

<b>TEST REPORT</b>	
<b>IEC 60695-11-5</b>	
Part 11-5: Test flames -Needle-flame test method	
Apparatus, confirmatory test arrangement and guidance	
<b>Report Reference No</b> .....	AST2207201001
<b>Tested by (+ signature)</b> .....	Jerry 
<b>Reviewed by (+ signature)</b> .....	Done Fan 
<b>Approved by (+ signature)</b> .....	Ron Long 
<b>Date of issue</b> .....	Jul. 12, 2022
<b>Total number of pages</b> .....	Total 6 pages
	
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<b>Testing location</b> .....	Same as above
<b>Applicant Name</b> .....	
Shenzhen Qi Jie Electronics Co., Ltd	
<b>Address</b> .....	2F, 1, Buiding 21th, Chuangye RD, Shilongzai Industrial Park saiyan, Baoan District, Shenzhen, GD, China.
<b>Manufacturer name</b> .....	
Same as applicant	
<b>Address</b> .....	Same as applicant
<b>Factory name</b> .....	
Same as applicant	
<b>Address</b> .....	Same as applicant
<b>Test specification :</b>	
<b>Standard</b> .....	IEC 60695-11-5:2016
<b>Test procedure</b> .....	Type test
<b>Non-standard test method</b> .....	N/A
<b>Test Report Form No.</b> .....	
IEC 60695-11-5-V01	
<b>Test Report Form(s) Originator</b> .....	AST
<b>Master TRF</b> .....	2021-05
<b>Test item:</b>	
<b>Test item description</b> .....	Hippo-M X Series
<b>Brand Name</b> .....	N/A
<b>Model/Type reference</b> .....	Hippo-M X Series

**Test item particulars:**

Test Item:..... Needle-flame test.  
 Environmental Conditions:..... 22.3°C, 56.2%RH

**Tested Sample:**

Sample No.	Product Name	Model/Type	Quantity
#1	Hippo-M X Series	/	3pcs

**Possible test case verdicts:**

- 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)

**Testing**.....:

Date of receipt of test item.....: 2022-07-01  
 Date (s) of performance of tests.....: 2022-07-01 to 2022-07-12

**Note:**

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.

**Summary of testing:**

After test, The product meets the stage 1 of IEC 60695-11-5:2016

**General remarks: /**

## IEC 60695-11-5

Clause	Requirement + Test	Result - Remark	Verdict
<b>6</b>	<b>Test specimen</b>		<b>P</b>
	If possible, the test specimen shall be a complete equipment, sub-assembly or component. If it is necessary to take away parts of an enclosure or to cut off a suitable part to perform the test, care shall be taken to ensure that the test conditions are not significantly different from those occurring in normal use with regard to shape, ventilation conditions, effect of thermal stresses and possible flames occurring, or burning or glowing particles falling in the vicinity of the test specimen.	Complete equipment	P
	If the test specimen is a suitable part cut from a larger unit, care shall be taken to ensure that in this particular case the test flame is not applied incorrectly, for example to an edge created by cutting.		N/A
	If it is not possible to conduct the test on a sub-assembly or component within the equipment, the test is conducted on a test specimen removed from the equipment.		N/A
<b>7</b>	<b>Flame application times</b>		<b>P</b>
	Preferred values of the duration of application ( $t_a$ ) of the test flame are as follows: 5 s, 10 s, 15 s, 20 s, 30 s, 60 s, 120 s. The tolerance for all values is $\begin{matrix} 0 \\ -1 \end{matrix}$ s.	20s	P
<b>8</b>	<b>Conditioning and test conditions</b>		<b>P</b>
<b>8.1</b>	<b>Conditioning</b>		<b>P</b>
	If not otherwise specified in the relevant specification, the test specimen and the tissue-covered wooden board shall be conditioned for not less than 24 h in an atmosphere having a temperature between 15 °C and 35 °C and a relative humidity between 45 % and 75 % before starting the test. Once removed from the conditioning atmosphere, the test specimens shall be tested within 1 h (see ISO 291).		P
<b>8.2</b>	<b>Test conditions</b>		<b>P</b>
	Unless otherwise specified, all test specimens shall be tested under standard atmospheric conditions for testing as follows: – temperature: 15 °C to 35 °C; and – relative humidity: ≤ 75 %.	Temperature: 23.5°C; Humidity: 56.5%RH	P



Clause	Requirement + Test	Result - Remark	Verdict
<b>9</b>	<b>Test procedure</b>		<b>P</b>
<b>9.1</b>	<b>General Warning</b>		—
	Precautions shall be taken to safeguard the health of the personnel conducting tests against: <ul style="list-style-type: none"> <li>– the risks of explosion or fire;</li> <li>– the inhalation of smoke and/or toxic products; and</li> <li>– toxic residues.</li> </ul>		—
<b>9.2</b>	<b>Position of test specimen</b>		<b>P</b>
	Unless otherwise specified in the relevant specification, the test specimen shall be arranged in a position of normal use such that ignition is most likely to occur during the test. The means to fix the test specimen shall not influence the effect of the test flame or the propagation of flames in a way other than that occurring under normal conditions of use.		P
<b>9.3</b>	<b>Application of needle-flame</b>		<b>P</b>
	The test flame shall be applied to that part of the surface of the test specimen which is most likely to be affected by flames resulting from normal use or from fault conditions. Examples of flame test positions are shown in Figures 2a and 2b. <div style="text-align: center;"> <p>Figure 2a – Test position (horizontal example)      Figure 2b – Test position (vertical example)</p> </div>		P
	The duration of application of the test flame shall be as specified in the relevant specification.		P
	With the central axis of the burner tube vertical, place the burner remote from the test specimen, set the burner to produce a standardized 12 mm nominal test flame, conforming to 5.3. Wait for a minimum of 5 min to allow the burner conditions to reach equilibrium. Rotate the burner so that the burner tube is positioned at an angle of $45 \pm 5^\circ$ from the vertical (see Figure 1) throughout the duration of the test. <div style="text-align: center;"> <p>Figure 1 – Burner and flame</p> </div>		P

Clause	Requirement + Test	Result - Remark	Verdict
	The test flame shall be positioned so that the tip of the flame is in contact with the surface of the test specimen. If the test specimen is located vertically above the test flame, a spacing of $8\text{ mm} \pm 1\text{ mm}$ shall be maintained between the center of the top of the burner and the remaining portion of the test specimen during the test, ignoring any strings of molten material. If the test specimen is located horizontally from the test flame, a spacing of $5\text{ mm} \pm 1\text{ mm}$ shall be maintained between the center of the top of the burner and the remaining portion of the test specimen during the test (see Figure 1).		P
	The test flame is removed after the specified flame application time ( $t_a$ ) (see Clause 7).		P
	When required by the relevant specification, the test is applied at more than one point on the same test specimen, in which case care shall be taken to ensure that any deterioration caused by previous tests will not affect the result of the test to be conducted.		N/A
<b>9.4</b>	<b>Number of test specimens</b>		<b>P</b>
	Unless otherwise specified in the relevant specification, the test is performed on three test specimens.	3pcs	P

<b>10</b>	<b>Observations and measurements</b>		<b>P</b>
	In the case of ignition of the test specimen and/or the specified layer and/or the surrounding parts, the duration of burning ( $t_b$ ) is measured and reported. Ignition of the specified layer shall be observed and noted. The duration of burning denotes the time interval from the moment the test flame is removed from the test specimen, until the last flames have extinguished and the glowing combustion of the test specimen, the specified layer and/or the surrounding parts is no longer visible.		P

<b>11</b>	<b>Evaluation of test results</b>		<b>P</b>
	The test specimen is considered to have satisfactorily withstood the needle-flame test if one of the following criteria applies:		P
	a) There is no ignition of the specified layer and, after the removal of the needle-flame, there is no flame and no glowing of the test specimen.	No ignition	P
	b) Flames or glowing of the test specimen and the surrounding parts extinguish within 30 s after the removal of the needle-flame, that is $t_b < 30\text{ s}$ . Also, the surrounding parts have not burnt away completely and there has been no ignition of the specified layer.	No ignition	P

Photograph

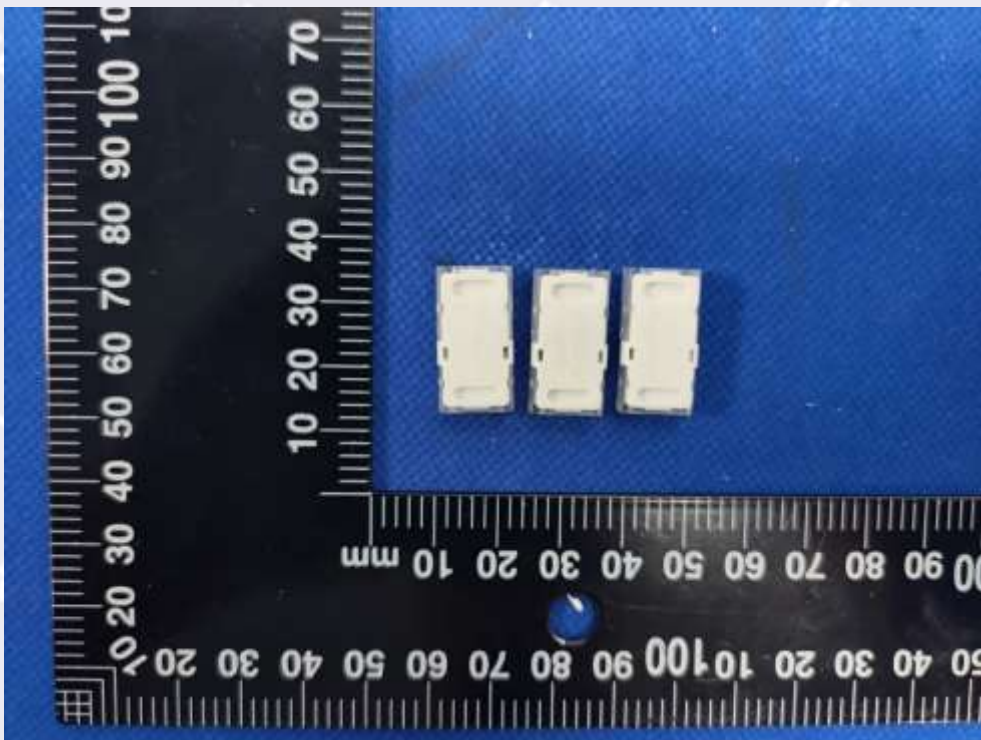


Fig 1- Overview

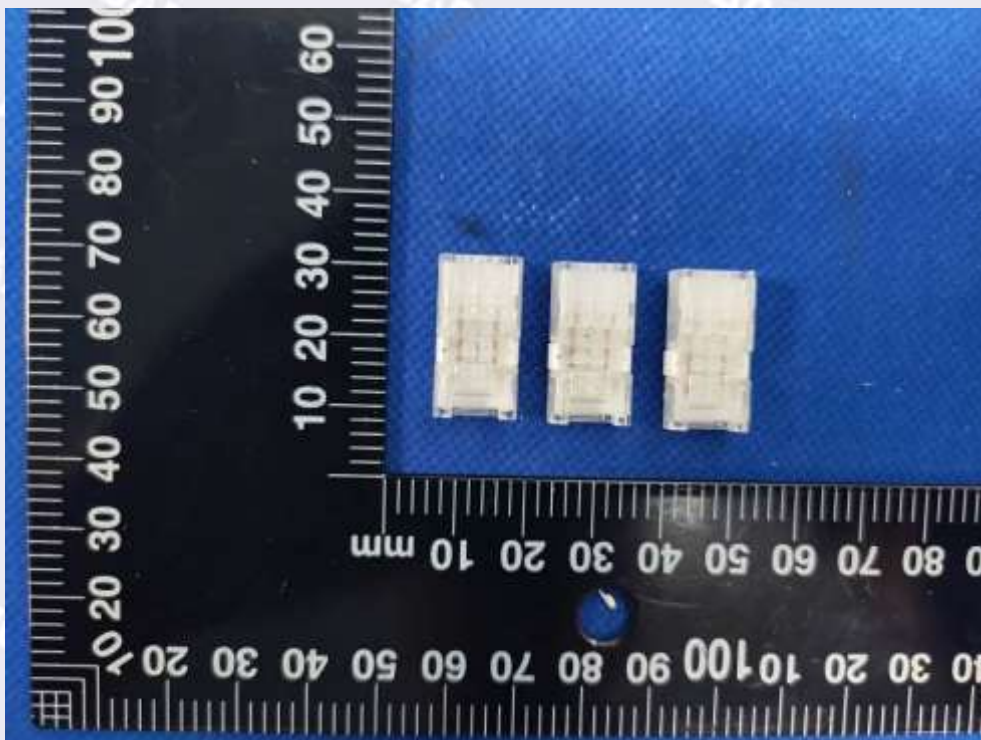


Fig 2- Overview

=====END OF REPORT=====