Article 2 Paragraph 1, item 19

TEST REPORT

For

BEITONG PanGu Custom Modular Controller

MODEL NUMBER: BTP-PG01A

REPORT NUMBER: E04A26010784J00602

ISSUE DATE: February 5, 2026

Prepared for

Guangzhou Pinzhong Electronic Technology Co.,Ltd.

Room 611-612, Greenland Center of Financial City, No. 662, Huangpu Avenue Middle Road, Tianhe District, Guangzhou City, China

Prepared by

Guangdong Global Testing Technology Co., Ltd.

Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People's Republic of China, 523808

This report is based on a single evaluation of the submitted sample(s) of the above mentioned Product, it does not imply an assessment of the production of the products. This report shall not be reproduced, except in full, without the written approval of Guangdong Global Testing Technology Co., Ltd.

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	February 5, 2026	Initial Issue	

Summary of Test Results

Test Item	Clause	Result
Frequency tolerance	Article 2 Paragraph 1, item 19	Pass
Antenna power	Article 2 Paragraph 1, item 19	Pass
Spurious emission intensity	Article 2 Paragraph 1, item 19	Pass
Occupied bandwidth	Article 2 Paragraph 1, item 19	Pass
Receiver – limit of secondarily emitted radio wave strength	Article 2 Paragraph 1, item 19	Pass
Radio Interference prevention function	Article 2 Paragraph 1, item 19	Pass

*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.
*The measurement result for the sample received is <Pass> according to < Article 2 Paragraph 1, item 19> when <Accuracy Method> decision rule is applied.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	Guangzhou Pinzhong Electronic Technology Co.,Ltd.
Address:	Room 611-612, Greenland Center of Financial City, No. 662, Huangpu Avenue Middle Road, Tianhe District, Guangzhou City, China

Manufacturer Information

Company Name:	Guangzhou Pinzhong Electronic Technology Co.,Ltd.
Address:	Room 611-612, Greenland Center of Financial City, No. 662, Huangpu Avenue Middle Road, Tianhe District, Guangzhou City, China

EUT Information

Product Description:	BEITONG PanGu Custom Modular Controller
Model:	BTP-PG01A
Series Model:	/
Brand:	北通 BEITONG
Sample Received Date:	January 20, 2026
Sample Status:	Normal
Sample ID:	A25101088 001
Date of Tested:	January 21, 2026 to January 30, 2026

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
Article 2 Paragraph 1, item 19	**Pass**

Prepared By:

Ellie.Yang

Ellie Yang
Project Engineer

Checked By:

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Approved By:

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Laboratory Manager

Guangdong Global Testing Technology Co., Ltd. GTG CERTIFICATE

2. TEST METHODOLOGY

All tests were performed in accordance with the standard Article 2 Paragraph 1, item 19

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	**A2LA (Certificate No.: 6947.01)** Guangdong Global Testing Technology Co., Ltd. has been assessed and proved to be in compliance with A2LA. **FCC (FCC Designation No.: CN1343)** Guangdong Global Testing Technology Co., Ltd. has been recognized to perform compliance testing on equipment subject to Supplier's Declaration of Conformity (SDoC) and Certification rules **ISED (Company No.: 30714)** Guangdong Global Testing Technology Co., Ltd. has been registered and fully described in a report filed with ISED. The Company Number is 30714 and the test lab Conformity Assessment Body Identifier (CABID) is CN0148.

Note: All tests measurement facilities use to collect the measurement data are located at Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People’s Republic of China, 523808

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Items	k	Uncertainty
Occupied bandwidth	1.96	±9.2 PPM
Frequency tolerance	1.96	±9.0 PPM
Dwell time	1.96	±0.57%
Antenna power	1.96	±1.5 dB
Conducted Spurious Emission	1.96	9 kHz-30 MHz: ± 0.95 dB 30 MHz-1 GHz: ± 1.5 dB 1GHz-12.75GHz: ± 1.8 dB 12.75 GHz-26.5 GHz: ± 2.1dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.		

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name		BEITONG PanGu Custom Modular Controller
Model		BTP-PG01A
Ratings		Type-C Input: DC 5V Battery: 3.7V, 1000mAh, 3.7Wh
Power Supply	DC	5V
	Battery	3.7V

Frequency Band:	2400 MHz to 2483.5 MHz
Frequency Range:	2402 MHz to 2480 MHz
Type of Modulation:	GFSK
Number of Channels:	40
Channel Separation:	2MHz
Rated Antenna Power	1 mW
Antenna Type:	Chip Antenna
Antenna Gain:	1.85 dBi
EUT Test software:	FCC_assist1.0.4.exe

5.2. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	11	2424	22	2446	33	2468
1	2404	12	2426	23	2448	34	2470
2	2406	13	2428	24	2450	35	2472
3	2408	14	2430	25	2452	36	2474
4	2410	15	2432	26	2454	37	2476
5	2412	16	2434	27	2456	38	2478
6	2414	17	2436	28	2458	39	2480
7	2416	18	2438	29	2460	/	/
8	2418	19	2440	30	2462	/	/
9	2420	20	2442	31	2464	/	/
10	2422	21	2444	32	2468	/	/

5.3. TEST POWER SUPPLY

Test Voltage: 3.7V DC
The EUT is supplied with 3.7V DC The fluctuation of input voltage to the circuit of RF unit of test equipment is under ±1%, when input voltage from 3.7V DC to the test equipment is fluctuated by ±10%, So all measurement was conducted on the rated voltage (3.7V DC).

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
GFSK	CH 0(Low Channel), CH 19(MID Channel), CH 39(High Channel)	2402 MHz, 2440 MHz, 2480 MHz

5.5. THE WORSE CASE POWER SETTING PARAMETER

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band				
Test Software Version		FCC_assist1.0.4.exe		
Modulation Type	Transmit Antenna Number	Test Software setting value		
		CH 0	CH 19	CH 39
GFSK	1	Default	Default	Default

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

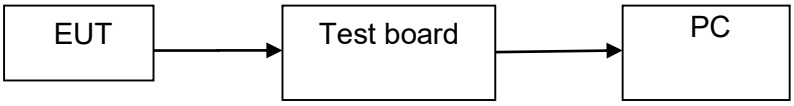
Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2402-2480	Chip Antenna	1.85

Test Mode	Transmit and Receive Mode	Description
GFSK	☒1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

5.7. SUPPORT UNITS FOR SYSTEM TEST

Equipment	**Manufacturer**	**Model No.**
PC	Lenovo	T14
Test board	/	/

5.8. SETUP DIAGRAM



6. MEASURING EQUIPMENT AND SOFTWARE USED

Test Equipment of Conducted RF					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Due Date**
Spectrum Analyzer	Rohde & Schwarz	FSV40	102257	2025/08/25	2026/08/24
Spectrum Analyzer	KEYSIGHT	N9020A	MY51285127	2025/08/25	2026/08/24
EXG Analog Signal Generator	KEYSIGHT	N5173B	MY61253075	2025/08/25	2026/08/24
Vector Signal Generator	Rohde & Schwarz	SMM100A	101899	2025/08/25	2026/08/24
RF Control box	MWRF-test	MW100-RFCB	MW220926GTG	2025/08/25	2026/08/24
Wideband Radio Communication Tester	Rohde & Schwarz	CMW270	102792	2025/08/25	2026/08/24
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	103235	2025/08/25	2026/08/24
temperature humidity chamber	Espec	SH-241	SH-241-2014	2025/08/25	2026/08/24
RF Test Software	MWRF-test	MTS8310E (Ver. V2/0)	N/A	N/A	N/A

Note: The instruments and equipment listed in the table are calibrated by GRG, and the calibration method is referred to item ii c) of Article 24-2 paragraph 4.

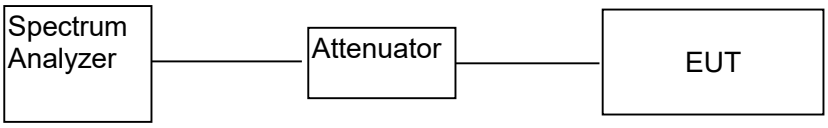
7. TEST RESULTS

7.1. FREQUENCY ERROR

LIMIT

+/- 50 x 10^{-6} or less (50ppm)

TEST CONFIGURATION



TEST PROCEDURE

1. Configure EUT according clause 2.3 and 4.3
2. Set EUT work in carrier Tx mode as described in clause 2.3
3. Connected the EUT's antenna port to the Spectrum Analyzer by suitable attenuator, set the Spectrum Analyzer as below:
Centre Frequency: The centre frequency of the channel under test.
Resolution BW: 10KHz.
Video BW: 10KHz.
Span: 1MHz.
Detector: Peak.
Trace Mode: Max Hold.
4. When the trace is complete, find the peak value of the power envelope and record the frequency.

TEST ENVIRONMENT

Temperature	20.2℃	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

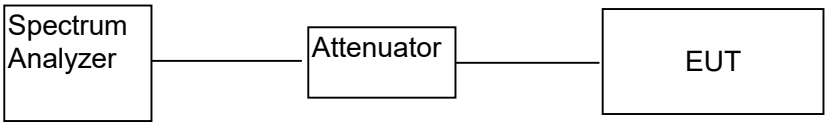
Please refer to "Test Data"-Appendix C

7.2. ANTENNA POWER

LIMIT

Item	Mode	Limits
Antenna Power Density	FH form 2400~2483.5MHz OFDM, DS from 2400~2483.5MHz Other from 2400~2483.5MHz	≦ 3mW/MHz ≦ 10mW/MHz ≦ 10mW
Antenna Power Error	+20%,(Base on manufacturer declare antenna power density)	

TEST CONFIGURATION



TEST PROCEDURE

1. Set the spectrum analyzer as follows to search the frequency giving the maximum antenna power:
   Center frequency: Center frequency of service bandwidth (e.g. 2402 MHz)
   Frequency sweep width: 3 MHz
   Resolution bandwidth: 1 MHz
   Video bandwidth: Approximately 3 times the resolution bandwidth (e.g. 3 MHz)
   Sweep time: Minimum time to ensure the measuring accuracy (In case of burst wave, one burst shall be included per data point).
   Trigger condition: Free run
   Data points: 400 points or more (e.g. 1001 points)
   Sweep mode: Continuous sweep
   Detection mode: Positive peak
   Indication mode: Maximum hold
2. Set the spectrum analyzer as follows for measuring antenna power. Connect the power meter to the IF output of spectrum analyzer, and calibrate the indication of the power meter to the output value of the EUT.
   Center frequency: Frequency giving the maximum power (searched frequency)
   Frequency sweep width: 0 Hz
   Resolution bandwidth: 1 MHz
   Video bandwidth: Approximately the same bandwidth as resolution bandwidth
   Sweep mode: Continuous sweep

TEST ENVIRONMENT

Temperature	20.2℃	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to "Test Data"-Appendix C

Note:

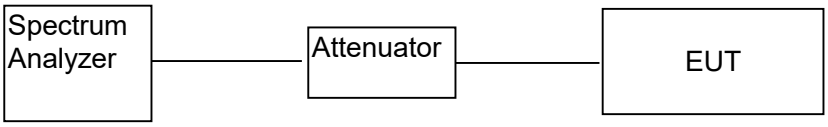
1. Antenna Power(mW) = $10^{(Power(dBm) / 10)}$
2. Tolerance(%) = (Antenna Power(mW) - Declared Power(mW)) / Declared Power(mW) * 100
3. Antenna Power(dBm) = $\log_{10}$(Antenna Power(mW)) * 10
4. EIRP Power(dBm) = Antenna Power(dBm) + Gain(dBi)

7.3. OCCUPIED BANDWIDTH

LIMIT

Occupied bandwidth: FH≤83.5 MHz; OFDM≤38 MHz, DS≤26 MHz; Others≤26 MHz

TEST CONFIGURATION



TEST PROCEDURE

1. Spectrum analyzer shall be follows:
   Center frequency: Center frequency of service band (e.g. 2402 MHz).
   Frequency sweep width: Approximately 2 to 3 times of the tolerance value (e.g. 3 MHz).
   Resolution bandwidth: Approximately 3% of tolerance value (e.g. 100 kHz)
   Video bandwidth: Approximately the same as the resolution bandwidth.
   Y-axis scale: 10dB/Div.
   Input level: Carrier level shall be enough higher than floor noise of spectrum analyzer.
   Sweep time: Minimum time to ensure the measuring accuracy (In case of burst wave, one burst shall be included per data point.)
   Data points: 400 points or more (e.g. 1001 points)
   Sweep mode: Continuous
   Detection mode: Positive peak
   Display mode: Maximum hold

2. The values measured by the spectrum analyzer shall be processed by external or internal computer.

TEST ENVIRONMENT

Temperature	20.2℃	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to "Test Data"-Appendix C

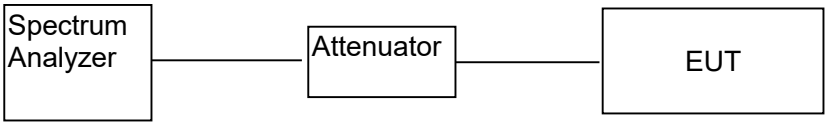
7.4. SPURIOUS EMISSION INTENSITY

LIMIT

Permissible mean power of spurious emission of each frequency supplied to a feeder, that is, mean power of spurious emission in the 100 kHz bandwidth at frequency f other than frequency band used shall be as follows:
a. 30MHz≤ f < 1,000MHz 0.25μW or less (-36dBm or less)
Note: dBm=$\log_{10}$(μW/1000) * 10.

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. 2,387MHz ≤ f ≤ 2,400MHz and 2,483.5MHz < f ≤ 2,496.5MHz 25 μW or less (-16dBm or less)
b. 1,000MHz ≤ f < 2,387MHz and 2,496.5MHz < f 2.5 μW or less (-26dBm or less)
Note: dBm=$\log_{10}$(μW/1000) * 10.

TEST CONFIGURATION



TEST PROCEDURE

Spectrum Analyzer	Setting
Attenuation	Auto
RBW	100 kHz: 30 MHz ≦ f < 1000 MHz 1 MHz: 1000 MHz ≦ f < 5th Harmonics
VBW	100 kHz: 30 MHz ≦ f < 1000 MHz 1 MHz: 1000 MHz ≦ f < 5th Harmonics
Detector	Positive Peak
Trace	Max Hold
Sweep Time	Auto

1. EUT have the continuous reception mode and fixed only one channelize.
2. Setting of SA is following as 30MHz and stop frequency 1000MHz Then to mark peak reading value + cable loss shall be less than 0.25μW/100kHz(-36dBm/100kHz).
3. Setting of SA is following as 1000MHz and stop frequency 2387MHz Then to mark peak reading value + cable loss shall be less than 2.5μW/MHz(-26dBm/1MHz).
4. SA adjusted to start frequency 2387MHz and stop frequency 2400MHz. Then to mark peak reading value + cable loss shall be less than 25μW/MHz(-16dBm/1MHz).
5. SA adjusted to start frequency 2483.5MHz and stop frequency 2496.5MHz Then to mark peak reading value + cable loss shall be less than 25μW/MHz(-16dBm/1MHz).
6. SA adjusted to start frequency 2496.5MHz and stop frequency 13000MHz Then to mark peak reading value + cable loss shall be less than 2.5μW/MHz(-26dBm/1MHz).

TEST ENVIRONMENT

Temperature	20.2℃	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to "Test Data"-Appendix C

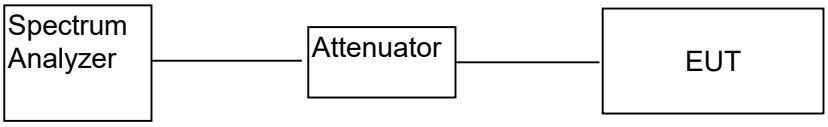
7.5. LIMITATION OF COLLATERAL EMISSIONS OF RECEIVER

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.

a. f < 1,000MHz 4 nW or less (-54dBm or less)
b. 1,000MHz ≤ f 20 nW or less (-47dBm or less)
Note: dBm=$\log_{10}$(nW/1000000) * 10.

TEST CONFIGURATION



TEST PROCEDURE

Spectrum Analyzer	Setting
Attenuation	Auto
RBW	100 kHz: 30 MHz ≦ f < 1000 MHz 1 MHz: 1000 MHz ≦ f < 5th Harmonics
VBW	100 kHz: 30 MHz ≦ f < 1000 MHz 1 MHz: 1000 MHz ≦ f < 5th Harmonics
Detector	Positive Peak
Trace	Max Hold
Sweep Time	Auto

1. EUT have the continuous reception mode and fixed only one channelize.
2. Start frequency 30MHz and Stop frequency 1000MHz. Search to mark peak reading value + cable loss shall be less than 4nW
3. Start frequency 1000MHz and Stop frequency 5th Harmonics. Search to mark peak reading value + cable loss shall be less than 20nW

TEST ENVIRONMENT

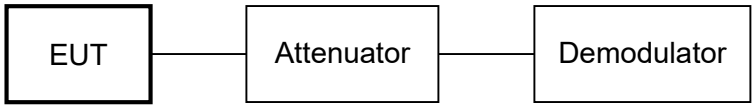
Temperature	20.2℃	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

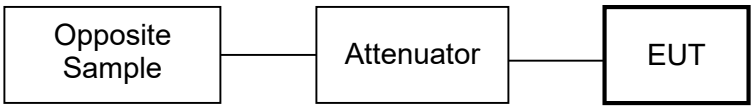
Please refer to "Test Data"-Appendix C

7.6. RADIO INTERFERENCE PREVENTION FUNCTION

(1) In case identification code is transmitted



(2) In case identification code is received



(3) Measuring Equipment Conditions

The Demodulator shall demodulate the TX-signal transmitted by the EUT and be able to display the contents of the identification code.

The opposite sample shall be able to transmit TX-signal equivalent to the TX-signal transmitted by the EUT.

(4) Conditions of EUT

The EUT is set on the usual operating mode.

(5) Measurement Procedure

(1) In case the EUT possesses function to transmit identification code automatically
Predetermined identification code is transmitted by the EUT.
Verify the transmitted identification code.

(2) In case the EUT possesses function to receive identification code automatically
Predetermined identification code is transmitted by the opposite sample.
Verify the working of the normal communication.
Other code than the predetermined identification code is transmitted by the opposite sample.
Verify the EUT to stop transmitting or to display that the ID code is different.

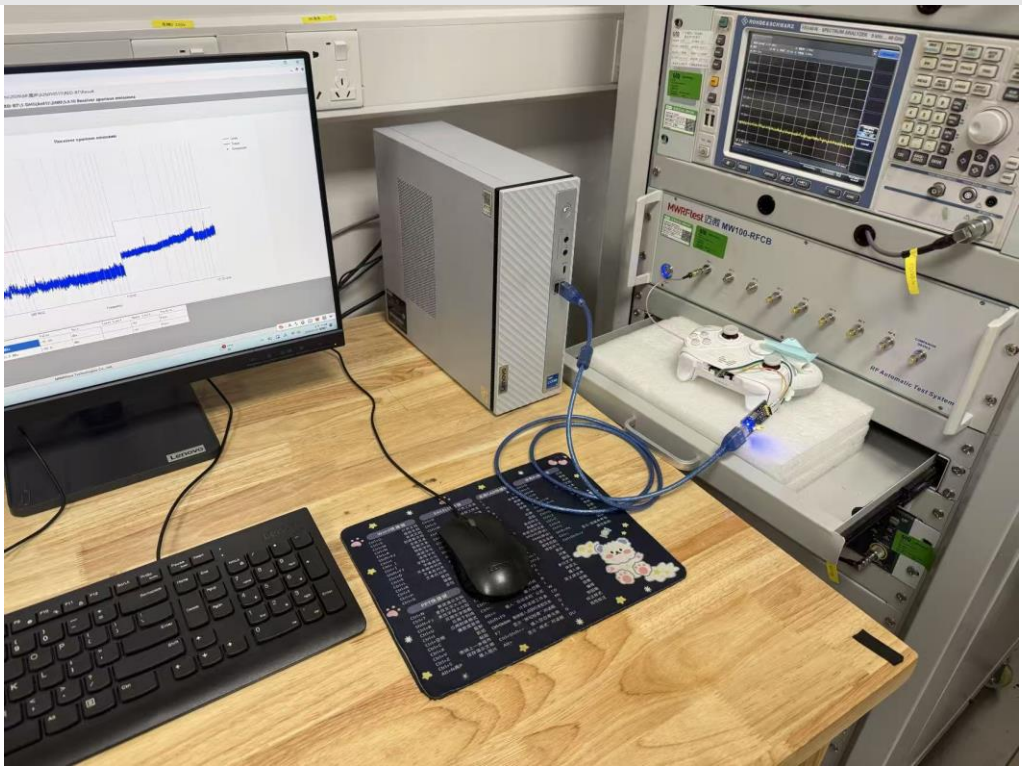
TEST ENVIRONMENT

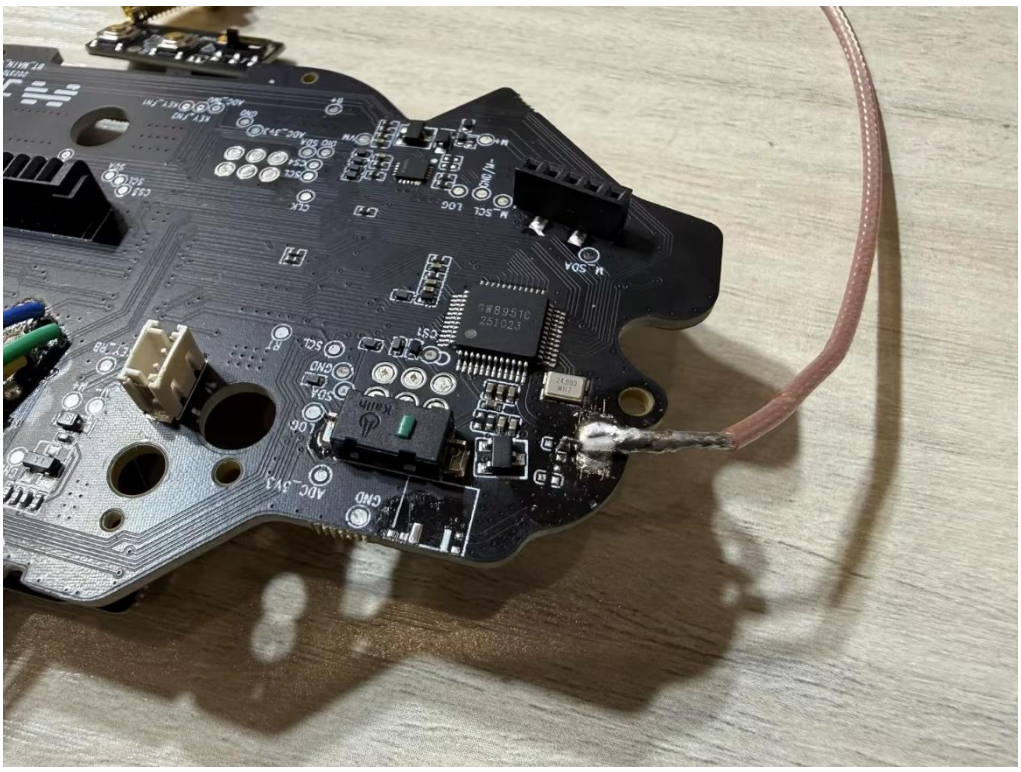
Temperature	20.2℃	Relative Humidity	51%
Atmosphere Pressure	101kPa		

TEST RESULTS

Test Power	Normal Voltage
Test Mode	Signaling Mode
Test Result	Good, MAC Address:(6B:EE:3E:90:7F:16)

APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION





APPENDIX: PHOTOGRAPHS OF THE EUT

Photographs of the EUT Please refer to report E04A26010784J00601.

END OF REPORT