



Product Change Notification / ASER-18FQMI580

Date:

14-Jun-2022

Product Category:

32-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4381.002 Final Notice: Qualification of MTAI as an additional final test site for selected ATSAMD21E15Bxxx and ATSAMD21E16Bxxx device families available in 32L TQFP (7x7x1.0mm) package.

Affected CPNs:

[ASER-18FQMI580_Affected_CPN_06142022.pdf](#)

[ASER-18FQMI580_Affected_CPN_06142022.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 MTAI as an additional final test site for selected ATSAMD21E15Bxxx and ATSAMD21E16Bxxx device families available in 32L TQFP (7x7x1.0mm) package.

Pre and Post Change Summary:

		Pre Change		Post Change		
Final Test Site		Amkor Technology Philippines (P3/P4), INC. (ATP7)	Microchip Technology Operations (Philippines) Corporation (MPHL)	Amkor Technology Philippines (P3/P4), INC. (ATP7)	Microchip Technology Operations (Philippines) Corporation (MPHL)	Microchip Technology Thailand (MTAI)
Base Quantity Multiple (BQM)	Tape and Reel	2000	2000	2000	2000	2000
	Tray	250	250	250	250	250
Pin 1 Orientation	Tape and Reel	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1
	Tray	Chamfer Side	Chamfer Side	Chamfer Side	Chamfer Side	Chamfer Side
Carrier Tape		Minor dimensional changes. See Pre and Post Change Summary for Comparison.				
Cover Tape		Minor dimensional changes. See Pre and Post Change Summary for Comparison.				
Reel Color		White	White	White	White	Dark Blue
Reel Dimension		Minor dimensional changes. See Pre and Post Change Summary for Comparison.				
Packing Method		See Pre and Post Change Summary for Comparison				

Impacts to Data Sheet:None

Change Impact:None

Reason for Change:To improve manufacturability by qualifying MTAI as an additional final test site.

Change Implementation Status:In Progress

Estimated First Ship Date:June 30, 2022 (date code: 2227)

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

Time Table Summary:

	February 2022					→	June 2022				
Workweek	6	7	8	9	10		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 16, 2022: Issued initial notification.

June 14, 2022: Issued final notification. Attached the qualification report. Provided estimated first ship date to be on June 30, 2022.

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

Attachments:

[PCN_ASER-18FQMI580_Qual_Report.pdf](#)

[PCN_ASER-18FQMI580_Pre and Post Change Summary.pdf](#)

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

Terms and Conditions:

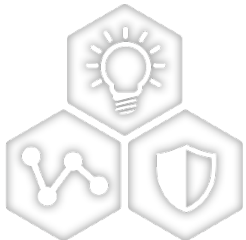
If you wish to receive Microchip PCNs via email please register for our PCN email service at our **PCN home page** select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the **PCN FAQ** section.

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.

CCB 4381.001
Pre and Post Change Summary
PCN #: ASER-18FQMI580



A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



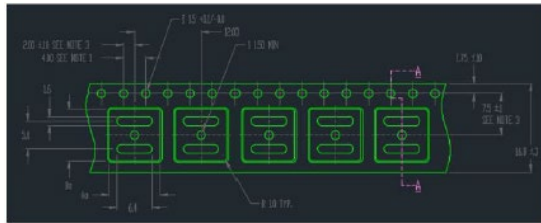
SMART | CONNECTED | SECURE

Tape and Reel - BQM and Pin 1 Orientation

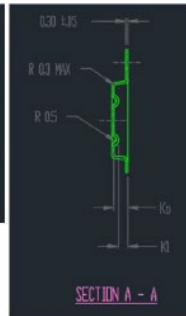
	ATP7	MPHL	MTAI
Base Quantity Multiple (BQM)	2000	2000	2000
Pin 1 orientation	Quadrant 1	Quadrant 1	Quadrant 1

Tape and Reel - Carrier Tape

ATP7

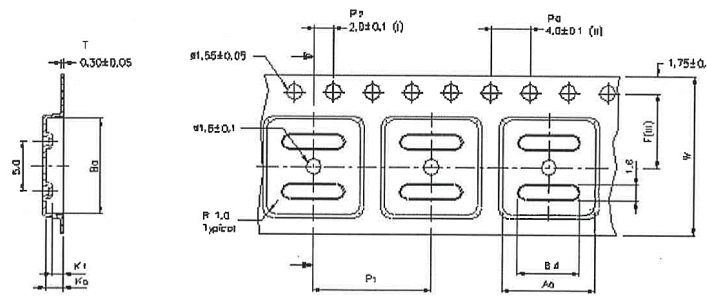


NOTES:
1. TO SPROCKET HOLE PITCH CUMULATIVE TOLERANCE ± 0.2
2. DIMENSIONS IN COMPLIANCE WITH EIA-480
3. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AT TRUE POSITION OF POCKET, NOT POCKET HOLE



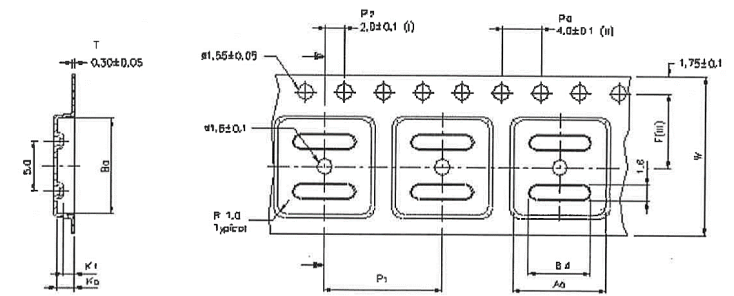
W: 16.00 +/- 0.3 mm
P1: 12.00 +/- 0.1 mm
A0: 9.30 +/- 0.1 mm
B0: 9.30 +/- 0.1 mm
K0: 1.80 +/- 0.1 mm
K1: 1.20 +/- 0.1 mm
Thickness 0.30 +/- 0.05 mm
Color: Black

MPHL



W: 16.00 +/- 0.3 mm
P1: 12.00 +/- 0.1 mm
A0: 9.60 +/- 0.1 mm
B0: 9.60 +/- 0.1 mm
K0: 1.85 +/- 0.1 mm
K1: 1.25 +/- 0.1 mm
Thickness 0.30 +/- 0.05 mm
Color: Black

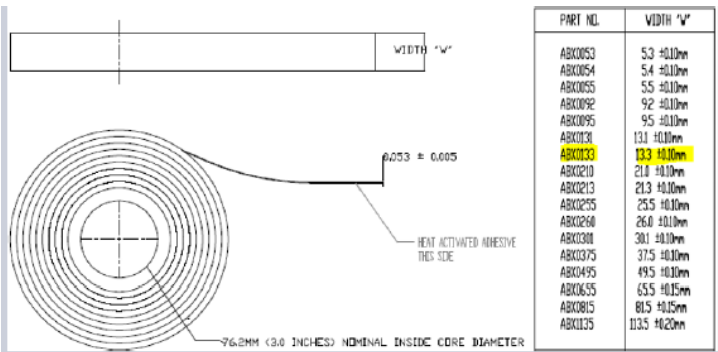
MTAI



W: 16.00 +/- 0.3 mm
P1: 12.00 +/- 0.1 mm
A0: 9.60 +/- 0.1 mm
B0: 9.60 +/- 0.1 mm
K0: 1.85 +/- 0.1 mm
K1: 1.25 +/- 0.1 mm
Thickness 0.30 +/- 0.05 mm
Color: Black

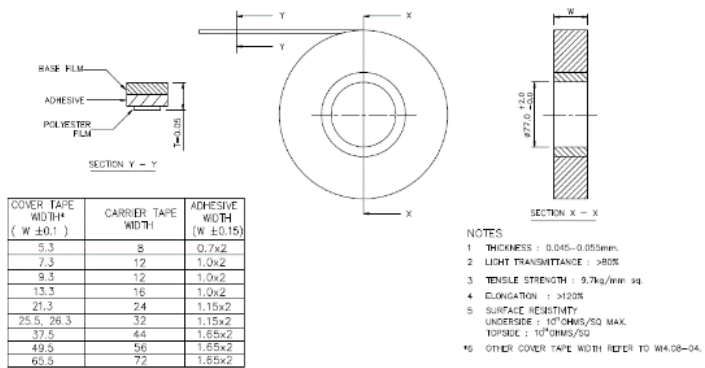
Tape and Reel - Cover Tape

ATP7



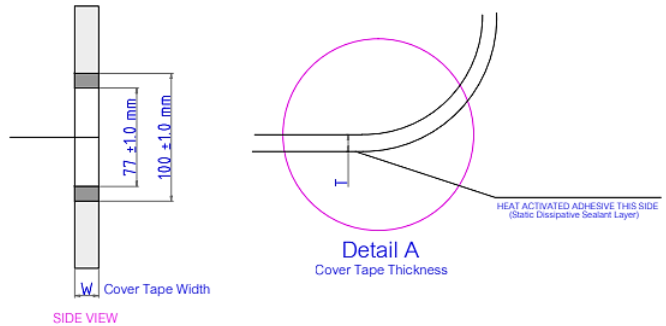
Cover Tape Width: 13.3 +/-0.1 mm
Cover Tape thickness: 0.053 +/- 0.005 mm
Color: Clear

MPHL



Cover Tape Width: 13.3mm
Cover Tape Thickness: 0.05mm
Color: Clear

MTAI



Cover Tape Width: 13.3 +/-0.1 mm
Cover Tape thickness: 0.050 +/- 0.010 mm
Color: Clear

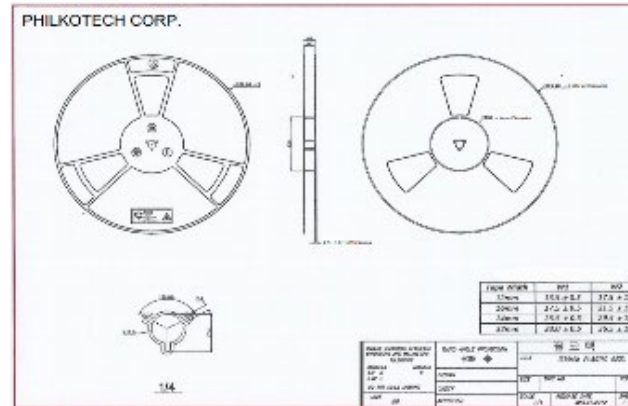
Tape and Reel – Plastic Reel

ATP7



Reel Diameter: 330.2 +/-2.0mm
 Hub: 100mm
 W1: 17 +/-0.3 mm
 W2: 19.4+/- 0.8 mm
 Color: White

MPHL

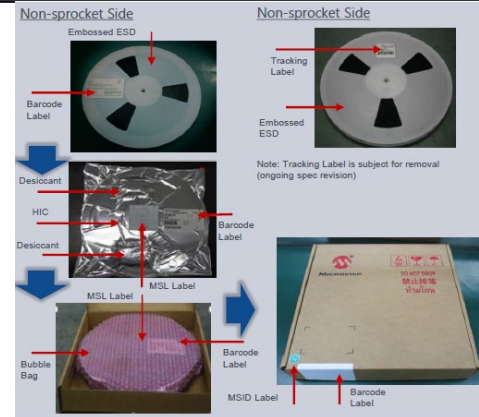


Tape and Reel – Packaging

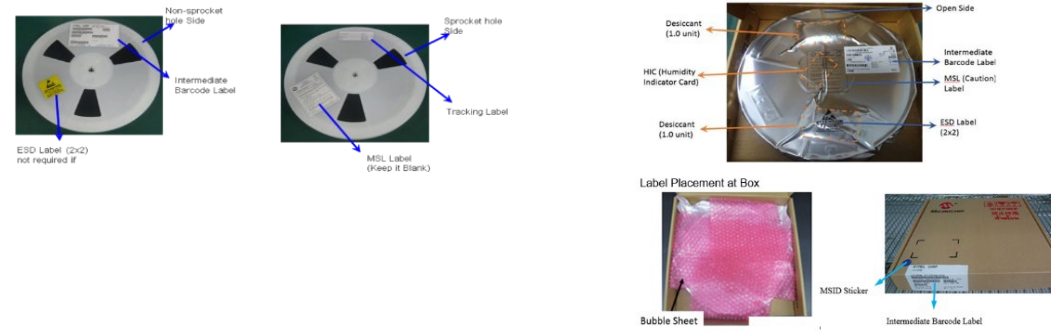
Final Test Site	ATP7	MPHL	MTAI
Desiccant			
HIC			
Boxes			
Bags			

Tape and Reel – Packing Procedure

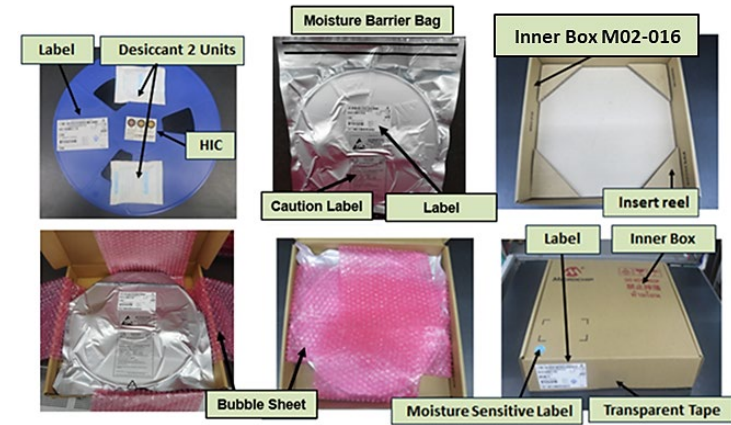
ATP7



MPHL



MTAI

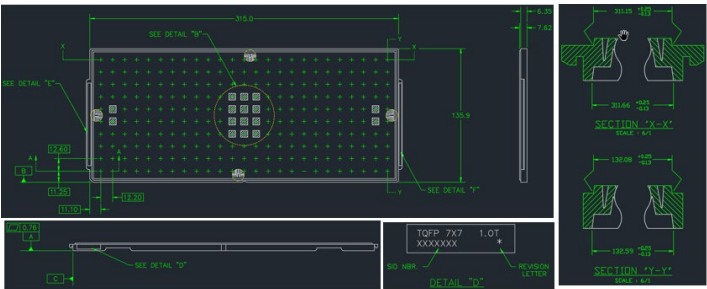


Tray - BQM and Pin 1 Orientation

	ATP7	MPHL	MTAI
Base Quantity Multiple (BQM)	250 per bundle (10+1 cover tray)	250 per bundle (10+1 cover tray)	250 per bundle (10+1 cover tray)
Pin 1 orientation	Chamfer Side	Chamfer Side	Chamfer Side

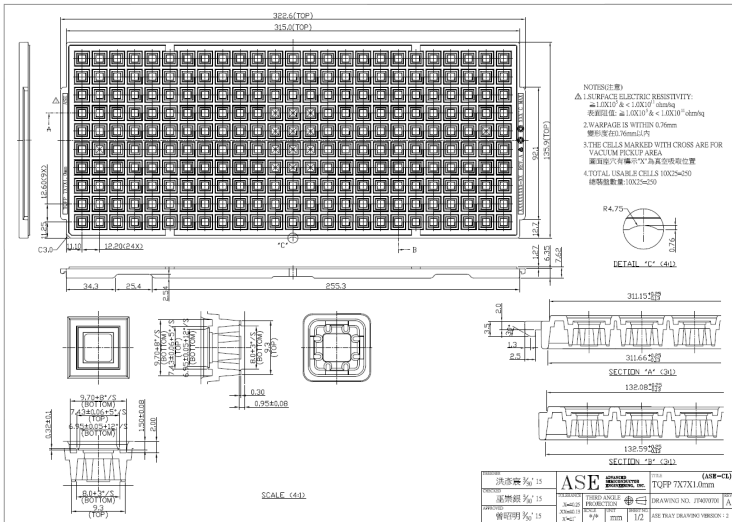
Tray - Size

ATP7



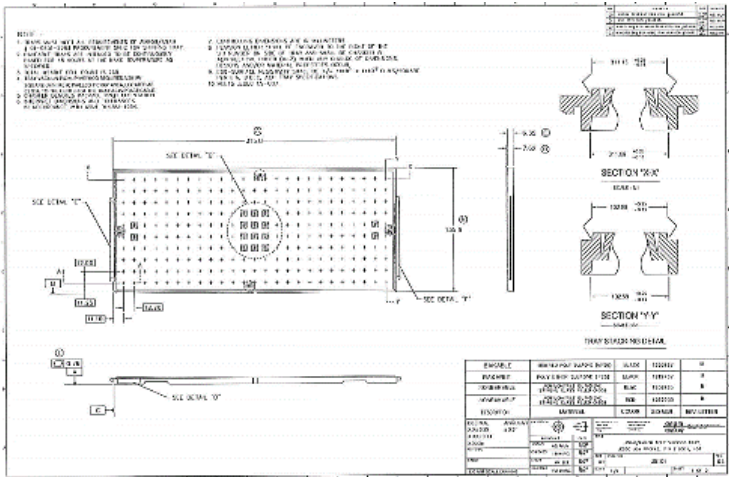
Row: 10
Col: 25
Pocket per Tray: 250
Color: Black

MPHL



Row: 10
Col: 25
Pocket per Tray: 250
Color: Black

MTAI



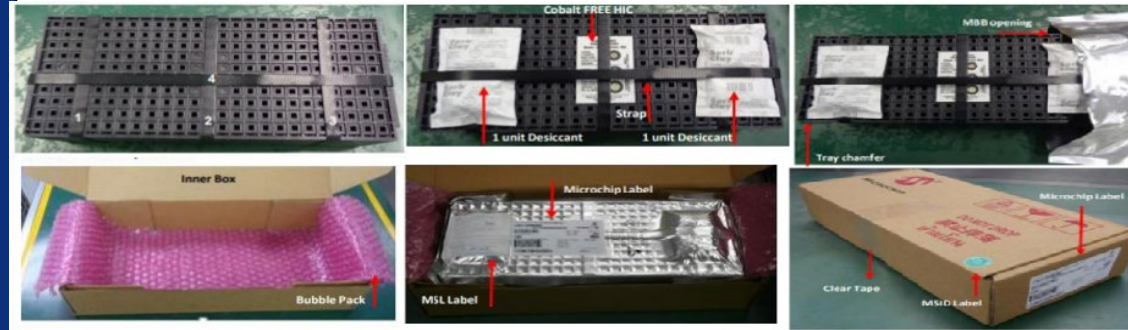
Row: 10
Col: 25
Pocket per Tray: 250
Color: Black

Tray – Packaging

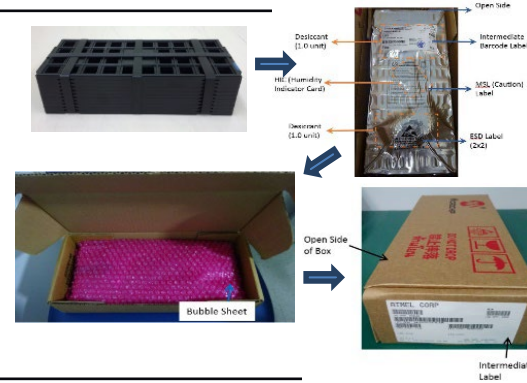
Final Test Site	ATP7	MPHL	MTAI
Desiccant			
HIC			
Boxes			
Bags			

Tray – Packing Procedure

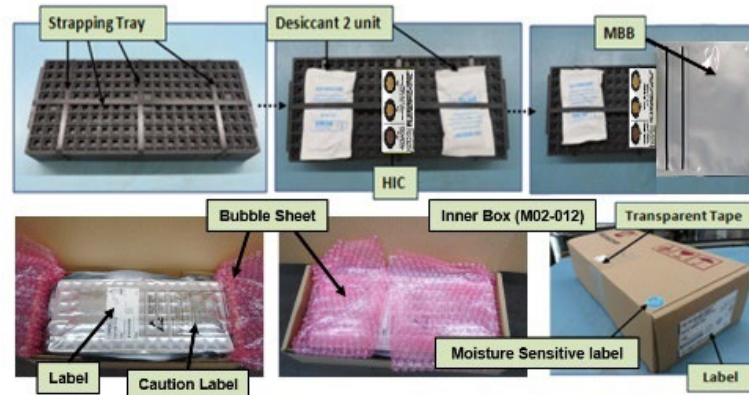
ATP7



MPHL



MTAI





QUALIFICATION REPORT SUMMARY

PCN #: ASER-18FQMI580

**Date:
May 20, 2022**

**Qualification of MTAI as an additional final test site for
selected ATSAMD21E15Bxxx and ATSAMD21E16Bxxx device
families available in 32L TQFP (7x7x1.0mm) package.**

Purpose: Qualification of MTAI as an additional final test site for selected
ATSAMD21E15Bxxx and ATSAMD21E16Bxxx device families available
in 32L TQFP (7x7x1.0mm) package.

CCB No.: 4381.002

Test Name	Test Conditions	Result
Datalog/Bin Comparison	<ul style="list-style-type: none">• Compare test numbers, test names, test sequence bin assignments & pass/fail results• Accept if all match or justify the differences	PASSED
Test Stability	<ul style="list-style-type: none">• 50 loop test performed with no datalog delays• Can compare the data of the above analysis with 48L/64L TQFP results.	PASSED
Monitor Test Yield	<ul style="list-style-type: none">• Strip test yields should be comparable to the singulated final test yield trends.	PASSED

Affected Catalog Part Numbers (CPN)

ATSAMD21E16B-AF

ATSAMD21E15B-AF

ATSAMD21E16B-AU

ATSAMD21E15B-AU

ATSAMD21E16B-AUT

ATSAMD21E15B-AUT

ATSAMD21E16B-AFT

ATSAMD21E15B-AFT