

Product Change Notice (PCN)

Subject: Add Alternate Assembly Location on Select VFQFPN Package

Publication Date: 5/29/2023

Effective Date: 8/28/2023

Revision Description:

Initial Release

Description of Change:

Renesas is adding alternate Assembly location on VFQFPN-48 package. The alternate assembly location is the current qualified location for Renesas. The material sets of the current and the alternate assembly locations are as shown in the below table. There will be changes in the material sets at the alternate locations.

There will be no changes in the moisture sensitive level as a result of this change.

	Current	Alternate
	ASEC Taiwan	UTL Thailand
Die attach material	EN4900G	558-2C31
Wire material	Copper wire	Copper wire
Mold compound	G700LA	G700LTD

Affected Product List: P9260-10NLG2, P9260-10NLG28, P9260-BNLG2, P9260-BNLG28

Reason for Change:

The change is to create dual source to secure business continuity.

Impact on Fit, Form, Function, Quality & Reliability:

The change will have no impact on the form, fit, function, quality, reliability and environmental compliance of the products.

Product Identification:

Assembly lot# prefix denote Assembly Location

Prefix	Assembly Location
RC	ASEC Taiwan
U	UTL Thailand

Qualification Status: Completed and passed AEC-Q100. Refer Appendix A

Sample Availability Date: 4 weeks from sample booking date

Device Material Declaration: Available upon request

Note:

1. Acknowledgement must be received by Renesas within 30 days or Renesas will consider

the change as approved.

2. If timely acknowledgement is provided by Customer, then Customer shall have 90 days from the date of receipt of this PCN to make any objections to this PCN. If Customer fails to make objections to this PCN within 90 days of the receipt of the PCN then Renesas will consider the PCN changes as approved.
3. If customer cannot accept the PCN then customer must provide Renesas with a last time buy demand and purchase order.

For additional information regarding this notice, please contact idt-pcn@lm.renesas.com

P9260 Qualification at UTL Test Report

Apr 16, 2023

Product: P9260-10ZNLG2

Technology: CV018G BCD gen2 / TSMC
 Chip-Area: 3.06 x3.13 mm
 Package: 48LD VFQFPN 7.0 x 7.0 mm
 Operating Temperature: -40°C to 105°C / AEC-Q100 Grade 2
 Qualification Plan: P21-08-016

Qual lot No.	1	2	3
Lot No.:	QEU084135PY	QEU084136PY	QEU084137PY
Date Code:	2139	2139	2139
QCI Lot #:	P1PPD13	P1PPD14	P1PPD15

AEC-Q100 Test Results

Test No.	Test	Conditions	n/r lot 1	n/r lot 2	n/r lot 3	Comments
B1	High Temperature Operating Life [JESD22-A108] [HTOL]	Tj=125°C / 20V 1621hrs	77/0	77/0	77/0	Passed
B2	Early Life Failure Rate [AEC Q100-008] [ELFR]	Tj=125°C / 20V 48hrs	800/0	800/0	800/0	Passed
C1	Wire Bond Shear [AEC Q100-001] [WBS]	F > 5.7g Unstressed	5/0	5/0	5/0	Passed
C2	Wire Bond Pull [MIL883 M2011] [WBP]	F > 2.5g Unstressed	5/0	5/0	5/0	Passed
C3	Solderability [JESD22-B102] [SD]	Steam aging 100°C / 100% RH / 8hrs solder bath 245°C / 5sec	15/0	-	-	Passed
C4	Physical Dimensions [JESD22-B100/B108] [PD]	Package Outline Drawing	10/0	10/0	10/0	Passed

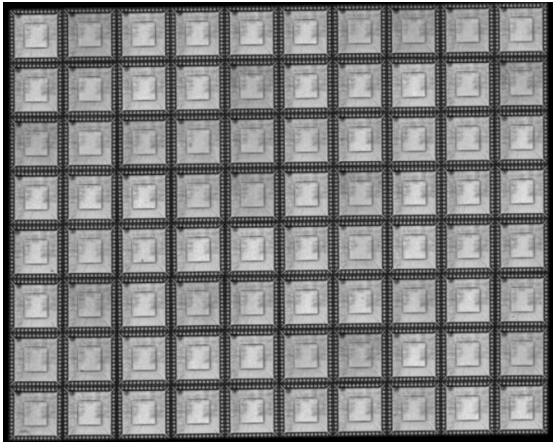
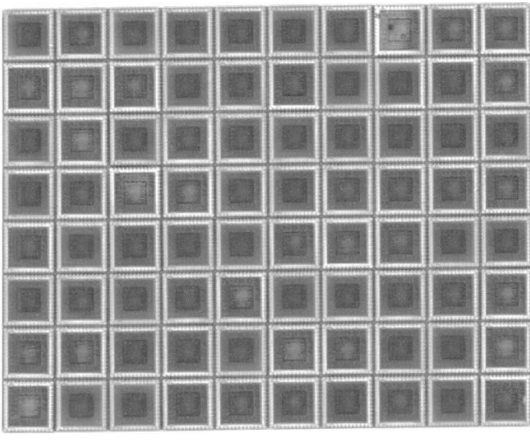
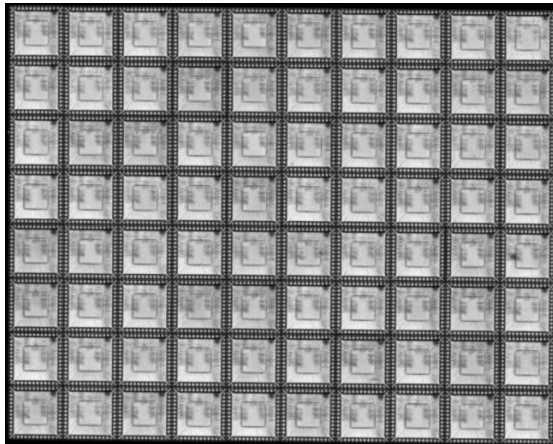
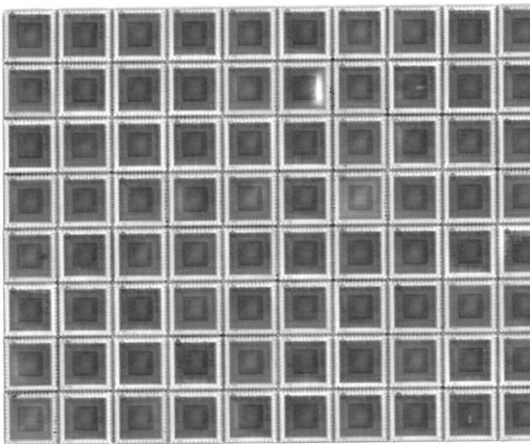
P9260 Qualification at UTL Test Report

AEC-Q006 Test Results

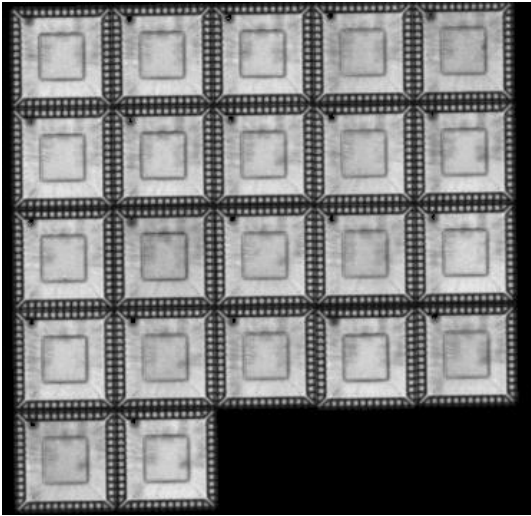
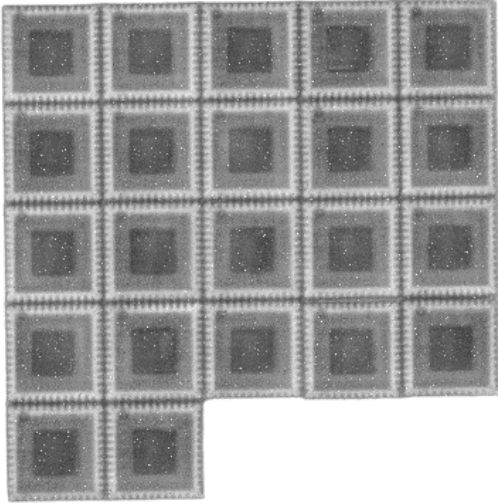
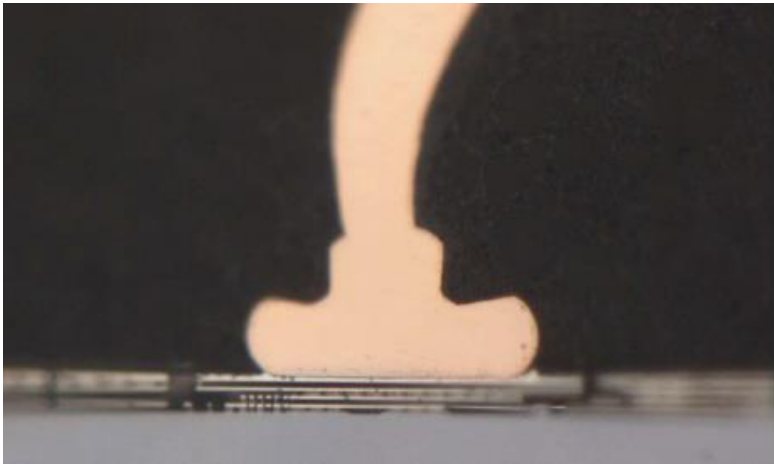
Seq. #	Qual Step / Stress Test	TC (-55°C / 125°C)	HAST (130°C /85% RH/ 20V)	UHAST 130°C /85% RH/ Unbiased)	HTSL (150°C)
1	Initial Sampling	77/0, x3 lots	77/0, x3 lots	77/0, x3 lots	45/0, x3 lots
2	CSAM @ T0	77/0, x3 lots	77/0, x3 lots	77/0, x3 lots	NA
3	Preconditioning to MSL3	77/0, x3 lots	77/0, x3 lots	77/0, x3 lots	NA
4	CSAM post PC	77/0, x3 lots	77/0, x3 lots	77/0, x3 lots	NA
5	ATE Test	77/0, x3 lots	77/0, x3 lots	77/0, x3 lots	NA
6	Stress Test, 1x	1000 cyc	96 hrs	96 hrs	500 hrs
7	ATE Test	77/0, x3 lots	77/0, x3 lots	77/0, x3 lots	45/0, x3 lots
8	CSAM post-1x stress	22/0, x3 lots	22/0, x3 lots	NA	NA
9a	Wire Pull	3/0, x3 lots	3/0, x3 lots	NA	NA
9b	Ball Shear	3/0, x3 lots	3/0, x3 lots	NA	NA
10	Cross Section	1/0, x3 lots	1/0, x3 lots	NA	1/0, x3 lots
11	Stress Test, 2x	1000 cyc	96 hrs	NA	500 hrs
12	ATE Test	70/0, x3 lots	70/0, x3 lots	NA	44/0, x3 lots
13	CSAM post-2x stress	22/0, x3 lots	22/0, x3 lots	NA	NA
14a	Wire Pull	2/0, x3 lots	2/0, x3 lots	NA	NA
14b	Ball Shear	2/0, x3 lots	2/0, x3 lots	NA	NA
15	Cross Section	1/0, x3 lots	1/0, x3 lots	NA	1/0, x3 lots

P9260 Qualification at UTL Test Report

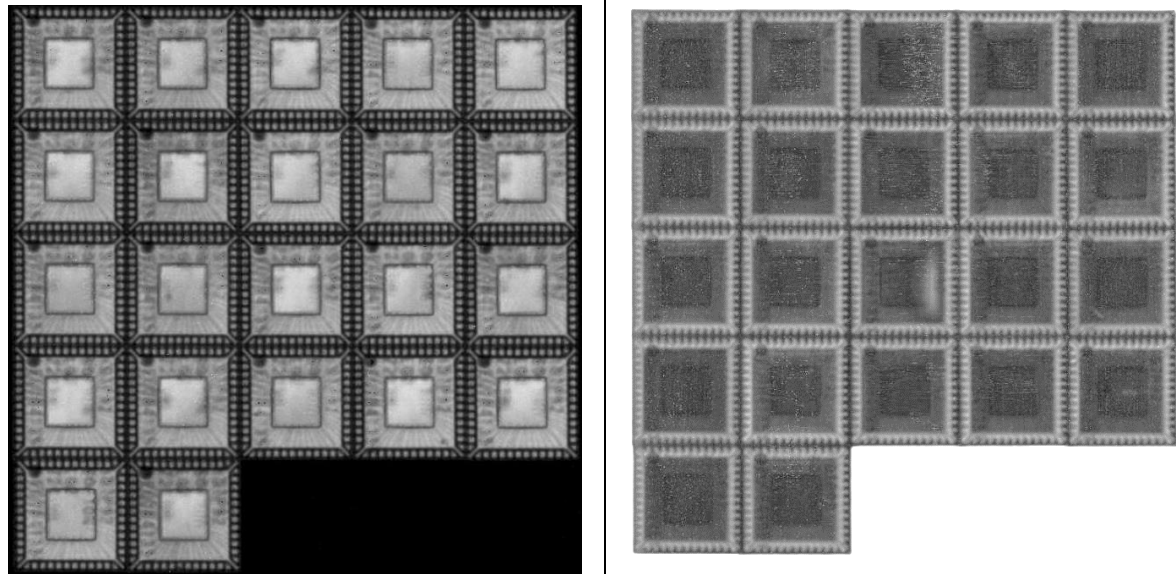
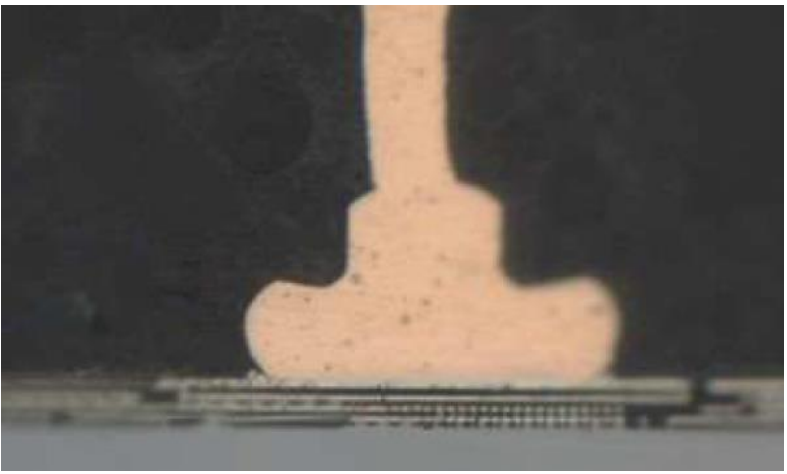
APPENDIX

Rel Stress	Top Scan	Through Scan	Note
TC	CSAM @ T0		No anomalies found
			
TC	CSAM post PC		No anomalies found
			

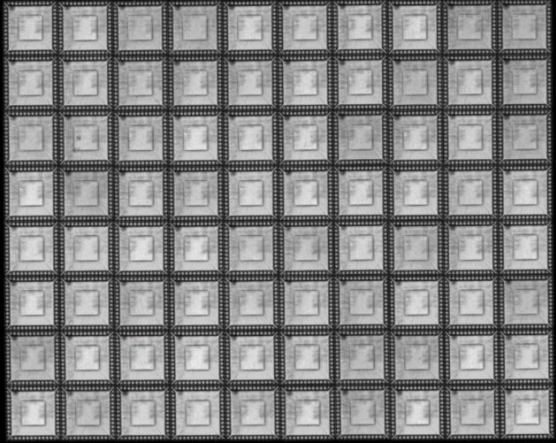
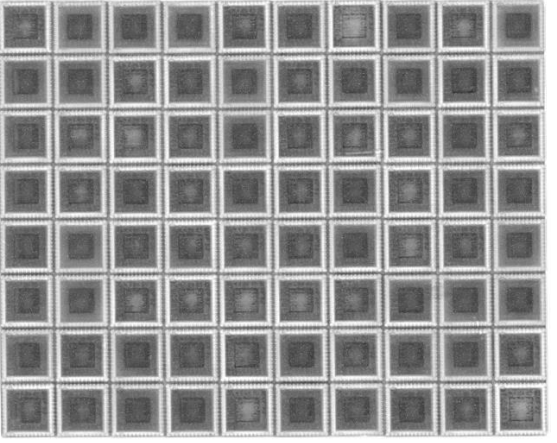
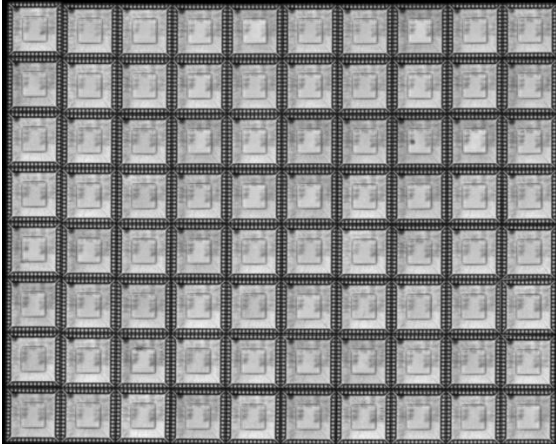
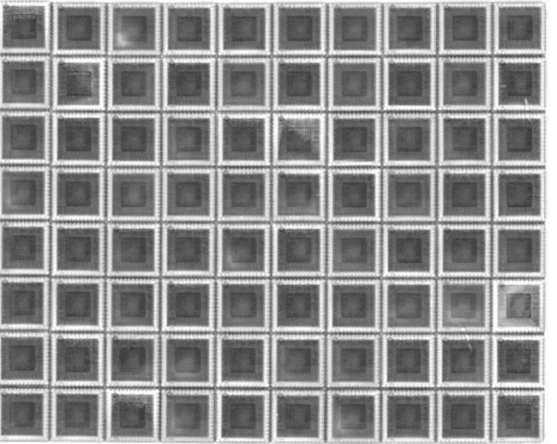
P9260 Qualification at UTL Test Report

TC	<p data-bbox="628 324 895 353">CSAM post-1x stress</p> <div data-bbox="199 378 732 891"></div> <div data-bbox="826 389 1326 891"></div>	<p data-bbox="1382 365 1516 472">No anomalies found</p>
TC	<p data-bbox="580 936 943 965">Cross Section post-1x stress</p> <div data-bbox="376 987 1153 1449"></div>	<p data-bbox="1382 976 1516 1084">No anomalies found</p>

P9260 Qualification at UTL Test Report

TC	<p data-bbox="630 324 893 358">CSAM post-2x stress</p> 	No anomalies found
TC	<p data-bbox="582 996 941 1030">Cross Section post-2x stress</p> 	No anomalies found

P9260 Qualification at UTL Test Report

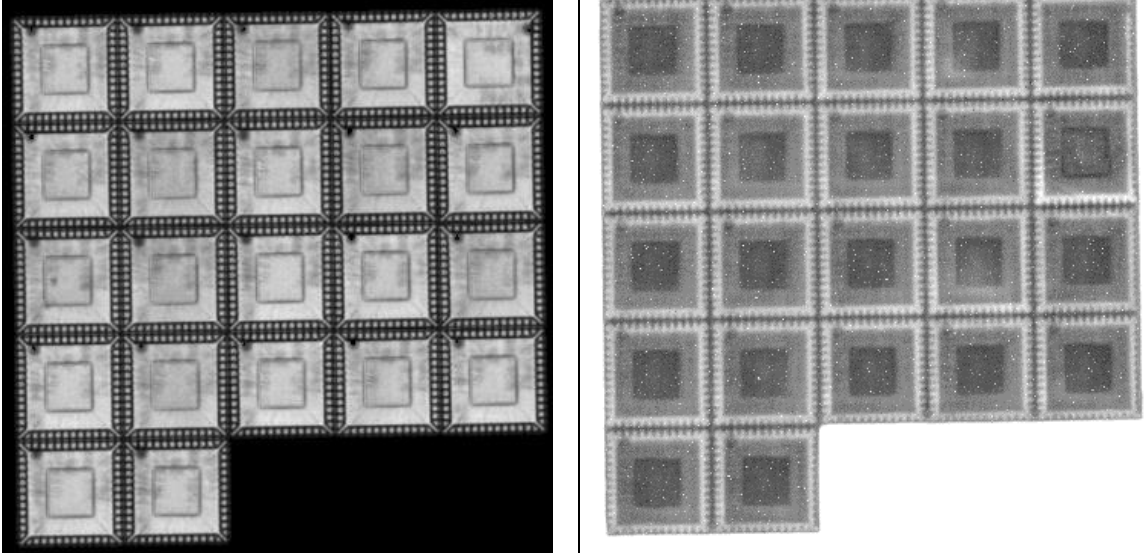
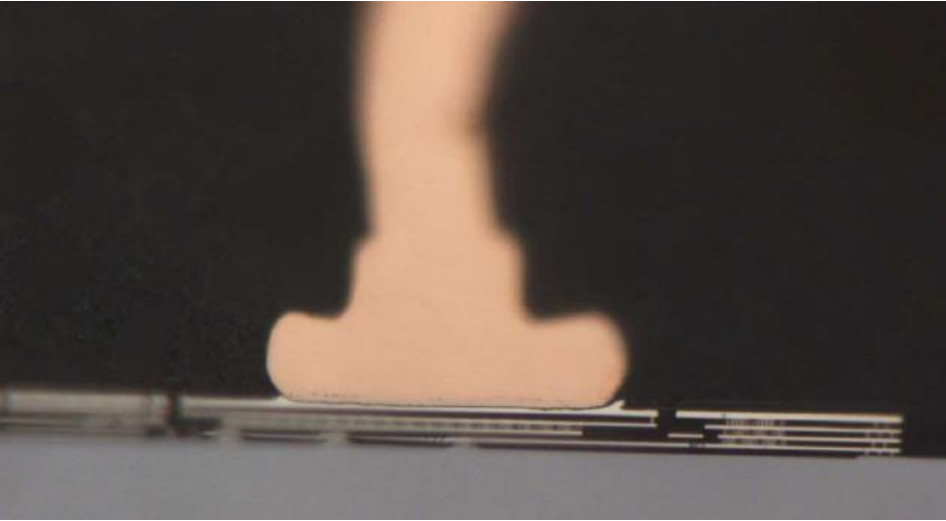
HAST	CSAM @ T0		No anomalies found
			
HAST	CSAM post PC		No anomalies found
			

P9260 Qualification at UTL Test Report: P9260-10ZNLG2

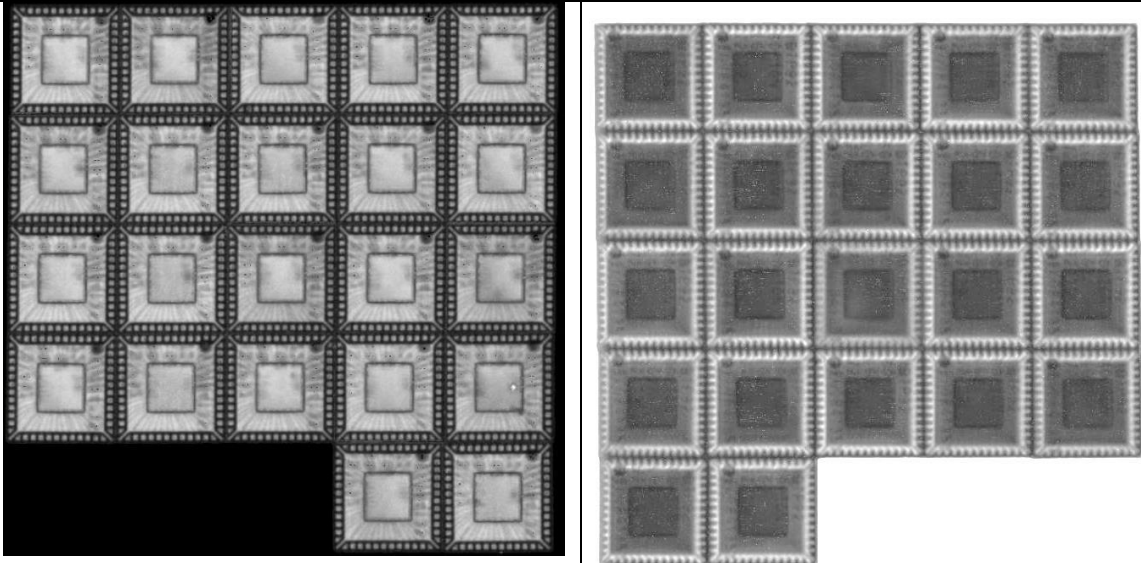
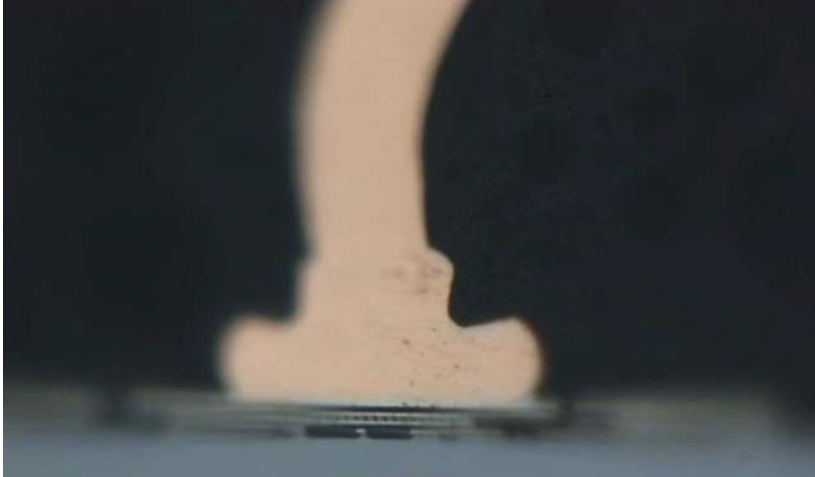
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2023-Apr-18

P9260 Qualification at UTL Test Report

HAST	<p data-bbox="628 405 895 434">CSAM post-1x stress</p> 	No anomalies found
HAST	<p data-bbox="628 1061 991 1090">Cross Section-post 1x stress</p> 	No anomalies found

P9260 Qualification at UTL Test Report

<p>HAST</p>	<p style="text-align: center;">CSAM-post 2x stress</p> 	<p>No anomalies found</p>
<p>HAST</p>	<p style="text-align: center;">Cross Section-post 2x stress</p> 	<p>No anomalies found</p>

P9260 Qualification at UTL Test Report

UHAST	CSAM @ T0		No anomalies found
UHAST	CSAM post PC		No anomalies found

P9260 Qualification at UTL Test Report

HTS	Cross Section-post 1x stress		No anomalies found
HTS	Cross Section-post 2x stress		No anomalies found

Prepared by **WT Lim**
Reliability Engineer