

Product Change Notification / NTDO-14TPFT423

Date:

15-Aug-2022

Product Category:

Battery Management and Fuel Gauges - Battery Chargers, Linear Regulators

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5234 Initial Notice: Qualification of MMT as an additional assembly site for selected MIC68200, MIC69101, MIC69103 MIC69153 and MIC79110 device families available in 10L VDFN (3x3x0.9mm) package.

Affected CPNs:

NTDO-14TPFT423_Affected_CPN_08152022.pdf NTDO-14TPFT423_Affected_CPN_08152022.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 MIC68200, MIC69101, MIC69103, MIC69153 and MIC79110 device families available in 10L VDFN (3x3x0.9mm) package.

Pre and Post Change Summary:

		Pre Change	Post Change				
Assem	bly Site	Unisem (M) Berhad Perak, Malavsia (UNIS)	Unisem (M) Berhad Perak, Malaysia (UNIS)	Microchip Technology Thailand (Branch) (MMT)			
Wire Material		Au	Au	Au			
Die Attach Material		8290	8290	3280			
Molding Compound Material		G770	G770	G700			
	Material	A194	A194	A194			
	Lead-lock	No	No	Yes			
Lead-frame	Treatment	No	No	ME2			
	Paddle size	98 x 71 mils	98 x 71 mils	98 x 71 mils			
	DAP Surface	Pre-Plated	Pre-Plated	Pre-Plated			
	Prep	Leadframe (PPF)	Leadframe (PPF)	Leadframe (PPF)			

Impacts to Data Sheet: POD Changes.

Change ImpactNone

Reason for Change:To improve productivity by qualifying MMT as an additional assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: January 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 2022					->	January 2023				
Markusak	3	3	3	3	3		1	2	3	4	5
workweek	2	3	4	5	6						
Initial PCN Issue			v								
Date		X									
Qual Report									v		
Availability									^		

Final PCN Issue X 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, 2022: 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_NTDO-14TPFT423_Pre and Post Change_Summary.pdf PCN_NTDO-14TPFT423 Qual_Plan.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

Terms and Conditions:

If you wish to <u>receive Microchip PCNs via email</u> 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 <u>change your PCN profile, including opt out</u>, please go to the <u>PCN home page</u> select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.



QUALIFICATION PLAN SUMMARY

PCN#: NTDO-14TPFT423

Date: August 4, 2022

Qualification of MMT as an additional assembly site for selected MIC68200, MIC69101, MIC69103, MIC69153 and MIC79110 device families available in 10L VDFN (3x3x0.9mm) package.

Purpose: Qualification of MMT as an additional assembly site for selected MIC68200, MIC69101, MIC69103, MIC69153 and MIC79110 device families available in 10L VDFN (3x3x0.9mm) package.

CCB: 5234

		Data
	Assembly site	MMT
	BD Number	BD-000844/01
	MP Code (MPC)	2A828YJFAA01
<u>Misc.</u>	Part Number (CPN)	MIC79110-4.2YML-TR
	MSL information	MSL-1 @ 260
	Assembly Shipping Media (T/R, Tube/Tray)	Canister
	Base Quantity Multiple (BQM)	5000
	Reliability Site	MTAI
	Paddle size	98 x 71 mils
	Material	A194
	DAP Surface Prep	PPF
	Treatment	ME2
Lood Frama	Process	Etched
	Lead-lock	Yes
	Part Number	10101003
	Lead Plating	PPF
	Strip Size	70 x 250 mm
	Strip Density	1,170 Units
Bond Wire	Material	Au
<u>Die Attach</u>	Part Number	3280
	Conductive	Yes
MC	Part Number	G700
	РКС Туре	VDFN
<u>PKG</u>	Pin/Ball Count	10
	PKG width/size	3x3x0.9mm

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly	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 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		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	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.
Wire Sweep									MTAI	
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5		ΜΤΑΙ	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5		MTAI	
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. MSL-1 @260C°	231	15	3	738	0	15	UNIS	MTAI	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 or 110°C/85%RH for 264 hours. Electrical test pre and post stress at +25°C and hot temp.	77	5	3	246	0	10	UNIS	MTAI	Spares should be properly identified. Use the parts which have gone through Pre- conditioning.
UHAST	JESD22-A118 . +130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs.	77	5	3	246	0	10	UNIS	MTAI	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.	77	5	3	246	0	15	UNIS	MTAI	Spares should be properly identified. Use the parts which have gone through Pre- conditioning.

CCB 5234

Pre and Post Change Summary PCN #: NTDO-14TPFT423



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



LEAD-FRAME COMPARISON



Note: The lead lock hole fills with mold compound during the assembly process and provides improved protection against moisture penetration around the interface edges between pins and mold compound.



NTDO-14TPFT423 - CCB 52: MIC69101 MIC69103 MIC69153 and MIC79110 device families available in 10L

Affected Catalog Part Numbers(CPN)

MIC68200-1.0YML-TR MIC68200-1.2YML-TR MIC68200-1.5YML-TR MIC68200-2.5YML-TR MIC68200-2.5YML-TR MIC68200-3.3YML-TR MIC69101-1.8YML-TR MIC69101-1.8YML-TR MIC69153YML-TR MIC79110-4.2YML-TR MIC79110YML-TR