



Product Change Notification / MFOL-26IVNV286

Date:

27-Jul-2023

Product Category:

8-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6427 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire for selected AT90CANxx, AT90USBxx and ATMEGAx device families available in 64L and 100L TQFP (14x14x1mm) packages at MMT assembly site.

Affected CPNs:

[MFOL-26IVNV286_Affected_CPN_07272023.pdf](#)

[MFOL-26IVNV286_Affected_CPN_07272023.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 for selected AT90CANxx, AT90USBxx and ATMEGAx device families available in 64L and 100L TQFP (14x14x1mm) packages at MMT assembly site.

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 at MMT assembly site.

Change Implementation Status:In Progress

Estimated Qualification Completion Date:October 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:

	July 2023					>	October 2023				
Workweek	2 7	2 8	2 9	3 0	3 1		40	41	42	43	44
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: July 27, 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_MFOL-26IVNV286_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.

Affected Catalog Part Numbers (CPN)

ATMEGA3250P-20AU
ATMEGA3290PV-10AU
ATMEGA325PV-10AU
ATMEGA329P-20AU
ATMEGA329PV-10AU
ATMEGA325P-20AU
ATMEGA329P-20ANR
ATMEGA3250PV-10AUR
ATMEGA3290PV-10AUR
ATMEGA3290P-20AUR
ATMEGA3250P-20AUR
ATMEGA325PV-10AUR
ATMEGA329P-20AUR
ATMEGA329PV-10AUR
ATMEGA325P-20AUR
ATMEGA64-16AUA2
ATMEGA64L-8AQR
ATMEGA64L-8AQRA1
ATMEGA64L-8AURA1
ATMEGA64-16AURA1
ATMEGA1280-16AU
ATMEGA1280V-8AU
ATMEGA640V-8AU
ATMEGA640-16AU
ATMEGA1280-16AU-HCM
ATMEGA1281-16AU
ATMEGA1281V-8AU
ATMEGA1280-16AUR
ATMEGA1280V-8AUR
ATMEGA640V-8AUR
ATMEGA640-16AUR
ATMEGA1281V-8AUR
ATMEGA1281-16AUR
ATMEGA2560-16AU
ATMEGA2560V-8AU
ATMEGA2560-16AU-HCM
ATMEGA2561-16AU
ATMEGA2561V-8AU
ATMEGA2560-16AUR
ATMEGA2560V-8AUR
ATMEGA2561-16AUR
ATMEGA2561V-8AUR
AT90USB1286-AU
AT90USB1287-AU
AT90USB1286-AUR
AT90USB1287-AUR

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AT90CAN32-16AU

AT90CAN32-16AUR

AT90CAN64-16AU

AT90CAN64-16AUR

AT90USB646-AU

AT90USB647-AU

AT90USB646-AUR

AT90USB647-AUR

AT90CAN128-16AU

AT90CAN128-16AUR

ATMEGA128L-8AURA5

ATMEGA3290PV-10AUA0

ATMEGA329PV-10AURA0

ATMEGA325P-20AURA0

ATMEGA64L-8AURA3

ATMEGA640-16AURA0

ATMEGA3250V-8AU

ATMEGA3250-16AU

ATMEGA3290-16AU

ATMEGA3290V-8AU

ATMEGA329V-8AU

ATMEGA329-16AU

ATMEGA325V-8AU

ATMEGA325-16AU

ATMEGA3250V-8AUR

ATMEGA3250-16AUR

ATMEGA3290-16AUR

ATMEGA3290V-8AUR

ATMEGA329V-8AUR

ATMEGA325V-8AUR

ATMEGA325-16AUR

ATMEGA329-16AUR

ATMEGA128L-8AUA4

ATMEGA128L-8AN

ATMEGA128L-8AURA3

ATMEGA128-16AURA3

ATMEGA6490V-8AU

ATMEGA6450V-8AU

ATMEGA6450-16AU

ATMEGA6490-16AU

ATMEGA649V-8AU

ATMEGA645-16AU

ATMEGA649-16AU

ATMEGA645V-8AU

ATMEGA6450V-8AUR

ATMEGA6450-16AUR

ATMEGA6490-16AUR

ATMEGA6490V-8AUR

ATMEGA649-16AUR

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ATMEGA645V-8AUR

ATMEGA649V-8AUR

ATMEGA645-16AUR

ATMEGA169PV-8AU

ATMEGA169P-16AU

ATMEGA165P-16AU

ATMEGA165PV-8AU

ATMEGA165P-16AN

ATMEGA165PV-8AN

ATMEGA165PV-8ANR

ATMEGA165P-16ANR

ATMEGA169PV-8AUR

ATMEGA169P-16AUR

ATMEGA165P-16AUR

ATMEGA165PV-8AUR

ATMEGA169PV-8AURA3

ATMEGA3250PV-10AU

ATMEGA3290P-20AU



**MICROCHIP
QUALIFICATION PLAN SUMMARY**

PCN #: MFOL-26IVNV286

**Date:
July 05, 2023**

Qualification of palladium coated copper with gold flash (CuPdAu) bond wire for selected AT90CANxx, AT90USBxx and ATMEGAXx device families available in 64L and 100L TQFP (14x14x1mm) packages at MMT assembly site.

Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) bond wire for selected AT90CANxx, AT90USBxx and ATMEGAXx device families available in 64L and 100L TQFP (14x14x1mm) packages at MMT assembly site.

CCB No. 6427

Misc.	Assembly site	MMT
	BD Number	BD-001573/01
	MP Code (MPC)	355E37E5XC03
	Part Number (CPN)	ATMEGA2560-16AU
	MSL information	MSL-1
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	90
Lead-Frame	Paddle size	280x280 mils
	Material	C7025
	DAP Surface Prep	Bare Cu
	Treatment	BOT
	Process	Stamped
	Lead-lock	No
	Part Number	10110005
	Lead Plating	Matte Tin
	Strip Size	250.0x70.0mm
Strip Density	30 pads/strip	
Bond Wire	Material	CuPdAu
Die Attach	Part Number	3280
	Conductive	Yes
MC	Part Number	G700HA
PKG	Package Type	TQFP
	Pin/Ball Count	11 mils
	PKG width/size	14x14mm

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	Pkg. Type	Special Instructions
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	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	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		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. 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 +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.

UHA	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 +85C; 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.