



Product Change Notification / ALAN-09EMDP790

Date:

15-Aug-2023

Product Category:

Driver / Interface ICs, Hot Swap Controller, Power Management - Power Switches, Power Management - PWM Controllers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6482 Initial Notice: Qualification of new lead frame with 96x190 mils lead frame paddle size for selected MIC38Hxx, MIC580xx, MIC258xx, and MIC256xx device families available in 14L SOIC (.150in) package at MMT assembly site.

Affected CPNs:

[ALAN-09EMDP790_Affected_CPN_08152023.pdf](#)

[ALAN-09EMDP790_Affected_CPN_08152023.csv](#)

Notification Text:

PCN Status:Initial 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 new lead-frame paddle size for selected MIC38Hxx, MIC580xx, MIC258xx, and MIC256xx device families available in 14L SOIC (.150in) package.

Pre and Post Change Summary:

	Pre Change		Post Change
Assembly Site	Microchip Technology Thailand (Branch) (MMT)		Microchip Technology Thailand (Branch) (MMT)
Wire Material	Au		Au
Die Attach Material	8390A		8390A
Molding Compound Material	G600V		G600V
Lead-Frame Material	CDA194		CDA194
Lead-Frame Paddle Size	95x155 mils		96x190 mils
DAP Surface Prep	Ag Spot	Bare Cu	Ag Spot
Lead-frame Treatment	None	BOT	BOT
Lead-frame Process	Stamped		Etched

Impacts to Data Sheet:None

Change ImpactNone

Reason for Change:To improve productivity by qualifying a new lead frame with 96by190 mils lead frame paddle size.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:November 2023

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

Time Table Summary:

	August 2023					>	November 2023				
Workweek	3 1	3 2	3 3	3 4	3 5		44	45	46	47	48
Initial PCN Issue Date			X								
Qual Report Availability								X			
Final PCN Issue Date								X			

Method to Identify Change:Traceability code

Qualification Plan:Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History:August 15, 2023: Issued initial notification.

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-09EMDP790 Qual Plan.pdf](#)

[PCN_ALAN-09EMDP790_Pre and Post Change_Summary.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.

ALAN-09EMDP790 - CCB 6482 Initial Notice: Qualification of new lead frame with 96x190 mils lead frame paddle size for selected MIC38Hxx, MIC580xx, MIC258xx, and MIC256xx device families available in 14L SOIC (.150in) package at MMT assembly site.

Affected Catalog Part Numbers (CPN)

MIC38HC42-1YM
MIC38HC43-1YM
MIC38HC44-1YM
MIC38HC42-1YM-TR
MIC38HC43-1YM-TR
MIC38HC44-1YM-TR
MIC5800YM
MIC5800YM-TR
MIC38HC45-1YM
MIC38HC45-1YM-TR
MIC2586R-1YM
MIC2586R-2YM
MIC2561-0YM
MIC2561-1YM
MIC2561-0YM-TR
MIC2561-1YM-TR
MIC2562A-0YM
MIC2562A-1YM
MIC2562A-0YM-TR
MIC2562A-1YM-TR



QUALIFICATION PLAN SUMMARY

PCN#: ALAN-09EMDP790

**Date:
August 3, 2023**

Qualification of new lead frame with 96x190 mils lead frame paddle size for selected MIC38Hxx, MIC580xx, MIC258xx, and MIC256xx device families available in 14L SOIC (.150in) package at MMT assembly site.

Purpose: Qualification of new lead frame with 96x190 mils lead frame paddle size for selected MIC38Hxx, MIC580xx, MIC258xx, and MIC256xx device families available in 14L SOIC (.150in) package at MMT assembly site.

CCB#: 6482

<u>Misc.</u>	Assembly site	MMT
	BD Number	BD-001658/01
	MP Code (MPC)	208087D3XA01
	Part Number (CPN)	MIC38HC42-1YM
	MSL information	MSL-1
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	54
<u>Lead-Frame</u>	Paddle size	96x190 mils
	Material	CDA194
	DAP Surface Prep	Ag Spot
	Treatment	BOT
	Process	Etched
	Lead-lock	No
	Part Number	10101420
	Lead Plating	Matte Tin
	Strip Size	10.592x2.300 in.
	Strip Density	96 pads/strip
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	8390A
	Conductive	Yes
<u>MC</u>	Part Number	G600V
<u>PKG</u>	Package Type	SOIC
	Pin/Ball Count	14
	PKG width/size	150 mils

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hour steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.	22	5	1	27	> 95% lead coverage	5				Standard Pb-free solderability is the requirement. SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0	5		MMT/MTAI	SOIC	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5		MMT/MTAI	SOIC	30 bonds from a min. 5 devices.
Wire Sweep									MMT	SOIC	Required for any reduction in wire bond thickness.
Physical Dimmensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5		MMT	SOIC	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5		MMT/MTAI	SOIC	
Preconditioning - Required for surface mount devices	JESD22-A113. +150°C Bake for 24 hours, moisture loading requirements per MSL level + 3X reflow at peak reflow temperature per Jedec-STD-020E for package type; Electrical test pre and post stress at +25°C. MSL-1/260C	231	15	3	738	0	15	UNIS	MTAI	SOIC	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	JESD22-A110. +130°C/85% RH for 96 hours Electrical test pre and post stress at +85C only.	77	5	3	246	0	10	UNIS	MTAI	SOIC	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UFAST	JESD22-A118. +130°C/85% RH for 96 hrs. Electrical test pre and post stress at +85°C	77	5	3	246	0	10	UNIS	MTAI	SOIC	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104. -65°C to +150°C for 500 cycles. Electrical test pre and post stress at +85C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	UNIS	MTAI	SOIC	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

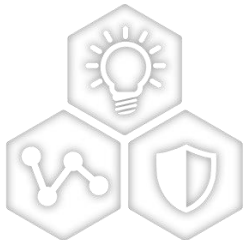
CCB 6482

Pre and Post Change Summary

PCN# ALAN-09EMDP790



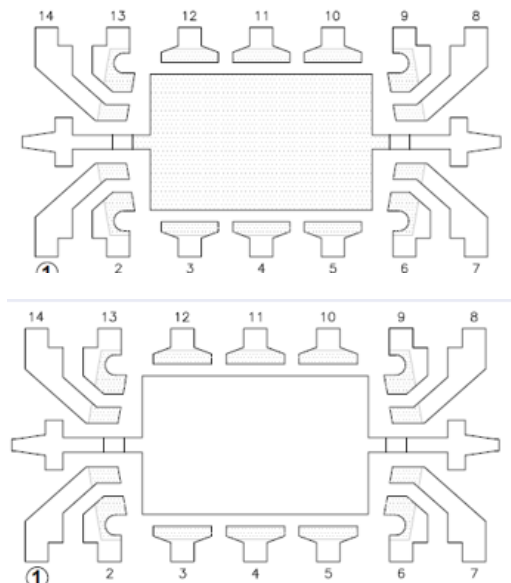
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



SMART | CONNECTED | SECURE

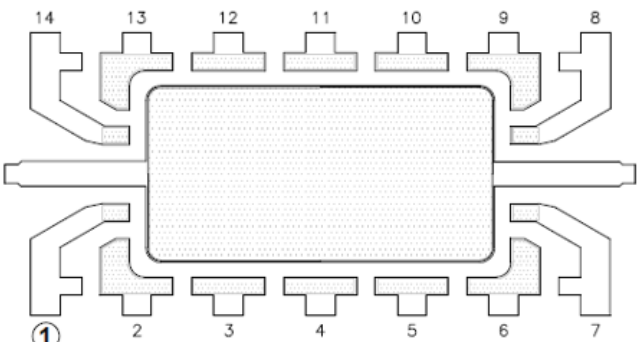
Pre and Post Change Summary – Lead Frame Comparison

Pre Change



Lead-Frame Paddle Size	95x155 mils	
DAP Surface Prep	Ag Spot	Bare Cu
Lead-frame Treatment	None	BOT
Lead-frame Process	Stamped	

Post Change



Lead-Frame Paddle Size	96x190 mils	
DAP Surface Prep	Ag Spot	
Lead-frame Treatment	BOT	
Lead-frame Process	Etched	

*Note: Not fit to scale