Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

TEST REPORT

Report Reference No.....:	**CTA25122501101**
Compiled by (position+printed name+signature)..:	File administrators Jinghua Xiao
Supervised by (position+printed name+signature)..:	Test Engineer Lushan Kong
Approved by (position+printed name+signature)..:	Manager Eric Wang
Date of issue.....:	Dec.29, 2025
Test 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.....:	**PEEP Inc.**
Address .....:	The Company (Fukuoka PARCO New Building 5F), 2-11-1 Tenjin, Chuo-ku, Fukuoka-shi, Fukuoka 810-0001, Japan
Test specification .....**:**	
Standard .....:	**MIC Notice No.88 Appendix No.43 Article 2 Paragraph 1 Item 19 ARIB STD-T66 V3.8**
TRF Originator.....:	Shenzhen CTA Testing Technology Co., Ltd.
Master TRF.....:	Dated 2014-12

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Test item description .....**:**	**Smart Cat Litter Box**
Trade Mark .....:	N/A
Manufacturer .....:	Ningbo Chichuang Technology Co., Ltd.
Model/Type reference.....:	CATBOX-Mini-F
List Model .....:	CATBOX-Mini-A, CATBOX-Mini-B, CATBOX-Mini-C, CATBOX-Mini-D, CATBOX-Mini-E, CATBOX-Mini-G, YIZ-01, YIZ-02, M5
Operation Frequency.....:	From 2402MHz to 2480MHz
Modulation Type .....:	GFSK
Hardware version .....:	N/A
Software version.....:	N/A
Ratings .....:	DC 12V by Adapter
Result.....:	**PASS**

TEST REPORT

Test Report No. : CTA25122501101	Dec.29, 2025 Date of issue

Equipment under Test	:	Smart Cat Litter Box
Model /Type	:	CATBOX-Mini-F
Listed model	:	CATBOX-Mini-A, CATBOX-Mini-B, CATBOX-Mini-C, CATBOX-Mini-D, CATBOX-Mini-E, CATBOX-Mini-G, YIZ-01, YIZ-02, M5
Applicant	:	**PEEP Inc.**
Address	:	The Company (Fukuoka PARCO New Building 5F), 2-11-1 Tenjin, Chuo-ku, Fukuoka-shi, Fukuoka 810-0001, Japan
Manufacturer	:	**Ningbo Chichuang Technology Co., Ltd.**
Address	:	No. 78 Xingyan Road, Lanjiang Street, Yuyao City, Zhejiang Province, China
Factory	:	**Ningbo Chichuang Technology Co., Ltd.**
Address	:	No. 78 Xingyan Road, Lanjiang Street, Yuyao City, Zhejiang Province, 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. TEST STANDARDS

The tests were performed according to following standards:

MIC Notice No.88 Appendix No.43 Article 2 Paragraph 1 Item 19

ARIB STD-T66 V3.8

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2. SUMMARY

2.1. General Remarks

Date of receipt of test sample	:	Dec. 01, 2025
Testing commenced on	:	Dec. 01, 2025
Testing concluded on	:	Dec. 26, 2025

2.2. Product Description

Product Name:	Smart Cat Litter Box
Trade Mark:	N/A
Model/Type reference:	CATBOX-Mini-F
List Model:	CATBOX-Mini-A, CATBOX-Mini-B, CATBOX-Mini-C, CATBOX-Mini-D, CATBOX-Mini-E, CATBOX-Mini-G, YIZ-01, YIZ-02, M5
Model Declaration	PCB board, structure and internal of these model(s) are the same, Only the model name different, So no additional models were tested.
Power supply:	DC 12V by Adapter
BT	
Operation frequency	2402MHz ~ 2480MHz
Channel Number	40 channels for Bluetooth (BT LE)
Channel Spacing	2MHz for Bluetooth (BT LE)
Modulation Type	GFSK for Bluetooth (BT LE)
2.4GWLAN	
WLAN Operation frequency	IEEE 802.11b:2412-2472MHz IEEE 802.11g:2412-2472MHz IEEE 802.11n HT20:2412-2472MHz
WLAN Modulation Type	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK, BPSK)
Channel number:	13 Channel for IEEE 802.11b/g/n (HT20)
Channel separation:	5MHz
Antenna Description	PCB Antenna, 2.54dBi(Max.) for 2.4G Band

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2.3. Equipment Under Test

Power supply system utilised

Power supply voltage	:	○	120V / 60 Hz	○	230V / 50Hz
		●	12 V DC	○	24 V DC
		○	Other (specified in blank below)		

DC 12.0V

Operation Frequency List:

Channel	Frequency(MHz)	Channel	Frequency(MHz)
00	**2402**	20	2442
01	2404	21	2444
02	2406	22	2446
03	2408	23	2448
04	2410	24	2450
05	2412	25	2452
06	2414	26	2454
07	2416	27	2456
08	2418	28	2458
09	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	**2440**	**39**	**2480**

SuMayry of measurement results

EUT and Module Power tables				
EUT Setup Value(V DC)		Normal	High(+10%)	Low(-10%)
		12.0	13.2	10.8
Module Vdd Power Measurement Value(V DC)		Normal	High(+1%)	Low(-1%)
		3.303	3.306	3.297
Voltage error(%)	Result	Ref.level	0.09	-0.18
	Limit	---	±1	
Judgment		---	pass	pass

NOTE: The module integrates a voltage regulator circuit to ensure that the input voltage (VCC) of the RF module is stable declared by IC manufacturer.

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2.4. 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	**setup.exe**		
Frequency	2402MHz	2440MHz	2480MHz
Bluetooth	Default	Default	Default

2.5. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer

○ - supplied by the lab

●	Adapter	Length (m) :	1.0m
		Shield :	Non-Shielded
		Detachable :	Yes

2.6. Modifications

No modifications were implemented to meet testing criteria.

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3. TEST ENVIRONMENT

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

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.
CAB identifier is CN0127. Industry Canada Registration Number. is 27890.
Shenzhen CTA Testing Technology Co., Ltd. has been listed on the Innovation, Science and Economic Development Canada 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.

3.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:
Normal Temperature: 25 °C
High Temperature: 55 °C
Low Temperature: -20 °C
Normal Voltage : DC 12.0V
High Voltage:DC 13.2V
Low Voltage:DC 10.8V
Relative Humidity: 55 %
Air Pressure: 989 hPa

3.4. Test Description

MIC Notice No.88 Appendix No.43 Article 2 Paragraph 1 Item 19		
Clause	Description of Test (Transmitter Parameters)	Result
6	Antenna Power	PASS
6	Tolerances for Antenna Power	PASS
3	Frequency Tolerance	PASS
4	Transmission Rate	PASS
4	Occupied Frequency Bandwidth	PASS
4	Spread Bandwidth	PASS
5	Spurious Emissions	PASS
10	Transmission Antenna Gain (EIRP Antenna Power)	PASS
11	Transmission Radiated Angle Width (3dB Beam width)	N/A
12	Interference prevention function	PASS
8	Carrier Sensing function	N/A
Receiver Parameters		
7	Secondary Radiated Emissions	PASS
N/A is an abbreviation for Not Applicable.		

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3.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics;Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics;Part 2 " and is documented in the Shenzhen Global Test Service Co.,Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Shenzhen GTS laboratory is reported:

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

(1)This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

3.6. Equipments Used during the Test

Details for Conducted test equipment

Item	Test Equipment	Manufacturer	Model No.	Serial No	Last Cal.
1	Spectrum Analyzer	Agilent	N9020A	MY48010425	2025/07/04
2	RF Cable	H&S	GTS-C008	---	2025/07/15
3	DC Power Supply	ITECH	IT6302	600071010727010049	2025/07/04
4	Oscilloscope	Tektronix	TDS3012	B035361	2025/07/15
5	Signal generator	Agilent	N5182A	MY50141550	2025/07/04
6	Power meter	Keysight	E4419B	GB39290521	2025/07/07
7	Power Sensor	Keysight	E9301A	MY41495308	2025/07/04

Note 1: The validity of measurement equipment is one year from the first day of the following month of the calibration date. (e.g. If the calibration date is July 15th, 2024, measurement equipment can be used from July 15th, 2024 to July 14th, 2025.)
Note 2: Calibration Method
Calibration conducted by the SMICOM or designated calibration agency under Article 102-18 paragraph (1)

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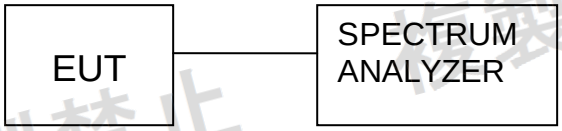
4. TEST CONDITIONS AND RESULTS

4.1. Antenna Power (Conducted) Measurement

TEST CONFIGURATION



TEST PROCEDURE

a. EUT have transmitted continuous maximum power
b. Antenna Power Error is definition that actual measure antenna power tolerance ≤20% power range that base on manufacturer declare the conducted power density.
c.The EUT was programmed to be in continuously transmitting mode.

LIMIT

- ≤ 10 mW (other from 2400-2483.5 MHz)

The Output Power Tolerance must be ≤20%.
E.i.r.p:
- ≤12.14dBm/MHz(other from 2400-2483.5 MHz)

Note: E.I.R.P will not be applied to the transmission antenna which has a gain of 2.14dBi or less.

TEST RESULTS

(NTNV)								
Modulation type	Channel (MHz)	Power (dBm)	Power (mW)	Limit (mW)	Rated power (mW)	Tolerance (%)	Limit	Result
GFSK	2402	-2.69	0.54	10.00	2.00	-73.00	≤+20%	Pass
	2440	-0.26	0.94	10.00	2.00	-53.00		
	2480	0.01	1.00	10.00	2.00	-50.00		

Note :1. Measured Power include the cable loss;
2. The item was tested at 23℃ and 50% humidity condition;
3. Refer to following test plots.

Test Result of EIRP					
Mode	Channel (MHz)	Conduted test Power(dBm)	Antenna gain	Measured EIRP Value(dBm)	Limit (dBm)
GFSK	2402	-2.69	2.54	-0.15	12.14
	2440	-0.26	2.54	2.28	12.14
	2480	0.01	2.54	2.55	12.14

Note: Declared E.I.R.P= Conduted test Power+ Antenna gain

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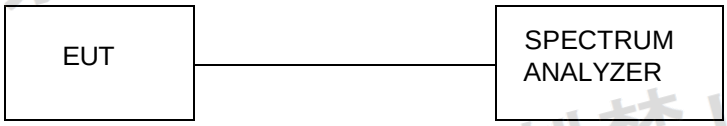
4.2. Frequency Tolerance

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:10KHz
Vbw:10KHz
Sweep time:Auto
Dectector mode: Positive peak
Indication mode: max hold

LIMIT

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

TEST RESULTS

For reporting purpose only.

Please refer to Appendix A.1.

Note:
1. Measured Power include the cable loss;
2. The item was tested at 23℃ and 50% humidity condition.
3. Refer to following test plots.

4.3. Radio Interference Prevention Capability Measurement

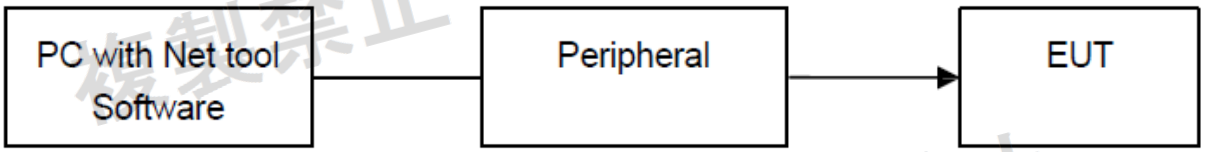
LIMIT

Identification code ≧ 48 bits

Measuring Id Code Software

MAC IP List: MAC Scan

TEST CONFIGURATION



TEST PROCEDURE

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

Conditions of Equipment under Test

Required normal mode of the applicable equipment (EUT)

TEST RESULTS

The radio equipment has an identification code. A verification of this code is done before a communication channel is established.

MAC Address: ACBE000BC0AE

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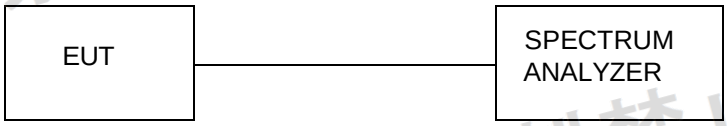
4.4. Occupied Bandwidth (99%)

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: Center frequency in the band to be used:2440MHz
Span:4MHz
RBW:30KHz
VBW:30KHz
Sweep time:Auto
Dectector mode: Positive peak
Indication mode: max hold

LIMIT

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.

TEST RESULTS

For reporting purpose only.

Please refer to Appendix A.2.

Note:
1. Measured Power include the cable loss;
2. The item was tested at 23℃ and 50% humidity condition.
3. Refer to following test plots.

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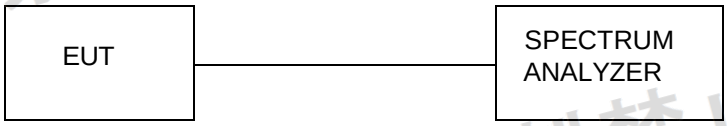
4.5. Spread spectrum bandwidth (90%)

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: Center frequency in the band to be used:2440MHz
Span:4MHz
RBW:30KHz
VBW: 30KHz
Sweep time:Auto
Dectector mode: Positive peak
Indication mode: max hold

LIMIT

N/A.

TEST RESULTS

For reporting purpose only.

Please refer to Appendix A.3.

Note:
1. Measured Power include the cable loss;
2. The item was tested at 23℃ and 50% humidity condition.
3. Refer to following test plots.

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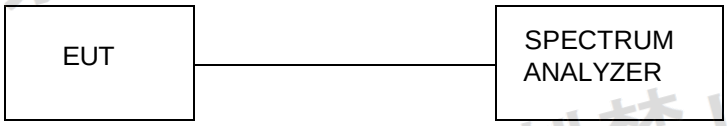
4.6. Spurious emission intensity

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:100KHz(30MHz-1GHz), 1MHz(1GHz-13GHz)
VBW:300KHz(30MHz-1GHz), 1MHz(1GHz-13GHz)
Sweep time:Auto
Dectector mode: Positive peak
Indication mode: max hold

NOTE:30~1000MHz,limit is 2.5uW/MHz=-26dBm/MHz=-36dBm/100KHz

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 MHz ≤ f ≤ 2,400 MHz and 2,483.5 MHz < f ≤ 2,496.5 MHz 25 μW(-16dBm) or less
b. 2,387 MHz > f and 2,496.5 MHz < f 2.5 μW(-26dBm) or less

TEST RESULTS

For reporting purpose only.

Please refer to Appendix A.4.

Note:
1. Measured Power include the cable loss;
2. The item was tested at 23℃ and 50% humidity condition.
3. Refer to following test plots.
4. SA set to from 2.4965GHz to 13GHz, plot shows from 2.497GHz to 13GHz as of SA's default format.

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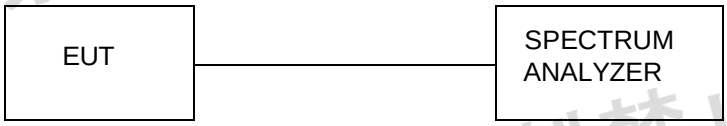
4.7. Secondary Radiated Emissions Measurement

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:100KHz(30MHz-1GHz), 1MHz(1GHz-13GHz)
VBW:100KHz(30MHz-1GHz), 1MHz(1GHz-13GHz)
Sweep time:Auto
Dectector mode: Positive peak
Indication mode: max hold

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, 4 nW 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 RESULTS

For reporting purpose only.

Please refer to Appendix A.5.

Note:
1. Measured Power include the cable loss;
2. The item was tested at 23℃ and 50% humidity condition.
3. Refer to following test plots.

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4.8. Construction Protection Confirmation Method

LIMIT

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

Protected Method	special construction
Description	The RF chip uses BGA encapsulation. RF and Modulation parts are mounted on PCB with surface mount technology, and there are no any adjustable parts on PCB or adjustable parts are not exposed.

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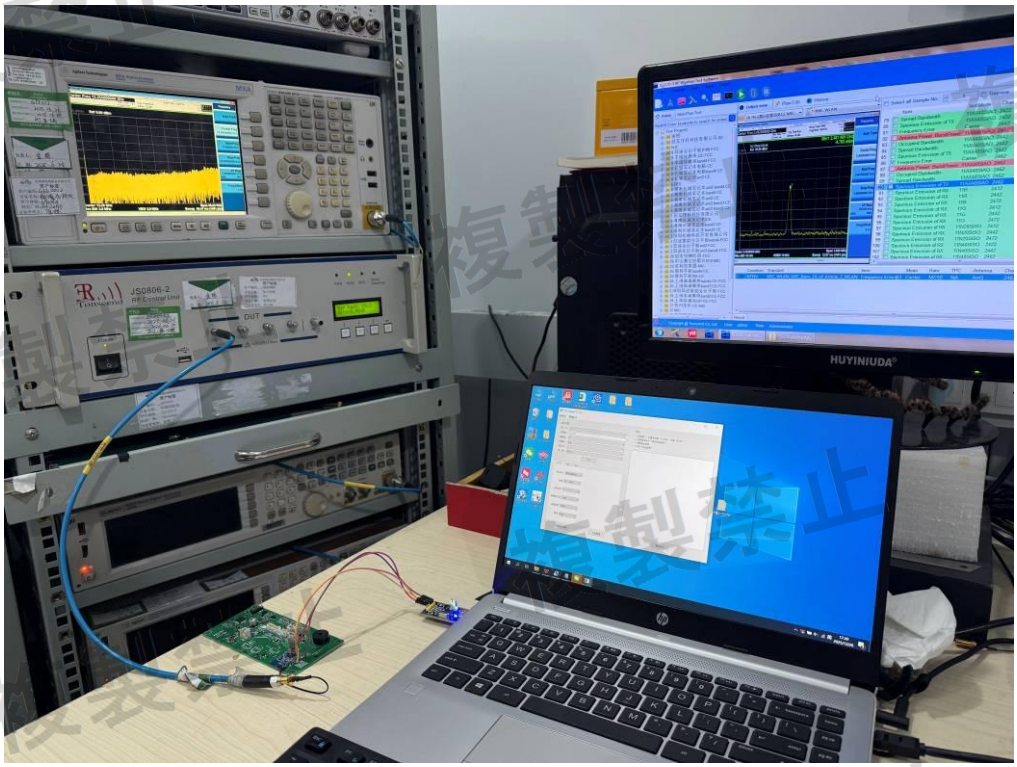
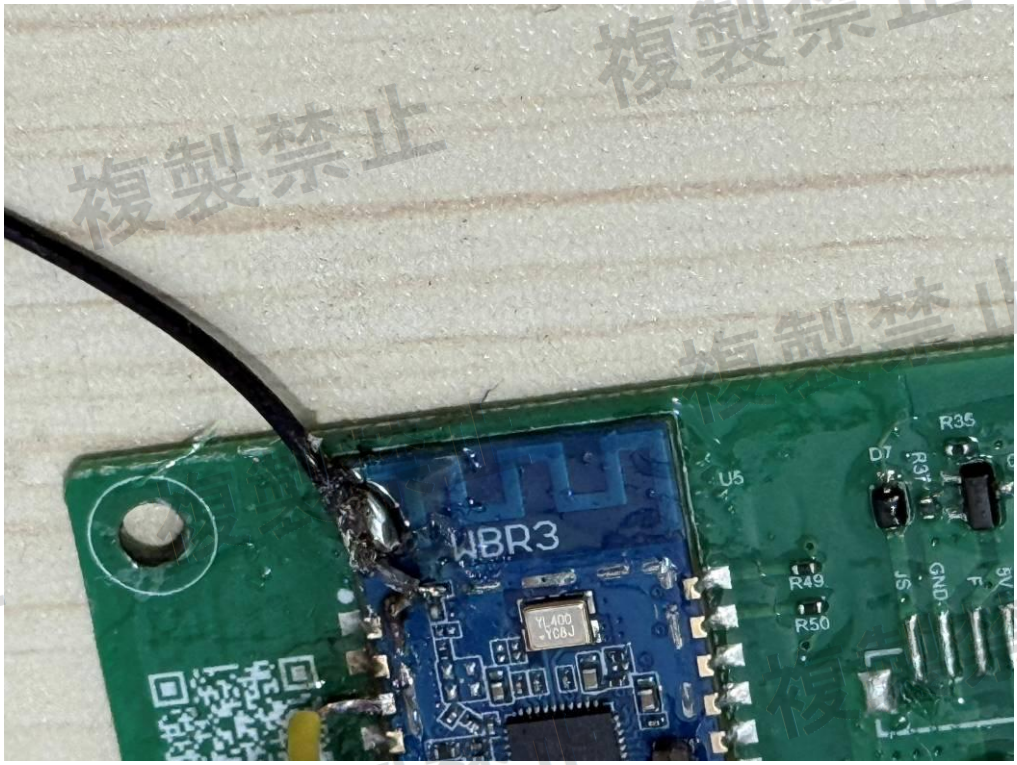
5. TEST SETUP PHOTOS OF THE EUT





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6. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

Fig. 1

Fig. 2

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Fig. 3

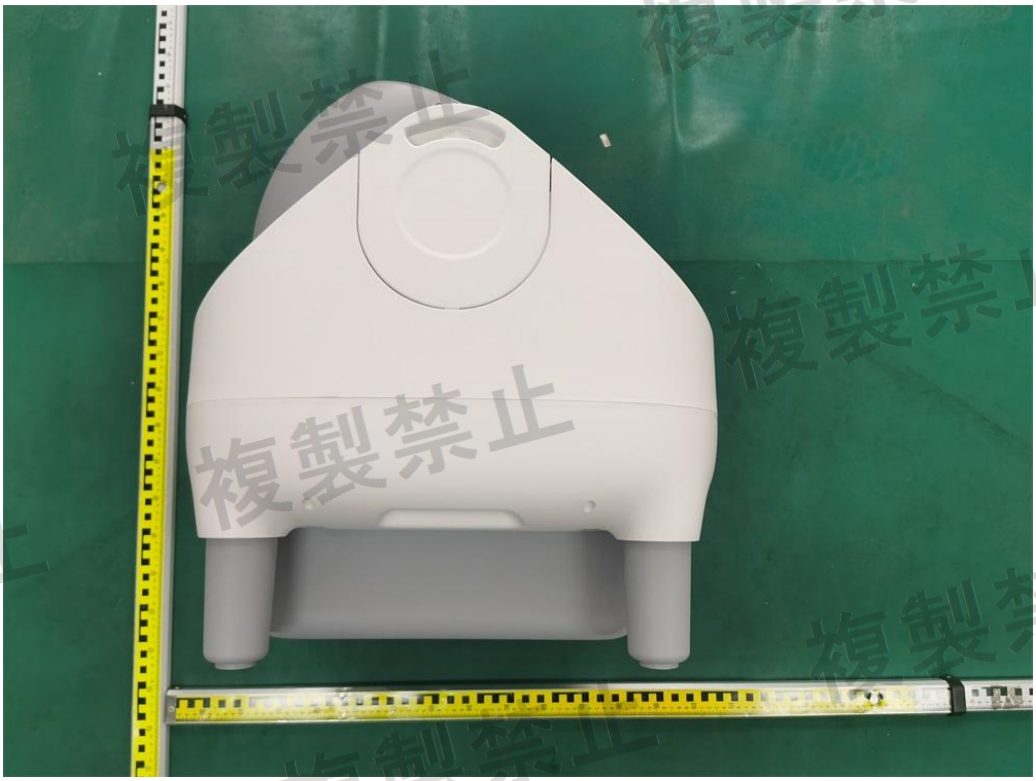

Fig. 4

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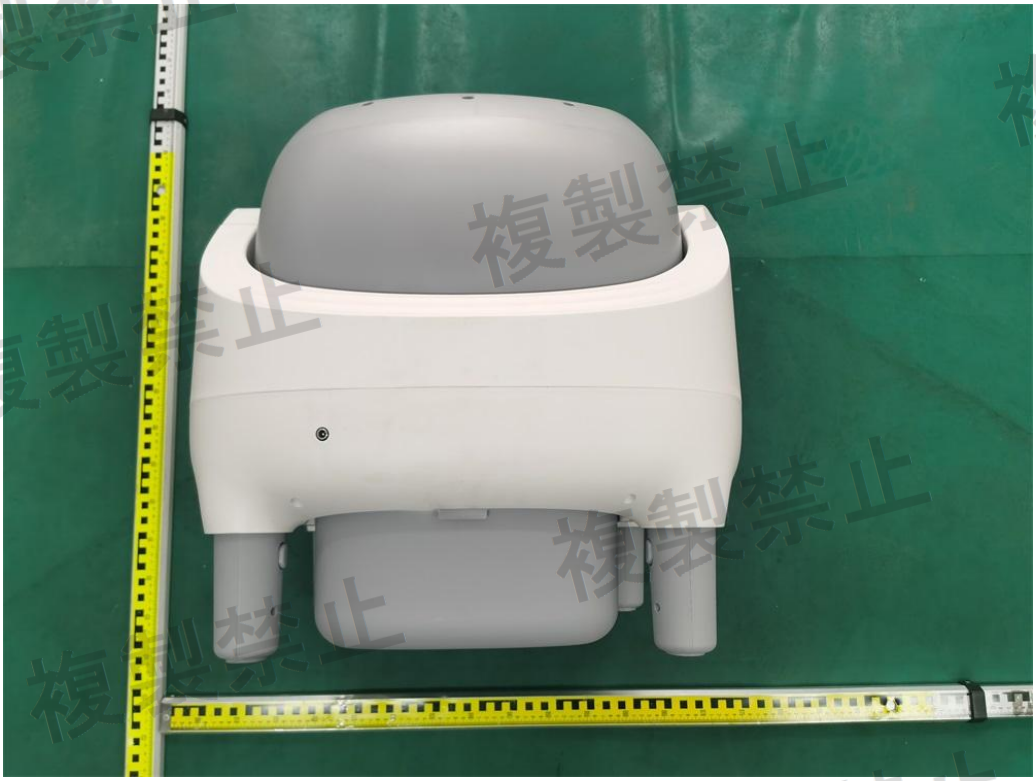

Fig. 5

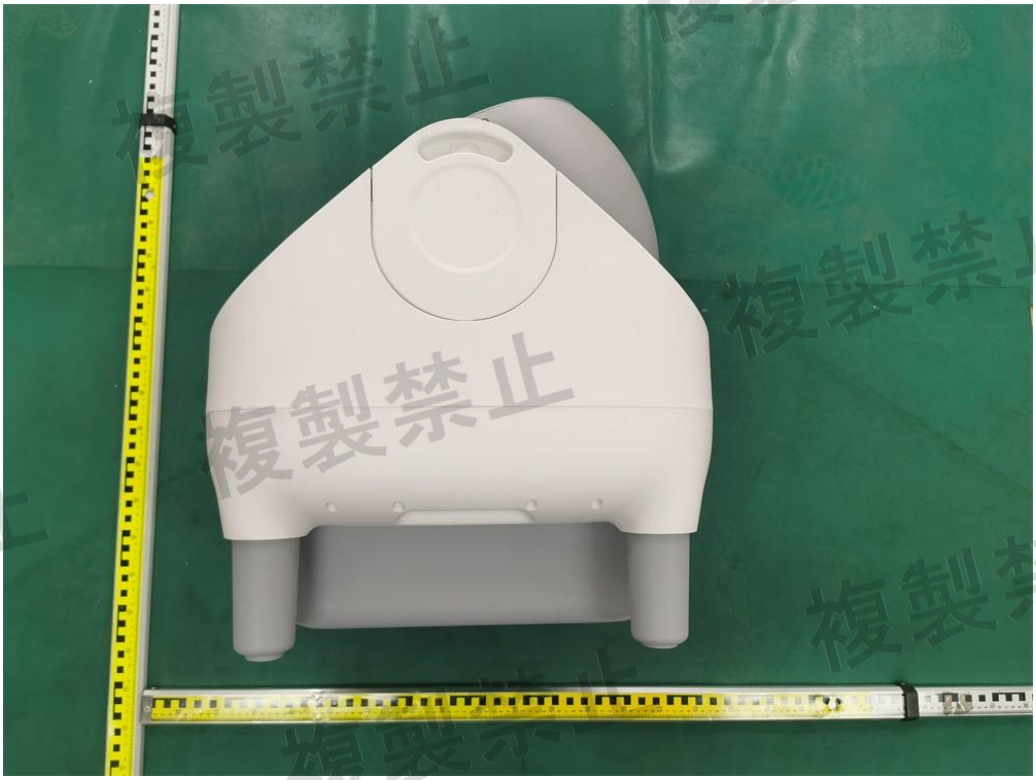

Fig. 6

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Fig. 7

Fig. 8

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Fig. 9

Fig. 10

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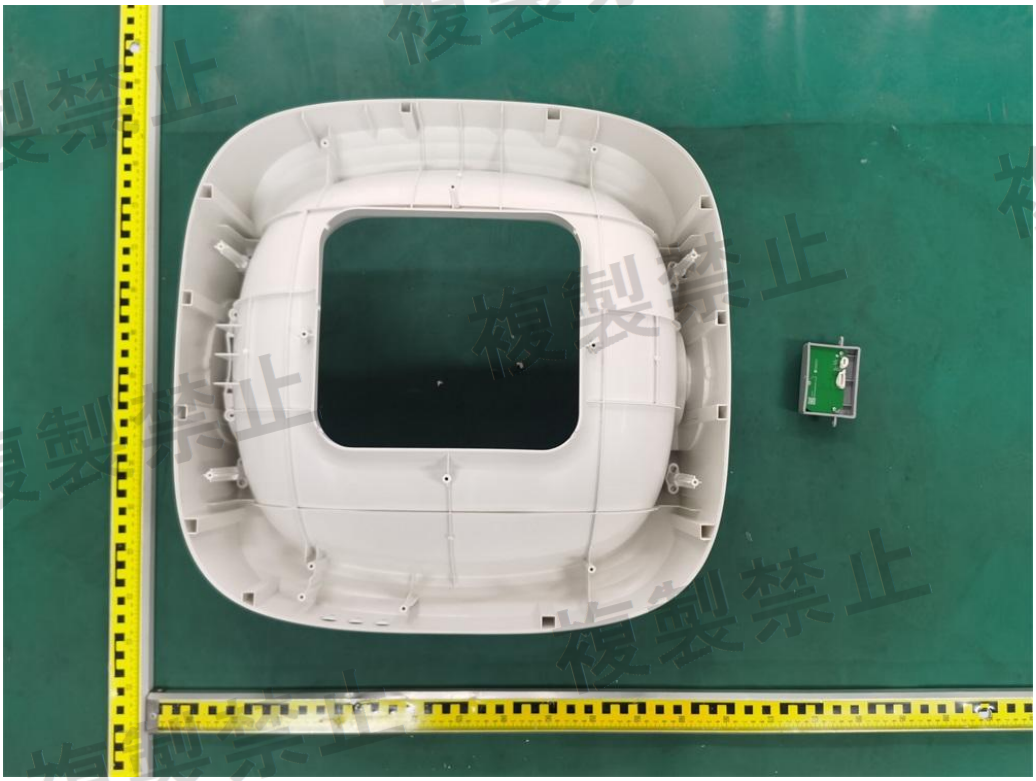

Fig. 11

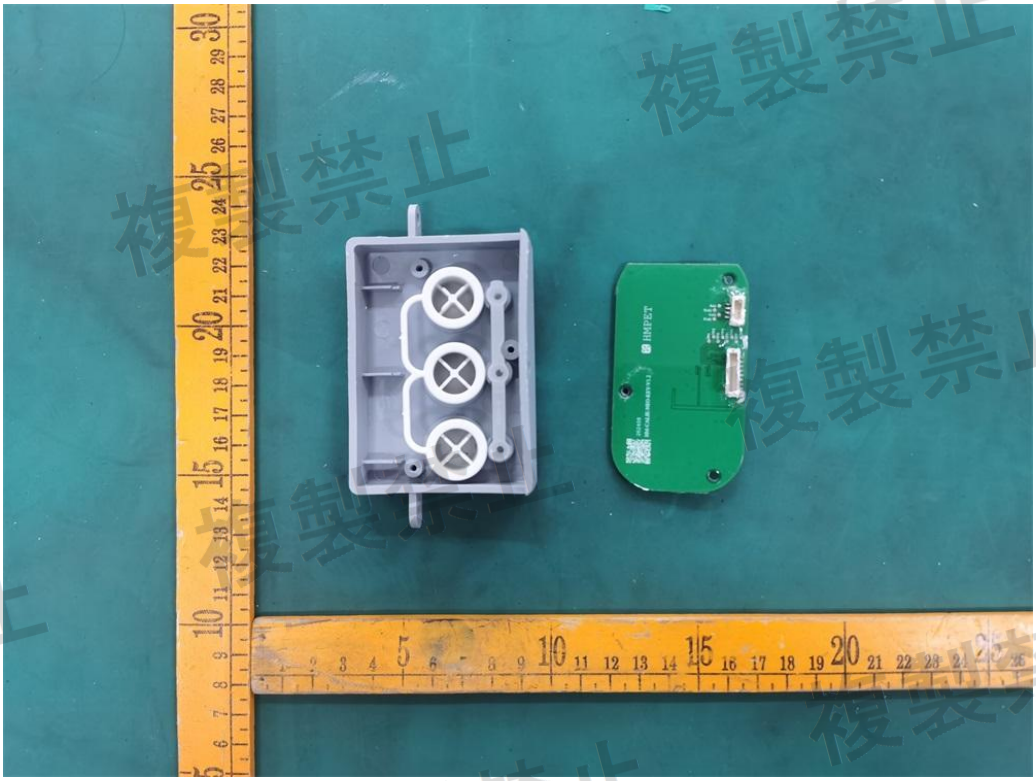

Fig. 12

複製禁止

Fig. 13

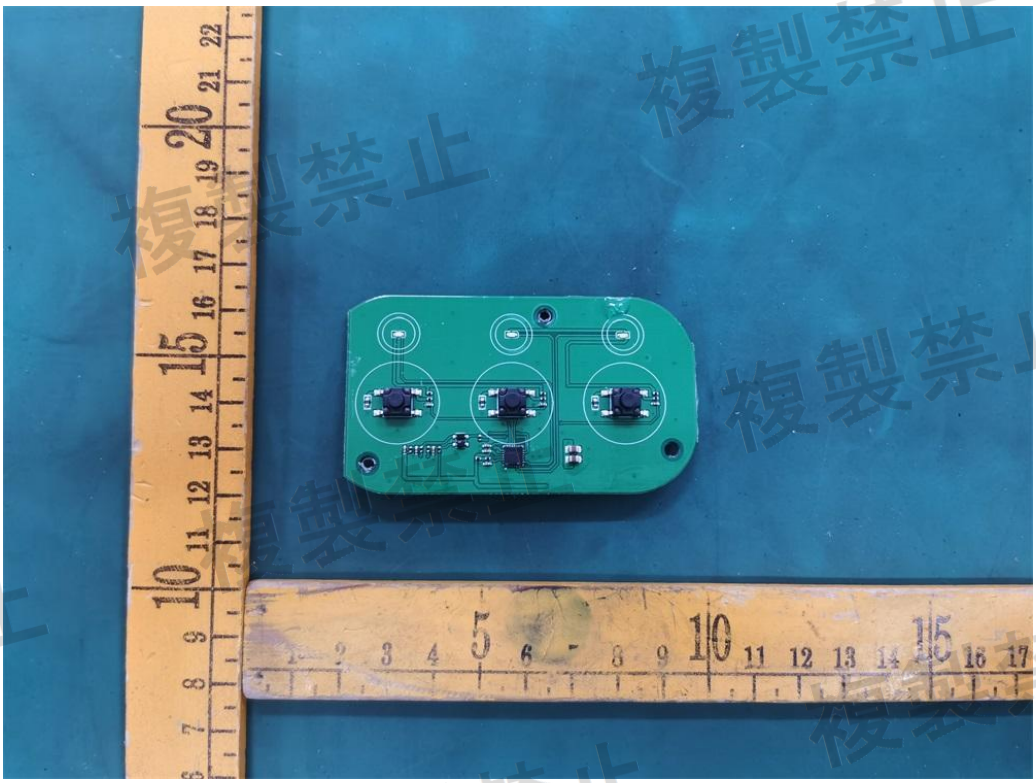

Fig. 14

複製禁止

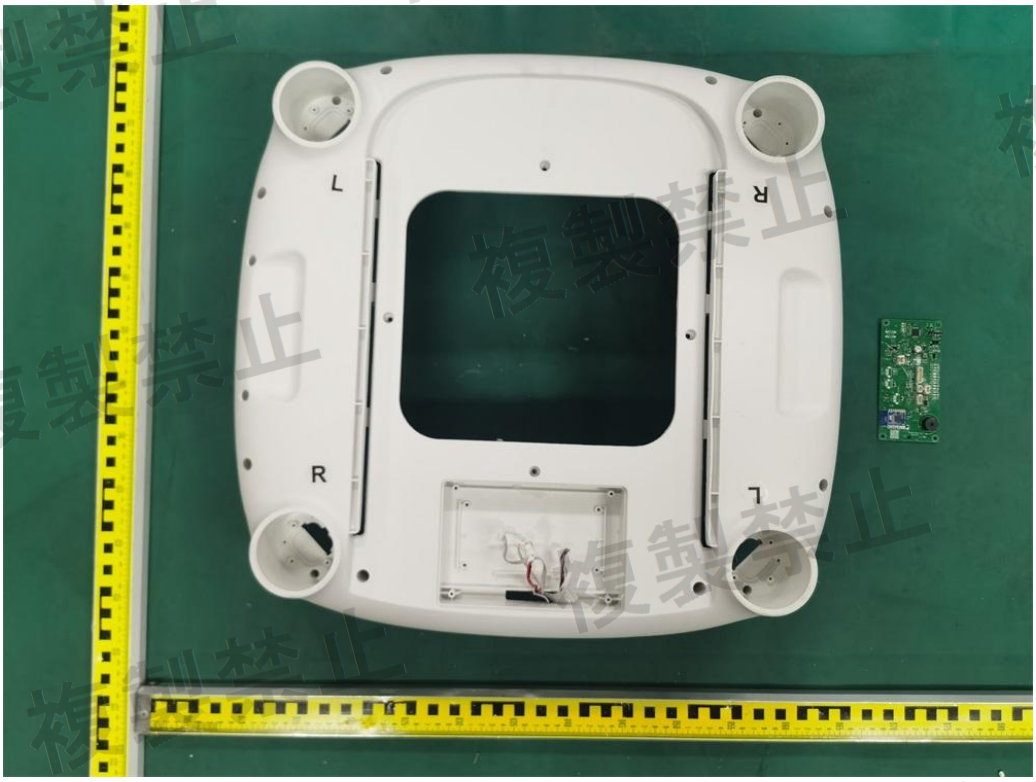

Fig. 15

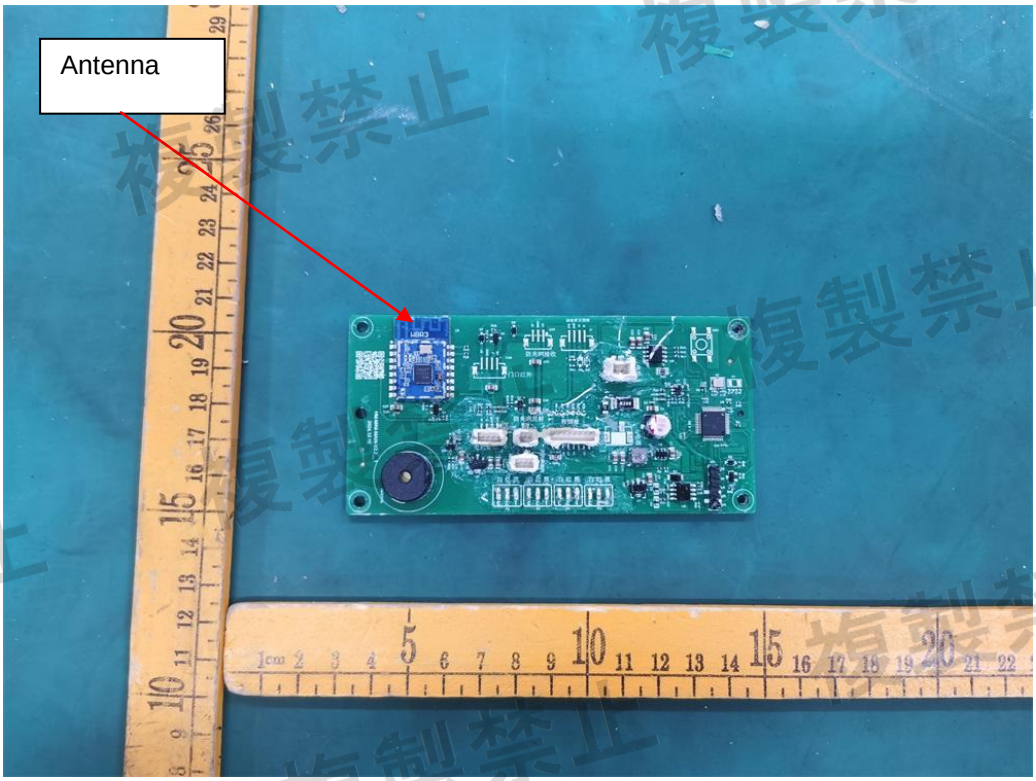

Fig. 16

複製禁止

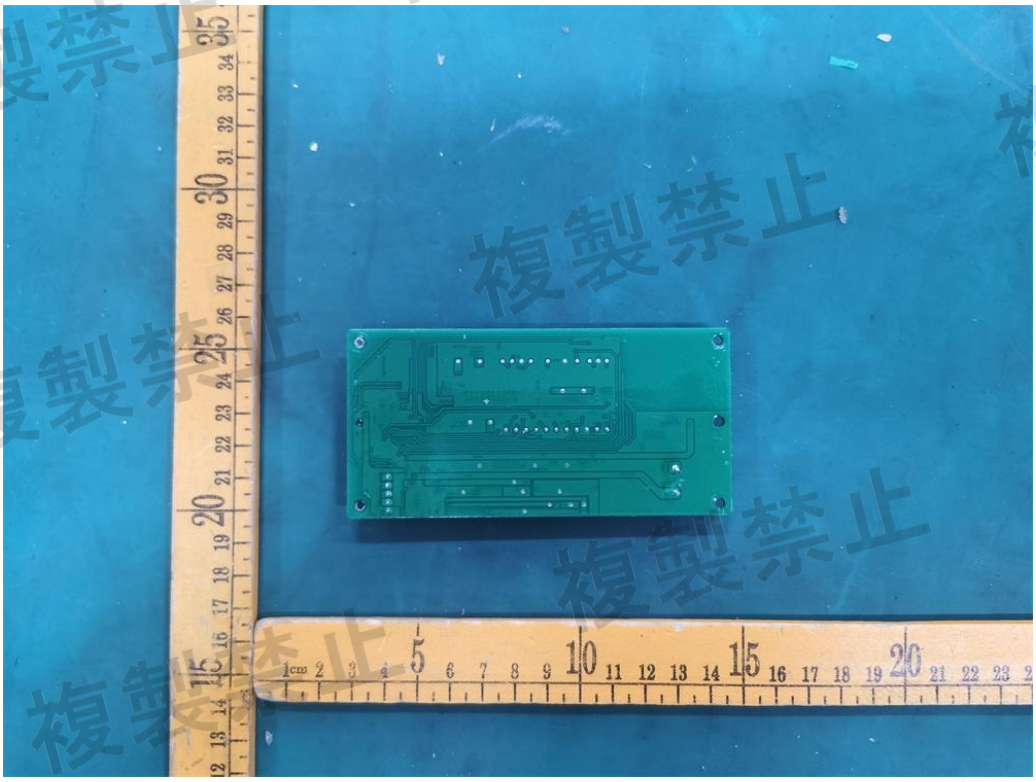

Fig. 17

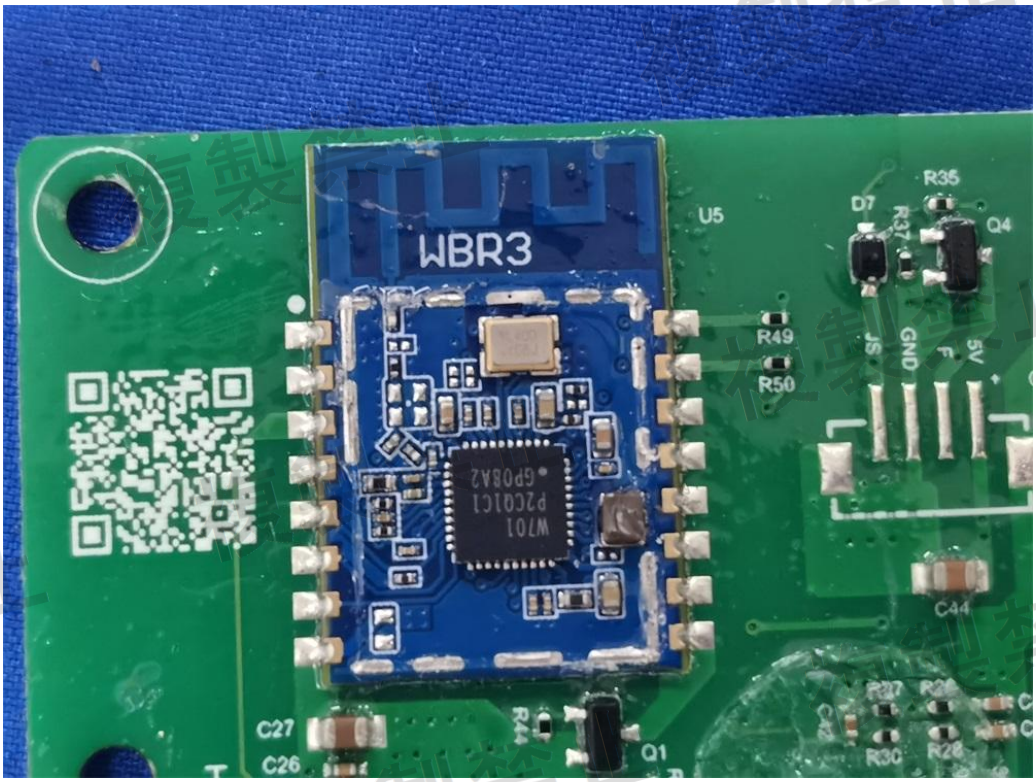

Fig. 18

.....End of Report.....

複製禁止