

# Product Change Notification - JAON-20DZPV439

**Date:** 13 Jun 2016  
**Product Category:** Memory; 8-bit Microcontrollers  
**Notification subject:** CCB 2598 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 150K and 160K wafer technologies available in 8L SOIJ package at MTAI  
**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 with gold flash (CuPdAu) bond wire in selected products of the 150K and 160K wafer technologies available in 8L SOIJ package at MTAI assembly site.

**Pre Change:**

Using Gold (Au) and Palladium coated copper (PdCu) bond wire.

**Post Change:**

Using Palladium coated copper with gold flash (CuPdAu) bond wire.

**Pre and Post Change Summary:**

	Pre Change	Post Change
<b>Assembly Site</b>	MTAI assembly site	MTAI assembly site
<b>Wire material</b>	Au or PdCu wire	CuPdAu wire
<b>Die attach material</b>	8390A	8390A
<b>Molding compound material</b>	G600	G600
<b>Lead frame material</b>	CDA194	CDA194

**Impacts to Data Sheet:**

None

**Reason for Change:**

To improve manufacturability and qualify Palladium coated copper with gold flash (CuPdAu) bond wire.

**Change Implementation Status:**

In Progress

**Estimated Qualification Completion Date:**

June 2016

	22	23	24	25	26
Initial PCN Issue Date			X		
Qual Report Availability					X
Final PCN Issue Date					X

**Markings to Distinguish Revised from Unrevised Devices:**

Traceability code

**Revision History:**

**June 13, 2016:** 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-20DZPV439\\_Qual\\_Plan.pdf](#)

[PCN\\_JAON-20DZPV439\\_Affected\\_CPN.pdf](#)

[PCN\\_JAON-20DZPV439\\_Affected\\_CPN.xls](#)

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Affected Catalog Part Numbers (CPN)

PCN_JAON-20DZPV439
CATALOG_PART_NBR
24AA128-I/SM
24AA128T-I/SM
24AA256/SM
24AA256-E/SM
24AA256-I/SM
24AA256T/SM
24AA256T-E/SM
24AA256T-I/SM
24AA32A/SM
24AA32A-I/SM
24AA32AT/SM
24AA32AT-I/SM
24AA512-I/SM
24AA512-I/SMRVE
24AA512T-I/SM
24AA512T-I/SMRVE
24AA64-E/SM
24AA64-I/SM
24AA64T-E/SM
24AA64T-I/SM
24FC128-I/SM
24FC128T-I/SM
24FC256-I/SM
24FC256T-I/SM
24FC512-I/SM
24FC512T-I/SM
24FC512T-I/SMRVE
24FC64-I/SM
24FC64T-I/SM
24LC128-E/SM
24LC128-I/SM
24LC128-I/SMRVF
24LC128T-E/SM
24LC128T-I/SM
24LC128T-I/SMG
24LC256-E/SM
24LC256-I/SM
24LC256-I/SMRVE
24LC256-I/SMRVF
24LC256T-E/SM
24LC256T-E/SMRVF
24LC256T-I/SM
24LC256T-I/SMG

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Affected Catalog Part Numbers (CPN)

PCN_JAON-20DZPV439
CATALOG_PART_NBR
24LC256T-I/SMRVE
24LC256T-I/SMRVF
24LC32A/SM
24LC32A-E/SM
24LC32A-I/SM
24LC32AT/SM
24LC32AT-E/SM
24LC32AT-I/SM
24LC512-E/SM
24LC512-I/SM
24LC512-I/SMA21
24LC512-I/SMG
24LC512-I/SMRVE
24LC512T-E/SM
24LC512T-I/SM
24LC512T-I/SMRVE
24LC64-E/SM
24LC64-I/SM
24LC64-I/SMRVE
24LC64T-E/SM
24LC64T-I/SM
24LC64T-I/SMRVE
25AA1024-I/SM
25AA1024-I/SMB21
25AA1024T-I/SM
25AA1024T-I/SMB21
25AA128-I/SM
25AA128T-I/SM
25AA256-E/SM
25AA256-I/SM
25AA256T-E/SM
25AA256T-I/SM
25AA512-I/SM
25AA512T-I/SM
25LC1024-E/SM
25LC1024-I/SM
25LC1024-I/SMA23
25LC1024T-E/SM
25LC1024T-I/SM
25LC1024T-I/SMA23
25LC128-E/SM
25LC128-I/SM
25LC128T-E/SM

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Affected Catalog Part Numbers (CPN)

PCN_JAON-20DZPV439
CATALOG_PART_NBR
25LC128T-I/SM
25LC256-E/SM
25LC256-I/SM
25LC256T-E/SM
25LC256T-I/SM
25LC512-E/SM
25LC512-I/SM
25LC512T-E/SM
25LC512T-I/SM
PIC12F509-E/SM
PIC12F509-I/SM
PIC12F509T-E/SM
PIC12F509T-I/SM
PIC12F509T-I/SM034
PIC12F509T-I/SM035
PIC12F509T-I/SM036
PIC12F509T-I/SM037
PIC12F509T-I/SM038



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## **QUALIFICATION PLAN**

**PCN #: JAON-20DZPV439**

**Date:  
March 9, 2016**

**Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 150K and 160K wafer technologies available in 8L SOIJ package at MTAI assembly site.**

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Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire in selected products of the 150K and 160K wafer technologies available in 8L SOIJ package at MTAI assembly site.

CCB No.: 2598

<b>Misc.</b>	<b>Assembly site</b>	MTAI
	<b>BD Number</b>	BDM-001037 rev.A
	<b>MP Code (MPC)</b>	DEBD2TC3X038
	<b>Part Number (CPN)</b>	PIC12F509T-I/SM038
<b>Lead-Frame</b>	<b>Paddle size</b>	140x160 mils
	<b>Material</b>	CDA194
	<b>Surface</b>	Bare Cu DAP
	<b>Treatment</b>	Brown Oxide Treated
	<b>Process</b>	Stamped
	<b>Lead-lock</b>	No
	<b>Part Number</b>	TBD
	<b>Lead Plating</b>	Matte Tin
<b>Bond Wire</b>	<b>Material</b>	CuPdAu
<b>Die Attach</b>	<b>Part Number</b>	8390A
	<b>Conductive</b>	Yes
<b>MC</b>	<b>Part Number</b>	G600V
<b>PKG</b>	<b>PKG Type</b>	SOIJ
	<b>Pin/Ball Count</b>	8
	<b>PKG width/size</b>	0.208 inch
<b>Die</b>	<b>Die Thickness</b>	15 mils
	<b>Die Size</b>	41.5 x 48.0 mils

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	3	24	0 fails after TC	5	30 bonds from a minimum of 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	3	24	0	5	30 bonds from a minimum of 5 devices.
Wire Sweep		5	0	3	15	0		Required for any reduction in wire bond thickness.
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 +25°C 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. MSL1 @ 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 to be tested at 125C)	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. Electrical test pre and post stress at +25°C.	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 to be tested at 125C)	77	5	3	246	0	15	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.