

TEST REPORT

Report No.: HC60144/2019
 Page: 1 of 7
 Date: July 1, 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.: FD9387-HV/ No.1
Manufacturer/ Vendor: Vivotek Inc.
Country of Origin: Taiwan
Quantity: Total 1 piece
Testing Period: Jun. 25, 2019 to Jun. 28, 2019
Note: (Client's declaration) The other styles used the identical enclosure with FD9387-HV are shown in appendix I

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
First characteristic numeral	Degrees of protection against access to hazardous parts and against solid foreign objects
Second characteristic numeral	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).

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/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. 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)°CAmbient humidity: (25 ~ 75) % RHTest Location: No.33, Wu Chyuan Road, New Taipei Industrial Park, WuKu District, New Taipei City, TaiwanTest 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 testSample condition: Non-OperatingCategory of enclosure: Category 1Type of dust: Talcum powderThe amount of dust: 2 kg per cubic meter of the chamber volumeThe maximum depression: < 20 mbarTest 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

Test means: Spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle as specified in test standard.

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 (Top/ Front face, each face 90 seconds)

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

TEST REPORT

Report No.: HC60144/2019

Page: 4 of 7

Specimen:

Style/ Item No.: FD9387-HV/ 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.
		FD9387-HV/ 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.
		FD9387-HV/ 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 Result--Continued:



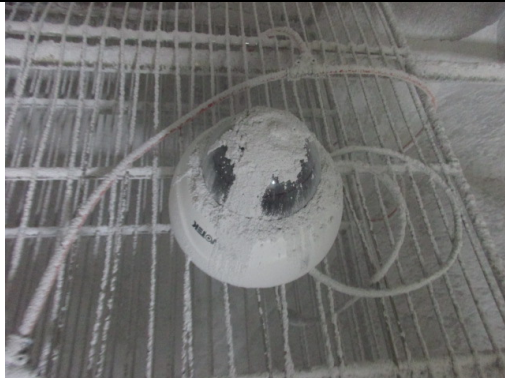

B. Degree of protection against ingress of water (IPX6)

Test Result		Style/ Item No.
Check Item		FD9387-HV/ 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
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.		

Appendix I (styles declaration by client):

FD9365-HTV-A 、 FD9365-EHTV-A 、 FD9387-HTV-A 、 FD9387-EHTV-A 、 FD9365-HTVL 、
FD9387-HTV 、 FD9387-EHV 、 FD9387-EHTV 、 FD9387-HV(AC) 、 FD9387-HTV(AC) 、
FD9387-HTV(W/O LOGO) 、 FD9387-EHV(AC) 、 FD9387-EHTV(AC) 、 FD9387-HVTPM 、
FD9367-EHTV 、 FD9367-HTV 、 FD9367-HV 、 FD9367-HTV(EPOC) 、 FD9367-HV(W/O IR) 、
FD9367-HV(W/O MIC) 、 FD8377-EHTV 、 FD8377-HTV 、 FD9371-EHTV 、 FD9371-HTV 、
FD9371-HTV(TILT 80) 、 FD9381-EHTV and FD9381-HTV

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** — — —