

Page 1 of 11 Report No.: 2507008

TEST REPORT

IEC 60068 Environmental Testing -

Part 2-1: Test A: Cold

Part 2-78: Test Cab: Damp heat, steady state

Part 2-64: Test Fh: Vibration, broadband random and guidance

Part 2-27: Test Ea and guidance: Shock

Date of issue : 2025-07-21

Total number of papes: 11

Tested by Ellis Yu / (name, function, signature) : Engineer

Approved by David Wang / (name, function, signature).....: Reviewer

Testing Laboratory

Name: Universal Certification Technology Co. Ltd.

Address : 13F-5, No. 93, Sec. 1, Xintai 5th Rd., Xizhi Dist.,

New Taipei City 221, Taiwan.

Test Location: See page 3

Applicant

Name: Vecow Co., Ltd.

Address : 3F., No.10, Jiankang Rd., Zhonghe Dist., New Taipei City 23686,

Taiwan (R.O.C.)

Test item description

Product name : High Performance Fanless System

Trade mark(s): Vecow

Model /Type reference.....: ECX-4000-PoE

Rating: DC Power from Power adaptor

Test specification

Standard: : X IEC 60068-2-1: Edition 6.0: 2007

☑ IEC 60068-2-78: Edition 2.0: 2012☑ IEC 60068-2-64: Edition 2.1: 2019

IEC 60068-2-64: Edition 2.1: 2019

Test procedure: Examine the appearance of specimen by visual check and perform

functional check after the test

Test Result : No visible Damage and Functional check Normal

General disclaimer

The test results presented in this report relate only to the object tested.

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Tooting	•
Testina	•

Dates of receipt of test item: 2025-05-22

Date(s) of performance of tests : 2025-05-29 ~ 2025-07-09

All test items completed in Universal Certification Technology Co. Ltd. except Mechanical Shock Test via

SGS Taiwan Ltd.

General product information and other remarks:

1. Dimension of test object: 260.0mm x 175.0mm x 79.0mm (10.24" x 6.89" x 3.11")

2. Weight of test object: 3.8 kg (8.38 lb)

3. Interior Parts:

CPU: Intel[®] Core[™] Ultra 9 285T @1.4GHz RAM: Innodisk 32GB DDR5 4800 SODIMM x 2

SSD: Innodisk M.2 (P80) 1TB 4TG2-P

4. Test sample:

Individually section of enclosure (see below test method)

- 5. During test, the EUT was operating.
- 6. The test sample was a pre-production sample without serial number.
- 7. (Client's declaration) The Configuation of Specimen(s) as shown Below: N/A

Summary of compliance with standard:

We have tested the submitted sample(s) as requested and the following results were obtained:

<u>Test Required</u>: (According to client's test specification, please see following sheets in detail.)

- 1. Low Temperature Test
- 2. Damp Heat Test
- 3. Vibration Test
- 4. Mechanical Shock Test

Test Results:

- Please see attached Sheets

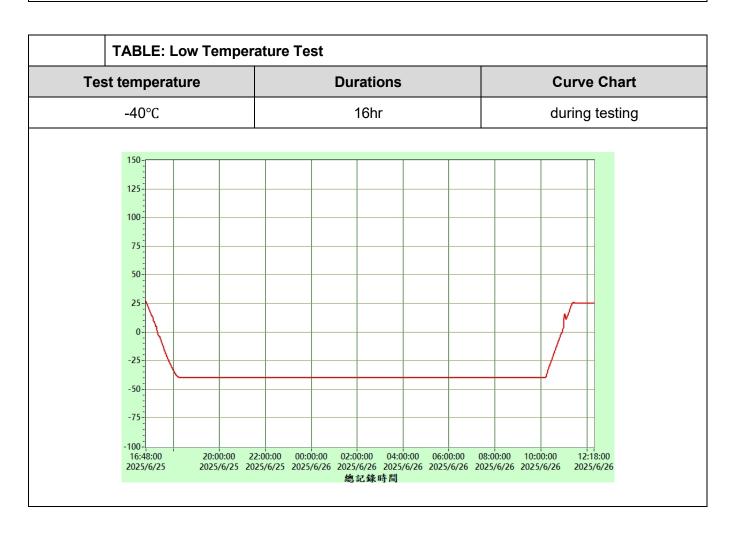
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1. Low Temperature Test

Test Equipment :				
Name	Brand	Model		Serial No.
Programmable Temperature & Humidity Chamber	Giant Force	GTH-225-40-CP-AR		MAA2004-008
Test	Laboratory Environm	ent Conditi	on:	
Temperature (°C)	Relative humidity (%) Air pr		pressure (kPa)	
15 ~ 35	25 ~ 75 86 ~ 106		86 ~ 106	
Test Location :				
13F-5, No. 93, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan.				
Test Method / Specification :				
IEC 60068-2-1 Edition 6.0: 2007 and client's request				



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2. Damp Heat Test

Test Equipment :				
Name	Brand	Brand Model		Serial No.
Programmable Temperature & Humidity Chamber	Giant Force	GTH-225-40-CP-AR		MAA2004-008
Test	Laboratory Environm	ent Conditi	on:	
Temperature (°C)	Relative humidity (%) Air p		pressure (kPa)	
15 ~ 35	25 ~ 75 86 ~ 10		86 ~ 106	
Test Location :				
13F-5, No. 93, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan.				
Test Method / Specification :				
IEC 60068-2-78 Edition 2.0: 2012 and client's request				

TABLE: Damp Heat Test Test Humidity Curve Chart Test temperature Durations 75°C 95% RH 16hr during testing 125-100-75-50-25 0--25 -50 -75 18:12:00 20:00:00 22:00:00 00:00:00 02:00:00 04:00:00 06:00:00 08:00:00 10:00:00 12:00:00 13:55:00 2025/6/24 2025/6/24 2025/6/24 2025/6/25 2025/6/25 2025/6/25 2025/6/25 2025/6/25 2025/6/25 2025/6/25 2025/6/25 2025/6/25 總記錄時間

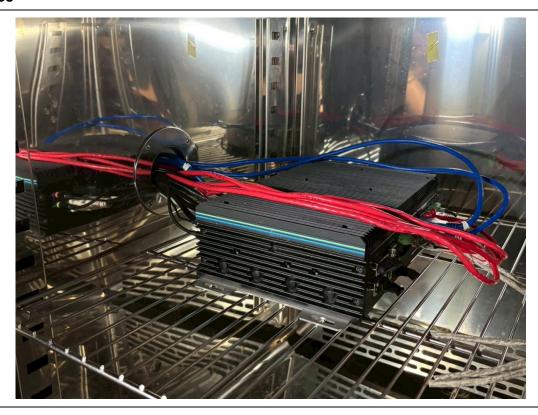
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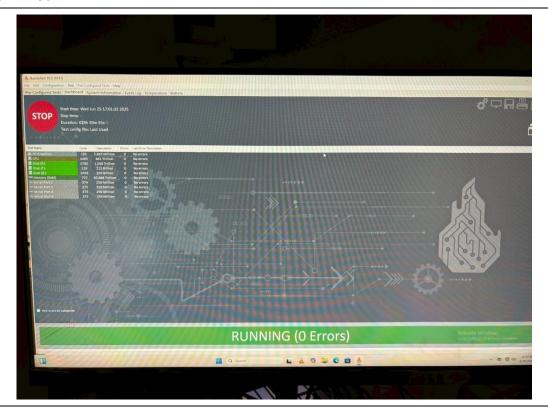




Test Photos



Functional Check



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3. Vibration Test

Test Equipment :			
Name	Brand	Model	Serial No.
Vibration Tester	Vibration Source	ZVS-600VH-51	E113006
Controller	Vibration Source	VST-9008	395352176

Test Laboratory Environment Condition:

Temperature (°C)	Relative humidity (%)	Air pressure (kPa)
15 ~ 35	25 ~ 75	86 ~ 106

Test Location :

13F-5, No. 93, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 221, Taiwan.

Test Method / Specification:

IEC 60068-2-64: Edition 2.1: 2019 and client's request

Vibration – operation Wave form: Random

Test Frequency: (5~500 Hz)

Frequency (Hz)	Left Slope(dB/Oct)	PSD(g ² /Hz)	Right Slope (dB/Oct.)
5	-	0.0504951	0
500	0	0.0504951	-
→equivalent to 5.0 grms			

Direction: X, Y, Z axis (see photo 1 ~ 3)

Duration: 30 minute / axis

Test Procedure:

- Check the sample's appearance before the test.
- Install the sample on the testing table and set up testing condition.
- After testing, take off sample from the table and put them in the storage area.
- Observe the sample and record for any visible change after testing.

Summary:

- No visible damage was found on sample appearance after the test.
- Sample photo after the test:

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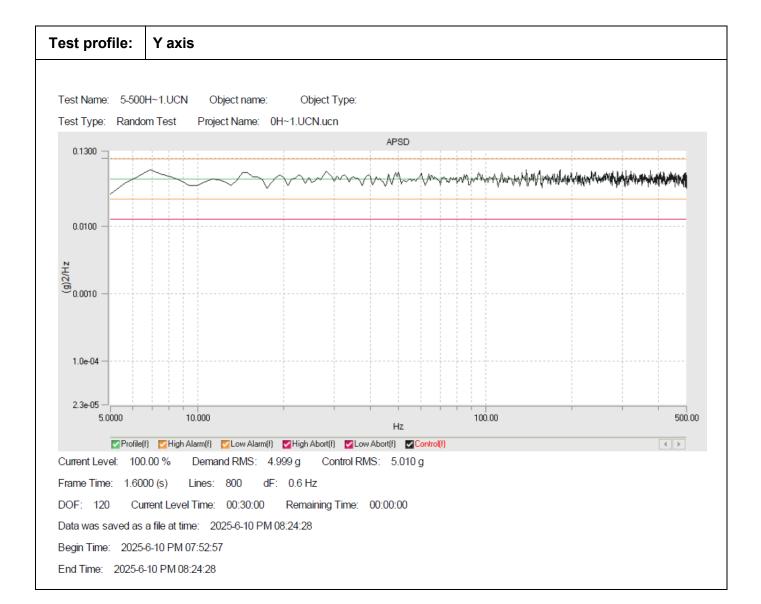
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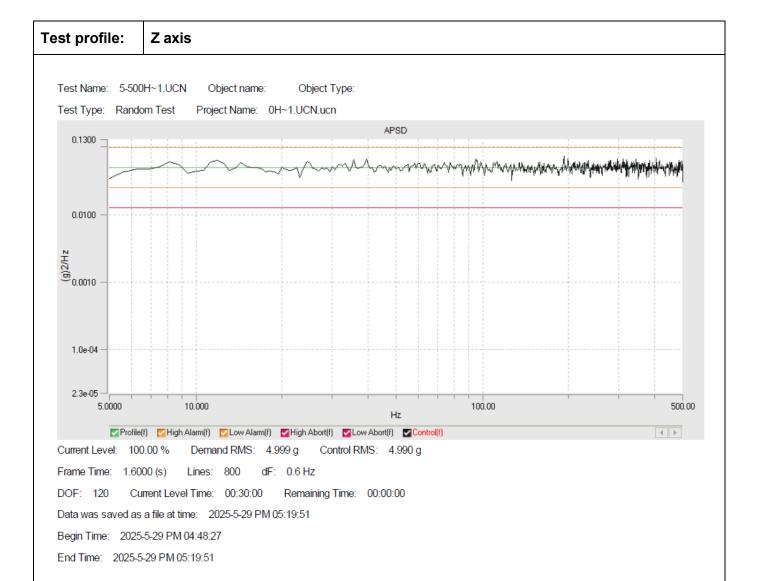


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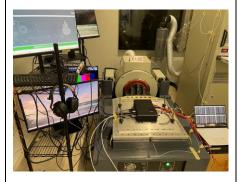








Test photos

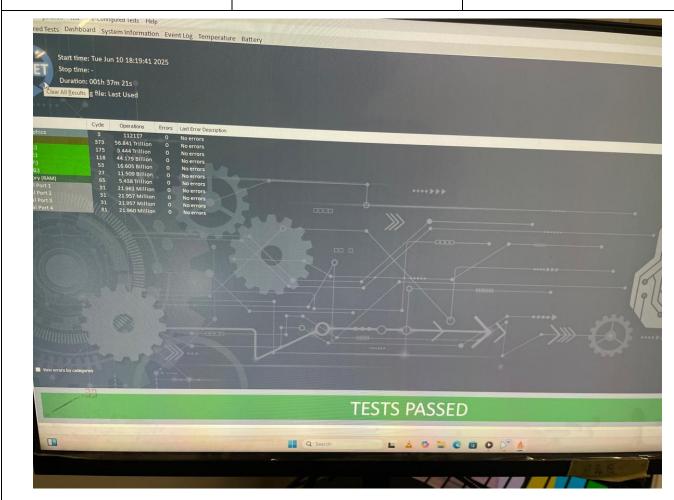






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1. X axis 2. Y axis 3. Z axis

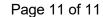


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EUT Photograph



EUT Photograph

--- The End of Test Report --

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Date: July 18, 2025

VECOW CO., LTD. 3F., NO.10, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY, TAIWAN

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

<u>Product Description:</u> High-performance Fanless system

Style/ Item No.: ECX-4000-PoE/ No.1

Quantity: Total 1 piece
Testing Period: Jul. 9, 2025

Note: CPU: Intel[®] CoreTM Ultra 9 285T @1.4GHz

RAM:Innodisk 32GB DDR5 4800 SODIMM x 2

SSD: Innodisk M.2 (P80) 1 TB 4TG2-P

We have tested the submitted sample(s) as requested and the following results were obtained:

<u>Test Required:</u> (According to client's test specification, please see following sheets in detail.)

1. Operating Mechanical Shock Test

Test Results: - PLEASE SEE ATTACHED SHEETS -

*HC60142/2025, dated on July 15, 2025, is hereby canceled and replaced by HC60142A/2025.

Signed for and on behalf of SGS TAIWAN Ltd.

Alex Chen Supervisor

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1. Operating Mechanical Shock Test:

Test Equipment:

Name	Brand	Model	Serial No.
Shock Test System	LANSMONT	95/115D	M-17656
Accelerometer	PCB	353M288	196436

Lab Environmental Conditions:

 (25 ± 3) °C Ambient temperature:

Ambient humidity: (55 ± 20) % RH

Test Location: No.31, Wu Chyuan Road, New Taipei Industrial Park, WuKu District,

New Taipei City, Taiwan

Test Method/ Specification:

Test method: IEC 60068-2-27 Edition 4.0: 2008 and client's request

Sample condition: **Operating**

Pulse shape: Half-sine

Acceleration: 50 g

Pulse duration: 11 ms

Shock direction: 6 faces ($\pm X$, $\pm Y$, $\pm Z$ axes)

No. of shocks: 3 shocks/axis (total 18 shocks)

- Examine the appearance of specimen(s) by visual check and perform functional check after this test.
- Functional check: Connect the specimen(s) with rated power then examine whether the test program "BurnIn Test" could work normally or not.

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Reliability Laboratory/ No.31, Wu Chyuan Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan



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Specimen:

Style/ Item No.: ECX-4000-PoE/ No.1

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional Check
ECX-4000-PoE/ No.1	No visible damage	Normal

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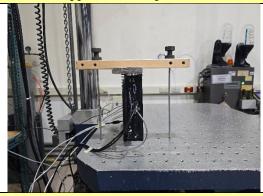
Test Photos:





1. Appearance of specimen

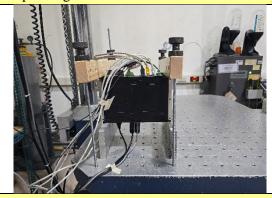
2. Appearance of specimen

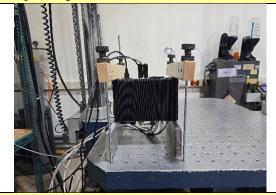




3. Operating Mechanical Shock Test: +X axis

4. Operating Mechanical Shock Test: -X axis





5. Operating Mechanical Shock Test: +Y axis

6. Operating Mechanical Shock Test: -Y axis

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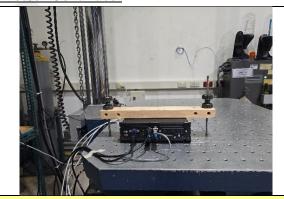
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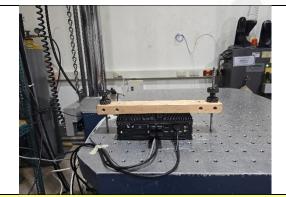
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Test Photos--Continued:



7. Operating Mechanical Shock Test: +Z axis



8. Operating Mechanical Shock Test: -Z axis



Functional check

The End of Test Report -

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