



沃德检测

TEST REPORT

Applicant Name: Sveaverken Svea Agri AB

Product Name: Robotic Lawn Mower

Model: Thor

Test Report Number: WD25081007RA1

Worldtest (GuangDong) Co., Ltd.

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Applicant Information

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Manufacturer Information

Company Name: FJ Dynamics Technology (Fujian) Co., Ltd.
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EUT Information

EUT Name: Robotic Lawn Mower
Model: Thor

Brand:



Sample Received Date: Aug. 01, 2025
Sample Status: Normal
Sample ID: WD-YP250801004
Date of Tested: Nov.11,2025 to Nov.28,2025

Standard(s)

MIC Notice No.88 Appendix No.43
MIC Article 2-1 Item (19)

Issued By: Worldtest (GuangDong) Co., Ltd.
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TABLE OF CONTENTS

RELEASE CONTROL RECORD	4
1. SUMMARY OF TEST RESULTS	5
1.1. TEST METHODOLOGY	6
1.2. TEST FACILITIES	6
1.3. MEASUREMENT UNCERTAINTY	6
1.4. TEST EQUIPMENT LIST AND DETAILS	6
2. GENERAL INFORMATION	7
2.1. GENERAL DESCRIPTION OF EUT	7
2.2. ANTENNA LIST	7
2.3. CHANNEL LIST	7
2.4. TEST CHANNEL CONFIGURATION	8
2.5. DESCRIPTION OF AVAILABLE ANTENNAS	8
2.6. THE WORSE CASE POWER SETTING PARAMETER	8
2.7. TEST CONDITIONS	8
2.8. DESCRIPTION OF TEST SETUP	9
2.9. TEST SYSTEM CONFIGURATION	9
2.10. TEST ENVIRONMEN	10
3. TEST PROCEDURES AND RESULTS	11
3.1. Frequency Tolerance	11
3.2. Antenna power, antenna power tolerance and E.I.R.P.	12
3.3. Occupied Bandwidth	13
3.4. Carrier Sensing Function	14
3.5. Duty cycle	15
3.6. Transmitter Spurious Emissions	16
3.7. Receiver Spurious Emissions	17
3.8. Interference Preverntion fuction	18
Appendix A: Frequency Tolerance	19
Test Result	19
Appendix B: Antenna power, antenna power tolerance and E.I.R.P.	28
Test Result	28
Appendix C: Occupied Bandwidth	46
Test Result	46
Appendix D: Transmitter Spurious Emissions	55
Test Result:	55
Appendix E: Receiver spurious emissions	89
Test Result:	89
Appendix F: Duty cycle	106
Test Result:	106
PHOTOS	109

RELEASE CONTROL RECORD

Issue No.	Description	Issued Date
WD25081007RA1	Original release.	Nov.28, 2025

1. SUMMARY OF TEST RESULTS

- ☒ No deviations from the test standards
☐ Deviations from the test standards as below description:

Technical requirements for Frequency Hopping equipment

Performed Test Item	Normative References	Test Performed
Antenna power, antenna power tolerance and E.I.R.P.	MIC Notice No. 88 Appendix No. 43 Clause 6	Yes
Carrier Sensing Function 1	MIC Notice No. 88 Appendix No. 43 Clause 8	No (Note 1)
Carrier Sensing Function 2	MIC Notice No. 88 Appendix No. 43 Clause 8	No (Note 2)
Occupied Bandwidth	MIC Notice No. 88 Appendix No. 43 Clause 4	Yes
Frequency Tolerance	MIC Notice No. 88 Appendix No. 43 Clause 3	Yes
Duty Cycle	MIC Notice No. 88 Appendix No. 43	Yes
Transmitter Spurious Emissions	MIC Notice No. 88 Appendix No. 43 Clause 5	Yes
Receiver Spurious Emissions	MIC Notice No. 88 Appendix No. 43 Clause 7	Yes
Interference Prevention function	MIC Notice No. 88 Appendix No. 43 Clause 12	Good

Note 1: Application to transmitting devices which EIRP is less than 【2.14dBi + antenna power limit】 and the shortage of EIRP is compensated by the antenna power, Not applicable to this product.

Note 2: Application to transmitting devices with OFDM modulation and The occupied bandwidth greater than 26MHz ,Not applicable to this product.

1.1. TEST METHODOLOGY

All tests were performed in accordance with the procedures documented in MIC Notice No.88 Appendix No.43

1.2. TEST FACILITIES

No.	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Notebook	lenovo	S14 G2 ITL	PF4119QS	Power by adapter
2	Serial cable	N/A	N/A	N/A	Unshielded,0.8m
3	SMA cable	N/A	N/A	N/A	Shielded,0.8m
4	Power cable	N/A	N/A	N/A	Unshielded,0.8m

1.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-7}$
RF Power Conducted	$\pm 1.15\text{dB}$
RF Power Radiated	$\pm 3.5\text{dB}$
Occupied Channel Bandwidth	$\pm 1.17\%$
Spurious Emissions, Conducted	$\pm 1.68\text{dB}$
Spurious Emissions, Radiated	$\pm 3.5\text{dB}$
Humidity	$\pm 1\%$
Temperature	$\pm 0.5^{\circ}\text{C}$
Time	$\pm 8\%$

1.4. TEST EQUIPMENT LIST AND DETAILS

RF Conducted Test System					
Equipment	Manufacturer	Model No.	Serial No.	Cal. date	Interval
RF Control Unit	Tonscend	JS0806-2	23F80620689	2025-08-30	1 Year
DC Power Supply	Agilent	E3642A	MY40000323	2025-08-30	1 Year
MClean Robot Vector Signal Generator	Agilent	N5182A	MY50141372	2025-08-30	1 Year
MClean Robot Analog Signal Generator	Agilent	N5181A	MY47421166	2025-08-30	1 Year
Spectrum analyzer	Agilent	N9010A	MY50483285	2025-01-22	1 Year
Software					
Description	Manufacturer		Name		Version
Tonsend SRD Test System	Tonsend		JS1120-3 RF Test System		2.6.77.0518

2. GENERAL INFORMATION

2.1. GENERAL DESCRIPTION OF EUT

EUT Name	Robotic Lawn Mower
Model Name	Thor
Radio Technology	IEEE802.11b/g/n/ax HT20
Operation frequency	IEEE 802.11b: 2412MHz—2472MHz IEEE 802.11g: 2412MHz—2472MHz IEEE 802.11n HT20: 2412MHz—2472MHz IEEE 802.11ax HT20: 2412MHz—2472MHz
Modulation	IEEE 802.11b: DSSS(CCK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20 OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11ax HT20 OFDM (256QAM,64QAM, 16QAM, QPSK,BPSK)
Antenna description	AP6275S:WiFi uses Ant 1 and Ant 2; BT and BLE uses Ant 1;

2.2. ANTENNA LIST

Model No.	N/A				
Antenna manufacturer	N/A				
Antenna Delivery	☐	1*TX+1*RX	☒	2*TX+2*RX	☐ 3*TX+3*RX
Antenna technology	☒	SISO			
Antenna Type	☒	MIMO	☒	Basic	
			☐	CDD	
			☐	Beam-forming	
	☐	External	☐	Patch	
	☒	Internal	☒	FPC	
			☐	PCB	
			☐	Ceramic Chip Antenna	
Antenna Gain Reference			☐	Metal plate type F antenna	
			☐	stamping antenna	
Antenna Gain Reference	2.16dBi				

2.3. CHANNEL LIST

Channel List for IEEE 802.11b/g/n/ax (20 MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452	13	2472
2	2417	6	2437	10	2457	/	/
3	2422	7	2442	11	2462	/	/
4	2427	8	2447	12	2467	/	/

2.4. TEST CHANNEL CONFIGURATION

IEEE Std. 802.11	Test Channel Number	Frequency
b	CH 1(Low Channel), CH 7(MID Channel), CH 13(High Channel)	2412 MHz, 2442 MHz, 2472 MHz
g	CH 1(Low Channel), CH 7(MID Channel), CH 13(High Channel)	2412 MHz, 2442 MHz, 2472 MHz
n/ax HT20	CH 1(Low Channel), CH 7(MID Channel), CH 13(High Channel)	2412 MHz, 2442 MHz, 2472 MHz

2.5. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	Maximum Antenna Gain (dBi)	Uncorrelated directional gain(dBi)
ANT 1	2412 ~ 2472	FPC Antenna	2.16dBi	2.16dBi
ANT 2	2412 ~ 2472	FPC Antenna	2.16dBi	

IEEE Std. 802.11	Transmit and Receive Mode	Description
b	1TX, 1RX	Separate individual antenna can be used as transmitting/receiving .
g	1TX, 1RX	Separate individual antenna can be used as transmitting/receiving .
n/ax HT20	2TX, 2RX	Two antenna can be used as transmitting/receiving simultaneously.

Note: The value of the antenna gain was declared by customer.

2.6. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5 MHz Band							
Test Software		RFTestTool.apk					
IEEE Std. 802.11	Transmit Antenna Number	Test Software Setting Value					
		NCB: 20MHz			NCB: 40MHz		
		CH 1	CH 7	CH 13	CH 3	CH 7	CH 11
b SISO	2	default	default	default	N/A		
g SISO	2	default	default	default			
n HT20 MIMO	2	default	default	default			
ax HT20 MIMO	2	default	default	default			

2.7. TEST CONDITIONS

The WIFI module was tested while in a continuous transmitter/receiver mode.

The eut was tuned to a low,middle and high channel for all tests.For all test case pre/scans were completed in all modes to determine worst case levels.

Power Supply Voltage Fluctuation Test

Voltage Fluctuation Test	Normal Voltage	High Voltage +10% of Normal Voltage	Low Voltage -10% of Normal Voltage
Input DC Power	58.80V	64.68V	52.92V
RF Chip	3.3V	3.3V	3.3V

Voltage Variation	0	0%	0%
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2.8. DESCRIPTION OF TEST SETUP

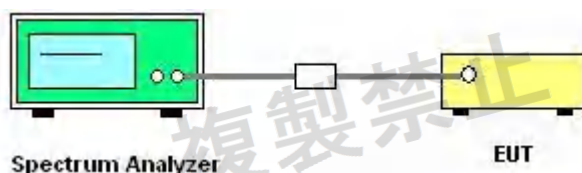
SUPPORT EQUIPMENT

Follow up the claims of the applicant

TEST SETUP

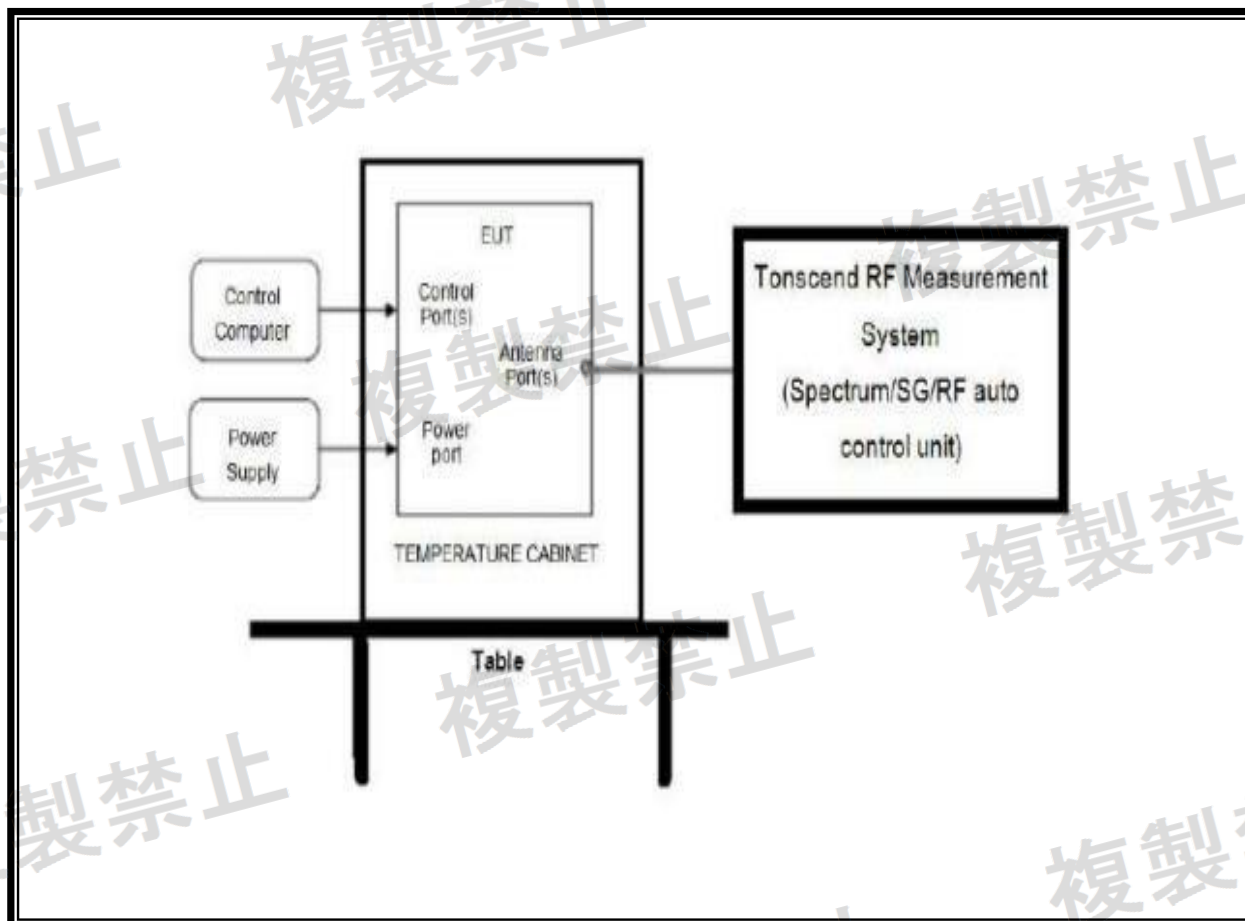
The EUT can work in engineering mode during the testing.

SETUP DIAGRAM FOR TESTS



2.9. TEST SYSTEM CONFIGURATION

Test System(for all test items)



2.10. TEST ENVIRONMEN

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	56
Barometric pressure (mbar)	860-1060	1001

3. TEST PROCEDURES AND RESULTS

3.1. FREQUENCY TOLERANCE

LIMITS

$\cong \pm 50$ ppm

TEST PROCEDURE

1. Frequency accuracy of instrument shall be less than 10% of limits tolerance (5ppm).
2. Three testing methods
 - a. Measure frequency tolerance by the system simulator.
 - b. CW Tone method
Setting of SA is following as: RBW:10kHz / VBW:10kHz.
Maker Max. level to get measuring frequency f.
 - c. 10dB down method
Setting of SA is following as: RBW:100kHz / VBW: 100kHz / Trace: MaxHold
Display line Level = Max. level – 10dB to place two markers, highest(fH) and lowest(fL) frequency
Determine measuring frequency $f = (fH+fL)/2$
3. The frequency tolerance test case is directly measured using the frequency accuracy function of Wifi tester or spectrum analyzer. Then the frequency error formula is $(f-fc)/fc \times 10^{-6}$ ppm and the limit is less than ± 50 ppm.

RESULTS

Please refer to appendix A.

3.2. ANTENNA POWER, ANTENNA POWER TOLERANCE AND E.I.R.P.

LIMITS

Output Power must be 10 mW/MHz or less.

Output Power Tolerance: +20%

TEST PROCEDURE

Search Frequency of Peak Power

Test Frequency: test channel

RBW=VBW=1MHZ, SPAN=40MHZ, Sweep time=Auto, Detector mode=Positive peak

Measure of average burst power

Test Frequency: frequency of peak power

RBW=VBW=1MHZ, SPAN=0Hz, Sweep time=Auto, Detector mode=RMS

Reading Level=burst power

$EIRP = D + G + 10 \log (1/x)$

D: antenna power ; G: antenna gain x: duty Cycle

RESULTS

Please refer to appendix B.

3.3. OCCUPIED BANDWIDTH

LIMIT

≤26 MHz for DSSS&OFDM, ≤83.5 MHz for FHSS

TEST PROCEDURE

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

1. A positive peak detector function must be used.
2. A measurement instrument with an integrated 99% power bandwidth function may be used to automate the test process.
3. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
4. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

Spectrum Analyzer Conditions:

RBW : 300kHz

VBW : 300kHz

Span: 40MHz

Sweep time : Auto, Marker : Marker Off

Log scale : 10dB/Div,

Data points : 1001points or more

Detection : Sample, Sweep mode : Continuous

Measurement Procedure and Capture Image

A,B -> Storage -> Average -> Averaging count -> 100 -> enter

Measure -> more -> Occupied Bandwidth -> N% Ratio -> 99%

RESULTS

Please refer to appendix C.

3.4. CARRIER SENSING FUNCTION

LIMIT

Item	Limits (See Article 49-20, Item1-k of the Ordinance Regulating Radio Equipment)
Carrier Sense	Good – EUT stop RF transmission signal after carrier inject to EUT. (On $22.79+Gr-20*\log(f)$ [dBm] (Gr: dBi; f: MHz) or 100mV/m)
Remarks	This test item will be applied to OFDM, $26MHz < BW \leq 38MHz$

TEST PROCEDURE

Test method which surpass to Clause 8,9 of Annex No.43 of MIC Notification No.88.

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 $22.79+Gr-20*\log(f)$ [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: RBW:1MHz / VBW: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.

RESULTS

Note:For Carrier Sense Capability

1. Application to transmitting devices which EIRP is less than 2.14dBi+antenna power limit and the shortage of EIRP ic compensated by the antenna.Not applicable to this product.
2. Application to transmitting devices with OFDM modulation and occupied bandwidth greater than 26MHz,Not applicable to this product.

Not applicable

3.5. DUTY CYCLE

LIMITS

N/A

TEST PROCEDURE

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

1. A positive peak detector function must be used.
2. The center frequency is set to the test frequency and the span is switched to zero.
3. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
4. 'Single sweep' mode may be used to capture a packet over a single scan.

RESULTS

Please refer to appendix F.

3.6. TRANSMITTER SPURIOUS EMISSIONS

LIMITS

$\leq 2.5\mu\text{W}/\text{MHz}$ or less for 30 – 2387 MHz
 $\leq 25\mu\text{W}/\text{MHz}$ or less for 2387 – 2400 MHz
 $\leq 25\mu\text{W}/\text{MHz}$ or less for 2483.5 – 2496.5 MHz
 $\leq 2.5\mu\text{W}/\text{MHz}$ or less for 2496.5 – 12500 MHz

TEST PROCEDURE

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

1. A positive peak detector function must be used.
2. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
3. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

Spectrum Analyzer Conditions:

RBW : 1MHz

VBW : 1MHz

Sweep time : Auto

Trace mode:Max hold

Log scale : 10dB/Div,

Data points : 8001points or more

Detection : Peak, Sweep mode : Continuous

RESULTS

Please refer to appendix D.

3.7. RECEIVER SPURIOUS EMISSIONS

LIMITS

$\leq 4\text{nW/MHz}$ for 30 – 1000 MHz
 $\leq 20\text{nW/MHz}$ for 1000 – 12750 MHz

TEST PROCEDURE

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

1. A positive peak detector function must be used.
2. The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
3. 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

Spectrum Analyzer Conditions:

RBW : 100kHz(Below 1000MHz)/1MHz(Above 1000MHz)

RBW=VBW

Sweep time : Auto

Trace mode:Max hold

Log scale : 10dB/Div,

Data points : 8001points or more

Detection : Peak, Sweep mode : Continuous

RESULTS

Please refer to appendix E.

3.8. INTERFERENCE PREVENTION FUNCTION

LIMITS

N/A

Requirement:

The EUT shall have the interference prevention capability to transmit or to receive the identification Automatically, so that sender and receiver shall exclude other equipment.

TEST PROCEDURE

In the case that the EUT has the function of automatically transmitting the identification code:

- 1) Transmit the predetermined identification codes from EUT
- 2) Check the transmitted identification codes with the demodulator.

In the case of receiving the identification codes:

- 1) Transmit the predetermined identification codes from the counterpart.
- 2) Check if communication is normal
- 3) Transmit the signal other than predetermined ID codes from the counterpart.
- 4) Check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones

Mac: 20-08-EC-AH-3B-2C

RESULTS

Good, EUT performed relevant functional tests as required, and the product signal was normal.

Appendix A: Frequency Tolerance

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result[ppm]	Limit[ppm]	Verdict
NTNV	11B	Ant1	2412	-8.29187	±50	PASS
		Ant2	2412	49.75124	±50	PASS
		Ant1	2442	-16.38002	±50	PASS
		Ant2	2442	-16.38002	±50	PASS
		Ant1	2472	-8.09062	±50	PASS
		Ant2	2472	0.00000	±50	PASS
	11G	Ant1	2412	-8.29187	±50	PASS
		Ant2	2412	-8.29187	±50	PASS
		Ant1	2442	-8.19001	±50	PASS
		Ant2	2442	0.00000	±50	PASS
		Ant1	2472	-8.09062	±50	PASS
		Ant2	2472	-8.09062	±50	PASS
	11N20MI MO	Ant1	2412	0.00000	±50	PASS
		Ant2	2412	-8.29187	±50	PASS
		Ant1	2442	-8.19001	±50	PASS
		Ant2	2442	0.00000	±50	PASS
		Ant1	2472	-8.09062	±50	PASS
		Ant2	2472	-8.09062	±50	PASS
	11AX20M IMO	Ant1	2412	-8.29187	±50	PASS
		Ant2	2412	-8.29187	±50	PASS
		Ant1	2442	8.19001	±50	PASS
		Ant2	2442	0.00000	±50	PASS
		Ant1	2472	8.09062	±50	PASS
		Ant2	2472	-8.09062	±50	PASS





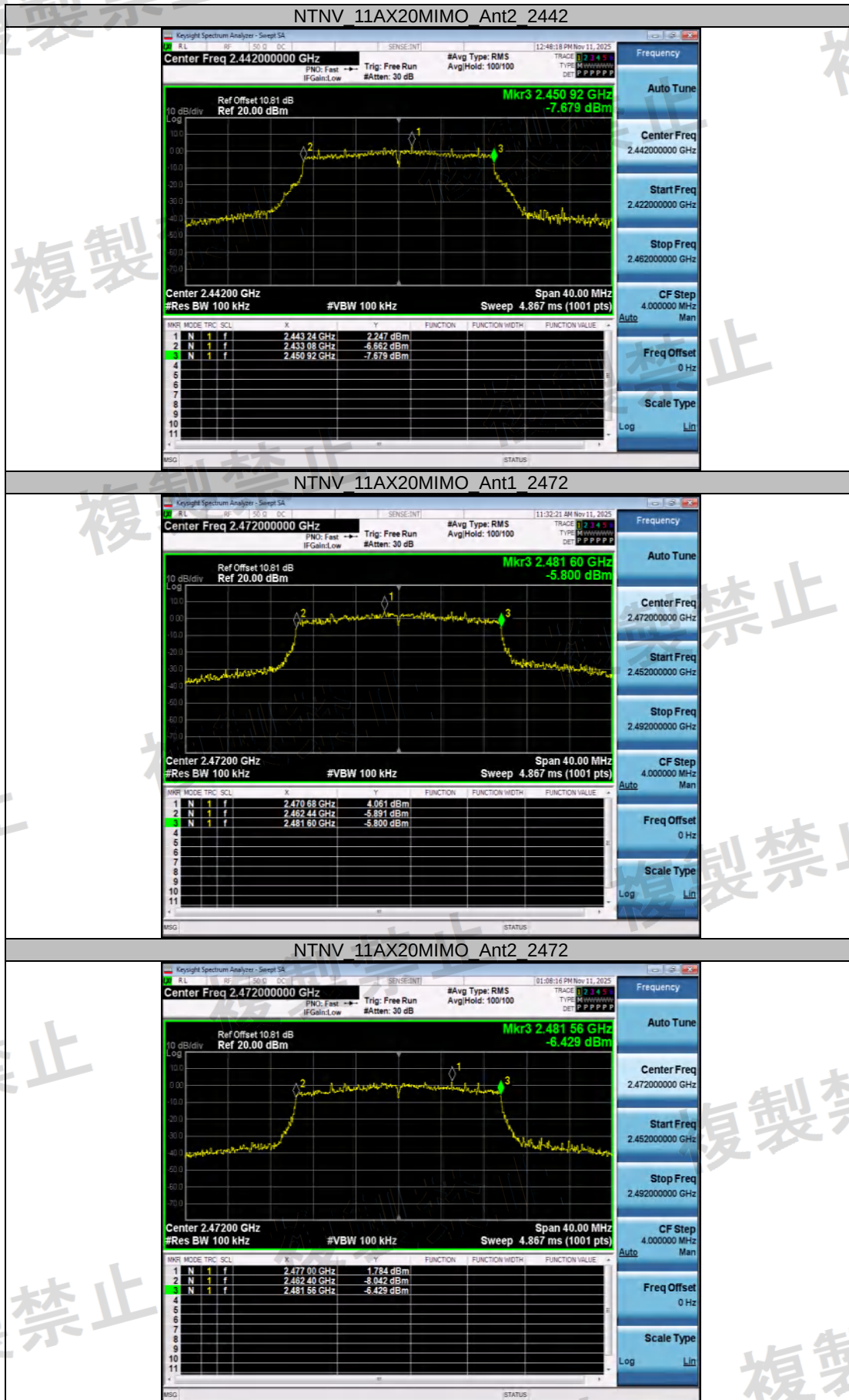












Appendix B: Antenna power, antenna power tolerance and E.I.R.P.

Test Result

Test Result PSD

Antenna Power							
Test Condition	Test Mode	Antenna	Freq(M Hz)	Result(dBm /MHz)	Result(mW/ MHz)	Limit(mW /MHz)	Verdict
NTNV	11B	Ant1	2412	8.67	7.3621	≤10	PASS
		Ant2	2412	8.51	7.0958	≤10	PASS
		Ant1	2442	8.50	7.0795	≤10	PASS
		Ant2	2442	8.37	6.8707	≤10	PASS
		Ant1	2472	8.33	6.8077	≤10	PASS
		Ant2	2472	8.42	6.9502	≤10	PASS
	11G	Ant1	2412	9.35	8.6099	≤10	PASS
		Ant2	2412	8.56	7.1779	≤10	PASS
		Ant1	2442	8.55	7.1614	≤10	PASS
		Ant2	2442	8.37	6.8707	≤10	PASS
		Ant1	2472	9.36	8.6298	≤10	PASS
		Ant2	2472	9.48	8.8716	≤10	PASS
	11N20	Ant1	2412	9.13	8.1846	≤10	PASS
		Ant2	2412	-1.78	0.6637	≤10	PASS
		total	2412	9.47	8.8483	≤10	PASS
		Ant1	2442	8.77	7.5336	≤10	PASS
		Ant2	2442	-1.45	0.7161	≤10	PASS
		total	2442	9.16	8.2497	≤10	PASS
		Ant1	2472	8.81	7.6033	≤10	PASS
		Ant2	2472	-2.35	0.5821	≤10	PASS
	11AX20	total	2472	9.13	8.1854	≤10	PASS
		Ant1	2412	9.77	9.4842	≤10	PASS
		Ant2	2412	-6.10	0.2455	≤10	PASS
		total	2412	9.88	9.7297	≤10	PASS
		Ant1	2442	8.97	7.8886	≤10	PASS
		Ant2	2442	-1.66	0.6823	≤10	PASS
		total	2442	9.33	8.5709	≤10	PASS
		Ant1	2472	9.13	8.1846	≤10	PASS
		Ant2	2472	1.49	1.4093	≤10	PASS
		total	2472	9.82	9.5939	≤10	PASS

Tolerance								
Test Condition	Test Mode	Antenna	Freq(MHz)	Power (mW/ MHz)	RatedPower (mW/MHz)	Result (%)	Limit (%)	Verdict
NTNV	11B	Ant1	2412	7.3621	10	-26.38	+20	PASS
		Ant2	2412	7.0958	10	-29.04	+20	PASS
		Ant1	2442	7.0795	10	-26.38	+20	PASS
		Ant2	2442	6.8707	10	-29.04	+20	PASS
		Ant1	2472	6.8077	10	-26.38	+20	PASS
		Ant2	2472	6.9502	10	-29.04	+20	PASS
	11G	Ant1	2412	8.6099	10	-26.38	+20	PASS
		Ant2	2412	7.1779	10	-29.04	+20	PASS
		Ant1	2442	7.1614	10	-26.38	+20	PASS
		Ant2	2442	6.8707	10	-26.38	+20	PASS
		Ant1	2472	8.6298	10	-29.04	+20	PASS
		Ant2	2472	8.8716	10	-26.38	+20	PASS
	11N20	total	2412	8.8483	10	-29.04	+20	PASS
			2442	8.2497	10	-26.38	+20	PASS
			2472	8.1854	10	-29.04	+20	PASS
	11AX20	total	2412	9.7297	10	-26.38	+20	PASS

			2442	8.5709	10	-26.38	+20	PASS
			2472	9.5939	10	-4.06	+20	PASS

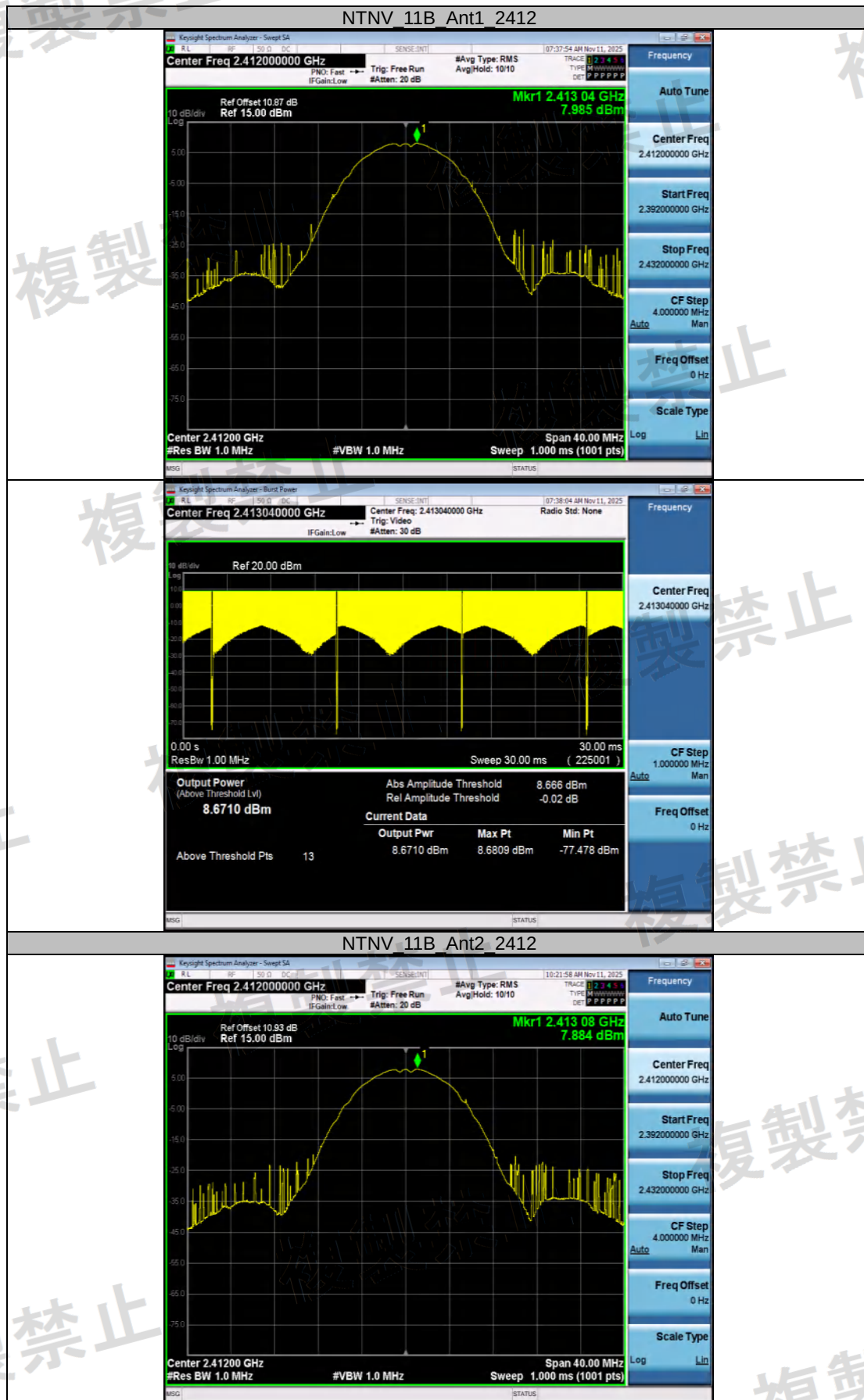
		EIRP							
Test Condition	Test Mode	Antenna	Freq(MHz)	Result(dBm/MHz)	G(dBi)	Y(dBm)	EIRP(dBm/MHz)	Limit(dBm/MHz)	Verdict
NTNV	11B	Ant1	2412	8.67	2.16	0.062	10.892	≤12.14	PASS
		Ant2	2412	8.51	2.16	0.062	10.732	≤12.14	PASS
		Ant1	2442	8.5	2.16	0.062	10.722	≤12.14	PASS
		Ant2	2442	8.37	2.16	0.062	10.592	≤12.14	PASS
		Ant1	2472	8.33	2.16	0.062	10.552	≤12.14	PASS
		Ant2	2472	8.42	2.16	0.062	10.642	≤12.14	PASS
	11G	Ant1	2412	9.35	2.16	0.062	11.572	≤12.14	PASS
		Ant2	2412	8.56	2.16	0.062	10.782	≤12.14	PASS
		Ant1	2442	8.55	2.16	0.062	10.772	≤12.14	PASS
		Ant2	2442	8.37	2.16	0.062	10.592	≤12.14	PASS
		Ant1	2472	9.36	2.16	0.062	11.582	≤12.14	PASS
		Ant2	2472	9.48	2.16	0.062	11.702	≤12.14	PASS
	11N20 MIMO	Ant1	2412	9.13	2.16	0.056	11.346	≤12.14	PASS
		Ant2	2412	-1.78	2.16	0.056	0.436	≤12.14	PASS
		total	2412	9.47	2.16	0.056	11.686	≤12.14	PASS
		Ant1	2442	8.77	2.16	0.056	10.986	≤12.14	PASS
		Ant2	2442	-1.45	2.16	0.056	0.766	≤12.14	PASS
		total	2442	9.16	2.16	0.056	11.376	≤12.14	PASS
		Ant1	2472	8.81	2.16	0.056	11.026	≤12.14	PASS
		Ant2	2472	-2.35	2.16	0.056	-0.134	≤12.14	PASS
		total	2472	9.13	2.16	0.056	11.346	≤12.14	PASS
	11AX2 OMIMO	Ant1	2412	9.77	2.16	0.067	11.997	≤12.14	PASS
		Ant2	2412	-6.1	2.16	0.067	-3.873	≤12.14	PASS
		total	2412	9.88	2.16	0.067	12.107	≤12.14	PASS
		Ant1	2442	8.97	2.16	0.067	11.197	≤12.14	PASS
		Ant2	2442	-1.66	2.16	0.067	0.567	≤12.14	PASS
		total	2442	9.33	2.16	0.067	11.557	≤12.14	PASS
		Ant1	2472	9.13	2.16	0.062	11.352	≤12.14	PASS
		Ant2	2472	1.49	2.16	0.062	3.712	≤12.14	PASS
		total	2472	9.82	2.16	0.062	12.042	≤12.14	PASS

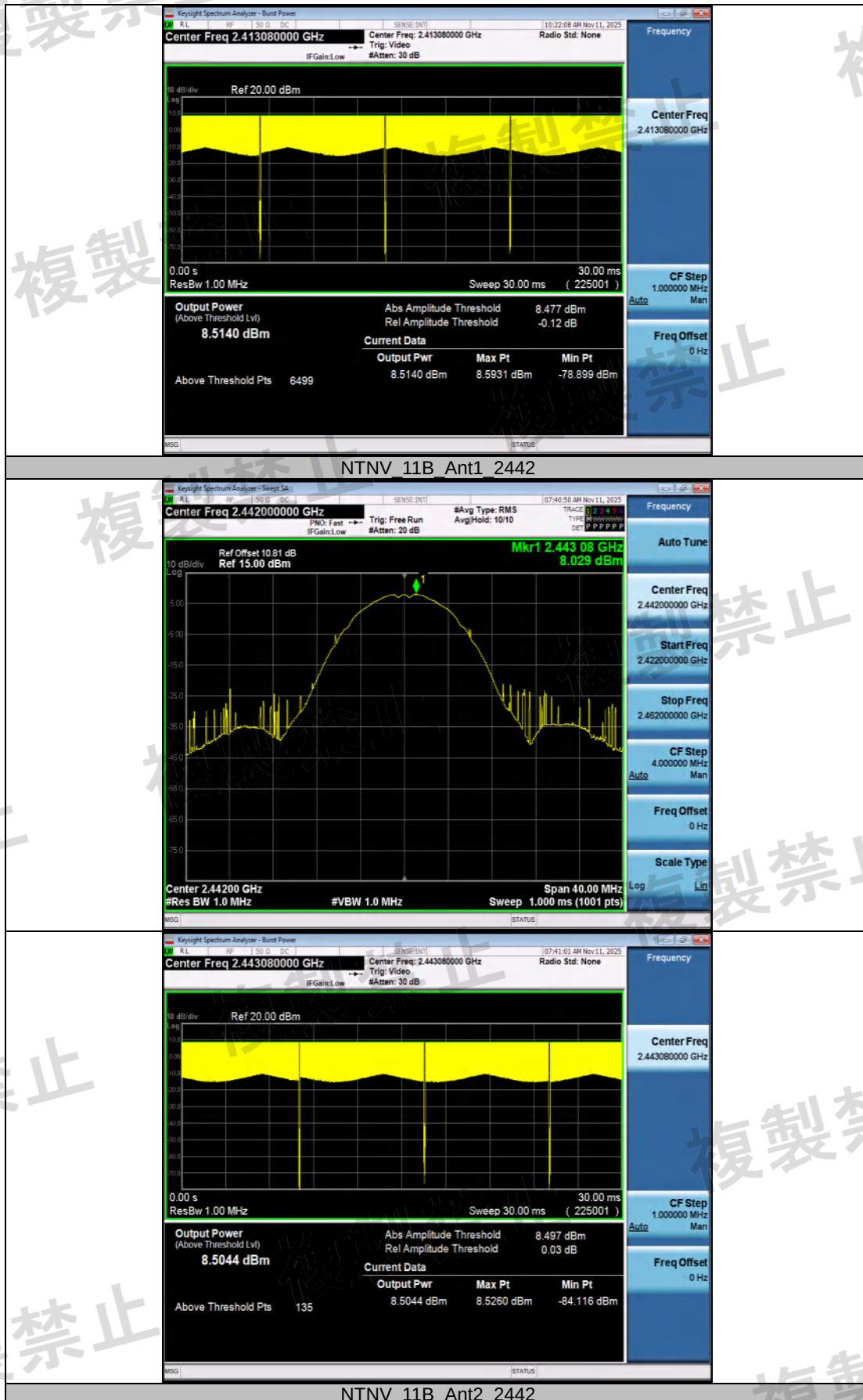
Remark:

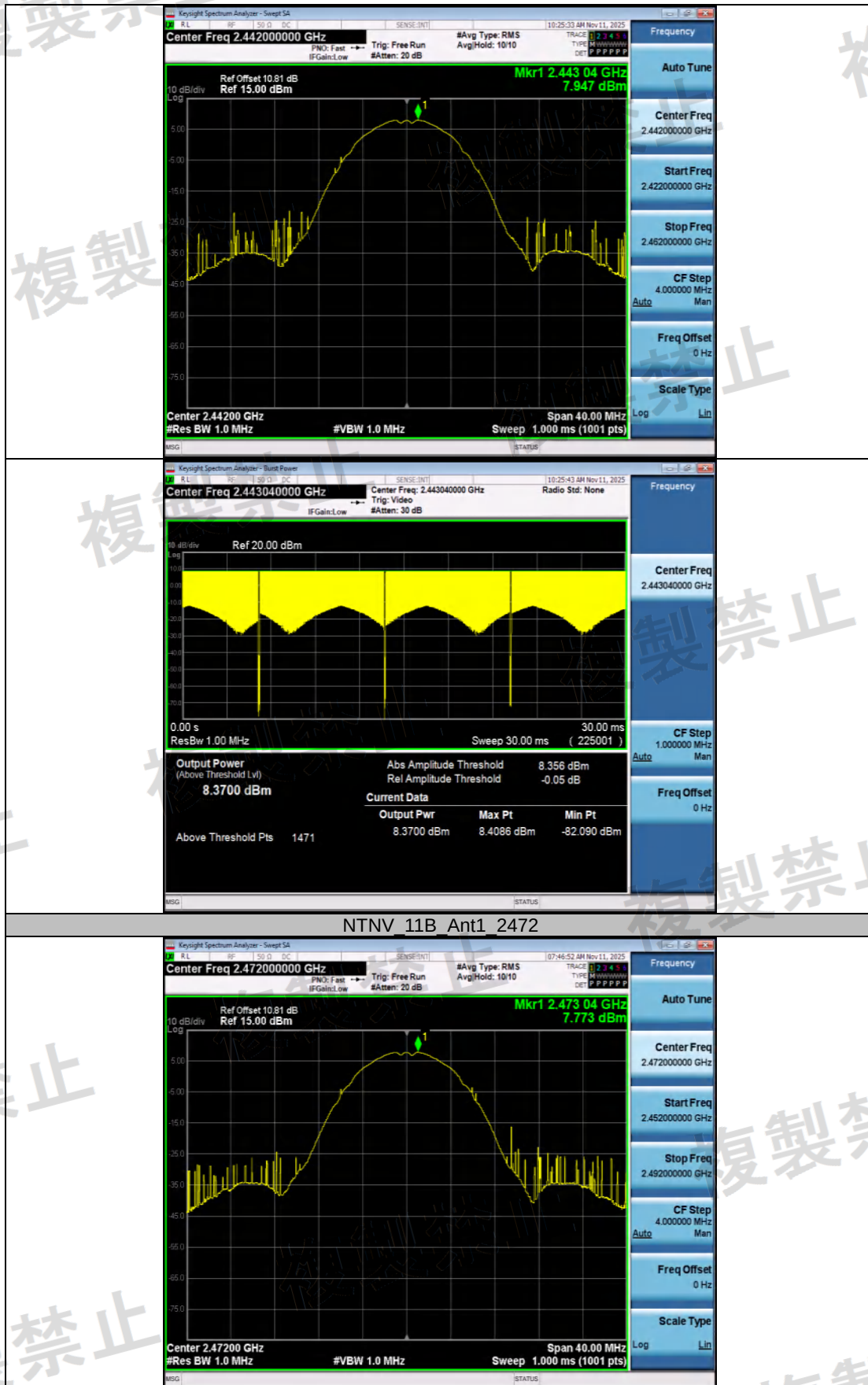
1.EIRP=D+G+10 log (1/x)

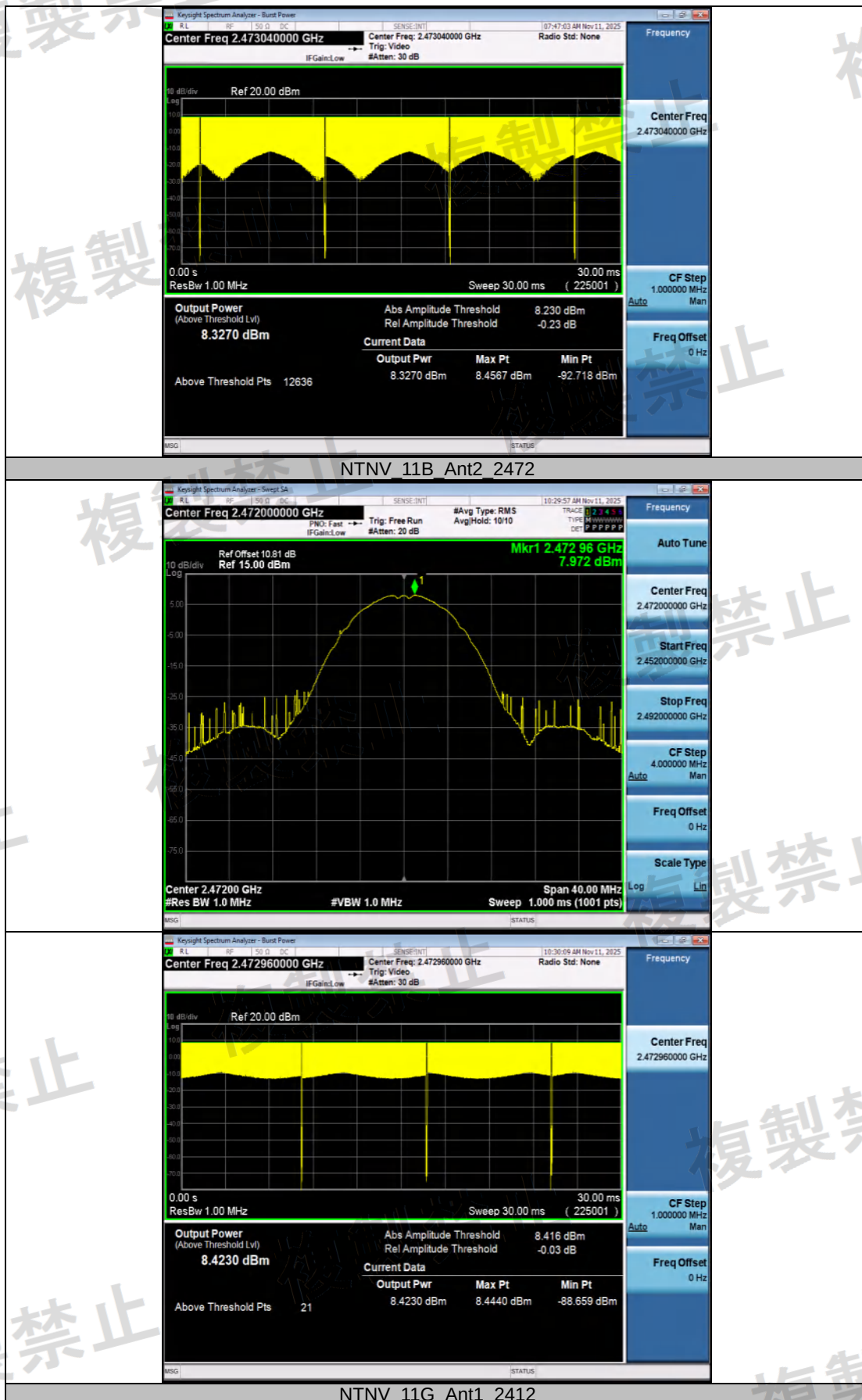
D:antenna power ; G:antenna gain x: duty Cycle Y=10 log (1/x)

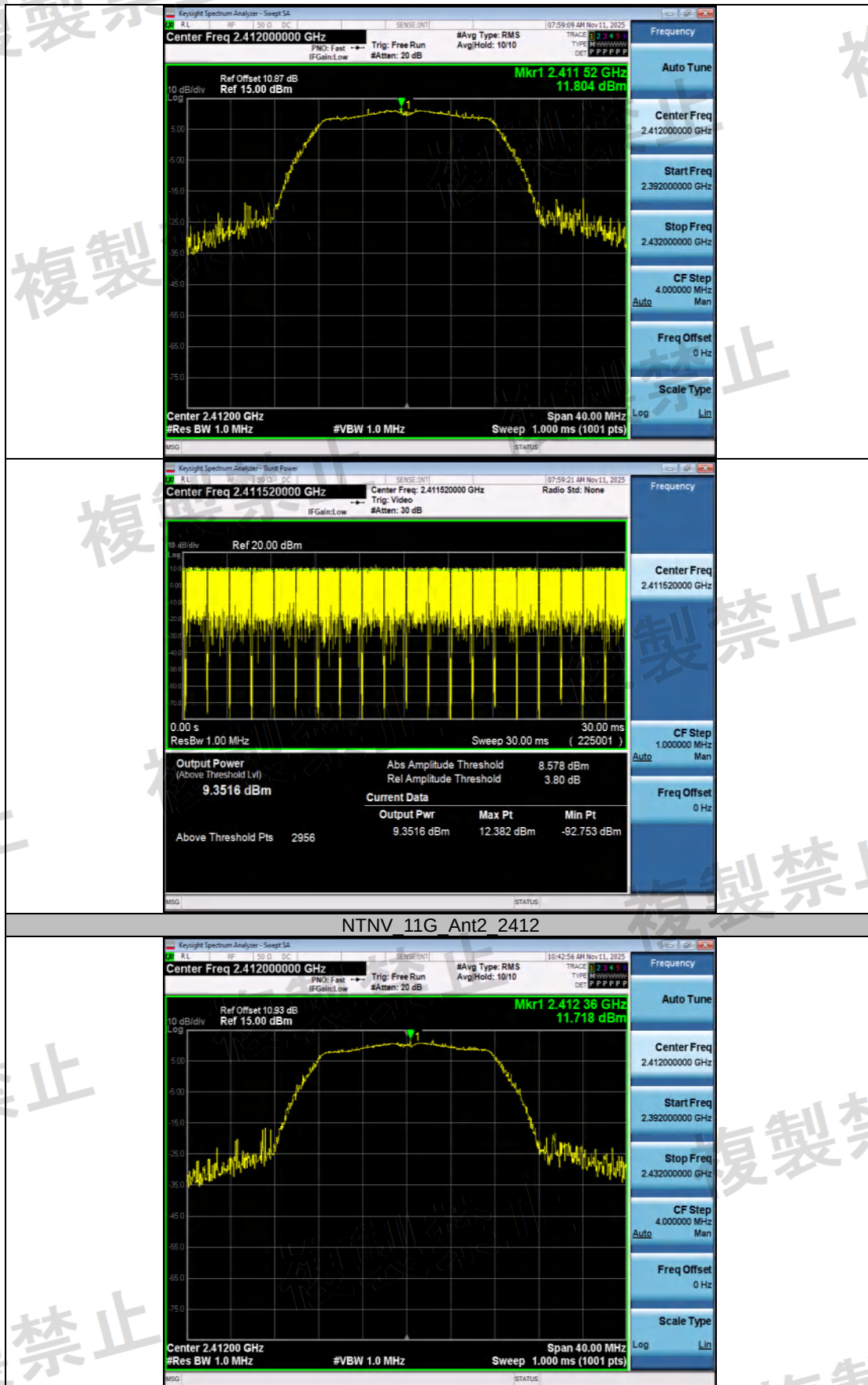
2.When EIRP is greater than 12.14dBm, Evaluation is needed for Transmission Antenna Gain (EIRP Antenna Power) Measurement and Transmission Radiation Angle Width (3dB Beamwidth) Measurement

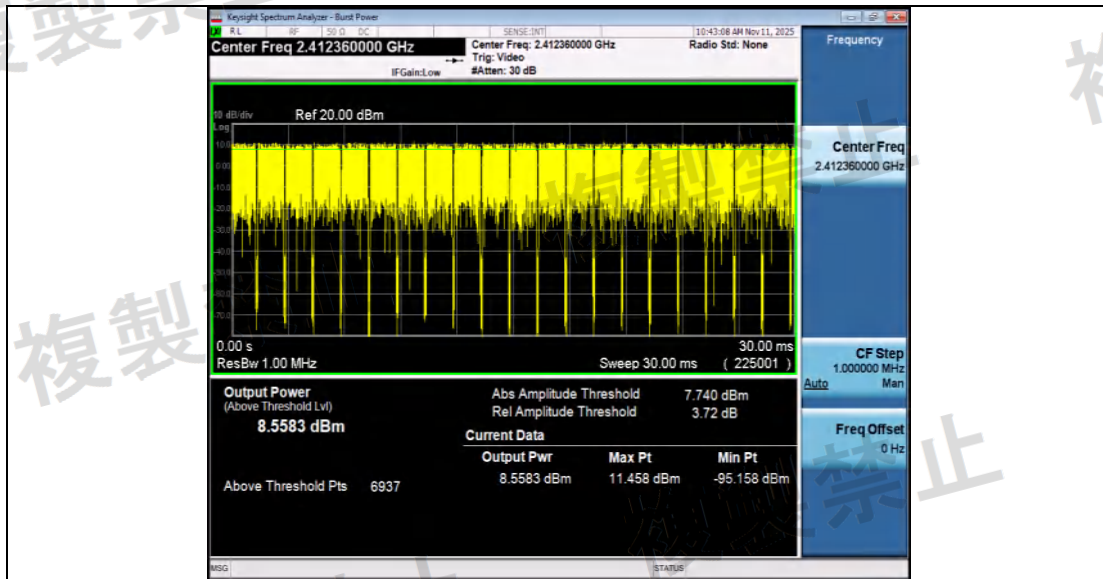




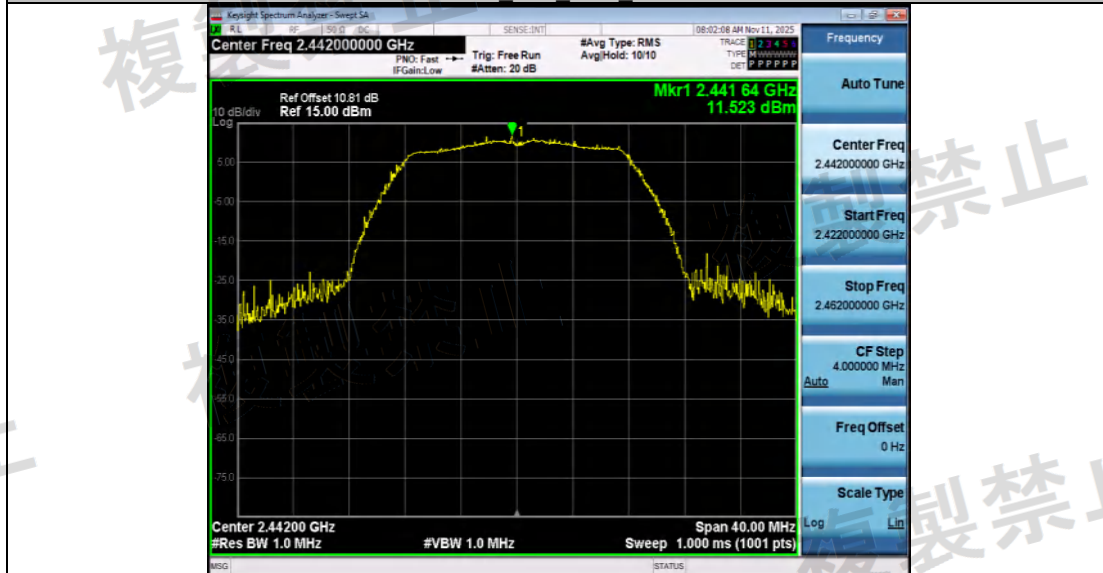




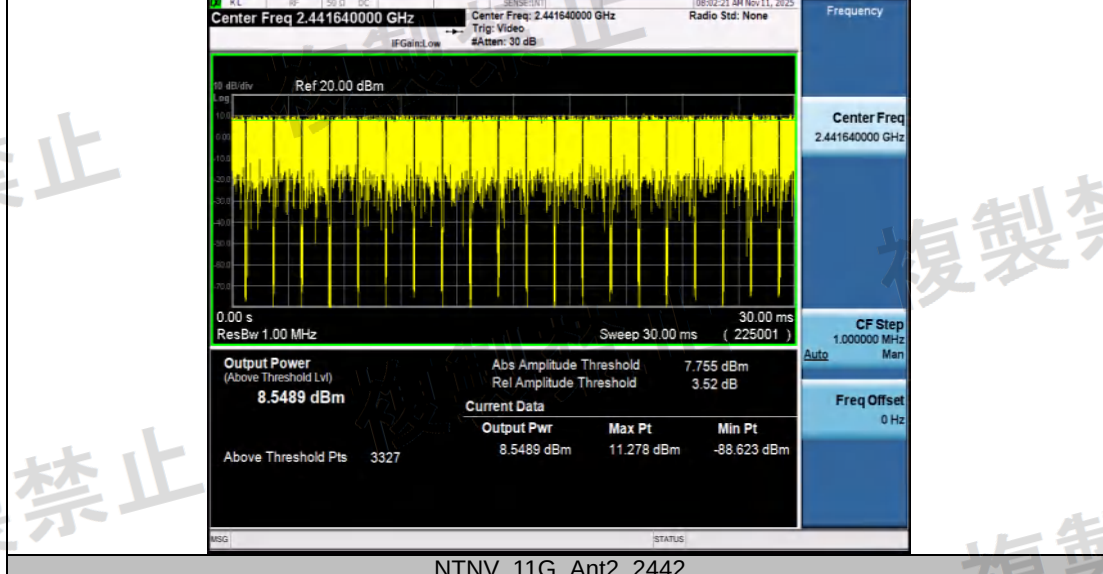




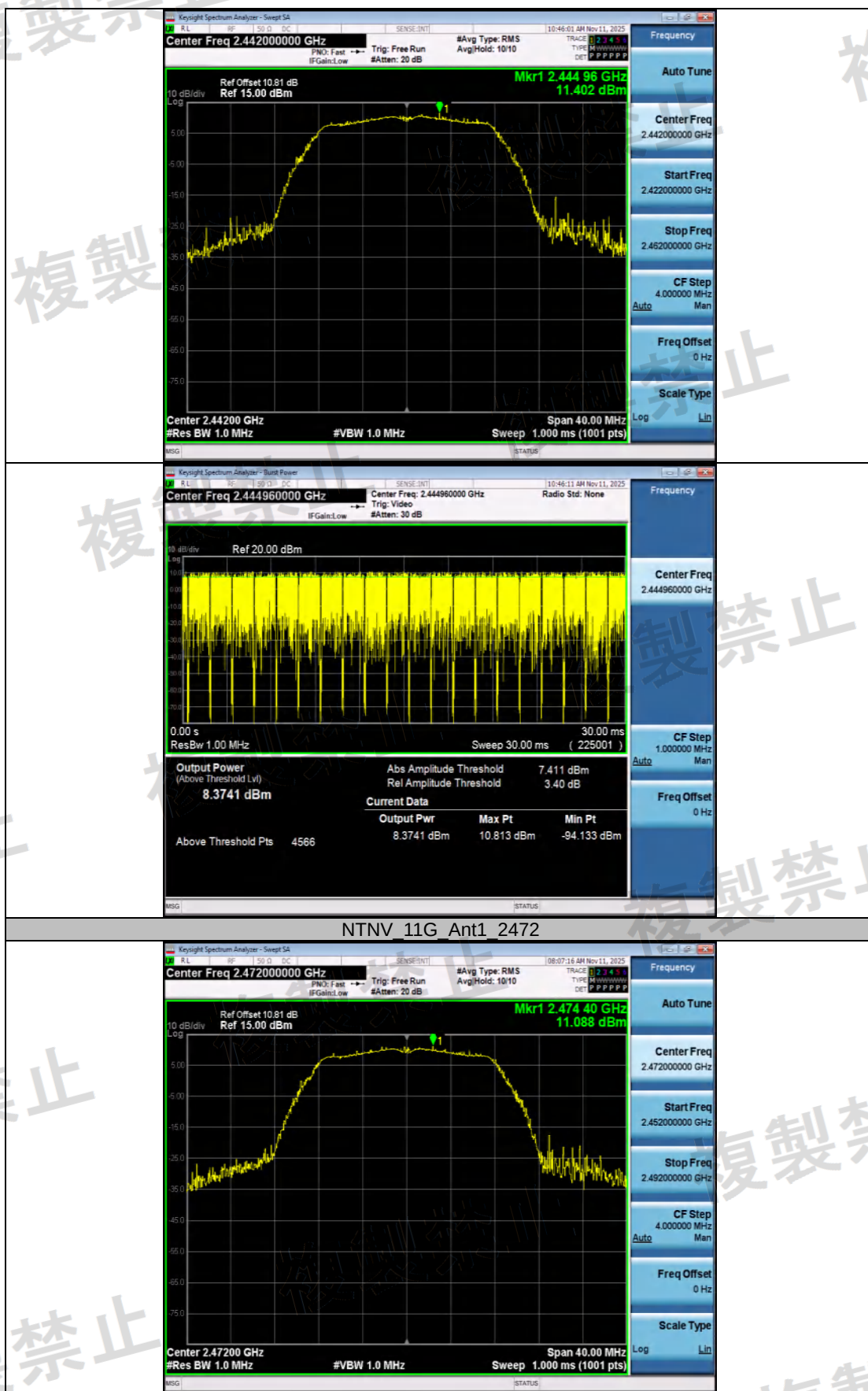
NTNV 11G Ant1 2442



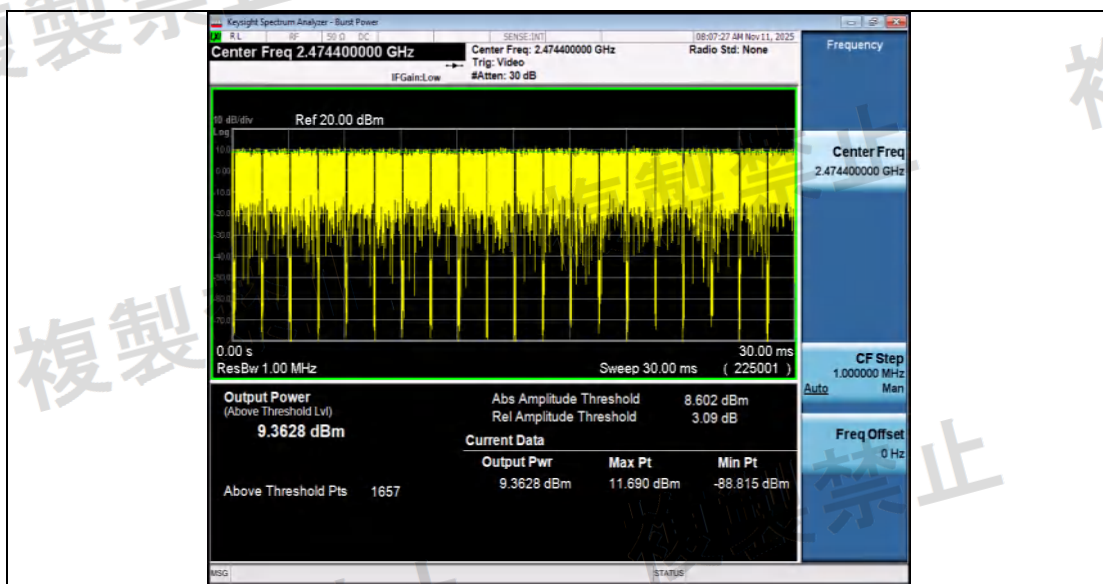
NTNV 11G Ant2 2442



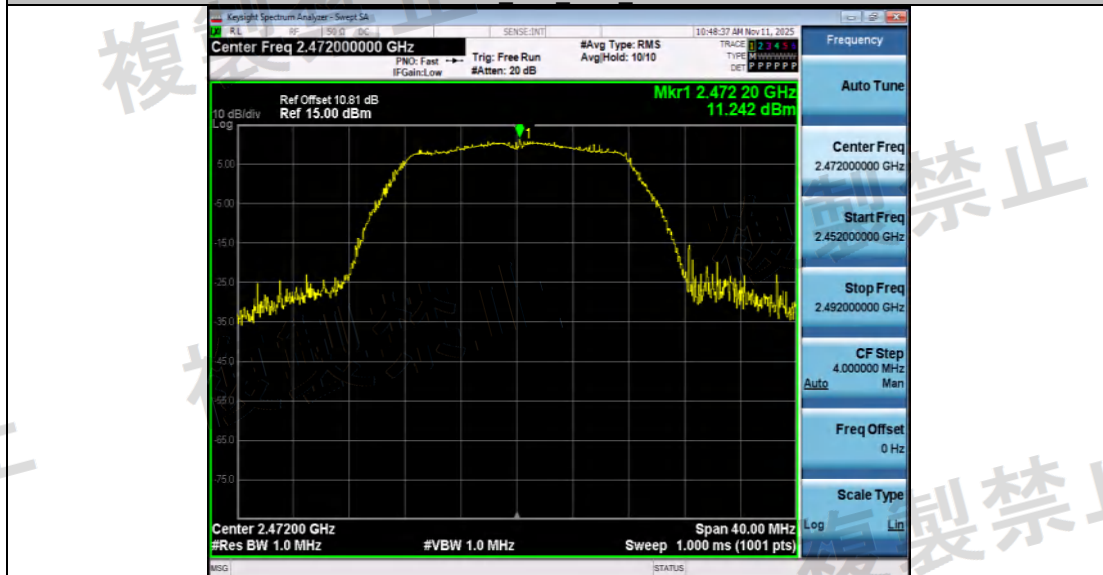
NTNV 11G Ant2 2442



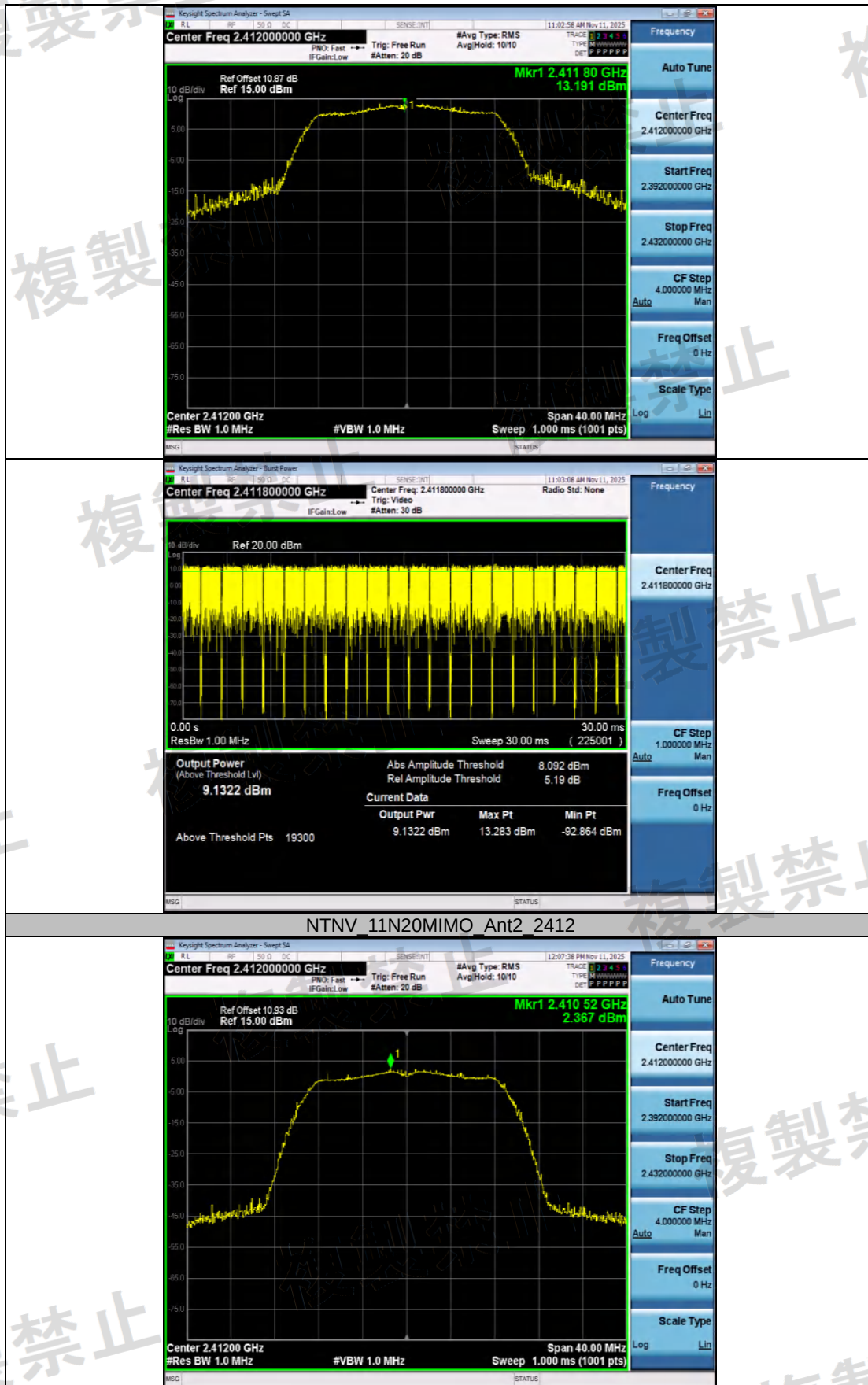
NTNV 11G Ant1 2472

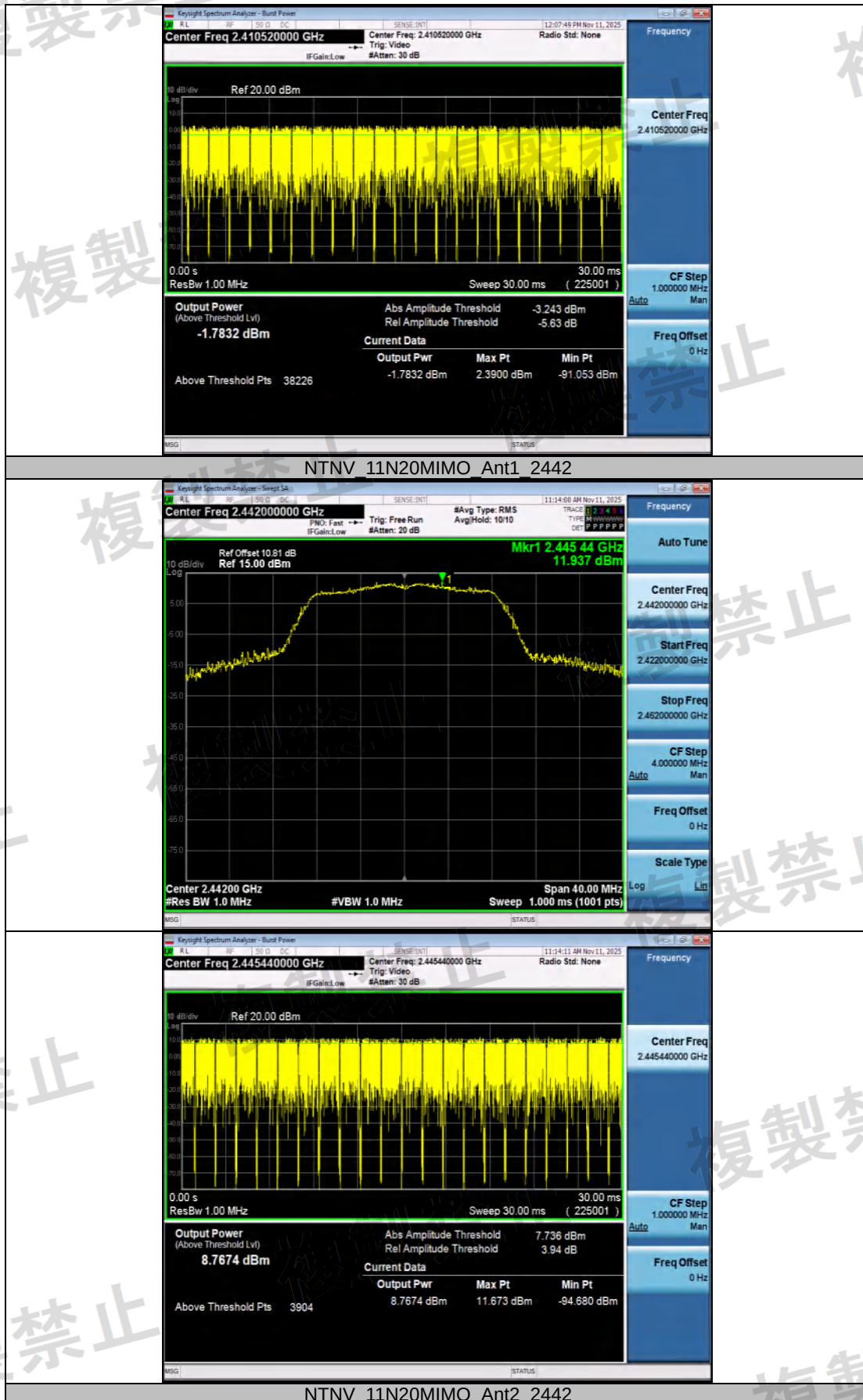


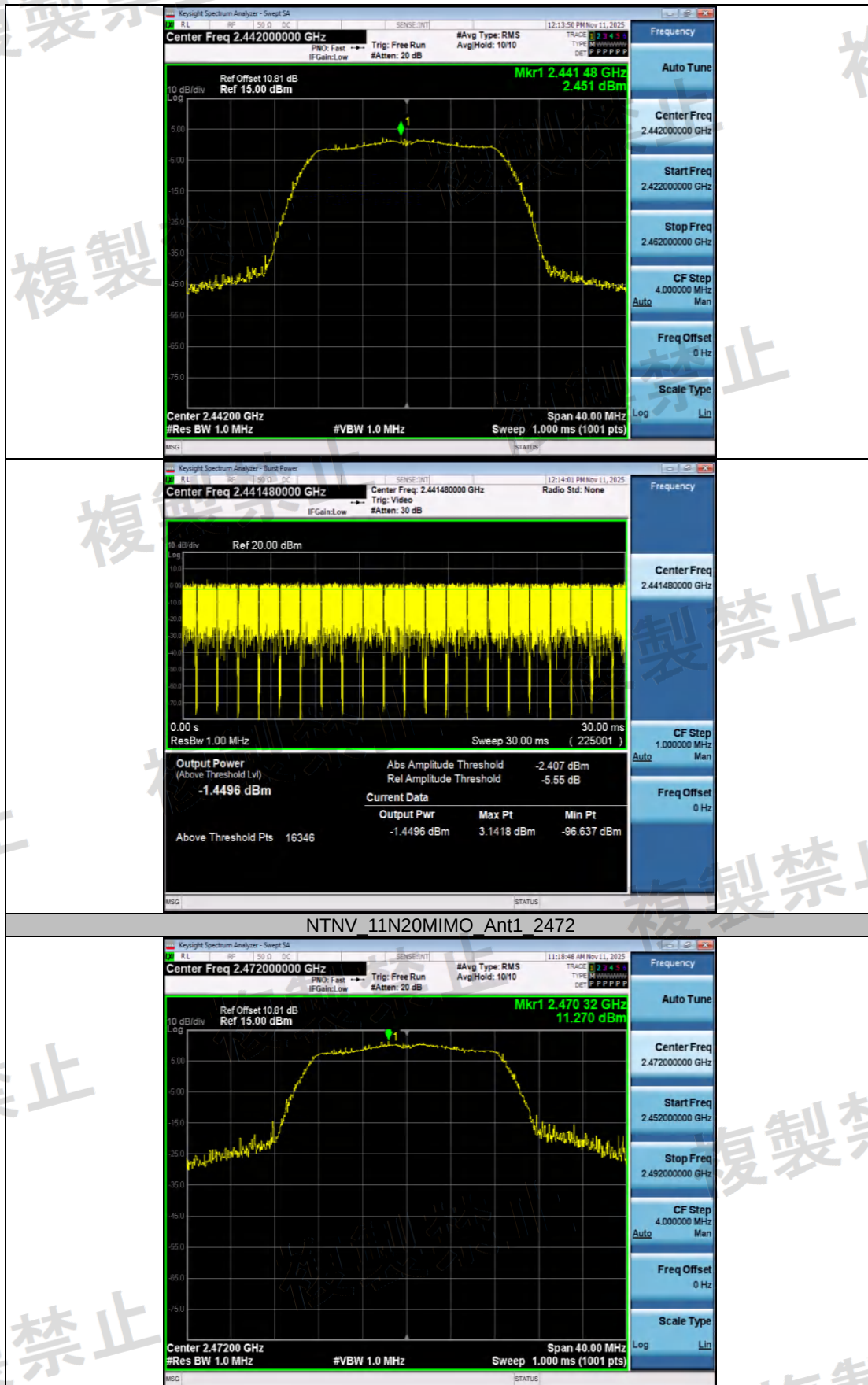
NTNV_11G_Ant2_2472



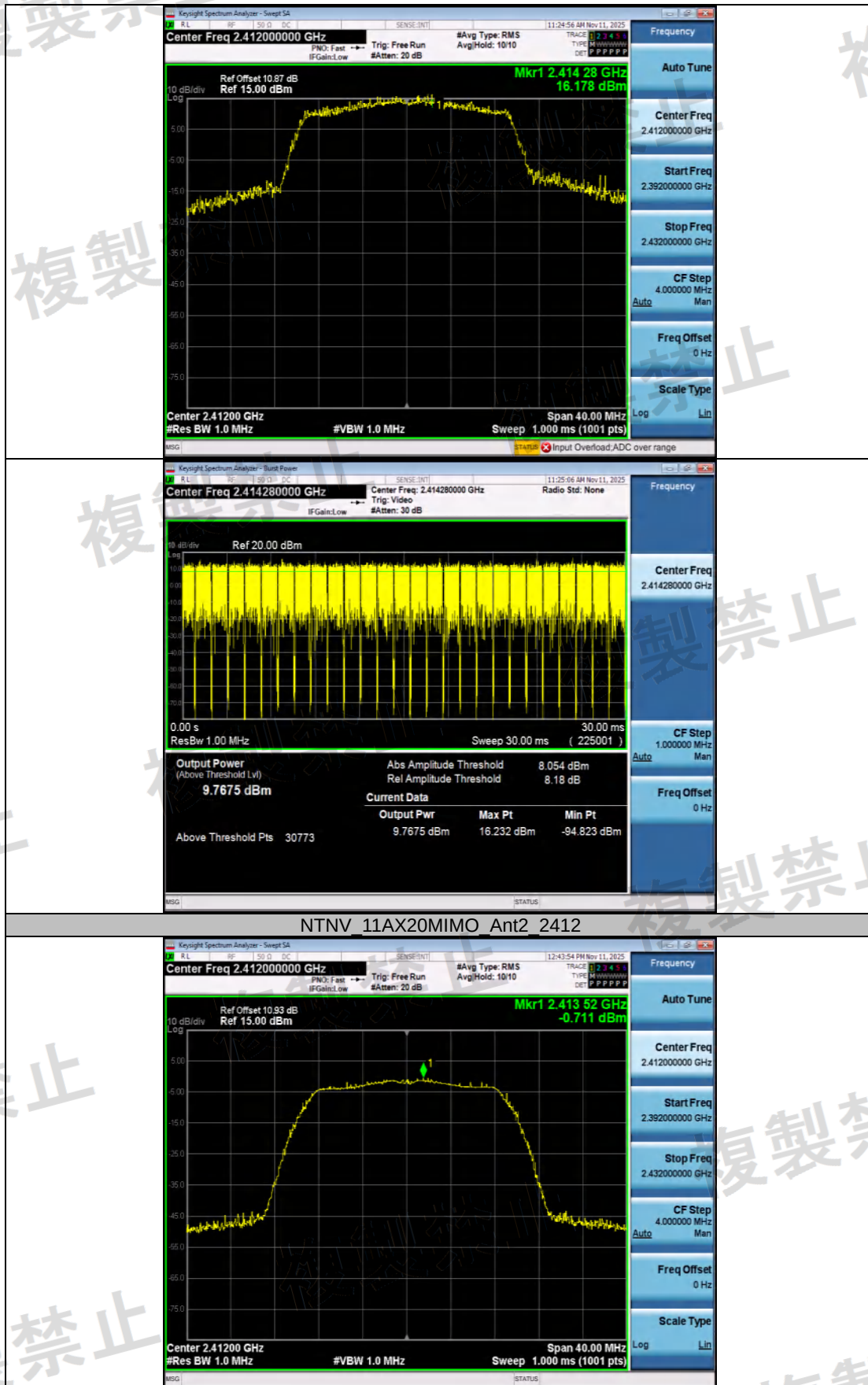
NTNV_11N20MIMO_Ant1_2412

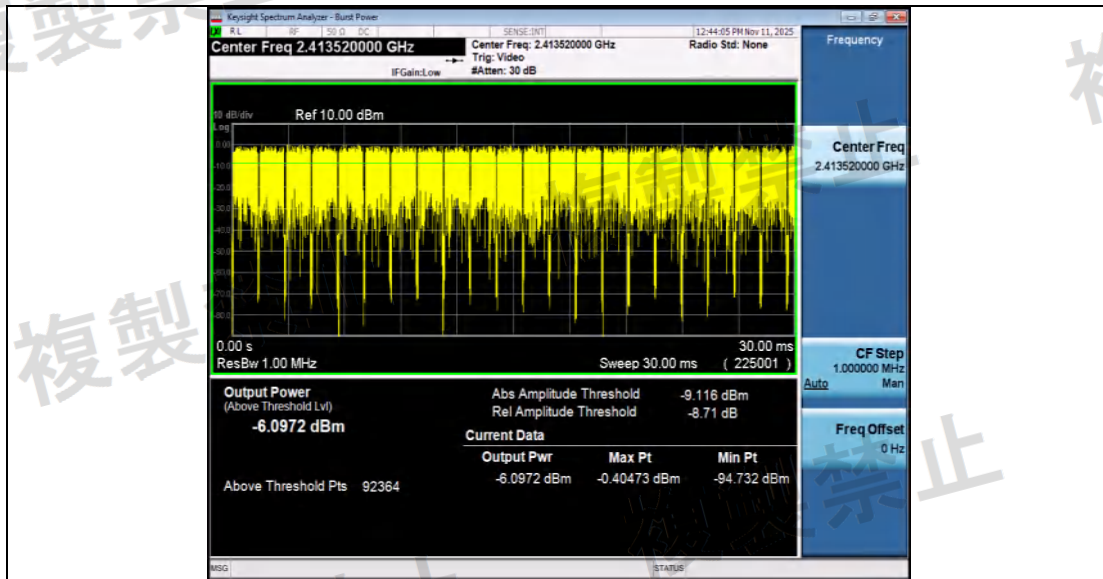




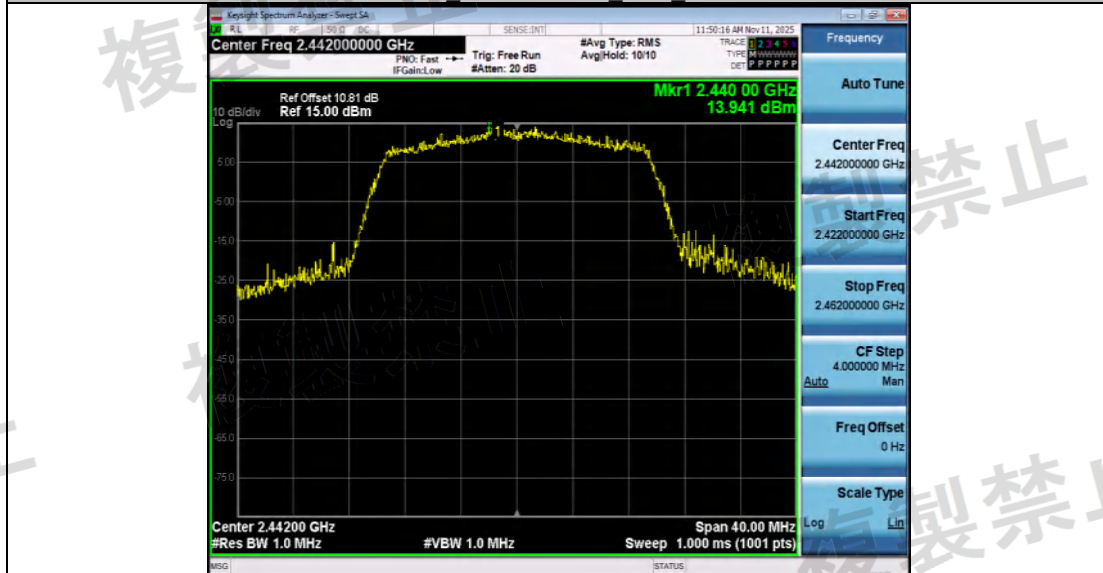




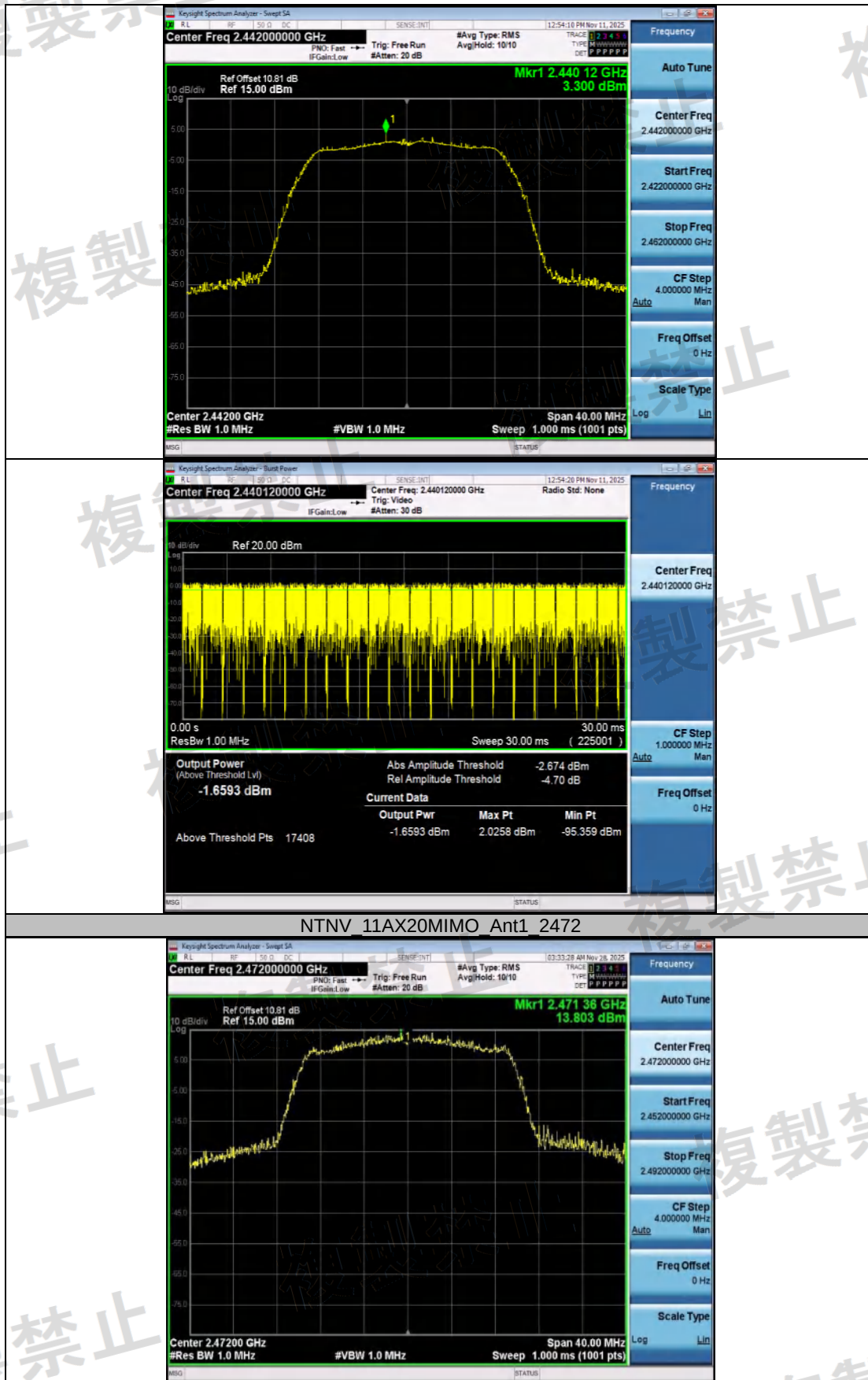




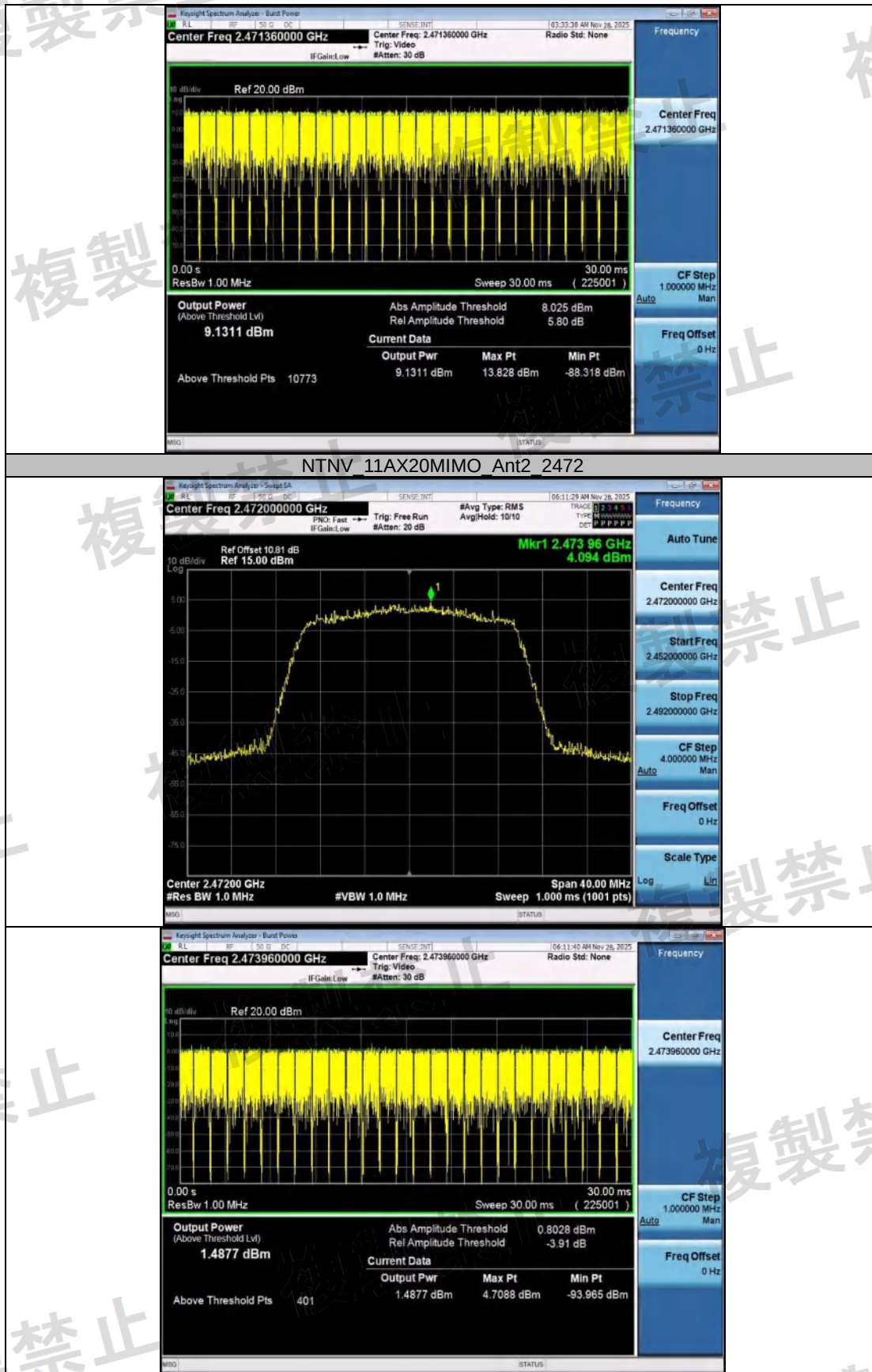
NTNV_11AX20MIMO_Ant1_2442



NTNV_11AX20MIMO_Ant2_2442



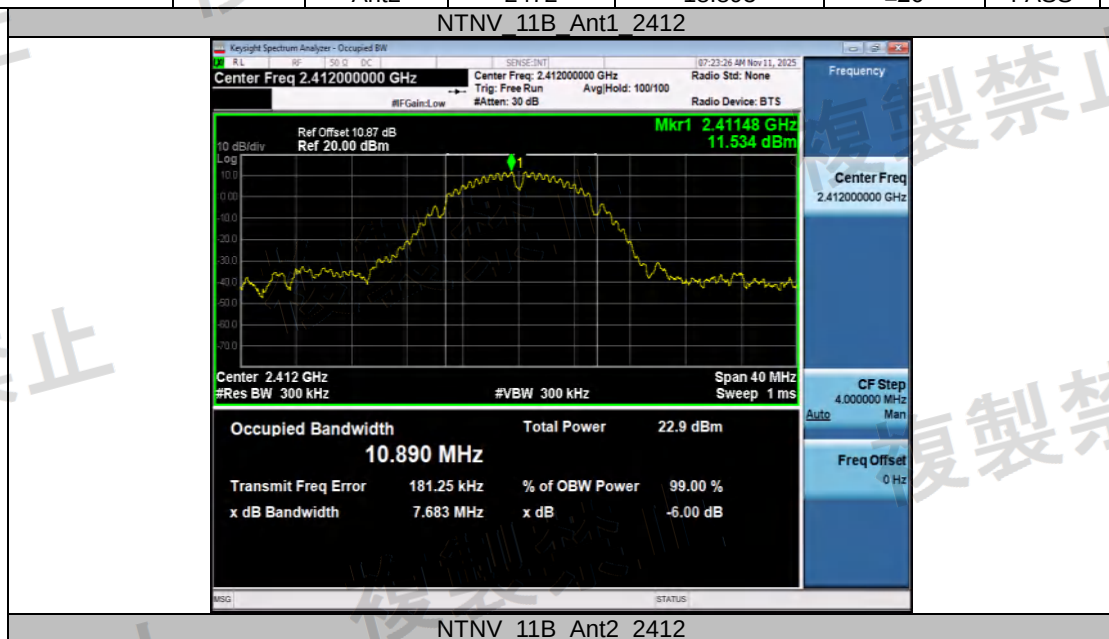
NTNV 11AX20MIMO Ant1 2472

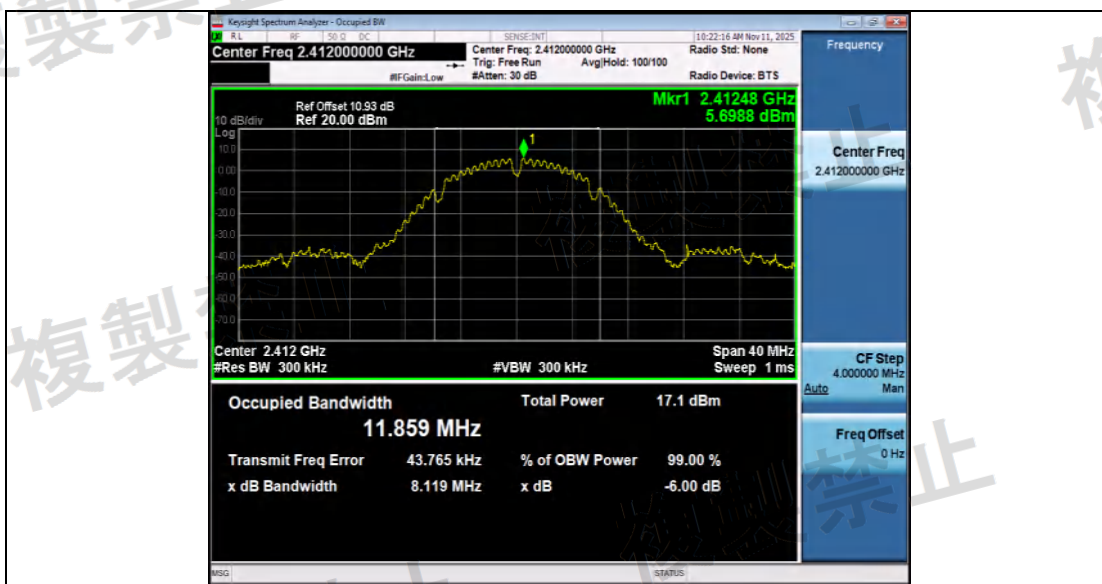


Appendix C: Occupied Bandwidth

Test Result

TestCondition	TestMode	Antenna	Freq(MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	10.890	≤26	PASS
		Ant2	2412	11.859	≤26	PASS
		Ant1	2442	11.854	≤26	PASS
		Ant2	2442	11.846	≤26	PASS
		Ant1	2472	11.890	≤26	PASS
		Ant2	2472	11.856	≤26	PASS
	11G	Ant1	2412	17.717	≤26	PASS
		Ant2	2412	16.787	≤26	PASS
		Ant1	2442	16.748	≤26	PASS
		Ant2	2442	16.758	≤26	PASS
		Ant1	2472	16.829	≤26	PASS
		Ant2	2472	16.794	≤26	PASS
	11N20MI MO	Ant1	2412	18.024	≤26	PASS
		Ant2	2412	17.906	≤26	PASS
		Ant1	2442	18.405	≤26	PASS
		Ant2	2442	17.898	≤26	PASS
		Ant1	2472	17.902	≤26	PASS
		Ant2	2472	17.900	≤26	PASS
	11AX20M IMO	Ant1	2412	18.965	≤26	PASS
		Ant2	2412	18.989	≤26	PASS
		Ant1	2442	19.121	≤26	PASS
		Ant2	2442	17.975	≤26	PASS
		Ant1	2472	18.964	≤26	PASS
		Ant2	2472	18.893	≤26	PASS

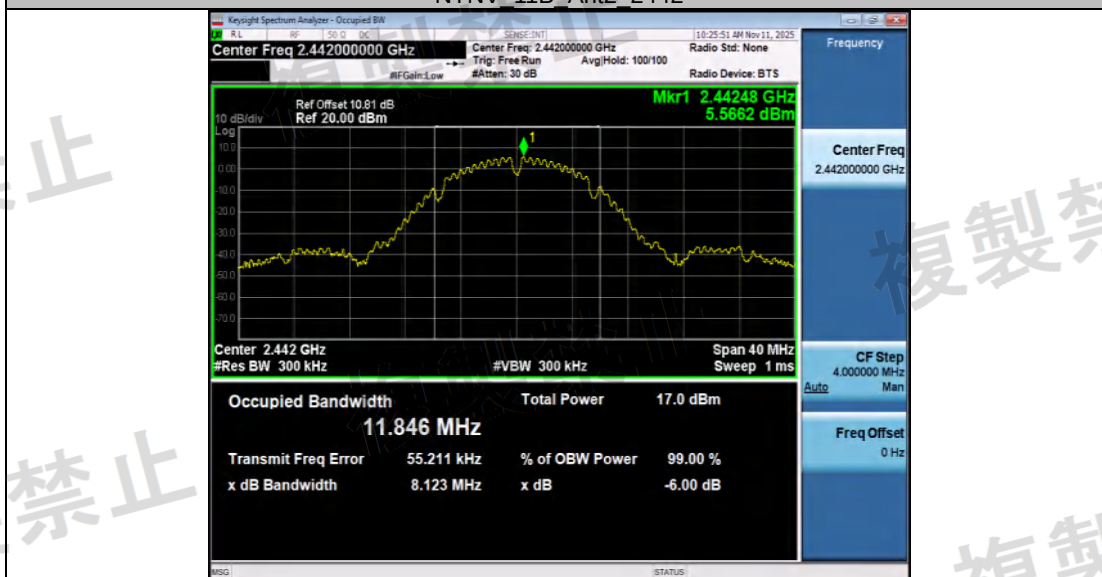




NTVN_11B Ant1 2442

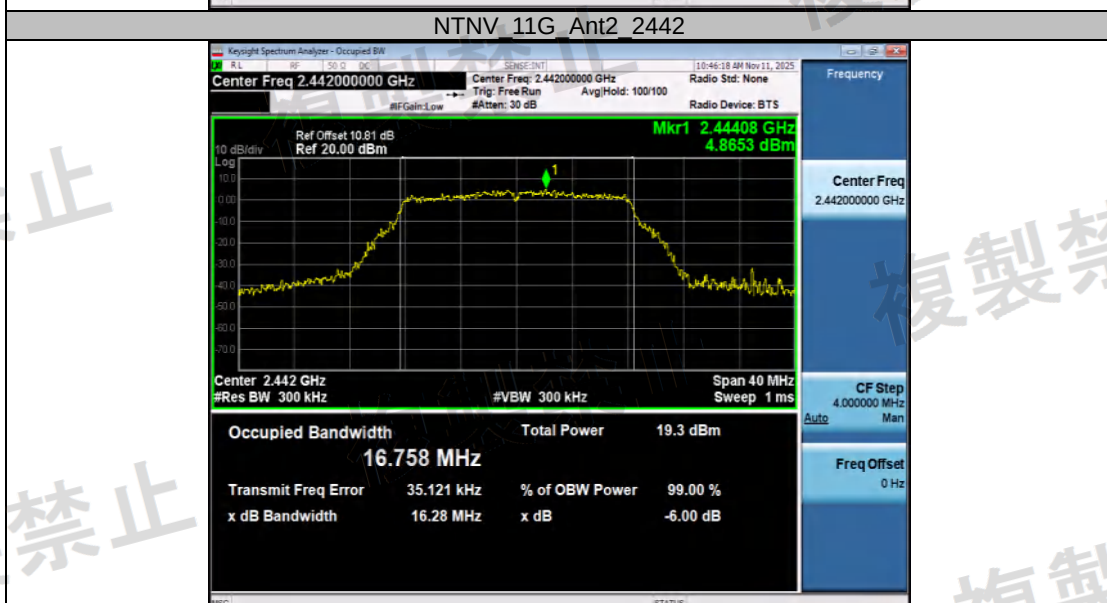
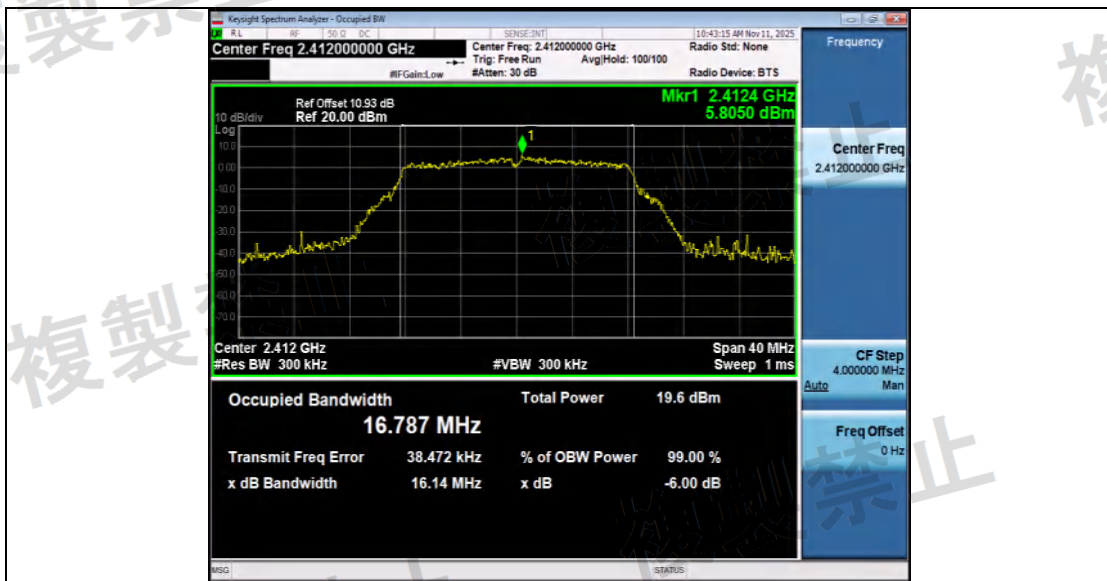


NTVN_11B Ant2 2442

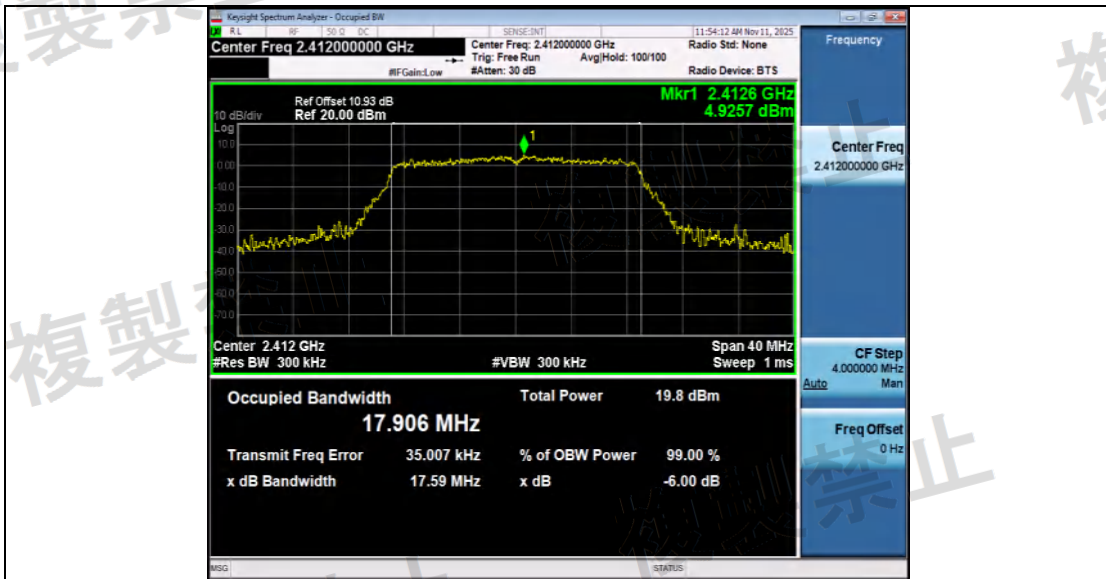


NTVN_11B Ant1 2472





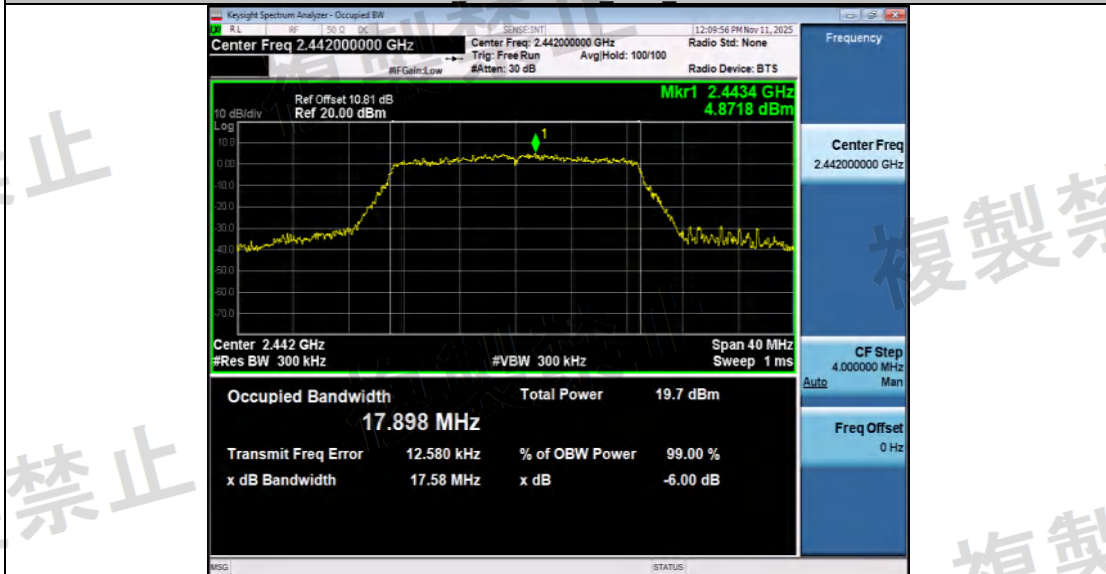




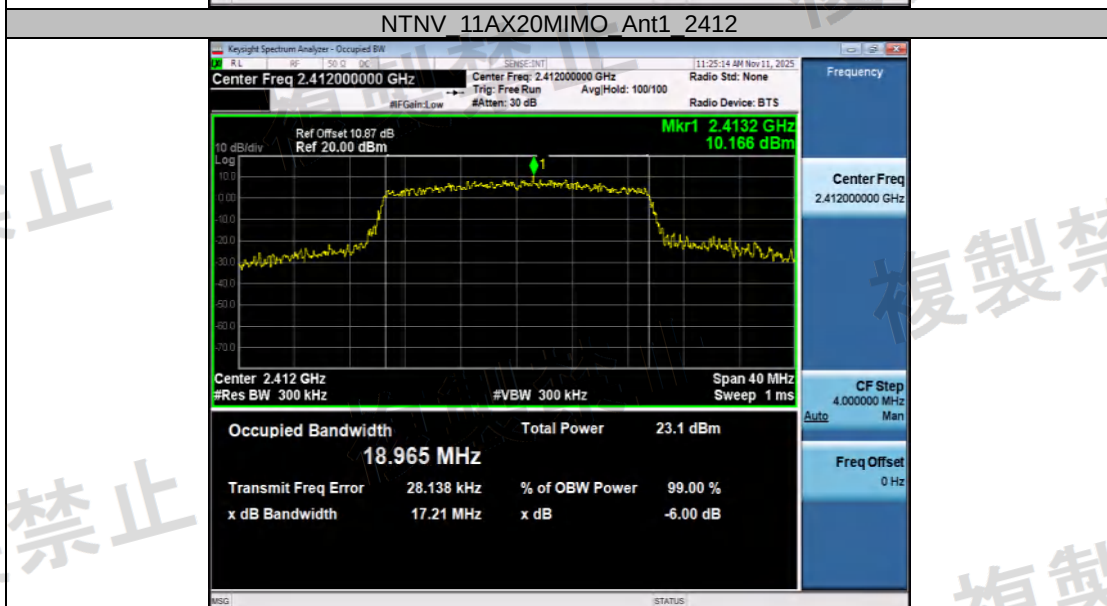
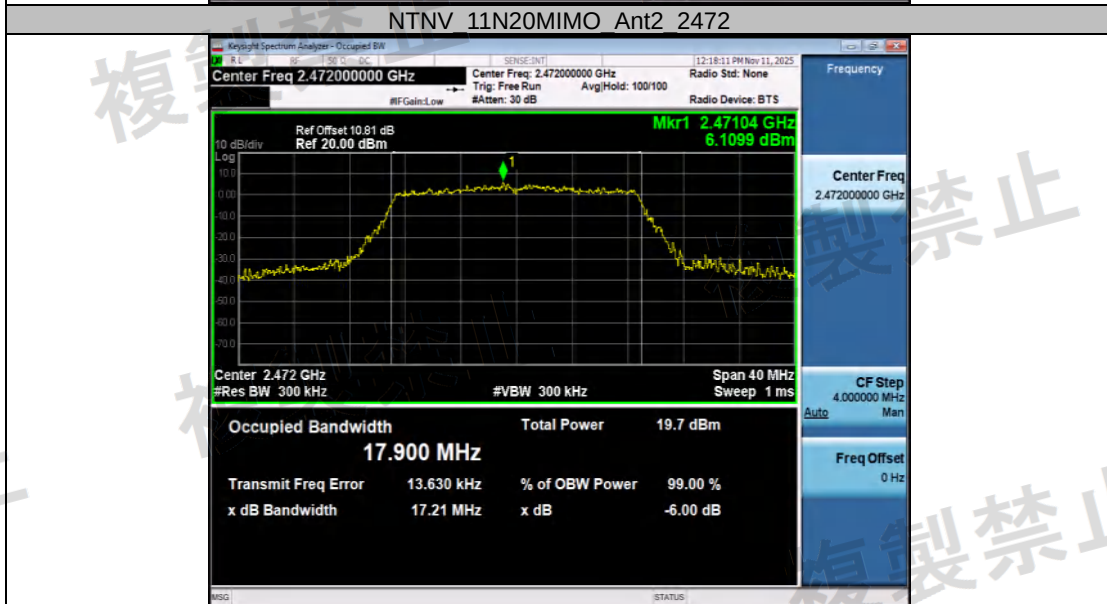
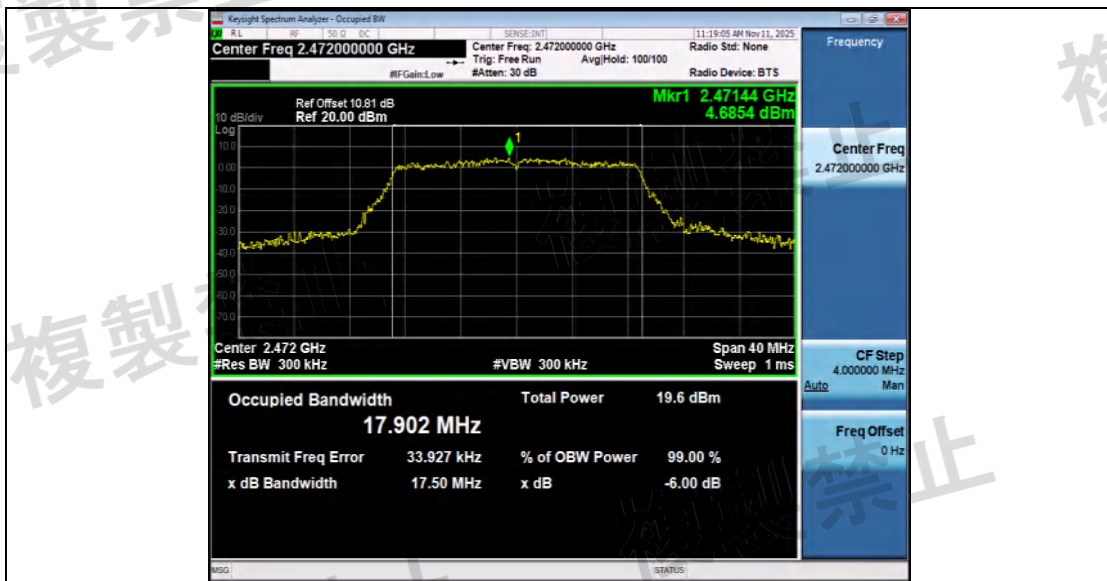
NTNV 11N20MIMO Ant1 2442

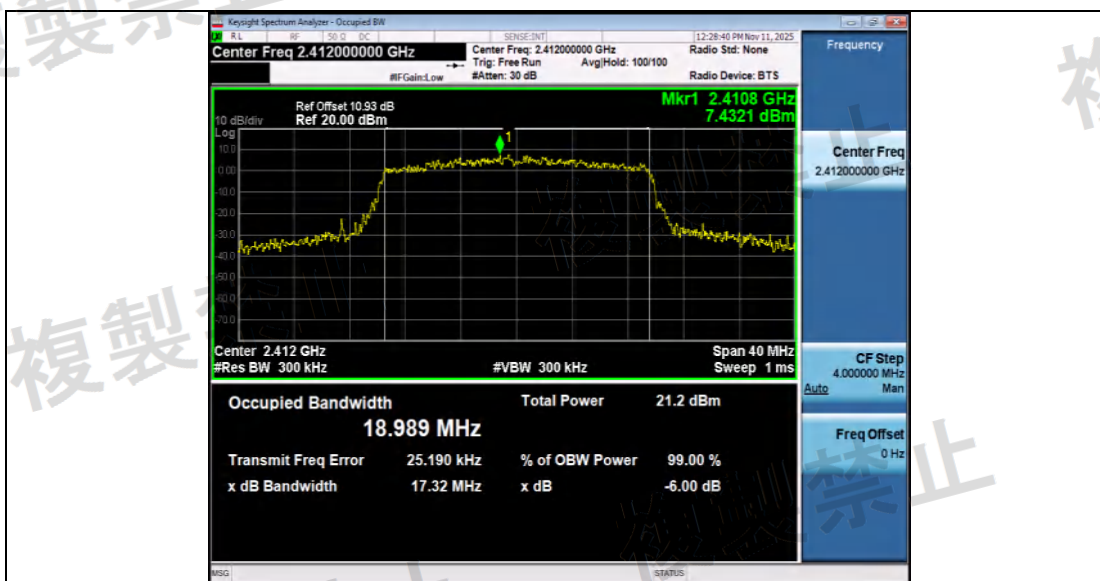


NTNV 11N20MIMO Ant2 2442



NTNV 11N20MIMO Ant1 2472





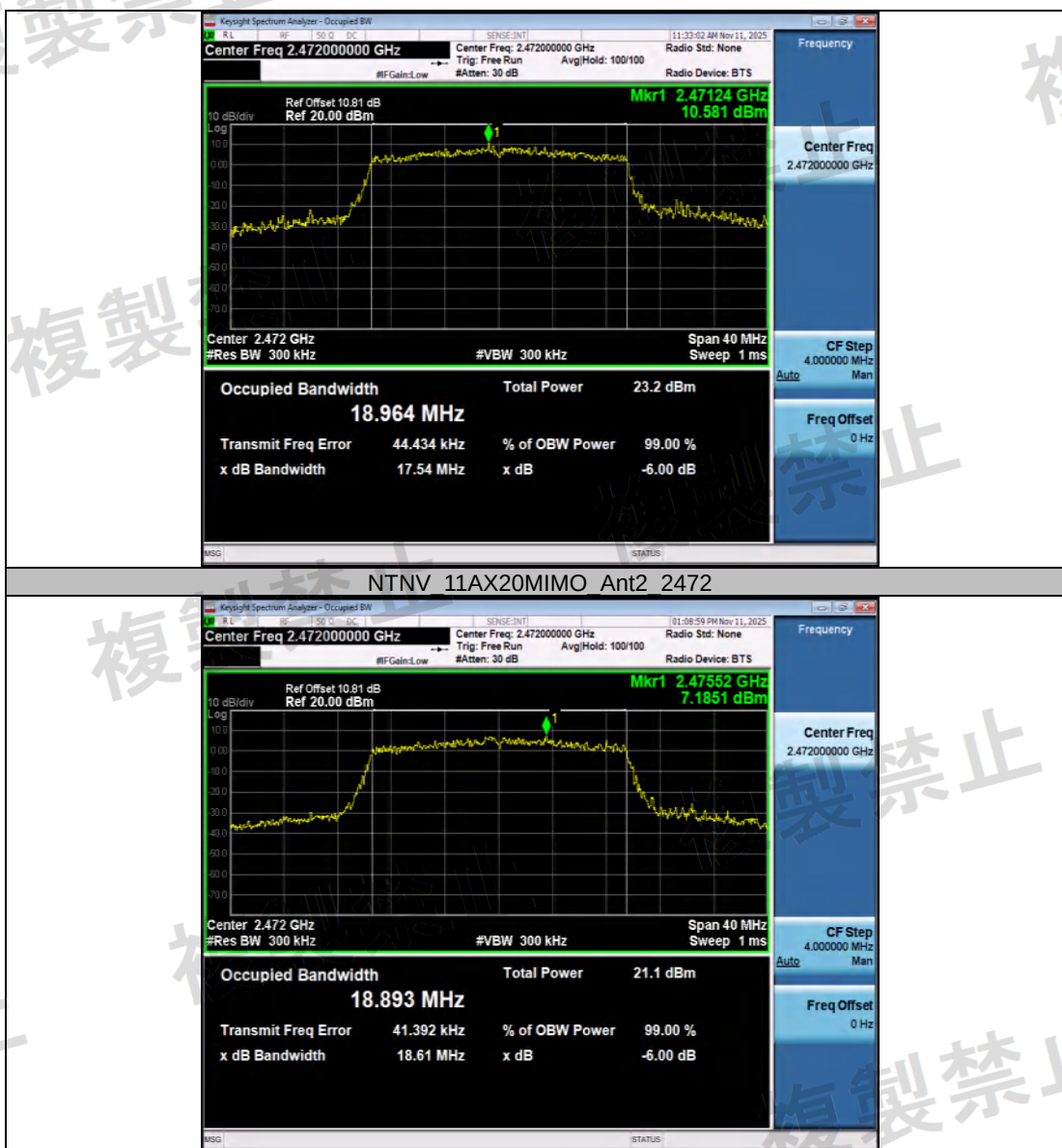
NTNV 11AX20MIMO Ant1 2442



NTNV 11AX20MIMO Ant2 2442



NTNV 11AX20MIMO Ant1 2472



Appendix D: Transmitter Spurious Emissions

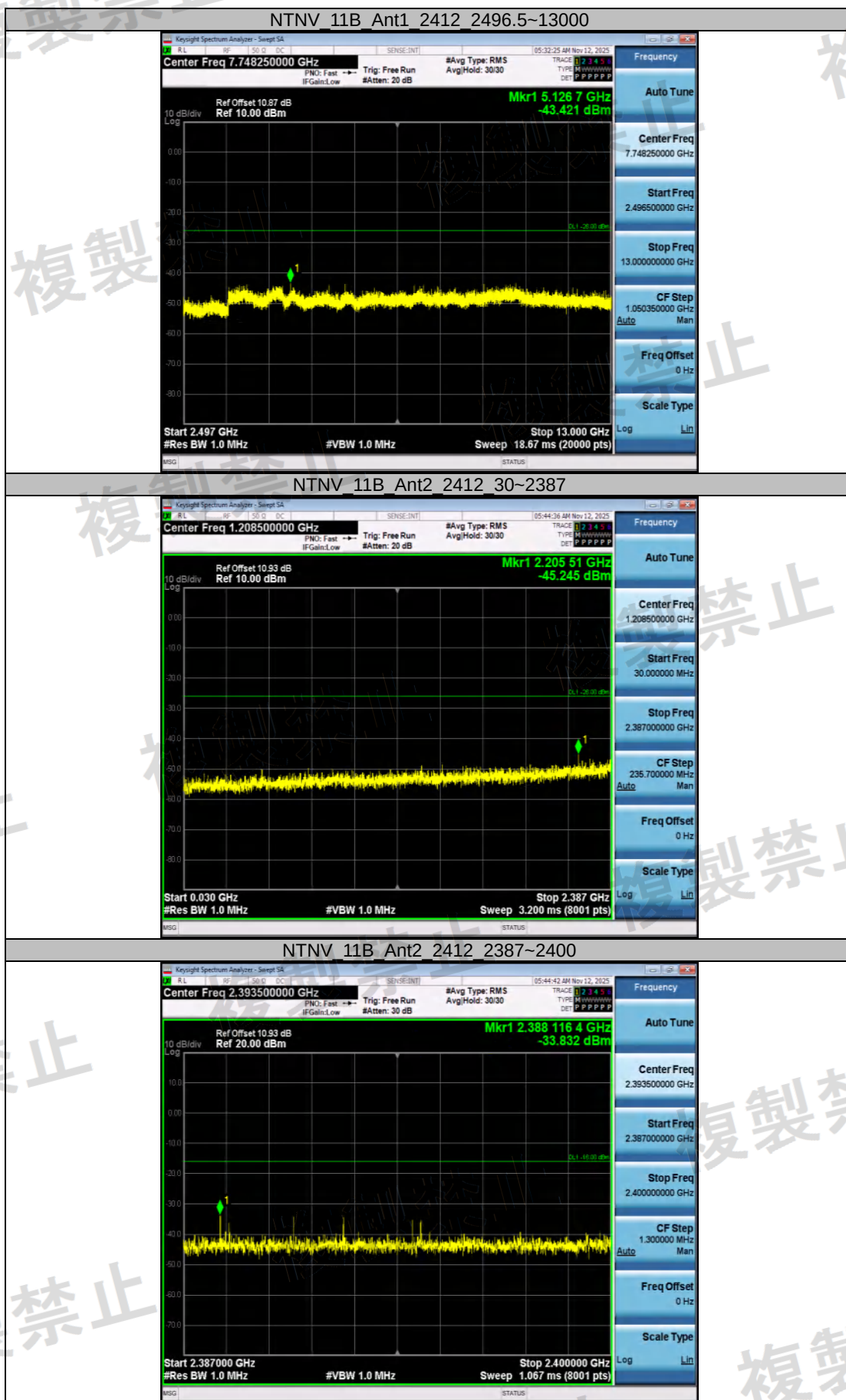
Test Result:

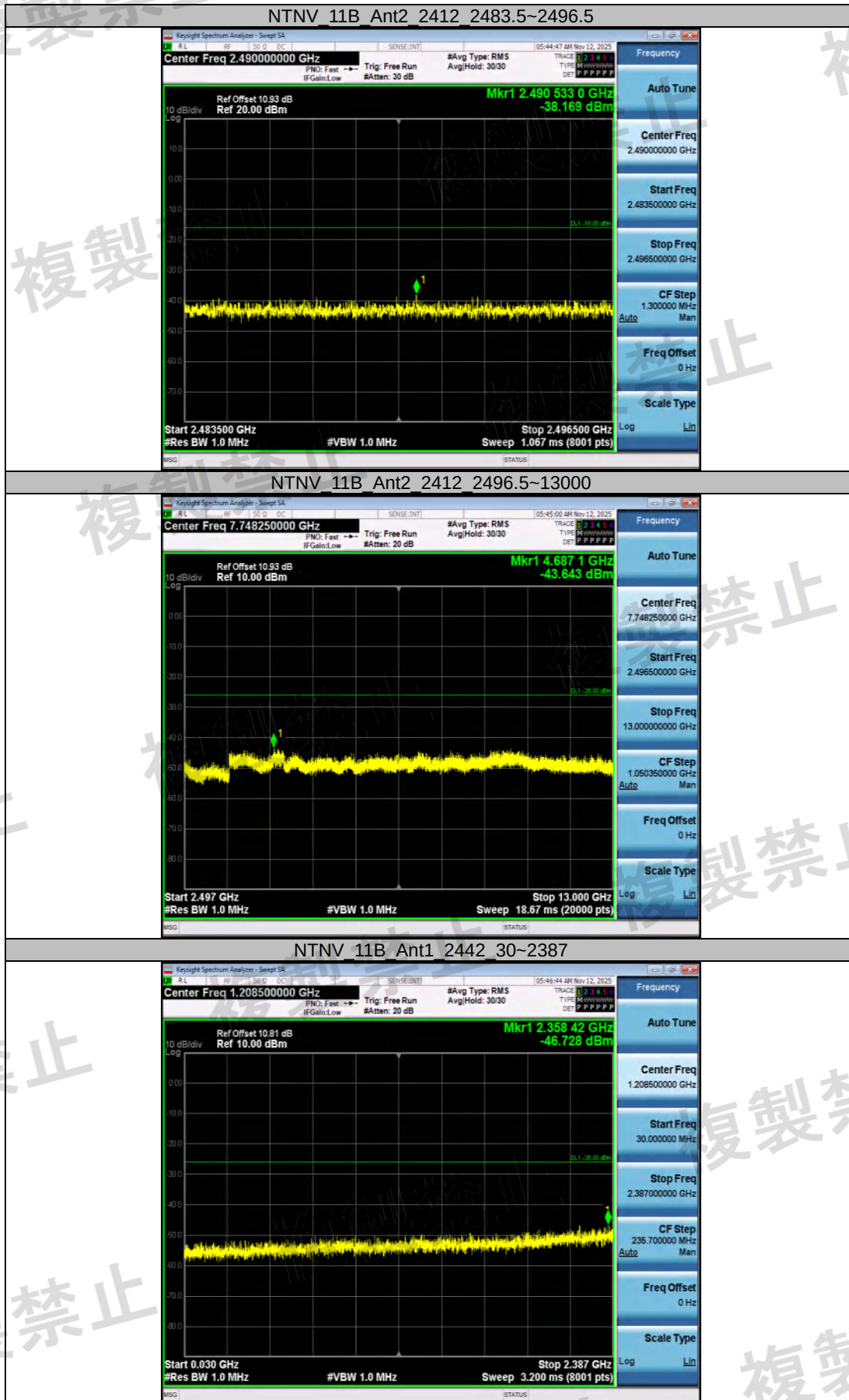
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Result [dBm/MHz]	Limit [dBm/MHz]	Result [μW/MHz]	Limit [μW/MHz]	Verdict
NTNV	11B	Ant1	2412	30~2387	-46.08	≤-26	0.02466	≤2.5	PASS
				2387~2400	-37.14	≤-16	0.19320	≤25	PASS
				2483.5~2496.5	-38.48	≤-16	0.14191	≤25	PASS
				2496.5~13000	-43.42	≤-26	0.04550	≤2.5	PASS
		Ant2	2412	30~2387	-45.25	≤-26	0.02985	≤2.5	PASS
				2387~2400	-33.83	≤-16	0.41400	≤25	PASS
				2483.5~2496.5	-38.17	≤-16	0.15241	≤25	PASS
				2496.5~13000	-43.64	≤-26	0.04325	≤2.5	PASS
		Ant1	2442	30~2387	-46.73	≤-26	0.02123	≤2.5	PASS
				2387~2400	-35.38	≤-16	0.28973	≤25	PASS
				2483.5~2496.5	-32.86	≤-16	0.51761	≤25	PASS
				2496.5~13000	-43.01	≤-26	0.05000	≤2.5	PASS
		Ant2	2442	30~2387	-47.01	≤-26	0.01991	≤2.5	PASS
				2387~2400	-38.76	≤-16	0.13305	≤25	PASS
				2483.5~2496.5	-33.29	≤-16	0.46881	≤25	PASS
				2496.5~13000	-42.74	≤-26	0.05321	≤2.5	PASS
		Ant1	2472	30~2387	-45.12	≤-26	0.03076	≤2.5	PASS
				2387~2400	-37.47	≤-16	0.17906	≤25	PASS
				2483.5~2496.5	-22.16	≤-16	6.08135	≤25	PASS
				2496.5~13000	-43.13	≤-26	0.04864	≤2.5	PASS
		Ant2	2472	30~2387	-46.81	≤-26	0.02084	≤2.5	PASS
				2387~2400	-39.24	≤-16	0.11912	≤25	PASS
				2483.5~2496.5	-24.70	≤-16	3.38844	≤25	PASS
				2496.5~13000	-40.57	≤-26	0.08770	≤2.5	PASS
	11G	Ant1	2412	30~2387	-35.49	≤-26	0.28249	≤2.5	PASS
				2387~2400	-22.28	≤-16	5.91562	≤25	PASS
				2483.5~2496.5	-37.45	≤-16	0.17989	≤25	PASS
				2496.5~13000	-43.14	≤-26	0.04853	≤2.5	PASS
		Ant2	2412	30~2387	-40.64	≤-26	0.08630	≤2.5	PASS
				2387~2400	-24.96	≤-16	3.19154	≤25	PASS
				2483.5~2496.5	-37.79	≤-16	0.16634	≤25	PASS
				2496.5~13000	-41.24	≤-26	0.07516	≤2.5	PASS
		Ant1	2442	30~2387	-45.11	≤-26	0.03083	≤2.5	PASS
				2387~2400	-38.67	≤-16	0.13583	≤25	PASS
				2483.5~2496.5	-37.05	≤-16	0.19724	≤25	PASS
				2496.5~13000	-43.60	≤-26	0.04365	≤2.5	PASS
		Ant2	2442	30~2387	-46.98	≤-26	0.02004	≤2.5	PASS
				2387~2400	-37.84	≤-16	0.16444	≤25	PASS
				2483.5~2496.5	-37.66	≤-16	0.17140	≤25	PASS
				2496.5~13000	-42.92	≤-26	0.05105	≤2.5	PASS
		Ant1	2472	30~2387	-46.51	≤-26	0.02234	≤2.5	PASS
				2387~2400	-39.12	≤-16	0.12246	≤25	PASS
				2483.5~2496.5	-37.93	≤-16	0.16106	≤25	PASS
				2496.5~13000	-42.70	≤-26	0.05370	≤2.5	PASS
		Ant2	2472	30~2387	-45.88	≤-26	0.02582	≤2.5	PASS
				2387~2400	-39.08	≤-16	0.12359	≤25	PASS
				2483.5~2496.5	-19.73	≤-16	10.6414 ₃	≤25	PASS
				2496.5~13000	-37.48	≤-26	0.17865	≤2.5	PASS
	11N20	Ant1	2412	30~2387	-46.67	≤-26	0.02153	≤2.5	PASS
				2387~2400	-30.84	≤-16	0.82414	≤25	PASS
				2483.5~2496.5	-38.57	≤-16	0.13900	≤25	PASS
				2496.5~13000	-43.52	≤-26	0.04446	≤2.5	PASS
		Ant2	2412	30~2387	-43.53	≤-26	0.04436	≤2.5	PASS

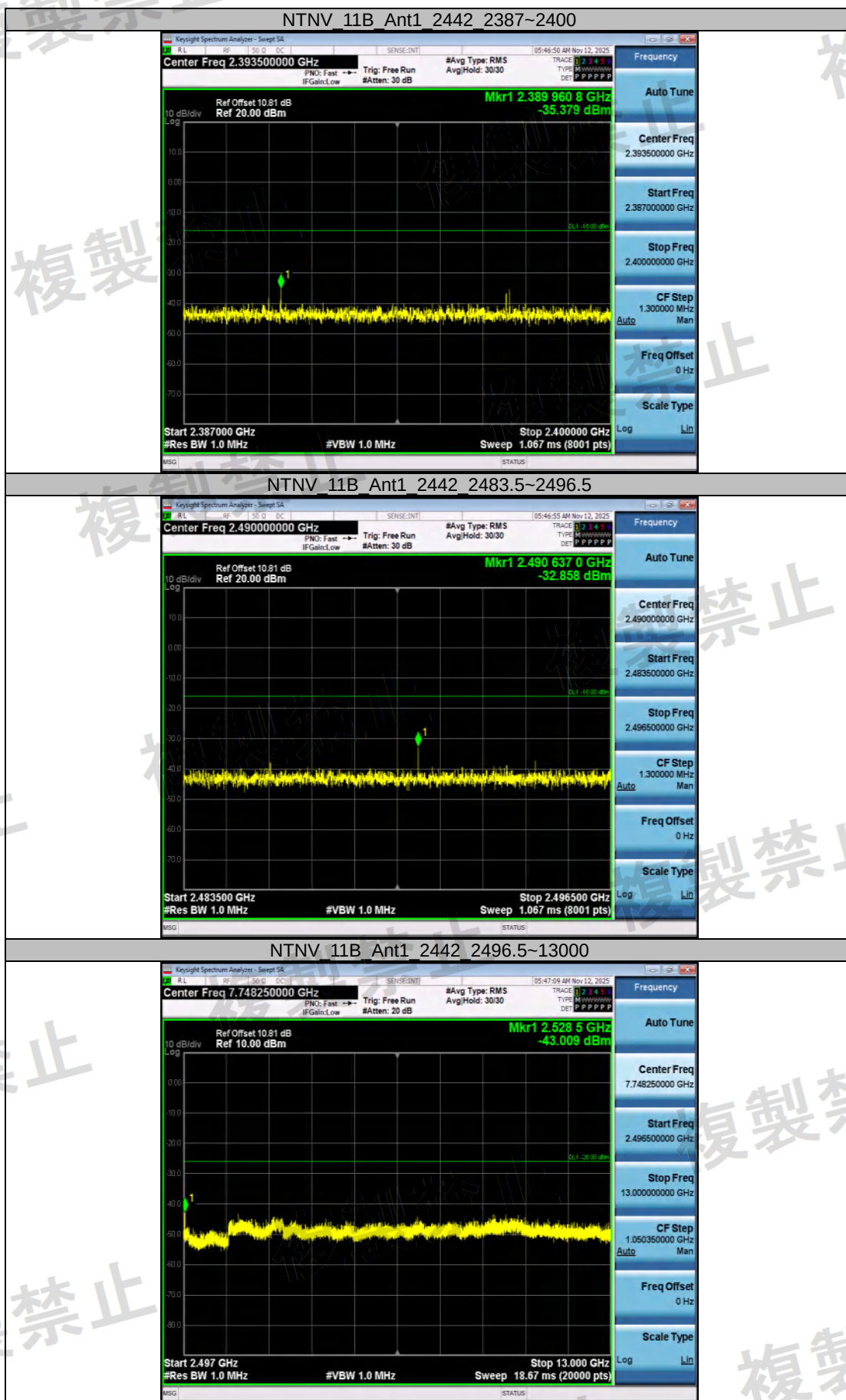
				2387~2400	-20.76	≤-16	8.39460	≤25	PASS
				2483.5~2496.5	-38.41	≤-16	0.14421	≤25	PASS
				2496.5~13000	-43.41	≤-26	0.04560	≤2.5	PASS
		Ant1	2442	30~2387	-46.43	≤-26	0.02275	≤2.5	PASS
				2387~2400	-38.94	≤-16	0.12764	≤25	PASS
				2483.5~2496.5	-38.10	≤-16	0.15488	≤25	PASS
		Ant2	2442	2496.5~13000	-42.66	≤-26	0.05420	≤2.5	PASS
				30~2387	-42.67	≤-26	0.05408	≤2.5	PASS
				2387~2400	-35.16	≤-16	0.30479	≤25	PASS
		Ant1	2472	2483.5~2496.5	-26.36	≤-16	2.31206	≤25	PASS
				2496.5~13000	-40.23	≤-26	0.09484	≤2.5	PASS
		Ant2	2472	30~2387	-46.59	≤-26	0.02193	≤2.5	PASS
				2387~2400	-39.40	≤-16	0.11482	≤25	PASS
				2483.5~2496.5	-31.58	≤-16	0.69502	≤25	PASS
		Ant1	2412	2496.5~13000	-43.44	≤-26	0.04529	≤2.5	PASS
				30~2387	-46.98	≤-26	0.02004	≤2.5	PASS
				2387~2400	-38.97	≤-16	0.12677	≤25	PASS
		Ant2	2412	2483.5~2496.5	-28.89	≤-16	1.29122	≤25	PASS
				2496.5~13000	-43.71	≤-26	0.04256	≤2.5	PASS
		Ant1	2442	30~2387	-40.84	≤-26	0.08241	≤2.5	PASS
				2387~2400	-24.07	≤-16	3.91742	≤25	PASS
				2483.5~2496.5	-37.91	≤-16	0.16181	≤25	PASS
		Ant2	2442	2496.5~13000	-43.64	≤-26	0.04325	≤2.5	PASS
				30~2387	-41.82	≤-26	0.06577	≤2.5	PASS
				2387~2400	-23.70	≤-16	4.26580	≤25	PASS
		Ant1	2472	2483.5~2496.5	-37.57	≤-16	0.17498	≤25	PASS
				2496.5~13000	-42.96	≤-26	0.05058	≤2.5	PASS
		Ant2	2472	30~2387	-46.78	≤-26	0.02099	≤2.5	PASS
				2387~2400	-38.83	≤-16	0.13092	≤25	PASS
				2483.5~2496.5	-38.76	≤-16	0.13305	≤25	PASS
		Ant1	2412	2496.5~13000	-43.22	≤-26	0.04764	≤2.5	PASS
				30~2387	-45.23	≤-26	0.02999	≤2.5	PASS
				2387~2400	-35.56	≤-16	0.27797	≤25	PASS
		Ant2	2412	2483.5~2496.5	-29.54	≤-16	1.11173	≤25	PASS
				2496.5~13000	-39.41	≤-26	0.11455	≤2.5	PASS
		Ant1	2442	30~2387	-46.89	≤-26	0.02046	≤2.5	PASS
				2387~2400	-39.17	≤-16	0.12106	≤25	PASS
				2483.5~2496.5	-20.96	≤-16	8.01678	≤25	PASS
		Ant2	2442	2496.5~13000	-35.96	≤-26	0.25351	≤2.5	PASS
				30~2387	-46.03	≤-26	0.02495	≤2.5	PASS
				2387~2400	-38.76	≤-16	0.13305	≤25	PASS
		Ant1	2472	2483.5~2496.5	-20.16	≤-16	9.63829	≤25	PASS
				2496.5~13000	-40.18	≤-26	0.09594	≤2.5	PASS

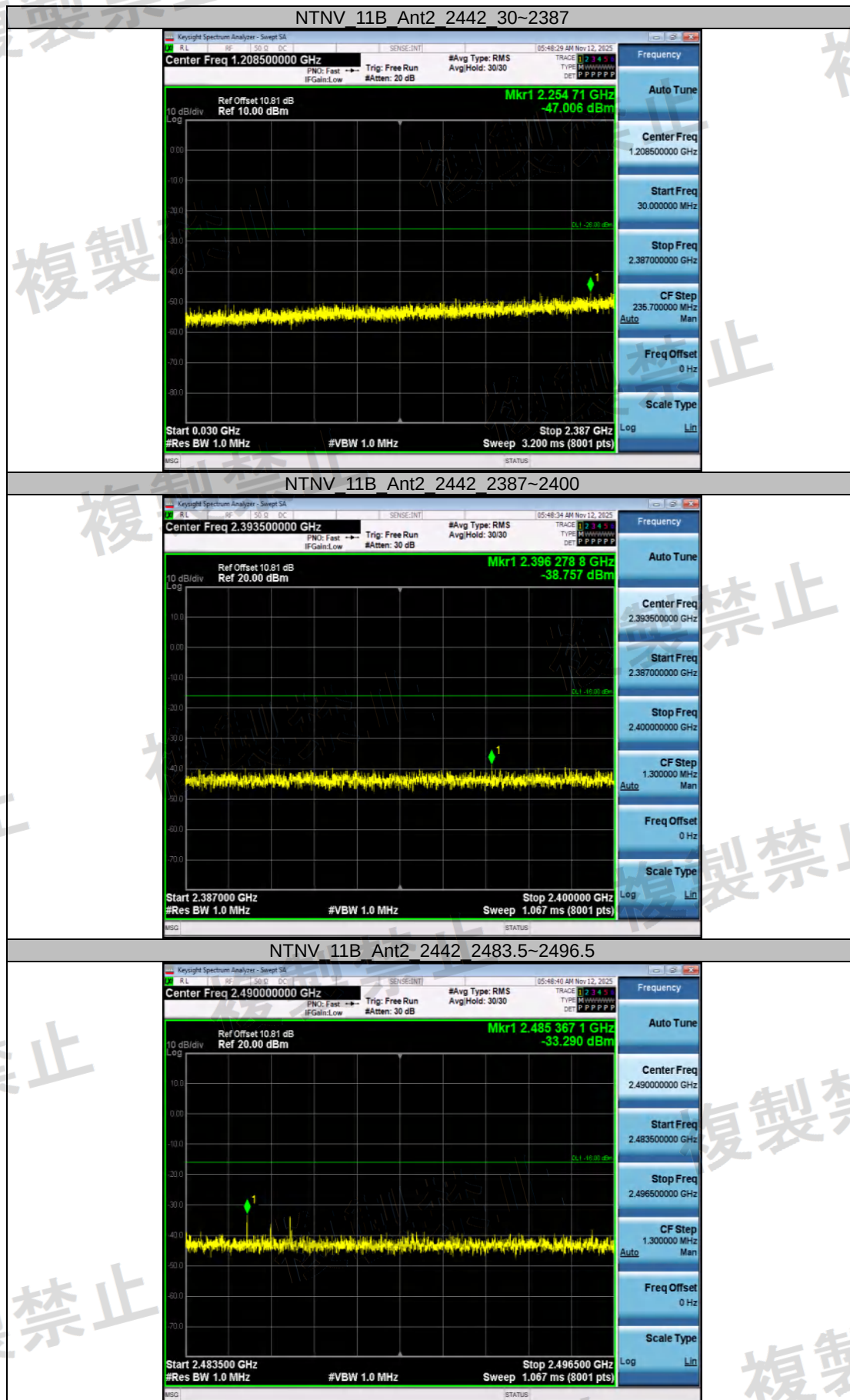
For MIMO mode, since both Ant1&Ant2 have more than 3.01dB margin, MIMO mode can pass.

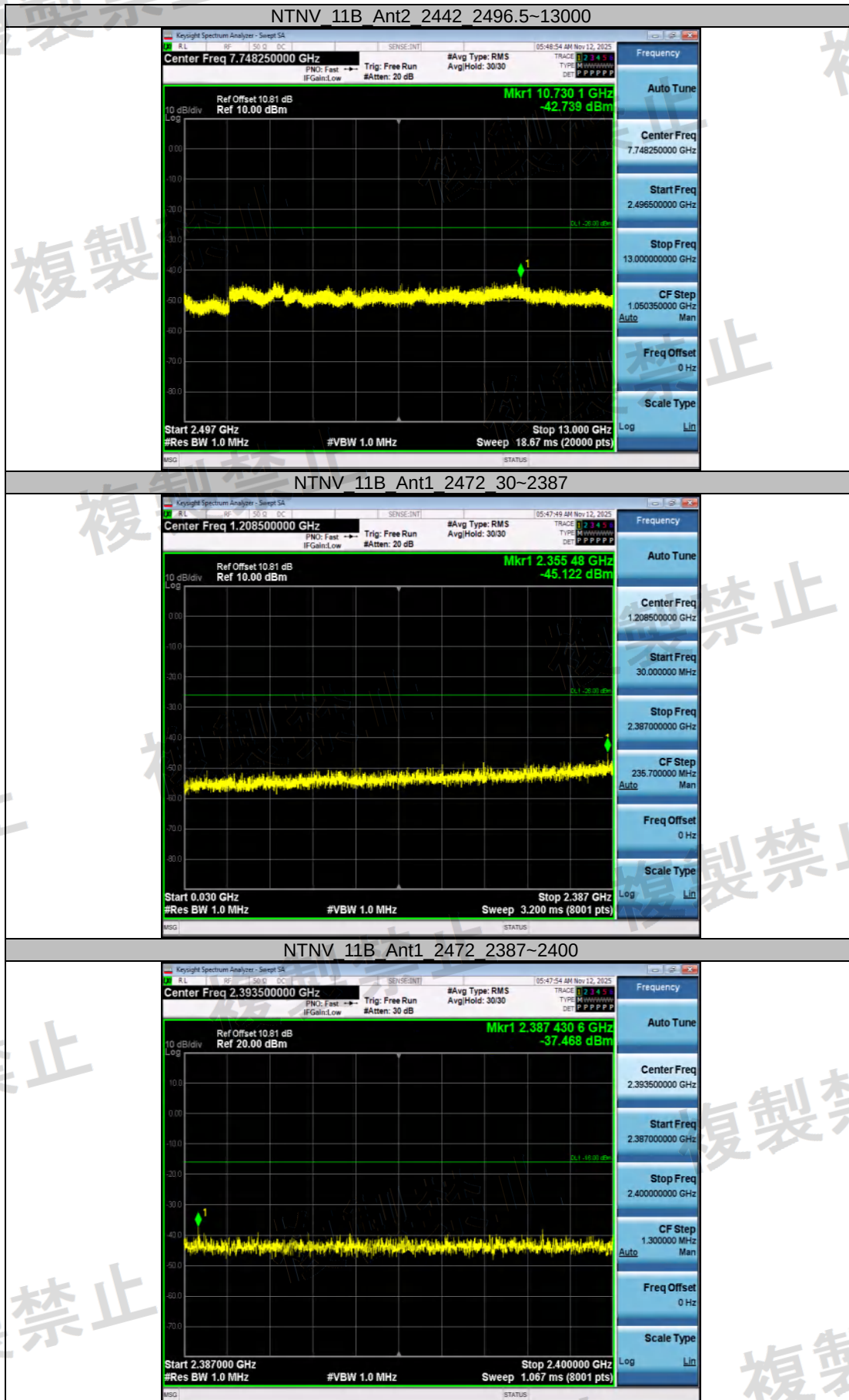


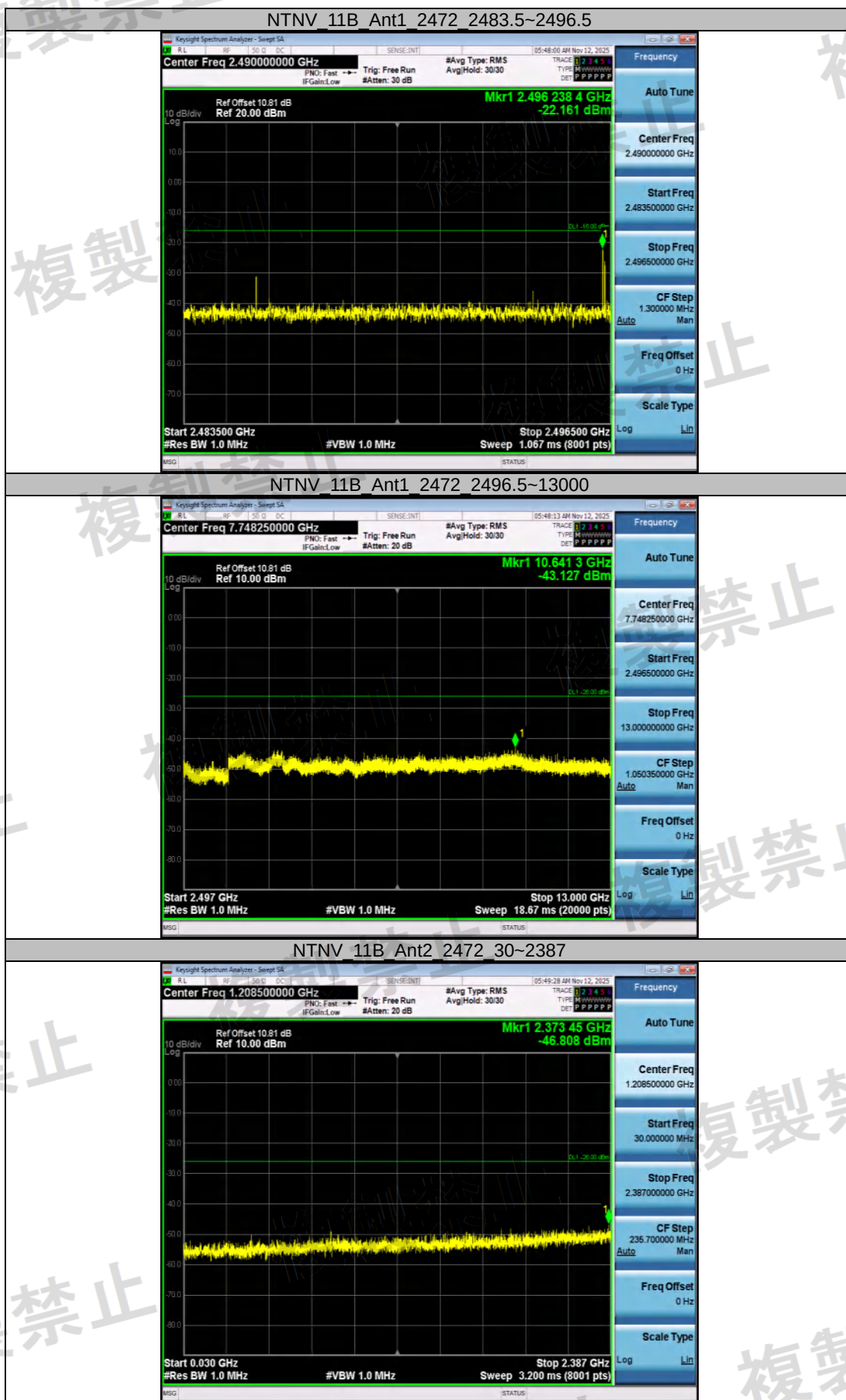


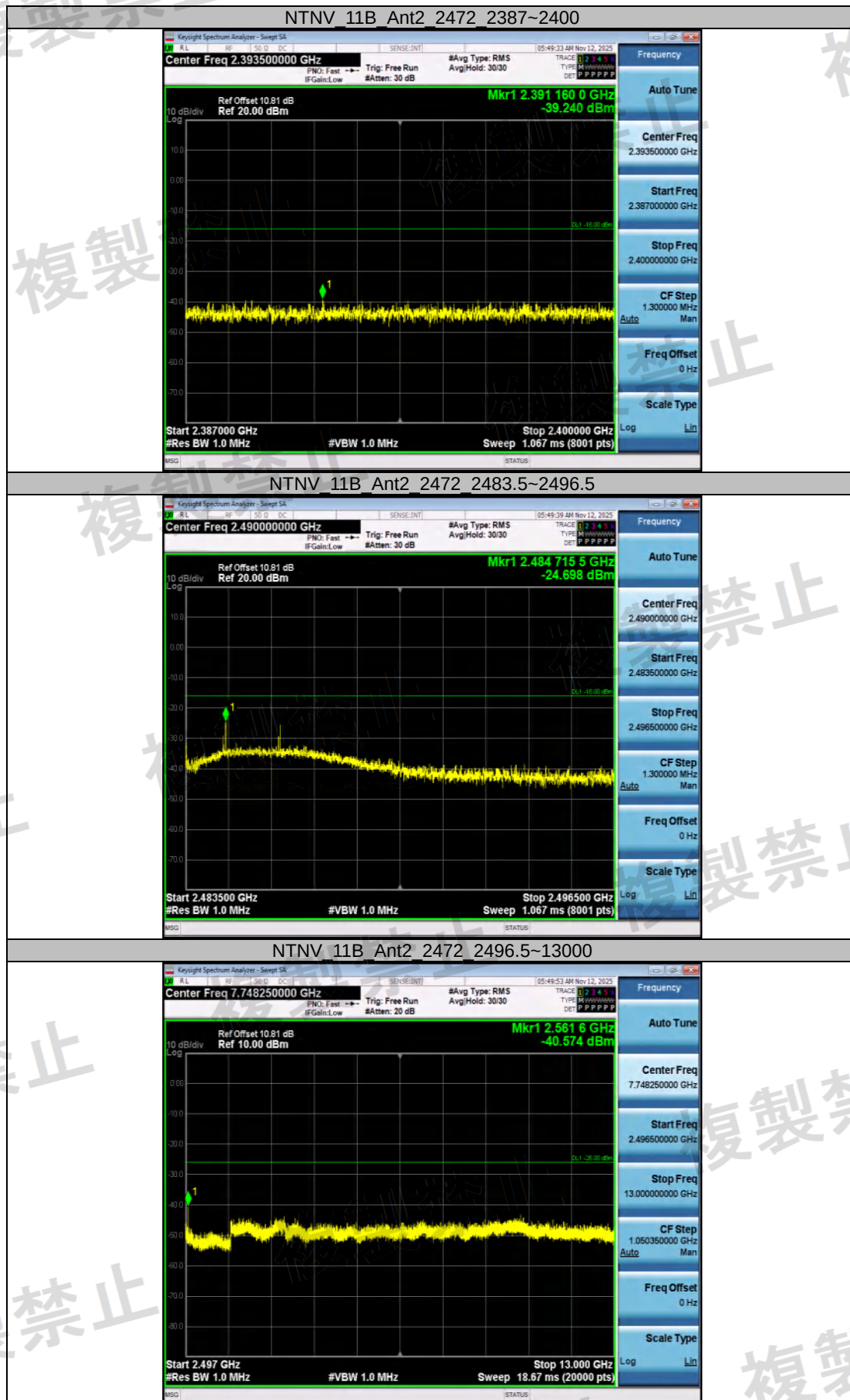


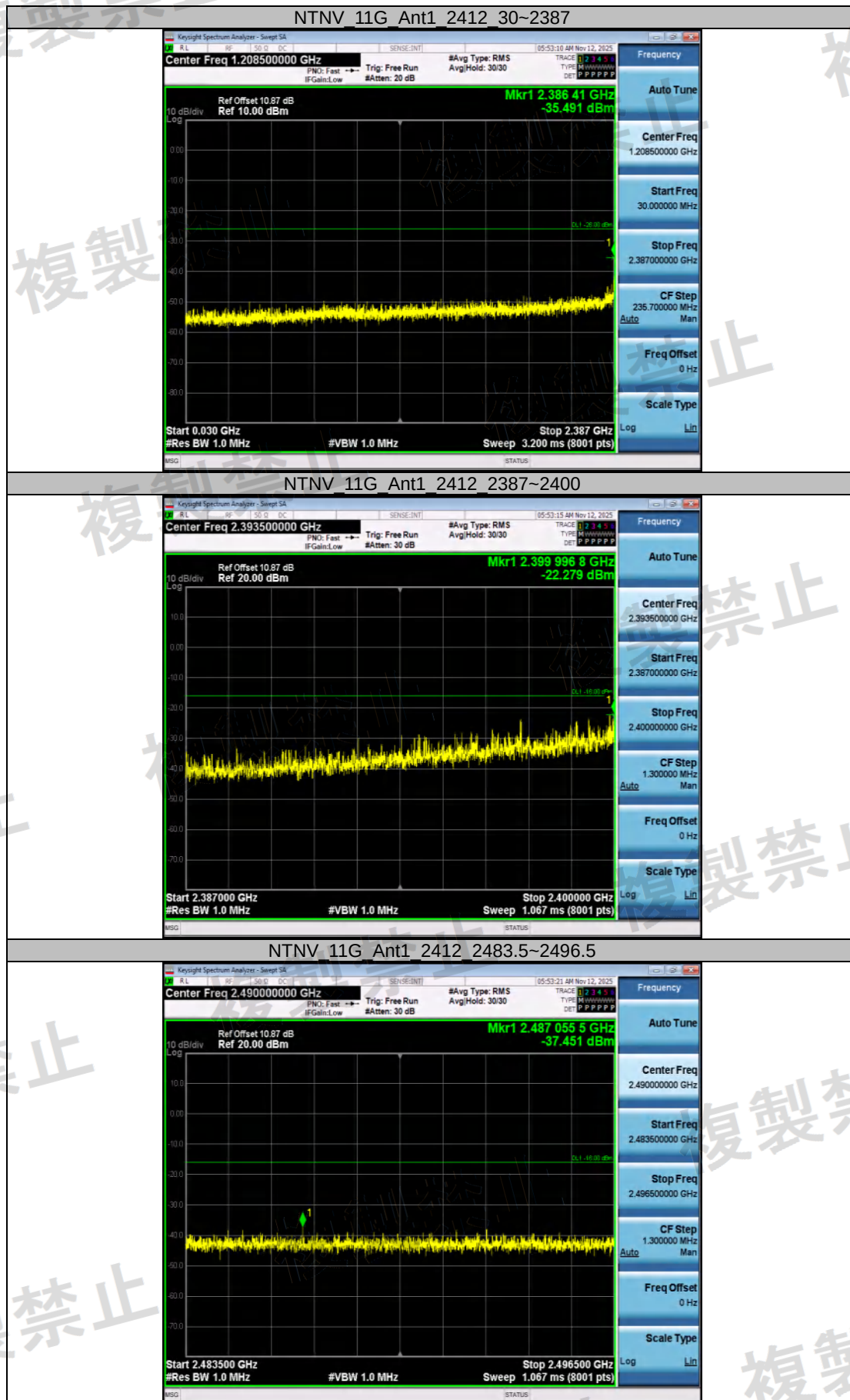


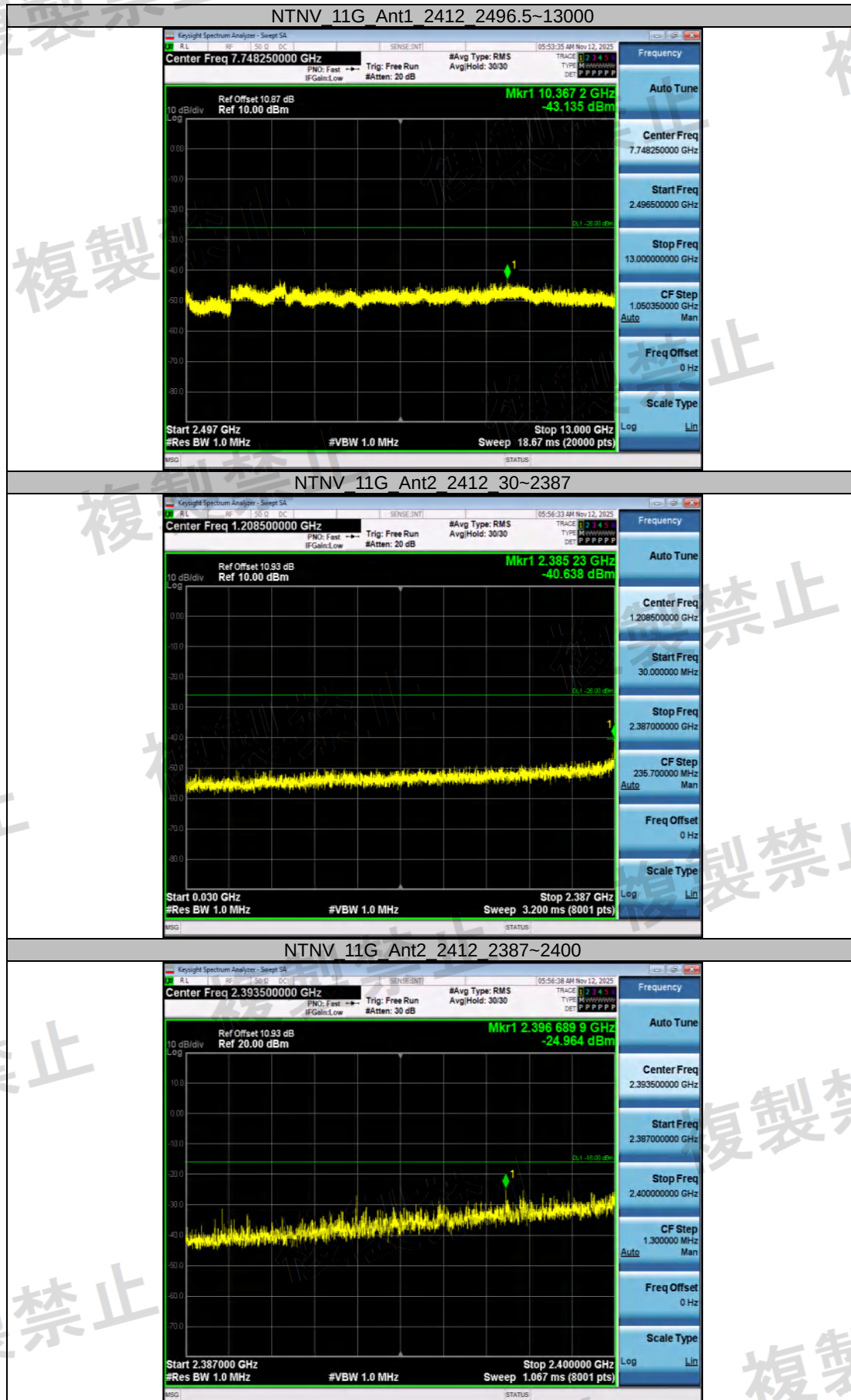


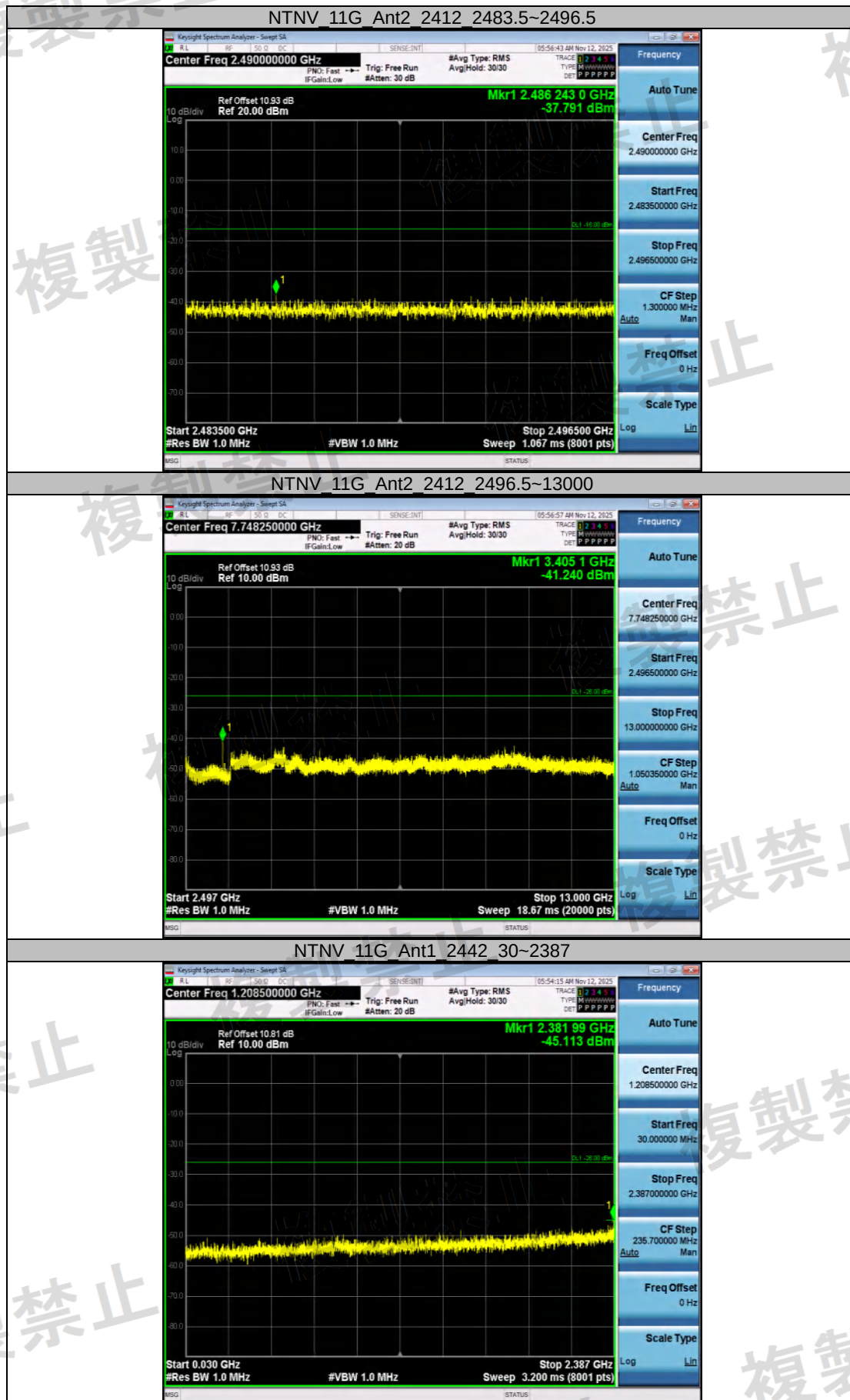




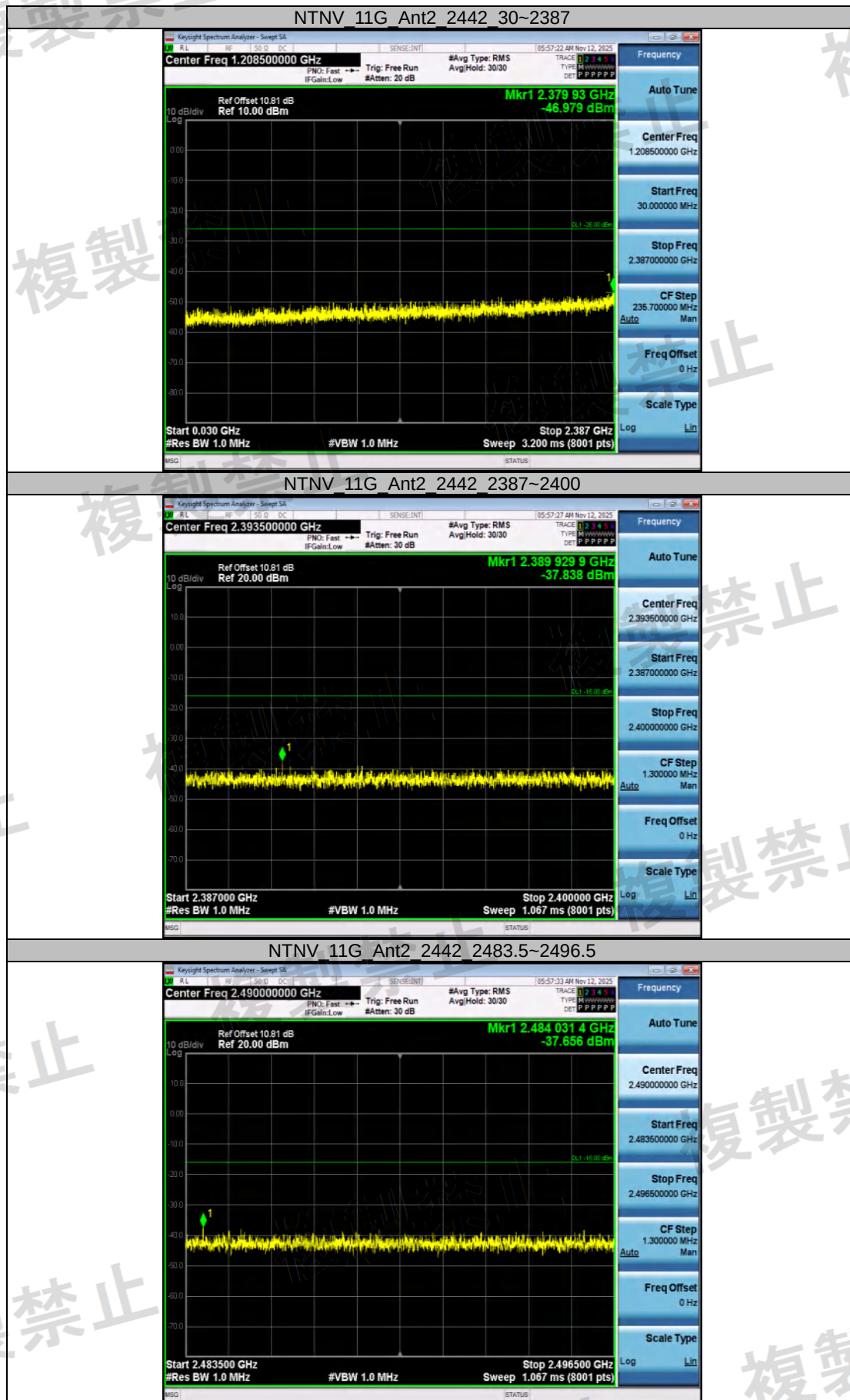


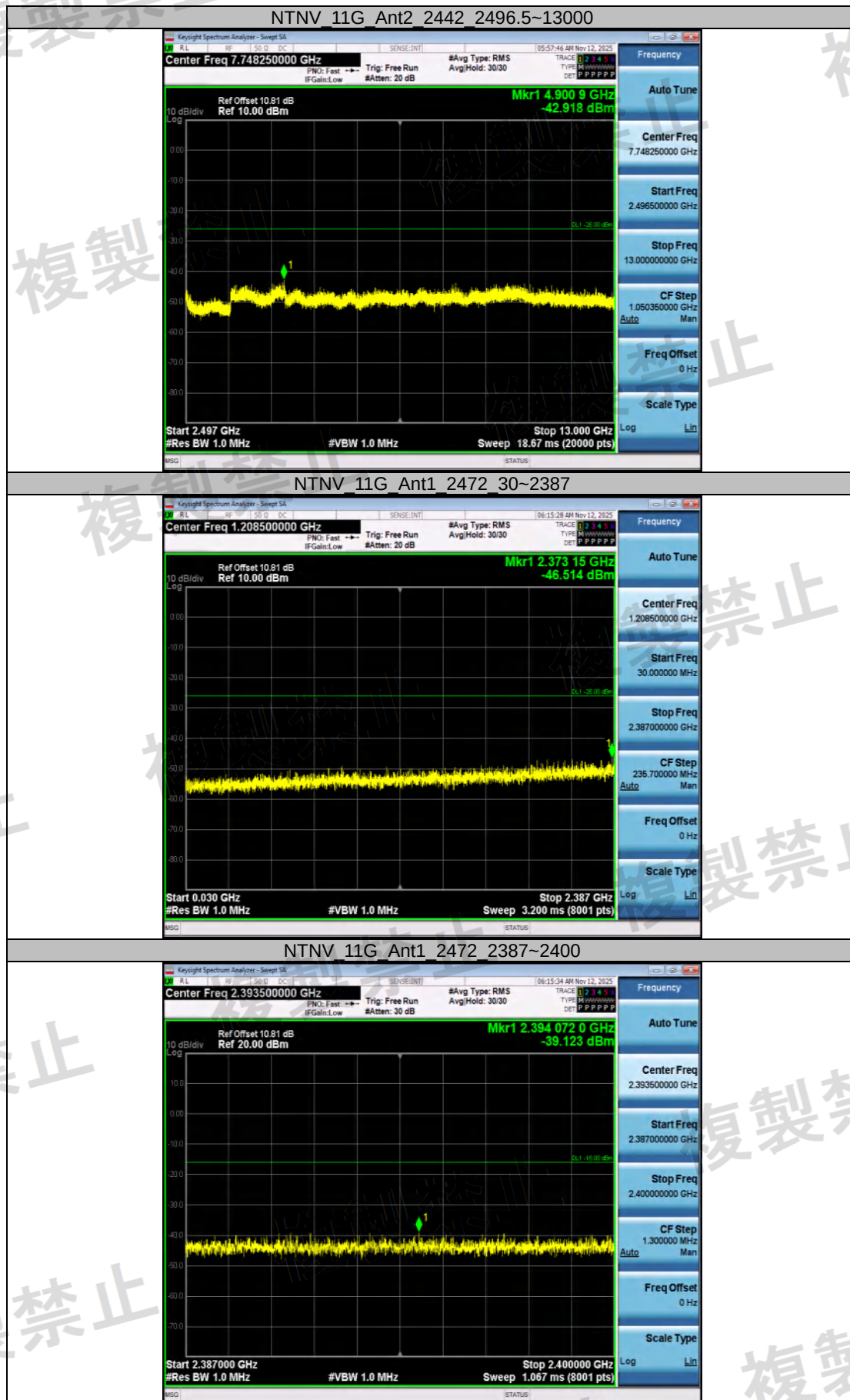


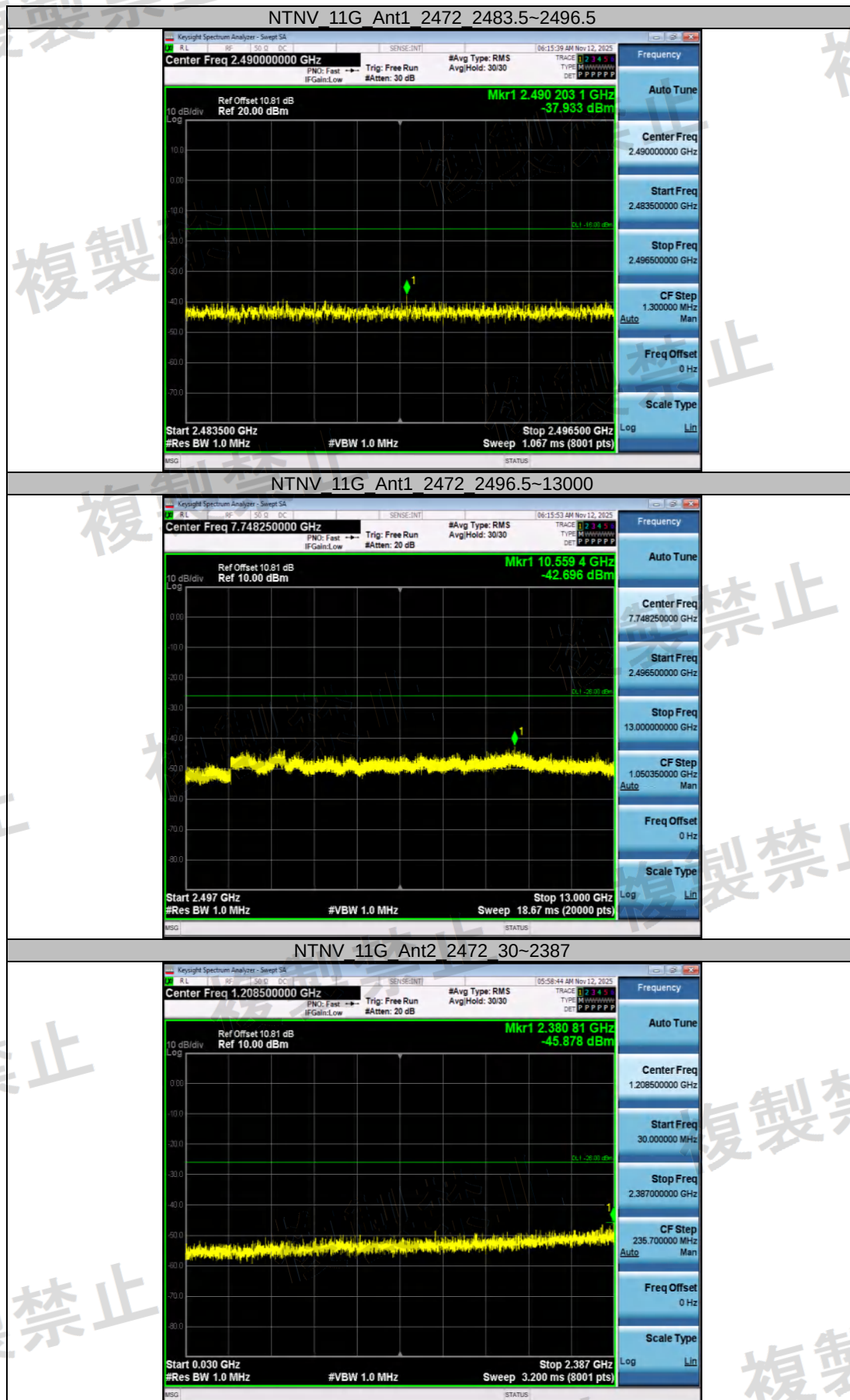


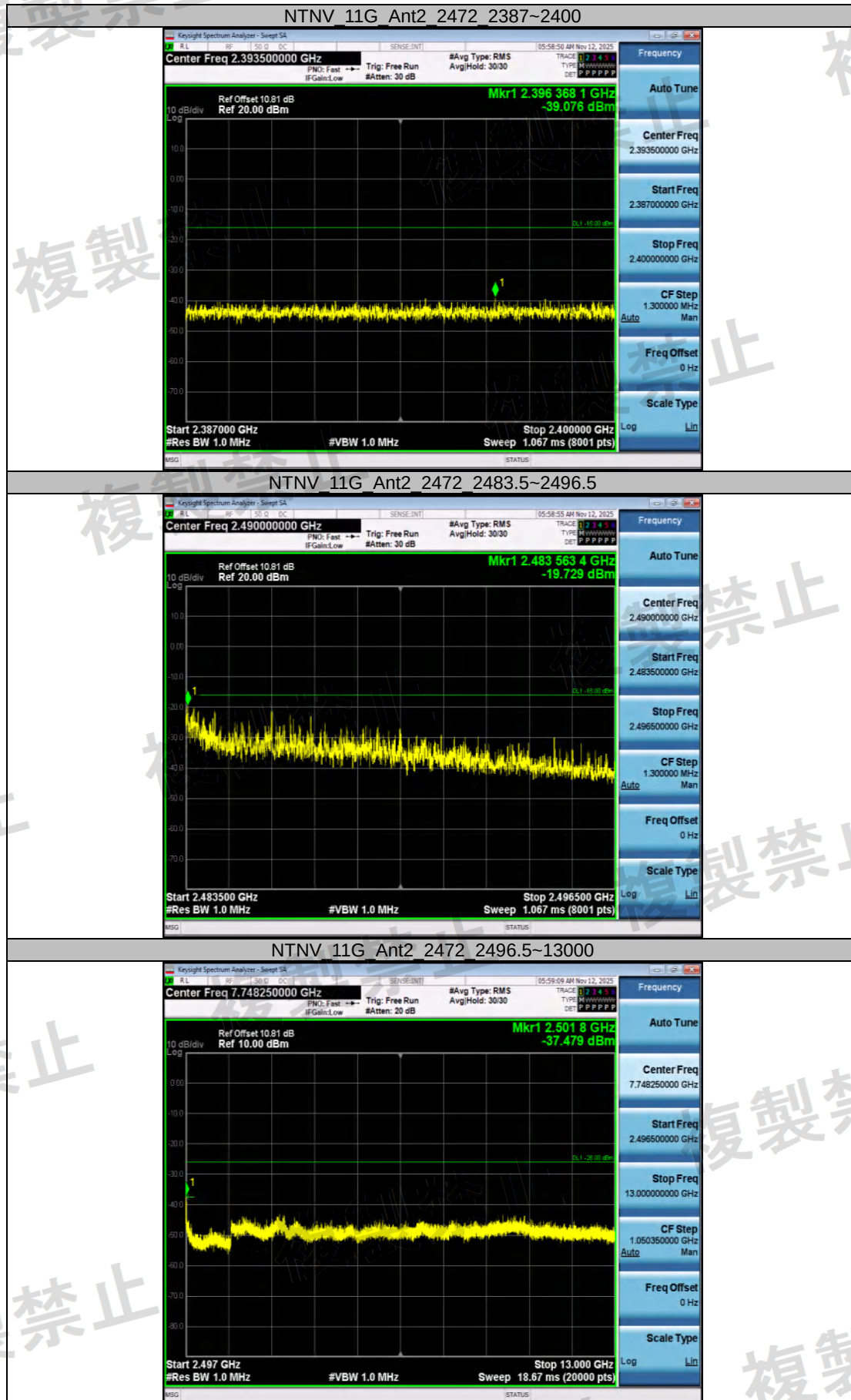


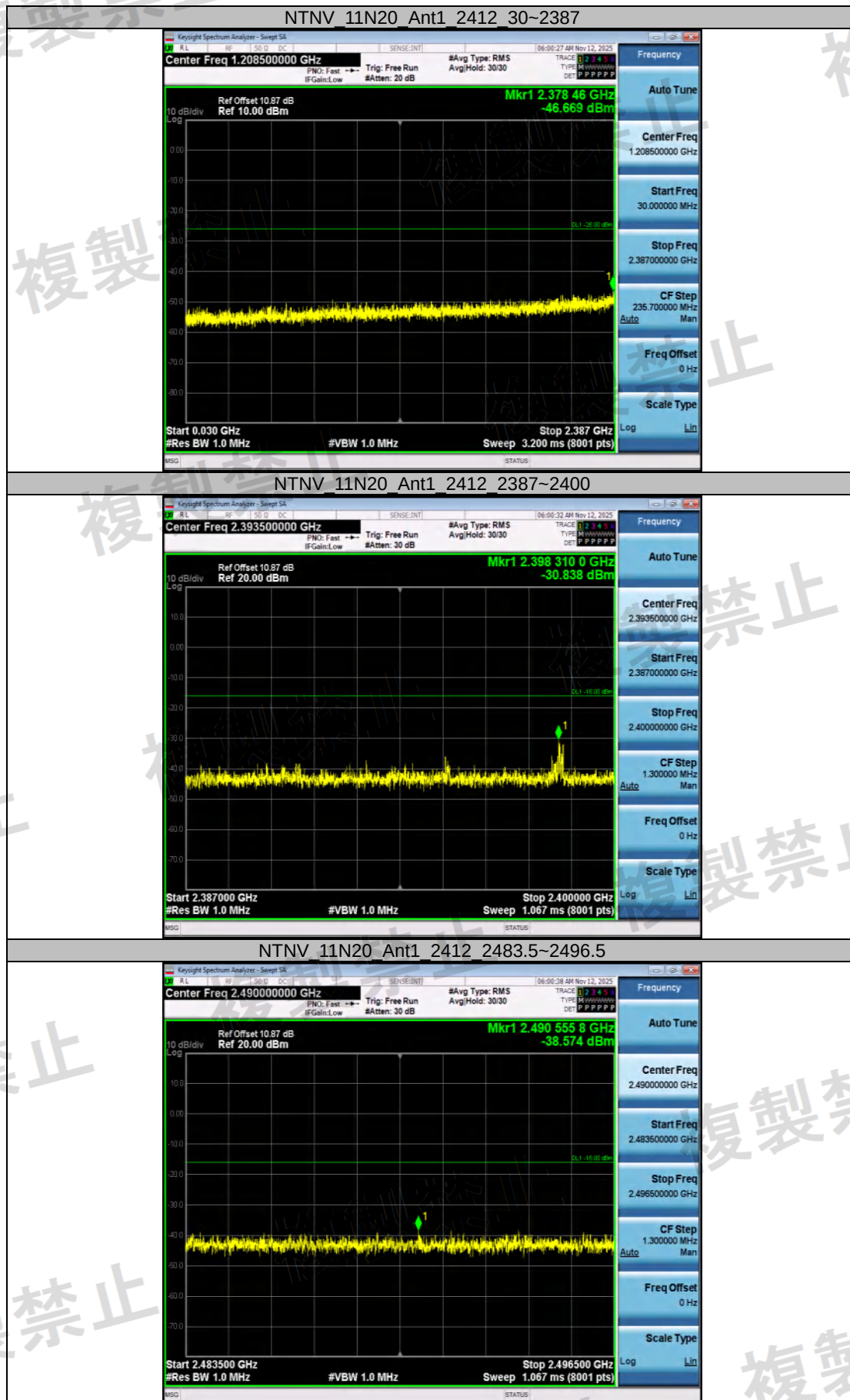


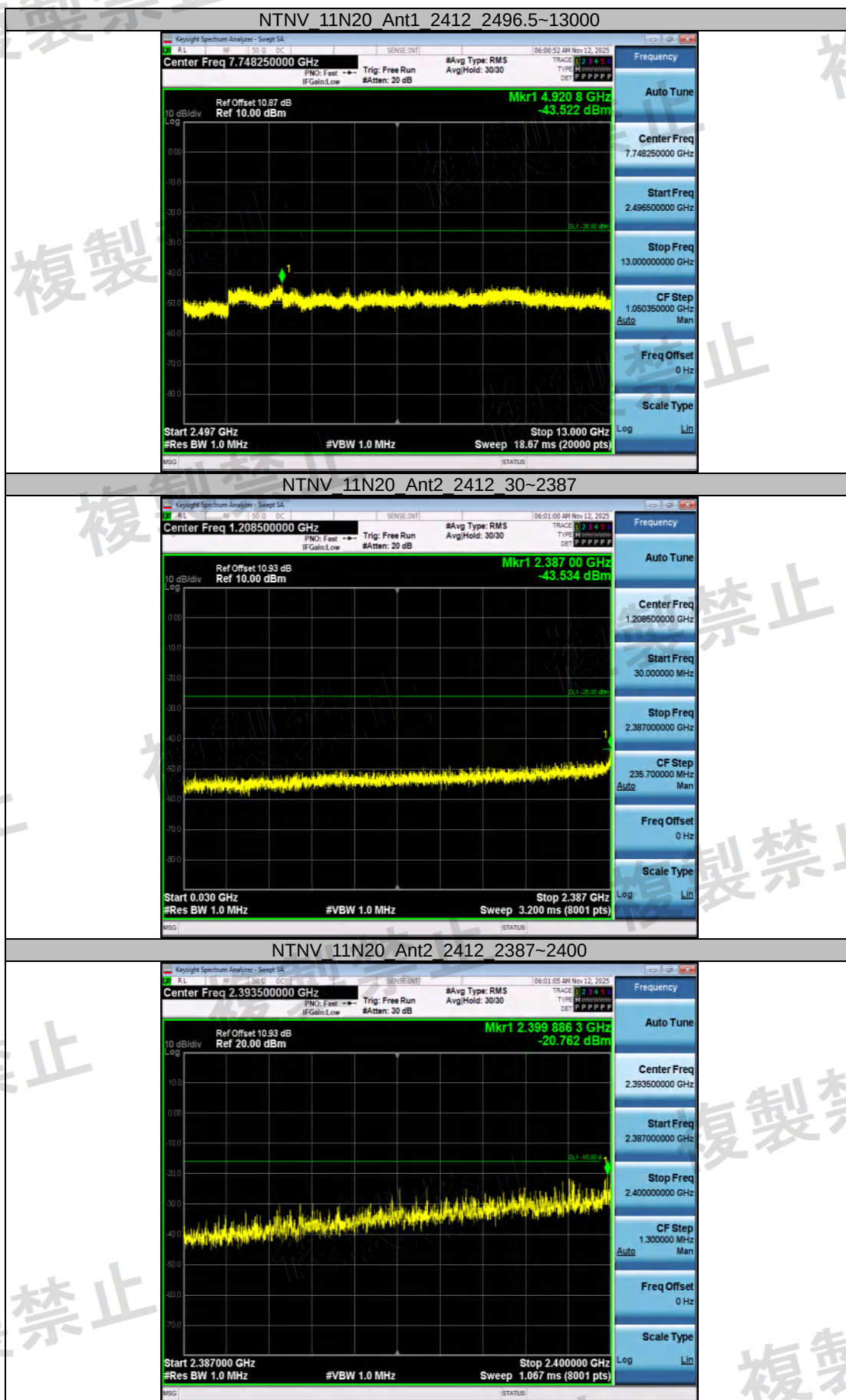


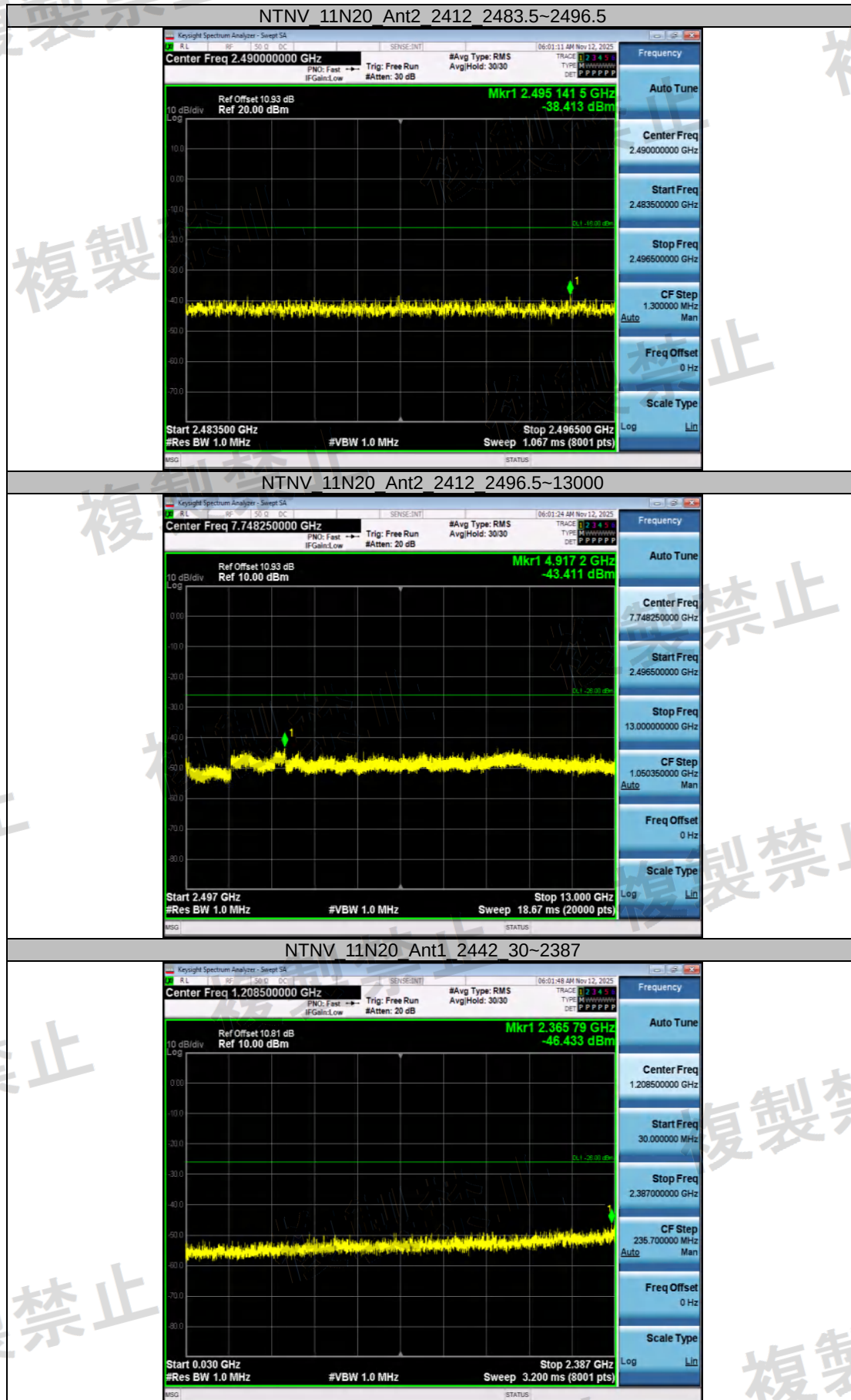


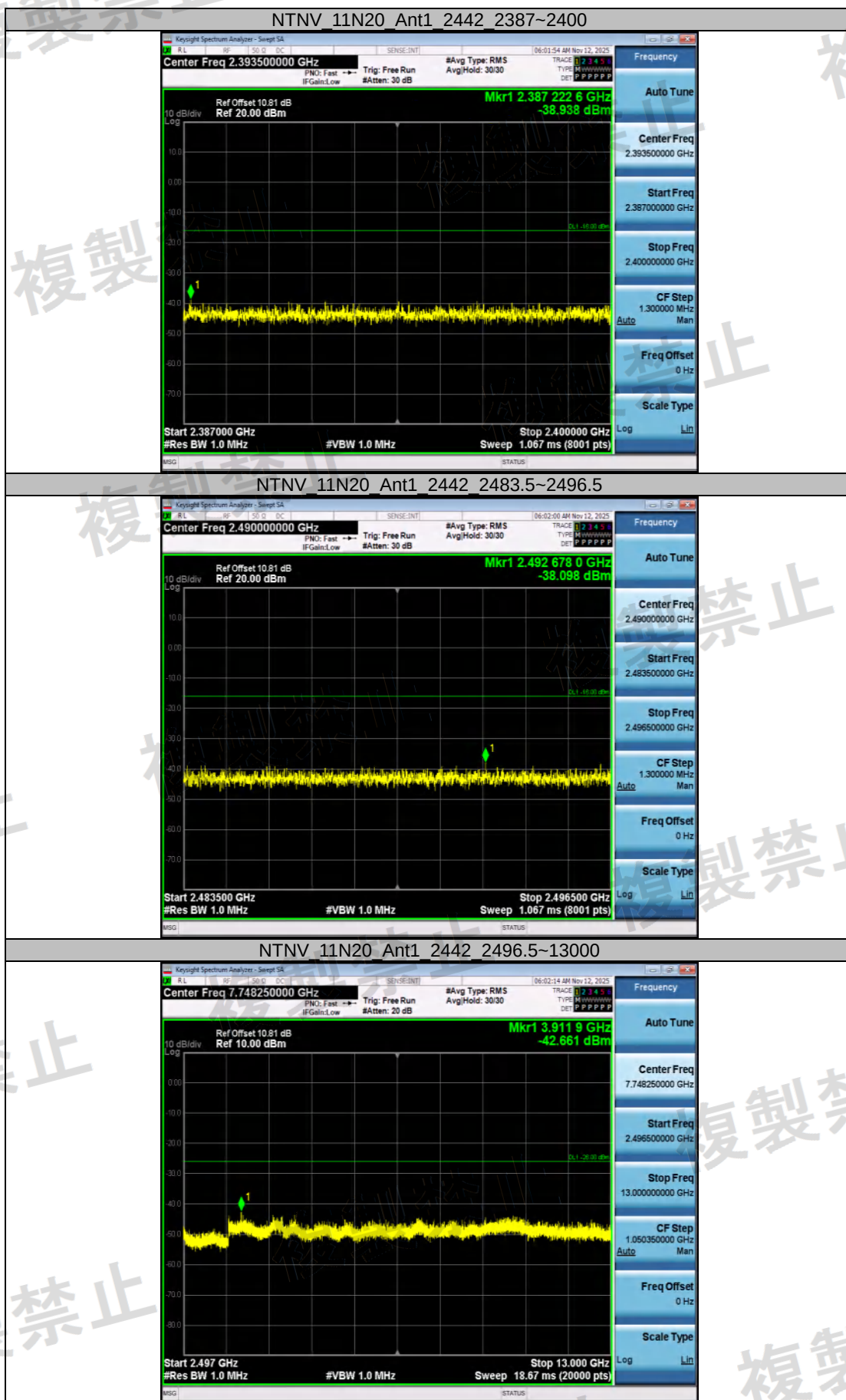


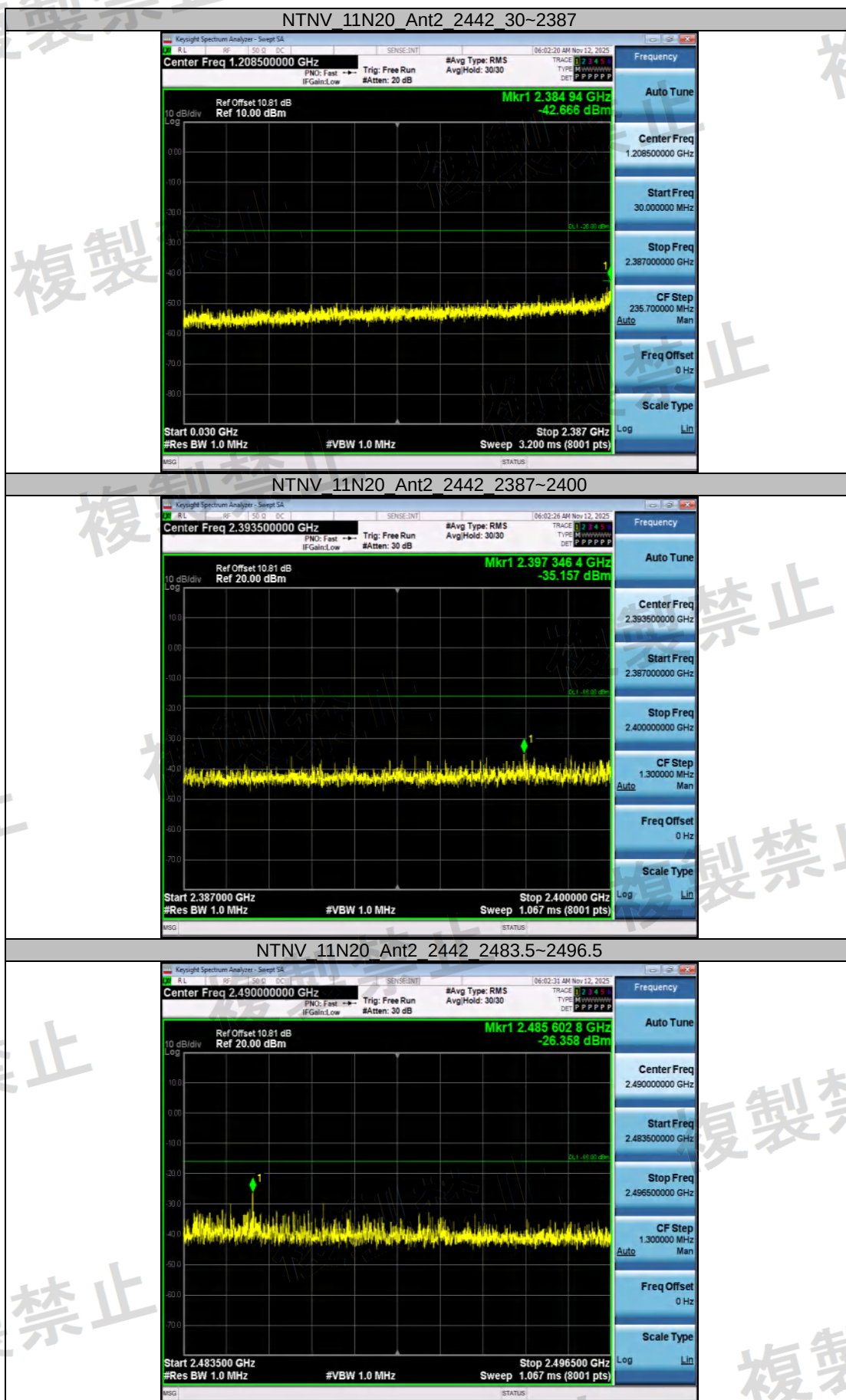


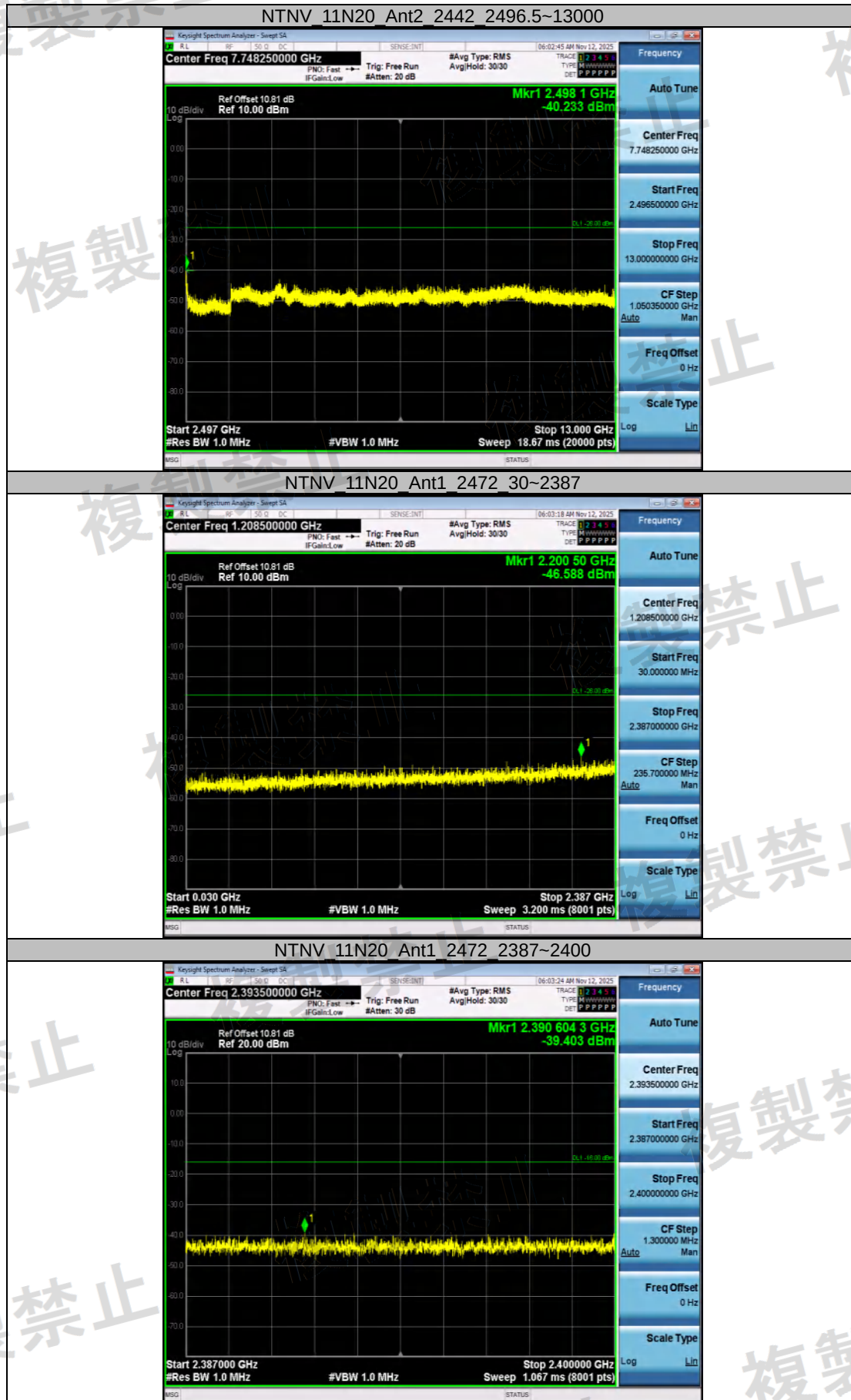


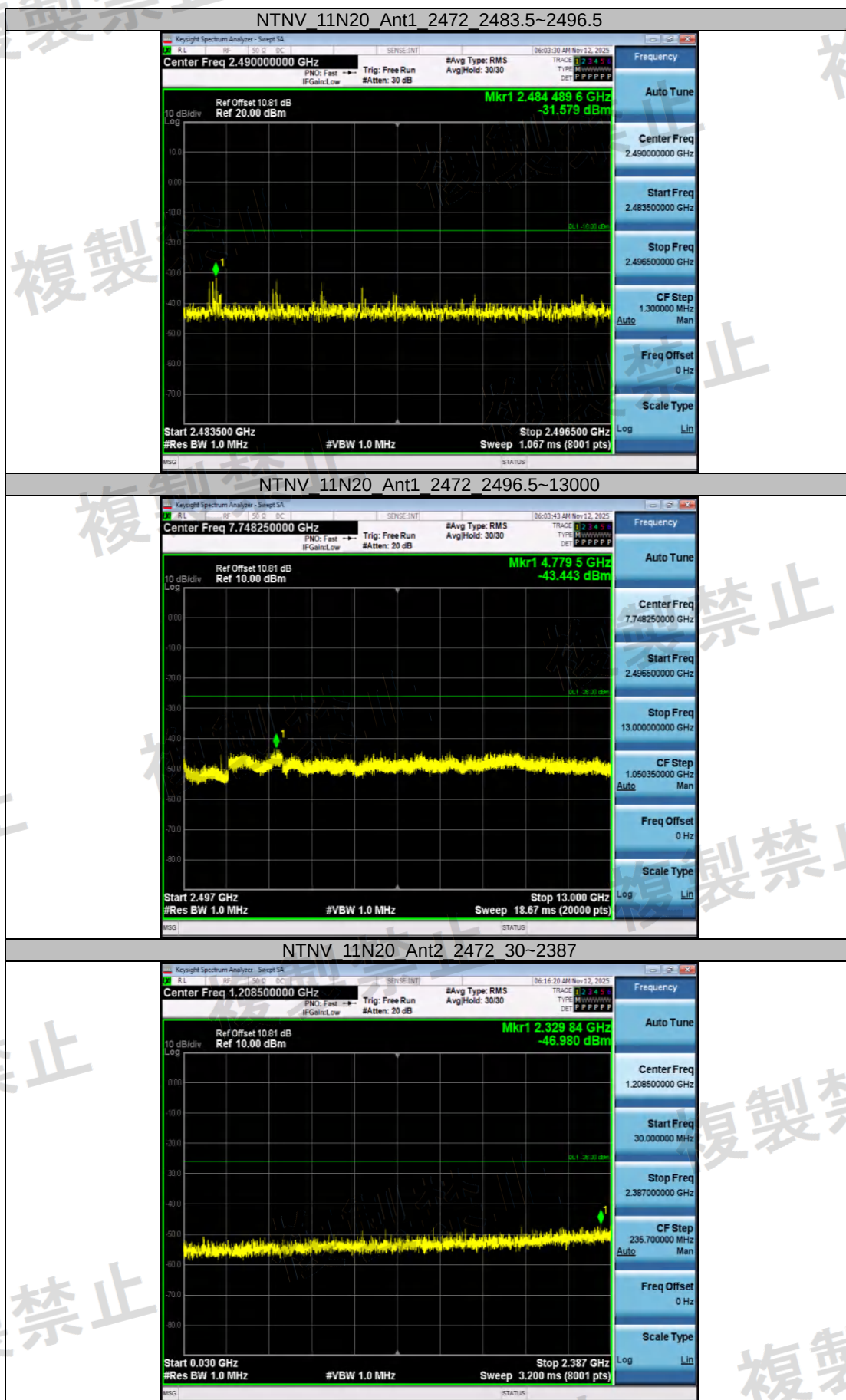




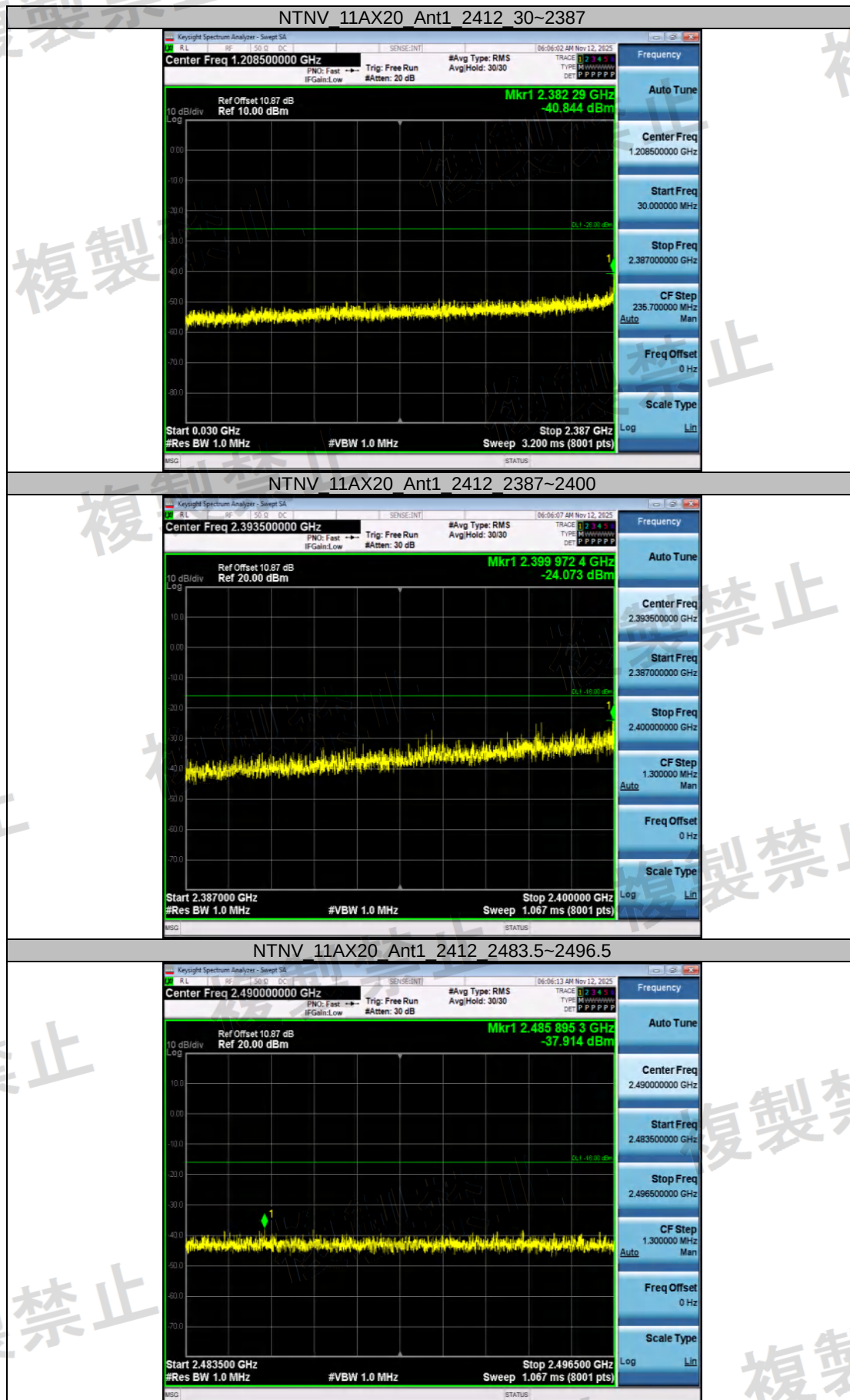


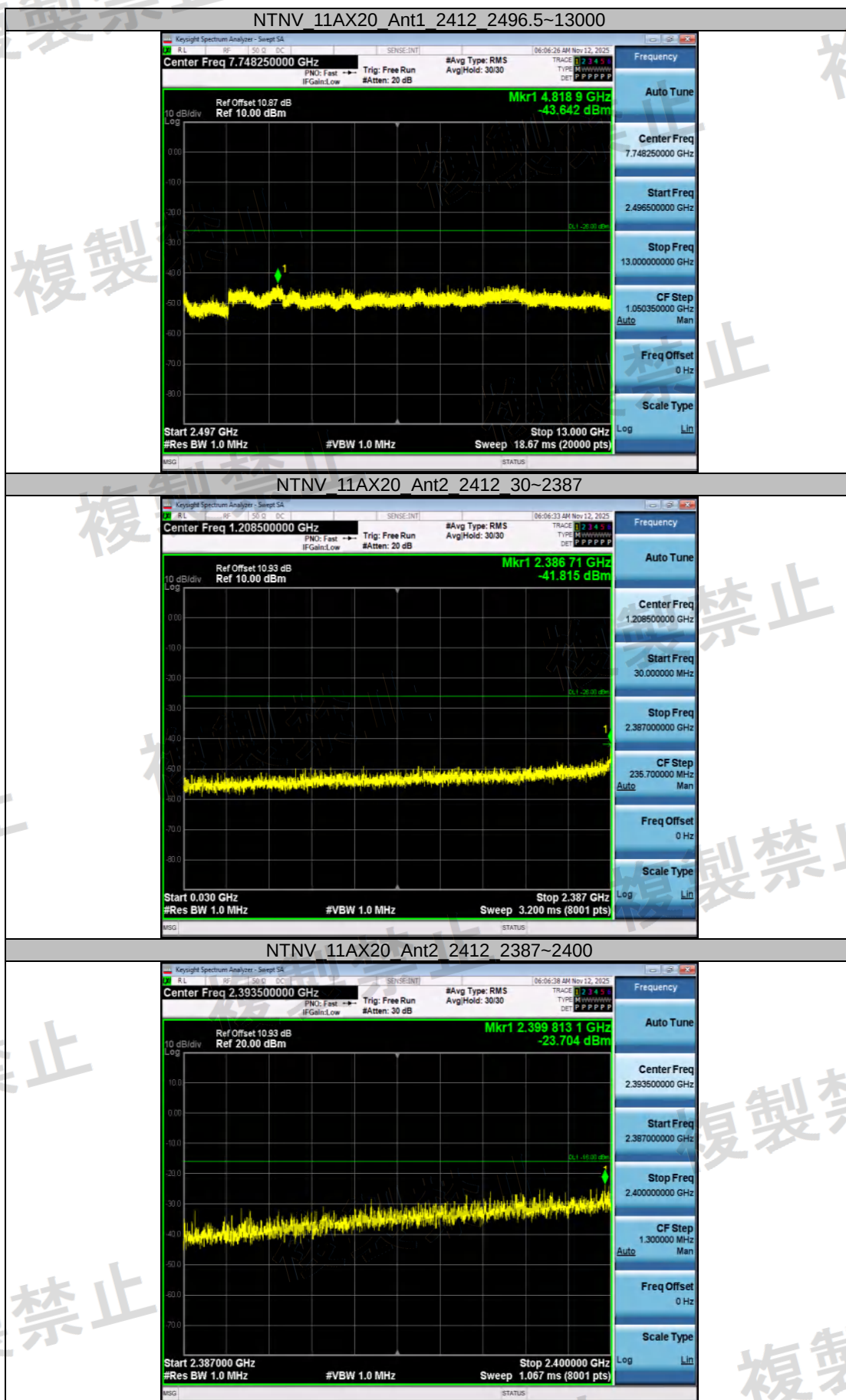


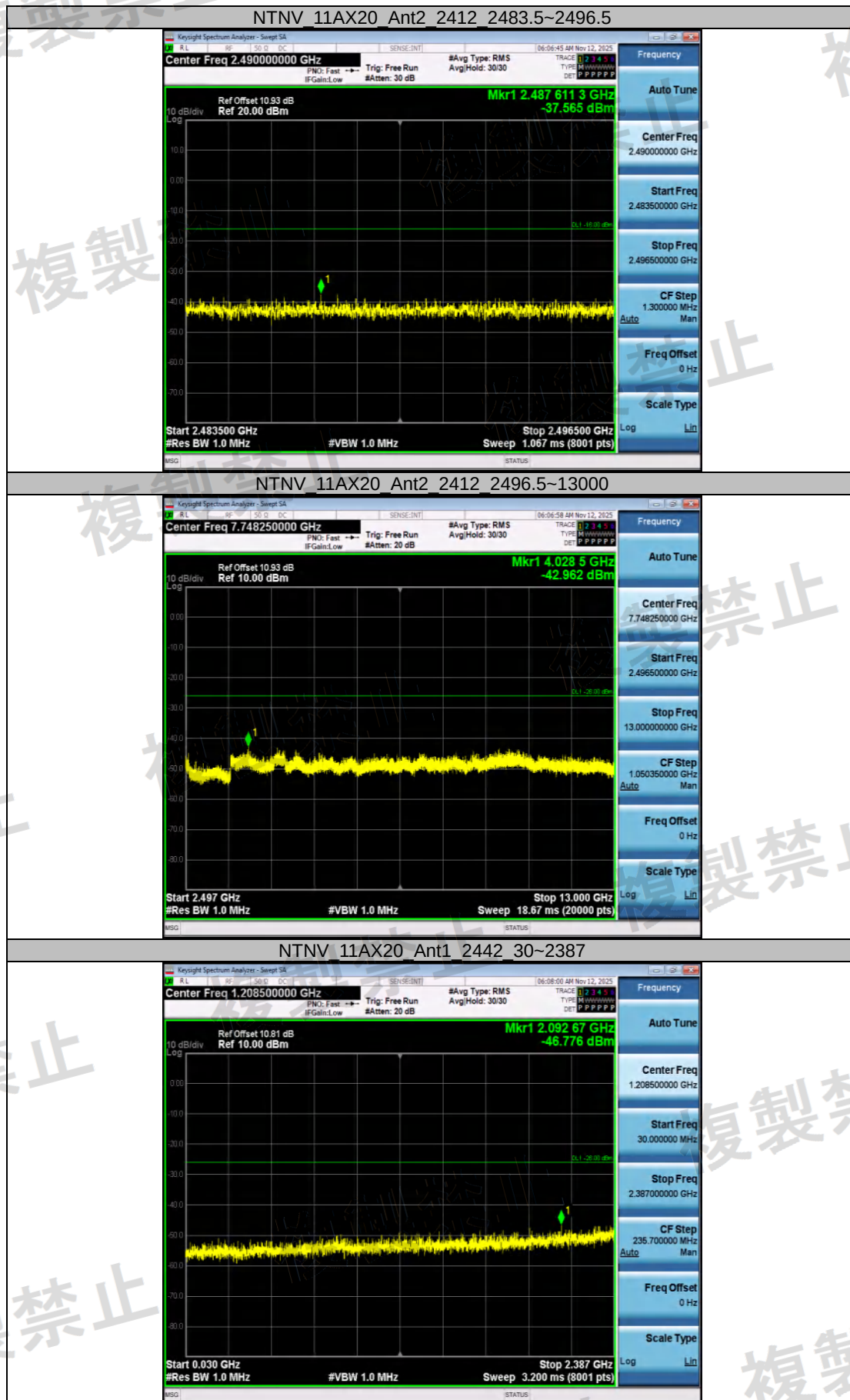


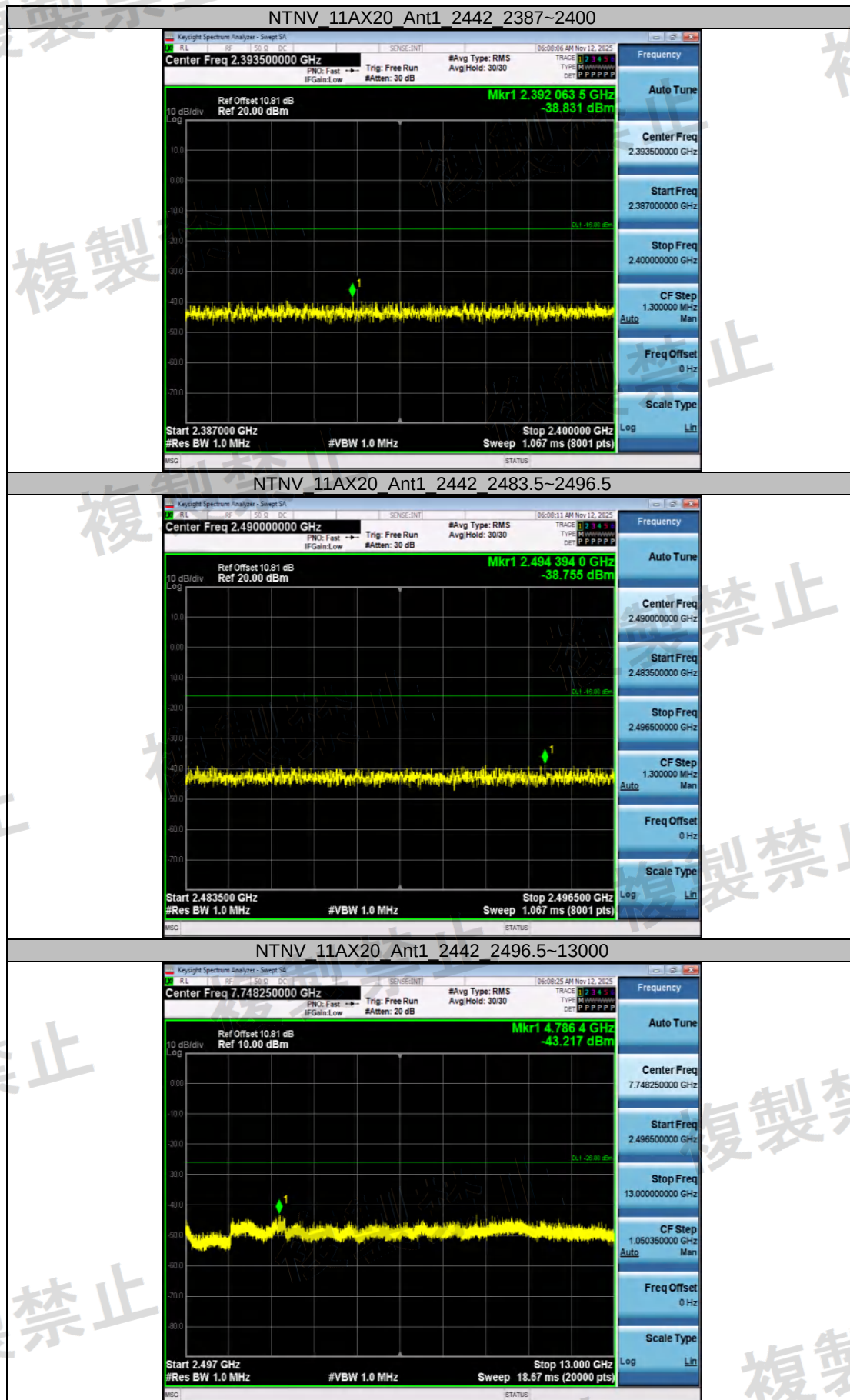




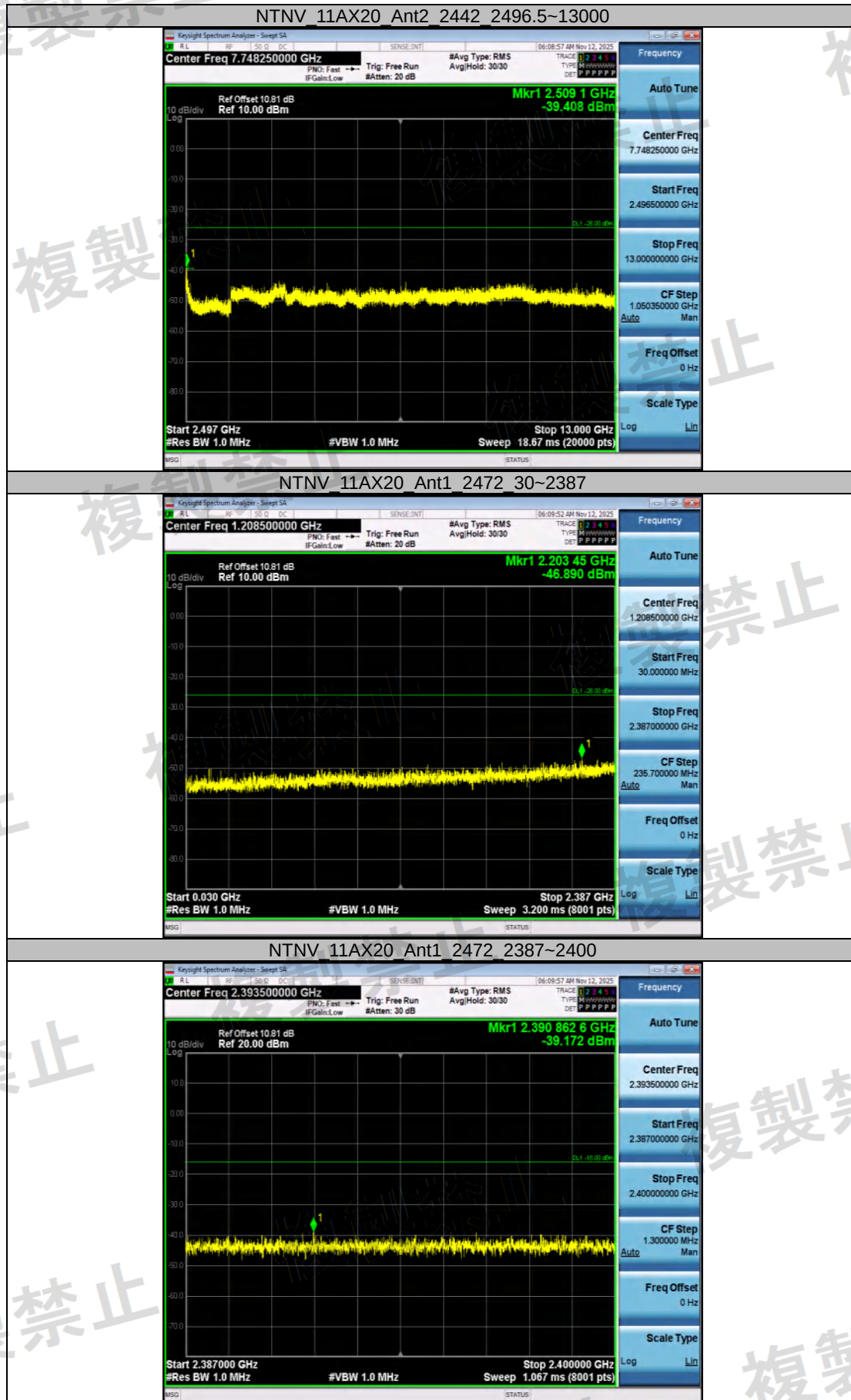


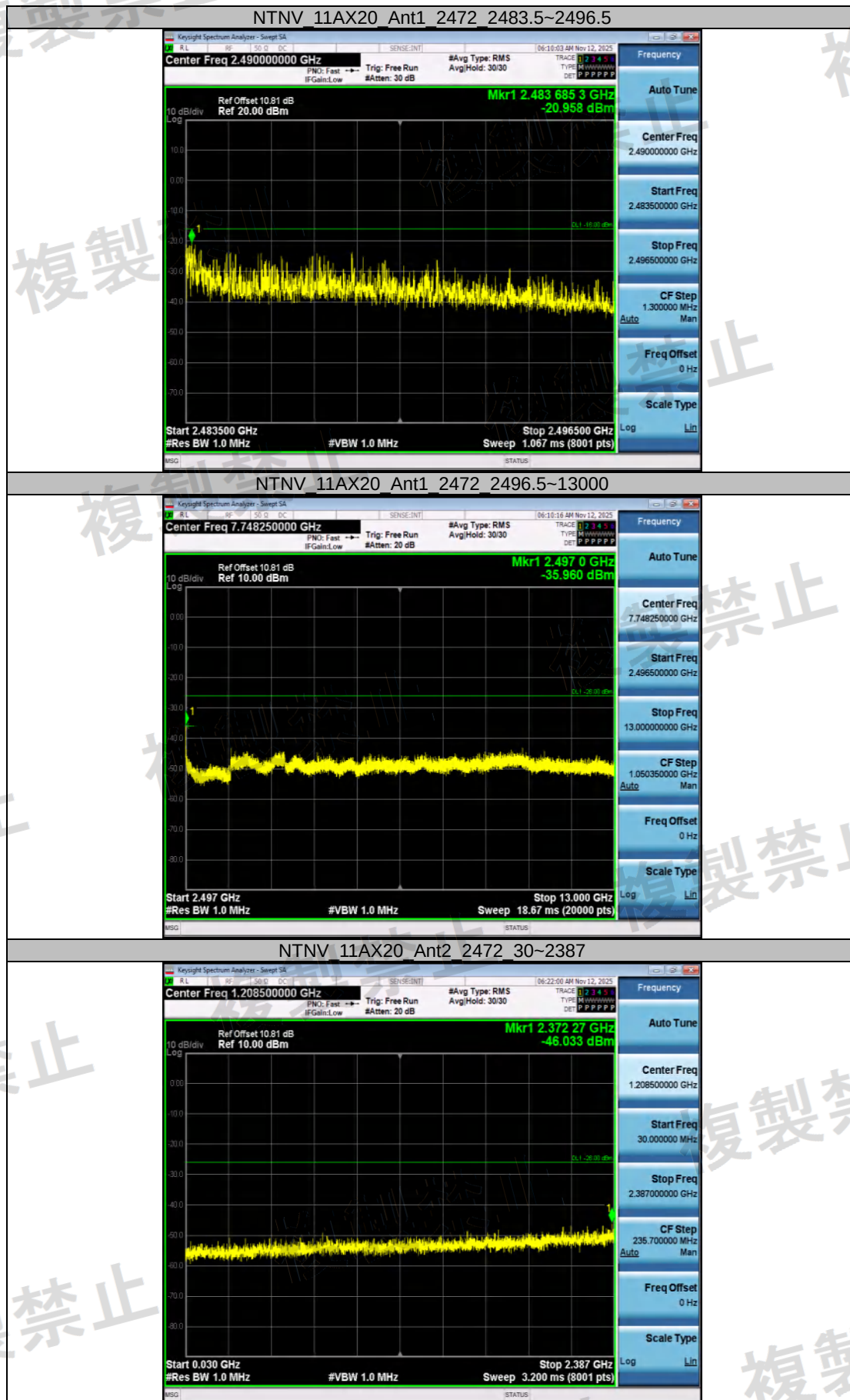


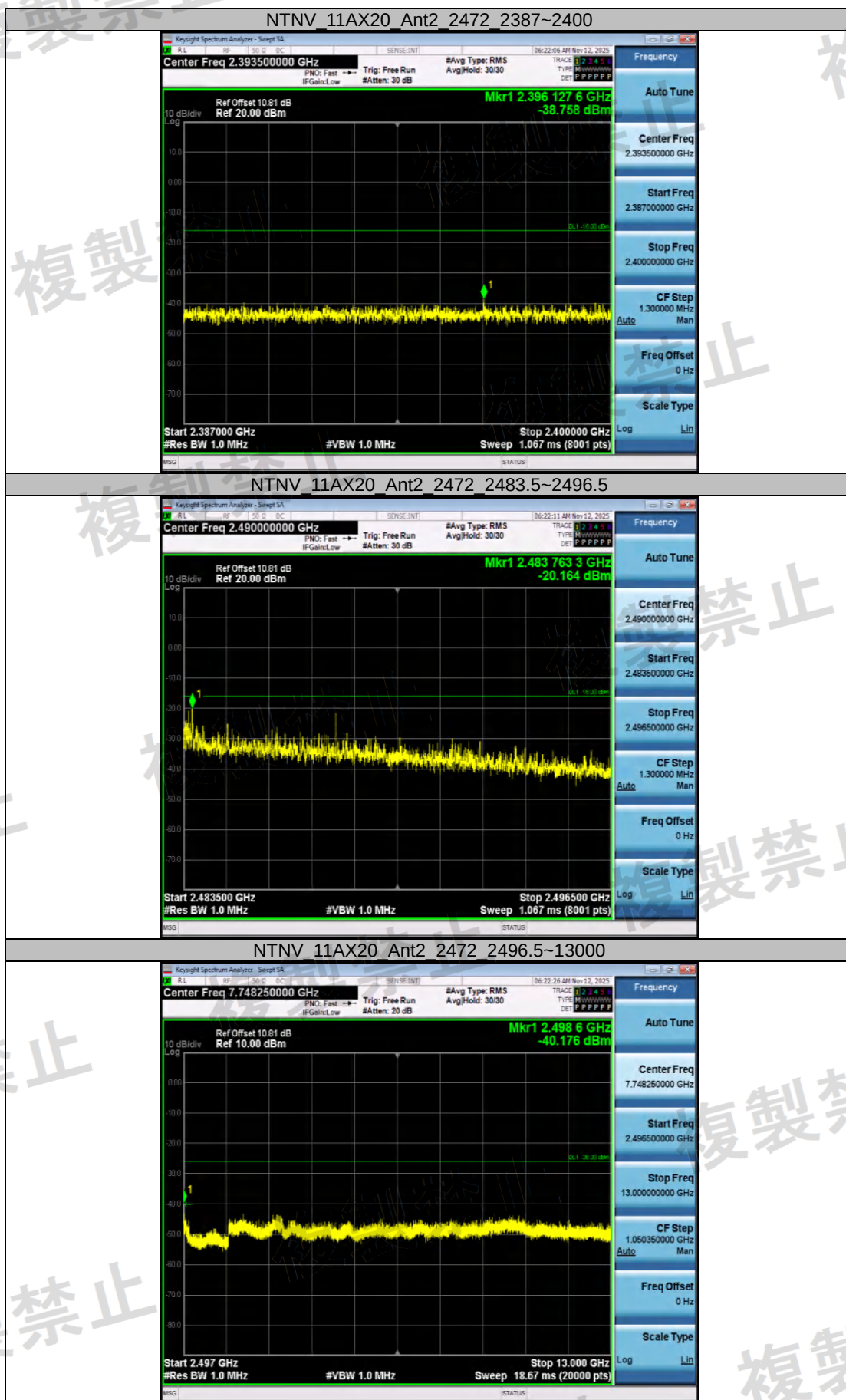










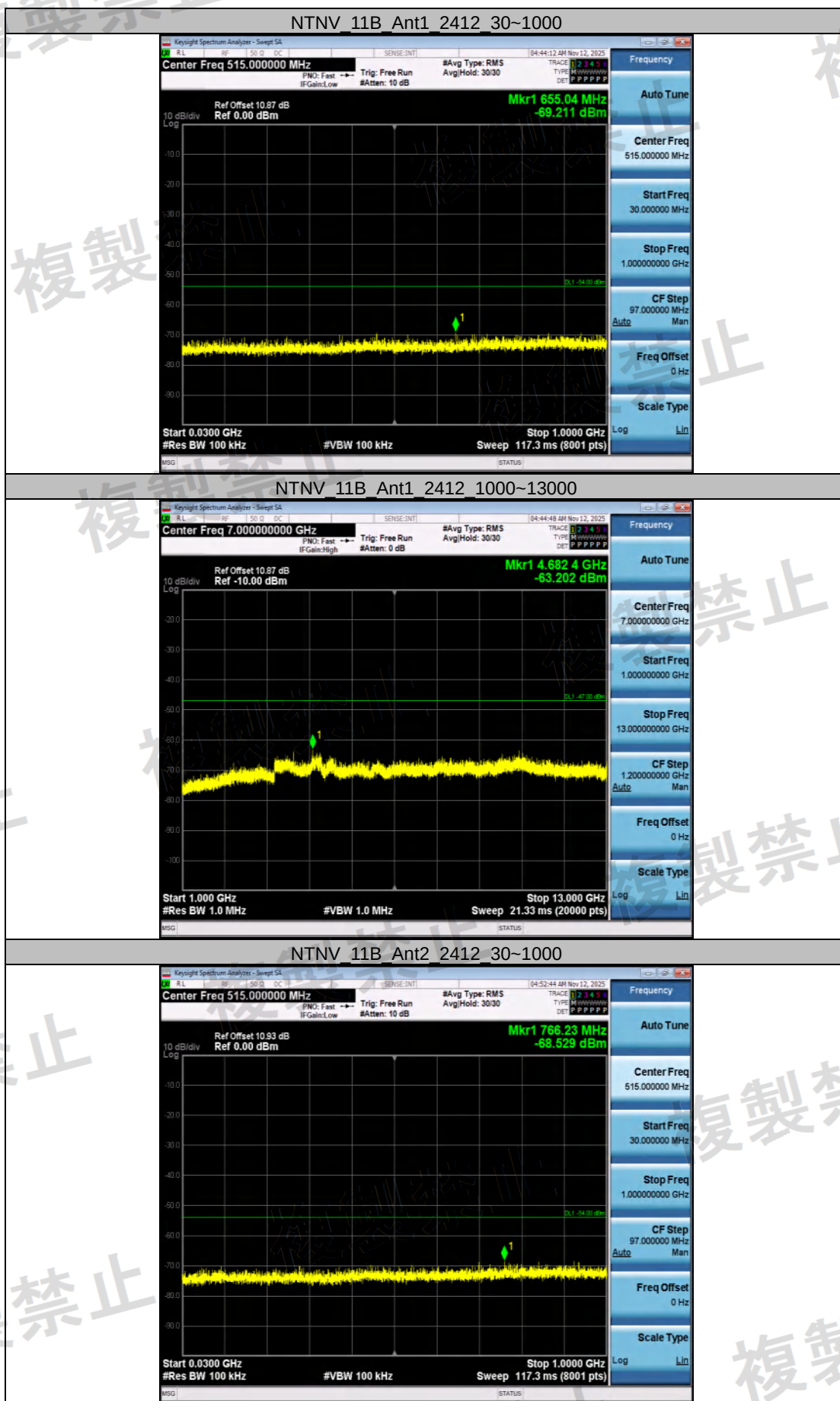


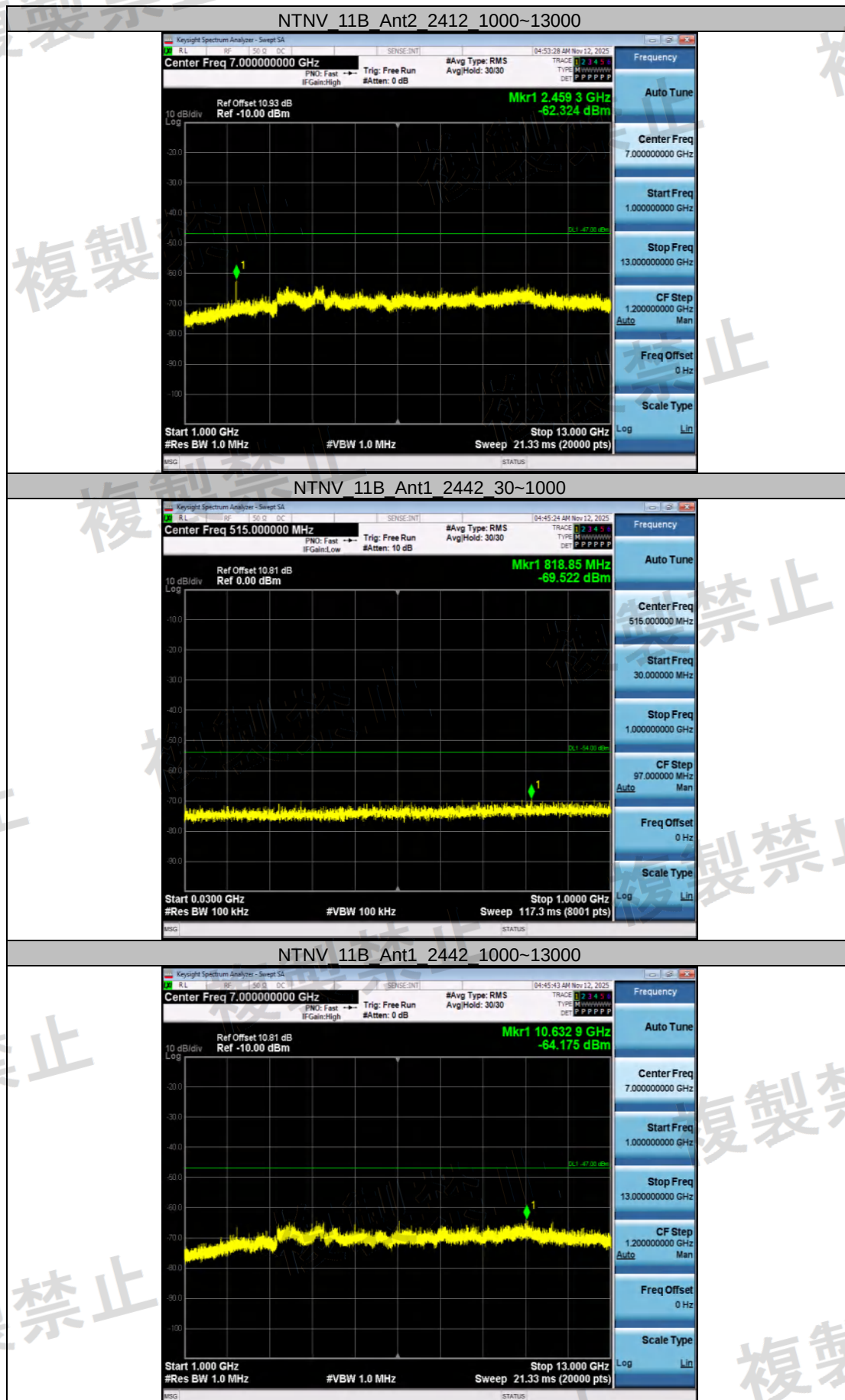
Appendix E: Receiver spurious emissions

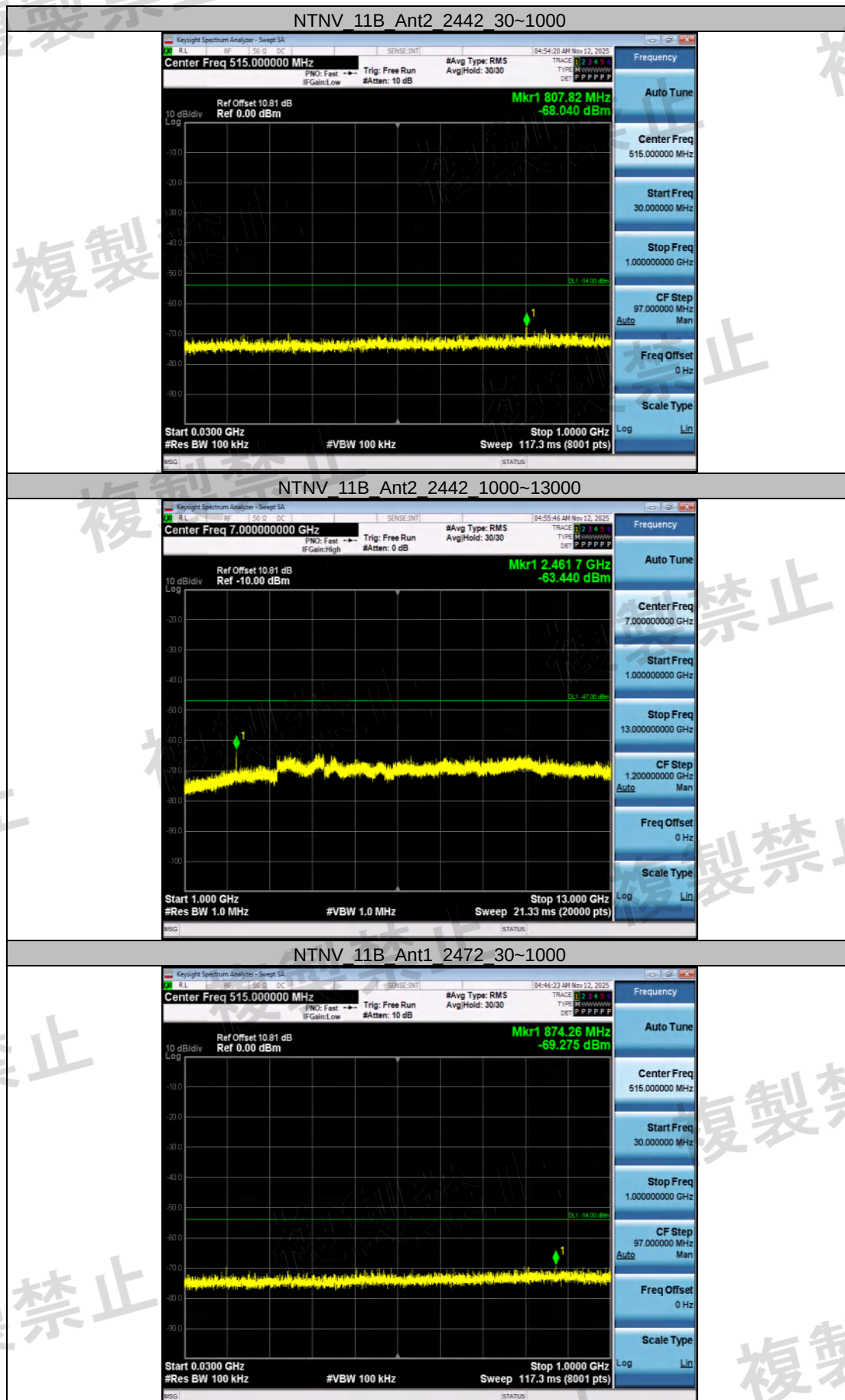
Test Result:

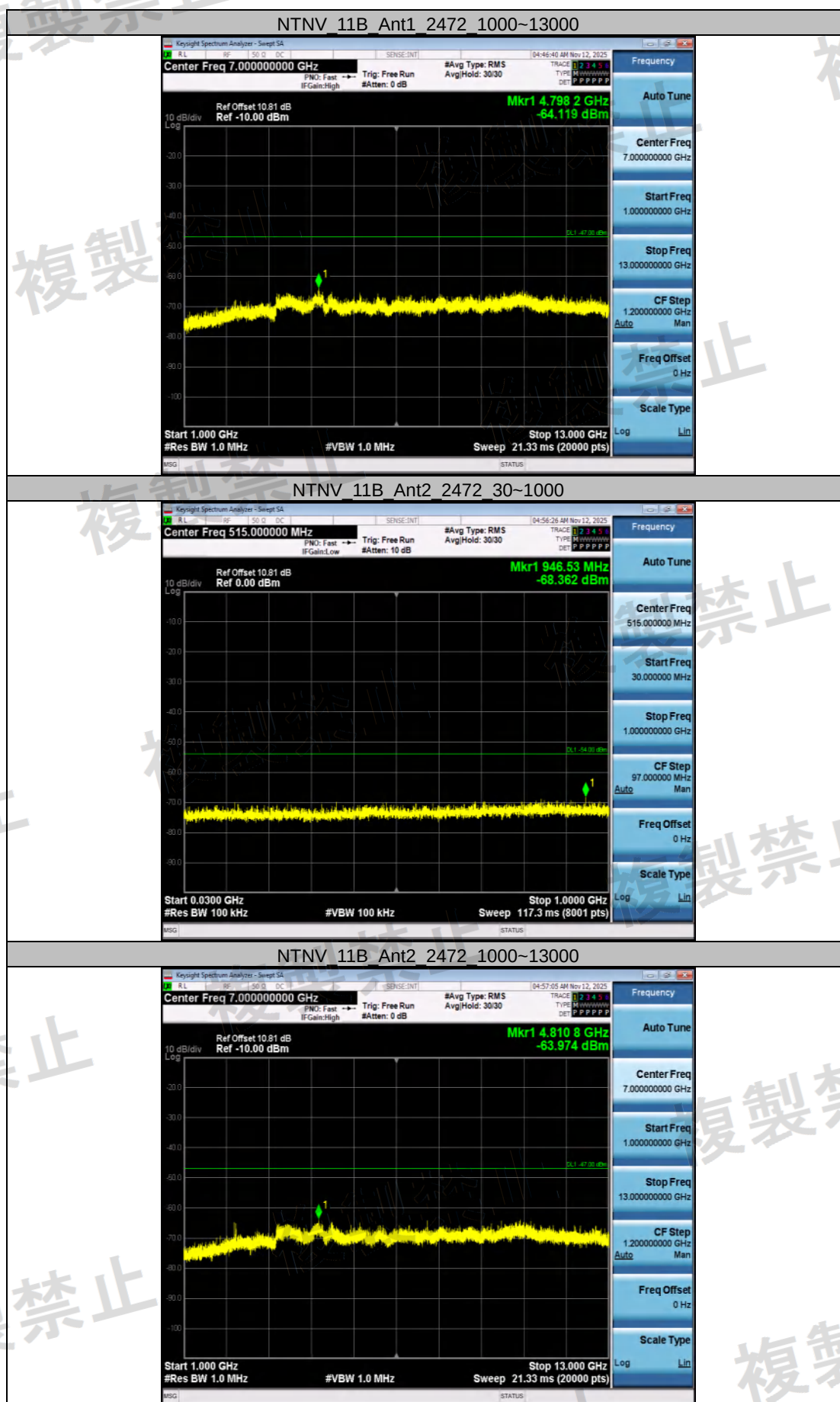
TestCondition	TestMode	Antenna	Freq(M Hz)	Freq.Range [MHz]	Result [dBm/MHz]	Limit [dBm/MHz]	Result [nW/MHz]	Limit [nW/MHz]	Verdict
NTNV	11B	Ant1	2412	30~1000	-69.21	≤-54	0.11995	≤4	PASS
				1000~13000	-63.20	≤-47	0.47863	≤20	PASS
		Ant2	2412	30~1000	-68.53	≤-54	0.14028	≤4	PASS
				1000~13000	-62.32	≤-47	0.58614	≤20	PASS
		Ant1	2442	30~1000	-69.52	≤-54	0.11169	≤4	PASS
				1000~13000	-64.18	≤-47	0.38194	≤20	PASS
		Ant2	2442	30~1000	-68.04	≤-54	0.15704	≤4	PASS
				1000~13000	-63.44	≤-47	0.45290	≤20	PASS
		Ant1	2472	30~1000	-69.28	≤-54	0.11803	≤4	PASS
				1000~13000	-64.12	≤-47	0.38726	≤20	PASS
		Ant2	2472	30~1000	-68.36	≤-54	0.14588	≤4	PASS
				1000~13000	-63.97	≤-47	0.40087	≤20	PASS
	11G	Ant1	2412	30~1000	-69.19	≤-54	0.12050	≤4	PASS
				1000~13000	-63.62	≤-47	0.43451	≤20	PASS
		Ant2	2412	30~1000	-69.00	≤-54	0.12589	≤4	PASS
				1000~13000	-61.96	≤-47	0.63680	≤20	PASS
		Ant1	2442	30~1000	-68.33	≤-54	0.14689	≤4	PASS
				1000~13000	-63.60	≤-47	0.43652	≤20	PASS
		Ant2	2442	30~1000	-68.71	≤-54	0.13459	≤4	PASS
				1000~13000	-62.54	≤-47	0.55719	≤20	PASS
		Ant1	2472	30~1000	-69.08	≤-54	0.12359	≤4	PASS
				1000~13000	-64.27	≤-47	0.37411	≤20	PASS
		Ant2	2472	30~1000	-68.90	≤-54	0.12882	≤4	PASS
				1000~13000	-63.22	≤-47	0.47643	≤20	PASS
	11N20MI MO	Ant1	2412	30~1000	-67.88	≤-54	0.16293	≤4	PASS
				1000~13000	-63.83	≤-47	0.41400	≤20	PASS
		Ant2	2412	30~1000	-69.07	≤-54	0.12388	≤4	PASS
				1000~13000	-63.14	≤-47	0.48529	≤20	PASS
		Ant1	2442	30~1000	-68.04	≤-54	0.15704	≤4	PASS
				1000~13000	-64.09	≤-47	0.38994	≤20	PASS
		Ant2	2442	30~1000	-69.20	≤-54	0.12023	≤4	PASS
				1000~13000	-63.49	≤-47	0.44771	≤20	PASS
		Ant1	2472	30~1000	-68.84	≤-54	0.13062	≤4	PASS
				1000~13000	-63.72	≤-47	0.42462	≤20	PASS
		Ant2	2472	30~1000	-69.28	≤-54	0.11803	≤4	PASS
				1000~13000	-58.93	≤-47	1.27938	≤20	PASS
	11AX20M IMO	Ant1	2412	30~1000	-68.25	≤-54	0.14962	≤4	PASS
				1000~13000	-63.92	≤-47	0.40551	≤20	PASS
		Ant2	2412	30~1000	-68.66	≤-54	0.13614	≤4	PASS
				1000~13000	-59.80	≤-47	1.04713	≤20	PASS
		Ant1	2442	30~1000	-67.82	≤-54	0.16520	≤4	PASS
				1000~13000	-64.03	≤-47	0.39537	≤20	PASS
		Ant2	2442	30~1000	-68.16	≤-54	0.15276	≤4	PASS
				1000~13000	-63.47	≤-47	0.44978	≤20	PASS
		Ant1	2472	30~1000	-69.02	≤-54	0.12531	≤4	PASS
				1000~13000	-59.75	≤-47	1.05925	≤20	PASS
		Ant2	2472	30~1000	-69.10	≤-54	0.12303	≤4	PASS
				1000~13000	-63.32	≤-47	0.46559	≤20	PASS

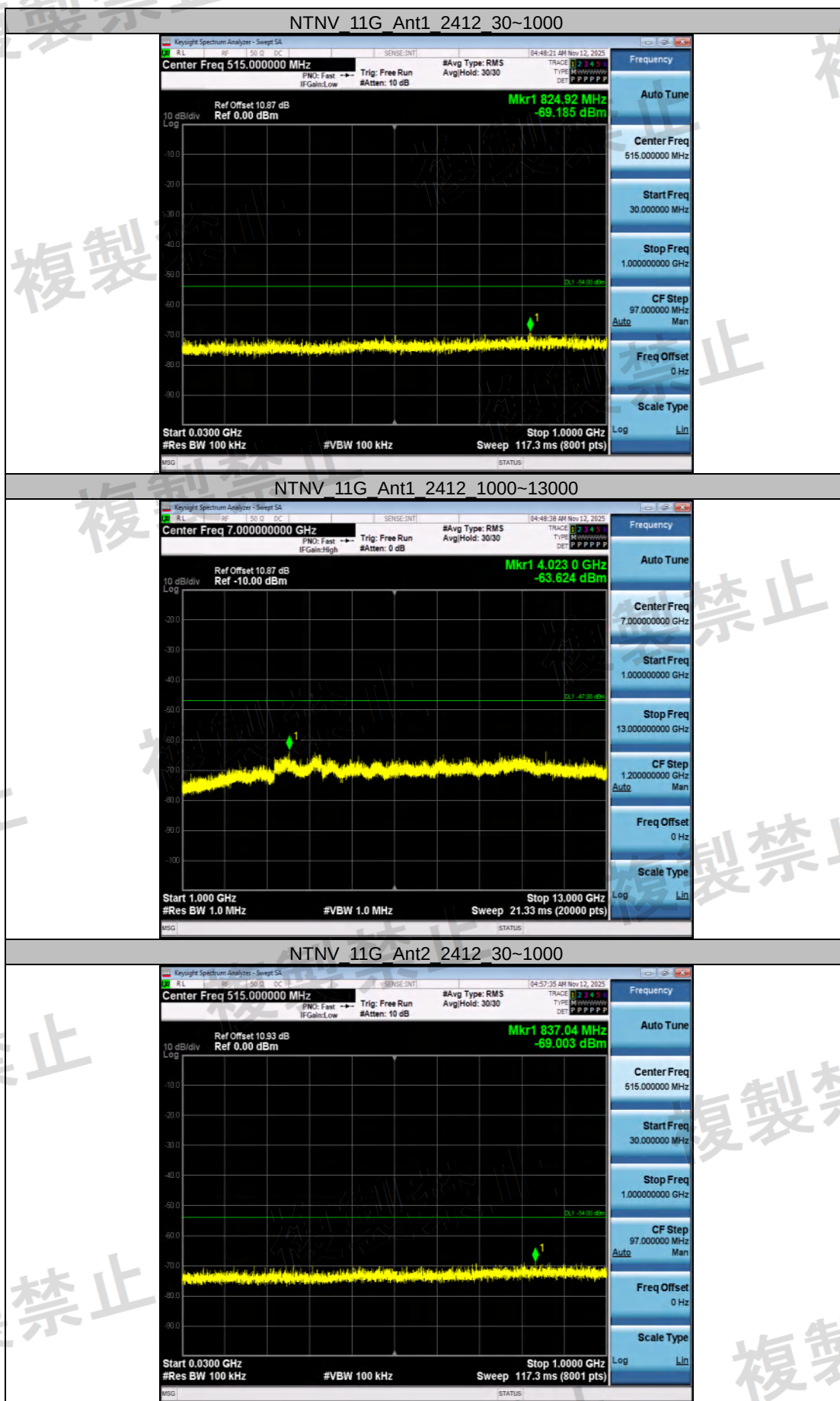
For MIMO mode, since both ANT1&ANT2 have more than 3.01dB margin, MIMO mode can pass.

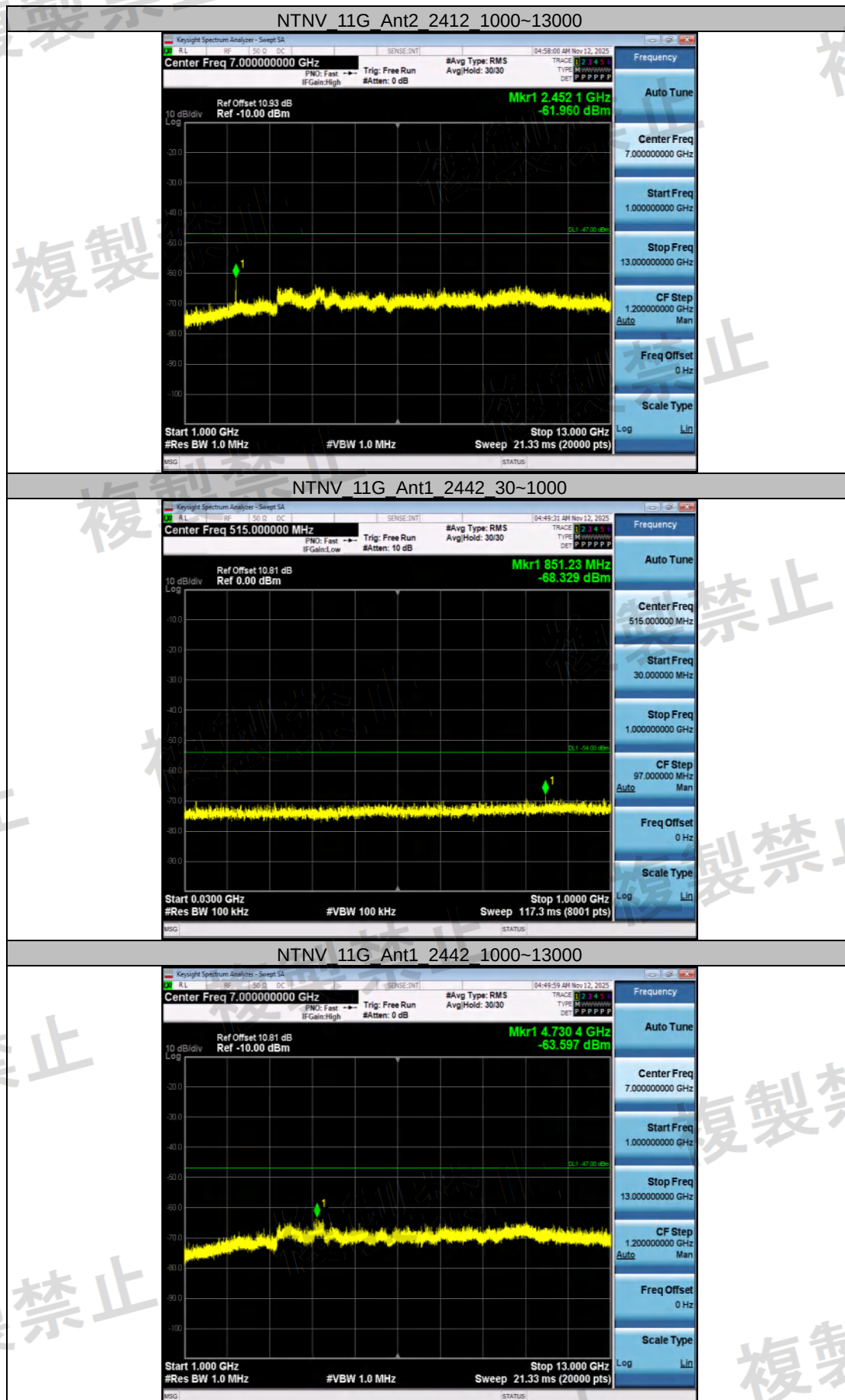


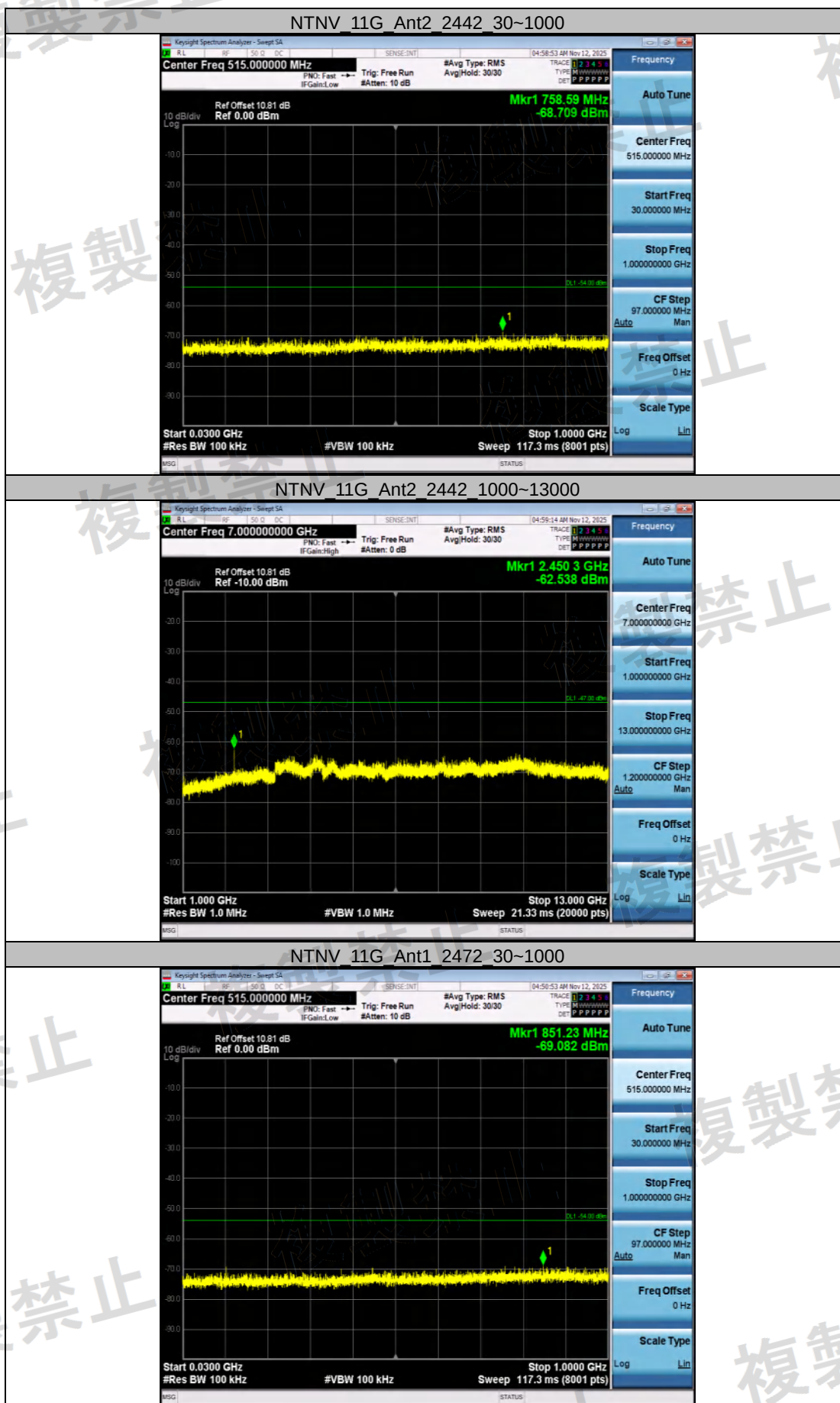


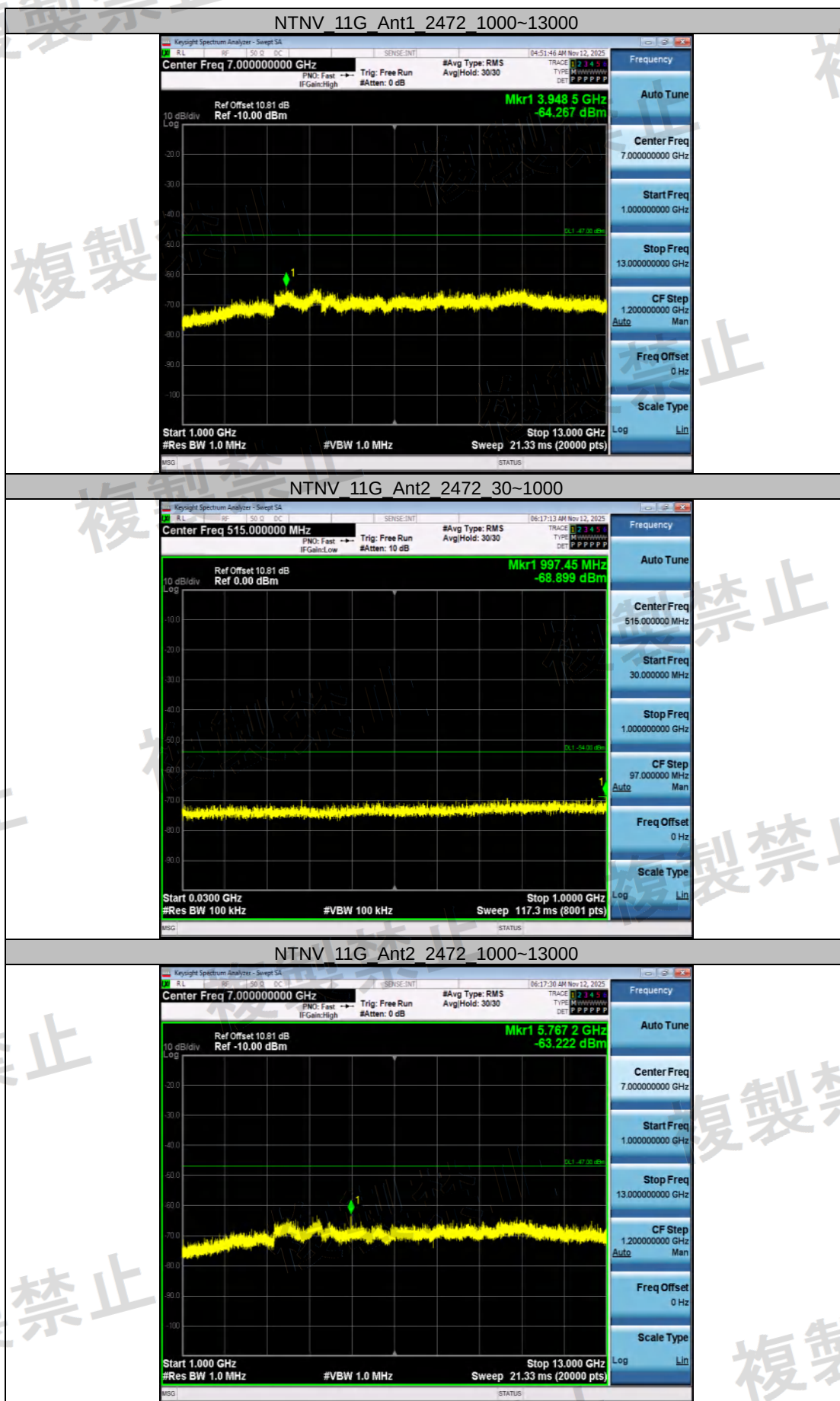


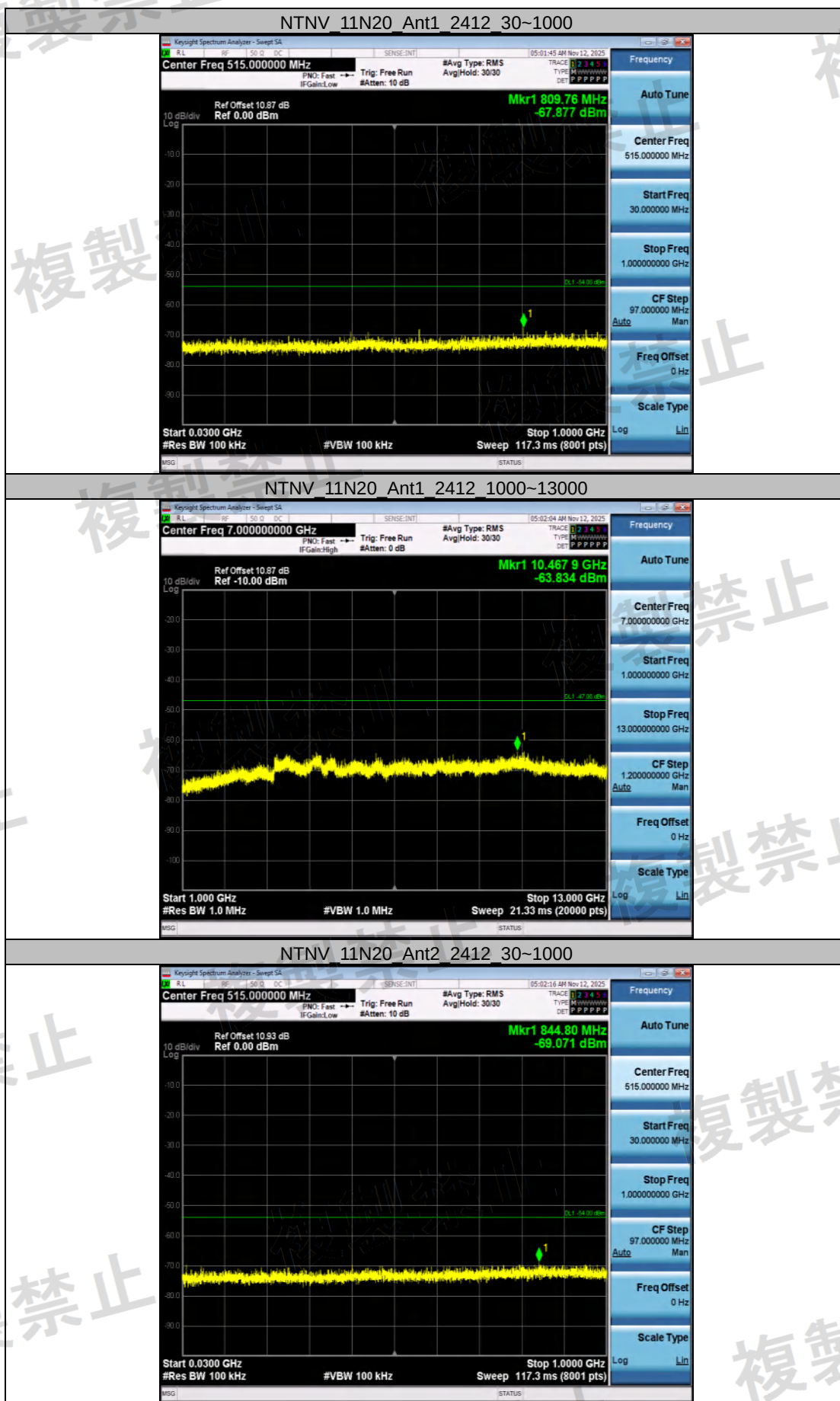


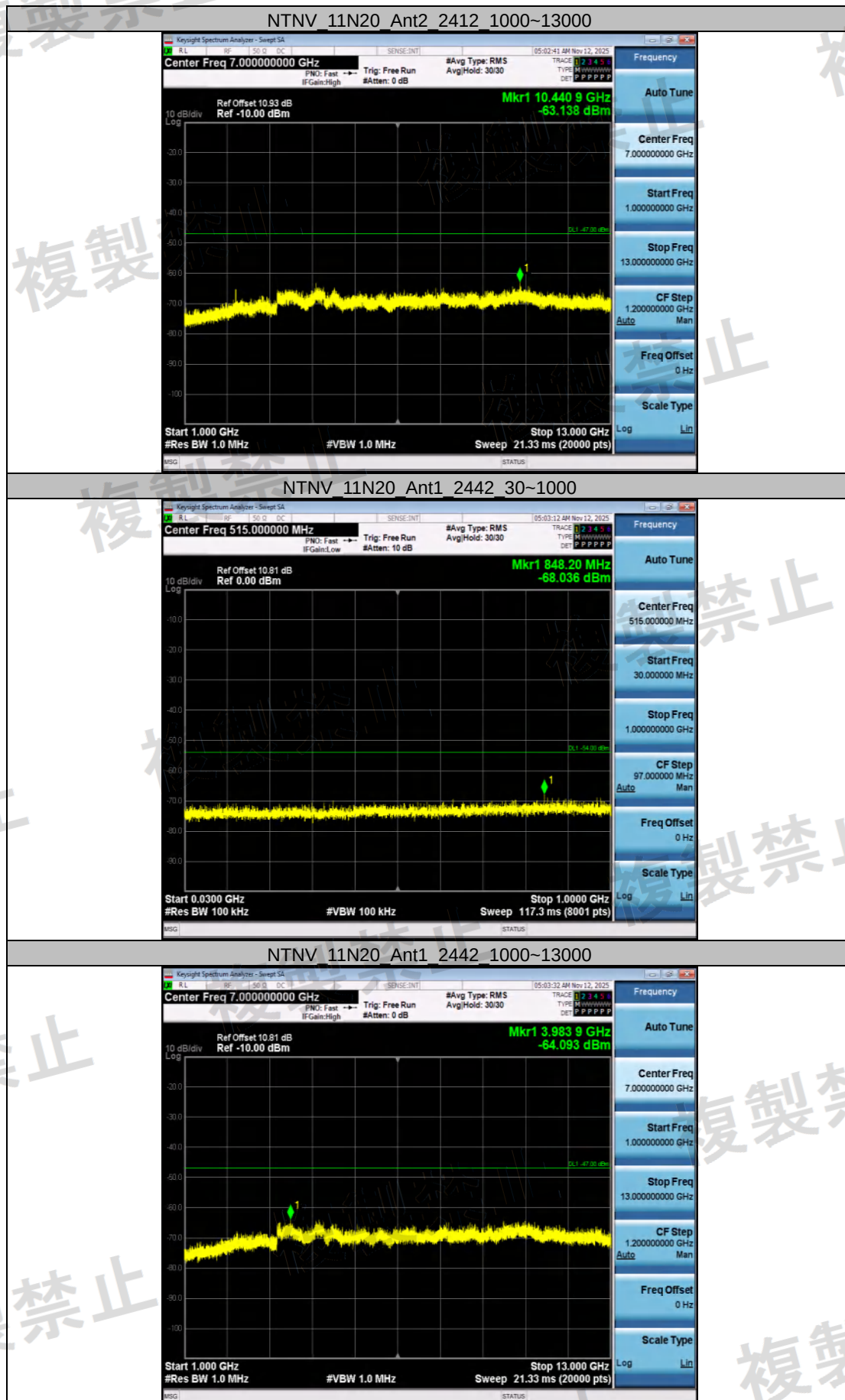


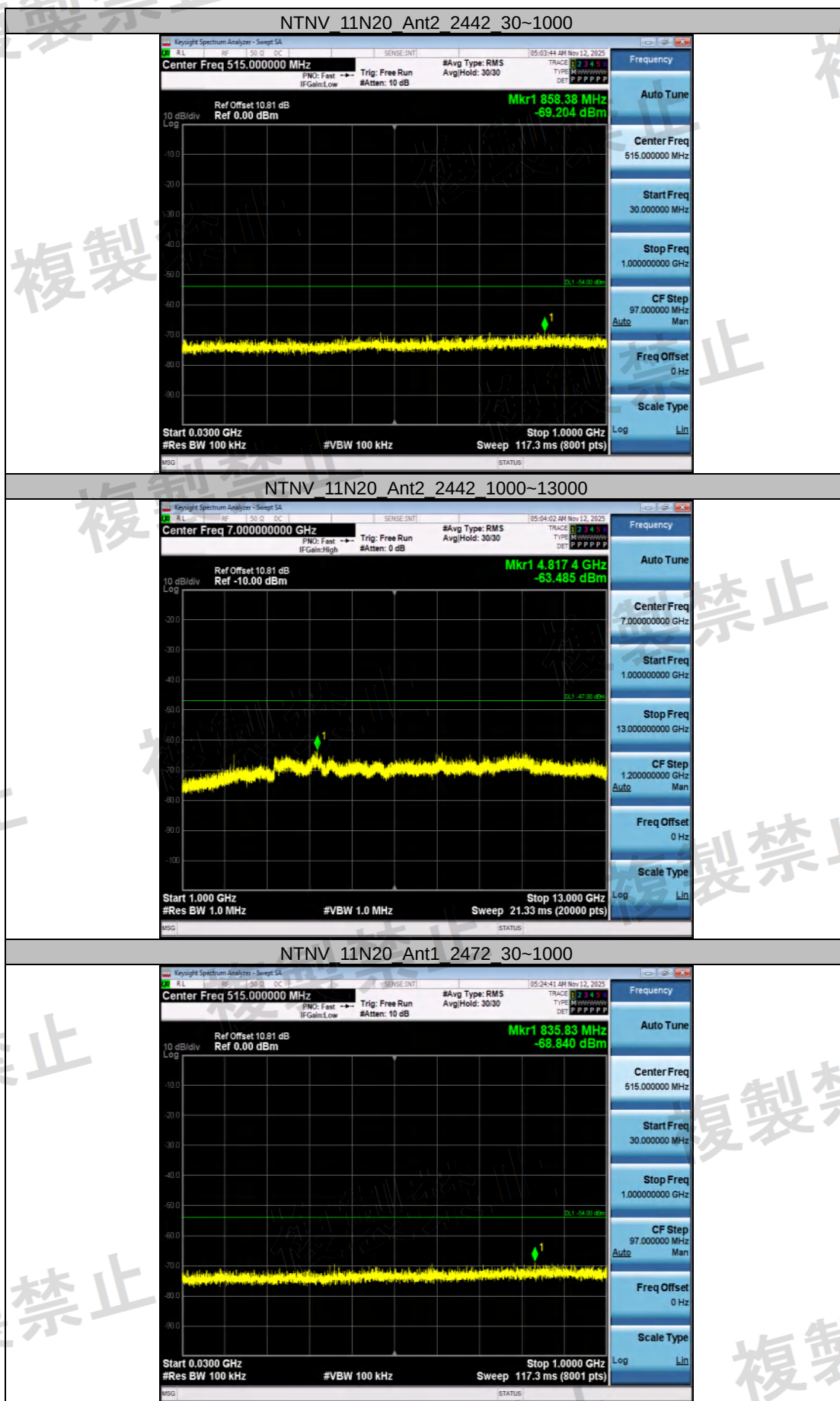


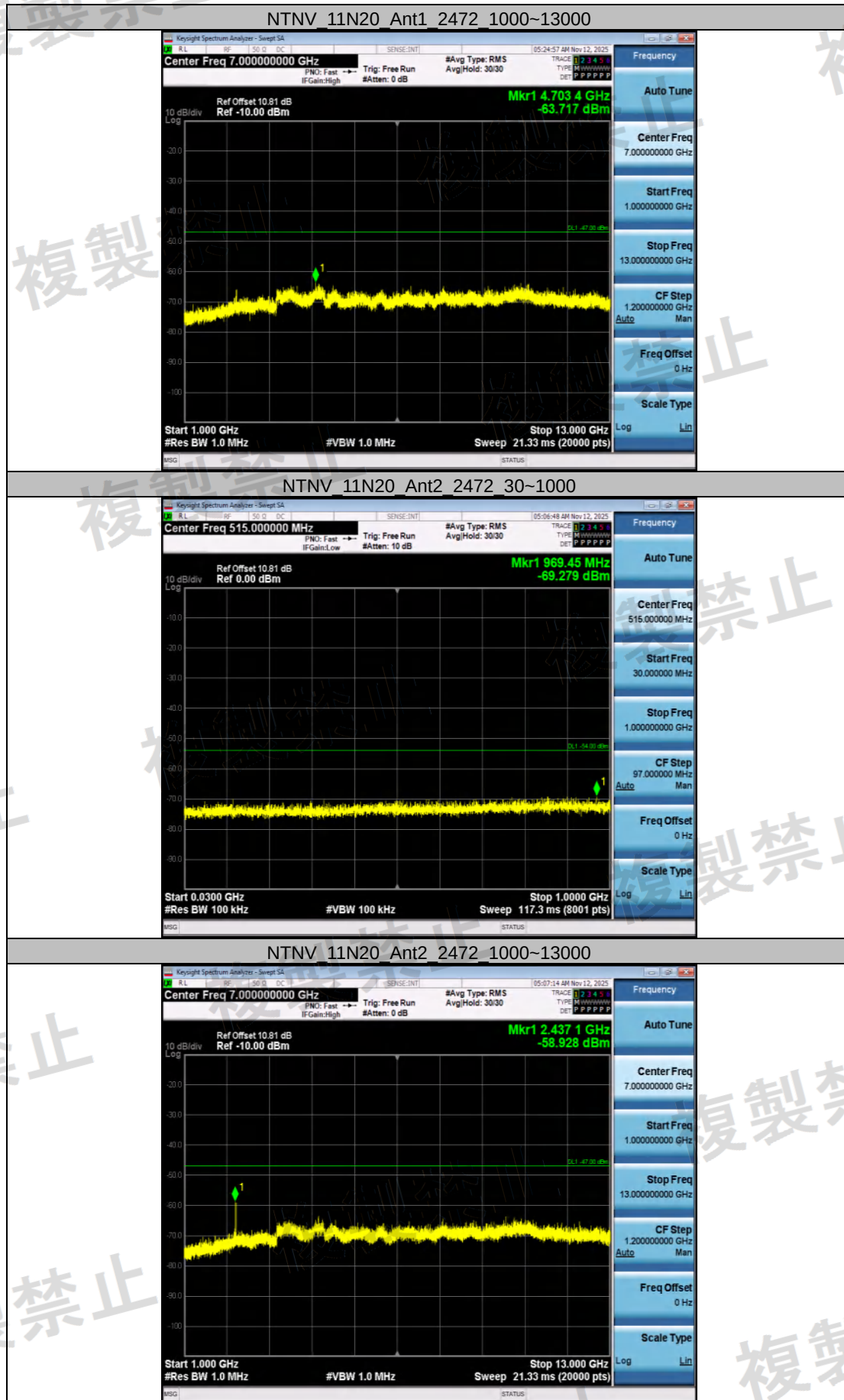


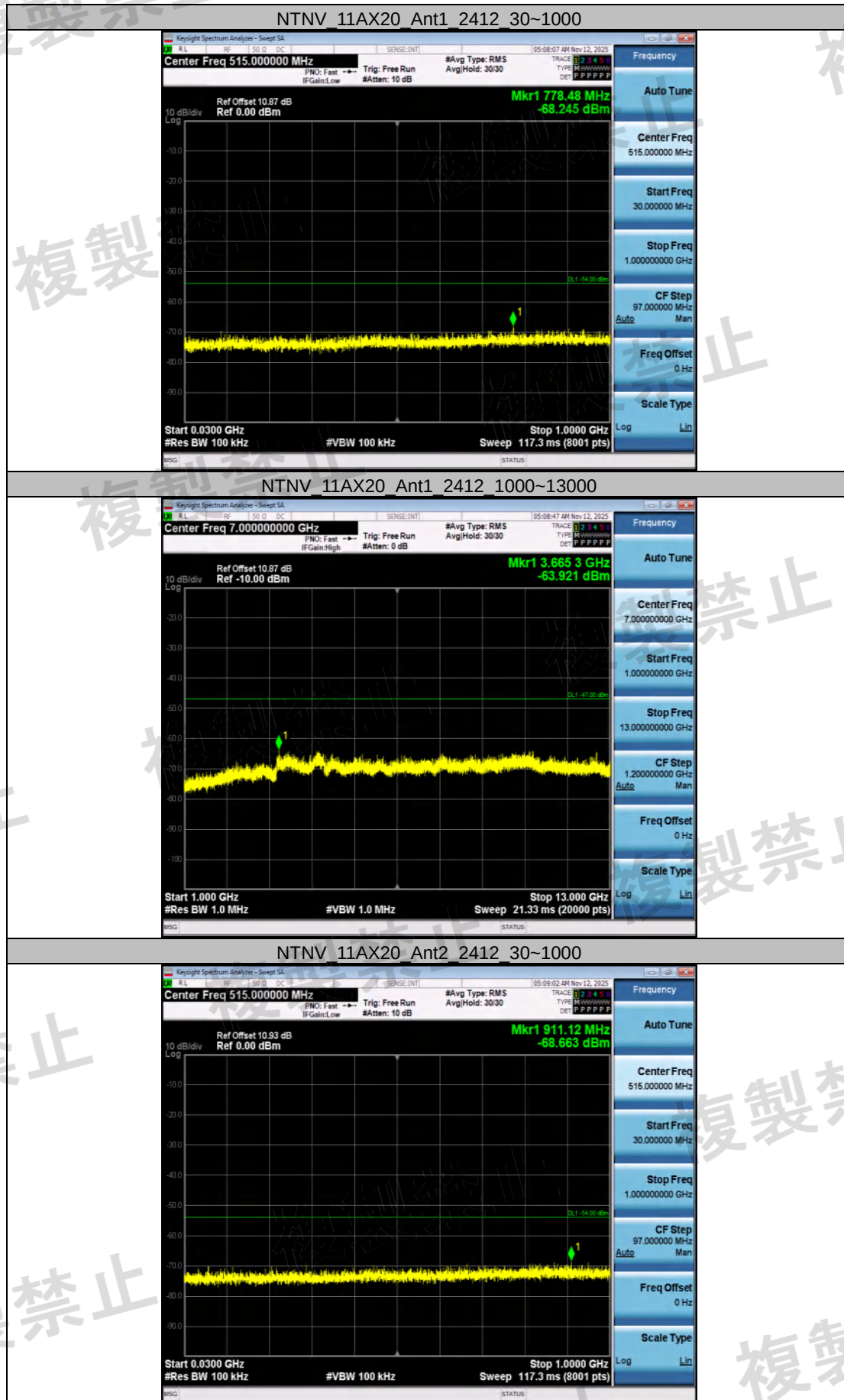


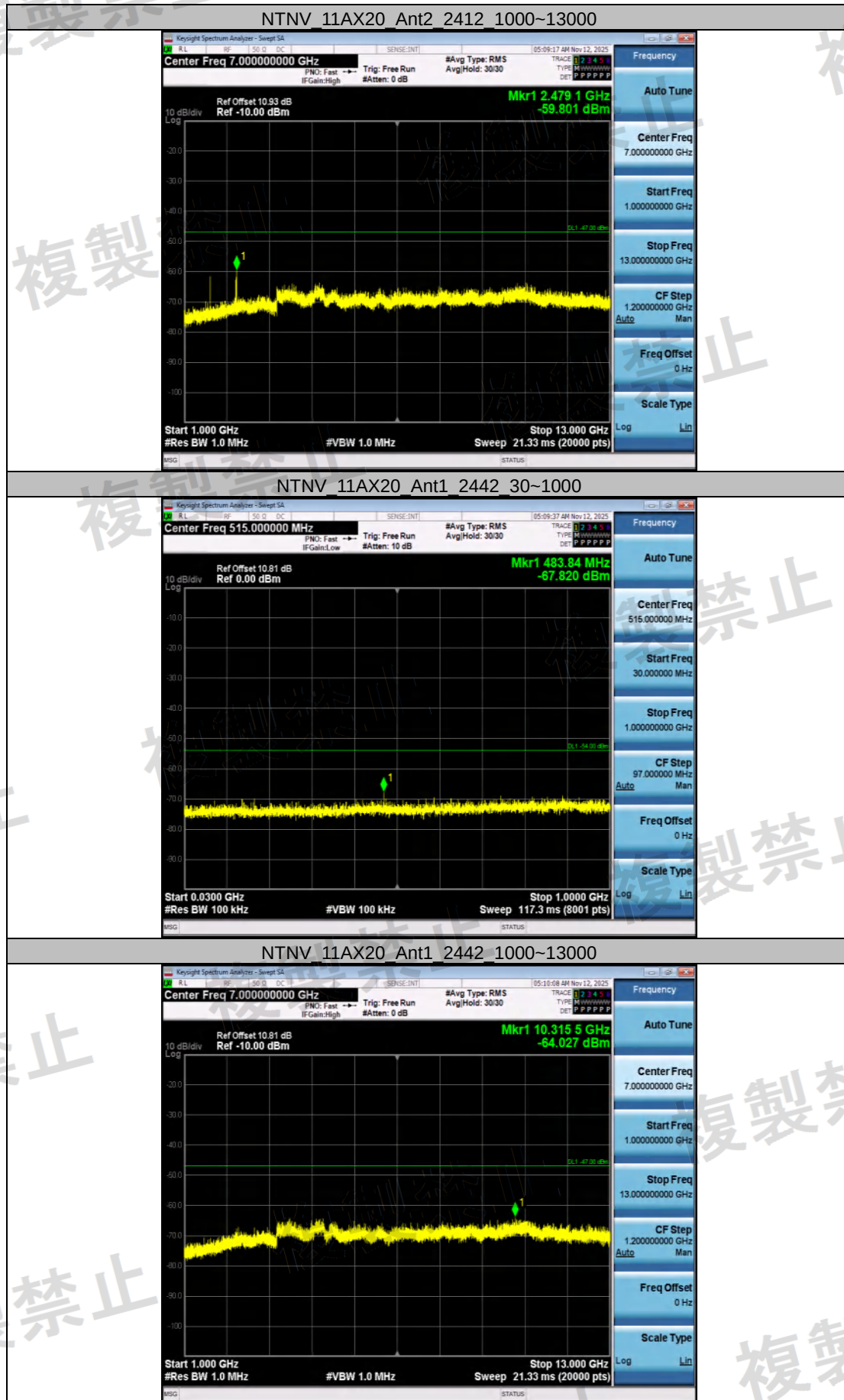


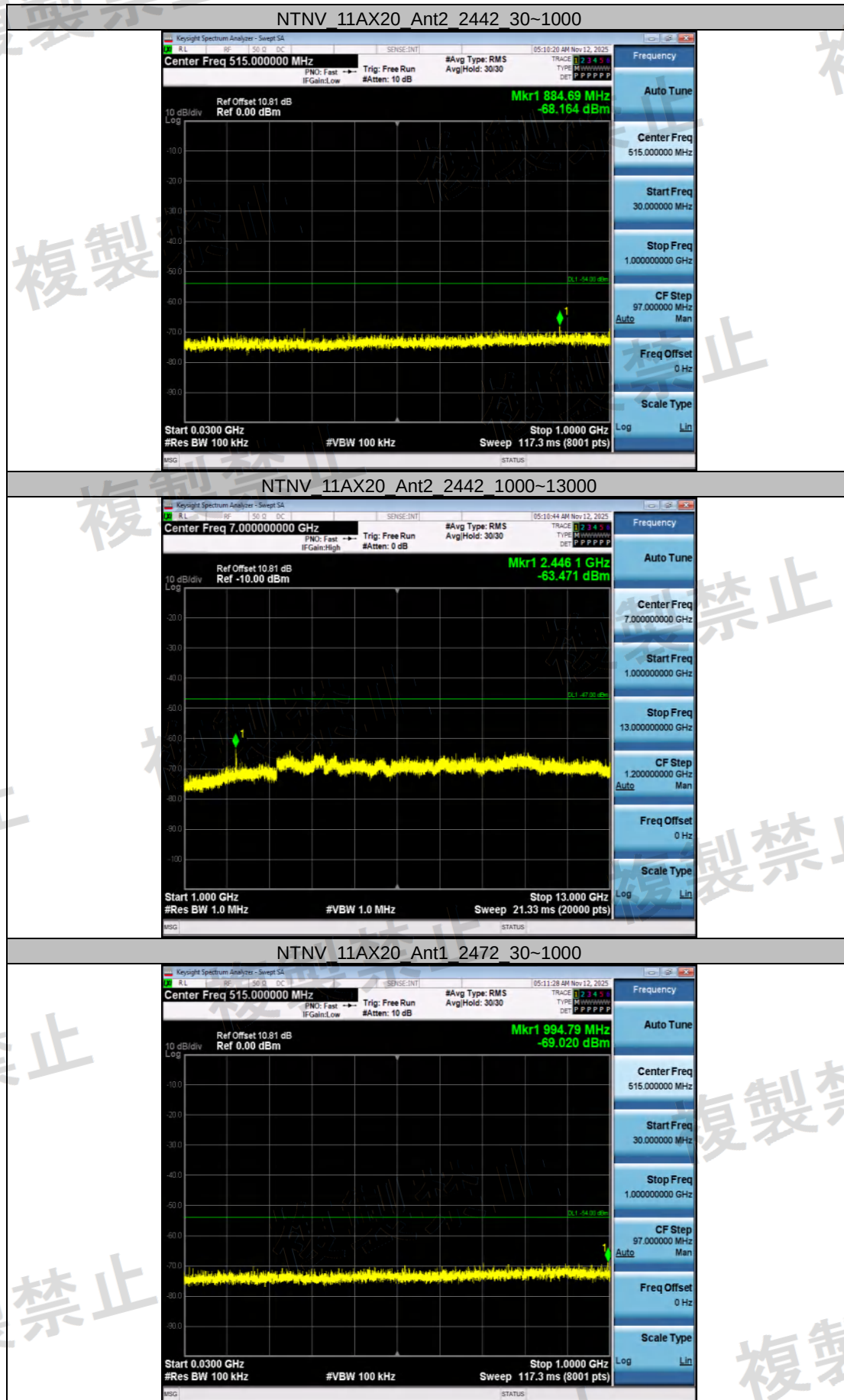


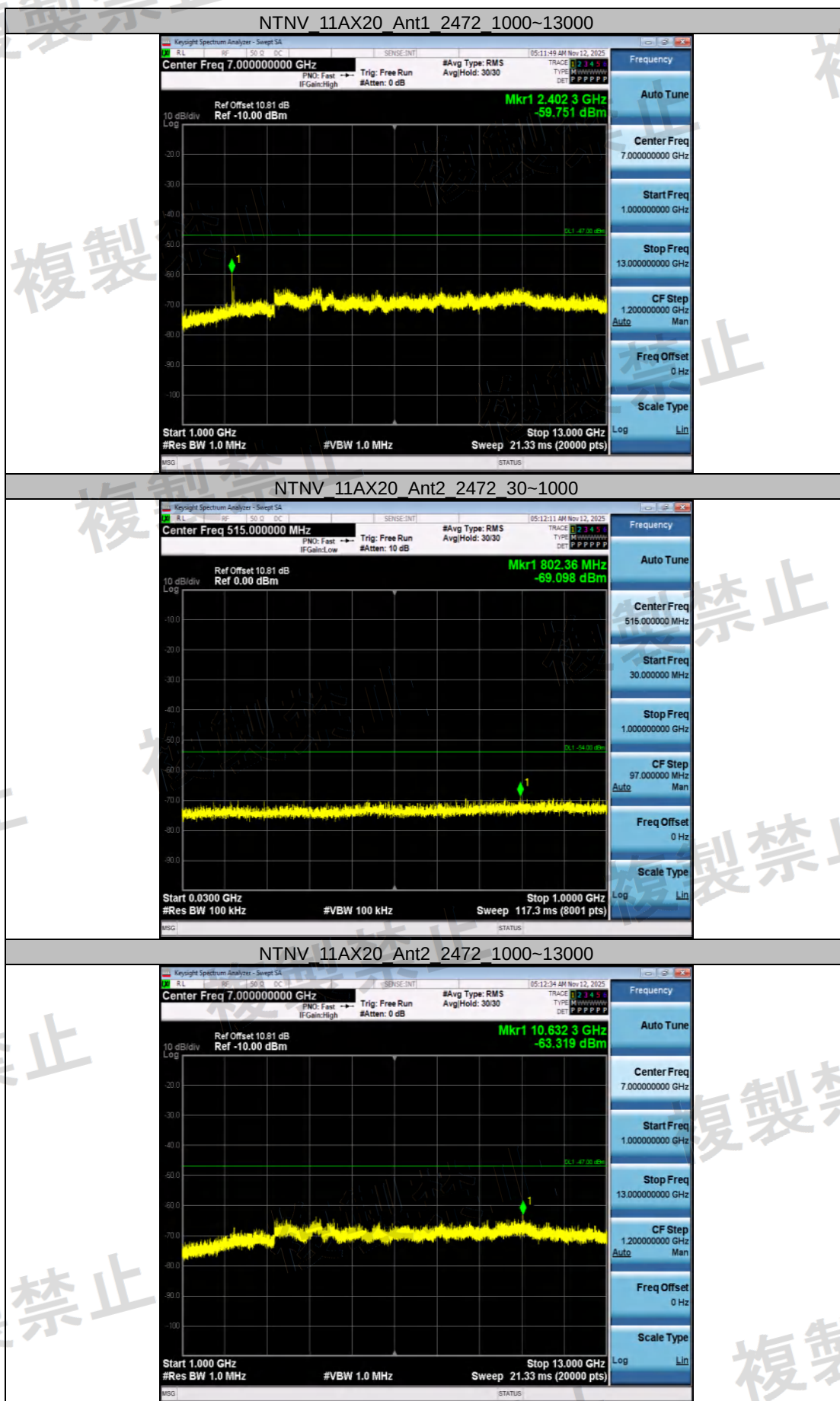












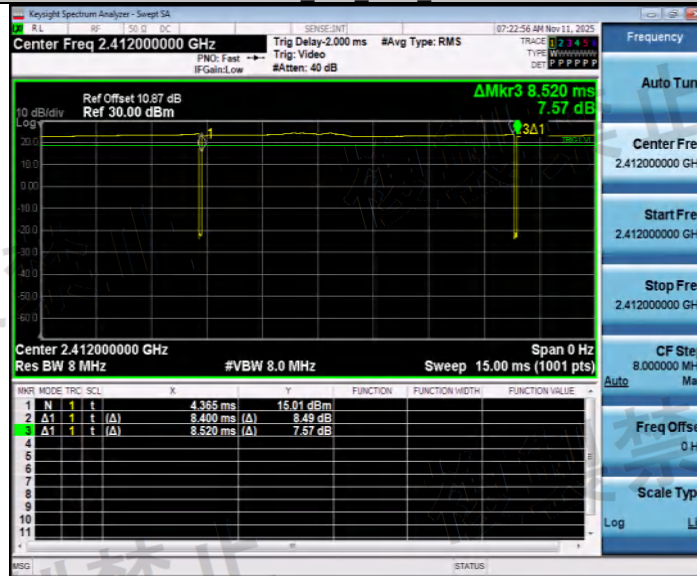
Appendix F: Duty cycle

Test Result:

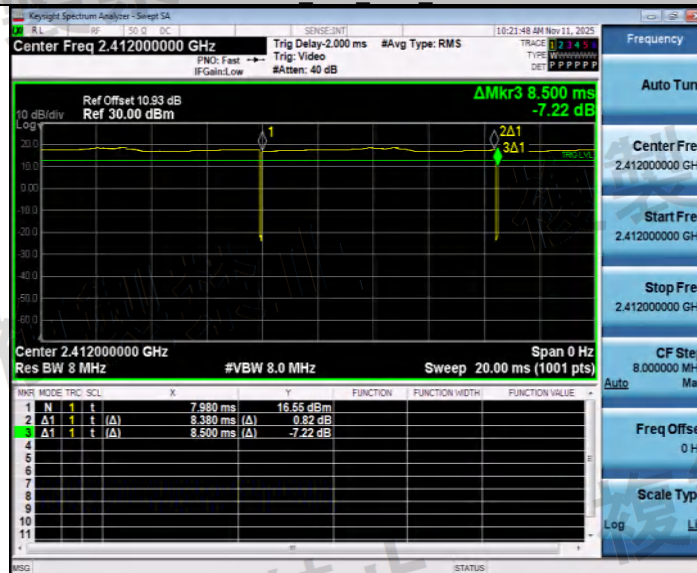
TestMode	Antenna	Freq(MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Verdict
11B	Ant1	2412	8.40	8.52	98.59	---
11G	Ant2	2412	8.38	8.50	98.59	---
11N20MIMO	Ant2	2442	8.40	8.51	98.71	---
11AX20MIMO	Ant1	2472	8.39	8.52	98.47	---

All the modes have been tested, and only the data of the worst mode is displayed.

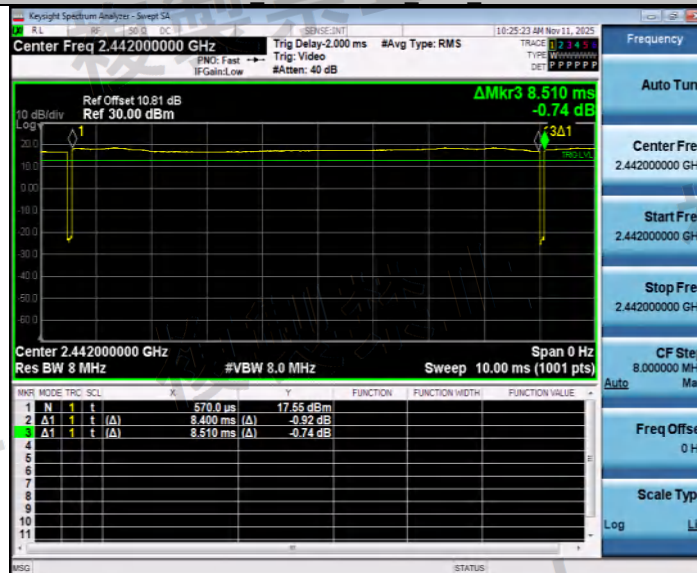
NTNV 11B_Ant1_2412

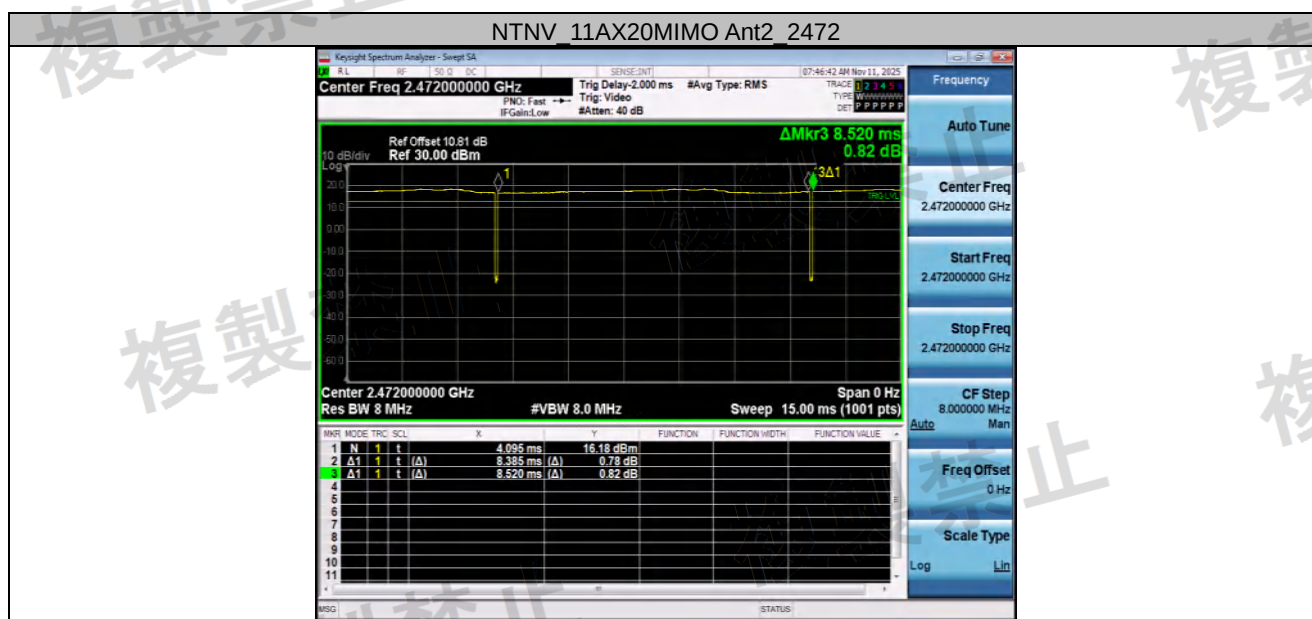


NTNV 11G_Ant2_2412



NTNV 11 N20MIMO_Ant1_2442





PHOTOS

1. Appendix I Test photo
2. Appendix II Exterior photo
3. Appendix II Interior photo

--- END ---