Product Change Notification / MFOL-22JIOK836

Date:

01-Feb-2023

Product Category:

PoE PSE, Reverse Power Feed

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6065 Initial Notice: Qualification of MTAI as an additional assembly site for PD69208T4ILQ-TR-LE, PD81101ILQ-TR-LE, PD69208MILQ-TR-LE, PD69204T4ILQ-TR-LE, and PD39208ILQ-TR-LE catalog part numbers (CPN) available in 56L VQFN (8x8x1.0mm) package.

Affected CPNs:

MFOL-22JIOK836_Affected_CPN_02012023.pdf
MFOL-22JIOK836_Affected_CPN_02012023.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 MTAI as an additional assembly site for PD69208T4ILQ-TR-LE, PD81101ILQ-TR-LE, PD69208MILQ-TR-LE, PD69204T4ILQ-TR-LE, and PD39208ILQ-TR-LE catalog part numbers (CPN) available in 56L VQFN (8x8x1.0mm) 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 (HQ) (MTAI)
Wire Material	CuPdAu	CuPdAu	CuPdAu
Die Attach Material	590-4HT1	590-4HT1	590-4HT1
Molding Compound Material	G700LTD	G700LTD	G700LTD
Lead-Frame Material	C194	C194	A194

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 on-time delivery performance by qualifying MTAI as an additional assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: May 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					>	May 2023				
Workweek	05	06	07	08	09		18	19	20	21	22
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 01, 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_MFOL-22JIOK836_Pre and Post Change Summary.pdf
PCN_MFOL-22JIOK836_Qual Plan.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.

CCB 6065
PCN ID#: MFOL-22JIOK836

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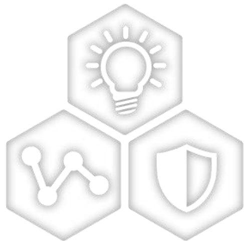
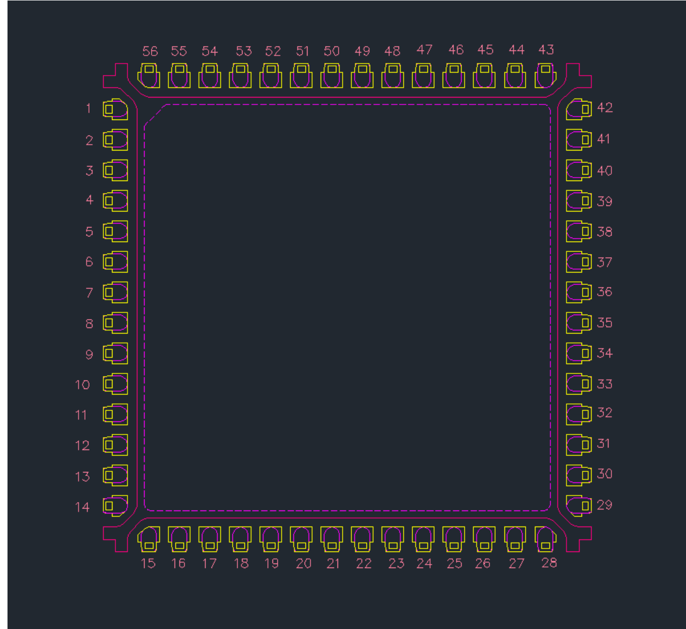


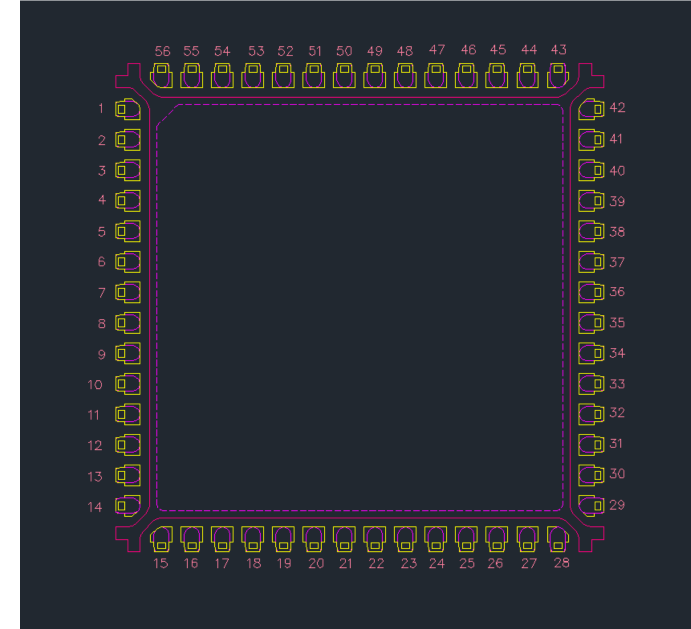
Pre and Post Summary – Bondshell Comparison

NSEB



Leadframe Material	C194

MTAI



Leadframe Material	A194

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

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Affected Catalog Part Numbers (CPN)

PD69208T4ILQ-TR-LE
PD81101ILQ-TR-LE
PD69208MILQ-TR-LE
PD69204T4ILQ-TR-LE
PD39208ILQ-TR-LE

QUALIFICATION PLAN SUMMARY

PCN #: MFOL-22JIOK836

Date:
January 18, 2023

Qualification of MTAI as an additional assembly site for PD69208T4ILQ-TR-LE, PD81101ILQ-TR-LE, PD69208MILQ-TR-LE, PD69204T4ILQ-TR-LE, and PD39208ILQ-TR-LE catalog part numbers (CPN) available in 56L VQFN (8x8x1.0mm) package.

Purpose: Qualification of MTAI as an additional assembly site for PD69208T4ILQ-TR-LE, PD81101ILQ-TR-LE, PD69208MILQ-TR-LE, PD69204T4ILQ-TR-LE, and PD39208ILQ-TR-LE catalog part numbers (CPN) available in 56L VQFN (8x8x1.0mm) package.

CCB No.: 6065

Misc.	**Assembly site**	MTAI
	BD Number	BD-001136/A
	MP Code (MPC)	VJH11T5HCA07
	Part Number (CPN)	PD69208MILQ-TR-LE
	MSL information	MSL-3/260
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	2000
	Reliability Site	MTAI
Lead-Frame	**Paddle size**	272x272 mils
	Material	A194
	DAP Surface Prep	NiPdAu
	Treatment	ME2
	Process	Etched
	Lead-lock	Yes
	Part Number	10105603
	Lead Plating	NiPdAu-PPF
	Strip Size	250x70 mm
	Strip Density	175 units/strip
Bond Wire	**Material**	CuPdAu
Die Attach	**Part Number**	590-4HT
	Conductive	Yes
MC	**Part Number**	G700LTD
PKG	**PKG Type**	VQFN
	Pin/Ball Count	56
	PKG width/size	8x8x1.0mm

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	Test Site	Special Instructions
Standard Pb-free Solderability	J-STD-002; 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 cover age	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.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	3	15	0 fails after TC	5	MTAI	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	15		5	MTAI	30 bonds from a minimum of 5 devices.
Wire Sweep		5	0	3	15	0		MTAI	Required for any reduction in wire bond thickness.
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	

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	Test Site	Special Instructions
Preconditioning - Required for surface mount devices	+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. Perform SAM analysis using 45 samples per lot. MSL-3/260C	231 +15 (required for HTSL)	15 +5 (required for HTSL)	3	738 +45	0	15	MTAI	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.Additional 15 parts from each lot to be used for HTSL test (per Cisco L1 qual requirements).
HAST	+130°C/85% RH for 96 hours. Electrical test pre and post stress at +25°C and hot temp. Extend to 192 hrs post test at 25C	77	5	3	246	0	10	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. Perform 2X extended reliability testing for Cu bondwire related package qual.
Unbiased HAST	+130°C/85% RH for 96 hrs. Electrical test pre and post stress at +25°C. Extend to 192 hrs post test at 25C	77	5	3	246	0	10	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. Perform 2X extended reliability testing for Cu bondwire related package qual
Temp Cycle	-65°C to +150°C for 500 cycles. Electrical test pre and post stress at hot temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress. Extend to 1000 cycle post test at 25C	77	5	3	246	0	15	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning. Perform 2X extended reliability testing for Cu bondwire related package qual