

Japan Specified Radio Test Report

Report No. : 182513C400018101

Applicant : HESTA Okura. Co., Ltd

Address : Kasumigaseki 3-2-5, Chiyoda-ku, Tokyo
Kasumigaseki Building 6th floor, Japan

Product Name : HESTA Smart outdoor camera

Report Date : 2025-07-14

Shenzhen Anbotek Compliance Laboratory Limited



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TEST REPORT

Applicant : HESTA Okura. Co., Ltd
Manufacturer : Shenzhen Interthings Technology Co., Ltd.
Product Name : HESTA Smart outdoor camera
Model No. : IPC216
Trade Mark : N/A
Rating(s) : Input: 12V $\Rightarrow$ 1A

Test Standard(s) : MIC Notice No.88 Appendix No.43
Article 2, paragraph 1, item 19

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the MIC Notice No.88 Appendix No.43 and Certificate regulation article 2, paragraph 1, item 19 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt 2024-06-06

Date of Test 2024-06-06 to 2024-08-06

Prepared By

Lene Chen

(Lene Chen)

Approved & Authorized Signer

Hugo Chen

(Hugo Chen)



Revision History

Report Version	Description	Issued Date
R00	Original Issue.	2025-07-14



1. General Information

1.1. Client Information

Applicant	:	HESTA Okura. Co., Ltd
Address	:	Kasumigaseki 3-2-5, Chiyoda-ku, Tokyo Kasumigaseki Building 6th floor, Japan
Manufacturer	:	Shenzhen Interthings Technology Co., Ltd.
Address	:	701, Building 1, Lechuanghui Building, No.1211 Guanguang Road, Longhua District, Shenzhen, China
Factory	:	Shenzhen Interthings Technology Co., Ltd.
Address	:	701, Building 1, Lechuanghui Building, No.1211 Guanguang Road, Longhua District, Shenzhen, China

1.2. Description of Device (EUT)

Product Name	:	HESTA Smart outdoor camera
Model No.	:	IPC216
Trade Mark	:	N/A
Test Power Supply	:	DC 12V from Adapter input AC 100V/50Hz
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Hardware Version	:	V1.0
Software Version	:	V1.0
Adapter	:	Model: KA1201A-1201000JP Input: 100-240V~50/60Hz 0.4A Max Output: 12V= 1000mA
RF Specification		
Operation Mode	:	☒ 802.11b ☒ 802.11g ☒ 802.11n(HT20) ☐ 802.11n(HT40)
Operation Frequency	:	2412~2472MHz
Number of Channel	:	13 Channel for 20MHz bandwidth (2412~2472MHz)
Modulation Type	:	☒ 802.11b: DSSS (CCK, DQPSK, DBPSK) ☒ 802.11g: OFDM (BPSK, QPSK, 16QAM, 64QAM) ☒ 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	:	FPC Antenna
Antenna Gain(Peak)	:	1.84dBi
Rated output Power	:	802.11b: 10mW/MHz Max. 802.11g: 10mW/MHz Max. 802.11n(HT20): 10mW/MHz Max.
Remark: (1) All of the RF specification are provided by customer. (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.		



1.3. Auxiliary Equipment Used During Test

Title	Manufacturer	Model No.	Serial No.
/	/	/	/

1.4. Description of Test Configuration

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.

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
01	2412	05	2432	09	2452	13	2472
02	2417	06	2437	10	2457		
03	2422	07	2442	11	2462		
04	2427	08	2447	12	2467		

Note: For 802.11b, 802.11g, and 802.11n(HT20) modes were test with channel 1, 7, 13.

1.5. Test Conditions

	Normal Test Conditions	Test Conditions
Temperature	15°C - 35°C	25.3°C
Relative Humidity	45% - 75%	49%
Pressure Range	86-106kPa	101kPa

1.6. Test Voltage

Power Supply Voltage Fluctuation Test

Voltage Fluctuation Test	Normal Voltage	High Voltage +10% of Normal Voltage	Low Voltage -10% of Normal Voltage
Input To EUT	DC 12V	DC 13.2V	DC 10.8V
Output To RF Module	DC 3.30V	DC 3.30V	DC 3.30V
Voltage Variation (%)	--	0.00%	0.00%

Note: Voltage Variation (%)=(Output high or Low Voltage - Output Normal Voltage)/ Output Normal Voltage* 100

For extreme voltage test, we have tested the relationship between the external power supply and RF IC power supply. Base on the test results, only the normal voltage was selected to perform all items.



1.7. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102150	2024-05-06	2025-05-05
2	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY50531823	2023-10-12	2024-10-11
3	MXG RF Vector Signal Generator	Agilent	N5182A	MY47420647	2024-02-04	2025-02-03
4	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80B	N/A	2023-10-16	2024-10-15
5	DC Power Supply	IVYTECH	IV3605	1804D360510	2023-10-20	2024-10-19
6	Oscilloscope	Tektronix	MDO3012	C020298	2023-10-12	2024-10-11

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

1.8. Description of Test Facility

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

FCC-Registration No.: 279531

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 279531.

Test Location

Shenzhen Anbotek Compliance Laboratory Limited.

Sogood Industrial Zone Laboratory & 1/F. of Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.



1.9. Disclaimer

1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
2. The test report is invalid if there is any evidence and/or falsification.
3. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
6. The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.
7. The data in this report will be synchronized with the corresponding national market supervision and management departments and cross-border e-commerce platforms as required by regulatory agencies.

The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

1.10. Measurement Uncertainty

Parameter	Uncertainty
Occupied Bandwidth	925Hz
Conducted Output Power	0.76dB
Conducted Spurious Emission	1.24dB
Frequency tolerance	74.60Hz
The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	



2. Summary Of Test Results

Test Standard	Description of Test	Result
MIC Notice No.88 Appendix No.43 Article 2 Paragraph 1 Item 19	Frequency Tolerance	Complies
	Antenna power	Complies
	EIRP	Complies*
	Antenna Power Tolerance	Complies
	Occupied Bandwidth	Complies
	Spurious Emissions	Complies
	Carrier sensing function 1	N/A*
	Carrier sensing function 2	N/A*
	Interference prevention function	Complies
	Secondary Radiated Emissions	Complies
	Transmission Radiated Angle Width (3dB Beam Bandwidth)	N/A***
	Antenna Absolute Gain	Complies

Note:

(1) N/A is an abbreviation for Not Applicable.

(2) This device have more than 1 subcarrier in 1MHz, compliance with the requirement.

*: Application to Antenna Gain more than 2.14dBi.

**: Application to transmitting devices which EIRP is less than (2.14dBi + antenna power limit) and the shortage of EIRP is compensated by the antenna power. Not applicable to this product.

***: Application to transmitting devices with OFDM modulation and the occupied bandwidth greater than 26MHz.

****: Application to EIRP more than 12.14dBm/MHz.

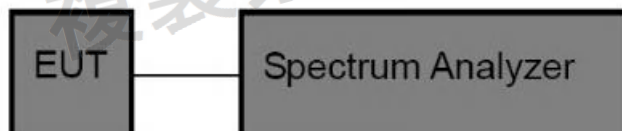


3. Frequency Tolerance Test

3.1. Test Limit

Test Limit	± 50 ppm
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3.2. Test Setup



3.3. Test Procedure

Test Frequency= test channel

RBW=VBW=10kHz

Span=1MHz

Sweep time=Auto

Detector mode=Positive peak

Indication mode=Max hold

3.4. Test Data

PASS

Please refer to Appendix A of the Appendix Test Data.



4. Antenna Power Test

4.1. Test Limit

No.	Modulation Method	Frequency Range	Antenna Power	E.I.R.P
1.	FHSS(Compound method with DSSS or OFDM) (OBW within 83.5MHz)	2427-2470.75 MHz	3mW/MHz or less	6.91-16.91dBm/MHz
		2400-2483.5 MHz (except 2427-2470.75MHz)	10mW/MHz or less	12.14-22.14dBm/MHz
2.	DSSS (OBW within 26MHz)	2400 - 2483.5 MHz	10mW/MHz or less	12.14-22.14dBm/MHz
3.	OFDM (OBW within 26MHz)		10mW/MHz or less	12.14- - 22.14dBm/MHz
4.	OFDM (OBW 26-40MHz)		5mW/MHz or less	9.13-19.13dBm/MHz
5.	Other Digital methods (OBW within 26MHz)		10mW or less	12.14-22.14dBm
6.	Tolerance	+20%		

4.2. Test Setup



4.3. Test Configuration

1. Search Frequency of Peak Power

Test Frequency: test channel,

RBW=VBW=1MHz, Span=40MHz, Sweep time=Auto, Detector mode =Positive peak

2. Measure of average burst power

Test Frequency: frequency of peak power

RBW=VBW=1MHz, Span=0Hz, Sweep time=Auto, Detector mode=RMS

3. Antenna power= average burst power

4.4. Test Data

Pass

Please refer to Appendix B of the Appendix Test Data.



5. Occupied Bandwidth (99%) Test

5.1. Test Limit

Modulation type	Limit
FH:	83.5MHz or less
FH + DS:	83.5MHz or less
FH + OFDM:	83.5MHz or less
OFDM:	40MHz or less
Others:	26MHz or less

5.2. Test Setup



5.3. Test Procedure

Test Frequency= test channel

RBW=VBW=300kHz

Span=40MHz

Sweep time=Auto

Detector mode=Positive peak

Indication mode=Max hold

5.4. Test Data

PASS

Please refer to Appendix C of the Appendix Test Data.



6. Spurious Emissions Intensity Test

6.1. Test Limit

Frequency Range	Test Limit
$\leq 2387\text{MHz}$	$\leq 2.5\mu\text{W/MHz}$ (-26dBm/MHz)
2387MHz to 2400MHz	$\leq 25\mu\text{W/MHz}$ (-16dBm/MHz)
2483.5MHz to 2496.5MHz	$\leq 25\mu\text{W/MHz}$ (-16dBm/MHz)
$\geq 2496.5\text{MHz}$	$\leq 2.5\mu\text{W/MHz}$ (-26dBm/MHz)

6.2. Test Setup



6.3. Test Procedure

Step 1:

Test Frequency: test channel,

RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Positive peak

Step 2:

Test Frequency: spurious frequency

RBW=VBW=1MHz, Sweep time=Auto, Detector mode=Sample, Span=0Hz

6.4. Test Data

Pass

Please refer to Appendix D of the Appendix Test Data.

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

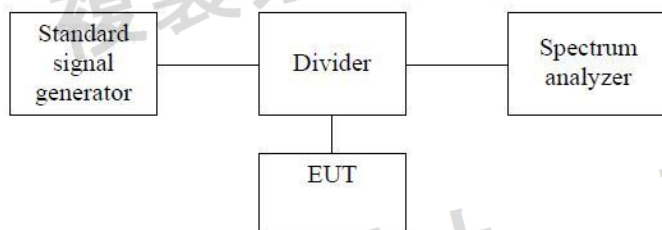


7. Carrier Sensing Function 2

7.1. Test Limit

Test Limit	EUT doesn't transmit when the radio wave of 100mV/m is coming to EUT.
------------	---

7.2. Test Setup



7.3. Test Configuration

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

7.4. Test Data

Not applicable. This test only for OFDM modulation and occupied bandwidth greater than 26MHz.

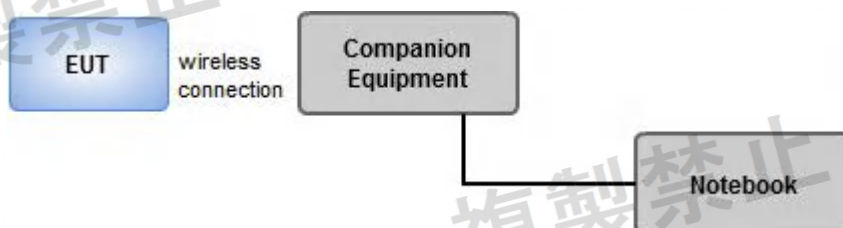


8. Interference Prevention Function

8.1. Test Limit

Test Limit	The identification code shall be 48 bits long.
------------	--

8.2. Test Setup



8.3. Test Configuration

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

8.4. Test Data

Test Mode	ID Code	Test Results
WiFi 2.4G	A3:C2:7F:64:72:5D	Complies



9. Secondary Radiated Emissions Test

9.1. Test Limit

Frequency Range	Test Limit
30~ 1000MHz	$\leq 4.0\text{nW}$ (-54dBm)
1000~ 12500MHz	$\leq 20\text{nW}$ (-47dBm)

9.2. Test Setup



9.3. Test Configuration

Test Frequency: test channel,

Below 1GHz, RBW=VBW=100kHz;

Above 1GHz, RBW=VBW=1MHz,

Sweep time=Auto, Detector mode=Positive peak

Adjust the spectrum analyzer configuration during final testing: Set the spectrum analyzer at the secondary launch measurement as follows. Center frequency secondary firing frequency Sweep frequency width span = 0Hz. If the resolution bandwidth is less than 1 GHz, it is 100 kHz and 1 MHz for 1 GHz or more Same as video bandwidth resolution bandwidth Minimum time guaranteed sweep time measurement accuracy Sweep mode single sweep Detection mode samples or RMS.

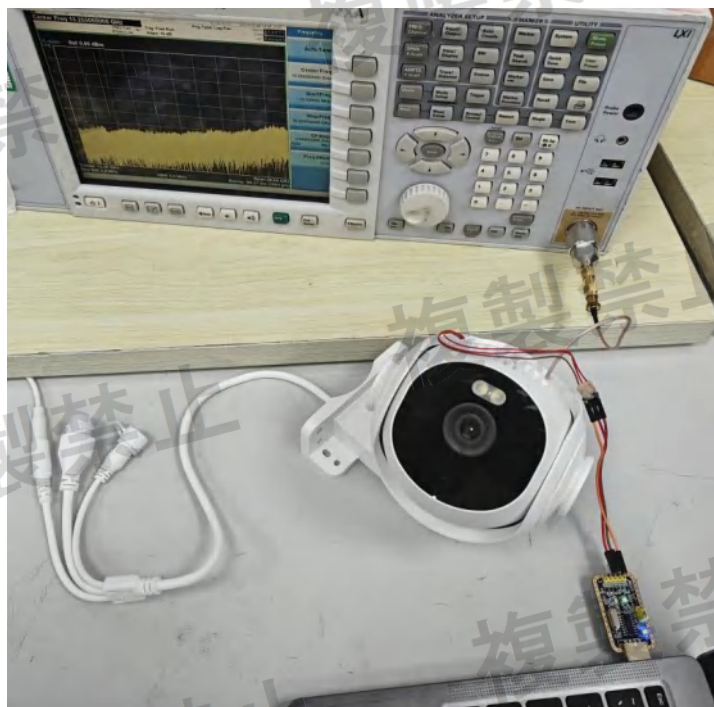
Any emissions identified during the sweeps exceeds 1/10 of applicable limit, shall be individually measured using RMS detector and compared to the limits.

9.4. Test Data

Pass

Please refer to Appendix E of the Appendix Test Data.



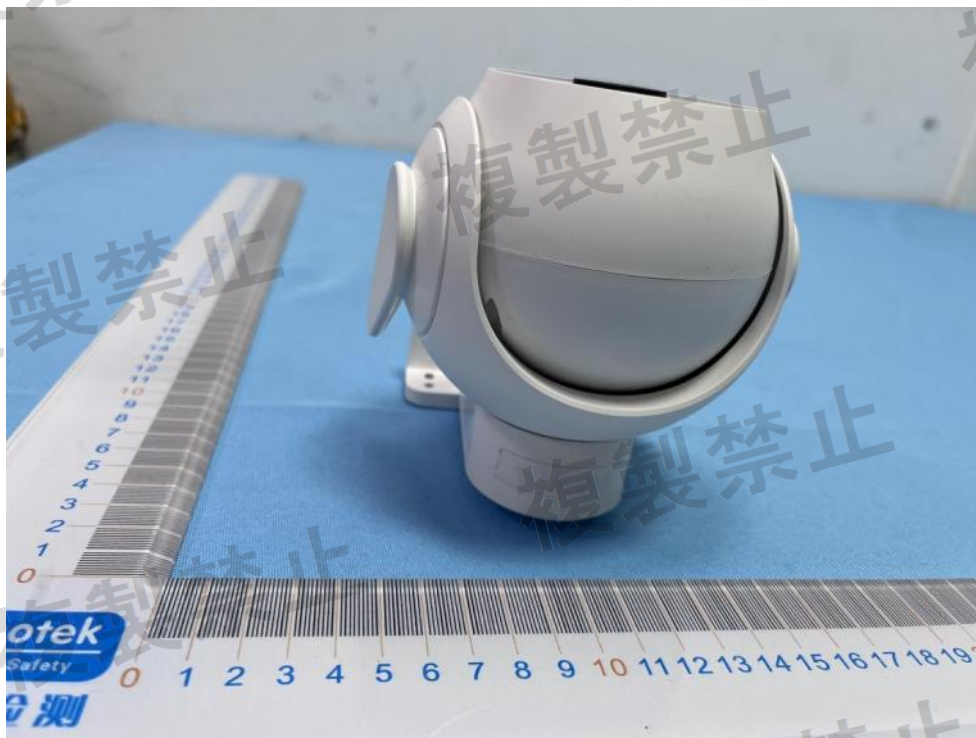
APPENDIX I -- TEST SETUP PHOTOGRAPH

APPENDIX II -- EXTERNAL PHOTOGRAPH



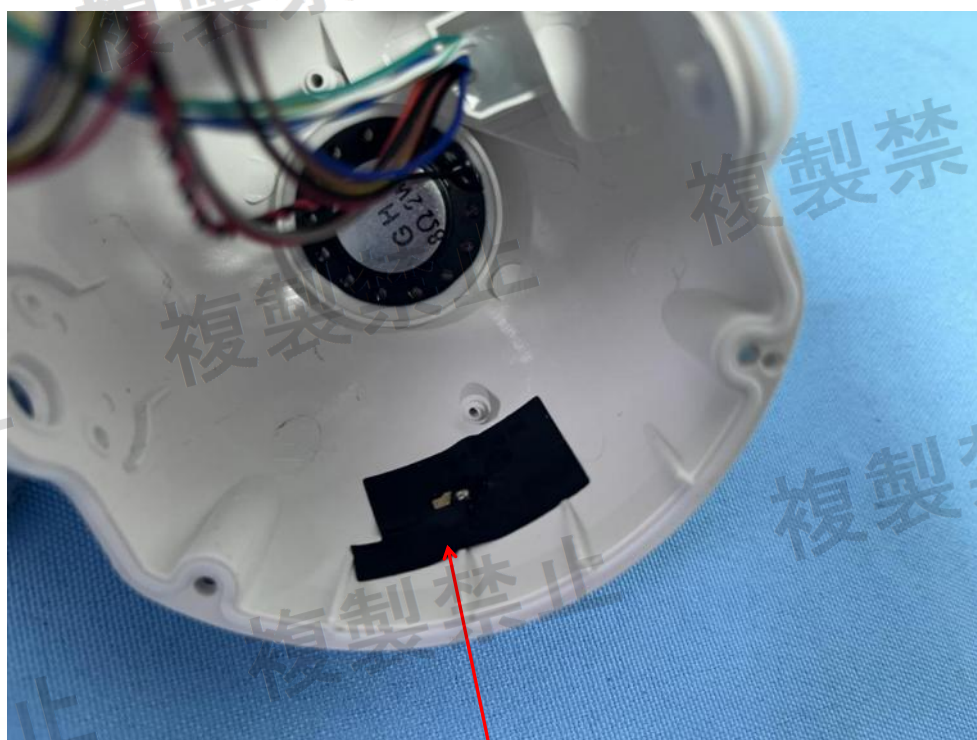






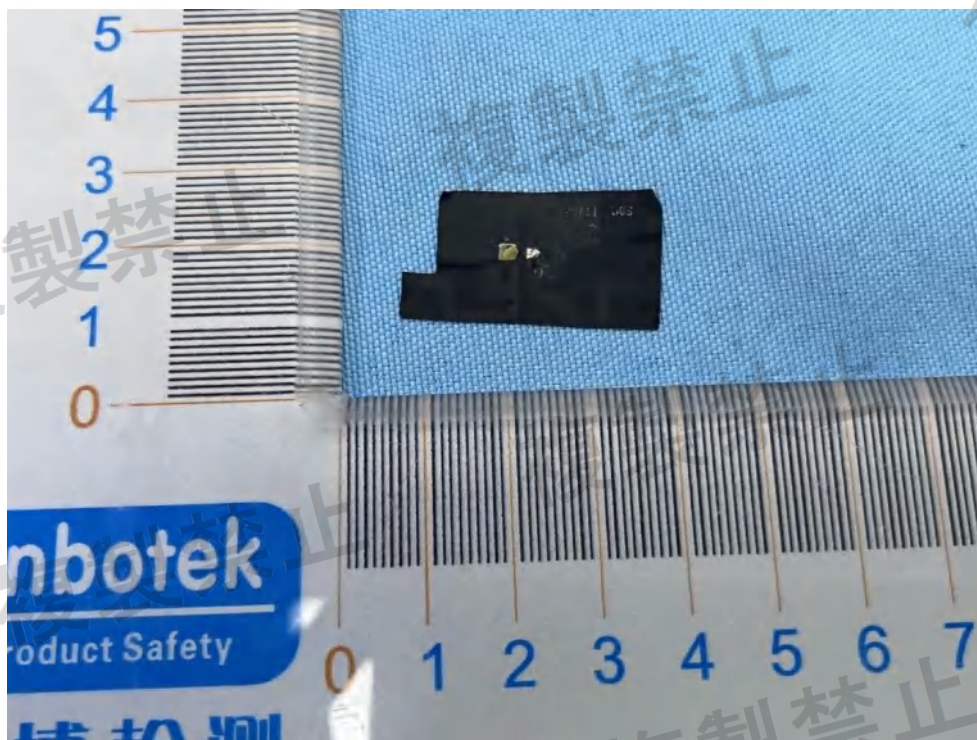


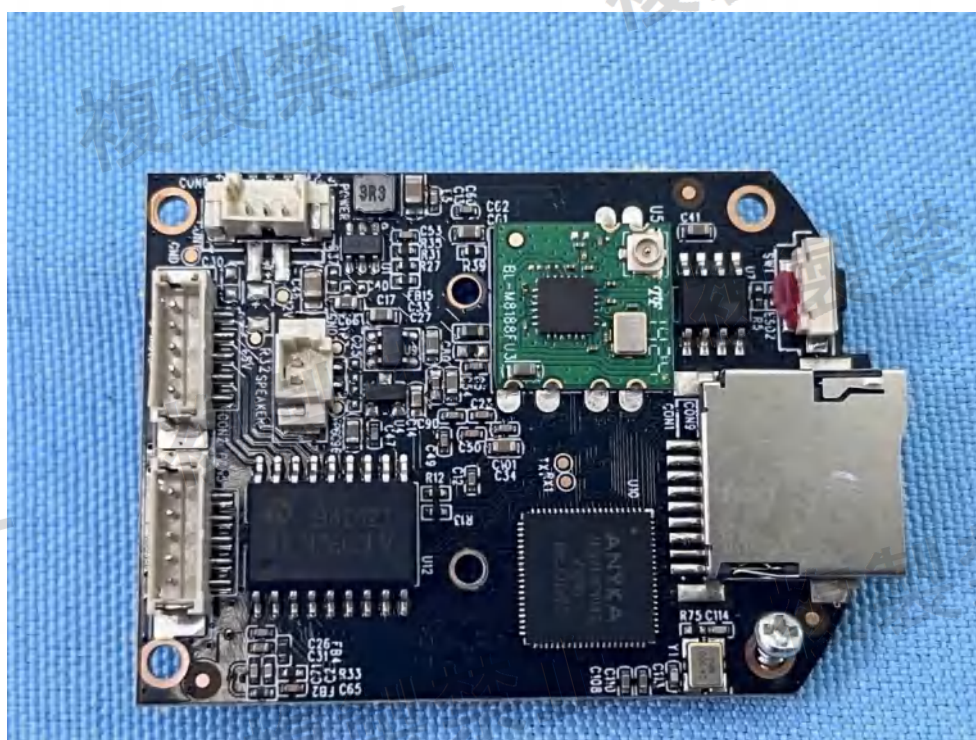
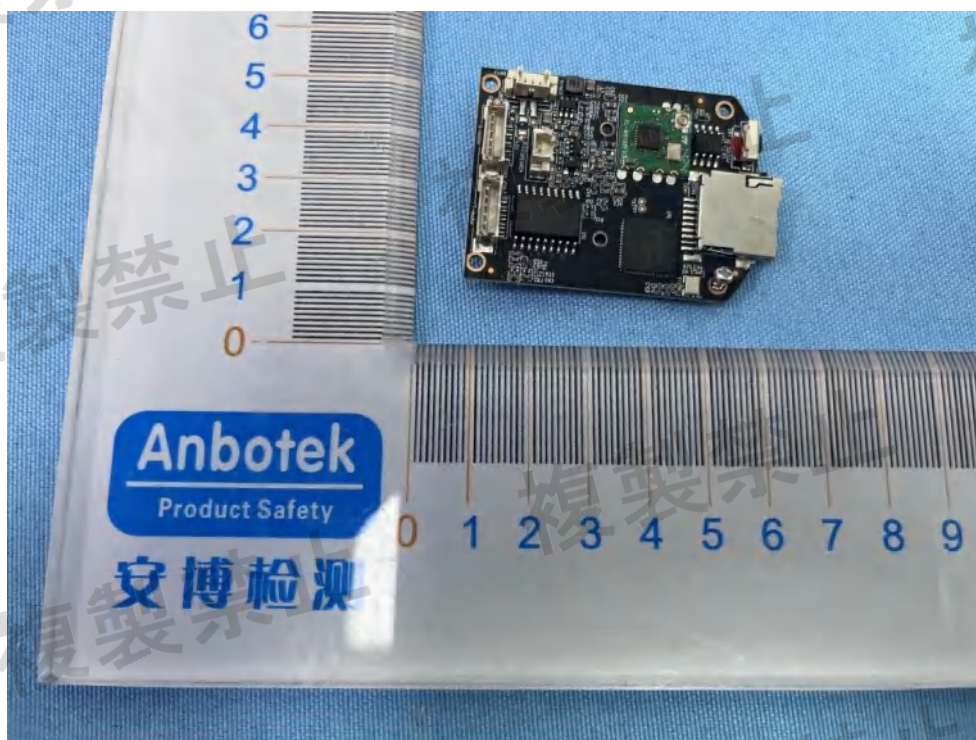
APPENDIX III -- INTERNAL PHOTOGRAPH

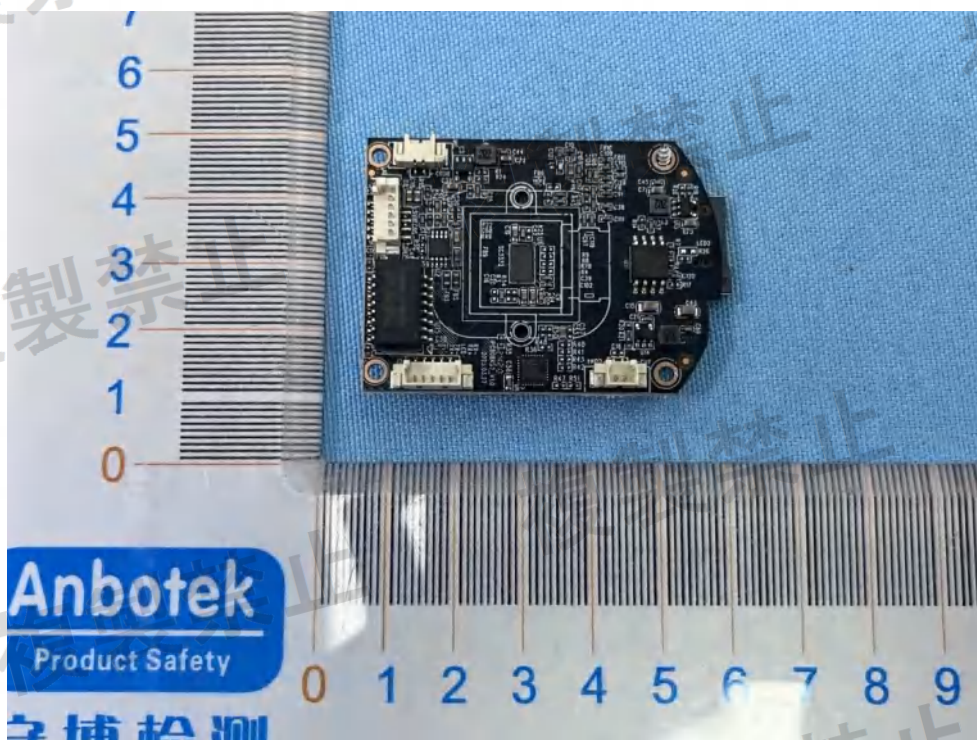


ANT









Appendix Test Data

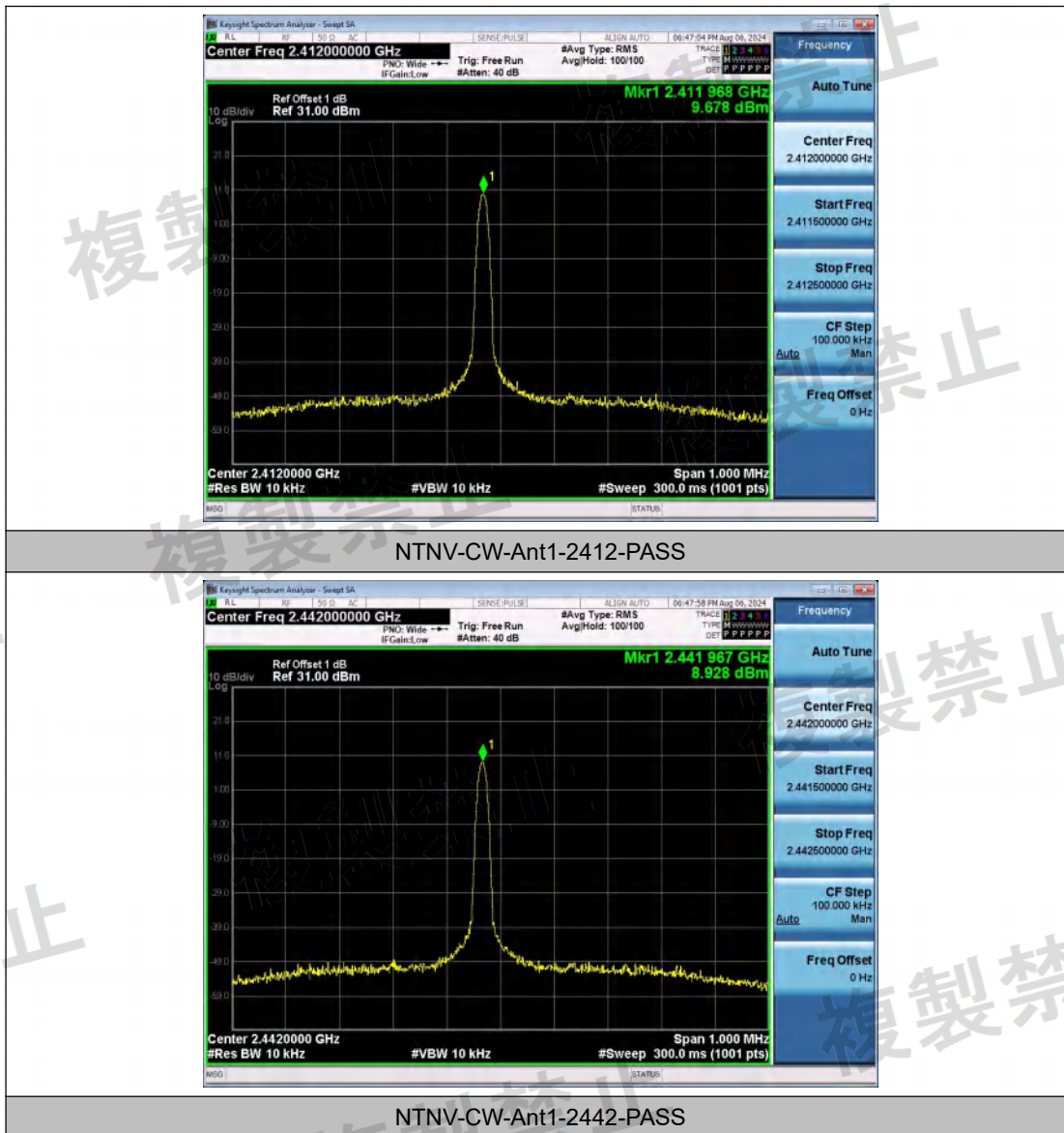
Appendix A: Frequency Error

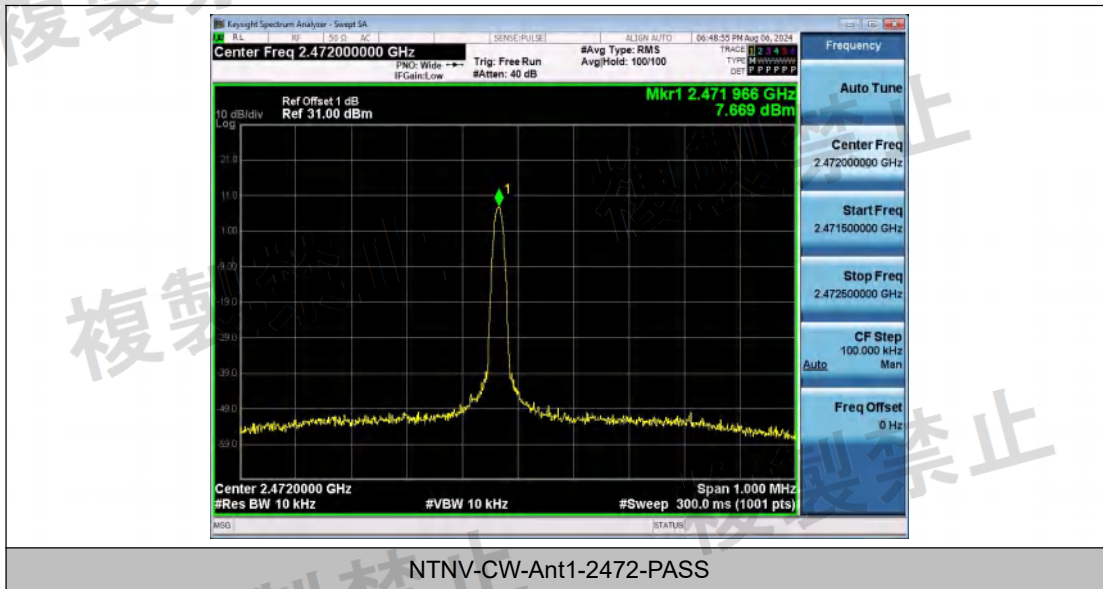
Test Result

Test Condition	Test Mode	Antenna	Frequency[MHz]	Center Freq [MHz]	Result[ppm]	Limit[ppm]	Verdict
NTNV	CW	Ant1	2412	2411.968	-13.26700	±50	PASS
NTNV	CW	Ant1	2442	2441.967	-13.51351	±50	PASS
NTNV	CW	Ant1	2472	2471.966	-13.75405	±50	PASS



Test Graphs





Appendix B: Antenna Power

Test Result

Test Condition	Test Mode	Antenna	Frequency [MHz]	Result (dBm/MHz)	Result (mW/MHz)	Limit (mW/MHz)	Verdict
NTNV	11B	Ant1	2412	4.72	2.9648	≤10	PASS
NTNV	11B	Ant1	2442	3.35	2.1627	≤10	PASS
NTNV	11B	Ant1	2472	4.25	2.6607	≤10	PASS
NTNV	11G	Ant1	2412	4.84	3.0479	≤10	PASS
NTNV	11G	Ant1	2442	5.88	3.8726	≤10	PASS
NTNV	11G	Ant1	2472	5.34	3.4198	≤10	PASS
NTNV	11N20SISO	Ant1	2412	6.16	4.1305	≤10	PASS
NTNV	11N20SISO	Ant1	2442	5.03	3.1842	≤10	PASS
NTNV	11N20SISO	Ant1	2472	3.05	2.0184	≤10	PASS

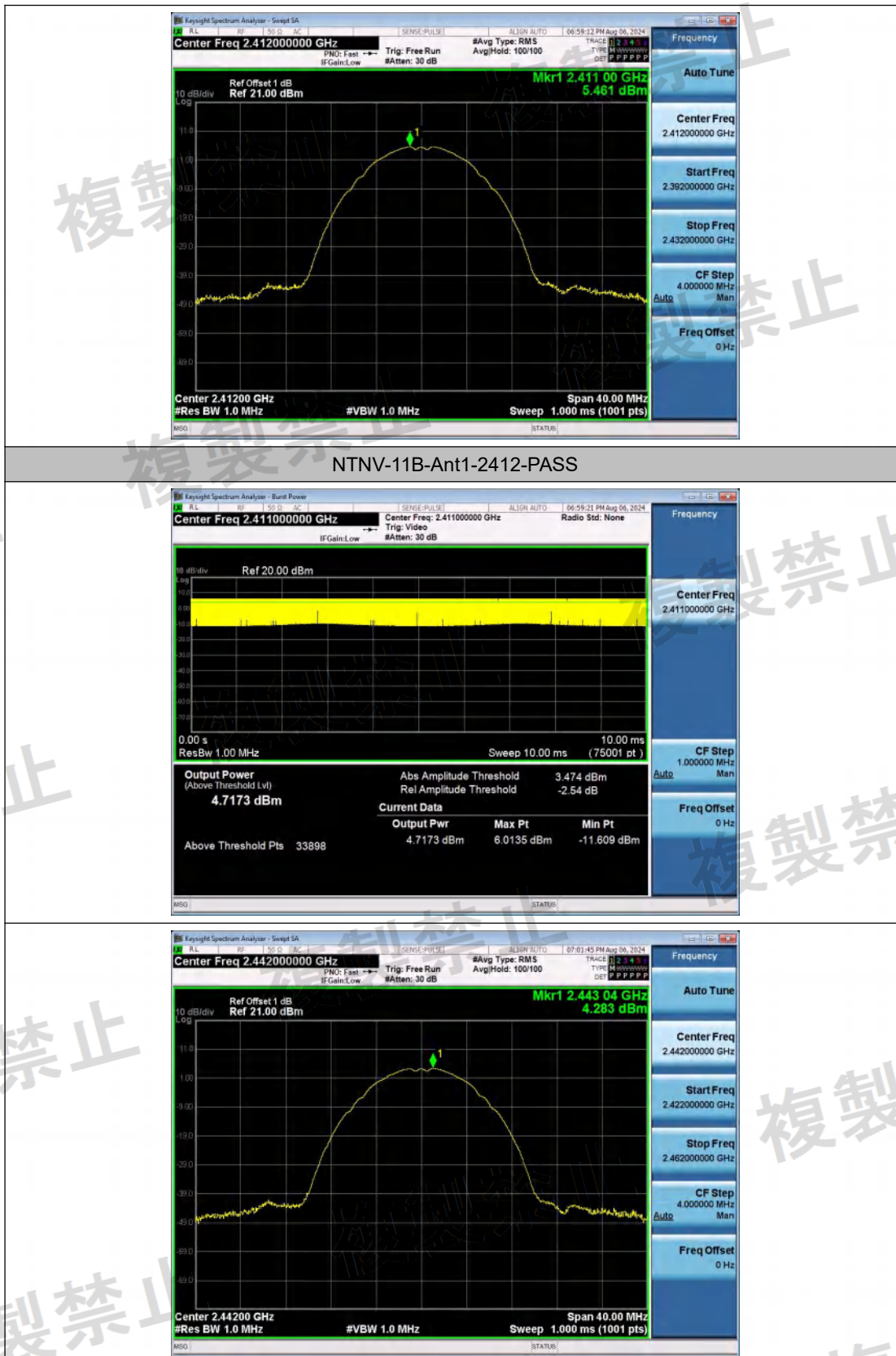
Test Condition	Test Mode	Antenna	Frequency [MHz]	Power (mW/MHz)	Rated Power (mW/MHz)	Result (%)	Limit (%)	Verdict
NTNV	11B	Ant1	2412	2.9648	10	-70.35	+20	PASS
NTNV	11B	Ant1	2442	2.1627	10	-78.37	+20	PASS
NTNV	11B	Ant1	2472	2.6607	10	-73.39	+20	PASS
NTNV	11G	Ant1	2412	3.0479	10	-69.52	+20	PASS
NTNV	11G	Ant1	2442	3.8726	10	-61.27	+20	PASS
NTNV	11G	Ant1	2472	3.4198	10	-65.80	+20	PASS
NTNV	11N20SISO	Ant1	2412	4.1305	10	-58.70	+20	PASS
NTNV	11N20SISO	Ant1	2442	3.1842	10	-68.16	+20	PASS
NTNV	11N20SISO	Ant1	2472	2.0184	10	-79.82	+20	PASS

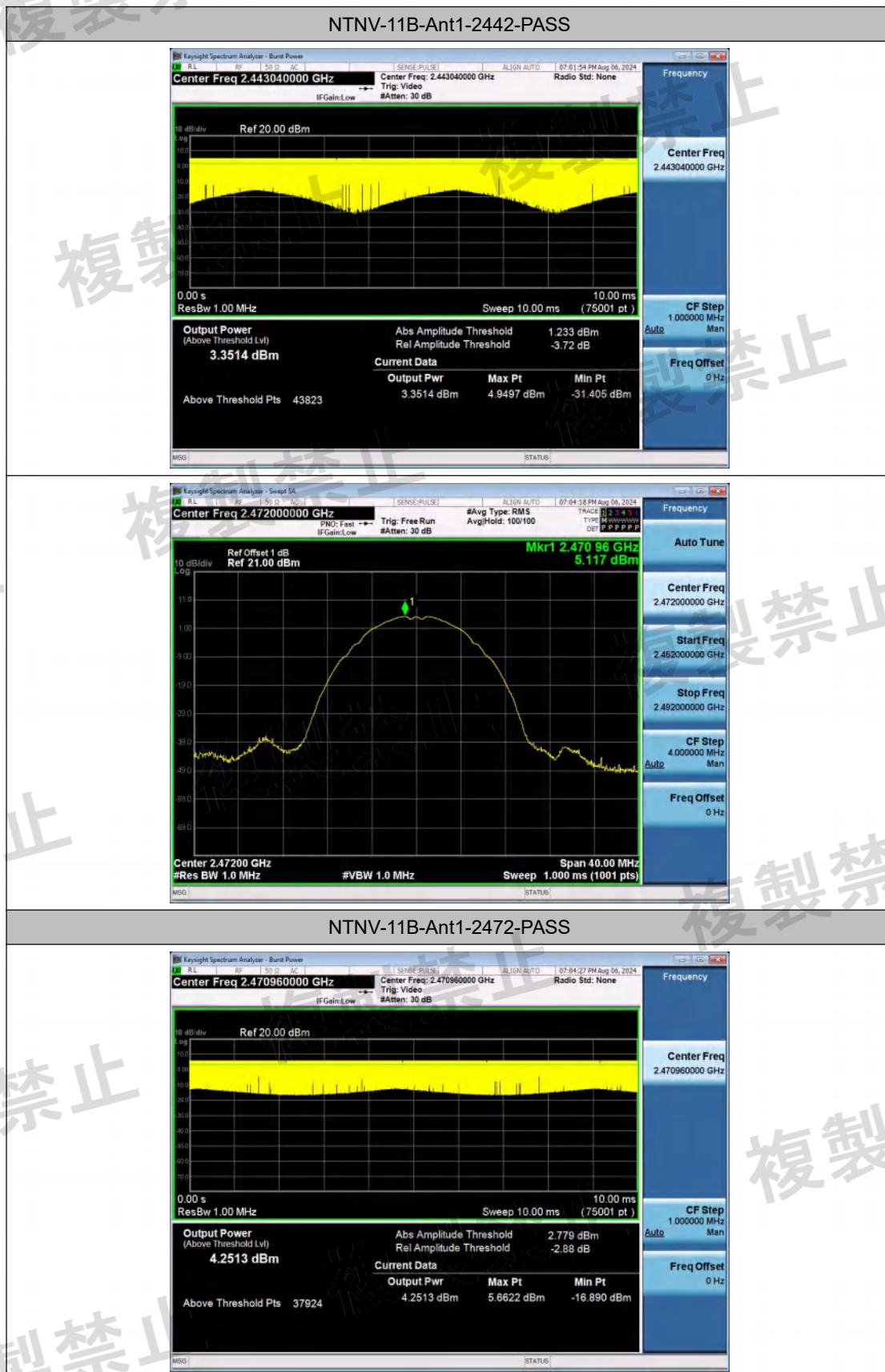
Test Condition	Test Mode	Antenna	Frequency [MHz]	Result (dBm/MHz)	EIRP (dBm/MHz)	Limit (dBm/MHz)	Verdict
NTNV	11B	Ant1	2412	4.72	6.56	≤12.14	PASS
NTNV	11B	Ant1	2442	3.35	5.19	≤12.14	PASS
NTNV	11B	Ant1	2472	4.25	6.09	≤12.14	PASS
NTNV	11G	Ant1	2412	4.84	6.68	≤12.14	PASS
NTNV	11G	Ant1	2442	5.88	7.72	≤12.14	PASS
NTNV	11G	Ant1	2472	5.34	7.18	≤12.14	PASS
NTNV	11N20SISO	Ant1	2412	6.16	8.00	≤12.14	PASS
NTNV	11N20SISO	Ant1	2442	5.03	6.87	≤12.14	PASS
NTNV	11N20SISO	Ant1	2472	3.05	4.89	≤12.14	PASS

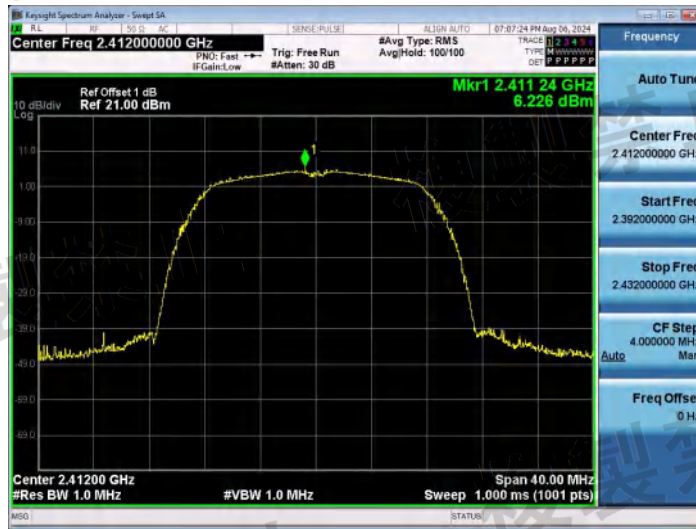
Note: EIRP[dBm/MHz]=Result[dBm/MHz]+Gain(dBi)



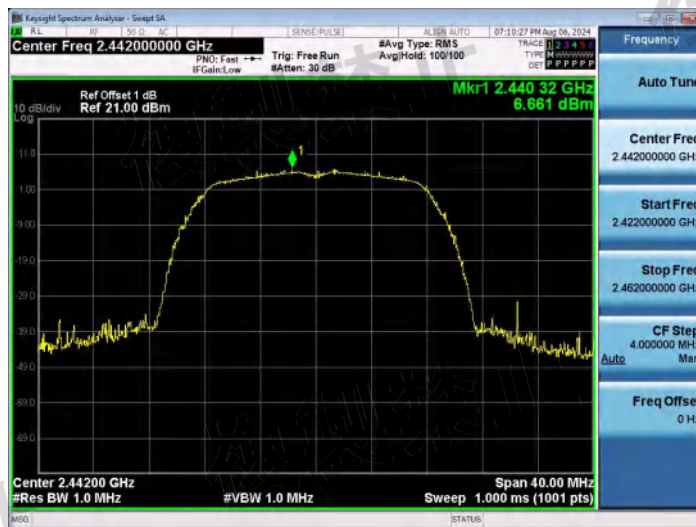
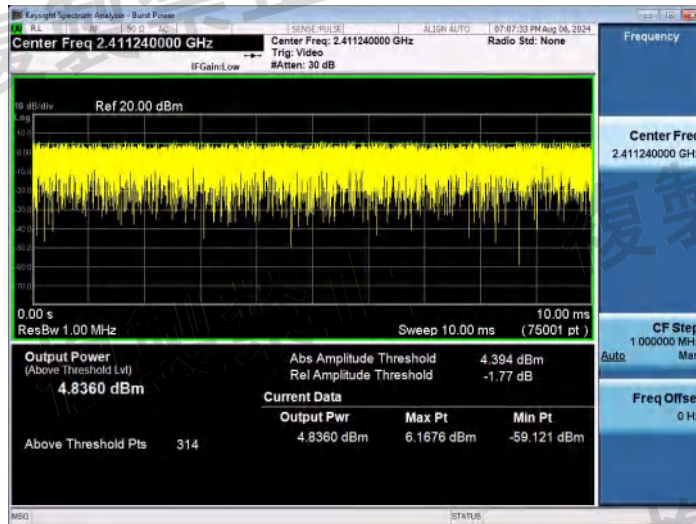
Test Graphs





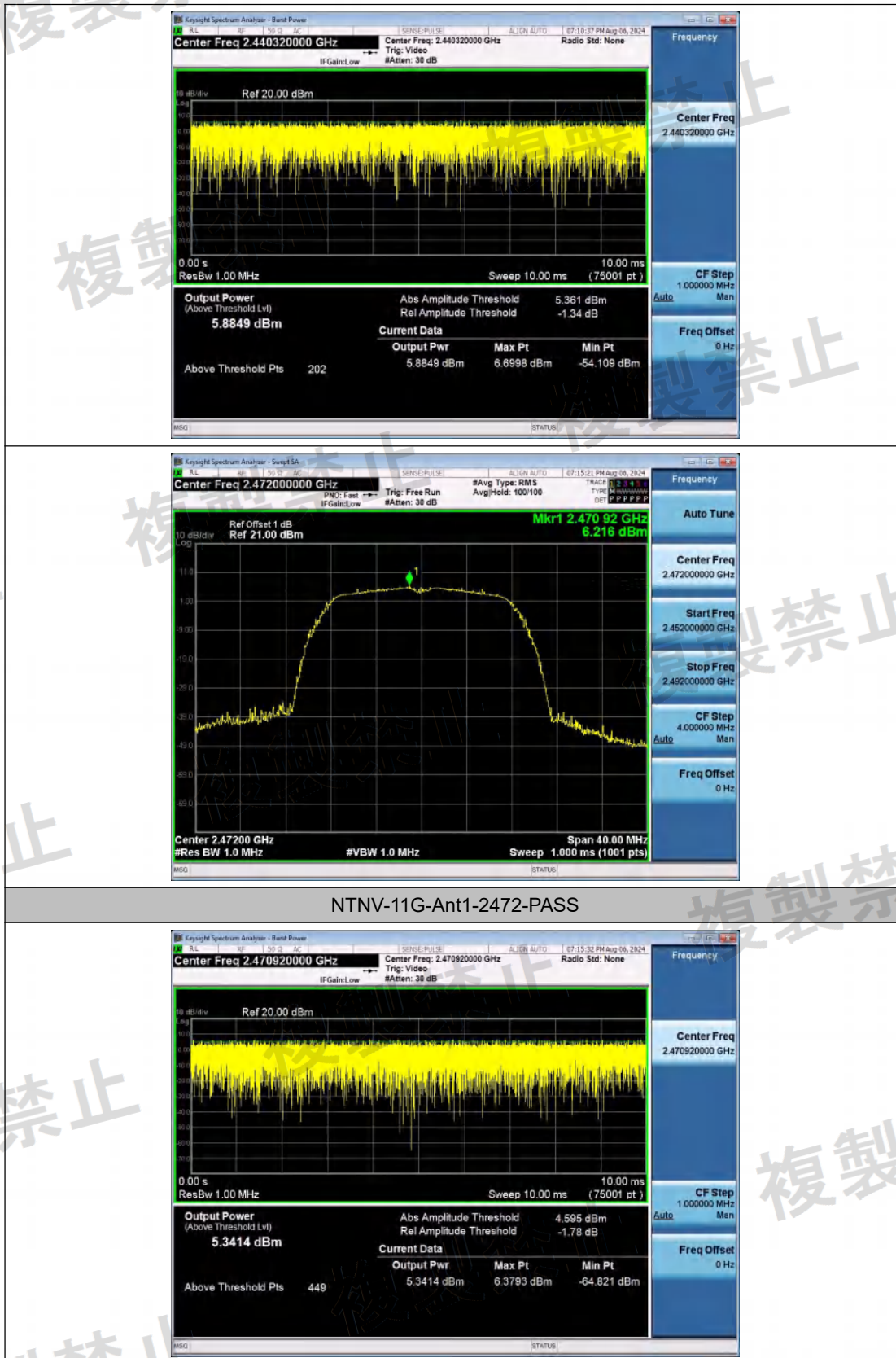


NTNV-11G-Ant1-2412-PASS



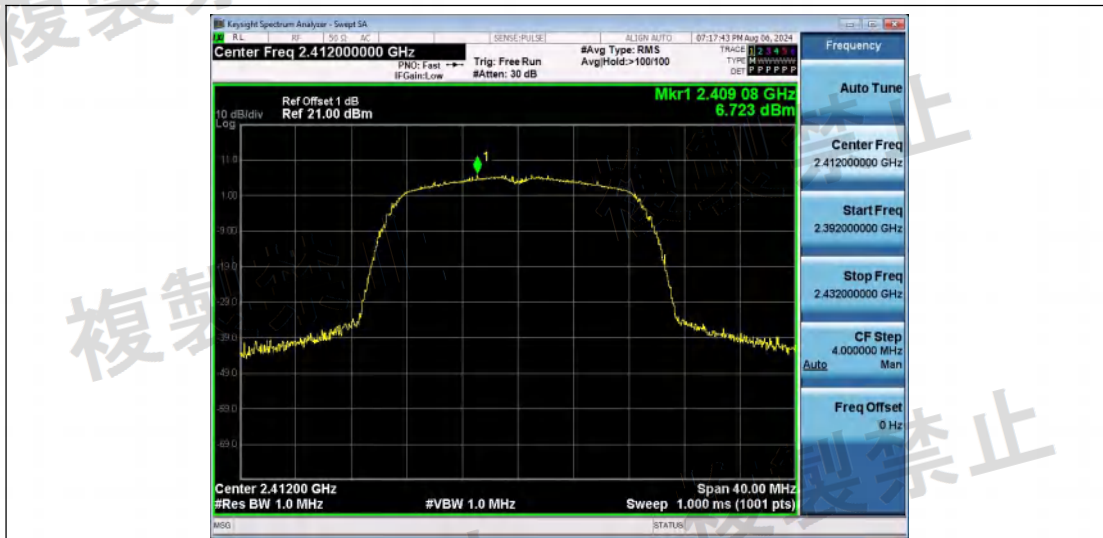
NTNV-11G-Ant1-2442-PASS



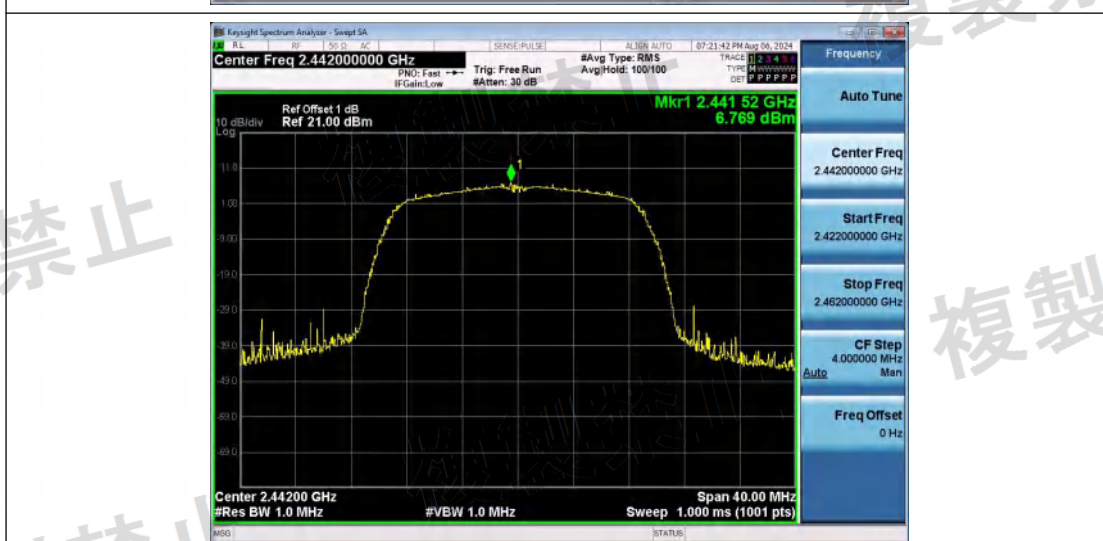
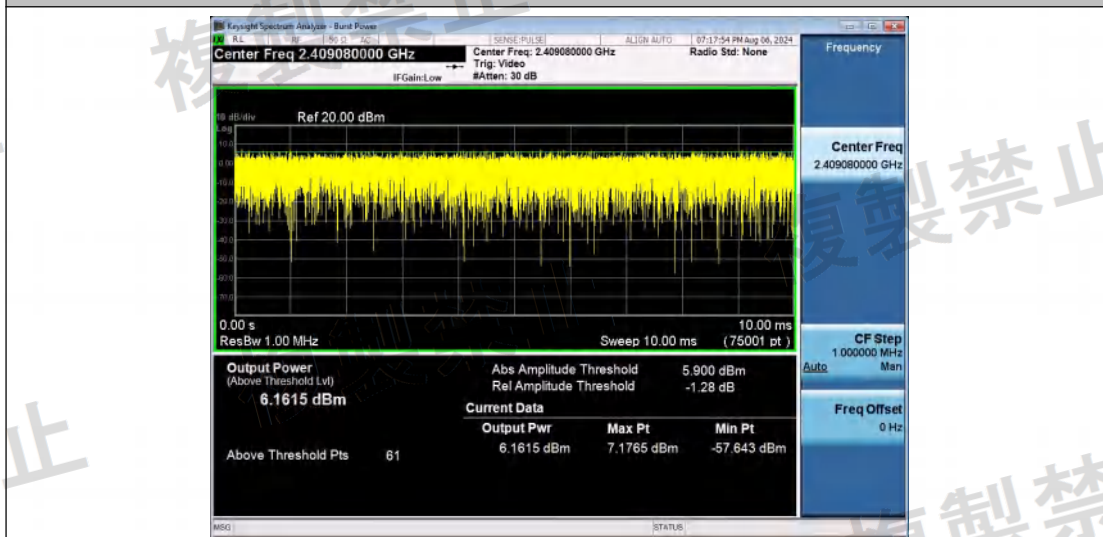


NTNV-11G-Ant1-2472-PASS



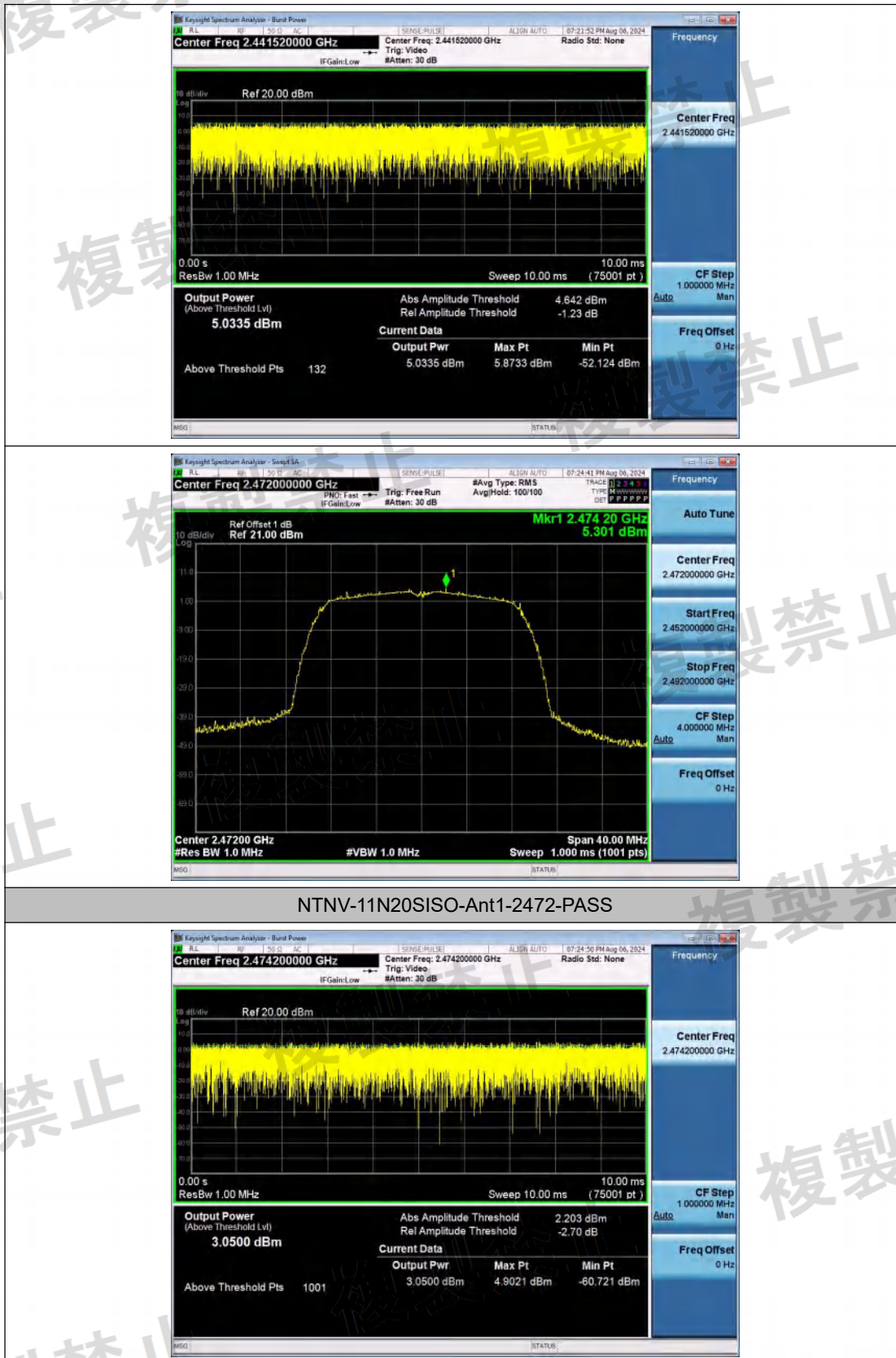


NTNV-11N20SISO-Ant1-2412-PASS



NTNV-11N20SISO-Ant1-2442-PASS





NTNV-11N20SISO-Ant1-2472-PASS



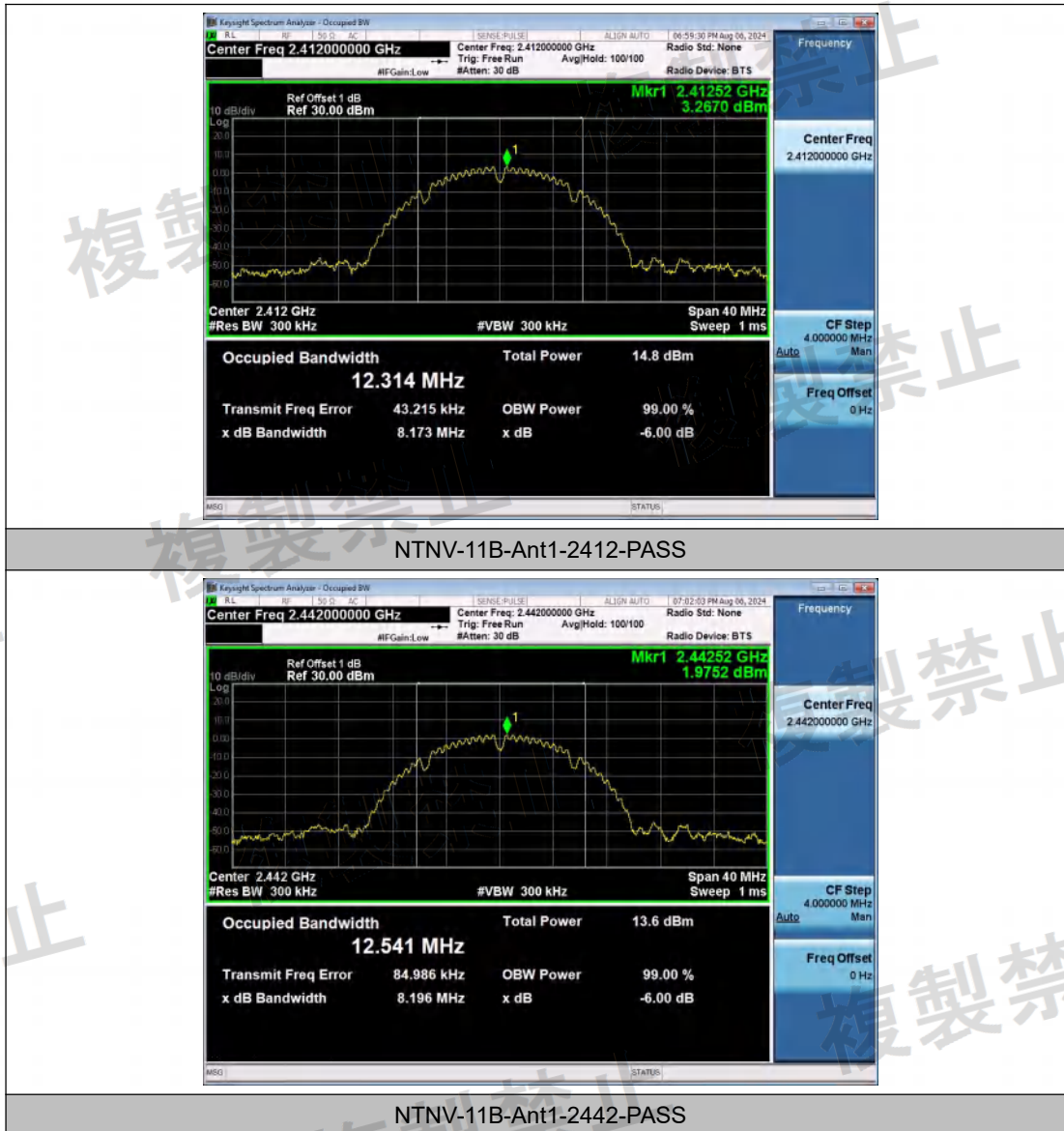
Appendix C: Occupied Bandwidth

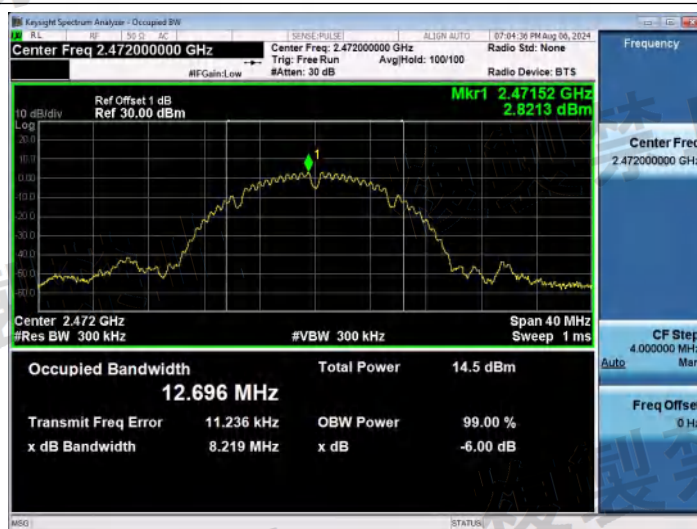
Test Result

Test Condition	Test Mode	Antenna	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	11B	Ant1	2412	12.314	≤26	PASS
NTNV	11B	Ant1	2442	12.541	≤26	PASS
NTNV	11B	Ant1	2472	12.696	≤26	PASS
NTNV	11G	Ant1	2412	16.429	≤26	PASS
NTNV	11G	Ant1	2442	16.521	≤26	PASS
NTNV	11G	Ant1	2472	16.563	≤26	PASS
NTNV	11N20SISO	Ant1	2412	17.541	≤26	PASS
NTNV	11N20SISO	Ant1	2442	17.611	≤26	PASS
NTNV	11N20SISO	Ant1	2472	17.626	≤26	PASS

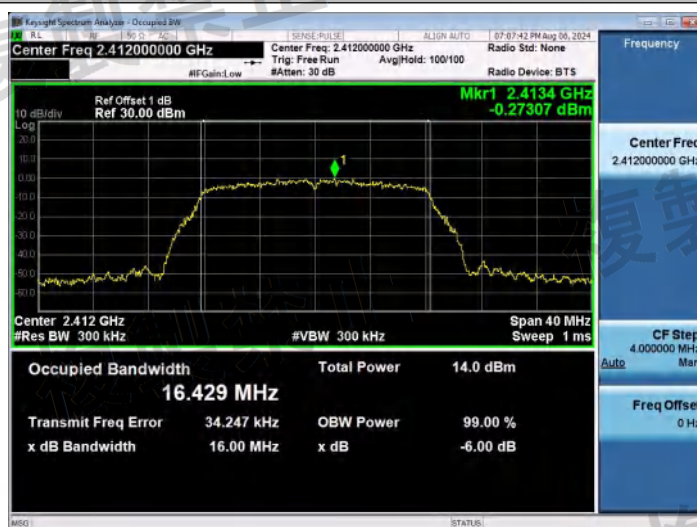


Test Graphs

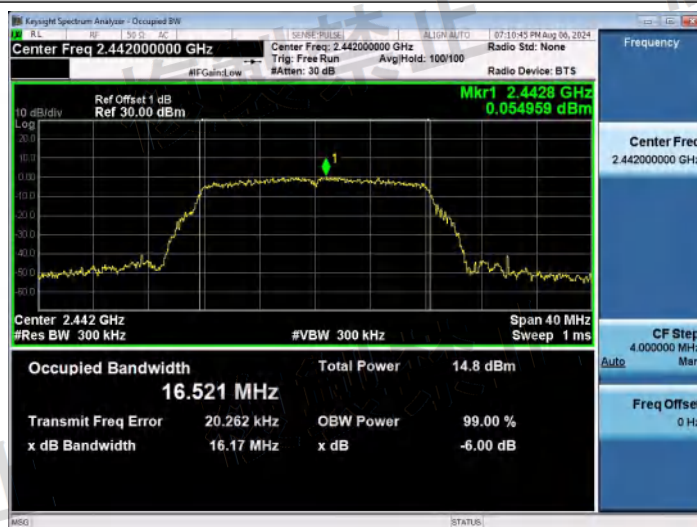




NTNV-11B-Ant1-2472-PASS

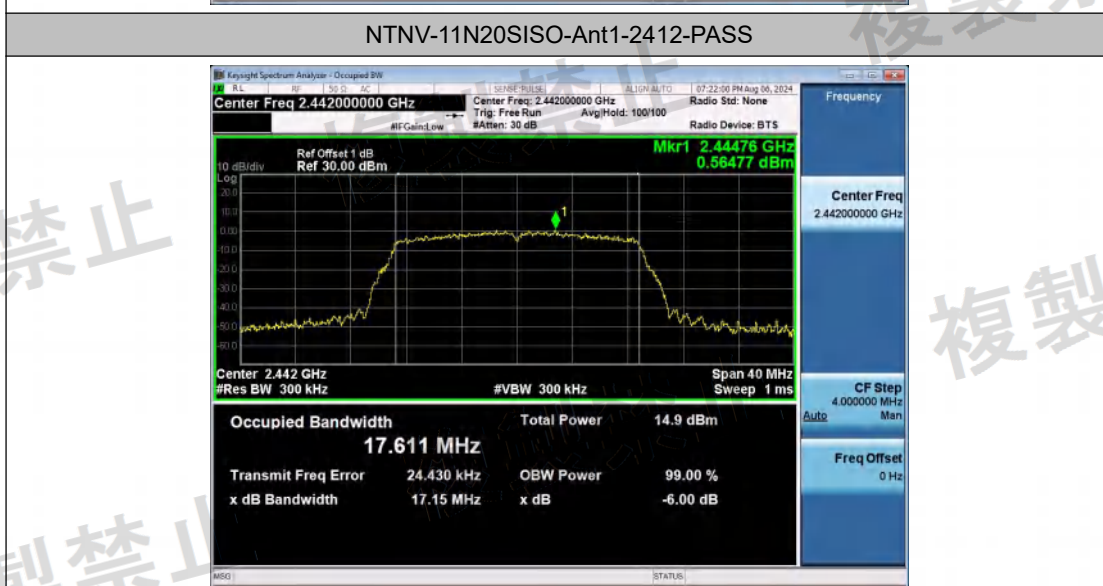
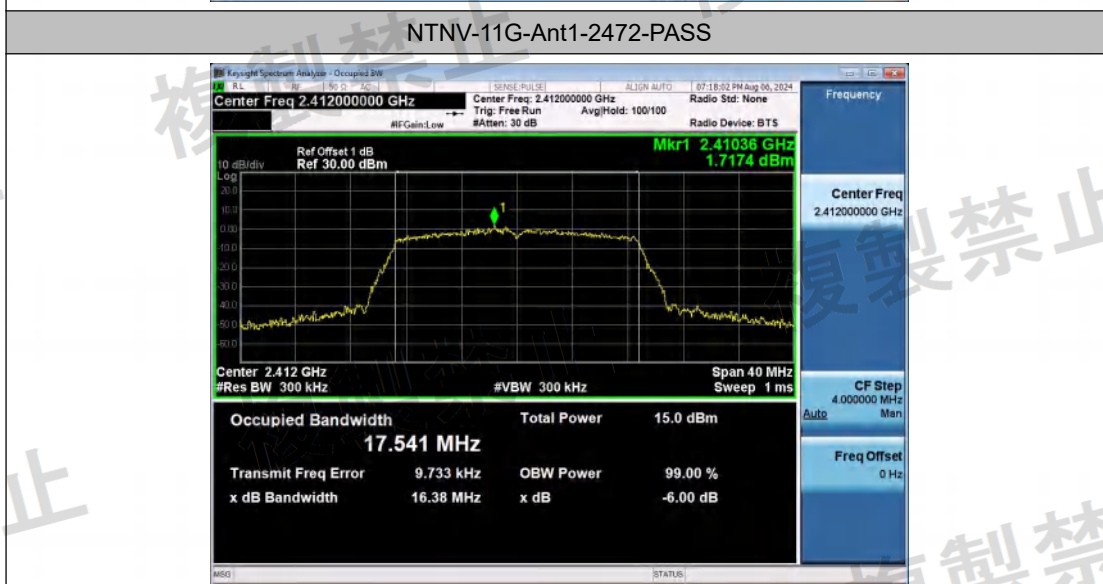
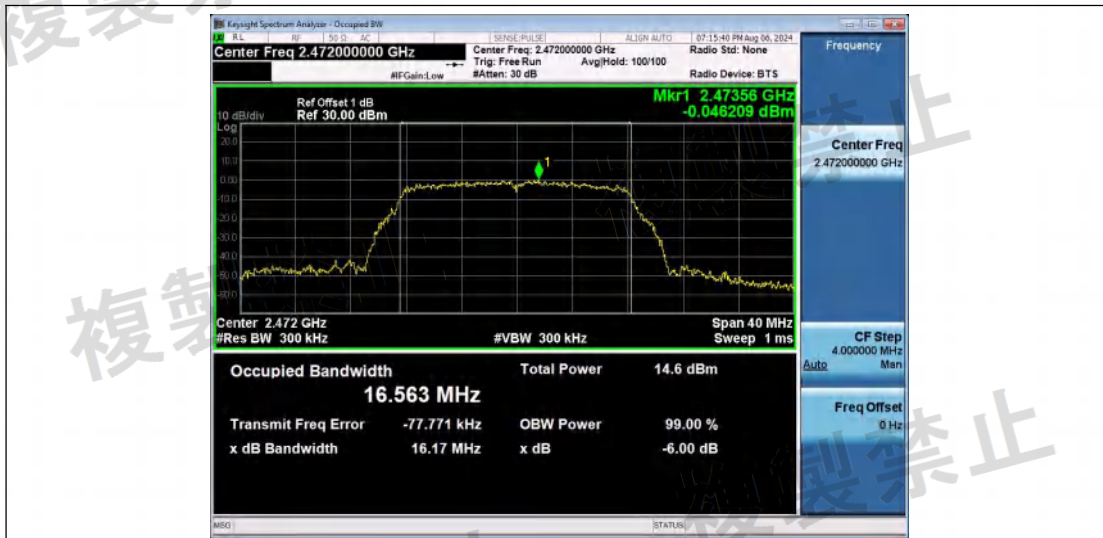


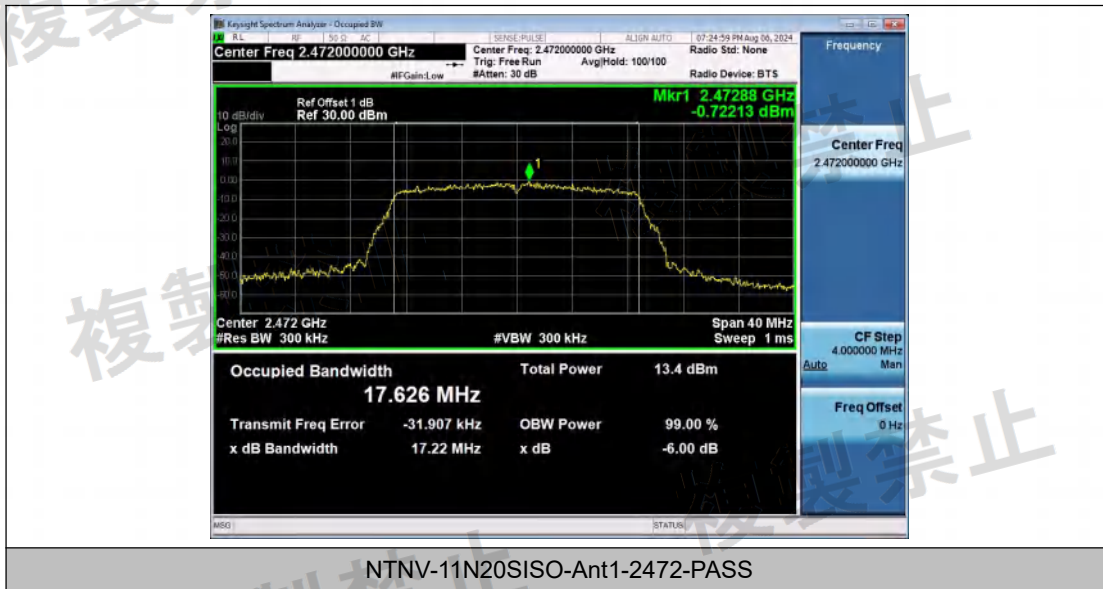
NTNV-11G-Ant1-2412-PASS



NTNV-11G-Ant1-2442-PASS







Appendix D: Spurious Emission of TX

Test Result

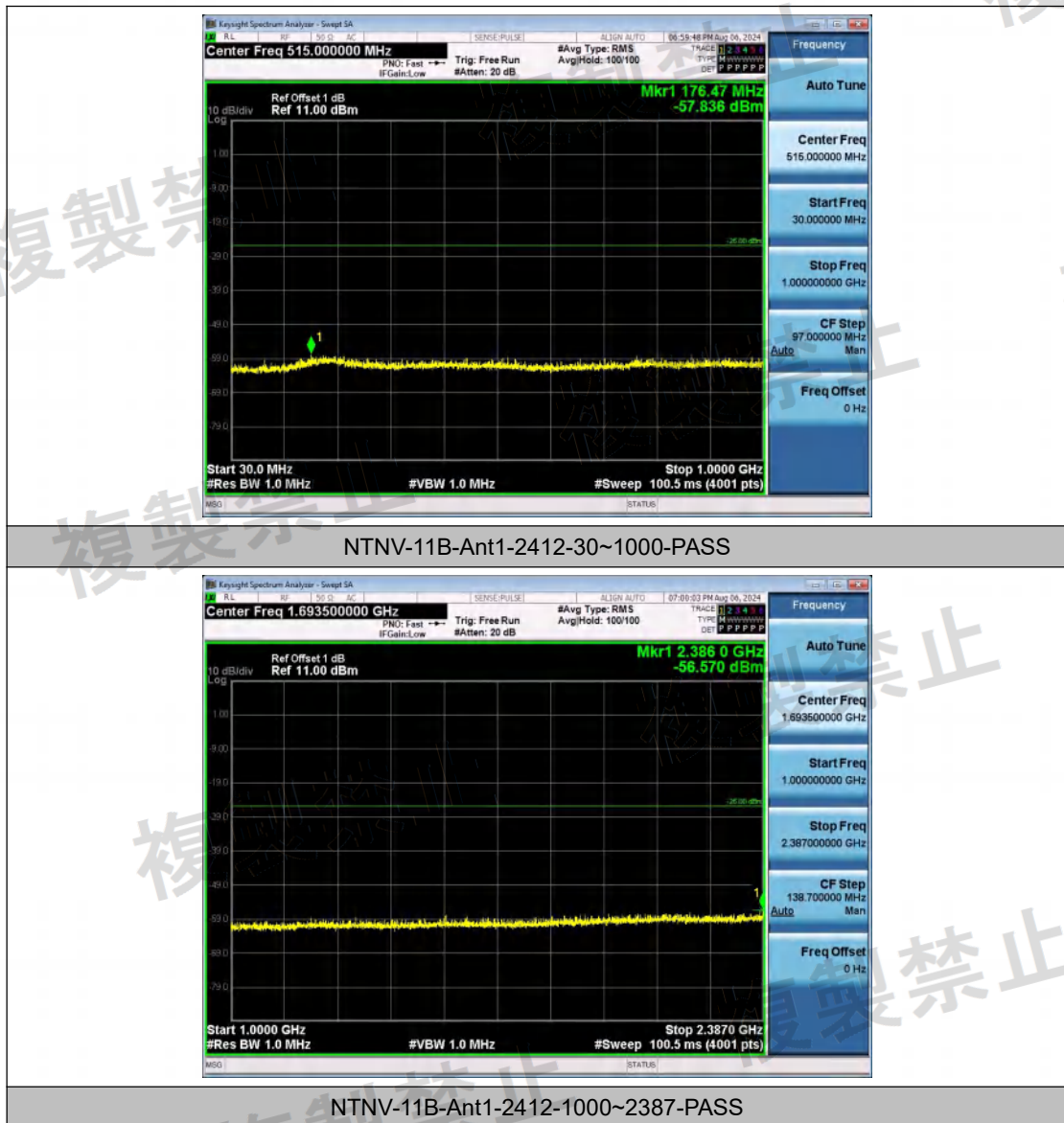
Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	11B	Ant1	2412	30~1000	176.47	-57.84	≤-26	0.00164	≤2.5	PASS
NTNV	11B	Ant1	2412	1000~2387	2385.96	-56.57	≤-26	0.00220	≤2.5	PASS
NTNV	11B	Ant1	2412	2387~2400	2398.67	-44.16	≤-16	0.03837	≤25	PASS
NTNV	11B	Ant1	2412	2483.5~2496.5	2483.70	-53.56	≤-16	0.00441	≤25	PASS
NTNV	11B	Ant1	2412	2496.5~13000	5237.39	-48.07	≤-26	0.01560	≤2.5	PASS
NTNV	11B	Ant1	2442	30~1000	197.08	-57.76	≤-26	0.00167	≤2.5	PASS
NTNV	11B	Ant1	2442	1000~2387	2290.95	-56.86	≤-26	0.00206	≤2.5	PASS
NTNV	11B	Ant1	2442	2387~2400	2399.16	-53.01	≤-16	0.00500	≤25	PASS
NTNV	11B	Ant1	2442	2483.5~2496.5	2484.49	-53.57	≤-16	0.00440	≤25	PASS
NTNV	11B	Ant1	2442	2496.5~13000	5245.27	-50.80	≤-26	0.00832	≤2.5	PASS
NTNV	11B	Ant1	2472	30~1000	207.75	-57.22	≤-26	0.00190	≤2.5	PASS
NTNV	11B	Ant1	2472	1000~2387	2103.71	-56.62	≤-26	0.00218	≤2.5	PASS
NTNV	11B	Ant1	2472	2387~2400	2397.89	-54.08	≤-16	0.00391	≤25	PASS
NTNV	11B	Ant1	2472	2483.5~2496.5	2485.37	-42.29	≤-16	0.05902	≤25	PASS
NTNV	11B	Ant1	2472	2496.5~13000	4943.82	-49.95	≤-26	0.01012	≤2.5	PASS
NTNV	11G	Ant1	2412	30~1000	211.88	-57.21	≤-26	0.00190	≤2.5	PASS
NTNV	11G	Ant1	2412	1000~2387	2385.96	-56.13	≤-26	0.00244	≤2.5	PASS
NTNV	11G	Ant1	2412	2387~2400	2397.59	-37.43	≤-16	0.18072	≤25	PASS
NTNV	11G	Ant1	2412	2483.5~2496.5	2483.90	-53.60	≤-16	0.00437	≤25	PASS
NTNV	11G	Ant1	2412	2496.5~13000	5246.32	-47.93	≤-26	0.01611	≤2.5	PASS
NTNV	11G	Ant1	2442	30~1000	933.80	-58.02	≤-26	0.00158	≤2.5	PASS
NTNV	11G	Ant1	2442	1000~2387	2124.16	-56.89	≤-26	0.00205	≤2.5	PASS
NTNV	11G	Ant1	2442	2387~2400	2399.17	-51.76	≤-16	0.00667	≤25	PASS
NTNV	11G	Ant1	2442	2483.5~2496.5	2486.59	-49.82	≤-16	0.01042	≤25	PASS
NTNV	11G	Ant1	2442	2496.5~13000	5238.44	-43.79	≤-26	0.04178	≤2.5	PASS
NTNV	11G	Ant1	2472	30~1000	207.75	-57.53	≤-26	0.00177	≤2.5	PASS
NTNV	11G	Ant1	2472	1000~2387	2342.27	-56.04	≤-26	0.00249	≤2.5	PASS
NTNV	11G	Ant1	2472	2387~2400	2397.44	-50.80	≤-16	0.00832	≤25	PASS
NTNV	11G	Ant1	2472	2483.5~2496.5	2484.10	-34.67	≤-16	0.34119	≤25	PASS
NTNV	11G	Ant1	2472	2496.5~13000	5246.84	-45.54	≤-26	0.02793	≤2.5	PASS
NTNV	11N20SISO	Ant1	2412	30~1000	182.05	-57.37	≤-26	0.00183	≤2.5	PASS
NTNV	11N20SISO	Ant1	2412	1000~2387	2387.00	-50.53	≤-26	0.00885	≤2.5	PASS
NTNV	11N20SISO	Ant1	2412	2387~2400	2399.96	-32.07	≤-16	0.62087	≤25	PASS
NTNV	11N20SISO	Ant1	2412	2483.5~2496.5	2483.77	-51.76	≤-16	0.00667	≤25	PASS
NTNV	11N20SISO	Ant1	2412	2496.5~13000	4824.08	-54.04	≤-26	0.00394	≤2.5	PASS



NTNV	11N20SISO	Ant1	2442	30~1000	454.38	-58.35	≤-26	0.00146	≤2.5	PASS
NTNV	11N20SISO	Ant1	2442	1000~2387	2353.71	-56.93	≤-26	0.00203	≤2.5	PASS
NTNV	11N20SISO	Ant1	2442	2387~2400	2399.14	-51.88	≤-16	0.00649	≤25	PASS
NTNV	11N20SISO	Ant1	2442	2483.5~2496.5	2483.58	-45.89	≤-16	0.02576	≤25	PASS
NTNV	11N20SISO	Ant1	2442	2496.5~13000	5241.06	-44.56	≤-26	0.03499	≤2.5	PASS
NTNV	11N20SISO	Ant1	2472	30~1000	201.45	-57.95	≤-26	0.00160	≤2.5	PASS
NTNV	11N20SISO	Ant1	2472	1000~2387	2385.61	-56.43	≤-26	0.00228	≤2.5	PASS
NTNV	11N20SISO	Ant1	2472	2387~2400	2399.64	-50.36	≤-16	0.00920	≤25	PASS
NTNV	11N20SISO	Ant1	2472	2483.5~2496.5	2483.83	-35.57	≤-16	0.27733	≤25	PASS
NTNV	11N20SISO	Ant1	2472	2496.5~13000	5246.84	-46.82	≤-26	0.02080	≤2.5	PASS

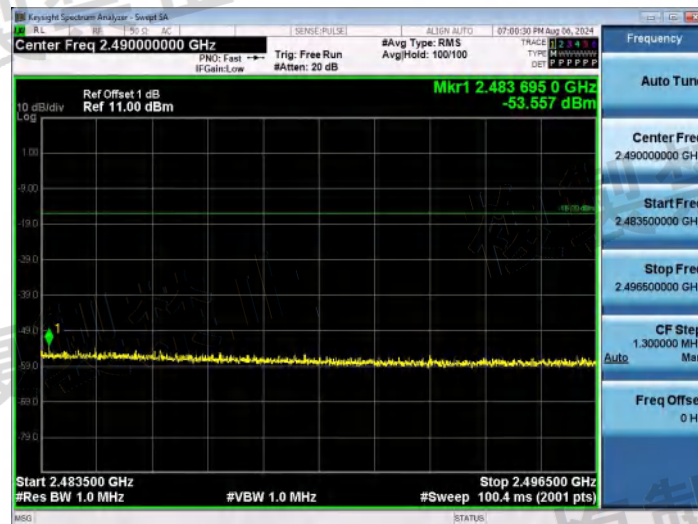


Test Graphs

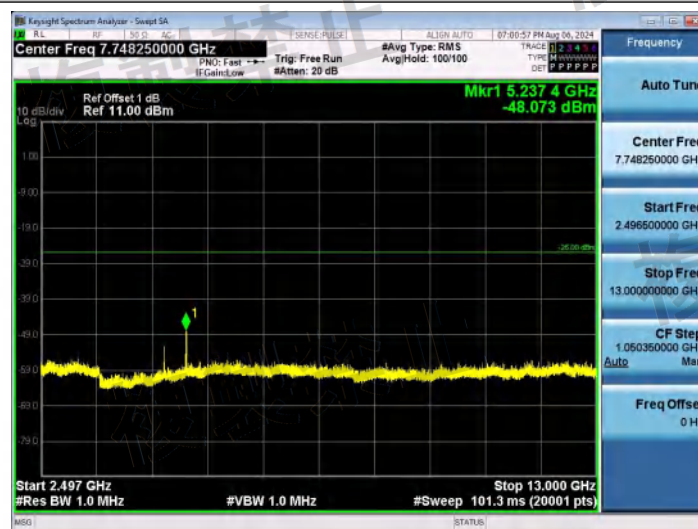




NTNV-11B-Ant1-2412-2387~2400-PASS

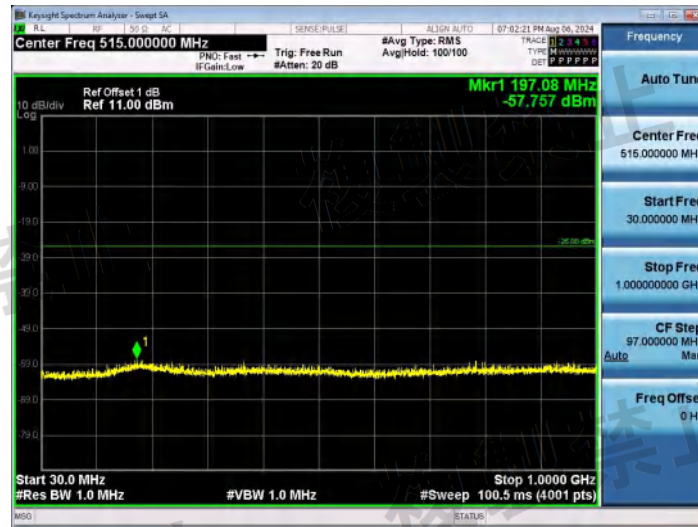


NTNV-11B-Ant1-2412-2483.5~2496.5-PASS



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

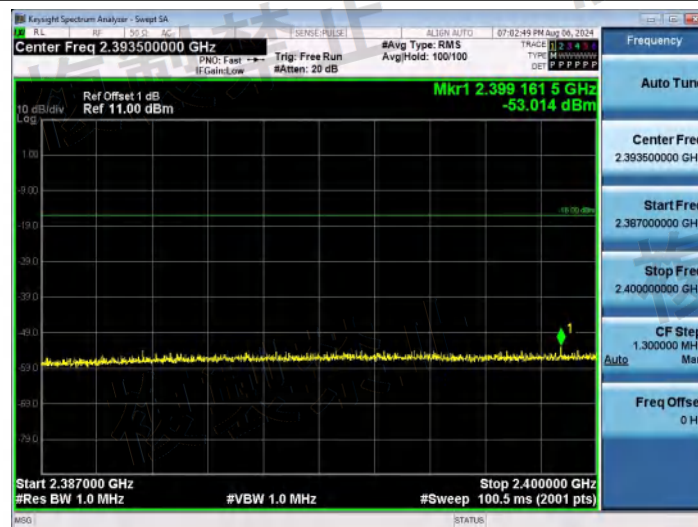




NTNV-11B-Ant1-2442-30~1000-PASS

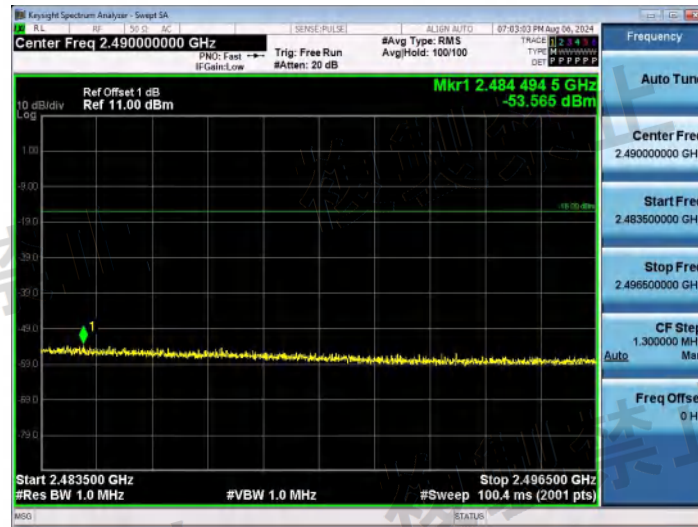


NTNV-11B-Ant1-2442-1000~2387-PASS



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

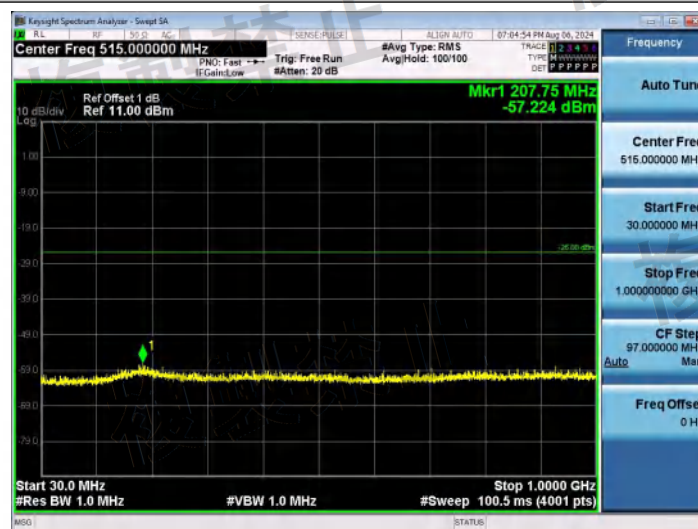




NTNV-11B-Ant1-2442-2483.5~2496.5-PASS

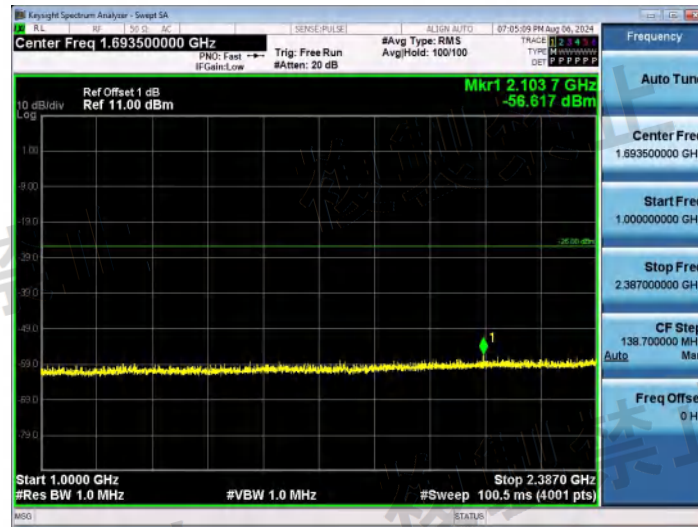


NTNV-11B-Ant1-2442-2496.5~13000-PASS

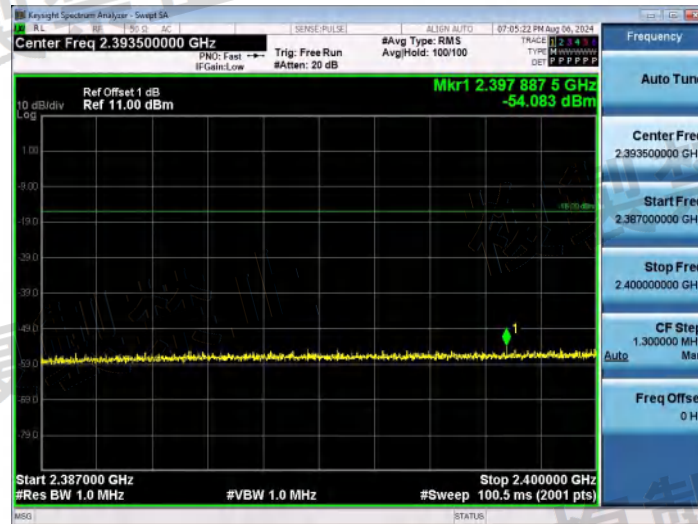


NTNV-11B-Ant1-2472-30~1000-PASS

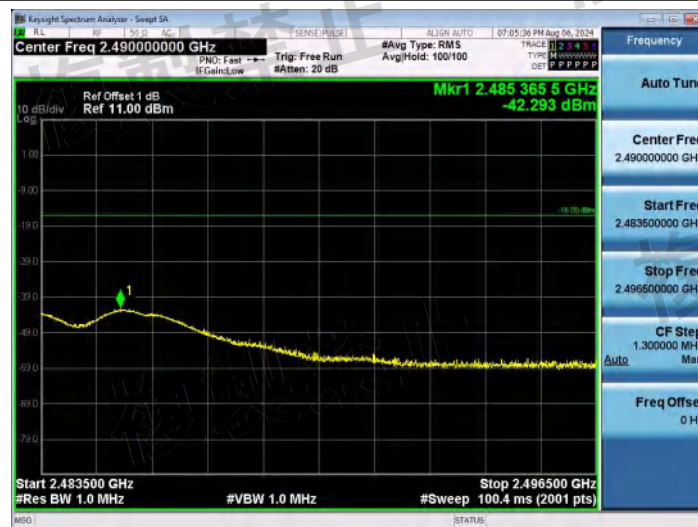




NTNV-11B-Ant1-2472-1000~2387-PASS

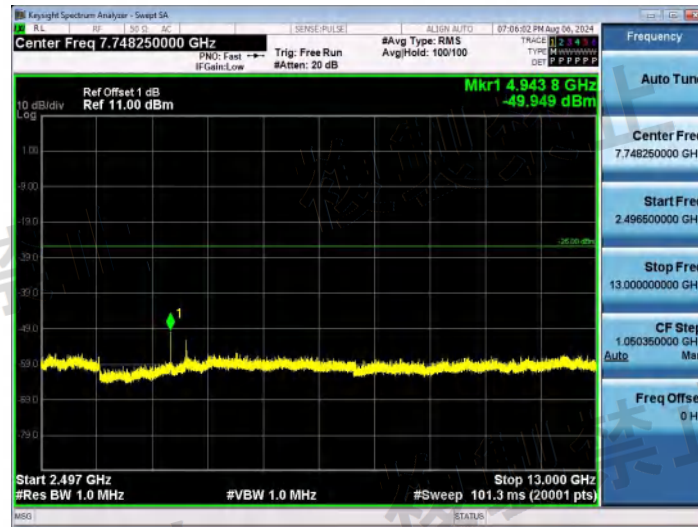


NTNV-11B-Ant1-2472-2387~2400-PASS



NTNV-11B-Ant1-2472-2483.5~2496.5-PASS

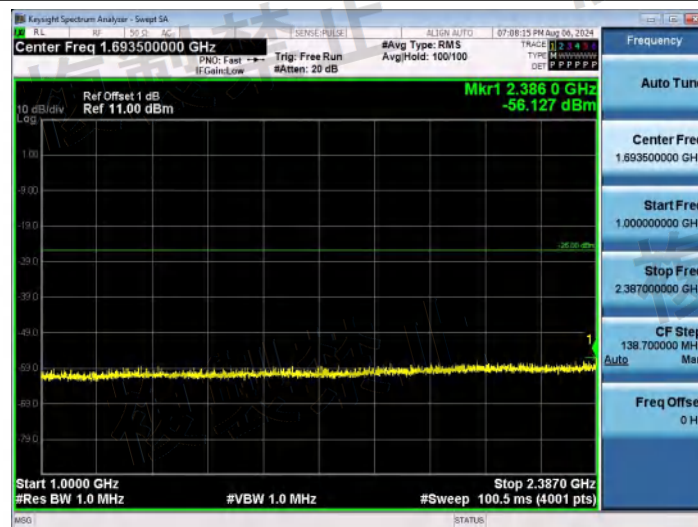




NTNV-11B-Ant1-2472-2496.5~13000-PASS

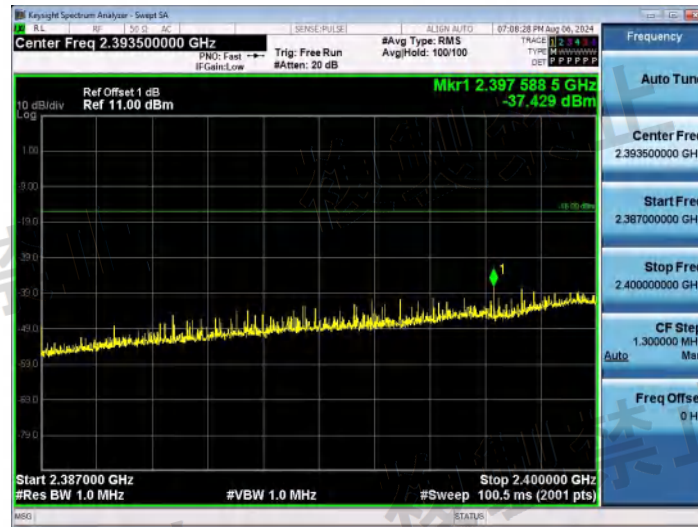


NTNV-11G-Ant1-2412-30~1000-PASS



NTNV-11G-Ant1-2412-1000~2387-PASS

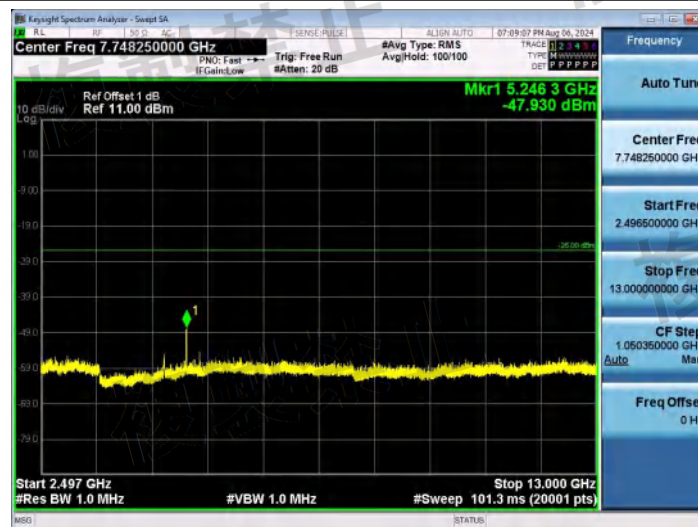




NTNV-11G-Ant1-2412-2387~2400-PASS

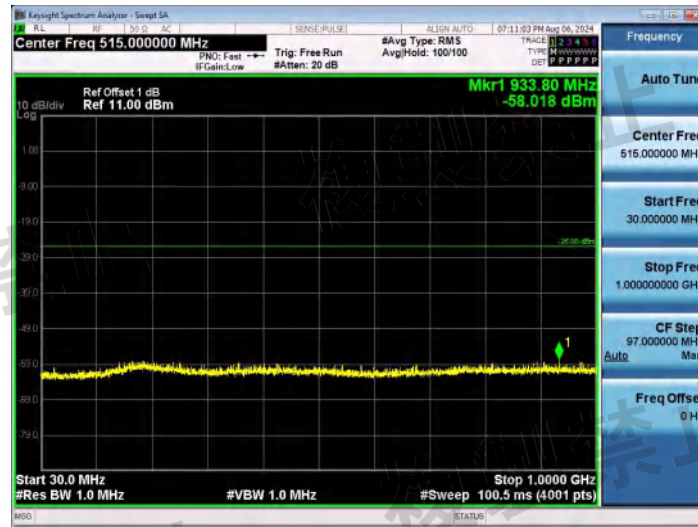


NTNV-11G-Ant1-2412-2483.5~2496.5-PASS

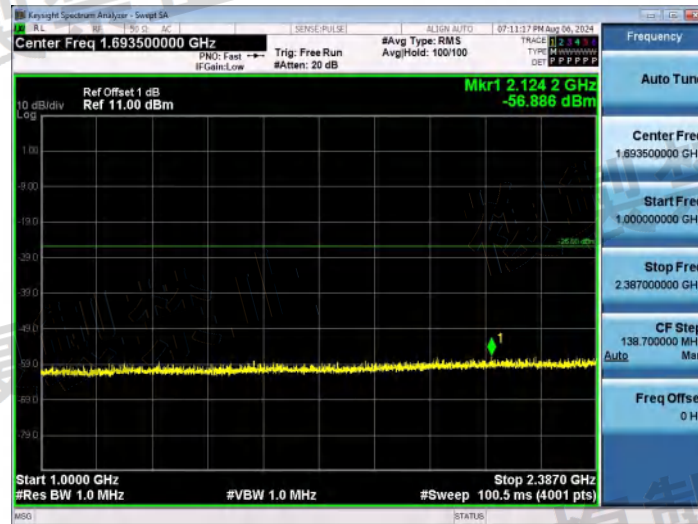


NTNV-11G-Ant1-2412-2496.5~13000-PASS

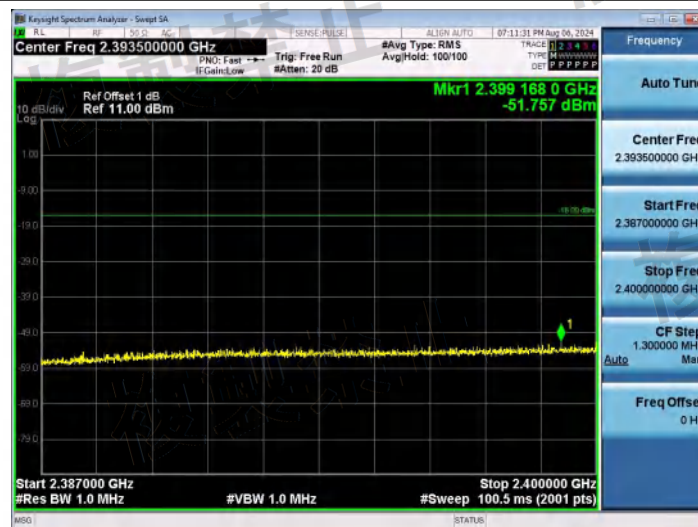




NTNV-11G-Ant1-2442-30~1000-PASS

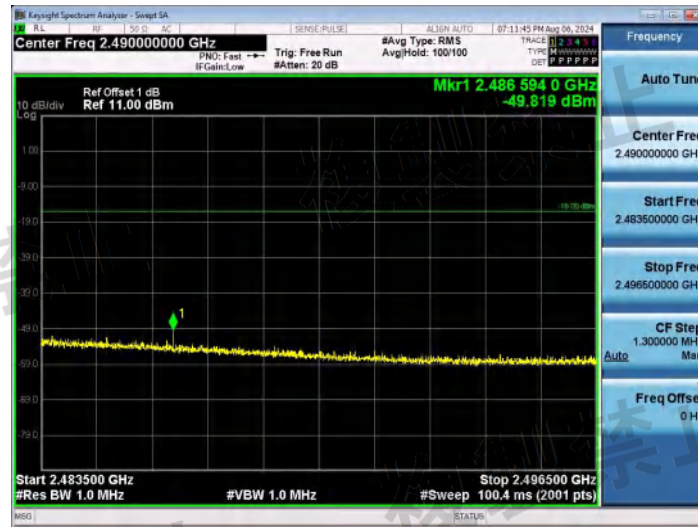


NTNV-11G-Ant1-2442-1000~2387-PASS

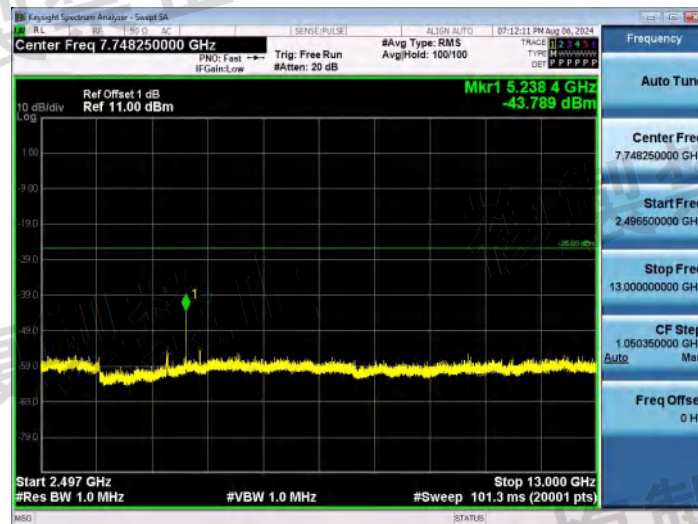


NTNV-11G-Ant1-2442-2387~2400-PASS

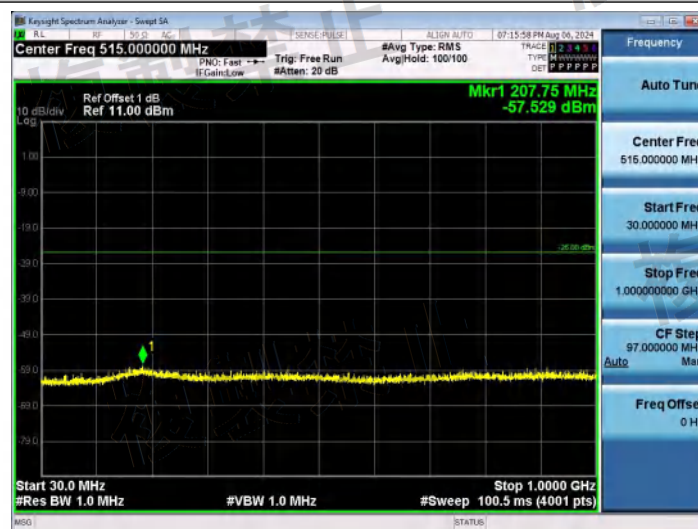




NTNV-11G-Ant1-2442-2483.5~2496.5-PASS

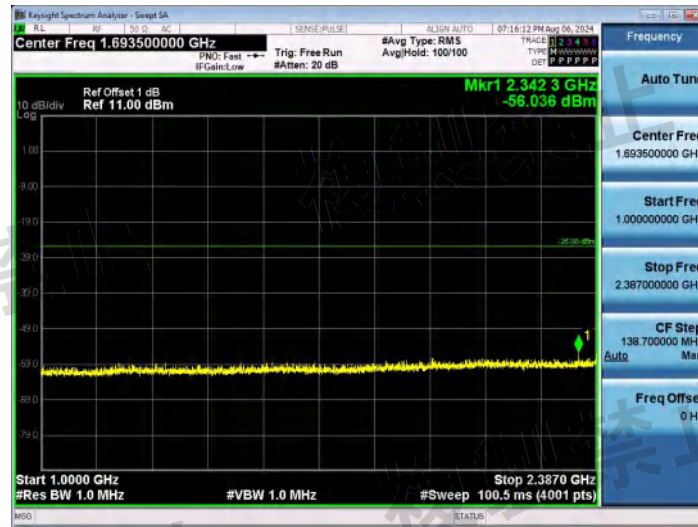


NTNV-11G-Ant1-2442-2496.5~13000-PASS

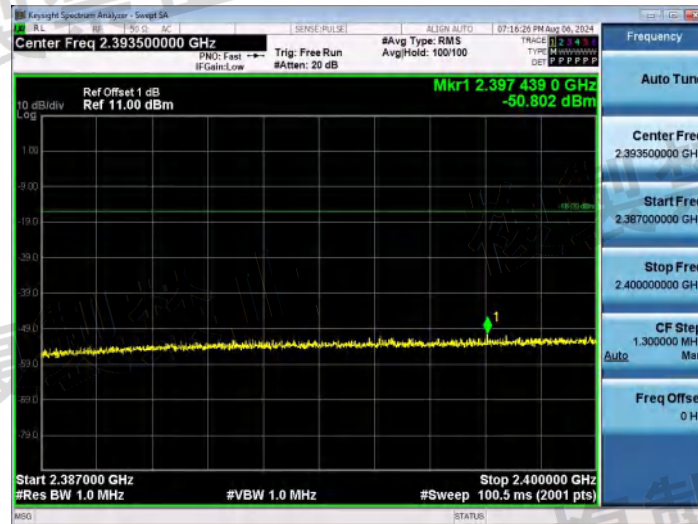


NTNV-11G-Ant1-2472-30~1000-PASS

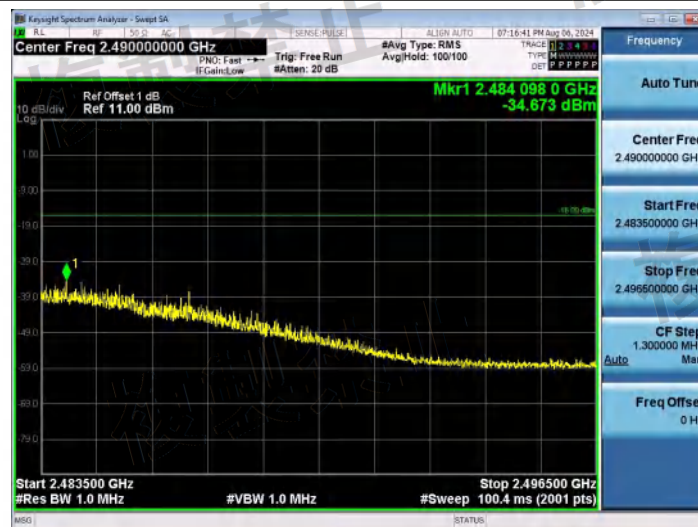




NTNV-11G-Ant1-2472-1000~2387-PASS

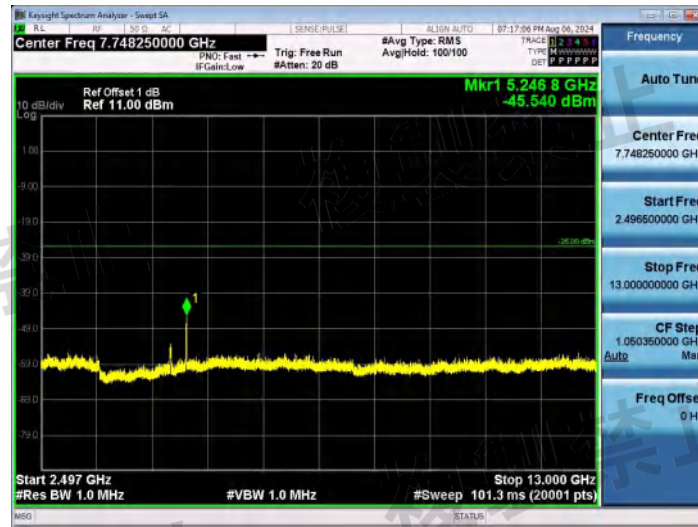


NTNV-11G-Ant1-2472-2387~2400-PASS



NTNV-11G-Ant1-2472-2483.5~2496.5-PASS

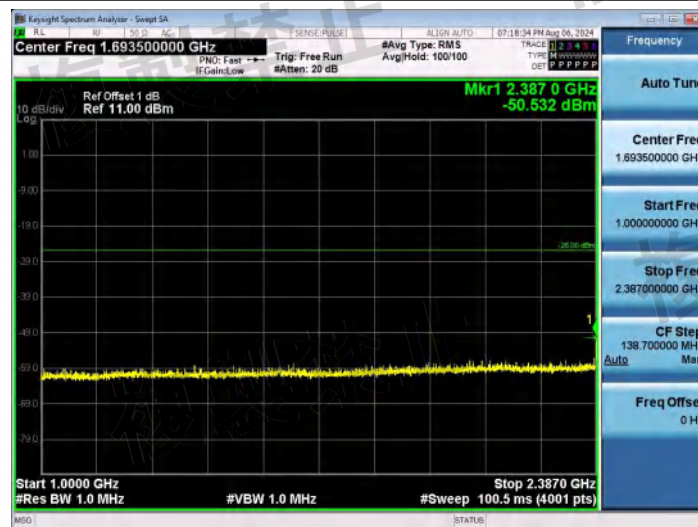




NTNV-11G-Ant1-2472-2496.5~13000-PASS

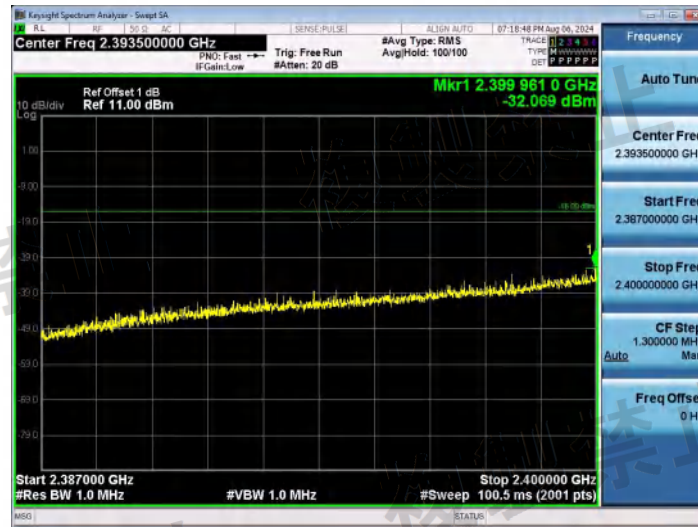


NTNV-11N20SISO-Ant1-2412-30~1000-PASS



NTNV-11N20SISO-Ant1-2412-1000~2387-PASS

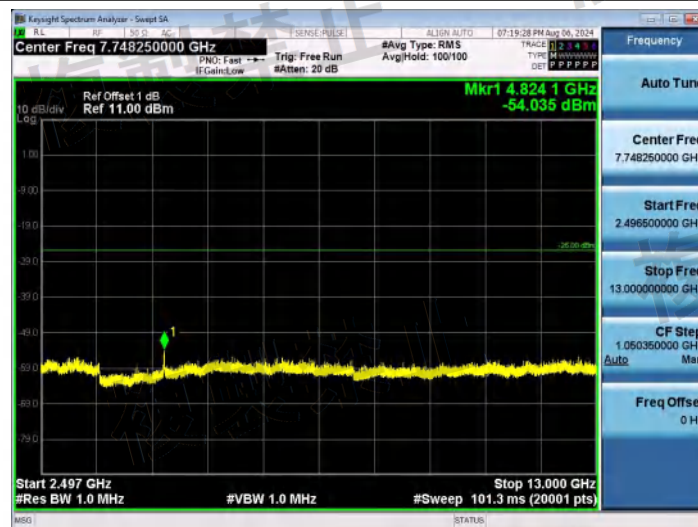




NTNV-11N20SISO-Ant1-2412-2387~2400-PASS

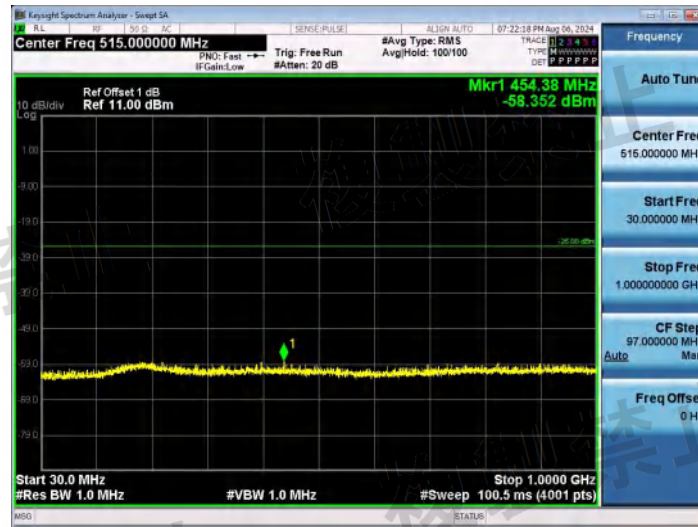


NTNV-11N20SISO-Ant1-2412-2483.5~2496.5-PASS

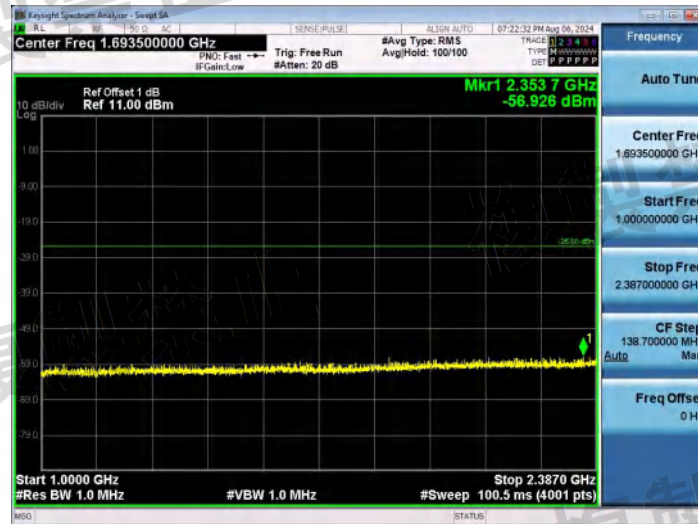


NTNV-11N20SISO-Ant1-2412-2496.5~13000-PASS

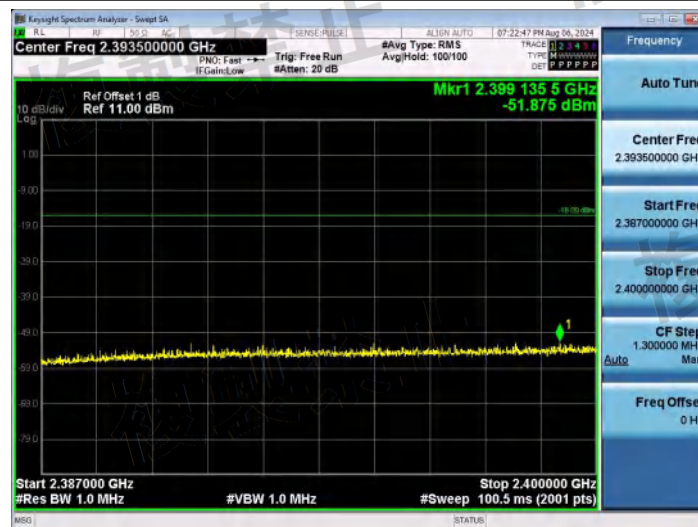




NTNV-11N20SISO-Ant1-2442-30~1000-PASS

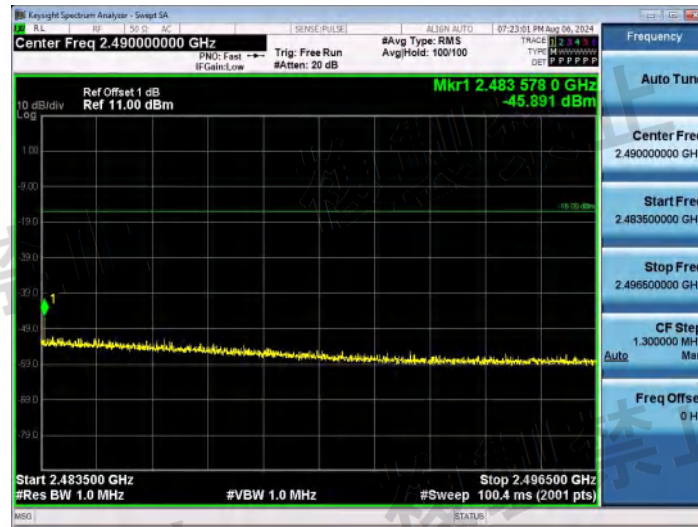


NTNV-11N20SISO-Ant1-2442-1000~2387-PASS



NTNV-11N20SISO-Ant1-2442-2387~2400-PASS

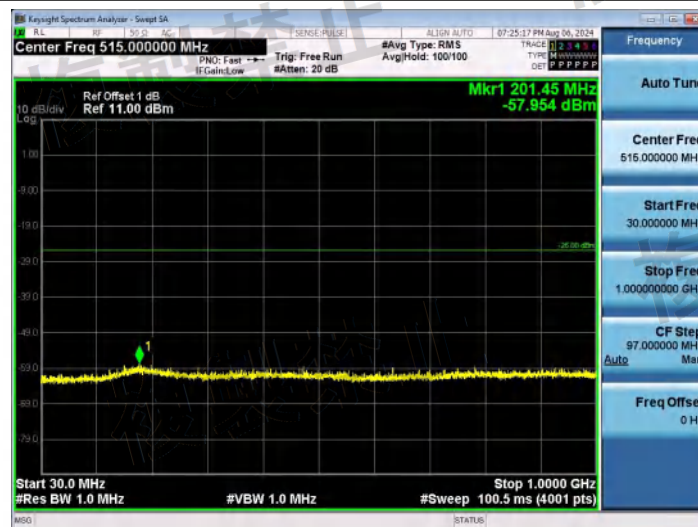




NTNV-11N20SISO-Ant1-2442-2483.5~2496.5-PASS

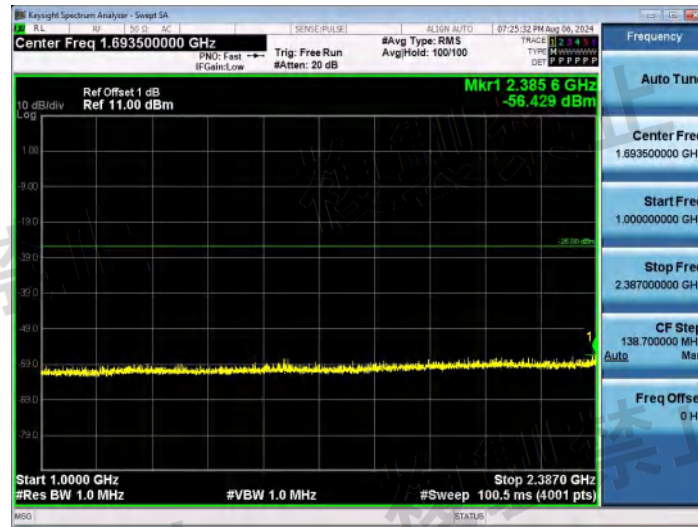


NTNV-11N20SISO-Ant1-2442-2496.5~13000-PASS

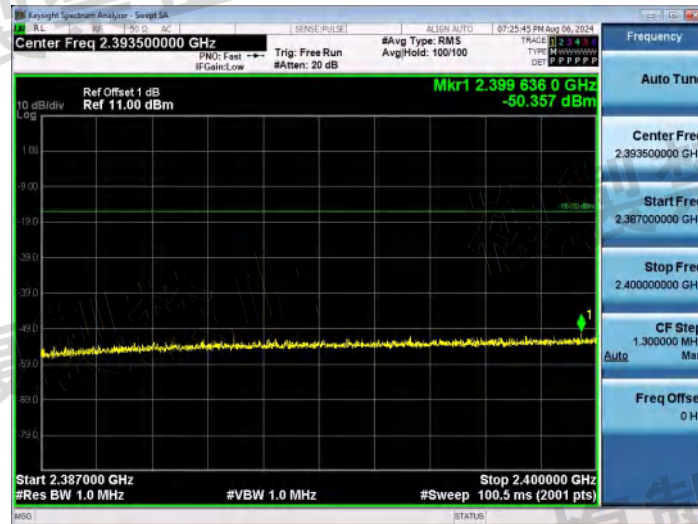


NTNV-11N20SISO-Ant1-2472-30~1000-PASS

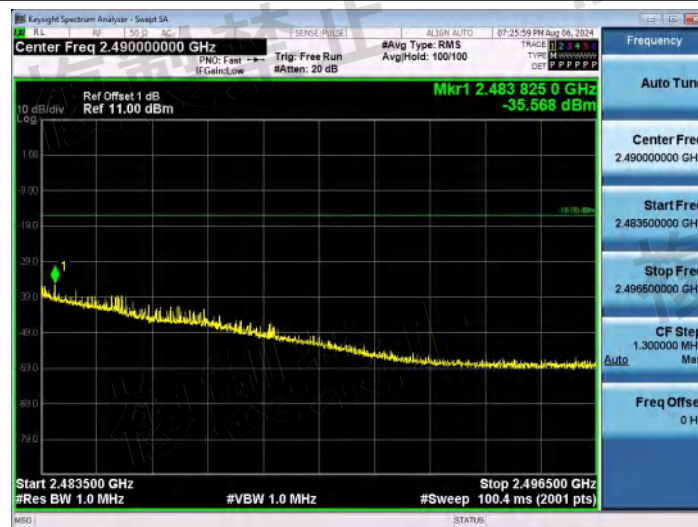




NTNV-11N20SISO-Ant1-2472-1000~2387-PASS

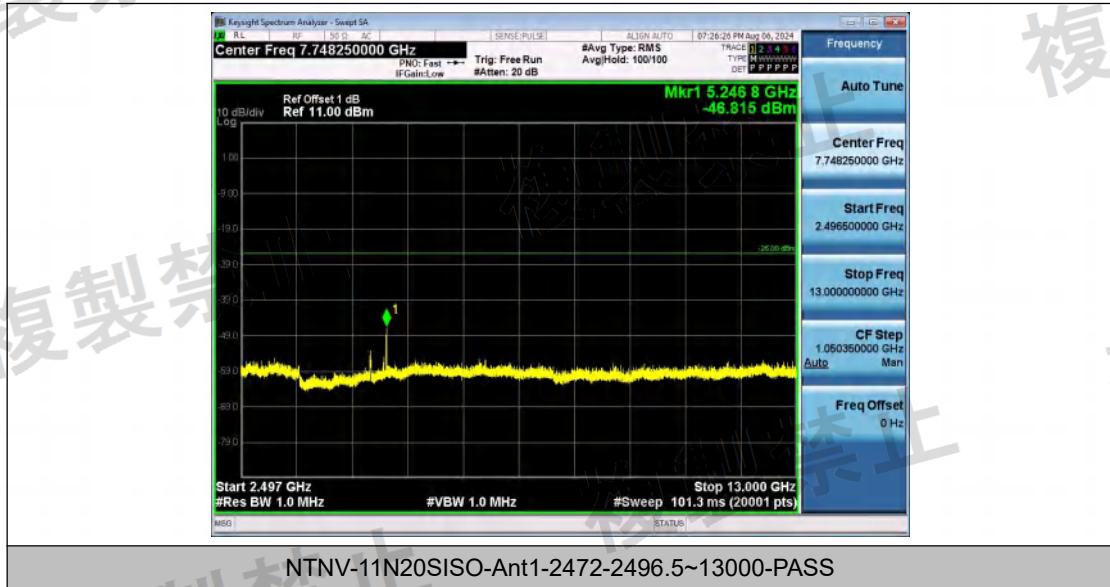


NTNV-11N20SISO-Ant1-2472-2387~2400-PASS



NTNV-11N20SISO-Ant1-2472-2483.5~2496.5-PASS





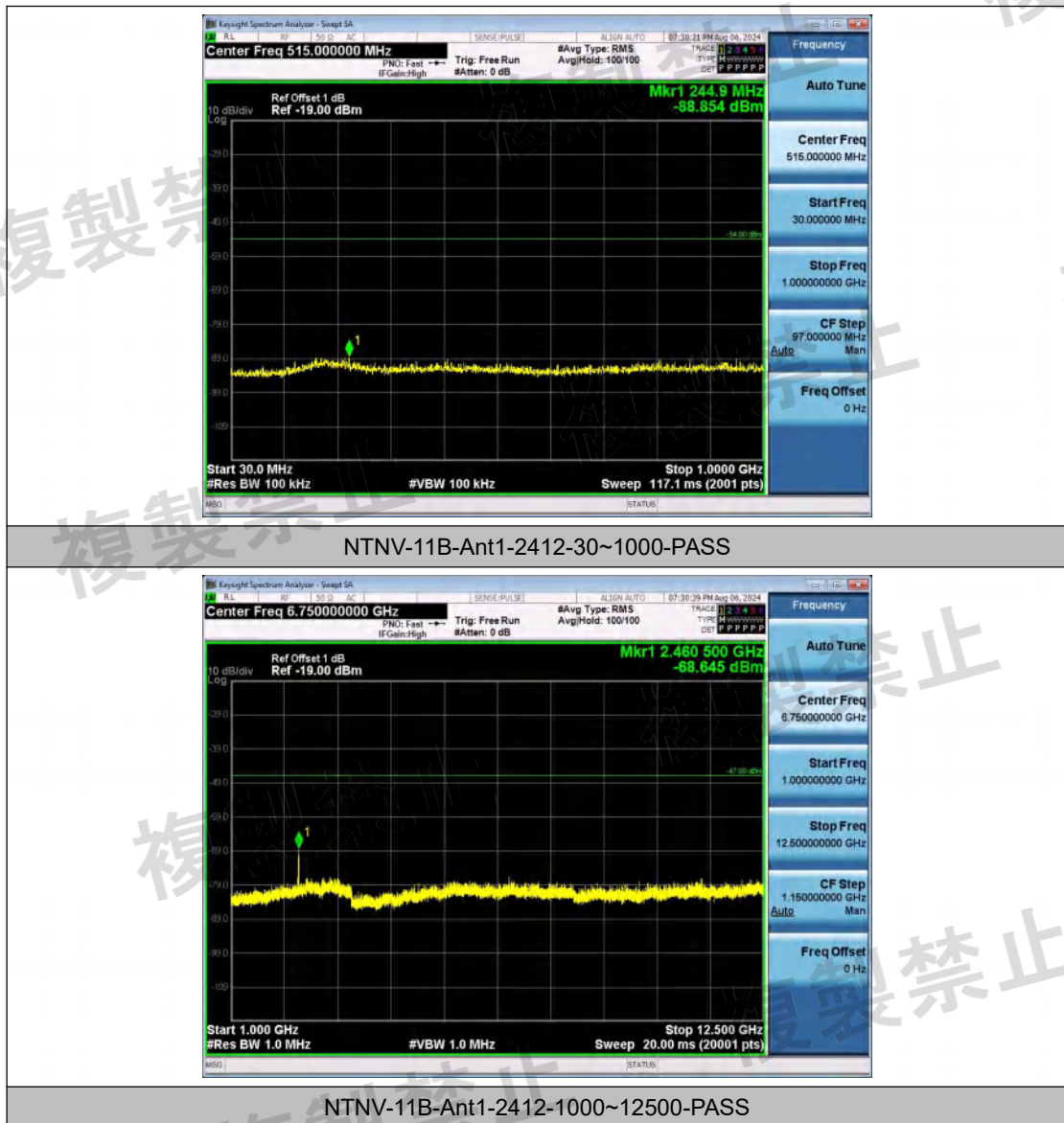
Appendix E: Spurious Emission of RX

Test Result

Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11B	Ant1	2412	30~1000	244.86	-88.85	≤-54	0.00130	≤4	PASS
NTNV	11B	Ant1	2412	1000~12500	2460.50	-68.65	≤-47	0.13646	≤20	PASS
NTNV	11B	Ant1	2442	30~1000	188.11	-88.63	≤-54	0.00137	≤4	PASS
NTNV	11B	Ant1	2442	1000~12500	2459.35	-71.75	≤-47	0.06683	≤20	PASS
NTNV	11B	Ant1	2472	30~1000	213.82	-88.55	≤-54	0.00140	≤4	PASS
NTNV	11B	Ant1	2472	1000~12500	5740.88	-63.12	≤-47	0.48753	≤20	PASS
NTNV	11G	Ant1	2412	30~1000	238.55	-88.80	≤-54	0.00132	≤4	PASS
NTNV	11G	Ant1	2412	1000~12500	5750.08	-62.39	≤-47	0.57677	≤20	PASS
NTNV	11G	Ant1	2442	30~1000	207.51	-88.22	≤-54	0.00151	≤4	PASS
NTNV	11G	Ant1	2442	1000~12500	5742.03	-57.76	≤-47	1.67494	≤20	PASS
NTNV	11G	Ant1	2472	30~1000	221.58	-88.02	≤-54	0.00158	≤4	PASS
NTNV	11G	Ant1	2472	1000~12500	1747.50	-63.84	≤-47	0.41305	≤20	PASS
NTNV	11N20SISO	Ant1	2412	30~1000	834.62	-81.50	≤-54	0.00708	≤4	PASS
NTNV	11N20SISO	Ant1	2412	1000~12500	5758.13	-64.23	≤-47	0.37757	≤20	PASS
NTNV	11N20SISO	Ant1	2442	30~1000	217.70	-88.45	≤-54	0.00143	≤4	PASS
NTNV	11N20SISO	Ant1	2442	1000~12500	5747.20	-61.35	≤-47	0.73282	≤20	PASS
NTNV	11N20SISO	Ant1	2472	30~1000	222.55	-88.15	≤-54	0.00153	≤4	PASS
NTNV	11N20SISO	Ant1	2472	1000~12500	5742.03	-58.94	≤-47	1.27644	≤20	PASS

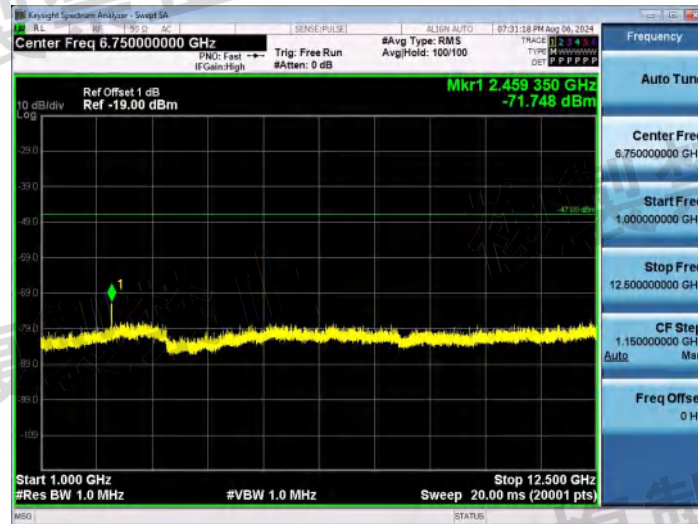


Test Graphs

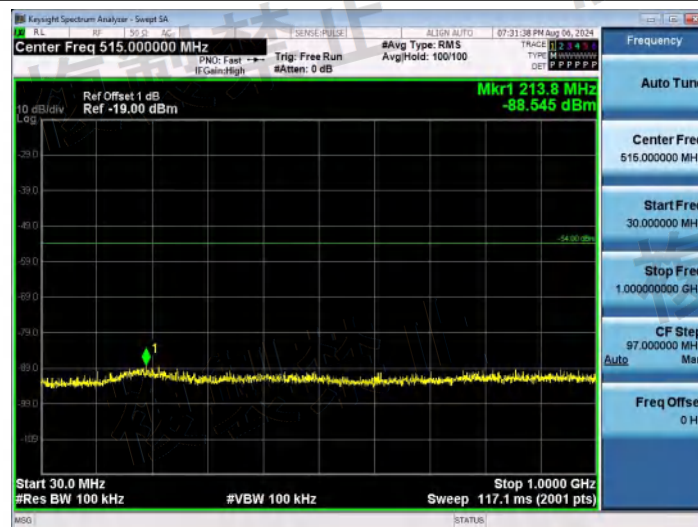




NTNV-11B-Ant1-2442-30~1000-PASS

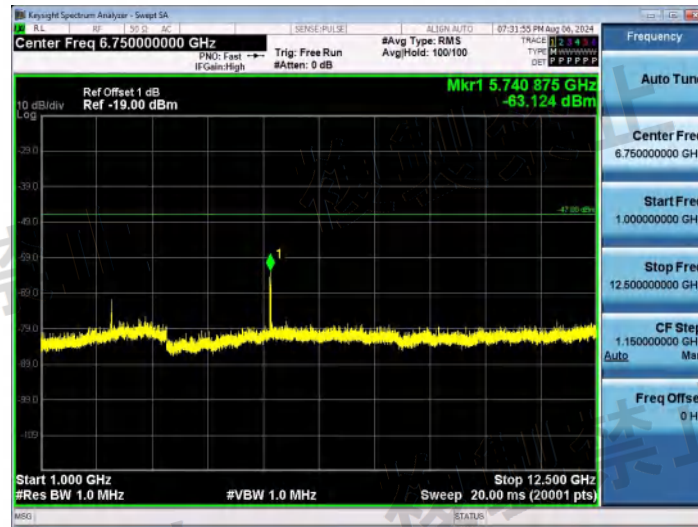


NTNV-11B-Ant1-2442-1000~12500-PASS



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

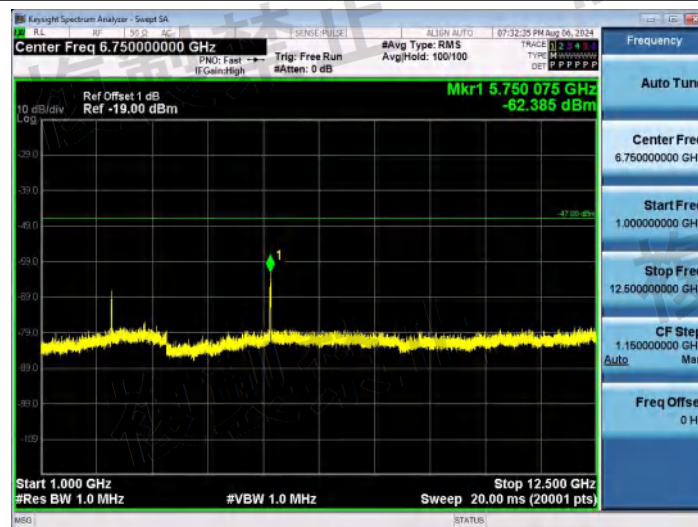




NTVN-11B-Ant1-2472-1000~12500-PASS

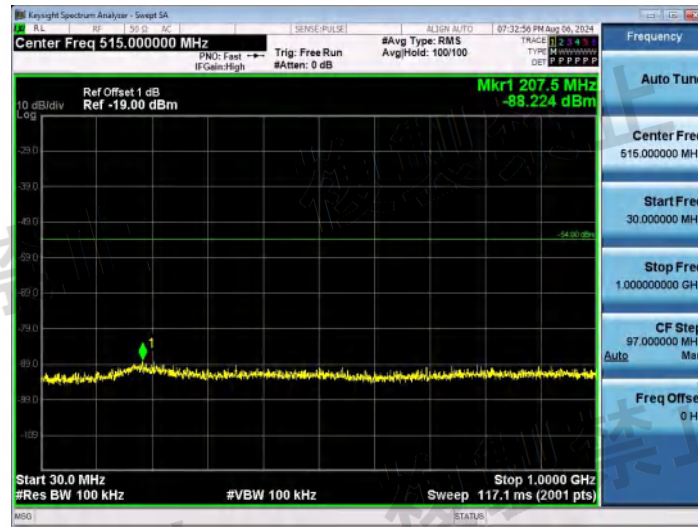


NTVN-11G-Ant1-2412-30~1000-PASS

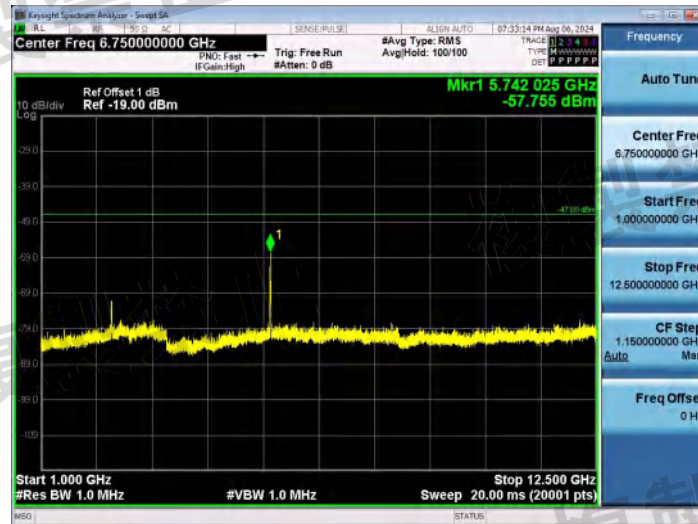


NTVN-11G-Ant1-2412-1000~12500-PASS

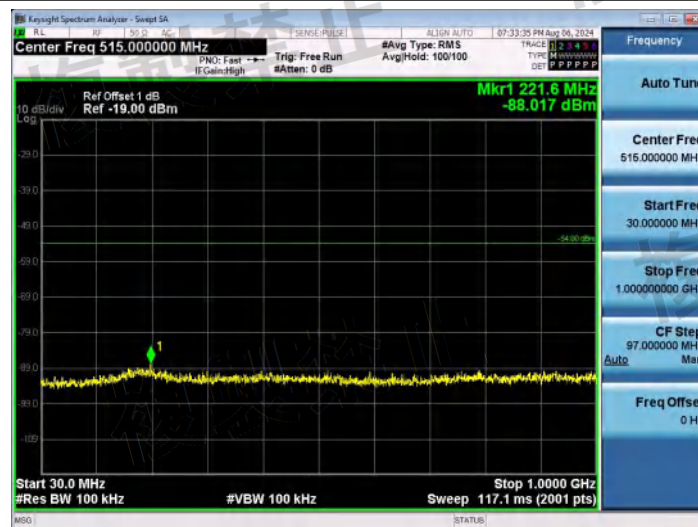




NTNV-11G-Ant1-2442-30~1000-PASS

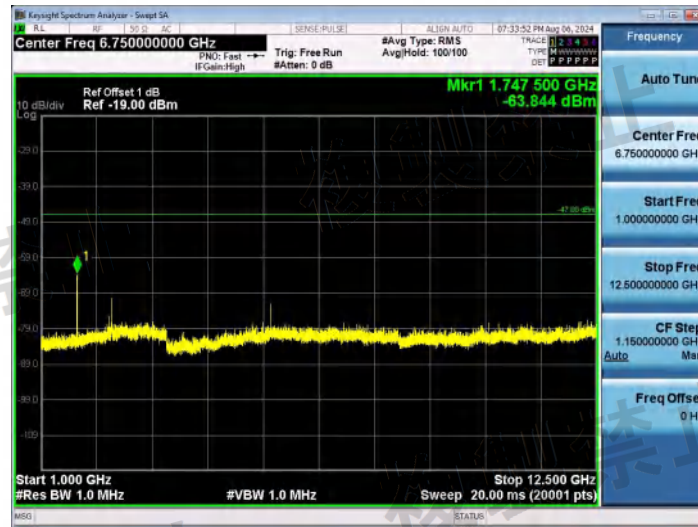


NTNV-11G-Ant1-2442-1000~12500-PASS



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

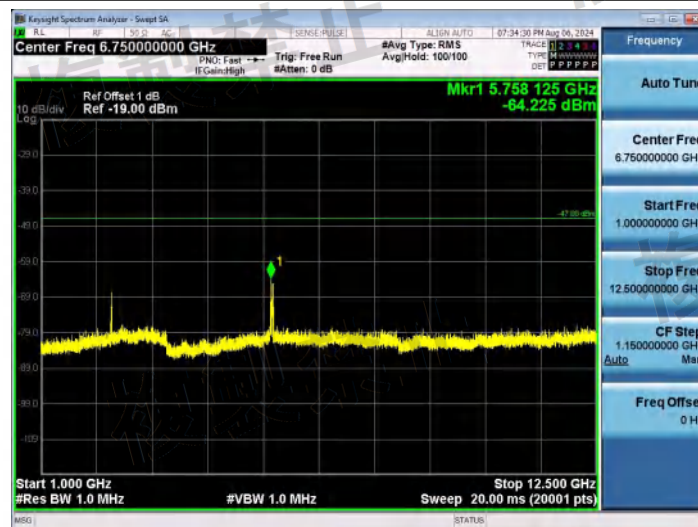




NTNV-11G-Ant1-2472-1000~12500-PASS

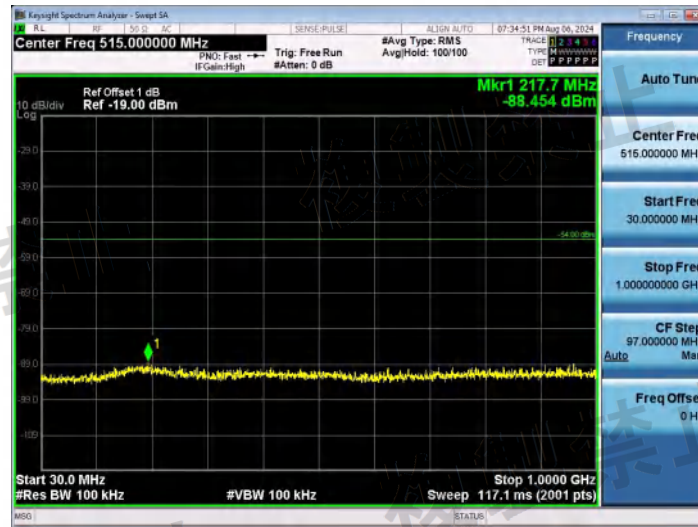


NTNV-11N20SISO-Ant1-2412-30~1000-PASS

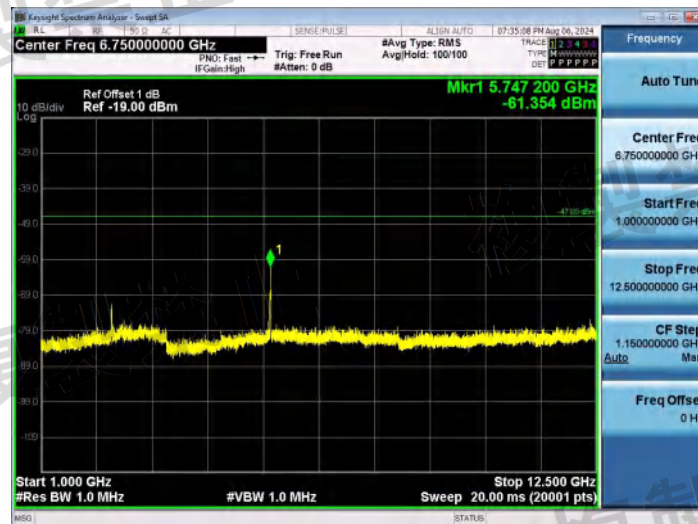


NTNV-11N20SISO-Ant1-2412-1000~12500-PASS

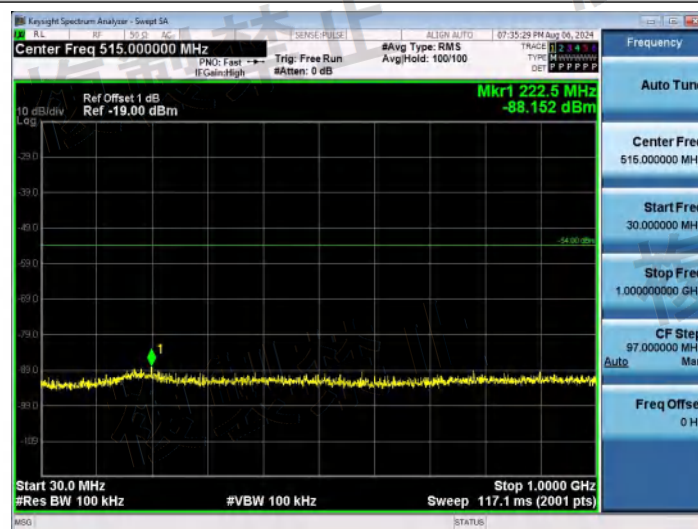




NTNV-11N20SISO-Ant1-2442-30~1000-PASS

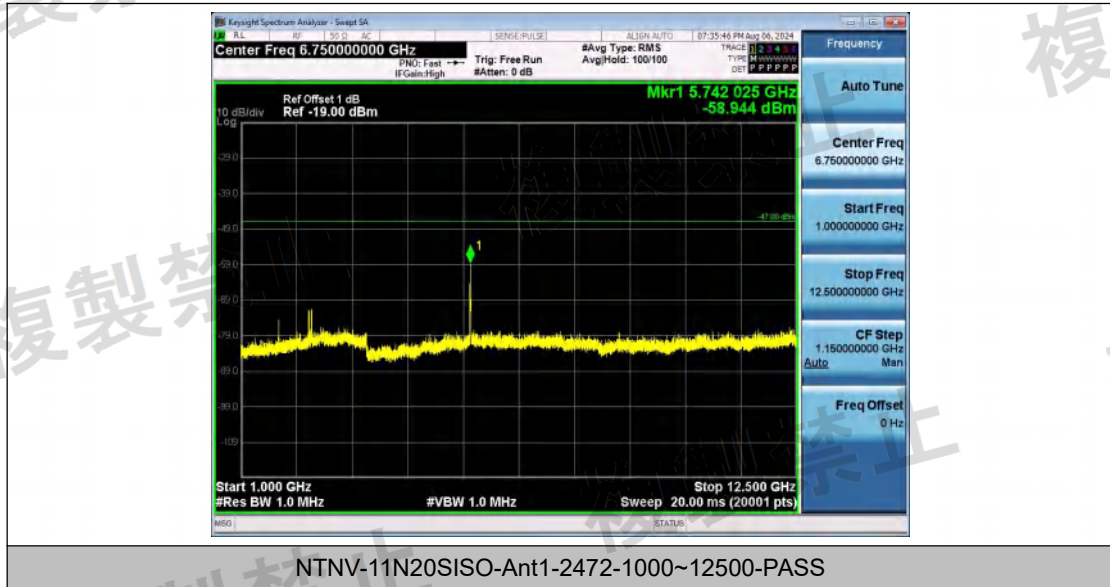


NTNV-11N20SISO-Ant1-2442-1000~12500-PASS



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





----- End of Report -----

