Product Change Notification: MAAN-26JMTM716

Date:

06-Aug-2026

Product Category:

Gate Drivers and Motor Drivers, Power Management - PWM Controllers

Notification Subject:

CCB 8398 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as new wire material and 8303A as a new die attach material for selected MIC3808, MIC3809, MIC4100, MIC4101, MIC4102, MIC4103, MIC4104, MIC4604 and MIC4605 device families available in 8L SOIC (.150in) package at STAR.

Affected CPNs:

MAAN-26JMTM716_Affected_CPN_08062026.pdf
MAAN-26JMTM716_Affected_CPN_08062026.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 new wire material and 8303A as a new die attach material for selected MIC3808, MIC3809, MIC4100, MIC4101, MIC4102, MIC4103, MIC4104, MIC4604 and MIC4605 device families available in 8L SOIC (.150in) package at STAR.

Pre and Post Summary Changes:

	Pre Change	**Post Change**	**Change (Yes/No)**
Assembly Site	Stars Microelectronics (Thailand) Public Company Limited (STAR)	Stars Microelectronics (Thailand) Public Company Limited (STAR)	No

Wire Material	Au	CuPdAu	Yes
Die Attach Material	2200D (PFAS)	8303A (PFAS Free)	Yes
Molding Compound Material	G600	G700LTD	Yes
Lead-Frame Material	A194	A194	No
Lead-Frame Paddle Size	95 x 130 mils	158x100 mils	Yes

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve productivity by qualifying palladium coated copper with gold flash (CuPdAu) as new bond wire material and 8303A as a new die attach material at STAR assembly site.

Change Implementation Status: In Progress

Estimated Qualification Completion Date: December 2026

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:

	August 2026					**>**	**December 2026**				
Work Week	31	32	33	34	35		49	50	51	52	53
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: August 06, 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:

PCN_MAAN-26JMTM716 Pre and Post Change Summary.pdf
PFAS Elimination and Die Attach_Explanation.pdf
PCN_MAAN-26JMTM716_Qual 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.

MAAN-26JMTM716 - CCB 8398 Initial Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as new wire material and 8303A as a new die attach material for selected MIC3808, MIC3809, MIC4100, MIC4101, MIC4102, MIC4103, MIC4104, MIC4604 and MIC4605 device families available in 8L SOIC (.150in) package at STAR.

Affected Catalog Part Numbers (CPN):

MIC4605-2YM-TRVAO

MIC4605-2YM-T5VAO

MIC4605-1YM

MIC4605-1YM-TR

MIC4605-1YM-T5

MIC4605-2YM

MIC4605-2YM-TR

MIC3808YM

MIC3808YM-TR

MIC3809YM

MIC3809YM-TR

MIC4102YM

MIC4102YM-TR

MIC4100YM

MIC4100YM-TR

MIC4101YM-TR

MIC4101YM

MIC4103YM

MIC4103YM-TR

MIC4104YM-TR

MIC4104YM

MIC4605-2YM-T5

MIC4604YM

MIC4604YM-TR

MIC4604YM-T5

MIC4605-1YM-TRVAO

MIC4605-1YMVAO

MIC4605-2YMVAO

MIC4605-1YM-T5VAO

CCB 8398
Pre and Post Change Summary
PCN #: MAAN-26JMTM716

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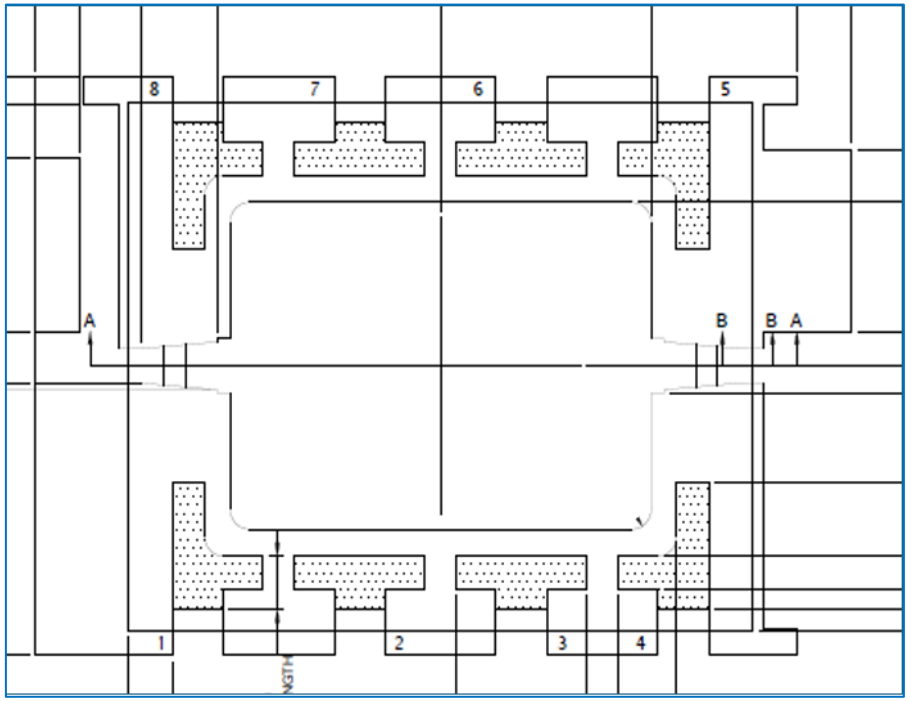
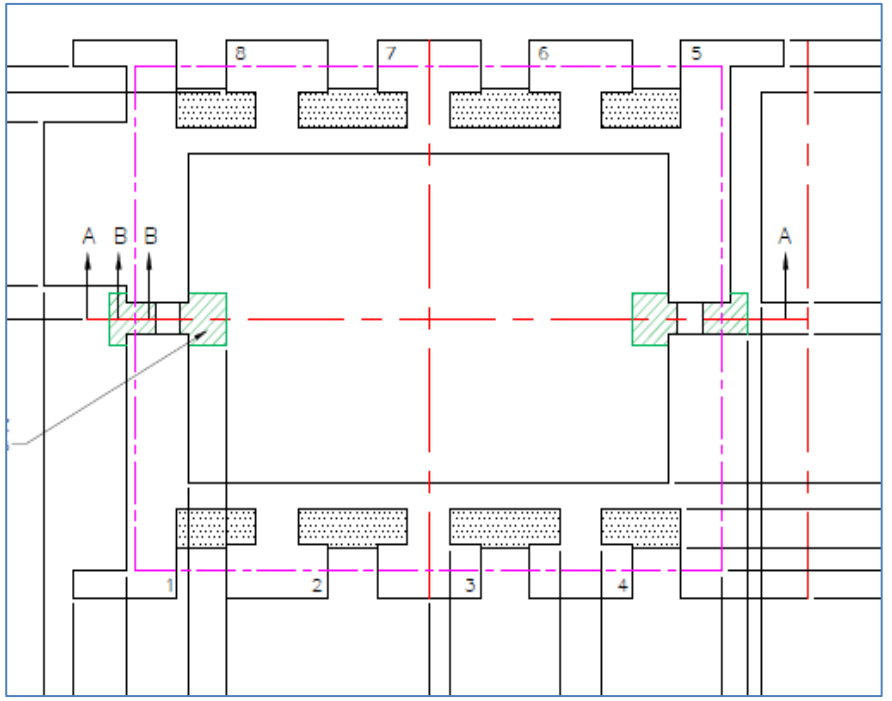
Lead-Frame Comparison

Pre-Change



Paddle Size	95 x 130 mils

Post Change



Paddle Size	158x100 mil

QUALIFICATION PLAN SUMMARY

PCN #: MAAN-26JMTM716

Date:
July 8, 2026

Qualification of palladium coated copper with gold flash (CuPdAu) as new wire material and 8303A as a new die attach material for selected MIC3808, MIC3809, MIC4100, MIC4101, MIC4102, MIC4103, MIC4104, MIC4604 and MIC4605 device families available in 8L SOIC (.150in) package at STAR.
This is a Q006 Grade 1 Qualification.

Purpose: Qualification of palladium coated copper with gold flash (CuPdAu) as new wire material and 8303A as a new die attach material for selected MIC3808, MIC3809, MIC4100, MIC4101, MIC4102, MIC4103, MIC4104, MIC4604 and MIC4605 device families available in 8L SOIC (.150in) package at STAR.

CCB No.: 8398

Misc.	Assembly site	STAR
	BD Number	TBD
	MP Code (MPC)	27801xxxxxxx 27806xxxxxxx 27807xxxxxxx 27812xxxxxxx
	Part Number (CPN)	Various
	MSL information	MSL-1 @260
	Assembly Shipping Media (T/R, Tube/Tray)	T/R
	Base Quantity Multiple (BQM)	2500
	Reliability Site	MTAI
Lead-Frame	Paddle size	158x100 mil
	Material	A194
	DAP Surface Prep	NiPdAu
	Treatment	ME2
	Process	Stamp
	Lead-lock	Yes, T-shape
	Part Number	132MIC000033-T
	Lead Plating	NiPdAu
	Strip Size	50x228 mm
	Strip Density	140 units
Bond Wire	Material	CuPdAu
Die Attach	Part Number	8303A (PFAS Free)
	Conductive	Yes
MC	Part Number	G700LTD
PKG	Package Type	SOIC
	Pin/Ball Count	8
	PKG width/size	3.90mm (.150in)

Test Name	Conditions	Reliability Stress Read Point Grade 1: -40°C to +125°C (MCHP E Temp)	Pre & Post Reliability Stress Test Temperature Grade 1: -40°C to +125°C (MCHP E Temp)	Sample Size	Min. Qty of Spares per Lot (should be properly marked)	Qty of Lots	Total Units	Fail Accept Qty	Est. Dur. Days	REL Test Site	Pkg. Type	Special Instructions
Standard Pb-free Solderability	J-STD-002E ; Perform 8 hours of steam aging for Matte tin finish and 1 hour steam aging for NiPdAu finish prior to testing. Standard Pb-free: Matte tin/ NiPdAu finish, SAC solder, wetting temp 245°C for both SMD & through hole packages.			22	5	1	27	>95% lead coverage	5	STAR	8L SOIC	Standard Pb-free solderability is the requirement.
Wire Bond Pull - WBP	Mil. Std. 883-2011			5	0	1	5	0 fails after TC	5	STAR	8L SOIC	30 bonds from a min. 5 devices.
Wire Bond Stich Pull - WBSP (Recommended)				5	0	1	5	0	5	STAR	8L SOIC	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001			5	0	1	5	0	5	STAR	8L SOIC	30 bonds from a min. 5 devices.
Wire Bond Pull - WBP (Post-Packaged at T0)	Mil. Std. 883-2011 AEC-Q006 Section 5.2			5	0	1	5		5	STAR	8L SOIC	30 bonds from a min. 5 devices.
Wire Bond Stich Pull - WBSP (Post-Packaged at T0)	AEC-Q006 Section 5.2			5	0	1	5	0	5	STAR	8L SOIC	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001 AEC-Q006 Section 5.2			5	0	1	5	0	5	STAR	8L SOIC	30 bonds from a min. 5 devices.
Physical Dimensions	Measure per JESD22 B100 and B108			10	0	3	30	0	5	STAR	8L SOIC	
External Visual	Mil. Std. 883-2009/2010			All devices prior to submission for qualification testing	0	3	ALL	0	5	STAR/ MTAI	8L SOIC	
HTSL (High Temp Storage Life)	JESD22-A103	1st Readpoint: Grade 1: 500 hrs (+175°C) or 1000 hrs (150°C)	Grade 1: +25°C, +85°C, +125°C	45	5	3	150	0	21 - 167	MTAI	8L SOIC	Perform per the requirements in AEC-Q100/Q101. Spares should be properly identified.
Preconditioning - Required for surface mount devices MSL-1 @260C	J-STD-020 JESD22-A113 +150°C Bake for 24 hours, moisture loading requirements per MSL level 1 + 3X reflow at peak reflow temperature 260 °C per Jedec-STD-020E for package type.		Grade 1: +25°C	231	15	3	738	0	15	MTAI	8L SOIC	Spares should be properly identified. 77 parts from each lot to be used for HAST, uHAST, Temp Cycle test. 45 parts from one lot to be used for PTC test (for devices requiring PTC).
HAST	JESD22-A101 or A110 +130°C/85% RH for 96 hrs or +110°C/85%RH for 264 hrs	1st Readpoint: Grade 1: 96 hrs (+130°C/85% RH)	Grade 1: +25°C, +85°C, +125°C	77	5	3	246	0	10 - 22	MTAI	8L SOIC	Perform per the requirements in AEC-Q006. Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
uHAST	JESD22-A102, A118, or A101 +130°C/85% RH for 96 hrs	Grade 1: 96 hrs (+130°C/85% RH)	Grade 1: +25°C	77	5	3	246	0	10	MTAI	8LSOIC	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104 -55ºC to +150ºC	1st Readpoint: Grade 1: 1000 cycles (-55ºC to +150ºC)	Grade 1: +25°C,+85°C, +125°C	77	5	3	246	0	15 - 120	MTAI	8L SOIC	Perform per the requirements in AEC-Q006. Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Wire Bond Integrity (AEC-Q006 Requirements)	AEC-Q006									MTAI	8L SOIC	

Eliminating PFAS from Microchip ICs

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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

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.

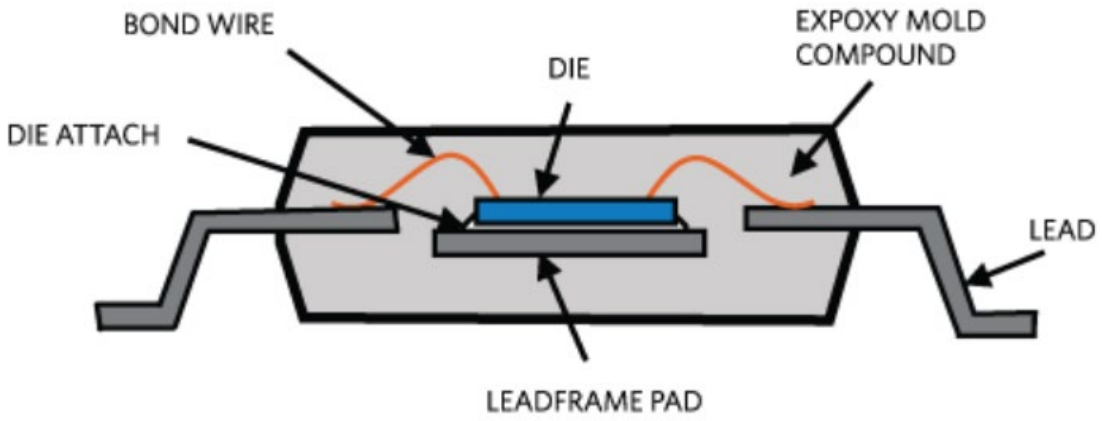
Microchip will consume all existing inventory and die attach, so the exact implementation date will depend on when current inventories are depleted.

- 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.**

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.