



Product Change Notification / MFOL-07FWWO646

Date:

16-Mar-2022

Product Category:

32-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5049 Final Notice: Qualification of MPHL as an additional final test site for selected ATSAML22J1xx and ATSAML22N1xx device families available in 64L (10X10X1mm) and 100L (14X14X1mm) TQFP packages.

Affected CPNs:

[MFOL-07FWWO646_Affected_CPN_03162022.pdf](#)

[MFOL-07FWWO646_Affected_CPN_03162022.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 ATSAML22J1xx and ATSAML22N1xx device families available in 64L (10X10X1mm) and 100L (14X14X1mm) TQFP packages.

Pre and Post Change Summary:

			Pre Change	Post Change	
Final Test Site			ASE Test (ASE9)	ASE Test (ASE9)	Microchip Technology Operations (Philippines) Corporation (MPHL)
Base Quantity Multiple (BQM)	64L TQFP	Tray	160	160	160
		T/R	1500	1500	1500
	100L TQFP		1000	1000	1000
Pin 1 Orientation	100L TQFP	T/R	Quadrant 1	Quadrant 1	Quadrant 1
	64L TQFP	T/R			
Tape and Reel	Dimension		13"	13"	13"
	Color		White	White	White
	Material		Plastic	Plastic	Plastic
Carrier Tape	64L TQFP		No dimensional changes. See Pre and Post comparison.		
	100L TQFP		See Pre and Post comparison.		
Cover Tape	64L TQFP		See Pre and Post comparison.		
	100L TQFP				
Desiccant			See Pre and Post comparison.		
Bag for T/R			See Pre and Post comparison.		
Box	T/R		See Pre and Post comparison.		
	Tray		See Pre and Post comparison.		
Bags for Tray	64L TQFP		See Pre and Post comparison.		
	100L TQFP		Not Applicable.		
Packing method	T/R		See Pre and Post comparison.		
	Tray				

Impacts to Data Sheet:None**Change Impact:**None**Reason for Change:**To improve on-time delivery performance by qualifying MPHL as an additional final test site.**Change Implementation Status:**In Progress**Estimated First Ship Date:**April 18, 2022 (date code: 2217)

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

Time Table Summary:

	March 2022				April 2022				
Workweek	10	11	12	13	14	15	16	17	18
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:March 16, 2022: Issued final 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_MFOL-07FWW0646_Pre and Post summary.pdf](#)
[PCN_MFOL-07FWW0646_Qual Report.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.



MICROCHIP

QUALIFICATION REPORT SUMMARY

PCN #: MFOL-07FWWO646

**Date:
February 16, 2022**

**Qualification of MPHL as an additional final test site for
selected ATSAML22J1xx and ATSAML22N1xx device families
available in 64L (10X10X1mm) and 100L (14X14X1mm) TQFP
packages.**

Purpose: Qualification of MPHL as an additional final test site for selected ATSAML22J1xx and ATSAML22N1xx device families available in 64L (10X10X1mm) and 100L (14X14X1mm) TQFP packages.

CCB No.: 5049

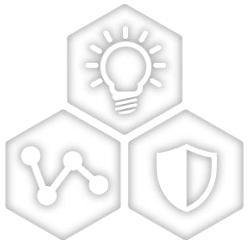
Test / Evaluation	Test / Evaluation	Result
Loadboard and Test Program Validation	<ul style="list-style-type: none">• FT@25°C: All 16 Sites Pass All Tests• QC@25°C: All 16 Sites Pass All Tests	Passed
Site by Site Verification	<ul style="list-style-type: none">• Verify test site mapping of New LB (Channel Map) is correct.• Verify communication between Tester and handler works correctly	Passed
Lot Cross Correlation	<ul style="list-style-type: none">• Test 1 lot each 64L and 100L TQFP in MPHL.• Accept on >98% yield and OS <0.5%.	Passed

Final CCB# 5049

PCN# MFOL-07FWWO646



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



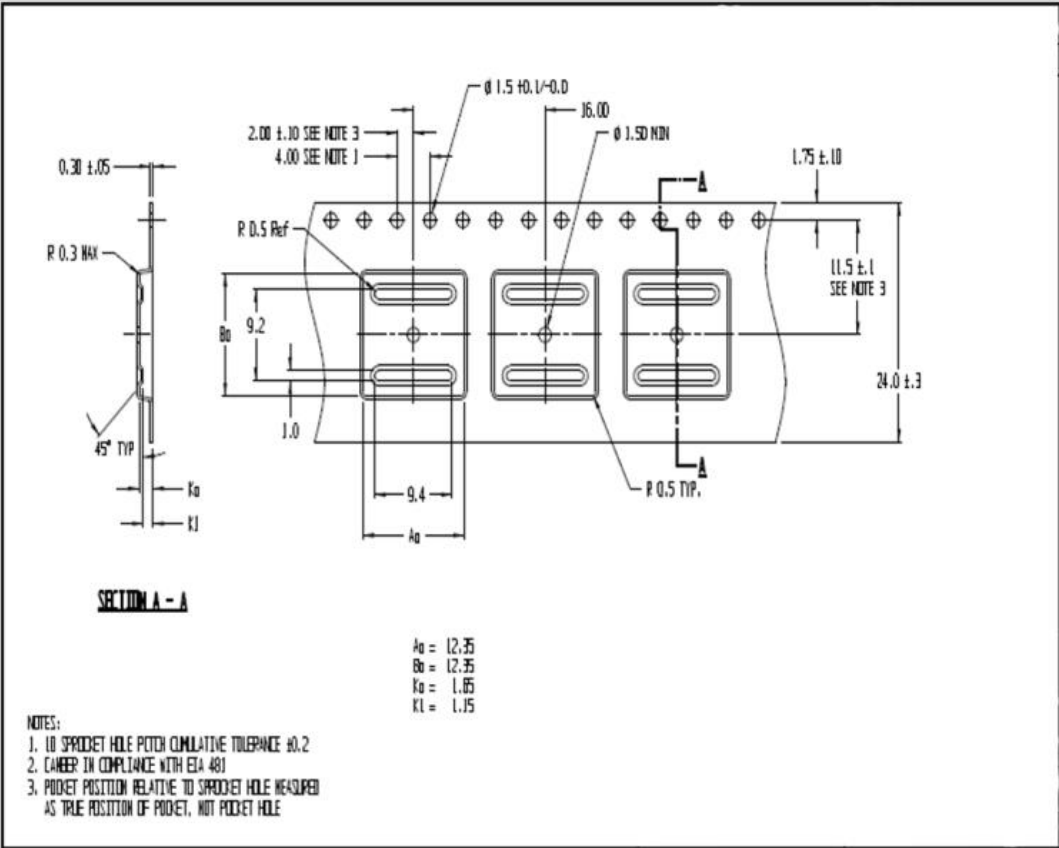
SMART | CONNECTED | SECURE

Pre and Post Summary – Base Quantity Multiple (BQM) and Pin 1 Orientation

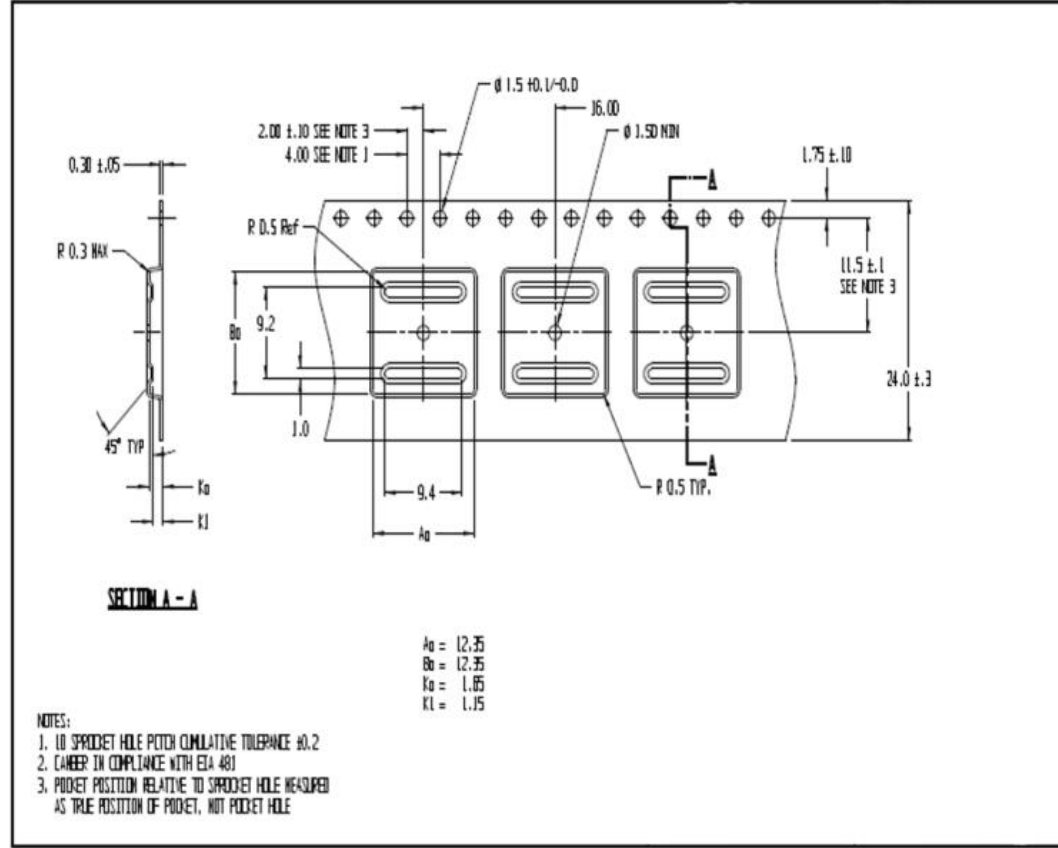
PACKAGE		PRE CHANGE		POST CHANGE	
Final test site		ASE Test (ASE9)		ASE Test (ASE9)	Microchip Technology Operations (Philippines) Corporation (MPHL)
100L TQFP	Base Quantity Multiple (BQM)	1000		1000	1000
	Pin 1 Orientation	T/R	Quadrant 1	Quadrant 1	Quadrant 1
64L TQFP	Base Quantity Multiple (BQM)	T/R	1500	1500	1500
		Tray	160	160	160
	Pin 1 Orientation	T/R	Quadrant 1	Quadrant 1	Quadrant 1

Pre and Post Change Summary - Carrier Tape (64L TQFP)

ASE9

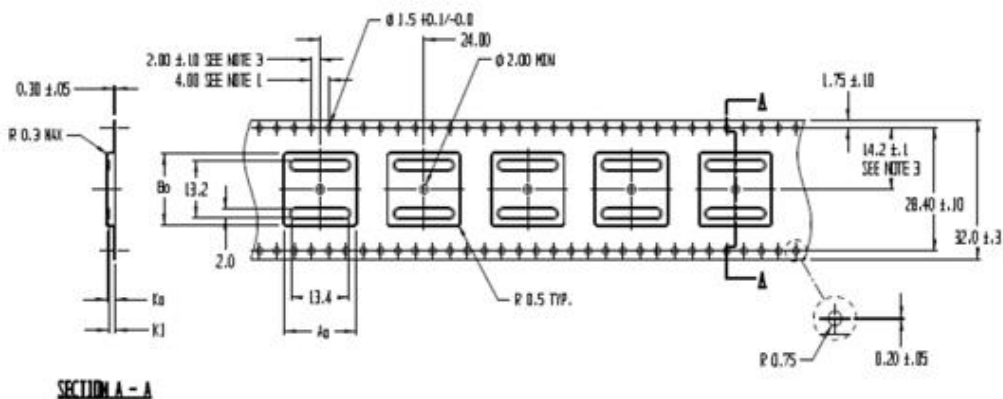


MPHL



Pre and Post Change Summary - Carrier Tape (100L TQFP)

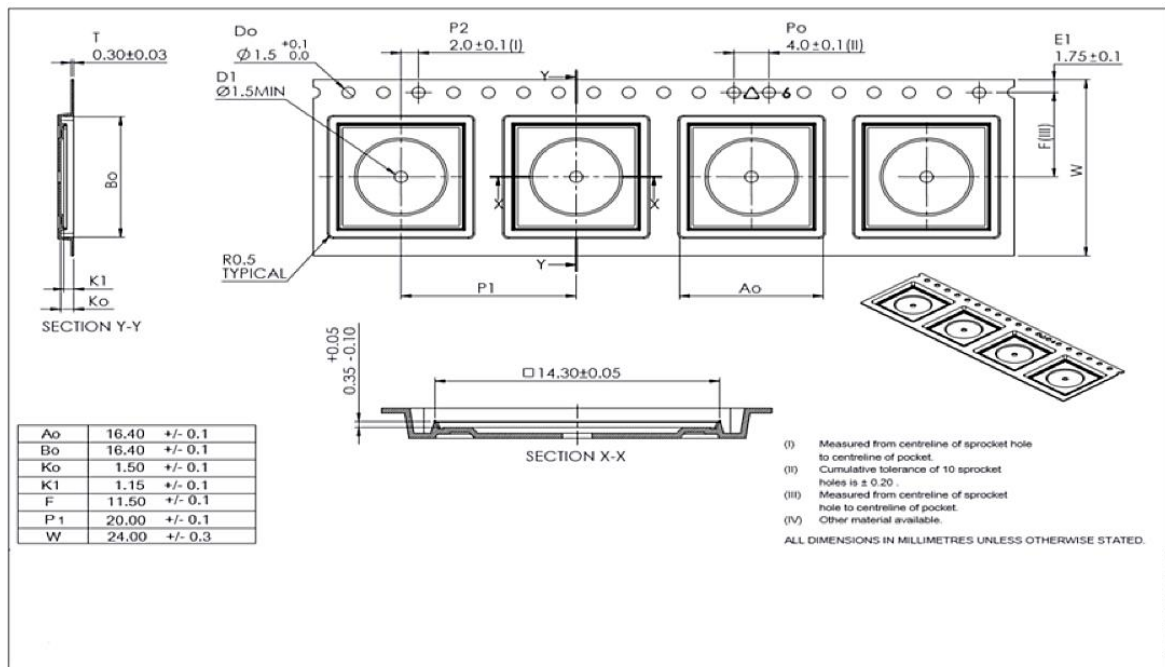
ASE9



- NOTES:
1. 10 SPROCKET HOLE PITCH CUMULATIVE TOLERANCE ±0.2
 2. CARRIER IN COMPLIANCE WITH EIA-481
 3. POCKET POSITION RELATIVE TO SPROCKET HOLE MEASURED AS TRUE POSITION OF POCKET, NOT POCKET HOLE

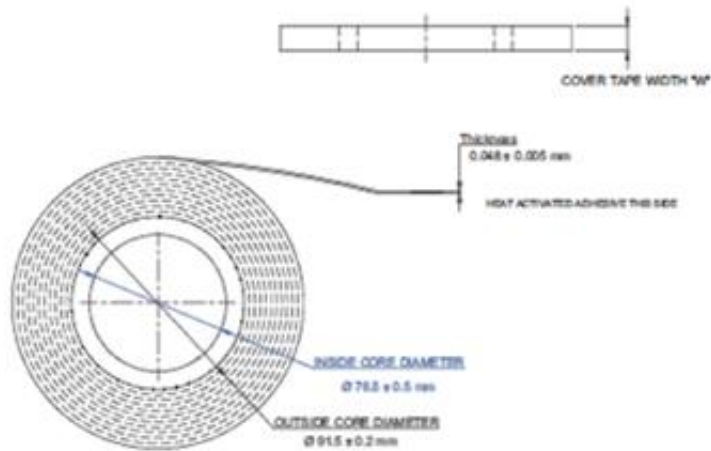
A0 = 16.50
B0 = 16.50
F0 = 1.90
K1 = 1.95

MPHL



Pre and Post Change Summary - Cover Tape (64L TQFP)

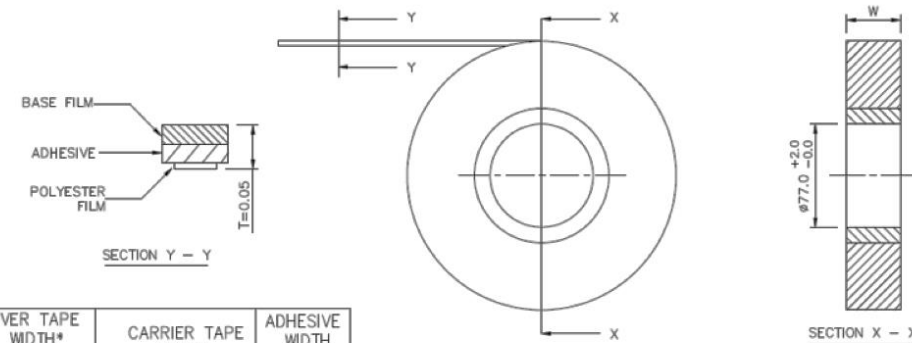
ASE9



NOTE:

1. ADV P/N: HUBxxxx-yyy or HUBxxxx-yyy
2. Width tolerance $\pm 0.10 \text{ mm}$
3. Length (M): -yyy +1/-0 M or -yyy +1/-0 M, where yyy or yyy=Length
4. Please refer to Tech Bulletins for related properties
5. Overall (Roll) Diameter:
 - For 300 meter length roll = $163 \pm 5 \text{ mm}$
 - For 500 meter length roll = $197 \pm 5 \text{ mm}$
6. Core width dimension = Normal cover tape width $\pm 0.1 \text{ mm}$

MPHL



COVER TAPE WIDTH* (W ± 0.1)	CARRIER TAPE WIDTH	ADHESIVE WIDTH (W ± 0.15)
5.3	8	0.7x2
7.3	12	1.0x2
9.3	12	1.0x2
13.3	16	1.0x2
21.3	24	1.15x2
25.5, 26.3	32	1.15x2
37.5	44	1.65x2
49.5	56	1.65x2
65.5	72	1.65x2

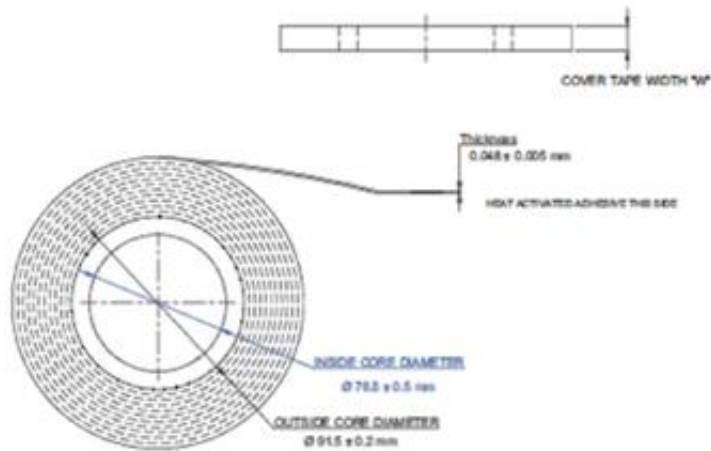
NOTES

1. THICKNESS : $0.045-0.055 \text{ mm}$.
2. LIGHT TRANSMITTANCE : $>80\%$
3. TENSILE STRENGTH : 9.7 kg/mm sq.
4. ELONGATION : $>120\%$
5. SURFACE RESISTIVITY
UNDERSIDE : $10^9 \text{ OHMS/SQ MAX.}$
TOPSIDE : 10^9 OHMS/SQ
- *6 OTHER COVER TAPE WIDTH REFER TO W4.08-04.

Plant	Cover Tape Width	Sealing mythology
ASE9	21mm	Heat Sealing
MPHL	21.3mm	Pressure Sealing

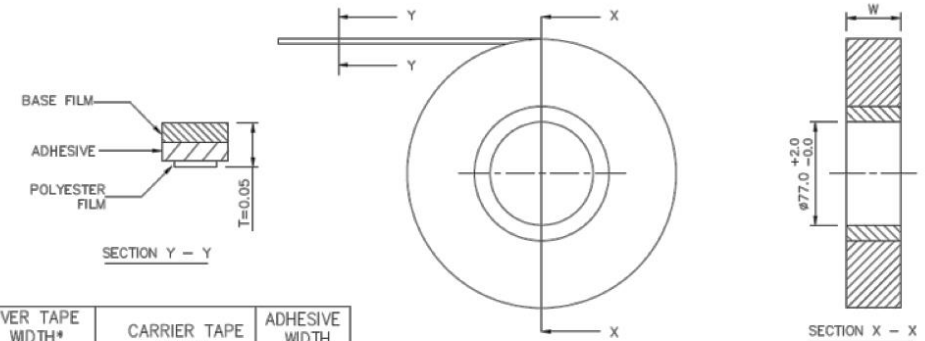
Pre and Post Change Summary - Cover Tape (100L TQFP)

ASE9



- NOTE:
1. ADV P/N: HUBxxxx-yyy or HUBxxxx-yyy
 2. Width tolerance ± 0.10 mm
 3. Length (M): -yyy +1/-0 M or -yyy +1/-0 M, where yyy or yyy=Length
 4. Please refer to Tech Bulletins for related properties
 5. Overall (Roll) Diameter:
 - For 300 meter length roll = 163 ± 5 mm
 - For 500 meter length roll = 197 ± 5 mm
 6. Core width dimension = Normal cover tape width ± 0.1 mm

MPHL



COVER TAPE WIDTH* (W ± 0.1)	CARRIER TAPE WIDTH	ADHESIVE WIDTH (W ± 0.15)
5.3	8	0.7x2
7.3	12	1.0x2
9.3	12	1.0x2
13.3	16	1.0x2
21.3	24	1.15x2
25.5, 26.3	32	1.15x2
37.5	44	1.65x2
49.5	56	1.65x2
65.5	72	1.65x2

- NOTES
1. THICKNESS : 0.045–0.055mm.
 2. LIGHT TRANSMITTANCE : >80%
 3. TENSILE STRENGTH : 9.7kg/mm sq.
 4. ELONGATION : >120%
 5. SURFACE RESISTIVITY
UNDERSIDE : 10^9 OHMS/SQ MAX.
TOPSIDE : 10^9 OHMS/SQ
 - *6 OTHER COVER TAPE WIDTH REFER TO W4.08–04.

Plant	Cover Tape Width	Sealing mythology
ASE9	25.5mm	Heat Sealing
MPHL	21.3mm	Pressure Sealing

Pre and Post Change Summary – Plastic Reel (64L and 100L TQFP)

ASE9



MPHL



Plant	Reel size	Color	Material
ASE9	13"	White	Plastic
MPHL	13"	White	Plastic

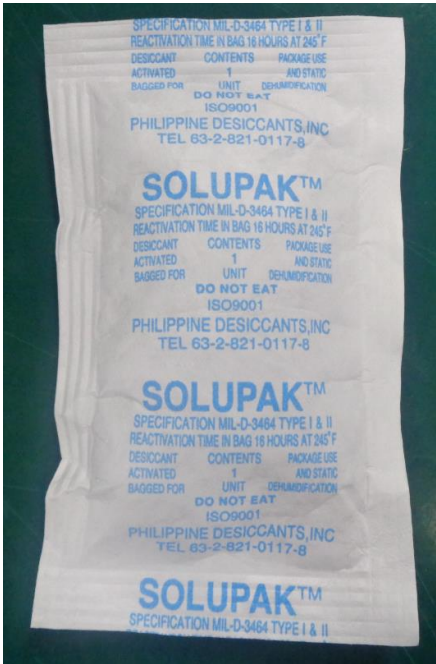
Pre and Post Change Summary – Desiccant (64L and 100L TQFP)

ASE9



2pcs 2 units desiccant

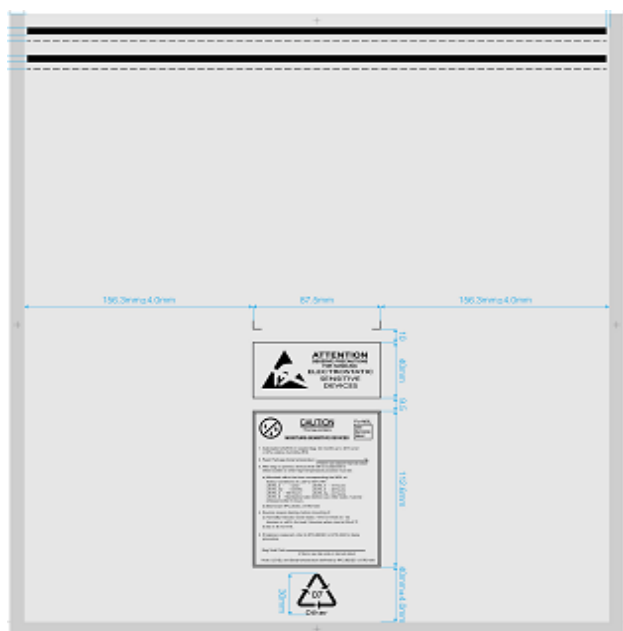
MPHL



2pcs 1 unit desiccant

Pre and Post Change Summary – Bag for T/R (64L and 100L TQFP)

ASE9



Bag size: 450mmx420mm

MPHL



Bag Size: 406 x 457 mm

Pre and Post Change Summary – Box for T/R (64L and 100L TQFP)

ASE9



Inner box reel: 37x35.3x7.8cm

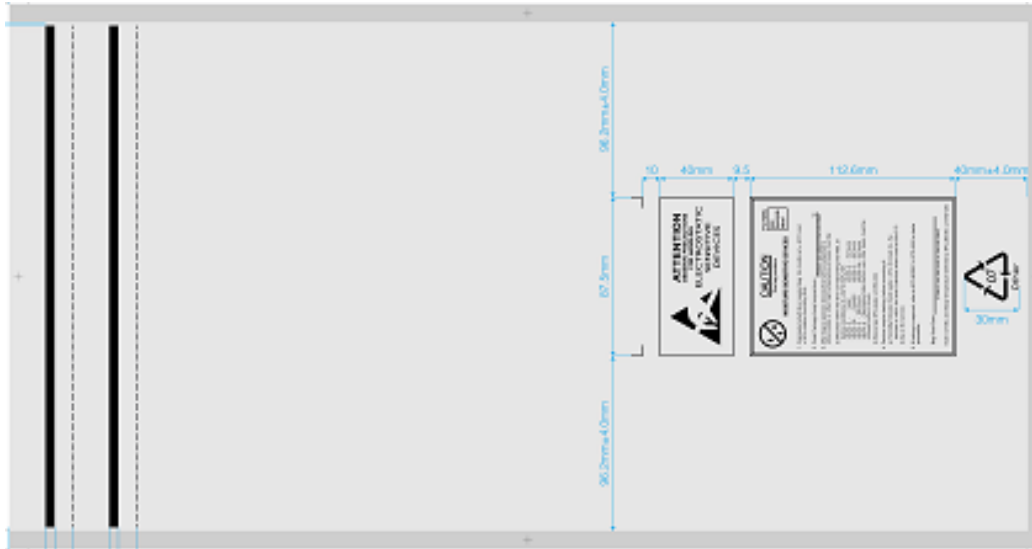
MPHL



Inner Box Reel 37x35.3x7.7 cm

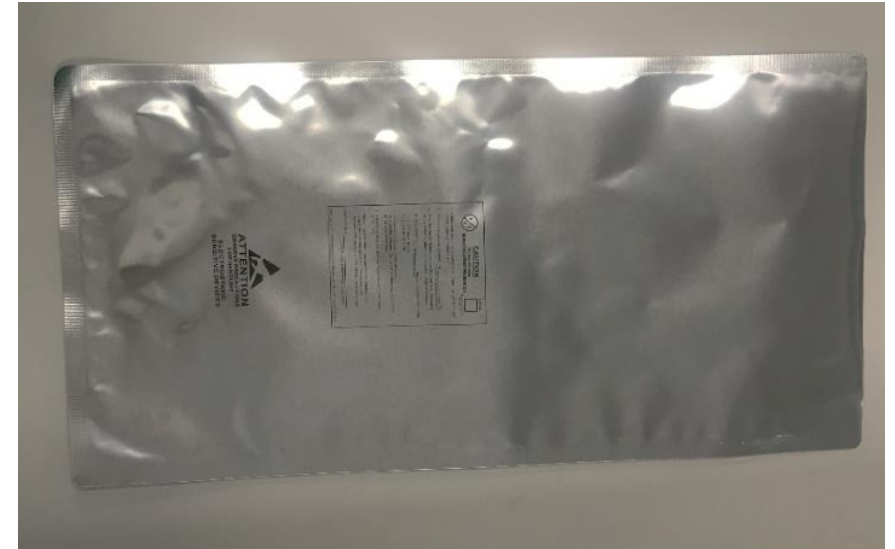
Pre and Post Change Summary – Bag for Tray (64L TQFP)

ASE9



Bag Size: 570 X 300 mm

MPHL



Bag Size: 228 x 483 mm

Pre and Post Change Summary – Box for Tray (64L TQFP)

ASE9



Inner Box Tray: 37.1x16.2x8.8 cm

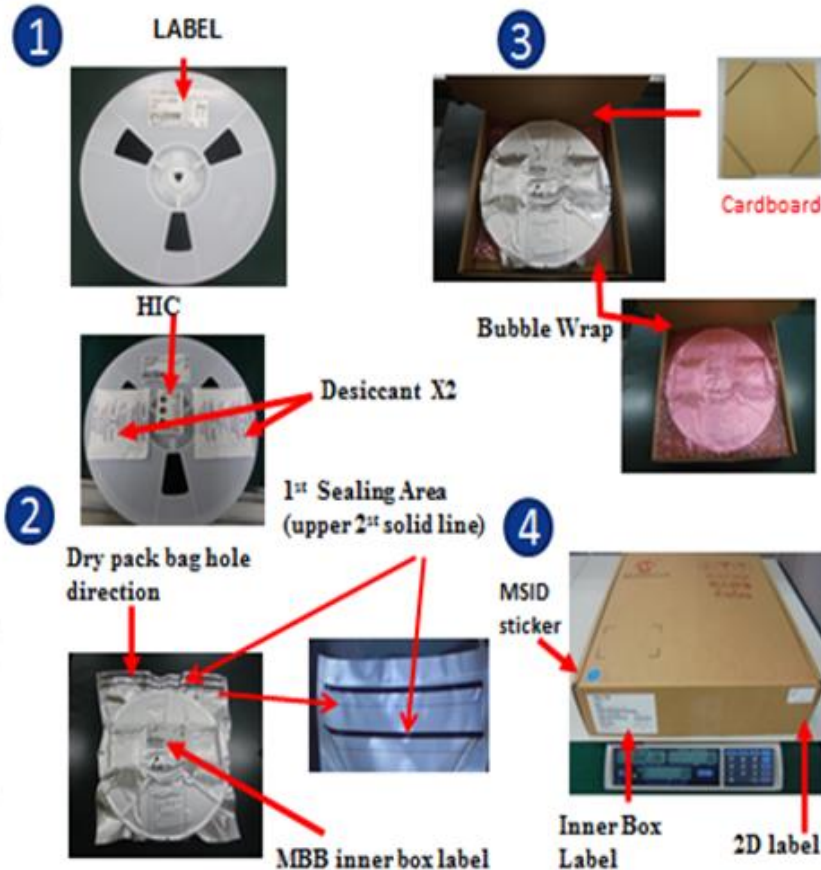
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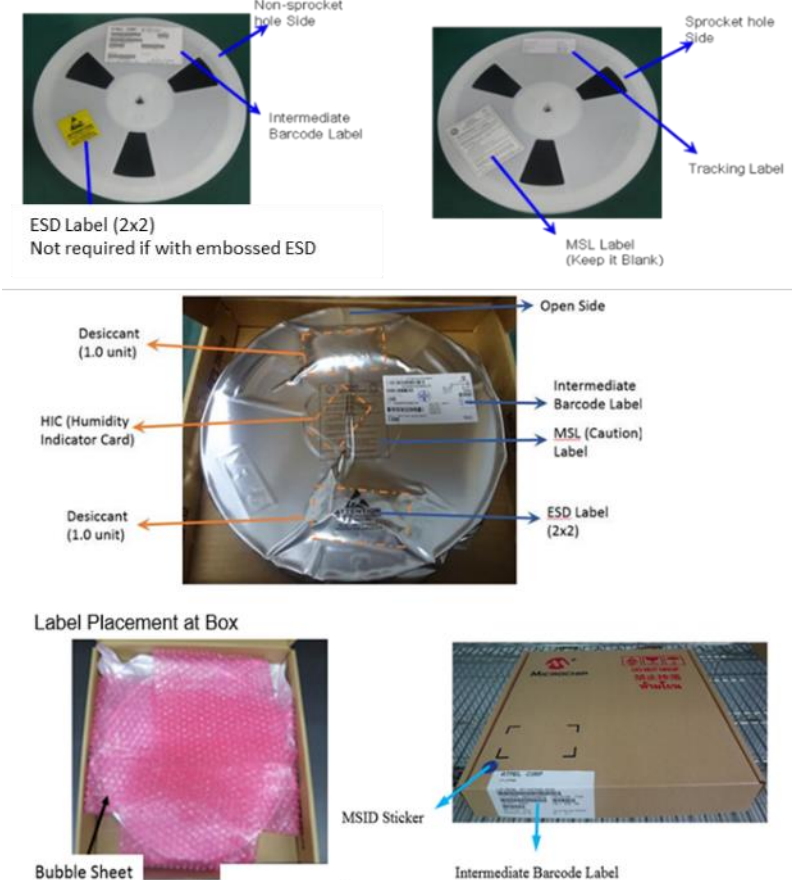
Inner Box Tray: 16.2x37.1x8.8 cm

Pre and Post Change Summary – T/R Packing Method (64L and 100L TQFP)

ASE9



MPHL

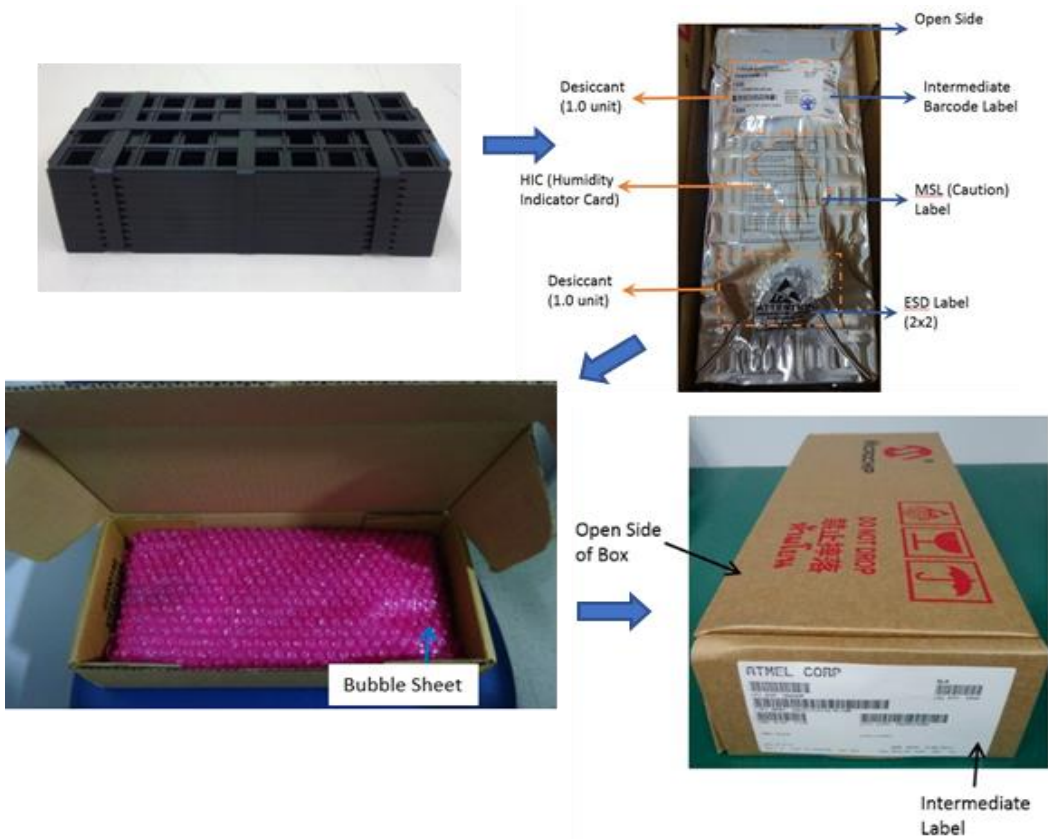


Pre and Post Change Summary – Tray Packing Method (64L TQFP)

ASE9



MPHL



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ATSAML22J1xx and ATSAML22N1xx device families available in 64L (10X10X1mm) and 100L (14X14X1mm) TQFP
packages.

Affected Catalog Part Numbers (CPN)

ATSAML22J16A-AU
ATSAML22N16A-AUT
ATSAML22N17A-AUT
ATSAML22N18A-AUT
ATSAML22J16A-AUT
ATSAML22J17A-AUT
ATSAML22J18A-AUT