



## Product Change Notification / ALAN-05LSYV366

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### 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:**

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)

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  
MCP4252T-103E/MF  
MCP4252T-104E/MF  
MCP4252T-503E/MF  
MCP4632T-502E/MF  
MCP4632T-103E/MF  
MCP4632T-104E/MF  
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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ALAN-05LSYV366 - 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.

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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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ALAN-05LSYV366 - 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.

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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



**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

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

# CCB 6137

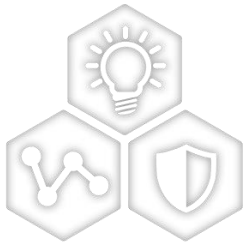
## Pre and Post Change Summary

### PCN# ALAN-05LSYV366



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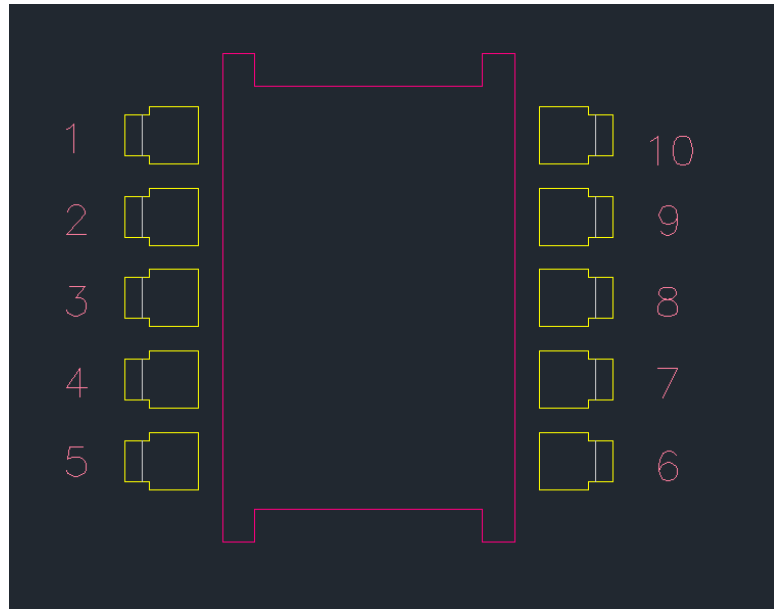
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



SMART | CONNECTED | SECURE

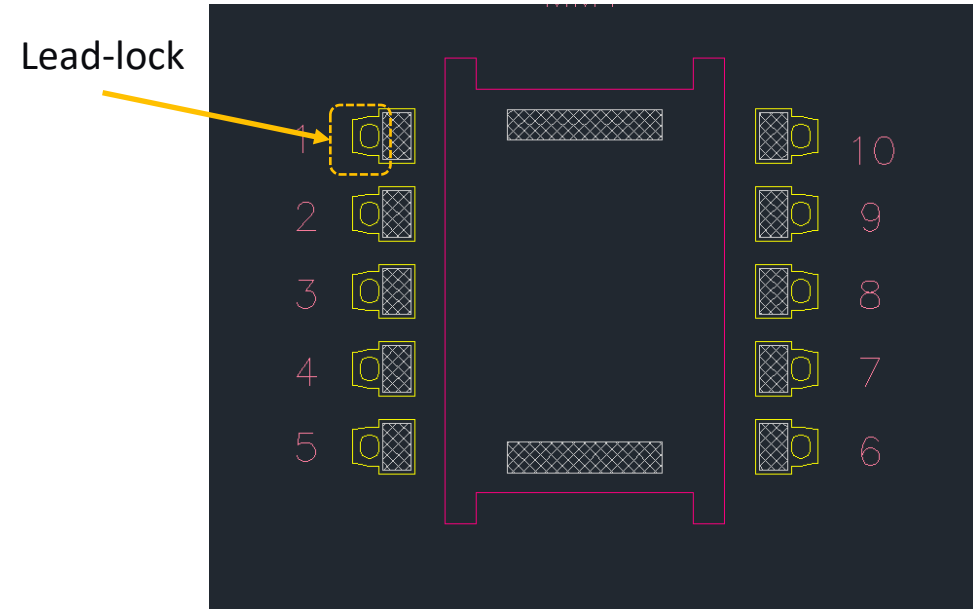
# Pre and Post Change Summary

## 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