

Test Report No.: SZRL2011120038 Date: Dec.22, 2011 Page 1 of 9

#### DARVEEN TECHNOLOGY LTD.

# ROOM 7F, WEST 210 BUILDING, NO.4 TAIRAN ROAD., CHEGONG MIAO, FUTIAN DISTRICT, SHENZHEN, CHINA

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description: Industrial Mobile Computer

Style/Item No.: VT-835-XXXXX

Manufacture: Darveen Technology Ltd.

Quantity: 2 PCS

Sample receiving Date: Dec.12, 2011

Test period: Dec.14, 2011 to Dec.22, 2011

Test Requested: 1. High and Low Temperature Test

2. Random Vibration Test

3. Mechanical Shock Test

Test Method: Refer to IEC 60068-2-1:2007, IEC 60068-2-2:2007, IEC 60068-2-64:2008,

MIL-STD-810G: 2008 method 516.6 procedure I and client's requirements.

For further details, please refer to the following page(s)

Test Result(s): For further details, please refer to the following page(s)

Signed for and on behalf of

SGS-CSTC Ltd.

Reliability Lab

Kevin Yi

Engineer

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# 1. High and Low Temperature Test:

### 1.1 Test Method/ Specification or Clients' Requirement:

a) Test Method/Specification:

Refer to IEC 60068-2-1:2007, IEC 60068-2-2:2007 and client's requirements.

Test Condition:

Step 1: High Temperature Operating Test

A. Sample Status: Operating the program: Burnintest

70℃ B. Test Temperature:

C. Test Duration: 8 hours

Step 2: Low Temperature Operating Test

A. Sample Status: Operating the program burnintest after 1 hour

-30℃ B. Test Temperature:

C. Test Duration: 8 hours

Step 3: Cold Start Test

A. Sample Status: Non-Operating

B. Test Temperature: -30℃ C. Test Duration: 2 hours

D. Test Method:

1	System power on after two hours later;
2	System power off, then 10 minutes later, system power on;
3	Repeat step 2 five times;

# b) Appearance and Function Inspection:

Appearance inspection should be done before and after test by SGS.

Function inspection should be done before and after test by SGS.

## 1.2 Sample(s) Inspection before Test:

Sample(s) Description: Industrial Mobile Computer

2PCS Quantity:

Appearance Inspection: No visual damage was found on samples before test.

Function Inspection: The function of samples was normal before test.

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# 1.3 Test Result:

Sample No.	Test Step	Appearance and Function Inspection
	1	No visual damage was found on samples after test. The function of samples was normal during and after test.
#1 ~ #2	2	No visual damage was found on samples after test. The function of samples was normal during and after test
	3	No visual damage was found on samples after test. The function of samples was normal after test

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# 1.4 Test Photos:



Fig. 1 Samples before test

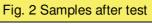




Fig. 3 Samples before test



Fig. 4 Samples after test



Fig. 5 Samples in the chamber

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#### 2. Random Vibration Test

## 2.1 Test Method/ Specification or Clients' Requirement:

a) Test Method/Specification:

Refer to IEC 60068-2-64:2008 and client's requirements.

Test Condition:

5~500Hz Frequency range:

Vibration Orientation: X, Y and Z axis

Vibration Duration: 1 hour/axis, total 3 hours

Vibration parameter table:

Frequency (Hz)	ASD (g <sup>2</sup> /Hz)			
5	0.0018			
500	0.0018			
Equivalent to 1 g <sub>rms</sub>				

# b) Appearance and Function Inspection:

Appearance inspection should be done before and after test by SGS.

Function inspection should be done before and after test by SGS.

# 2.2 Sample(s) Inspection before Test:

Sample(s) Description: Industrial Mobile Computer

Quantity: 2PCS

No visual damage was found on samples before test. Appearance Inspection:

**Function Inspection:** The function of samples was normal before test.

#### 2.3 Test Result:

Sample No.	Appearance And Function Inspection
#1 ~ #2	No visual mechanical damage was found after test.  No crashes and power outages were found after test.  The samples could be rebooted normally after test.

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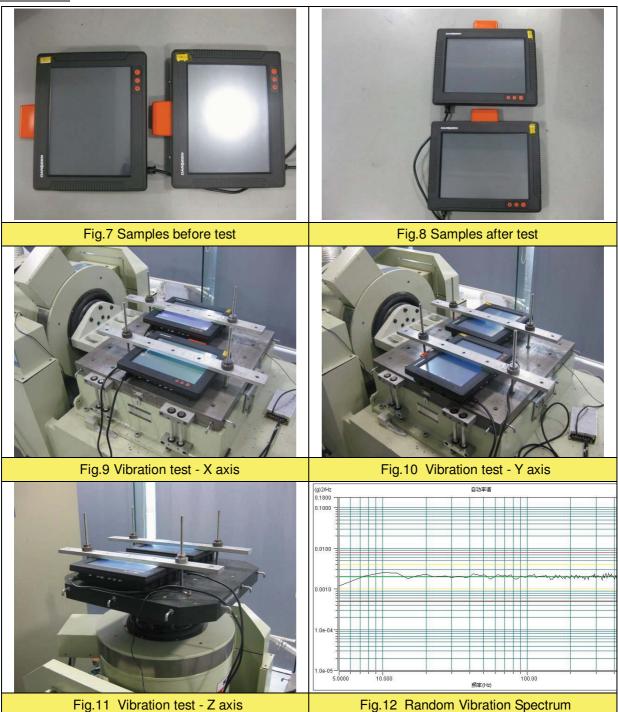
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# 2.4 Test Photos:



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### 3. Mechanical Shock Test

# 3.1 Test Method/ Specification or Clients' Requirement:

a) Test Method/Specification:

Refer to MIL-STD-810G: 2008 Method 516.6 and client's requirement.

Test Condition:

Shock waveform: Half-sine Waveform

Acceleration: 30G

Pulse Duration: 11ms

Shock direction: ±X, ±Y, ±Z axes Shock times: 3times/direction

b) Appearance and Function Inspection:

Appearance inspection should be done before and after test by SGS.

Function inspection should be done before and after test by SGS.

3.2 Sample(s) Inspection before Test:

Sample(s) Description: Industrial Mobile Computer

Quantity: 2 PCS

Appearance Inspection: No visual damage was found on samples before test.

**Function Inspection:** The function of samples was normal before test.

# 3.3 Test Result:

Sample No.	Appearance And Function Inspection
#1 ~ #2	No visual mechanical damage was found after test.  No crashes and power outages were found after test.  The samples could be rebooted normally after test.

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# 3.4 Test Photos:



Fig.17 Shock test- Y axis

Fig.18 Shock test--Y axis

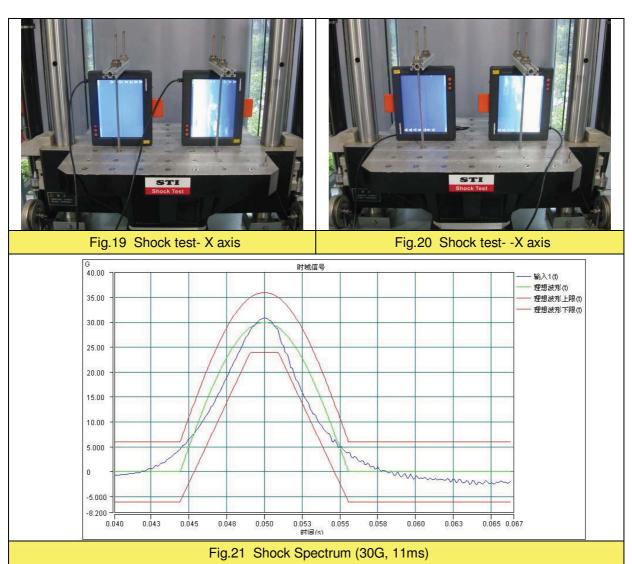
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\*\*\*End of Report\*\*\*

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