Product Change Notification: CENO-28UUSH311

Date:

03-Jul-2025

Product Category:

32-Bit Microcontrollers

Notification Subject:

CCB 7238 Final Notice: Qualification of CuPdAu as an additional wire material for selected PIC32CM2532xx, PIC32CM5164xx, PIC32CM1602xx, PIC32CM3204xx, PIC32CM6408xx, ATSAMD20J1xx, ATSAMD21J1xx, ATSAML21J1xx, ATSAML22J1xx, ATSAMC20J1xx and ATSAMC21J1xx device families available in 64L VQFN (9x9x1.0mm) and 64L QFN (9x9x0.9mm) packages at MMT assembly site.

Affected CPNs:

CENO-28UUSH311_Affected_CPN_07032025.pdf
CENO-28UUSH311_Affected_CPN_07032025.csv

PCN Status: Final 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 CuPdAu as an additional wire material for selected PIC32CM2532xx, PIC32CM5164xx, PIC32CM1602xx, PIC32CM3204xx, PIC32CM6408xx, ATSAMD20J1xx, ATSAMD21J1xx, ATSAML21J1xx, ATSAML22J1xx, ATSAMC20J1xx and ATSAMC21J1xx device families available in 64L VQFN (9x9x1.0mm) and 64L QFN (9x9x0.9mm) packages at MMT assembly site.

Pre and Post Summary Changes:

	Pre Change	**Post Change**	
Assembly Site	Microchip Technology Thailand (Branch) (MMT)	Microchip Technology Thailand (Branch) (MMT)	Microchip Technology Thailand (Branch) (MMT)

Wire Material	Au	Au	CuPdAu
Die Attach Material	3280	3280	3280
Molding Compound Material	G700LTD	G700LTD	G700LTD
Lead-Frame Material	C194	C194	C194

Impacts to Datasheet: None

Change Impact: None

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

Change Implementation Status: In Progress

Estimated First Ship Date: 17 July 2025 (date code: 2529)

Note Below EFSD: Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Timetable Summary:

	October 2024					>	**July 2025**				
Work Week	40	41	42	43	44		27	28	29	30	31
Initial PCN Issue Date					x						
Qual Report Availability							x				
Final PCN Issue Date							x				
Estimated Implementation Date									x		

Method to Identify Change: Traceability Code

Qualification Report: Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History: October 31, 2024: Issued initial notification.
July 03, 2025: Issued final notification. Updated the notification subject, description of change and qual title to add PIC32CM1602xx, PIC32CM3204xx and PIC32CM6408xx device families. Updated the affected parts list to add ATSAMC21J17A-OMMZ, ATSAMC21J18A-OMMZ, ATSAMD20J16B-OMZ, PIC32CM1602GV00064-E/5LX, PIC32CM1602GV00064T-E/5LX, PIC32CM2532LE00064-E/5LX, PIC32CM2532LE00064T-E/5LX, PIC32CM2532LS00064-E/5LX, PIC32CM2532LS00064T-E/5LX, PIC32CM3204GV00064-E/5LX, PIC32CM3204GV00064T-E/5LX, PIC32CM3204JH00064-E/5LX, PIC32CM3204JH00064T-E/5LX, PIC32CM5164JH01064-I/5LX-SL3, PIC32CM6408JH00064-E/5LX and PIC32CM6408JH00064T-E/5LX catalog part numbers. Attached the Qualification Report. Provided estimated first ship date to be on July 17, 2025.

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_CENO-28UUSH311_Qual_Report.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)

ATSAMD20J15A-MMUT

ATSAMD20J15B-MMN

ATSAMD20J15B-MMNT

ATSAMD20J15B-MMU

ATSAMD20J15B-MMUT

ATSAMD20J15B-MZ

ATSAMD20J16A-MMN

ATSAMD20J16A-MMNT

ATSAMD20J16A-MMU

ATSAMD20J16A-MMUT

ATSAMD20J16B-MMN

ATSAMD20J16B-MMNT

ATSAMD20J16B-MMU

ATSAMD20J16B-MMUT

ATSAMD20J16B-MZ

ATSAMD20J16B-OMZ

ATSAMD20J17A-MMN

ATSAMD20J17A-MMNT

ATSAMD20J17A-MMU

ATSAMD20J17A-MMUT

ATSAMD20J18A-MMN

ATSAMD20J18A-MMNT

ATSAMD20J18A-MMU

ATSAMD20J18A-MMUT

ATSAMD21J15B-MMF

ATSAMD21J15B-MMFT

ATSAMD21J15B-MMU

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ATSAMD21J15B-MMUT

ATSAMD21J15B-MMZ

ATSAML21J17B-MMUT-SLL

ATSAML21J18B-MMNT

ATSAML21J18B-MMU

ATSAML21J18B-MMUT

ATSAML21J18B-MMUT-SLL

PIC32CM5164JH01064-I/5LX

PIC32CM5164JH01064-I/5LX-SL3

PIC32CM5164JH01064T-E/5LX

PIC32CM5164JH01064T-I/5LX

PIC32CM5164LE00064-I/5LX

PIC32CM5164LE00064T-I/5LX

PIC32CM5164LS00064-I/5LX

PIC32CM5164LS00064T-I/5LX

PIC32CM6408JH00064-E/5LX

PIC32CM6408JH00064T-E/5LX

ATSAML22J16A-MMUT

ATSAML22J17A-MMUT

ATSAML22J18A-MMUT

PIC32CM1602GV00064-E/5LX

PIC32CM1602GV00064T-E/5LX

PIC32CM2532JH00064-E/5LX

PIC32CM2532JH00064-I/5LX

PIC32CM2532JH00064T-E/5LX

PIC32CM2532JH00064T-I/5LX

PIC32CM2532JH01064-E/5LX

PIC32CM2532JH01064-I/5LX

PIC32CM2532JH01064T-E/5LX

PIC32CM2532JH01064T-E/5LX-SL3

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PIC32CM2532JH01064T-I/5LX

PIC32CM2532LE00064-E/5LX

PIC32CM2532LE00064-I/5LX

PIC32CM2532LE00064T-E/5LX

PIC32CM2532LE00064T-I/5LX

PIC32CM2532LS00064-E/5LX

PIC32CM2532LS00064-I/5LX

PIC32CM2532LS00064T-E/5LX

PIC32CM2532LS00064T-I/5LX

PIC32CM3204GV00064-E/5LX

PIC32CM3204GV00064T-E/5LX

PIC32CM3204JH00064-E/5LX

PIC32CM3204JH00064T-E/5LX

PIC32CM5164JH00064-E/5LX

PIC32CM5164JH00064-I/5LX

PIC32CM5164JH00064T-E/5LX

PIC32CM5164JH00064T-I/5LX

PIC32CM5164JH01064-E/5LX

ATSAMC20J15A-MMNT

ATSAMC20J15A-MMUT

ATSAMC20J15A-MMZ

ATSAMC20J15A-MMZT

ATSAMC20J16A-MMNT

ATSAMC20J16A-MMUT

ATSAMC20J16A-MMZ

ATSAMC20J16A-MMZT

ATSAMC20J17A-MMNT

ATSAMC20J17A-MMUT

ATSAMC20J17A-MMZ

ATSAMC20J17A-MMZT

Date: Wednesday, July 2, 2025

ATSAMC20J18A-MMNT

ATSAMC20J18A-MMUT

ATSAMC20J18A-MMZ

ATSAMC20J18A-MMZT

ATSAMC21J15A-MMNT

ATSAMC21J15A-MMUT

ATSAMC21J15A-MMZ

ATSAMC21J15A-MMZT

ATSAMC21J16A-MMNT

ATSAMC21J16A-MMUT

ATSAMC21J16A-MMZ

ATSAMC21J16A-MMZT

ATSAMC21J17A-MMNT

ATSAMC21J17A-MMUT

ATSAMC21J17A-MMZ

ATSAMC21J17A-MMZT

ATSAMC21J17A-OMMZ

ATSAMC21J18A-MMNT

ATSAMC21J18A-MMUT

ATSAMC21J18A-MMZ

ATSAMC21J18A-MMZT

ATSAMC21J18A-OMMZ

ATSAMD20J14A-MMN

ATSAMD20J14A-MMNT

ATSAMD20J14A-MMU

ATSAMD20J14A-MMUT

ATSAMD20J14B-MMN

ATSAMD20J14B-MMNT

ATSAMD20J14B-MMU

ATSAMD20J14B-MMUT

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ATSAMD20J15A-MMN

ATSAMD20J15A-MMNT

ATSAMD20J15A-MMU

ATSAMD21J15B-MMZT

ATSAMD21J16B-MMF

ATSAMD21J16B-MMFT

ATSAMD21J16B-MMU

ATSAMD21J16B-MMUT

ATSAMD21J16B-MMZ

ATSAMD21J16B-MMZT

ATSAMD21J17A-MMF

ATSAMD21J17A-MMFT

ATSAMD21J17A-MMU

ATSAMD21J17A-MMUT

ATSAMD21J17D-MMF

ATSAMD21J17D-MMFT

ATSAMD21J17D-MMU

ATSAMD21J17D-MMUT

ATSAMD21J17D-MMZ

ATSAMD21J17D-MMZT

ATSAMD21J18A-MMF

ATSAMD21J18A-MMFT

ATSAMD21J18A-MMU

ATSAMD21J18A-MMU-SLL

ATSAMD21J18A-MMUT

ATSAMD21J18A-MMZ

ATSAMD21J18A-MMZT

ATSAML21J16B-MMNT

ATSAML21J16B-MMUT

ATSAML21J17B-MMNT

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ATSAML21J17B-MMUT

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: CENO-28UUSH311

Date:
June 10, 2025

Qualification of CuPdAu as an additional wire material for selected PIC32CM2532xx, PIC32CM5164xx, PIC32CM1602xx, PIC32CM3204xx, PIC32CM6408xx, ATSAMD20J1xx, ATSAMD21J1xx, ATSAML21J1xx, ATSAML22J1xx, ATSAMC20J1xx and ATSAMC21J1xx device families available in 64L VQFN (9x9x1.0mm) and 64L QFN (9x9x0.9mm) packages at MMT assembly site.

Package Qualification Report

Purpose: Qualification of CuPdAu as an additional wire material for selected PIC32CM2532xx, PIC32CM5164xx, PIC32CM1602xx, PIC32CM3204xx, PIC32CM6408xx, ATSAMD20J1xx, ATSAMD21J1xx, ATSAML21J1xx, ATSAML22J1xx, ATSAMC20J1xx and ATSAMC21J1xx device families available in 64L VQFN (9x9x1.0mm) and 64L QFN (9x9x0.9mm) packages at MMT assembly site.

CCB No.: 7238

Misc.	Assembly site	MMT
	BD Number	BD-002785/01
	MP Code (MPC)	66P0145LXYXY
	Part Number (CPN)	PIC32CM5164JH01064-E/5LX
	MSL information	MSL-1/260
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	260
	Reliability Site	MPHIL
Lead-Frame	Paddle size	264x264
	Material	C194
	DAP Surface Prep	Bare Cu
	Treatment	BOT
	Process	Etched
	Lead-lock	No
	Part Number	10106409
	Lead Plating	Matte Tin
	Strip Size	250x70mm
	Strip Density	120
Bond Wire	Material	CuPdAu
Die Attach	Part Number	3280
	Conductive	Yes
MC	Part Number	G700LTD
PKG	Package Type	VQFN
	Pin/Ball Count	64
	PKG width/size	9 x 9 mm

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Package Qualification Report

Manufacturing Information

Assembly Lot No.
MMT-253700459.000
MMT-253800185.000
MMT-253800191.000

Result ☑ Pass ☐ Fail ☐ _____

Qualification of 66P01 using CuPdAu wire in 64L VQFN-WFS 9x9 (5LX) at MMT was conducted at MPHL reliability lab and pass qualification requirement. This package is qualified Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020E standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)	**Electrical Test:** 25°C,130°C System: M1_SV_1024 /MT9516 Bake 150°C, 24 hrs System: HERAEUS 85°C/85%RH Moisture Soak 168hrs. System: Climats Excal 5423-HE 3x Convection-Reflow 265°C max System: Mancorp CR.5000F (IPC/JEDEC J-STD-020E)	IPC/JEDEC	45 units per lot	Lot 1 0/45 Lot 2 0/45 Lot 3 0/45	Pass Pass Pass	
Precondition Prior Perform Reliability Tests (at MSL Level 1)	**Electrical Test:** 25°C,130°C System: M1_SV_1024 /MT9516 Bake 150°C, 24 hrs System: HERAEUS 85°C/85%RH Moisture Soak 192hrs. System: Climats Excal 5423-HE 3x Convection-Reflow 260°C max System: Mancorp CR.5000F **Electrical Test:** 25°C, 130°C System: M1_PV_512/MT9510 All units before HAST, UHAST, TCT were submitted to this MSL1 preconditioning	JESD22-A113	231 units per lot	Lot 1 0/320 Lot 2 0/320 Lot 3 0/320	Pass Pass Pass	
Temperature Cycle	**Stress Condition:** (Standard) -65°C to +150°C, 500 cycles System: Votsch VTS^{2}7012 **Electrical Test:** 25°C,130°C System: M1_SV_1024 /MT9516	JESD22-A104	77 units per lot	Lot 1 0/90 Lot 2 0/90 Lot 3 0/90	Pass Pass Pass	
	Bond Strength: 0.8 mils Wire Pull (>3.0g)		5 units form 1 lot	Lot 1 0/5	Pass	30 bonds
HAST	**Stress Condition:** (Standard) + 130°C, 85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8 **Electrical Test:** 25°C,130°C System: M1_SV_1024 /MT9516	JESD22-A118	77 units per lot	Lot 1 0/80 Lot 2 0/80 Lot 3 0/80	Pass Pass Pass	

PACKAGE QUALIFICATION REPORT

UHAST	**Stress Condition:** (Standard) + 130°C, 85%RH, 96hrs. NO BIAS System: HIRAYAMA HASTEST PC-422R8 **Electrical Test:** 25°C System: M1_SV_1024 /MT9516	JESD22-A118	77 units per lot	Lot 1 0/90 Lot 2 0/90 Lot 3 0/90	Pass Pass Pass	
HTSL 175°C	**Stress Condition:** Bake 175°C, 504 hrs. System: HERAEUS **Electrical Test:** 25°C,130°C System: M1_SV_1024 /MT9516	JESD22-A103	45 units	Lot 1 0/60 Lot 2 0/60 Lot 3 0/60	Pass Pass Pass	