



## VISUAL INSPECTION REPORT

WO Number	Sample
Customer	N/A
Supplier	N/A
Requestor	N/A
PO Number	N/A

Quantity Received	25
Quantity Inspected	13
Date Inspected	2014-10-16
Inspector	Huang Zhihai
Reviewer	Mark A. Rinehart

### PRODUCT INFORMATION

Part Number	K9WBG08U1MPIB0	Package Type	TSOP-48
Manufacturer	Samsung Electronics		
Product Description	2G x 8 Bit / 4G x 8 Bit / 8G x 8 Bit NAND Flash Memory		
Datasheet Reference	<a href="http://www.datasheet4u.com/pdf/785485/Samsung/K9WBG08U1M.html">http://www.datasheet4u.com/pdf/785485/Samsung/K9WBG08U1M.html</a>		

### REPORT SUMMARY

Classification	Unused
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25pcs of SAMAUNG K9WBG08U1MPIB0 were received for analysis. 13pcs were removed for External Visual Inspection. Parts arrived in trays with sealed ESD packaging that is not moisture-safe.

Part number summary: "K9" refers to NAND Flash Memory (unverified), "W" refers to SLC 4 die stack (unverified), "BG" refers to density (32G, unverified), "0" refers to technology (normal, unverified), "8" refers to organization (x8, unverified), "U" refers to Vcc (2.7V~3.6V, unverified), "1" refers to mode (Dual nCE & Dual R/nB, unverified), "M" refers to generation (1st generation, unverified), "P" refers to package type (TSOP1, verified; Lead-Free, Halogen-Free, unverified), "I" refers to temperature range (industrial, unverified), "B" refers to customer bad block (include bad block, unverified).

The parts passed chemical solution and scrape tests for remarking and resurfacing. The parts exhibit scratches and small dents on the pin pads, indicating handling, which is consistent with the packaging in which the parts arrived. Dents on the pin pads are consistent with witness marks from post-assembly testing. There is loose (minor) contamination on the pins which is also consistent with the packaging. The pins exhibit exposed base metal and stress marks, which indicates that they have not been re-plated. Note that the white residue in the "PASS" photo is from the swab.

Dimensions L, L1, W, H, H1, and b were measured and were within manufacturer specifications. The devices have the same exterior configuration as shown on the Package Outline Drawing (POD).

The parts are classified "Unused". Observations on the pins do not indicate prior use and there is no evidence of resurfacing or remarking.

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Suite 809, 8/F, Dynamic World, Zhonghan Rd., Futian District, Shenzhen

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**RECEIVING INSPECTION**

Number of Boxes	1
Condition of Boxes	Undamaged
Type of Boxes	Generic
Label	Type written label
Label Matches P/N	Yes
Unit Weight (grams)	0.57-0.59

**PACKAGING DETAILS**

Package Carrier	Trays
ESD Protection	N/A
MSL Protection	N/A
Desiccant	Yes
Bag Open Date/Time	N/A
Gross Weight (kgs)	0.5

**VISUAL INSPECTION****MARKING INSPECTION**

Date Code(s)	037
Matches Manufacturer's Code	Yes
Remarking and Resurfacing Tests	Passed

Lot Code(s)	CMTZ12XW
Illegible/Shadow/Mis-oriented Marking	No
Others (refer to appendix)	No

**BODY INSPECTION**

Contamination/Corrosion	Yes
Surface Coating and/or Striations	No
Textured Pin 1 Indicator/Overspray	No
Molding Texture Variations	No

Scratches/Dents/Chips/Cracks/Voids	No
Non-uniform Thickness or Toolmark Depth	No
Excessive Mold Flash	No
Others (refer to appendix)	No

**TERMINAL INSPECTION**

Contamination/Oxidation/Corrosion	No
Scratches/Dents/Cracks/Scoring	Yes
Exposed base metal/Flaked or Worn plating	No
Bent/Lifted/Distorted/Fused Pins	No

Poor solder wetting and/or solder remnants	No
Re-tinned (shiny, rounded/arc shaped,etc.)	No
Solder ball defects: Smashed, missing, distorted	N/A
Others (refer to appendix)	No

**MECHANICAL CHARACTERISTICS INSPECTION**

Consistent with Manufacturer Diagram	Yes
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Conforms to Dimension Specification	Yes
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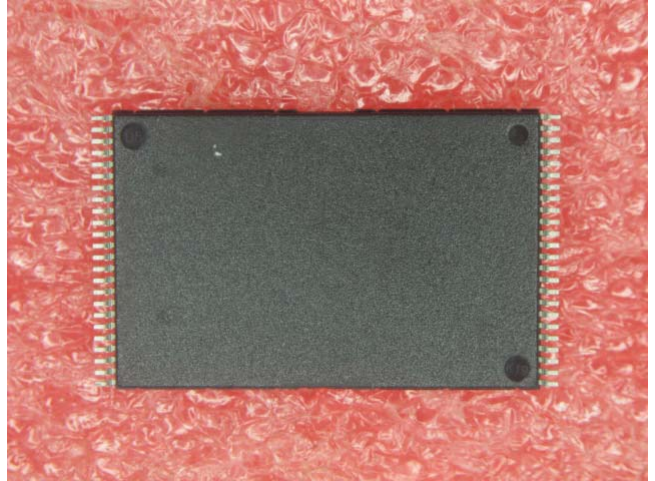
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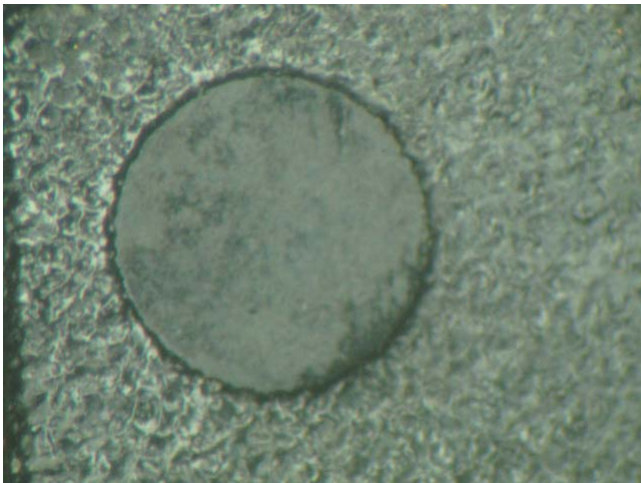
## APPENDICES



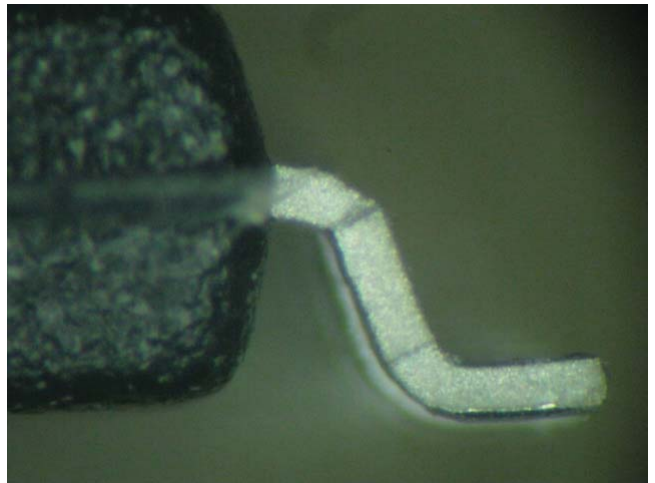
Body (Top-side)	
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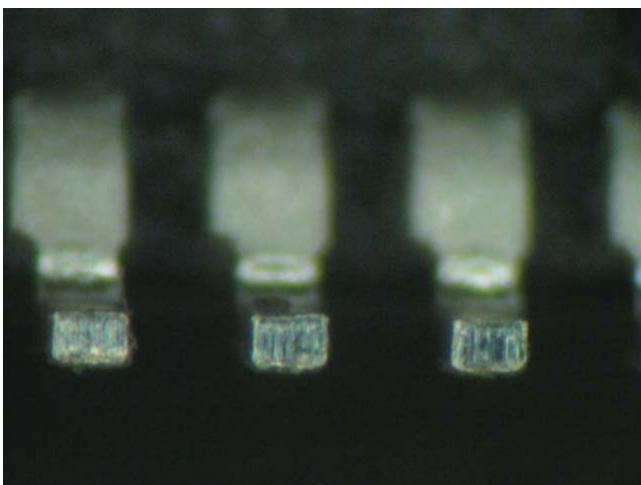
Body (Bottom-side)	
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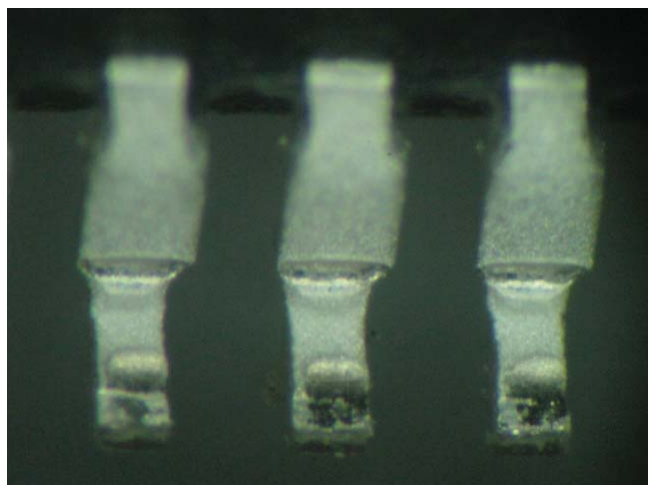
Body (Top-side)	Pin 1 indicator, no overspray
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Pin (Side)	Pin profile
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Pin (pin tip)	Exposed base metal from trimming
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Pin (Non-soldering)	Stress marks from forming
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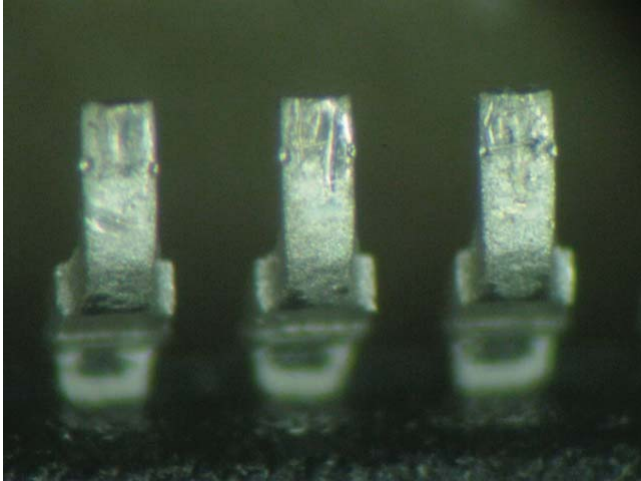
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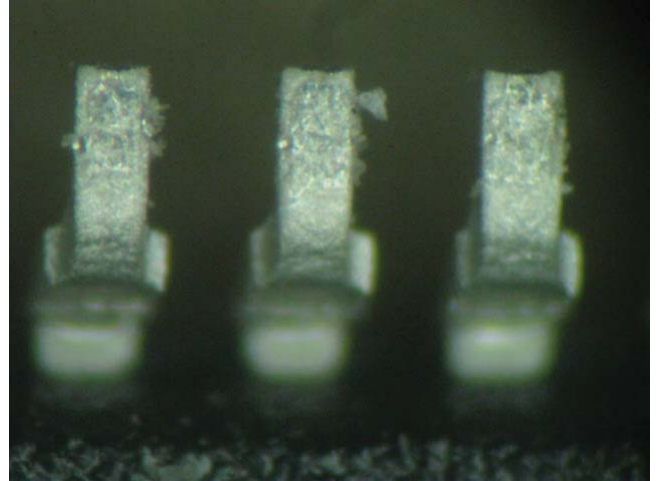
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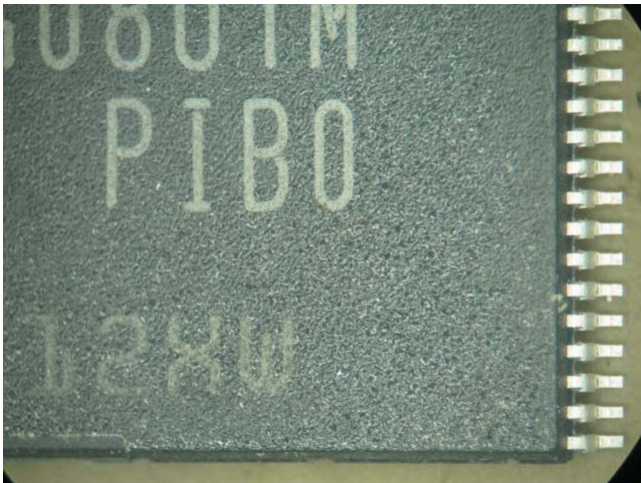
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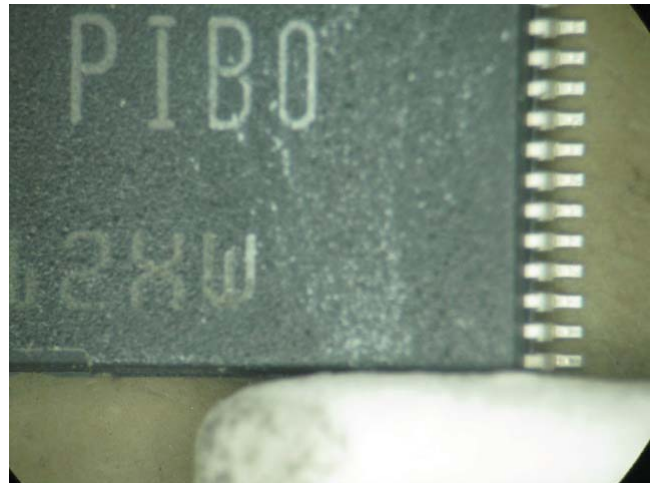
Pin (Soldering)	Scratches and dented pin pads, 13pcs
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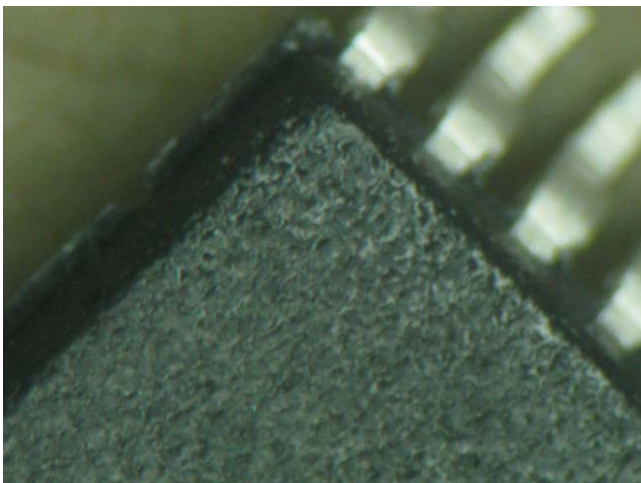
Pin (Soldering)	Loose contamination, 13pcs
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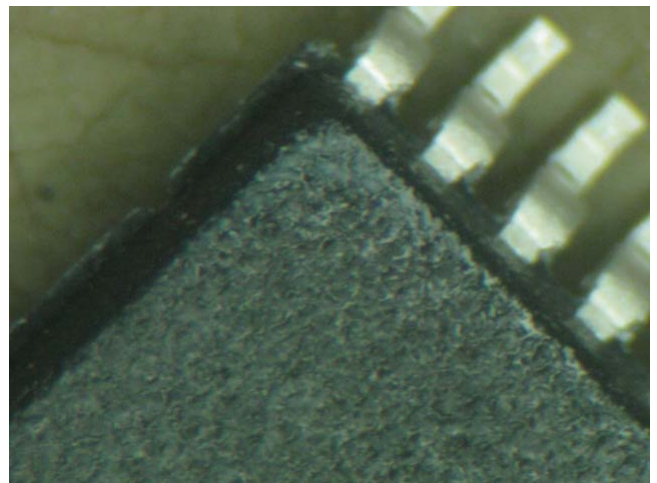
Marking (top-side)	Before chemical resurfacing test
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Marking (top-side)	After chemical resurfacing test (PASS)
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Body (Top-side)	Before mechanical resurfacing test
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Body (Top-side)	After mechanical resurfacing test (PASS)
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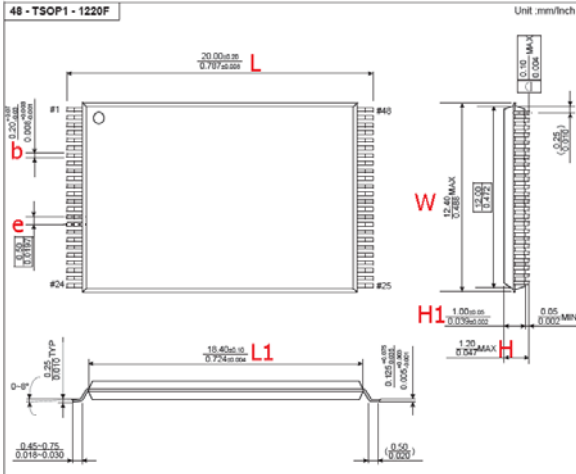
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SAMSUNG Marking	SEC Marking	48TSOP1, 48WSOP1 Marking
(1) SAMSUNG (2) 525 (3) K4H1G0438A - UCCC (4) H518 CM032ZK	(1) SEC (2) 716 (3) ZCE7 (4) K4T1G084QD (5) EAN052AX	(1) SAMSUNG (2) 349 (3) K9W8G08U1M (4) YCBO (5) VNH1601

### Contents of Marking

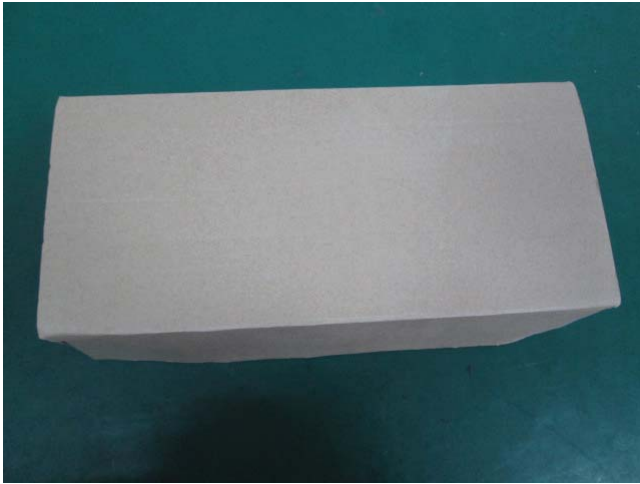
(1) SAMSUNG logo : SAMSUNG or SEC

Top marking type	Mark criteria	Package
SAMSUNG marking	11.2mm(>)(over) (Mark able width)	TSOP2, TSOP1, QFP, U-BGA, W-BGA, TBGA, FBGA, BOC, FCBGA, DSP, LGA etc
SEC marking	11.2mm(<=)(under) (Mark able width)	54sTSOP, U-BGA, W-BGA, TBGA, FBGA, BOC etc

- (2) Year & Week
- (3) Part Number [Refer to Part No. decoder page](#)
- (4) Lot Number

Package Outline Drawing

Marking information



Packaging

Box as arrived

Packaging

Open carton box with parts in an ESD bag



Packaging

Type written label

Packaging

Parts aligned in trays

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