

MIC2.4G WIFI TEST REPORT

Applicant : GLAZERO INTERNATIONAL INC
Address : 8 The Green, Suite A in the City of Dover. Zip code 19901.
Product Name : SolarCam D1 Classic Kit
Brand Mark : AOSU, DEKCO, Saato, Zoohi
Model : C9C
Series model : DC9C, C9C3EA11, C9C3FA11, C9C3GA11, C9C3HA11, C9C3EL11, C9C3FL11, C9C3GL11, C9C3HL11
Report Number : BLA-RF-202504-A3801
Date of Receipt : Apr.14,2025
Date of Test : Apr.14,2025 to May 24,2025
Test Standard : Item 19 of Article 2 Paragraph 1
Test Result : Pass

Compiled by:

charlie

Review by:

Xavier

Approved by:

Blue Zheng

Issued Date:

May 24, 2025



BlueAsia Technical Services (Shenzhen) Co., Ltd

Address: No.41, South of Beihuan Road, Shangwu Community, Shiyan
Subdistrict, Bao'an District, Shenzhen, Guangdong, China



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Revise Record

Version No.	Date	Description
01	May 24,2025	Original

1 General information

1.1 General information

Applicant	GLAZERO INTERNATIONAL INC
Address	8 The Green,Suite A in the City of Dover.Zip code 19901.
Manufacturer	GLAZERO INTERNATIONAL INC
Address	8 The Green,Suite A in the City of Dover.Zip code 19901.
Factory	Dongguan Anran smart technology Co., LTD
Address	Building 6, No.10 Hongniu,Road, Huangjiang Town,Dongguan, Guangdong,China

1.2 General description of EUT

Product Name	SolarCam D1 Classic Kit
Model No.	C9C
Series model	DC9C,C9C3EA11,C9C3FA11,C9C3GA11,C9C3HA11,C9C3EL11,C9C3FL11,C9C3GL11,C9C3HL11
Desc of series model	The software and hardware of the product are consistent between the reported modeland the main certification model, and the difference is only used to distinguish different sales channels
Operation Frequency	2412 MHz to 2472 MHz
Modulation Type	802.11b: DSSS(CCK/QPSK/BPSK) 802.11g: OFDM(BPSK/QPSK/16QAM/64QAM) 802.11n (HT20): OFDM (64QAM, 16QAM, QPSK, BPSK)
Channel Spacing	5 MHz
Number of Channels	802.11b/g: 13 Channels 802.11n (HT20): 13 Channels
Transmit Data Rate	802.11b: 1M/2M/5.5M/11M bps 802.11g: 6M/9M/12M/18M/24M/36M/48M/54M bps 802.11n(HT20): 6.5M/13M/19.5M/26M/39M/52M/58.5M/64M bps
Conducted rated power	802.11b&802.11g:0.5mW/MHz 802.11n (HT20):0.5mW/MHz
Antenna Type	External antenna
Antenna Gain	3.2dBi(Provided by customer)
Power supply or adapter information	DC3.7V
Hardware Version	C9E2-MAIN_V1.2
Software Version	C9E-2_20250402.2.0.12
Engineer sample no	BLA-RF-202504-A38

2 Description of Support Units

The EUT has been tested stand-alone..

3 Laboratory information

3.1 Laboratory and accreditations

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

Company name:	BlueAsia Technical Services (Shenzhen) Co.,Ltd.
Address:	No.41, South of Beihuan Road, Shangwu Community, Shiyan Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Registration No.:	L9788
Telephone:	+86-755-28682673
FAX:	+86-755-28682673
No tests were sub-contracted.	

4 Test summary

Test	Test Requirement	Limit/Severity	Result
Antenna Requirement	Item 19 of Article 2-1	Notice 88 Appendix 43,B-1 (1)&(2)	PASS
Test frequency	Item 19 of Article 2-1	Notice 88 Appendix 43, A-3	PASS
Frequency Error	Item 19 of Article 2-1	±50 PPM or less	PASS
Occupied Bandwidth	Item 19 of Article 2-1	OFDM: 26MHz or less OFDM: 26MHz -40MHz DSSS: 26MHz or less	PASS
Spread-spectrum Bandwidth	Item 19 of Article 2-1	N/A	PASS
Antenna Power	Item 19 of Article 2-1	OFDM, DSSS: 0.01W /MHz or less OFDM OBW 26 - 40MHz: 5mW/MHz or less Tolerance: + 20%	PASS
E.I.R.P	Item 19 of Article 2-1	OFDM, DSSS: 12.14dBm /MHz or Less OFDM OBW 26 - 40MHz: 9.14dBm /MHz or less	PASS
Half Power Beam Angel (3dB-beam-width)	Item 19 of Article 2-1	N/A ^{Note1}	N/A
Spurious Emission of Tx	Item 19 of Article 2-1	for 2412-2472Mz (1).Below 2387 MHz : 2.5μW (2).2387 to 2400 MHz : 25μW (3).2483.5 through 2496.5 MHz : 25μW (4).Over 2496.5 MHz : 2.5μW	PASS
Interference prevention capability	Item 19 of Article 2-1	Notice 88 Appendix 43, 44, 45	PASS
Carrier sense capability	Item 19 of Article 2-1	Notice 88 Appendix 43, 44, 45	N/A ^{Note2}
RF accessibility	Item 19 of Article 2-1	Notice 88 Appendix 43, 44, 45	PASS
Spurious Emission of Rx	Item 19 of Article 2-1	(1) Below 1 GHz : 4 nW (2) 1 GHz or higher : 20 nW	PASS

Remark:

EUT:In this whole report EUT means Equipment Under Test.

Tx:In this whole report Tx (or tx) means the product in transmitting status.

Rx: In this whole report Rx (or rx) means the product in receiving status.

Note1: Max EIRP power is less than 12.14dBm/MHz for 802.11b/g/n20.)

Carrier sense capability:

Note2: 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.

Application to transmitting devices with OFDM modulation and the occupied bandwidth greater than 26MHz. Not applicable to this product.

5 Test equipment

Equipment	Manufacturer	Model	Serial No.	Cal Date	Due Date	Calibration body	Classification
Communication test set test set	Anritsu	MT8852B	06262047872	2024/08/08	2025/08/07	GRGT	(c)
Spectrum Analyzer	Keysight	N9030A	MY52350152	2024/08/08	2025/08/07	GRGT	(c)
Signal Generator	Agilent	E4438C	MY45092582	2024/08/08	2025/08/07	GRGT	(c)
DC regulated power supply	ZHAOXIN	KXN-305D	BLA-EMC-027	2023/9/24	2025/9/23	GRGT	(c)
Power probe	DARE	RPR3006W	14I00889SN042	2024/09/07	2025/09/06	GRGT	(c)
digital multimeter	VICTOR	VICTOR 7	092177978	2023/07/07	2025/07/06	GRGT	(c)
TH-CALC	MINGLE	TH101B	1020	2024/8/9	2025/8/9	LISAI	(c)

Remark:

- (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) in Japan (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1) in JRL.
- (b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Act (Act No. 51 of 1992) .
- (c) Calibration conducted in countries except Japan, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1).
- (d) Calibration, etc. conducted by using measuring instruments and other equipment listed in the right column of appended table No. 3, which shall have been given any type of calibration, etc. listed above from (a) to (C)

From JRL Article 24-2, paragraph 4, Item 2

Notice: Calibration duration for above equipments is 1 year.

6 Radio Technical Requirements Specification

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

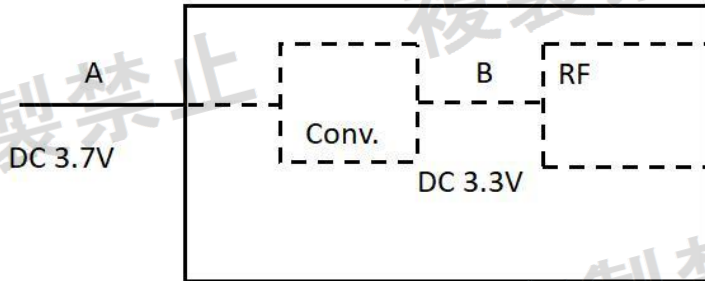
Items	Technical standard
Assigned frequency or designated frequency	2400-2483.5MHz
Communication method	One-way communication, simplex, semi-duplex, or duplex operation of digital signal transmission including spread spectrum
Tolerance of frequency ($\times 10^{-6}$)	± 50
Tolerance of occupied bandwidth	FH: 83.5MHz or less FH + DS : 83.5MHz or less FH + OFDM: 83.5MHz or less OFDM: 26MHz or less OFDM: 26MHz -40MHz DSSS: 26MHz or less
Antenna power	Designated value (1) FH, FH+DS , FH+OFDM: 3mW/MHz (used in the range of 2427 - 2470.75 MHz) (2) OFDM , DS other than (1) 10mW/MHz (3) Other than (1) & (2) 10mW (4) OFDM OBW 26 - 40MHz: 5mW/MHz (5) Tolerance:+20%
Antenna gain	1) 12.14 dBi or less in principle 2) In case of directional antenna 3) FH, FH+DS or FH+OFDM using 2427-2470.75 MHz 4) EIRP $\leq$ 16.91 dBm/MHz 5) OFDM or DS other than (1) EIRP $\leq$ 22.14 dBm/MHz 6) Other than (1) and (2): 22.14 dBm or less 7) OFDM OBW 26 - 40MHz: 19.14dBm/MHz 8) Half-power angle of directional antenna (e) in case of the item 2): $e \leq 360/A$ (The A is 10 in maximum.)
Tolerance of spurious emission intensity	for 2412-2472Mz (1) Below 2387 MHz : 2.5 μ W/MHz (2) 2387 to 2400 MHz : 25 μ W/MHz (3) 2483.5 through 2496.5 MHz : 25 μ W/MHz (4) Over 2496.5 MHz : 2.5 μ W/MHz
Limit of secondary radiated emissions	(1) Below 1 GHz : 4 nW (2) (2) 1 GHz or higher : 20 nW
Interference prevention function	Shall have the function of automatic transmission and reception of identification sign.
Structure	Shall be of the structure that the RF and modulator sections excluding antenna cannot easily be opened.
Note	DS: Direct spread FH: Frequency hopping OFDM: Orthogonal frequency division multiplexing

Note: The Technical Standards described here do not cover all of the regulated items.

6.1 Transmitter Requirements

6.1.1 EUT test voltage and Frequency

6.1.1.1 EUT test voltage

Power Supply:		DC 3.7V									
Test voltage require:		The power supply is by DC 3.7V port charging. The supply voltage of RF part is varied within +/-1%									
Power Supply view:		 Test below: 1:The fluctuation of B point is under $\pm 1\%$,when input voltage from A point to the test equipment is fluctuated by $\pm 10\%$.									
Power Supply result:		The measurement result of the voltage fluctuation at RF circuit when 3.7V +/- 10%. <table><thead><tr><th>DC INPUT</th><th>DCV</th></tr></thead><tbody><tr><td>3.7V</td><td>3.3V</td></tr><tr><td>3.33V</td><td>3.3V</td></tr><tr><td>4.07V</td><td>3.3V</td></tr></tbody></table>		DC INPUT	DCV	3.7V	3.3V	3.33V	3.3V	4.07V	3.3V
DC INPUT	DCV										
3.7V	3.3V										
3.33V	3.3V										
4.07V	3.3V										
Test frequencies:		If the EUT can be set to 3 of more different (carrier) frequencies in 1 allocated band, testing shall be performed using the Lowest, Middle and the Highest frequency (L,M and H). If there are 2 or fewer frequencies, testing shall be performed with the available frequencies.									
Test condition		Ambient									
		Temperature(℃)	Humidity(%)								
NTNV		24	48								
NTLV		N/A	N/A								
NTHV		N/A	N/A								
		Voltage(V)									
		DC3.7V									
		N/A									
		N/A									

6.1.1.2 Test frequency

EUT channels and frequencies list:

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

Remark: The EUT operation in above frequency list, and used test software to control the EUT for staying in continuous transmitting and receiving mode. Channel 1, 7 and 13 of 802.11B/G/N20 chosen for testing. Channel 3, 7 and 11 of 802.11N40 chosen for testing.

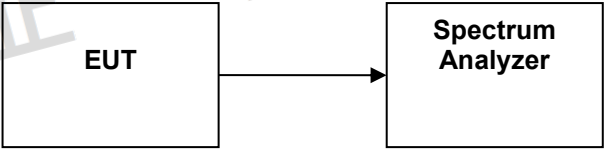
6.2 Antenna Requirement

Standard requirement
Applicable for equipment with an antenna terminal, including testing terminals) If an antenna connector is available, all relevant tests will be carried out conducted. If not, tests will be carried out in an anechoic room or with a suitable test-fixture.
EUT Antenna
The antenna is External antenna. The best case gain of the antenna is 3.2dBi from 2412~2472MHz



Result: An antenna connector is available; all relevant tests will be carried out conducted.

6.3 Frequency Error

Test Requirement:	Item 19 of Article 2 Paragraph 1
Test Status:	Test the EUT in transmitting mode without modulation.
Test Configuration:	
Test Procedure	
Test Conditions:	Spectrum Analyzer is used for measurement.
EUT conditions:	Modulation/Spread/Hopping OFF, CW TX
Spectrum Analyzer conditions:	Frequency: Test Frequency Span 1MHz RBW 10 kHz (Modulation OFF), VBW 10 kHz (Modulation OFF), Sweep Time Auto Detector mode Positive peak Indication mode Max hold
Technical standard:	Tolerance of frequency: $\pm 50 \times 10^{-6}$
Test result:	PASS

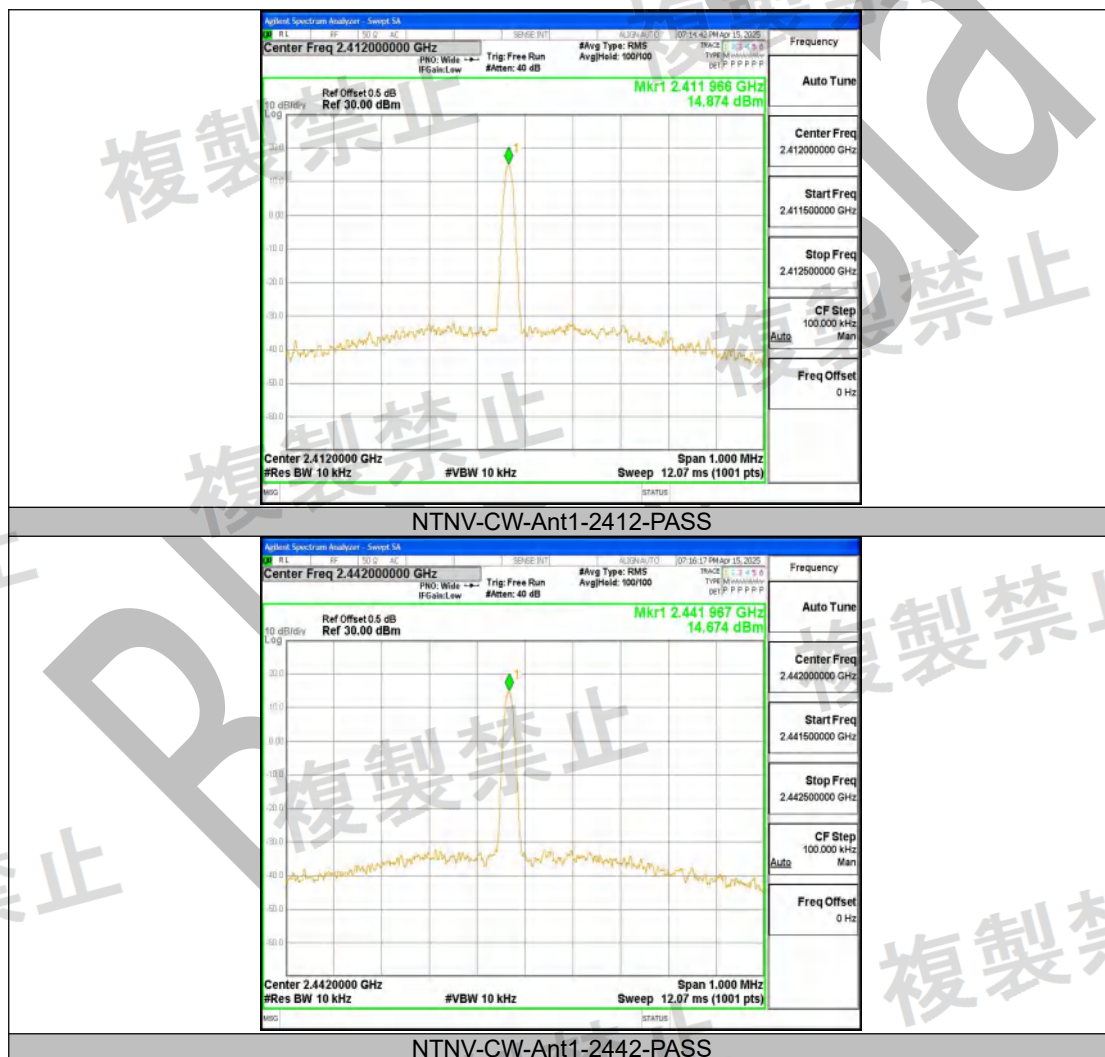
6.3.1 Test result

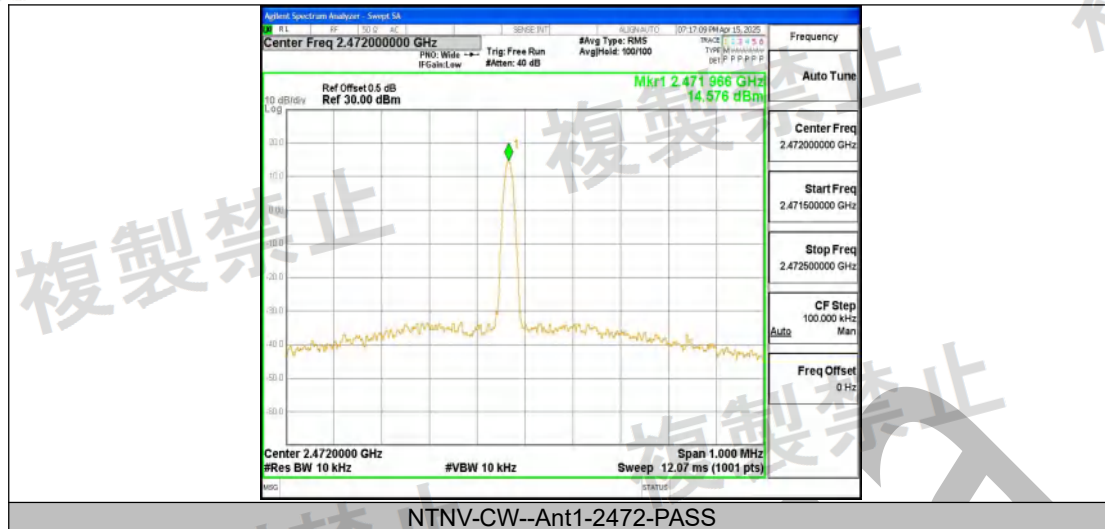
TestCondition	TestMode	Antenna	Frequency[MHz]	CenterFreq [MHz]	Result[ppm]	Limit[ppm]	Verdict
NTNV	CW	Ant1	2412	2411.966	-14.09619	±50	PASS
NTNV		Ant1	2442	2441.967	-13.51351	±50	PASS
NTNV		Ant1	2472	2471.966	-13.75405	±50	PASS

Note: The nominal frequency shall be confirmed by the applicant and test lab.

Result plot as follows:

6.3.2 Test Graphs





Test result: The unit does meet the requirements.

6.4 Occupied Bandwidth (99%)

Test Requirement:	Item 19 of Article 2 Paragraph 1
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	 <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre>
Test Procedure	
Test Conditions:	Spectrum Analyzer is used for measurement.
EUT conditions:	Modulation/Spread/Hopping ON For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Frequency: Test Frequency Span 40MHz (DSSS,OFDM) RBW 300kHz VBW300kHz Sweep Time Auto detector mode Positive peak Indication mode Max hold OBW 99%
Technical standard:	OFDM: 26MHz or less OFDM: 26MHz -40MHz DSSS: 26MHz or less
Test result:	PASS

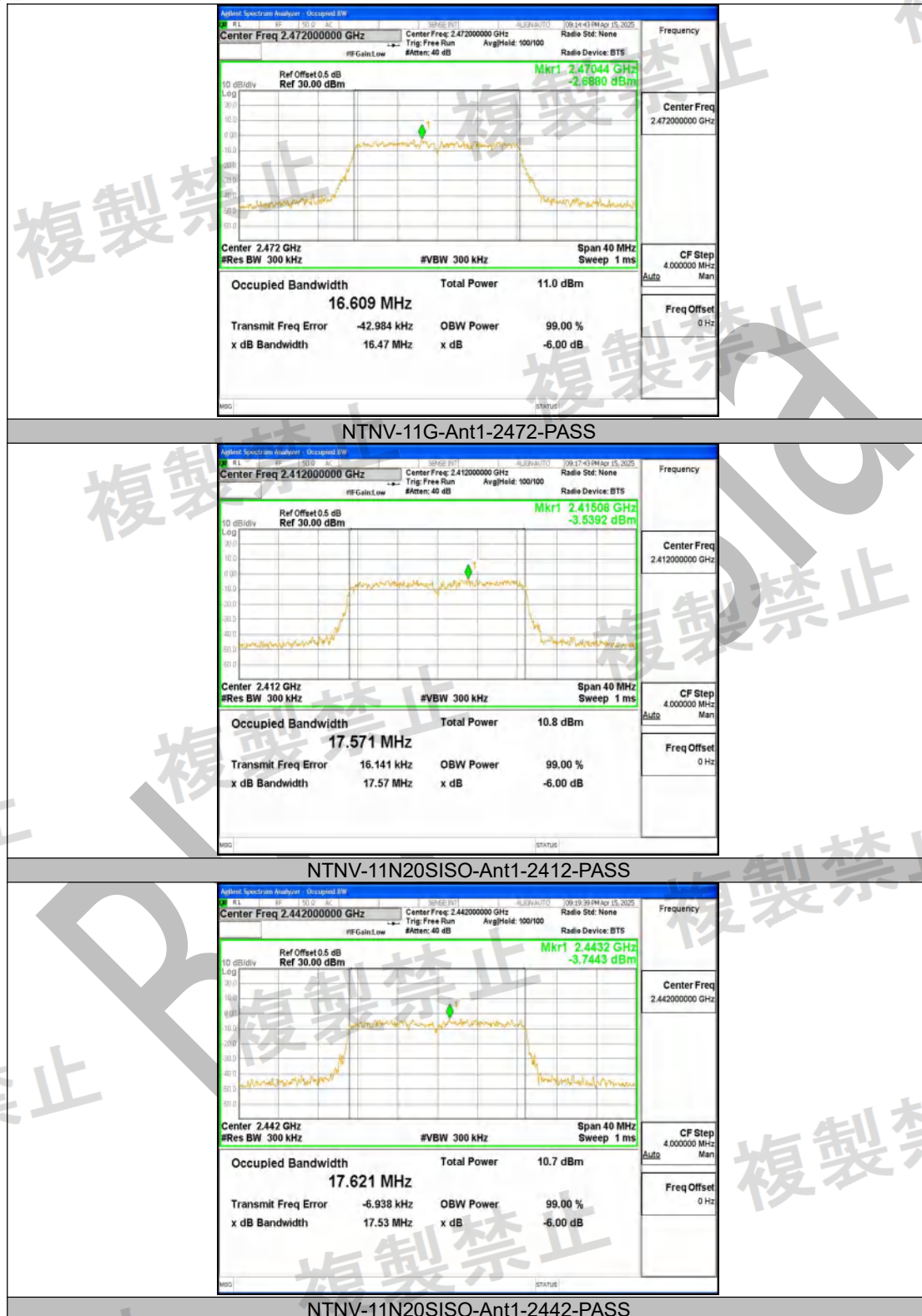
6.4.1 Test Result

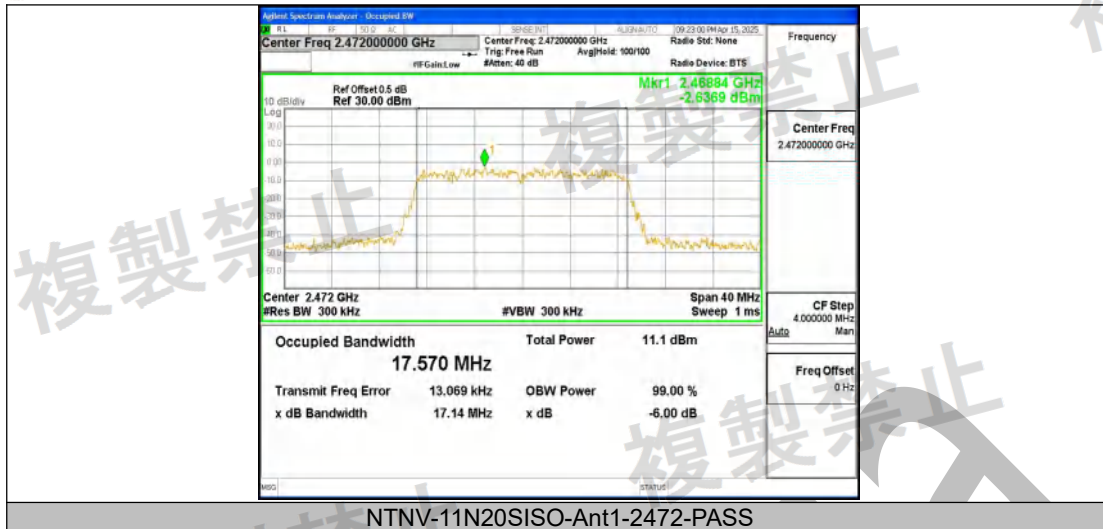
TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	13.263	≤26	PASS
NTNV	11B	Ant1	2442	13.240	≤26	PASS
NTNV	11B	Ant1	2472	13.235	≤26	PASS
NTNV	11G	Ant1	2412	16.501	≤26	PASS
NTNV	11G	Ant1	2442	16.545	≤26	PASS
NTNV	11G	Ant1	2472	16.609	≤26	PASS
NTNV	11N20SISO	Ant1	2412	17.571	≤26	PASS
NTNV	11N20SISO	Ant1	2442	17.621	≤26	PASS
NTNV	11N20SISO	Ant1	2472	17.570	≤26	PASS

6.4.2 Test Graphs









Test result: The unit does meet the requirements.

6.5 Spread spectrum Bandwidth (90%)

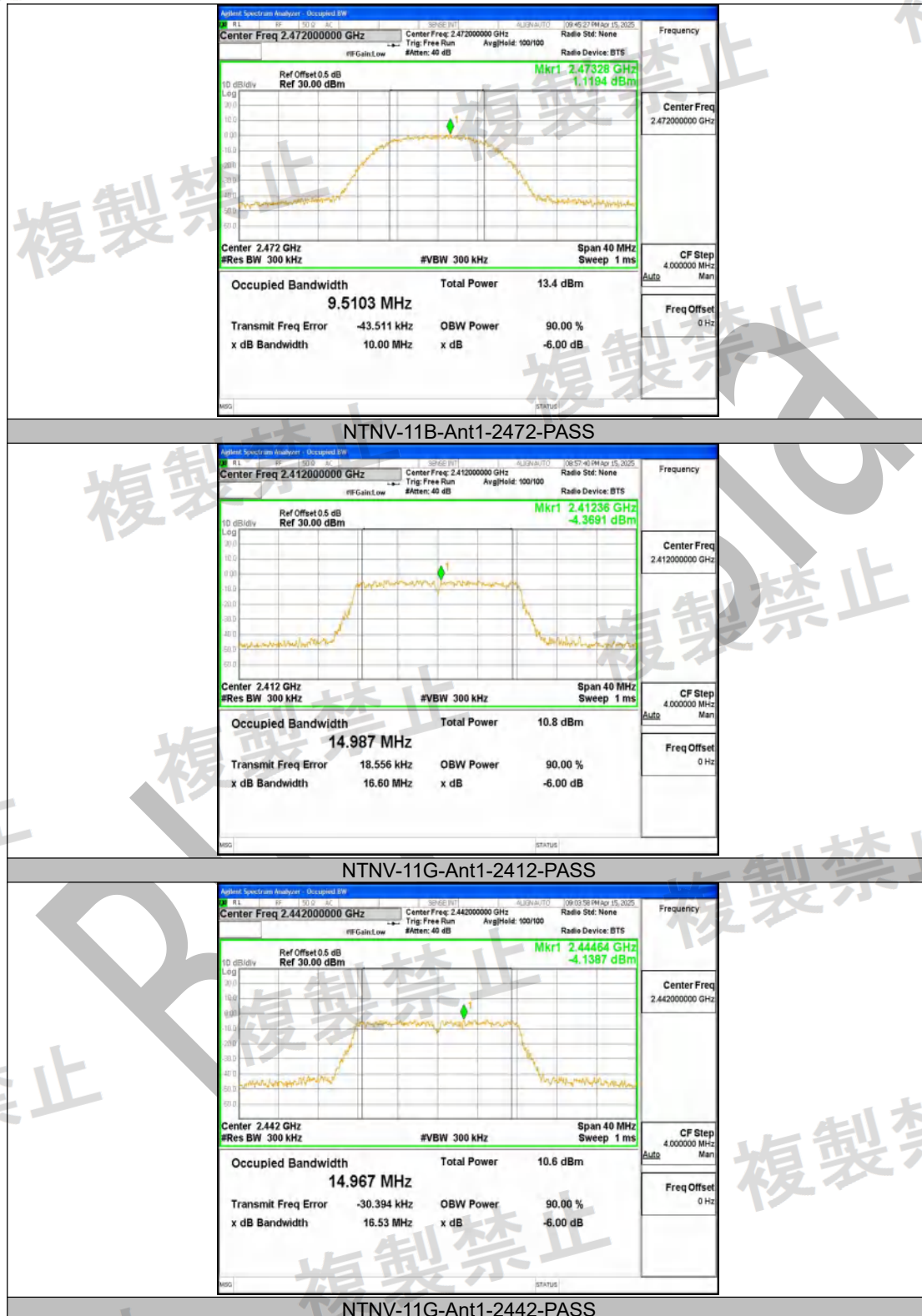
Test Requirement:	Item 19 of Article 2 Paragraph 1
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	 <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre>
Test Procedure	
Test Conditions:	Spectrum Analyzer is used for measurement.
EUT conditions:	Modulation/Spread/Hopping ON For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Frequency: Test Frequency Span 40MHz (DSSS,OFDM) RBW 300kHz VBW300kHz Sweep Time Auto detector mode Positive peak Indication mode Max hold OBW 90%
Test result:	PASS

6.5.1 Test Result

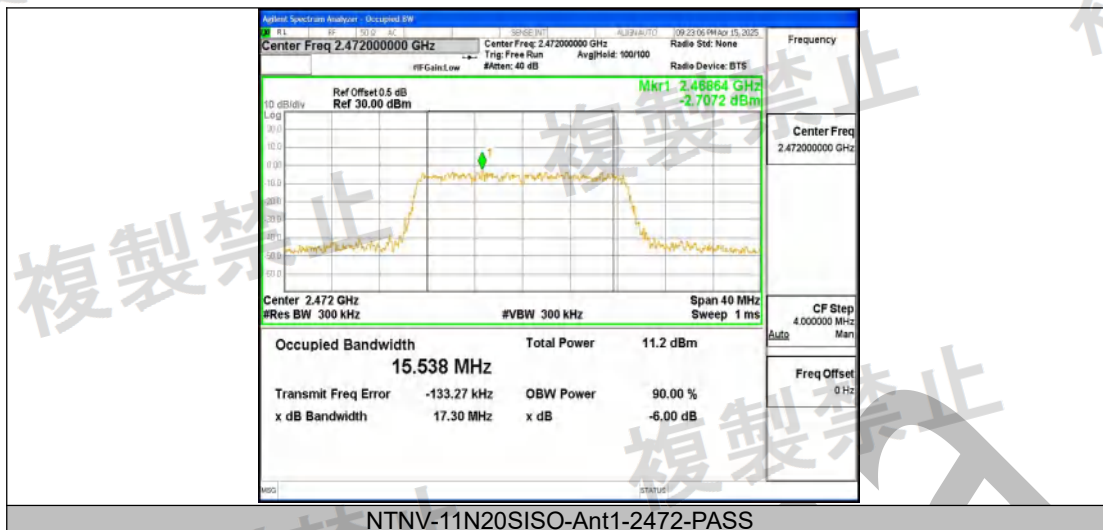
TestCondition	TestMode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	9.615	N/A	PASS
NTNV	11B	Ant1	2442	9.457	N/A	PASS
NTNV	11B	Ant1	2472	9.510	N/A	PASS
NTNV	11G	Ant1	2412	14.987	N/A	PASS
NTNV	11G	Ant1	2442	14.967	N/A	PASS
NTNV	11G	Ant1	2472	14.875	N/A	PASS
NTNV	11N20SISO	Ant1	2412	15.424	N/A	PASS
NTNV	11N20SISO	Ant1	2442	15.371	N/A	PASS
NTNV	11N20SISO	Ant1	2472	15.538	N/A	PASS

6.5.2 Test Graphs









Test result: The unit does meet the requirements.

6.6 Antenna Power

Test Requirement:	Item 19 of Article 2 Paragraph 1	
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.	
Test Configuration:	EUT Spectrum Analyzer	
Test Procedure		
Test Conditions:	Spectrum Analyzer is used for measurement.	
EUT conditions:	Modulation/Spread/Hopping ON For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.	
Spectrum Analyzer conditions:	Setup 1: Settings for search: Frequency: Test Frequency Span OBW×2 RBW 1 MHz VBW 1 MHz Sweep Time Auto detector mode Positive peak Indication mode Max hold	Setup2: Settings when measuring. Center frequency: seached frequency. Span: about 0MHz RBW:1MHz VBW:1MHz Sweep: 1s Detector: RMS Display mode (Trace): RMS 10 times approx.
Technical standard:	OFDM, DSSS: 0.01W /MHz or less OFDM OBW 26 - 40MHz: 5mW /MHz or less	
Test result:	PASS	

6.6.1 Test Result

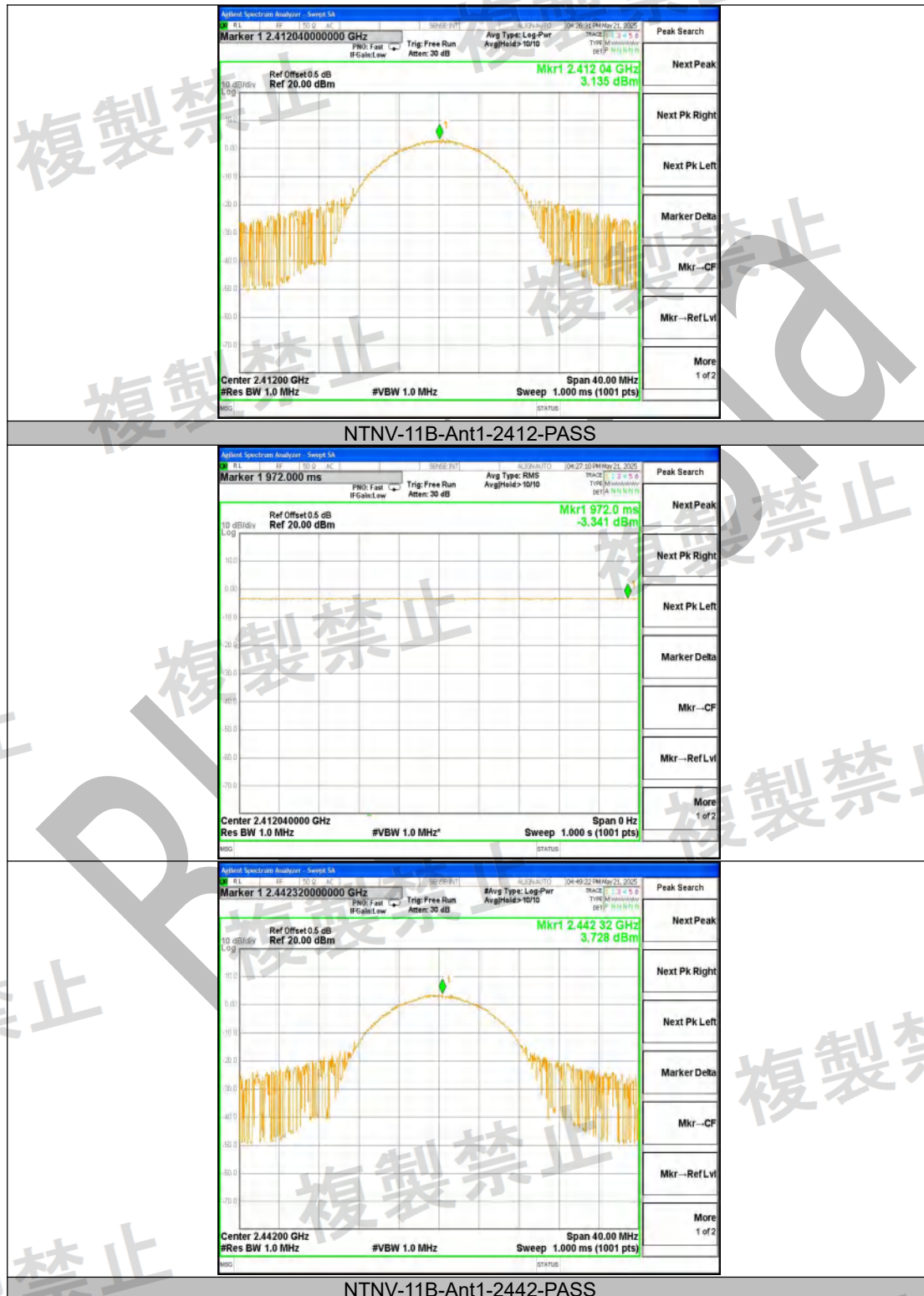
Antenna Power							
TestCondition	TestMode	Antenna	Channel	Result(dBm/MHz)	Result(mW/MHz)	Limit(mW/MHz)	Verdict
NTNV	11B	Ant1	2412	-3.341	0.463	<=10	PASS
			2442	-2.970	0.505	<=10	PASS
			2472	-3.223	0.476	<=10	PASS
	11G	Ant1	2412	-3.694	0.427	<=10	PASS
			2442	-2.706	0.536	<=10	PASS
			2472	-3.394	0.458	<=10	PASS
	11N20SISO	Ant1	2412	-4.015	0.397	<=10	PASS
			2442	-3.443	0.453	<=10	PASS
			2472	-3.478	0.449	<=10	PASS

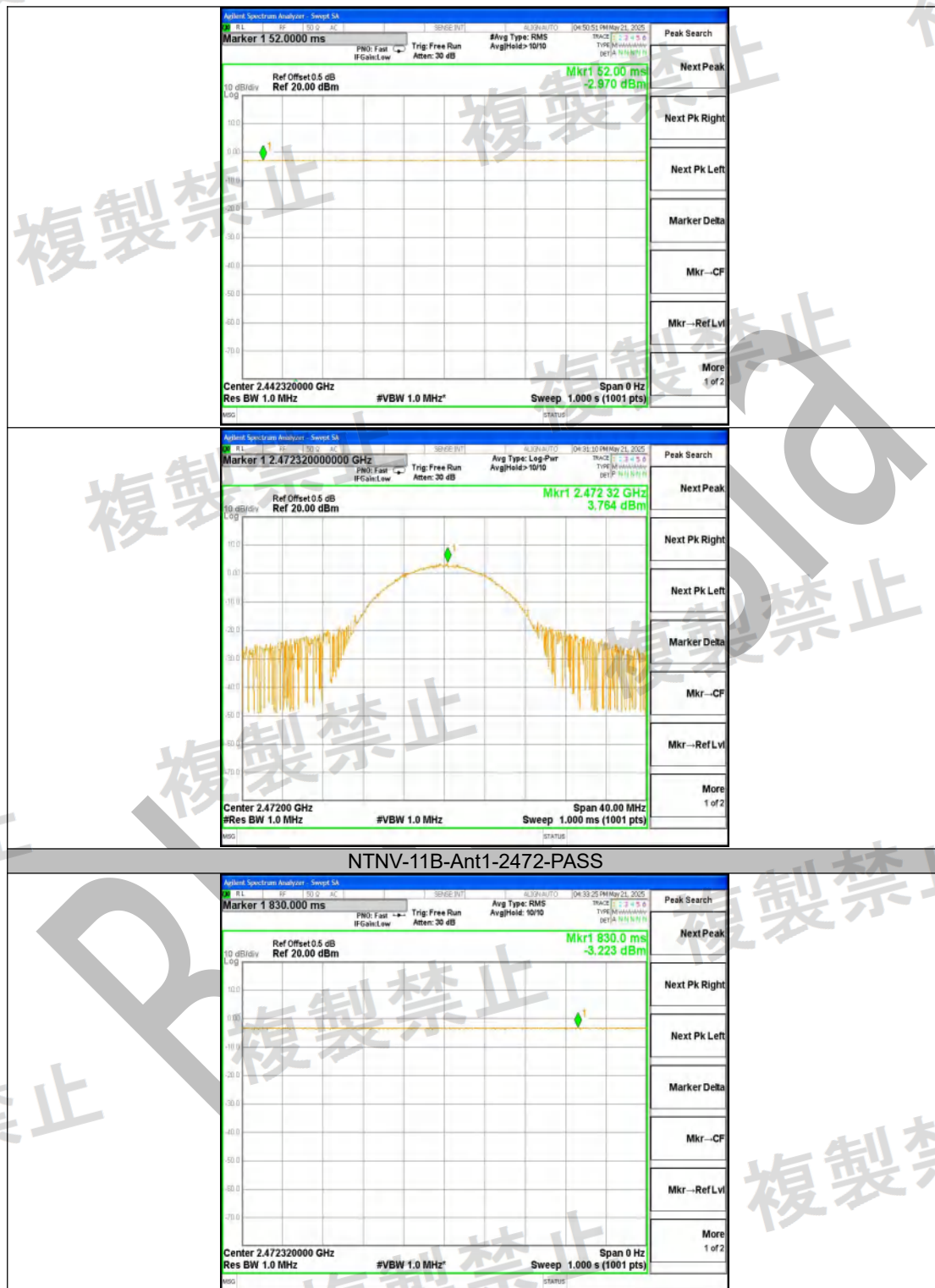
Tolerance								
Test Condition	Test Mode	Antenna	Channel	Power (mW/MHz)	Rated Power (mW/MHz)	Result(%)	Limit(%)	Verdict
NTNV	11B	Ant1	2412	0.463	0.5	-7.33	+20	PASS
			2442	0.505	0.5	0.93	+20	PASS
			2472	0.476	0.5	-4.78	+20	PASS
	11G	Ant1	2412	0.427	0.5	-14.57	+20	PASS
			2442	0.536	0.5	7.26	+20	PASS
			2472	0.458	0.5	-8.46	+20	PASS
	11N20SISO	Ant1	2412	0.397	0.5	-20.65	+20	PASS
			2442	0.453	0.5	-9.48	+20	PASS
			2472	0.449	0.5	-10.21	+20	PASS

Conducted rated power:
1)802.11b, 802.11g, 802.11n (HT20) 0.5mW/MHz

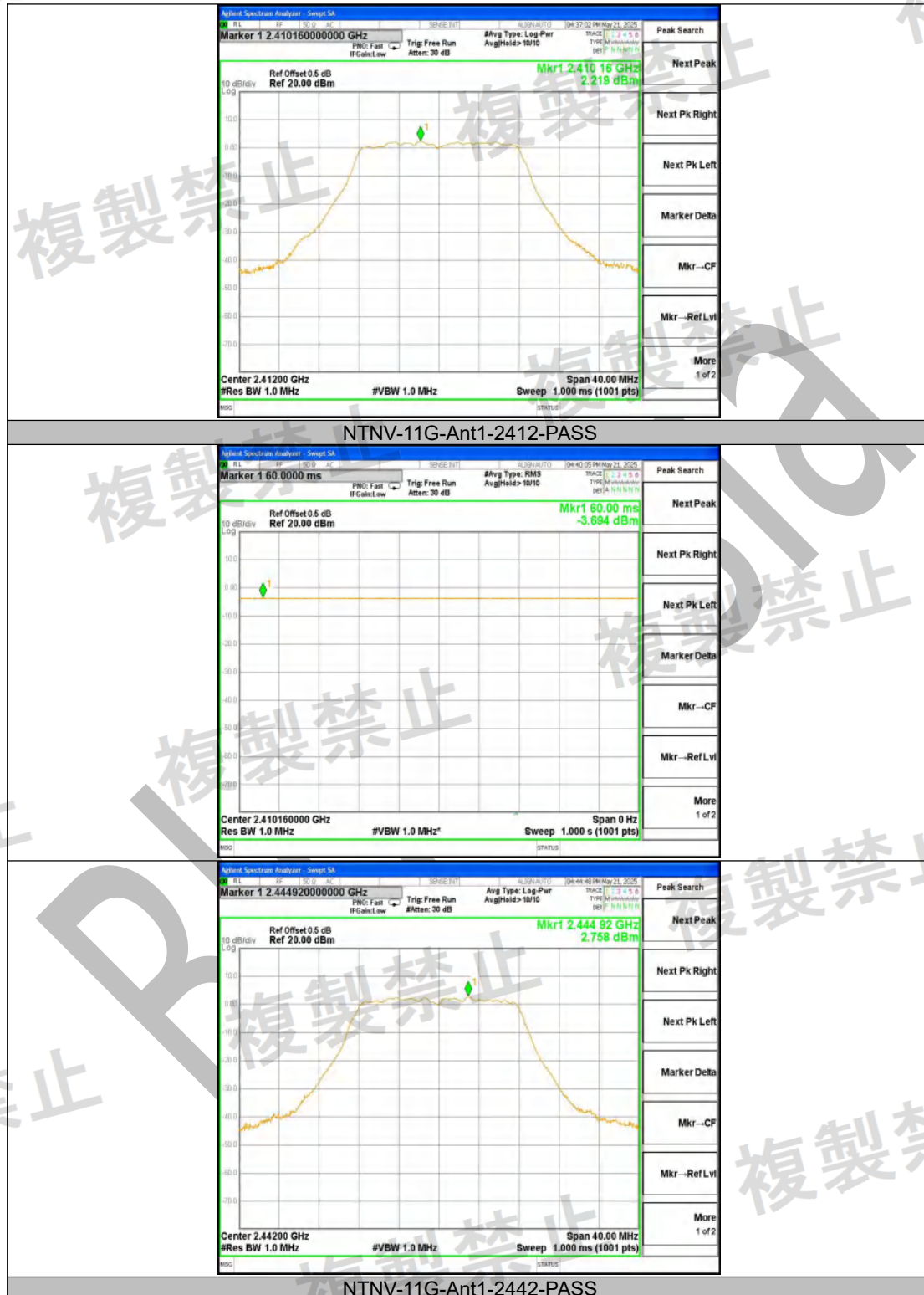
EIRP (Max)						
Test Condition	Test Mode	Antenna	Channel	Result(dBm/MHz)	Limit(dBm/MHz)	Verdict
NTNV	11B	Ant1	2412	-0.141	<=12.14	PASS
			2442	0.230	<=12.14	PASS
			2472	-0.023	<=12.14	PASS
	11G	Ant1	2412	-0.494	<=12.14	PASS
			2442	0.494	<=12.14	PASS
			2472	-0.194	<=12.14	PASS
	11N20SISO	Ant1	2412	-0.815	<=12.14	PASS
			2442	-0.243	<=12.14	PASS
			2472	-0.278	<=12.14	PASS

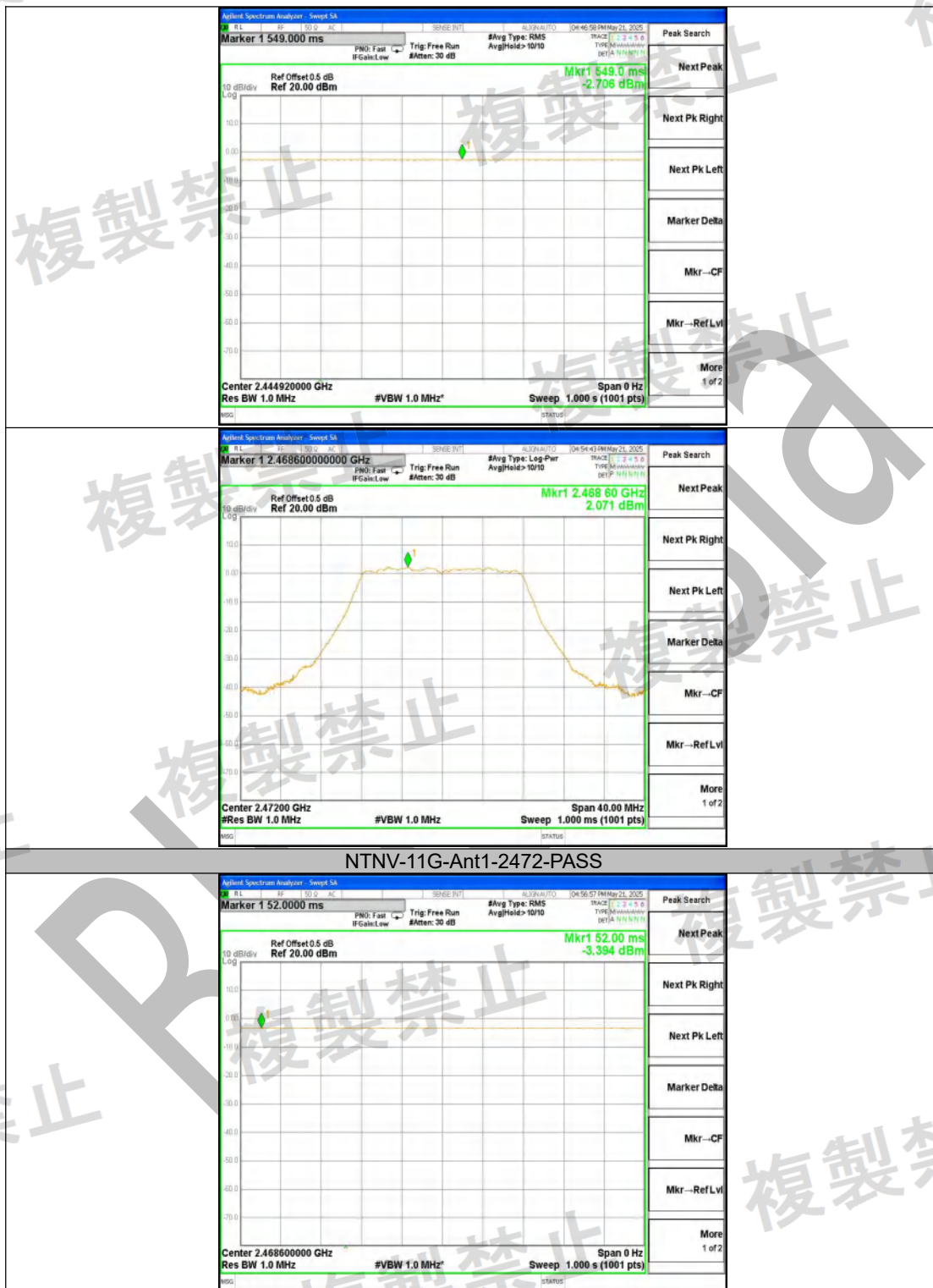
6.6.2 Test Graphs



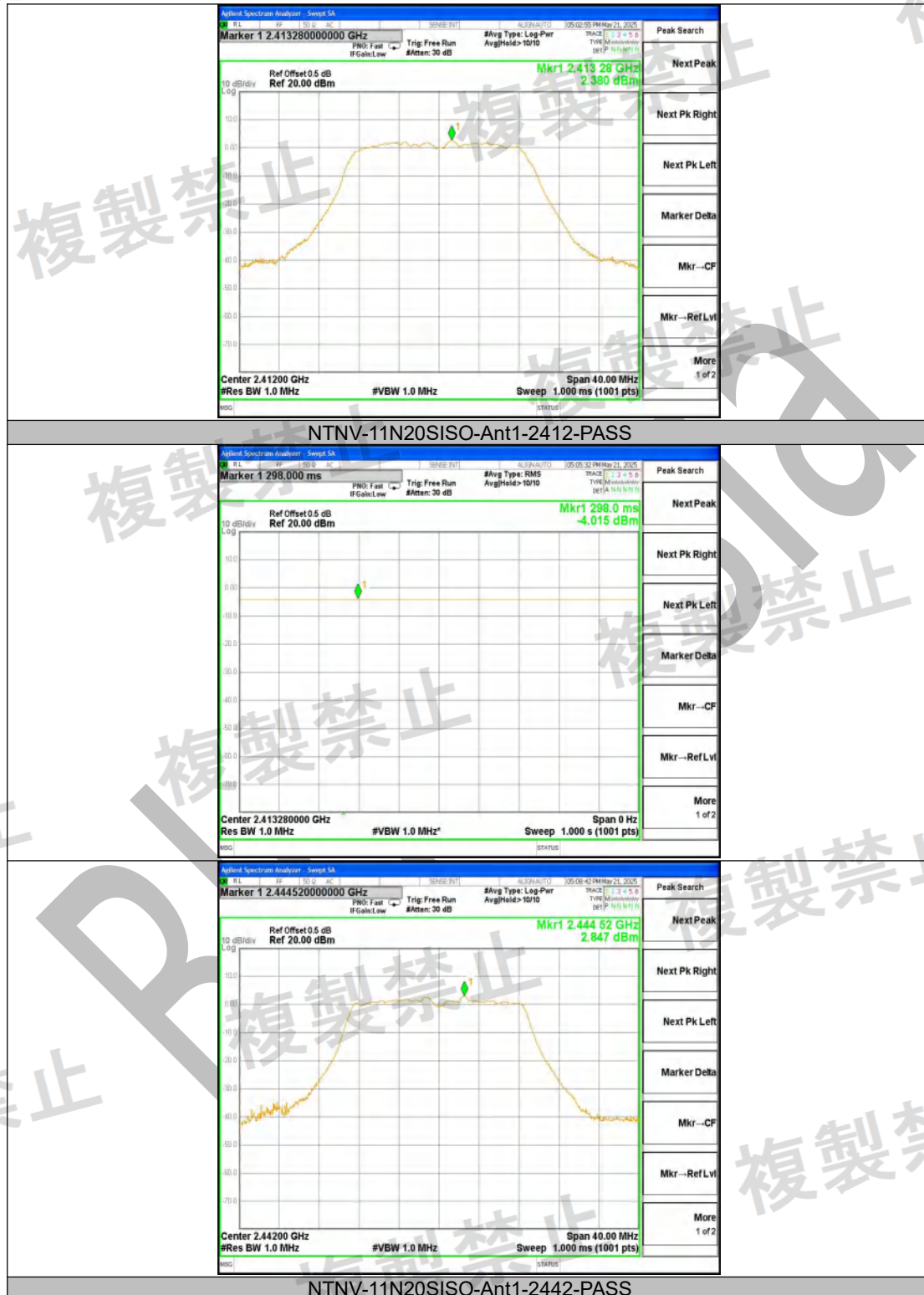


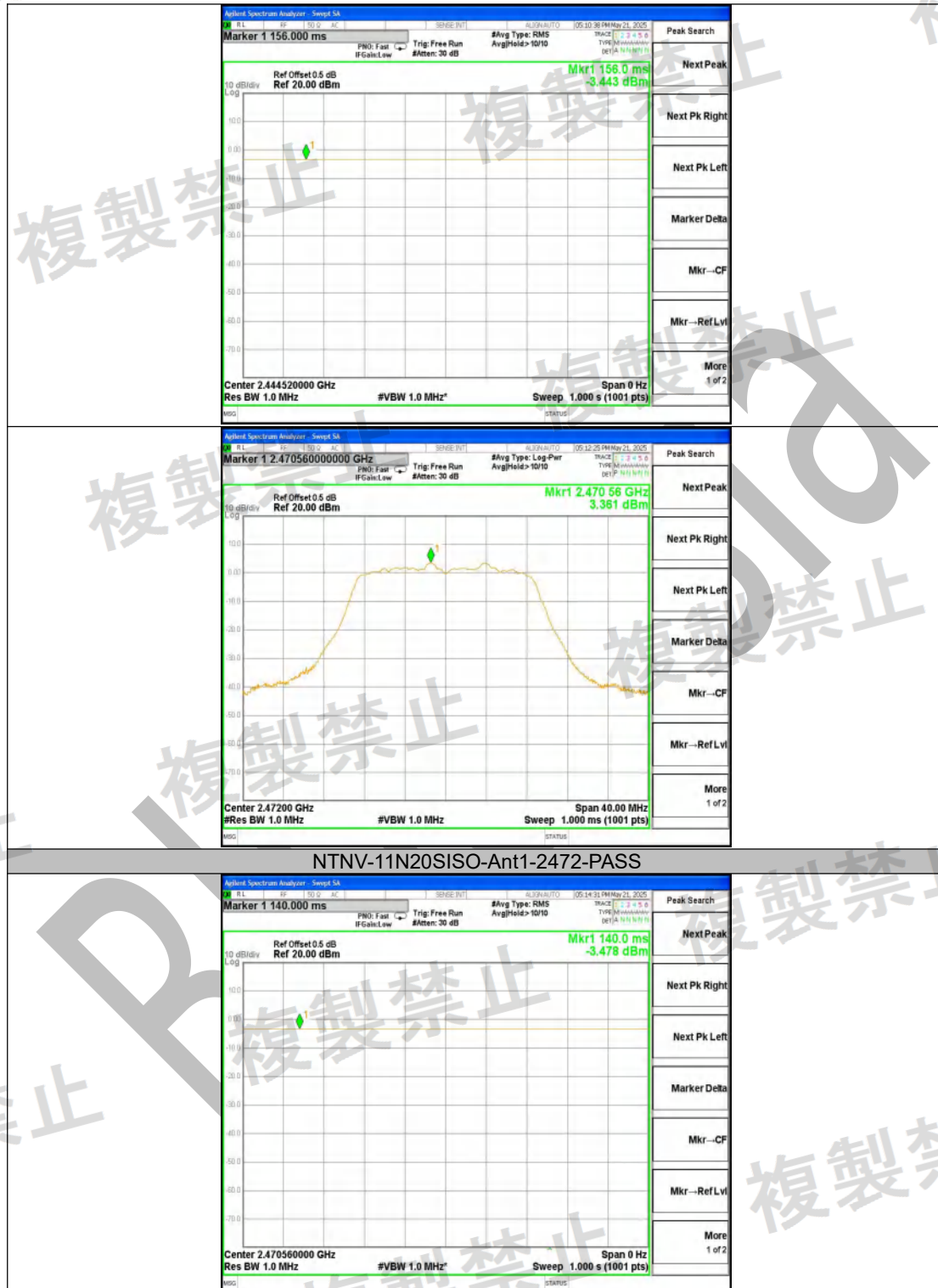
NTNV-11B-Ant1-2472-PASS





NTNV-11G-Ant1-2472-PASS





NTNV-11N20SISO-Ant1-2472-PASS

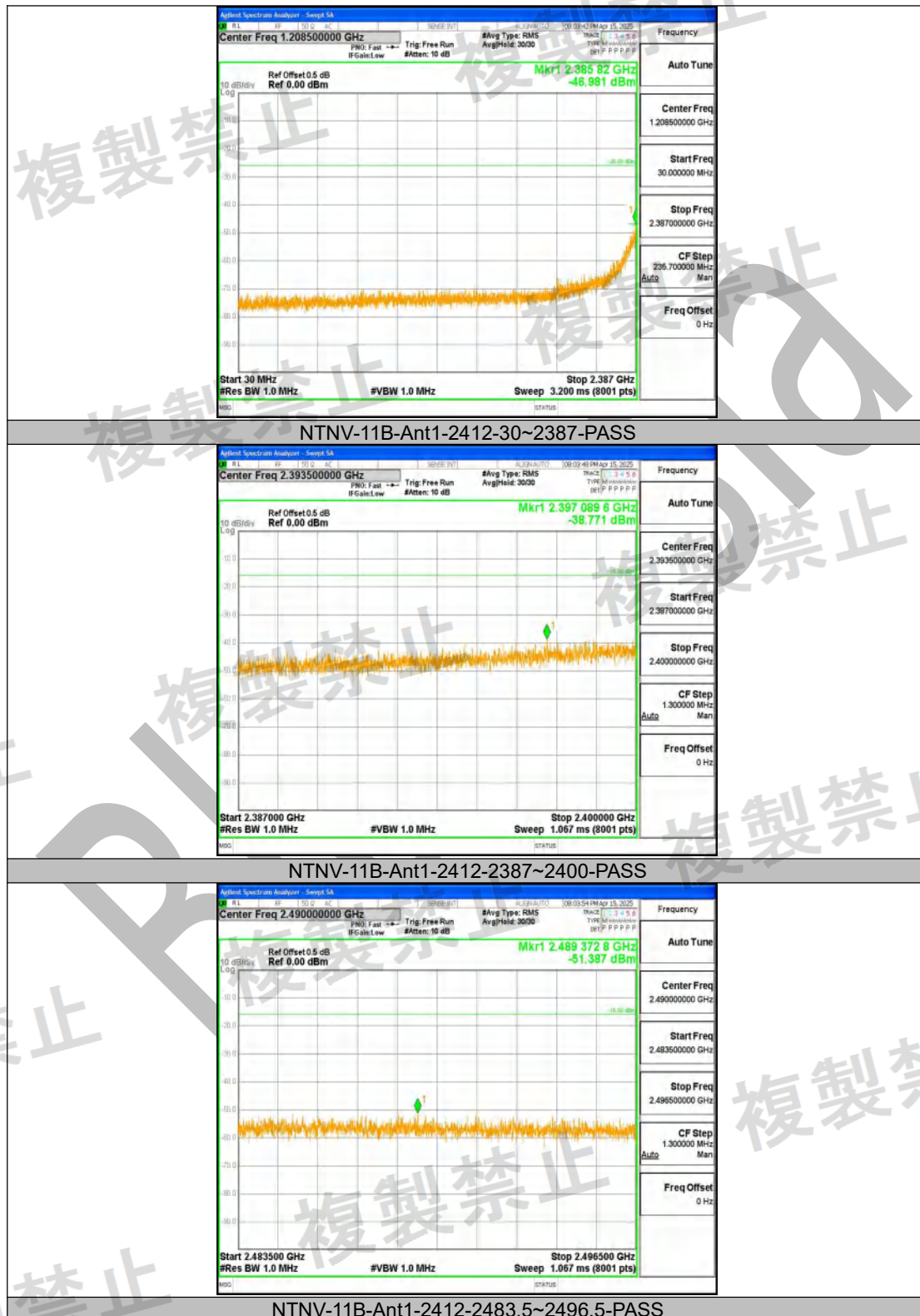
6.7 Spurious Emissions of Tx

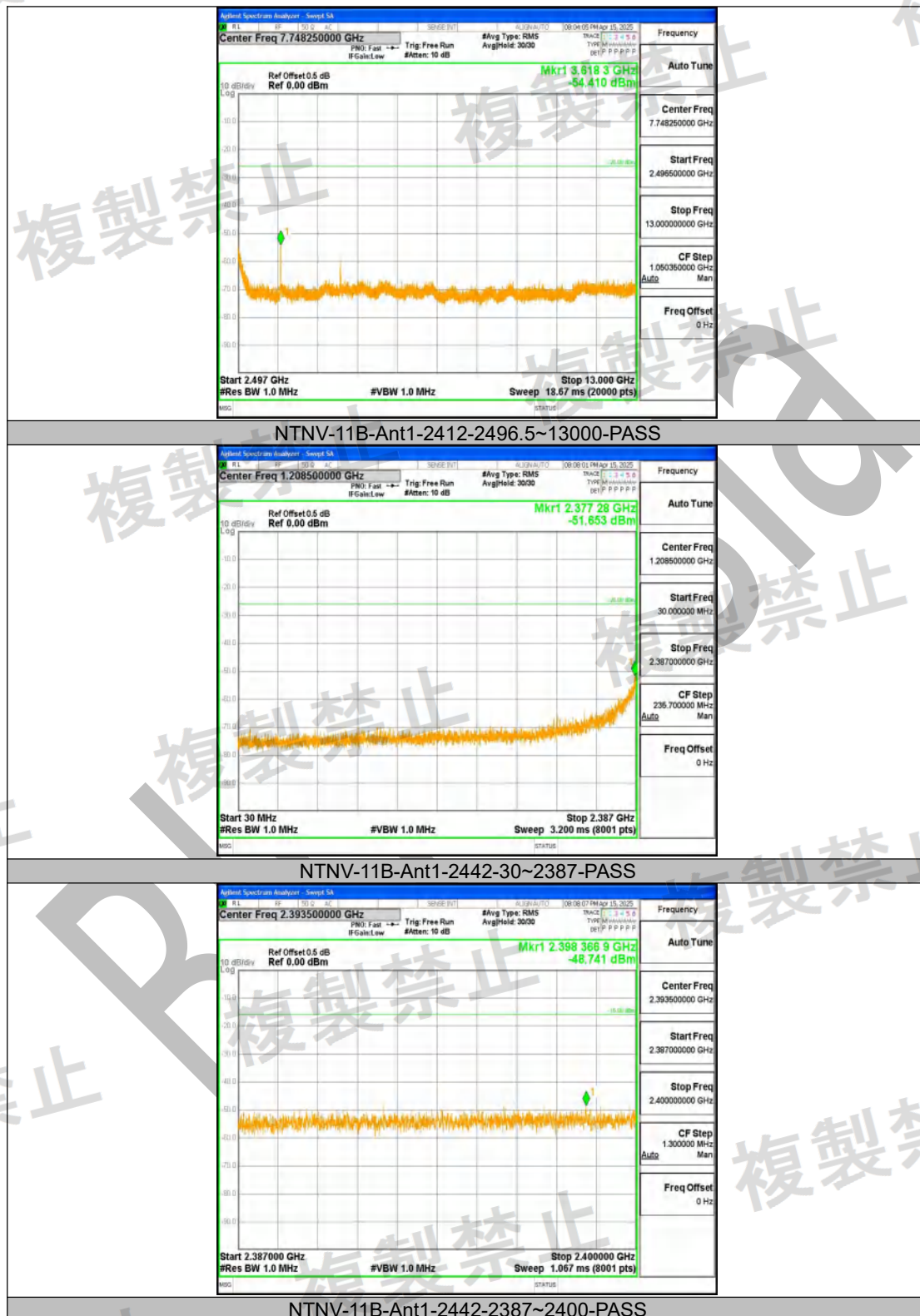
Test Requirement:	Item 19 of Article 2 Paragraph 1
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	 <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre>
Test Procedure	
Test Conditions:	Spectrum Analyzer is used for measurement.
EUT conditions:	Modulation/Spread/Hopping ON For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Step1 All spurious are measured from 30MHz to 13 GHz by peak mode. Test setup for Step 1: Frequency: 30MHz – 2400MHz , 2483.5MHz –13GHz (for 2412-2472MHz) RBW 1 MHz VBW 1 MHz Sweep Time Auto detector mode Positive peak Indication mode Max hold Step2 IF the value measured by Step1 is 2dB or less, measure in average mode. Test setup for Step 2: Frequency: Spurious Frequency RBW 1 MHz VBW 1 MHz Sweep Time Auto detector mode Sample Indication mode Max hold
Technical standard:	for 2412-2472MHz (1) Below 2387 MHz : 2.5μW/MHz (-26dBm) (2) 2387 to 2400 MHz : 25μW/MHz (-16dBm) (3) 2483.5 through 2496.5 MHz : 25μW/MHz (-16dBm) (4) Over 2496.5 MHz : 2.5μW/MHz (-26dBm)
Test result:	PASS

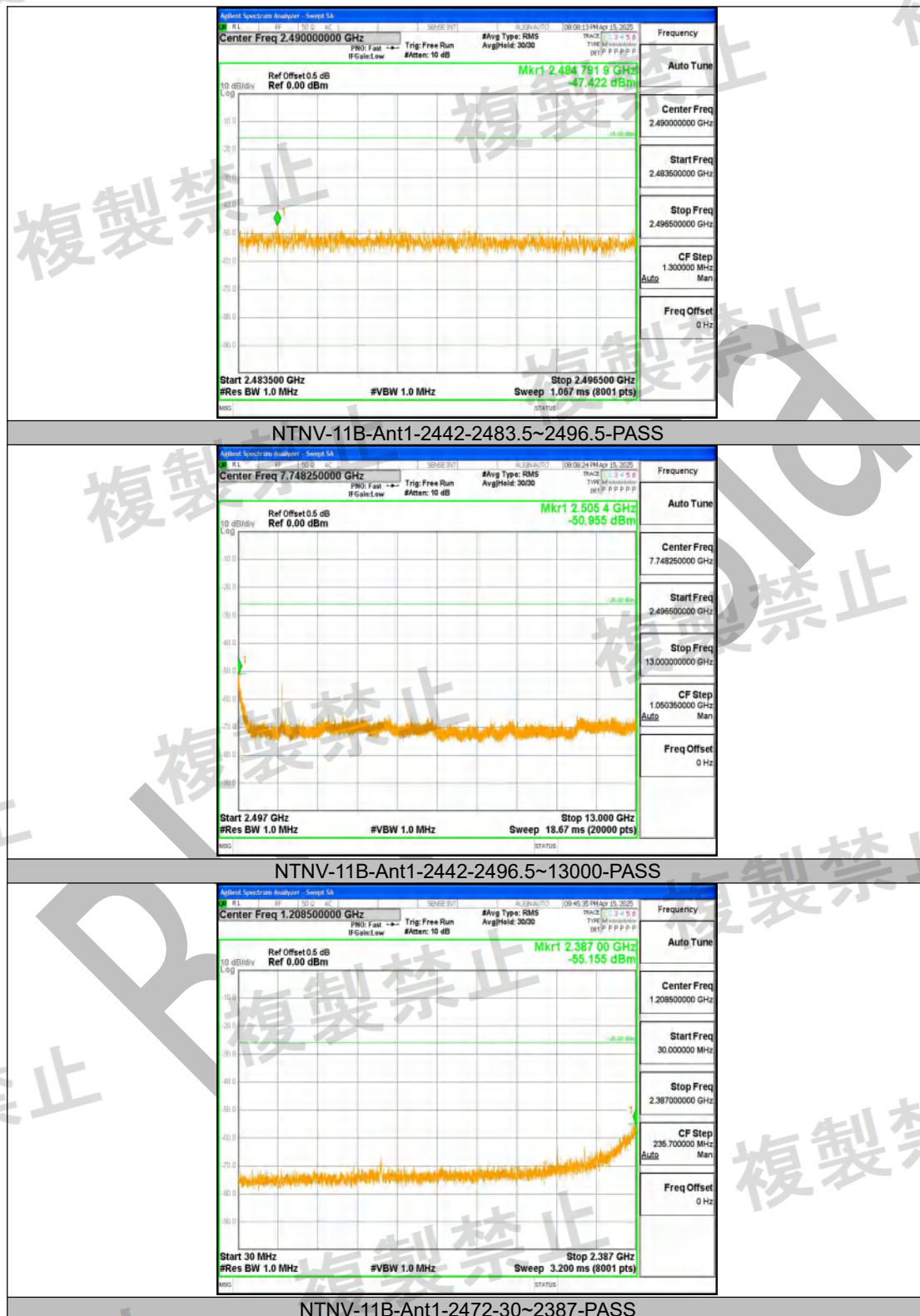
6.7.1 Test Result

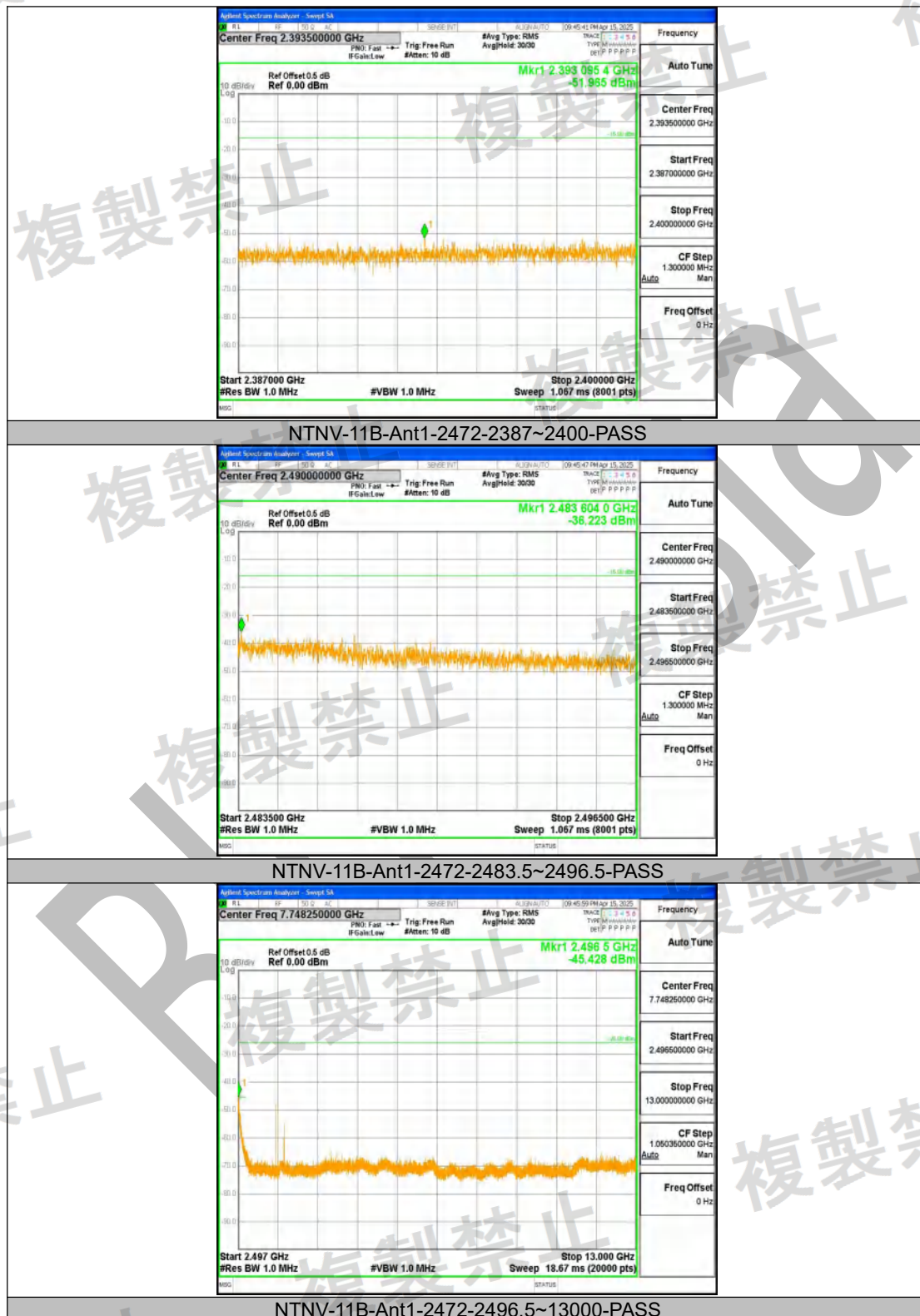
TestCondition	TestMode	Antenna	Frequency[MHz]	Freq.Range [MHz]	Result [dBm/MHz]	Limit [dBm/MHz]	Verdict
NTNV	11B	Ant1	2412	30~2387	-46.98	≤-26	PASS
NTNV	11B	Ant1	2412	2387~2400	-38.77	≤-16	PASS
NTNV	11B	Ant1	2412	2483.5~2496.5	-51.39	≤-16	PASS
NTNV	11B	Ant1	2412	2496.5~13000	-54.41	≤-26	PASS
NTNV	11B	Ant1	2442	30~2387	-51.65	≤-26	PASS
NTNV	11B	Ant1	2442	2387~2400	-48.74	≤-16	PASS
NTNV	11B	Ant1	2442	2483.5~2496.5	-47.42	≤-16	PASS
NTNV	11B	Ant1	2442	2496.5~13000	-50.96	≤-26	PASS
NTNV	11B	Ant1	2472	30~2387	-55.16	≤-26	PASS
NTNV	11B	Ant1	2472	2387~2400	-51.97	≤-16	PASS
NTNV	11B	Ant1	2472	2483.5~2496.5	-36.22	≤-16	PASS
NTNV	11B	Ant1	2472	2496.5~13000	-45.43	≤-26	PASS
NTNV	11G	Ant1	2412	30~2387	-49.65	≤-26	PASS
NTNV	11G	Ant1	2412	2387~2400	-38.93	≤-16	PASS
NTNV	11G	Ant1	2412	2483.5~2496.5	-54.45	≤-16	PASS
NTNV	11G	Ant1	2412	2496.5~13000	-55.63	≤-26	PASS
NTNV	11G	Ant1	2442	30~2387	-56.70	≤-26	PASS
NTNV	11G	Ant1	2442	2387~2400	-51.00	≤-16	PASS
NTNV	11G	Ant1	2442	2483.5~2496.5	-50.05	≤-16	PASS
NTNV	11G	Ant1	2442	2496.5~13000	-54.20	≤-26	PASS
NTNV	11G	Ant1	2472	30~2387	-56.47	≤-26	PASS
NTNV	11G	Ant1	2472	2387~2400	-53.94	≤-16	PASS
NTNV	11G	Ant1	2472	2483.5~2496.5	-37.56	≤-16	PASS
NTNV	11G	Ant1	2472	2496.5~13000	-47.74	≤-26	PASS
NTNV	11N20SISO	Ant1	2412	30~2387	-46.24	≤-26	PASS
NTNV	11N20SISO	Ant1	2412	2387~2400	-37.10	≤-16	PASS
NTNV	11N20SISO	Ant1	2412	2483.5~2496.5	-54.06	≤-16	PASS
NTNV	11N20SISO	Ant1	2412	2496.5~13000	-54.74	≤-26	PASS
NTNV	11N20SISO	Ant1	2442	30~2387	-53.99	≤-26	PASS
NTNV	11N20SISO	Ant1	2442	2387~2400	-50.89	≤-16	PASS
NTNV	11N20SISO	Ant1	2442	2483.5~2496.5	-49.26	≤-16	PASS
NTNV	11N20SISO	Ant1	2442	2496.5~13000	-54.19	≤-26	PASS
NTNV	11N20SISO	Ant1	2472	30~2387	-57.82	≤-26	PASS
NTNV	11N20SISO	Ant1	2472	2387~2400	-54.62	≤-16	PASS
NTNV	11N20SISO	Ant1	2472	2483.5~2496.5	-37.07	≤-16	PASS
NTNV	11N20SISO	Ant1	2472	2496.5~13000	-48.25	≤-26	PASS

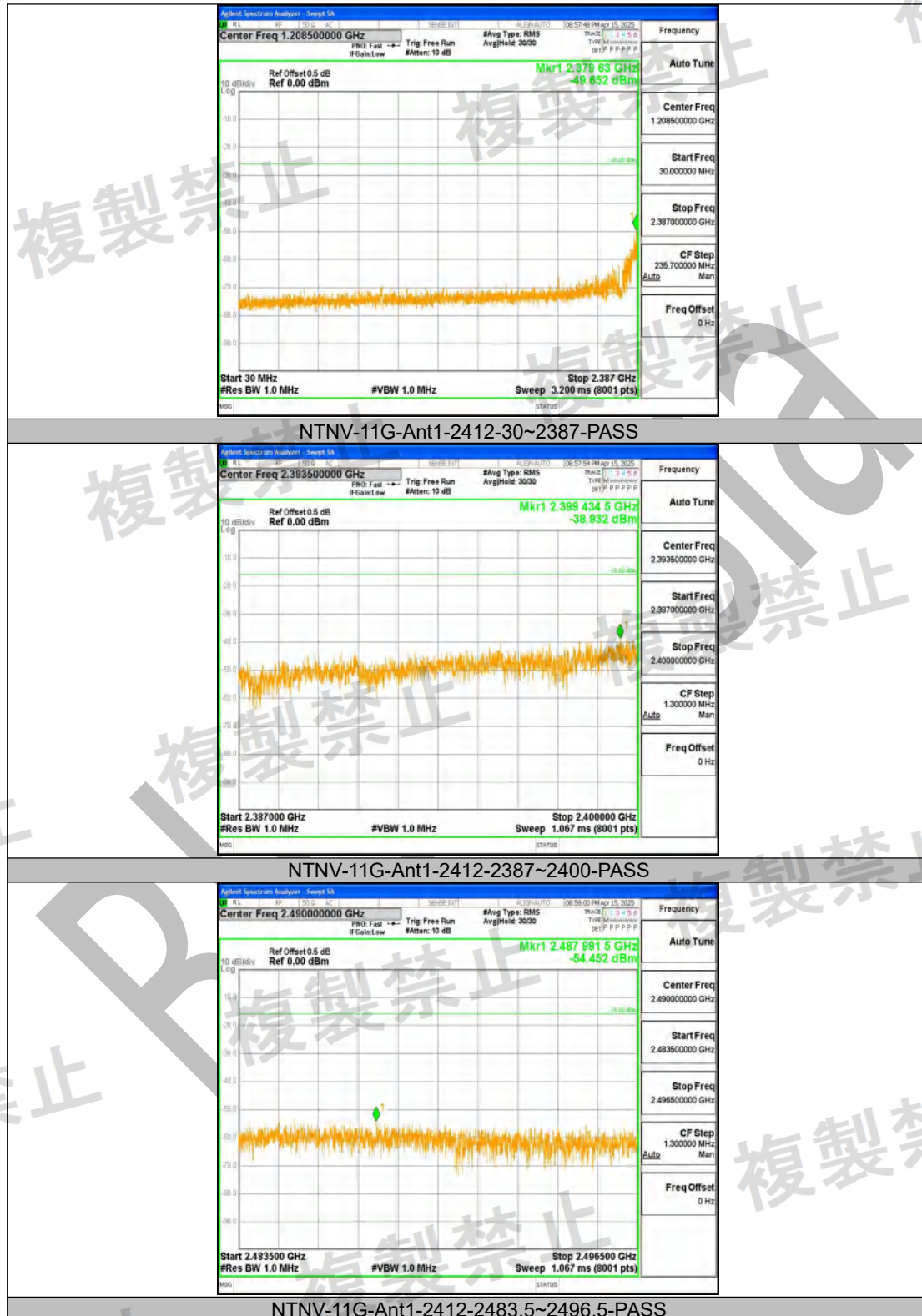
6.7.2 Test Graphs

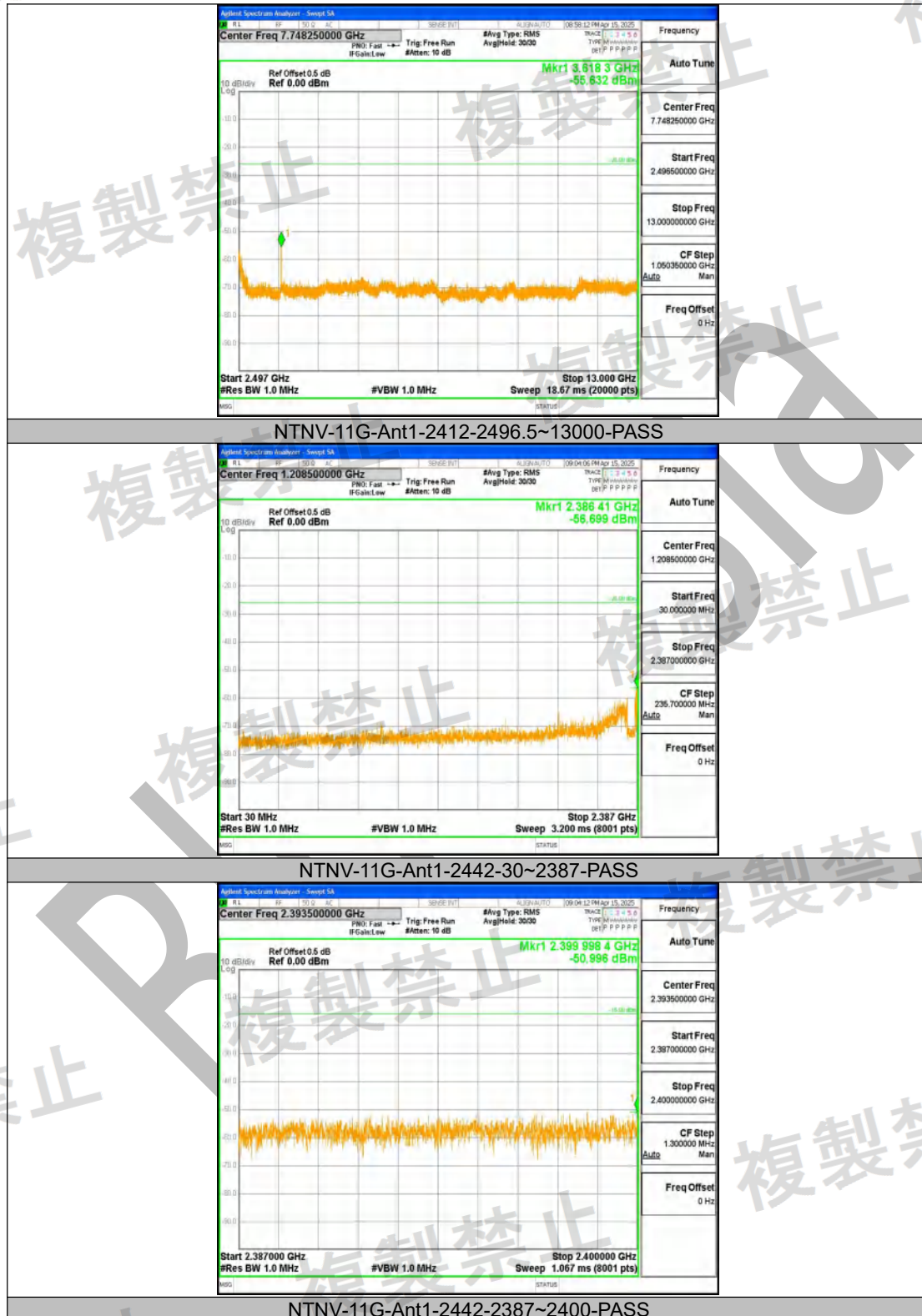


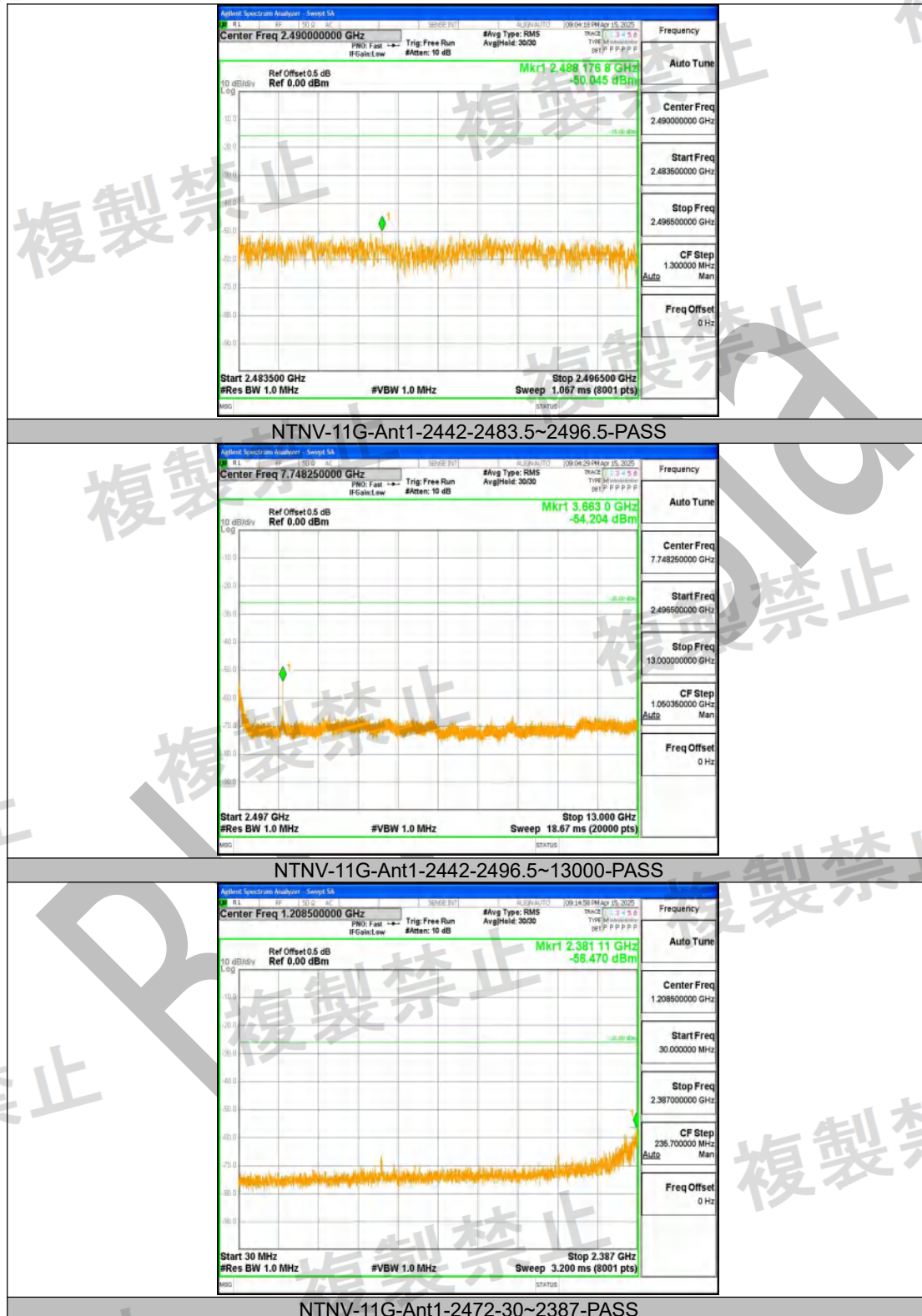


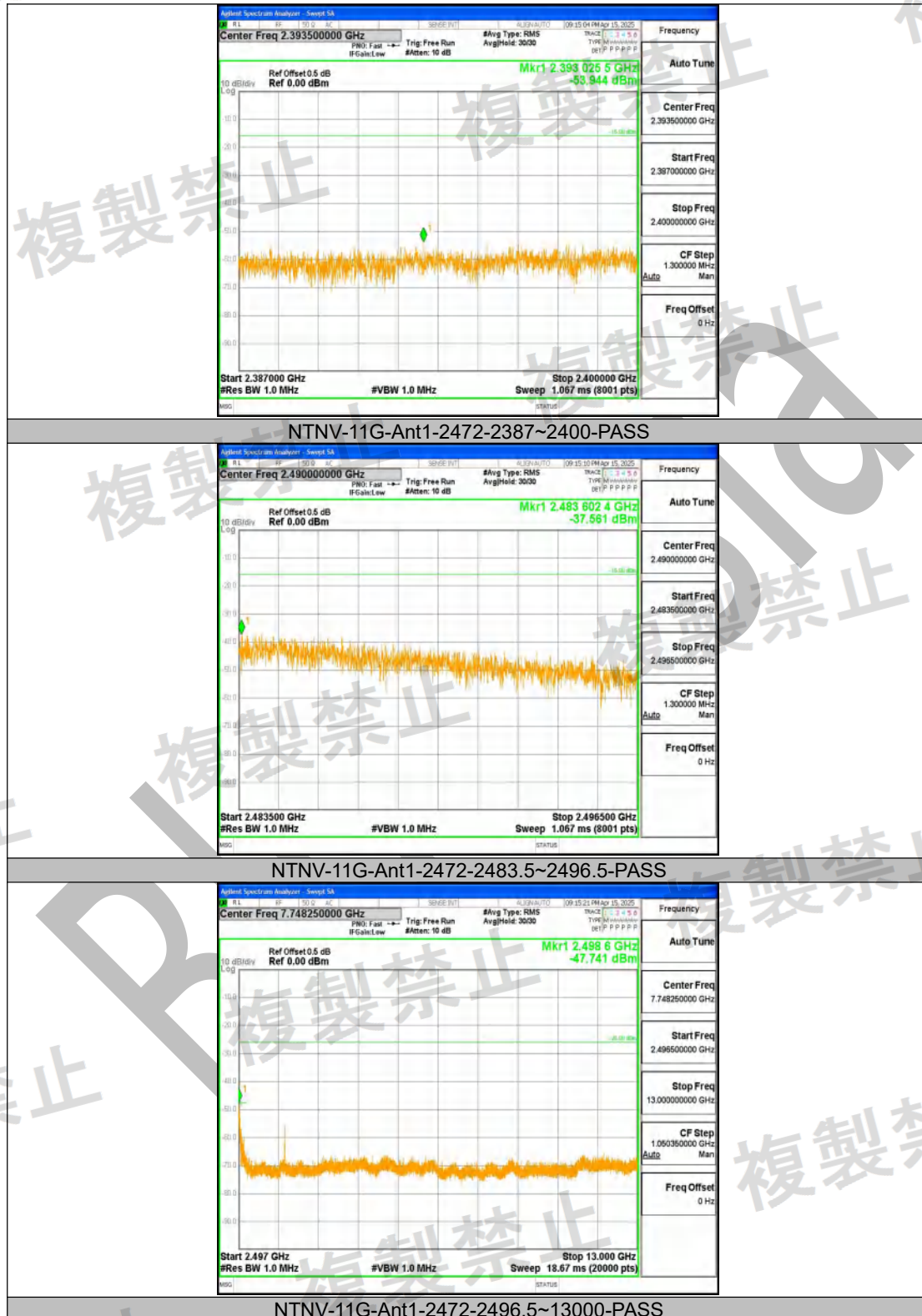


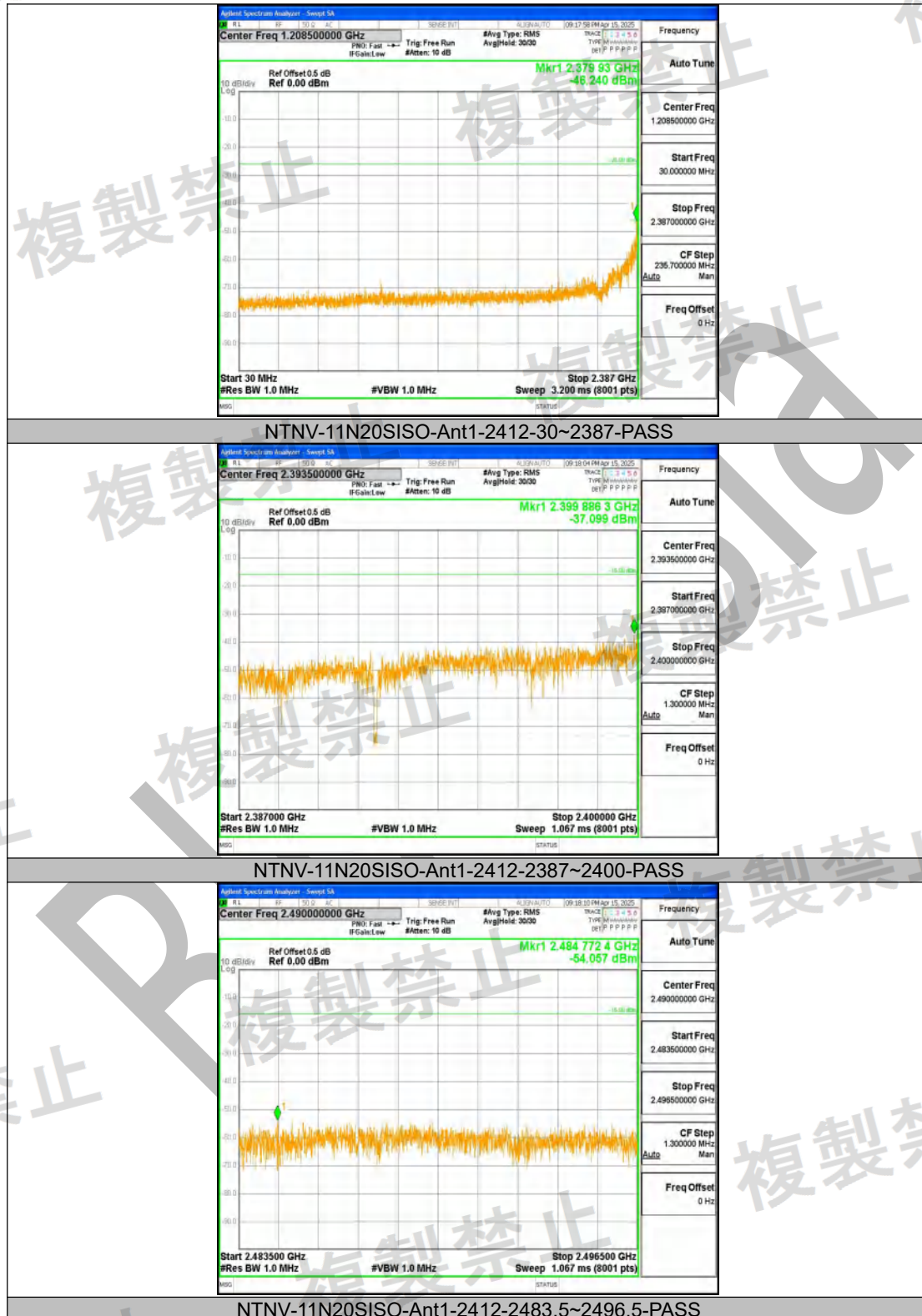


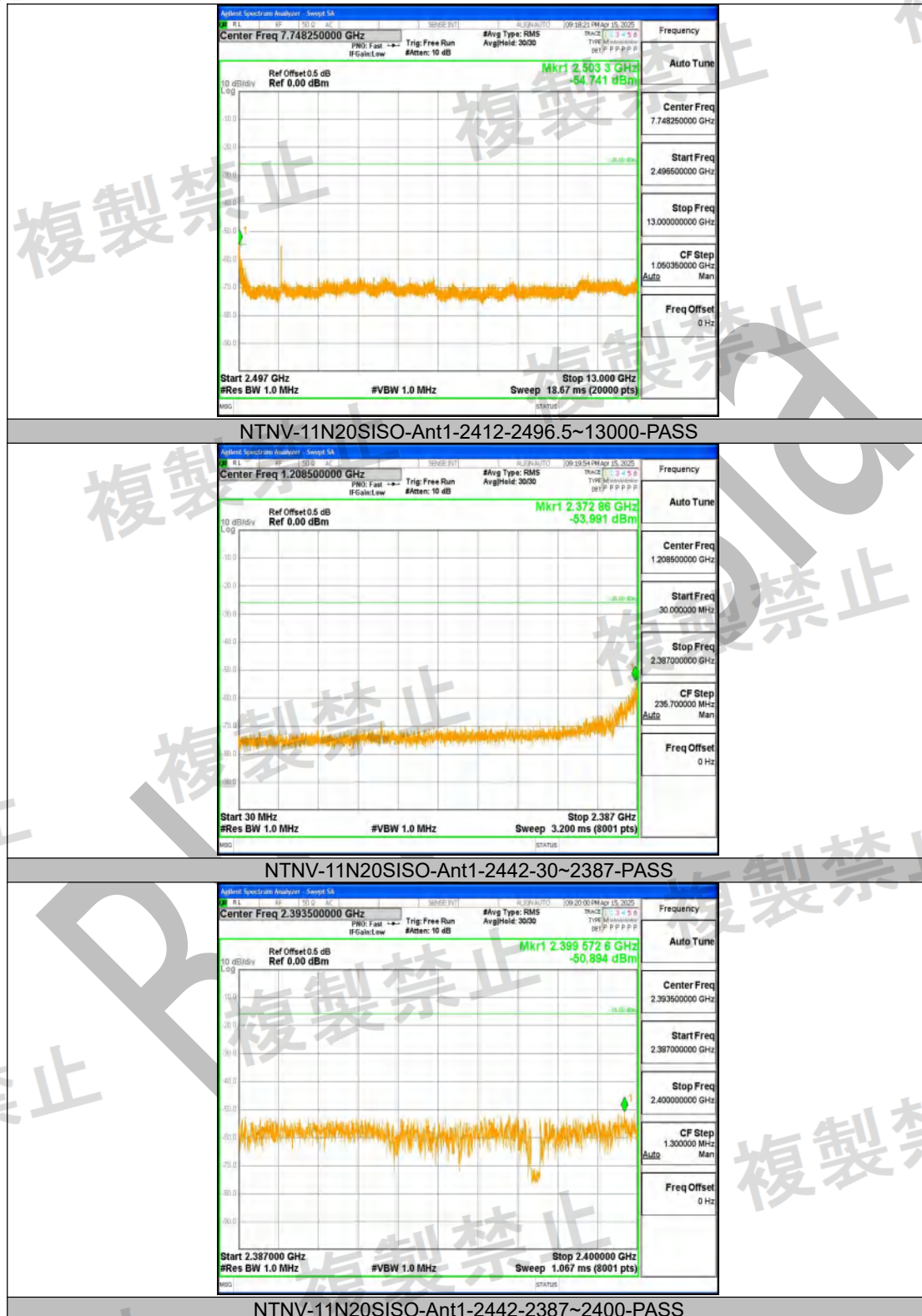


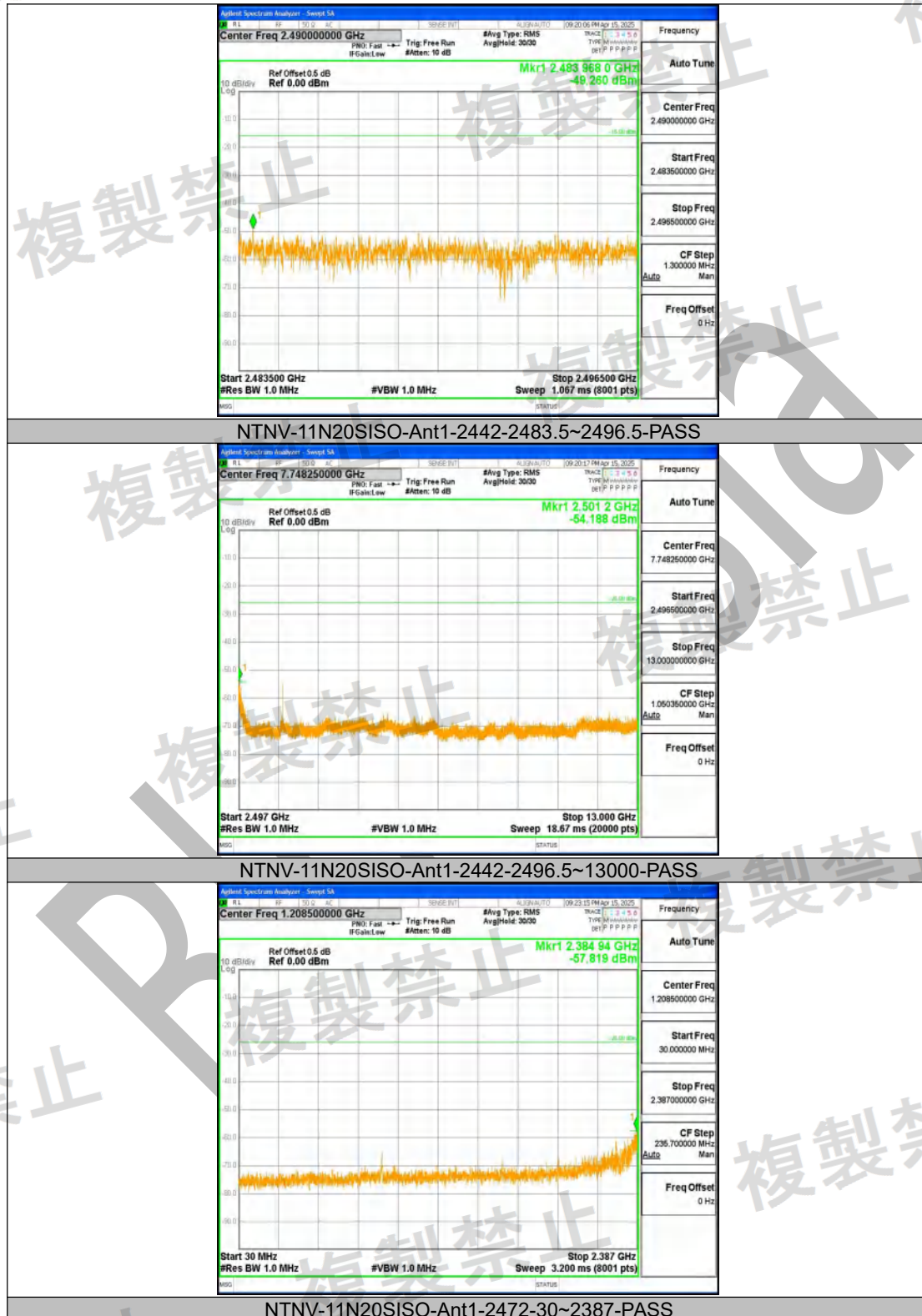


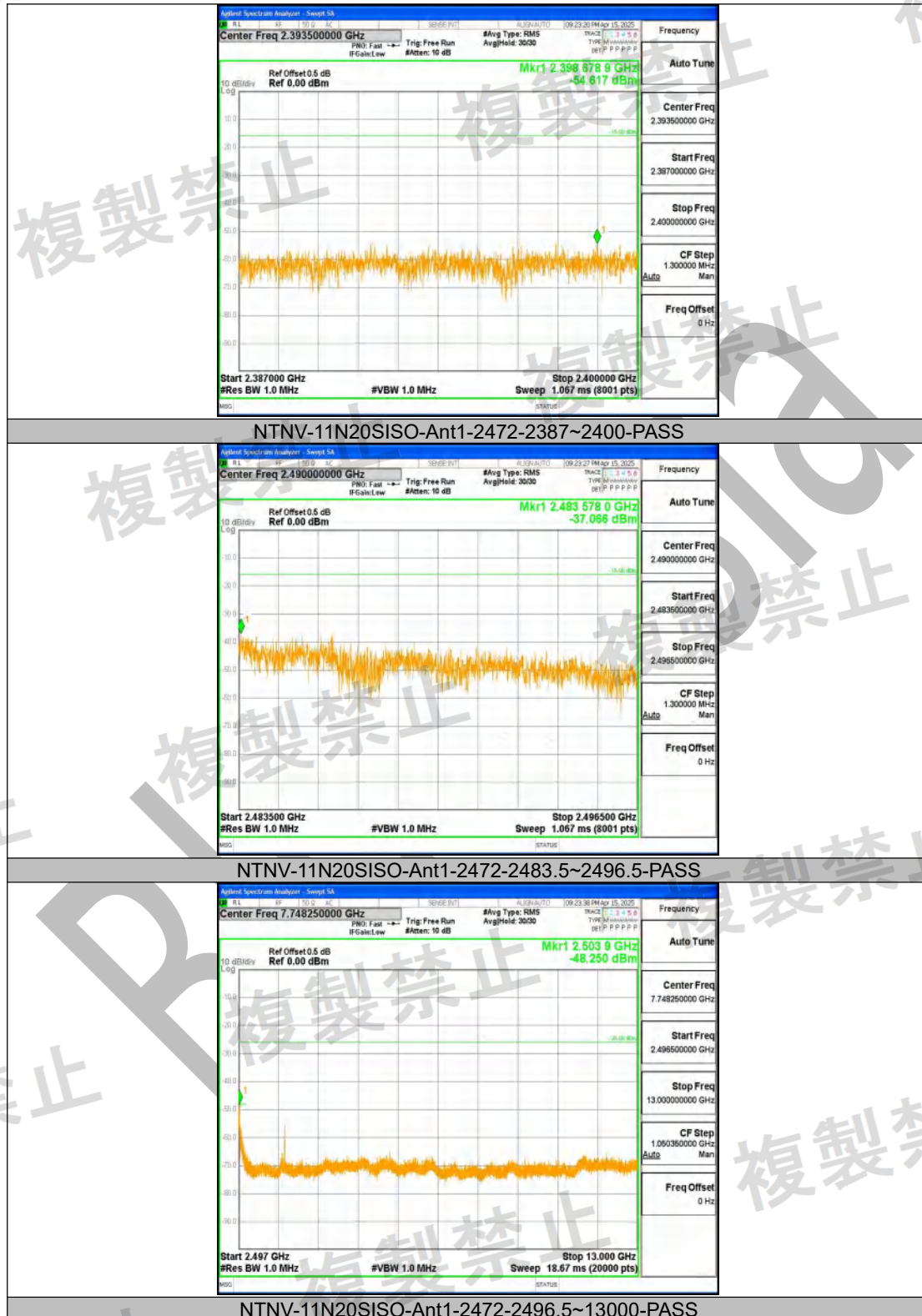












Test result: The unit does meet the requirements.

6.8 Interference prevention function

1) Measurement system diagram

(1) When transmitting identification code



2) Condition of measuring instrument

- (1) Demodulator must be able to demodulate the transmitting signal emitted by test equipment and to indicate the identification code.

3) Condition of test equipment The mode of normal use.

4) Measuring operation procedure

- (1) When test equipment has the function to transmit identification code automatically:

- A) Transmit the predetermined identification code from test equipment.
B) Confirm the transmitted identification code by demodulator.

MAC: 60D5611EF09F

MAC Address: 60D5611EF09F

5) Test result: The unit does meet the requirements (Good).

Test result: PASS

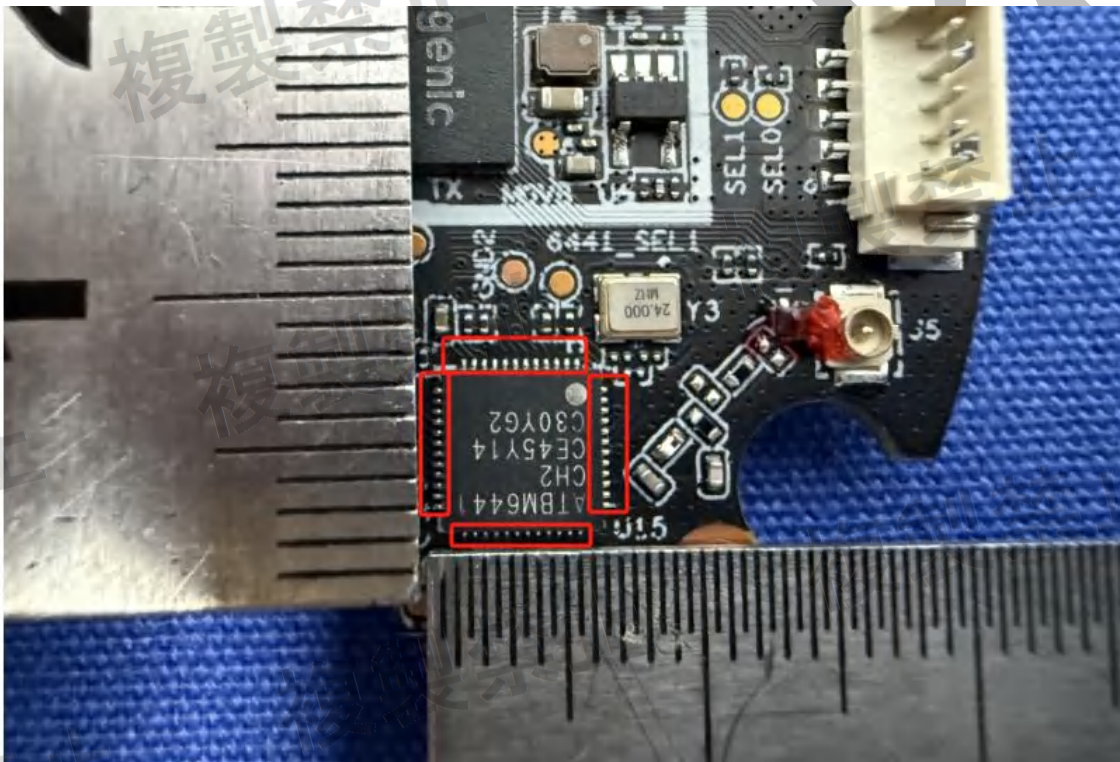
6.9 RF accessibility

Standard requirement

Article 49-20, paragraph 1 (a)

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

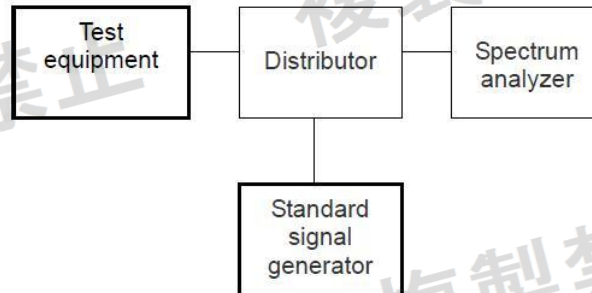
RF and Modulation parts are mounted on PCB with surface mount technology, and The product cannot be modified and once disassembled, it will not be usable. The number of IC pins is 48, with a pitch of 1mm, and the pitch is less than 1.5mm



6.10 Carrier sense capability

(1) Measurement system diagram

Test with test equipment only



(2) Condition of measuring instrument

1) Set the standard signal generator as follows:

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

Modulation: No modulation. (note1)

Output level: regulated level on antenna input of test equipment

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

2) Set the spectrum analyzer as follows:

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

Sweep frequency band: 50MHz (note2)

Resolution bandwidth: Approximately 1 MHz

Video bandwidth: Comparable level with resolution bandwidth

Trigger condition: Free-run

Detective mode: positive peak

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

(3) Condition of test equipment

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

(4) Measuring operation procedure

1) Test with test equipment only:

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

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

C) Set the test equipment to the receiving mode.

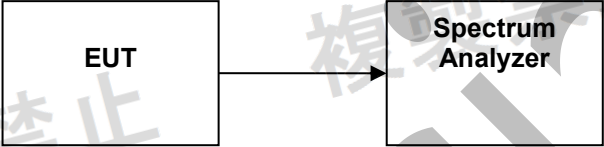
D) With the output of standard signal generator ON, set the test equipment to the transmitting operation, and confirm that it does not emit over 26MHz occupied frequency bandwidth OFDM radio wave, by using spectrum analyzer.

Test result

N/A (Application to transmitting devices with OFDM modulation and the occupied bandwidth greater than 26MHz. Not applicable to this product.)

7 Receiver Requirements

7.1 Spurious Emissions of Rx

Test Requirement:	Item 19 of Article 2 Paragraph 1
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	 <pre> graph LR EUT[EUT] --> SA[Spectrum Analyzer] </pre>
Test Procedure	
Test Conditions:	Spectrum Analyzer is used for measurement.
EUT conditions:	Modulation/Spread/Hopping ON For equipment using diffusion code, set to the test diffusion code and modulate with standard coding test signal.
Spectrum Analyzer conditions:	Step1 All spurious are measured from 30MHz to 13 GHz by peak mode. Test setup for Step 1: Frequency: 30MHz – 2400MHz , 2483.5MHz –13GHz (for 2412MHz-2472MHz) Frequency: 30MHz – 2471MHz , 2497MHz – 13GHz(for 2484MHz) RBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz) VBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz) Sweep Time Auto detector mode Positive peak Indication mode Max hold Step2 IF the value measured by Step1 is exceed the limit of 1/10, measure in average mode. Test setup for Step 2: Frequency: Spurious Frequency Span 0 Hz RBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz) VBW 100 kHz (30 – 1GHz) , 1 MHz (over 1GHz) Sweep Time Auto detector mode Sample Indication mode Max hold
Technical standard:	(1) Below 1 GHz : 4 n W (-54dBm) (2) 1 GHz and over : 20 n W (-47dBm)
Test result:	PASS

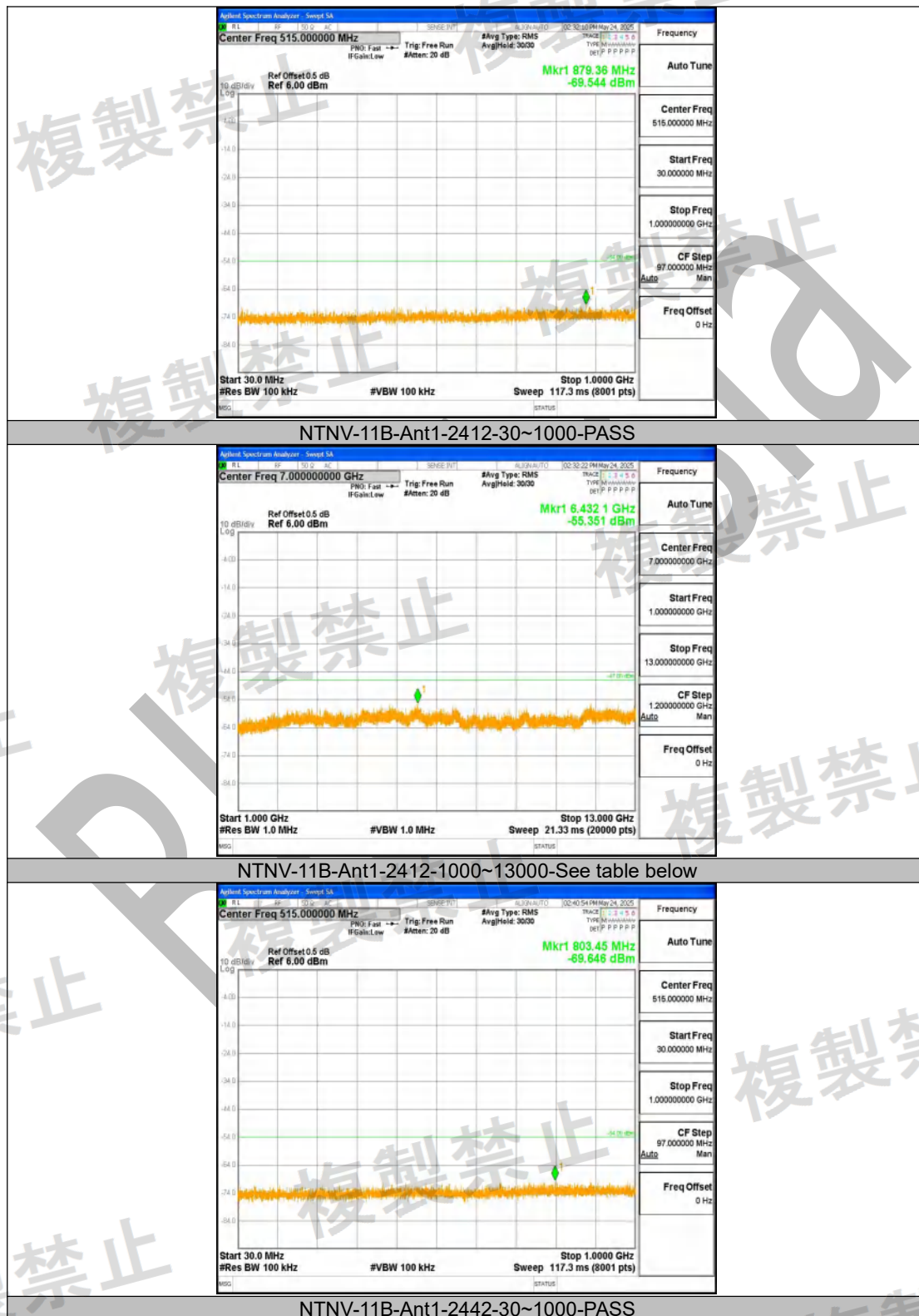
7.1.1 Test Result

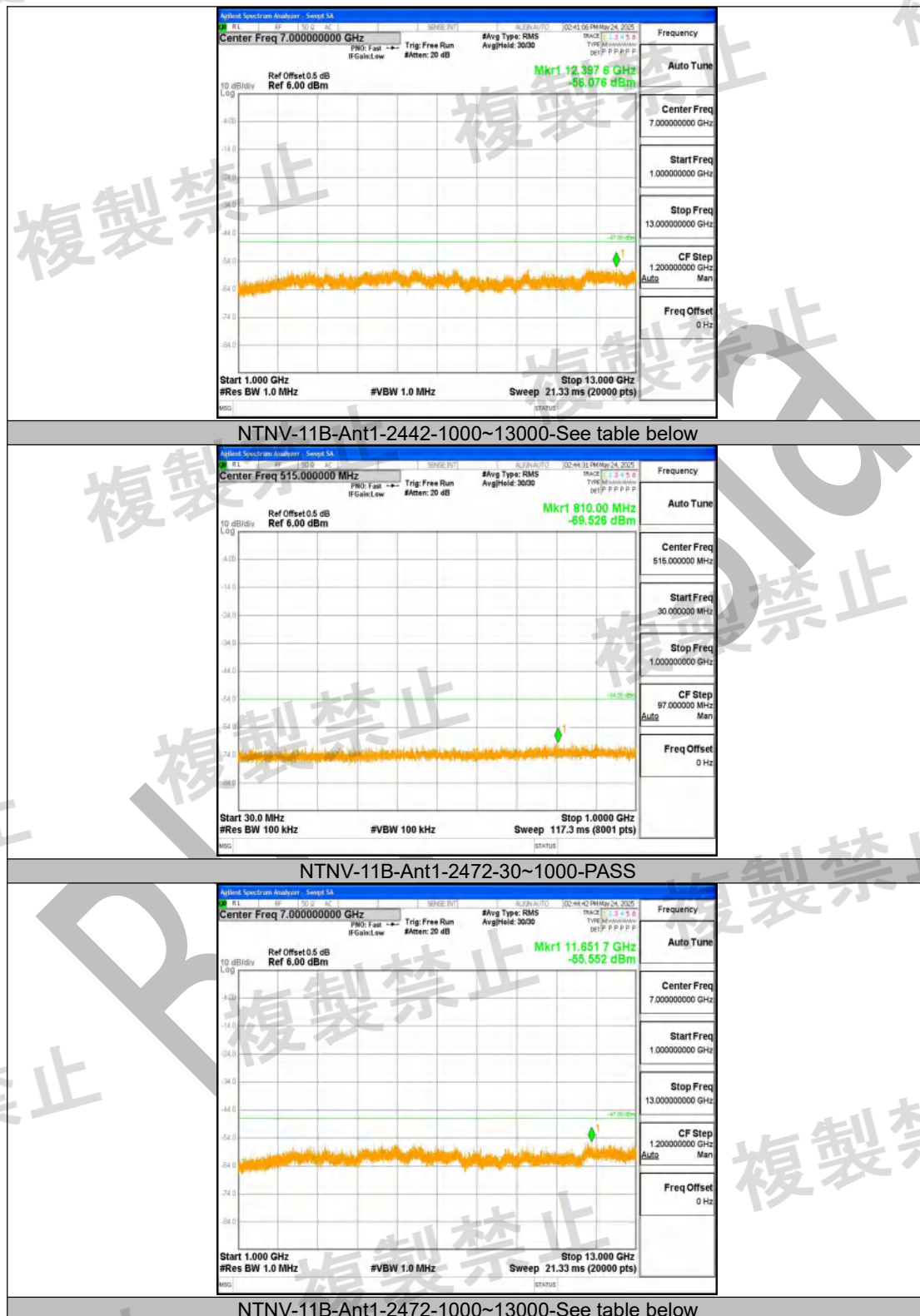
TestCondition	TestMode	Antenna	Frequency[MHz]	Freq.Range [MHz]	Result [dBm]	Limit [dBm]	Verdict
NTNV	11B	Ant1	2412	30~1000	-69.54	≤-54	PASS
NTNV	11B	Ant1	2412	1000~13000	-55.35	≤-47	See table below
NTNV	11B	Ant1	2442	30~1000	-69.65	≤-54	PASS
NTNV	11B	Ant1	2442	1000~13000	-56.08	≤-47	See table below
NTNV	11B	Ant1	2472	30~1000	-69.53	≤-54	PASS
NTNV	11B	Ant1	2472	1000~13000	-55.55	≤-47	See table below
NTNV	11G	Ant1	2412	30~1000	-68.47	≤-54	PASS
NTNV	11G	Ant1	2412	1000~13000	-55.08	≤-47	See table below
NTNV	11G	Ant1	2442	30~1000	-69.81	≤-54	PASS
NTNV	11G	Ant1	2442	1000~13000	-55.39	≤-47	See table below
NTNV	11G	Ant1	2472	30~1000	-69.27	≤-54	PASS
NTNV	11G	Ant1	2472	1000~13000	-55.22	≤-47	See table below
NTNV	11N20SISO	Ant1	2412	30~1000	-69.24	≤-54	PASS
NTNV	11N20SISO	Ant1	2412	1000~13000	-55.68	≤-47	See table below
NTNV	11N20SISO	Ant1	2442	30~1000	-68.74	≤-54	PASS
NTNV	11N20SISO	Ant1	2442	1000~13000	-50.87	≤-47	See table below
NTNV	11N20SISO	Ant1	2472	30~1000	-69.26	≤-54	PASS
NTNV	11N20SISO	Ant1	2472	1000~13000	-48.82	≤-47	See table below

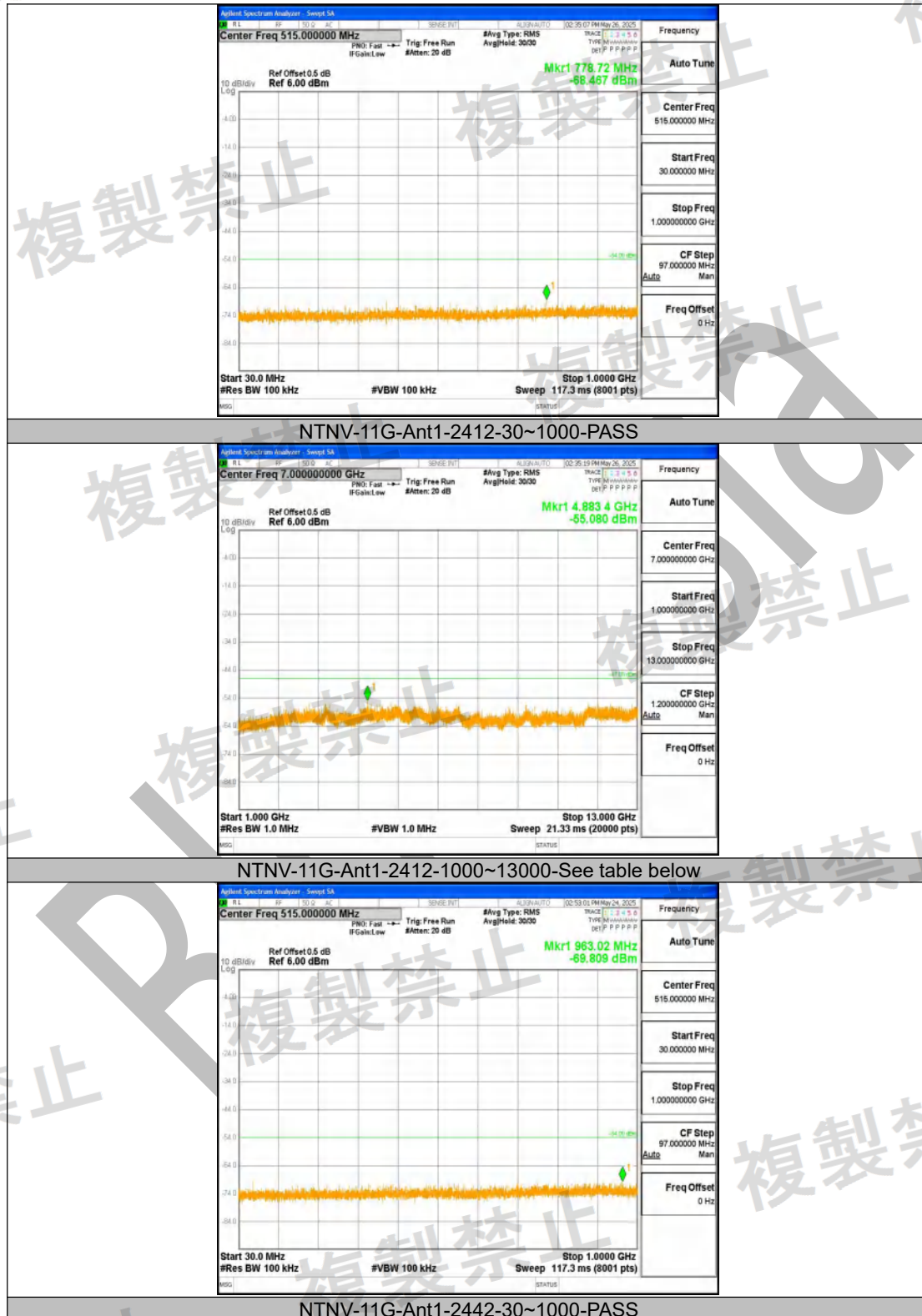
7.1.2 Test Result_Step2

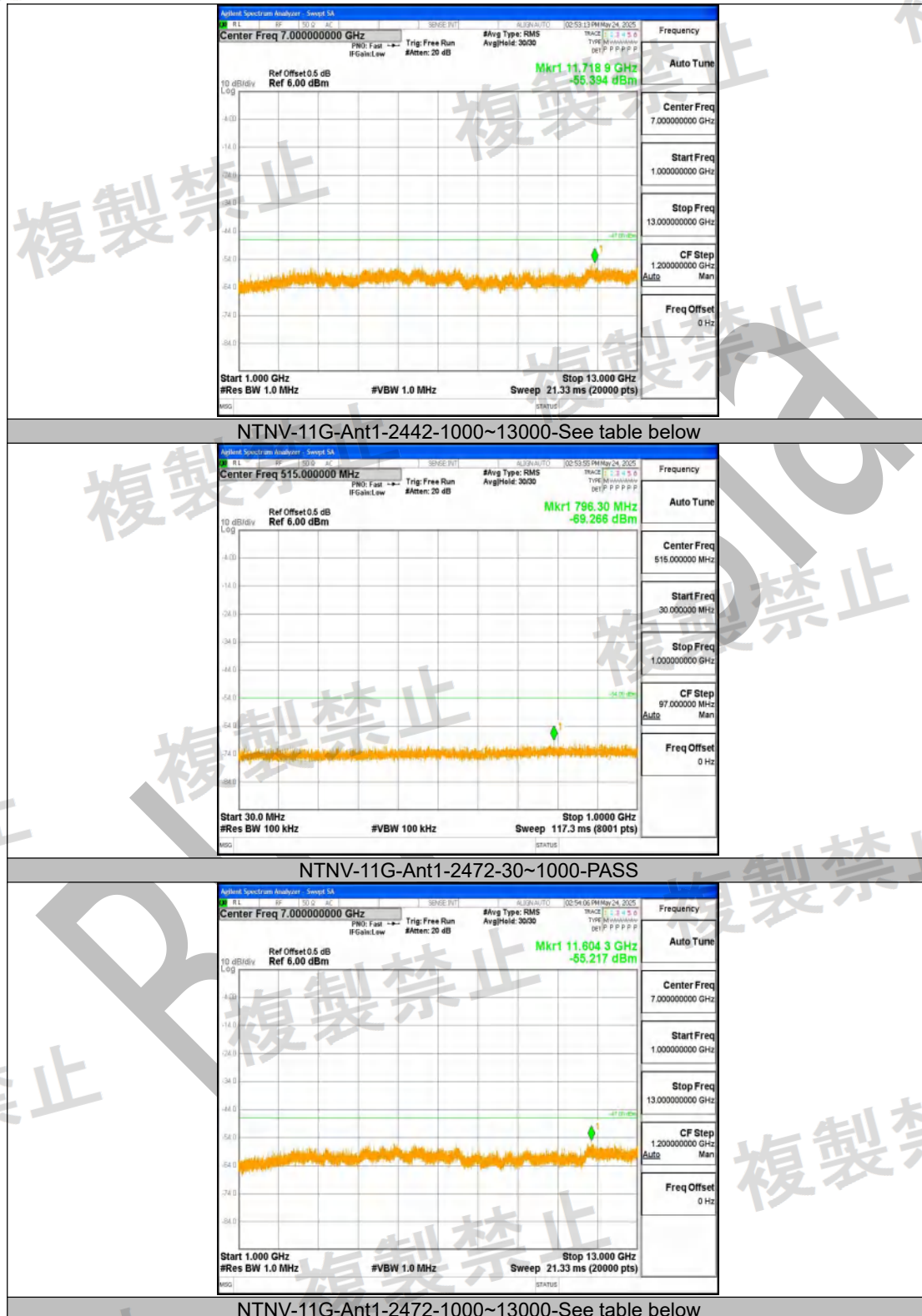
TestCondition	TestMode	Antenna	Frequency[MHz]	Freq. [MHz]	Result [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	11B	Ant1	2412	1000~13000	-63.15	0.48417	≤20	PASS
NTNV	11B	Ant1	2442	1000~13000	-89.10	0.00123	≤20	PASS
NTNV	11B	Ant1	2472	1000~13000	-88.86	0.00130	≤20	PASS
NTNV	11G	Ant1	2412	1000~13000	-89.24	0.00119	≤20	PASS
NTNV	11G	Ant1	2442	1000~13000	-89.03	0.00125	≤20	PASS
NTNV	11G	Ant1	2472	1000~13000	-88.63	0.00137	≤20	PASS
NTNV	11N20SISO	Ant1	2412	1000~13000	-89.11	0.00123	≤20	PASS
NTNV	11N20SISO	Ant1	2442	1000~13000	-55.68	2.70396	≤20	PASS
NTNV	11N20SISO	Ant1	2472	1000~13000	-67.75	0.16788	≤20	PASS

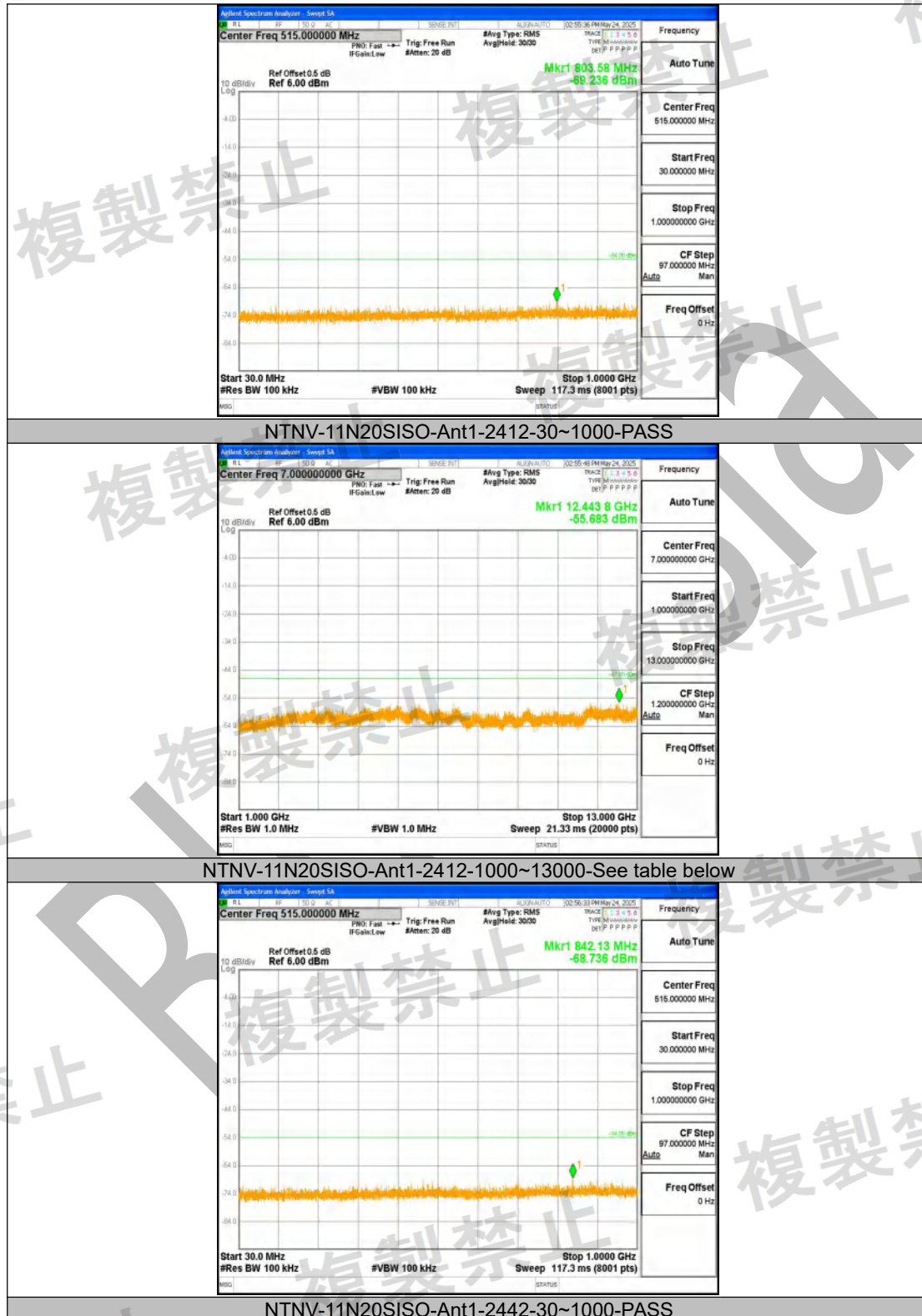
7.1.3 Test Graphs

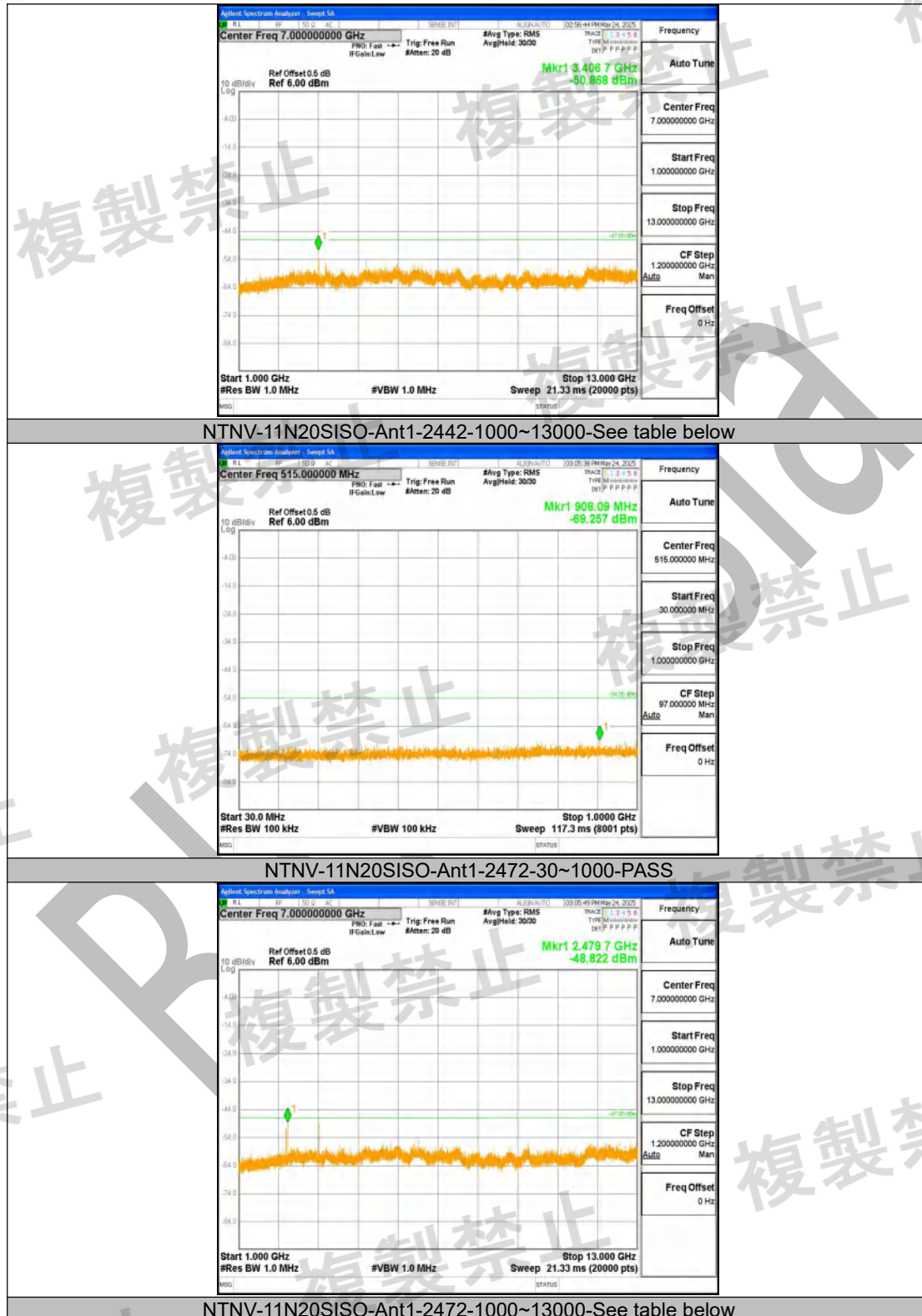




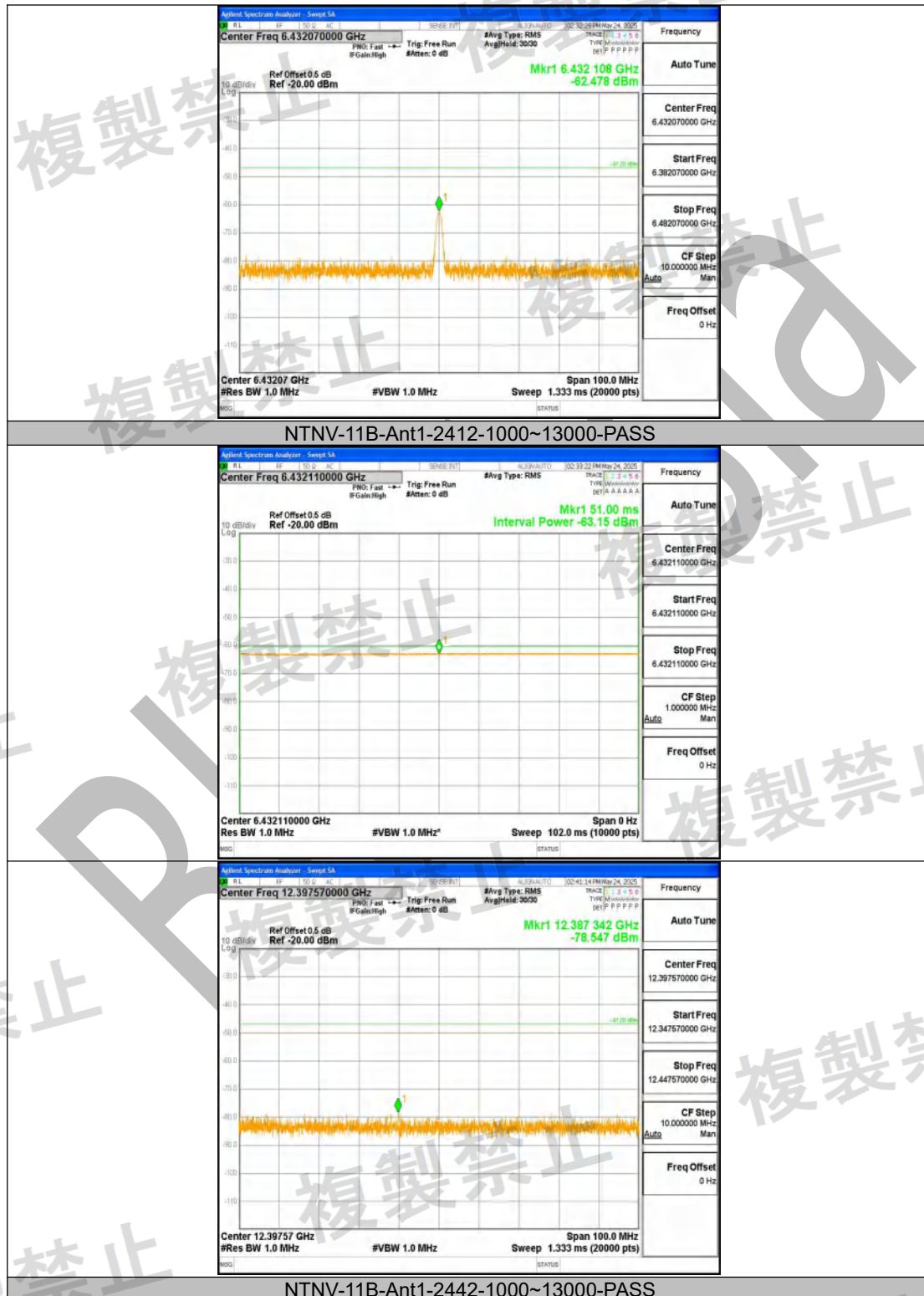


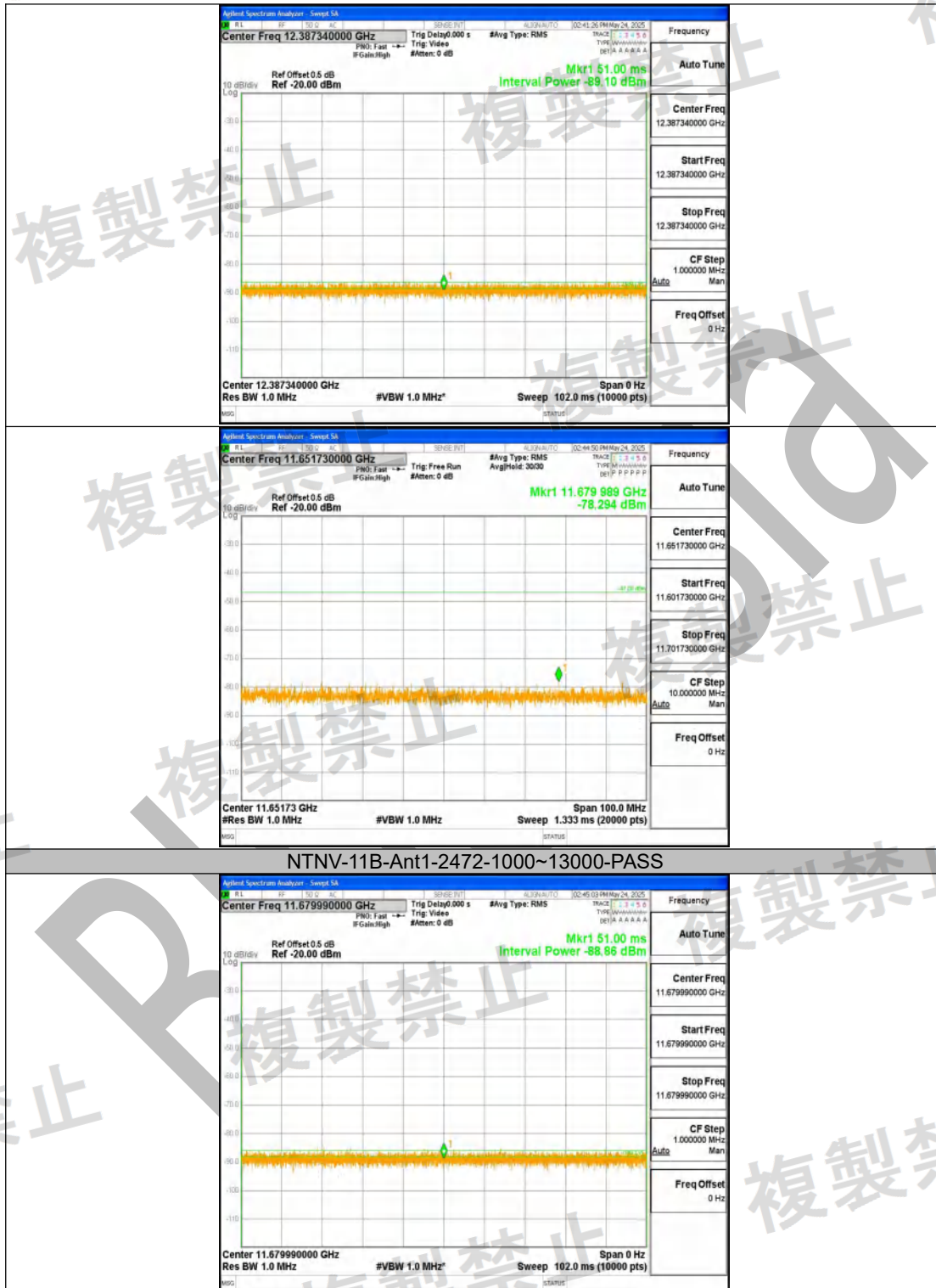


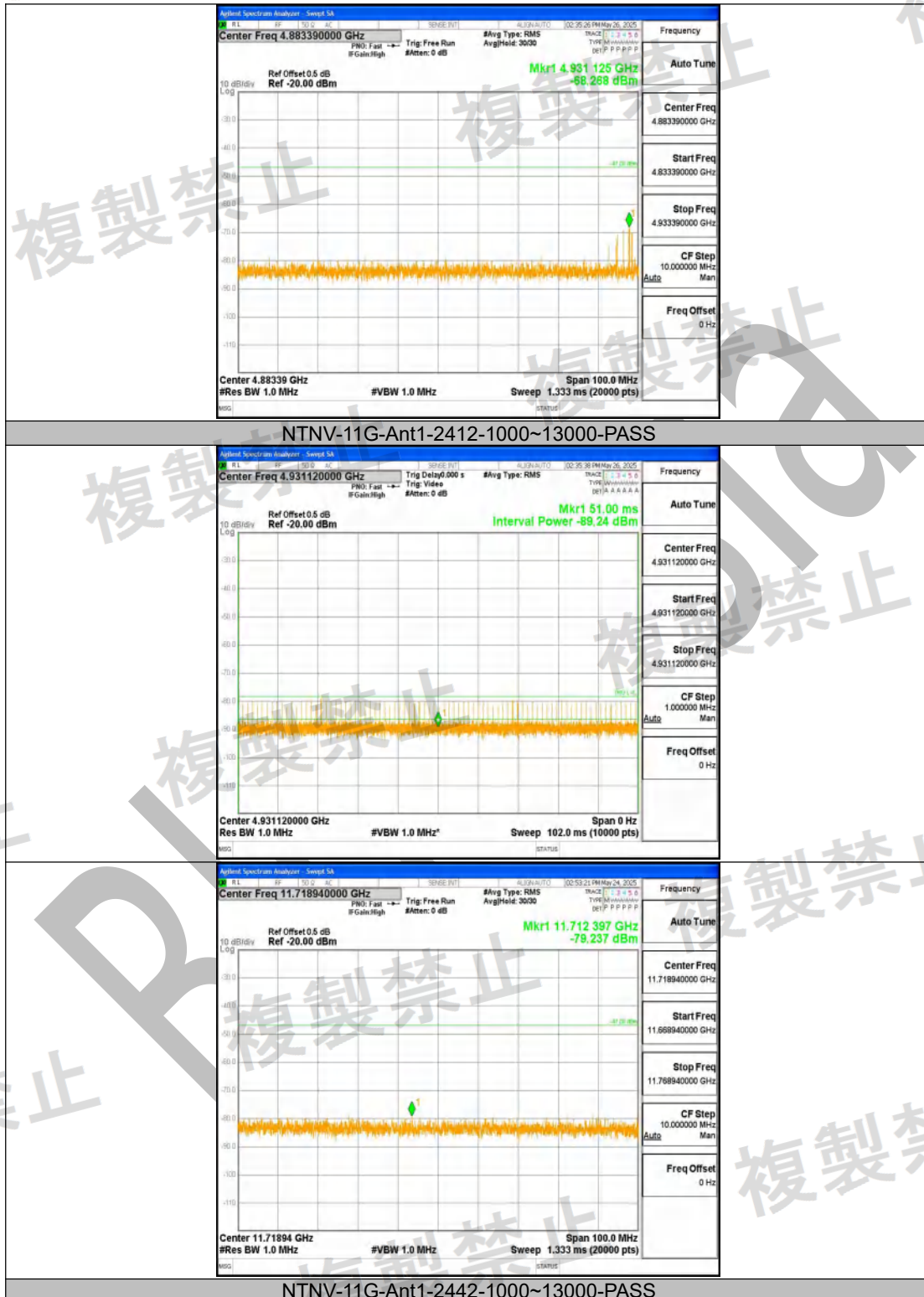


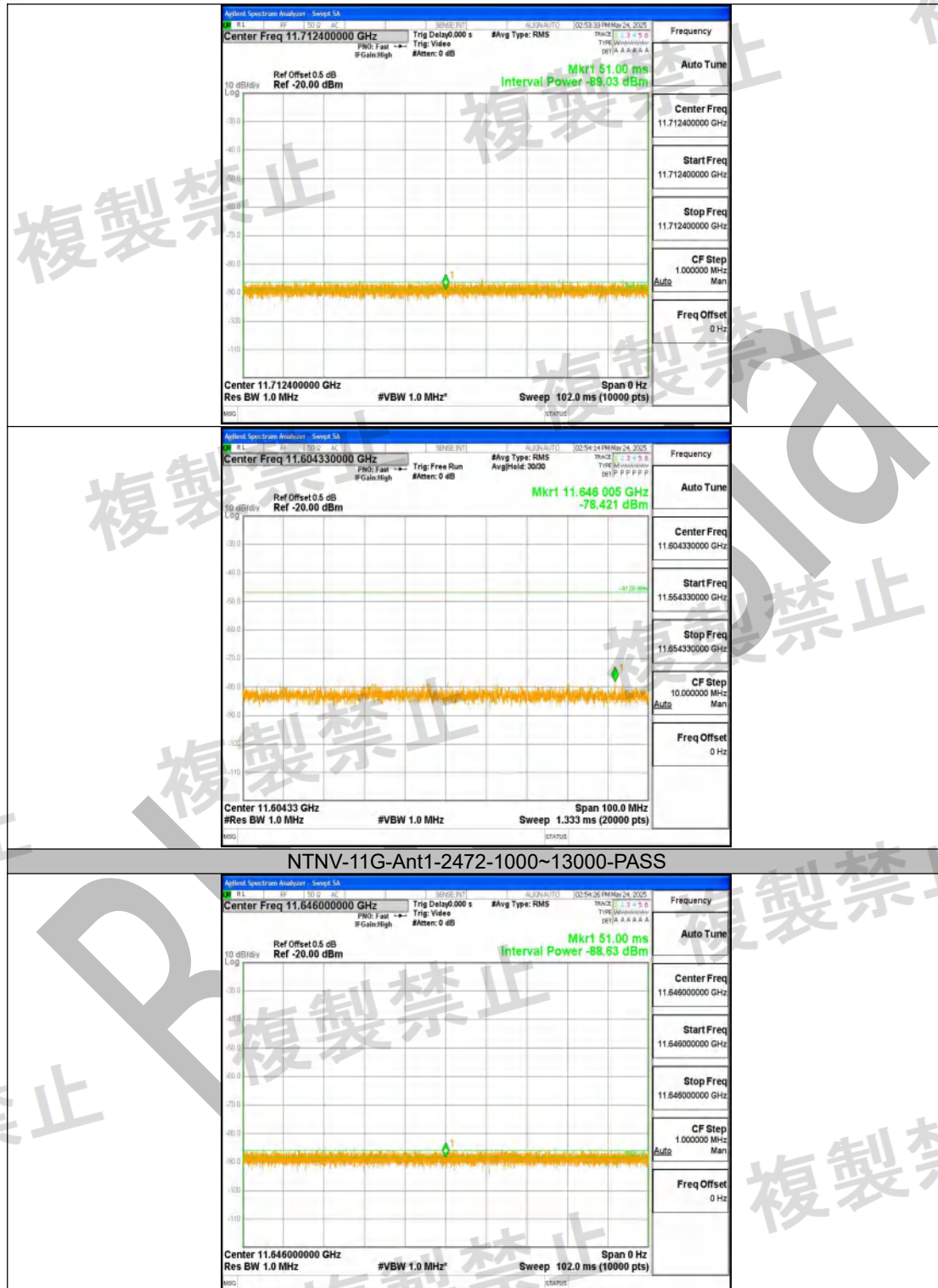


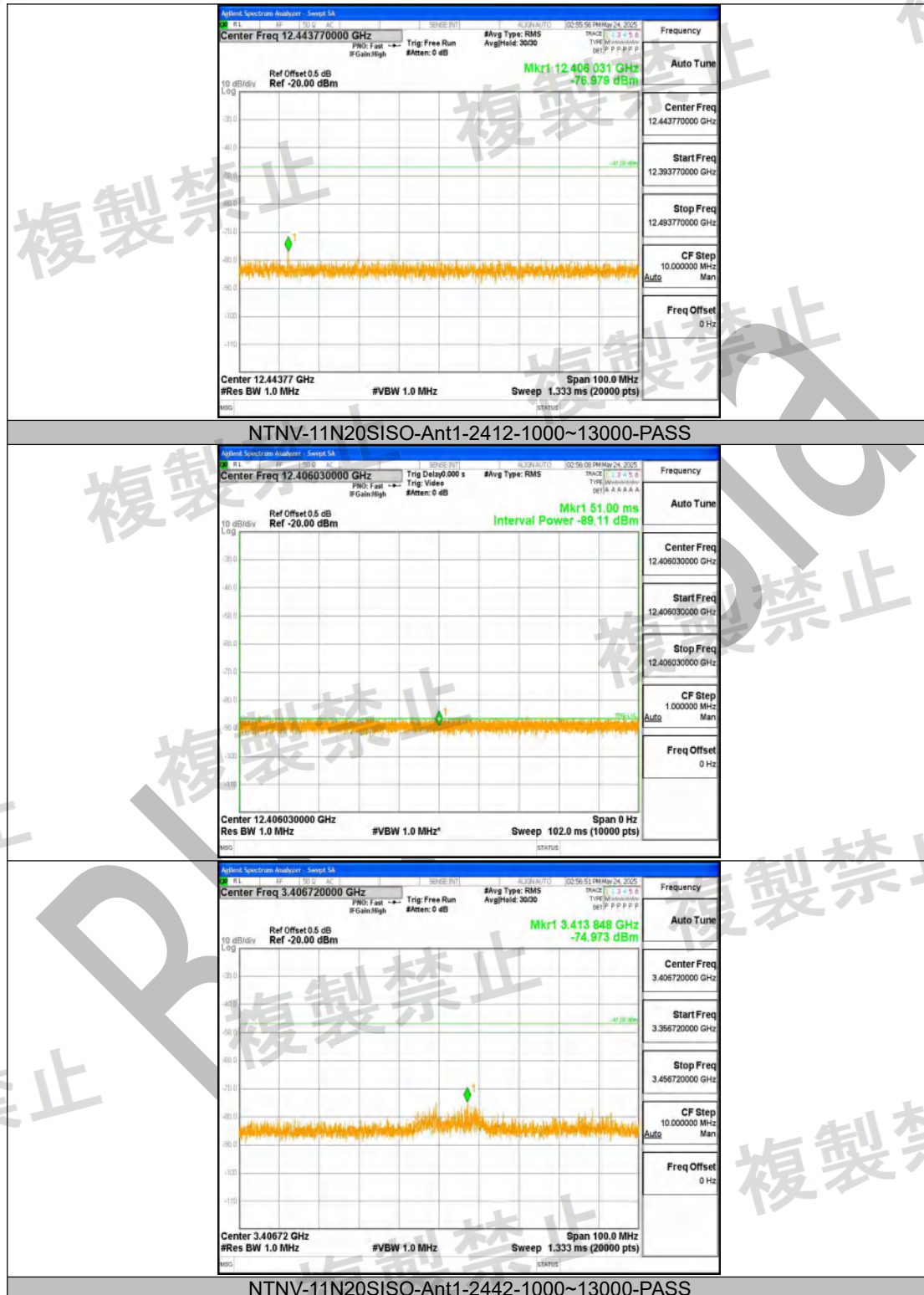
7.1.4 Test Graphs_Step2

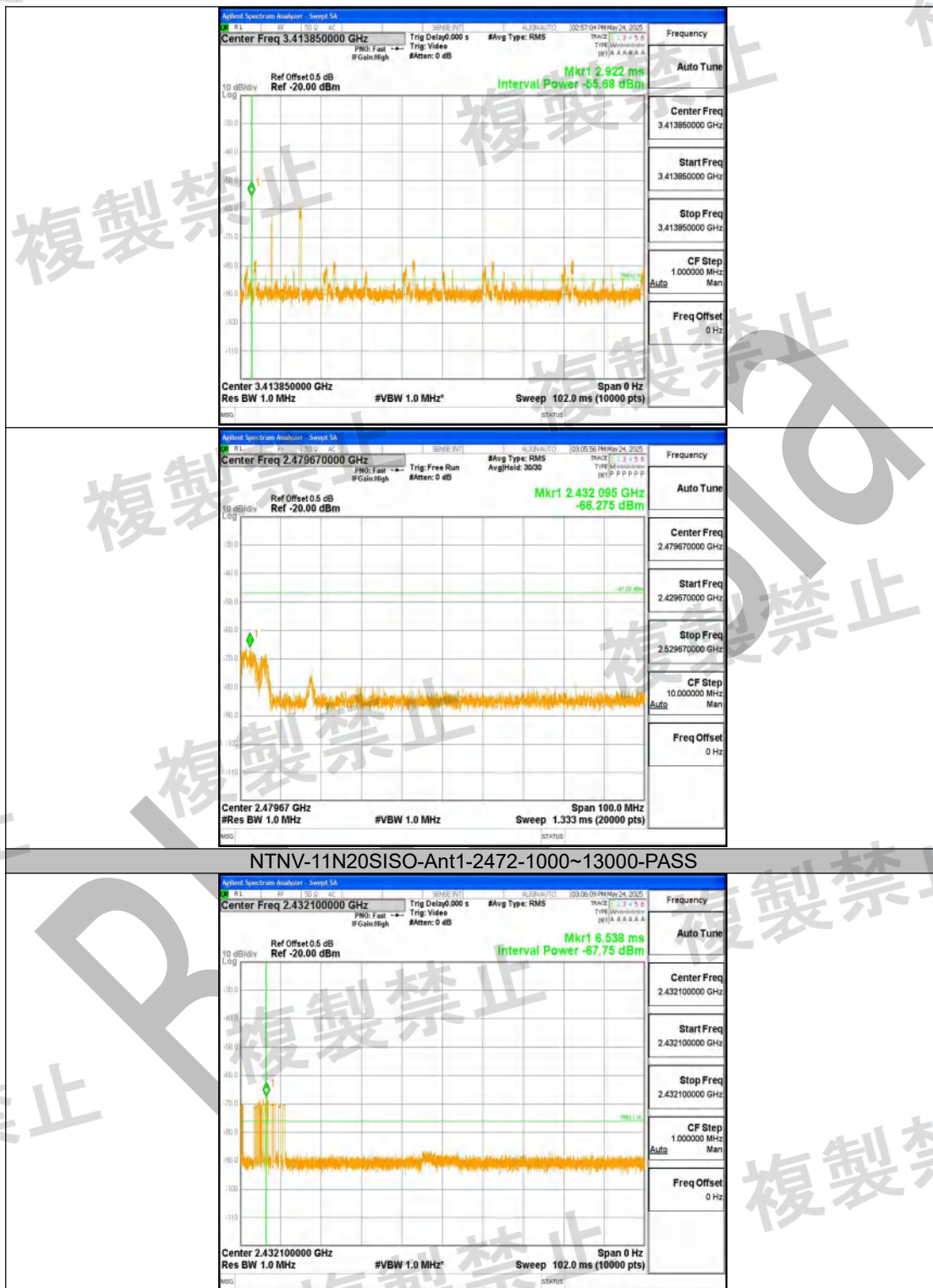












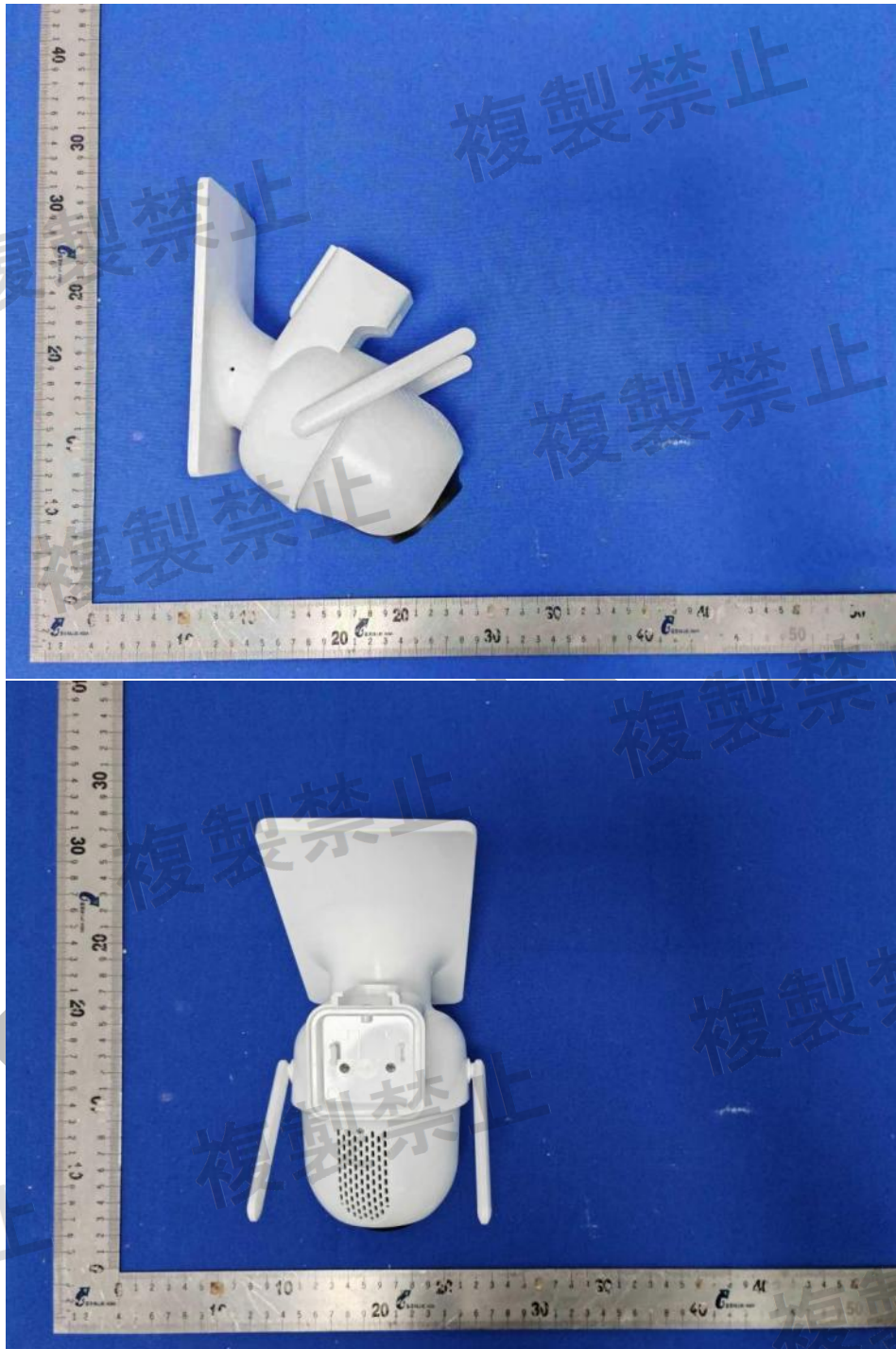
8 Test setup photo

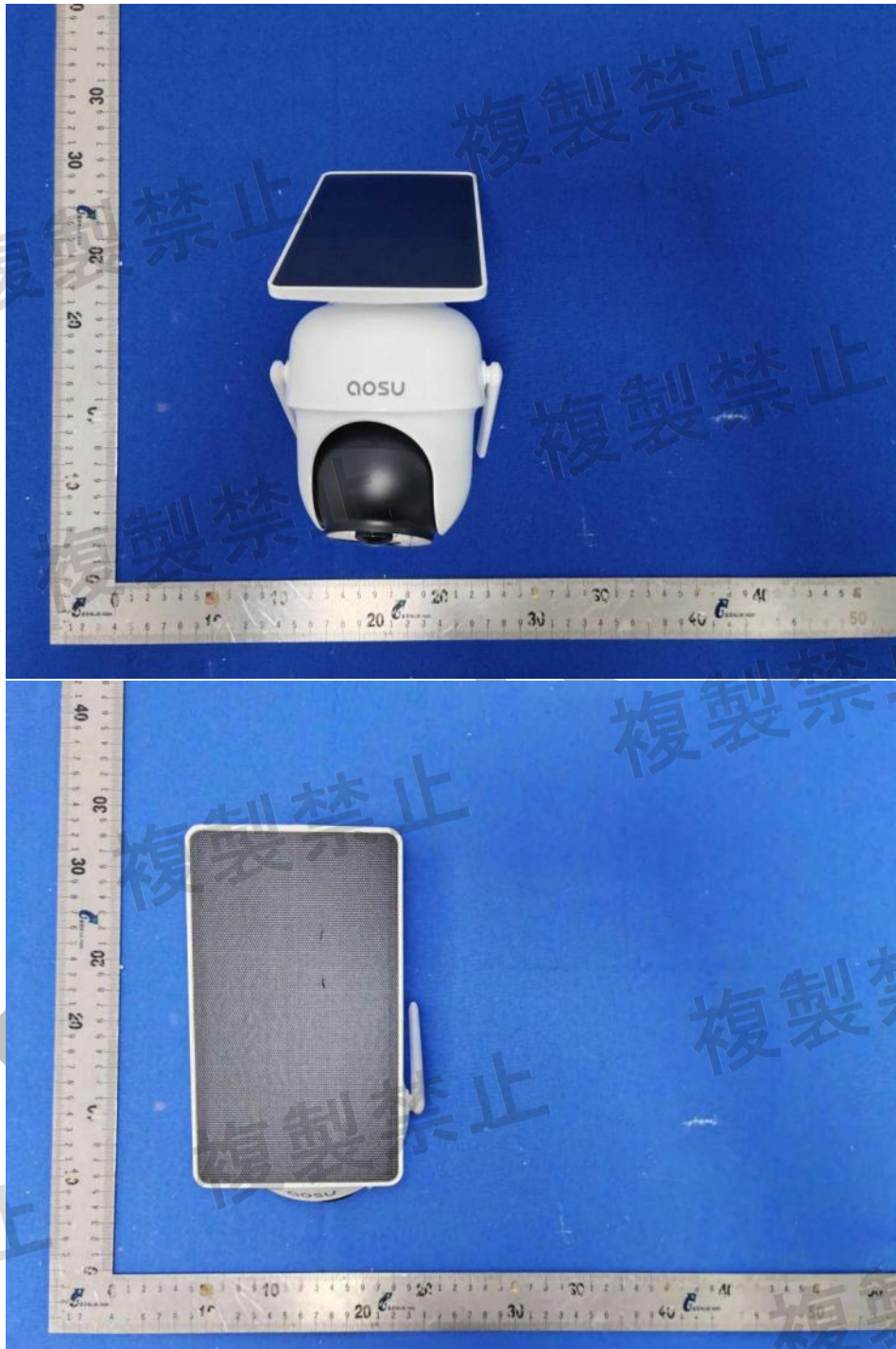


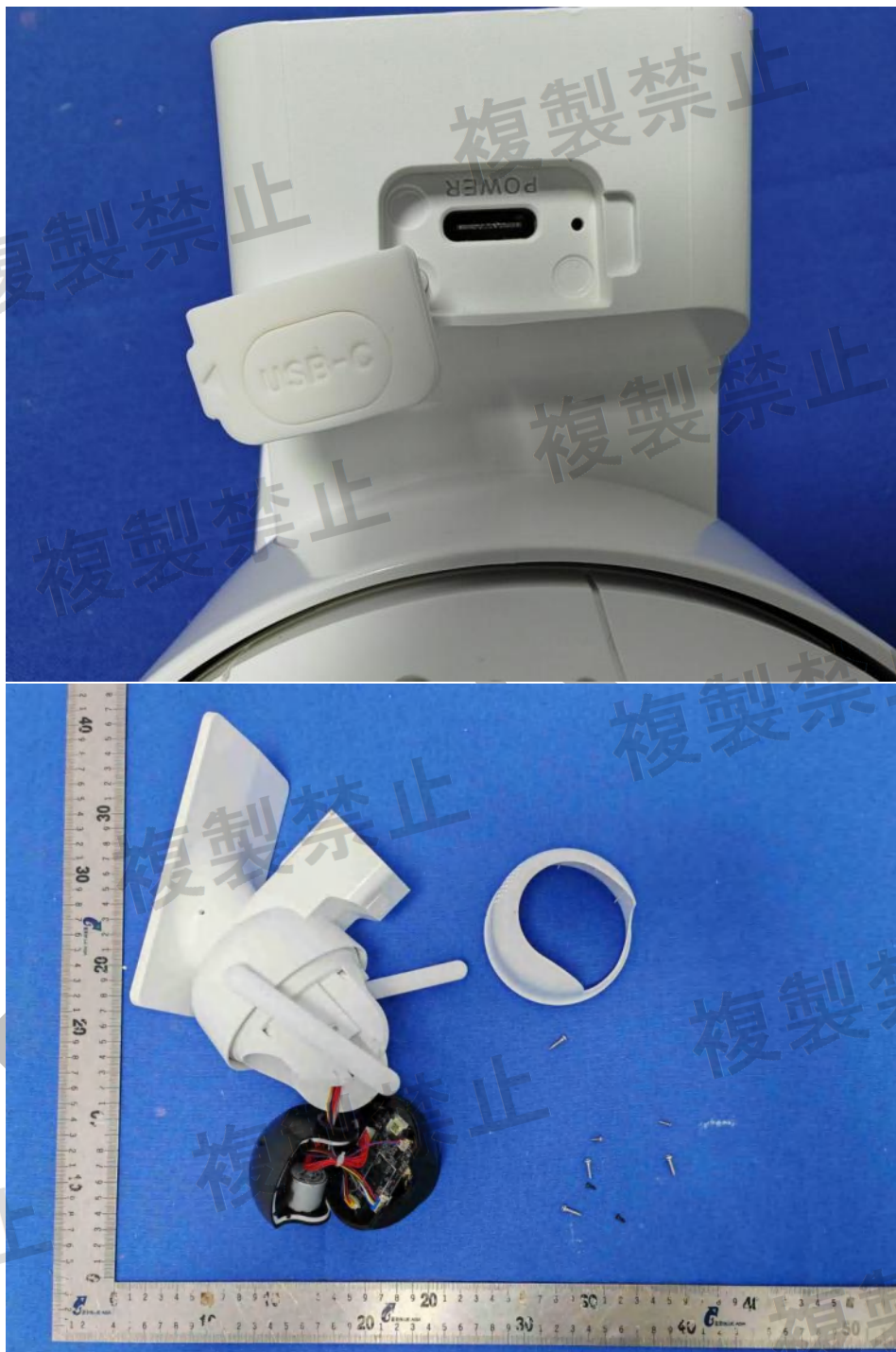
9 Photographs

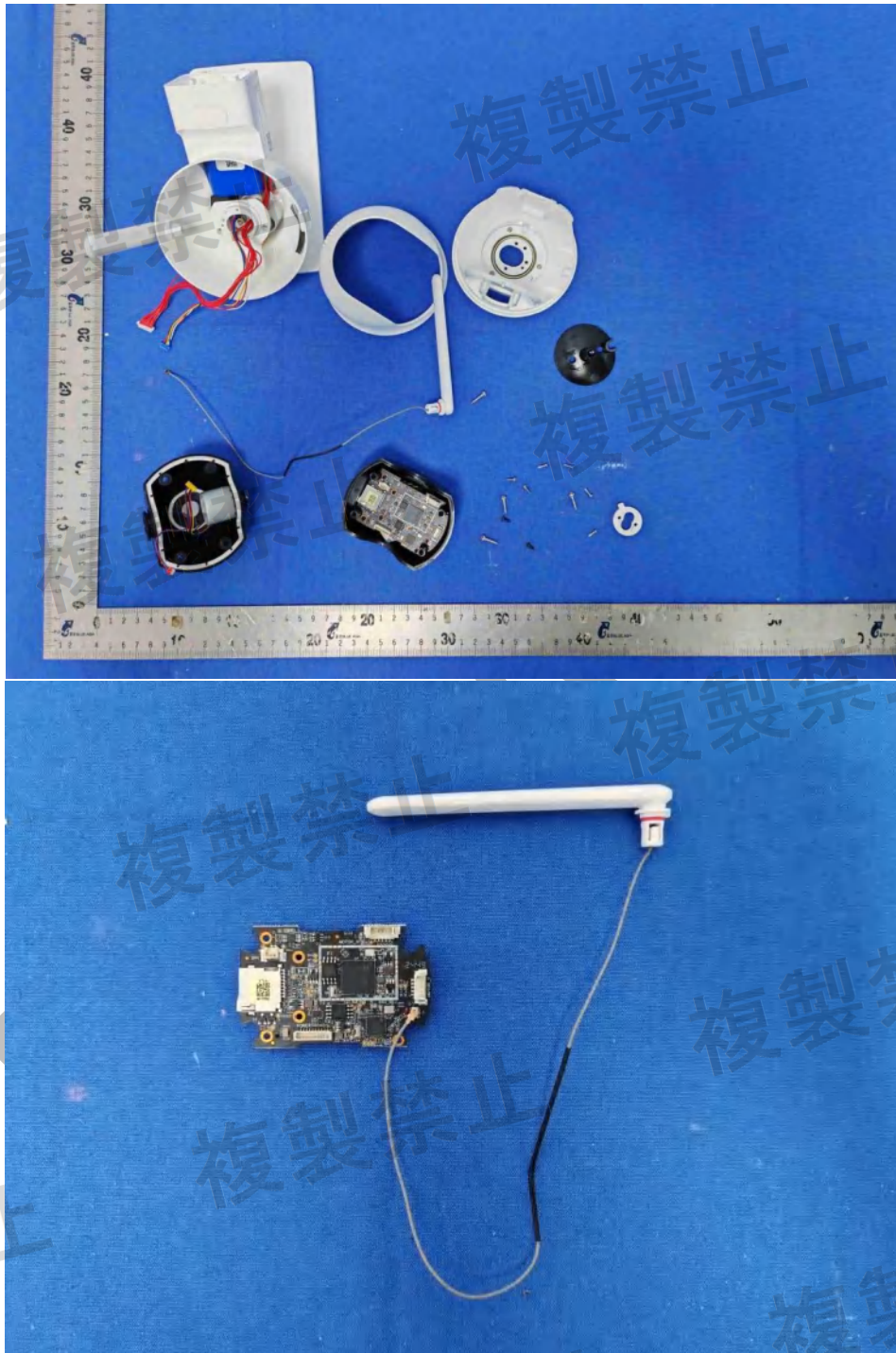
9.1 EUT Constructional Details

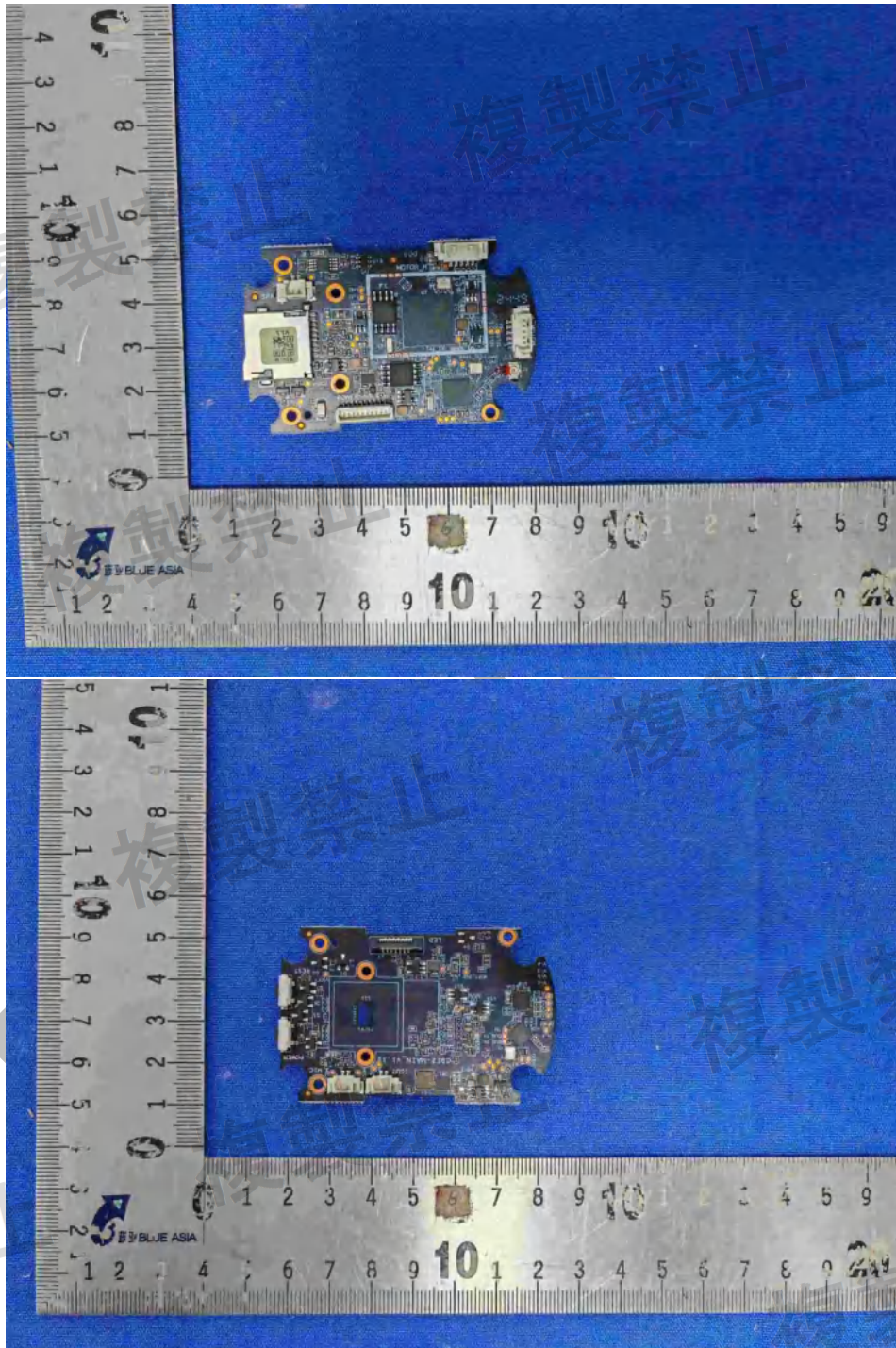






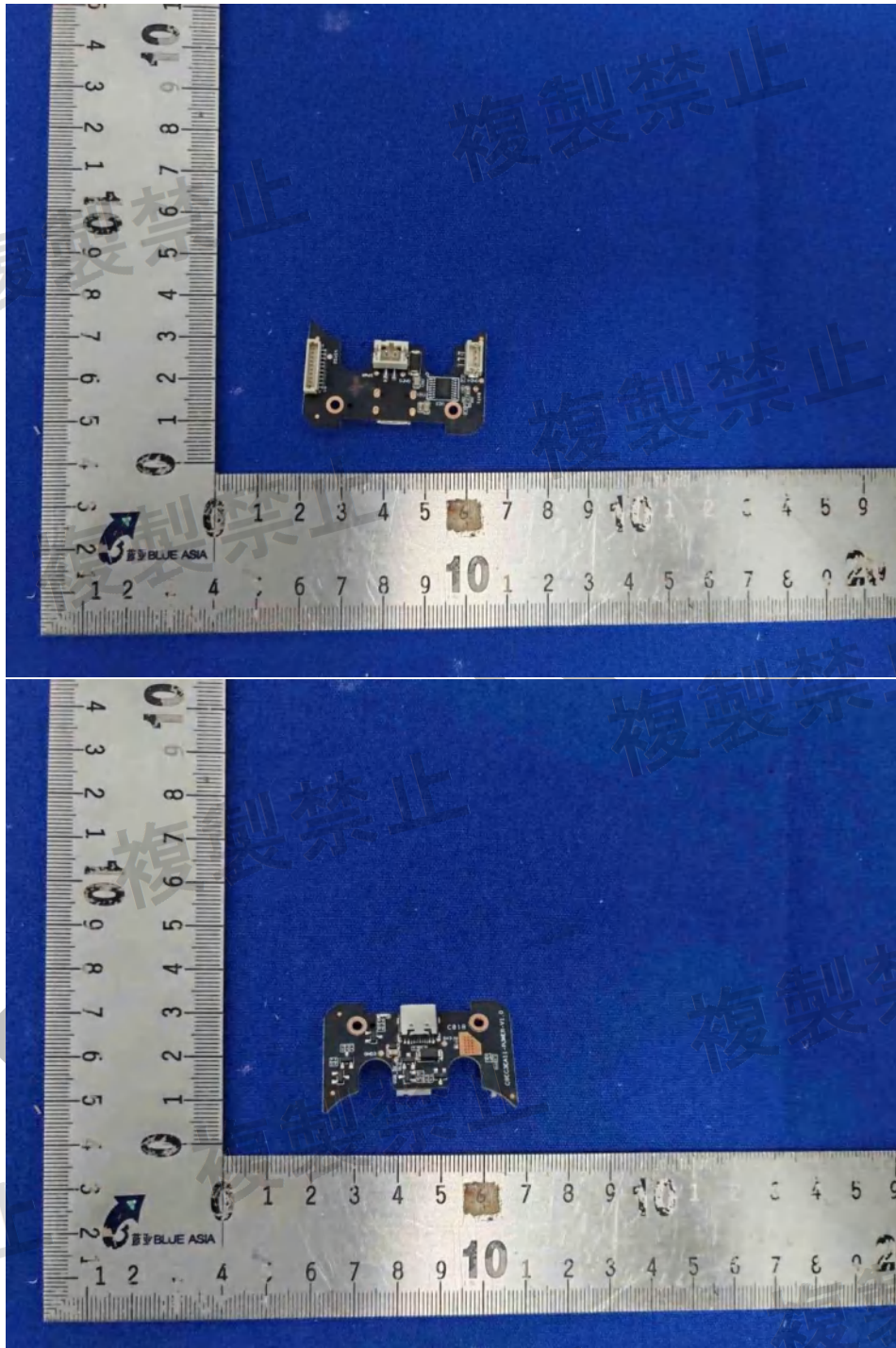


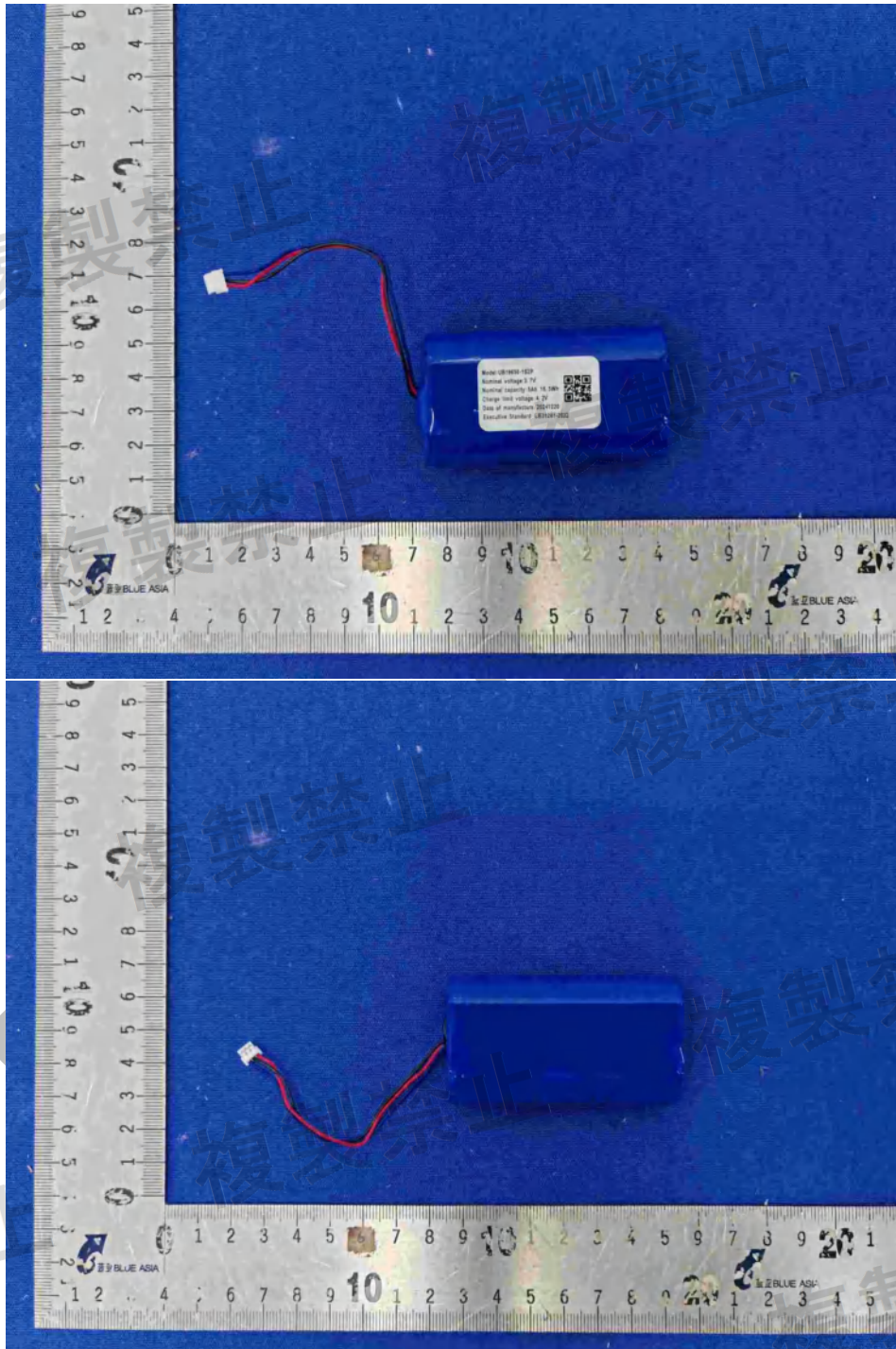














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