

# Product Change Notification - JAON-04UCYV212

**Date:** 12 Jan 2017  
**Product Category:** Memory  
**Notification subject:** CCB 2745 Final Notice: Qualification of 35.8K process technology for selected products of the 25xx128 and 25xx256 device families available in 8L TSSOP package.  
**Notification text:** **PCN Status:**  
Final notification

## Microchip Parts Affected:

Please open the attachments found in the attachments field below labeled as PCN\_#\_Affected\_CPN.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

## Description of Change:

Qualification of 35.8K process technology for selected products of the 25xx128 and 25xx256 device families available in 8L TSSOP package.

## Pre Change:

Available in 160K wafer technology fabricated at Microchip fabrication sites FAB2 and FAB4 (Tempe, AZ and Gresham, OR, USA) using 8 inch wafers

## Post Change:

Available in 160K wafer technology fabricated at Microchip fabrication sites FAB2 and FAB4 (Tempe, AZ and Gresham, OR, USA) using 8 inch wafers or available in 35.8K wafer technology fabricated at FAB 5 (Colorado Springs, CO, USA) using 6 inch wafers

## Pre and Post Change Summary:

	Pre Change	Post Change	
<b>Wafer Technology</b>	160K wafer technology	160K wafer technology	35.8K wafer technology
<b>Fabrication Location</b>	Microchip Fabrication Sites FAB 2 and FAB4 (Tempe, AZ and Gresham, OR, USA)	Microchip Fabrication Sites FAB 2 and FAB4 (Tempe, AZ and Gresham, OR, USA)	FAB 5 (Colorado Springs, CO USA)
<b>Wafer Diameter</b>	8 inches (200 mm)	8 inches (200 mm)	6 inches (150 mm)
<b>Quality certification</b>	ISO/TS16949	ISO/TS16949	ISO9001/TS16949

## Impacts to Data Sheet:

None

## Change Impact:

None

## Reason for Change:

To improve manufacturability by qualifying an additional fabrication site.

## Change Implementation Status:

In Progress

**Estimated First Ship Date:**  
February 13, 2017 (date code: 1707)

**NOTE:**

In order to receive products only fabricated with the current 160K process please use the revised part number identified with RVA added to the end of the part number (see example below).  
Standard Part Number: 25xx128x-x/xx or 25xx256x-x/xx  
Revised Part Number (160K only): 25xx128x-x/xxRVA or 25xx256x-xx/xxRVA

**Time Table Summary:**

	December 2016					January 2017				February 2017			
Workweek	48	49	50	51	52	01	02	03	04	05	06	07	08
Initial PCN Issue Date		X											
Qual Report Availability							X						
Final PCN Issue Date							X						
Estimated Implementation Date												X	

**Method to Identify Change:**  
Traceability code

**Qualification Report:**  
Please open the attachments included with this PCN labeled as PCN\_#\_Qual Report.

**Revision History:**  
**December 6, 2016:** Issued initial notification.  
**January 12, 2017:** Issued final notification. Attached the qualification report. Provided estimated first ship date to be on February 13, 2017.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

**Attachment(s):** [PCN\\_JAON-04UCYV212\\_Qual Report.pdf](#)  
[PCN\\_JAON-04UCYV212\\_Affected CPN.pdf](#)  
[PCN\\_JAON-04UCYV212\\_Affected CPN.xls](#)

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Affected Catalog Part Numbers (CPN)

PCN_JAON-04UCYV212
CATALOG_PART_NBR
25AA256-I/ST
25AA256T-I/ST
25LC256-E/ST
25LC256-I/ST
25LC256T-E/ST
25LC256T-I/ST
25AA128-I/ST
25AA128T-I/ST
25LC128-E/ST
25LC128-I/ST
25LC128T-E/ST
25LC128T-I/ST



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN #: JAON-04UCYV212**

**Date**  
**January 05, 2017**

**Qualification of 35.8K process technology for selected  
products of the 25xx128 and 25xx256 device families  
available in 8L TSSOP package.**



## **MICROCHIP**

### **PACKAGE QUALIFICATION REPORT**

**Purpose** Qualification of 35.8K process technology for selected products of the 25xx128 and 25xx256 device families available in 8L TSSOP package.

**CN** ES080013  
**QUAL ID** Q16179  
**MP CODE** 358A24C5XA00  
**Part No.** 25LC256-E/ST  
**Bonding No.** BDE-003951 Rev. 01  
**CCB No.** 2745

#### **Package**

**Type** 8L TSSOP  
**Package size** 4.4 mm  
**Die thickness** 11 mils  
**Die size** 57.10 x 69.50 mils

#### **Lead Frame**

**Paddle size** 118 x 87 mils  
**Material** C7025  
**Surface** Ag spot plated  
**Process** Stamped  
**Lead Lock** No  
**Part Number** 10100821  
**Treatment** None

#### **Die attach material**

**Epoxy** 2200D  
**Wire** Au wire  
**Mold Compound** G600V  
**Plating Composition** Matte Tin



# MICROCHIP PACKAGE QUALIFICATION REPORT

## Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-173000404.000	MCSO917225494.400	1642JUJ
MMT-173000765.000	MCSO917225494.400	1642PVU
MMT-173000814.000	MCSO917225494.400	1642Q5P

### Result

Pass     Fail     \_\_\_\_\_

8L TSSOP (4.4 mm) assembled by MMT pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020D standard.

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<b>Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)</b>	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243  ( IPC/JEDEC J-STD-020D)	IPC/JEDEC C J-STD-020D	135	0/135	Pass	

<b><u>Precondition Prior Perform Reliability Tests (At MSL Level 1)</u></b>	<b>Electrical Test</b> :+25°C,85°C and 125°C System: NEXTEST_PT	JESD22-A113	693(0)	693	Pass	Good Devices
	Bake 150°C, 24 hrs System: CHINEE			693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	<b>Electrical Test</b> :+25°C,85°C and 125°C System: NEXTEST_PT			0/693		

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>Temp Cycle</b>	<b>Stress Condition:</b> -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H	JESD22- A104		231		Parts had been pre-conditioned at 260°C 77 units / lot
	<b>Electrical Test:</b> + 85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
	<b>Bond Strength:</b> Wire Pull (> 2.5 grams) Bond Shear (>15.00 grams)		15 (0)	0/15	Pass	
<b>UNBIASED-HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22- A118		231		Parts had been pre-conditioned at 260°C 77 units / lot
	<b>Electrical Test:</b> +25°C System: NEXTEST_PT		231(0)	0/231	Pass	
<b>HAST</b>	<b>Stress Condition:</b> +130°C/85%RH, 96 hrs. <b>Bias Volt:</b> 5.5 Volts System: HAST 6000X	JESD22- A110		231		Parts had been pre-conditioned at 260°C 77 units / lot
	<b>Electrical Test:</b> +25°C,85°C and 125°C System: NEXTEST_PT		231(0)	0/231	Pass	
<b>High Temperature Storage Life</b>	<b>Stress Condition:</b> Bake 175°C, 504 hrs System: SHEL LAB	JESD22- A103		45		45 units
	<b>Electrical Test</b> :+25°C,85°C and 125°C System: NEXTEST_PT		45(0)	0/45	Pass	



## PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>Bond Strength</b> <b>Data Assembly</b>	Wire Pull (> 2.5 grams)	M2011	30 (0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	JESD22- B116	30 (0) bonds	0/30	Pass	