

Operating Vibration Test Report

Issue by

Design Technology Department

Report No: 1512VO2269

Product Model	10.4" Rugged Tablet PC : Taurus FM10
Product Description	Rugged Tablet PC
Test Reason	<input checked="" type="checkbox"/> New product <input checked="" type="checkbox"/> Rugged Tablet 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:

2015/12/31
Issue date

David Chen
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	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 : FMB80-100A
2. CPU : Intel Atom E3845@1.91G 10W
3. Panel : CMO G104X1-L04 1024X768 500Nits
4. RAM : Transcend TS512MSK64W6H DDR3L-1600 4G
5. SSD : Transcend TS64GMTS400 M.2 2242 MLC 64GB
6. Touch : AMT 16108-1-01 80%/1.75mm
7. GPS : u-blox NEO-6Q-0
8. WiFi & Bluetooth : Intel 7265NGW(2x2 AC+BT4.0)
9. 3G : Sierra MC8090
10. Camera : Fangtec AH4220C2-S2-2Z7 2M
11. Battery : JHT B5054 2S2P 3800mAh
12. BIOS /EC : FMB80V023 x64 / FMB8P023FM08
13. Adapter : EDAC EA1050C-120 AC(100-240V~1.8A,50-60Hz) DC 12V 4.16A
14. HotTab : 1.0.2

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: Nov. 26, 2015 to Nov. 26, 2015

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 1.48 & 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 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	
10.4" Rugged Tablet PC : Taurus FM10	No visible damage	No visible damage	Normal

Photo of Testing



Operating Vibration Test - Z axis



Operating Vibration Test - Z axis



Operating Vibration Test - X axis



Operating Vibration Test - X axis



Operating Vibration Test - Y axis



Operating Vibration Test - Y axis