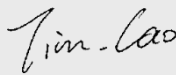


Test report No:
2580343R.701B

MIC TEST REPORT

Product Name	Wireless Earphones
Model and /or type reference	M2537E1
Trademark	REDMI
Applicant's name / address	Xiaomi Communications Co., Ltd. #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085
Test method requested, standard	Notification No. 88 Annex 43 Article 2 paragraph 1 item 19
Verdict Summary	IN COMPLIANCE
Documented by (name / position & signature)	Tim Cao / Project Manager 
Approved by (name / position & signature)	Frank He / Technical Manager 
Date of issue	2025-09-28
Report Version	V1.0
Report template No	Template_MIC-BT-RF-V1.0

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COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date(receive sample)	Aug.13, 2025
Date (start test)	Aug.15, 2025
Date (finish test)	Sep.28, 2025

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	24°C
Relative Humidity air	60%

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT	: Equipment Under Test
QP	: Quasi-Peak
CAV	: CISPR Average
AV	: Average
CDN	: Coupling Decoupling Network
SAC	: Semi-Anechoic Chamber
OATS	: Open Area Test Site
BW	: Bandwidth
AM	: Amplitude Modulation
PM	: Pulse Modulation
HCP	: Horizontal Coupling Plane
VCP	: Vertical Coupling Plane
U_N	: Nominal voltage
Tx	: Transmitter
Rx	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
2580343R.701B	V1.0	Initial issue of report.	2025-09-28

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Article 2 paragraph 1 item 19.
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China market.
7. DEKRA declines any responsibility with the following test data provided by customer that may affect the validity of result:
 - Chapter 1 General Information

USED EQUIPMENT

Conducted Test/ TR8

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Wireless Connectivity Tester	R&S	CMW 270	102593	2025.05.10	2026.05.09
Coaxial Cable	N/A	N/A	2477	2025.06.10	2026.06.09
Coaxial Cable	N/A	N/A	2478	2025.06.10	2026.06.09
Temperature/Humidity Meter	RTS	RTS-1909	THM-032	2025.04.30	2026.04.29
MAX Signal Analyzer	Keysight	N9010A	MY48030494	2024.10.19	2025.10.18
RF Control Unit	Tonscend	JS0806-2	22G8060594	2025.01.26	2026.01.25
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY61252529	2025.03.23	2026.03.22
Frequency extender for EXG or MXG	Keysight	N5182BX07	MY59362500	2025.03.23	2026.03.22
EXG-B MW Analog Signal Generator	Keysight	N5173B	MY61252566	2025.03.23	2026.03.22
Test Software	Tonscend	TS1120	JS1120-3	N/A	N/A

Instrument	Manufacturer	Model No.	Serial No.	Firmware Version	Software version	Calibration Body	Calibration Method
Wireless Connectivity Tester	R&S	CMW 270	102593	V 4.0.60	N/A	CEPREI	c
Coaxial Cable	N/A	N/A	2477	N/A	N/A	CEPREI	c
Coaxial Cable	N/A	N/A	2478	N/A	N/A	CEPREI	c
Temperature/Humidity Meter	RTS	RTS-8S	RF08	N/A	N/A	CEPREI	c
MAX Signal Analyzer	Keysight	N9010A	MY48030494	A.14.03	N/A	CEPREI	c
RF Control Unit	Tonscend	JS0806-2	22G8060594	N/A	N/A	CEPREI	c
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY61252529	B.01.96	N/A	CEPREI	c
Frequency extender for EXG or MXG	Keysight	N5182BX07	MY59362500	N/A	N/A	CEPREI	c
EXG-B MW Analog Signal Generator	Keysight	N5173B	MY61252566	B.01.95	N/A	GRGTEST	c
Test Software	Tonscend	TS1120	JS1120-3	N/A	V3.0.22	CEPREI	c

Calibration Method:

a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1)

b) Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992)

c) Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1)

d) Calibration conducted by using measuring instruments and other equipment listed in the right column of Table No. 3 attached hereto, which shall have been given any of calibration, etc. listed above from a) to c)

CEPREI : China ceprei laboratory calibration & testing centre.

DEKRA : DEKRA Testing and Certification (Suzhou) Co., Ltd.

GRGTEST: Grg Metrology&Test (WuXi) Co.,Ltd.GRGTEST: Grg Metrology&Test (WuXi) Co.,Ltd.

UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

Test item	Uncertainty
Antenna Power Antenna Power Tolerance and E.I.R.P	± 1.3 dB
Spread Bandwidth and Spread Factor	± 0.15 kHz
Occupied Bandwidth	± 0.15 kHz
Frequency Tolerance	± 0.15 kHz
Dwell Time	± 2.0 ms
Transmitter Spurious Emissions	± 1.3 dB
Receiver Spurious Emissions	± 1.3 dB

1 GENERAL INFORMATION

Product Name..... :	Wireless Earphones					
Model No. :	M2537E1					
Trademark	REDMI					
HW Version..... :	Earphones: V1.3, Charging case: V1.3					
SW Version..... :	V1.0.3.7					
Operation Temperature	0 ~ 45 °C					
Manufacturer..... :	Xiaomi Communications Co., Ltd.					
Manufacturer address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085					
Power Supply..... :	3.85 Vdc					
Wireless specification..... :	Bluetooth BR/EDR					
Operating frequency range(s)	2402~2480MHz					
Type of Modulation..... :	GFSK					
PHYs	☒	GFSK	☒	PI/4 DQPSK	☒	8DPSK
Data Rate	☒	1Mbit/s	☒	2Mbit/s	☒	3Mbit/s
Number of channels	79					
Antenna Type	FPC					
Antenna Gain..... :	Left:-3.02 dBi; Right:-2.59 dBi					
Declared Power	1.0 mW/MHz for normal mode					
	1.0 mW/MHz for AFH mode					

Remark:

1. The product is an in ear earphone, which includes two types: left and right. The PCBs used for the left and right earphones are exactly the same, and the antenna type used is also the same. The report reflects the complete data of the right earphone with a larger antenna gain.

2.As above information is provided and confirmed by the applicant. DEKRA is not liable to the accuracy, suitability, reliability or/and integrity of the information.

2 DESCRIPTION OF TEST SETUP

Auxiliary equipment	Type / Version	Manufacturer	Supplied by
(1) Notebook	Think pad x220	Lenovo	Adapter
(2) USB Control Cable	N/A	N/A	N/A
(3) USB Control Cable	N/A	N/A	N/A
software	Type / Version	Manufacturer	Supplied by
FCC_assist	1.0.4	N/A	N/A

Accessories Information	Cable		
	Length used during test [m]	Attached during test	Shielded
(2)USB Control Cable	1	☒	☒
(3)USB Control Cable	8	☒	☒

2.1 Test Voltage

Power supply voltage fluctuation test

Voltage Fluctuation Test	Normal Voltage	High Voltage Normal Voltage +10% of	Low Voltage Normal Voltage -10% of
Input To EUT	DC 3.85 V	DC 4.24 V	DC 3.465 V
Test Result	1.25 V	1.25 V	1.25 V
Voltage Variation	Reference	0%	0%

Note:

Changing the supply voltage of the EUT will not change the voltage of the RF module.

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.

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
Article 2 paragraph 1 item (19)	2023	2.4GHz Band Advanced Low Power Data Communication System
Notification No. 88 Annex 43.	2004	Test methods for radio equipment listed in Article 2, Paragraph 1, Item 19 and Item 19-2-2 of Certification Ordinance
--	--	--

3.2 Deviation(s) from the Standard(s) / Test Specification(s)

No deviation

3.3 Overview of results

Test Item - MIC notification 88 Annex 43				
Performed Test Item	Normative References	Test Performed	Verdict	Remark
Antenna Power Antenna Power Tolerance and E.I.R.P	MIC notification 88 Annex 43 section 6	Yes	PASS	Test data please refer to Appendix A
Occupied Bandwidth	MIC Notification 88 Annex 43 section 4	Yes	PASS	Test data please refer to Appendix B
Frequency Tolerance	MIC Notification 88 Annex 43 section 3	Yes	PASS	Test data please refer to Appendix C
Dwell Time	MIC Notification 88 Annex 43 section 13	Yes	PASS	Test data please refer to Appendix D
Transmitter Spurious Emissions	MIC Notification 88 Annex 43 section 7	Yes	PASS	Test data please refer to Appendix E
Receiver Spurious Emissions	MIC Notification 88 Annex 43 section 7	Yes	PASS	Test data please refer to Appendix F
Interference Prevention Function	MIC Notification 88 Annex 43 section 12	Yes	PASS	Test data please refer to Appendix G

3.4 Worst-case configuration and mode

Power of AFH mode is lower than that of normal mode, so only the worst-case scenario data is included in the report.

4 TEST RESULTS

4.1 Antenna Power Antenna Power Tolerance and E.I.R.P

VERDICT: PASS

4.1.1 Limit

Standard Article 2 Paragraph 1 item 19

Output Power

- | | |
|-------------------------------------|---|
| ☒ | Channel Power of DSSS, the limit should $\leq 10\text{mW/MHz}$ |
| ☒ | Channel Power of FHSS, the limit should $\leq 3\text{mW/MHz}$ |
| ☐ | Channel Power of OFDM |
| ☐ | Nominal Bandwidth = 20MHz, the limit should $\leq 10\text{mW/MHz}$ |
| ☐ | Nominal Bandwidth = 40MHz, the limit should $\leq 5\text{mW/MHz}$ |
| ☐ | Channel Power of other situation, the limit should $\leq 10\text{mW}$ |

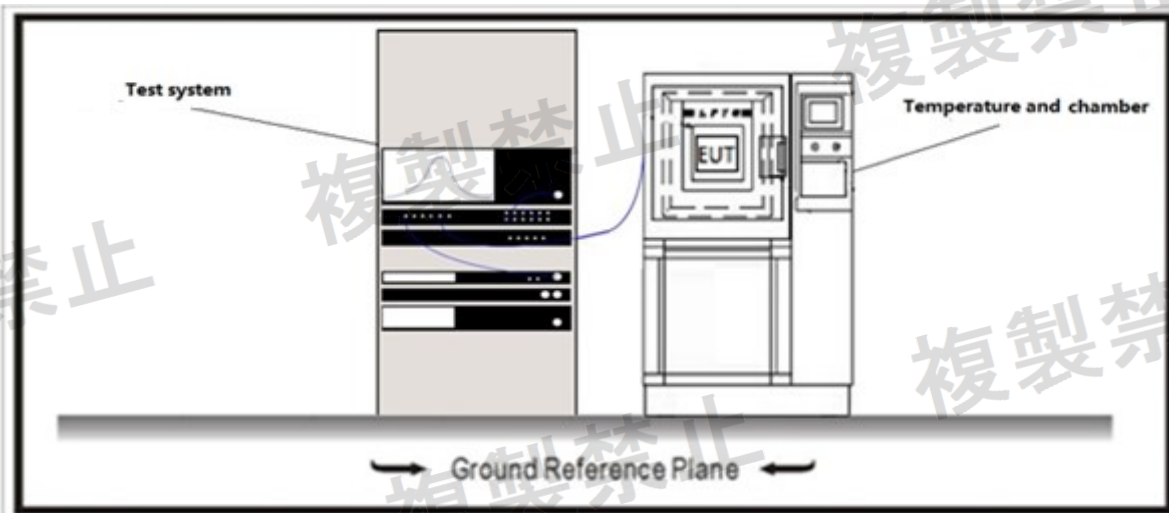
EIRP

- | | |
|-------------------------------------|-----------------------------------|
| ☒ | Undirected: 6.91dBm/MHz or less |
| ☒ | Directional: 16.91dBm/MHz or less |

Output Power Tolerance

- | | |
|-------------------------------------|------------------------------|
| ☒ | Output Power Tolerance: +20% |
|-------------------------------------|------------------------------|

4.1.2 Test Set up



4.1.3 Test Procedure

References Rule

☒ MIC Notification 88 Annex 43

Step 1. Condition of measuring instrument

(1) Measure the equivalent noise bandwidth at the resolution bandwidth of 1 MHz of the spectrum analyzer, correct the bandwidth to the 1 MHz equivalent bandwidth, and read the displayed value. However, when the spread bandwidth is 1 MHz or less, correction shall be performed only when "spread bandwidth (MHz)/equivalent noise bandwidth (MHz)" exceeds 1.

(2) The attenuation of the dummy load (attenuator) shall be the value that gives the optimum operating input level to the spectrum analyzer.

(3) Set the spectrum analyzer as follows when searching for the frequency that gives the maximum antenna power.

Center frequency	Test frequency
Sweep frequency width	About twice the occupied frequency bandwidth
Resolution bandwidth	1MHz
Video bandwidth	About three times the resolution bandwidth
Sweep time	Minimum time for guaranteed measurement accuracy
(In the case of burst waves, the time at which one or more bursts are included per sample)	

Trigger condition	Free run
Sweep mode	Continuous sweep
Detection mode	positive peak
Display mode	Max hold

(4) Set the spectrum analyzer as follows when measuring the antenna power.

Center frequency The frequency that gives the maximum power (searched frequency)

Sweep frequency width	0Hz
Resolution bandwidth	1MHz
Video bandwidth	Same as resolution bandwidth
Sweep mode	Continuous sweep

Step 2. Measurement procedure

a. Confirming in the submitted document that the frequency hopping intervals in the frequency distribution of frequency hopping are equal intervals of 1 MHz or less, and that the probability of occurrence at each hopping frequency is uniform, and that the probability of occurrence at each hopping frequency is uniform. If it is, it is implemented by the following method.

(a) Connect a high frequency power meter to the output of the dummy load (attenuator) and measure the total power.

(b) Divide the total power by the spreading bandwidth to calculate the average power per 1 MHz.

(c) Antenna power shall be as follows.

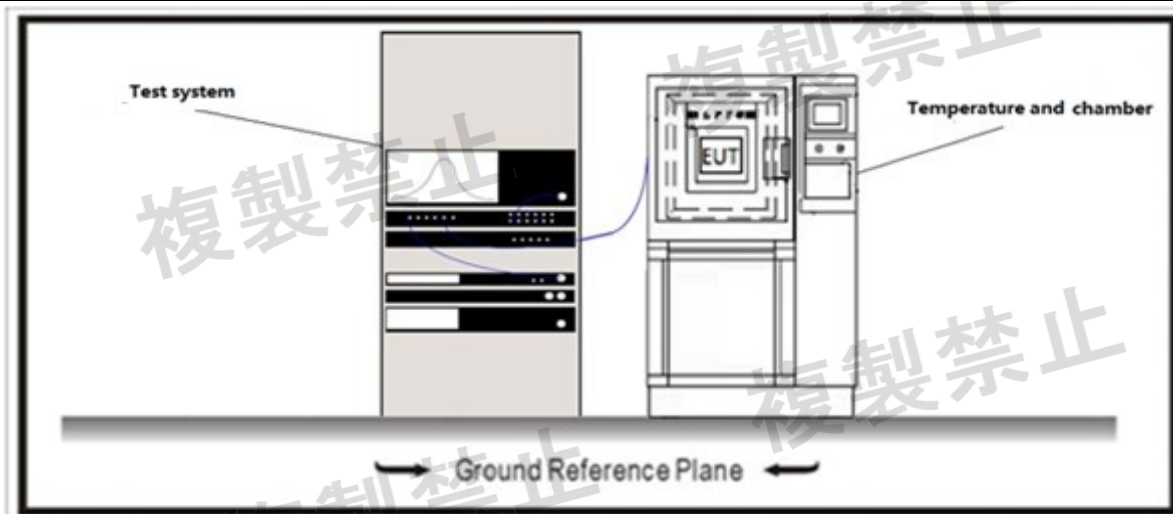
A Value of (b) for continuous wave

B For burst wave Average power in burst is calculated from the value of (b) and the transmission time rate.

b. If the frequency distribution of frequency hopping or the probability of occurrence at each hopping frequency is not uniform, set the spectrum analyzer as in Step1(3) to search for the frequency that gives the maximum antenna power, and then perform spectrum analysis. Set the device as in Step1(4), and measure the antenna power at the frequency that gives the maximum power.

4.2 Occupied Bandwidth**VERDICT: PASS****4.2.1 Limit****Standard**

Article 2 Paragraph 1 item 19

 ≤ 26 MHz for DSSS&OFDM, ≤ 83.5 MHz for FHSS, ≤ 38 MHz for OFDM(Wide-band)**4.2.2 Test Setup****4.2.3 Test Procedure**

References Rule

☒ MIC Notification 88 Annex 43

Step 1

1. Set spectrum analyzer to following setting:

Center frequency: Equal to center frequency of test signal

Span: Between 2 times and 3.5 times the limited bandwidth.

RBW: Less than 3% of the limited bandwidth

VBW: Equal to RBW

Sweep mode: Continuous sweep

Detect mode: Positive peak

Trace mode: Max hold

2. The integrated 99% power bandwidth function may be used to measure the spread bandwidth.

4.3 Frequency Tolerance

VERDICT: PASS

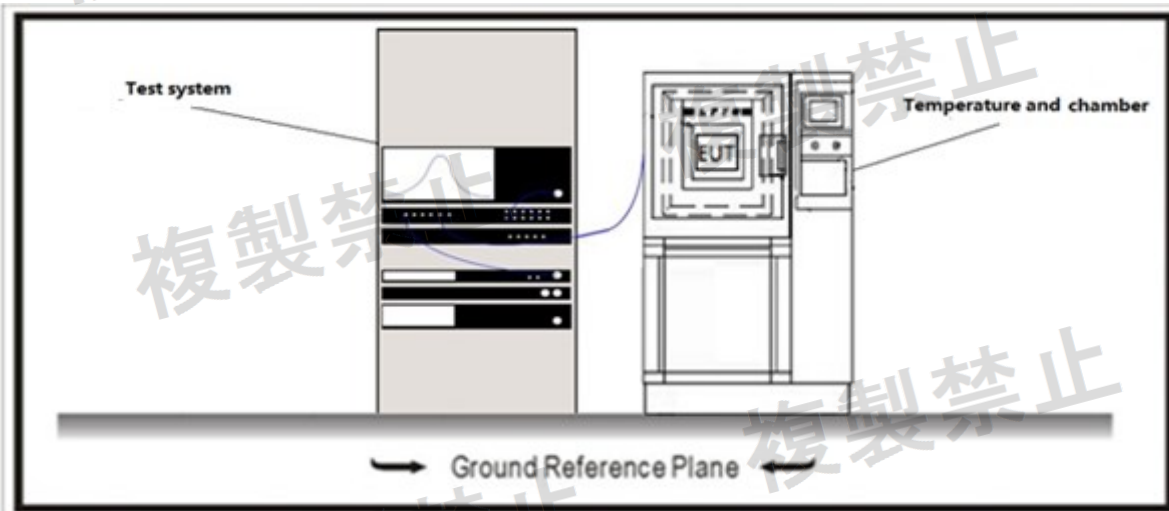
4.3.1 Limit

Standard

Article 2 Paragraph 1 item 19

 $\leq \pm 50$ ppm

4.3.2 Test Setup



4.3.3 Test Procedure

References Rule
☒ MIC Notification 88 Annex 43

The measurement accuracy of the frequency meter shall be 1/10 or less of the permissible value specified in the equipment regulations.

☐ Unmodulation Wave (CW signal)

1. Set spectrum analyzer as following setting:

Center frequency: Equal to center frequency of signal under test

Span: Widest enough to see the entire waveform

RBW: 3kHz

VBW: 10kHz

Detect mode: Positive Peak

Trace mode: Max hold

Sweep time: Auto

2. Use the peak search function to find the highest level frequency and record data.

☒ Modulation Wave

1. Set spectrum analyzer to following setting:

Center frequency: Equal to center frequency of signal under test

Span: Widest enough to see the entire waveform

RBW: 100kHz

VBW: 100kHz

Detect mode: Positive Peak

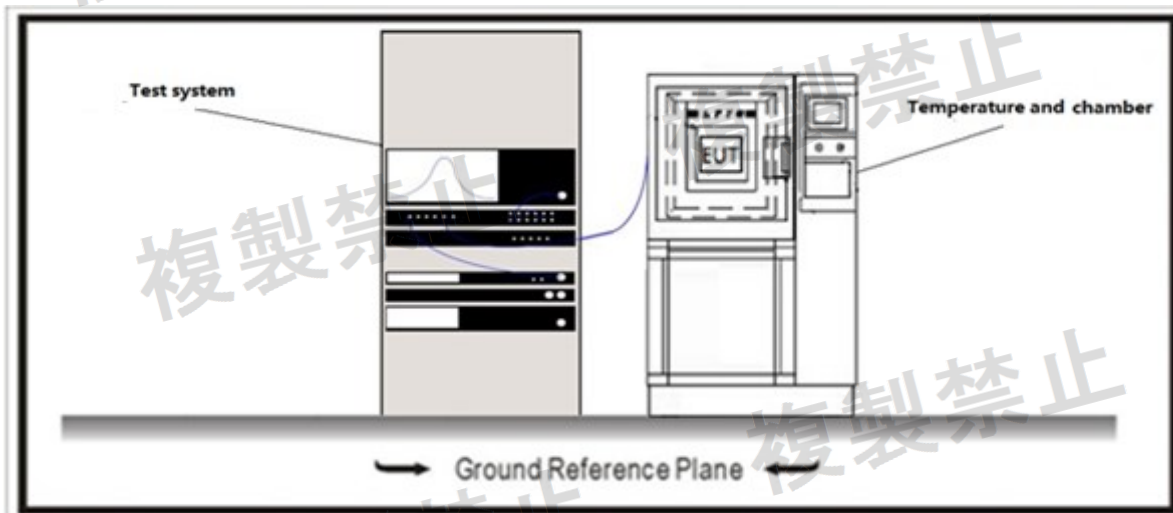
Trace mode: Max hold

Sweep time: Auto

2. Use the peak search function to find the highest level frequency, record maximum level.
3. Setting display line to 10dB lower than the maximum level.
4. Mark the lowest and highest frequency where the test signal intersect the display line, record the frequency F_L , F_H .
5. The Center frequency of test $F_C = (F_L + F_H)/2$

4.4 Dwell Time**VERDICT: PASS****4.4.1 Limit****Standard**

Article 2 Paragraph 1 item 19

 ≤ 400 ms**4.4.2 Test Setup****4.4.3 Test Procedure**

References Rule

☒ MIC Notification 88 Annex 43

Step 1

Center frequency: Equal to center frequency of signal under test

RBW: 1 MHz ; VBW : 1 MHz ; Span: 0 MHz

Detector Positive Peak ; Trace Max Hold

The transmitter output (antenna port) was connected to the spectrum analyzer.

Set RBW of spectrum analyzer to 1MHz and VBW to 1MHz.

Use a video trigger with the trigger level set to enable triggering only on full pulses.

Sweep Time is more than once pulse time.

Set the center frequency on any frequency would be measure and set the frequency span to zero span.

4.5 Transmitter Spurious Emission**VERDICT: PASS****4.5.1 Limit****Standard**

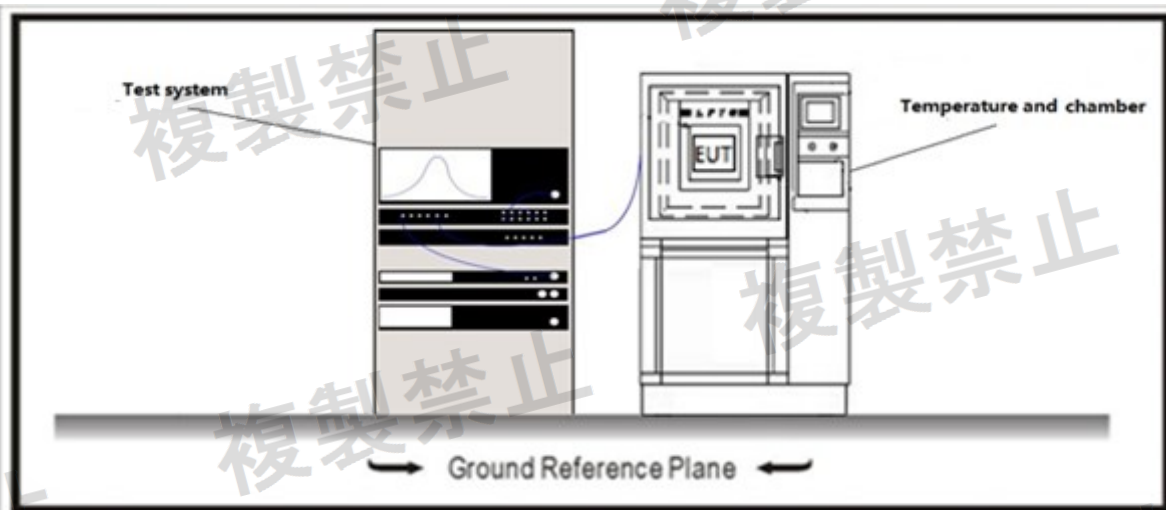
Article 2 Paragraph 1 item 19

<= 2.5uW/MHz for 30 - 2387 MHz

<= 25uW/MHz for 2387 - 2400 MHz

<= 25uW/MHz for 2483.5 - 2496.5 MHz

<= 2.5uW/MHz for 2496.5 - 12500 MHz

4.5.2 Test Setup**4.5.3 Test Procedure**

References Rule

☒ MIC Notification 88 Annex 43

Step 1

1. Set the spectrum analyzer as follows when searching.

Sweep frequency width 30MHz to 5 times the carrier frequency

Resolution bandwidth 100 kHz for frequencies below 1 GHz, 1 MHz for frequencies above 1 GHz

Video bandwidth Same as resolution bandwidth

Sweep time Minimum time for guaranteed measurement accuracy

Sweep mode Single sweep

Detection mode positive peak

2. Set the spectrum analyzer for secondary emission measurement as follows.

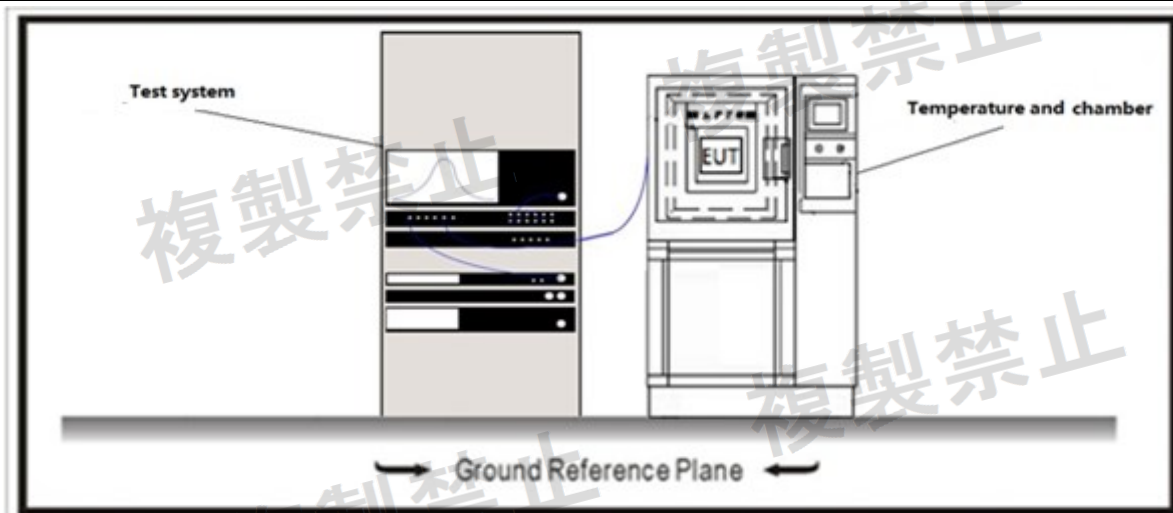
Center frequency	Secondary emission frequency
Sweep frequency width	0Hz
Resolution bandwidth	100 kHz for frequencies below 1 GHz, 1 MHz for frequencies above 1 GHz
Video bandwidth	Same as resolution bandwidth
Sweep time	Minimum time for guaranteed measurement accuracy
Sweep mode	Single sweep
Detection mode	sample

4.6 Receiver Spurious Emission**VERDICT: PASS****4.6.1 Limit****Standard**

Article 2 Paragraph 1 item 19

<= 4nW for 30 - 1000 MHz

<= 20nW for 1000 - 12500MHz

4.6.2 Test Setup**4.6.3 Test Procedure**

References Rule

☒ MIC Notification 88 Annex 43

Step 1

1. Set the spectrum analyzer as follows when searching.

Sweep frequency width 30MHz to 5 times the carrier frequency

Resolution bandwidth 100 kHz for frequencies below 1 GHz, 1 MHz for frequencies above 1 GHz

Video bandwidth Same as resolution bandwidth

Sweep time Minimum time for guaranteed measurement accuracy

Sweep mode Single sweep

Detection mode positive peak

2. Set the spectrum analyzer for secondary emission measurement as follows.

Center frequency Secondary emission frequency

Sweep frequency width	0Hz
Resolution bandwidth	100 kHz for frequencies below 1 GHz, 1 MHz for frequencies above 1 GHz
Video bandwidth	Same as resolution bandwidth
Sweep time	Minimum time for guaranteed measurement accuracy
Sweep mode	Single sweep
Detection mode	sample

4.7 Interference Prevention Function Measurement

VERDICT: PASS

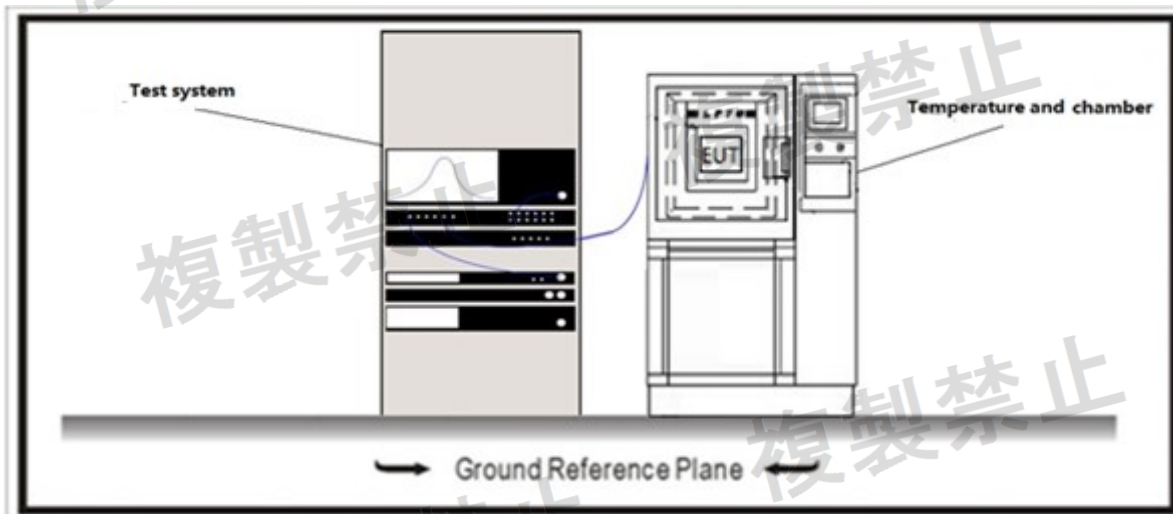
4.7.1 Limit

Standard

Article 2 Paragraph 1 of item 19

The one automatically to transmit and to receive identification code with the wireless equipment of the wireless station used in the same premises.

4.7.2 Test Setup



4.7.3 Test Procedure

References Rule
☒ Notification No. 88 Annex 43.

Step 1

1. Establish communication between EUT and auxiliary equipment, auxiliary must have an ability to parse and display the identifier code.
2. When the test equipment has the function of automatically transmitting the identification code.
 - A. The test equipment sends the identification code specified in the equipment rules.
 - B. Check the identification code sent by the demodulator.
3. When the test equipment has the function of automatically receiving the identification code.
 - A. The opposite device transmits the identification code specified in the device rules.
 - B. Verify that a dedicated fixture is used to communicate with the test equipment.
 - C. Send a code from the counter that differs from the identification code specified in the equipment rules.
 - D. Verify that the test equipment stops transmitting or displays a different ID.
4. If the encoding specified in the device rules is the same as the demodulated encoding, recorded as "Good", otherwise record as "No".

5 Conforming the structure that is difficult to open

The Radio Equipment:	
☐	Use Special Screw
☐	Metal Shielding is Soldered
☐	Use Ball Grid Array (BGA)
☒	RF module/Chip Pins > 20
☒	RF module/Chip Pins distance < 1.5 mm

The high-frequency section and modulation section (except for the antenna system) are not capable of being opened easily.

6 SETUP PHOTO AND EUT PHOTO

Remark: The test setup photo and EUT Photo please see appendix.

7 TEST RESULT

APPENDIX A: ANTENNA POWER ANTENNA POWER TOLERANCE AND E.I.R.P

Output Power And E.I.R.P

Mode		Frequency (MHz)	Output Power			EIRP (dBm/MHz)	Limit		Pass/Fail
			(dBm)	(mW/MHz)	(dBm/MHz)		Output Power (mW/MHz)	EIRP (dBm/MHz)	
FHSS	DH5	2402~2480	10.26	0.144	-8.41	-11.00	3.00	6.91	Pass
	2DH5	2402~2480	9.07	0.127	-8.97	-11.56	3.00	6.91	Pass
	3DH5	2402~2480	9.08	0.127	-8.96	-11.55	3.00	6.91	Pass
AFH	DH5	2402~2421	10.23	0.566	-2.47	-5.06	3.00	6.91	Pass
	2DH5	2402~2421	9.04	0.491	-3.09	-5.68	3.00	6.91	Pass
	3DH5	2402~2421	9.01	0.490	-3.09	-5.68	3.00	6.91	Pass

Output Power Tolerance

Mode		Frequency (MHz)	Declared Power	Output Power	Tolerance (%)	Limit	Pass/Fail
			(mW/MHz)	(mW/MHz)		Tolerance (%)	
FHSS	DH5	2402~2480	1	0.144	-85.57%	+20	Pass
	2DH5	2402~2480	1	0.127	-87.34%	+20	Pass
	3DH5	2402~2480	1	0.127	-87.29%	+20	Pass
AFH	DH5	2402~2421	1	0.566	-43.36%	+20	Pass
	2DH5	2402~2421	1	0.491	-50.91%	+20	Pass
	3DH5	2402~2421	1	0.490	-50.96%	+20	Pass

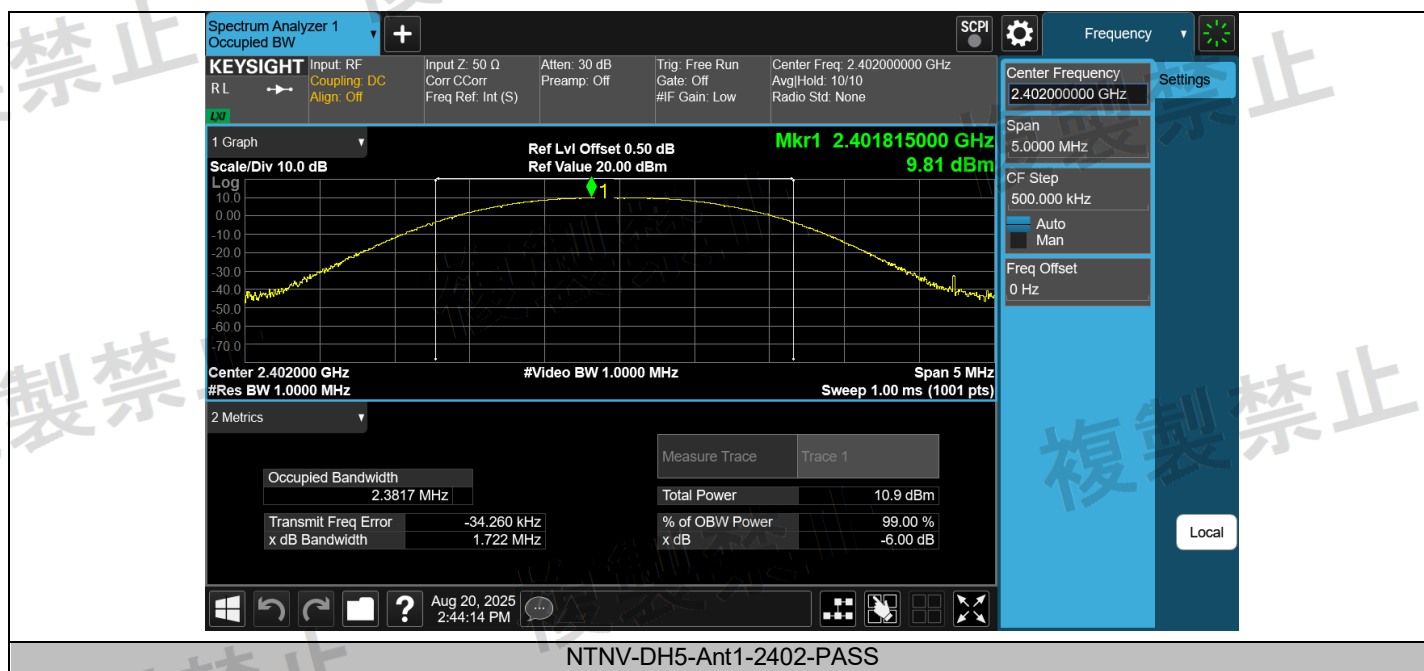
APPENDIX B: OCCUPIED BANDWIDTH

Test Result

Test Condition	Test Mode	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	DH5	2402	2.382	≤83.5	PASS
NTNV	DH5	2441	2.385	≤83.5	PASS
NTNV	DH5	2480	2.384	≤83.5	PASS
NTNV	2DH5	2402	2.692	≤83.5	PASS
NTNV	2DH5	2441	2.677	≤83.5	PASS
NTNV	2DH5	2480	2.688	≤83.5	PASS
NTNV	3DH5	2402	2.675	≤83.5	PASS
NTNV	3DH5	2441	2.700	≤83.5	PASS
NTNV	3DH5	2480	2.689	≤83.5	PASS

Test Condition	Test Mode	Frequency[MHz]	Result [MHz]	Limit [MHz]	Verdict
NTNV	DH5	Hop	78.769	≤83.5	PASS
NTNV	2DH5	Hop	78.835	≤83.5	PASS
NTNV	3DH5	Hop	78.669	≤83.5	PASS

Test Graphs

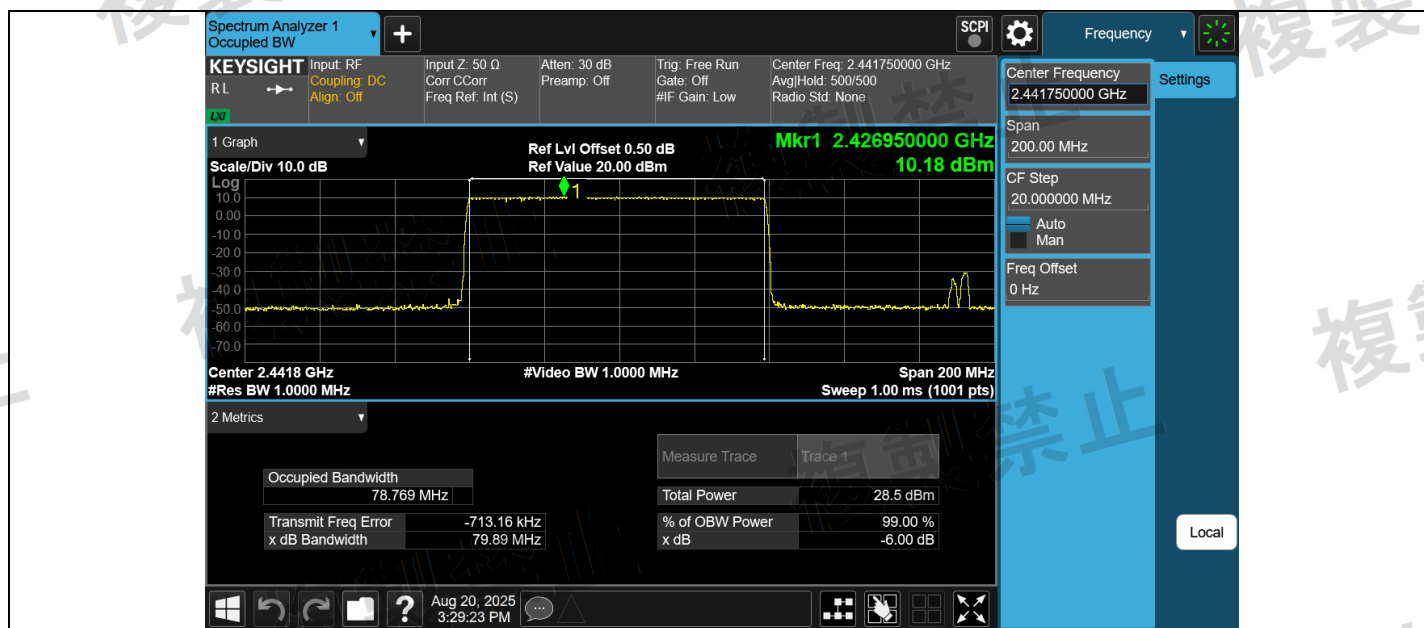




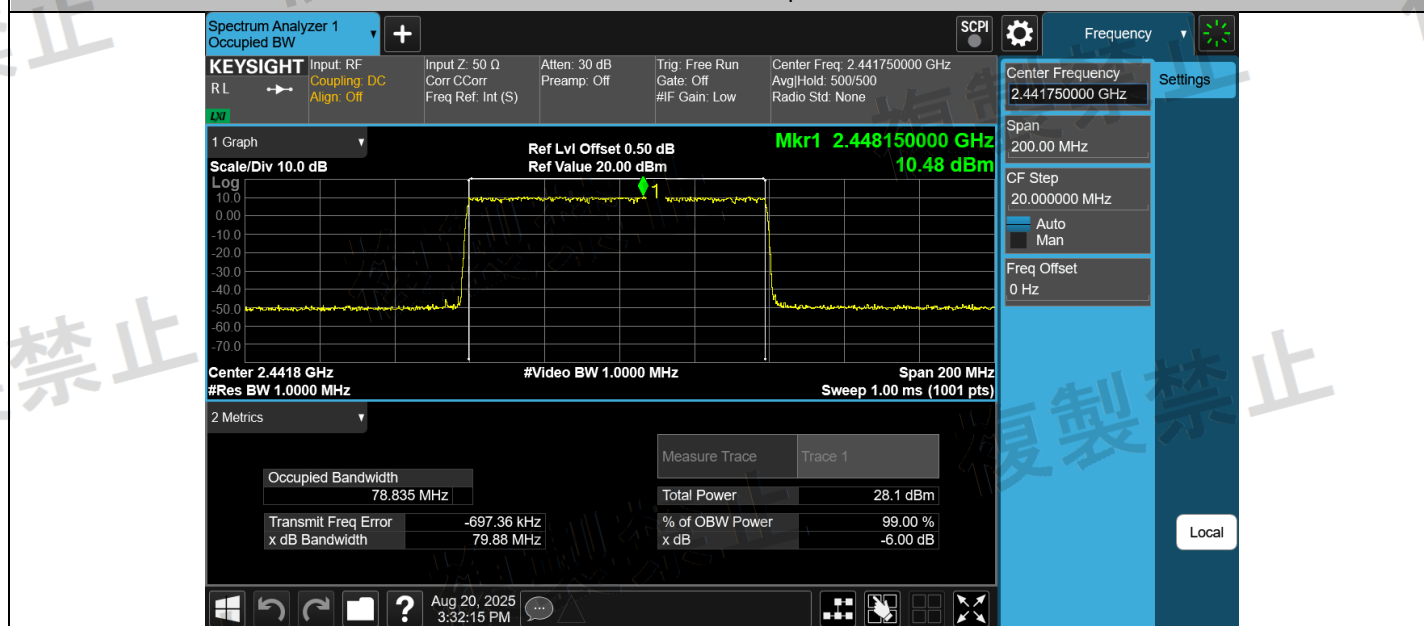




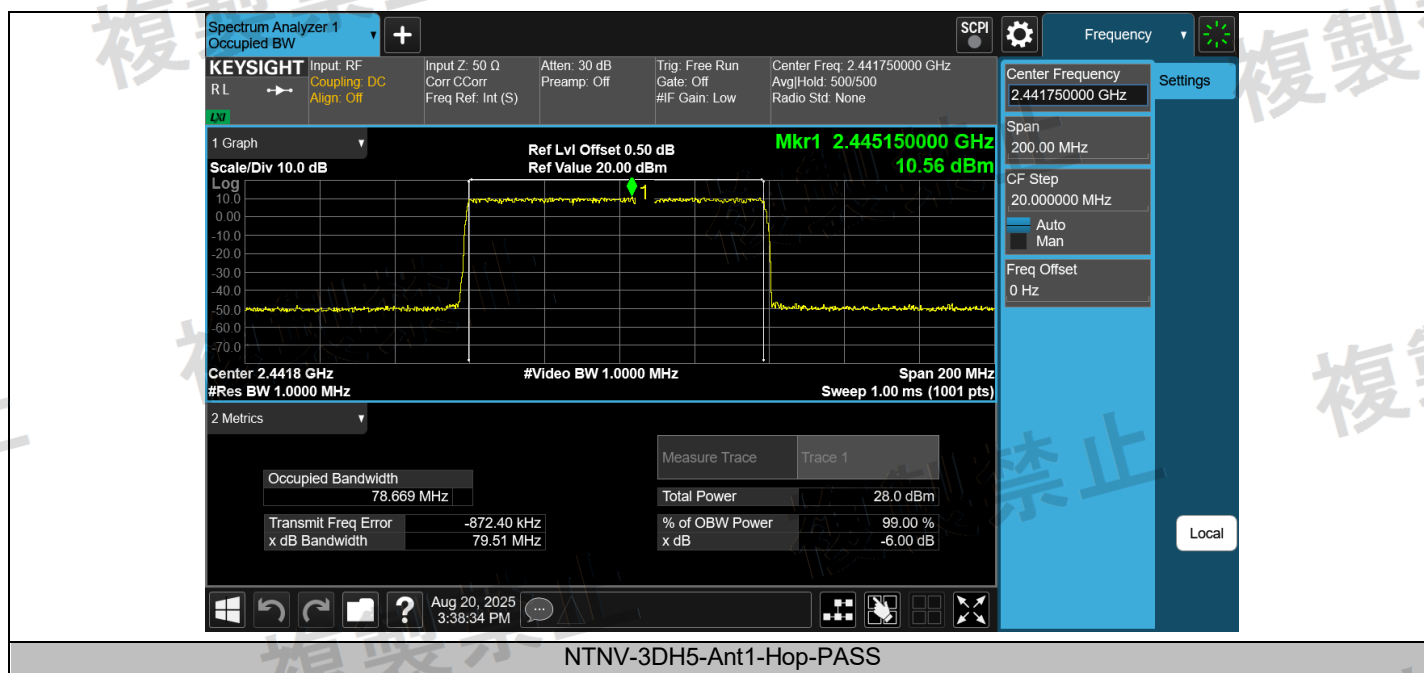




NTNV-DH5-Ant1-Hop-PASS



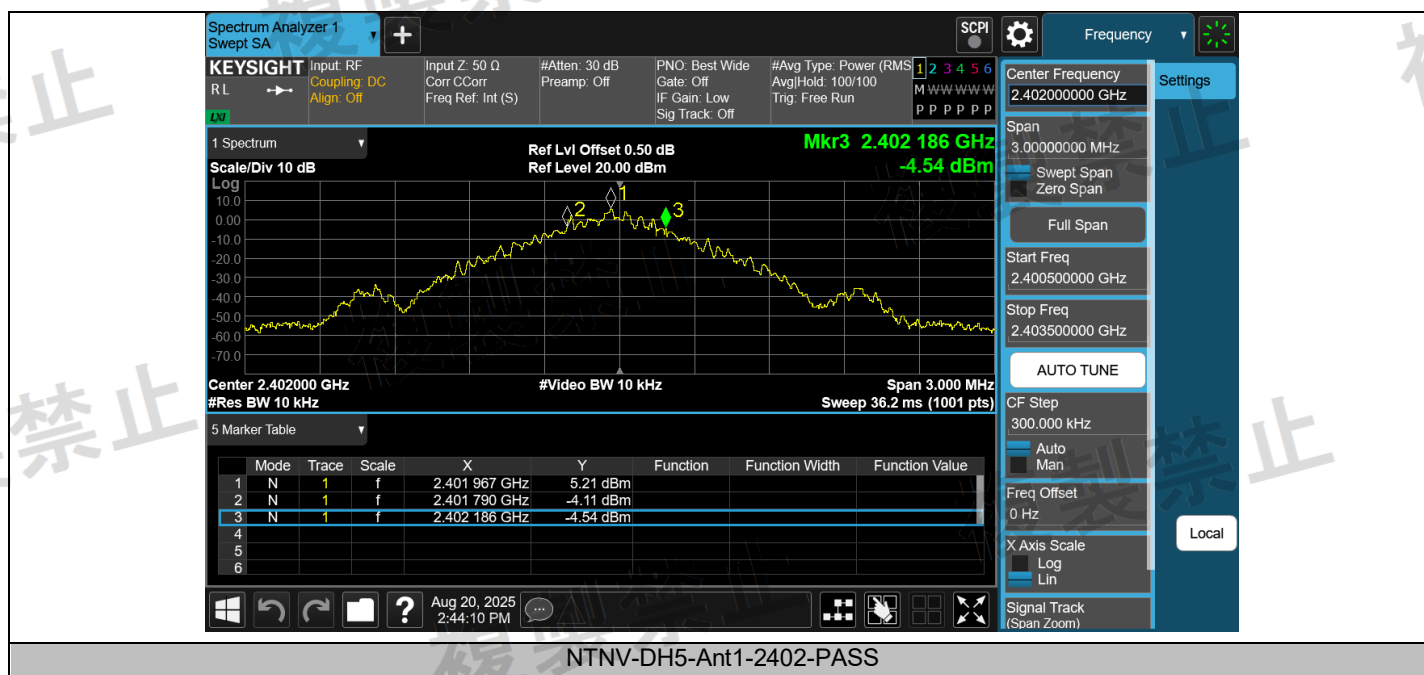
NTNV-2DH5-Ant1-Hop-PASS



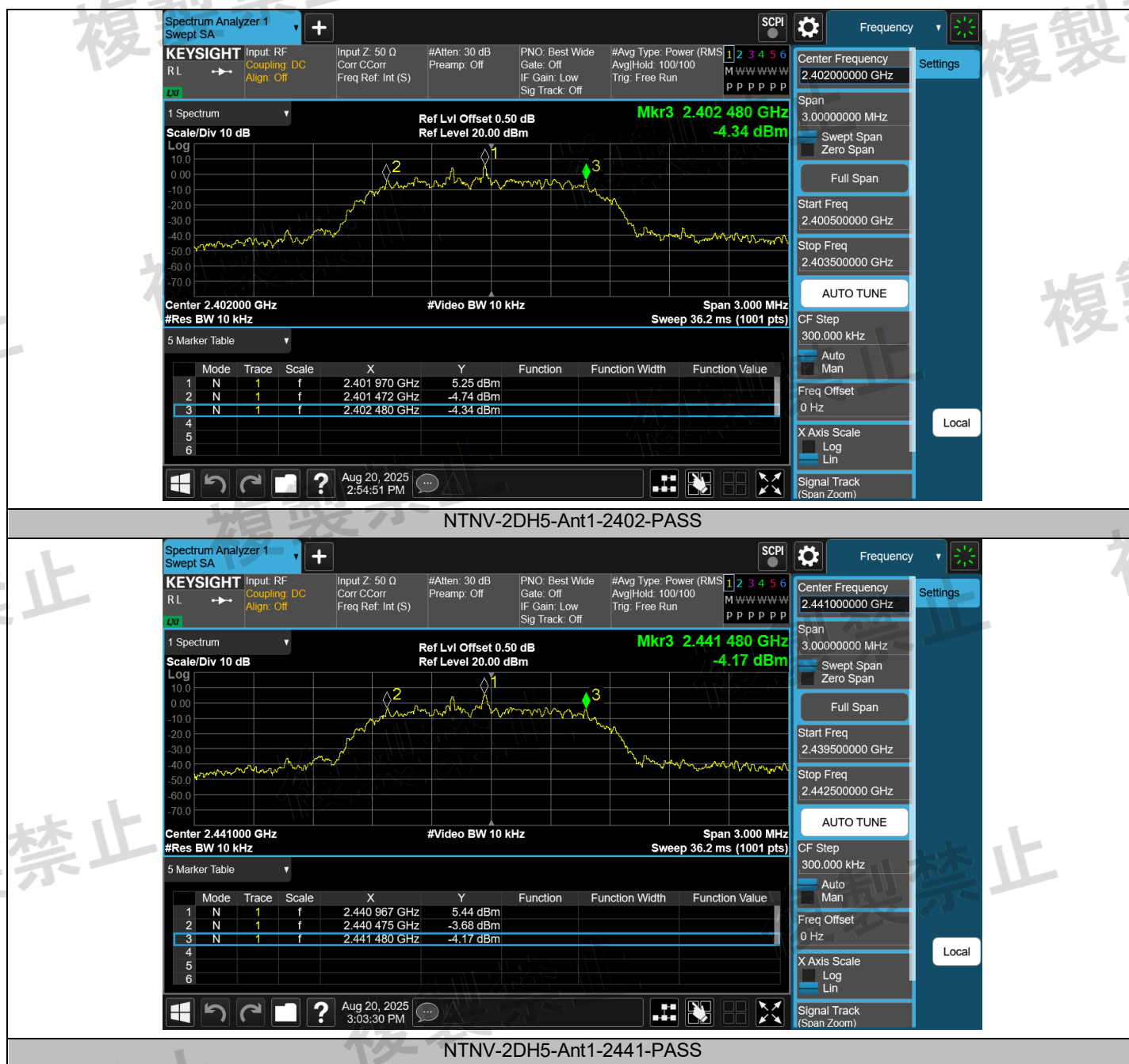
APPENDIX C: FREQUENCY TOLERANCE

Test Condition	Test Mode	Antenna	Frequency[MHz]	CenterFreq [MHz]	Result[ppm]	Limit[ppm]	Verdict
NTNV	DH5	Ant1	2402	2401.988	-4.99584	±50	PASS
NTNV	DH5	Ant1	2441	2440.9925	-3.07251	±50	PASS
NTNV	DH5	Ant1	2480	2479.9835	-6.65323	±50	PASS
NTNV	2DH5	Ant1	2402	2401.976	-9.99167	±50	PASS
NTNV	2DH5	Ant1	2441	2440.9775	-9.21753	±50	PASS
NTNV	2DH5	Ant1	2480	2479.9775	-9.07258	±50	PASS
NTNV	3DH5	Ant1	2402	2401.994	-2.49792	±50	PASS
NTNV	3DH5	Ant1	2441	2440.994	-2.45801	±50	PASS
NTNV	3DH5	Ant1	2480	2479.994	-2.41936	±50	PASS

Note: Result[ppm]= (CenterFreq - Channel)/Channel*1000000











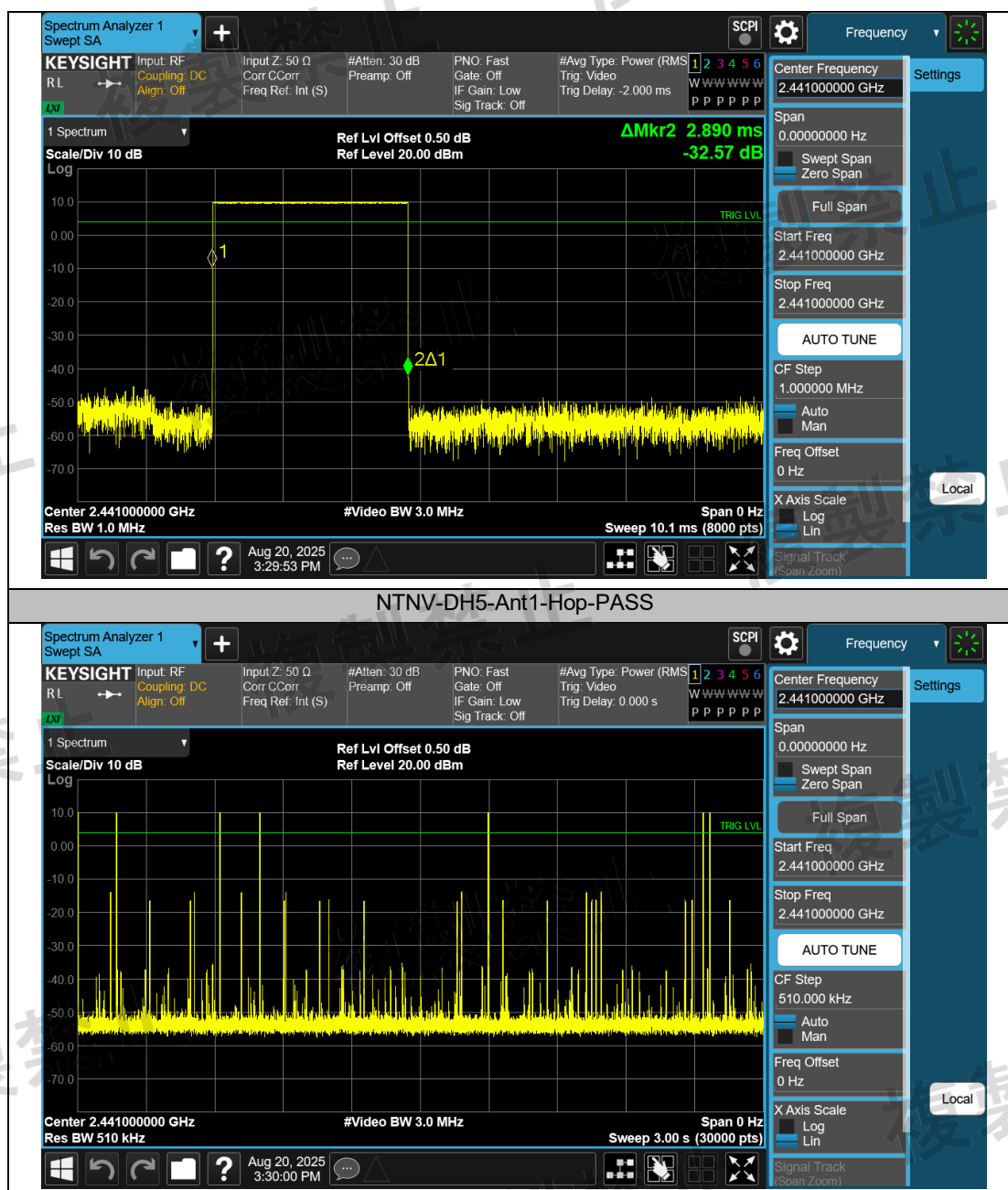
APPENDIX D: DWELL TIME

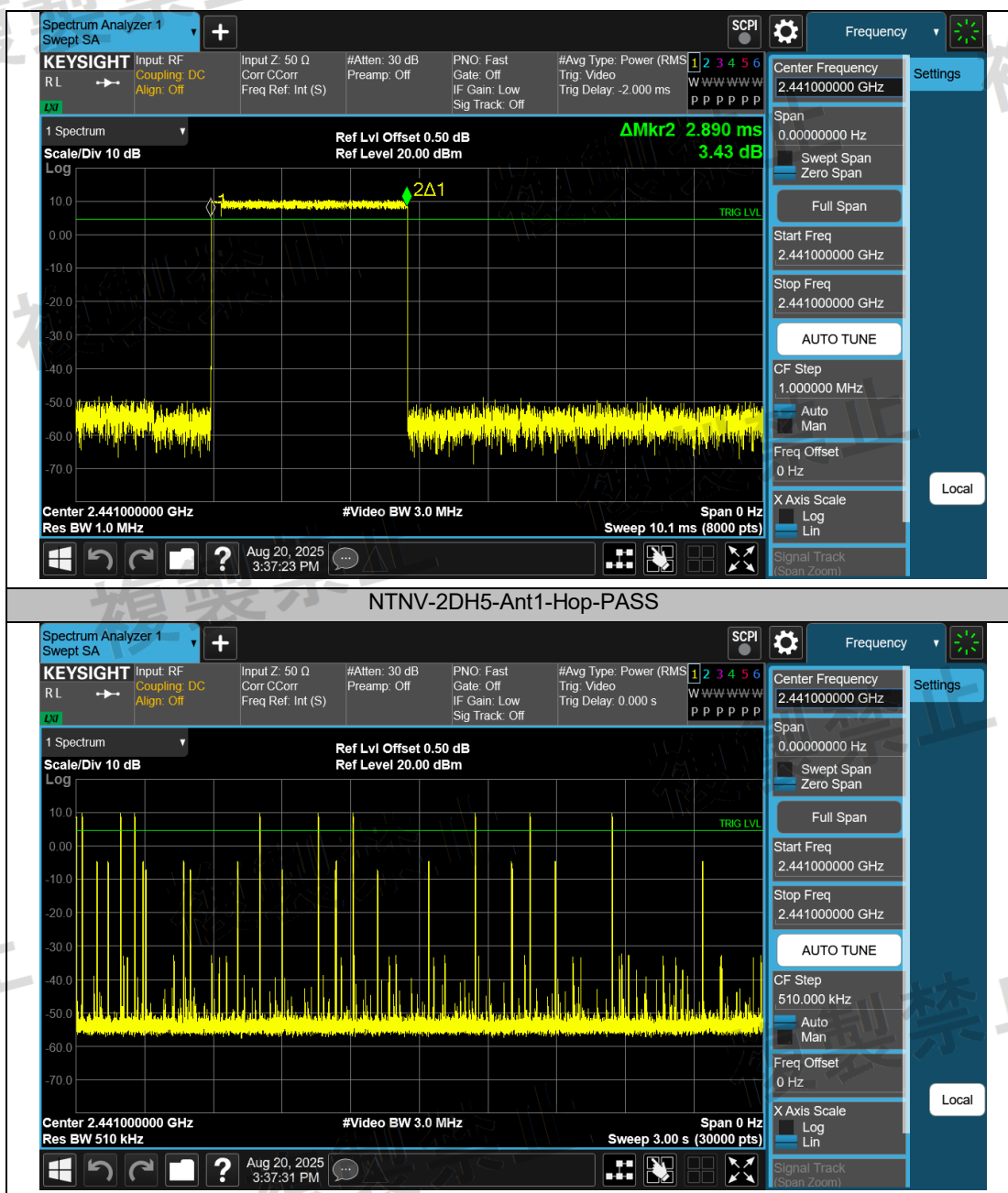
Test Condition	Test Mode	Frequency [MHz]	spread bandwidth [MHz]	BurstWidth [ms]	Burst Number	Test observation time [s]	Total observation time [s]	Result[s]	Limit [s]	Verdict
NTNV	DH5	2441	71.126	2.89	7	3.00	28.4504	0.192	≤0.4	PASS
NTNV	2DH5	2441	71.617	2.89	10	3.00	28.6468	0.276	≤0.4	PASS
NTNV	3DH5	2441	71.442	2.89	5	3.00	28.5768	0.138	≤0.4	PASS

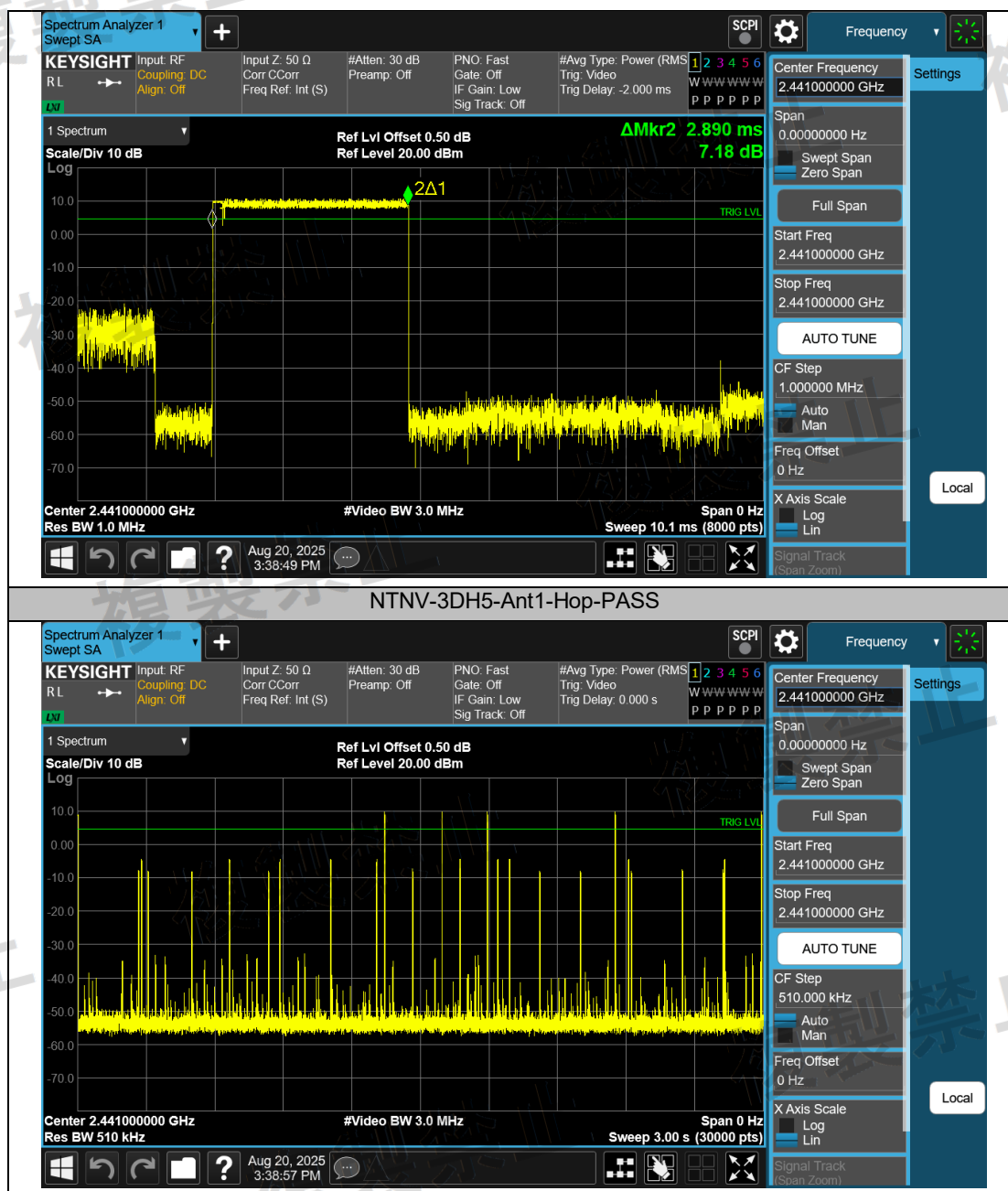
Note1: Result = Burst Width * (Total observation time / Test observation time) * Burst Number

Note2: Total observation time = Spread Bandwidth * 0.4s

Test Graphs





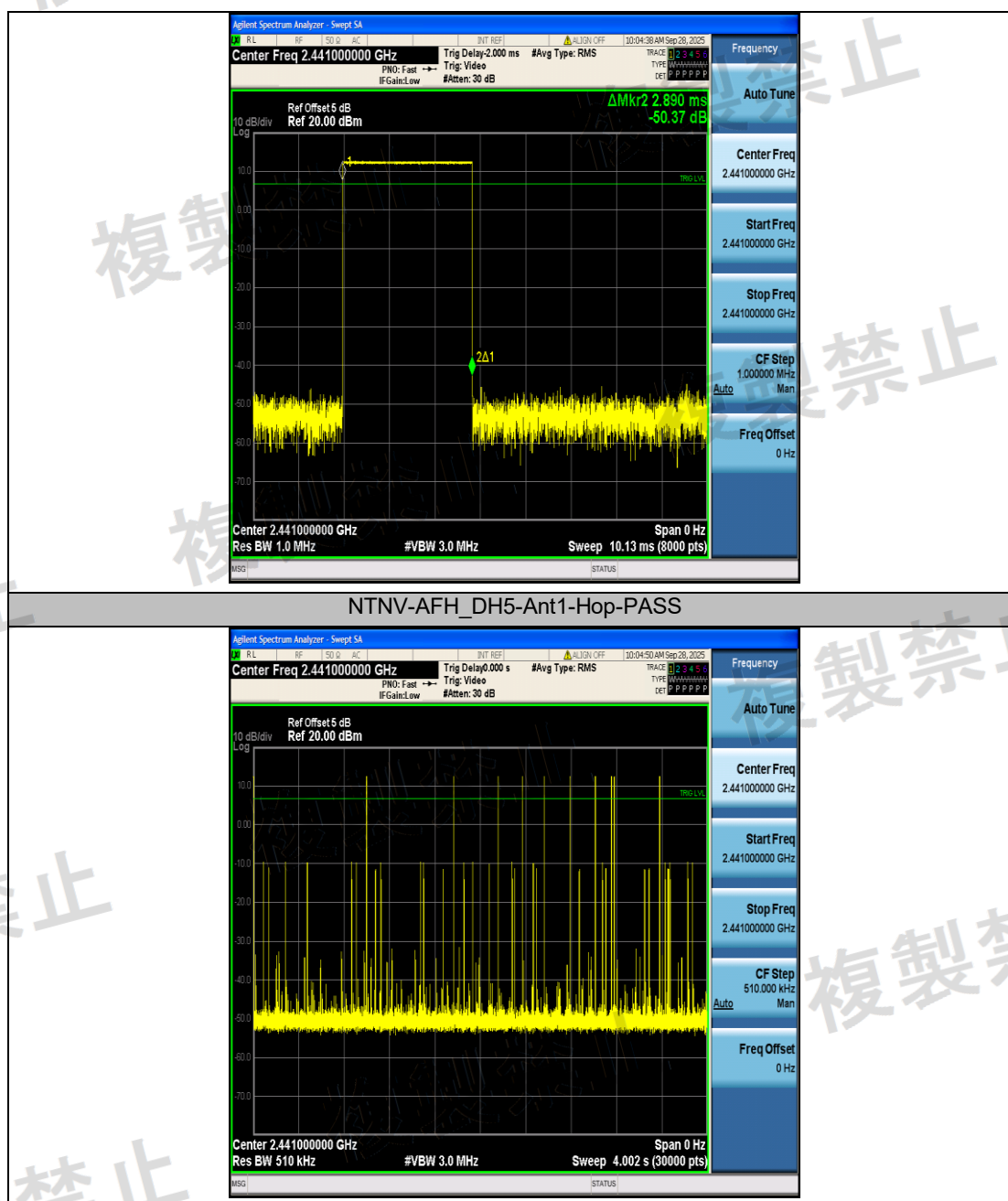


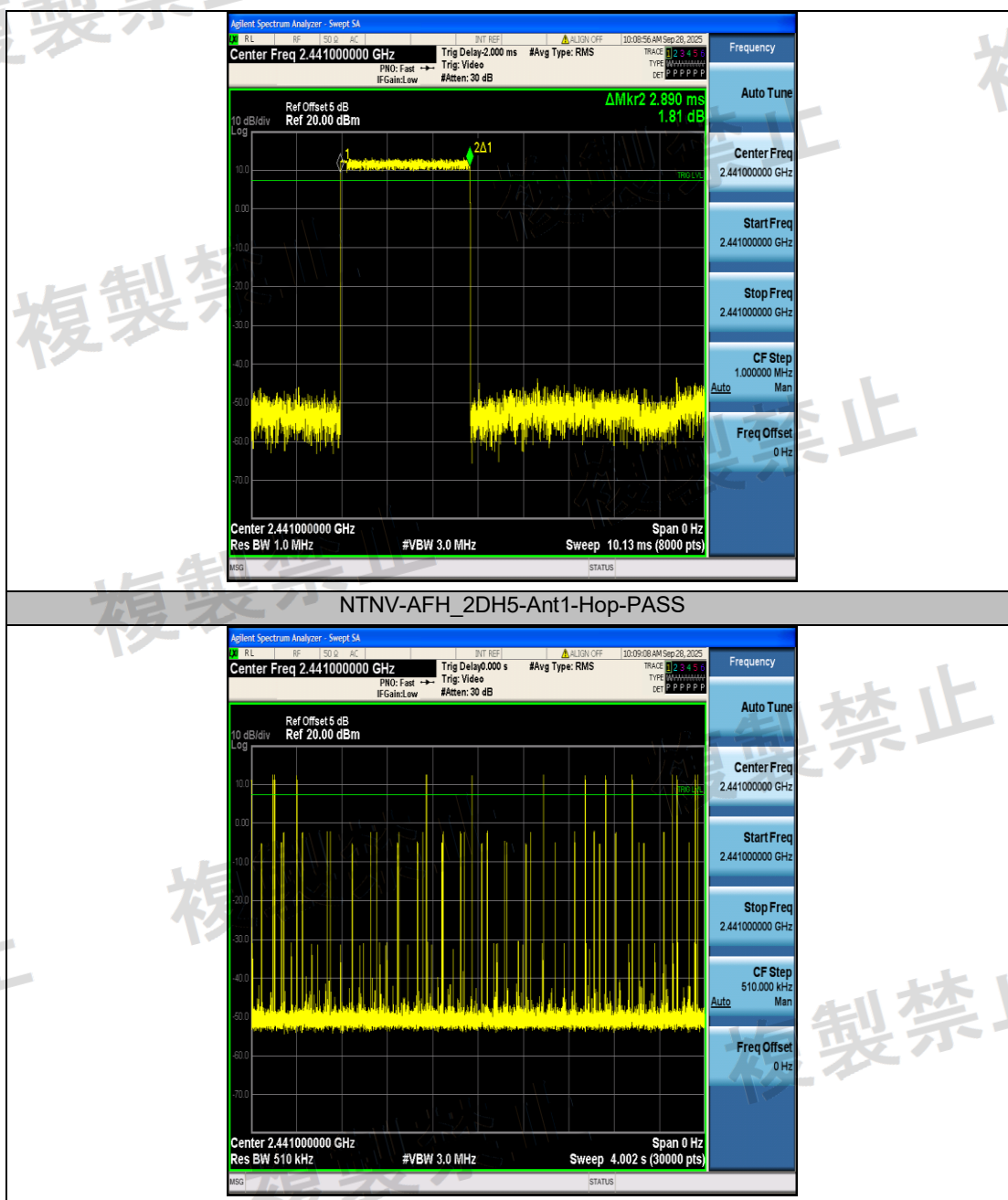
AFT:

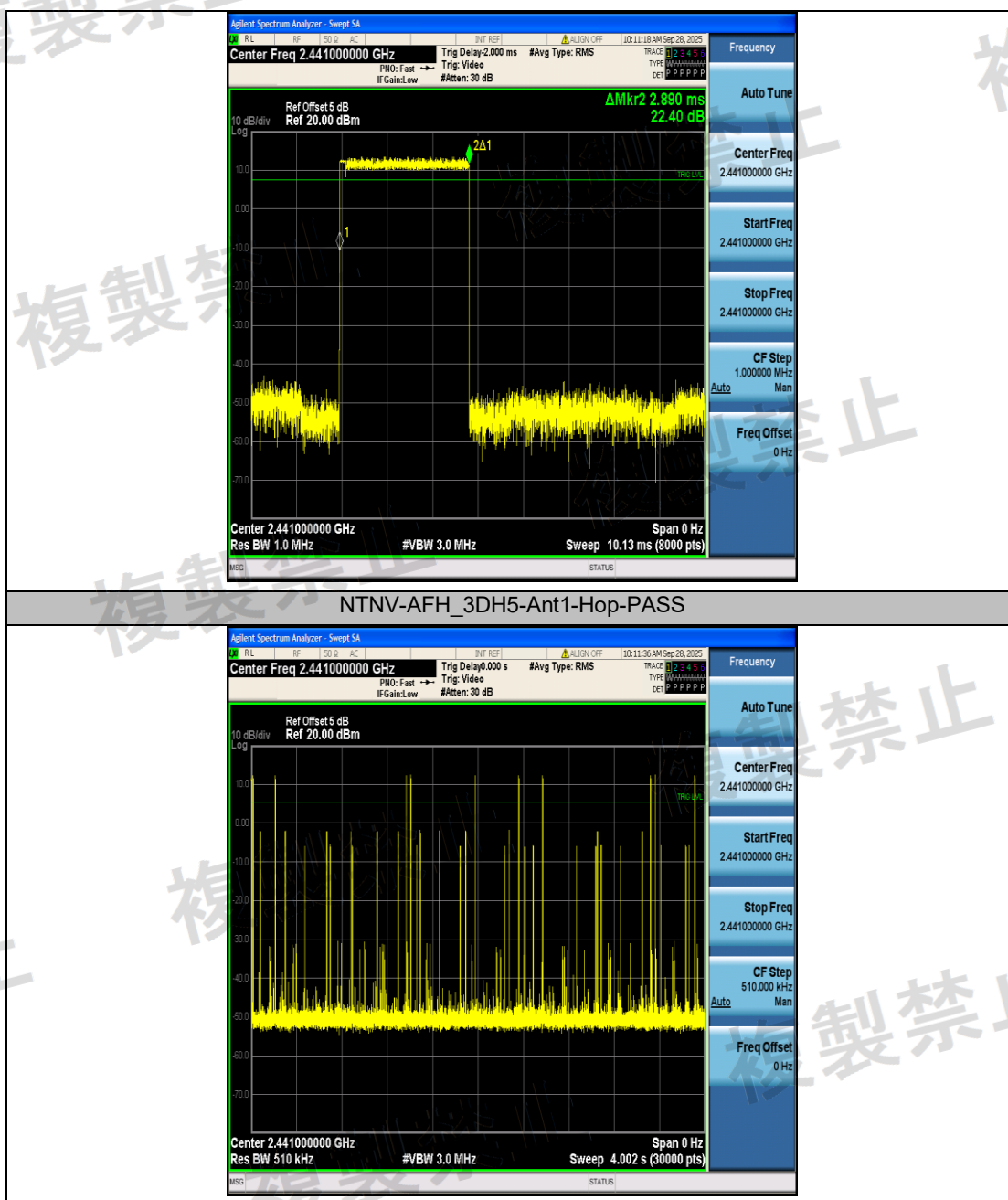
Test Condition	Test Mode	Frequency [MHz]	spread bandwidth [MHz]	BurstWidth [ms]	Burst Number	Test observation time [s]	Total observation time [s]	Result[s]	Limit [s]	Verdict
NTNV	DH5	2441	19.662	2.89	10	3.00	28.4504	0.274	≤0.4	PASS
NTNV	2DH5	2441	20.020	2.89	12	3.00	28.6468	0.331	≤0.4	PASS
NTNV	3DH5	2441	20.024	2.89	10	3.00	28.5768	0.275	≤0.4	PASS

Note1: Result = Burst Width * (Total observation time / Test observation time) * Burst Number

Note2: Total observation time = Spread Bandwidth * 0.4s







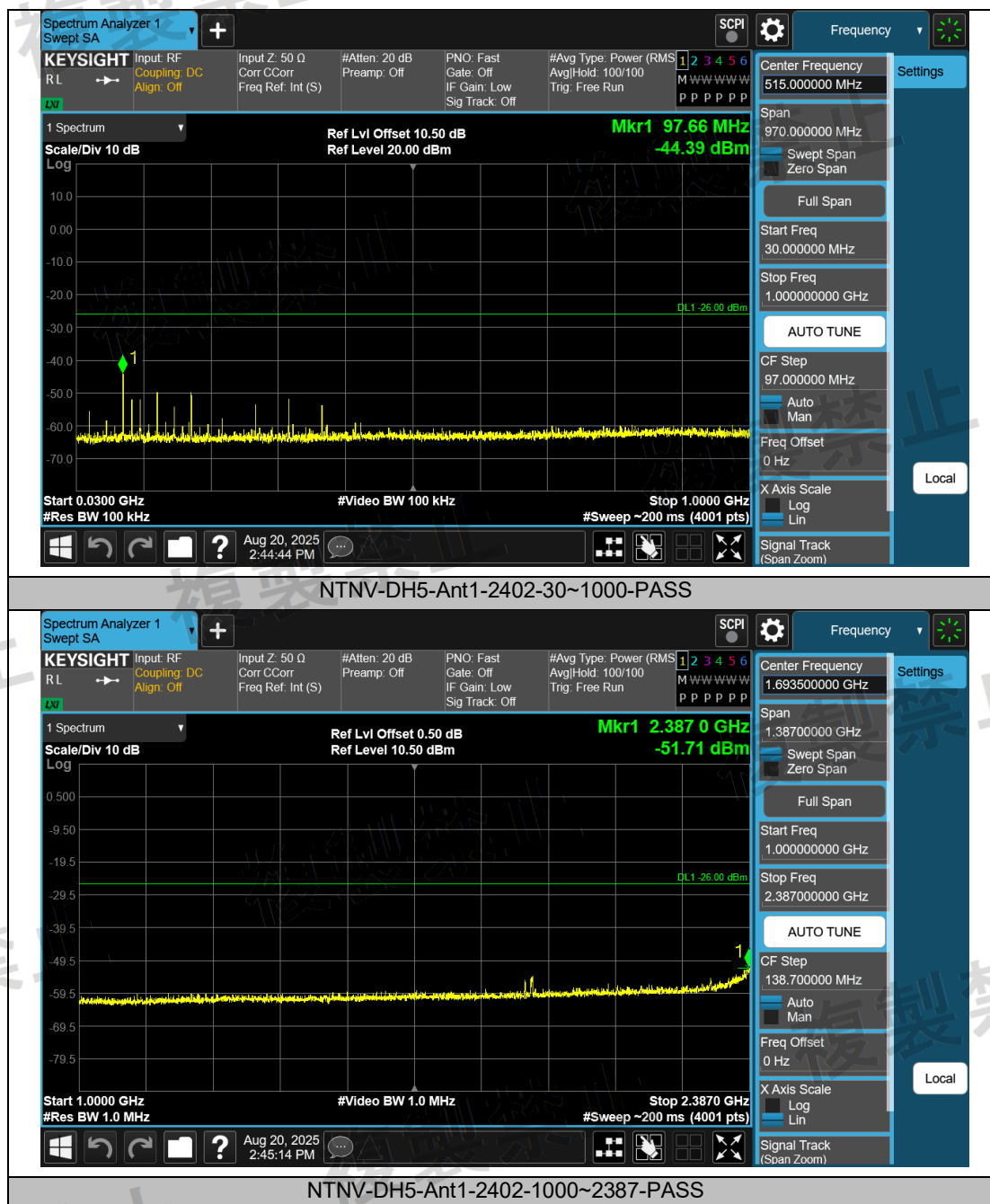
APPENDIX E: TRANSMITTER SPURIOUS EMISSIONS

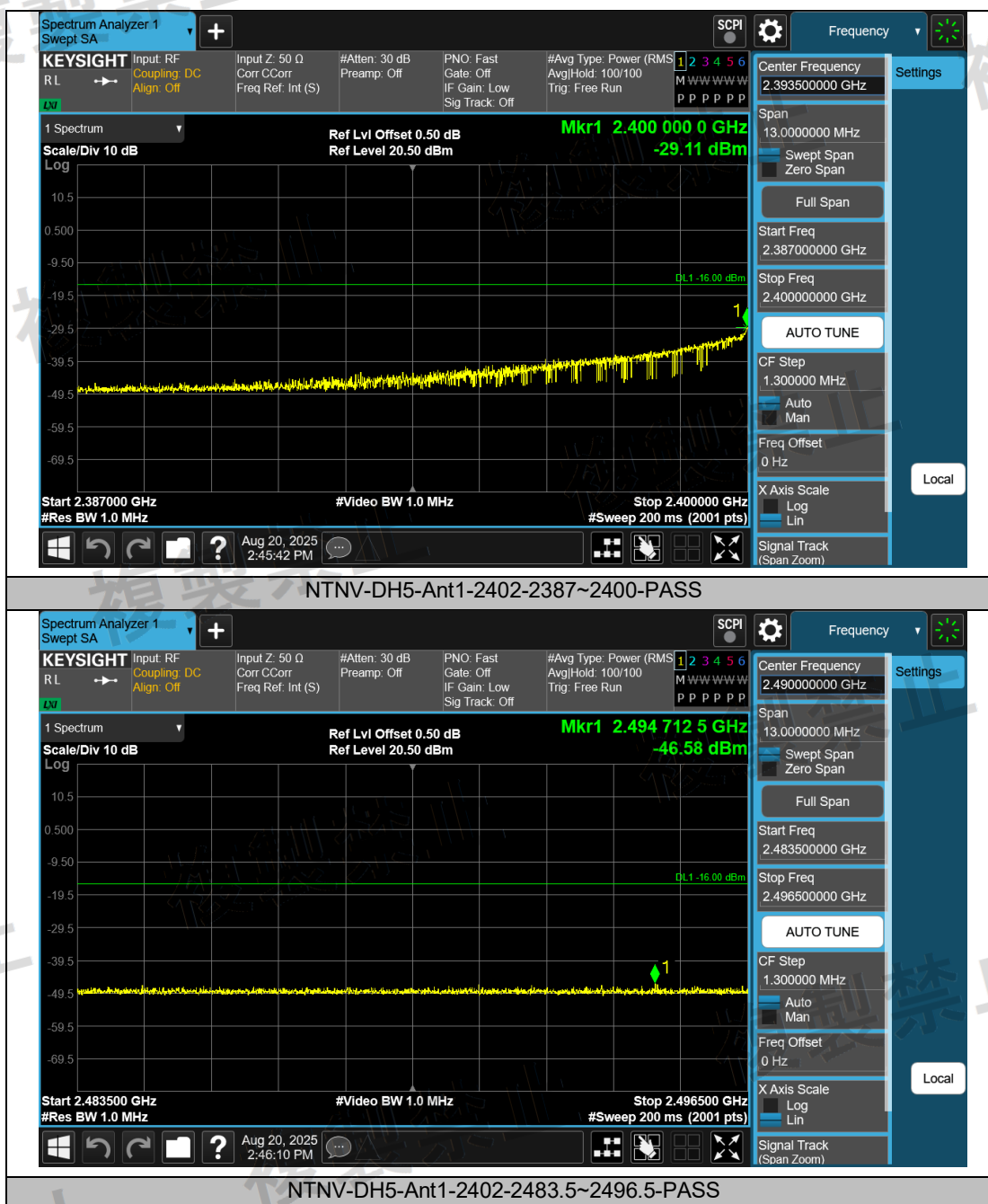
Test Result

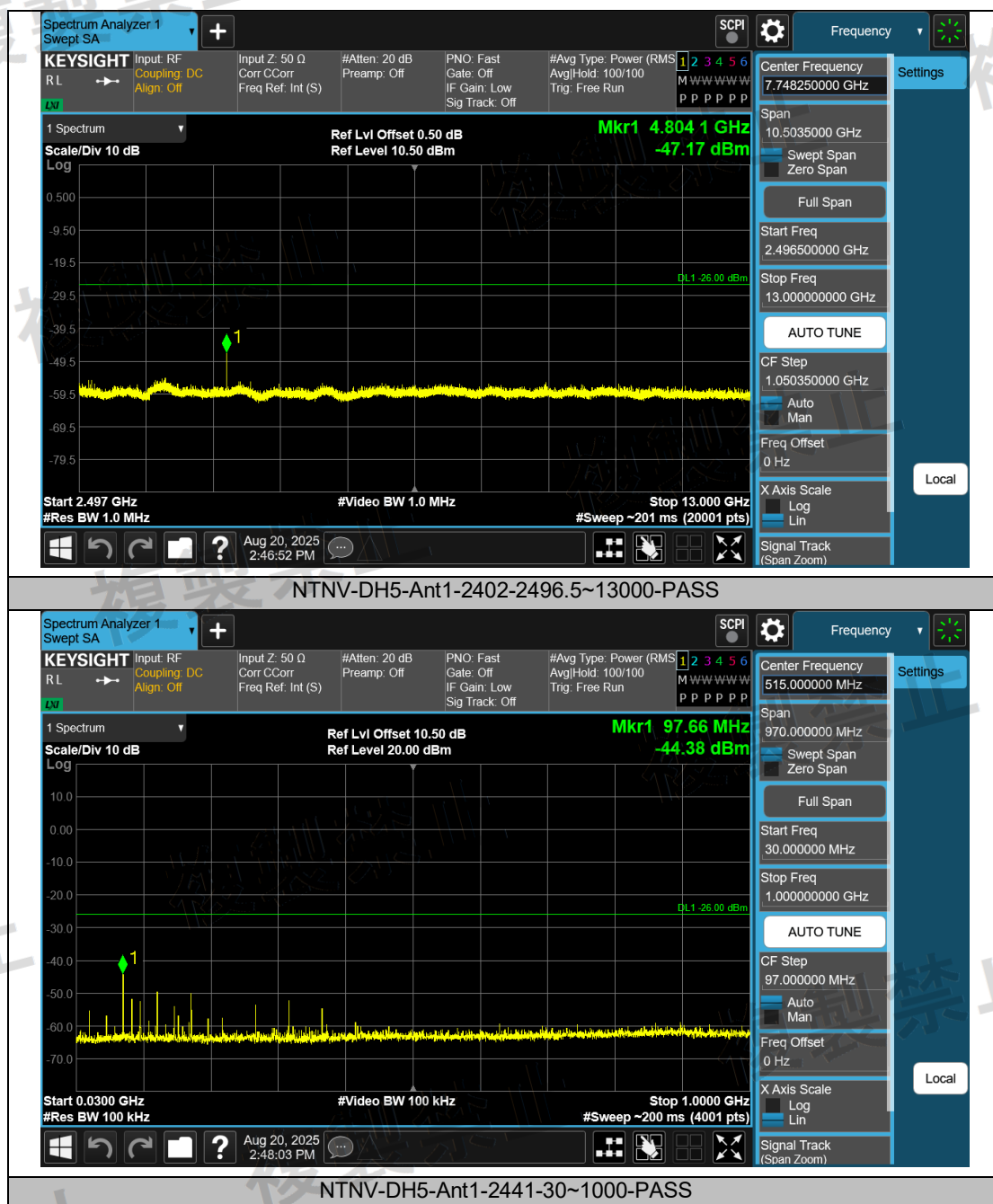
Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [$\mu\text{W/MHz}$]	Limit [$\mu\text{W/MHz}$]	Verdict
NTNV	DH5	Ant1	2402	30~1000	97.66	-44.39	≤ -26	0.03639	≤ 2.5	PASS
NTNV	DH5	Ant1	2402	1000~2387	2387.00	-51.71	≤ -26	0.00675	≤ 2.5	PASS
NTNV	DH5	Ant1	2402	2387~2400	2400.00	-29.11	≤ -16	1.22744	≤ 25	PASS
NTNV	DH5	Ant1	2402	2483.5~2496.5	2494.71	-46.58	≤ -16	0.02198	≤ 25	PASS
NTNV	DH5	Ant1	2402	2496.5~13000	4804.12	-47.17	≤ -26	0.01919	≤ 2.5	PASS
NTNV	DH5	Ant1	2441	30~1000	97.66	-44.38	≤ -26	0.03648	≤ 2.5	PASS
NTNV	DH5	Ant1	2441	1000~2387	1719.85	-51.18	≤ -26	0.00762	≤ 2.5	PASS
NTNV	DH5	Ant1	2441	2387~2400	2387.20	-46.85	≤ -16	0.02065	≤ 25	PASS
NTNV	DH5	Ant1	2441	2483.5~2496.5	2495.58	-46.47	≤ -16	0.02254	≤ 25	PASS
NTNV	DH5	Ant1	2441	2496.5~13000	4881.84	-47.65	≤ -26	0.01718	≤ 2.5	PASS
NTNV	DH5	Ant1	2480	30~1000	97.66	-44.24	≤ -26	0.03767	≤ 2.5	PASS
NTNV	DH5	Ant1	2480	1000~2387	2384.23	-53.78	≤ -26	0.00419	≤ 2.5	PASS
NTNV	DH5	Ant1	2480	2387~2400	2389.47	-46.90	≤ -16	0.02042	≤ 25	PASS
NTNV	DH5	Ant1	2480	2483.5~2496.5	2483.57	-35.74	≤ -16	0.26669	≤ 25	PASS
NTNV	DH5	Ant1	2480	2496.5~13000	4959.57	-48.71	≤ -26	0.01346	≤ 2.5	PASS
NTNV	2DH5	Ant1	2402	30~1000	97.66	-44.02	≤ -26	0.03963	≤ 2.5	PASS
NTNV	2DH5	Ant1	2402	1000~2387	2382.84	-49.76	≤ -26	0.01057	≤ 2.5	PASS
NTNV	2DH5	Ant1	2402	2387~2400	2400.00	-20.17	≤ -16	9.61612	≤ 25	PASS
NTNV	2DH5	Ant1	2402	2483.5~2496.5	2493.32	-46.33	≤ -16	0.02328	≤ 25	PASS
NTNV	2DH5	Ant1	2402	2496.5~13000	4803.59	-47.17	≤ -26	0.01919	≤ 2.5	PASS
NTNV	2DH5	Ant1	2441	30~1000	721.13	-43.90	≤ -26	0.04074	≤ 2.5	PASS
NTNV	2DH5	Ant1	2441	1000~2387	2345.04	-53.90	≤ -26	0.00407	≤ 2.5	PASS
NTNV	2DH5	Ant1	2441	2387~2400	2393.29	-46.67	≤ -16	0.02153	≤ 25	PASS
NTNV	2DH5	Ant1	2441	2483.5~2496.5	2486.23	-46.27	≤ -16	0.02360	≤ 25	PASS
NTNV	2DH5	Ant1	2441	2496.5~13000	4882.37	-47.88	≤ -26	0.01629	≤ 2.5	PASS
NTNV	2DH5	Ant1	2480	30~1000	97.90	-44.44	≤ -26	0.03597	≤ 2.5	PASS
NTNV	2DH5	Ant1	2480	1000~2387	1927.21	-44.21	≤ -26	0.03793	≤ 2.5	PASS
NTNV	2DH5	Ant1	2480	2387~2400	2395.77	-47.09	≤ -16	0.01954	≤ 25	PASS
NTNV	2DH5	Ant1	2480	2483.5~2496.5	2483.68	-35.67	≤ -16	0.27102	≤ 25	PASS
NTNV	2DH5	Ant1	2480	2496.5~13000	2533.79	-40.74	≤ -26	0.08433	≤ 2.5	PASS
NTNV	3DH5	Ant1	2402	30~1000	97.66	-44.34	≤ -26	0.03681	≤ 2.5	PASS
NTNV	3DH5	Ant1	2402	1000~2387	2386.31	-50.24	≤ -26	0.00946	≤ 2.5	PASS
NTNV	3DH5	Ant1	2402	2387~2400	2400.00	-19.98	≤ -16	10.04616	≤ 25	PASS
NTNV	3DH5	Ant1	2402	2483.5~2496.5	2483.53	-46.62	≤ -16	0.02178	≤ 25	PASS
NTNV	3DH5	Ant1	2402	2496.5~13000	4803.59	-47.52	≤ -26	0.01770	≤ 2.5	PASS
NTNV	3DH5	Ant1	2441	30~1000	97.90	-44.26	≤ -26	0.03750	≤ 2.5	PASS
NTNV	3DH5	Ant1	2441	1000~2387	2345.39	-54.06	≤ -26	0.00393	≤ 2.5	PASS
NTNV	3DH5	Ant1	2441	2387~2400	2387.65	-46.59	≤ -16	0.02193	≤ 25	PASS
NTNV	3DH5	Ant1	2441	2483.5~2496.5	2489.06	-46.64	≤ -16	0.02168	≤ 25	PASS
NTNV	3DH5	Ant1	2441	2496.5~13000	4881.84	-47.59	≤ -26	0.01742	≤ 2.5	PASS
NTNV	3DH5	Ant1	2480	30~1000	97.66	-44.41	≤ -26	0.03622	≤ 2.5	PASS
NTNV	3DH5	Ant1	2480	1000~2387	2384.57	-53.39	≤ -26	0.00458	≤ 2.5	PASS

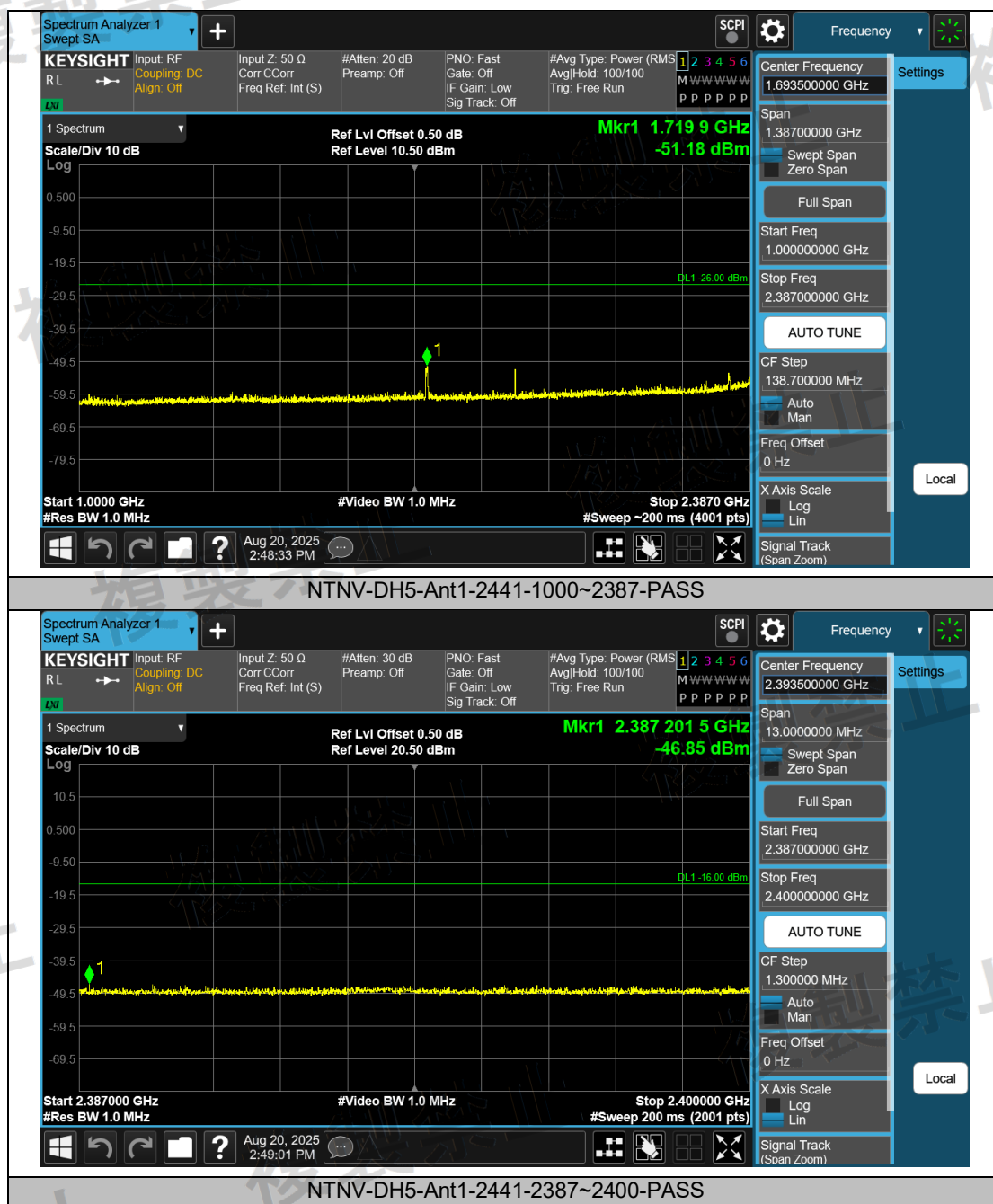
NTNV	3DH5	Ant1	2480	2387~2400	2390.17	-47.27	≤-16	0.01875	≤25	PASS
NTNV	3DH5	Ant1	2480	2483.5~2496.5	2483.62	-35.45	≤-16	0.28510	≤25	PASS
NTNV	3DH5	Ant1	2480	2496.5~13000	4960.10	-49.37	≤-26	0.01156	≤2.5	PASS

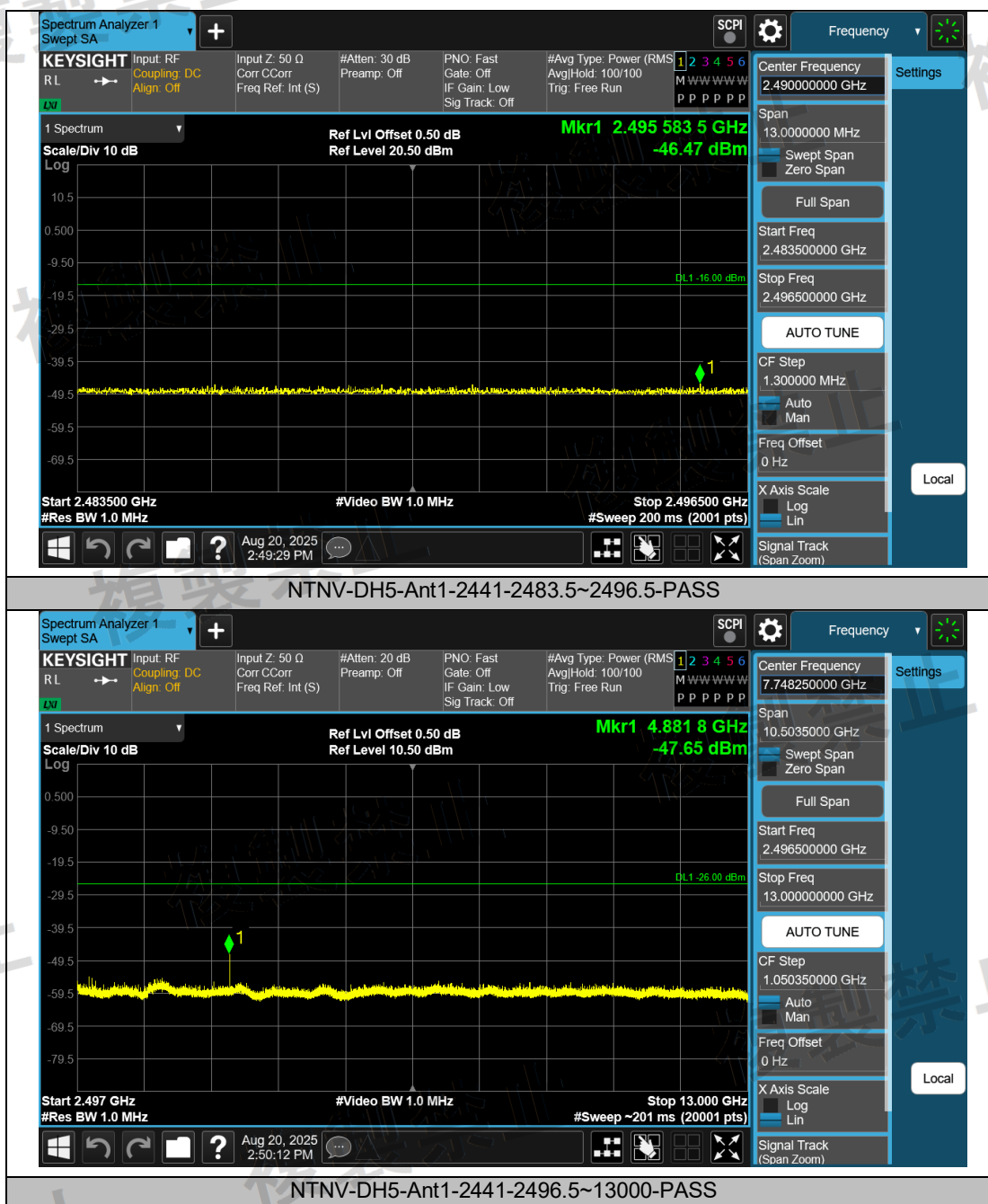
Test Graphs

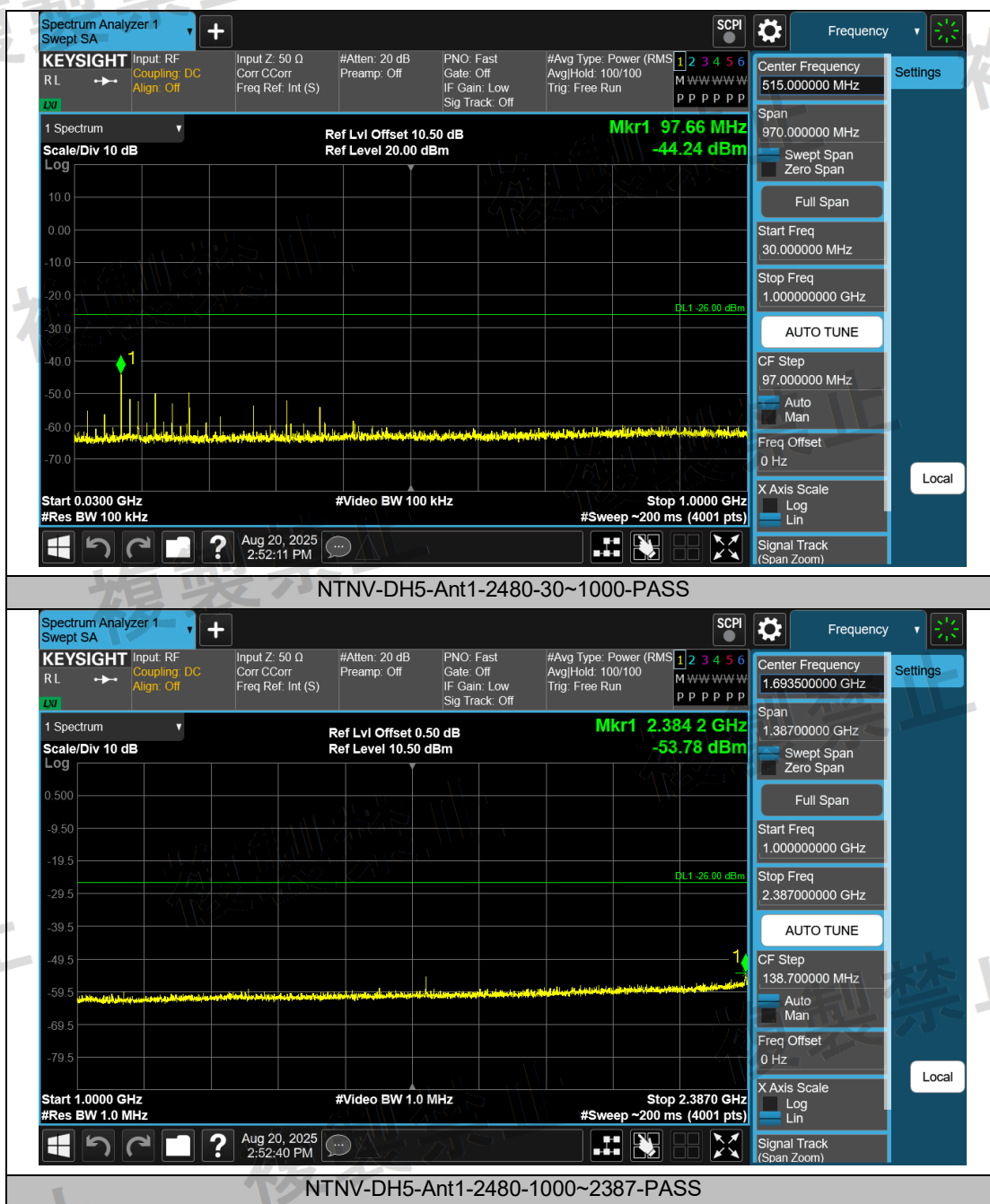


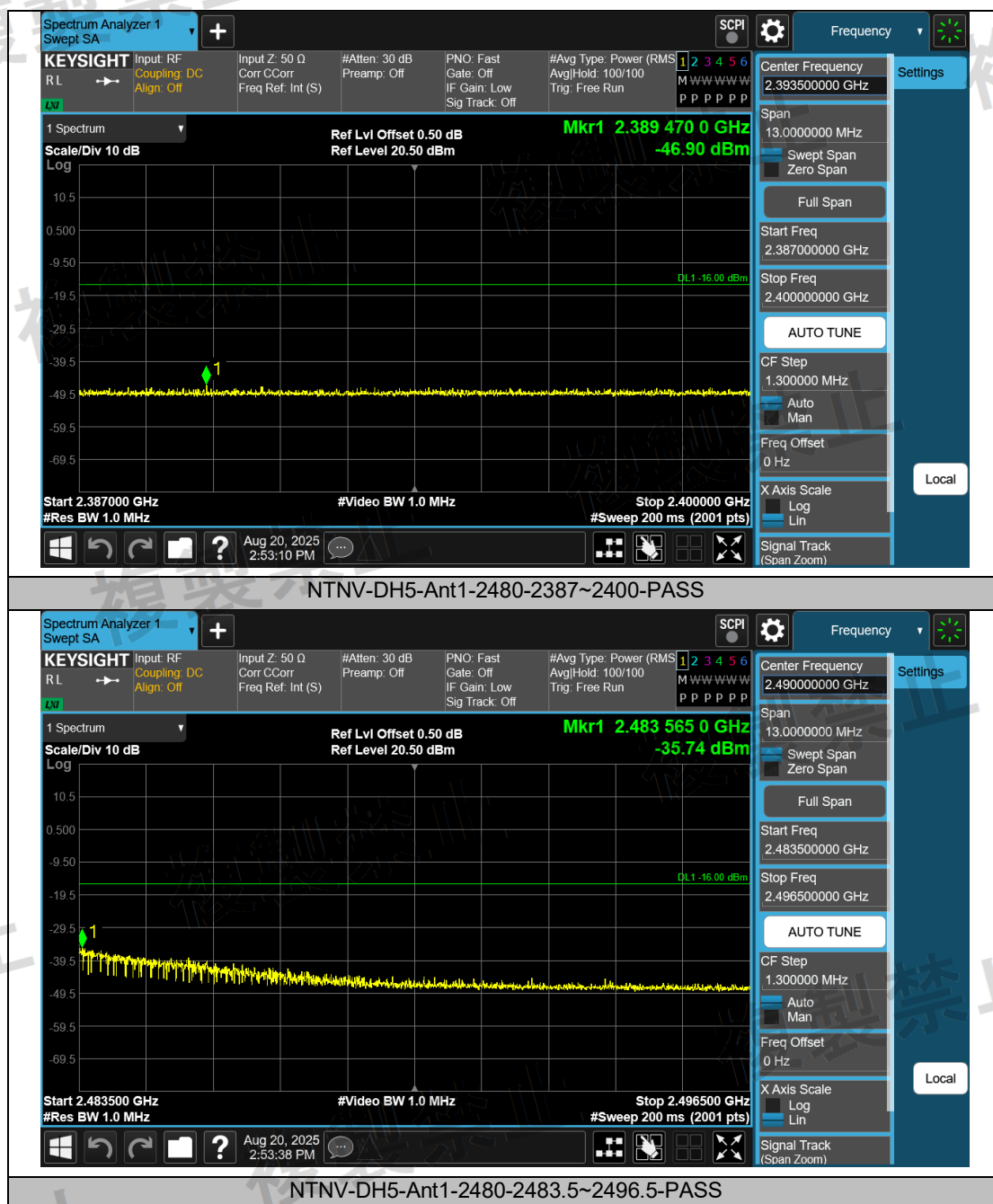


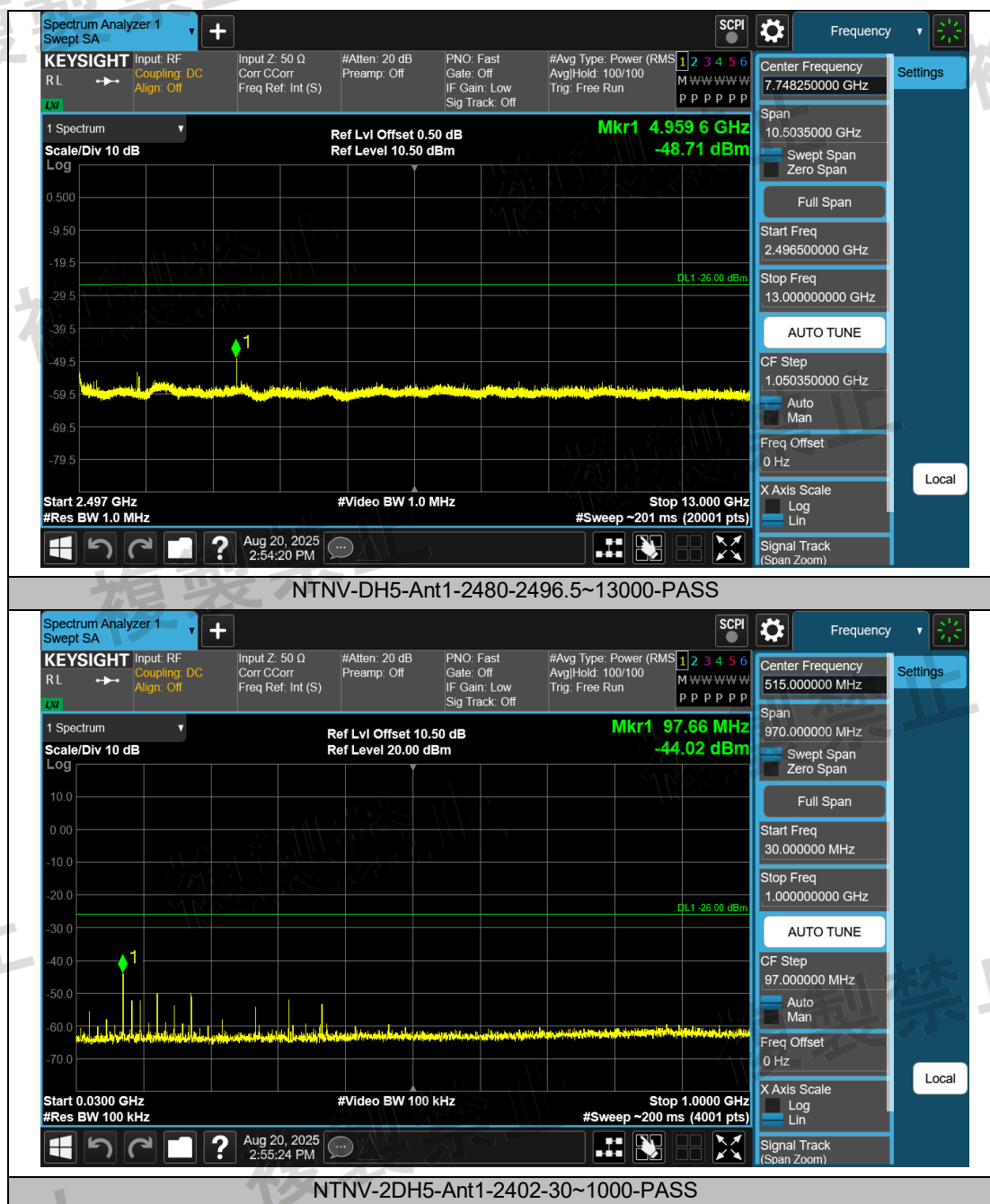


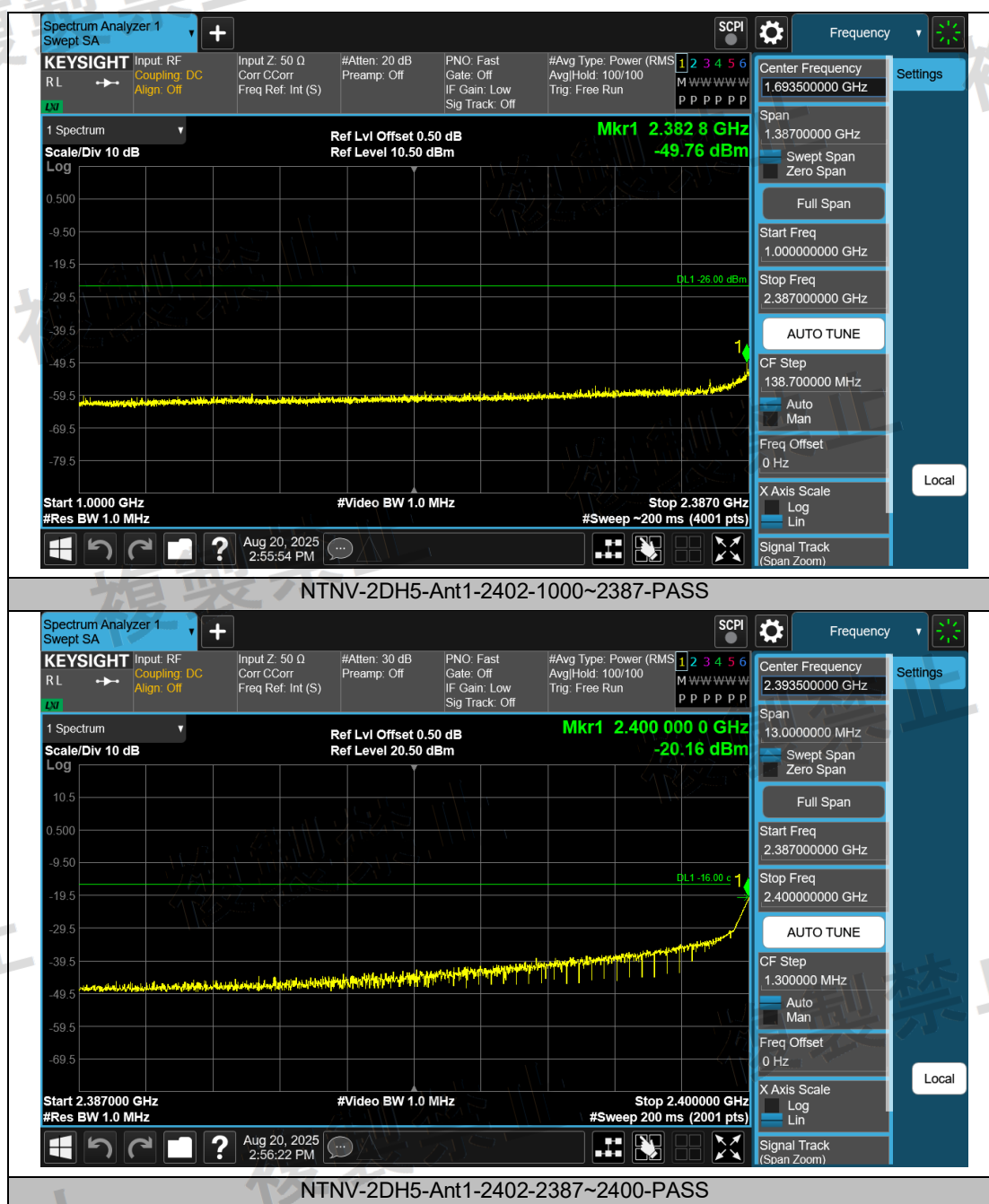


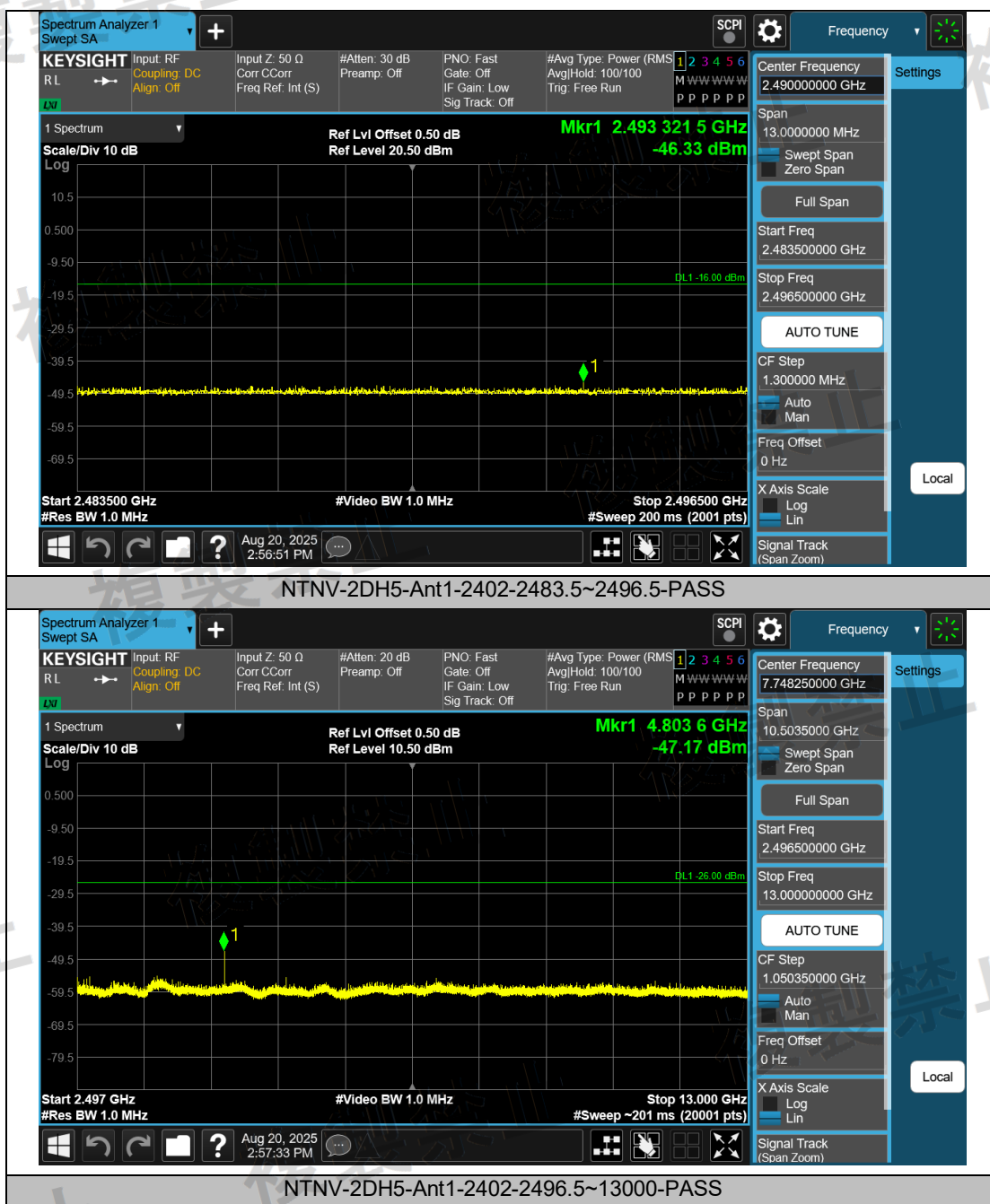


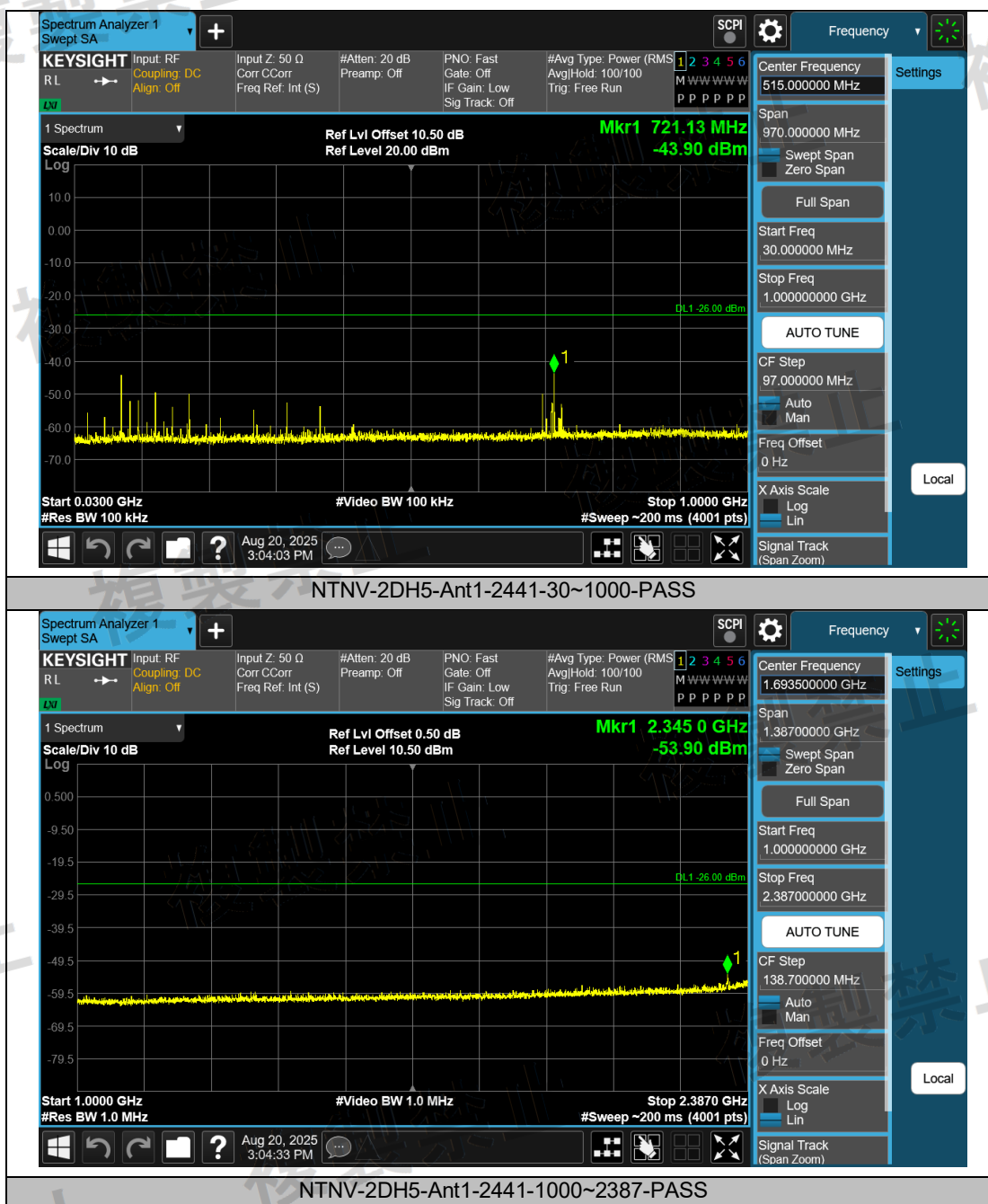


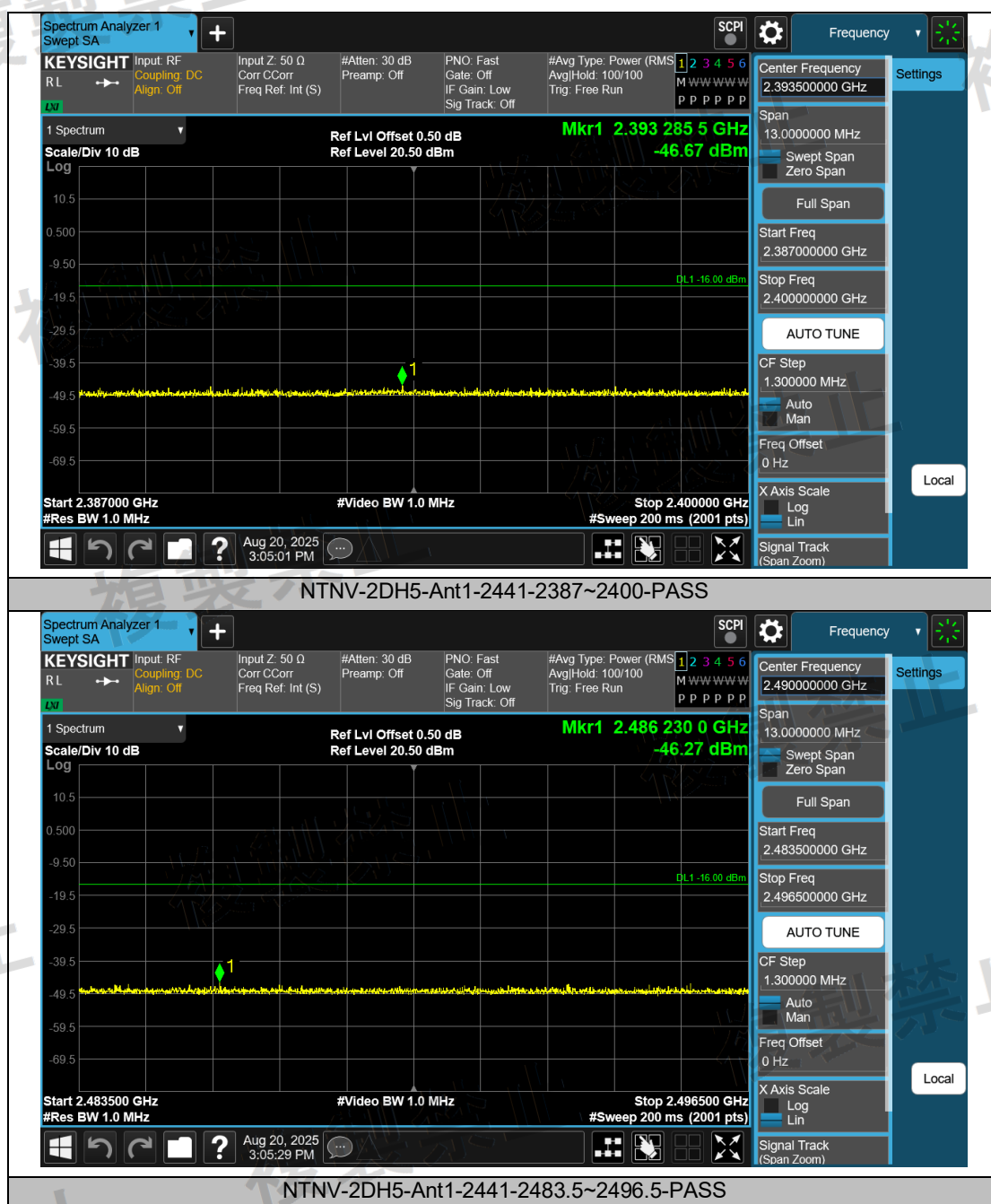


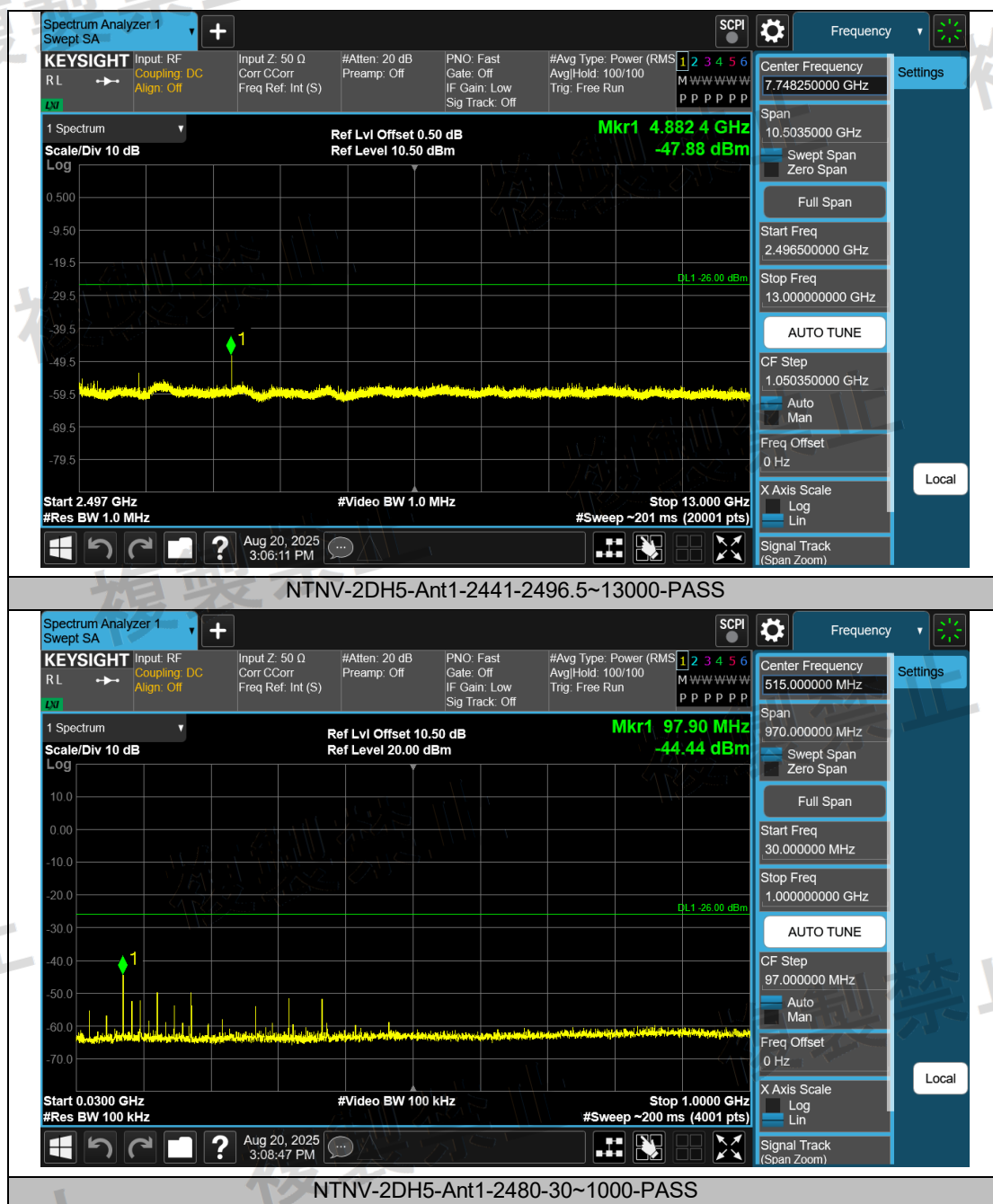


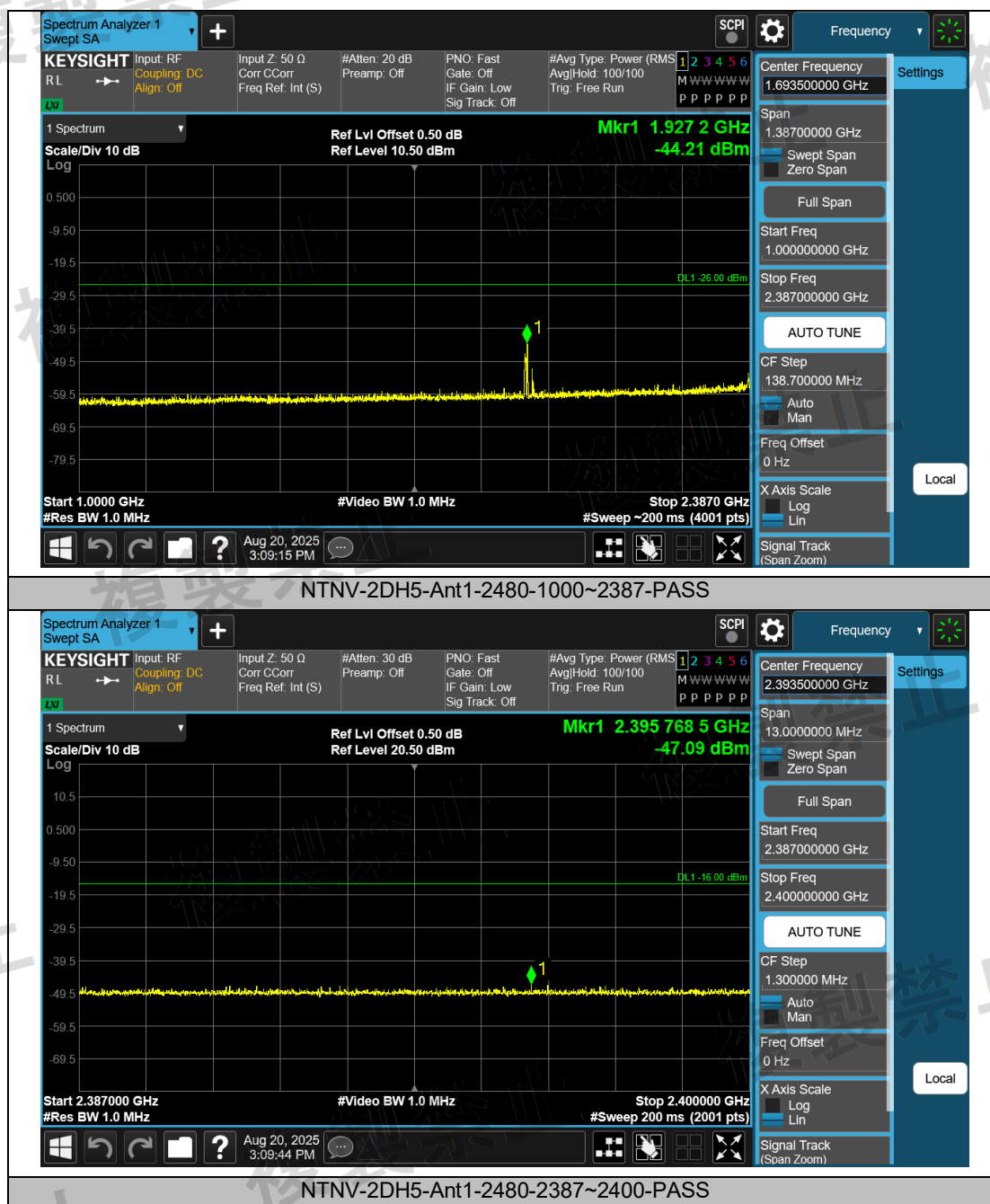


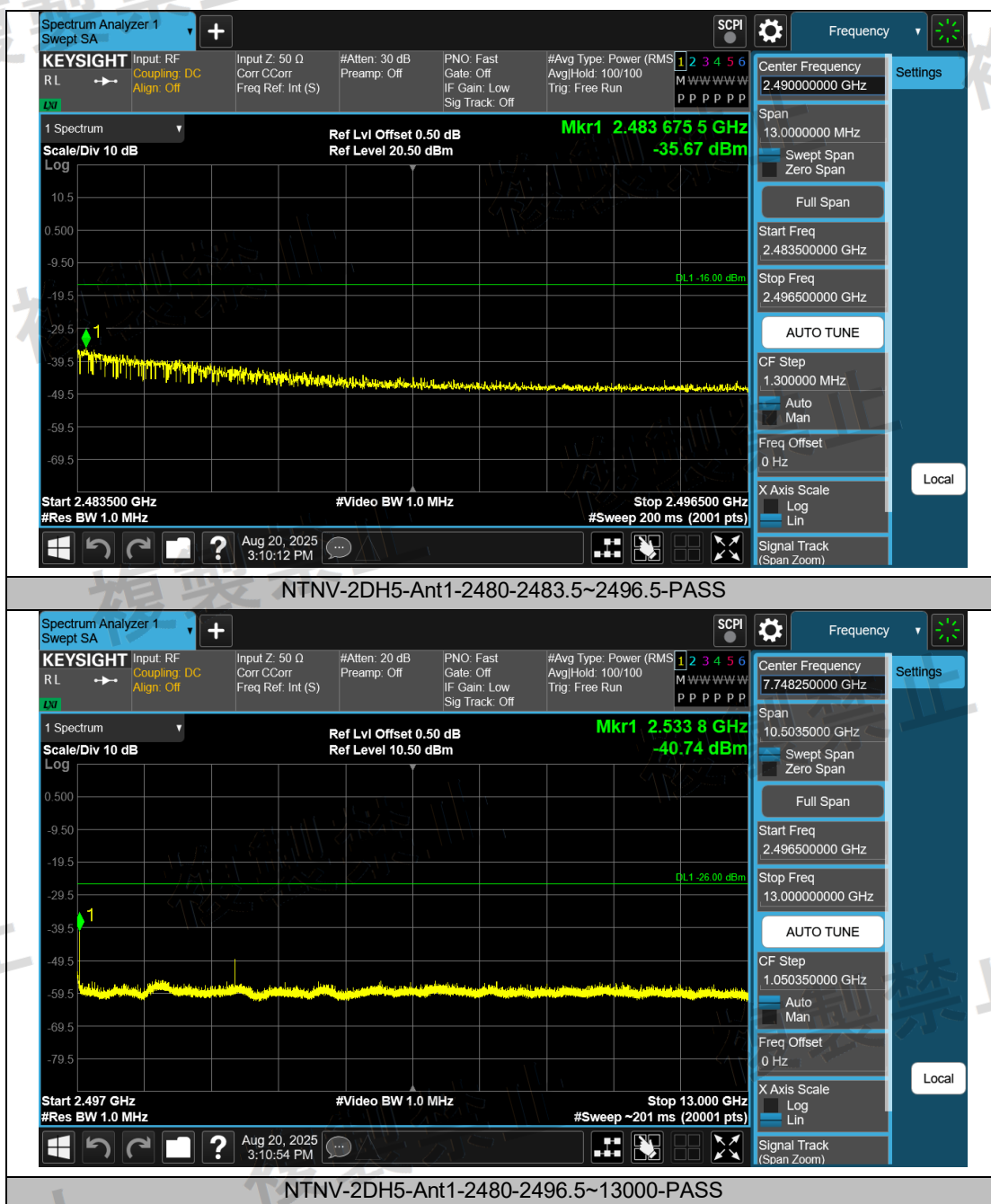


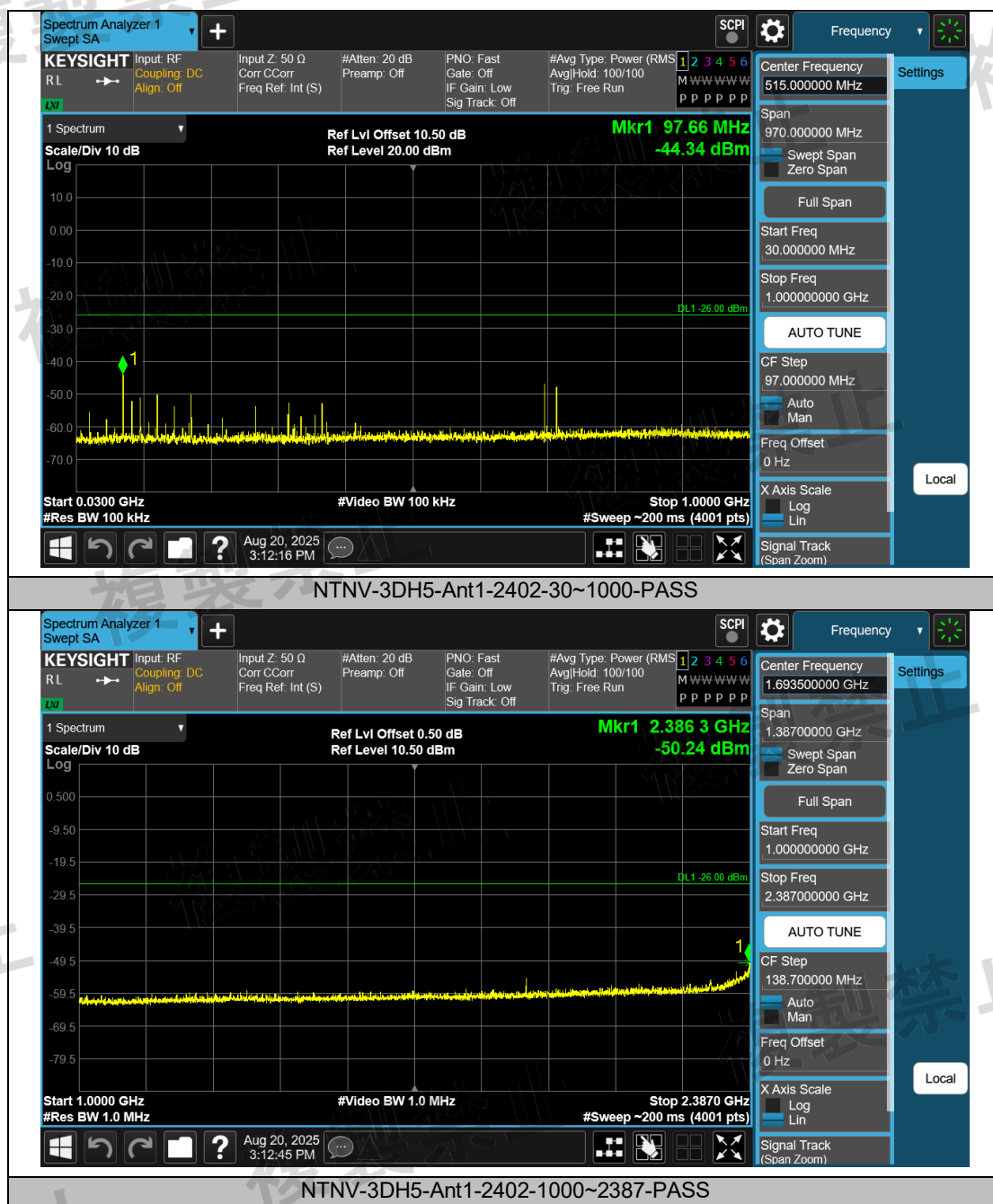


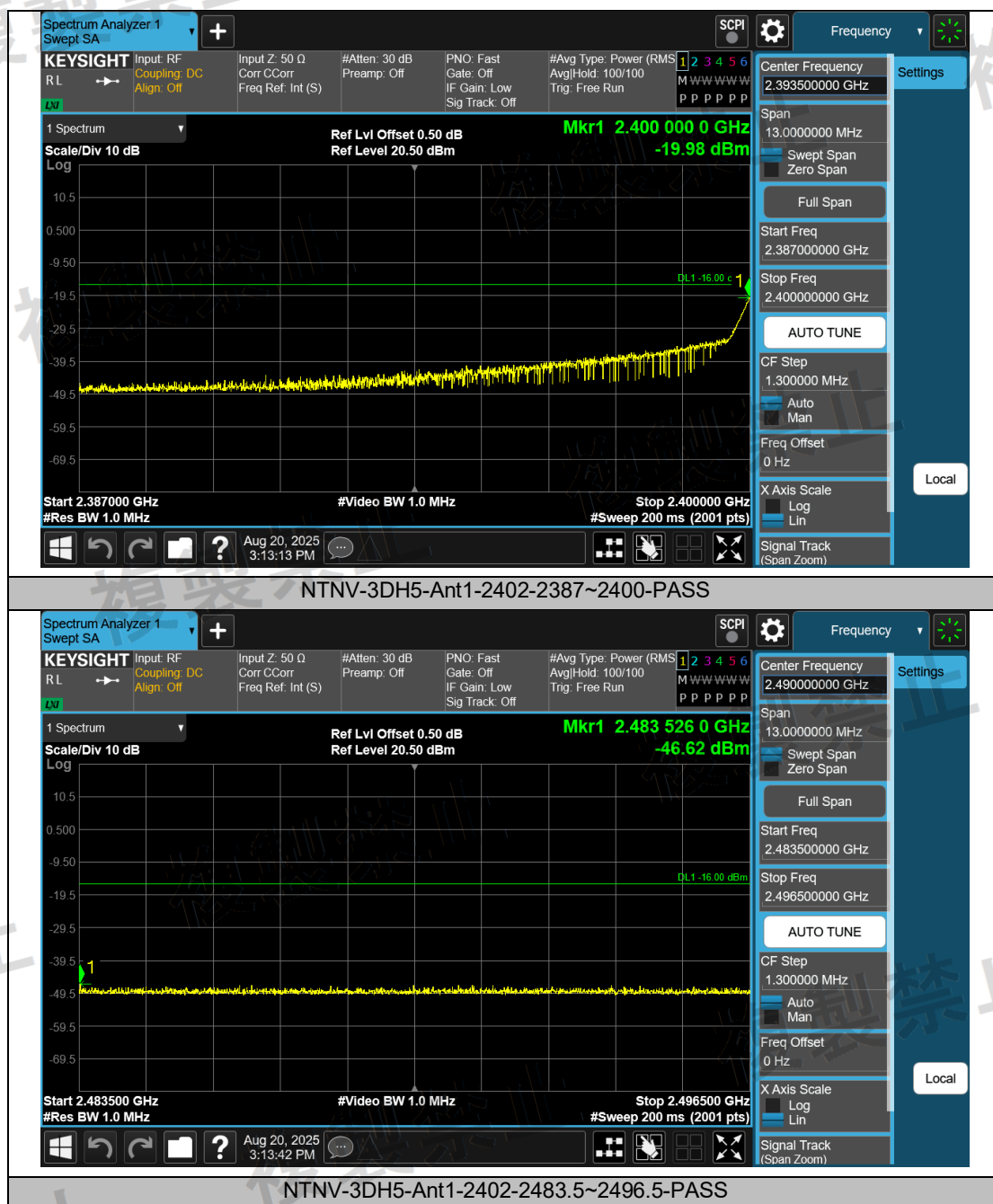


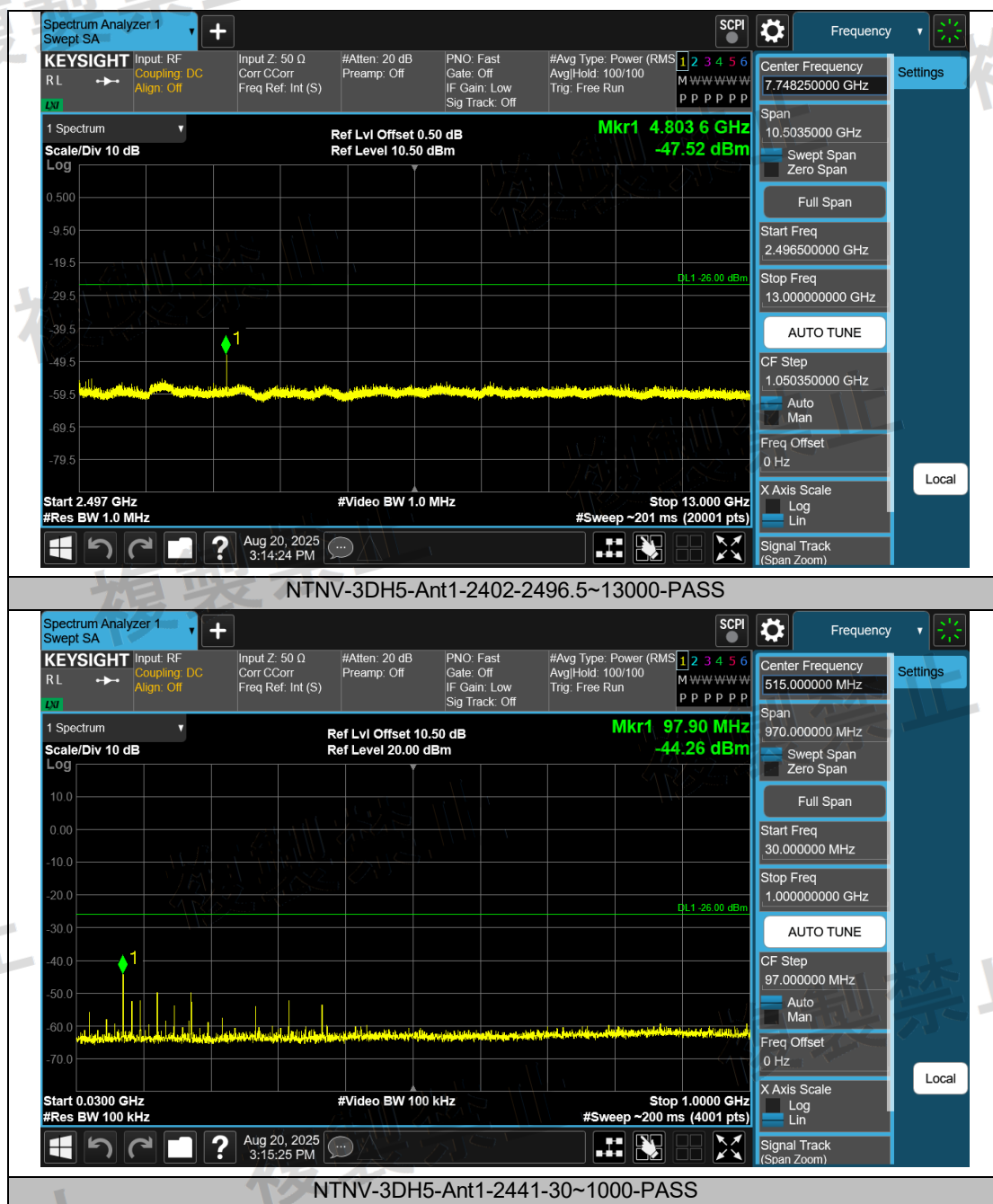


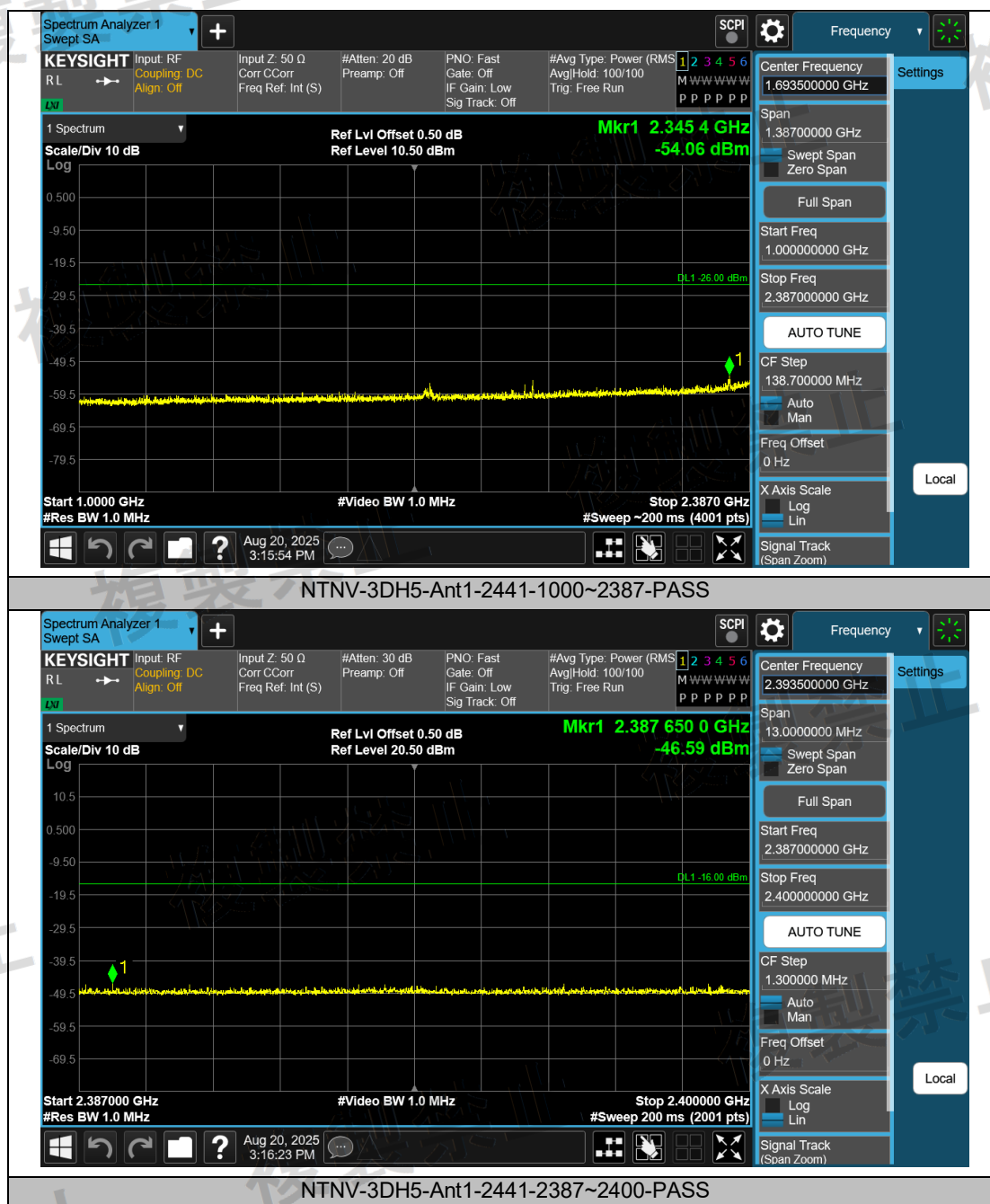


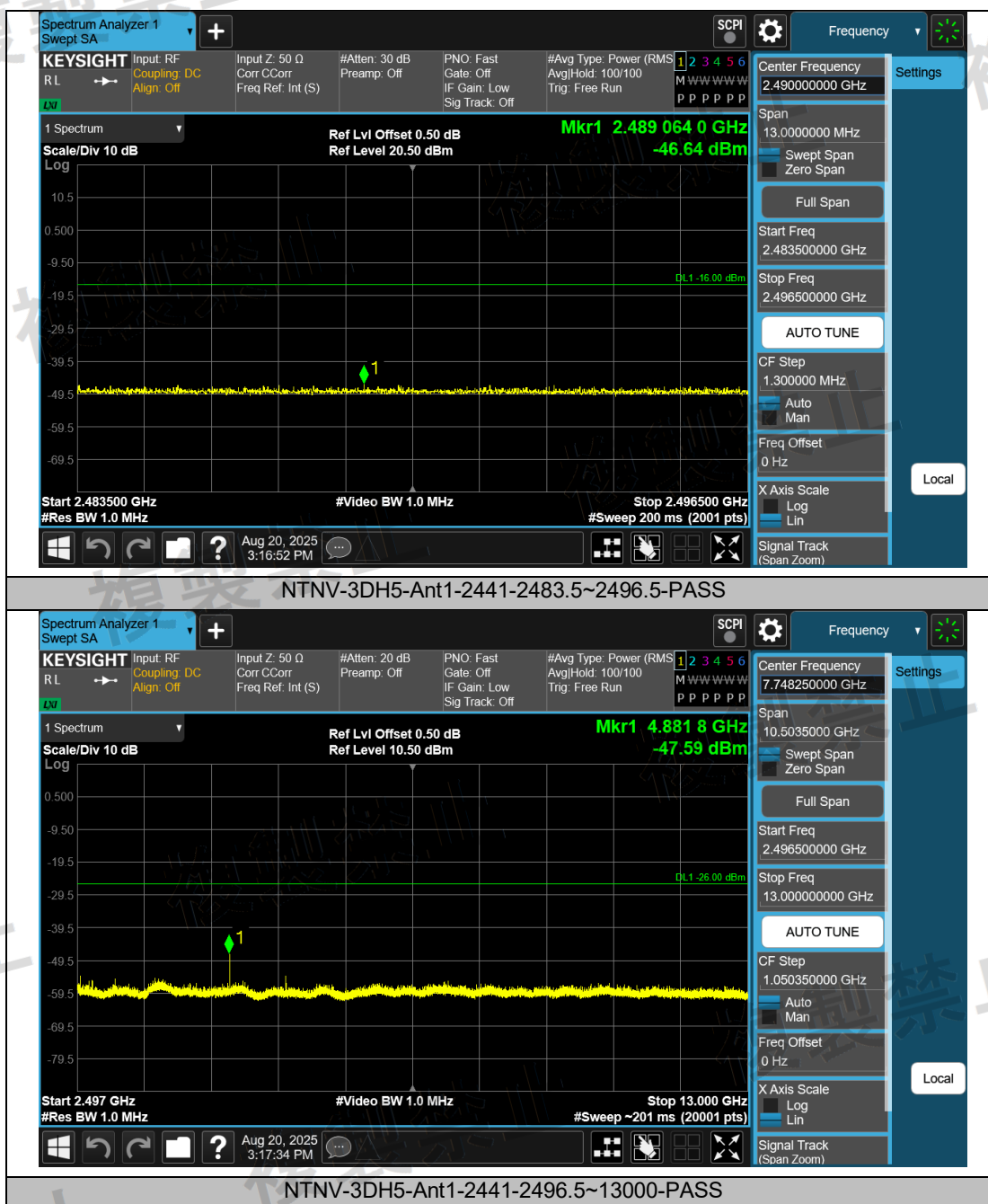


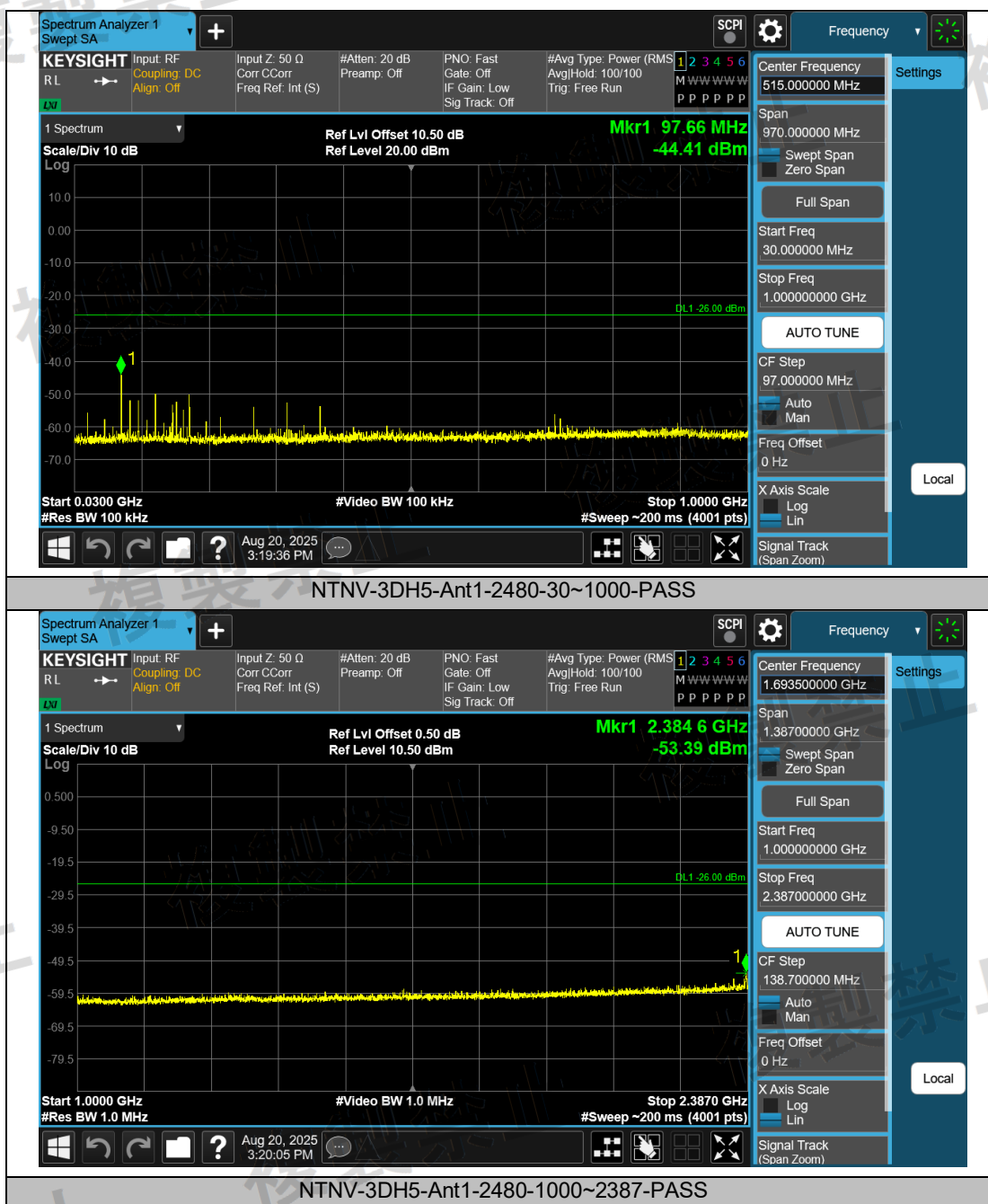


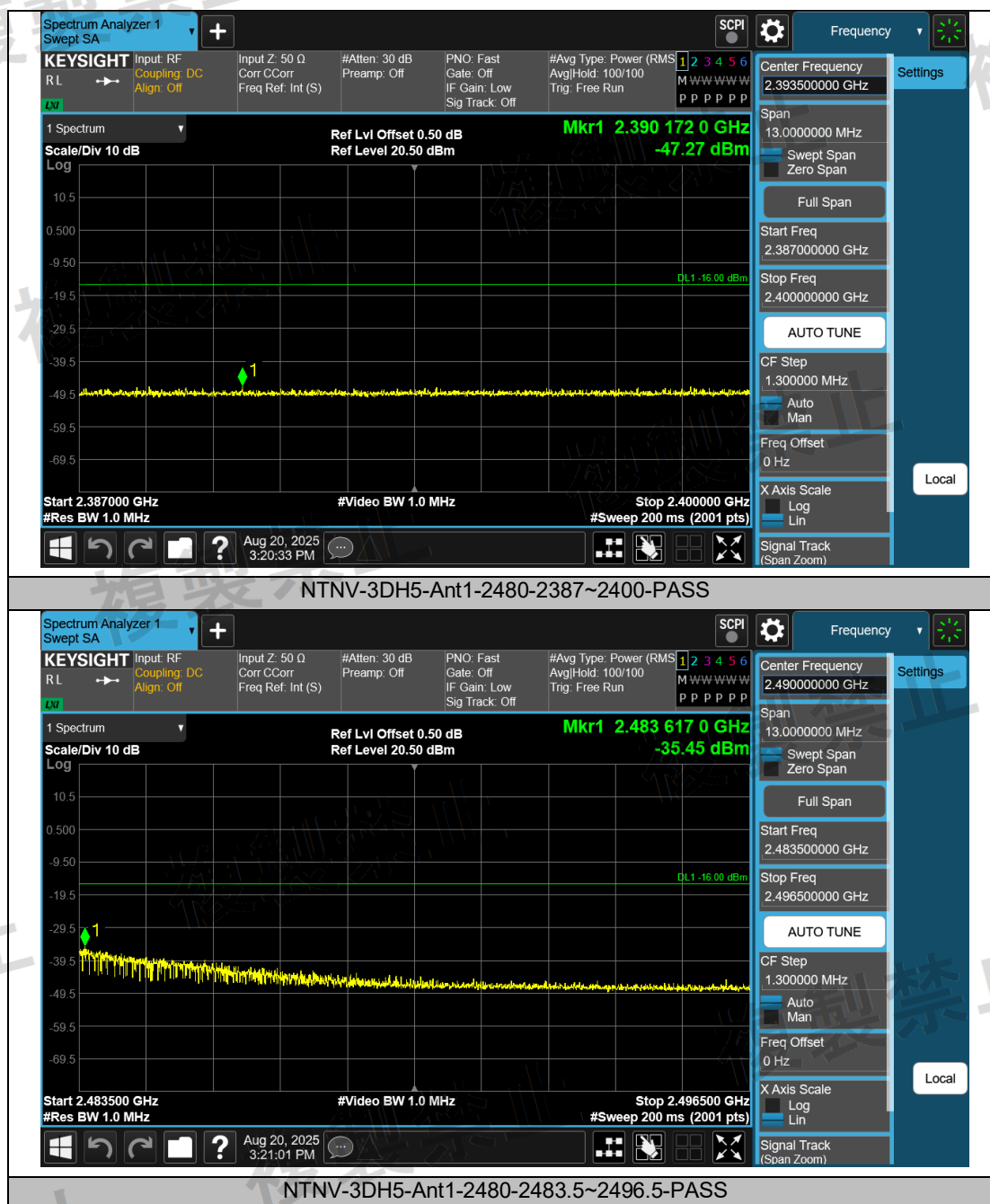


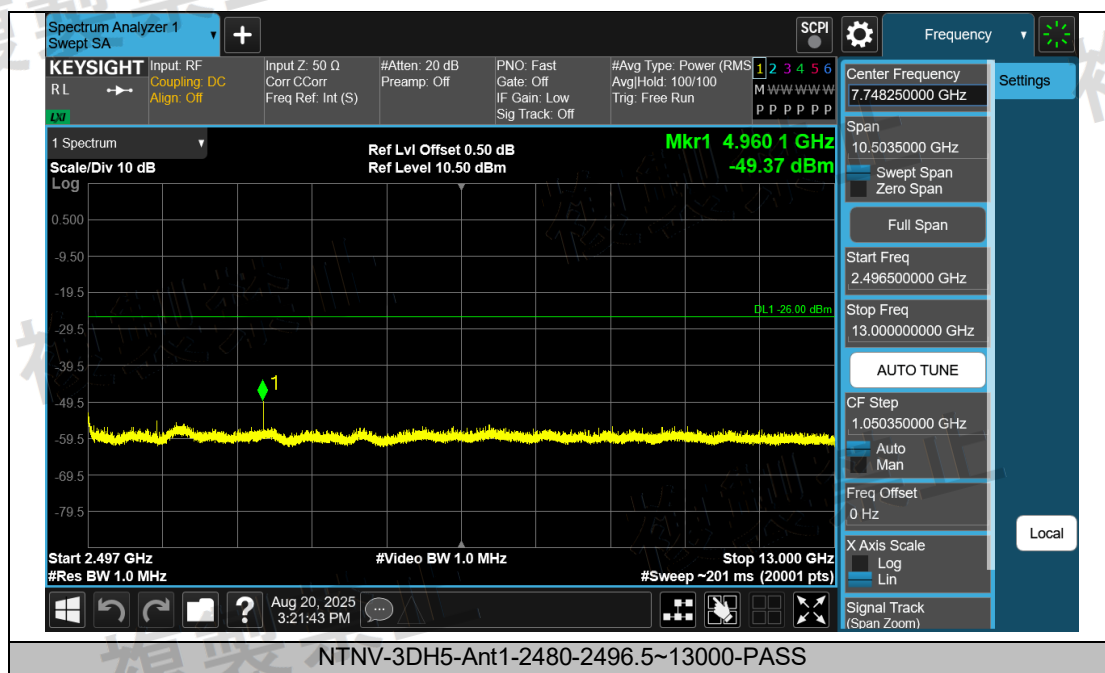












APPENDIX F: RECEIVER SPURIOUS EMISSIONS

Test Result

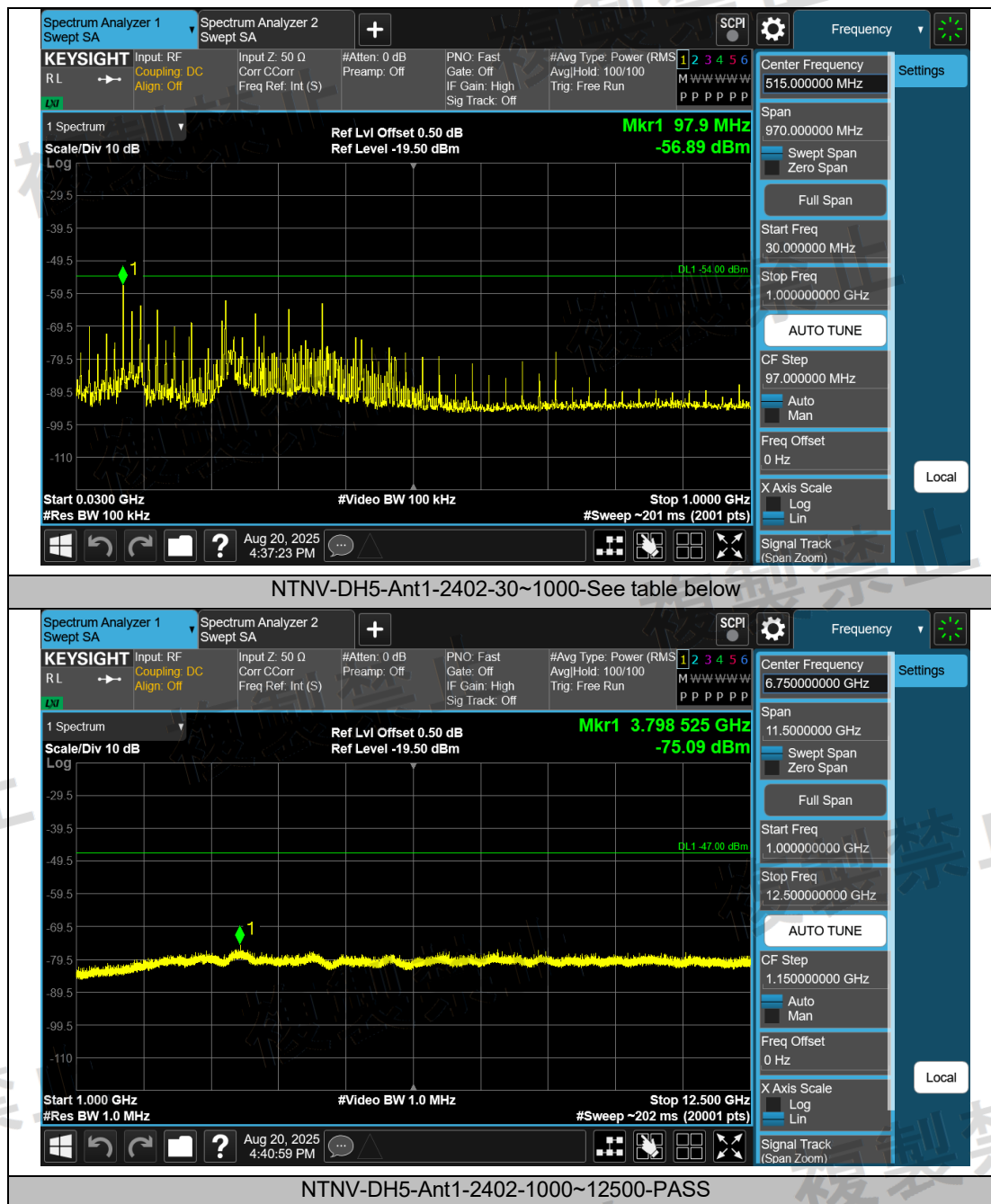
Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	DH5	Ant1	2402	30~1000	97.9	-56.89	≤-54	2.04644	≤4	See table below
NTNV	DH5	Ant1	2402	1000~12500	3798.53	-75.09	≤-47	0.03097	≤20	PASS
NTNV	DH5	Ant1	2441	30~1000	97.9	-56.76	≤-54	2.10863	≤4	See table below
NTNV	DH5	Ant1	2441	1000~12500	9757.83	-75.60	≤-47	0.02754	≤20	PASS
NTNV	DH5	Ant1	2480	30~1000	97.9	-56.84	≤-54	2.07014	≤4	See table below
NTNV	DH5	Ant1	2480	1000~12500	9914.23	-75.15	≤-47	0.03055	≤20	PASS
NTNV	2DH5	Ant1	2402	30~1000	97.9	-56.71	≤-54	2.13304	≤4	See table below
NTNV	2DH5	Ant1	2402	1000~12500	3807.73	-75.39	≤-47	0.02891	≤20	PASS
NTNV	2DH5	Ant1	2441	30~1000	97.9	-56.91	≤-54	2.03704	≤4	See table below
NTNV	2DH5	Ant1	2441	1000~12500	3927.33	-75.83	≤-47	0.02612	≤20	PASS
NTNV	2DH5	Ant1	2480	30~1000	97.9	-56.88	≤-54	2.05116	≤4	See table below
NTNV	2DH5	Ant1	2480	1000~12500	9917.10	-75.05	≤-47	0.03126	≤20	PASS
NTNV	3DH5	Ant1	2402	30~1000	97.9	-56.96	≤-54	2.01372	≤4	See table below
NTNV	3DH5	Ant1	2402	1000~12500	3781.85	-75.94	≤-47	0.02547	≤20	PASS
NTNV	3DH5	Ant1	2441	30~1000	97.9	-56.95	≤-54	2.01837	≤4	See table below
NTNV	3DH5	Ant1	2441	1000~12500	3825.55	-75.79	≤-47	0.02636	≤20	PASS
NTNV	3DH5	Ant1	2480	30~1000	97.9	-56.83	≤-54	2.07491	≤4	See table below
NTNV	3DH5	Ant1	2480	1000~12500	9913.65	-74.08	≤-47	0.03908	≤20	PASS

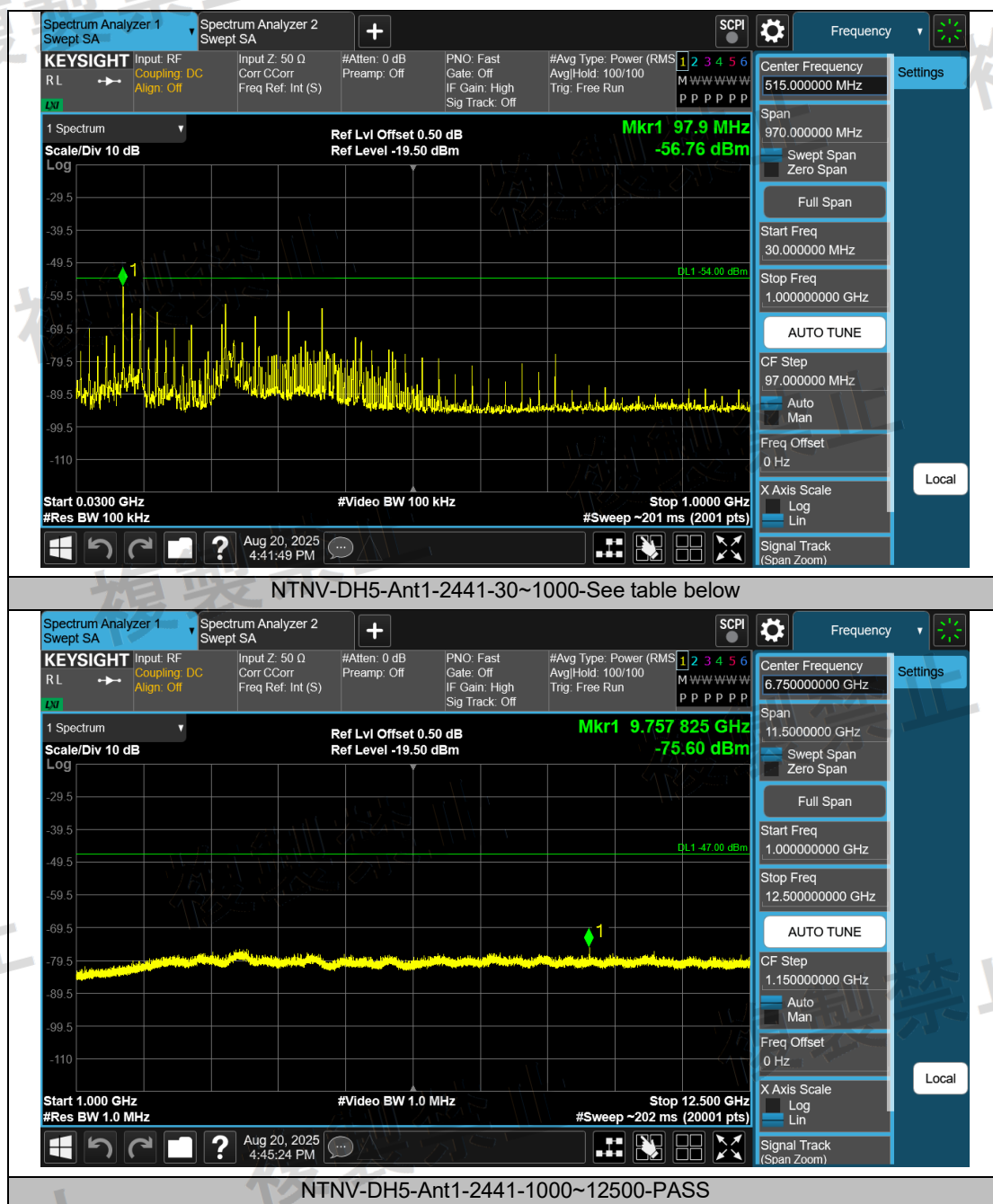
Test Result_Step2

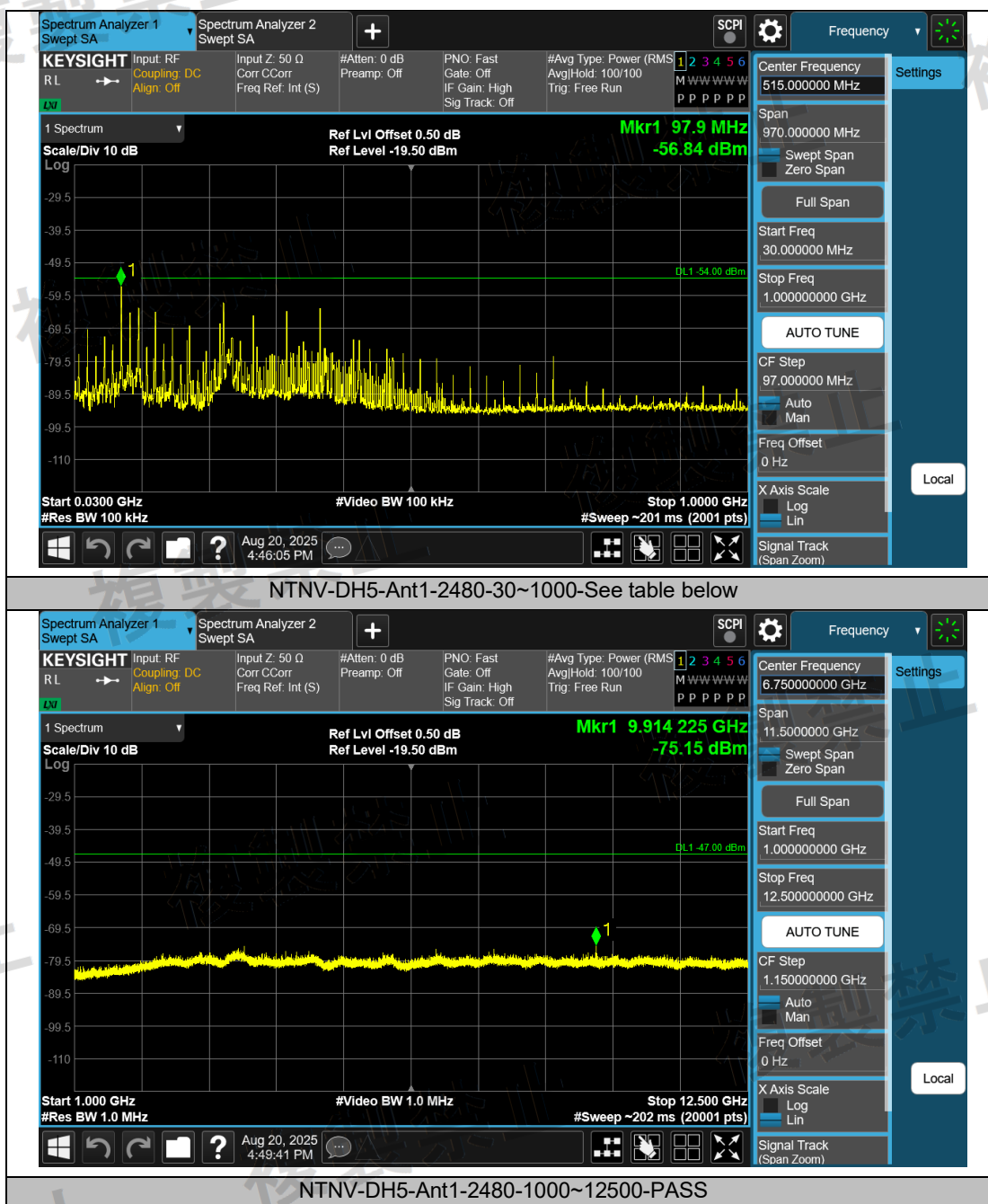
Test Condition	Test Mode	Antenna	Frequency [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	DH5	Ant1	2402	97.90	-64.91	≤-54	0.32285	≤4	PASS
NTNV	DH5	Ant1	2402	122.64	-67.35	≤-54	0.18408	≤4	PASS
NTNV	DH5	Ant1	2402	244.86	-67.58	≤-54	0.17458	≤4	PASS
NTNV	DH5	Ant1	2402	384.05	-65.92	≤-54	0.25586	≤4	PASS
NTNV	DH5	Ant1	2441	97.90	-59.18	≤-54	1.20781	≤4	PASS
NTNV	DH5	Ant1	2441	122.15	-68.29	≤-54	0.14825	≤4	PASS
NTNV	DH5	Ant1	2441	244.86	-67.37	≤-54	0.18323	≤4	PASS
NTNV	DH5	Ant1	2441	384.05	-65.94	≤-54	0.25468	≤4	PASS
NTNV	DH5	Ant1	2480	97.90	-58.88	≤-54	1.29420	≤4	PASS
NTNV	DH5	Ant1	2480	122.15	-70.04	≤-54	0.09908	≤4	PASS
NTNV	DH5	Ant1	2480	244.37	-68.08	≤-54	0.15560	≤4	PASS
NTNV	DH5	Ant1	2480	384.05	-65.92	≤-54	0.25586	≤4	PASS
NTNV	2DH5	Ant1	2402	97.90	-59.52	≤-54	1.11686	≤4	PASS
NTNV	2DH5	Ant1	2402	122.15	-67.41	≤-54	0.18155	≤4	PASS
NTNV	2DH5	Ant1	2402	244.86	-67.51	≤-54	0.17742	≤4	PASS
NTNV	2DH5	Ant1	2402	384.05	-65.93	≤-54	0.25527	≤4	PASS
NTNV	2DH5	Ant1	2441	97.90	-61.81	≤-54	0.65917	≤4	PASS
NTNV	2DH5	Ant1	2441	122.64	-67.69	≤-54	0.17022	≤4	PASS
NTNV	2DH5	Ant1	2441	244.37	-67.60	≤-54	0.17378	≤4	PASS
NTNV	2DH5	Ant1	2441	384.05	-65.92	≤-54	0.25586	≤4	PASS
NTNV	2DH5	Ant1	2480	97.90	-60.18	≤-54	0.95940	≤4	PASS
NTNV	2DH5	Ant1	2480	122.15	-67.89	≤-54	0.16255	≤4	PASS
NTNV	2DH5	Ant1	2480	244.37	-67.66	≤-54	0.17140	≤4	PASS
NTNV	2DH5	Ant1	2480	384.05	-65.91	≤-54	0.2564	≤4	PASS

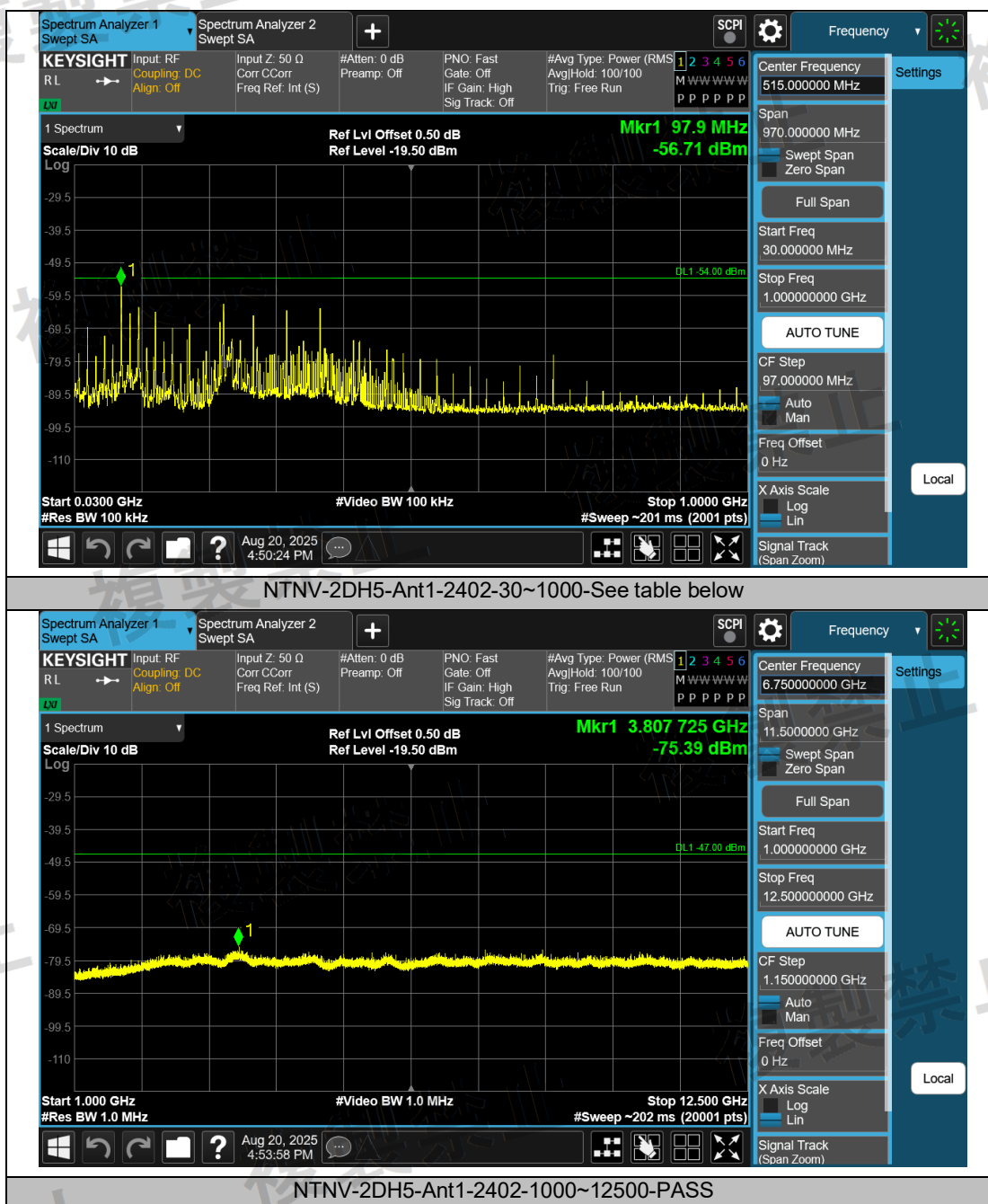
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NTNV	3DH5	Ant1	2402	97.90	-59.15	≤-54	1.2161 9	≤4	PASS
NTNV	3DH5	Ant1	2402	122.15	-69.49	≤-54	0.1124 6	≤4	PASS
NTNV	3DH5	Ant1	2402	244.37	-67.28	≤-54	0.1870 7	≤4	PASS
NTNV	3DH5	Ant1	2402	384.05	-65.96	≤-54	0.2535 1	≤4	PASS
NTNV	3DH5	Ant1	2441	97.90	-59.04	≤-54	1.2473 8	≤4	PASS
NTNV	3DH5	Ant1	2441	122.15	-67.21	≤-54	0.1901 1	≤4	PASS
NTNV	3DH5	Ant1	2441	244.86	-67.30	≤-54	0.1862 1	≤4	PASS
NTNV	3DH5	Ant1	2441	384.05	-65.95	≤-54	0.2541 0	≤4	PASS
NTNV	3DH5	Ant1	2480	97.90	-61.00	≤-54	0.7943 3	≤4	PASS
NTNV	3DH5	Ant1	2480	122.15	-68.27	≤-54	0.1489 4	≤4	PASS
NTNV	3DH5	Ant1	2480	244.37	-67.77	≤-54	0.1671 1	≤4	PASS
NTNV	3DH5	Ant1	2480	336.04	-66.24	≤-54	0.2376 8	≤4	PASS
NTNV	3DH5	Ant1	2480	384.05	-66.19	≤-54	0.2404 4	≤4	PASS

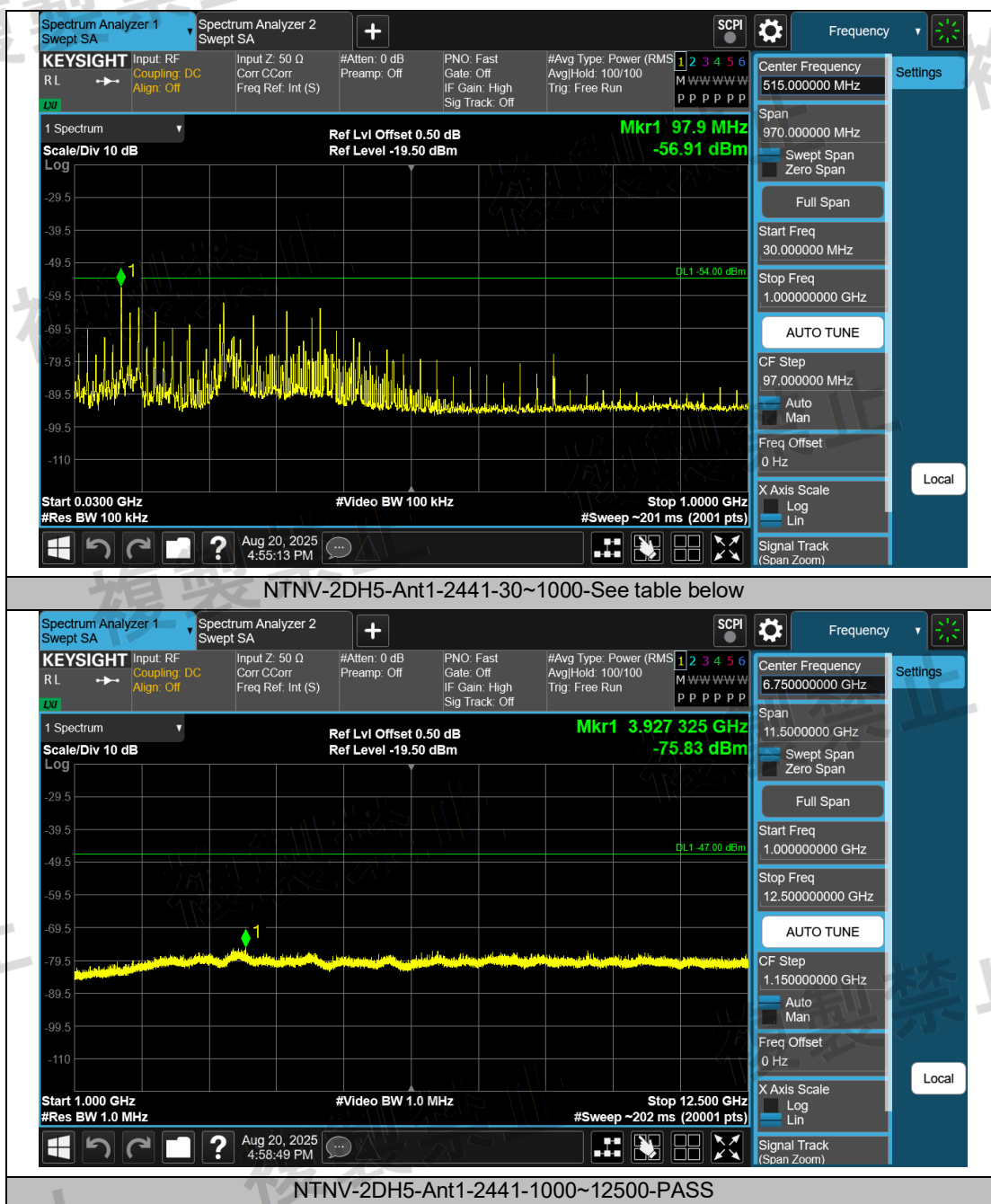
Test Graphs

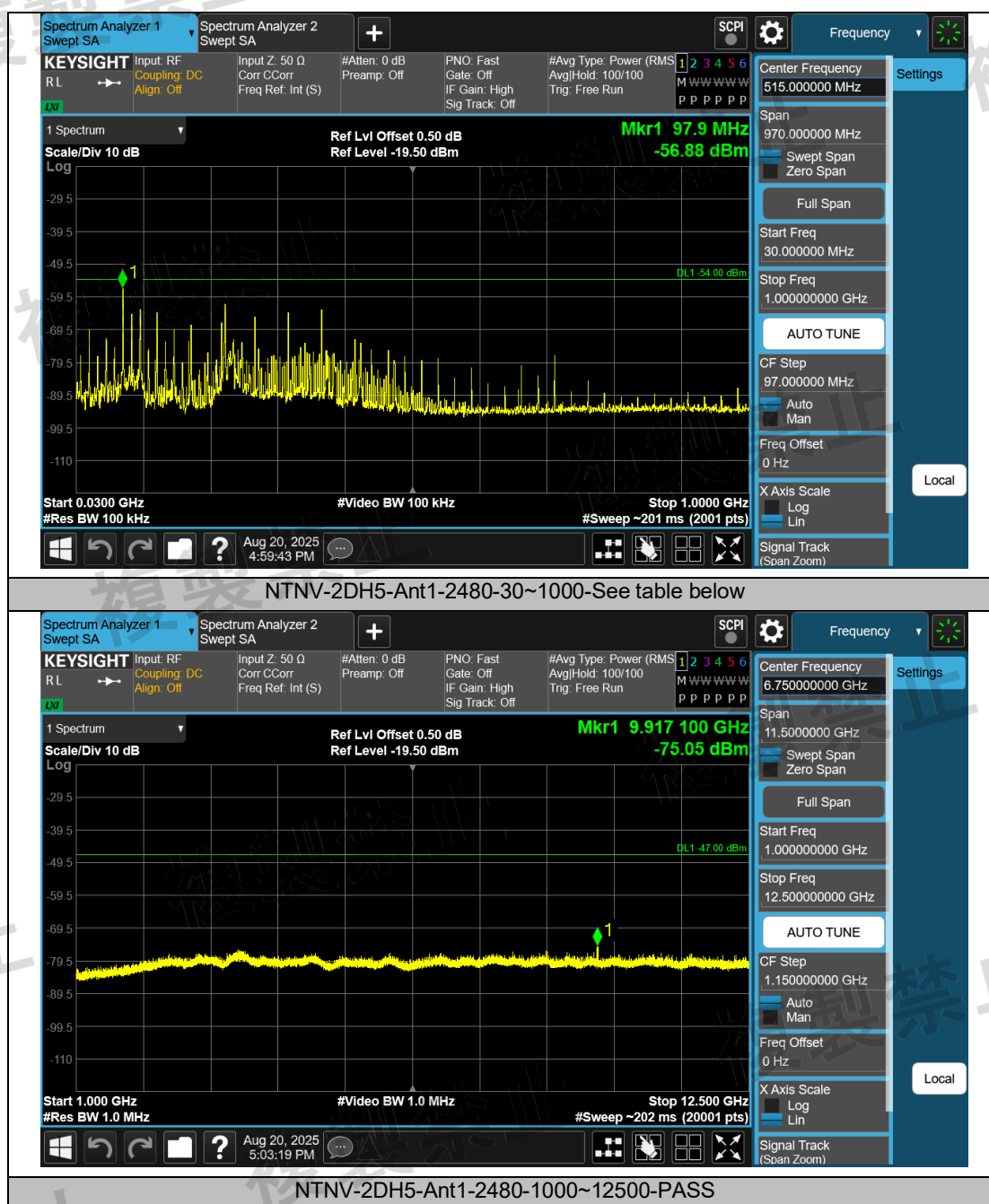


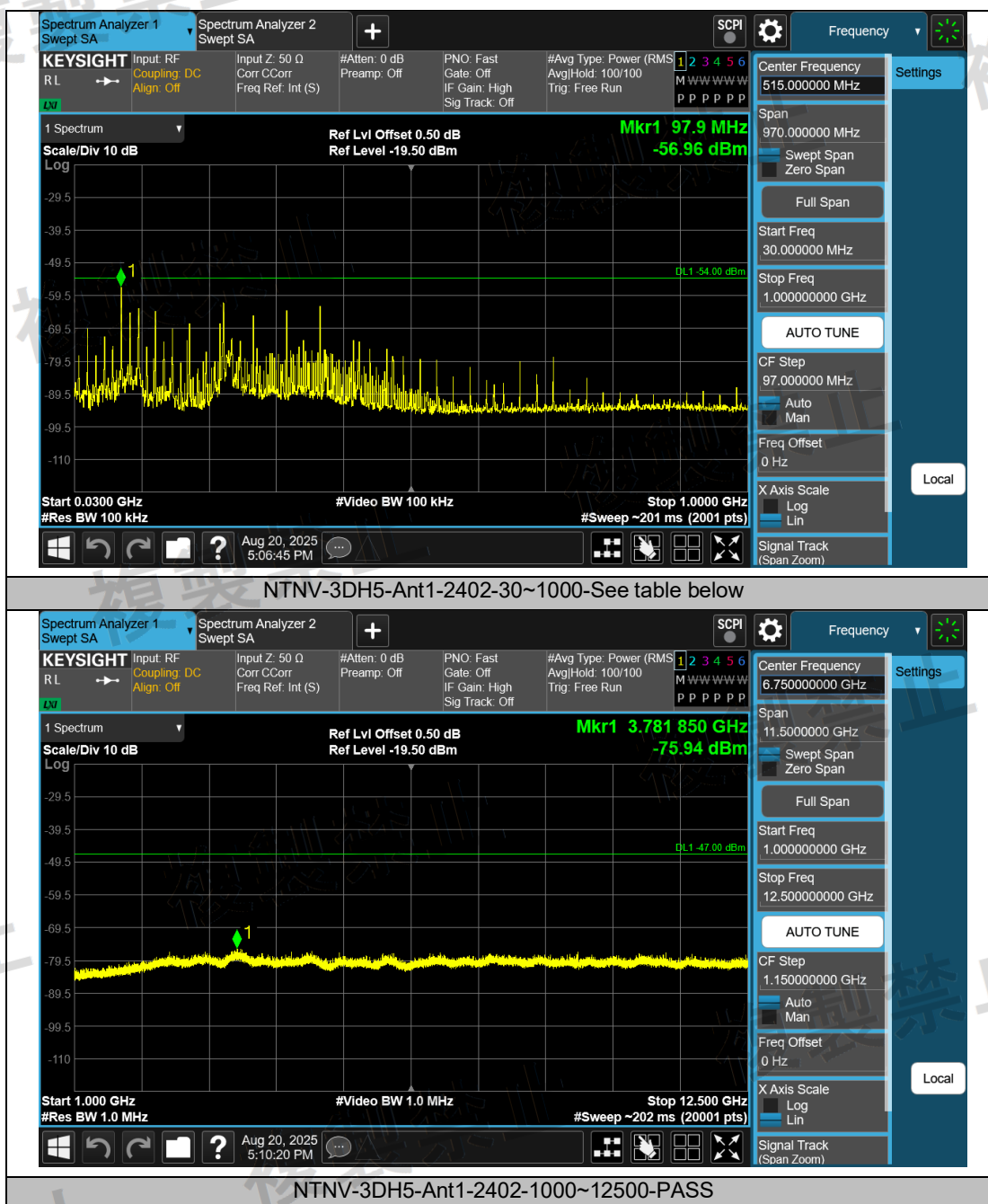


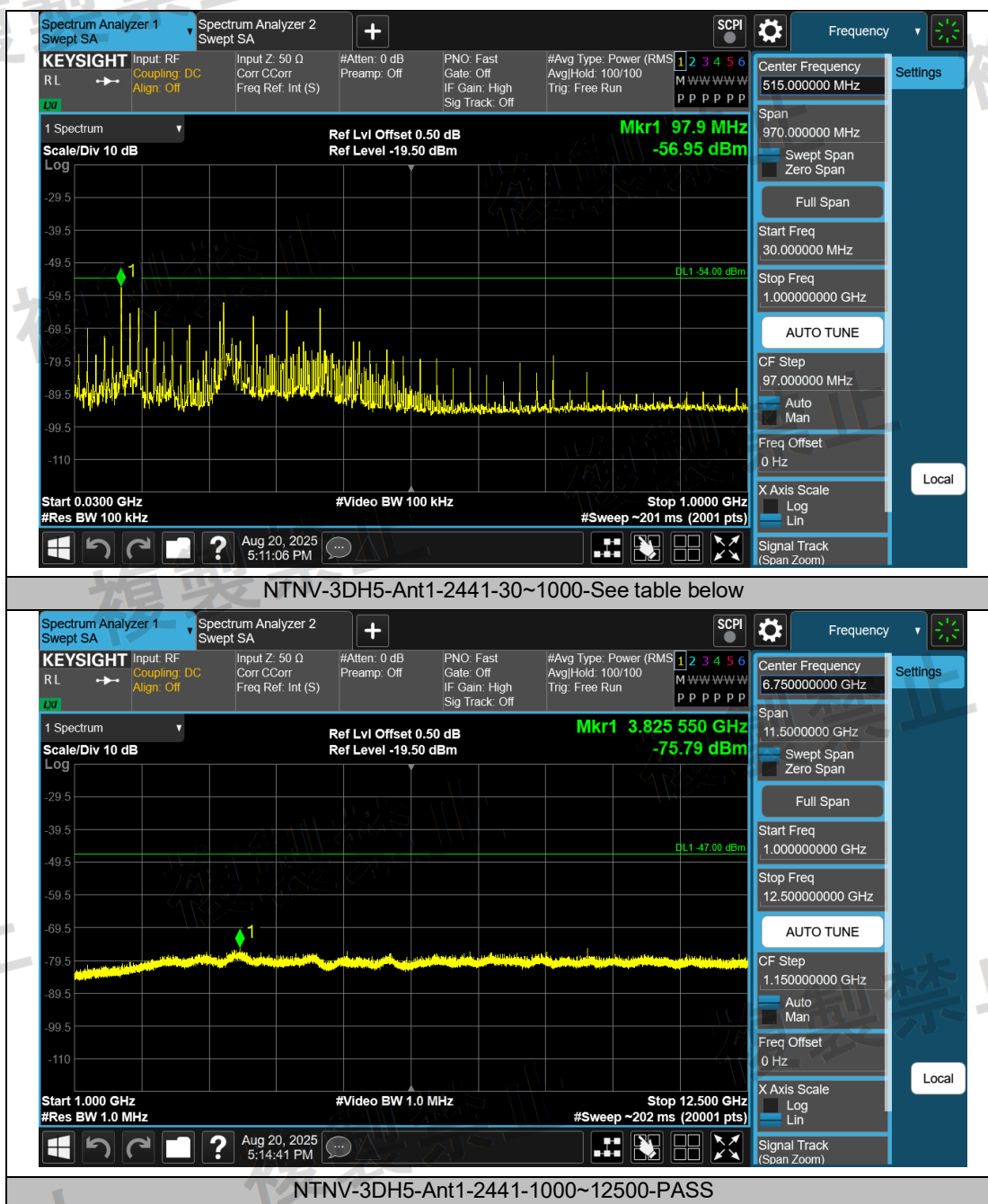


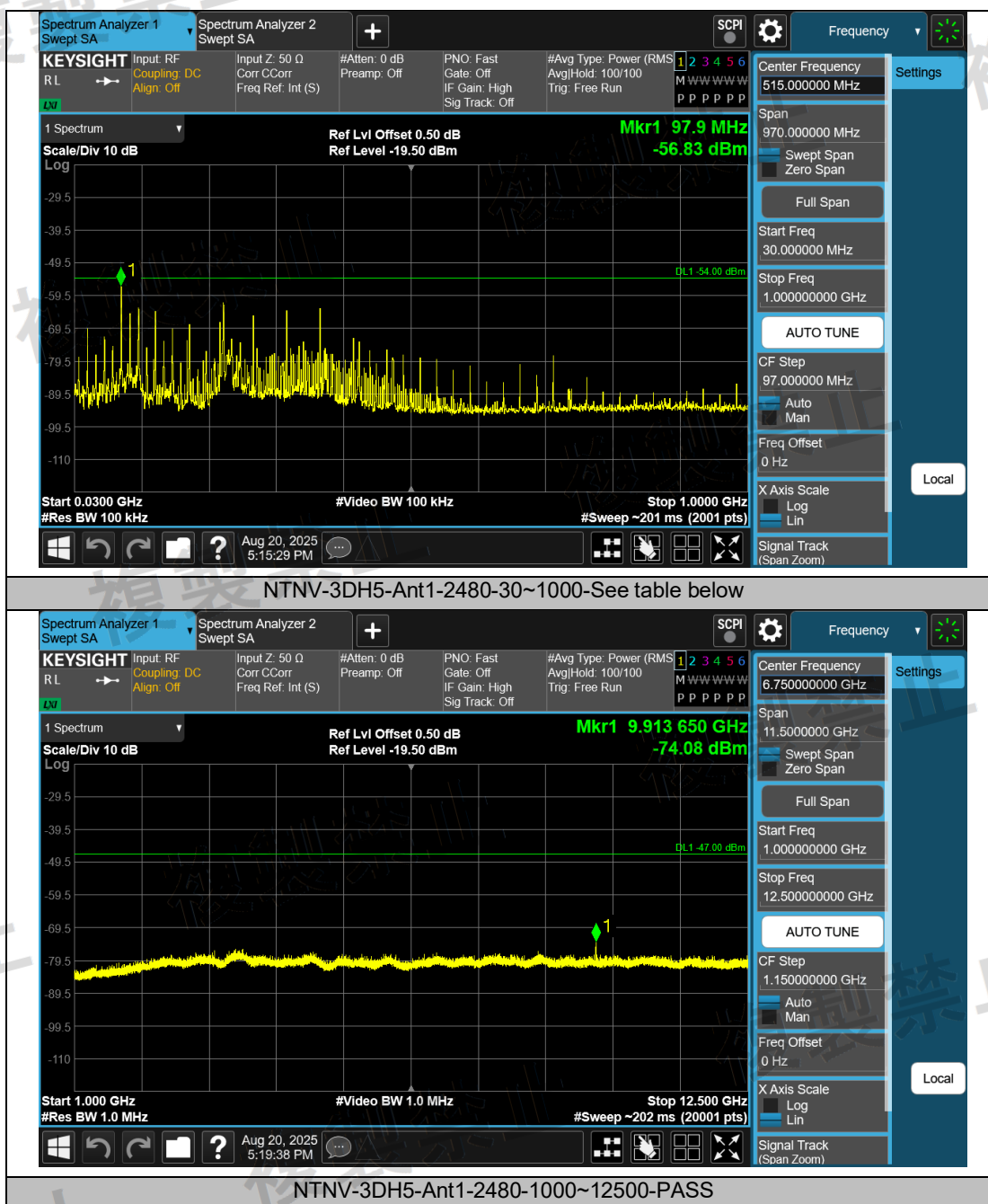




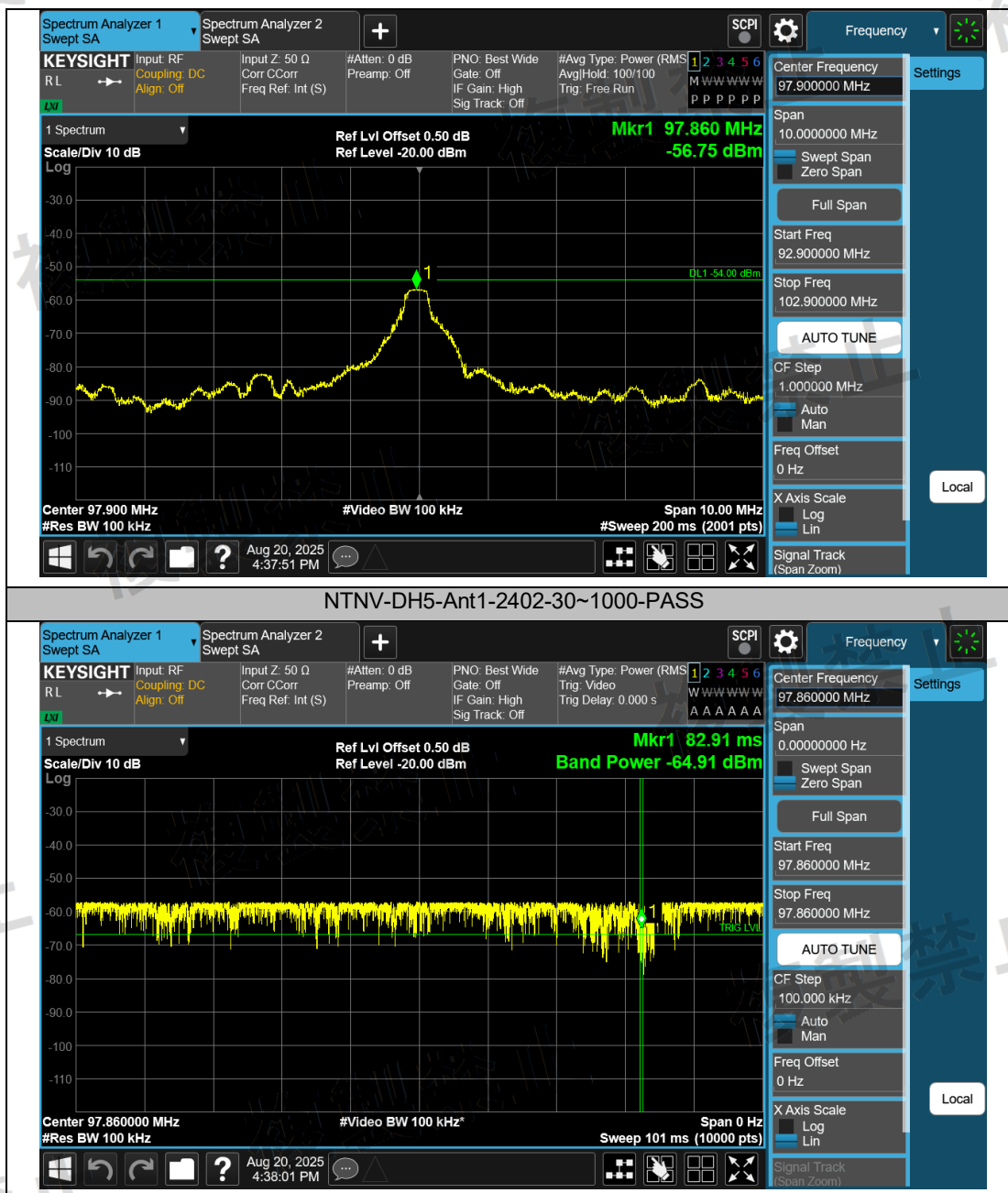


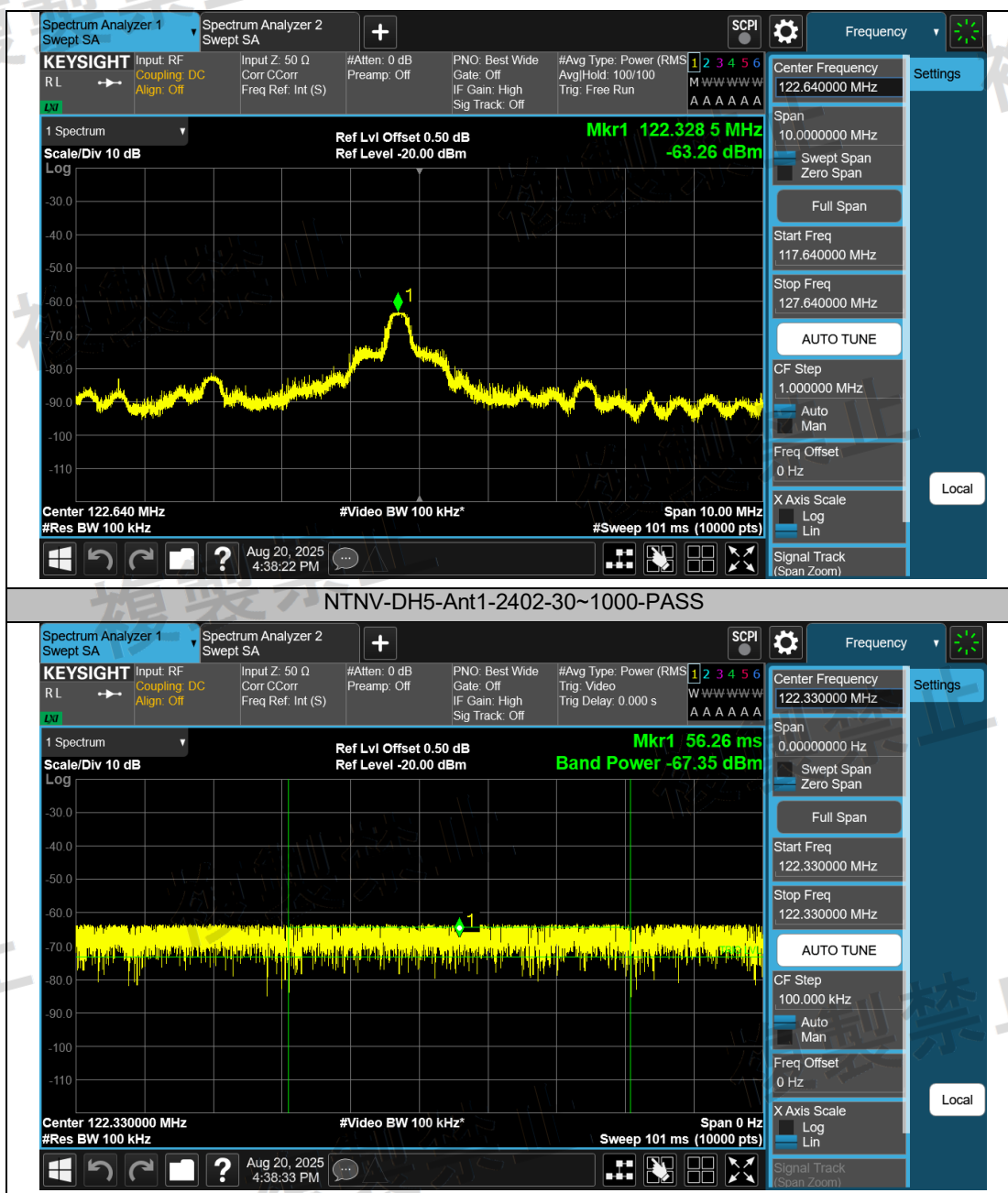


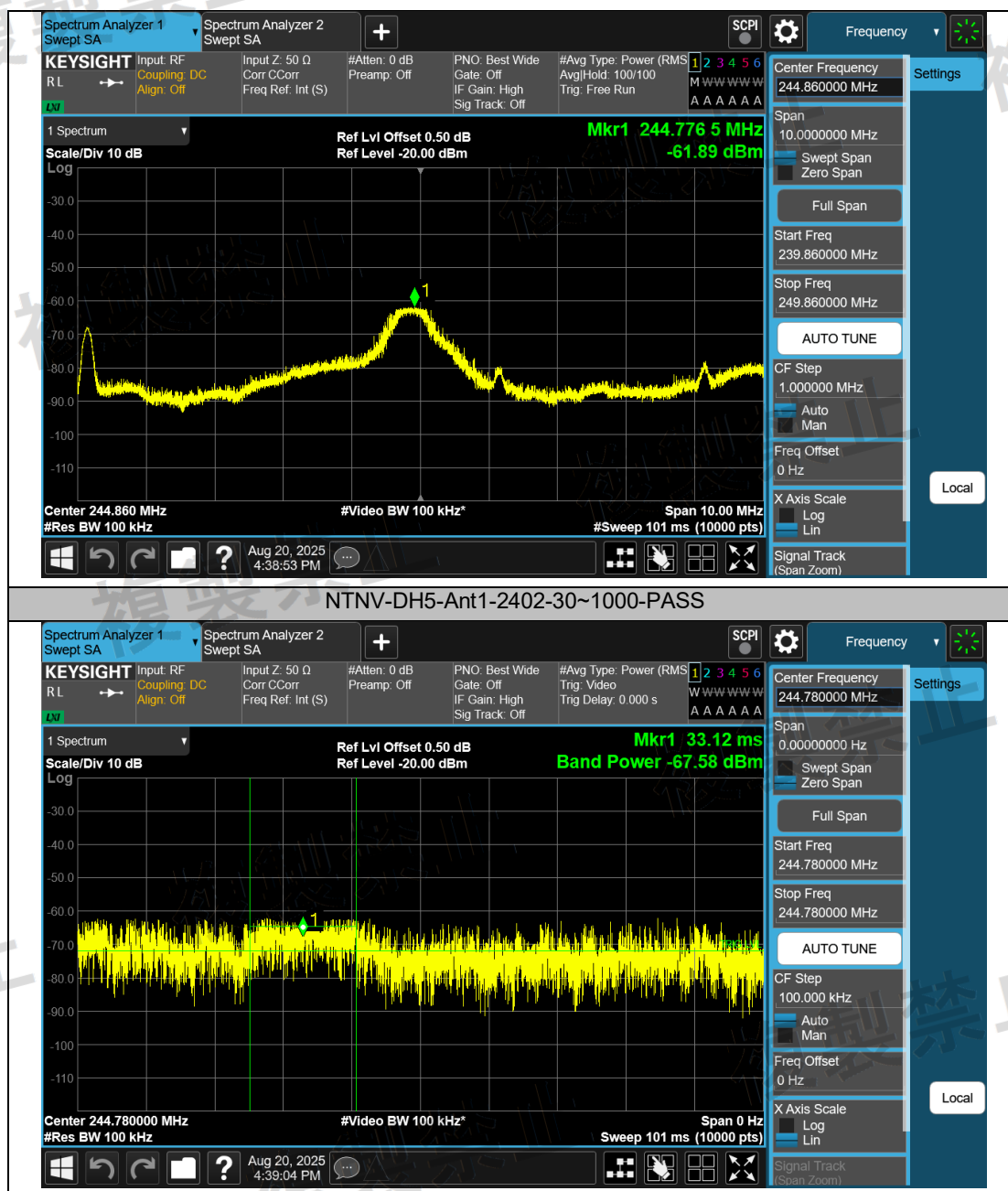


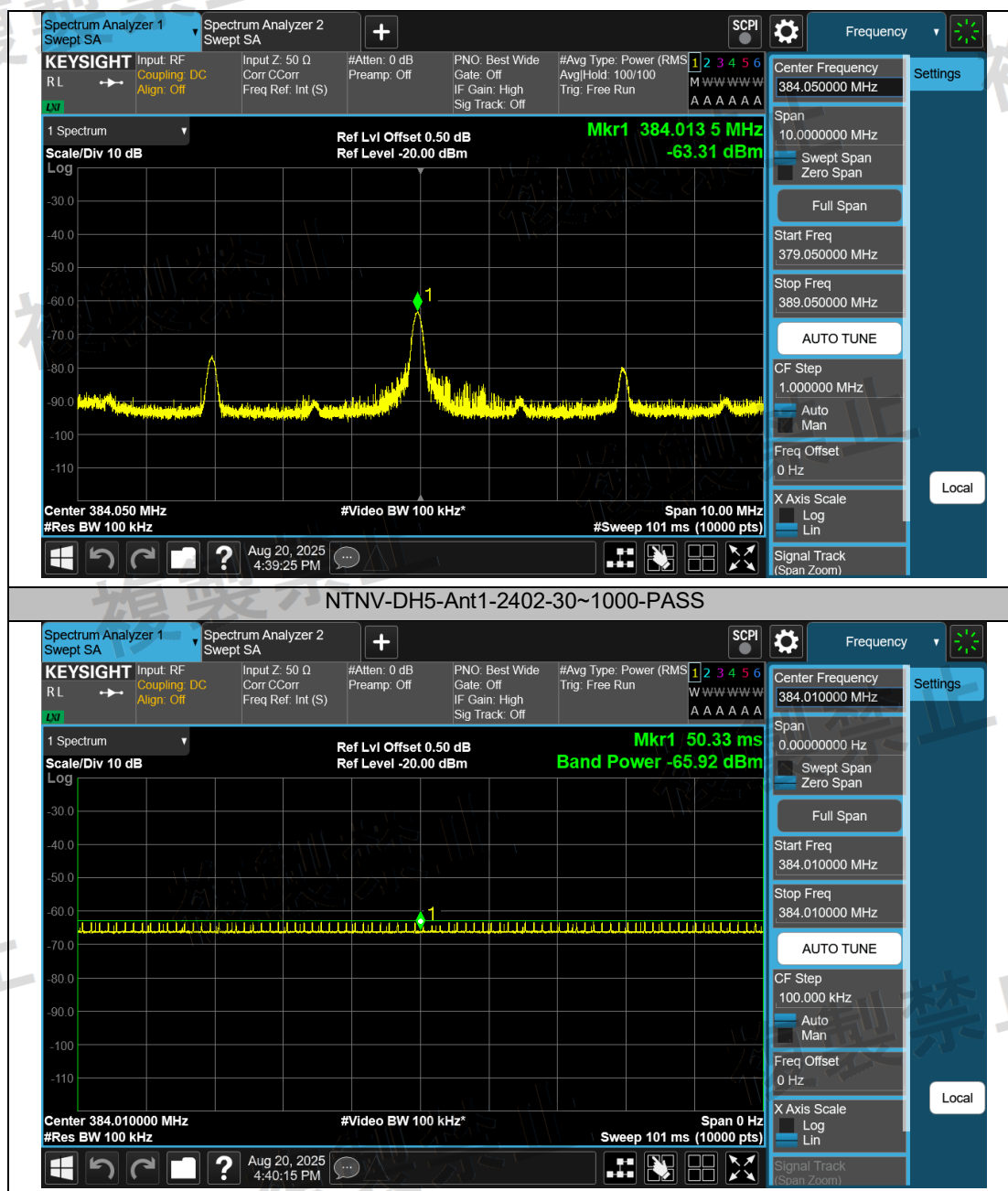


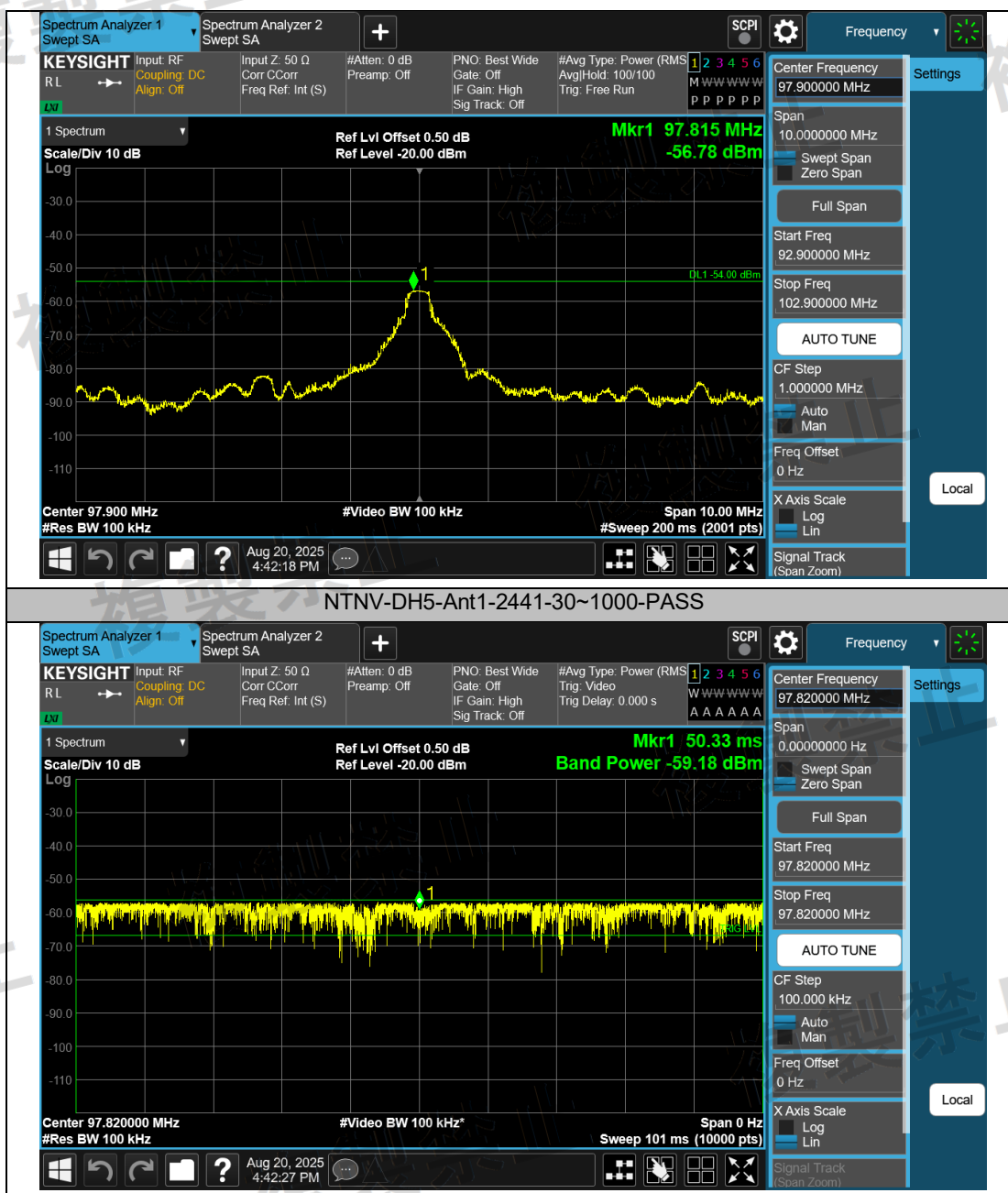
Test Graphs_Step2

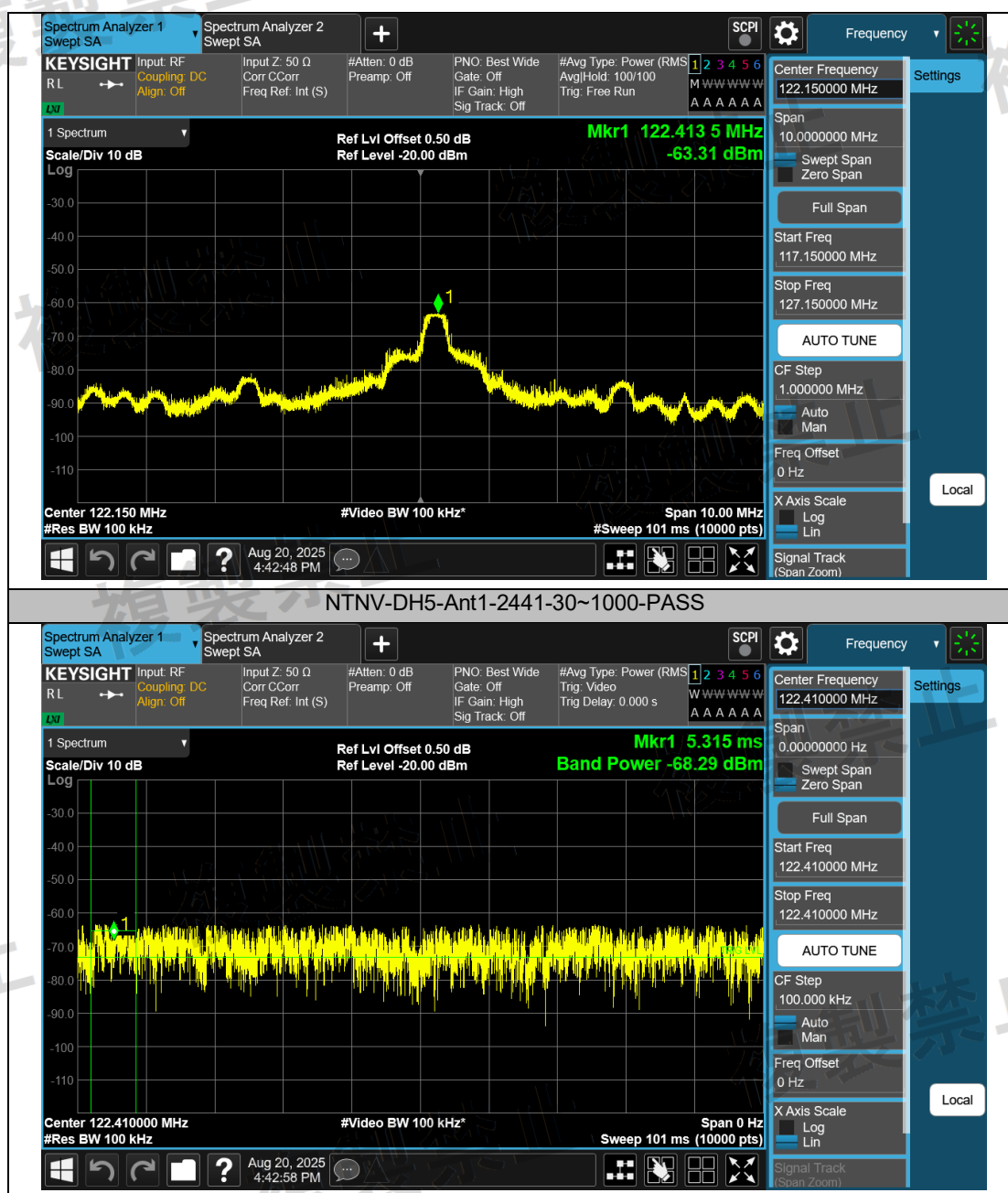


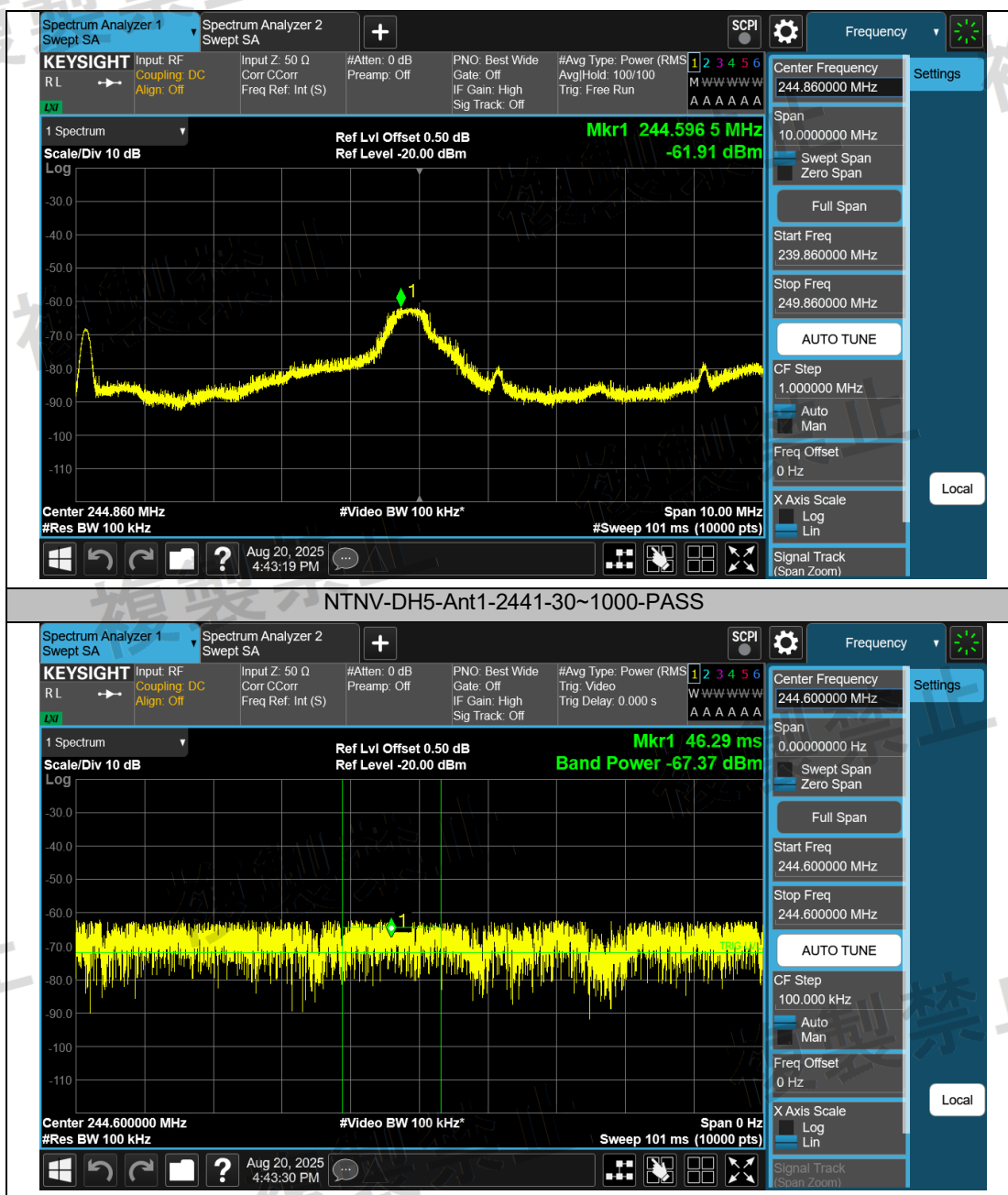


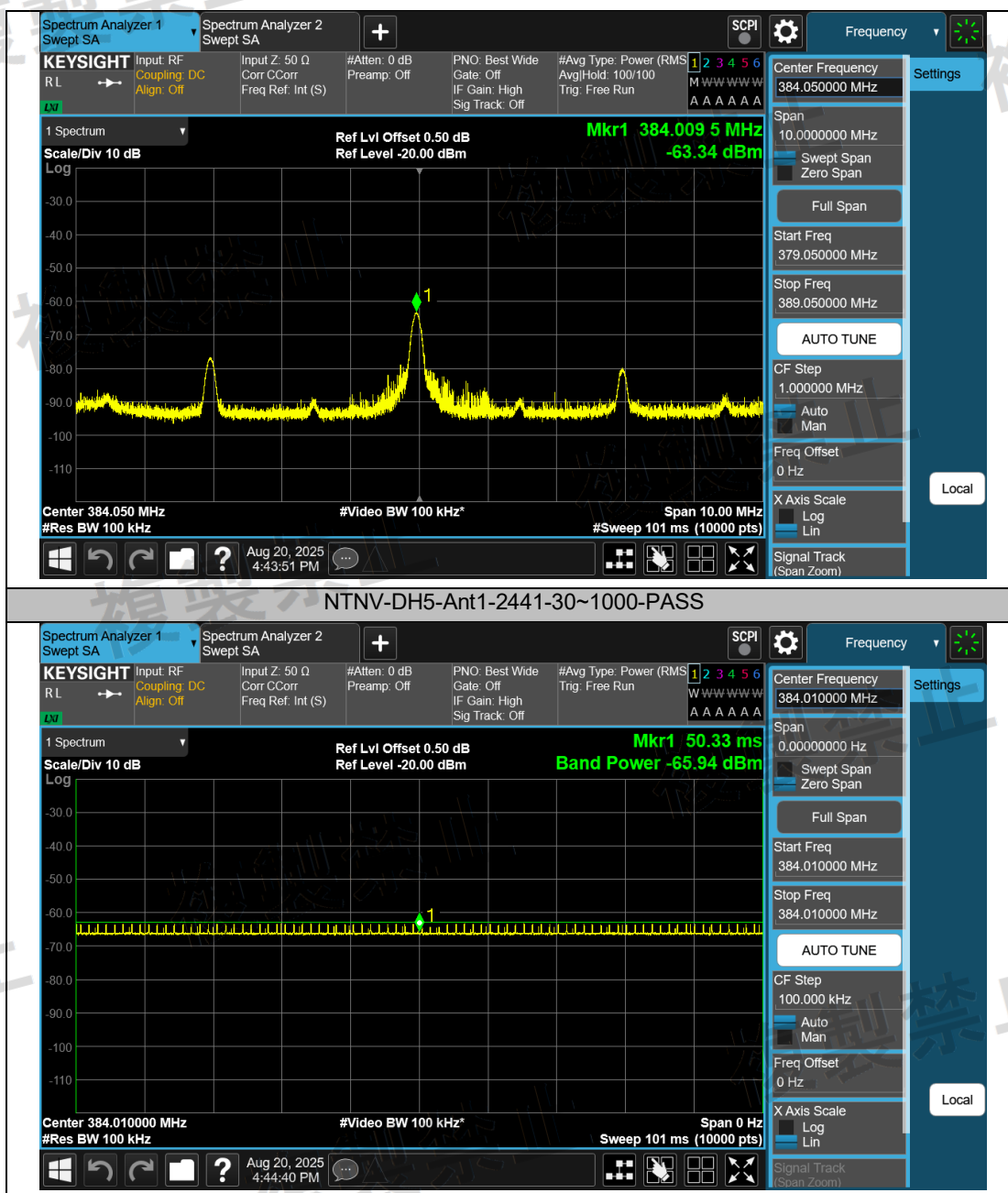


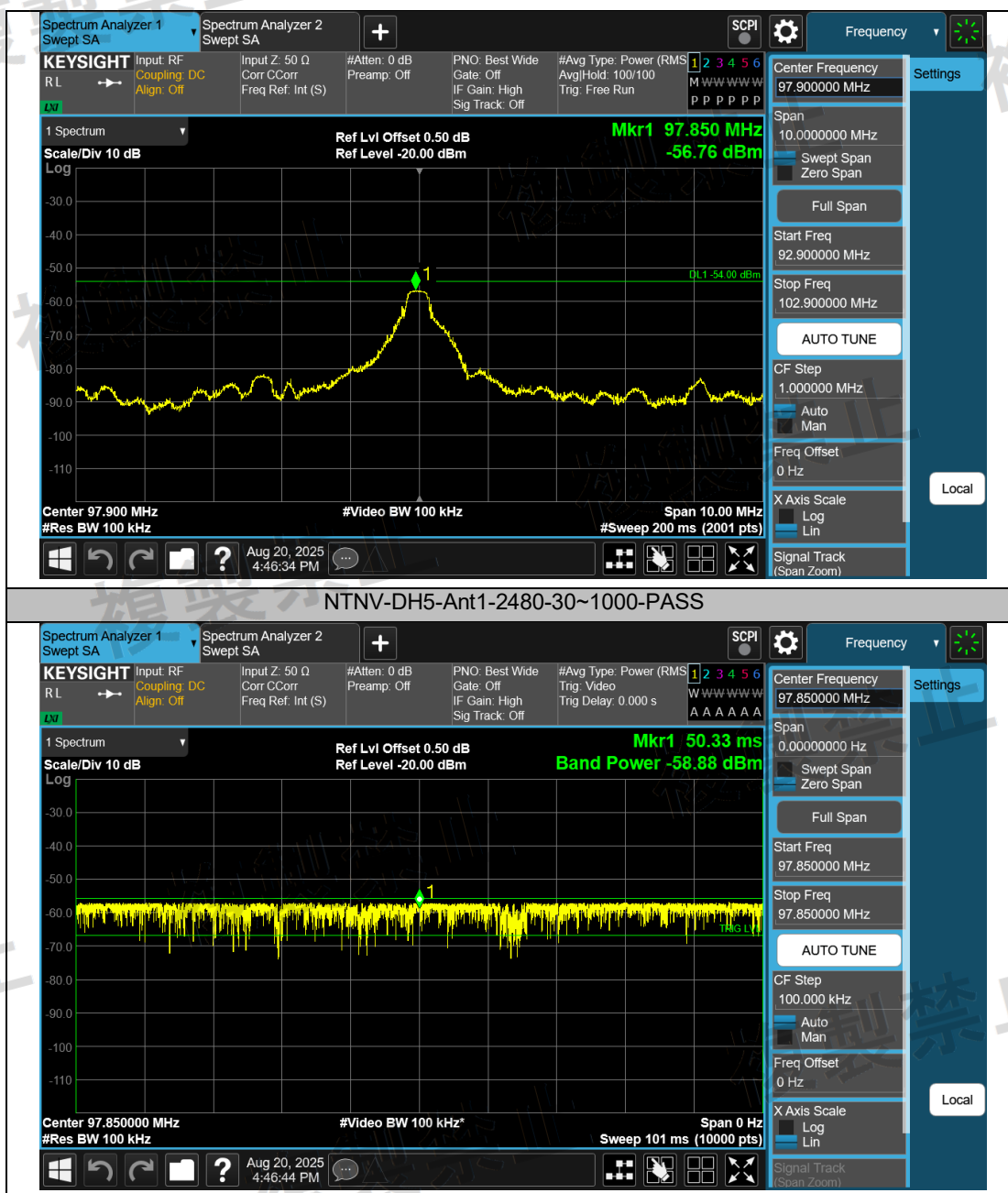


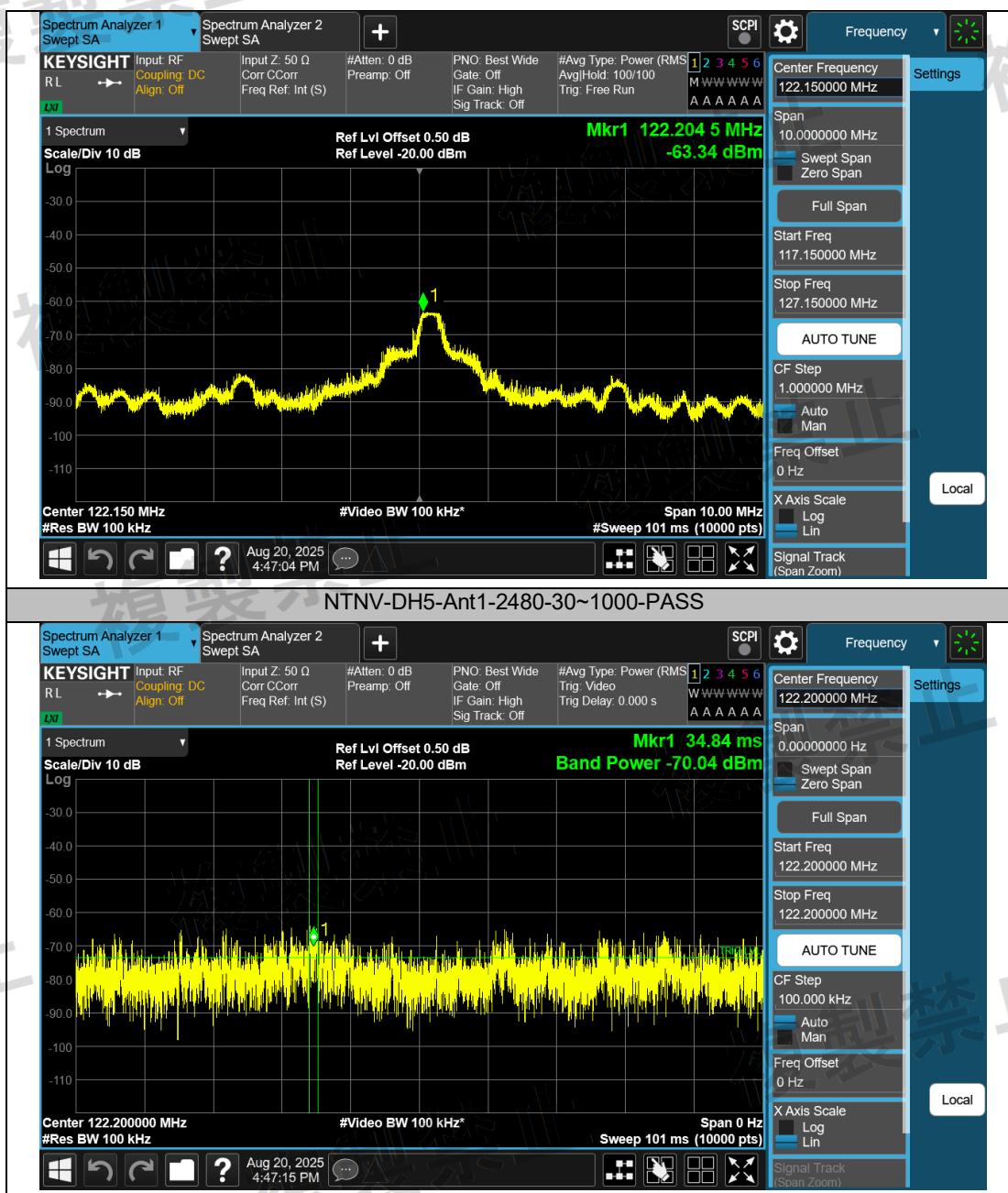


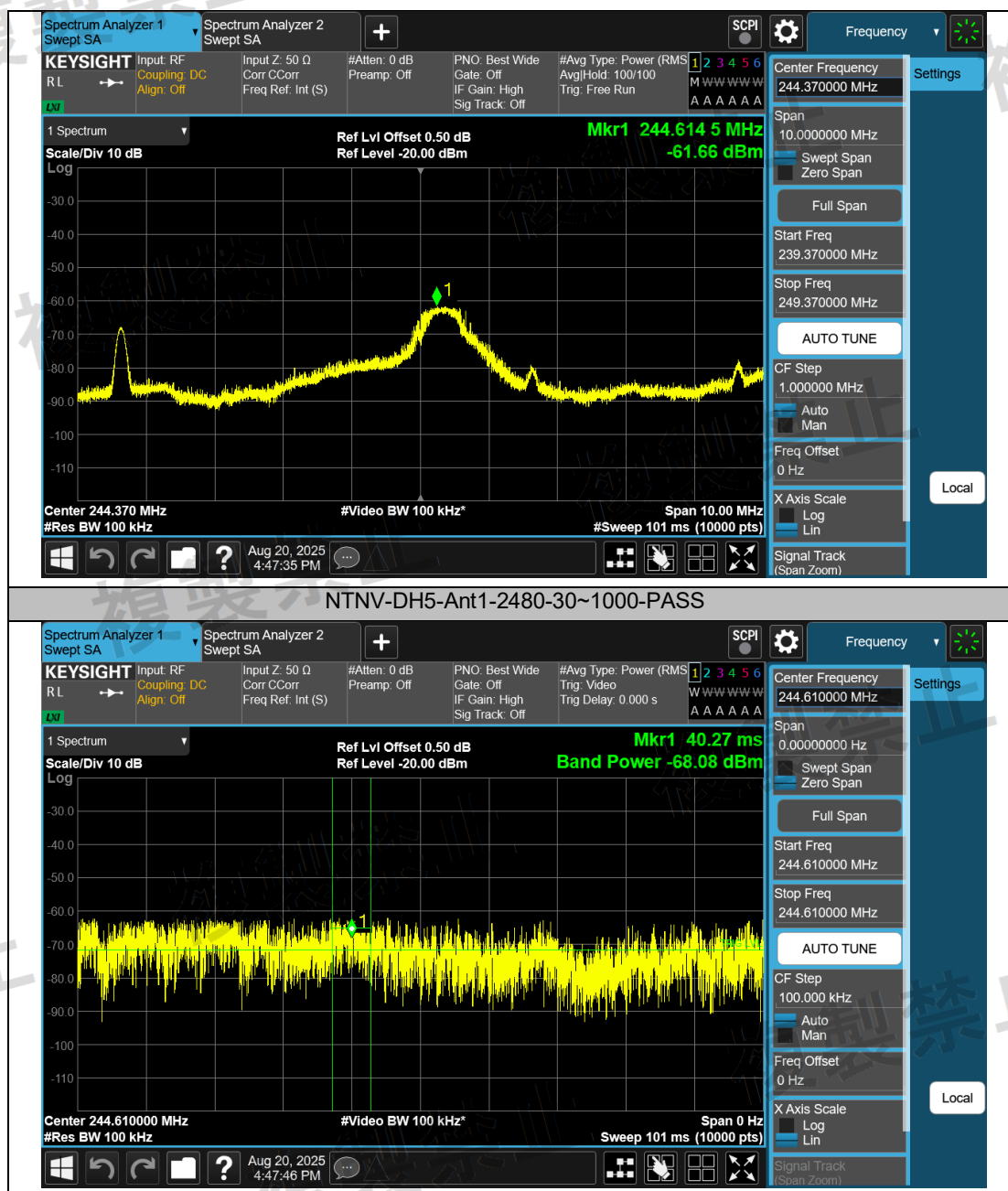


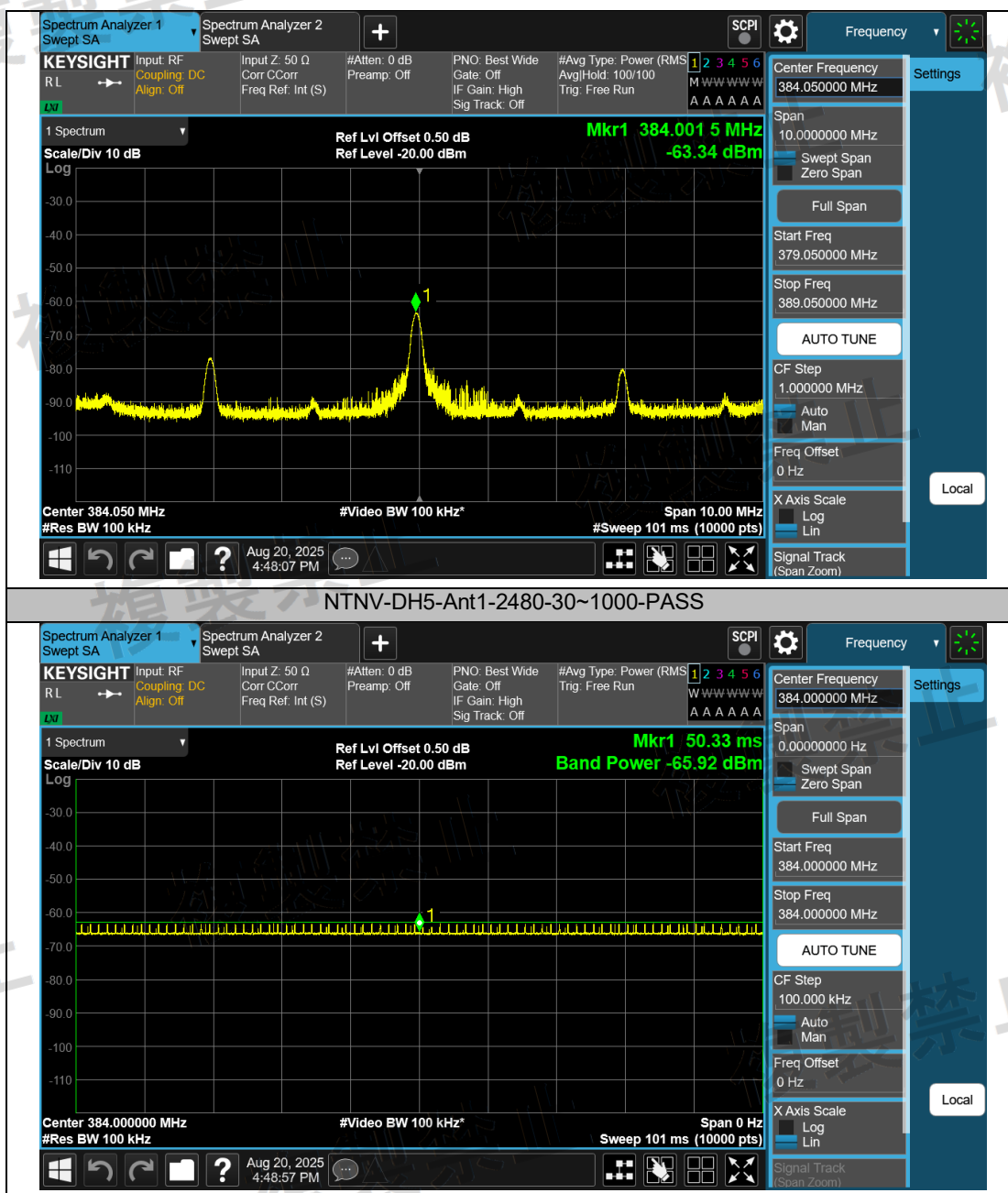


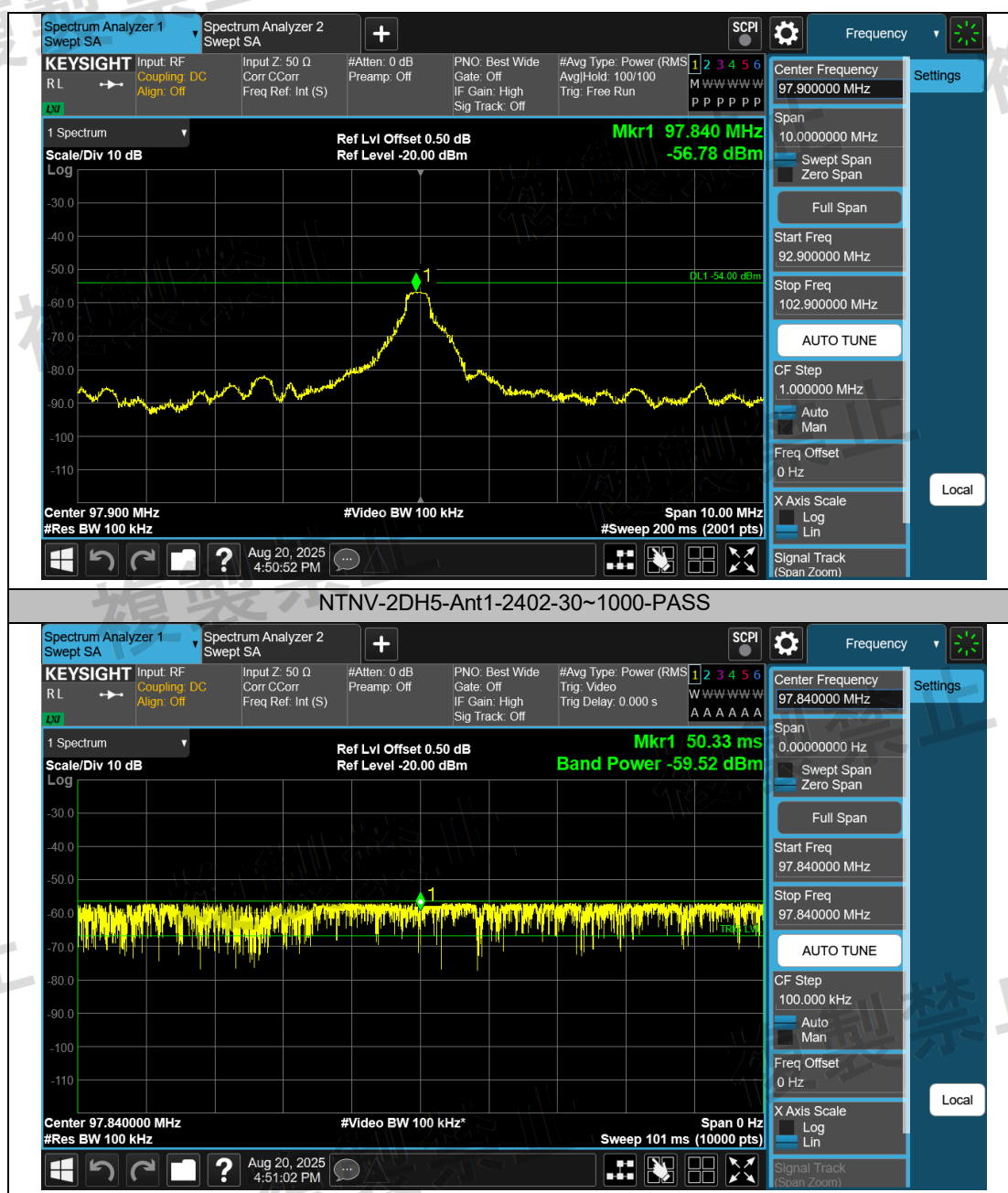


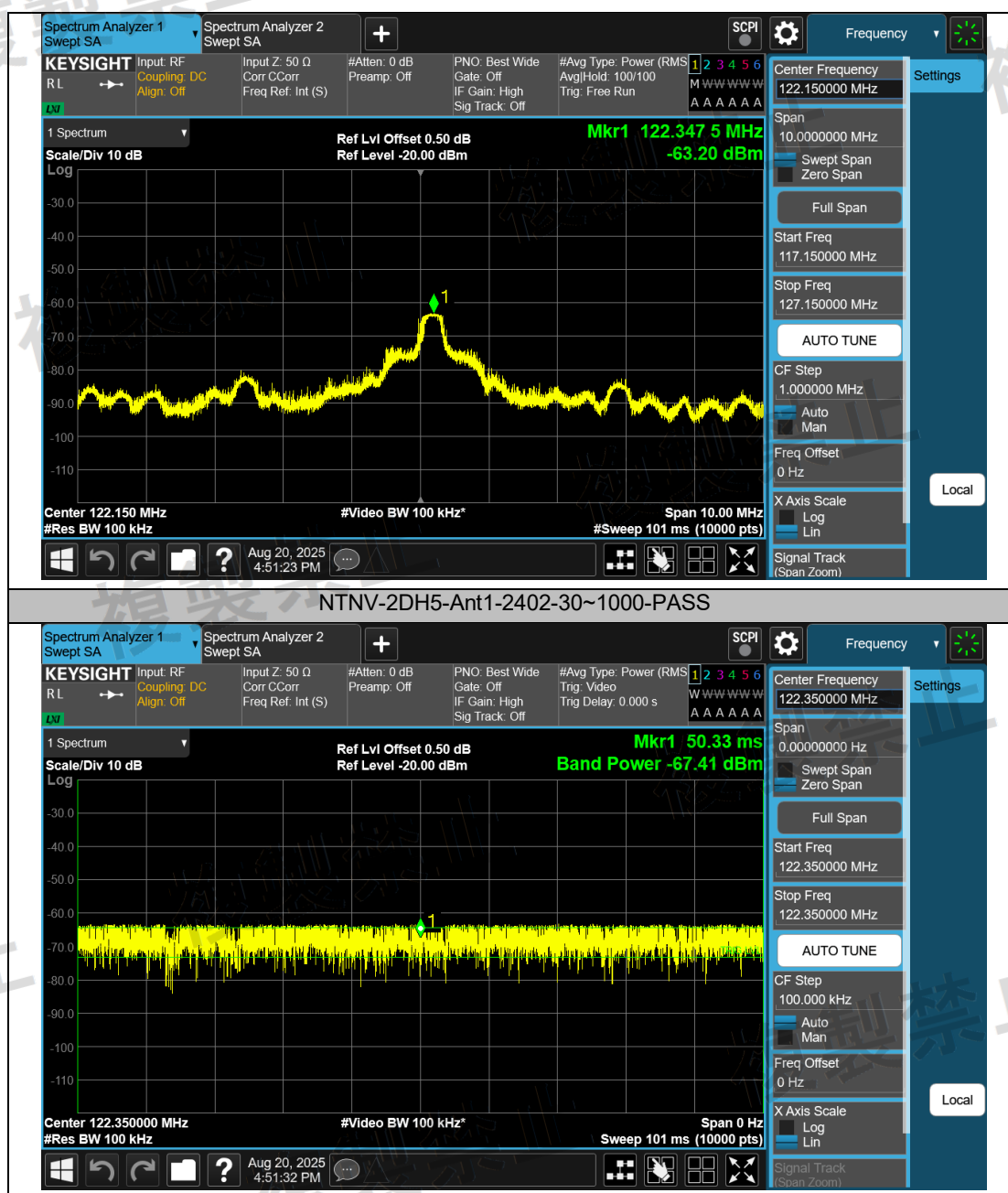


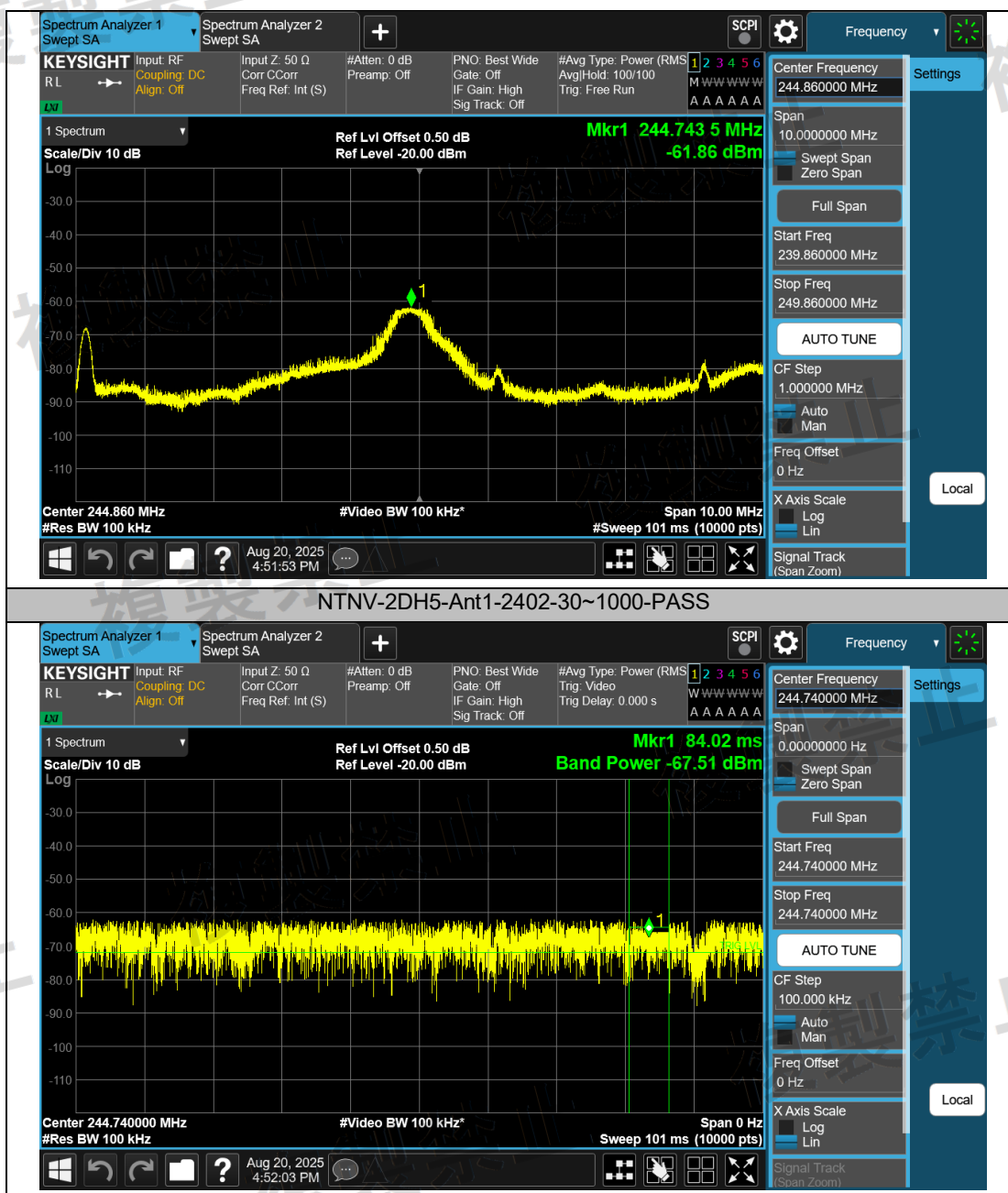


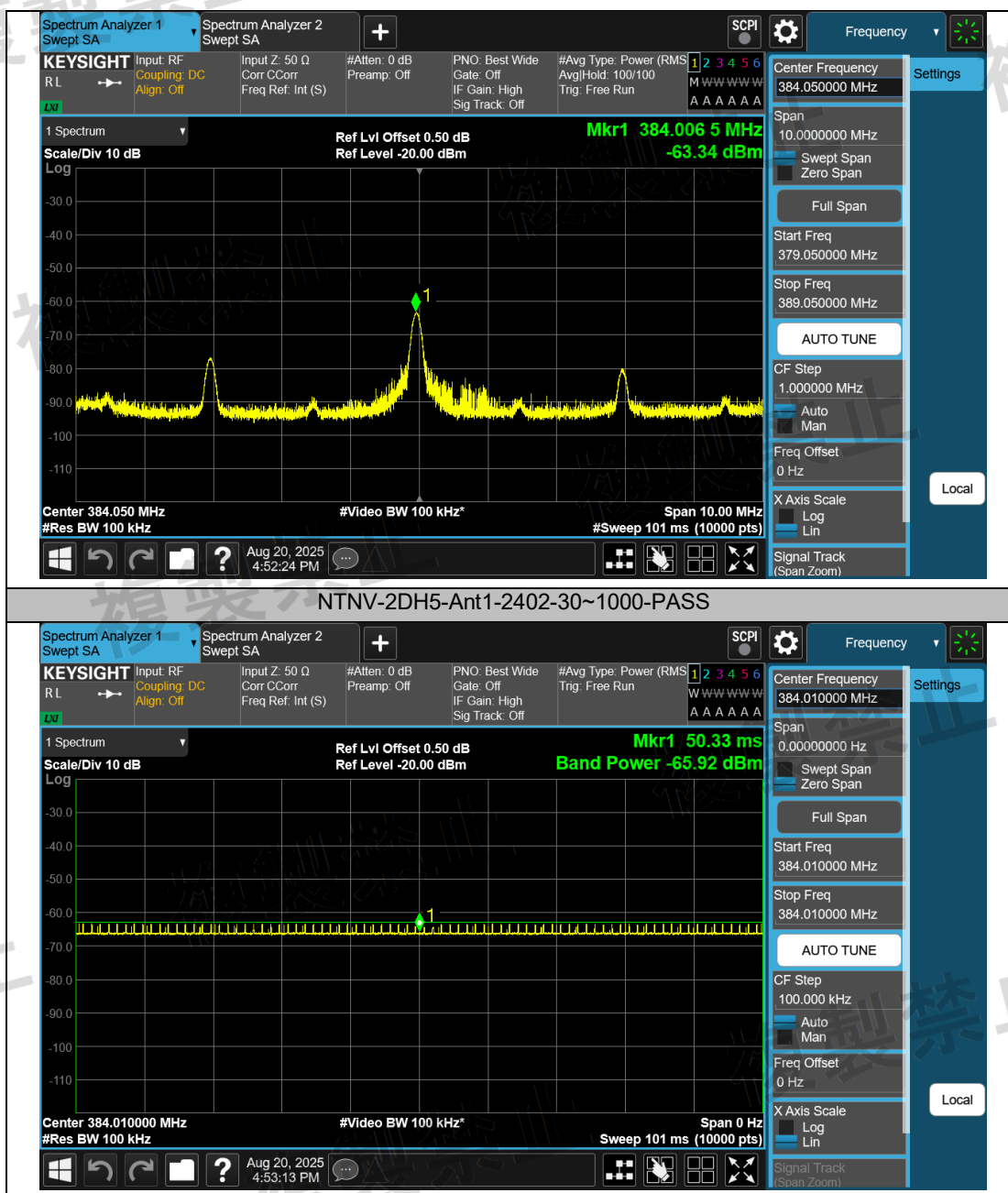


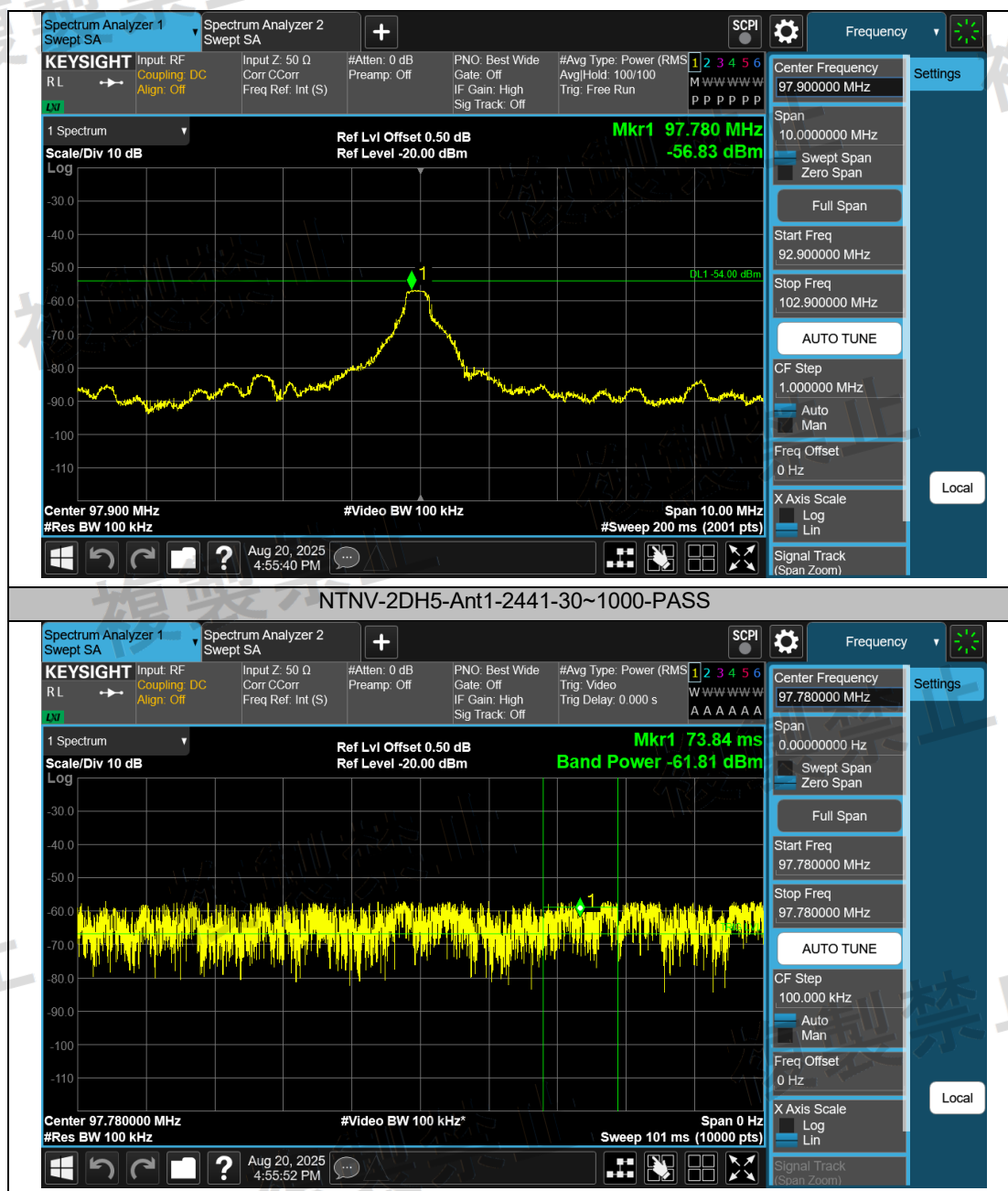


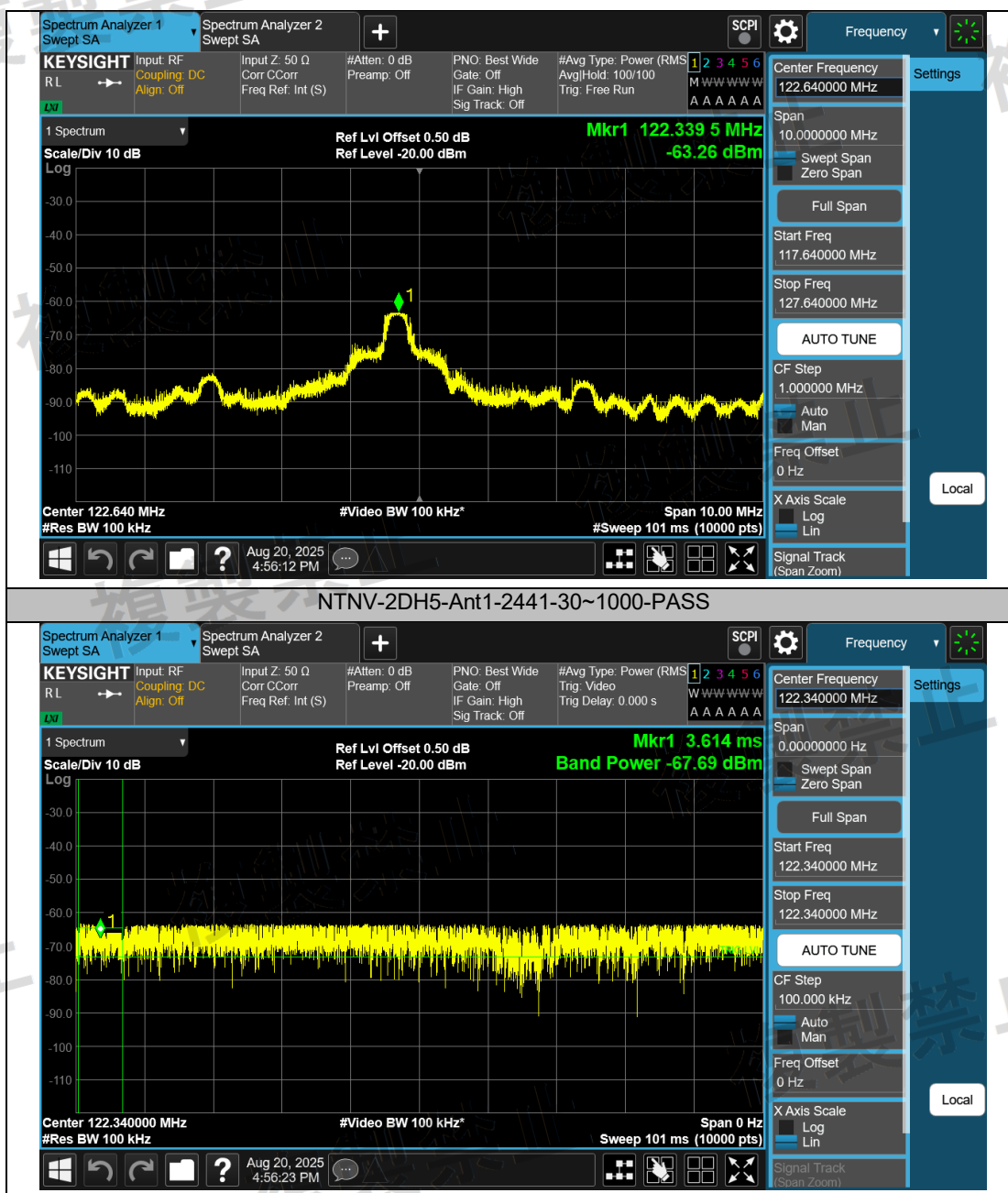


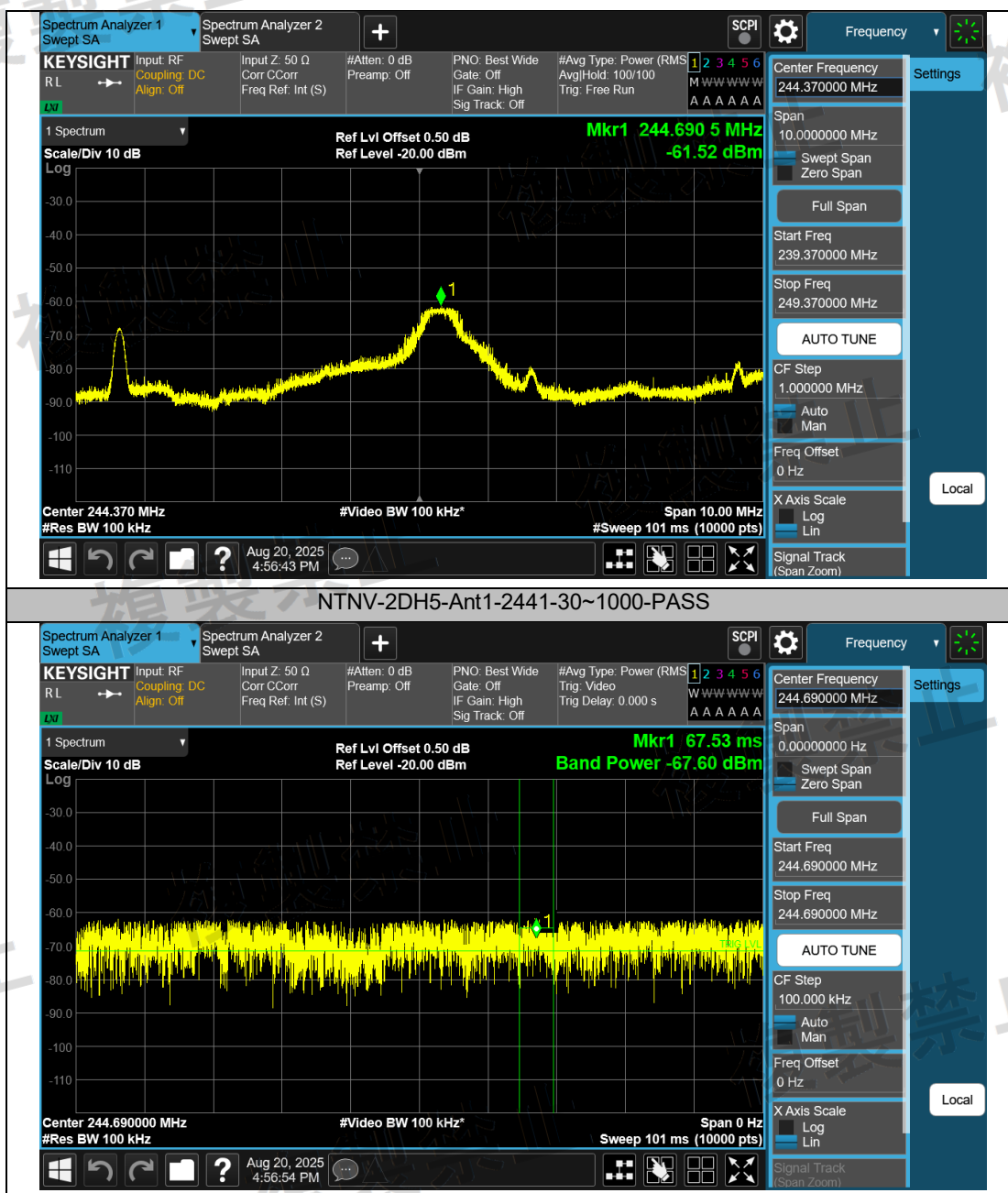


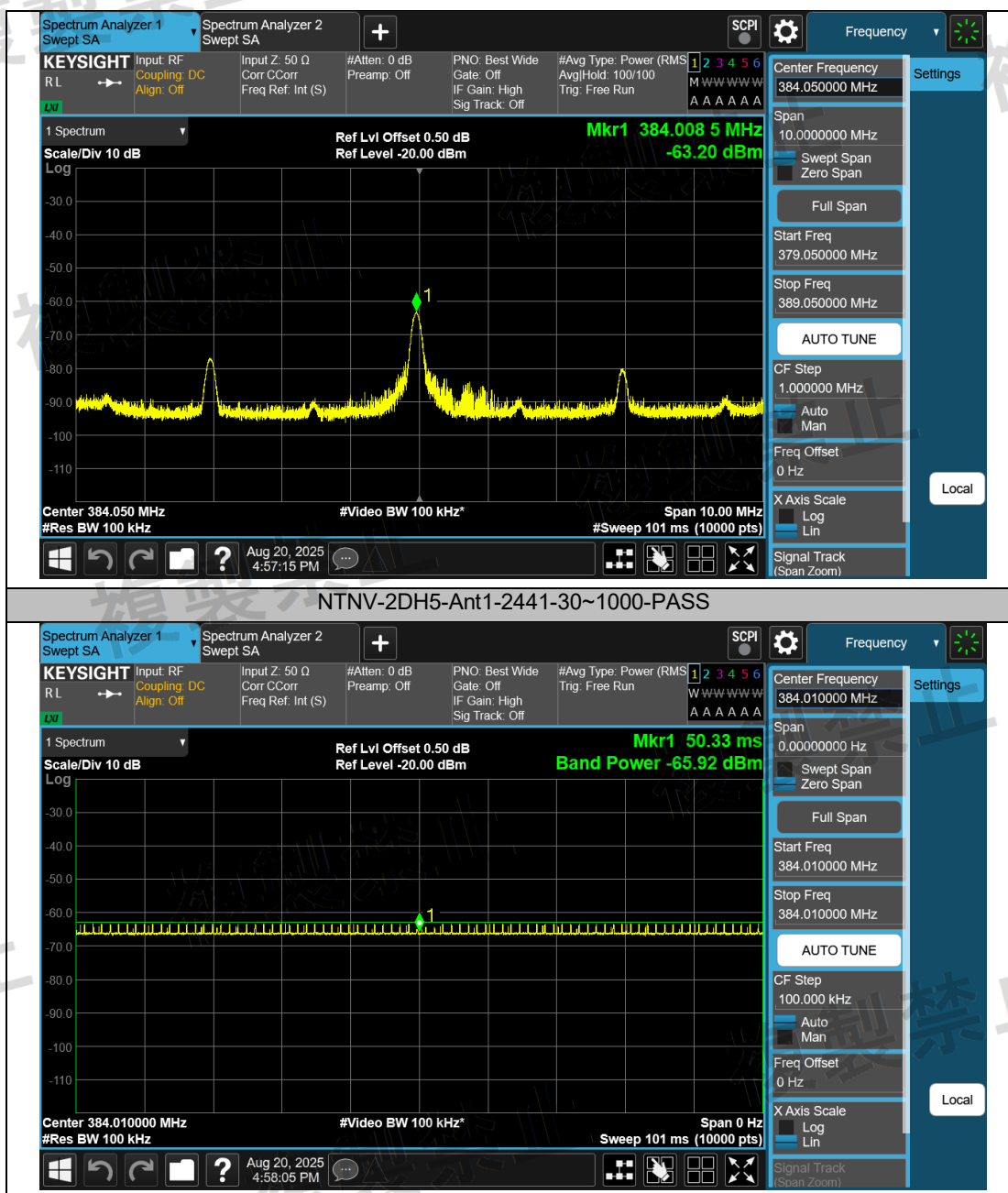


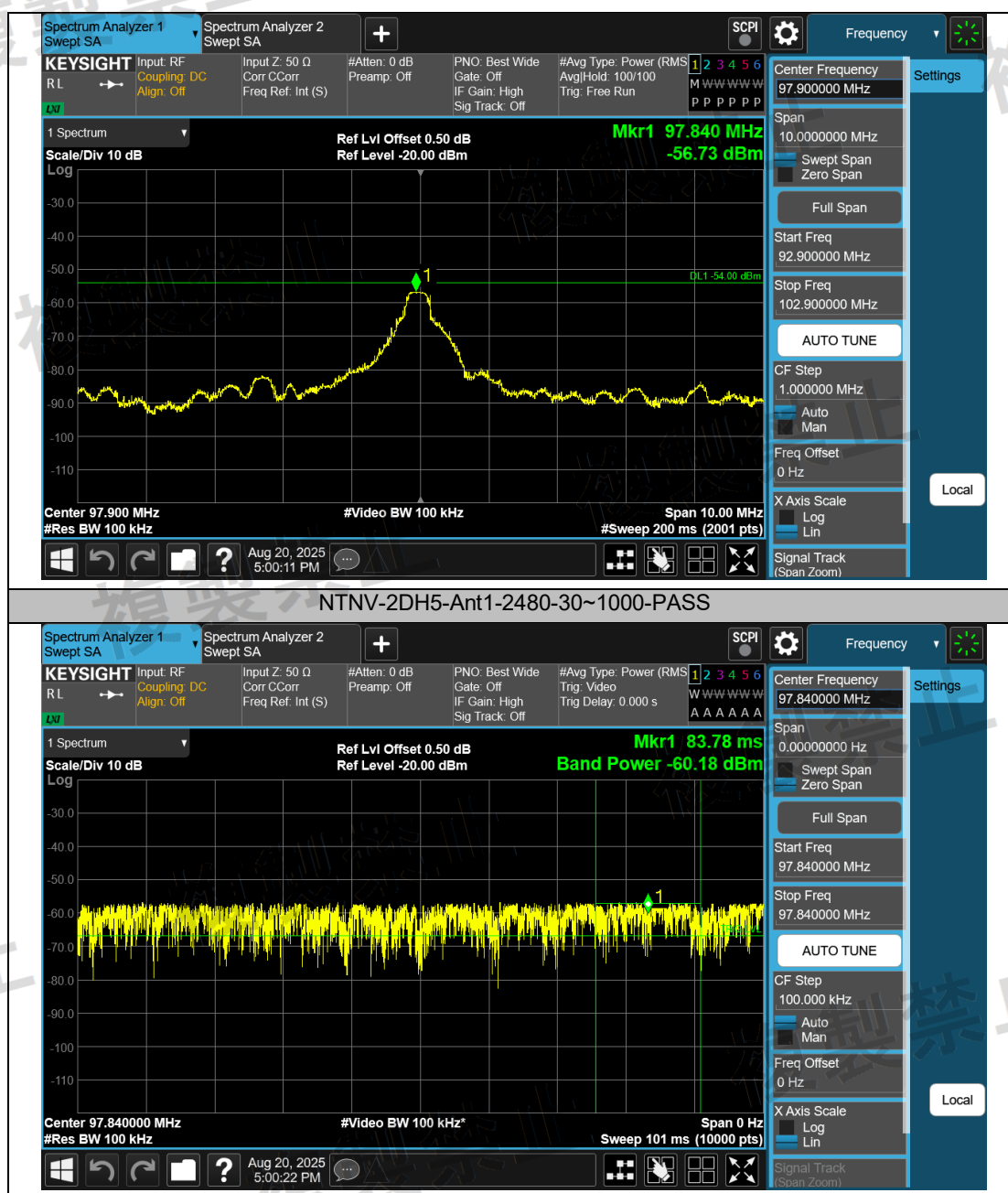


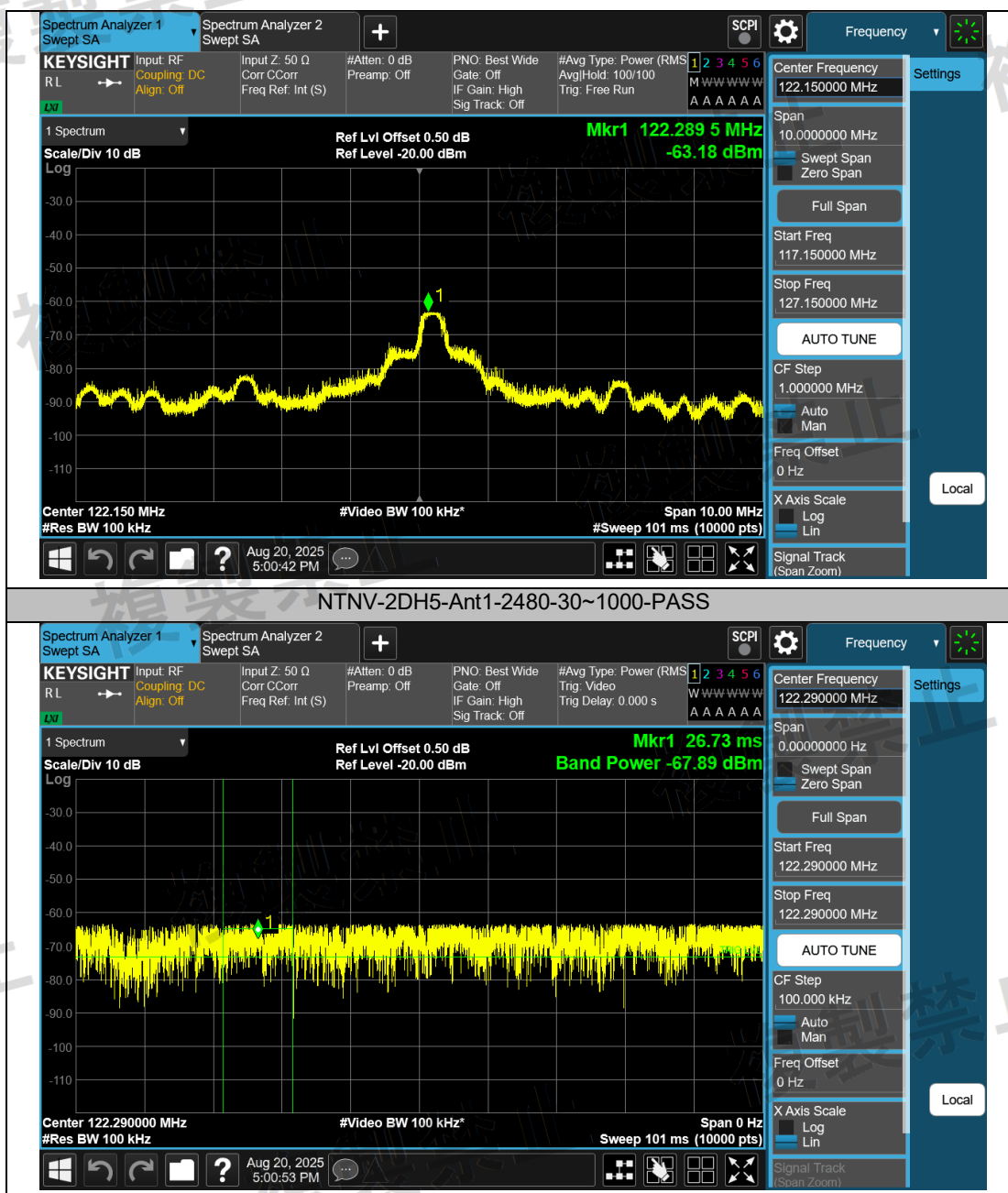


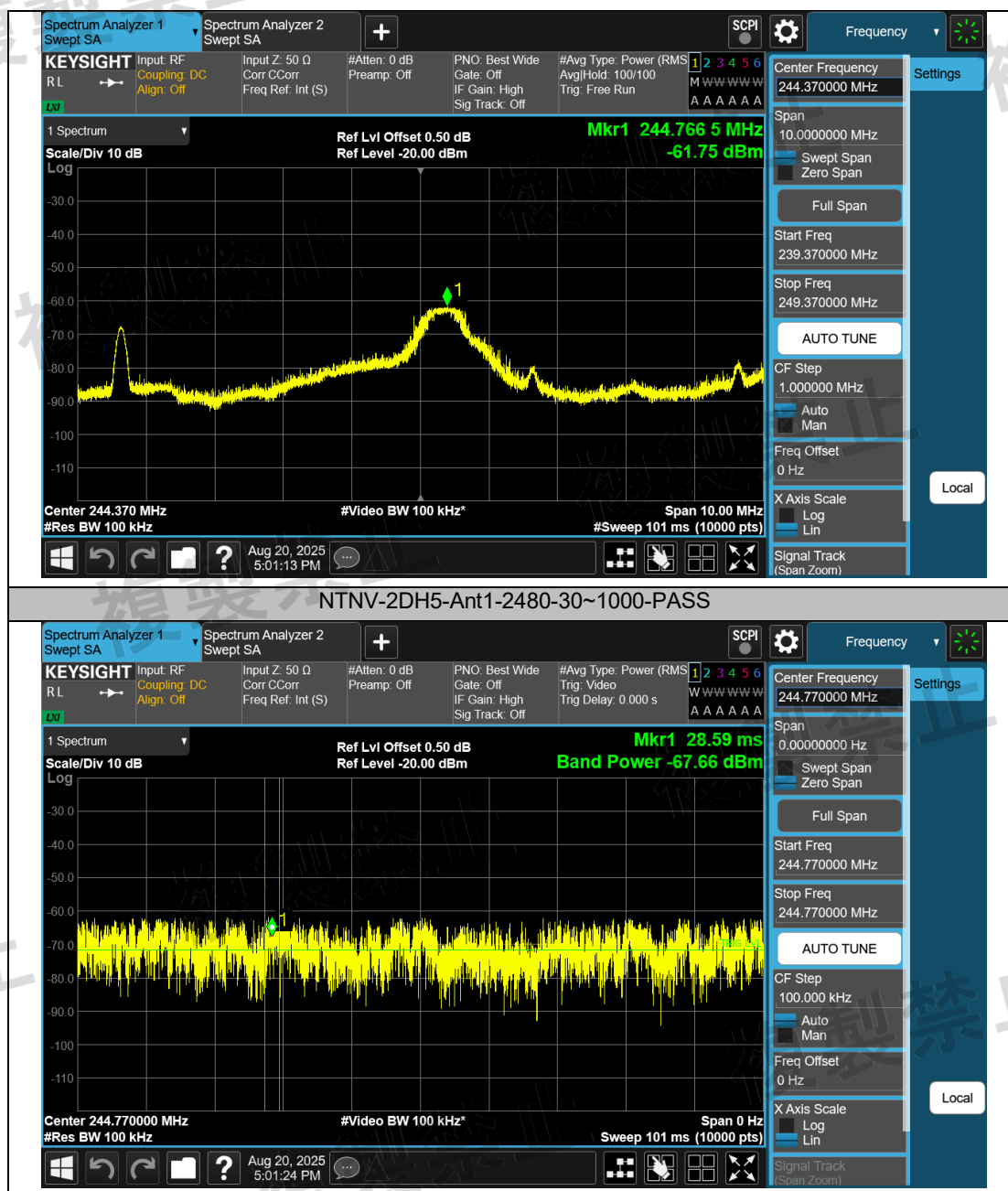


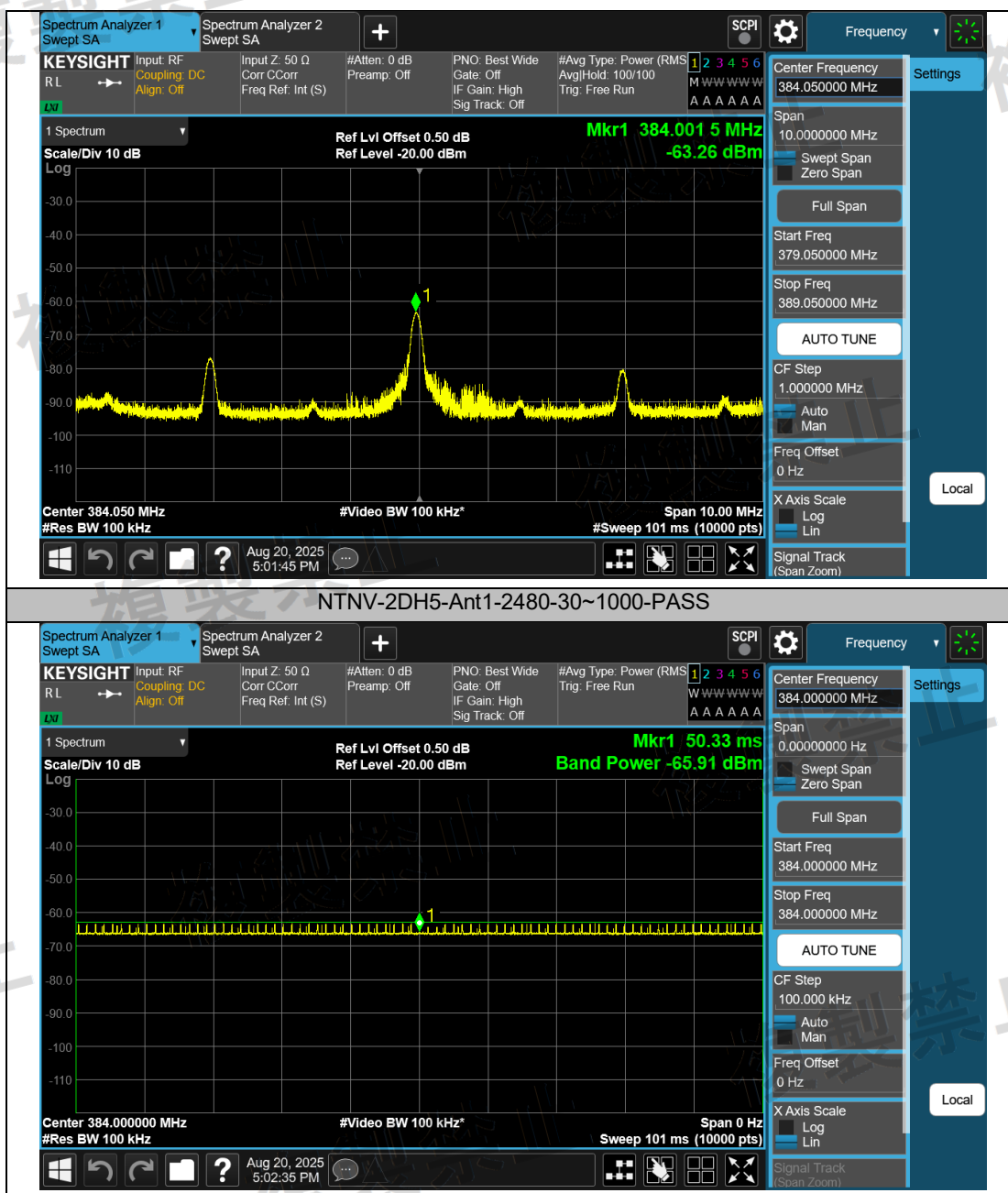


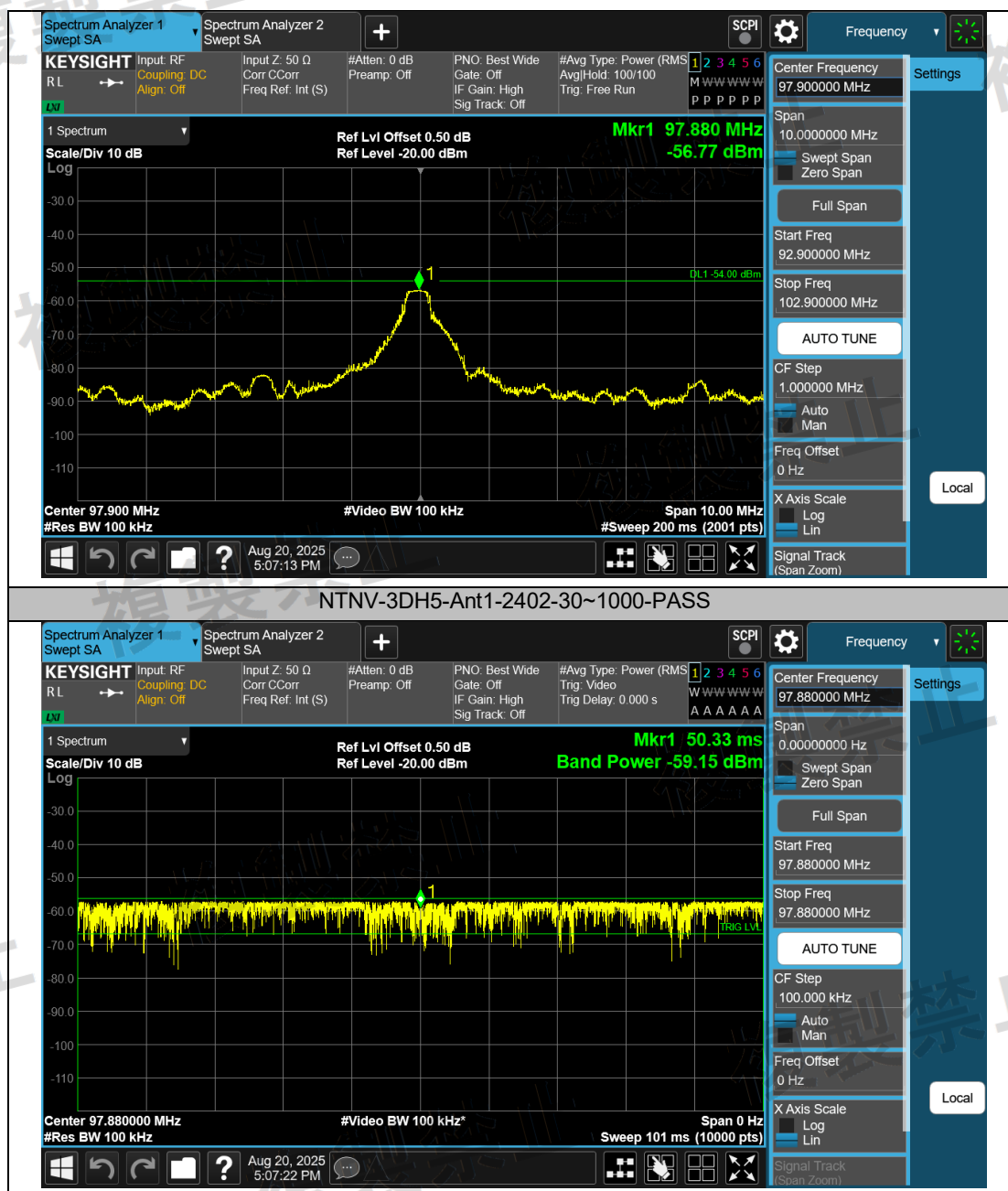


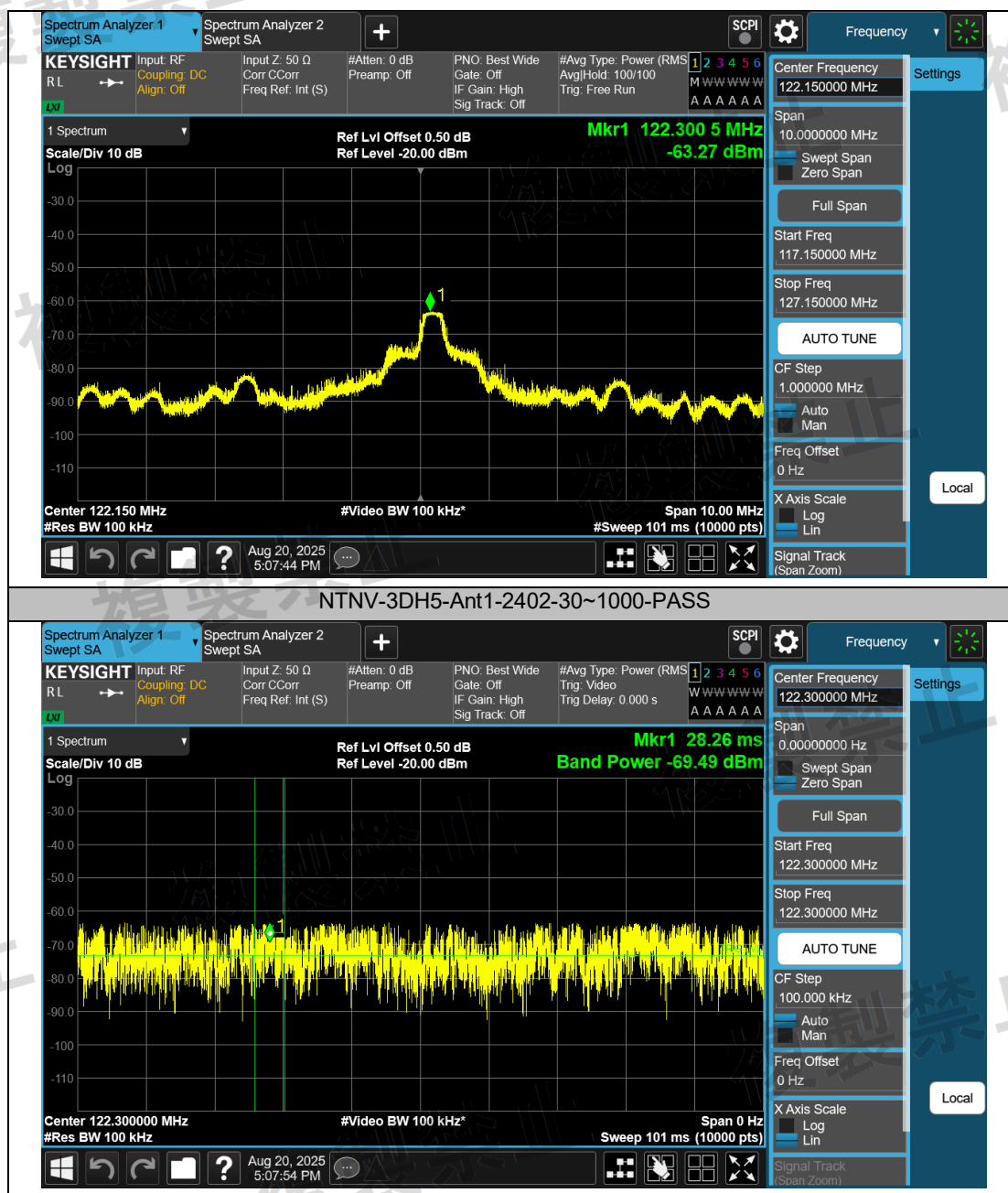


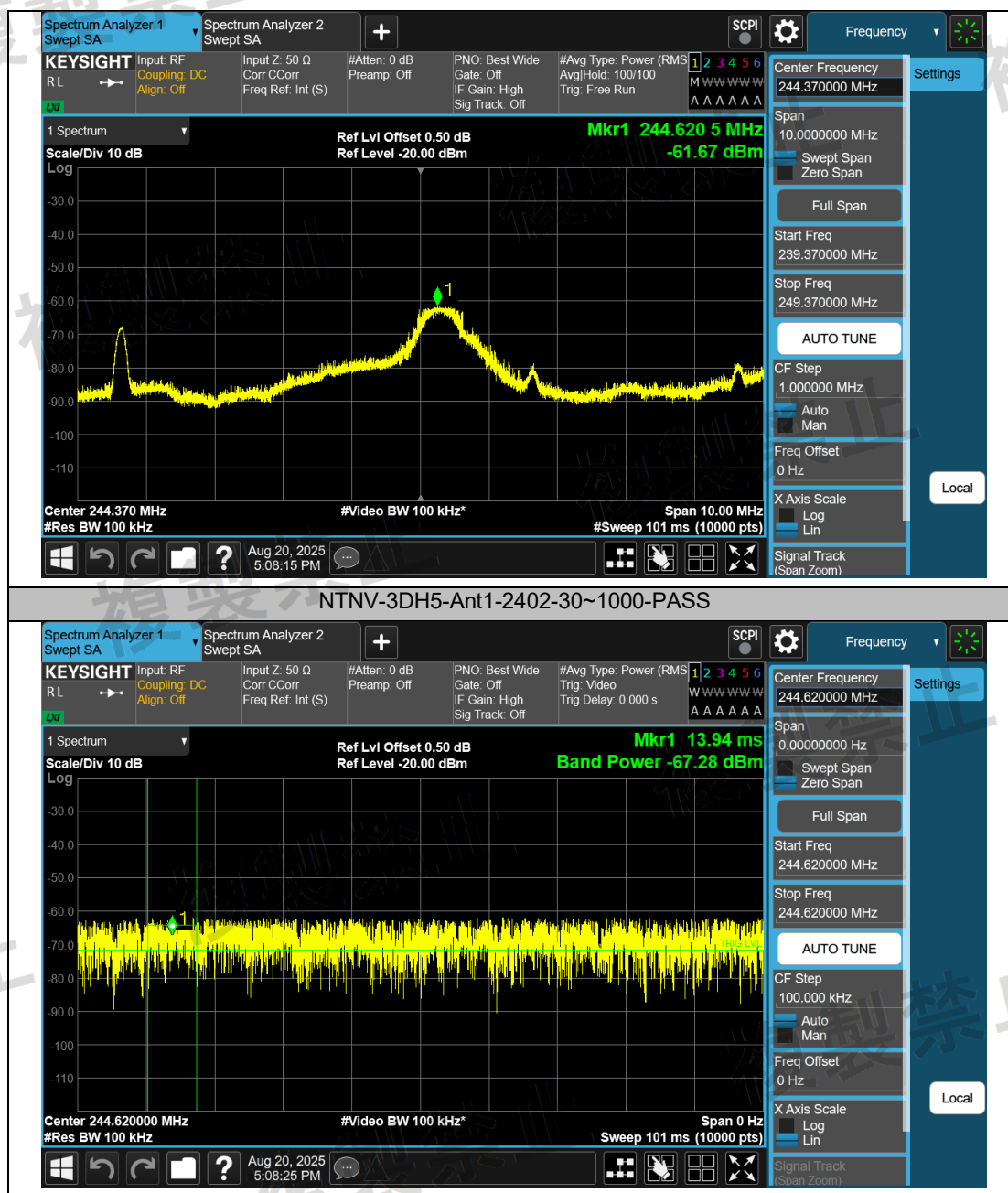


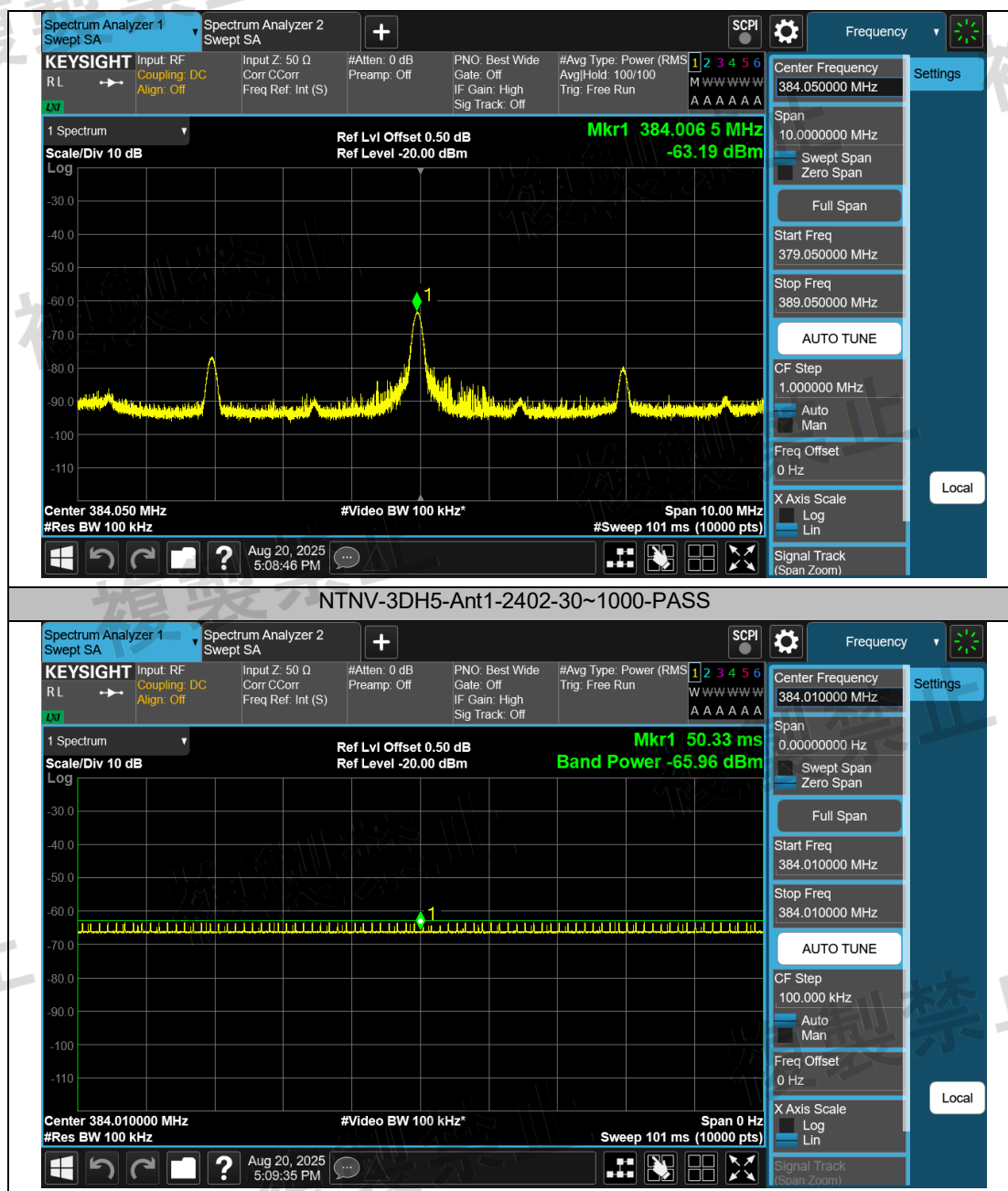


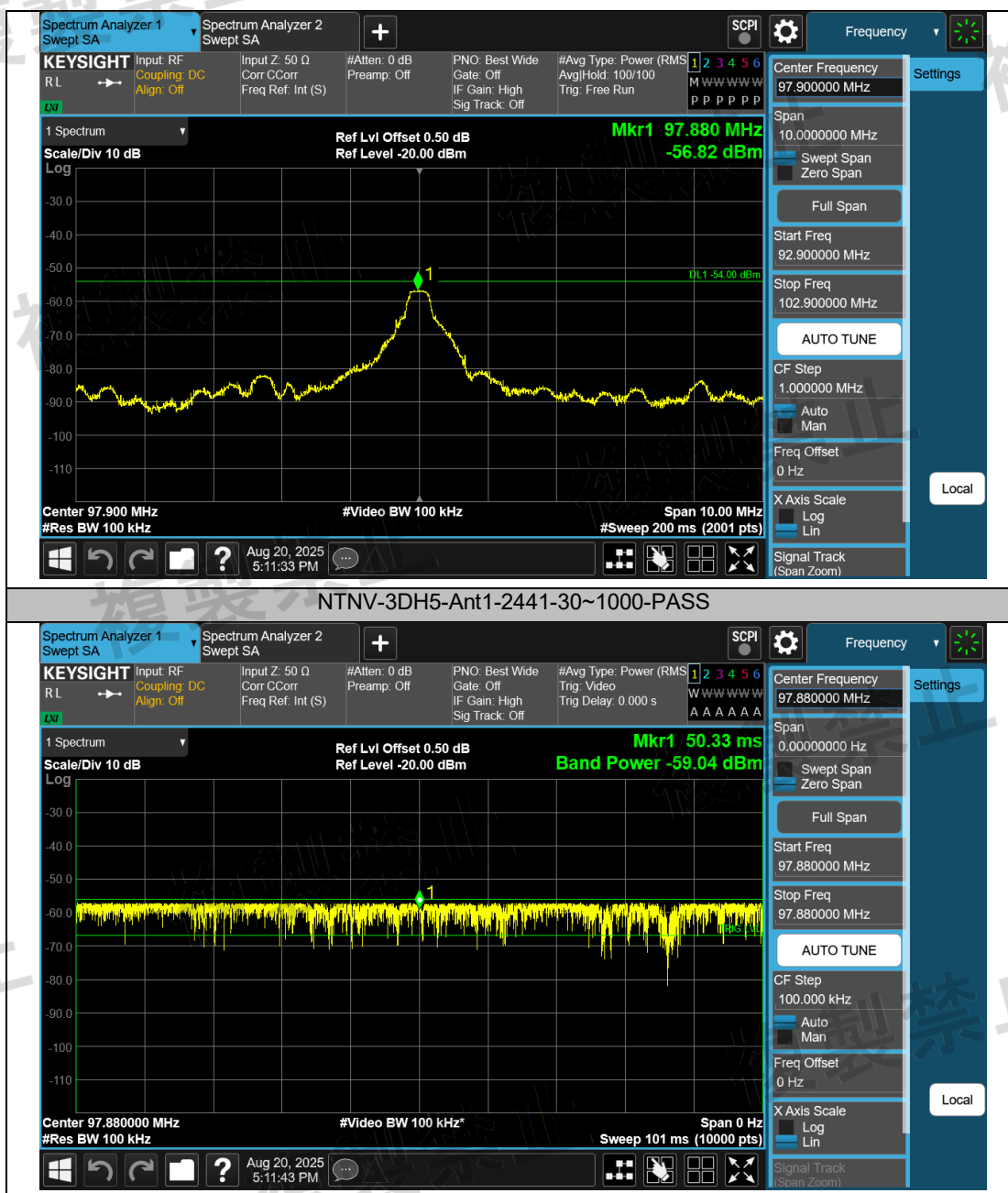


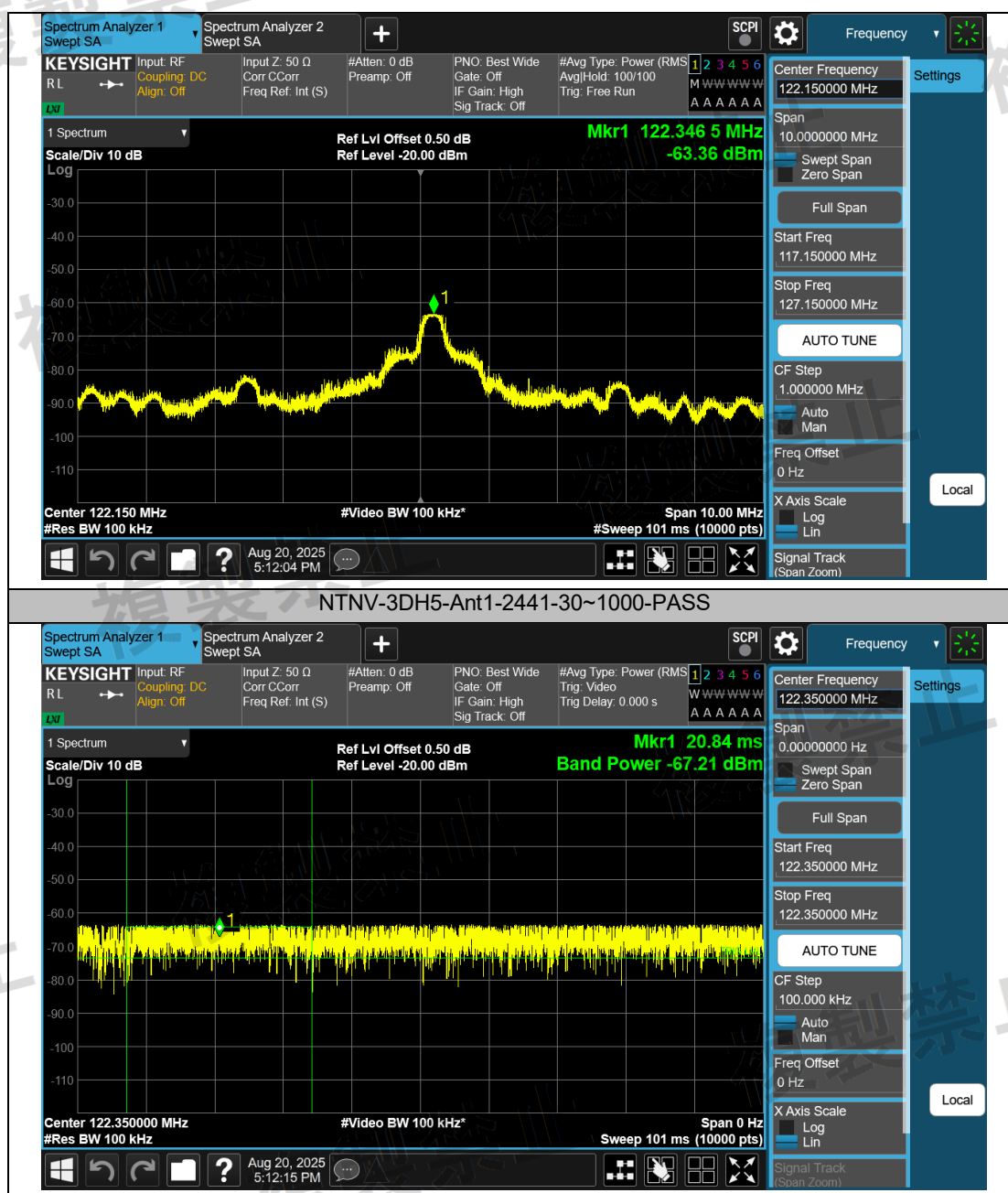


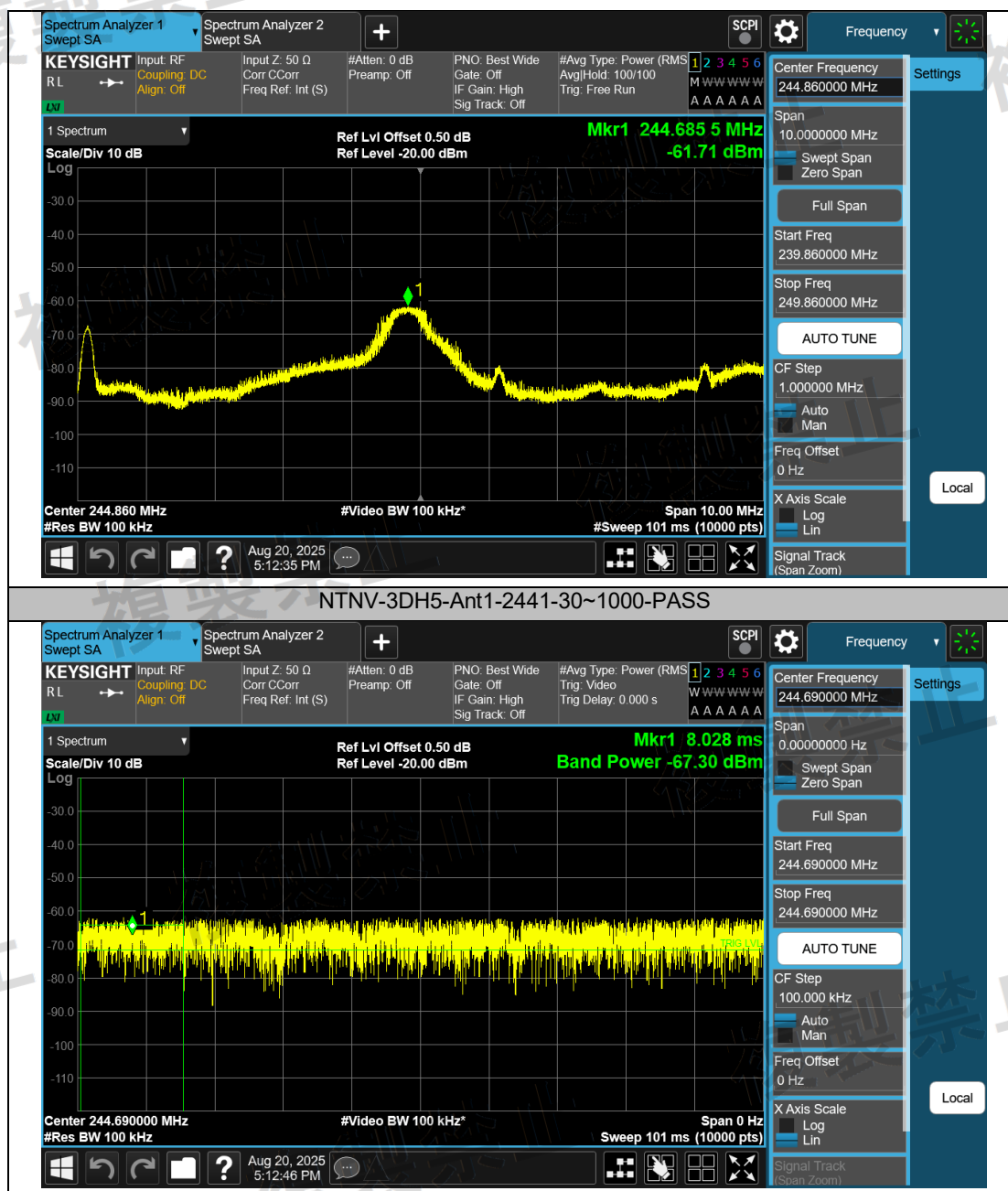


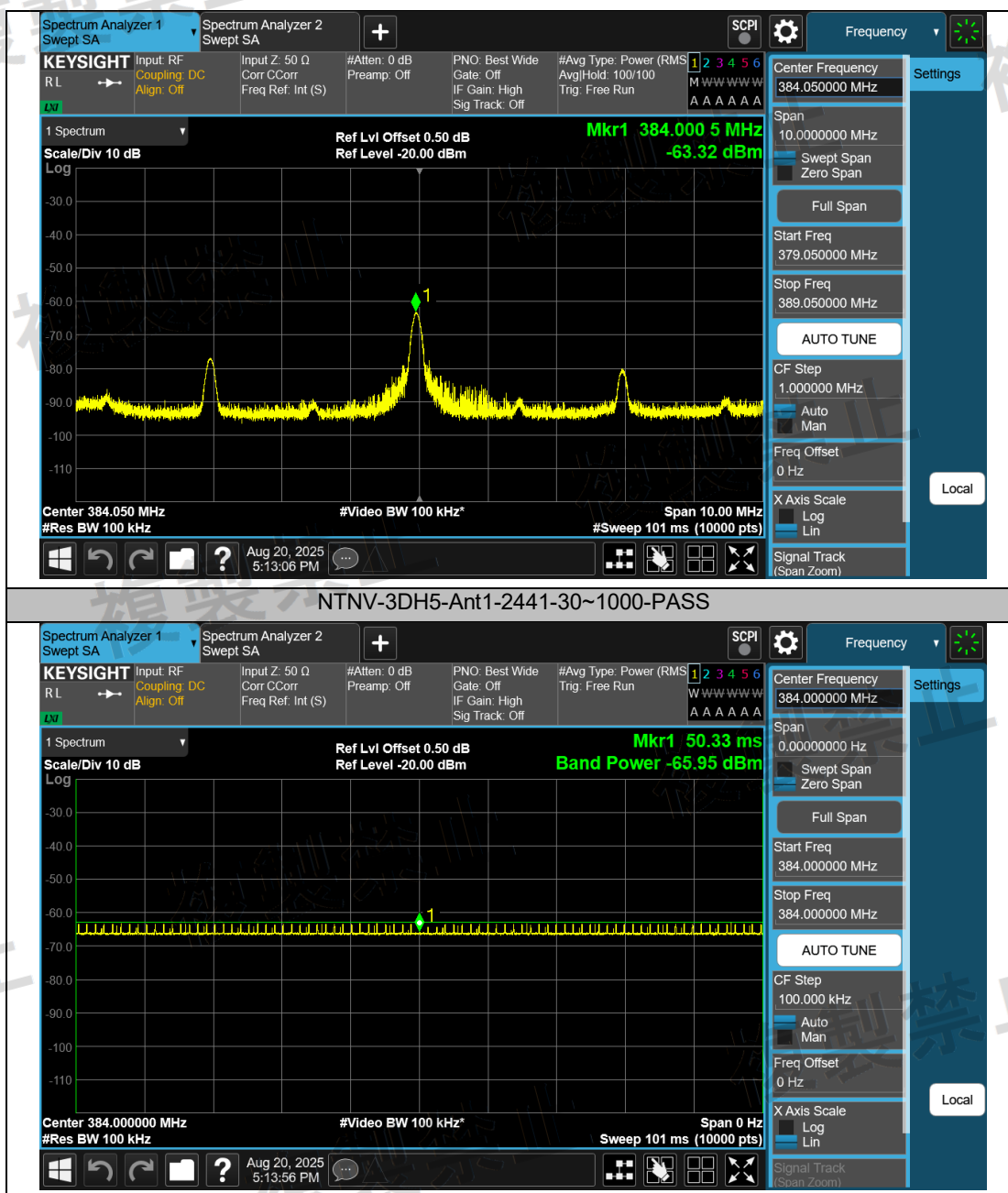


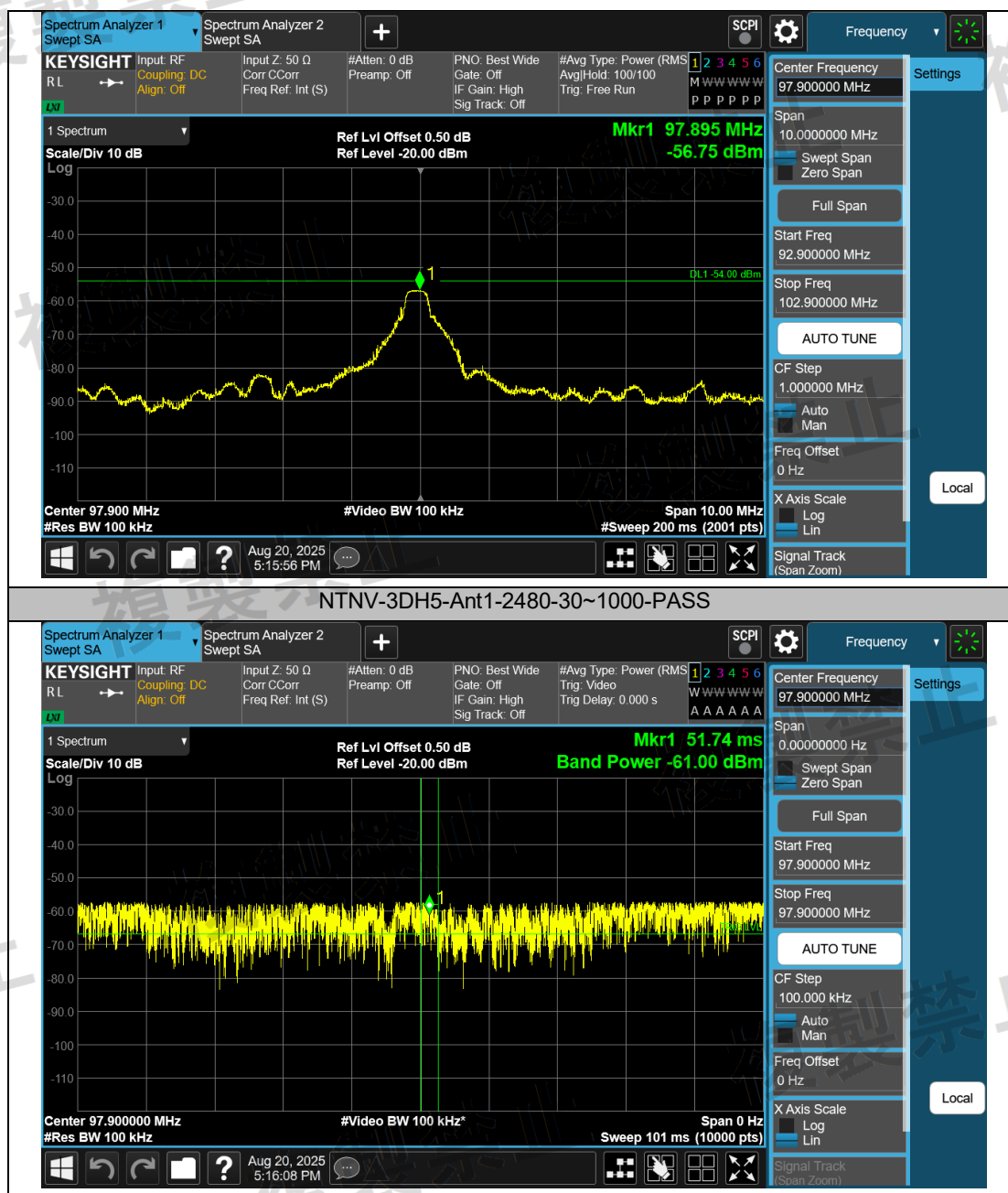


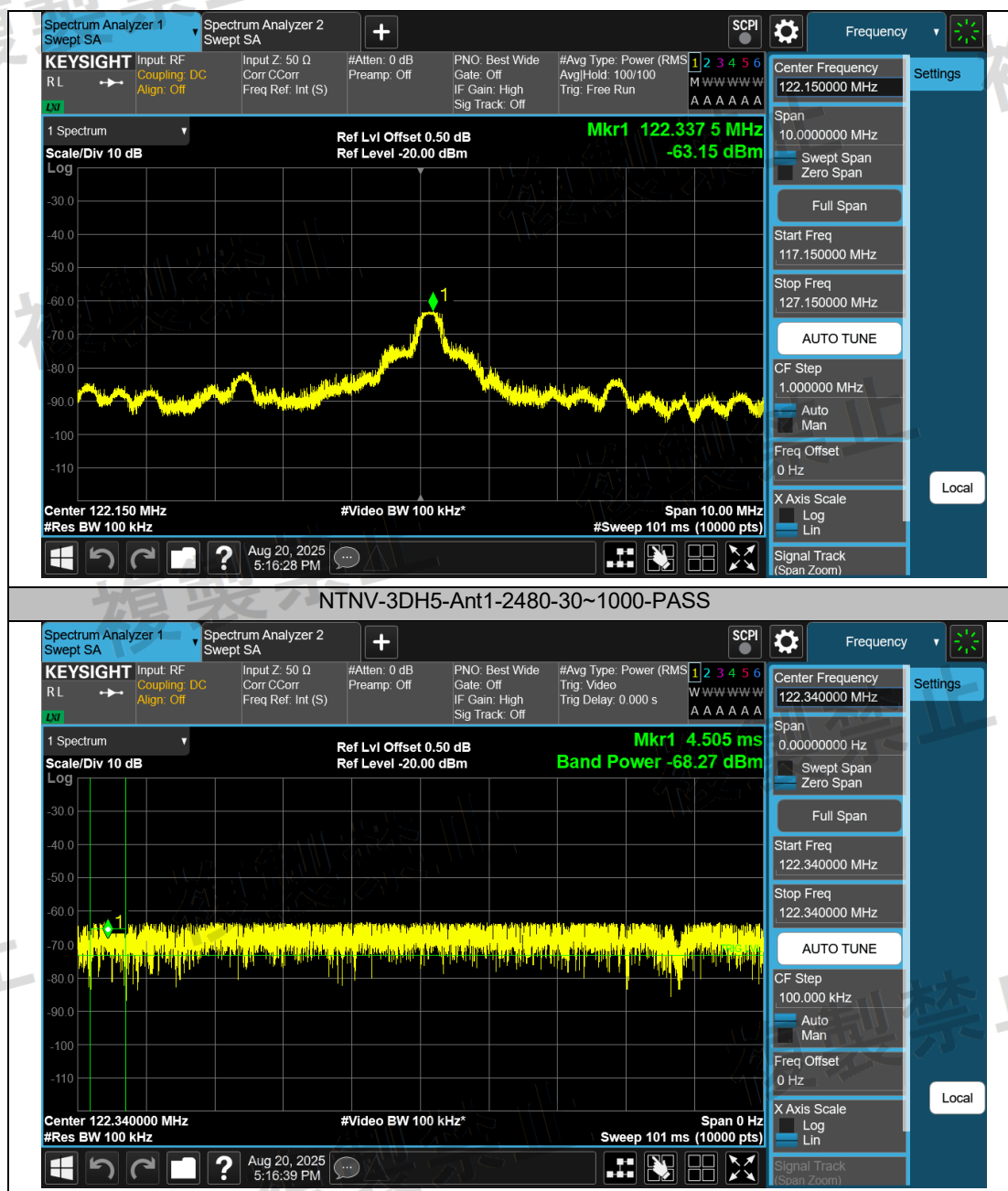


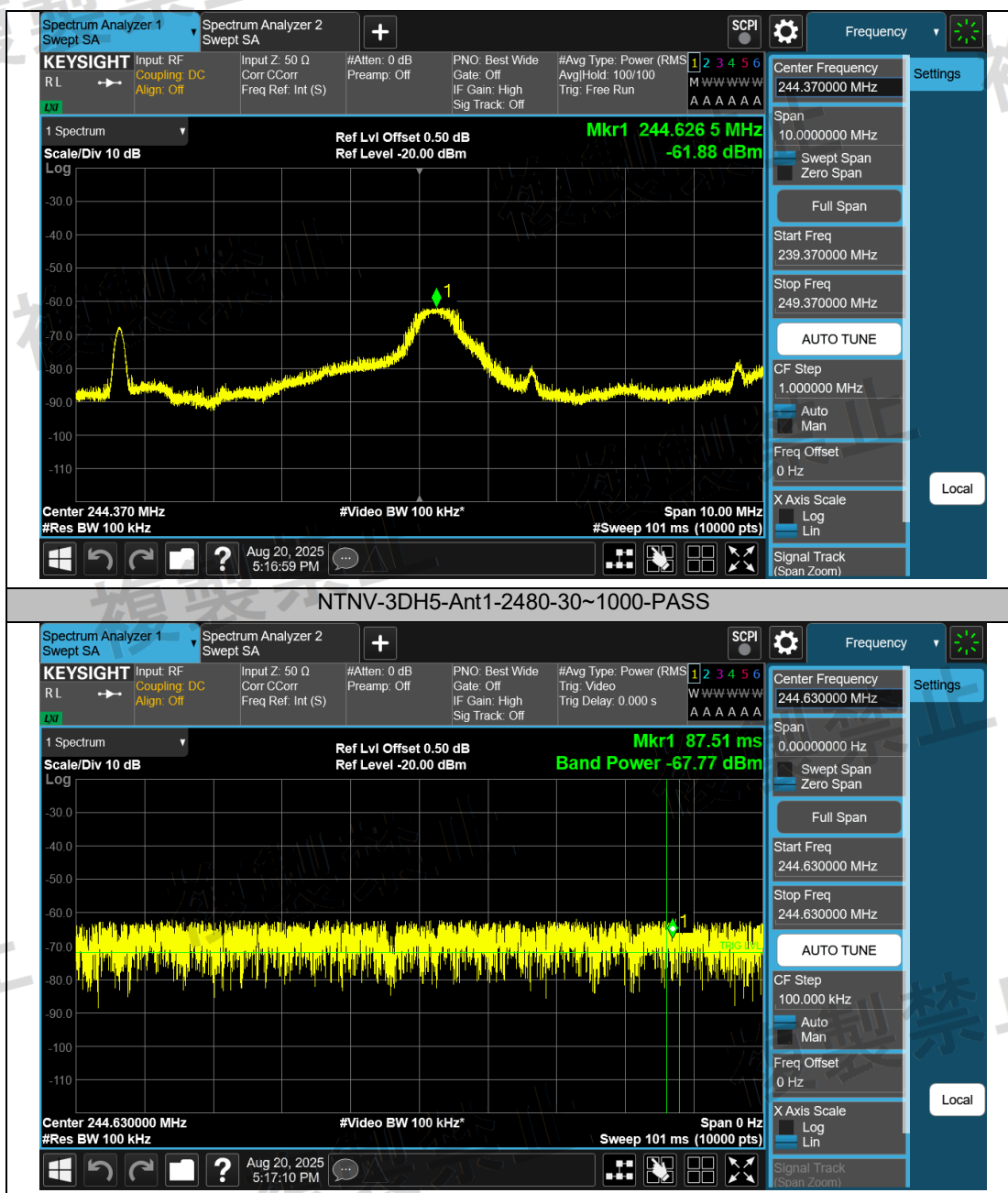


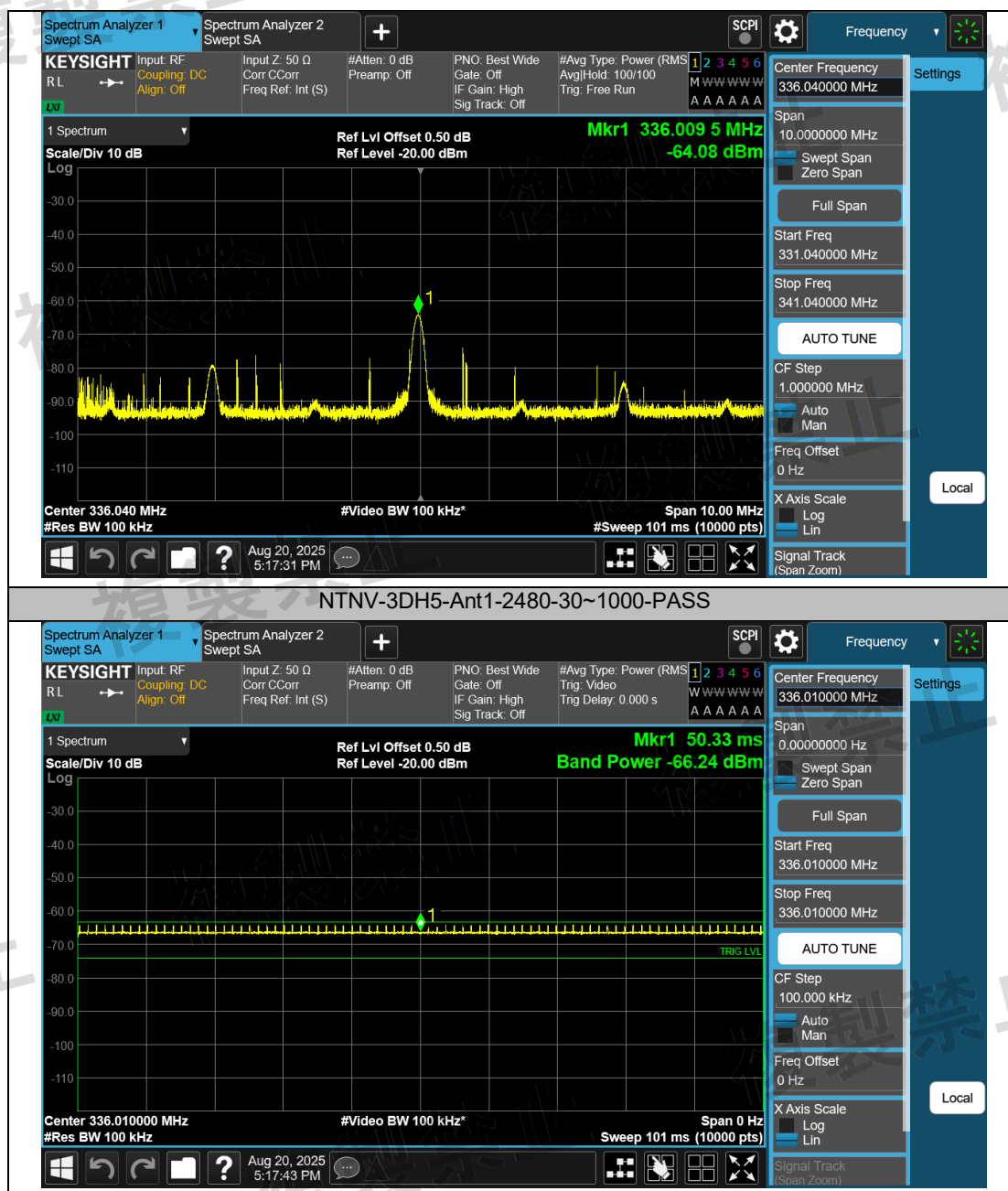


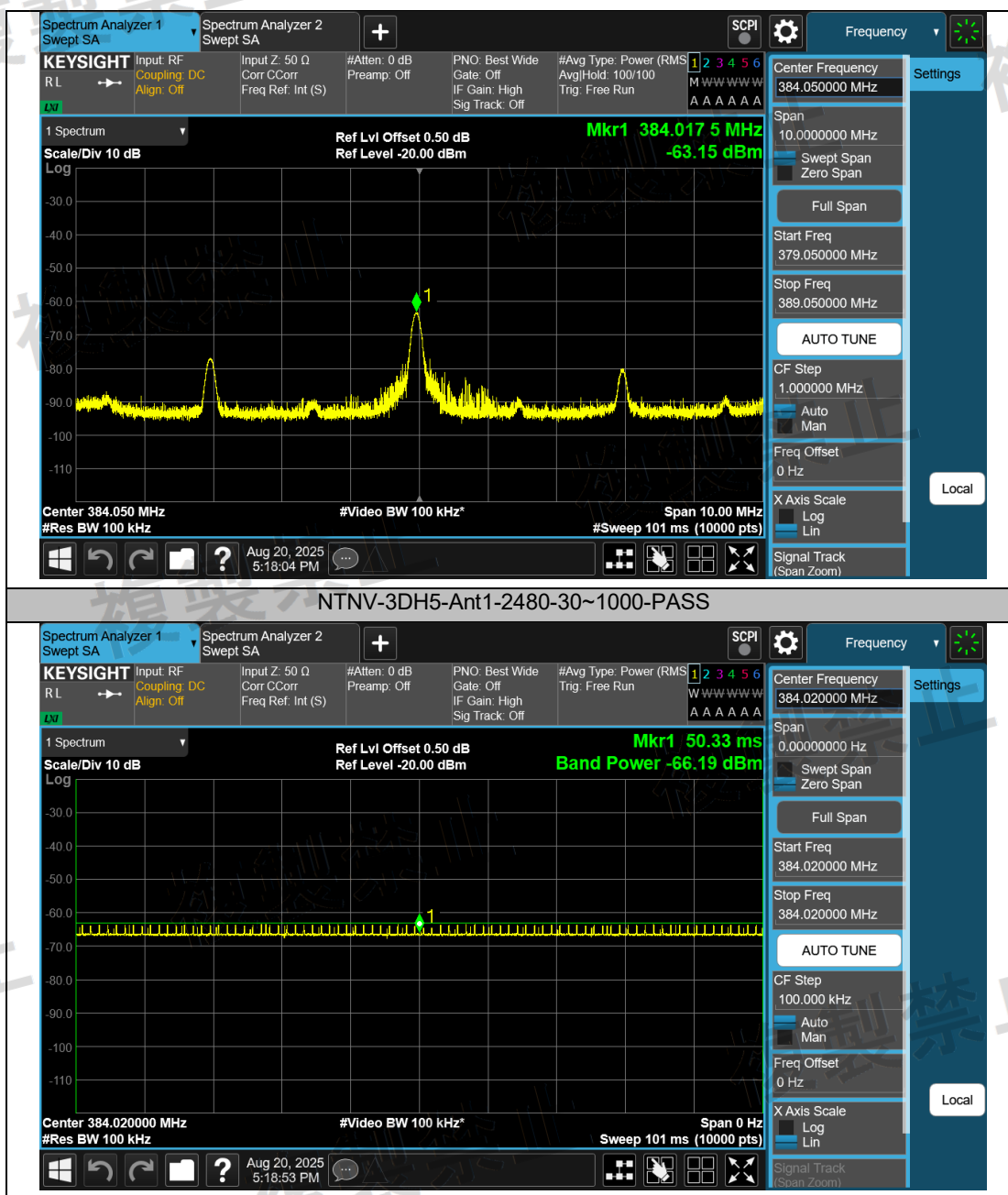




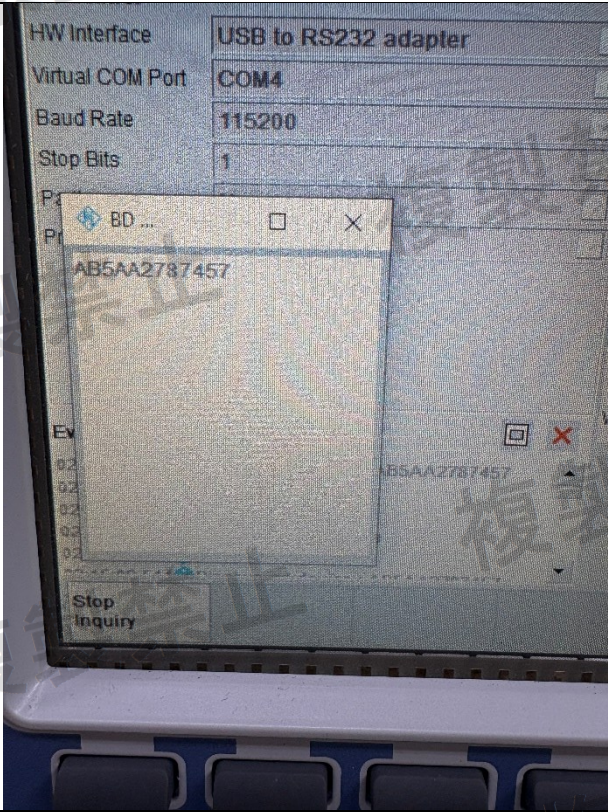








APPENDIX G: INTERFERENCE PREVENTION FUNCTION

Test Item	:	Interference Prevention Function Measurement
Test Site	:	TR8
Test Mode	:	Normal Mode
EUT MAC Address	:	AB5AA2787457
		

The End

Setup Photographs

