



Product Change Notification / CENO-13WQJN777

Date:

16-Jun-2022

Product Category:

Clock and Timing - Clock and Data Distribution

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5163 Initial Notice: Qualification of MMT as an additional assembly site for selected SY100EPTxxxxx, SY100ELTxxxxx, SY100EL3xxxx and SY100EL1xxxx device families available in 8L SOIC (3.90mm) package.

Affected CPNs:

[CENO-13WQJN777_Affected_CPN_06162022.pdf](#)

[CENO-13WQJN777_Affected_CPN_06162022.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 SY100EPTxxxxx, SY100ELTxxxxx, SY100EL3xxxx and SY100EL1xxxx device families available in 8L SOIC (3.90mm) package.

Pre and Post Change Summary:

	Pre Change		Post Change		
Assembly Site	Stars Microelectronics (Thailand) Public Company Limited (STAR)	Unisem (M) Berhad Perak, Malaysia (UNIS)	Stars Microelectronics (Thailand) Public Company Limited (STAR)	Unisem (M) Berhad Perak, Malaysia (UNIS)	Microchip Technology Thailand (Branch) – (MMT)
Wire Material	Au	Au	Au	Au	Au
Die Attach Material	2200D	8290	2200D	8290	8390A
Molding Compound Material	G600	G600KA	G600	G600KA	G600V
Lead-Frame Material	CDA194	CDA194	CDA194	CDA194	CDA194
Lead-Frame Paddle Size	95x130 mils	80x80 mils	95x130 mils	80x80 mils	90x90 mils
DAP Surface Prep	NiPdAu	NiPdAu	NiPdAu	NiPdAu	Ag Spot
	See attached Pre and Post Change comparison				

Impacts to Data Sheet:None

Change Impact:None

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

Change Implementation Status:In Progress

Estimated Qualification Completion Date:August 2022

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:

	June 2022	>	August 2022
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Workweek	2 3	2 4	2 5	2 6	2 7		3 2	3 3	3 4	3 5	3 6
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:June 16, 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_CENO-13WQJN777_Qualification_Plan_Summary.pdf](#)
- [PCN_CENO-13WQJN777 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.

CCB 5163
Pre and Post Change Summary
PCN #: CENO-13WQJN777



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LEAD FRAME COMPARISON

STAR		UNIS		MMT	
<i>Note: Not to scale</i>		<i>Note: Not to scale</i>		<i>Note: Not to scale</i>	
Lead frame DAP surface prep	NiPdAu	Lead frame DAP surface prep	NiPdAu	Lead frame DAP surface prep	Ag Spot
Lead Plating	NiPdAu	Lead Plating	NiPdAu	Lead Plating	Matte Tin
Lead-Frame Paddle Size	95x130 mils	Lead-Frame Paddle Size	80x80 mils	Lead-Frame Paddle Size	90x90 mils



MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN #: CENO-13WQJN777

**Date:
June 09, 2022**

Qualification of MMT as an additional assembly site for selected SY100EPTxxxxx, SY100ELTxxxxx, SY100EL3xxxx and SY100EL1xxxx device families available in 8L SOIC (3.90mm) package.

Purpose: Qualification of MMT as an additional assembly site for selected SY100EPTxxxxx, SY100ELTxxxxx, SY100EL3xxxx and SY100EL1xxxx device families available in 8L SOIC (3.90mm) package.

CCB: 5163

<u>Misc.</u>	Assembly site	MMT
	BD Number	BD-000693-01
	MP Code (MPC)	2C60873BXA01
	Part Number (CPN)	SY100EPT28LZG
	MSL information	MSL-1 @ 260
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	95
	Reliability Site	N/A
<u>Lead-Frame</u>	Paddle size	90x90 mils
	Material	CDA194
	DAP Surface Prep	Ag Spot
	Treatment	Non-Roughening
	Process	Stamped
	Lead-lock	No
	Part Number	10100808
	Lead Plating	Matte Tin
	Strip Size	2x8.988 Inches
	Strip Density	140 units
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	8390A
	Conductive	Yes
<u>MC</u>	Part Number	G600V
<u>PKG</u>	PKG Type	SOIC
	Pin/Ball Count	8
	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	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.
Backward Solderability	J-STD-002D ;Perform 8 hours steam aging for Matte tin finish and 1 hour 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	
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	30 bonds from a min. 5 devices.
Wire Sweep								Required for any reduction in wire bond thickness.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
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. MSL-1 @260C*	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	+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	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+130°C/85% RH for 96 hrs or +110°C/85% RH for 264 hrs. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
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.	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

CENO-13WQJN777 - CCB 5 SY100ELTx SY100EL3xxxx and SY100EL1xxxx device families available in 8L SOIC

Affected Catalog Part Numbers(CPN)

SY100EPT28LZG
SY100EPT21LZG
SY100ELT21LZG
SY100EPT20VZG
SY100EPT22VZG
SY100EL33LZG
SY100EPT23LZG
SY100ELT23LZG
SY100EL11VZG
SY100EL32VZG
SY100ELT22ZG
SY100EL16VZG
SY100ELT22LZG
SY100ELT23ZG
SY100EPT28LZG-TR
SY100EPT21LZG-TR
SY100ELT21LZG-TR
SY100EPT20VZG-TR
SY100EPT22VZG-TR
SY100ELT22ZG-TR
SY100ELT22LZG-TR
SY100EL33LZG-TR
SY100EPT23LZG-TR
SY100ELT23LZG-TR
SY100EL11VZG-TR
SY100EL32VZG-TR
SY100EL16VZG-TR
SY100ELT23ZG-TR