Product Change Notification / JAON-21NAGG091

Date:

09-May-2022

Product Category:

Wireless Modules

PCN Type:

Manufacturing Change

Notification Subject:

CCB 3007.003 Final 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_05092022.pdf
JAON-21NAGG091_Affected_CPN_05092022.csv

Notification Text:

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

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 First Ship Date: June 3, 2022 (date code: 2223)

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

Time Table Summary:

	June 2021					>	May 2022				June 2022				
Workweek	23	24	25	26	27		19	20	21	22	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:
June 22, 2021: Issued initial notification.
May 9, 2022: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on June 3, 2022.

Attachments:

PCN_JAON-21NAGG091_Pre and Post Change_Summary.pdf
PCN_JAON-21NAGG091_Qual_Report.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

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and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

QUALIFICATION REPORT SUMMARY

PCN #: JAON-21NAGG091

Date
April 21, 2022

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	Results
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.	Passed
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.	Passed
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.	Passed
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.	Passed
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.	Passed
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 ± 10% of the measured values from the original test site.	Passed
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	Passed
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.	Passed

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
			

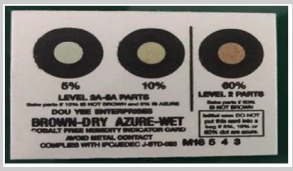
Pre and Post Change Summary

		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	 1 unit	 1 unit
	Tray	 1 unit	 1 unit

Pre and Post Change Summary

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

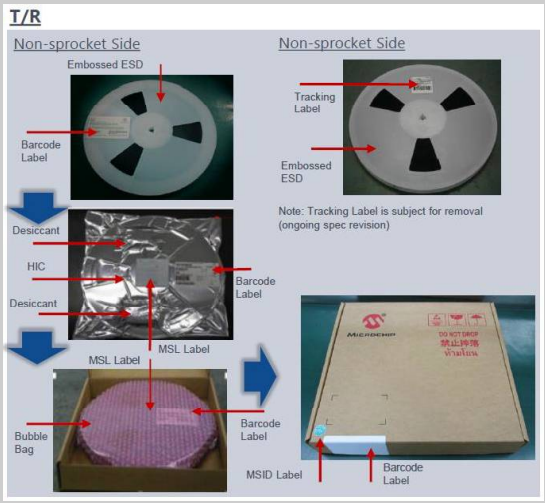
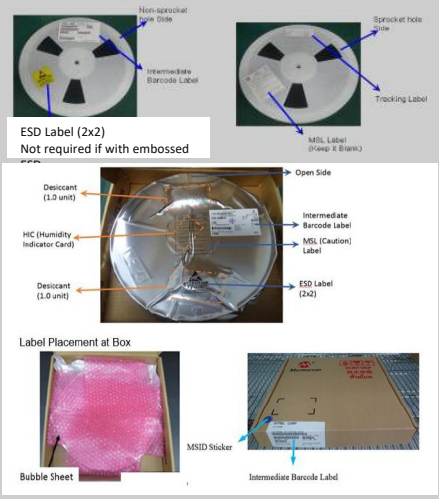
Pre and Post Change Summary

		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) 

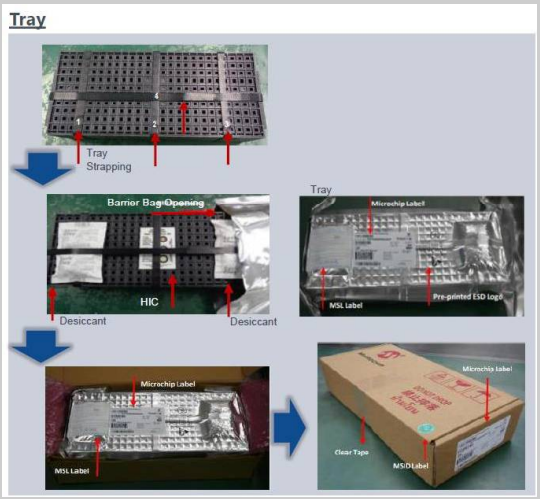
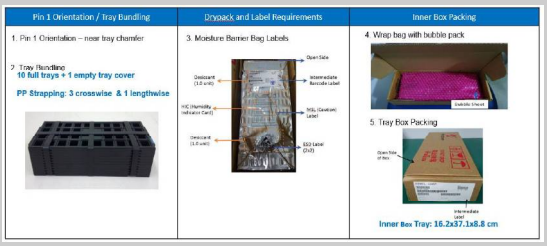
Pre and Post Change Summary

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

Pre and Post Change Summary

		Pre Change ATP7	Post Change MPHL
Packing Procedure	**Tape and Reel**		

Pre and Post Change Summary

		Pre Change ATP7	Post Change MPHL
Packing Procedure	**Tray**		

JAON-21NAGG091 - CCB 3 ATSAMR21 and ATSAMR21G18A device families available in 48L VQFN (7x7x1m

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