Product Change Notification / CAAN-08GYFW165

Date:

10-Nov-2022

Product Category:

Linear Regulators

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5324 Initial Notice: Qualification of MMT as an additional assembly site for selected MIC5219-5.0YMT-TR and MIC5219YMT-TR catalog part numbers (CPN) available in 6L UDFN (2x2x0.6mm) package.

Affected CPNs:

CAAN-08GYFW165_Affected_CPN_11102022.pdf
CAAN-08GYFW165_Affected_CPN_11102022.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 MIC5219-5.0YMT-TR and MIC5219YMT-TR catalog part numbers (CPN) available in 6L UDFN (2x2x0.6mm) package.

Pre and Post Change Summary:

	Pre Change		Post Change		
Assembly Site	Unisem Chengdu Co.,Ltd. (UNIC)	Unisem (M) Berhad Perak, Malaysia (UNIS)	Unisem Chengdu Co.,Ltd. (UNIC)	Unisem (M) Berhad Perak, Malaysia (UNIS)	Microchip Technology Thailand (Branch) (MMT)
Wire Material	Au	Au	Au	Au	Au
Die Attach Material	8290	8290	8290	8290	8600
Molding Compound Material	G770HP	G770HCD	G770HP	G770HCD	G700LTD
Lead-Frame Material*	C194	A194	C194	A194	EFTEC64T
Lead-Frame Paddle Size	67 x 42 mils	63 x 42 mils	67 x 42 mils	63 x 42 mils	63 x 42 mils
DAP Surface Prep	NiPdAu	NiPdAu	NiPdAu	NiPdAu	NiPdAu
Lead-lock	No	No	No	No	Yes

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

Impacts to Data Sheet: Yes. Package Outline Drawing (POD).

Units: mm		UNIS/UNIC			MMT		
		Min	Nom	Max	Min	Nom	Max
Drawing No.	Symbol	UC-PO-62x2-1.4x0.8 Rev. A			B04-160		
Number of Pins	N	6			6		
Pitch	e	0.65 BSC			0.65 BSC		
Over-all Height	A	0.50	0.55	0.60	0.45	0.50	0.55
Stand off	A1	0.00	-	0.05	0.00	-	0.05
Contact Thickness	A3	0.152 REF			0.127 REF		
Overall Length	D	1.95	2.00	2.05	1.95	2.00	2.05
Exposed Pad Length	D2	1.35	1.40	1.45	1.35	1.40	1.45
Overall Width	E	1.95	2.00	2.05	1.95	2.00	2.05

Exposed pad width	E2	0.75	0.80	0.85	0.75	0.80	0.85
Terminal Width	b	0.20	0.25	0.30	0.20	0.25	0.30
Terminal Length	L	0.30	0.35	0.40	0.30	0.35	0.40
Terminal-to-Exposed pad	L2	-	-	-	-	0.25	-

Change Impact None

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

Change Implementation Status: In Progress

Estimated Qualification Completion Date: December 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:

	November 2022					**December 2022**			
Workweek	45	46	47	48	49	50	51	52	53
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: November 10, 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_CAAN-08GYFW165_Qualification Plan.pdf
PCN_CAAN-08GYFW165_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 5324
Pre and Post Change Summary
PCN #:CAAN-08GYFW165

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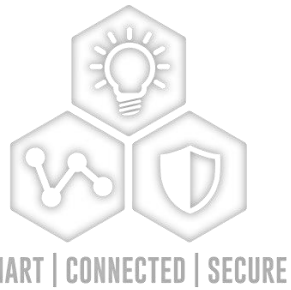
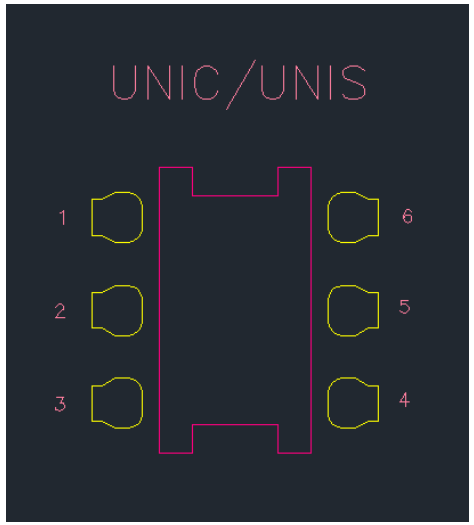


LEAD FRAME COMPARISON

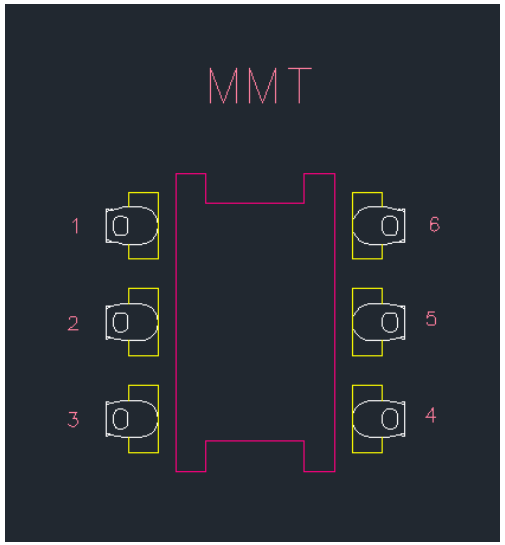
UNIC / UNIS



Note: Not to scale

Assembly Site	UNIC	UNIS
Lead Lock	No	No
Lead Plating	NiPdAu	NiPdAu
Lead-Frame Paddle Size	67 x 42 mils	63 x 42 mils

MMT



Note: Not to scale

Lead Lock	Yes
Lead Plating	NiPdAu
Lead-Frame Paddle Size	63 x 42 mils

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.

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QUALIFICATION PLAN SUMMARY

PCN#: CAAN-08GYFW165

October 12, 2022

Qualification of MMT as an additional assembly site for selected MIC5219-5.0YMT-TR and MIC5219YMT-TR catalog part numbers (CPN) available in 6L UDFN (2x2x0.6mm) package.

Purpose: Qualification of MMT as an additional assembly site for selected MIC5219-5.0YMT-TR and MIC5219YMT-TR catalog part numbers (CPN) available in 6L UDFN (2x2x0.6mm) package.

CCB No.: 5324

Misc.	Assembly site	MMT
	BD Number	BD-000777/01
	MP Code (MPC)	218A1YHSAGB2
	Part Number (CPN)	MIC5219YMT-TR
	Assembly Shipping Media (T/R, Tube/Tray)	T/R
	Base Quantity Multiple (BQM)	5000
	Reliability Site	MTAI
Lead-Frame	Paddle size	63 x 42 mils
	Material	EFTEC64T
	DAP Surface Prep	NiPdAu
	Treatment	Roughening LF
	Process	Etched
	Lead-lock	Yes
	Part Number	10100606
	Lead Plating	NiPdAu
	Strip Size	70x250
	Strip Density	2340
Bond Wire	Material	Au
Die Attach	Part Number	8600
	Conductive	Yes
MC	Part Number	G700LTD
PKG	PKG Type	UDFN
	Pin/Ball Count	6
	PKG width/size	2x2x0.6 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	ATE Test Site	REL Test Site	Pkg. Type	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	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.
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	MTAI	MTAI		
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	MTAI	MTAI		30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MTAI	MTAI		30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5	MTAI	MTAI		
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	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	ATE Test Site	REL Test Site	Pkg. Type	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 MSL-1@260 C	231	15	3	738	0	15	MTAI	MTAI		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 Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+130°C/85% RH for 96 hrs. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	MTAI		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 25C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	MTAI		Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

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Affected Catalog Part Numbers(CPN)

MIC5219-5.0YMT-TR
MIC5219YMT-TR