Product Change Notification: DSNO-08KARI721

Date:

14-Jun-2026

Product Category:

Switching Regulators

Notification Subject:

CCB 8080 Final Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for MCP16301H-450E/CH, MCP16301HT-450E/CH, MCP16301HT-E/CH, MCP16301T-E/CH, MCP16301T-E/CHY, MCP16301T-I/CHY and MCP16331T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site.

Affected CPNs:

DSNO-08KARI721_Affected_CPN_06142026.pdf
DSNO-08KARI721_Affected_CPN_06142026.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 MCP16301H-450E/CH, MCP16301HT-450E/CH, MCP16301HT-E/CH, MCP16301T-E/CH, MCP16301T-E/CHY, MCP16301T-I/CHY and MCP16331T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site.

Pre and Post Summary Changes:

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

Wire Material	Au	CuPdAu	Yes
Die Attach Material	8006NS (PFAS-free)	8006NS (PFAS-free)	No
Molding Compound Material	G600V	G600V	No
Lead-Frame Material	C194	C194	No

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: 11 September 2026 (date code: 2637)

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 2026					>	**September 2026**				
Work Week	23	24	25	26	27		36	37	38	39	40
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 14, 2026: Issued final 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_DSNO-08KARI721_Qualification 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.

DSNO-08KARI721 - CCB 8080 Final Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for MCP16301H-450E/CH, MCP16301HT-450E/CH, MCP16301HT-E/CH, MCP16301T-E/CH, MCP16301T-E/CHY, MCP16301T-I/CHY and MCP16331T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site.

Affected Catalog Part Numbers (CPN):

MCP16301H-450E/CH

MCP16301HT-450E/CH

MCP16301HT-E/CH

MCP16301T-E/CH

MCP16301T-E/CHY

MCP16301T-I/CHY

MCP16331T-E/CH

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: DSNO-08KARI721

Date:
June 09, 2026

Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for MCP603T-E/CH, MCP603T-I/CH, MCP6043T-E/CH, MCP6043T-I/CH, MCP6143T-E/CH, MCP6273T-E/CH, MCP6283T-E/CH and MCP6293T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site. The MCP16301H-450E/CH, MCP16301HT-450E/CH, MCP16301HT-E/CH, MCP16301T-E/CH, MCP16301T-E/CHY, MCP16301T-I/CHY and MCP16331T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site will qualify by similarity (QBS).

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for MCP603T-E/CH, MCP603T-I/CH, MCP6043T-E/CH, MCP6043T-I/CH, MCP6143T-E/CH, MCP6273T-E/CH, MCP6283T-E/CH and MCP6293T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site. The MCP16301H-450E/CH, MCP16301HT-450E/CH, MCP16301HT-E/CH, MCP16301T-E/CH, MCP16301T-E/CHY, MCP16301T-I/CHY and MCP16331T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site will qualify by similarity (QBS).
CN	E000255869
QUAL ID	R2500021 Rev. A
MP CODE	A7BZ4YC8XF00
Part No.	MCP6293T-E/CH
Bonding No.	BD-002758 Rev. 01
CCB No.	7292 (Qual Date: February 28, 2025) and 8080
Package	
Type	6L SOT-23
Lead Frame	
Paddle size	72 x 41 mils
Material	A194
Surface	Ag single ring Plated
Process	Stamped
Lead Lock	No
Part Number	10100607
Treatment	BOT
Material	
Epoxy	84-3J/8006NS
Wire	CuPdAu wire
Mold Compound	G600V
Plating Composition	Matte Sn

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI253800952.000	TMPE223515732.143	24513US
MTAI253900664.000	TMPE223515732.143	24524CA
MTAI253900665.000	TMPE223515732.143	24524CP

Result [X] Pass [ ] Fail [ ] _____

6L 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 Prior Perform Reliability Tests</u> (At MSL Level 1)	**Electrical Test:** +25°C and 125°C System: ETS300	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: ETS300		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: ETS300		231(0)	0/231	Pass	77 units / lot
	Bond Strength: Wire Pull (>2.50 grams)		15(0)	0/15	Pass	
			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: ETS300		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: ETS300		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: ETS300	JESD22-A103	 135(0)	135 0/135	 Pass	45 units / lot
Bond Strength **Data Assembly**	Wire Pull (>2.50 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	

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: DSNO-08KARI721

Date:
June 09, 2026

Qualification of an additional mold compound G600V for the 6L SOT-23 COL package with PPF lead-frame at MTAI assembly site. The MCP16301H-450E/CH, MCP16301HT-450E/CH, MCP16301HT-E/CH, MCP16301T-E/CH, MCP16301T-E/CHY, MCP16301T-I/CHY and MCP16331T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site will qualify by similarity (QBS).

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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of an additional mold compound G600V for the 6L SOT-23 COL package with PPF lead-frame at MTAI assembly site. The MCP16301H-450E/CH, MCP16301HT-450E/CH, MCP16301HT-E/CH, MCP16301T-E/CH, MCP16301T-E/CHY, MCP16301T-I/CHY and MCP16331T-E/CH catalog part numbers (CPN) available in 6L SOT-23 package at MTAI assembly site will qualify by similarity (QBS).
CN	BC131408
QUAL ID	Q13103
MP CODE	GBCB4Y6AXB00
Part No.	MCP663T-E/CHY
Bonding No.	BDE-000371 Rev. A
CCB No.	1330.02 (Qual Date: Nov. 21, 2013) and 8080

Package

Type	6L SOT-23 COL PPF
Die thickness	8 mils
Die size	56.90 x 46.00 mils

Lead Frame

Paddle size	Chip on Lead design
Material	A194
Surface	NiPdAu plate
Process	Etch

Lead Lock No

Part Number	10100604
Treatment	None

Die attach material

Epoxy	8006NS
Wire	Au wire
Mold Compound	G600V
Plating Composition	NiPdAu

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI142303147	TMPE211517011.112	1336U63
MTAI142303657	TMPE211517011.112	1336VJ7
MTAI142303664	TMPE211517011.112	1336VJK

Result [X] Pass [ ] Fail [ ] _____

6L 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-020D 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)	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020D)	IPC/JEDE C J-STD-020D	135	0/135	Pass	

Precondition **Prior Perform** **Reliability Tests (At MSL Level 1)**	**Electrical Test :**+25°C and 125°C System: ETS300 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: ETS300	JESD22-A113	693(0)	693 693 693 693 0/693	Pass	Good Devices

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 Inspection: External crack inspection all units under 40X Optical magnification	JESD22-A104		231		Parts had been pre-conditioned at 260°C
	Electrical Test: + 125°C System: ETS300		231(0)	0/231	Pass	77 units / lot
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: ETS300		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 6 Volts System: HAST 6000X	JESD22-A110		231		Parts had been pre-conditioned at 260°C
	Electrical Test:+25°C and 125°C System: ETS300		231(0)	0/231	Pass	77 units / lot
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: SHEL LAB	JESD22-A103		45		45 units
	Electrical Test :+25°C and 125°C System: ETS300		45(0)	0/45	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Bond Strength	Wire Pull (> 2.5 grams)	M2011	30 (0) Wires	0/30	Pass	
Data Assembly	Bond Shear (15.00 grams)	JESD22-B116	30 (0) bonds	0/30	Pass	