Shenzhen CTL Testing Technology Co., Ltd.
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TEST REPORT

Ordinance Article 2 paragraph 1 item (19)

Report Reference No......:	**CTL2605258041-MIC**
Compiled by: (position+printed name+signature)	Happy Guo (File administrator)
Tested by: (position+printed name+signature)	Jack Wang (Test Engineer)
Approved by: (position+printed name+signature)	Ivan Xie (Manager)

Product Name.....:	Propo
Model/Type reference.....:	MN-E0-37TX
List Model(s).....:	N/A
Trade Mark.....:	MN MODEL
Applicant's name.....:	**RAYWOOD INC**
Address of applicant.....:	1-13-11-201 Sendagaya, Shibuya-ku, Tokyo Japan
Test Firm.....:	**Shenzhen CTL Testing Technology Co., Ltd.**
Address of Test Firm.....:	Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghuang Subdistrict, Guangming District, Shenzhen, Guangdong, China
Test specification.....:	
Standard.....:	**Ordinance Article 2 paragraph 1 item (19)**
TRF Originator.....:	Shenzhen CTL Testing Technology Co., Ltd.
Master TRF.....:	Dated 2011-01
Date of receipt of test item.....:	Jun 12, 2026
Date of Test Date.....:	Jun 12, 2026- Jun 25, 2026
Date of Issue.....:	Jun 26, 2026
Result.....:	**Pass**

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TEST REPORT

Test Report No. :	CTL2605258041-MIC	Jun 26, 2026 Date of issue

Equipment under Test	:	Propo
Sample No	:	CTL260525804001, CTL260525804002
Model /Type	:	MN-E0-37TX
Listed Models	:	N/A
Applicant	:	**RAYWOOD INC**
Address	:	1-13-11-201 Sendagaya, Shibuya-ku, Tokyo Japan
Manufacturer	:	**GuangdongShontouChiLok Toy Technolagy Co Ltd.**
Address	:	Guangyi Street,ChenghaiDistrict,Shantou City,Guangdong Province,China

Test result	Pass *

* In the configuration tested, the EUT complied with the standards specified page 5.

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.

** Modified History **

Revision	Description	Issued Data	Report No.	Remark
Version 1.0	Initial Test Report Release	Jun 26, 2026	CTL2605258041-MIC	Tracy Qi

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1. SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

MIC Notice No.88 Appendix No.43

1.2. Test Description

Test Item	Result
Frequency Error	Pass
Antenna Output Power and Output Power Tolerance	Pass
Occupied Bandwidth	Pass
Dwell time	N/A Note 1
Unwanted Emission Strength	Pass
Secondary Radiated Emission Strength	Pass
Construction protection method	Pass
Interference Prevention Function	Pass

Note1: Only applicable to FHSS system.

1.3. Test Facility

1.3.1 Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.
Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghuang Subdistrict, Guangming District, Shenzhen, Guangdong, China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.10 and CISPR 32/EN 55032 requirements.

1.3.2 Laboratory accreditation

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

CNAS-Lab Code: L7497

Shenzhen CTL Testing Technology Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No. 4343.01

Shenzhen CTL Testing Technology Co., Ltd, EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

IC Registration No.: 9618B

CAB identifier: CN0041

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements with Registration No.: 9618B.

FCC-Registration No.: 399832

Designation No.: CN1216

Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 399832.

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	±1.9%
Antenna Power	± 1.18 dB
Occupied Bandwidth	±1.9%
Spread Bandwidth	±1.9%
Transmitter Spurious Emission Strength and Unwanted Emission Intensity	9kHz-7GHz:±1.09dB 7GHz-26.5GHz: ±3.27dB
Receiver Spurious Emission and Unwanted Emission Intensity	9kHz-7GHz:±1.09dB 7GHz-26.5GHz: ±3.27dB
Dwell Time	±0.11%
Humidity	±5%
Temperature	±1℃

2. GENERAL INFORMATION

2.1. Environmental conditions

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

Voltage	EUT Power	Normal Voltage	DC:3.0V
		High Voltage	DC:3.3V
		Low Voltage	DC: 2.7V
	DC RF Module	Normal Voltage	DC:3.30V
		High Voltage	DC: 3.30V
		Low Voltage	DC: 3.30V
Other		Normal Temperature	18-28°C
		Relative Humidity	30-60%
		Air Pressure	965-1030hPa

Note:

During the input supply voltage to the EUT from the external power source is varied by +/-10%, the fluctuation of input voltage to the circuit of RF unit of test equipment is less than ±1%. so all test performed at normal voltage only.

2.2. General Description of EUT

Product Name:	Propo
Model/Type reference:	MN-E0-37TX
Power supply:	DC 3V from battery
Hardware version:	V 1.0
Software version:	V 1.2
2.4 G	
Modulation:	GFSK
Operation frequency:	2405MHz~2475MHz
Channel number:	17
Channel separation:	1MHz
Antenna type:	PCB Antenna
Antenna gain:	0.59dBi

Note 1: For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
Note 2: Antenna gain provided by the applicant.

2.3. 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)
00	**2405**
01	2407
02	2408
03	2409
04	2412
05	2422
06	2424
07	2439
08	**2445**
09	2450
10	2453
11	2458
12	2459
13	2460
14	2470
15	2471
16	**2475**

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

2.4. Measurement Instruments List

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibration agency	Calibration Date	Calibration Due Date
1	Spectrum Analyzer	Agilent	N9020A	US46220290	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/3	2026/7/2
2	Spectrum Analyzer	Keysight	N9020A	MY53420874	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/3	2026/7/2
3	Signal generator	Agilent	N5182A	MY50142850	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/3	2026/7/2

4	Signal Generator	Agilent	N5182A	MY52420355	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/3	2026/7/2
5	Power Sensor	Agilent	U2021XA	MY55130004	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/3	2026/7/2
6	Power Sensor	Agilent	U2021XA	MY54080012	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/3	2026/7/2
7	Power measurement module	TSTPASS	TSPS2023 R	TSCB220016	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/3	2026/7/2
8	Oscilloscope	Tektronix	TDS 1012C-SC	C011550	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/2	2026/7/1
9	Dc source	Agilent	E3632A	MY40015577	Guangdong Jingheng Detection Tecanology Co.,Ltd.	2025/7/3	2026/7/2

Test Software	
Name of Software	Version
TST-PASS	V2.0.1

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

□ (a) Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18-1 of the Radio Act.

□ (b) Calibration conducted based on the regulations of Article 135 or 144 of the Measurement Act.

☒ (c) Calibration conducted in foreign countries, which is equivalent to calibration conducted by the NICT or a designated calibration agency under Article 102-18-1 of the Radio Act.

□ (d) Calibration, etc. conducted by using measuring instruments and other facilities listed at the bottom of appended table 3 of the Radio Act, which is to have been calibrated as described in (a) through (c) above.

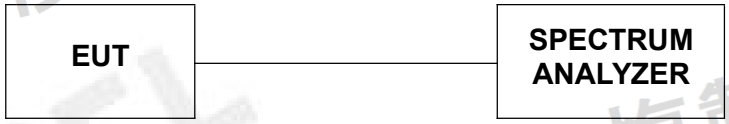
3. Test conditions and Results

3.1. Frequency Error

LIMIT

±50ppm

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: 1MHz
- RBW: 10 KHz
- VBW: 10 KHz
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

TEST RESULTS

Raw data reference to section 1 from CTL2605258041-MIC_2.4G Wireless_Appendix.

3.2. Antenna Output Power and Output Power Tolerance

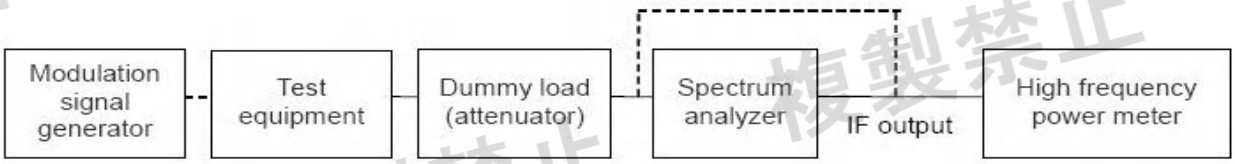
LIMIT

Type	Limit
Antenna Power	10mW
Tolerance	+20%

Upper Limit of EIRP for Modulation Systems

変調方式	使用周波数帯	空中線電力（最大）	EIRP（最大）	
			無指向性	ビーム指向性
DS	2,400～2,483.5MHz	10mW/MHz	12.14dBm/MHz	22.14dBm/MHz
OFDM1	2,400～2,483.5MHz	10mW/MHz	12.14dBm/MHz	22.14dBm/MHz
OFDM2	2,400～2,483.5MHz	5mW/MHz	9.14dBm/MHz	19.14dBm/MHz
FH、DS－FH	2,400～2,483.5MHz	3mW/MHz	6.91dBm/MHz	16.91dBm/MHz
FH－OFDM	2,427～2,470.75MHz を除く	10mW/MHz	12.14dBm/MHz	22.14dBm/MHz
上記以外	2,400～2,483.5MHz	10mW	12.14dBm	22.14dBm

TEST CONFIGURATION



TEST PROCEDURE

Step 1:
Connect the UUT to the spectrum analyzer as TEST CONFIGURATION and use the following settings:
- Centre Frequency: The centre frequency of the channel under test.
- RBW: 1.3MHz or 1.5MHz
- VBW: 4MHz or 5MHz
- 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 MHz
- RBW: 1.3MHz or 1.5MHz
- VBW: 1.3MHz or 1.5MHz
- Detector: RMS
- Trace Mode: Clear Write

TEST RESULTS

Raw data reference to section 3 from CTL2605258041-MIC_2.4G Wireless_Appendix.

3.3. Occupied Bandwidth

LIMIT

Occupied bandwidth:

Permissible value for occupied bandwidth using the FH system, a hybrid system combining DS and FH systems, or a hybrid system combining FH and OFDM systems shall be 83.5 MHz or less, while necessary bandwidth (minimum occupied bandwidth sufficient to ensure information transmission of required quality at a required transmission rate for the system used under specified conditions for a given emission type) using a system other than any of the above shall be 26 MHz or less.

• Spread Bandwidth:

In spread spectrum systems, spread bandwidth (which refers to a frequency bandwidth with an upper limit and lower limit such that each of the mean powers radiated above the upper frequency limit and below the lower frequency limit is equal to 5 % of the total mean power radiated; this also applies hereafter) shall be 500 kHz or more.

The OFDM system shall have one or more carriers per 1 MHz bandwidth.

• Spread factor>5.

TEST CONFIGURATION

TEST PROCEDURE

1. Setting of SA is following as fellow:
   - •RBW: 300KHz
   - •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. SA set to 99% of occupied bandwidth to measure occupied bandwidth.
3. EUT have transmitted the maximum modulation signal and fixed channelize. SA set to 90% of occupied bandwidth to measure spread bandwidth.
4. Spread Factor=Spread Bandwidth/modulation rate. The modulation rate: MR=1Mbps (declare by client)

TEST RESULTS

Raw data reference to section 2 from CTL2605258041-MIC_2.4G Wireless_Appendix.

3.4. Unwanted Emission Strength

LIMIT

30 to 2387MHz: 2.5μW/MHz or less
2387 to 2400 MHz: 25μW/MHz or less
2483.5 Through 2496.5 MHz: 25μW/MHz or less
Over 2496.5 MHz: 2.5μW/MHz or less

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-12.5GHz
- RBW: 1MHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)
- VBW: 1MHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

TEST RESULTS

Raw data reference to section 4 from CTL2605258041-MIC_2.4G Wireless_Appendix.

3.5. Secondary Radiated Emission Strength

LIMIT

Below 1GHz: 4.0nW or less
Above 1GHz: 20nW or less

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-12.75GHz
- RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-12.75GHz)
- VBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-12.75GHz)
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

TEST RESULTS

Raw data reference to section 5 from CTL2605258041-MIC_2.4G Wireless_Appendix.

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

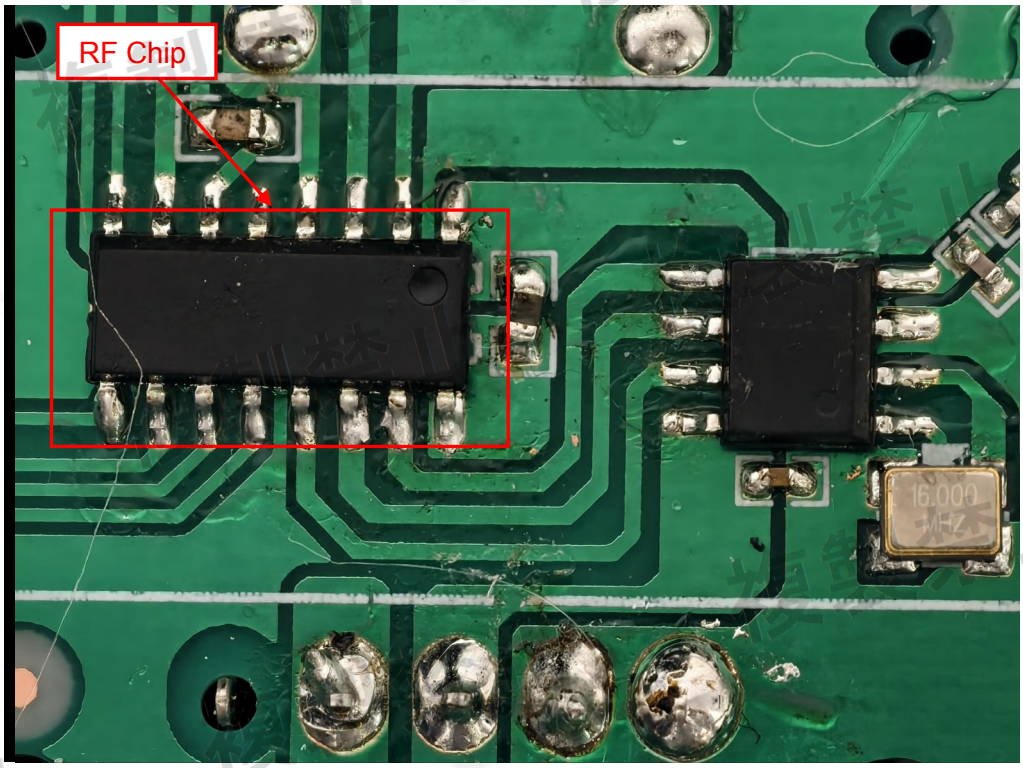
Confirmation method

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

The SC8F072 package dimensions is shown below, as we can see:

- Number of terminals:16
- Terminal pitch: 0.5mm

It can meet the requirements of MIC structure protection.



3.7. 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.

Interference Prevention Function Confirm

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

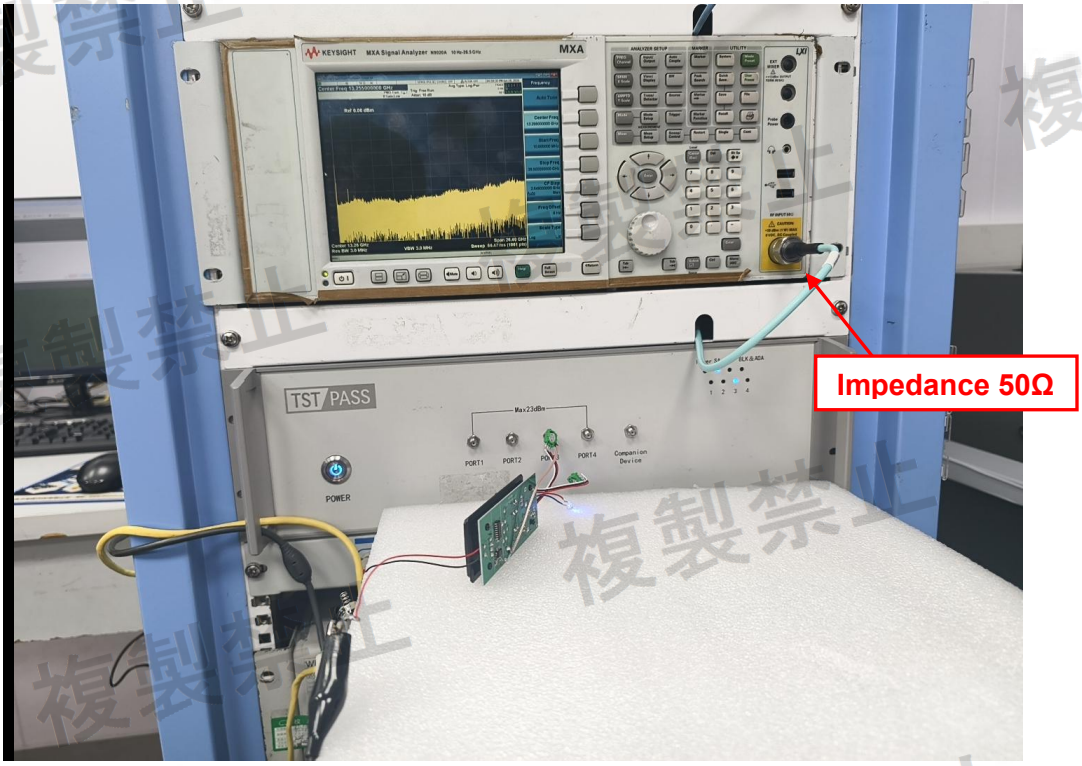
TEST PROCEDURE

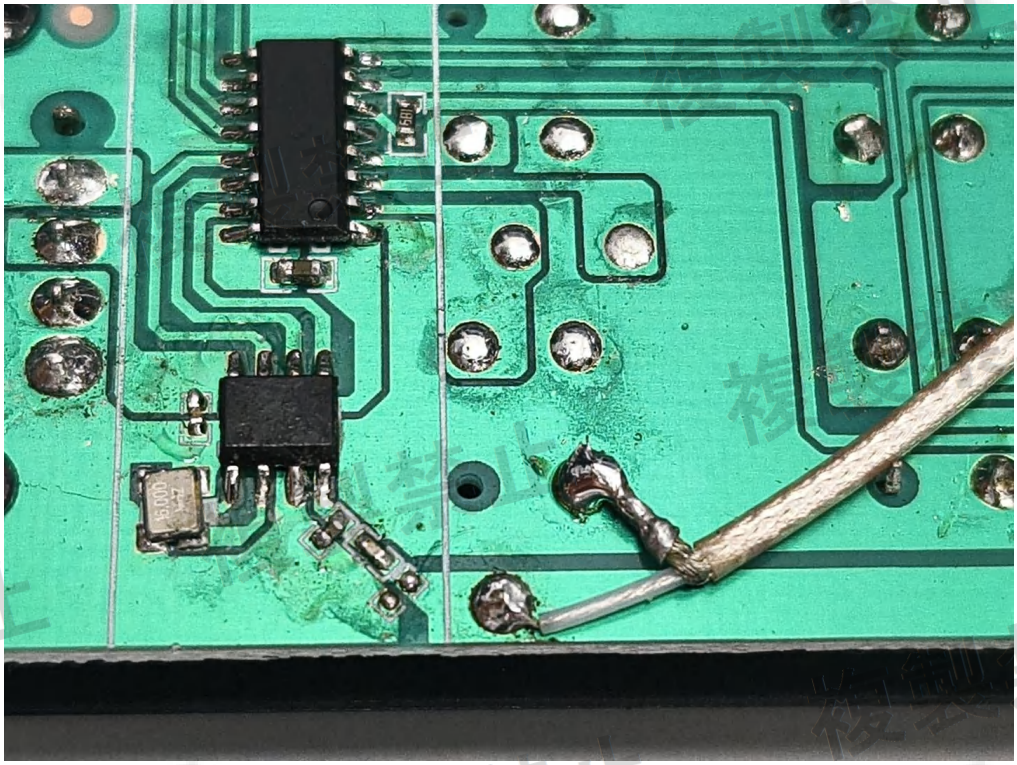
1. Connect the EUT in network
2. Open the software
3. We can get the information as follows:

TEST RESULTS

MAC:DA:ED:E5:91:E4:85

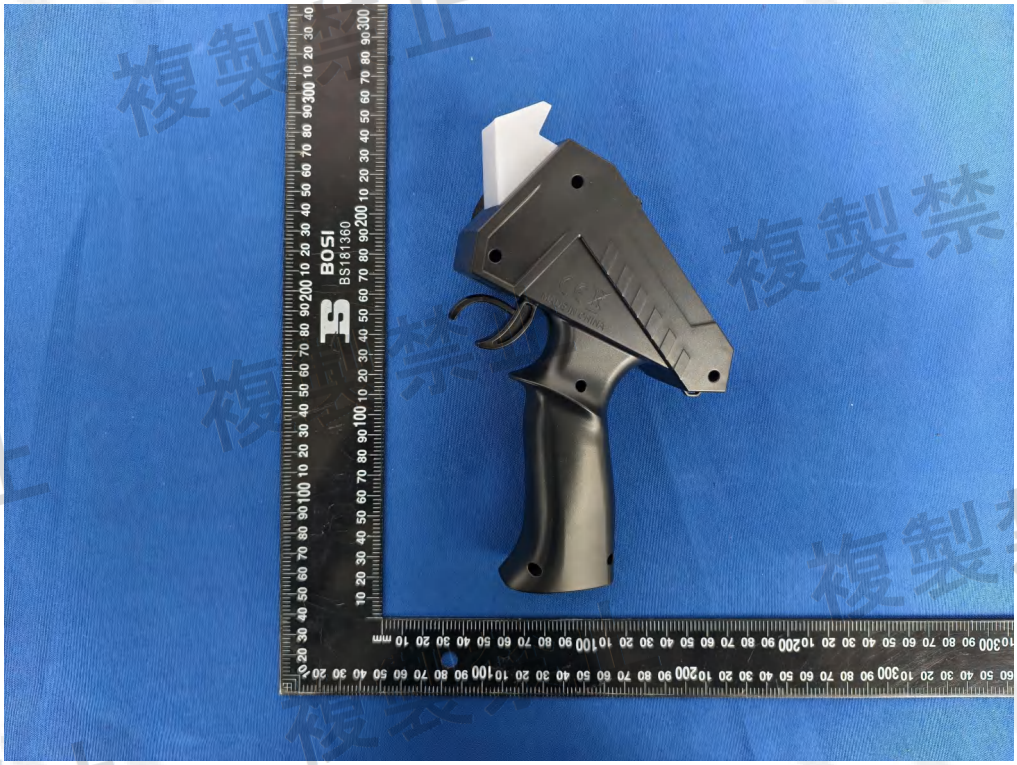
4. Test Setup Photos of the EUT

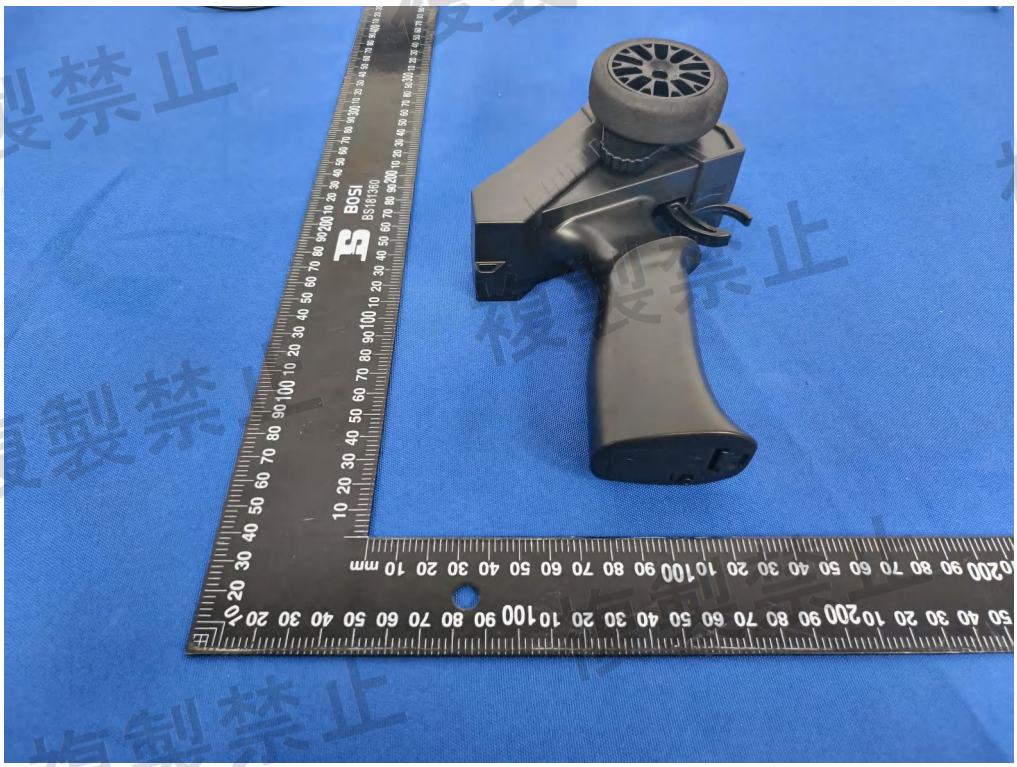




5. External and Internal Photos of the EUT

External Photos of the EUT

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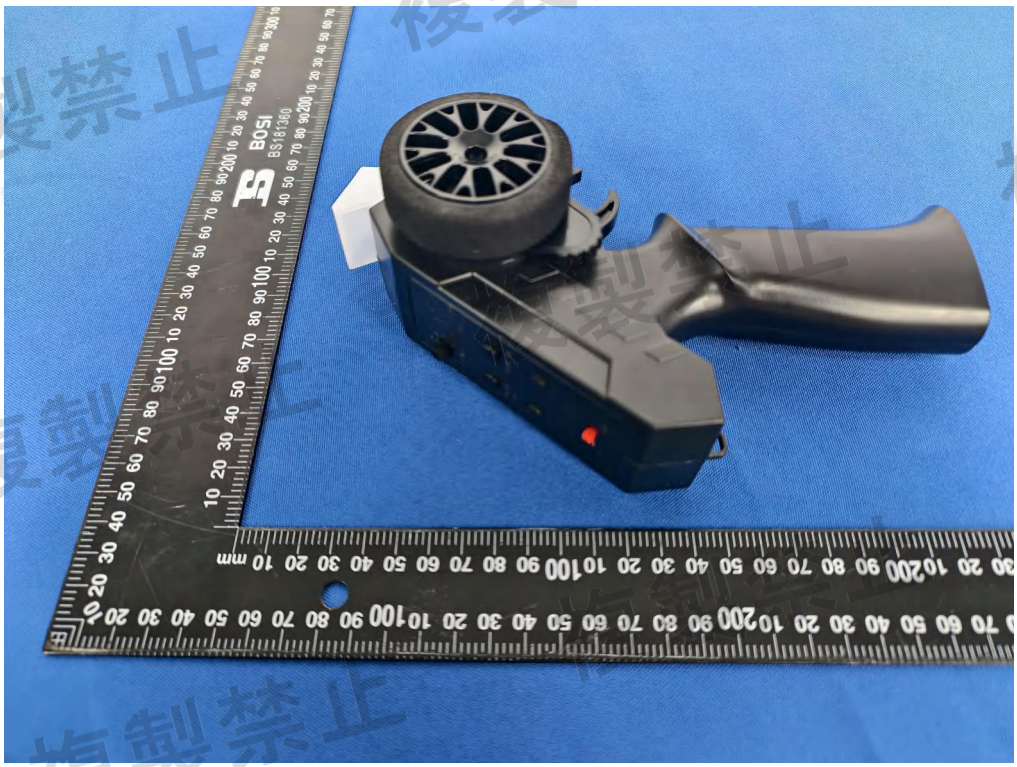
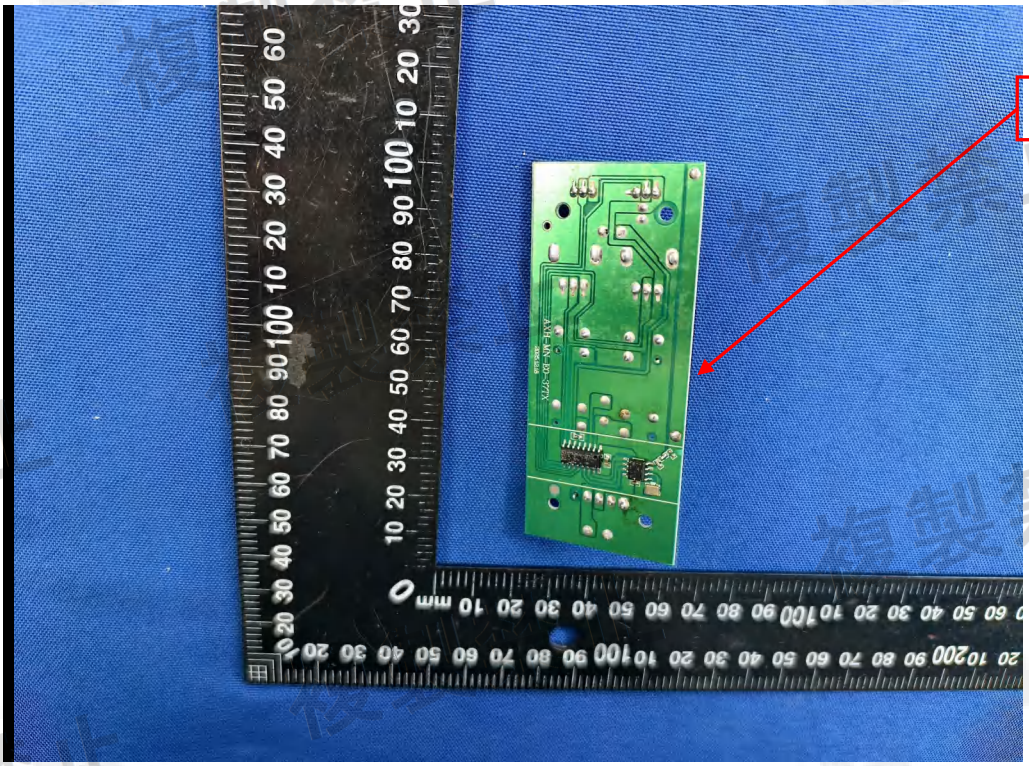
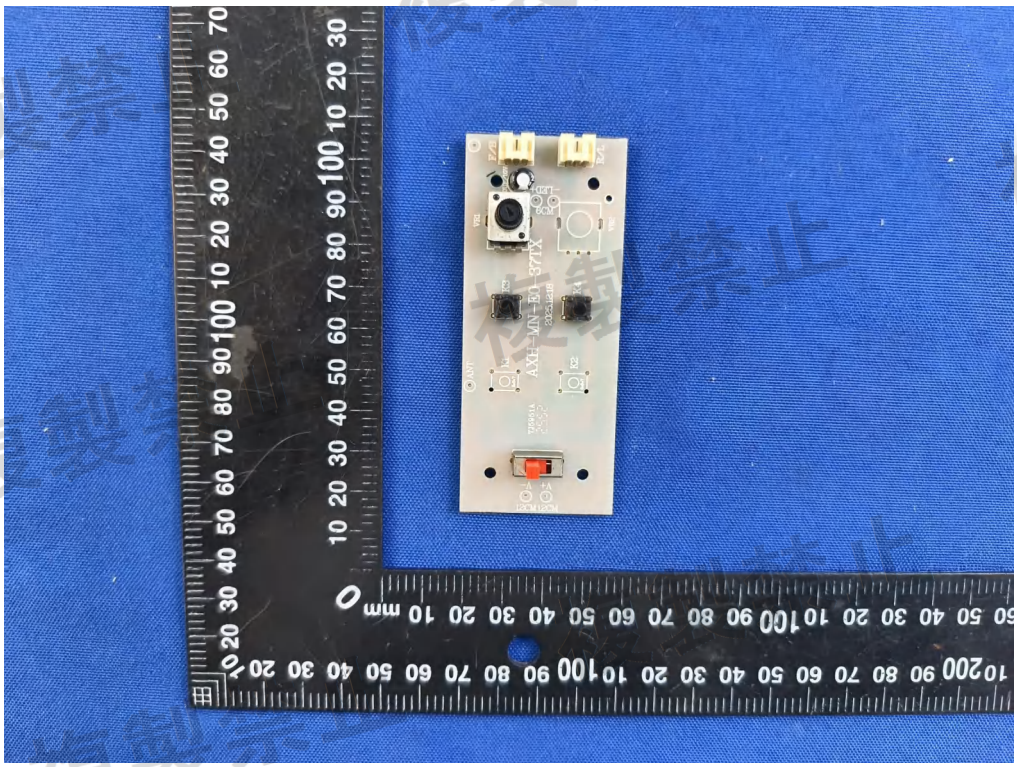
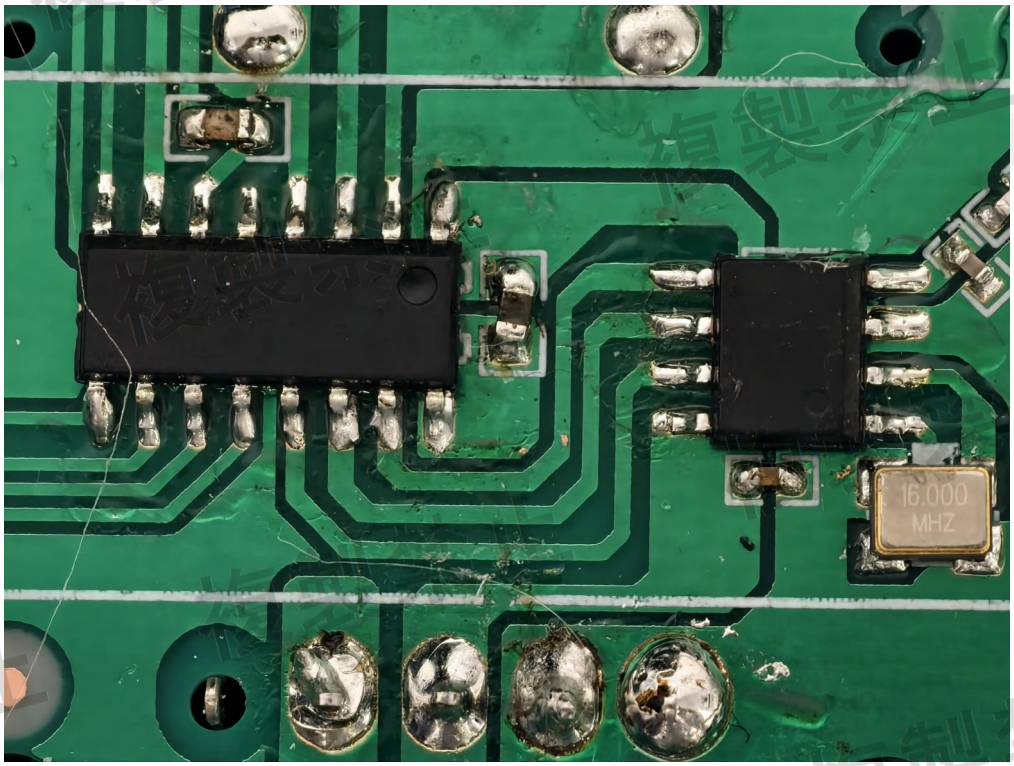


Internal Photos of EUT







**********THE END**********

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