



## Product Change Notification / CENO-13NWUA734

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**Date:**

04-May-2023

**Product Category:**

Memory

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 6079 Initial Notice: Qualification of MTAI as an additional assembly site for selected AT24C512C-SSHxx, AT24CM01-SSHxx and AT24CM02-SSHxx device families available in 8L SOIC (3.90mm(.150in)) package.

**Affected CPNs:**

[CENO-13NWUA734\\_Affected\\_CPN\\_05042023.pdf](#)

[CENO-13NWUA734\\_Affected\\_CPN\\_05042023.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 MTAI as an additional assembly site for selected AT24C512C-SSHxx, AT24CM01-SSHxx and AT24CM02-SSHxx device families available in 8L SOIC (3.90mm(.150in)) package.

**Pre and Post Change Summary:**

	Pre Change		Post Change		
<b>Assembly Site</b>	Amkor Technology Philippine (P1/P2), INC.  (ANAP)	ATX Semiconductor (Shanghai)Co. Ltd (ASSH)	Amkor Technology Philippine (P1/P2), INC.  (ANAP)	ATX Semiconductor (Shanghai)Co. Ltd (ASSH)	Microchip Technology Thailand (HQ) / MTAI
Wire Material	PdCu	CuPdAu	PdCu	CuPdAu	CuPdAu
Die Attach Material	8290	EN-4900G	8290	EN-4900G	8008MD
Molding Compound Material	G700A	CEL9240HF10AK	G700A	CEL9240HF10AK	G600V
Lead-Frame Material	C194	C194	C194	C194	CDA194
Lead-Frame Paddle Size	95 x 155 mils	102 x 153 mils	95 x 155 mils	102 x 153 mils	95 x 158 mils
	See Pre and Post Change Comparison				
Lead Plating	NiPdAu	Matte tin	NiPdAu	Matte tin	Matte tin
DAP Surface Prep	PPF	Bare Cu	PPF	Bare Cu	Bare Cu

**Impacts to Data Sheet:**None

**Change Impact:**None

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

**Change Implementation Status:**In Progress

**Estimated Qualification Completion Date:**May 2023

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:

	May 2023				
Workweek	1 8	1 9	2 0	2 1	2 2
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:**May 4, 2023: 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-13NWUA734\\_Pre and Post Change\\_Summary.pdf](#)  
[PCN\\_CENO-13NWUA734\\_Qual Plan.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 6079**  
**Pre and Post Change Summary**  
**PCN #: CENO-13NWUA734**



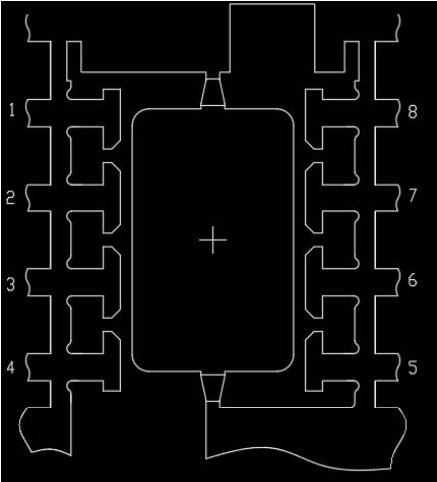
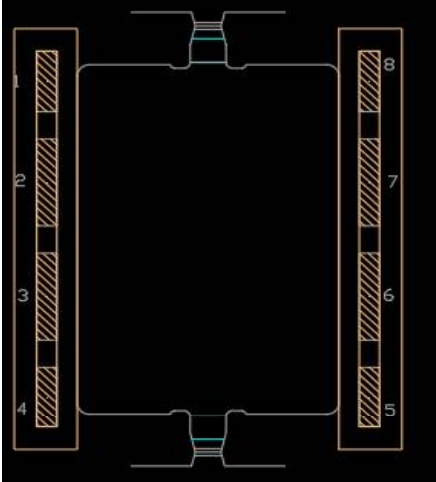
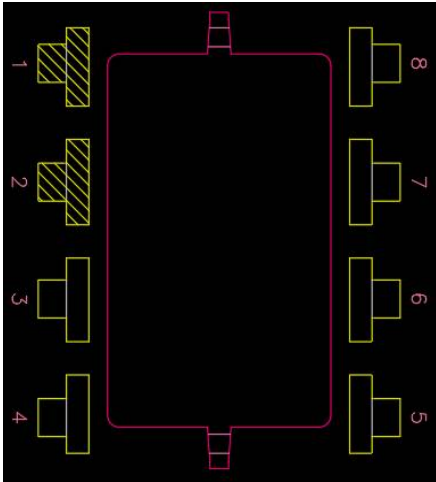
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# LEAD FRAME COMPARISON

ANAP		ASSH		MTAI	
 <p>The diagram shows a top-down view of an ANAP lead frame. It features a central square chip area with a crosshair. Eight leads are attached to the perimeter, numbered 1 through 8. Leads 1, 2, 3, and 4 are on the left side, while leads 5, 6, 7, and 8 are on the right side. The leads have a complex, multi-segmented shape.</p>		 <p>The diagram shows a top-down view of an ASSH lead frame. It features a central square chip area. Eight leads are attached to the perimeter, numbered 1 through 8. Leads 1, 2, 3, and 4 are on the left side, while leads 5, 6, 7, and 8 are on the right side. The leads are simple rectangular shapes.</p>		 <p>The diagram shows a top-down view of an MTAI lead frame. It features a central square chip area. Eight leads are attached to the perimeter, numbered 1 through 8. Leads 1, 2, 3, and 4 are on the left side, while leads 5, 6, 7, and 8 are on the right side. The leads are simple rectangular shapes.</p>	
<i>Note: Not to scale</i>		<i>Note: Not to scale</i>		<i>Note: Not to scale</i>	
Lead frame Material	C194	Lead frame Material	C194	Lead frame Material	C194
Lead-Frame Paddle Size	95 x 155 mils	Lead-Frame Paddle Size	102 x 153 mils	Lead-Frame Paddle Size	95 x 158 mils
Lead Plating	NiPdAu	Lead Plating	Matte tin	Lead Plating	Matte tin
Wire Material	PdCu	Wire Material	CuPdAu	Wire Material	CuPdAu



# **QUALIFICATION PLAN SUMMARY**

**PCN #: CENO-13NWUA734**

**Date:  
January 16, 2023**

**Qualification of MTAI as an additional assembly site for  
selected AT24C512C-SSHxx, AT24CM01-SSHxx and  
AT24CM02-SSHxx device families available in 8L SOIC  
(3.90mm(.150in)) package.**

**Purpose:** Qualification of MTAI as an additional assembly site for selected AT24C512C-SSHxx, AT24CM01-SSHxx and AT24CM02-SSHxx device families available in 8L SOIC (3.90mm(.150in)) package.

**CCB No.** 6079

**MP code:** \_\_\_\_\_ 35838TC2XC04

**Part No.:** \_\_\_\_\_ AT24CM02-SSHD-T

**BD No:** \_\_\_\_\_ BD-001172-02

**Package:**

**Type** \_\_\_\_\_ 8 lead SOIC

**Width or Size** \_\_\_\_\_ 150 mils

**Leadframe:**

**Material** \_\_\_\_\_ CDA194

**Plating** \_\_\_\_\_ Bare Cu

**Part Number** \_\_\_\_\_ 10100814

**Surface treatment** \_\_\_\_\_ Roughened

**Paddle size** \_\_\_\_\_ 95 x 158 mils

**Process** \_\_\_\_\_ Stamped.

**Solder plating material** \_\_\_\_\_ Matte tin

**Wire:**

**Material** \_\_\_\_\_ CuPdAu

**Die Attach:**

**Part Number** \_\_\_\_\_ 8008MD

**Conductive** \_\_\_\_\_ Yes

**Mold Compound:**

**Type/Supplier** \_\_\_\_\_ G600V

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	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	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	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
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	MTAI	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	MTAI	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108	10	0	3	30		5	MTAI	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	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	Test Site	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, +85°C  MSL 1 @ 260 C	231	15	3	738	0	15	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, +85°C	77	5	3	246	0	10	MTA	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	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 85°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.