



Product Change Notification: ALAN-06TWPU459

Date:

10-Jul-2025

Product Category:

32-Bit Microprocessors

Notification Subject:

CCB 7711 Initial Notice: Qualification of ATP7 as an additional assembly site for AT91SAM9G20B-CFU catalog part number (CPN) available in 247L TFBGA (10x10x1.1mm) package.

Affected CPNs:

[ALAN-06TWPU459_Affected_CPN_07102025.pdf](#)

[ALAN-06TWPU459_Affected_CPN_07102025.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 ATP7 as an additional assembly site for AT91SAM9G20B-CFU catalog part number (CPN) available in 247L TFBGA (10x10x1.1mm) package.

Pre and Post Summary Changes:

	Pre Change	Post Change	
Assembly Site	ATX Semiconductor (Shanghai) Co. LTD (ASSH)	ATX Semiconductor (Shanghai) Co. LTD (ASSH)	Amkor Technology Philippines (P3/P4), INC. (ATP7)
Wire Material	CuPd	CuPd	CuPdAu
Die Attach Material	2100AS	2100AS	2300

Molding Compound Material	KE-G1250LKDS	KE-G1250LKDS	G770FE
Core Material	CCL-HL832NX	CCL-HL832NX	HL832NS
SM Material	AUS308	AUS308	AUS308
Solder Ball Material	SAC105	SAC105	SAC105

Impacts to Datasheet:

Yes. POD comparison.

Dimension in mm		ASSH			ATP7		
		Min	Nom	Max	Min	Nom	Max
Number of Terminals	N	247			247		
Pitch	e	0.50 BSC			0.50 BSC		
Overall Height	A	-	-	1.10	-	-	1.10
Standoff/Ball Height	A1	0.16	0.21	0.26	0.14	0.21	-
Mold Thickness	A3	0.50 REF			0.48	0.53	0.58
Overall Length	D	10.00 BSC			10.00 BSC		
Overall Terminal Spacing	D1	9 BSC			9 BSC		
Overall Width	E	10.00 BSC			10.00 BSC		
Overall Terminal Spacing	E1	9 BSC			9 BSC		
Terminal Diameter	b	0.25	0.30	0.35	0.24	0.29	0.34

Change Impact: None

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

Change Implementation Status: In Progress

Estimated Qualification Completion Date: December 2025

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:

	July 2025					>	December 2025				
Work Week	27	28	29	30	31		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: July 10, 2025: 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_ALAN-06TWPU459_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.

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Affected Catalog Part Numbers (CPN)

AT91SAM9G20B-CFU

Date: Wednesday, July 9, 2025



QUALIFICATION PLAN SUMMARY

PCN #: ALAN-06TWPU459

**Qualification of ATP7 as an additional assembly site for
AT91SAM9G20B-CFU catalog part number (CPN) available in 247L
TFBGA (10x10x1.1mm) package.**

Purpose:

Qualification of ATP7 as an additional assembly site for
AT91SAM9G20B-CFU catalog part number (CPN) available in 247L
TFBGA (10x10x1.1mm) package.

CCB No.:

7711

<u>Misc.</u>	Assembly site	ATP7
	BD Number	TBD
	MP Code (MPC)	910017B3BC01
	Part Number (CPN)	AT91SAM9G20B-CFU
	MSL information	MSL3 260
	Assembly Shipping Media	Tray
	Base Quantity Multiple (BQM)	240
	Reliability Site	MPHIL
<u>Substrate</u>	Core Material	HL832NS
	Core Thickness	60+/- 15
	L1/L2 Thickness	12/10
	SM Material	AUS308
	Process	STD
	SM Thickness	30+/-15
	Part Number	101431575
	Drill Size	100
	Line/Space Specs	50/50
<u>Bond Wire</u>	Material	CuPdAu
<u>Die Attach</u>	Part Number	2300
	Conductive	Yes
<u>MC</u>	Part Number	G770FE
<u>PKG</u>	Package Type	TFBGA
	Pin/Ball Count	247
	PKG width/size	10x10x1.1mm
	Ball Pitch/Size	0.5/0.30
	Solder Ball Material	SAC105

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			30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5		5			30 bonds from a min. 5 devices.
Solder Ball Shear	JESD22B117A	5	0	3	15		5			10 balls/5 units. Parts should gone Preconditioning
Coplanarity	JESD22B108A/POD	5	0	3	15					All units
Physical Dimensions	Measure per JESD22 B100	10	0	3	30		5			
High Temperature Storage Life (HTSL)	JESD22-A103. +150°C for 1008 hours Readpoints at 0, 504, and 1008 hours. Electrical test pre and post stress at +25°C and hot temp (85c).	45	5	1	50	0	45	ASE9	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. JESD22A113. MSL3/260	231	15	3	738	0	15	ASE9	MPHIL	Spares should be properly identified. 231 parts from each lot to be used for HAST, uHAST & Temp Cycle test.
Unbiased HAST	JESD22-A118. +130°C/85% RH for 96 hours or +110°C/85% RH for 264 hours. Electrical test pre and post stress at +25°C. 2X unbiased HAST stress (96hrs and 192hrs)	77	5	3	246	0	10	ASE9	MPHIL	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.
Temp Cycle	JESD22-A104. -55°C to +125°C for 1000 cycles or -65°C to +150°C for 500 cycles. Electrical test pre and post stress at hot temp (85c) WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	30	ASE9	MPHIL	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.