TEST REPORT

Report No.: HCD0147/2018
Page: 1 of 7
Date: December 28, 2018

VECOW CO., LTD.
3 F., 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: High-Performance Fanless System
Style/ Item No.: ECX-1000-PoER/ No.1
Quantity: Total 1 set
Testing Period: Dec. 25, 2018 to Dec. 26, 2018
Note: System Configuration of Equipment under measurement:
  CPU: Intel(R) Core(TW):i7-8700T CPU@2.40 GHz
  DDR: SLINK DDR4 4G 2666 SODIMM IT *2
  Storage: Innodisk CFast 3ME3 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. Random Vibration Test
  2. Mechanical Shock Test

Test Results: -PLEASE SEE ATTACHED SHEETS-

Signed for and on behalf of
SGS TAIWAN Ltd.

Hank Chiou
Supervisor
<table>
<thead>
<tr>
<th>Name</th>
<th>Brand</th>
<th>Model</th>
<th>Serial No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vibration Tester</td>
<td>King Design</td>
<td>EM-5000F2K-75N600</td>
<td>10923742</td>
</tr>
<tr>
<td>Controller</td>
<td>Crystal</td>
<td>spider</td>
<td>1001664</td>
</tr>
<tr>
<td>Control Accelerometer</td>
<td>WR</td>
<td>793-6</td>
<td>A4632</td>
</tr>
</tbody>
</table>

**Lab Environmental Conditions:**
- Ambient temperature: \((25 \pm 3) \, ^{\circ}C\)
- Ambient humidity: \((55 \pm 20) \% \text{RH}\)

**Test Method/ Specification:**
- Sample condition: Operating (execute “BurnIn Test”)
- Wave form: Random
- Frequency: \((5 \sim 500) \, \text{Hz}\)

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>Left Slope (dB/Oct.)</th>
<th>PSD (g^2/Hz)</th>
<th>Right Slope (dB/Oct.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0</td>
<td>0.05</td>
<td>0</td>
</tr>
<tr>
<td>500</td>
<td>0</td>
<td>0.05</td>
<td>—</td>
</tr>
</tbody>
</table>

\(\Rightarrow\) equivalent to 5.0 G_{rms}

**Direction:** X, Y, Z axes (see photo 3 ~ 5)

**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.
TEST REPORT

Report No.: HCD0147/2018
Page: 3 of 7

Specimen:
Style/ Item No.: ECX-1000-PoER/ No.1
Quantity: Total 1 set

Test Result:

<table>
<thead>
<tr>
<th>Check Item</th>
<th>Appearance check (Visual check)</th>
<th>Functional check</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECX-1000-PoER/ No.1</td>
<td>No visible damage</td>
<td>Normal</td>
</tr>
</tbody>
</table>
2. Mechanical Shock Test:

**Test Equipment:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Brand</th>
<th>Model</th>
<th>Serial No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock Test System</td>
<td>LANSMONT</td>
<td>65-81 TTSII</td>
<td>M-13418</td>
</tr>
<tr>
<td>Data Acquisition &amp; Analysis System</td>
<td>LANSMONT</td>
<td>103570-2-B</td>
<td>0503-73</td>
</tr>
<tr>
<td>ICP Accelerometer</td>
<td>PCB</td>
<td>353B14</td>
<td>79347</td>
</tr>
</tbody>
</table>

**Lab Environmental Conditions:**

- Ambient temperature: \((25 \pm 3) ^\circ C\)
- Ambient humidity: \((55 \pm 20) \% \text{RH}\)

**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 (±X, ±Y, ±Z axes, see photo 6 ~ 11)
- **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.
TEST REPORT

Report No.: HCD0147/2018
Page: 5 of 7

Specimen:
Style/ Item No.: ECX-1000-PoER/ No.1
Quantity: Total 1 set

Test Result:

<table>
<thead>
<tr>
<th>Style/ Item No.</th>
<th>Check Item</th>
<th>Appearance check (Visual check)</th>
<th>Functional check</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECX-1000-PoER/ No.1</td>
<td>No visible damage</td>
<td>Normal</td>
<td></td>
</tr>
</tbody>
</table>
TEST REPORT

Report No.: HCD0147/2018
Page: 6 of 7

Test Photos:

1. Appearance of specimen
2. Appearance of specimen
3. Random Vibration Test: X axis
4. Random Vibration Test: Y axis
5. Random Vibration Test: Z axis
6. Mechanical Shock Test (+X axis)
Test Photos--Continued:

7. Mechanical Shock Test (-X axis)
8. Mechanical Shock Test (+Y axis)
9. 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 ---