Product Change Notification - JAON-29UFUC479

Date:	13 Oct 2015
Notification subject:	CCB 1753 Initial Notice: Qualification of palladium coated copper (PdCu) bond wire for selected products fabricated at X-Fab available in 8L SOIC package at MTAI assembly site.

Notification text:

PCN Status:
Initial notification

Microchip Parts Affected:
Please open the attachments found in the attachments field below labeled as PCN_#_Affected_CPN.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change:
Qualification of palladium coated copper (PdCu) bond wire for selected products fabricated at X-Fab available in 8L SOIC package at MTAI assembly site.

Pre Change:
Gold wire (Au) bond wire

Post Change:
Palladium coated copper (PdCu) bond wire

Impacts to Data Sheet:
None

Reason for Change:
To improve on-time delivery performance by qualifying Palladium coated copper (PdCu) bond wire

Change Implementation Status:
In Progress

Estimated First Ship Date:
November 30, 2015 (date code: 1549)

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:
October 13, 2015: 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.

Attachment(s): PCN_JAON-29UFUC479_Qual_Plan.pdf
PCN_JAON-29UFUC479_Affected_CPN.pdf
PCN_JAON-29UFUC479_Affected_CPN.xls

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

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QUALIFICATION PLAN

PCN #: JAON-29UFUC479

Date:
Sep 23, 2015

Qualification of palladium coated copper (PdCu) bond wire for selected products fabricated at X-Fab available in 8L SOIC package at MTAI assembly site

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Purpose: Qualification of palladium coated copper (PdCu) bond wire for selected products fabricated at X-Fab available in 8L SOIC package at MTAI assembly site

MP code: VK0014C2XA00

Part No.: MCP2551

BD No: BDM-000833 rev.A

CCB No.: 1753

Package:

- **Type** 8L SOIC
- **Width or Size** 150 mils
- **Die thickness:** 15 mils
- **Die size:** 103.4 x 62.3 mils

Lead frame:

- **Paddle size:** 95 x 130 mils
- **Material** CDA194
- **Surface** Bare copper on paddle
- **Process** Stamped
- **Lead Lock** No
- **Part Number** 10100819
- **Treatment** Brown Oxide Treatment (BOT)

Wire:

- **Material** PdCu

Die Attach Epoxy:

- **Part Number** 8390A
- **Conductive** Yes

Mold Compound: 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	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.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	
HTSL (High Temp Storage Life)	+175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25C and hot temp. (1 lot to be tested at 125C)	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. MSL-1 @ 260°C	231	15	1	246	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 to be tested at 125C)	77	5	1	82	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. Electrical test pre and post stress at +25°C	77	5	1	82	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 to be tested at 125C)	77	5	1	82	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

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Affected Catalog Part Numbers (CPN)

PCN_JAON-29UFUC479
CATALOG_PART_NBR
MCP2003A-E/SN
MCP2003AT-E/SN
MCP2003-E/SN
MCP2003T-E/SN
MCP2004A-E/SN
MCP2004AT-E/SN
MCP2004-E/SN
MCP2004T-E/SN
MCP2021A-330E/SN
MCP2021A-500E/SN
MCP2021AT-330E/SN
MCP2021AT-330E/SNTSL
MCP2021AT-500E/SN
MCP2021AT-500E/SNTSL
MCP2025-330E/SN
MCP2025-500E/SN
MCP2025T-330E/SN
MCP2025T-500E/SN
MCP2551-E/SN
MCP2551-I/SN
MCP2551T-E/SN
MCP2551T-I/SN
RE46C311S8F
RE46C311S8TF
RE46C312S8F
RE46C312S8TF
RE46C317S8F
RE46C317S8TF
RE46C318S8F
RE46C318S8TF