Product Change Notification: CAAN-12OSGH090

Date:

18-Feb-2025

Product Category:

32-Bit Microprocessors

Notification Subject:

CCB 7410 Initial Notice: Qualification of ASEM as an additional assembly site for AT91SAM9260B-CU and AT91SAM9260B-CU-999 catalog part numbers (CPN) available in 217L LFBGA (15x15x1.4mm) package.

Affected CPNs:

CAAN-12OSGH090_Affected_CPN_02182025.pdf
CAAN-12OSGH090_Affected_CPN_02182025.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 ASEM as an additional assembly site for AT91SAM9260B-CU and AT91SAM9260B-CU-999 catalog part numbers (CPN) available in 217L LFBGA (15x15x1.4mm) package.

Pre and Post Summary Changes:

	Pre Change	**Post Change**	
Assembly Site	ATX Semiconductor (Shanghai) Co. Ltd (ASSH)	ATX Semiconductor (Shanghai) Co. Ltd (ASSH)	ASE Group -Malaysia (ASEM)

Wire Material	Au	Au	Au
Die Attach Material	2100AS	2100AS	ABL2100A
Molding Compound Material	KE-G1250	KE-G1250	KEG 1250LKDS-C
Core Material	CCL-HL832NX	CCL-HL832NX	CCL-HL832NX
Substrate Material	AUS308	AUS308	AUS308

Impacts to Datasheet: None

Change Impact: None

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

Change Implementation Status: In Progress

Estimated Qualification Completion Date: July 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:

	February 2025					**>**	**July 2025**				
Work Week	05	06	07	08	09		27	28	29	30	31
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: February 18, 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_CAAN-12OSGH090_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)

AT91SAM9260B-CU

AT91SAM9260B-CU-999

QUALIFICATION PLAN SUMMARY

PCN#: CAAN-12OSGH090

Date:
January 22, 2025

Qualification of ASEM as an additional assembly site for AT91SAM9260B-CU and AT91SAM9260B-CU-999 catalog part numbers (CPN) available in 217L LFBGA (15x15x1.4mm) package.

Purpose	Qualification of ASEM as an additional assembly site for AT91SAM9260B-CU and AT91SAM9260B-CU-999 catalog part numbers (CPN) available in 217L LFBGA (15x15x1.4mm) package.
CCB No.:	7410

Misc.	Assembly site	ASEM
	BD Number	BD-002991 02
	MP Code (MPC)	58A937ATBC02
	Part Number (CPN)	AT91SAM9260B-CU
	MSL information	MSL3/260
	Assembly Shipping Media (T/R, Tube/Tray)	Tray
	Base Quantity Multiple (BQM)	126
	Reliability Site	NA
Substrate	Core Material	CCL-HL832NX
	Core Thickness	250+/-30 UM
	L1/L2 Thickness	18 UM MIN
	SM Material	AUS308
	Process	STD
	SM Thickness	30+/-10 UM
	Part Number	14ABS7012456XLM
	Drill Size	150+/- 25 UM
	Line/Space Specs	30/30 UM MIN
Bond Wire	Material	Au
Die Attach	Part Number	ABL2100A
	Conductive	Yes
MC	Part Number	KEG 1250LKDS-C
PKG	Package Type	LFBGA
	Pin/Ball Count	217
	PKG width/size	15x15x1.4mm
	Ball Pitch/Size	800/0.4MM
	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	Pkg. Type	Special Instructions
Standard Pb-free Solderability	J-STD-002D ; Perform 8 hours steam aging for Matte tin finish and 1 hr 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	MPHIL	ASEM	LFBGA	For JESD22B-102E use Surface Mount Process Simulation Test method - Board level solderability. If performed, Surface mount Process Simulation Test Method is recommended. Standard Pb-free solderability is the requirement. SnPb solderability (backward solderability- SMD reflow soldering) is required for any plating related changes and highly recommended for other package BOM changes.
Wire Bond Pull - WBP	Mil. Std. 883-2011	5	0	1	5	0 fails after TC	5	MPHIL	ASEM	LFBGA	30 bonds from a min. 5 devices.
Wire Bond Shear - WBS	CDF-AEC-Q100-001	5	0	1	5	0	5	MPHIL	ASEM	LFBGA	30 bonds from a min. 5 devices.
Solder Ball Shear	JESD22B117A	5	0	3	15	0	5	MPHIL	ASEM	LFBGA	10 balls/5 units. Parts should gone Preconditioning
Coplanarity	JESD22B108A/POD	5	0	3	15			MPHIL	ASEM	LFBGA	All units
Physical Dimensions	Measure per JESD22 B100	10	0	3	30	0	5	MPHIL	ASEM	LFBGA	
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 +85°C hot temp.	45	5	1	50	0	45	MPHIL	MPHIL	LFBGA	Spare should be properly identified.
Preconditioning - Required for surface mount devices MSL3/260	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 +85°C. JESD22A113.	231	15	3	738	0	15	MPHIL	MPHIL	LFBGA	Spares should be properly identified.
Unbiased HAST	JESD22-A118. +130°C/85% RH for 96 hours 2x Stress	77	5	3	246	0	10	MPHIL	MPHIL	LFBGA	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 +85°C hot temp. WBP, on 5 devices from 1 lot, test following Temp Cycle stress.	77	5	3	246	0	30	MPHIL	MPHIL	LFBGA	Spares should be properly identified. Use the parts which have gone through Pre-conditioning.