



## Product Change Notification - KSRA-24TYAZ595

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**Date:**

01 Apr 2019

**Product Category:**

Memory

**Affected CPNs:****Notification subject:**

CCB 2936, 2936.002, 2936.003 Final Notice: Qualification of MMT as a new assembly site for selected Atmel Product available in 28L and 40L PDIP package.

**Notification text:****PCN Status:**

Final notification

**PCN Type:**

Manufacturing Change

**Microchip Parts Affected:**

Please open one of the icons found in the Affected CPNs section above

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

**Description of Change:**

Qualification of MMT as a new assembly site for selected Atmel Product available in 28L and 40L PDIP package.

**Pre Change:**

Assembled at ANAP assembly site using 8390A die attach, Q3-6646 die coat and CK5000A molding compound material. Assembled at LPI assembly site using CRM-1033BF die attach, Q1-4939 die coat and G600 molding compound material.

**Post Change:**

Assembled at MMT Assembly site using CRM-1064L die attach, Q1-4939 die coat and GE800 molding compound material.

**Pre and Post Change Summary:**

	Pre Change		Post Change
<b>Assembly Site</b>	Amkor Technology Philippine INC. (ANAP)	Lingsen Precision Industries, LTD. (LPI)*	Microchip Technology Thailand (MMT)
<b>Wire material</b>	Au	Au	Au
<b>Die attach material</b>	8390A	CRM-1033BF	CRM-1064L
<b>Molding compound material</b>	CK5000A	G600	GE800
<b>Lead frame material</b>	C194	C194	C194
<b>Die Coat material</b>	Q3-6646	Q1-4939	Q1-4939

**Impacts to Data Sheet:**

None

**Change Impact:**

None

**Reason for Change:**

To improve manufacturability by qualifying MMT assembly site as part of the Atmel and Microchip



integration.

**Change Implementation Status:**

In Progress

**Estimated First Ship Date:**

For 40L PDIP package: September 21, 2018 (date code: 1838).

For 28L PDIP package: May 01, 2019 (date code: 1918)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

**Time Table Summary:**

	May 2017					📅	August 2018					September 2018				📅	May 2019					
Workweek	18	19	20	21	22	📅	31	32	33	34	35	36	37	38	39	📅	18	19	20	21	22	
Initial PCN Issue Date					X																	
Qual Report Availability										X												
Final PCN Issue Date										X												
Estimated Implementation Date														X			X*					

\*For 28L PDIP package

**Method to Identify Change:**

Traceability code

**Qualification Report:**

Please open the attachments included with this PCN labeled as PCN\_#\_Qual Report

**Revision History:**

**May 29, 2017:** Issued initial notification.

**November 07, 2017:** Re-issued initial notification to update the affected parts list. Updated the pre and post change to include die coat material. Updated the qual report availability and revision of the qualification plan.

**August 22, 2018:** Issued final notification. Attached the Qualification Report. Added reference CCB 2936.001 and updated affected CPN list because of the update in the scope of this PCN.

**April 01, 2019:** Re-issued final notification. Amended reference CCB 2936.001 to CCB 2936.002 and added reference CCB 2936.003 to include selected Atmel products available in 28L PDIP package. Updated notification subject, description of change, pre and post change field and summary table and the affected CPN list in accordance with the scope.

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\\_KSRA-24TYAZ595\\_Qual\\_Report.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.



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If you wish to change your PCN profile, including opt out, please go to the [PCN home page](#) select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

AT27C1024-45PU

AT27C1024-70PU

AT27C2048-90PU

AT27C256R-45PU

AT27C256R-70PU

AT27C4096-55PU

AT27C4096-90PU

AT27C512R-45PU

AT27C512R-70PU

AT28C256-15PU

AT28C64B-15PU



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN #: KSRA-24TYAZ595**

**Date**  
**July 14, 2018**

**Qualification of MMT as a new assembly site for selected Atmel products available in 40L PDIP package. The selected Atmel products available in 28L PDIP package will qualify by similarity (QBS).**



# MICROCHIP

## Package Qualification Report

**Purpose:** Qualification of MMT as a new assembly site for selected Atmel products available in 40L PDIP package. The selected Atmel products available in 28L PDIP package will qualify by similarity (QBS).

**Qual Report:** QTP3429 Rev. A

**CCB No.:** 2936, 2936.002 and 2936.003

<b>Misc.</b>	<b>Assembly site</b>	ES185712-25386
	<b>Assembly site</b>	MMT
	<b>BD Number</b>	BDM-001317 rev D
	<b>MP Code (MPC)</b>	34A097S2XC01
	<b>Part Number (CPN)</b>	AT27C4096-90PU
<b>Lead-Frame</b>	<b>Paddle size</b>	260 x 266 mils
	<b>Material</b>	CDA194
	<b>Surface</b>	Ag Spot Plated
	<b>Process</b>	Stamped
	<b>Lead-lock</b>	Yes
	<b>Part Number</b>	10104004
	<b>Lead Plating</b>	Matte Tin
<b>Bond Wire</b>	<b>Material</b>	Au
<b>Die Attach</b>	<b>Part Number</b>	CRM-1064L
	<b>Conductive</b>	Yes
<b>MC</b>	<b>Part Number</b>	GE800
<b>PKG</b>	<b>PKG Type</b>	PDIP
	<b>Pin/Ball Count</b>	40
	<b>PKG width/size</b>	600 mils
<b>Die</b>	<b>Die Thickness</b>	15 mils
	<b>Die Size</b>	200 x 198 mils
	<b>Die Coat</b>	Q1-4939



# MICROCHIP Package Qualification Report

## Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-190101772.000	MCSO518528565.000	1814Y4J
MMT-190101769.000	MCSO518528565.000	1814Y4C
MMT-190201172.000	MCSO518528565.000	1815Y4D

**Result**

Pass  Fail  \_\_\_\_\_

Atmel product using CSO-Fab5 wafer on 40L PDIP package at MMT using 1.2 mil Au wire is qualified per QCI-39000

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Temp Cycle	<b>Stress Condition:</b> (Standard) 65°C to +150°C, 500 Cycles System: VOTSCH VT 7012 S2	JESD22- A104	240			
	<b>Electrical Test:</b> +25°C , +90°C System: MAGNUM05 (Handtest)		240(0)	0/240	Pass	
	<b>Bond Strength:</b> Wire Pull (> 6.00 grams) Bond Shear (>22.00 grams)		15(0)	Ongoing		
UNBIASED- HAST	<b>Stress Condition:</b> (Standard) +130°C/85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8  <b>Electrical Test:</b> +25°C System: MT9510 Handler:2580	JESD22- A118	240  240(0)	0/240	Pass	
HAST	<b>Stress Condition:</b> (Standard) +130°C/85%RH, 96 hrs. <b>Bias Volt:</b> 5.5 Volts System: HIRAYAMA HASTEST PC-422R8  <b>Electrical Test:</b> +25°C , +90°C System: MT9510 Handler:2580	JESD22- A110	240  240(0)	0/240	Pass	



## PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
<b>High Temperature Storage Life</b>	<b>Stress Condition:</b> Bake 175°C, 504 hrs System: HERAEUS  <b>Electrical Test</b> :+25°C , +90°C	JESD22-A103	50  50(0)	  0/50	  Pass	50 units
<b>Solderability Temp 245°C</b>	<b>Bake:</b> Temp 155°C,4Hrs System:Oven Solder Bath: Temp.245°C Solder material: SnPb Visual Inspection: External Visual Inspection	J-STD-002	15 (0)	0/15	Pass	Performed at MPHIL
<b>Physical Dimensions</b>	Physical Dimension, 10 units from 3 lot	JESD22-B100/B108	0/30	Pass	0/30	
<b>Bond Strength Data Assembly</b>	Wire Pull (> 6.00 grams)	M2011.8 MIL-STD-883	0/30	Pass	0/30	
<b>Bond Strength Data Assembly</b>	Bond Shear (>22.00 grams)	M2011.8 MIL-STD-883	0/30	Pass	0/30	