

Report No.: HCN0069A/2016

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November 22, 2016 Date:

VECOW CO., LTD. 12 F., NO. 111, ZHONGCHENG RD., TUCHENG DIST., NEW TAIPEI CITY, TAIWAN, R.O.C.

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

Product Description: Fanless Embedded System

Style/ Item No.: ECS-9710-820Q/ No.1

**Quantity:** Total 1 set

**Testing Period:** Nov. 15, 2016 to Nov. 16, 2016

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. Random Vibration Test

2. Mechanical Shock Test

Test Results: -PLEASE SEE ATTACHED SHEETS-

> Signed for and on behalf of SGS TAIWAN Ltd.

Winson Tseng Asst. Manager

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#### 1. Random Vibration Test:

#### **Test Equipment:**

Name	Brand	Model	Serial No.
Vibration Tester	UNHOLTZ-DICKIE	SAI60-H560BAC/2/ST	474
Controller	Dactron	LASER	7110357
Control Accelerometer	PCB	353B34	139174

#### Lab Environmental Conditions:

(25 ± 3) °C Ambient temperature:

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

### Test Method/ Specification:

IEC 60068-2-64, Edition 2.0: 2008 Test method:

Sample condition: Operating (execute "BurnIn Test")

Wave form: Random

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

Frequency (Hz)	Left Slope (dB/Oct.)	PSD (G <sup>2</sup> /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 (see photo  $3 \sim 5$ )

Duration: 30 minutes/axis

- 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.: ECS-9710-820Q/ No.1

Quantity: Total 1 set

Test Result:

Functional check	
Normal	

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## 2. Mechanical Shock Test:

#### Test Equipment:

Name	Brand	Model	Serial No.
Shock Test System	LANSMONT	65-81 TTSII	M-13418
Data Acquisition & Analysis System	LANSMONT	103570-2-B	0503-73
ICP Accelerometer	PCB	353B14	79712

#### Lab Environmental Conditions:

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

#### Test Method/ Specification:

Test Method: IEC 60068-2-27, Edition 4.0: 2008

Sample condition: Operating (execute "BurnIn Test")

Half-sine Pulse shape:

Acceleration: 50 G

Pulse duration: 11 ms

Shock direction: 6 faces ( $\pm X$ ,  $\pm Y$ ,  $\pm Z$  axes, see photo 6 ~ 11)

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

- 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.: ECS-9710-820Q/ No.1

Quantity: Total 1set

Test Result:

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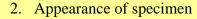
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Test Photos:





1. Appearance of specimen

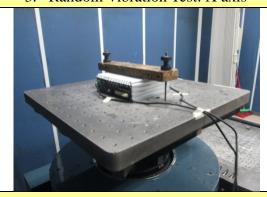






Random Vibration Test: X axis

4. Random Vibration Test: Y axis





Random Vibration Test: Z axis

Mechanical Shock Test: +X axis

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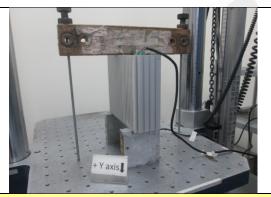
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#### Test Photos -- continued:



Mechanical Shock Test: -X axis



Mechanical Shock Test: +Y axis



Mechanical Shock Test: -Y axis



10. Mechanical Shock Test: +Z axis



11. Mechanical Shock Test: -Z axis



12. Functional Check

The End of Test Report -

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