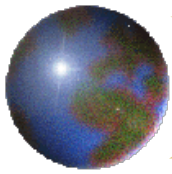


8D report for top cover(T99X171) printing shift issue

Prepared by: NWEII QE

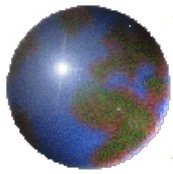
Approved by: Jimmy Li

Issue Date: 2019/7/03



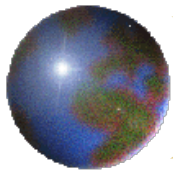
Content

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- ⊕ D 7 ***Prevent Reoccurrence***
- ⊕ D 8 ***Congratulate the Team***



D1 : Establish Team Approach

- ✚ **Leader:Jimmy Li**
- ✚ **ME:Guolin Tang**
- ✚ **QE:Yishi Wei**
- ✚ **QC:Weijie WU**
- ✚ **PD:Xuanxiao Zhao**
- ✚ **Manufacturing : Yebao Fang**
- ✚ **PM : Louis Li**



D2 : *Problem Description*

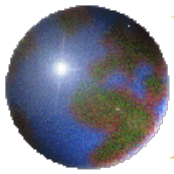
On 2019/6/25 Customer reported The printing letter” CH” shift to right side for T99X171 top cover. Please refer to below photo.



'CH' printing location is little bit shifted to rightward

Confirmed the picture of improved issue before (6/13)





D3 : *Containment Actions*

1. Checking SAP, there are zero inventory for both finish good material and WIP.

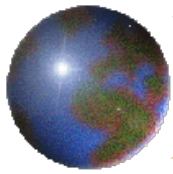
Owner: Yishi Wei

Start date: 2019.6.25

2. There are 1K material at customer's, request customer to release deviation to accept them for this time.

Owner: Louis Li

Start date: 2019.6.25



D4 : *Root Cause Analysis*

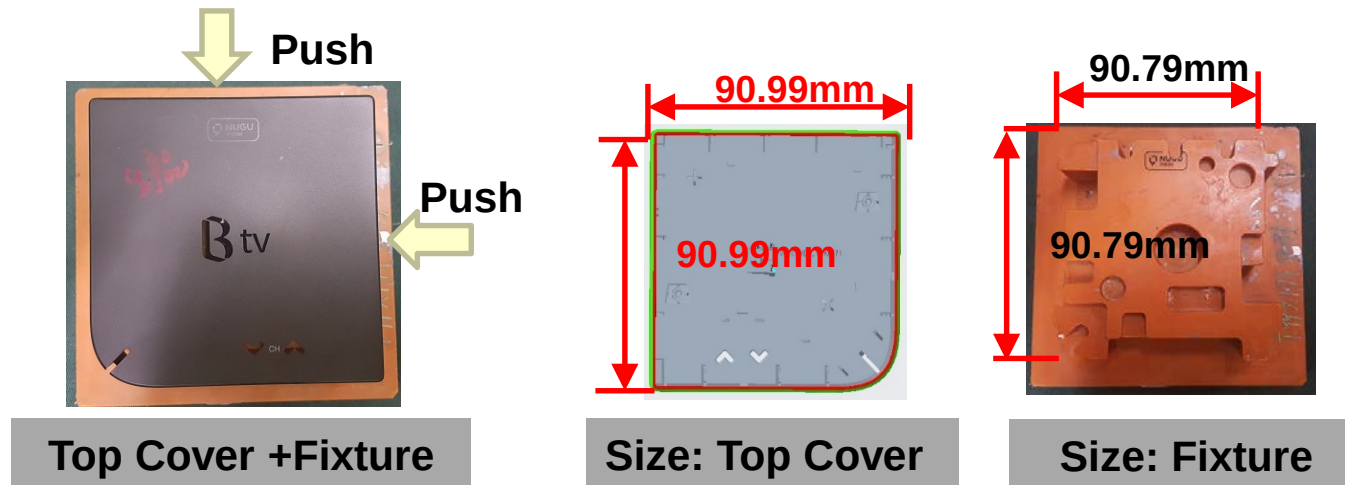
1. Fixture

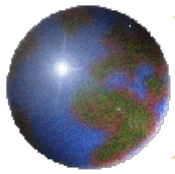
The printing fixture design is based on inside dimension of Top Cover to reduced by 0.2mm, causing the Top cover can be move and rotate slightly on fixture, as figure.

Actual move value(push cover on X/Y axis):

X direction: Max.0.4mm

Y direction: Max.0.4mm





D4 : *Root Cause Analysis*

2.Process

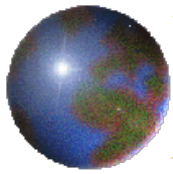
In this batch, after the IPQC confirmed the dimension and appearance of the first sample is ok then start production.

In production, IPQC mainly checks the appearance and have not confirm the dimension of printing. Causing out of defective products.

Root Cause:

According to the analysis, the top cover can not be fixed on fixture. It can be moved about 0.4mm on the X/Y direction ,and tolerance on drawing: +/-0.2mm.

Therefore, the fixture caused this issue.



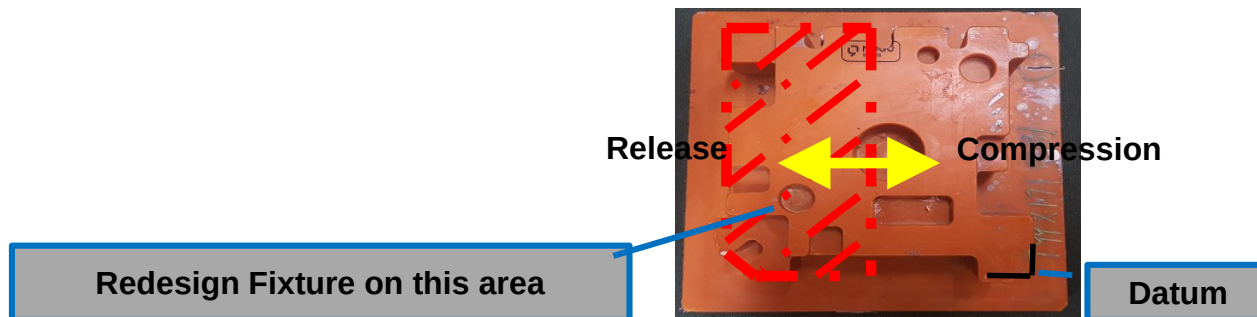
D5 : *Corrective Actions*

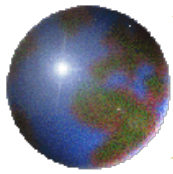
1. Fixture Improvement

According to datum of Top Cover drawing to redesign the fixture, half of the fixture is changed into a spring structure to ensure that Top Cover is fixed on fixture and zero gap between Top cover and fixture.

Owner: Guolin Tang

Due date : 2019/07/05





D5 : *Corrective Actions*

2.Process Control

a. Update SIP:

Check printing location by film: 1pc/ 2hrs

Measure printing location: 1pc/ 4hrs

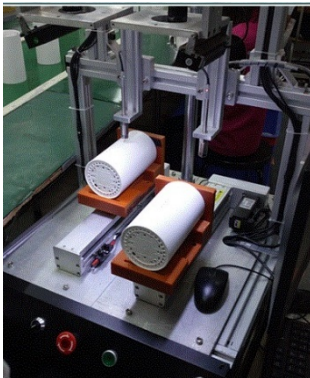
Owner: Yishi Wei

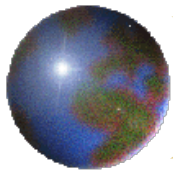
Due date: 2019/06/27

b. The process is increased by 100% CCD inspection after pad printing .

Owner: Guolin Tang

Due date: Next Build



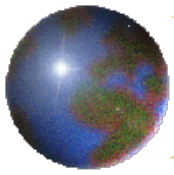


D6 : *Verify effectiveness of Corrective Actions*

After fixture optimized on 2019/6/27, we made a control run with 32pcs and sent to measurement center to measure the printing location. From the CPK report we can understand that the printing location is stable after fixture optimized. The effectiveness confirmed OK.

Please refer to CPK report in below:

Nominal	34.29	11.38
+Tolerance	0.2	0.2
-Tolerance	-0.2	-0.2
Upper Limit	34.49	11.58
Lower Limit	34.09	11.18
Max	34.362	11.343
Min	34.304	11.272
Average	34.337	11.312
Stdev	0.018	0.018
Cp	3.8	3.722
Cpk	2.913	2.451

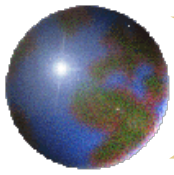


D7 : *Prevent Reoccurrence*

- 1. Checking and verify the fixture by every two batches, to ensure the fixture does not get wear or loose. To replace new fixture immediately once detect any issue.**

Owner: Guolin Tang

Implement Date:2019/6/28



D8: Congratulate the Team

Thank You

