Shenzhen CTL Testing Technology Co., Ltd.
Tel: +86-755-89486194 E-mail: ctl@ctl-lab.com

# TEST REPORT

## Ordinance Article 2 paragraph 1 item (19)

**Report Reference No.**.....: **CTL2601202045-MIC**

| | | |
|---|---|---|
| Compiled by:<br>( position+printed name+signature) | Happy Guo<br>(File administrators) | Happy Guo |
| Tested by:<br>( position+printed name+signature) | Lydia Ou<br>(Test Engineer) | Lydia Ou |
| Approved by:<br>( position+printed name+signature) | Ivan Xie<br>(Manager) | Ivan Xie |

| | |
|---|---|
| **Product Name**..... : | Sesame Bot3 |
| **Model/Type reference**.....: | Sesame Bot3 |
| **List Model(s)**.....: | N/A |
| **Trade Mark**..... : | N/A |
| **Applicant's name**..... : | **CANDY HOUSE JAPAN Inc.** |
| **Address of applicant**.....: | Pienoa-ku Irifune 5F,1-9-8 Irifune,Chuo,Tokyo 1040042 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**..... : | Mar. 06, 2026 |
| **Date of Test Date**.....: | Mar. 06, 2026-Mar. 19, 2026 |
| **Data of Issue**.....: | Mar. 20, 2026 |
| **Result**..... : | **Pass** |

**Shenzhen CTL Testing Technology Co., Ltd. All rights reserved.**
This publication Sept be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen CTL Testing Technology Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen CTL Testing Technology Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

# TEST REPORT

| Test Report No. : | CTL2601202045-MIC | Mar. 20, 2026<br>Date of issue |
|---|---|---|

| | | |
|---|---|---|
| Equipment under Test | : | Sesame Bot3 |
| Sample No | : | CTL260120204001, CTL260120204002<br>CTL260120204003 |
| Model /Type | : | Sesame Bot3 |
| Listed Models | : | N/A |
| **Applicant** | : | **CANDY HOUSE JAPAN Inc.** |
| Address | : | Pienoa-ku Irifune 5F,1-9-8 Irifune,Chuo,Tokyo 1040042 japan |
| **Manufacturer** | : | **CANDY HOUSE JAPAN Inc.** |
| Address | : | Pienoa-ku Irifune 5F,1-9-8 Irifune,Chuo,Tokyo 1040042 japan |

| **Test result** | **Pass *** |
|---|---|

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

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

# ** Modified History **

| Revisions | Description | Issued Data | Report No. | Remark |
|---|---|---|---|---|
| Version 1.0 | Initial Test Report Release | 2026-03-20 | CTL2601202045-MIC | Tracy Qi |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Table of Contents Page

**1. SUMMARY** ..... **5**

1.1. Test Standards ..... 5
1.2. Test Description ..... 5
1.3. Test Facility ..... 6
1.4. Measurement Uncertainty ..... 6

**2. GENERAL INFORMATION** ..... **8**

2.1. Environmental conditions ..... 8
2.2. General Description of EUT ..... 8
2.3. Description of Test Modes ..... 9
2.4. Measurement Instruments List ..... 9

**3. TEST CONDITIONS AND RESULTS** ..... **11**

3.1. Frequency Error ..... 11
3.2. Antenna Output Power And Output Power Tolerance ..... 12
3.3. Occupied Bandwidth ..... 13
3.4. Unwanted Emission Strength ..... 14
3.5. Secondary Radiated Emission Strength ..... 15
3.6. Construction protection method ..... 16
3.7. Interference Prevention Function ..... 17

**4. TEST SETUP PHOTOS OF THE EUT** ..... **18**

**5. EXTERNAL AND INTERNAL PHOTOS OF THE EUT** ..... **19**

複製禁止

# 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.

複製禁止

## 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 Laboratoryaccreditation

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: 2017 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: 2017 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**

**CABidentifier: CN0041**

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered byInnovation, Science and Economic Development Canada to test to Canadian radio equipment requirementswith 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 / 99%&90% bandwidth | ±1.62*$10^{-6}$ |
| Total RF power, conducted | ±0.8dB |
| Spurious emissions, conducted | ±0.8dB |
| DC and low frequency voltages | ±0.05% |

| | |
|---|---|
| Humidity | ±5% |
| Temperature | ±1℃ |

複製禁止

# 2. GENERAL INFORMATION

## 2.1. Environmental conditions

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

| | | | |
|---|---|---|---|
| Voltage | DC 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:3.63V |
| | | Low Voltage | DC:2.97V |
| Other | | Normal Temperature | 25°C |
| | | Relative Humidity | 55 % |
| | | Air Pressure | 989 hPa |

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 exceed ±1%. So, all measurement has been conducted by normal and limit voltage.

Note1: For more details, please refer to the user's manual of the EUT.
Note2: Antenna gain provided by the applicant.

## 2.2. General Description of EUT

| | |
|---|---|
| Product Name: | Sesame Bot3 |
| Model/Type reference: | Sesame Bot3 |
| EUT Rated Voltage: | DC 3V from battery |
| Test Voltage: | DC 3V from battery |
| Hardware version: | V1.0 |
| Software version: | V1.0 |
| **BLE:** | |
| Supported type: | Bluetooth low Energy |
| Modulation: | GFSK |
| Operation frequency: | 2402MHz to 2480MHz |
| Channel number: | 40 |
| Channel separation: | 2MHz |
| Antenna type: | PCB Antenna |
| Antenna gain: | -11.71dBi |

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.
Note 3: This report is for Bluetooth only.

## 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** | **2402** |
| 01 | 2404 |
| 02 | 2406 |
| ⋮ | ⋮ |
| **19** | **2440** |
| ⋮ | ⋮ |
| 37 | 2476 |
| 38 | 2478 |
| **39** | **2480** |

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. | 2025/07/03 | 2026/07/02 |
| 2 | Spectrum Analyzer | Keysight | N9020A | MY53420874 | Guangdong Jingheng Detection Tecanology Co.,Ltd. | 2025/07/03 | 2026/07/02 |
| 3 | Signal generator | Agilent | N5182A | MY50142850 | Guangdong Jingheng Detection Tecanology Co.,Ltd. | 2025/07/03 | 2026/07/02 |
| 4 | Signal Generator | Agilent | N5182A | MY52420355 | Guangdong Jingheng Detection Tecanology Co.,Ltd. | 2025/07/03 | 2026/07/02 |
| 5 | Power Sensor | Agilent | U2021XA | MY55130004 | Guangdong Jingheng Detection Tecanology Co.,Ltd. | 2025/07/03 | 2026/07/02 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | Power Sensor | TSTPASS | TSPS2023 R | TSCB220016 | Guangdong Jingheng Detection Tecanology Co.,Ltd. | 2025/07/03 | 2026/07/02 |
| 7 | Dc source | Agilent | E3632A | MY40015577 | Guangdong Jingheng Detection Tecanology Co.,Ltd. | 2025/07/03 | 2026/07/02 |
| 8 | Oscilloscope | Tektronix Inc. Beaverton, OR, U.S.A. | TDS 1012C-SC | C011550 | Guangdong Jingheng Detection Tecanology Co.,Ltd. | 2025/07/02 | 2026/07/01 |
| 9 | Temperature/Humidity Meter | Shanghai jiyu | MC501 | / | Guangdong Jingheng Detection Tecanology Co.,Ltd. | 2025/07/03 | 2026/07/02 |

| 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 CTL2601202045-MIC_BLE_Appendix.

## 3.2. Antenna Output Power And Output Power Tolerance

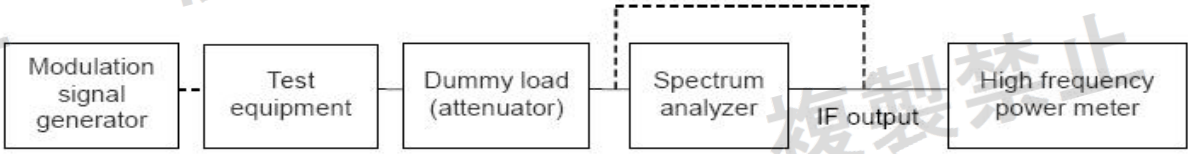
**LIMIT**

| Type | Limit |
|---|---|
| Antenna Power | 10mW |
| Tolerance | +20% |

Upper Limit of EIRP for Modulation Systems

| 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 FH-OFDM | 2,400 - 2,483.5 MHz | 3 mW/MHz | 6.91 dBm/MHz | 16.91 dBm/MHz |
| | 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**

Step 1:
Connect the UUT to the spectrum analyzer as TEST CONFIGURATIONand use the following settings:
- Centre Frequency: The centre frequency of the channel under test.
- RBW: 1.8MHz or 2.0MHz
- VBW: 6MHz
- 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: 1.8MHz or 2MHz
- VBW:1.8MHz or 2MHz
- Detector: RMS
- Trace Mode: Clear Write

**TEST RESULTS**

Raw data reference to section 3 from CTL2601202045-MIC_BLE_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.

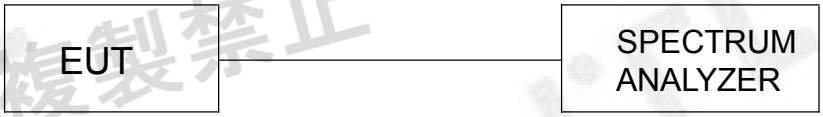
**• Spread Bandwidth:**

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: 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. 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 CTL2601202045-MIC_BLE_Appendix.

## 3.4. Unwanted Emission Strength

**LIMIT**

Below 2387 MHz: 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**

(1) The spectrum analyzer when searching for unwanted emissions is set as follows.
Sweep frequency width 30MHz to 12.5GHz (Note)
Resolution bandwidth 1MHz
Video bandwidth Same as resolution bandwidth
Y-axis scale 10dB/Div
Input level Maximum dynamic range value
Sweep time The minimum time for which measurement accuracy is guaranteed (in the case of burst waves, it can be longer than the time obtained by "(sweep frequency width (MHz)/resolution
bandwidth (MHz)) × burst period (s)" .) It can be longer than the time required
Number of data points 400 or more data points
Sweep mode Single sweep
Detection mode positive peak
(2) Set the spectrum analyzer as follows when measuring unwanted emission amplitude.
Center frequency Unwanted emission frequency (searched frequency)
Sweep frequency width 0Hz
Resolution bandwidth 1MHz
Video bandwidth Same as resolution bandwidth
Y-axis scale 10dB/Div
Input level Maximum dynamic range value
Sweep time The minimum time for which the measurement accuracy is guaranteed (in the case of burst waves, the duration of one burst or more)
Number of data points 400 or more data points
Sweep mode Single sweep
Detection mode sample

**TEST RESULTS**

Raw data reference to section 4 from CTL2601202045-MIC_BLE_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-13GHz
- RBW: 100 KHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)
- VBW:100 KHz (30MHz-1GHz), 1MHz (1GHz-12.5GHz)
- Sweep time: Auto
- Detector mode: Positive peak
- Indication mode: max hold

**TEST RESULTS**

Raw data reference to section 5 from CTL2601202045-MIC_BLE_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

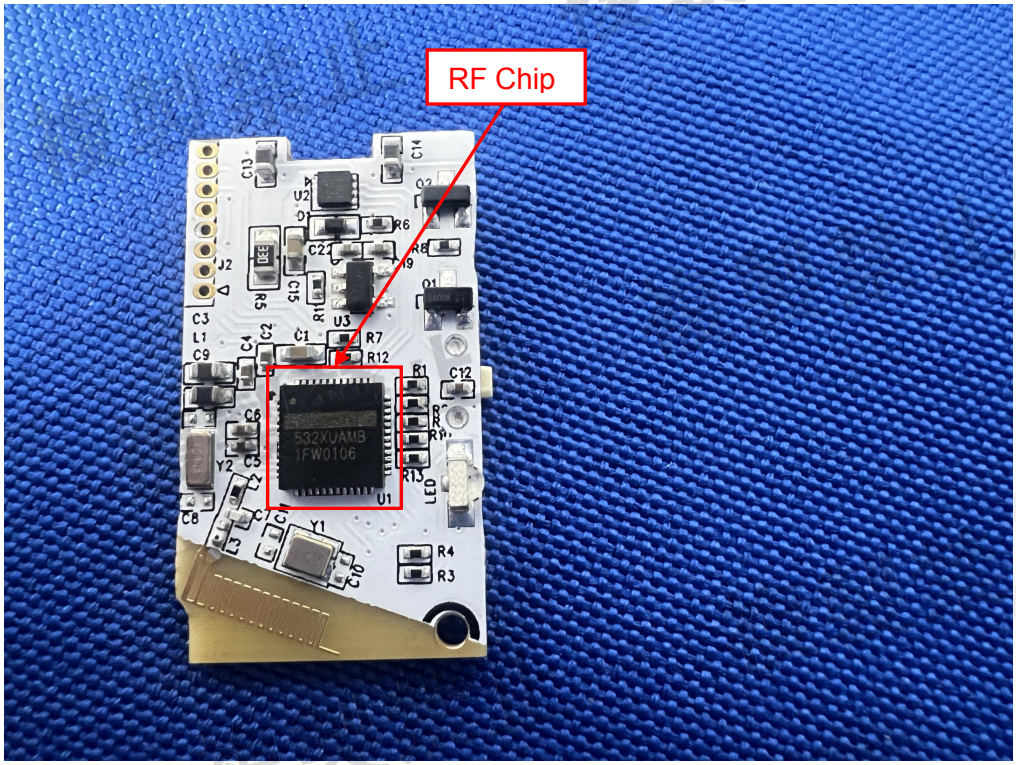
**Confirmation method**

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

The CH266621CG package dimensions is shown below, as we can see:

- Number of terminals: 48
- 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 FunctionConfirm**

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

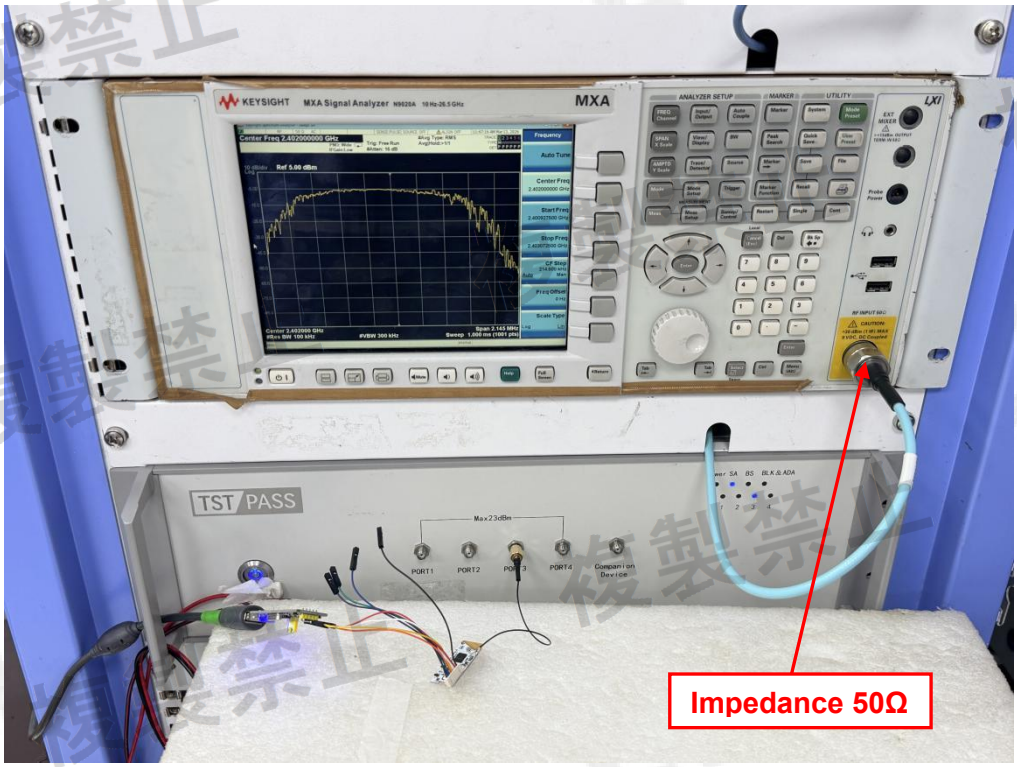
**TEST PROCEDURE**

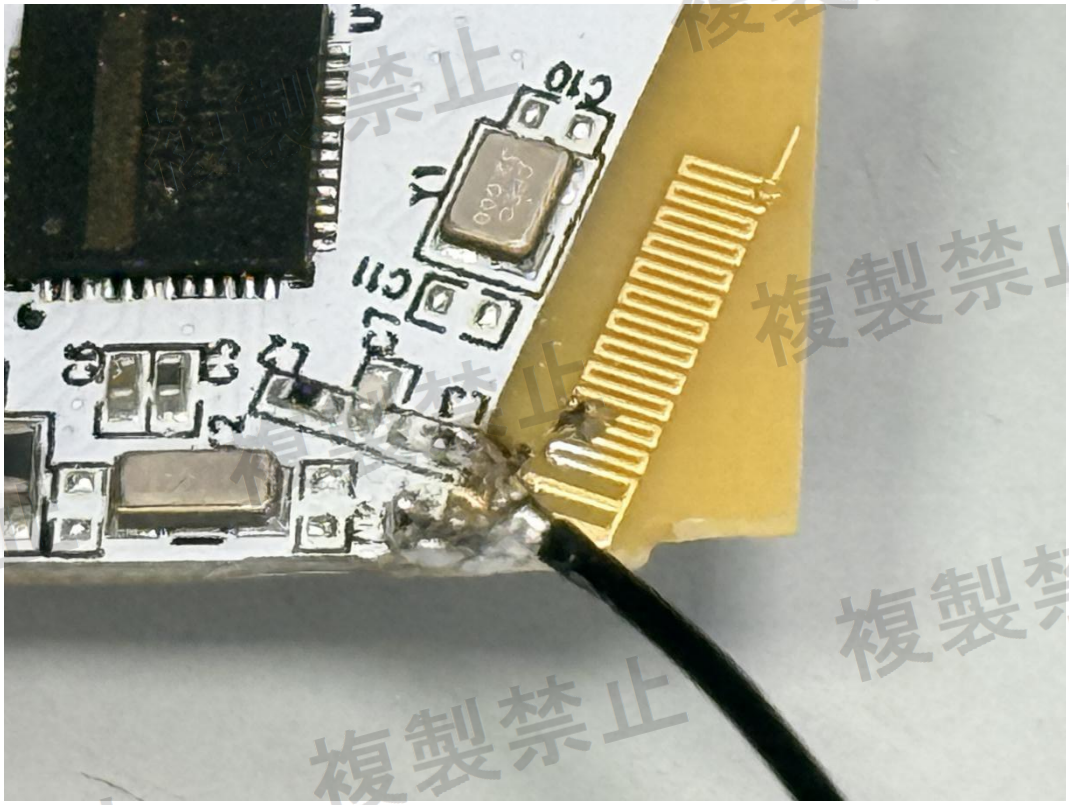
1. Connect the EUT in network
2. Open the software
3. We can get the information as follows:

**TEST RESULTS**

BT MAC: 42:40:4B:4C:36:04

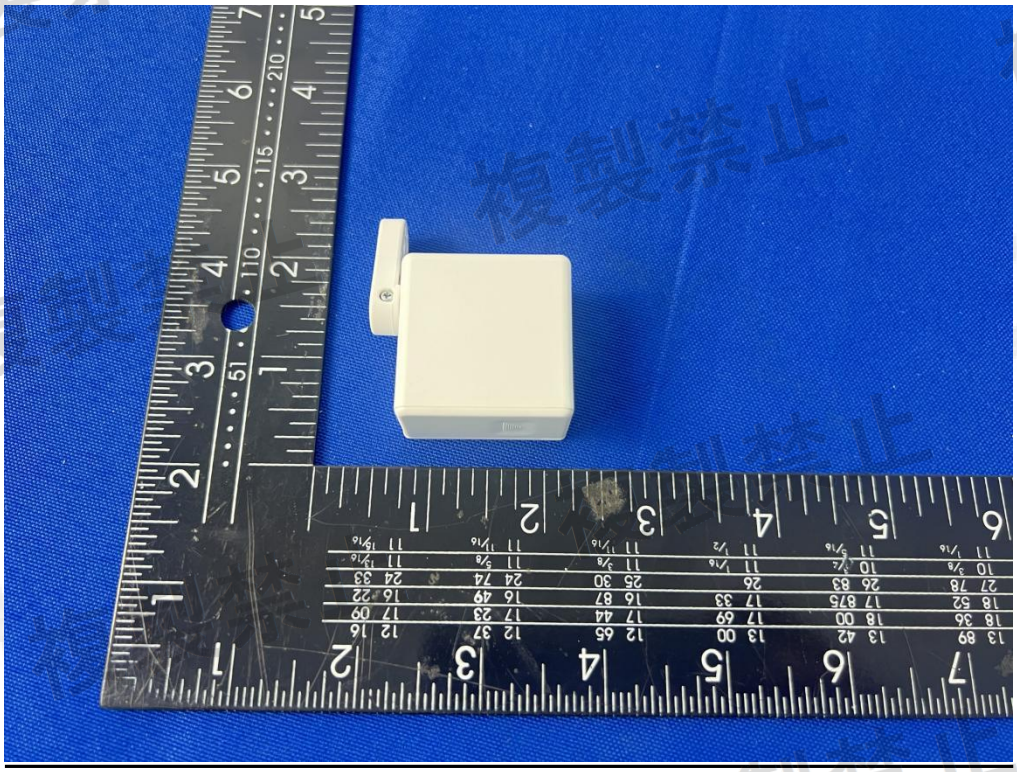
# 4. Test Setup Photos of the EUT

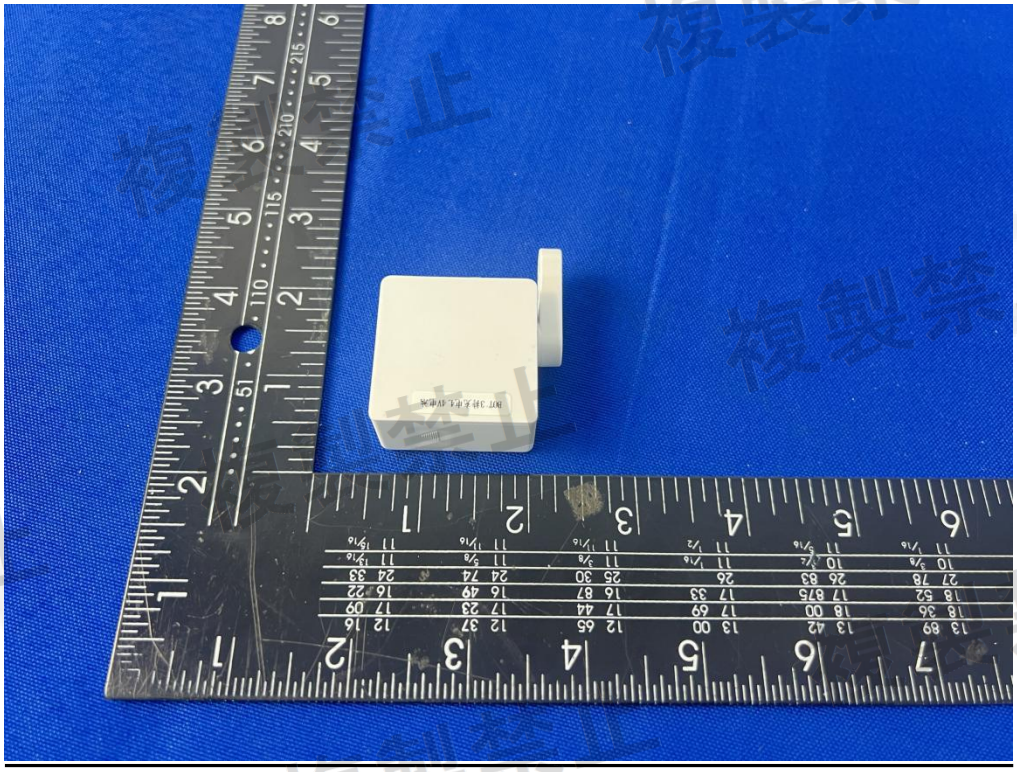


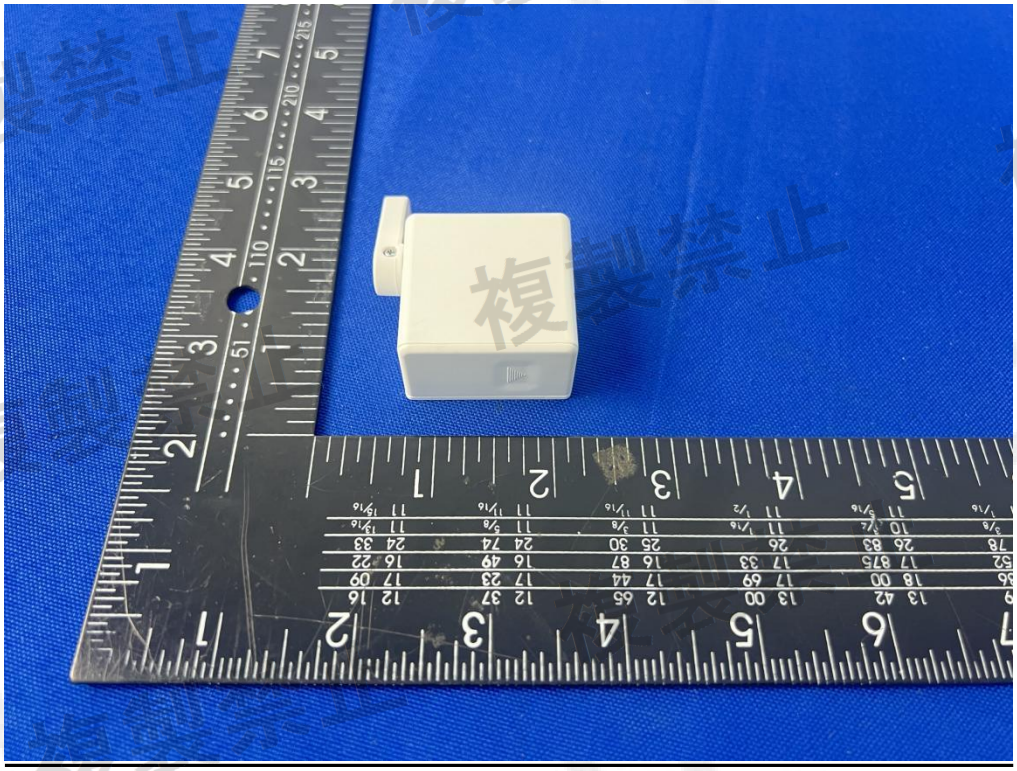
# 5. External and Internal Photos of the EUT

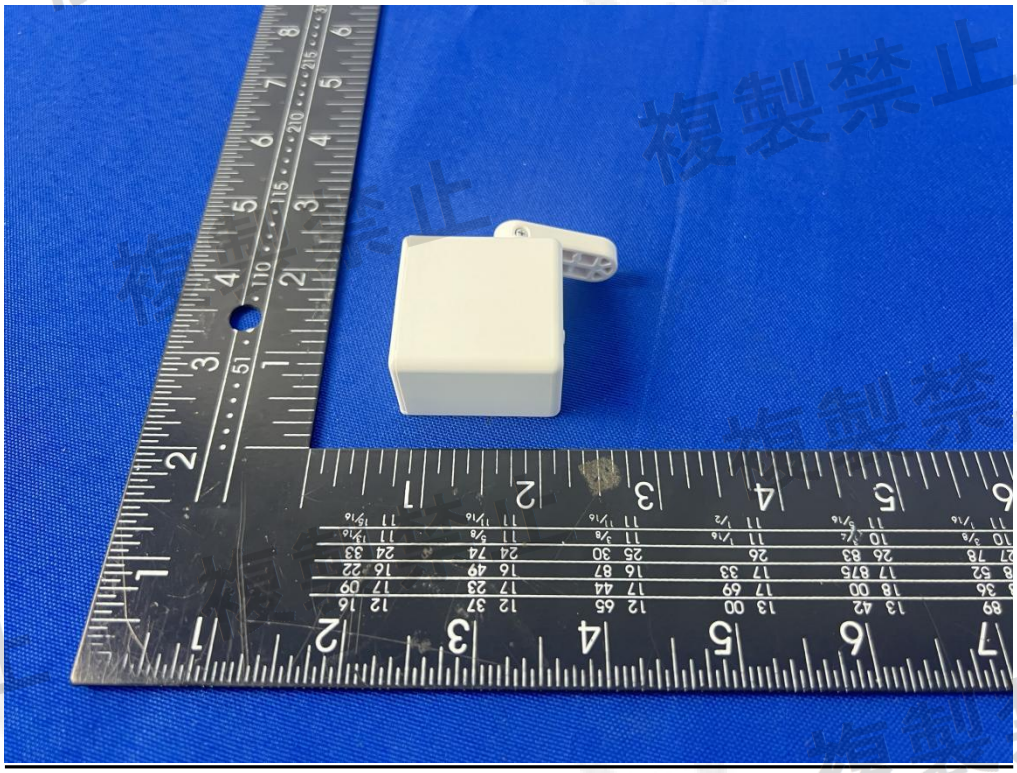
**External Photos of EUT**



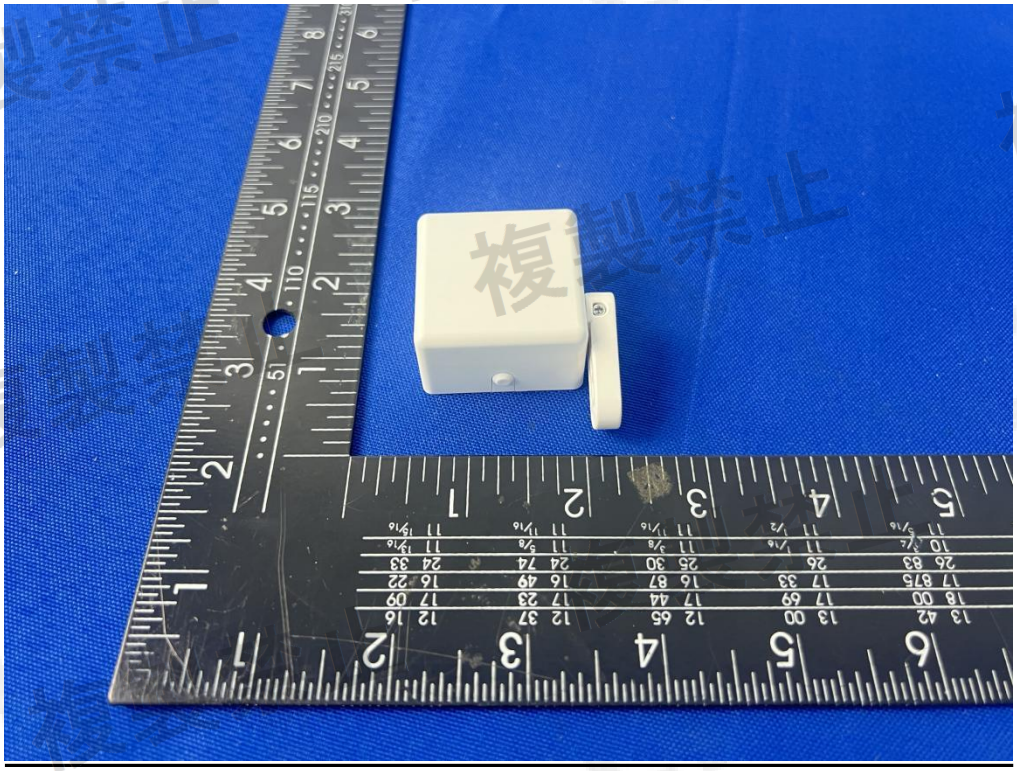


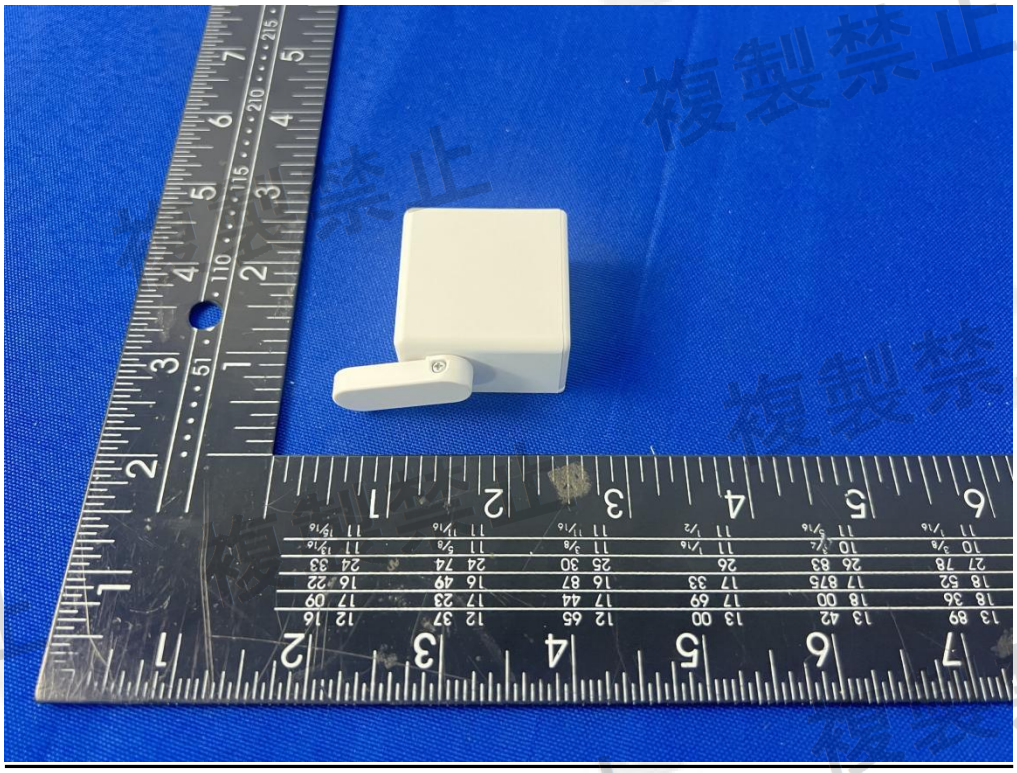
複製禁止





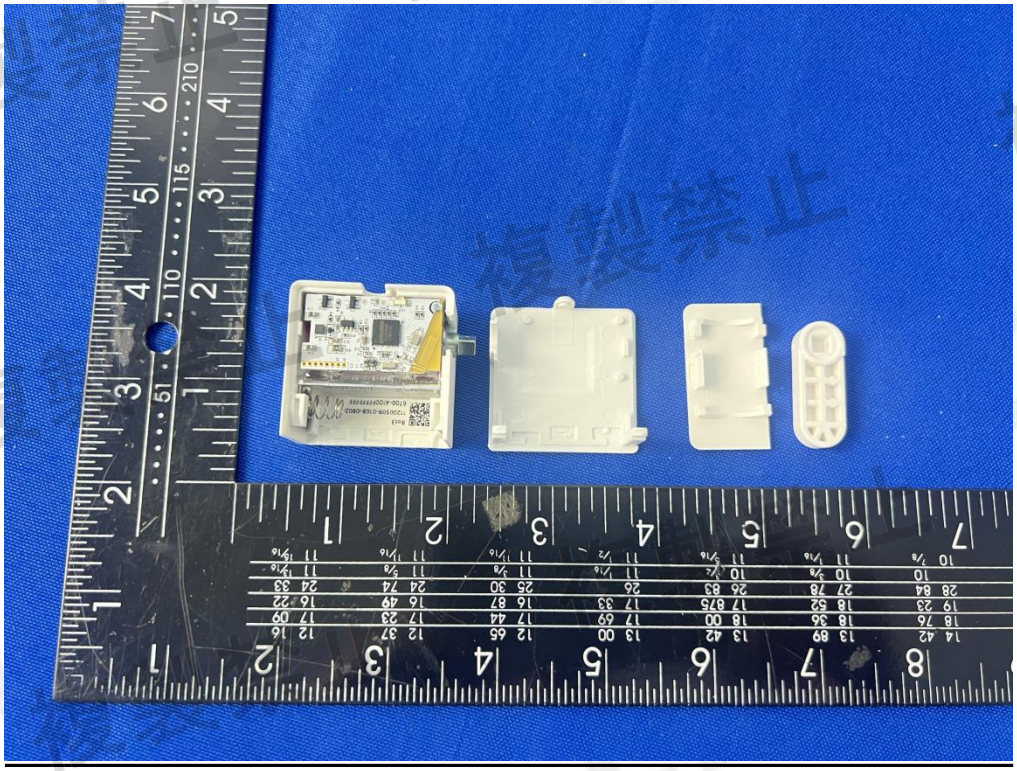
複製禁止

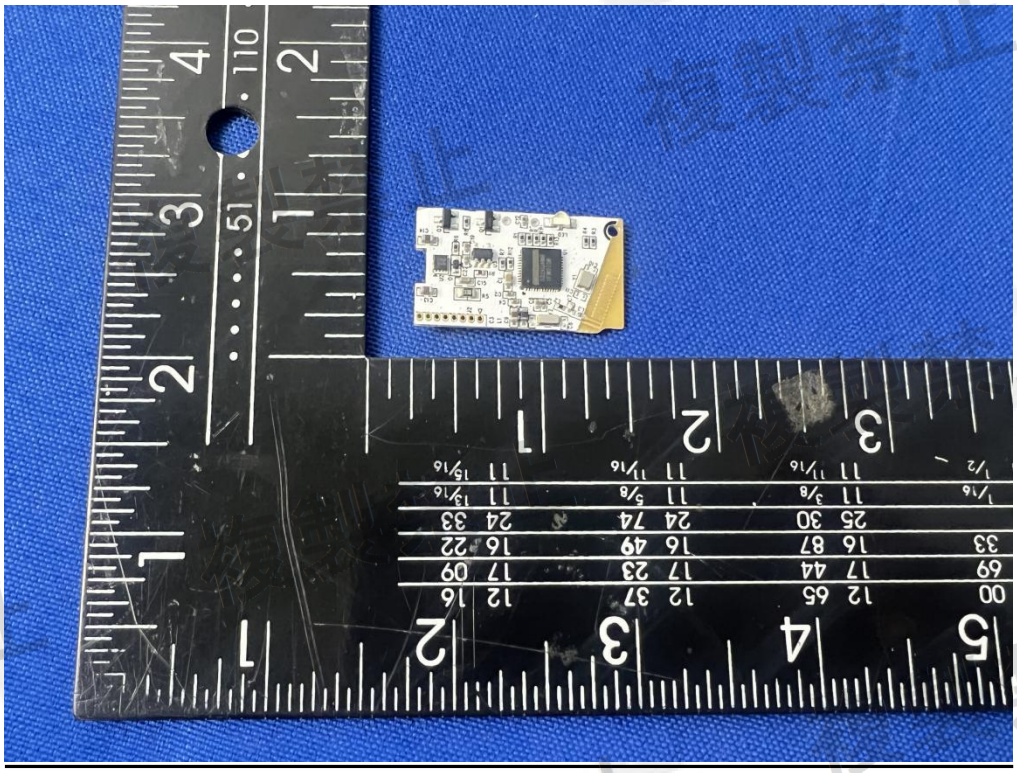




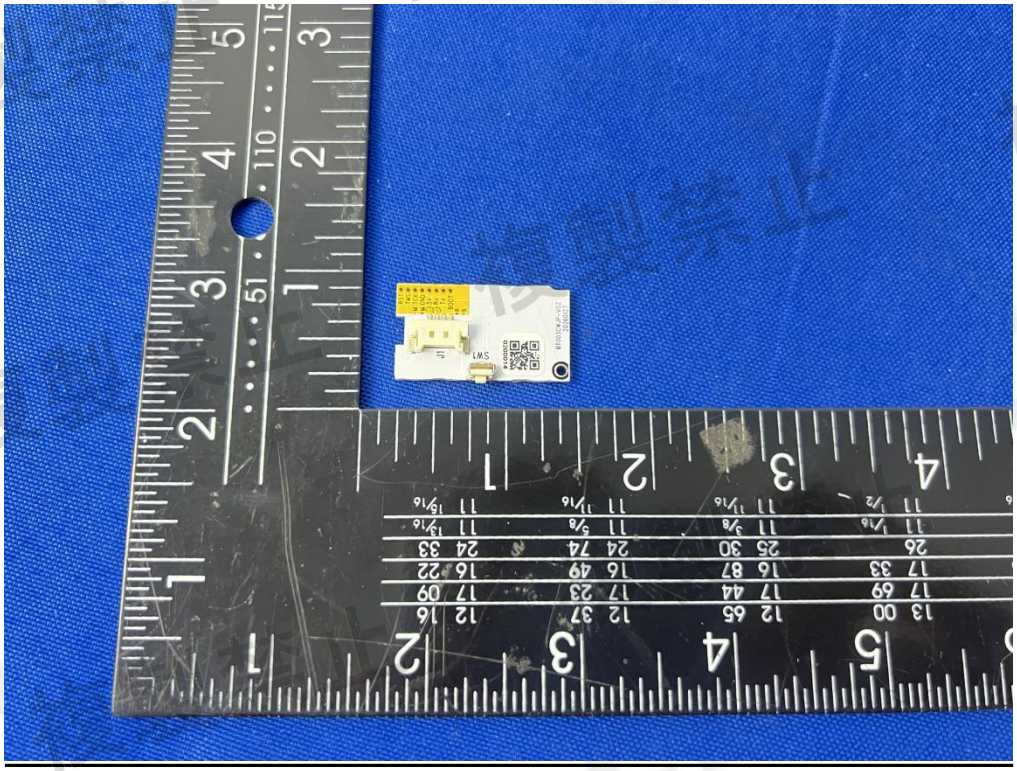
複製禁止

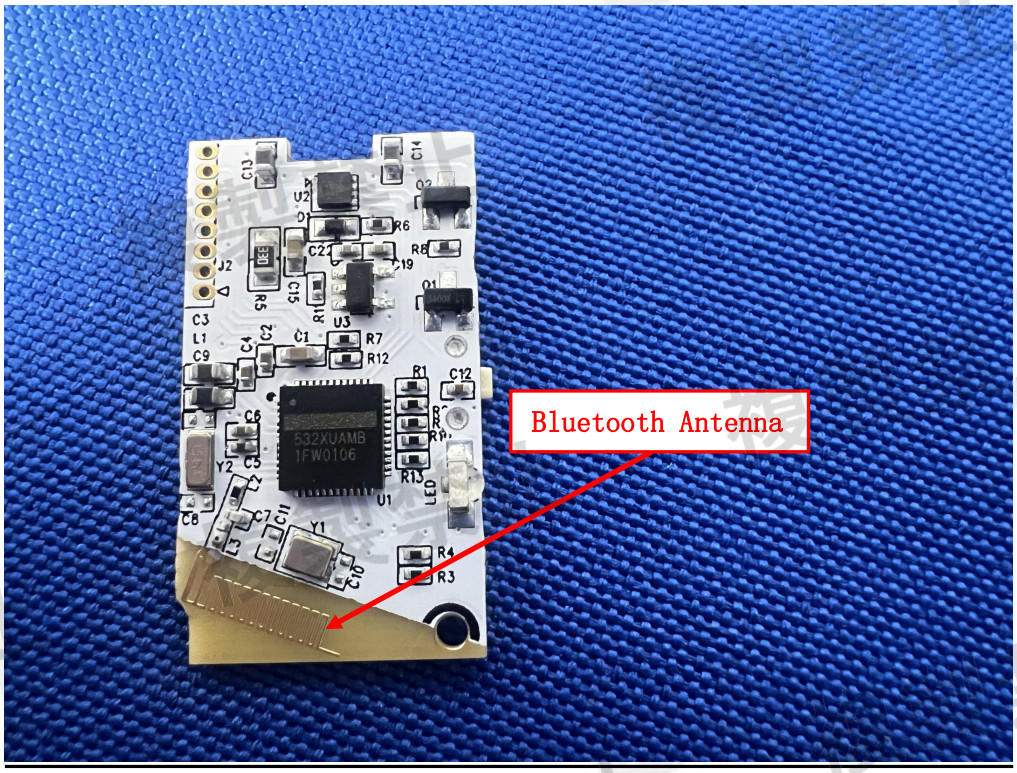
## Internal Photos of EUT





複製禁止




Bluetooth Antenna

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

複製禁止