

## TEST REPORT

Report No.: HC90051/2020  
Page: 1 of 12  
Date: September 17, 2020

VECOW CO., LTD.  
3F., NO.10, JIANKANG RD., ZHONGHE DIST.,  
NEW TAIPEI CITY, TAIWAN, R.O.C.

The following merchandise was submitted and identified by the vendor as:

Product Description: ABP-3000  
Style/ Item No.: ABP-3000-8665U/ No.1  
Quantity: Total 1 piece  
Testing Period: Sep. 9, 2020 to Sep. 12, 2020

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

Test Results : -PLEASE SEE ATTACHED SHEETS-

Signed for and on behalf of  
SGS TAIWAN Ltd.



Hank Chiou  
Sr. Supervisor

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## 1. Low Temperature Test:

### Test Equipment:

Name	Brand	Model	Serial No.
Programmable Temperature & Humidity Chamber	Giant Force	GTH-800-40-CP-AR	MAA2008-014

### 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:

Sample condition: Operating (execute "BurnIn Test")

Test Temperature: -40°C

Test Duration: 16 hours

- 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 "Burn-In Test" while performing functional check.

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**Specimen:**

Style/ Item No.: ABP-3000-8665U/ No.1

Quantity: Total 1 piece

**Test Result:**

Check Item Style/ Item No.	Appearance Check (visual check)	Functional check
ABP-3000-8665U/ No.1	No visible damage	Normal

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### 2. High Temperature Test:

#### Test Equipment:

Name	Brand	Model	Serial No.
Programmable Temperature & Humidity Chamber	Giant Force	GTH-800-40-CP-AR	MAA2008-014

#### 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:

Sample condition: Operating (execute "BurnIn Test")

Test Temperature: 75°C

Test Duration: 16 hours

- 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 "Burn-In Test" while performing functional check.

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**Specimen:**

Style/ Item No.: ABP-3000-8665U/ No.1

Quantity: Total 1 piece

**Test Result:**

Check Item Style/ Item No.	Appearance Check (visual check)	Functional check
ABP-3000-8665U/ No.1	No visible damage	Normal

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### 3. 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	1115-001
ICP Accelerometer	PCB	353M288	196437

#### 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

Sample condition: Operating (execute "BurnIn Test")

Pulse shape: Half-sine

Acceleration: 50 g

Pulse duration: 11 ms

Shock direction: 6 faces ( $\pm X$ ,  $\pm Y$ ,  $\pm Z$  axes, see photo 5 ~ 10)

No. of shock: 3 shocks/ axis (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 examine the test program "BurnIn Test" could work normally or not.

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**Specimen:**

Style/ Item No.: ABP-3000-8665U/ No.1

Quantity: Total 1 piece

**Test Result:**

Check Item Style/ Item No.	Appearance Check (visual check)	Functional check
ABP-3000-8665U/ No.1	No visible damage	Normal

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## 4. Random Vibration Test:

### Test Equipment:

Name	Brand	Model	Serial No.
Vibration Test System	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: IEC 60068-2-64, Edition 2.0: 2008

Sample condition: Operating (execute "BurnIn Test")

Wave form: Random

Frequency: (5 ~ 500) Hz

Frequency (Hz)	Left Slope (dB/Oct.)	PSD ( $\text{g}^2/\text{Hz}$ )	Right Slope (dB/Oct.)
5	—	0.05	0
500	0	0.05	—

⇔ equivalent to 5.0  $G_{\text{rms}}$

Direction: X, Y, Z axes (see photo 11 ~ 13)

Duration: 30 minutes/ 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 examine the test program "BurnIn Test" could work normally or not.



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**Specimen:**

Style/ Item No.: ABP-3000-8665U/ No.1




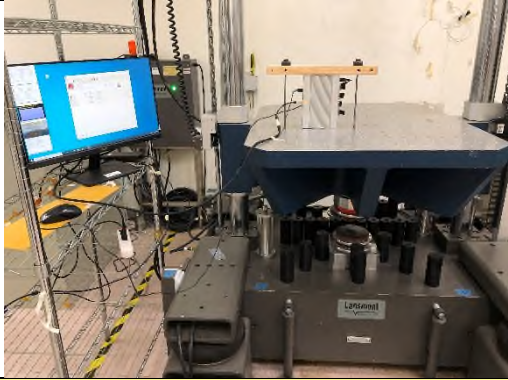
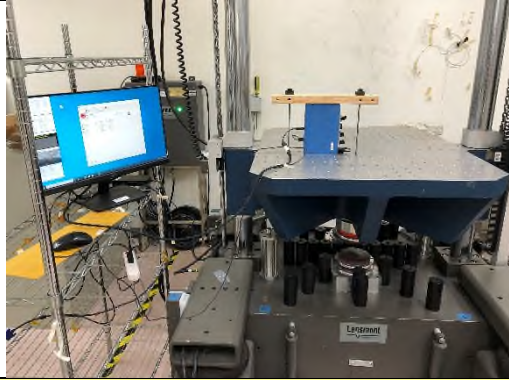
Quantity: Total 1 piece

**Test Result:**

Check Item Style/ Item No.	Appearance Check (visual check)	Functional check
ABP-3000-8665U/ No.1	No visible damage	Normal

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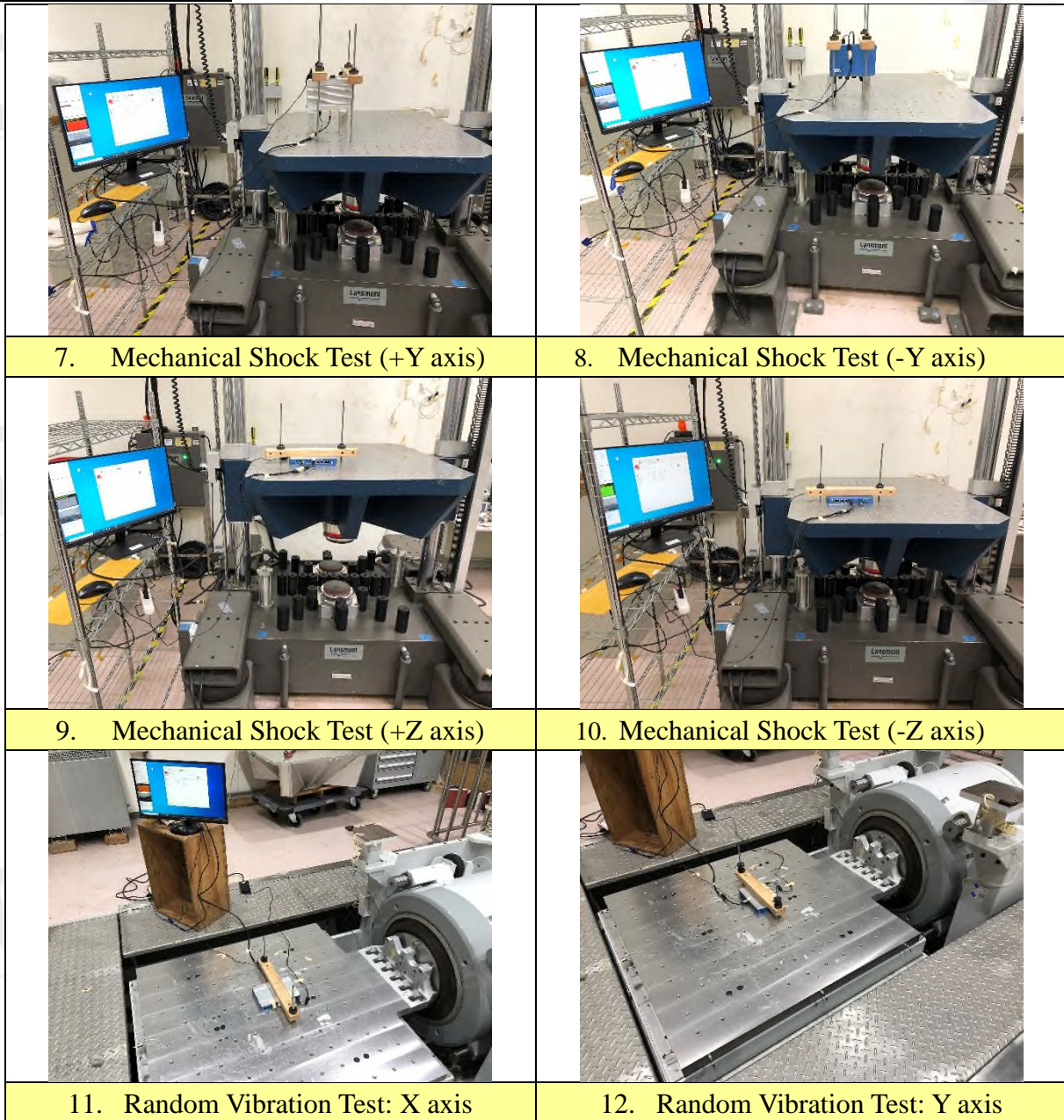
Test Photos:

	
<p>1. Appearance of specimen</p>	<p>2. Appearance of specimen</p>
	
<p>3. Low/ High Temperature Test</p>	<p>4. Low/ High Temperature Test</p>
	
<p>5. Mechanical Shock Test (+X axis)</p>	<p>6. Mechanical Shock Test (-X axis)</p>

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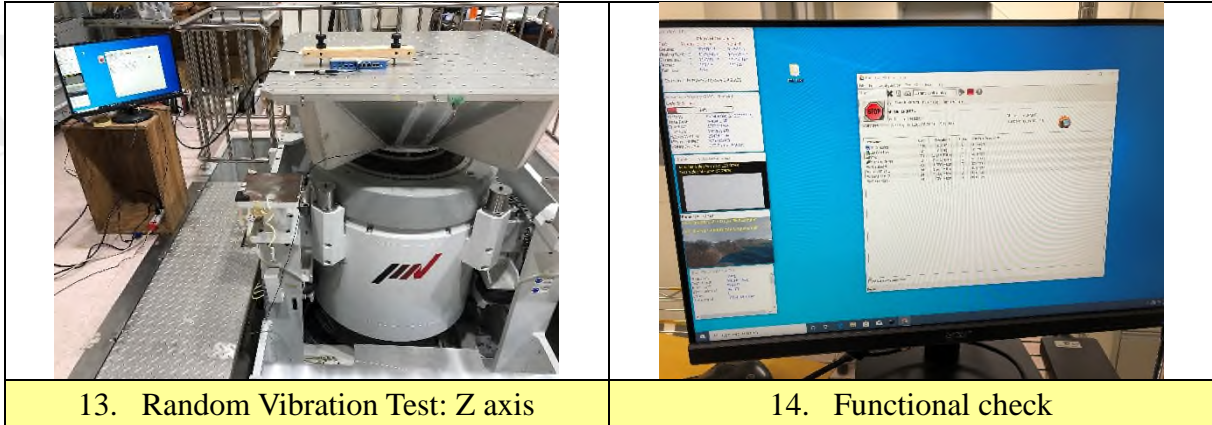


Test Photos--Continued:



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Test Photos--Continued:



13. Random Vibration Test: Z axis

14. Functional check

— — — The End of Test Report — — —

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