

System Reliability Engineering Department No.351, Kunjia Rd., Kunshan City, Jiangsu China Tel: 86-512-57639600, Fax: 86-512-57639639 http://www.isti.com.cn Report No.: KS1305160011A

Page : 1 of 8

# **ENVIRONMENT TEST REPORT**

Company : Advantech Technology (CHINA) Co., Ltd.

Address : NO.600, Han-Pu Road, Yu-Shan, Kun-Shan, Jiang Su, China

Sample Name : PPC-6170

Date of Received : May. 16, 2013

Date of Tested : May. 19, 2013 ~ May. 20, 2013

## **TESTING LABORATORY IS ACCREDITED BY:**

ISO/IEC 17025 Independent Test Laboratory Approval

Certificate No.: 1.72.0031/A

#### **WE HEREBY CERTIFY THAT:**

The test shown in the attachment was made in accordance with the procedures indicated. We assume full responsibility for the accuracy and completeness of these tests and vouch for the qualifications of all persons taking them.

|                  | Name        | Signature   | Date                           |  |
|------------------|-------------|-------------|--------------------------------|--|
| Testing Engineer | Peter Duan  | Peter Duan  | May. 28, 2013<br>May. 28, 2013 |  |
| Section Chief    | James Huang | James Hung  |                                |  |
| General Manager  | Coming Chen | Coming Chin | May. 28, 2013                  |  |

#### Notes:

- 1. This report will be invalid if duplicated or photocopied in part.
- 2. This report refers only to the specimen(s) submitted to test, and is invalid as separately used.
- 3. This report is invalid without examination stamp and signature of this institute.
- 4. The tested specimen(s) will be preserved for thirty days from the date issued, if not taken back by the applicant.

INTEGRATED System Reliability Engineering Department No.351, Kunjia Rd., Kunshan City, Jiangsu China Tel: 86-512-57639600, Fax: 86-512-57639639 http://www.isti.com.cn

Report No.: KS1305160011A

Page : 2 of 8

# **TABLE OF CONTENT**

# 1. **GENERAL INFORMATION**

|   | 1.1 DESCRIPTION OF EUT            | Page 3   |  |  |  |
|---|-----------------------------------|----------|--|--|--|
|   | 1.2 EUT TESTING SETUP             | Page 3   |  |  |  |
|   | 1.3 EUT OPERATING CONDITION       | Page 3   |  |  |  |
| 2 | 2. IP6X DUST TEST                 |          |  |  |  |
|   | 2.1 DESCRIPTION OF TEST EQUIPMENT | Page 4   |  |  |  |
|   | 2.2 LABORATORY AMBIENCE CONDITION | Page 4   |  |  |  |
|   | 2.3 REFERENCE DOCUMENT            | Page 4   |  |  |  |
|   | 2.4 TEST CONDITION                | Page 4   |  |  |  |
|   | 2.5 SUMMARY OF TEST               | Page 4   |  |  |  |
| 3 | <u>. IPX5 RAIN TEST</u>           |          |  |  |  |
|   | 3.1 DESCRIPTION OF TEST EQUIPMENT | Page 5   |  |  |  |
|   | 3.2 OUTDOOR AMBIENCE CONDITION    | Page 5   |  |  |  |
|   | 3.3 REFERENCE DOCUMENT            | Page 5   |  |  |  |
|   | 3.4 TEST CONDITION                | Page 5   |  |  |  |
|   | 3.5 SUMMARY OF TEST               | Page 5   |  |  |  |
|   | ATTACHMENT 1~3                    | Page 6~8 |  |  |  |



INTEGRATED System Reliability Engineering Department No.351, Kunjia Rd., Kunshan City, Jiangsu China Tel: 86-512-57639600, Fax: 86-512-57639639 http://www.isti.com.cn

Report No.: KS1305160011A

Page : <u>3</u> of <u>8</u>

## 1. GENERAL INFORMATION

## 1.1 DESCRIPTION OF EUT

MANUFACTURER: Advantech Technology (CHINA) Co., Ltd.

SAMPLE NAME: PPC-6170

SAMPLE QUANTITY: 1 unit

\*NOTE: EUT means "Equipment under test".

1.2 EUT TESTING SETUP: See attachment

1.3 EUT OPERATING CONDITION: None



INTEGRATED IST (KS) Corporation
System Reliability Engineering Department No.351, Kunjia Rd., Kunshan City, Jiangsu China Tel: 86-512-57639600, Fax: 86-512-57639639 http://www.isti.com.cn

Report No.: KS1305160011A

Page : 4 of 8

## 2. IP6X DUST TEST

### 2.1 DESCRIPTION OF TEST EQUIPMENT

Test equipment : Vötsch-VDT 1000A (RA-05)

Inside dimension: 95(Wide)\*95(Deep)\*90(High)/centimeter

Calibration date : January. 09, 2013

Expiration date : January. 09, 2014

#### 2.2 LABORATORY AMBIENCE CONDITION

Temperature : 25±10°C

Relative humidity: 55±20%RH

### 2.3 REFERENCE DOCUMENT

The test referred to IEC 60529 Level IP6X dust test.

#### 2.4 TEST CONDITION

**EUT mode: Non-operating** 

Dust material: Talcum powder

Dust density : Approximately 2kg / m<sup>3</sup>

Air direction : Vertically to achieve slowest possible downward settlement

Duration of exposure: 8 hours

Depression level: low 20 mbar

#### 2.5 SUMMARY OF TEST

After test, there was no dust permeated into the EUT.



System Reliability Engineering Department
No.351, Kunjia Rd., Kunshan City, Jiangsu China
Tel: 86-512-57639600, Fax: 86-512-57639639
http://www.isti.com.cn

Report No.: KS1305160011A

Page : <u>5</u> of <u>8</u>

## 3. IPX5 RAIN TEST

### 3.1 DESCRIPTION OF TEST EQUIPMENT

Test equipment : Vötsch VSPT 200-S (RA-07)

Inside dimension: 100(W)\*100(D)\*100(H)/cm

Calibration date : January. 09, 2013

Expiration date : January. 09, 2014



- Water flow meter
- Water pressure meter
- IEC 60529 IPX5 standard

## 3.2 OUTDOOR AMBIENCE CONDITION

Temperature : 25°C

Relative humidity: 50%RH

### 3.3 REFERENCE DOCUMENT

The test referred to IEC60529 IPX5 Jetting test rain test.

### 3.4 TEST CONDITION

**EUT mode: Non-operating** 

Water flow: 12.5 L/minute±5%

Diameter of nozzle: 6.3 millimeter

Test length: 3 minutes/front face

Distance to EUT: 2.5~3.0 meter

Water pressure: 0.3 bar

### 3.5 SUMMARY OF TEST

After test, there was no water permeated into the EUT.



System Reliability Engineering Department No.351, Kunjia Rd., Kunshan City, Jiangsu China Tel: 86-512-57639600, Fax: 86-512-57639639 http://www.isti.com.cn Report No.: KS1305160011A

Page : <u>6</u> of <u>8</u>

# Attachment 1: Photo for EUT





INTEGRATED System Reliability Engineering Department No.351, Kunjia Rd., Kunshan City, Jiangsu China Tel: 86-512-57639600, Fax: 86-512-57639639 http://www.isti.com.cn Report No.: KS1305160011A

Page : <u>7</u> of <u>8</u>

# Attachment 2: Photos for Environment Test IP6X Dust Test



**IPX5** Rain Test





System Reliability Engineering Department
No.351, Kunjia Rd., Kunshan City, Jiangsu China
Tel: 86-512-57639600, Fax: 86-512-57639639
<a href="http://www.isti.com.cn">http://www.isti.com.cn</a>

Report No.: KS1305160011A

Page : <u>8</u> of <u>8</u>

# Attachment 3: Photos for EUT after Environment Test



