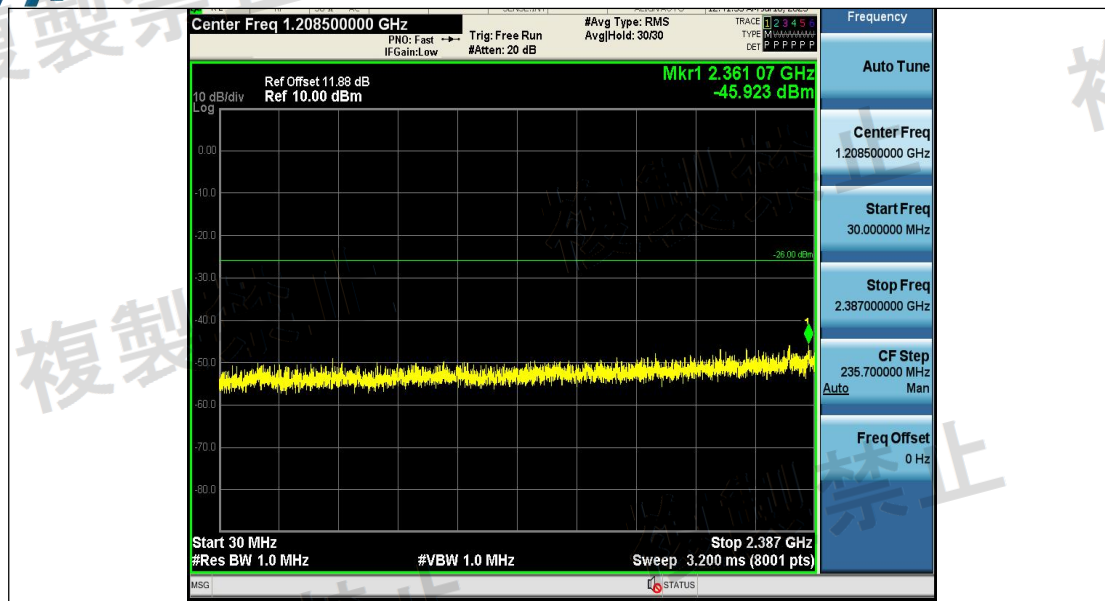




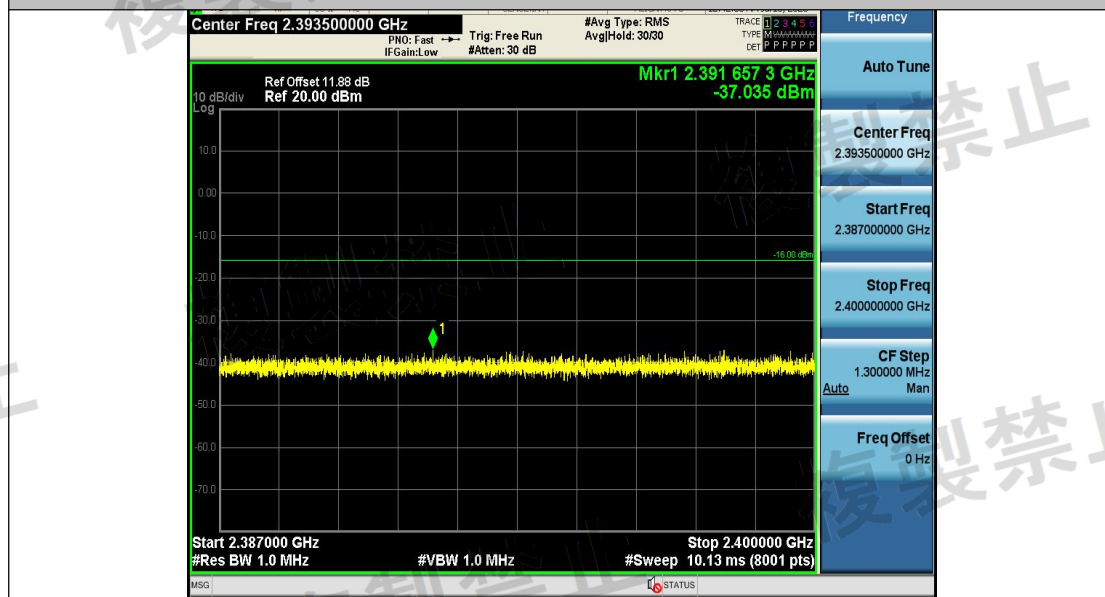
NTNV-11B-Ant1-2412-2496.5~13000-PASS



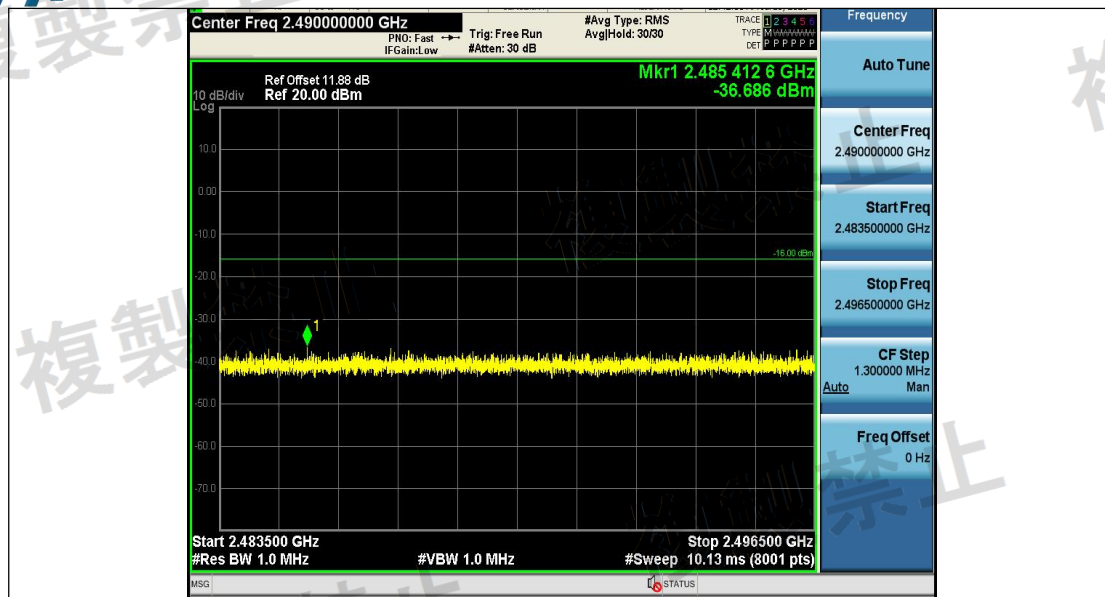
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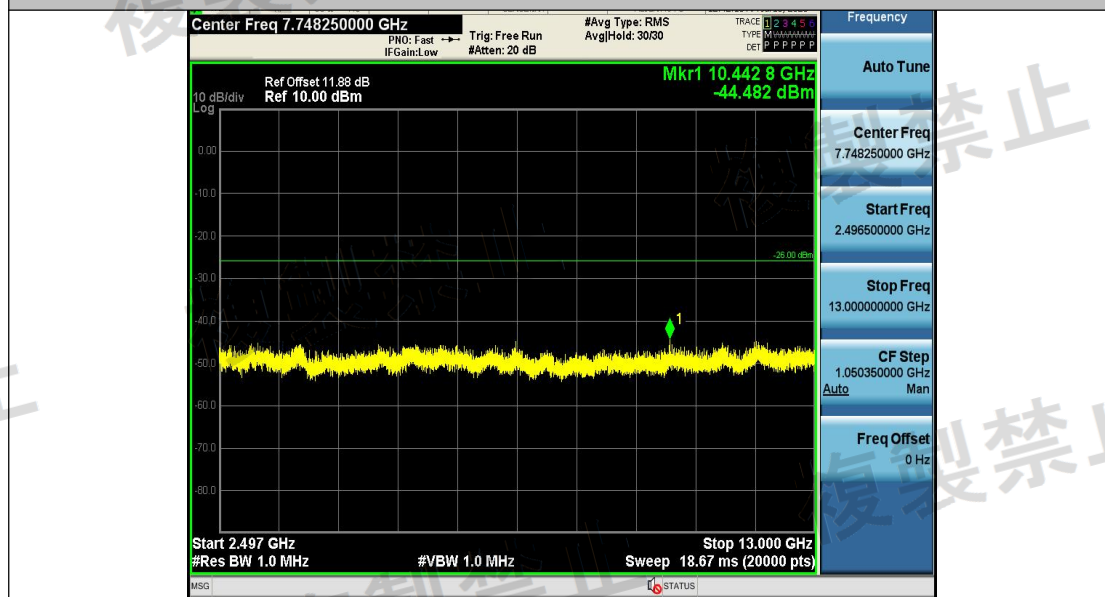
NTNV-11B-Ant1-2442-2387~2400-PASS



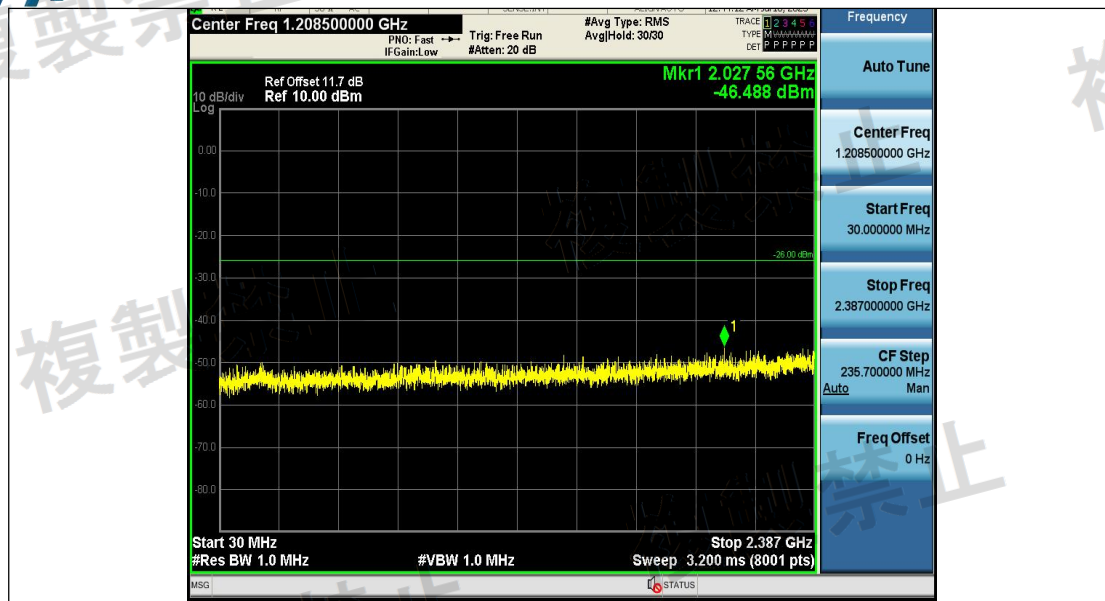
NTNV-11B-Ant1-2442-2483.5~2496.5-PASS



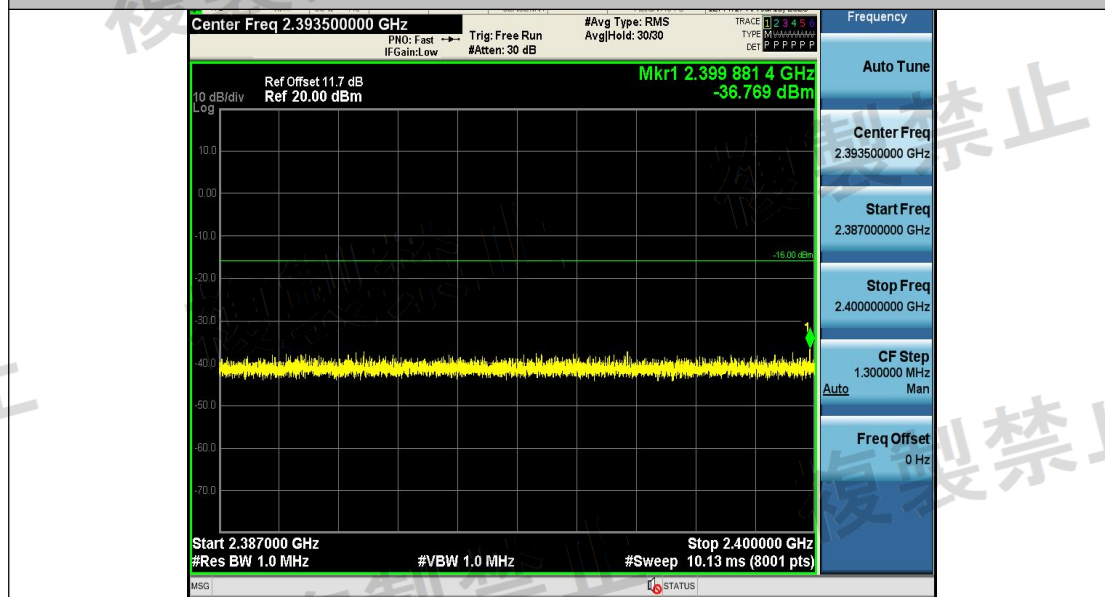
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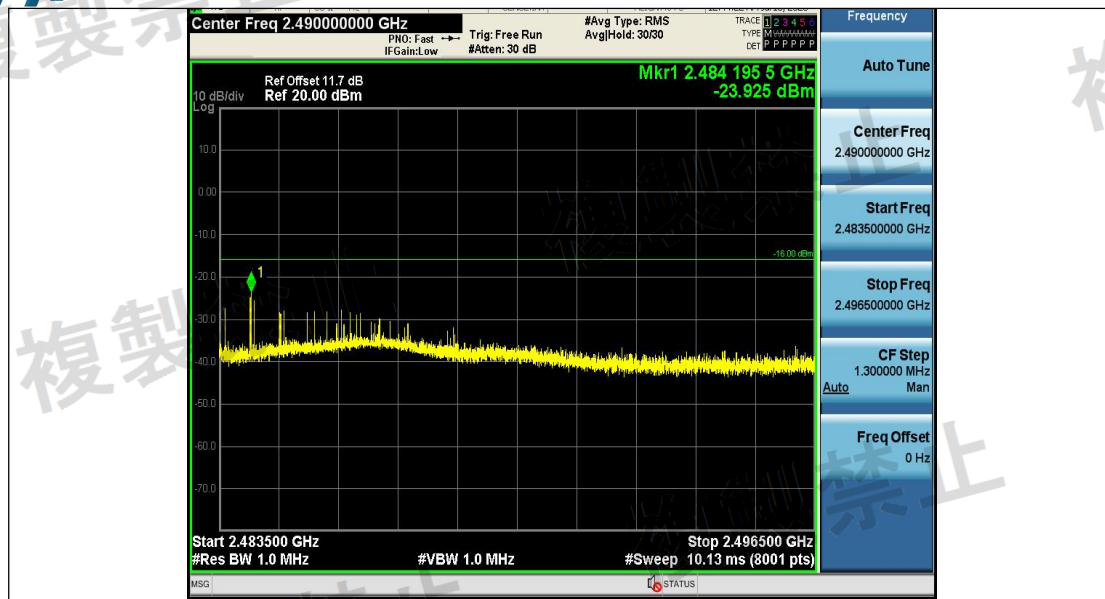
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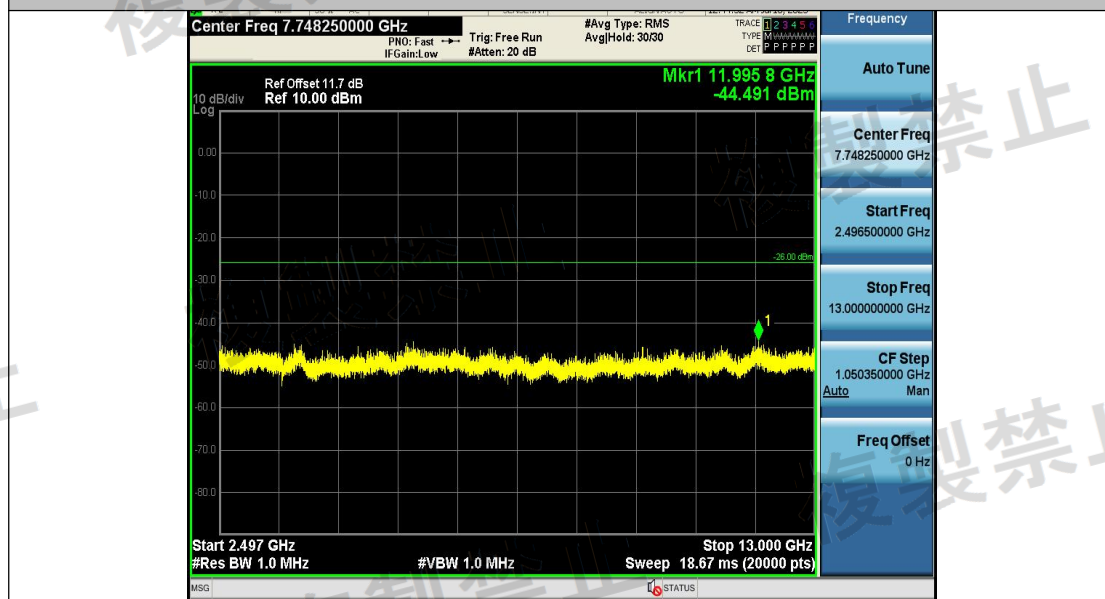
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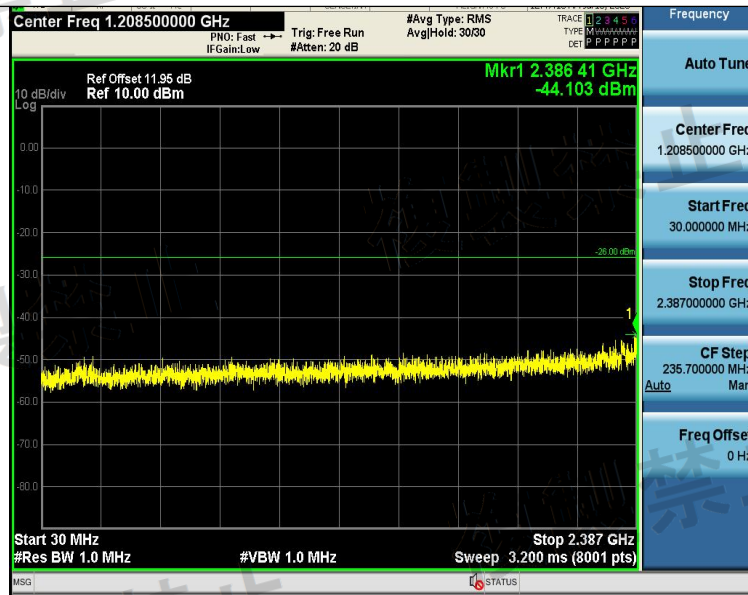
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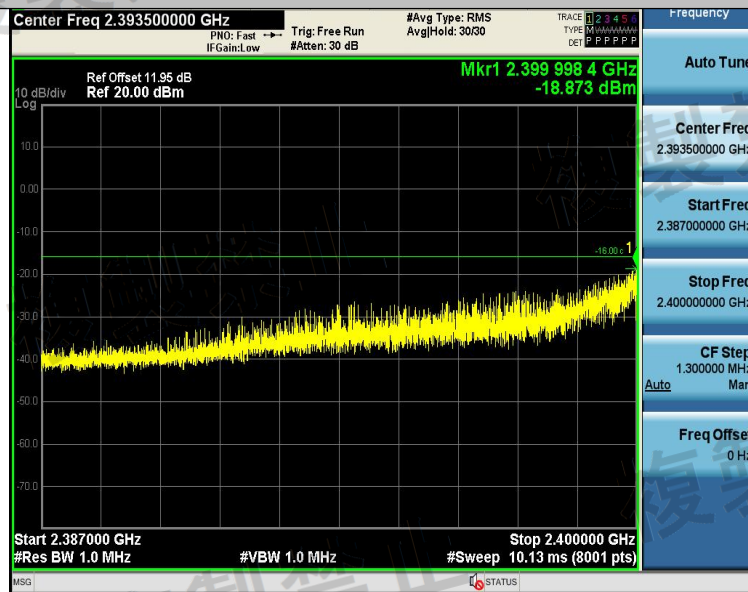
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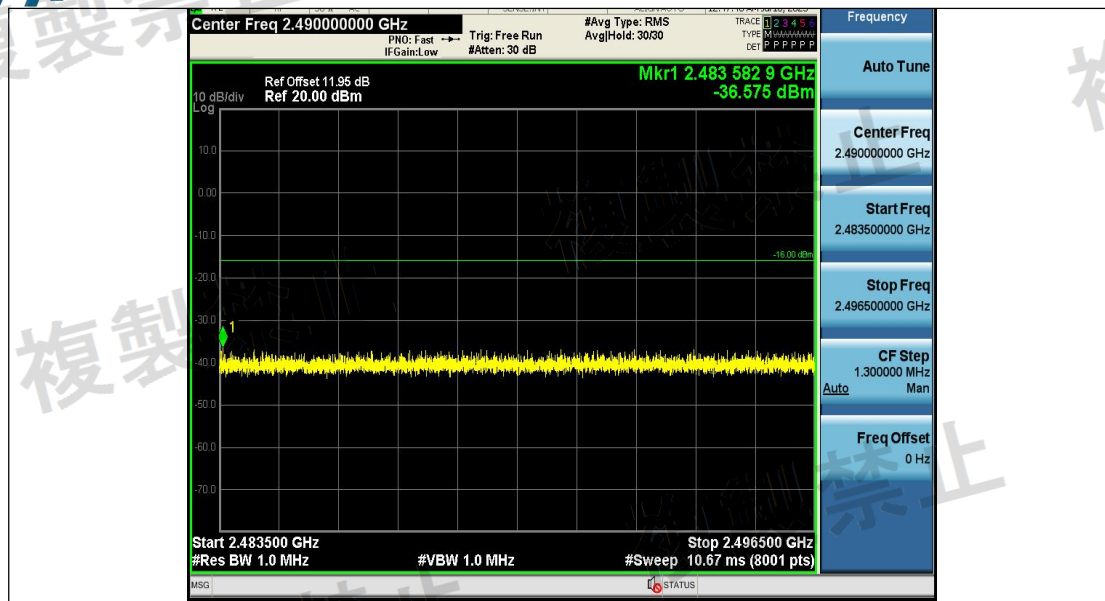
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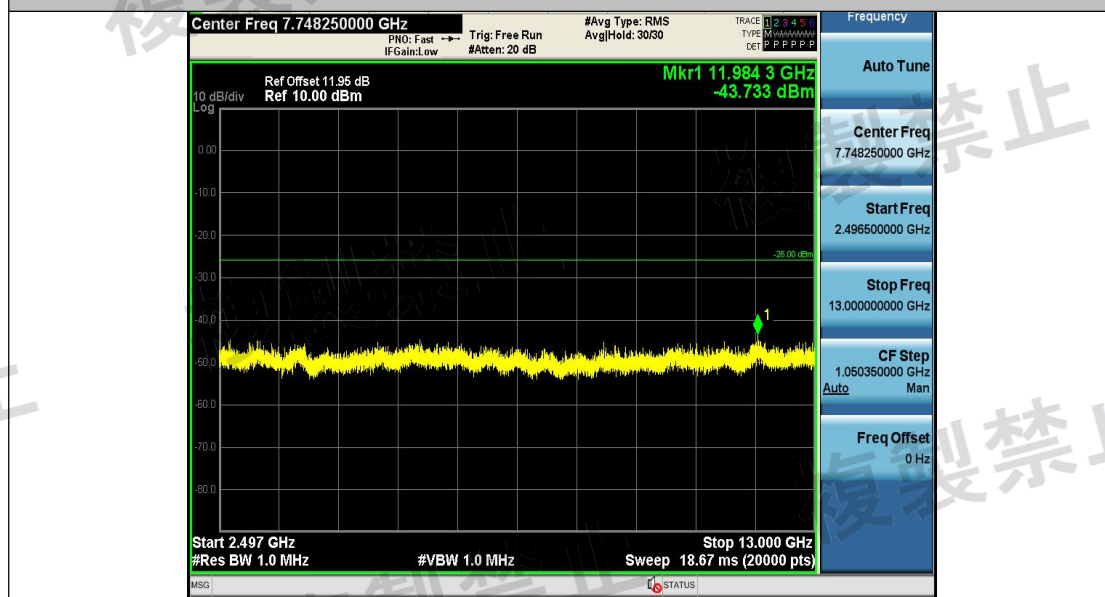
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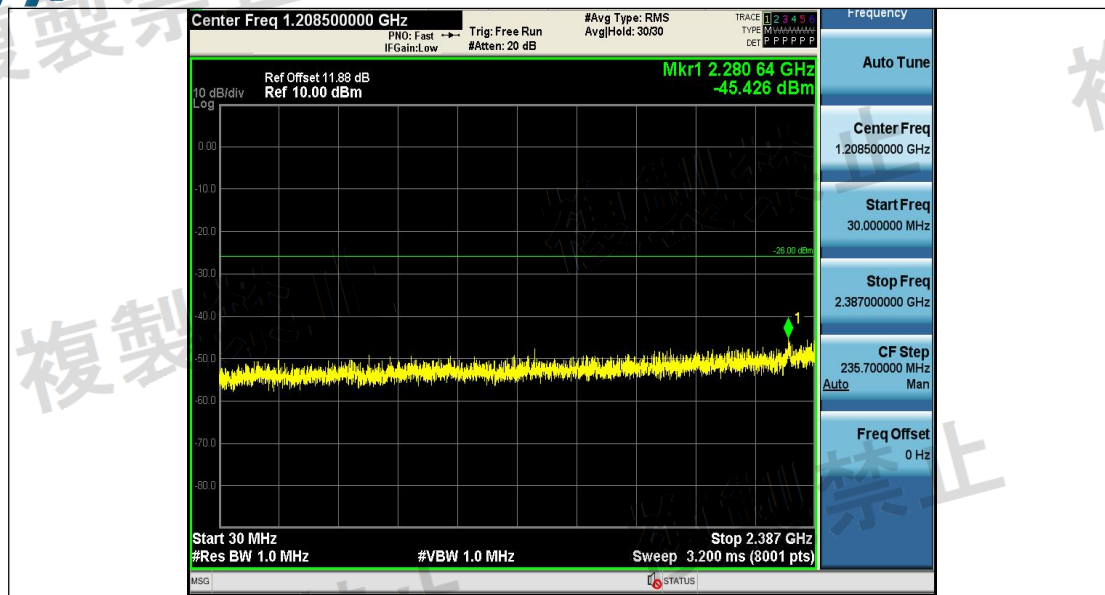
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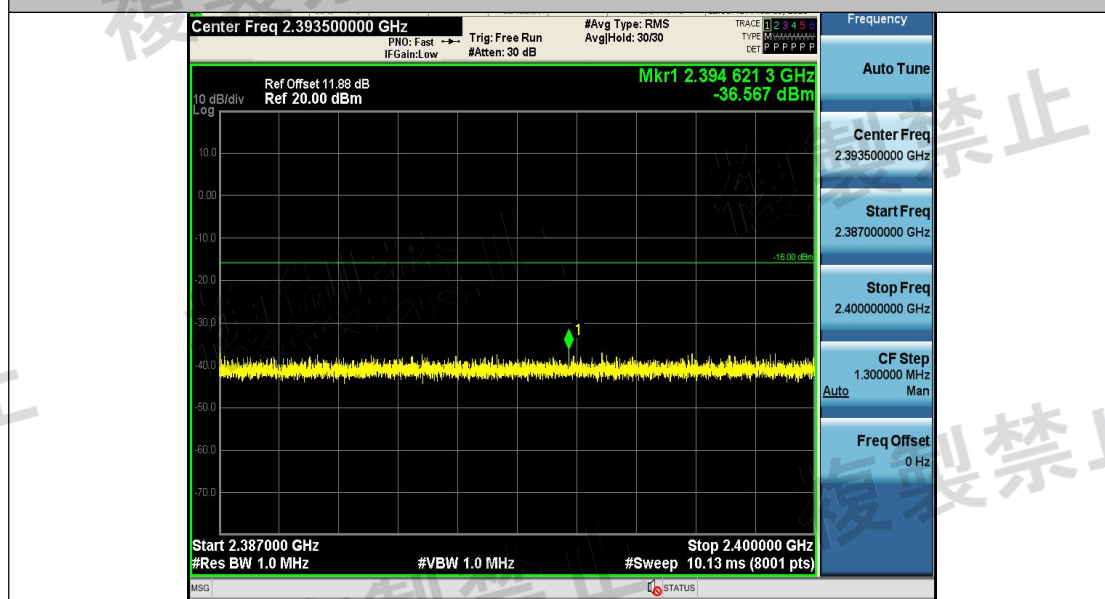
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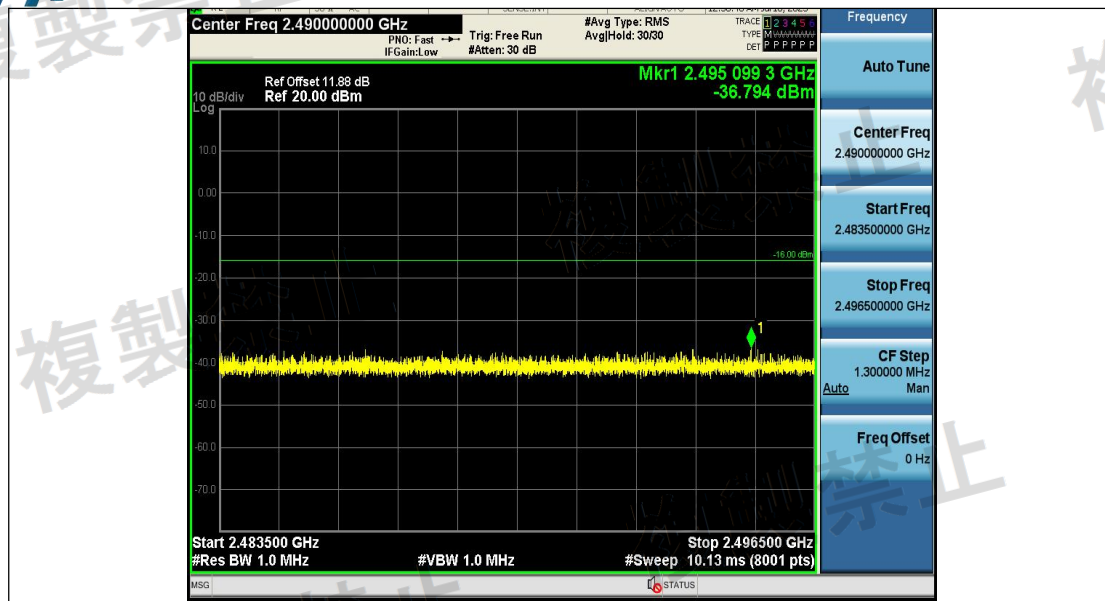
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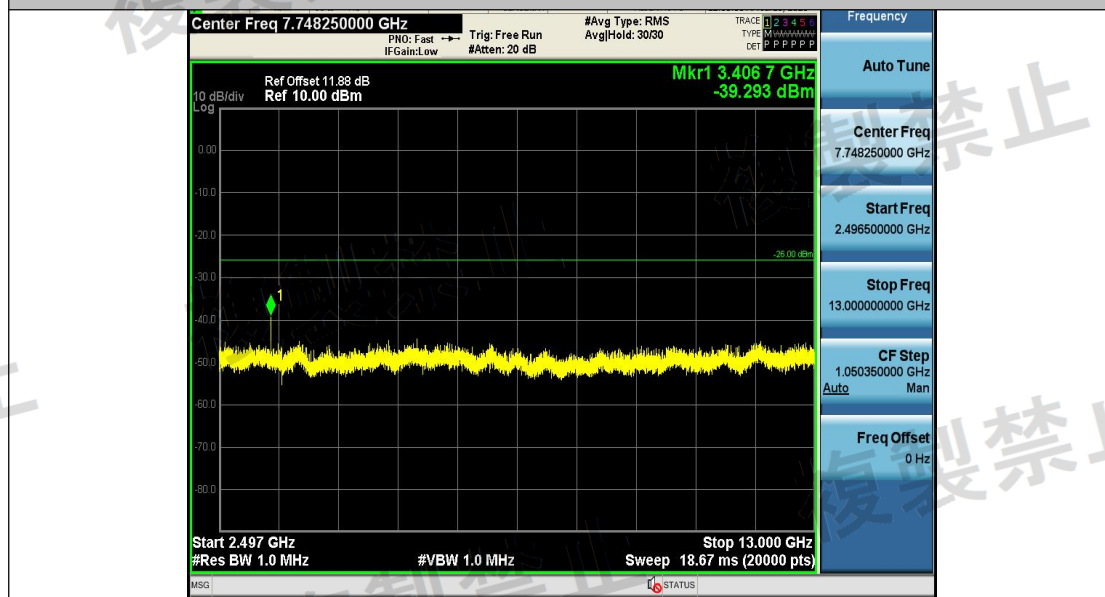
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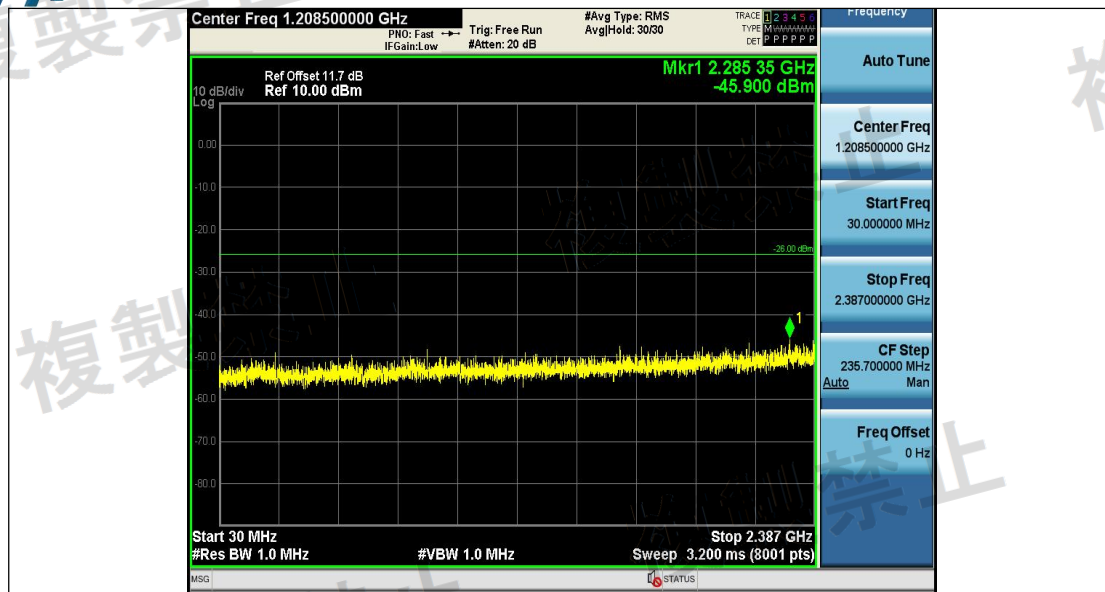
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NTNV-11G-Ant1-2442-2496.5~13000-PASS



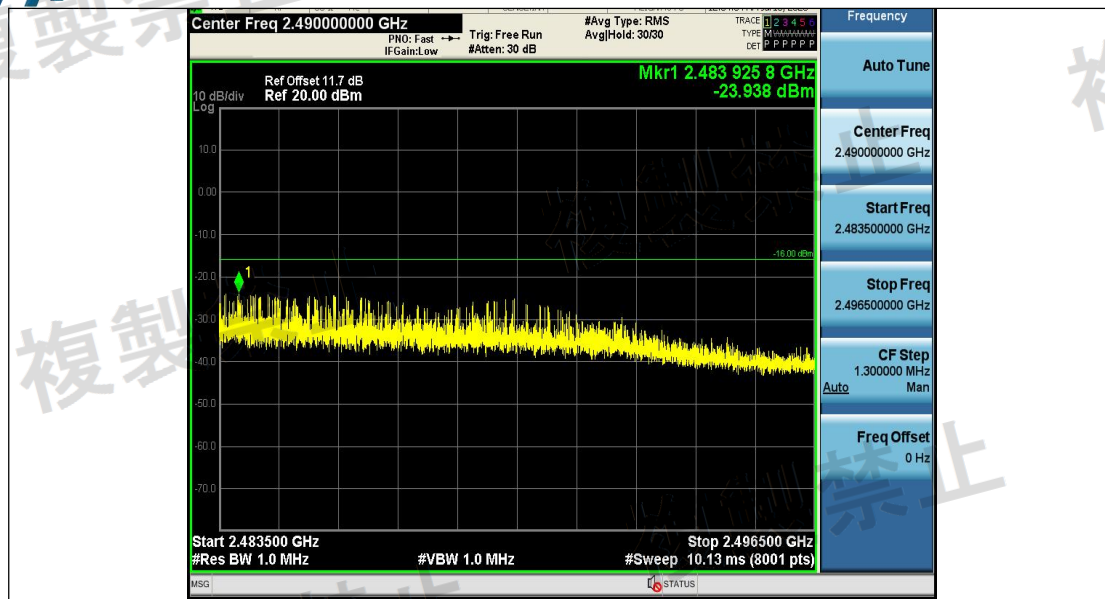
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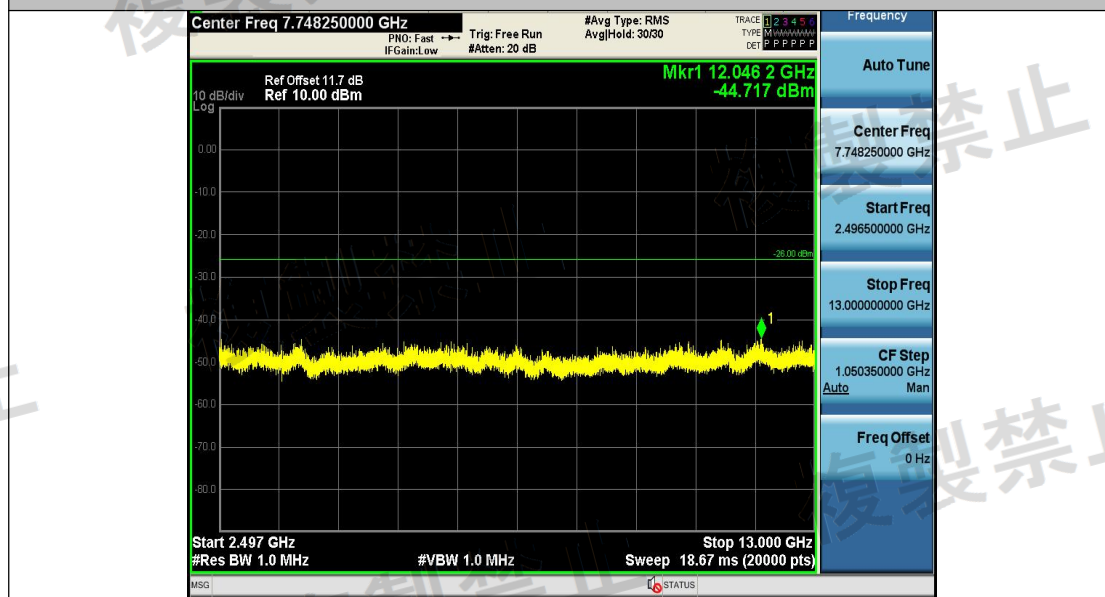
NTNV-11G-Ant1-2472-2387~2400-PASS



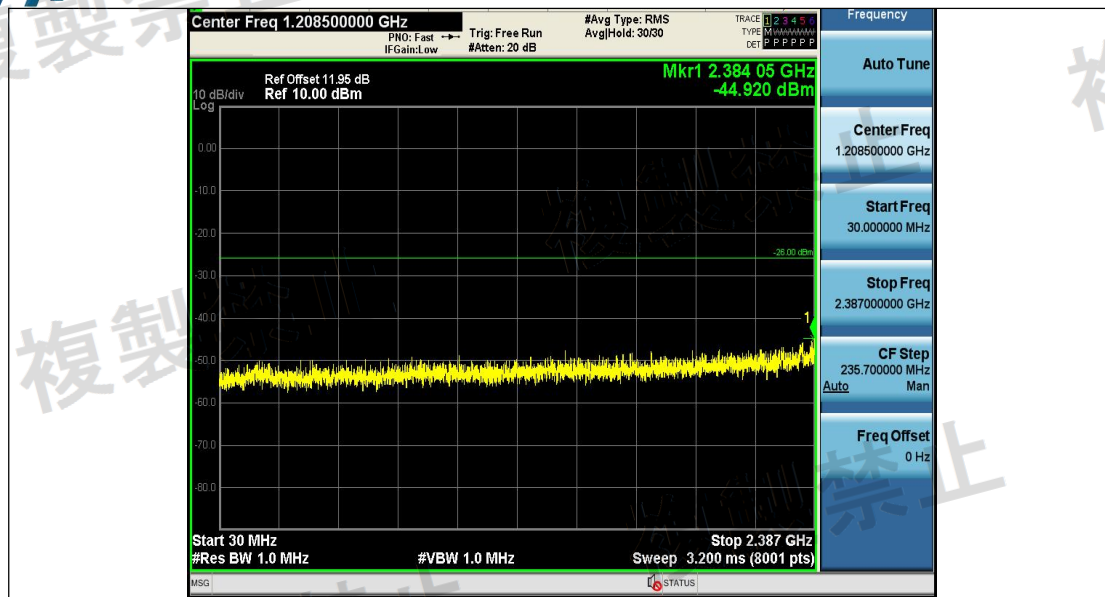
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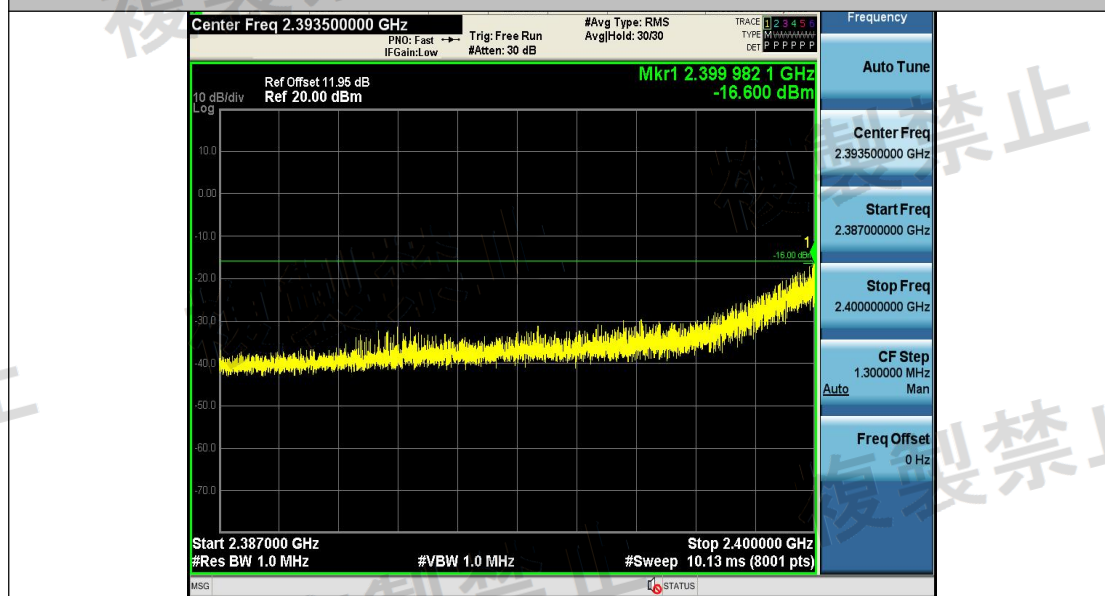
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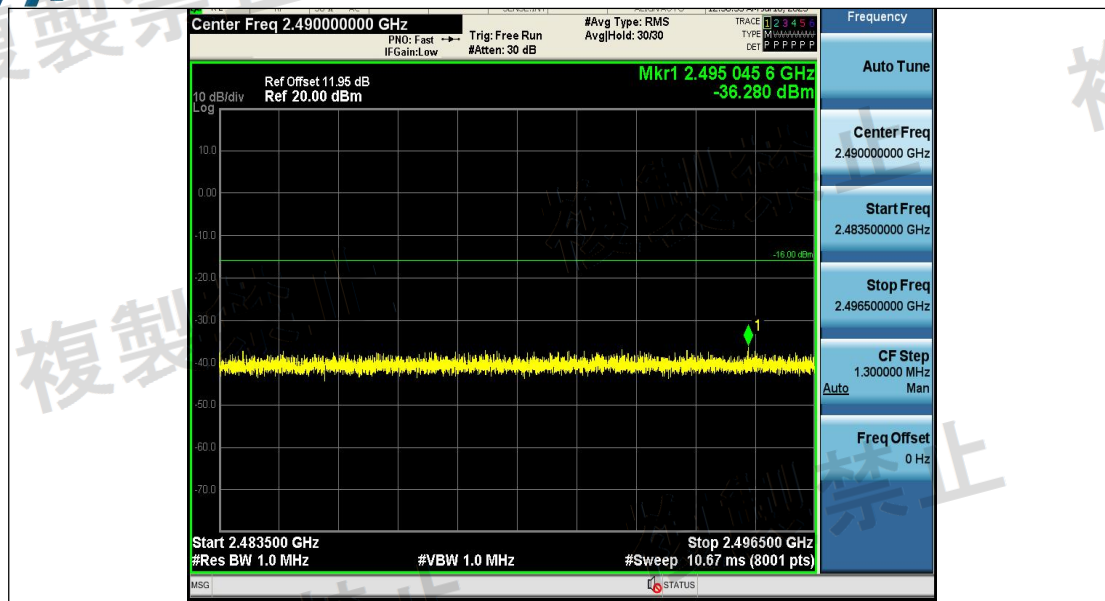
NTNV-11N20SISO-Ant1-2412-30~2387-PASS



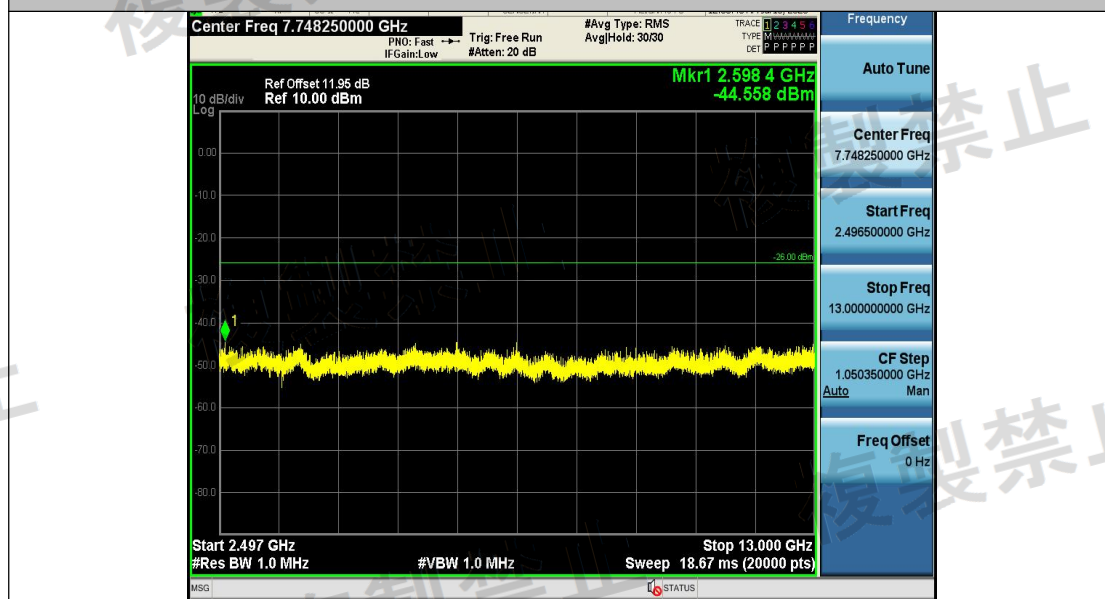
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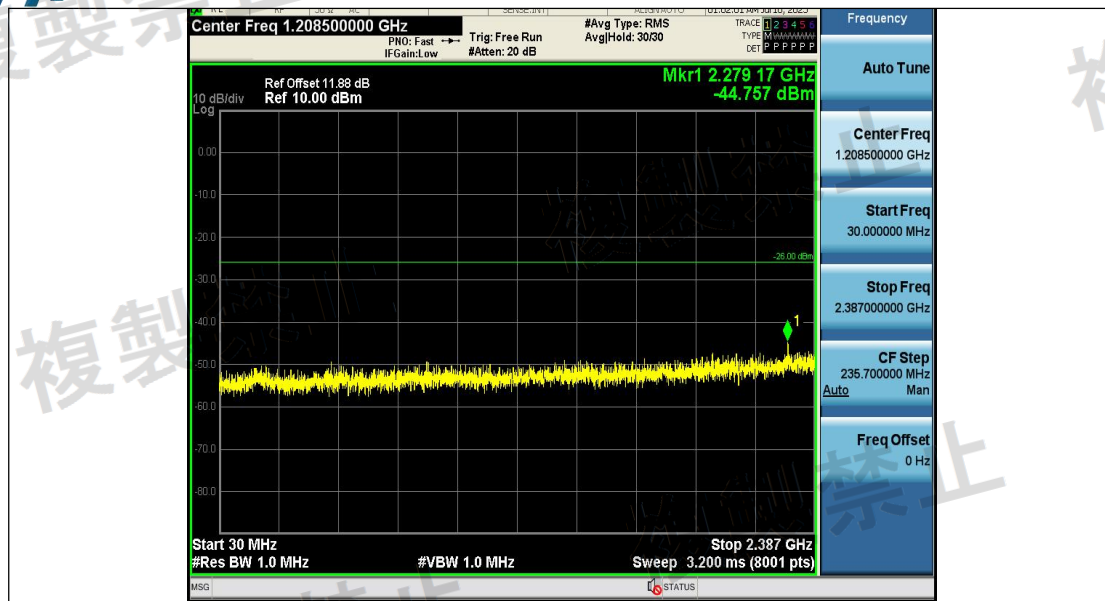
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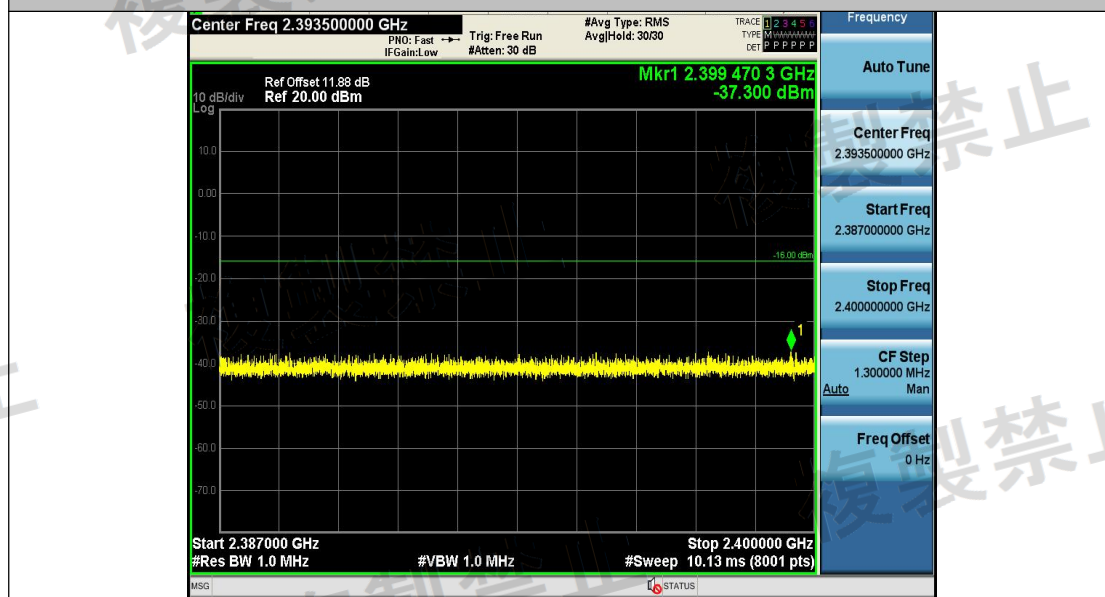
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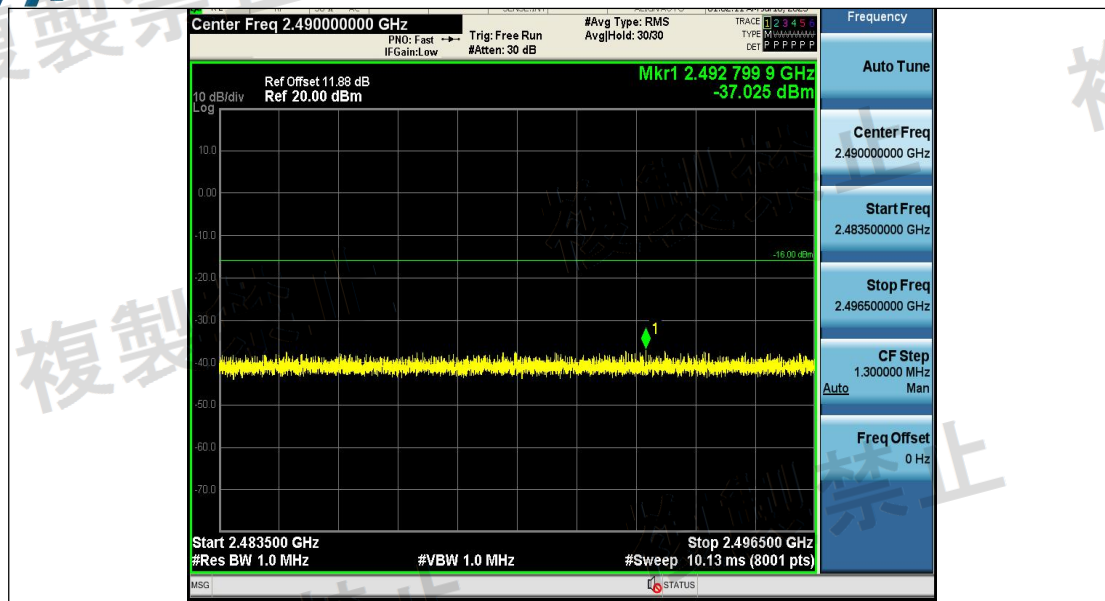
NTNV-11N20SISO-Ant1-2442-30~2387-PASS



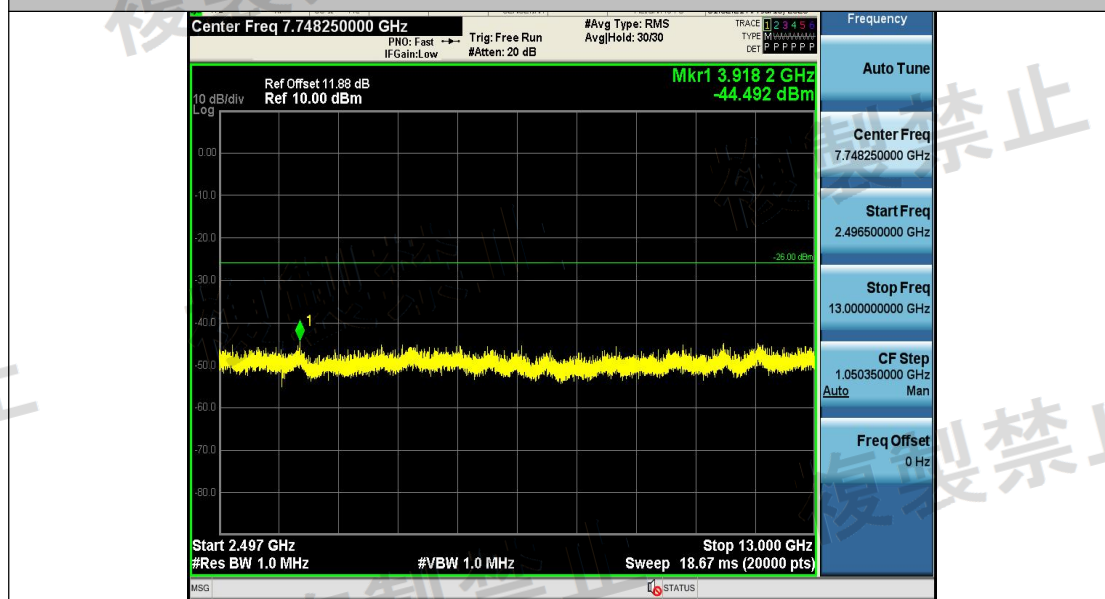
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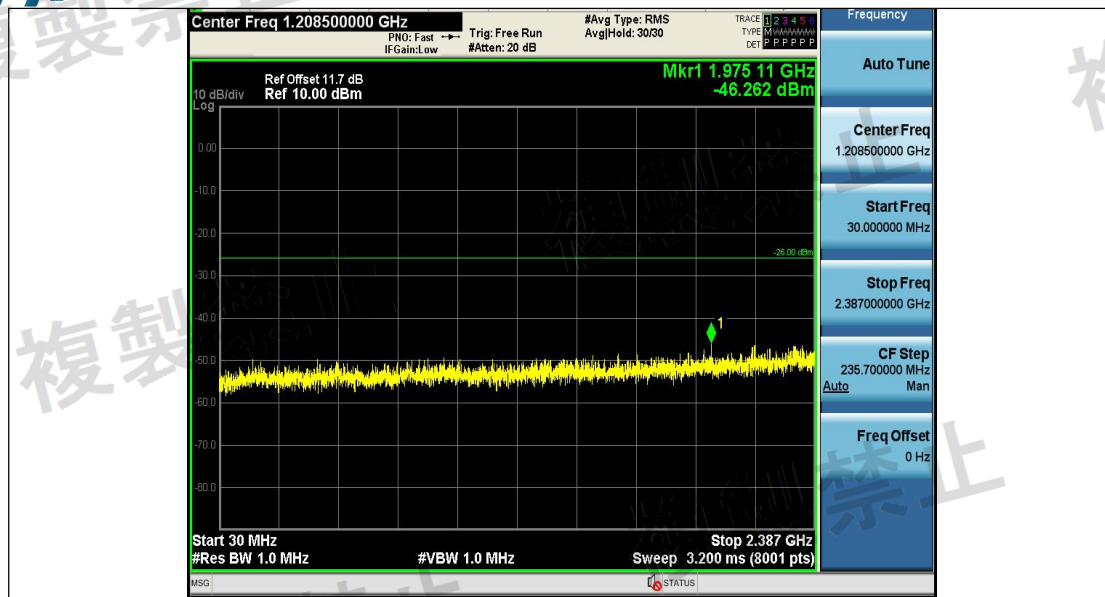
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NTNV-11N20SISO-Ant1-2442-2496.5~13000-PASS



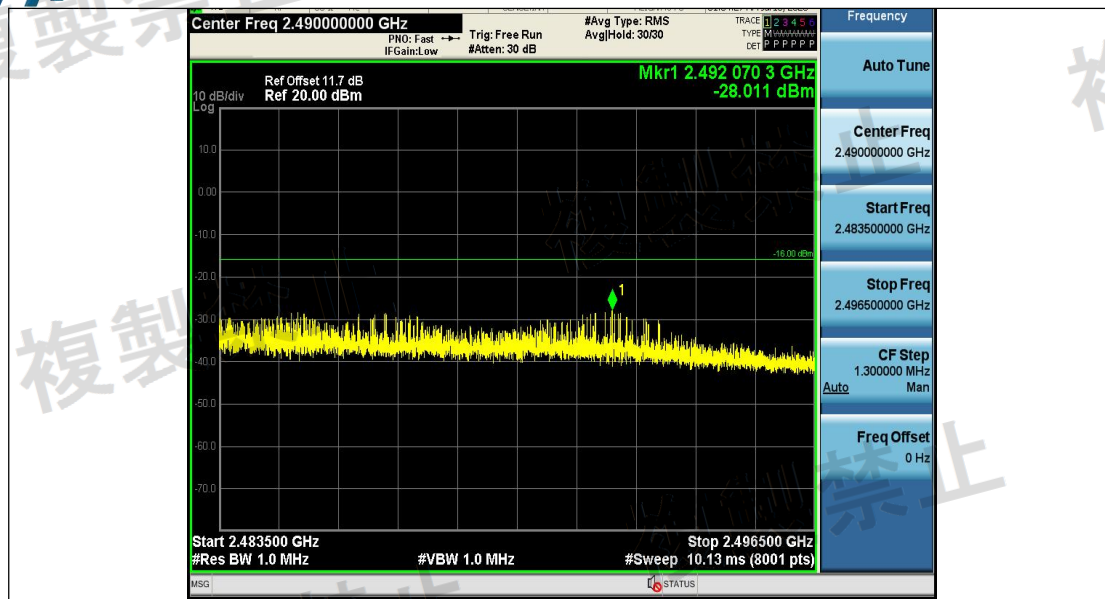
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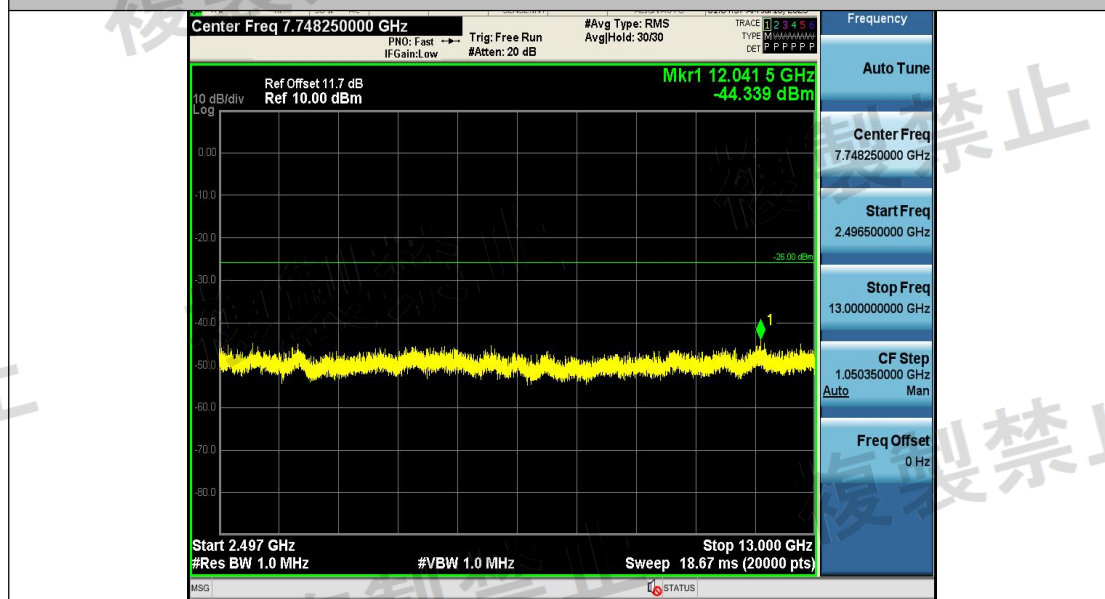
NTNV-11N20SISO-Ant1-2472-2387~2400-PASS



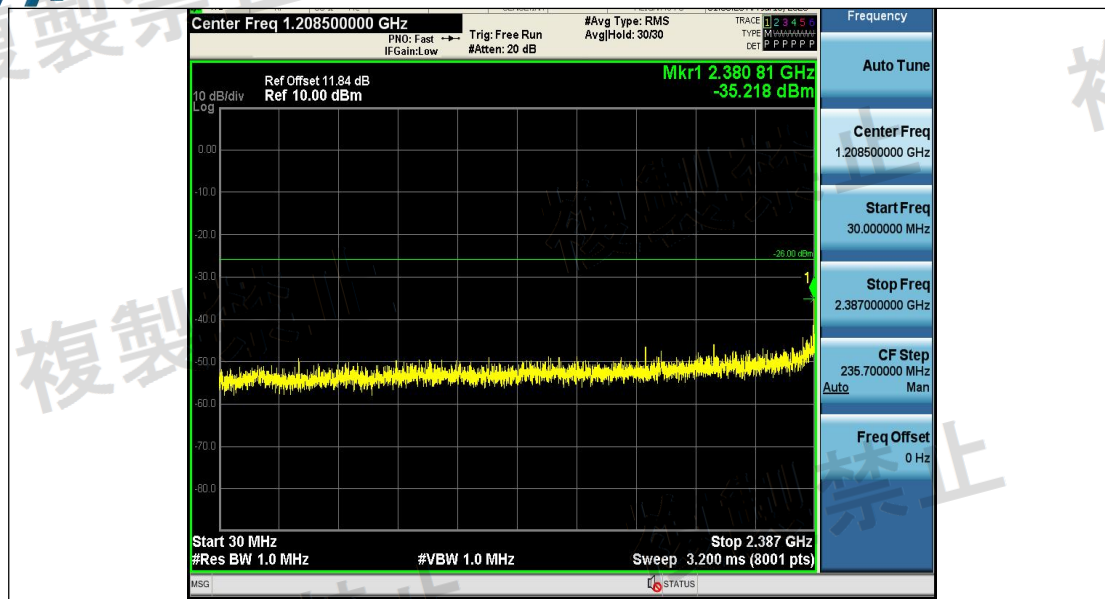
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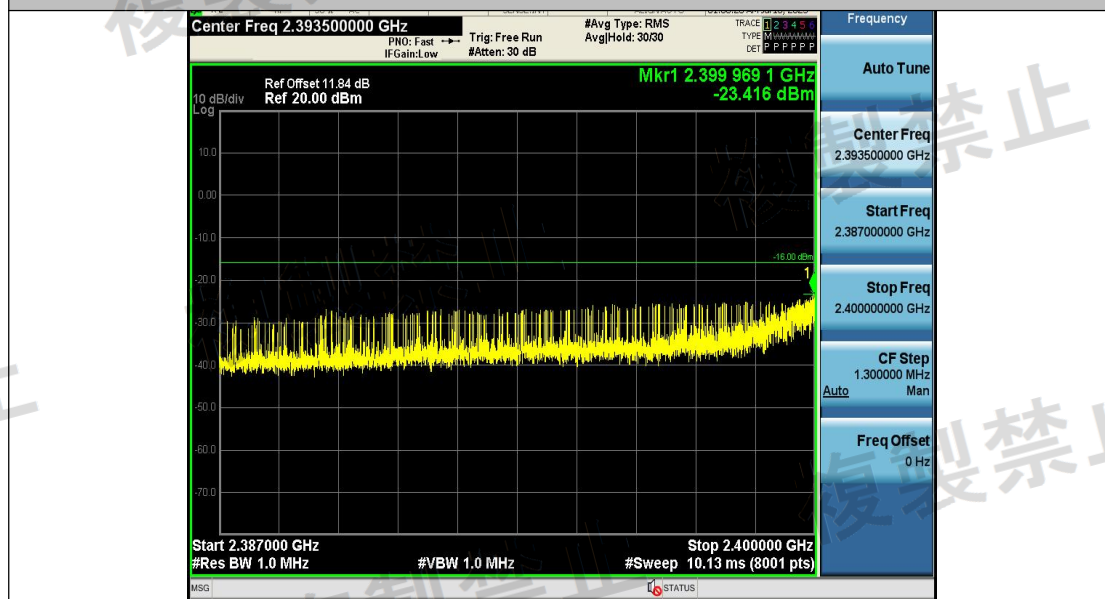
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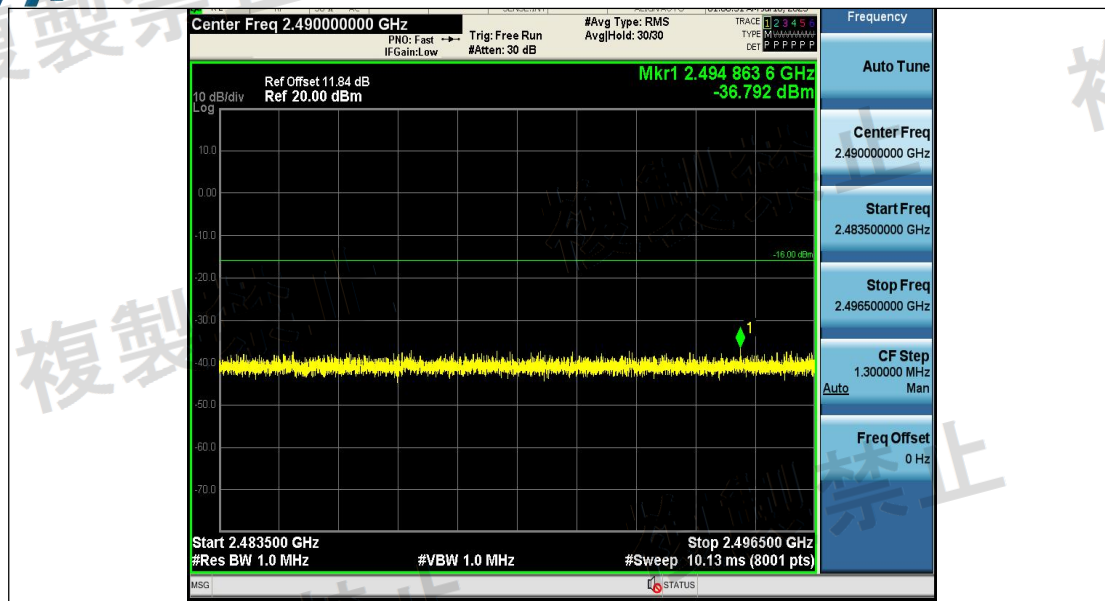
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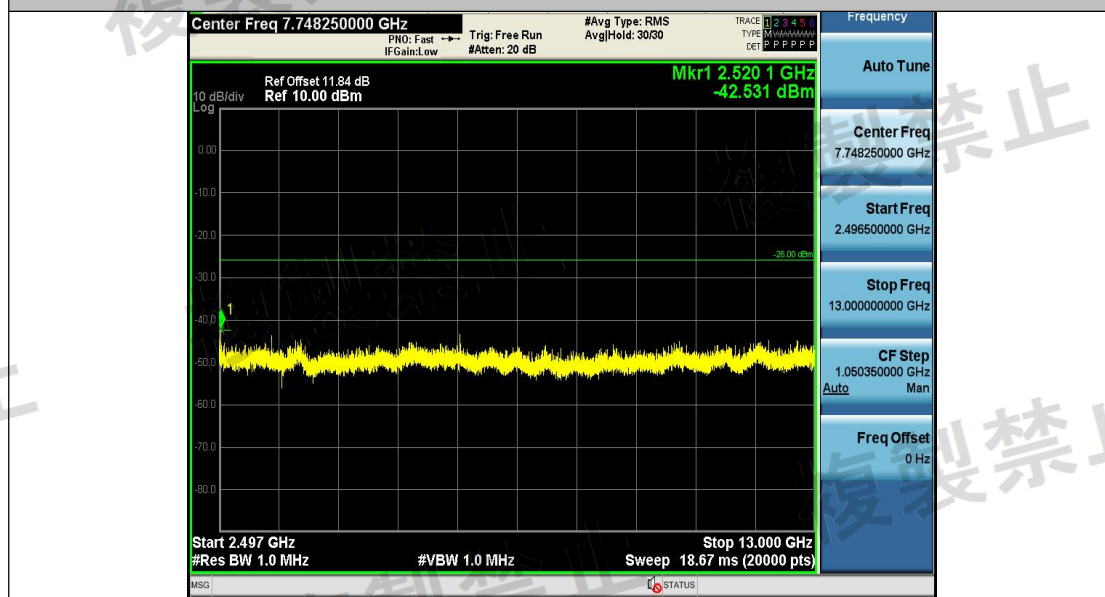
NTNV-11N40SISO-Ant1-2422-2387~2400-PASS



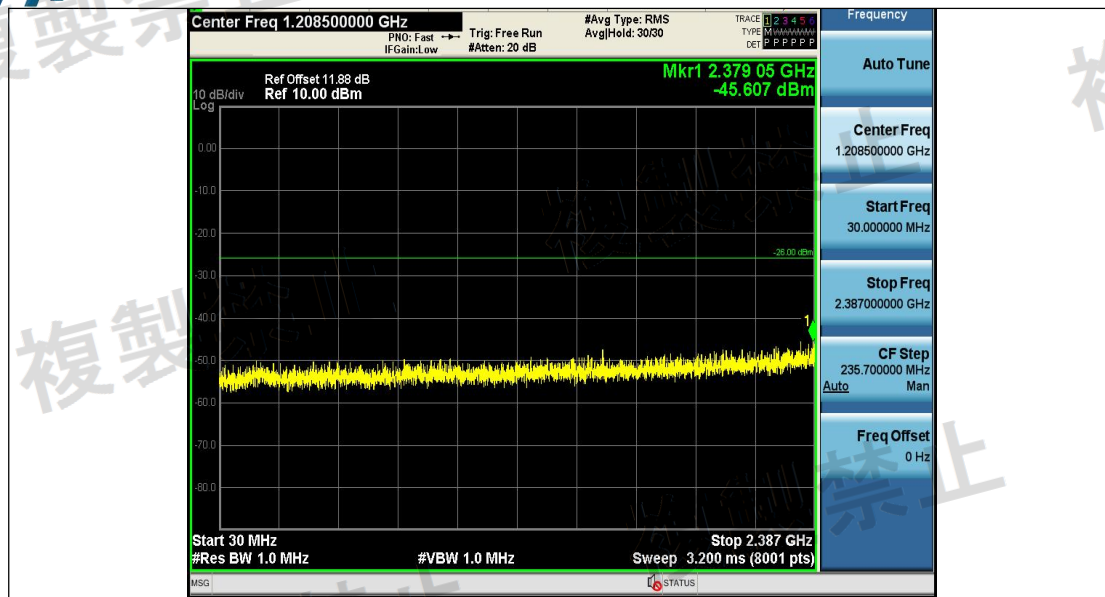
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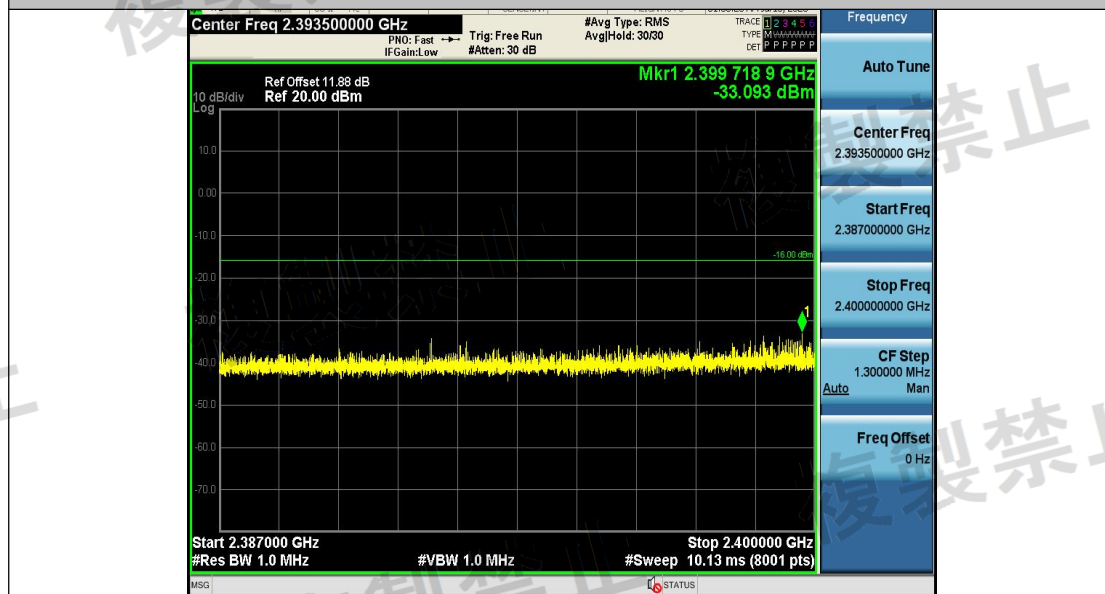
NTNV-11N40SISO-Ant1-2422-2496.5~13000-PASS



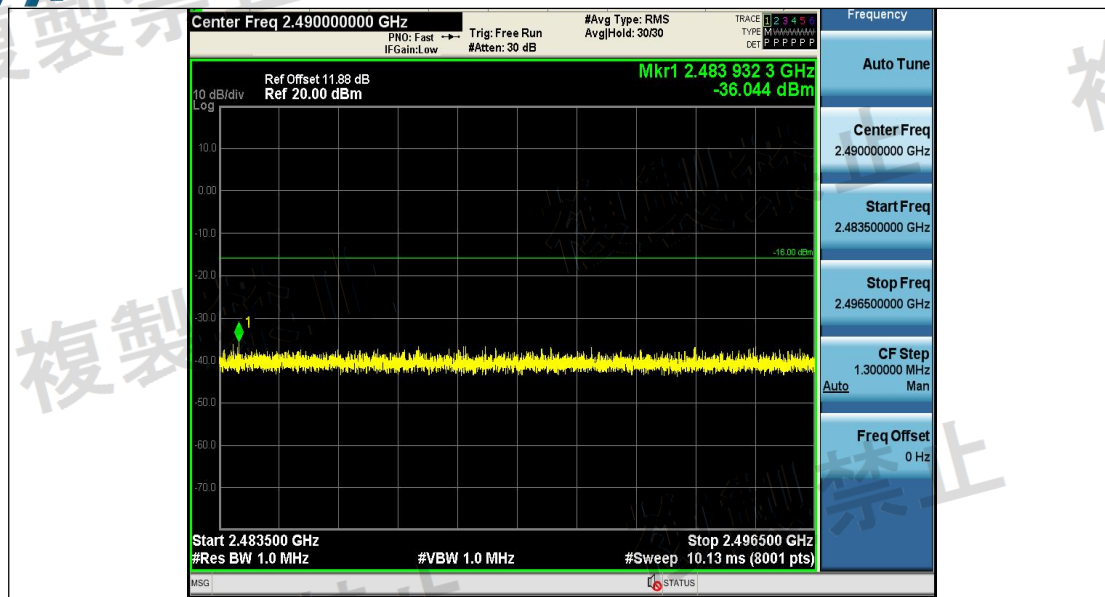
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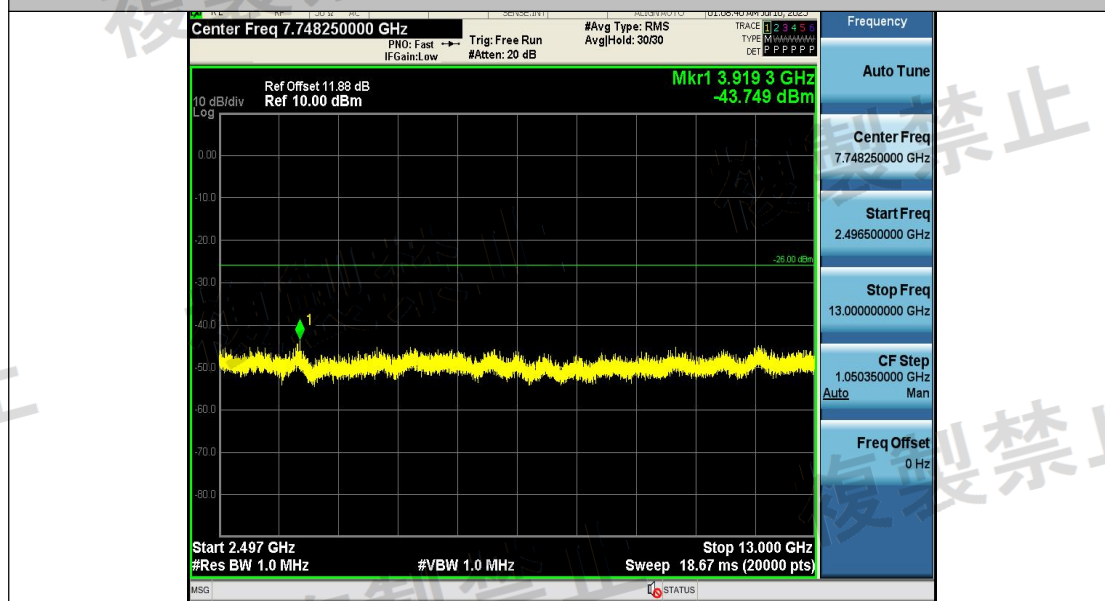
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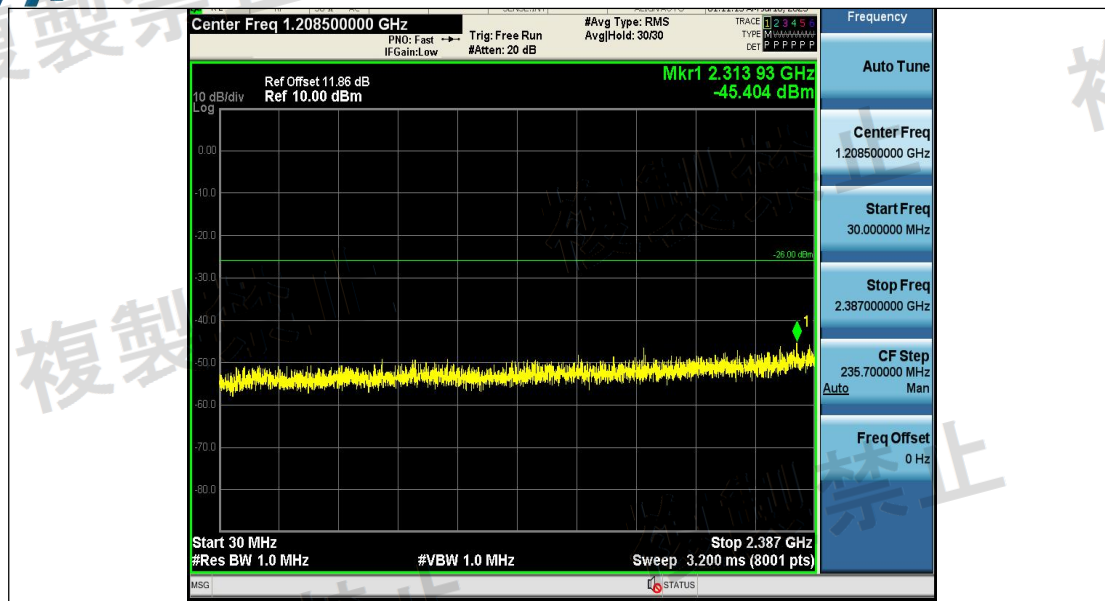
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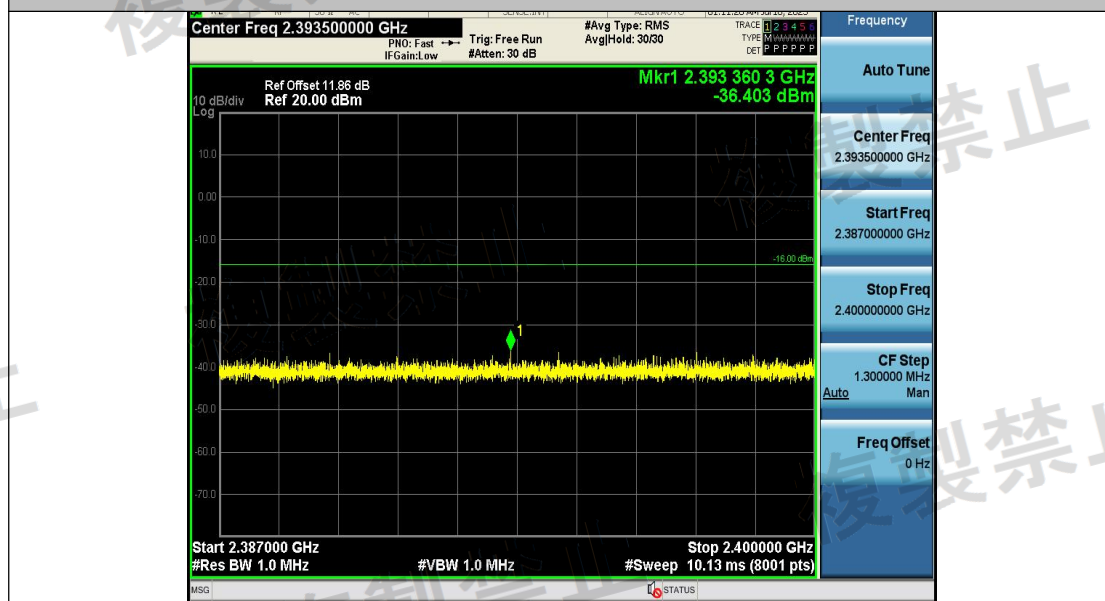
NTNV-11N40SISO-Ant1-2442-2496.5~13000-PASS



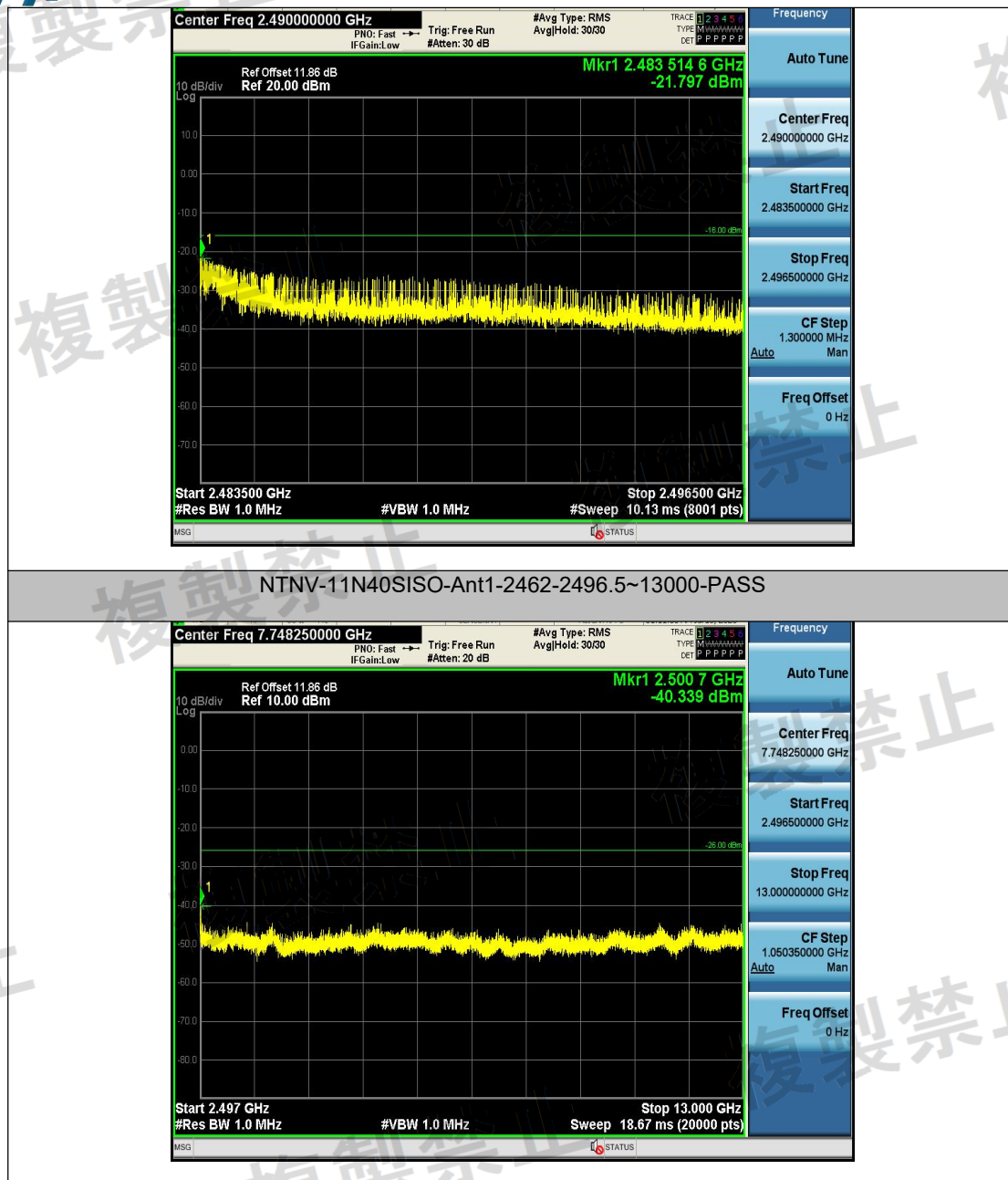
NTNV-11N40SISO-Ant1-2462-30~2387-PASS



NTNV-11N40SISO-Ant1-2462-2387~2400-PASS



NTNV-11N40SISO-Ant1-2462-2483.5~2496.5-PASS



Remark: That only normal voltage's plot is reported in the report.

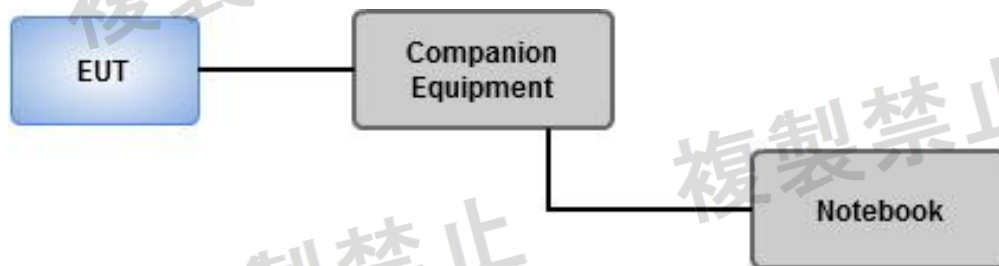


8 Interference prevention function

8.1. Test Limit

Test Limit	The identification code shall be 48 bits long
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8.2. Test Setup



8.3. Test Configuration

1. Set EUT under operating mode and link up with companion equipment
2. Check communication status between EUT and companion equipment is normal
3. Record the max. reading.
4. Confirm the MAC address of EUT

8.4. Test Data

Test Mode	ID Code	Test Results
Wi-Fi 2.4G	5a:87:26:bc:4f:e5	Pass

9 ANTENNA POWER TEST

9.1. Test Equipment

Same as 3.8 Frequency tolerance measurement.

9.2. Test Setup



9.3. Test Limit

Modulation system	Frequency band used	Antenna power (max.)	EIRP(max)	
			Omni-directional case	Directional case
DS-SS (Narrow-Band)	2,400-2,4835MHz	10mW/MHz	12.14dBm/MHz (16.367mW/MHz)	22.14dBm/MHz (163.682mW/MHz)
OFDM(Wide-Band)	2,400-2,4835MHz	5mW/MHz	9.13dBm/MHz (8.185mW/MHz)	19.13dBm/MHz (81.846mW/MHz)
DSSS	2,400-2,4835MHz	10mW	12.14dBm (16.367mW)	22.14dBm (163.682mW)

Test Item	Limit
Antenna Power Error	+20% (Base on manufacturer declare antenna power density)

9.4. Test procedure

The setting of spectrum.

Spectrum Parameter	Setting
Span	0MHz
RBW/VBW	1MHz
Detector	Peak
Trace	Max hold
Sweep Time	Auto

1. A power meter is connected on the IF output port of the spectrum analyzer.



2. Adjust the spectrum analyzer to have the center frequency the same with the measured carrier. RBW=VBW=1MHz, detector mode is positive peak. Turn off the averaging function and use zero span.
3. The calibrating signal power shall be reduced to 0 dBm and it shall be verified that the power meter reading also reduces by 10 dB.
4. Connect the equipment to be measured. Using the following settings of the spectrum analyzer in combination with "max hold" function, find the frequency of highest power output in the power envelope: center frequency equal to operating frequency; RBW & VBW: 1 MHz; detector mode: positive peak; averaging: off; span: 3 times the spectrum width; amplitude: adjust for middle of the instrument's range. The frequency found shall be recorded.
5. Set the center frequency of the spectrum analyzer to the found frequency and switch to zero span. The power meter indicates the measured power density "PD".
6. Calculate antenna power density by the formula below $PD = \text{Power meter value (dBm)} + \text{Cable loss (dB)} + 10 \log_{10}(1/\text{Duty cycle})$ (dB).
7. Antenna Power Error is definition that actual measure antenna power tolerance between + 20% power range that base on manufacturer declare the conducted power density.

9.5. Test Data

Pass

Please refer to the following data.



Test data for Ant1:

Test Condition	Test Mode	Antenna	Frequency[MHz]	Result(dBm /MHz)	Result(mW/ MHz)	Limit(mW /MHz)	Verdict
NTNV	11B	Ant1	2412	7.33	5.4075	≤10	PASS
NTNV	11B	Ant1	2442	6.43	4.3954	≤10	PASS
NTNV	11B	Ant1	2472	6.00	3.9811	≤10	PASS
NTNV	11G	Ant1	2412	9.53	8.9743	≤10	PASS
NTNV	11G	Ant1	2442	9.44	8.7902	≤10	PASS
NTNV	11G	Ant1	2472	9.29	8.4918	≤10	PASS
NTNV	11N20SISO	Ant1	2412	9.60	9.1201	≤10	PASS
NTNV	11N20SISO	Ant1	2442	8.91	7.7804	≤10	PASS
NTNV	11N20SISO	Ant1	2472	8.03	6.3533	≤10	PASS
NTNV	11N40SISO	Ant1	2442	5.47	3.5237	≤5	PASS
NTNV	11N40SISO	Ant1	2462	5.37	3.4435	≤5	PASS
NTNV	11N40SISO	Ant1	2422	3.73	2.3605	≤5	PASS

Test Condition	Test Mode	Antenna	Frequency[MHz]	Power (mW/ MHz)	RatedPower (mW/MHz)	Result (%)	Limit (%)	Verdict
NTNV	11B	Ant1	2412	5.4075	10	-45.93	+20	PASS
NTNV	11B	Ant1	2442	4.3954	10	-56.05	+20	PASS
NTNV	11B	Ant1	2472	3.9811	10	-60.19	+20	PASS
NTNV	11G	Ant1	2412	8.9743	10	-10.26	+20	PASS
NTNV	11G	Ant1	2442	8.7902	10	-12.10	+20	PASS
NTNV	11G	Ant1	2472	8.4918	10	-15.08	+20	PASS
NTNV	11N20SISO	Ant1	2412	9.1201	10	-8.80	+20	PASS
NTNV	11N20SISO	Ant1	2442	7.7804	10	-22.20	+20	PASS
NTNV	11N20SISO	Ant1	2472	6.3533	10	-36.47	+20	PASS
NTNV	11N40SISO	Ant1	2442	3.5237	5	-29.53	+20	PASS
NTNV	11N40SISO	Ant1	2462	3.4435	5	-31.13	+20	PASS
NTNV	11N40SISO	Ant1	2422	2.3605	5	-52.79	+20	PASS



Test Condition	Test Mode	Antenna	Frequency [MHz]	Result (dBm /MHz)	Gain (dBi)	EIRP (dBm /MHz)	Limit (dBm /MHz)	Verdict
NTNV	11B	Ant1	2412	7.33	1.96	9.29	≤12.14	PASS
NTNV	11B	Ant1	2442	6.43	1.96	8.39	≤12.14	PASS
NTNV	11B	Ant1	2472	6.00	1.96	7.96	≤12.14	PASS
NTNV	11G	Ant1	2412	9.53	1.96	11.49	≤12.14	PASS
NTNV	11G	Ant1	2442	9.44	1.96	11.40	≤12.14	PASS
NTNV	11G	Ant1	2472	9.29	1.96	11.25	≤12.14	PASS
NTNV	11N20SISO	Ant1	2412	9.60	1.96	11.56	≤12.14	PASS
NTNV	11N20SISO	Ant1	2442	8.91	1.96	10.87	≤12.14	PASS
NTNV	11N20SISO	Ant1	2472	8.03	1.96	9.99	≤12.14	PASS
NTNV	11N40SISO	Ant1	2442	5.47	1.96	7.43	≤9.13	PASS
NTNV	11N40SISO	Ant1	2462	5.37	1.96	7.33	≤9.13	PASS
NTNV	11N40SISO	Ant1	2422	3.73	1.96	5.69	≤9.13	PASS

Test result: Pass.



10 IMITATION OF COLLATERAL EMISSIONS OF RECEIVER TEST

10.1. Test Equipment

Same as 3.8 Frequency tolerance measurement.

10.2. Test Configuration

Same as 3.9 Frequency tolerance measurement.

10.3 Test Limits

Item	Limits
RX Spurious Emission	$\leq 4\text{nW}$ ($f < 1\text{GHz}$)
	$\leq 20\text{nW}$ ($1\text{GHz} \leq f$)

10.4 Test procedure

1. EUT have the continuous reception mode and fixed only one channelize.
2. Setting of SA is following as RBW / VBW: 1 MHz(30~ 1000MHz, RBW:100kHz,VBW: 100kHz) / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold
3. SA set RBW: 1 MHz and VBW: 1 MHz(30~ 1000MHz, RBW:100kHz,VBW: 100kHz). Then adjust to start frequency and stop frequency. Search to mark peak reading value + cable loss shall be less than limit.

10.5. Test Data

Scanning Bandwidth	:	30~ 1000MHz
		1000~12500Mhz

Pass

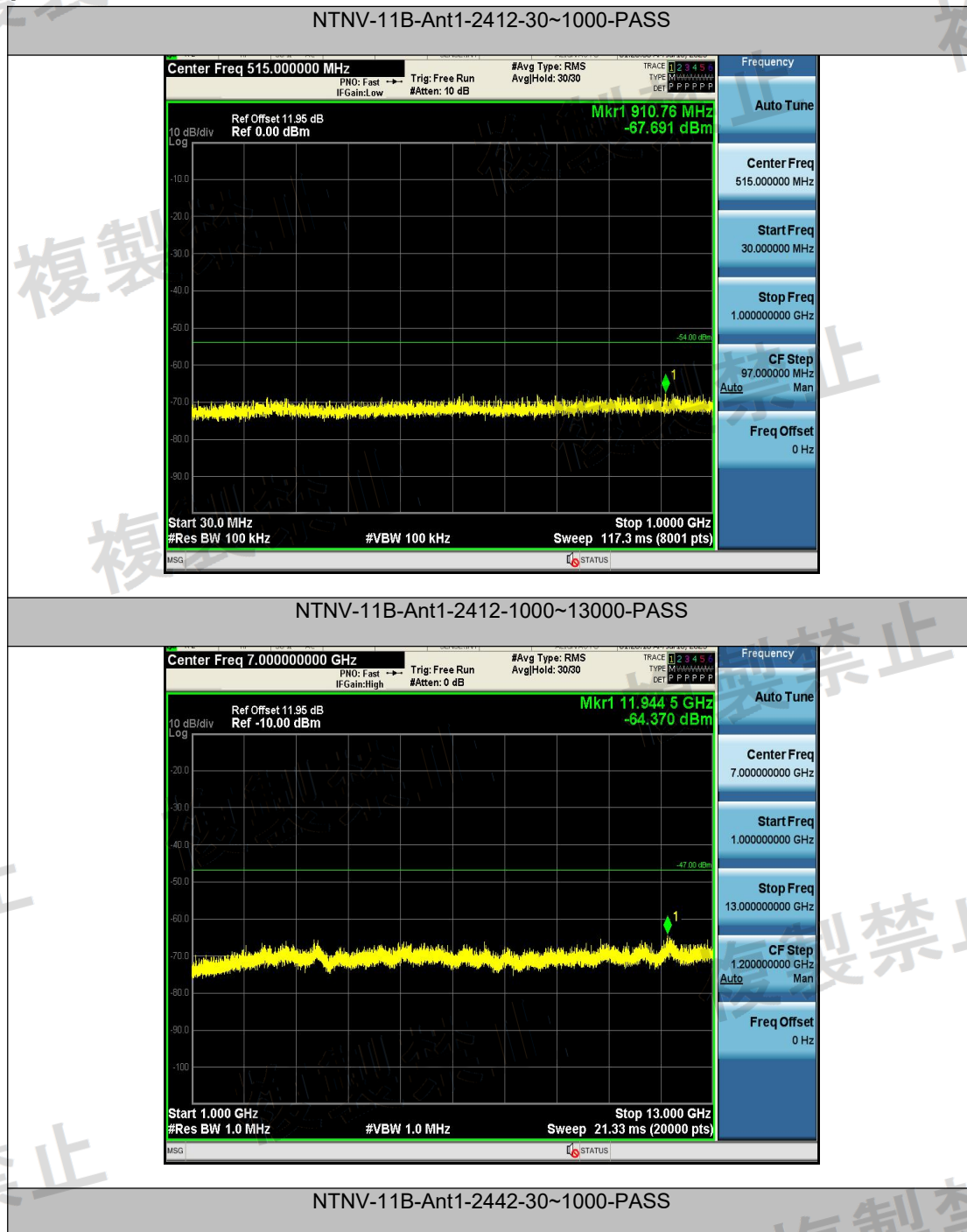
Please refer to the following data.

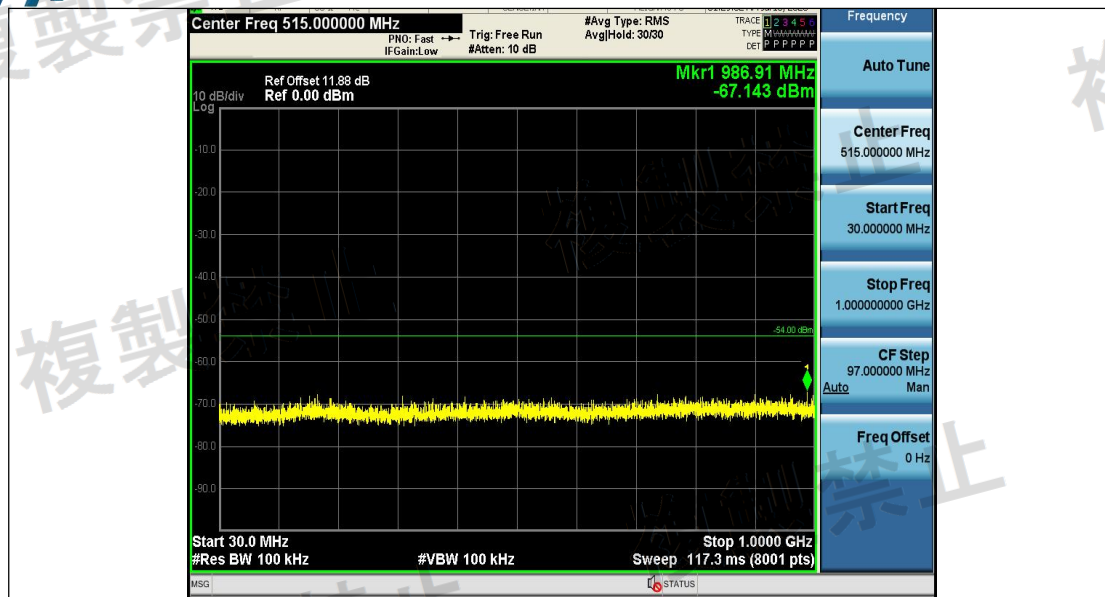
**Normal Voltage:**

Test Condition	TestMode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11B	Ant1	2412	30~1000	-67.69	≤-54	0.17022	≤4	PASS
NTNV	11B	Ant1	2412	1000~13000	-64.37	≤-47	0.36559	≤20	PASS
NTNV	11B	Ant1	2442	30~1000	-67.14	≤-54	0.19320	≤4	PASS
NTNV	11B	Ant1	2442	1000~13000	-64.90	≤-47	0.32359	≤20	PASS
NTNV	11B	Ant1	2472	30~1000	-68.23	≤-54	0.15031	≤4	PASS
NTNV	11B	Ant1	2472	1000~13000	-65.06	≤-47	0.31189	≤20	PASS
NTNV	11G	Ant1	2412	30~1000	-66.98	≤-54	0.20045	≤4	PASS
NTNV	11G	Ant1	2412	1000~13000	-65.45	≤-47	0.28510	≤20	PASS
NTNV	11G	Ant1	2442	30~1000	-67.30	≤-54	0.18621	≤4	PASS
NTNV	11G	Ant1	2442	1000~13000	-65.16	≤-47	0.30479	≤20	PASS
NTNV	11G	Ant1	2472	30~1000	-68.05	≤-54	0.15668	≤4	PASS
NTNV	11G	Ant1	2472	1000~13000	-65.40	≤-47	0.28840	≤20	PASS
NTNV	11N20SISO	Ant1	2412	30~1000	-67.58	≤-54	0.17458	≤4	PASS
NTNV	11N20SISO	Ant1	2412	1000~13000	-64.74	≤-47	0.33574	≤20	PASS
NTNV	11N20SISO	Ant1	2442	30~1000	-67.15	≤-54	0.19275	≤4	PASS
NTNV	11N20SISO	Ant1	2442	1000~13000	-65.58	≤-47	0.27669	≤20	PASS
NTNV	11N20SISO	Ant1	2472	30~1000	-67.55	≤-54	0.17579	≤4	PASS
NTNV	11N20SISO	Ant1	2472	1000~13000	-64.84	≤-47	0.32810	≤20	PASS
NTNV	11N40SISO	Ant1	2422	30~1000	-67.55	≤-54	0.17579	≤4	PASS
NTNV	11N40SISO	Ant1	2422	1000~13000	-65.02	≤-47	0.31477	≤20	PASS
NTNV	11N40SISO	Ant1	2442	30~1000	-66.87	≤-54	0.20559	≤4	PASS
NTNV	11N40SISO	Ant1	2442	1000~13000	-65.58	≤-47	0.27669	≤20	PASS
NTNV	11N40SISO	Ant1	2462	30~1000	-67.53	≤-54	0.17660	≤4	PASS
NTNV	11N40SISO	Ant1	2462	1000~13000	-64.45	≤-47	0.35892	≤20	PASS

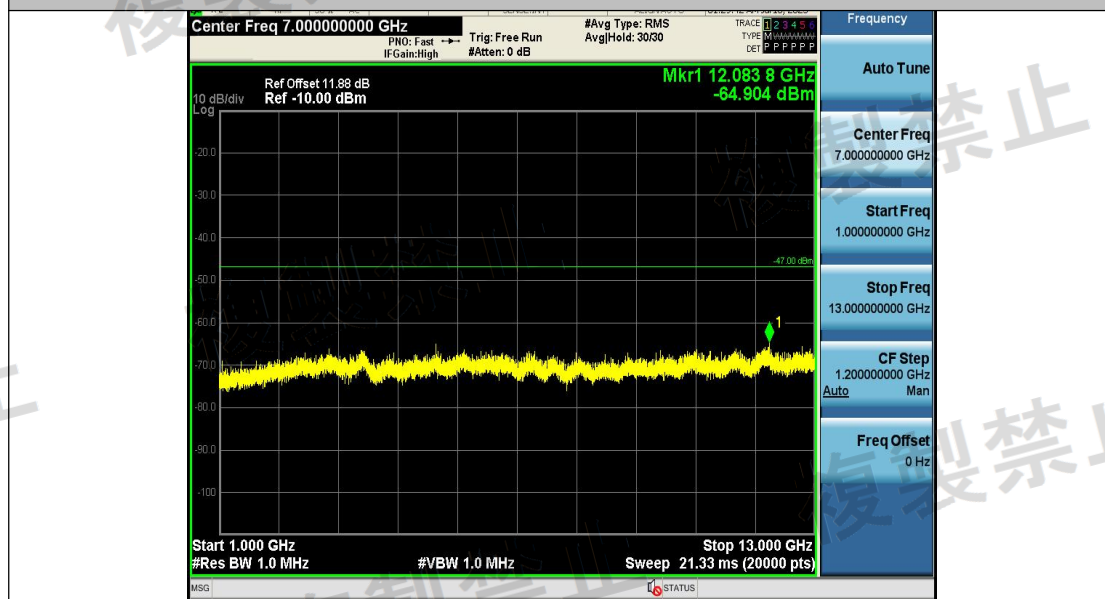


Test Graphs:

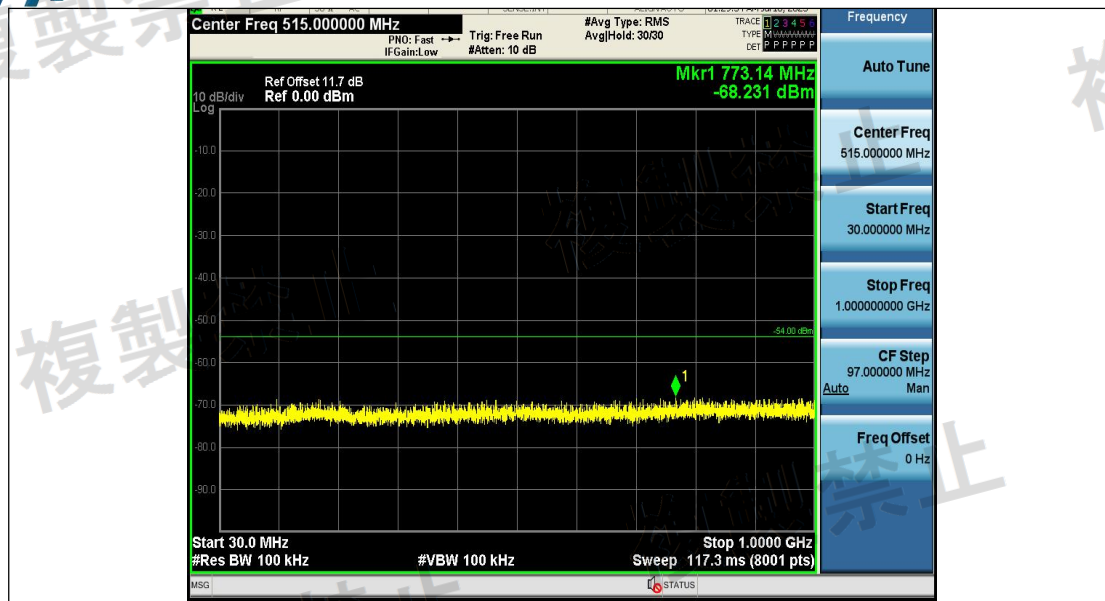




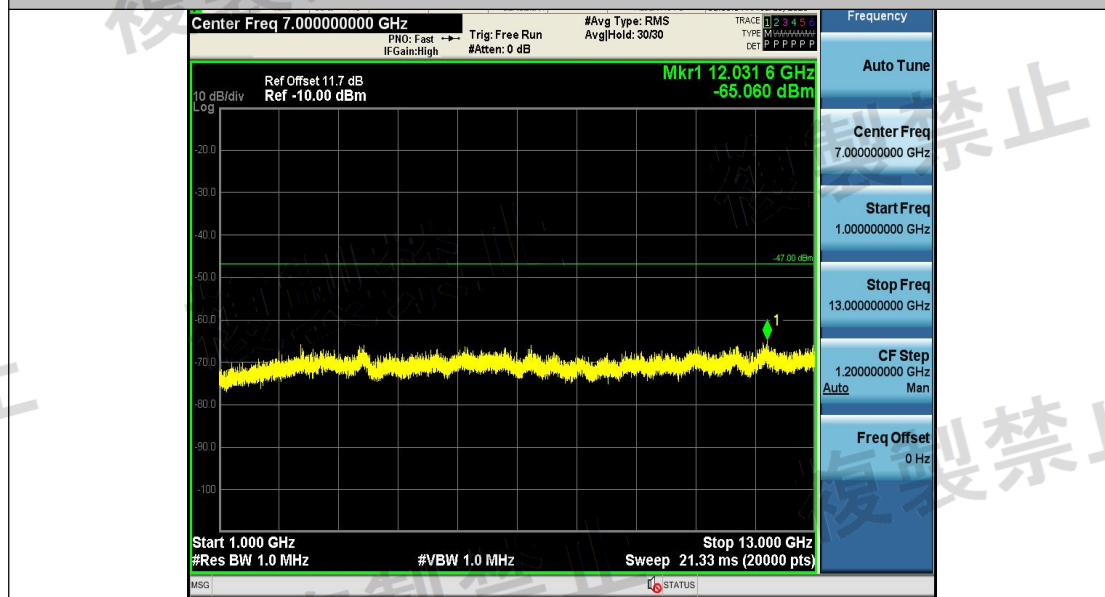
NTNV-11B-Ant1-2442-1000~13000-PASS



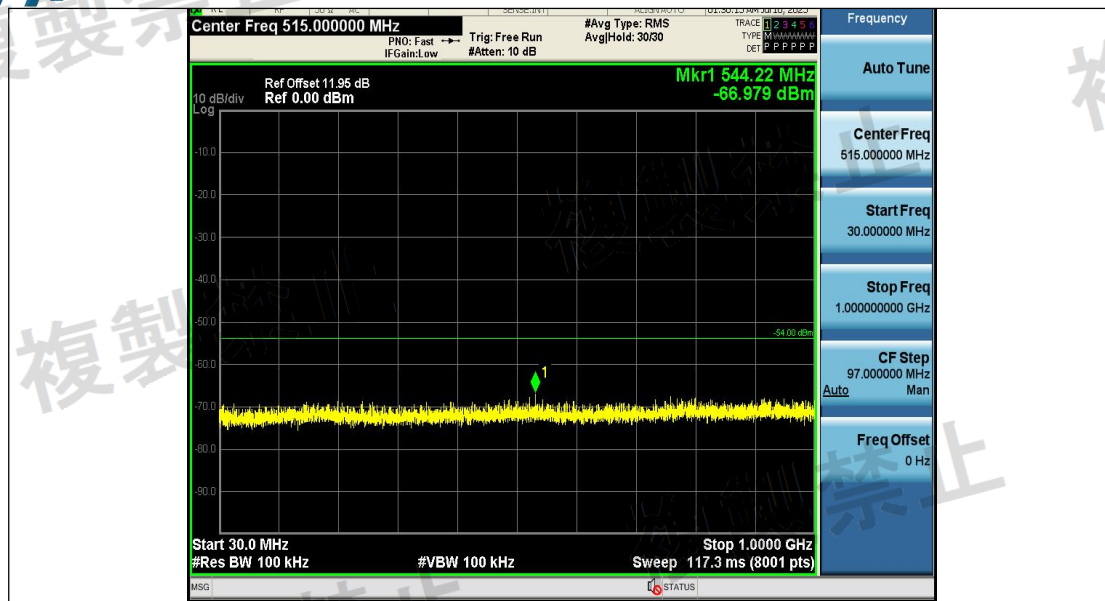
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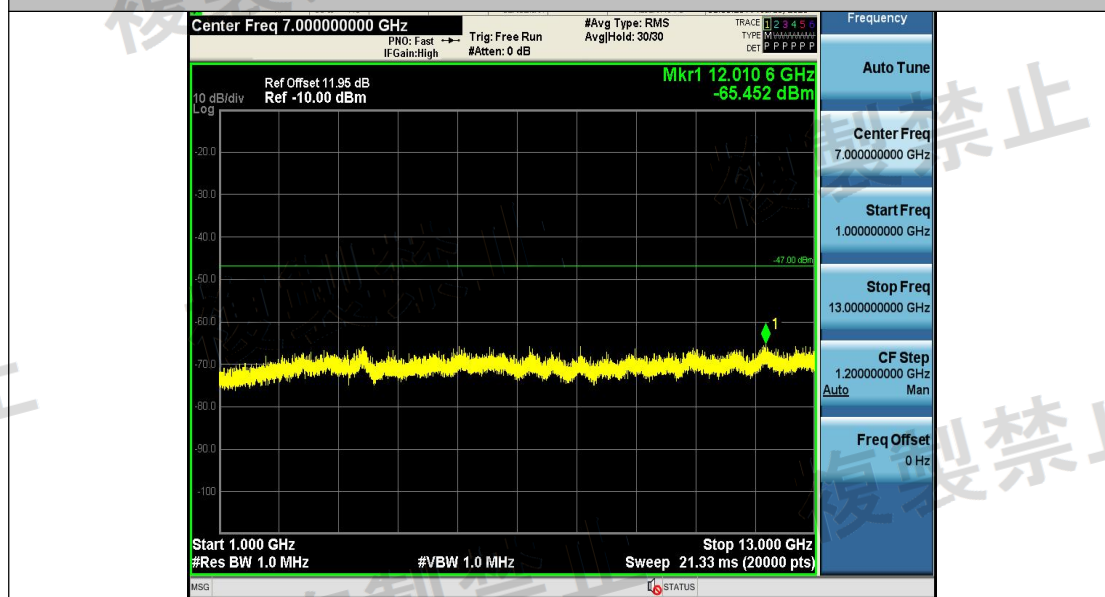
NTNV-11B-Ant1-2472-1000~13000-PASS



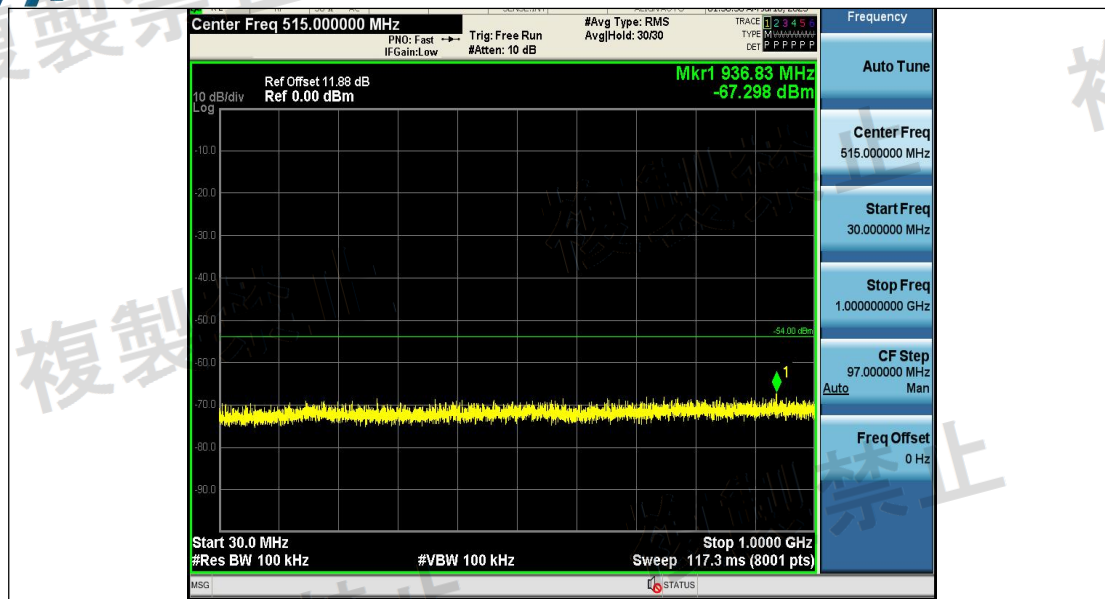
NTNV-11G-Ant1-2412-30~1000-PASS



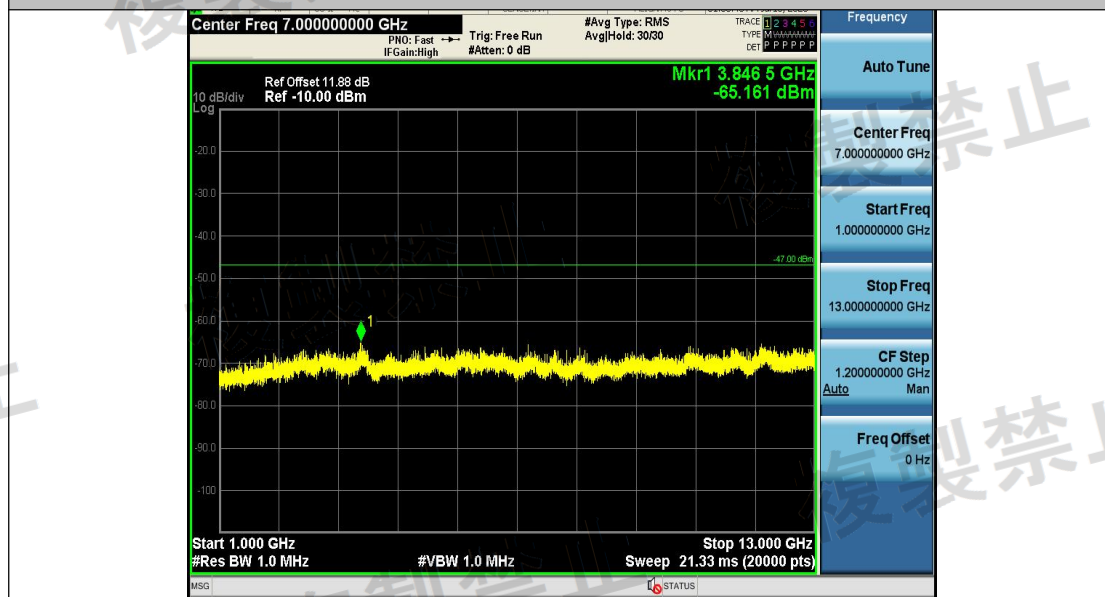
NTNV-11G-Ant1-2412-1000~13000-PASS



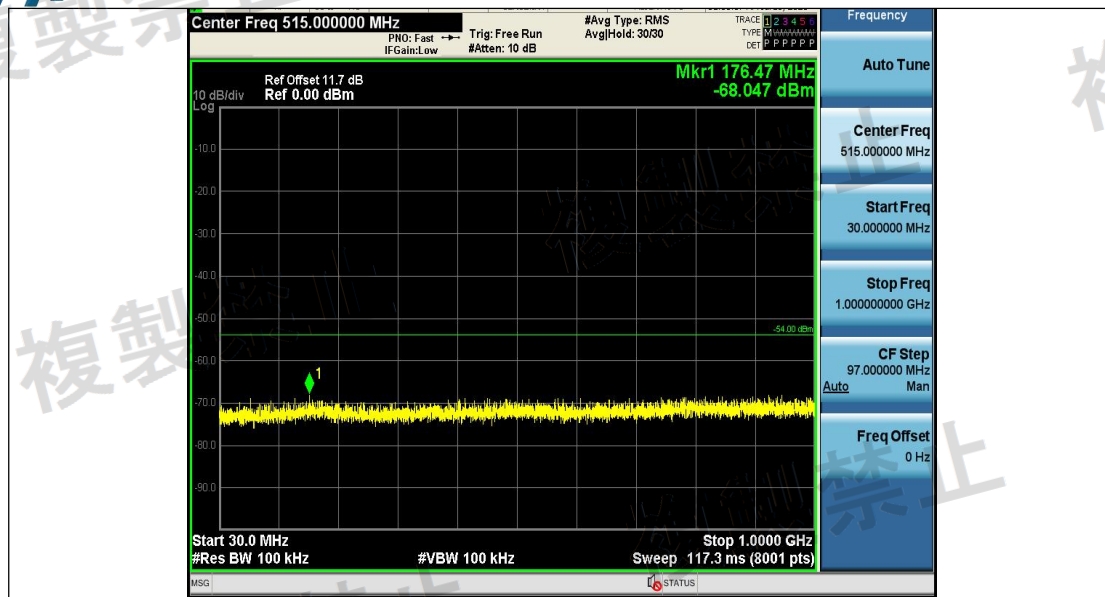
NTNV-11G-Ant1-2442-30~1000-PASS



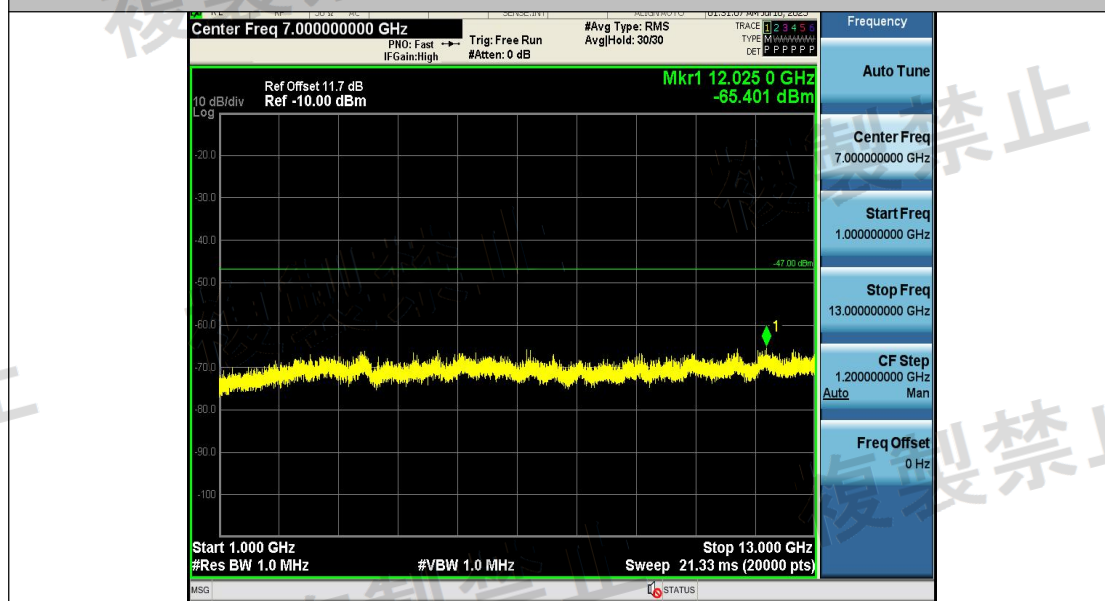
NTNV-11G-Ant1-2442-1000~13000-PASS



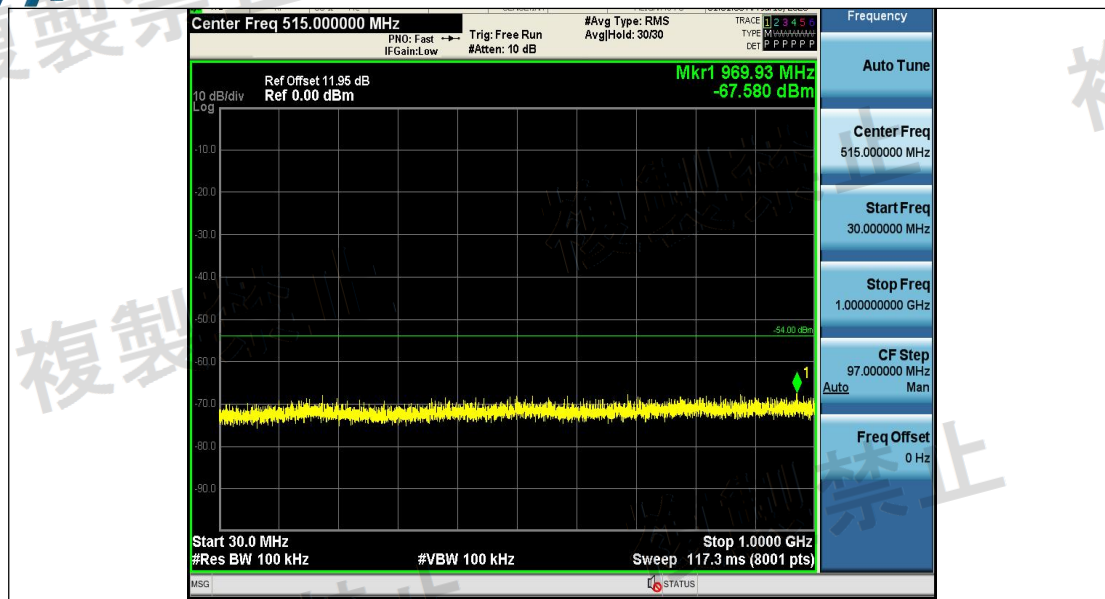
NTNV-11G-Ant1-2472-30~1000-PASS



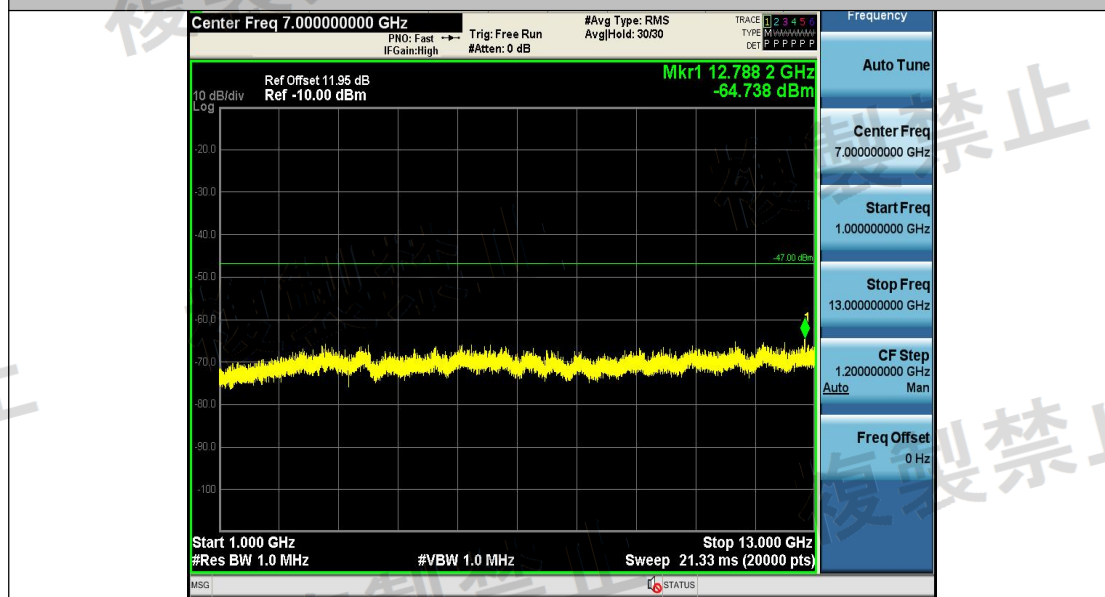
NTNV-11G-Ant1-2472-1000~13000-PASS



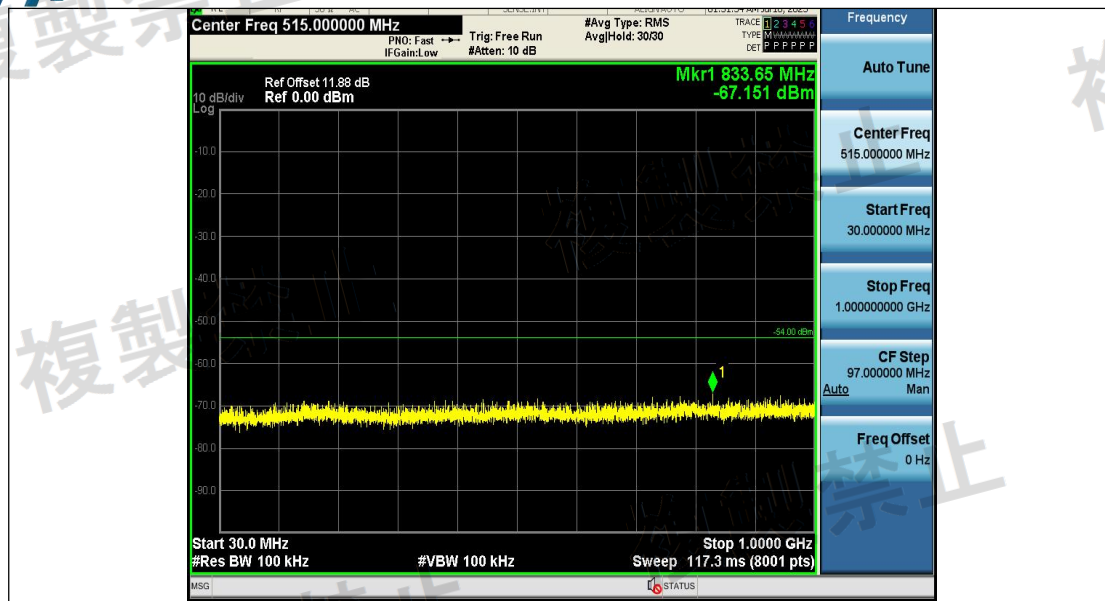
NTNV-11N20SISO-Ant1-2412-30~1000-PASS



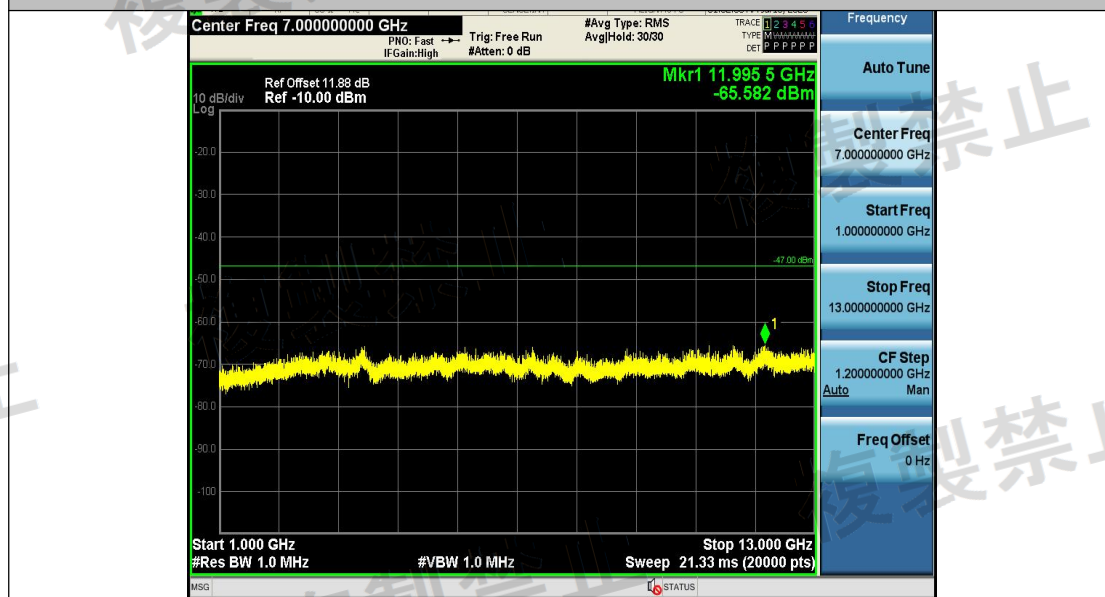
NTNV-11N20SISO-Ant1-2412-1000~13000-PASS



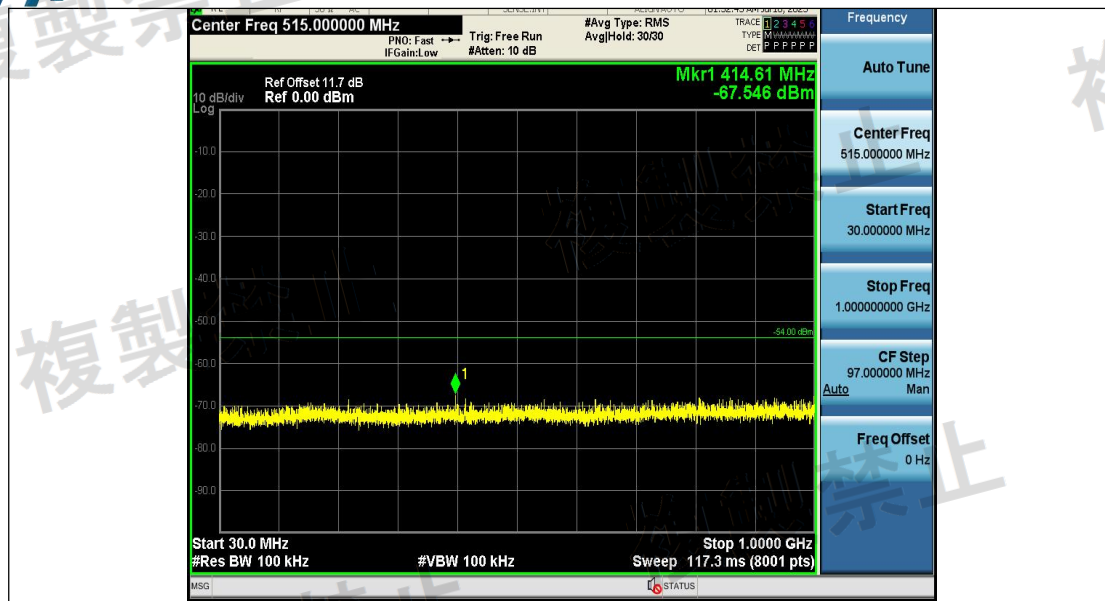
NTNV-11N20SISO-Ant1-2442-30~1000-PASS



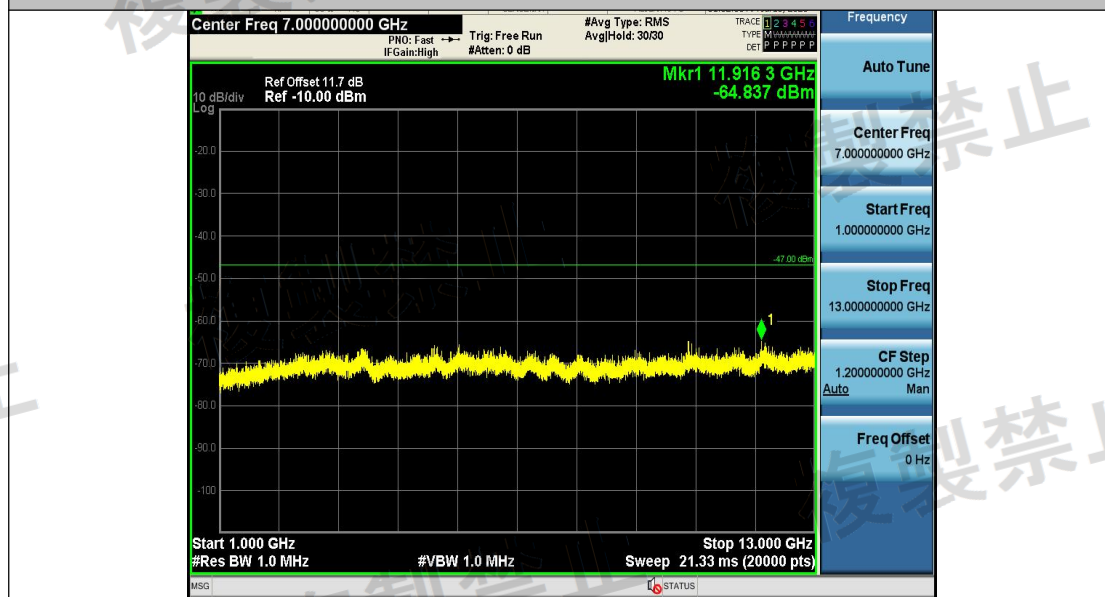
NTNV-11N20SISO-Ant1-2442-1000~13000-PASS



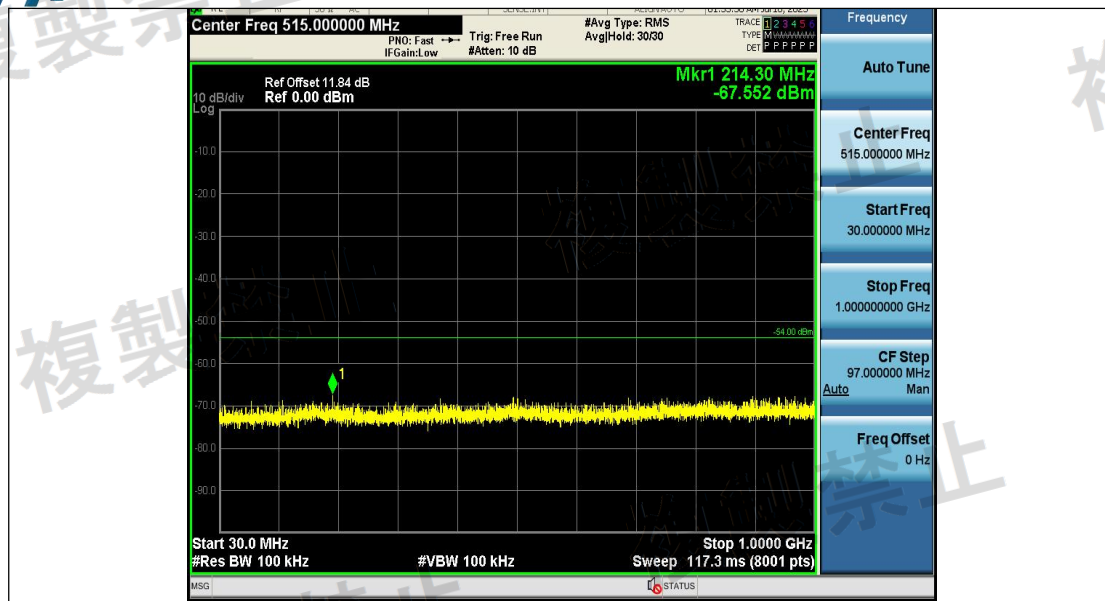
NTNV-11N20SISO-Ant1-2472-30~1000-PASS



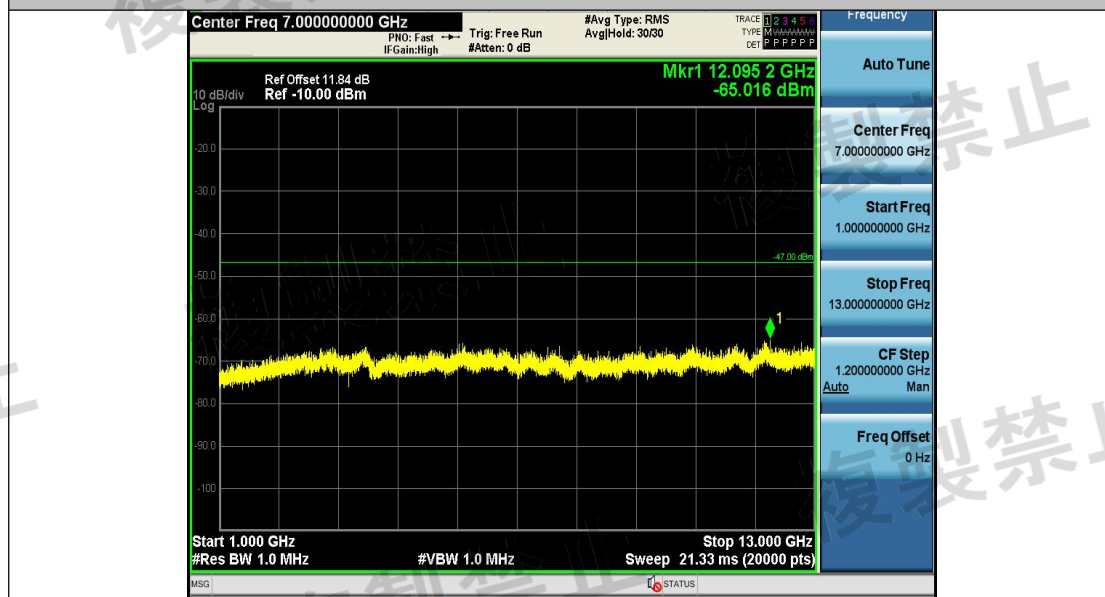
NTNV-11N20SISO-Ant1-2472-1000~13000-PASS



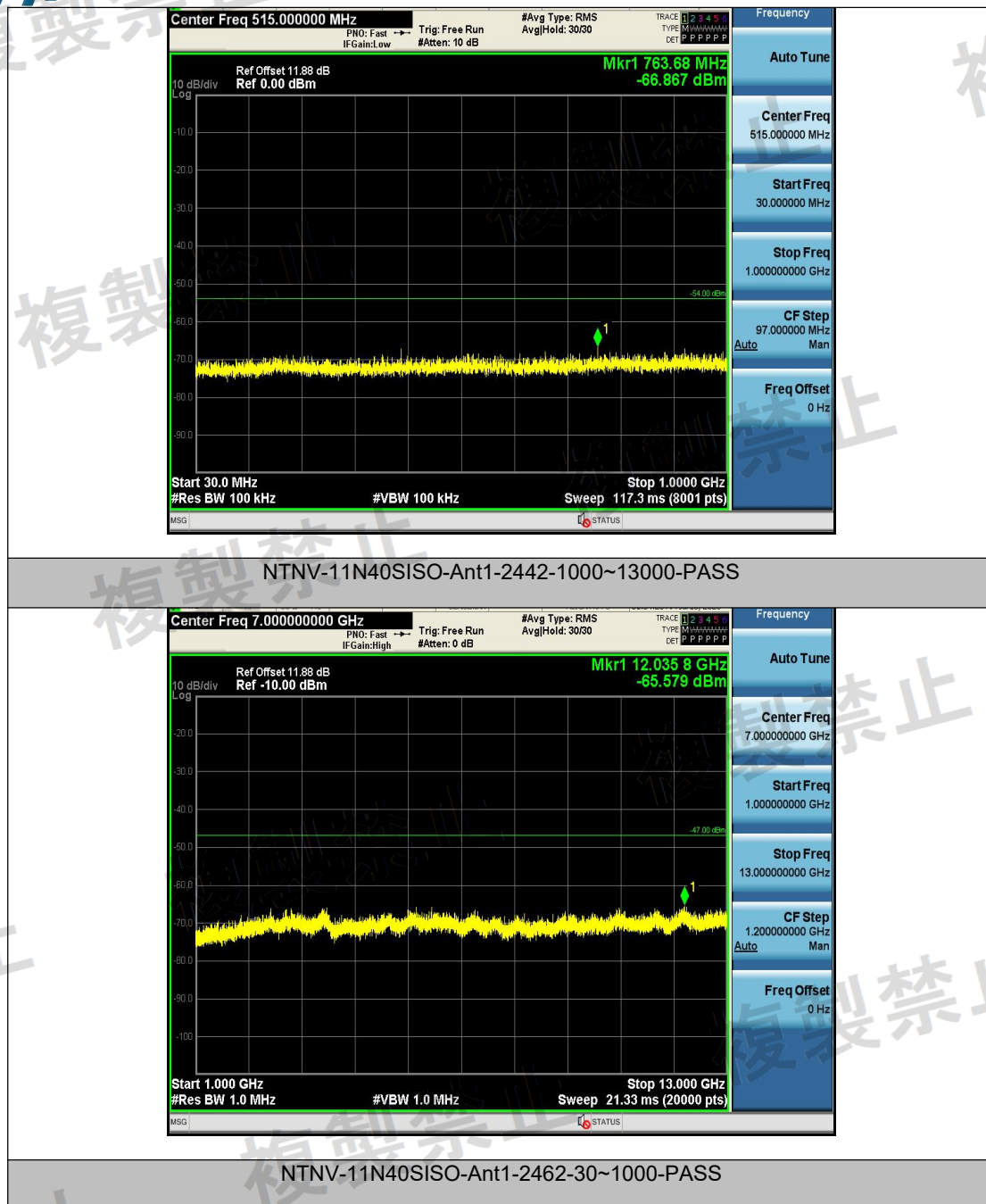
NTNV-11N40SISO-Ant1-2422-30~1000-PASS

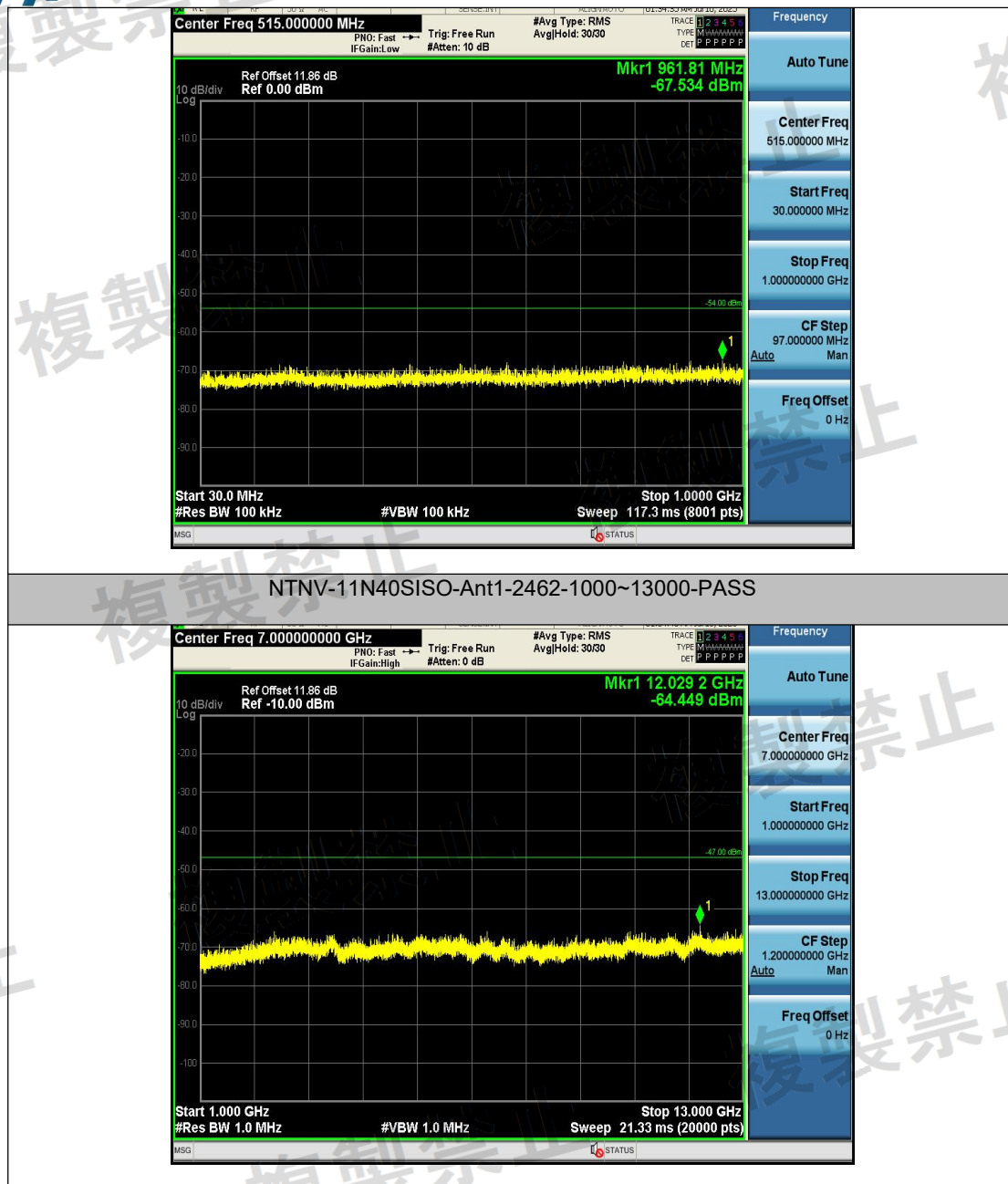


NTNV-11N40SISO-Ant1-2422-1000~13000-PASS



NTNV-11N40SISO-Ant1-2442-30~1000-PASS





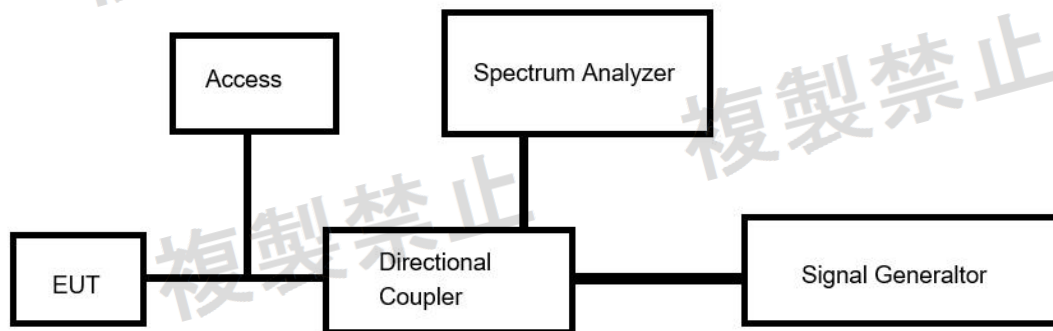
Remark: That only normal voltage's plot is reported in the report.

11. Carrier sensing function

11.1. Test Limit

Radio equipment using OFDM method shall provide a carrier sensing function when the occupied bandwidth of its transmitting device is over 26 MHz and 38 MHz or less.

11.2. Test Configuration



11.3 Test procedure

1. Set the spectrum analyzer as follows:

Center frequency: Center of frequency of test channel

Frequency sweep width: 50MHz

RBW: Approximately 1MHz

VBW: Approximately same as RBW

Y-axis scale: 10dB / div

Detection mode: Positive peak

2 Turn off the output of the standard signal generator. Set the standard signal generator as follows:

Carrier frequency: Center of reception frequency band of EUT

Modulation: No modulation

Output level: Specified level at antenna input of EUT

3 Make a line connection between the EUT and the external test device and confirm using the spectrum analyzer that the EUT is transmitting a test frequency signal of OFDM method which occupied bandwidth is over 26 MHz.

4 EUT is set to a test frequency and a test spreading code and put to reception state first. when using an external



test device, a communication link between the EUT and the external test device is established.

5 Turn on the output of the standard signal generator, set the EUT to transmission state and confirm using the spectrum analyzer that the EUT does not transmit radio wave of OFDM method which occupied bandwidth is over 26 MHz.

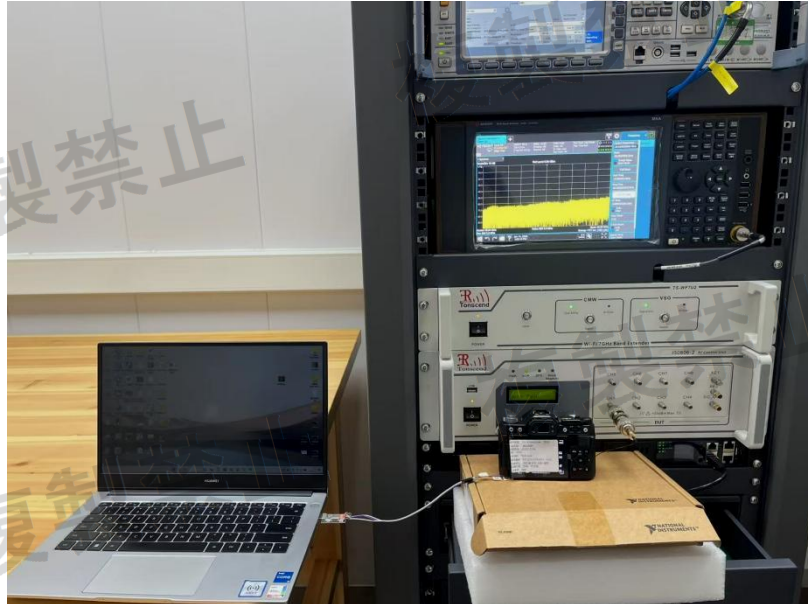
11.4. Test Result

Note: Only for orthogonal frequency division multiplexing (OFDM) system which occupied bandwidth is over 26MHz.

802.11n (40M)

Test Voltage	Channel	Test Result	Verdict
NV	Low	GOOD	Pass
	Middle	GOOD	Pass
	High	GOOD	Pass

12 APPENDIX I -- TEST SETUP PHOTOGRAPH

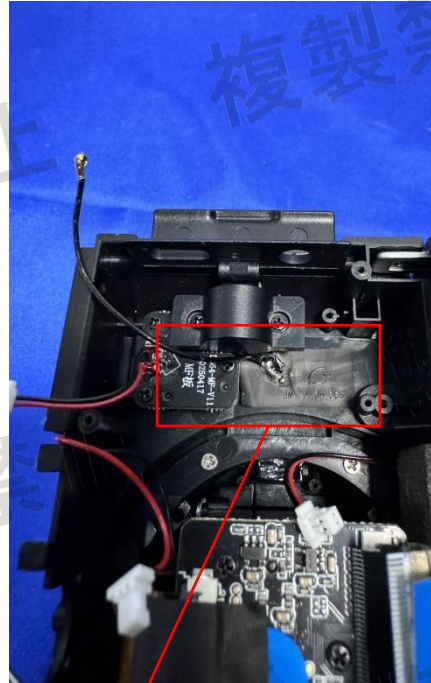


13 APPENDIX II -- EXTERNAL PHOTOGRAPH

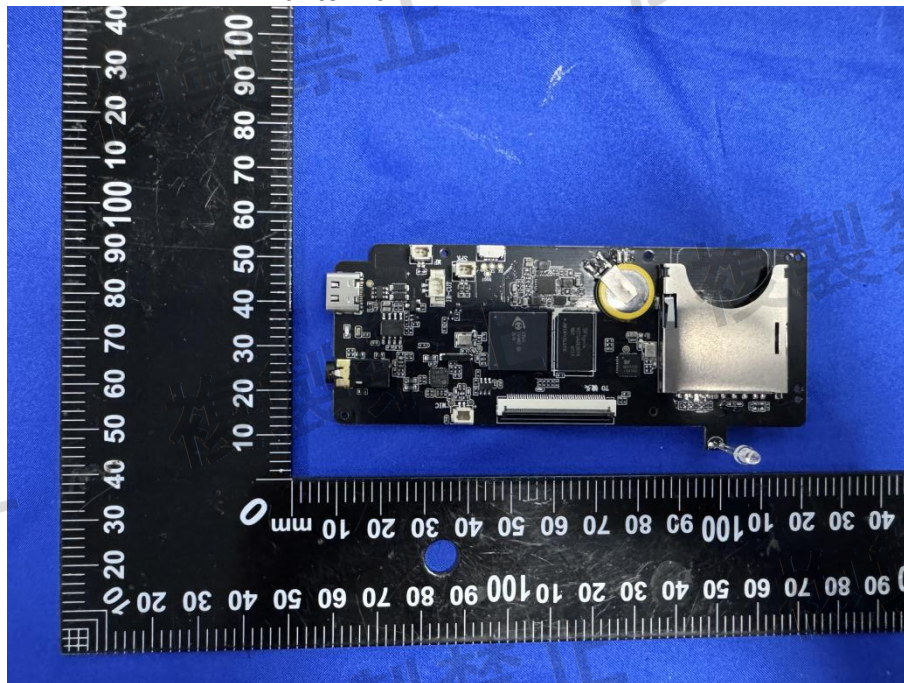


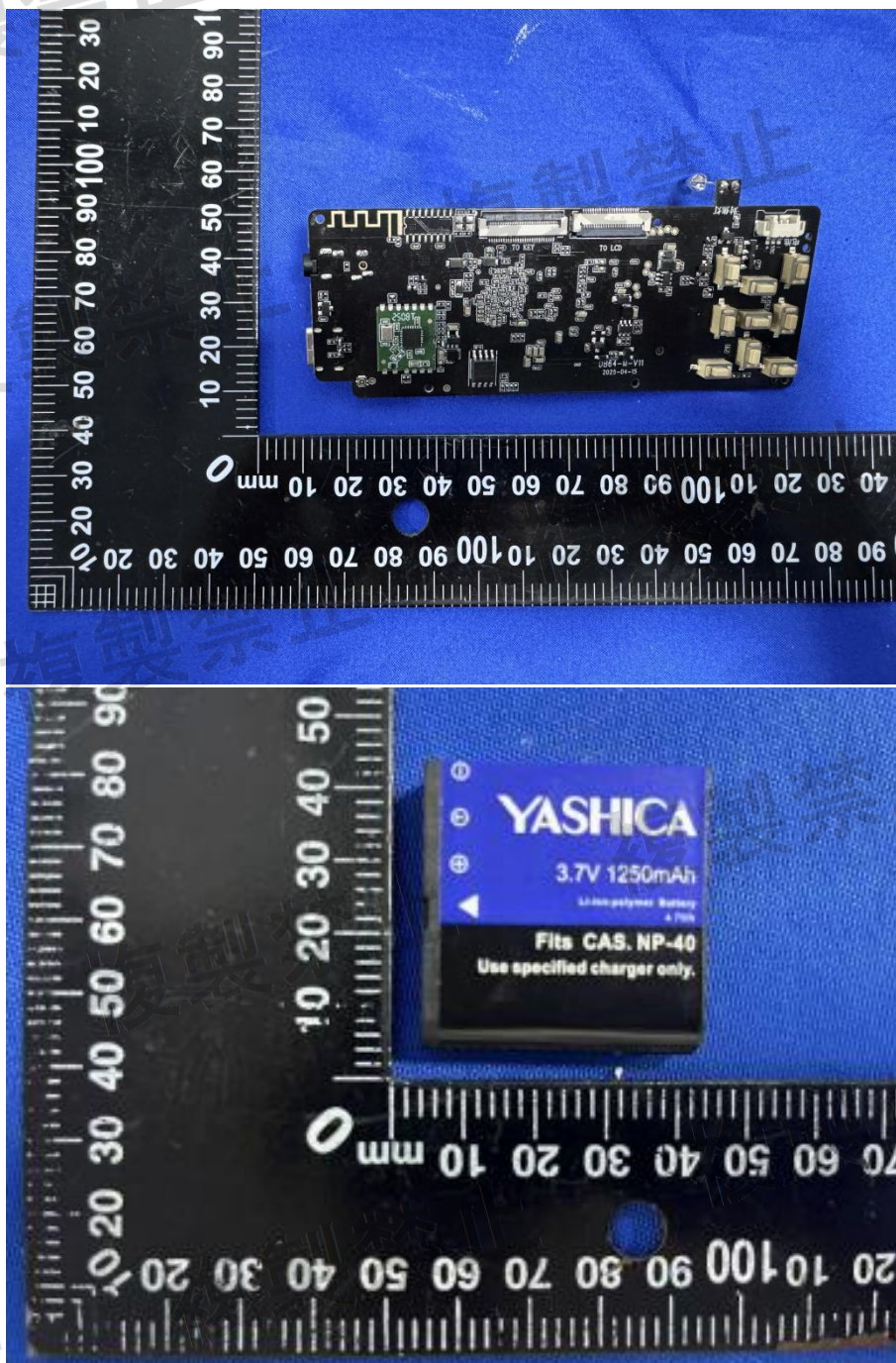


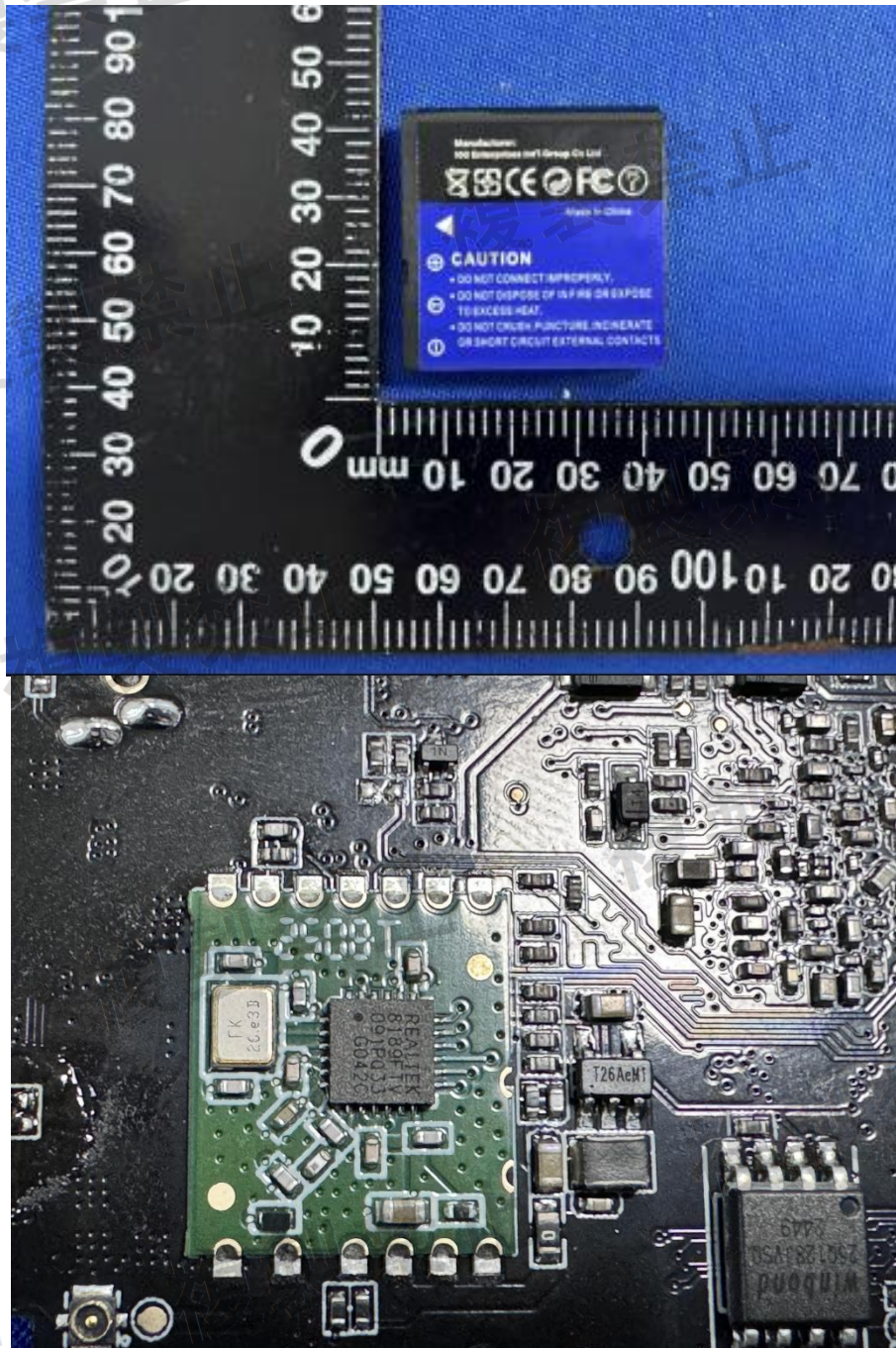
14 APPENDIX II -- INTERNAL PHOTOGRAPH

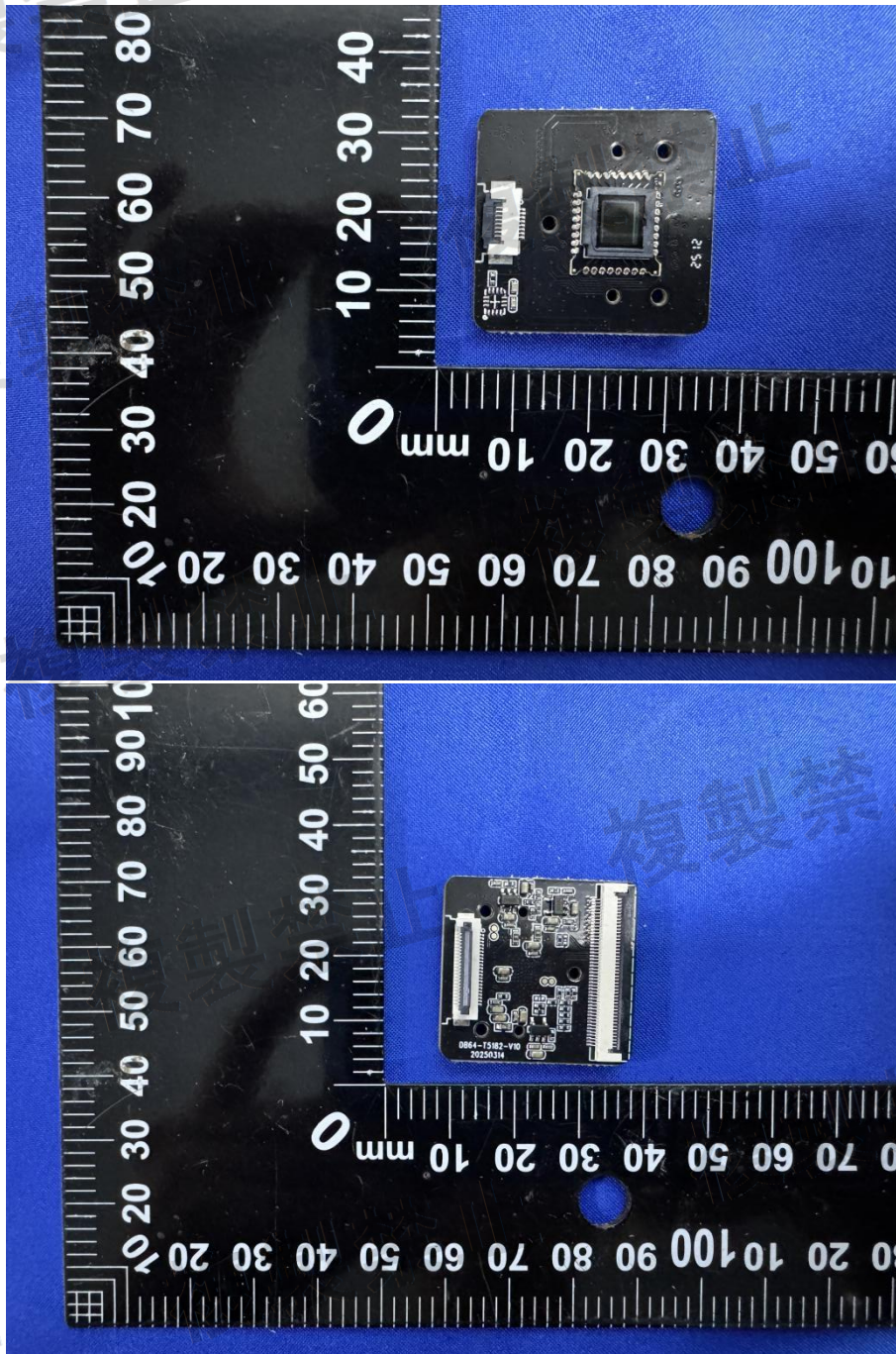


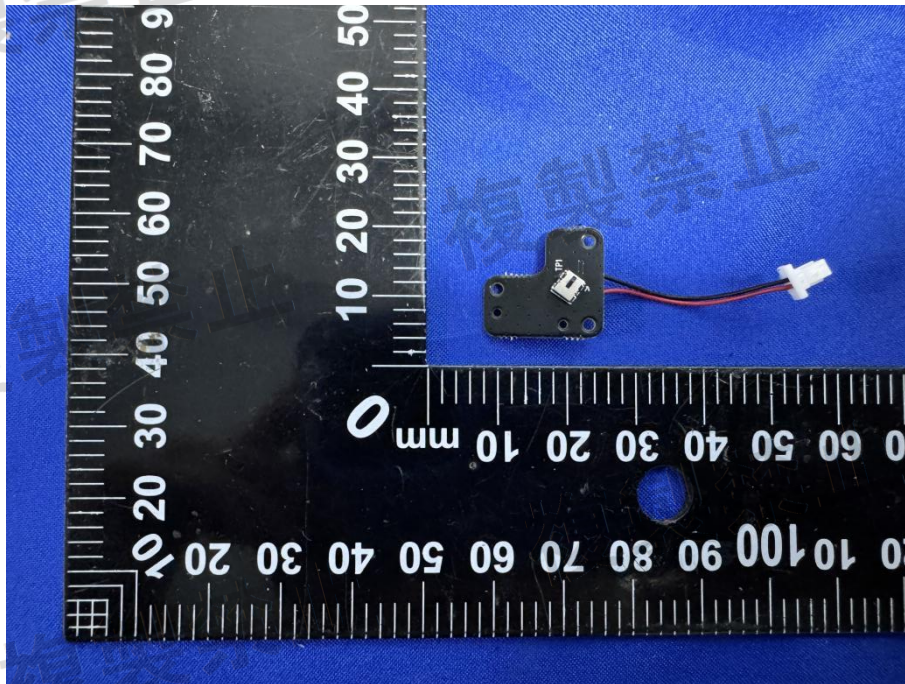
antenna











*****THE END REPORT*****