



Product Change Notification / ALAN-19MXBI828

Date:

20-Sep-2022

Product Category:

8-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4798 Final Notice: Qualification of MMT as an additional assembly site for selected ATXMEGA128xx and ATXMEGA64D4xx Atmel device families available in 44L VQFN (7x7x1mm) package

Affected CPNs:

[ALAN-19MXBI828_Affected_CPN_09202022.pdf](#)
[ALAN-19MXBI828_Affected_CPN_09202022.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 an additional assembly site for selected ATXMEGA128xx and ATXMEGA64D4xx Atmel device families available in 44L VQFN (7x7x1mm) package

Method to Identify Change:Traceability code

Qualification Report:Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History:August 26, 2021: Issued initial notification

January 17, 2022: Issued final notification. Provided the estimated first ship date to be on January 18, 2022.

September 20, 2022: Re-issued final notification to attach Qual Report and update timetable summary.

Revised and corrected "Estimated Qual Completion Date: February 28, 2022 (date code: 2210)" to

"Estimated First Ship Date: January 18, 2022 (date code: 2204)"

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

Attachments:

[PCN_ALAN-19MXBI828_Qual Report.pdf](#)

[PCN_ALAN-19MXBI828_Pre and Post Change_Summary.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.



QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN# ALAN-19MXBI828

Date:
March 04, 2022

**Qualification of MMT as an additional assembly site for
selected ATXMEGA128xx and ATXMEGA64D4xx Atmel device
families available in 44L VQFN (7x7x1mm) package.**



MICROCHIP Package Qualification Report

Purpose: Qualification of MMT as an additional assembly site for selected ATXMEGA128xx and ATXMEGA64D4xx Atmel device families available in 44L VQFN (7x7x1mm) package.

CCB# : 4798

Assembly site	MMT
BD Number	BDM-002867/A
MP Code (MPC)	35962TSXBC06
Part Number (CPN)	ATXMEGA64D4-MHR
MSL information	3
Assembly Shipping Media (T/R, Tube/Tray)	T/R
Base Quantity Multiple (BQM)	4000
Reliability Site	MPHIL
Paddle size	213x213
Material	A194
DAP Surface Prep	NiPdAu
Treatment	Roughening
Process	Etched
Lead-lock	Yes
Part Number	10104416
Lead Plating	NiPdAu
Strip Size	70x250mm
Strip Density	240
Material	Au
Part Number	8600
Conductive	Yes
Part Number	G700LTD
PKG Type	VQFN
Pin/Ball Count	44
PKG width/size	7x7x1.0



MICROCHIP

Package Qualification Report

Manufacturing Information

Assembly Lot No.
MMT-222100526.000
MMT-222100527.000
MMT-222001955.000

☒ **Pass** ☐ **Fail** ☐ _____

35962 using 0.8 mils Au wire in 44 VQFN 7x7 package at MMT is qualified the Moisture/ Reflow Sensitivity Classification Level 3 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard. No delamination observed. All units are passing electrical testing.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Precondition Prior Perform Reliability Tests MSL-3 @ 260C	Electrical Test : +25°C	JESD22-A113,	693(0)			Good Devices
	External Visual Inspection System: Luxo Lamp	JIP/ IPC/JEDEC J-STD-020E	693(0)	0/693	Pass	
	Bake 150°C, 24 hrs System: HERAEUS		693(0)			
	Moisture Soak 30°C/60%RH Moisture Soak 192hrs. System: Climats Excal 5423-HE		693(0)			
	Reflow 3x Convection-Reflow 260°C max System: Mancorp CR.5000F		693(0)	0/693		
	Electrical Test : +25°C		693(0)	0/693	Pass	
Temp Cycle	Stress Condition: (Standard) -65°C to +150°C, 500 Cycles System: VOTSCH VT 7012 S2	JESD22-A104	231(0)			Parts had been pre-conditioned at 260°C
	Electrical Test: +85°C		231(0)	0/231	Pass	
	Bond Strength: Wire Pull Bond Shear		15(0)	0/15	Pass	
UNBIASED-HAST	Stress Condition: (Standard) +130°C/85%RH, 96H System: HIRAYAMA HASTEST PC-422R8	JESD22-A118	231(0)			Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C		231(0)	0/231	Pass	
BIASED-HAST	Stress Condition: (Standard) +130°C/85%RH, 96H System: HIRAYAMA HASTEST PC-422R8	JESD22-A110	231(0)			Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C, +85°C		231(0)	0/231	Pass	

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, 500 hrs System: HERAEUS Taken from 1 lot with 45 units Electrical Test : +25°C +85°C	JESD22- A103	45 (0)			
			45 (0)	0/45	Pass	
Solderability Temp 245°C	Bake: Temp 155°C, 4Hrs System: Oven Solder Bath: Temp. 245°C Taken from 1 lot with min 22 units	J-STD-002	22 (0)	0/22	Pass	Performed at MPHIL
Bond Strength Data Assembly	Wire Pull 3 lots, 30 wires per lot from 5 units min	M2011.8 MIL-STD- 883	30(0) Wires	0/30	Pass	
Bond Strength Data Assembly	Bond Shear 3 lots, 30 bonds per lot from 5 units main	M2011.8 MIL-STD- 883	30(0) bonds	0/30	Pass	

Affected Catalog Part Numbers (CPN)

ATXMEGA128A4U-MH

ATXMEGA128D4-MH

ATXMEGA64D4-MH

ATXMEGA128D4-MHR

ATXMEGA128A4U-MHR

ATXMEGA64D4-MHR

CCB 4798

Pre and Post Change Summary

PCN# ALAN-19MXBI828



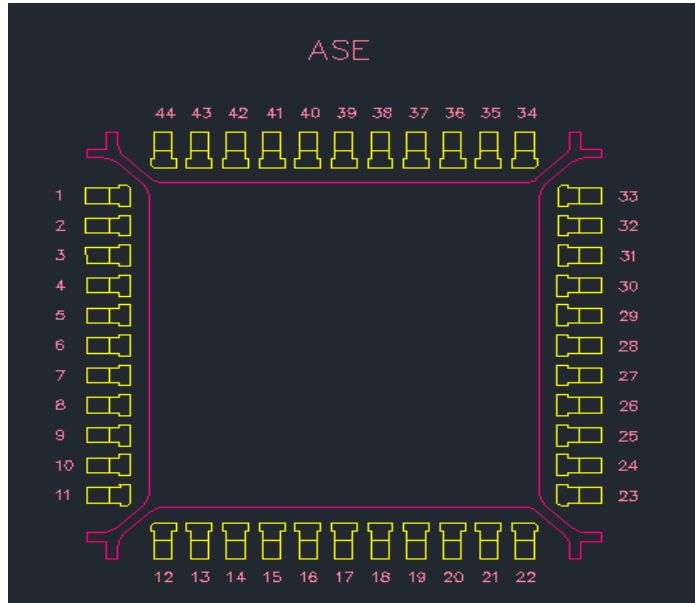
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Pre and Post Change Summary

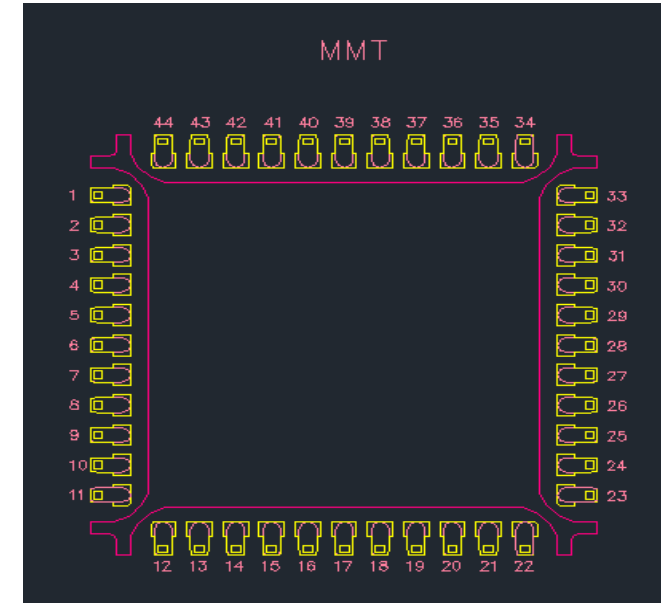
ASE Inc (ASE)



Lead-lock

No

Microchip Technology Thailand (Branch) (MMT)



Lead-lock

Yes

*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.”