
Test Report

Report No.: AGC04447231004SS01

PRODUCT DESIGNATION : Two-Way Radio (Amateur Radio)
BRAND NAME : JJCC
MODEL NAME : JC-8930
APPLICANT : MATH MARK (FUJIAN)COMMUNICATIONS CORP.
LIMITED
DATE OF ISSUE : Nov. 07, 2023
REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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1. GENERAL INFORMATION

1.1 Testing laboratory

Name Attestation of Global Compliance (Shenzhen) Co., Ltd.
Address 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Test location Same as above

1.2 Applicant information

Name MATH MARK (FUJIAN)COMMUNICATIONS CORP. LIMITED
Address No 789, Xiacuo Area,Sihuang Village,Daxiamei,Nan'an,Quanzhou,Fujian,China 362302

1.3 Manufacturer information

Name MATH MARK (FUJIAN)COMMUNICATIONS CORP. LIMITED
Address No 789, Xiacuo Area,Sihuang Village,Daxiamei,Nan'an,Quanzhou,Fujian,China 362302

1.4 Factory information

Name MATH MARK (FUJIAN)COMMUNICATIONS CORP. LIMITED
Address No 789, Xiacuo Area,Sihuang Village,Daxiamei,Nan'an,Quanzhou,Fujian,China 362302




1.5 Testing

Date of receipt of test item Oct. 31, 2023
Date(s) of performance of test Nov. 03, 2023- Nov. 07, 2023

1.6 Summary of testing

The product is accordance with the requirements of IP68 according IEC 60529:1989+A1:1999+A2:2013, Degrees of protection provided by enclosures (IP code).

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Nov. 07, 2023	Valid	Initial release

Tested by  Reviewed by  Approved By 
Dylan Yan Byron Wang Matte He
(Authorized Officer)

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2. Equipment Under Test (EUT) and Ancillary Equipment (AE)

2.1 About EUT

Product Designation	Two-Way Radio (Amateur Radio)
Brand Name	JJCC
Test model	JC-8930
Series model	N/A
Supply connection	Not directly connected to mains
IP code	IP 68

3. Reference Documents

The following documents listed in this section are referred for testing.

Reference	Title	Clause
IEC 60529:1989+A1:1999+A2:2013	Degrees of protection provided by enclosures (IP Code)	12+13.4+13.6 +14.2.8+14.3

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4. IP68 Test Procedure and Requirements

4.1 Environment conditions

Test environments Temperature: 15-35°C, Humidity: 25%-75%, Air Pressure: 86kPa-106kPa

4.2 Tested relevant

Number of tested samples 2
 Conditions for mounting According to user manual, ceiling type
 Whether to be tested energized Yes No
 Whether to be tested with its parts in motion Yes No
 Other pre-conditioning No

4.3 Test conditions

4.3.1 IP6X Test conditions

Dangerous parts protection test:

- 1) The Test probe of 1 mm diameter is pushed against any opening of the sample with force of 1 N;
- 2) Internal moving parts may be operated slowly, where this is possible.

Dust proof test:

- 1) Dust content of Dust Tester :2 kg/m³;
- 2) The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50µm m and the nominal width of a gap between wires 75 µm;
- 3) Test duration:
 - If with a maximum depression of 2 kPa (20 mbar), an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h;
 - If with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed;

4.3.2 IPX8 Test conditions

- a) the lowest point of enclosures with a height less than 850 mm is located 1 000 mm below the surface of the water;
- b) the highest point of enclosures with a height equal to or greater than 850 mm is located 150 mm below the surface of the water;
- c) the duration of the test is 120 min;
- d) the water temperature does not differ from that of the equipment by more than 5 K. However, a modified requirement may be specified in the relevant product standard if the tests are to be made when the equipment is energized and/or its parts in motion.

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4.4 Acceptance conditions

4.4.1 IP6X Acceptance conditions

Dangerous parts protection:

- 1) The protection is satisfactory if adequate clearance is kept between the access probe and hazardous parts, and the lamp shall not light, or the test probe can not pass through the opening;
- 2) For low-voltage equipment, the access probe shall not touch hazardous live parts;
- 3) For high-voltage equipment, When the access probe is placed in the most unfavourable position(s), the equipment shall be capable of withstanding the dielectric tests as specified in the relevant product standard applicable to the equipment.

Dust proof:

The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test.

4.4.1 IPX8 Acceptance conditions

It is the responsibility of the relevant technical committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any.

In general, if any water has entered, it shall not:

- be sufficient to interfere with the correct operation of the equipment or impair safety;
- deposit on insulation parts where it could lead to tracking along the creepage distances;
- reach live parts or windings not designed to operate when wet;
- accumulate near the cable end or enter the cable if any.

If the enclosure is provided with drain-holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing any harm to the equipment.

For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.

5. Detailed Test Results

Sample No.	Test results	Test verdict
231030073 231030074	1. The test probe could not pass through the opening of the sample; 2. After the test, no dust inside the sample by visual inspection 3. After the test, no water entered into the test sample inside	The test sample passed the IP68 test.

6. Test Equipments Utilized

No.	Name	Model No.	Calibration Date	Calibration Due.
1	Φ1mm test probe	TZ-12	Nov. 15, 2022	Nov. 14, 2023
2	Dust Tester	GR-IPSCX1000	Jan. 12, 2023	Jan. 11, 2024
3	Waterproof test system	KXT1318	Jan. 12, 2023	Jan. 11, 2024
4	Dielectric strength tester	TOS5051A	Sep. 14, 2023	Sep. 12, 2024

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Attachment A
Photos of Product

Fig.1 – overview



Fig.2 – overview

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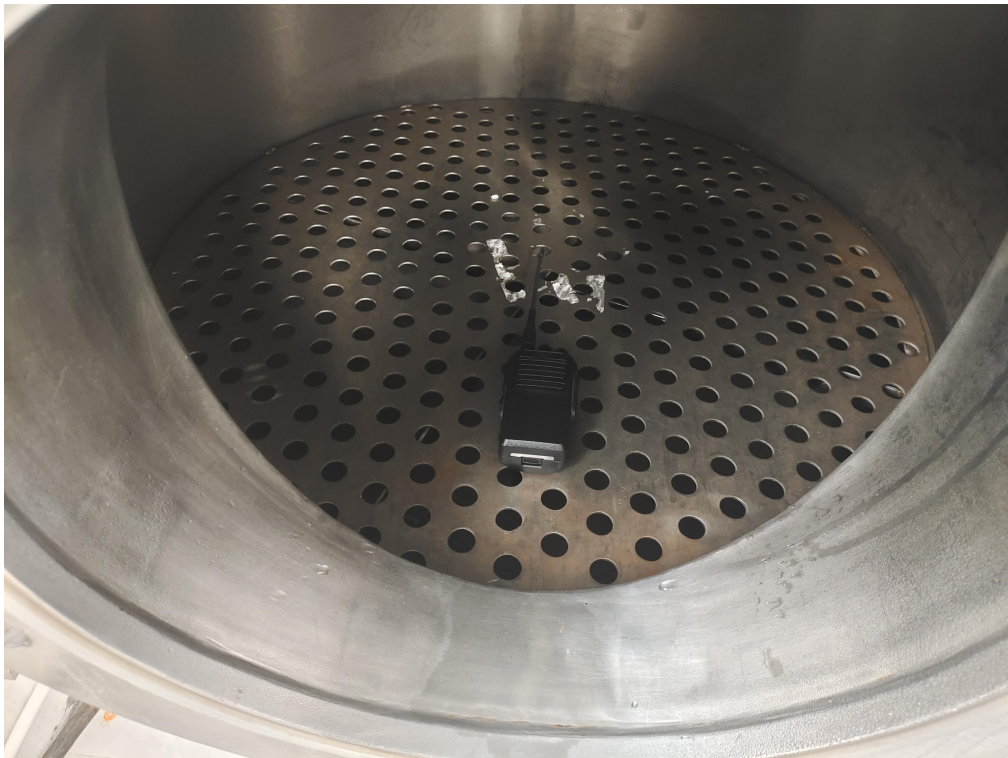


Fig.3 – view during testing (IPX8)

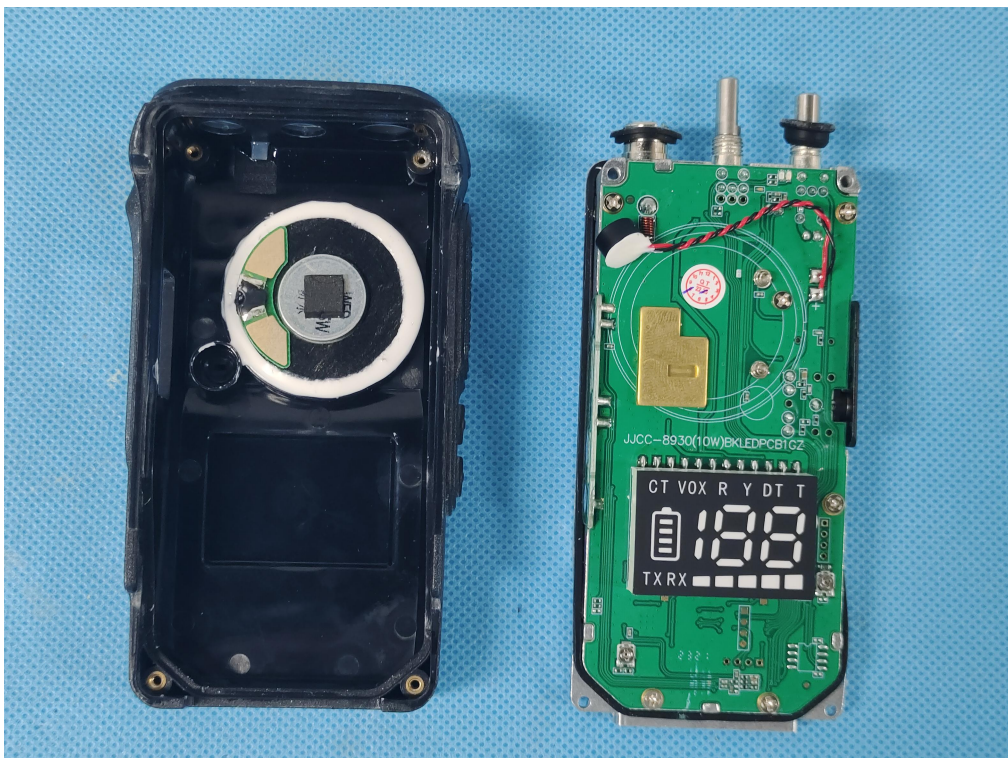


Fig.4 – view after testing (IPX8)

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Fig.5 – view after testing (IP6X)



Fig.6 – view after testing (IP6X)

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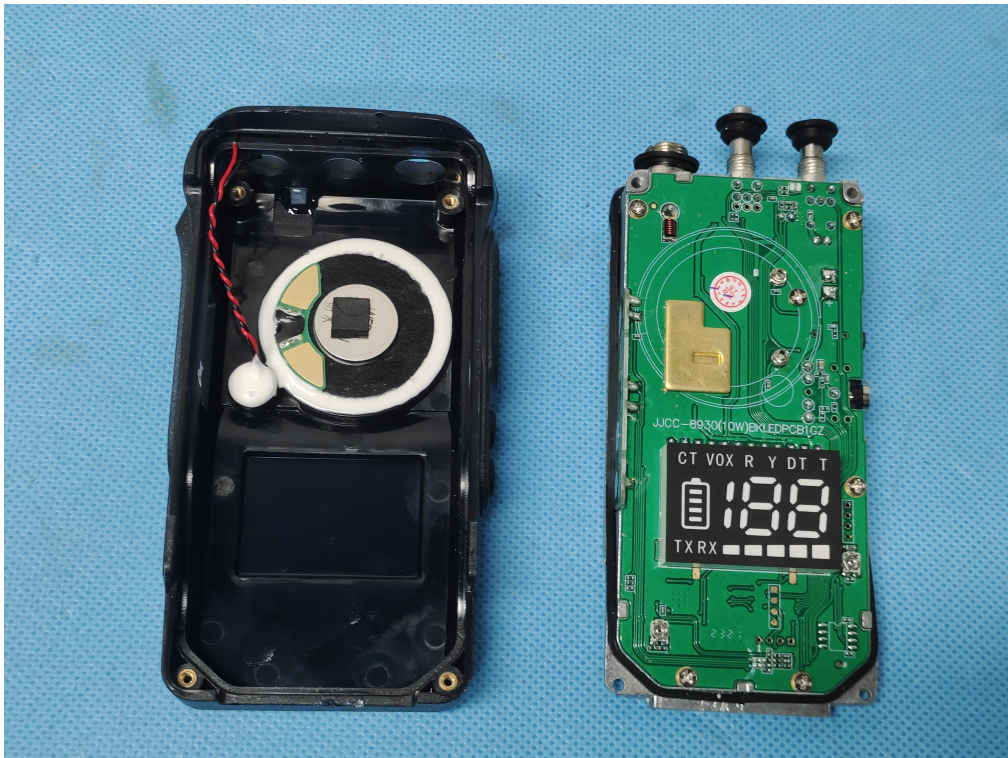


Fig.7 – view after testing (IP6X)

----- End of Report -----

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Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd. (the “Company”) solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the “Clients”).
2. Any report issued by Company as a result of this application for testing services (the “Report”) shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

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