Product Change Notification: CENO-10CAAF718

Date:

04-Aug-2025

Product Category:

8-Bit Microcontrollers

Notification Subject:

CCB 7599 Final Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as an additional bond wire material for selected PIC12F1822, PIC12F1840, PIC12F1571, PIC12F1572, PIC16F18313 and PIC16F15313 device families available in 8L UDFN (3x3x0.5mm) package at MMT assembly site.

Affected CPNs:

CENO-10CAAF718_Affected_CPN_08042025.pdf
CENO-10CAAF718_Affected_CPN_08042025.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 palladium coated copper with gold flash (CuPdAu) as an additional bond wire material for selected PIC12F1822, PIC12F1840, PIC12F1571, PIC12F1572, PIC16F18313 and PIC16F15313 device families available in 8L UDFN (3x3x0.5mm) package 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)

Wire Material	Au	Au	CuPdAu
Die Attach Material	8600	8600	
Molding Compound Material	G700LTD	G700LTD	
Lead-Frame Material	EFTEC-64T	EFTEC-64T	

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 First Ship Date: 31 August 2025 (date code: 2535)

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

Timetable Summary:

	May 2025					>	**August 2025**				
Work Week	18	19	20	21	22		32	33	34	35	36
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: May 19, 2025: Issued initial notification.
August 04, 2025: Issued final notification. Attached Qualification Report. Provided estimated first ship date to be on August 31, 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-10CAAF718 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)

PIC12F1822T-I/RF

PIC12F1840T-I/RF

PIC12F1840T-E/RF

PIC12LF1840T-I/RF

PIC12LF1571-E/RF

PIC12LF1572-E/RF

PIC12LF1571-I/RF

PIC12LF1572-I/RF

PIC12F1571-E/RF

PIC12F1572-E/RF

PIC12F1571-I/RF

PIC12F1572-I/RF

PIC16LF18313-I/RF

PIC16LF18313-E/RF

PIC12F1840-I/RF

PIC16LF15313-E/RF

PIC16LF15313-I/RF

PIC16F18313-I/RF

PIC16F15313-E/RF

PIC16F15313-I/RF

PIC16F18313-E/RF

PIC12F1571T-I/RF

PIC12F1572T-E/RF

PIC12LF1822-E/RF

PIC12LF1822T-I/RF

PIC12LF1822T-E/RF

PIC12F1572T-I/RF

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PIC12LF1571T-I/RF

PIC12LF1572T-I/RF

PIC16F18313T-I/RF

PIC16LF18313T-I/RF

PIC16F15313T-I/RF

PIC16LF15313T-I/RF

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: CENO-10CAAF718

Date:
July 21, 2025

Qualification of palladium coated copper with gold flash (CuPdAu) as an additional bond wire material for selected PIC12F1822, PIC12F1840, PIC12F1571, PIC12F1572, PIC16F18313 and PIC16F15313 device families available in 8L UDFN (3x3x0.5mm) package at MMT assembly site.

MICROCHIP

PACKAGE QUALIFICATION REPORT

Purpose	Qualification of palladium coated copper with gold flash (CuPdAu) as an additional bond wire material for selected PIC12F1822, PIC12F1840, PIC12F1571, PIC12F1572, PIC16F18313 and PIC16F15313 device families available in 8L UDFN (3x3x0.5mm) package at MMT assembly site.
CN	E000272264
QUAL ID	R2500614 Rev. A
Bonding No.	BD-003221 Rev.01
MP CODE	MFAJ14RFXCLX
Part No.	PIC16LF18313-E/RF
CCB No.	7599
Lead Frame	
Paddle size	71 x 102 mils.
Material	EFTEC-64T
Surface	Bare Cu
Process	Etched
Lead lock	Yes (Dimple)
Part number	10100855
Plating composition	Matte Tin
Bond Wire	
Wire	CuPdAu wire
Die Attach Material	
Epoxy	8600
Mold Compound	
Mold compound	G700LTD
Package	
Type	8L UDFN
Package size	3x3x0.5mm

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MMT-260801082.000	GRSM425180121.210	2521B1B
MMT-260801456.000	GRSM425180121.210	2521J19
MMT-260801457.000	GRSM425180121.210	2521J1D

Result [X] Pass [ ] Fail [ ] _____

8L UDFN (3x3x0.5mm) assembled by MMT pass reliability test per QCI-39000. This package was qualified the 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
<u>Precondition Prior Perform Reliability Tests</u> (At MSL Level 1)	**Electrical Test:** +25°C and 125°C System: J750	JESD22-A113	693(0)	0/693	Pass	Good Devices
	Bake 150°C, 24 hrs. System: CHINEE	JIP/ IPC/JEDEC J-STD-020E		693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test: +25°C and 125°C System: J750		693(0)	0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +125°C System: J750		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>3.00 grams)		15(0)	0/15	Pass	
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: J750		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 3.6 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 125°C System: J750		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs. System: TPS Bake Oven **Electrical Test:** +25°C and 125°C System: J750	JESD22-A103	135 135(0)	135 0/135	 Pass	45 units / lot
Wire sweep	Wire sweep Inspection 15 Wires / lot	-	45(0) Wires	0/45	Pass	
Bond Strength **Data Assembly**	Wire Pull (>3.00 grams) Bond Shear (>15.00 grams)	Mil. Std. 883-2011 CDF-AEC-Q100-001	30(0) Wires 30(0) Bonds	0/30 0/30	Pass Pass	