

TEST REPORT

Report No.....: S20260327212202

Applicant.....: Beijing ESWIN Computing Technology Co., Ltd.

Applicant's address: Business at Room 101, 1st Floor,
Building 3, No.18, Kechuang 10th
Street, BDA (Beijing
Economic--Technological Development
Area), Beijing City, P.R. China

Sample description.: EBC77 Series Single Board Computer

Model.....: EBC7700-B02, EBC7700-B00,
EBC7700-B01



方圆广电检验检测股份有限公司
Fangguang Inspection & Testing Co.,Ltd.



扫一扫验真伪



TEST REPORT

Application No..... : S202603272122

Applicant's name... : Beijing ESWIN Computing Technology Co., Ltd.

Applicant's address: Business at Room 101, 1st Floor, Building 3, No.18, Kechuang 10th Street, BDA (Beijing Economic--Technological Development Area), Beijing City, P.R. China

Sample description: EBC77 Series Single Board Computer

Model : EBC7700-B02, EBC7700-B00, EBC7700-B01

Date of receipt of test item : 2026-04-09

Test location : 3/F., Comprehensive Laboratory Building, No.8, Ningyun Road, Xinwu District, Wuxi, Jiangsu, China

Test standard : MIC Article 2 Paragraph 1 Item 19-3

Test date(s) : 2026-04-13 ~ 2026-06-09

Test result : The test results are in compliance with the above mentioned standards.

Date of issue : 2026-06-15

Compiled by:
Stone Zhang

Stone Zhang

Reviewed by:
Qianlan Sang

Qianlan Sang

Approved by:
Jacke Ding/Vice Manager

Jacke Ding

Other aspects: P = passed; F = failed; N/A = not applicable



Test item description :	EBC77 Series Single Board Computer
Trade mark :	/
Manufacturer..... :	Beijing ESWIN Computing Technology Co., Ltd.
Manufacturer's address..... :	Business at Room 101, 1st Floor, Building 3, No.18, Kechuang 10th Street, BDA (Beijing Economic--Technological Development Area), Beijing City, P.R. China
Factory..... :	Beijing ESWIN Computing Technology Co., Ltd.
Factory's address..... :	Business at Room 101, 1st Floor, Building 3, No.18, Kechuang 10th Street, BDA (Beijing Economic--Technological Development Area), Beijing City, P.R. China
Ratings :	DC 5~15V, 1-3A, 10-15W

CONTENTS

1. General Information	6
1.1. Testing Facility	6
1.2. Feature of Equipment Under Test	6
1.3. Product Specification Subjective to this Report.....	6
1.4. Working Frequencies for this Report.....	7
2. Test Configuration of Equipment under Test	9
2.1. Test Mode	9
2.2. Test Methodology	9
2.3. Test Software	9
2.4. Local Supportive	10
2.5. Test Setup	11
3. Measurement Uncertainty.....	12
4. Test Summary	13
5. List of Measuring Instrument	14
6. Test Methodology& Conditions	15
7. Frequency Error	16
7.1. Limit.....	16
7.2. Test Setup	16
7.3. Test Procedure	16
7.4. Test Result.....	17
8. Occupied Bandwidth.....	28
8.1. Limit.....	28
8.2. Test Setup	28
8.3. Test Procedure	28
8.4. Test Result.....	29
9. Antenna Power and Antenna Power Tolerance	54
9.1. Limit.....	54
9.2. Test Setup	55
9.3. Test Procedure	55
9.4. Test Result.....	56
10. Adjacent Channel Power	106
10.1. Limit.....	106
10.2. Test Setup	106
10.3. Test Procedure	106
10.4. Test Result.....	107

11. Limitation of Collateral Emission of Receiver	136
11.1. Limit.....	136
11.2. Test Setup	136
11.3. Test Procedure	136
11.4. Test Result.....	137
12. Unwanted Emission Intensity Measurement	207
12.1. Limit.....	207
12.2. Test Setup	209
12.3. Test Procedure	209
12.4. Test Result.....	215
13. Transmission Burst Length	350
13.1. Limit.....	350
13.2. Test Setup	350
13.3. Test Procedure	350
13.4. Test Result.....	351
14. Radio Interference Prevention Capability Measurement	376
14.1. Limit.....	376
14.2. Test Setup	376
14.3. Test Procedure	376
14.4. Test Result.....	376
15. Carrier Sense Capability	377
15.1. Limit.....	377
15.2. Test Setup	377
15.3. Test Procedure	377
15.4. Test Result.....	377
16. Dynamic frequency selection	380
16.1. Requirement.....	380
16.2. Test Setup	380
16.3. Test Result.....	380
17. Construction Protection Confirmation Method	382
17.1. Limit.....	382
17.2. Confirmation Method	382
18. Photograph of The Test Connection Diagram	384
19. Appendix - EUT Photograph.....	385



1. General Information

1.1. Testing Facility

Test Site
Fangguang Inspection & Testing Co., Ltd.
Test Site Location
3/F., Comprehensive Laboratory Building, No.8, Ningyun Road, Xinwu District, Wuxi, Jiangsu, China

1.2. Feature of Equipment Under Test

Product Name	EBC77 Series Single Board Computer
Model No.	EBC7700-B02
Additional Model:	EBC7700-B00, EBC7700-B01
Model Description:	The three models EBC7700-B00, EBC7700-B01. and EBC7700-B02 difrer in LPDDR5 memory capacity: EBC7700-B00 is single-board 8GB, EBC7700-B01 is single-board 16GB, and EBC7700-B02 is single-board 32GB. Other than the model numbers and LPDDRS memory capacity, the printed circuit boards, schematics and other components are identical for all models. All tests were conducted on the model EBC7700-B02. The different LPDDR5 memory capacity no affect the test result, the results of model EBC7700-B02 can represent the compliance of the other models.
Power Supply	DC 5~15V, 1-3A, 10-15W
Rated Power	802.11a: 5.0 mW/MHz 802.11n-HT20: 4.5 mW/MHz 802.11n-HT40: 2.0 mW/MHz 802.11ac-VHT20: 5.0 mW/MHz 802.11ac-VHT40: 2.0 mW/MHz 802.11ac-VHT80: 1.0 mW/MHz
Wi-Fi Specification:	802.11a/n/ac
Hardware Version:	CIBPBSBC000-000-A3
Software Version:	linux 6.6.115

Note: This information is provided by the Customer and its authenticity is the responsibility of the Customer.

1.3. Product Specification Subjective to this Report

Frequency Range	W52: 5150-5250MHz W53: 5250-5350MHz
-----------------	--

	W56: 5470-5730MHz
Number of Channels	802.11a/n/ac-HT20: 20 802.11n/ac-HT40: 10 802.11ac-HT80: 5
Antenna Type:	Ceramic Antenna
Antenna Gain:	3.31dBi
Channel Separation:	802.11a/n/ac-HT20: 20MHz 802.11n/ac-HT40: 40MHz 802.11ac-HT80: 80MHz
Type of Modulation:	802.11a: DSSS 802.11n/ac: OFDM
Data Rate:	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: MCS0~MCS7 802.11ac: MCS0~MCS9

Note:

- For other features of this EUT, test report will be issued separately.
- The maximum Antenna Gain was declared by the manufacturer.

1.4. Working Frequencies for this Report

802.11a/n/ac(20MHz)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180	40	5200	44	5220	48	5240
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
52	5260	56	5280	60	5300	64	5320
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
100	5500	104	5520	108	5540	112	5560
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
116	5580	120	5600	124	5620	128	5640
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
132	5660	136	5680	140	5700	144	5720

EUT was tested with Channel 36, 40, 48, 52, 56, 64, 100, 120 and 144.

802.11n/ac(40MHz)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190	46	5230	54	5270	62	5310
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
102	5510	110	5550	118	5590	126	5630
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
134	5670	142	5710	--	--	--	--



EUT was tested with Channel 38, 46, 54, 62, 102, 118 and 142.

802.11ac(80MHz)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210	58	5290	106	5530	122	5610
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
138	5690	--	--	--	--	--	--

EUT was tested with Channel 42, 58, 106, 122 and 138.

2. Test Configuration of Equipment under Test

2.1. Test Mode

Test Mode
Mode 1: 5G WIFI Transmit mode
Mode 2: 5G WIFI Receive mode
Mode 3: 5G WIFI Normal mode

2.2. Test Methodology

Measurement was conducted by the temporary test method which DSPResearch, Inc. submitted to the Minister for Internal Affairs and Communications based on the Ordinance Concerning Technical.

2.3. Test Software

RF Test Tool: MobaXterm.exe

The worst-case data rates are determined to be as follows for each mode based upon investigation by measuring the average power, peak power and PSD across all data rates, bandwidths and modulations.

We have pretested all the data rate, the worst condition was performed under:

Mode	Data rate	Channel	Power Level Setting
802.11a	6 Mbps	36	12
		40	11
		48	11
		52	9
		56	9
		64	9
		100	12
		120	12
		144	12
802.11n-HT20	MCS0	36	12
		40	12
		48	12
		52	10
		56	10
		64	11
		100	12
		120	12
		144	12

802.11n-HT40	MCS0	38	13
		46	13
		54	10
		62	11
		102	13
		118	13
		142	13
802.11ac-VHT20	MCS0	36	13
		40	12
		48	12
		52	9
		56	9
		64	10
		100	12
		120	12
802.11ac-VHT40	MCS0	144	12
		38	13
		46	13
		54	10
		62	11
		102	13
		118	13
802.11ac-VHT80	MCS0	142	13
		42	14
		58	10
		106	14
		122	14
		138	14

2.4. Local Supportive

No.	Name of Equipment	Manufacturer	Model	Serial Number
A	Notebook	DELL	Ideacentre 720-18IKL	/
B	USB Cable	/	/	/

2.5. Test Setup



3. Measurement Uncertainty

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

RF frequency
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.1×10^{-6} MHz
Conducted Spurious Emissions
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 30MHz-1GHz: 1.00 dB 1GHz-12.75GHz: 1.30 dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.60dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.80dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.20MHz

This uncertainty represents an expanded uncertainty factor of $k=2$.

4. Test Summary

MIC Article 2 Paragraph 1 Item 19-3		
Standard Section	Test Type and Limit	Test Result
Article5	Frequency Error	PASS
Article6	Occupied Bandwidth	PASS
Article7	Unwanted Emissions Intensity	PASS
Article14	Antenna Power and Antenna Power Tolerance	PASS
Article24	Limitation of Collateral Emission of Receiver	PASS
Article 49.20	Carrier Sense Capability	PASS
Article49.20(3); a	Construction Protection Confirmation Method	PASS
Article49.20(3); e	Transmission Burst Length	PASS
Article49.20(3); j	Out-Band Leakage Power	PASS
Article49.20(3); j	Adjacent Channel Leakage Power	PASS
Article 9-4.8	Radio Interference Prevention Capability	PASS
Article 49-20	Transmission Power Control Function (TPC)	N/A (See Note)
Article 49-20 No.103 of 2019 Annex 2. 3-12	DFS Function	PASS

Note: The EUT has no TPC function.



5. List of Measuring Instrument

Instrument	Manufacturer	Type No.	Asset No.	Calibration Agency	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Keysight	N9010B	FWXGJC-2018-010	GRGTEST	1 year	2026/07/16
RF Control Unit	Toncend	JS0806-2	FWXGJC-2018-013	GRGTEST	1 year	2026/07/21
Signal Generator	Keysight	N5182B	FWXGJC-2018-011	GRGTEST	1 year	2026/07/07
Signal Generator	Keysight	N5171B	FWXGJC-2018-012	GRGTEST	1 year	2026/07/14
Comprehensive measuring instrument	R&S	CMW270	FWXGJC-2018-023	GRGTEST	1 year	2026/07/20
Thermohygrometer	Yuhuaze	HTC-1	FWXDA-2016-385	GRGTEST	1 year	2026/08/24
Aneroid Barometer	Shanghai Yipin	DYM3	FWXDA-2018-038	GRGTEST	1 year	2027/04/16

Test Software	Manufacturer	Version	Asset No.	Function
RF Test Software	Tonscend	3.3.10	/	/

Note:

1. 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).
2. GRGTEST full name is GRG METROLOGY & TEST GROUP CO., LTD.

6. Test Methodology& Conditions

DC input (V)	DC output in modulation circuit (V)	voltage variation
5	3.382	Reference
4.5	3.382	0%
5.5	3.382	0%

Apply the input DC voltage to the EUT and vary the DC input voltage with +10% and -10%, then check how much the “output voltage” varies at one measuring points within the radio section:

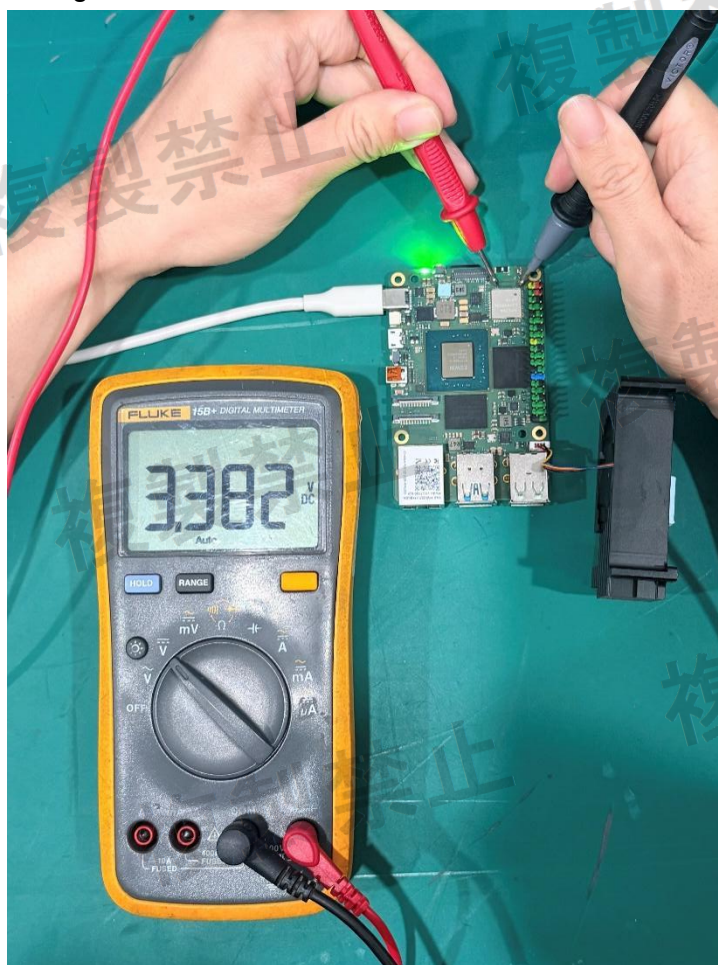
1) Measure the output voltage in the RF circuit.

a). If the voltage variation at RF circuit appears to be more than 1%, then it is mandatory to perform further testing at three voltage levels (normal voltage, low voltage and high voltage).

b). If the voltage variation at RF circuit appears to be less than 1%, then you only have to conduct further testing at normal voltage.

Note: low voltage is normal voltage -10%, high voltage is normal voltage +10%.

According to the test result, the voltage variation at RF circuit appears to be less than 1%, so only need to test at normal voltage.



7. Frequency Error

7.1. Limit

Item	Limits
Frequency Error	±20ppm

7.2. Test Setup



7.3. Test Procedure

Frequency accuracy of SA shall be less than 10% of limits tolerance (5ppm)

Set the EUT to the measurement frequency without modulation.

Setting of SA is following as: RBW:1kHz / VBW:30kHz / SPAN: 300kHz

Center Frequency: The center frequency of testing for EUT

Sweep time: Auto

Sweep mode: Continuous sweep

Detect mode: Positive peak

EUT have transmitted absence of modulation signal and fixed channelize. f is using the mark cursor to mark the peak frequency value fc is declaring of channel frequency.

Then the frequency error formula is $(f-f_c)/f_c \times 10^6$ ppm and the limit is less than ±20ppm



7.4. Test Result

Test environment:

Temperature:	23.1~27.5 °C
Relative Humidity:	46~51 %
ATM Pressure:	100.2~101.5 kPa
Test Date (yy-mm-dd):	2026-04-20~2026-05-18
Test Voltage:	DC 5V
Test Engineer:	Stone Zhang

Test Data:

Frequency (MHz)	Reading Frequency (MHz)	Frequency Tolerance (ppm)	Limit (ppm)	Verdict
5180	5179.9601	-7.70270	±20	PASS
5190	5189.9601	-7.68786		PASS
5200	5199.9598	-7.73077		PASS
5210	5209.9601	-7.65835		PASS
5230	5229.9598	-7.68642		PASS
5240	5239.9595	-7.72901		PASS
5260	5259.9592	-7.75665		PASS
5270	5269.9595	-7.68501		PASS
5280	5279.9589	-7.78409		PASS
5310	5309.9592	-7.68362		PASS
5320	5319.9589	-7.72556		PASS
5500	5499.9577	-7.69091		PASS
5510	5509.9577	-7.67695		PASS
5530	5529.9577	-7.64919		PASS
5590	5589.9583	-7.45975		PASS
5600	5599.9568	-7.71429		PASS
5610	5609.9571	-7.64706		PASS
5690	5689.9559	-7.75044		PASS
5710	5709.9562	-7.67075		PASS
5720	5719.9562	-7.65734		PASS

Note: FT (ppm) = {(RF – MF) / MF} * 1000000

(FT: Frequency Tolerance, RF: Reading Frequency)

Test Plots:



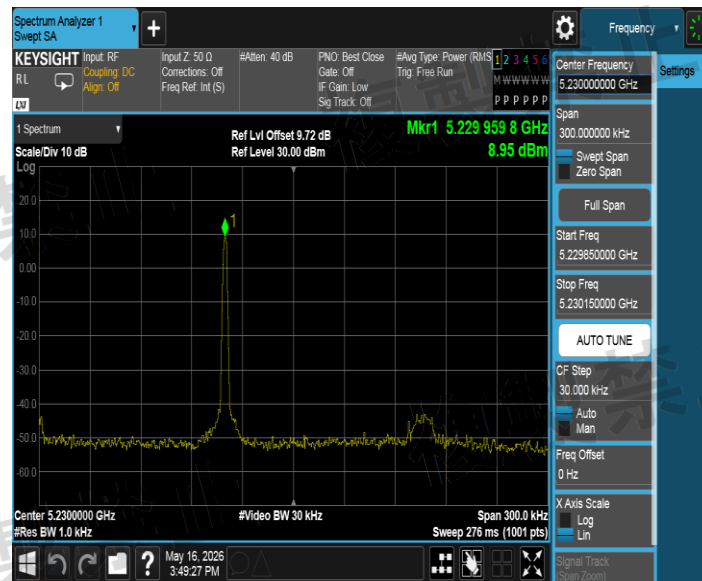
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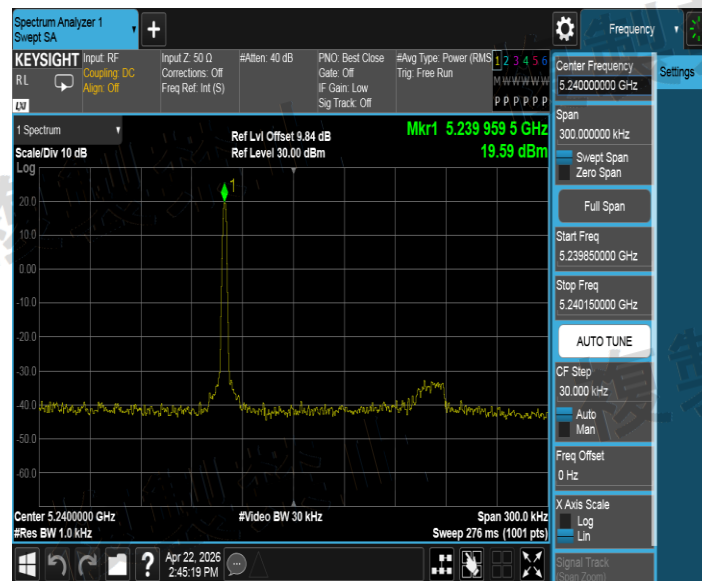
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NTNV_WiFi_Ant1_5240



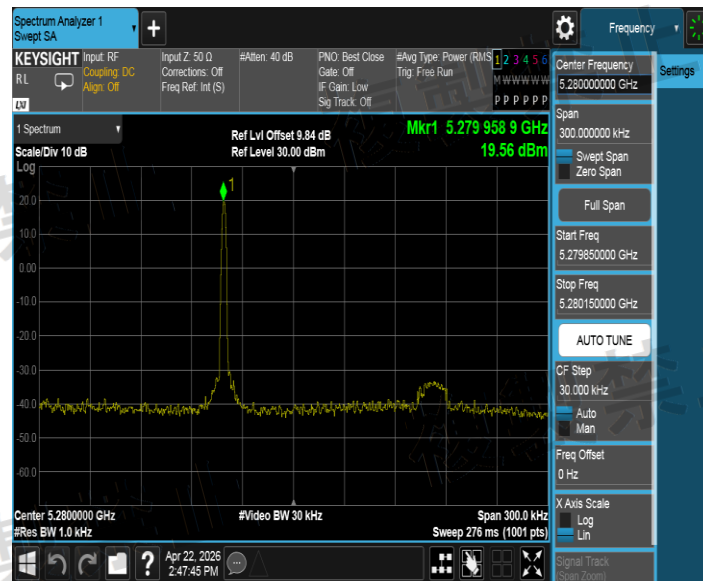
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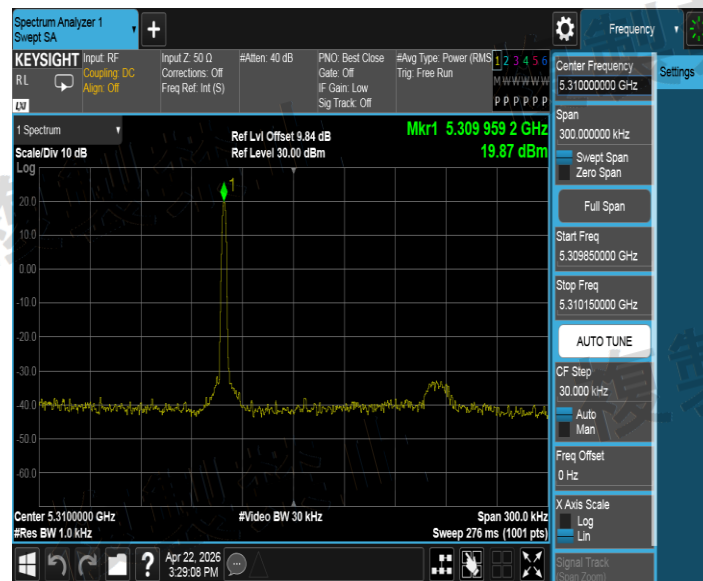
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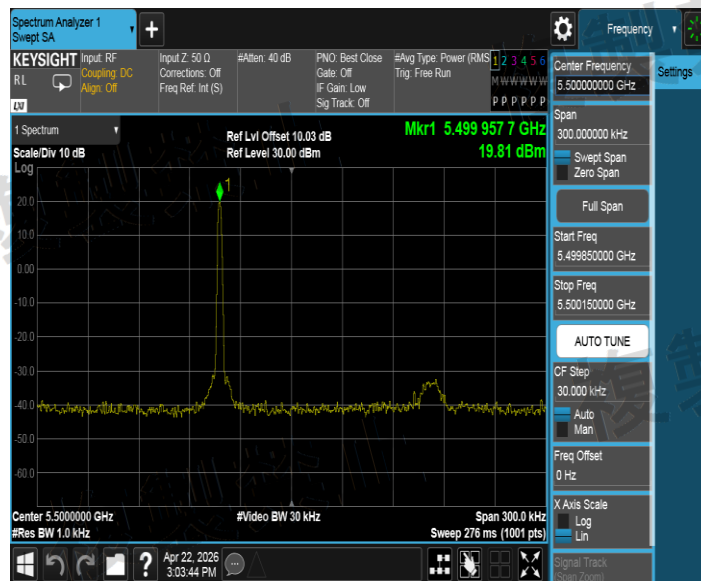
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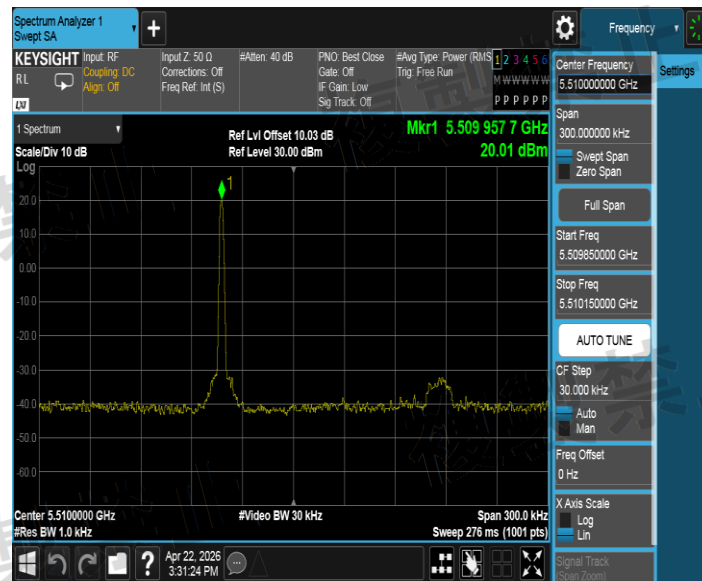
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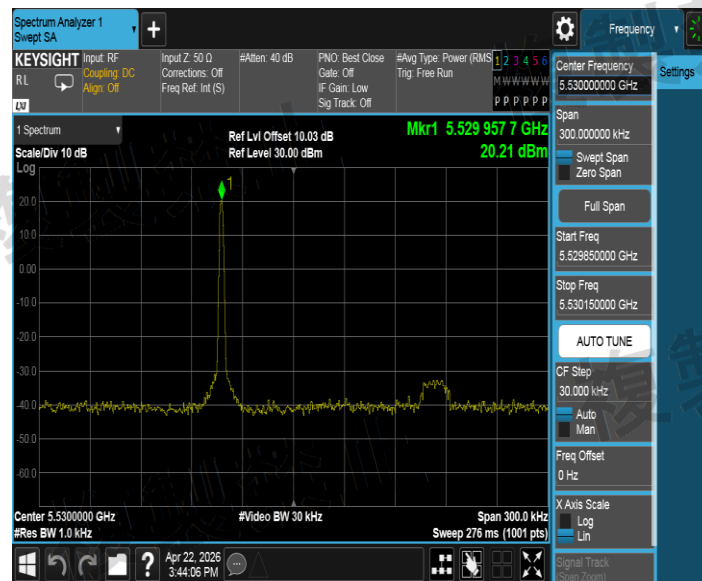
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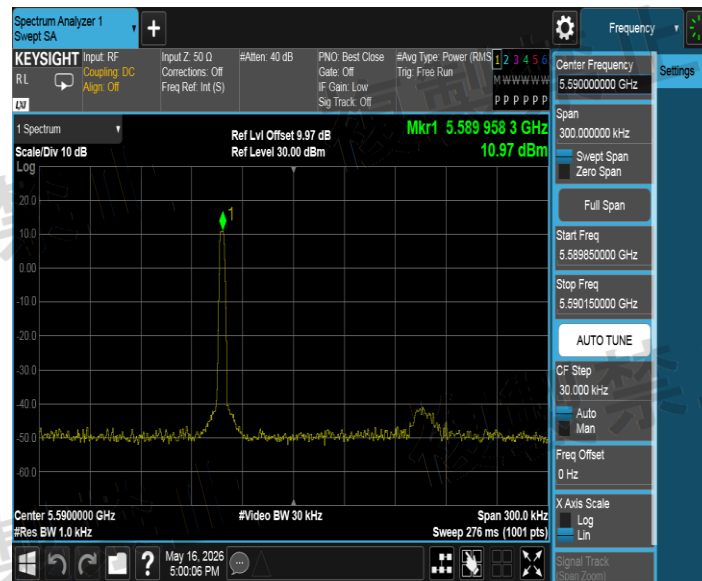
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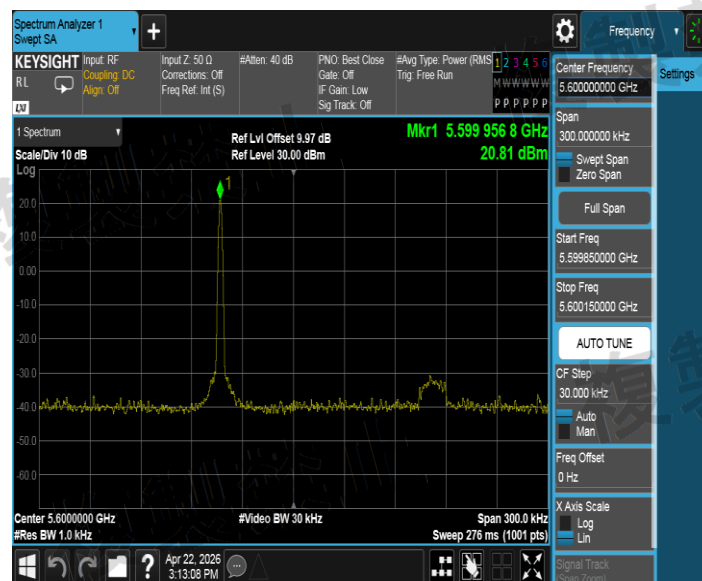
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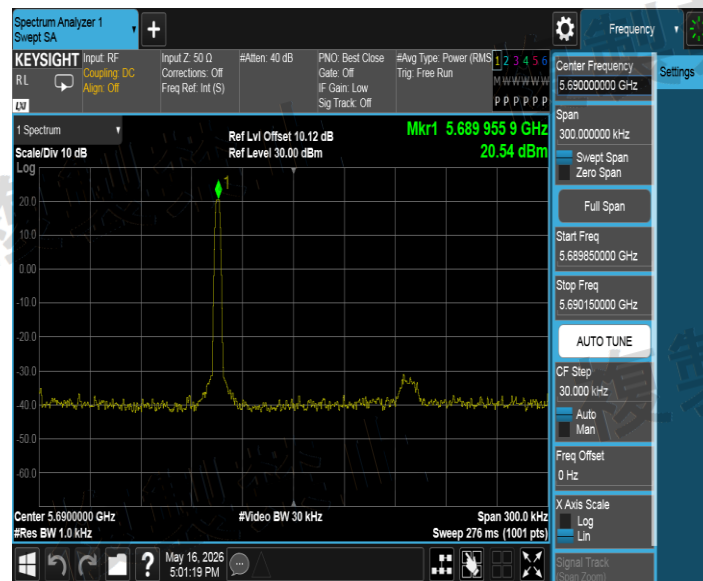
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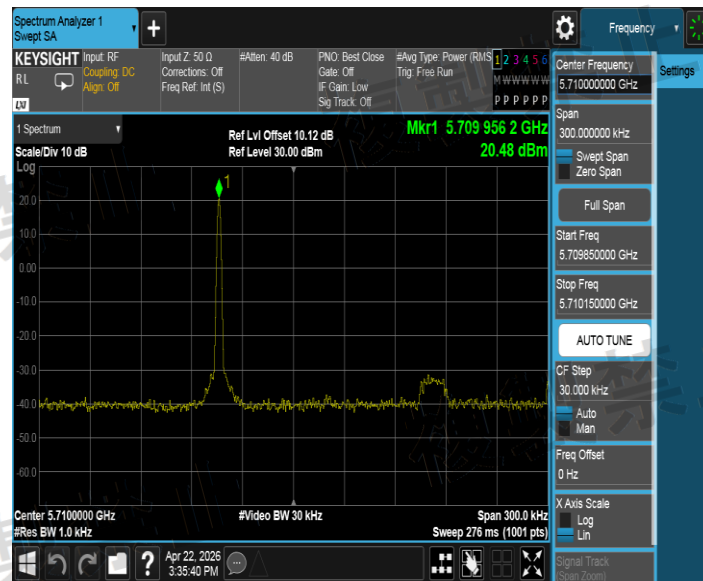
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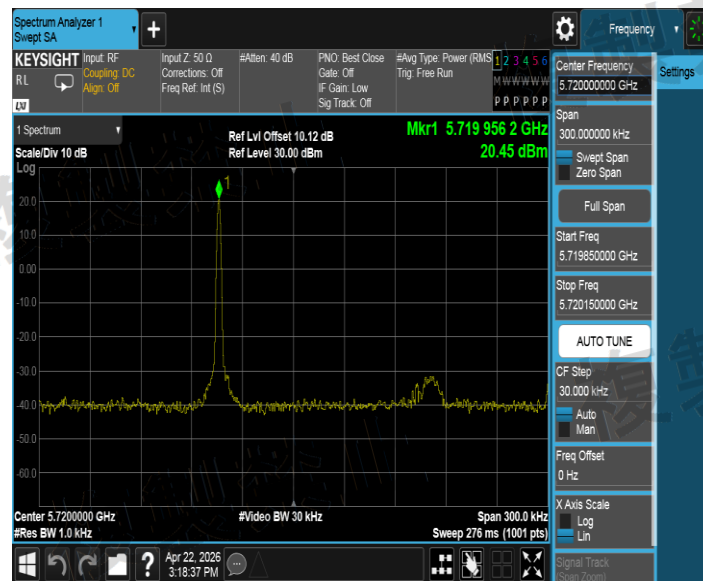
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NTNV_WiFi_Ant1_5710



NTNV_WiFi_Ant1_5720



8. Occupied Bandwidth

8.1. Limit

Item	Limits
Occupied Bandwidth	$\leq 20\text{MHz}$ (20MHz Mode OFDM, DSSS, Other) $\leq 40\text{MHz}$ (40MHz Mode OFDM) $\leq 80\text{MHz}$ (80MHz Mode OFDM)

8.2. Test Setup



8.3. Test Procedure

Setting of SA is following as: RB: 300 kHz / VB: 300 kHz / Sweep time: Auto / Sweep Mode: Continuous sweep / Detect mode: Positive peak / Trace mode: Max hold.

EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 99% of occupied bandwidth to measure occupied bandwidth.

8.4. Test Result

Test environment:

Temperature:	23.1~27.5 °C
Relative Humidity:	46~51 %
ATM Pressure:	100.2~101.5 kPa
Test Date (yy-mm-dd):	2026-04-20~2026-05-18
Test Voltage:	DC 5V
Test Engineer:	Stone Zhang

Test Data:

Test Condition	Test Mode	Antenna	Frequency (MHz)	Result [MHz]	Limit [MHz]	Verdict
NTNV	11A	Ant1	5180	16.557	≤20	PASS
			5200	16.586	≤20	PASS
			5240	16.591	≤20	PASS
			5260	16.615	≤20	PASS
			5280	16.593	≤20	PASS
			5320	16.629	≤20	PASS
			5500	16.563	≤20	PASS
			5600	16.603	≤20	PASS
			5720	16.607	≤20	PASS
	11N20SISO	Ant1	5180	17.692	≤20	PASS
			5200	17.683	≤20	PASS
			5240	17.694	≤20	PASS
			5260	17.694	≤20	PASS
			5280	17.837	≤20	PASS
			5320	17.691	≤20	PASS
			5500	17.758	≤20	PASS
			5600	17.712	≤20	PASS
			5720	17.764	≤20	PASS
	11N40SISO	Ant1	5190	35.930	≤40	PASS
			5230	36.002	≤40	PASS
			5270	36.077	≤40	PASS
			5310	35.972	≤40	PASS
			5510	36.014	≤40	PASS
			5590	36.058	≤40	PASS

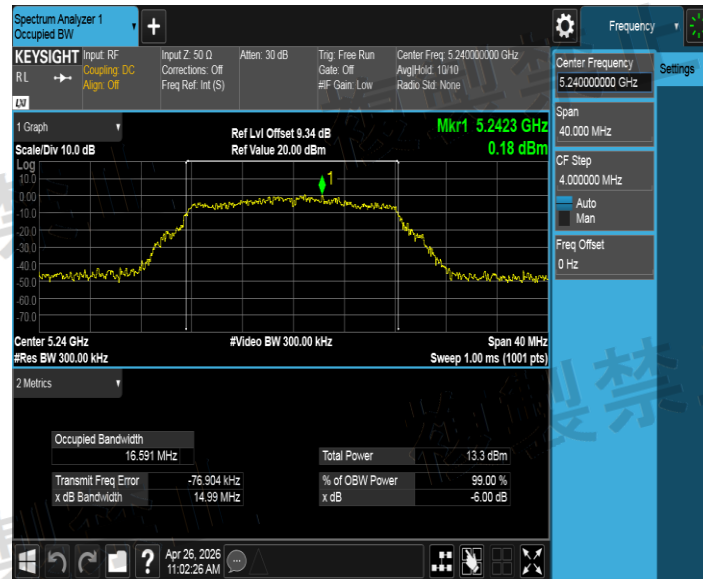


	11AC20SISO	Ant1	5710	36.090	≤40	PASS
			5180	17.784	≤20	PASS
			5200	17.741	≤20	PASS
			5240	17.673	≤20	PASS
			5260	17.790	≤20	PASS
			5280	17.742	≤20	PASS
			5320	17.657	≤20	PASS
			5500	17.690	≤20	PASS
			5600	17.643	≤20	PASS
			5720	17.737	≤20	PASS
	11AC40SISO	Ant1	5190	36.046	≤40	PASS
			5230	36.038	≤40	PASS
			5270	36.038	≤40	PASS
			5310	36.033	≤40	PASS
			5510	36.062	≤40	PASS
			5590	36.079	≤40	PASS
			5710	36.048	≤40	PASS
	11AC80SISO	Ant1	5210	75.020	≤80	PASS
			5290	75.484	≤80	PASS
			5530	75.187	≤80	PASS
			5610	75.205	≤80	PASS
			5690	75.274	≤80	PASS

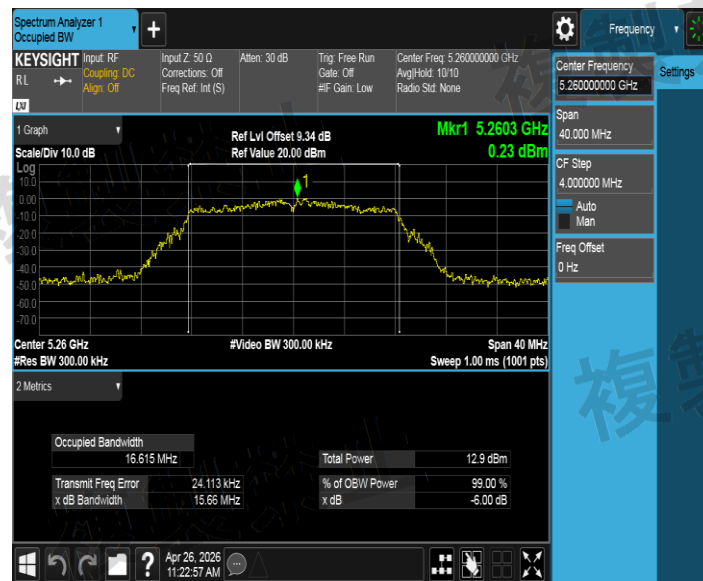
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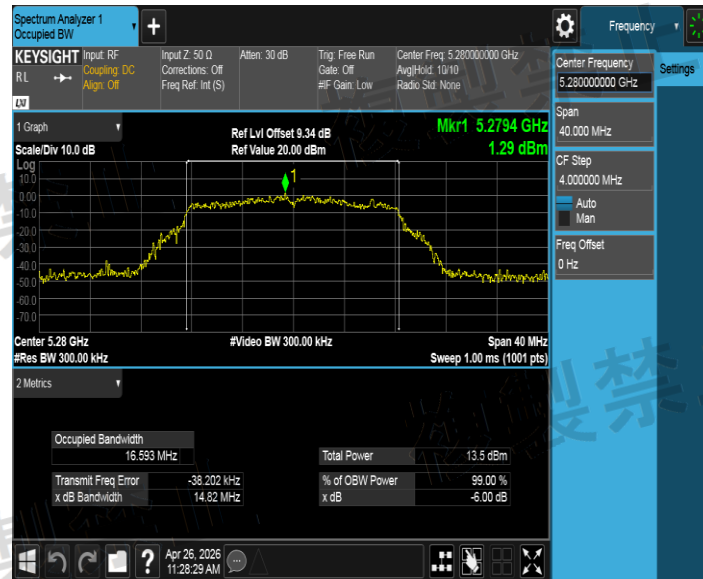
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NTNV_11A_Ant1_5260



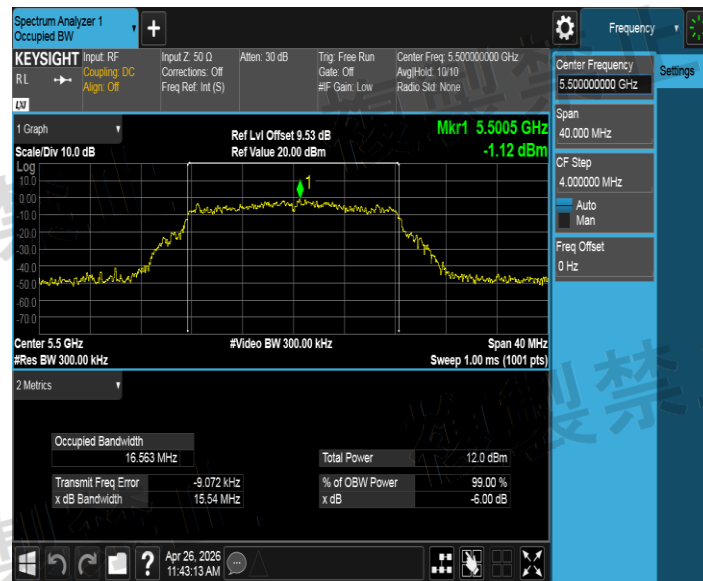
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NTNV_11A_Ant1_5320



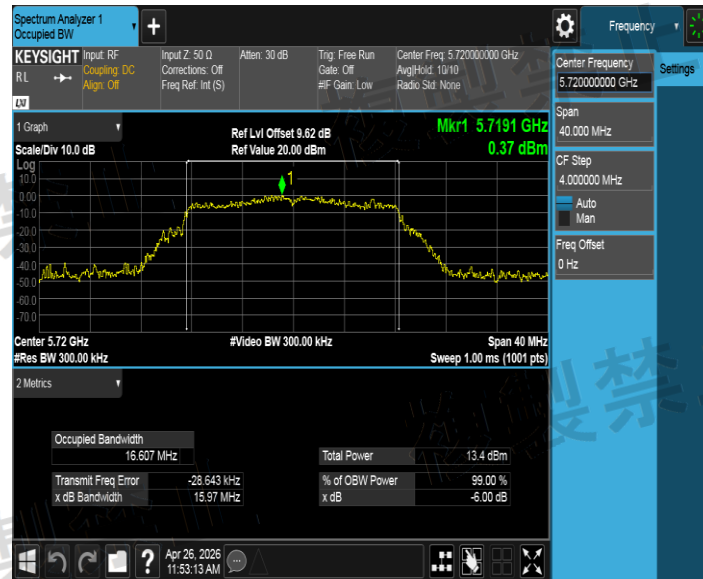
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NTNV_11A_Ant1_5600

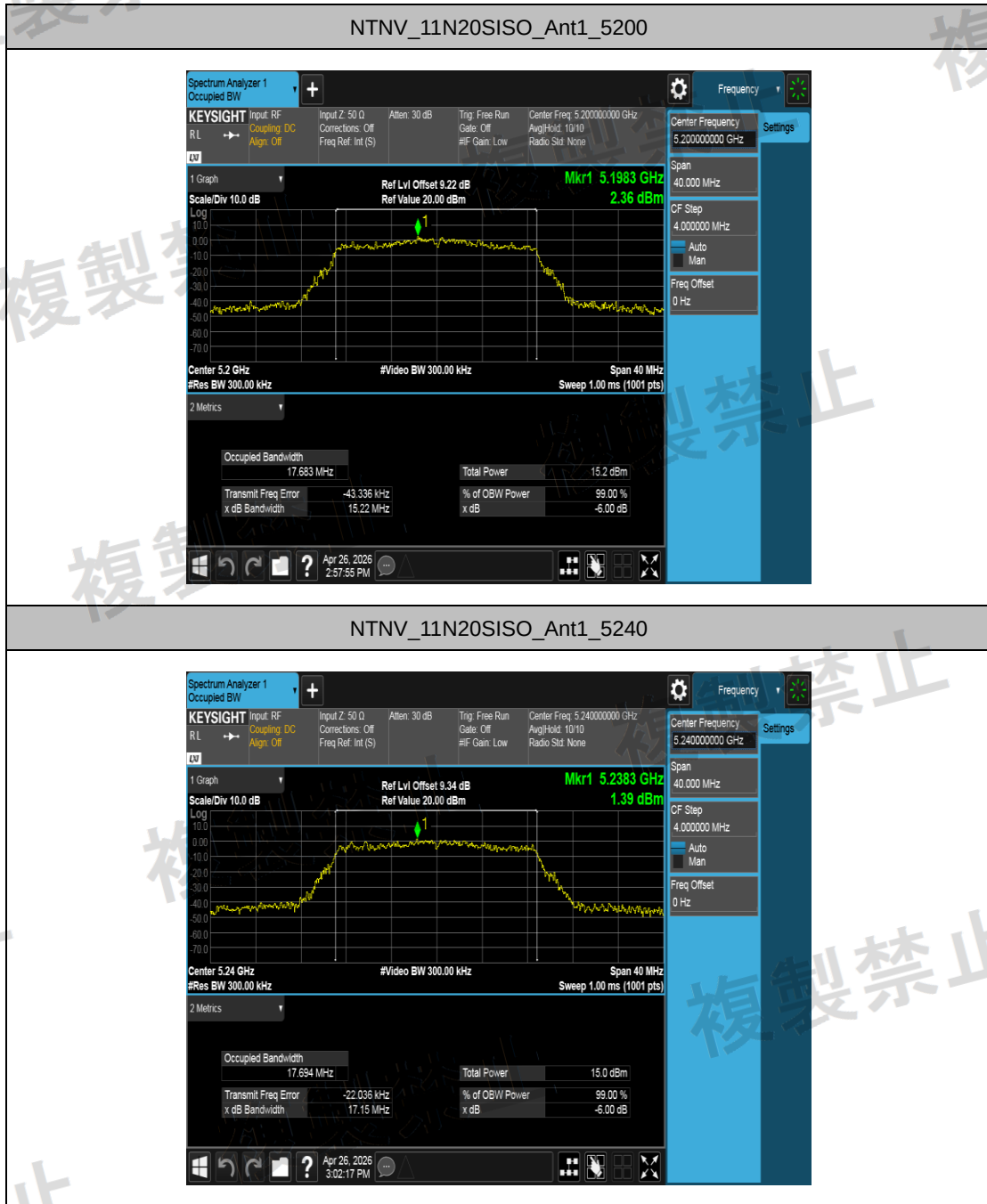


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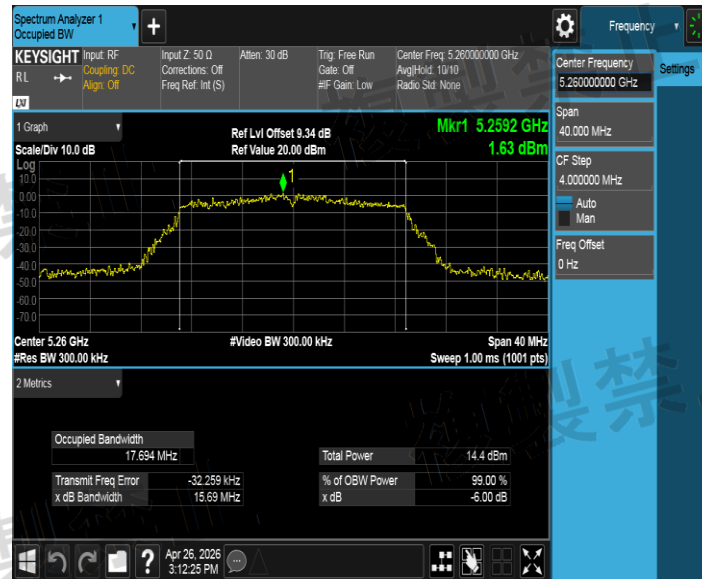


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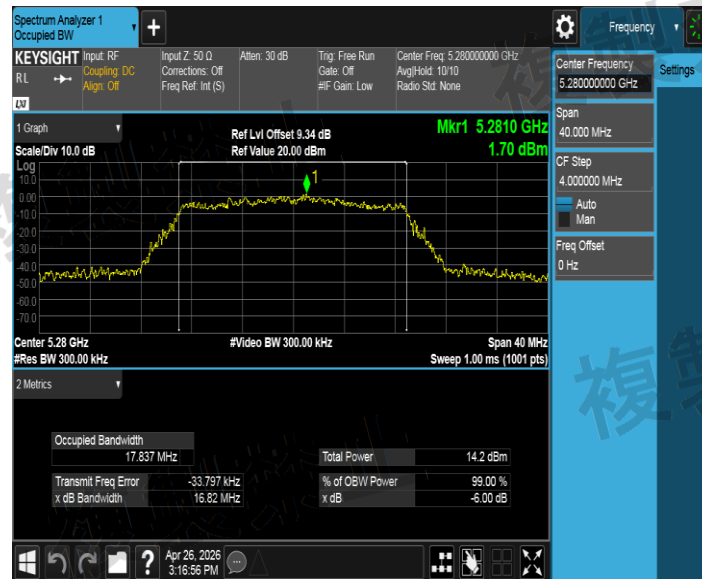




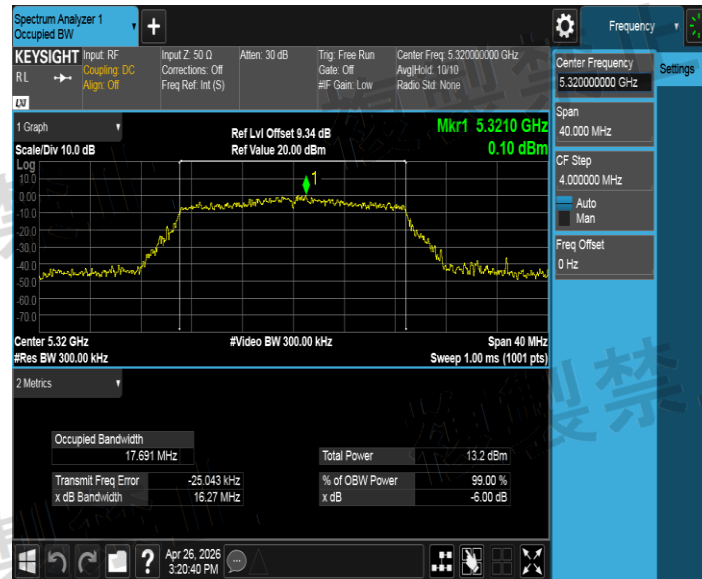
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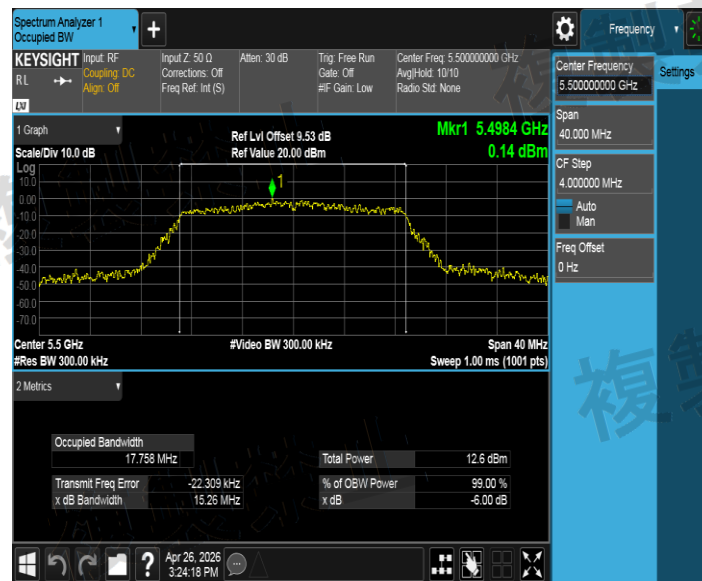
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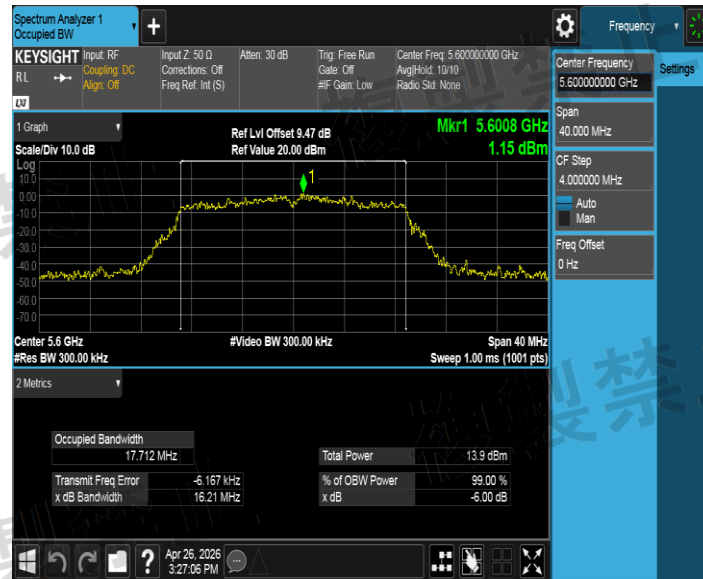
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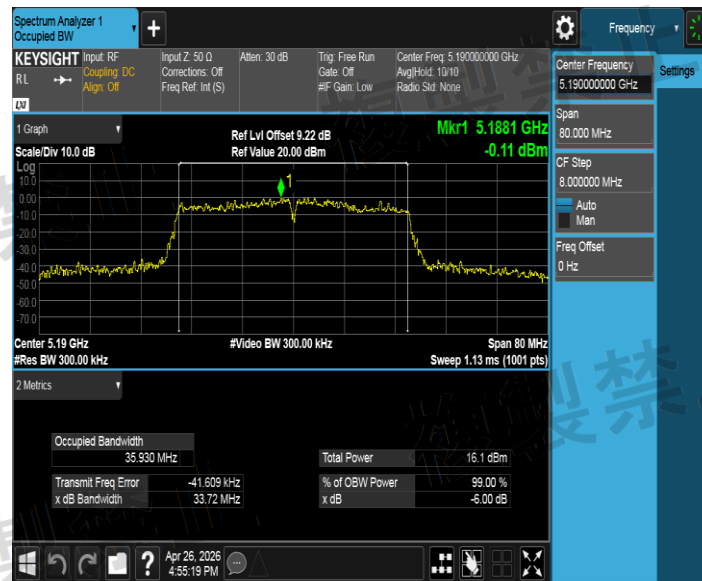
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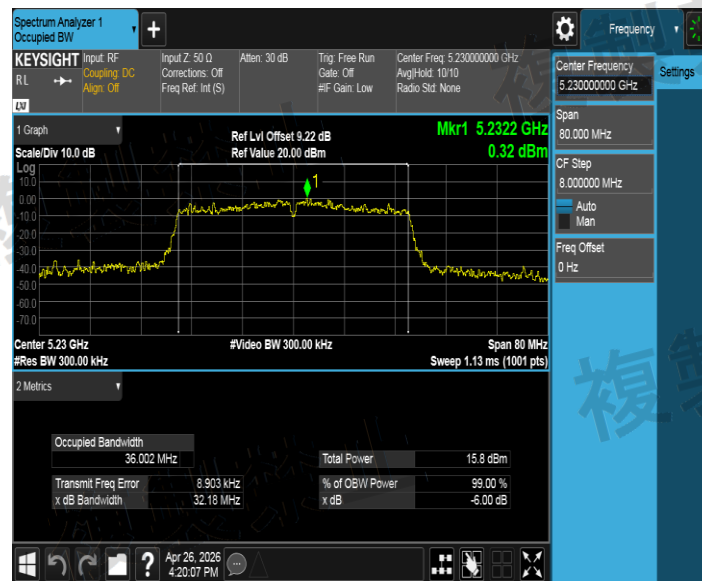
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NTNV_11N40SISO_Ant1_5190

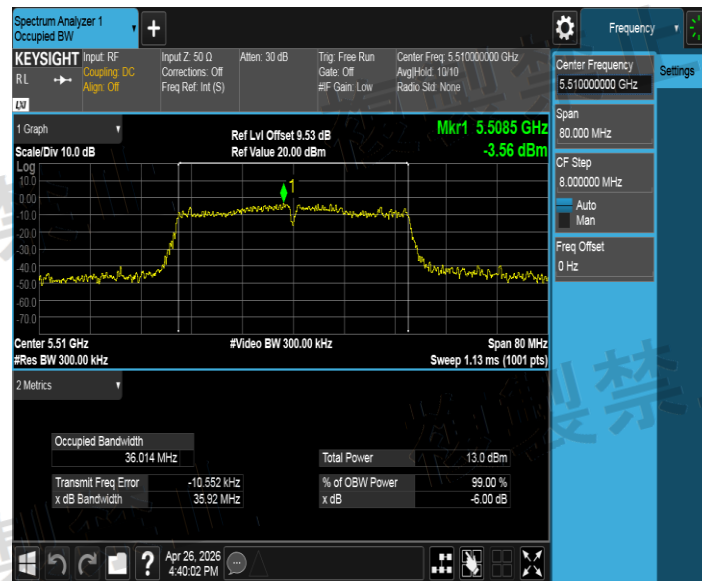


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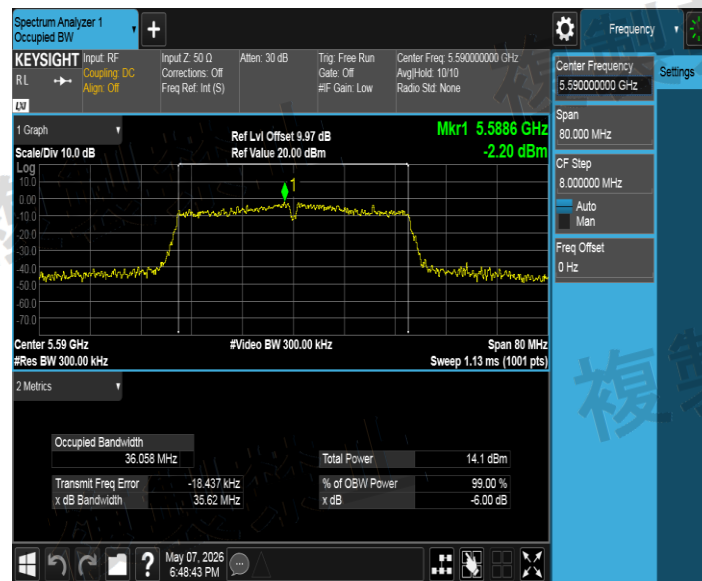




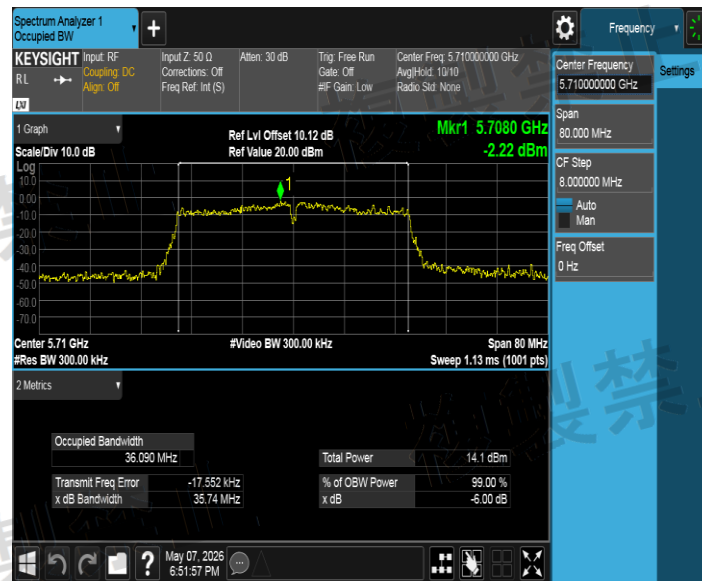
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NTNV_11N40SISO_Ant1_5590



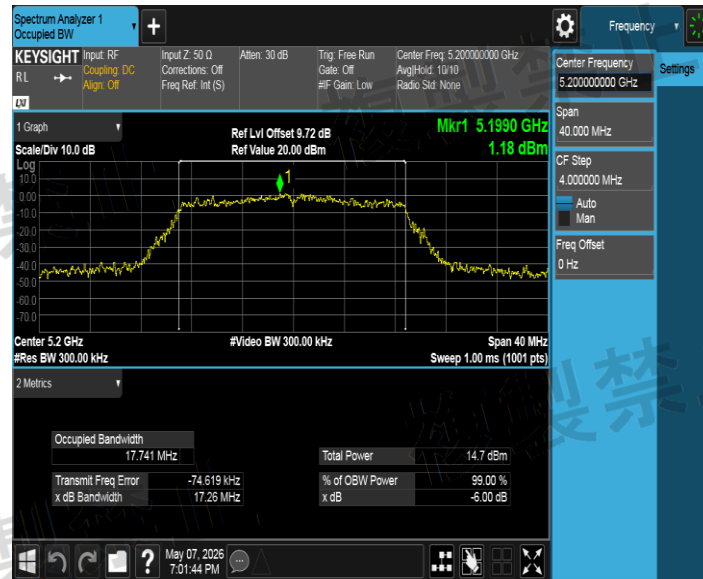
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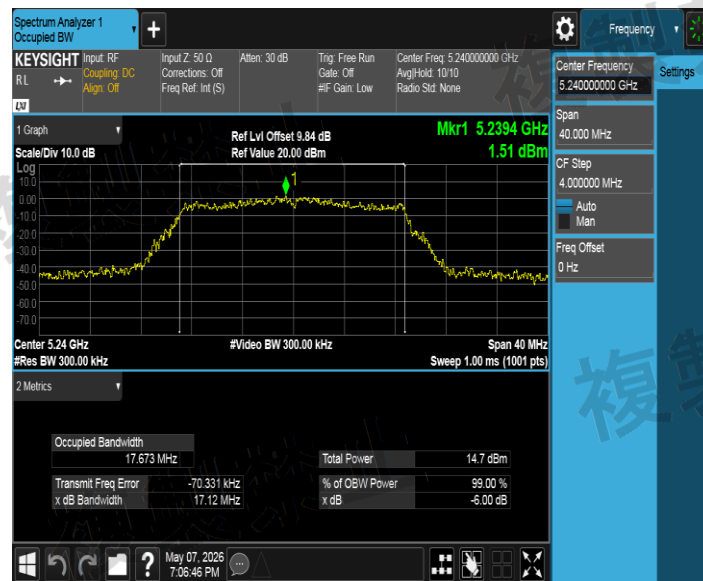
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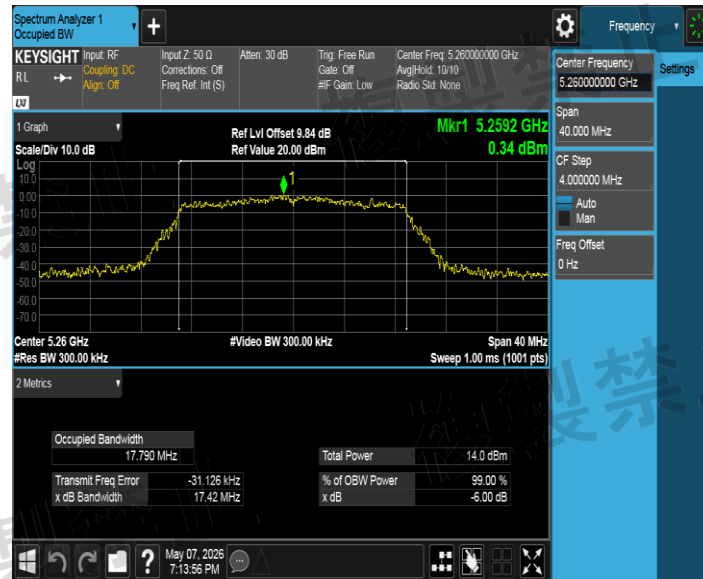
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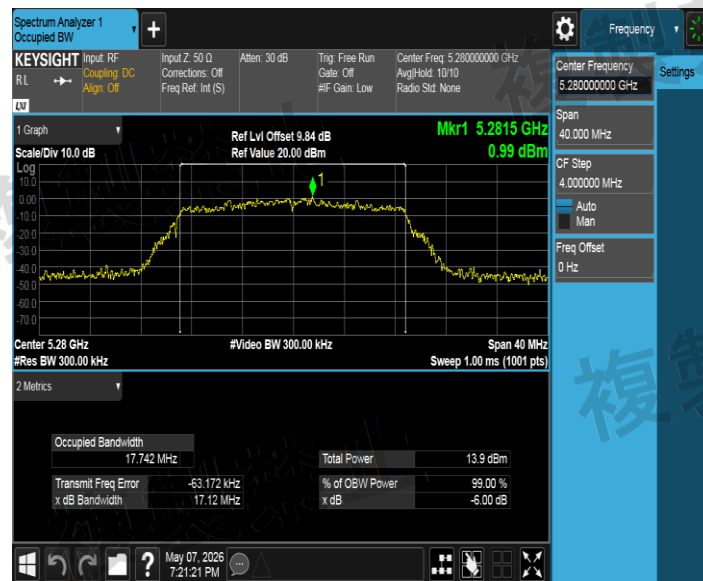
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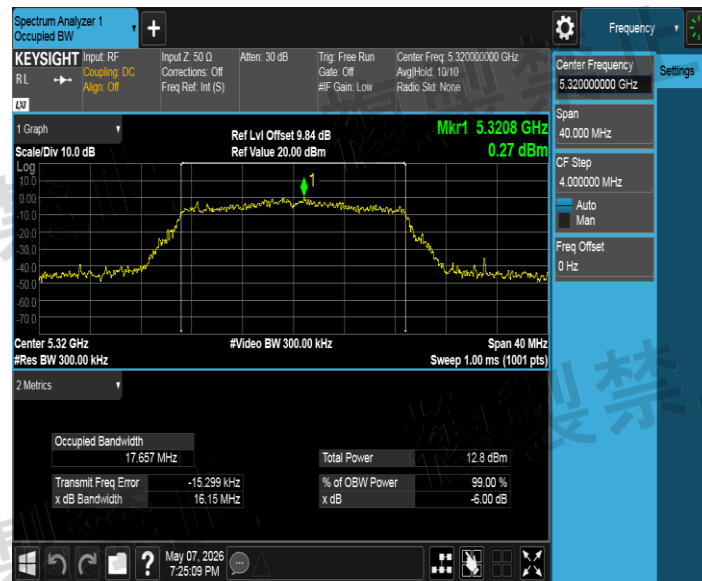
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NTNV_11AC20SISO_Ant1_5280



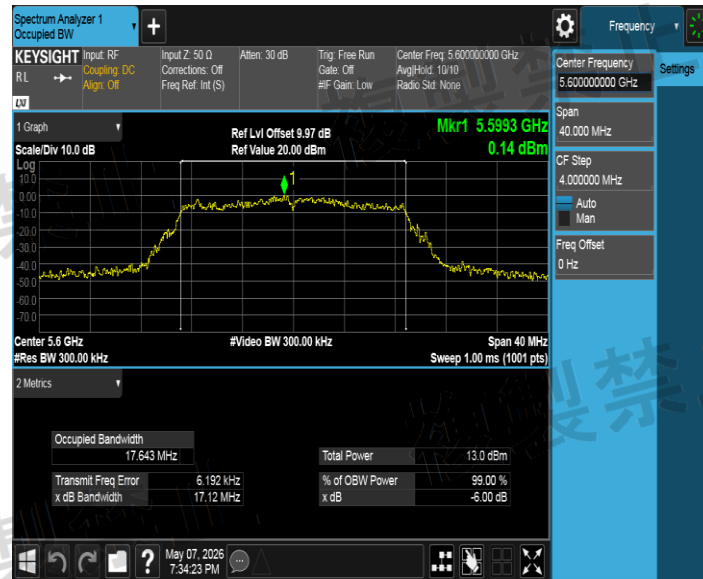
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NTNV_11AC20SISO_Ant1_5500



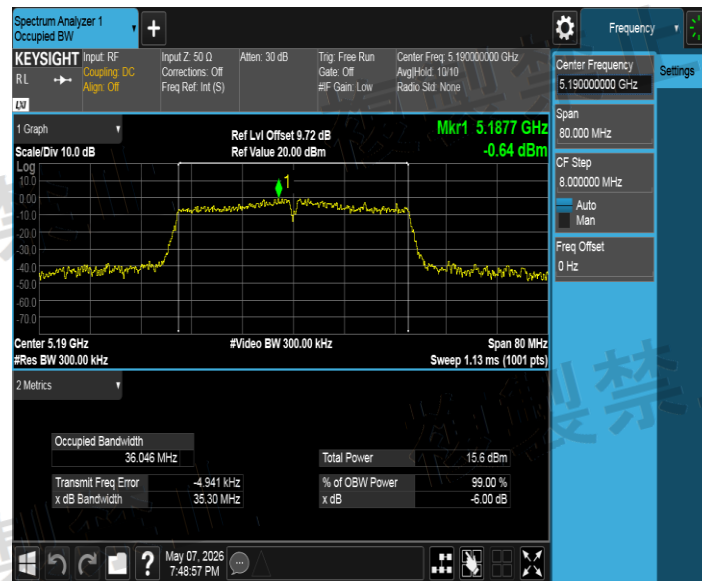
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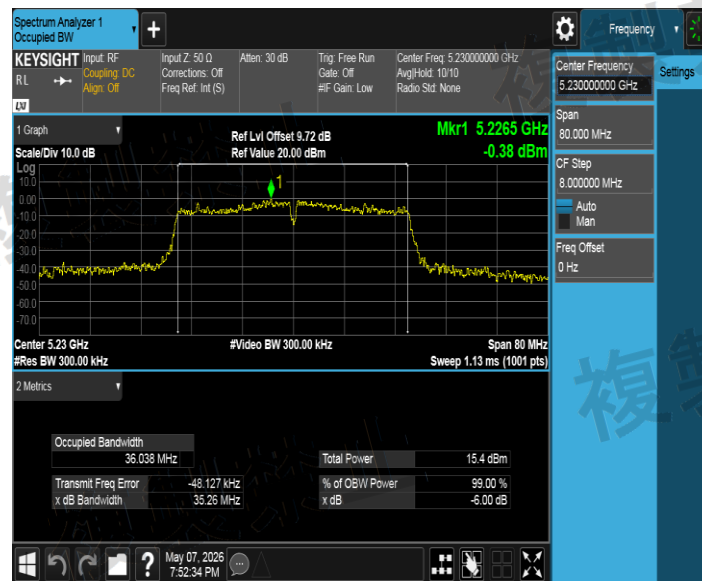
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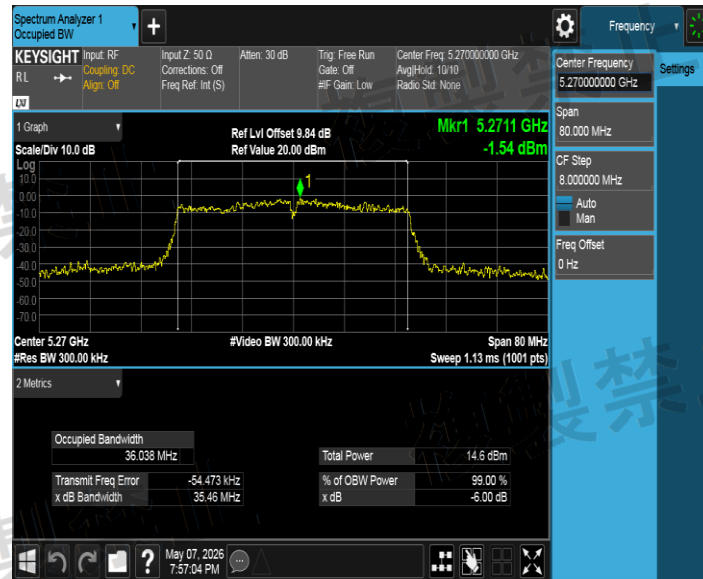
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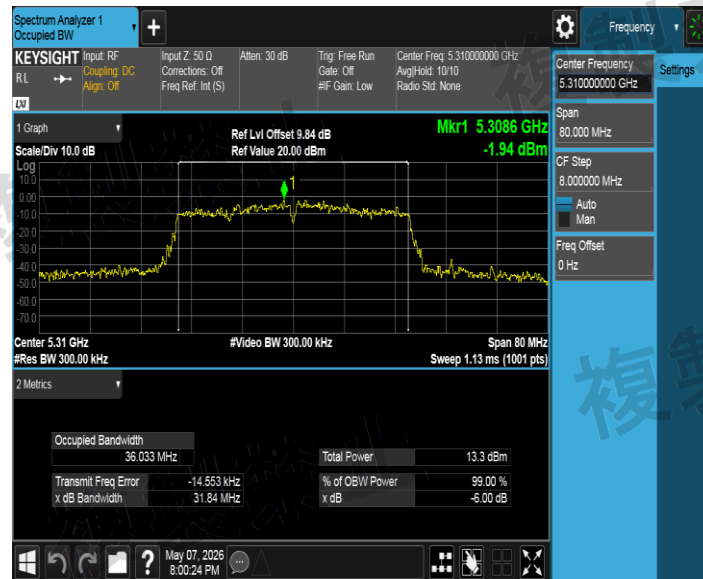
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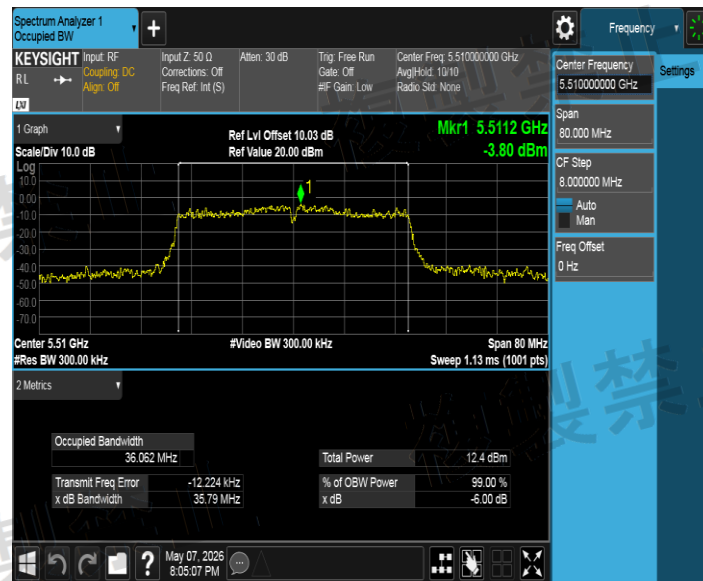
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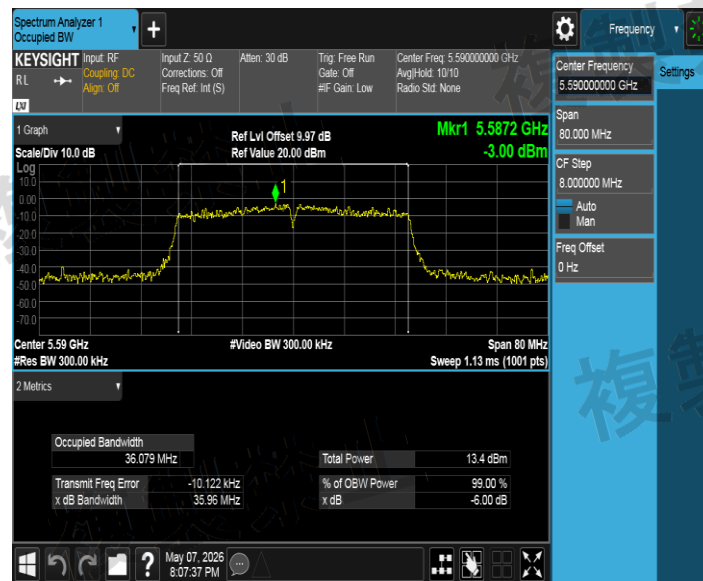
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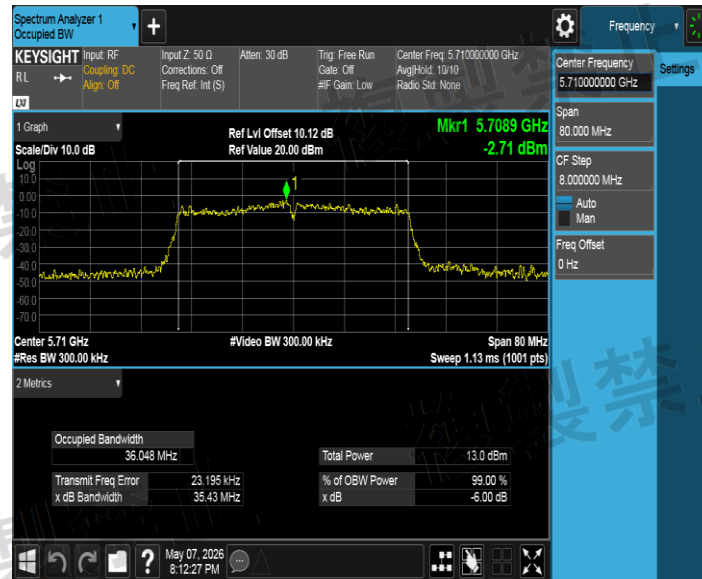
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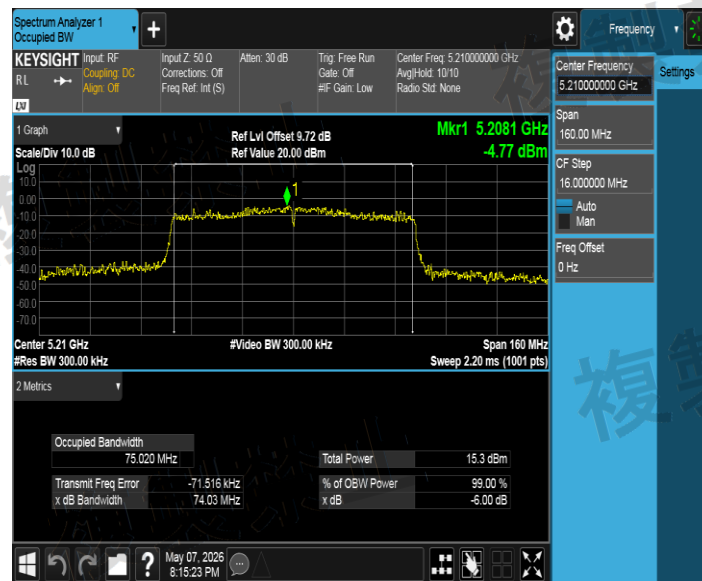
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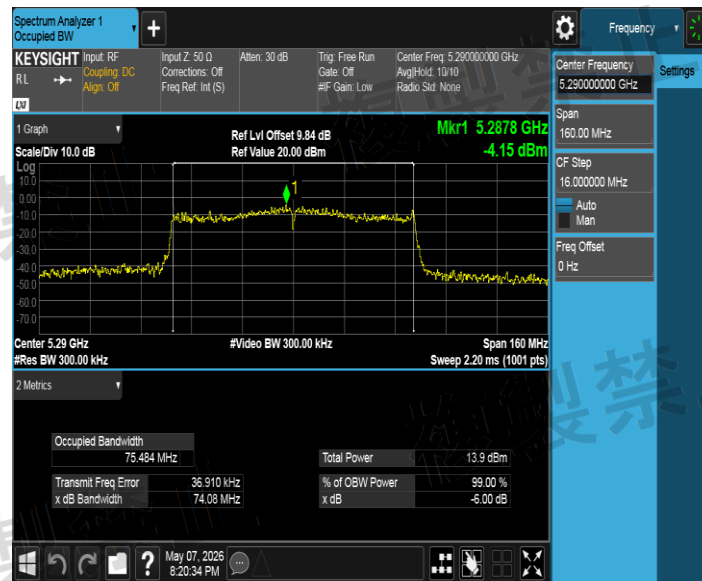
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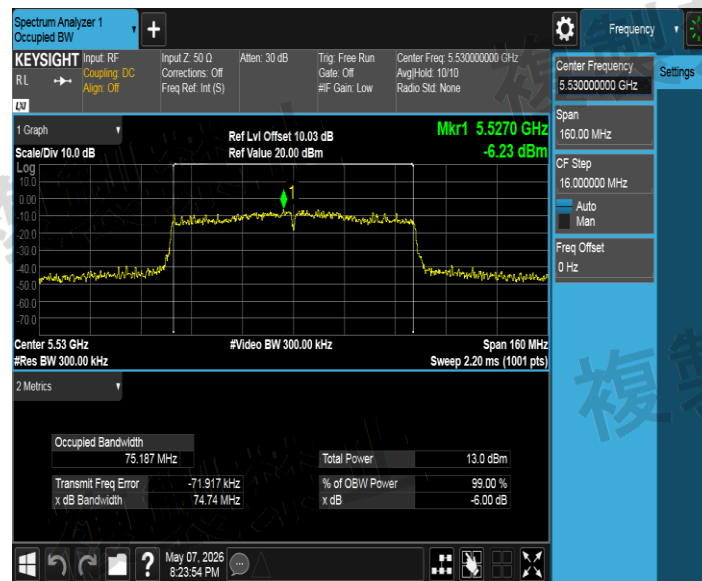
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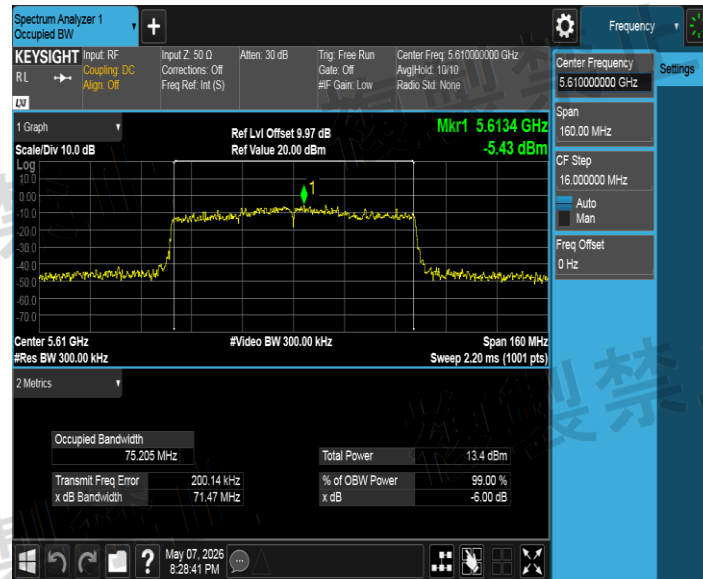
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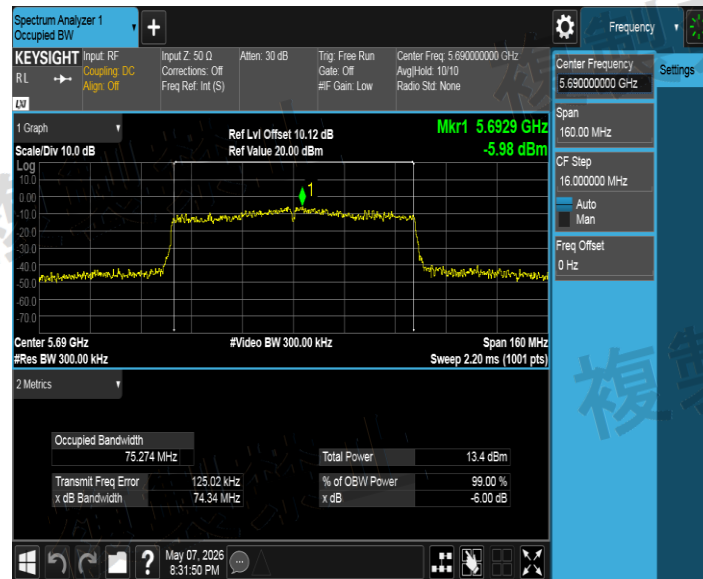
NTNV_11AC80SISO_Ant1_5530



NTNV_11AC80SISO_Ant1_5610



NTNV_11AC80SISO_Ant1_5690



9. Antenna Power and Antenna Power Tolerance

9.1. Limit

W52:

Item	Limits
Antenna Power EIRP Power (W52)	$\leq 10\text{mW/MHz}$ ($\text{OBW} \leq 20\text{MHz}$)
	$\leq 5\text{mW/MHz}$ ($40\text{MHz} \geq \text{OBW} > 20\text{MHz}$)
	$\leq 2.5\text{mW/MHz}$ ($80\text{MHz} \geq \text{OBW} > 40\text{MHz}$)
Antenna Power (W52)	$\leq 10\text{mW/MHz}$ ($\text{OBW} \leq 20\text{MHz}$)
	$\leq 5\text{mW/MHz}$ ($40\text{MHz} \geq \text{OBW} > 20\text{MHz}$)
	$\leq 2.5\text{mW/MHz}$ ($80\text{MHz} \geq \text{OBW} > 40\text{MHz}$)
Antenna Power tolerance	W52: +20% ~ -80% (Base on manufacturer declare antenna power density)

W53:

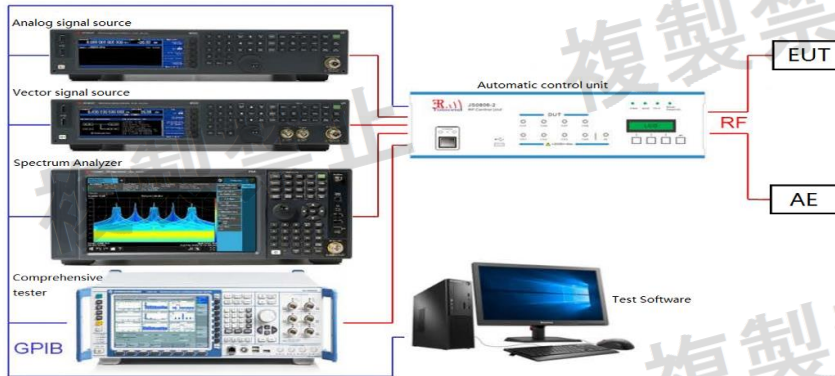
Item	Limits
Antenna Power EIRP Power (W53)	$\leq 10\text{mW/MHz}$ ($\text{OBW} \leq 20\text{MHz}$)
	$\leq 5\text{mW/MHz}$ ($40\text{MHz} \geq \text{OBW} > 20\text{MHz}$)
	$\leq 2.5\text{mW/MHz}$ ($80\text{MHz} \geq \text{OBW} > 40\text{MHz}$)
Antenna Power (W53)	$\leq 5\text{mW/MHz}$ ($\text{OBW} \leq 20\text{MHz}$)
	$\leq 2.5\text{mW/MHz}$ ($40\text{MHz} \geq \text{OBW} > 20\text{MHz}$)
	$\leq 1.25\text{mW/MHz}$ ($80\text{MHz} \geq \text{OBW} > 40\text{MHz}$)
Antenna Power tolerance	W53: +20% ~ -80% (Base on manufacturer declare antenna power density)

W56:

Item	Limits
Antenna Power EIRP Power (W56)	$\leq 10\text{mW/MHz}$ ($\text{OBW} \leq 20\text{MHz}$)
	$\leq 5\text{mW/MHz}$ ($40\text{MHz} \geq \text{OBW} > 20\text{MHz}$)
	$\leq 2.5\text{mW/MHz}$ ($80\text{MHz} \geq \text{OBW} > 40\text{MHz}$)
Antenna Power (W56)	$\leq 25\text{mW/MHz}$ ($\text{OBW} \leq 20\text{MHz}$)
	$\leq 12.5\text{mW/MHz}$ ($40\text{MHz} \geq \text{OBW} > 20\text{MHz}$)
	$\leq 6.25\text{mW/MHz}$ ($80\text{MHz} \geq \text{OBW} > 40\text{MHz}$)
Antenna Power tolerance	W56: +50% ~ -50% (Base on manufacturer declare antenna power density)

Note: E.I.R.P will not be applied to the transmission antenna which has a gain of more than 12.14dBi.

9.2. Test Setup



9.3. Test Procedure

The spectrum analyzer setting up to search a frequency that will give the maximum value of antenna power is as follows.

Center frequency	Test frequency
Sweep bandwidth	2 times of occupied bandwidth
Resoluble bandwidth	1MHz
Video bandwidth	1MHz
Y-axis scale	10dB/Div.
Sweep time	Minimum time by which measuring accuracy is assured (In case of burst wave, 1 burst shall be contained per 1 sample)
Trigger condition	Free run
Data points	More than 400 points
Sweep mode	Continuous sweeping
Display mode	Maximum holding

The spectrum analyzer setting up to measure antenna power is as follows. In this case, connecting the high frequency power meter with IF output of the spectrum analyzer, calibrate indication of the high frequency power meter power against output point of the radio equipment.

Center frequency	Maximum power point frequency
Sweep bandwidth	0Hz
Resoluble bandwidth	1MHz
Video bandwidth	Equivalent to resolvable bandwidth
Sweep mode	Continuous sweeping

Note: The test frequency range of spectrum Analyzer is 10Hz-30GHz, it contains test frequencies, so

spectrum Analyzer didn't connect to high frequency power meter.

9.4. Test Result

Test environment:

Temperature:	23.1~27.5 °C
Relative Humidity:	46~51 %
ATM Pressure:	100.2~101.5 kPa
Test Date (yy-mm-dd):	2026-04-20~2026-06-09
Test Voltage:	DC 5V
Test Engineer:	Stone Zhang

Test Data:

802.11a

Frequency (MHz)	Antenna Power (dBm)	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Antenna Power Limit (mW/MHz)	Tolerance (%)	Antenna Gain (dBi)	EIRP (mW/MHz)	EIRP Limit (mW/MHz)	Tolerance Limit
5180	6	3.98	5	≤ 10	-20.38	3.31	8.53	≤ 10	-80% ~ +20%
5200	4.39	2.75	5		-45.04	3.31	5.89		
5240	5.34	3.42	5		-31.60	3.31	7.33		
5260	2.99	1.99	5	≤ 10	-60.19	3.31	4.27	≤ 5	-80% ~ +20%
5280	1.49	1.41	5		-71.81	3.31	3.02		
5320	1.90	1.55	5		-69.02	3.31	3.32		
5500	6.25	4.22	5	≤ 10	-15.66	3.31	9.04	≤ 25	-50% ~ +50%
5600	7.09	5.12	5		2.34	3.31	10.96		
5720	6.18	4.15	5		-17.01	3.31	8.89		

Note:

1. The Rated power is 5 mW/MHz, which is declared by manufacturer.
2. Tolerance(%)=(Antenna Power-Rated Power)/Rated Power) x 100%.

802.11n-HT20

Frequency (MHz)	Antenna Power (dBm)	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Antenna Power Limit (mW/MHz)	Tolerance (%)	Antenna Gain (dBi)	EIRP (mW/MHz)	EIRP Limit (mW/MHz)	Tolerance Limit
5180	5.54	3.58	4.5	≤ 10	-20.42	3.31	7.67	≤ 10	-80% ~ +20%
5200	5.86	3.85	4.5		-14.34	3.31	8.26		
5240	5.69	3.71	4.5		-17.63	3.31	7.94		
5260	3.39	2.18	4.5	≤ 10	-51.49	3.31	4.68	≤ 5	-80% ~

5280	3.38	2.18	4.5		-51.61	3.31	4.67		+20%
5320	3.20	2.09	4.5		-53.57	3.31	4.48		
5500	5.5	3.55	4.5	≤ 10	-21.15	3.31	7.60	≤ 25	-50% ~
5600	6.48	4.45	4.5		-1.19	3.31	9.53		+50%
5720	5.6	3.63	4.5		-19.32	3.31	7.78		

Note:

1. The Rated power is 4.5 mW/MHz, which is declared by manufacturer.
2. Tolerance(%)=(Antenna Power-Rated Power)/Rated Power) x 100%.

802.11n-HT40

Frequency (MHz)	Antenna Power (dBm)	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Antenna Power Limit (mW/MHz)	Tolerance (%)	Antenna Gain (dBi)	EIRP (mW/MHz)	EIRP Limit(mW/MHz)	Tolerance Limit
5190	1.83	1.52	2	≤ 5	-23.80	3.31	3.27	≤ 5	-80% ~
5230	1.86	1.53	2		-23.27	3.31	3.29		+20%
5270	-1.08	0.78	2	≤ 5	-61.01	3.31	1.67	≤ 2.5	-80% ~
5310	-1.20	0.76	2		-62.07	3.31	1.63		+20%
5510	1.92	1.56	2	≤ 5	-22.20	3.31	3.33	≤ 12.5	-50% ~
5590	2.31	1.70	2		-14.89	3.31	3.65		+50%
5710	2.89	1.95	2		-2.73	3.31	4.17		

Note:

1. The Rated power is 2 mW/MHz, which is declared by manufacturer.
2. Tolerance(%)=(Antenna Power-Rated Power)/Rated Power) x 100%.

802.11ac-VHT20

Frequency (MHz)	Antenna Power (dBm)	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Antenna Power Limit (mW/MHz)	Tolerance (%)	Antenna Gain (dBi)	EIRP (mW/MHz)	EIRP Limit(mW/MHz)	Tolerance Limit
5180	6.49	4.46	5	≤ 10	-10.87	3.31	9.55	≤ 10	-80% ~
5200	5.68	3.70	5		-26.03	3.31	7.93		+20%
5240	6.19	4.16	5		-16.82	3.31	8.91		
5260	1.69	1.48	5	≤ 10	-70.49	3.31	3.16	≤ 5	-80% ~



5280	0.96	1.25	5		-75.05	3.31	2.67		+20%
5320	1.53	1.42	5		-71.55	3.31	3.05		
5500	5.28	3.37	5	≅ 10	-32.54	3.31	7.23	≅ 25	-50% ~
5600	6.94	4.94	5		-1.14	3.31	10.59		+50%
5720	6.2	4.17	5		-16.63	3.31	8.93		

Note:

1. The Rated power is 5 mW/MHz, which is declared by manufacturer.
2. Tolerance(%)=(Antenna Power-Rated Power)/Rated Power) x 100%.

802.11ac-VHT40

Frequency (MHz)	Antenna Power (dBm)	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Antenna Power Limit (mW/MHz)	Tolerance (%)	Antenna Gain (dBi)	EIRP (mW/MHz)	EIRP Limit(mW/MHz)	Tolerance Limit
5190	2.14	1.64	2	≅ 5	-18.16	3.31	3.51	≅ 5	-80% ~
5230	2.78	1.90	2		-5.16	3.31	4.06		+20%
5270	-0.83	0.83	2	≅ 5	-58.70	3.31	1.77	≅ 2.5	-80% ~
5310	-1.80	0.66	2		-66.97	3.31	1.42		+20%
5510	2.94	1.97	2	≅ 5	-1.61	3.31	4.22	≅ 12.5	-50% ~
5590	3.59	2.29	2		14.28	3.31	4.90		+50%
5710	3.59	2.29	2		14.28	3.31	4.90		

Note:

1. The Rated power is 2 mW/MHz, which is declared by manufacturer.
2. Tolerance(%)=(Antenna Power-Rated Power)/Rated Power) x 100%.

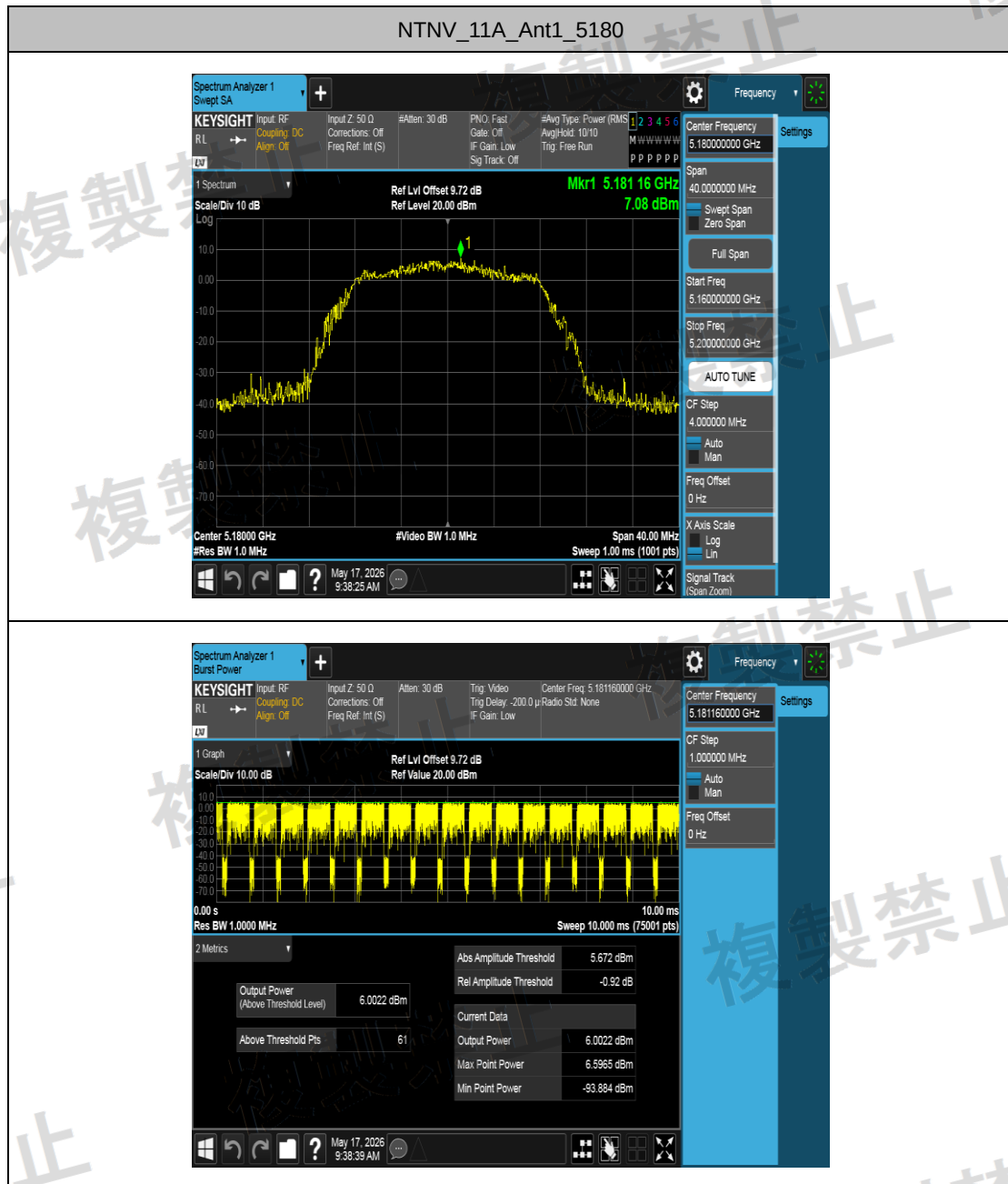
802.11ac-VHT80

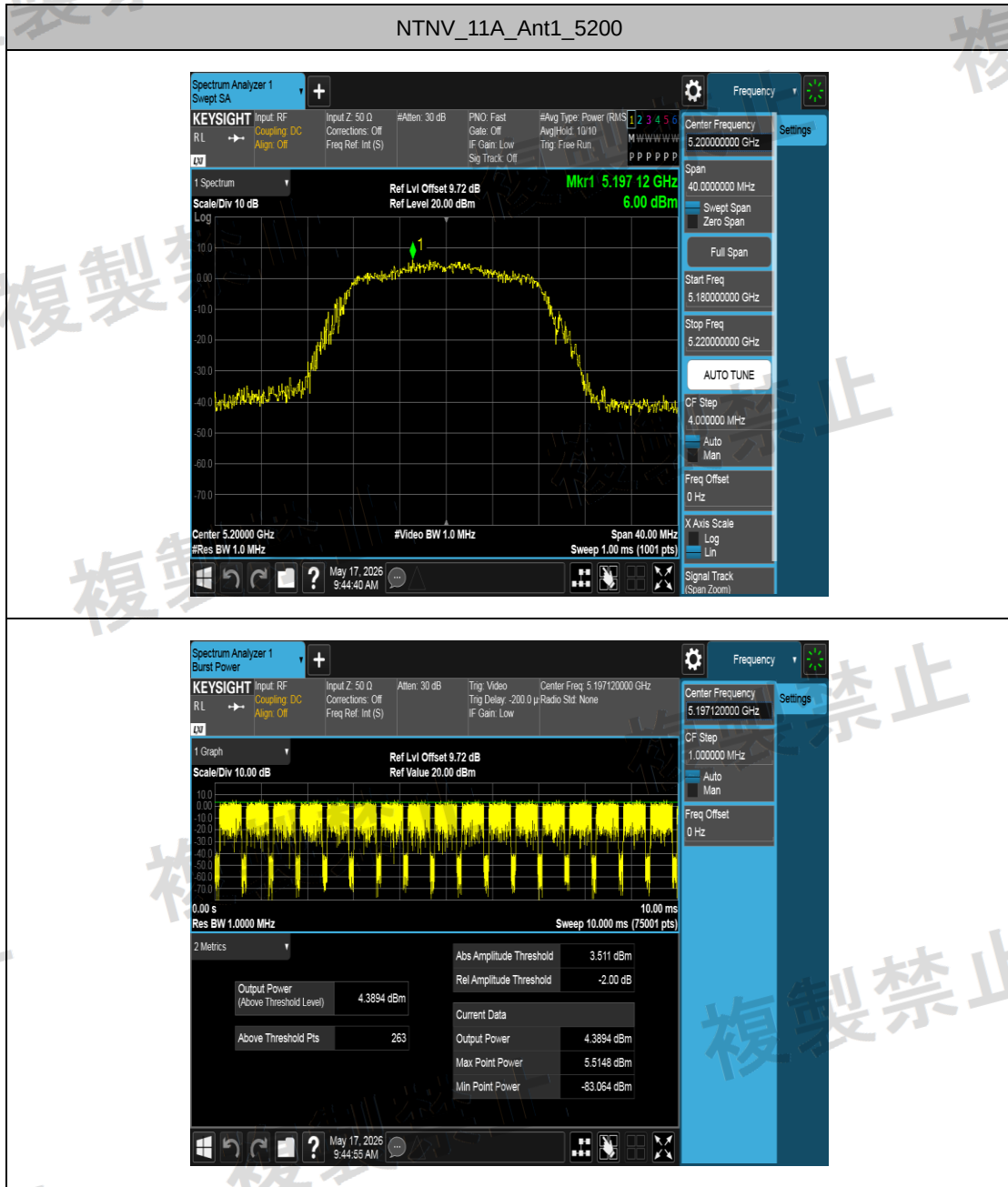
Frequency (MHz)	Antenna Power (dBm)	Antenna Power (mW/MHz)	Rated Power (mW/MHz)	Antenna Power Limit (mW/MHz)	Tolerance (%)	Antenna Gain (dBi)	EIRP (mW/MHz)	EIRP Limit(mW/MHz)	Tolerance Limit
5210	-2.01	0.63	1	≤ 2.5	-37.05	3.31	1.35	≤ 2.5	-80% ~ +20%
5290	-3.68	0.43	1	≤ 2.5	-57.15	3.31	0.92	≤ 1.25	-80% ~ +20%
5530	-1.19	0.76	1	≤ 2.5	-23.97	3.31	1.63	≤ 6.25	-50% ~ +50%
5610	0.07	1.02	1		1.62	3.31	2.18		
5690	-0.46	0.90	1		-10.05	3.31	1.93		

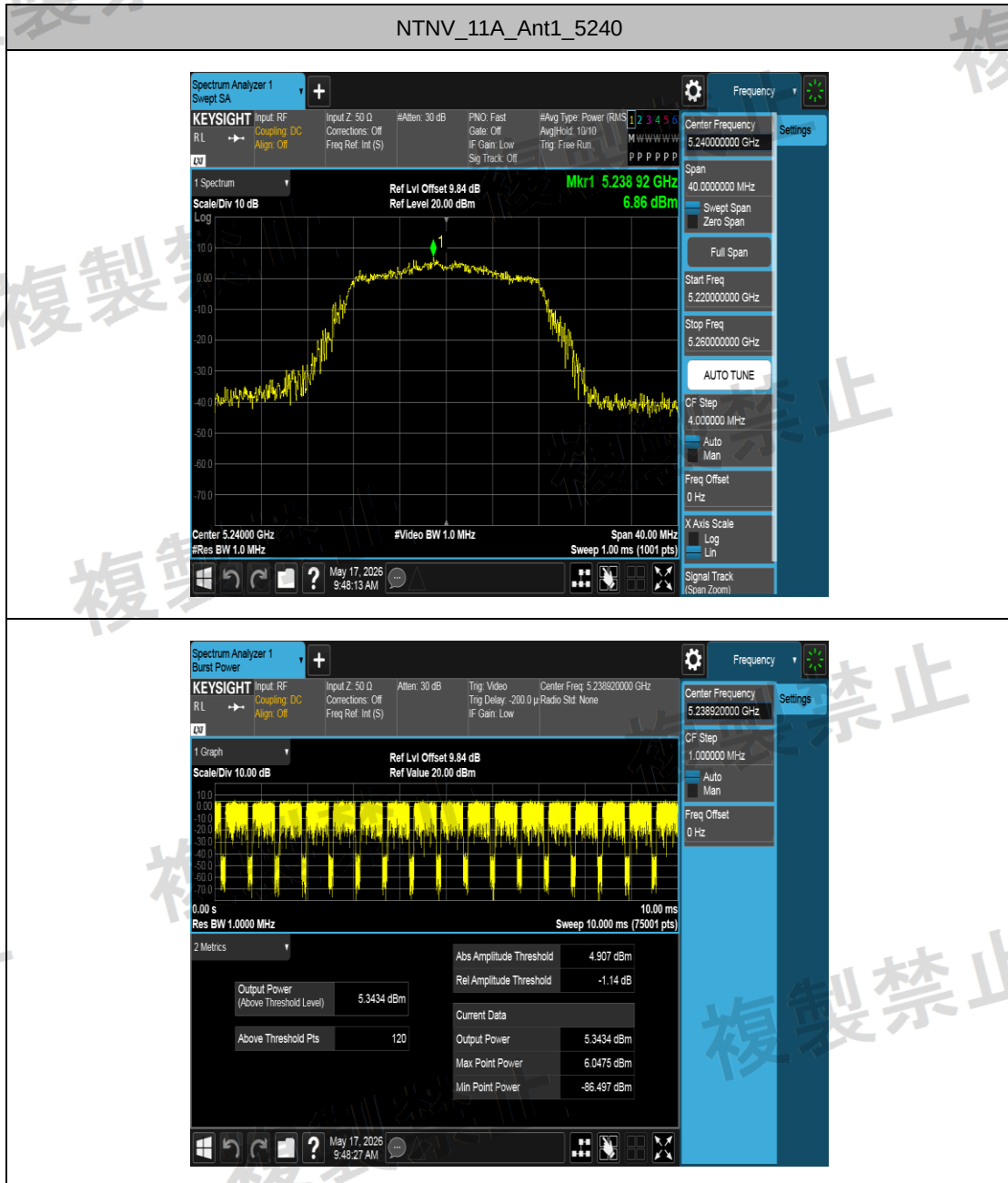
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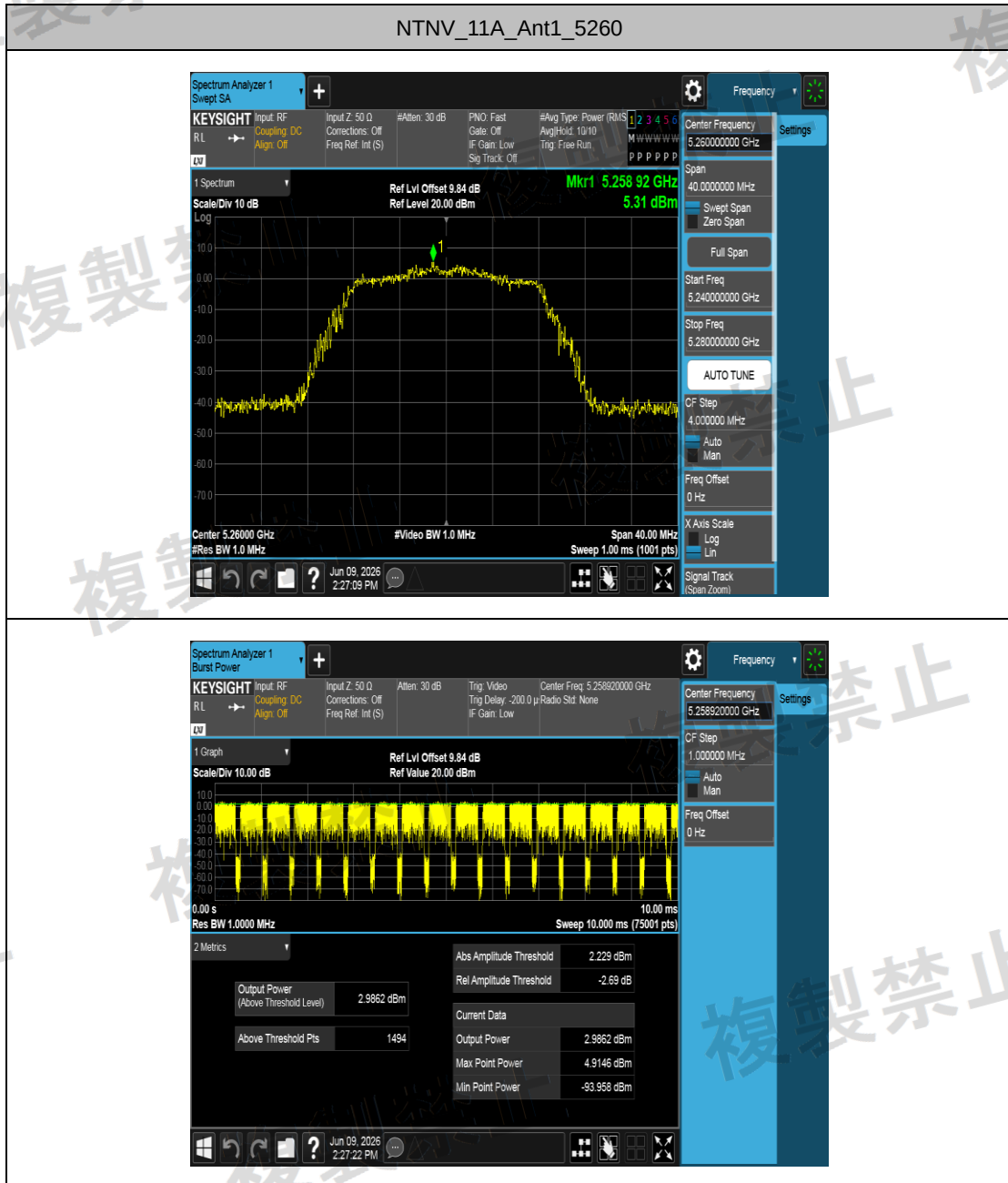
1. The Rated power is 1 mW/MHz, which is declared by manufacturer.
2. Tolerance(%)=(Antenna Power-Rated Power)/Rated Power) x 100%.

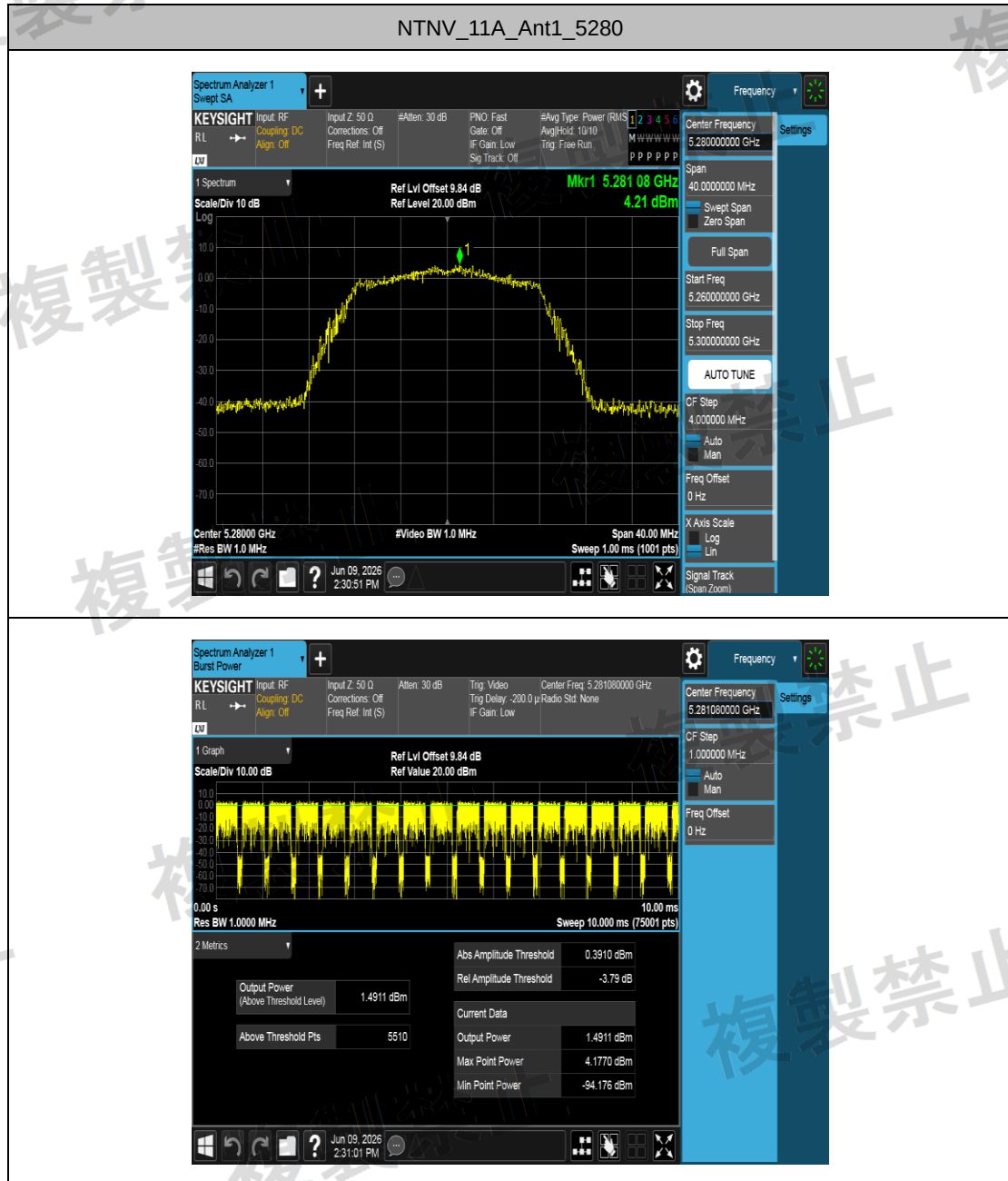
Test Plots:



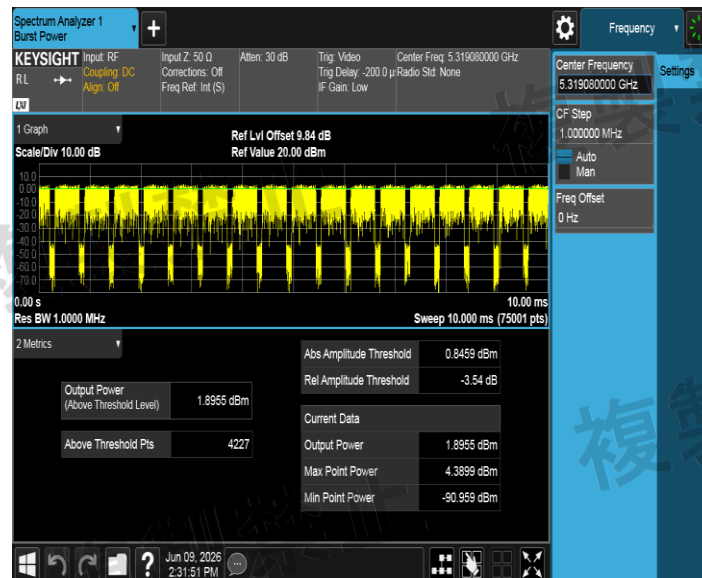
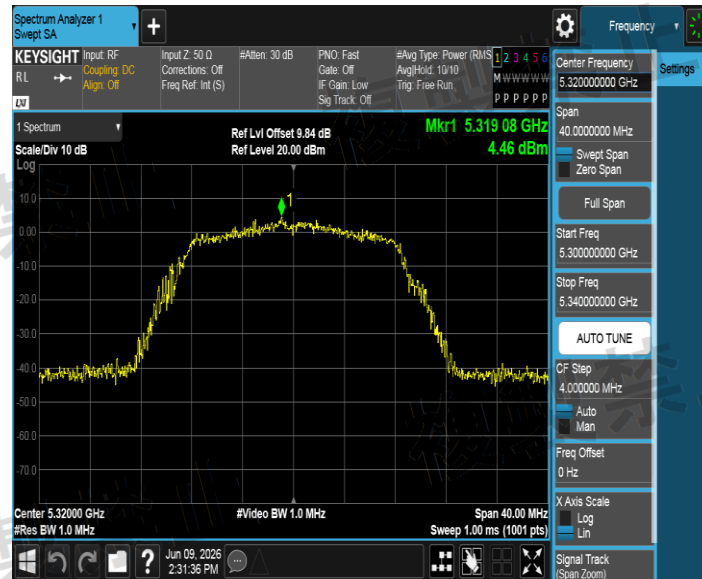


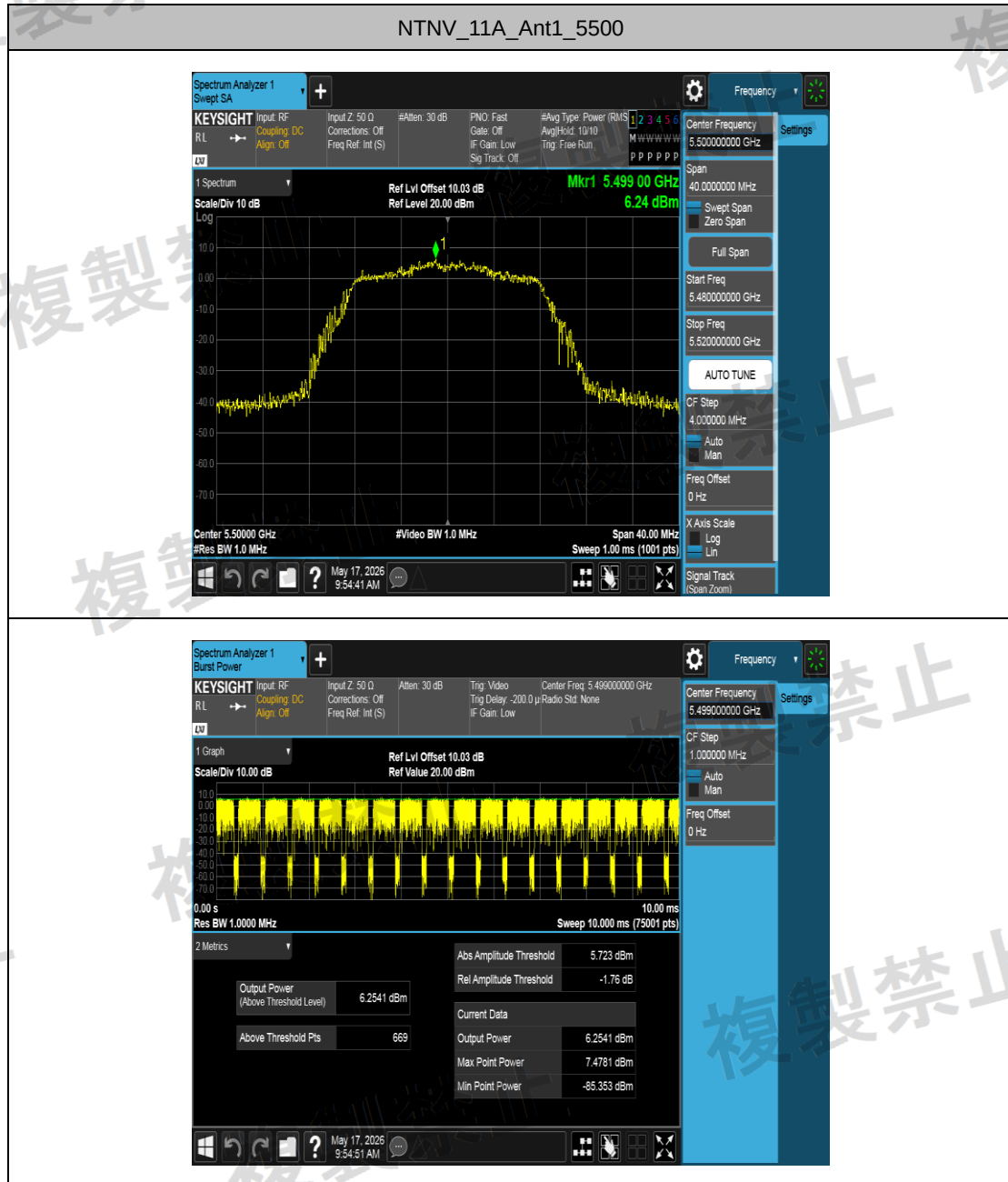


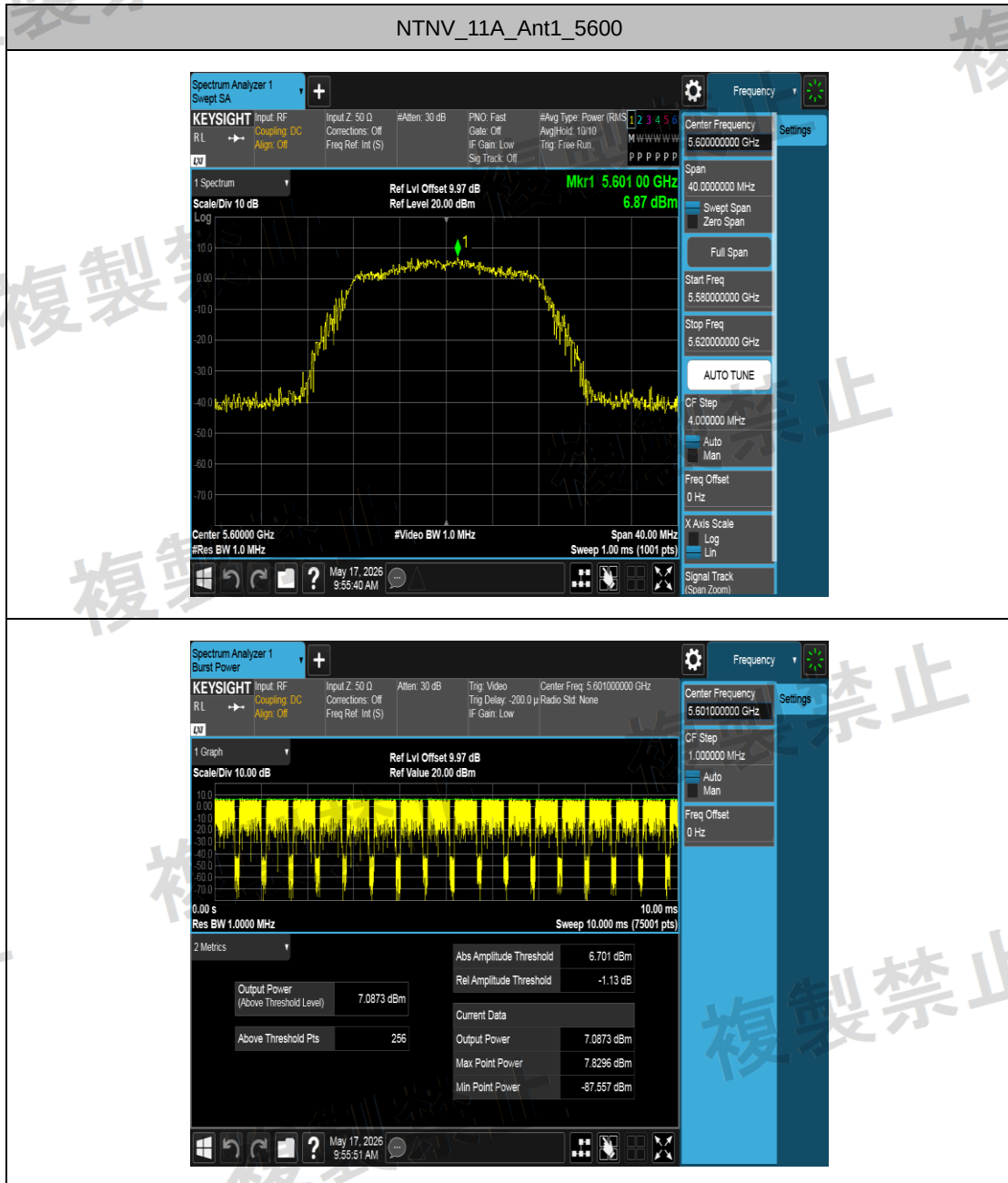


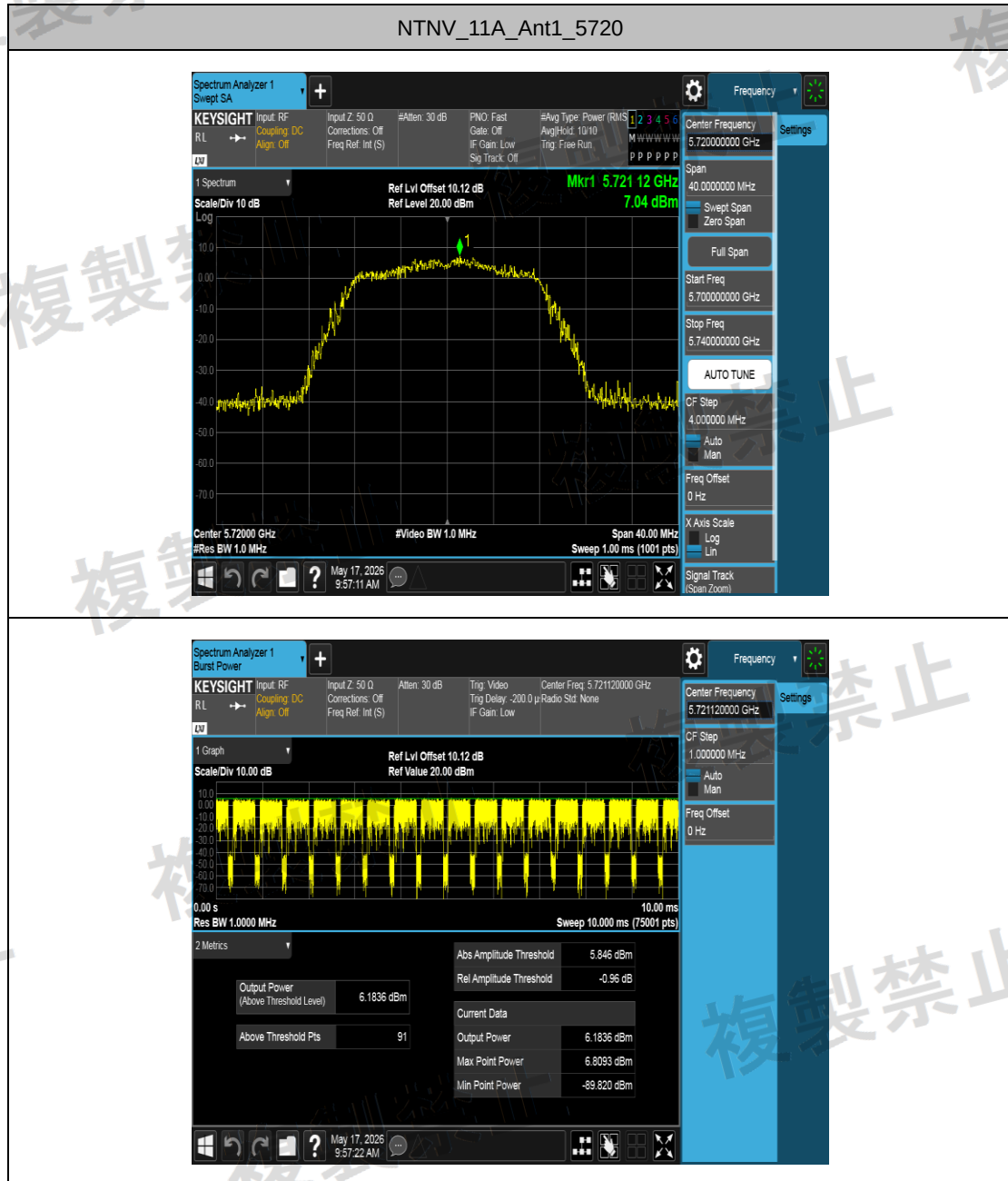


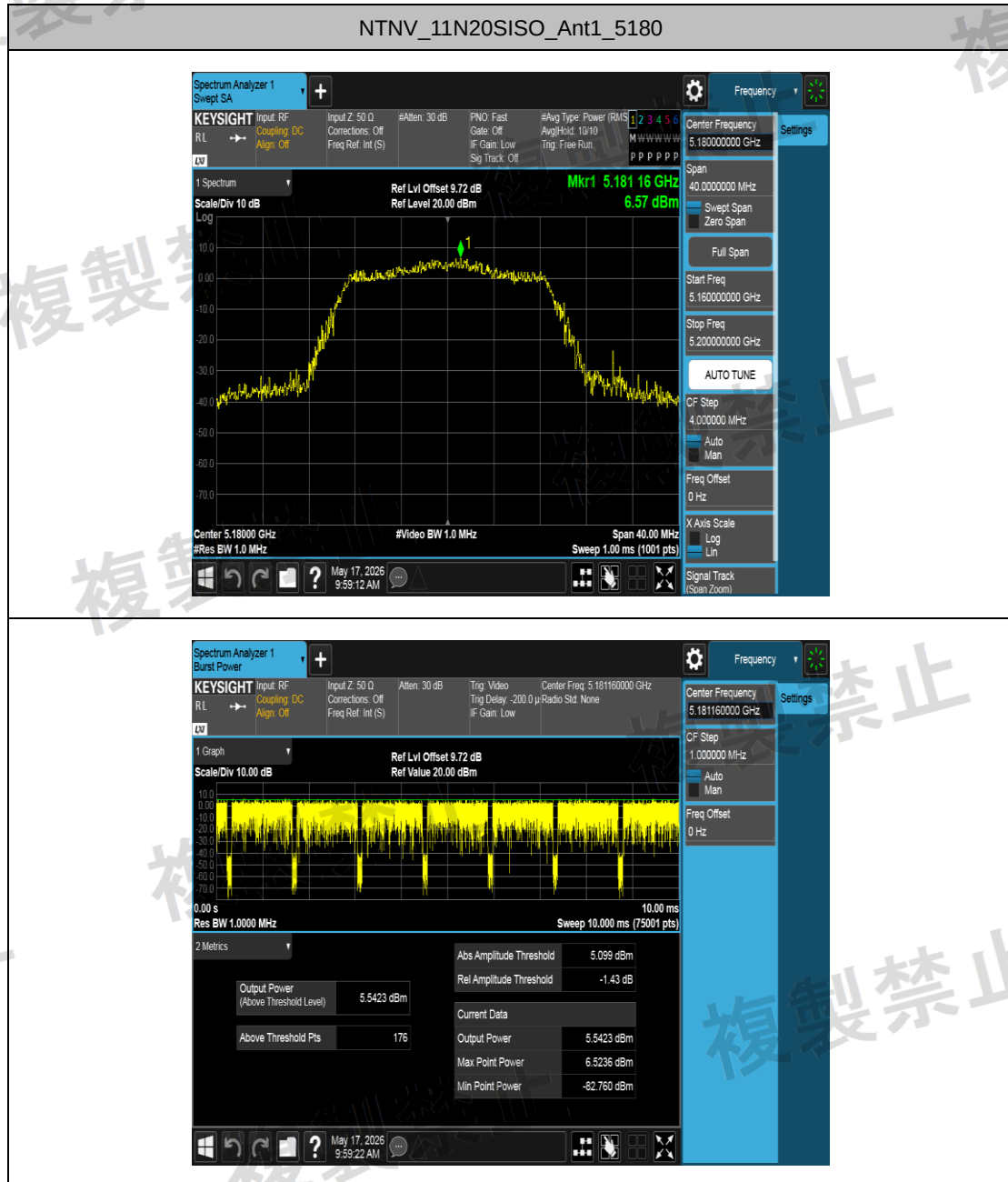
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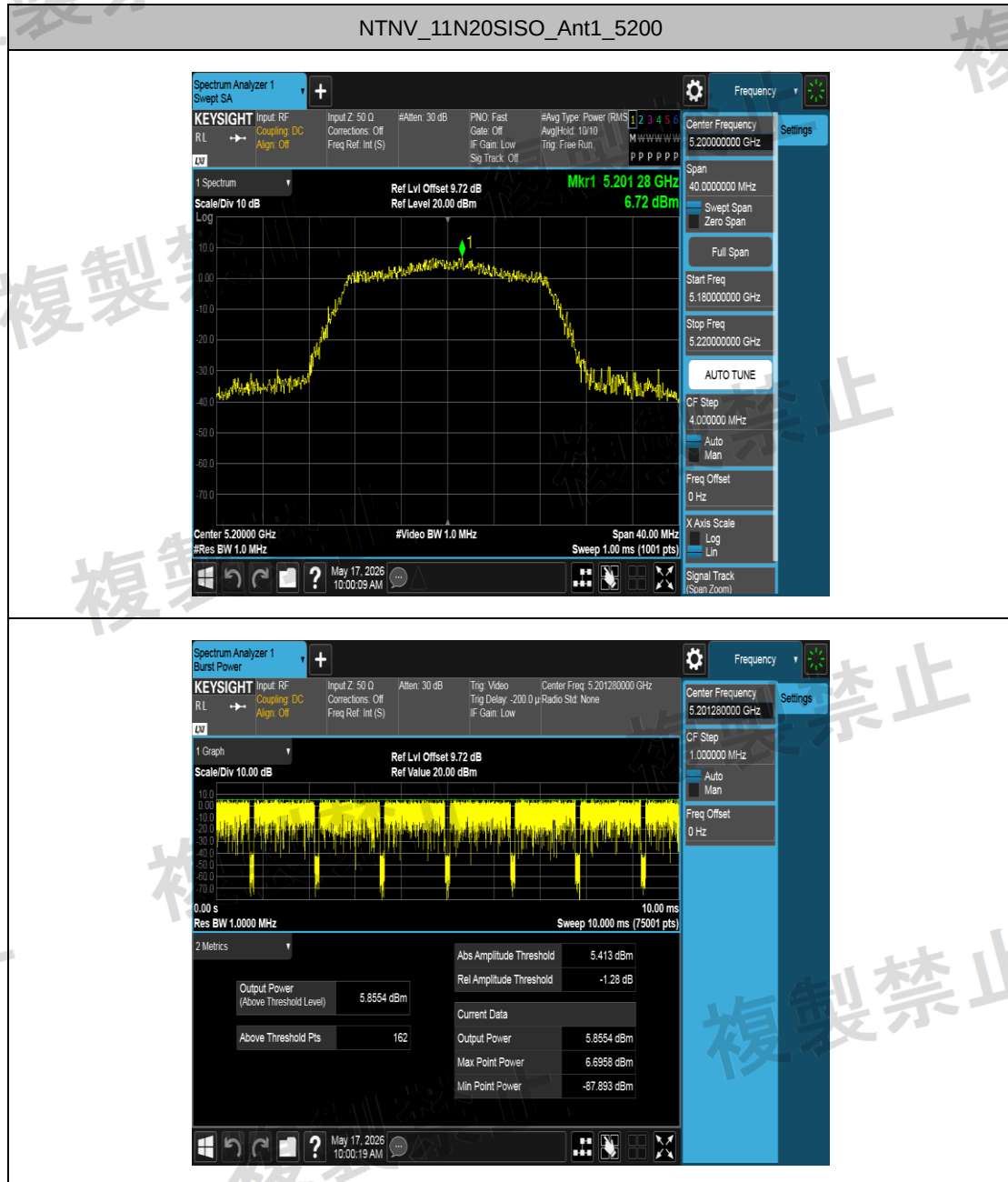




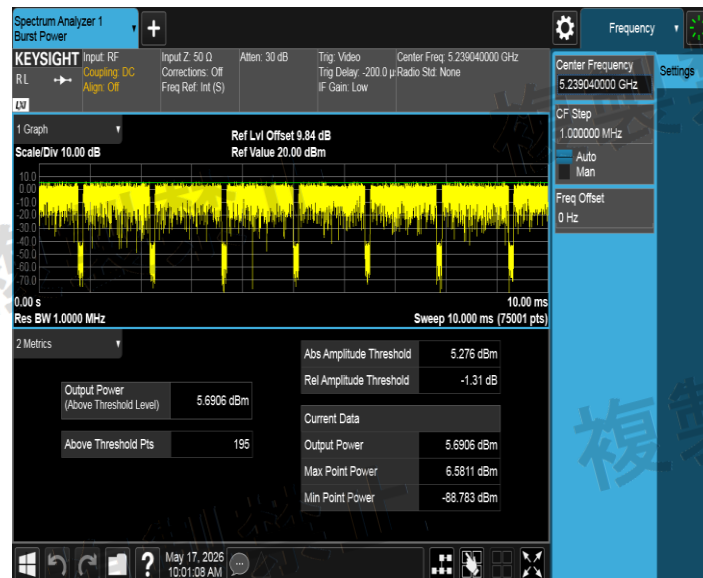
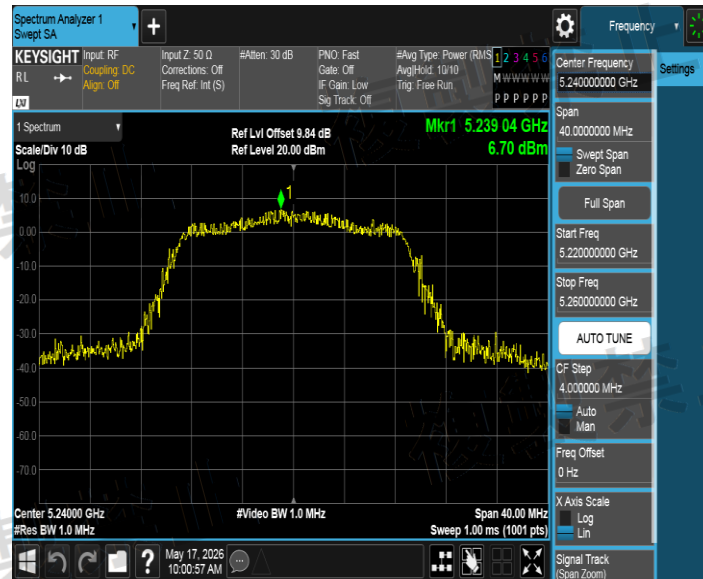








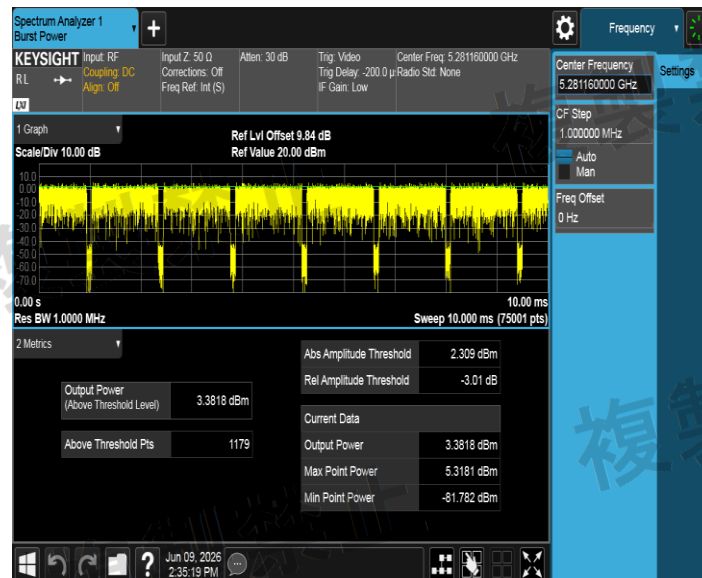
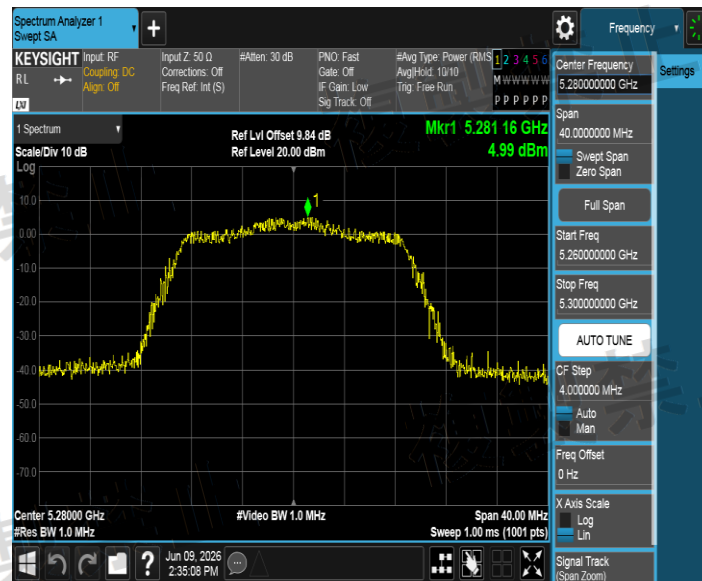
NTNV_11N20SISO_Ant1_5240



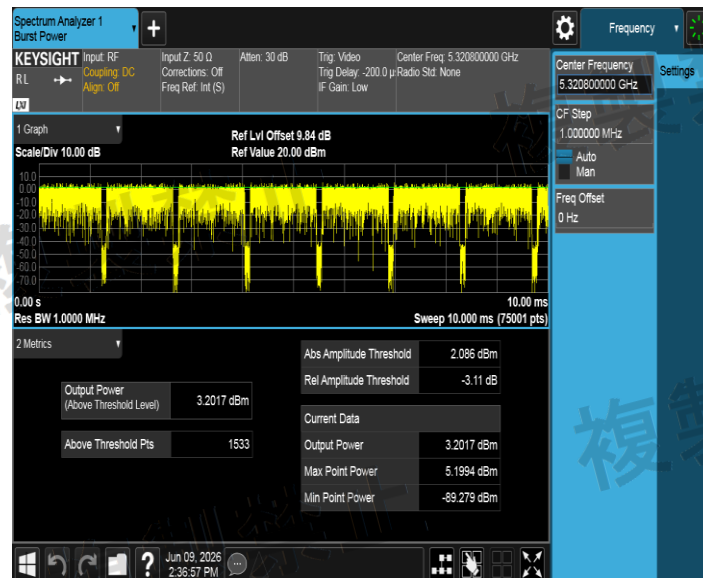
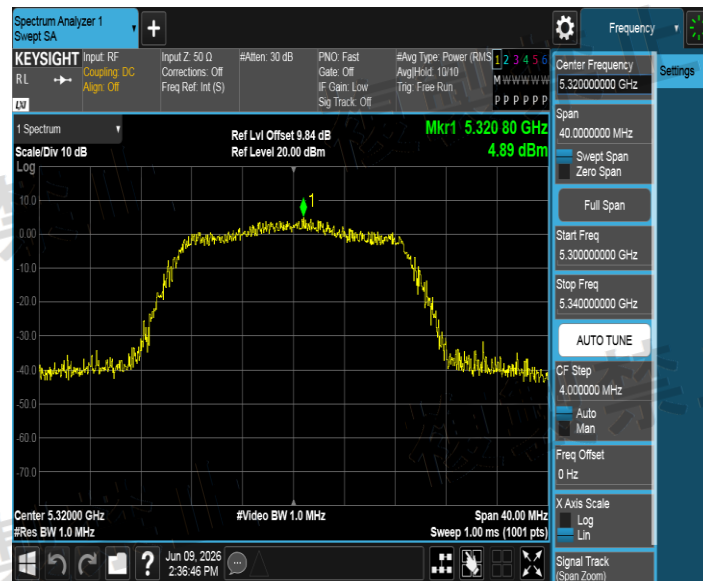
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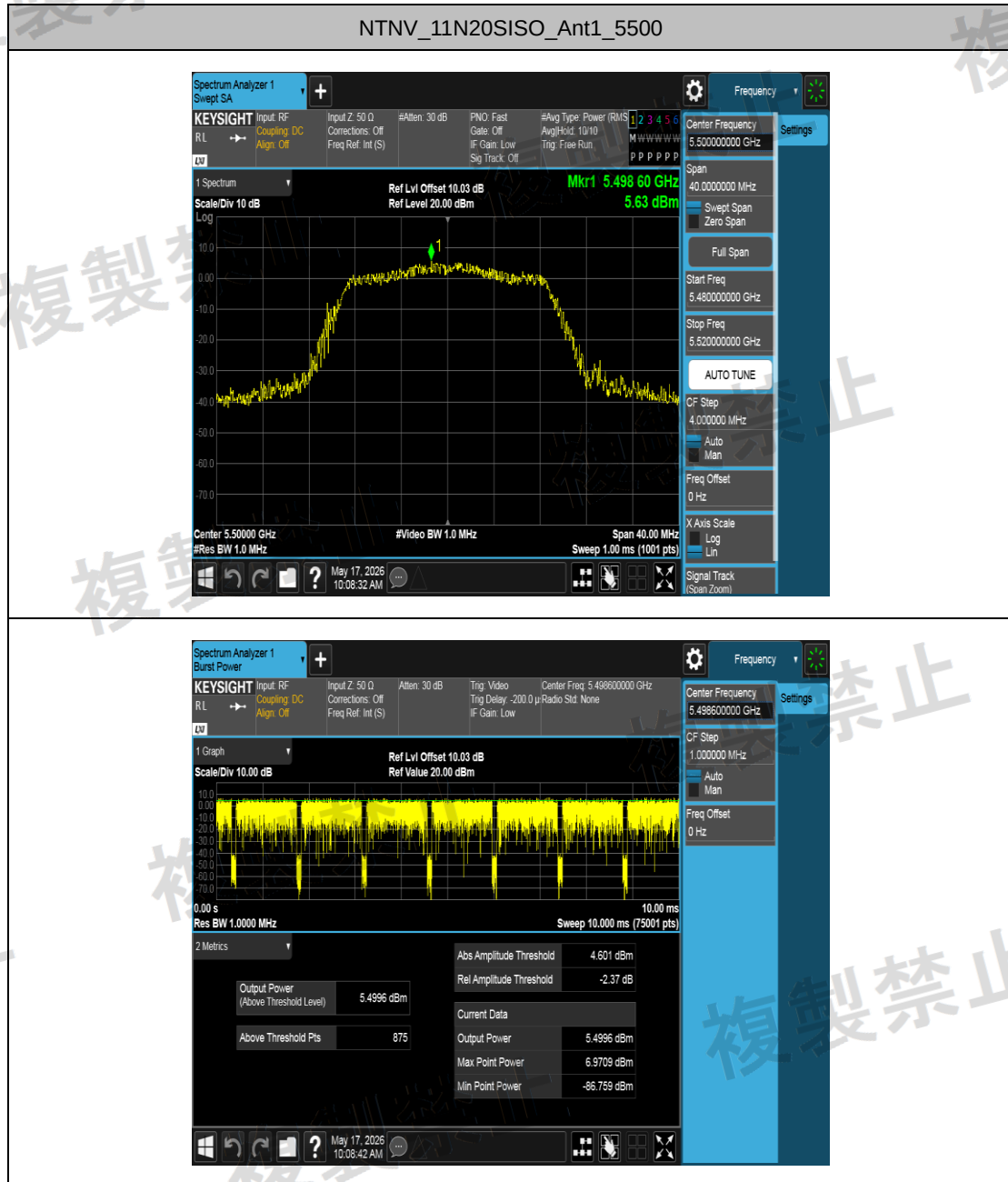


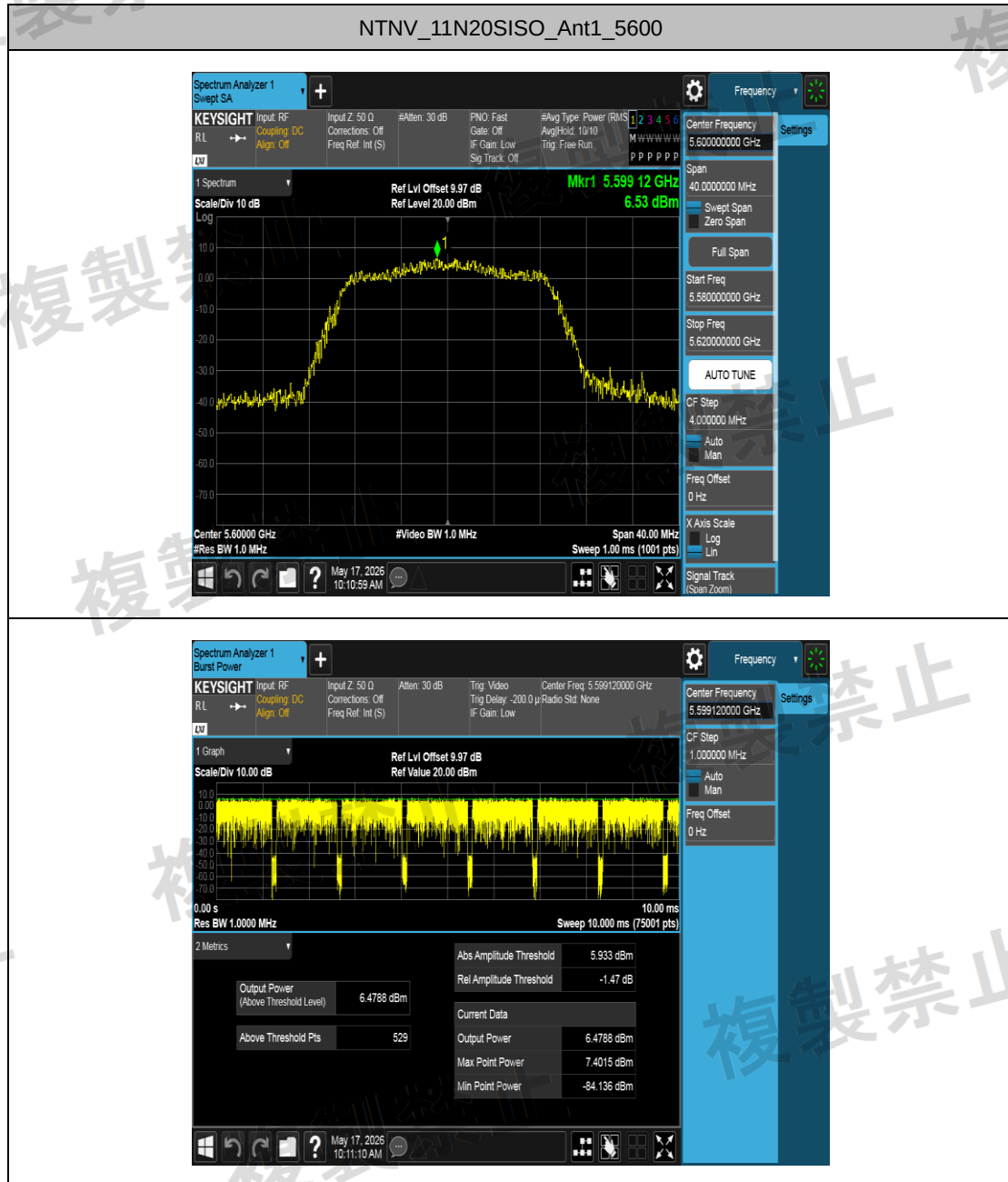
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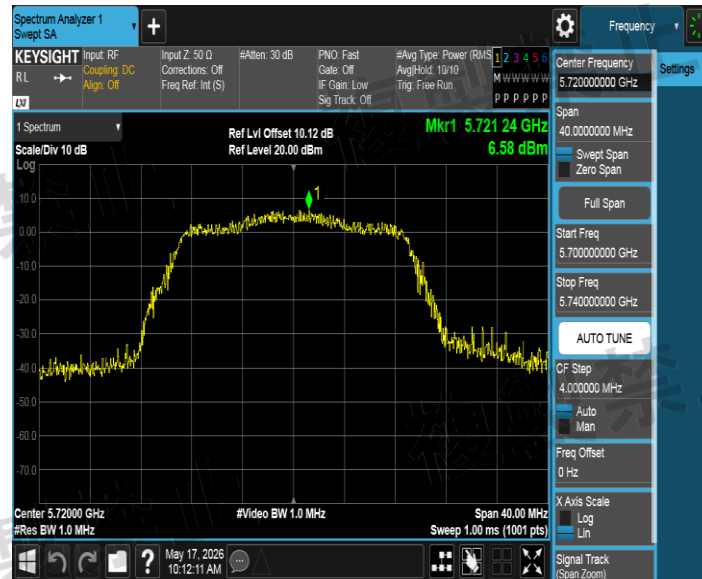
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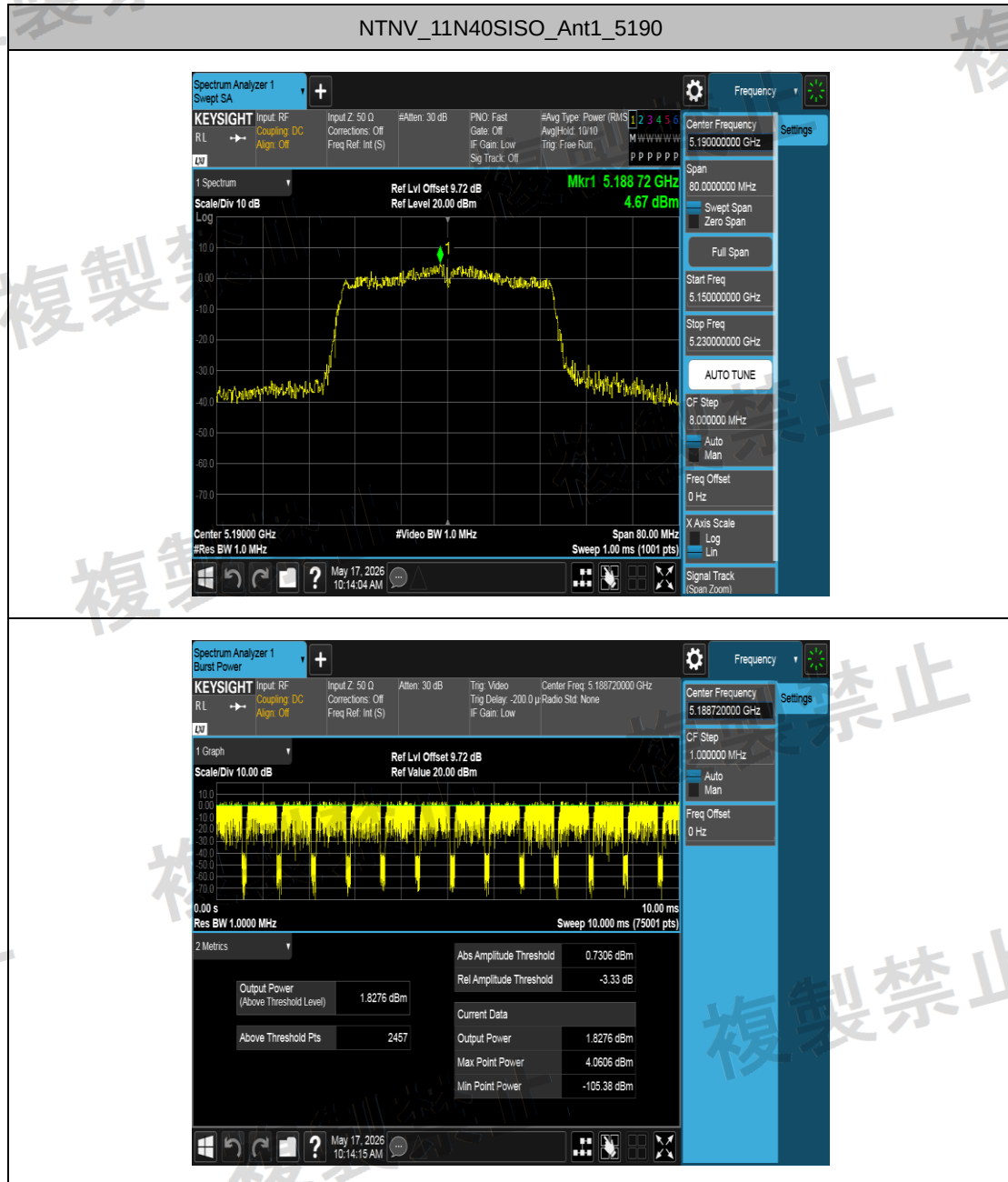




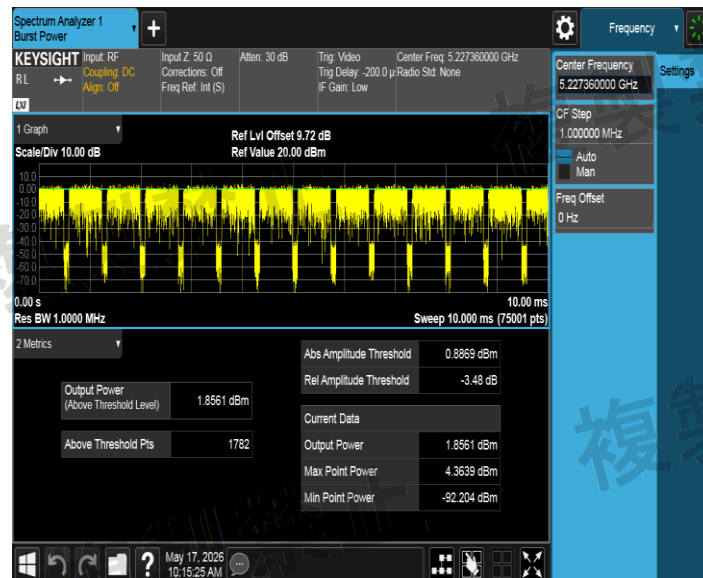
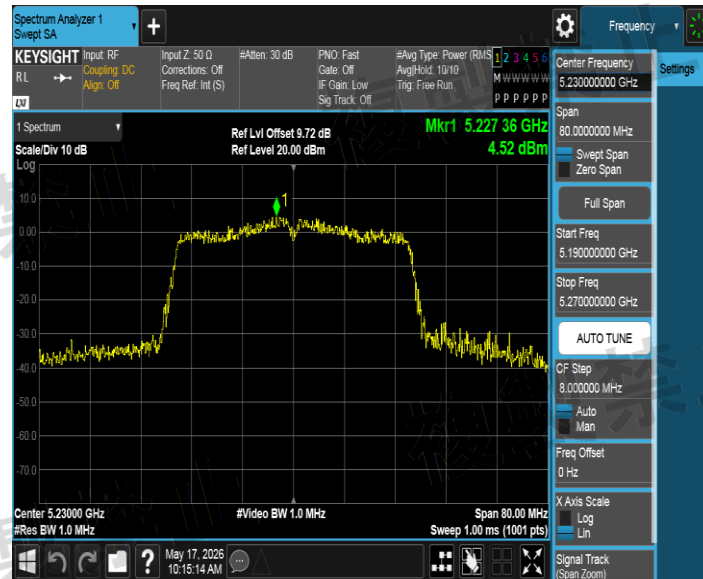


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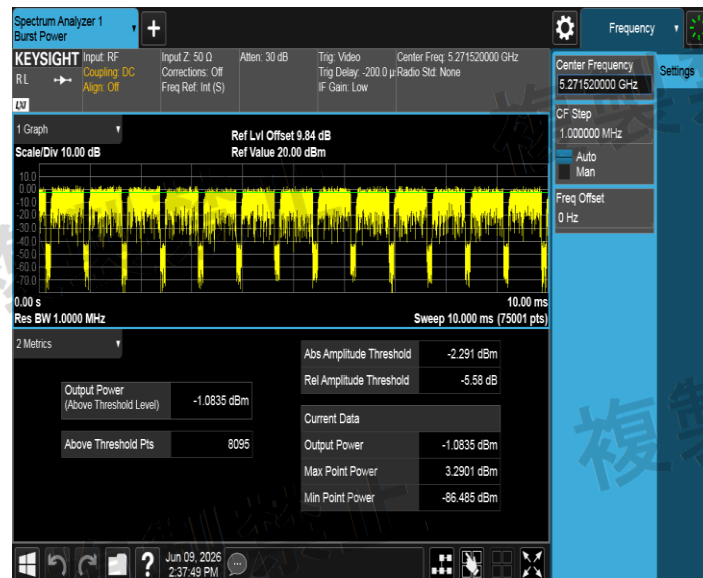
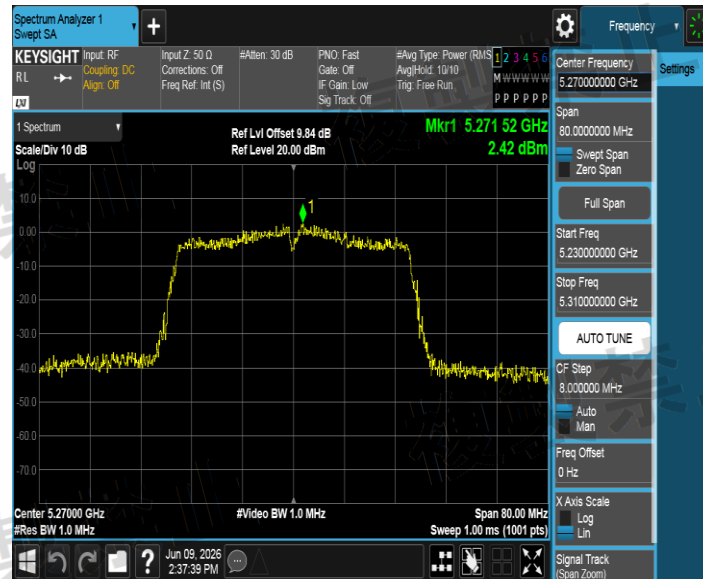


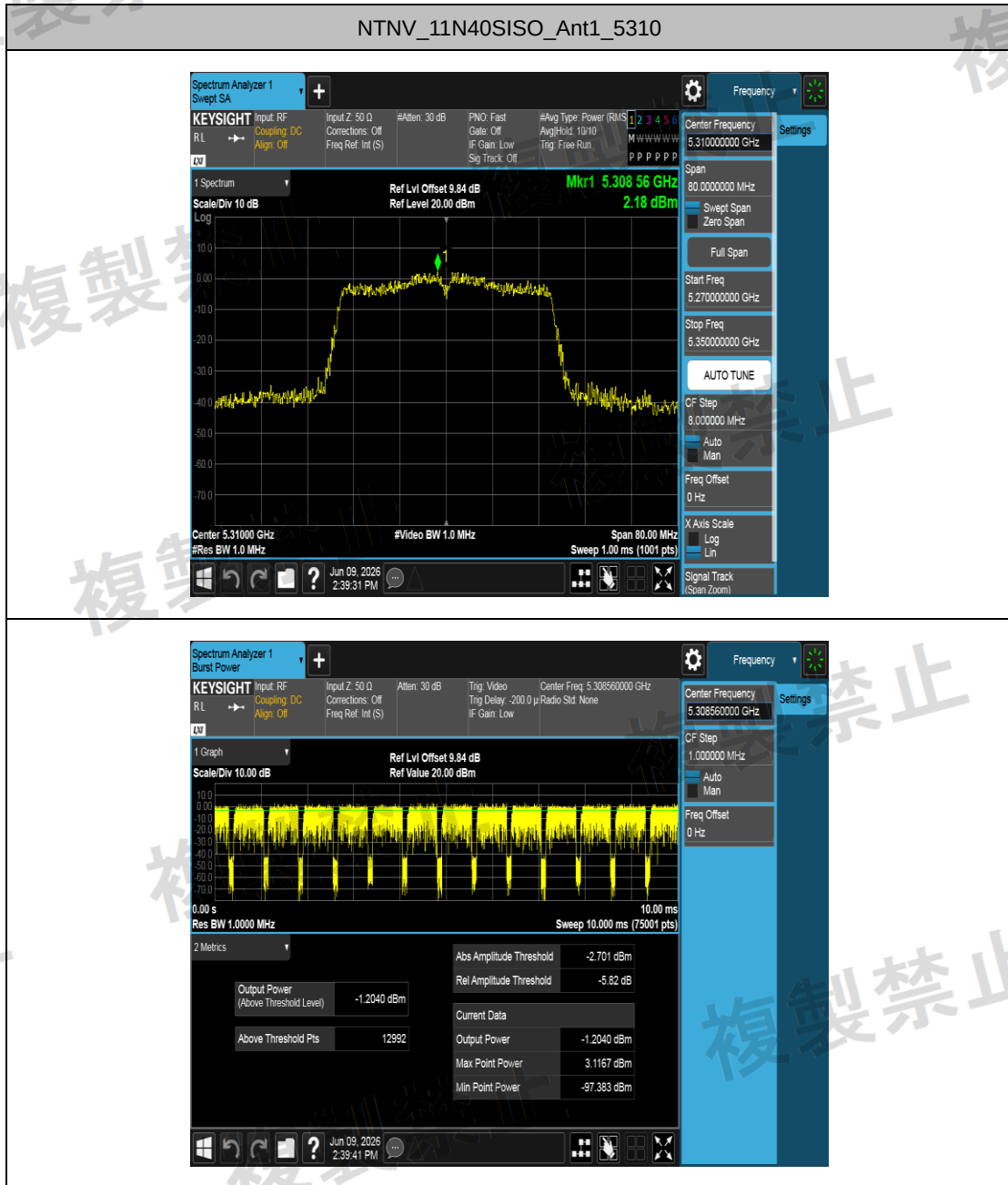


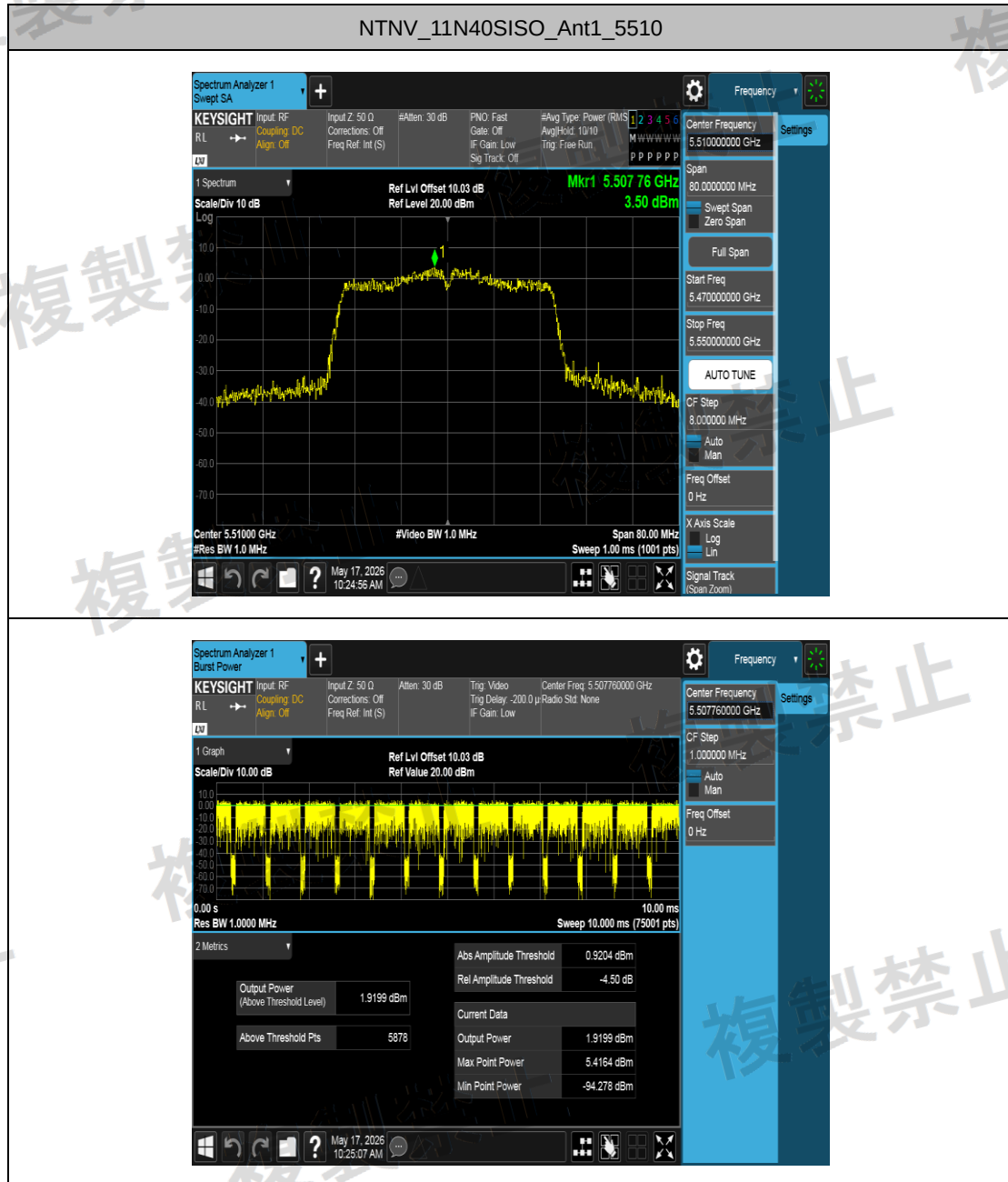
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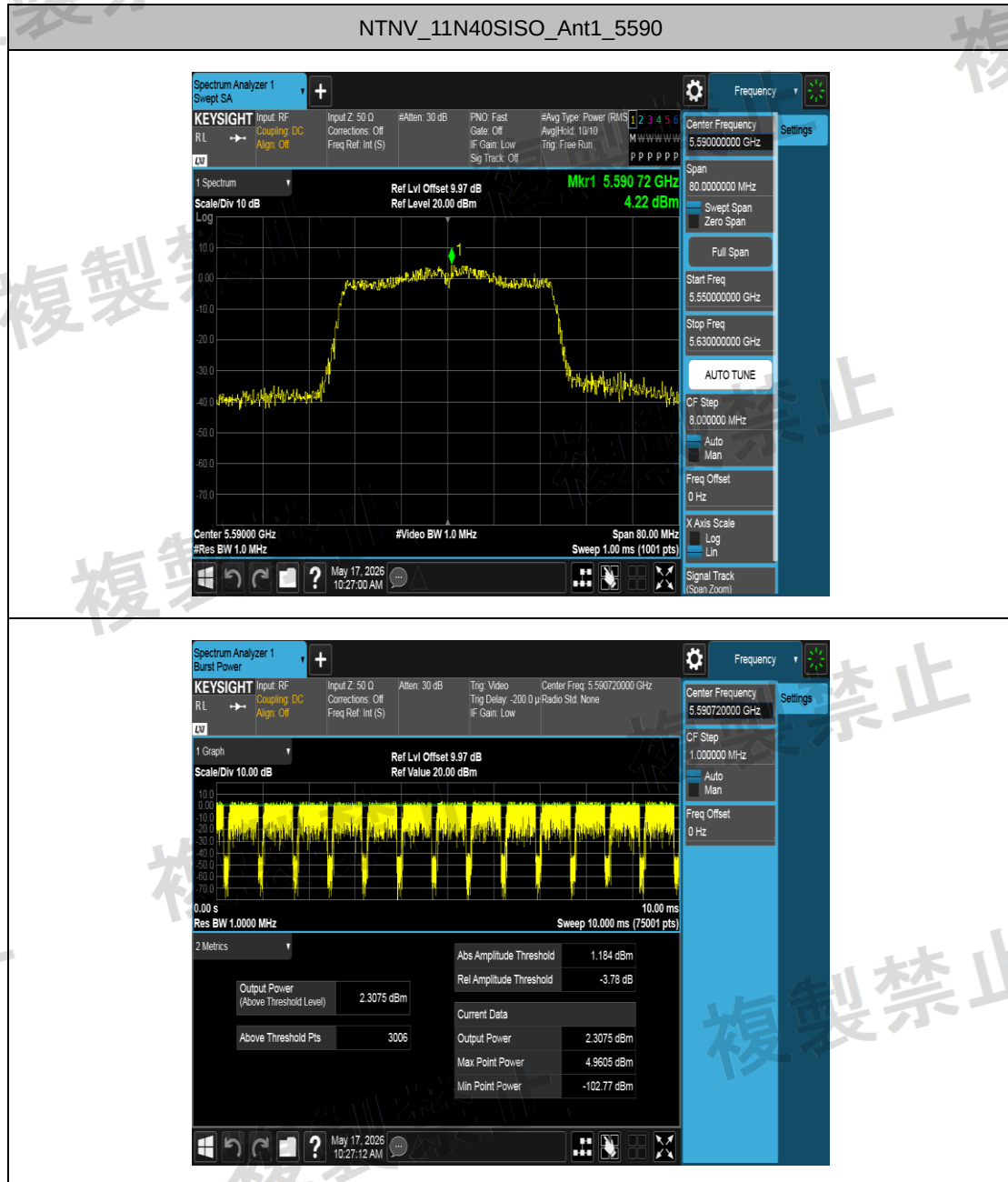


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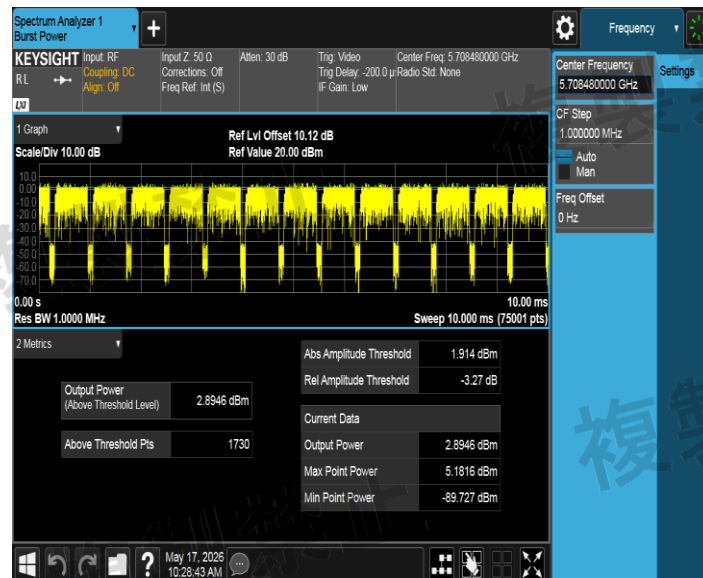
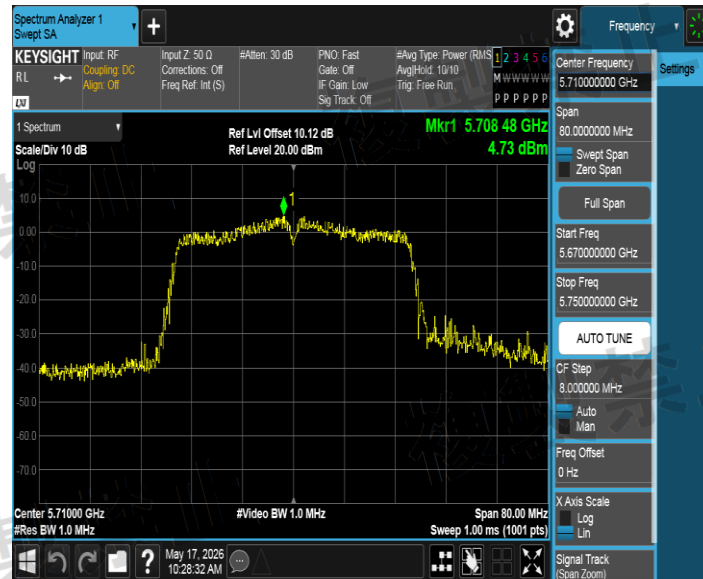




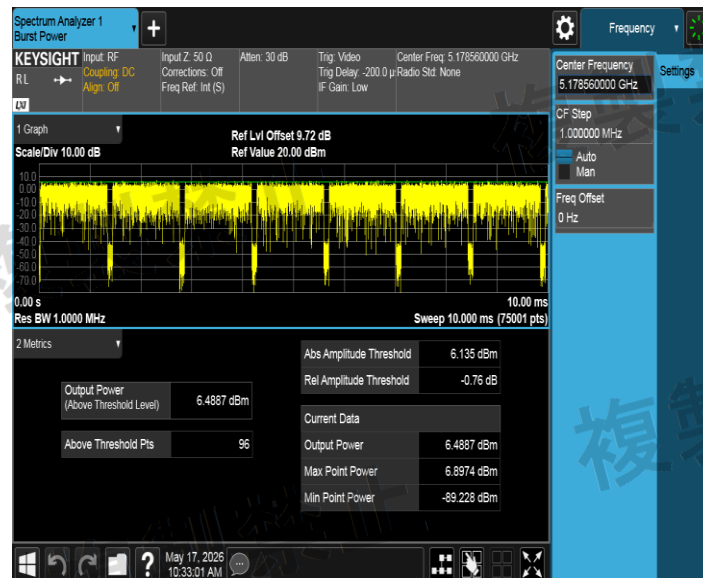
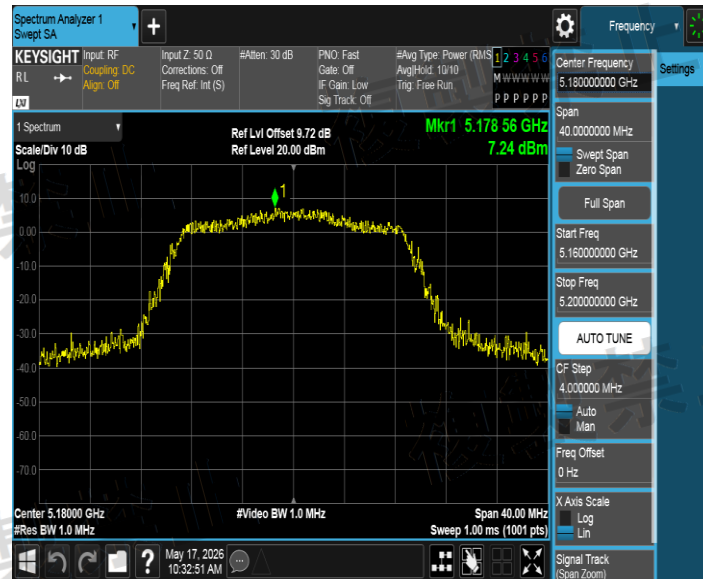




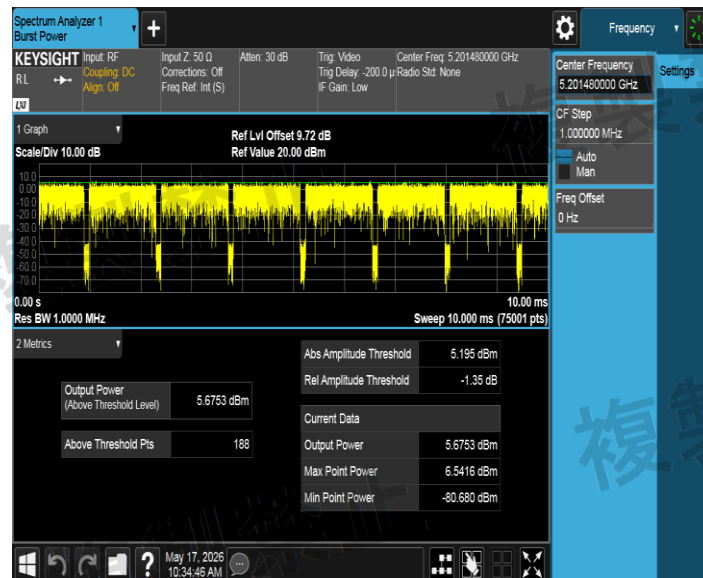
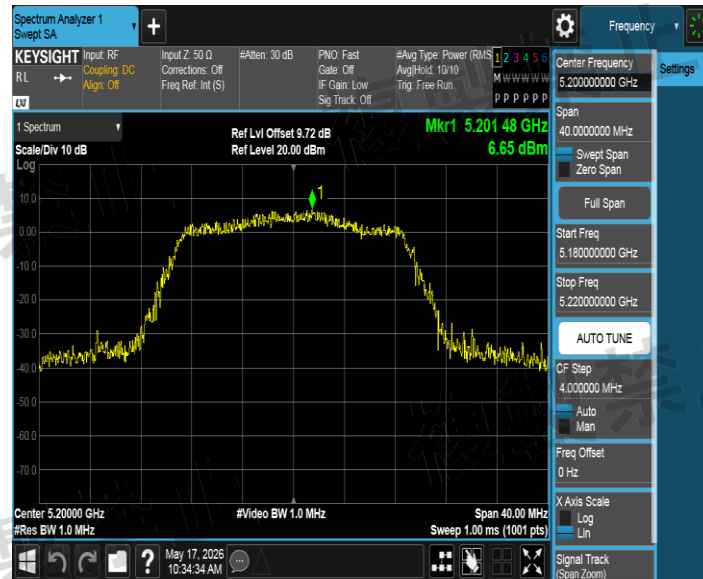
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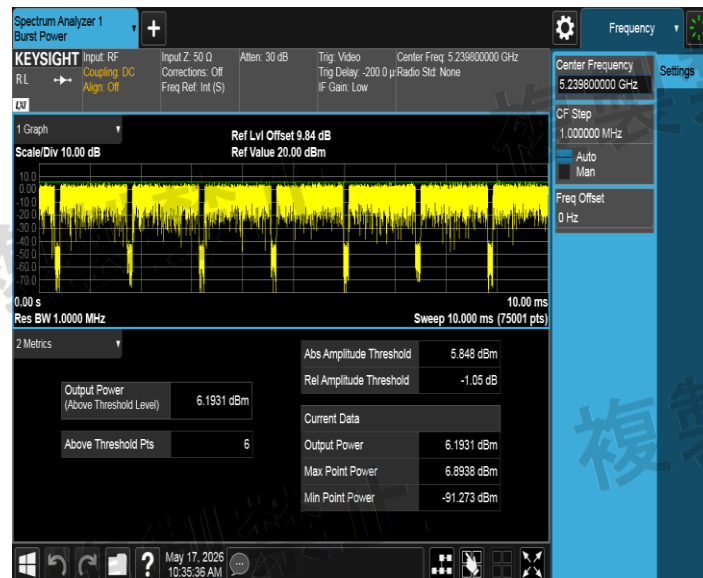
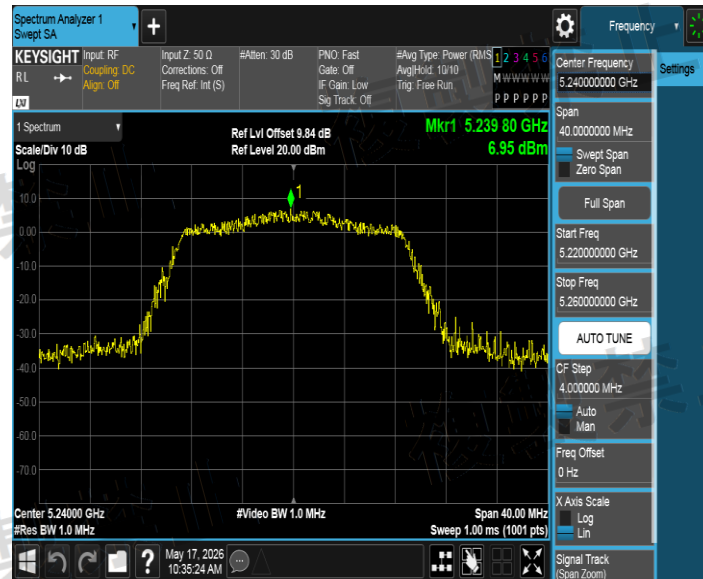
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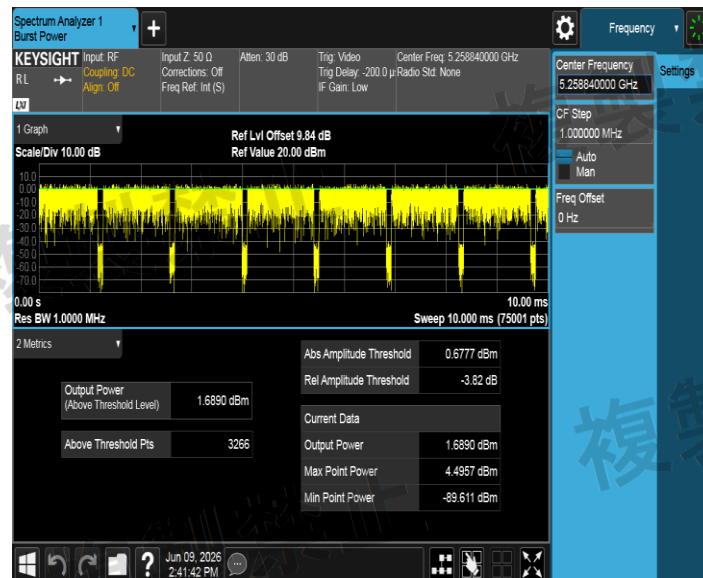
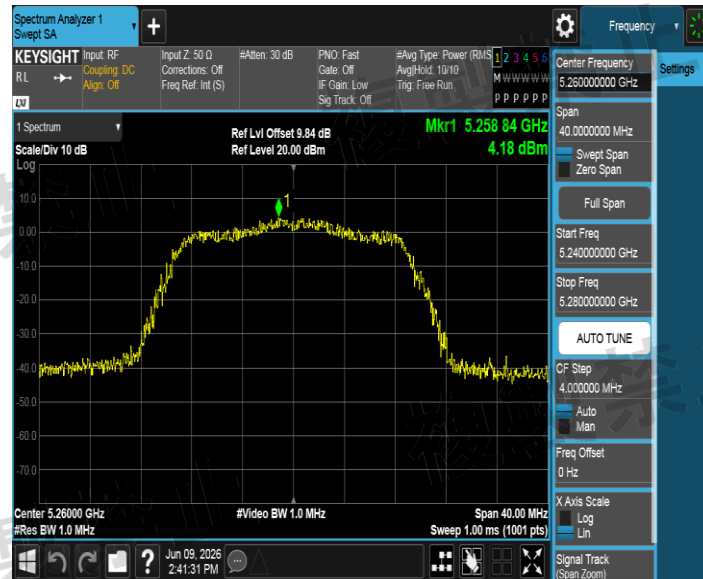
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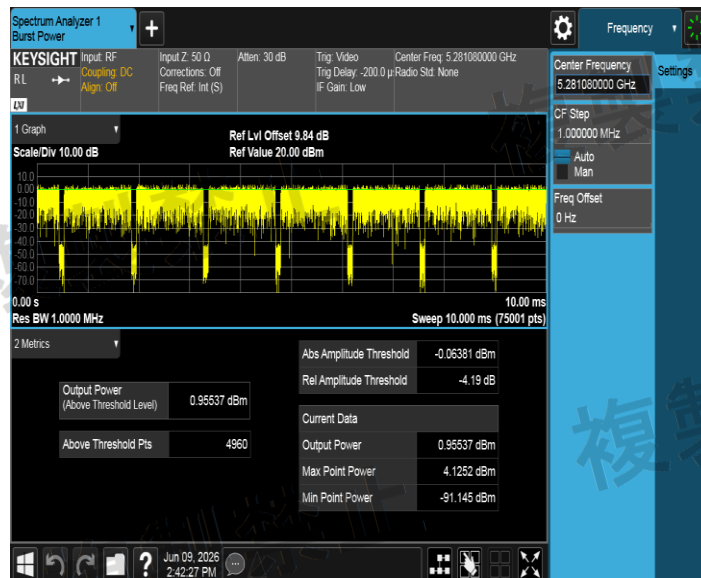
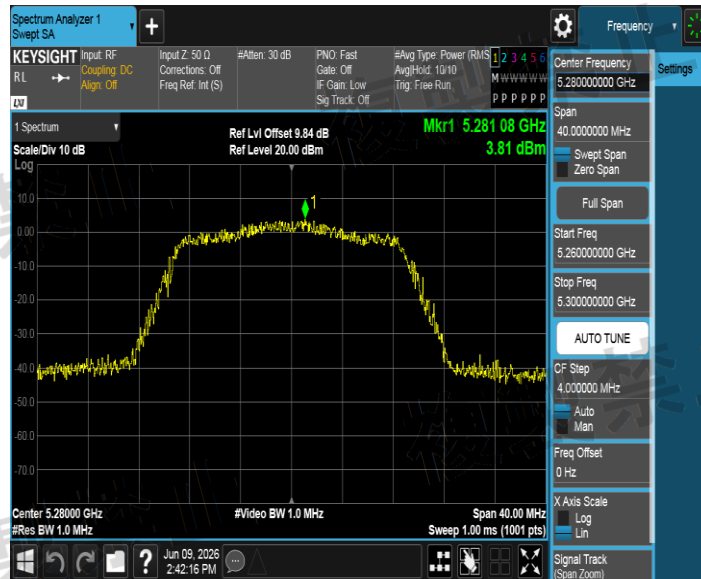
NTNV_11AC20SISO_Ant1_5240



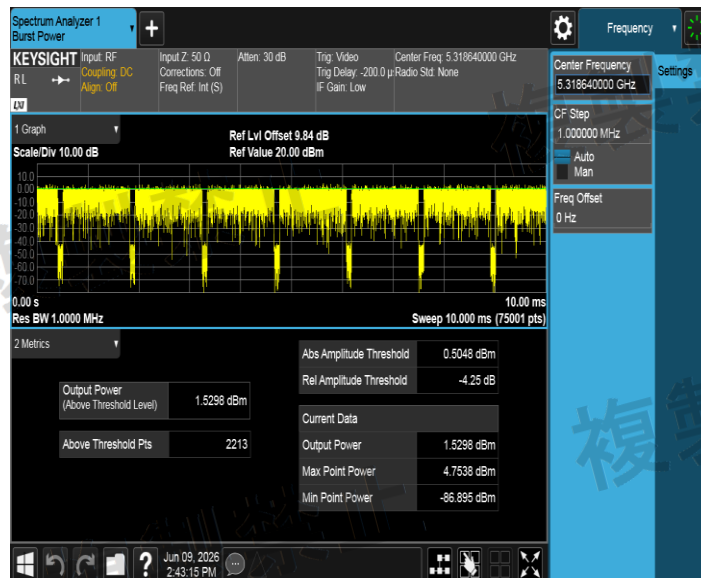
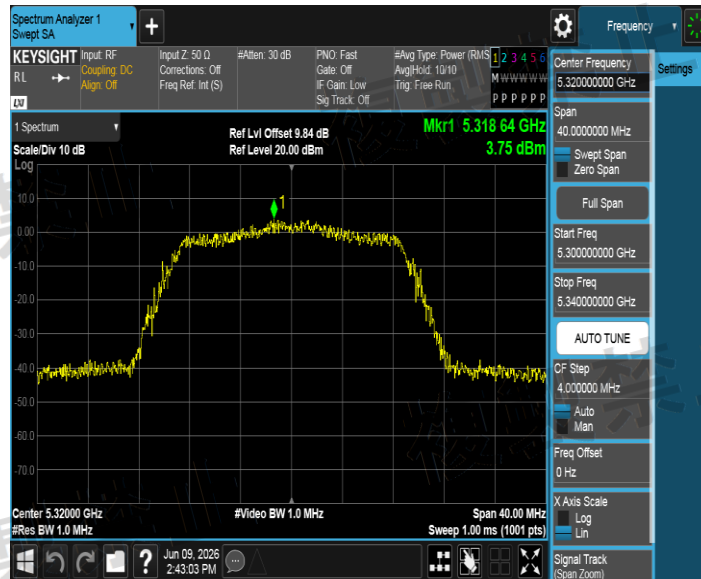
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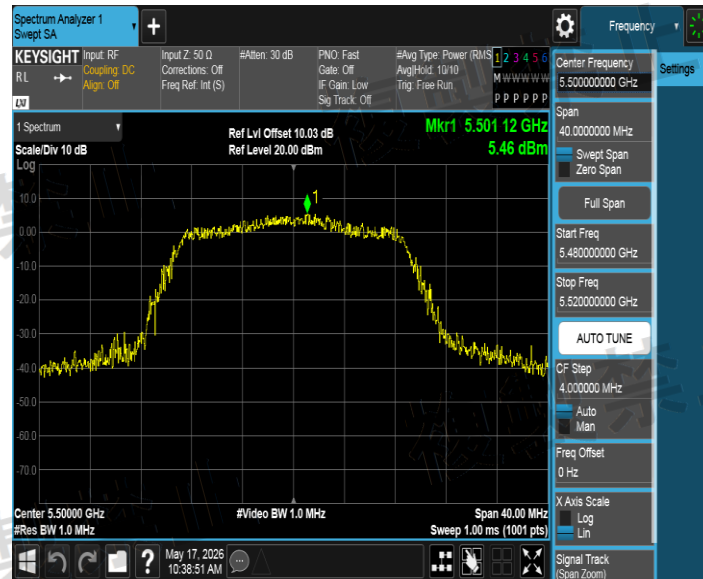
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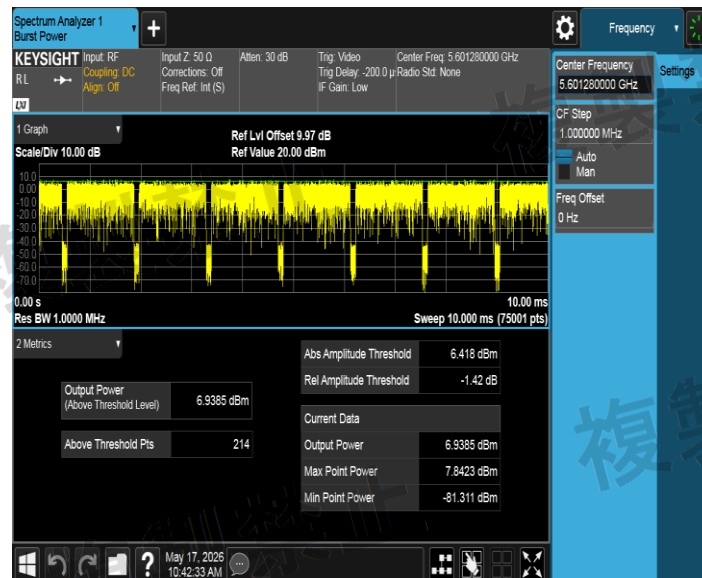
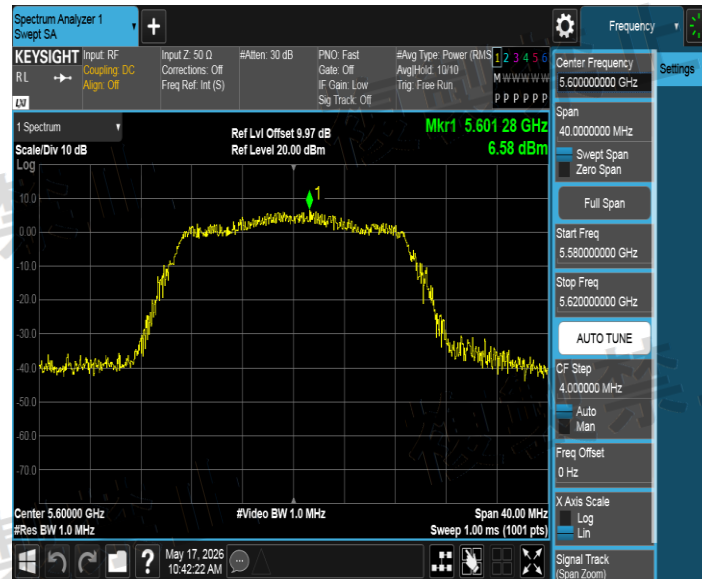
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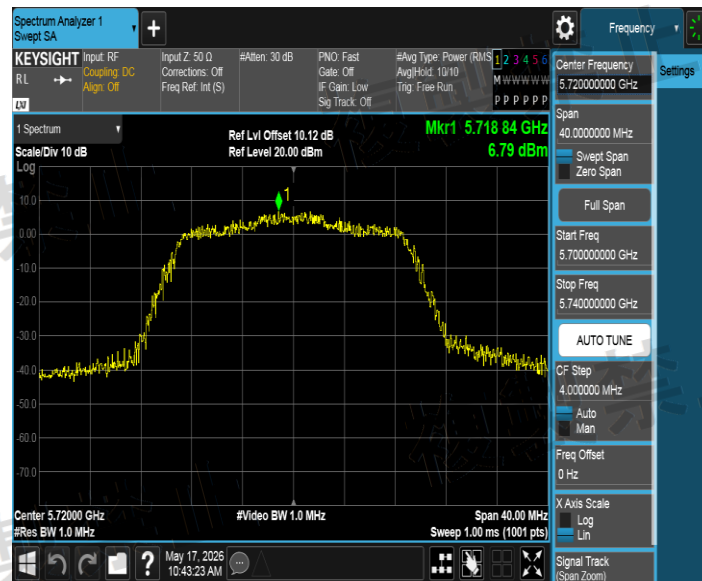
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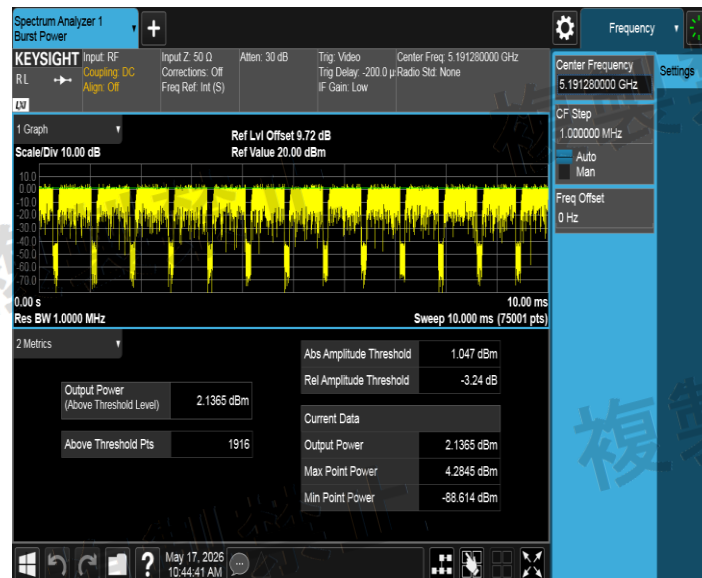
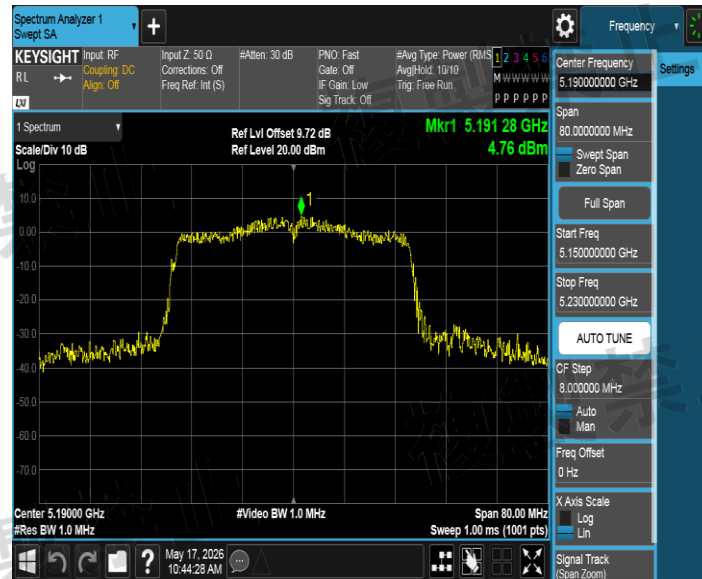
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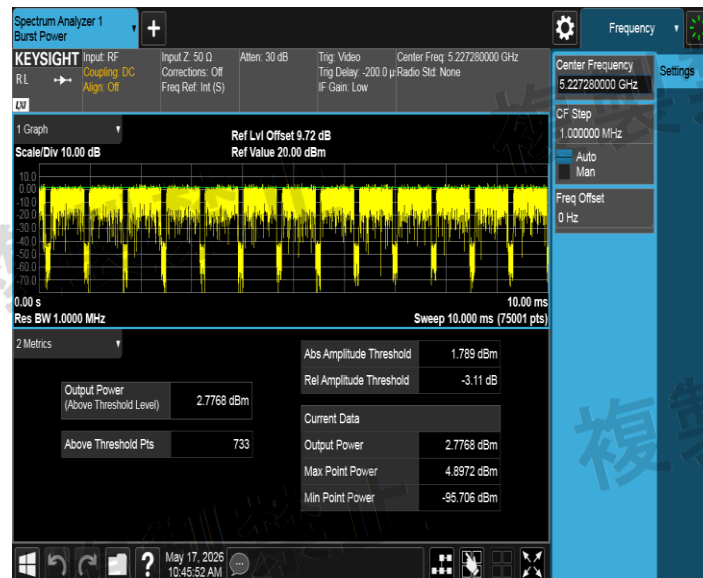
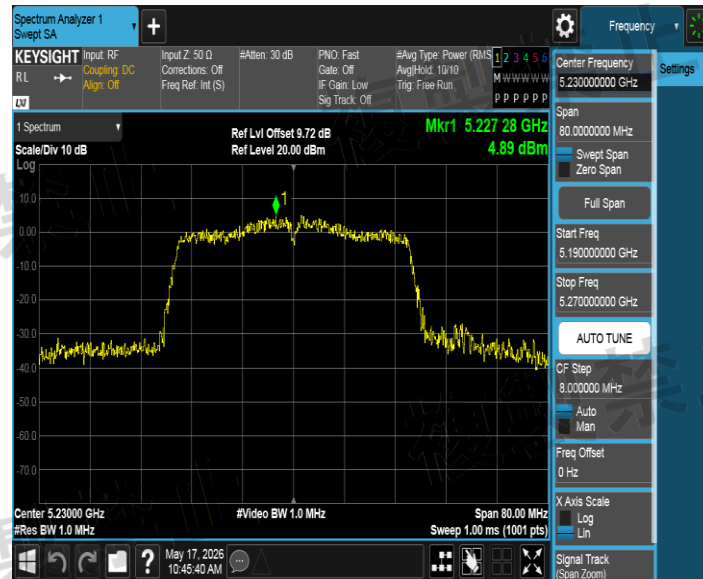
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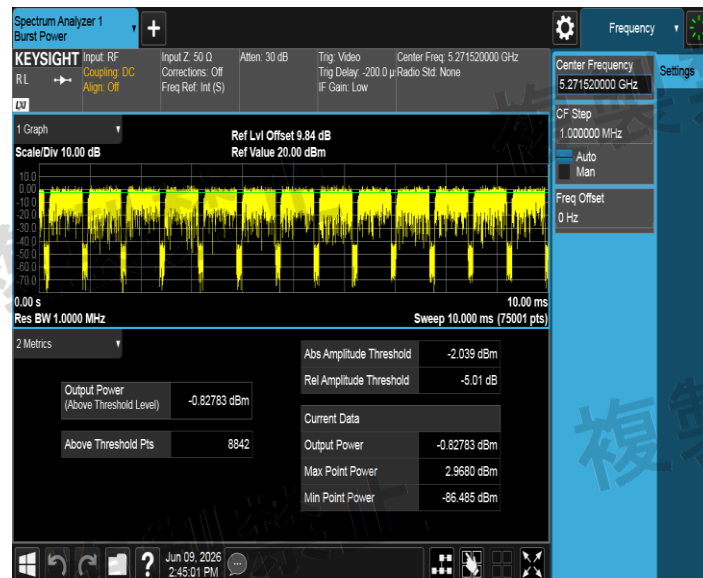
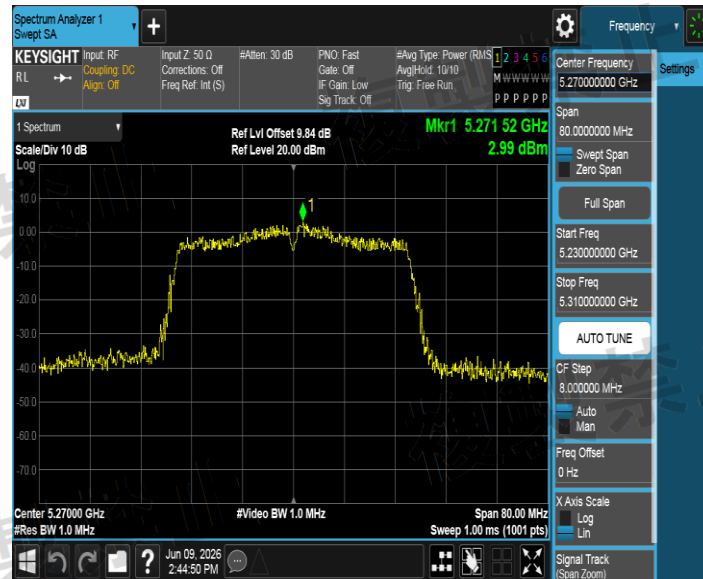
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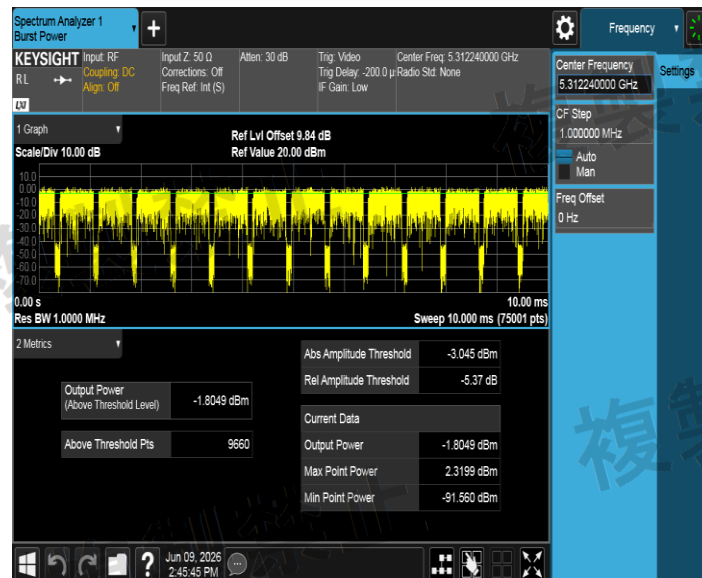
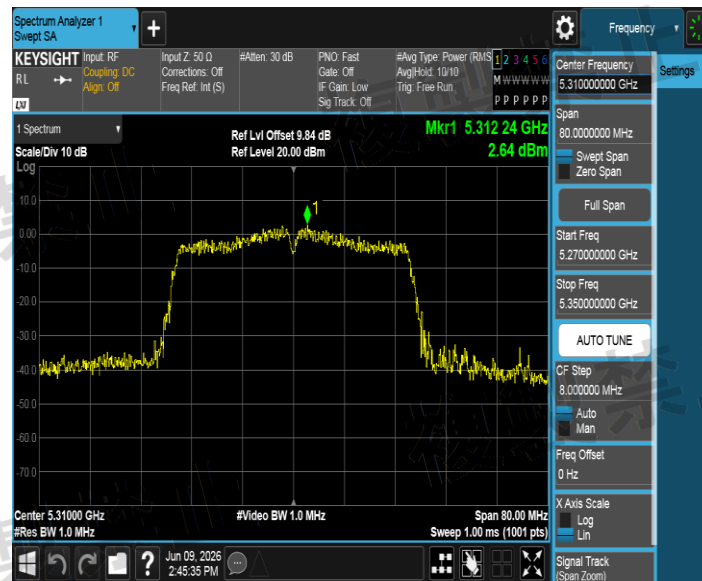
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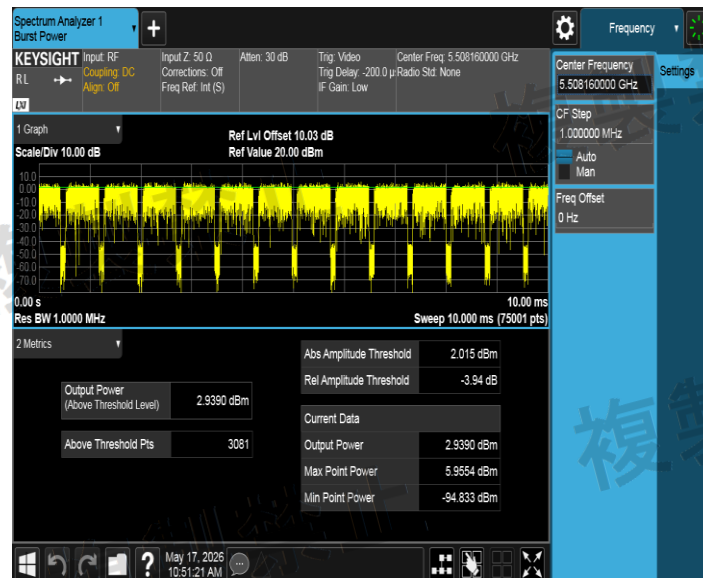
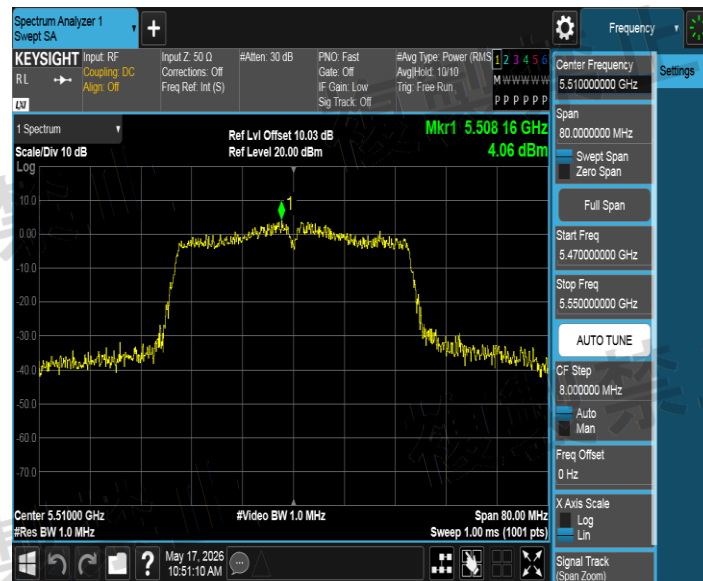
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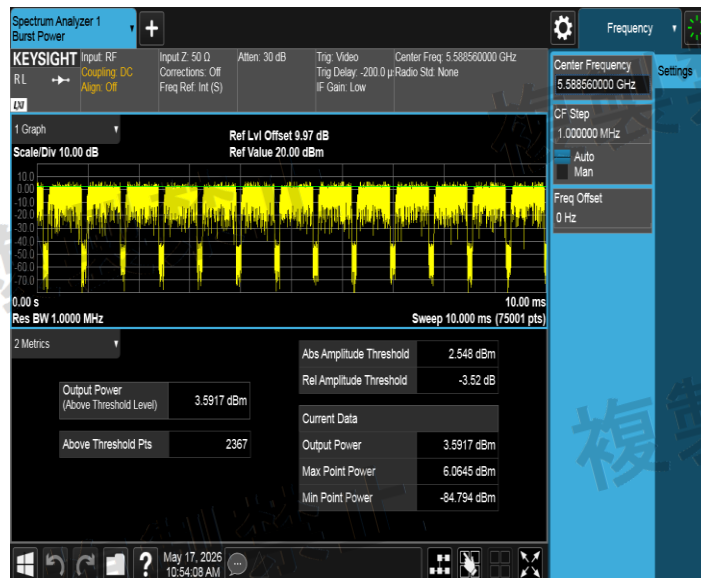
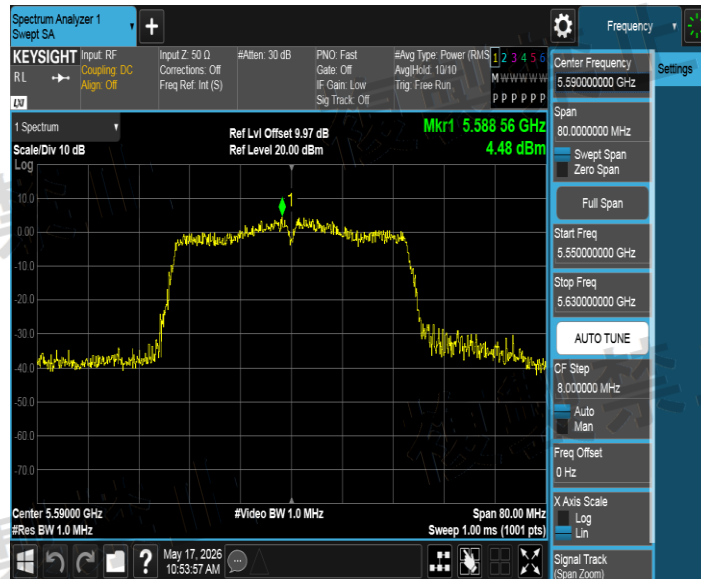
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NTNV_11AC40SISO_Ant1_5510



NTNV_11AC40SISO_Ant1_5590



NTNV_11AC40SISO_Ant1_5710

