Product Change Notification / LIAL-08GDCX402

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.

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our PCN home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the PCN FAQ section.

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

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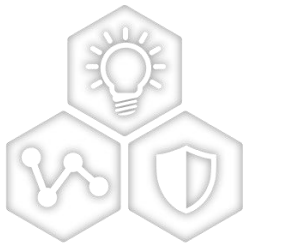
AT24C04D-PUM
AT24C08D-PUM
AT24C16D-PUM
AT24C32E-PUM

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

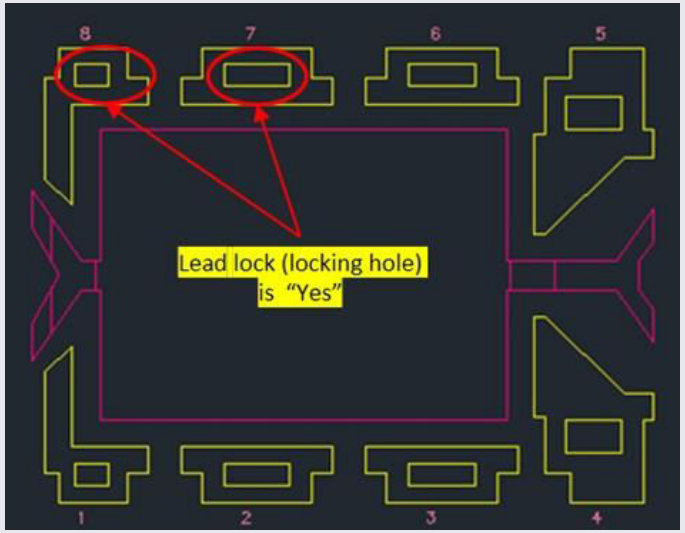
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



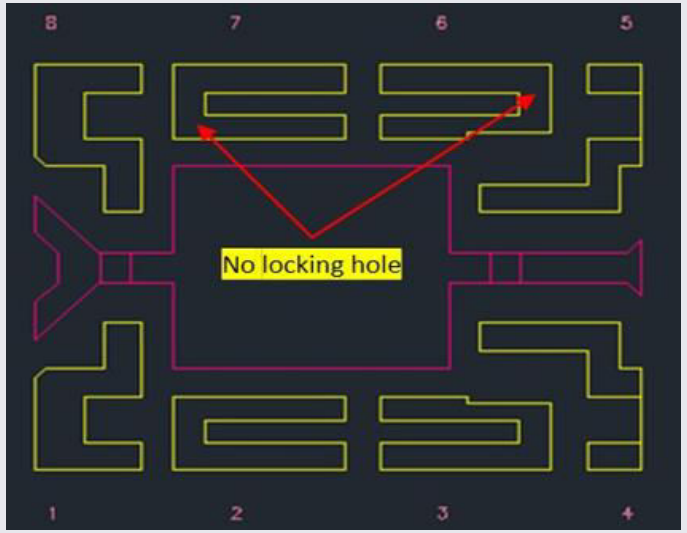
Lead frame comparison

Pre Change

ANAP



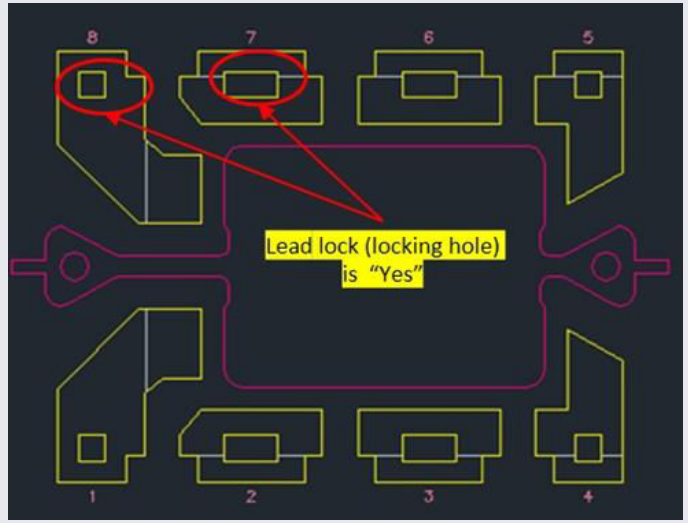
Lead frame lead-lock	Yes
Lead plating	Matte Tin
Paddle size	160x120mils



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

Post change

MMT



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.

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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).

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

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 [X] Pass [ ] Fail [ ] _____

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	**Stress Condition:** (Standard) 65°C to +150°C, 500 Cycles System : VOTSCH VT 7012 S2 **Electrical Test:** + 85°C System: MT9320 Handler:0202 **Bond Strength:** Wire Pull (> 2.50 grams) Bond Shear (>15.00 grams)	JESD22A104	240 15(0)	240 0/240 0/15	Passed Passed	
UNBIASEDHAST	**Stress Condition:** (Standard) +130°C/85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8 **Electrical Test:** +85°C System: MT9320 Handler: 0202	JESD22A118	238	238 0/238	Passed	
HAST	**Stress Condition:** (Standard) +130°C/85%RH, 96 hrs. **Bias Volt:** 5.5 Volts System: HIRAYAMA HASTEST PC-422R8 **Electrical Test:**+85°C System: MT9320 Handler:0202	JESD22-A110	240	240 0/240	Passed	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs System: HERAEUS **Electrical Test :**+85°C System: MT9320 Handler:0202	JESD22-A103	 50(0)	50 0/50	 Pass	45 units
Bond Strength Data Assembly	Wire Pull (> 2.50 grams) Bond Shear (>15.00 grams)	M2011.8 MIL-STD-883	30 (0) Wires 30 (0) bonds	0/30 0/30	Pass Pass	