

IO-POWER TECHNOLOGY CO., LTD.  
 1F., NO. 100, JINZHU RD., NORTH DIST.,  
 HSINCHU CITY, TAIWAN

The following merchandise was submitted and identified by the vendor as:

Product Description: IP69 Waterproof and Corrosion-resistant and Wind-resistant and Anti-interference Aluminum Alloy Die-casting case  
 IOP-WMDC-1P1L6N4N-T (Toppan Cover) EV1  
Style/ Item No.: IOP-WMDC-1P1L6N4N-T / No.1  
Manufacturer/Vendor: IO-Power Technology Co., Ltd.  
Country of Origin: Taiwan  
Quantity: Total 1 piece  
Testing Period: Dec. 4, 2020 to Dec. 7, 2020

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Required:

Test for Degrees of Protection Provided by Enclosures (IEC 60529 Edition 2.2: 2013)

IP Code	IP6X
First characteristic numeral	Degrees of protection against access to hazardous parts and against solid foreign objects
Second characteristic numeral	Omitted

Test Results:

Conclusion
Submittals sample(s) comply with the requirement and acceptance conditions of IEC 60529 Edition 2.2: 2013 Degrees of Protection Provided by Enclosures -- IP6X The detailed description of test result, please see attached sheet(s).

Signed for and on behalf of  
 SGS TAIWAN Ltd.

Ivan Wang

Ivan Wang  
 Team Leader

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。  
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com.tw/Terms-and-Conditions](http://www.sgs.com.tw/Terms-and-Conditions) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/terms-and-conditions/terms-e-document](http://www.sgs.com/en/terms-and-conditions/terms-e-document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

# TEST REPORT

Test for Degrees of Protection Provided by Enclosures:

Test Equipment:

Name	Brand	Model	Serial No.
1.0 mm Test Wire Probe	ED&D	TRP-02	L12470907
Digital Force Gauge	ALGOL	HF-50	HF-106764
Dust Tester	T-MACHINE	TMJ-9723S	T-23-110708

Lab Environmental Conditions:

Ambient temperature: (15 ~ 35)°C  
 Ambient humidity: (25 ~ 75) % RH  
 Ambient pressure: (86~106) kPa

Test Location: No.33, Wu Chyuan Road, New Taipei Industrial Park, WuKu District, New Taipei City, Taiwan

Test Method/ Specification:

Test method: IEC 60529 Edition 2.2: 2013 --IP6X

**1. Test for protection against access to hazardous parts:**

Test method: The test wire with 1.0 mm in diameter and 100 mm long is pushed against or inserted through any openings of the enclosure with designated force. Examine whether the test wire touches the hazardous live parts inside the enclosure or not.

Test force: 1 N±10 %

**2. Test for protection against solid foreign objects:**

Test method: Dust test  
 Sample condition: Non-Operating  
 Category of enclosure: Category 1  
 Type of dust: Talcum powder  
 The amount of dust: 2 kg per cubic meter of the chamber volume  
 The maximum depression: < 20 mbar  
 Test duration: 8 hours

- Examine the protection against ingress dust of specimen(s) after this test.

# TEST REPORT

**Specimen:**

Style/ Item No.: IOP-WMDC-1P1L6N4N-T / No.1

Quantity: Total 1 piece

**Test Result:**

A. Degrees of protection against access to hazardous parts and against solid foreign objects (IP6X)

A-1 Test for protection against access to hazardous parts (IP6X)

Test Result		
Check Item	Style/ Item No.	
	IOP-WMDC-1P1L6N4N-T / No.1	
1	Does the test wire penetrate any openings of the enclosure?	No
2	(followed check item 1) If the test wire penetrates any openings of the enclosure, does the test wire touch any hazardous live parts or any hazardous mechanical parts?	N/A
3	(followed check item 2) Does adequate clearance be kept between the test wire and hazardous live parts or hazardous mechanical parts?	N/A

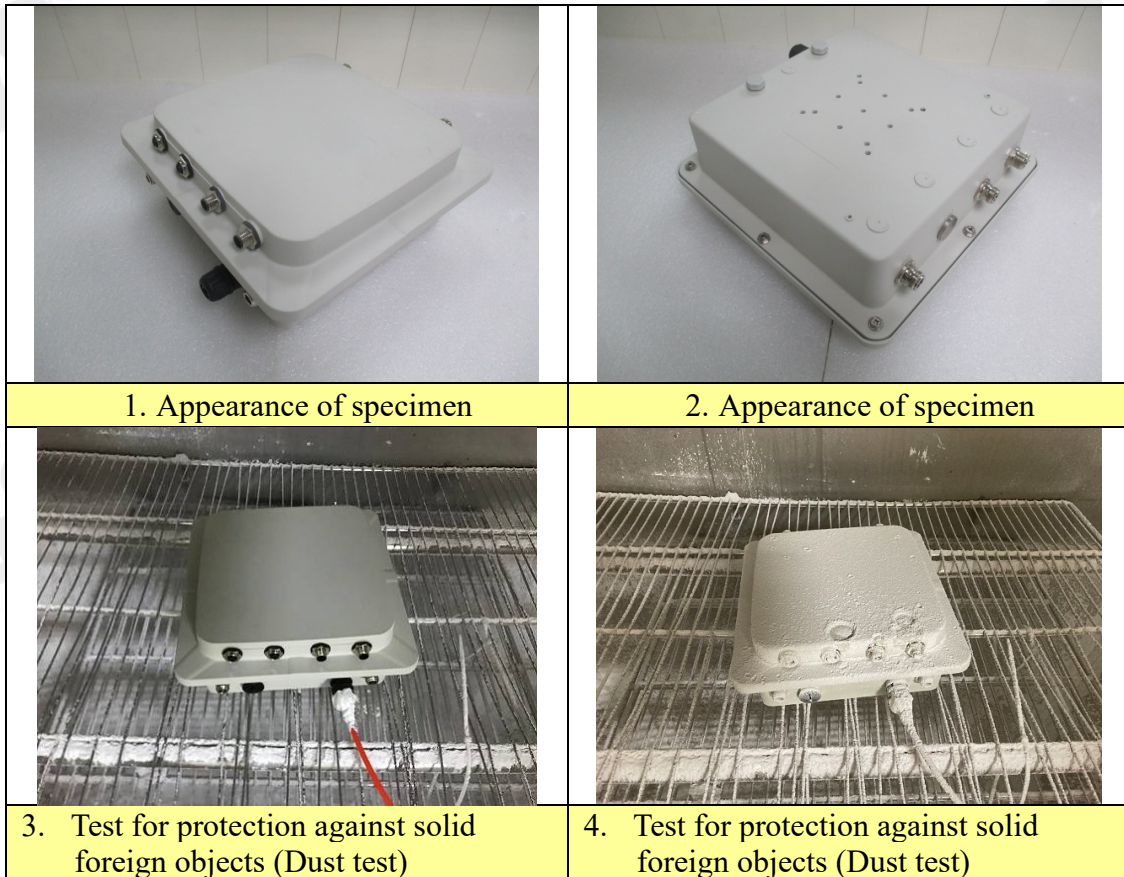
Note 1: N/A means "Not Applicable".  
The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60529 Edition 2.2: 2013 and in accordance with the acceptance conditions specified by client.

A-2 Test for protection against solid foreign objects (IP6X)

Test Result		
Check Item	Style/ Item No.	
	IOP-WMDC-1P1L6N4N-T / No.1	
1	Does any dust deposit inside the enclosure?	No

Note 1: N/A means "Not Applicable".  
The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60529 Edition 2.2: 2013 and in accordance with the acceptance conditions specified by client.

Test Photos:



— — — The End of Test Report — — —

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。  
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com.tw/Terms-and-Conditions](http://www.sgs.com.tw/Terms-and-Conditions) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/terms-and-conditions/terms-e-document](http://www.sgs.com/en/terms-and-conditions/terms-e-document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.