

# China Electronic Component Center Laboratory

## Test Report

**Part Number** : S9S122F0VLH  
**Manufacturer** : NXP  
**Date Code** : /  
**Package** : LQFP-64  
**Quantity Submitted** : 10 pieces  
**Quantity Tested** : 10 pieces  
**Date of Received** : 2021/07/28  
**Date of Tested** : 2021/07/29

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### General Conclusion

10 pieces of NXP S9S12G192F0VLH were received for analysis.

#### 1. External Visual Inspection

10 pieces samples were used for visual inspection. The inspected samples show clear top marking. Part failed marking permanency test. Samples also show different texture on sidewall, indicating the parts were top-coated. Sample exhibit oxidation, attrition, dents on pins.

1piece sample was performed package dimensions testing. The tested dimensions were within manufacture specification. The device has the same exterior configuration as shown on datasheet.

#### 3. X-Ray inspection

10 pieces samples were performed X-Ray inspection, 9 pieces samples indicate homogeneous general shape and internal construction, the rest 1 is different from others.

#### 4. Key Functional Test

10 pieces were performed key functional test, parts passed program test, verification test, erase test and blank-check test.

The parts are classified refurbished.

Approved by: Chen Tian

Technical supervisor: Peng Huanyuan

Engineer: Zou Jianjun

Report reviewer: Zeng Lirong

Project to undertake (unit): China Electronic Component Center Laboratory

*Note: This report refers only to the specimen(s) submitted to test, and is invalid if used separately.*

## I. Test Purpose

To verify the devices according to customer's requirements.

## II. Test Environment

Environment Temperature:  $(25\pm 2)^{\circ}\text{C}$ ;

Environment Humidity:  $(55\pm 5)\%$  RH.

## III. Test Equipment

In the testing process.

## IV. Test Standard

《CECC-STANDARD》 and 《JEDEC-STANDARD&AS6081》 .

## V. Test Basis

《S9S12G192F0VLH datasheet》 .

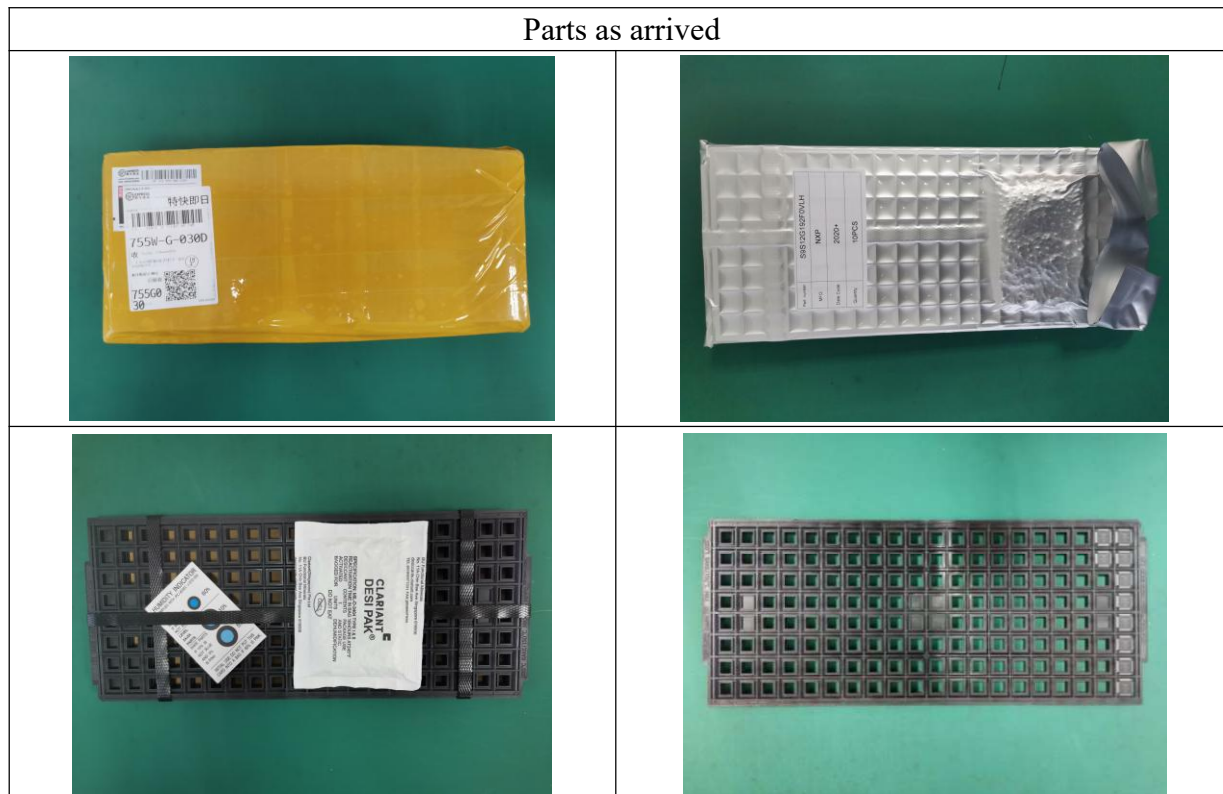
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## VI. Test Procedure and Analysis

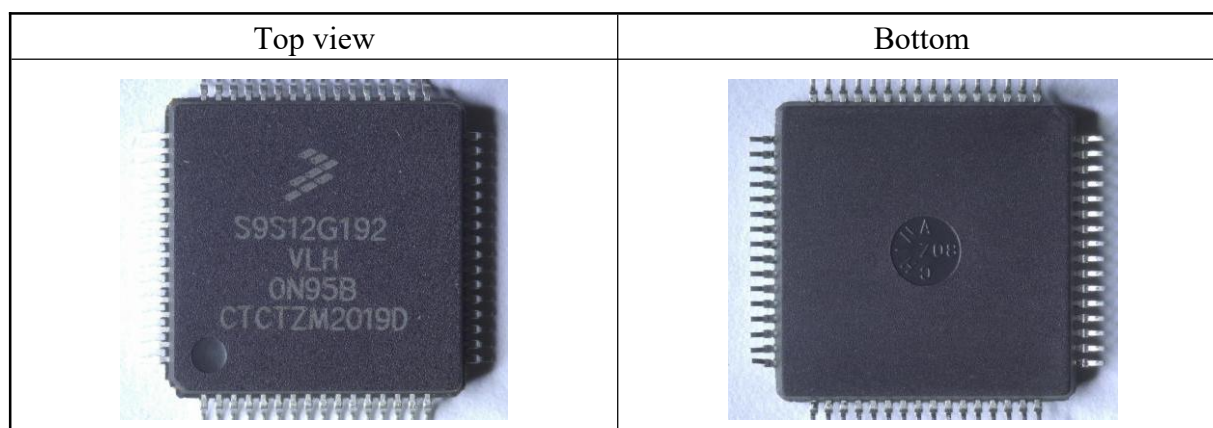
### 1. Packaging Inspection

Package:	<input type="checkbox"/> PVC Tube <input checked="" type="checkbox"/> Tray <input type="checkbox"/> Reel <input type="checkbox"/> Anti-static bags <input type="checkbox"/> Plastic bags <input checked="" type="checkbox"/> Vacuum-sealed <input type="checkbox"/> Others
Complete labeling	Yes
Humidity indicator cards (HIC):	Yes
Moisture barrier bag and desiccant pouches:	Yes

Parts as arrived

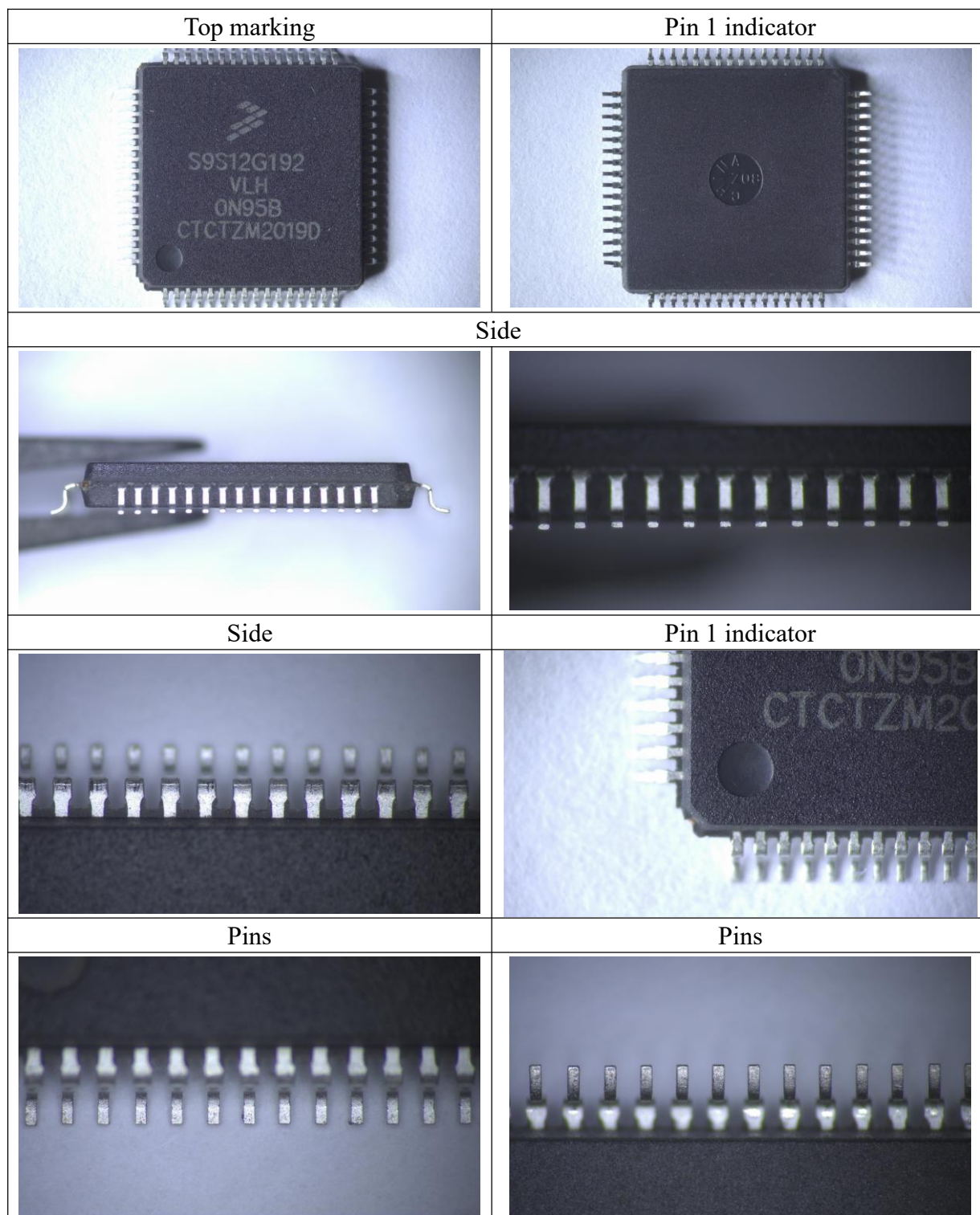


### 2. Sample appearance

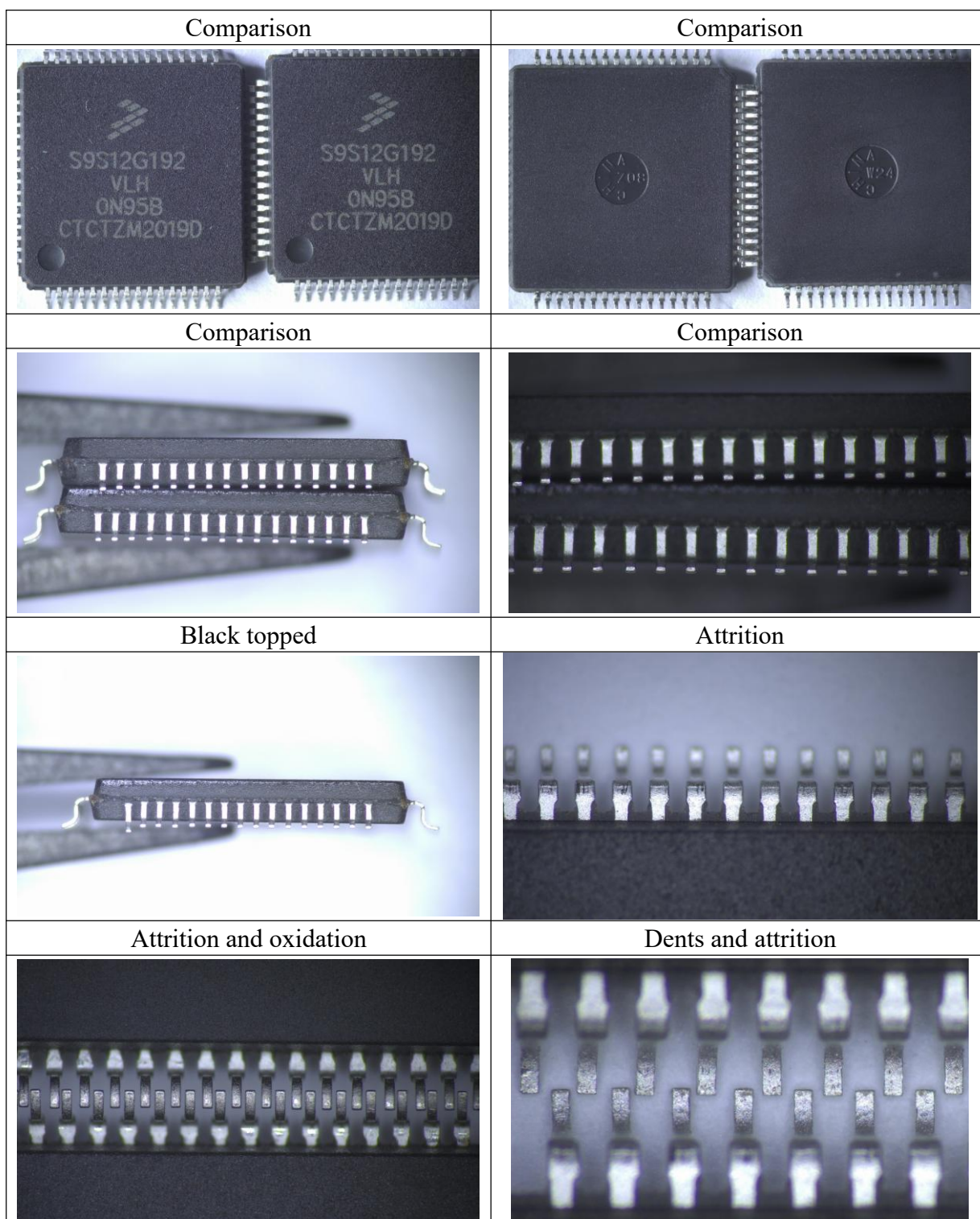


### 3. External Visual Inspection

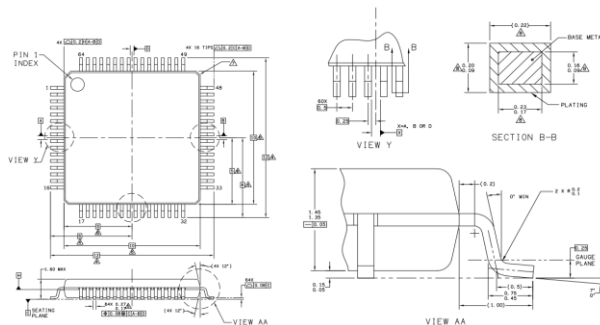
10 pieces devices were performed visual inspection. Test diagrams are as follows:



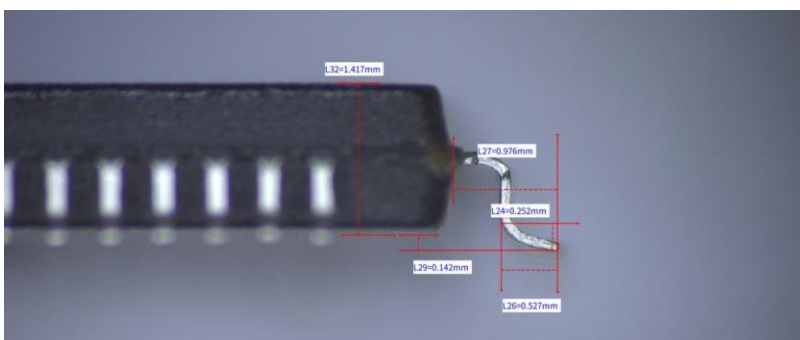
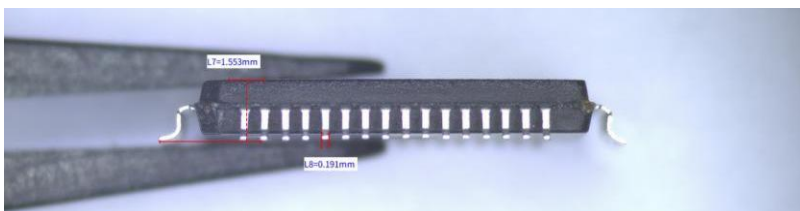
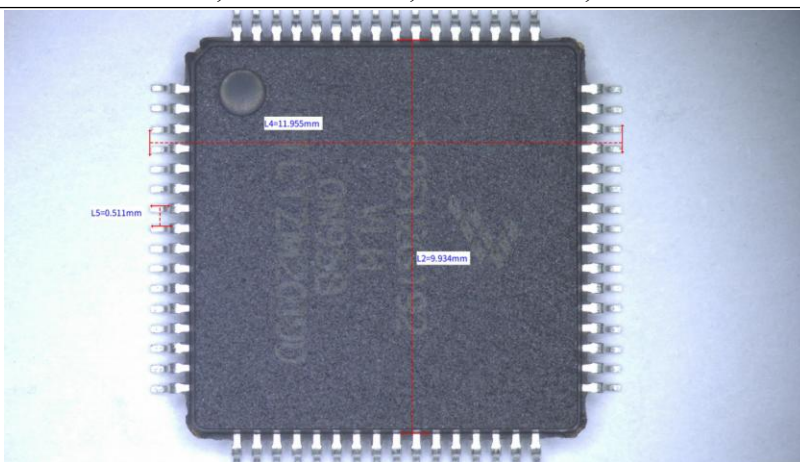




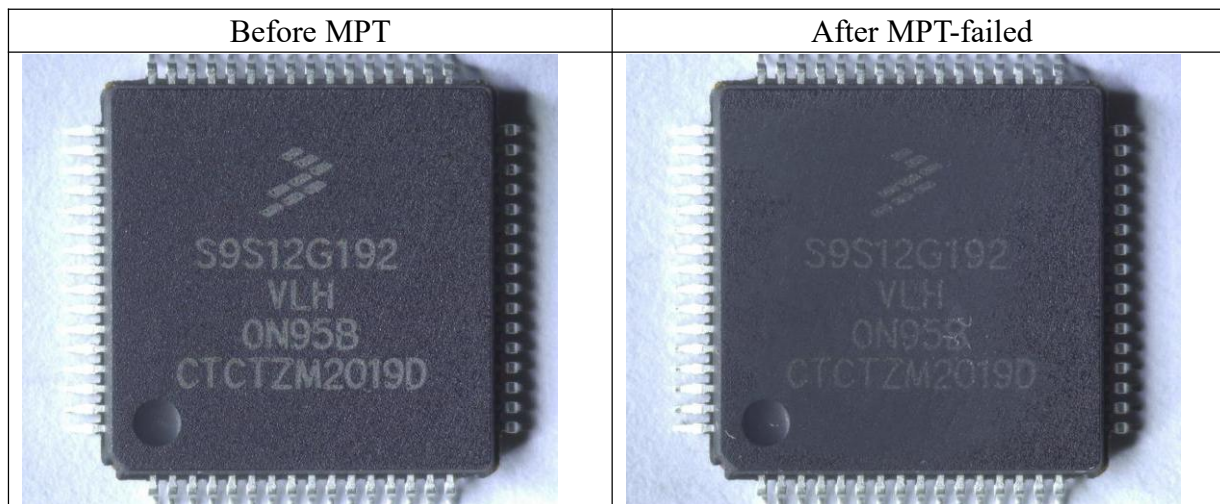
## Dimensions



D=11.955mm, D1=9.934mm, A2=0.142mm, e=0.511mm, b=0.191mm, L1=0.976mm, A=1.553mm, A1=1.417mm, L=0.527mm, G=0.252mm



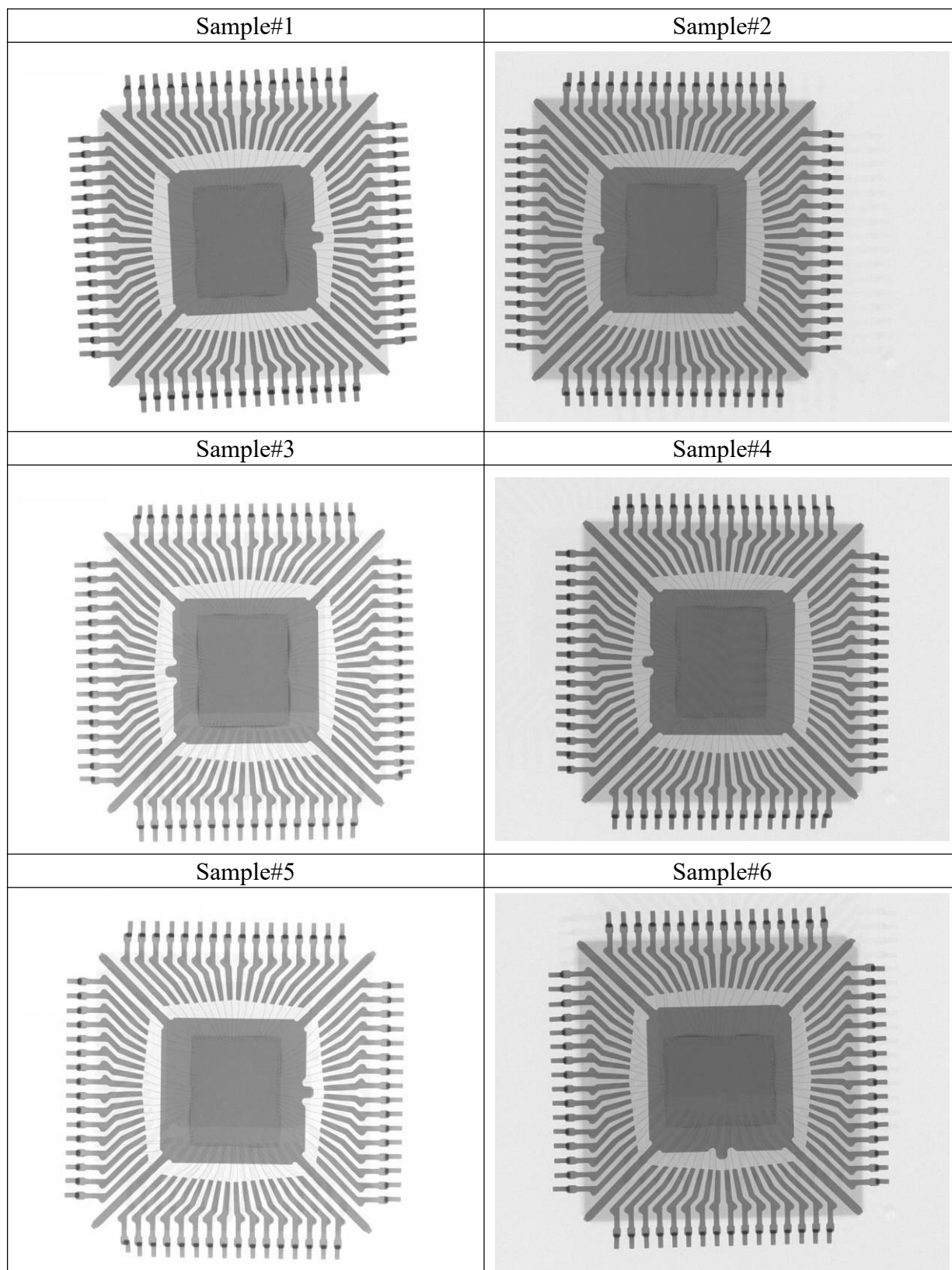
#### **4. Marking Permanency Test**

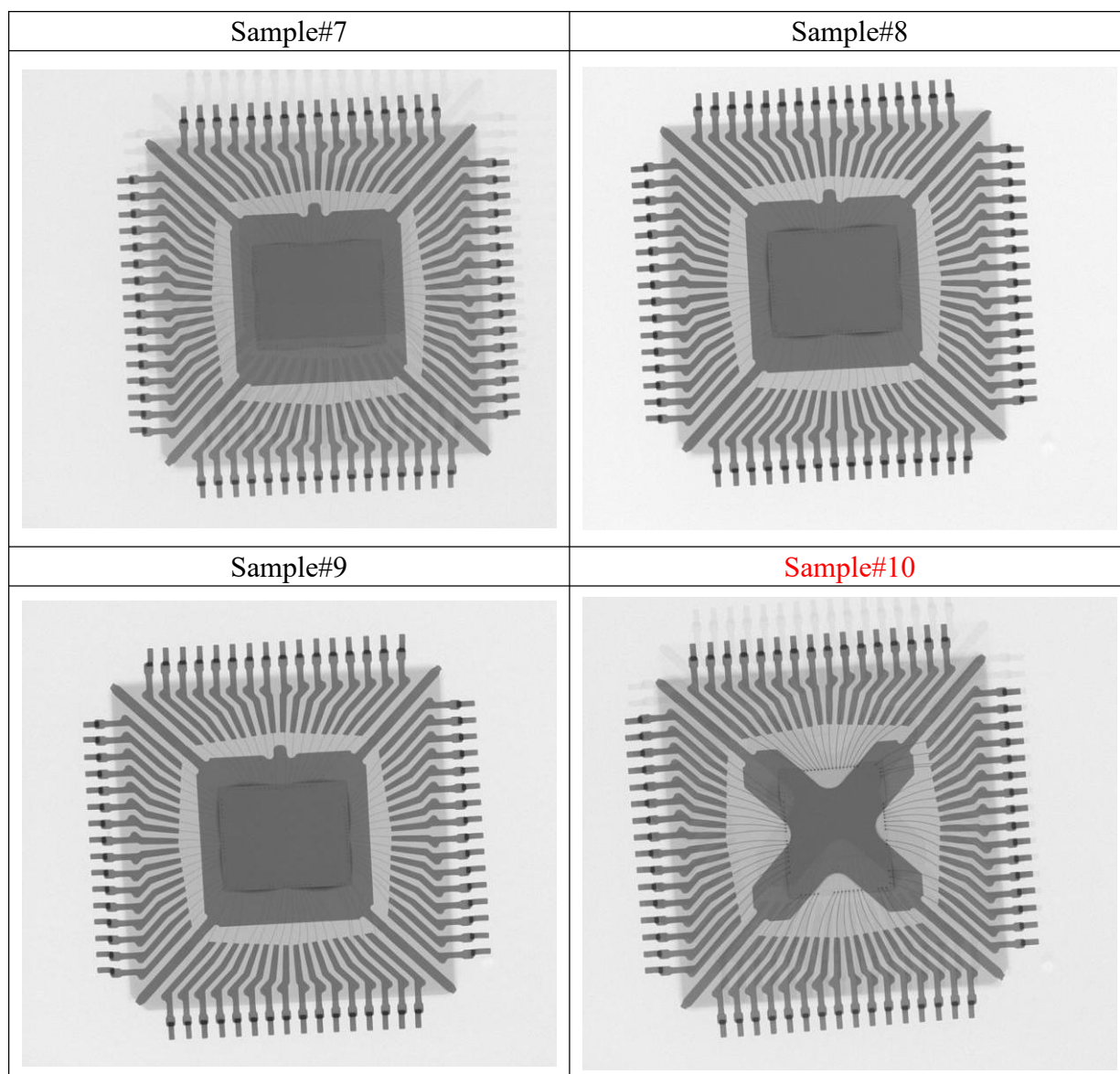




## 5. X-Ray Test

10 pieces samples were performed X-ray test, parts indicate same structure.





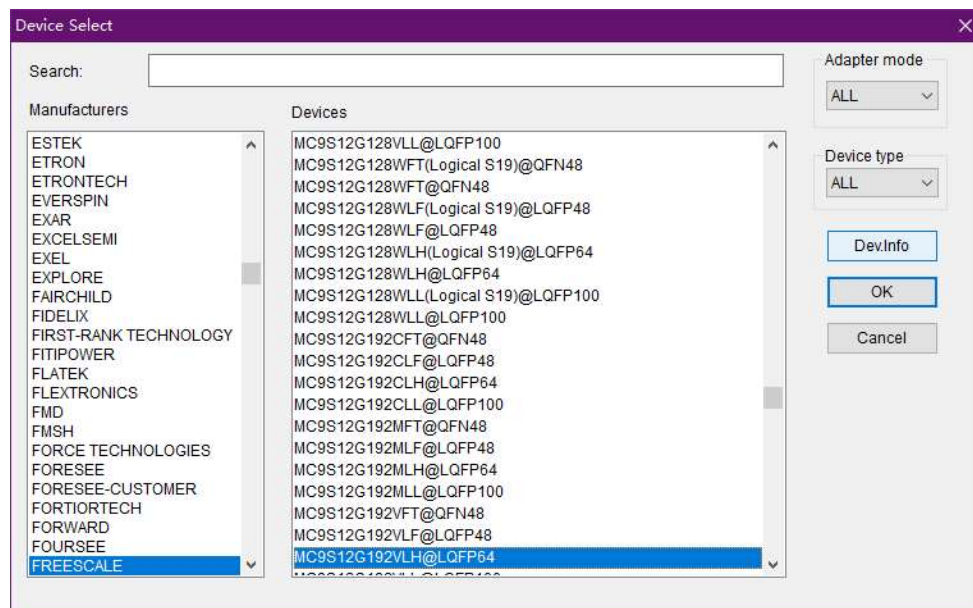
## 6. Key Functional Test

10 pieces were performed key functional test, with all passed.

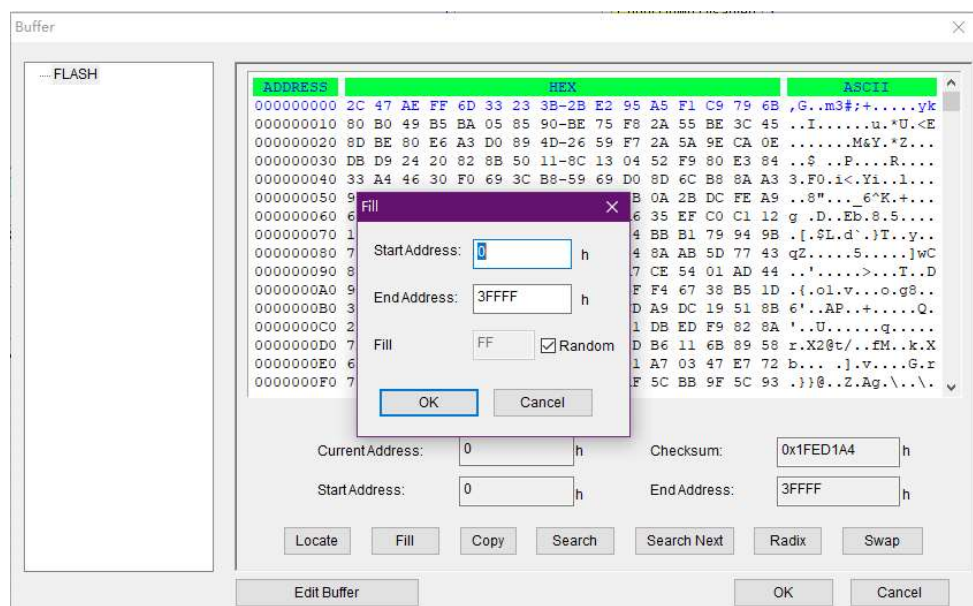
Test diagrams are as follows:

### 6.1 Test result

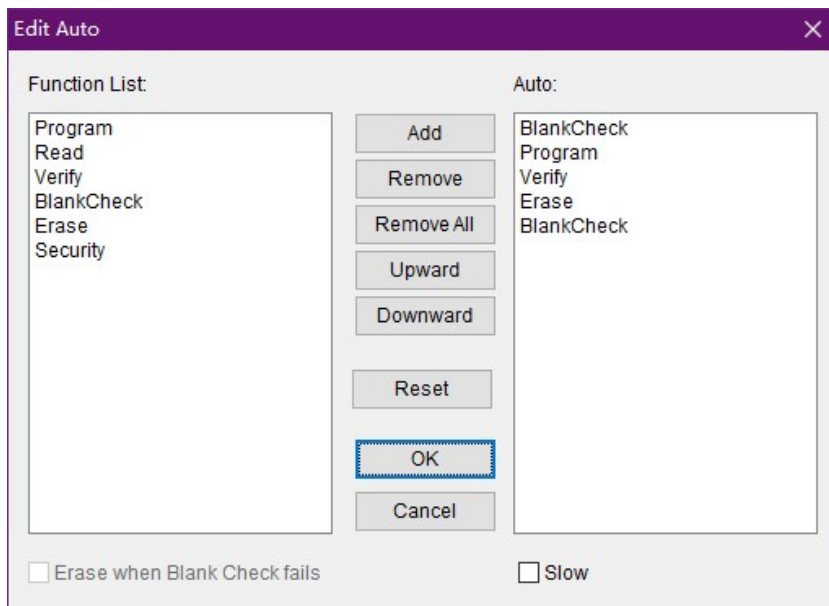
Device Select



Random fill buffer



## Edit Auto

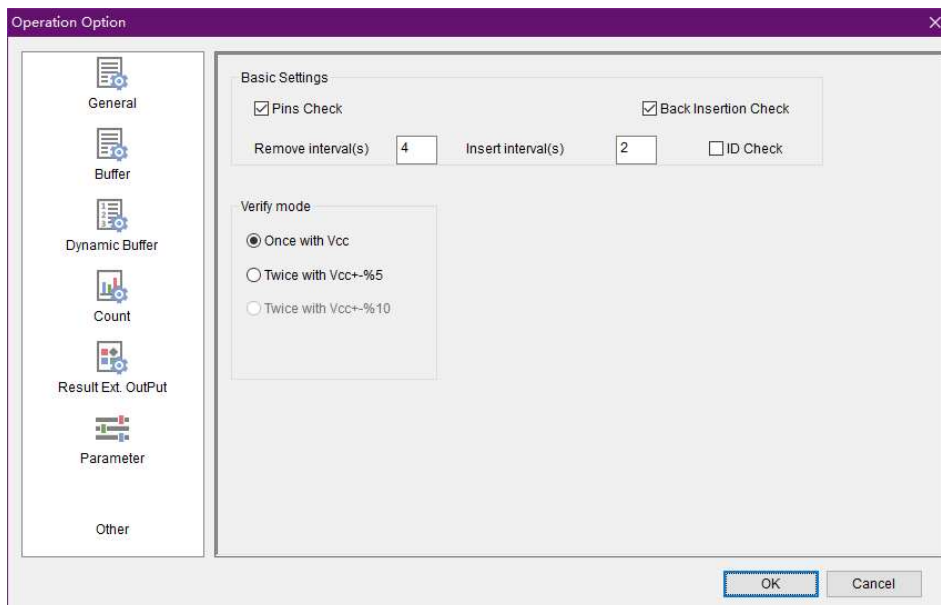


The 'Edit Auto' dialog box is used to configure automatic operations. It features a 'Function List' on the left and an 'Auto' list on the right. The 'Function List' contains: Program, Read, Verify, BlankCheck, Erase, and Security. The 'Auto' list contains: BlankCheck, Program, Verify, Erase, and BlankCheck. Between the lists are buttons for Add, Remove, Remove All, Upward, Downward, Reset, OK, and Cancel. At the bottom, there are two checkboxes: 'Erase when Blank Check fails' and 'Slow'.

Function List	Auto
Program	BlankCheck
Read	Program
Verify	Verify
BlankCheck	Erase
Erase	BlankCheck
Security	

☐ Erase when Blank Check fails ☐ Slow

## Operation Option



The 'Operation Option' dialog box is used to configure various operation settings. It has a sidebar with icons for General, Buffer, Dynamic Buffer, Count, Result Ext. OutPut, Parameter, and Other. The main area is titled 'Basic Settings' and includes checkboxes for 'Pins Check' and 'Back Insertion Check'. Below these are input fields for 'Remove interval(s)' (4) and 'Insert interval(s)' (2), and a checkbox for 'ID Check'. The 'Verify mode' section has three radio buttons: 'Once with Vcc' (selected), 'Twice with Vcc+-%5', and 'Twice with Vcc+-%10'. At the bottom are 'OK' and 'Cancel' buttons.

**Basic Settings**

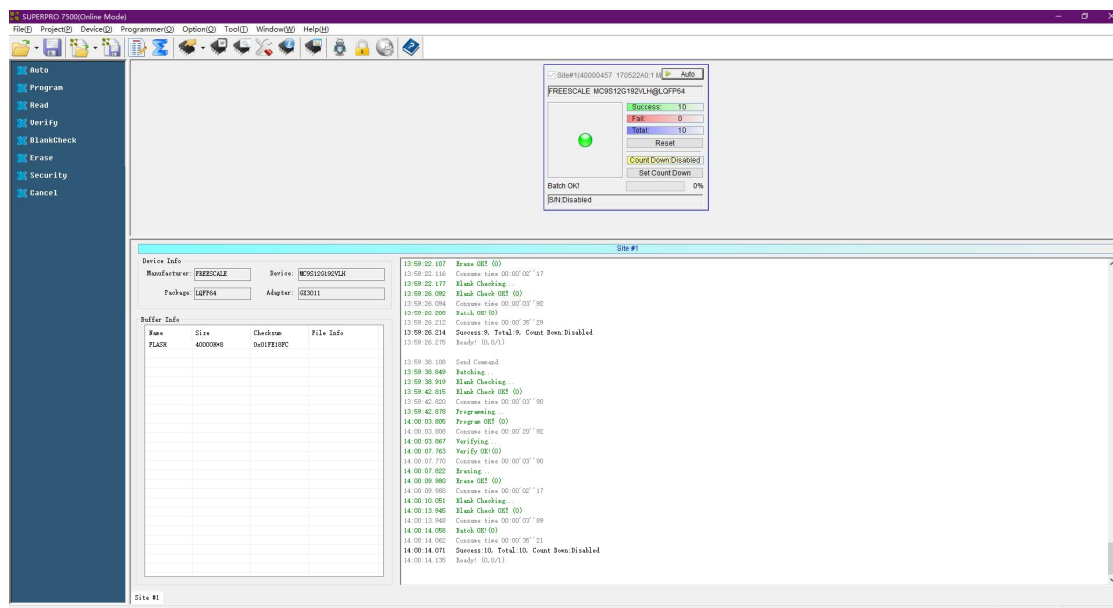
☒ Pins Check ☒ Back Insertion Check

Remove interval(s) 4 Insert interval(s) 2 ☐ ID Check

**Verify mode**

☒ Once with Vcc  
☐ Twice with Vcc+-%5  
☐ Twice with Vcc+-%10

## Test Photo





## Appendix

Optional items:

- ☒ Visual Inspection
- ☒ X-Ray Inspection
- ☐ Chemical Decapsulation
- ☐ Failure Analysis
- ☐ Reliability Analysis
- ☐ Solderability Analysis
- ☐ Level I Authenticity Inspection and Verification (AIV)
- ☐ Level II Direct Current Characteristics testing (DCCT)
- ☒ Level III Key Functional Testing (KFT)
- ☐ Level IV Full Functional Characteristics Testing (FFCT)
- ☐ Level V Alternating Current Characteristics testing (ACCT)
- ☐ Other Items

Test Items Description Reference: <http://www.cecclab.com/en/icmenu.asp?id=101&id1=101>

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### Brief introduction of CECC

China Electronic Component Center Lab abbreviated as CECC , with the development of more than 15years,we are setting up 4 engineering centers for semiconductor innovation and 2 factories for batch IC testing in Shenzhen, Xi'an, Wuxi and Jinan. CECC has been established the pleasure and firm cooperation with IC design house, distributor, EMS, etc.

### CECCLab WeChat ID

