

Product Change Notification - IIRA-31TJQC709

Date: 10 Feb 2014

Product Category: 16-bit Microcontrollers and Digital Signal Controllers; 8-bit Microcontrollers; 32-bit PIC Microcontrollers

Notification subject: CCB 1155.29 Initial Notification: Qualification of selected products in the 100L TQFP package with palladium coated copper (PdCu) wire for 200K and 0.18um process technologies at MTAI assembly site.

Notification text: **PCN Status:**
Initial notification

Microchip Parts Affected:

See attachments of affected catalog part numbers (CPN) labeled as...

PCN_IIRA-31TJQC709_Affected_CPN.xls

PCN_IIRA-31TJQC709_Affected_CPN.pdf

Description of Change:

Qualification of selected products available in the 100L TQFP package with palladium coated copper (PdCu) bond wire for 200K and 0.18um process technologies at MTAI assembly site.

NOTE: Selected products are non-automotive for standalone PIC MCU products. Please review the affected CPN lists (attached) to identify the actual parts affected.

Pre Change:

Gold (Au) wire

Post Change:

Palladium coated copper (PdCu) wire

Impacts to Data Sheet:

None

Reason for Change:

To improve manufacturability

Change Implementation Status:

Complete

Estimated First Ship Dates:

April 25, 2014 (Date code: 1417)

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

Markings to Distinguish Revised from Unrevised Devices:

Traceability code

Revision History:

February 11, 2014: Initial notification issue date.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachment(s): [PCN_IIRA-31TJQC709_Affected CPN.pdf](#) [PCN_IIRA-31TJQC709_Qual Plan.pdf](#) [PCN_IIRA-31TJQC709_Affected CPN.xls](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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PCN_IIRA-31TJQC709
CATALOG_PART_NBR
DSPIC33EP128GM310-E/PT
DSPIC33EP128GM310-H/PT
DSPIC33EP128GM310-I/PT
DSPIC33EP128GM310T-I/PT
DSPIC33EP128GM710-E/PT
DSPIC33EP128GM710-H/PT
DSPIC33EP128GM710-I/PT
DSPIC33EP128GM710T-I/PT
DSPIC33EP256GM310-E/PT
DSPIC33EP256GM310-H/PT
DSPIC33EP256GM310-I/PT
DSPIC33EP256GM310T-I/PT
DSPIC33EP256GM710-E/PT
DSPIC33EP256GM710-H/PT
DSPIC33EP256GM710-I/PT
DSPIC33EP256GM710T-I/PT
DSPIC33EP256MU810-E/PT
DSPIC33EP256MU810-I/PT
DSPIC33EP256MU810T-E/PT
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PIC24FJ128GA310T-I/PT
PIC24FJ128GB210-I/PT
PIC24FJ128GB210T-I/PT
PIC24FJ128GC010-I/PT
PIC24FJ128GC010T-I/PT
PIC24FJ256DA110-I/PT
PIC24FJ256DA110T-I/PT
PIC24FJ256DA210-I/PT
PIC24FJ256DA210-I/PT020
PIC24FJ256DA210T-I/PT
PIC24FJ256GB210-I/PT
PIC24FJ256GB210T-I/PT
PIC24FJ64GA310-I/PT
PIC24FJ64GA310-I/PTREL
PIC24FJ64GA310T-I/PT
PIC24FJ64GC010-I/PT
PIC24FJ64GC010T-I/PT
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PIC32MX775F256L-80V/PT
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PIC32MX775F256LT-80V/PT
PIC32MX775F512L-80I/PT
PIC32MX775F512L-80I/PTV02
PIC32MX775F512L-80I/PTV03
PIC32MX775F512L-80V/PT
PIC32MX775F512LT-80I/PT
PIC32MX775F512LT-80V/PT
PIC32MX795F512L-80I/PT
PIC32MX795F512L-80I/PTE22
PIC32MX795F512L-80V/PT
PIC32MX795F512LT-80I/PT
PIC32MX795F512LT-80I/PTE21
PIC32MX795F512LT-80I/PTE22
PIC32MX795F512LT-80V/PT



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QUALIFICATION PLAN

PCN #: IIRA-31TJQC709

**Date:
Feb 12, 2014**

**Qualification of selected products available in the 100L
TQFP package with palladium coated copper (PdCu)
bond wire for 200K and 0.18um process technologies at
MTAI assembly site.**

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Purpose: _____ Qualification of selected products available in the 100L TQFP package with palladium coated copper (PdCu) bond wire for 200K and 0.18um process technologies at MTAI assembly site.

MP code: _____ TDAA1

Part No.: _____ PIC32MX795F512L

BD No: _____ BDM-000448 rev. A

CCB No: _____ 1155.29

Package:

Type: _____ 100L TQFP

Width or Size: _____ 12x12 mm

Die thickness: _____ 11 mils

Die size: _____ 225.8 x 219.5 mils

Lead frame:

Paddle size: _____ 280 x 280

Material: _____ C7025

Surface: _____ Bare copper on paddle

Process: _____ Stamp

Lead Lock: _____ No

Part Number: _____ 10110001

Treatment: _____ BOT

Wire:

Material: _____ PdCu

Die Attach Epoxy:

Part Number: _____ 3280

Conductive: _____ Yes

Mold Compound: _____ G700HA

Lead finish: _____ Matte tin

Reliability Test plan: _____ See attached, STD Package Reliability Test plan on each package.

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	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	30 bonds from a minimum of 5 devices.
HTSL (High Temp Storage Life)	+175°C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at 25°C and hot temp.	45	5	1	50	0	10	Must be in progress at time of package release to production, but completion is not required for release to production.
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-020D for package type; Electrical test pre and post stress at 25°C. Perform SAM analysis using the standard sample size. MSL-1 @ 260°C	231	15	3	738	0	15	Spares should be properly identified. 77 parts from each lot to be used for HAST, Autoclave, Temp Cycle test.
HAST	+130°C/85% RH for 96 hours. Electrical test pre and post stress at 25°C and hot temp. 1 lot tested at 105°C	77	5	3	246	0	10	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Unbiased HAST	+130°C/85% RH for 96 hrs	77	5	3	246	0	10	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 hot temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress. 1 lot tested at 105°C	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.