

TEST REPORT

Report No.: HC40039/2023

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Date: May 17, 2023

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:

Product Description: High-Performance Fanless System

Style/ Item No.: ECX-3000/ No.1

Quantity: Total 1 piece

Testing Period: Apr. 11, 2023 to May 11, 2023

Note: (Client's declaration) The configuration of specimen(s) as shown below:

1. CPU: I5-12500TE@1.9 GHz
2. RAM: SMART DDR4 3200 32GB Non-ECC SO-DIMM *2
3. SSD: MEMXPRO 2.5" SSD ET30 128GB WT

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

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

1. High Temperature Test
2. Low Temperature Test
3. Vibration Test
4. Mechanical Shock Test

Test Results: - PLEASE SEE ATTACHED SHEETS -

Signed for and on behalf of
SGS TAIWAN Ltd.



Alex Chen
Asst. Supervisor

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1. High Temperature Test:

Test Equipment:

Name	Brand	Model	Serial No.
Programmable Temperature & Humidity Chamber	Giant Force	GTH-408-40-CP-AR	MAA1112-012

Lab Environmental Conditions:

Ambient temperature: $(25 \pm 3) ^\circ\text{C}$

Ambient humidity: $(55 \pm 20) \% \text{RH}$

Test Location:

No.31, Wu Chyuan Road, New Taipei Industrial Park, WuKu District,
New Taipei City, Taiwan.

Test Method/ Specification:

Test Method: IEC 60068-2-2, Edition 5.0: 2007 and client's request

Test Temperature: 75 °C

Test Humidity: 95 % RH

Test duration: 16 hours

- Sample condition: Operating.
- Examine the appearance of specimen by visual check and perform functional check after this test.
- Functional check: Connect the specimen with rated power and then examine whether the test program "Burn-In" test could be work normally or not.

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Specimen:

Style/ Item No.: ECX-3000/ No.1

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional check
ECX-3000/ No.1	No visible damage	Normal

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2. Low Temperature Test:

Test Equipment:

Name	Brand	Model	Serial No.
Programmable Temperature & Humidity Chamber	Giant Force	GTH-408-40-CP-AR	MAA1112-012

Lab Environmental Conditions:

Ambient temperature: $(25 \pm 3) ^\circ\text{C}$

Ambient humidity: $(55 \pm 20) \% \text{RH}$

Test Location:

No.31, Wu Chyuan Road, New Taipei Industrial Park, WuKu District,
New Taipei City, Taiwan.

Test Method/ Specification:

Test Method: IEC 60068-2-1, Edition 6.0: 2007 and client's request

Test Temperature: -40 °C

Test duration: 16 hours

- Sample condition: Operating.
- Examine the appearance of specimen by visual check and perform functional check after this test.
- Functional check: Connect the specimen with rated power and then examine whether the test program "Burn-In" test could be work normally or not.

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Specimen:

Style/ Item No.: ECX-3000/ No.1

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional check
ECX-3000/ No.1	No visible damage	Normal

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3. Vibration Test:

Test Equipment:

Name	Brand	Model	Serial No.
Vibration Test System	UNHOLTZ-DICKIE	SAI60-H560BAC/2/ST	474
Controller	Dactron	LASER	7110357
Control Accelerometer	PCB	353B34	LW213529

Lab Environmental Conditions:

Ambient temperature: $(25 \pm 3) ^\circ\text{C}$

Ambient humidity: $(55 \pm 20) \% \text{RH}$

Test Location:

No.31, Wu Chyuan Road, New Taipei Industrial Park, WuKu District, New Taipei City, Taiwan.

Test Method/ Specification:

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

Wave form: Random

Frequency: (5 ~ 500) Hz

Frequency (Hz)	Left Slope (dB/Oct.)	PSD (g^2/Hz)	Right Slope (dB/Oct.)
5	-	0.05	0
500	0	0.05	-

⇒ equivalent to 5.0 g_{rms}

Direction:

X, Y, Z axes (as show in photo 5 ~ 7)

Test duration:

30 minutes/ axis

- Sample condition: Operating.
- Examine the appearance of specimen by visual check and perform functional check after this test.
- Functional check: Connect the specimen with rated power and then examine whether the test program "Burn-In" test could be work normally or not.

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Specimen:

Style/ Item No.: ECX-3000/ No.1

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional check
ECX-3000/ No.1	No visible damage	Normal

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4. Mechanical Shock Test :

Test Equipment:

Name	Brand	Model	Serial No.
Shock Test System	LANSMONT	95-115D	M17656
Data Acquisition & Analysis System	LANSMONT	TP4 8A-CH SML	1115-001
ICP Accelerometer	PCB	353M288	190564

Lab Environmental Conditions:

Ambient temperature: $(25 \pm 3) ^\circ\text{C}$

Ambient humidity: $(55 \pm 20) \% \text{RH}$

Test Location:

No. 33, 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

Pulse shape: Half-sine

Acceleration: 50 g

Pulse duration: 11 ms

Shock direction: 6 faces ($\pm X, \pm Y, \pm Z$ axes, see photo 8 ~ 13)

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

- Sample condition: Operating
- Examine the appearance of specimen by visual check and perform functional check after this test.
- Functional check: Connect the specimen with rated power and then examine whether the test program "Burn-In" test could be work normally or not.

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Specimen:

Style/ Item No.: ECX-3000/ No.1





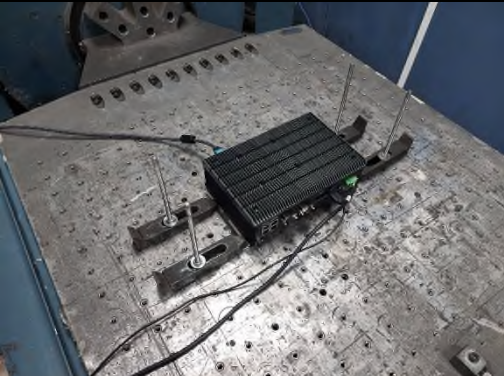

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional check
ECX-3000/ No.1	No visible damage	Normal

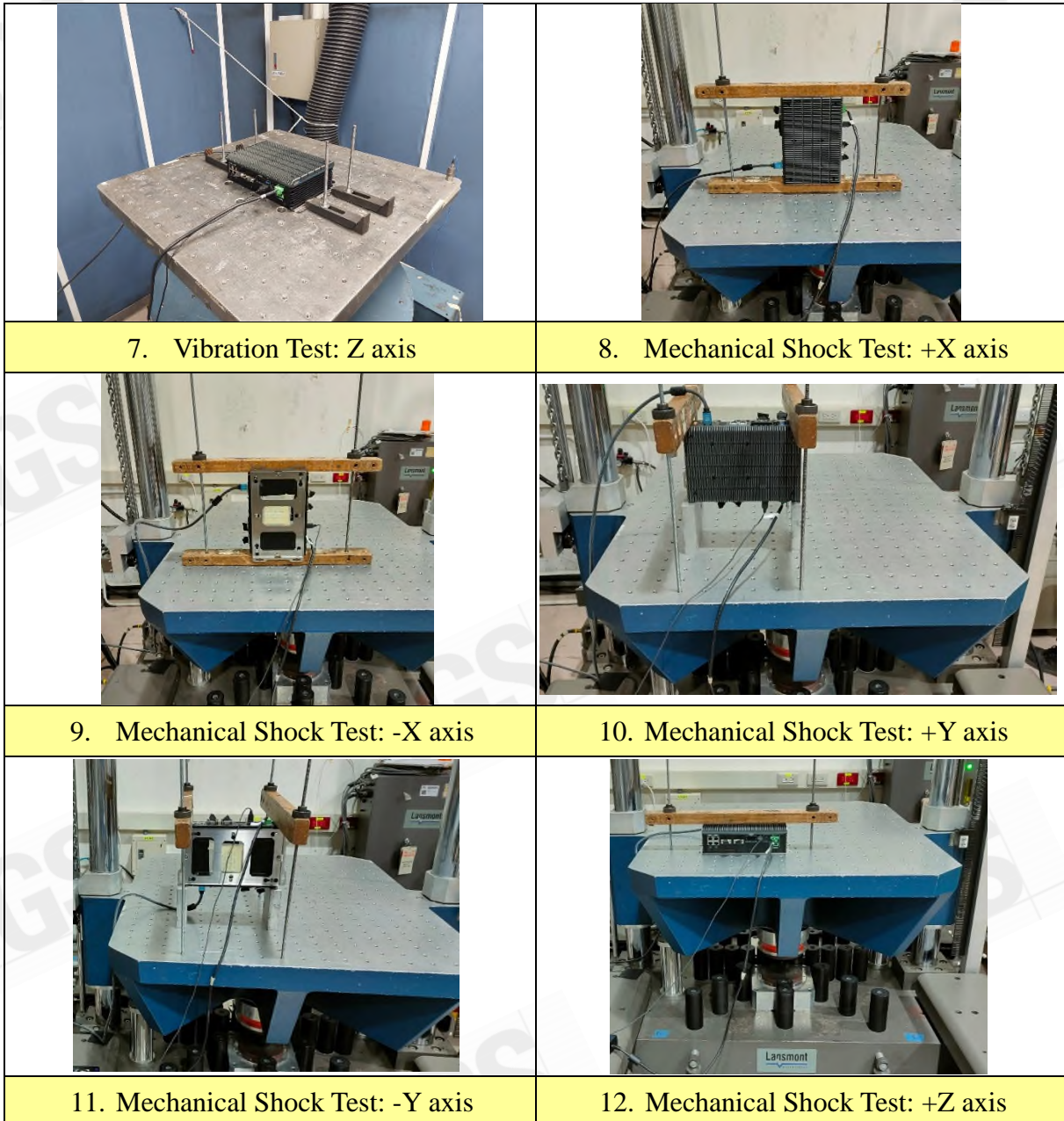
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Test Photos:

	
<p>1. Appearance of specimen</p>	<p>2. Appearance of specimen</p>
	
<p>3. High Temperature Test/ Low Temperature Test</p>	<p>4. High Temperature Test/ Low Temperature Test</p>
	
<p>5. Vibration Test: X axis</p>	<p>6. Vibration Test: Y axis</p>

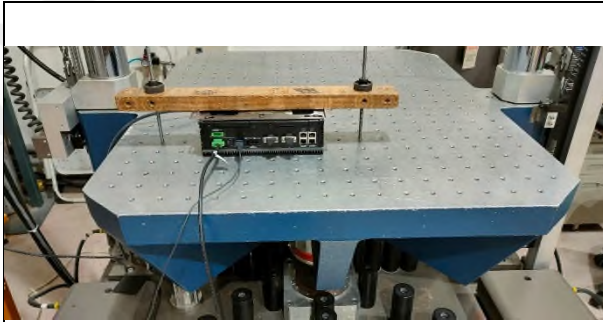
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Test Photos--Continued:



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Test Photos--Continued:



13. Mechanical Shock Test: -Z axis



14. Functional check

— — — The End of Test Report — — —

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