



## Product Change Notification: CENO-05FVJZ634

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### Date:

08-Jan-2025

### Product Category:

16-Bit - Microcontrollers And Digital Signal Controllers, 32-Bit Microcontrollers, 8-Bit Microcontrollers, Smart Energy SOC

### Notification Subject:

CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

### Affected CPNs:

**[CENO-05FVJZ634\\_Affected\\_CPN\\_01082025.pdf](#)**  
**[CENO-05FVJZ634\\_Affected\\_CPN\\_01082025.csv](#)**

### Notification Text:

**PCN Status:**Final 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 new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

### Pre and Post Change Summary:

*For 64L TQFP (14x14x1mm)*

|  | Pre Change | Post Change |
|--|------------|-------------|
|  |            |             |

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|---------------------------|--|--|
| Assembly Site             | Microchip Technology Thailand<br>(MMT) | Microchip Technology Thailand<br>(MMT) |
| Wire Material             | Au                                     | Au                                     |
| Die Attach Material       | 3280                                   | 3280                                   |
| Molding Compound Material | G700HA                                 | G700HA                                 |
| Lead-Frame Material       | C7025                                  | C7025                                  |
| Lead-Frame Treatment      | BOT                                    | None                                   |

*For 100L TQFP (14x14x1mm)*

|                           | Pre Change                             |              | Post Change                            |              |
|---------------------------|--|--------------|--|--------------|
| Assembly Site             | Microchip Technology Thailand<br>(MMT) |              | Microchip Technology Thailand<br>(MMT) |              |
| Wire Material             | Au                                     | CuPdAu       | Au                                     | CuPdAu       |
| Die Attach Material       | 3280                                   |              | 3280                                   |              |
| Molding Compound Material | G700HA                                 |              | G700HA                                 |              |
| Lead-Frame Material       | C7025                                  |              | C7025                                  |              |
| Lead-Frame Paddle Size    | 280x280 mils                           | 240x240 mils | 280x280 mils                           | 240x240 mils |
| Lead-Frame Treatment      | BOT                                    |              | None                                   |              |

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve productivity by qualifying new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT).

**Change Implementation Status:**In Progress

**Estimated First Ship Date:**December 23, 2024 (date code: 2452)

Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

**Time Table Summary:**

|                               | August 2024 |    |    |    |    | > | November 2024 |    |    |    |    | December 2024 |    |    |    |    |
|-------------------------------|-------------|----|----|----|----|---|---------------|----|----|----|----|---------------|----|----|----|----|
| Workweek                      | 31          | 32 | 33 | 34 | 35 |   | 44            | 45 | 46 | 47 | 48 | 49            | 50 | 51 | 52 | 53 |
| Initial PCN Issue Date        |             | X  |    |    |    |   |               |    |    |    |    |               |    |    |    |    |
| Qual Report Availability      |             |    |    |    |    |   |               |    |    | X  |    |               |    |    |    |    |
| Final PCN Issue Date          |             |    |    |    |    |   |               |    |    | X  |    |               |    |    |    |    |
| Estimated Implementation Date |             |    |    |    |    |   |               |    |    |    |    |               |    |    | X  |    |

**Method to Identify Change:**Traceability code

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

**Revision History:**August 9, 2024: Issued initial notification.

November 20, 2024: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on December 23, 2024.

January 8, 2025: Re-issued to correct the pre and post table note from "66L" to "64L". Removed EOL CPNs PIC32MZ1024ECM100T-I/PF and PIC32MZ1024ECM100-I/PF from affected CPN list.

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-05FVJZ634\\_Pre and Post Change\\_Summary.pdf](#)**  
**[PCN\\_CENO-05FVJZ634\\_Qualification Report.pdf](#)**

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

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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.

CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

Affected Catalog Part Numbers (CPN)

ATMEGA329P-20ANR

ATXMEGA64A3U-AU

ATMEGA128L-8AU

ATMEGA128A-AU

ATMEGA128-16AU

ATXMEGA64A3U-AUR

ATXMEGA192D3-AUR

ATXMEGA256D3-AUR

ATXMEGA256C3-AUR

ATXMEGA192D3-AURA1

ATMEGA165P-16AU

ATMEGA165PV-8AU

ATMEGA165PV-8AN

ATMEGA165PV-8ANR

ATMEGA165P-16AUR

ATMEGA128-16AN

ATMEGA329PA-AU

ATMEGA325A-AU

ATMEGA325PA-AU

ATXMEGA256D3-AURA3

ATXMEGA256C3-AURA0

ATXMEGA192C3-AUR

ATXMEGA128C3-AU

ATXMEGA128D3-AUA1

ATXMEGA128D3-AU

ATMEGA128A-AN

ATMEGA329A-AU

ATMEGA325A-AN

ATMEGA329PV-10AUR

ATMEGA329PV-10AURA0

AT90CAN64-16AU

AT90CAN64-16AUR

ATXMEGA128C3-AUR

ATXMEGA128D3-AURA1

ATMEGA64L-8AU

ATMEGA64L-8AUR

ATMEGA128-16ANR

ATMEGA128L-8ANR

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| ATMEGA128A-ANR          |
| ATMEGA325A-ANR          |
| ATMEGA329P-20AU         |
| ATMEGA329P-20AUR        |
| ATMEGA64-16AUA2         |
| ATXMEGA64B3-AU          |
| ATXMEGA128D3-AUR        |
| ATMEGA128A-AUR          |
| ATMEGA128L-8AUR         |
| ATMEGA64L-8AQR          |
| ATXMEGA64D3-AUA4        |
| ATXMEGA64D3-AU          |
| ATMEGA128L-8AURA6       |
| ATMEGA128-16AURA0       |
| ATMEGA128-16AUR         |
| ATMEGA325PA-AUR         |
| ATMEGA329A-AUR          |
| ATMEGA329PA-AUR         |
| ATMEGA325A-AUR          |
| ATMEGA165P-16AN         |
| ATXMEGA64C3-AU          |
| ATXMEGA32C3-AU          |
| PIC32MX570F512L-I/PF    |
| DSPIC33FJ256GP710A-I/PF |
| DSPIC33FJ256MC510A-I/PF |
| PIC32MX170F512LT-I/PF   |
| PIC32MX795F512LT-80I/PF |
| PIC32MX775F512LT-80I/PF |
| PIC32MX775F256LT-80I/PF |
| PIC24HJ256GP610A-I/PF   |
| DSPIC33FJ256GP510A-I/PF |
| PIC32MX470F512LT-120/PF |
| PIC32MX675F256LT-80I/PF |
| PIC32MX575F512LT-80I/PF |
| PIC32MX575F256LT-80I/PF |
| PIC32MX695F512LT-80I/PF |
| PIC32MX150F256L-50I/PF  |
| PIC32MX170F512L-50I/PF  |
| PIC32MX675F512LT-80I/PF |
| PIC32MX250F256L-50I/PF  |
| ATSAM4LC8CA-AU          |
| ATSAM4LS8CA-AU          |
| ATSAM4LC8CA-AUR         |
| ATSAM4LS8CA-AUR         |
| AT32UC3A1512-AUR        |

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| ATSAM4C32CA-AUT          |
| PIC32CM2532JH00100T-E/PF |
| PIC32CM5164JH00100T-E/PF |
| PIC32CM2532JH01100T-E/PF |
| PIC32CM5164JH01100T-E/PF |
| PIC32CM5164LS60100-I/PF  |
| PIC32CM2532JH00100T-I/PF |
| PIC32CM5164JH00100T-I/PF |
| PIC32CM2532JH01100T-I/PF |
| PIC32CM5164JH01100T-I/PF |
| ATSAM4C8CB-AUT           |
| ATSAM4C8CB-AUTR          |
| ATSAM4C16CB-AUT          |
| ATSAM4C16CB-AUTR         |
| ATSAM4C32CA-AUTR         |
| PIC32CM2532JH00100-E/PF  |
| PIC32CM5164JH00100-E/PF  |
| PIC32CM2532JH01100-E/PF  |
| PIC32CM5164JH01100-E/PF  |
| PIC32CM2532JH00100-I/PF  |
| PIC32CM5164JH00100-I/PF  |
| PIC32CM2532JH01100-I/PF  |
| PIC32CM5164JH01100-I/PF  |
| AT32UC3A1128-AUT         |
| AT32UC3A1256-AUT         |
| AT32UC3A1128-AUR         |
| AT32UC3A1256-AUR         |
| PIC16F1939-ME2/PF        |
| ATSAM4LC4CA-AU           |
| ATSAM4LS4CA-AU           |
| ATSAM4LC2CA-AU           |
| ATSAM4LC4CA-AUR          |
| ATSAM4LS4CA-AUR          |
| ATSAM4LC2CA-AUR          |
| ATSAM4LS2CA-AUR          |
| DSPIC33FJ32GS610-50I/PF  |
| PIC32MZ1024EFM100T-E/PF  |
| PIC32MZ2048EFG100T-E/PF  |
| PIC32MX270F512LT-V/PF    |
| PIC32MX550F256LT-I/PF    |
| PIC32MX530F128LT-I/PF    |
| PIC32MX575F512LT-80V/PF  |
| PIC32MX575F512L-80V/PF   |
| PIC32MX575F256L-80V/PF   |
| PIC32MX575F256LT-80V/PF  |

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| PIC32MX695F512LT-80V/PF    |
| PIC32MX675F512LT-80V/PF    |
| PIC32MZ1024EFG100T-E/PF    |
| PIC32MZ1024EFH100T-E/PF    |
| PIC32MZ1024EFK100T-E/PF    |
| PIC32MZ1024EFF100T-E/PF    |
| PIC32MX530F128LT-50I/PF    |
| DSPIC33FJ64GP710-I/PF      |
| DSPIC33FJ128GP310-I/PF     |
| PIC32MX695F512L-80V/PF     |
| PIC32MX270F512LT-50I/PF    |
| PIC32MX130F128L-50I/PF     |
| PIC32MX230F128L-I/PF       |
| PIC32MX675F512L-80V/PF     |
| PIC32MX675F256L-80V/PF     |
| PIC32MX795F512L-80V/PF     |
| PIC32MX775F512L-80V/PF     |
| PIC32MX530F128L-I/PF       |
| PIC32MX530F128L-50I/PF     |
| PIC32MX550F256LT-50I/PF    |
| PIC32MX570F512LT-50I/PF    |
| PIC32MX230F128L-50I/PF     |
| PIC32MX775F256L-80V/PF     |
| PIC32MX570F512LT-I/PF      |
| PIC32MZ2048EFH100T-E/PF    |
| PIC32MZ2048ECM100-I/PF     |
| PIC32MX130F128L-V/PF       |
| PIC32MX230F128L-V/PF       |
| PIC32MX675F256LT-80V/PF    |
| PIC32MX795F512LT-80V/PF    |
| PIC32MZ2048ECG100-I/PF     |
| PIC32MZ2048EFM100T-E/PF    |
| PIC32MZ1024ECG100-I/PF     |
| PIC32MX775F512LT-80V/PF    |
| PIC32MX775F256LT-80V/PF    |
| PIC32MX575F256LT-80V/PFC21 |
| DSPIC33FJ128MC510-I/PF     |
| DSPIC33FJ128MC710-I/PF     |
| DSPIC33FJ256MC510-I/PF     |
| PIC24HJ256GP610-I/PF       |
| DSPIC33FJ64GP310-I/PF      |
| DSPIC33FJ256GP710-I/PF     |
| DSPIC33FJ64MC710-I/PF      |
| PIC24HJ256GP610AT-I/PF     |
| DSPIC33FJ128GP710-I/PF     |



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| DSPIC33FJ256GP510-I/PF   |
| PIC32MX170F512LT-V/PF    |
| PIC32MX150F256LT-V/PF    |
| DSPIC33FJ256GP710AT-I/PF |
| PIC32MX150F256LT-50I/PF  |
| PIC32MX170F512LT-50I/PF  |
| PIC32MX130F128LT-50I/PF  |
| PIC32MZ2048ECH100-I/PF   |
| PIC32MZ0512EFE100T-E/PF  |
| PIC32MX130F128LT-V/PF    |
| PIC32MX150F256LT-I/PF    |
| PIC32MX130F128LT-I/PF    |
| PIC32MX250F256LT-I/PF    |
| PIC32MX250F256LT-50I/PF  |
| PIC32MX230F128LT-50I/PF  |
| PIC32MZ0512EFF100T-E/PF  |
| PIC32MZ0512EFK100T-E/PF  |
| ATXMEGA32D3-AU           |
| ATMEGA329V-8AU           |
| ATMEGA329-16AU           |
| ATMEGA165PA-AU           |
| ATMEGA169PA-AU           |
| ATMEGA169A-AU            |
| ATMEGA325-16AU           |
| ATMEGA649-16AUR          |
| ATMEGA645-16AUR          |
| ATXMEGA192A3U-AU         |
| ATXMEGA256A3BU-AU        |
| ATXMEGA256A3U-AU         |
| ATXMEGA128A3U-AU         |
| ATXMEGA128B3-AU          |
| ATMEGA165A-AU            |
| ATMEGA169PA-AN           |
| ATXMEGA192A3U-AN         |
| ATXMEGA256A3U-AN         |
| ATXMEGA192A3U-ANR        |
| ATXMEGA256A3U-ANR        |
| ATMEGA64A-AU             |
| ATMEGA64-16AU            |
| ATMEGA169PA-ANR          |
| ATMEGA329V-8AUR          |
| ATMEGA165P-16ANR         |
| ATXMEGA192A3U-AUR        |
| ATXMEGA64B3-AUR          |
| ATXMEGA128B3-AUR         |

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| ATXMEGA32C3-AN       |
| ATXMEGA32D3-AN       |
| ATMEGA64-16AUA0      |
| ATMEGA64A-AN         |
| ATMEGA64A-ANR        |
| ATMEGA325-16AUR      |
| ATMEGA329-16AUR      |
| ATMEGA329PV-10AU     |
| ATMEGA325P-20AU      |
| ATXMEGA256A3BU-AUR   |
| ATXMEGA256D3-AURA1   |
| ATXMEGA128A3U-AUR    |
| ATXMEGA256A3U-AUR    |
| ATXMEGA64C3-AN       |
| ATXMEGA64D3-AN       |
| ATMEGA64A-AUR        |
| ATMEGA649A-AU        |
| ATMEGA645A-AU        |
| ATMEGA645P-AU        |
| ATMEGA165PA-AUR      |
| ATMEGA165A-AUR       |
| ATMEGA169A-AUR       |
| ATMEGA169PA-AUR      |
| ATXMEGA192D3-AU      |
| ATXMEGA256C3-AU      |
| ATXMEGA32C3-ANR      |
| ATXMEGA32D3-ANR      |
| ATXMEGA64C3-ANR      |
| ATMEGA645-16AU       |
| ATMEGA645V-8AU       |
| ATMEGA645V-8AUR      |
| PIC18F96J65-I/PF     |
| PIC18F97J60-I/PF     |
| PIC24FJ64GB110-I/PF  |
| PIC24FJ128GB110-I/PF |
| PIC24FJ192GB110-I/PF |
| PIC24FJ256GB110-I/PF |
| PIC24FJ64GA110-I/PF  |
| PIC24FJ128GA110-I/PF |
| PIC24FJ256GA110-I/PF |
| PIC24FJ256GA110-E/PF |
| PIC24FJ128GA110-E/PF |
| PIC24FJ64GA010-I/PF  |
| PIC24FJ128GA010-I/PF |
| PIC24FJ96GA010-I/PF  |

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| PIC18F96J94-I/PF          |
| PIC18F97J94-I/PF          |
| DSPIC33FJ256GP710-I/PFB21 |
| PIC24FJ128GA310-I/PF      |
| PIC24HJ64GP210A-I/PF      |
| PIC24EP256GU810-E/PF      |
| PIC32MX370F512LT-I/PF     |
| PIC32MX470F512LT-I/PF     |
| PIC32MX370F512LT-V/PF     |
| PIC32MX470F512LT-V/PF     |
| DSPIC33FJ64GS610-50I/PF   |
| PIC32MX534F064L-V/PF      |
| PIC32MX330F064LT-I/PF     |
| PIC32MX430F064LT-I/PF     |
| PIC24EP512GU810-I/PF      |
| PIC32MX450F128L-V/PF      |
| PIC32MX764F128L-V/PF      |
| PIC32MX430F064L-V/PF      |
| DSPIC33EP256MU810T-I/PF   |
| DSPIC33EP512MU810T-I/PF   |
| PIC24EP256GU810T-I/PF     |
| PIC24EP512GU810T-I/PF     |
| PIC32MX564F064L-V/PF      |
| PIC32MX664F128L-V/PF      |
| PIC32MX664F064L-V/PF      |
| PIC32MX330F064L-V/PF      |
| PIC24EP256GU810-I/PF      |
| PIC32MX564F064L-I/PF      |
| DSPIC33EP128GM710T-I/PF   |
| PIC32MX664F128L-I/PF      |
| PIC32MX664F064L-I/PF      |
| PIC32MX764F128L-I/PF      |
| PIC32MX330F064L-I/PF      |
| PIC32MX430F064L-I/PF      |
| DSPIC33EP256MU810-I/PF    |
| DSPIC33EP512MU810-I/PF    |
| PIC24HJ256GP210A-I/PF     |
| PIC32MZ2048EFH100-I/PFM21 |
| PIC32MX530F128LT-V/PF     |
| PIC32MX570F512LT-V/PF     |
| DSPIC33EP512GM310T-I/PF   |
| DSPIC33FJ256GP710A-E/PF   |
| PIC32MX150F256L-V/PF      |
| DSPIC33FJ256MC510A-E/PF   |
| DSPIC33FJ256MC710A-E/PF   |

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| PIC32MX170F512L-V/PF    |
| PIC32MX270F512L-V/PF    |
| PIC32MX250F256L-V/PF    |
| PIC32MX550F256L-I/PF    |
| PIC32MX570F512L-50I/PF  |
| PIC32MX270F512L-50I/PF  |
| PIC32MX550F256L-50I/PF  |
| DSPIC33FJ64GS610T-I/PF  |
| DSPIC33FJ64GS610T-E/PF  |
| PIC32MX250F256L-I/PF    |
| PIC32MX270F512L-I/PF    |
| PIC32MZ2048EFM100-I/PF  |
| PIC32MX675F512L-80I/PF  |
| PIC32MX675F256L-80I/PF  |
| PIC32MX795F512L-80I/PF  |
| PIC32MX450F128LT-I/PF   |
| PIC32MX450F256LT-I/PF   |
| PIC32MX575F512L-80I/PF  |
| PIC32MX775F512L-80I/PF  |
| PIC24HJ256GP210A-E/PF   |
| PIC24HJ256GP610A-E/PF   |
| DSPIC33FJ256GP510A-E/PF |
| PIC24HJ256GP210T-I/PF   |
| PIC24HJ256GP610T-I/PF   |
| DSPIC33FJ256GP710T-I/PF |
| DSPIC33FJ256MC710T-I/PF |
| DSPIC33FJ256MC710A-I/PF |
| PIC32MX470F512L-120/PF  |
| PIC24HJ64GP510A-I/PF    |
| DSPIC33FJ64GP710A-I/PF  |
| DSPIC33FJ128GP710A-I/PF |
| DSPIC33FJ128MC510A-I/PF |
| DSPIC33FJ128MC710A-I/PF |
| PIC24HJ128GP210A-I/PF   |
| PIC24HJ128GP310A-I/PF   |
| PIC24HJ128GP510A-I/PF   |
| DSPIC33FJ128GP310A-I/PF |
| DSPIC33FJ64MC510A-I/PF  |
| DSPIC33EP128GM310-I/PF  |
| DSPIC33EP128GM710-I/PF  |
| DSPIC33EP256GM310-I/PF  |
| DSPIC33EP256GM710-I/PF  |
| DSPIC33EP512GM310-I/PF  |
| DSPIC33EP512GM710-I/PF  |
| PIC16F1789-ME2/PF       |

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| PIC16F1829-ME2/PF         |
| DSPIC33EP128GM710-E/PF    |
| DSPIC33EP256GM310-E/PF    |
| DSPIC33EP512GM310-E/PF    |
| DSPIC33EP512GM710-E/PF    |
| PIC16F1719-ME2/PF         |
| DSPIC33EP512MU810-E/PF    |
| DSPIC33EP256MU810-E/PF    |
| PIC32MX450F256L-120/PF    |
| PIC24HJ128GP510A-E/PF     |
| PIC16F1619-ME2/PF         |
| DSPIC33FJ128MC710A-E/PF   |
| DSPIC33FJ128GP710A-E/PF   |
| DSPIC33EP512MU810-I/PFC04 |
| ATSAM4LS2CA-AU            |
| PIC24HJ64GP510AT-I/PF     |
| PIC24HJ128GP510AT-I/PF    |
| DSPIC33FJ128MC710AT-I/PF  |
| PIC24FJ64GA010T-I/PF      |
| PIC32MZ1024EFE100-I/PF    |
| PIC32MZ1024EFF100-I/PF    |
| PIC32MZ1024EFG100-I/PF    |
| PIC32MX130F128L-I/PF      |
| PIC32MZ2048EFH100-250I/PF |
| PIC32MZ0512EFK100-I/PF    |
| PIC32MZ2048EFG100-I/PF    |
| PIC32MX530F128L-V/PF      |
| PIC32MZ0512EFE100-I/PF    |
| PIC32MZ0512EFF100-I/PF    |
| PIC32MX150F256L-I/PF      |
| PIC32MX170F512L-I/PF      |
| PIC32MZ1024EFM100-I/PF    |
| PIC32MZ2048EFG100-I/PF21  |
| PIC32MX570F512L-V/PF      |
| PIC32MX450F256LT-120/PF   |
| PIC32MX550F256L-V/PF      |
| PIC32MZ2048EFH100-I/PF    |
| PIC32MZ1024EFH100-I/PF    |
| PIC32MZ1024EFK100-I/PF    |
| PIC32MZ1024ECH100T-I/PF   |
| PIC32MZ2048ECH100T-I/PF   |
| PIC32MZ2048ECM100T-I/PF   |
| PIC24HJ128GP510-I/PF      |
| PIC24HJ256GP210-I/PF      |
| PIC24HJ64GP210-I/PF       |

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| PIC24HJ64GP510-I/PF        |
| PIC32MX370F512L-V/PF       |
| DSPIC33EP256MU810T-E/PF    |
| DSPIC33EP512MU810T-E/PF    |
| PIC32MX470F512L-V/PF       |
| PIC24EP512GU810-E/PF       |
| PIC32MZ1024ECG100T-I/PF    |
| PIC32MX370F512L-I/PF       |
| PIC32MX470F512L-I/PF       |
| PIC24EP256GU810T-E/PF      |
| PIC24EP512GU810T-E/PF      |
| PIC32MZ2048ECG100T-I/PF    |
| PIC32MZ1024EFE100T-E/PF    |
| PIC32MZ1024ECH100-I/PF     |
| DSPIC33FJ256MC710-I/PF     |
| DSPIC33FJ256MC710AT-I/PF   |
| PIC24HJ128GP210-I/PF       |
| PIC24HJ128GP310-I/PF       |
| PIC32MX250F256LT-V/PF      |
| PIC32MX230F128LT-V/PF      |
| PIC32MX550F256LT-V/PF      |
| PIC32MX230F128LT-I/PF      |
| PIC32MX270F512LT-I/PF      |
| PIC32MX350F256L-I/PF       |
| PIC32MX764F128LT-I/PF      |
| PIC32MX350F128L-I/PF       |
| PIC32MX450F256L-I/PF       |
| DSPIC33FJ64GS610-I/PF      |
| DSPIC33FJ32GS610-I/PF      |
| PIC32MX450F128L-I/PF       |
| PIC32MX575F256L-80I/PF     |
| PIC32MX695F512L-80I/PF     |
| PIC32MX350F256LT-I/PF      |
| PIC32MZ2048EFM100T-I/PF    |
| PIC32MX564F064LT-I/PF      |
| PIC32MX664F128LT-I/PF      |
| PIC32MX664F064LT-I/PF      |
| PIC32MZ2048EFG100T-I/PF    |
| PIC32MZ2048EFH100T-I/PF    |
| PIC32MZ0512EFE100T-I/PF    |
| PIC32MZ0512EFF100T-I/PF    |
| PIC32MX564F128LT-I/PF      |
| PIC32MX534F064LT-I/PF      |
| PIC32MZ2048EFH100T-250I/PF |
| PIC32MZ0512EFK100T-I/PF    |

|                           |
|---------------------------|
| PIC32MZ1024EFE100T-I/PF   |
| PIC32MZ1024EFF100T-I/PF   |
| DSPIC33FJ64GS610-E/PF     |
| PIC32MZ1024EFG100T-I/PF   |
| PIC32MZ1024EFH100T-I/PF   |
| PIC32MZ1024EFK100T-I/PF   |
| PIC32MZ1024EFM100T-I/PF   |
| PIC32MX775F256L-80I/PF    |
| PIC24FJ256GB110T-I/PF     |
| PIC32MX330F064LT-V/PF     |
| PIC32MX430F064LT-V/PF     |
| PIC32MZ0512EFE100-E/PF    |
| PIC32MZ0512EFF100-E/PF    |
| PIC32MZ0512EFK100-E/PF    |
| PIC32MZ1024EFE100-E/PF    |
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| PIC32MZ1024EFG100-E/PF    |
| PIC32MZ1024EFH100-E/PF    |
| PIC32MZ1024EFK100-E/PF    |
| PIC32MZ1024EFM100-E/PF    |
| PIC32MX534F064LT-V/PF     |
| PIC32MX564F064LT-V/PF     |
| PIC32MX664F128LT-V/PF     |
| PIC32MX664F064LT-V/PF     |
| PIC32MZ2048EFG100-E/PF    |
| PIC32MZ2048EFH100-E/PF    |
| PIC32MZ2048EFM100-E/PF    |
| PIC32MX564F128LT-V/PF     |
| PIC32MX764F128LT-V/PF     |
| PIC32MX450F256LT-V/PF     |
| ATMEGA6490-16AU           |
| ATMEGA3290-16AUR          |
| ATMEGA3290V-8AUR          |
| ATMEGA3290PV-10AU         |
| ATMEGA3290PV-10AUR        |
| ATMEGA2560-16AU-HCM       |
| ATXMEGA128B1-AU           |
| ATXMEGA64B1-AU            |
| ATXMEGA64B1-AUA0          |
| ATMEGA3250PA-AUR          |
| ATMEGA3290A-AUR           |
| ATMEGA3250A-AUR           |
| ATMEGA3290PA-AUR          |
| ATMEGA3250-16AU           |

|                           |
|---------------------------|
| ATMEGA3290-16AU           |
| ATMEGA64-16AURAO          |
| ATMEGA649P-AU             |
| ATMEGA649V-8AU            |
| ATMEGA649-16AU            |
| ATMEGA649V-8AUR           |
| ATMEGA64L-8AURA1          |
| ATMEGA64L-8AURA3          |
| ATMEGA64-16AURA1          |
| ATXMEGA256D3-AU           |
| ATXMEGA192C3-AU           |
| ATXMEGA64D3-ANR           |
| ATMEGA169PV-8AU           |
| ATMEGA169P-16AU           |
| ATMEGA325V-8AU            |
| ATMEGA325V-8AUR           |
| ATXMEGA384C3-AU           |
| ATXMEGA384D3-AU           |
| ATXMEGA64D3-AURA4         |
| ATXMEGA64D3-AUR           |
| ATXMEGA64C3-AUR           |
| ATMEGA325PV-10AU          |
| ATMEGA325P-20AUR          |
| ATMEGA325P-20AURAO        |
| ATMEGA128L-8AN            |
| ATMEGA649A-AUR            |
| ATMEGA645A-AUR            |
| ATMEGA645P-AUR            |
| AT90CAN32-16AU            |
| AT90CAN32-16AUR           |
| ATXMEGA384C3-AUR          |
| ATXMEGA32C3-AUR           |
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| PIC32MX350F128LT-V/PF     |
| PIC32MX450F128LT-V/PF     |
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| PIC32MX534F064L-I/PF      |
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| PIC32MX350F128L-V/PF      |
| PIC32MX450F256L-V/PF      |
| PIC32MX564F128L-V/PF      |
| PIC18F96J94T-I/PF         |
| PIC18F97J60T-I/PF         |
| PIC32MZ2048EFG100T-I/PF21 |



|                             |
|-----------------------------|
| ATSAML22N16A-AUT            |
| AT32UC3C1128C-AUT           |
| AT32UC3C1256C-AUT           |
| AT32UC3C1512C-AUT           |
| AT32UC3C164C-AUT            |
| ATSAML22N17A-AUT            |
| ATMEGA3250V-8AUR            |
| ATMEGA3250-16AUR            |
| ATMEGA3290P-20AU            |
| ATXMEGA128B1-AURAO          |
| ATMEGA3250P-20AU            |
| ATXMEGA128B1-AUR            |
| ATXMEGA64B1-AUR             |
| ATMEGA6450A-AU              |
| ATMEGA6490A-AU              |
| ATMEGA6490P-AU              |
| ATMEGA6450P-AU              |
| ATMEGA1280-16AU-HCM         |
| ATXMEGA128A1-AU             |
| ATXMEGA64A1-AU              |
| ATMEGA6450-16AUR            |
| ATSAMC21N18A-AZ             |
| ATSAMC21N17A-AZ             |
| ATSAMC20N18A-AZ             |
| ATSAMC20N17A-AZ             |
| ATSAMC21N18A-AZT            |
| ATSAMC21N17A-AZT            |
| ATSAMC20N18A-AZT            |
| ATSAMC20N17A-AZT            |
| ATSAMC21N18A-AUTGR          |
| ATSAMC21N18A-AUGR           |
| PIC32CM5164LE00100-I/PF     |
| PIC32CM5164LE00100T-I/PF    |
| PIC32CM5164LS00100-I/PF     |
| PIC32CM5164LS00100T-I/PF    |
| PIC32CM5164JH01100-I/PF-SL3 |
| DSPIC33FJ64MC506A-E/PFC23   |
| ATXMEGA64D3-AURA7           |
| ATXMEGA64D3-AUA6            |
| ATMEGA64-16AUR              |
| ATSAML22N18A-AUT            |
| DSPIC33FJ256GP710A-H/PF     |
| DSPIC33FJ256MC710A-H/PF     |
| AT32UC3C1128C-AUR           |
| AT32UC3C1256C-AUR           |

|                                |
|--------------------------------|
| AT32UC3C1512C-AUR              |
| AT32UC3C164C-AUR               |
| AT32UC3C1256C-AURAO            |
| PIC32CM5164LS60100-I/PF-PROTO  |
| PIC32CM5164LS60100T-I/PF-PROTO |
| ATSAMC21N17A-AN                |
| ATSAMC21N18A-AN                |
| ATSAMC20N17A-ANT               |
| ATSAMC21N17A-ANT               |
| ATSAMC20N18A-ANT               |
| ATSAMC21N18A-ANT               |
| ATSAMC20N18A-AN                |
| PIC24HJ256GP610A-H/PF          |
| PIC32CM5164SMT100-I/PF         |
| PIC32CM2532LE00100-I/PF        |
| PIC32CM2532LS00100-I/PF        |
| PIC32CM2532LE00100T-I/PF       |
| PIC32CM2532LS00100T-I/PF       |
| AT32UC3A1512-AUT               |
| ATMEGA6450A-AUR                |
| ATMEGA6490A-AUR                |
| ATMEGA6490P-AUR                |
| ATMEGA6490V-8AU                |
| ATMEGA640V-8AU                 |
| ATXMEGA64A1-AUR                |
| ATXMEGA128A1-AUR               |
| ATMEGA2560-16AU                |
| ATMEGA2560V-8AU                |
| ATMEGA2560-16AUR               |
| ATMEGA3250V-8AU                |
| ATMEGA3250PV-10AU              |
| ATMEGA6450P-AUR                |
| ATMEGA6490-16AUR               |
| ATMEGA6490V-8AUR               |
| ATMEGA640-16AU                 |
| ATMEGA640V-8AUR                |
| ATMEGA640-16AUR                |
| ATMEGA2560V-8AUR               |
| ATMEGA6450V-8AUR               |
| ATXMEGA128A1U-AU               |
| ATXMEGA64A1U-AU                |
| ATMEGA3250PV-10AUR             |
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| ATMEGA3250PA-AU                |

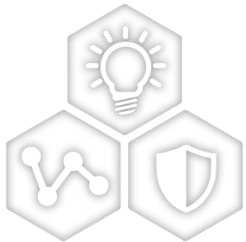
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| ATXMEGA128A1U-AN   |
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| ATMEGA6450V-8AU    |
| ATMEGA3290PA-AU    |
| ATMEGA3290P-20AUR  |
| ATMEGA3250P-20AUR  |
| ATMEGA640-16AURA0  |
| ATMEGA1280-16AU    |
| ATMEGA1280V-8AU    |
| ATMEGA1280-16AUR   |
| ATMEGA1280V-8AUR   |
| ATXMEGA128A1U-AUR  |
| ATXMEGA64A1U-AUR   |
| ATMEGA6450-16AU    |
| ATXMEGA32D3-AUR    |
| ATXMEGA64D3-AURA6  |
| ATMEGA169PV-8AUR   |
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| ATMEGA169PV-8AURA3 |
| ATMEGA128L-8AURA3  |
| ATMEGA128-16AURA3  |
| ATMEGA165PV-8AUR   |
| ATMEGA325PV-10AUR  |
| ATMEGA649P-AUR     |
| ATMEGA128L-8AUA4   |
| ATMEGA128L-8AURA5  |

**CCB 7084**  
**Pre and Post Change Summary**  
**PCN #: CENO-05FVJZ634**



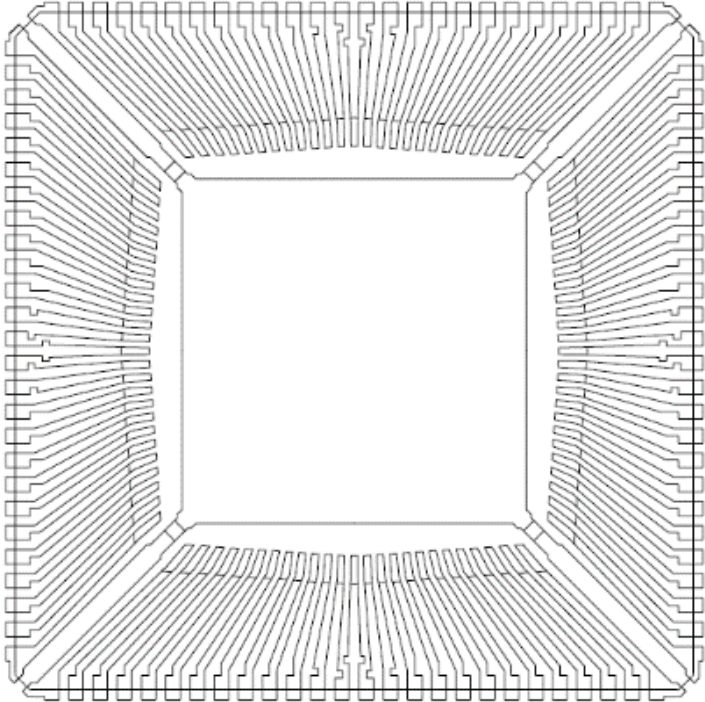
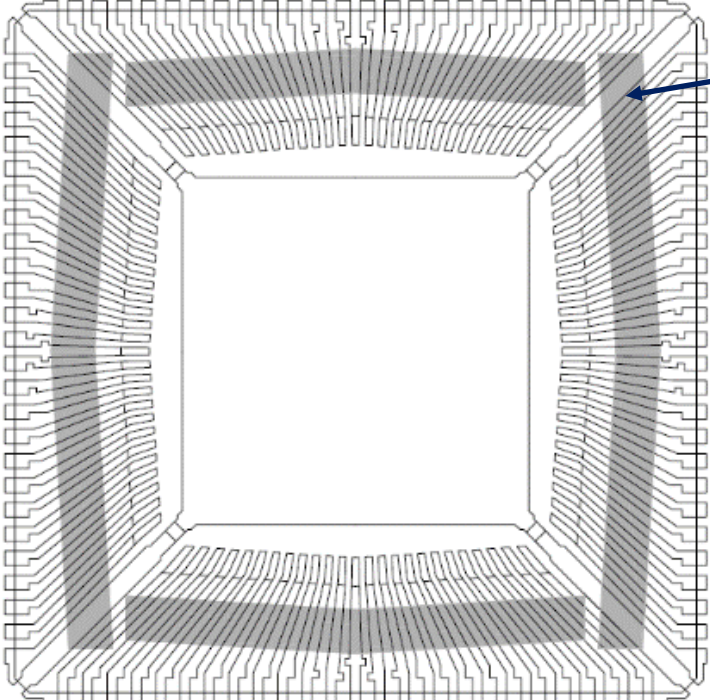
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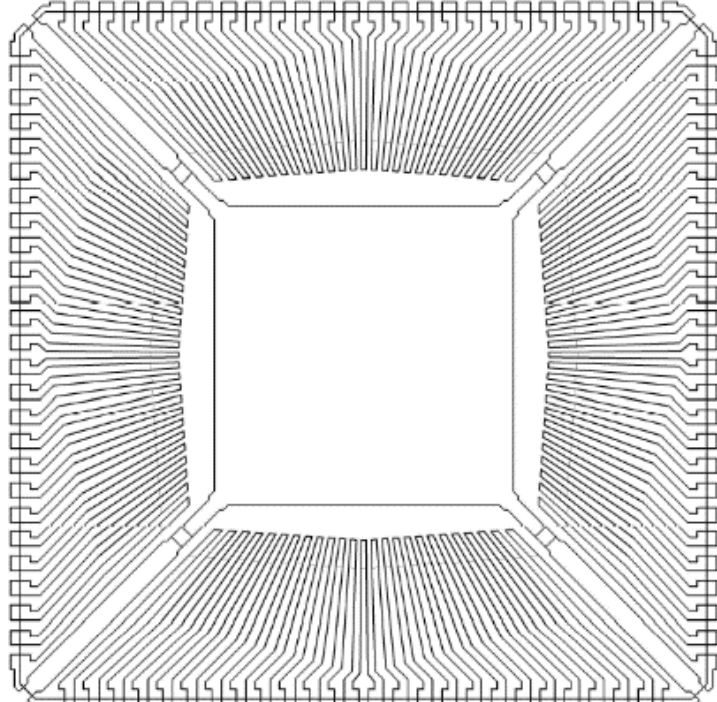
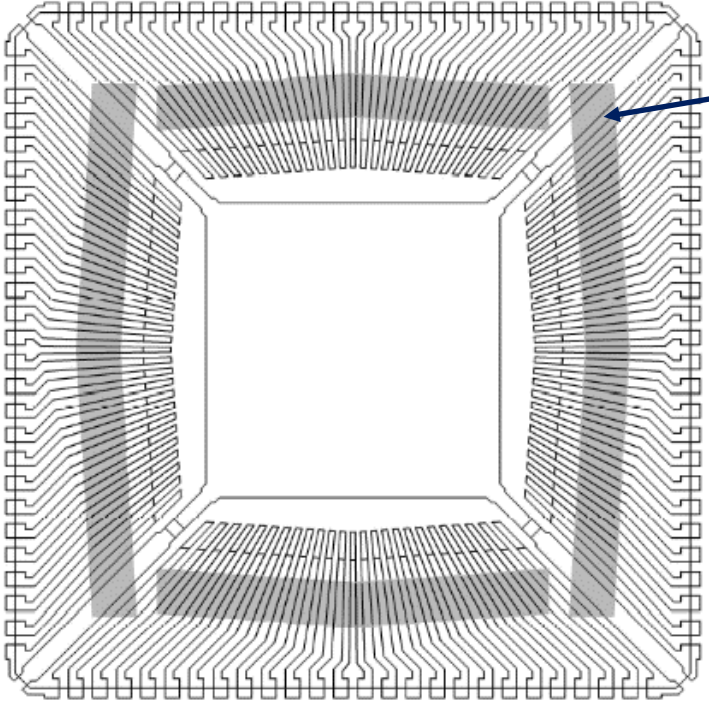
SMART | CONNECTED | SECURE

# LEAD FRAME COMPARISON

| Pre change   | Post Change  |
|--|--|
| <i>100L TQFP (14x14x1mm) 280x280 mils</i>  |  |
|  <p data-bbox="300 1158 970 1210">LF Treatment   brown oxide treatment (BOT)</p> |  <p data-bbox="2211 486 2390 572">with inner lead tape</p> <p data-bbox="1442 1158 2193 1210">LF Treatment   Non-brown oxide treatment (non-BOT)</p> |

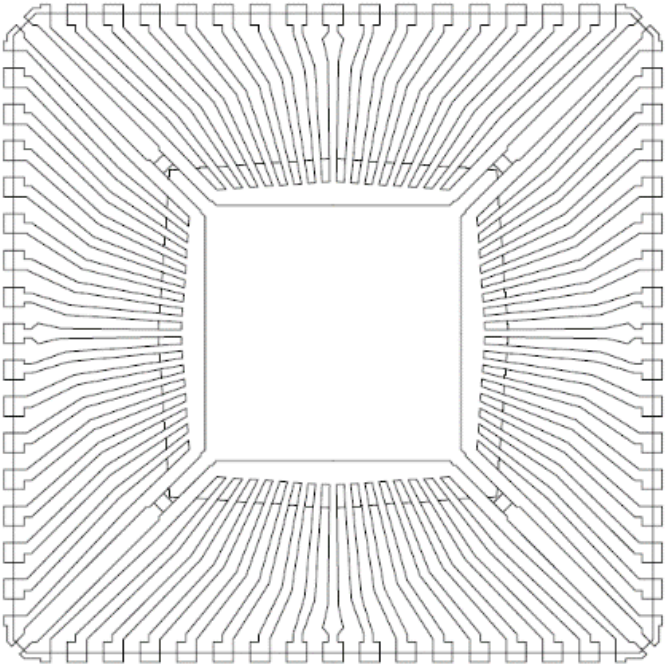
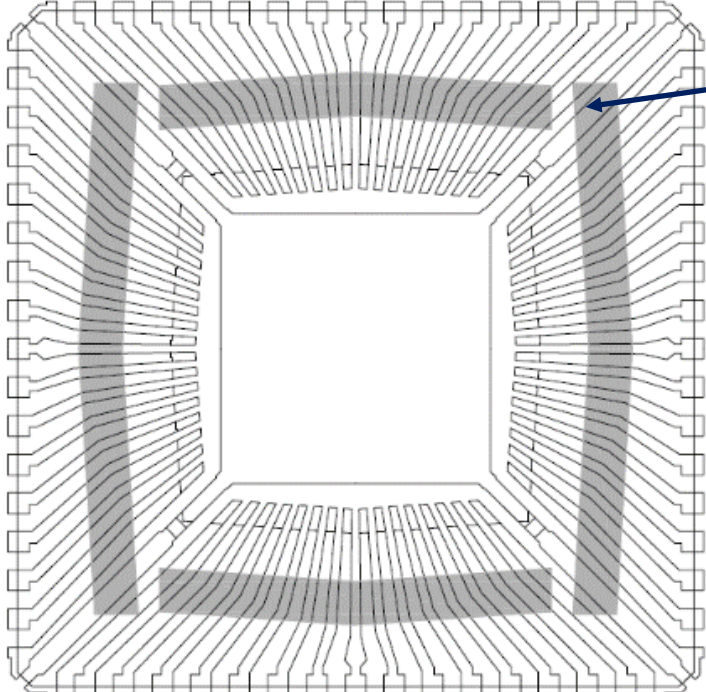
*Note: Not to scale*

# LEAD FRAME COMPARISON

| Pre change   | Post Change                         |                             |  |              |                                     |
|--|-------------------------------------|-----------------------------|--|--------------|-------------------------------------|
| <p>100L TQFP (14x14x1mm) 240x240 mils</p>  |                                     |                             |  |              |                                     |
|  <p>The diagram shows a square lead frame with a central square cavity. The leads are arranged in a dense grid pattern around the perimeter and extend inward from the corners. The frame is shown in a perspective view.</p> <table border="1" data-bbox="300 1156 973 1210"><tr><td>LF Treatment</td><td>brown oxide treatment (BOT)</td></tr></table> | LF Treatment                        | brown oxide treatment (BOT) |  <p>The diagram shows the same square lead frame as the pre-change version, but with shaded rectangular areas on the top, bottom, and side leads. An arrow points to the shaded area on the right side lead with the text "with inner lead tape".</p> <table border="1" data-bbox="1439 1156 2196 1210"><tr><td>LF Treatment</td><td>Non-brown oxide treatment (non-BOT)</td></tr></table> | LF Treatment | Non-brown oxide treatment (non-BOT) |
| LF Treatment   | brown oxide treatment (BOT)         |                             |  |              |                                     |
| LF Treatment   | Non-brown oxide treatment (non-BOT) |                             |  |              |                                     |

Note: Not to scale

# LEAD FRAME COMPARISON

| Pre change  | Post Change                         |                             |   |              |                                     |
|---|-------------------------------------|-----------------------------|---|--------------|-------------------------------------|
| <i>64L TQFP (14x14x1mm) 220x220 mils</i>  |                                     |                             |   |              |                                     |
|  <table border="1" data-bbox="300 1156 973 1210"><tr><td>LF Treatment</td><td>brown oxide treatment (BOT)</td></tr></table> | LF Treatment                        | brown oxide treatment (BOT) |  <p data-bbox="2204 485 2395 571">with inner lead tape</p> <table border="1" data-bbox="1439 1156 2196 1210"><tr><td>LF Treatment</td><td>Non-brown oxide treatment (non-BOT)</td></tr></table> | LF Treatment | Non-brown oxide treatment (non-BOT) |
| LF Treatment  | brown oxide treatment (BOT)         |                             |   |              |                                     |
| LF Treatment  | Non-brown oxide treatment (non-BOT) |                             |   |              |                                     |

*Note: Not to scale*



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN#: CENO-05FVJZ634**

**Date:**  
**November 11, 2024**

**Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.**





## MICROCHIP PACKAGE QUALIFICATION REPORT

|                            |  |
|----------------------------|--|
| <b>Purpose</b>             | Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site. |
| <b>CN</b>                  | E000241334   |
| <b>QUAL ID</b>             | R2401146 Rev. A  |
| <b>MP CODE</b>             | TDAA19E5XEA8   |
| <b>Part No.</b>            | PIC32MX795F512L-80V/PF   |
| <b>Bonding No.</b>         | BD-002486 Rev. 01  |
| <b>CCB No.</b>             | 7084   |
| <b><u>Package</u></b>      |  |
| <b>Type</b>                | 100L TQFP  |
| <b>Package size</b>        | 14 x 14 x 1.0 mm   |
| <b><u>Lead Frame</u></b>   |  |
| <b>Paddle size</b>         | 280 x 280 mils   |
| <b>Material</b>            | C7025  |
| <b>Surface</b>             | Bare Cu  |
| <b>Process</b>             | Stamped  |
| <b>Lead Lock</b>           | No   |
| <b>Part Number</b>         | 10110015   |
| <b>Treatment</b>           | None   |
| <b><u>Material</u></b>     |  |
| <b>Epoxy</b>               | 3280   |
| <b>Wire</b>                | Au   |
| <b>Mold Compound</b>       | G700HA   |
| <b>Plating Composition</b> | Matte Sn   |



# MICROCHIP PACKAGE QUALIFICATION REPORT

## Manufacturing Information

| Assembly Lot No.  | Wafer Lot No.     | Date Code |
|-------------------|-------------------|-----------|
| MMT-252001357.000 | TC11925092721.120 | 24334WC   |
| MMT-252001358.000 | TC11925092721.120 | 24334WD   |
| MMT-252001359.000 | TC11925092721.120 | 24334WG   |

### Result

Pass     Fail     \_\_\_\_\_

100L TQFP (14x14x1.0 mm) assembled by MMT pass reliability test per QCI-39000.  
This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C  
reflow temperature per IPC/JEDEC J-STD-020E standard.

## PACKAGE QUALIFICATION REPORT

| Test Number<br>(Reference)  | Test Condition  | Standard/<br>Method             | Qty.<br>(Acc.) | Def/SS                    | Result | Remarks         |
|---|---|---------------------------------|----------------|---------------------------|--------|-----------------|
| <b><u>Precondition<br/>Prior Perform<br/>Reliability Tests<br/>(At MSL Level 1)</u></b> | <b>Electrical Test:</b> +25°C and 105°C<br>System: J750   | JESD22-<br>A113                 | 693(0)         | 0/693                     |        | Good<br>Devices |
|   | Bake 150°C, 24 hrs.<br>System: CHINEE<br>85°C/85%RH Moisture Soak 168 hrs.<br>System: TABAIESPEC Model PR-3SPH<br>3x Convection-Reflow 265°C max<br>System: Vitronics Soltec MR1243 | JIP/<br>IPC/JEDEC<br>J-STD-020E |                | 693<br><br>693<br><br>693 |        |                 |
|   | <b>Electrical Test:</b> +25°C and 105°C<br>System: J750   |                                 | 693(0)         | 0/693                     | Pass   |                 |

# PACKAGE QUALIFICATION REPORT

| Test Number<br>(Reference) | Test Condition   | Standard/<br>Method | Qty.<br>(Acc.) | Def/SS. | Result | Remarks   |
|----------------------------|--|---------------------|----------------|---------|--------|---|
| <b>Temp Cycle</b>          | <b>Stress Condition:</b><br>-65°C to +150°C, 500 Cycles<br>System: TABAI SPECTSA-70H                       | JESD22-<br>A104     |                | 0/231   |        | Parts had been pre-conditioned at 260°C<br>77 units / lot |
|                            | <b>Electrical Test:</b> +105°C<br>System: J750   |                     | 231(0)         | 0/231   | Pass   |   |
|                            | <b>Bond Strength:</b><br>Wire Pull (>2.50 grams)   |                     | 15(0)          | 0/15    | Pass   |   |
| <b>UNBIASED-HAST</b>       | <b>Stress Condition:</b><br>+130°C/85%RH, 96 hrs.<br>System: HAST 6000X                                    | JESD22-<br>A118     |                | 0/231   |        | Parts had been pre-conditioned at 260°C<br>77 units / lot |
|                            | <b>Electrical Test:</b> +25°C<br>System: J750  |                     | 231(0)         | 0/231   | Pass   |   |
| <b>HAST</b>                | <b>Stress Condition:</b><br>+130°C/85%RH, 96 hrs.<br><b>Bias Volt:</b> VDD=3.3 Volts<br>System: HAST 6000X | JESD22-<br>A110     |                | 0/231   |        | Parts had been pre-conditioned at 260°C<br>77 units / lot |
|                            | <b>Electrical Test:</b> +25°C and 105°C<br>System: J750  |                     | 231(0)         | 0/231   | Pass   |   |

# PACKAGE QUALIFICATION REPORT

Qual Report: R2401146

| Test Number<br>(Reference)           | Test Condition   | Standard/<br>Method | Qty.<br>(Acc.) | Def/SS.                  | Result | Remarks  |
|--------------------------------------|--|---------------------|----------------|--------------------------|--------|----------|
| <b>High Temperature Storage Life</b> | <b>Stress Condition:</b><br>Bake 175°C, 504 hrs.<br>System: TPS Bake Oven  | JESD22-A103         |                | 0/45                     |        | 45 units |
|                                      | <b>Electrical Test:</b> +25°C and 105°C<br>System: J750  |                     | 45(0)          | 0/45                     | Pass   |          |
| <b>Solderability Temp 215°C</b>      | <b>Steam Aging:</b> Temp 93°C, 8Hrs<br>System: SAS-3000<br>Solder Dipping: Solder Temp. 215°C<br>Solder material: SnPb Sn63, Pb37<br>System: ERSA RA 2200D<br>Visual Inspection: External Visual Inspection              | J-STD-002           | 22(0)          | 0/22<br><br>0/22<br>0/22 | Pass   |          |
| <b>Solderability Temp 245°C</b>      | <b>Steam Aging:</b> Temp 93°C, 8Hrs<br>System: SAS-3000<br>Solder Dipping: Solder Temp. 245°C<br>Solder material: Pb Free Sn 95.5Ag 3.9 Cu 0.6<br>System: ERSA RA 2200D<br>Visual Inspection: External Visual Inspection | J-STD-002           | 22(0)          | 0/22<br><br>0/22<br>0/22 | Pass   |          |
| <b>Bond Strength Data Assembly</b>   | Wire Pull (>2.50 grams)  | Mil. Std. 883-2011  | 30(0) Wires    | 0/30                     | Pass   |          |
|                                      | Bond Shear (>15.00 grams)  | CDF-AEC-Q100-001    | 30(0) bonds    | 0/30                     | Pass   |          |



## Product Change Notification: CENO-05FVJZ634

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### Date:

20-Nov-2024

### Product Category:

16-Bit - Microcontrollers And Digital Signal Controllers, 32-Bit Microcontrollers, 8-Bit Microcontrollers, Smart Energy SOC

### Notification Subject:

CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

### Affected CPNs:

**[CENO-05FVJZ634\\_Affected\\_CPN\\_11202024.pdf](#)**  
**[CENO-05FVJZ634\\_Affected\\_CPN\\_11202024.csv](#)**

### Notification Text:

**PCN Status:**Final 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 new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

### Pre and Post Change Summary:

*For 66L TQFP (14x14x1mm)*

|  | Pre Change | Post Change |
|--|------------|-------------|
|  |            |             |

|                           |  |  |
|---------------------------|--|--|
| Assembly Site             | Microchip Technology Thailand<br>(MMT) | Microchip Technology Thailand<br>(MMT) |
| Wire Material             | Au                                     | Au                                     |
| Die Attach Material       | 3280                                   | 3280                                   |
| Molding Compound Material | G700HA                                 | G700HA                                 |
| Lead-Frame Material       | C7025                                  | C7025                                  |
| Lead-Frame Treatment      | BOT                                    | None                                   |

*For 100L TQFP (14x14x1mm)*

|                           | Pre Change                             |              | Post Change                            |              |
|---------------------------|--|--------------|--|--------------|
| Assembly Site             | Microchip Technology Thailand<br>(MMT) |              | Microchip Technology Thailand<br>(MMT) |              |
| Wire Material             | Au                                     | CuPdAu       | Au                                     | CuPdAu       |
| Die Attach Material       | 3280                                   |              | 3280                                   |              |
| Molding Compound Material | G700HA                                 |              | G700HA                                 |              |
| Lead-Frame Material       | C7025                                  |              | C7025                                  |              |
| Lead-Frame Paddle Size    | 280x280 mils                           | 240x240 mils | 280x280 mils                           | 240x240 mils |
| Lead-Frame Treatment      | BOT                                    |              | None                                   |              |

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve productivity by qualifying new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT).

**Change Implementation Status:**In Progress

**Estimated First Ship Date:**December 23, 2024 (date code: 2452)

Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

**Time Table Summary:**

|                               | August 2024 |    |    |    |    | > | November 2024 |    |    |    |    | December 2024 |    |    |    |    |
|-------------------------------|-------------|----|----|----|----|---|---------------|----|----|----|----|---------------|----|----|----|----|
| Workweek                      | 31          | 32 | 33 | 34 | 35 |   | 44            | 45 | 46 | 47 | 48 | 49            | 50 | 51 | 52 | 53 |
| Initial PCN Issue Date        |             | X  |    |    |    |   |               |    |    |    |    |               |    |    |    |    |
| Qual Report Availability      |             |    |    |    |    |   |               |    |    | X  |    |               |    |    |    |    |
| Final PCN Issue Date          |             |    |    |    |    |   |               |    |    | X  |    |               |    |    |    |    |
| Estimated Implementation Date |             |    |    |    |    |   |               |    |    |    |    |               |    |    | X  |    |

**Method to Identify Change:**Traceability code

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

**Revision History:**August 9, 2024: Issued initial notification.

November 20, 2025: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on December 23, 2024.

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-05FVJZ634\_Pre and Post Change\_Summary.pdf**  
**PCN\_CENO-05FVJZ634\_Qualification Report.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)

DSPIC33FJ32GS610-50I/PF  
PIC32MZ1024EFM100T-E/PF  
PIC32MZ2048EFG100T-E/PF  
PIC32MX270F512LT-V/PF  
PIC32MX550F256LT-I/PF  
PIC32MX530F128LT-I/PF  
PIC32MX575F512LT-80V/PF  
PIC32MX575F512L-80V/PF  
PIC32MX575F256L-80V/PF  
PIC32MX575F256LT-80V/PF  
PIC32MX695F512LT-80V/PF  
PIC32MX675F512LT-80V/PF  
PIC32MZ1024EFG100T-E/PF  
PIC32MZ1024EFH100T-E/PF  
PIC32MZ1024EFK100T-E/PF  
PIC32MZ1024EFF100T-E/PF  
PIC32MX530F128LT-50I/PF  
DSPIC33FJ64GP710-I/PF  
DSPIC33FJ128GP310-I/PF  
PIC32MX695F512L-80V/PF  
PIC32MX270F512LT-50I/PF  
PIC32MX130F128L-50I/PF  
PIC32MX230F128L-I/PF  
PIC32MX675F512L-80V/PF  
PIC32MX675F256L-80V/PF  
PIC32MX795F512L-80V/PF  
PIC32MX775F512L-80V/PF  
PIC32MX530F128L-I/PF  
PIC32MX530F128L-50I/PF  
PIC32MX550F256LT-50I/PF  
PIC32MX570F512LT-50I/PF  
PIC32MX230F128L-50I/PF  
PIC32MX775F256L-80V/PF  
PIC32MX570F512LT-I/PF  
PIC32MZ2048EFH100T-E/PF  
PIC32MZ2048ECM100-I/PF  
PIC32MX130F128L-V/PF  
PIC32MX230F128L-V/PF  
PIC32MX675F256LT-80V/PF  
PIC32MX795F512LT-80V/PF  
PIC32MZ2048ECG100-I/PF  
PIC32MZ2048EFM100T-E/PF  
PIC32MZ1024ECG100-I/PF  
PIC32MX775F512LT-80V/PF  
PIC32MX775F256LT-80V/PF  
PIC32MX575F256LT-80V/PFC21

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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DSPIC33FJ128MC510-I/PF  
DSPIC33FJ128MC710-I/PF  
DSPIC33FJ256MC510-I/PF  
PIC24HJ256GP610-I/PF  
DSPIC33FJ64GP310-I/PF  
DSPIC33FJ256GP710-I/PF  
DSPIC33FJ64MC710-I/PF  
PIC24HJ256GP610AT-I/PF  
DSPIC33FJ128GP710-I/PF  
DSPIC33FJ256GP510-I/PF  
PIC32MX170F512LT-V/PF  
PIC32MX150F256LT-V/PF  
DSPIC33FJ256GP710AT-I/PF  
PIC32MX150F256LT-50I/PF  
PIC32MX170F512LT-50I/PF  
PIC32MX130F128LT-50I/PF  
PIC32MZ2048ECH100-I/PF  
PIC32MZ0512EFE100T-E/PF  
PIC32MX130F128LT-V/PF  
PIC32MX150F256LT-I/PF  
PIC32MX130F128LT-I/PF  
PIC32MX250F256LT-I/PF  
PIC32MX250F256LT-50I/PF  
PIC32MX230F128LT-50I/PF  
PIC32MZ0512EFF100T-E/PF  
PIC32MZ0512EFK100T-E/PF  
PIC32MZ1024EFE100T-E/PF  
PIC32MZ1024ECH100-I/PF  
DSPIC33FJ256MC710-I/PF  
DSPIC33FJ256MC710AT-I/PF  
PIC24HJ128GP210-I/PF  
PIC24HJ128GP310-I/PF  
PIC32MZ1024ECM100-I/PF  
PIC32MX250F256LT-V/PF  
PIC32MX230F128LT-V/PF  
PIC32MX550F256LT-V/PF  
PIC32MX230F128LT-I/PF  
PIC32MX270F512LT-I/PF  
PIC32MX350F256L-I/PF  
PIC32MX764F128LT-I/PF  
PIC32MX350F128L-I/PF  
PIC32MX450F256L-I/PF  
DSPIC33FJ64GS610-I/PF  
DSPIC33FJ32GS610-I/PF  
PIC32MX450F128L-I/PF  
PIC32MX575F256L-80I/PF  
PIC32MX695F512L-80I/PF  
PIC32MX350F256LT-I/PF  
PIC32MZ2048EFM100T-I/PF

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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PIC32MX564F064LT-I/PF  
PIC32MX664F128LT-I/PF  
PIC32MX664F064LT-I/PF  
PIC32MZ2048EFG100T-I/PF  
PIC32MZ2048EFH100T-I/PF  
PIC32MZ0512EFE100T-I/PF  
PIC32MZ0512EFF100T-I/PF  
PIC32MX564F128LT-I/PF  
PIC32MX534F064LT-I/PF  
PIC32MZ2048EFH100T-250I/PF  
PIC32MZ0512EFK100T-I/PF  
PIC32MZ1024EFE100T-I/PF  
PIC32MZ1024EFF100T-I/PF  
DSPIC33FJ64GS610-E/PF  
PIC32MZ1024EFG100T-I/PF  
PIC32MZ1024EFH100T-I/PF  
PIC32MZ1024EFK100T-I/PF  
PIC32MZ1024EFM100T-I/PF  
PIC32MX775F256L-80I/PF  
PIC24FJ256GB110T-I/PF  
PIC32MX330F064LT-V/PF  
PIC32MX430F064LT-V/PF  
PIC32MZ0512EFE100-E/PF  
PIC32MZ0512EFF100-E/PF  
PIC32MZ0512EFK100-E/PF  
PIC32MZ1024EFE100-E/PF  
PIC32MX795F512L-80I/PFE21  
PIC32MZ1024EFF100-E/PF  
PIC32MZ1024EFG100-E/PF  
PIC32MZ1024EFH100-E/PF  
PIC32MZ1024EFK100-E/PF  
PIC32MZ1024EFM100-E/PF  
PIC32MX534F064LT-V/PF  
PIC32MX564F064LT-V/PF  
PIC32MX664F128LT-V/PF  
PIC32MX664F064LT-V/PF  
PIC32MZ2048EFG100-E/PF  
PIC32MZ2048EFH100-E/PF  
PIC32MZ2048EFM100-E/PF  
PIC32MX564F128LT-V/PF  
PIC32MX764F128LT-V/PF  
PIC32MX450F256LT-V/PF  
ATMEGA6490-16AU  
ATMEGA3290-16AUR  
ATMEGA3290V-8AUR  
ATMEGA3290PV-10AU  
ATMEGA3290PV-10AUR  
ATMEGA2560-16AU-HCM  
ATXMEGA128B1-AU

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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ATXMEGA64B1-AU  
ATXMEGA64B1-AUA0  
ATMEGA3250PA-AUR  
ATMEGA3290A-AUR  
ATMEGA3250A-AUR  
ATMEGA3290PA-AUR  
ATMEGA3250-16AU  
ATMEGA3290-16AU  
ATMEGA3250V-8AUR  
ATMEGA3250-16AUR  
ATMEGA3290P-20AU  
ATXMEGA128B1-AURA0  
ATMEGA3250P-20AU  
ATXMEGA128B1-AUR  
ATXMEGA64B1-AUR  
ATMEGA6450A-AU  
ATMEGA6490A-AU  
ATMEGA6490P-AU  
ATMEGA6450P-AU  
ATMEGA1280-16AU-HCM  
ATXMEGA128A1-AU  
ATXMEGA64A1-AU  
ATMEGA6450-16AUR  
ATSAMC21N18A-AZ  
ATSAMC21N17A-AZ  
ATSAMC20N18A-AZ  
ATSAMC20N17A-AZ  
ATSAMC21N18A-AZT  
ATSAMC21N17A-AZT  
ATSAMC20N18A-AZT  
ATSAMC20N17A-AZT  
ATSAMC21N18A-AUTGR  
ATSAMC21N18A-AUGR  
PIC32CM5164LE00100-I/PF  
PIC32CM5164LE00100T-I/PF  
PIC32CM5164LS00100-I/PF  
PIC32CM5164LS00100T-I/PF  
PIC32CM5164JH01100-I/PF-SL3  
DSPIC33FJ64MC506A-E/PFC23  
ATXMEGA64D3-AURA7  
ATXMEGA64D3-AUA6  
ATMEGA64-16AUR  
ATMEGA64-16AURA0  
ATMEGA649P-AU  
ATMEGA649V-8AU  
ATMEGA649-16AU  
ATMEGA649V-8AUR  
ATMEGA64L-8AURA1  
ATMEGA64L-8AURA3

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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ATMEGA64-16AURAI  
ATXMEGA256D3-AU  
ATXMEGA192C3-AU  
ATXMEGA64D3-ANR  
ATMEGA169PV-8AU  
ATMEGA169P-16AU  
ATMEGA325V-8AU  
ATMEGA325V-8AUR  
ATXMEGA384C3-AU  
ATXMEGA384D3-AU  
ATXMEGA64D3-AURA4  
ATXMEGA64D3-AUR  
ATXMEGA64C3-AUR  
ATMEGA325PV-10AU  
ATMEGA325P-20AUR  
ATMEGA325P-20AURA0  
ATMEGA128L-8AN  
ATMEGA649A-AUR  
ATMEGA645A-AUR  
ATMEGA645P-AUR  
AT90CAN32-16AU  
AT90CAN32-16AUR  
ATXMEGA384C3-AUR  
ATXMEGA32C3-AUR  
PIC32MX350F256LT-V/PF  
PIC32MX350F128LT-V/PF  
PIC32MX450F128LT-V/PF  
PIC32MX350F128LT-I/PF  
PIC32MX564F128L-I/PF  
PIC32MX534F064L-I/PF  
PIC32MX350F256L-V/PF  
PIC32MX350F128L-V/PF  
PIC32MX450F256L-V/PF  
PIC32MX564F128L-V/PF  
PIC18F96J94T-I/PF  
PIC18F97J60T-I/PF  
PIC32MZ2048EFG100T-I/PF21  
ATSAML22N16A-AUT  
AT32UC3C1128C-AUT  
AT32UC3C1256C-AUT  
AT32UC3C1512C-AUT  
AT32UC3C164C-AUT  
ATSAML22N17A-AUT  
ATSAML22N18A-AUT  
DSPIC33FJ256GP710A-H/PF  
DSPIC33FJ256MC710A-H/PF  
AT32UC3C1128C-AUR  
AT32UC3C1256C-AUR  
AT32UC3C1512C-AUR

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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AT32UC3C164C-AUR

AT32UC3C1256C-AURA0

PIC32CM5164LS60100-I/PF-PROTO

PIC32CM5164LS60100T-I/PF-PROTO

ATSAMC21N17A-AN

ATSAMC21N18A-AN

ATSAMC20N17A-ANT

ATSAMC21N17A-ANT

ATSAMC20N18A-ANT

ATSAMC21N18A-ANT

ATSAMC20N18A-AN

PIC24HJ256GP610A-H/PF

PIC32CM5164SMT100-I/PF

PIC32CM2532LE00100-I/PF

PIC32CM2532LS00100-I/PF

PIC32CM2532LE00100T-I/PF

PIC32CM2532LS00100T-I/PF

AT32UC3A1512-AUT

ATMEGA6450A-AUR

ATMEGA6490A-AUR

ATMEGA6490P-AUR

ATMEGA6490V-8AU

ATMEGA640V-8AU

ATXMEGA64A1-AUR

ATXMEGA128A1-AUR

ATMEGA2560-16AU

ATMEGA2560V-8AU

ATMEGA2560-16AUR

ATMEGA3250V-8AU

ATMEGA3250PV-10AU

ATMEGA6450P-AUR

ATMEGA6490-16AUR

ATMEGA6490V-8AUR

ATMEGA640-16AU

ATMEGA640V-8AUR

ATMEGA640-16AUR

ATMEGA2560V-8AUR

ATMEGA6450V-8AUR

ATXMEGA128A1U-AU

ATXMEGA64A1U-AU

ATMEGA3250PV-10AUR

ATMEGA3290V-8AU

ATMEGA3290PV-10AUA0

ATMEGA3250PA-AU

ATMEGA3290A-AU

ATMEGA3250A-AU

ATXMEGA128A1U-AN

ATXMEGA128A1U-ANR

ATMEGA6450V-8AU

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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ATMEGA3290PA-AU  
ATMEGA3290P-20AUR  
ATMEGA3250P-20AUR  
ATMEGA640-16AURA0  
ATMEGA1280-16AU  
ATMEGA1280V-8AU  
ATMEGA1280-16AUR  
ATMEGA1280V-8AUR  
ATXMEGA128A1U-AUR  
ATXMEGA64A1U-AUR  
ATMEGA6450-16AU  
ATXMEGA32D3-AUR  
ATXMEGA64D3-AURA6  
ATMEGA169PV-8AUR  
ATMEGA169P-16AUR  
ATMEGA169PV-8AURA3  
ATMEGA128L-8AURA3  
ATMEGA128-16AURA3  
ATMEGA165PV-8AUR  
ATMEGA325PV-10AUR  
ATMEGA649P-AUR  
ATMEGA128L-8AUA4  
ATMEGA128L-8AURA5  
ATMEGA329P-20ANR  
ATXMEGA64A3U-AU  
ATMEGA128L-8AU  
ATMEGA128A-AU  
ATMEGA128-16AU  
ATXMEGA64A3U-AUR  
ATXMEGA192D3-AUR  
ATXMEGA256D3-AUR  
ATXMEGA256C3-AUR  
ATXMEGA192D3-AURA1  
ATMEGA165P-16AU  
ATMEGA165PV-8AU  
ATMEGA165PV-8AN  
ATMEGA165PV-8ANR  
ATMEGA165P-16AUR  
ATMEGA128-16AN  
ATMEGA329PA-AU  
ATMEGA325A-AU  
ATMEGA325PA-AU  
ATXMEGA256D3-AURA3  
ATXMEGA256C3-AURA0  
ATXMEGA192C3-AUR  
ATXMEGA128C3-AU  
ATXMEGA128D3-AUA1  
ATXMEGA128D3-AU  
ATMEGA128A-AN



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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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ATMEGA329A-AU  
ATMEGA325A-AN  
ATMEGA329PV-10AUR  
ATMEGA329PV-10AURA0  
AT90CAN64-16AU  
AT90CAN64-16AUR  
ATXMEGA128C3-AUR  
ATXMEGA128D3-AURA1  
ATMEGA64L-8AU  
ATMEGA64L-8AUR  
ATMEGA128-16ANR  
ATMEGA128L-8ANR  
ATMEGA128A-ANR  
ATMEGA325A-ANR  
ATMEGA329P-20AU  
ATMEGA329P-20AUR  
ATMEGA64-16AUA2  
ATXMEGA64B3-AU  
ATXMEGA128D3-AUR  
ATMEGA128A-AUR  
ATMEGA128L-8AUR  
ATMEGA64L-8AQR  
ATXMEGA64D3-AUA4  
ATXMEGA64D3-AU  
ATMEGA128L-8AURA6  
ATMEGA128-16AURA0  
ATMEGA128-16AUR  
ATMEGA325PA-AUR  
ATMEGA329A-AUR  
ATMEGA329PA-AUR  
ATMEGA325A-AUR  
ATMEGA165P-16AN  
ATXMEGA64C3-AU  
ATXMEGA32C3-AU  
ATXMEGA32D3-AU  
ATMEGA329V-8AU  
ATMEGA329-16AU  
ATMEGA165PA-AU  
ATMEGA169PA-AU  
ATMEGA169A-AU  
ATMEGA325-16AU  
ATMEGA649-16AUR  
ATMEGA645-16AUR  
ATXMEGA192A3U-AU  
ATXMEGA256A3BU-AU  
ATXMEGA256A3U-AU  
ATXMEGA128A3U-AU  
ATXMEGA128B3-AU  
ATMEGA165A-AU

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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ATMEGA169PA-AN  
ATXMEGA192A3U-AN  
ATXMEGA256A3U-AN  
ATXMEGA192A3U-ANR  
ATXMEGA256A3U-ANR  
ATMEGA64A-AU  
ATMEGA64-16AU  
ATMEGA169PA-ANR  
ATMEGA329V-8AUR  
ATMEGA165P-16ANR  
ATXMEGA192A3U-AUR  
ATXMEGA64B3-AUR  
ATXMEGA128B3-AUR  
ATXMEGA32C3-AN  
ATXMEGA32D3-AN  
ATMEGA64-16AUA0  
ATMEGA64A-AN  
ATMEGA64A-ANR  
ATMEGA325-16AUR  
ATMEGA329-16AUR  
ATMEGA329PV-10AU  
ATMEGA325P-20AU  
ATXMEGA256A3BU-AUR  
ATXMEGA256D3-AURA1  
ATXMEGA128A3U-AUR  
ATXMEGA256A3U-AUR  
ATXMEGA64C3-AN  
ATXMEGA64D3-AN  
ATMEGA64A-AUR  
ATMEGA649A-AU  
ATMEGA645A-AU  
ATMEGA645P-AU  
ATMEGA165PA-AUR  
ATMEGA165A-AUR  
ATMEGA169A-AUR  
ATMEGA169PA-AUR  
ATXMEGA192D3-AU  
ATXMEGA256C3-AU  
ATXMEGA32C3-ANR  
ATXMEGA32D3-ANR  
ATXMEGA64C3-ANR  
ATMEGA645-16AU  
ATMEGA645V-8AU  
ATMEGA645V-8AUR  
PIC18F96J65-I/PF  
PIC18F97J60-I/PF  
PIC24FJ64GB110-I/PF  
PIC24FJ128GB110-I/PF  
PIC24FJ192GB110-I/PF

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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PIC24FJ256GBT110-I/PF  
PIC24FJ64GA110-I/PF  
PIC24FJ128GA110-I/PF  
PIC24FJ256GA110-I/PF  
PIC24FJ256GA110-E/PF  
PIC24FJ128GA110-E/PF  
PIC24FJ64GA010-I/PF  
PIC24FJ128GA010-I/PF  
PIC24FJ96GA010-I/PF  
PIC18F96J94-I/PF  
PIC18F97J94-I/PF  
DSPIC33FJ256GP710-I/PFB21  
PIC24FJ128GA310-I/PF  
PIC24HJ64GP210A-I/PF  
PIC24HJ64GP510A-I/PF  
DSPIC33FJ64GP710A-I/PF  
DSPIC33FJ128GP710A-I/PF  
DSPIC33FJ128MC510A-I/PF  
DSPIC33FJ128MC710A-I/PF  
PIC24HJ128GP210A-I/PF  
PIC24HJ128GP310A-I/PF  
PIC24HJ128GP510A-I/PF  
DSPIC33FJ128GP310A-I/PF  
DSPIC33FJ64MC510A-I/PF  
DSPIC33EP128GM310-I/PF  
DSPIC33EP128GM710-I/PF  
DSPIC33EP256GM310-I/PF  
DSPIC33EP256GM710-I/PF  
DSPIC33EP512GM310-I/PF  
DSPIC33EP512GM710-I/PF  
PIC16F1789-ME2/PF  
PIC16F1829-ME2/PF  
DSPIC33EP128GM710-E/PF  
DSPIC33EP256GM310-E/PF  
DSPIC33EP512GM310-E/PF  
DSPIC33EP512GM710-E/PF  
PIC16F1719-ME2/PF  
DSPIC33EP512MU810-E/PF  
DSPIC33EP256MU810-E/PF  
PIC32MX450F256L-120/PF  
PIC24HJ128GP510A-E/PF  
PIC16F1619-ME2/PF  
DSPIC33FJ128MC710A-E/PF  
DSPIC33FJ128GP710A-E/PF  
DSPIC33EP512MU810-I/PFC04  
ATSAM4LS2CA-AU  
PIC24HJ64GP510AT-I/PF  
PIC24HJ128GP510AT-I/PF  
DSPIC33FJ128MC710AT-I/PF

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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PIC24FJ64GA0101-I/PF  
PIC32MZ1024EFE100-I/PF  
PIC32MZ1024EFF100-I/PF  
PIC32MZ1024EFG100-I/PF  
PIC32MX130F128L-I/PF  
PIC32MZ2048EFH100-250I/PF  
PIC32MZ0512EFK100-I/PF  
PIC32MZ2048EFG100-I/PF  
PIC32MX530F128L-V/PF  
PIC32MZ0512EFE100-I/PF  
PIC32MZ0512EFF100-I/PF  
PIC32MX150F256L-I/PF  
PIC32MX170F512L-I/PF  
PIC32MZ1024EFM100-I/PF  
PIC32MZ2048EFG100-I/PF21  
PIC32MX570F512L-V/PF  
PIC32MX450F256LT-120/PF  
PIC32MX550F256L-V/PF  
PIC32MZ2048EFH100-I/PF  
PIC32MZ1024EFH100-I/PF  
PIC32MZ1024EFK100-I/PF  
PIC32MZ1024ECH100T-I/PF  
PIC32MZ2048ECH100T-I/PF  
PIC32MZ1024ECM100T-I/PF  
PIC32MZ2048ECM100T-I/PF  
PIC24HJ128GP510-I/PF  
PIC24HJ256GP210-I/PF  
PIC24HJ64GP210-I/PF  
PIC24HJ64GP510-I/PF  
PIC32MX370F512L-V/PF  
DSPIC33EP256MU810T-E/PF  
DSPIC33EP512MU810T-E/PF  
PIC32MX470F512L-V/PF  
PIC24EP512GU810-E/PF  
PIC32MZ1024ECG100T-I/PF  
PIC32MX370F512L-I/PF  
PIC32MX470F512L-I/PF  
PIC24EP256GU810T-E/PF  
PIC24EP512GU810T-E/PF  
PIC32MZ2048ECG100T-I/PF  
PIC24EP256GU810-E/PF  
PIC32MX370F512LT-I/PF  
PIC32MX470F512LT-I/PF  
PIC32MX370F512LT-V/PF  
PIC32MX470F512LT-V/PF  
DSPIC33FJ64GS610-50I/PF  
PIC32MX534F064L-V/PF  
PIC32MX330F064LT-I/PF  
PIC32MX430F064LT-I/PF

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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PIC24EP512GU810-I/PF  
PIC32MX450F128L-V/PF  
PIC32MX764F128L-V/PF  
PIC32MX430F064L-V/PF  
DSPIC33EP256MU810T-I/PF  
DSPIC33EP512MU810T-I/PF  
PIC24EP256GU810T-I/PF  
PIC24EP512GU810T-I/PF  
PIC32MX564F064L-V/PF  
PIC32MX664F128L-V/PF  
PIC32MX664F064L-V/PF  
PIC32MX330F064L-V/PF  
PIC24EP256GU810-I/PF  
PIC32MX564F064L-I/PF  
DSPIC33EP128GM710T-I/PF  
PIC32MX664F128L-I/PF  
PIC32MX664F064L-I/PF  
PIC32MX764F128L-I/PF  
PIC32MX330F064L-I/PF  
PIC32MX430F064L-I/PF  
DSPIC33EP256MU810-I/PF  
DSPIC33EP512MU810-I/PF  
PIC24HJ256GP210A-I/PF  
PIC32MZ2048EFH100-I/PFM21  
PIC32MX530F128LT-V/PF  
PIC32MX570F512LT-V/PF  
DSPIC33EP512GM310T-I/PF  
DSPIC33FJ256GP710A-E/PF  
PIC32MX150F256L-V/PF  
DSPIC33FJ256MC510A-E/PF  
DSPIC33FJ256MC710A-E/PF  
PIC32MX170F512L-V/PF  
PIC32MX270F512L-V/PF  
PIC32MX250F256L-V/PF  
PIC32MX550F256L-I/PF  
PIC32MX570F512L-50I/PF  
PIC32MX270F512L-50I/PF  
PIC32MX550F256L-50I/PF  
DSPIC33FJ64GS610T-I/PF  
DSPIC33FJ64GS610T-E/PF  
PIC32MX250F256L-I/PF  
PIC32MX270F512L-I/PF  
PIC32MZ2048EFM100-I/PF  
PIC32MX675F512L-80I/PF  
PIC32MX675F256L-80I/PF  
PIC32MX795F512L-80I/PF  
PIC32MX450F128LT-I/PF  
PIC32MX450F256LT-I/PF  
PIC32MX575F512L-80I/PF

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PIC32MX775F512L-80I/PF  
PIC24HJ256GP210A-E/PF  
PIC24HJ256GP610A-E/PF  
DSPIC33FJ256GP510A-E/PF  
PIC24HJ256GP210T-I/PF  
PIC24HJ256GP610T-I/PF  
DSPIC33FJ256GP710T-I/PF  
DSPIC33FJ256MC710T-I/PF  
DSPIC33FJ256MC710A-I/PF  
PIC32MX470F512L-120/PF  
PIC32MX570F512L-I/PF  
DSPIC33FJ256GP710A-I/PF  
DSPIC33FJ256MC510A-I/PF  
PIC32MX170F512LT-I/PF  
PIC32MX795F512LT-80I/PF  
PIC32MX775F512LT-80I/PF  
PIC32MX775F256LT-80I/PF  
PIC24HJ256GP610A-I/PF  
DSPIC33FJ256GP510A-I/PF  
PIC32MX470F512LT-120/PF  
PIC32MX675F256LT-80I/PF  
PIC32MX575F512LT-80I/PF  
PIC32MX575F256LT-80I/PF  
PIC32MX695F512LT-80I/PF  
PIC32MX150F256L-50I/PF  
PIC32MX170F512L-50I/PF  
PIC32MX675F512LT-80I/PF  
PIC32MX250F256L-50I/PF  
ATSAM4LC8CA-AU  
ATSAM4LS8CA-AU  
ATSAM4LC8CA-AUR  
ATSAM4LS8CA-AUR  
AT32UC3A1512-AUR  
ATSAM4C32CA-AUT  
PIC32CM2532JH00100T-E/PF  
PIC32CM5164JH00100T-E/PF  
PIC32CM2532JH01100T-E/PF  
PIC32CM5164JH01100T-E/PF  
PIC32CM5164LS60100-I/PF  
PIC32CM2532JH00100T-I/PF  
PIC32CM5164JH00100T-I/PF  
PIC32CM2532JH01100T-I/PF  
PIC32CM5164JH01100T-I/PF  
ATSAM4C8CB-AUT  
ATSAM4C8CB-AUTR  
ATSAM4C16CB-AUT  
ATSAM4C16CB-AUTR  
ATSAM4C32CA-AUTR  
PIC32CM2532JH00100-E/PF

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CENO-05FVJZ634 - CCB 7084 Final Notice: Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.

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PIC32CM5164JH00100-E/PF

PIC32CM2532JH01100-E/PF

PIC32CM5164JH01100-E/PF

PIC32CM2532JH00100-I/PF

PIC32CM5164JH00100-I/PF

PIC32CM2532JH01100-I/PF

PIC32CM5164JH01100-I/PF

AT32UC3A1128-AUT

AT32UC3A1256-AUT

AT32UC3A1128-AUR

AT32UC3A1256-AUR

PIC16F1939-ME2/PF

ATSAM4LC4CA-AU

ATSAM4LS4CA-AU

ATSAM4LC2CA-AU

ATSAM4LC4CA-AUR

ATSAM4LS4CA-AUR

ATSAM4LC2CA-AUR

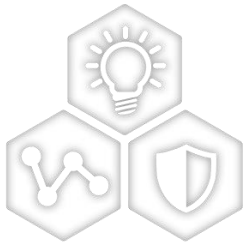
ATSAM4LS2CA-AUR

**CCB 7084**  
**Pre and Post Change Summary**  
**PCN #: CENO-05FVJZ634**



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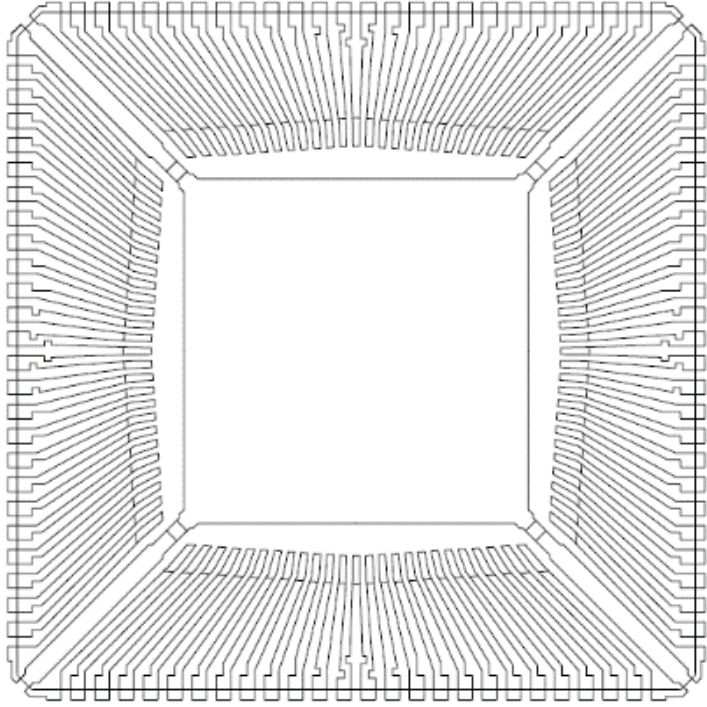
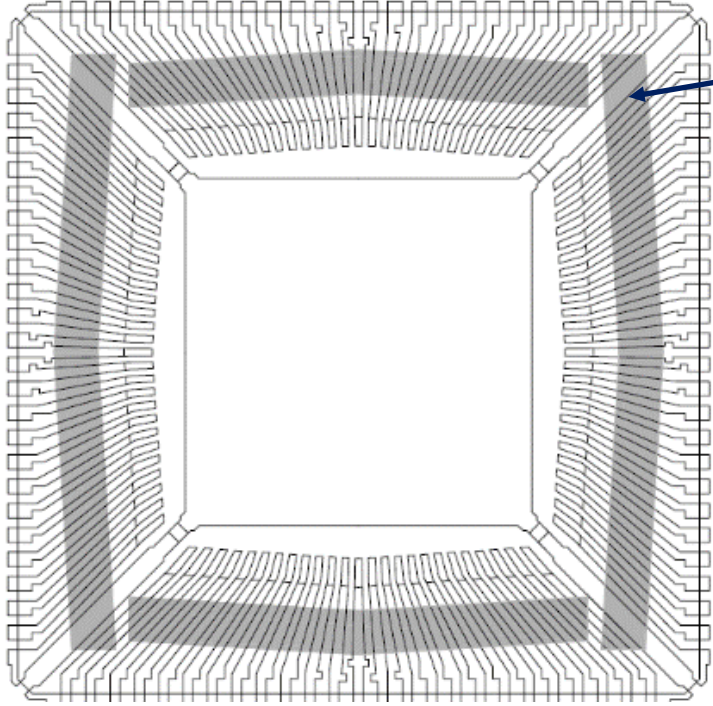
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



SMART | CONNECTED | SECURE

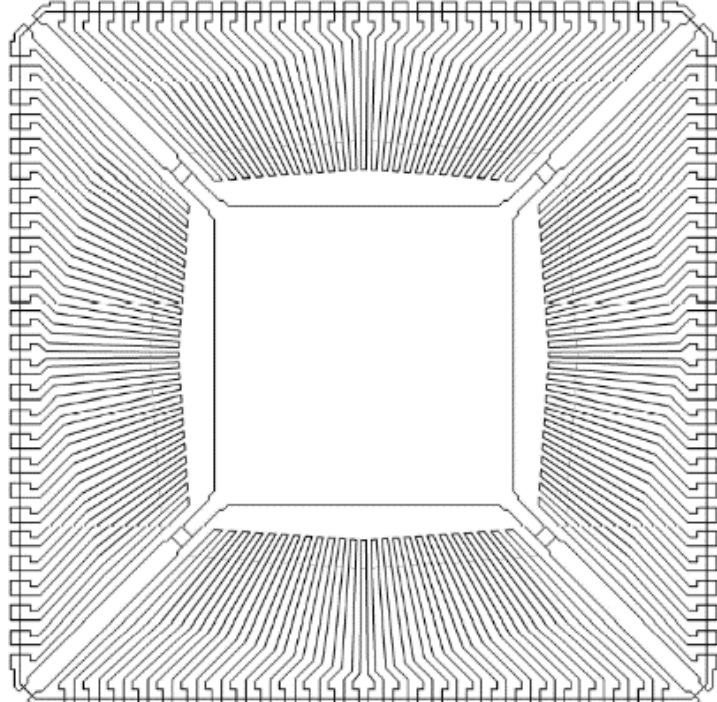
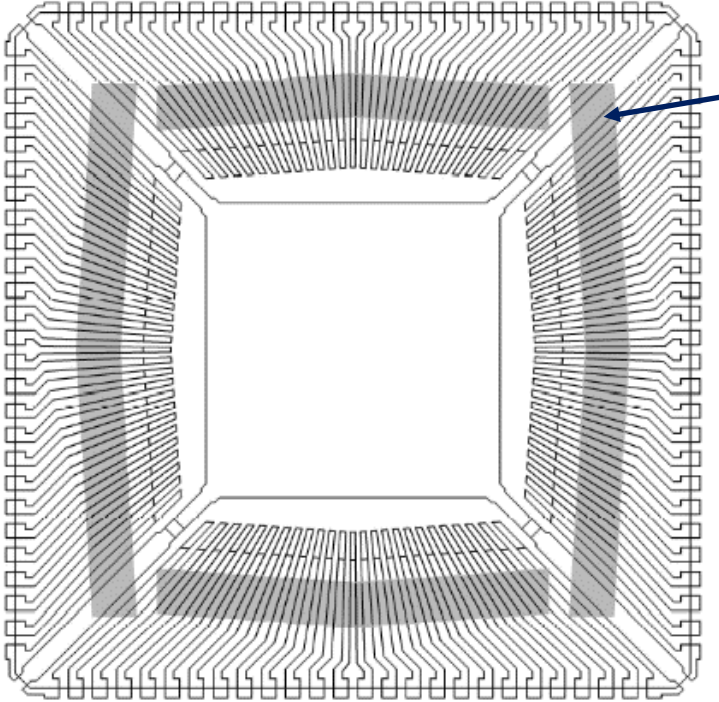


# LEAD FRAME COMPARISON

| Pre change  | Post Change   |
|---|---|
| <i>100L TQFP (14x14x1mm) 280x280 mils</i>   |   |
|  <p data-bbox="300 1158 973 1210">LF Treatment    brown oxide treatment (BOT)</p> |  <p data-bbox="2211 486 2390 572">with inner lead tape</p> <p data-bbox="1442 1158 2196 1210">LF Treatment    Non-brown oxide treatment (non-BOT)</p> |

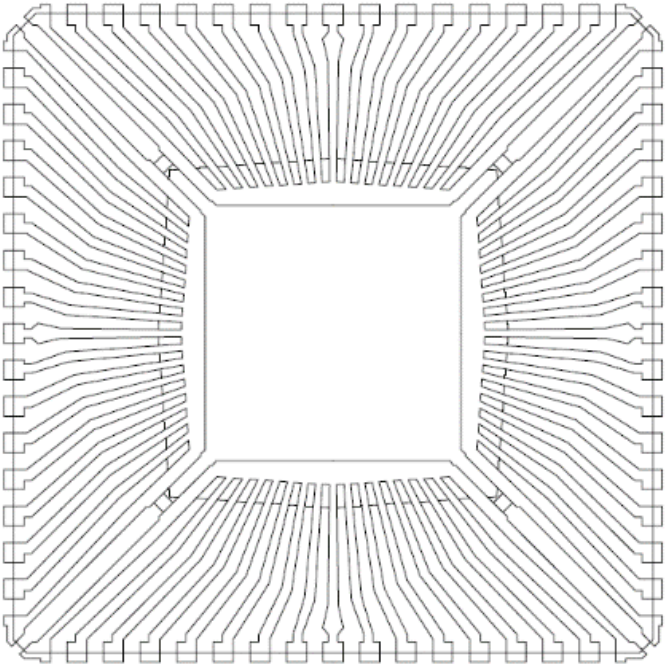
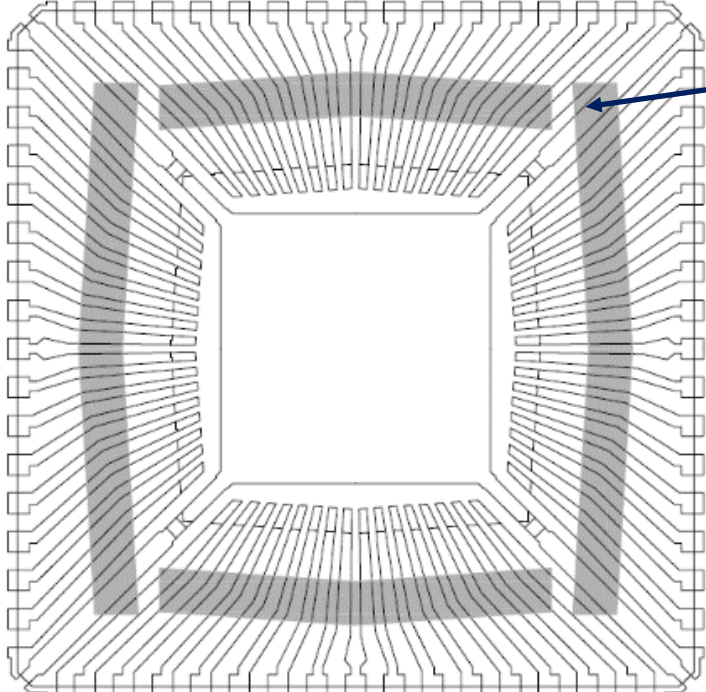
*Note: Not to scale*

# LEAD FRAME COMPARISON

| Pre change  | Post Change   |
|---|---|
| <p>100L TQFP (14x14x1mm) 240x240 mils</p>   |   |
|  <p data-bbox="300 1156 973 1210">LF Treatment    brown oxide treatment (BOT)</p> |  <p data-bbox="2211 485 2395 571">with inner lead tape</p> <p data-bbox="1447 1156 2196 1210">LF Treatment    Non-brown oxide treatment (non-BOT)</p> |

Note: Not to scale

# LEAD FRAME COMPARISON

| Pre change  | Post Change                         |                             |   |              |                                     |
|---|-------------------------------------|-----------------------------|---|--------------|-------------------------------------|
| <i>64L TQFP (14x14x1mm) 220x220 mils</i>  |                                     |                             |   |              |                                     |
|  <table border="1" data-bbox="300 1156 973 1210"><tr><td data-bbox="300 1156 537 1210">LF Treatment</td><td data-bbox="537 1156 973 1210">brown oxide treatment (BOT)</td></tr></table> | LF Treatment                        | brown oxide treatment (BOT) |  <p data-bbox="2204 485 2395 571">with inner lead tape</p> <table border="1" data-bbox="1439 1156 2196 1210"><tr><td data-bbox="1439 1156 1676 1210">LF Treatment</td><td data-bbox="1676 1156 2196 1210">Non-brown oxide treatment (non-BOT)</td></tr></table> | LF Treatment | Non-brown oxide treatment (non-BOT) |
| LF Treatment  | brown oxide treatment (BOT)         |                             |   |              |                                     |
| LF Treatment  | Non-brown oxide treatment (non-BOT) |                             |   |              |                                     |

*Note: Not to scale*



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN#: CENO-05FVJZ634**

**Date:**  
**November 11, 2024**

**Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site.**



## MICROCHIP PACKAGE QUALIFICATION REPORT

|                            |  |
|----------------------------|--|
| <b>Purpose</b>             | Qualification of new stamped lead frame with inner lead tape and non-brown oxide treatment (non-BOT) for selected products available in 100L and 64L TQFP (14x14x1mm) packages at MMT assembly site. |
| <b>CN</b>                  | E000241334   |
| <b>QUAL ID</b>             | R2401146 Rev. A  |
| <b>MP CODE</b>             | TDAA19E5XEA8   |
| <b>Part No.</b>            | PIC32MX795F512L-80V/PF   |
| <b>Bonding No.</b>         | BD-002486 Rev. 01  |
| <b>CCB No.</b>             | 7084   |
| <b><u>Package</u></b>      |  |
| <b>Type</b>                | 100L TQFP  |
| <b>Package size</b>        | 14 x 14 x 1.0 mm   |
| <b><u>Lead Frame</u></b>   |  |
| <b>Paddle size</b>         | 280 x 280 mils   |
| <b>Material</b>            | C7025  |
| <b>Surface</b>             | Bare Cu  |
| <b>Process</b>             | Stamped  |
| <b>Lead Lock</b>           | No   |
| <b>Part Number</b>         | 10110015   |
| <b>Treatment</b>           | None   |
| <b><u>Material</u></b>     |  |
| <b>Epoxy</b>               | 3280   |
| <b>Wire</b>                | Au   |
| <b>Mold Compound</b>       | G700HA   |
| <b>Plating Composition</b> | Matte Sn   |



# MICROCHIP PACKAGE QUALIFICATION REPORT

## Manufacturing Information

| Assembly Lot No.  | Wafer Lot No.     | Date Code |
|-------------------|-------------------|-----------|
| MMT-252001357.000 | TC11925092721.120 | 24334WC   |
| MMT-252001358.000 | TC11925092721.120 | 24334WD   |
| MMT-252001359.000 | TC11925092721.120 | 24334WG   |

### Result

Pass  Fail  \_\_\_\_\_

100L TQFP (14x14x1.0 mm) assembled by MMT pass reliability test per QCI-39000.  
This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C  
reflow temperature per IPC/JEDEC J-STD-020E standard.

## PACKAGE QUALIFICATION REPORT

| Test Number<br>(Reference)  | Test Condition   | Standard/<br>Method             | Qty.<br>(Acc.) | Def/SS            | Result            | Remarks         |
|---|--|---------------------------------|----------------|-------------------|-------------------|-----------------|
| <b><u>Precondition<br/>Prior Perform<br/>Reliability Tests<br/>(At MSL Level 1)</u></b> | <b>Electrical Test:</b> +25°C and 105°C<br>System: J750  | JESD22-<br>A113                 | 693(0)         | 0/693             |                   | Good<br>Devices |
|   | Bake 150°C, 24 hrs.<br>System: CHINEE<br>85°C/85%RH Moisture Soak 168 hrs.<br>System: TABAIESPEC Model PR-3SPH<br>3x Convection-Reflow 265°C max<br>System: Vitronics Soltec MR1243<br><b>Electrical Test:</b> +25°C and 105°C<br>System: J750 | JIP/<br>IPC/JEDEC<br>J-STD-020E |                | 693<br>693<br>693 | 693<br>693<br>693 | Pass            |

# PACKAGE QUALIFICATION REPORT

| Test Number<br>(Reference) | Test Condition   | Standard/<br>Method | Qty.<br>(Acc.) | Def/SS. | Result | Remarks   |
|----------------------------|--|---------------------|----------------|---------|--------|---|
| <b>Temp Cycle</b>          | <b>Stress Condition:</b><br>-65°C to +150°C, 500 Cycles<br>System: TABAI SPECTSA-70H                       | JESD22-<br>A104     |                | 0/231   |        | Parts had been pre-conditioned at 260°C<br>77 units / lot |
|                            | <b>Electrical Test:</b> +105°C<br>System: J750   |                     | 231(0)         | 0/231   | Pass   |   |
|                            | <b>Bond Strength:</b><br>Wire Pull (>2.50 grams)   |                     | 15(0)          | 0/15    | Pass   |   |
| <b>UNBIASED-HAST</b>       | <b>Stress Condition:</b><br>+130°C/85%RH, 96 hrs.<br>System: HAST 6000X                                    | JESD22-<br>A118     |                | 0/231   |        | Parts had been pre-conditioned at 260°C<br>77 units / lot |
|                            | <b>Electrical Test:</b> +25°C<br>System: J750  |                     | 231(0)         | 0/231   | Pass   |   |
| <b>HAST</b>                | <b>Stress Condition:</b><br>+130°C/85%RH, 96 hrs.<br><b>Bias Volt:</b> VDD=3.3 Volts<br>System: HAST 6000X | JESD22-<br>A110     |                | 0/231   |        | Parts had been pre-conditioned at 260°C<br>77 units / lot |
|                            | <b>Electrical Test:</b> +25°C and 105°C<br>System: J750  |                     | 231(0)         | 0/231   | Pass   |   |



# PACKAGE QUALIFICATION REPORT

Qual Report: R2401146

| Test Number<br>(Reference)           | Test Condition   | Standard/<br>Method | Qty.<br>(Acc.) | Def/SS.                  | Result | Remarks  |
|--------------------------------------|--|---------------------|----------------|--------------------------|--------|----------|
| <b>High Temperature Storage Life</b> | <b>Stress Condition:</b><br>Bake 175°C, 504 hrs.<br>System: TPS Bake Oven  | JESD22-A103         |                | 0/45                     |        | 45 units |
|                                      | <b>Electrical Test:</b> +25°C and 105°C<br>System: J750  |                     | 45(0)          | 0/45                     | Pass   |          |
| <b>Solderability Temp 215°C</b>      | <b>Steam Aging:</b> Temp 93°C, 8Hrs<br>System: SAS-3000<br>Solder Dipping: Solder Temp. 215°C<br>Solder material: SnPb Sn63, Pb37<br>System: ERSA RA 2200D<br>Visual Inspection: External Visual Inspection              | J-STD-002           | 22(0)          | 0/22<br><br>0/22<br>0/22 | Pass   |          |
| <b>Solderability Temp 245°C</b>      | <b>Steam Aging:</b> Temp 93°C, 8Hrs<br>System: SAS-3000<br>Solder Dipping: Solder Temp. 245°C<br>Solder material: Pb Free Sn 95.5Ag 3.9 Cu 0.6<br>System: ERSA RA 2200D<br>Visual Inspection: External Visual Inspection | J-STD-002           | 22(0)          | 0/22<br><br>0/22<br>0/22 | Pass   |          |
| <b>Bond Strength Data Assembly</b>   | Wire Pull (>2.50 grams)  | Mil. Std. 883-2011  | 30(0) Wires    | 0/30                     | Pass   |          |
|                                      | Bond Shear (>15.00 grams)  | CDF-AEC-Q100-001    | 30(0) bonds    | 0/30                     | Pass   |          |