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October 24, 2023

Date:

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> Compact Embedded Computing System

Style/ Item No.: VCM-1000/ No.1, No.2

Quantity: Total 2 pieces

Testing Period: Jul. 3, 2023 to Sep. 5, 2023

Note: (Client's declaration) System Configuration of Equipment under measurement:

CPU: 13th Intel® Core<sup>TM</sup> 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 Test

2. Low Temperature Test

3. Vibration 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	GIANTFORCE	GTH-800-60-CP-AR	MAA2008-016

### Lab Environmental Conditions:

Ambient temperature:  $(25 \pm 3)$  °C

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

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

New Taipei City, Taiwan.

### Test Method/ Specification:

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

Test Temperature: 60 °C 95 % RH Test Humidity: Test duration: 16 hours

- Sample condition: Operating.
- Examine the appearance of specimen by visual check and perform functional check after this test.
- Functional Check: Turn on the power of specimen(s) then examine whether the "BurnIn test" of specimen(s) could be work normally or not.

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Specimen:

Style/ Item No.: VCM-1000/ No.1

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional check
VCM-1000/ 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	GIANTFORCE	GTH-800-60-CP-AR	MAA2008-016

### Lab Environmental Conditions:

Ambient temperature:  $(25 \pm 3)$  °C

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

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

New Taipei City, Taiwan.

### Test Method/ Specification:

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

Test Temperature: -25 °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: Turn on the power of specimen(s) then examine whether the "BurnIn test" of specimen(s) could be work normally or not.

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Specimen:

Style/ Item No.: VCM-1000/ No.1

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional check
VCM-1000/ No.1	No visible damage	Normal

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# 3. Vibration Test:

#### **Test Equipment:**

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

#### Lab Environmental Conditions:

Ambient temperature:  $(25 \pm 3)$  °C

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

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

Taipei City, Taiwan.

## Test Method/ Specification:

Test Method: IEC 60068-2-64, Edition 2.0: 2008 and client's request

Wave form: Random

 $(5 \sim 500) \text{ Hz}$ Frequency:

Frequency (Hz)	Left Slope (dB/Oct.)	PSD (g²/Hz)	Right Slope (dB/Oct.)
5	-	0.05	0
500	0	0.05	
⇒ equivalent to 5.0 g <sub>rms</sub>			

Direction: X, Y, Z axes (as show in photo  $5 \sim 7$ )

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: Turn on the power of specimen(s) then examine whether the "BurnIn test" of specimen(s) could be work normally or not.

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Specimen:

Style/ Item No.: VCM-1000/ No.2

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (Visual check)	Functional check
VCM-1000/ No.2	No visible damage	Normal

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# **Test Photos:**



Appearance of specimen



Appearance of specimen



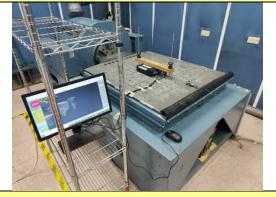
High/ Low Temperature Test



High/ Low Temperature Test



Vibration Test: X axis



Vibration Test: Y axis

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可靠度實驗室/新北市五股區新北產業園區五權路 31 號

t (886-2) 2299-3279 f (886-2) 2299-9558



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Test Photos--Continued:



Vibration Test: Z axis

Functional check

**The End of Test Report** 

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