



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)

Report Reference No.....: CTA25031801801

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Date of issue.....: Mar. 28, 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.....: Shenzhen Jooan Technology Co., Ltd

Address: Building 101-3, 5 and 6, No.8, Guixiang Community Square Road, Guanlan Street, Longhua District, Shenzhen, China

Test specification

Standard: Ordinance Article 2 paragraph 1 item (19)

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Test item description: Smart Camera

Trade Mark: N/A

Manufacturer: Shenzhen Jooan Technology Co., Ltd

Model/Type reference.....: S3-U

Listed Models: S7-U, A2R-U, G4S3-U, G4Q3-U, SQ3-U, W14-U, W14Z-U, L3-U, G4S14-U

Frequency.....: From 2412MHz-2472MHz

Modulation: DSSS, OFDM

Ratings: DC 3.7V From battery and DC 5.0V From external circuit

Result.....: PASS

Shenzhen CTA Testing Technology Co., Ltd.

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TEST REPORT

Equipment under Test : Smart Camera

Model /Type : S3-U

Listed Models : S7-U, A2R-U, G4S3-U, G4Q3-U, SQ3-U, W14-U, W14Z-U, L3-U, G4S14-U

Model difference : The PCB board, circuit, structure and internal of these models are the same, Only model number and colour is different for these model.

Applicant : Shenzhen Jooan Technology Co., Ltd

Address : Building 101-3, 5 and 6, No.8, Guixiang Community Square Road, Guanlan Street, Longhua District, Shenzhen, China

Manufacturer : Shenzhen Jooan Technology Co., Ltd

Address : Building 101-3, 5 and 6, No.8, Guixiang Community Square Road, Guanlan Street, Longhua 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.

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1 SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

[ARIB STD-T66](#): Second-Generation Low-Power Data Communication System/Wireless LAN System
[MIC Notice No.88 Appendix No. 43](#): 2.4 GHz band wide-band low-power data communication system

1.2 Test Description

ARIB STD-T66 Version 3.7/2014		
Clause	Description of Test	Result
3.2 (2)	Antenna Power	PASS
3.2 (3)	Tolerances for Antenna Power	PASS
3.2 (4)	Frequency Tolerance	PASS
3.2 (5)	Transmission Rate	PASS
3.2 (7)	Occupied Frequency Bandwidth	PASS
3.2 (8)	Spread Bandwidth	PASS
3.2 (11)	Dwell Time	N/A
3.2 (6)	Spurious Emissions	PASS
/	Transmission Antenna Gain (EIRP Antenna Power)	PASS
/	Transmission Radiated Angle Width (3dB Beam width)	N/A
/	Interference prevention function	PASS
/	Carrier Sensing function	PASS
Receiver Parameters		
3.3 (1)	Secondary Radiated Emissions	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 Public Notice 88:2004, annex 1 and annex 43

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

4: Referenced in the standard ARIB STD-T66

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 16-1-4:2

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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	$\pm 1.62 \times 10^{-6}$
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	:	Mar. 18, 2025
Testing commenced on	:	Mar. 18, 2025
Testing concluded on	:	Mar. 28, 2025

2.2 Environmental conditions

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

Voltage	Normal Voltage	DC 3.70V
	High Voltage	DC 4.20V
	Low Voltage	DC 3.40V
Other	Normal Temperature	25°C
	Relative Humidity	55 %
	Air Pressure	989 hPa

Note: As the EUT was powered by DC 3.7V From battery and DC 5.0V 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:	Smart Camera
Model/Type reference:	S3-U
Power supply:	DC 3.7V From battery and DC 5.0V From external circuit
Adapter information:	Model: ES019K-JP-0500200 Input: AC 100-240V 50/60Hz Output: DC 5V 2A
WIFI	
Supported type:	IEEE 802.11b/IEEE 802.11g/IEEE 802.11n(HT20)
Modulation:	IEEE 802.11b: DSSS IEEE 802.11g/IEEE 802.11n(HT20): OFDM
Operation frequency:	IEEE 802.11b: 2412MHz~2472MHz IEEE 802.11g/IEEE 802.11n(HT20): 2412MHz~2472MHz
Channel number:	IEEE 802.11b: 13 IEEE 802.11g/IEEE 802.11n(HT20): 13
Rated power:	IEEE 802.11b: 1.0mW/MHz IEEE 802.11g: 0.5mW/MHz IEEE 802.11n HT20: 0.2mW/MHz
Channel separation:	5MHz
Antenna type:	External antenna
Antenna gain:	3.2 dBi
Hardware Version:	V1.0
Software 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:

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

Note:

1. 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.	Serial 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.

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:

Test Software Version	QRCT 3		
Frequency	2412MHz	2442MHz	2472MHz
IEEE 802.11b (20MHz)	Default	Default	Default
IEEE 802.11g (20MHz)	Default	Default	Default
IEEE 802.11n (20MHz)	Default	Default	Default

2.7 Description of Test Modes

Tested mode, channel, and data rate information				
Mode	Preliminary Test Data Rate (Mbps)	Final Test Data Rate (Mbps) (see Note)	Channel	Frequency (MHz)
IEEE 802.11b	11/1	11	Low :CH1	2412
	11/1	11	Middle: CH7	2442
	11/1	11	High: CH13	2472
IEEE 802.11g	54/6	6	Low :CH1	2412
	54/6	6	Middle: CH7	2442
	54/6	6	High: CH13	2472
IEEE 802.11n HT20	65.0/6.5	6.5	Low :CH1	2412
	65.0/6.5	6.5	Middle: CH7	2442
	65.0/6.5	6.5	High: CH13	2472

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 3.70V	DC 4.20V	DC 3.40V
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.

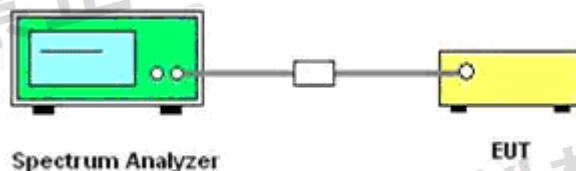
3 Test conditions and Results

3.1 Frequency Error

LIMIT

Tolerance of frequency shall be $\pm 50 \times 10^{-6}$.

TEST CONFIGURATION



TEST PROCEDURE

The EUT was directly connected to the spectrum analyser 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

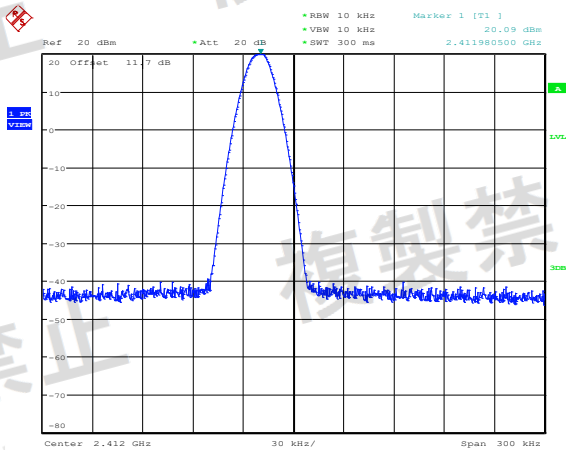
Detector mode: Positive peak

Indication mode: max hold

TEST RESULTS

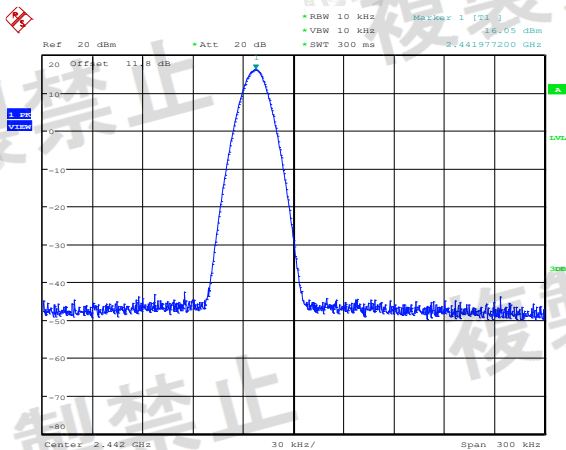
Test Condition	Frequency (MHz)	Read (MHz)	Deviation (MHz)	Tolerance (ppm)	Limit (ppm)	Result
Non-modulation	2412	2411.981	-0.0195	-8.08458	± 50.00	Pass
	2442	2441.977	-0.0228	-9.33661		
	2472	2471.976	-0.0243	-9.83010		

Test Plot of Frequency Tolerance



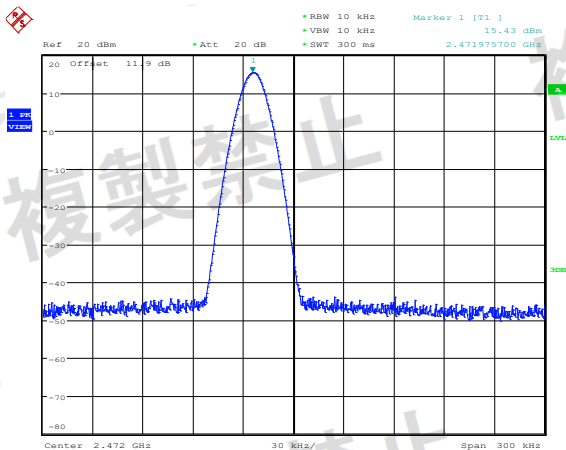
Date: 24.MAR.2025 08:00:00

2412 MHz



Date: 24.MAR.2025 08:00:22

2442 MHz



Date: 24.MAR.2025 08:00:43

2472 MHz

3.2 Antenna Output Power and Output Power Tolerance

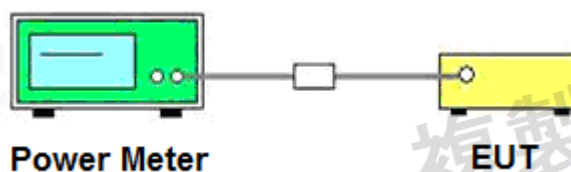
LIMIT

Type	Limit
DTS	10mW
OFDM OBW<26MHz, DS	10mW/MHz
OFDM OBW 26-38MHz	5mW/MHz
Tolerance	+20%

Upper Limit of EIRP for Modulation Systems

Modulation system	Frequency band used	Antenna power (max.)	EIRP (max.)	
			Omnidirectional case	Directional case
DS, OFDM	2,400 - 2,483.5 MHz	10 mW/MHz	12.14 dBm/MHz	22.14 dBm/MHz
FH, DS-FH	2,400 - 2,483.5 MHz	3 mW/MHz	6.91 dBm/MHz	16.91 dBm/MHz
FH-OFDM	Excluding 2,427 - 2,470.75 MHz	10 mW/MHz	12.14 dBm/MHz	22.14 dBm/MHz
Other than the above	2,400 - 2,483.5 MHz	10 mW	12.14 dBm	22.14 dBm

TEST CONFIGURATION



TEST PROCEDURE

- EUT have transmitted continuous maximum power
- Antenna Power Error is definition that actual measure antenna power tolerance within +20% power range that base on manufacturer Marlare the conducted power density.

TEST RESULTS

Mode	Channel (MHz)	Average burst power (dBm)	Output power (mW/MHz)	Limit (mW/MHz)	Rated output power (mW/MHz)	Tolerance (%)	Limit	Result
IEEE 802.11b	2412	9.14	1.0153	10	1.0	1.53	20%	Pass
	2442	9.12	1.0056	10	1.0	0.56		
	2472	9.33	1.0607	10	1.0	6.07		
IEEE 802.11g	2412	5.15	0.2261	10	0.5	-54.78		
	2442	5.05	0.2203	10	0.5	-55.94		
	2472	5.25	0.2307	10	0.5	-53.86		
IEEE 802.11n HT20	2412	3.60	0.1472	10	0.2	-26.40		
	2442	3.32	0.1380	10	0.2	-31.00		
	2472	4.03	0.1626	10	0.2	-18.70		

Note:

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

EIRP

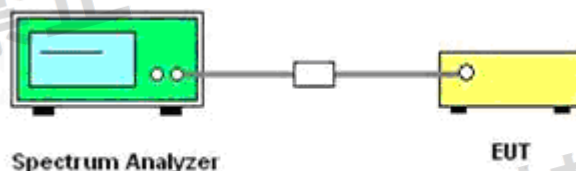
Mode	Channel (MHz)	Average burst power (dBm)	Gain (dBi)	EIRP (dBm/MHz)	EIRP/MHz Limit (dBm/MHz)	Result
IEEE 802.11b	2412	9.14	3.2	2.1212	12.14	Pass
	2442	9.12	3.2	2.1011	12.14	
	2472	9.33	3.2	2.2161	12.14	
IEEE 802.11g	2412	5.15	3.2	0.4723	12.14	
	2442	5.05	3.2	0.4603	12.14	
	2472	5.25	3.2	0.4820	12.14	
IEEE 802.11n HT20	2412	3.60	3.2	0.3076	12.14	
	2442	3.32	3.2	0.2884	12.14	
	2472	4.03	3.2	0.3396	12.14	

3.3 Occupied Bandwidth and Spreading Bandwidth

LIMIT

- Occupied bandwidth: FH $\leq$ 83.5 MHz; OFDM $\leq$ 40 MHz; DS $\leq$ 26 MHz; Others $\leq$ 26 MHz
- Spread Bandwidth: $\geq$ 500 kHz (FH, DS)
- Spread factor >5 .

TEST CONFIGURATION



TEST PROCEDURE

Setting of SA is following as follow:

RBW: 1%-5% of OBW

VBW: same as RBW

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.

EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 90% of occupied bandwidth to measure spread bandwidth.

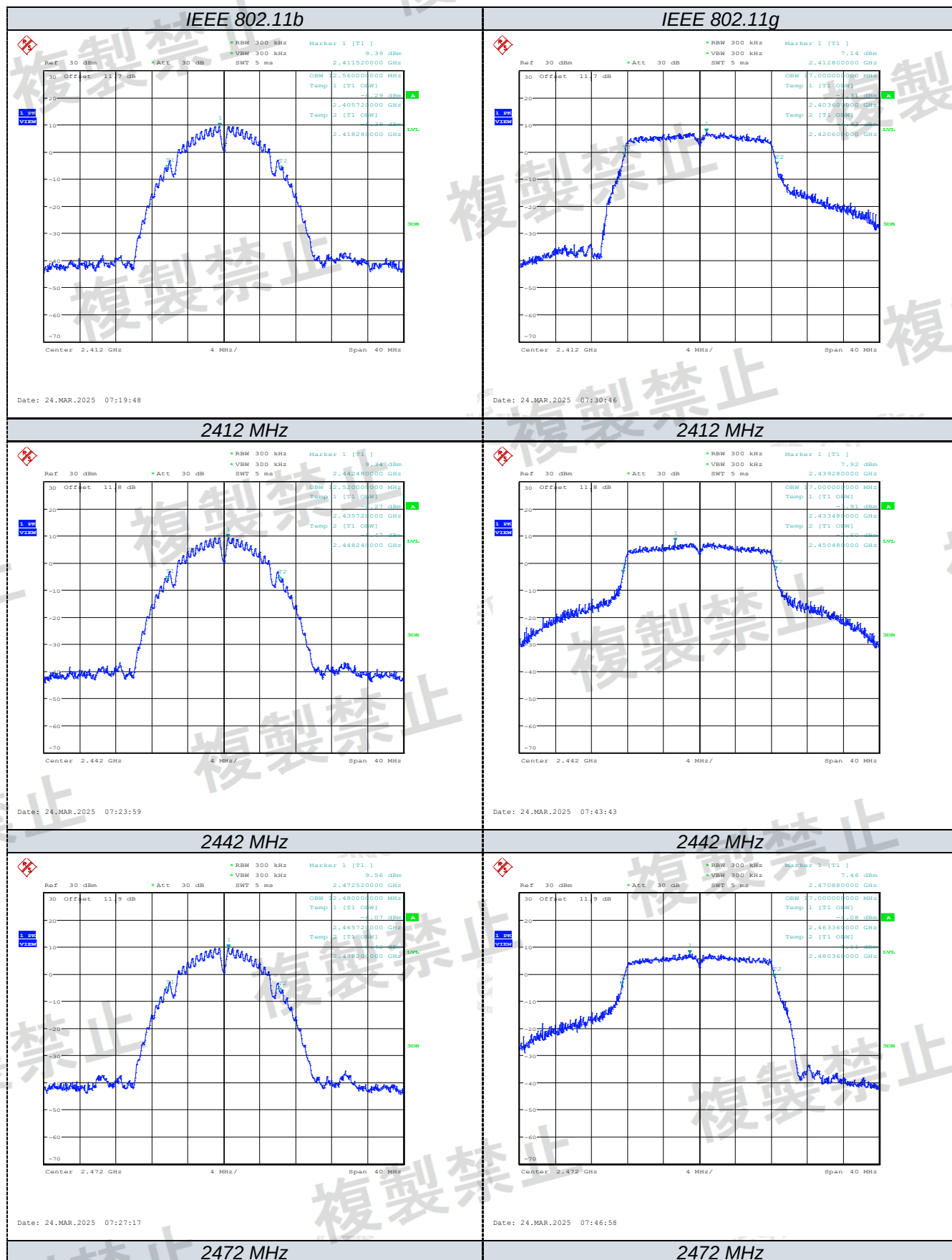
Spread Factor=Spread Bandwidth/modulation rate.

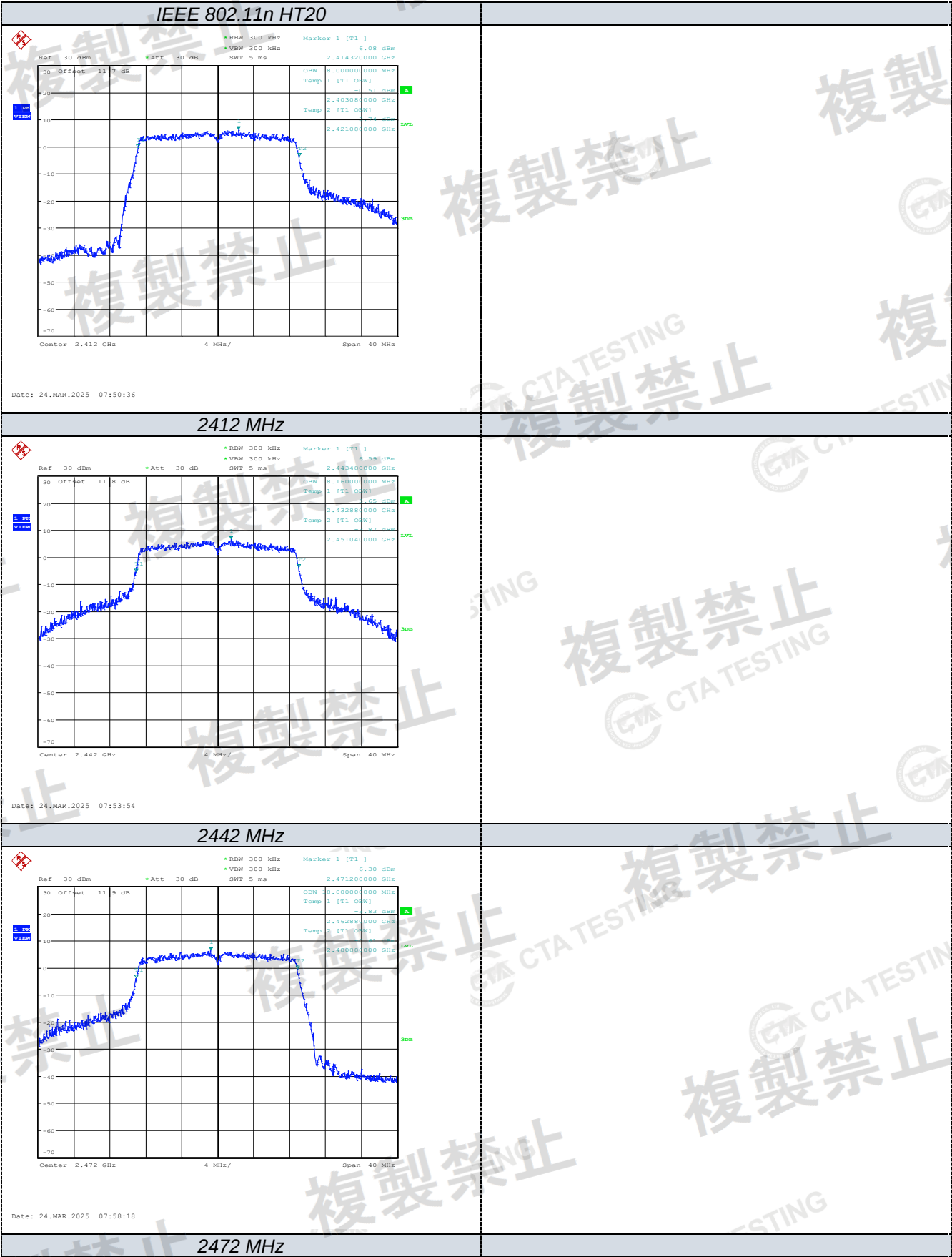
The modulation rate: MR=1.375Mbps for IEEE 802.11b

TEST RESULTS

99% Occupied Bandwidth

Type	Channel (MHz)	Occupuied Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b	2412	12.560	<26	Pass
	2442	12.520		
	2472	12.480		
IEEE 802.11g	2412	17.000		
	2442	17.000		
	2472	17.000		
IEEE 802.11n HT20	2412	18.000	<40	
	2442	18.160		
	2472	18.000		



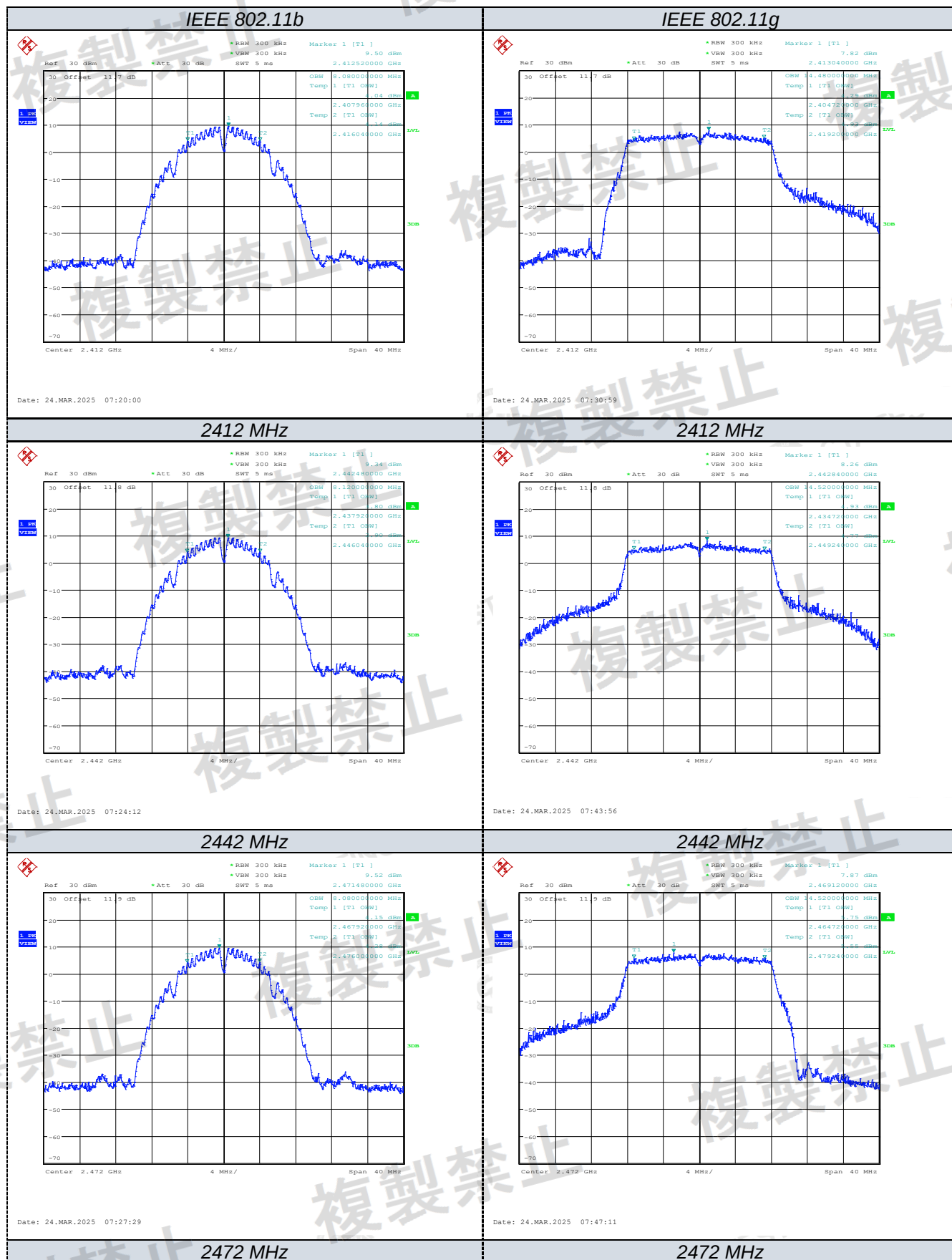


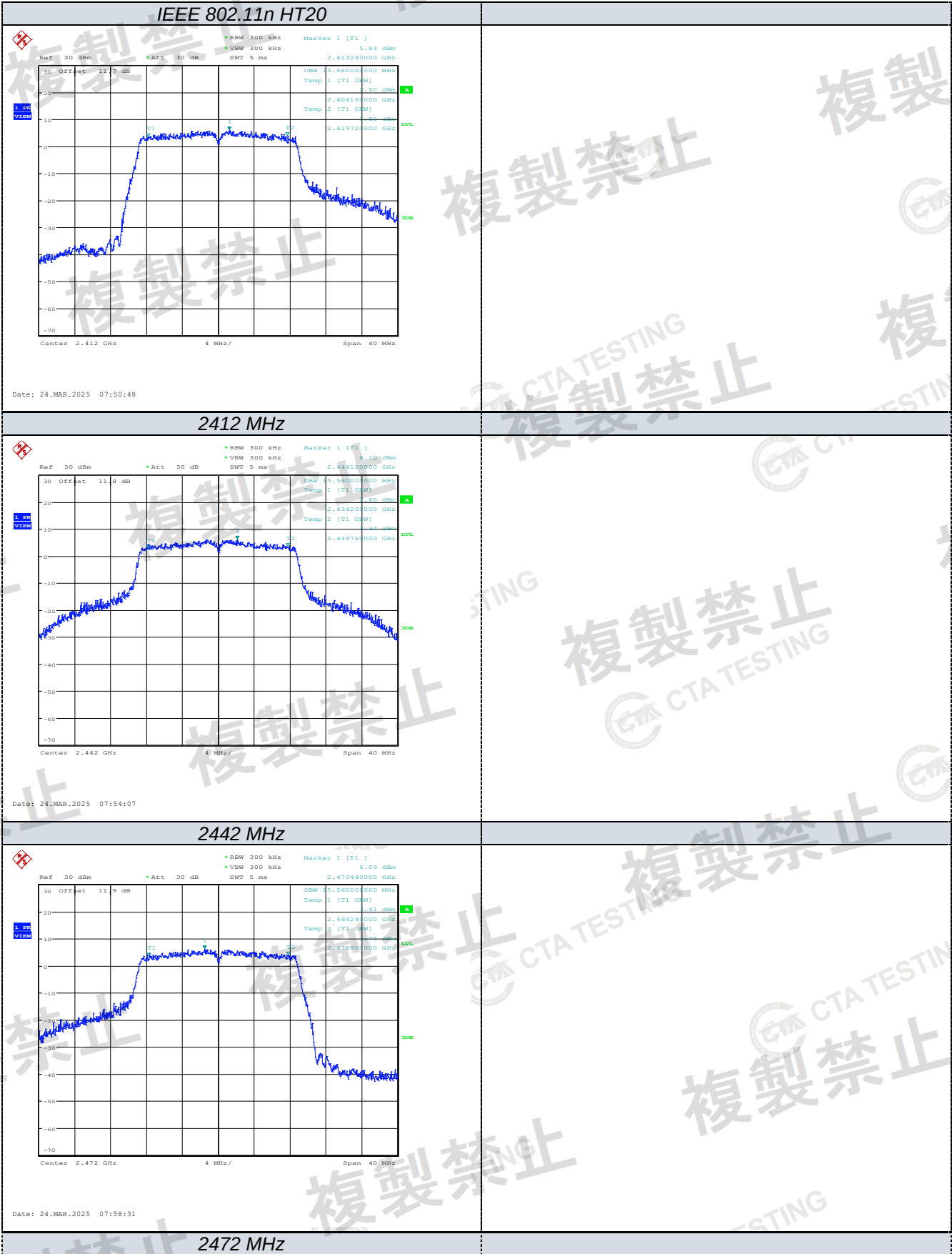
90% Spread Bandwidth and Spread Factor

Type	Channel (MHz)	Spread Bandwidth (MHz)	Spread Factor	Spread Bandwidth Limit (MHz)	Spread Factor Limit	Result	
IEEE 802.11b	2412	8.080	5.8764	>0.5	>5	Pass	
	2442	8.120	5.9055				
	2472	8.080	5.8764				
IEEE 802.11g	2412	14.480	N/A		N/A		N/A
	2442	14.520					
	2472	14.520					
IEEE 802.11n HT20	2412	15.560	N/A		N/A		N/A
	2442	15.560					
	2472	15.560					

Note:

1. Spread Factor=Spread Bandwidth/modulation rate. The modulation rate: MR=1.375Mbps for IEEE 802.11b
2. N/A means not applicable to this modulation type.





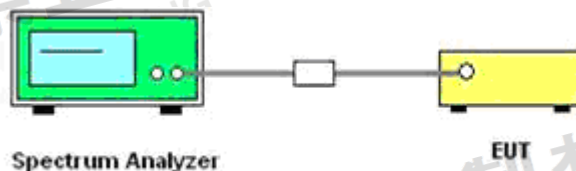
3.4 Unwanted Emission Strength

LIMIT

Permissible mean power of spurious emission of each frequency supplied to a feeder, that is, mean power of spurious emission in the 1 MHz bandwidth at frequency f other than frequency band used shall be as follows:

- a. $2,387\text{MHz} \leq f \leq 2,400\text{MHz}$ and $2,483.5\text{MHz} < f \leq 2,496.5\text{MHz}$ $25 \mu\text{W}$ or less
b. $2,387\text{MHz} > f$ and $2,496.5\text{MHz} < f$ $2.5 \mu\text{W}$ or less

TEST CONFIGURATION



TEST PROCEDURE

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

EUT Condition: modulation

Spectrum Condition:

Frequency: 30MHz-13GHz

RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-13GHz)

VBW: 300 KHz (30MHz-1GHz), 3MHz (1GHz-13GHz)

Sweep time: Auto

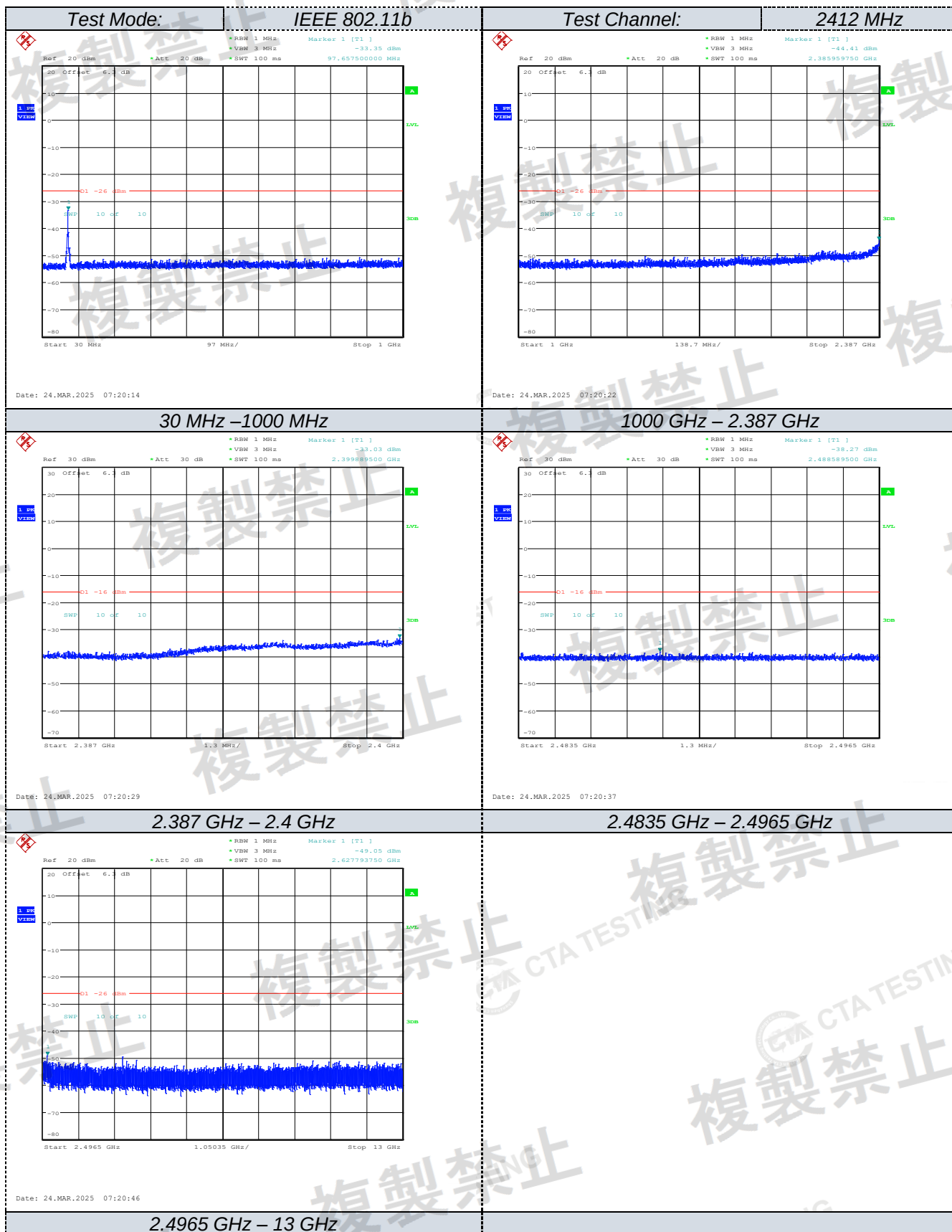
Detector mode: Positive peak

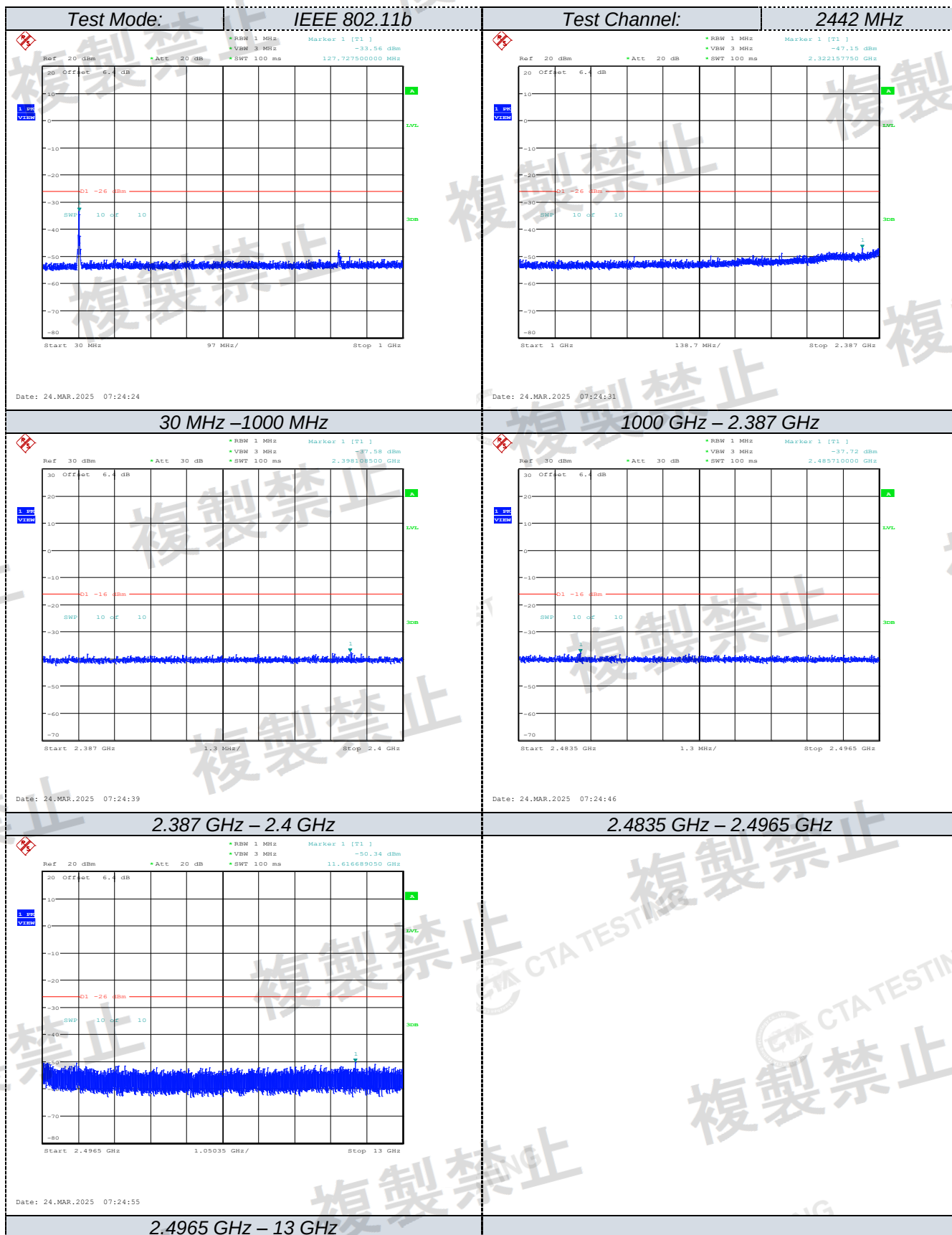
Indication mode: max hold

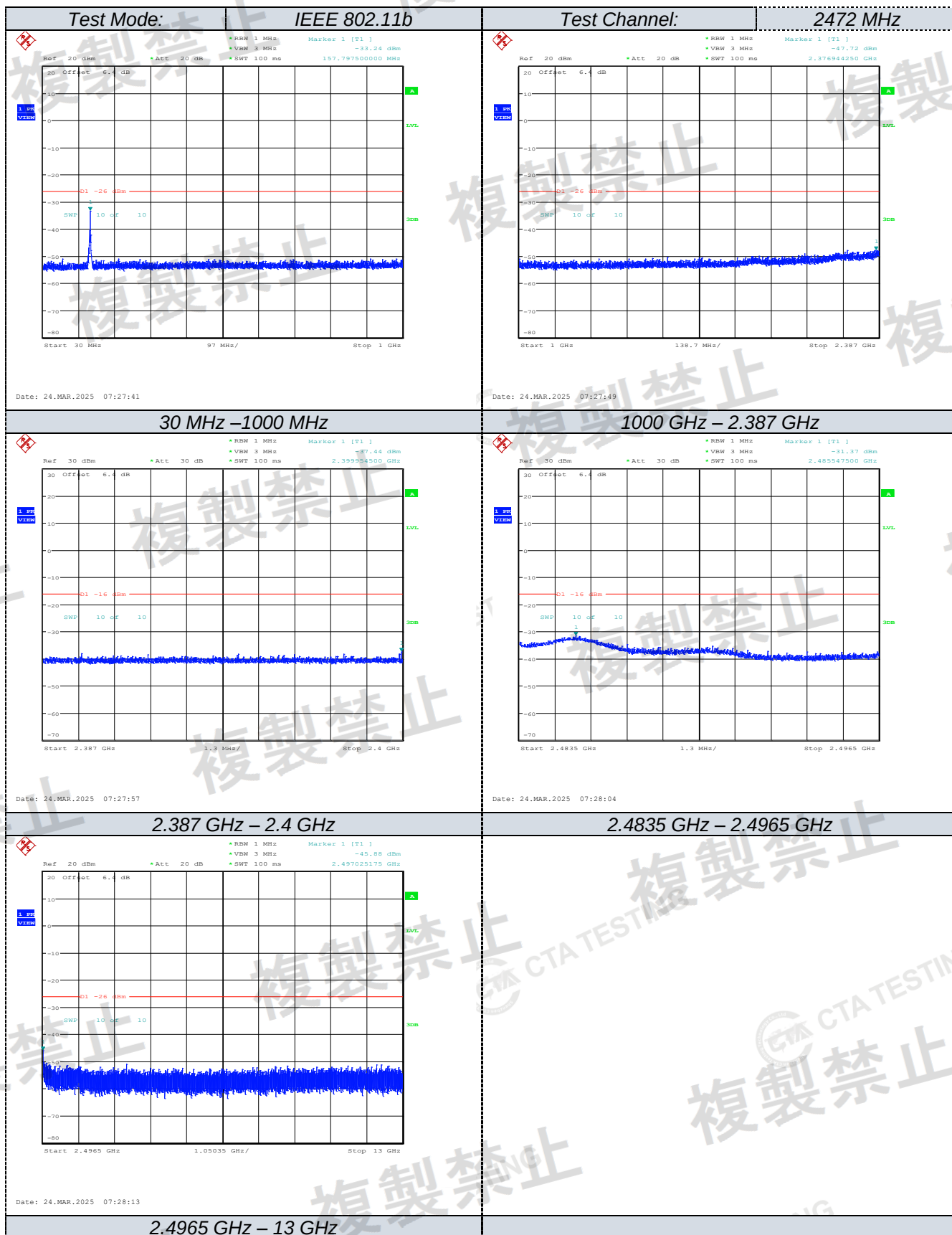
TEST RESULTS

TestCondition	TestMode	Antenna	Channel (MHz)	Freq.Range [MHz]	Freq (MHz)	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	11B	Ant1	2412	30~1000	97.66	-33.35	≤-26	0.46238	≤2.5	PASS
				1000~2387	2385.96	-44.41	≤-26	0.03622	≤2.5	PASS
				2387~2400	2399.89	-33.03	≤-16	0.49774	≤25	PASS
				2483.5~2496.5	2488.59	-38.27	≤-16	0.14894	≤25	PASS
				2496.5~13000	2627.79	-49.05	≤-26	0.01245	≤2.5	PASS
			2442	30~1000	127.73	-33.56	≤-26	0.44055	≤2.5	PASS
				1000~2387	2322.16	-47.15	≤-26	0.01928	≤2.5	PASS
				2387~2400	2398.11	-37.58	≤-16	0.17458	≤25	PASS
				2483.5~2496.5	2485.71	-37.72	≤-16	0.16904	≤25	PASS
				2496.5~13000	11616.69	-50.34	≤-26	0.00925	≤2.5	PASS
			2472	30~1000	157.80	-33.24	≤-26	0.47424	≤2.5	PASS
				1000~2387	2376.94	-47.72	≤-26	0.01690	≤2.5	PASS
				2387~2400	2399.95	-37.44	≤-16	0.18030	≤25	PASS
				2483.5~2496.5	2485.55	-31.37	≤-16	0.72946	≤25	PASS
				2496.5~13000	2497.03	-45.88	≤-26	0.02582	≤2.5	PASS
	11G	Ant1	2412	30~1000	95.96	-35.22	≤-26	0.30061	≤2.5	PASS
				1000~2387	2383.53	-38.96	≤-26	0.12706	≤2.5	PASS
				2387~2400	2396.85	-25.14	≤-16	3.06196	≤25	PASS
				2483.5~2496.5	2495.54	-37.78	≤-16	0.16672	≤25	PASS
				2496.5~13000	2507.00	-48.40	≤-26	0.01445	≤2.5	PASS
			2442	30~1000	126.76	-36.08	≤-26	0.24660	≤2.5	PASS
				1000~2387	2377.98	-45.69	≤-26	0.02698	≤2.5	PASS
				2387~2400	2397.58	-36.90	≤-16	0.20417	≤25	PASS
				2483.5~2496.5	2485.37	-36.97	≤-16	0.20091	≤25	PASS
				2496.5~13000	2514.36	-47.80	≤-26	0.01660	≤2.5	PASS
			2472	30~1000	158.53	-34.93	≤-26	0.32137	≤2.5	PASS
				1000~2387	2385.96	-44.94	≤-26	0.03206	≤2.5	PASS
				2387~2400	2397.54	-37.63	≤-16	0.17258	≤25	PASS
				2483.5~2496.5	2483.53	-20.35	≤-16	9.22571	≤25	PASS
				2496.5~13000	2503.33	-44.18	≤-26	0.03819	≤2.5	PASS
	11N20SI SO	Ant1	2412	30~1000	96.20	-38.41	≤-26	0.14421	≤2.5	PASS
				1000~2387	2386.65	-39.94	≤-26	0.10139	≤2.5	PASS
				2387~2400	2399.97	-25.08	≤-16	3.10456	≤25	PASS
				2483.5~2496.5	2489.06	-37.42	≤-16	0.18113	≤25	PASS
				2496.5~13000	3371.44	-50.14	≤-26	0.00968	≤2.5	PASS
			2442	30~1000	128.46	-38.29	≤-26	0.14825	≤2.5	PASS
				1000~2387	2382.1	-45.35	≤-26	0.02917	≤2.5	PASS

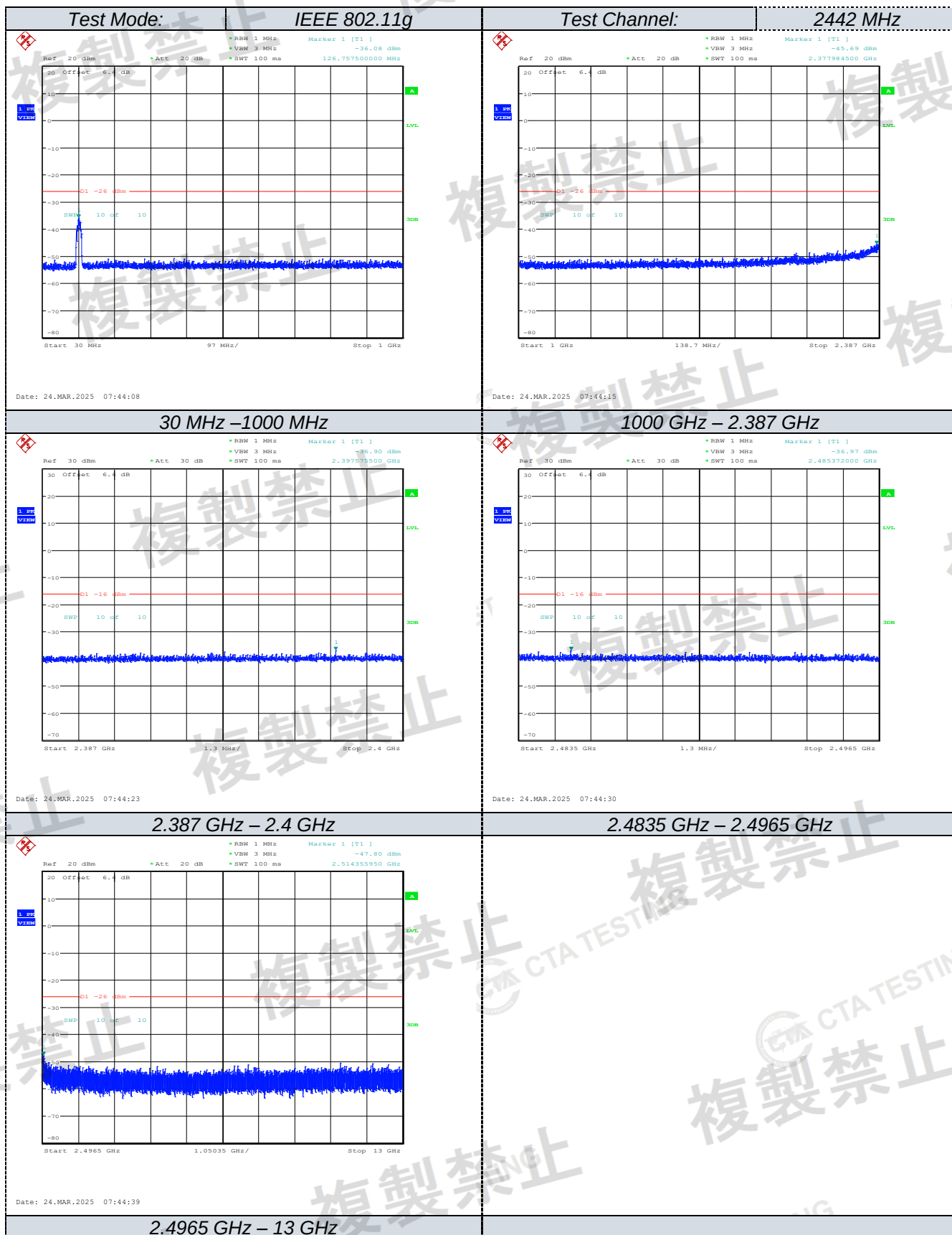
					5					
				2387~2400	2390.8 4	-37.81	≤-16	0.16558	≤25	PASS
				2483.5~2496.5	2486.4 3	-37.49	≤-16	0.17824	≤25	PASS
				2496.5~13000	2500.1 8	-48.34	≤-26	0.01466	≤2.5	PASS
			2472	30~1000	158.53	-38.38	≤-26	0.14521	≤2.5	PASS
				1000~2387	2385.2 7	-46.22	≤-26	0.02388	≤2.5	PASS
				2387~2400	2398.2 3	-37.06	≤-16	0.19679	≤25	PASS
				2483.5~2496.5	2483.5	-17.30	≤-16	18.6208 7	≤25	See table below
				2496.5~13000	3201.2 8	-50.03	≤-26	0.00993	≤2.5	PASS

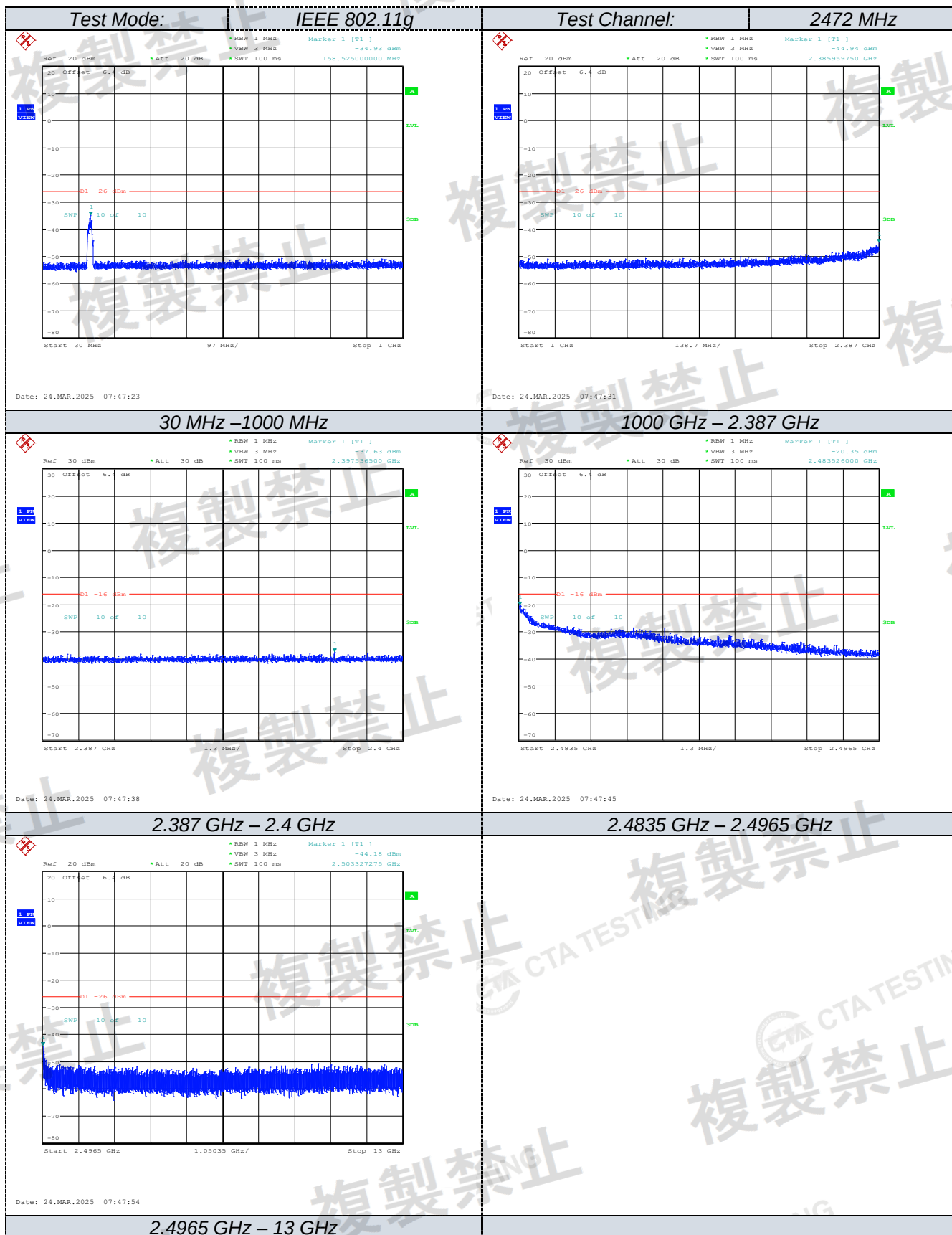


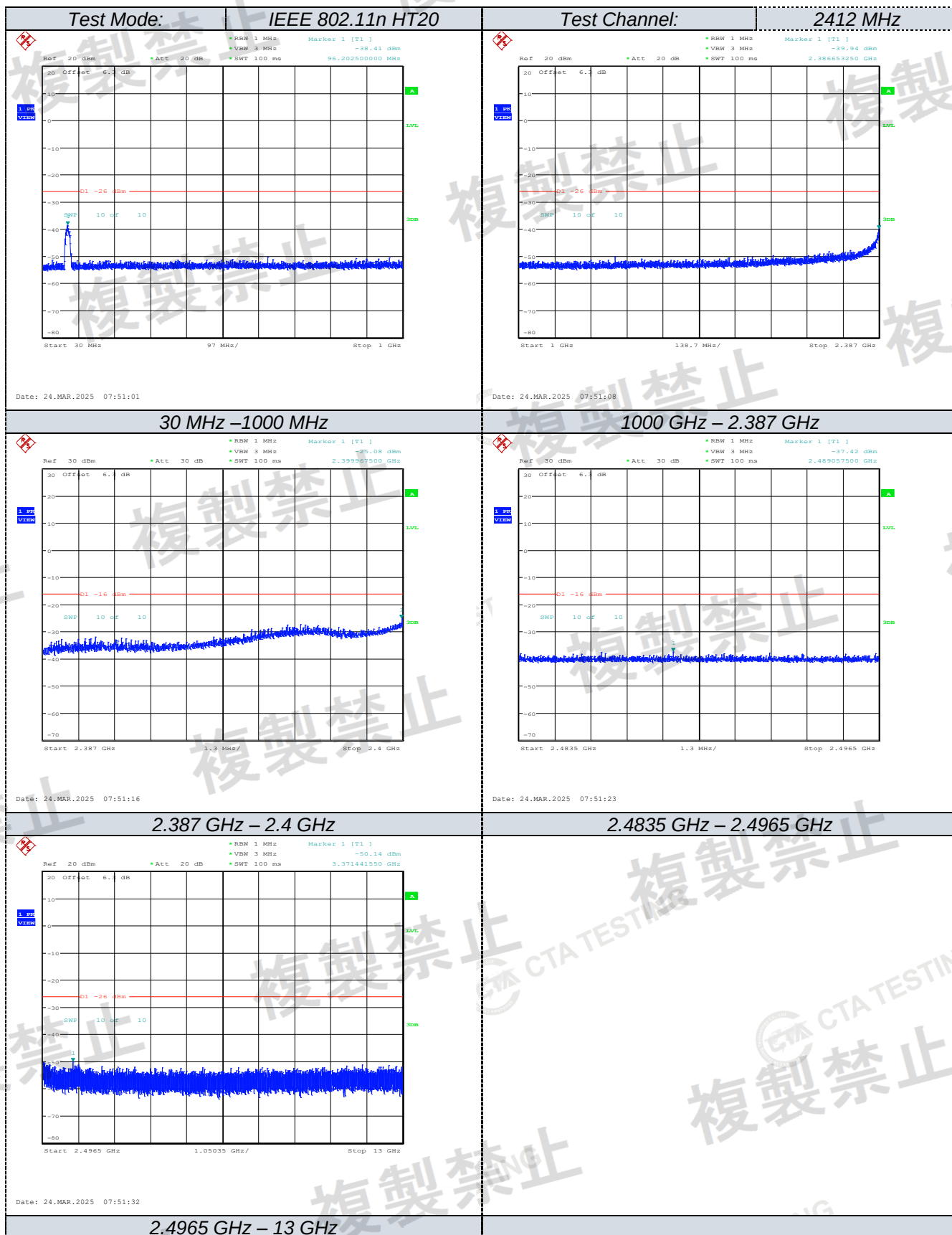


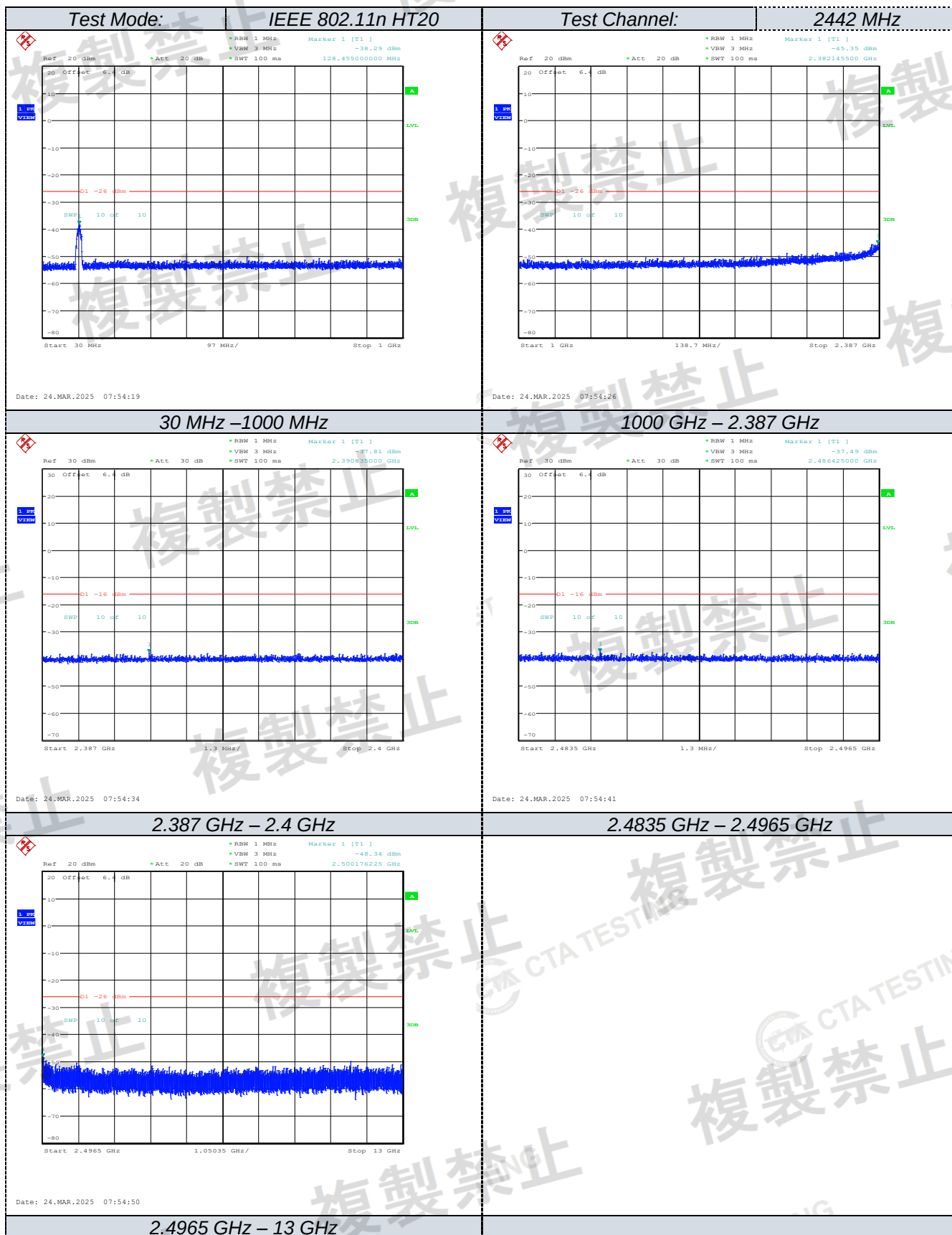


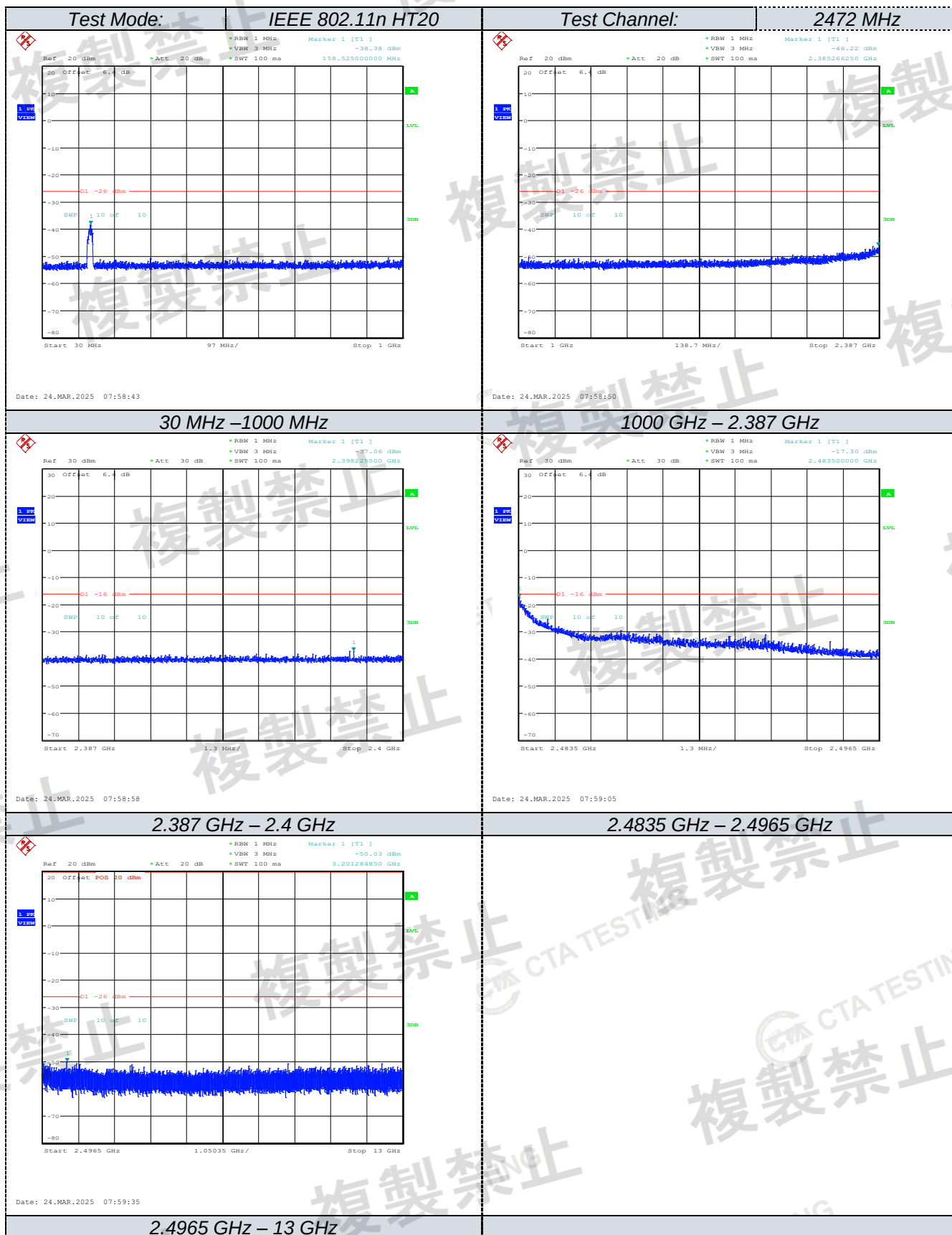










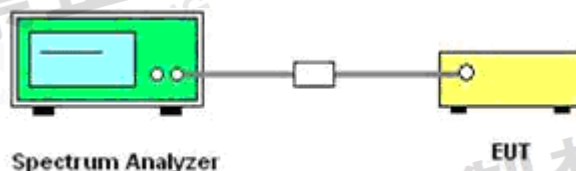


3.5 Secondary Radiated Emission Strength

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 analyser and antenna output port as show in the block diagram as TEST CONFIGURATION shows.

EUT Condition: modulation

Spectrum Condition:

Frequency: 30MHz-13GHz

RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-13GHz)

VBW: 300 KHz (30MHz-1GHz), 3MHz (1GHz-13GHz)

Sweep time: Auto

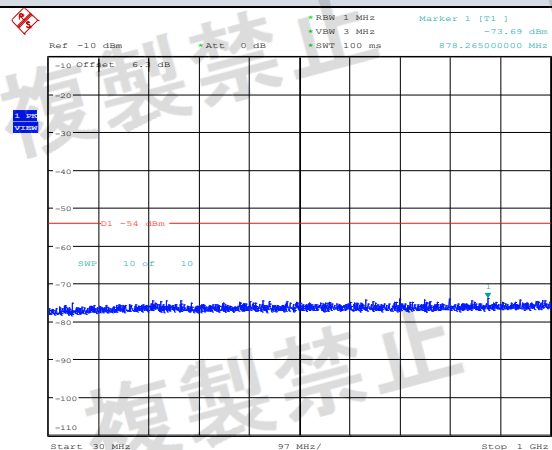
Detector mode: Positive peak

Indication mode: max hold

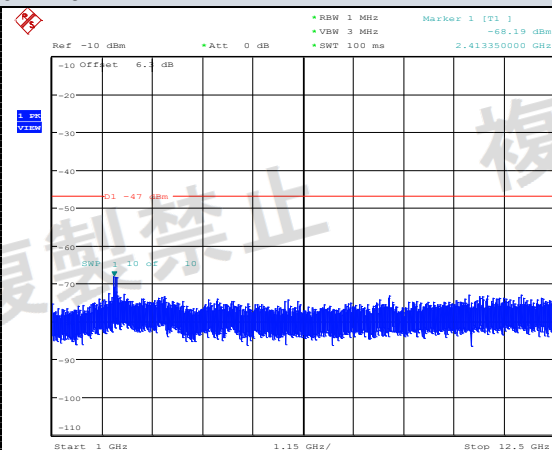
TEST RESULTS

TestCondition	TestMode	Antenna	Channel (MHz)	Freq.Range [MHz]	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [μW]	Limit [μW]	Verdict
NTNV	11B	Ant1	2412	30~1000	878.27	-73.69	≤-54	0.04276	≤4	PASS
				1000~12500	2413.35	-68.19	≤-47	0.15171	≤20	PASS
			2442	30~1000	884.57	-73.13	≤-54	0.04864	≤4	PASS
				1000~12500	2449.58	-65.89	≤-47	0.25763	≤20	PASS
	11G	Ant1	2472	30~1000	998.55	-73.93	≤-54	0.04046	≤4	PASS
				1000~12500	2435.20	-68.58	≤-47	0.13868	≤20	PASS
			2412	30~1000	591.15	-73.64	≤-54	0.04325	≤4	PASS
				1000~12500	2607.70	-72.83	≤-47	0.05212	≤20	PASS
			2442	30~1000	762.84	-73.43	≤-54	0.04539	≤4	PASS
				1000~12500	4568.45	-73.24	≤-47	0.04742	≤20	PASS
			2472	30~1000	977.69	-73.33	≤-54	0.04645	≤4	PASS
				1000~12500	2412.78	-72.25	≤-47	0.05957	≤20	PASS
	11N20SI SO	Ant1	2412	30~1000	829.28	-58.14	≤-54	1.53462	≤4	PASS
				1000~12500	5220.50	-58.55	≤-47	1.39637	≤20	PASS
			2442	30~1000	955.87	-73.82	≤-54	0.04150	≤4	PASS
				1000~12500	2436.35	-71.67	≤-47	0.06808	≤20	PASS
			2472	30~1000	920.95	-73.80	≤-54	0.04169	≤4	PASS
				1000~12500	2407.60	-65.66	≤-47	0.27164	≤20	PASS

IEEE 802.11b

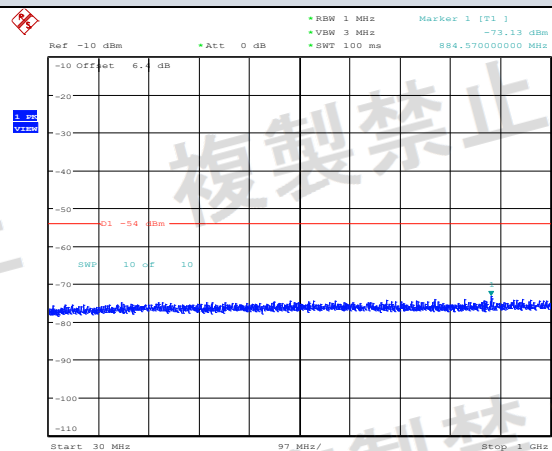


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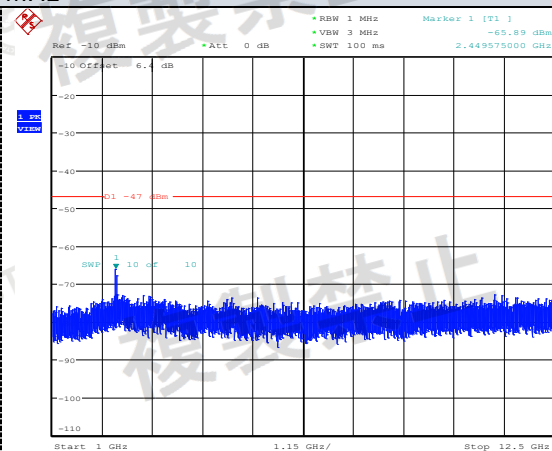


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2412 MHz

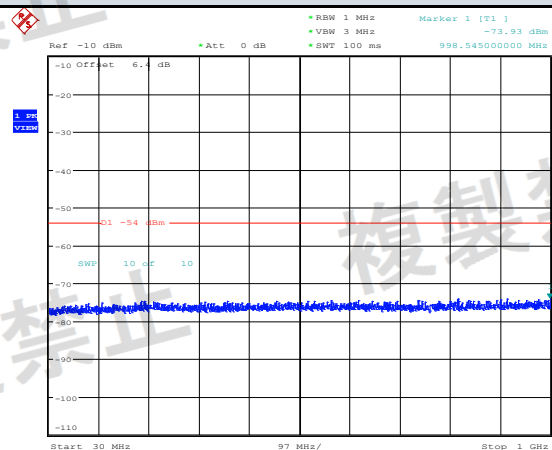


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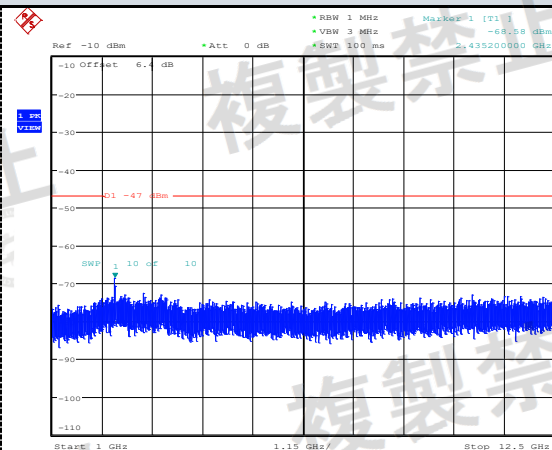


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2442 MHz

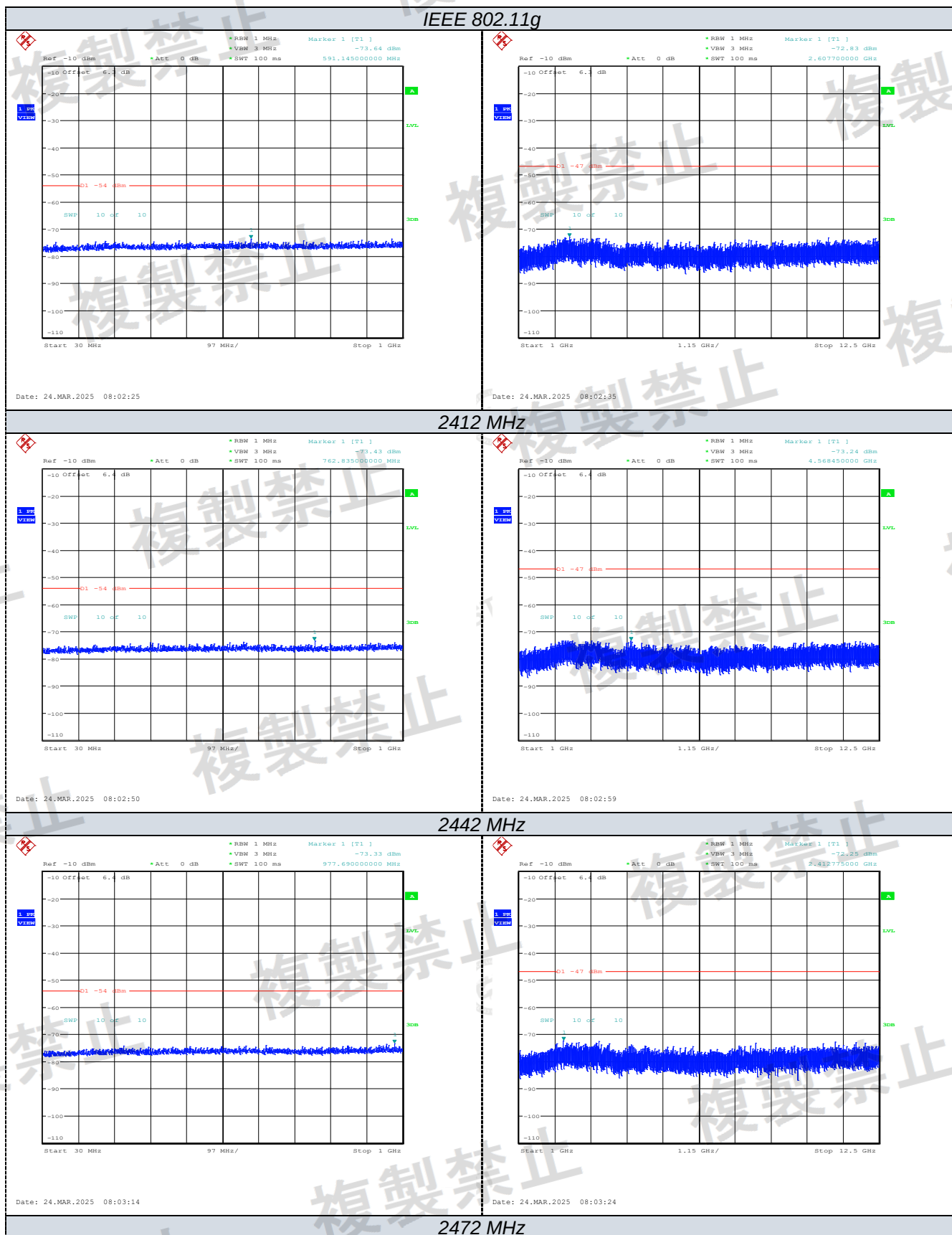


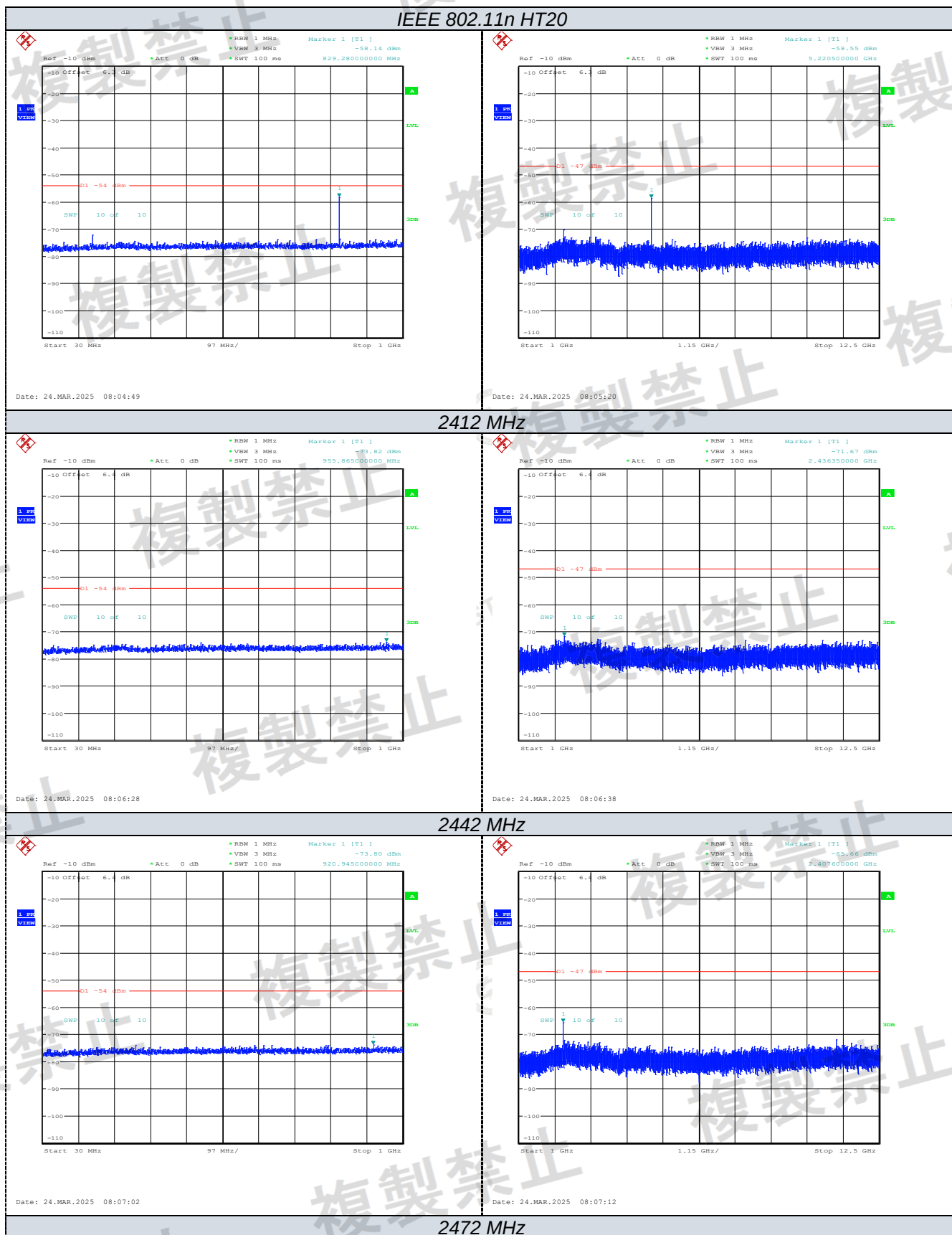
Date: 24.MAR.2025 08:02:02



Date: 24.MAR.2025 08:02:12

2472 MHz





3.6 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

Our products apply for RF certification in Japan. The high frequency part and modulation part use SMT technology, which is not easy to change. (The chip has more than 12 chip pins, and the pin distance is less than 1.5mm.)



3.7 Carrier Sensing Function

LIMIT

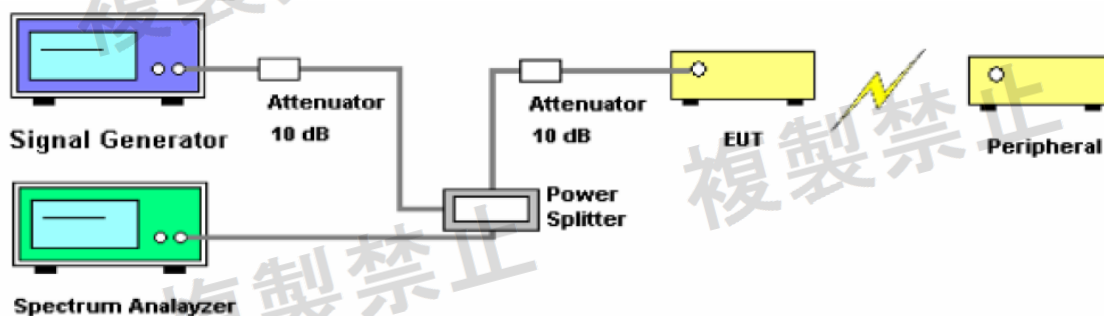
Item	Limits
Carrier Sense	Good – EUT stop RF transmission signal after carrier inject to EUT. (On $22.79 + Gr - 20 \cdot \log(f)$ [dBm] (Gr: dBi; f: MHz) or 100mV/m)

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

Not Applicable

3.8 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

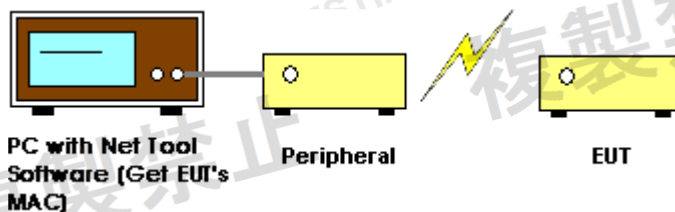
CONFIRMATION METHOD

A communication link was made where the ID code is correct (Identical).

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

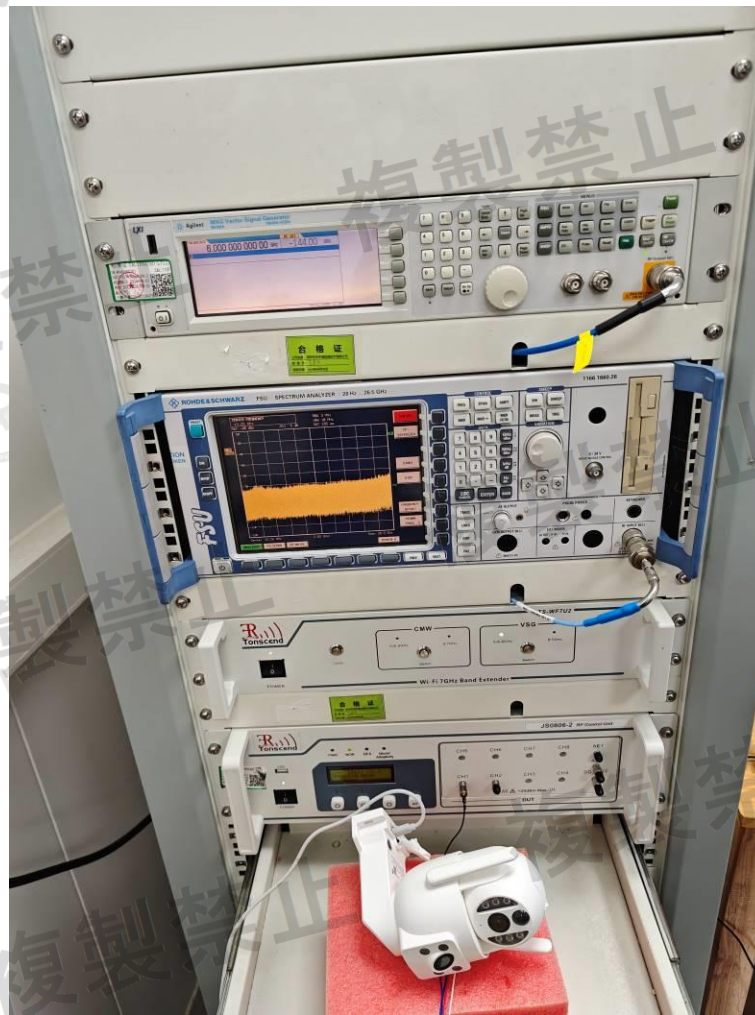


TEST RESULTS

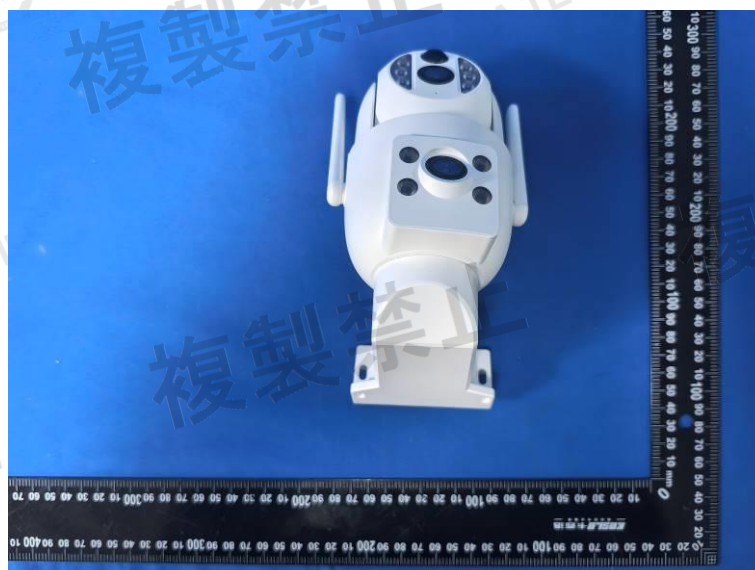
PASS

MAC: A6: C3: DB: 6C: 1A: 3E

4 Test Setup Photos of the EUT

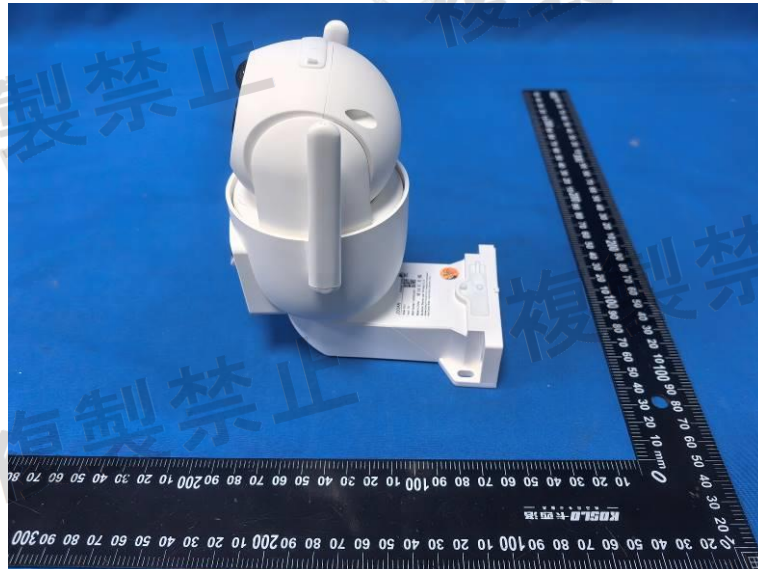


5 Photos of the EUT



Shenzhen CTA Testing Technology Co., Ltd.

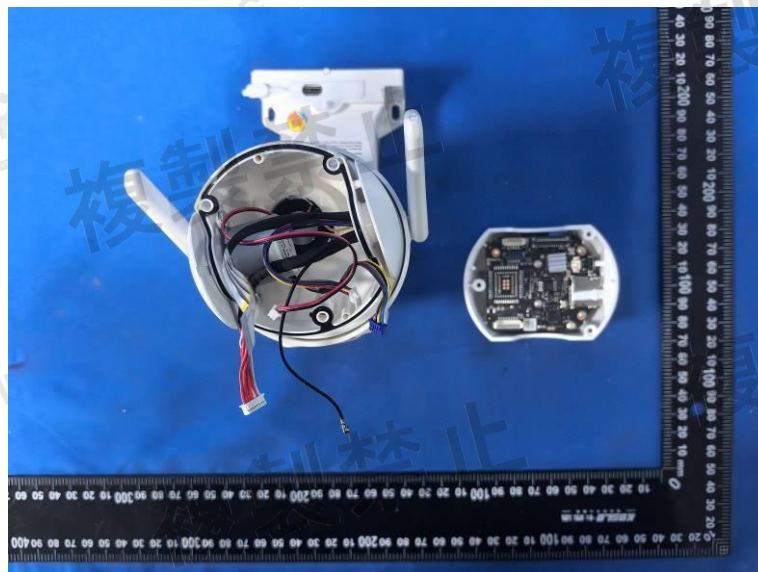
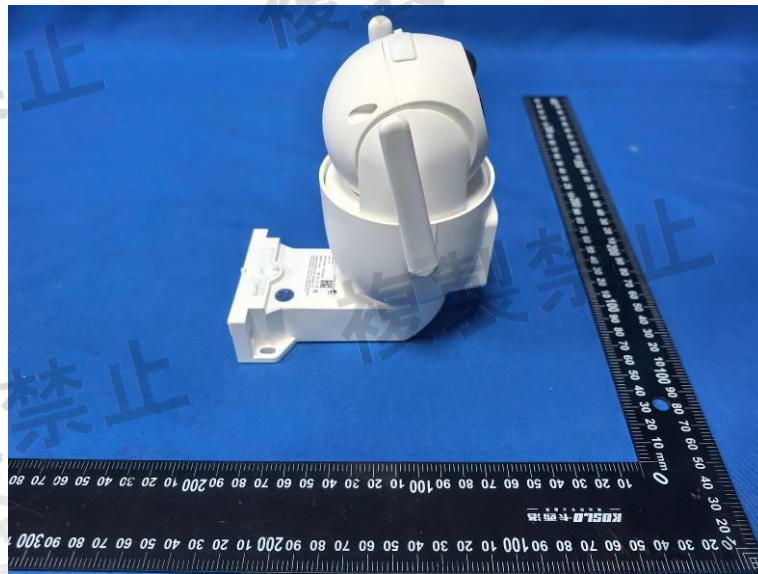
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Tel: +86-755 2322 5875 E-mail: cta@cta-test.cn Web: <http://www.cta-test.cn>

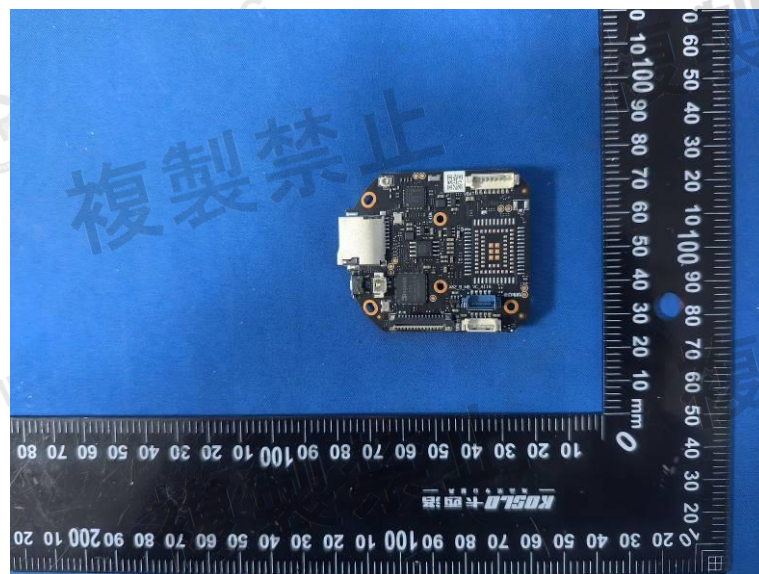
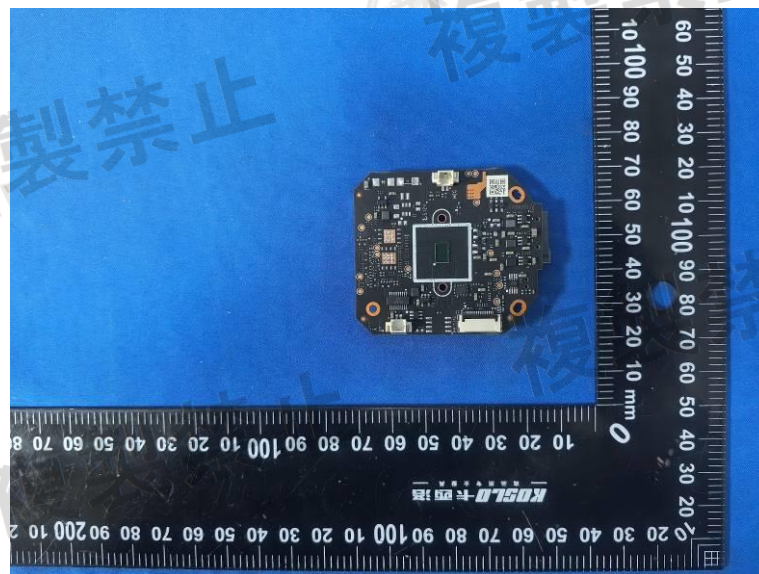
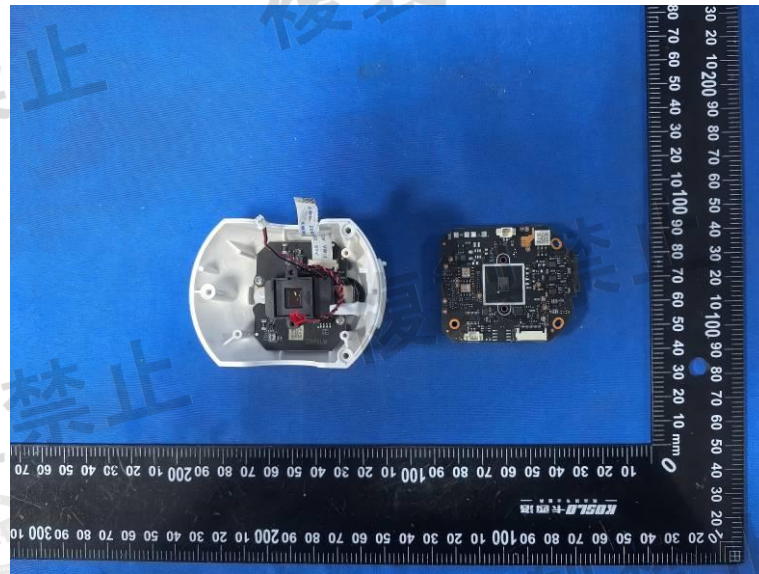


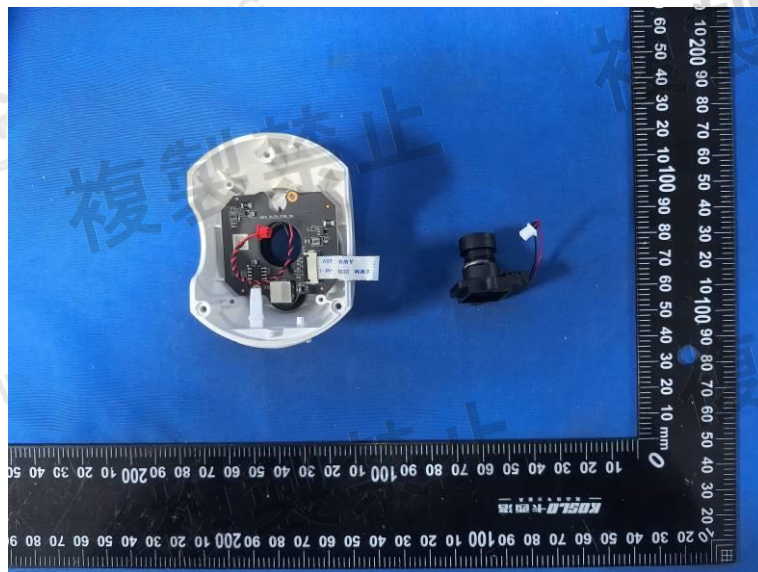
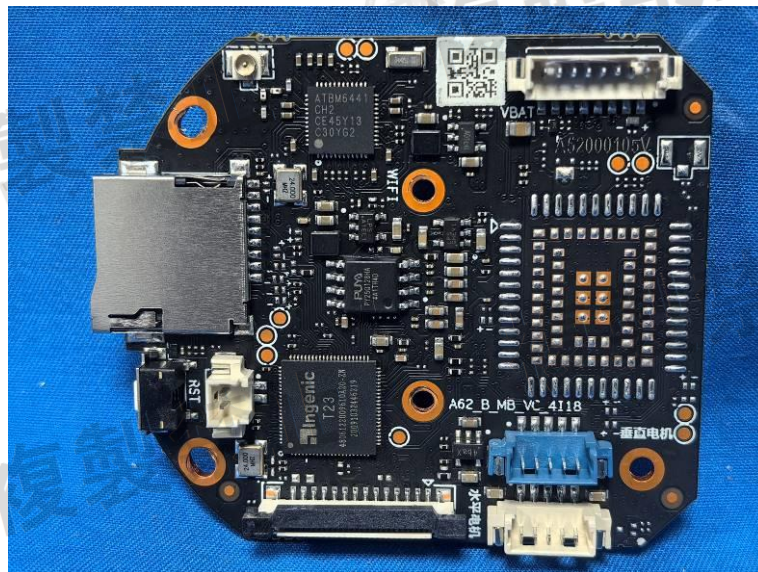
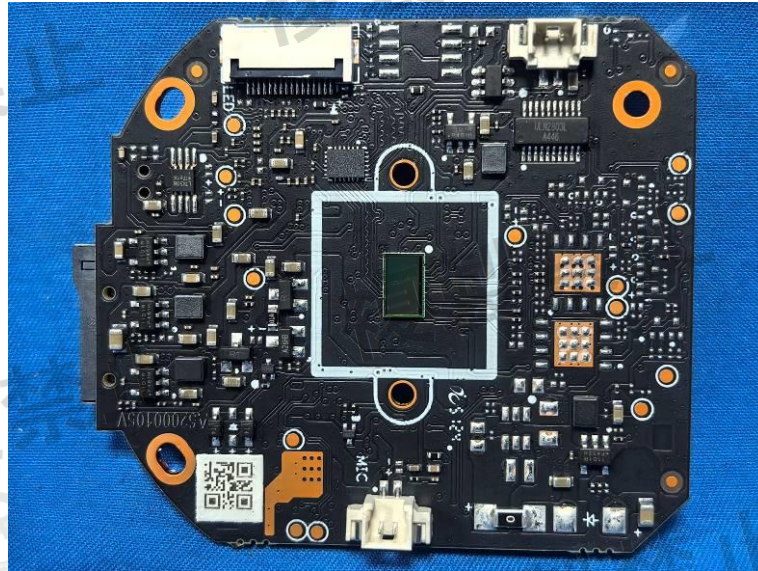
Shenzhen CTA Testing Technology Co., Ltd.

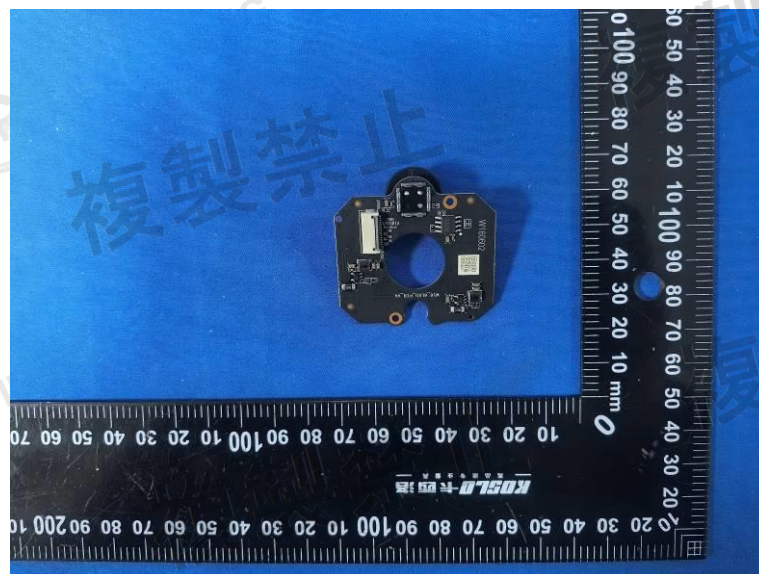
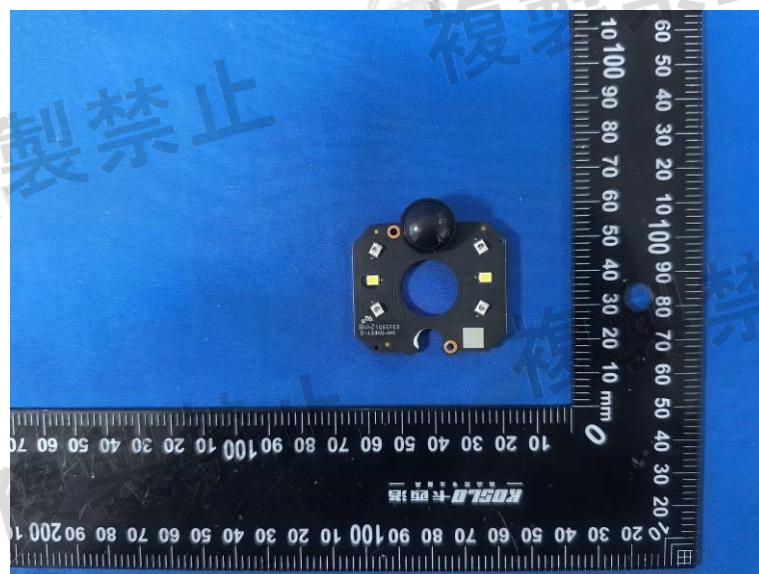
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

Tel:+86-755 2322 5875 E-mail:cta@cta-test.cn Web:http://www.cta-test.cn

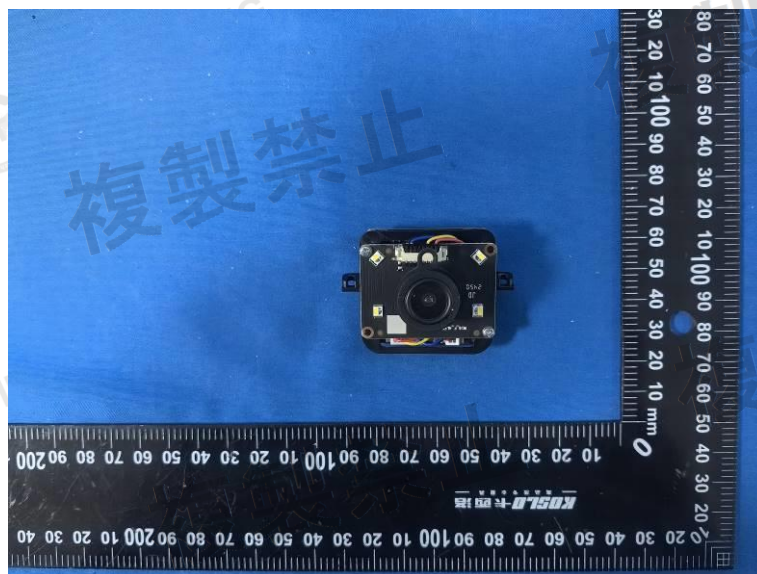
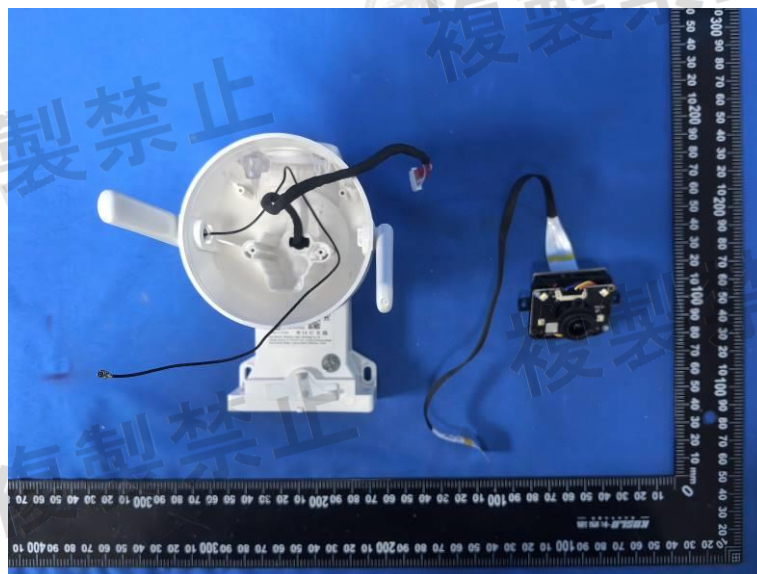
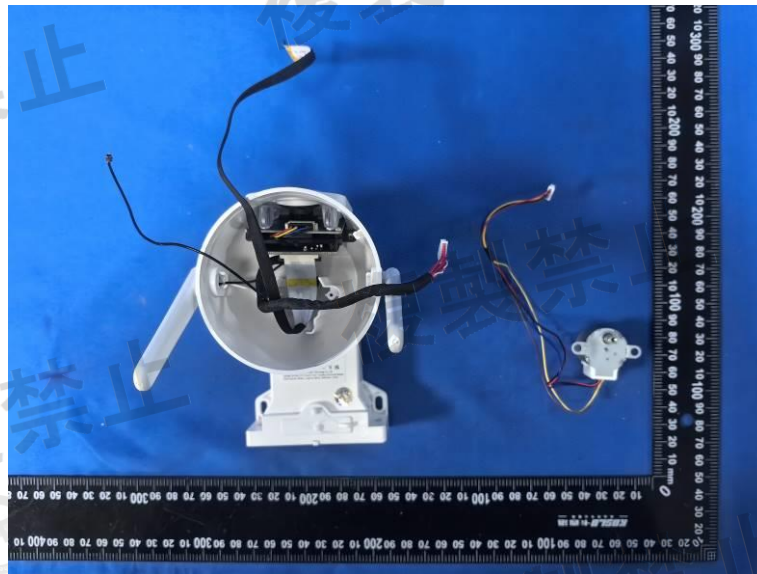


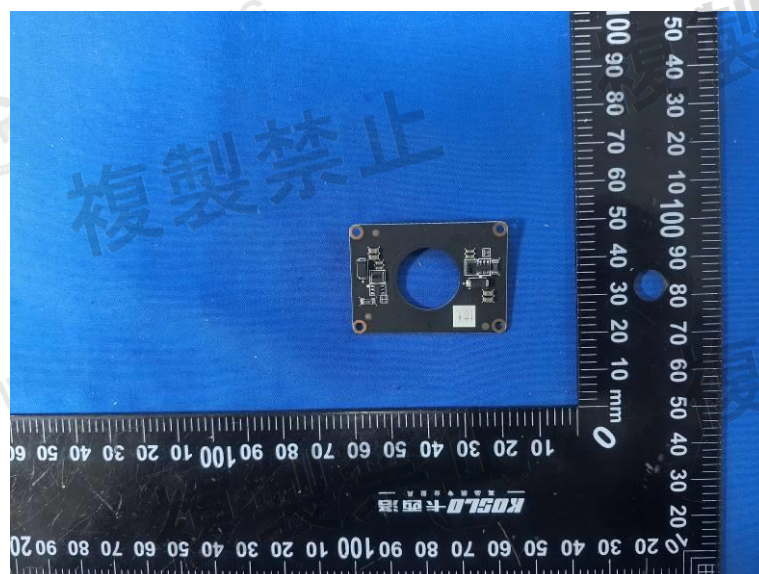
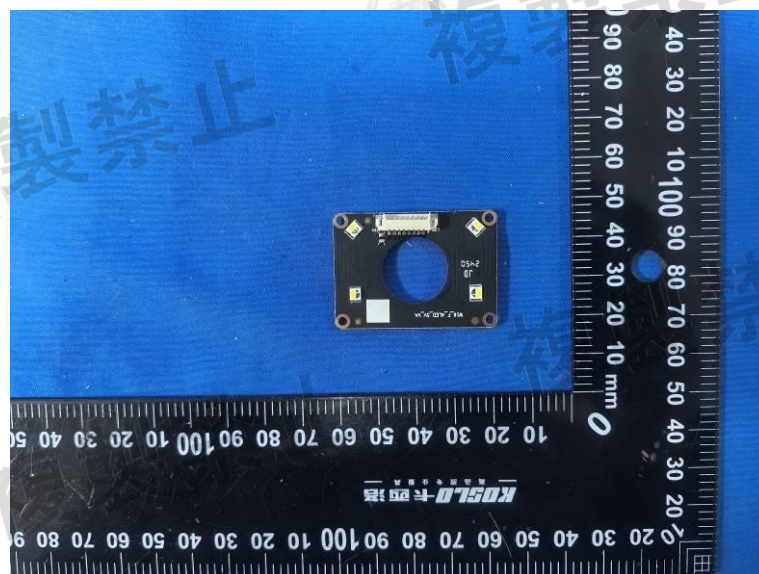
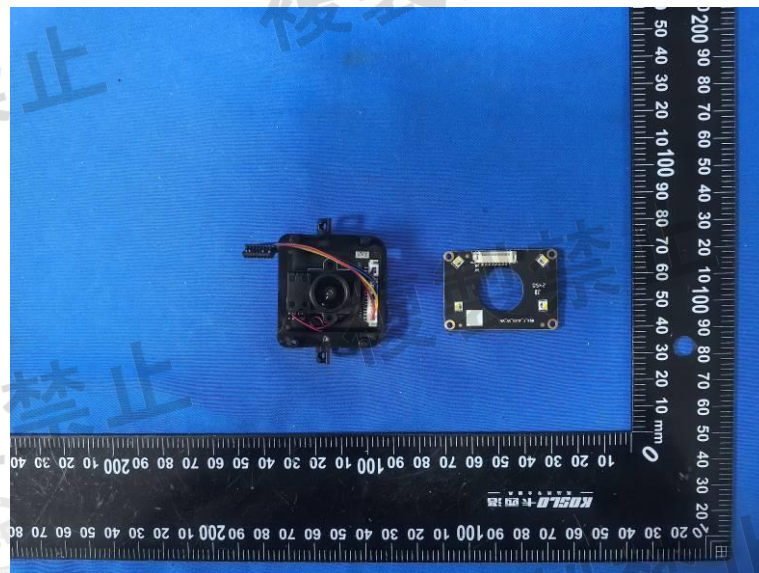


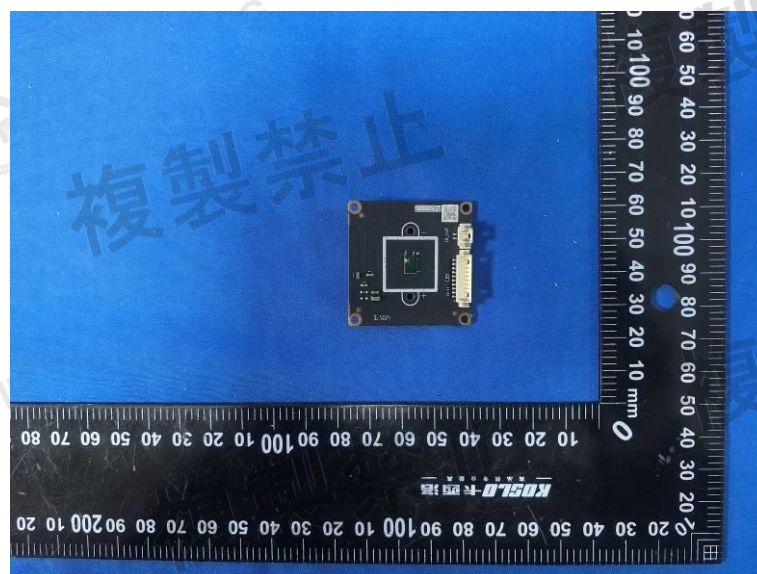
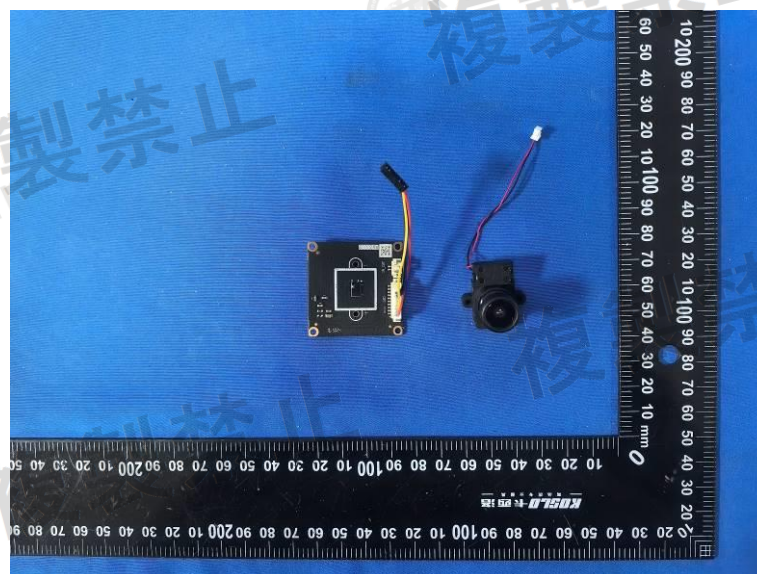
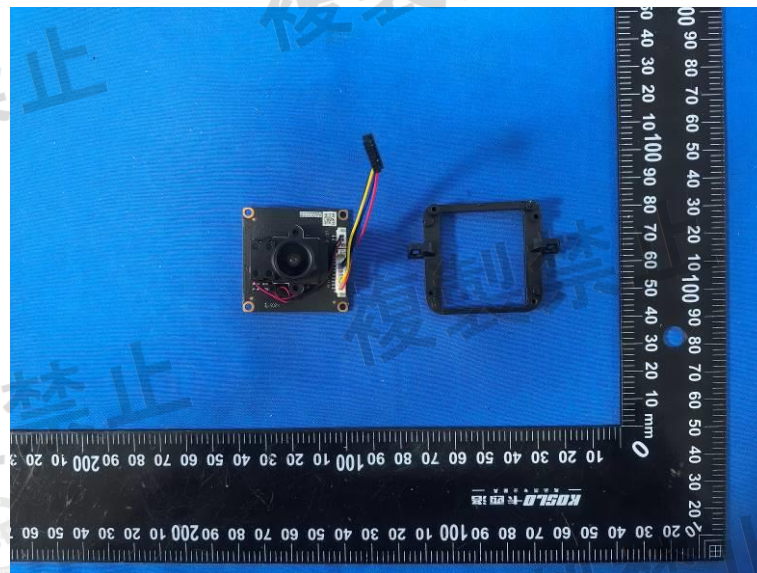


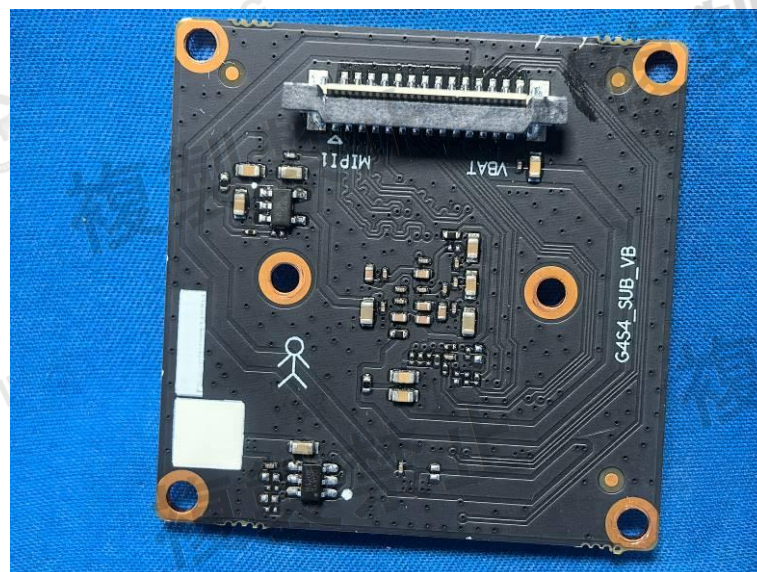
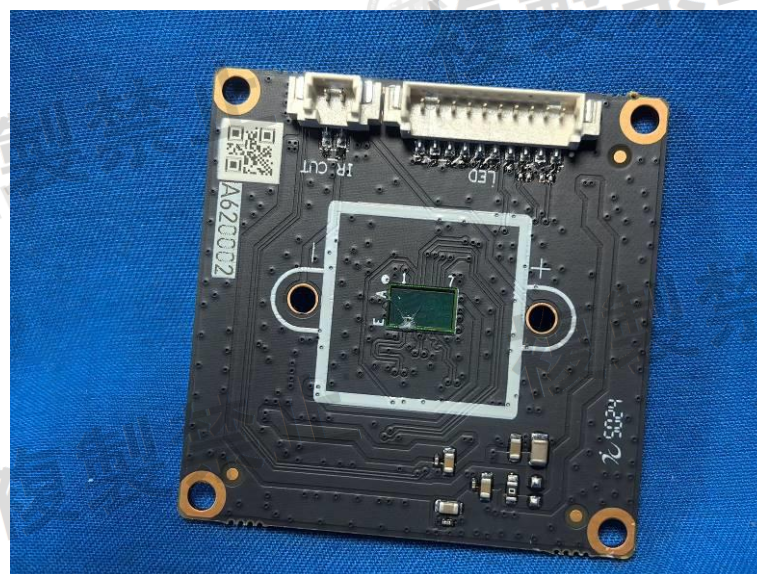
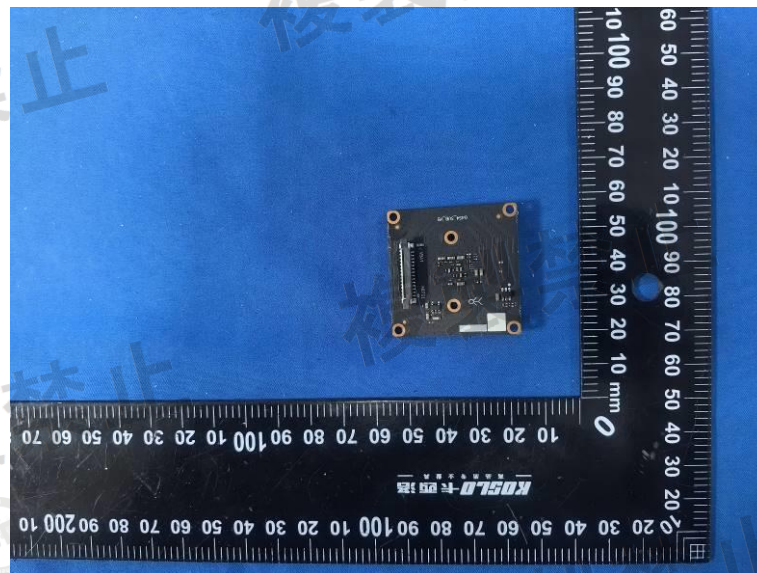


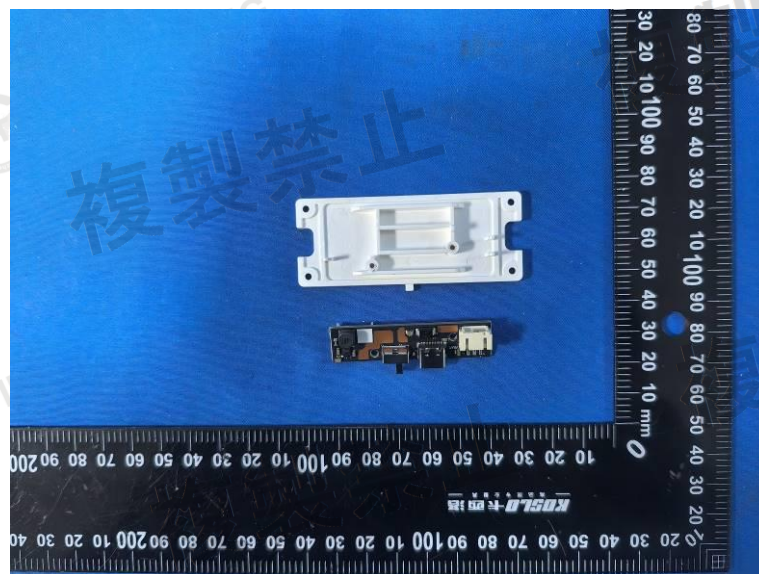
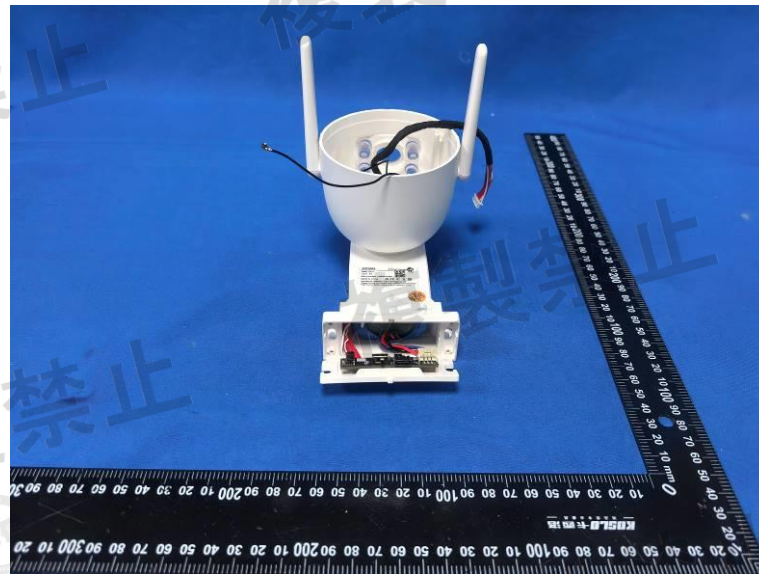


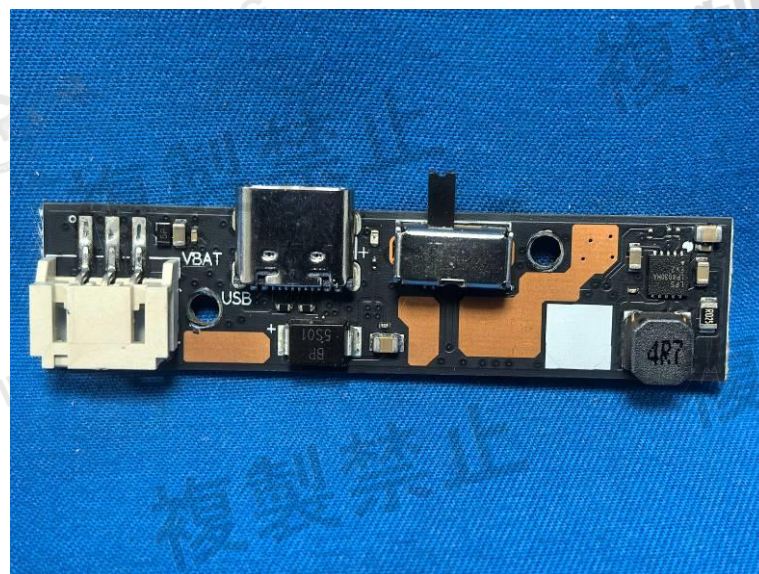
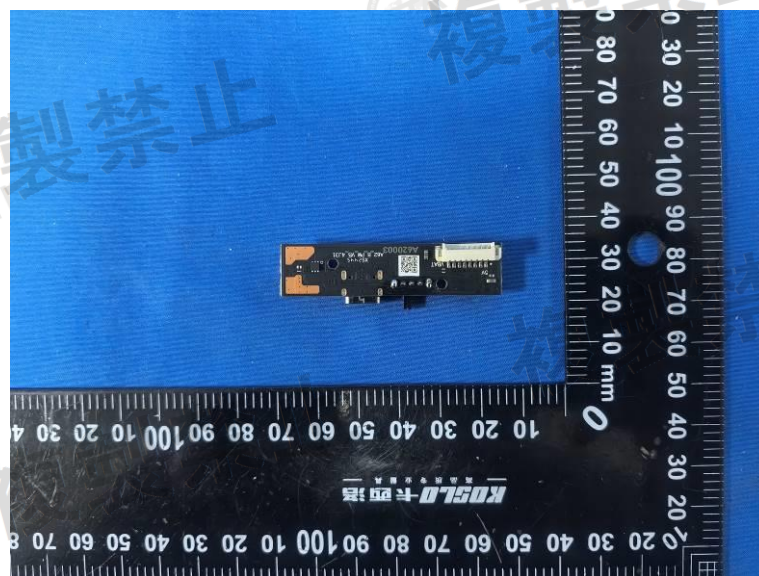
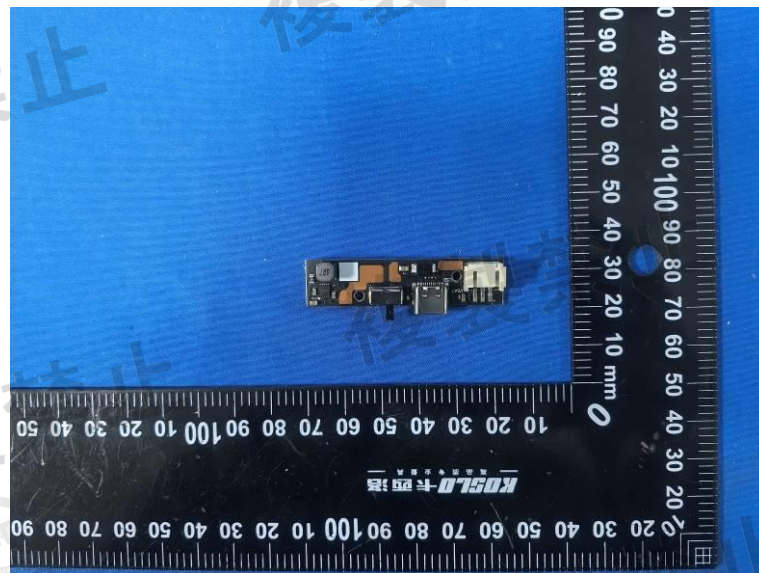


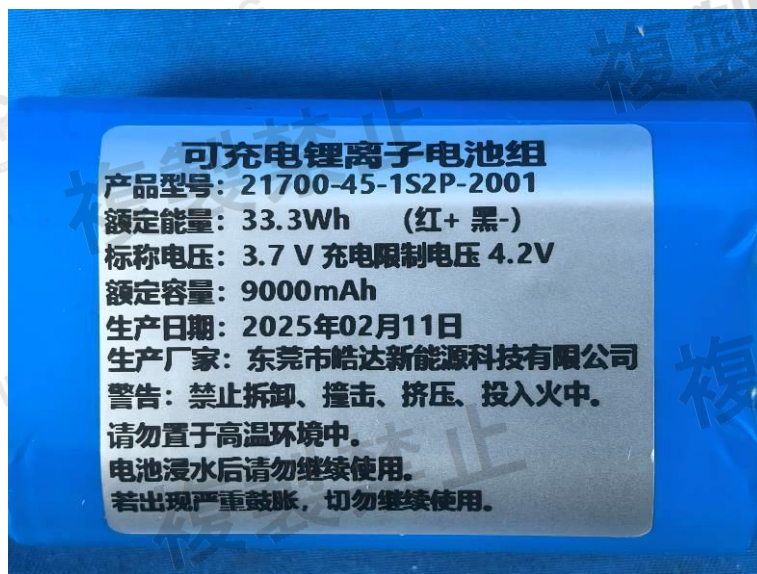
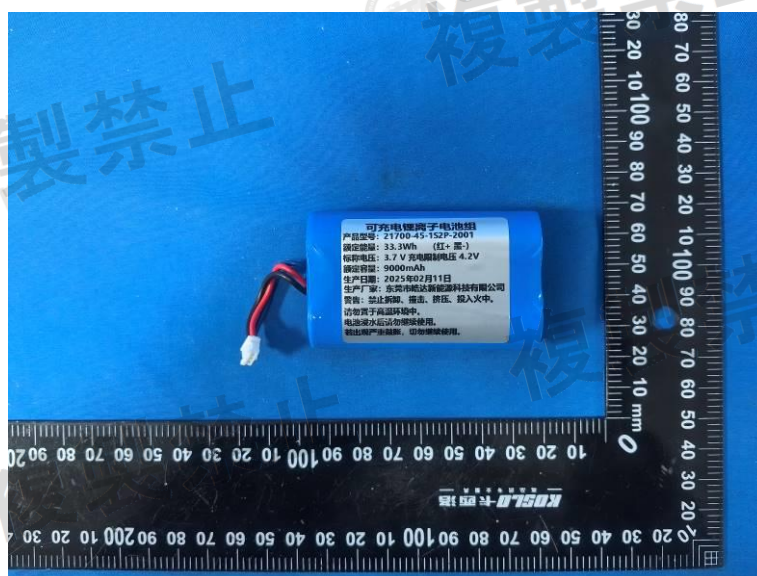
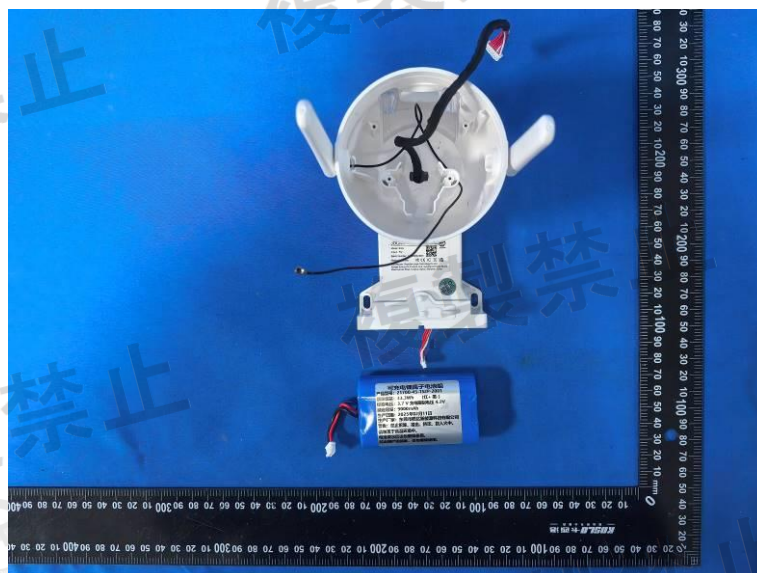














***** End of Report *****