

## TEST REPORT

Report No.: HCN0102/2023

Page: 1 of 7

Date: December 7, 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-1000/ No.1  
Quantity: Total 1 piece  
Testing Period: Nov. 30, 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. Vibration Test
2. Mechanical Shock Test

Test Results: – PLEASE SEE ATTACHED SHEETS –

Signed for and on behalf of  
SGS TAIWAN Ltd.



Hank Chiou  
Asst. Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。  
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com.tw/Terms-and-Conditions](http://www.sgs.com.tw/Terms-and-Conditions) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/terms-and-conditions/terms-e-document](http://www.sgs.com/en/terms-and-conditions/terms-e-document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

# TEST REPORT

## 1. Vibration Test:

### Test Equipment:

Name	Brand	Model	Serial No.
Vibration Tester	IMV	J260/SA7M	14101899
Controller	IMV	K2	14101899
Control Accelerometer	PCB	353B34	LW228240
Control Accelerometer	PCB	353B34	LW228241

### 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: MIL-STD-810G w/Change 1: 2014, Method 514.7, Procedure I, Table 514.7C-I Category 4 - Common carrier and client's request

Sample condition: Operating

Wave form: Random

Frequency: (10 ~ 500) Hz (Test Spectrums as shown in the following sheets in detail)

Direction: X, Y, Z axes

Duration: 1 hour/ axis

- Examine the appearance of specimen(s) by visual check and perform functional check after this test.
- Functional check: Turn on the power of specimen then execute the test program "BurnIn Test" while performing functional check.

# TEST REPORT

Test Method/ Specification--Continued:

Test Spectrums:

Vertical - Z axis		Transverse - X axis		Longitudinal - Y axis	
Frequency (Hz)	PSD (g <sup>2</sup> /Hz)	Frequency (Hz)	PSD (g <sup>2</sup> /Hz)	Frequency (Hz)	PSD (g <sup>2</sup> /Hz)
10	0.01500	10	0.00013	10	0.00650
40	0.01500	20	0.00065	20	0.00650
500	0.00015	30	0.00065	120	0.00020
⇨ equivalent to 1.04 G <sub>rms</sub>		78	0.00002	121	0.00300
		79	0.00019	200	0.00300
		120	0.00019	240	0.00150
		500	0.00001	340	0.00003
		⇨ equivalent to 0.20 G <sub>rms</sub>		500	0.00015
		⇨ equivalent to 0.74 G <sub>rms</sub>			

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。  
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com.tw/Terms-and-Conditions](http://www.sgs.com.tw/Terms-and-Conditions) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/terms-and-conditions/terms-e-document](http://www.sgs.com/en/terms-and-conditions/terms-e-document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

# TEST REPORT

Report No.: HCN0102/2023

Page: 4 of 7

**Specimen:**

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

Quantity: Total 1 set

**Test Result:**

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。  
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com.tw/Terms-and-Conditions](http://www.sgs.com.tw/Terms-and-Conditions) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/terms-and-conditions/terms-e-document](http://www.sgs.com/en/terms-and-conditions/terms-e-document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

**2. Mechanical Shock Test:****Test Equipment:**

Name	Brand	Model	Serial No.
Vibration Tester	IMV	J260/SA7M	14101899
Controller	IMV	K2	14101899
Control Accelerometer	PCB	353B34	LW228240
Control Accelerometer	PCB	353B34	LW228241

**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:** MIL-STD-810G w/Change 1: 2014, Method 516.7 Procedure I - Functional Shock and client's request

**Sample condition:** Operating

**Pulse shape:** Sawtooth

**Acceleration:** 20 g

**Pulse duration:** 11 ms

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

**No. of shock:** 3 shocks/ face (Total 18 shocks)

- Examine the appearance of specimen(s) by visual check and perform functional check after this test.
- Functional check: Turn on the power of specimen then execute the test program "BurnIn Test" while performing functional check.

# TEST REPORT

Report No.: HCN0102/2023

Page: 6 of 7

**Specimen:**

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




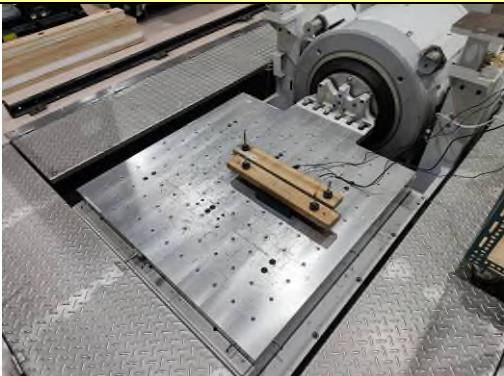
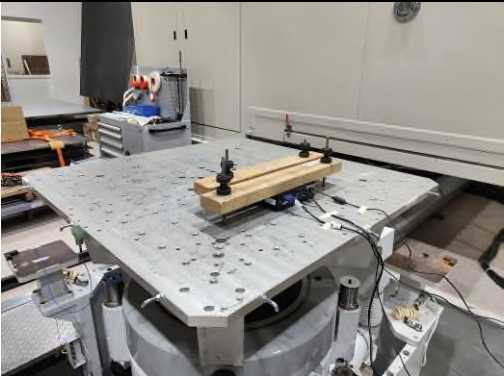
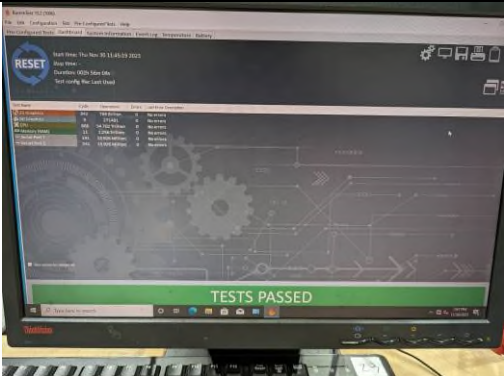
Quantity: Total 1 set

**Test Result:**

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

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。  
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com.tw/Terms-and-Conditions](http://www.sgs.com.tw/Terms-and-Conditions) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/terms-and-conditions/terms-e-document](http://www.sgs.com/en/terms-and-conditions/terms-e-document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Test Photos:

	
<p>1. Appearance of specimen</p>	<p>2. Appearance of specimen</p>
	
<p>3. Vibration Test: X axis/ Mechanical Shock Test: <math>\pm</math>X axis</p>	<p>4. Vibration Test: Y axis Mechanical Shock Test: <math>\pm</math>Y axis</p>
	
<p>5. Vibration Test: Z axis Mechanical Shock Test: <math>\pm</math>Z axis</p>	<p>6. Functional Check</p>

— — — The End of Test Report — — —

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留 90 天。本報告未經本公司書面許可，不可部份複製。 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at [www.sgs.com.tw/Terms-and-Conditions](http://www.sgs.com.tw/Terms-and-Conditions) and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at [www.sgs.com/en/terms-and-conditions/terms-e-document](http://www.sgs.com/en/terms-and-conditions/terms-e-document). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.