



Reliability Laboratory



# TEST REPORT

Report No.: HCD0020/2014  
Page: 1 of 6  
Date: December 11, 2014

ACELINK TECHNOLOGY CO., LTD.  
NO.3,WU-CHUAN 3<sup>RD</sup> ROAD,  
WU-KU INDUSTRIAL PARK,  
NEW TAIPEI CITY, TAIWAN

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

Product Description: Outdoor AP  
Style/ Item No.: SOPHOS AP 100X/ No.1, No.2  
Quantity: Total 2 pieces  
Testing Period: Dec. 9, 2014 to Dec. 11, 2014

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                              | IP67  |
|--------------------------------------|---|
| <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 -- IP67 The detailed description of test result, please see attached sheet(s). |

Signed for and on behalf of  
SGS TAIWAN Ltd.

Hank Chiou  
Asst. Supervisor

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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       | B0050180    |
| Digital Force Gauge      | ALGOL     | HF-50        | HF-106764   |
| Dust Tester              | T-MACHINE | TMJ-9723S    | T-23-110708 |
| IPX7/IPX8 Immersion Tank | Self-made | SGS-ETR-0201 | 000001      |

Lab Environmental Conditions:Ambient temperature:  $(25 \pm 3) ^\circ\text{C}$ Ambient humidity:  $(55 \pm 20) \% \text{RH}$ Test Method/ Specification:Test method: IEC 60529 Edition 2.2: 2013--IP67**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 $\pm$ 10 %**2. Test for protection against solid foreign objects:**Test method: Dust testSample condition: Non-OperatingType 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 of dust of specimen(s) after this test.

## TEST REPORT

Report No.: HCD0020/2014

Page: 3 of 6

Test Method/ Specification--Continued:

### 3. Test for protection against water:

Sample condition: Non-Operating

Test means: Completely immerse the specimen in water in its service position as specified by client.

Test condition: See below items marked “●”.

|   |  |
|---|--|
| ● | The lowest point of enclosures with a height less than 850 mm is located 1000 mm below the surface of the water                |
|   | The highest point of enclosures with a height equal to or greater than 850 mm is located 150 mm below the surface of the water |

Test duration: 30 minutes

Test Device: As shown in photo 4

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

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# TEST REPORT

Report No.: HCD0020/2014

Page: 4 of 6

**Specimen:**

Style/ Item No.: SOPHOS AP 100X/ No.1, No.2

Quantity: Total 2 pieces

**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.   |     |
|   | SOPHOS AP 100X/ 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.                             |    |
|   | SOPHOS AP 100X/ 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. |   |    |




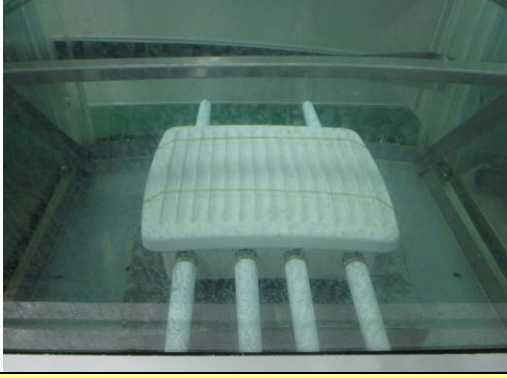
# TEST REPORT

Test Result--Continued:

B. Degree of protection against ingress of water (IPX7)

| Test Result   |   | Style/ Item No.      |
|---|---|----------------------|
| Check Item  |   | SOPHOS AP 100X/ No.2 |
| 1   | Does any water permeate into the specimen?  | 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 creep age 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 — — —

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