



TEST REPORT

Report Reference No. :	TZ0032251114TRF03
Prepared by (+signature)..... :	Nancy Li
Reviewed by (+signature)..... :	Allen Lai
Approved by (+signature)..... :	Max Zhang (Authorized Officer)
Date of issue	2026-01-20
Testing Laboratory Name	Shenzhen Tongzhou Testing Co., Ltd.
Address	1st Floor, Building 1, Haomai High-tech Park, Huating Road 387, Dalang Street, Longhua, Shenzhen, China
Applicant's name	Shenzhen wanbo Technology Co., Ltd.
Address	4th Floor, Building 1, Chuangjian Phase 2 Industrial Park, Yingrenshi Community, Shiyan Street, Baoan District, Shenzhen, China
Manufacturer's name	Shenzhen wanbo Technology Co., Ltd.
Address	4th Floor, Building 1, Chuangjian Phase 2 Industrial Park, Yingrenshi Community, Shiyan Street, Baoan District, Shenzhen, China
Test specification	
Standard..... :	MIC Notice No.88 Appendix No.43 Article 2, paragraph 1, item 19
TRF Originator	SZTZ
Master TRF	Dated 2024-08
Shenzhen Tongzhou Testing Co.,Ltd. All rights reserved. This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen Tongzhou Testing Co.,Ltd. is acknowledged as copyright owner and source of the material. Shenzhen Tongzhou Testing Co.,Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context. 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.	
Test item description..... :	Wanbo Projector
Trade Mark..... :	wanbo
Model/Type reference	WPC1M4, WPC1M1, WPC1M2, WPC1M3, WPC1M5, Vali 1 mini, Vali 1 Lite, Vali 1 SE, Vali 1 Air, Vali 1 Neo, Vali 1S
Ratings	Input: AC 100-240V 50/60Hz 2A(Max)
Result	PASS





**** Report Revise Record ****

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	2026-01-20	Valid	Initial release





Contents

1. TEST STANDARDS AND DESCRIPTION	4
1.1. Test Standards	4
1.2. Test description	4
2. SUMMARY	5
2.1. General Remarks.....	5
2.2. Product Description.....	5
2.3. Wireless Function Tested in this report	5
2.4. EUT operation mode	5
2.5. Test Voltage.....	6
2.6. EUT configuration.....	6
2.7. Modifications	7
3. TEST ENVIRONMENT.....	8
3.1. Address of the test laboratory	8
3.2. Statement of the measurement uncertainty	8
3.3. Equipments Used during the Test.....	9
4. TEST CONDITIONS AND RESULTS	10
4.1. Antenna Power	10
4.2. Frequency Error	28
4.3. Interference Prevention Function.....	32
4.4. Occupied Bandwidth (99%).....	33
4.5. Spurious emission intensity	43
4.6. Limit of secondary radiated emissions	79
4.7. Transmission Antenna Gain (EIRP antenna power) Measurement	98
4.8. Transmission Radiation Angle Width (3db Beamwidth) Measurement.....	101
4.9. Carrier Sensing Function Measurement.....	102
5. TEST SETUP PHOTOS OF THE EUT	103
6. EXTERNAL AND INTERNAL PHOTOS OF THE EUT	104





1. Test Standards and description

1.1. Test Standards

The tests were performed according to following standards:

Regulation: Item I of Article 49-20 and the relevant Articles of the ordinance of Regulatory Radio Equipment.

Test Method: (1)the test method suppressed on is equal to Appendix No.43 of MIC Notification No 88

1.2. Test description

Test Item	Test Method	Result
Antenna Power	Appendix No.43 of MIC Notification No 88 section 6	Pass
Frequency Error	Appendix No.43 of MIC Notification No 88 section 3	Pass
Interference prevention function	Appendix No.43 of MIC Notification No 88 section 12	Pass
99% Occupied bandwidth	Appendix No.43 of MIC Notification No 88 section 4	Pass
Spurious Emissions Intensity	Appendix No.43 of MIC Notification No 88 section 5	Pass
Limit of secondary radiated emissions	Appendix No.43 of MIC Notification No 88 section 7	Pass
Hopping Frequency Dwell Time Measurement	Appendix No.43 of MIC Notification No 88 section 13	N/A
Transmission Antenna Gain (EIRP antenna power)	Appendix No.43 of MIC Notification No 88 section 10	Pass
Transmission Radiation Angle Width (3db Beamwidth)	Appendix No.43 of MIC Notification No 88 section 11	N/A
Carrier Sensing Function(1)	Appendix No.43 of MIC Notification No 88 section 8	Pass
Carrier Sensing Function(2)	Appendix No.43 of MIC Notification No 88 section 9	N/A

N/A: means not applicable





2. Summary

2.1. General Remarks

Date of receipt of test sample : 2025-11-25
Testing commenced on : 2025-11-25
Testing concluded on : 2026-01-19

2.2. Product Description

Name of EUT	: Wanbo Projector
Trade Mark	: wanbo
Model/Type reference	: WPC1M4, WPC1M1, WPC1M2, WPC1M3, WPC1M5, Vali 1 mini, Vali 1 Lite, Vali 1 SE, Vali 1 Air, Vali 1 Neo, Vali 1S
Test Model	: WPC1M4
Model Declaration	: All the same except for the model name
Hardware Version	: 136_S1_MINI_WB
Software Version	: WB C445AFH031A
Power supply	: Input: AC 100-240V 50/60Hz 2A(Max)

2.3. Wireless Function Tested in this report

WiFi 2.4GHz Band

Supported

: IEEE 802.11b/g/n

Operation Frequency

: IEEE 802.11b:2412-2472MHz
IEEE 802.11g:2412-2472MHz
IEEE 802.11n HT20:2412-2472MHz
IEEE 802.11n HT40:2422-2462MHz

Channel Number

: 13 Channels for 2412-2472MHz(IEEE 802.11b/g/n HT20)
9 Channels for 2422-2462MHz(IEEE 802.11n HT40)

Modulation Technology

: IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)
IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK)
IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)

Antenna Type And Gain

: PCB Antenna, Antenna 1: 4.83dBi, Antenna 2: 2.35dBi

IEEE 802.11b/g/n

Frequency Band	Channel No.	Frequency(MHz)	Channel No.	Frequency(MHz)
2412~2472MHz	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	--	--

2.4. EUT operation mode

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





2.5. Test Voltage

Voltage Fluctuation Test	Normal Voltage	High Voltage	Low Voltage
Input To EUT	AC 100V	AC 110V	AC 90
Output To RF Module	DC 3.3V	DC 3.3V	DC 3.3V
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.





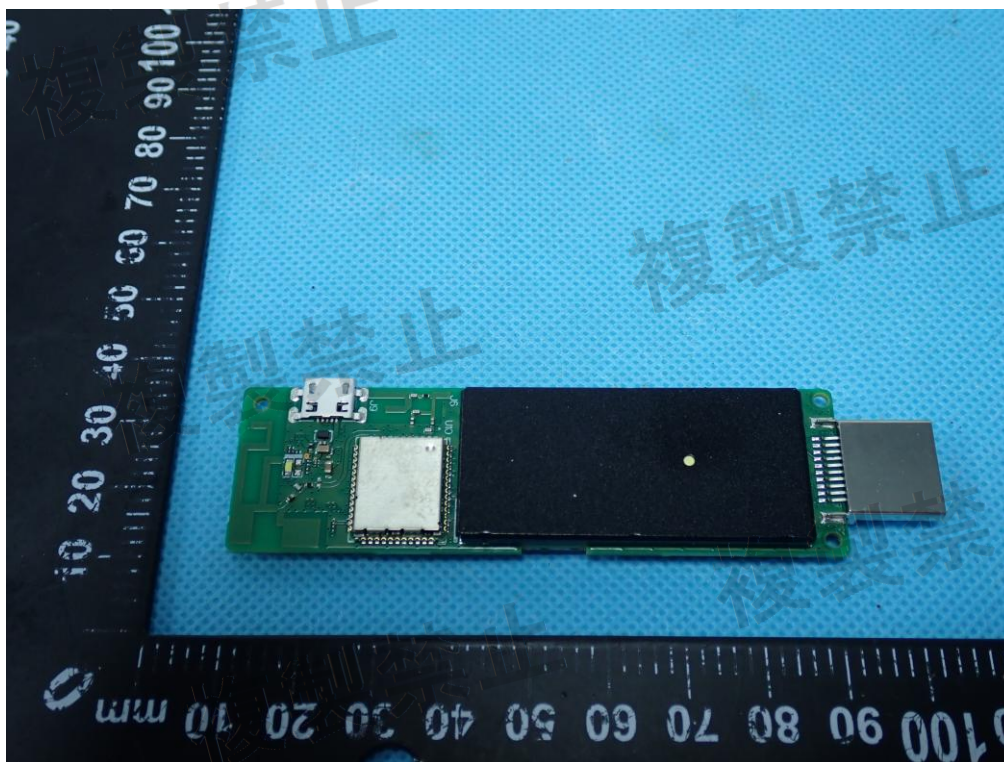
2.6. EUT configuration

(1) The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- - supplied by the lab

(2) Protective Structure

- ☐ The exterior cover was sealed by Special screws, it can not be easily open.
- ☐ The enclosure was sealed with strong adhesive glue, it can not be easily open.
- ☒ All high-frequency section and modulation section was packaged in one IC, and shield by metal shield, it can not be easily open.
- ☐ The top and the bottom is connected with strong Buckles, it can not be easily open.
- ☐ Others: The top and the bottom is connected with strong Buckles, So We can not open the it easily at the normal condition. The high-frequency section and modulation section can not be capable of being opened easily



2.7. Modifications

No modifications were implemented to meet testing criteria.





3. Test Environment

3.1. Address of the test laboratory

Shenzhen Tongzhou Testing Co.,Ltd

1st Floor, Building 1, Haomai High-tech Park, Huating Road 387, Dalang Street, Longhua, Shenzhen, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 (2014) and CISPR Publication 22.

3.2. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Tongzhou Testing Co.,Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen Tongzhou Testing Co.,Ltd is reported:

Test Items	Measurement Uncertainty	Notes
Frequency stability	25 Hz	(1)
Transmitter power conducted	0.57 dB	(1)
Transmitter power Radiated	2.20 dB	(1)
Conducted spurious emission 9KHz-12.75 GHz	1.60 dB	(1)
Radiated spurious emission 9KHz-12.75 GHz	2.20 dB	(1)
Conducted Emission 9KHz-30MHz	3.39 dB	(1)
Radiated Emission 30~1000MHz	4.24 dB	(1)
Radiated Emission 1~18GHz	5.16 dB	(1)
Radiated Emission 18-40GHz	5.54 dB	(1)
Occupied Bandwidth	-----	(1)
Emission Mask	-----	(1)
Modulation Characteristic	-----	(1)
Transmitter Frequency Behavior	-----	(1)

- (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=1.96$.





3.3. Equipments Used during the Test

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Latest Cal.	Next Cal.
1	MXA Signal Analyzer	Keysight	N9020A	MY52091623	2025-12-31	2026-12-30
2	EMI Test Receiver	R&S	ESCI	100849/003	2025-12-31	2026-12-30
3	DC power supply	Chroma	RXN-305D	62012PD02811	2025-12-31	2026-12-30
4	Power Meter	Agilent	NRVD	835843/014	2025-12-31	2026-12-30
5	Wideband Radio Communication Tester	R&S	CMW500	101855	2025-12-31	2026-12-30
6	Oscilloscope	Tektronix	TDS2024C	C044925	2025-12-31	2026-12-30
7	Signal Generator	Keysight	N5182A	MY4620709	2025-12-31	2026-12-30

Full Name of calibration company: Guangzhou Lisai Metrology & Test 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

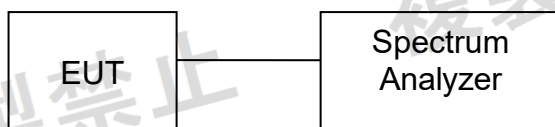




4. Test conditions and Results

4.1. Antenna Power

TEST CONFIGURATION



TEST PROCEDURE

Step 1

Connect the UUT to the spectrum analyzer and use the following settings:

Center Frequency: The center frequency of the UUT test channel

RBW: 1MHz

VBW: 1MHz

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

Detector: Peak

Trace Mode: Max Hold

Find the Peak value for the power envelope and record the frequency.

Step 2

Change the spectrum analyzer and use the following settings:

Center Frequency: Record frequency of step 1.

RBW: 1MHz

VBW: 1MHz

Span: 0Hz

Sweep time: enough to capture the signal burst.

Detector: RMS

Trace Mode: Single

Capture the burst signal power and record it.

LIMIT

Item	Limits
Antenna Power Density	$\leq 3\text{mW/MHz}$ (FH form 2400~2483.5MHz)
	$\leq 10\text{mW/MHz}$ (OFDM,DS from 2400~2483.5MHz)
	$\leq 5\text{mW/MHz}$ (OFDM from 2400~2483.5MHz within 26-40MHz bandwidth)
	$\leq 10\text{mW}$ (Other from 2400~2483.5MHz)
Antenna Power Error	$\leq 20\%$ (Base on manufacturer declare antenna power density)





TEST RESULTS

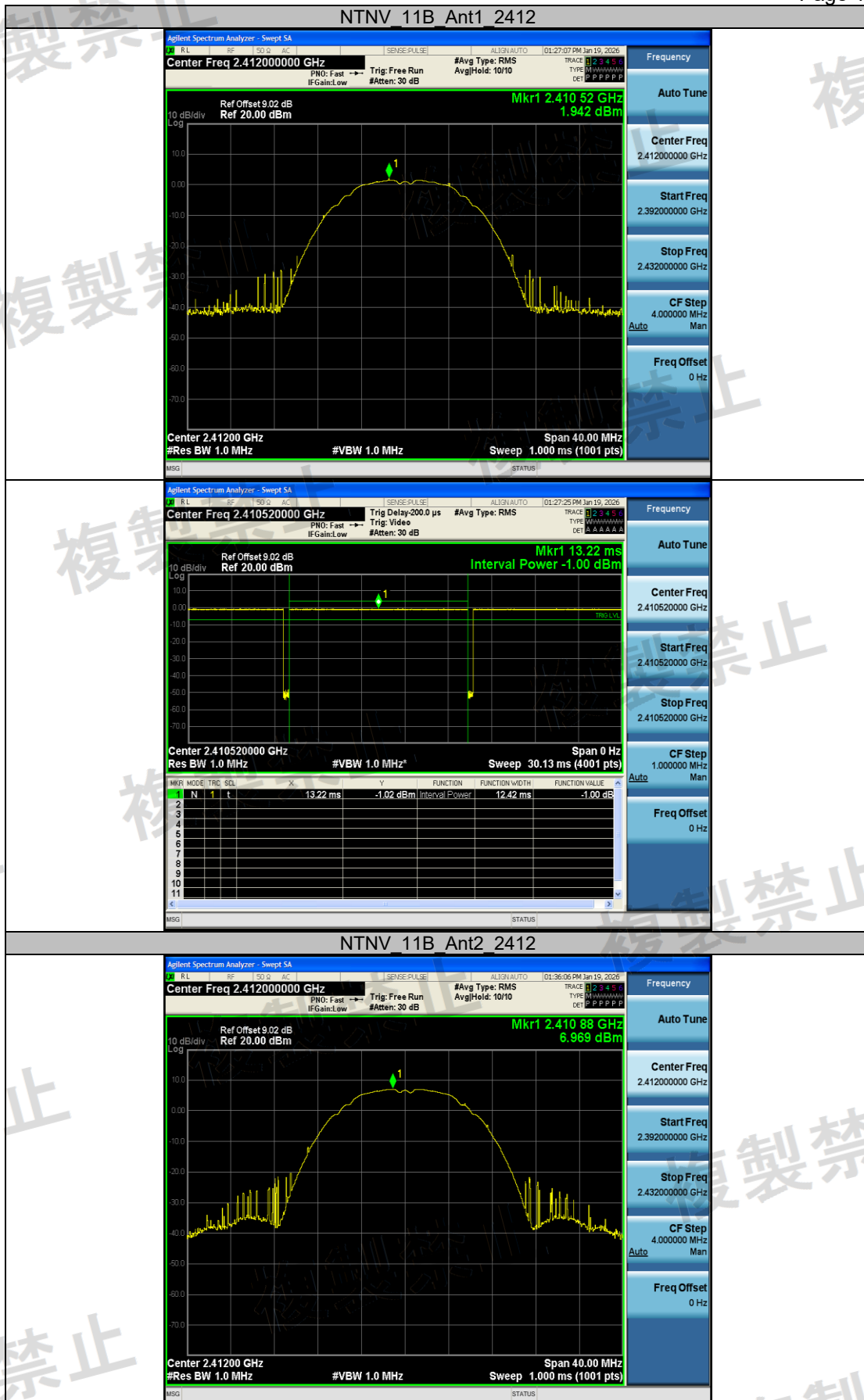
Antenna Power							
Test Condition	Test Mode	Antenna	Freq (MHz)	Result(dBm/MHz)	Result (mW/MHz)	Limit (mW/MHz)	Verdict
NTNV	11B	Ant1	2412	-1.00	0.7943	≤10	PASS
		Ant2	2412	4.60	2.8840	≤10	PASS
		Ant1	2442	-0.51	0.8892	≤10	PASS
		Ant2	2442	4.82	3.0339	≤10	PASS
		Ant1	2472	-0.91	0.8110	≤10	PASS
		Ant2	2472	4.95	3.1261	≤10	PASS
	11G	Ant1	2412	-2.01	0.6295	≤10	PASS
		Ant2	2412	2.28	1.6904	≤10	PASS
		Ant1	2442	-1.79	0.6622	≤10	PASS
		Ant2	2442	2.49	1.7742	≤10	PASS
		Ant1	2472	-2.23	0.5984	≤10	PASS
		Ant2	2472	2.22	1.6672	≤10	PASS
	11N20MIMO	Ant1	2412	-4.69	0.3396	≤10	PASS
		Ant2	2412	-0.07	0.9840	≤10	PASS
		total	2412	1.22	1.3236	≤10	PASS
		Ant1	2442	-3.94	0.4036	≤10	PASS
		Ant2	2442	-0.29	0.9354	≤10	PASS
		total	2442	1.27	1.3390	≤10	PASS
	11N40MIMO	Ant1	2472	-4.59	0.3475	≤10	PASS
		Ant2	2472	-0.29	0.9354	≤10	PASS
		total	2472	1.08	1.2829	≤10	PASS
		Ant1	2422	-9.46	0.1132	≤5	PASS
		Ant2	2422	-4.73	0.3365	≤5	PASS
		total	2422	-3.47	0.4497	≤5	PASS
		Ant1	2442	-9.58	0.1102	≤5	PASS
		Ant2	2442	-5.17	0.3041	≤5	PASS
		total	2442	-3.83	0.4143	≤5	PASS
		Ant1	2462	-9.91	0.1021	≤5	PASS
		Ant2	2462	-5.57	0.2773	≤5	PASS
		total	2462	-4.21	0.3794	≤5	PASS

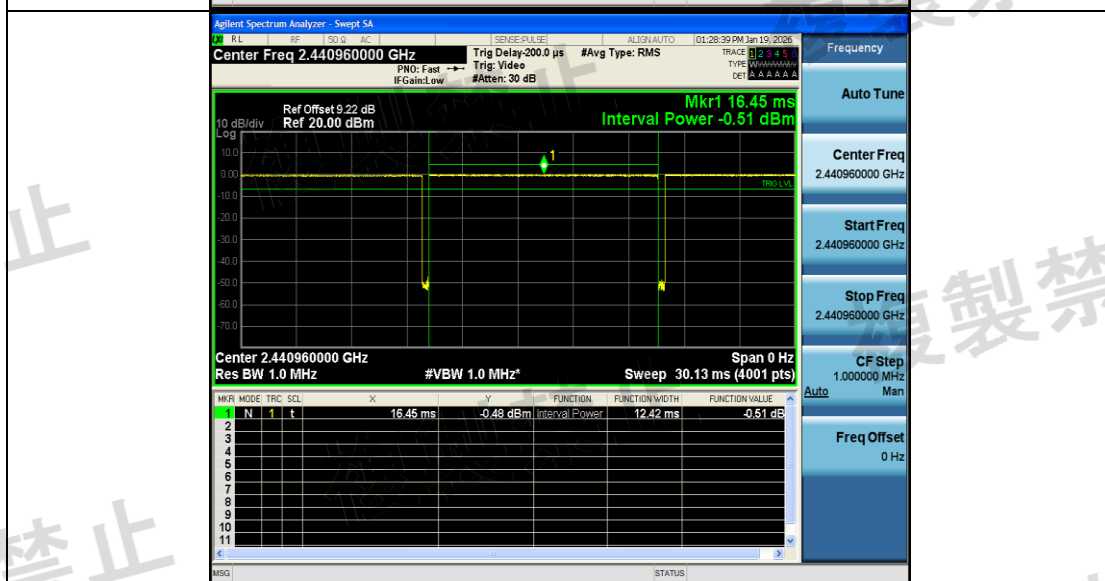
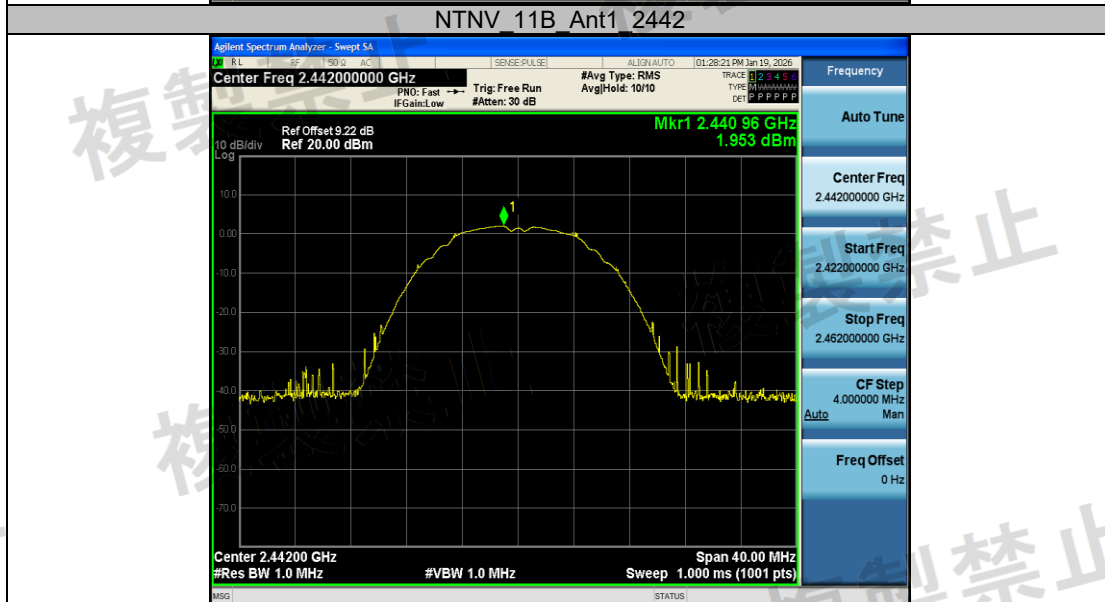
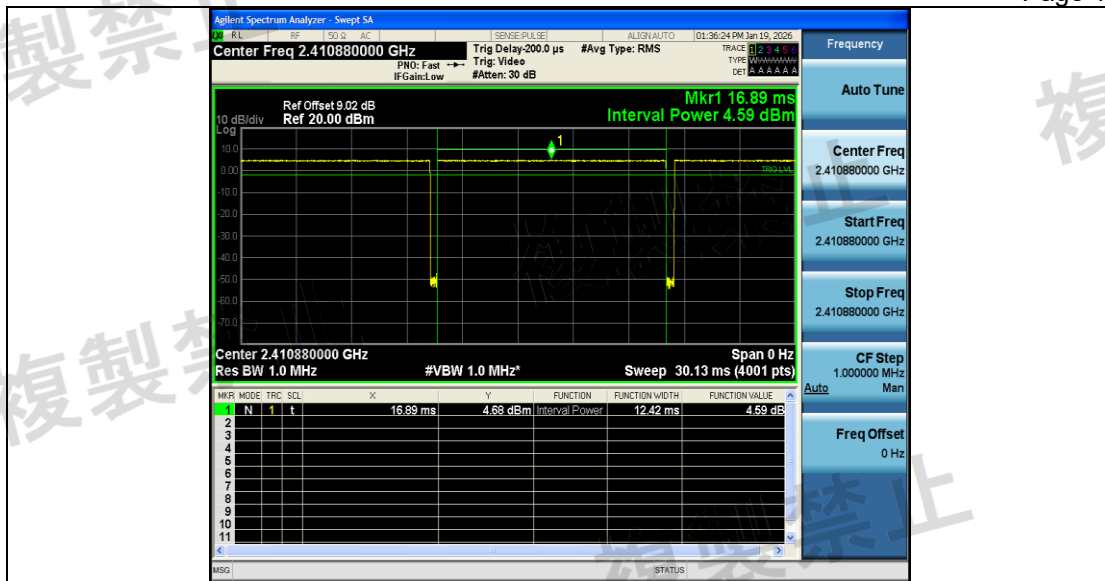
Tolerance								
Test Condition	Test Mode	Antenna	Freq (MHz)	Power (mW/MHz)	Rated Power (mW/MHz)	Result (%)	Limit (%)	Verdict
NTNV	11B	Ant1	2412	0.7943	10	-92.06	≤20	PASS
		Ant2	2412	2.8840	10	-71.16	≤20	PASS
		Ant1	2442	0.8892	10	-91.11	≤20	PASS
		Ant2	2442	3.0339	10	-69.66	≤20	PASS
		Ant1	2472	0.8110	10	-91.89	≤20	PASS
		Ant2	2472	3.1261	10	-68.74	≤20	PASS
	11G	Ant1	2412	0.6295	10	-93.71	≤20	PASS
		Ant2	2412	1.6904	10	-83.10	≤20	PASS
		Ant1	2442	0.6622	10	-93.38	≤20	PASS
		Ant2	2442	1.7742	10	-82.26	≤20	PASS
		Ant1	2472	0.5984	10	-94.02	≤20	PASS
		Ant2	2472	1.6672	10	-83.33	≤20	PASS
	11N20MIMO	total	2412	1.3236	10	-86.76	≤20	PASS
			2442	1.3390	10	-86.61	≤20	PASS
			2472	1.2829	10	-87.17	≤20	PASS
	11N40MIMO	total	2422	0.4497	5	-91.01	≤20	PASS
			2442	0.4143	5	-91.71	≤20	PASS
			2462	0.3794	5	-92.41	≤20	PASS

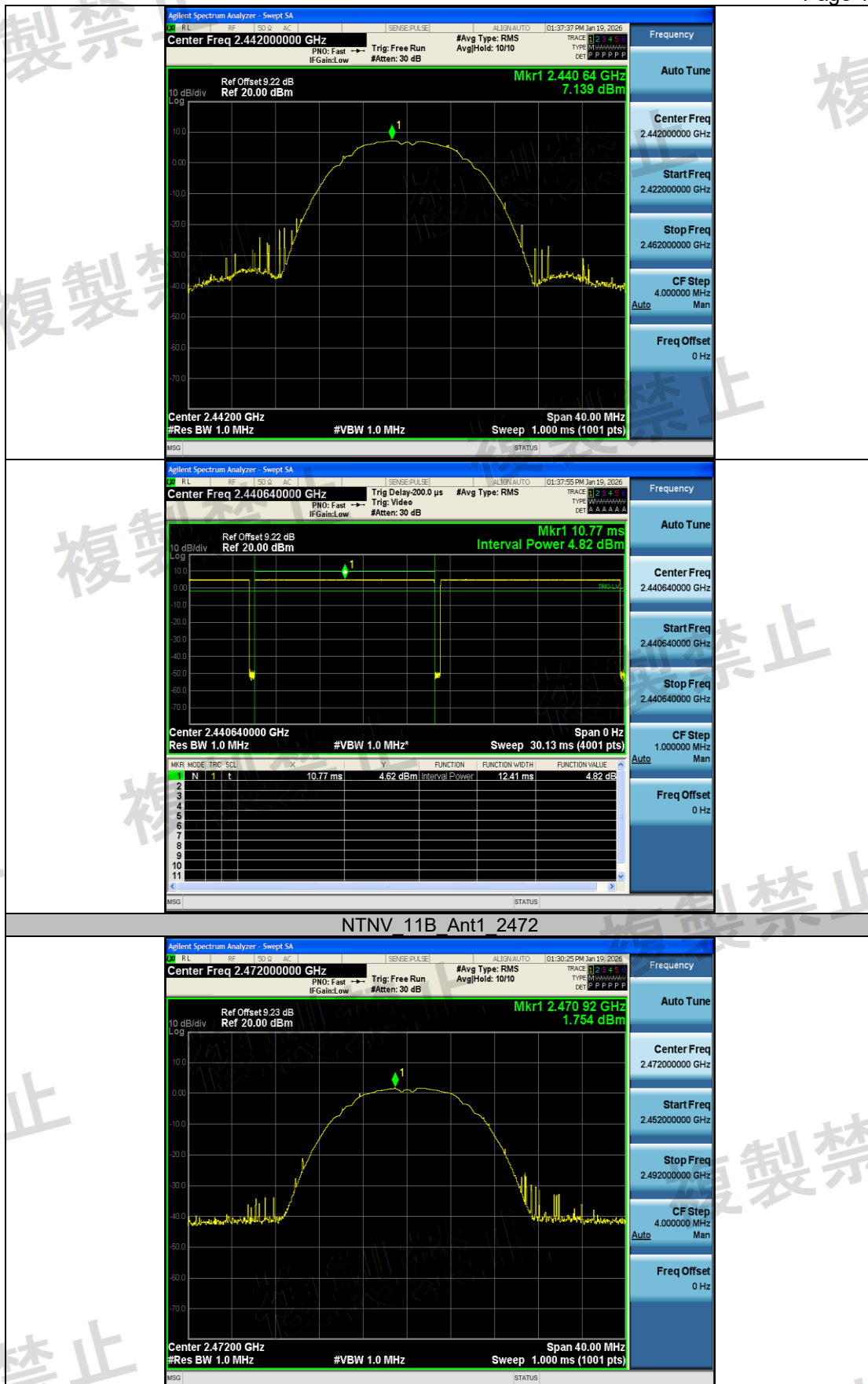
Remark:

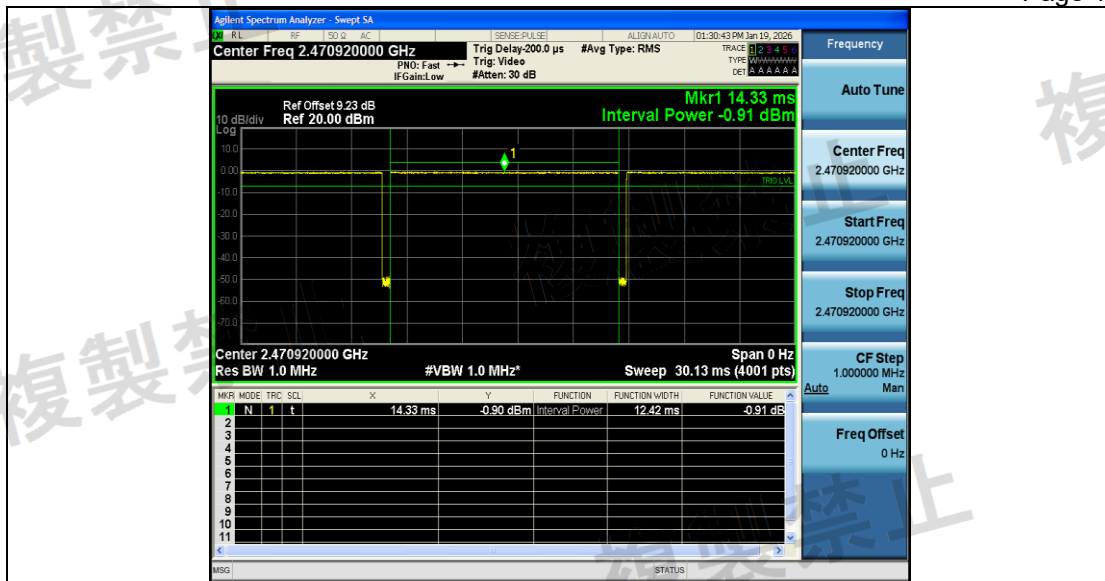
1, The item was tested at 25℃ and 55% humidity condition;



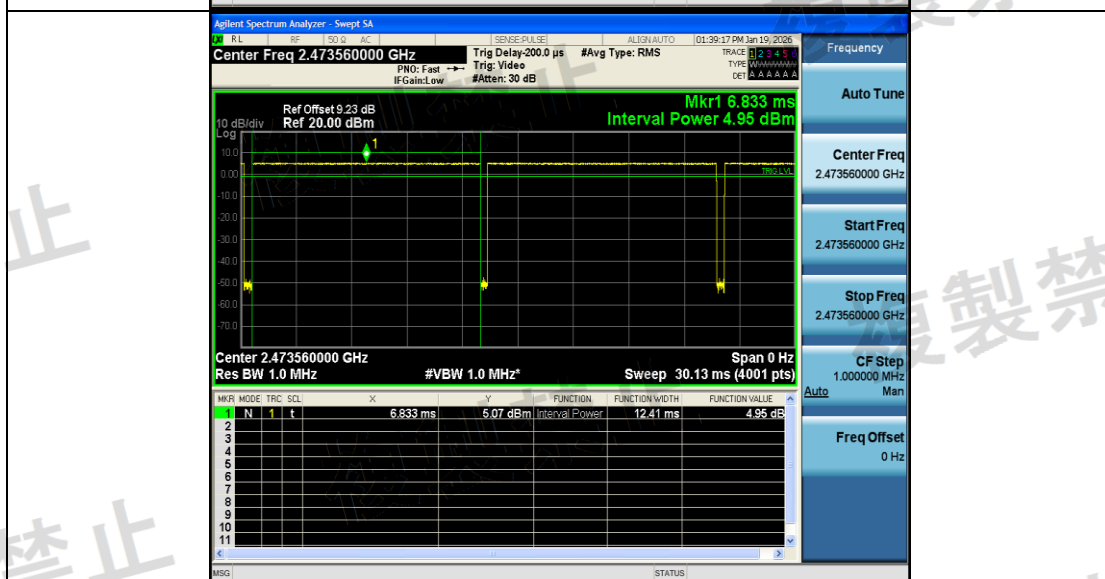
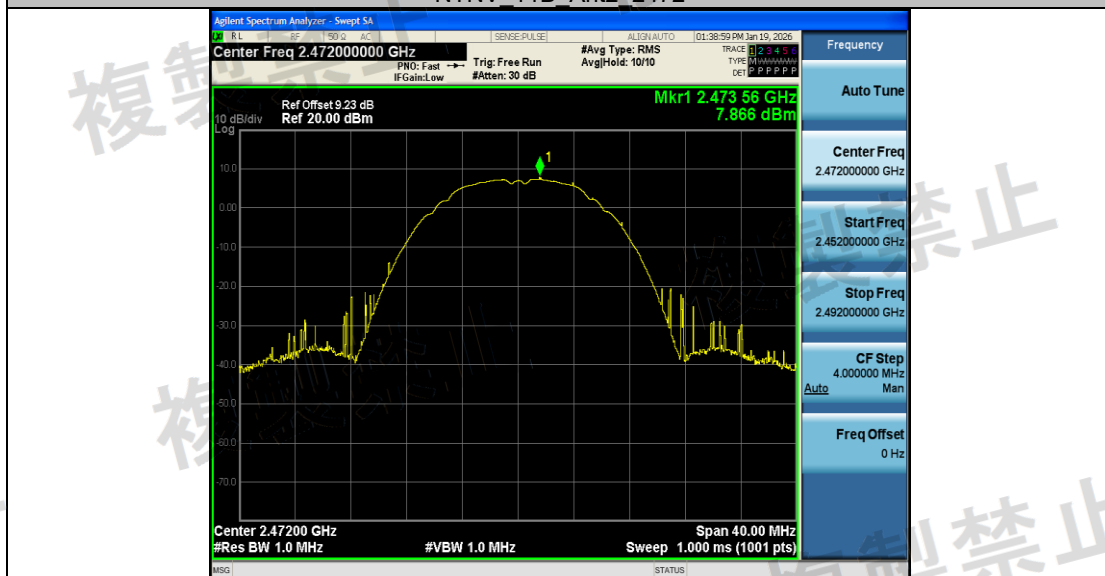






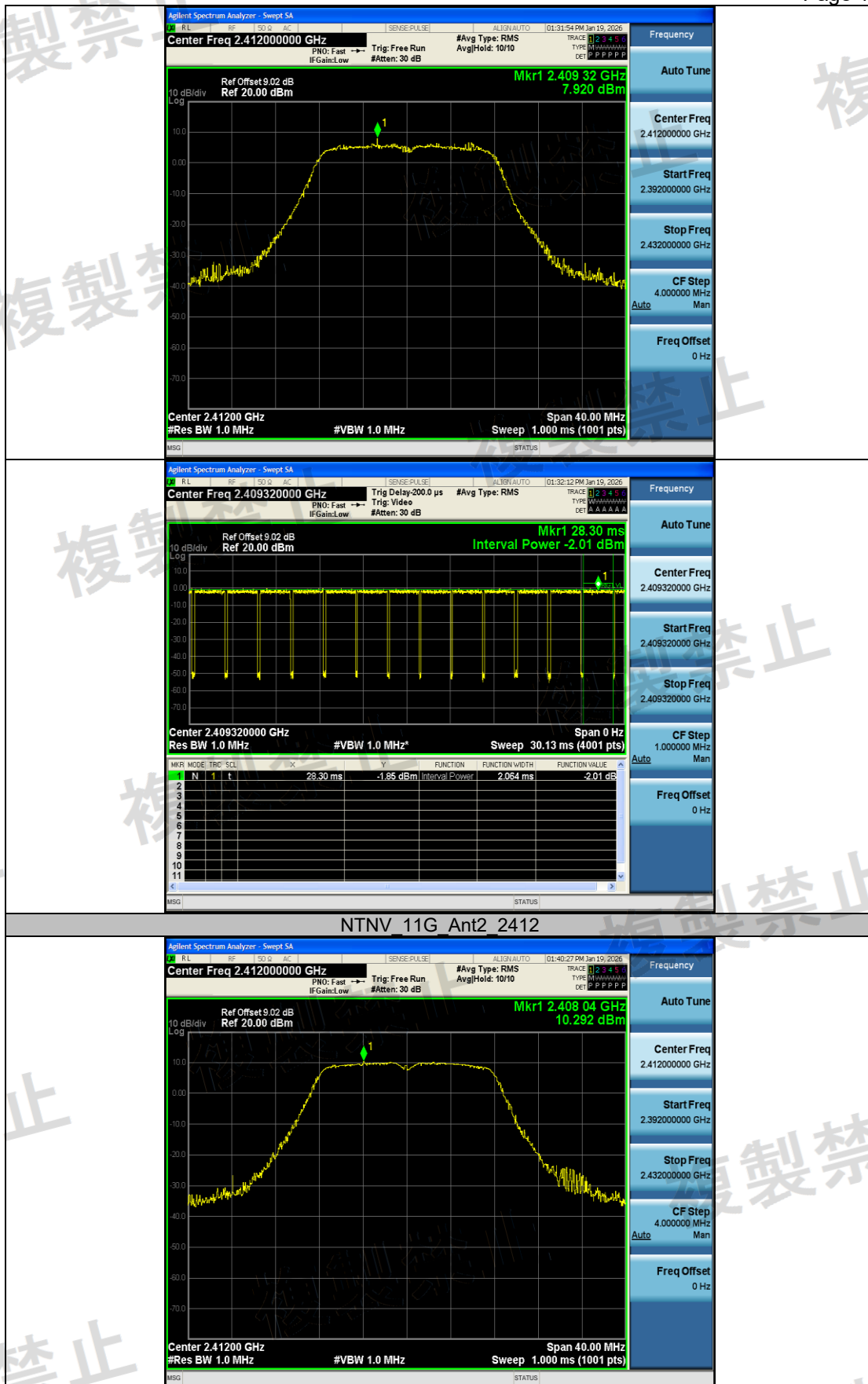


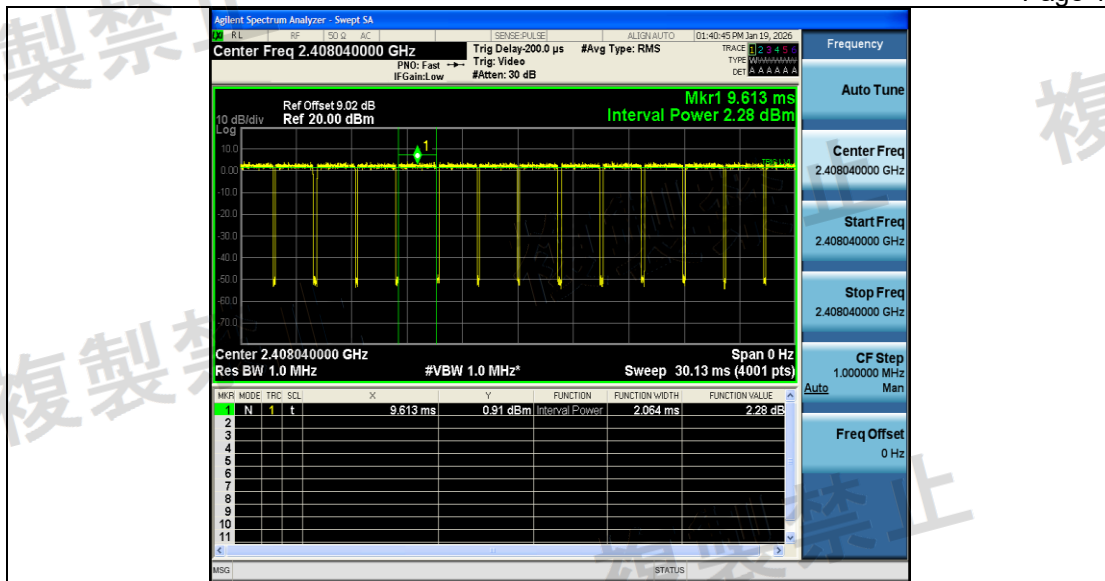
NTNV 11B Ant2 2472



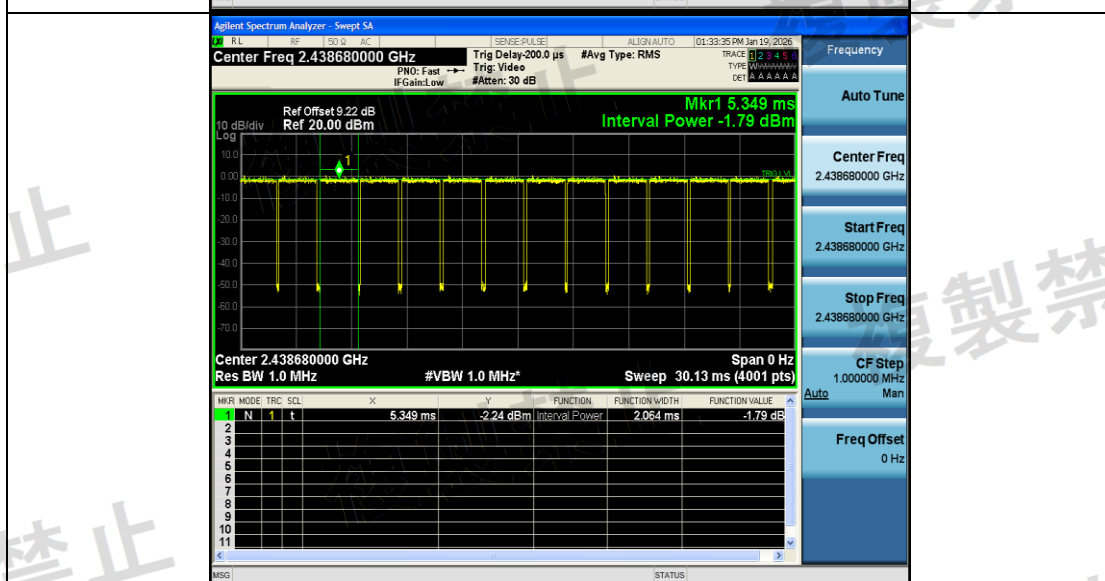
NTNV 11G Ant1 2412





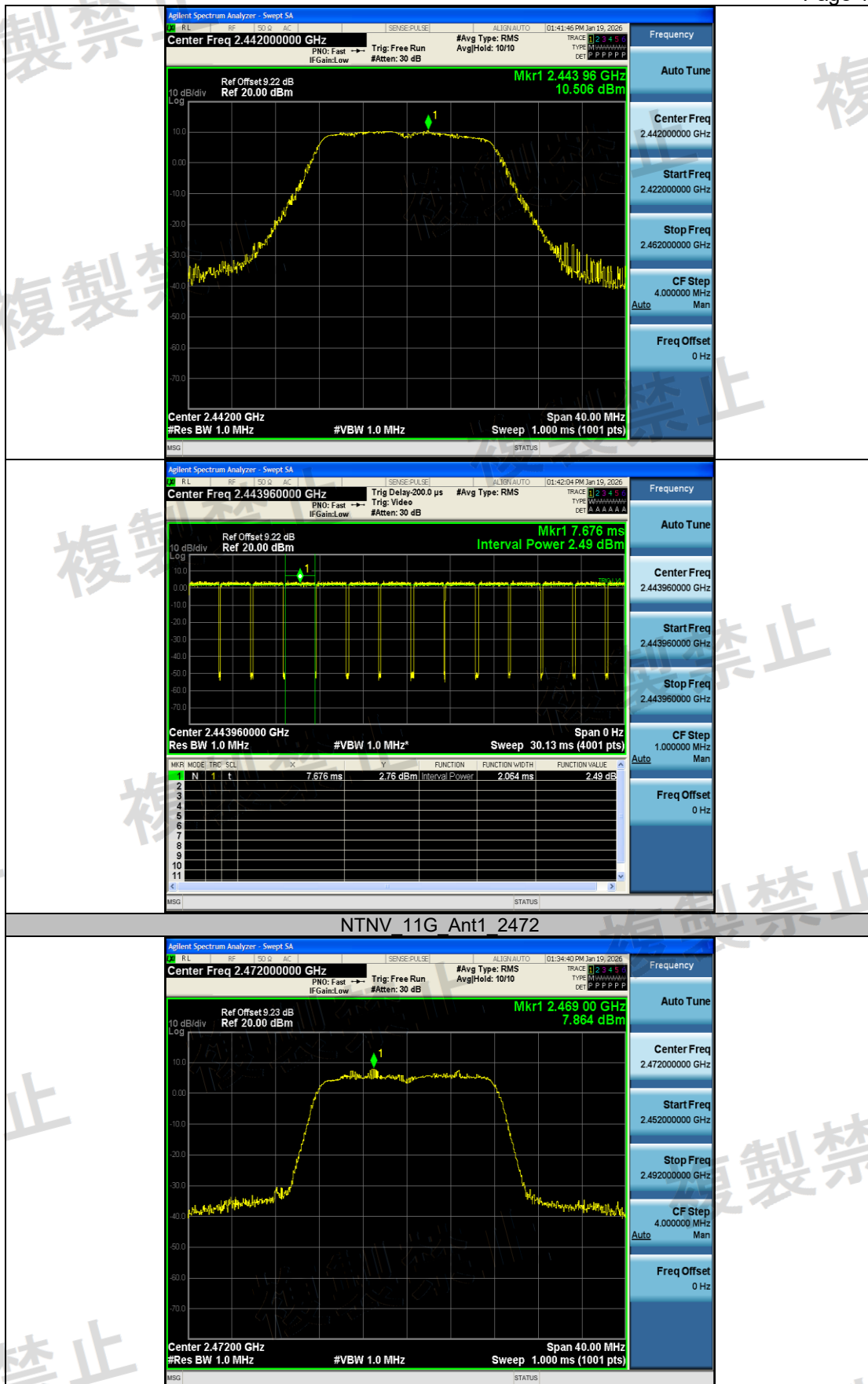


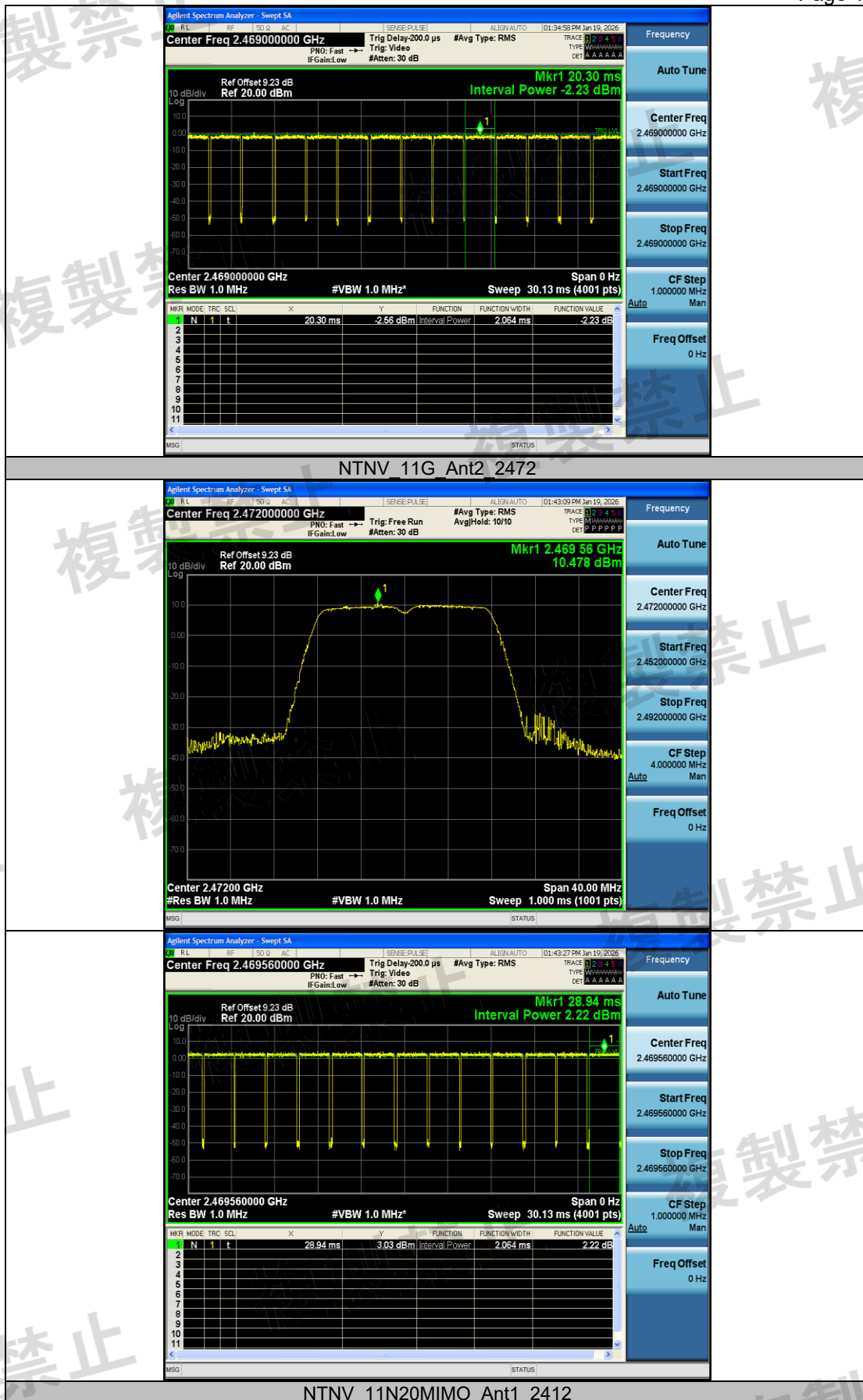
NTNV 11G Ant1 2442

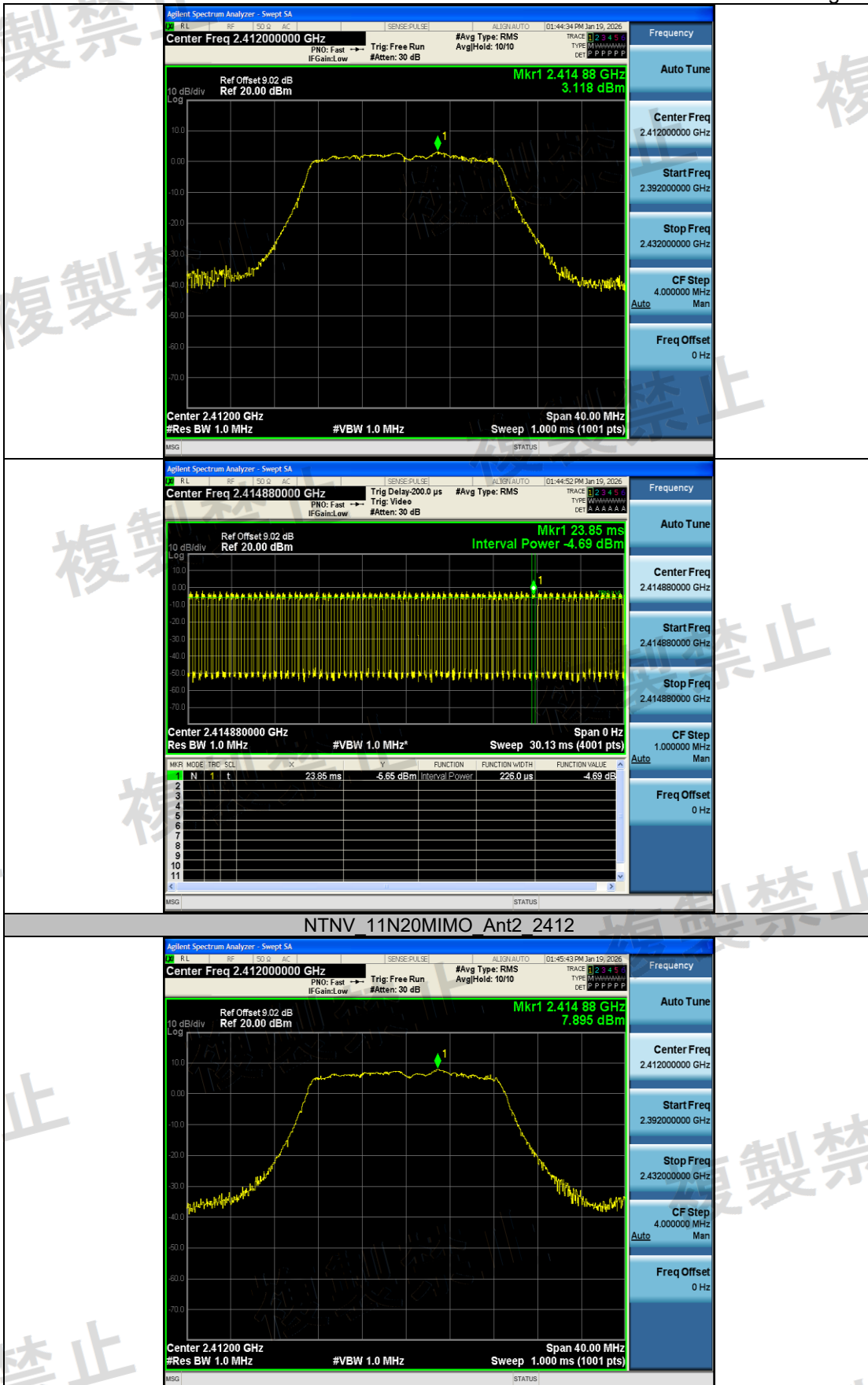


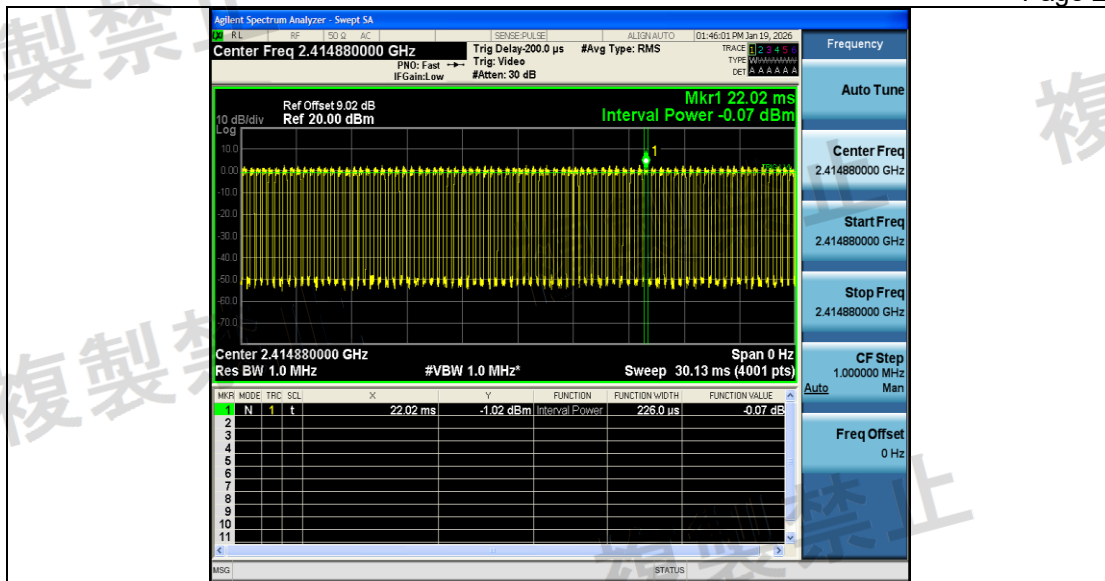
NTNV 11G Ant2 2442



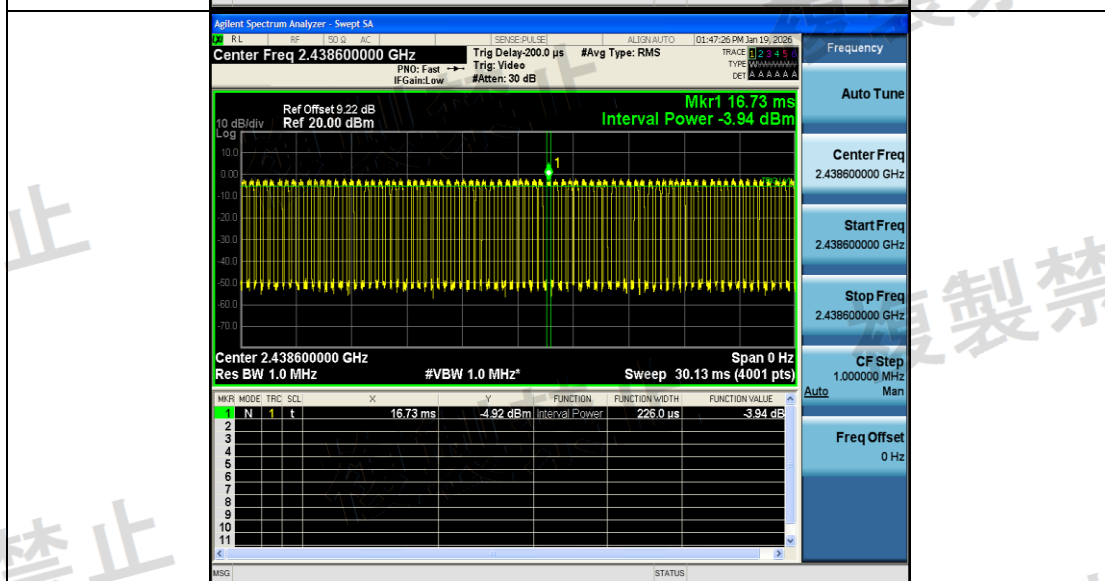






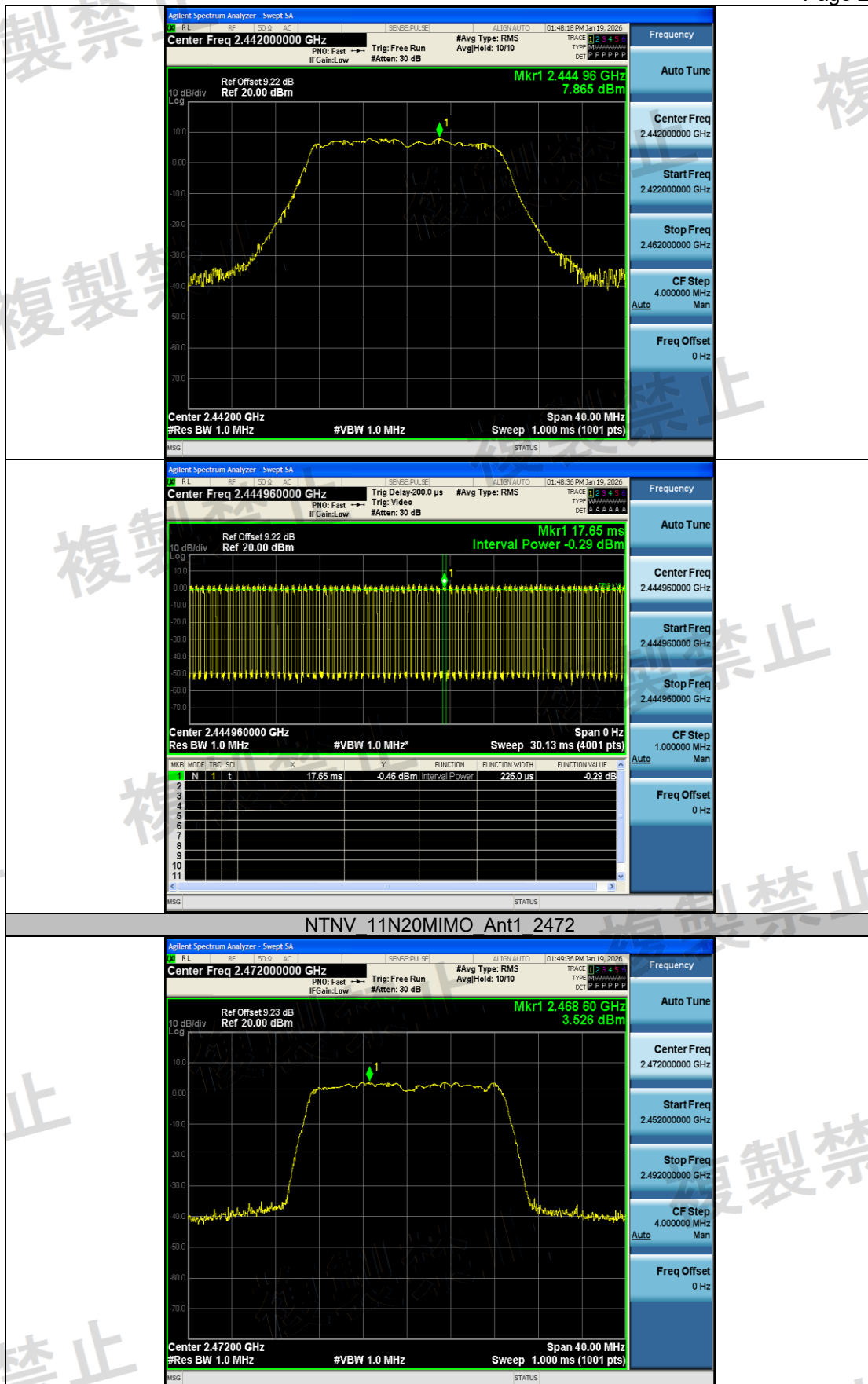


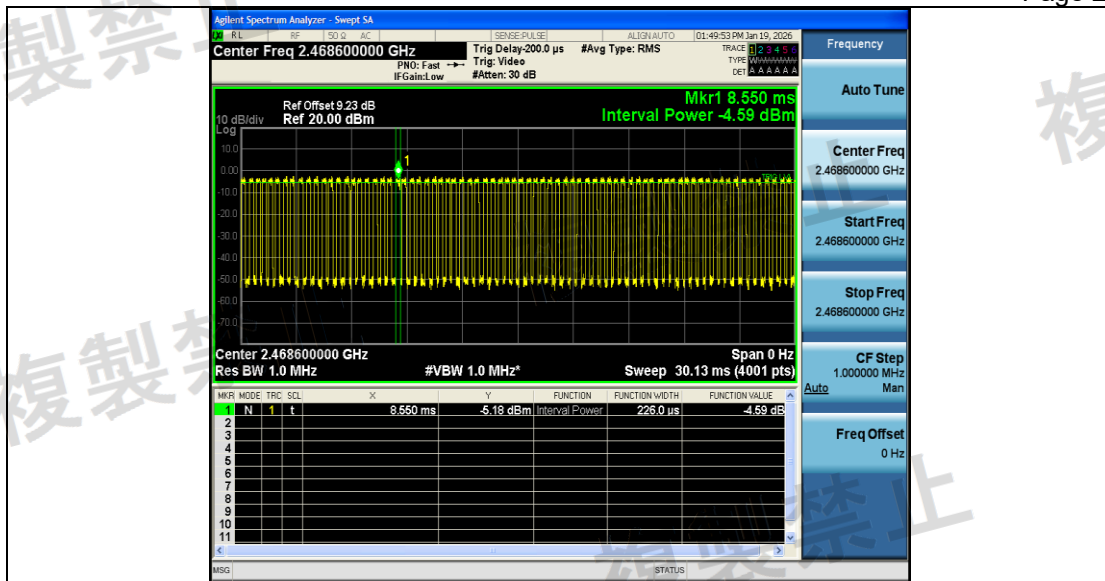
NTNV 11N20MIMO Ant1 2442



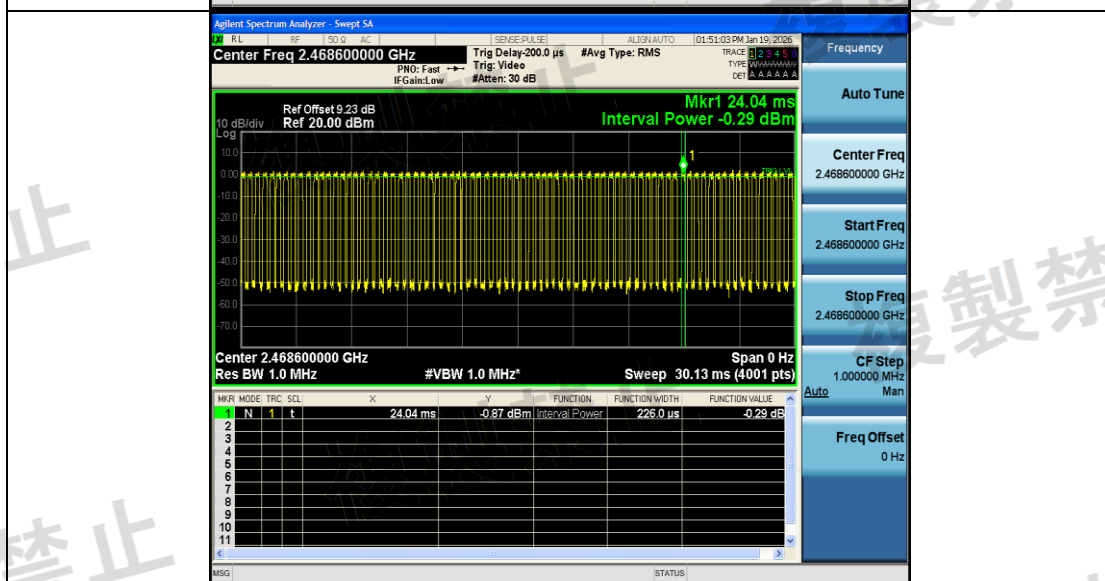
NTNV 11N20MIMO Ant2 2442





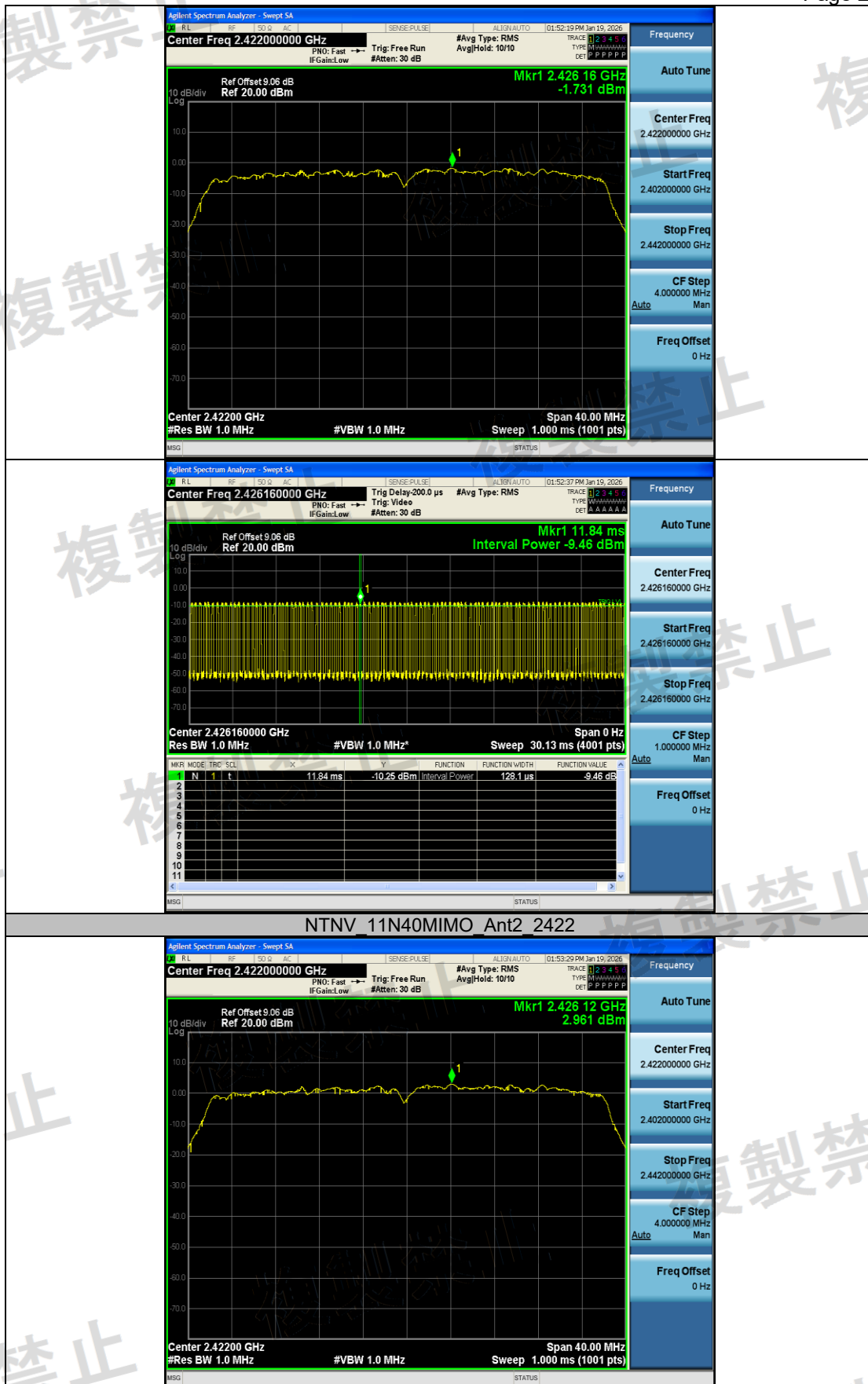


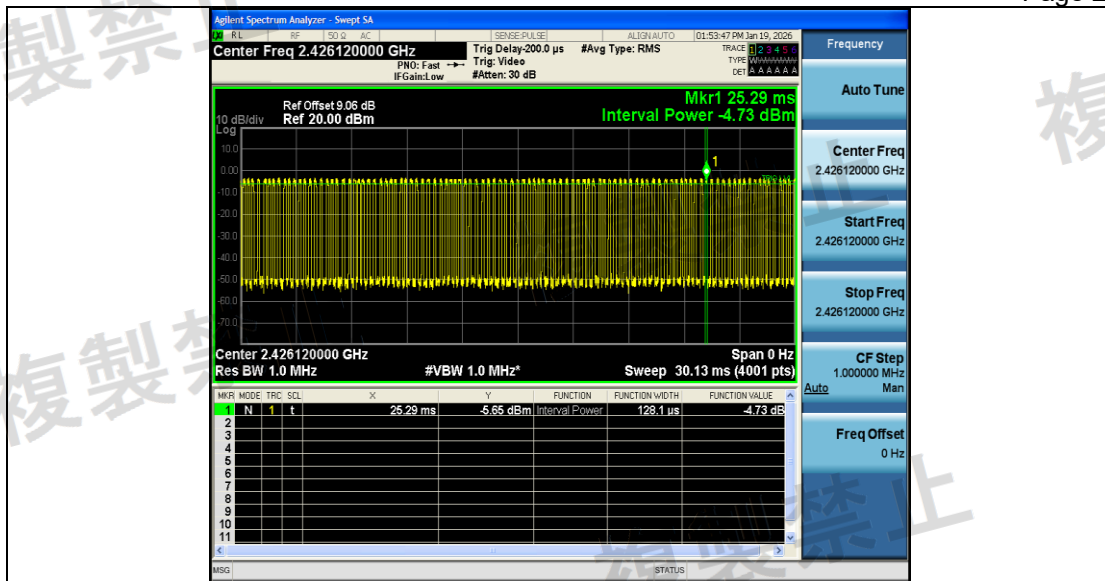
NTNV 11N20MIMO Ant2 2472



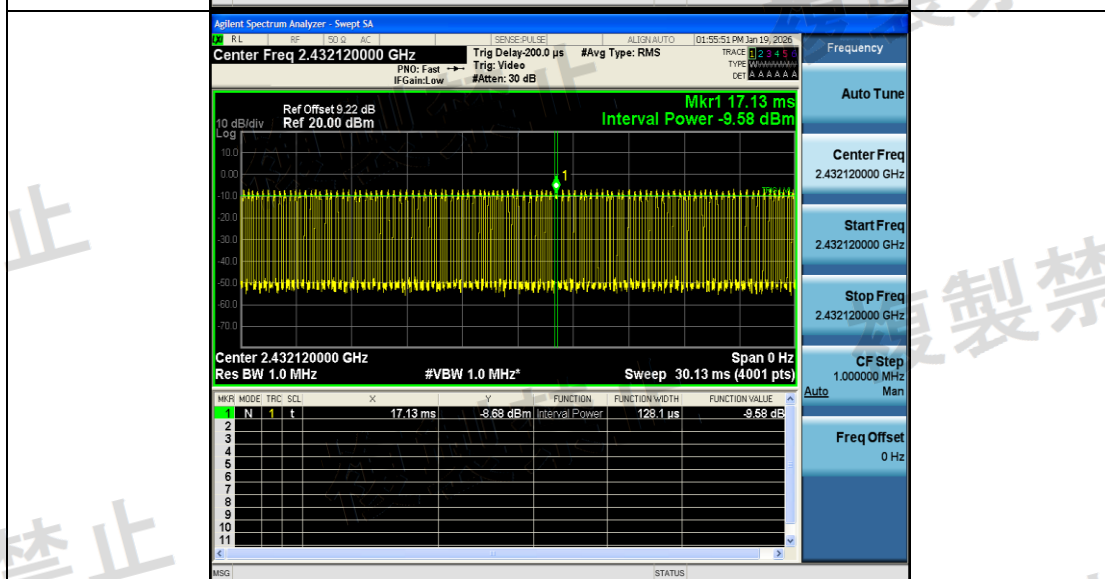
NTNV 11N40MIMO Ant1 2422





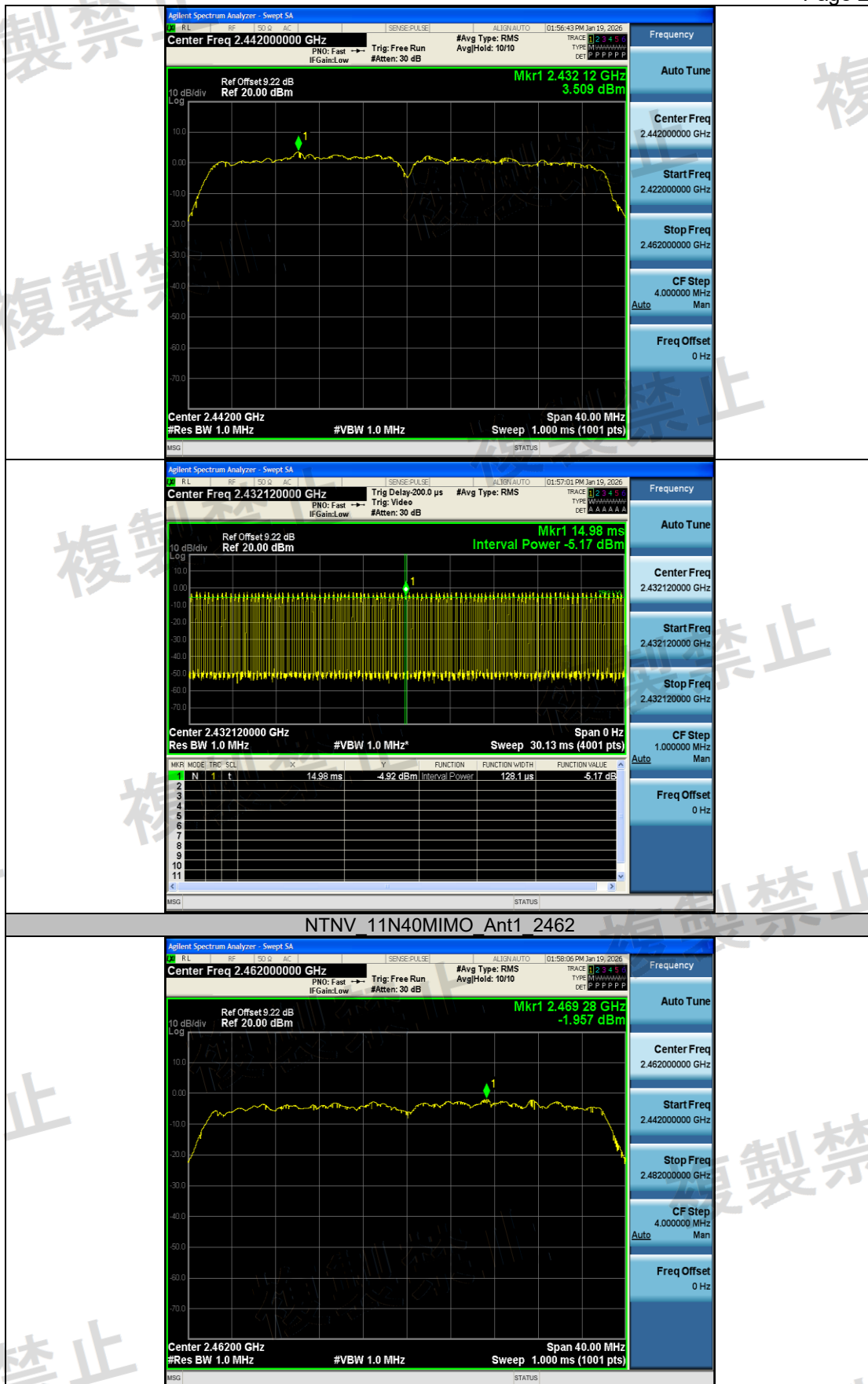


NTNV 11N40MIMO Ant1 2442



NTNV 11N40MIMO Ant2 2442



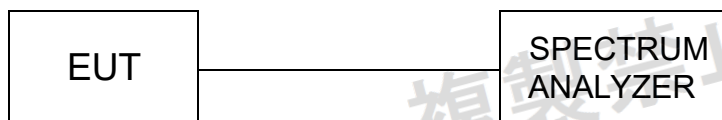






4.2. Frequency Error

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:1MHz

Rbw:10KHz

Vbw:10KHz

Sweep time:Auto

Dectector mode: Positive peak

Indication mode: max hold

LIMIT

Tolerance of frequency shall be ± 50 ppm.

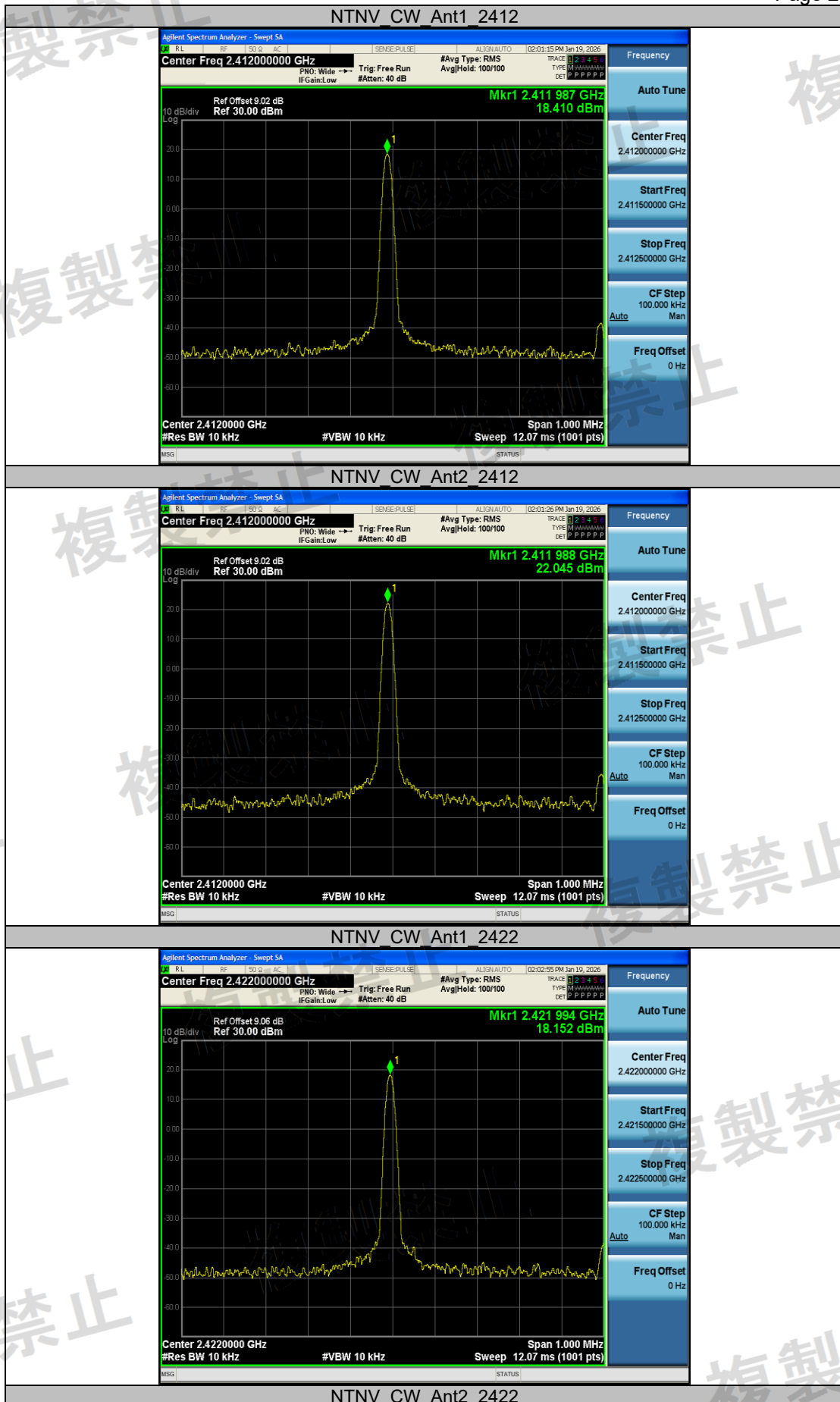
TEST RESULTS

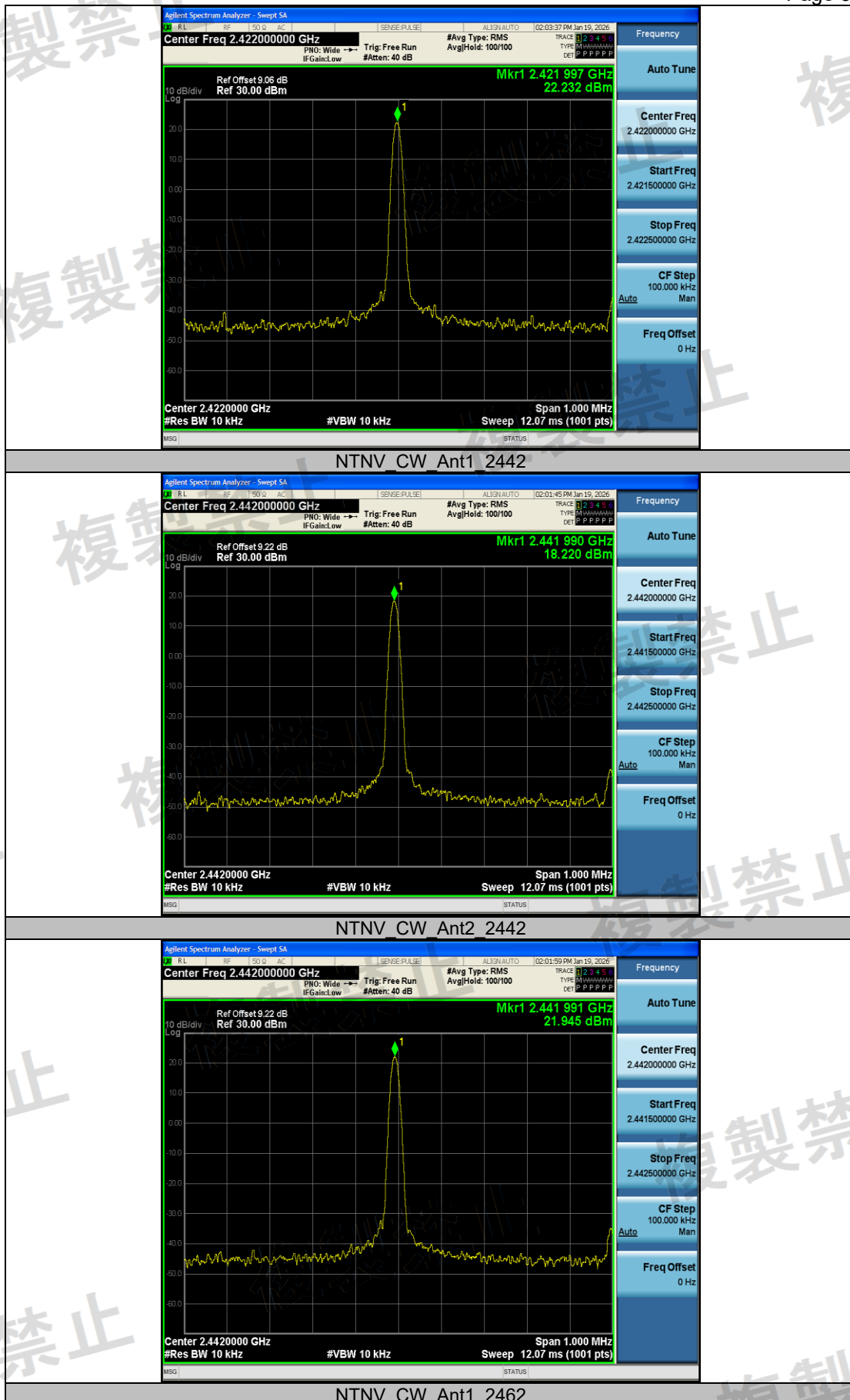
Test Condition	Test Mode	Antenna	Freq (MHz)	CenterFreq [MHz]	Result [ppm]	Limit [ppm]	Verdict
NTNV	CW	Ant1	2412	2411.987	-5.38972	± 50	PASS
		Ant2	2412	2411.988	-4.97512	± 50	PASS
		Ant1	2422	2421.994	-2.47729	± 50	PASS
		Ant2	2422	2421.997	-1.23865	± 50	PASS
		Ant1	2442	2441.99	-4.09500	± 50	PASS
		Ant2	2442	2441.991	-3.68550	± 50	PASS
		Ant1	2462	2461.998	-0.81235	± 50	PASS
		Ant2	2462	2461.998	-0.81235	± 50	PASS
		Ant1	2472	2471.992	-3.23625	± 50	PASS
		Ant2	2472	2471.993	-2.83172	± 50	PASS

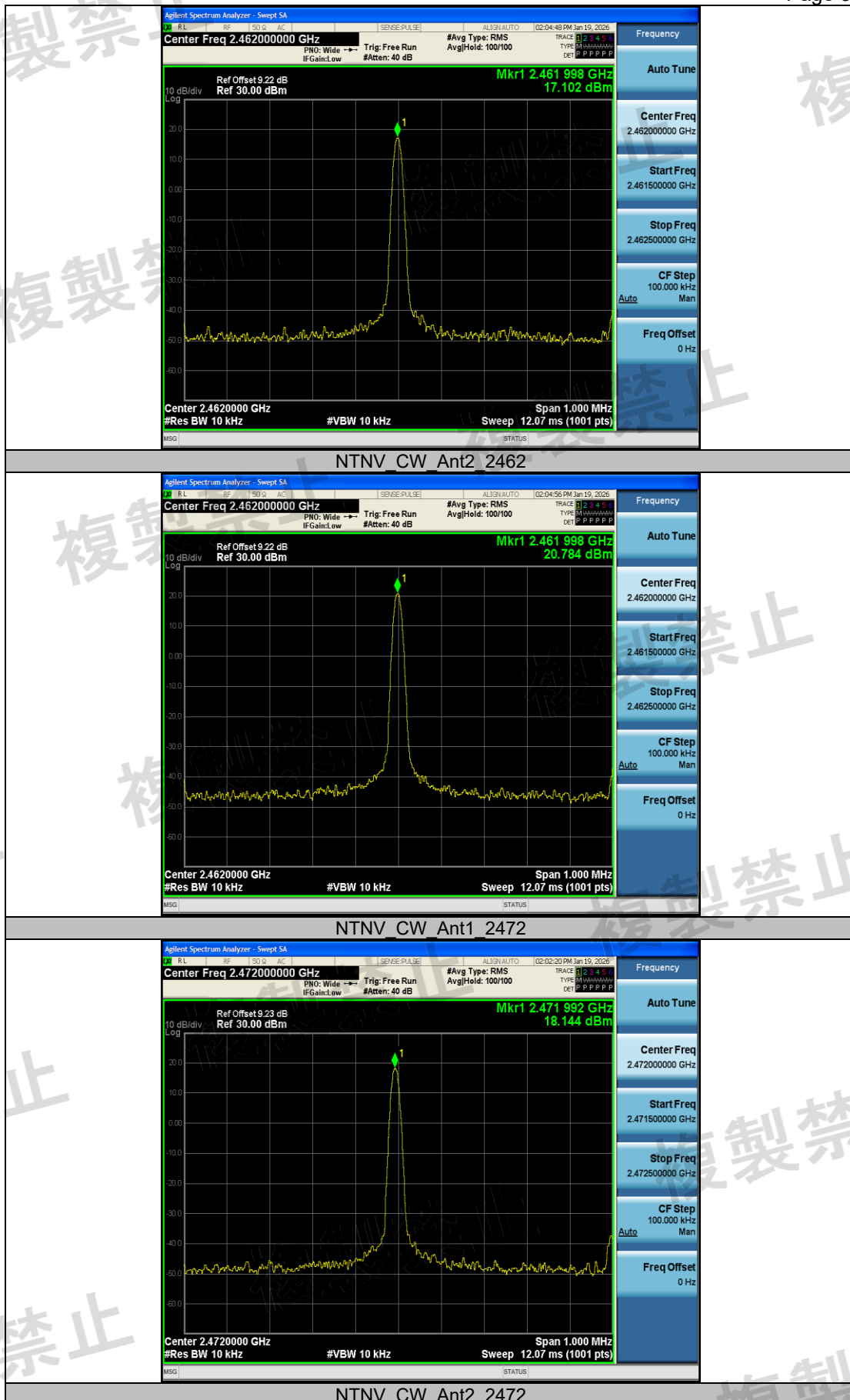
- Note:
1. The test results including the cable lose.
 2. The item was tested at 25 °C and 55% humidity condition;
 - 3.All condition has been testd,list the worst case in this item

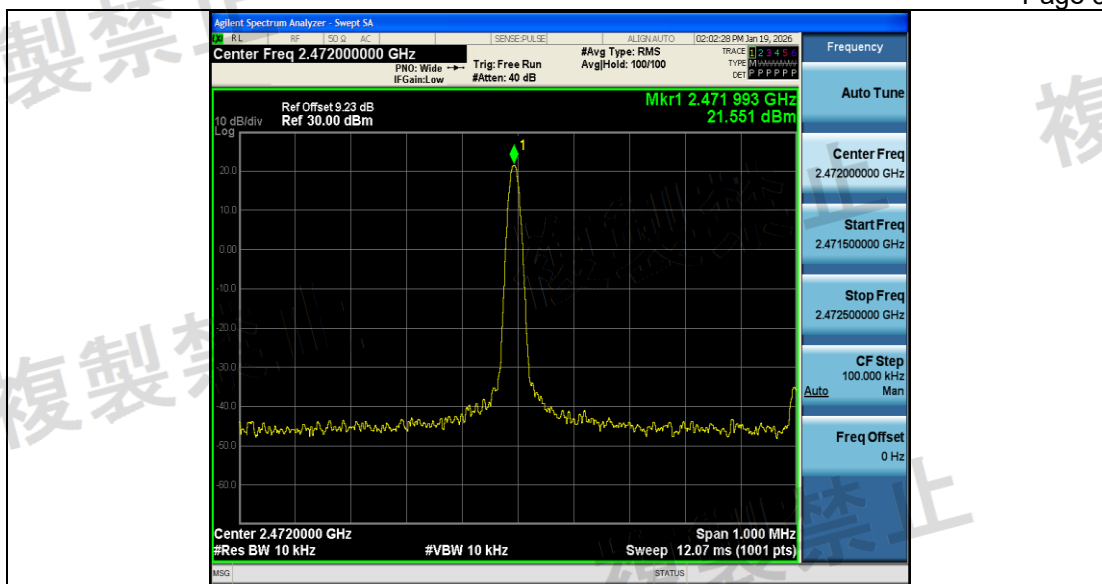
Test plot as follows:











4.3. Interference Prevention Function

The device consists of the Antenna and transmitter module. Component transmitter module also can use the protocol function to protect interference come from outside.

TEST EQUIPMENT

CMW500

TEST SOFTWARE

N/A

TEST PROCEDURE

1. Open the software
2. Scan for EUT, and read the MAC address.

TEST RESULTS

The unit does meet the requirements.

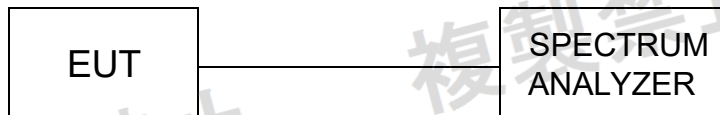
MAC Address:12:F4:D8:46:3C:90





4.4. Occupied Bandwidth (99%)

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: modulation

Spectrum Condition:

Frequency: Center frequency in the band to be used

Span:40MHz

RBW:300KHz

VBW:300KHz

Sweep time:Auto

Dectector mode: Positive peak

Indication mode: max hold

LIMIT

Test Item	Limits
Occupied Bandwidth	FH<83.5MHz;
	26MHz≦OFDM 40M system ≦40MHz;
	OFDM 20M system, DS, Others ≦26MHz





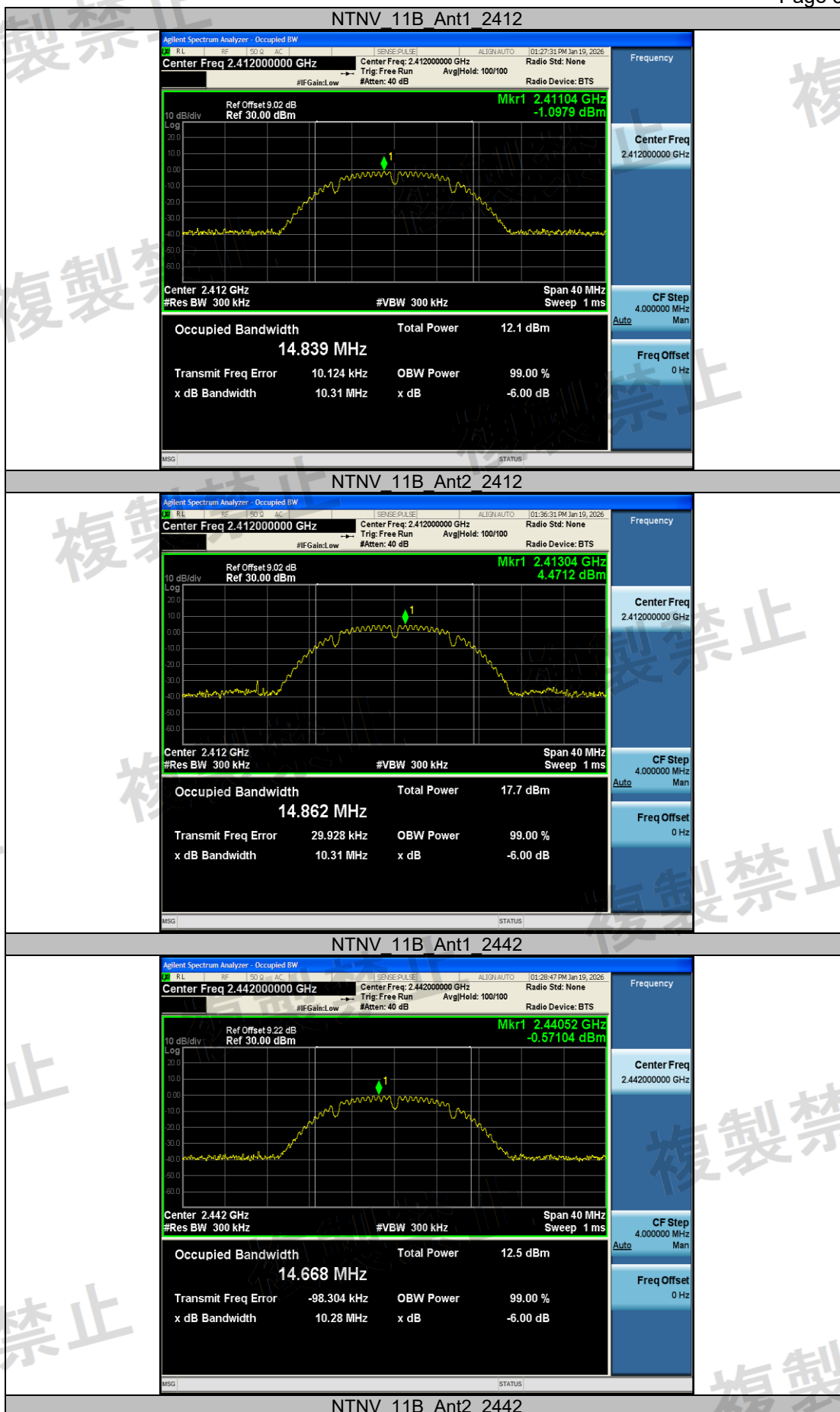
TEST RESULTS

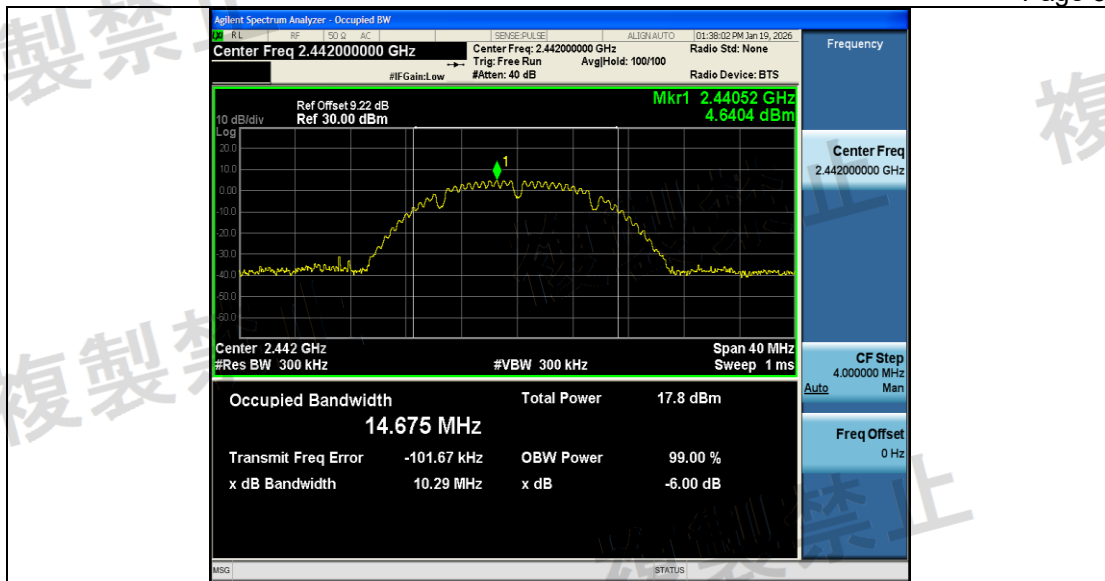
Test Condition	Test Mode	Antenna	Freq (MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	14.839	≤26	PASS
		Ant2	2412	14.862	≤26	PASS
		Ant1	2442	14.668	≤26	PASS
		Ant2	2442	14.675	≤26	PASS
		Ant1	2472	14.678	≤26	PASS
		Ant2	2472	14.693	≤26	PASS
	11G	Ant1	2412	16.532	≤26	PASS
		Ant2	2412	16.512	≤26	PASS
		Ant1	2442	16.464	≤26	PASS
		Ant2	2442	16.500	≤26	PASS
		Ant1	2472	16.405	≤26	PASS
		Ant2	2472	16.394	≤26	PASS
	11N20MIMO	Ant1	2412	17.658	≤26	PASS
		Ant2	2412	17.648	≤26	PASS
		Ant1	2442	17.734	≤26	PASS
		Ant2	2442	17.726	≤26	PASS
		Ant1	2472	17.689	≤26	PASS
		Ant2	2472	17.675	≤26	PASS
	11N40MIMO	Ant1	2422	36.211	26-40	PASS
		Ant2	2422	36.033	26-40	PASS
		Ant1	2442	36.146	26-40	PASS
		Ant2	2442	36.120	26-40	PASS
		Ant1	2462	36.262	26-40	PASS
		Ant2	2462	36.172	26-40	PASS

Note: 1. The test results including the cable lose.
2. The item was tested at 25 °C and 55% humidity condition;
3.All condition has been testd,list the worst case in this item

Test plot as follows:







NTNV 11B Ant1 2472

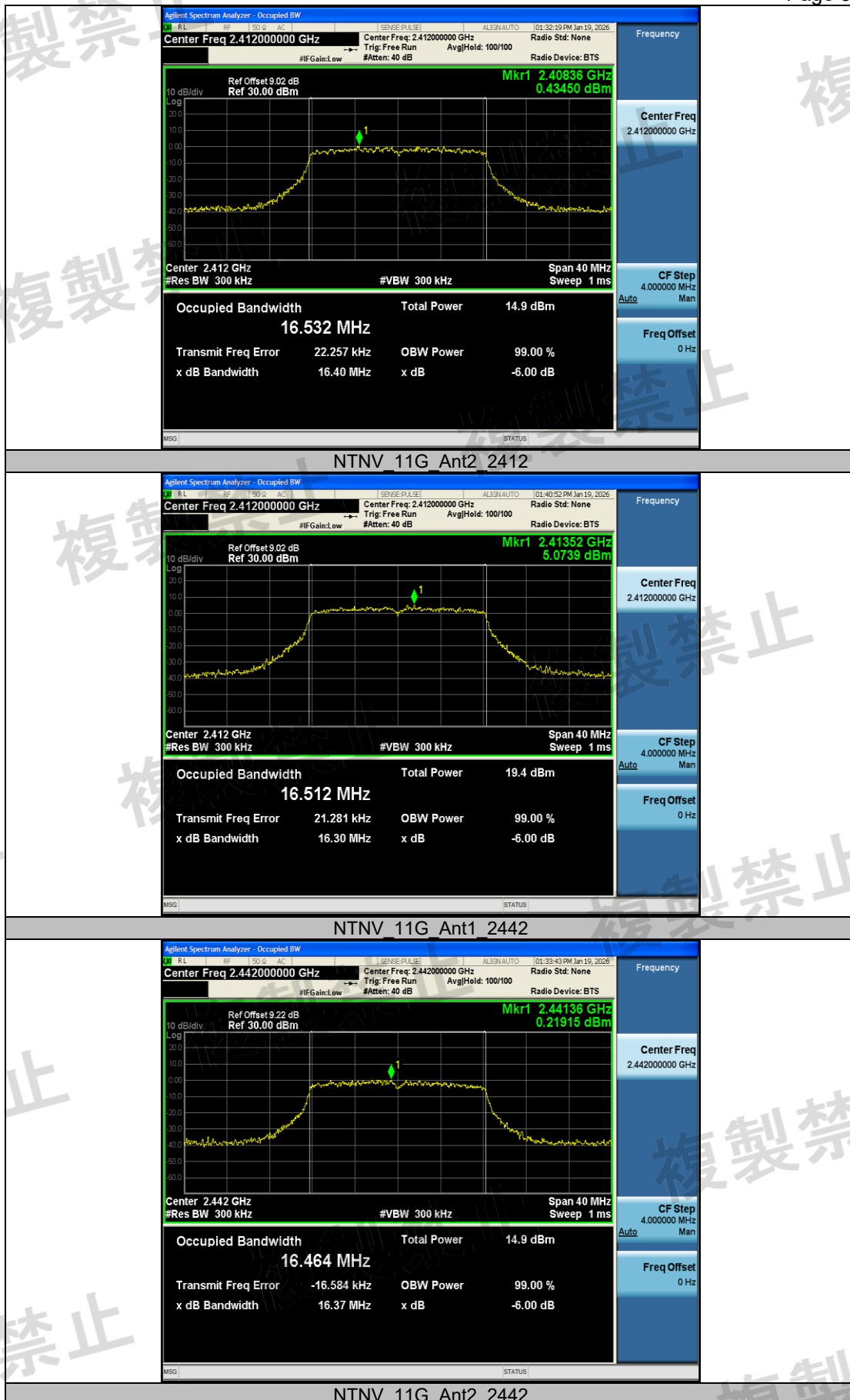


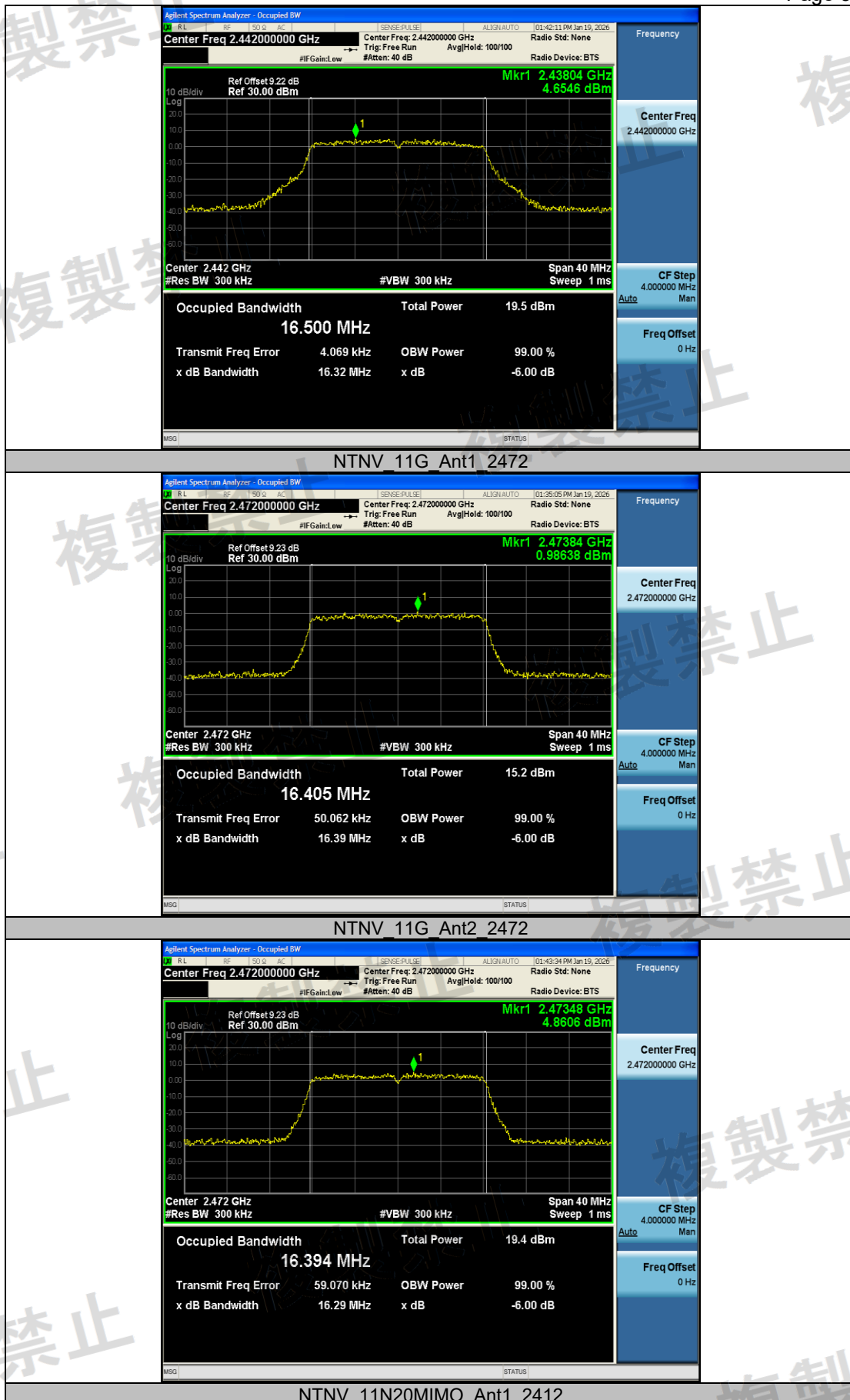
NTNV 11B Ant2 2472

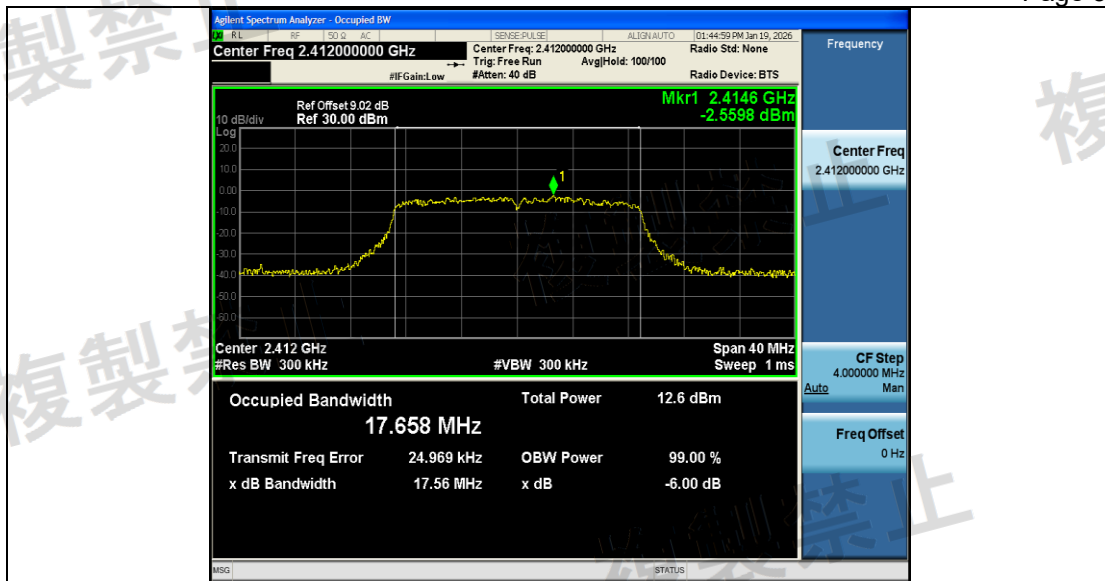


NTNV 11G Ant1 2412

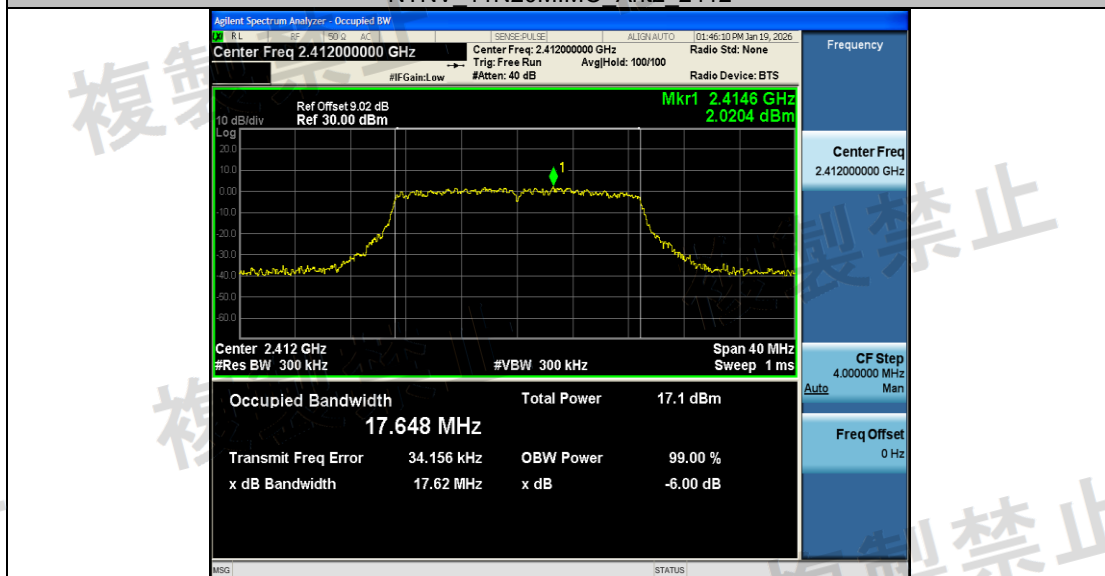




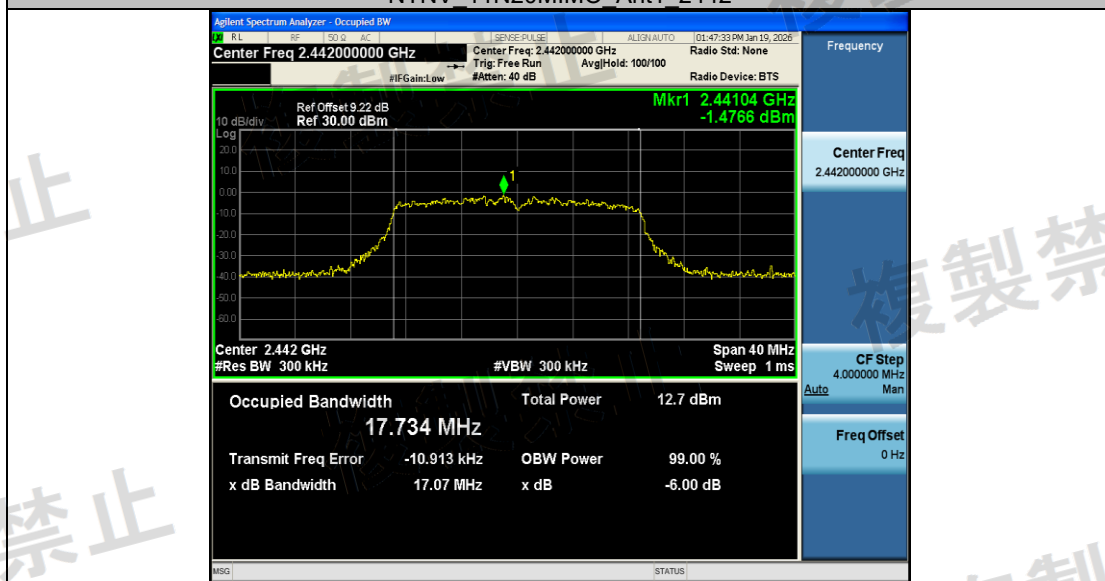




NTNV 11N20MIMO Ant2 2412

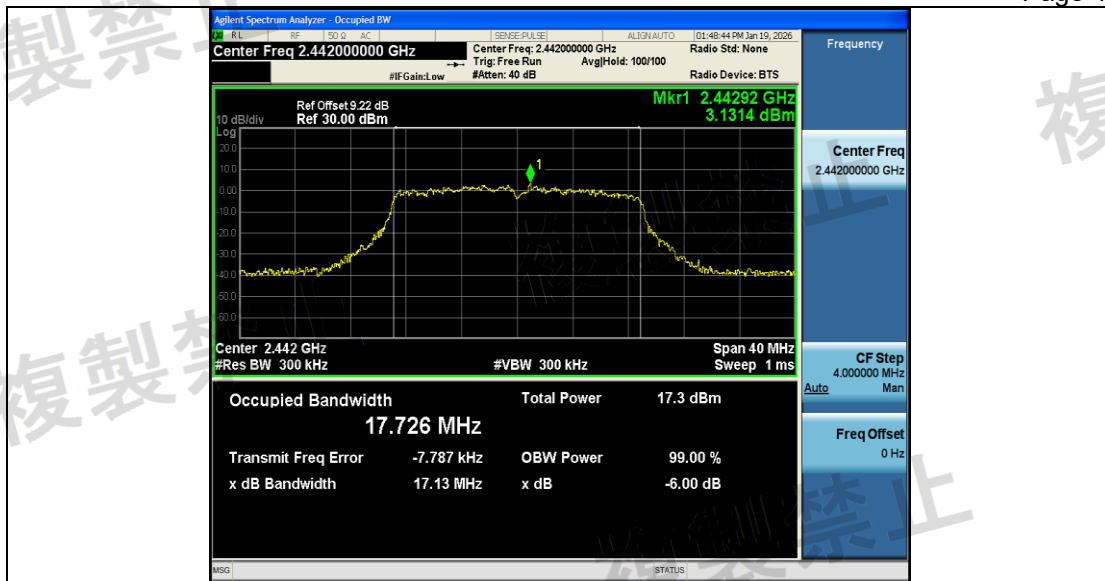


NTNV 11N20MIMO Ant1 2442

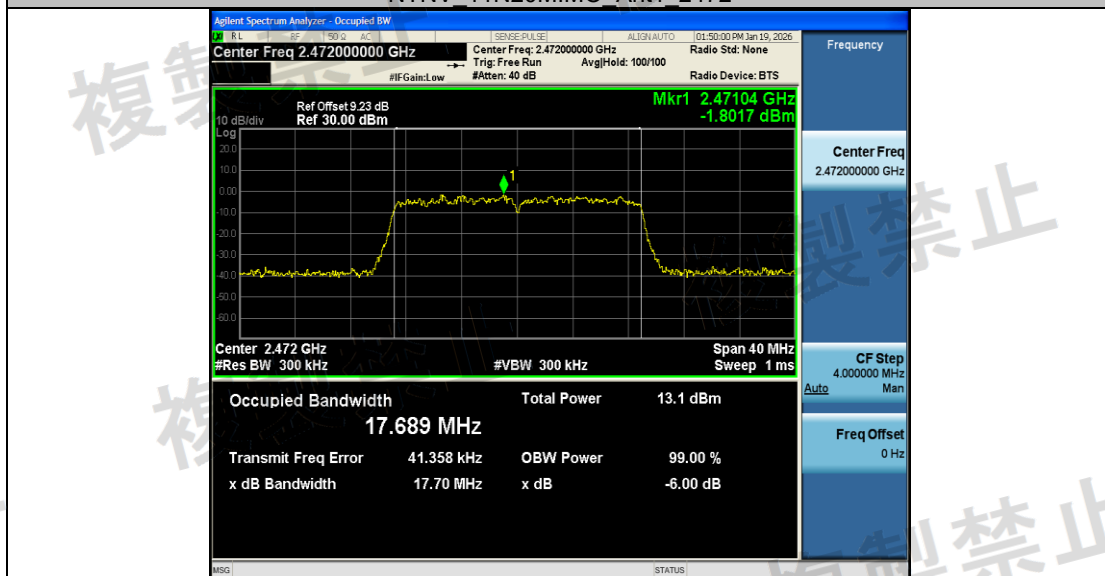


NTNV 11N20MIMO Ant2 2442

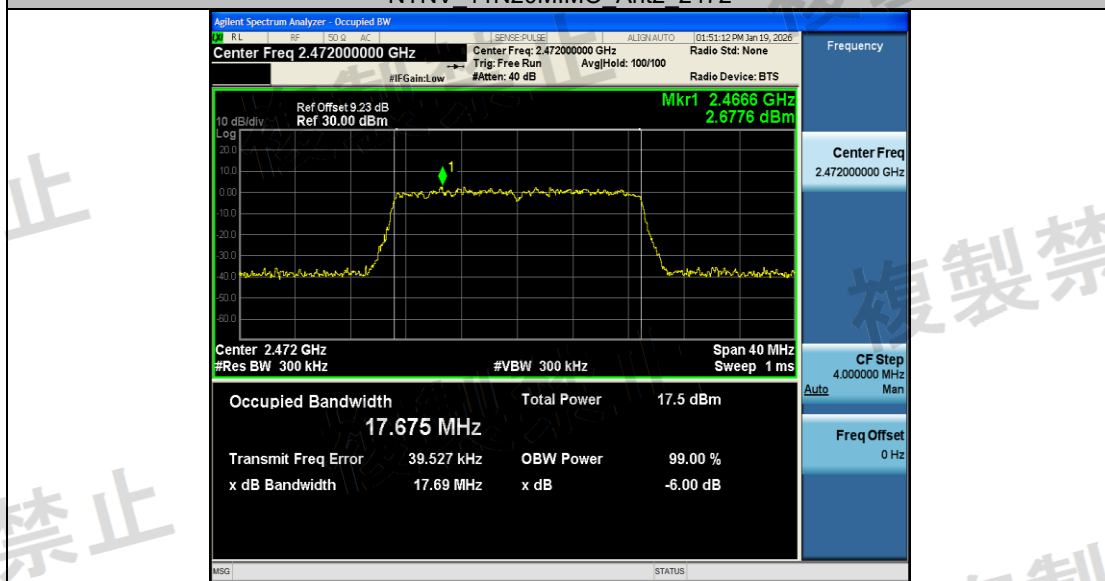




NTNV 11N20MIMO Ant1 2472

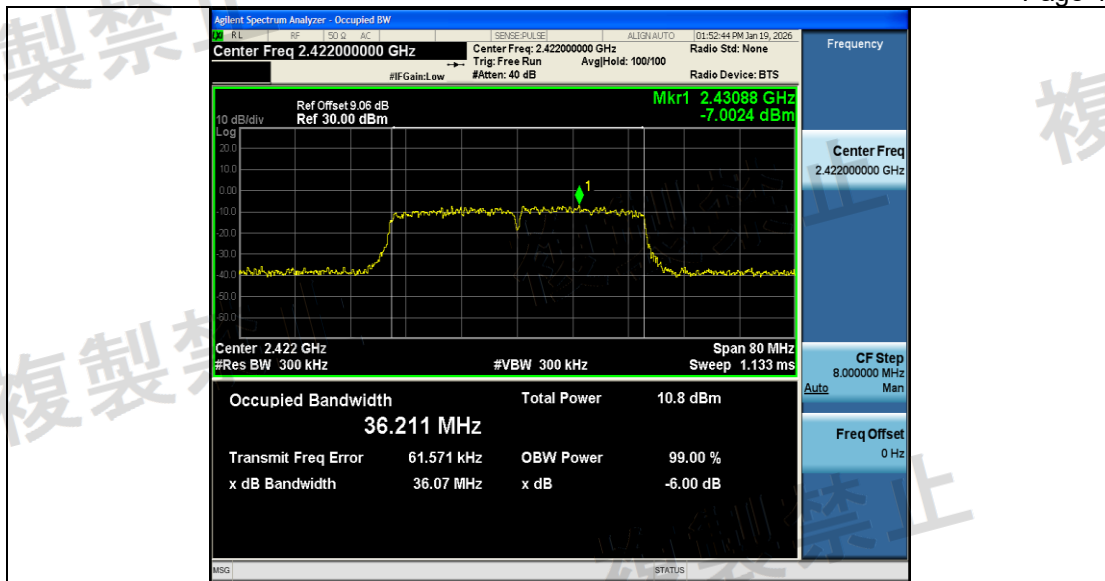


NTNV 11N20MIMO Ant2 2472

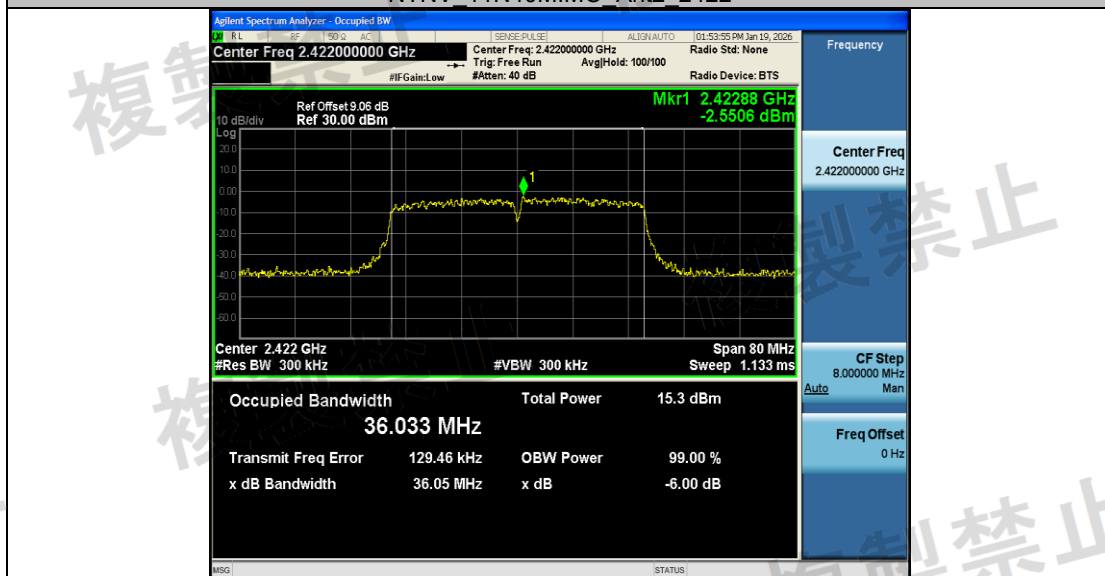


NTNV 11N40MIMO Ant1 2422

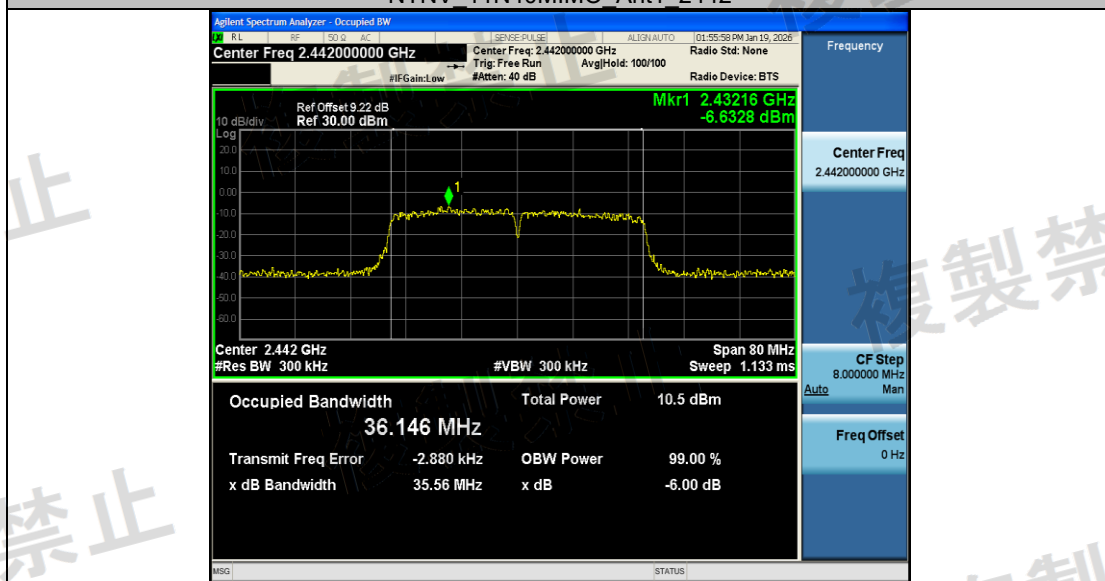




NTNV 11N40MIMO Ant2 2422

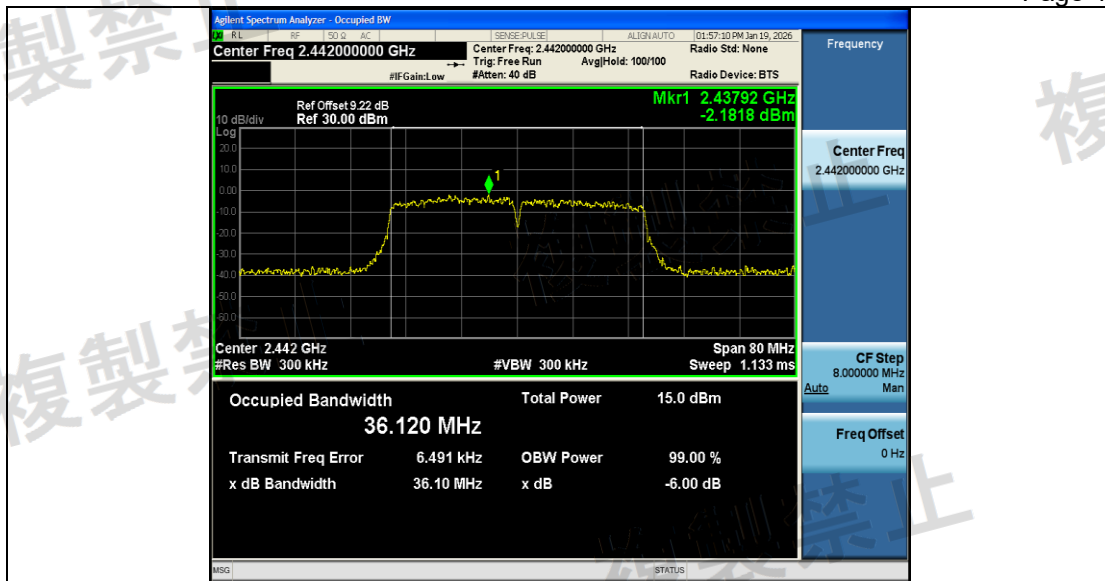


NTNV 11N40MIMO Ant1 2442

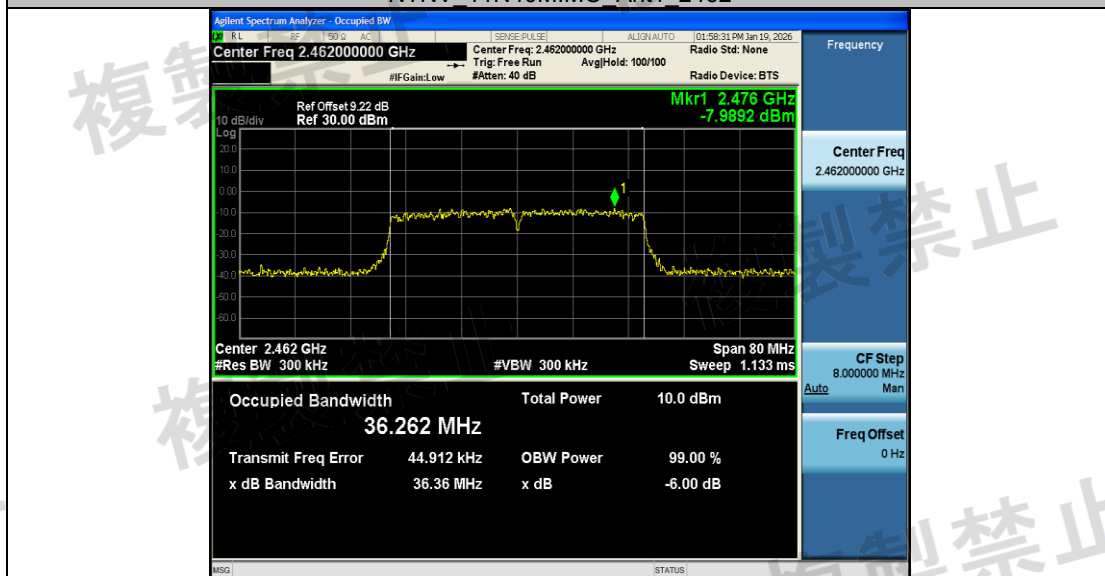


NTNV 11N40MIMO Ant2 2442

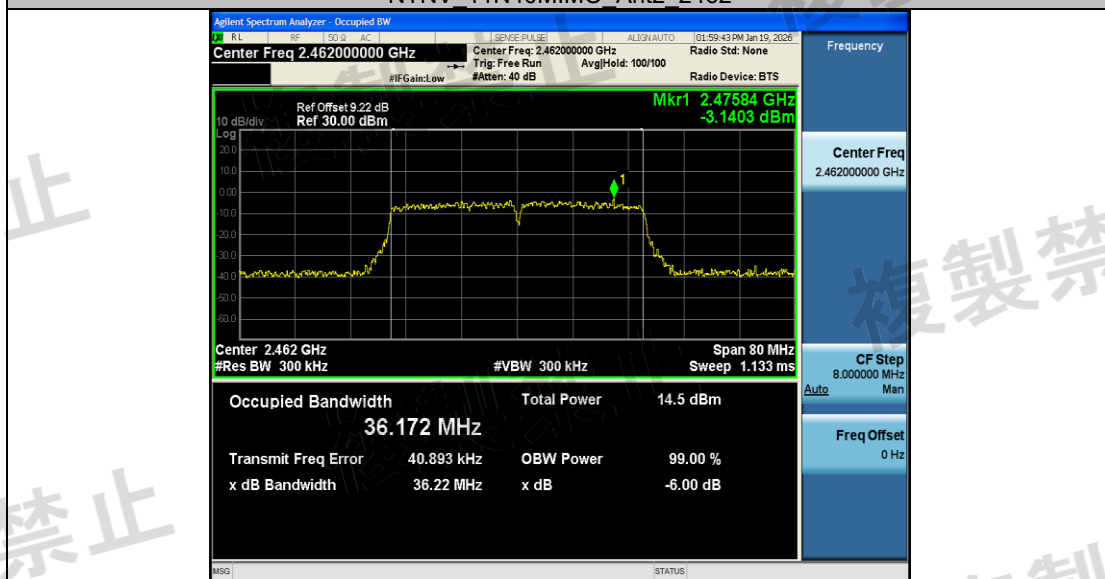




NTNV 11N40MIMO Ant1 2462



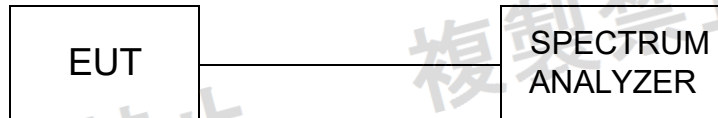
NTNV 11N40MIMO Ant2 2462





4.5. Spurious emission intensity

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: modulation

Spectrum Condition:

Frequency: 30MHz-13GHz

RBW: 1MHz (30MHz-1GHz), 1MHz(1GHz-13GHz)

VBW: 1MHz (30MHz-1GHz), 1MHz(1GHz-13GHz)

Sweep time:Auto

Dectector mode: Positive peak

Indication mode: max hold

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 $\mu\text{W/MHz}$ (-16dBm/MHz) or less
b. $2,387 \text{ MHz} > f$ and $2,496.5 \text{ MHz} < f$ 2.5 $\mu\text{W/MHz}$ (-26dBm/MHz) or less

TEST RESULTS

Test Condition	Test Mode	Antenna	Channel(MHz)	Freq.Range [MHz]	Freq (MHz)	Result [dBm/MHz]	Limit [dBm/MHz]	Result [$\mu\text{W/MHz}$]	Limit [$\mu\text{W/MHz}$]	Verdict
NTNV	11B	Ant1	2412	30~2387	1982.77	-48.37	≤ -26	0.01455	≤ 2.5	PASS
				2387~2400	2398.80	-30.25	≤ -16	0.94406	≤ 25	PASS
				2483.5~2496.5	2496.39	-40.30	≤ -16	0.09333	≤ 25	PASS
				2496.5~13000	12975.32	-42.51	≤ -26	0.05610	≤ 2.5	PASS
		Ant2	2412	30~2387	2386.71	-46.36	≤ -26	0.02312	≤ 2.5	PASS
				2387~2400	2398.63	-25.25	≤ -16	2.98538	≤ 25	PASS
				2483.5~2496.5	2487.26	-39.87	≤ -16	0.10304	≤ 25	PASS
				2496.5~13000	12353.48	-42.84	≤ -26	0.05200	≤ 2.5	PASS
		Ant1	2442	30~2387	2378.16	-47.26	≤ -26	0.01879	≤ 2.5	PASS
				2387~2400	2393.65	-39.98	≤ -16	0.10046	≤ 25	PASS
				2483.5~2496.5	2483.83	-40.50	≤ -16	0.08913	≤ 25	PASS
				2496.5~13000	12740.55	-42.92	≤ -26	0.05105	≤ 2.5	PASS
		Ant2	2442	30~2387	1957.73	-48.45	≤ -26	0.01429	≤ 2.5	PASS
				2387~2400	2394.3	-40.30	≤ -16	0.0933	≤ 25	PASS





				5			3	S	
			2483.5~2496.5	2490.99	-40.64	≤-16	0.08630	≤25	PASS
			2496.5~13000	12422.80	-41.86	≤-26	0.06516	≤2.5	PASS
			30~2387	2304.21	-48.44	≤-26	0.01432	≤2.5	PASS
		2387~2400	2399.57	-40.86	≤-16	0.08204	≤25	PASS	
		2483.5~2496.5	2484.58	-31.14	≤-16	0.76913	≤25	PASS	
		2496.5~13000	12726.37	-42.53	≤-26	0.05585	≤2.5	PASS	
		Ant1	2472	30~2387	2304.21	-48.44	≤-26	0.01432	≤2.5
	2387~2400			2399.57	-40.86	≤-16	0.08204	≤25	PASS
	2483.5~2496.5			2484.58	-31.14	≤-16	0.76913	≤25	PASS
	2496.5~13000			12726.37	-42.53	≤-26	0.05585	≤2.5	PASS
		2472	30~2387	1927.09	-48.33	≤-26	0.01469	≤2.5	PASS
			2387~2400	2391.17	-40.43	≤-16	0.09057	≤25	PASS
			2483.5~2496.5	2486.63	-28.20	≤-16	1.51356	≤25	PASS
			2496.5~13000	12363.46	-42.31	≤-26	0.05875	≤2.5	PASS
	11G	Ant1	2412	30~2387	2378.46	-47.16	≤-26	0.01923	≤2.5
2387~2400				2399.81	-25.95	≤-16	2.54097	≤25	PASS
2483.5~2496.5				2495.91	-37.60	≤-16	0.17378	≤25	PASS
2496.5~13000				12971.11	-42.45	≤-26	0.05689	≤2.5	PASS
Ant2		2412	30~2387	2386.71	-41.45	≤-26	0.07161	≤2.5	PASS
			2387~2400	2399.82	-19.01	≤-16	12.56030	≤25	PASS
			2483.5~2496.5	2492.50	-39.15	≤-16	0.12162	≤25	PASS
			2496.5~13000	12336.67	-42.66	≤-26	0.05420	≤2.5	PASS
Ant1		2442	30~2387	1940.64	-48.24	≤-26	0.01500	≤2.5	PASS
			2387~2400	2389.66	-40.12	≤-16	0.09727	≤25	PASS
			2483.5~2496.5	2493.64	-40.07	≤-16	0.09840	≤25	PASS
			2496.5~13000	12665.45	-42.61	≤-26	0.05483	≤2.5	PASS
Ant2		2442	30~2387	2360.78	-47.33	≤-26	0.01849	≤2.5	PASS
			2387~2400	2393.45	-40.06	≤-16	0.09863	≤25	PASS
			2483.5~2496.5	2492.23	-39.76	≤-16	0.10568	≤25	PASS
			2496.5~13000	12363.98	-42.01	≤-26	0.06295	≤2.5	PASS
Ant1		2472	30~2387	1997.51	-47.83	≤-26	0.01648	≤2.5	PASS
			2387~2400	2396.56	-41.08	≤-16	0.07798	≤25	PASS
			2483.5~2496.5	2483.53	-31.97	≤-16	0.63533	≤25	PASS
			2496.5~13000	12334.04	-42.05	≤-26	0.06237	≤2.5	PASS
Ant2		2472	30~2387	2378.75	-45.58	≤-26	0.02767	≤2.5	PASS
			2387~2400	2390.37	-39.80	≤-16	0.10471	≤25	PASS
			2483.5~24	2485.1	-29.77	≤-16	1.0543	≤25	PASS





11N20MI MO	Ant1	2412	96.5	8			9		S	
			2496.5~13 000	12430. 68	-42.62	≤-26	0.0547 0	≤2.5	PAS S	
			30~2387	2374.6 3	-46.56	≤-26	0.0220 8	≤2.5	PAS S	
			2387~2400	2399.8 9	-27.06	≤-16	1.9678 9	≤25	PAS S	
		2483.5~24 96.5	2487.2 7	-39.77	≤-16	0.1054 4	≤25	PAS S		
		2496.5~13 000	12326. 17	-42.52	≤-26	0.0559 8	≤2.5	PAS S		
		2412	30~2387	2386.1 2	-44.66	≤-26	0.0342 0	≤2.5	PAS S	
			2387~2400	2399.9 9	-22.58	≤-16	5.5207 7	≤25	PAS S	
			2483.5~24 96.5	2491.4 4	-40.35	≤-16	0.0922 6	≤25	PAS S	
			2496.5~13 000	12354. 53	-42.36	≤-26	0.0580 8	≤2.5	PAS S	
		2442	30~2387	2376.3 9	-47.17	≤-26	0.0191 9	≤2.5	PAS S	
			2387~2400	2390.2 5	-39.90	≤-16	0.1023 3	≤25	PAS S	
			2483.5~24 96.5	2485.2 2	-39.69	≤-16	0.1074 0	≤25	PAS S	
			2496.5~13 000	12338. 25	-42.88	≤-26	0.0515 2	≤2.5	PAS S	
		2442	30~2387	1920.3 1	-47.72	≤-26	0.0169 0	≤2.5	PAS S	
			2387~2400	2394.6 4	-40.53	≤-16	0.0885 1	≤25	PAS S	
	2483.5~24 96.5		2486.2 2	-40.27	≤-16	0.0939 7	≤25	PAS S		
	2496.5~13 000		12550. 43	-42.28	≤-26	0.0591 6	≤2.5	PAS S		
	2472	30~2387	2317.7 6	-47.39	≤-26	0.0182 4	≤2.5	PAS S		
		2387~2400	2399.5 2	-40.23	≤-16	0.0948 4	≤25	PAS S		
		2483.5~24 96.5	2483.7 4	-37.24	≤-16	0.1888 0	≤25	PAS S		
		2496.5~13 000	12921. 75	-42.66	≤-26	0.0542 0	≤2.5	PAS S		
	2472	30~2387	1940.9 4	-47.56	≤-26	0.0175 4	≤2.5	PAS S		
		2387~2400	2395.2 8	-40.17	≤-16	0.0961 6	≤25	PAS S		
		2483.5~24 96.5	2484.2 0	-30.30	≤-16	0.9332 5	≤25	PAS S		
		2496.5~13 000	12311. 99	-42.48	≤-26	0.0564 9	≤2.5	PAS S		
	11N40MI MO	Ant1	2422	30~2387	2387.0 0	-46.66	≤-26	0.0215 8	≤2.5	PAS S
				2387~2400	2399.9 8	-30.83	≤-16	0.8260 4	≤25	PAS S
2483.5~24 96.5				2492.2 2	-40.08	≤-16	0.0981 7	≤25	PAS S	
2496.5~13 000				12705. 89	-42.72	≤-26	0.0534 6	≤2.5	PAS S	
Ant2		2422	30~2387	2384.3 5	-39.04	≤-26	0.1247 4	≤2.5	PAS S	
			2387~2400	2399.6 1	-27.31	≤-16	1.8578 0	≤25	PAS S	
			2483.5~24 96.5	2487.1 2	-40.29	≤-16	0.0935 4	≤25	PAS S	
			2496.5~13	12882.	-42.92	≤-26	0.0510	≤2.5	PAS	





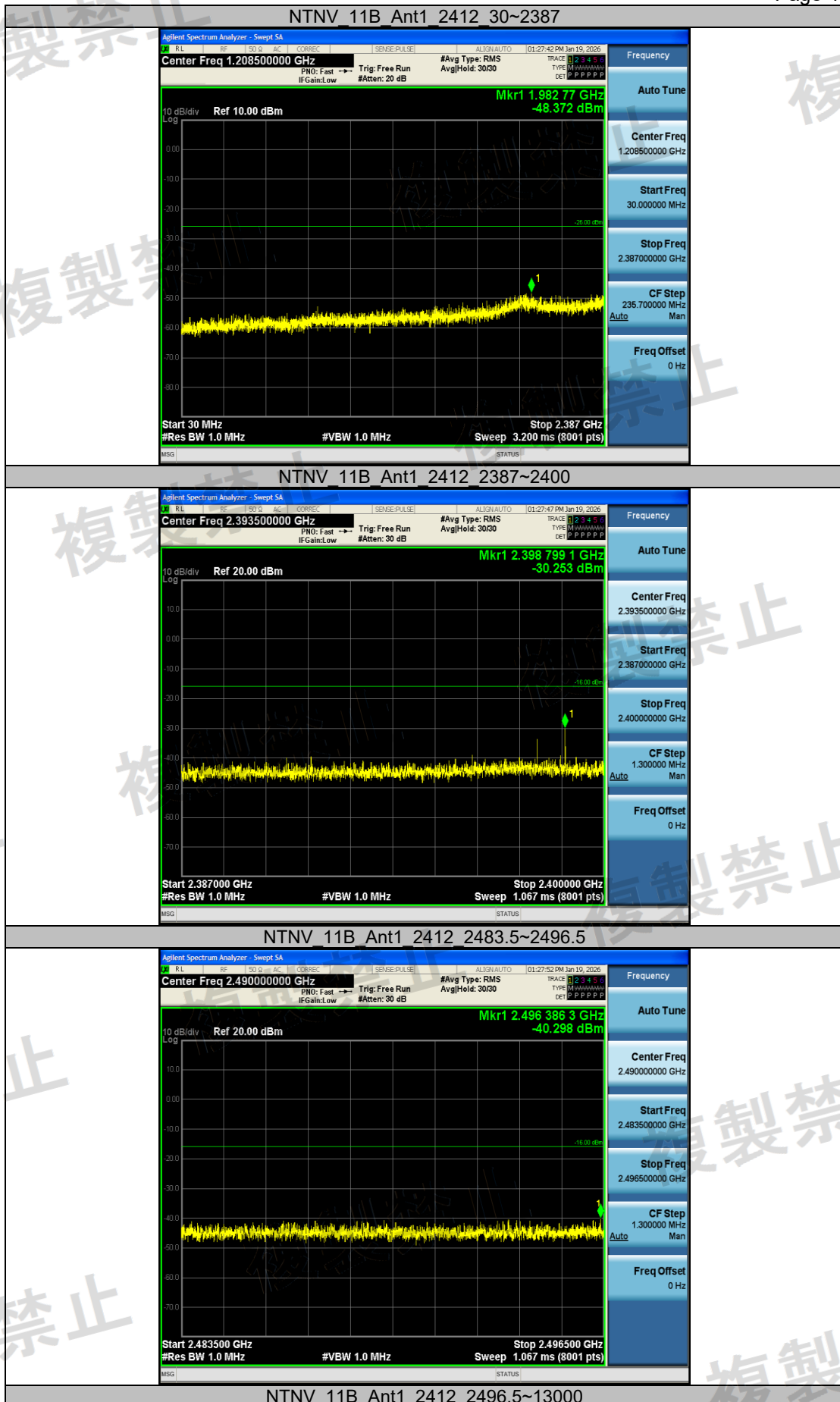
			000	88			5		S
			30~2387	2385.8 2	-47.85	≤ -26	0.0164 1	≤ 2.5	PAS S
			2387~2400	2397.4 1	-40.30	≤ -16	0.0933 3	≤ 25	PAS S
			2483.5~24 96.5	2485.6 5	-39.74	≤ -16	0.1061 7	≤ 25	PAS S
			2496.5~13 000	12508. 41	-42.43	≤ -26	0.0571 5	≤ 2.5	PAS S
		Ant1	2442						
			30~2387	2381.9 9	-47.32	≤ -26	0.0185 4	≤ 2.5	PAS S
			2387~2400	2398.7 8	-38.06	≤ -16	0.1563 1	≤ 25	PAS S
			2483.5~24 96.5	2484.4 1	-39.57	≤ -16	0.1104 1	≤ 25	PAS S
			2496.5~13 000	12550. 43	-42.85	≤ -26	0.0518 8	≤ 2.5	PAS S
		Ant2	2442						
			30~2387	1998.9 8	-48.00	≤ -26	0.0158 5	≤ 2.5	PAS S
			2387~2400	2395.8 2	-39.80	≤ -16	0.1047 1	≤ 25	PAS S
			2483.5~24 96.5	2483.5 1	-30.54	≤ -16	0.8830 8	≤ 25	PAS S
			2496.5~13 000	12488. 98	-43.07	≤ -26	0.0493 2	≤ 2.5	PAS S
		Ant1	2462						
			30~2387	2380.5 2	-46.09	≤ -26	0.0246 0	≤ 2.5	PAS S
			2387~2400	2394.6 0	-39.18	≤ -16	0.1207 8	≤ 25	PAS S
			2483.5~24 96.5	2483.6 2	-26.62	≤ -16	2.1777 1	≤ 25	PAS S
			2496.5~13 000	12377. 64	-42.74	≤ -26	0.0532 1	≤ 2.5	PAS S
		Ant2	2462						

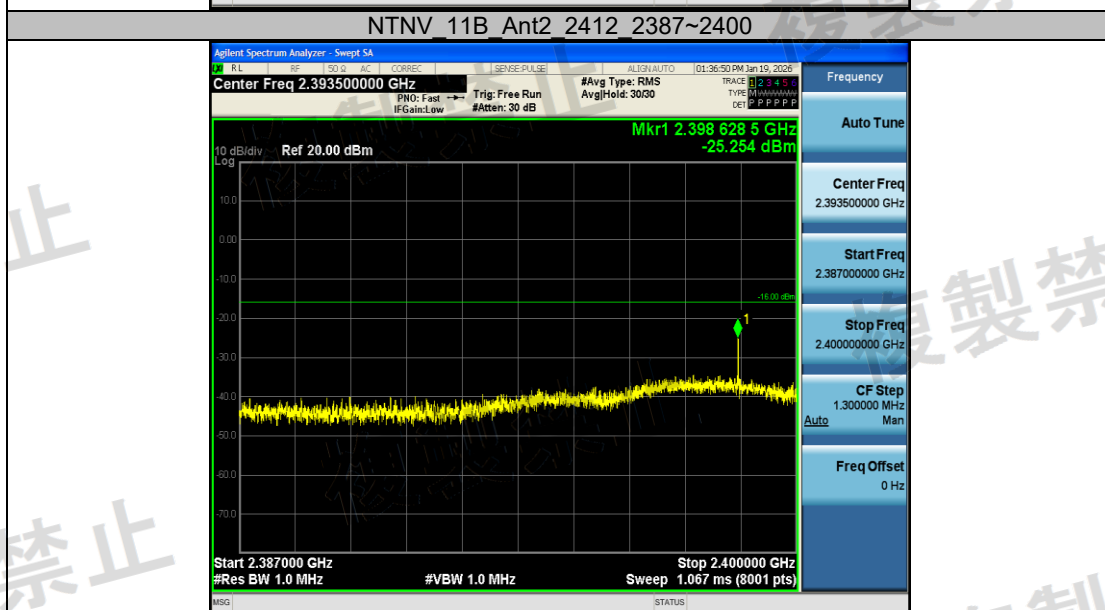
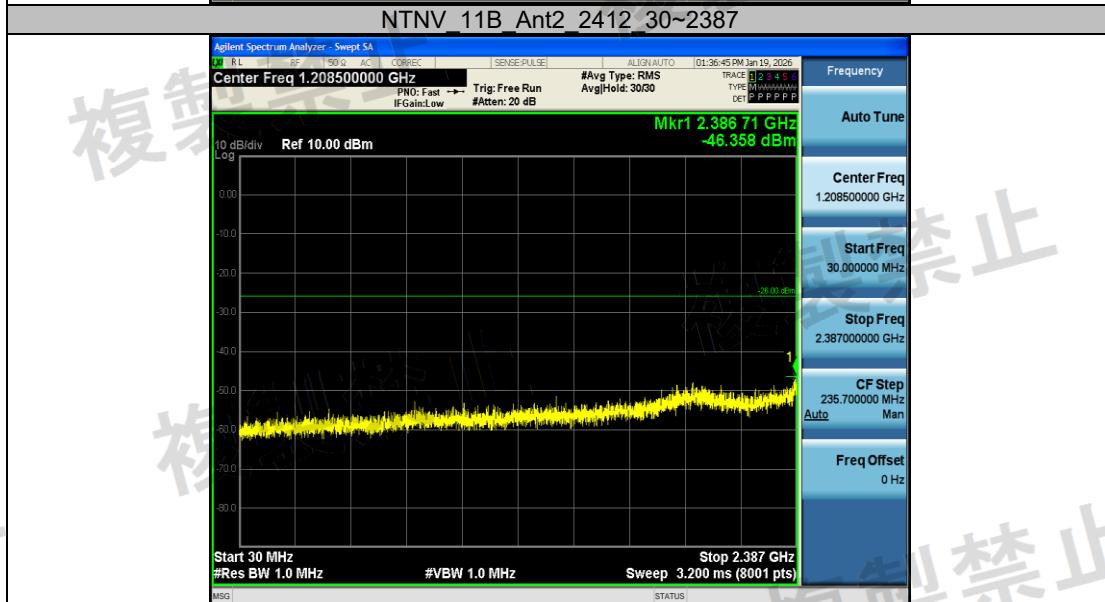
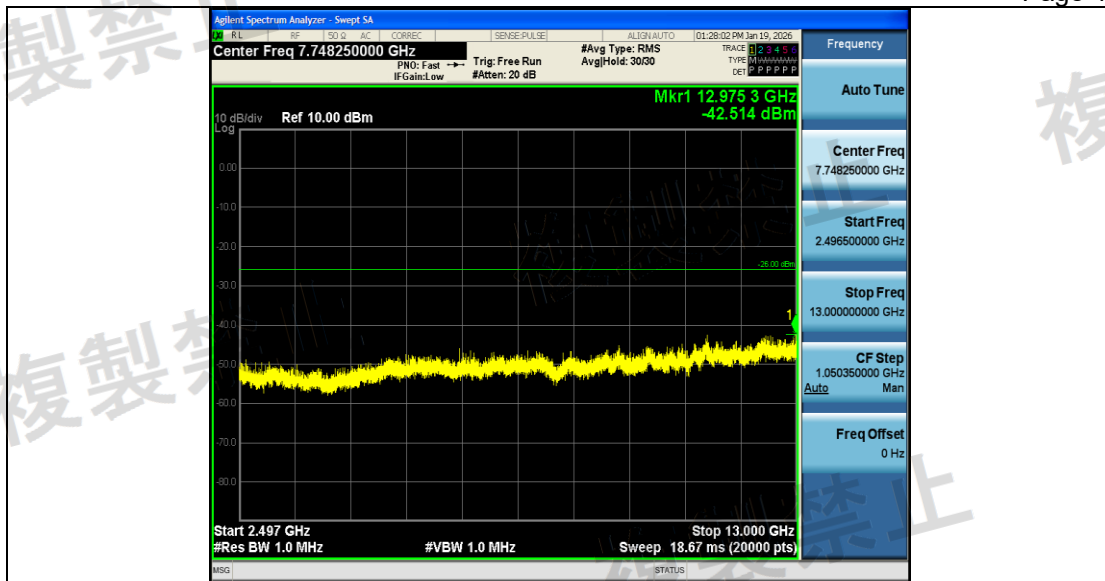
Note: 1. The product was tested at 25 °C and 55% humidity condition;

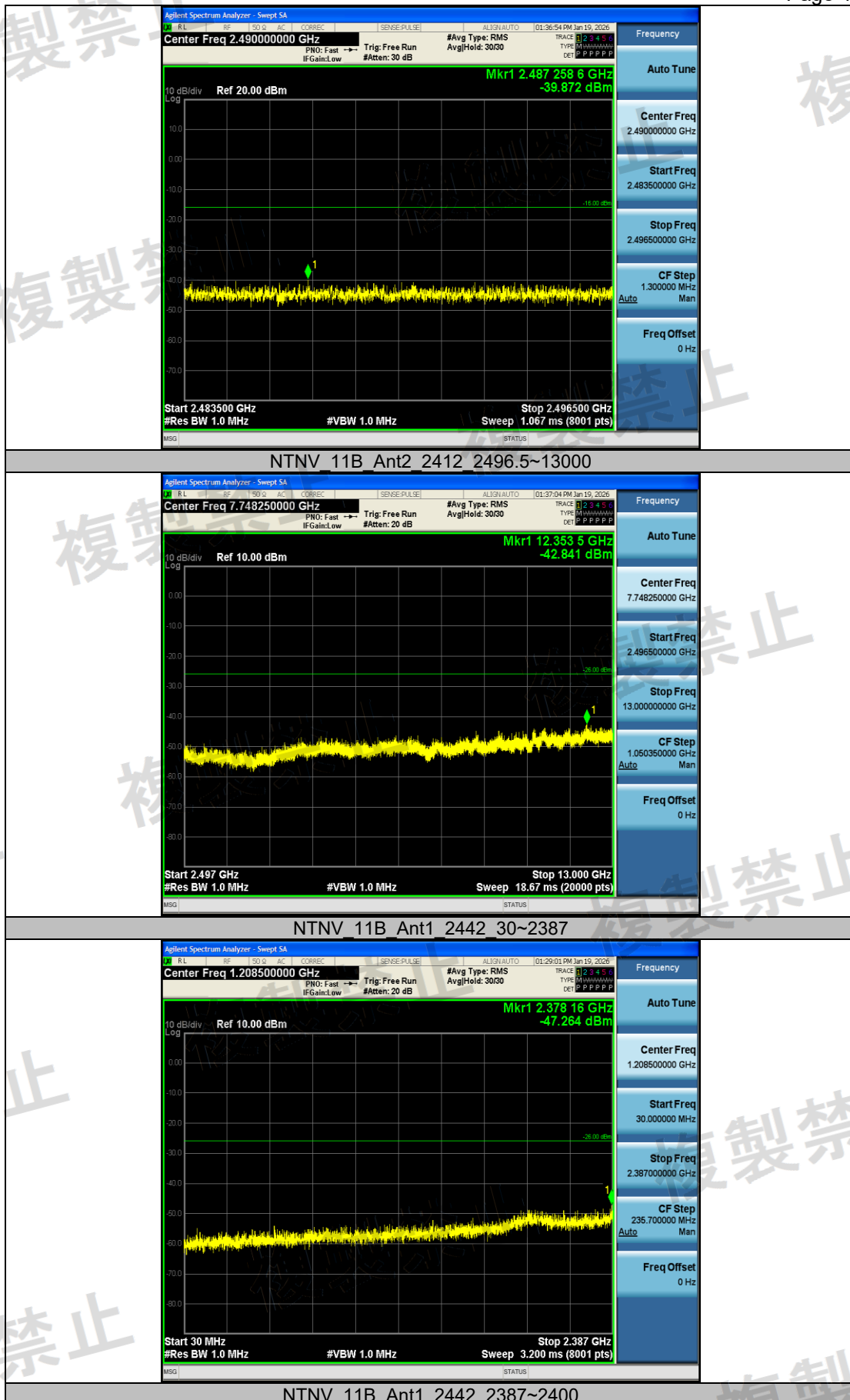
2. All condition has been tested, list the worst case in this item

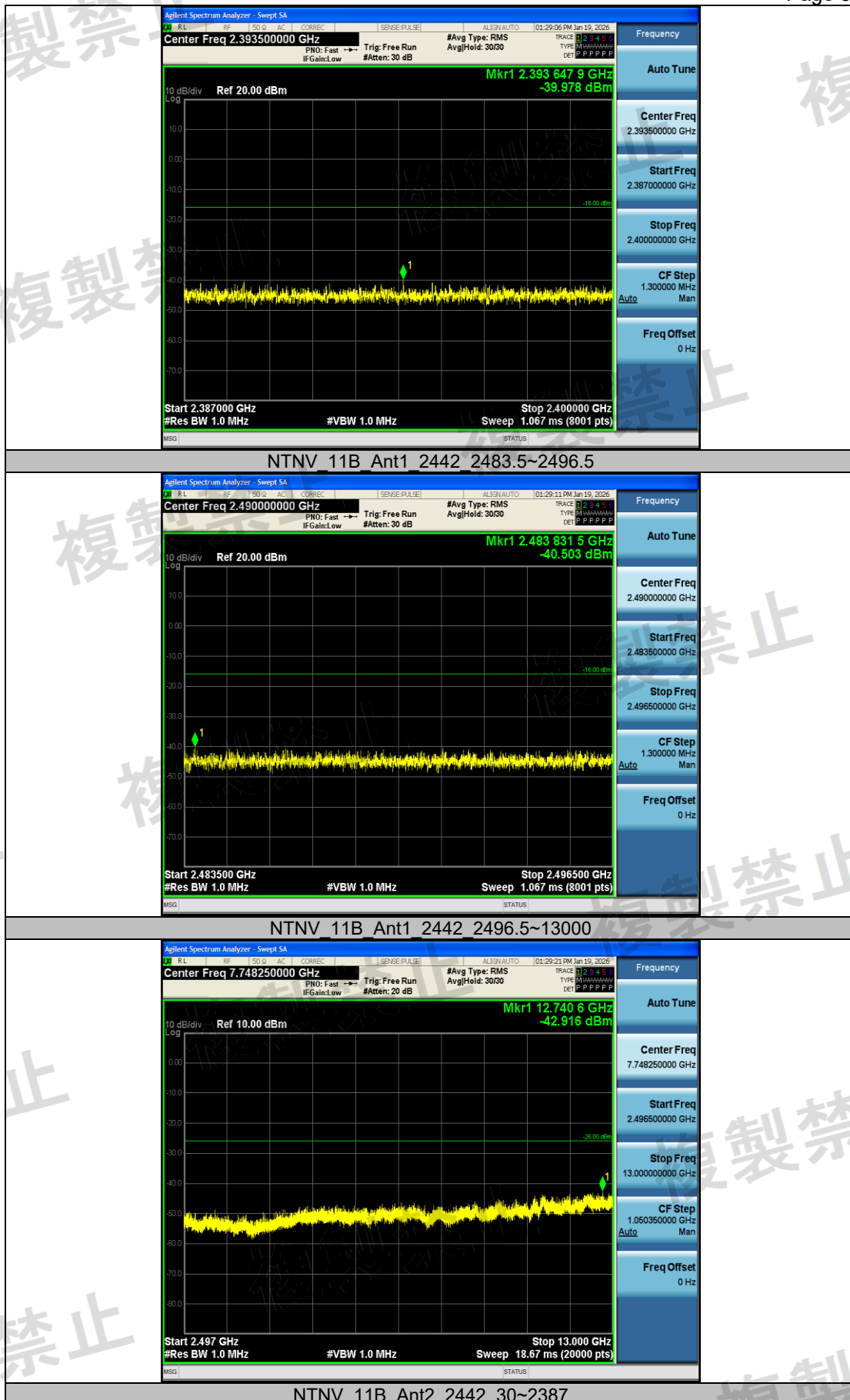
3. SA set to from 2.4965GHz to 13GHz, plot shows from 2.497GHz to 13GHz as of SA's default format

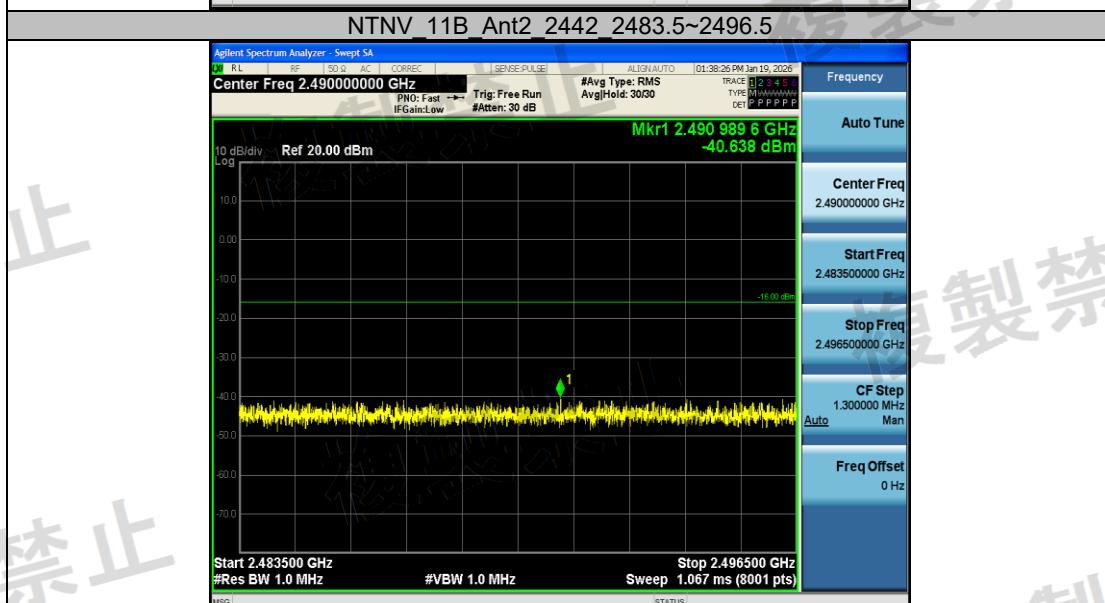
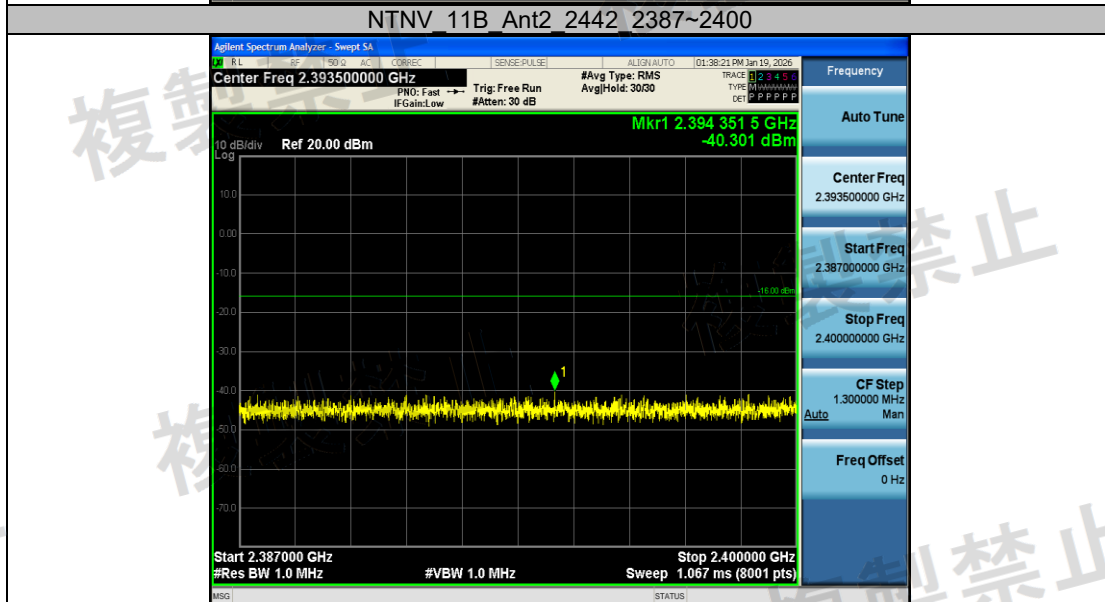
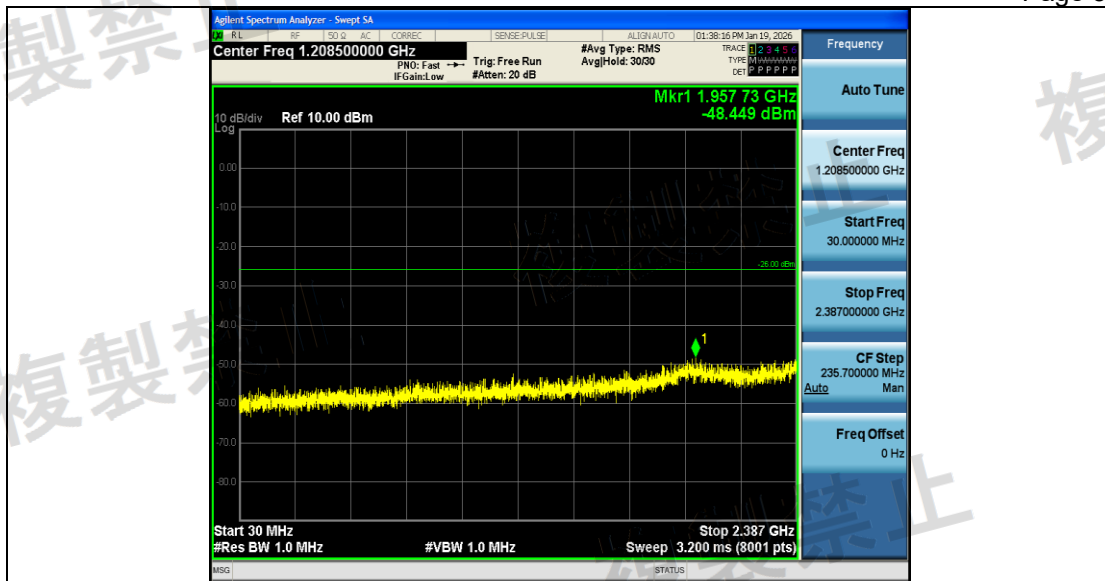


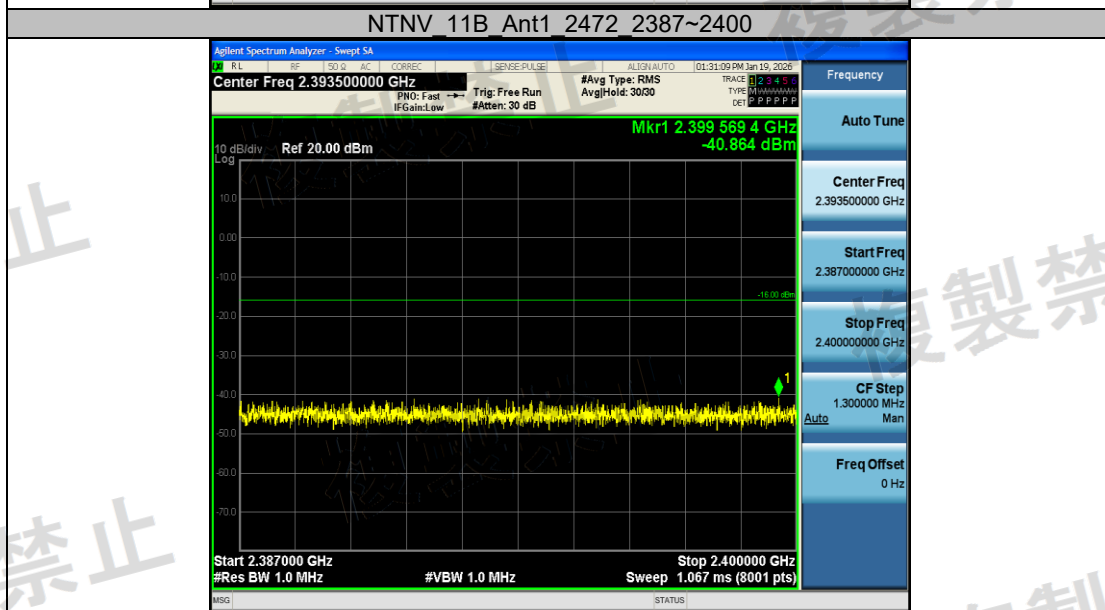
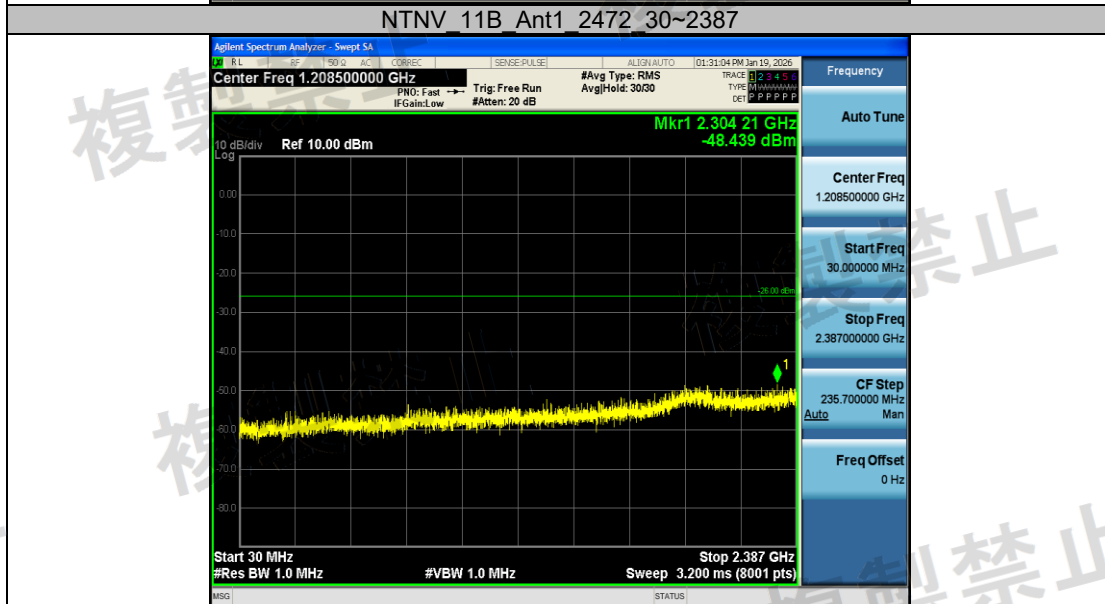
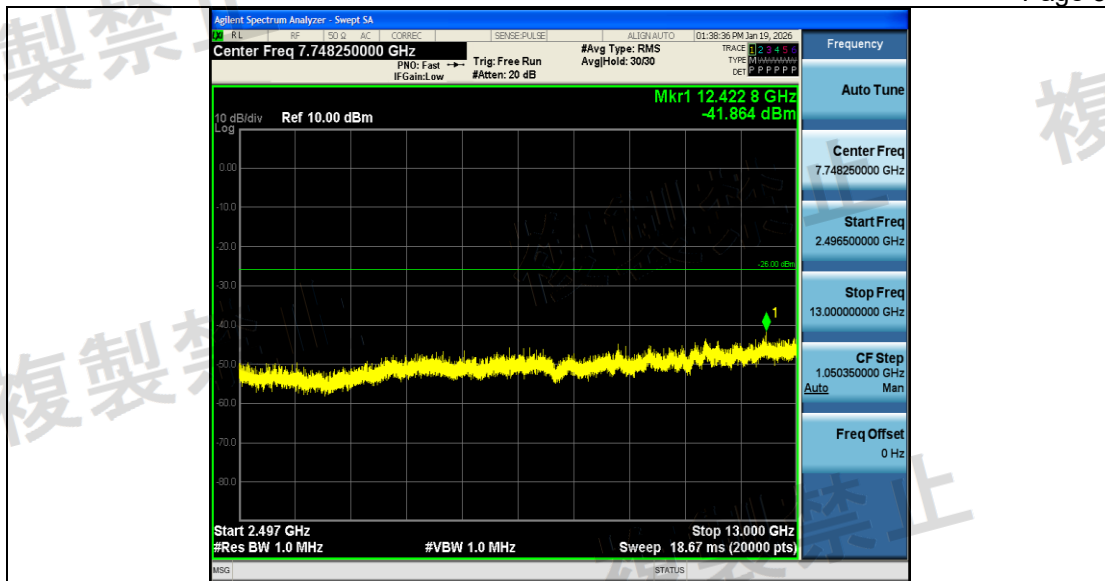


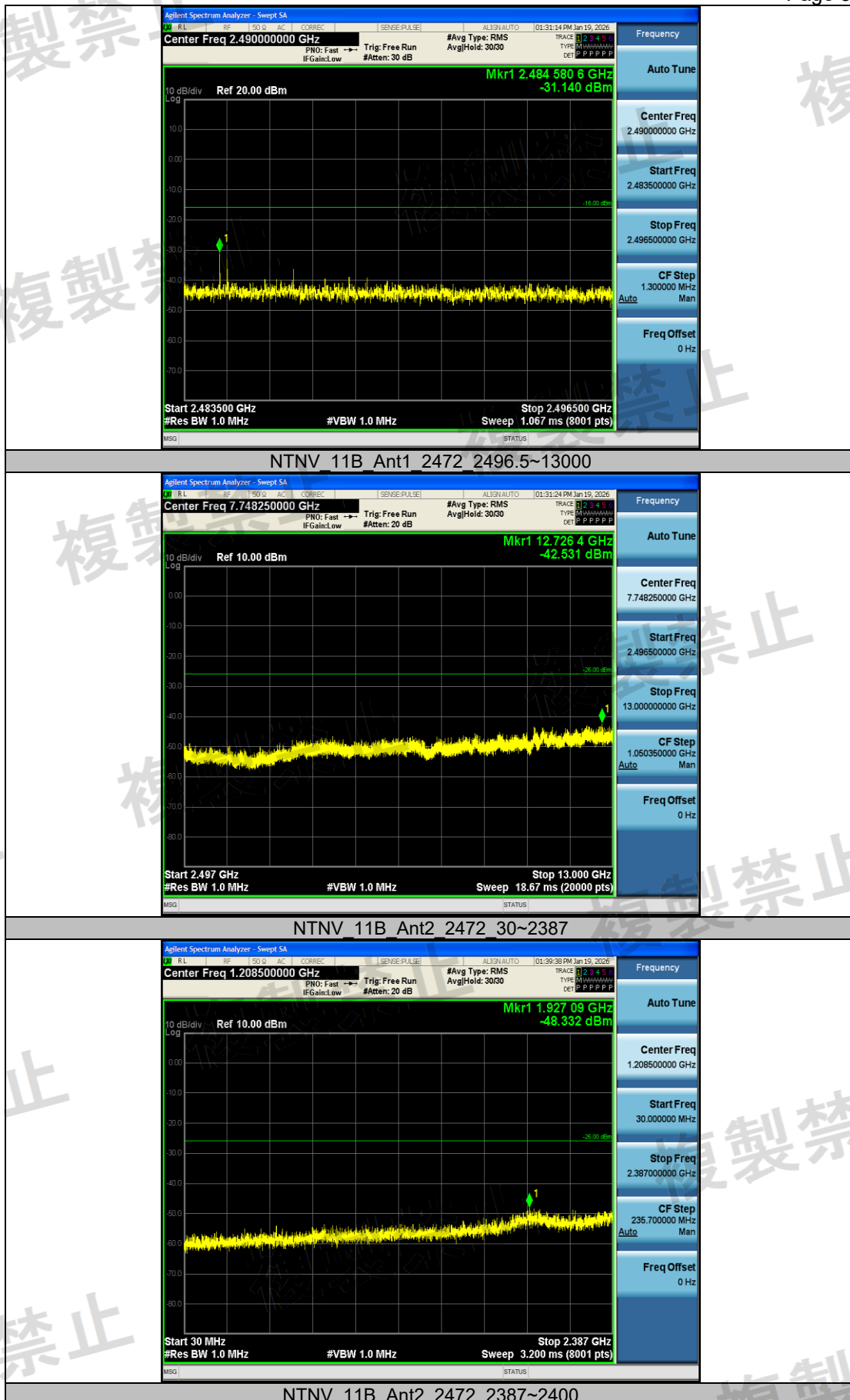


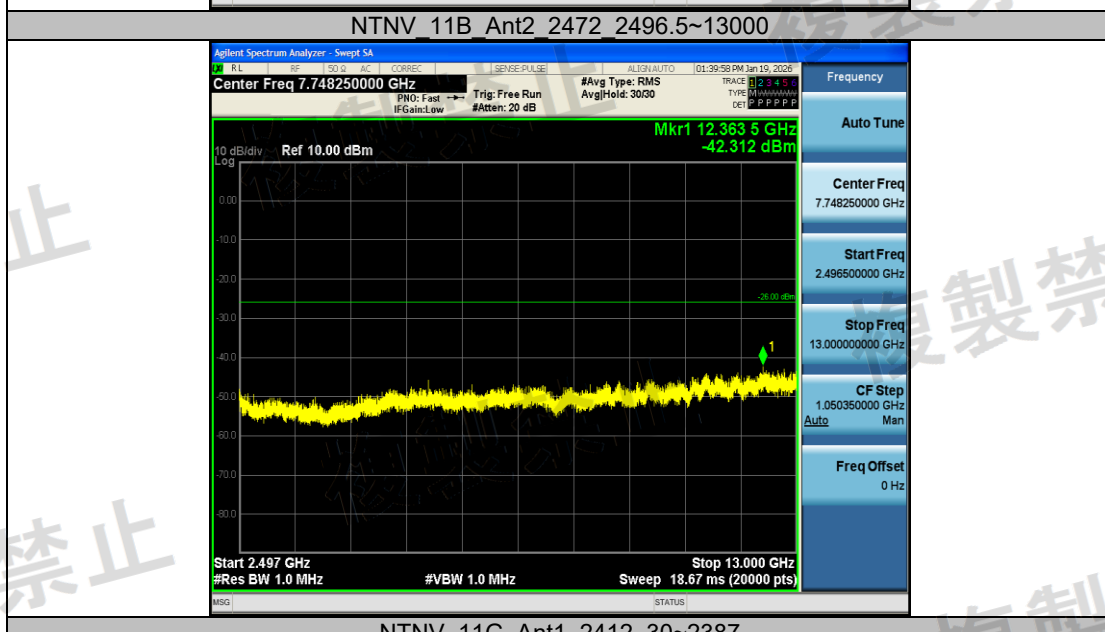
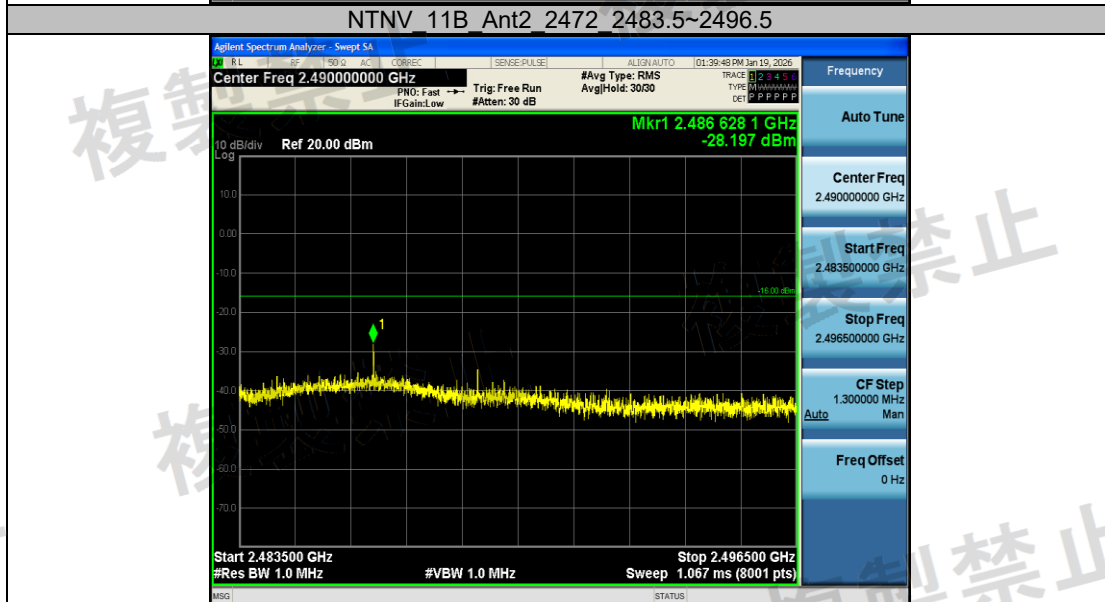
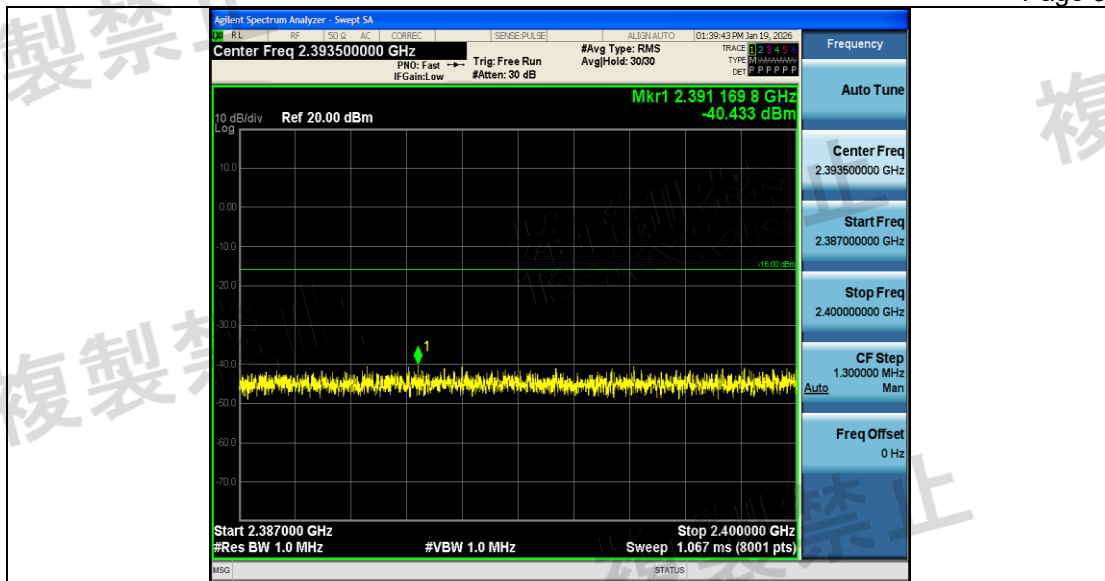


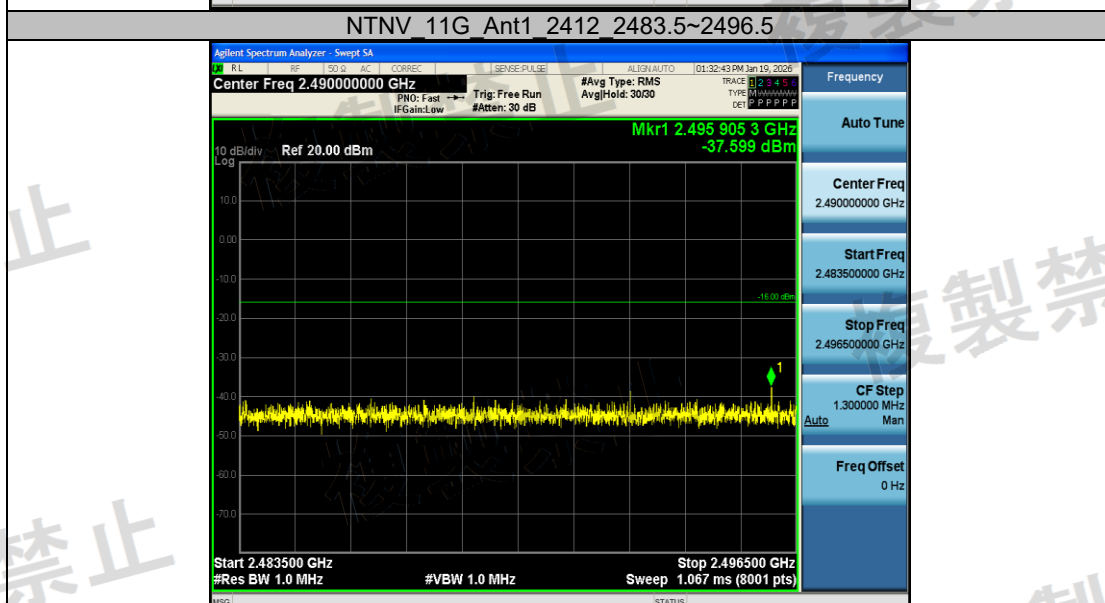
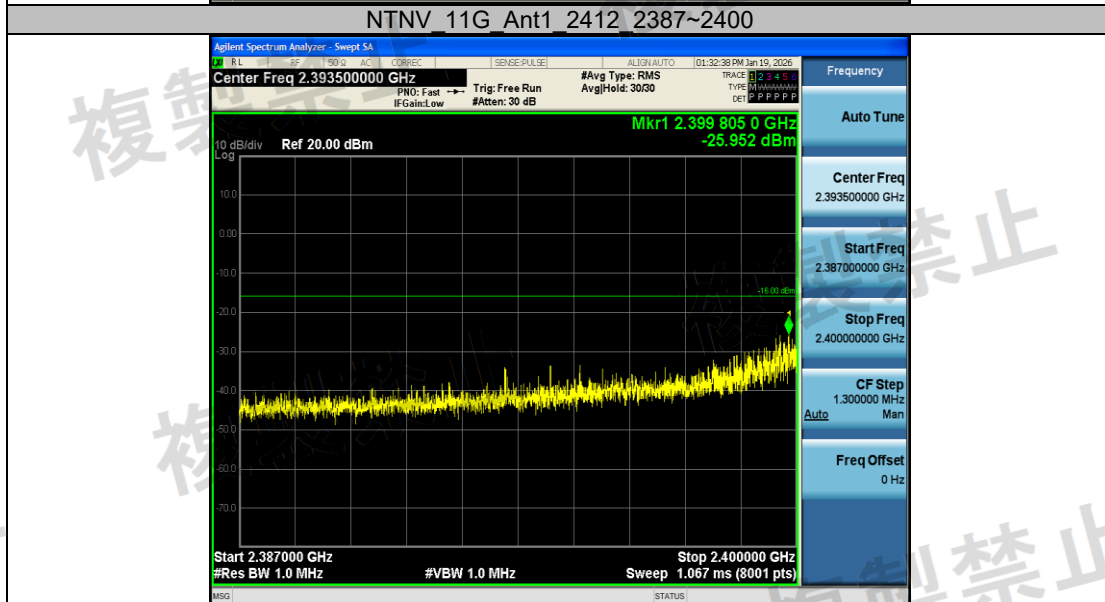
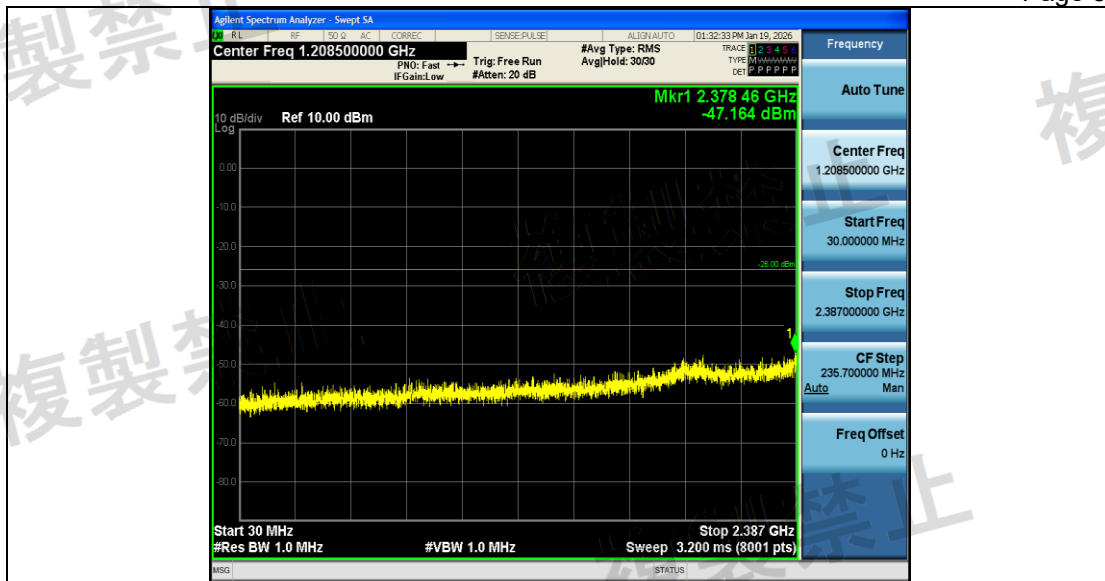


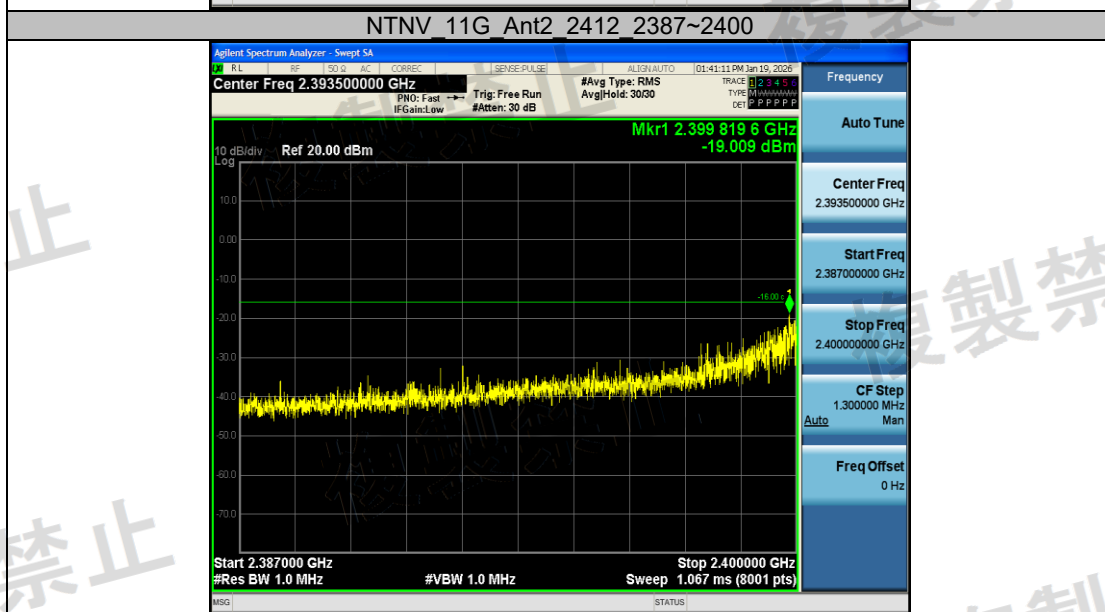
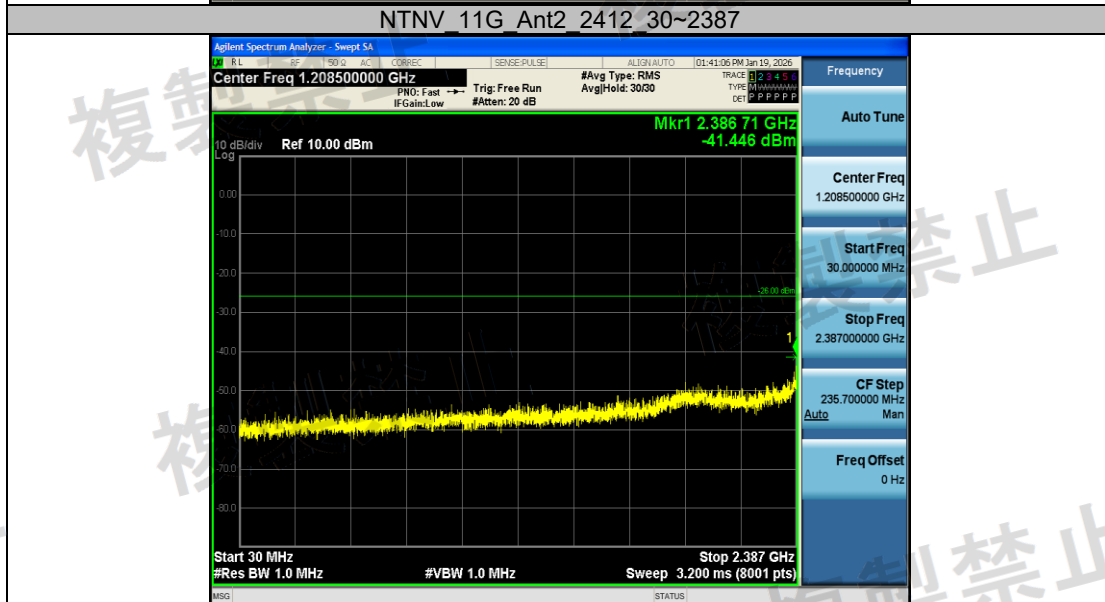
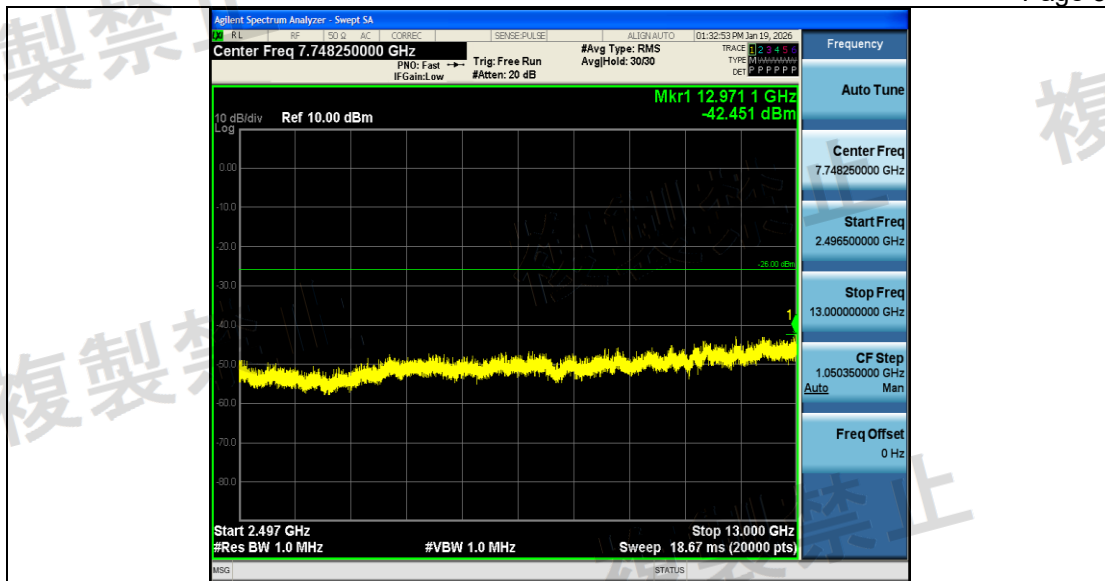


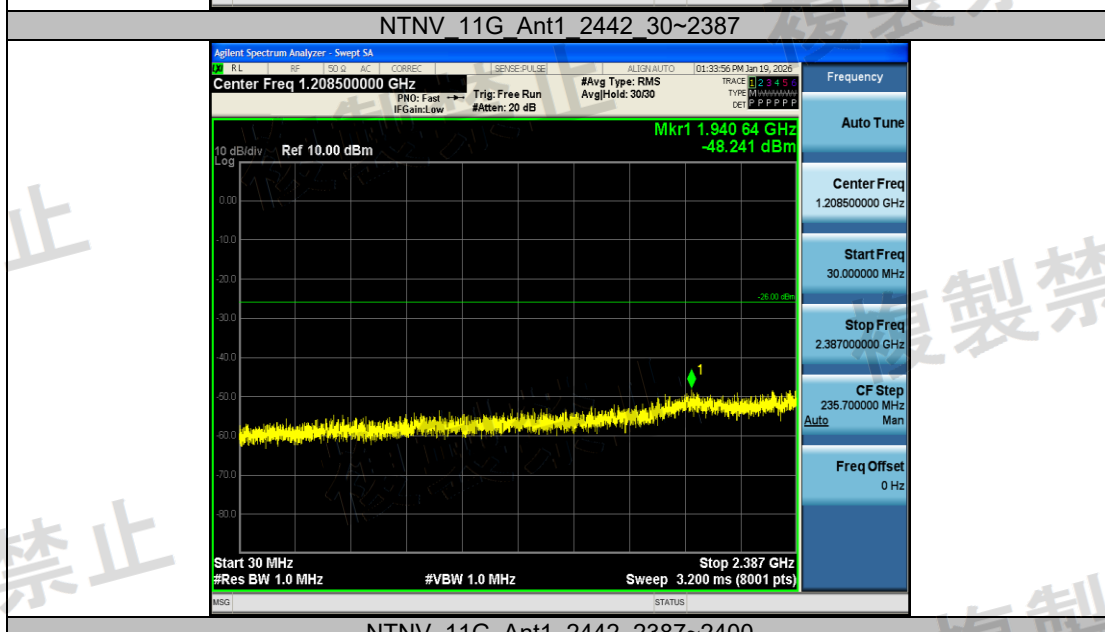
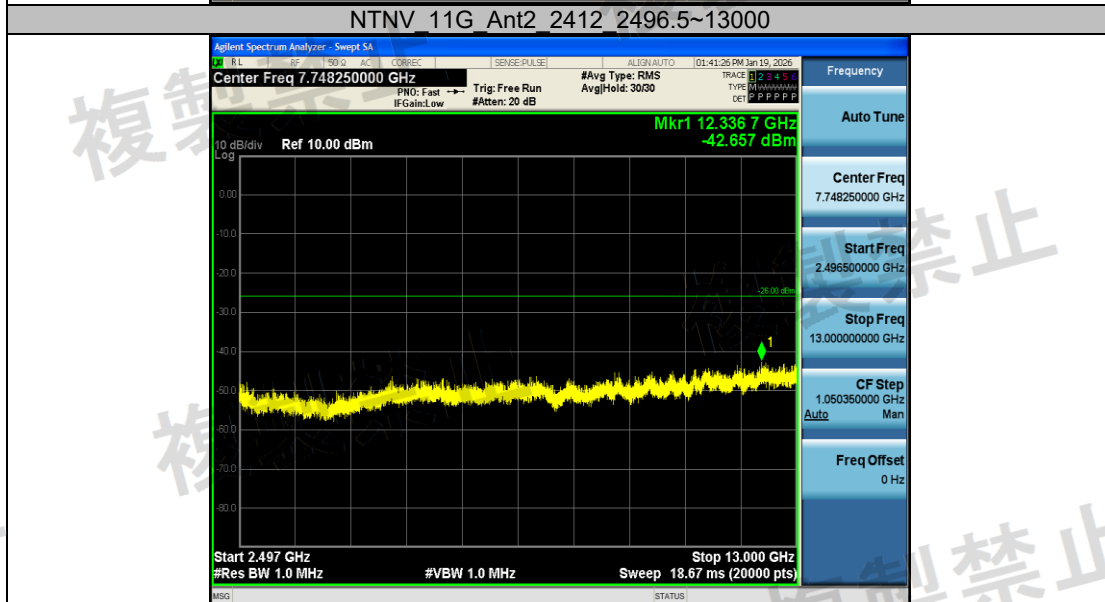
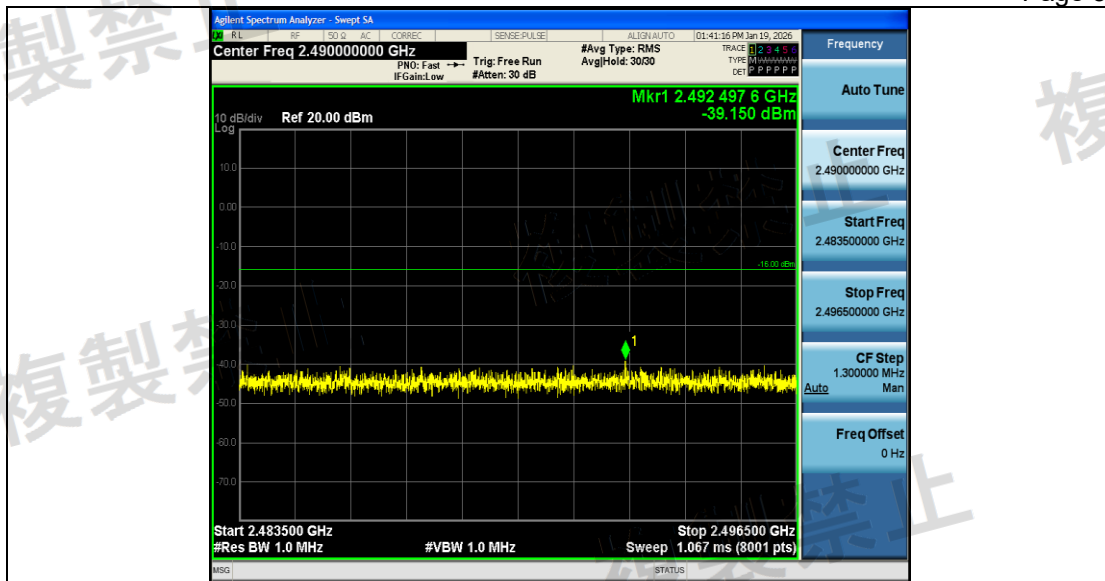


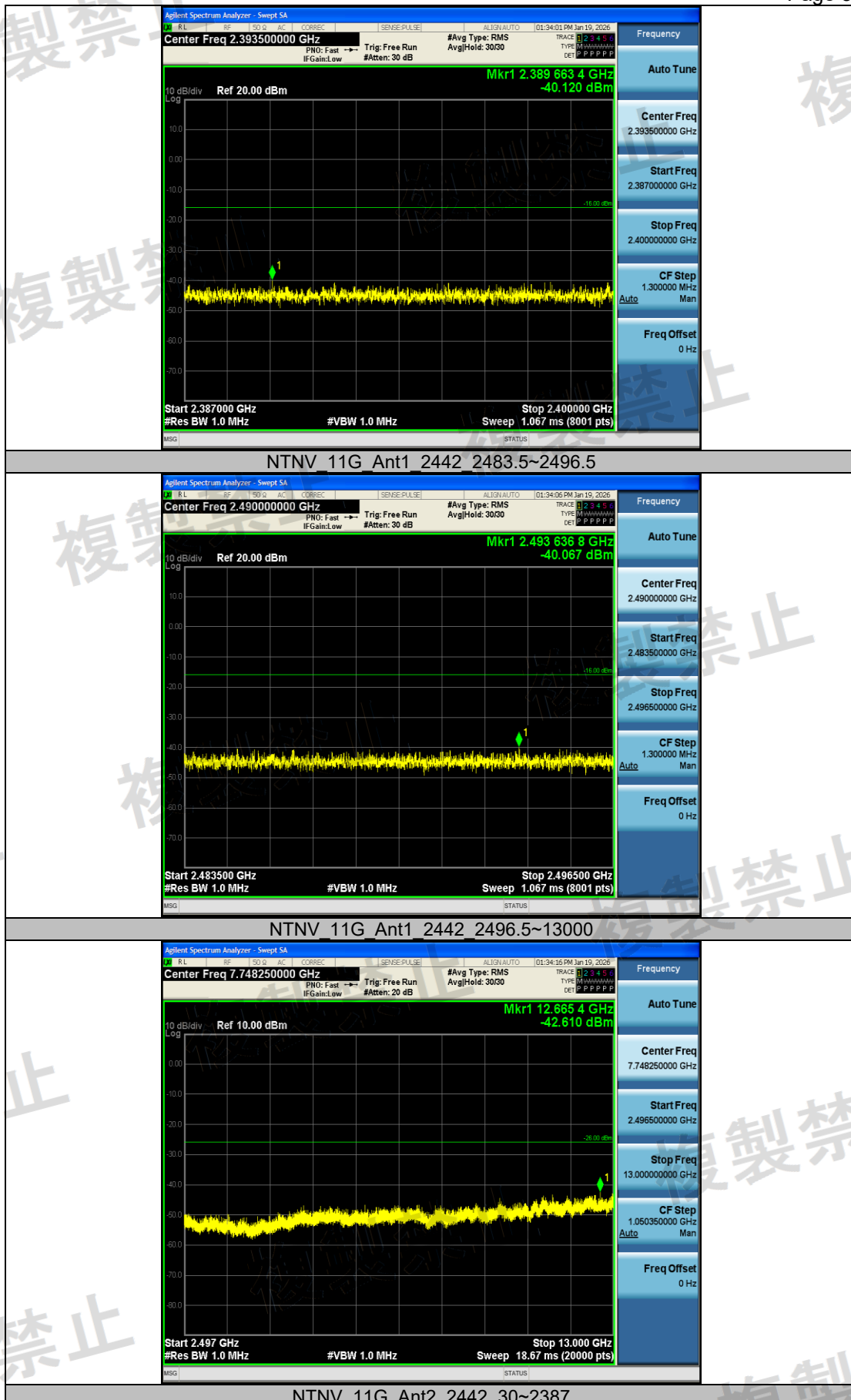


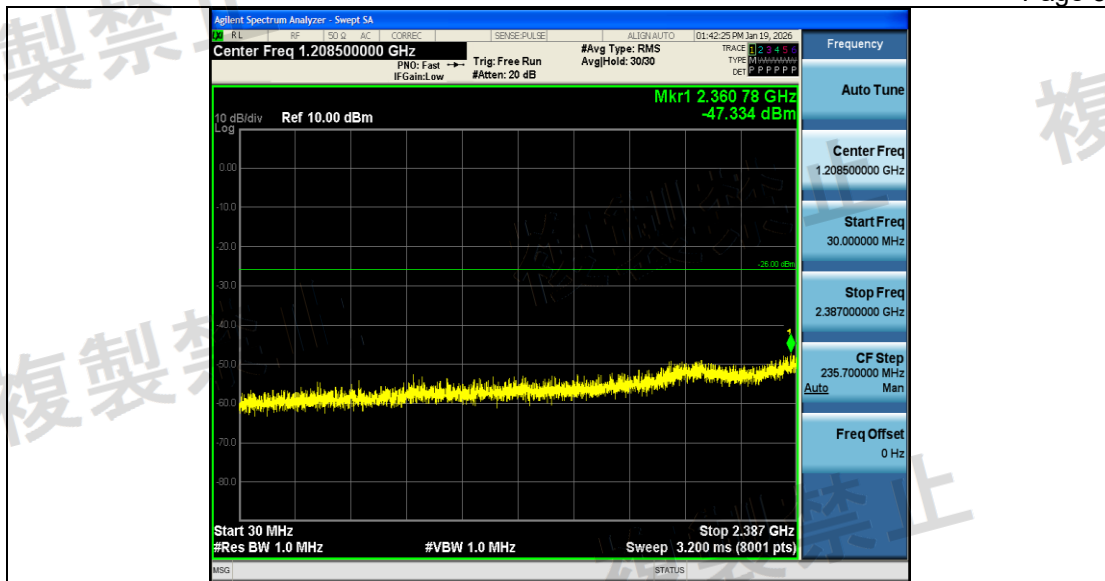




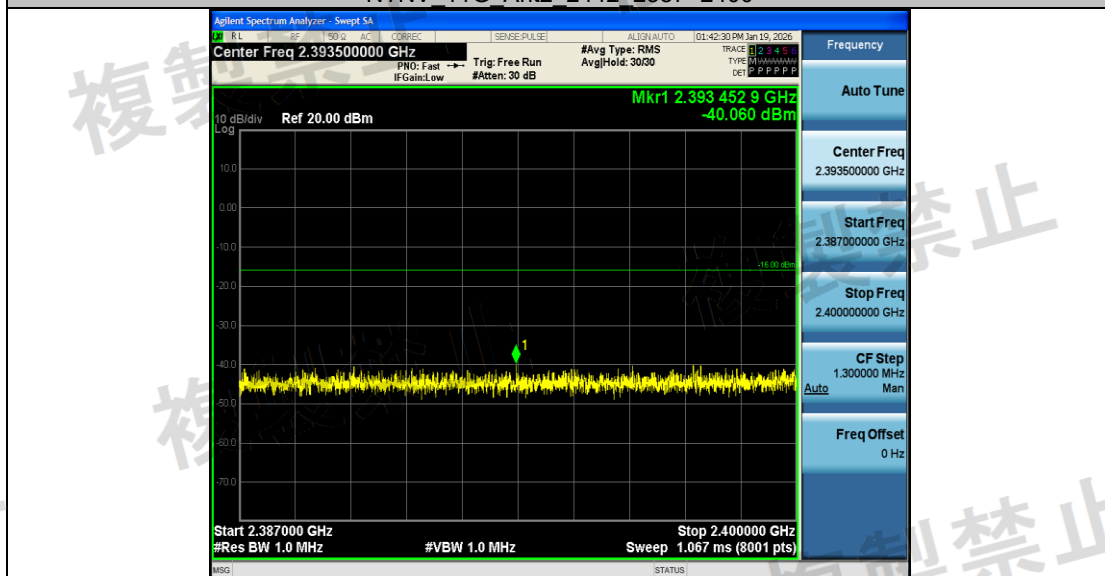




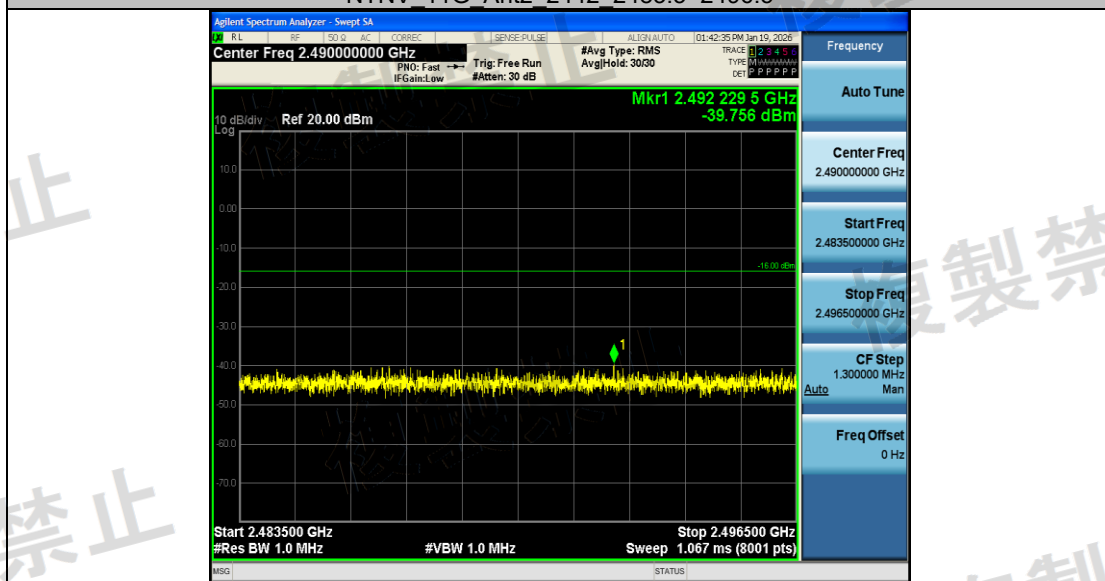




NTNV 11G Ant2 2442 2387~2400

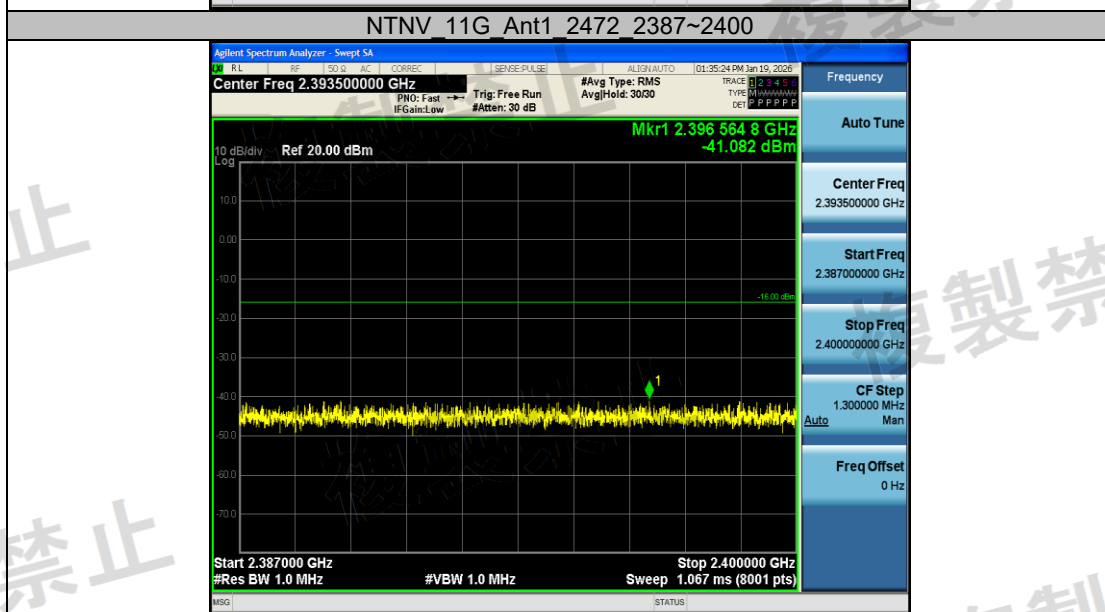
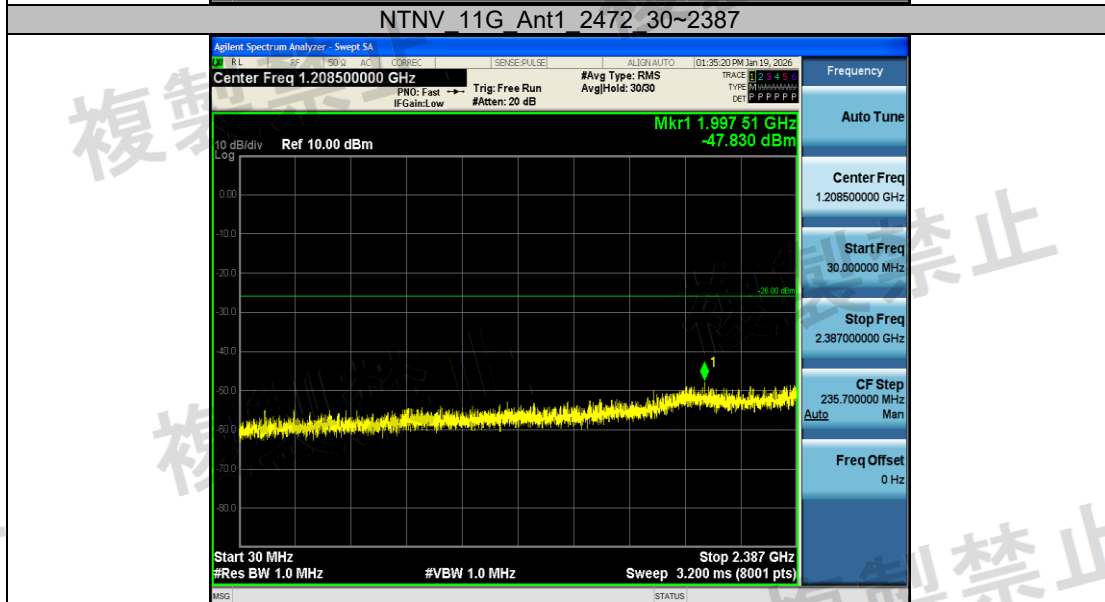
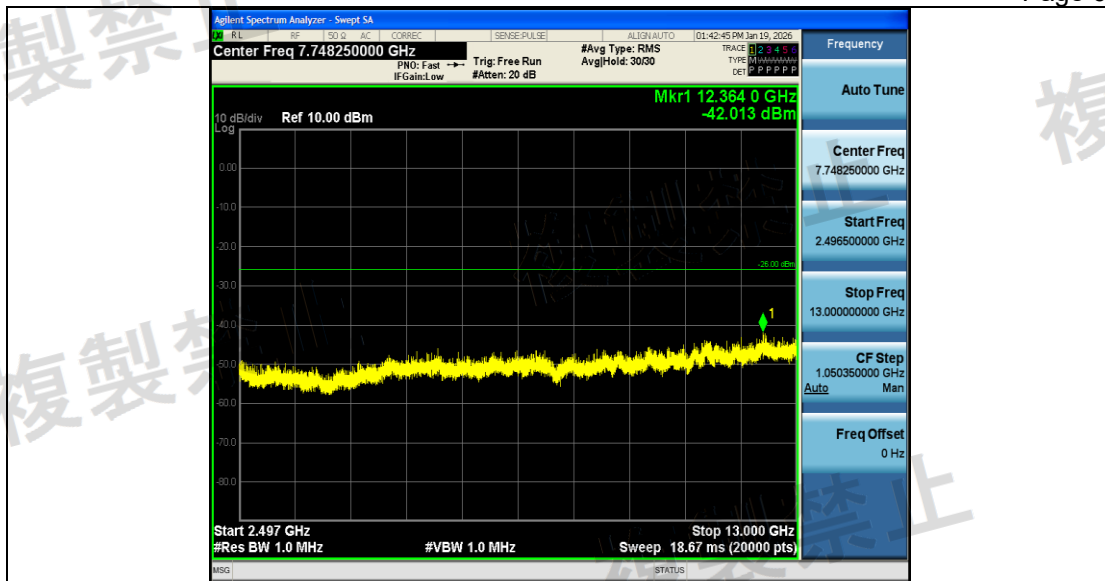


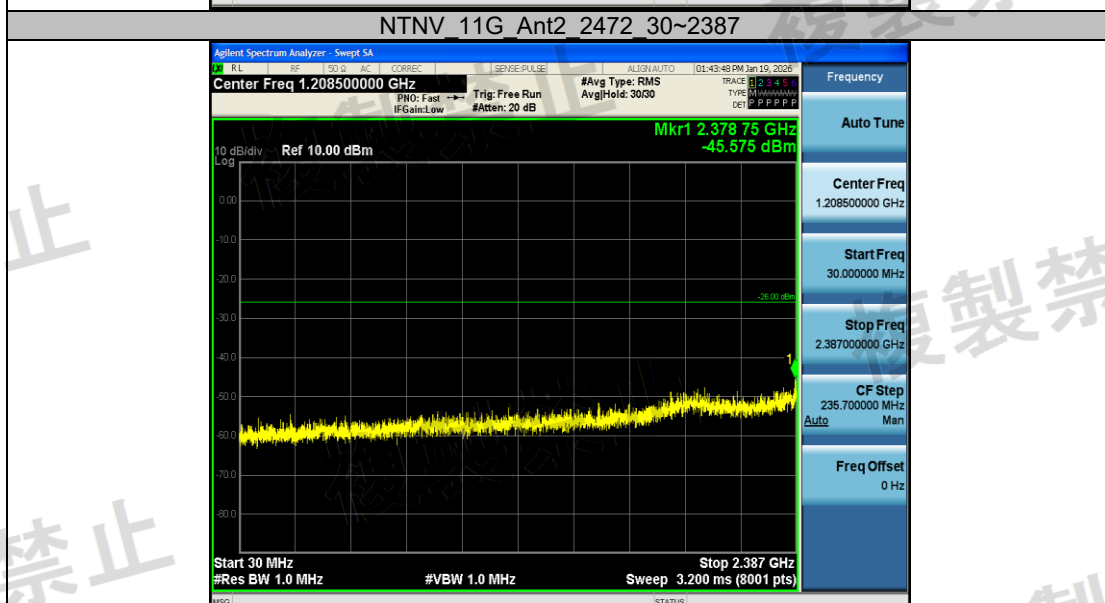
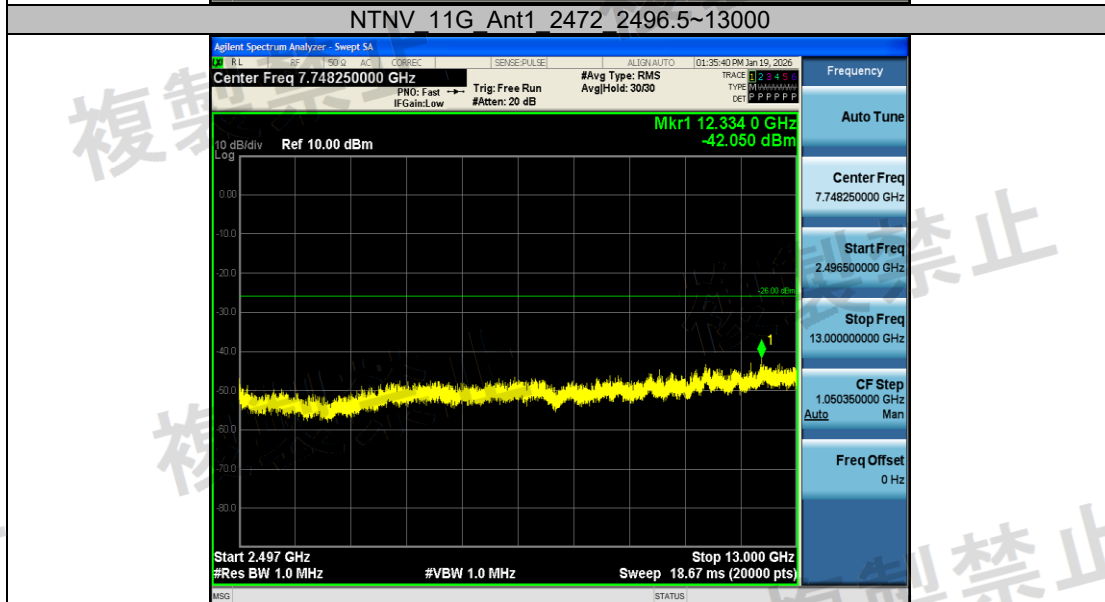
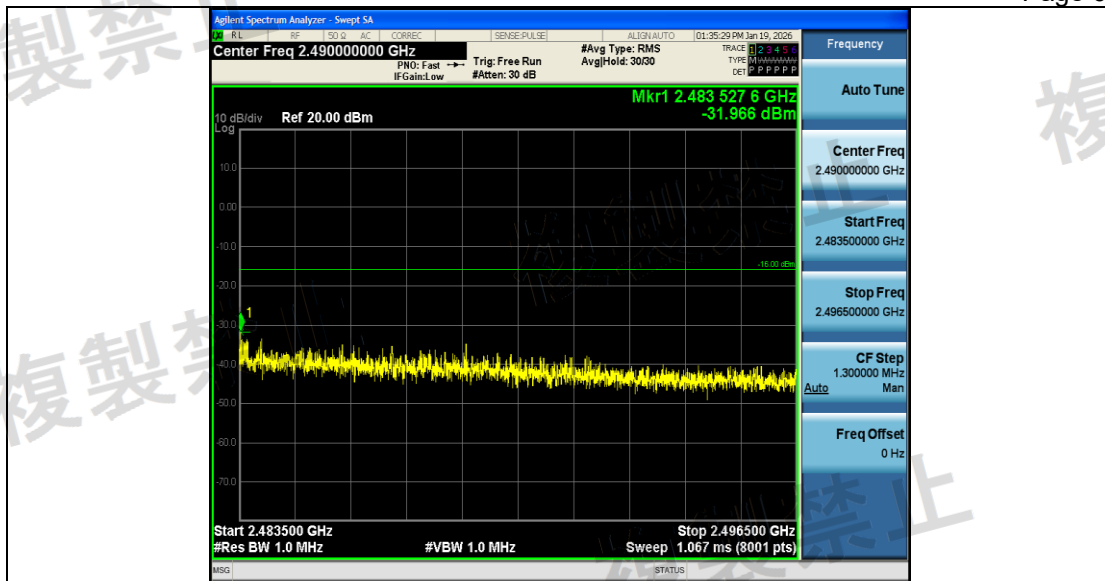
NTNV 11G Ant2 2442 2483.5~2496.5

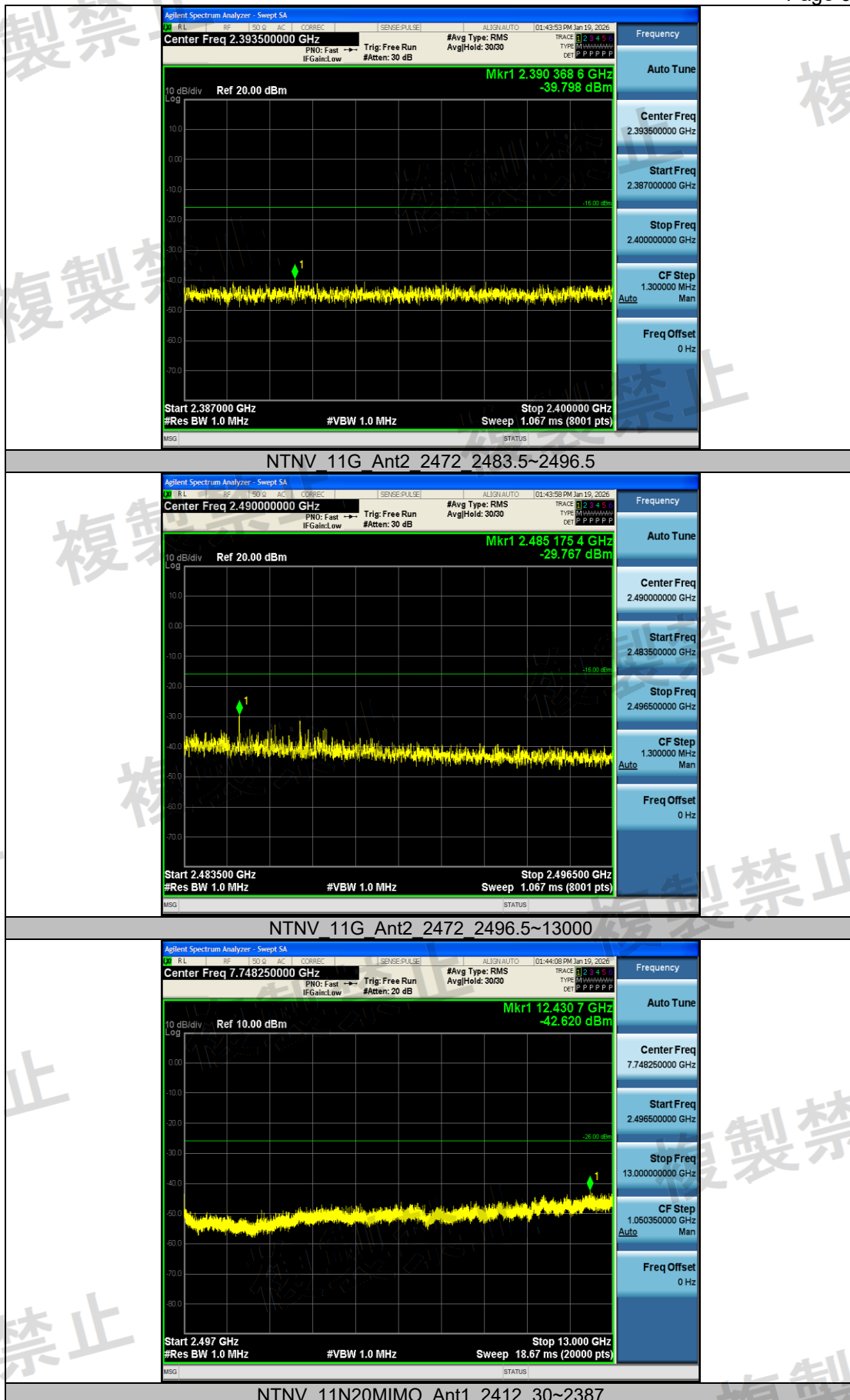


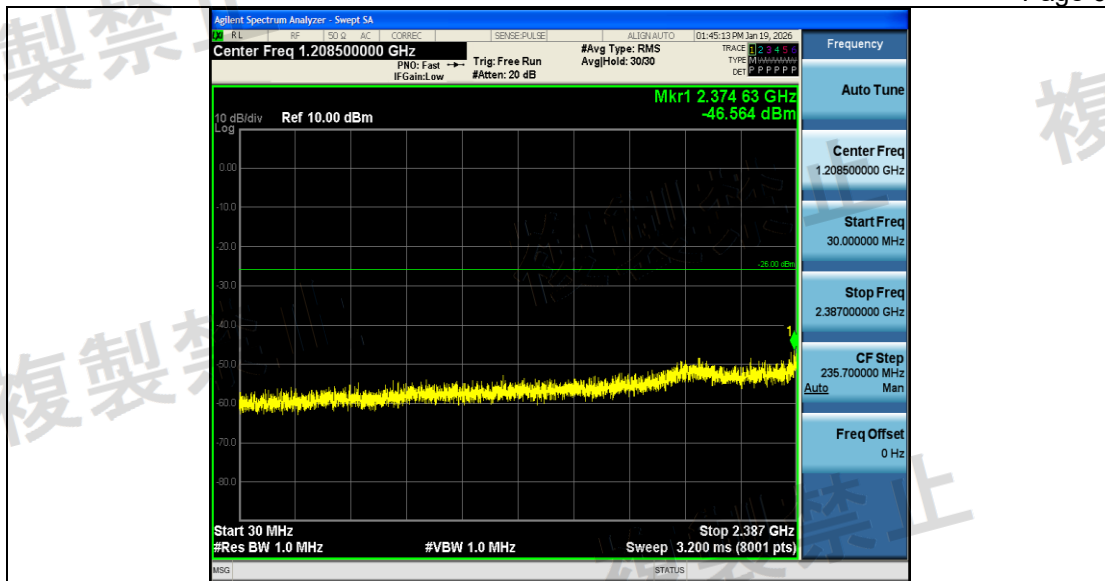
NTNV 11G Ant2 2442 2496.5~13000



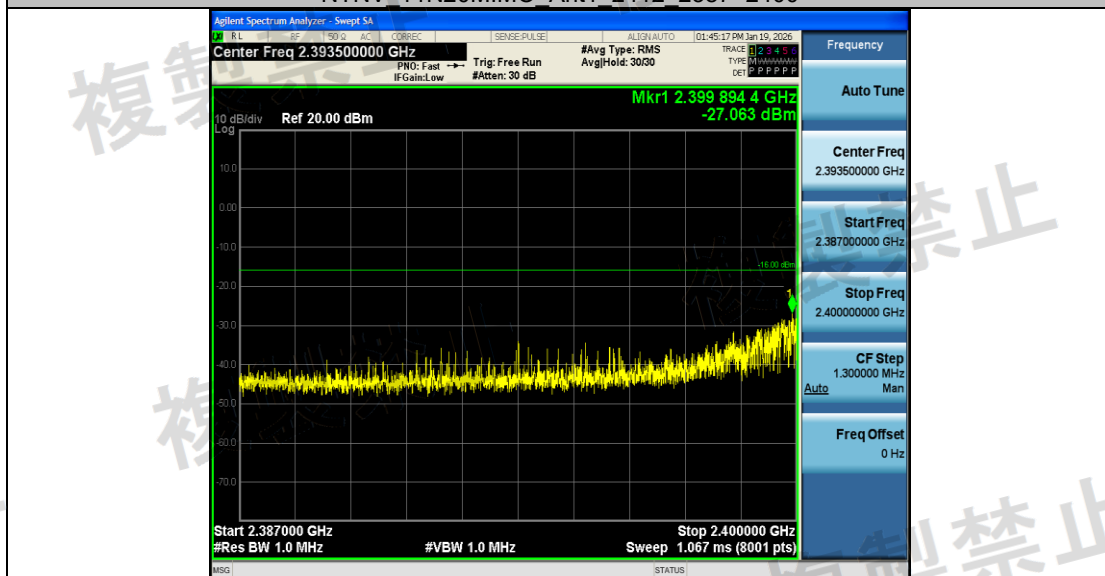




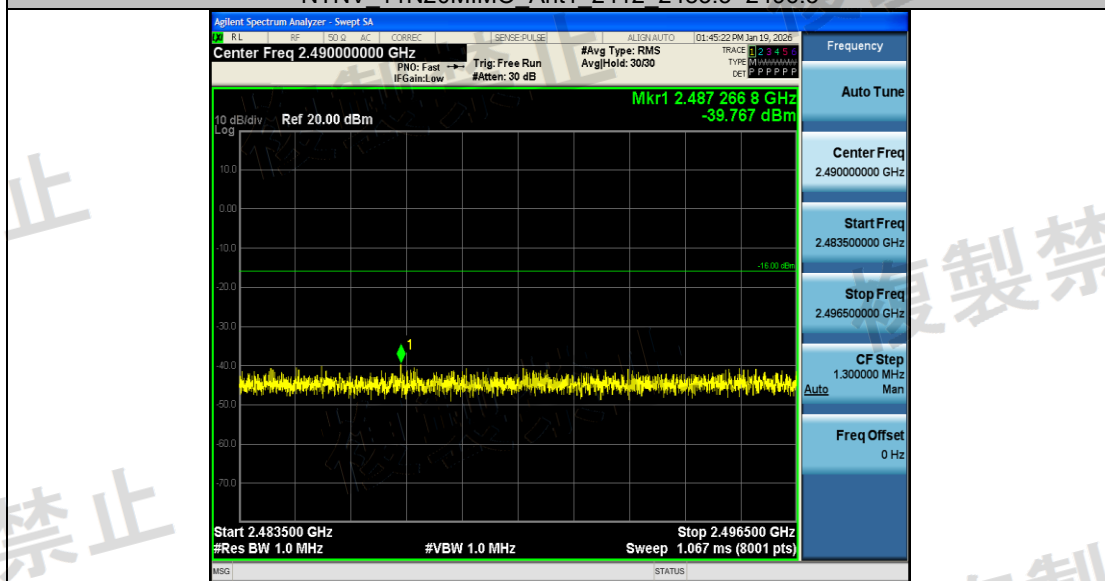




NTNV 11N20MIMO Ant1 2412 2387~2400

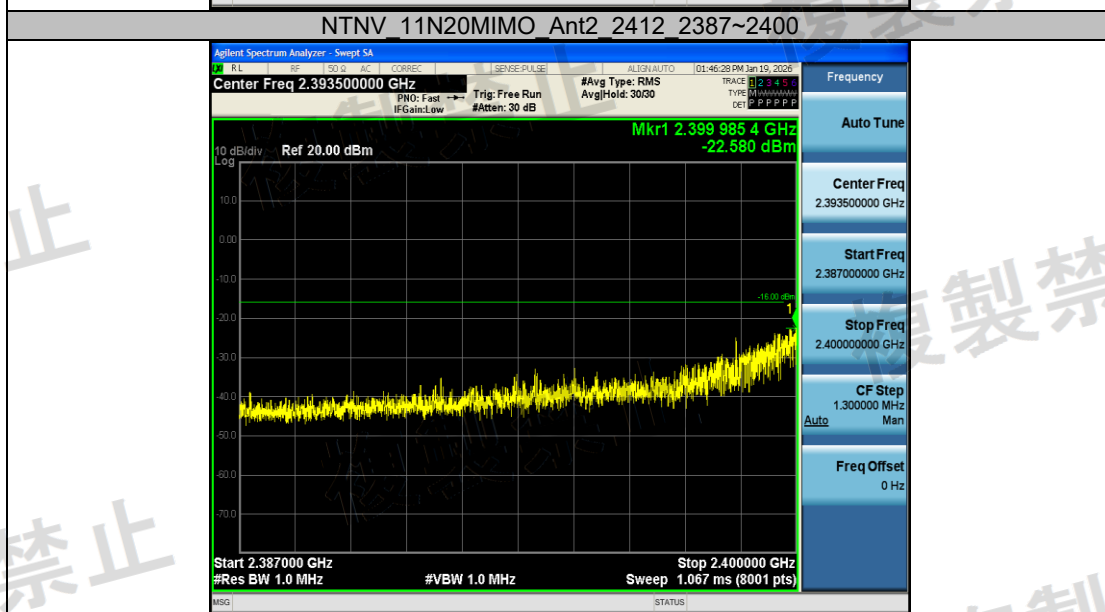
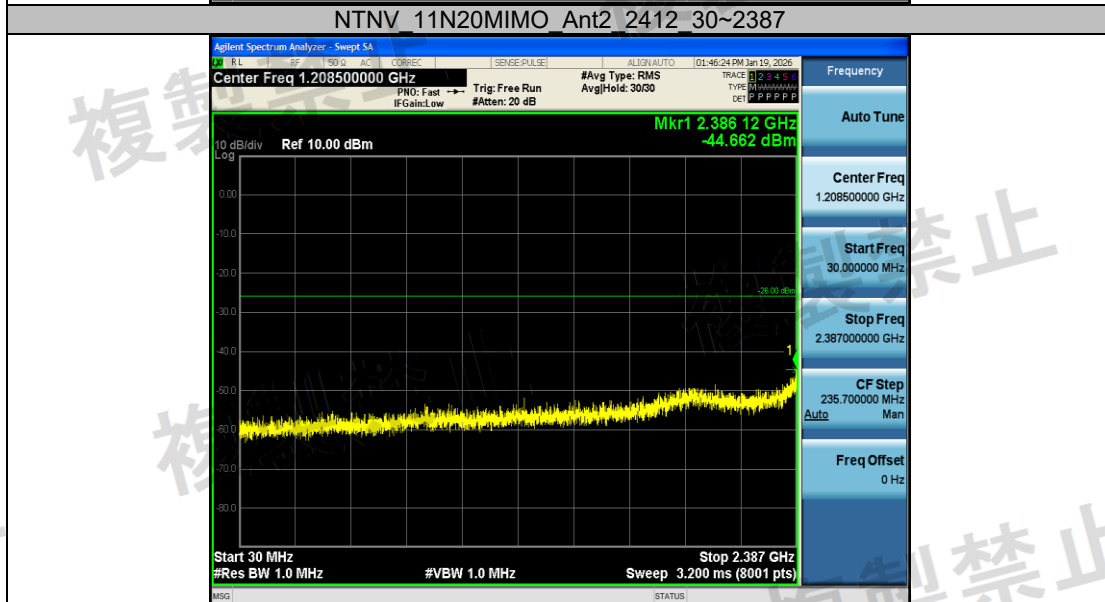
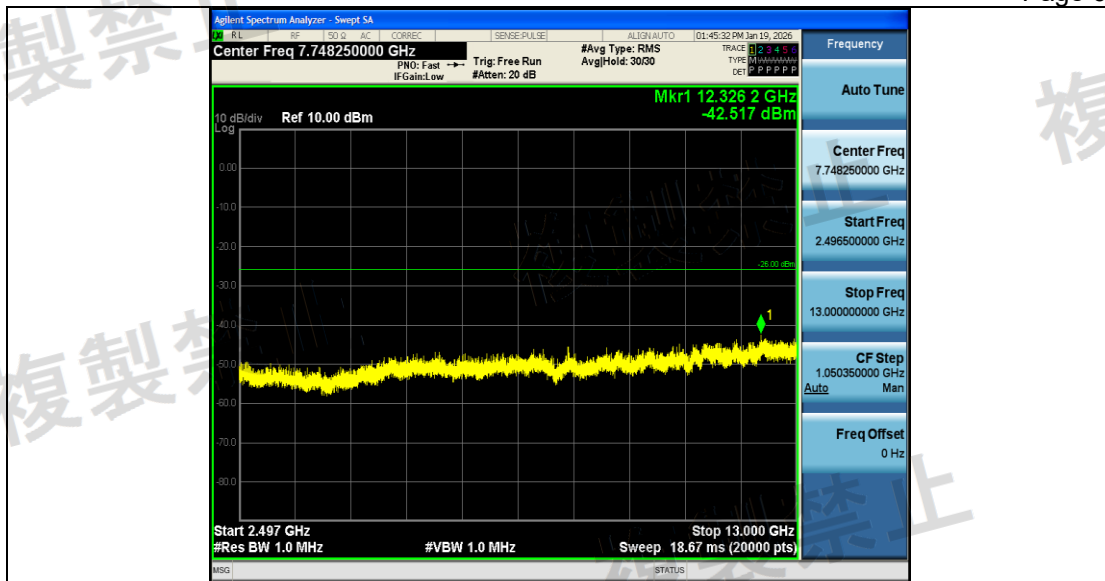


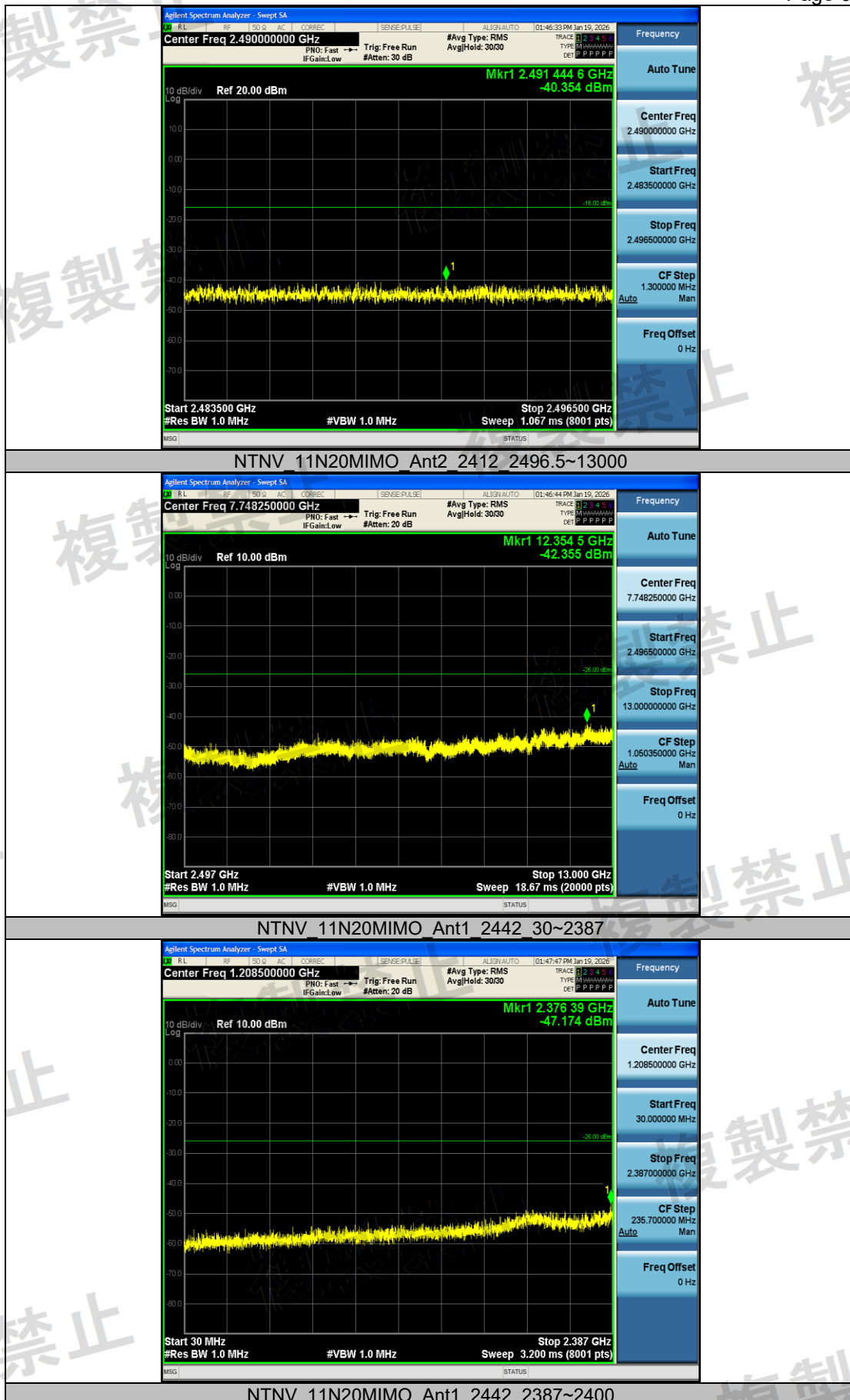
NTNV 11N20MIMO Ant1 2412 2483.5~2496.5

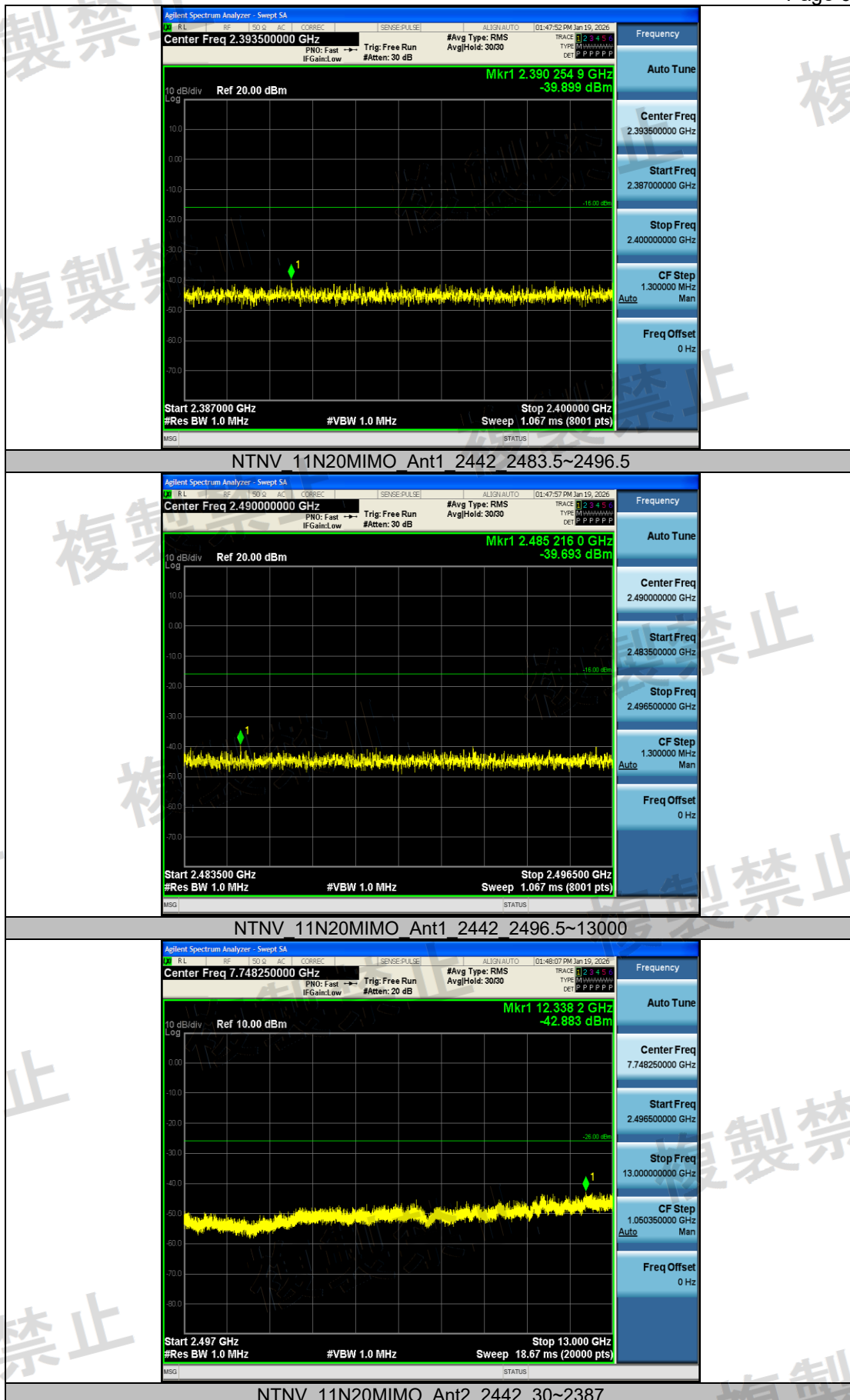


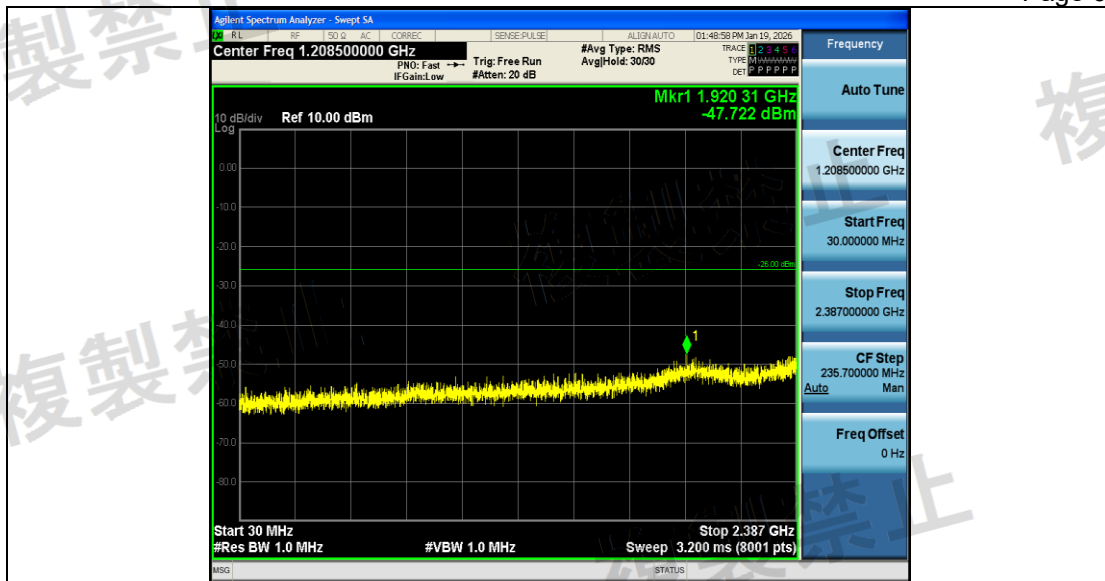
NTNV 11N20MIMO Ant1 2412 2496.5~13000



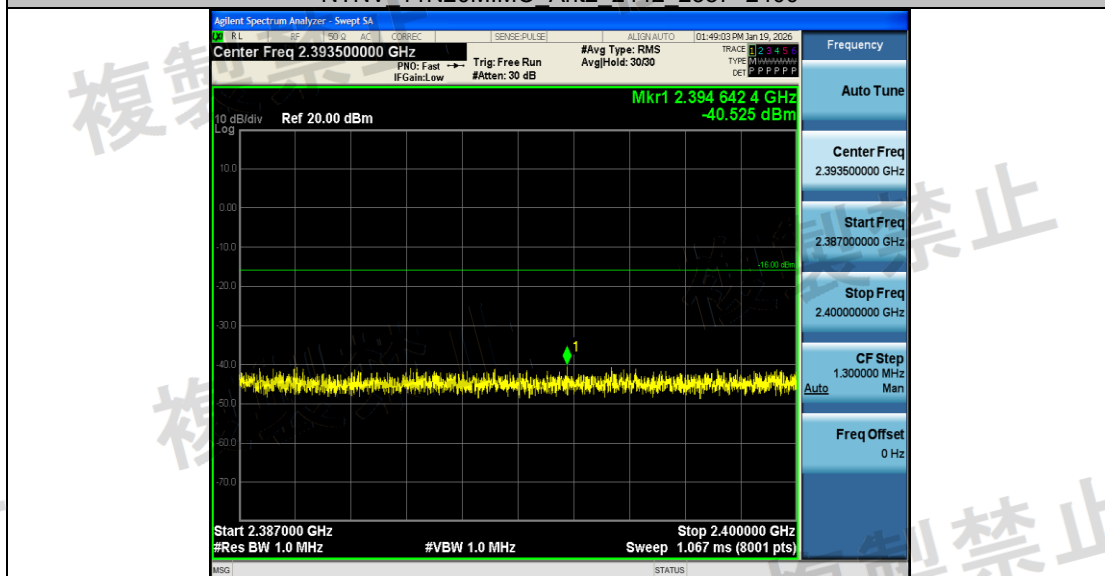




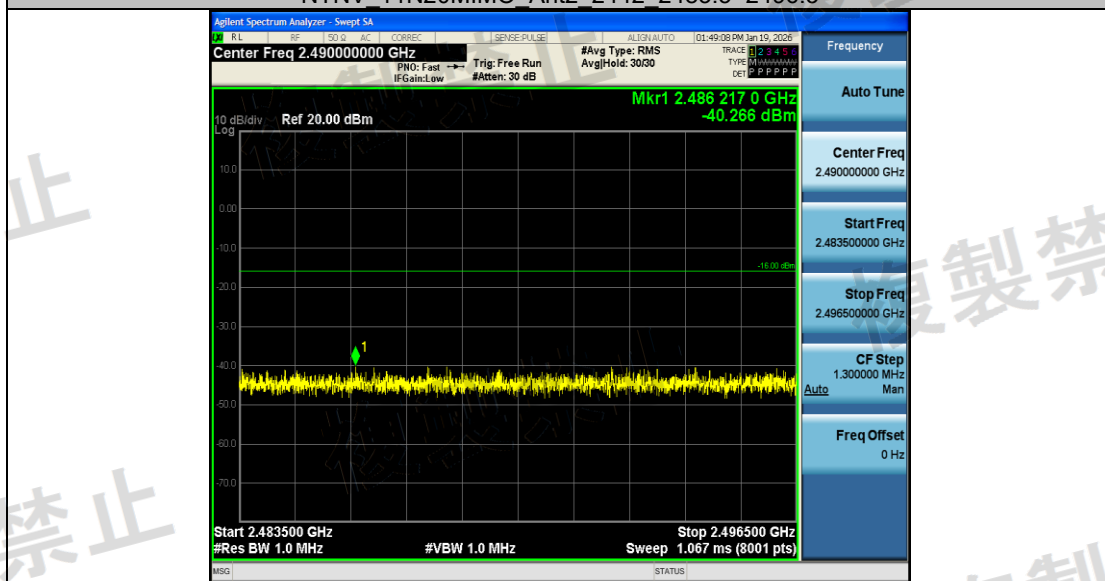




NTNV 11N20MIMO Ant2 2442 2387~2400

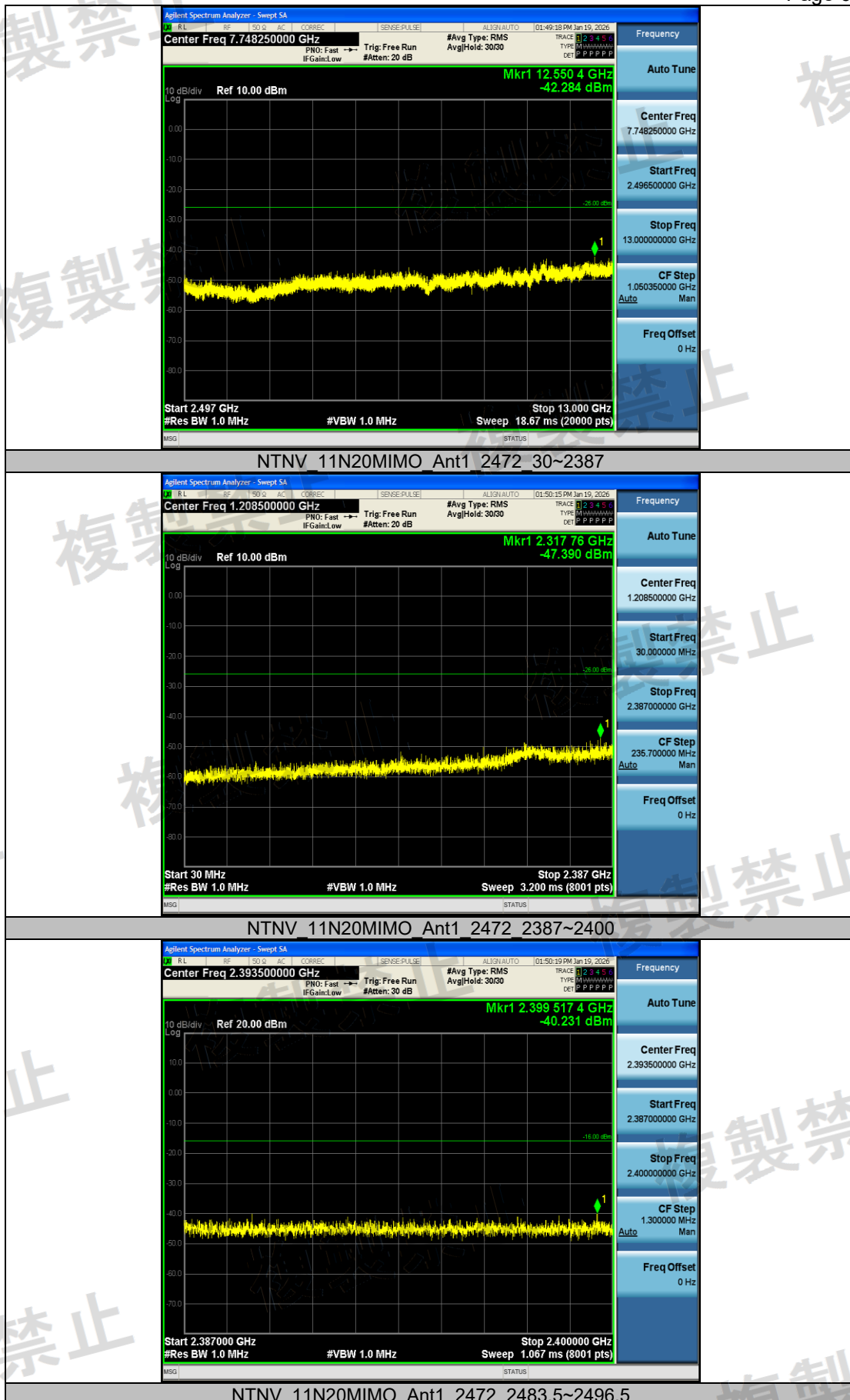


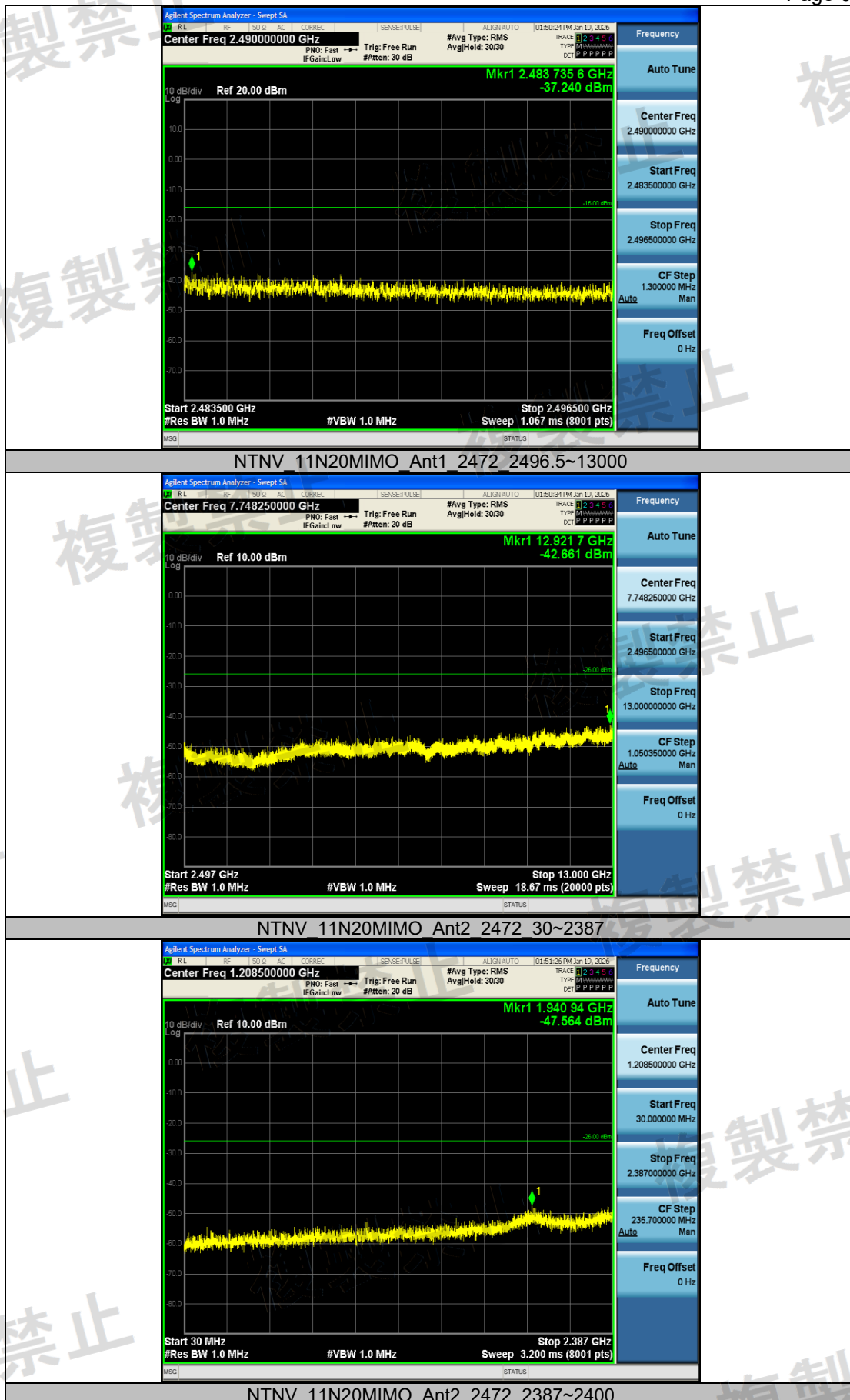
NTNV 11N20MIMO Ant2 2442 2483.5~2496.5

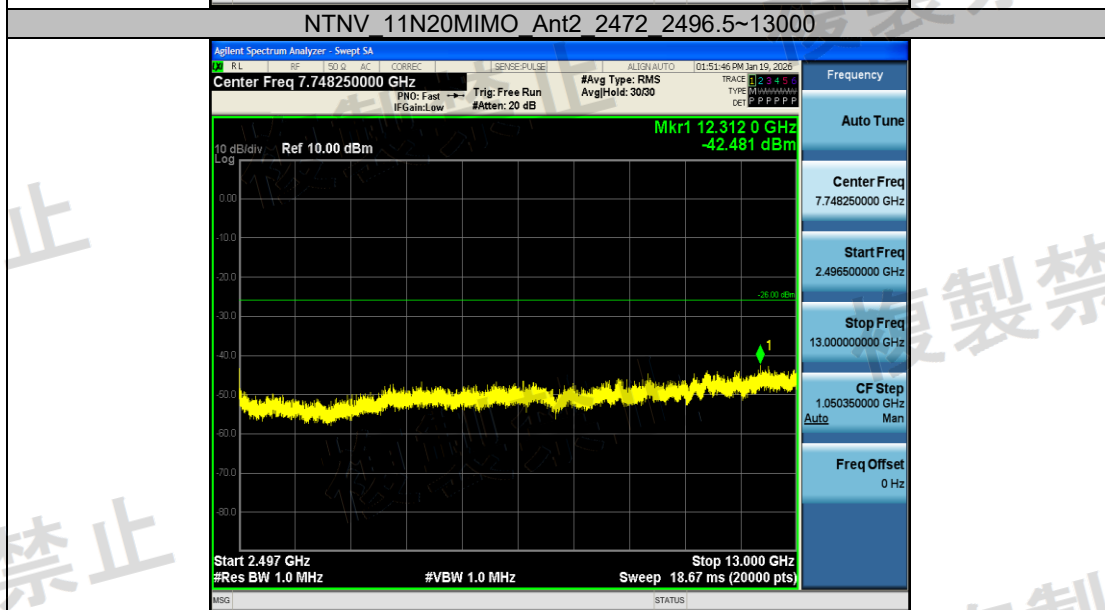
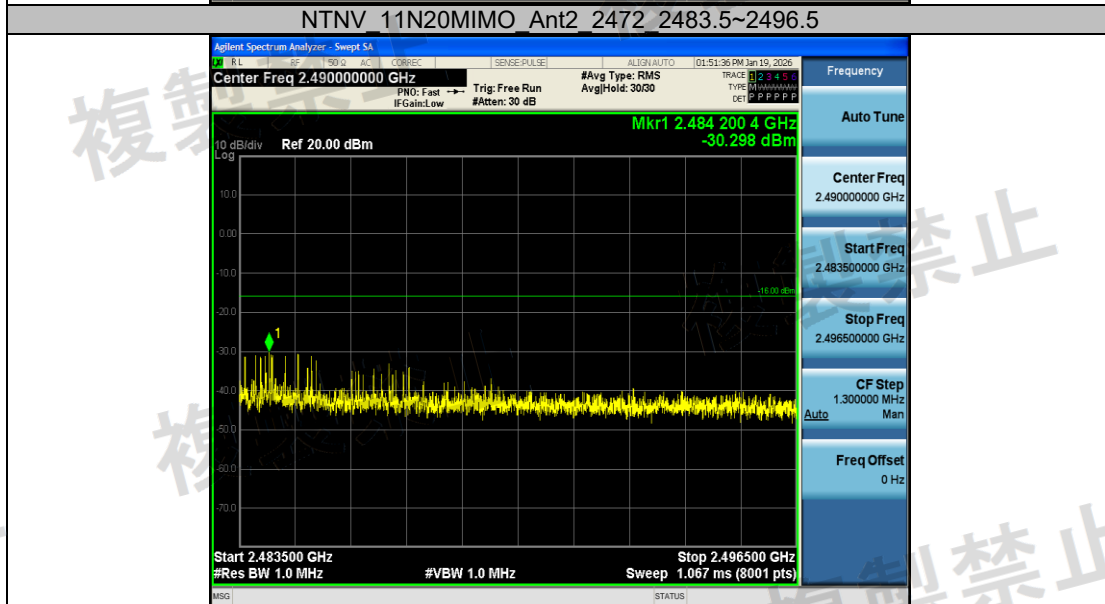
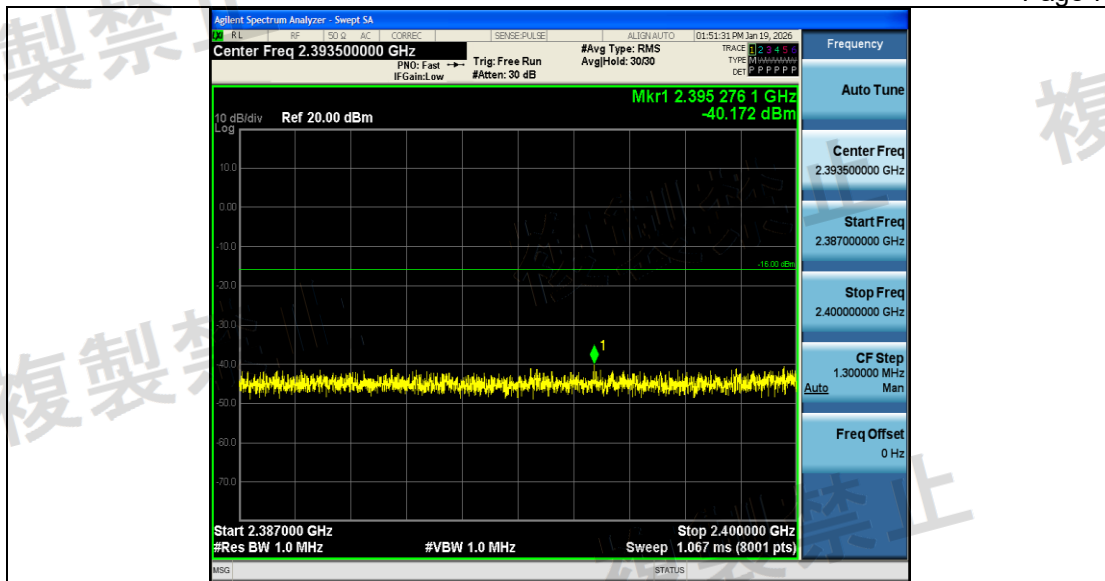


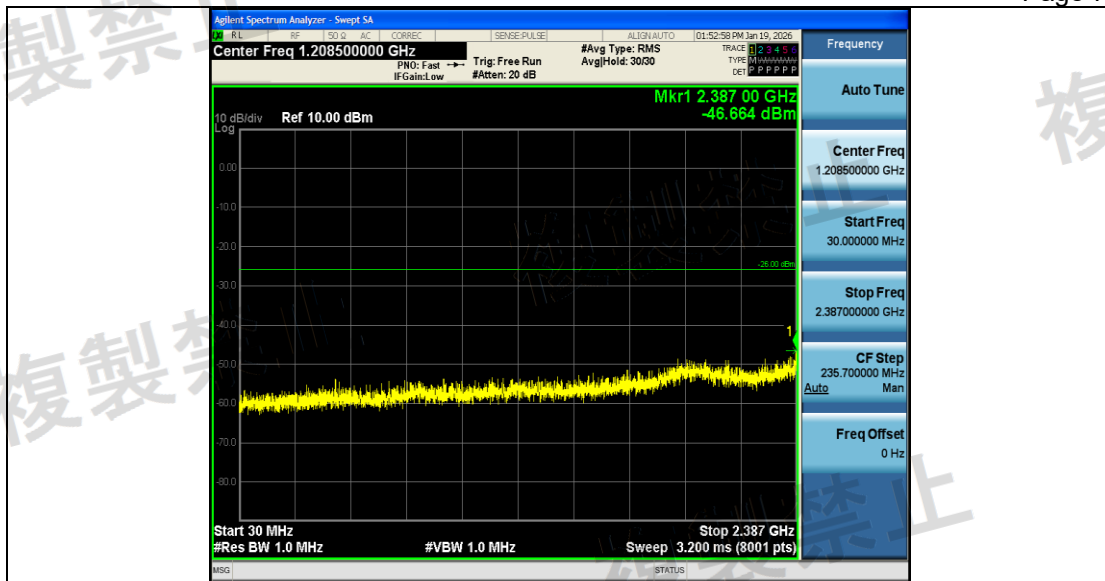
NTNV 11N20MIMO Ant2 2442 2496.5~13000



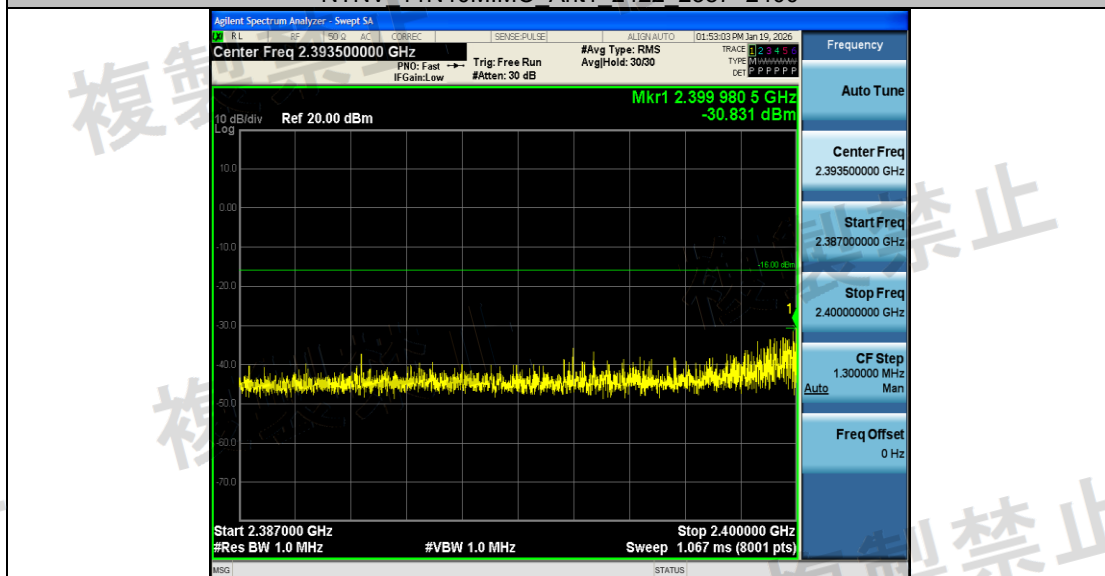




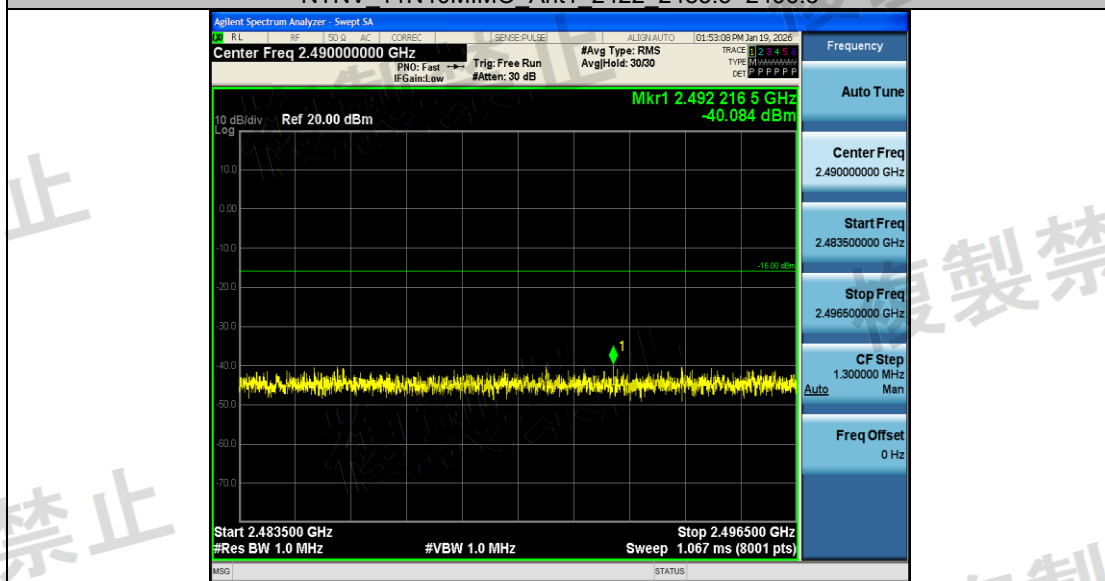




NTNV 11N40MIMO Ant1 2422 2387~2400

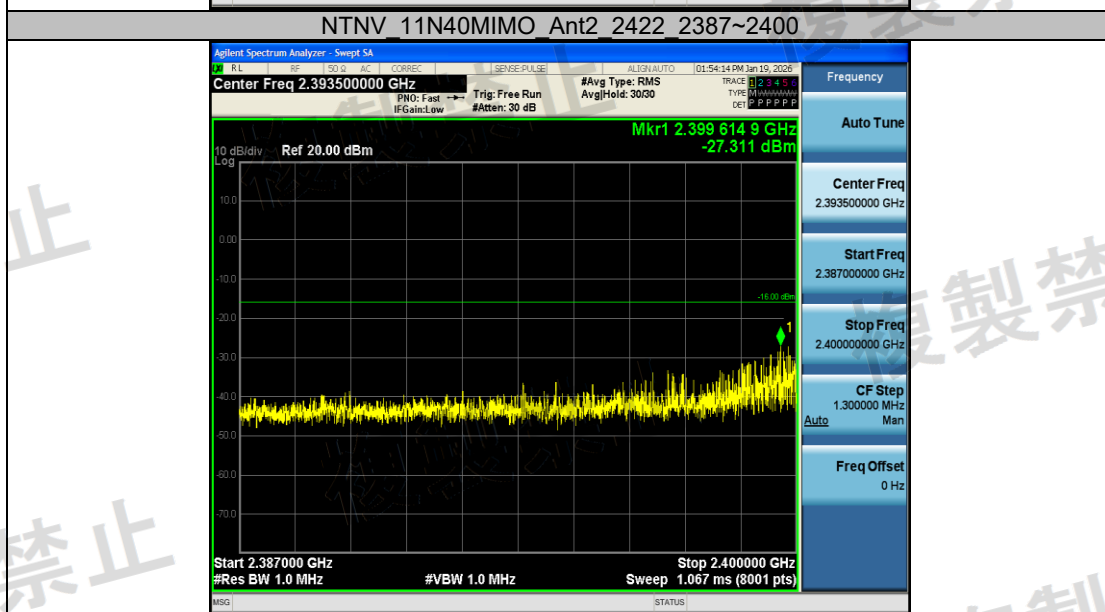
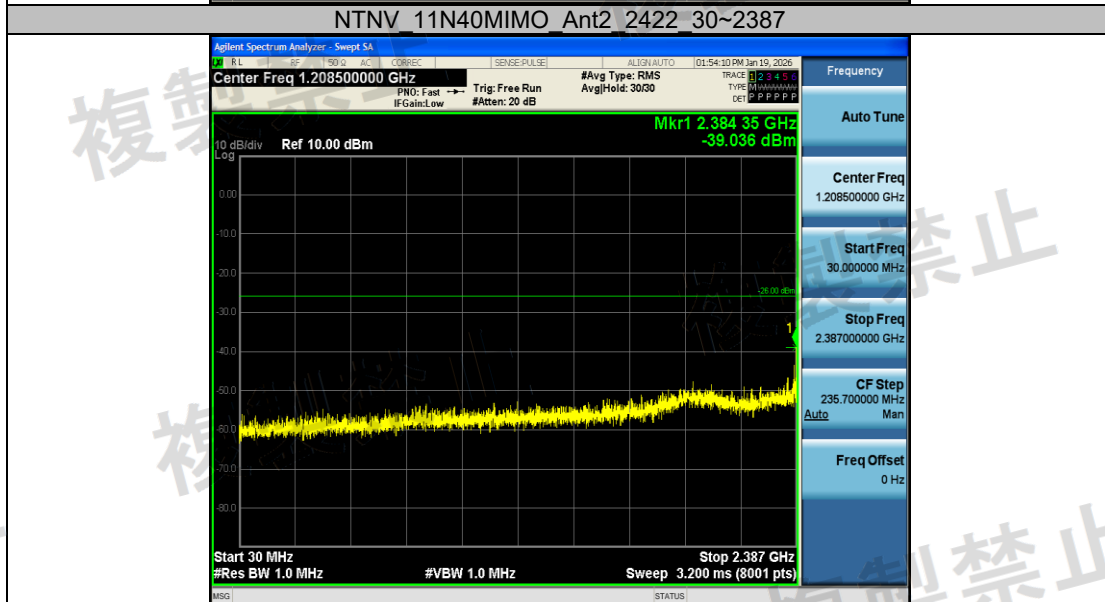
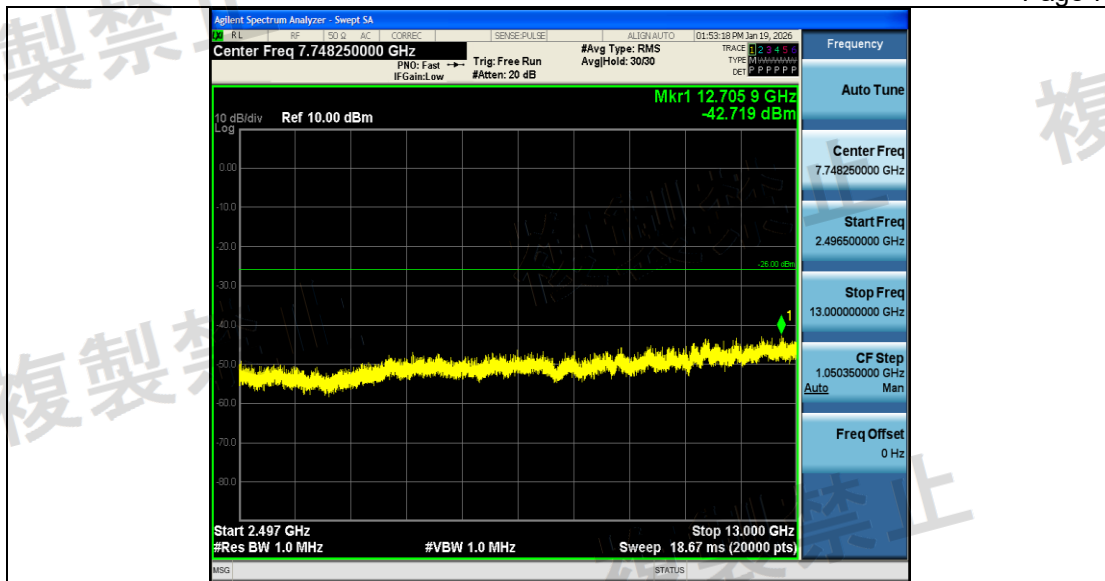


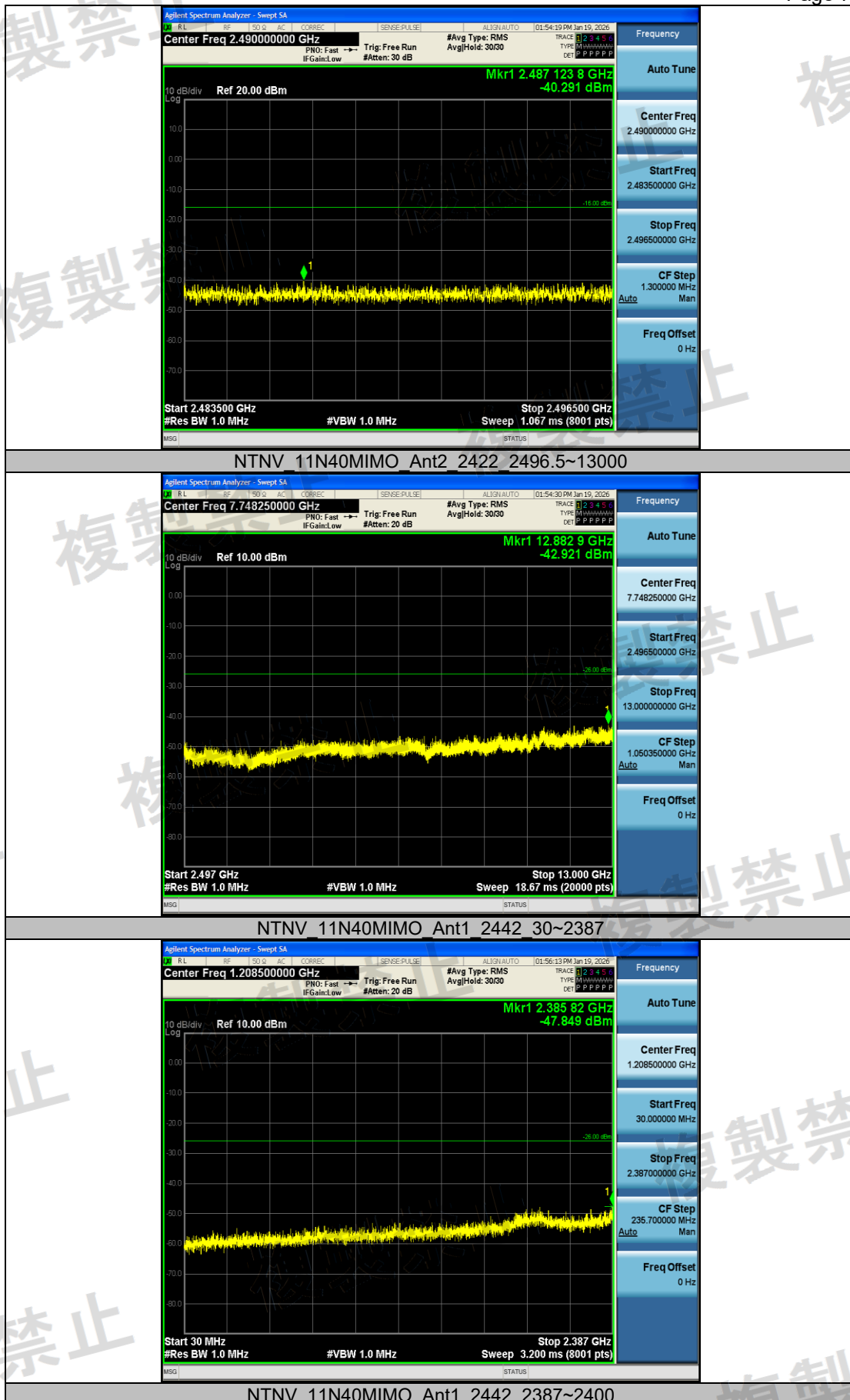
NTNV 11N40MIMO Ant1 2422 2483.5~2496.5

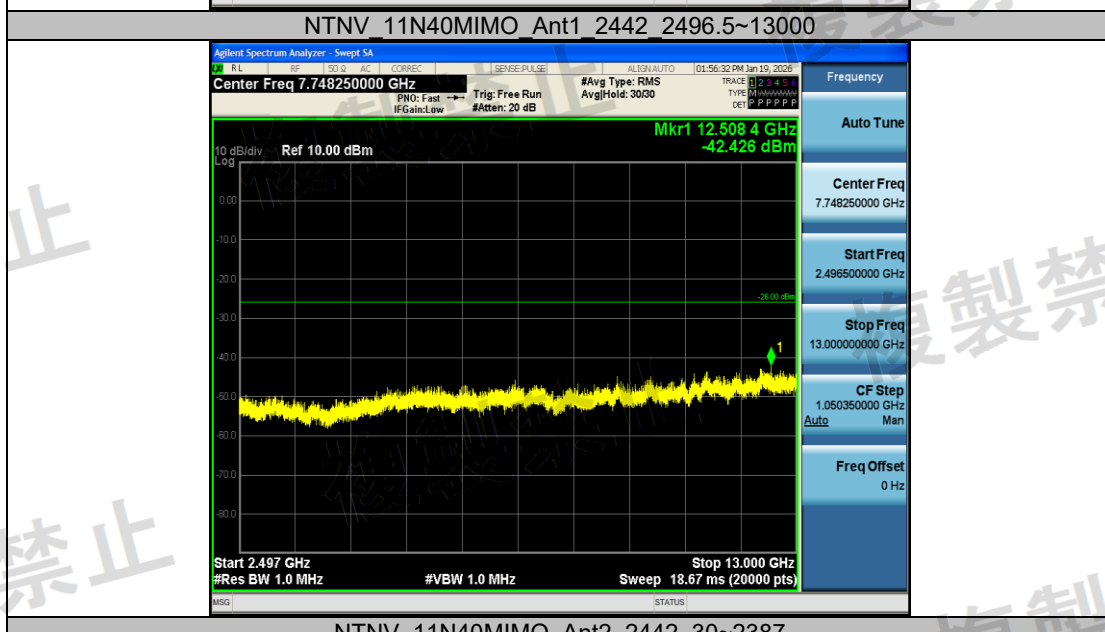
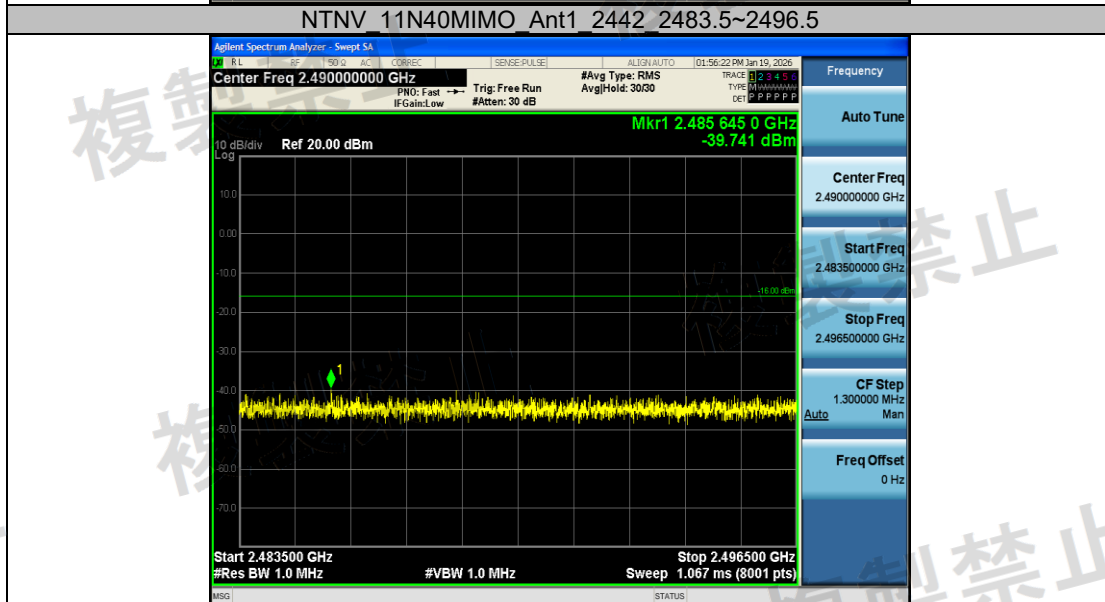
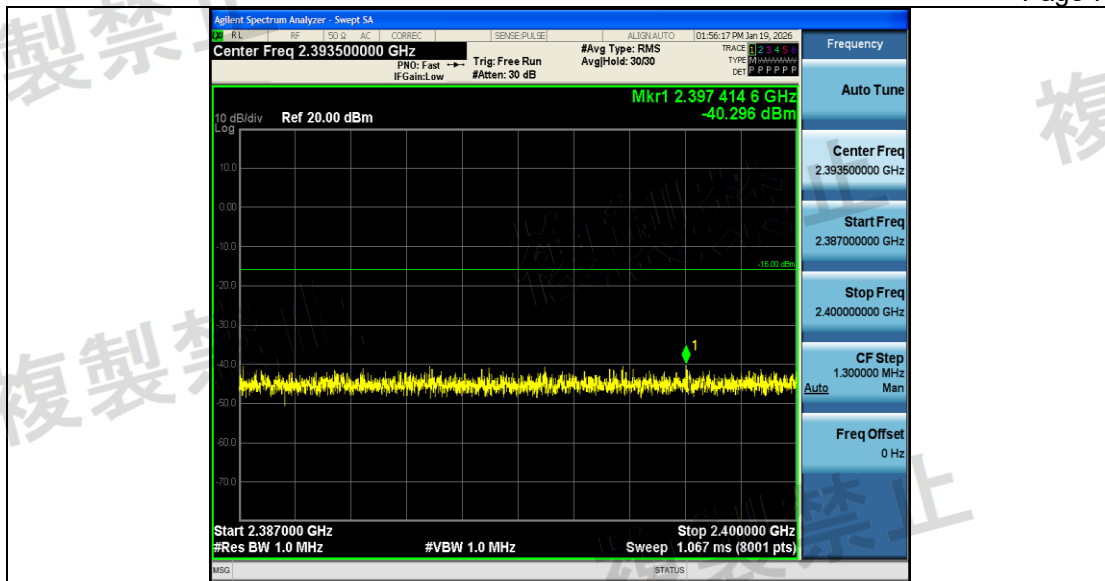


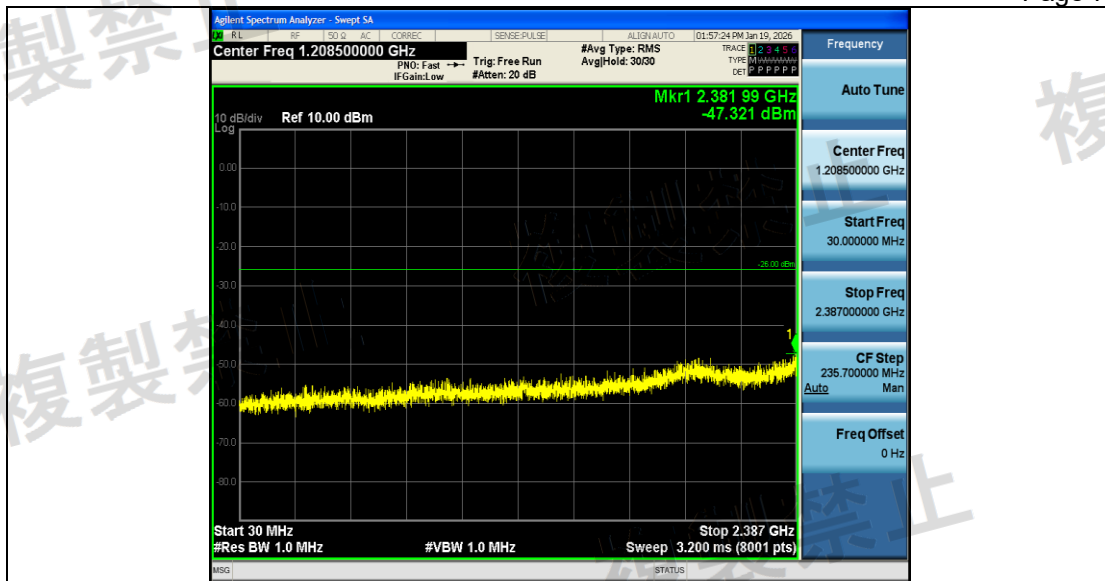
NTNV 11N40MIMO Ant1 2422 2496.5~13000



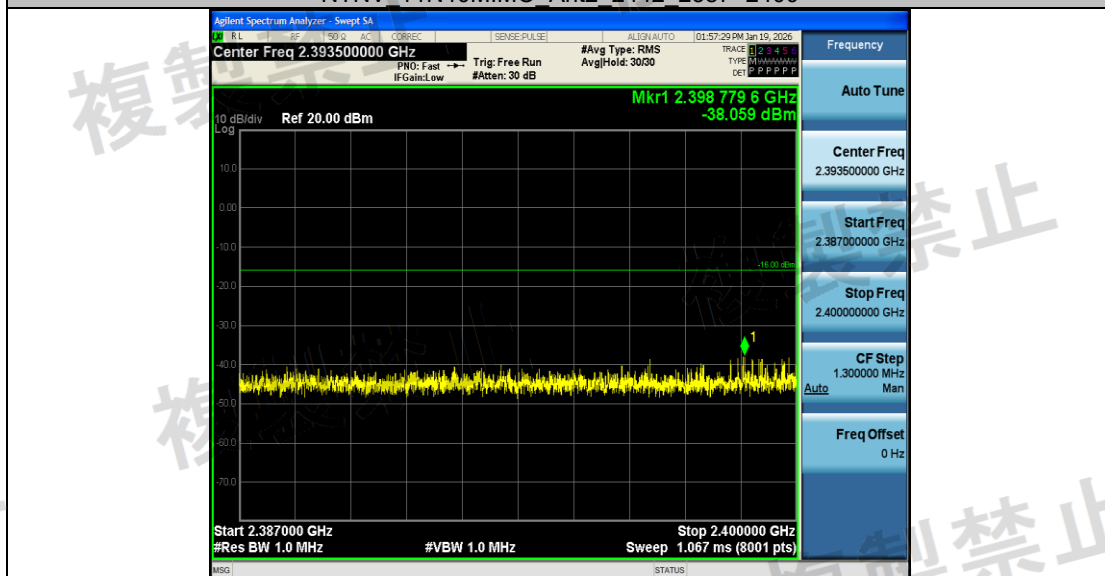




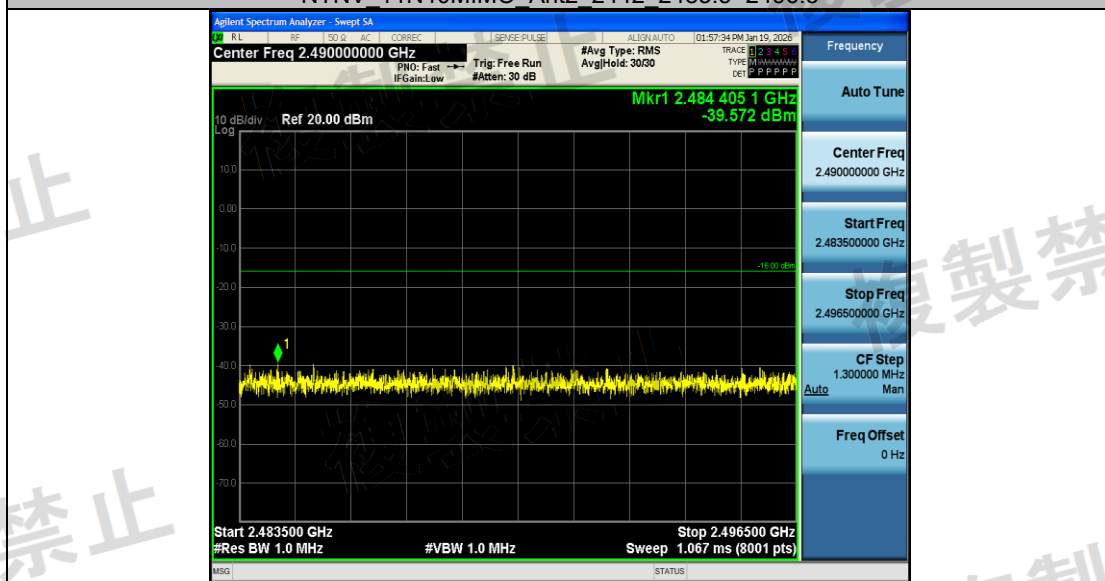




NTNV 11N40MIMO Ant2 2442 2387~2400

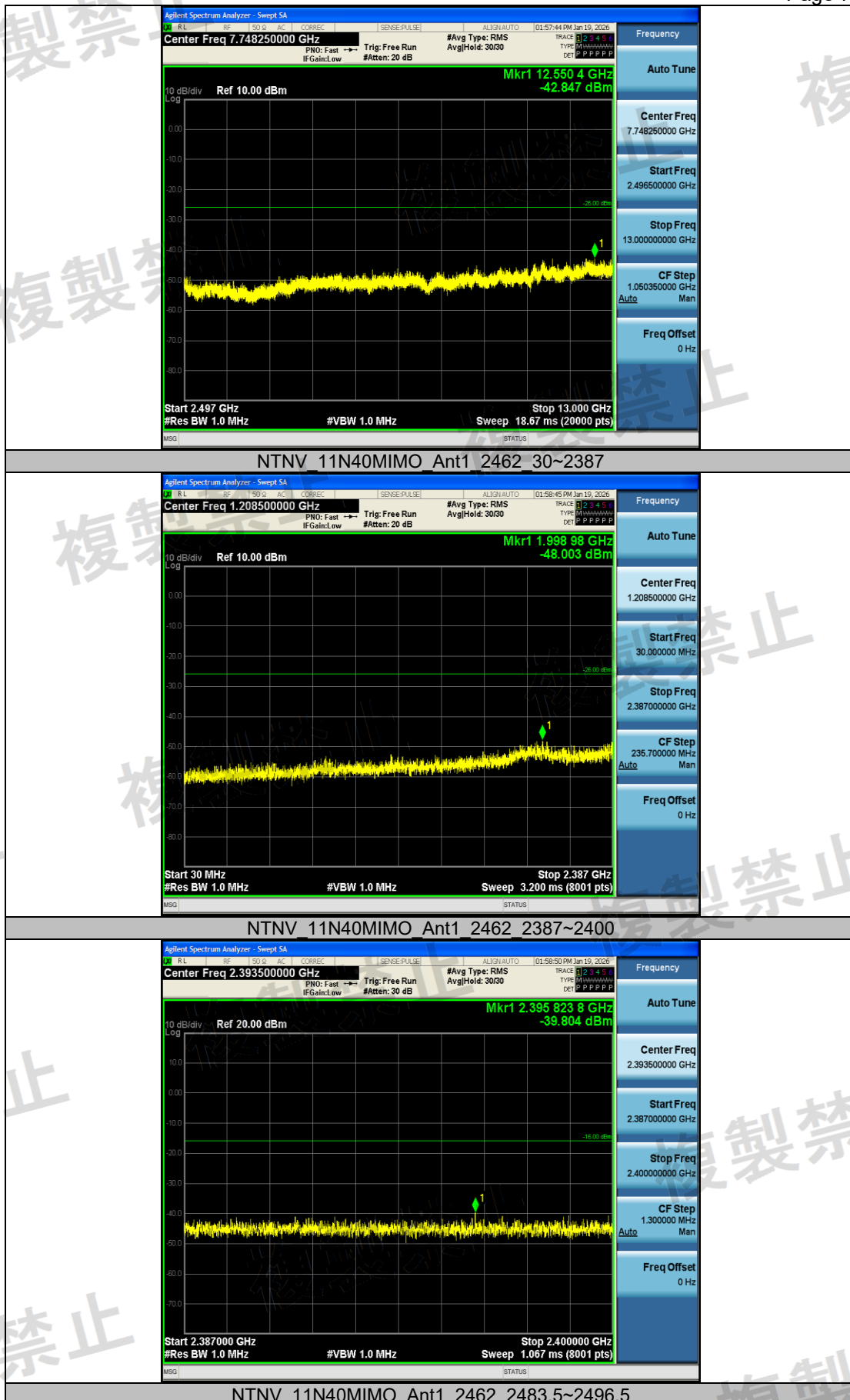


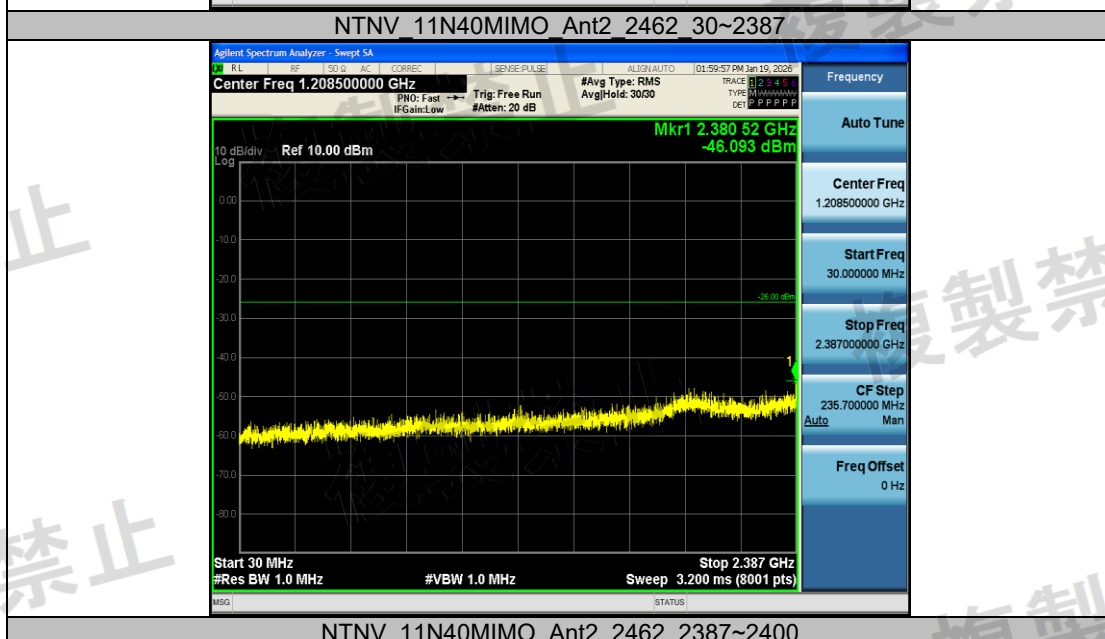
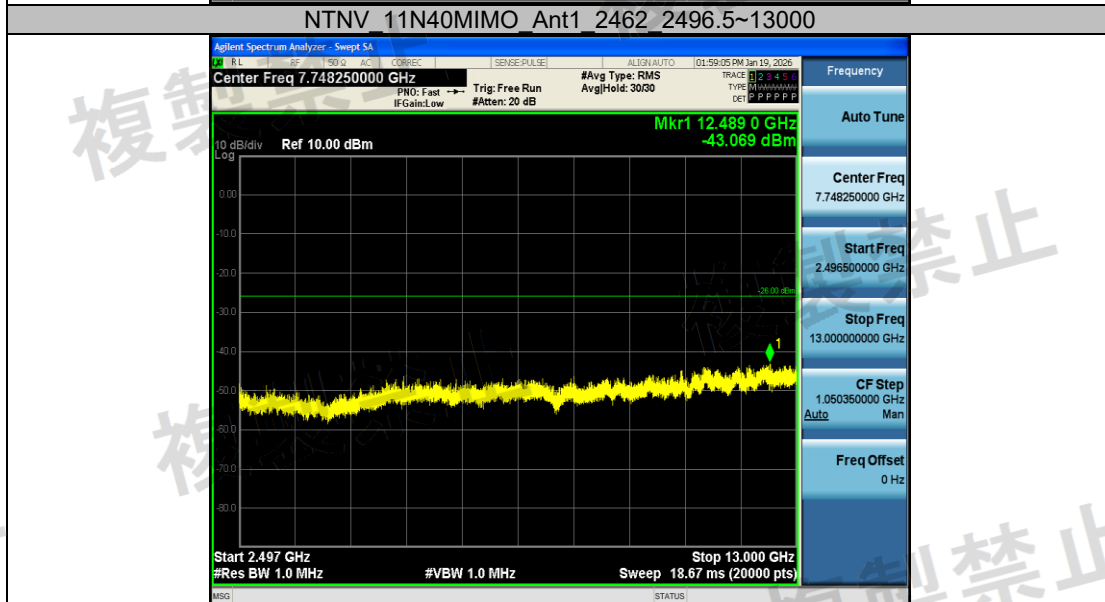
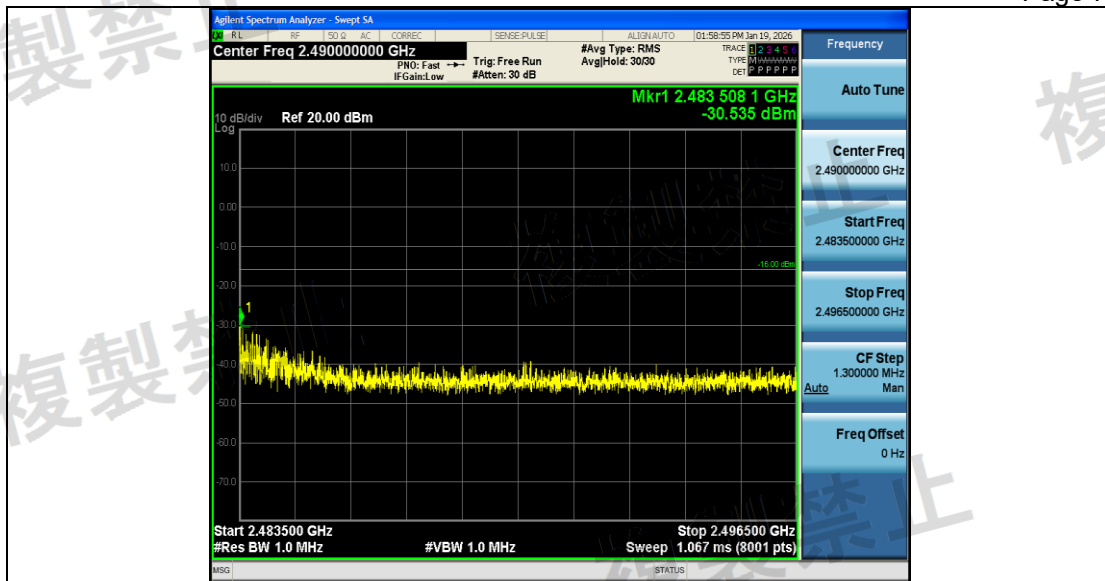
NTNV 11N40MIMO Ant2 2442 2483.5~2496.5

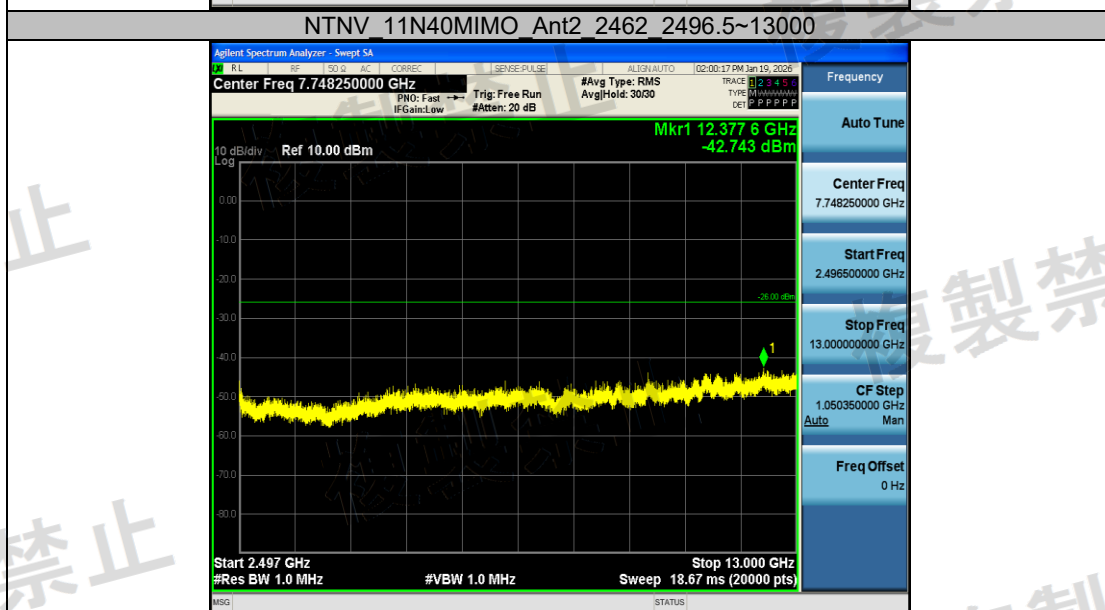
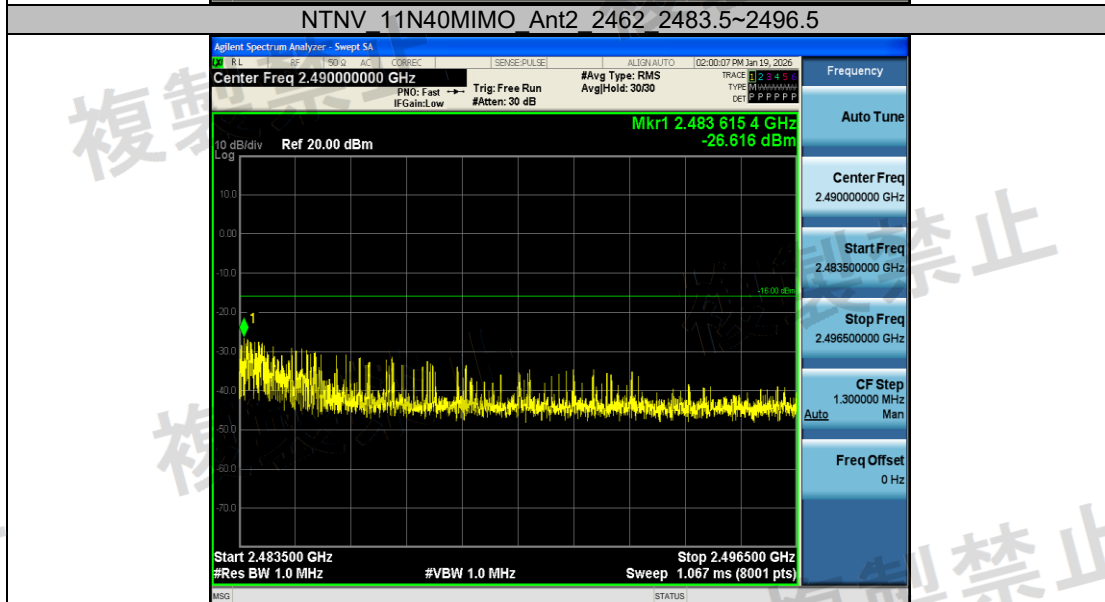
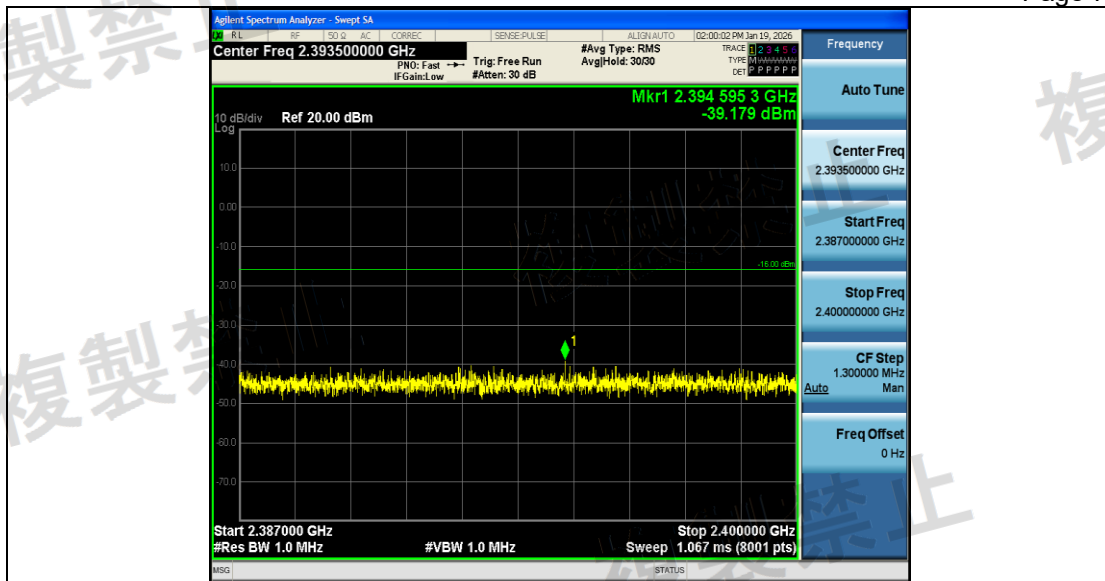


NTNV 11N40MIMO Ant2 2442 2496.5~13000





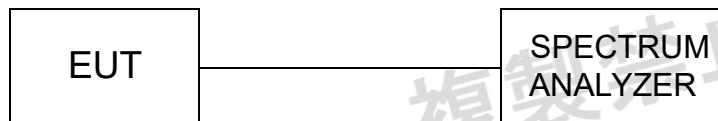






4.6. Limit of secondary radiated emissions

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: modulation

Spectrum Condition:

Frequency: 30MHz-13GHz

RBW:100KHz(30MHz-1GHz), 1MHz(1GHz-13GHz)

VBW:100KHz(30MHz-1GHz), 1MHz(1GHz-13GHz)

Sweep time:Auto

Dectector mode: Positive peak

Indication mode: max hold

LIMIT

The limit on secondary emissions radiated from the receiving equipment within which the function of other radio equipment will not be impaired shall be, in terms of the power of a dummy antenna circuit that has the same electrical constant as the receiving antenna, 4 nW or less at a frequency below 1 GHz and 20 nW or less at a frequency of 1 GHz or higher as measured using the circuit

TEST RESULTS

Test Condition	Test Mode	Antenna	Channel(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	11B	Ant1	2412	30~1000	784.90	-72.70	≤-54	0.05370	≤4	PASS
				1000~13000	12791.19	-63.11	≤-47	0.48865	≤20	PASS
		Ant2	2412	30~1000	881.30	-72.91	≤-54	0.05117	≤4	PASS
				1000~13000	12347.17	-63.05	≤-47	0.49545	≤20	PASS
		Ant1	2442	30~1000	446.13	-73.11	≤-54	0.04887	≤4	PASS
				1000~13000	12566.18	-62.78	≤-47	0.52723	≤20	PASS
		Ant2	2442	30~1000	800.91	-72.82	≤-54	0.05224	≤4	PASS
				1000~13000	12437.17	-62.91	≤-47	0.51168	≤20	PASS
		Ant1	2472	30~1000	934.65	-72.24	≤-54	0.05970	≤4	PASS
				1000~13000	12876.99	-63.06	≤-47	0.49431	≤20	PASS
		Ant2	2472	30~1000	795.21	-73.16	≤-54	0.04831	≤4	PASS
				1000~13000	12717.99	-63.24	≤-47	0.47424	≤20	PASS
	11G	Ant1	2412	30~1000	780.78	-72.54	≤-54	0.05572	≤4	PASS
				1000~13000	11853.34	-63.14	≤-47	0.48529	≤20	PASS





	11N20MIM O	Ant2	2412	30~1000	871.11	- 71.13	≤-54	0.0770 9	≤4	PASS
				1000~1300 0	12395.1 7	- 63.03	≤-47	0.4977 4	≤20	PASS
		Ant1	2442	30~1000	695.54	- 71.98	≤-54	0.0633 9	≤4	PASS
				1000~1300 0	12342.9 7	- 62.89	≤-47	0.5140 4	≤20	PASS
		Ant2	2442	30~1000	856.56	- 72.61	≤-54	0.0548 3	≤4	PASS
				1000~1300 0	12465.3 7	- 62.64	≤-47	0.5445 0	≤20	PASS
		Ant1	2472	30~1000	760.65	- 73.32	≤-54	0.0465 6	≤4	PASS
				1000~1300 0	12262.5 6	- 63.25	≤-47	0.4731 5	≤20	PASS
		Ant2	2472	30~1000	892.09	- 72.66	≤-54	0.0542 0	≤4	PASS
				1000~1300 0	12457.5 7	- 62.96	≤-47	0.5058 2	≤20	PASS
	11N40MIM O	Ant1	2412	30~1000	681.84	- 72.99	≤-54	0.0502 3	≤4	PASS
				1000~1300 0	12421.5 7	- 61.52	≤-47	0.7046 9	≤20	PASS
		Ant2	2412	30~1000	926.16	- 71.99	≤-54	0.0632 4	≤4	PASS
				1000~1300 0	12108.9 6	- 63.02	≤-47	0.4988 8	≤20	PASS
		Ant1	2442	30~1000	781.14	- 72.99	≤-54	0.0502 3	≤4	PASS
				1000~1300 0	12728.7 9	- 63.26	≤-47	0.4720 6	≤20	PASS
		Ant2	2442	30~1000	795.82	- 72.64	≤-54	0.0544 5	≤4	PASS
				1000~1300 0	12302.1 7	- 63.08	≤-47	0.4920 4	≤20	PASS
		Ant1	2472	30~1000	863.47	- 72.43	≤-54	0.0571 5	≤4	PASS
				1000~1300 0	12552.3 8	- 63.53	≤-47	0.4436 1	≤20	PASS
		Ant2	2472	30~1000	993.94	- 72.80	≤-54	0.0524 8	≤4	PASS
				1000~1300 0	11849.1 4	- 62.77	≤-47	0.5284 5	≤20	PASS
	11N40MIM O	Ant1	2422	30~1000	796.18	- 72.77	≤-54	0.0528 4	≤4	PASS
				1000~1300 0	12402.9 7	- 63.43	≤-47	0.4539 4	≤20	PASS
		Ant2	2422	30~1000	887.24	- 72.24	≤-54	0.0597 0	≤4	PASS
				1000~1300 0	12593.1 8	- 62.57	≤-47	0.5533 5	≤20	PASS
		Ant1	2442	30~1000	944.47	- 73.10	≤-54	0.0489 8	≤4	PASS
				1000~1300 0	12363.9 7	- 62.58	≤-47	0.5520 8	≤20	PASS
		Ant2	2442	30~1000	911.12	- 72.58	≤-54	0.0552 1	≤4	PASS
				1000~1300 0	12603.3 8	- 63.59	≤-47	0.4375 2	≤20	PASS
		Ant1	2462	30~1000	915.25	- 72.96	≤-54	0.0505 8	≤4	PASS
				1000~1300 0	12446.1 7	- 62.68	≤-47	0.5395 1	≤20	PASS
		Ant2	2462	30~1000	855.96	- 72.59	≤-54	0.0550 8	≤4	PASS





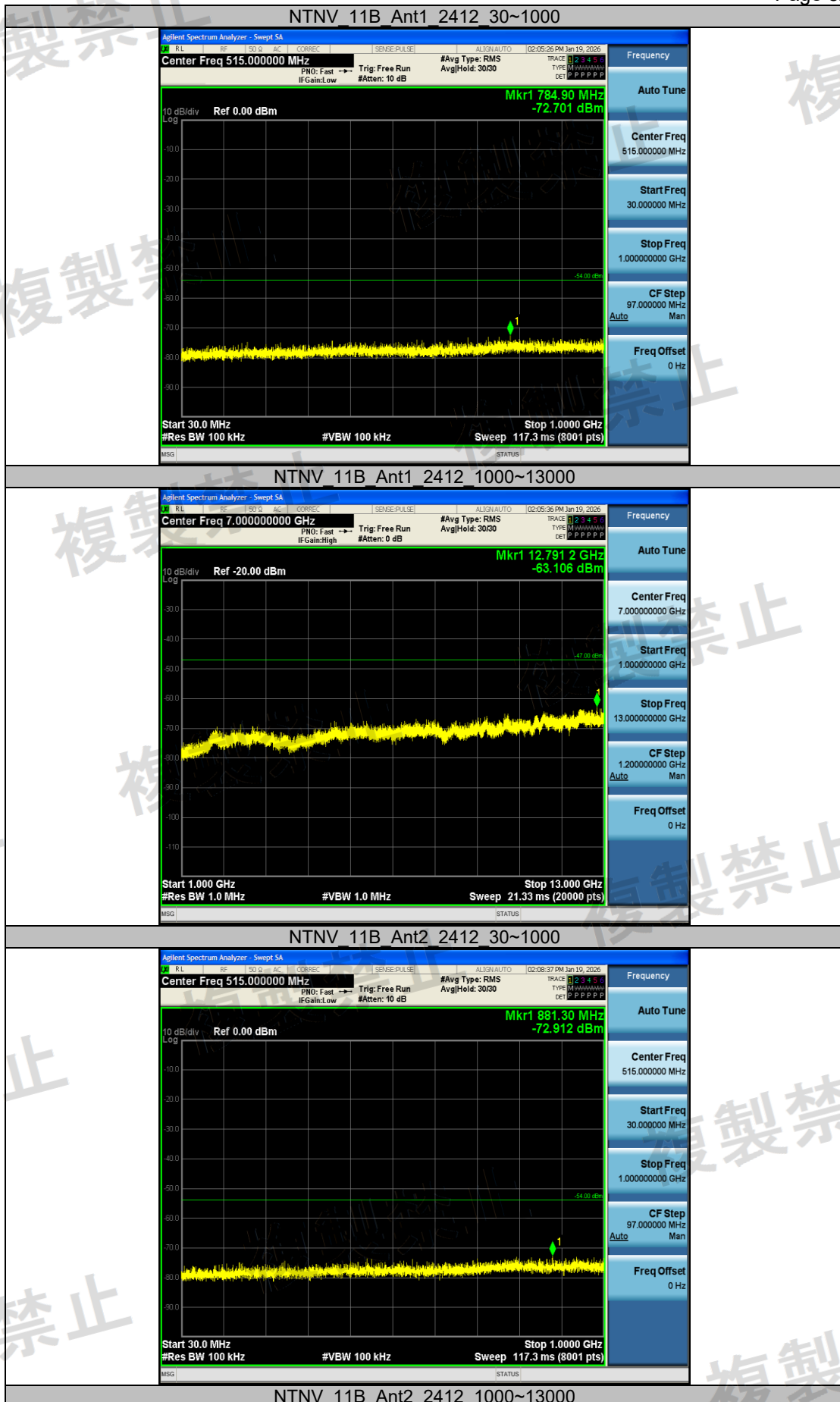
			1000~1300 0	12714.3 9	- 63.43	≤-47	0.4539 4	≤20	PASS
--	--	--	----------------	--------------	------------	------	-------------	-----	------

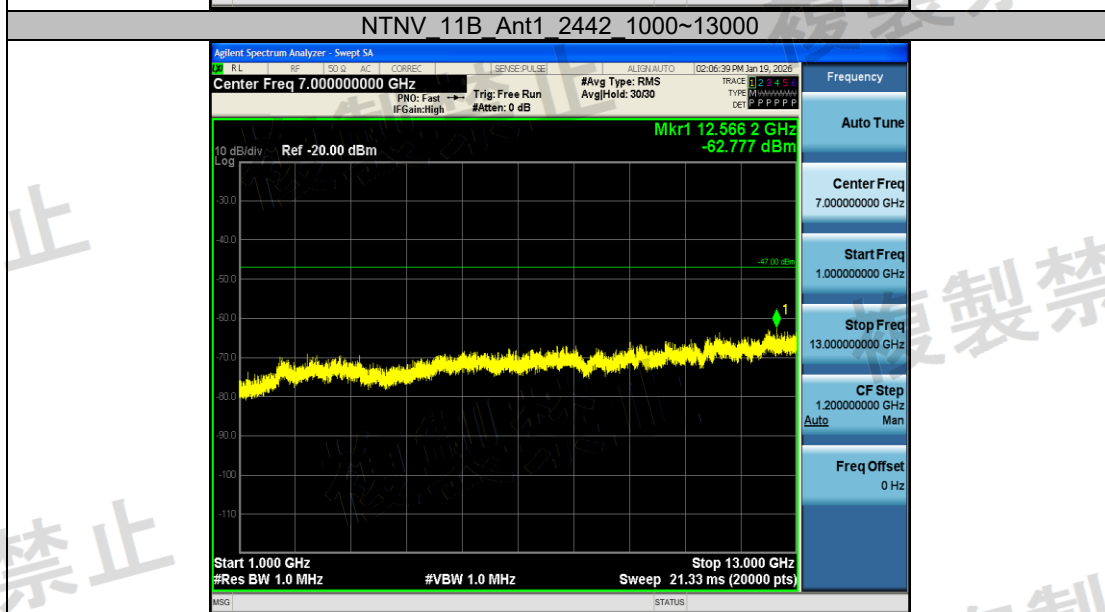
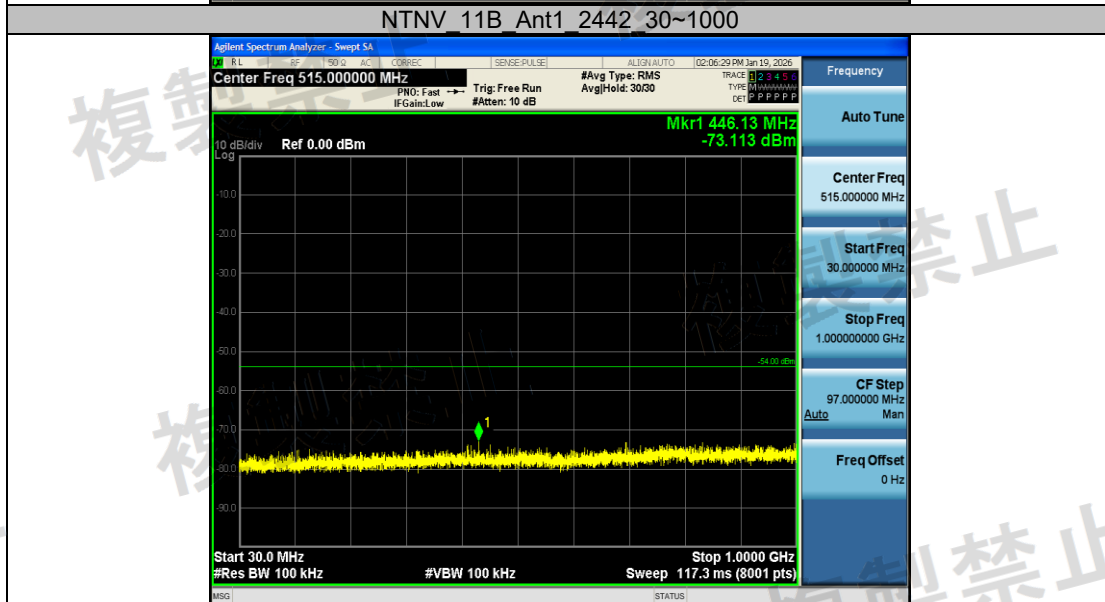
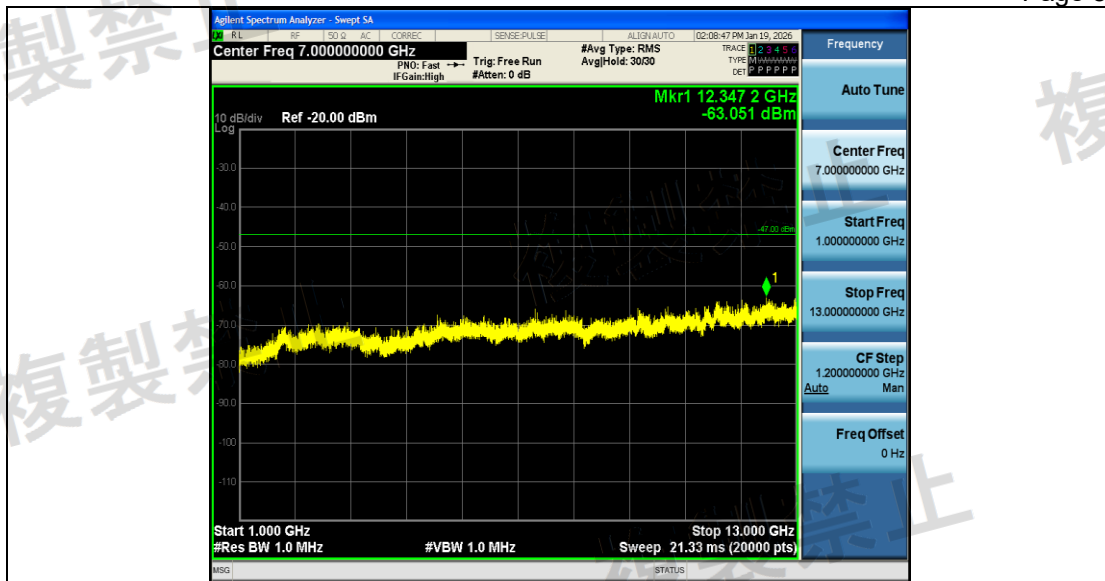
Note: 1. The product was tested at 25 °C and 55% humidity condition;

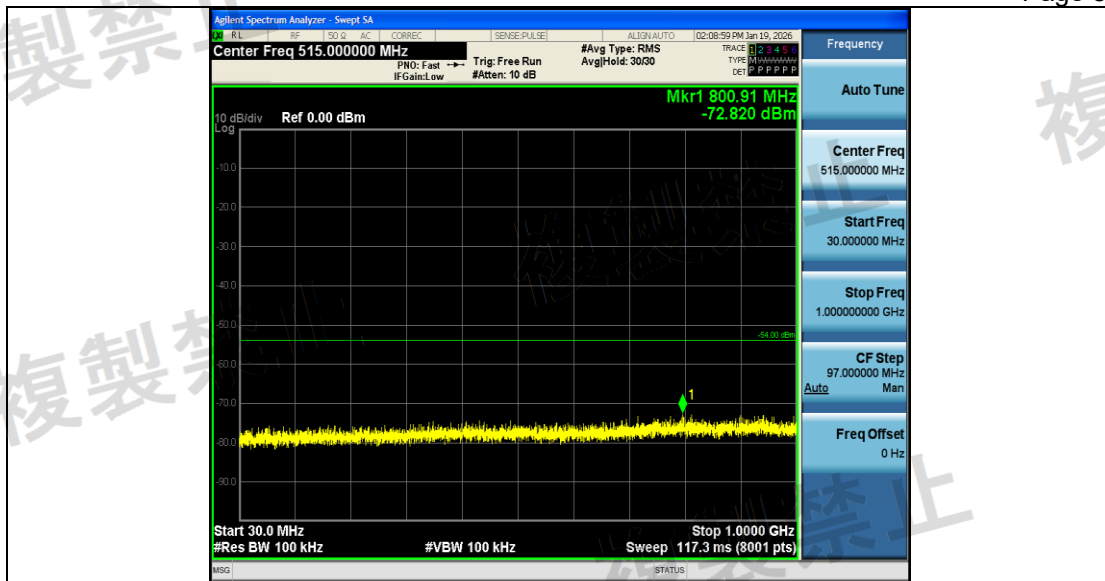
2. All condition has been tested, list the worst case in this item

Test plot as follows:

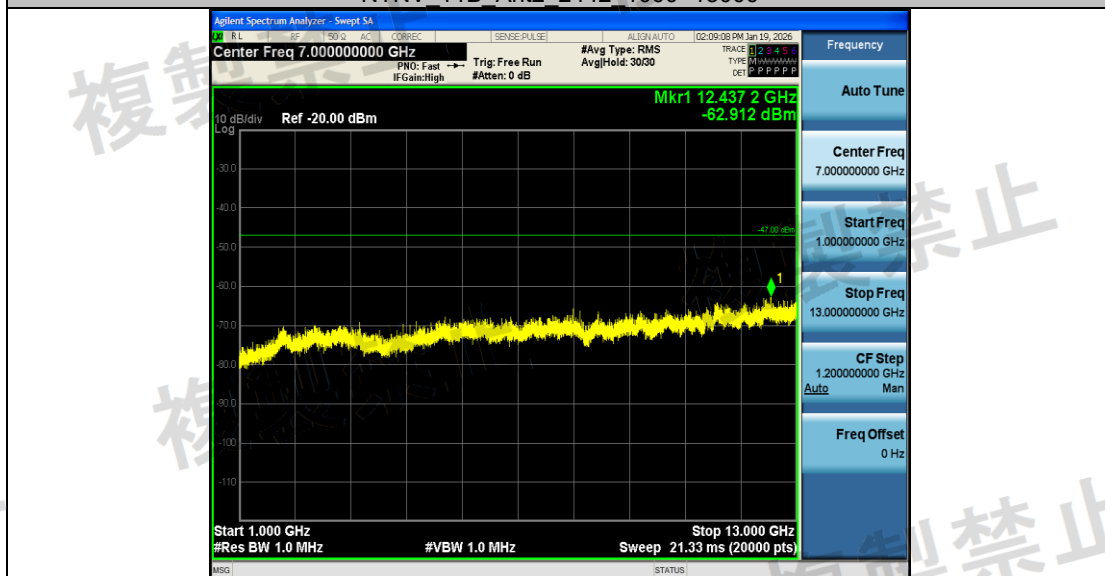




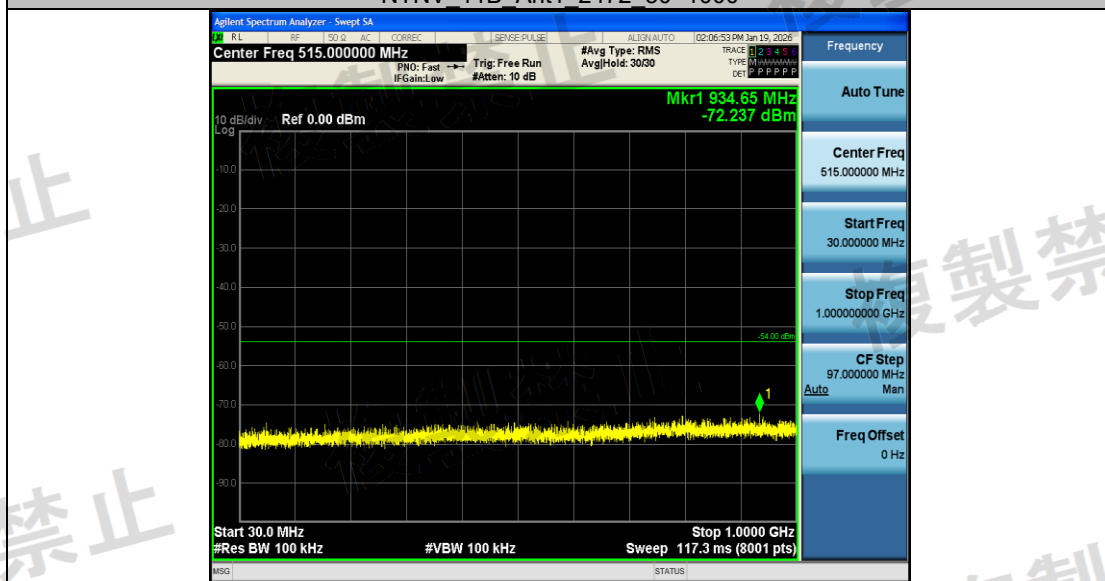




NTNV 11B Ant2 2442 1000~13000

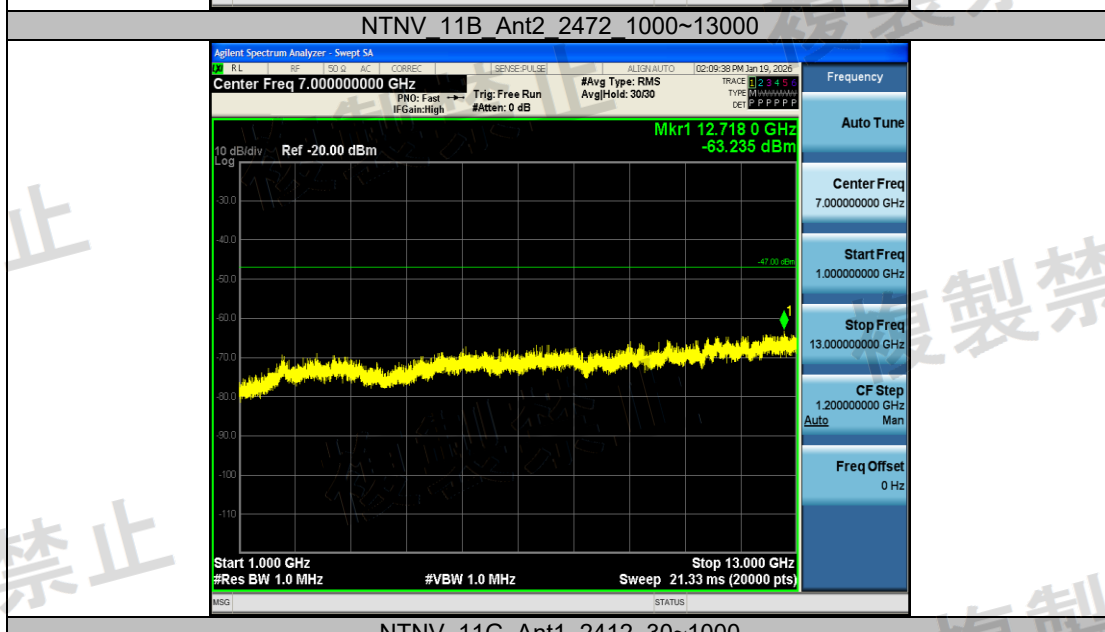
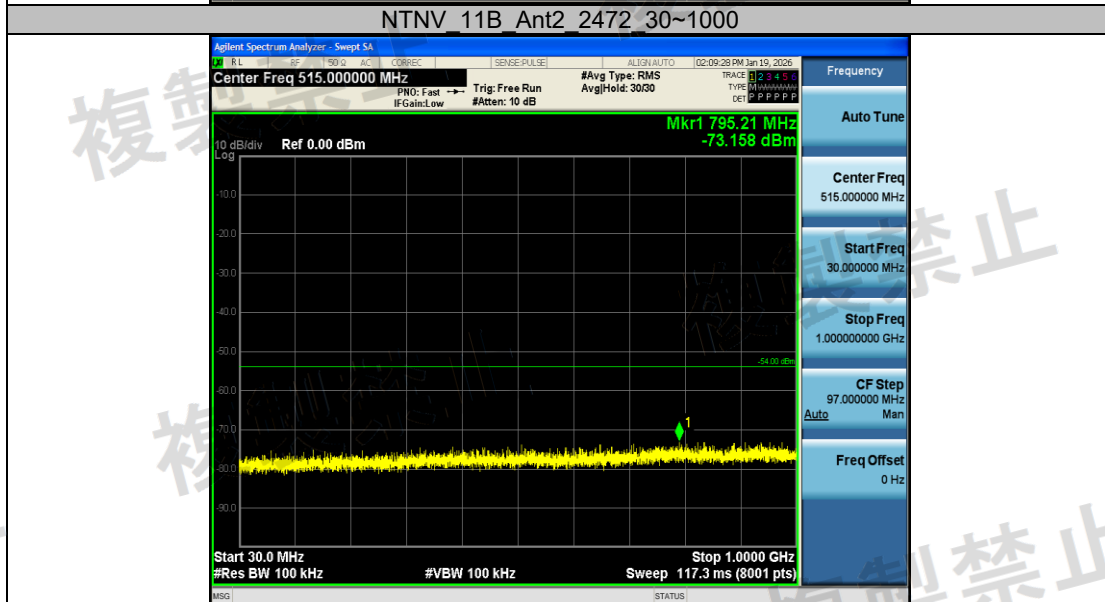
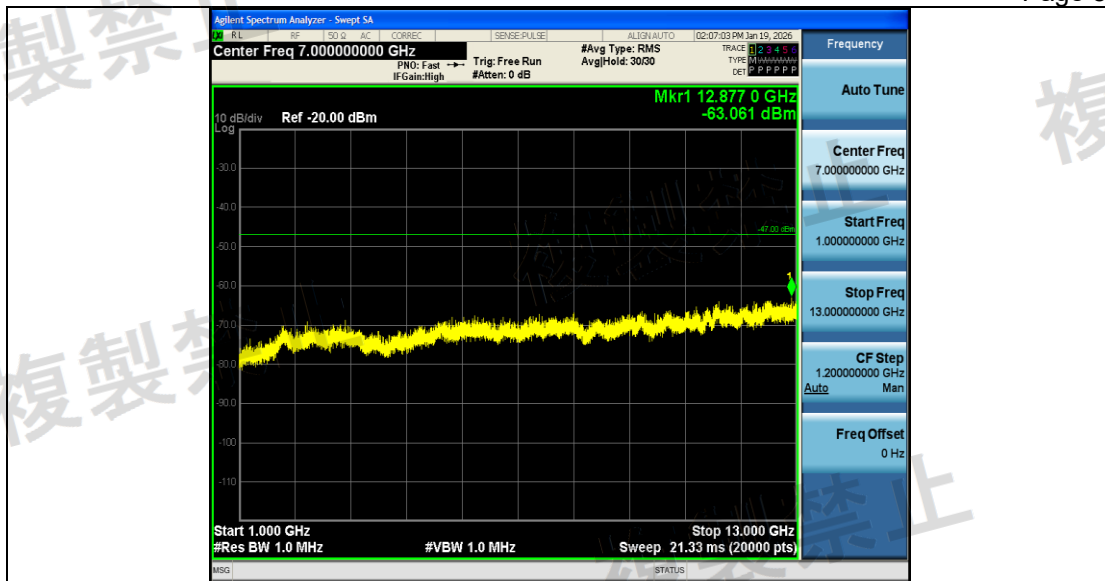


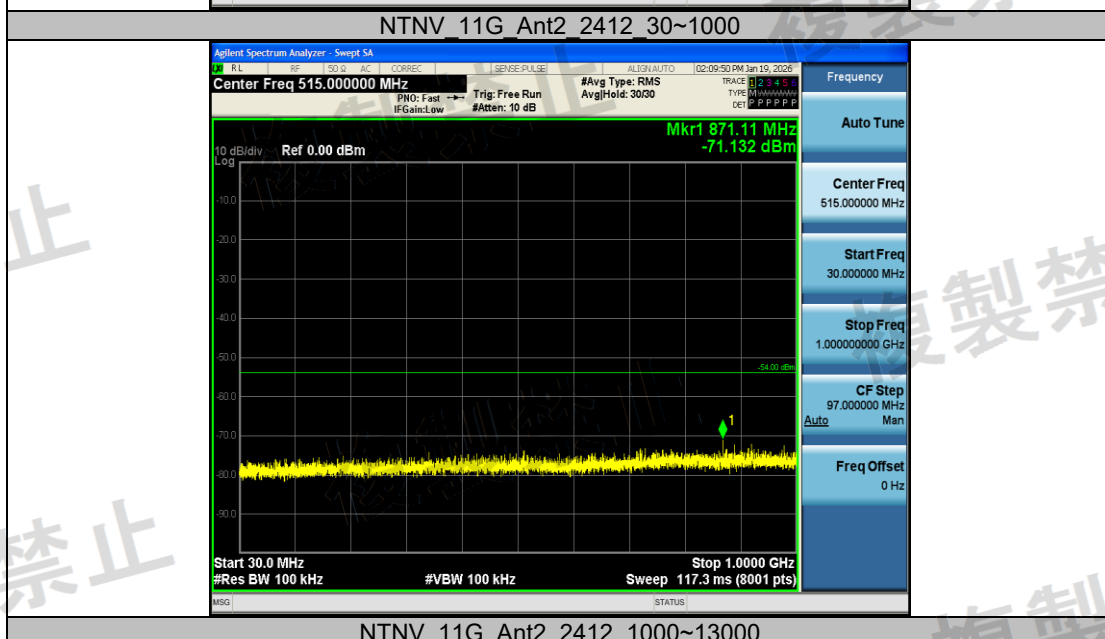
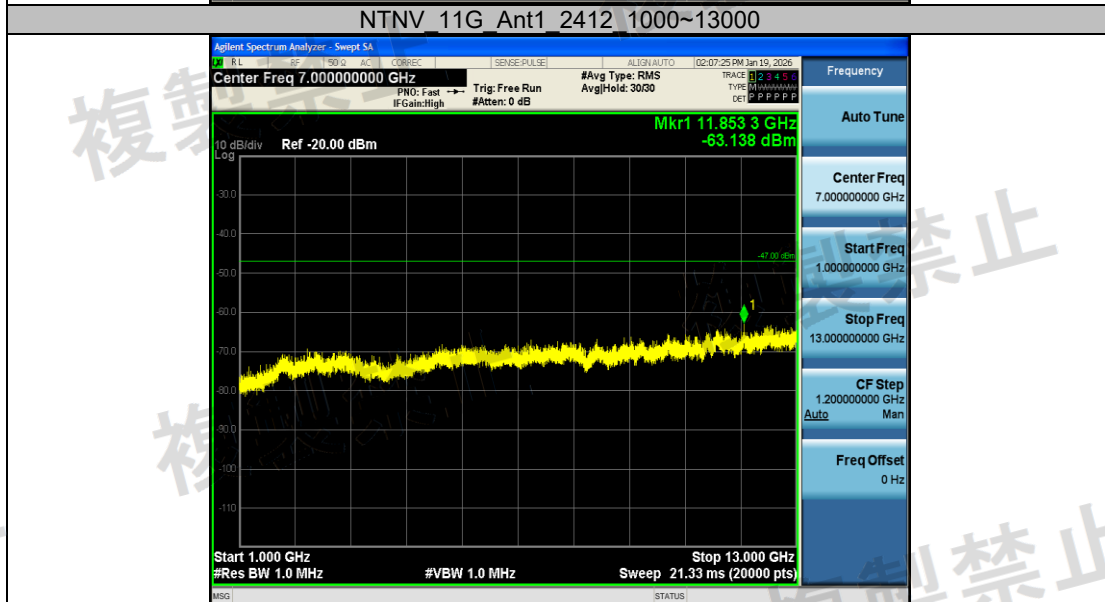
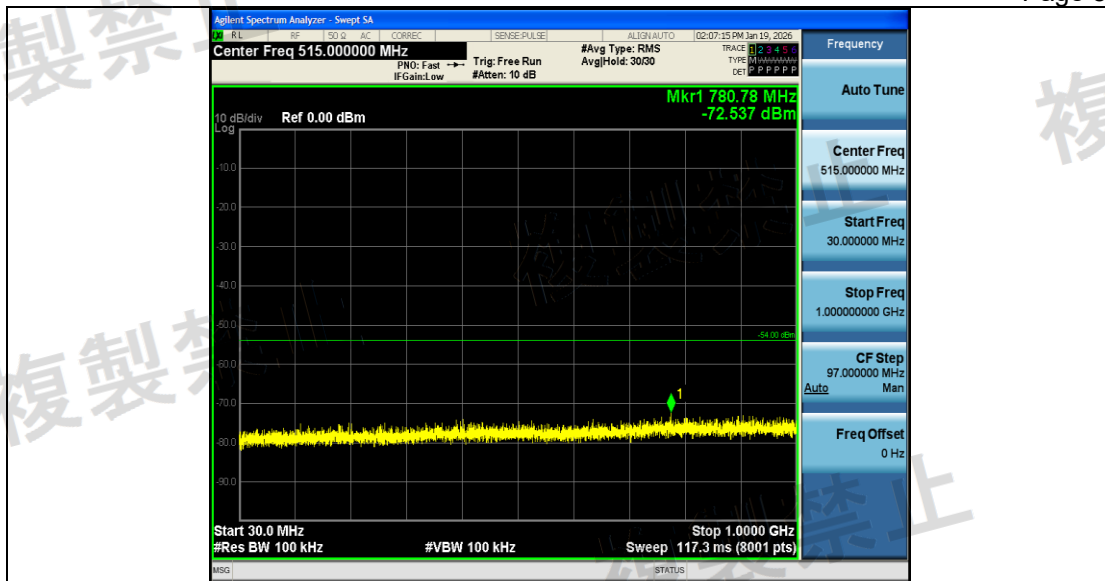
NTNV 11B Ant1 2472 30~1000

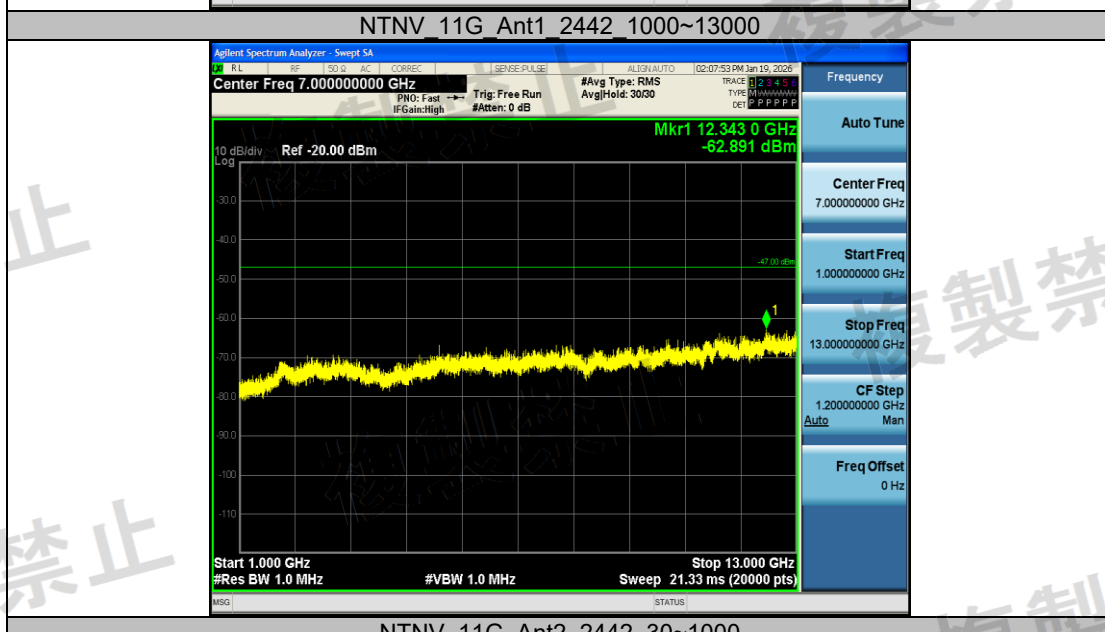
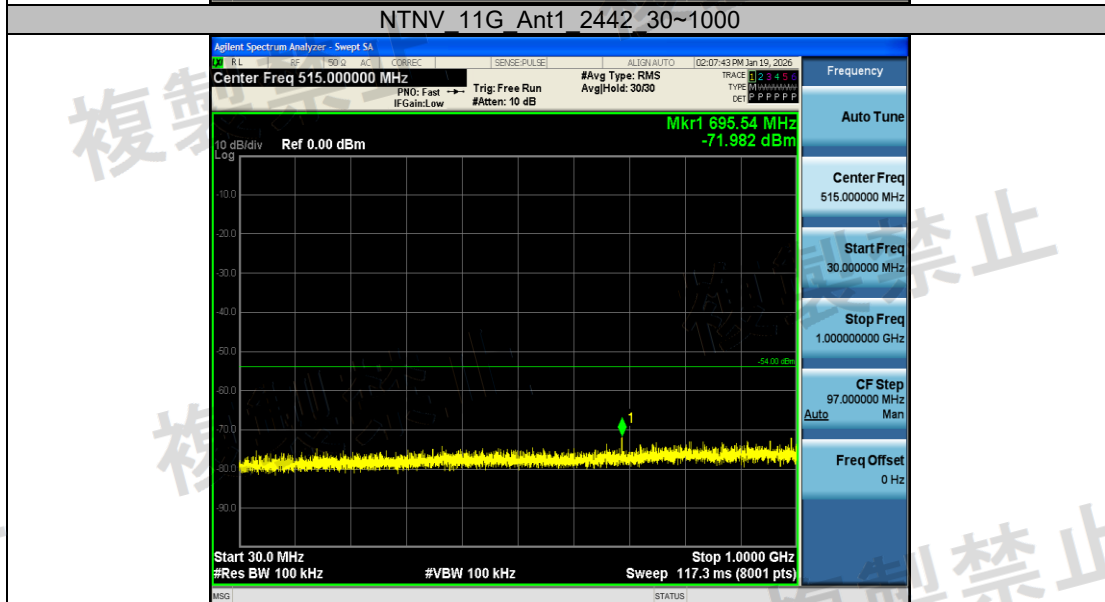
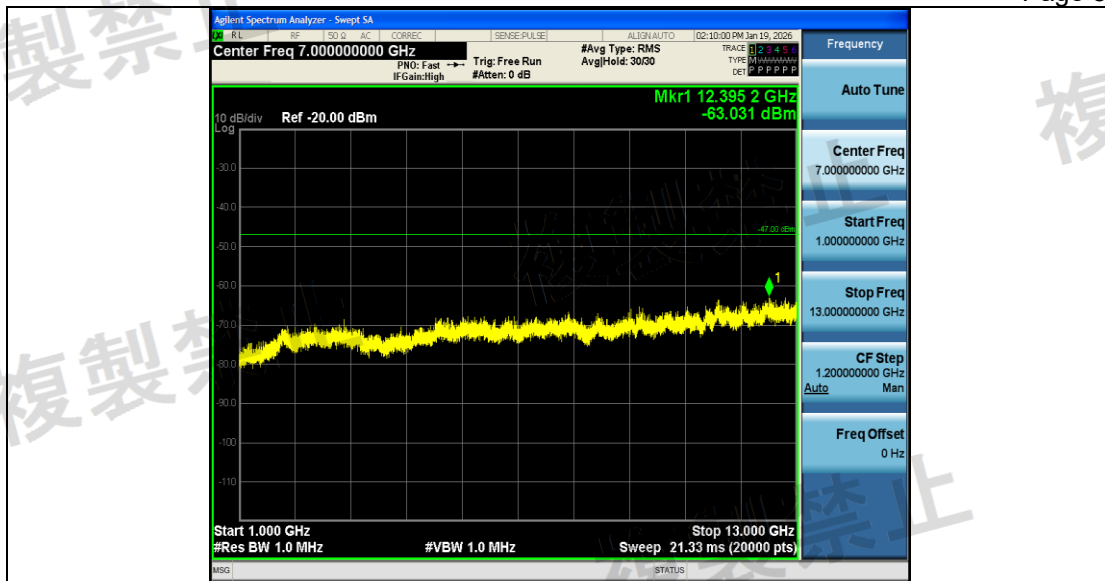


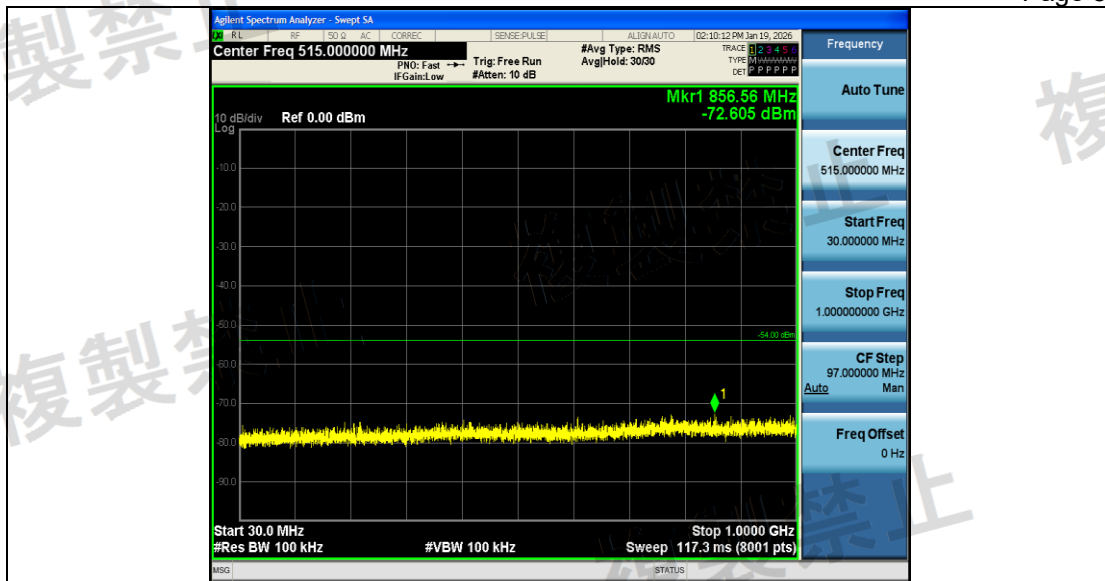
NTNV 11B Ant1 2472 1000~13000



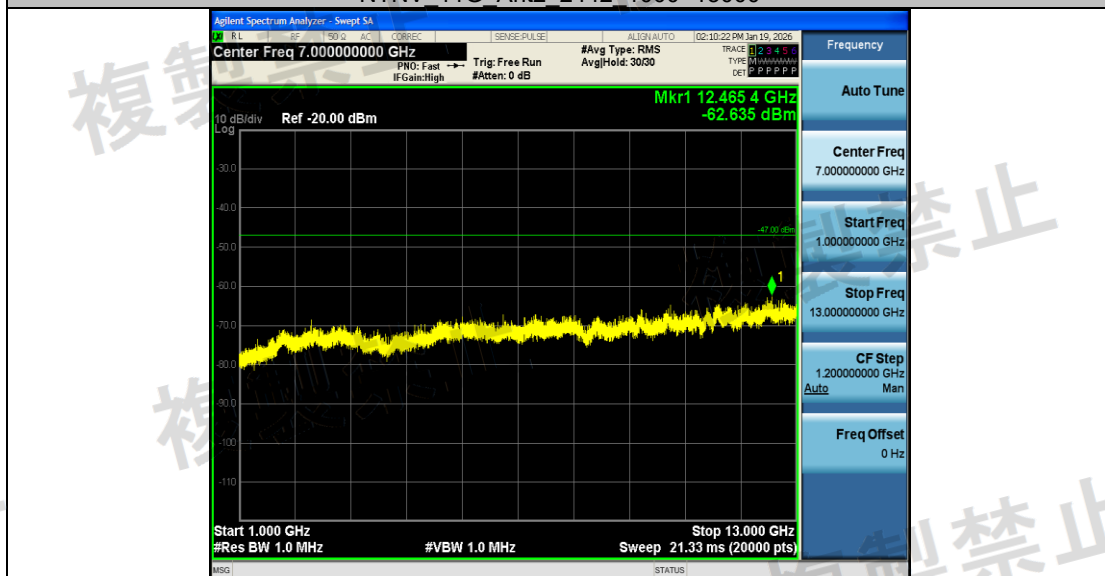




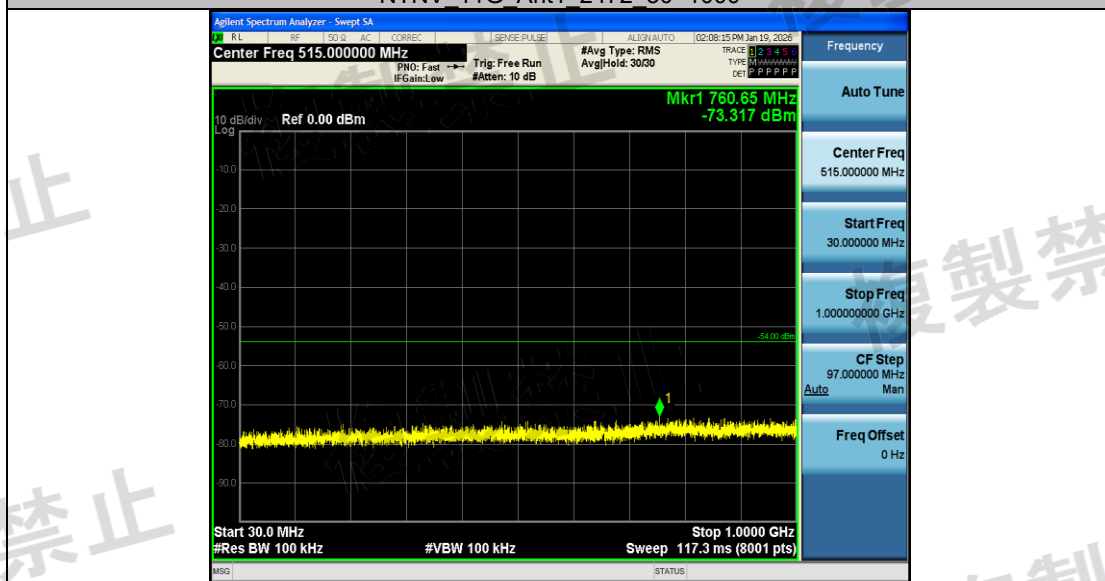




NTNV 11G Ant2 2442 1000~13000

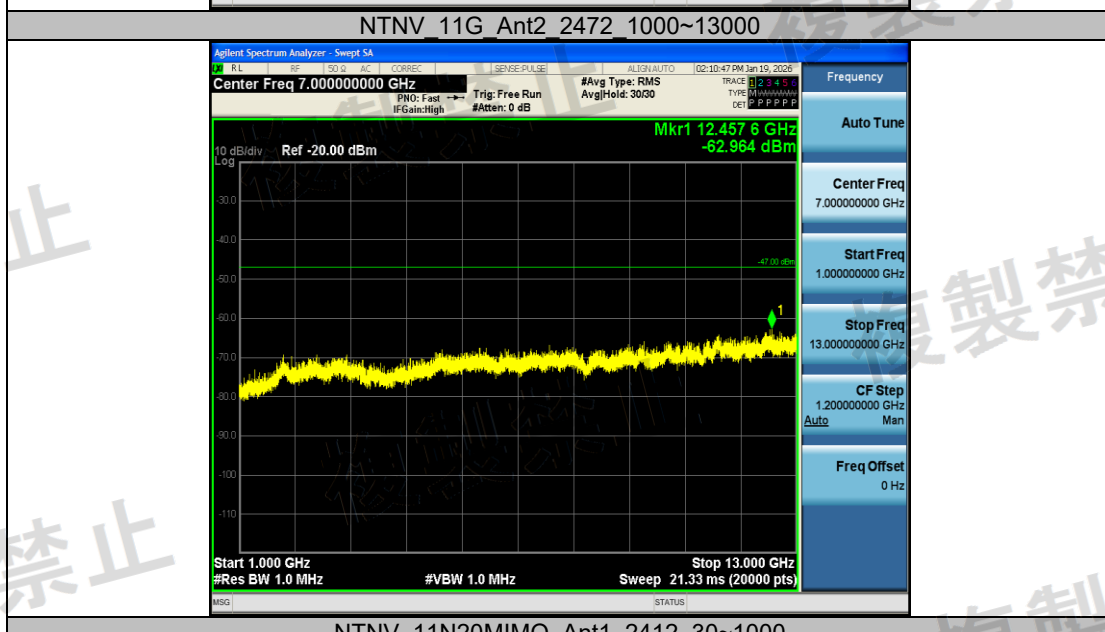
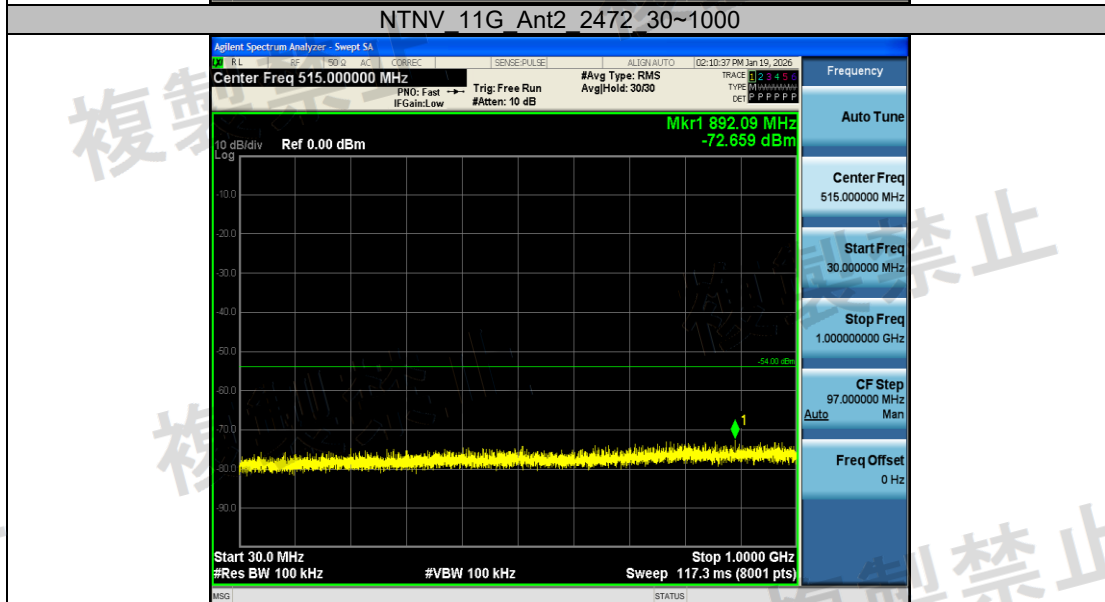
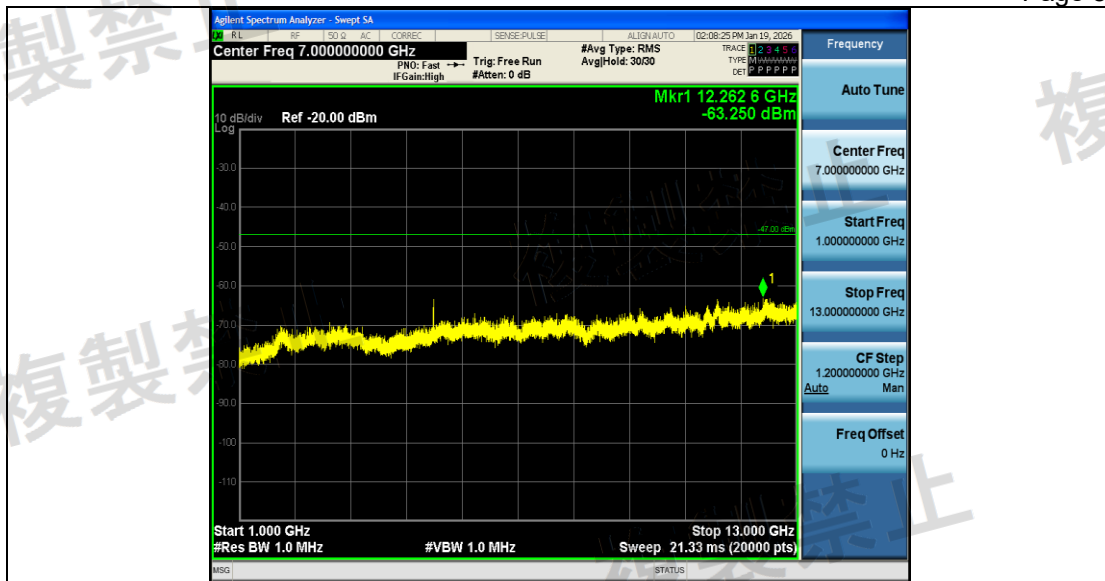


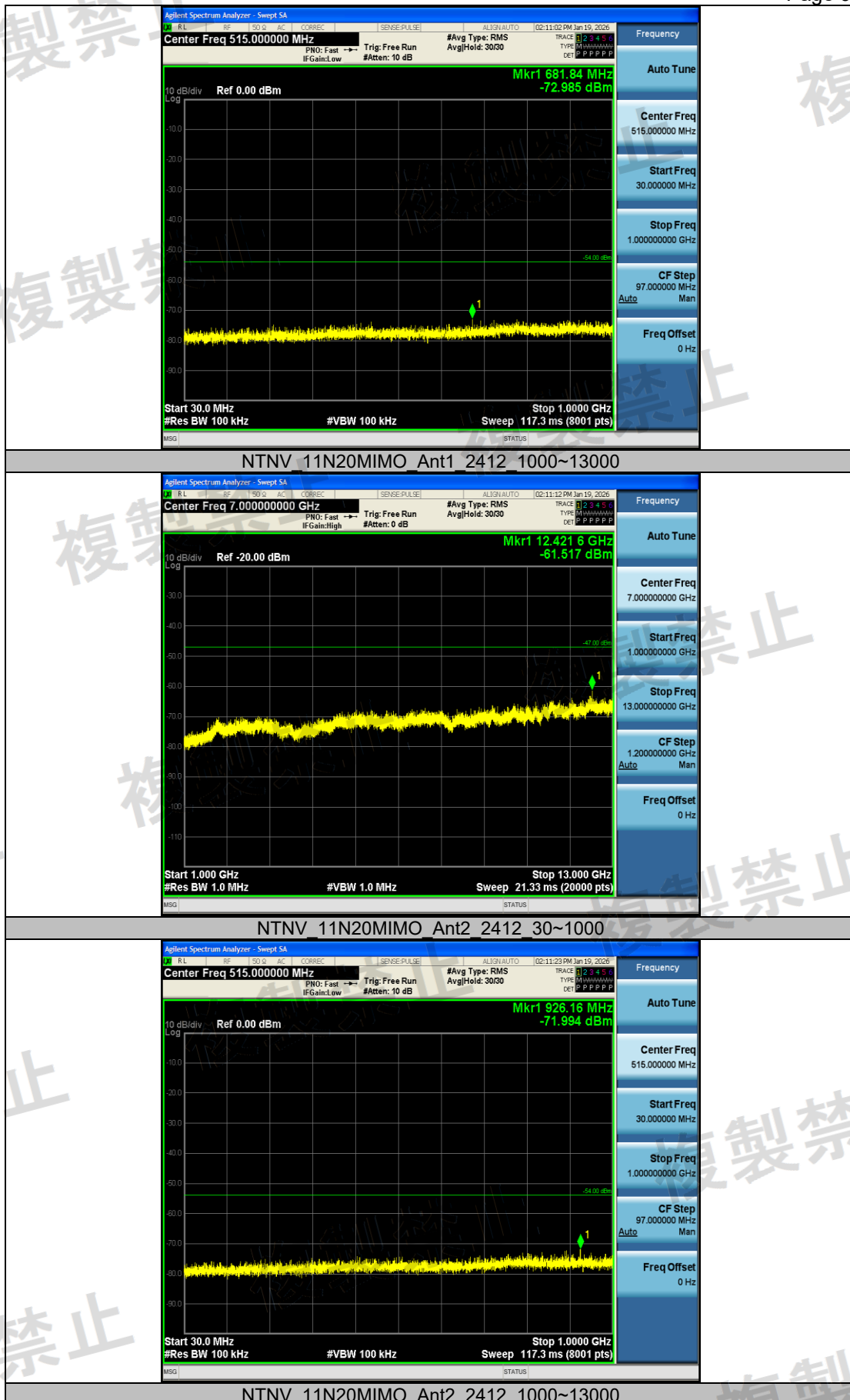
NTNV 11G Ant1 2472 30~1000

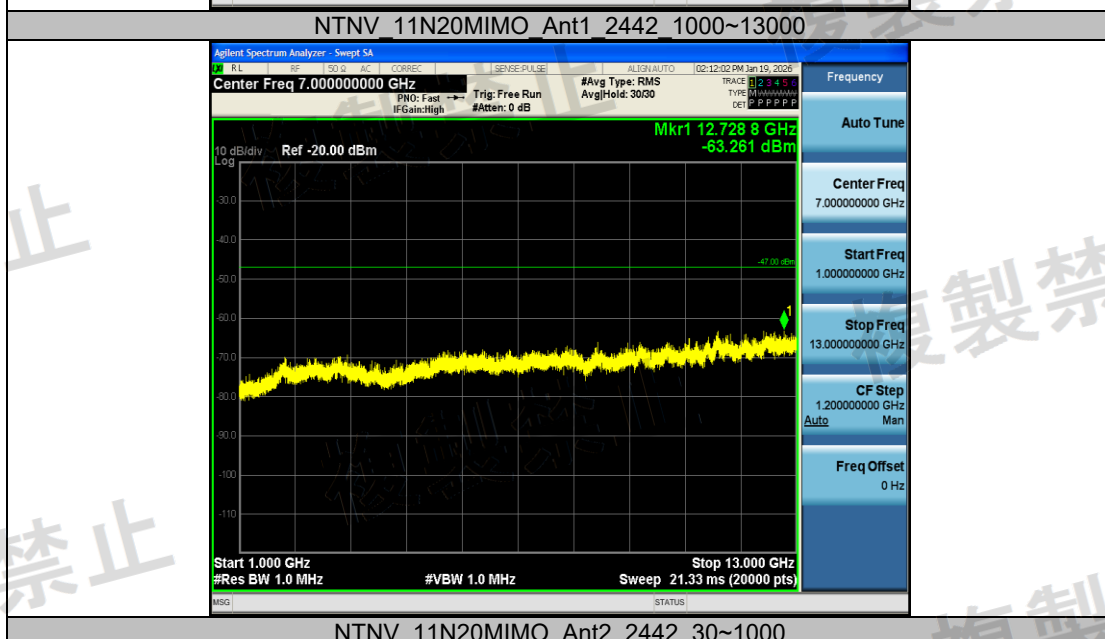
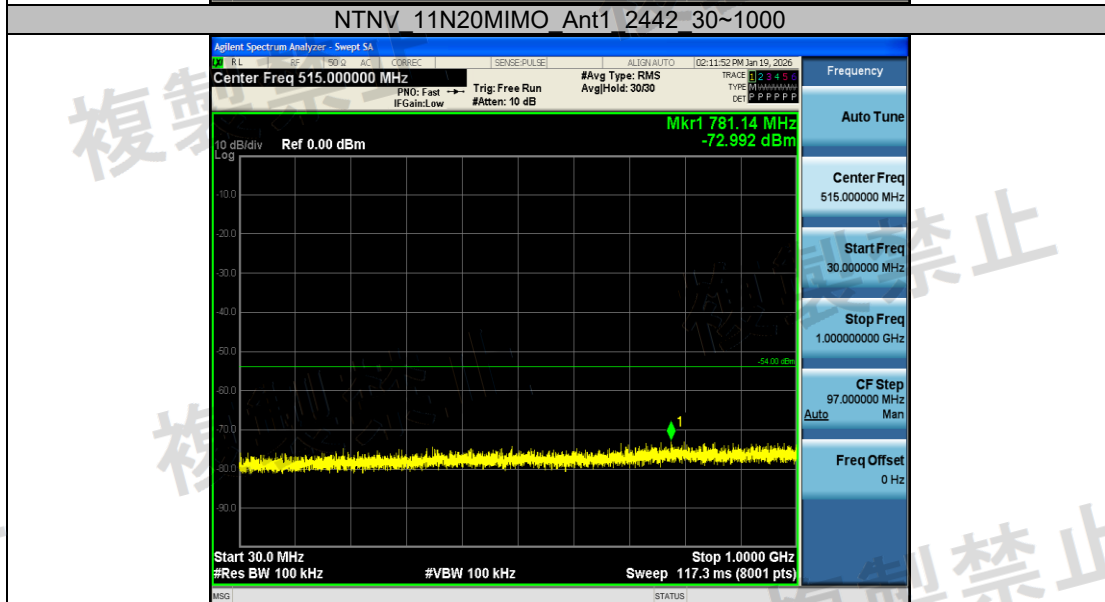
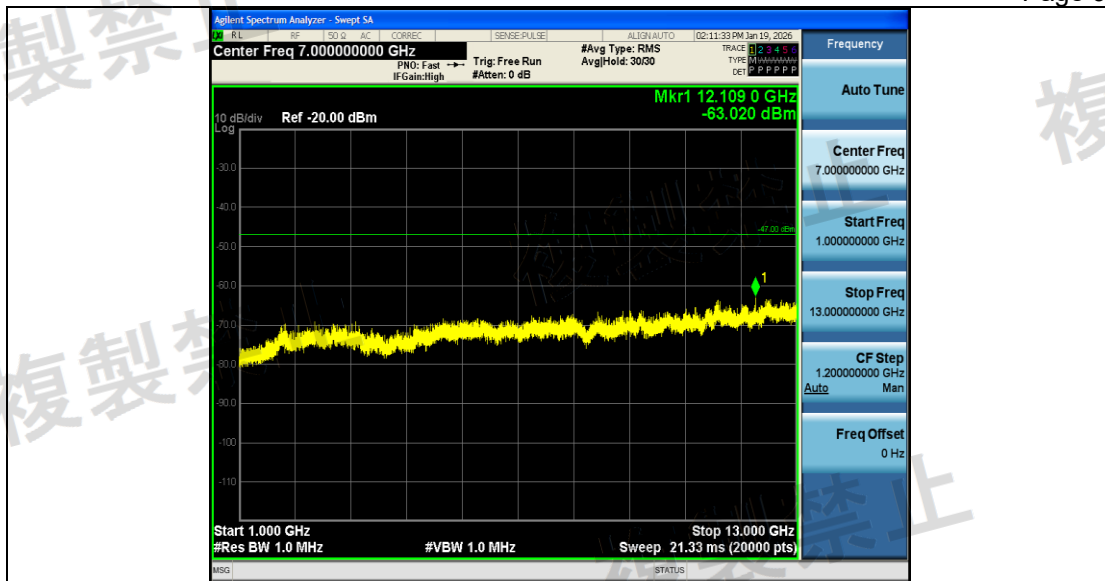


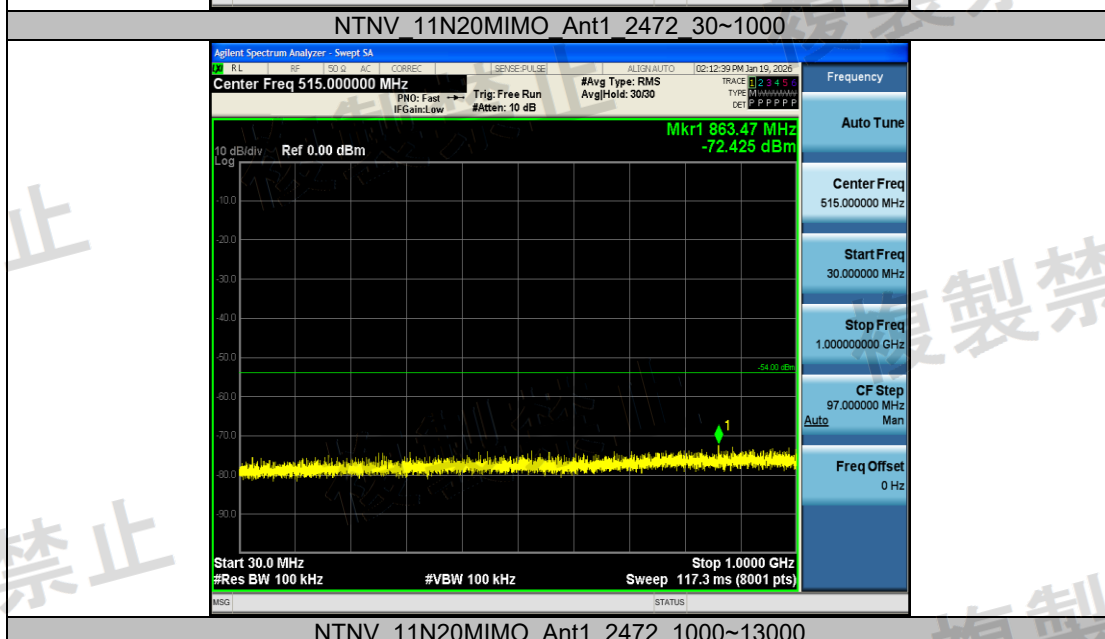
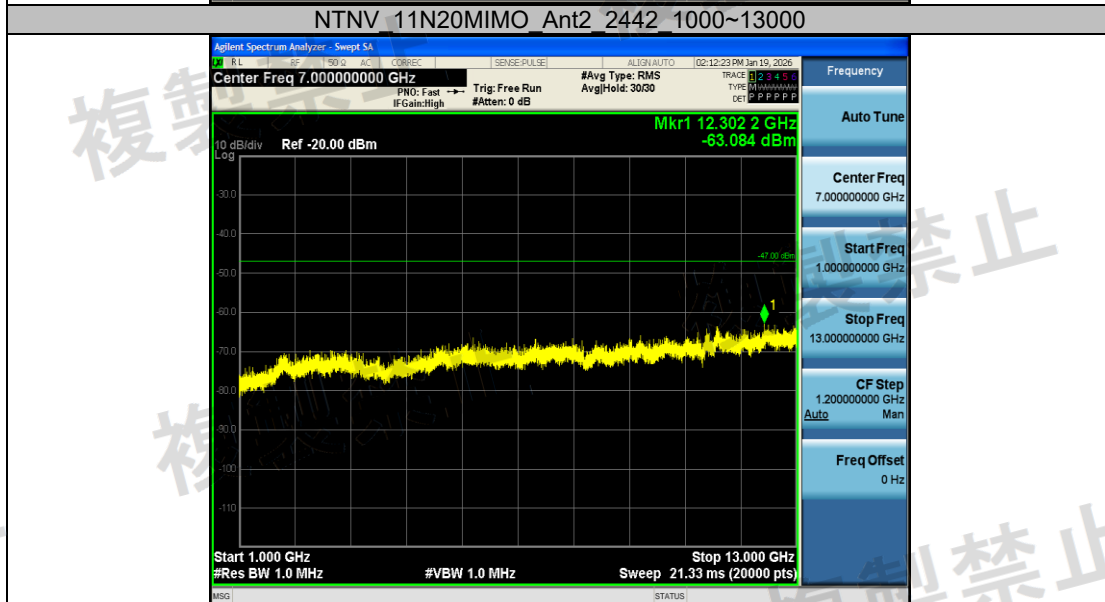
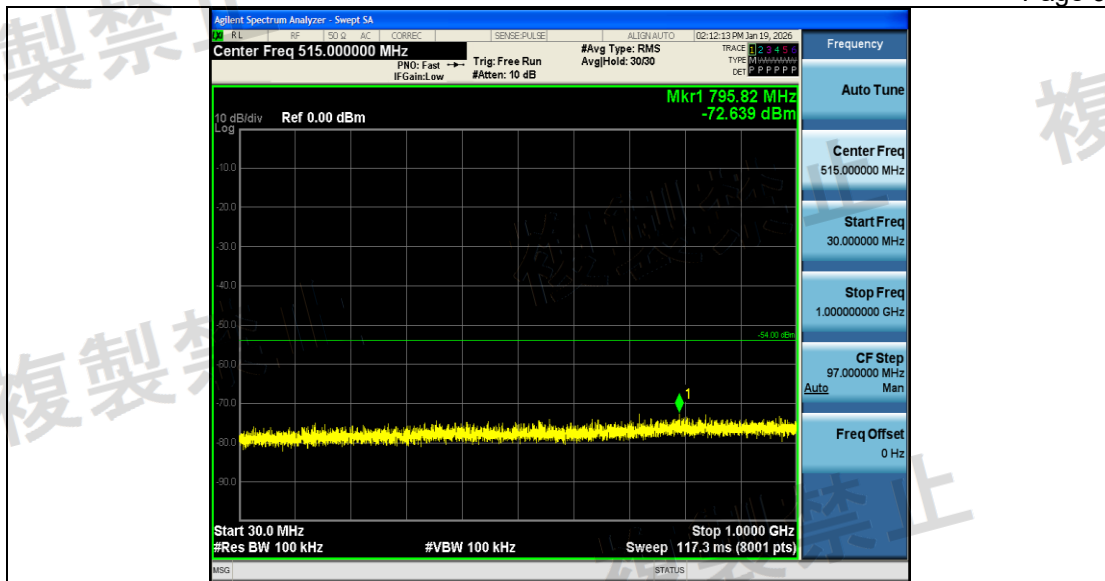
NTNV 11G Ant1 2472 1000~13000

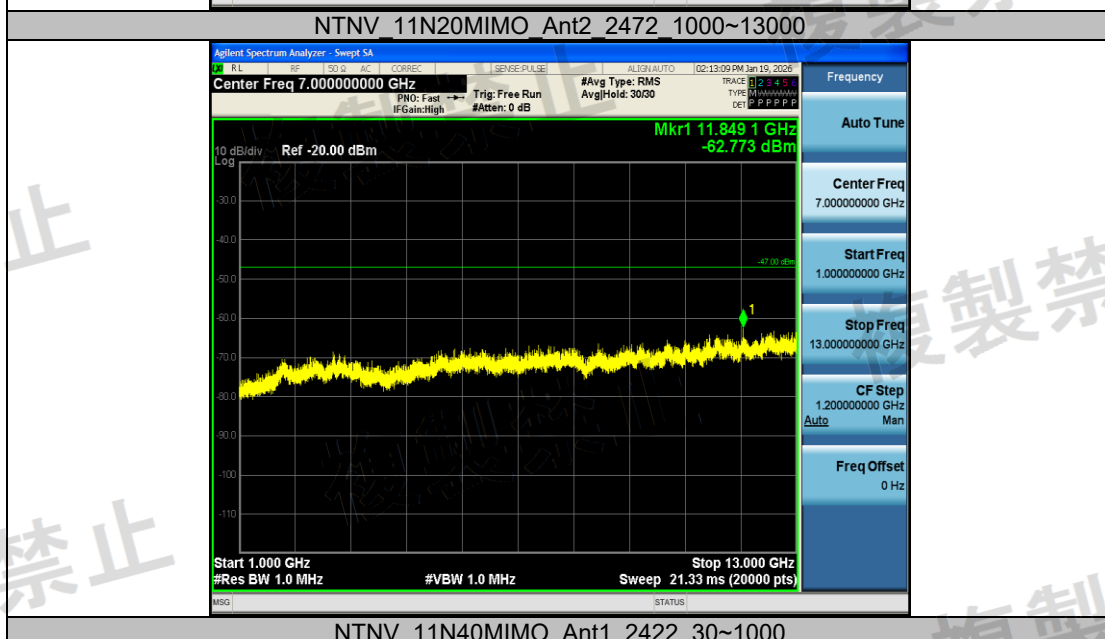
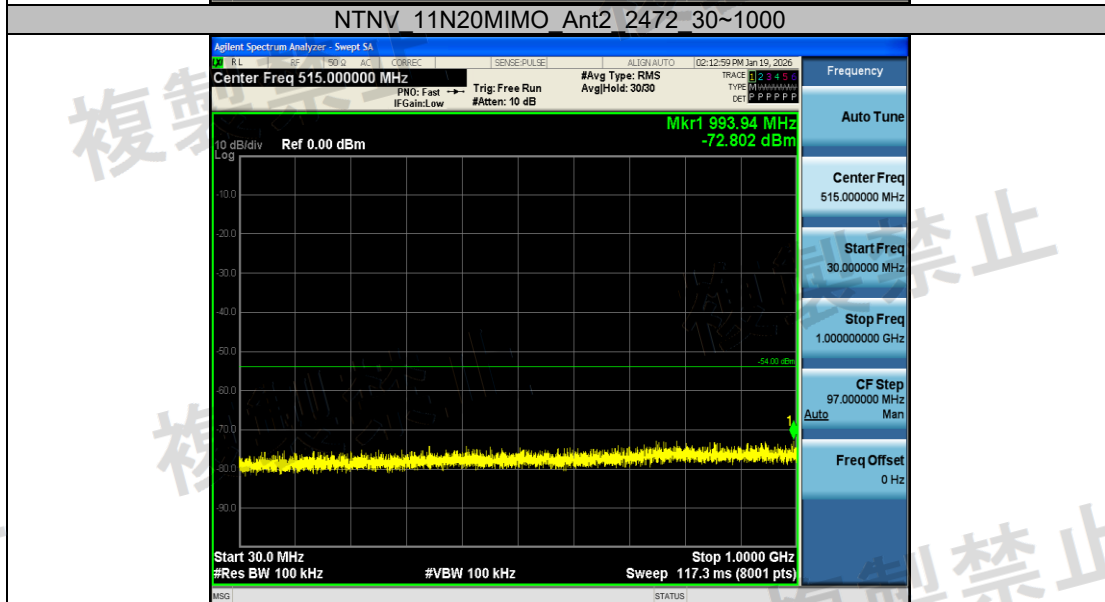
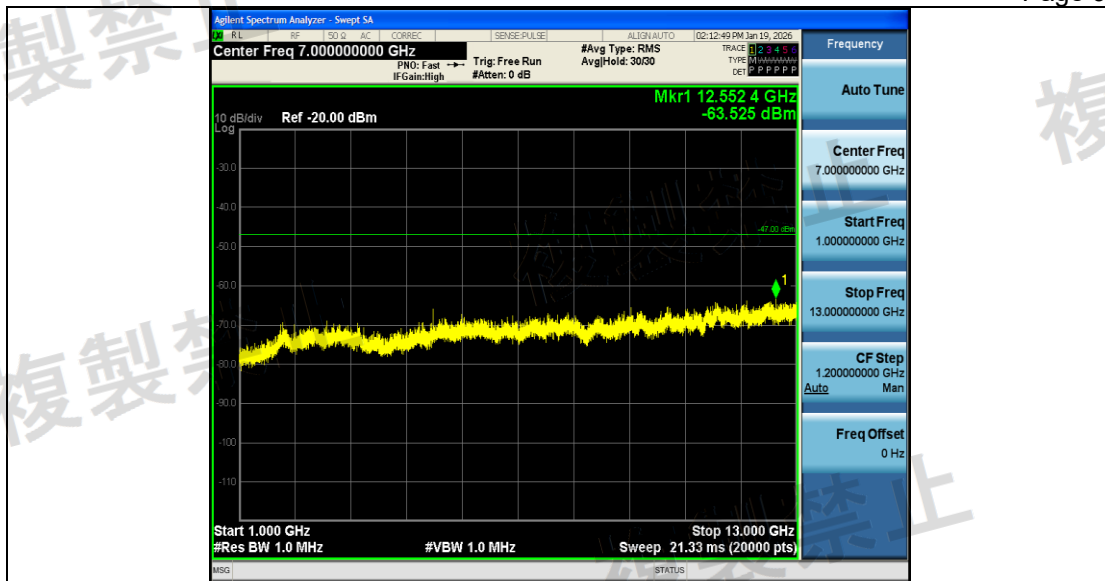


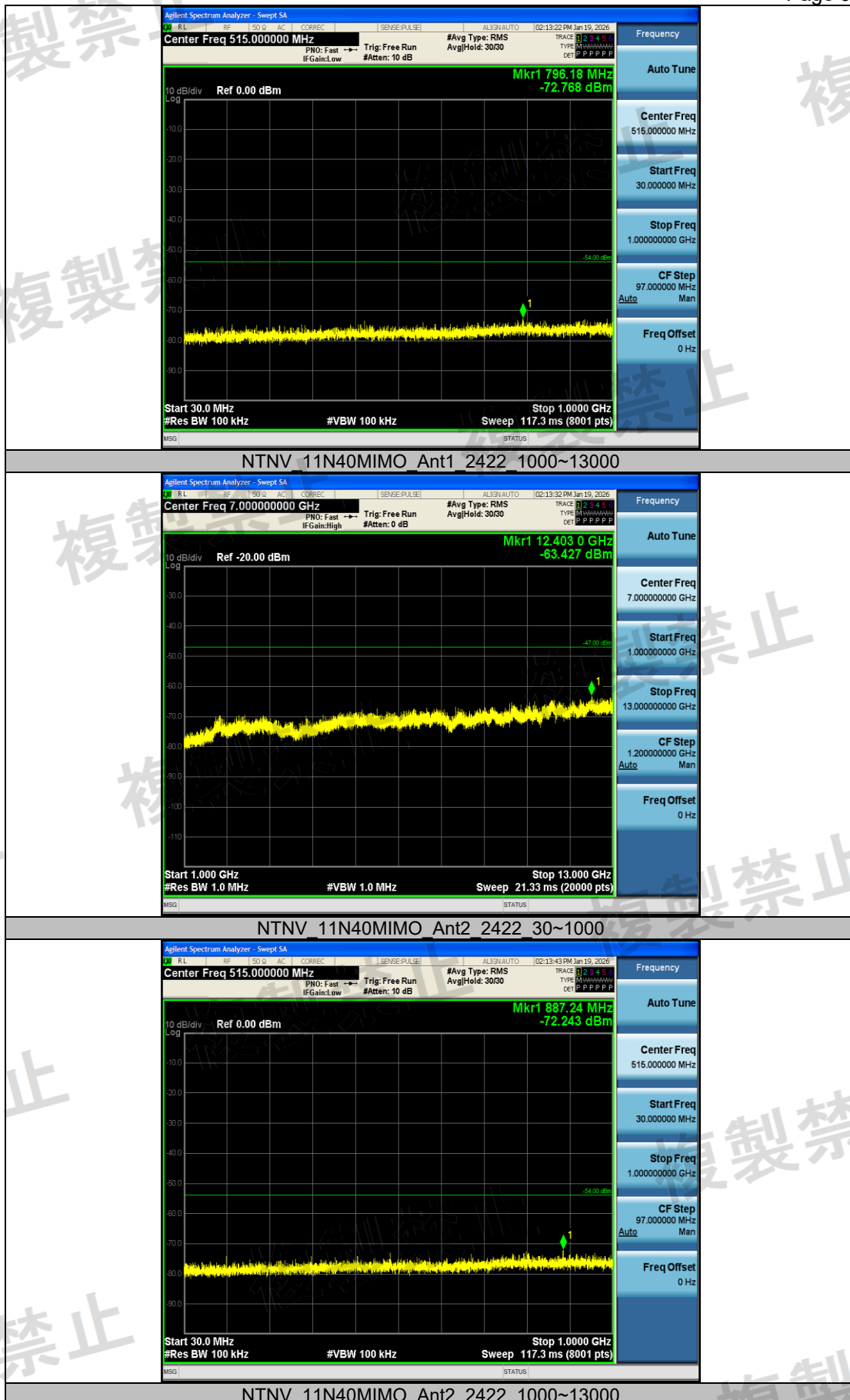


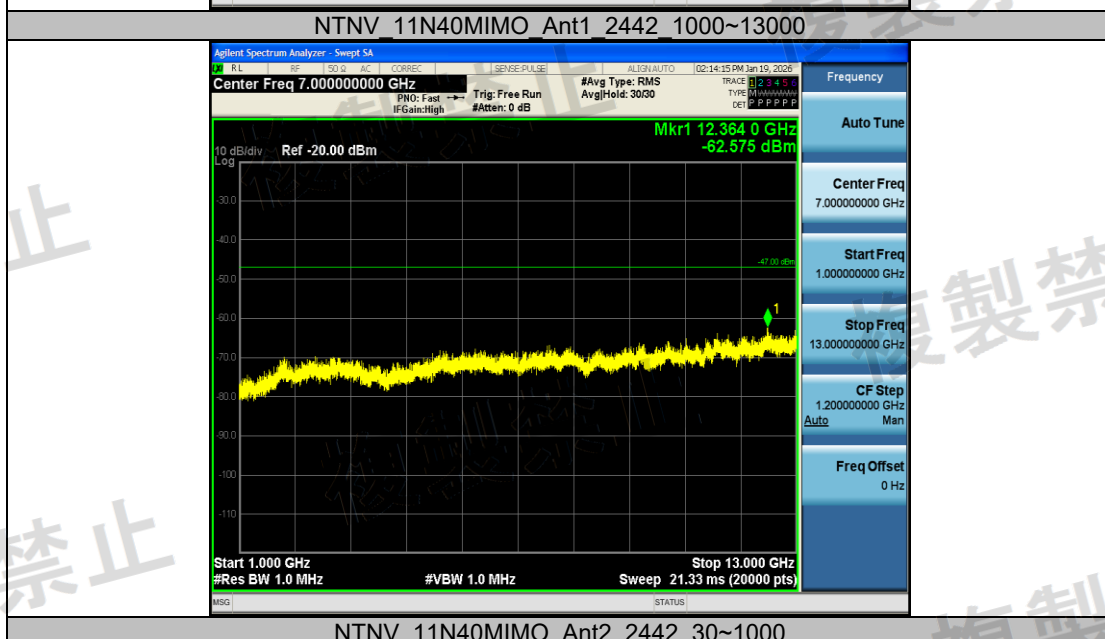
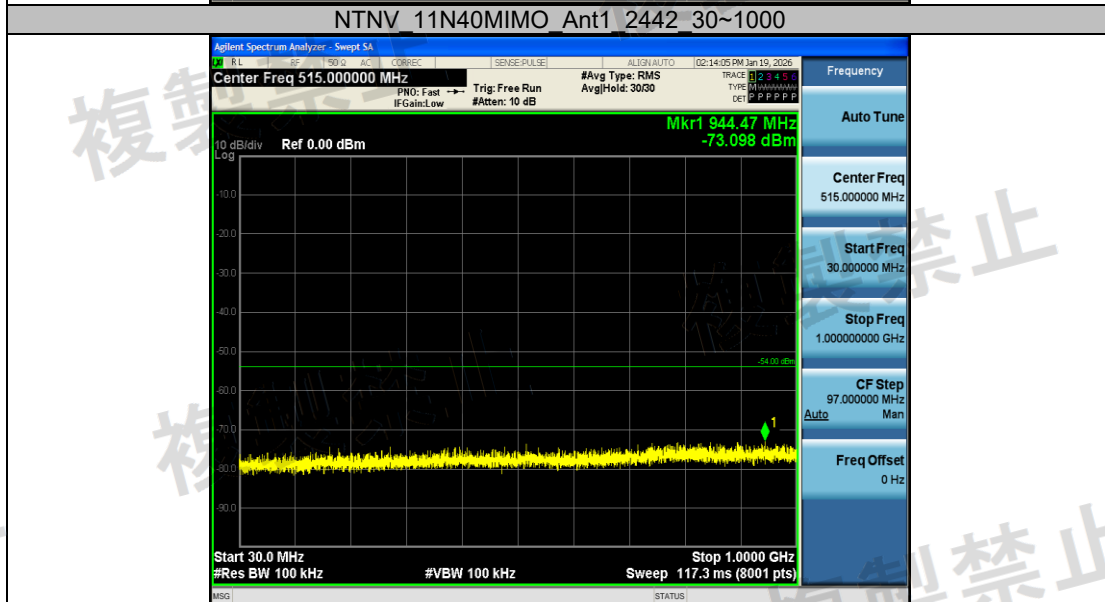
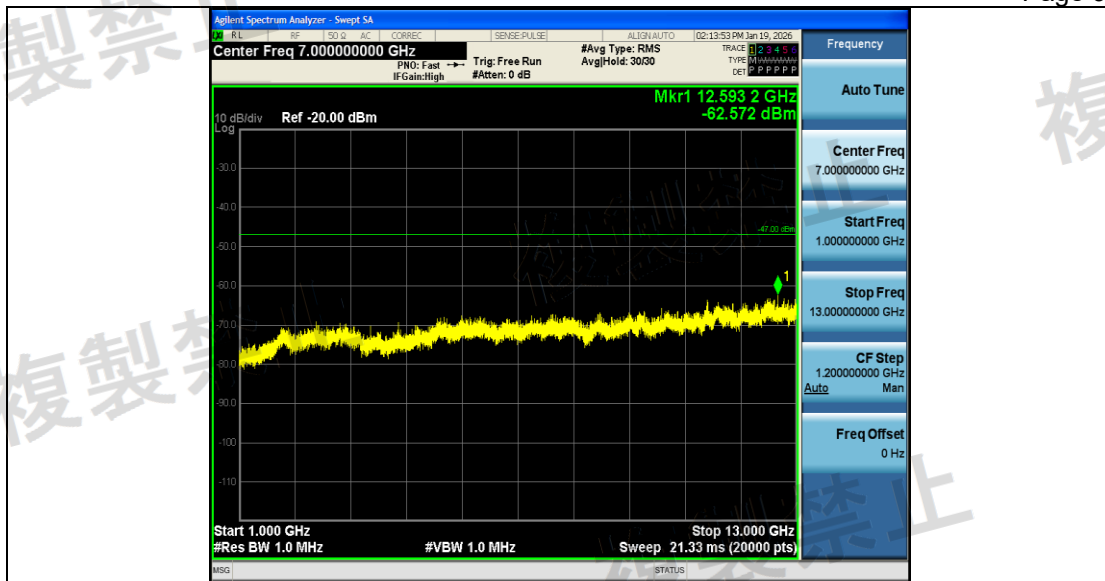


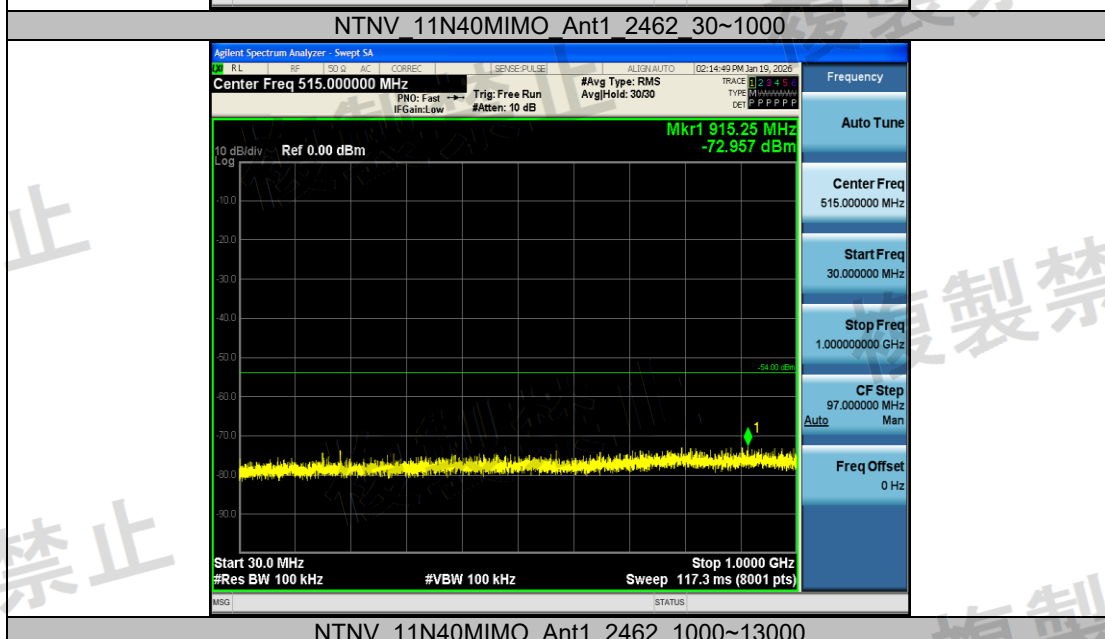
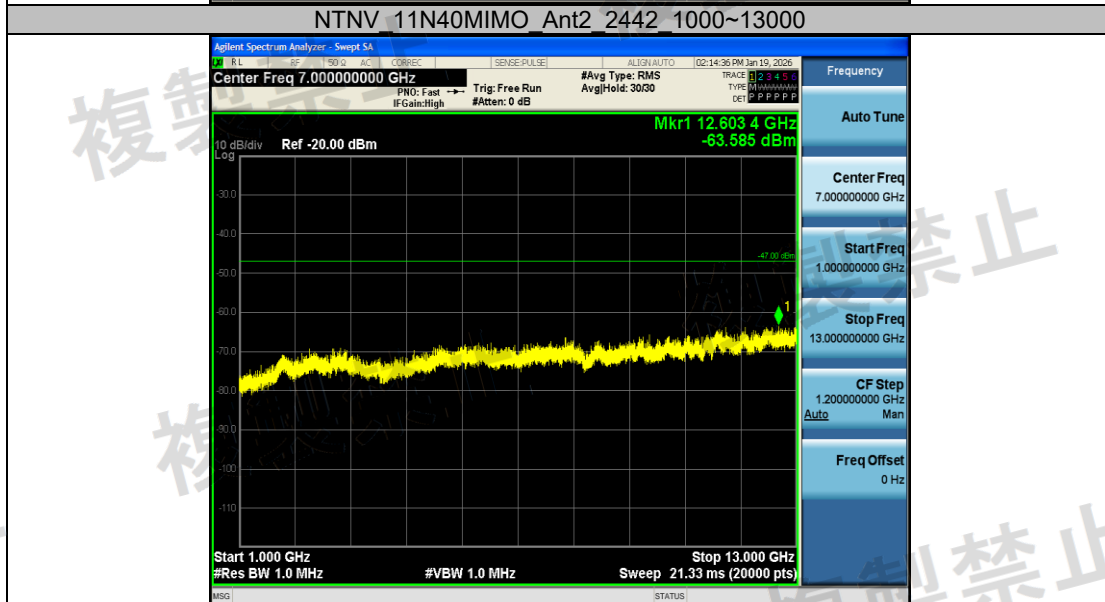
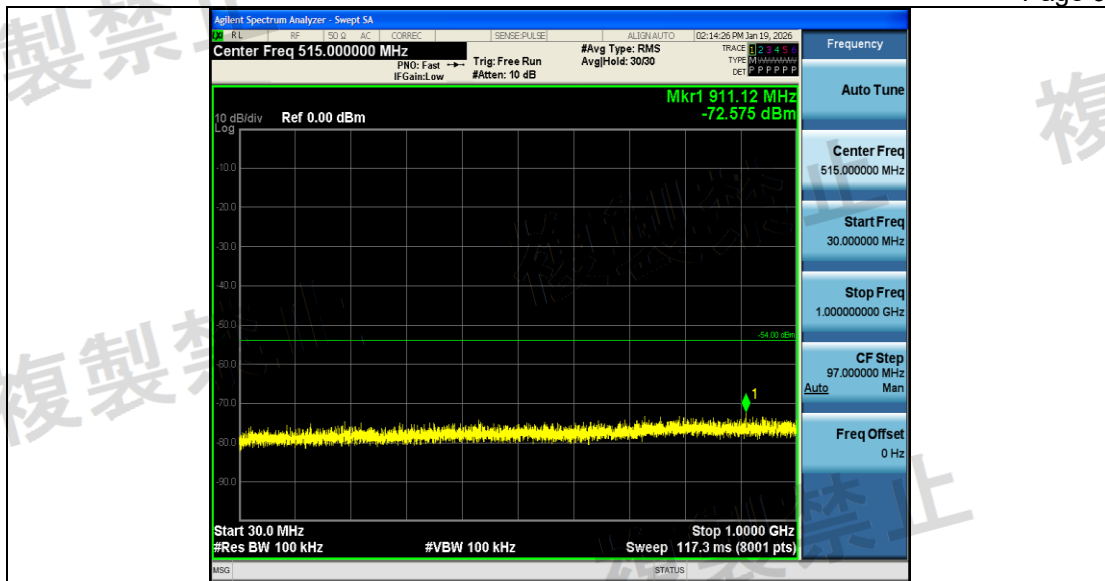


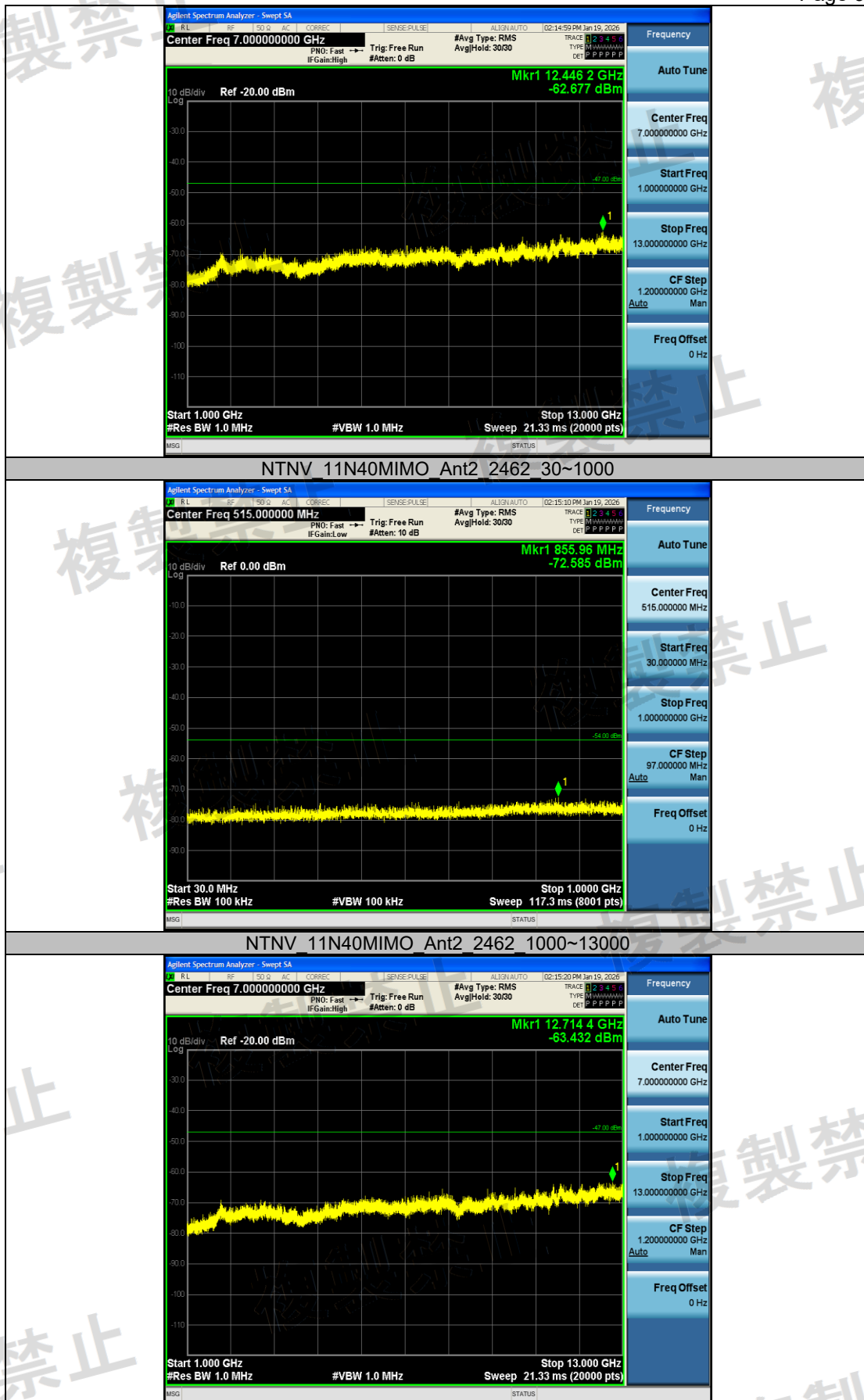










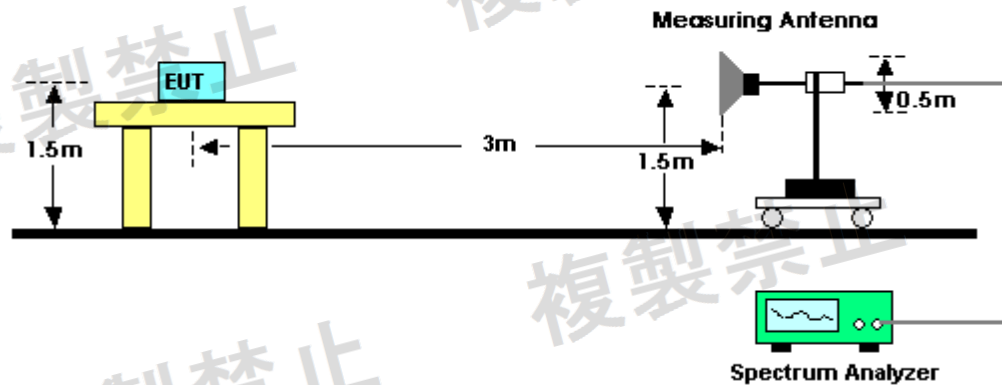




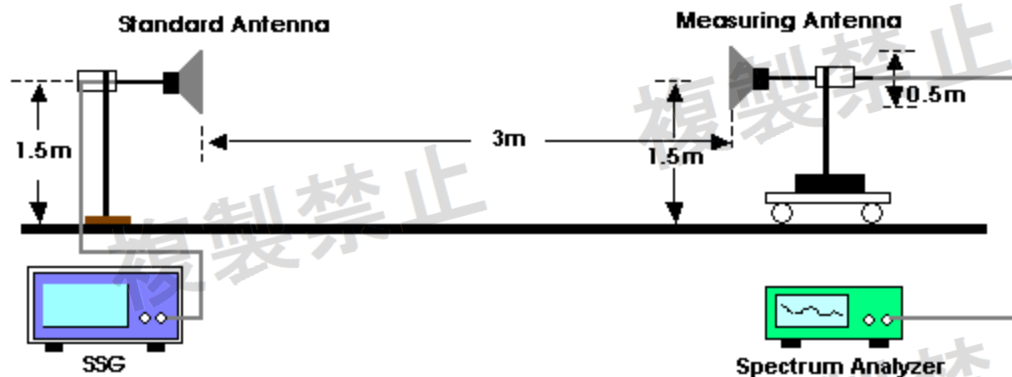
4.7. Transmission Antenna Gain (EIRP antenna power) Measurement

TEST CONFIGURATION

For EUT radiation measurement



For standard antenna measurement



TEST PROCEDURE

1. Set EUT and measuring antenna at the same height and roughly facing each other.
2. Move the measuring antenna height up and down within $\pm 50\text{cm}$ of EUT height and swing it to find the maximum output of the measuring antenna. The output level at the spectrum analyzer is read as "E".
3. Remove the EUT from the turn table and put the replacing antenna facing to measuring antenna at same height. Set the standard signal generator (SSG) at same frequency and transmit on then receive the signal
4. Swing the replacing antenna give a maximum receiving level.
5. Move the measuring antenna height up and down within $\pm 50\text{cm}$ of replacing antenna height and swing it to find the maximum receiving level.
6. Set SSG output power at P_t to give the equivalent output level of "E" or calculate P_t with SSG output which gives the nearest of "E" and difference ($\pm 1\text{dB}$). Record the P_t .
7. Calculate EIRP by the formula below $\text{EIRP} = G_t - L + P_t$.
Gt: gain of replacing antenna (dBi)





L: feeder loss between SSG and replacing antenna

Pt: Output power of the SSG

8. If the antenna for the EUT has circular polarization, sum of V-field and H-field will be result if measuring antenna is linear polarization.

LIMIT

Modulation system	Frequency band used	Antenna power (max.)	EIRP (max.)	
			Omnidirectional case	Directional case
DS, OFDM	2,400 - 2,483.5 MHz	10 mW/MHz	12.14 dBm/MHz	22.14 dBm/MHz
FH, DS-FH FH-OFDM	2,400 - 2,483.5 MHz	3 mW/MHz	6.91 dBm/MHz	16.91 dBm/MHz
	Excluding 2,427 - 2,470.75 MHz	10 mW/MHz	12.14 dBm/MHz	22.14 dBm/MHz
Other than the above	2,400 - 2,483.5 MHz	10 mW	12.14 dBm	22.14 dBm

Note: it is not applicable when Antenna gain do not exceed 2.14 dBi.





TEST RESULTS

EIRP							
Test Condition	Test Mode	Antenna	Freq (MHz)	Result (dBm/MHz)	EIRP (dBm/MHz)	Limit (dBm/MHz)	Verdict
NTNV	11B	Ant1	2412	-1.00	3.83	≤12.14	PASS
		Ant2	2412	4.60	6.95	≤12.14	PASS
		Ant1	2442	-0.51	4.32	≤12.14	PASS
		Ant2	2442	4.82	7.17	≤12.14	PASS
		Ant1	2472	-0.91	3.92	≤12.14	PASS
		Ant2	2472	4.95	7.30	≤12.14	PASS
	11G	Ant1	2412	-2.01	2.82	≤12.14	PASS
		Ant2	2412	2.28	4.63	≤12.14	PASS
		Ant1	2442	-1.79	3.04	≤12.14	PASS
		Ant2	2442	2.49	4.84	≤12.14	PASS
		Ant1	2472	-2.23	2.60	≤12.14	PASS
		Ant2	2472	2.22	4.57	≤12.14	PASS
	11N20MIMO	Ant1	2412	-4.69	0.14	≤12.14	PASS
		Ant2	2412	-0.07	2.28	≤12.14	PASS
		total	2412	1.22	4.35	≤12.14	PASS
		Ant1	2442	-3.94	0.89	≤12.14	PASS
		Ant2	2442	-0.29	2.06	≤12.14	PASS
		total	2442	1.27	4.52	≤12.14	PASS
		Ant1	2472	-4.59	0.24	≤12.14	PASS
		Ant2	2472	-0.29	2.06	≤12.14	PASS
	11N40MIMO	total	2472	1.08	4.25	≤12.14	PASS
		Ant1	2422	-9.46	-4.63	≤9.13	PASS
		Ant2	2422	-4.73	-2.38	≤9.13	PASS
		total	2422	-3.47	-0.35	≤9.13	PASS
		Ant1	2442	-9.58	-4.75	≤9.13	PASS
		Ant2	2442	-5.17	-2.82	≤9.13	PASS
		total	2442	-3.83	-0.67	≤9.13	PASS
		Ant1	2462	-9.91	-5.08	≤9.13	PASS
		Ant2	2462	-5.57	-3.22	≤9.13	PASS
		total	2462	-4.21	-1.04	≤9.13	PASS

Note: 1. The product was tested at 25 °C and 55% humidity condition;

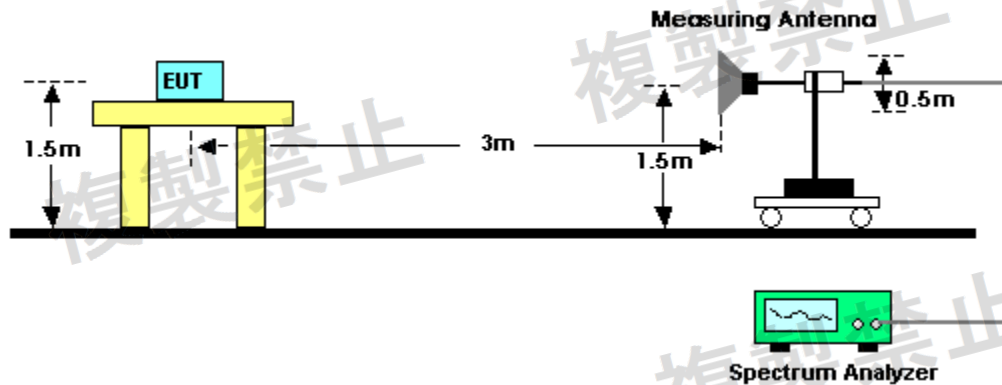
2. All condition has been tested, list the worst case in this item





4.8. Transmission Radiation Angle Width (3db Beamwidth) Measurement

TEST CONFIGURATION



TEST PROCEDURE

1. Set EUT and measuring antenna at the same height and roughly facing each other.
2. Set spectrum analyzer with condition in section 4.8 and tune reference level to observe receiving signal position.
3. Rotate directions of the EUT horizontally and vertically to find the maximum receiving power.
4. Move the measuring antenna height up and down within $\pm 50\text{cm}$ of EUT height and swing it to find the maximum output of measuring antenna. The output level at the spectrum analyzer is read as "E".
5. Calculate permitted radiation angle in horizontal and vertical using EIRP measured in another test method.
6. Calculate 3dB antenna beam width by the formula below $360/A$ (If $A < 1$; then $A = 1$).
 $A = \{ \text{EIRP Power [mW]} / 16.36 \text{ for DS, OFDM} \} = \{ \text{EIRP Power [dBm]} / 12.14 \text{ for DS, OFDM} \}$ or
 $A = \{ \text{EIRP Power [mW]} / 4.9 \text{ for FH} \} = \{ \text{EIRP Power [dBm]} / 6.91 \text{ for FH} \}$

LIMIT

Item	Upper Limits
3dB antenna beam width	$360/A$ (If $A < 1$; then $A = 1$) $A = \{ \text{EIRP [mW]} / 16.36 \text{ for DS, OFDM} \}$ or $A = \{ \text{EIRP [mW]} / 4.9 \text{ for FH} \}$
Note: it is not applicable when Antenna gain do not exceed 2.14 dBi or EIRP do not exceed the omnidirectional EIRP upper limit.	

TEST RESULTS

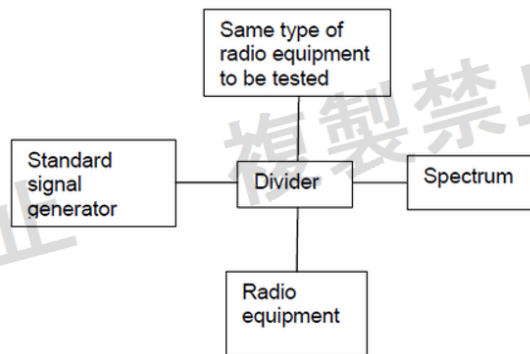
It is not applicable when EIRP do not exceed the omnidirectional EIRP upper limit.





4.9. Carrier Sensing Function Measurement

TEST CONFIGURATION



TEST PROCEDURE

Spectrum Parameter	Setting
Carrier frequency	Center frequency of occupied bandwidth of the equipment to be tested
Sweep bandwidth	50MHz
RBW	1MHz
VBW	1MHz
Trigger condition	Free run
Detection mode	Positive peak

Signal generator Parameter	Setting
Carrier frequency	Center frequency of occupied bandwidth of the equipment to be tested
Modulation	No Modulation
Output Level	Value enough to confirm interference detecting function Less than $(22.79 + \text{Gain} - 20 \cdot \log(f))[\text{dBm}]$ or 100mW/m Gain is dBi, f is MHz

1. Set the spectrum analyzer as described.
2. Set the output level of the standard signal generator to the operating level specified in the submitted document at the receiver input terminal of the test equipment.
3. Set the test equipment to the receiving state.
4. Under OFF condition at output the standard signal generator. Set a communication between the EUT and the external support equipment and use a spectrum analyzer to confirm that the OFDM occupied bandwidth at the test frequency is more than 26MHz.
5. With the output of the standard signal generator in the transmitting state, set a communication between the EUT and the external support equipment and use a spectrum analyzer to confirm that the OFDM occupied bandwidth at the test frequency is less than 26MHz.

LIMIT

If test procedure (4) and (5) can be confirmed, record as "Pass".

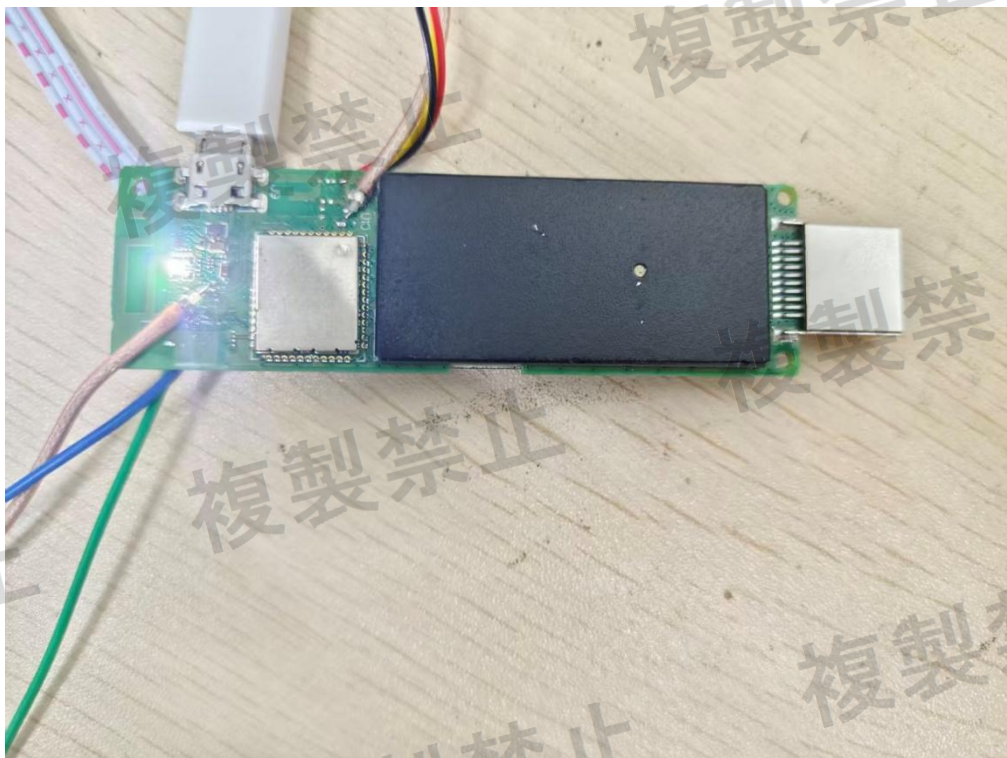
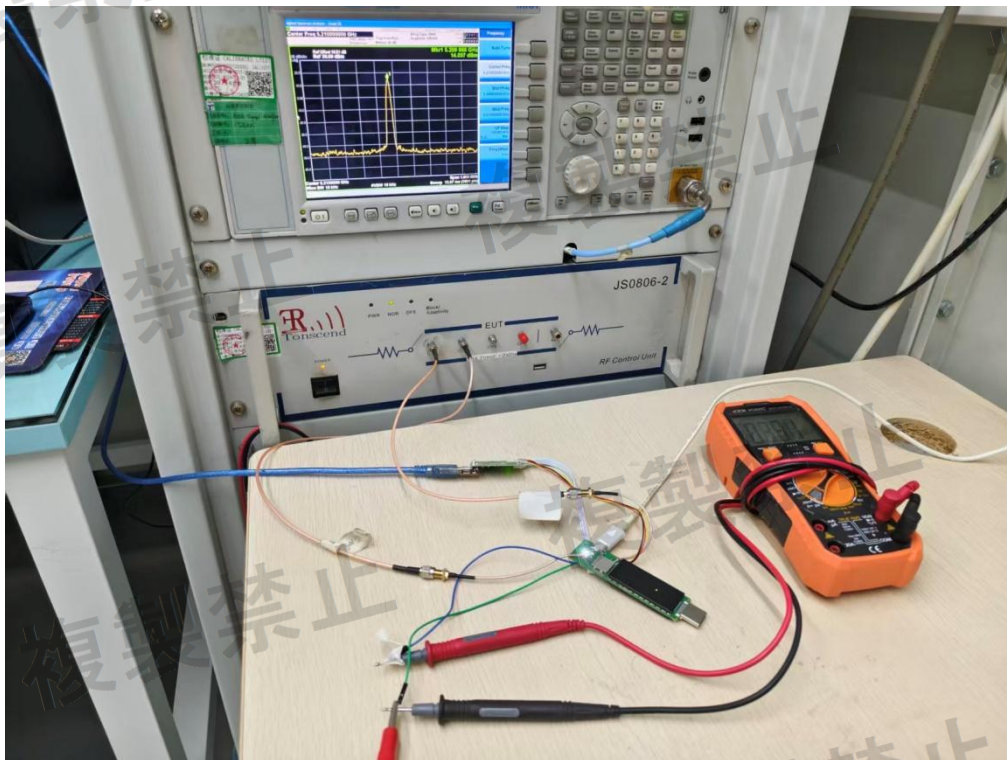
TEST RESULTS

Mode	Confirmed of test procedure (4)	Confirmed of test procedure (5)	Verdict
802.11 n HT40	More than 26MHz	Less than 26MHz	PASS





5. Test Setup Photos of the EUT





6. External and Internal Photos of the EUT

Reference to the test report No. TZ0032251114TRF01

.....End of Report.....

