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Reliability Test Report for T99X171.00

Reference Document : Environmental test procedure and specifications
ENGR - 10022, Rev.7 Date: 08/10/2015

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Revision Change History

Revision	Description of Change	Date
1.0	Initial Release	2019/05/22

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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 T99X171.00 product.

The summary of test items

The Summary of reliability Items					
No	Item	Test Condition	Unit	Specifica tion	Test Result
1.	HDMI Side Road	Insert proper cable to HDMI connector and push the cable in following conditions. - Push force: 1 kg - Pushing direction: Upper/Lower/Right/Left (4 directions) - Number of time: Push 1 time for each direction (total 4 times) => 1 cycle Repeat 10 cycles - Pushing method: Push the cable 1 second, keep pressing 1 second, and release 1 second - Power on state - Pushing position: 8 mm from connector end	2 units	1.Function check	PASS

1.HDMI Side Load Test

Purpose

To demonstrate the HDMI of DUTs must withstand repetition load which may occur in daily used.

Quantity: 2 units

Test Objective

Test by putting force to the HDMI with defined force when the cable/connector is connected.

Test Cycles: 10 cycles

Direction: 90° down to Insertion [Upper/Lower/Right/Left (4 directions)]

Test Force: 1Kgf (distance 5mm)

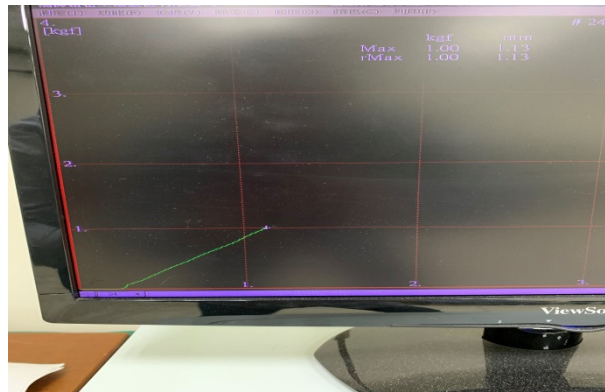
Test Speed: 60mm/min

Perform functional check at the end of test.

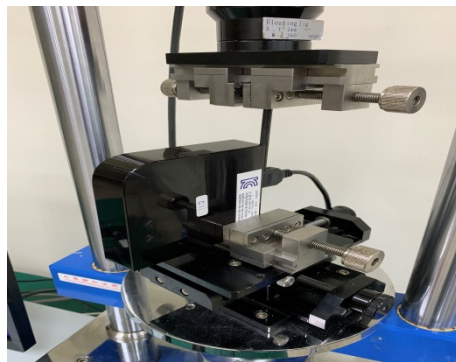
Test Procedure

1. Base on test setup and function test to check DUT function then start the test
2. Perform functional check and visual inspection on the DUTs before test.
3. Fixed the DUT on the platform of Precision Loading Tester.
4. 90° down to Insertion the HDMI to DUTs
5. Program the system of Precision Loading Tester to press the external cable/connector with 1Kgf force and 60mm/min speed
6. Bring pressure to bear on 5mm distance location where HDMI extended outside when it is attached.
7. Start test on each connect one by one, invert the DUTs so that all 4 sides of each connector should be test and repeat 10 cycles for each side.
8. Perform functional check and visual inspection on the DUTs again after test.

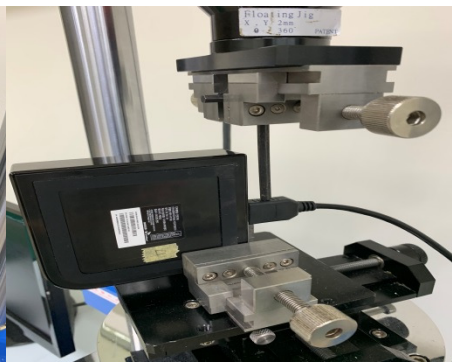
Test Profile:



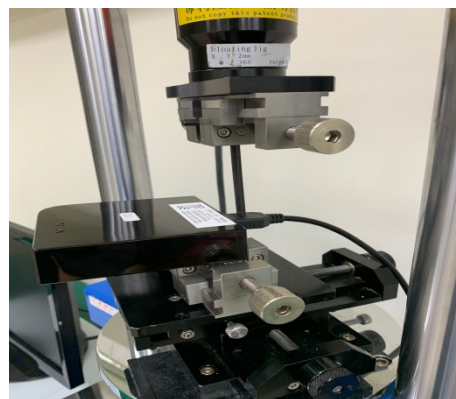
Test Picture:



During test HDMI-cable(Left)



During test HDMI-cable(Right)



During test HDMI-cable(Top)



During test HDMI-cable(Bottom)

Pass Criteria:

All connectors should work properly post testing

Test Result:

Function items	Check the function	Test result
HDIM Port	Check HDMI Connector if it can work	PASS