

TEST REPORT

Report No.: HCN0149/2021
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Date: December 22, 2021

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: Ultra-Compact Embedded System
Style/ Item No.: MTC-8010W/ No.1, No.2
Quantity: Total 1 piece
Testing Period: Dec. 1, 2021 to Dec. 21, 2021
Note: (Client's declaration) The configuration of specimen(s) as shown below:
1. CPU: Intel® Atom (TM) Processor E3950 @ 1.6GHz
2. RAM: INNODISK 4GB DDR3L 1866 W/T SODIMM
3. SSD: INNODISK 2.5" SATA SSD 3 MG2-P 64GB

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. Random Vibration Test
4. Mechanical Shock Test

Test Results: - PLEASE SEE ATTACHED SHEETS -

Signed for and on behalf of
SGS TAIWAN Ltd.



Hank Chiou
Asst. Manager

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1. High Temperature Test:

Test Equipment:

Name	Brand	Model	Serial No.
Programmable Temperature & Humidity Chamber	KSON	THS-D6TS-150+LN2	5654KT

Lab Environmental Conditions:

Ambient temperature: (25 ± 3) °C

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:

Sample Condition: Operating

Test Temperature: 60 °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 rate power then execute the test program "Burn-In Test" while performing functional check.

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Specimen:

Style/ Item No.: MTC-8010W/ No.1

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (visual check)	Functional Check
MTC-8010W/ 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	KSON	THS-D6TS-150+LN2	5654KT

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:

Sample Condition: Operating

Test Temperature: -10 °C

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 rate power then execute the test program "Burn-In Test" while performing functional check.

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Specimen:

Style/ Item No.: MTC-8010W/ No.2

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (visual check)	Functional Check
MTC-8010W/ No.2	No visible damage	Normal

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3. Random 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	139174
Vibration Test System	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 60068-2-64 Edition 2.1: 2019 and client's request

Sample condition: Operating

Wave form: Random

Frequency: (5 ~ 500) Hz

Frequency (Hz)	Left Slope (dB/Oct.)	PSD (g^2/Hz)	Right Slope (dB/Oct.)
5	—	0.00582557	0
500	0	0.00145639	—

⇨ equivalent to 1 G_{rms}

Direction: X, Y, Z axes (See photo 5 ~ 7)

Duration: 30 minutes/ axis

- Examine the appearance of specimen by visual check and perform functional check after this test.
- Functional check: Connect the specimen with rate power then execute the test program "Burn-In Test" while performing functional check.

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Specimen:

Style/ Item No.: MTC-8010W/ No.1

Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (visual check)	Functional Check
MTC-8010W/ No.1	No visible damage	Normal

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4. Mechanical Shock 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	139174
Vibration Test System	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 60068-2-27 Edition 4.0: 2008 and client's request

Sample condition: Operating

Pulse shape: Half-sine

Acceleration: 20 g

Pulse duration: 11 ms

Shock direction: 6 faces (+X, +Y, +Z axes, see photo 5 ~ 7)

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

- Examine the appearance of specimen by visual check and perform functional check after this test.
- Functional check: Connect the specimen with rate power then execute the test program "Burn-In Test" while performing functional check.

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Specimen:

Style/ Item No.: MTC-8010W/ No.1




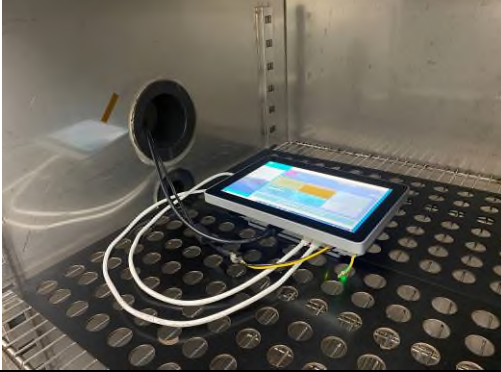


Quantity: Total 1 piece

Test Result:

Check Item Style/ Item No.	Appearance Check (visual check)	Functional Check
MTC-8010W/ No.1	No visible damage	Normal

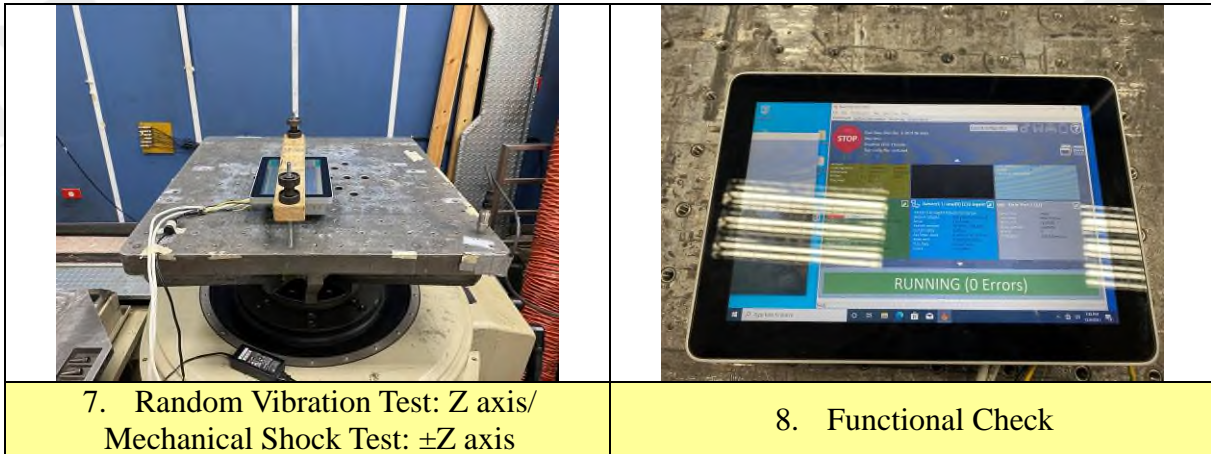
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Test Photos:

	
<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. Random Vibration Test: X axis/ Mechanical Shock Test: $\pm X$ axis</p>	<p>6. Random Vibration Test: Y axis/ Mechanical Shock Test: $\pm Y$ axis</p>

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Test Photos-- Continued:



— — — The End of Test Report — — —

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