



Product Change Notification / LIAL-08GDCX402

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**Date:**

14-Jun-2021

**Product Category:**

FPGA Configuration Memory, Memory

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 3156.002 Final Notice: Qualification of MMT as a new assembly site for selected AT17LVxxx and AT24Cxxx Atmel device families available in 8L PDIP (.300in) package.

**Affected CPNs:**

[LIAL-08GDCX402\\_Affected\\_CPN\\_06142021.pdf](#)

[LIAL-08GDCX402\\_Affected\\_CPN\\_06142021.csv](#)

**Notification Text:**

**PCN Status:** Final notification.

**PCN Type:** Manufacturing Change

**Microchip Parts Affected:**Please open one of the files found in the Affected CPNs section.

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 AT17LVxxx and AT24Cxxx Atmel device families available in 8L PDIP (.300in) package.

**Pre and Post Change Summary:**

	Pre-Change	Post Change
Assembly Site	Amkor Technology Philippine (P1/P2), INC.	Microchip Technology Thailand

	(ANAP)		(Branch) (MMT)
Wire material	Au	PdCu	Au
Die attach material	8390A		CRM-1064L
Molding compound material	CK5000A	G700LS	GE800
Lead frame material	C194		C194
Lead Plating Finish	Matte Tin		Matte Tin
Lead frame paddle size	160x220mils	110x134mils	140x180mils
Lead frame lead-lock	Yes	No	Yes
	See Pre and Post Change attachment for lead frame comparison		

**Impacts to Data Sheet:**None

**Change Impact:**None.

**Reason for Change:**To improve on-time delivery performance by qualifying MMT as a new assembly site.

**Change Implementation Status:**In Progress

**Estimated First Ship Date:** July 1, 2021 (date code: 2127)

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

**Time Table Summary:**

	June 2021				July 2021				
Workweek	23	24	25	26	27	28	29	30	31
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:June 14, 2021:** Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on July 1, 2021.

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

**Attachments:**

[PCN\\_LIAL-08GDCX402\\_Pre and Post Change Summary.pdf](#)  
[PCN\\_LIAL-08GDCX402\\_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)

AT17LV256-10PU  
AT17LV010-10PU  
AT17LV010A-10PU  
AT17LV512A-10PU  
AT24C01D-PUM  
AT24C02D-PUM  
AT24C04D-PUM  
AT24C08D-PUM  
AT24C16D-PUM  
AT24C32E-PUM

LIAL-08GDCX402 - CCB 3156.002 Final Notice: Qualification of MMT as a new assembly site for selected AT17LVxxx and AT24Cxxx Atmel device families available in 8L PDIP (.300in) package.

Affected Catalog Part Numbers(CPN)

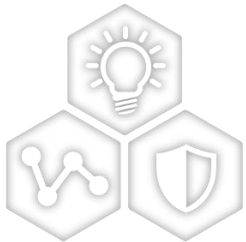
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AT17LV010-10PU  
AT17LV010A-10PU  
AT17LV512A-10PU  
AT24C01D-PUM  
AT24C02D-PUM  
AT24C04D-PUM  
AT24C08D-PUM  
AT24C16D-PUM  
AT24C32E-PUM

**CCB 3156.002**  
**Pre and Post Change Summary**  
**PCN#: LIAL-08GDCX402**



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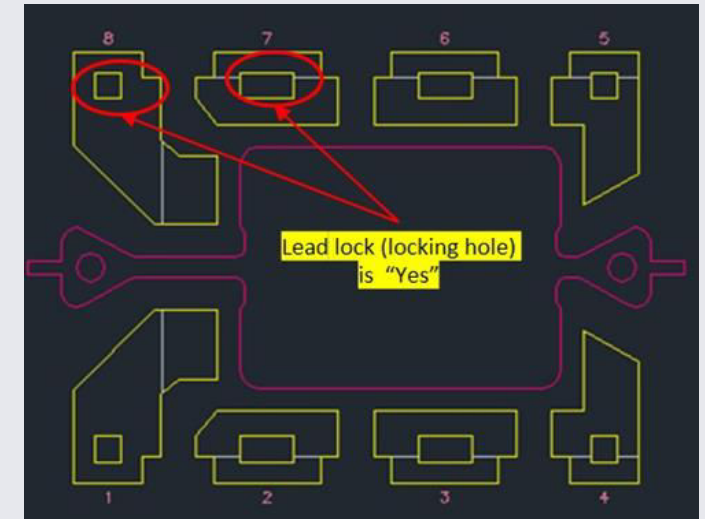
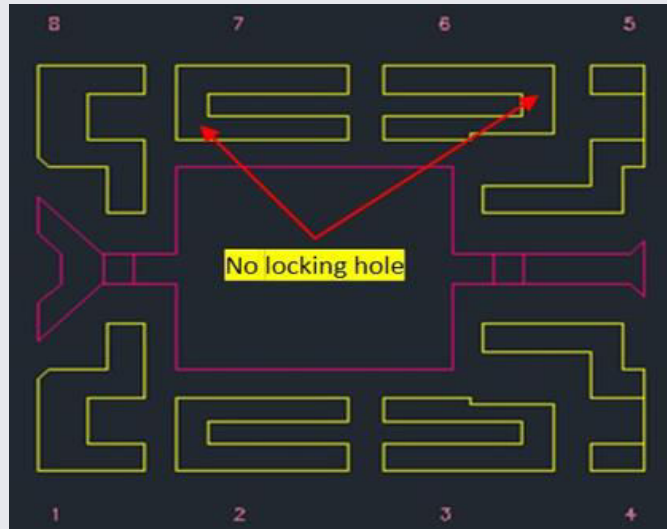
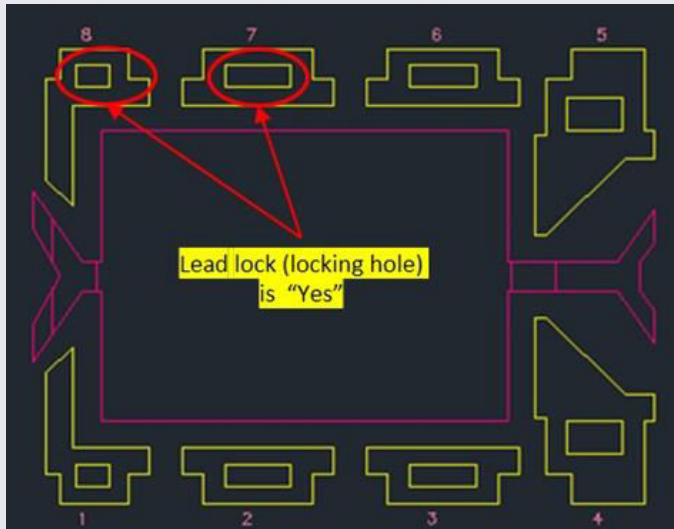
# Lead frame comparison

## Pre Change

## Post change

### ANAP

### MMT



Lead frame lead-lock	Yes
Lead plating	Matte Tin
Paddle size	160x120mils

Lead frame lead-lock	No
Lead plating	Matte Tin
Paddle size	110x134mils

Lead frame lead-lock	Yes
Lead plating	Matte Tin
Paddle size	140x180mils

**NOTE:** Mold compound material fills the [lead lock hole](#), which provides improved protection against moisture penetration along the edge of the leads (pins) of the package.



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY  
RELIABILITY LABORATORY**

**PCN#: LIAL-08GDCX402**

**Date**

**August 22, 2017**

**Qualification of MMT as a new assembly site for selected Atmel products available in 8L, 20L and 40L PDIP packages. The selected AT17LVxxx and AT24Cxxx Atmel device families available in 8L PDIP (.300in) 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 8L, 20L and 40L PDIP packages. The selected AT17LVxxx and AT24Cxxx Atmel device families available in 8L PDIP (.300in) package will qualify by similarity (QBS).

**CN** ES103401

**QUAL ID** QTP3104 Rev A

**CCB#** 3156, 3156.001 and 3156.002

**MP CODE** 354527S2XA01

**Part No.** ATMEGA1284P-PU

**Bonding No.** BDM-001353 rev B

**Package**

**Type** 40L PDIP

**Package size** 600 mils

**Lead Frame**

**Paddle size** 260x266

**Material** C194

**Surface** Ag Spot Plated

**Process** Stamped

**Lead Lock** Yes

**Part Number** 10104004

**Treatment** None

**Material**

**Epoxy** CRM-1064L

**Wire** Au

**Mold Compound** GE800

**Plating Composition** Matte Tin



# MICROCHIP PACKAGE QUALIFICATION REPORT

## Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-181000279.000	MCSO518080266.000	1722H71
MMT-181000280.000	MCSO518080266.000	1722H72
MMT-181000281.000	MCSO518080266.000	1722H73

Result

Pass

Fail

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Atmel's 35452 device using Au wire on 40L PDIP assembled by MMT (ALPH) pass reliability test per QCI-39000 which was conducted at MPHL rel lab.

## 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	JESD22A104		240		
	<b>Electrical Test:</b> + 85°C System: MT9320 Handler:0202		240	0/240	Passed	
	<b>Bond Strength:</b> Wire Pull (> 2.50 grams) Bond Shear (>15.00 grams)		15(0)	0/15	Passed	
UNBIASEDHAST	<b>Stress Condition:</b> (Standard) +130°C/85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8	JESD22A118		238		
	<b>Electrical Test:</b> +85°C System: MT9320 Handler: 0202		238	0/238	Passed	
HAST	<b>Stress Condition:</b> (Standard) +130°C/85%RH, 96 hrs. <b>Bias Volt:</b> 5.5 Volts System: HIRAYAMA HASTEST PC-422R8	JESD22-A110		240		
	<b>Electrical Test:</b> +85°C System: MT9320 Handler:0202		240	0/240	Passed	

# 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	JESD22- A103		50		45 units
	<b>Electrical Test :+85°C</b> System: MT9320 Handler:0202		50(0)	0/50	Pass	
<b>Bond Strength Data Assembly</b>	Wire Pull (> 2.50 grams)	M2011.8	30 (0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	MIL-STD- 883	30 (0) bonds	0/30	Pass	