



Product Change Notification / ALAN-05LSYV366

Date:

09-Feb-2023

Product Category:

Analog to Digital Converters, Battery Management and Fuel Gauges - Battery Chargers, Digital Potentiometers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6137 Initial Notice: Qualification of MMT as an additional assembly site for selected MCP4232xx, MCP4242xx, MCP4262xx, MCP4252xx, MCP4632xx, MCP4642xx, MCP4652xx, MCP4662xx, MCP7383xx, MCP3423xx, and MCP3427xx device families available in 10L DFN (3x3x0.9mm) package.

Affected CPNs:

[ALAN-05LSYV366_Affected_CPN_02092023.pdf](#)

[ALAN-05LSYV366_Affected_CPN_02092023.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 MMT as an additional assembly site for selected MCP4232xx, MCP4242xx, MCP4262xx, MCP4252xx, MCP4632xx, MCP4642xx, MCP4652xx, MCP4662xx, MCP7383xx, MCP3423xx, and MCP3427xx device families available in 10L DFN (3x3x0.9mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change	
Assembly Site	UTAC Thai Limited (UTL-1) LTD (NSEB)	UTAC Thai Limited (UTL-1) LTD (NSEB)	Microchip Technology Thailand (Branch) (MMT)
Wire Material	Au	Au	Au
Die Attach Material	8600	8600	8600
Molding Compound Material	G700LTD	G700LTD	G700LTD
Lead-Frame Material	C194	C194	A194
Lead-Lock	No	No	Yes
Lead-Frame Paddle Size	71x102 mils	71x102 mils	71x102 mils
DAP Surface Prep	Bare Cu	Bare Cu	AG selective

*Note: C194, A194 or CDA194 Lead-Frame material are the same, it is just a MCHP internal labelling difference.

Impacts to Data Sheet:None

Change Impact:None

Reason for Change:To improve manufacturability and on-time delivery performance by qualifying MMT as an additional assembly site.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:April 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:

	February 2023				>	April 2023				
Workweek	6	7	8	9		1 4	1 5	1 6	1 7	1 8

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:February 9, 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-05LSYV366_Qual Plan.pdf](#)
- [PCN_ALAN-05LSYV366_Pre and Post Change_Summary.pdf](#)

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

Terms and Conditions:

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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.



MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN# ALAN-05LSYV366

**Date:
January 20, 2023**

Qualification of MMT as an additional assembly site for selected MCP4232xx, MCP4242xx, MCP4262xx, MCP4252xx, MCP4632xx, MCP4642xx, MCP4652xx, MCP4662xx, MCP7383xx, MCP3423xx, and MCP3427xx device families available in 10L DFN (3x3x0.9mm) package. This is a Q100 Grade 1 qualification.

Purpose: Qualification of MMT as an additional assembly site for selected MCP4232xx, MCP4242xx, MCP4262xx, MCP4252xx, MCP4632xx, MCP4642xx, MCP4652xx, MCP4662xx, MCP7383xx, MCP3423xx, and MCP3427xx device families available in 10L DFN (3x3x0.9mm) package. This is a Q100 Grade 1 qualification.

CCB# : 6137

Misc.	Assembly site	MMT
	BD Number	BD-001162-01
	MP Code (MPC)	D5AL2YE2XR05
	Part Number (CPN)	MCP4262T-502E/MF
	MSL information	MSL-1/260
	Assembly Shipping Media (T/R, Tube/Tray)	TUBE
	Base Quantity Multiple (BQM)	3300
	Reliability Site	MTAI
Lead-Frame	Paddle size	71x102
	Material	A194
	DAP Surface Prep	AG selective
	Treatment	BOT
	Process	Etched
	Lead-lock	Yes
	Part Number	10101005
	Lead Plating	Matte Tin
	Strip Size	250x70 mm
	Strip Density	1170 units/strip
Bond Wire	Material	Au
Die Attach	Part Number	8600
	Conductive	Yes
MC	Part Number	G700LTD
PKG	PKG Type	DFN
	Pin/Ball Count	10
	PKG width/size	3x3x0.9 mm

Test Name	Conditions	Reliability Stress Read Point	Pre & Post Reliability Stress Test Temperature	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	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hours of 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.	Grade 1: -40°C to +125°C (MCHP E Temp)	Grade 1: -40°C to +125°C (MCHP E Temp)	22	5	1	27	>95% lead coverage	5	-	MTAI	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.
Backward Solderability	J-STD-002D ; Perform 8 hour steam aging for Matte tin finish and 1 hr steam aging for NiPdAu finish prior to testing. Backward: Matte tin/ NiPdAu finish, SnPb solder, wetting temp 215°C for SMD.			22	5	1	27	>95% lead coverage	5	-	MTAI	
Wire Bond Pull - WBP	Mil. Std. 883-2011			5	0	1	5	0	5	-	MTAI	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001			5	0	1	5	0	5	-	MTAI	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108			10	0	3	30	0	5	-	MTAI	
External Visual	Mil. Std. 883-2009/2010			All devices prior to submission for qualification testing	0	3	ALL	0	5	-	MTAI	
HTSL (High Temp Storage Life)	JESD22-A103 +175°C	Grade 1: 500 hrs (+175°C)	Grade 1: +25°C, +85°C, +125°C	45	5	1	50	0	21 - 83	MTAI	MTAI	Spares should be properly identified.
Preconditioning - Required for surface mount devices	J-STD-020JESD22-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. MSL-1/260°C.		Grade 1: +25°C	231	15	3	738	0	15	MTAI	MTAI	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	JESD22-A101 or A110 +130°C/85% RH for 96 hrs	Grade 1: 96 hrs (+130°C/85% RH)	Grade 1: +25°C, +85°C, +125°C	77	5	3	246	0	10 - 14	MTAI	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

Test Name	Conditions	Reliability Stress Read Point Grade 1: -40°C to +125°C (MCHP E Temp)	Pre & Post Reliability Stress Test Temperature Grade 1: -40°C to +125°C (MCHP E Temp)	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	Special Instructions
UHAST	JESD22-A102, A118, or A101 +130°C/85% RH for 96 hrs	Grade 1: 96 hrs (+130°C/85% RH)	Grade 1: +25°C	77	5	3	246	0	10	MTAI	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104 and Appendix 3 -65°C to +150°C	Grade 1: 500 cycles (-65°C to 150°C)	Grade 1: +85°C, +125°C	77	5	3	246	0	15 - 60	MTAI	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

Affected Catalog Part Numbers (CPN)

MCP4232-502E/MF
MCP4232-103E/MF
MCP4232-104E/MF
MCP4232-503E/MF
MCP4242-502E/MF
MCP4242-103E/MF
MCP4242-104E/MF
MCP4242-503E/MF
MCP4262-502E/MF
MCP4262-103E/MF
MCP4262-104E/MF
MCP4262-503E/MF
MCP4252-502E/MF
MCP4252-103E/MF
MCP4252-104E/MF
MCP4252-503E/MF
MCP4232T-502E/MF
MCP4232T-103E/MF
MCP4232T-104E/MF
MCP4232T-503E/MF
MCP4242T-502E/MF
MCP4242T-103E/MF
MCP4242T-104E/MF
MCP4242T-503E/MF
MCP4262T-502E/MF
MCP4262T-103E/MF
MCP4262T-104E/MF
MCP4262T-503E/MF
MCP4252T-502E/MF
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MCP4632T-503E/MF
MCP4642T-502E/MF
MCP4642T-103E/MF
MCP4642T-104E/MF
MCP4642T-503E/MF
MCP4652T-502E/MF
MCP4652T-103E/MF
MCP4652T-104E/MF
MCP4652T-503E/MF
MCP4662T-502E/MF
MCP4662T-103E/MF

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MCP4662T-104E/MF
MCP4662T-503E/MF
MCP73833-6SI/MF
MCP73833-AMI/MF
MCP73833-B6I/MF
MCP73833-BZI/MF
MCP73833-CNI/MF
MCP73833-DZI/MF
MCP73833-FCI/MF
MCP73833-G8I/MF
MCP73833-GPI/MF
MCP73833-HAI/MF
MCP73833-NVI/MF
MCP73833-YAI/MF
MCP73834-6SI/MF
MCP73834-B6I/MF
MCP73834-CNI/MF
MCP73834-FCI/MF
MCP73834-G8I/MF
MCP73834-GPI/MF
MCP73834-NVI/MF
MCP73834-YAI/MF
MCP73833T-6SI/MF
MCP73833T-AMI/MF
MCP73833T-B6I/MF
MCP73833T-BZI/MF
MCP73833T-CNI/MF
MCP73833T-DZI/MF
MCP73833T-FCI/MF
MCP73833T-G8I/MF
MCP73833T-GPI/MF
MCP73833T-HAI/MF
MCP73833T-NVI/MF
MCP73833T-YAI/MF
MCP73834T-6SI/MF
MCP73834T-B6I/MF
MCP73834T-CNI/MF
MCP73834T-FCI/MF
MCP73834T-G8I/MF
MCP73834T-GPI/MF
MCP73834T-NVI/MF
MCP73834T-YAI/MF
MCP73837-FCI/MF
MCP73837-FJI/MF
MCP73837-NVI/MF
MCP73838-FCI/MF
MCP73838-FJI/MF
MCP73838-NVI/MF
MCP73837T-FCI/MF

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MCP73837T-FJI/MF

MCP73837T-NVI/MF

MCP73838T-FCI/MF

MCP73838T-FJI/MF

MCP73838T-NVI/MF

MCP3423-E/MF

MCP3427-E/MF

MCP3423T-E/MF

MCP3427T-E/MF

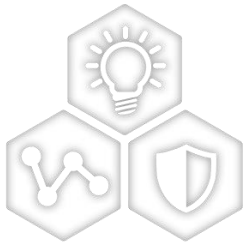
CCB 6137

Pre and Post Change Summary

PCN# ALAN-05LSYV366



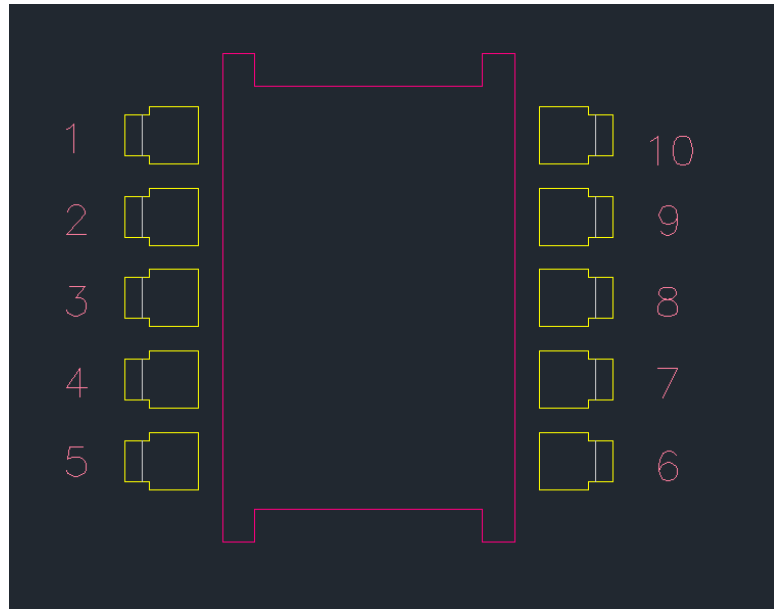
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SMART | CONNECTED | SECURE

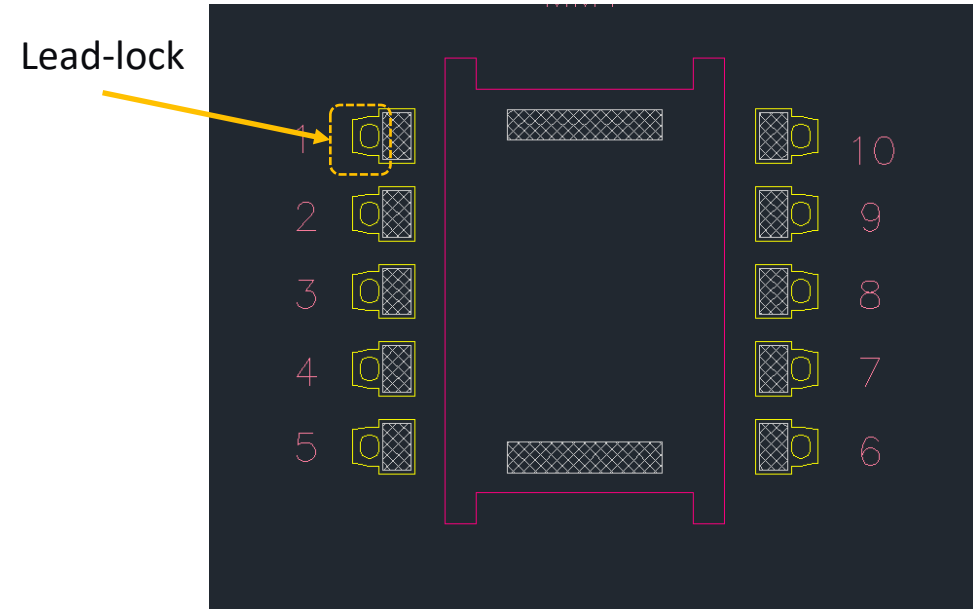
Pre and Post Change Summary

NSEB



Lead Frame Material	C194
DAP Surface Prep	Bare Cu
Lead-Lock	No

MMT



Lead Frame Material	A194
DAP Surface Prep	AG selective
Lead-Lock	Yes

*Note: C194, A194 or CDA194 Lead-Frame material are the same, it is just a MCHP internal labelling difference.

*Not fit to scale