Product Change Notification / JAON-20ILNW277

Date:

23-Oct-2020

Product Category:

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

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4225 and 4225.001 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire for selected products available in 64L QFN (9x9x0.9mm) and 28L QFN (6x6x0.9mm) packages at MTAI assembly site.

Affected CPNs:

JAON-20ILNW277_Affected_CPN_10232020.pdf
JAON-20ILNW277_Affected_CPN_10232020.csv

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) and 28L QFN (6x6x0.9mm) packages at MTAI assembly site.

Pre Change:
Assembled at MTAI using gold (Au) bond wire

Post Change: Assembled at MTAI using 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)
Wire material	Au	CuPdAu
Die attach material	3280	3280
Molding compound material	G700LTD	G700LTD
Lead frame material	C194	C194

Impacts to Data Sheet: None.

Change Impact: None

Reason for Change: To improve manufacturability by qualifying coated copper with gold flash (CuPdAu) bond wire.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: December 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:

	October 2020					-->	**December 2020**				
Workweek	40	41	42	43	44		49	50	51	52	53
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:October 23, 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.

Attachments:

PCN_JAON-20ILNW277_Qual_Plan.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.

JAON-20ILNW277 - CCB 4225 and 4225.001 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire for selected products available in 64L QFN (9x9x0.9mm) and 28L QFN (6x6x0.9mm) packages at MTAI assembly site.

Affected Catalog Part Numbers(CPN)

PIC24FJ1024GA606-E/MR
PIC24FJ128GA606-E/MR
PIC24FJ256GA606-E/MR
PIC24FJ512GA606-E/MR
PIC24FJ1024GB606-E/MR
PIC24FJ128GB606-E/MR
PIC24FJ256GB606-E/MR
PIC24FJ512GB606-E/MR
PIC24FJ1024GA606-I/MR
PIC24FJ128GA606-I/MR
PIC24FJ256GA606-I/MR
PIC24FJ512GA606-I/MR
PIC24FJ1024GB606-I/MR
PIC24FJ128GB606-I/MR
PIC24FJ256GB606-I/MR
PIC24FJ512GB606-I/MR
PIC24FJ1024GA606T-I/MR
PIC24FJ128GA606T-I/MR
PIC24FJ256GA606T-I/MR
PIC24FJ512GA606T-I/MR
PIC24FJ1024GB606T-I/MR
PIC24FJ128GB606T-I/MR
PIC24FJ256GB606T-I/MR
PIC24FJ512GB606T-I/MR
PIC24FJ128GL302-E/ML
PIC24FJ64GL302-E/ML
PIC24FJ128GL302-I/ML
PIC24FJ64GL302-I/ML
PIC24FJ128GL302T-I/ML
PIC24FJ64GL302T-I/ML
PIC24FJ128GL406-E/MR
PIC24FJ256GL406-E/MR
PIC24FJ512GL406-E/MR
PIC24FJ128GU406-E/MR
PIC24FJ256GU406-E/MR
PIC24FJ512GU406-E/MR
PIC24FJ128GL406-I/MR
PIC24FJ256GL406-I/MR
PIC24FJ512GL406-I/MR

PIC24FJ128GU406-I/MR
PIC24FJ256GU406-I/MR
PIC24FJ512GU406-I/MR
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PIC24FJ128GU406T-I/MR
PIC24FJ256GU406T-I/MR
PIC24FJ512GU406T-I/MR
PIC24FJ256GA702-E/ML
PIC24FJ128GA702-E/ML
PIC24FJ64GA702-E/ML
PIC24FJ256GA702-I/ML
PIC24FJ128GA702-I/ML
PIC24FJ64GA702-I/ML
PIC24FJ256GA702T-I/ML
PIC24FJ128GA702T-I/ML
PIC24FJ64GA702T-I/ML
PIC32MM0064GPM028-E/ML
PIC32MM0128GPM028-E/ML
PIC32MM0256GPM028-E/ML
PIC32MM0064GPM028-I/ML
PIC32MM0128GPM028-I/ML
PIC32MM0256GPM028-I/ML
PIC32MM0256GPM028T-I/ML026
PIC32MM0256GPM028T-I/ML028
PIC32MM0064GPM028T-I/ML
PIC32MM0128GPM028T-I/ML
PIC32MM0256GPM028T-I/ML
PIC32MM0016GPL028-E/ML
PIC32MM0032GPL028-E/ML
PIC32MM0064GPL028-E/ML
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PIC32MM0064GPL028-I/ML
PIC32MM0016GPL028T-I/ML
PIC32MM0032GPL028T-I/ML
PIC32MM0064GPL028T-I/ML

QUALIFICATION PLAN SUMMARY

PCN #: JAON-20ILNW277

Date
Oct 15, 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. The qualification of CuPdAu bond wire for selected products available in 28L QFN (6x6x0.9mm) package at MTAI assembly site will qualify by similarity (QBS).

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. The qualification of CuPdAu bond wire for selected products available in 28L QFN (6x6x0.9mm) package at MTAI assembly site will qualify by similarity (QBS).**

CCB No.: **4225 and 4225.001**

Assembly site	MTAI
BD Number	BDM-002360/A
MP Code (MPC)	SAAA1TR4XCXF
Part Number (CPN)	PIC24FJ256GA606T-I/MR
MSL information	1
Assembly Shipping Media (T/R, Tube/Tray)	T/R
Base Quantity Multiple (BQM)	3300
Reliability Site	MTAI
Paddle size	264x264
Lead Frame Material	C194
DAP Surface Prep	Bare Cu
Treatment	Roughening
Process	Etched
Lead-lock	Yes
Lead Plating	Matte tin
Strip Size	120
Bond Wire	CuPdAu
Die Attach	3280
Mold Compound	G700LTD
PKG Type	QFN
Pin/Ball Count	64
PKG width/size	9x9

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		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	
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 MSL1/260	231	15	3	738	0	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	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	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 room temp; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.