Reliability Laboratory

# TEST REPORT

ACCREDITED
CERT #6709.01

Report No.: HC50098A/2025
Page: 1 of 6
Date: July 2, 2025

SINTRONES TECHNOLOGY CORP.
8F., NO. 95, ZHONGYUAN ST.,
ZHONGHE DIST., NEW TAIPEI CITY, TAIWAN, R.O.C.

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

| | |
|---|---|
| Product Description: | Computer |
| Style/ Item No.: | IBOX-650P-IP66/ No.1 |
| Manufacturer/Vendor: | SINTRONES Technology Corp. |
| Country of Origin: | Taiwan |
| Quantity: | Total 1 piece |
| Testing Period: | Jun. 26, 2025 to Jun. 30, 2025 |

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<br>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

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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 | L12470907 |
| Digital Force Gauge | DigiTech | DTG-50 | PF02562 |
| Dust Tester | T-MACHINE | TMJ-9723S | T-23-110708 |
| IPX6 Water Jet Hose Nozzle Set | PTL | P03.28 | 5040045 |
| Microprocessor Thermometer | Omega | HH23 | T-238319 |

Lab Environmental Conditions:

Ambient temperature: (15 ~ 35) ℃
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--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 & Mated with test cable
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) and perform functional check after this test.
- Functional check: Connect specimen(s) with rated power and panel, then examine whether the booting function of specimen(s) could work normally or not.

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Test Method/ Specification--Continued:

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

| | |
|---|---|
| Sample condition: | Operating(booting mode) & Mated with test cable |
| 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 ±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/ Rear/ Left/ Right/ Top/ Bottom face, each face 30 seconds) |

- Examine the protection against ingress water of specimen(s) and perform functional check after this test.
- Functional check: Connect specimen(s) with rated power and panel, then examine whether the booting function of specimen(s) could work normally or not.

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Specimen:

Style/ Item No.: IBOX-650P-IP66/ 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. |
| | | IBOX-650P-IP66/ 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".<br>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. |
| | | IBOX-650P-IP66/ No.1 |
| 1 | Does any dust deposit inside the enclosure? | No |
| 2 | Functional check | Normal |
| Note 1: N/A means "Not Applicable".<br>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. | | |

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Test Result--Continued:

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

| Test Result | | |
|---|---|---|
| Check Item | | Style/ Item No. |
| | | IBOX-650P-IP66/ 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 |
| 3 | Functional check | Normal |

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.

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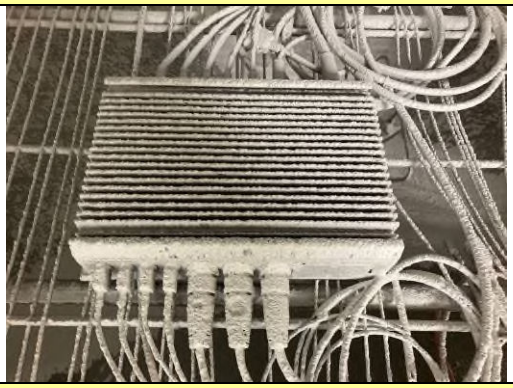
Test Photos:

| | |
|---|---|
| | |
| 1. Appearance of specimen | 2. Appearance of specimen |
| |  |
| 3. Appearance of specimen (Mated with test cable) | 4. Test for protection against solid foreign objects (Dust test) |
| | |
| 5. Test for protection against water | 6. Functional check |

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

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