

## Operating Vibration Test Report

**Issue by**  
**Certification Center**

<b>Product Model</b>	<b>5.7" Rugged Handheld Device : R05I98H-RTD1</b>
<b>Product Description</b>	<b>Rugged Handheld Device</b>
<b>Test Reason</b>	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> Rugged Handheld Device  <input type="checkbox"/> Renew product <input type="checkbox"/> PCB : <input type="checkbox"/> BIOS:  <input type="checkbox"/> Revision change <input type="checkbox"/> PCB : <input type="checkbox"/> BIOS: <input type="checkbox"/> Component:

2010/10/12  
Issue date

Lindon Lin  
Approved

Freeman Lee  
Test Engineer

## 1. Document Introduction

This document describes how we conduct the environment conditions and test procedure. It includes the test equipment we use, the test condition, and the test procedure we take. We also define our test criteria and the way to conclude the test result.

(According to client's test specification, please see following sheets in detail.)

### Table of Testing Summary Results

NO	Test Item	Condition Description	Sect. / Page	Reference to
1	Vibration Test	(Notice 3 ,2003) Operation Random vibration: 5 Hz ~ 500 Hz Impact acceleration: 1.62 & 2.05 & 2.20 g rms Axis of vibration: Transverse-X, Longitudinal-Y, Vertical-Z Duration time: each axis 60 min.	4 / 5	MIL-STD-810F Method 514.5 Procedure I Figure 514.5C-3

## 2. Product Configuration

1. M/B : Winmate I98H5-110
2. CPU : Intel® Atom™ Processor Z510 @ 1.10 GHz
3. Chipset : Intel US15W
4. RAM : Transcend TS128MSQ64V6U SODIMM DDR2-667 1GB
5. SSD : PQI D10080G57RW01A70 MiniPCIe PATA SSD 8G MLC
6. Panel : DataImage 050722DSSWDG01 640x480
7. Battery : FSP RTB-057HH Li-Ion Battery 2S1P 7.4V 2600mAh x 2
8. Bluetooth : Q-COM Bluetooth QBT400-USB01p
9. 3G : HUAWEI EM770W HSPA Module
10. GPS : u-blox LEA-6S GPS Module
11. Wifi : Wi2Wi W2SW0001 WLAN SIP 802.11b/g
12. Adapter : EDAC EA1050C-120 / AC IN 100-240V~1.8A,50-60Hz / DC OUT 12V,4.16A
13. Hot Tab / EC : 205\_H5 / 212

### **3. Vibration Test (Operating)**

#### **A. Test Equipment:**

- Vibration Tester: King Design / EM-600F2K-50N120 (S/N: BT103176796)
- Controller: Dactron Photon PH-100 RT-PRO (S/N: 4750143)
- Control Accelerometer: B&K 4398A (S/N: 2169071)

#### **B. LAB Environmental Conditions:**

- Ambient Temperature: 25 +/- 3°C
- Relative Humidity: 55 +/- 20% RH

#### **C. Test Method / Specification :**

- Compliance of MIL-STD-810F/Method 514.5/Procedure I/Figure 514.5C-3  
(Notice 3, 2003)
- Operation
- Random vibration: 5 Hz ~ 500 Hz
- Impact acceleration: 1.62 & 2.05 & 2.20 g rms
- Axis of vibration: Transverse-X, Longitudinal-Y, Vertical-Z
- Duration time: each axis 60 min.
- Total Time: 3 hours
- Quantity: Total 1 Set
- Testing Period: Aug. 27, 2011 to Aug. 27, 2011

#### **D. Check Condition and Requirements:**

Place the product on the vibration table in its normal operating orientation and configuration. The Product shall be no fixture to the vibration table such that the vibratory input is transmitted directly to the product. Operating the product during the test. Vibrate the product up the frequency range at a rate of 5 to 500 Hz. At the appropriate level in the table of test condition in each of three orthogonal axes. The test shall last approximately 60 minutes per axis. Equivalent to 1.62 & 2.05 & 2.20 g. Document the result during the test. The functional and electrical check is required; document the result after the check.

#### **E. Test Result:**

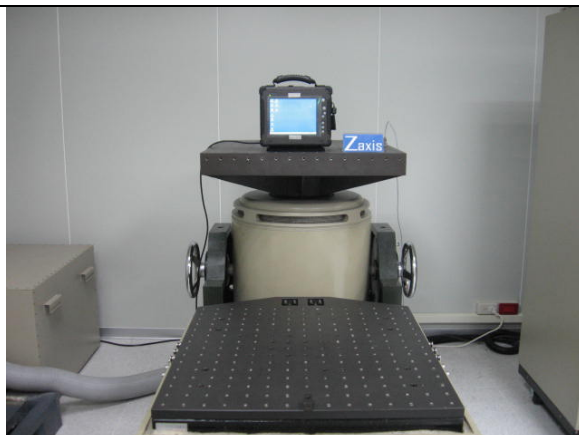
- No visible damage to the product.
- No displacement of components, cables, or hardware.
- The exterior container must not be broken exposing the contents.
- The test unit operates normally after the completion of the vibration test.

#### **F. Test Judgment:**

— Test Result as below:

Check Item Style Item No.	Appearance check (Visual check)		Functional & Performance check
	Initial	Final	
5.7" Rugged Handheld Device: R05I98H-RTD1	No visible damage	No visible damage	Normal

## Testing of Photo



**Operating Vibration Test—Z axis**



**Operating Vibration Test—Y axis**



**Operating Vibration Test—X axis**