

Report No.: HC30025/2020 Page: of 12

Date: March 13, 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: **RES-3000** 

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

Quantity: Total 1 set

**Testing Period:** Mar. 9, 2020 to Mar. 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. Random Vibration Test

4. Mechanical Shock Test

Test Results: -PLEASE SEE ATTACHED SHEETS-

> Signed for and on behalf of SGS TAIWAN Ltd.

Allen Wang Asst. Supervisor

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計可,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 <a href="https://www.sgs.com/en/Terms-and-Conditions.aspx">www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/Terms-and-Conditions.ferms-end-conditions.terms-end-condition



Report No.: HC30025/2020

Page: of 12

### 1. Low Temperature Test:

# Test Equipment:

Name	Brand	Model	Serial No.
Programmable Temperature and Humidity Chamber	KSON	GTH-1000-60-CP-AR-	H MAA1810-001

#### Lab Environmental Conditions:

(25 ± 3) °C Ambient temperature:

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:

Sample condition: Operating (execute "Burnln Test V8.1 Pro")

Test Temperature: -30 °C 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 examine the test program "Burnln Test V8.1 Pro" could work normally or not.

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 <a href="https://www.sgs.com/en/terms-and-conditions-aspx">www.sgs.com/en/terms-and-conditions-aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/terms-and-conditions/terms-and-condition



Report No.: HC30025/2020

Page: 3 of 12

Specimen:

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

Quantity: Total 1 set

### Test Result:

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



Report No.: HC30025/2020

Page: of 12

### 2. High Temperature Test:

### Test Equipment:

Name	Brand	Model	Serial No.
Programmable Temperature and Humidity Chamber	KSON	GTH-1000-60-CP-AR-	H MAA1810-001

#### Lab Environmental Conditions:

(25 ± <u>3)</u> ℃ Ambient temperature:

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:

Operating (execute "Burnln Test V8.1 Pro") Sample condition:

Test Temperature: 70 °C Test Humidity: 95 % RH

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 examine the test program"Burnln Test V8.1 Pro" could work normally or not.

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 <a href="https://www.sgs.com/en/terms-and-conditions-aspx">www.sgs.com/en/terms-and-conditions-aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/terms-and-conditions/terms-and-condition



Report No.: HC30025/2020

Page: of 12

Specimen:

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

Quantity: Total 1 set

#### Test Result:

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



Report No.: HC30025/2020

Page: of 12

### 3. Random Vibration Test:

### Test Equipment:

Name	Brand	Model	Serial No.
Vibration Test System	King Design	EM-800F2K-50N120	RU104080389
Controller	Dactron	COMET 200	10539718
Control Accelerometer	Wilcoxn Research	793-6	A4938

#### Lab Environmental Conditions:

Ambient temperature: (25 ± 3) °C

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

No.17, Wu Chyuan 8th Road, New Taipei Industrial Park, WuKu District, Test Location:

New Taipei City, Taiwan.

#### Test Method/ Specification:

Direction:

Sample condition: Operating (execute "Burnln Test V8.1 Pro")

Wave form: Random

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

Frequency (Hz)	Left Slope (dB/ Oct.)	PSD (g <sup>2</sup> /Hz)	Right Slope (dB/ Oct.)
5	_	0.05	0
500	0	0.05	-
=> equivalen	t to 5.0 Grms		

 $X, Y, Z \text{ axes (see photo } 5 \sim 7)$ 

**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"Burnln Test V8.1 Pro" could work normally or not.

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 <a href="https://www.sgs.com/en/terms-and-conditions-aspx">www.sgs.com/en/terms-and-conditions-aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/terms-and-conditions/terms-and-condition

Reliability Laboratory/ No.31, Wu Chyuan Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan

SGS Taiwan Ltd



Report No.: HC30025/2020

Page: of 12

Specimen:

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

Quantity: Total 1 set

### Test Result:

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



Report No.: HC30025/2020

Page: of 12

### 4. 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	196438
ICP Accelerometer	PCB	356A24	90696
ICP Accelerometer	PCB	356A24	162319
Shock Test System	LANSMONT	95-115D	M17656

#### Lab Environmental Conditions:

(25 ± 3) °C Ambient temperature: Ambient humidity:  $(55 \pm 20) \% RH$ 

Test Location: No. 33, Wu Chyuan Road, New Taipei Industrial Park, WuKu District,

New Taipei City, Taiwan

### Test Method/ Specification:

Operating (execute "Burnln Test V8.1 Pro") Sample condition:

Pulse shape: Half-Sine

Acceleration: 50 g Pulse duration: 11 ms

Shock direction: 6 faces ( $\pm X$ ,  $\pm Y$ ,  $\pm Z$  axes, see photo  $8 \sim 13$ )

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"Burnln Test V8.1 Pro" could work normally or not.

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 <a href="https://www.sgs.com/en/terms-and-conditions.aspx">www.sgs.com/en/terms-and-conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/terms-and-conditions/terms-e-document,">www.sgs.com/en/terms-and-conditions for Electronic Documents at <a href="https://www.sgs.com/en/terms-and-conditions/terms-e-document,">www.sgs.com/en/terms-and-conditions/terms-e-document,</a>. 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 document is to a transaction from exercising all their rights and obligations under the transaction documents. This document annot 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 pros

Reliability Laboratory/ No.31, Wu Chyuan Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan



Report No.: HC30025/2020

Page: of 12

Specimen:

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

Quantity: Total 1 set

### Test Result:

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



Report No.: HC30025/2020

Page: 10 of 12

**Test Photos:** 





1. Appearance of specimen

Appearance of specimen





3. Low Temperature Test/ **High Temperature Test** 

4. Low Temperature Test/ **High Temperature Test** 





Random Vibration Test: X axis

Random Vibration Test: Y axis



Report No.: HC30025/2020

Page: 11 of 12

Test Photos--Continued:



Random Vibration Test: Z axis



Mechanical Shock Test: +X axis



Mechanical Shock Test: -X axis



10. Mechanical Shock Test: +Y axis



11. Mechanical Shock Test: -Y axis



12. Mechanical Shock Test: +Z axis

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 <a href="https://www.sgs.com/en/terms-and-conditions-aspx">www.sgs.com/en/terms-and-conditions-aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/terms-and-conditions/terms-and-condition

Reliability Laboratory/ No.31, Wu Chyuan Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 可靠度實驗室/新北市五股區新北產業園區五權路 31 號



Report No.: HC30025/2020

Page: 12 of 12

Test Photos--Continued:



13. Mechanical Shock Test: -Z axis

14. Functional check

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 <a href="https://www.sgs.com/en/terms-and-conditions-aspx">www.sgs.com/en/terms-and-conditions-aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com/en/terms-and-conditions/terms-and-condition

Reliability Laboratory/ No.31, Wu Chyuan Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 可靠度實驗室/ 新北市五股區新北產業園區五權路 31 號 SGS Taiwan Ltd.

台灣檢驗科技股份有限公司