



Product Change Notification: MFOL-09UGKQ160

Date:

04-Aug-2025

Product Category:

8-Bit Microcontrollers, Analog Temperature Sensors, Power Management - System Supervisors/Voltage Detectors, Voltage References

Notification Subject:

CCB 7643 Final Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for selected MCP9700B, MCP130, MCP9700, MCP9700A, TC1047A, TC1047, MCP102, MCP9701, MCP9701A, TCM808, MCP1525, MCP1541 device families available in 3L SOT-23 (1.3mm) package at MTAI assembly site.

Affected CPNs:

[MFOL-09UGKQ160_Affected_CPN_08042025.pdf](#)

[MFOL-09UGKQ160_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 a new bond wire material for selected MCP9700B, MCP130, MCP9700, MCP9700A, TC1047A, TC1047, MCP102, MCP9701, MCP9701A, TCM808, MCP1525, MCP1541 device families available in 3L SOT-23 (1.3mm) 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	CuPdAu
Die Attach Material	8390A	8390A
Molding Compound Material	G600V	G600V
Lead-Frame Material	CDA194	CDA194

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve manufacturability by qualifying palladium coated copper with gold flash (CuPdAu) as a new bond wire material.

Change Implementation Status: In Progress

Estimated First Ship Date: 21 August 2025 (date code: 2534)

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

Timetable Summary:

	June 2025					>	August 2025				
Work Week	23	24	25	26	27		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: June 12, 2025: Issued initial notification.

August 04, 2025: Issued final notification. Attached qualification report. Provided estimated first ship date to be on August 21, 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_MFOL-09UGKQ160_Qual Report.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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Affected Catalog Part Numbers (CPN)

MCP9700BT-H/TT
MCP9700BT-E/TT
MCP130T-270I/TT
MCP130T-300I/TT
MCP130T-315I/TT
MCP130T-450I/TT
MCP130T-460I/TT
MCP130T-475I/TT
MCP130T-485I/TT
MCP130T-450I/TTV02
MCP9700T-H/TT
MCP9700T-E/TT
MCP9700AT-E/TT
TC1047AVNBTR
TC1047VNBTR
MCP102T-195I/TT
MCP102T-195I/TTV01
MCP102T-240E/TT
MCP102T-270E/TT
MCP102T-300E/TT
MCP102T-315E/TT
MCP102T-450E/TT
MCP102T-475E/TT
MCP9701T-E/TT
MCP9701AT-E/TT
TCM808ZENB713
MCP1525T-I/TT

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MCP1541T-I/TT



QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: MFOL-09UGKQ160

Date:
July 21, 2025

Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for selected MCP9700B, MCP130, MCP9700, MCP9700A, TC1047A, TC1047, MCP102, MCP9701, MCP9701A, TCM808, MCP1525, MCP1541 device families available in 3L SOT-23 (1.3mm) package at MTAI assembly site.



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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for selected MCP9700B, MCP130, MCP9700, MCP9700A, TC1047A, TC1047, MCP102, MCP9701, MCP9701A, TCM808, MCP1525, MCP1541 device families available in 3L SOT-23 (1.3mm) package at MTAI assembly site.
CN	E000273199
QUAL ID	R2500676 Rev A
Bonding No.	BD-003375 Rev.01
MP CODE	GBAT1JC6XA00
Part No.	MCP9700T-H/TT
CCB No.	7643
<u>Lead Frame</u>	
Paddle size	64 x 38 mils
Material	CDA194
Surface	Ag spot plate
Process	Stamped
Lead lock	No
Part number	10100301
Plating composition	Matte Tin
<u>Bond Wire</u>	
Wire	CuPdAu wire
<u>Die Attach Material</u>	
Epoxy	8390A
<u>Mold Compound</u>	
Mold compound	G600V
<u>Package</u>	
Type	3L SOT-23



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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI260902099.000	TMPE225386632.300	2522M71
MTAI261000406.000	TMPE225386632.300	2523MS3
MTAI261000440.000	TMPE225386632.300	2523MTW

Result

☒ Pass ☐ Fail ☐ _____

3L SOT-23 assembled by MTAI 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</u> <u>Prior Perform</u> <u>Reliability Tests</u> (At MSL Level 1)	Electrical Test: +25°C and 125°C System: ETS88	JESD22- A113	693(0)	0/693	Pass	Good Devices
	Bake 150°C, 24 hrs. System: CHINEE 85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 Electrical Test: +25°C and 125°C System: ETS88	JIP/ IPC/JEDEC J-STD-020E		693 693 693		
			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: ETS88		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: ETS88		231(0)	0/231	Pass	77 units / lot
HAST	Stress Condition: +130°C/85%RH, 96 hrs. Bias Volt: 5.5 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C and 125°C System: ETS88		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	JESD22- A103		135		45 units / lot
	Electrical Test: +25°C and 125°C System: ETS88		135(0)	0/135	Pass	
Bond Strength Data Assembly	Wire Pull (>3.00 grams)	Mil. Std. 883-2011	30(0) Wires	0/30	Pass	
	Bond Shear (>15.00 grams)	CDF-AEC- Q100-001	30(0) Bonds	0/30	Pass	