Product Change Notification: ALAN-08TNDL361

Date:

29-Jun-2026

Product Category:

Linear Regulators, Power Management - System Supervisors/Voltage Detectors

Notification Subject:

CCB 7581 and 7581.001 Final Notice: Qualification of ATP7 as an additional assembly site for selected MIC2790, MIC5512, MIC5514, and MIC2791 device families available in 6L UDFN (2x2x0.6mm and 1.6x1.6x0.6mm) package.

Affected CPNs:

ALAN-08TNDL361_Affected_CPN_06292026.pdf
ALAN-08TNDL361_Affected_CPN_06292026.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 ATP7 as an additional assembly site for selected MIC2790, MIC5512, MIC5514, and MIC2791 device families available in 6L UDFN (2x2x0.6mm and 1.6x1.6x0.6mm) package.

Pre and Post Summary Changes:

	Pre Change	**Post Change**		**Change (Yes/No)**
Assembly Site	Unisem Chengdu Co.,Ltd. (UNIC)	Unisem Chengdu Co.,Ltd. (UNIC)	Amkor Technology Philippines	Yes

				(P3/P4), INC. (ATP7)	
Wire Material		Au	Au	CuPdAu	Yes
Die Attach Material		8290 (PFAS)	8290 (PFAS)	CDF215 (PFAS-free)	Yes
Molding Compound Material		G770HP	G770HP	G631BQF	Yes
Lead-Frame Material		C194	C194	C7025	Yes
Lead-Frame Paddle Size	6L UDFN (2x2x0.6mm)	67x42mils	67x42mils	67x39mils	Yes
	6L UDFN (1.6x1.6x0.6mm)	55x26mils	55x26mils	55x26mils	Yes
Lead-Frame Design		See Pre and Post Change for Comparison			Yes

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve manufacturability and on time delivery performance by qualifying ATP7 as an additional assembly site.

Change Implementation Status: In Progress

Estimated First Ship Date: 26 July 2026 (date code: 2630)

Note Below EFSD: 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:

	May 2025					>	**June 2026**					**July 2026**			
Work Week	18	19	20	21	22		23	24	25	26	27	28	29	30	31
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.
September 03, 2025: Re-issued initial notification to update the Die attach material from ATB-F125E to CDF215.
June 29, 2026: Issued final notification. Attached the Qualification Report and PFAS Elimination and Die Attach_Explanation file. Added a 'Change (Yes/No)' column and specified die attach material if PFAS affected or PFAS-free in the Pre and Post Change Summary table. Provided estimated first ship date to be on July 26, 2026.

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_ALAN-08TNDL361_Pre and Post Change_Summary.pdf
PFAS Elimination and Die Attach_Explanation.pdf
PCN_ALAN-08TNDL361_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.

ALAN-08TNDL361 - CCB 7581 and 7581.001 Final Notice: Qualification of ATP7 as an additional assembly site for selected MIC2790, MIC5512, MIC5514, and MIC2791 device families available in 6L UDFN (2x2x0.6mm and 1.6x1.6x0.6mm) package.

Affected Catalog Part Numbers (CPN):

MIC2790N-04VMT-TR

MIC2790N-04VMT-T5

MIC5512-2.8YMT-TR

MIC5512-1.8YMT-TR

MIC5512-1.2YMT-TR

MIC5512-3.0YMT-TR

MIC5514-3.0YMT-TR

MIC5514-3.3YMT-TR

MIC5514-2.8YMT-TR

MIC5514-1.8YMT-TR

MIC5514-1.8YMT-T5

MIC5514-1.2YMT-TR

MIC5512-3.3YMT-TR

MIC5514-3.3YMT-T5

MIC5514-1.2YMT-T5

MIC5514-3.0YMT-T5

MIC5512-3.3YMT-T5

MIC5512-2.8YMT-T5

MIC5512-1.8YMT-T5

MIC5512-1.2YMT-T5

MIC5514-2.8YMT-T5

MIC2791L-04VMT-TR

MIC2791N-04VMT-TR

MIC2791H-04VMT-TR

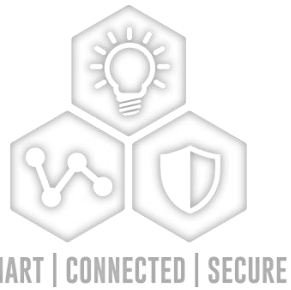
MIC2791L-04VMT-T5

MIC2791N-04VMT-T5

MIC2791H-04VMT-T5

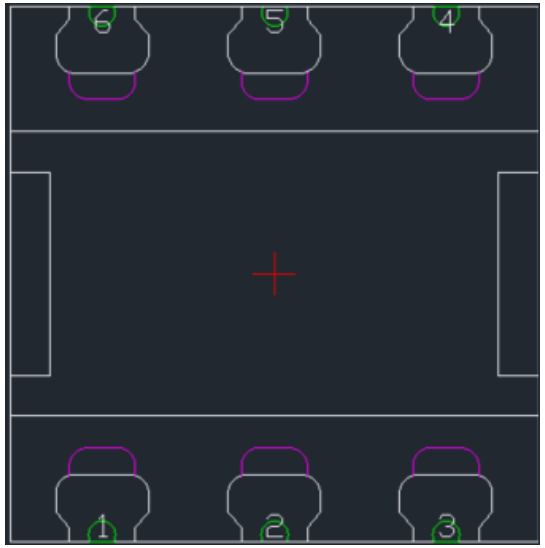
CCB 7581 and 7581.001
Pre and Post Change Summary
PCN# ALAN-08TNDL361

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



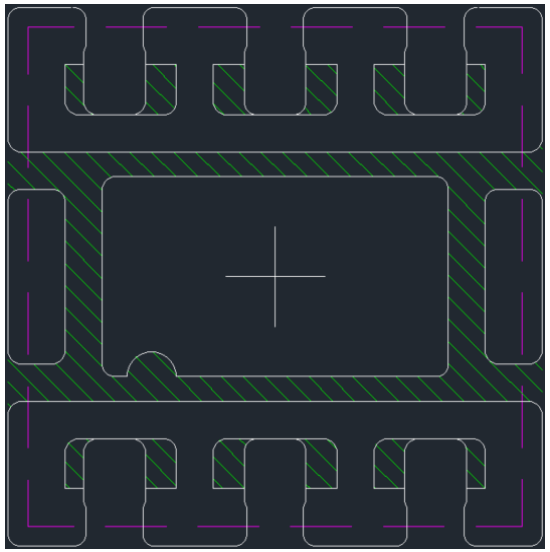
6L UDFN (2x2x0.6mm)

UNIC



Lead-frame Material	C194
Lead Frame Paddle Size	67x42mils

ATP7

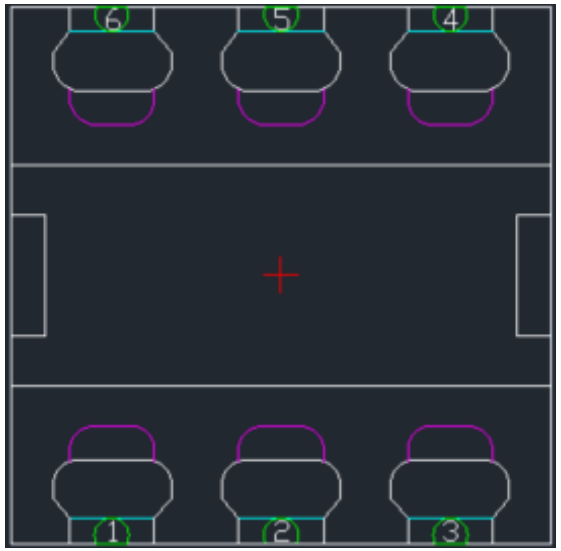


Lead-frame Material	C7025
Lead Frame Paddle Size	67x42mils

*Note: Not fit to scale

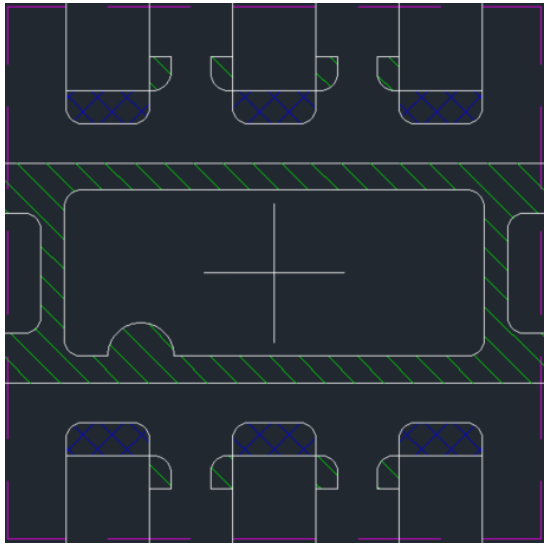
6L UDFN (1.6x1.6x0.6mm)

UNIC



Lead-frame Material	C194
Lead Frame Paddle Size	55x26mils

ATP7



Lead-frame Material	C7025
Lead Frame Paddle Size	55x26mils

*Note: Not fit to scale

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN #: ALAN-08TNDL361

Date:
June 22, 2026

Qualification of ATP7 as an additional assembly site for selected MIC2790, MIC5512, MIC5514, and MIC2791 device families available in 6L UDFN (2x2x0.6mm and 1.6x1.6x0.6mm) package.

MICROCHIP

Package Qualification Report

Purpose: Qualification of ATP7 as an additional assembly site for selected MIC2790, MIC5512, MIC5514, and MIC2791 device families available in 6L UDFN (2x2x0.6mm and 1.6x1.6x0.6mm) package.

CCB No.: 7581 and 7581.001

Misc.	**Assembly site**	ATP7
	BD Number	BD-003149-03
	MP Code (MPC)	TKLA1YHSAA02
	Part Number (CPN)	MIC2790N-04VMT-TR
	Assembly Shipping Media (T/R, Tube/Tray)	Cannister
	Base Quantity Multiple (BQM)	500; 5,000
Lead-Frame	**Paddle size**	67x39mils
	Material	C7025
	DAP Surface Prep	PPF
	Treatment	Rough
	Process	Etch
	Lead-lock	Yes (Half Etch)
	Part Number	101431352
	Lead Plating	NiPdAu
	Strip Size	70x250mm
	Strip Density	2496
Bond Wire	**Material**	CuPdAu
Die Attach	**Part Number**	CDF215
	Conductive	Yes
MC	**Part Number**	G631BQF
PKG	**PKG Type**	UDFN
	Pin/Ball Count	6
	PKG width/size	2x2x0.6mm

MICROCHIP

Package Qualification Report

Manufacturing Information:

Assembly Lot No.
ATP7262600006.000
ATP7262600007.000
ATP7262600008.000

Result: [X] Pass [ ] Fail [ ] _____

Qualification of TKLA1 mask / MIC2790N-04VMT-TR product / 1.0 mil CuPdAu wire in 6L UDFN 2x2x0.6mm package at ATP7 site is qualified for MSL1 at 260ºC as per JEDEC J-STD-020 standard and is passed in accordance to Specified JEDEC and Mil Standards

MICROCHIP

Package Qualification Report

Moisture Soak Precondition Prior to Stresses

Test Method	JESD22-A113, JEDEC J-STD-020		
Test Condition	**MSL1**: 150ºC 24 hours Bake, 168 hours Moisture Soak at 85ºC/85%RH, 3x Reflow at 260ºC		
Required Sample Size	231 units each lot / 3 lots;		
Lot ID	**R2600042-1 ATP7262600006.000**	**R2600042-2 ATP7262600007.000**	**R2600042-3 ATP7262600008.000**
Electrical Results (Fail / Pass)	0/231	0/231	0/231
Electrical Test Tester: TMT	25°C		
Result	**Passed**		

MICROCHIP

Package Qualification Report

High Temp Storage

Test Method	JESD22-A103		
Test Condition	175°C / 504 hours		
Required Sample Size	45 units / 3 lot;		
Lot ID	**R2600042-1** **ATP7262600006.000**	**R2600042-2** **ATP7262600007.000**	**R2600042-3** **ATP7262600008.000**
Electrical Results (Fail / Pass)	0/45	0/45	0/45
Electrical Test Tester: TMT	25°C		
Result	**Passed**		

Temperature Cycling

Test Method	JESD22-A104		
Test Condition	-65ºC / +150ºC Air to Air / 500 Cycles		
Required Sample Size	77 units each lot / 3 lots; WBP		
Lot ID	**R2600042-1** **ATP7262600006.000**	**R2600042-2** **ATP7262600007.000**	**R2600042-3** **ATP7262600008.000**
Electrical Results (Fail / Pass)	0/77	0/77	0/77
WBP (Fail / Pass)	0/5	N/A	N/A
Electrical Test Tester: TMT	25°C		
Result	**Passed**		

MICROCHIP

Package Qualification Report

Biased HAST

Test Method	JESD22-A110		
Test Condition	+130ºC / 85%RH / 96 hours / Bias Voltage: 5.5V		
Required Sample Size	77 units each lot / 3 lots;		
Lot ID	**R2600042-1 ATP7262600006.000**	**R2600042-2 ATP7262600007.000**	**R2600042-3 ATP7262600008.000**
Electrical Results (Fail / Pass)	0/77	0/77	0/77
Electrical Test Tester: TMT	25°C		
Result	**Passed**		

Unbiased HAST

Test Method	JESD22-A118		
Test Condition	+130ºC / 85%RH / 96 hours		
Required Sample Size	77 units each lot / 3 lots;		
Lot ID	**R2600042-1 ATP7262600006.000**	**R2600042-2 ATP7262600007.000**	**R2600042-3 ATP7262600008.000**
Electrical Results (Fail / Pass)	0/77	0/77	0/77
Electrical Test Tester: TMT	25°C		
Result	**Passed**		

Solderability (0 Hr) Method 1: Dip and Look

Test Method	J-STD-002 / JESD22B-102
Test Condition / Criteria	Pb-free 1 hours Steam age. Dip at 215ºC, 100% leads >95% lead coverage
Required Sample Size	22 units / 1 lot
Visual Result (Fail / Pass)	0/22
Result	**Passed**

MICROCHIP

Package Qualification Report

Solderability (0 Hr) Method 1: Dip and Look

Test Method	J-STD-002 / JESD22B-102
Test Condition / Criteria	Pb-free 1 hours Steam age. Dip at 245ºC, 100% leads >95% lead coverage
Required Sample Size	22 units / 1 lot
Visual Result (Fail / Pass)	0/22
Result	**Passed**

Physical Dimension (0Hr)

Test Method	JESD22 B100 and B108
Test Criteria	Within package diagram dimension
Required Sample Size	10 units each lot / 3 lots
Visual Result (Fail / Pass)	0/30
Result	**Passed**

Wire Pull

Test Method	Mil. Std. 883-2011
Test Criteria	Bond Strength Data Assembly
Required Sample Size	5 units / 1 lot
Visual Result (Fail / Pass)	0/5
Result	**Passed**

Bond Shear

Test Method	CDF-AEC-Q100-001
Test Criteria	Bond Strength Data Assembly
Required Sample Size	5 units / 1 lot
Visual Result (Fail / Pass)	0/5
Result	**Passed**

MICROCHIP

Package Qualification Report

Wire sweep

Test Method	X-ray
Test Criteria	15%
Required Sample Size	15 wires each lot / 3 lots
Visual Result (Fail / Pass)	0/45
Result	**Passed**

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

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.

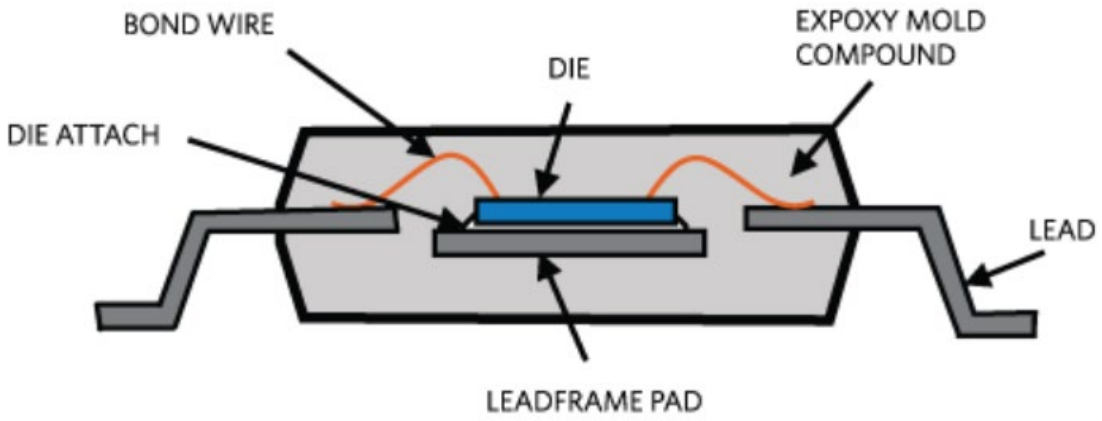
Microchip will consume all existing inventory and die attach, so the exact implementation date will depend on when current inventories are depleted.

- 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.