



Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

TEST REPORT

Ordinance Article 2 paragraph 1 item (19)-3

Report Reference No.....: CTA25082001503

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Date of issue.....: Aug. 27, 2025

Testing Laboratory Name: Shenzhen CTA Testing Technology Co., Ltd.

Address.....: Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name: SHAREUAV Ltd

Address: 7 Floor, A2 Building, Chuangzhiyuncheng, Liuxian Avenue, Nanshan District, Shenzhen, China

Test specification

Standard: Ordinance Article 2 paragraph 1 item (19)-3

TRF Originator.....: Shenzhen CTA Testing Technology Co., Ltd.

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Test item description: 3D LiDAR Space Camera

Trade Mark: N/A

Manufacturer: SHAREUAV Ltd

Model/Type reference.....: SHARE C1

Listed Models: N/A

Modulation: OFDM, OFDMA

Frequency.....: 5180MHz-5240MHz

Ratings: DC 14.4V From battery and DC 20.0V From external circuit

Result.....: **PASS**

TEST REPORT

Equipment under Test : 3D LiDAR Space Camera

Model /Type : SHARE C1

Listed Models : N/A

Applicant : SHAREUAV Ltd

Address : 7 Floor, A2 Building, Chuangzhiyuncheng, Liuxian Avenue, Nanshan District, Shenzhen, China

Manufacturer : SHAREUAV Ltd

Address : 7 Floor, A2 Building, Chuangzhiyuncheng, Liuxian Avenue, Nanshan District, Shenzhen, China

Test Result:**PASS**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Version No.	Date	Description	Revised By
V1.0	Mar. 03, 2025	Original	Eric Wang
V1.1	Aug. 27, 2025	1. Modified the product name. 2. Modified the Models. 3. Modified the report number.	Eric Wang

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1 SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

[ARIB STD-T71](#): 5 GHz band low-power data communication system (5.2GHz band)

[MIC Notice No.88 Appendix No.45](#): 5 GHz band wide-band low-power data communication system

1.2 Test Description

ARIB STD-T71		
Clause	Description of Test	Result
3.1.2 (2) & 3.1.2 (3) & 3.1.2 (5)	Tolerances Of Antenna Power & E.I.R.P	PASS
3.1.2 (4)	Tolerance Of Frequency	PASS
3.1.2 (7)	Transmission Burst Length	PASS
3.1.2 (8) & 3.1.2 (10)	Tolerance Of Unwanted Emission Intensity & Tolerance Of Out-Of-Band Leakage Power	PASS
3.1.2 (9)	Tolerance Of Adjacent Channel Leakage Power	PASS
3.1.2 (11)	Tolerance Of Occupied Bandwidth	PASS
3.1.3 (1)	Secondary Radiated Emissions	PASS
3.1.4.1	Interference prevention function	PASS
3.1.5	Carrier Sensing function	PASS
Note: (1) N/A is an abbreviation for Not Applicable. (2) N/T means this test item is not tested.		

Note: 1: "N/A" denotes test is not applicable in this Test Report

2: MIC Notice No.88 Appendix No.45

3: MIC Ordinance Regulating Radio Equipment Section 4.17 of Article 49.20

4: Referenced in the standard ARIB STD-T71

5. The device only operating at W52 band.

1.3 TEST ENVIRONMENT

1.3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

1.3.2 Test Facility

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

FCC-Registration No.: 517856 Designation Number: CN1318

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA-Lab Cert. No.: 6534.01

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

1.4 Measurement Uncertainty

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR100028-1 [2] and shall correspond to an expansion factor (coverage factor) $K=1.96$ or $K=2$ (which provide confidence levels of respectively 95% and 95.5% in the case where the distributions characterizing the actual measurement uncertainties are normal).

Parameter	Uncertainty
Frequency error / 99%&90% bandwidth	$\pm 1.62 \cdot 10^{-6}$
Total RF power, conducted	$\pm 0.8\text{dB}$
Spurious emissions, conducted	$\pm 0.8\text{dB}$
DC and low frequency voltages	$\pm 0.05\%$
Humidity	$\pm 5\%$
Temperature	$\pm 1^\circ\text{C}$

2 GENERAL INFORMATION

2.1 General Remarks

Date of receipt of test sample	:	Feb. 07, 2025
Testing commenced on	:	Feb. 07, 2025
Testing concluded on	:	Mar. 03, 2025

2.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Voltage	Normal Voltage	DC 14.4V
	High Voltage	DC 16.8V
	Low Voltage	DC 13.6V
Other	Normal Temperature	25°C
	Relative Humidity	55 %
	Air Pressure	989 hPa

Note: As the EUT was powered by DC 14.4V From battery and DC 20.0V From external circuit, and with the voltage stabilizing circuit used, the chip voltage received floating not exceed $\pm 1\%$ of nominal condition when working on extreme voltage, so all test performed at nominal voltage only.

2.3 General Description of EUT

Product Name:	3D LiDAR Space Camera			
Model:	SHARE C1			
Power supply:	DC 14.4V From battery and DC 20.0V From external circuit			
WIFI				
Supported type:	20MHz system	40MHz system	80MHz system	160MHz system
	IEEE 802.11a	IEEE 802.11n IEEE 802.11ac IEEE 802.11ax	IEEE 802.11ac IEEE 802.11ax	N/A
	IEEE 802.11n			
	IEEE 802.11ac			
	IEEE 802.11ax			
Operation frequency:	5180MHz-5240MHz	5190MHz-5230MHz	5210MHz	N/A
Modulation:	OFDM/OFDMA	OFDM/OFDMA	OFDM/OFDMA	N/A
Channel number:	4	2	1	N/A
Channel separation:	20MHz	40MHz	80MHz	N/A
Rated power:	3.5mW/MHz	1.5mW/MHz	0.5mW/MHz	N/A
TPC:	Not support			
Antenna type:	PIFA antenna			
Antenna Gain:	4.79 dBi for Ant 1 and Ant2			
Software version:	V1.0			
Hardware Version:	V1.0			

Note: For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.4 Description of Test Modes

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

Operation Frequency List:

Operating band	20MHz		40MHz		80MHz	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
W52 (5150MHz-5250MHz)	36	5180	38	5190	42	5210
	40	5200				
	44	5220	46	5230		
	48	5240				

Note: Test performed at the lowest/middle/highest frequencies selected in the list above for EUT supported while working on specified mode.

2.5 Measurement Instruments List

Item	Test Equipment	Manufacturer	Model No.	Equipment No.	Cal. Institution	Calibration Date	Calibration Due Date
1	Spectrum Analyzer	Agilent	N9020A	MY53281423	LISAI	2024/08/03	2025/08/02
2	Signal generator	Agilent	N5182A	MY46240709	LISAI	2024/08/03	2025/08/02
3	Power Meter	Agilent	U2021X	MY47410295	LISAI	2024/08/03	2025/08/02
4	DC Power Supply	Agilent	E3642A	N/A	LISAI	2024/08/03	2025/08/02
5	Oscilloscope	Tektronix	TDS3012	B021220	LISAI	2024/08/03	2025/08/02
6	Spectrum Analyzer	R&S	FSU	200311	LISAI	2024/08/03	2025/08/02

Calibration by the calibration agencies listed in the table correspond to paragraph 4 (ii) (c) of Article 24-2 in the Radio Law".

LiSai-Guangzhou LiSai Calibration and Testing Co.,LTD.

Tiansu-Shenzhen Tiansu Measurement and Testing Co., Ltd.

2.6 Table for Parameters of Test Software Setting

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Power Parameters:

Frequency Band	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
5180~5240MHz	36	5180	44	5220
	38	5190	46	5230
	40	5200	48	5240
	42	5210	/	/
For IEEE 802.11a/n HT20/ac VHT20/ax VHT20, Channel 36, 40 and 48 were tested. For IEEE 802.11n HT40/ac VHT40/ax VHT40, Channel 38 and 46 were tested. For IEEE 802.11ac VHT80/ax VHT80, Channel 42 was tested.				

2.7 Description of Test Modes

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Tested mode, channel, and data rate information			
Mode	Final Test Data Rate (Mbps) (see Note)	Channel	Frequency (MHz)
IEEE 802.11a	6	Low :CH36	5180
	6	Middle: CH40	5200
	6	High: CH48	5240
IEEE 802.11n HT20	MCS0	Low :CH36	5180
	MCS0	Middle: CH40	5200
	MCS0	High: CH48	5240
IEEE 802.11n HT40	MCS0	Low :CH38	5190
	MCS0	High: CH46	5230
IEEE 802.11ac VHT20	MCS0	Low :CH36	5180
	MCS0	Middle: CH40	5200
	MCS0	High: CH48	5240
IEEE 802.11ac VHT40	MCS0	Low :CH38	5190
	MCS0	High: CH46	5230
IEEE 802.11ac VHT80	MCS0	High: CH42	5210
IEEE 802.11ax VHT20	MCS0	Low :CH36	5180
	MCS0	Middle: CH40	5200
	MCS0	High: CH48	5240
IEEE 802.11ax VHT40	MCS0	Low :CH38	5190
	MCS0	High: CH46	5230
IEEE 802.11ax VHT80	MCS0	High: CH42	5210

Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

2.8 Test Voltage

POWER SUPPLY VOLTAGE FLUCTUATION TEST

Voltage Fluctuation Test	Normal Voltage	High Voltage +10% of Normal Voltage	Low Voltage -10% of Normal Voltage
Input To EUT	DC 14.40V	DC 16.80V	DC 13.60V
Output To RF Module	DC 3.30V	DC 3.30V	DC 3.30V
Voltage Variation (%)	--	--	--

Note:

Voltage Variation (%)

= (Output high or Low Voltage - Output Normal Voltage)/Output Normal Voltage* 100

During the input supply voltage to the EUT from the external power source is varied by +/- 10%, if output voltage had been confirmed that the fluctuation of power supply to the RF circuit of EUT (excluding power source) is equal to or less than +/-1%. Exempt extremely high and low supply voltage condition test, EUT only operated in normal voltage to test all regulations.

The sample power supply was confirmed that input voltage variation at the radio unit in the radio equipment to be tested is less than +1% against a variation of +10% at the input voltage from the external power supply to the radio equipment, and the radio equipment was designed so as to be operated in a specified voltage variation limit within +10%, Radio can only tested at rated voltage.

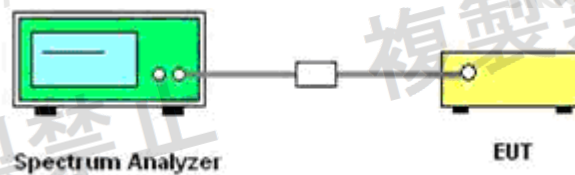
3 Test conditions and Results

3.1 Frequency Error

LIMIT

Tolerance of frequency shall be $\pm 20 \times 10^{-6}$.

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: non-modulation

Spectrum Condition:

- Frequency: test frequency
- Span: 300 KHz
- RBW: 10 KHz
- VBW: 10 KHz
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

TEST RESULTS

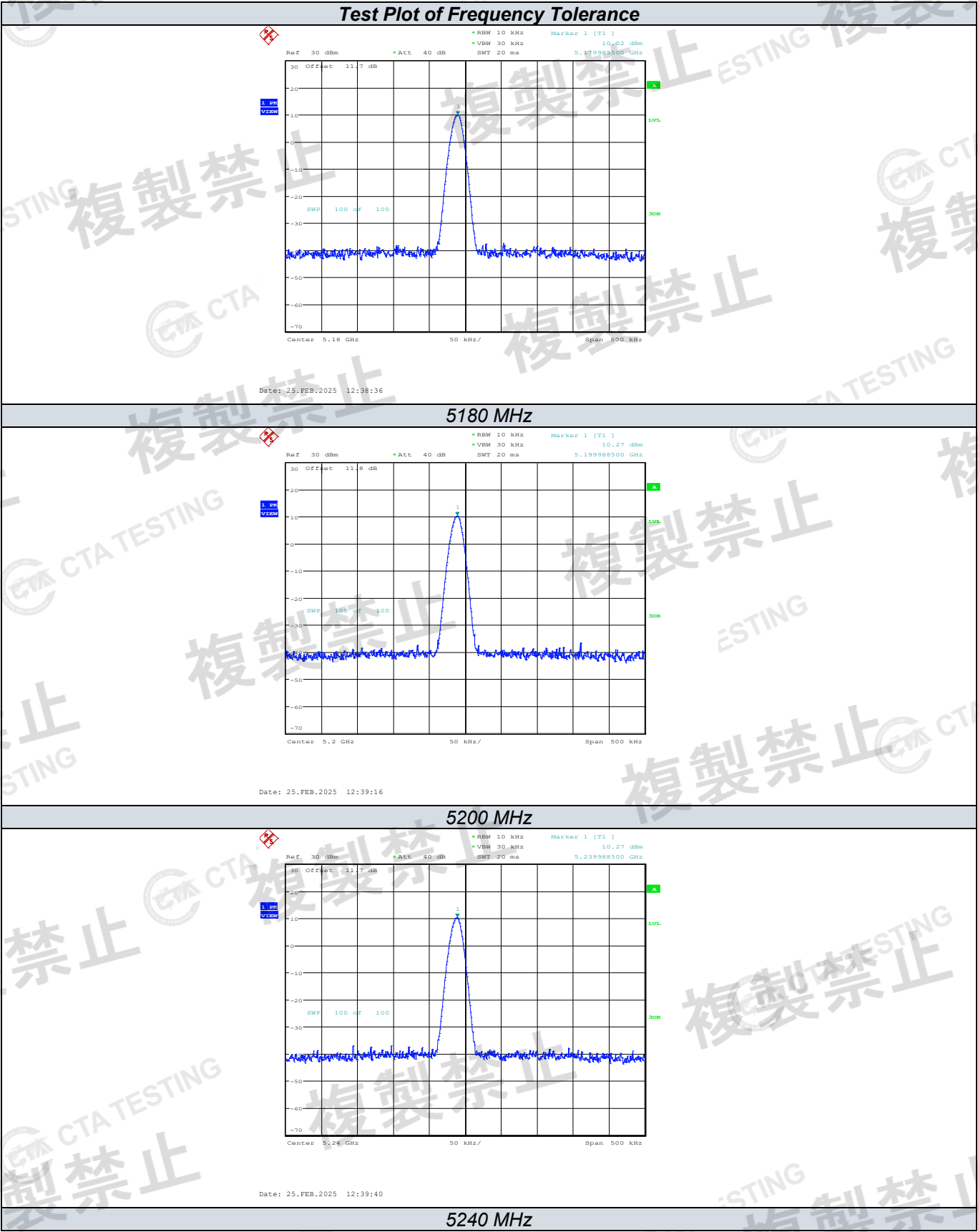
ANT1:

Test voltage (V)	Frequency (MHz)	Read (MHz)	Deviation (MHz)	Tolerance (ppm)	Limit (ppm)	Result
Non-modulation	5180.00	5179.9895	-0.0105	-2.03	20.00	Pass
	5200.00	5199.9885	-0.0115	-2.21		
	5240.00	5239.9885	-0.0115	-2.19		

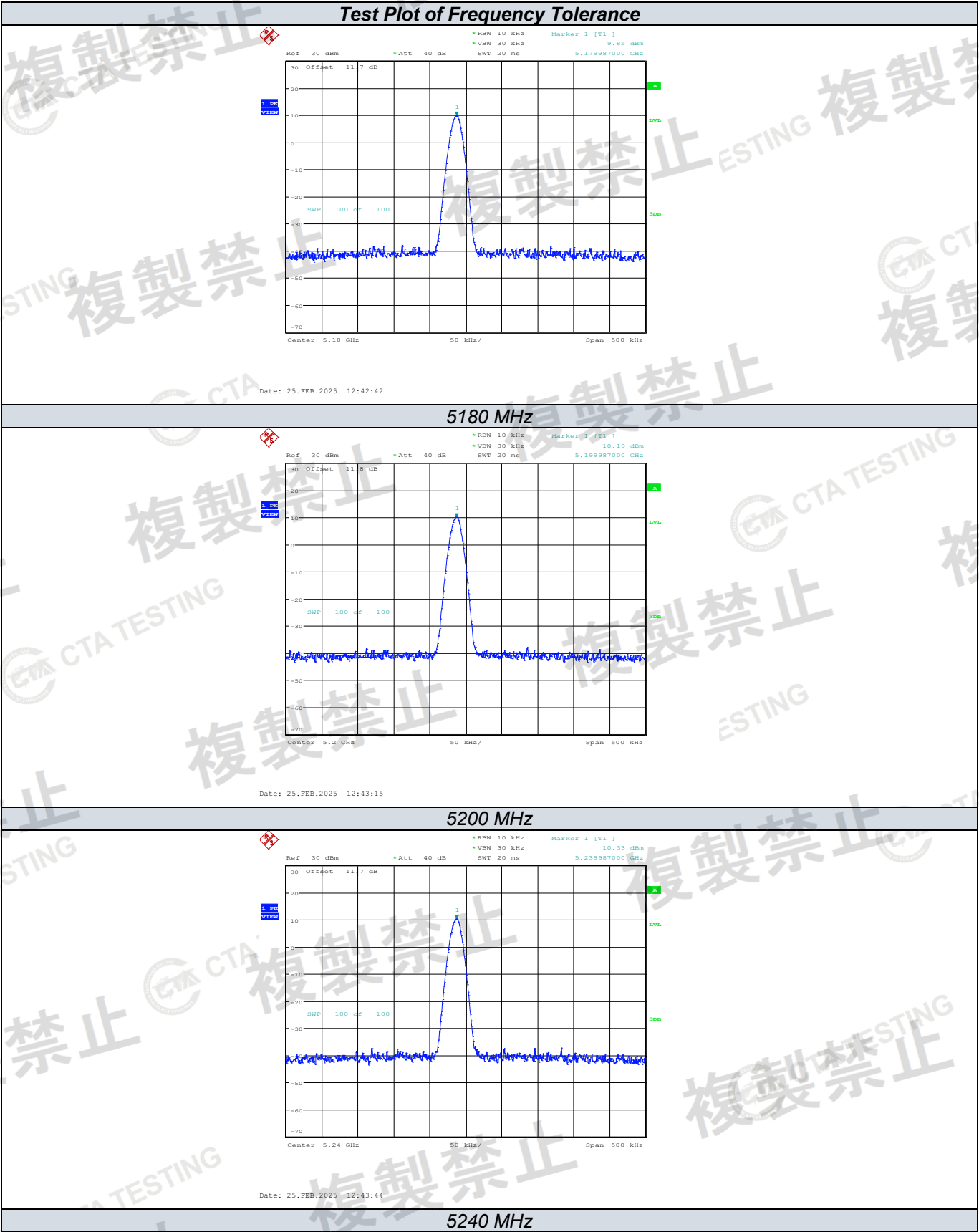
ANT2:

Test voltage (V)	Frequency (MHz)	Read (MHz)	Deviation (MHz)	Tolerance (ppm)	Limit (ppm)	Result
Non-modulation	5180.00	5179.987	-0.013	-2.51	20.00	Pass
	5200.00	5199.987	-0.013	-2.50		
	5240.00	5239.987	-0.013	-2.48		

ANT1:



ANT2:

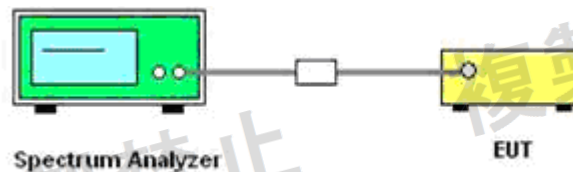


3.2 Antenna Output Power and Output Power Tolerance

LIMIT

Operation Band	Item	20MHz system		40MHz system	80MHz system	160MHz system
W52 & W53	Antenna Power	DSSS, etc	OFDM	OFDM	OFDM	OFDM
		10mW/MHz	10mW/MHz	5mW/MHz	2.5mW/MHz	1.25mW/MHz
	Antenna power Tolerance	+20%, -80%				
	EIRP	W52	10mW/MHz	5mW/MHz	2.5mW/MHz	1.25mW/MHz
W56	Antenna Power	DSSS, etc	OFDM	OFDM	OFDM	OFDM
		10mW/MHz	10mW/MHz	5mW/MHz	2.5mW/MHz	1.25mW/MHz
	Antenna power Tolerance	+50%, -50%				
	EIRP	W53	10mW/MHz: with TPC 5mW/MHz: without TPC	5mW/MHz: with TPC 2.5mW/MHz: without TPC	2.5mW/MHz: with TPC 1.25mW/MHz: without TPC	1.25mW/MHz: with TPC 0.625mW/MHz: without TPC
W56	Antenna Power	DSSS, etc	OFDM	OFDM	OFDM	OFDM
		10mW/MHz	10mW/MHz	5mW/MHz	2.5mW/MHz	1.25mW/MHz
	Antenna power Tolerance	+50%, -50%				
	EIRP	W56	50mW/MHz: with TPC 25mW/MHz: without TPC	25mW/MHz: with TPC 12.5mW/MHz: without TPC	12.5mW/MHz: with TPC 6.25mW/MHz: without TPC	6.25mW/MHz: with TPC 3.125mW/MHz: without TPC

TEST CONFIGURATION



TEST PROCEDURE

- Connect the UUT to the spectrum analyzer as TEST CONFIGURATION and use the following settings:
- Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:

Centre Frequency: The center frequency of the channel under test.

Resolution BW: 1MHz.

Video BW: 1MHz.

Span: Wide enough to cover the complete power envelope of the signal of the EUT.

Trigger condition: Free run.

Sweep mode: Continuous sweeping.

Detector: Peak.

Trace Mode: Max Hold.

- When the trace is complete, find the peak value of the power envelope and record.

- Make the following changes to the setting of the Spectrum Analyzer:

Centre Frequency: Equal to the frequency recorded in step c

Resolution BW: 1MHz.

Video BW: 1MHz.

Span: 3MHz

Trigger condition: Free run.

Sweep mode: Continuous sweeping.

Detector: Average

Trace Mode: Max Hold.

When the trace is complete, find the peak value (value "A" in dBm) of the power envelope and record.

- Add the (stated) antenna assembly gain "G" in dBi of the individual antenna.

- If applicable, add the additional beamforming gain "Y" in dB.

The equivalent isotopically radiated power (P) shall be calculated using the formula below:

$$P = A + G + Y$$

TEST RESULTS

Conducted**ANT1:**

Mode	Channel (MHz)	Output power (dBm/MHz)	Output power (mW/MHz)	Limit (mW/MHz)	Rated output power (mW/MHz)	Tolerance (%)	Limit	Result
IEEE 802.11a	5180	1.34	1.3614	10	1.5	-9.24%	-80%~20%	Pass
	5200	2.03	1.5959	10	1.5	6.39%		
	5240	1.94	1.5631	10	1.5	4.21%		
IEEE 802.11n HT20	5180	1.62	1.4521	10	1.5	-3.19%	-80%~20%	Pass
	5200	1.84	1.5276	10	1.5	1.84%		
	5240	2.12	1.6293	10	1.5	8.62%		
IEEE 802.11n HT40	5190	-2.18	0.6053	5	1.0	-39.47%	-80%~20%	Pass
	5230	-2.52	0.5598	5	1.0	-44.02%		
IEEE 802.11ac VHT20	5180	1.66	1.4655	10	1.5	-2.30%	-80%~20%	Pass
	5200	2.07	1.6106	10	1.5	7.38%		
	5240	2.17	1.6482	10	1.5	9.88%		
IEEE 802.11ac VHT40	5190	-1.97	0.6353	5	1.0	-36.47%	-80%~20%	Pass
	5230	-2.30	0.5888	5	1.0	-41.12%		
IEEE 802.11ac VHT80	5210	-5.92	0.2559	2.5	0.5	-48.83%	-80%~20%	Pass
IEEE 802.11ax VHT20	5180	-0.19	0.9572	10	1.5	-36.19%	-80%~20%	Pass
	5200	2.21	1.6634	10	1.5	10.89%		
	5240	1.99	1.5812	10	1.5	5.42%		
IEEE 802.11ax VHT40	5190	-2.62	0.5470	5	1.0	-45.30%	-80%~20%	Pass
	5230	-2.21	0.6012	5	1.0	-39.88%		
IEEE 802.11ax VHT80	5210	-5.71	0.2685	2.5	0.5	-46.29%	-80%~20%	Pass

ANT2:

Mode	Channel (MHz)	Output power (dBm/MHz)	Output power (mW/MHz)	Limit (mW/MHz)	Rated output power (mW/MHz)	Tolerance (%)	Limit	Result
IEEE 802.11a	5180	2.16	1.6444	10	1.5	9.62%	-80%~20%	Pass
	5200	2.12	1.6293	10	1.5	8.62%		
	5240	2.05	1.6032	10	1.5	6.88%		
IEEE 802.11n HT20	5180	1.80	1.5136	10	1.5	0.90%	-80%~20%	Pass
	5200	2.03	1.5959	10	1.5	6.39%		
	5240	1.95	1.5668	10	1.5	4.45%		
IEEE 802.11n HT40	5190	-2.24	0.5970	5	1.0	-40.30%	-80%~20%	Pass
	5230	-2.14	0.6109	5	1.0	-38.91%		
IEEE 802.11ac VHT20	5180	2.11	1.6255	10	1.5	8.37%	-80%~20%	Pass
	5200	2.18	1.6520	10	1.5	10.13%		
	5240	2.05	1.6032	10	1.5	6.88%		
IEEE 802.11ac VHT40	5190	-2.00	0.6310	5	1.0	-36.90%	-80%~20%	Pass
	5230	-2.45	0.5689	5	1.0	-43.11%		
IEEE 802.11ac VHT80	5210	-5.32	0.2938	2.5	0.5	-41.25%	-80%~20%	Pass
IEEE 802.11ax VHT20	5180	1.84	1.5276	10	1.5	1.84%	-80%~20%	Pass
	5200	1.98	1.5776	10	1.5	5.17%		
	5240	2.19	1.6558	10	1.5	10.38%		
IEEE 802.11ax VHT40	5190	-2.15	0.6095	5	1.0	-39.05%	-80%~20%	Pass
	5230	-2.26	0.5943	5	1.0	-40.57%		
IEEE 802.11ax VHT80	5210	-5.67	0.2710	2.5	0.5	-45.80%	-80%~20%	Pass

Note:

- 1). Test Result: Pass.
- 2). All test modes have been tested and we only record the worst result.

MIMO

Mode	Channel (MHz)	Output power (mW/MHz)			Limit (mW/MHz)	Rated output power (mW/MHz)	Tolerance (%)	Limit	Result
		ANT1	ANT2	MIMO					
IEEE 802.11n HT20	5180	1.4521	1.5136	2.9657	10.00	3.0	-1.14%	-80%-20%	Pass
	5200	1.5276	1.5959	3.1235	10.00	3.0	4.12%	-80%-20%	Pass
	5240	1.6293	1.5668	3.1961	10.00	3.0	6.54%	-80%-20%	Pass
IEEE 802.11n HT40	5190	0.6053	0.5970	1.2023	5.00	1.5	-19.85%	-80%-20%	Pass
	5230	0.5598	0.6109	1.1707	5.00	1.5	-21.95%	-80%-20%	Pass
IEEE 802.11ac VHT20	5180	1.4655	1.6255	3.0910	10.00	3.0	3.03%	-80%-20%	Pass
	5200	1.6106	1.6520	3.2626	10.00	3.0	8.75%	-80%-20%	Pass
	5240	1.6482	1.6032	3.2514	10.00	3.0	8.38%	-80%-20%	Pass
IEEE 802.11ac VHT40	5190	0.6353	0.6310	1.2663	5.00	1.5	-15.58%	-80%-20%	Pass
	5230	0.5888	0.5689	1.1577	5.00	1.5	-22.82%	-80%-20%	Pass
IEEE 802.11ac VHT80	5210	0.2559	0.2938	0.5497	2.5	1.0	-45.03%	-80%-20%	Pass
IEEE 802.11ax VHT20	5180	0.9572	1.5276	2.4848	10.00	3.0	-17.17%	-80%-20%	Pass
	5200	1.6634	1.5776	3.2410	10.00	3.0	8.03%	-80%-20%	Pass
	5240	1.5812	1.6558	3.2370	10.00	3.0	7.90%	-80%-20%	Pass
IEEE 802.11ax VHT40	5190	0.5470	0.6095	1.1565	5.00	1.5	-22.90%	-80%-20%	Pass
	5230	0.6012	0.5943	1.1955	5.00	1.5	-20.30%	-80%-20%	Pass
IEEE 802.11ax VHT80	5210	0.2685	0.2710	0.5395	2.5	0.5	7.90%	-80%-20%	Pass

Note:

- 1). Test Result: Pass.
- 2). All test modes have been tested and we only record the worst result.
- 3). Antenna power = Power meter power (mW) / Spread Bandwidth (MHz).

EIRP
ANT1:

Mode	Channel (MHz)	Output power (dBm/MHz)	Antenna Gain (dBi)	EIRP (dBm/MHz)	EIRP/MHz Limit (mW/MHz)	Result
IEEE 802.11a	5180	1.34	4.79	6.13	10	Pass
	5200	2.03	4.79	6.82	10	
	5240	1.94	4.79	6.73	10	
IEEE 802.11n HT20	5180	1.62	4.79	6.41	10	Pass
	5200	1.84	4.79	6.63	10	
	5240	2.12	4.79	6.91	10	
IEEE 802.11n HT40	5190	-2.18	4.79	2.61	5	Pass
	5230	-2.52	4.79	2.27	5	
IEEE 802.11ac VHT20	5180	1.66	4.79	6.45	10	Pass
	5200	2.07	4.79	6.86	10	
	5240	2.17	4.79	6.96	10	
IEEE 802.11ac VHT40	5190	-1.97	4.79	2.82	5	Pass
	5230	-2.30	4.79	2.49	5	
IEEE 802.11ac VHT80	5210	-5.92	4.79	-1.13	2.5	Pass
IEEE 802.11ax VHT20	5180	-0.19	4.79	4.60	10	Pass
	5200	2.21	4.79	7.00	10	
	5240	1.99	4.79	6.78	10	
IEEE 802.11ax VHT40	5190	-2.62	4.79	2.17	5	Pass
	5230	-2.21	4.79	2.58	5	
IEEE 802.11ax VHT80	5210	-5.71	4.79	-0.92	2.5	Pass

ANT2:

Mode	Channel (MHz)	Output power (dBm/MHz)	Antenna Gain (dBi)	EIRP (dBm/MHz)	EIRP/MHz Limit (mW/MHz)	Result
IEEE 802.11a	5180	2.16	4.79	6.95	10	Pass
	5200	2.12	4.79	6.91	10	
	5240	2.05	4.79	6.84	10	
IEEE 802.11n HT20	5180	1.80	4.79	6.59	10	Pass
	5200	2.03	4.79	6.82	10	
	5240	1.95	4.79	6.74	10	
IEEE 802.11n HT40	5190	-2.24	4.79	2.55	5	Pass
	5230	-2.14	4.79	2.65	5	
IEEE 802.11ac VHT20	5180	2.11	4.79	6.90	10	Pass
	5200	2.18	4.79	6.97	10	
	5240	2.05	4.79	6.84	10	
IEEE 802.11ac VHT40	5190	-2.00	4.79	2.79	5	Pass
	5230	-2.45	4.79	2.34	5	
IEEE 802.11ac VHT80	5210	-5.32	4.79	-0.53	2.5	Pass
IEEE 802.11ax VHT20	5180	1.84	4.79	6.63	10	Pass
	5200	1.98	4.79	6.77	10	
	5240	2.19	4.79	6.98	10	
IEEE 802.11ax VHT40	5190	-2.15	4.79	2.64	5	Pass
	5230	-2.26	4.79	2.53	5	
IEEE 802.11ax VHT80	5210	-5.67	4.79	-0.88	2.5	Pass

Note:

- 1). Test Result: Pass.
- 2). All test modes have been tested and we only record the worst result.

MIMO

Mode	Channel (MHz)	EIRP(dBm/MHz)			Limit (dBm/MHz)	Result
		ANT1 (dBm/MHz)	ANT2 (dBm/MHz)	MIMO (dBm/MHz)		
IEEE 802.11n HT20	5180	6.41	6.59	9.51	10.00	Pass
	5200	6.63	6.82	9.74	10.00	Pass
	5240	6.91	6.74	9.84	10.00	Pass
IEEE 802.11n HT40	5190	2.61	2.55	5.59	6.99	Pass
	5230	2.27	2.65	5.47	6.99	Pass
IEEE 802.11ac VHT20	5180	6.45	6.90	9.69	10.00	Pass
	5200	6.86	6.97	9.93	10.00	Pass
	5240	6.96	6.84	9.91	10.00	Pass
IEEE 802.11ac VHT40	5190	2.82	2.79	5.82	6.99	Pass
	5230	2.49	2.34	5.43	6.99	Pass
IEEE 802.11ac VHT80	5210	-1.13	-0.53	2.19	3.98	Pass
IEEE 802.11ax VHT20	5180	4.60	6.63	8.74	10.00	Pass
	5200	7.00	6.77	9.90	10.00	Pass
	5240	6.78	6.98	9.89	10.00	Pass
IEEE 802.11ax VHT40	5190	2.17	2.64	5.42	6.99	Pass
	5230	2.58	2.53	5.57	6.99	Pass
IEEE 802.11ax VHT80	5210	-0.92	-0.88	2.11	3.98	Pass

Note:

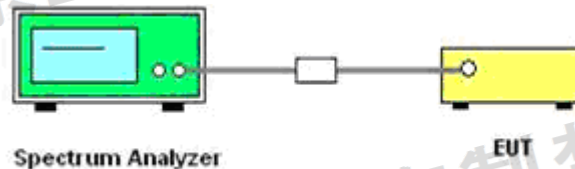
- 1). Test Result: Pass.
- 2). All test modes have been tested and we only record the worst result.

3.3 Occupied Bandwidth

LIMIT

Operation Band	20MHz system		40MHz system	80MHz system	160MHz system
W52 & W53	DSSS, etc	OFDM	OFDM	OFDM	OFDM
	18MHz	20MHz	40MHz	80MHz	160MHz
W56	20MHz		40MHz	80MHz	160MHz

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: modulation

Spectrum Condition:

1. Setting of SA is following as fellow:

- RBW: under 3% of OBW
- VBW: = RBW
- Sweep time: Auto
- Sweep Mode: Continuous sweep
- Detect mode: Positive peak
- Trace mode: Max hold

2. EUT have transmitted the maximum modulation signal and fixed channelize.

3. SA set to 99% of occupied bandwidth to measure occupied bandwidth.

TEST RESULTS

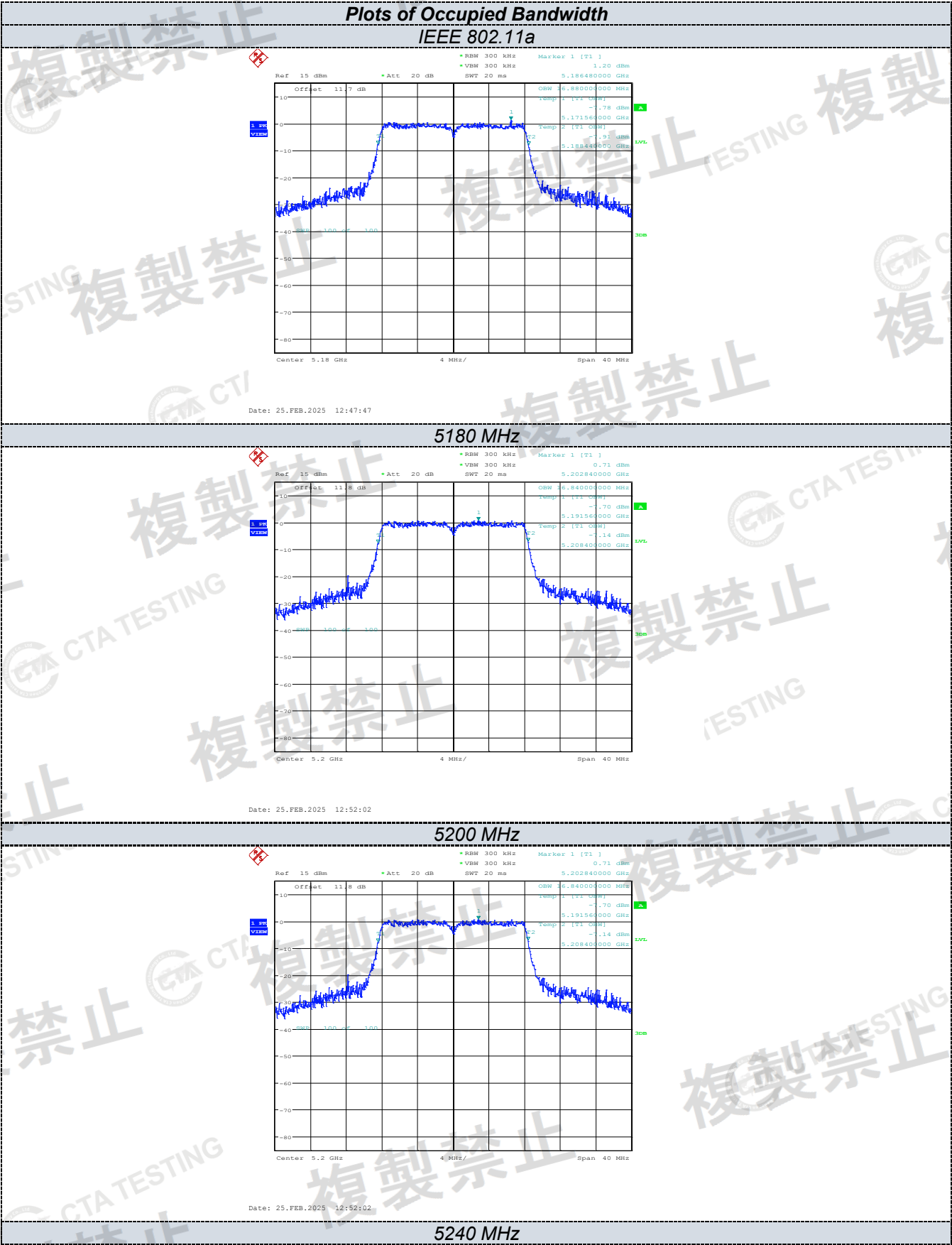
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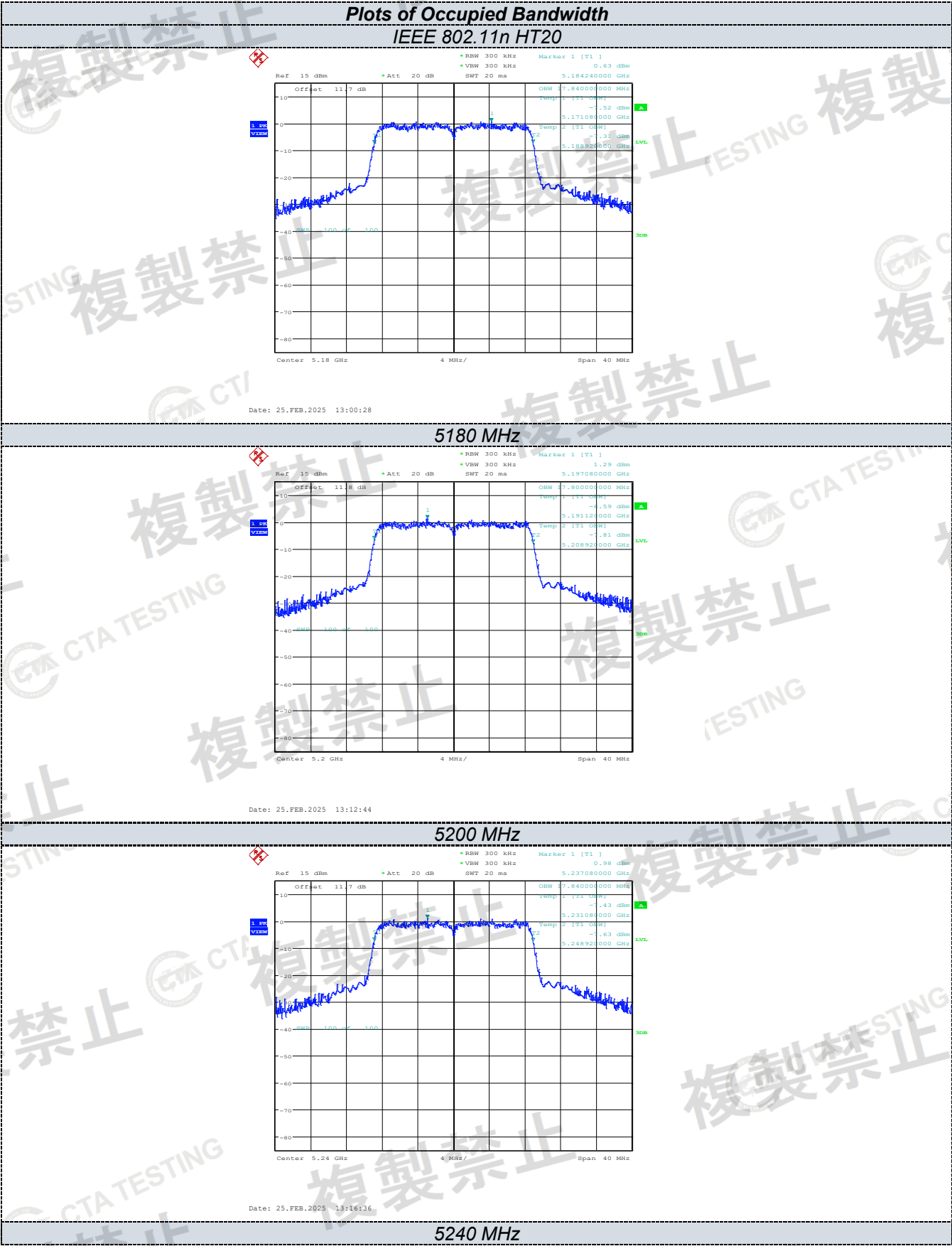
Type	Channel (MHz)	Occupied Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11a	5180	16.880	<20	Pass
	5200	16.840		
	5240	16.840		
IEEE 802.11n HT20	5180	17.840	<20	
	5200	17.800		
	5240	17.840		
IEEE 802.11n HT40	5190	36.320	<40	
	5230	36.320		
IEEE 802.11ac VHT20	5180	17.760	<20	
	5200	17.760		
	5240	17.760		
IEEE 802.11ac VHT40	5190	36.320	<40	
	5230	36.240		
IEEE 802.11ac VHT80	5210	75.520	<80	
IEEE 802.11ax VHT20	5180	17.840	<20	
	5200	17.760		
	5240	17.760		
IEEE 802.11ax VHT40	5190	36.320	<40	
	5230	36.240		
IEEE 802.11ax VHT80	5210	75.520	<80	

ANT2:

Type	Channel (MHz)	Occupied Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11a	5180	16.880	<20	Pass
	5200	16.800		
	5240	16.800		
IEEE 802.11n HT20	5180	17.840	<20	
	5200	17.800		
	5240	17.840		
IEEE 802.11n HT40	5190	36.320	<40	
	5230	36.240		
IEEE 802.11ac VHT20	5180	17.760	<20	
	5200	17.760		
	5240	17.760		
IEEE 802.11ac VHT40	5190	36.320	<40	
	5230	36.240		
IEEE 802.11ac VHT80	5210	75.520	<80	
IEEE 802.11ax VHT20	5180	17.760	<20	
	5200	17.760		
	5240	17.760		
IEEE 802.11ax VHT40	5190	36.320	<40	
	5230	36.320		
IEEE 802.11ax VHT80	5210	75.520	<80	

ANT1:





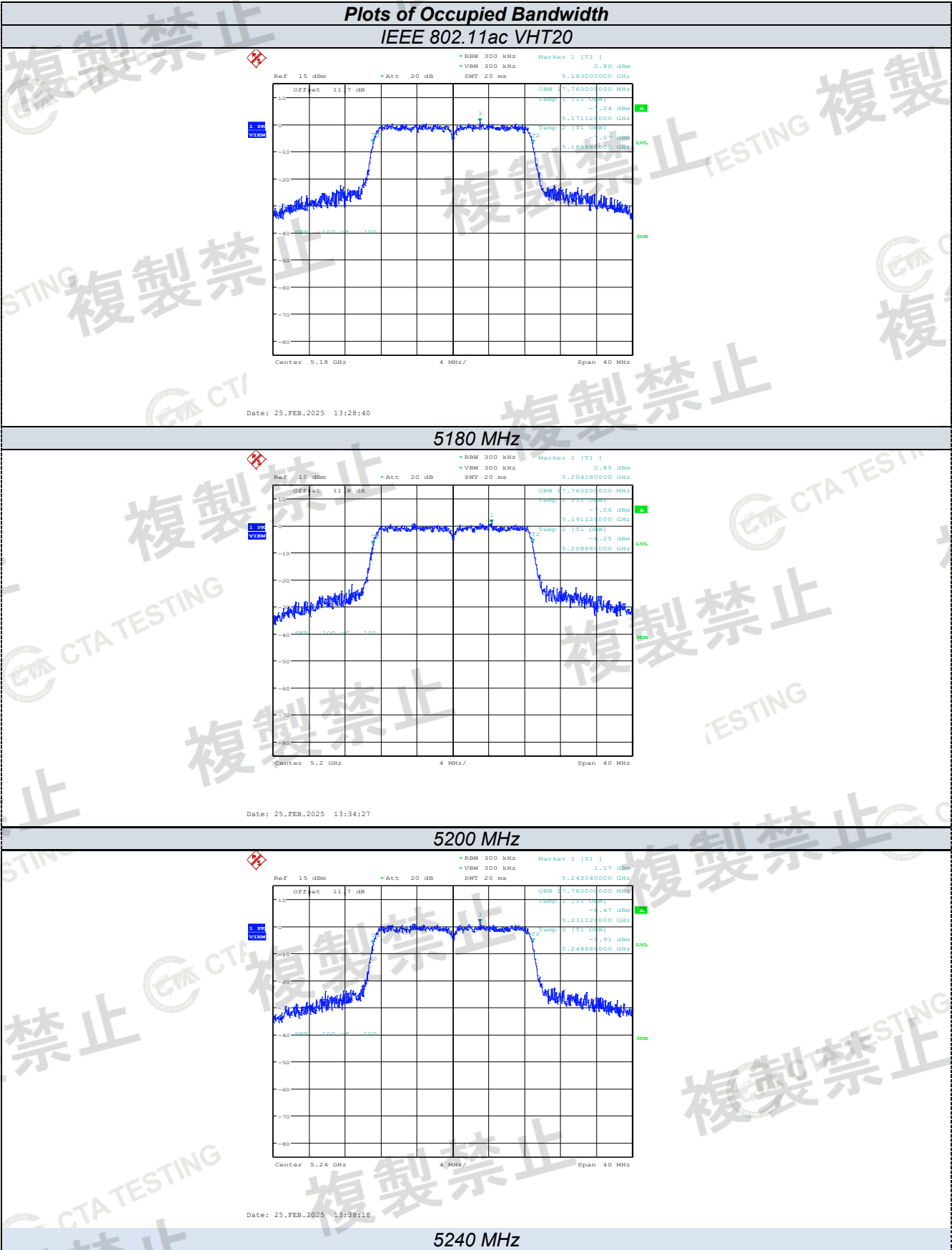
IEEE 802.11n HT40

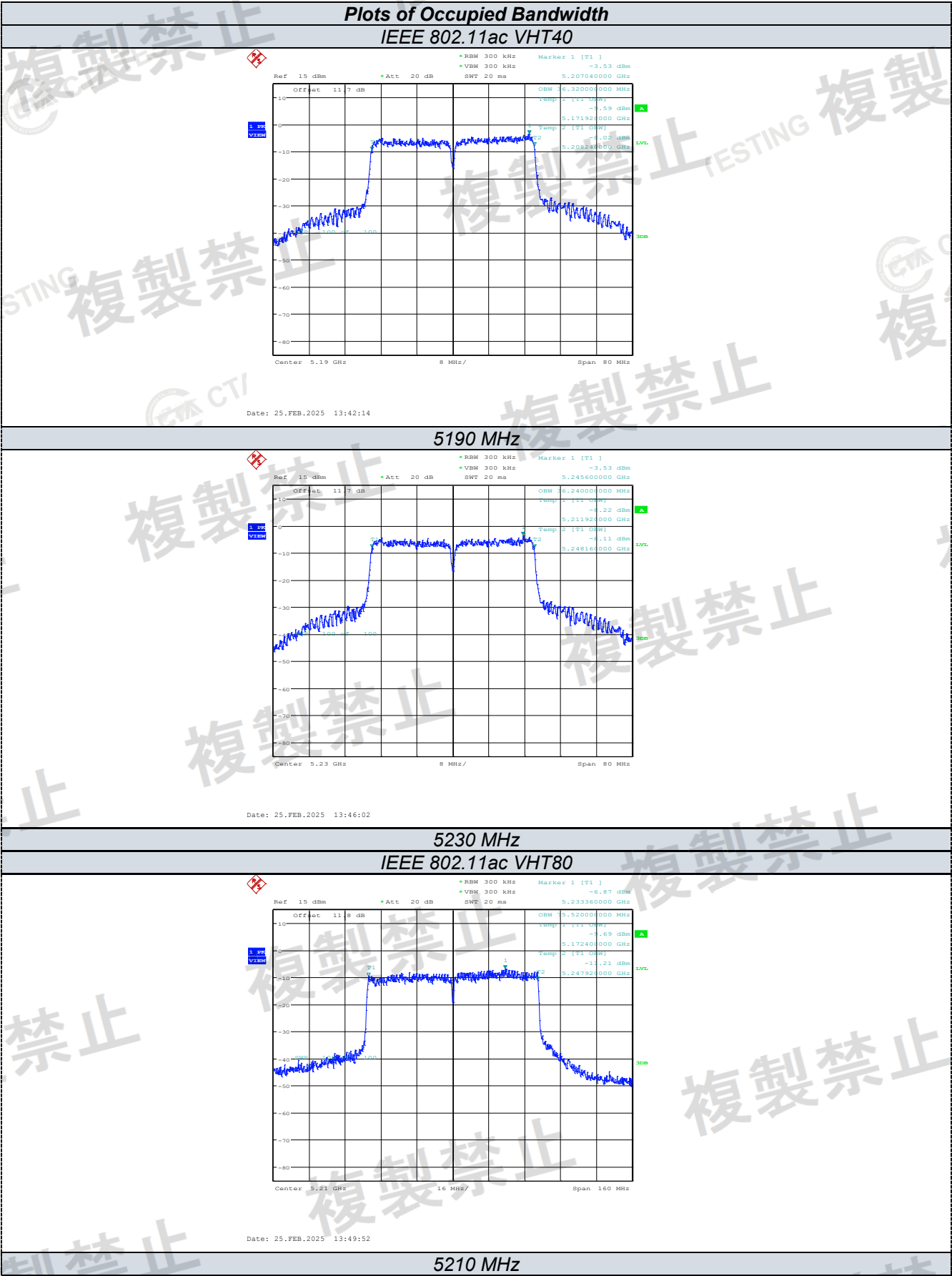


5190 MHz



5230 MHz





5230 MHz

IEEE 802.11ac VHT80

Ref 15 dBm

Att 20 dB

RBW 300 kHz

VBW 300 kHz

SWT 20 ms

Marker 1 [T1]

-5.87 dBm

5.233360000 GHz

Offset 11.8 dB

1

2

Temp 2 [T1]

-11.21 dBm

5.247920000 GHz

OSW 5.520000000 MHz

5.114000000 GHz

-5.69 dBm

5.172400000 GHz

-11.21 dBm

5.247920000 GHz

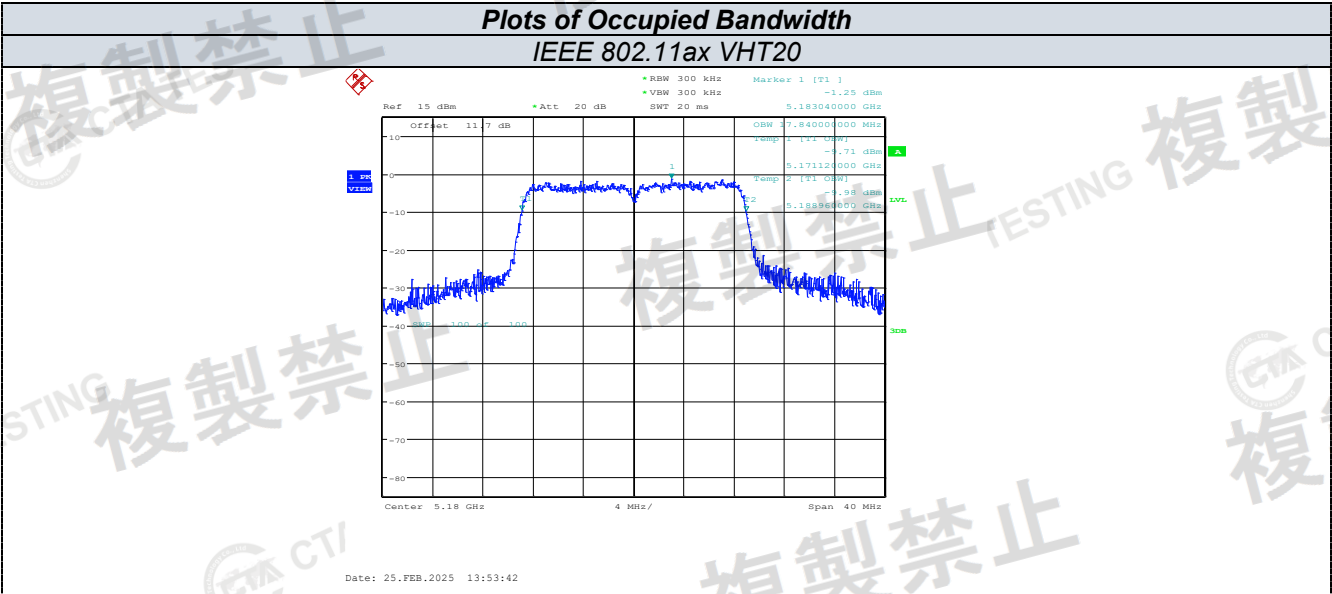
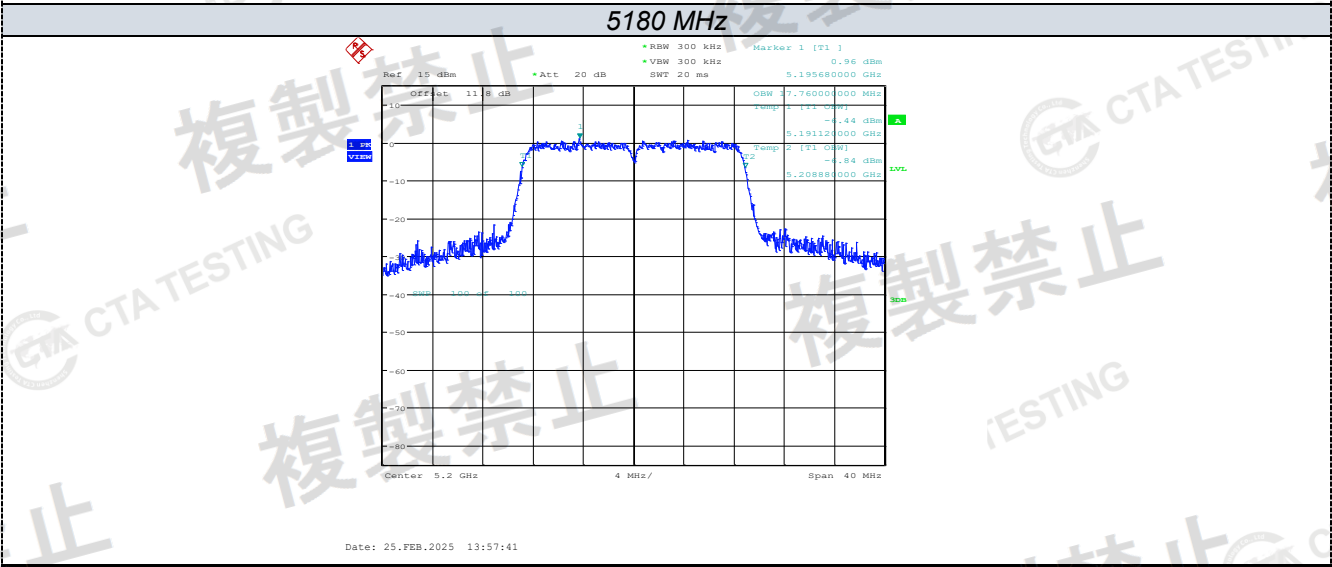
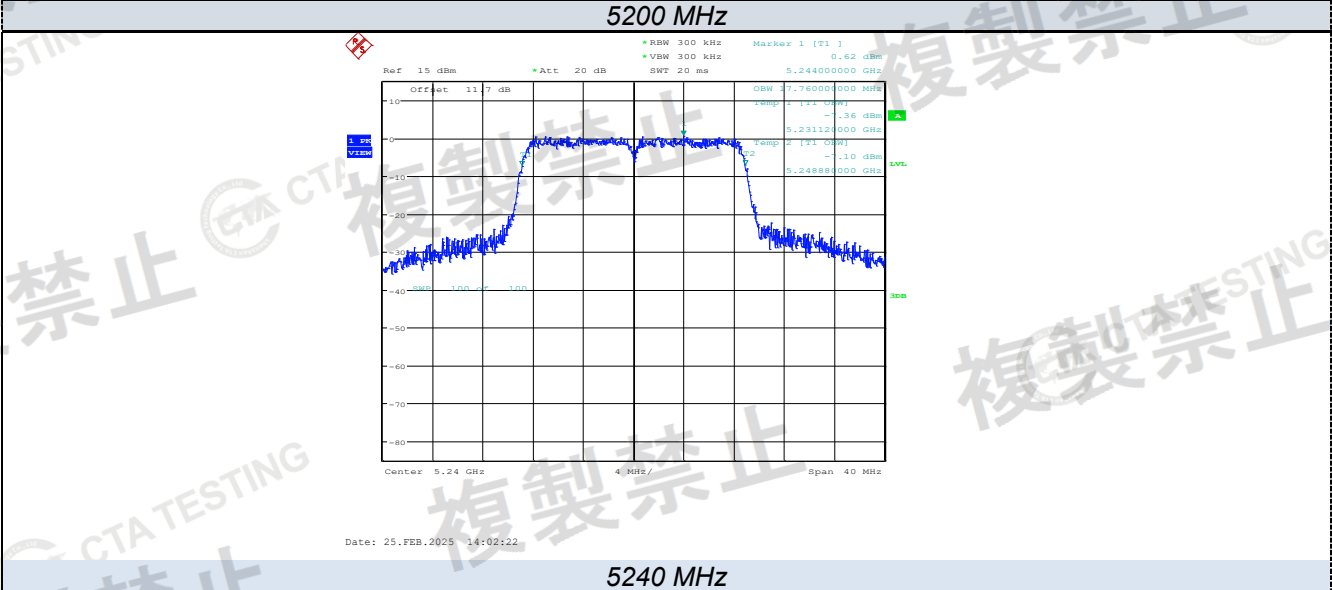
Center 5.23 GHz

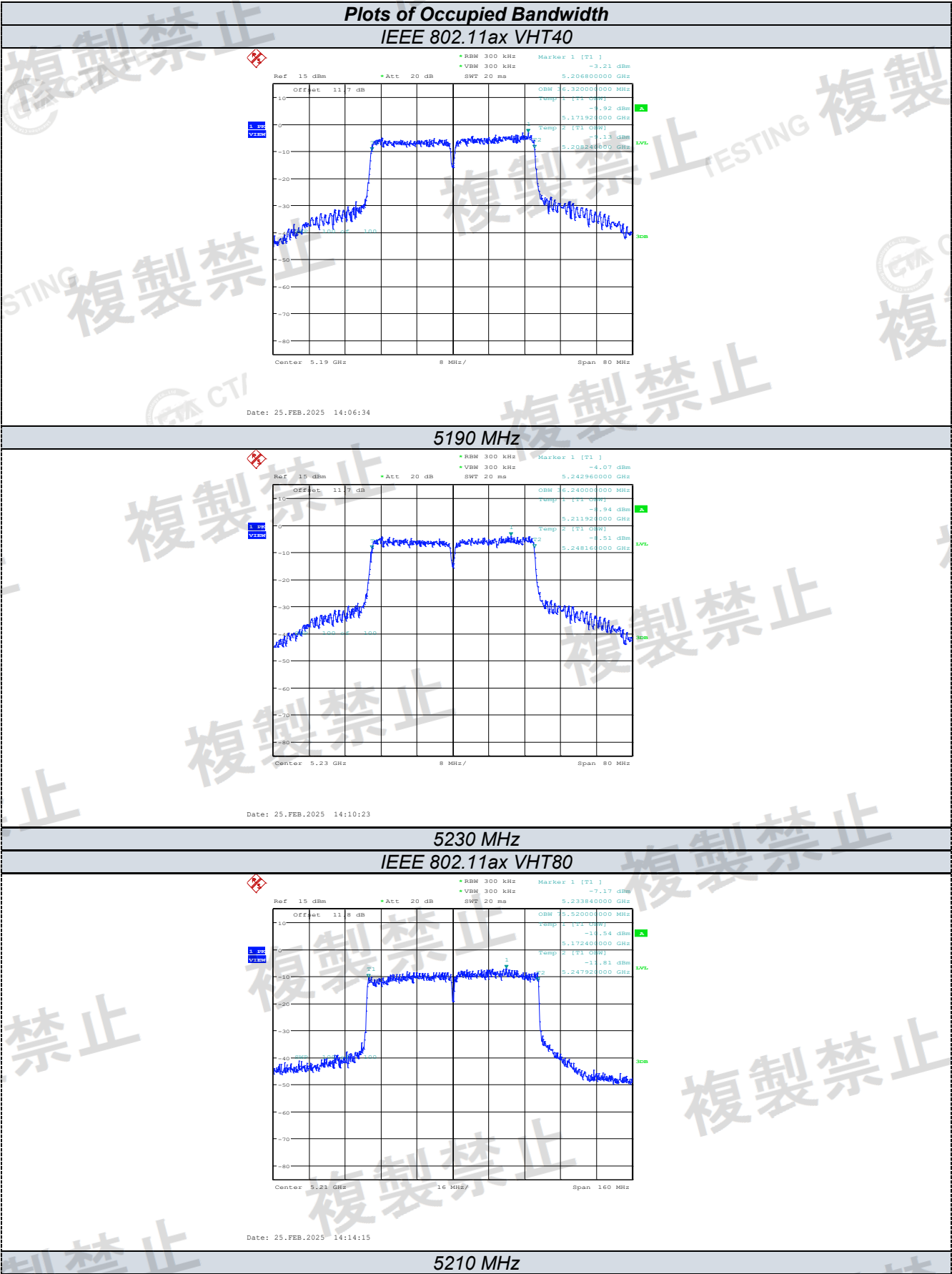
16 MHz

Span 160 MHz

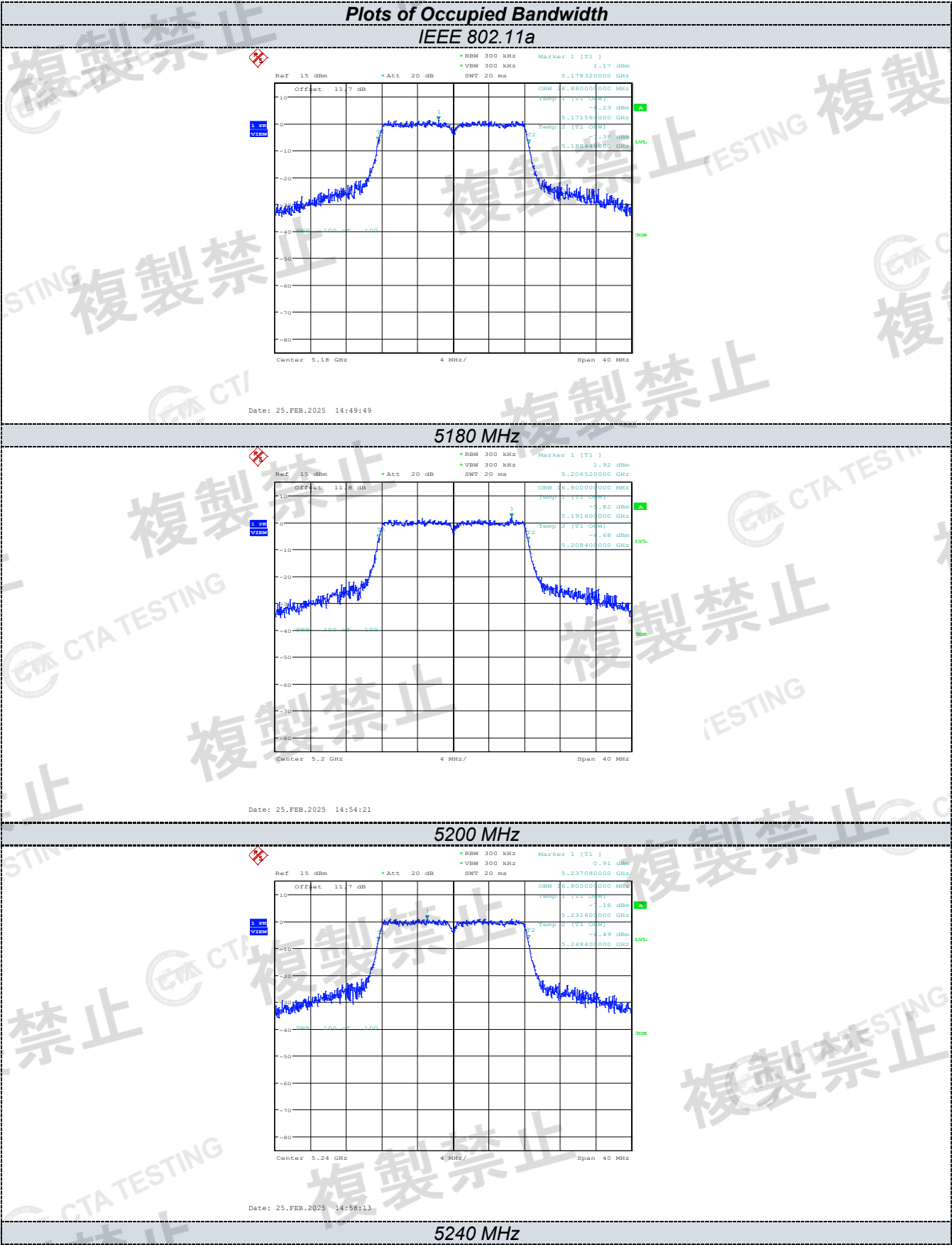
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5210 MHz



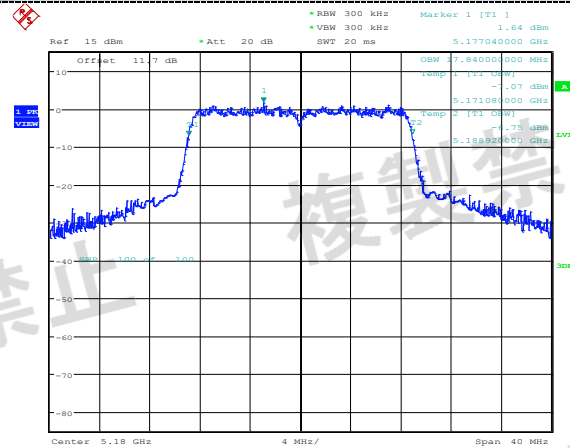


ANT2:



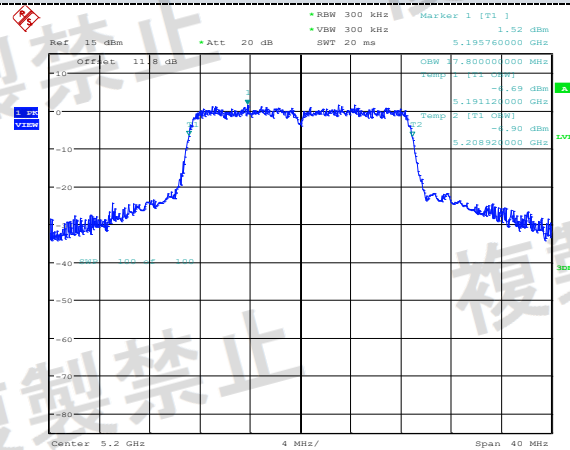
Plots of Occupied Bandwidth

IEEE 802.11n HT20



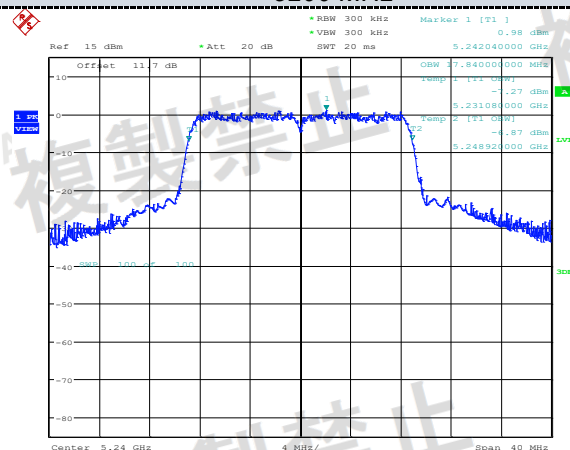
Date: 25.FEB.2025 15:02:08

5180 MHz



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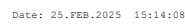
5200 MHz



Date: 25.FEB.2025 15:09:47

5240 MHz

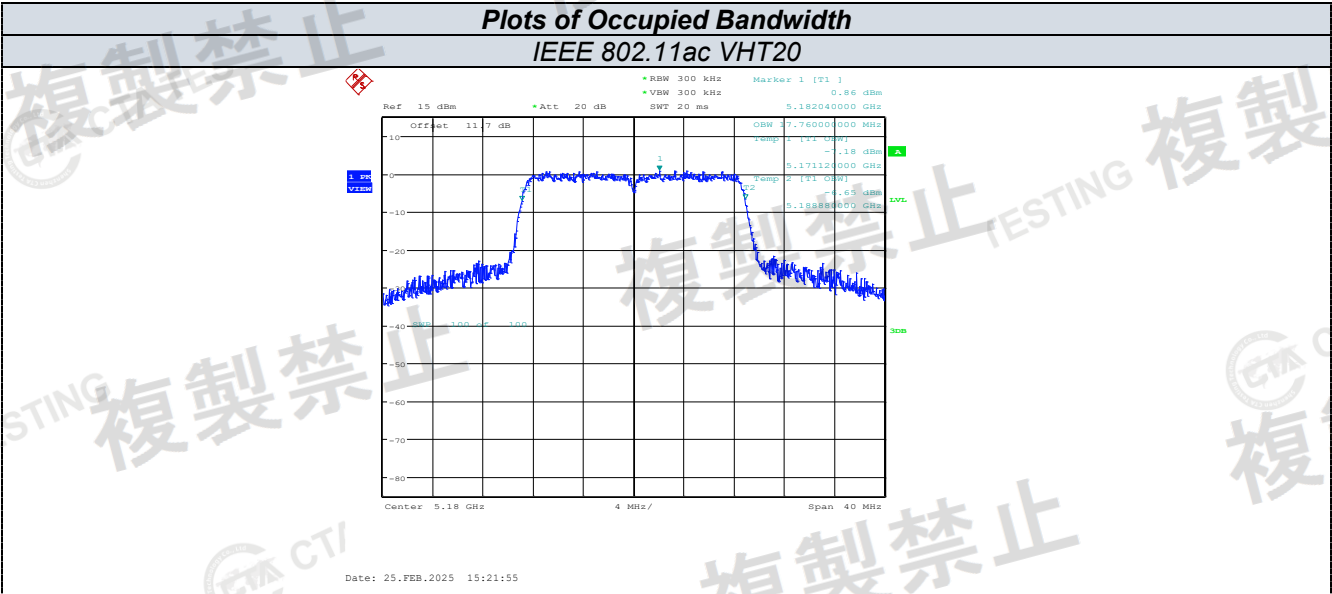
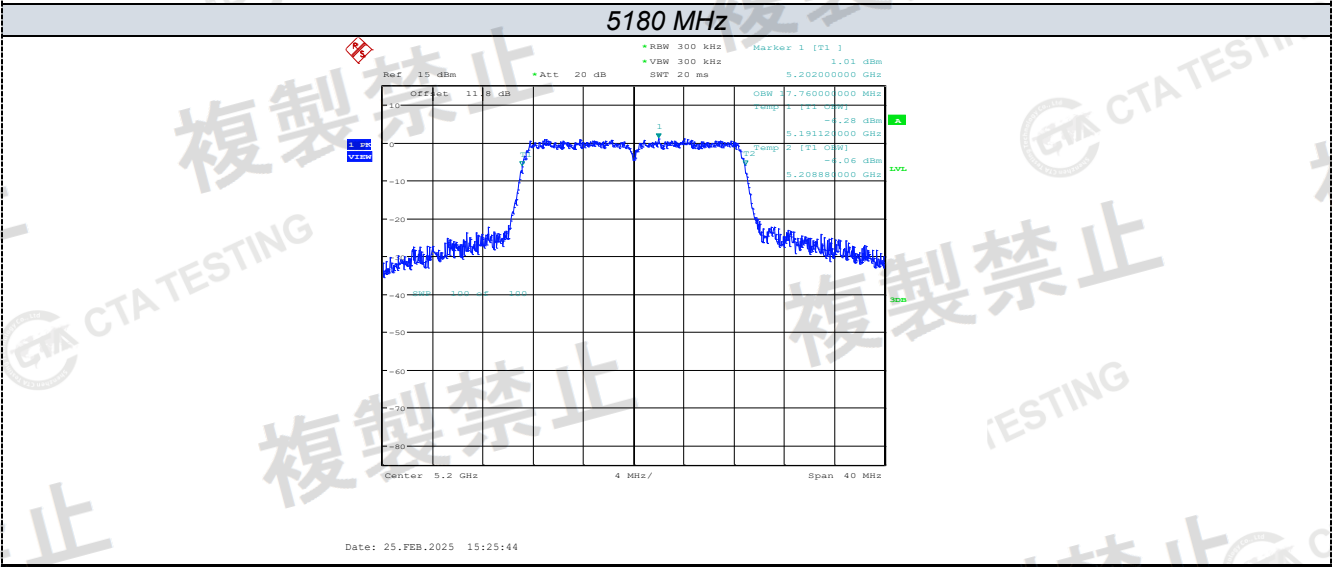
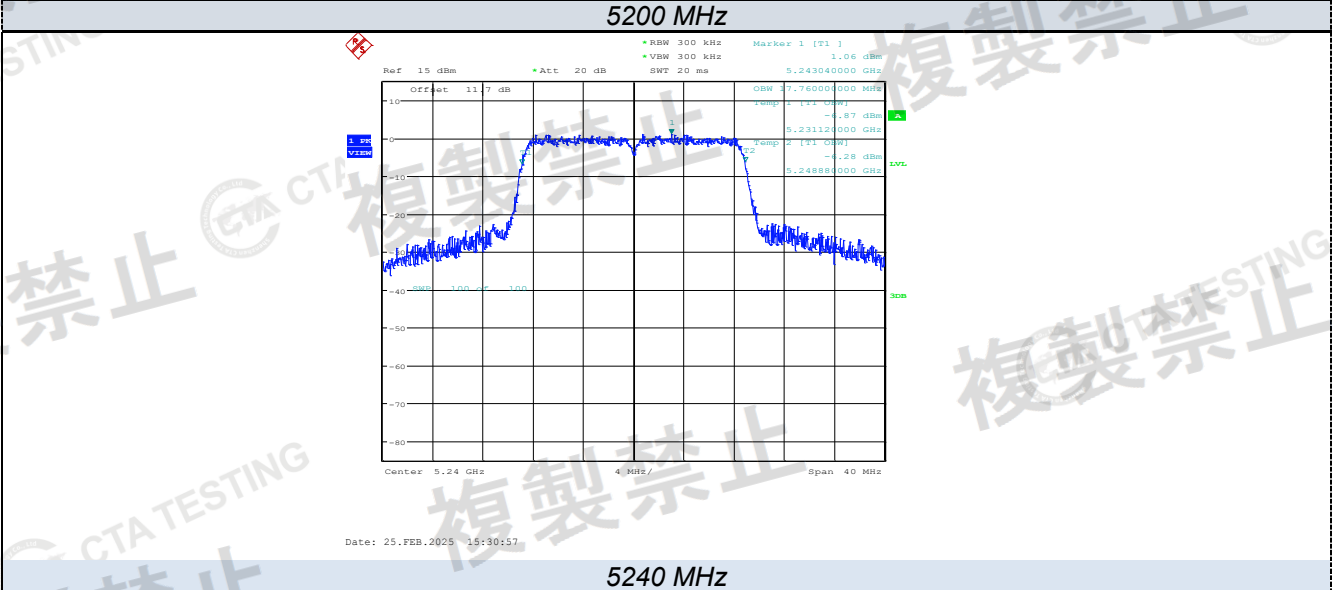
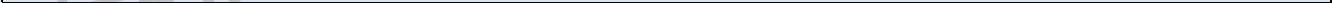
IEEE 802.11n HT40

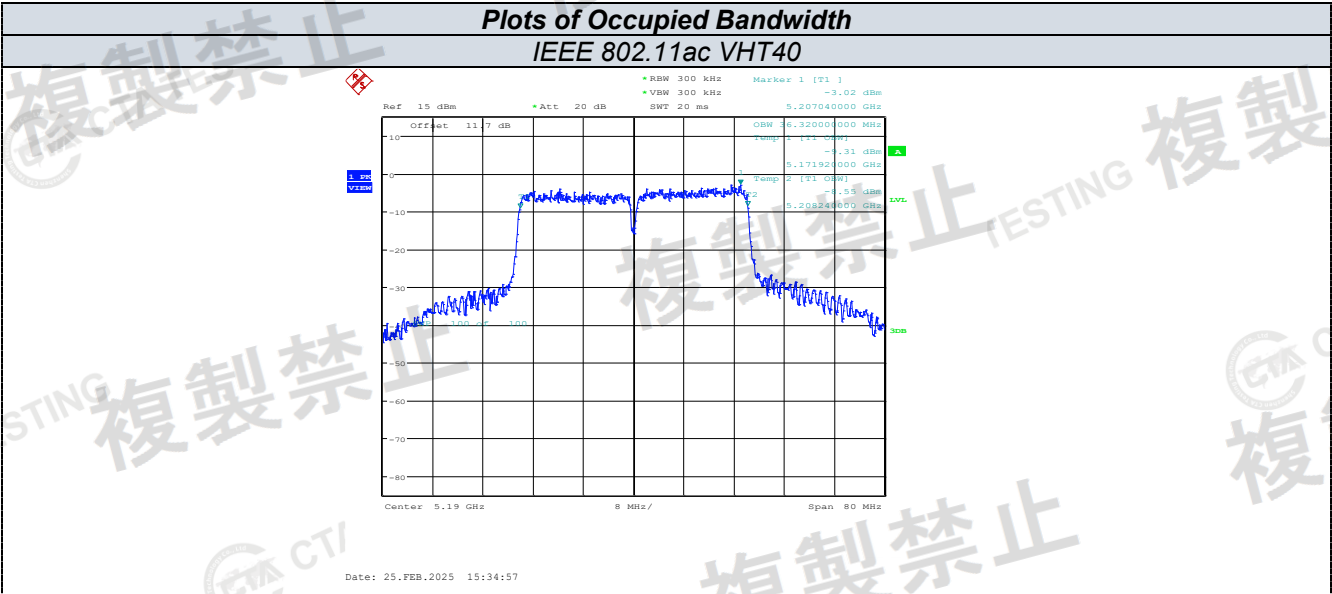
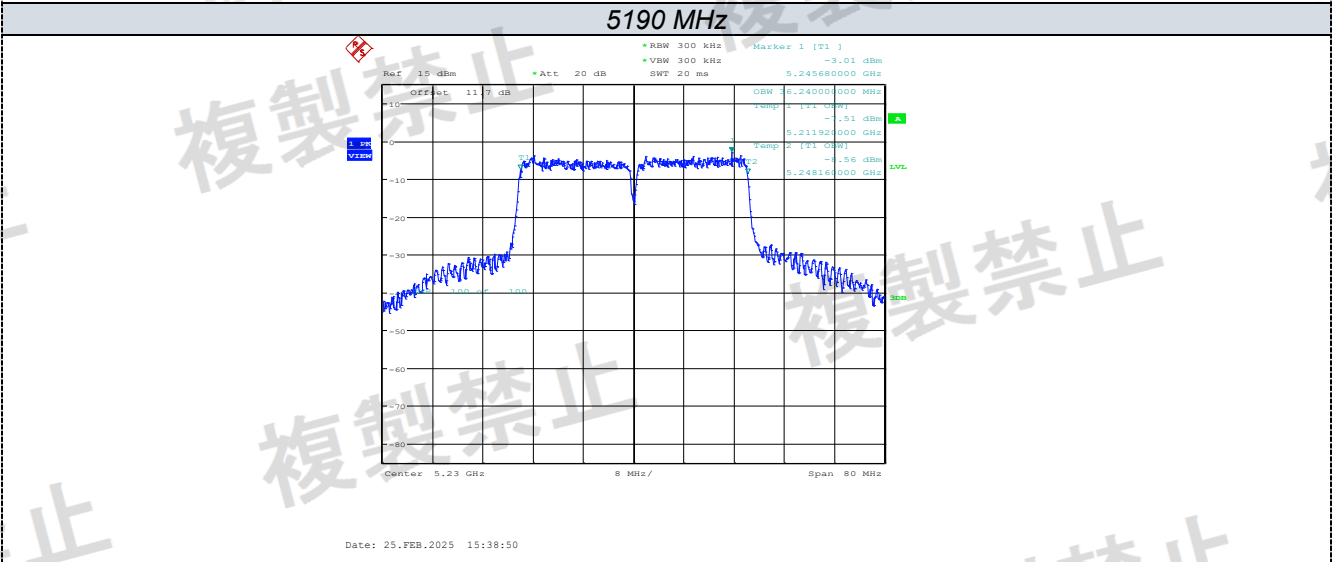
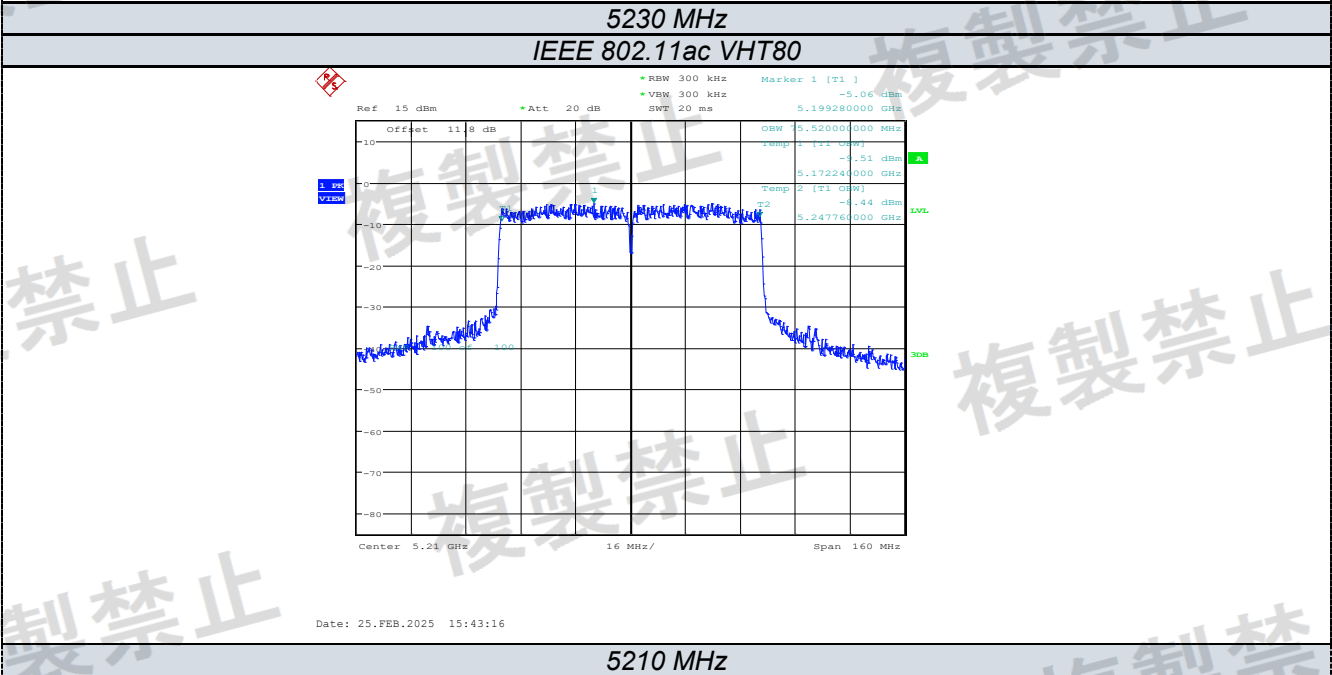


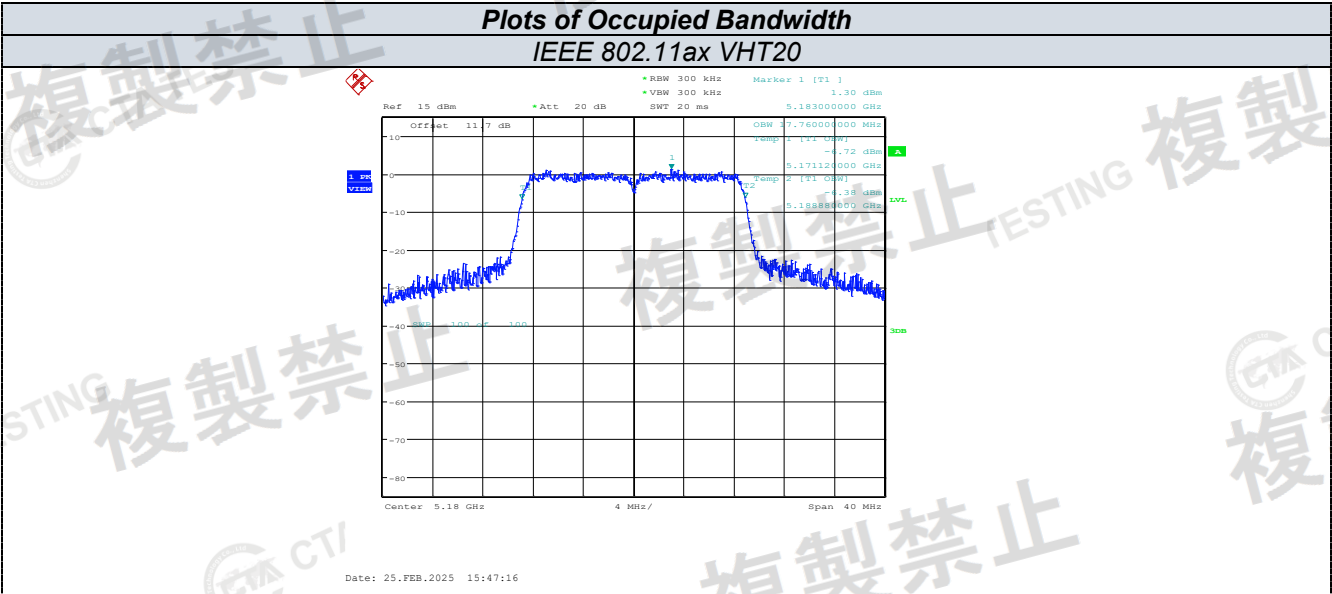
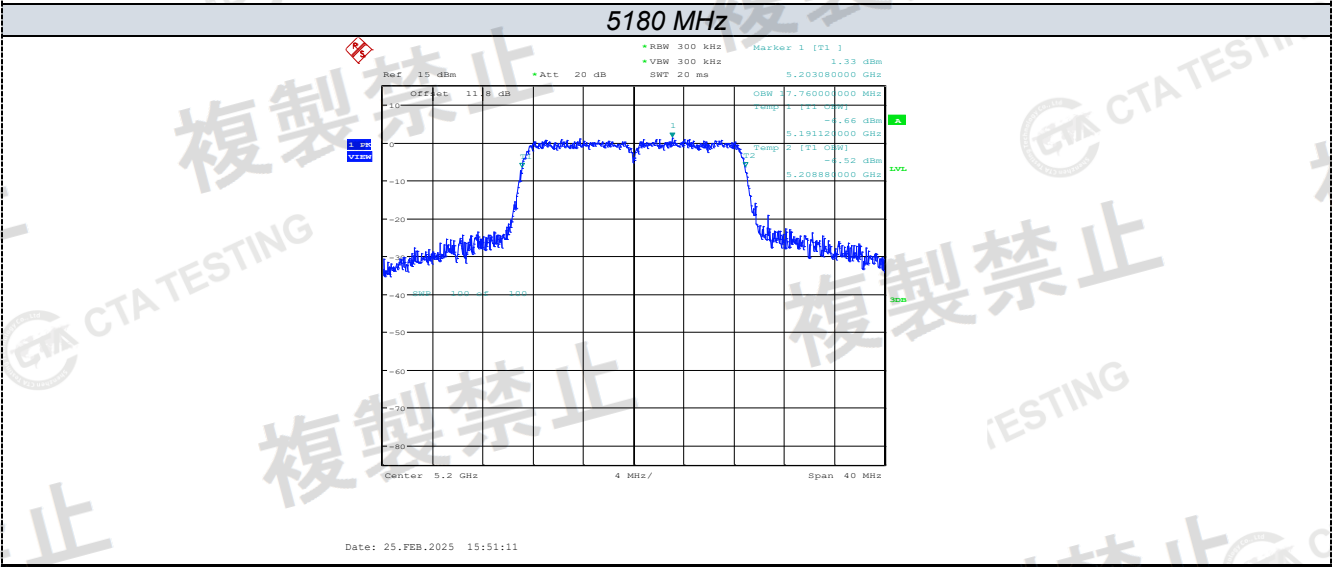
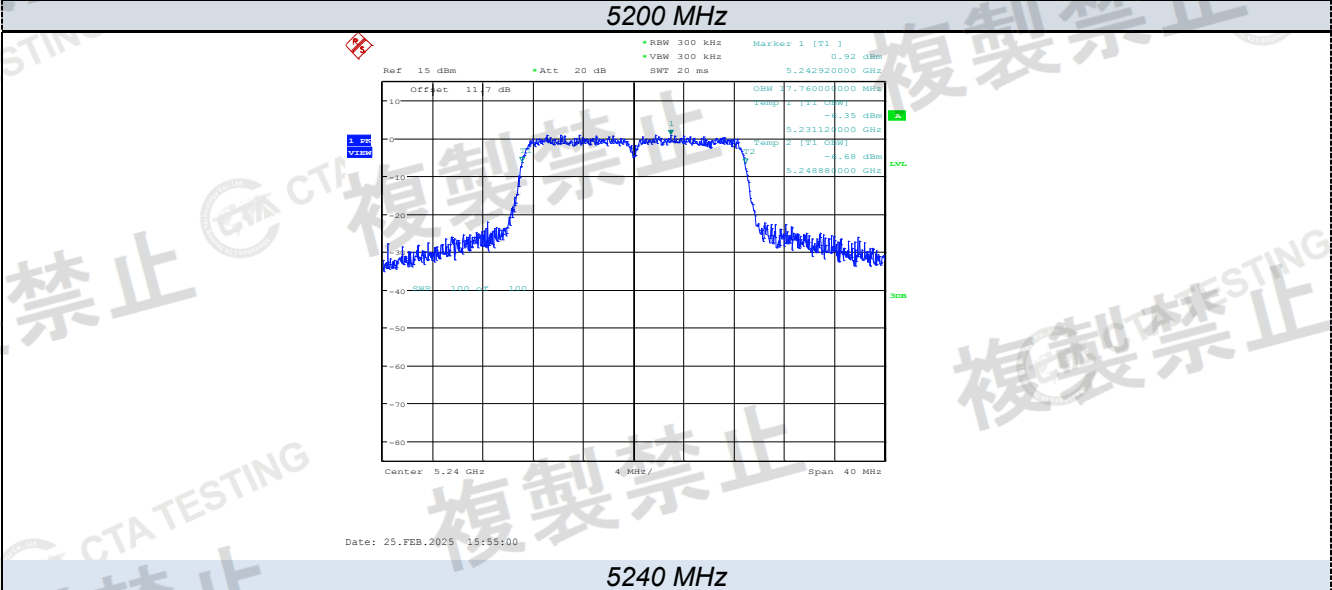
5190 MHz

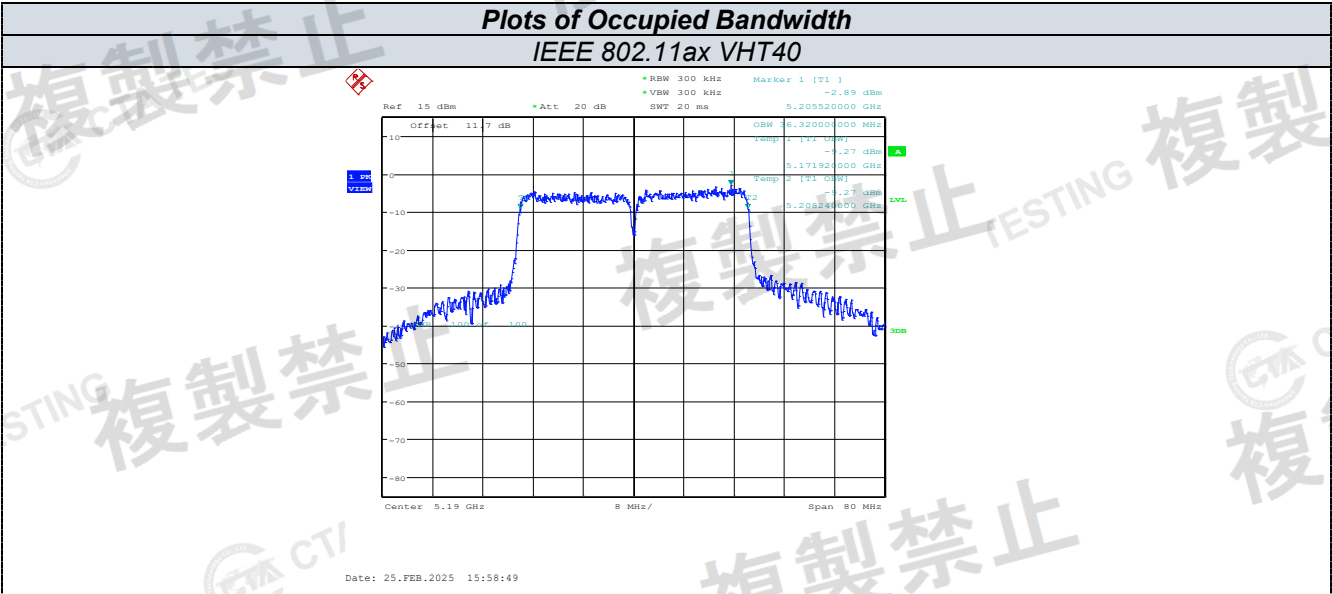
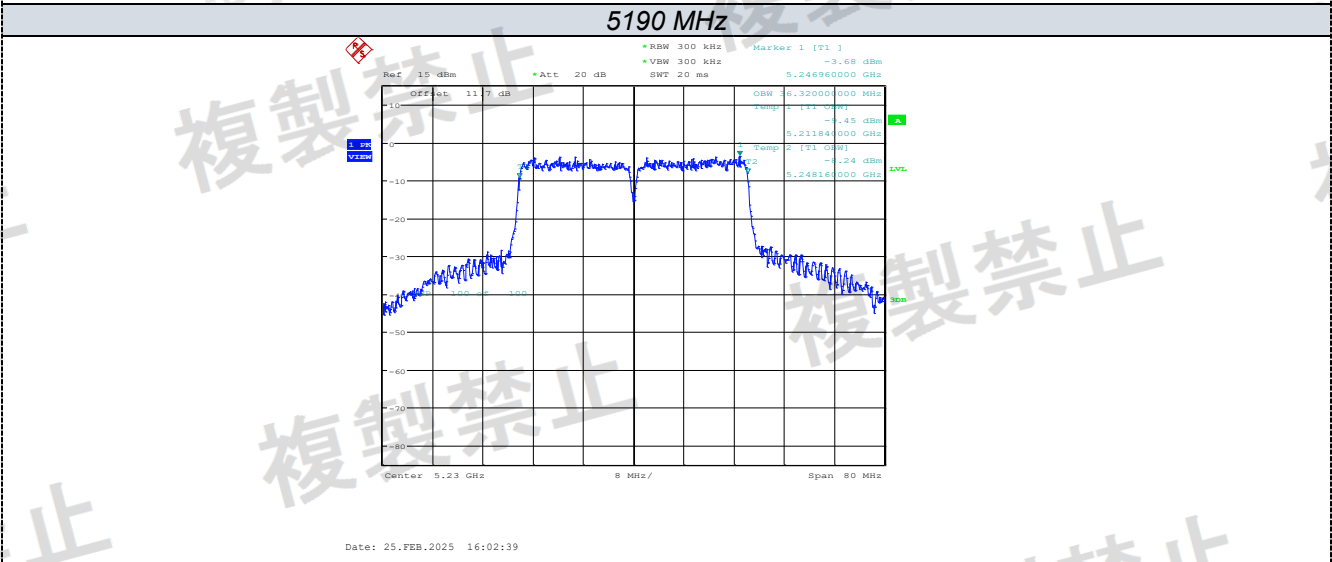
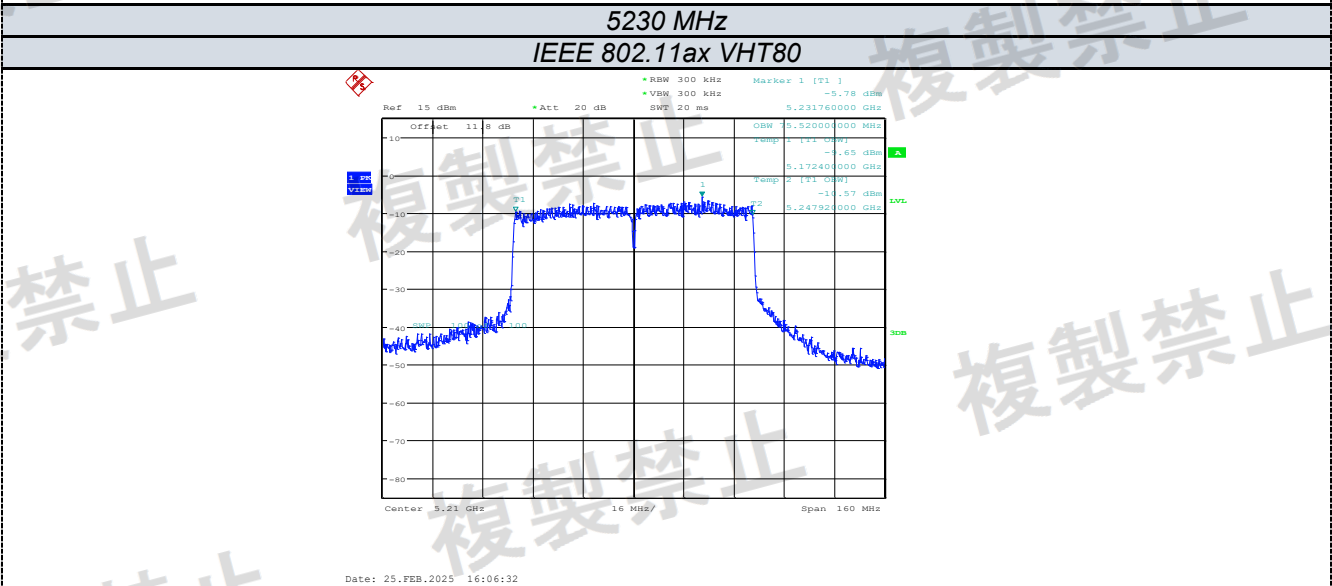
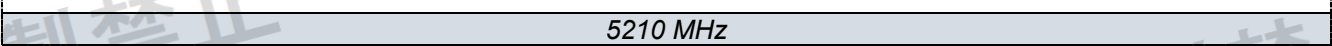


5230 MHz







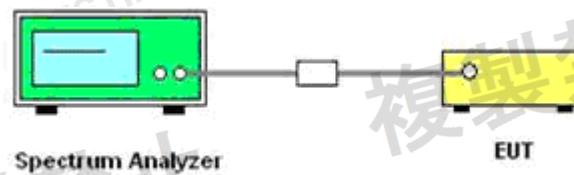


3.4 Adjacent Channel Power

LIMIT

20MHz system		40MHz system	80MHz system	160MHz system
DSSS, etc	OFDM	OFDM	OFDM	OFDM
$F_c \pm 20\text{MHz}$ $\pm 9\text{MHz BW: -25dBc}$	$F_c \pm 20\text{MHz}$ $\pm 9.5\text{MHz BW: -25dBc}$	$F_c \pm 40\text{MHz}$ $\pm 19\text{MHz BW: -25dBc}$	$F_c \pm 80\text{MHz}$ $\pm 39\text{MHz BW: -25dBc}$	--
$F_c \pm 40\text{MHz}$ $\pm 9\text{MHz BW: -45dBc}$	$F_c \pm 40\text{MHz}$ $\pm 9.5\text{MHz BW: -40dBc}$	$F_c \pm 80\text{MHz}$ $\pm 19\text{MHz BW: -40dBc}$		

TEST CONFIGURATION



TEST PROCEDURE

The EUT is connected to the spectrum via a power synthesizer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

Use Spectrum's ACP measurement function and set spectrum analyzer as follow:

Spectrum Condition:

- Frequency: test frequency
- Span: >4 times integrate bandwidth
- RBW: 300 KHz
- VBW: 300 KHz
- Sweep time: Auto
- Sweep mode: Continuous
- Detector mode: Sample
- Indication mode: max hold

TEST RESULTS

Combined(MIMO)

Mode	Channel (MHz)	Adjacent Channel Power (dBc)				Limit	Result
		$F_c - 20\text{MHz}$	$F_c + 20\text{MHz}$	$F_c - 40\text{MHz}$	$F_c + 40\text{MHz}$		
IEEE 802.11a	5180	-32.14	-32.01	-45.59	-46.91	$F_c \pm 20\text{MHz: -25dBc}$ $F_c \pm 40\text{MHz: -40dBc}$	Pass
	5200	-33.84	-32.29	-46.49	-47.03		
	5240	-32.63	-32.28	-46.86	-47.24		
IEEE 802.11n HT20	5180	-30.49	-29.84	-45.01	-46.34	$F_c \pm 20\text{MHz: -25dBc}$ $F_c \pm 40\text{MHz: -40dBc}$	Pass
	5200	-31.37	-30.16	-45.78	-46.09		
	5240	-30.63	-29.17	-46.36	-46.46		

Mode	Channel (MHz)	Adjacent Channel Power (dBc)				Limit	Result
		F _C -40MHz	F _C +40MHz	F _C -80MHz	F _C +80MHz		
IEEE 802.11n HT40	5190	-31.37	-29.15	-42.17	-43.04	F _C ±40MHz: -25dBc	Pass
	5230	-31.38	-30.24	-42.63	-43.52	F _C ±80MHz: -40dBc	

Mode	Channel (MHz)	Adjacent Channel Power (dBc)				Limit	Result
		F _C -20MHz	F _C +20MHz	F _C -40MHz	F _C +40MHz		
IEEE 802.11ac VHT20	5180	-31.91	-31.36	-45.04	-46.20	F _C ±20MHz: -25dBc	Pass
	5200	-32.39	-31.56	-45.80	-46.10	F _C ±40MHz: -40dBc	
	5240	-32.81	-31.10	-46.35	-46.63		

Mode	Channel (MHz)	Adjacent Channel Power (dBc)				Limit	Result
		F _C -40MHz	F _C +40MHz	F _C -80MHz	F _C +80MHz		
IEEE 802.11ac VHT40	5190	-31.77	-28.33	-42.33	-43.15	F _C ±40MHz: -25dBc	Pass
	5230	-31.08	-29.37	-42.73	-43.79	F _C ±80MHz: -40dBc	

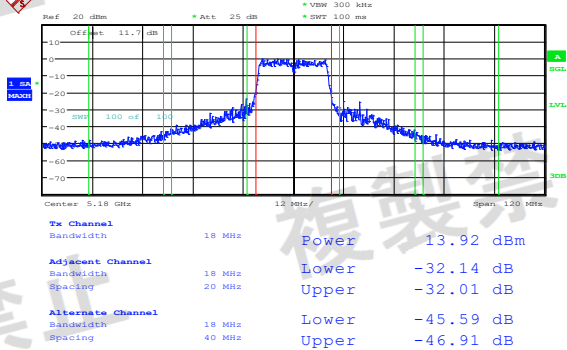
Mode	Channel (MHz)	Adjacent Channel Power (dBc)		Limit	Result
		F _C -80MHz	F _C +80MHz		
IEEE 802.11ac VHT80	5210	-32.57	-33.64	F _C ± 80MHz ± 39MHz BW: -25dBc	Pass

Mode	Channel (MHz)	Adjacent Channel Power (dBc)				Limit	Result
		F _C -20MHz	F _C +20MHz	F _C -40MHz	F _C +40MHz		
IEEE 802.11ax VHT20	5180	-33.22	-31.20	-44.86	-45.23	F _C ±20MHz: -25dBc	Pass
	5200	-32.40	-31.31	-45.60	-46.34	F _C ±40MHz: -40dBc	
	5240	-32.84	-31.34	-46.29	-46.53		

Mode	Channel (MHz)	Adjacent Channel Power (dBc)				Limit	Result
		F _C -40MHz	F _C +40MHz	F _C -80MHz	F _C +80MHz		
IEEE 802.11ax VHT40	5190	-31.26	-28.04	-42.26	-43.22	F _C ±40MHz: -25dBc	Pass
	5230	-31.54	-29.77	-42.49	-43.56	F _C ±80MHz: -40dBc	

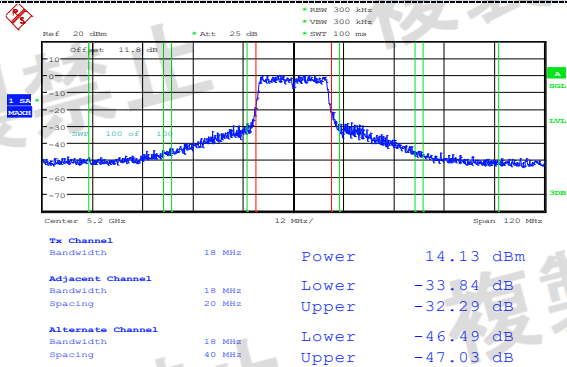
Mode	Channel (MHz)	Adjacent Channel Power (dBc)		Limit	Result
		F _C -80MHz	F _C +80MHz		
IEEE 802.11ac VHT80	5210	-33.43	-34.42	F _C ± 80MHz ± 39MHz BW: -25dBc	Pass

Plots of Adjacent Channel Power
IEEE 802.11a



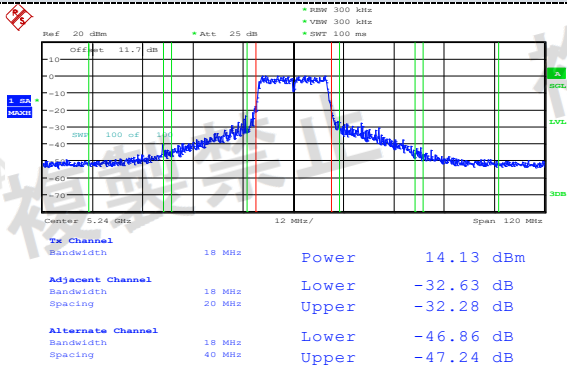
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5180 MHz



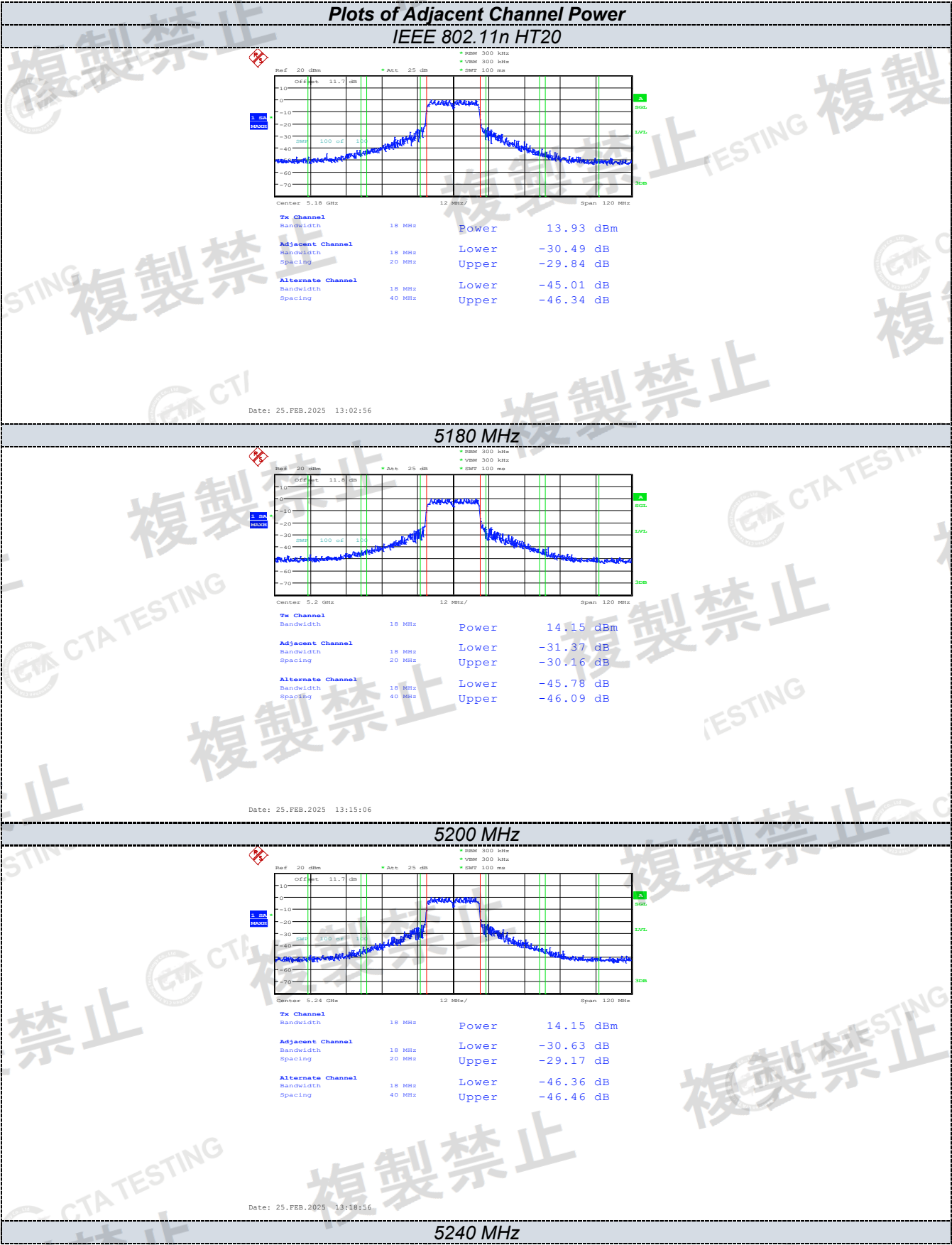
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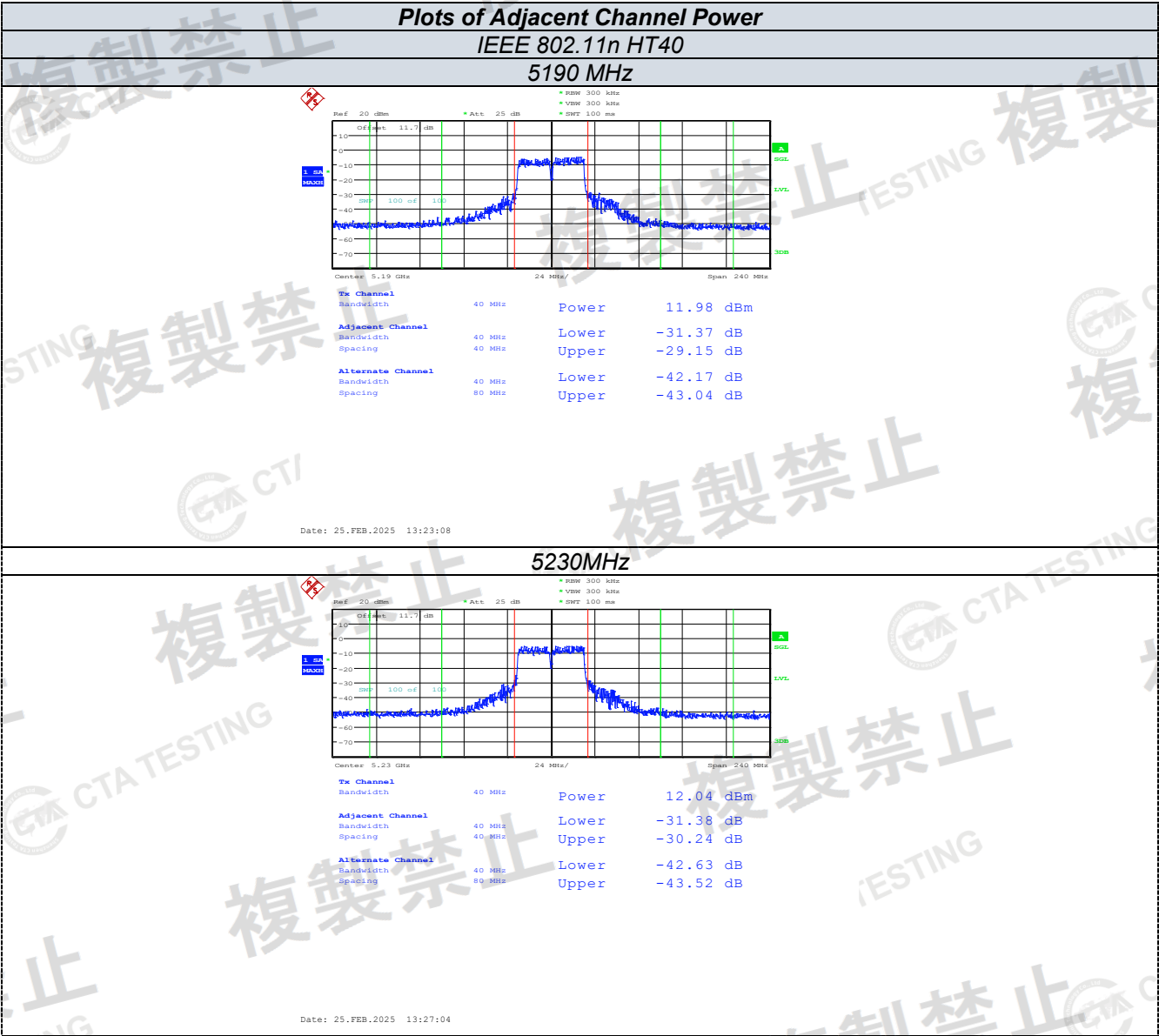
5200 MHz



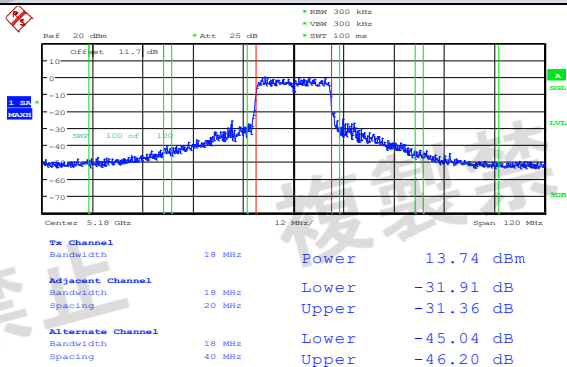
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5240 MHz



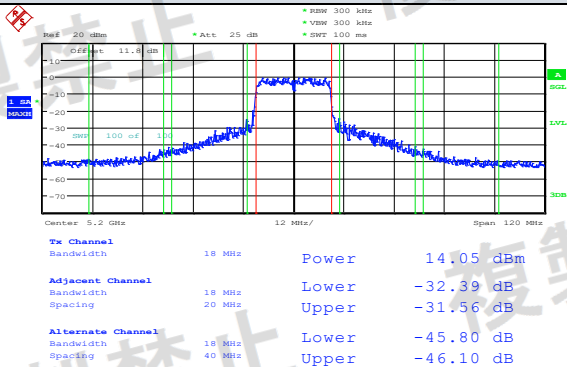


Plots of Adjacent Channel Power
IEEE 802.11ac VHT20



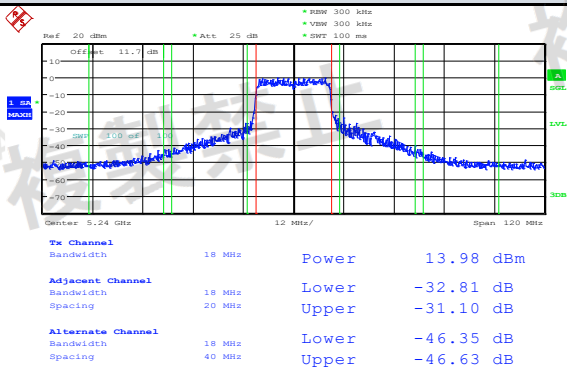
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5180 MHz



Date: 25.FEB.2025 13:36:47

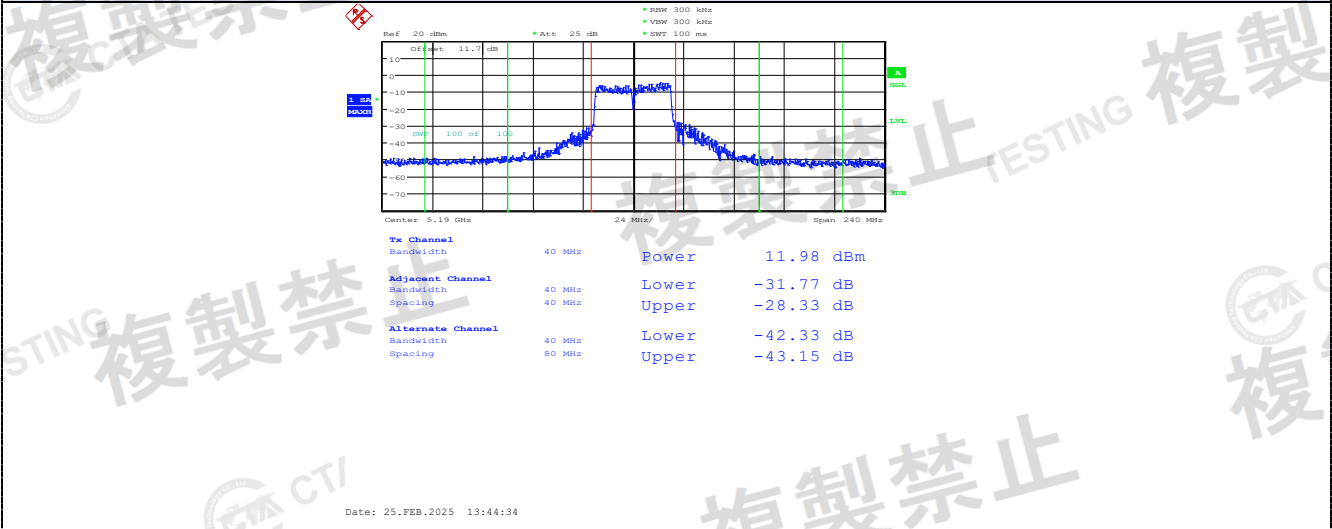
5200 MHz



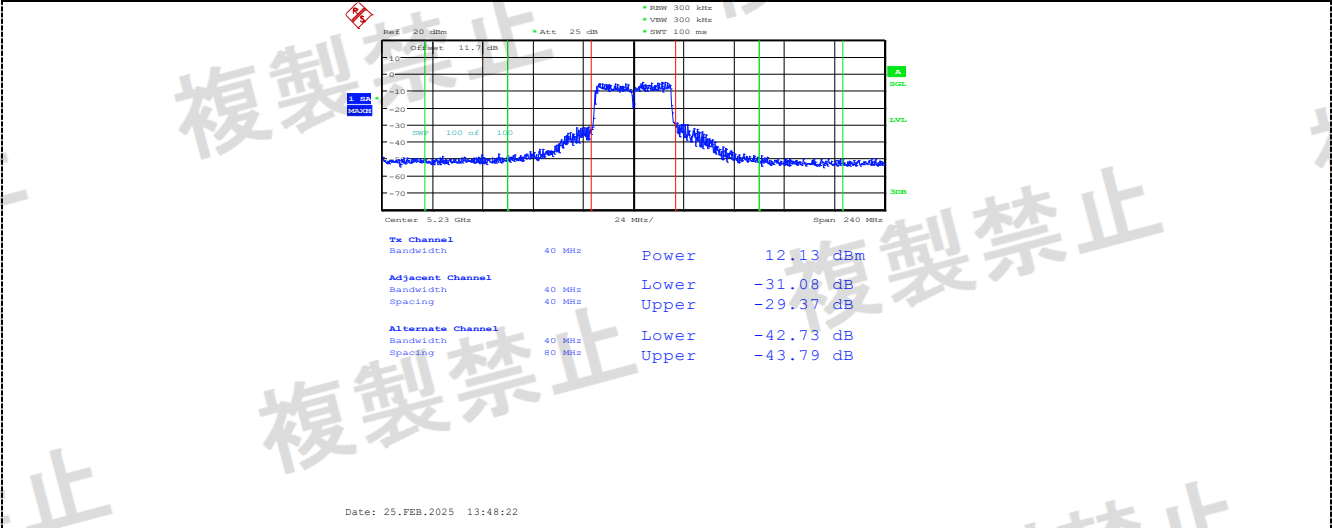
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5240 MHz

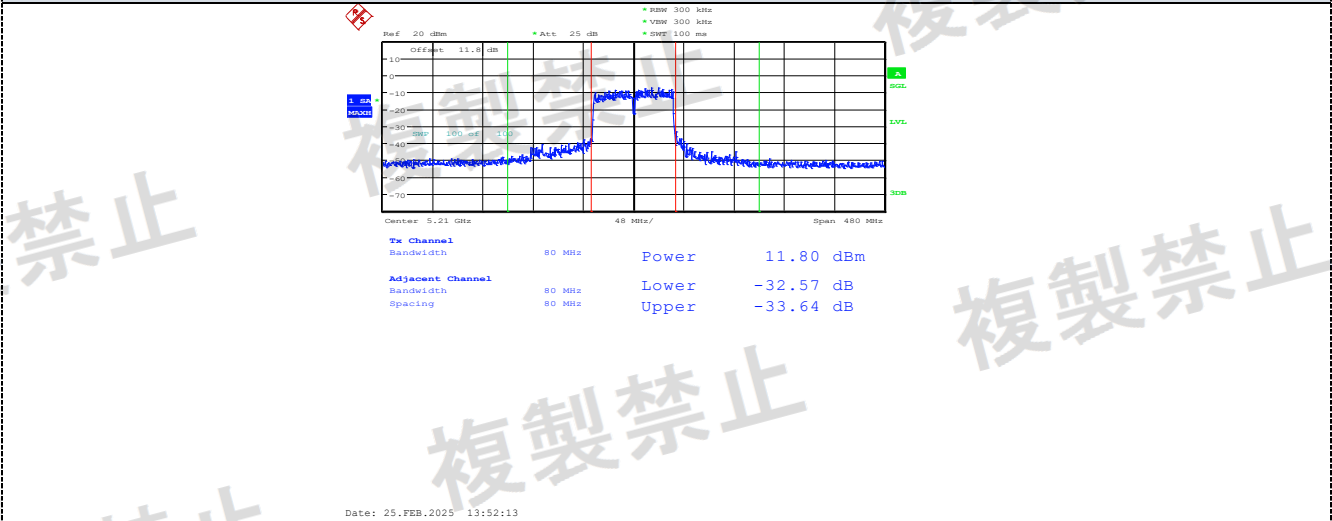
Plots of Adjacent Channel Power
IEEE 802.11ac VHT40



5190 MHz



5230 MHz
IEEE 802.11ac VHT80



5210 MHz

IEEE 802.11ax VHT20



5180 MHz

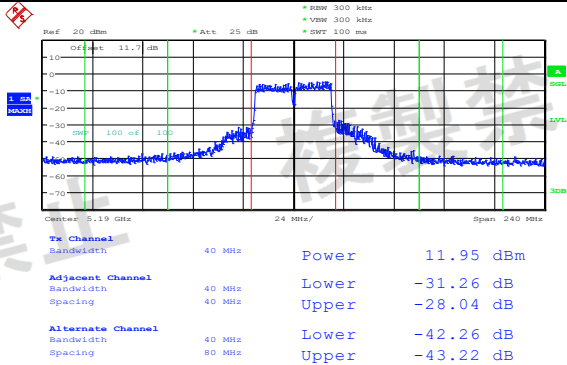


5200 MHz



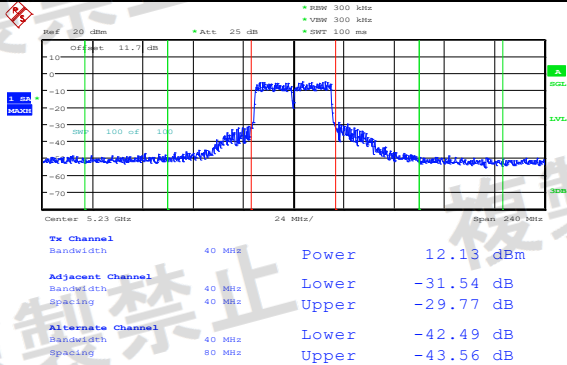
5240 MHz

Plots of Adjacent Channel Power
IEEE 802.11ax VHT40



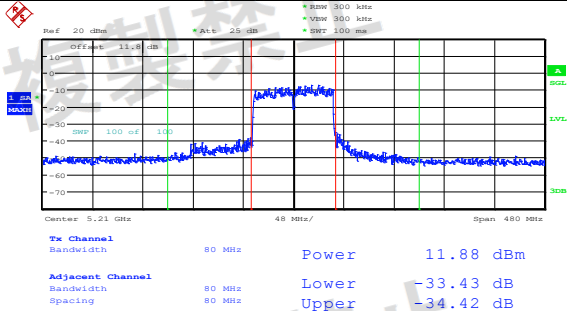
Date: 25.FEB.2025 14:08:55

5190 MHz



Date: 25.FEB.2025 14:12:44

5230 MHz
IEEE 802.11ax VHT80



Date: 25.FEB.2025 14:16:35

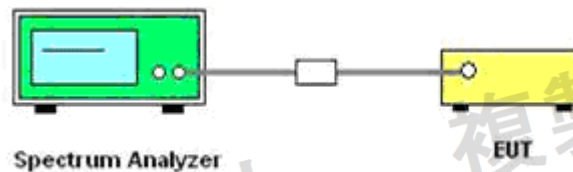
5210 MHz

3.5 Out of Band Leakage Power

LIMIT

W52	20MHz system	
	OBW: 18MHz or less	OBW:18-19MHz
	5140-5142MHz: 2.5μW/MHz 5142-5150MHz: 15μW/MHz 5250-5251MHz: $10^{1-(f-9)} \text{mW/MHz}$ 5251-5260MHz: $10^{-1-(8/90)(f-11)} \text{mW/MHz}$ 5260-5266.7MHz: $10^{-1.8-(6/50)(f-20)} \text{mW/MHz}$ 5266.7-5360MHz: 2.5μW/MHz f=MHz, Different from 5240(MHz)	5135-5142MHz: 2.5μW/MHz 5142-5150MHz: 15μW/MHz 5250-5251MHz: $10^{1-(f-9)} \text{mW/MHz}$ 5251-5260MHz: $10^{-1-(8/90)(f-11)} \text{mW/MHz}$ 5260-5266.7MHz: $10^{-1.8-(6/50)(f-20)} \text{mW/MHz}$ 5266.7-5365MHz: 2.5μW/MHz f=MHz, Different from 5240(MHz)
	40MHz system	80MHz system
	5100-5141.6MHz: 2.5μW/MHz 5141.6-5150MHz: 15μW/MHz 5250-5251MHz: $10^{-(f-20)+\log(1/2)} \text{mW/MHz}$ 5251-5270MHz: $10^{-(8/190)(f-21)-1+\log(1/2)} \text{mW/MHz}$ 5270-5278.4MHz: $10^{-(3/50)(f-40)-1.8+\log(1/2)} \text{mW/MHz}$ 5278.4-5400MHz: 2.5μW/MHz f=MHz, Different from 5230(MHz)	5020-5123.2MHz: 2.5μW/MHz 5123.2-5150MHz: 15μW/MHz 5250-5251MHz: $10^{-(f-40)+\log(1/4)} \text{mW/MHz}$ 5251-5290MHz: $10^{-(8/390)(f-41)-1+\log(1/4)} \text{mW/MHz}$ 5290-5296.7MHz: $10^{-(3/100)(f-80)-1.8+\log(1/4)} \text{mW/MHz}$ 5296.7-5480MHz: 2.5μW/MHz f=MHz, Different from 5210(MHz)

TEST CONFIGURATION



TEST PROCEDURE

Enable EUT under transmission mode and connected it to the spectrum analyzer through antenna output port as the block diagram show in TEST CONFIGURATION

Use Spectrum's ACP measurement function and set spectrum analyzer as follow:

Spectrum Condition:

Step 1:

- Frequency: include each specified frequency range
- RBW: 1 MHz
- VBW: 1 MHz
- Span: Wide enough to cover the complete power envelope of the signal of the UUT.
- Detector: Peak
- Trace Mode: Max Hold

Step 2:

When the trace is complete, find the peak value of the power envelope and record the frequency.

Step 3:

Make the following changes to the settings of the spectrum analyzer:

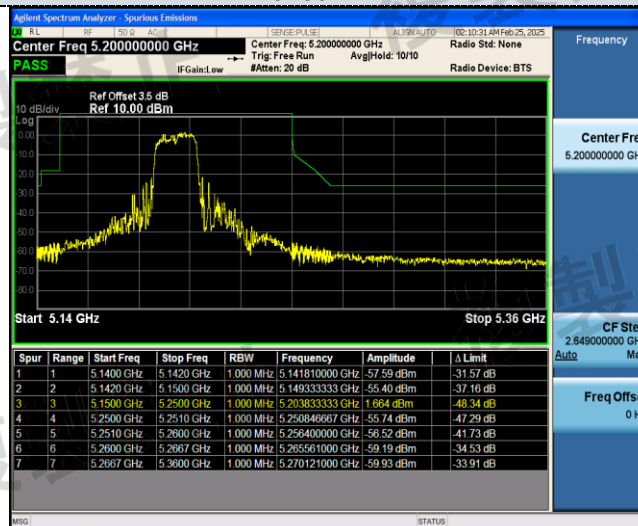
- Centre Frequency: Equal to the frequency recorded in step 2.
- Span: 0 Hz
- RBW: 1 MHz
- VBW: 1 MHz
- Detector: RMS
- Trace Mode: Clear Write

TEST RESULTS**ANT1:**

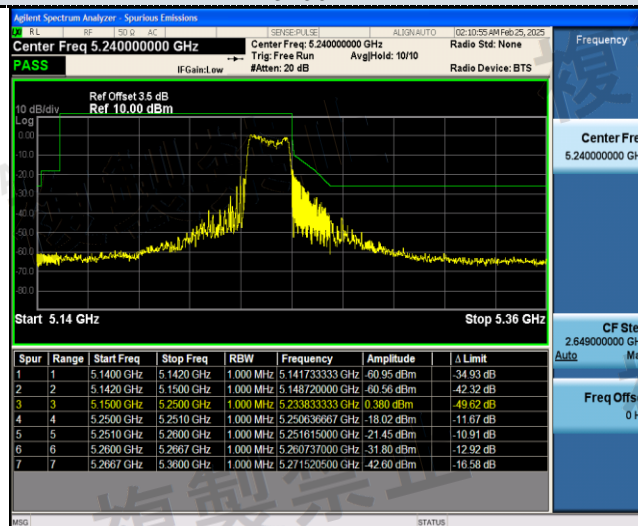
IEEE 802.11n HT20



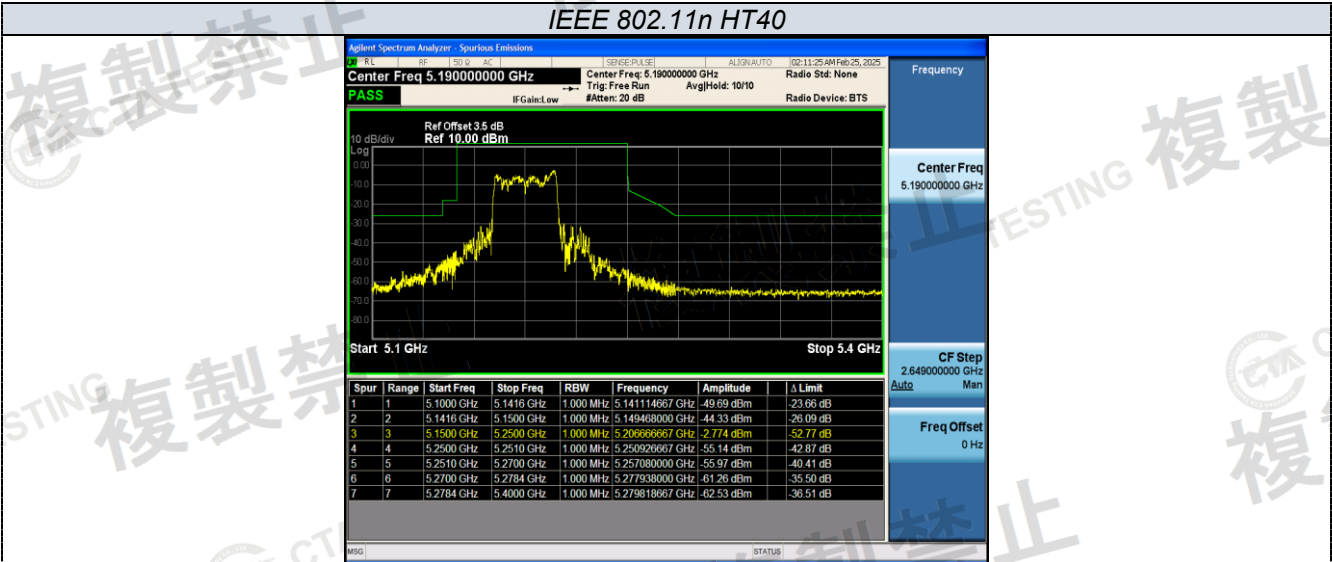
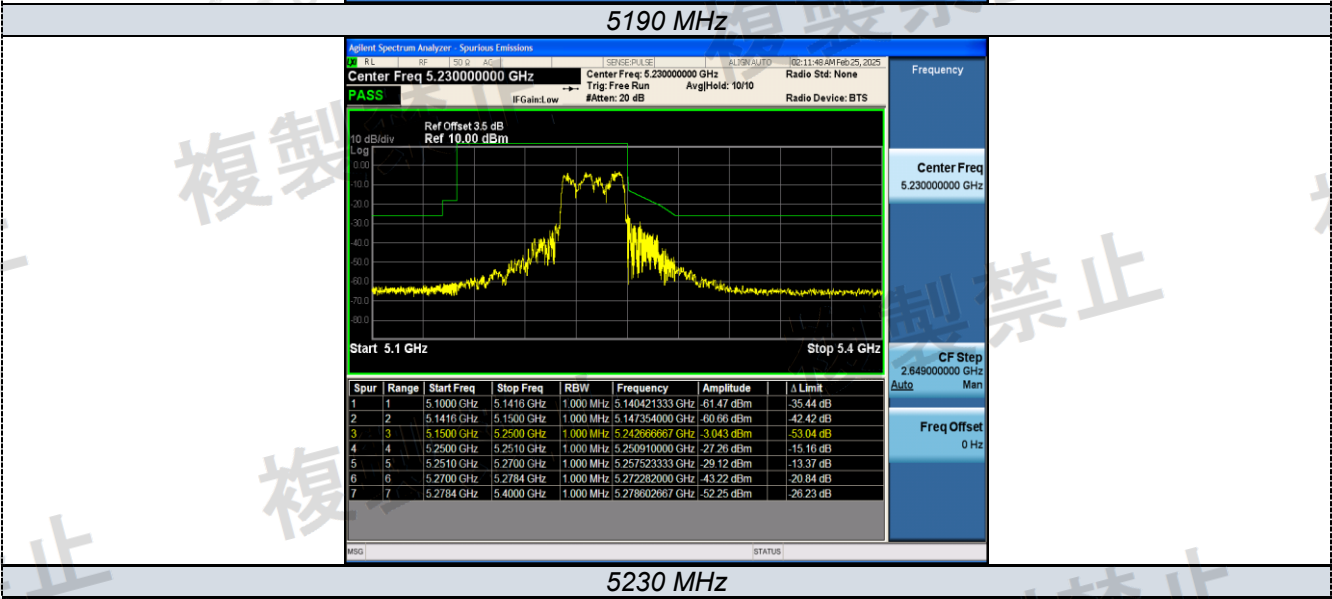
5180 MHz



5200 MHz



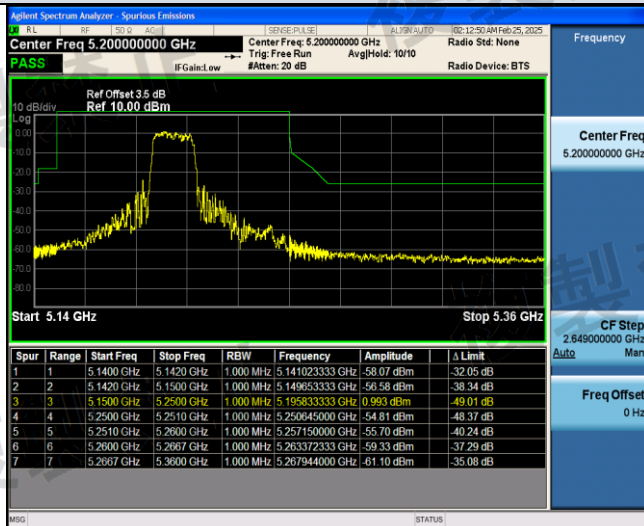
5240 MHz



IEEE 802.11ac VHT20



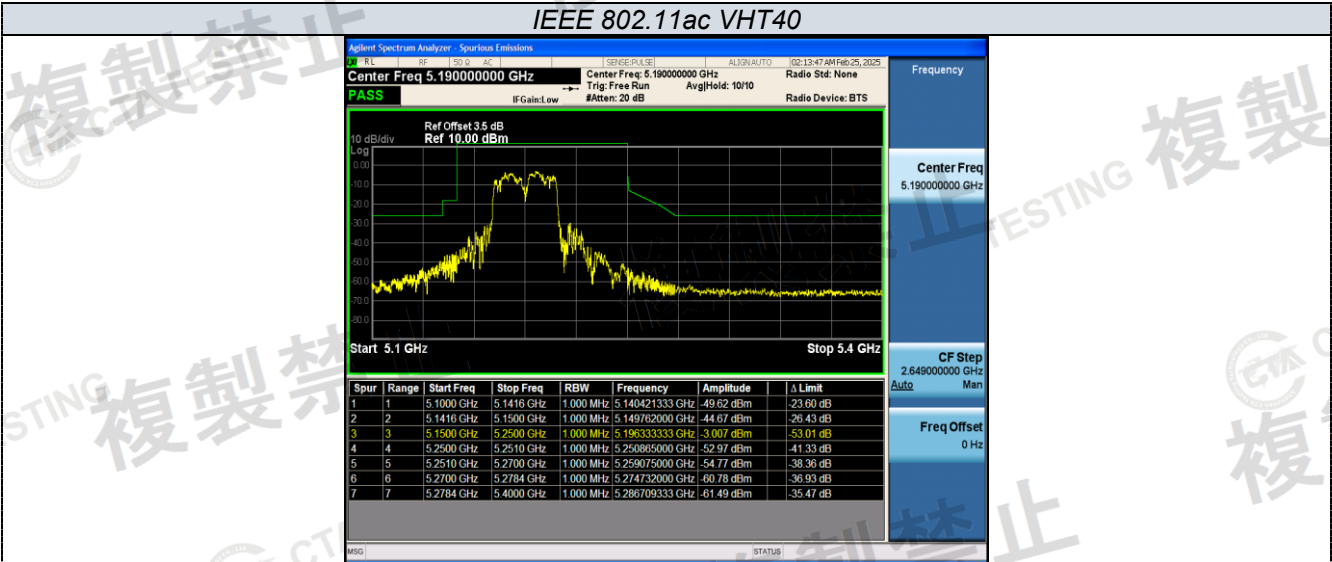
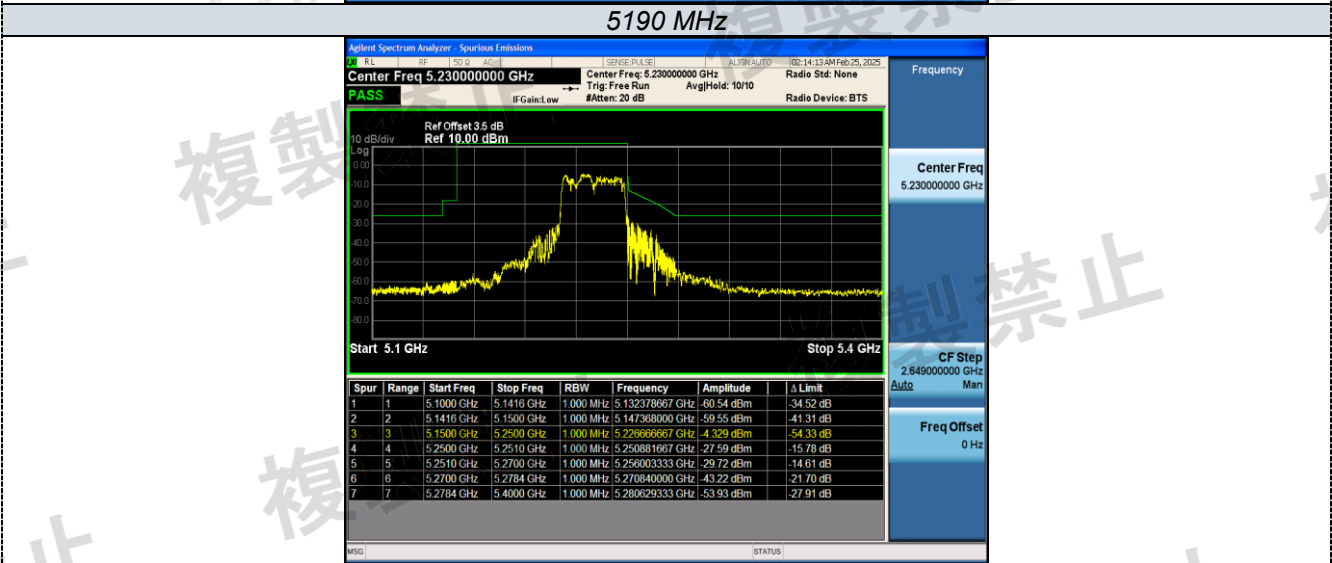
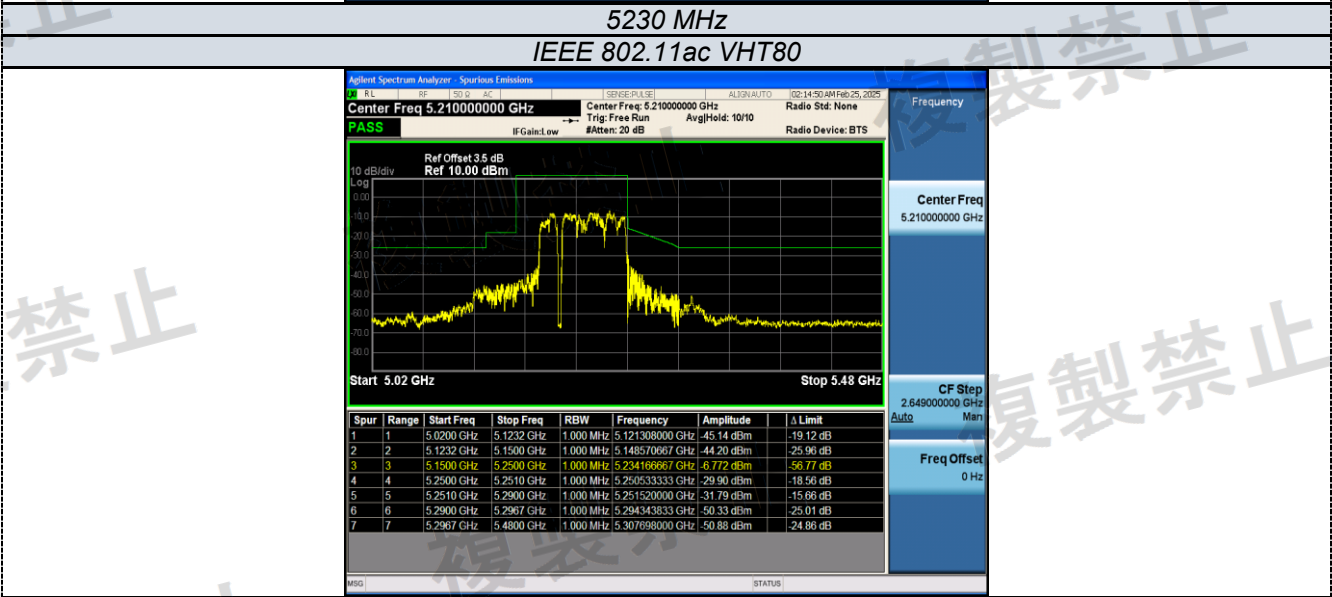
5180 MHz



5200 MHz



5240 MHz



5210 MHz

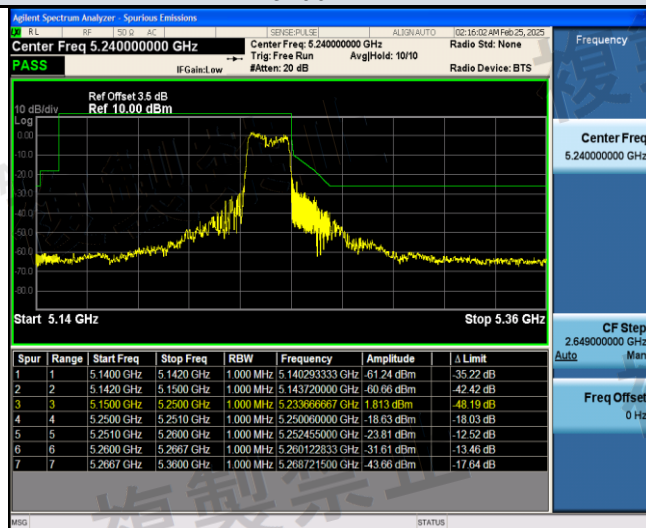
IEEE 802.11ax VHT20



5180 MHz

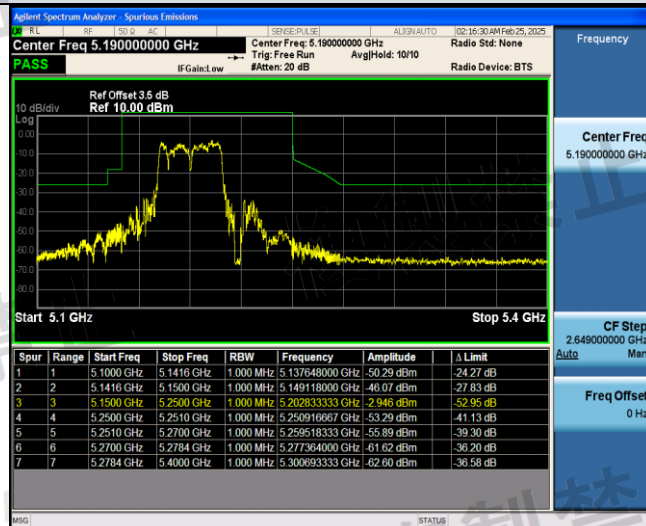


5200 MHz

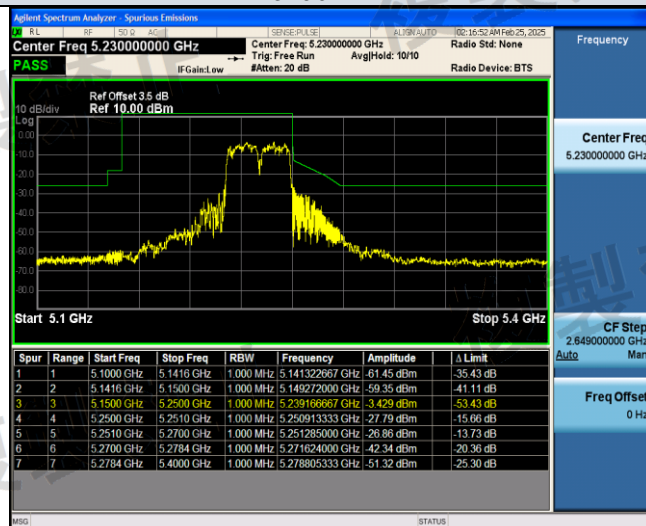


5240 MHz

IEEE 802.11ax VHT40

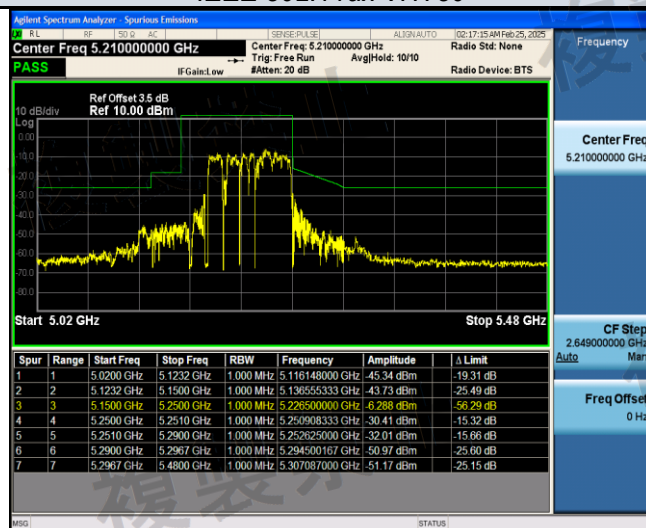


5190 MHz



5230 MHz

IEEE 802.11ax VHT80



5210 MHz

ANT2:

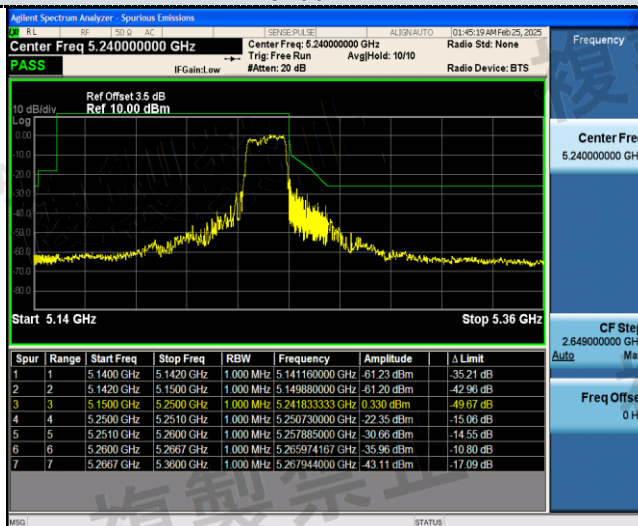
IEEE 802.11a



5180 MHz



5200 MHz



5240 MHz

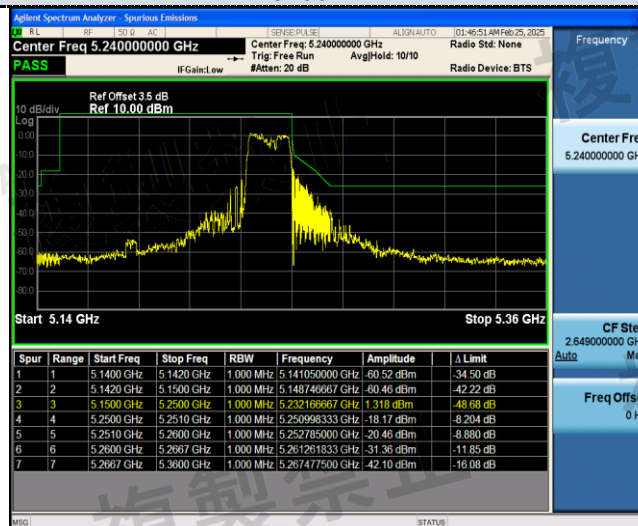
IEEE 802.11n HT20



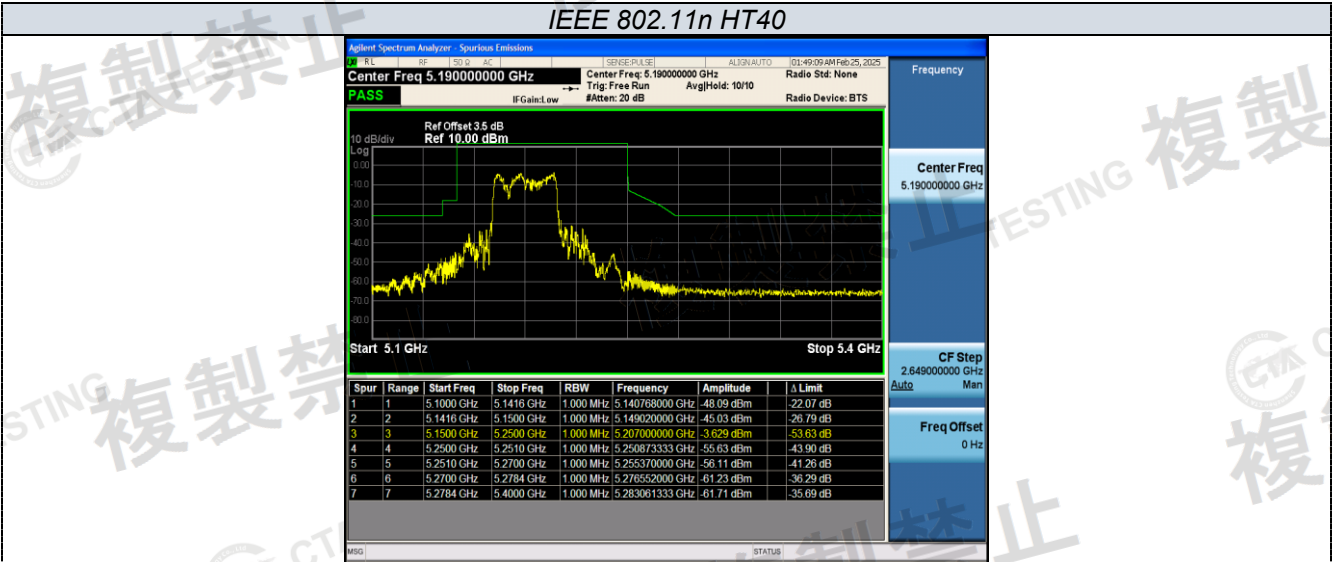
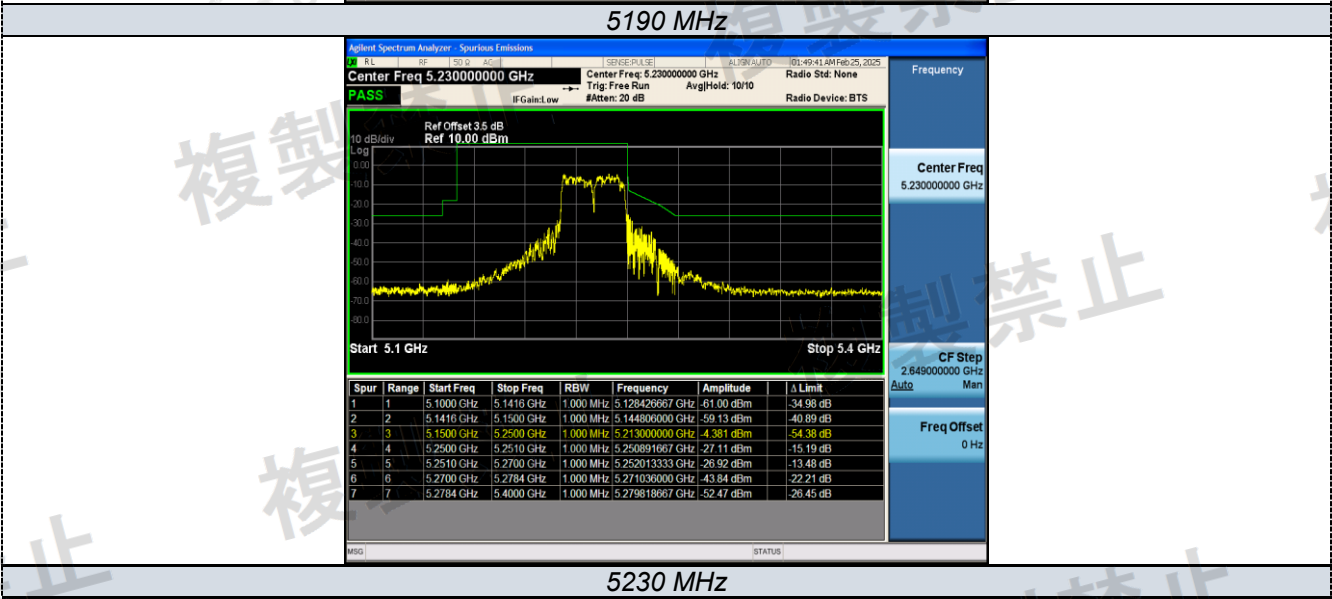
5180 MHz



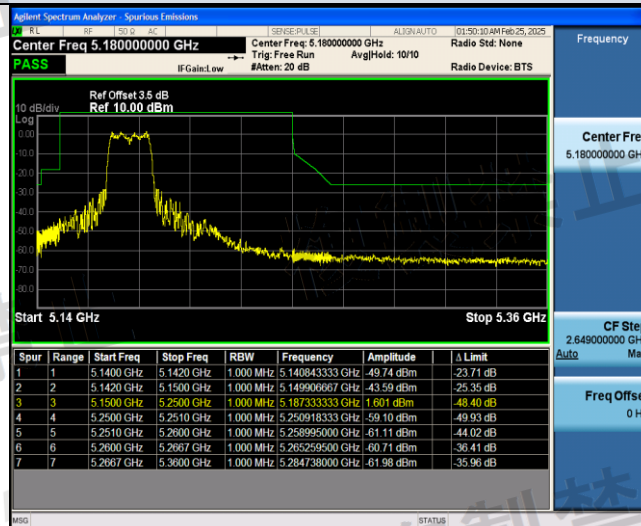
5200 MHz



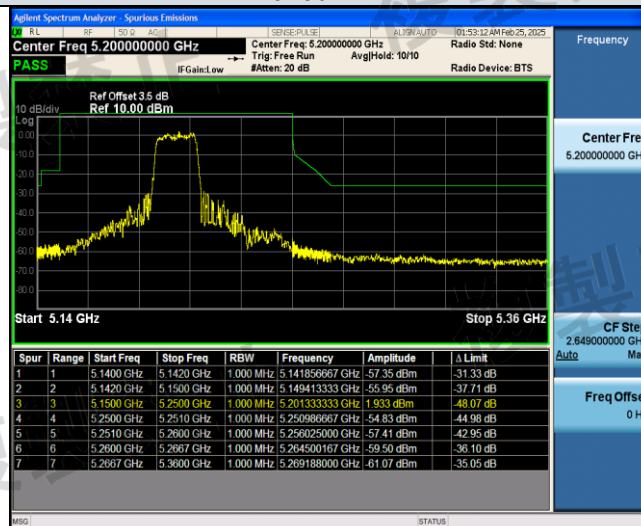
5240 MHz



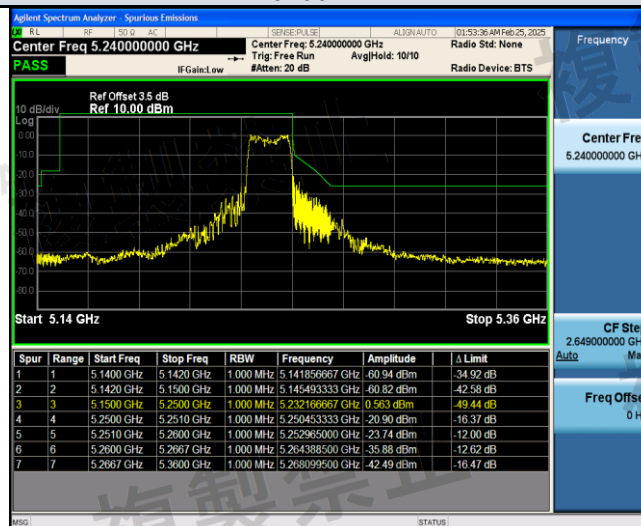
IEEE 802.11ac VHT20



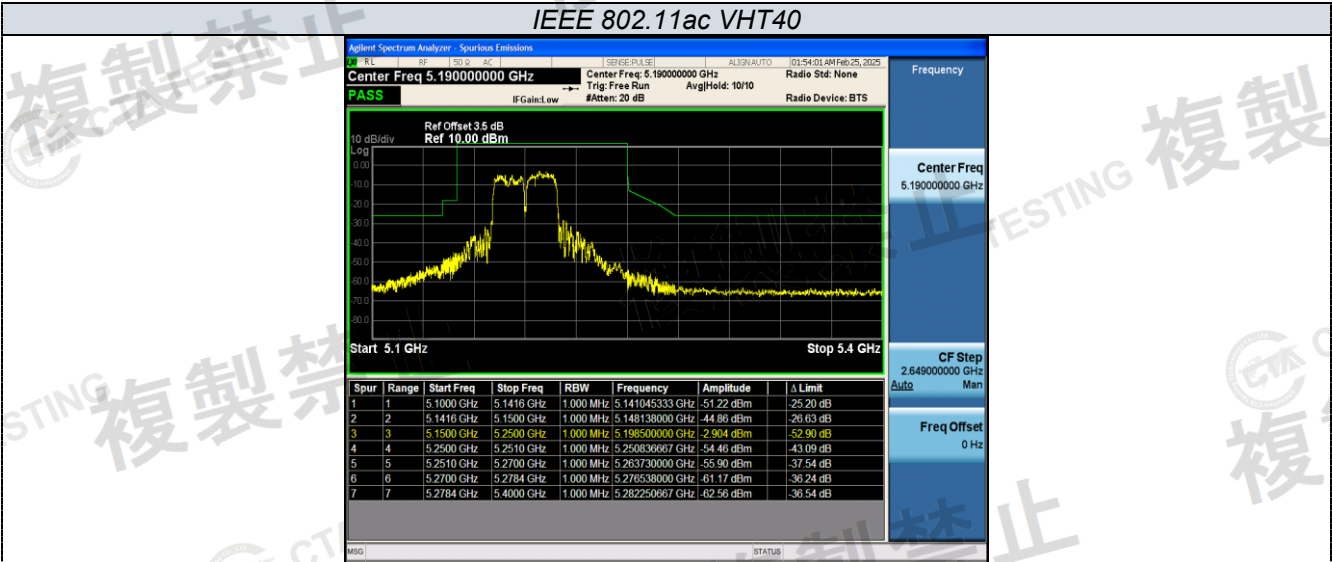
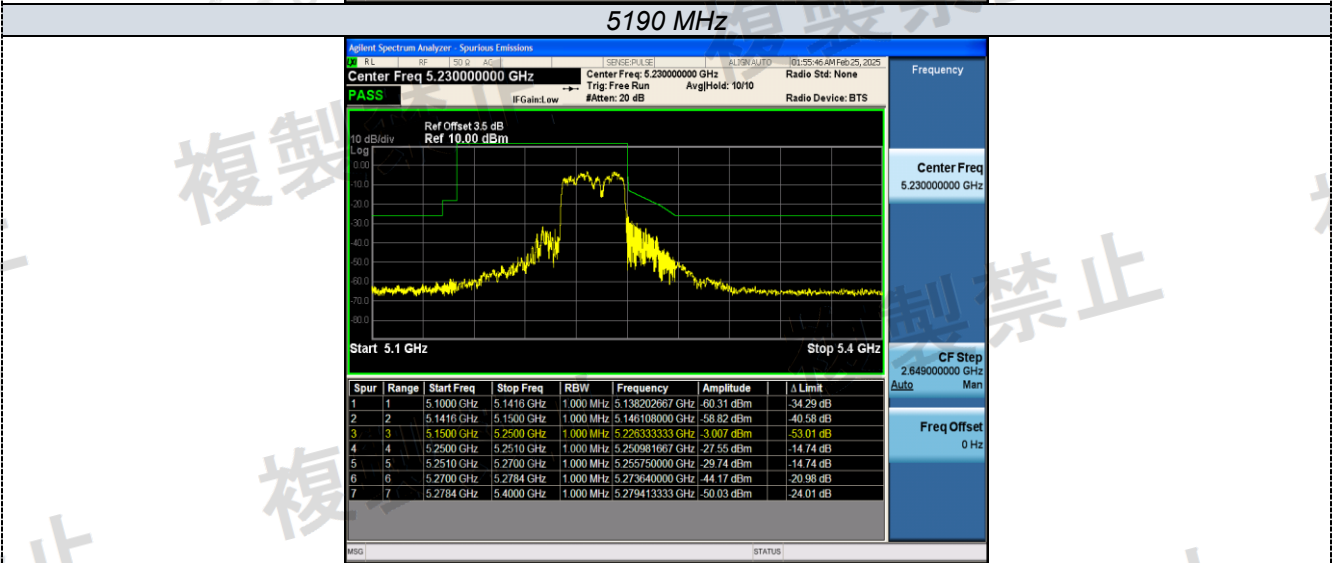
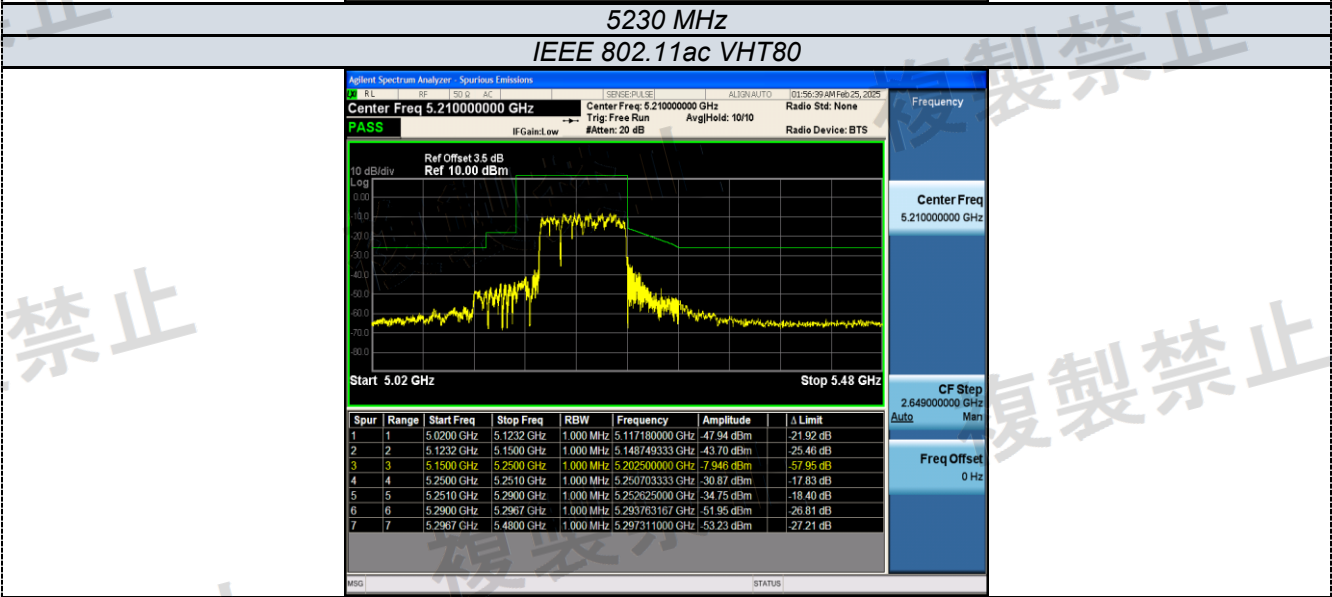
5180 MHz



5200 MHz



5240 MHz



5210 MHz

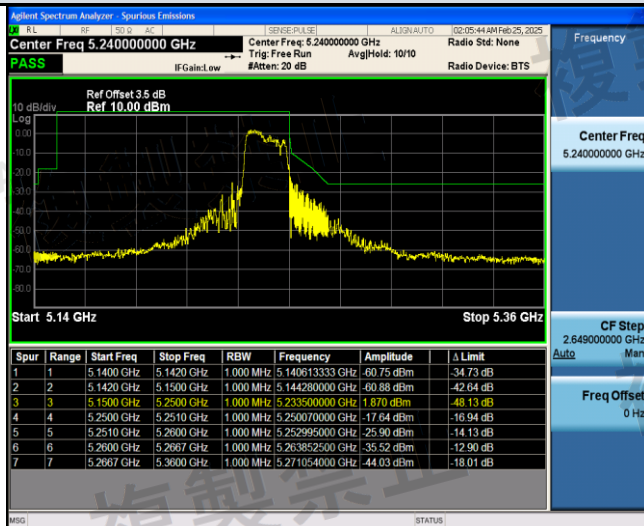
IEEE 802.11ax VHT20



5180 MHz

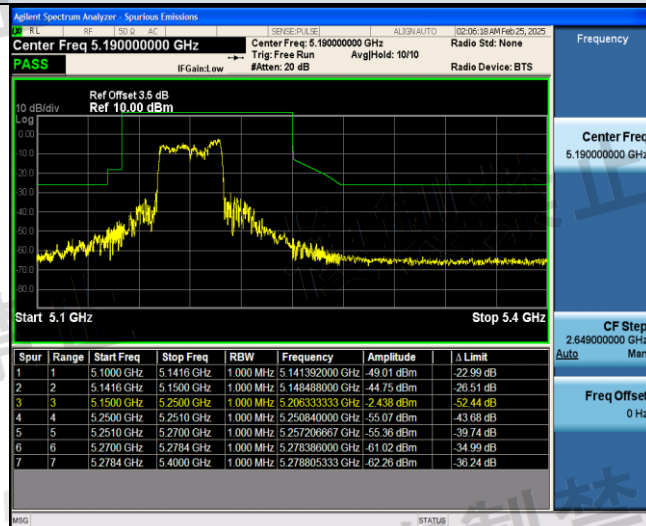


5200 MHz



5240 MHz

IEEE 802.11ax VHT40

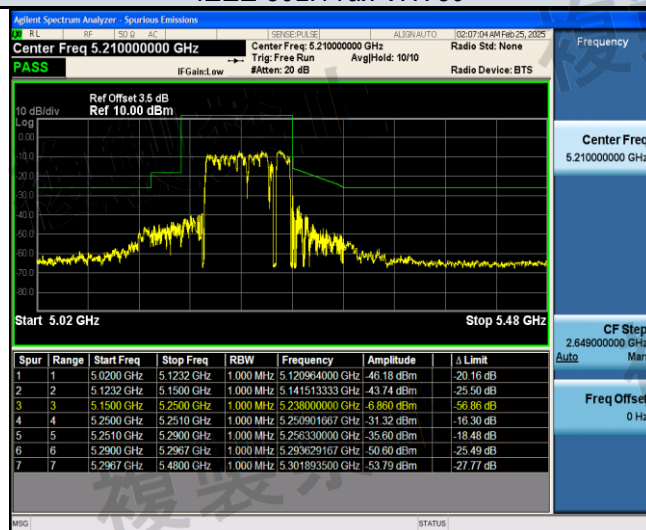


5190 MHz



5230 MHz

IEEE 802.11ax VHT80



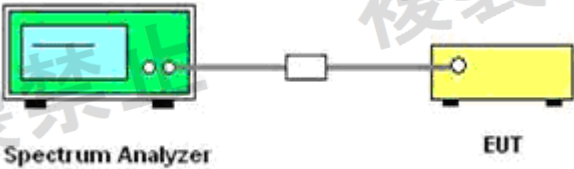
5210 MHz

3.6 Unwanted Emission Strength

LIMIT

Operation Band	20MHz system		40MHz system	80MHz system
	DSSS, etc	OFDM	OFDM	OFDM
W52 & W53	30~5,140MHz: 2.5μW/MHz	30~5,135MHz: 2.5μW/MHz	30~5,100MHz: 2.5μW/MHz	30~5,020MHz: 2.5μW/MHz
	5,360MHz~26GHz: 2.5μW/MHz	5,365MHz~26GHz: 2.5μW/MHz	5,400MHz~26GHz: 2.5μW/MHz	5,480MHz~26GHz: 2.5μW/MHz

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: modulation

Spectrum Condition:

- Frequency: 30MHz-26GHz
- RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-26GHz)
- VBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-26GHz)
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

TEST RESULTS

ANT1:

TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	11A	Ant1	5180	30~5142	5142.00	-45.42	0.02871	≤2.5	PASS
				5266.7~26000	23896.26	-46.73	0.02123	≤2.5	PASS
			5200	30~5142	5142.00	-54.75	0.00335	≤2.5	PASS
				5266.7~26000	25664.12	-46.54	0.02218	≤2.5	PASS
			5240	30~5142	2458.71	-55.31	0.00294	≤2.5	PASS
				5266.7~26000	5270.85	-30.04	0.99083	≤2.5	PASS
	11N20SISO	Ant1	5180	30~5142	5137.91	-44.75	0.03350	≤2.5	PASS
				5266.7~26000	25559.07	-46.42	0.02280	≤2.5	PASS
			5200	30~5142	5140.47	-54.57	0.00349	≤2.5	PASS
				5266.7~26000	24820.97	-47.53	0.01766	≤2.5	PASS
			5240	30~5142	833.61	-40.77	0.08375	≤2.5	PASS
				5266.7~26000	5269.46	-31.19	0.76033	≤2.5	PASS
	11N40SISO	Ant1	5190	30~5141.6	5139.56	-44.11	0.03882	≤2.5	PASS
				5278.4~26000	24450.02	-46.01	0.02506	≤2.5	PASS
			5230	30~5141.6	2580.18	-55.70	0.00269	≤2.5	PASS
				5278.4~26000	5280.47	-40.23	0.09484	≤2.5	PASS
	11AC20SISO	Ant1	5180	30~5142	5140.47	-46.65	0.02163	≤2.5	PASS
				5266.7~26000	24536.23	-45.86	0.02594	≤2.5	PASS
			5200	30~5142	833.61	-39.68	0.10765	≤2.5	PASS
				5266.7~26000	25693.84	-47.22	0.01897	≤2.5	PASS
			5240	30~5142	824.92	-36.63	0.21727	≤2.5	PASS
				5266.7~26000	5272.23	-34.43	0.36058	≤2.5	PASS
	11AC40SISO	Ant1	5190	30~5141.6	5141.60	-45.06	0.03119	≤2.5	PASS
				5278.4~26000	25573.83	-45.94	0.02547	≤2.5	PASS
			5230	30~5141.6	2443.19	-41.78	0.06637	≤2.5	PASS
				5278.4~26000	5281.85	-41.79	0.06622	≤2.5	PASS
	11AC80SISO	Ant1	5210	30~5123.2	5113.01	-40.41	0.09099	≤2.5	PASS
				5296.7~26000	5302.91	-41.41	0.07228	≤2.5	PASS
	11AX20SISO	Ant1	5180	30~5142	824.92	-32.32	0.58614	≤2.5	PASS
				5266.7~26000	25143.02	-46.67	0.02153	≤2.5	PASS
			5200	30~5142	5140.98	-54.76	0.00334	≤2.5	PASS
				5266.7~26000	24517.57	-46.22	0.02388	≤2.5	PASS
			5240	30~5142	824.92	-38.05	0.15668	≤2.5	PASS
				5266.7~26000	5267.39	-35.92	0.2558	≤2.5	PASS

				0			6		
	11AX40SISO	Ant1	5190	30~5141.6	5139.56	-45.24	0.02992	≤2.5	PASS
				5278.4~26000	25090.32	-46.70	0.02138	≤2.5	PASS
			5230	30~5141.6	2428.87	-49.52	0.01117	≤2.5	PASS
				5278.4~26000	5283.24	-40.53	0.08851	≤2.5	PASS
	11AX80SISO	Ant1	5210	30~5123.2	5117.60	-40.90	0.08128	≤2.5	PASS
				5296.7~26000	5306.36	-40.97	0.07998	≤2.5	PASS

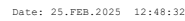
ANT2:

TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	11A	Ant1	5180	30~5142	3418.74	-48.07	0.01560	≤2.5	PASS
				5266.7~26000	24483.70	-46.70	0.02138	≤2.5	PASS
			5200	30~5142	2411.17	-47.10	0.01950	≤2.5	PASS
				5266.7~26000	25928.12	-46.25	0.02371	≤2.5	PASS
			5240	30~5142	824.92	-37.44	0.18030	≤2.5	PASS
				5266.7~26000	5268.08	-35.66	0.27164	≤2.5	PASS
	11N20SISO	Ant1	5180	30~5142	833.10	-41.35	0.07328	≤2.5	PASS
				5266.7~26000	25747.05	-46.07	0.02472	≤2.5	PASS
			5200	30~5142	824.92	-35.95	0.25410	≤2.5	PASS
				5266.7~26000	23776.70	-46.60	0.02188	≤2.5	PASS
			5240	30~5142	824.92	-36.58	0.21979	≤2.5	PASS
				5266.7~26000	5266.7	-28.35	1.46218	≤2.5	See table below
	11N40SISO	Ant1	5190	30~5141.6	5139.04	-45.14	0.03062	≤2.5	PASS
				5278.4~26000	25979.28	-46.52	0.02228	≤2.5	PASS
			5230	30~5141.6	2450.85	-51.91	0.00644	≤2.5	PASS
				5278.4~26000	5279.09	-41.13	0.07709	≤2.5	PASS
	11AC20SISO	Ant1	5180	30~5142	2440.82	-46.47	0.02254	≤2.5	PASS
				5266.7~26000	25254.29	-46.42	0.02280	≤2.5	PASS
			5200	30~5142	2479.67	-54.26	0.00375	≤2.5	PASS
				5266.7~26000	24657.17	-44.90	0.03236	≤2.5	PASS
			5240	30~5142	2465.36	-48.54	0.01400	≤2.5	PASS
				5266.7~26000	5268.08	-35.08	0.31046	≤2.5	PASS
	11AC40SISO	Ant1	5190	30~5141.6	830.99	-43.63	0.04335	≤2.5	PASS
				5278.4~26000	25202.22	-47.21	0.01901	≤2.5	PASS
			5230	30~5141.6	3504.35	-28.91	1.28529	≤2.5	See table below

	11AC80SIS O	Ant1	5210	5278.4~2600 0	25789.33	-46.58	0.0219 8	≤2.5	PASS
				30~5123.2	5123.20	-38.88	0.1294 2	≤2.5	PASS
				5296.7~2600 0	5300.15	-35.57	0.2773 3	≤2.5	PASS
	11AX20SIS O	Ant1	5180	30~5142	2423.95	-44.69	0.0339 6	≤2.5	PASS
				5266.7~2600 0	24771.21	-46.13	0.0243 8	≤2.5	PASS
			5200	30~5142	2470.98	-48.72	0.0134 3	≤2.5	PASS
				5266.7~2600 0	25684.85	-47.04	0.0197 7	≤2.5	PASS
			5240	30~5142	2619.74	-55.88	0.0025 8	≤2.5	PASS
				5266.7~2600 0	5271.54	-35.36	0.2910 7	≤2.5	PASS
	11AX40SIS O	Ant1	5190	30~5141.6	5139.04	-45.89	0.0257 6	≤2.5	PASS
				5278.4~2600 0	24526.00	-46.21	0.0239 3	≤2.5	PASS
			5230	30~5141.6	2437.05	-54.51	0.0035 4	≤2.5	PASS
				5278.4~2600 0	5286.00	-43.99	0.0399 0	≤2.5	PASS
	11AX80SIS O	Ant1	5210	30~5123.2	5118.11	-41.94	0.0639 7	≤2.5	PASS
				5296.7~2600 0	5298.77	-43.68	0.0428 5	≤2.5	PASS

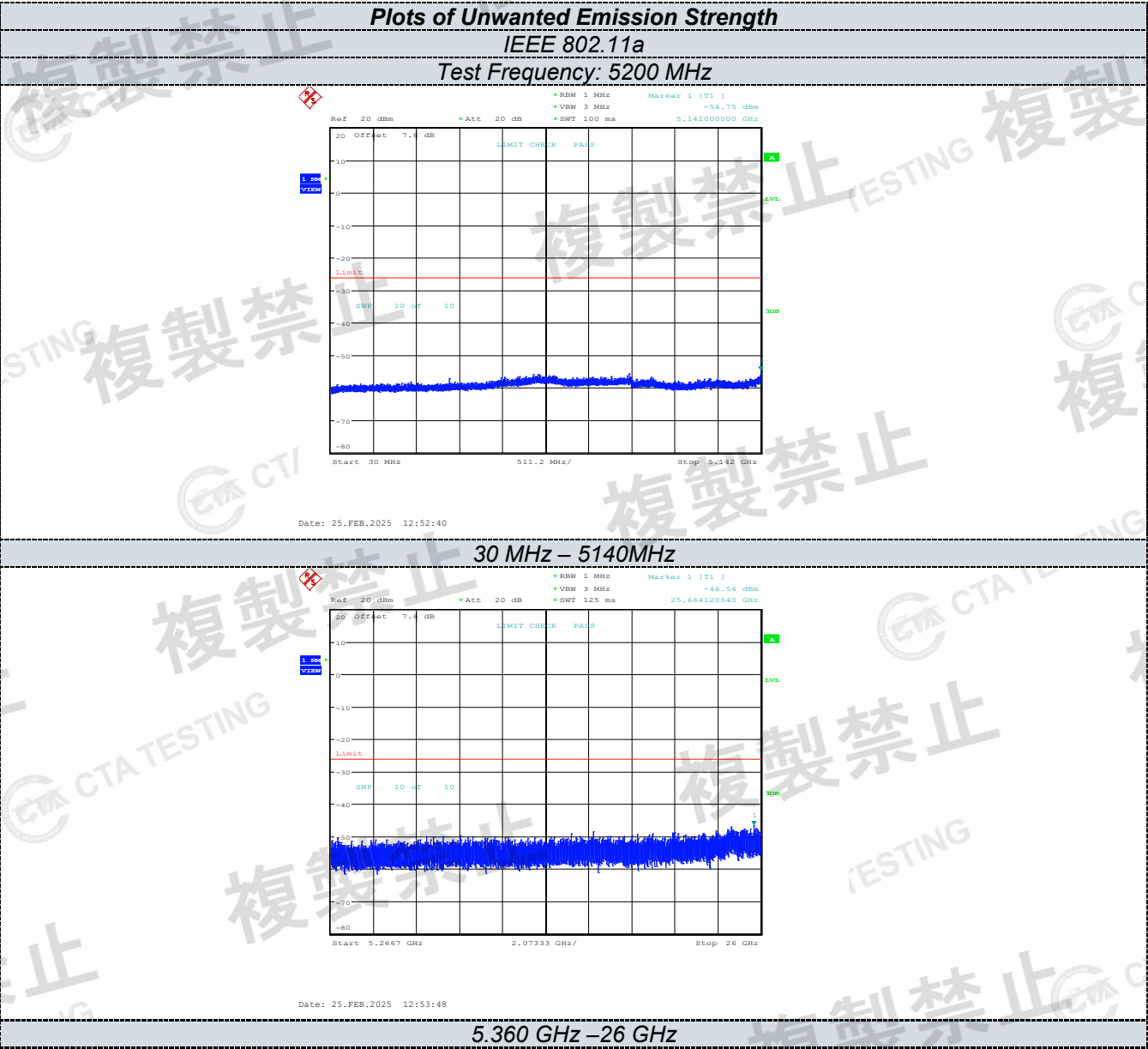
Plots of Unwanted Emission Strength

Test Frequency: 5180 MHz



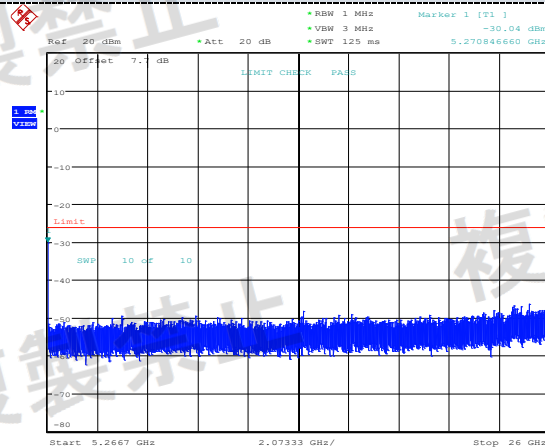
Date: 25.FEB.2025 12:49:42

5.360 GHz – 26 GHz

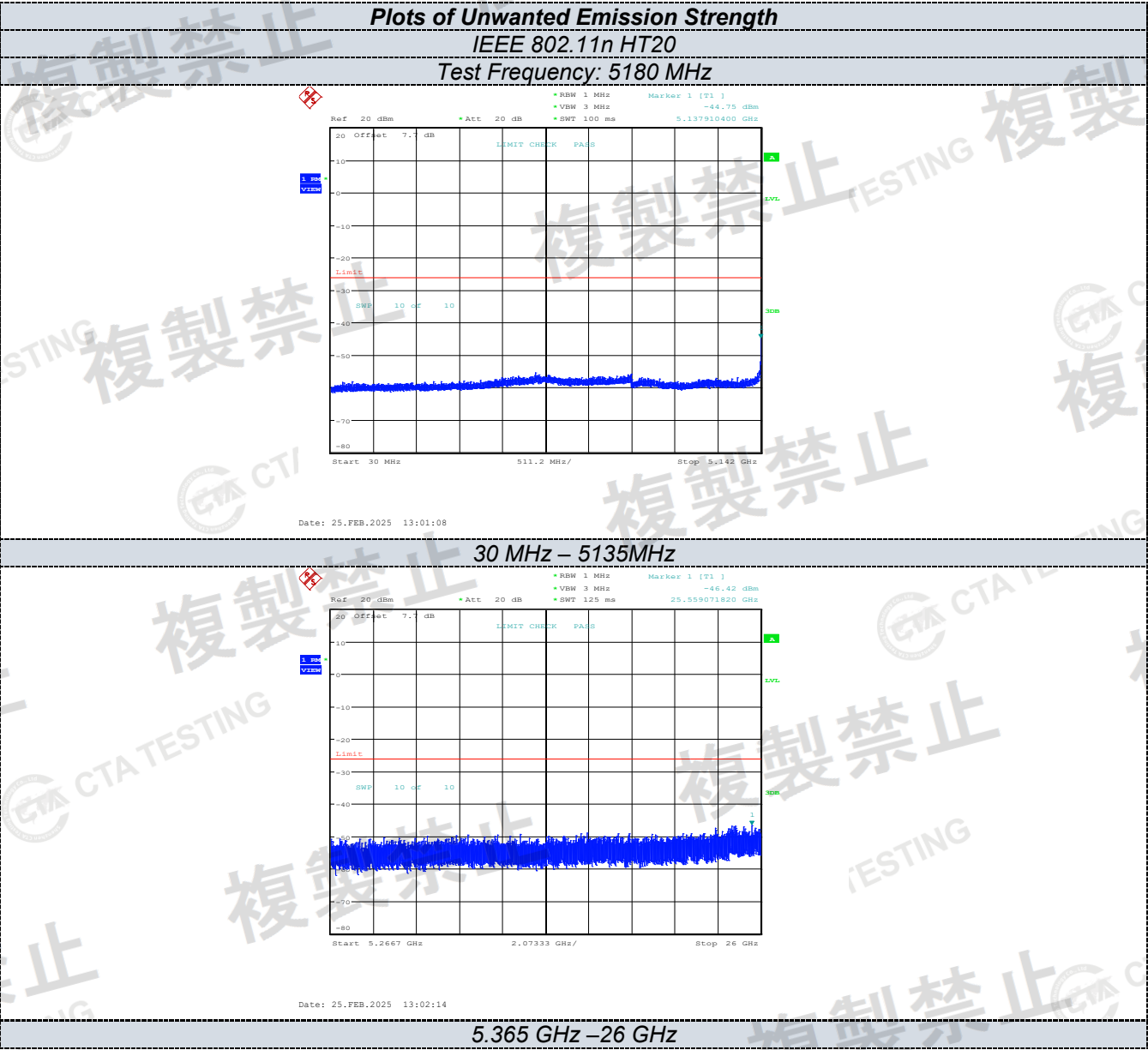


IEEE 802.11a

30 MHz – 5140MHz



5.360 GHz – 26 GHz



IEEE 802.11n HT20

20 OffSet 7.0 dB

20 Att 20 dB

Marker 1 [T1] -54.57 dBm 5.140466400 GHz

LIMIT CHECK PASS

Limit

SWP 10 5F 10

Start 30 MHz 511.2 MHz/ Stop 5142 GHz

dBm

10

0

-10

-20

-30

-40

-50

-60

-70

-80

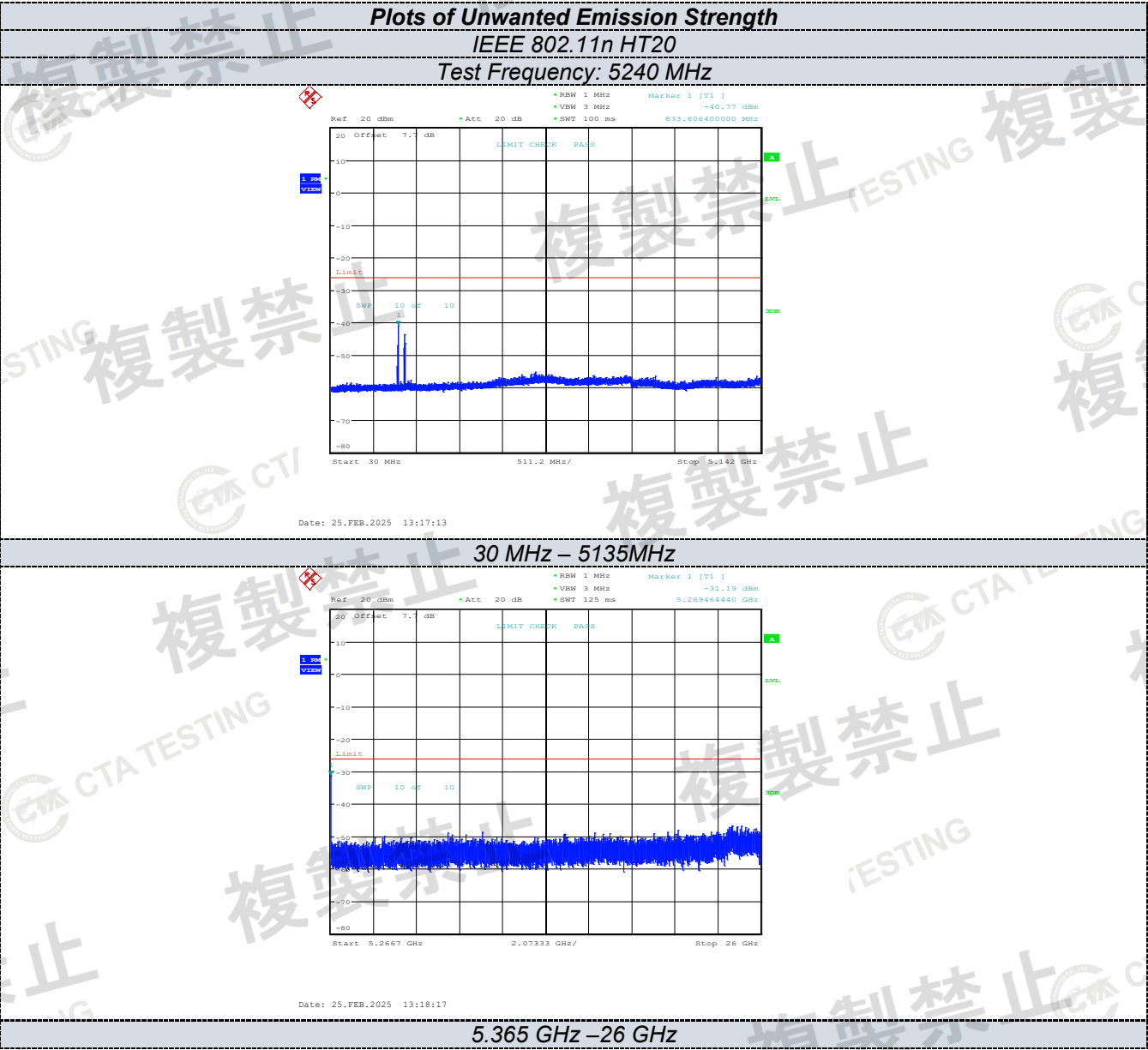
1.50 VSW

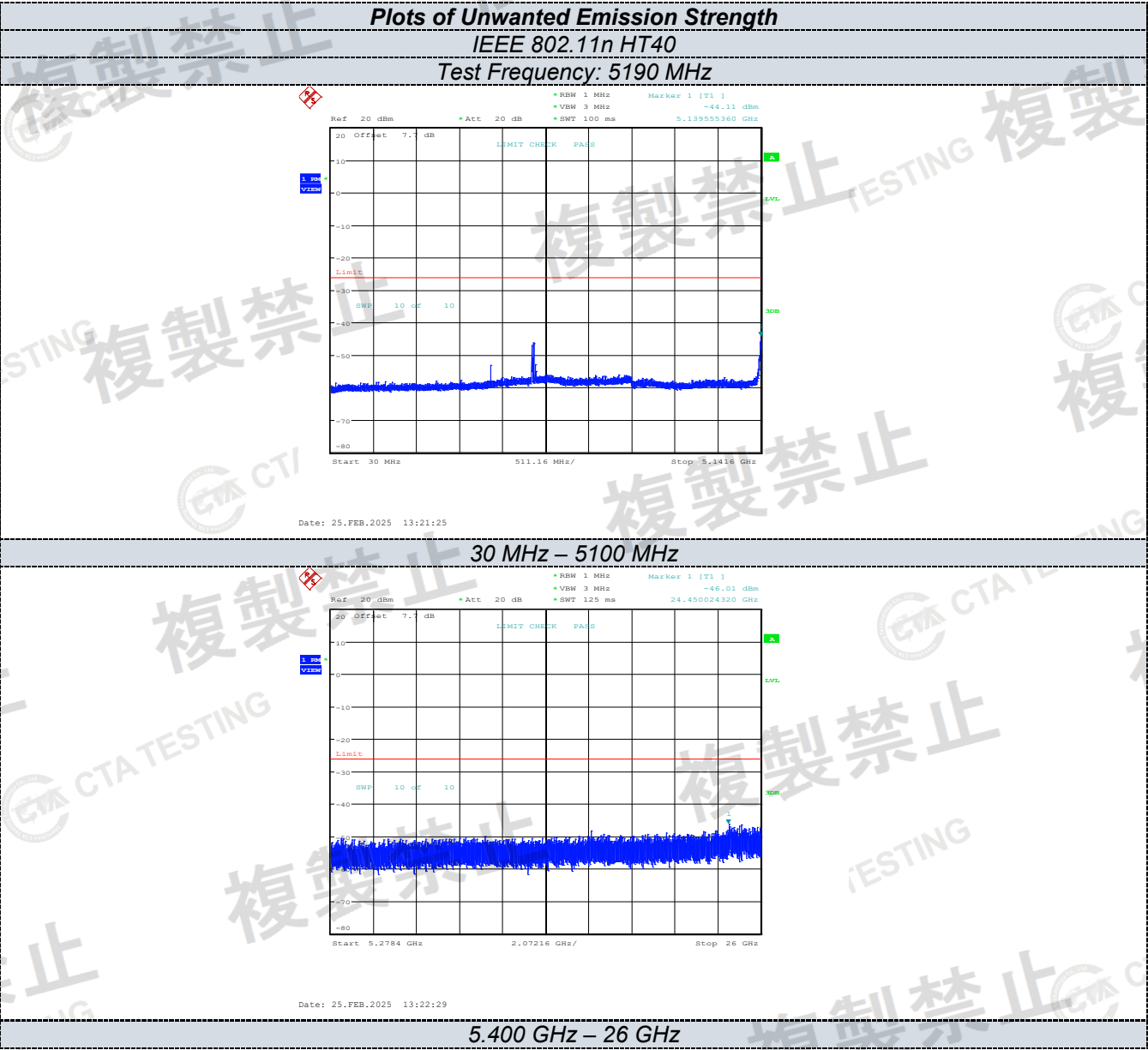
Date: 25.FEB.2025 13:13:21

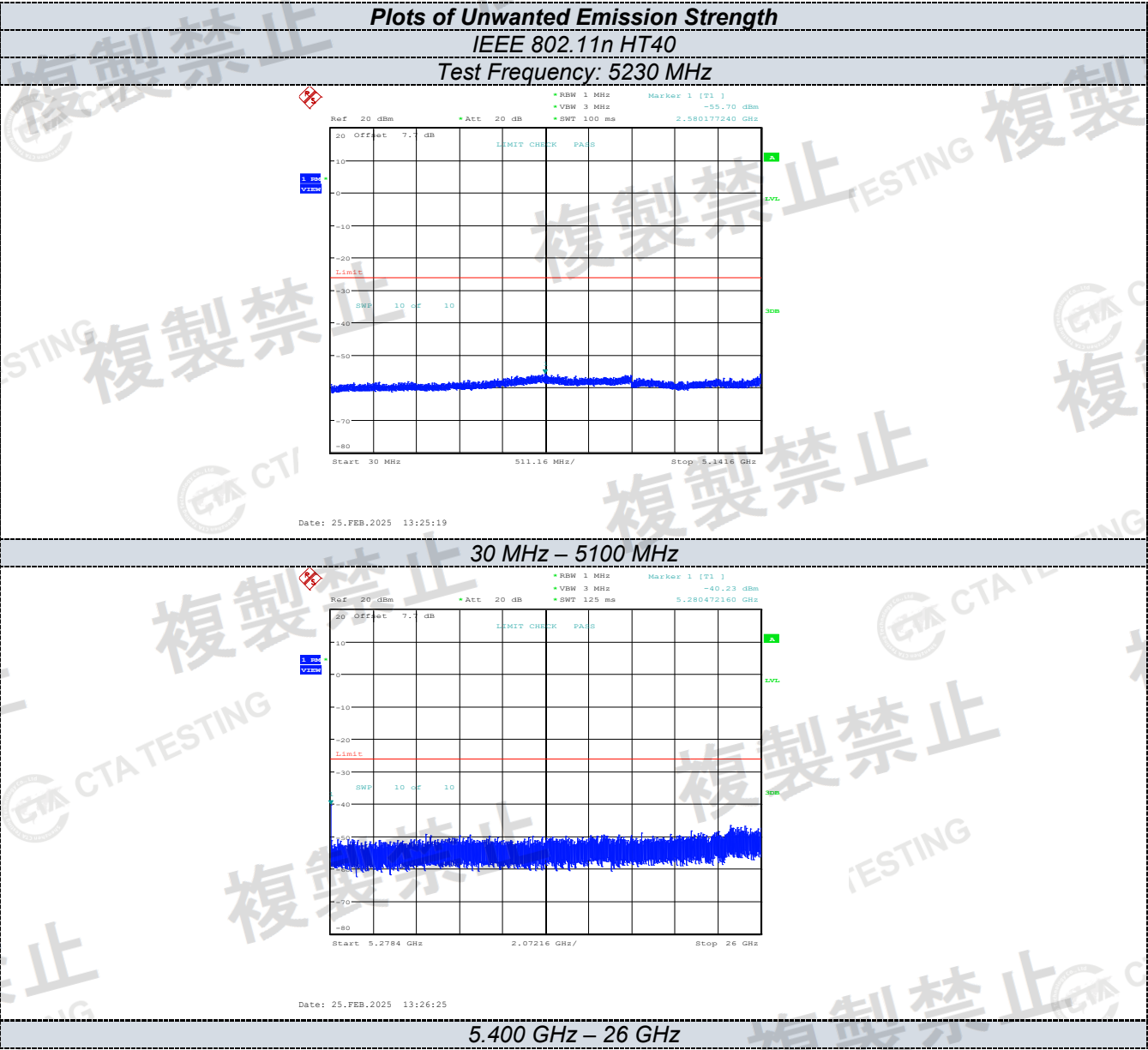
[illegible]

Date: 25.FEB.2025 13:14:26

5.365 GHz – 26 GHz







IEEE 802.11ac VHT20

20 Offs 20 dBm Att 20 dB RSW 1 MHz VBW 3 MHz SWT 100 ms Marker 1 [T1] -46.65 dBm 5.140466400 GHz

20 dB

10 dB

0 dB

-10 dB

-20 dB

-30 dB

-40 dB

-50 dB

-60 dB

-70 dB

-80 dB

Start 30 MHz 511.2 MHz/ Stop 5142 GHz

LIMIT CHECK PASS

Limit

SWP 10 5F 10

Date: 25.FEB.2025 13:29:18

20 Off 20 dBm • Att 20 dB • RBW 1 MHz Marker 1 [73.1] -45.86 dB • SWT 125 ms 24.536229020 GHz

10 dB

LIMIT CHECK PA1B

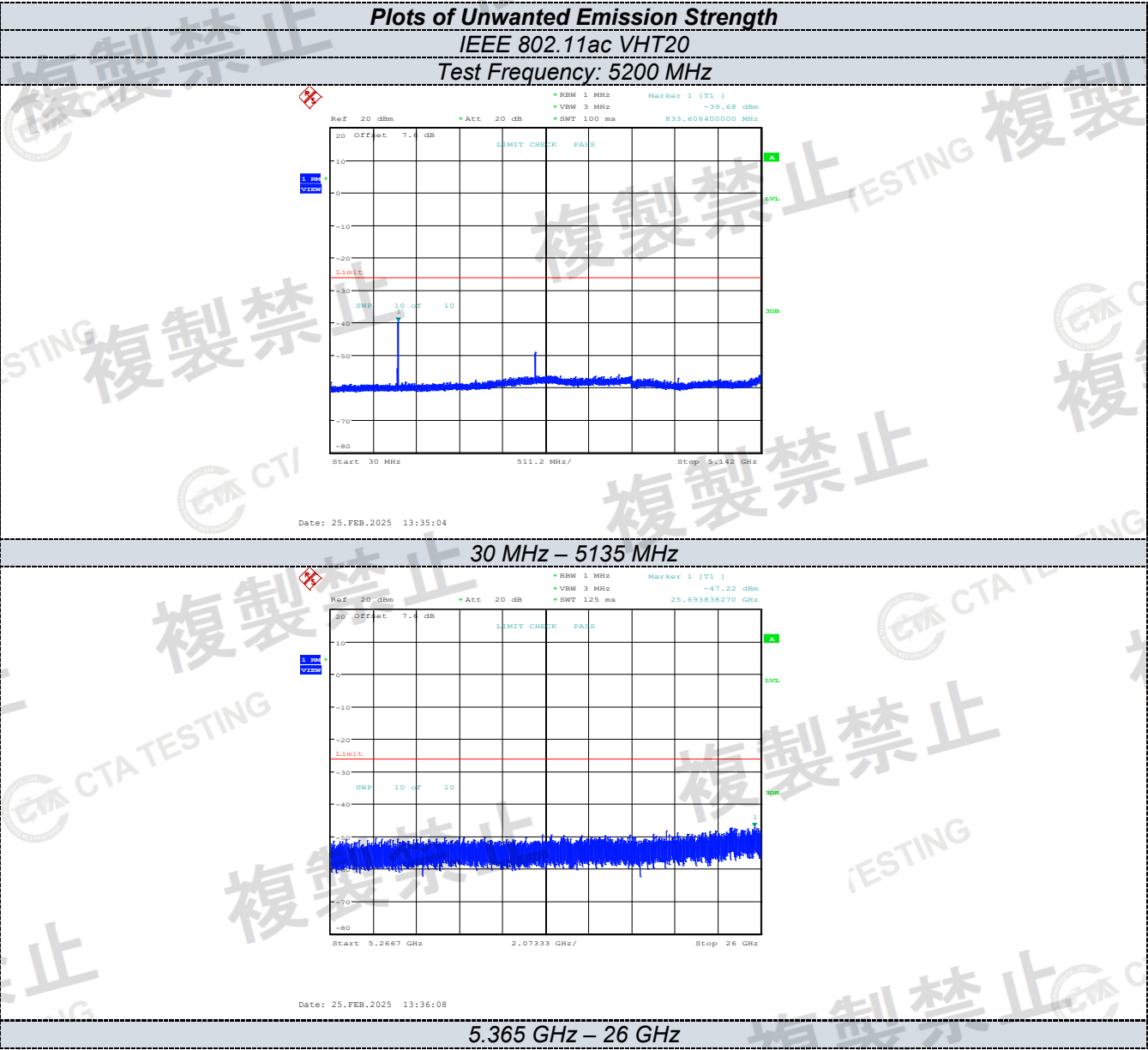
Limit

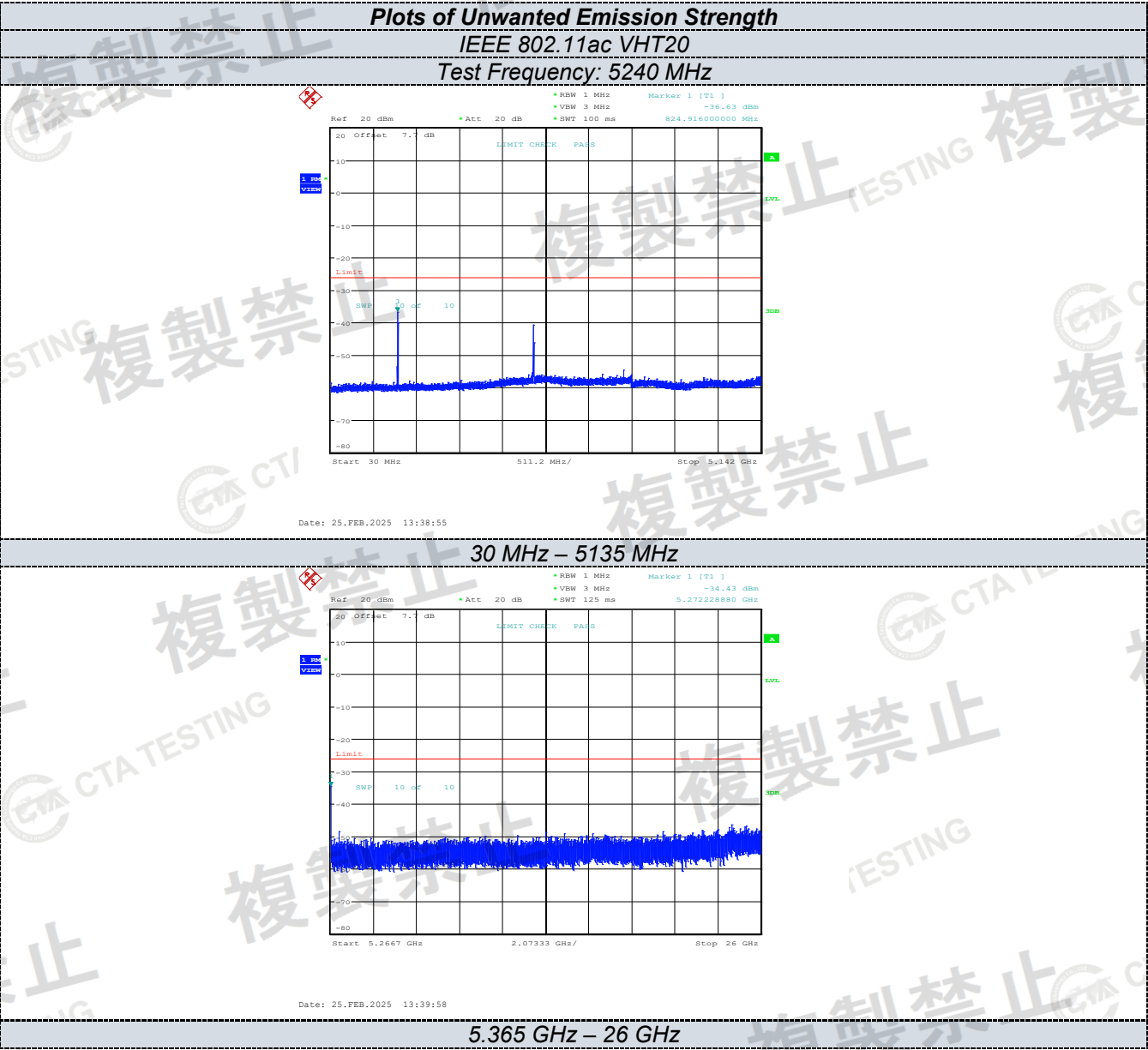
SWP 10 dB

Start 5.2667 GHz 2.07333 GHz/ Stop 26 GHz

Date: 25.FEB.2025 13:30:21

5.365 GHz – 26 GHz





IEEE 802.11ac VHT40

[illegible]

Date: 25.FEB.2025 13:42:51

[illegible]

Date: 25.FEB.2025 13:43:55

5.400 GHz – 26 GHz

IEEE 802.11ac VHT40

Ref 20 dBm *Att 20 dB *RSW 1 MHz *VSW 3 MHz *SWT 100 ms Marker 1 [T1] -41.78 dBm 2.443186360 GHz

20 OffSet 7.0 dB

LIMIT CHECK PASS

Limit

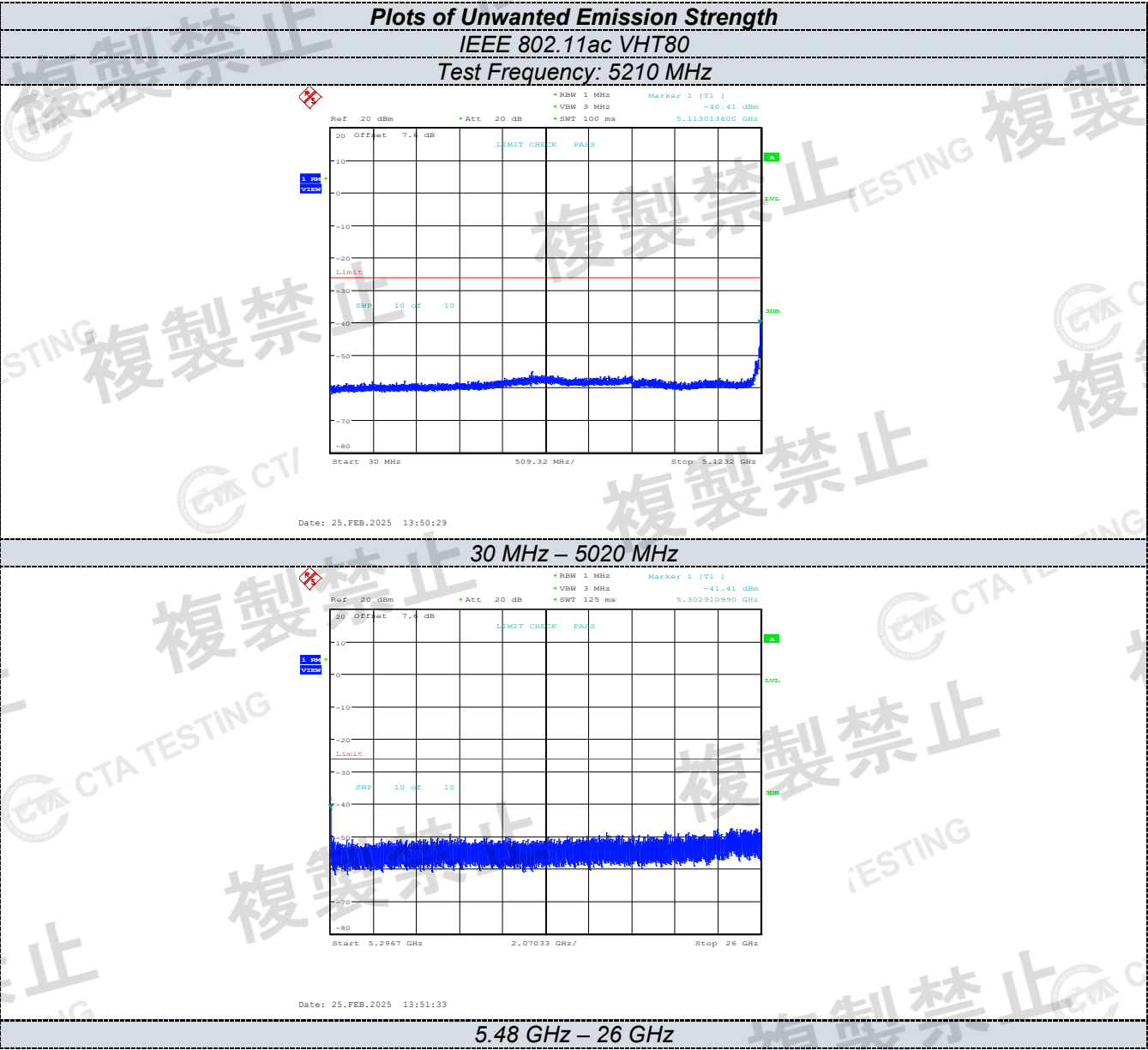
SWP 10 5F 10

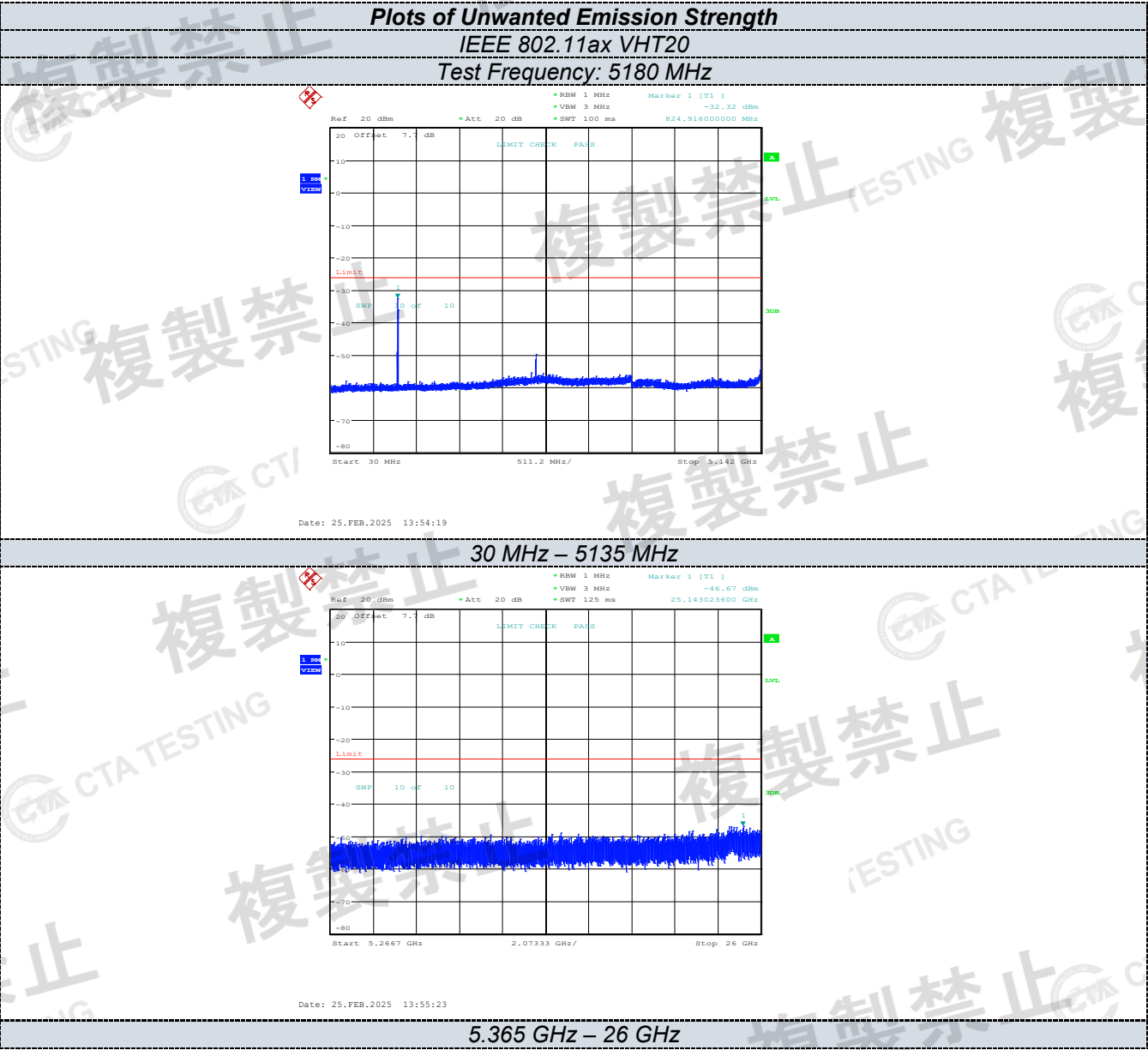
Start 30 MHz 511.6 MHz/ Stop 3.416 GHz

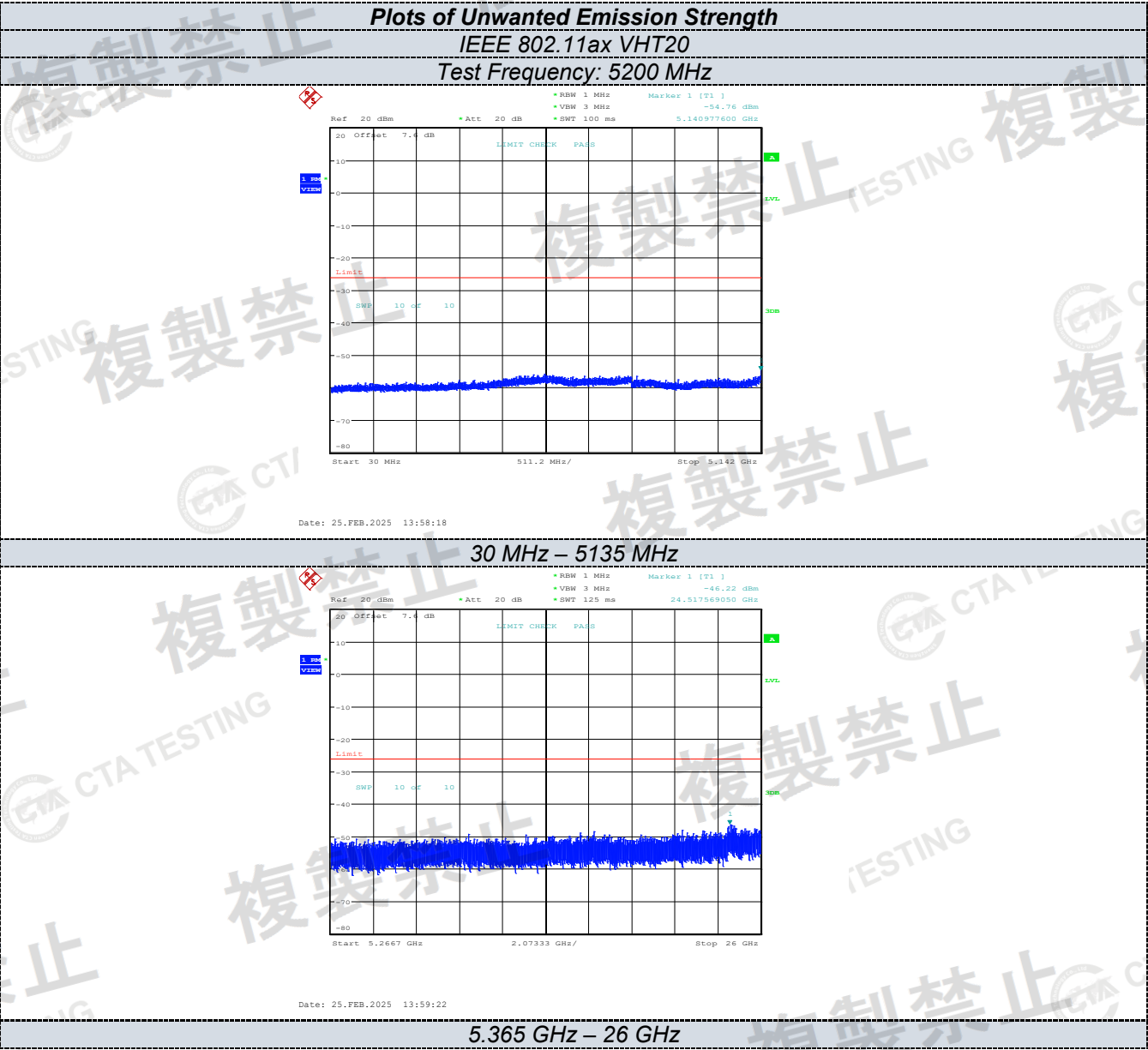
Date: 25.FEB.2025 13:46:39

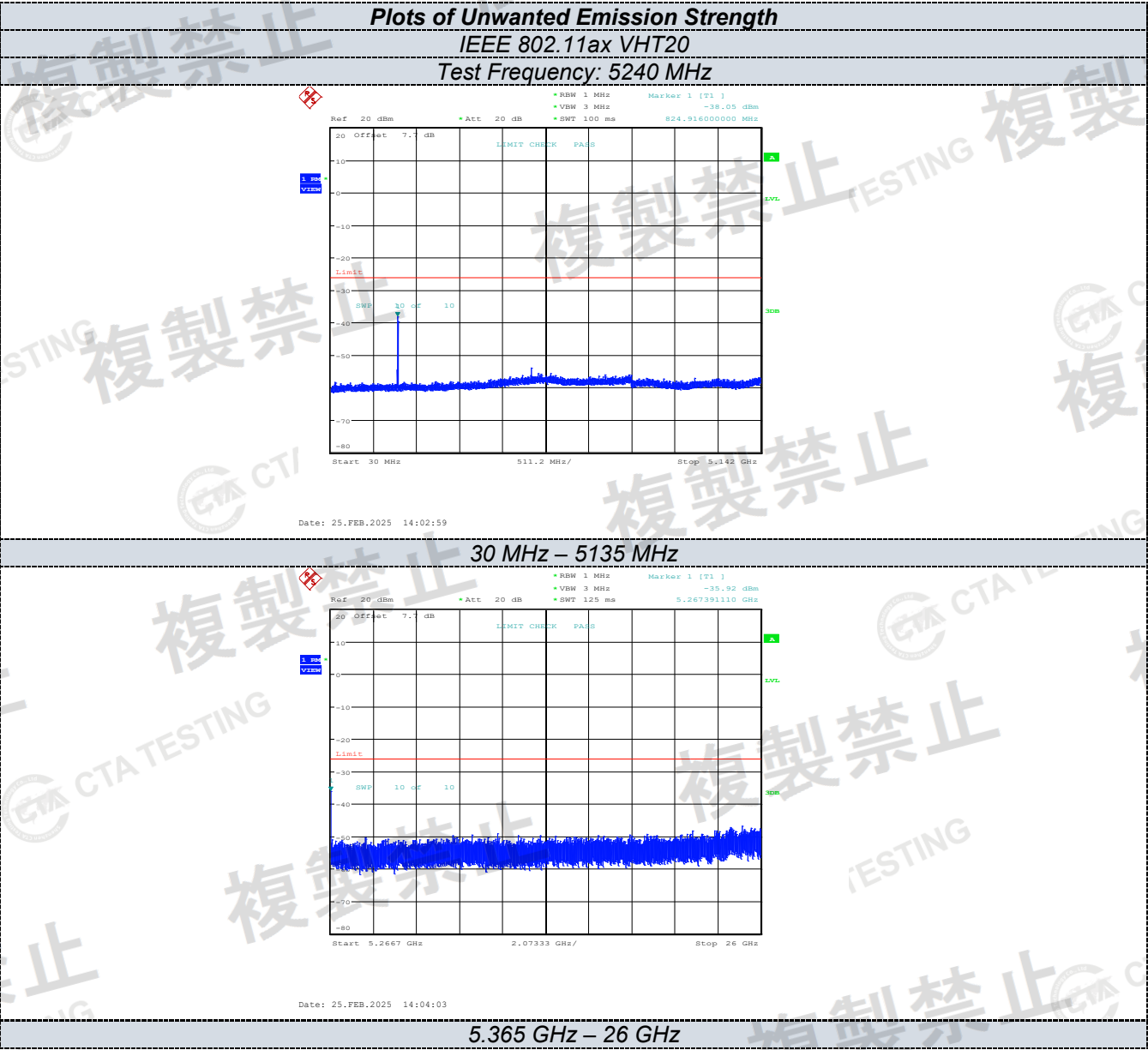
Date: 25.FEB.2025 13:47:43

5.400 GHz – 26 GHz









IEEE 802.11ax VHT40

20 OffSet 7.0 dB

dB

LIMIT CHECK PASS

Marker 1 [T1] -45.24 dBm

5.139555360 GHz

Limit

SWP 10 5F 10

Start 30 MHz

511.6 MHz/

Stop 5.1416 GHz

Date: 25.FEB.2025 14:07:11

Ref 20 dBm Att 20 dB RBW 1 MHz VBW 3 MHz SWT 125 ms Marker 1 [73.1] -46.70 dBm

20 Off 20 dB

10

0

-10

-20

-30

-40

-50

-60

-70

-80

Limit

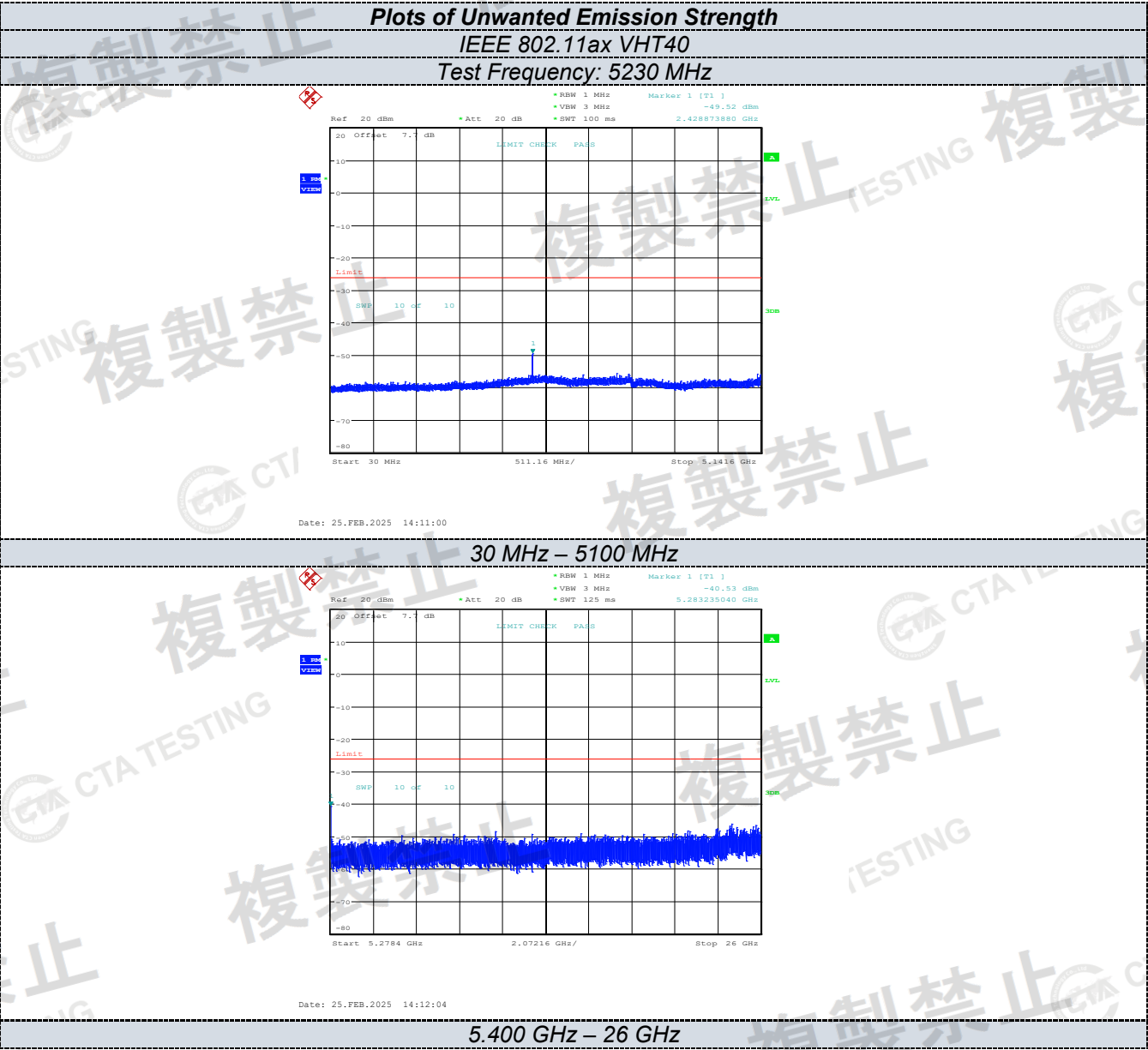
SWP 10 10

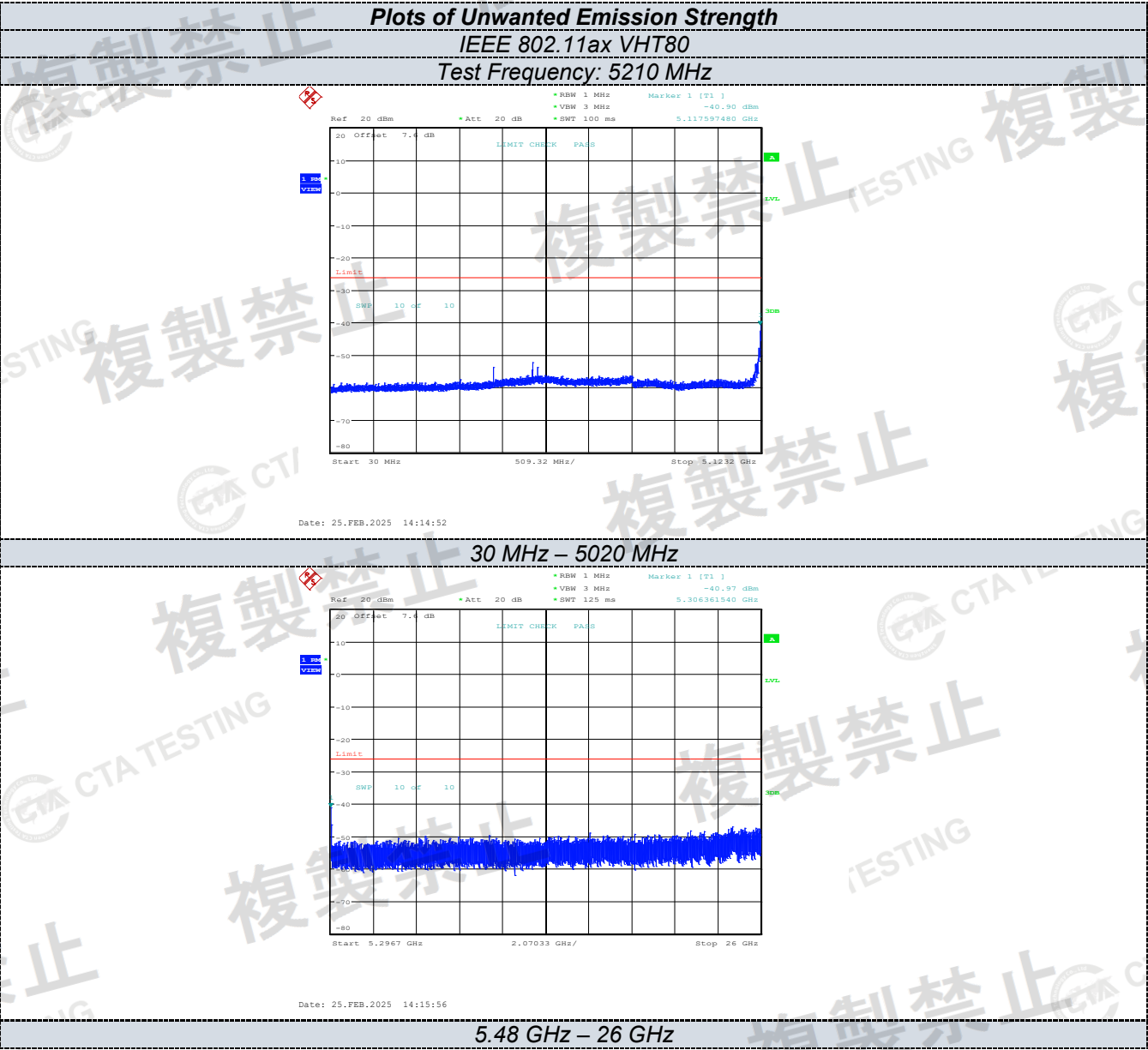
LEMIT CHECK PA18

Start 5.2784 GHz 2.07216 GHz/ Stop 26 GHz

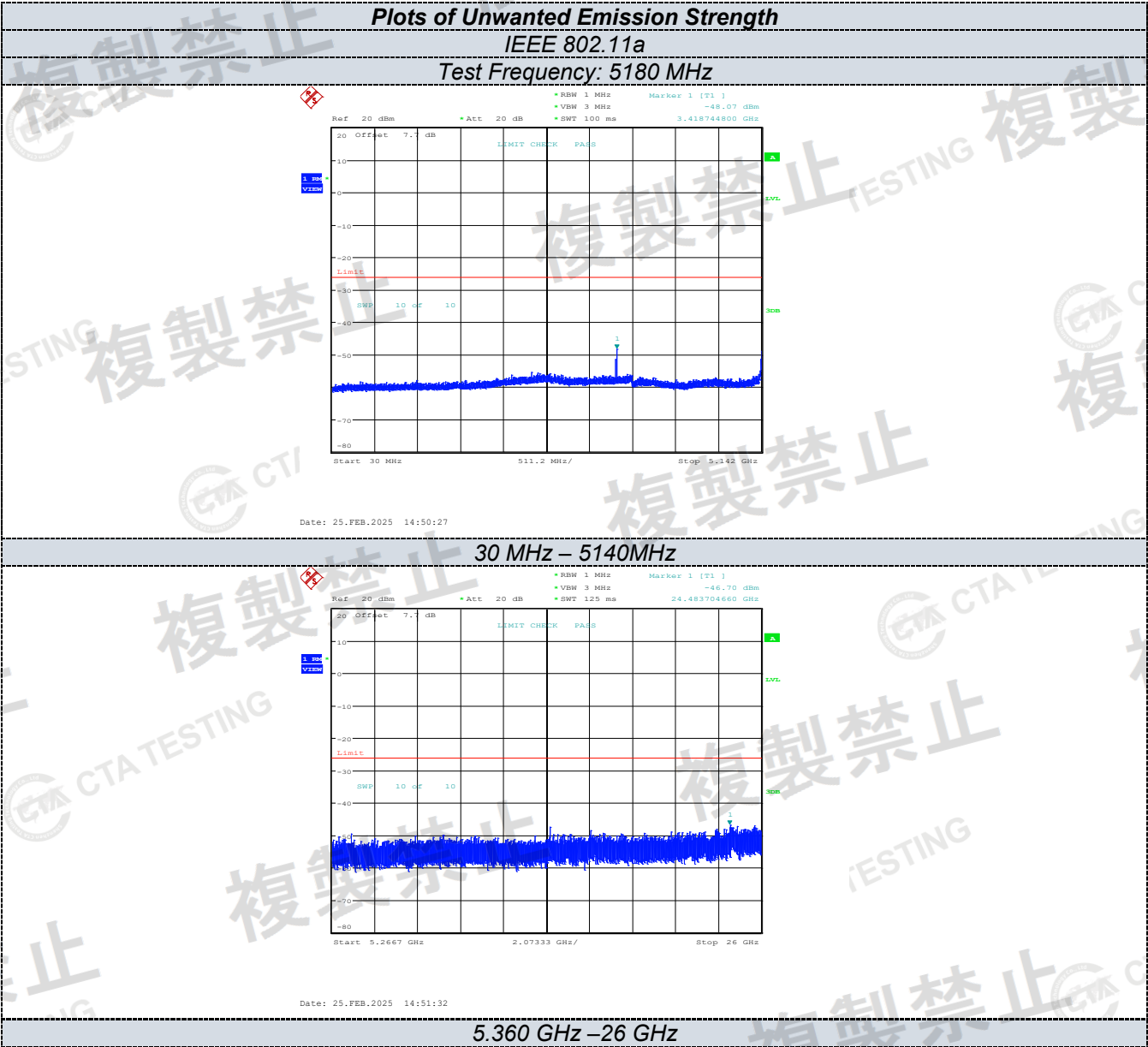
Date: 25.FEB.2025 14:08:15

5.400 GHz – 26 GHz





ANT2:



30 MHz – 5140MHz

Ref 20 dBm

Att 20 dB

RBW 1 MHz

VBW 3 MHz

SWT 125 ms

Marker 1 [T1]

-49.70 dBm

24.493704660 GHz

20

Offset 7.1 dB

Limit

SWP 10 dB

10

10

1

Start 5.2667 GHz

2.07333 GHz/

Stop 26 GHz

20

10

0

-10

-20

-30

-40

-50

-60

-70

-80

20

10

0

-10

-20

-30

-40

-50

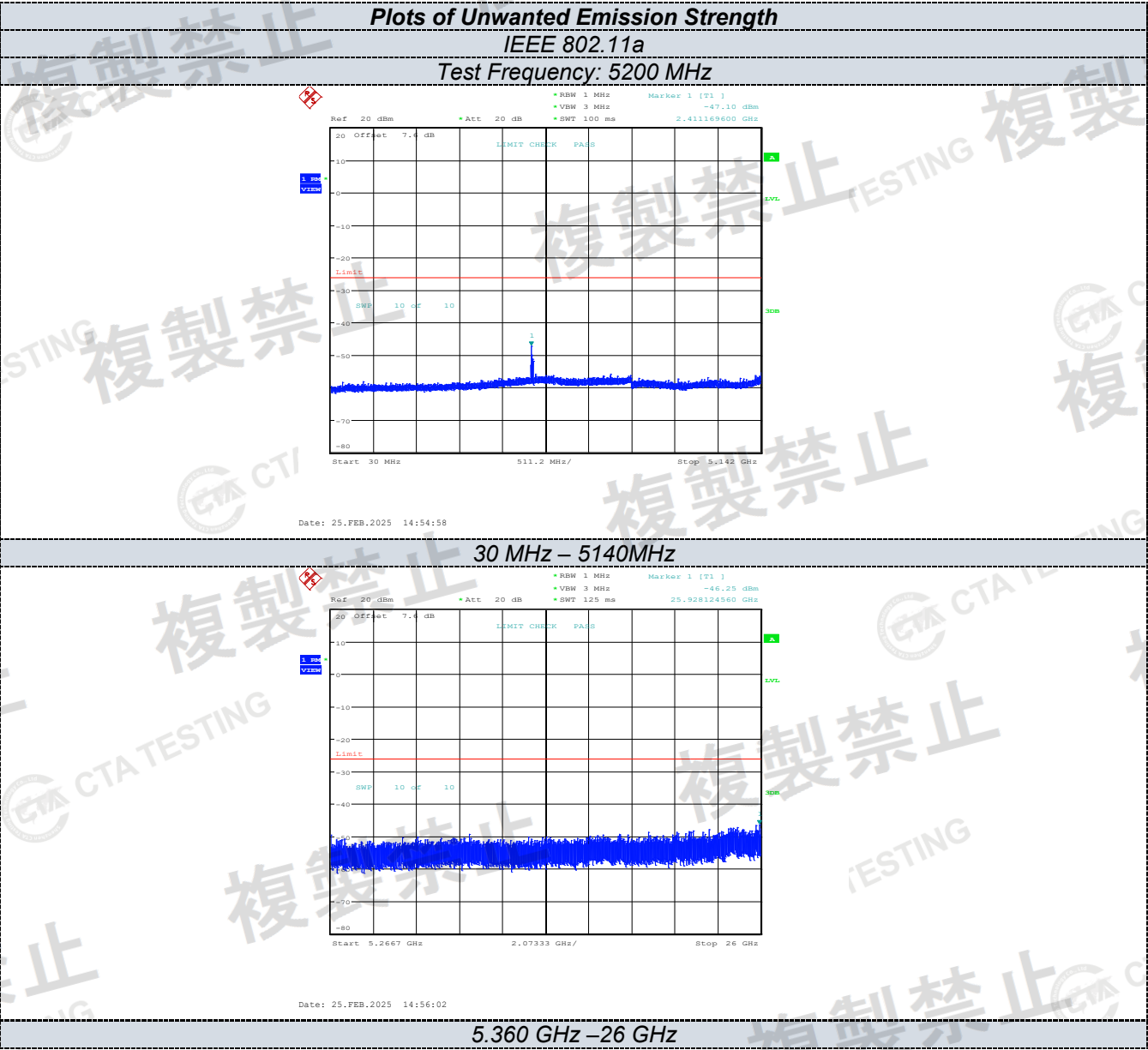
-60

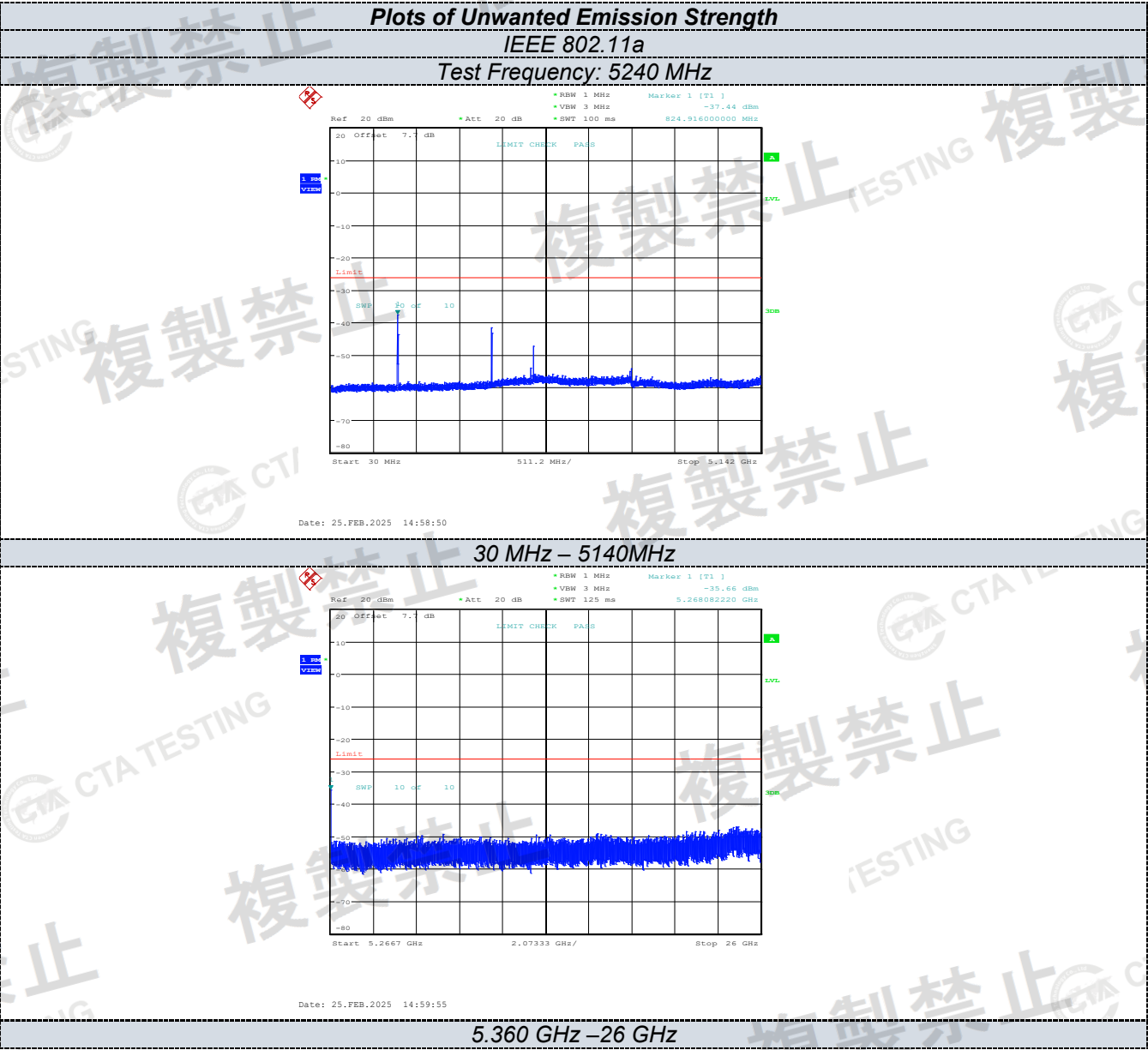
-70

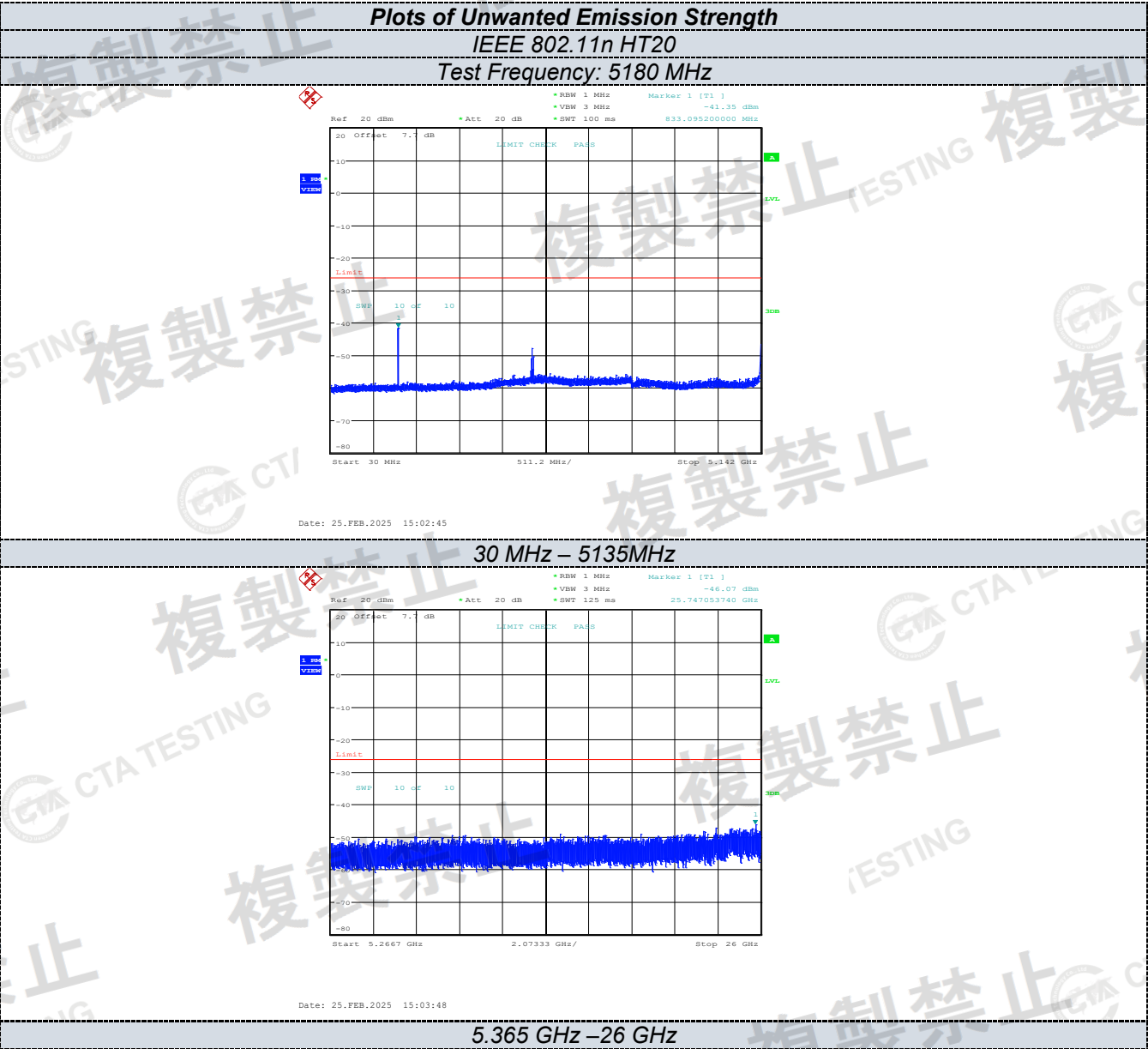
-80

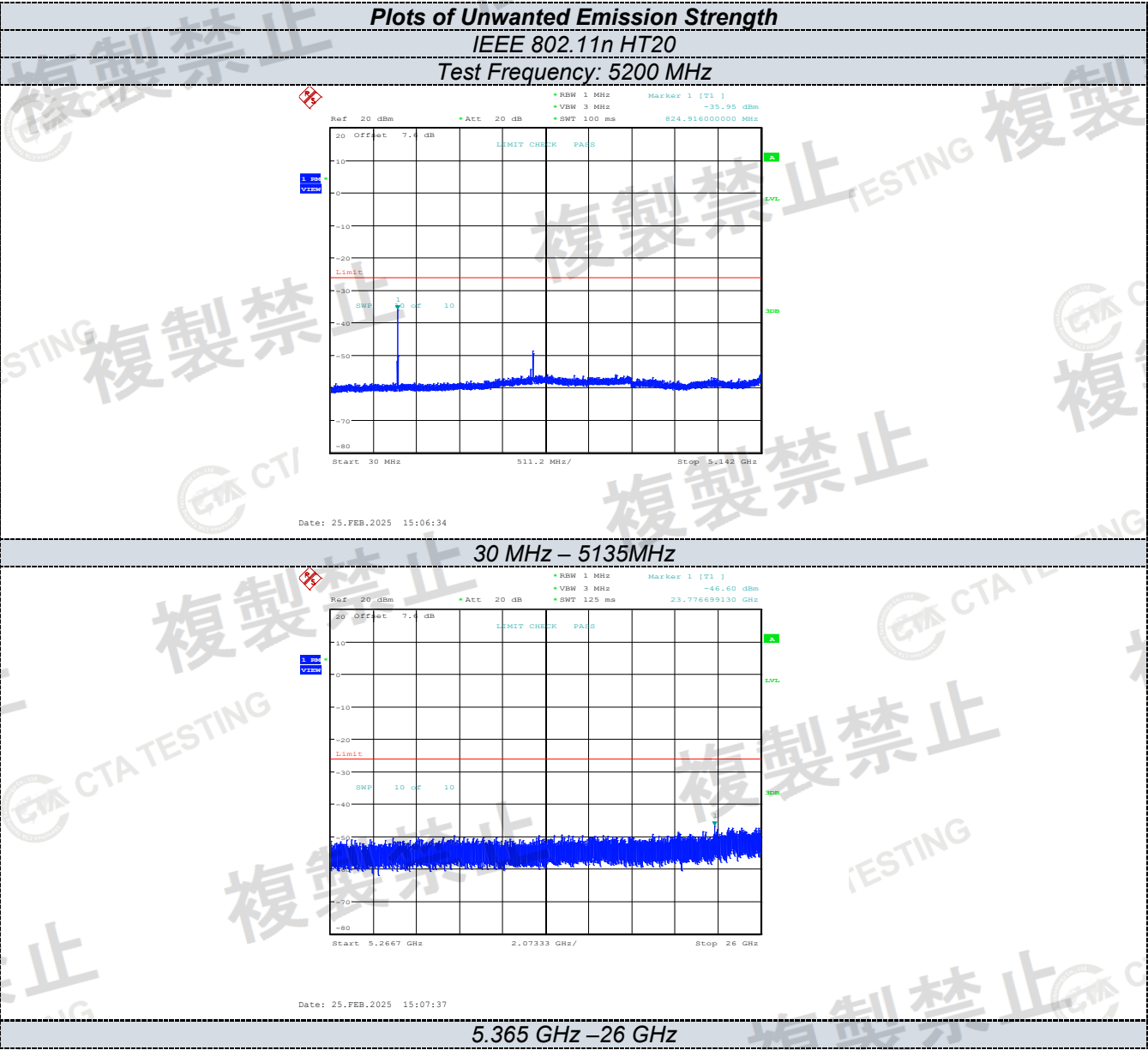
Date: 25.FEB.2025 14:51:32

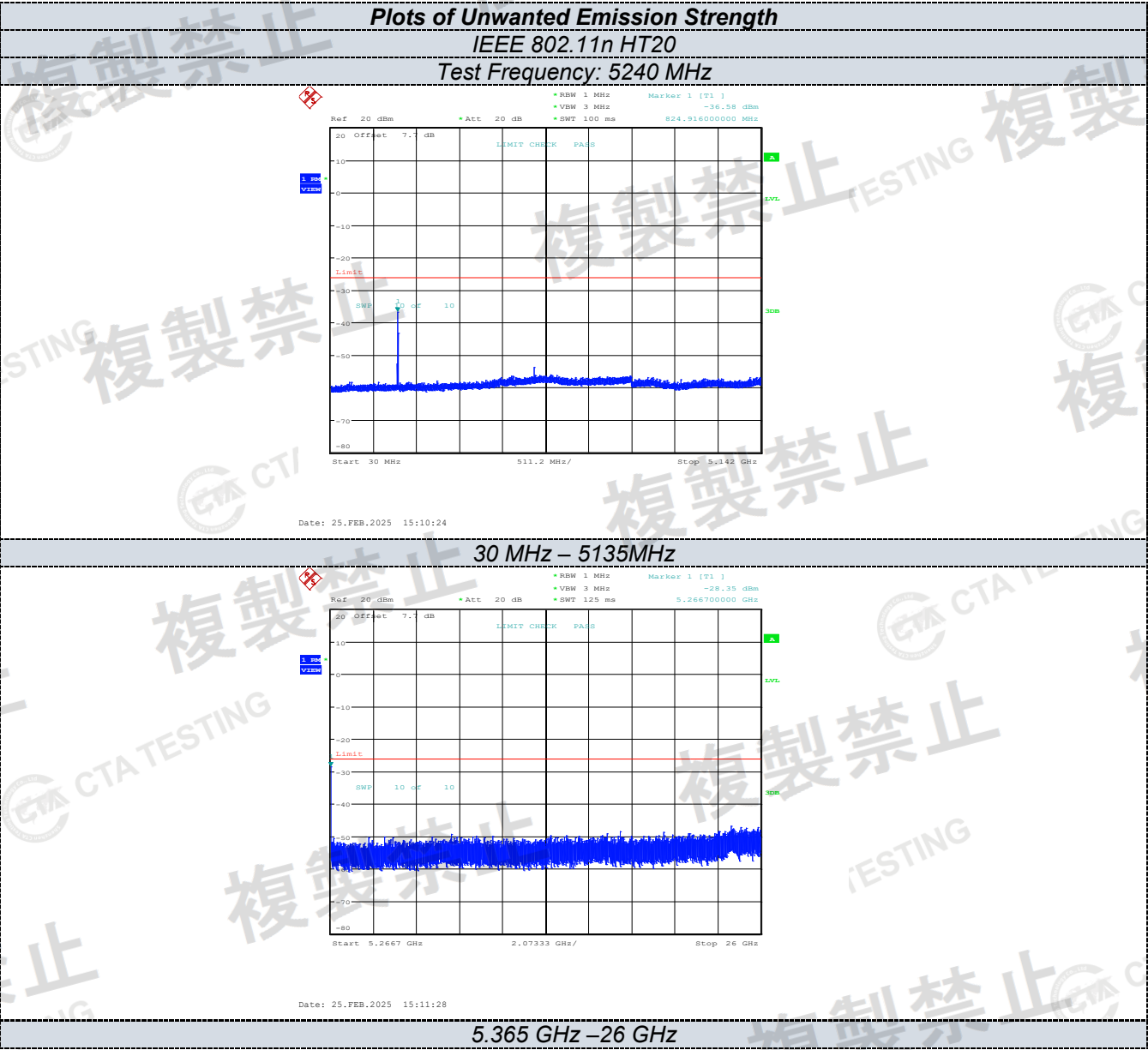
5.360 GHz –26 GHz











IEEE 802.11n HT40

20 OffSet 7.0 dB

*Att 20 dB

*R BW 1 MHz

*VBW 3 MHz

*SWT 100 ms

Marker 1 [T1]

-45.14 dBm

5.139044200 GHz

LIMIT CHECK PASS

1.50 VSWR

Limit

SWP 10 dB 10

Start 30 MHz

511.6 MHz/

Stop 5.416 GHz

Date: 25.FEB.2025 15:14:45

REF 20 dBm * Att 20 dB * RBW 1 MHz * VBW 3 MHz * SWT 125 ms Waveform 1 [F3] ~46.52 dBm 25.979278400 GHz

10 dB VIEW

20 OFF Set 7.1 dB LIMIT CHECK PAUSE

-10
0
-10
-20
-30
-40
-50
-60
-70
-80

Limit

SWP 10 GHz 10

Start 5.2784 GHz 2.07216 GHz/ Stop 26 GHz

Date: 25.FEB.2025 15:15:49

5.400 GHz – 26 GHz

IEEE 802.11n HT40

Ref 20 dBm * Att 20 dB * RBW 1 MHz * VBW 3 MHz * SWT 100 ms Marker 1 [T1] -51.91 dBm 2.450853760 GHz

20 Offset 7.1 dB

100 VSWR

Limit

SWP 10 dB 10

511.6 MHz

Start 30 MHz Stop 5.416 GHz

Date: 25.FEB.2025 15:18:36

The screenshot shows a spectrum analyzer interface with the following details:

- Top Bar:**
 - Left: A red square icon with a white 'X' and a green square icon with a white 'Y'.
 - Center: A red square icon with a white 'X'.
 - Right:
 - RBW 1 MHz
 - VBW 3 MHz
 - SWT 125 ms
- Header:**
 - Ref: 20 dBm
 - Att: 20 dB
 - Marker 1: [T1]
 - 41.13 dBm
 - 5.279090720 GHz
- Plot Area:**
 - Y-axis: Labeled from -80 to 20. A red horizontal line is drawn at -20 dB, labeled "Limit".
 - X-axis: Labeled with "Start 5.2784 GHz", "2.07216 GHz/", and "Stop 26 GHz".
 - Grid: A 10x10 grid is visible.
 - Signal: A noisy blue trace is present, mostly below the -40 dB level.
 - Text: "SWP 10 CF 10" is displayed in the lower left of the plot area.
- Bottom Bar:**
 - Start 5.2784 GHz
 - 2.07216 GHz/
 - Stop 26 GHz

Date: 25.FEB.2025 15:19:40

5.400 GHz – 26 GHz

IEEE 802.11ac VHT20

Ref 20 dBm • Att 20 dB • RBW 1 MHz Marker 1 [T1] -46.47 dBm
 • VBW 3 MHz • SWT 100 ms 2.440819200 GHz

20 Offset 7.0 dB LIMIT CHECK PASS

1.50 VSW

Limit

SWP 10 dB 10

Start 30 MHz 511.2 MHz/ Stop 514.2 GHz

Date: 25.FEB.2025 15:22:32

Ref: 20 dBm • Att: 20 dB • RBW 1 MHz • VBW 3 MHz • SWT 125 ms • Marker 1 [T1] -46.42 dBm 25.254292310 GHz

20 Offset 7.1 dB LIMIT CHECK PASS

10

0

-10

-20

-30

-40

-50

-60

-70

-80

SWP 10 CF 10

Start 5.2667 GHz 2.07333 GHz/ Stop 26 GHz

Date: 25.FEB.2025 15:23:36

5.365 GHz – 26 GHz

IEEE 802.11ac VHT20

20 Off Att 20 dB

Marker 1 [T1] -54.26 dBm 2.479670400 GHz

• RSW 1 MHz
• VBW 3 MHz
• SWT 100 ms

LIMIT CHECK PASS

Limit

SWP 10 5 10

Start 30 MHz 511.2 MHz/ Stop 5142 MHz

Date: 25.FEB.2025 15:26:21

2.07333 GHz

Ref 20 dBm • Att 20 dB • RBW 1 MHz • VBW 3 MHz • SWT 125 ms

Marker 1 [73.0] -44.90 dBm 24.657173270 GHz

10 0 -10 -20 -30 -40 -50 -60 -70 -80

20 Off Set 7.0 dB

LEMIT CHECK PA18

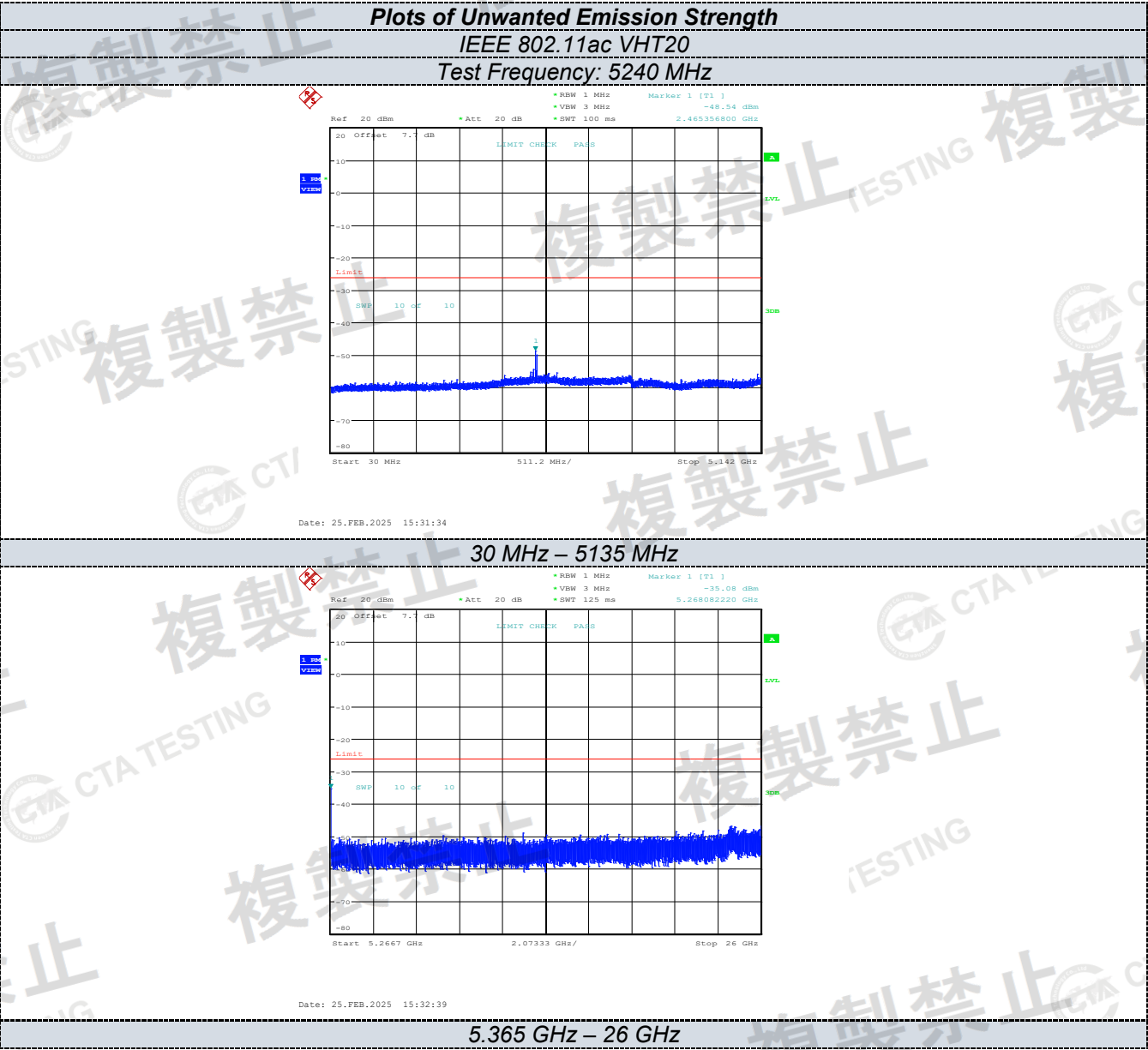
Limit

SWP 10 OF 10

Start 5.2667 GHz 2.07333 GHz/ Stop 26 GHz

Date: 25.FEB.2025 15:27:25

5.365 GHz – 26 GHz



IEEE 802.11ac VHT40

Ref 20 dBm • Att 20 dB • RBW 1 MHz Marker 1 [T1] -43.63 dBm
 • VBW 3 MHz • SWT 100 ms 830.987720000 MHz

20 Off dB LIMIT CHECK PASS

Limit

SWP 10 5F 10

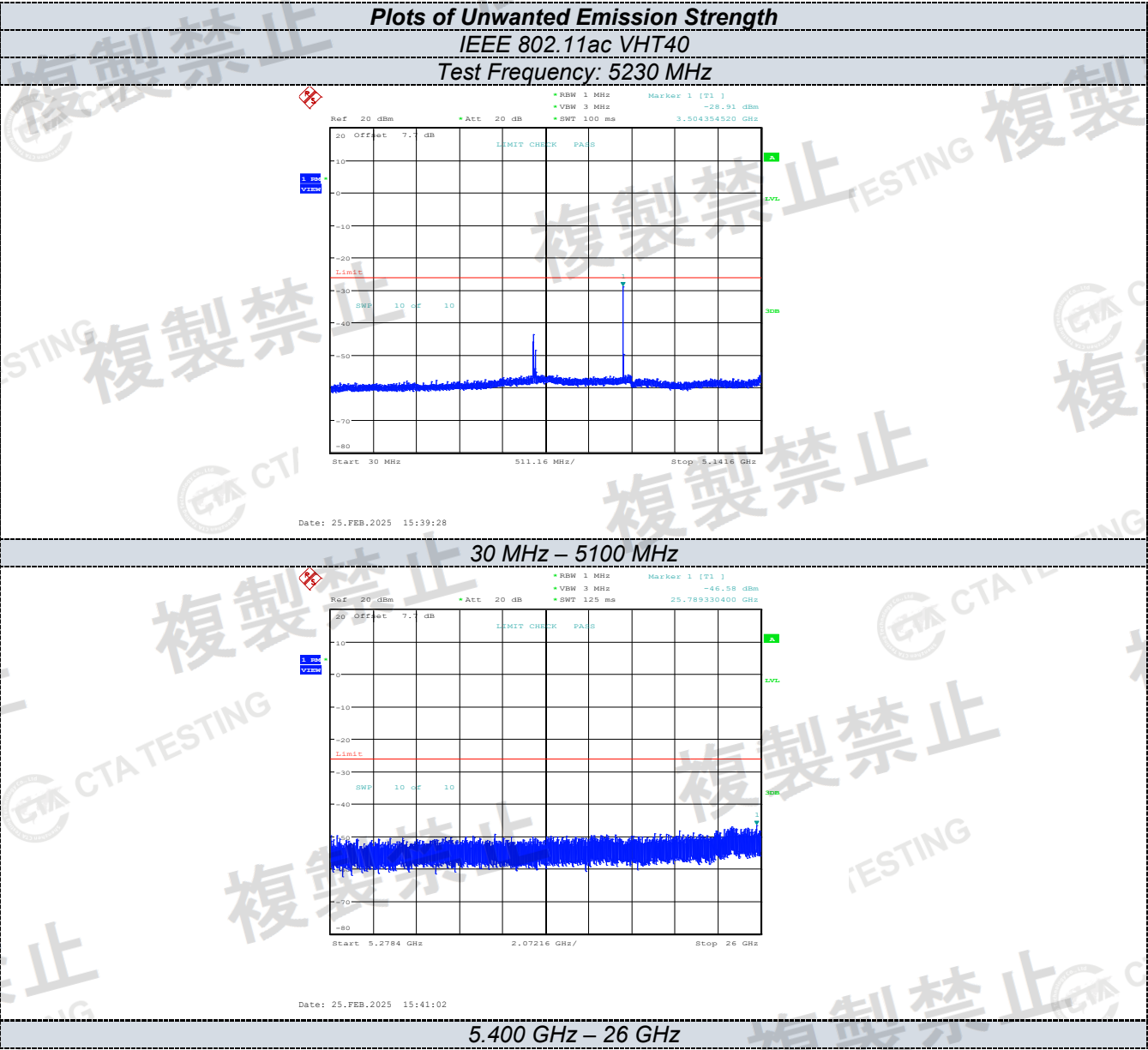
Start 30 MHz 511.16 MHz/ Stop 3.3416 GHz

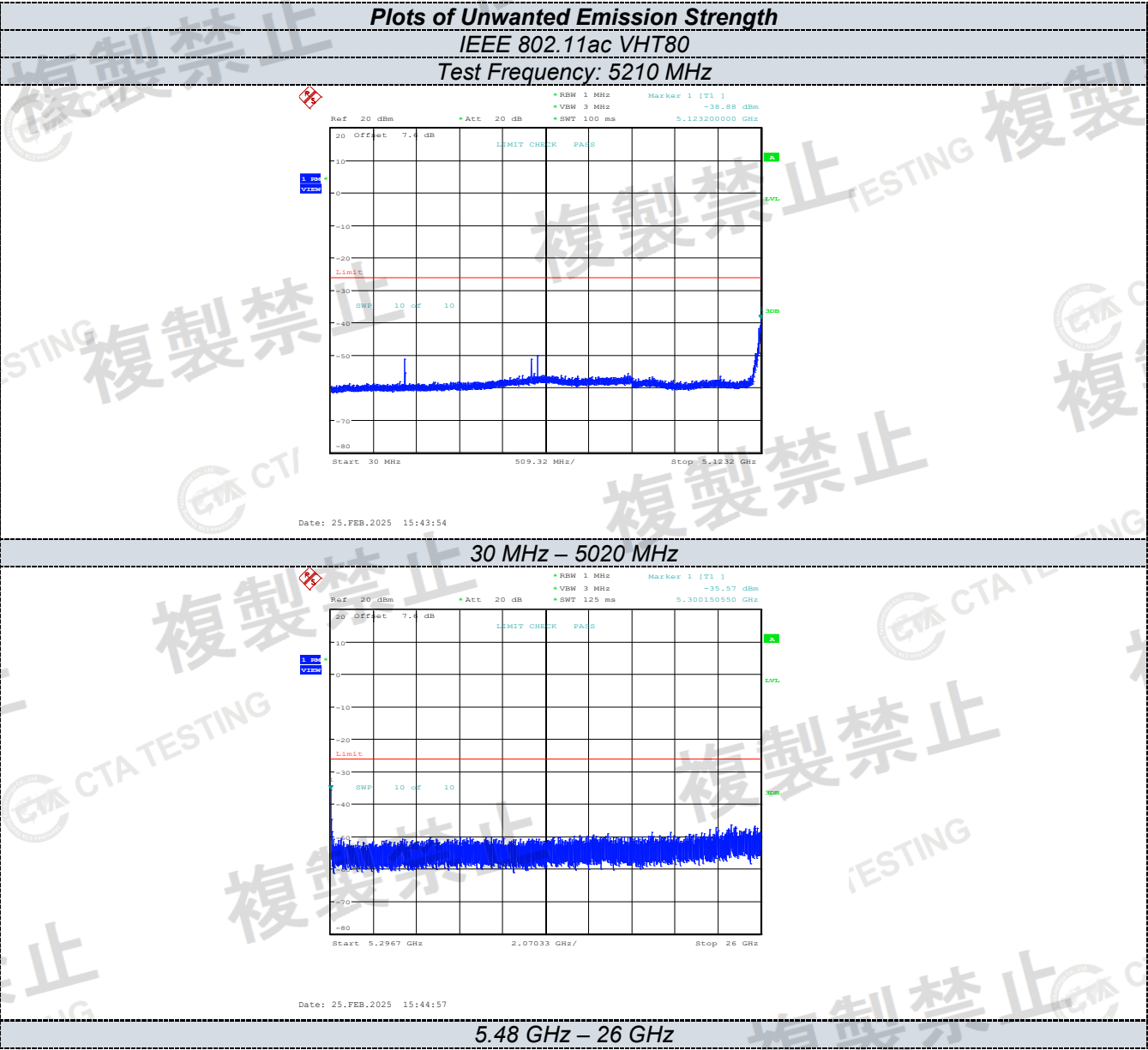
Date: 25.FEB.2025 15:35:34

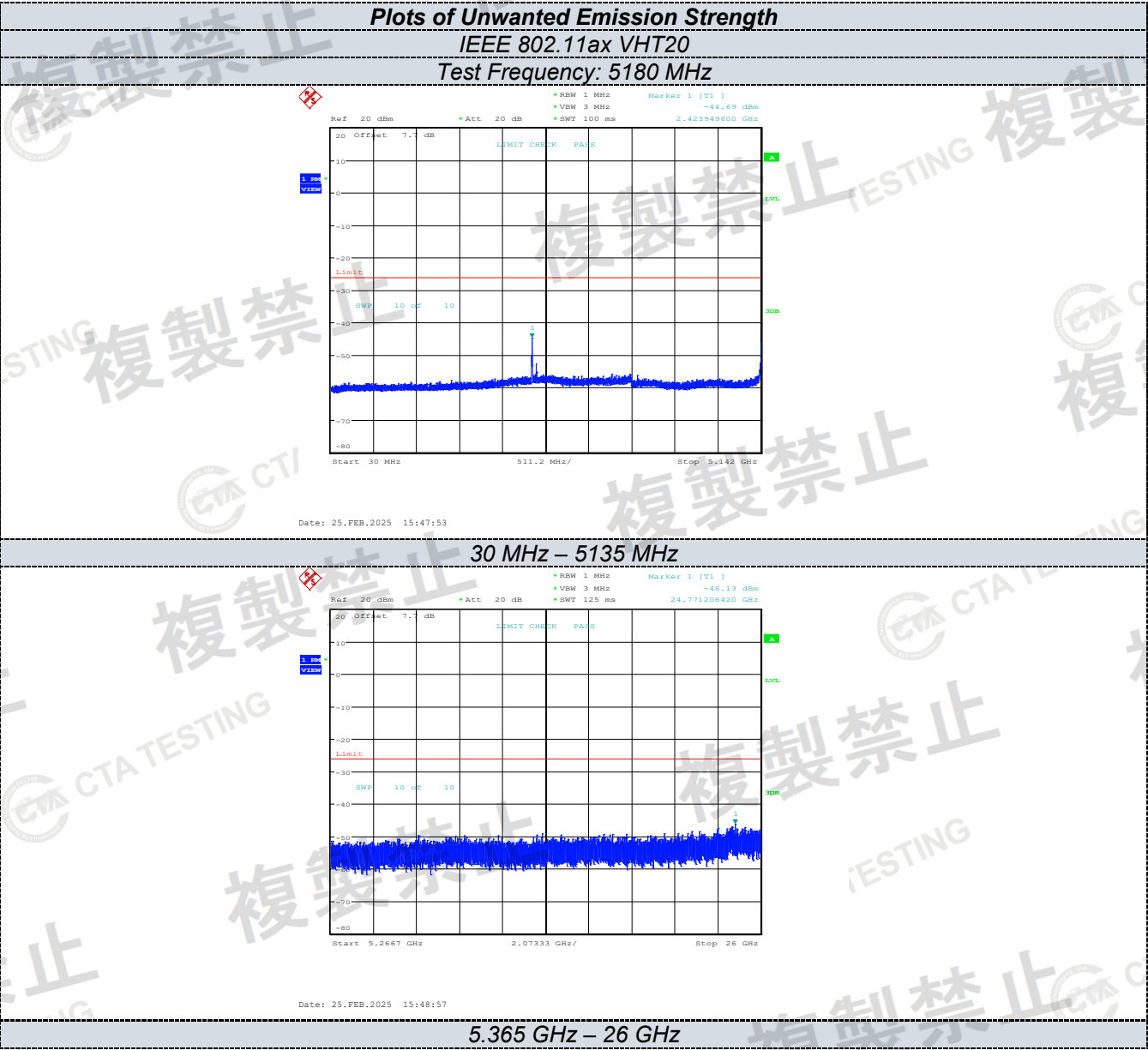
[illegible]

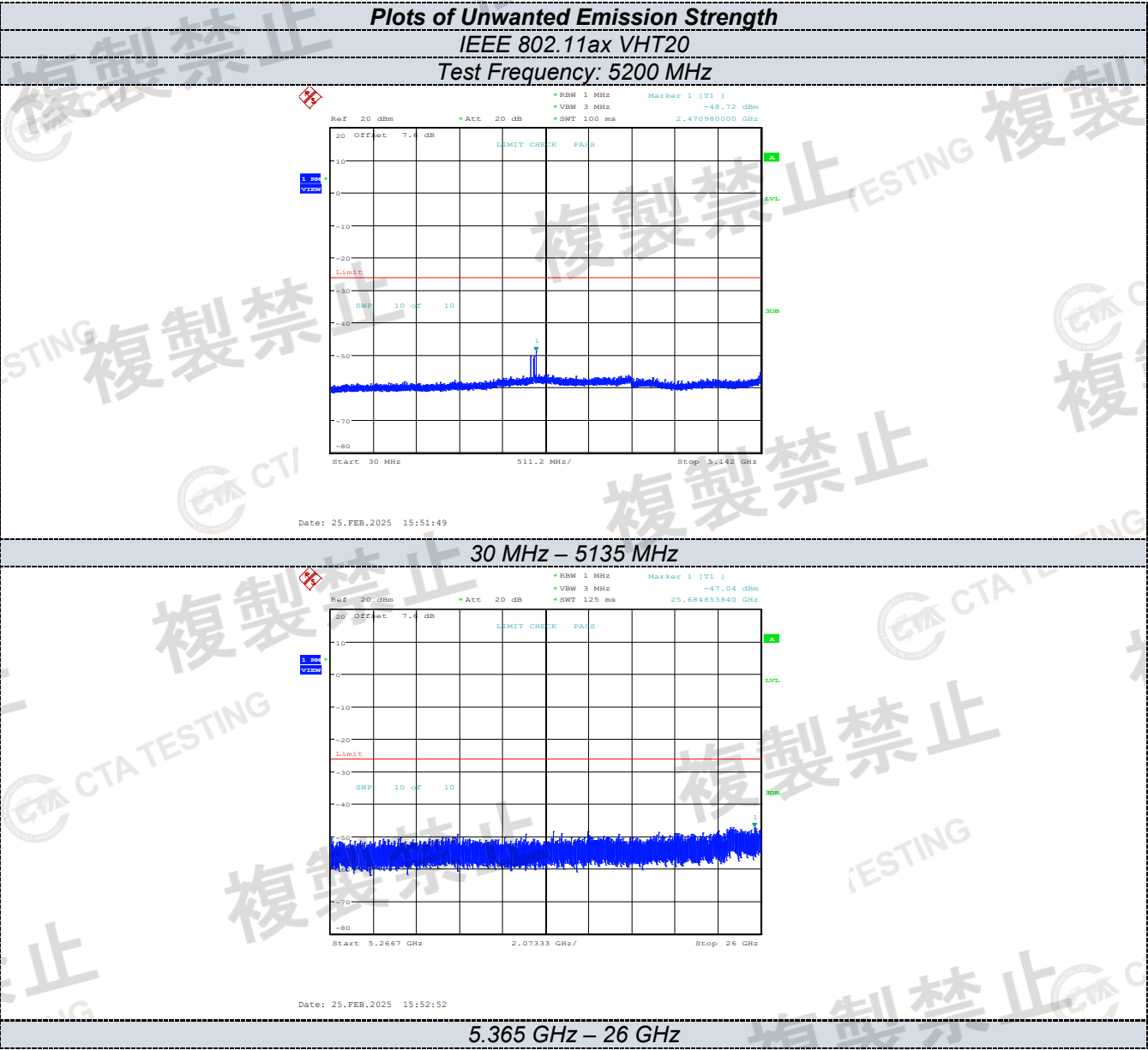
Date: 25.FEB.2025 15:36:38

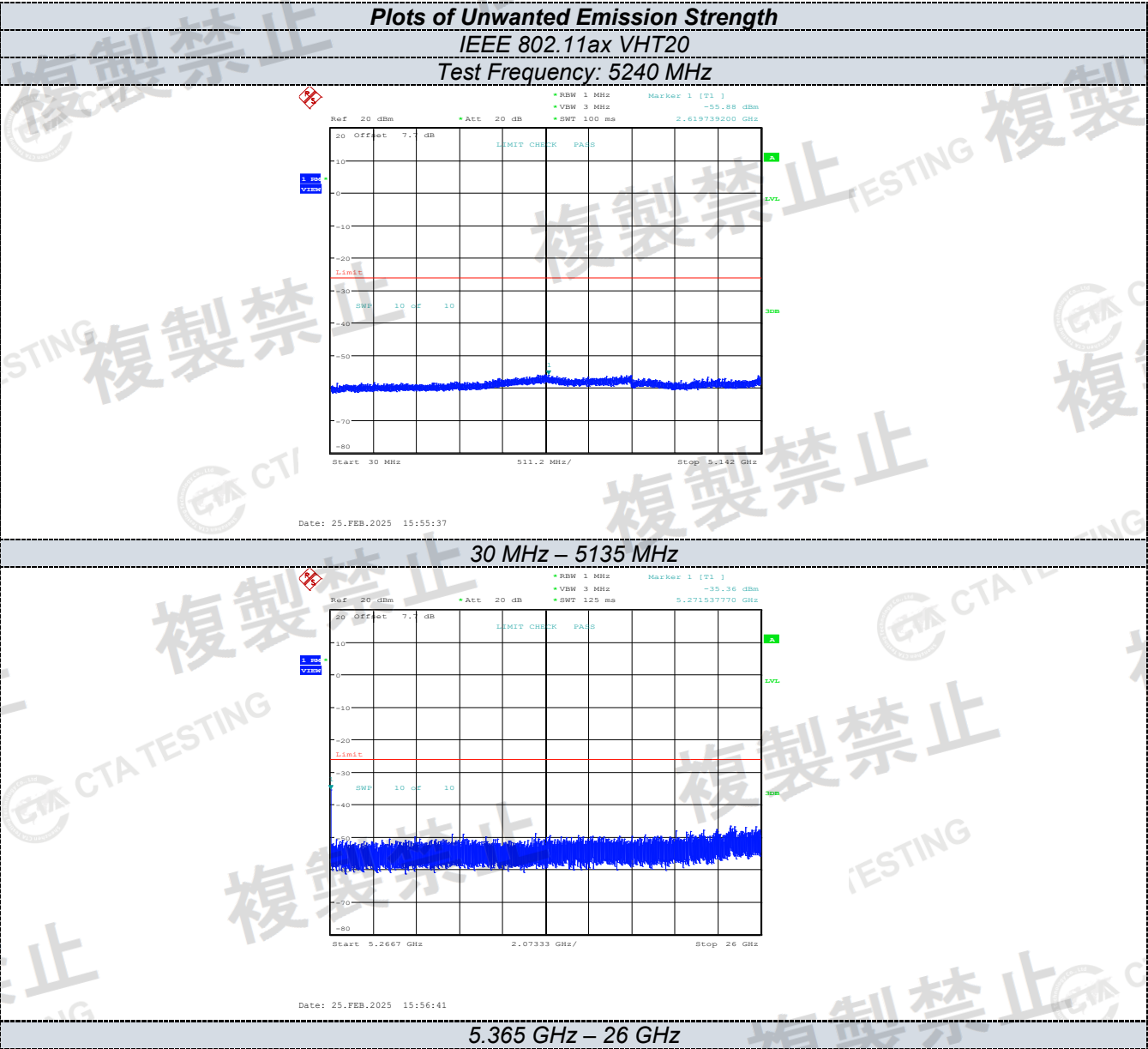
5.400 GHz – 26 GHz











IEEE 802.11ax VHT40

20 OffSet 7.0 dB

*Att 20 dB

*RBW 1 MHz

*VBW 3 MHz

*SWT 100 ms

Marker 1 [T1]

-45.89 dBm

5.139044200 GHz

LIMIT CHECK PASS

Limit

SWP 10 dB 10

Start 30 MHz

511.6 MHz/

Stop 5.416 GHz

Date: 25.FEB.2025 15:59:26

Ref 20 dBm • Att 20 dB • RBW 1 MHz Marker 1 [73] -46.21 dBm 24.526003520 GHz

10
-10
-20
-30
-40
-50
-60
-70
-80

Limit

SWP 10 OF 10

LEMIT CHECK PA18

Start 5.2784 GHz 2.07216 GHz/ Stop 26 GHz

Date: 25.FEB.2025 16:00:30

5.400 GHz – 26 GHz

IEEE 802.11ax VHT40

Ref 20 dBm * Att 20 dB * RBW 1 MHz * VBW 3 MHz * SWT 100 ms Marker 1 [T1] -54.51 dBm 2.437052440 GHz

20 Offset 7.1 dB

1. dBm

VIEW

Limit

SWP 10 dB 10

1

Start 30 MHz 511.16 MHz/ Stop 5.416 GHz

Date: 25.FEB.2025 16:03:16

20 dBm
Ref 20 dBm
Att 20 dB
RBW 1 MHz
VBW 3 MHz
SWT 125 ms
Marker 1 (2.07216 GHz)
-43.99 dBm
5.285997920 GHz

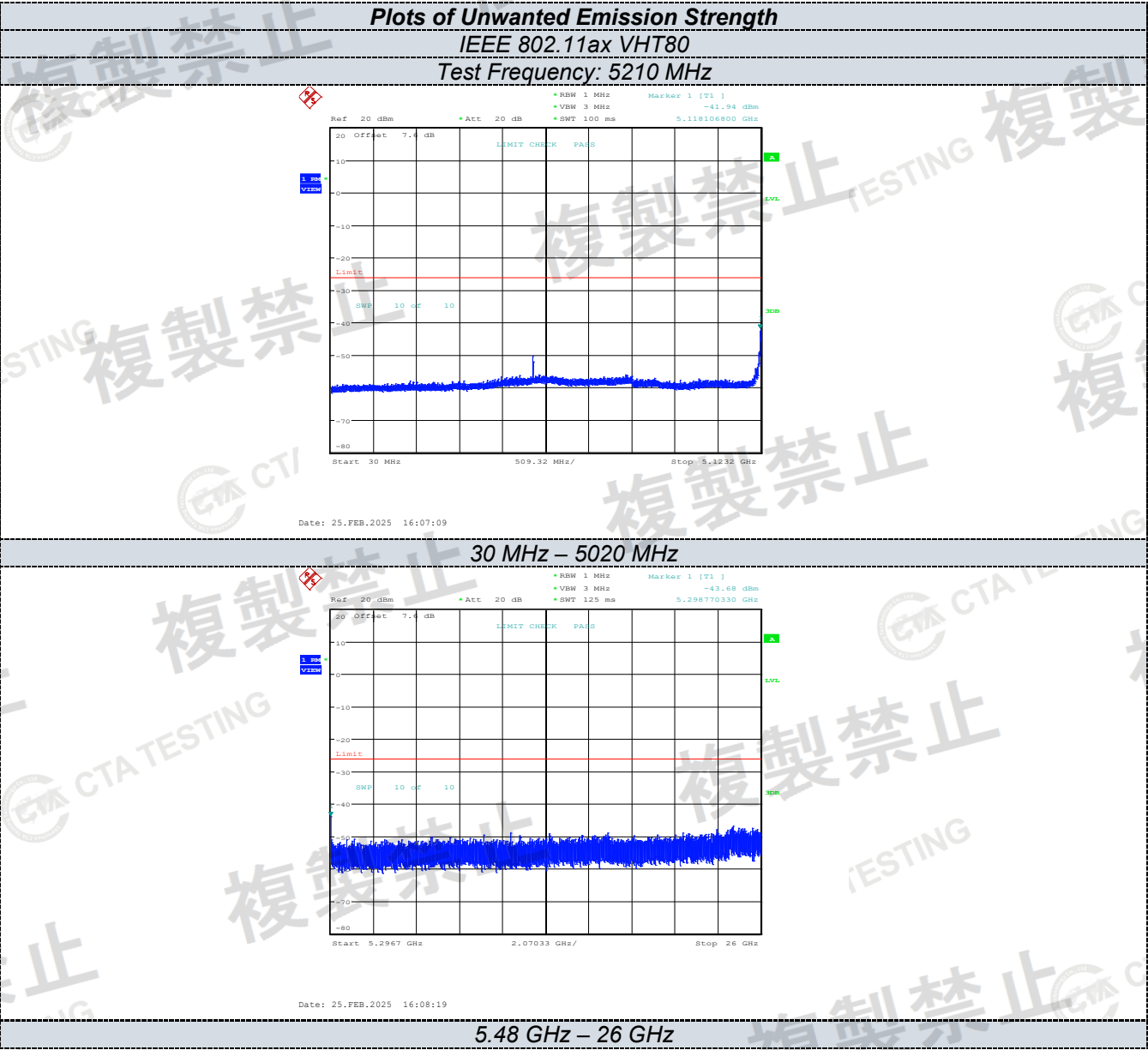
20 Offset 7.0 dB
10
0
-10
-20
-30
-40
-50
-60
-70
-80

Limit
SWP 10 40 10

Start 5.2784 GHz
2.07216 GHz/
Stop 26 GHz

Date: 25.FEB.2025 16:04:20

5.400 GHz – 26 GHz



30 MHz – 5020 MHz

Ref 20 dBm

Att 20 dB

RBW 1 MHz

VBW 3 MHz

SWT 125 ms

Marker 1 (T1)

-43.68 dBm

5.298770330 GHz

20

Offset 7.4 dB

Limit

SWP 10 dB

10

10

20

10

0

-10

-20

-30

-40

-50

-60

-70

-80

Start 5.2967 GHz

2.07033 GHz/

Stop 26 GHz

1 mV

1 MHz

10 dB

10

10

20

10

0

-10

-20

-30

-40

-50

-60

-70

-80

Start 5.2967 GHz

2.07033 GHz/

Stop 26 GHz

Date: 25.FEB.2025 16:08:19

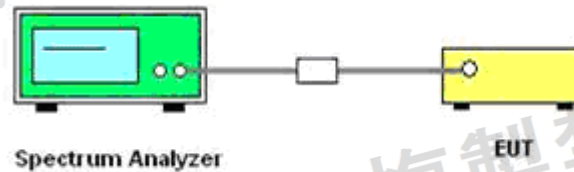
5.48 GHz – 26 GHz

3.7 Secondary Radiated Emission Strength

LIMIT

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

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: modulation

Spectrum Condition:

- Frequency: 30MHz-26GHz
- RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-26GHz)
- VBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-26GHz)
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

TEST RESULTS

ANT1:

TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11A	Ant1	5180	30~1000	989.33	-82.52	≤-54	0.00560	≤4	PASS
				1000~26000	24646.25	-67.17	≤-47	0.19187	≤20	PASS
			5200	30~1000	992.24	-82.70	≤-54	0.00537	≤4	PASS
				1000~26000	25687.50	-67.77	≤-47	0.16711	≤20	PASS
			5240	30~1000	992.24	-82.62	≤-54	0.00547	≤4	PASS
				1000~26000	2445.00	-61.47	≤-47	0.71285	≤20	PASS
	11N20SISO	Ant1	5180	30~1000	949.56	-82.82	≤-54	0.00522	≤4	PASS
				1000~26000	24623.75	-67.31	≤-47	0.18578	≤20	PASS
			5200	30~1000	825.89	-80.73	≤-54	0.00845	≤4	PASS
				1000~26000	2433.75	-60.41	≤-47	0.90991	≤20	PASS
			5240	30~1000	966.05	-82.89	≤-54	0.00514	≤4	PASS
				1000~26000	2403.75	-67.13	≤-47	0.19364	≤20	PASS
	11N40SISO	Ant1	5190	30~1000	979.15	-82.70	≤-54	0.00537	≤4	PASS
				1000~26000	25803.75	-67.57	≤-47	0.17498	≤20	PASS
			5230	30~1000	988.85	-82.48	≤-54	0.00565	≤4	PASS
				1000~26000	2438.75	-60.37	≤-47	0.91833	≤20	PASS
	11AC20SISO	Ant1	5180	30~1000	958.29	-82.78	≤-54	0.00527	≤4	PASS
				1000~26000	2472.50	-66.94	≤-47	0.20230	≤20	PASS
			5200	30~1000	983.51	-82.83	≤-54	0.00521	≤4	PASS
				1000~26000	2453.75	-64.14	≤-47	0.38548	≤20	PASS
			5240	30~1000	878.75	-82.75	≤-54	0.00531	≤4	PASS
				1000~26000	2447.50	-65.72	≤-47	0.26792	≤20	PASS
	11AC40SISO	Ant1	5190	30~1000	824.92	-82.42	≤-54	0.00573	≤4	PASS
				1000~26000	3415.00	-64.97	≤-47	0.31842	≤20	PASS
			5230	30~1000	994.18	-82.68	≤-54	0.00540	≤4	PASS
				1000~26000	2433.75	-63.42	≤-47	0.45499	≤20	PASS
	11AC80SISO	Ant1	5210	30~1000	903.49	-82.82	≤-54	0.00522	≤4	PASS
				1000~26000	1932.50	-57.13	≤-47	1.93642	≤20	PASS
	11AX20SISO	Ant1	5180	30~1000	965.08	-82.75	≤-54	0.00531	≤4	PASS
				1000~26000	25236.25	-67.57	≤-47	0.17498	≤20	PASS
			5200	30~1000	895.24	-82.83	≤-54	0.00521	≤4	PASS
				1000~26000	2416.25	-67.74	≤-47	0.16827	≤20	PASS
			5240	30~1000	989.33	-82.52	≤-54	0.00560	≤4	PASS
				1000~26000	2431.25	-66.53	≤-47	0.2223	≤20	PASS

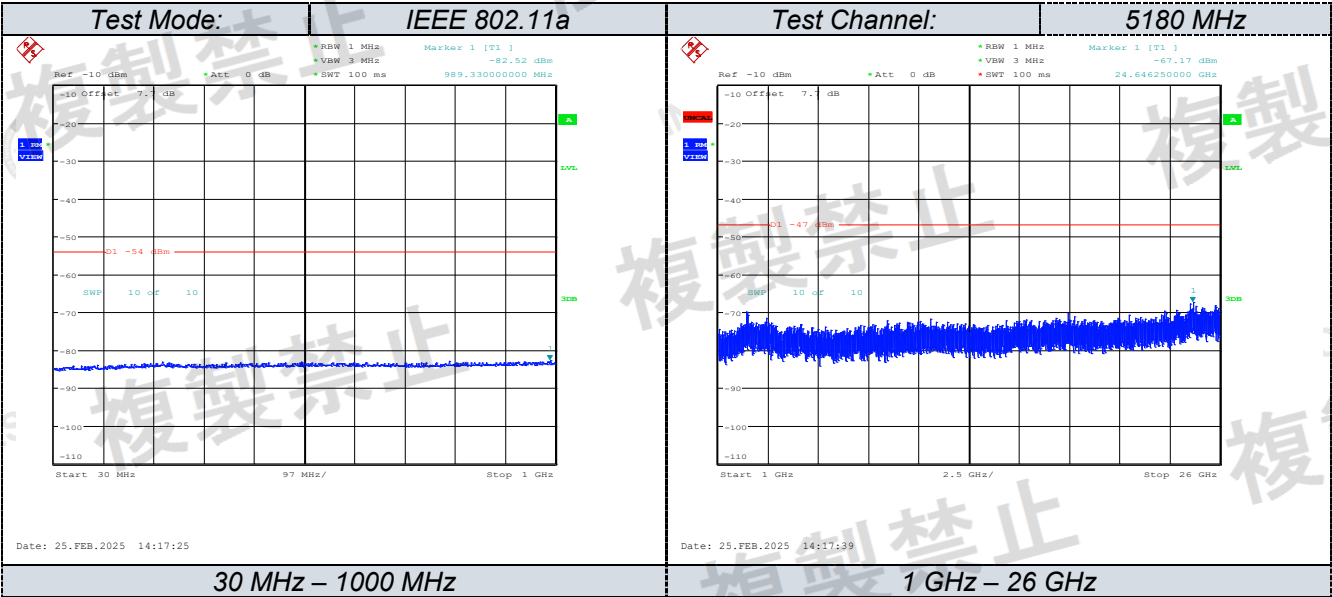
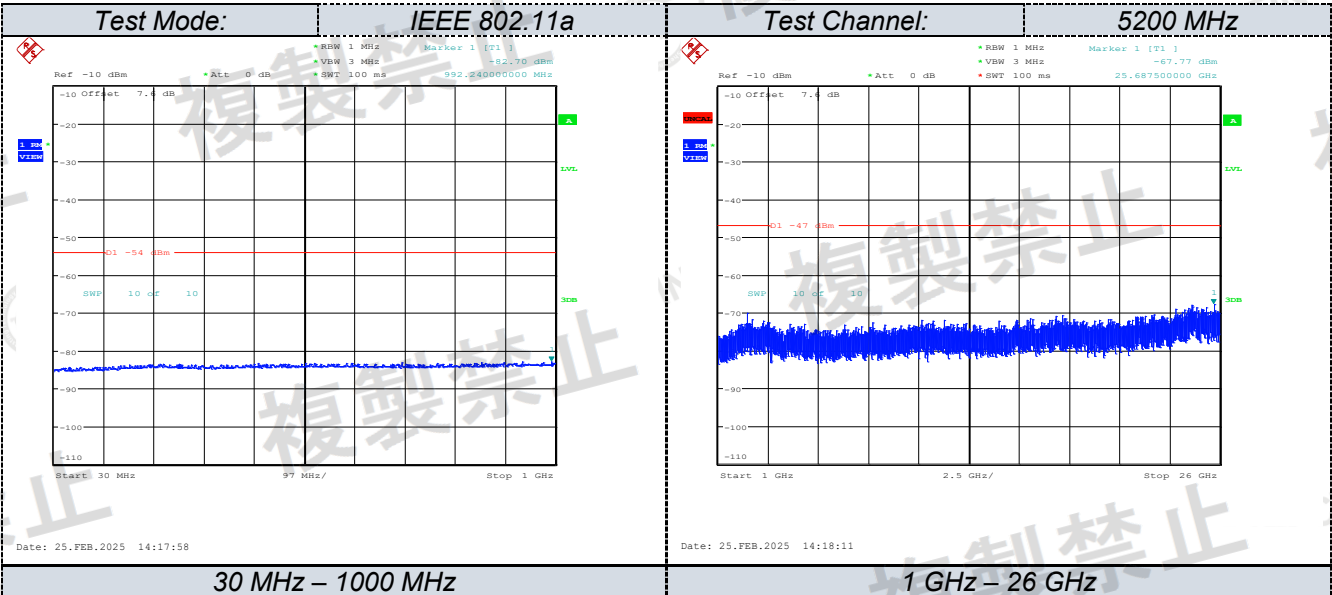
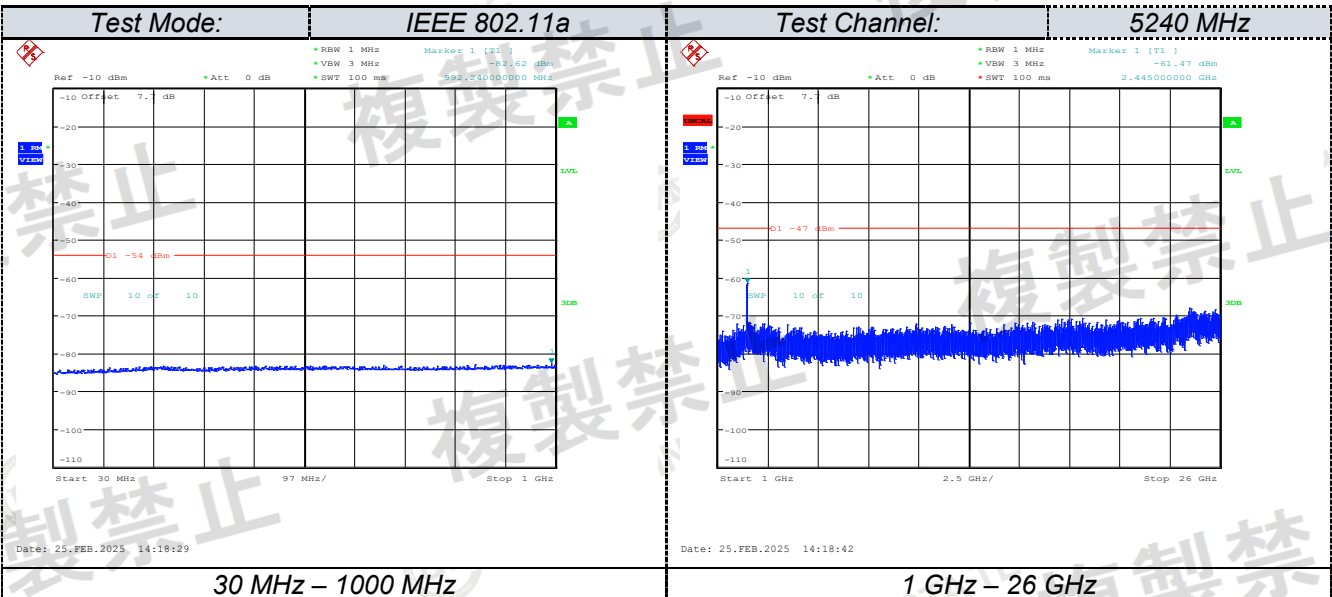
				0				3		
	11AX40SISO	Ant1	5190	30~1000	557.20	-82.68	≤-54	0.00540	≤4	PASS
				1000~26000	2447.50	-60.39	≤-47	0.91411	≤20	PASS
			5230	30~1000	913.19	-82.89	≤-54	0.00514	≤4	PASS
				1000~26000	25687.50	-67.56	≤-47	0.17539	≤20	PASS
	11AX80SISO	Ant1	5210	30~1000	938.41	-82.93	≤-54	0.00509	≤4	PASS
				1000~26000	2517.50	-57.31	≤-47	1.85780	≤20	PASS

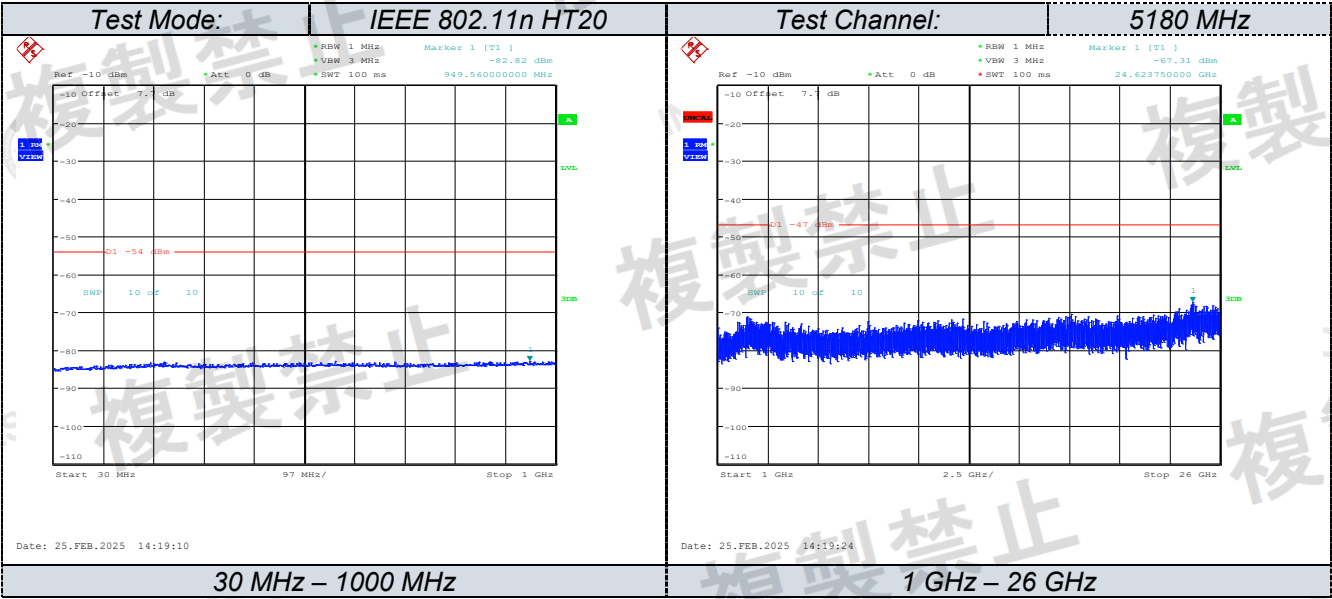
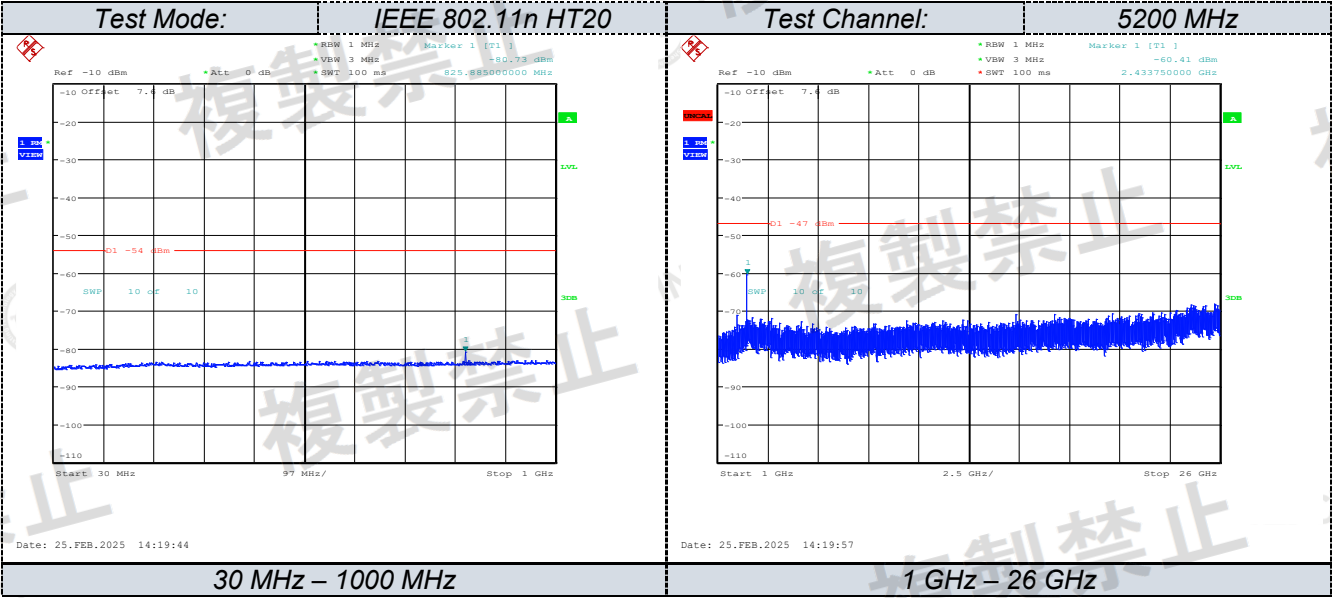
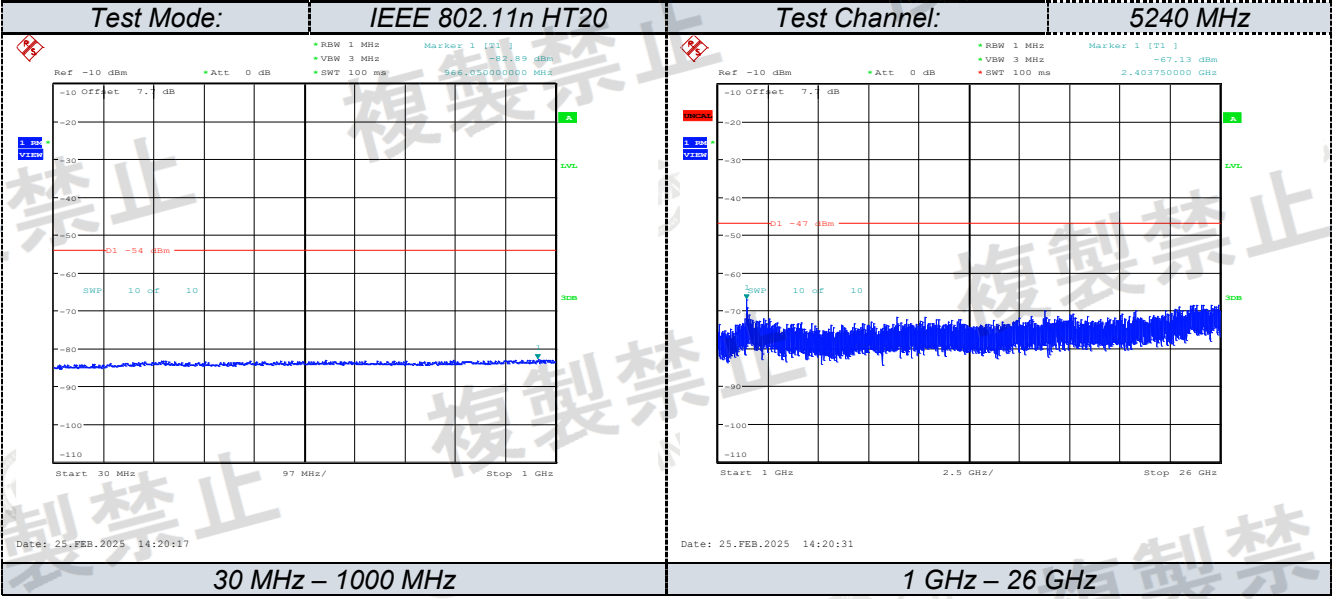
ANT2:

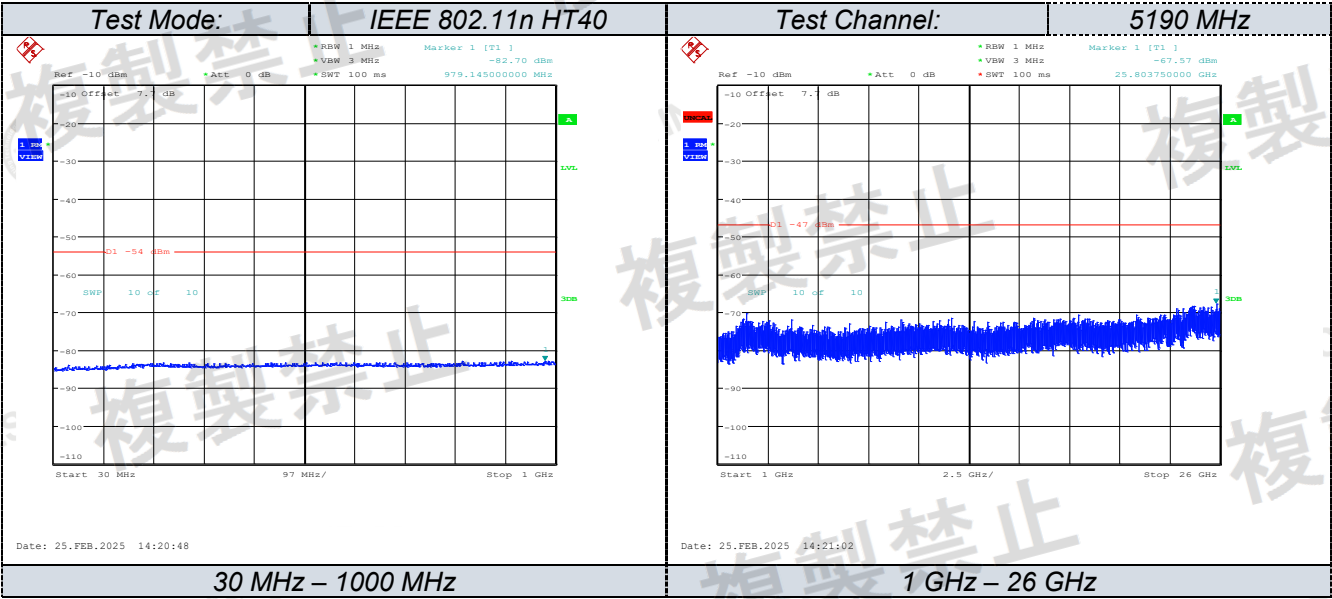
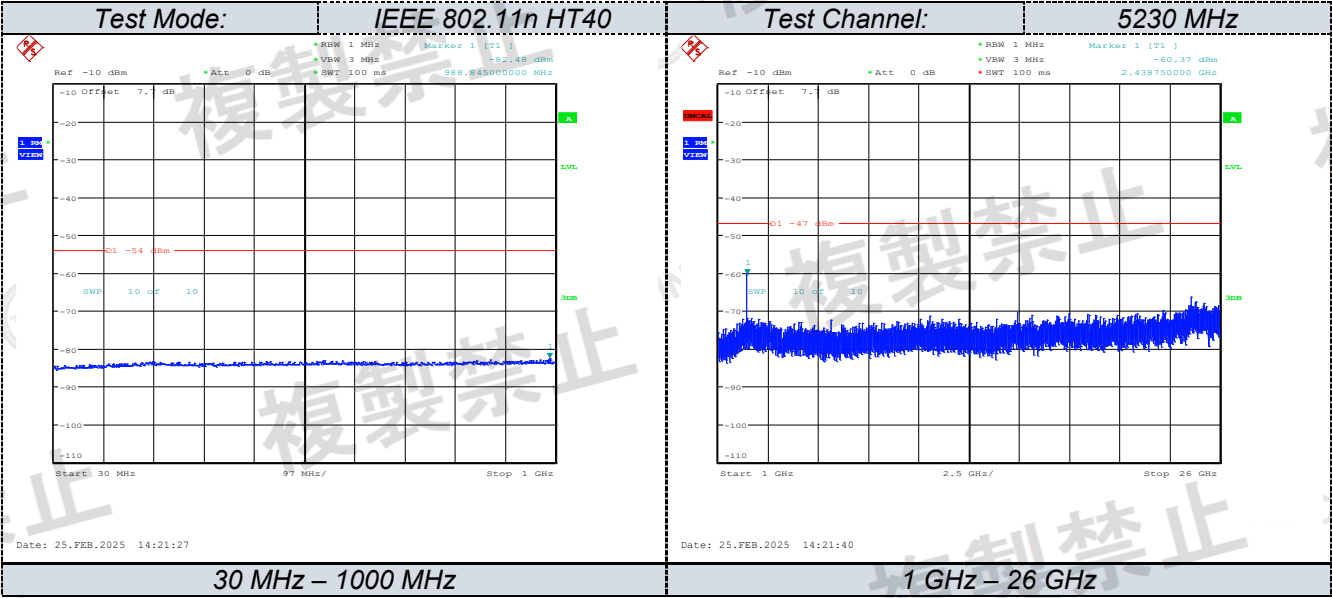
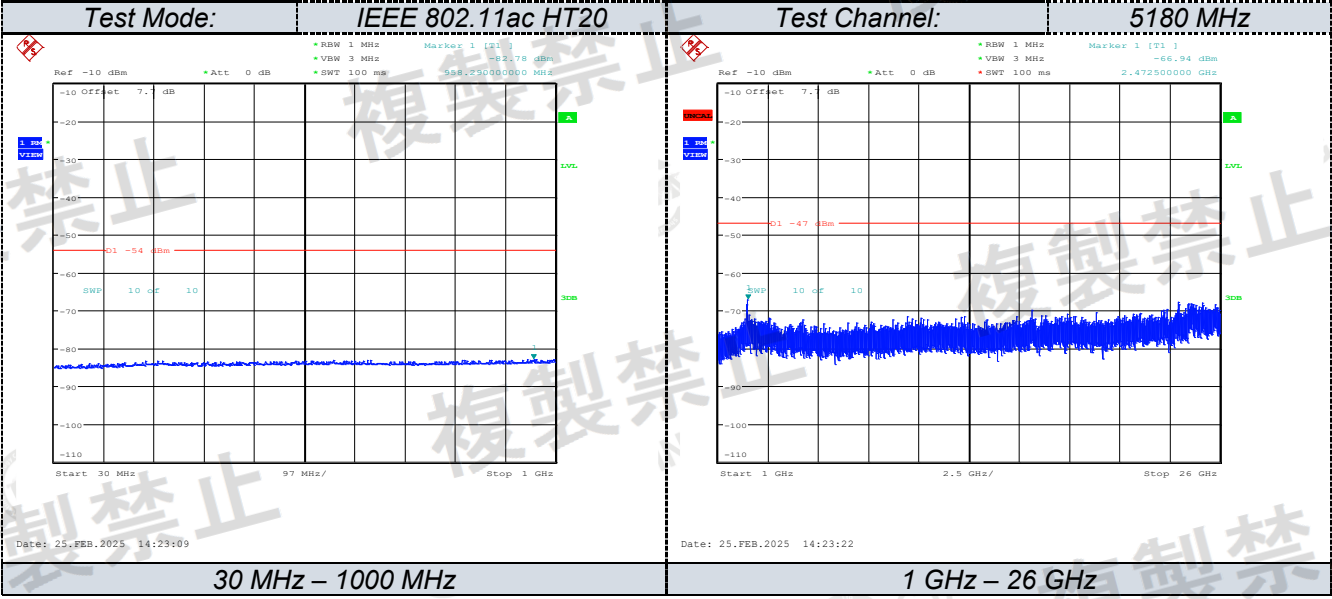
TestCondition	TestMode	Antenna	Freq(MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [nW]	Limit [nW]	Verdict
NTNV	11A	Ant1	5180	30~1000	966.54	-82.70	≤-54	0.00537	≤4	PASS
				1000~26000	2410.00	-61.68	≤-47	0.67920	≤20	PASS
			5200	30~1000	830.25	-71.92	≤-54	0.06427	≤4	PASS
				1000~26000	25763.75	-68.32	≤-47	0.14723	≤20	PASS
			5240	30~1000	963.63	-82.48	≤-54	0.00565	≤4	PASS
				1000~26000	1940.00	-65.52	≤-47	0.28054	≤20	PASS
	11N20SISO	Ant1	5180	30~1000	984.97	-82.80	≤-54	0.00525	≤4	PASS
				1000~26000	24472.50	-66.85	≤-47	0.20654	≤20	PASS
			5200	30~1000	981.57	-82.54	≤-54	0.00557	≤4	PASS
				1000~26000	24547.50	-66.47	≤-47	0.22542	≤20	PASS
			5240	30~1000	988.36	-82.77	≤-54	0.00528	≤4	PASS
				1000~26000	25262.50	-67.22	≤-47	0.18967	≤20	PASS
	11N40SISO	Ant1	5190	30~1000	991.76	-82.86	≤-54	0.00518	≤4	PASS
				1000~26000	2420.00	-64.90	≤-47	0.32359	≤20	PASS
			5230	30~1000	991.27	-82.32	≤-54	0.00586	≤4	PASS
				1000~26000	5217.50	-64.19	≤-47	0.38107	≤20	PASS
	11AC20SISO	Ant1	5180	30~1000	914.16	-82.67	≤-54	0.00541	≤4	PASS
				1000~26000	2477.50	-59.43	≤-47	1.14025	≤20	PASS
			5200	30~1000	905.43	-64.77	≤-54	0.33343	≤4	PASS
				1000~26000	2442.50	-58.09	≤-47	1.55239	≤20	PASS
			5240	30~1000	995.15	-82.83	≤-54	0.00521	≤4	PASS
				1000~26000	2463.75	-61.19	≤-47	0.76033	≤20	PASS
	11AC40SISO	Ant1	5190	30~1000	991.76	-82.83	≤-54	0.00521	≤4	PASS
				1000~26000	25687.50	-67.96	≤-47	0.15996	≤20	PASS
			5230	30~1000	977.21	-82.87	≤-54	0.00516	≤4	PASS
				1000~26000	25762.50	-68.12	≤-47	0.15417	≤20	PASS

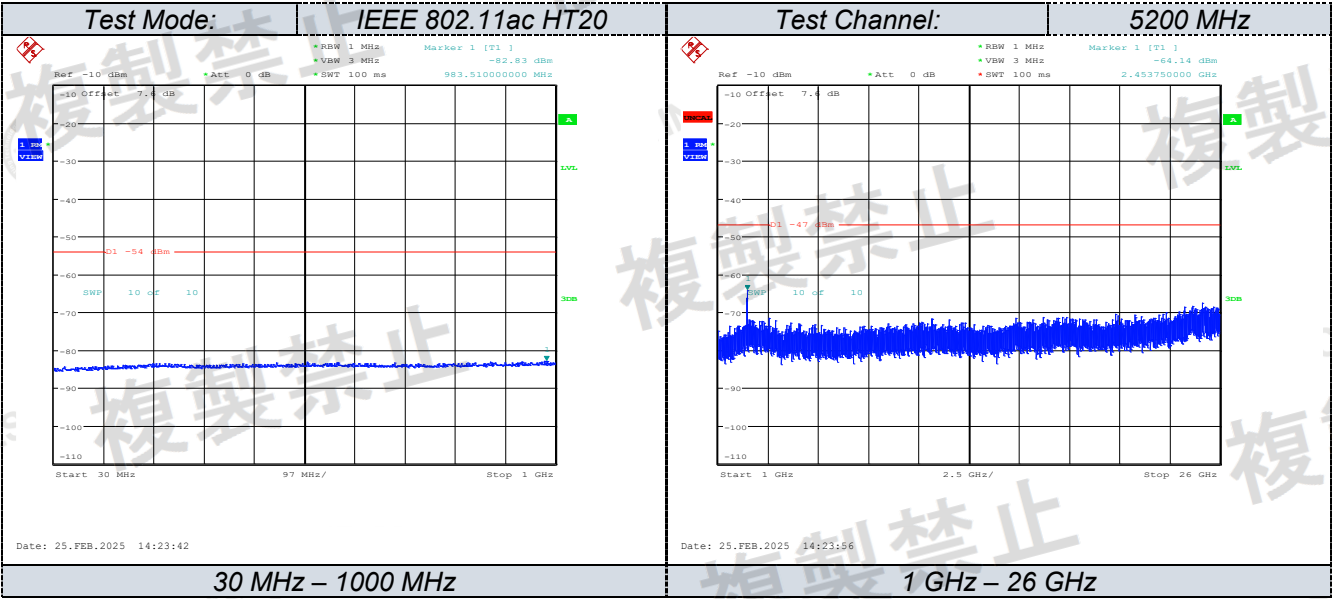
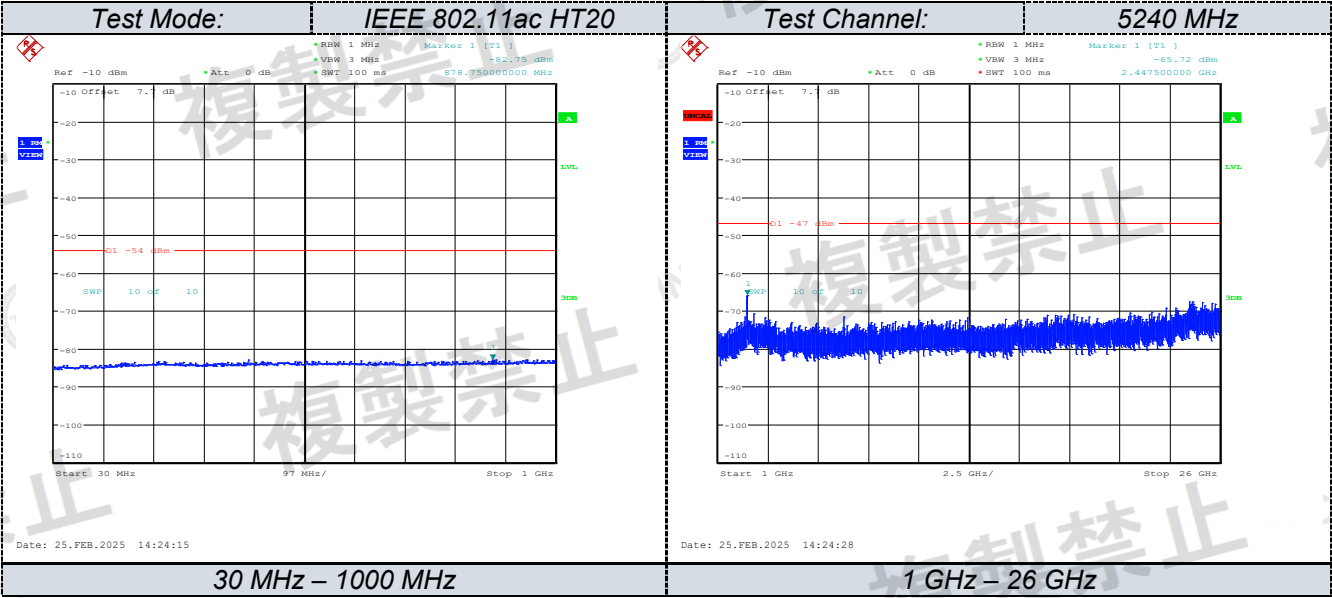
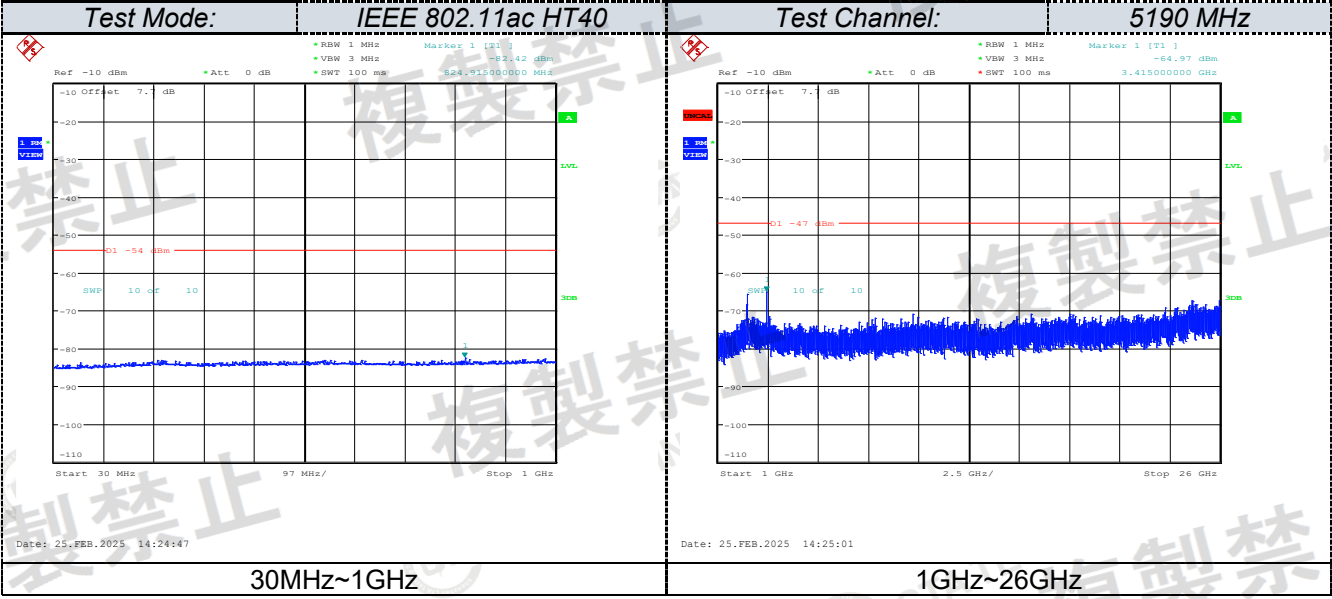
	11AC80SIS O	Ant1	5210	30~1000	908.34	-68.20	≤-54	0.1513 6	≤4	PASS
				1000~2600 0	2476.25	-65.31	≤-47	0.2944 4	≤20	PASS
	11AX20SIS O	Ant1	5180	30~1000	972.84	-82.51	≤-54	0.0056 1	≤4	PASS
				1000~2600 0	2412.50	-65.45	≤-47	0.2851 0	≤20	PASS
			5200	30~1000	923.37	-82.92	≤-54	0.0051 1	≤4	PASS
				1000~2600 0	2412.50	-57.69	≤-47	1.7021 6	≤20	PASS
			5240	30~1000	979.15	-82.70	≤-54	0.0053 7	≤4	PASS
				1000~2600 0	1931.25	-59.59	≤-47	1.0990 1	≤20	PASS
	11AX40SIS O	Ant1	5190	30~1000	971.87	-82.64	≤-54	0.0054 5	≤4	PASS
				1000~2600 0	3418.75	-61.13	≤-47	0.7709 0	≤20	PASS
			5230	30~1000	968.96	-82.90	≤-54	0.0051 3	≤4	PASS
				1000~2600 0	2467.50	-62.36	≤-47	0.5807 6	≤20	PASS
	11AX80SIS O	Ant1	5210	30~1000	833.65	-77.43	≤-54	0.0180 7	≤4	PASS
				1000~2600 0	25136.2 5	-67.52	≤-47	0.1770 1	≤20	PASS

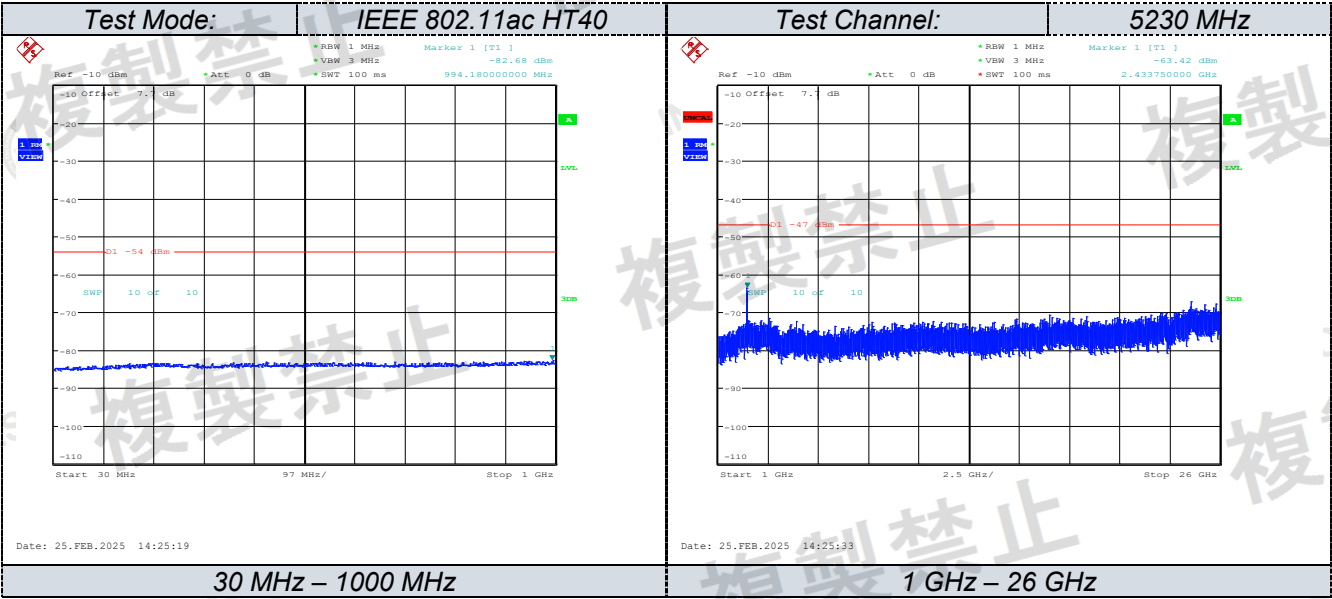
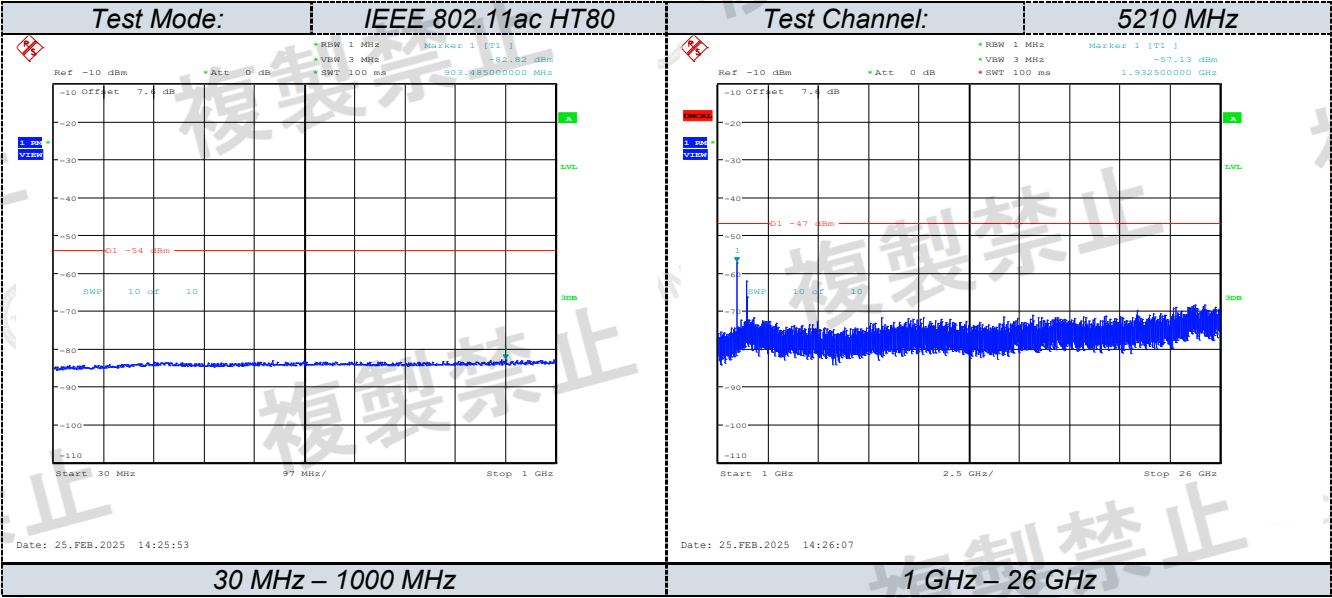
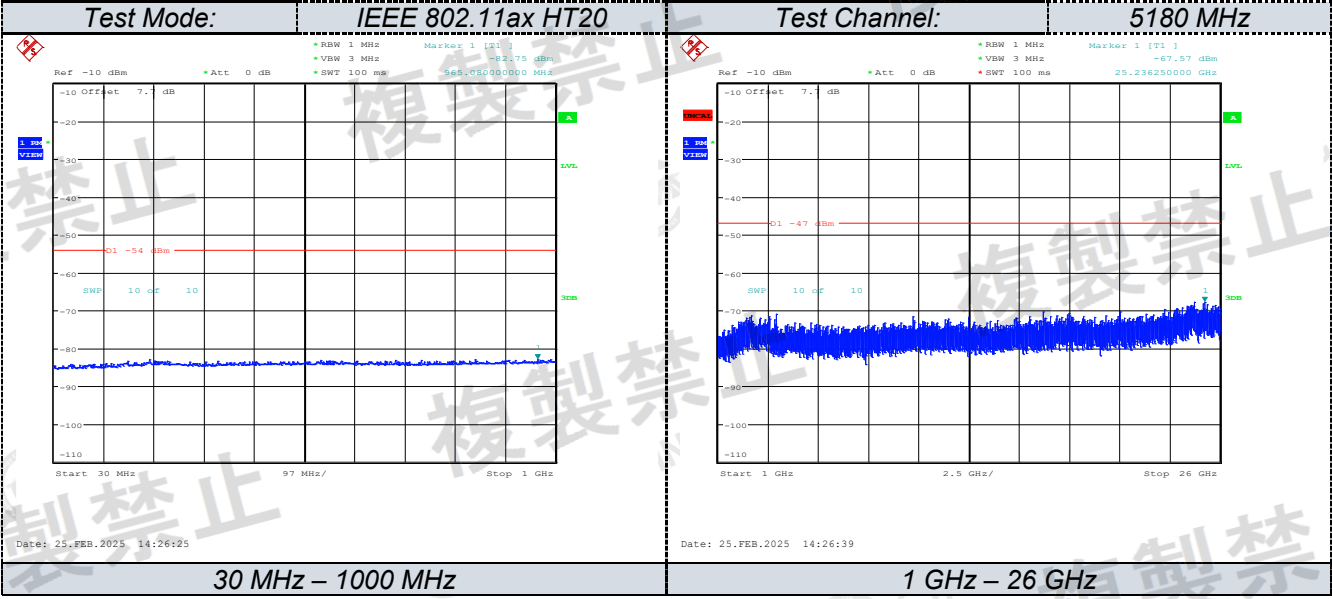
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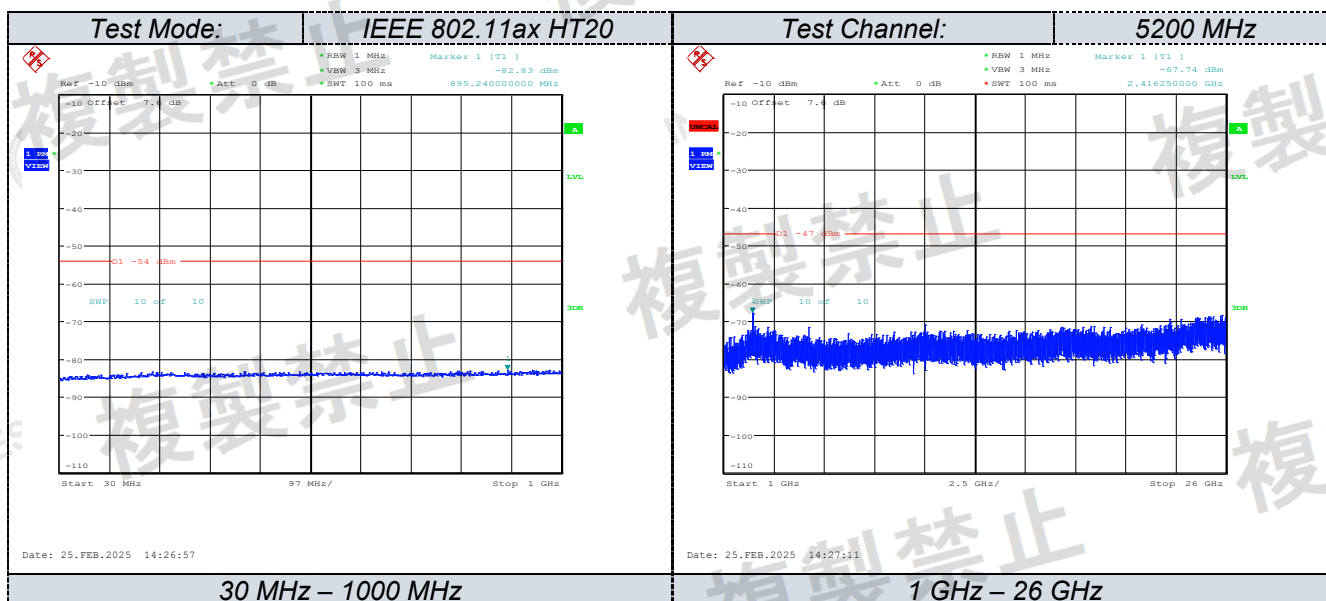
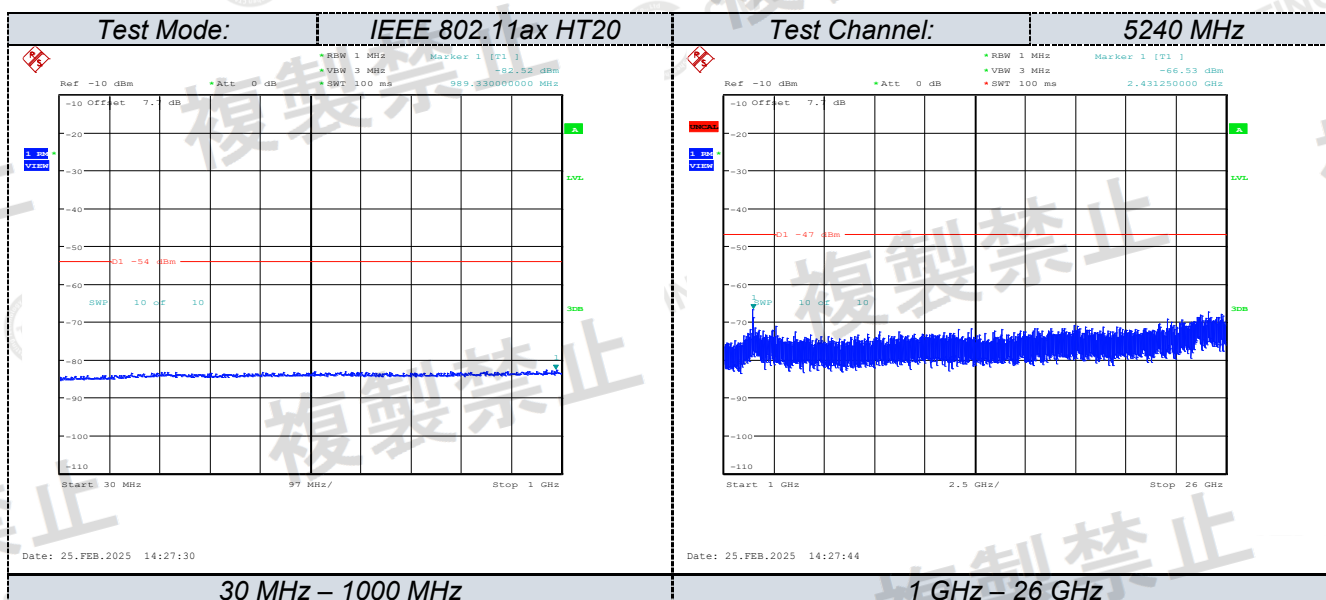
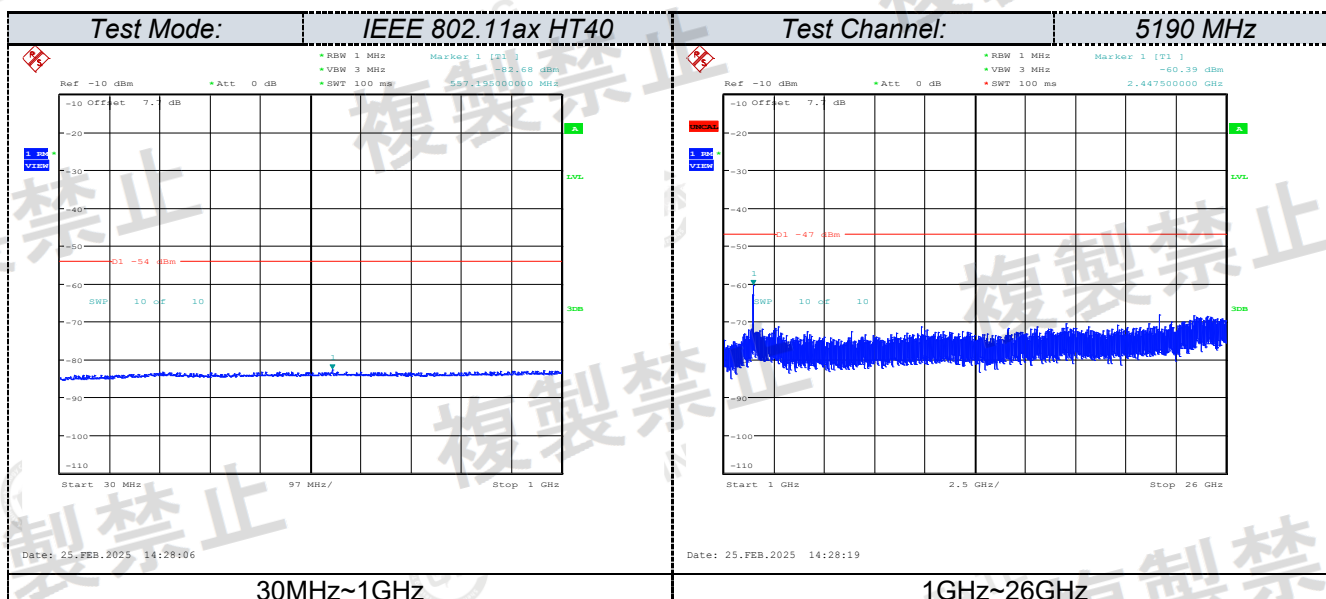


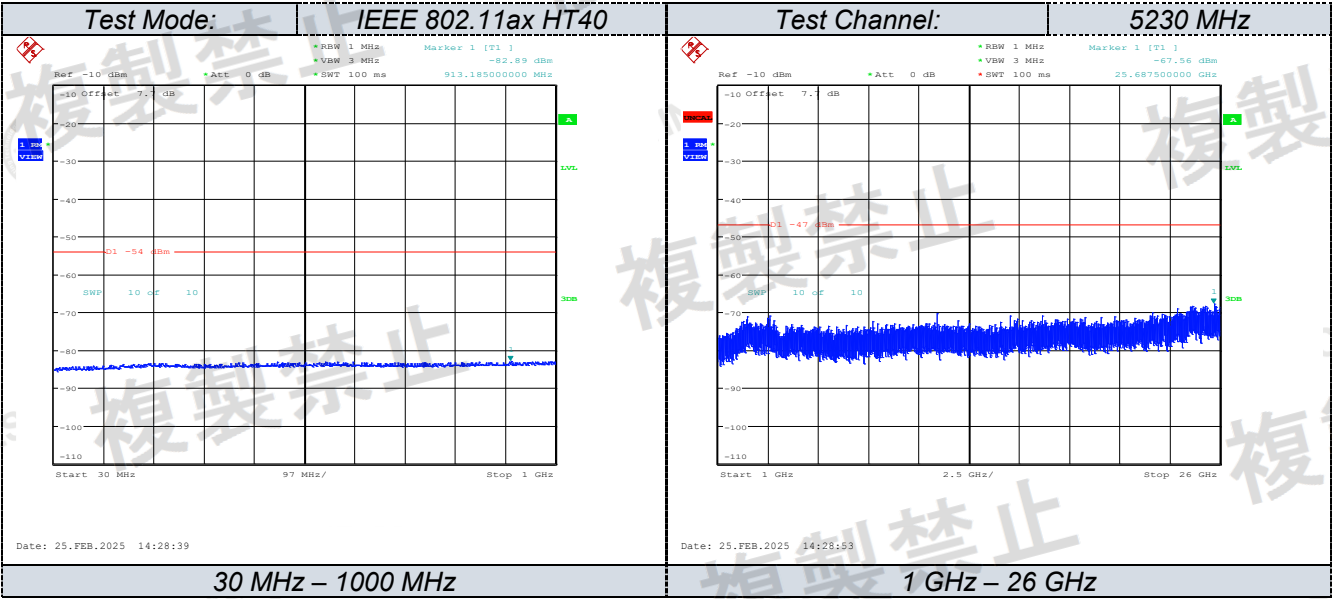
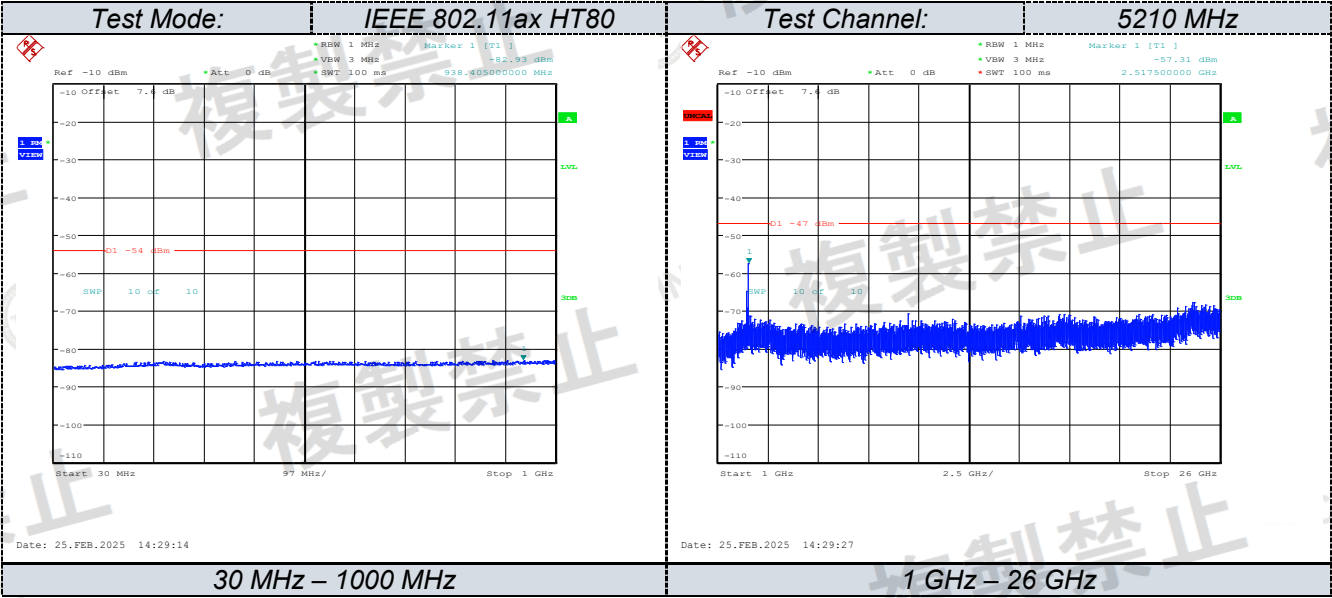




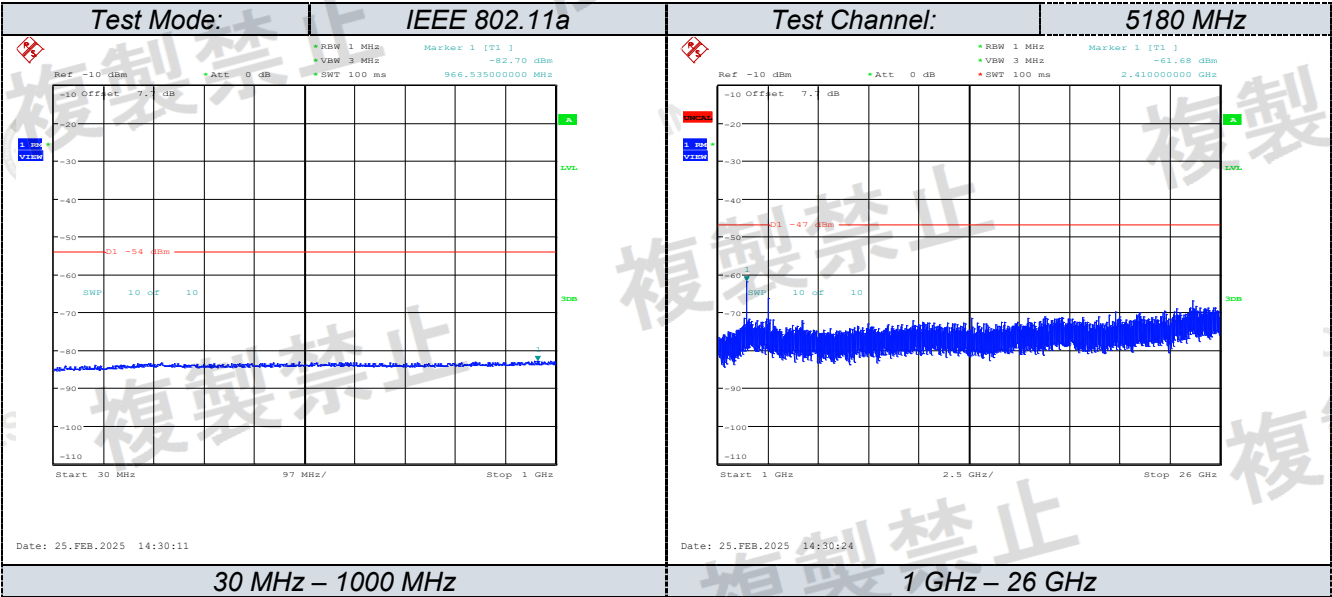
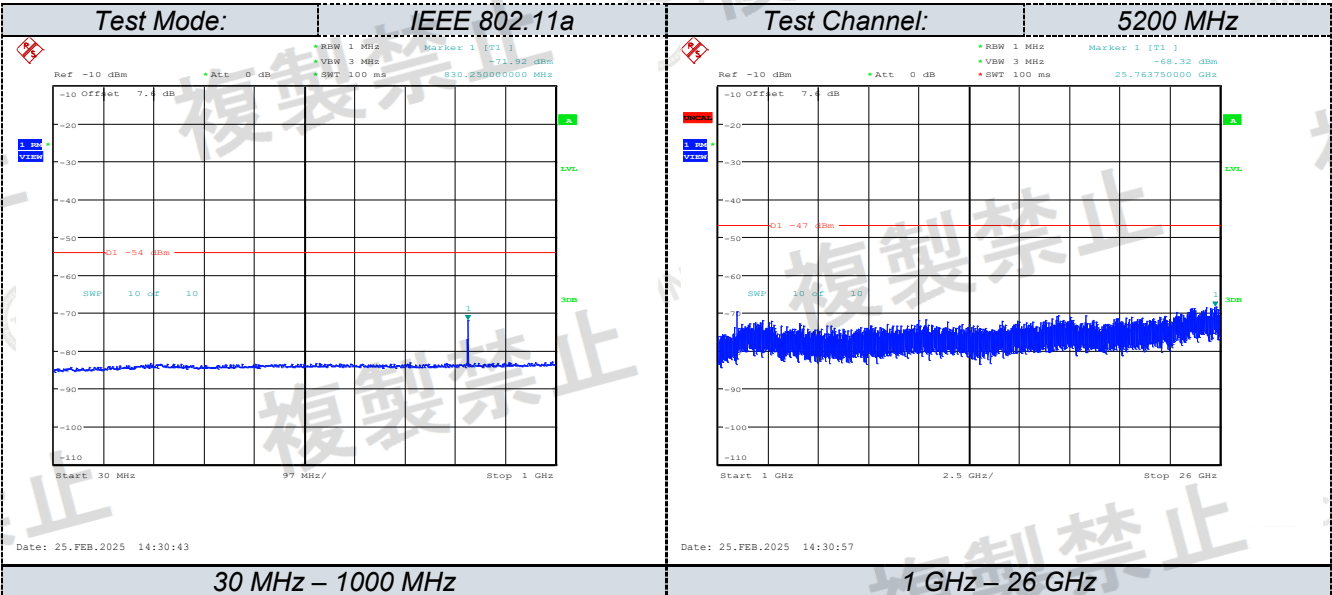
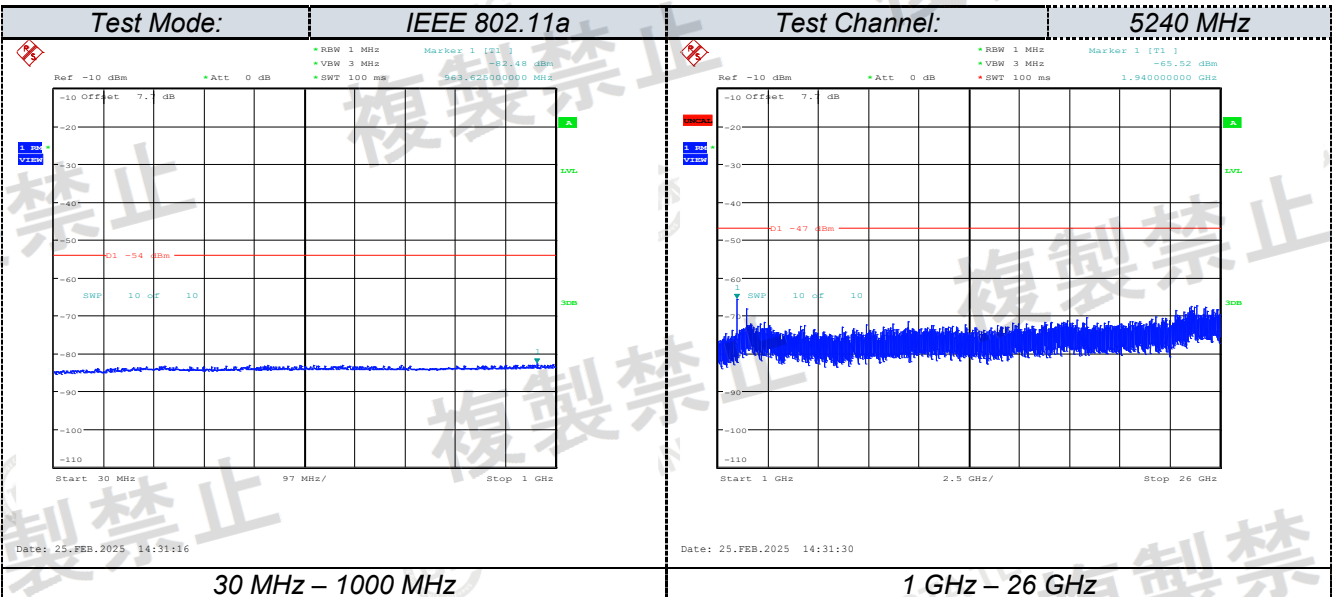


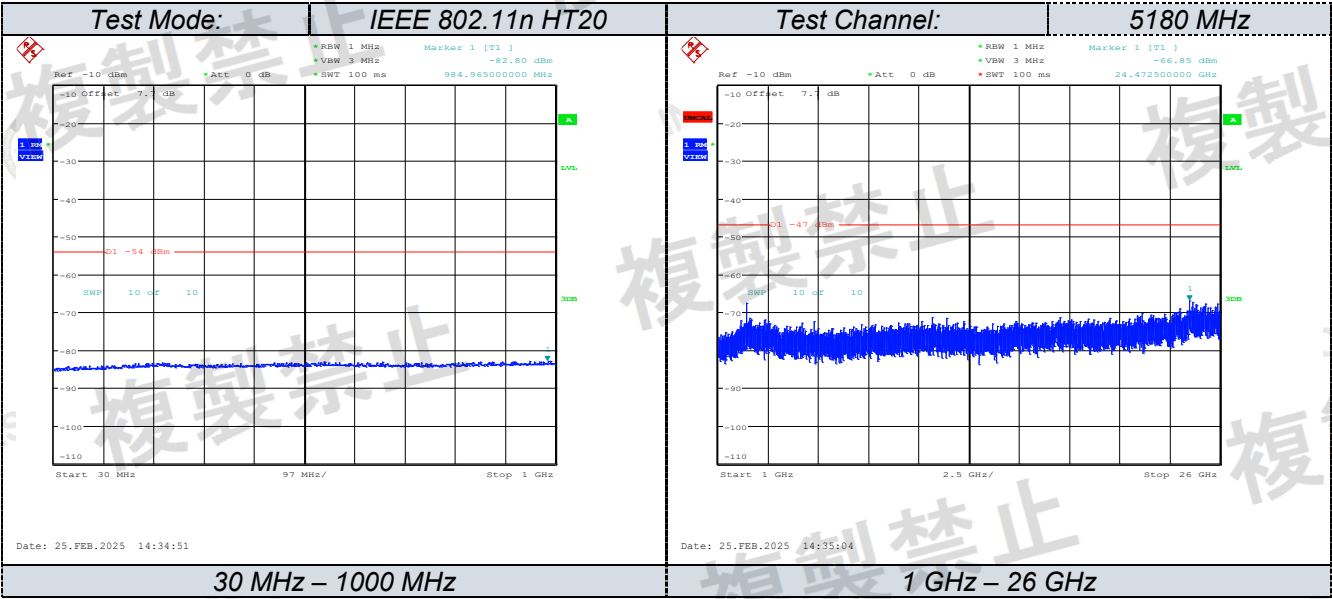
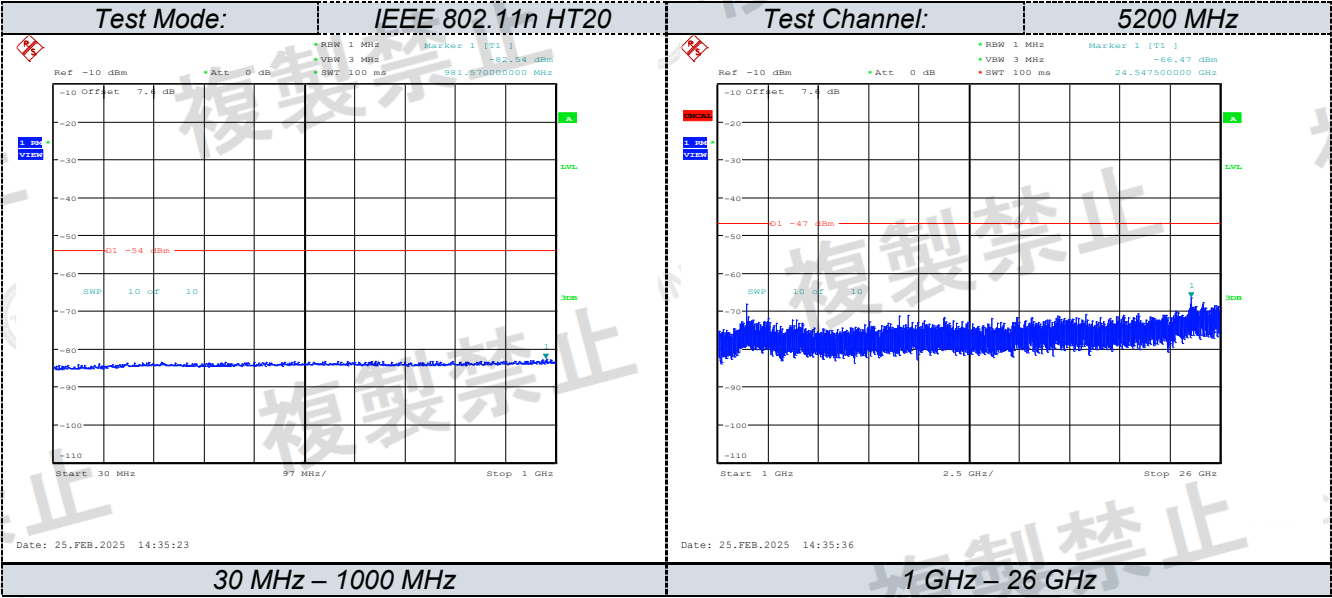
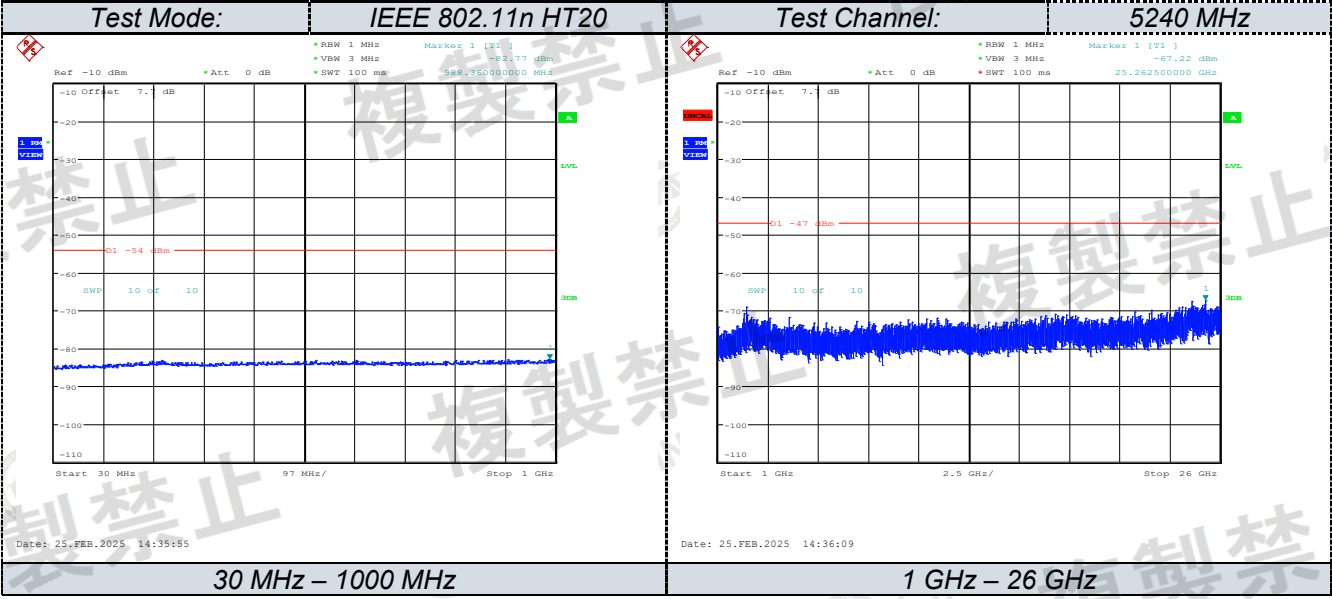


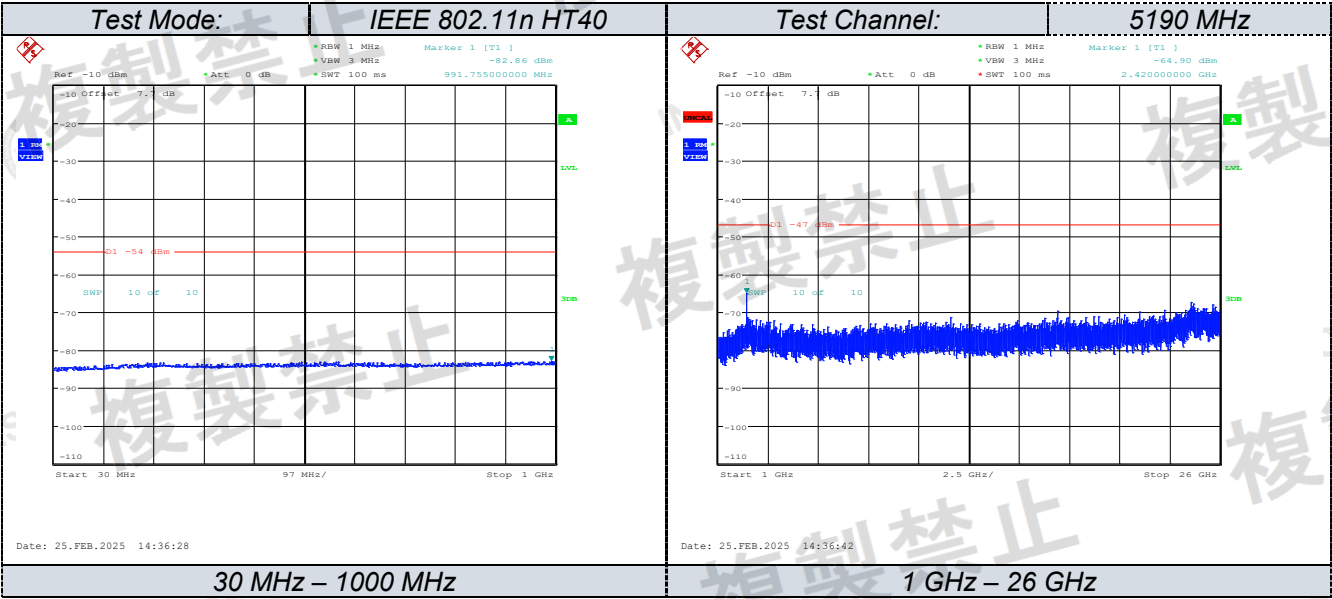
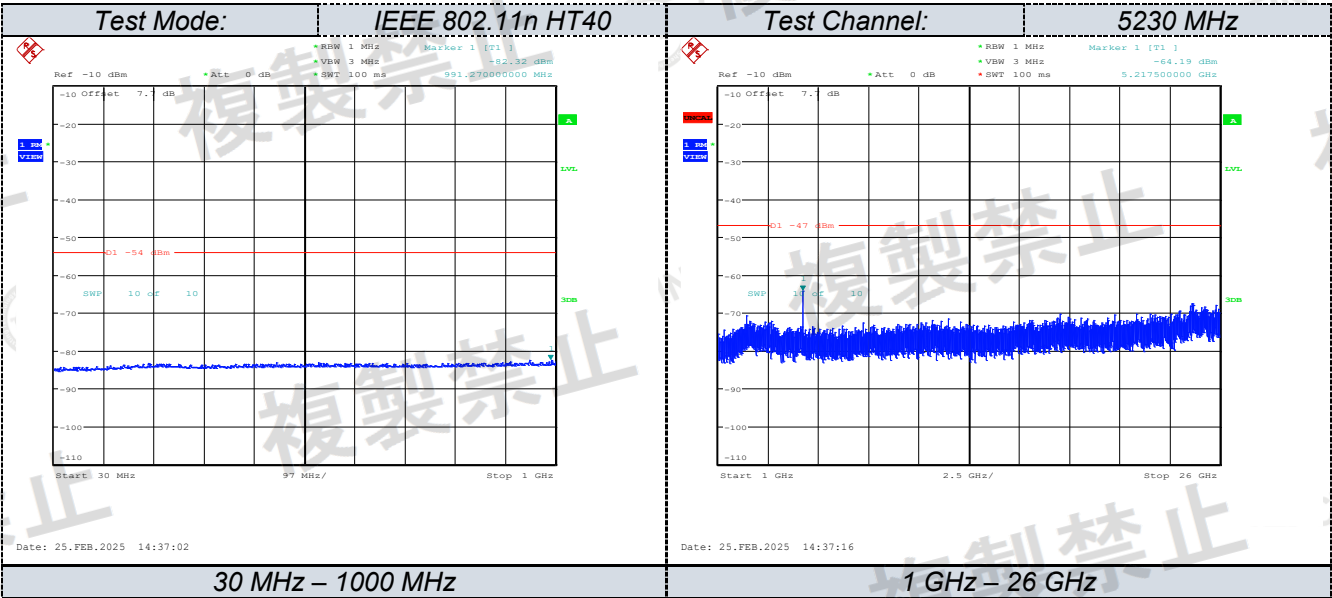
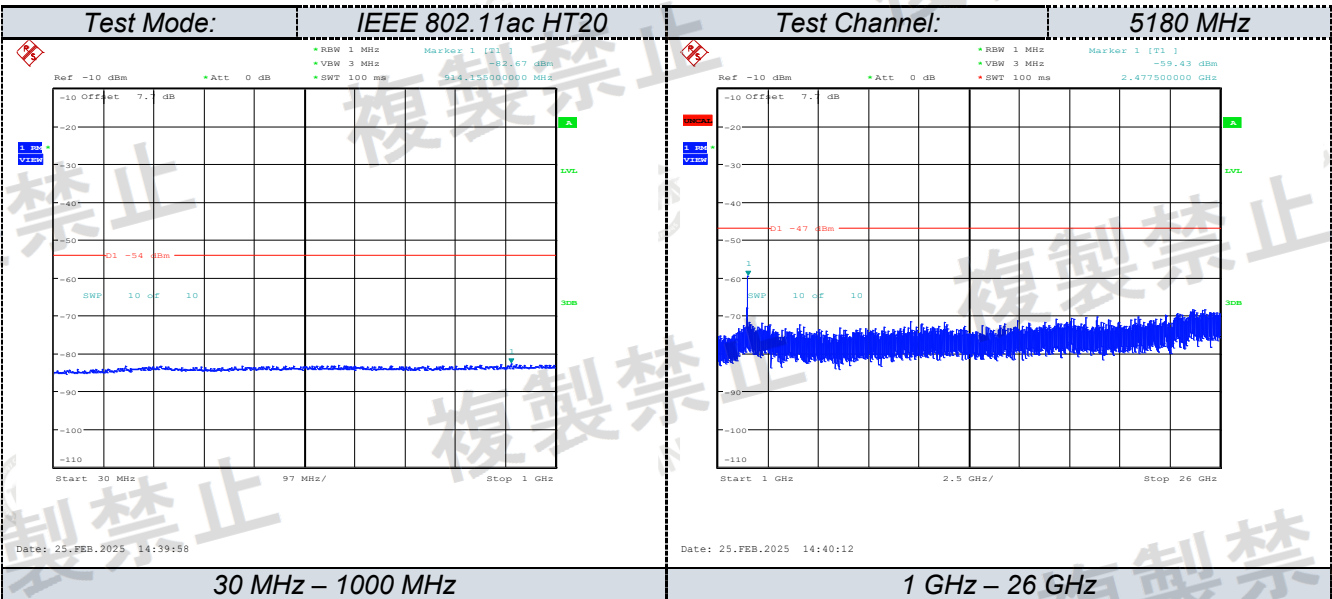


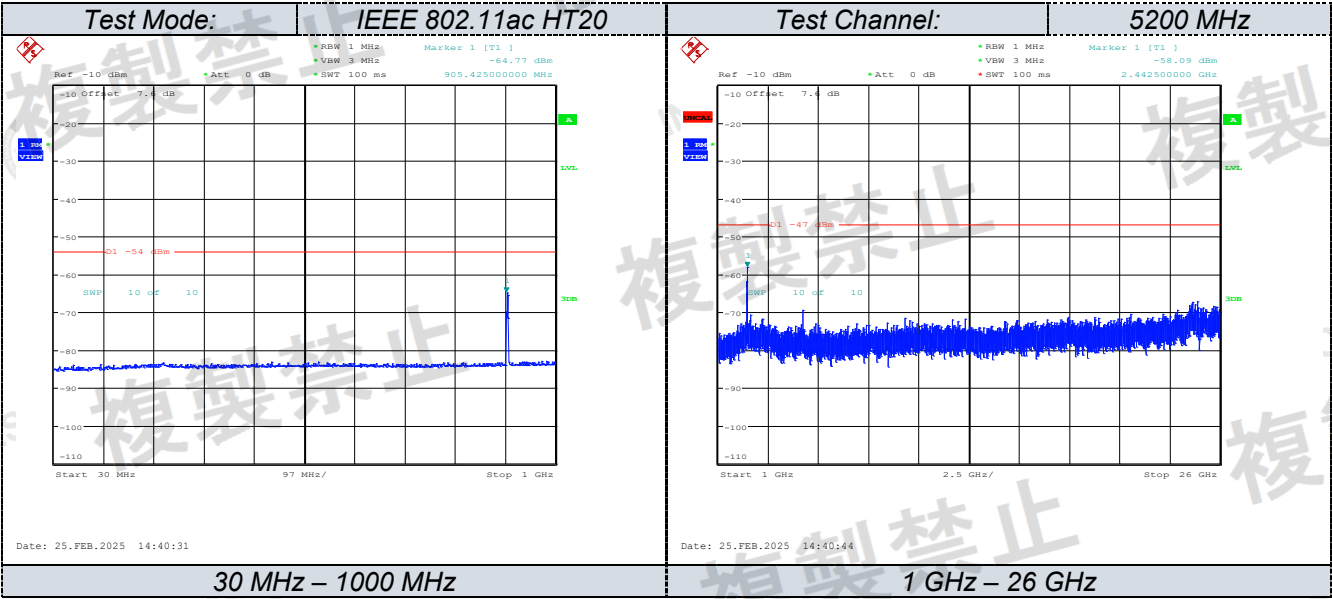
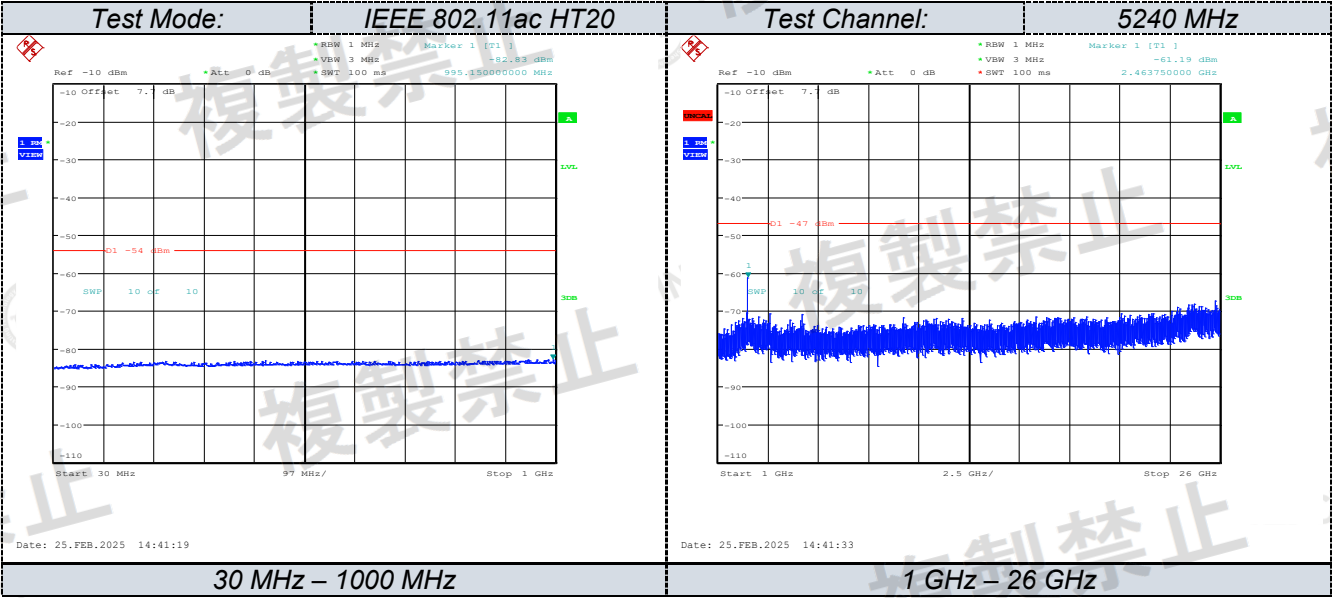
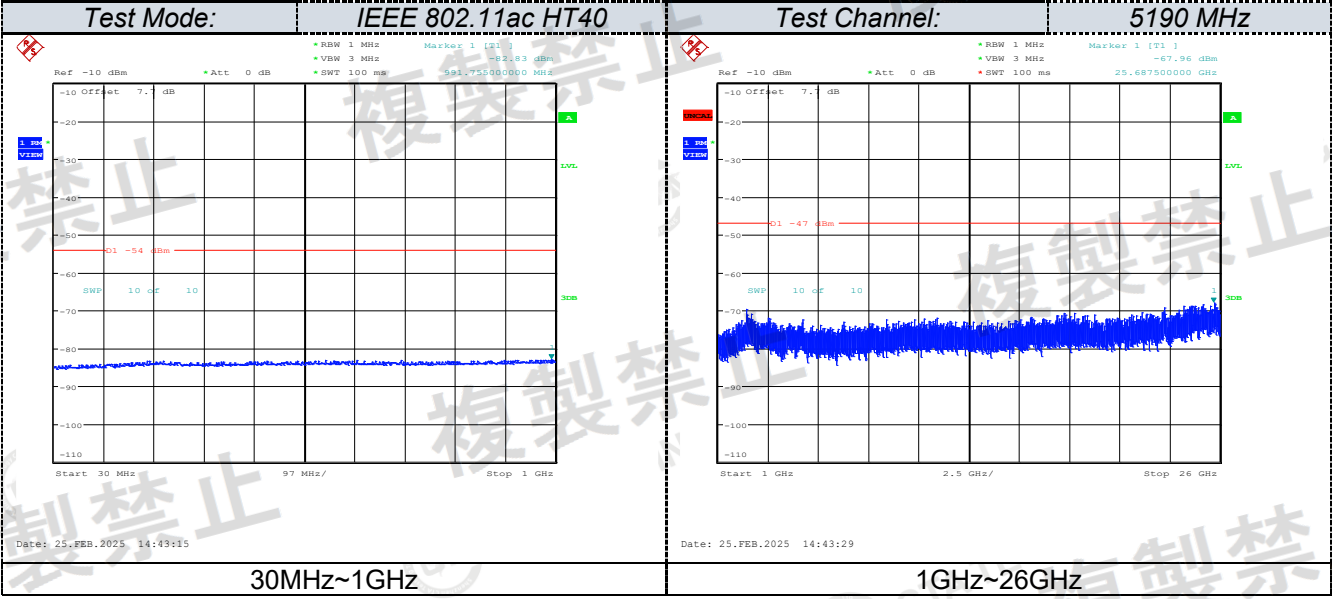


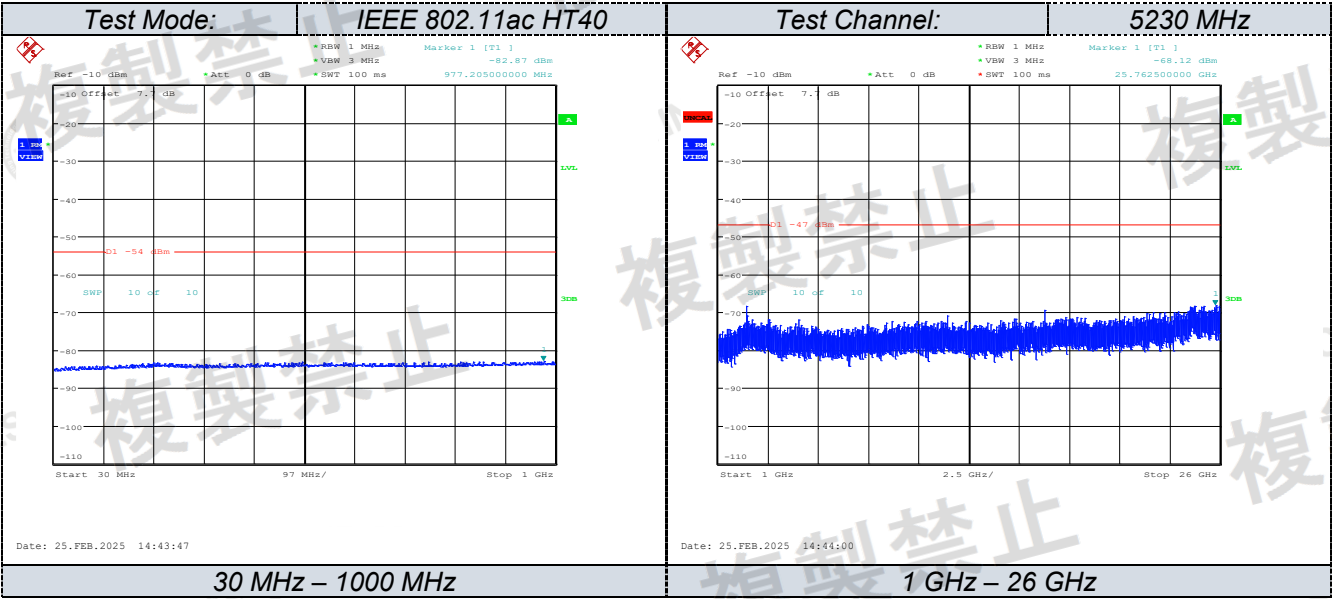
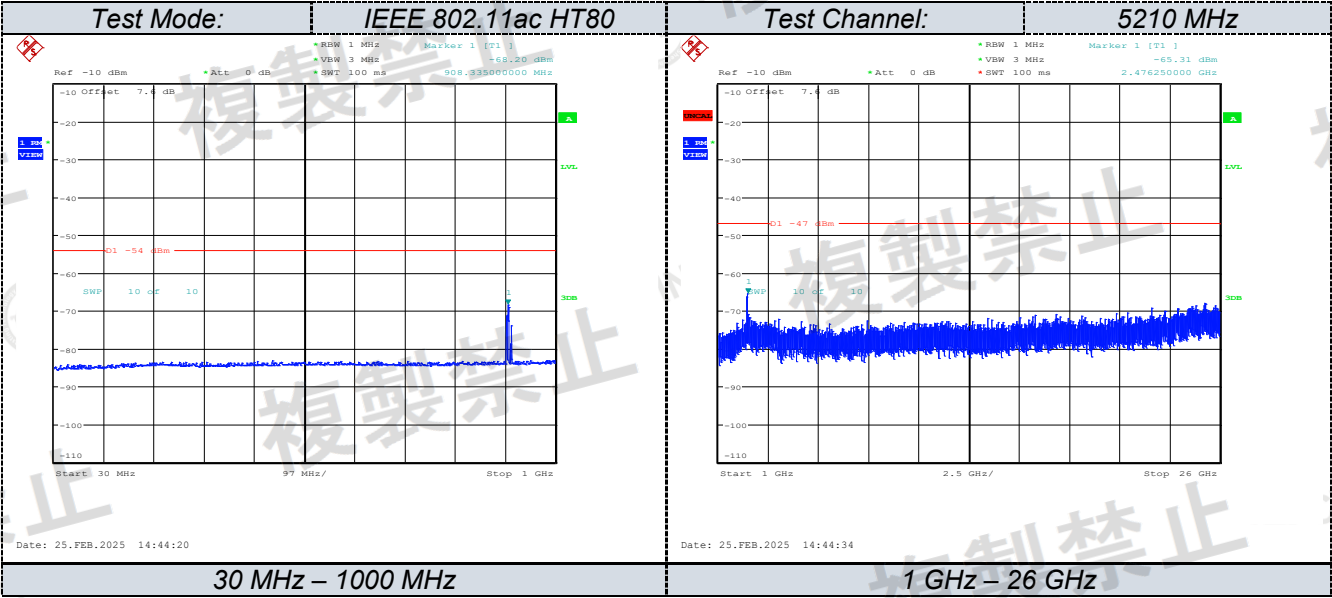
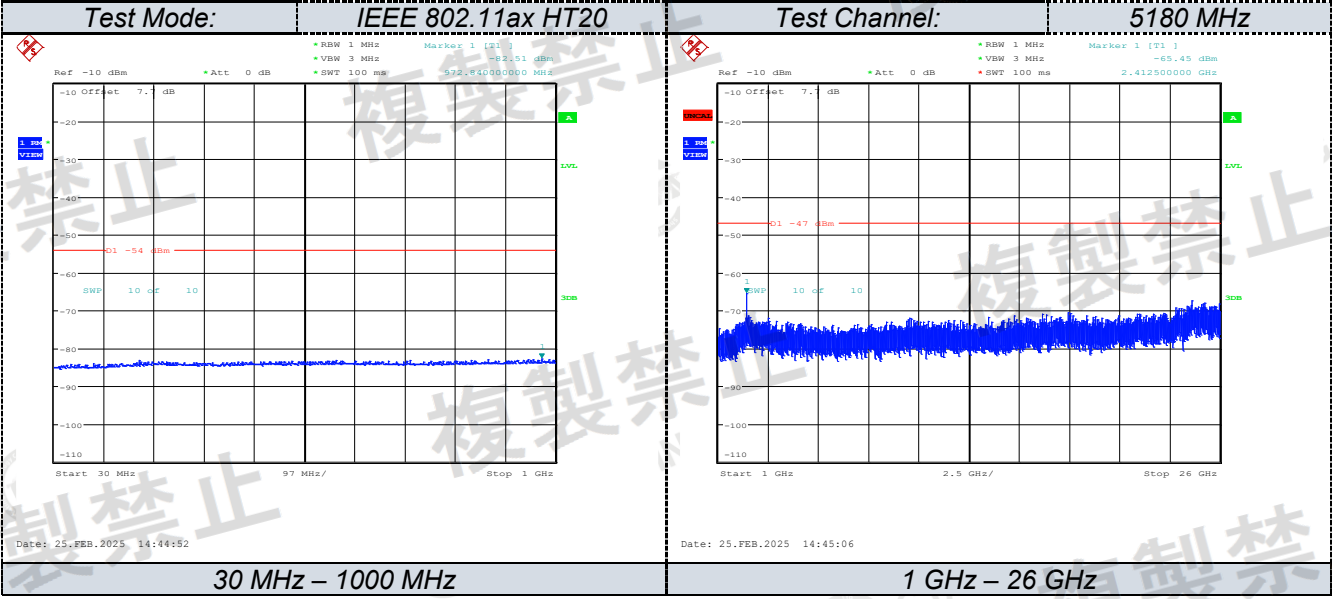
ANT2:

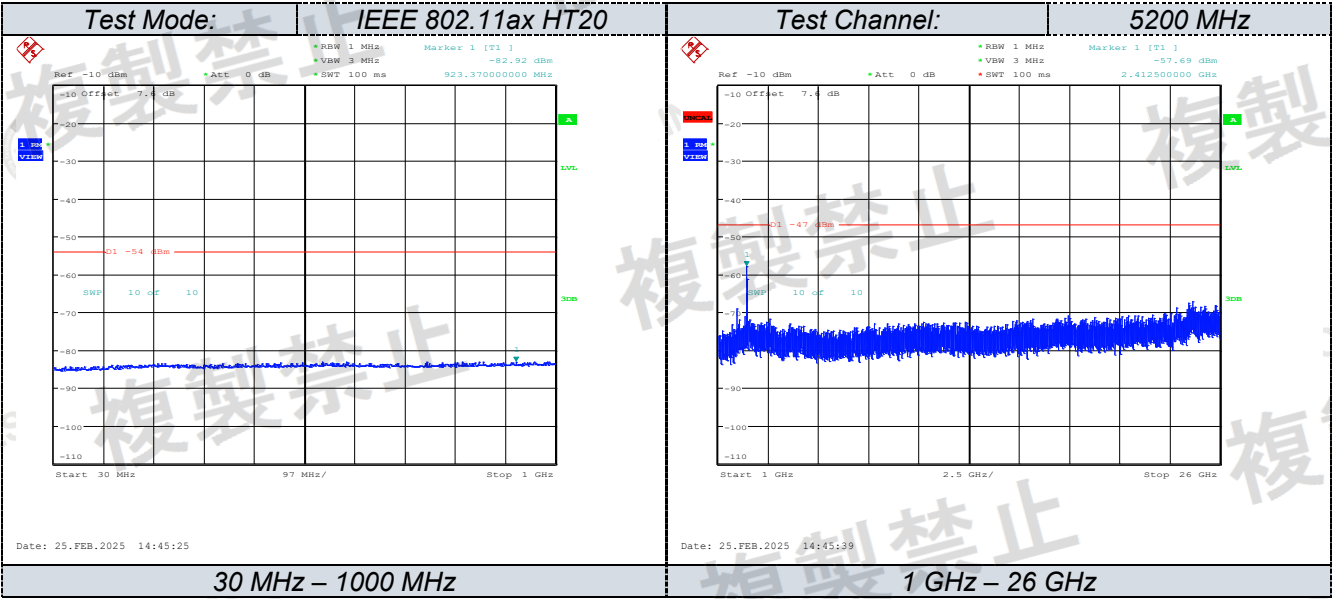
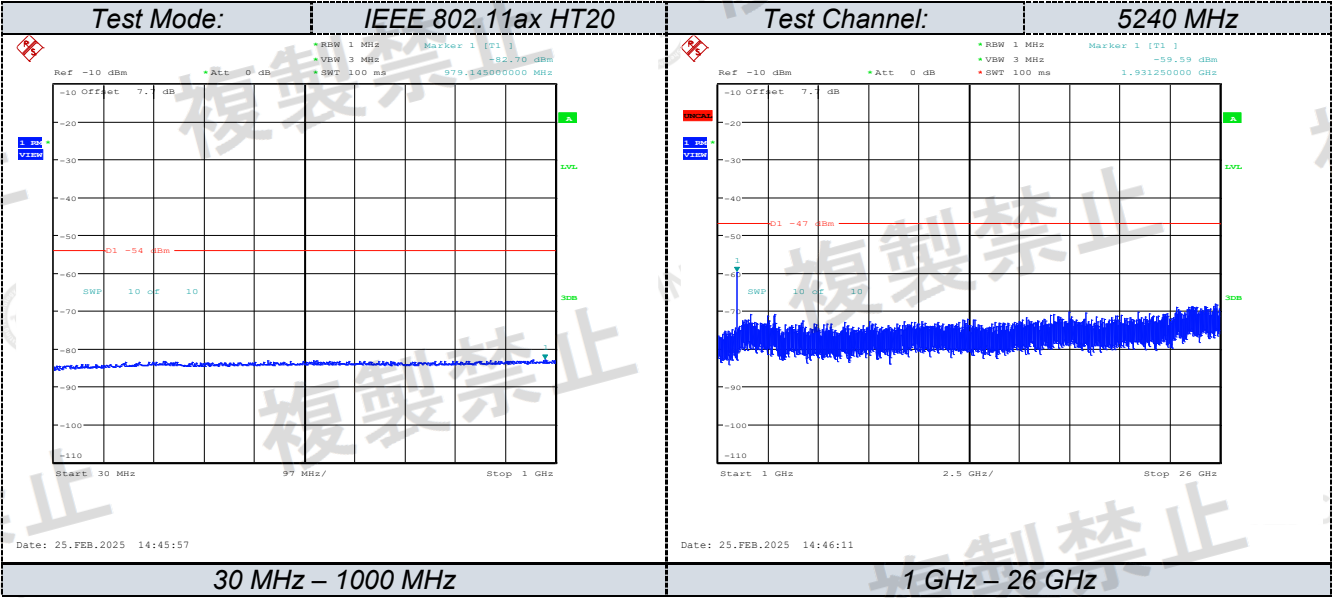
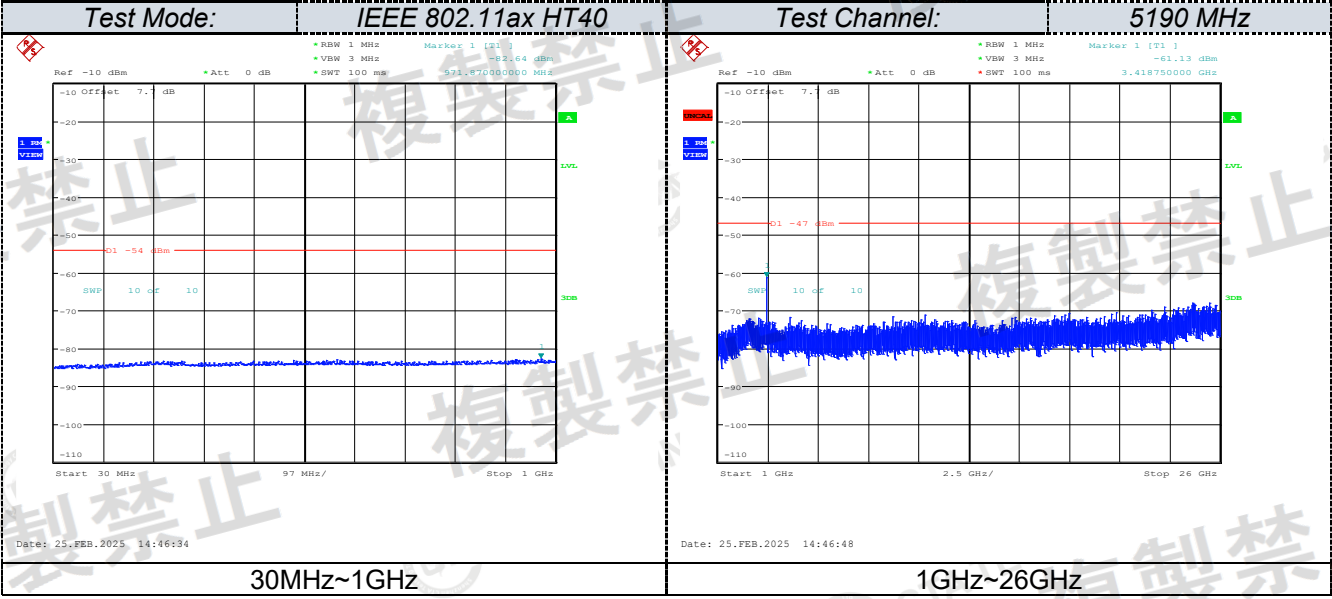


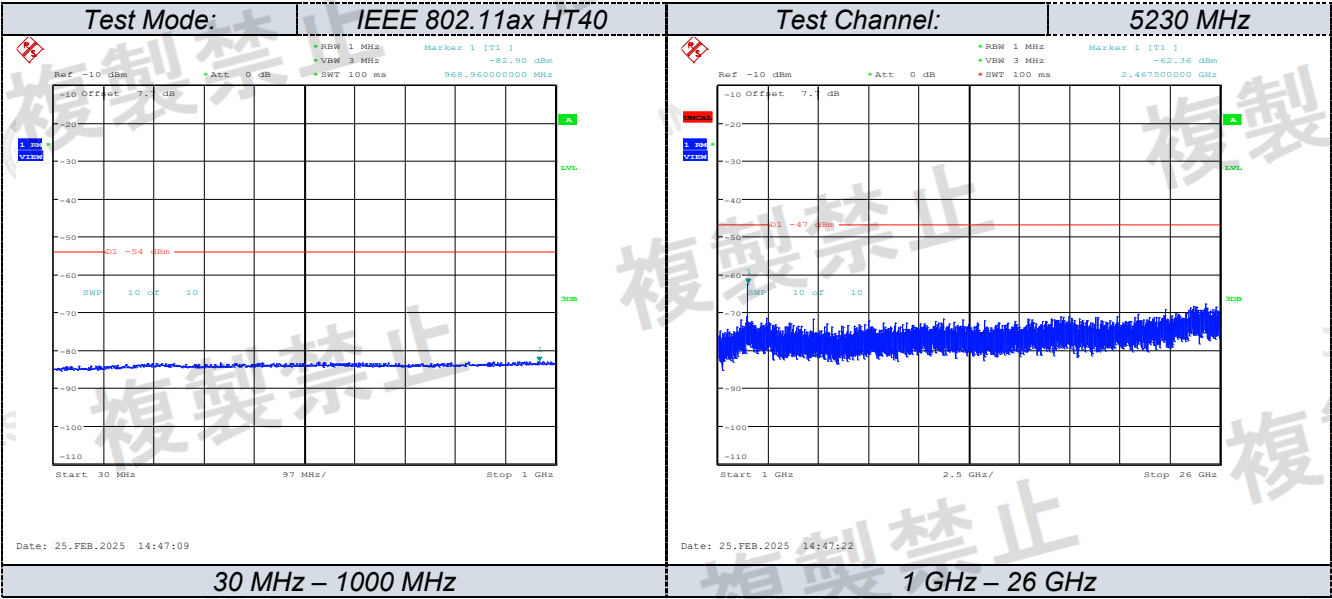
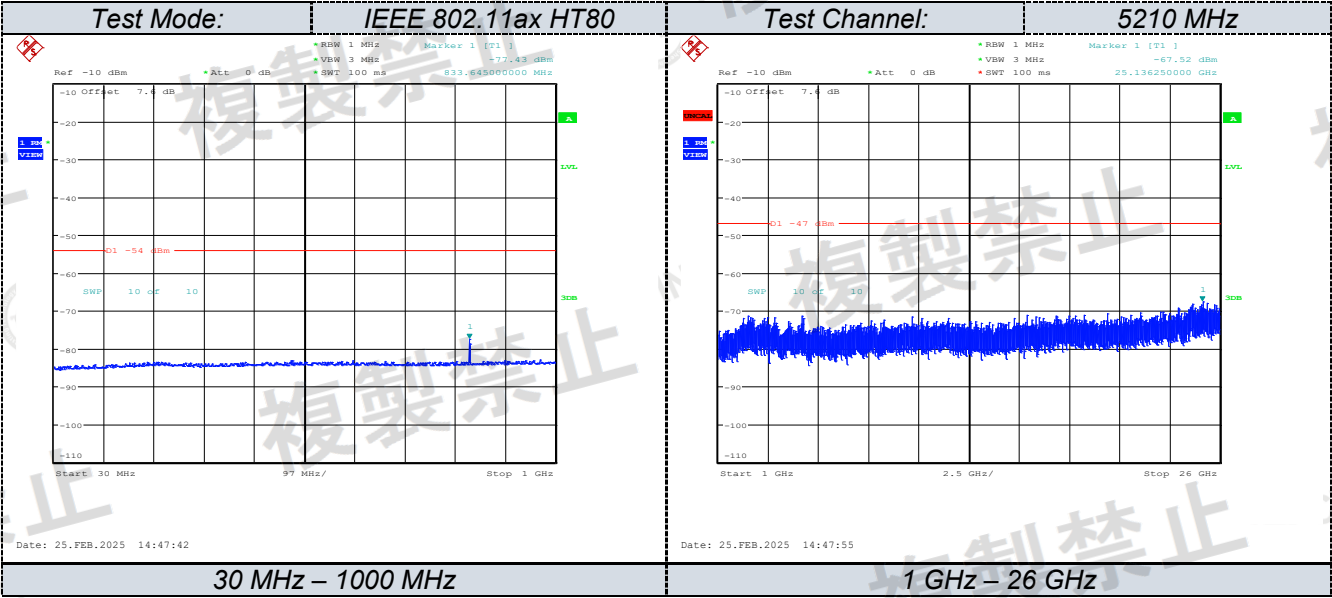










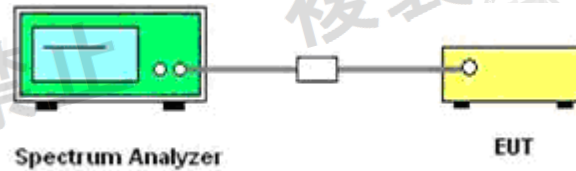


3.8 Transmission Burst Length

LIMIT

Transmission Burst Length shall be 8ms or less.

TEST CONFIGURATION



TEST PROCEDURE

Enable EUT under transmission mode and connected it to the spectrum analyzer through antenna output port as the block diagram show in TEST CONFIGURATION

Use Spectrum's ACP measurement function and set spectrum analyzer as follow:

Spectrum Condition:

- Frequency: test frequency
- Span: 0Hz
- RBW: 10MHz
- VBW: =RBW
- Sweep time: Auto
- Sweep mode: single
- Detector mode: Peak
- Indication mode: max hold

TEST RESULTS

ANT1:

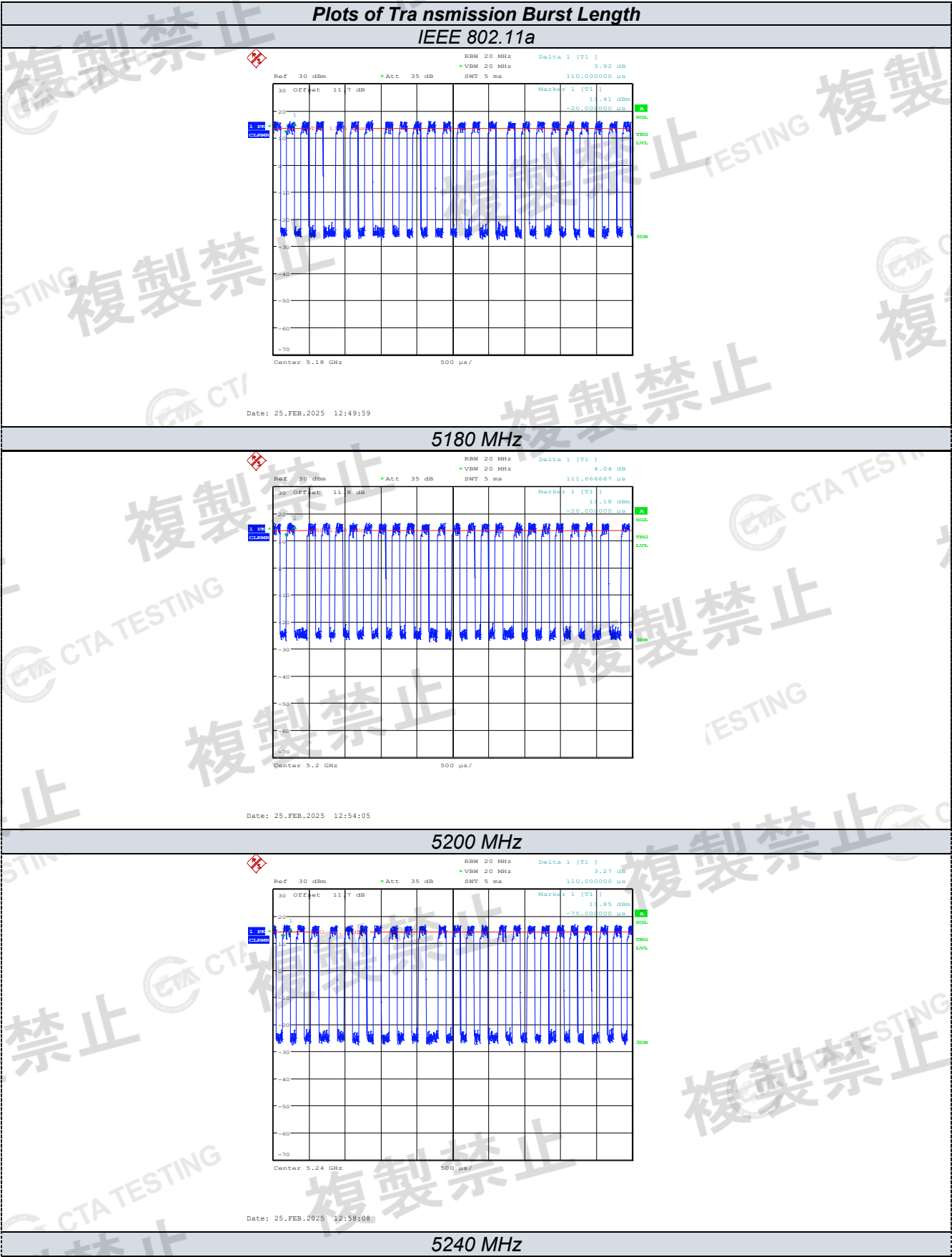
Type	Channel (MHz)	Transmission Burst (ms)	Limit (ms)	Result
IEEE 802.11a	5180	0.11	≤8	Pass
	5200	0.11		
	5240	0.11		
IEEE 802.11n HT20	5180	0.11	≤8	
	5200	0.11		
	5240	0.11		
IEEE 802.11n HT40	5190	0.07	≤8	
	5230	0.07		
IEEE 802.11ac VHT20	5180	0.12	≤8	
	5200	0.12		
	5240	0.12		
IEEE 802.11ac VHT40	5190	0.08	≤8	
	5230	0.08		
IEEE 802.11ac VHT80	5210	0.06	≤8	
IEEE 802.11ax VHT20	5180	0.12	≤8	
	5200	0.12		
	5240	0.12		
IEEE 802.11ax VHT40	5190	0.08	≤8	
	5230	0.08		
IEEE 802.11ax VHT80	5210	0.06	≤8	

ANT2:

Type	Channel (MHz)	Transmission Burst (ms)	Limit (ms)	Result
IEEE 802.11a	5180	0.11	≤8	Pass
	5200	0.11		
	5240	0.11		
IEEE 802.11n HT20	5180	0.11	≤8	
	5200	0.11		
	5240	0.11		
IEEE 802.11n HT40	5190	0.07	≤8	
	5230	0.07		
IEEE 802.11ac VHT20	5180	0.12	≤8	
	5200	0.12		
	5240	0.12		
IEEE 802.11ac VHT40	5190	0.08	≤8	
	5230	0.08		
IEEE 802.11ac VHT80	5210	0.06	≤8	
IEEE 802.11ax VHT20	5180	0.12	≤8	
	5200	0.12		
	5240	0.12		
IEEE 802.11ax VHT40	5190	0.08	≤8	
	5230	0.08		
IEEE 802.11ax VHT80	5210	0.06	≤8	

Note: Only record the worst result.

ANT1:



5200 MHz

Ref 30 dBm

Att 35 dB

RBW 20 MHz

VSW 20 MHz

SWT 5 ms

Delta 1 [T1]

3.27 dB

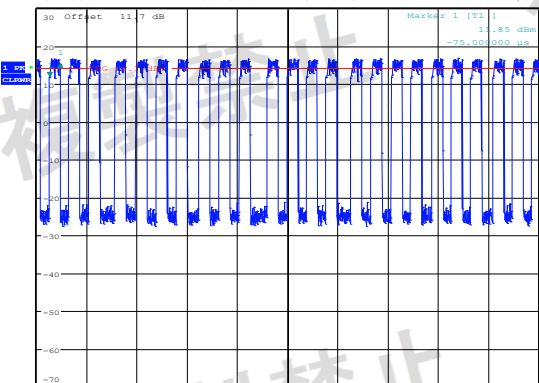
3.27 dB

110.000000 μ s

Marker 1 [T1]

3.27 dBm

-75.000000 μ s



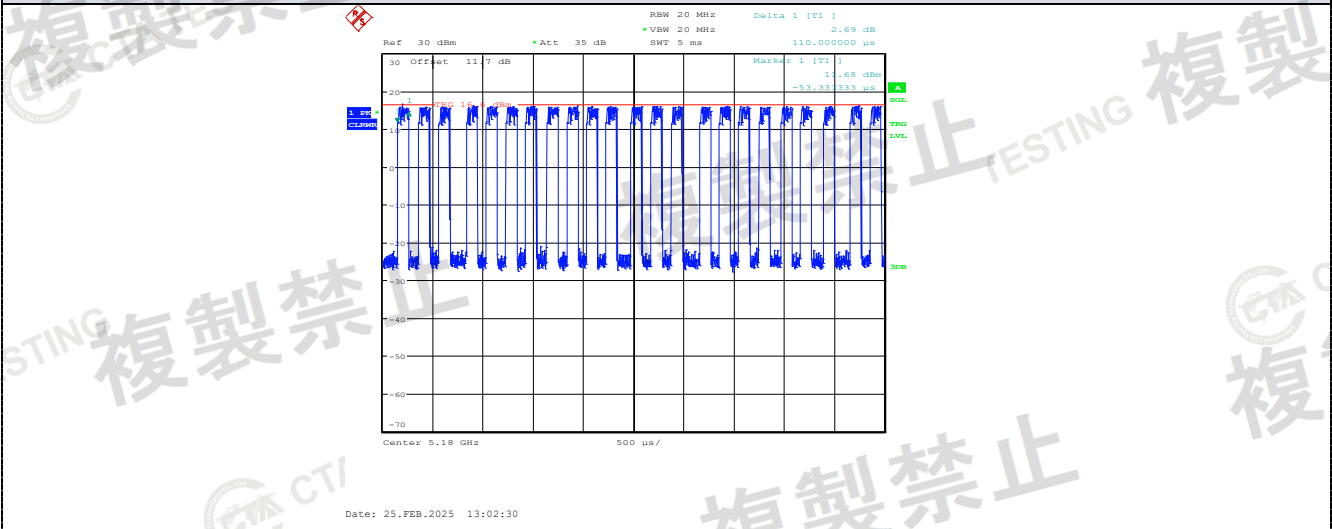
Center 5.24 GHz

500 μ s/

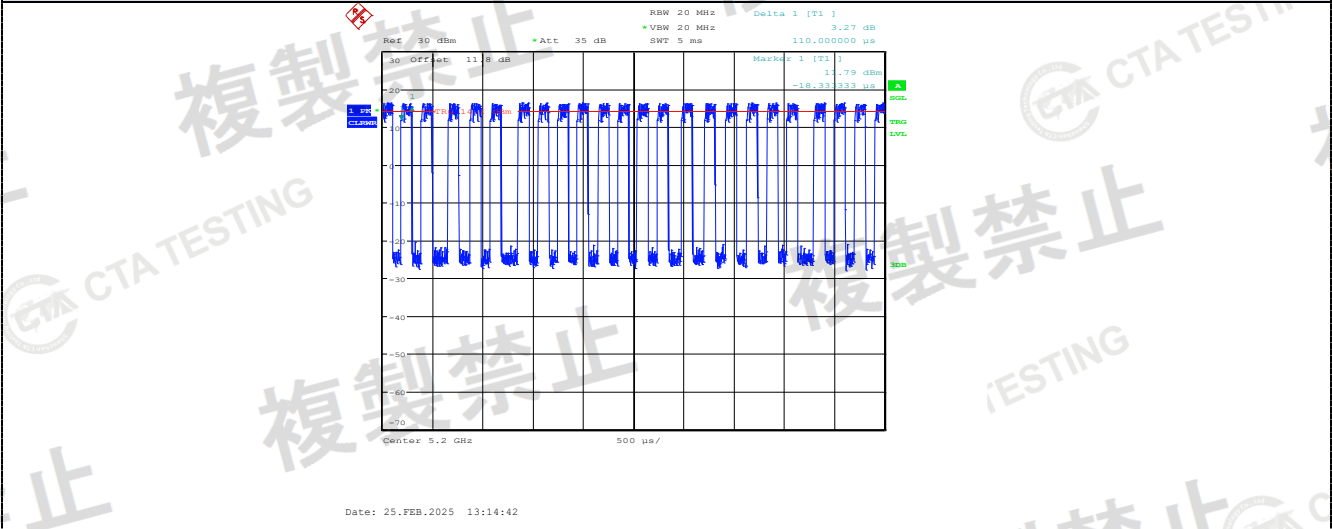
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5240 MHz

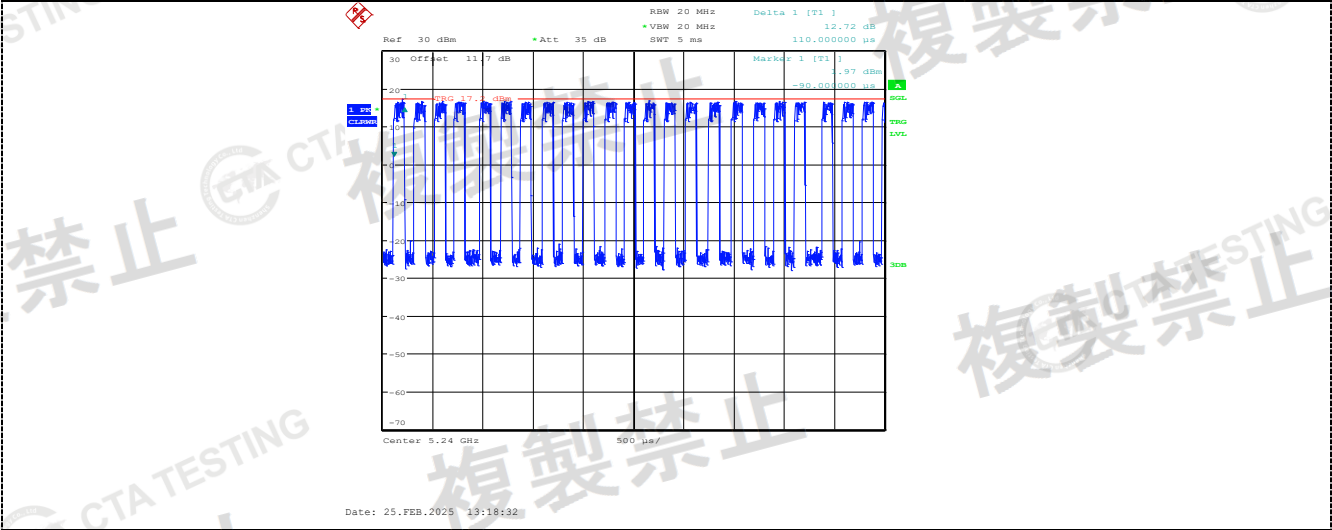
Plots of Transmission Burst Length
IEEE 802.11n HT20



5180 MHz

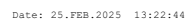


5200 MHz



5400 MHz

IEEE 802.11n HT40

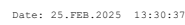


5190 MHz



5230 MHz

IEEE 802.11ac VHT20



5180 MHz

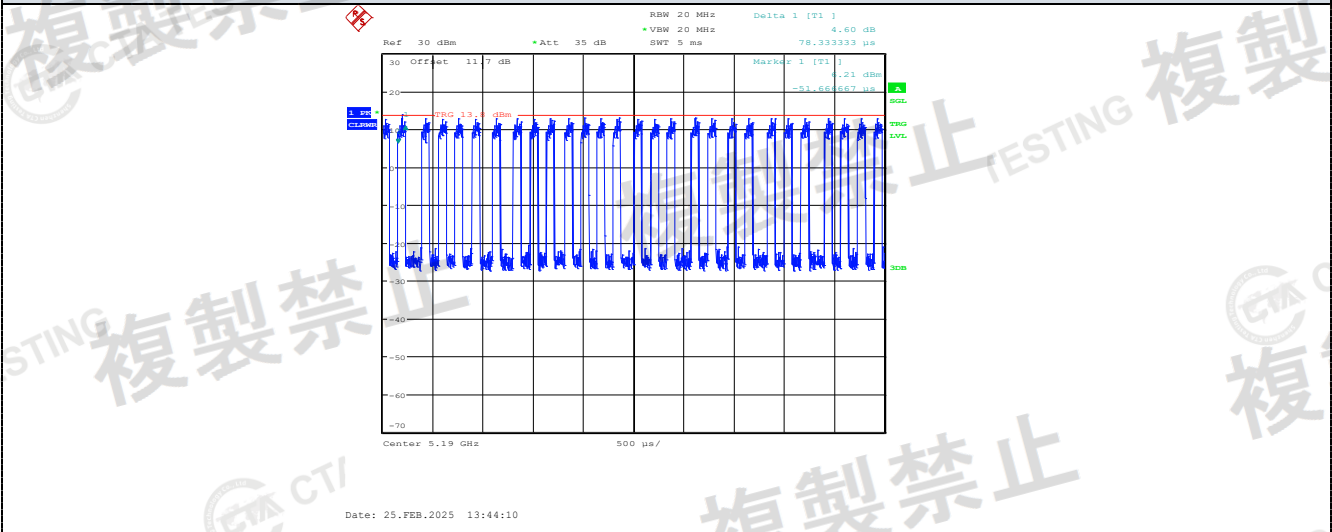


5200 MHz

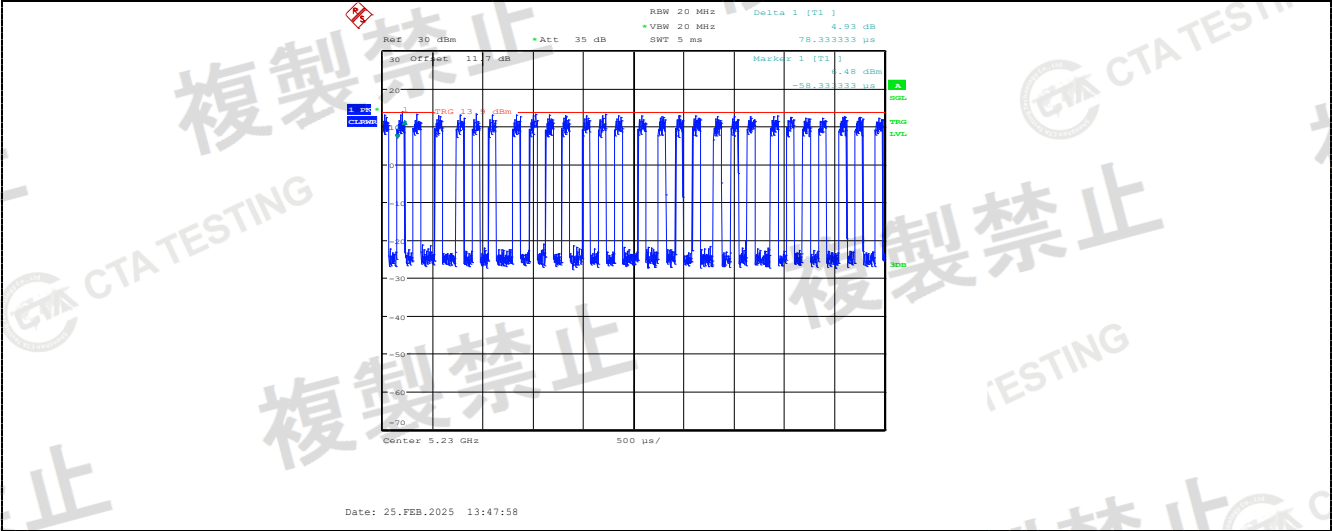


5240 MHz

Plots of Tra nsmission Burst Length
IEEE 802.11ac VHT40

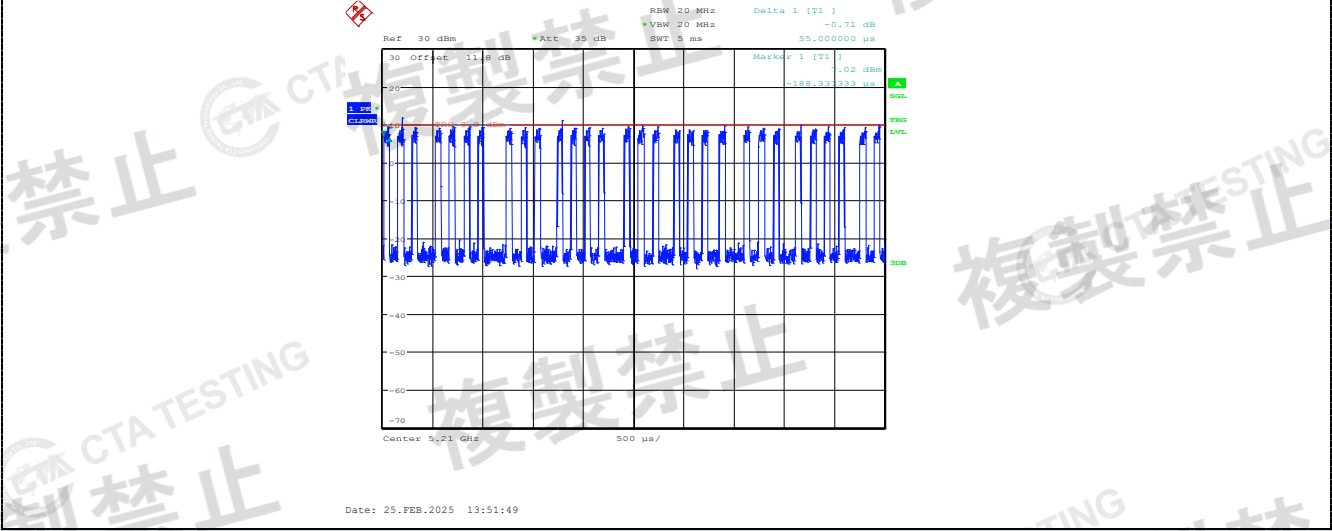


5190 MHz



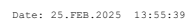
5230 MHz

IEEE 802.11ac VHT80



5210 MHz

IEEE 802.11ax VHT20



5180 MHz

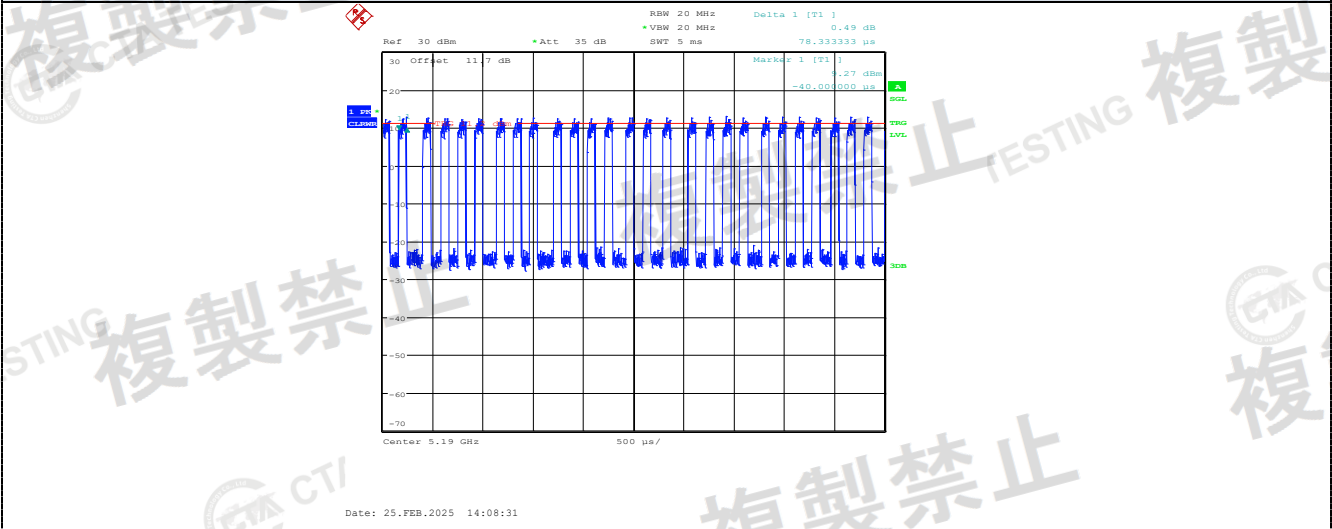


5200 MHz

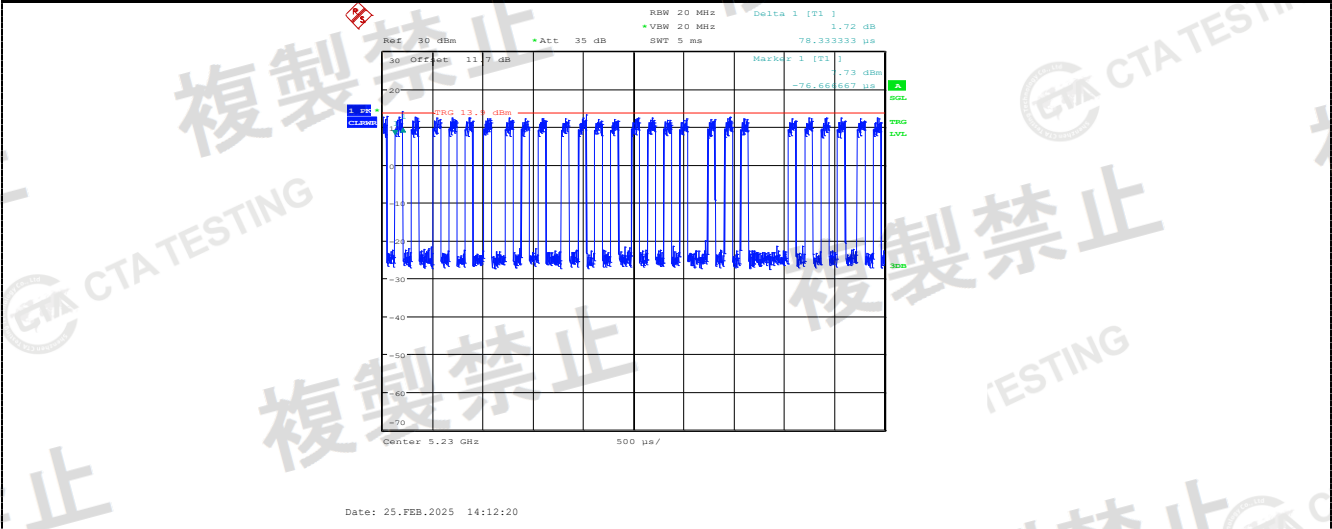


5240 MHz

Plots of Tra nsmission Burst Length
IEEE 802.11ax VHT40

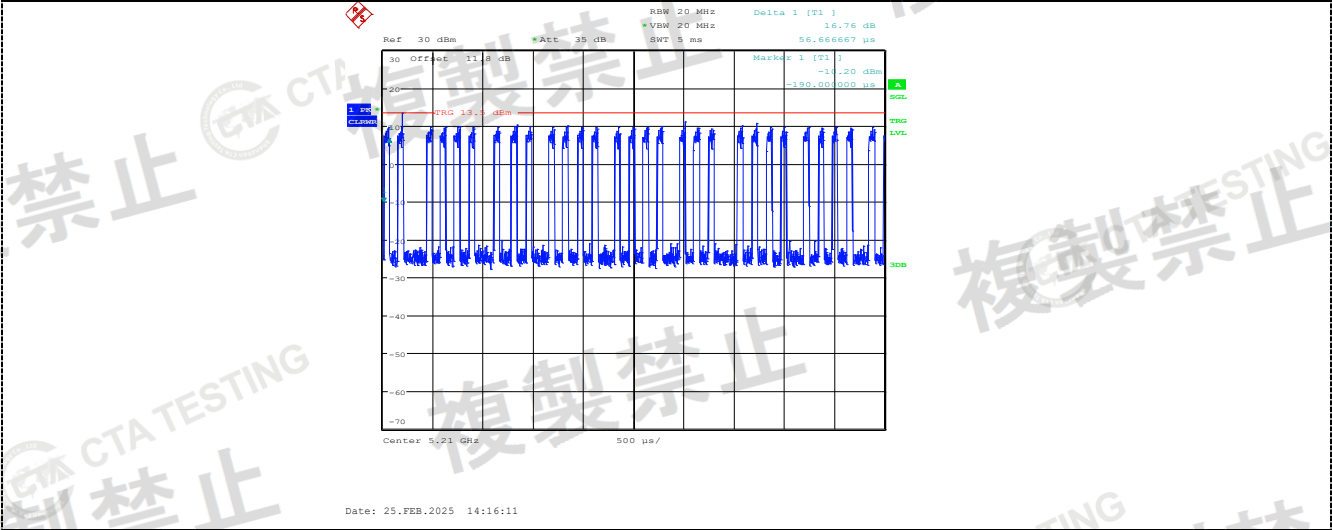


5190 MHz



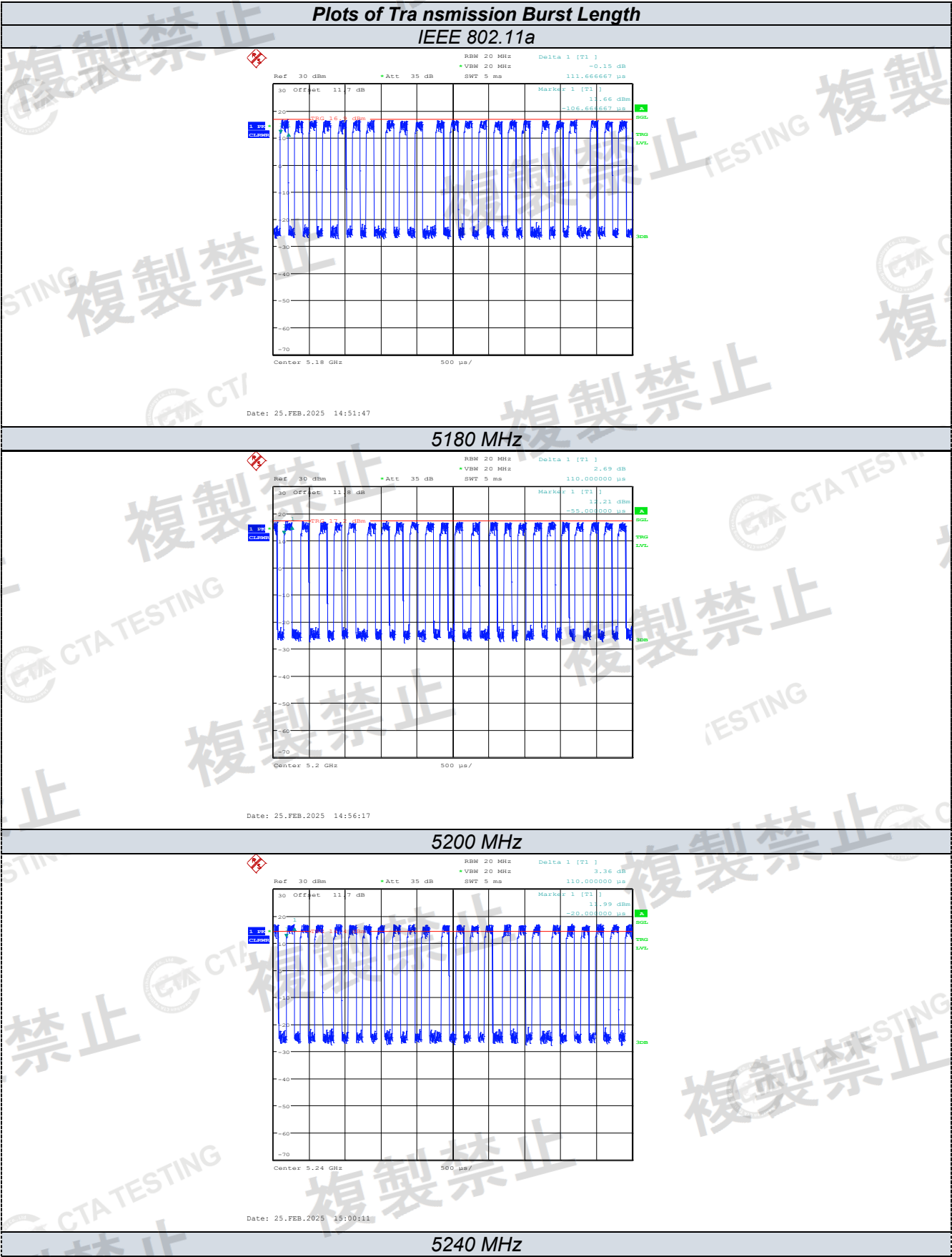
5230 MHz

IEEE 802.11ax VHT80

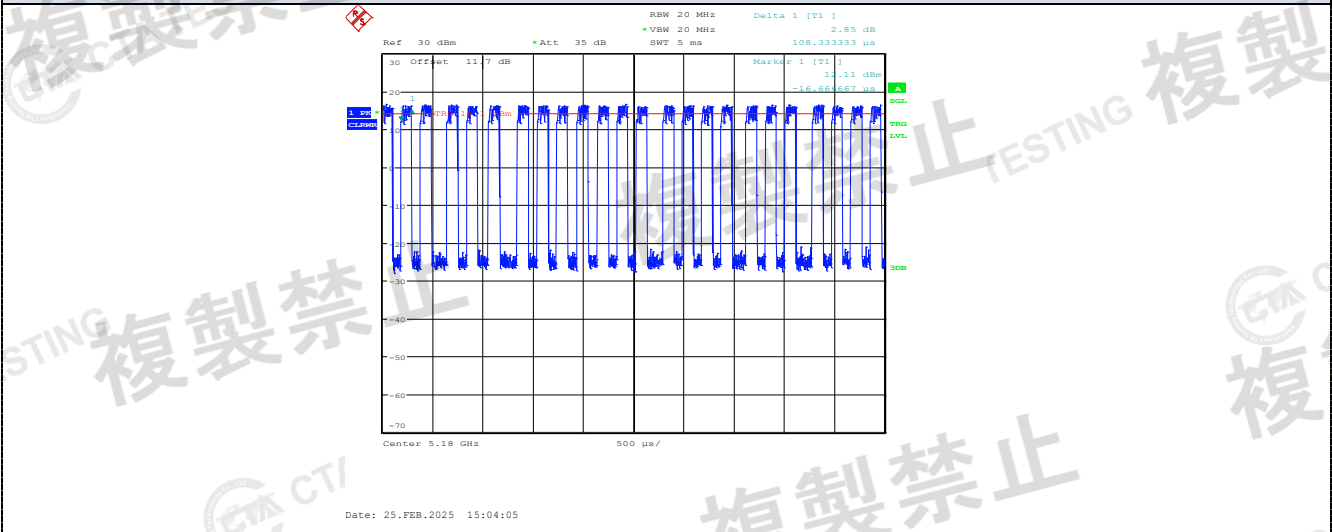


5210 MHz

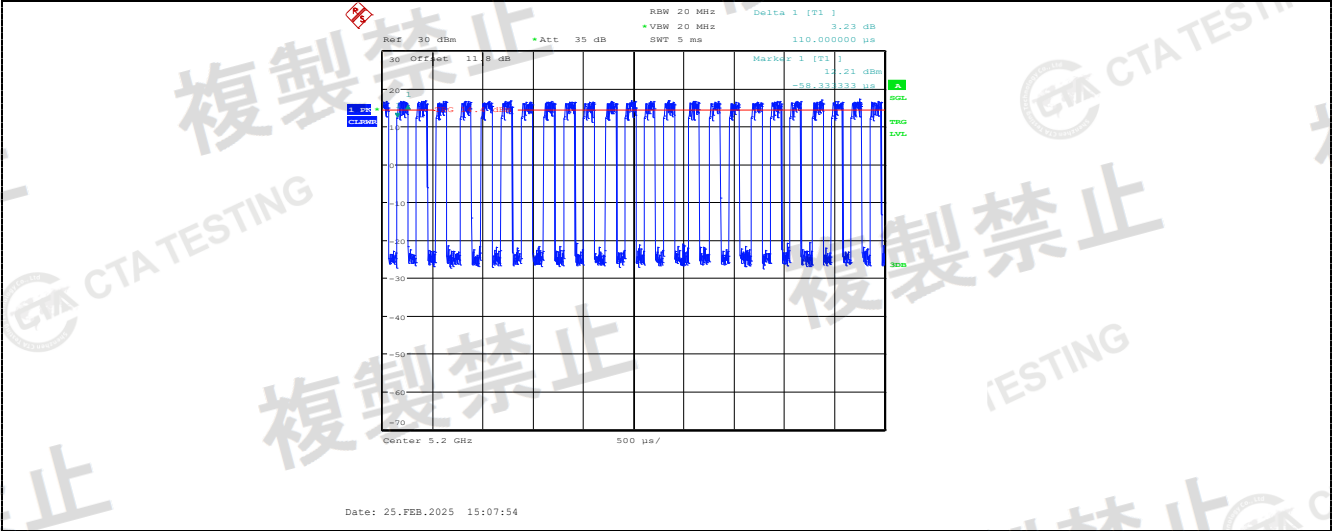
ANT2:



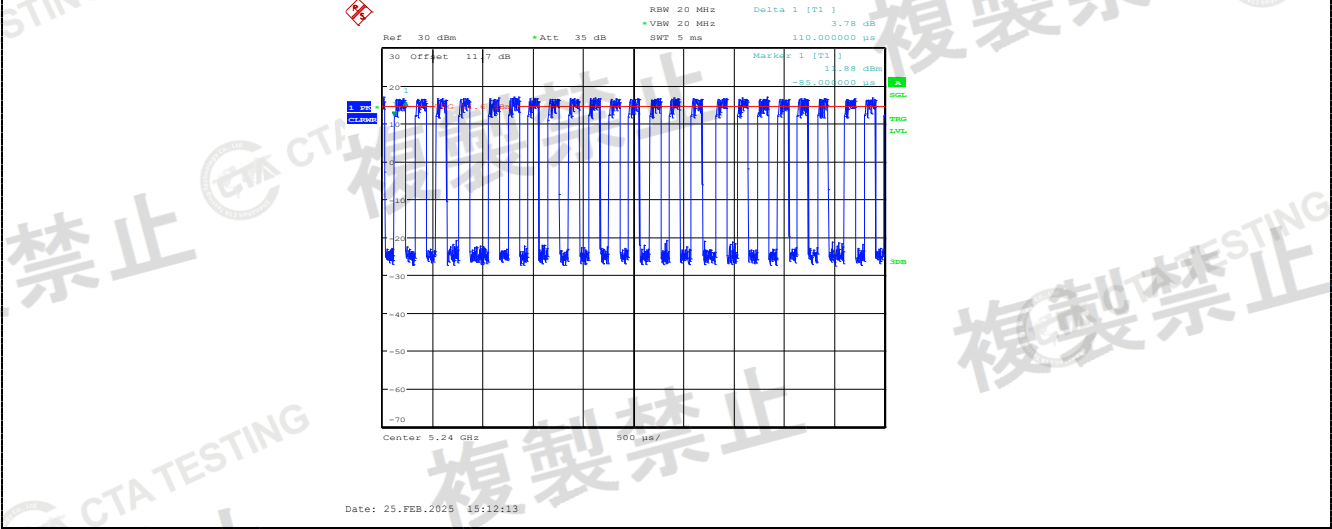
Plots of Tra nsmission Burst Length
IEEE 802.11n HT20



5180 MHz

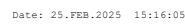


5200 MHz



5400 MHz

IEEE 802.11n HT40

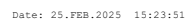


5190 MHz



5230 MHz

IEEE 802.11ac VHT20



5180 MHz

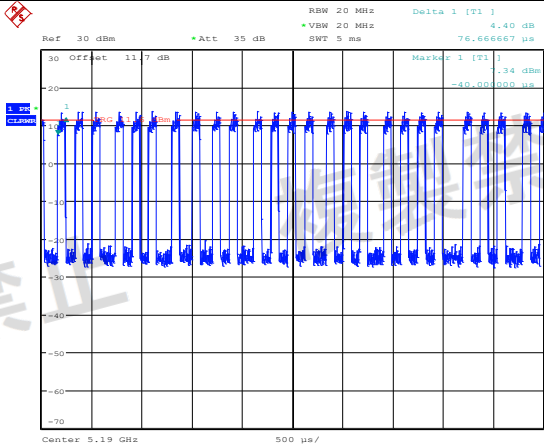


5200 MHz



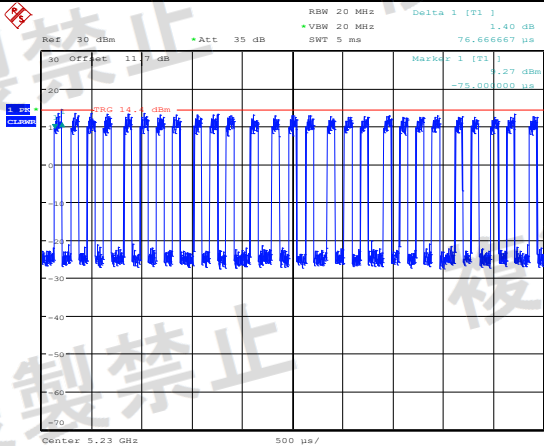
5240 MHz

Plots of Tra nsmission Burst Length
IEEE 802.11ac VHT40



Date: 25.FEB.2025 15:36:55

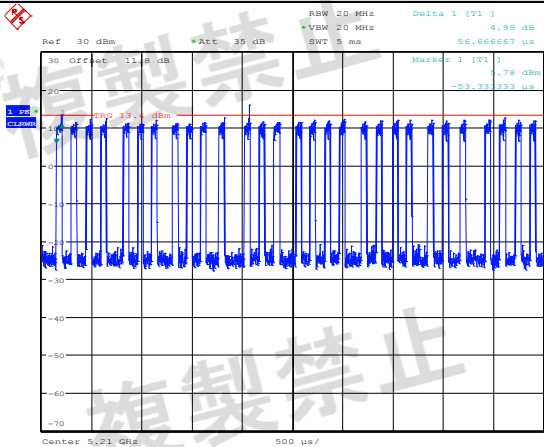
5190 MHz



Date: 25.FEB.2025 15:41:17

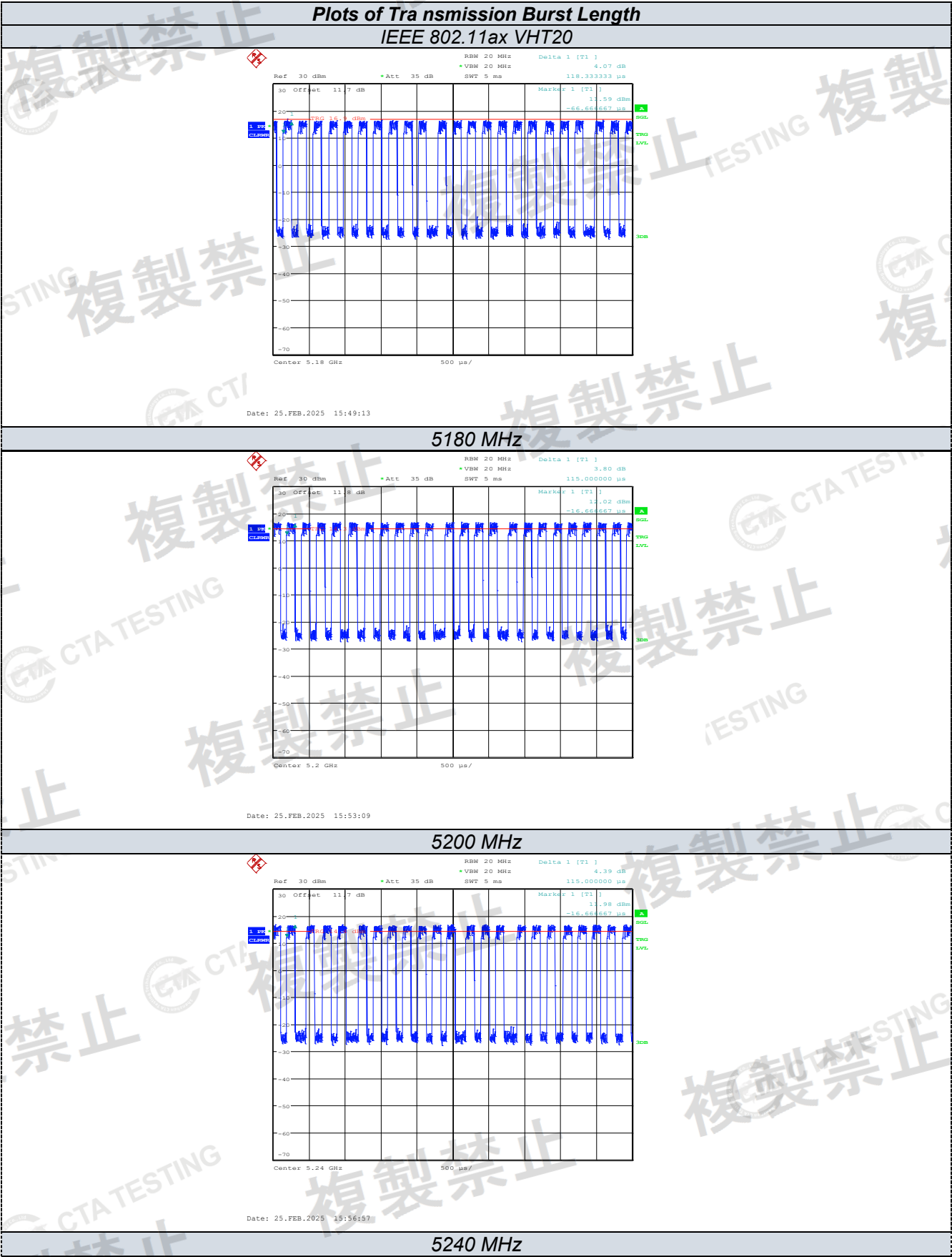
5230 MHz

IEEE 802.11ac VHT80



Date: 25.FEB.2025 15:45:13

5210 MHz



5200 MHz

Ref 30 dBm

Att 35 dB

RBW 20 MHz

VSW 20 MHz

SWT 5 ms

Delta 1 [T1]

4.39 dB

115.000000 μ s

30 Offset 11.7 dB

Marker 1 [T1]

3.98 dBm

-16.684667 μ s

Center 5.24 GHz

500 μ s/

30 Offset 11.7 dB

Marker 1 [T1]

3.98 dBm

-16.684667 μ s

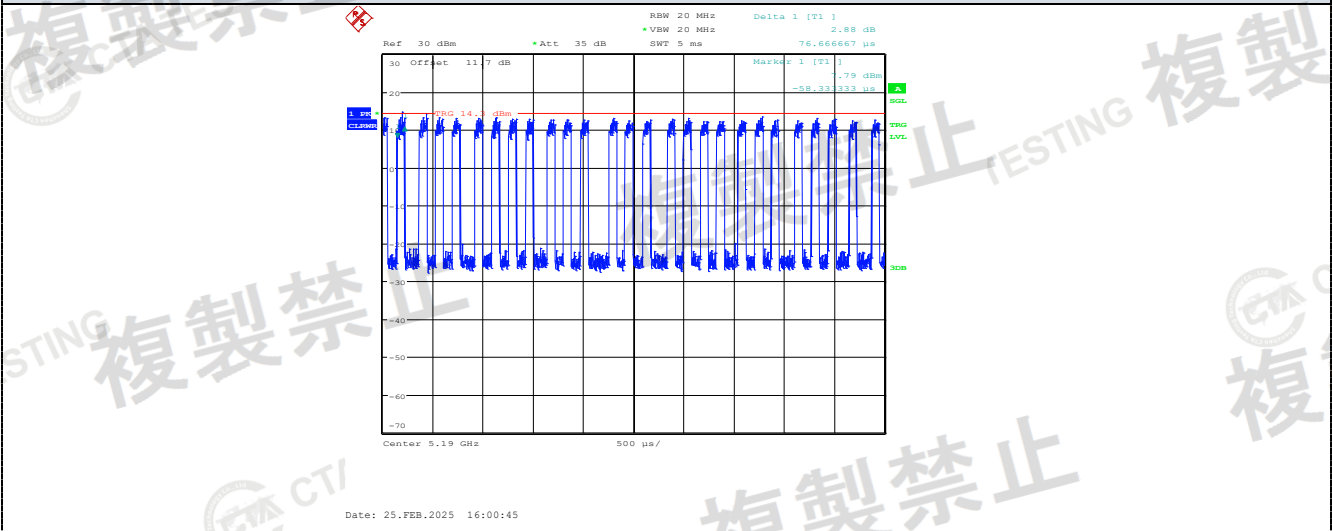
Center 5.24 GHz

500 μ s/

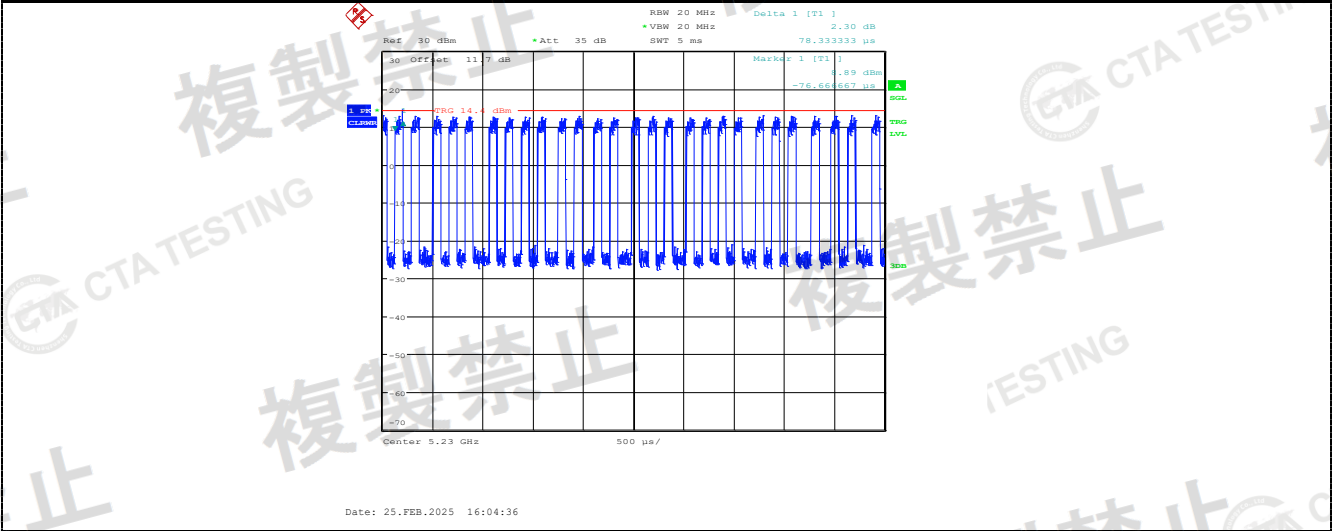
Date: 25.FEB.2025 15:56:57

5240 MHz

Plots of Tra nsmission Burst Length
IEEE 802.11ax VHT40

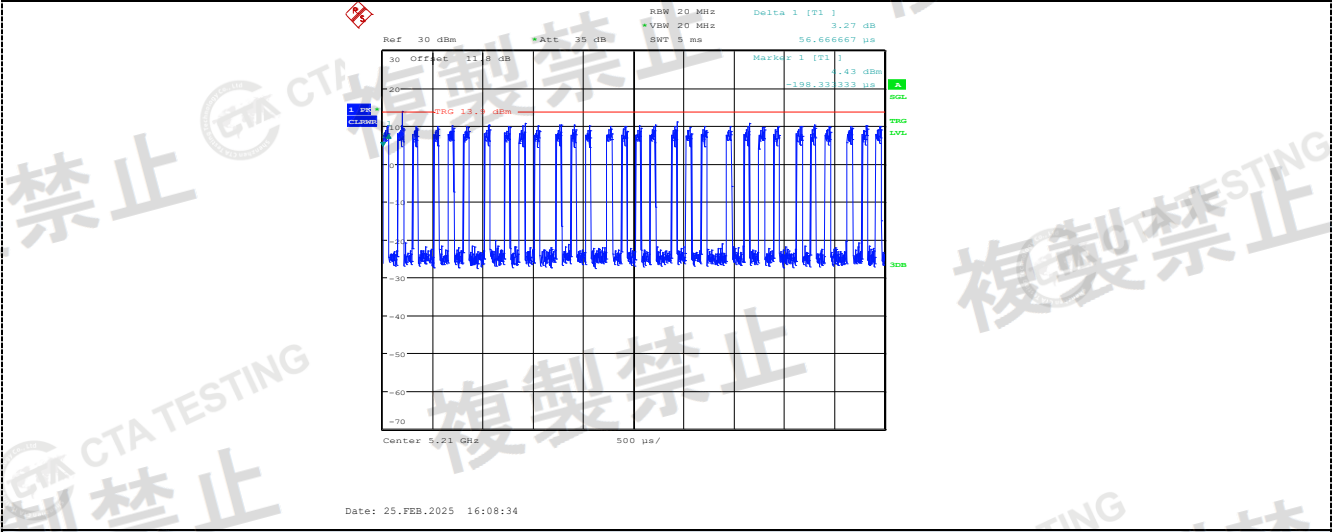


5190 MHz



5230 MHz

IEEE 802.11ax VHT80



5210 MHz

3.9 Carrier Sense Function

LIMIT

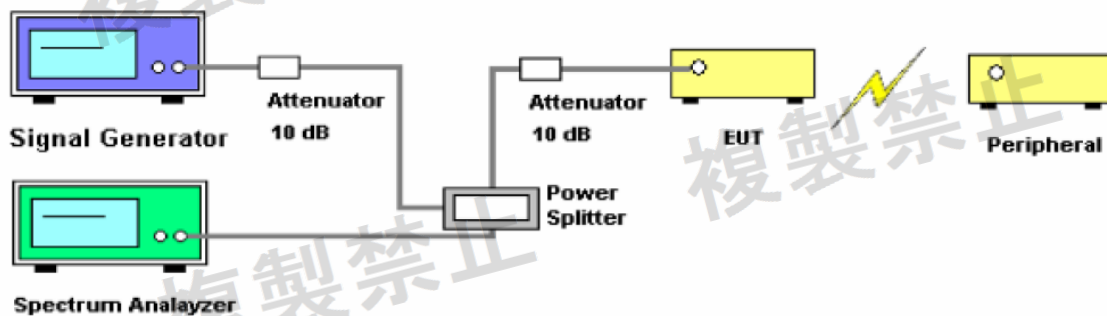
Item	Limits
Carrier Sense	Good - EUT stop RF transmission signal after carrier inject to EUT. (On $22.79 + Gr - 20 \cdot \log(f)$ [dBm] (Gr: dBi; f: MHz) or 100mV/m)

INSTRUMENTS SETTING

The following table is the setting of spectrum analyser and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
RB / VB	1 MHz
Span	0 MHz
Sweep	Continuous
Detector	Peak
Trigger mode	Video

TEST CONFIGURATION



TEST PROCEDURE

1. Set The EUT state in "normal mode link with wireless router".
2. SG adjusted the frequency as same as the EUT transmitted signal and emitted the absence of modulation from SG and power level is (on $22.79 + G - 20 \cdot \log(f)$ dBm) (G is the antenna gain is the test frequency).
3. Turn off the RF signal of the SG.
4. EUT have transmitted the maximum modulation signal and fixed channelize.
5. Setting the spectrum as follow :
RBW/VBW=1MHz/1MHz
Span=50MHz
Sweep time=auto
Sweep mode=continuous
Detect mode=positive peak
6. SG RF signal on.
7. EUT shall be stop the transmitted any signal and SG RF signal off, the EUT will be continuous transmitted signal.

TEST RESULTS

Remark: we test all modes, only worst cases were reported as below:

ANT1:

Test mode	Test frequency (MHz)	Interference signal level (dBm)	Test result
IEEE 802.11ac VHT20	5180	-46.71	Good
IEEE 802.11ac VHT40	5230	-46.82	Good
IEEE 802.11ac VHT80	5210	-46.76	Good

ANT2:

Test mode	Test frequency (MHz)	Interference signal level (dBm)	Test result
IEEE 802.11ac VHT20	5180	-46.71	Good
IEEE 802.11ac VHT40	5230	-46.82	Good
IEEE 802.11ac VHT80	5210	-46.76	Good

3.10 Construction Protection Method

REQUIREMENT

The high-frequency section and modulation section of the radio equipment except for the antenna system shall not be capable of being opened easily.

CONFIRMATION METHOD

all high-frequency section and modulation section was shielded by metal shield.



3.11 Interference Prevention Function

REQUIREMENT

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

Item	Limits
Identification code	≥ 48 bits

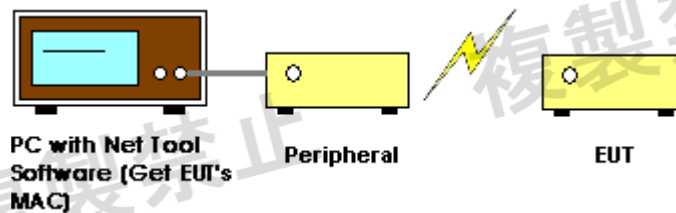
CONFIRMATION METHOD

All high-frequency section and modulation section packet in one IC, End user can not modify easily.

TEST PROCEDURE

1. In the case that the EUT has the function of automatically transmitting the identification code: a. Transmit the predetermined identification codes from EUT. b. Check the transmitted identification codes with the demodulator.
2. In the case of receiving the identification code: a. Transmit the predetermined identification codes from the counterpart. b. Check if communication is normal. c. Transmit the other signals than predetermined ID codes from the counterpart. d. check if the EUT stops the transmission, or if it displays that identification codes are different from the predetermined ones.

TEST CONFIGURATION

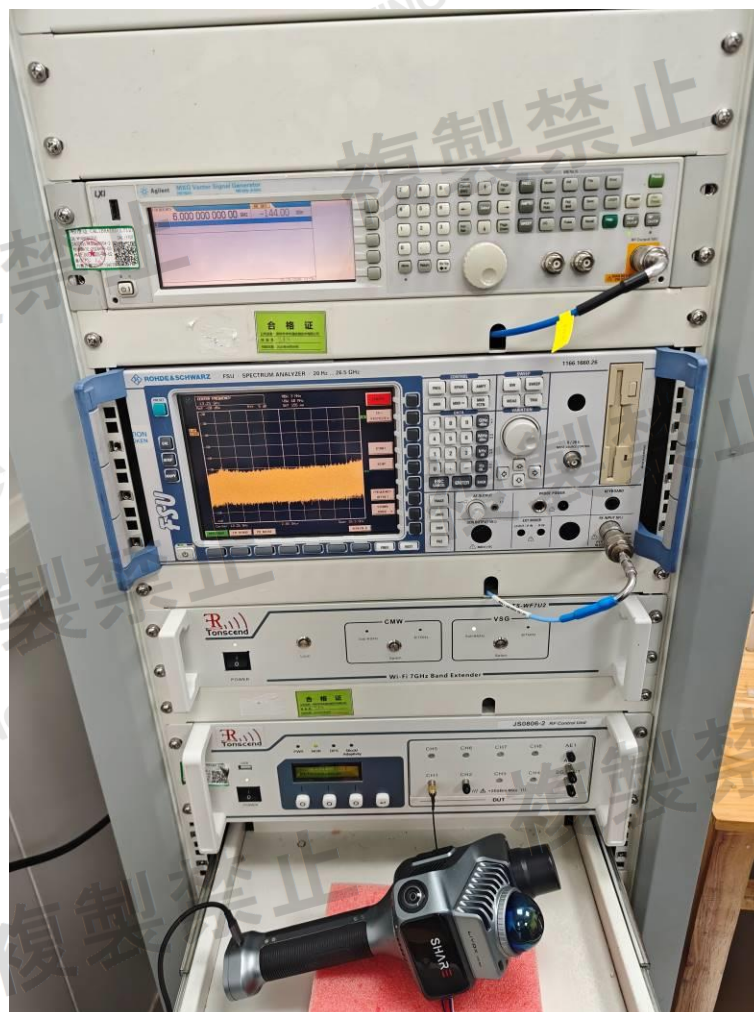


TEST RESULTS

PASS

MAC: B2: 4D: 1A: 5E: 3C: B6

4 Test Setup Photos of the EUT



5 Photos of the EUT

Reference to the test report No. CTA25082001501

***** End of Report *****