Product Change Notification / ALAN-05LIKW552

Date:

09-Jan-2024

Product Category:

Memory

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6798 Initial Notice: Qualification of MMT as an additional assembly site for selected 23LC1024, 23A1024, 23LC512, 23A512, 23LCV1024, and 23LCV512 device families available in 8L TSSOP (4.4mm) package.

Affected CPNs:

ALAN-05LIKW552_Affected_CPN_01092024.pdf
ALAN-05LIKW552_Affected_CPN_01092024.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 23LC1024, 23A1024, 23LC512, 23A512, 23LCV1024, and 23LCV512 device families available in 8L TSSOP (4.4mm) package.

Pre and Post Change Summary:

	Pre Change		Post Change		
Assembly Site	Amkor Technology Philippine (P1/P2), INC. (ANAP)	UTAC Thai Limited (UTL-1) LTD. (NSEB)	Amkor Technology Philippine (P1/P2), INC. (ANAP)	UTAC Thai Limited (UTL-1) LTD. (NSEB)	Microchip Technology Thailand (Branch) (MMT)
Wire Material	Au	Au	Au	Au	Au
Die Attach Material	8290	2200D	8290	2200D	8006NS
Molding Compound Material	G700A	G600	G700A	G600	G600V
Lead-Frame Material	C7025	C7025	C7025	C7025	C7025
Lead-Frame Paddle Size	126 x 87 mils	126 x 87 mils	126 x 87 mils	126 x 87 mils	118 x 87 mils
DAP Surface Prep	Ag spot	Ag spot	Ag spot	Ag spot	Bare Cu

Impacts to Data Sheet: None

Change Impact None

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

Change Implementation Status: In Progress

Estimated Qualification Completion Date: May 2024

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:

	January 2024					>	May 2024				
Workweek	1	2	3	4	5		18	19	20	21	22
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: January 09, 2024: 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_ALAN-05LIKW552_Qual Plan.pdf
PCN_ALAN-05LIKW552_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.

Affected Catalog Part Numbers (CPN)

23LC1024-I/ST
23A1024-I/ST
23A1024T-I/ST
23LC1024T-I/ST
23LC512T-I/ST
23LC512-I/ST
23A512-I/ST
23A512T-I/ST
23LCV1024-I/ST
23LCV1024T-I/ST
23LCV512-I/ST
23A1024T-E/ST
23LC1024T-E/ST
23A512T-E/ST
23LC512T-E/ST
23LCV512T-I/ST
23A1024-E/ST
23LC1024-E/ST
23A512-E/ST
23LC512-E/ST

CCB 6798
Pre and Post Change Summary
PCN# ALAN-05LIKW552

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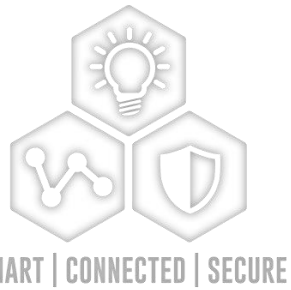
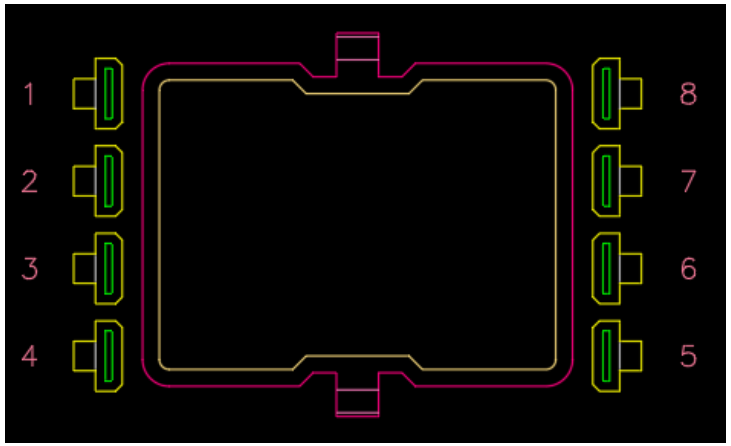


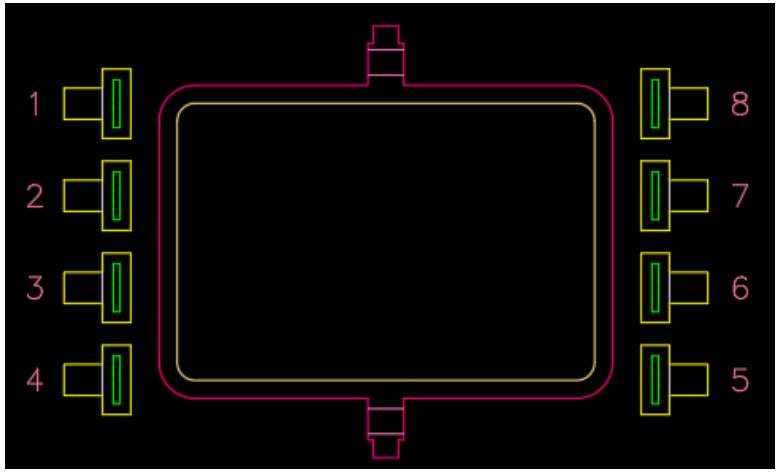
Lead-Frame Comparison

ANAP



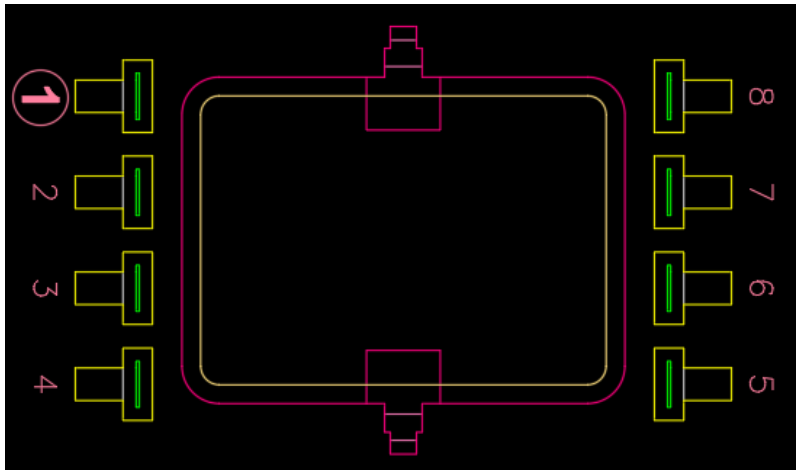
Lead-Frame Material	C7025
Lead-Frame Paddle Size	126 x 87 mils
DAP Surface Prep	Ag spot

NSEB



Lead-Frame Material	C7025
Lead-Frame Paddle Size	126 x 87 mils
DAP Surface Prep	Ag spot

MMT



Lead-Frame Material	C7025
Lead-Frame Paddle Size	118 x 87 mils
DAP Surface Prep	Bare Cu

*Not fit to scale

QUALIFICATION PLAN SUMMARY

PCN# ALAN-05LIKW552

Date:
December 15, 2023

Qualification of MMT as an additional assembly site for selected 23LC1024, 23A1024, 23LC512, 23A512, 23LCV1024, and 23LCV512 device families available in 8L TSSOP (4.4mm) package.

Purpose: Qualification of MMT as an additional assembly site for selected 23LC1024, 23A1024, 23LC512, 23A512, 23LCV1024, and 23LCV512 device families available in 8L TSSOP (4.4mm) package.

CCB No.: 6798

Misc.	Assembly site	MMT
	BD Number	BD-002080-01
	MP Code (MPC)	TVAA14C5XD00
	Part Number (CPN)	23LC512
	MSL information	1
	Assembly Shipping Media (T/R, Tube/Tray)	Tube / T&R
	Base Quantity Multiple (BQM)	100 / 2500
	Reliability Site	MTAI
Lead-Frame	Paddle size	118 x 87 mils
	Material	C7025
	DAP Surface Prep	Bare Cu
	Treatment	BOT
	Process	Stamped
	Lead-lock	No
	Part Number	10100848
	Lead Plating	Matte tin
Bond Wire	Material	Au
Die Attach	Part Number	8006NS
	Conductive	No
MC	Part Number	G600V
PKG	Package Type	TSSOP
	Pin/Ball Count	8
	PKG width/size	4.4 mm

Test Name	Conditions	Reliability Stress Read Point Grade 1: -40°C to +125°C (MCHP E Temp)	Pre & Post Reliability Stress Test Temperature Grade 1: -40°C to +125°C (MCHP E Temp)	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 hours of 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.
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.
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)	JESD22-A103 +175°C	Grade 1: 500 hrs (+175°C)	Grade 1: +25°C, +85°C, +125°C	45	5	1	50	0	21 - 83	Spares should be properly identified.
Preconditioning - Required for surface mount devices MSL 1 @ 260 C	J-STD-020 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.		Grade 1: +25°C	231 + 45 (for devices requiring PTC)	15 + 5 (for devices requiring PTC)	3	738 + 50 (for devices requiring PTC)	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	JESD22-A101 or A110 +130°C/85% RH for 96 hrs	Grade 1: 96 hrs (+130°C/85% RH)	Grade 1: +25°C, +85°C, +125°C	77	5	3	246	0	10 - 14	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	JESD22-A102, A118, or A101 +130°C/85% RH for 96 hrs	Grade 1: 96 hrs (+130°C/85% RH)	Grade 1: +25°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104 and Appendix 3 -55ºC to +150ºC	Grade 1: 1000 cycles (-55ºC to +150ºC)	Grade 1: +25°C, +85°C, +125°C	77	5	3	246	0	15 - 60	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.