



Product Change Notification / NTDO-07ARFY910

Date:

10-Aug-2023

Product Category:

16-Bit - Microcontrollers and Digital Signal Controllers, 8-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6443 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire as new wire material for selected DSPIC33FJ128xxx, DSPIC33FJ256xxx, DSPIC33FJxxGSxxx, DSPIC33FJxxMxxx, PIC18F9xJxx and PIC24FJxxxGxxx device families available in 64L and 100L TQFP (14x14x1 mm) package.

Affected CPNs:

[NTDO-07ARFY910_Affected_CPN_08102023.pdf](#)

[NTDO-07ARFY910_Affected_CPN_08102023.csv](#)

Notification Text:

PCN Status:Initial Notification

PCN Type:Manufacturing Change

Microchip Parts Affected:Please open one of the files found in the Affected CPNs section.

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 as new wire material for selected DSPIC33FJ128xxx, DSPIC33FJ256xxx, DSPIC33FJxxGSxxx, DSPIC33FJxxMxxx, PIC18F9xJxx and PIC24FJxxxGxxx device families available in 64L and 100L TQFP (14x14x1 mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change
Assembly Site	Microchip Technology Thailand (Branch) / (MMT)	Microchip Technology Thailand (Branch) / (MMT)
Wire Material	Au	CuPdAu
Die Attach Material	3280	3280
Molding Compound Material	G700HA	G700HA
Lead-Frame Material	C7025	C7025

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.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:November 2023

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:

	August 2023					>	November 2023				
Workweek	31	32	33	34	35		44	45	46	47	48
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: August 10, 2023: 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_NTDO-07ARFY910_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.

NTDO-07ARFY910 - CCB 6443 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire as new wire material for selected DSPIC33FJ128xxx, DSPIC33FJ256xxx, DSPIC33FJxxGSxxx, DSPIC33FJxxMxxx, PIC18F9xJxx and PIC24FJxxxGxxx device families available in 64L and 100L TQFP (14x14x1 mm) package.

Affected Catalog Part Numbers (CPN)

DSPIC33FJ128GP310A-I/PF
DSPIC33FJ128GP310-I/PF
DSPIC33FJ128GP710A-E/PF
DSPIC33FJ128GP710A-I/PF
DSPIC33FJ128GP710-I/PF
DSPIC33FJ128MC510A-I/PF
DSPIC33FJ128MC510-I/PF
DSPIC33FJ128MC710A-E/PF
DSPIC33FJ128MC710A-I/PF
DSPIC33FJ128MC710AT-I/PF
DSPIC33FJ128MC710-I/PF
DSPIC33FJ256GP510A-E/PF
DSPIC33FJ256GP510A-I/PF
DSPIC33FJ256GP510-I/PF
DSPIC33FJ256GP710A-E/PF
DSPIC33FJ256GP710A-H/PF
DSPIC33FJ256GP710A-I/PF
DSPIC33FJ256GP710AT-I/PF
DSPIC33FJ256GP710-I/PF
DSPIC33FJ256GP710-I/PFB21
DSPIC33FJ256GP710T-I/PF
DSPIC33FJ256MC510A-E/PF
DSPIC33FJ256MC510A-I/PF
DSPIC33FJ256MC510-I/PF
DSPIC33FJ256MC710A-E/PF
DSPIC33FJ256MC710A-H/PF
DSPIC33FJ256MC710A-I/PF
DSPIC33FJ256MC710AT-I/PF
DSPIC33FJ256MC710-I/PF
DSPIC33FJ256MC710T-I/PF
DSPIC33FJ32GS610-50I/PF
DSPIC33FJ32GS610-I/PF
DSPIC33FJ64GP310-I/PF
DSPIC33FJ64GP710A-I/PF
DSPIC33FJ64GP710-I/PF
DSPIC33FJ64GS610-50I/PF
DSPIC33FJ64GS610-E/PF
DSPIC33FJ64GS610-I/PF
DSPIC33FJ64GS610T-E/PF
DSPIC33FJ64GS610T-I/PF
DSPIC33FJ64MC506A-E/PFC23
DSPIC33FJ64MC510A-I/PF
DSPIC33FJ64MC710-I/PF
PIC18F96J65-I/PF
PIC18F97J60-I/PF
PIC18F97J60T-I/PF

NTDO-07ARFY910 - CCB 6443 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire as new wire material for selected DSPIC33FJ128xxx, DSPIC33FJ256xxx, DSPIC33FJxxGSxxx, DSPIC33FJxxMxxx, PIC18F9xJxx and PIC24FJxxxGxxx device families available in 64L and 100L TQFP (14x14x1 mm) package.

PIC24FJ128GA010-I/PF

PIC24FJ128GA110-E/PF

PIC24FJ128GA110-I/PF

PIC24FJ128GB110-I/PF

PIC24FJ192GB110-I/PF

PIC24FJ256GA110-E/PF

PIC24FJ256GA110-I/PF

PIC24FJ256GB110-I/PF

PIC24FJ256GB110T-I/PF

PIC24FJ64GA010-I/PF

PIC24FJ64GA010T-I/PF

PIC24FJ64GA110-I/PF

PIC24FJ64GB110-I/PF

PIC24FJ96GA010-I/PF

PIC24HJ128GP210A-I/PF

PIC24HJ128GP210-I/PF

PIC24HJ128GP310A-I/PF

PIC24HJ128GP310-I/PF

PIC24HJ128GP510A-E/PF

PIC24HJ128GP510A-I/PF

PIC24HJ128GP510AT-I/PF

PIC24HJ128GP510-I/PF

PIC24HJ256GP210A-E/PF

PIC24HJ256GP210A-I/PF

PIC24HJ256GP210-I/PF

PIC24HJ256GP210T-I/PF

PIC24HJ256GP610A-E/PF

PIC24HJ256GP610A-H/PF

PIC24HJ256GP610A-I/PF

PIC24HJ256GP610AT-I/PF

PIC24HJ256GP610-I/PF

PIC24HJ256GP610T-I/PF

PIC24HJ64GP210A-I/PF

PIC24HJ64GP210-I/PF

PIC24HJ64GP510A-I/PF

PIC24HJ64GP510AT-I/PF

PIC24HJ64GP510-I/PF



QUALIFICATION PLAN SUMMARY

PCN#: NTDO-07ARFY910

**Date:
July 5, 2023**

Qualification of palladium coated copper with gold flash (CuPdAu) bond wire as new wire material for selected DSPIC33FJ128xxx, DSPIC33FJ256xxx, DSPIC33FJxxGSxxx, DSPIC33FJxxMxxx, PIC18F9xJxx and PIC24FJxxxGxxx device families available in 64L and 100L TQFP (14x14x1 mm) package.

Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire as new wire material for selected DSPIC33FJ128xxx, DSPIC33FJ256xxx, DSPIC33FJxxGSxxx, DSPIC33FJxxMxxx, PIC18F9xJxx and PIC24FJxxxGxxx device families available in 64L and 100L TQFP (14x14x1 mm) package.

CCB: 6443

<u>Misc.</u>	Assembly site	MMT
	BD Number	BD-001575/01
	MP Code (MPC)	YGAG17E5XBEB
	Part Number (CPN)	DSPIC33FJ128GP310-I/PF
	MSL information	MSL-1
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	90
	Reliability Site	MTAI
<u>Lead-Frame</u>	Paddle size	280x280 mils
	Material	C7025
	DAP Surface Prep	Cu-RT
	Treatment	BOT
	Process	Stamp
	Lead-lock	No
	Part Number	10110005
	Lead Plating	Matte Tin
	Strip Size	250.0x70.0mm
	Strip Density	30 Unit/Strip
<u>Bond Wire</u>	Material	CuPdAu
<u>Die Attach</u>	Part Number	3280
	Conductive	Yes
<u>MC</u>	Part Number	G700HA
<u>PKG</u>	Package Type	TQFP
	Pin/Ball Count	100L
	PKG width/size	14x14x1mm

Test Name	Conditions	Sample Size	Min. Qty of Spares per Lot	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	ATE Test Site	REL Test Site	Pkg. Type	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5		5		MMT/MTAI	TQFP	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5		MMT/MTAI	TQFP	30 bonds from a min. 5 devices.
Wire Sweep									MMT	TQFP	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5		MMT/MTAI	TQFP	
Preconditioning - Required for surface mount devices	JESD22-A113. +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 +25°C. MSL-1/260C	231	15	3	738	0	15	MTAI	MTAI	TQFP	Spares should be properly identified.
HAST	JESD22-A110. +130°C/85% RH for 96 hours Electrical test pre and post stress at +25°C and +85°C.	77	5	3	246	0	10	MTAI	MTAI	TQFP	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
UHAST	JESD22-A118. +130°C/85% RH for 96 hrs. Electrical test pre and post stress at +25°C	77	5	3	246	0	10	MTAI	MTAI	TQFP	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104. -65°C to +150°C for 500 cycles. Electrical test pre and post stress at +85°C; 3 gram force WBP, on 5 devices from 1 lot test following Temp Cycle stress	77	5	3	246	0	15	MTAI	MTAI	SOIC	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.