Product Change Notification: JARA-29BSCX099

Date:

05-Oct-2026

Product Category:

Ethernet Phys

Notification Subject:

CCB 8574 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as a new wire material and CRM-1150B as a new die attach material for KSZ8001L, KSZ8001LI, KSZ8001L-TR, KSZ8001LI-TR, KSZ8721BL, KSZ8721BLI, KSZ8721BL-TR, KSZ8721BLI-TR, KSZ8721CL and KSZ8721CL-TR catalog part numbers (CPN) available in 48L LQFP (7x7x1.4mm) package at OSE assembly site.

Affected CPNs:

JARA-29BSCX099_Affected_CPN_10052026.pdf
JARA-29BSCX099_Affected_CPN_10052026.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 wire material and CRM-1150B as a new die attach material for KSZ8001L, KSZ8001LI, KSZ8001L-TR, KSZ8001LI-TR, KSZ8721BL, KSZ8721BLI, KSZ8721BL-TR, KSZ8721BLI-TR, KSZ8721CL and KSZ8721CL-TR catalog part numbers (CPN) available in 48L LQFP (7x7x1.4mm) package at OSE assembly site.

Pre and Post Summary Changes:

	Pre Change	Post Change	Change (Yes/No)

Assembly Site		Orient Semiconductor Electronics, Ltd (OSE)	Orient Semiconductor Electronics, Ltd (OSE)	No
Wire Material		Au	CuPdAu	Yes
Die Attach Material	Top Die	QMI-550 (PFAS)	CRM-1150B (PFAS-free)	Yes
	Bottom Die	EN4900G	EN4900G	No
Molding Compound Material		CEL-9200HHF	CEL-9200HHF	No
Lead-Frame Material		C7025	C7025	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 wire material and CRM-1150B as a new die attach material at OSE assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: February 2027

Note: Please be advised the qualification completion times may be extended because of unforeseen business conditions however implementation will not occur until after qualification has completed and a final PCN has been issued. The final PCN will include the qualification report and estimated first ship date. Also note that after the estimated first ship date guided in the final PCN customers may receive pre and post change parts.

Timetable Summary:

	October 2026					>	**February 2027**			
Work Week	40	41	42	43	44		05	06	07	08
Initial PCN Issue Date		X								
Qual Report Availability									X	
Final PCN Issue Date									X	

Method to Identify Change: Traceability Code

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

Revision History: October 05, 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:

PFAS Elimination and Die Attach Explanation.pdf
PCN_JARA-29BSCX099 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):

KSZ8001L

KSZ8001LI

KSZ8001L-TR

KSZ8001LI-TR

KSZ8721BL

KSZ8721BLI

KSZ8721BL-TR

KSZ8721BLI-TR

KSZ8721CL

KSZ8721CL-TR

QUALIFICATION PLAN SUMMARY

PCN#:
JARA-29BSCX099

Date:
September 30, 2026

Qualification of palladium coated copper with gold flash (CuPdAu) as a new wire material for MCP2518FDT-E/QBB and MCP2518FDT-H/QBB catalog part numbers (CPN) available in 14L VDFN (3x4.5mm) package at MMT assembly site.

Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) as a new wire material for MCP2518FDT-E/QBB and MCP2518FDT-H/QBB catalog part numbers (CPN) available in 14L VDFN (3x4.5mm) package at MMT assembly site.

CCB No.: 8574

Misc.	Assembly site	OSE
	BD Number	40.2L BDPAAC048A9-A0052-A
	MP Code (MPC)	360631CAAA01
	Part Number (CPN)	KSZ8721BL
	MSL information	MSL-3
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	250
	Reliability Site	MTAI
Lead-Frame	Paddle size	160x160mils
	Material	C7025
	DAP Surface Prep	DOUBLE RING
	Process	STAMPED
	Lead-lock	back side dimples
	Part Number	02-A164-300R
	Lead Plating	Matte Sn
	Strip Size	70x250
	Strip Density	3x10
Bond Wire	Material	CuPdAu
Die Attach	Part Number	Top die: CRM-1150B (PFAS-free) Bottom die: EN4900G
	Conductive	Top:no Bottom: Conductive
MC	Part Number	CEL-9200HHF
PKG	Package Type	LQFP
	Pin/Ball Count	48
	PKG width/size	7x7x1.4mm

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		OSE	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5		OSE	30 bonds from a min. 5 devices.
Bond Line Thickness (BLT) robustness assessment						>0.5 mils			OSE	
Physical Dimmensions	Measure per JESD22 B100 and B108	10	0	3	30	0	5		OSE	
External Visual	Mil. Std. 883-2009/2010	All devices prior to submission for qualification testing	0	3	ALL	0	5		OSE	
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	45	5	3 (Cu wire qual)	150 (Cu wire qual)	0	10	OSE	MPHIL	
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 Jedec-STD-020E for package type; Electrical test pre and post stress at +25°C.(MSL-3, 260C)	231	15	3	738	0	15	OSE	MPHIL	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	77	5	3	246	0	10			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	OSE	MPHIL	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 +25°C; 3 gram force WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	15	OSE	MPHIL	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.

Eliminating PFAS from Microchip ICs



A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



Microchip

August 2025

Eliminating PFAS from MCHP ICs

- What is PFAS
- Microchip's Environmental Stewardship
- Microchip Products with PFAS
- Time Frame to PFAS-Free Die Attach
- What is Die Attach
- Will clients be required to switch to PFAS free products
- Risk Assessment

What is PFAS: Poly(Per) FluoroAlkyl Substances (PFAS)

Poly(Per) FluoroAlkyl Substances (PFAS)

- There may be 12,000 or more PFAS chemicals that are used in small amounts in many different items
  - PFAS can be in the product itself.
  - PFAS can also be used to manufacture products while not in the product itself

PFAS is the new “buzzword” throughout many industries

- Often nicknamed “forever chemicals” because once released into the environment, it never degrades and will accumulate over time
- As PFAS accumulates in the environment over long periods of time, there can be increasing toxicity and polluting effects
- Therefore, government agencies around the globe are considering legislation toward removal of PFAS although PFAS legislations are not fully defined yet

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Microchip's Environmental Stewardship

Although very few laws have been enacted regarding PFAS to date, there is a rapidly growing movement among governments around the world to eliminate PFAS

- Initial legislation has targeted on clothing and food products
- Additional legislation and their timings continue to evolving

Companies such as Microchip, which are committed to addressing contaminants in water, air, food, and living organisms, are proactively working to remove PFAS even in the absence of specific legal requirements.

Microchip's suppliers are also taking proactive steps to eliminate PFAS chemicals from the materials they provide to Microchip.

Microchip believes it is prudent to take immediate action toward offering PFAS-free products to all clients, regardless of application, industry, country, or current regulatory requirements.

Achieving "PFAS-Free" status may serve as a competitive advantage for both Microchip and its clients.

Microchip products with PFAS

The primary material in Microchip products containing PFAS is known as die attach. PFAS-free die attach is not new to either Microchip or the industry; in fact, Microchip has shipped hundreds of millions of units utilizing PFAS-free die attach.

Both PFAS and PFAS-free die attach materials are currently in use because PFAS was not previously identified as a substance of concern.

The change announced in this Product Change Notification (PCN) for Microchip-owned factories involves transitioning to the same PFAS-free die attach that has already been qualified and used in other products.

Time Frame to PFAS-Free Die Attach

Qualification of products assembled at Microchip-owned factories has been completed.

While inventory containing PFAS die attach will continue to be shipped, the implementation of PFAS-free die attach in the assembly process is scheduled to begin as early as September 3, 2025.

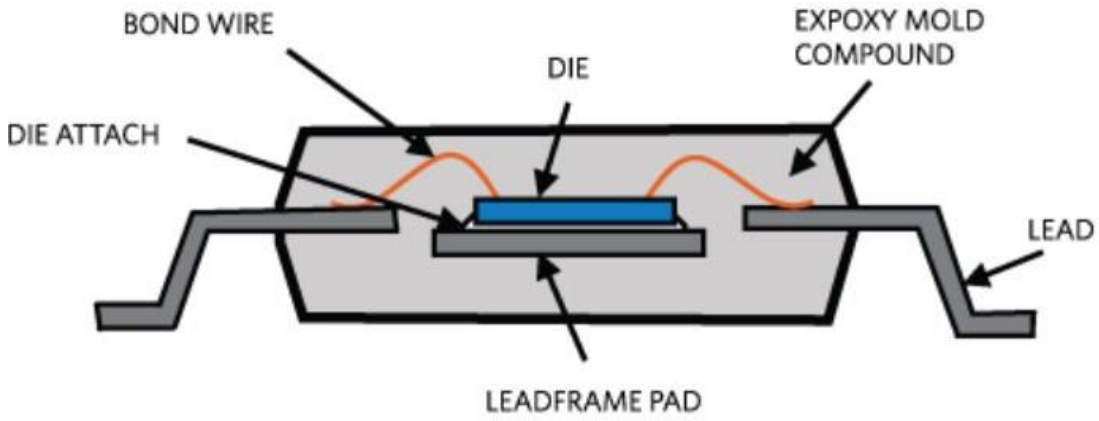
Microchip will consume all existing inventory and die attach, so the exact implementation date will depend on when current inventories are depleted.

- For PPAP clients IMDS/CAMDS material content declarations will be updated.

Schedules for assembly locations not owned by Microchip (subcontractors or "subcons") are currently under review. We anticipate a similar mix of products already utilizing both PFAS and PFAS-free die attach at these locations.

Product Change Notifications (PCNs) announcing die attach changes at subcontractor sites will be issued once schedules are finalized. We expect these timelines to be similar to those for our internal factories.

What is die attach



A thin layer of epoxy between the silicon die and copper pad portion of the lead frame.

- Holds the die in place during the wire bond and mold encapsulation processes
- The bottom of the die has no transistors or active circuits.
- The interface is identical regardless of device type, fab location, technology node, wire material etc.
- **Therefore, allows extremely broad range of products to be grouped into a single qualification.**

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Will Clients be required to switch to PFAS-Free Products

The timeline for legislation to eliminate PFAS chemicals remains uncertain; however, regulatory action is anticipated.

Suppliers of PFAS chemicals and raw materials containing PFAS are already announcing end-of-life plans in advance of any formal legislation.

It is expected that suppliers will discontinue offering die attach materials containing PFAS within the next two years, regardless of when government regulations take effect.

While Microchip is committed to providing as much transition time as possible for our clients, we strongly encourage you to begin planning now to avoid potential supply interruptions.

Risk Assessment:



Microchip does not anticipate that this change will impact our clients for the following reasons:

- Microchip has been using PFAS-free die attach material for several years.
- We have shipped hundreds of millions of units utilizing this material without incident.
- Die Attach is not application relevant.

Given these factors, Microchip believes there is minimal cause for concern regarding this change, and additional client qualifications would be redundant and time-consuming. However, if you have any questions that are not addressed in the PCN or this presentation, please do not hesitate to contact us.



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