Product Change Notification / NTDO-14VTWR800

Date:

17-Sep-2021

Product Category:

Clock and Timing - Clock and Data Distribution, Clock and Timing - High Speed Communication

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4395.001 Initial Notice: Qualification of MMT as additional assembly site for selected Micrel SY5805xAUMG, SY880x3LMG, SY880x3CLMG and SY88xxxALMG device families available in 16L VQFN (3x3x1.00mm) package

Affected CPNs:

NTDO-14VTWR800_Affected_CPN_09172021.pdf
NTDO-14VTWR800_Affected_CPN_09172021.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 additional assembly site for selected Micrel SY5805xAUMG, SY880x3LMG, SY880x3CLMG and SY88xxxALMG device families available in 16L VQFN (3x3x1.00mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change

Assembly Site		Unisem (M) Berhad Perak, Malaysia (UNIS)	Unisem (M) Berhad Perak, Malaysia (UNIS)	Microchip Technology Thailand (Branch) (MMT)
MSL		2	2	1
Wire material		Au	Au	Au
Die attach material	**Material**	8290	8290	8600
	Conductive	Yes	Yes	Yes
Molding compound material		G770HCD	G770HCD	G700LTD
Lead frame	**Material**	C194	C194	C194
	Lead-lock	No	No	Yes
	DAP Surface Prep	NiPdAu	NiPdAu	NiPdAu
	Paddle Size	69 x 69 mils	69 x 69 mils	75 x 75 mils

Impacts to Data Sheet:
None

Change Impact: None

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

Change Implementation Status: In Progress

Estimated Qualification Completion Date: September 2021

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:

	September 2021				
Workweek	36	37	38	39	40
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:September 17, 2021: 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-14VTWR800_Qual_Plan.pdf
PCN_NTDO-14VTWR800_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 4395.001
Pre and Post Change Summary
PCN # NTDO-14VTWR800

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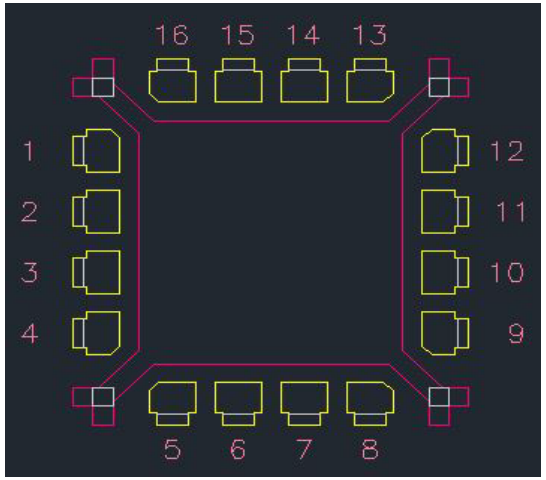
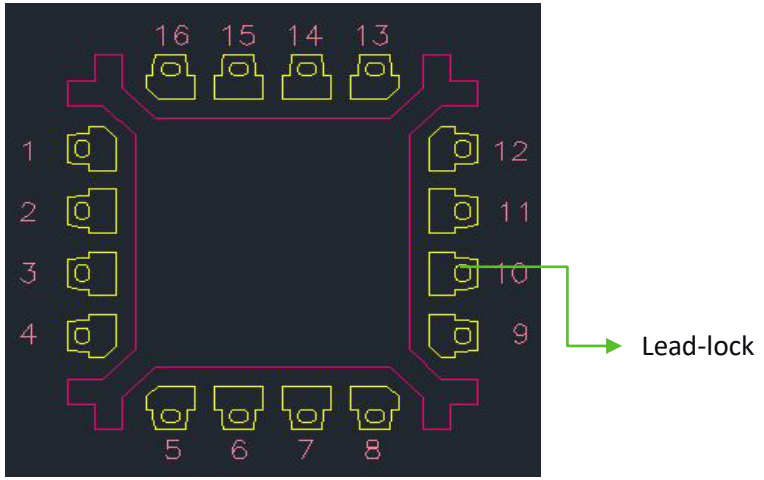
Lead frame Comparison

Pre Change
UNIS



Lead frame Material	C194
Lead frame DAP surface prep	NiPdAu
Lead frame lead-lock	No

Post Change
MMT



Lead frame Material	C194
Lead frame DAP surface prep	NiPdAu
Lead frame lead-lock	Yes

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.

MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN # NTDO-14VTWR800

Date:
September 1, 2021

Qualification of MMT as additional assembly site for selected Micrel SY5805xAUMG, SY880x3LMG, SY880x3CLMG and SY88xxxALMG device families available in 16L VQFN (3x3x1.00mm) package

Purpose: Qualification of MMT as additional assembly site for selected Micrel SY5805xAUMG, SY880x3LMG, SY880x3CLMG and SY88xxxALMG device families available in 16L VQFN (3x3x1.00mm) package.

Misc.	**MP Code (MPC)**	TJAE17NCAA02
	Part Number (CPN)	SY88063CLMG
	CCB	4395.001
	Assembly site	MMT
	MSL information	1
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	100
Lead-Frame	**Paddle size**	75x75
	Material	C194
	DAP Surface Prep	NiPdAu
	Treatment	Roughening
	Process	Etched
	Lead-lock	Yes
	Part Number	10101615
	Lead Plating	NiPdAu
	Strip Size	70x250mm
Bond Wire	**Material**	Au
Die Attach	**Part Number**	8600
	Conductive	Yes
MC	**Part Number**	G700LTD
PKG	**PKG Type**	VQFN
	Pin/Ball Count	16L
	PKG width/size	3x3x1.00 mm

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	Pkg. Type	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0	5	MTAI	16L VQFN	
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MTAI	16L VQFN	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	16L VQFN	
HTSL (High Temp Storage Life)	+175 C for **500 hrs**. Electrical test pre and post stress at +25C	45	5	1	50	0	10	MTAI	16L VQFN	
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 +25C **MSL1/260**	231	15	3	738	0	15	MTAI	16L VQFN	Spares should be properly identified.
HAST	+130°C/85% RH for **96 hours.** Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	16L VQFN	Spares should be properly identified.
UHAST	+130°C/85% RH for **96 hrs.** Electrical test pre and post stress at 25°C	77	5	3	246	0	10	MTAI	16L VQFN	Spares should be properly identified.
Temp Cycle	-65°C to +150°C for **500** cycles. Electrical test pre and post stress at room temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	16L VQFN	Spares should be properly identified.

Affected Catalog Part Numbers (CPN)

SY58051AUMG
SY58051AUMG-TR
SY58052AUMG
SY58052AUMG-TR
SY88022ALMG
SY88022ALMG-TR
SY88022ALMG
SY88022ALMG-TR
SY88053CLMG
SY88063CLMG
SY88073LMG
SY88083LMG
SY88053CLMG-TR
SY88063CLMG-TR
SY88073LMG-TR
SY88083LMG-TR
SY88953ALMG
SY88953ALMG-TR