



Product Change Notification / JAON-21NAGG091

Date:

22-Jun-2021

Product Category:

Wireless Modules

PCN Type:

Manufacturing Change

Notification Subject:

CCB 3007.003 Initial Notice: Qualification of MPHL as an additional final test site for selected Atmel ATSAMR21G16A, ATSAMR21G17A, and ATSAMR21G18A device families available in 48L VQFN (7x7x1mm) package.

Affected CPNs:

[JAON-21NAGG091_Affected_CPN_06222021.pdf](#)

[JAON-21NAGG091_Affected_CPN_06222021.csv](#)

Notification Text:

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 MPHL as an additional final test site for selected Atmel ATSAMR21G16A, ATSAMR21G17A, and ATSAMR21G18A device families available in 48L VQFN (7x7x1mm) package.

Pre Change: Tested at ATP7 final test site.

Post Change:

Tested at ATP7 final test site or tested at MPHL final test site.

Pre and Post Change Summary:

		Pre Change	Post Change	
Final Test Site		Amkor Technology Philippines (P3/P4), INC (ATP7)	Amkor Technology Philippines (P3/P4), INC (ATP7)	Microchip Technology Operations (Philippines) Corporation (MPHL)
Base Quantity Multiple (BQM)	Tape and Reel	4000	4000	4000
	Tray	416	416	416
Pin Orientation	Tape and Reel	Quadrant 1	Quadrant 1	Quadrant 1
	Tray	Chamfer Side	Chamfer Side	Chamfer Side
Tray Color		Black	Black	Black
		See pre and post change comparison.		
Carrier tape		No dimensional changes. See pre and post change comparison.		
Cover Tape		No dimensional changes. See pre and post change comparison.		
Reel		See pre and post change comparison.		
Desiccant and HIC		See pre and post change comparison.		
Moisture Barrier Bag Packing Process		See pre and post change comparison.		
Carton/Pizza box		Minor dimensional changes. See pre and post change comparison.		

Impacts to Data Sheet: None**Change Impact:**None**Reason for Change:**To improve manufacturability and on-time delivery performance by qualifying MPHL as an additional final test site.**Change Implementation Status:**In Progress**Estimated Qualification Completion Date:**July 2021

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.

Time Table Summary:

	June 2021					July 2021			
Workweek	23	24	25	26	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: June 22, 2021: Issued initial notification.

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-21NAGG091_Pre and Post Change_Summary.pdf](#)
[PCN_JAON-21NAGG091_Qual_Plan.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.

CCB 3007.003
Pre and Post Change Summary
PCN# JAON-21NAGG091





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Pre and Post Change Summary

		Pre Change	Post Change
Final Test Location		Amkor Technology Philippines (P3/P4), INC (ATP7)	Microchip Technology Operations (Philippines) Corporation (MPHL)
Packing Media		Tape and Reel / Tray	Tape and Reel / Tray
Base Quantity Multiple (BQM)	Tape and Reel	4000	4000
	Tray	416	416
Pin 1 Orientation	Tape and Reel	Quadrant 1	Quadrant 1
	Tray	Chamfer side	Chamfer side
Tray Color		Black	Black
			

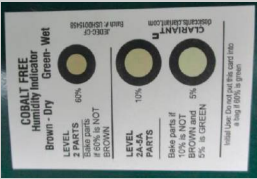



Pre and Post Change Summary

		Pre Change / ATP7			Post Change /MPHL		
Carrier Tape (mm)	Dimensions	Width: 16	Pitch: 12	Length: 410	Width: 16	Pitch: 12	Length: 410
	Color	Black			Black		
Cover Tape Width		13.3 mm			13.3 mm		
Reel Color		White			White		
							





Pre and Post Change Summary

		Pre Change / ATP7	Post Change /MPHL
Desiccant	Tape and Reel	<div><p>1 unit</p></div>	<div><p>1 unit</p></div>
	Tray	<div><p>1 unit</p></div>	<div><p>1 unit</p></div>





Pre and Post Change Summary

		Pre Change / ATP7	Post Change /MPHL
HIC	Tape and Reel	<div></div> <p>HIC, COBALT-FREE HIC 5/10/60</p>	<div></div> <p>HIC, COBALT-FREE HIC 5/10/60</p>
	Tray	<div></div> <p>HIC, COBALT-FREE HIC 5/10/60</p>	<div></div> <p>HIC, COBALT-FREE HIC 5/10/60</p>

Pre and Post Change Summary

		Pre Change / ATP7	Post Change /MPHL
Moisture Barrier Bag Dimension	Tape and Reel	MOISTURE BARRIER BAG (18in x 18in) 	MBB (406mm x 457 mm) 
	Tray	MBB 10" X 20" 7.0 MILS W/ ESD LOGO PRINT 	MBB (228mm x 483mm) 

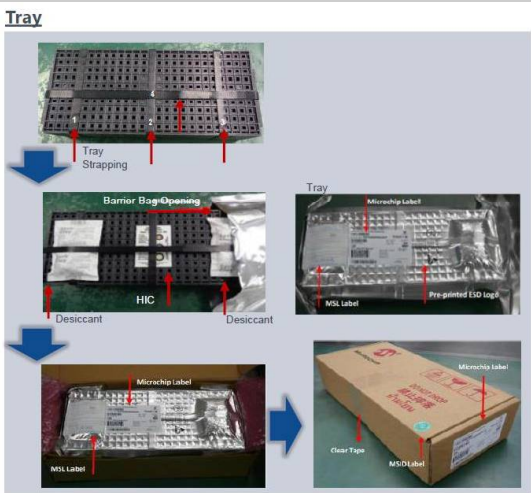
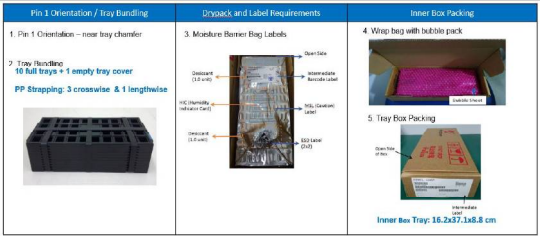
Pre and Post Change Summary

		Pre Change / ATP7	Post Change /MPHL
Carton Box	Tape and Reel	<div>BOX, 37cm x 35.1cm x 5.3cm</div> <div></div>	<div>BOX, 375mm x 352mm x 53mm</div> <div></div>
	Tray	<div>BOX, 16.2cm x 37.1cm x 8.8cm</div> <div></div>	<div>Inner Box Tray 16.2cm x 37.1cm x 8.8 cm</div> <div></div>

Pre and Post Change Summary

		Pre Change ATP7	Post Change MPHL
Packing Procedure	Tape and Reel	<p>T/R</p> <p>Non-sprocket Side</p> <p>Embossed ESD</p> <p>Barcode Label</p> <p>Desiccant</p> <p>HIC</p> <p>Desiccant</p> <p>MSL Label</p> <p>Bubble Bag</p> <p>Non-sprocket Side</p> <p>Tracking Label</p> <p>Embossed ESD</p> <p>Note: Tracking Label is subject for removal (ongoing spec revision)</p> <p>Barcode Label</p> <p>MSID Label</p> <p>Barcode Label</p>	<p>Non-sprocket Side</p> <p>Sprocket hole Side</p> <p>Intermediate Barcode Label</p> <p>Tracking Label</p> <p>ESD Label (2x2)</p> <p>Not required if with embossed</p> <p>MSL Label (Group X Blank)</p> <p>Open Side</p> <p>Desiccant (1.0 unit)</p> <p>HIC (Humidity Indicator Card)</p> <p>Desiccant (1.0 unit)</p> <p>Intermediate Barcode Label</p> <p>MSL (Caution) Label</p> <p>ESD Label (2x2)</p> <p>Label Placement at Box</p> <p>Bubble Sheet</p> <p>MSID Sticker</p> <p>Intermediate Barcode Label</p>

Pre and Post Change Summary

		Pre Change ATP7	Post Change MPHL
Packing Procedure	Tray	<div><p><u>Tray</u></p></div>	<div></div>



MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN #: JAON-21NAGG091

Date

June 21, 2021

Qualification of MPHL as an additional final test site for selected Atmel ATSAMR21G16A, ATSAMR21G17A, and ATSAMR21G18A device families available in 48L VQFN (7x7x1mm) package.

Purpose: Qualification of MPHL as an additional final test site for selected Atmel ATSAMR21G16A, ATSAMR21G17A, and ATSAMR21G18A device families available in 48L VQFN (7x7x1mm) package.

CCB No.: 3007.003

Test / Evaluation	Test Conditions / Parameters
Original Final Test Site Correlation	Run 5,000 untested devices from 1 lot for Commercial/Industrial, using the first insertion final test program at the current final test site and keep the good devices and rejects separate by bins.
Original Final Test Site Characterization	Characterize minimum of 33 good devices using the production test program with DC items and measurable functional test items which are specified in the product datasheet (ex. Tce, Icc, Isb, Vih, Vil, Voh , Vol) and send these devices to the destination final test site.
Datalog Comparison at Destination Final Test Site	Collect single site good and open socket datalogs on original and destination testers. Compare test number, test name, test sequence, test limits and Pass/Fail result. Accept if all parameters are matched or explainable.
Site by Site Verification at Destination Final Test Site	To verify that the test site mapping of new load board is correct and the communication between Tester and handler works correctly.
Test Stability Verification at Destination Final Test Site	Run 1 touch-down with full sites testing at the destination site for 50 loops without datalog at each insertion. Accepted on 0 failure or explainable.
Destination Final Test Site Characterization	Re-characterize the same 33 good devices or all devices that were collected characterized data from the original test site using new program and hardware for DC items collected. The results will be accepted if the variance within $\pm 10\%$ of the measured values from the original test site.
Destination Final Test Site Correlation	Send 5,000 tested devices from 1 lot for Commercial/Industrial. The results need 100% correlation. To ensure that correction result
Destination Final Test Site Cross Correlation	Run 33 untested devices from the destination site with same FT program; keep the good devices and rejects separate by bins and send all devices to the original site for correlation. Re-test those devices from destination site bin- by-bin to the original site final test program for correlation.

JAON-21NAGG091 - CCB 3007.003 In ATSAMR21 and ATSAMR21G18A device families available in 48L VQF

Affected Catalog Part Numbers(CPN)

ATSAMR21G16A-MF
ATSAMR21G17A-MF
ATSAMR21G18A-MF
ATSAMR21G16A-MU
ATSAMR21G17A-MU
ATSAMR21G18A-MU
ATSAMR21G16A-MUT
ATSAMR21G17A-MUT
ATSAMR21G18A-MUT
ATSAMR21G18A-MUTA6
ATSAMR21G16A-MFT
ATSAMR21G17A-MFT
ATSAMR21G18A-MFT