



## Product Change Notification / CENO-13PHPP348

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**Date:**

17-Nov-2023

**Product Category:**

8-bit Microcontrollers

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 6717 Initial Notice: Qualification of MP3A as an additional assembly site for selected ATTINY16xx, ATTINY32xx, ATTINY4xx and ATTINY8xx device families available in 24L VQFN (4x4x0.9mm) package.

**Affected CPNs:**

[CENO-13PHPP348\\_Affected\\_CPN\\_11172023.pdf](#)  
[CENO-13PHPP348\\_Affected\\_CPN\\_11172023.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 MP3A as an additional assembly site for selected ATTINY16xx, ATTINY32xx, ATTINY4xx and ATTINY8xx device families available in 24L VQFN (4x4x0.9mm) package.

**Pre and Post Change Summary:**

	Pre Change	Post Change
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Date														
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**Method to Identify Change:**

Traceability code

**Qualification Plan:**Please open the attachments included with this PCN labeled as PCN\_#\_Qual\_Plan.

**Revision History:**November 17, 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-13PHPP348\\_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.

Affected Catalog Part Numbers (CPN)

ATTINY1607-MF  
ATTINY807-MF  
ATTINY1607-MN  
ATTINY807-MN  
ATTINY1607-MNR  
ATTINY807-MNR  
ATTINY1607-MFR  
ATTINY807-MFR  
ATTINY1627-MF  
ATTINY1627-MU  
ATTINY1627-MUR  
ATTINY1627-MFR  
ATTINY3227-MF  
ATTINY3227-MU  
ATTINY3227-MUR  
ATTINY3227-MFR  
ATTINY427-MF  
ATTINY827-MF  
ATTINY427-MU  
ATTINY827-MU  
ATTINY427-MUR  
ATTINY827-MUR  
ATTINY427-MFR  
ATTINY827-MFR  
ATTINY1617-MF  
ATTINY1617-MN  
ATTINY1617-MNR  
ATTINY1617-MFR  
ATTINY417-MF  
ATTINY817-MF  
ATTINY417-MN  
ATTINY817-MN  
ATTINY817-MNR  
ATTINY417-MNR  
ATTINY817-MFR  
ATTINY417-MFR  
ATTINY3217-MF  
ATTINY3217-MN  
ATTINY3217-MNR  
ATTINY3217-MFR



## **QUALIFICATION PLAN SUMMARY**

**PCN #: CENO-13PHPP348**

**Date:  
November 13, 2023**

**Qualification of MP3A as an additional assembly site for  
selected ATTINY16xx, ATTINY32xx, ATTINY4xx and  
ATTINY8xx device families available in 24L VQFN (4x4x0.9mm)  
package.**

**Purpose:** Qualification of MP3A as an additional assembly site for selected ATTINY16xx, ATTINY32xx, ATTINY4xx and ATTINY8xx device families available in 24L VQFN (4x4x0.9mm) package.

**CCB No.** 6717

<u>Misc.</u>	Assembly site	MP3A
	BD Number	BD-001943/01
	MP Code (MPC)	59B174RLBA01
	Part Number (CPN)	ATTINY3217-MF
	MSL information	MSL-1/260
	Assembly Shipping Media (T/R, Tube/Tray)	TRAY
	Base Quantity Multiple (BQM)	490
	Reliability Site	MPHIL
<u>Lead-Frame</u>	Paddle size	114 x 114 mils
	Material	C194
	DAP Surface Prep	Ag selective plated
	Treatment	Yes
	Process	Etched
	Lead-lock	No
	Part Number	10102401
	Lead Plating	Matte Tin
	Strip Size	70 x 250 mm
	Strip Density	700 units/strip
<u>Bond Wire</u>	Material	Au
<u>Die Attach</u>	Part Number	3280
	Conductive	Yes
<u>MC</u>	Part Number	G700LTD
<u>PKG</u>	Package Type	VQFN
	Pin/Ball Count	24
	PKG width/size	4x4x0.9 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	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	MPHIL	MPHIL	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			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 Dimmensions	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			
Preconditioning - Required for surface mount devices	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; Electrical test pre and post stress at +25°C.  MSL 1/260	231	15	3	738	0	15	MPHIL	MPHIL	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	JESD22-A110. +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	MPHIL	MPHIL	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	JESD22-A118. +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	MPHIL	MPHIL	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104. -65°C to +150°C for 500 cycles.  Electrical test pre and post stress at hot temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MPHIL	MPHIL	Spares should be properly identified.