



Product Change Notification: CAAN-19WAVG730

Date:

21-Jan-2026

Product Category:

8-Bit Microcontrollers

Notification Subject:

CCB 8025 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for selected AT90CAN128, AT90USB1286, AT90USB1287, AT90USB646, AT90USB647, ATmega1280, ATmega1281, ATmega2560, ATmega2561 and ATmega640 device families available in 64L TQFP (14x14x1mm) and 100L TQFP (14x14x1mm) packages at MMT assembly site.

Affected CPNs:

[CAAN-19WAVG730_Affected_CPN_01212026.pdf](#)
[CAAN-19WAVG730_Affected_CPN_01212026.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 a new bond wire material for selected AT90CAN128, AT90USB1286, AT90USB1287, AT90USB646, AT90USB647, ATmega1280, ATmega1281, ATmega2560, ATmega2561 and ATmega640 device families available in 64L TQFP (14x14x1mm) and 100L TQFP (14x14x1mm) packages at MMT assembly site.

Pre and Post Summary Changes:

	Pre Change	Post Change	Change (Yes/No)
Assembly Site	Microchip Technology Thailand	Microchip Technology Thailand	No

Method to Identify Change: Traceability Code

Qualification Plan: Please open the attachments included with this PCN labeled as PCN_#_Qual_Plan.

Revision History: January 21, 2026: 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_CAAN-19WAVG730_Qualification 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.

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Affected Catalog Part Numbers (CPN)

AT90CAN128-16AU

AT90CAN128-16AUR

AT90USB1286-AU

AT90USB1286-AUR

AT90USB1287-AU

AT90USB1287-AUR

AT90USB646-AU

AT90USB646-AUR

AT90USB647-AU

AT90USB647-AUR

ATMEGA1280-16AU

ATMEGA1280-16AU-HCM

ATMEGA1280-16AUR

ATMEGA1280V-8AU

ATMEGA1280V-8AUR

ATMEGA1281-16AU

ATMEGA1281-16AUR

ATMEGA1281V-8AU

ATMEGA1281V-8AUR

ATMEGA2560-16AU

ATMEGA2560-16AU-HCM

ATMEGA2560-16AUR

ATMEGA2560V-8AU

ATMEGA2560V-8AUR

ATMEGA2561-16AU

ATMEGA2561-16AUR

ATMEGA2561V-8AU

Date: Wednesday, January 21, 2026

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ATMEGA2561V-8AUR

ATMEGA640-16AU

ATMEGA640-16AUR

ATMEGA640-16AURA0

ATMEGA640V-8AU

ATMEGA640V-8AUR



QUALIFICATION PLAN SUMMARY

PCN#: CAAN-19WAVG730

**Date:
January 15, 2026**

**Qualification of palladium coated copper with gold flash (CuPdAu)
as a new bond wire material for selected AT90CAN128,
AT90USB1286, AT90USB1287, AT90USB646, AT90USB647,
ATmega1280, ATmega1281, ATmega2560, ATmega2561 and
ATmega640 device families available in 64L TQFP (14x14x1mm)
and 100L TQFP (14x14x1mm) packages at MMT assembly site.**

Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for selected AT90CAN128, AT90USB1286, AT90USB1287, AT90USB646, AT90USB647, ATmega1280, ATmega1281, ATmega2560, ATmega2561 and ATmega640 device families available in 64L TQFP (14x14x1mm) and 100L TQFP (14x14x1mm) packages at MMT assembly site.

CCB No.: 8025

<u>Misc.</u>	Assembly site	MMT	
	BD Number	BD-004085/01	
	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	
	Reliability Site	MTAI	
<u>Lead-Frame</u>	Paddle size	280x280 mils	285x285 mils
	Material	C7025	
	DAP Surface Prep	Bare Cu	
	Treatment	None	BOT
	Process	Stamp	Etched
	Lead-lock	No	
	Part Number	10110015	10106413
	Lead Plating	Matte Tin	
	Strip Size	250.0x70.0mm	
	Strip Density	30 pads/strip	
<u>Bond Wire</u>	Material	CuPdAu	
<u>Die Attach</u>	Part Number	QMI519	
	Conductive	Yes	
<u>MC</u>	Part Number	G700HA	
<u>PKG</u>	Package Type	TQFP	
	Pin/Ball Count	100	64
	PKG width/size	14x14x1mm	

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		MMT/MTAI	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	GDF-AEC-Q100-001	5	0	1	5	0	5		MMT/MTAI	30 bonds from a min. 5 devices.
Wire Sweep									MMT/MTAI	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5		MMT/MTAI	
HTSL (High Temp Storage Life)	JESD22-A103. +175 C for 504 hours or 150°C for 1008 hrs. Electrical test pre and post stress at +25C and +85C.	45	5	3	150	0	10	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 Jecdec-STD-020E for package type; Electrical test pre and post stress at +25°C. Perform SAM (C-SCAN) analysis using 45 samples per lot. MSL-1/260C	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 or 110°C/85%RH for 264 hours. Electrical test pre and post stress at +25°C and +85C.	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 or +110°C/85% RH for 264 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 +85C; 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 Post-stress Electrical Test Window Time: N/A