



## Product Change Notification: DSNO-28RMBY971

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### Date:

05-Jun-2025

### Product Category:

32-Bit Microcontrollers

### Notification Subject:

CCB 6778.001 Final Notice: Qualification of ANAP as an additional assembly site for selected ASTAM3Sxx, ATSAM3Nxx and AT91SAM7Sxx device families available in 64L LQFP (10x10x1.4mm) package.

### Affected CPNs:

[DSNO-28RMBY971\\_Affected\\_CPN\\_06052025.pdf](#)

[DSNO-28RMBY971\\_Affected\\_CPN\\_06052025.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 ANAP as an additional assembly site for selected ASTAM3Sxx, ATSAM3Nxx and AT91SAM7Sxx device families available in 64L LQFP (10x10x1.4mm) package.

### Pre and Post Summary Changes:

	Pre Change	Post Change	
<b>Assembly Site</b>	ATX Semiconductor (Shanghai) Co. Ltd (ASSH)	ATX Semiconductor (Shanghai) Co. Ltd (ASSH)	Amkor Technology Philippines (P1/P2), INC. (ANAP)

Wire Material	CuPd		Au		CuPd		Au		Au	
Die Attach Material	2288A				2288A				3230	
Molding Compound Material	CEL-9510 / CEL-9200THF				CEL-9510 / CEL-9200THF				G631HQ	
Lead-Frame Material	C7025				C7025				C194ESH	
Lead-Frame Paddle Size	260X260	200X200	210X210	265X265	260X260	200X200	210X210	265X265	236X236	295X295

**Impacts to Datasheet:** None

**Change Impact:** None

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

**Change Implementation Status:** In Progress

**Estimated First Ship Date:** 30 June 2025 (date code: 2527)

**Note Below EFSD:** Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

**Timetable Summary:**

	February 2024	>	June 2025
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Work Week	05	06	07	08	09		23	24	25	26	27
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:** February 05, 2024: Issued initial notification.

June 05, 2025: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on June 30, 2025.

**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-28RMBY971\\_Pre\\_and\\_Post\\_Change Summary.pdf](#)

[PCN\\_DSNO-28RMBY971\\_Qualification Report.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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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.

Affected Catalog Part Numbers (CPN)

ATSAM3S4BA-AU

ATSAM3S4BA-AUR

ATSAM3N0BA-AU

ATSAM3N0BA-AUR

ATSAM3N1BB-AU

ATSAM3N1BB-AUR

AT91SAM7S64C-AU

AT91SAM7S64C-AU-999

ATSAM3S8BA-AU

ATSAM3S8BA-AUR

AT91SAM7S512B-AU

AT91SAM7S512B-AU-999

ATSAM3S1BB-AU

ATSAM3S1BB-AUR

ATSAM3N00BA-AU

ATSAM3N00BA-AUR

ATSAM3SD8BA-AU

ATSAM3SD8BA-AUR

ATSAM3S2BA-AU

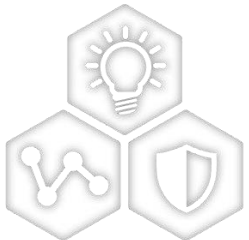
ATSAM3S2BA-AUR

**CCB 6778.001**  
**Pre and Post Change Summary**  
**PCN #: DSNO-28RMBY971**



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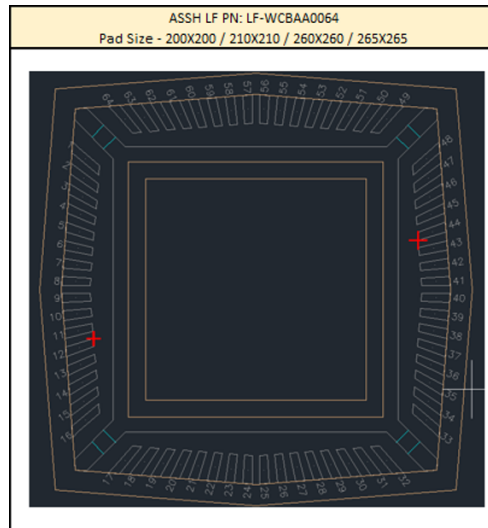
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# Pre and Post Change Summary

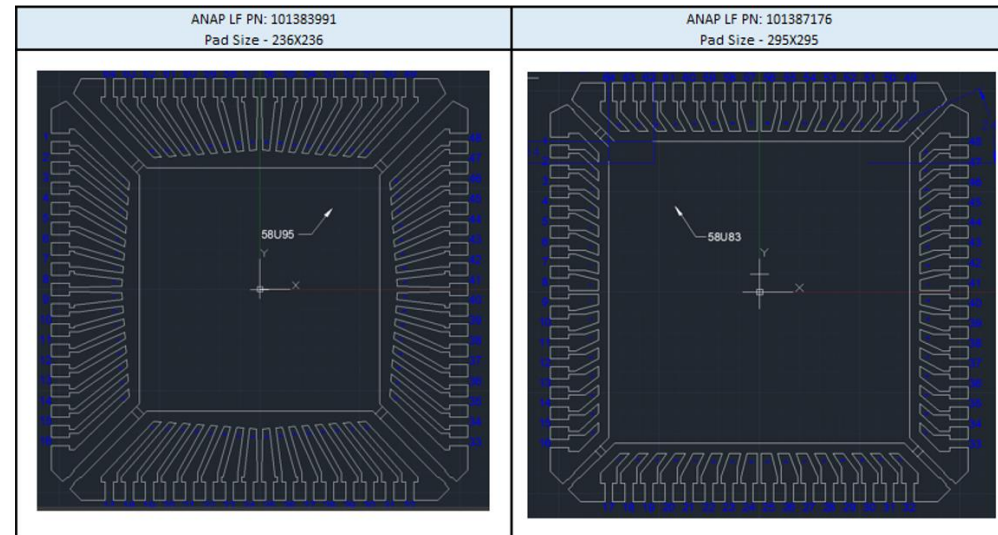
## ASSH



**Note:** Not-to-scale

Lead-frame Paddle Size	200x200 / 210x210 / 260x260 / 265x265
Lead-Frame Material	C7025
Bond Wire Material	CuPd / Au
Die Attach Material	2288A
Mold Compound Material	CEL-9510 / CEL-9200THF

## ANAP



**Note:** Not-to-scale

Lead-frame Paddle Size	236x236 / 295x295
Lead-Frame Material	C194ESH
Bond Wire Material	Au
Die Attach Material	3230
Mold Compound Material	G631HQ



**QUALIFICATION REPORT SUMMARY  
RELIABILITY LABORATORY**

**PCN #: DSNO-28RMBY971**

**Date:  
May 6, 2025**

**Qualification of ANAP as an additional assembly site for  
ATSAM3S8CA-AU, ATSAM3S8CA-AUR, ATSAM3SD8CA-AU  
and ATSAM3SD8CA-AUR catalog part numbers (CPN)  
available in 100L LQFP (14x14x1.4mm) package. The  
qualification of ANAP as an additional assembly site for  
selected ASTAM3Sxx, ATSAM3Nxx and AT91SAM7Sxx  
device families available in 64L LQFP (10x10x1.4mm)  
package will be qualified by similarity (QBS).**



## MICROCHIP Package Qualification Report

**Purpose:** Qualification of ANAP as an additional assembly site for ATSAM3S8CA-AU, ATSAM3S8CA-AUR, ATSAM3SD8CA-AU and ATSAM3SD8CA-AUR catalog part numbers (CPN) available in 100L LQFP (14x14x1.4mm) package. The qualification of ANAP as an additional assembly site for selected ASTAM3Sxx, ATSAM3Nxx and AT91SAM7Sxx device families available in 64L LQFP (10x10x1.4mm) package will be qualified by similarity (QBS).

**CCB No.** 6779 and 6778.001

<b><u>Misc.</u></b>	Assembly site	ANAP
	BD Number	BD-002072-01
	MP Code (MPC)	58A907H7XC03
	Part Number (CPN)	AT91R40008-66AU
	MSL information	MSL3
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	90/Tray
	Reliability Site	MPHIL
<b><u>Lead- Frame</u></b>	Paddle size	256X256
	Material	C194ESH
	DAP Surface Prep	Double Ring Ag
	Treatment	Non-roughened
	Process	Stamped
	Lead-lock	Yes
	Part Number	101423138
	Lead Plating	Matte Sn
	Strip Size	80x250mm
	Strip Density	UDLF
<b><u>Bond Wire</u></b>	Material	Au
<b><u>Die Attach</u></b>	Part Number	3230
	Conductive	Yes
<b><u>MC</u></b>	Part Number	G631HQ
<b><u>PKG</u></b>	Package Type	LQFP
	Pin/Ball Count	100
	PKG width/size	14x14x1.4mm





## **MICROCHIP** **Package Qualification Report**

### **Manufacturing Information:**

<b>Assembly Lot No.</b>
ANAP244500073.000
ANAP244500074.000
ANAP244500072.000

### **Result**



Pass



Fail



58A90 UMC 0.18um in 100L LQFP 14x14x1.4mm assembled at ANAP pass  
Reliability test that was conducted at MPHL rel lab. This package is qualified  
Moisture/Reflow Sensitivity Classification Level 3 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
<b>Precondition Prior Perform Reliability Tests (At MSL Level 3)</b>	<b>Electrical Test:</b> 25°C D10I_UC 85°C D10I_UC	JESD22- A113,  JIP/ IPC/JEDE C J-STD- 020E	231 per lot	Lot 1 0/231	Pass	Good Devices
				Lot 2 0/231	Pass	
				Lot 3 0/231	Pass	
	<b>Bake</b> 150°C, 24 hrs System: HERAEUS		231 per lot			
	<b>Moisture Soak</b> 192h(30°C/60%RH) System: VOTSCH VC4034		231 per lot			
	<b>Reflow</b> 3x Convection-Reflow 265°C max System: Mancorp CR.5000F		231 per lot	Lot 1 0/231	Pass	
				Lot 2 0/231	Pass	
				Lot 3 0/231	Pass	
	<b>Electrical Test:</b> 25°C D10I_UC 85°C D10I_UC		231 per lot	Lot 1 0/231	Pass	
				Lot 2 0/231	Pass	
				Lot 3 0/231	Pass	

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<b>High Temperature Storage Life</b>	<b>Stress Condition:</b> Bake 175°C, 504 hrs System: HERAEUS  <b>Electrical Test:</b> 25°C D10I_UC 85°C D10I_UC	JESD22-A103	45 units 1 lot	Lot 1 0/45	Pass	
				Lot 2 0/45	Pass	
				Lot 3 0/45	Pass	
<b>HAST</b>	<b>Stress Condition:</b> (Standard) 130°C, 85%RH, 96 hrs. VOLTS=3.3V System: HIRAYAMA HASTEST PC-422R8  <b>Electrical Test:</b> 25°C D10I_UC 85°C D10I_UC	JESD22-A110	77 units per lot	Lot 1 0/30  Lot 2 0/77  Lot 3 0/77		Parts had been pre-conditioned at 260°C
<b>UNBIASED HAST</b>	<b>Stress Condition:</b> (Standard) + 130°C, 85%RH, 96 hrs. System: HIRAYAMA HASTEST PC-422R8  <b>Electrical Test:</b> 25°C D10I_UC	JESD22-A118	77 units per lot	Lot 1 0/77  Lot 2 0/77  Lot 3 0/77	Pass  Pass  Pass	Parts had been pre-conditioned at 260°C

# PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<b>Temp Cycle</b>	<b>Stress Condition:</b> (Standard) - 65°C/150°C, 500 Cycles System: Votsch VTS <sup>2</sup> 7012  <b>Electrical Test:</b> 85°C D10I_UC	JESD22-A104	77 units per lot	Lot 1 0/77  Lot 2 0/77  Lot 3 0/77	Pass  Pass  Pass	Parts had been pre-conditioned at 260°C
	<b>Wire Bond Pull WBP</b>	Mil. Std. 883-2011	5 units, 30 bonds 1 lot	Lot 1 0/30	Pass	
<b>Wire Bond Pull WBP, 0 Hour</b>		Mil. Std. 883-2011	5 units, 30 bonds 1 lot	Lot 1 0/30	Pass	
<b>Wire Bond Shear WBS, 0 Hour</b>		CDF-AEC-Q100-001	5 units, 30 bonds 1 lot	Lot 1 0/30	Pass	
<b>Standard Pb-free Solderability</b>	>95% lead coverage	J-STD-002E	22 units 1 lot	0/22	Pass	



**MICROCHIP**

**QUALIFICATION REPORT SUMMARY**  
RELIABILITY LABORATORY

**PCN #: DSNO-28RMBY971**

**Date:**  
**May 6, 2025**

**Qualification of ANAP as an additional assembly site for selected AT91R40008, ATSAM3N0CA, ATSAM3N1CB, ATSAM3S1CB, ATSAM3S2CA, ATSAM3S4CA, and ATSAM3U1CB device families available in 100L LQFP (14x14x1.4mm) package. The qualification of ANAP as an additional assembly site for selected ASTAM3Sxx, ATSAM3Nxx and AT91SAM7Sxx device families available in 64L LQFP (10x10x1.4mm) package will be qualified by similarity (QBS).**



## MICROCHIP Package Qualification Report

**Purpose:** Qualification of ANAP as an additional assembly site for selected AT91R40008, ATSAM3N0CA, ATSAM3N1CB, ATSAM3S1CB, ATSAM3S2CA, ATSAM3S4CA, and ATSAM3U1CB device families available in 100L LQFP (14x14x1.4mm) package. The qualification of ANAP as an additional assembly site for selected ASTAM3Sxx, ATSAM3Nxx and AT91SAM7Sxx device families available in 64L LQFP (10x10x1.4mm) package will be qualified by similarity (QBS).

**CCB No.** 6778 and 6778.001

<b><u>Misc.</u></b>	Assembly site	ANAP
	BD Number	BD-002073-01
	MP Code (MPC)	58U837H7XC01
	Part Number (CPN)	ATSAM3S8CA-AU
	MSL information	MSL3
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	90/Tray
	Reliability Site	MPHIL
<b><u>Lead- Frame</u></b>	Paddle size	315X315
	Material	C194ESH
	DAP Surface Prep	Double Ring Ag
	Treatment	Non-roughened
	Process	Etched
	Lead-lock	No
	Part Number	101393765
	Lead Plating	Matte Sn
	Strip Size	80x250mm
	Strip Density	UDLF
<b><u>Bond Wire</u></b>	Material	Au
<b><u>Die Attach</u></b>	Part Number	3230
	Conductive	Yes
<b><u>MC</u></b>	Part Number	G631HQ
<b><u>PKG</u></b>	Package Type	LQFP
	Pin/Ball Count	100
	PKG width/size	14x14x1.4mm



## **MICROCHIP** **Package Qualification Report**

### **Manufacturing Information:**

<b>Assembly Lot No.</b>
ANAP244500075.000
ANAP244500076.000
ANAP244500077.000

### **Result**



Pass



Fail



58U83 in 100L LQFP 14x14x1.4mm assembled at ANAP pass  
Reliability test conducted at MPHL rel lab. This package is qualified Moisture/Reflow  
Sensitivity Classification Level 3 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
<b>Precondition Prior Perform Reliability Tests (At MSL Level 3)</b>	<b>Electrical Test :</b> 25°C D10I_UC 85°C D10I_UC	JESD22-A113,  JIP/ IPC/JEDEC J-STD-020E	231 per lot	Lot 1 0/231	Pass	Good Devices
				Lot 2 0/231	Pass	
				Lot 3 0/231	Pass	
	<b>Bake</b> 150°C, 24 hrs System: HERAEUS		231 per lot			
	<b>Moisture Soak</b> 192h(30°C/60%RH) System: VOTSCH VC4034		231 per lot			
	<b>Reflow</b> 3x Convection-Reflow 265°C max System: Mancorp CR.5000F		231 per lot	Lot 1 0/231	Pass	
				Lot 2 0/231	Pass	
				Lot 3 0/231	Pass	
	<b>Electrical Test :</b> 25°C D10I_UC 85°C D10I_UC		231 per lot	Lot 1 0/231	Pass	
				Lot 2 0/231	Pass	
				Lot 3 0/231	Pass	



## PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<b>High Temperature Storage Life</b>	<b>Stress Condition:</b> Bake 175°C, 500 hrs System: HERAEUS  <b>Electrical Test:</b> 25°C D10I_UC 85°C D10I_UC	JESD22-A103	45 units 1 lot	Lot 1 0/45	Pass	
				Lot 2 0/45	Pass	
				Lot 3 0/45	Pass	
<b>HAST</b>	<b>Stress Condition:</b> (Standard) 130°C, 85%RH, 96 hrs. VOLTS=3.3 System: HIRAYAMA HASTEST PC-422R8  <b>Electrical Test:</b> 25°C D10I_UC 85°C D10I_UC	JESD22-A110	77 units per lot	Lot 1 0/77	Pass	Parts had been pre-conditioned at 260°C
				Lot 2 0/77	Pass	
				Lot 3 0/77	Pass	
<b>UNBIASED HAST</b>	<b>Stress Condition:</b> (Standard) + 110°C, 85%RH, 264 hrs. System: HIRAYAMA HASTEST PC-422R8  <b>Electrical Test:</b> 25°C D10I_UC	JESD22-A118	77 units per lot	Lot 1 0/77	Pass	Parts had been pre-conditioned at 260°C
				Lot 2 0/77		
				Lot 3 0/77		

## PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<b>Temp Cycle</b>	<b>Stress Condition:</b> (Standard) - 65°C/150°C, 500 Cycles System : Votsch VTS <sup>2</sup> 7012  <b>Electrical Test:</b> 85°C D10I_UC	JESD22-A104	77 units per lot	Lot 1 0/77  Lot 2 0/77  Lot 3 0/77	Pass  Pass  Pass	Parts had been pre-conditioned at 260°C
	<b>Wire Bond Pull WBP</b>	Mil. Std. 883-2011	5 units, 30 bonds 1 lot	Lot 1 0/30	Pass	
<b>Wire Bond Pull WBP , 0 Hour</b>		Mil. Std. 883-2011	5 units, 30 bonds 1 lot	Lot 1 0/30	Pass	
<b>Wire Bond Shear WBS, 0Hour</b>		CDF-AEC-Q100-001	5 units, 30 bonds 1 lot	Lot 1 0/30	Pass	
<b>Standard Pb-free Solderability</b>	>95% lead coverage	J-STD-002E	22 units 1 lot	0/22	Pass	