Product Change Notification: BLAS-27MDGA724

Date:

16-Jan-2025

Product Category:

16-Bit - Microcontrollers And Digital Signal Controllers, 32-Bit Microcontrollers, Analog to Digital Converters, Capacitive Touch Sensors

Notification Subject:

CCB 7203 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as an additional bond wire material for selected dsPIC33EPxx, dsPIC33EVxx, MCP3913, MGC3030, PIC24EP12xx, PIC24EP25xx, PIC24FJ12xx, PIC24FJ64xx, PIC32MX11xx, PIC32MX12xx, PIC32MX13xx, PIC32MX15xx, PIC32MX17xx, PIC32MX21xx, PIC32MX22xx, PIC32MX23xx, PIC32MX25xx and PIC32MX27xx device families available in 28L SSOP (.209in) package at MTAI assembly site.

Affected CPNs:

BLAS-27MDGA724_Affected_CPN_01162025.pdf
BLAS-27MDGA724_Affected_CPN_01162025.csv

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) as an additional bond wire material for selected dsPIC33EPxx, dsPIC33EVxx, MCP3913, MGC3030, PIC24EP12xx, PIC24EP25xx, PIC24FJ12xx, PIC24FJ64xx, PIC32MX11xx, PIC32MX12xx, PIC32MX13xx, PIC32MX15xx, PIC32MX17xx, PIC32MX21xx, PIC32MX22xx, PIC32MX23xx, PIC32MX25xx and PIC32MX27xx device families available in 28L SSOP (.209in) package at MTAI assembly site.

Pre and Post Summary Changes:

	Pre Change	Post Change

Assembly Site	Microchip Technology Thailand (HQ) (MTAI)		Microchip Technology Thailand (HQ) (MTAI)	
Wire Material	Au		Au	CuPdAu
Die Attach Material	3280	8390A	3280	
Molding Compound Material	G600		G600	
Lead-Frame Material	CDA194		CDA194	
Lead-Frame Paddle Size	153 x 200 mils		153 x 200 mils	
DAP Surface Prep	Ag	Bare Cu	Bare Cu	

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve manufacturability by qualifying CuPdAu as an additional bond wire material.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: January 2025

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.

Timetable Summary:

	January 2025

Work Week	01	02	03	04	05
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: January 16, 2025: Issued initial notification.

Note: The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable product.

Attachments:

PCN_BLAS-27MDGA724_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.

DSPIC33EP32GS202T-E/SS
PIC32MX250F128B-I/SS
PIC32MX250F128B-V/SS
PIC32MX250F128BT-V/SS
PIC32MX250F128BT-I/SS
PIC32MX150F128B-I/SSF21
PIC32MX150F128B-I/SS
PIC32MX150F128B-V/SS
PIC32MX150F128BT-V/SS
PIC32MX150F128BT-I/SS
PIC24FJ128GB202-I/SS
PIC24FJ128GB202T-I/SS
PIC24FJ64GB202-E/SS
PIC24FJ64GB202-I/SS
PIC24FJ64GB202T-I/SS
MCP3913A1-E/SS
MCP3913A1T-E/SS
PIC24FJ64GA202-I/SS
PIC24FJ64GA202T-I/SS
DSPIC33EP128GP502-E/SS
DSPIC33EP128MC502-E/SS
DSPIC33EP128GP502-I/SS
DSPIC33EP128MC202-I/SS
DSPIC33EP128MC502-I/SS
PIC24EP128GP202-I/SS
PIC24EP128MC202-I/SS
DSPIC33EP128MC202T-I/SS
PIC24EP128GP202T-I/SS
DSPIC33EP128MC502T-E/SS
PIC24EP128GP202T-E/SS
PIC32MX170F256B-I/SS
PIC32MX170F256B-V/SS
PIC32MX170F256BT-V/SS
PIC32MX170F256BT-I/SS
PIC32MX220F032B-I/SS
PIC32MX220F032B-V/SS
PIC32MX220F032BT-V/SS
PIC32MX220F032BT-I/SS
PIC24FJ128GA202-I/SS
PIC24FJ128GA202T-I/SS
DSPIC33EV128GM002-H/SS
DSPIC33EV128GM102-H/SS
DSPIC33EV64GM002-H/SS
DSPIC33EV64GM102-H/SS
DSPIC33EV32GM002-H/SS
DSPIC33EV32GM102-H/SS

DSPIC33EV256GM102-E/SS
DSPIC33EV256GM002-I/SS
DSPIC33EV256GM102-I/SS
DSPIC33EV256GM102-H/SS
PIC32MX230F256B-50I/SS
PIC32MX230F256B-I/SS
PIC32MX230F256B-V/SS
PIC32MX230F256BT-V/SS
PIC32MX230F256BT-50I/SS
PIC32MX230F256BT-I/SS
PIC32MX130F256B-50I/SS
PIC32MX130F256B-I/SS
PIC32MX130F256B-V/SS
PIC32MX130F256BT-V/SS
PIC32MX130F256BT-50I/SS
PIC32MX130F256BT-I/SS
PIC32MX230F064B-I/SS
PIC32MX230F064B-V/SS
PIC32MX230F064BT-V/SS
PIC32MX230F064BT-I/SS
PIC32MX130F064B-I/SS
PIC32MX130F064B-V/SS
PIC32MX130F064BT-V/SS
PIC32MX130F064BT-I/SS
PIC32MX220F032B-50I/SS
PIC32MX220F032BT-50I/SS
PIC32MX250F128B-50I/SS
PIC32MX250F128BT-50I/SS
PIC32MX210F016B-I/SS
PIC32MX210F016B-V/SS
PIC32MX210F016BT-V/SS
PIC32MX210F016BT-I/SS
DSPIC33EP256MC502-E/SS
PIC24EP256GP202-E/SS
DSPIC33EP256GP502-I/SS
DSPIC33EP256MC202-I/SS
DSPIC33EP256MC502-I/SS
PIC24EP256GP202-I/SS
PIC24EP256MC202-I/SS
DSPIC33EP256GP502T-I/SS
PIC24EP256GP202T-I/SS
PIC32MX170F256B-50I/SS
PIC32MX170F256BT-50I/SS
MGC3030-I/SS
MGC3030T-I/SS
PIC32MX270F256B-50I/SS
PIC32MX270F256BT-50I/SS

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PIC32MX120F032B-50I/SS

PIC32MX120F032BT-50I/SS

PIC32MX110F016B-I/SS

PIC32MX110F016B-V/SS

PIC32MX110F016BT-V/SS

PIC32MX110F016BT-I/SS

DSPIC33EV128GM002-E/SS

DSPIC33EV128GM102-E/SS

DSPIC33EV64GM002-E/SS

DSPIC33EV64GM102-E/SS

DSPIC33EV32GM002-E/SS

DSPIC33EV32GM102-E/SS

DSPIC33EV128GM002-I/SS

DSPIC33EV128GM102-I/SS

DSPIC33EV64GM002-I/SS

DSPIC33EV64GM102-I/SS

DSPIC33EV32GM002-I/SS

DSPIC33EV32GM102-I/SS

DSPIC33EV32GM002T-E/SS

PIC32MX120F032B-I/SS

PIC32MX120F032B-V/SS

PIC32MX120F032BT-V/SS

PIC32MX120F032BT-I/SS

PIC32MX270F256B-I/SS

PIC32MX270F256B-V/SS

PIC32MX270F256BT-V/SS

PIC32MX270F256BT-I/SS

DSPIC33EP16GS202-E/SS

DSPIC33EP32GS202-E/SS

DSPIC33EP16GS202-E/SSC03

DSPIC33EP16GS202-E/SSC04

DSPIC33EP16GS202-I/SS

DSPIC33EP32GS202-I/SS

DSPIC33EP16GS202T-I/SS

DSPIC33EP32GS202T-I/SS

DSPIC33EP16GS202T-E/SS

QUALIFICATION PLAN SUMMARY

PCN #: BLAS-27MDGA724

Date:
October 18, 2024

Qualification of palladium coated copper with gold flash (CuPdAu) as an additional bond wire material for selected dsPIC33EPxx, dsPIC33EVxx, MCP3913, MGC3030, PIC24EP12xx, PIC24EP25xx, PIC24FJ12xx, PIC24FJ64xx, PIC32MX11xx, PIC32MX12xx, PIC32MX13xx, PIC32MX15xx, PIC32MX17xx, PIC32MX21xx, PIC32MX22xx, PIC32MX23xx, PIC32MX25xx and PIC32MX27xx device families available in 28L SSOP (.209in) package at MTAI assembly site.

Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) as an additional bond wire material for selected dsPIC33EPxx, dsPIC33EVxx, MCP3913, MGC3030, PIC24EP12xx, PIC24EP25xx, PIC24FJ12xx, PIC24FJ64xx, PIC32MX11xx, PIC32MX12xx, PIC32MX13xx, PIC32MX15xx, PIC32MX17xx, PIC32MX21xx, PIC32MX22xx, PIC32MX23xx, PIC32MX25xx and PIC32MX27xx device families available in 28L SSOP (.209in) package at MTAI assembly site.

CCB #: 7203

Misc.	Assembly site	MTAI
	BD Number	BD-002714/02
	MP Code (MPC)	TLAE1MN2XPFA
	Part Number (CPN)	PIC24EP256MC202-H/SS
	MSL information	MSL-1/260
	Assembly Shipping Media (T/R, Tube/Tray)	Tube
	Base Quantity Multiple (BQM)	47
	Reliability Site	MTAI
Lead-Frame	Paddle size	153 x 200 mils
	Material	CDA194
	DAP Surface Prep	Bare Cu
	Treatment	BOT
	Process	Stamped
	Lead-lock	No
	Part Number	10102834
	Lead Plating	Matte Tin
Bond Wire	Material	CuPdAu
Die Attach	Part Number	3280
	Conductive	Yes
MC	Part Number	G600
PKG	Package Type	SSOP
	Pin/Ball Count	28
	PKG width/size	209 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	ATE Test Site	REL Test Site	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5			30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		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	5			
HTSL (High Temp Storage Life)	JESD22-A103. +175 C for 504 hours Electrical test pre and post stress at +25C and hot temp 150C.	45	5					MTAI	MTAI	
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 and 150C. MSL1/260	231	15	3	738	0	15	MTAI	MTAI	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test.
HAST	JESD22-A110. +130°C/85% RH for 96 hours Electrical test pre and post stress at +25°C and hot temp 150C.	77	5	3	246	0	10	MTAI	MTAI	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	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 hot temp 150C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	MTAI	MTAI	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.