

## TEST REPORT

Report No.: HC60152A/2023  
Page: 1 of 11  
Date: November 2, 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: Compact Embedded Computing System  
Style/ Item No.: VCM-1100F/ No.1, No.2  
Quantity: Total 2 pieces  
Testing Period: Jul. 3, 2023 to Sep. 23, 2023  
Note: (Client's declaration) System Configuration of Equipment under measurement:  
CPU: 13th Intel® Core™ i7-13700TE @1.10GHz  
RAM: INNODISK DDR5 4800 W/T 32GB \*2  
SSD:MEMXPRO ET30 128GB

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 and High Humidity Test
2. Low Temperature Test
3. Vibration Test
4. Mechanical Shock Test

Test Results: – PLEASE SEE ATTACHED SHEETS –

\*HC60152A/2023 is the additional issued report with new test items and includes the test results of HC60152/2023, dated on August 10, 2023.

Signed for and on behalf of  
SGS TAIWAN Ltd.



Alex Chen  
Asst. Supervisor

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## 1. High Temperature and High Humidity Test:

### Test Equipment:

Name	Brand	Model	Serial No.
Programmable Temperature & Humidity Chamber	GIANT FORCE	GTH-800-60-CP-AR	MAA1804-001

### 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 60068-2-78, Edition 2.0: 2012 and client's request  
 Sample condition: Operating  
 Test Temperature: 75 °C  
 Test Humidity: 95 % RH  
 Test duration: 16 hours

- 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 "BurnIn test" could be work normally or not.

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**Specimen:**

Style/ Item No.: VCM-1100F/ No.2

Quantity: Total 1 piece

**Test Result:**

Style/ Item No.	Check Item Appearance Check (Visual check)	Functional check
VCM-1100F/ No.2	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-800-60-CP-AR	MAA2008-016

### 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

Sample condition: Operating

Test Temperature: -25°C

Duration: 16 hours

- 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 be work normally or not.

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**Specimen:**

Style/ Item No.: VCM-1100F/ No.1

Quantity: Total 1 piece

**Test Result:**

Style/ Item No.	Check Item	Appearance Check (Visual check)	Functional Check
VCM-1100F/ No.1		No visible damage	Normal

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### 3. Vibration Test:

#### Test Equipment:

Name	Brand	Model	Serial No.
Vibration Tester	King Design	EM-5000F2K-75N600	WR109237101
Controller	Crystal	Spider	1001664
Control Accelerometer	WR	793-6	A4632

#### 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 61373, Edition 2.0: 2010 and client's request

Sample condition: Operating

Wave form: Random

Frequency: (5 ~ 150) Hz

Vertical		Transverse		Longitudinal	
Frequency (Hz)	PSD ( $\text{g}^2/\text{Hz}$ )	Frequency (Hz)	PSD ( $\text{g}^2/\text{Hz}$ )	Frequency (Hz)	PSD ( $\text{g}^2/\text{Hz}$ )
5	0.007	5	0.00138	5	0.0033
150	0.007	150	0.00138	150	0.0033
rms = 0.99 $\text{m/s}^2$		rms = 0.44 $\text{m/s}^2$		rms = 0.68 $\text{m/s}^2$	

Direction: X, Y, Z axes (See photo 7 ~ 9)

Duration: 30 minutes/ axis

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

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**Specimen:**

Style/ Item No.: VCM-1100F/ No.2

Quantity: Total 1 piece

**Test Result:**

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional check
VCM-1100F/ No.2	No visible damage	Normal

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## 4. Mechanical Shock Test:

### Test Equipment:

Name	Brand	Model	Serial No.
Vibration Tester	King Design	EM-5000F2K-75N600	WR109237101
Controller	Crystal	Spider	1001664
Control Accelerometer	WR	793-6	A4632

### 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 61373, Edition 2.0: 2010 and client's request

Sample condition: Operating

Pulse shape: Half-sine

Acceleration: Vertical: 3 g

Transverse: 3g

Longitudinal: 5g

Pulse duration: 30 ms

Shock direction: 6 faces (+X, +Y, +Z axes, see photo 7 ~ 9)

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

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



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**Specimen:**

Style/ Item No.: VCM-1100F/ No.2

Quantity: Total 1 piece

**Test Result:**

<div style="text-align: center;">Check Item</div> <div style="text-align: left;">Style/ Item No.</div>	<div style="text-align: center;">Appearance Check (Visual check)</div>	<div style="text-align: center;">Functional check</div>
<div style="text-align: center;">VCM-1100F/ No.2</div>	<div style="text-align: center;">No visible damage</div>	<div style="text-align: center;">Normal</div>

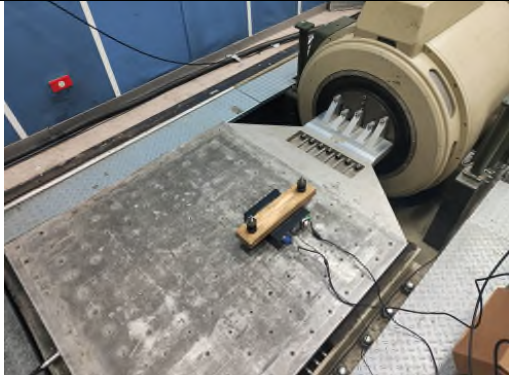

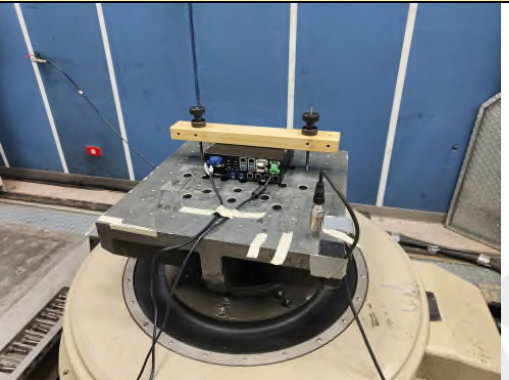
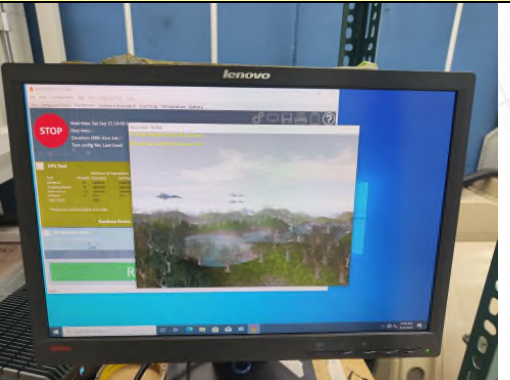
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Test Photos:



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Test Photos--Continued:

	
<p>7. Vibration Test: X axis / Mechanical Shock Test: <math>\pm</math>X axis</p>	<p>8. Vibration Test: Y axis / Mechanical Shock Test: <math>\pm</math>Y axis</p>
	
<p>9. Vibration Test: Z axis / Mechanical Shock Test: <math>\pm</math>Z axis</p>	<p>10. Functional check</p>

— — —The End of Test Report — — —

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