



Product Change Notification: MFOL-21LXWA131

Date:

04-Dec-2024

Product Category:

Clock and Timing - Clock and Data Distribution

Notification Subject:

CCB 7210 Initial Notice: Qualification of MTAI as a new assembly site for SY89322VMG-TR, SY89251VMG-TR, SY89250VMG-TR, SY89206VMG-TR, SY89323LMG-TR, SY89222LMG-TR, SY89329VMG-TR, SY89328LMG-TR, and SY89321LMG-TR catalog part numbers (CPN) available in 8L VDFN (2x2x0.9mm) package.

Affected CPNs:

[MFOL-21LXWA131_Affected_CPN_12042024.pdf](#)

[MFOL-21LXWA131_Affected_CPN_12042024.csv](#)

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 a new assembly site for SY89322VMG-TR, SY89251VMG-TR, SY89250VMG-TR, SY89206VMG-TR, SY89323LMG-TR, SY89222LMG-TR, SY89329VMG-TR, SY89328LMG-TR, and SY89321LMG-TR catalog part numbers (CPN) available in 8L VDFN (2x2x0.9mm) package.

Pre and Post Summary Changes:

	Pre Change	Post Change
Assembly Site	Unisem (M) Berhad Perak, Malaysia (UNIS)	Microchip Technology Thailand (HQ) (MTAI)

Wire Material	Au	Au
Die Attach Material	8290	QMI519
Molding Compound Material	G770HCD	G700LTD
Lead-Frame Material	A194	A194
Lead-Frame DAP Surface Prep	NiPdAu	Bare Cu
Lead-Frame Design	See pre and post change for comparison.	

Impacts to Datasheet:

		UNIS			MTAI		
Feature	Dimension	MIN	NOM	MAX	MIN	NOM	MAX
Number of Pins	n	8			8		
Pitch	e	0.50 BSC			0.50 BSC		
Overall Height	A	0.80	0.85	0.90	0.80	0.90	1.00
Standoff	A1	0.00	0.02	0.05	0.00	-	0.05
Terminal Thickness	A3	0.203 REF			0.20 REF		
Overall Width	D	2.00 BSC			1.90	2.00	2.10
Exposed Pad Width	D2	1.10	1.20	1.30	1.10	1.20	1.30
Overall Length	E	2.00 BSC			1.90	2.00	2.10

Method to Identify Change: Traceability Code

Qualification Plan: Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History: December 04, 2024: Issued initial notification.

Note: The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable product.

Attachments:

PCN_MFOL-21LXWA131_Qualification Plan.pdf

PCN_MFOL-21LXWA131_Pre and Post Change_Summary.pdf

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

Terms and Conditions:

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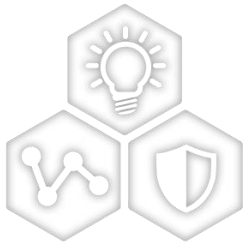
Affected Catalog Part Numbers (CPN)

- SY89322VMG-TR
- SY89251VMG-TR
- SY89250VMG-TR
- SY89206VMG-TR
- SY89323LMG-TR
- SY89222LMG-TR
- SY89329VMG-TR
- SY89328LMG-TR
- SY89321LMG-TR

CCB 7210
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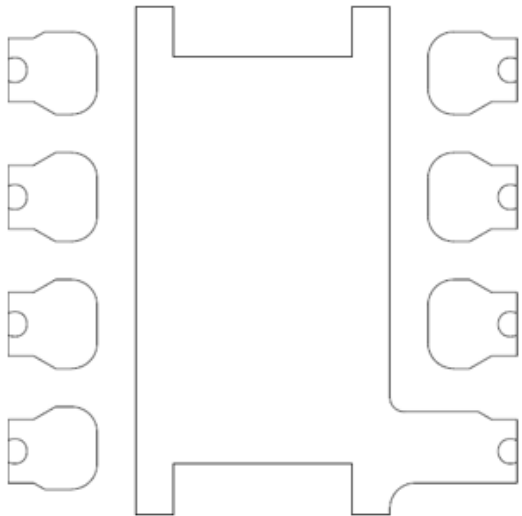
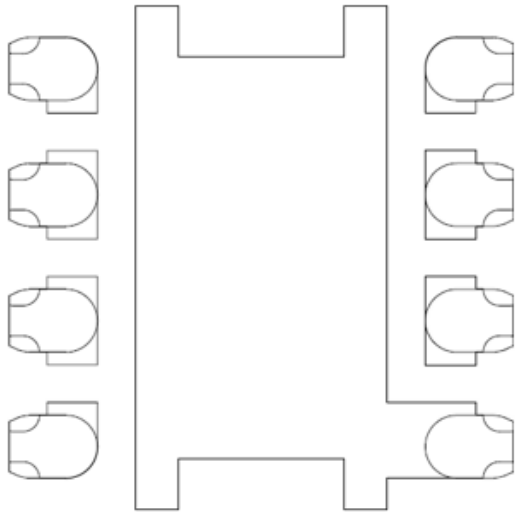


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Pre and Post Summary – Leadframe Comparison

UNIS	MTAI								
									
<table><tr><td>Leadframe Material</td><td>A194</td></tr><tr><td>Leadframe DAP Surface Prep</td><td>NiPdAu</td></tr></table>	Leadframe Material	A194	Leadframe DAP Surface Prep	NiPdAu	<table><tr><td>Leadframe Material</td><td>A194</td></tr><tr><td>Leadframe DAP Surface Prep</td><td>Bare Cu</td></tr></table>	Leadframe Material	A194	Leadframe DAP Surface Prep	Bare Cu
Leadframe Material	A194								
Leadframe DAP Surface Prep	NiPdAu								
Leadframe Material	A194								
Leadframe DAP Surface Prep	Bare Cu								

Note: Not to scale



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QUALIFICATION PLAN SUMMARY

PCN #: MFOL-21LXWA131

**Date:
November 15, 2024**

**Qualification of MTAI as a new assembly site for
SY89322VMG-TR, SY89251VMG-TR, SY89250VMG-TR,
SY89206VMG-TR, SY89323LMG-TR, SY89222LMG-TR,
SY89329VMG-TR, SY89328LMG-TR, and SY89321LMG-TR
catalog part numbers (CPN) available in 8L VDFN
(2x2x0.9mm) package.**



MICROCHIP PACKAGE QUALIFICATION PLAN

Purpose Qualification of MTAI as a new assembly site for SY89322VMG-TR, SY89251VMG-TR, SY89250VMG-TR, SY89206VMG-TR, SY89323LMG-TR, SY89222LMG-TR, SY89329VMG-TR, SY89328LMG-TR, and SY89321LMG-TR catalog part numbers (CPN) available in 8L VDFN (2x2x0.9mm) package.

CCB No. 7210

<u>Misc.</u>	Assembly site	MTAI
	BD Number	BD-002657-01
	MP Code (MPC)	2C608T6XWA01
	Part Number (CPN)	SY89321LMG-TR
	MSL information	MSL-1/260
	Assembly Shipping Media (T/R, Tube/Tray)	T/R
	Base Quantity Multiple (BQM)	1000
	Reliability Site	MTAI
<u>Lead-Frame</u>	Paddle size	39 x 63 mils
	Material	A194
	DAP Surface Prep	Bare Cu
	Treatment	BOT
	Process	Etched
	Lead-lock	No
	Part Number	10100873
	Lead Plating	Matte Tin
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	QMI519
	Conductive	Yes
<u>MC</u>	Part Number	G700LTD
<u>PKG</u>	Package Type	VDFN
	Pin/Ball Count	8
	PKG width/size	2x2x0.9mm

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (Should properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0	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.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25C and hot temp.	45	5	1	50	0	10	
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. MSL1/260	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.

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (Should properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	Special Instructions
Temp Cycle	<p>-65°C to +150°C for 500 cycles.</p> <p>Electrical test pre and post stress at hot temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.</p>	77	5	3	246	0	15	<p>Spares should be properly identified.</p> <p>Use the parts which have gone through Pre-conditioning.</p>