

Operating Vibration Test Report

Issue by

Design Quality Assurance Department

Report No: 1804VO0578

Product Model	7" Vehicle Mounted Computer : FM07
Product Description	Panel PC
Test Reason	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> Panel PC <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:

2018/04/26
Issue date

Jerry Chen
Approved

Jacky Zheng
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	Operation Random vibration: 5 Hz ~ 500 Hz Impact acceleration: 1.48 & 1.90 & 2.24 g rms Axis of vibration: Transverse-X, Longitudinal-Y, Vertical-Z Duration time: each axis 60 min.	4 / 5	MIL-STD-810G Method 514.6 Procedure I Figure 514.6C-3

2. Product Configuration

1. M/B : ILVM-100
2. CPU : Intel® Celeron N3350@1.10GHz /6W
3. RAM : ADATA /ADDS1600C2G11-BSSF /1.35V /DDR3L-1600 /2GB
4. SSD : Phison /SSMP064GTB3C0-S11 /M.2 SATA /64GB
5. BIOS : ILVMV003
6. Panel : ONation /OT070MADDLN-10 /1024x0600 /1000Nit
7. Touch : Abontouch /AB-680700602211211090 / 85% /1.58mm
8. WiFi +BT : Intel AC3165
9. GPS : u-blox NEO-6Q
10. Adapter : EDAC /EA1050C-120 /AC Input:100-240V~1.8A 50-60Hz /DC Output:12V~4.16A

3. Photo of Product Configuration

Photo of EUT



4. 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-810G/Method 514.6/Procedure I / Figure 514.6C-3
- Operation
- Random vibration: 5 Hz ~ 500 Hz
- Impact acceleration: 1.48 & 1.90 & 2.24 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: Apr. 23, 2018 to Apr. 24, 2018

D. Check Condition and Requirements:

Place the product on the vibration table in its normal non-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. Non-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 1.48 & 1.90 & 2.24 g. Document the result during the test. The functional and electrical check is required; document the result after the check.

E. Test Result:

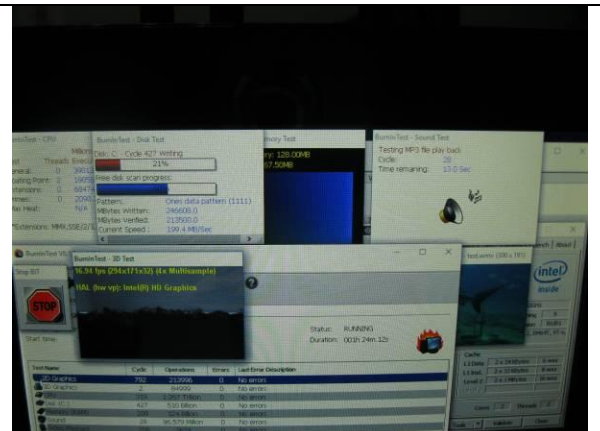
- No visible damage to the product.
- No screws was loosened.

Photo of Testing

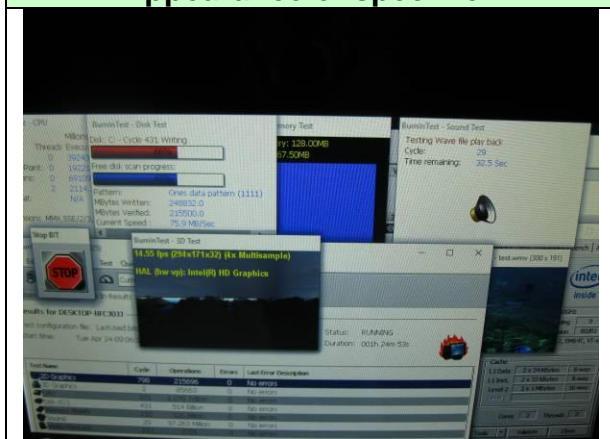




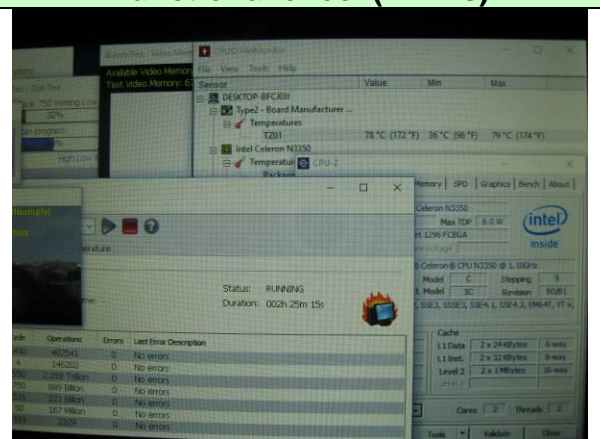
Appearance of specimen



Functional check(X Axis)



Functional check(Y Axis)



Functional check(Z Axis)

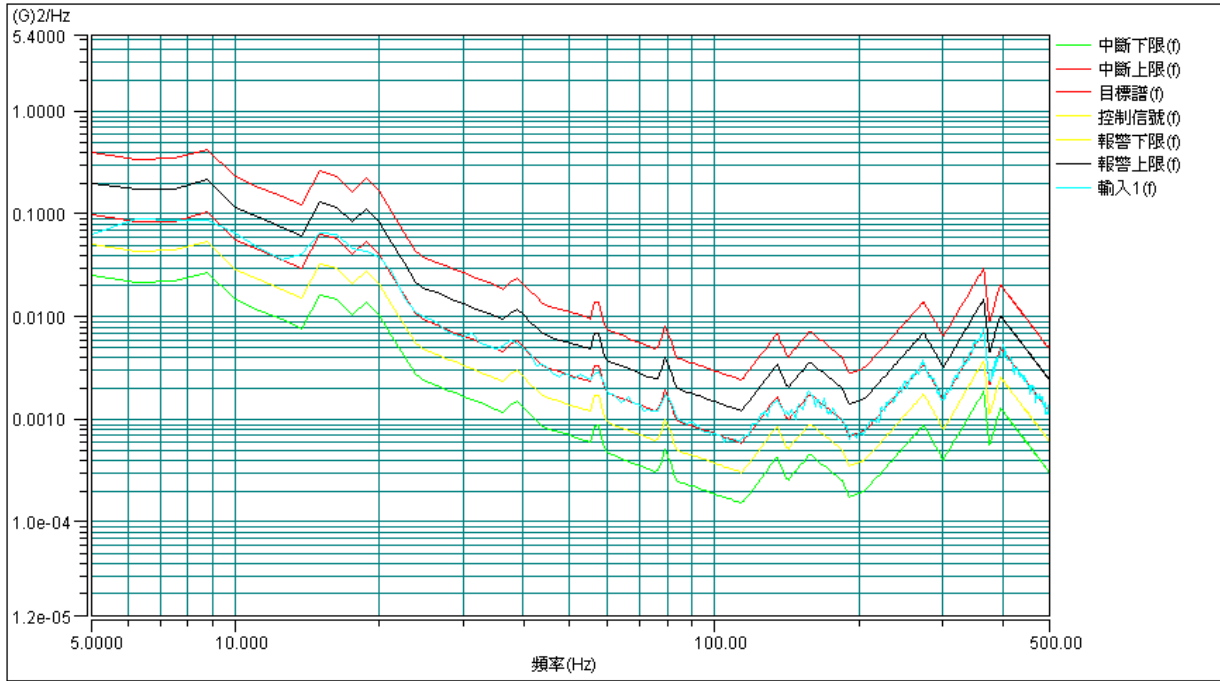
F. Test Judgment:

— Test Result as below:

Check Item Style Item No.	Appearance check (Visual check)		Functional & Performance check
	Initial	Final	
7" Vehicle Mounted Computer : FM07	No visible damage	No visible damage	Normal

Test Name: MIL810G_1.48G_X.ucn

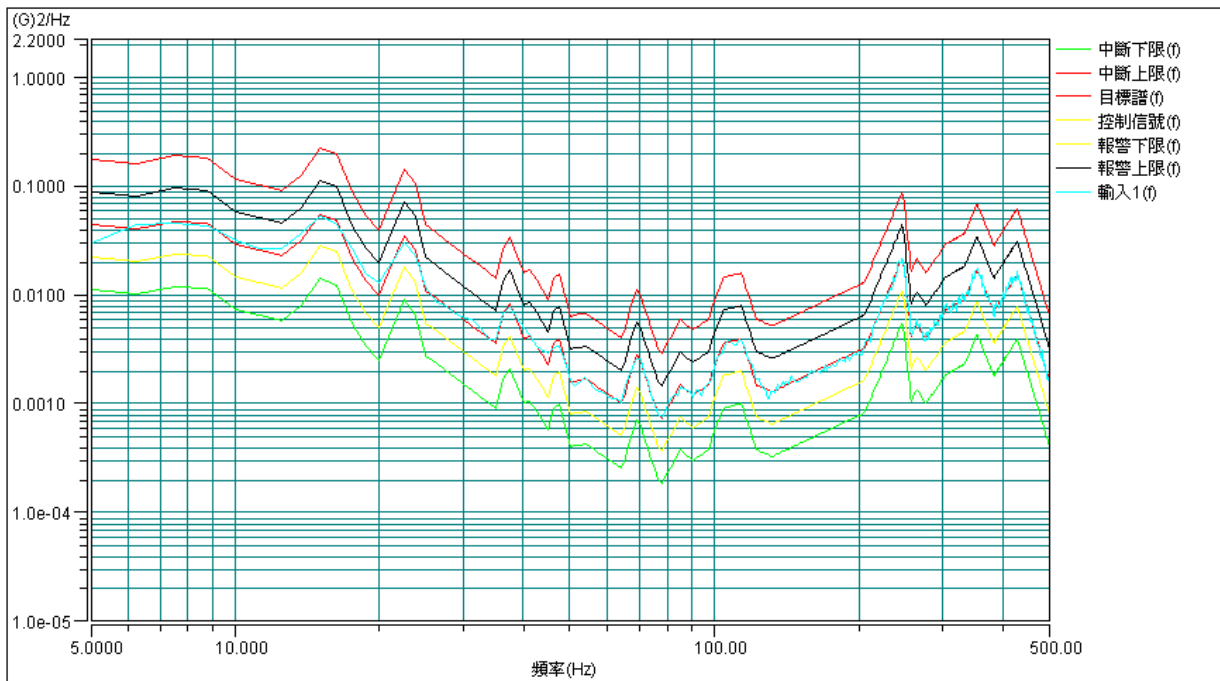
Test Type : Random Test



X (axis)

Test Name: MIL810G_1.90G_Y.ucn

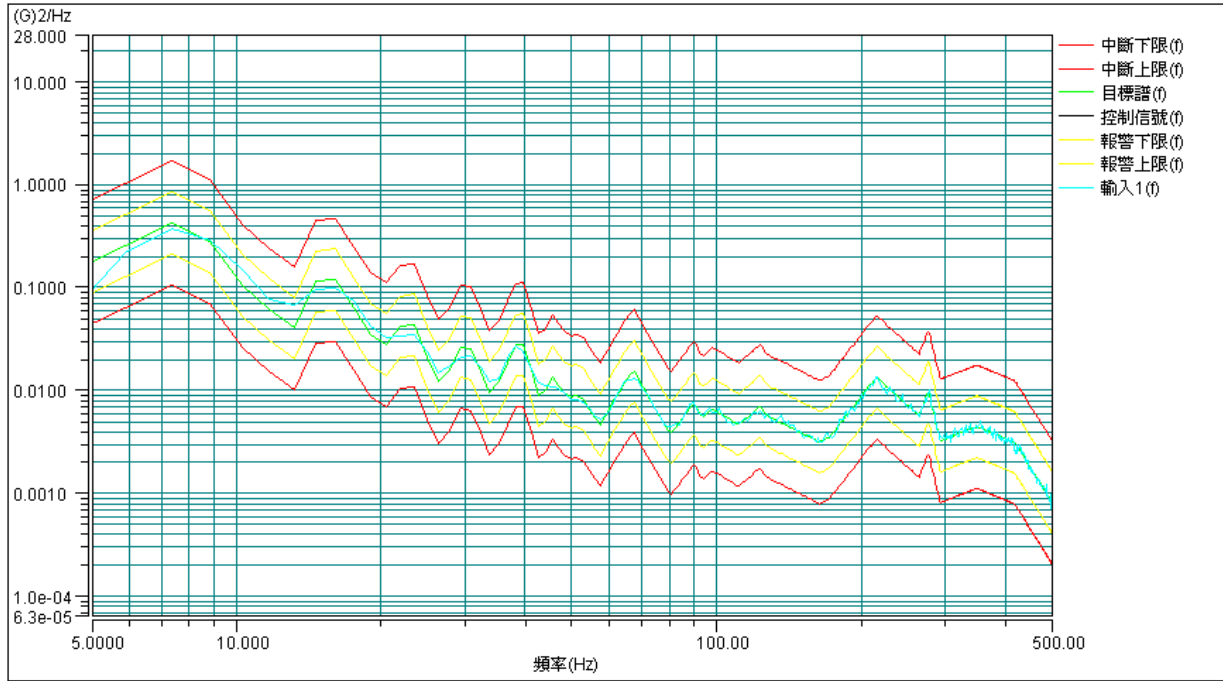
Test Type : Random Test



Y (axis)

Test Name: MIL810G_2.24G_Z(test).ucn

Test Type : Random Test



Z (axis)