

HON HAI Precision IND.CO.,LTD.

5F-1,5,Hsin-An Road,
Hsinchu Science-Based Industrial Park,
Taiwan, R.O.C.

Tel: 886-3-5784975 Fax: 886-3-5783038

Reliability Test Report

for BFX-AT100 (T99X171.00)

Prepared by Allen Chen
Test Engineer, HWQA Engineering Dept.

Checked by Kenji Chen
Supervisor, HWQA Engineering Dept.

Approved by Jy Deng
Manager, HWQA Engineering Dept.

Revision Change History

Revision	Description of Change	Date
1.0	Initial Release	03/08/2023

HON HAI PRECISION IND. CO., LTD.

Notice:

All rights reserved. Except for distribution within company that authorized by Foxconn, passing on and copying of this document, use and communication of its contents with the third party is not permitted without written authorization from HON HAI PRECISION IND. CO., LTD.

Table of Contents

Table of Contents1

Purpose:.....2

Scope:.....2

Second source:.....2

The summary of test items:.....3

Panel Drawing:4

Test setup and function test:5

1. Logo/Printing Abrasion Test6

2. Pencil hardness test.....7

3. Chassis Static Load8

Purpose:

1. Provide a formal functional demonstration of the product design reliability.
2. Identify any design discrepancies.
3. Reliability assurance of trial samples which are designed and fabricated in accordance with the customer's product specifications.
4. Conduct robustness testing on early production samples in accordance to customer's product environmental testing specification.

Scope:

This document describes the performance requirements, validation criteria, and the validation tests which focus on BFX-AT100 MP stage product.

The DUT H/W version is V125 and S/W revision is BFX_AT100-uesrdebug 9 PI 20200305 release-keys.

Second source:

New ABS housing (T4 sample)

The summary of test items:

NO.	Item	Test Condition	Q'ty	Period	Pass Criteria	Test result
1	Logo/Printing Abrasion Test	Alcohol Abrasion Test Alcohol concentration: > 95% load: 200gf, cycle: 150 cycles (one cycle= forward + backward),	2 units	3 days	No physical defect and functional failure after this test.	PASS
2	Pencil hardness test	1. 45-degree between pencil and testing surface 2. load force: 500gf 3. Pencil type: Mitsubishi, 'UNI' 4. Test speed: 10mm/sec, 5. Pencil hardness classification: HB 6. Scratch the testing surface, until it appears visual scratch-trace .	2 units	1 day	No physical defect and functional failure after this test.	PASS
3	Chassis Static Load	1. Applied position: TOP on the enclosure 2. Weight and time: 5Kg/ diameter 9mm area/apply 30 seconds	2 units	1 day	There is no damage of Mechanical material (for examples Cover's crack, breakdown	PASS

Panel Drawing:

Front



Rear



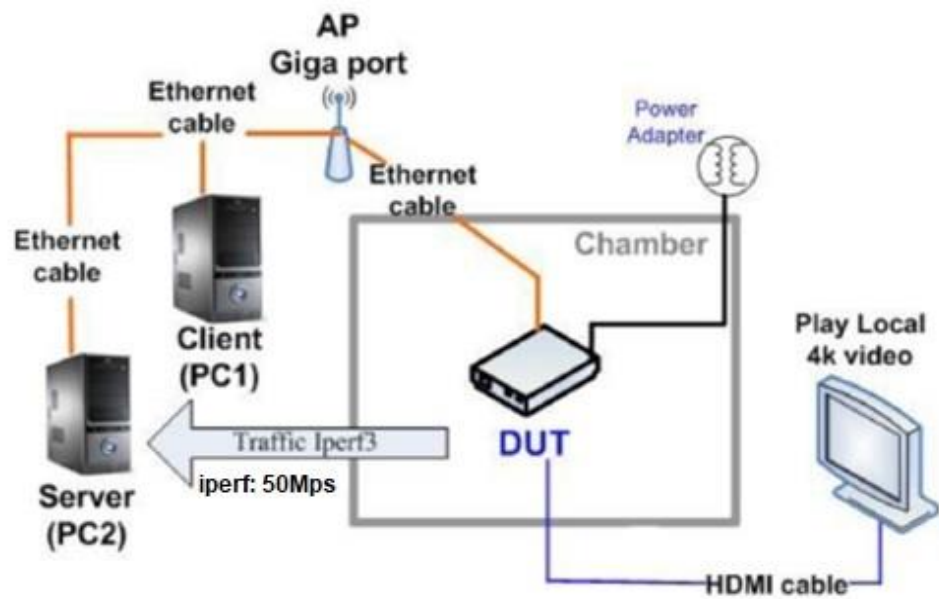
Adapter



I/O Port



Test setup and function test:



Connection:

Interface	Connection	Operation
AC power	The AC adapter is connected to the AC source	Powered on
DUT	DUT HDMI connected to Monitor	Play the local video
LAN	DUT, LAN connect to AP run iperf packet between PC	Continue to run iperf packet between PC, throughput 50 Mbps

1. Logo/Printing Abrasion Test

Purpose:

To demonstrate that products can be deformed or disfigured in any way by the chemical solvents.

Quantity: 2 units

S/N: 2149688001202399000011, 2149688001202399000008

Test Objective: Alcohol Abrasion Test

Alcohol concentration: > 95%, load: 200gf, cycle: 150 cycles (one cycle= forward + backward),

Test Profile:



Test Procedure:

1. Fixed the DUT on the abrasion Tester
2. Alcohol concentration: 95%
3. Load: 200g for cycle: 150 cycles (one cycle= forward + backward)

Pass Criteria:

No physical defect and functional failure after this test.

Test Result: **PASS**

Sample 1 (S/N:2149688001202399000011)



Sample 2 (S/N: 2149688001202399000008)



2. Pencil hardness test

Purpose:

To demonstrate that products can be deformed or disfigured in any way by the chemical solvents.

Quantity: 2 units

S/N: 2149688001202399000004,2149688001202399000005

Test Objective:

1. 45-degree between pencil and testing surface
2. load force: 500gf
3. Pencil type: Mitsubishi, 'UNI'
4. Test speed: 10mm/sec,
5. Pencil hardness classification: HB
6. Scratch the testing surface, until it appears visual scratch-trace .

Test Profile:



Test Procedure:

1. Pencil 1HB, weight 500g.
2. Pencil (1HB) is ground flat on 200# sandpaper.
3. Place the test pencil head in the area to be tested, push forward 3CM or more to check the surface damage of the pencil (more than 3 lines are tested, and 0.3MM is not judged at the bottom of the pen. The angle between the pencil and the horizontal plane is 45°).

Pass Criteria:

No physical defect and functional failure after this test.

Test Result: PASS

Sample 1 (S/N: 2149688001202399000004)

Sample 2 (S/N: 2149688001202399000005)



3. Chassis Static Load

Purpose:

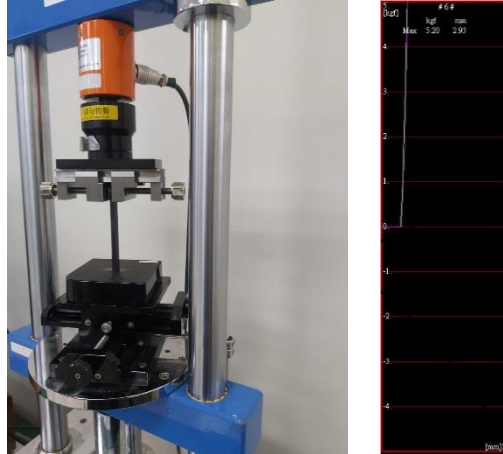
To demonstrate the product can meet worst case condition.

Quantity: 2 units

S/N: 2149688001202399000006,2149688001202399000009

Test Objective: 1. Applied position: TOP on the enclosure
2. Weight and time: 5 Kg/ diameter 9 mm area/ apply 30 seconds

Test Profile:



Test Procedure:

1. Perform functional test and visual inspection on DUTs before test.
2. Place and fix the DUT on Precision Loading Tester.
4. Use diameter 9 mm area, start test for this orientation by add the push force to 5 kg, and hold on for 30s.
5. Released the force, and visual inspect the DUT to make sure no any damage of Mechanical material.

Pass Criteria:

There is no damage of Mechanical material (for examples Cover's crack, breakdown

Test Result: PASS

Sample 1 (S/N:2149688001202399000009)



Sample 2 (S/N: 2149688001202399000006)

