



Product Change Notification - JAON-27QDPG251

Date:

10 Mar 2020

Product Category:

16-Bit - Microcontrollers and Digital Signal Controllers; 32-bit Microcontrollers

Affected CPNs:**Notification subject:**

CCB 4156 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire for selected products available in 64L QFN (9x9x0.9mm) package at MTAI assembly site.

Notification text:**PCN Status:**

Initial notification

PCN Type:

Manufacturing Change

Microchip Parts Affected:

Please open one of the icons found in the Affected CPNs section above.

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 for selected products available in 64L QFN (9x9x0.9mm) package at MTAI assembly site.

Pre Change:

Using gold (Au) bond wire

Post Change:

Using palladium coated copper with gold flash (CuPdAu) bond wire

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Microchip Technology Thailand HQ (MTAI)	Microchip Technology Thailand HQ (MTAI)
Lead frame material	C194	C194
Bond wire material	Au wire	CuPdAu wire
Die attach material	3280	3280
Mold compound material	G700LTD	G700LTD

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve manufacturability by qualifying palladium coated copper with gold flash (CuPdAu) bond wire at MTAI assembly site.

Change Implementation Status:

In Progress



Estimated Qualification Completion Date:

April 2020

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

Time Table Summary:

	March 2020				April 2020				
Workweek	10	11	12	13	14	15	16	17	18
Initial PCN Issue Date		X							
Qual Report Availability								X	
Final PCN Issue Date								X	

Method to Identify Change:

Traceability code

Qualification Plan:

Please open the attachments included with this PCN labeled as PCN_#_Qual Plan.

Revision History:

March 10, 2020: 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-27QDPG251 Qual Plan.pdf](#)

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

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QUALIFICATION PLAN SUMMARY

PCN #: JAON-27QDPG251

**Date:
February 19, 2020**

Qualification of palladium coated copper with gold flash (CuPdAu) bond wire for selected products available in 64L QFN (9x9x0.9mm) package at MTAI assembly site.

Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire for selected products available in 64L QFN (9x9x0.9mm) package at MTAI assembly site.

CCB No.: 4156

Assembly site	MTAI
BD Number	BDM-002348 rev.A
MP Code (MPC)	TLAK1MR4XQCF
Part Number (CPN)	DSPIC33EP128GM706-H/MR
MSL information	MSL1/260
Assembly Shipping Media (T/R, Tube/Tray)	Tube
Base Quantity Multiple (BQM)	40
Reliability Site	MTAI
Paddle size	264x264
Material	C194
DAP Surface Prep	Bare Copper
Treatment	Yes
Process	Etched
Lead-lock	No
Lead Plating	Matte Tin
Strip Size	70x250mm
Strip Density	120
Material	CuPdAu
Part Number	3280
Conductive	Yes
Part Number	G700LTD
Manufacturer	Sumitomo
PKG Type	QFN
Pin/Ball Count	64
PKG width/size	9x9mm

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	Test Site	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	MTAI	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5	MTAI	30 bonds from a min. 5 devices.
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5	MTAI	
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-020E for package type; Electrical test pre and post stress at +25C and hot temp. MSL1/260	231	15	3	738	0	15	MTAI	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 & 192 hours . Electrical test pre and post stress at +25°C and hot temp.	77	5	3	246	0	10	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	+130°C/85% RH for 96 & 192 hrs . Electrical test pre and post stress at 25°C	77	5	3	246	0	10	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	-65°C to +150°C for 500 & 1000 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	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

JAON-27QDPG251 - CCB 4156 Initial Notice: Qualification of palladium coated copper with gold flash (C

Affected Catalog Part Numbers(CPN)

DSPIC33EP256GP506-E/MR
DSPIC33EP256GP506-H/MR
DSPIC33EP256GP506-I/MR
DSPIC33EP256MC206-E/MR
DSPIC33EP256MC206-E/MRRA3
DSPIC33EP256MC206-I/MR
DSPIC33EP256MC206T-E/MRRA3
DSPIC33EP256MC506-E/MR
DSPIC33EP256MC506-I/MR
DSPIC33EP256MU806-E/MR
DSPIC33EP256MU806-I/MR
DSPIC33EP256MU806T-E/MR
DSPIC33EP256MU806T-I/MR
DSPIC33EP512GM706-I/MRC01
DSPIC33EP512GM706T-I/MRC01
DSPIC33EP512GP506-E/MR
DSPIC33EP512GP506-H/MR
DSPIC33EP512GP506-I/MR
DSPIC33EP512GP506T-E/MR
DSPIC33EP512GP506T-H/MR
DSPIC33EP512GP506T-I/MR
DSPIC33EP512GP806-E/MR
DSPIC33EP512GP806-I/MR
DSPIC33EP512GP806T-E/MR
DSPIC33EP512GP806T-I/MR
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DSPIC33EP64MC506T-E/MR
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