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TEST REPORT

No. : SHAM20230401600-1
Date : Apr.23,2023
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B.E.A ELECTRONICS (BEIJING) CO., LTD.
ROOMS 423, 424 AND 429, BLOCK B, GUANGHUA ROAD SOHO II, NO.9, GUANGHUA ROAD,
CHAOYANG DISTRICT, BEIJING

THIS REPORT IS TO SUPERSEDE TEST REPORT NO. SHAM20230401600 DATE: APR.21,2023.

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name : Magic switch chroma
Sample Number : SHAM20230401600
Product specification : 86 X 86 mm
Material and Mark : PC+ABS
Test Required : Degrees of protection
Date of Receipt : Apr.4,2023
Test Period : Apr.4,2023~Apr.21,2023
Test result(s) : For further details, please refer to the following page(s)

***** To be continued*****

Sign for
TÜV SÜD Certification and Testing (China) Co., Ltd.
Shanghai Branch
Industrial Material Testing Laboratory
Reviewed by:



Authorized by:

Aubrie Wang
Quality management representative

Cosmo Yuan
Technical Supervisor

Note: (1) General Terms & Conditions as mentioned overleaf or <https://www.tuvsud.cn/zh-cn/resource/terms-and-conditions---en>. (2) The results exclusively relate to the sample(s) under test. (3) The test report shall not be reproduced except in full, without the written approval of the laboratory.

Laboratory: Industrial Material Testing Laboratory

Phone: +86 21 6037 6300

Regd. Office: TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch

Address: Bldg. D, No. 2059, Duhui Rd., Minhang Dist., Shanghai, 201108, P.R. China

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Degrees of protection:

Test method : IEC 60529:1989/A2:2013/COR1:2019

Test environment:

Item	Temperature	Relative humidity	Atmospheric pressure
Standard requirement	15°C~35°C	25%~75%	86kPa~106kPa
Test environment (IP6X)	18.3°C	41%	101kPa
Test environment (IPX5)	19.2°C	44%	101kPa

Test equipment: Test kit D probe EC-JB-327, Waterproof samples consist of sand and dust test box EC-JB-014, Steel tape measure EC-JB-308, Comprehensive rain test room EC-JB-315, Digital temperature meter MC-JB-316

Test parameters:

Item	Test parameters	
IP6X	Test force	1N
	Volume of enclosure	50ml
	Depression	2kPa
	Test duration	8h
IPX5	Temperature of test water	292.8K
	Temperature of enclosure	292.1K
	Flow rate	12.5L/min
	Enclosure surface area	0.007m ²
	Test duration	3min

***** To be continued*****

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Test results:

Item	Requirement	Test results	Conclusion
	Push the rigid steel test wire with a diameter of 1.0+0.05 Omm without burrs at the edge into the opening of the shell of the test sample with a force of 1N±0.1N. The diameter of the test tool shall not pass through any opening and there shall be sufficient clearance between the test tool and the dangerous parts.	The diameter of the probe didn't pass through any opening and adequate clearance was kept between the access probe and hazardous parts.	Pass
IP6X	The test is carried out in a dust chamber. The powder in the chamber is talcum powder, the amount of powder is 2kg/m ³ and the volume of the chamber is 1m ³ .The pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2 kPa. If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2h; If with a maximum depression of 2 kPa 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 8h has elapsed. Requirements: The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test.	After the test there was no obvious dust deposition in the sample enclosure, and the sample function was normal.	Pass
IPX5	The test is made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle. Internal diameter of the nozzle:6.3mm; Delivery rate:(12.5±0.625)L/min; Water pressure: to be adjusted to achieve the specified delivery rate; Test duration per square metre of enclosure surface area likely to be sprayed:1 min; Minimum test duration: 3 min; Distance from nozzle to enclosure surface: between 2.5m and 3m. Requirement: After the enclosure shall be inspected for ingress of water.	After the test, no water entered the enclosure and the sample function was normal.	Pass

***** To be continued*****

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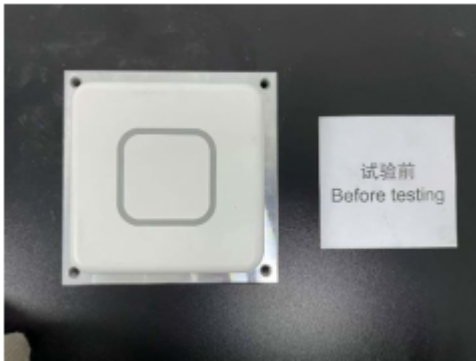
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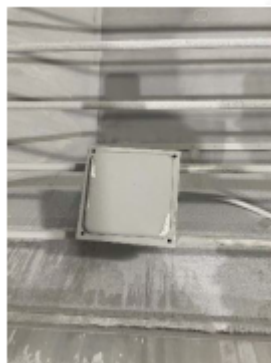
Test photo(s):



IP6X Before test



IP6X During test



IP6X During test



IP6X Probe



IP6X Probe



IP6X After test

***** To be continued*****

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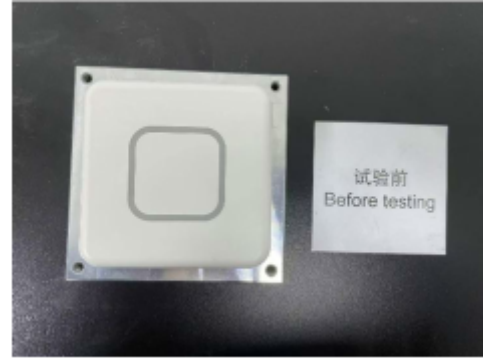
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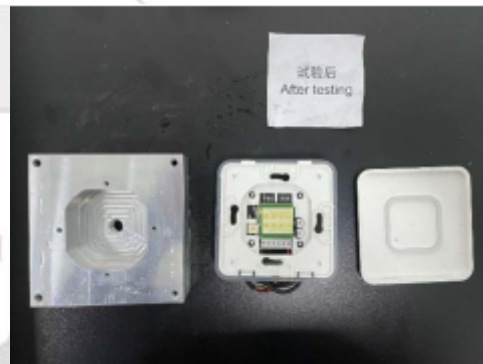
IP6X After test



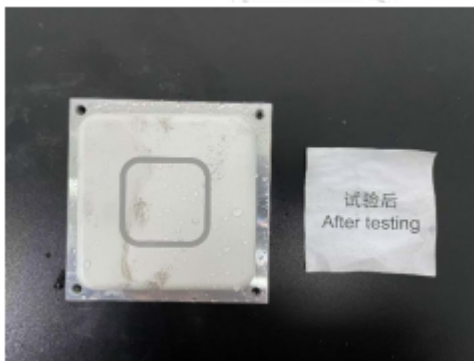
IPX5 Before test



IPX5 During test



IPX5 After test



IPX5 After test



IPX5 After test

***** To be continued*****

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Sample photo(s):



Statement:

The testing report without CMA stamp is not legally binding and could only be used as internal reference material for the applicant. It shall not be provided as a notarial certification.

This report is English version of test report SHAM20230401600-1, which exists in two official versions, English version and Chinese version.

***** End of report *****

TÜV
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