



Product Change Notification / JAON-07XXOG939

Date:

11-Dec-2020

Product Category:

Wireless Modules

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4109 Final Notice: Qualification of DEI6 as a new assembly site for selected ATML ATSAMR21B18 and ATSAMR21G18 device families available in 9L and 48L Module package.

Affected CPNs:

[JAON-07XXOG939_Affected_CPN_12112020.pdf](#)
[JAON-07XXOG939_Affected_CPN_12112020.csv](#)

Notification Text:

PCN Status: Final notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the icons found in the Affected CPNs section above.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of DEI6 as a new assembly site for selected ATML ATSAMR21B18 and ATSAMR21G18 device families available in 9L and 48L Module package.

Pre Change:

Assembled at DEI5 (Delta Electronics, Inc. – China)

Post Change:

Assembled at DEI6 (Delta Electronics, Inc. -Taiwan)

Pre and Post Change Summary

	Pre Change	Post Change
Assembly Site	Delta Electronics, Inc. -China (DEI5)	Delta Electronics, Inc. -Taiwan (DEI6)
Substrate material	FR4 (TU-768)	FR4 (TU-768)
Solder ball material	SAC305	SAC305

Impacts to Data Sheet: None

Change Impact: None

Reason for Change: To improve on-time delivery performance by qualifying DEI6 as a new assembly site.

Change Implementation Status: In Progress

Estimated First Ship Date: May 14, 2021 (date code: 2120)

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

Time Table Summary:

	February 2020				>	December 2020				>	May 2021				
	06	07	08	09		49	50	51	52		19	20	21	22	23
Initial PCN Issue Date			X												
Qual Report Availability						X									
Final PCN Issue Date						X									
Estimated First Ship 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 18, 2020: Issued initial notification.

December 11, 2020: Issued final notification. Attached the qualification report and added estimated first ship date by May 14, 2021.

The change described in this PCN does not alter Microchip’s current regulatory compliance regarding the material content of the applicable products.

Attachments:

[PCN_JAON-07XXOG939_Qual_Report.pdf](#)

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

Terms and Conditions:

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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)

ATSAMR21B18-MZ210PA

ATSAMR21G18-MR210UA

ATSAMR21G18-MR210UAT

ATSAMR21B18-MZ210PAT



MICROCHIP

QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: JAON-07XXOG939

Date:
November 30, 2020

**Qualification of DEI6 as a new assembly site for selected ATML
ATSAMR21B18 and ATSAMR21G18 device families available in 9L and
48L Module package.**



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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of DEI6 as a new assembly site for selected ATML ATSAMR21B18 and ATSAMR21G18 device families available in 9L and 48L Module package.
CN	ES340589
QUAL ID	R2000387 Rev. A
MP CODE	662A5YLKBM11
Part No.	ATSAMR21B18-MZ210PAT
CCB No.	4109
<u>Package</u>	
Type	9L Module
Width/Size	19.70 x 16.30 mm
<u>Substrate</u>	
Core Thickness	31 mils
Core Material	FR4 (TU-768)
SM Material	Blue (2000BL500H)
SM Thickness	1.0 mil
Part Number	2992094900



MICROCHIP PACKAGE QUALIFICATION REPORT

Manufacturing Information:

Assembly Lot No.	Wafer No.	Date Code
19520579053	N/A	D
19520579054	N/A	E
19520579055	N/A	F

Result

Pass Fail _____

9L Module assembled by MMT is qualified the Moisture/ Reflow Sensitivity Classification Level 3 at 255°C reflow temperature per IPC/JEDEC J-STD-020D standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
<u>Precondition</u> <u>Prior Perform</u> <u>Reliability Tests</u> (At MSL Level 3)	Electrical Test: +25°C System: Rack & Stack	JESD22-A113	96 (0)	96		Good Devices
	Bake 150°C, 24 hrs System: CHINEE			96		
	30°C/60%RH Moisture Soak 192 hrs. System: TABAI ESPEC Model PR-3SPH			96		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			96		
	Electrical Test: +25°C System: Rack & Stack			0/96	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -40°C to +125°C, 500 Cycles System: TABAI ESPEC TSA-70H	JESD22-A104		24		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: Rack & Stack		24(0)	0/24	Pass	8 units / lot
	Stress Condition: -40°C to +125°C, 1000 Cycles System: TABAI ESPEC TSA-70H			24		
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		24		Parts had been pre-conditioned at 260°C
	Electrical Test: +25°C System: Rack & Stack		24(0)	0/24	Pass	8 units / lot
High Temperature Storage Life	Stress Condition: Bake 150°C, 504 hrs System: SHEL LAB	JESD22-A103		24		8 units / lot
	Electrical Test: +25°C System: Rack & Stack		24(0)	0/24	Pass	
	Stress Condition: Bake 150°C, 1008 hrs System: SHEL LAB			24		
	Electrical Test: +25°C System: Rack & Stack		24(0)	0/24	Pass	