

# TEST REPORT

Reliability Laboratory

Report No.: HC60235/2019

Page: 1 of 6

Date: July 15, 2019

VIVOTEK INC.  
6F, NO. 192, LIEN-CHENG RD.,  
CHUNG-HO, NEW TAIPEI CITY,  
TAIWAN, R.O.C.

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

Product Description: IP CAMERA  
Style/ Item No.: IB9368-HT/ No.1  
Manufacturer/Vendor: Vivotek Inc.  
Quantity: Total 1 piece  
Testing Period: Jul. 5, 2019 to Jul. 10, 2019  
Note: (Client's declaration) The IB9368-HT and IB9388-HT used the identical enclosure.

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	IP66
<b>First characteristic numeral</b>	Degrees of protection against access to hazardous parts and against solid foreign objects
<b>Second characteristic numeral</b>	Degrees of protection against ingress of water

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 -- IP66 The detailed description of test result, please see attached sheet(s).

Signed for and on behalf of  
SGS TAIWAN Ltd.



Hank Chiou  
Sr. Supervisor

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/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/terms\\_e-document.htm](http://www.sgs.com/terms_e-document.htm). 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 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
IPX6 Water Jet Hose Nozzle Set	PTL	P03.28	5040045

Lab Environmental Conditions:

Ambient temperature: (15 ~ 35)°C  
Ambient humidity: (25 ~ 75) % RH

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 --IP66

**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 Method/ Specification--Continued:

**3. Test for protection against water:**

Sample condition: Non-Operating

Internal diameter  
of the nozzle: 12.5 mm

Delivery rate: 100 l/minute  $\pm$ 5%

Distance from nozzle  
to enclosure surface: between 2.5 m and 3 m

Core of the substantial  
stream: circle of approximately 120 mm diameter at 2.5 m distance from nozzle

Test duration: Total 3 minutes (Front/Right/Left face, each face 60 seconds)

- Examine the protection against ingress water of specimen after this test.

## TEST REPORT

Report No.: HC60235/2019

Page: 4 of 6

Specimen:

Style/ Item No.: IB9368-HT/ 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.	
	IB9368-HT/ 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". Note 2: 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.	
	IB9368-HT/ No.1	
1	Does any dust deposit inside the enclosure?	No
Note 1: N/A means "Not Applicable". Note 2: 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 REPORT

Report No.: HC60235/2019





Page: 5 of 6

Test Result--Continued:

**B. Degree of protection against ingress of water (IPX6)**

Test Result		Style/ Item No.
Check Item		IB9368-HT/ No.1
1	Does any water enter the enclosure?	No
2	(followed check item 1) If any water has entered, does the water accumulate near the cable end or live parts?	N/A
2.1	(followed check item 2) Does the water be sufficient to interfere with the correct operation of the equipment or impair safety?	N/A
2.2	(followed check item 2.1) Does the water deposit on insulation parts where it could lead to tracking along the creepage distances?	N/A
2.3	(followed check item 2.2) Does the water reach live parts or windings not designed to operate when wet?	N/A
<p>Note 1: N/A means "Not Applicable".</p> <p>Note 2: 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.</p>		

Test Photos:

	
<p>1. Appearance of specimen</p>	<p>2. Appearance of specimen</p>
	
<p>3. Test for protection against solid foreign objects (Dust test)</p>	<p>4. Test for protection against water</p>

— — — **The End of Test Report** — — —