

# TEST REPORT

IEC 60068-2-11

## Environmental testing for electric and electronic products- Part 2 :Test: Ka Salt mist

Report Reference No.....: AST2207108001

Tested by (+ signature).....: Jerry

Reviewed by (+ signature).....: Done

Approved by (+ signature).....: Ron Long

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### Testing laboratory

Name.....: Aerospace Testing Technology (Shenzhen) Co., Ltd.

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Testing location.....: Same as above

Applicant Name.....: Shenzhen Qi Jie Electronics Co., Ltd

Address.....: 2F, 1, Buiding 21th, Chuangye RD, Shilongzai Industrial Park saiyan, Baoan District, Shenzhen, GD, China.

Manufacturer name.....: Same as applicant

Address.....: Same as applicant

Factory name.....: Same as applicant

Address.....: Same as applicant

### Test specification :

Standard.....: IEC 60068-2-11: 2021 (Environmental testing for electric and electronic products-Part 2 :Test Ka: Salt mist)

Test procedure.....: Type test

Non-standard test method.....: N/A

Test Report Form No.....: IEC 60068-2-11-V01

Test Report Form(s) Originator.....: AST

Master TRF.....: 2022-07

### Test item:

Test item description.....: Hippo-M X Series

Brand Name.....: N/A

Model/Type reference.....: Hippo-M X Series

<b>Test judgement terms:</b>	
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object .... :	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement .... :	F (Fail)
<b>testing environment:</b>	
temperature .....	15-25°C
Humidity .....	50-65%RH
Pressure .....	101kPa
Date of receipt of test item.....:	2022-07-01
Date (s) of performance of tests .....	2022-07-01 to 2022-07-22
<b>General remarks:</b>	
<ol style="list-style-type: none"> <li>1. The report is invalid without "special test seal".</li> <li>2. If the report is not tested, the signature of the approving personnel is invalid.</li> <li>3. The report is invalid if altered.</li> <li>4. This report may not be partially reproduced without permission.</li> <li>5. The test results in this report are only valid for the tested samples.</li> <li>6. Objections to this report should be raised within 15 days of receipt of the report.</li> </ol>	

IEC 60068-2-11			
clause	test requirements	test results	verdict
3.1	saline solution		P
3.1.1	concentration		P
	The salt used in the test should be high quality sodium chloride, with a dry sodium iodide content of no more than 0.1% and a total impurity content of no more than 0.3%		P
	The concentration of salt solution shall be $(5 \pm 1) \%$ (mass ratio)	Concentration 5.05% (mass ratio)	P
	The solution shall be prepared by dissolving $(5 \pm 1)$ parts of salt in 95 parts of distilled or deionized water		P
3.1.2	pH value		P
	When the temperature is $(35 \pm 2) \text{ }^\circ\text{C}$ , the PH value of the solution should be within 6.5~7.2	pH value: 6.8	P
4	The initial testing		P
	Samples shall be visually inspected and, if necessary, mechanical and electrical properties tested in accordance with relevant standards	Visual inspection shows no rust and other phenomena	P
5	preprocessing		P
	The relevant standards shall specify the cleaning procedure to be used on the sample prior to the test and whether the protective coating shall be removed (Cleaning method should not affect the corrosive effect of salt spray on samples, and should not cause secondary corrosion)		P
6	condition experiments		P
6.2	The temperature of the test chamber should be maintained at $(35 \pm 2) \text{ }^\circ\text{C}$	After the start of the test, the temperature of the test chamber is kept within this range	P
6.4	According to the solution collected in 6.3, when measured at $(35 \pm 2) \text{ }^\circ\text{C}$ , the concentration and PH value should meet the requirements of 3.1.1 and 3.1.2 respectively	The collected solution was measured at $(35 \pm 2) \text{ }^\circ\text{C}$ , and its concentration and PH values met the requirements of 3.1.1 and 3.1.2, respectively	P
6.6	The relevant specification should be prescribed test cycle: 16 h, 24 h, 48 h, 96 h, 168 h, 336 h, 672 h Other:	Relevant specifications stipulate the test period: Other:72 h	P
7	recover		P
	At the end of the test, unless otherwise specified, small samples should be washed under running water for 5 minutes, then washed with distilled or deionized water, and then shaken or air-dried to remove water droplets		P
	The temperature of cleaning water should not exceed $35^\circ\text{C}$	The water temperature is $< 35^\circ\text{C}$	P

IEC 60068-2-11			
clause	test requirements	test results	verdict
	If necessary, the relevant specifications shall specify cleaning and drying methods for larger specimens	Non-large sample	P
	Samples should be placed under standard recovery conditions for no less than 1h and no more than 2h		P
8	The final test		P
	Final test samples shall be visually inspected and, if necessary, mechanical and electrical properties shall be tested according to relevant standards (Note: It should be ensured that the remaining salt deposition does not destroy the reproducibility of the measurement results)	The samples have no corrosion and conform to relevant standards and specifications	P

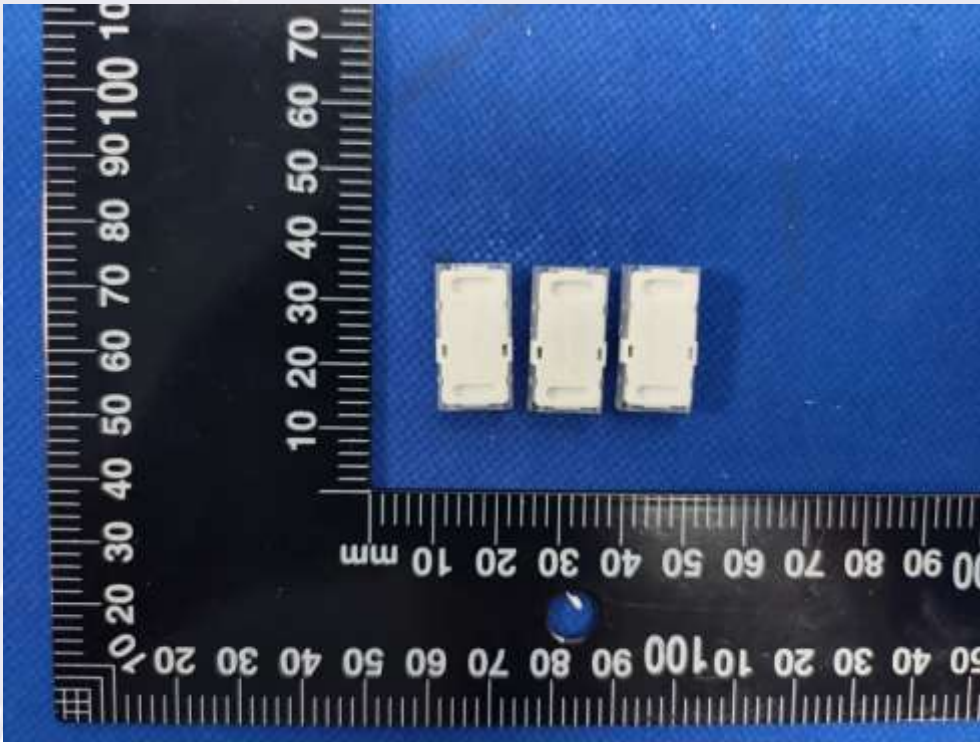


Fig 1- Overview



Fig 2- Test view

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