



Product Change Notification / LIAL-07NEIG824

Date:

29-Jun-2022

Product Category:

32-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5134 Final Notice: Qualification of MPHL as an additional final test site for selected ATSAMD20J14, ATSAMD20J15, ATSAMD20J16, ATSAMD20J17 and ATSAMD20J18 device families available in 64L VQFN (9x9x1mm) package.

Affected CPNs:

[LIAL-07NEIG824_Affected_CPN_06292022.pdf](#)

[LIAL-07NEIG824_Affected_CPN_06292022.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 ATSAMD20J14, ATSAMD20J15, ATSAMD20J16, ATSAMD20J17 and ATSAMD20J18 device families available in 64L VQFN (9x9x1mm) package.

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)	Tray	260	260	260
	Tape and Reel	4000	4000	4000
Pin 1 orientation	Tray	Near tray chamfer	Near tray chamfer	Near tray chamfer
	Tape and Reel	Quadrant 1	Quadrant 1	Quadrant 1
Reel	Color	White	White	White
	Dimension	Minor dimensional changes. See attached pre and post change comparison.		
Carrier Tape		No dimensional changes. See attached pre and post change comparison.		
Cover Tape		No dimensional changes. See attached pre and post change comparison.		
Tray		No dimensional changes. See attached pre and post change comparison.		
Packing Method		See attached pre and post change comparison.		

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:**July 01, 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:

	June 2022	July 2022
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Workweek	23	24	25	26	27	28	29	30	31
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 10, 2022: Issued initial notification.

June 29, 2022: Issued final notification. Attached the qualification report and added estimated first ship date by July 01, 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_LIAL-07NEIG824 Pre and Post Change Summary.pdf](#)

[PCN_LIAL-07NEIG824_Qual Report.pdf](#)

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

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MICROCHIP

QUALIFICATION REPORT SUMMARY

PCN #: LIAL-07NEIG824

Date

March 22, 2022

**Qualification of MPHL as an additional final test site for selected
ATSAMD20J14, ATSAMD20J15, ATSAMD20J16, ATSAMD20J17
and ATSAMD20J18 device families available in 64L VQFN
(9x9x1mm) package.**

Purpose: Qualification of MPHL as an additional final test site for selected ATSAMD20J14, ATSAMD20J15, ATSAMD20J16, ATSAMD20J17 and ATSAMD20J18 device families available in 64L VQFN (9x9x1mm) package

CCB No.: 5134

Test / Evaluation	Test Conditions / Parameters	
Bin Comparison	3,000 units matching to 0.1% yield and 33 (10% correlated) units of parametric data comparison	PASSED
Yield Comparison		PASSED
Parametric Comparison		PASSED

CCB# 5134
Pre and Post Change Summary
PCN #: LIAL-07NEIG824

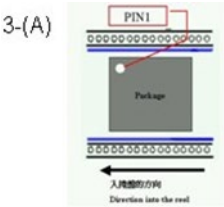
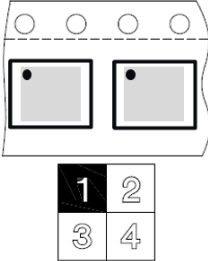


A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



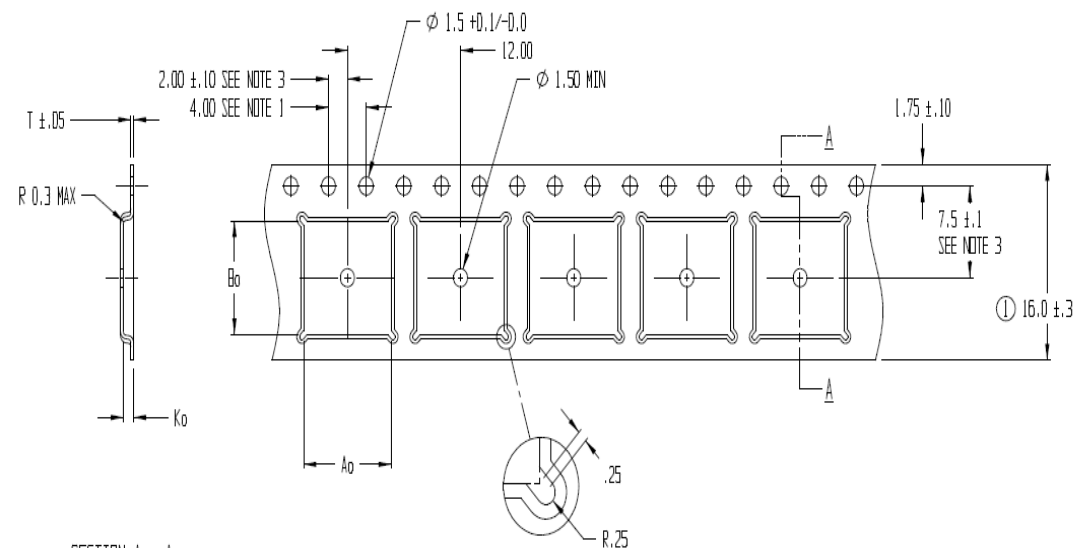
SMART | CONNECTED | SECURE

Pre and Post Change: Tape and Reel

Final Test Location	ASE9	MPHL
BQM (Base Quantity Multiple)	4000	4000
MSL Level	3	3
Pin1 Orientation	Quadrant 1 	Quadrant 1 
Carrier Tape	W: 16 mm P1: 12mm A0: 9.3 mm B0: 9.3 mm K0: 1.1 mm	W: 16 mm P1: 12mm A0: 9.3 mm B0: 9.3 mm K0: 1.1 mm

Pre and Post Change: Carrier Tape

ASE9



SECTION A - A

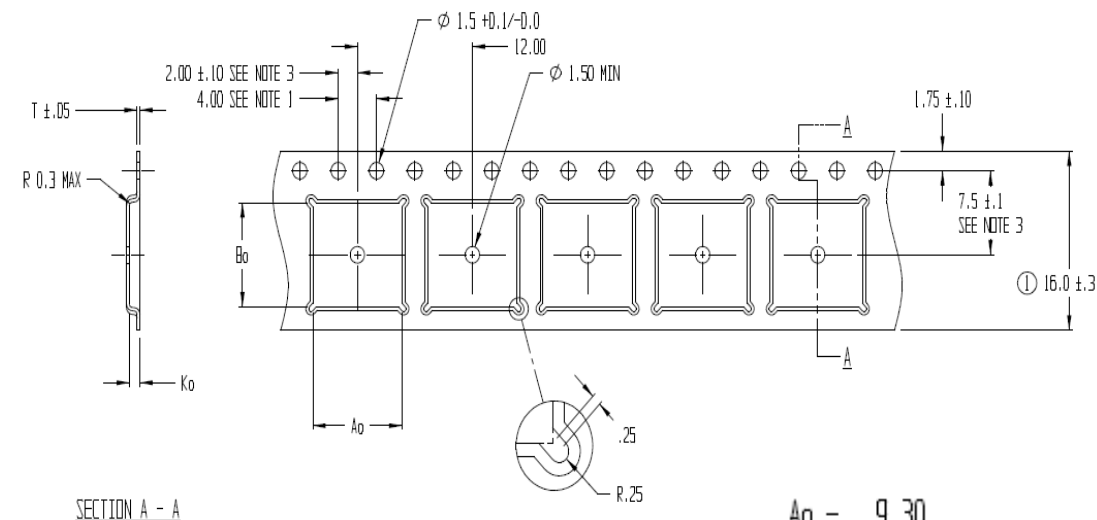
$A_0 = 9.30$
 $B_0 = 9.30$
 $K_0 = 1.10$

NOTES:

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

PART#	T	MATERIAL	DRAWING NO.
MLD909-BC	0.30	PS+C	T102535AT
MLD909-BD	0.30	PS+C	T102535AT

MPHL



SECTION A - A

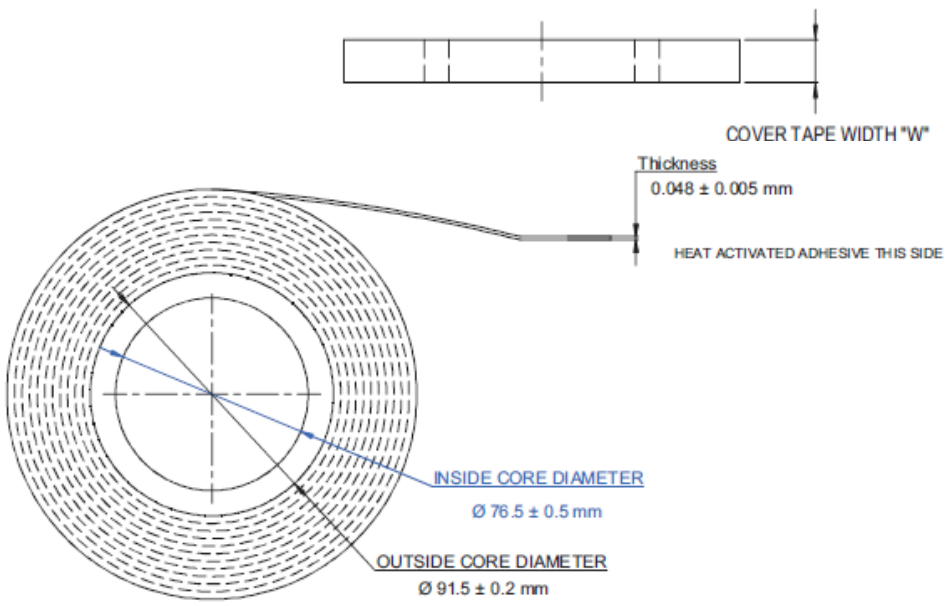
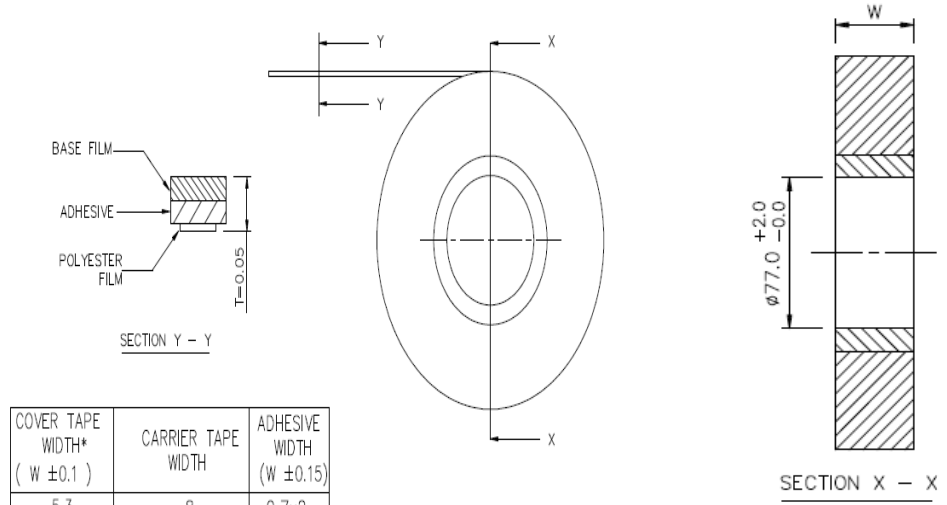
$A_0 = 9.30$
 $B_0 = 9.30$
 $K_0 = 1.10$

NOTES:



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PART#	T	MATERIAL	DRAWING NO.
MLD909-BC	0.30	PS+C	T102535AT
MLD909-BD	0.30	PS+C	T102535AT

Pre and Post Change: Cover Tape

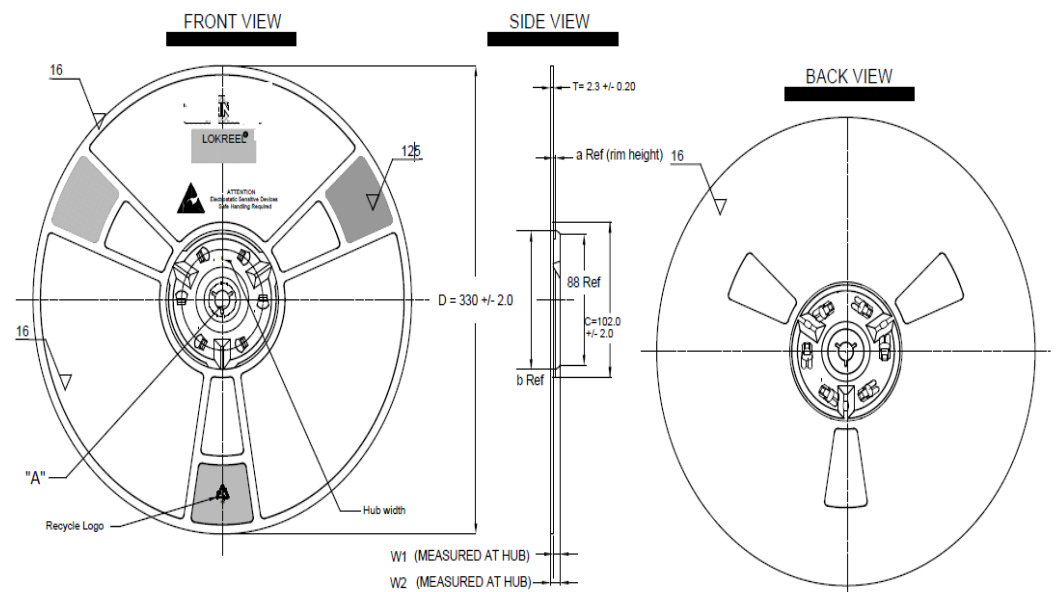
Final Test Location	ASE9	MPHL																													
Dimension	W: 13.3mm	W13.3mm																													
	 <p>COVER TAPE WIDTH "W"</p> <p>Thickness 0.048 ± 0.005 mm</p> <p>HEAT ACTIVATED ADHESIVE THIS SIDE</p> <p>INSIDE CORE DIAMETER Ø 76.5 ± 0.5 mm</p> <p>OUTSIDE CORE DIAMETER Ø 91.5 ± 0.2 mm</p> <p>NOTE:</p> <ol style="list-style-type: none"> ADV P/N: HUBxxxx-yyy or HUBxxxx-yyy Width tolerance ± 0.10 mm Length (M): -yyy +1 /-0 M or -yyy +1/-0 M, where yyy or yyyy=Length Please refer to Tech Bulletins for related properties Overall (Roll) Diameter: <ul style="list-style-type: none"> - For 300 meter length roll = 163 ± 5 mm - For 500 meter length roll = 197 ± 5 mm Core width dimension = Normal cover tape width ± 0.1 mm 	 <p>SECTION Y - Y</p> <p>SECTION X - X</p> <table border="1"> <thead> <tr> <th>COVER TAPE WIDTH* (W ± 0.1)</th> <th>CARRIER TAPE WIDTH</th> <th>ADHESIVE WIDTH (W ± 0.15)</th> </tr> </thead> <tbody> <tr> <td>5.3</td> <td>8</td> <td>0.7x2</td> </tr> <tr> <td>7.3</td> <td>12</td> <td>1.0x2</td> </tr> <tr> <td>9.3</td> <td>12</td> <td>1.0x2</td> </tr> <tr> <td>13.3</td> <td>16</td> <td>1.0x2</td> </tr> <tr> <td>21.3</td> <td>24</td> <td>1.15x2</td> </tr> <tr> <td>25.5, 26.3</td> <td>32</td> <td>1.15x2</td> </tr> <tr> <td>37.5</td> <td>44</td> <td>1.65x2</td> </tr> <tr> <td>49.5</td> <td>56</td> <td>1.65x2</td> </tr> <tr> <td>65.5</td> <td>72</td> <td>1.65x2</td> </tr> </tbody> </table> <p>NOTES</p> <ol style="list-style-type: none"> THICKNESS : 0.045–0.055mm. LIGHT TRANSMITTANCE : >80% TENSILE STRENGTH : 9.7kg/mm sq. ELONGATION : >120% SURFACE RESISTIVITY UNDERSIDE : 10¹ OHMS/SQ MAX. TOPSIDE : 10⁴ OHMS/SQ OTHER COVER TAPE WIDTH REFER TO W14.08–04. 	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
COVER TAPE WIDTH* (W ± 0.1)	CARRIER TAPE WIDTH	ADHESIVE WIDTH (W ± 0.15)																													
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Pre and Post Change: Reel

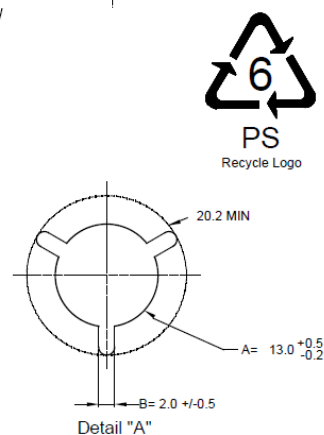
Final Test Location	ASE9	MPHL
Dimension	D: 330 mm Hub: 102mm	D: 330 mm Hub: 100mm
Color	White	White
Photo		

Pre and Post Change: Reel

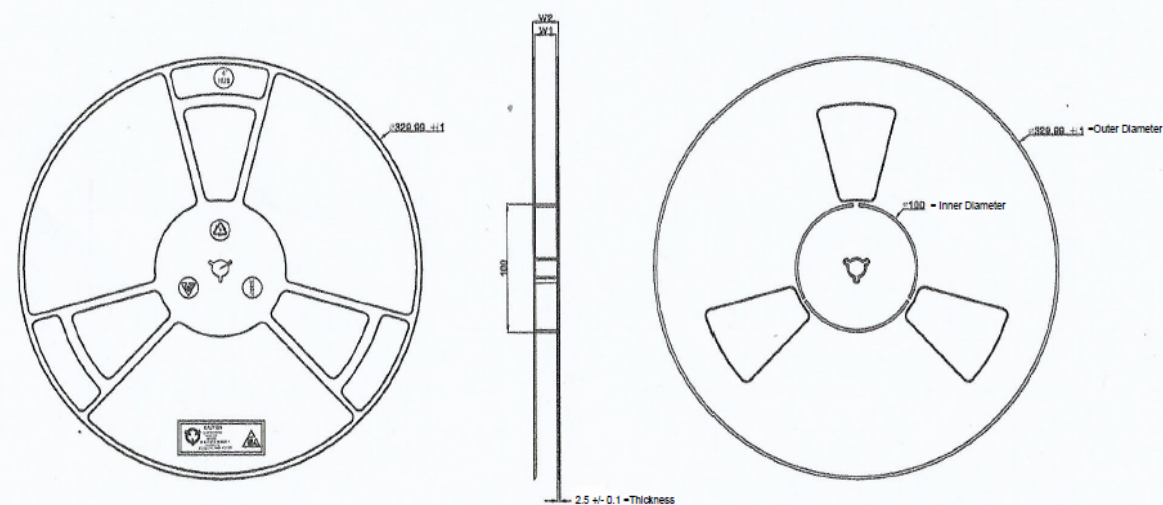
ASE9



Part Number	Nominal Hub Width	+0.3mm -0.2mm	W1	W2 MAX	a	b
RD33004SW	4mm	4.4mm	7.1mm	1.5	96.5	
RD33008SW	8mm	8.4mm	11.1mm	1.5	96.5	

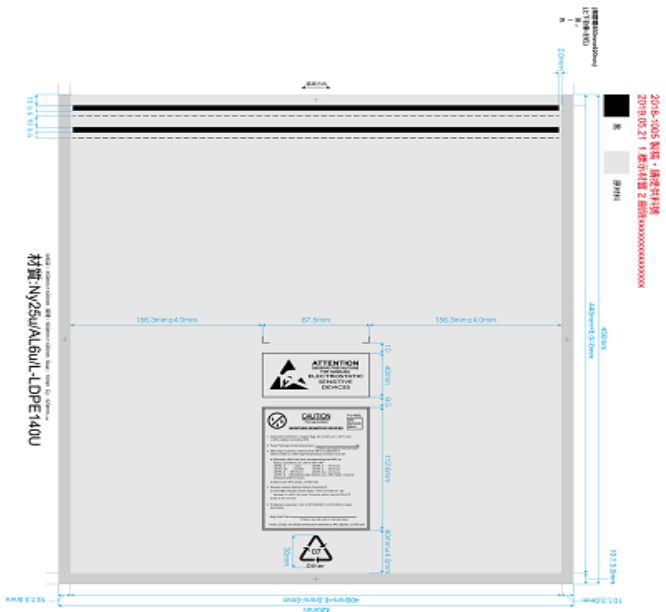



MPHL







Tape Width	W1	W2
12mm	13.5 \pm 0.5	17.5 \pm 1.0
16mm	17.5 \pm 0.5	21.5 \pm 1.0
24mm	25.5 \pm 0.5	29.5 \pm 1.0
32mm	33.0 \pm 0.5	36.5 \pm 1.0

Pre and Post Change: Tape and Reel - Antistatic Shielding Bag / Moisture Barrier Bag

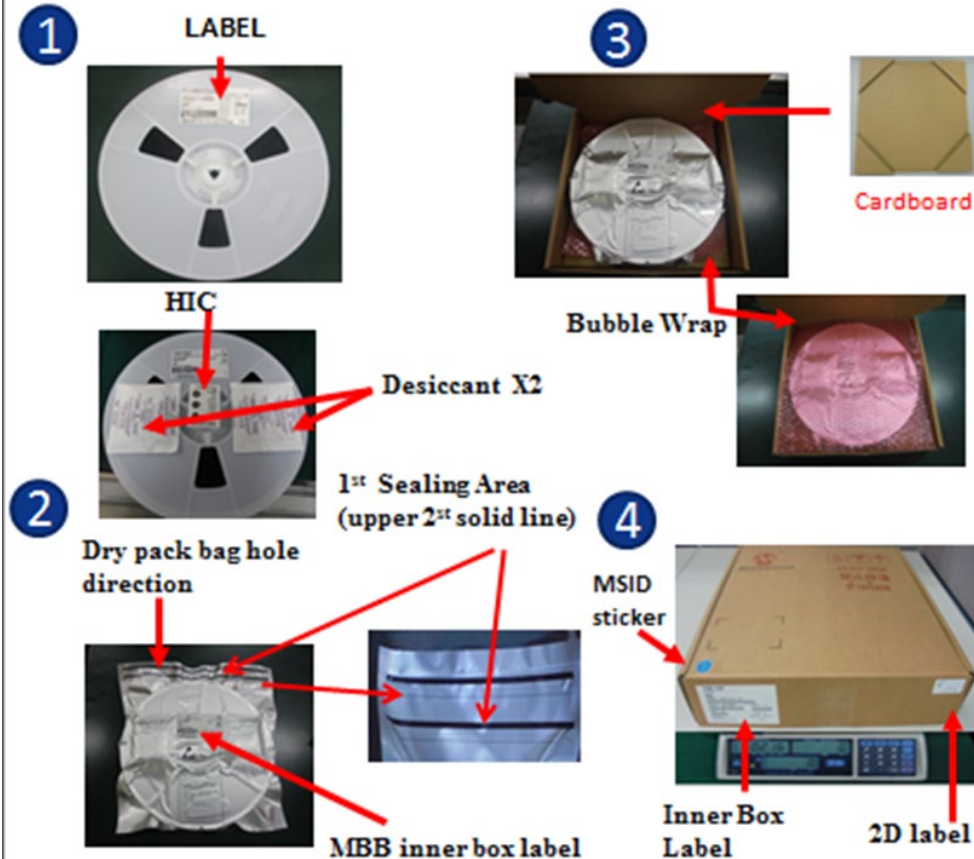
ASE9	MPHL
 <p>Technical drawing of an ASE9 antistatic shielding bag. The drawing shows a rectangular bag with dimensions: 450mm (17.72 inches) width and 600mm (23.62 inches) height. The bag features a central label with the text "ATTENTION" and "CAUTION". The label also includes a recycling symbol and the text "NY250/AL60UL-LOPE140U". The bag is shown with a top flap and a bottom flap. The drawing includes various dimensions for the flaps and the bag body. The text "2018-2025 無塵・無害材料袋" and "2019.02.21 1. 產品仕様書 2. 圖面" is visible on the right side of the drawing.</p>	 <p>Photograph of an MPHL antistatic shielding bag. The bag is white and rectangular, with a central label that reads "ATTENTION" and "CAUTION". The bag is shown with a top flap and a bottom flap. The bag is placed on a white surface.</p>

Pre and Post Change: Tape and Reel

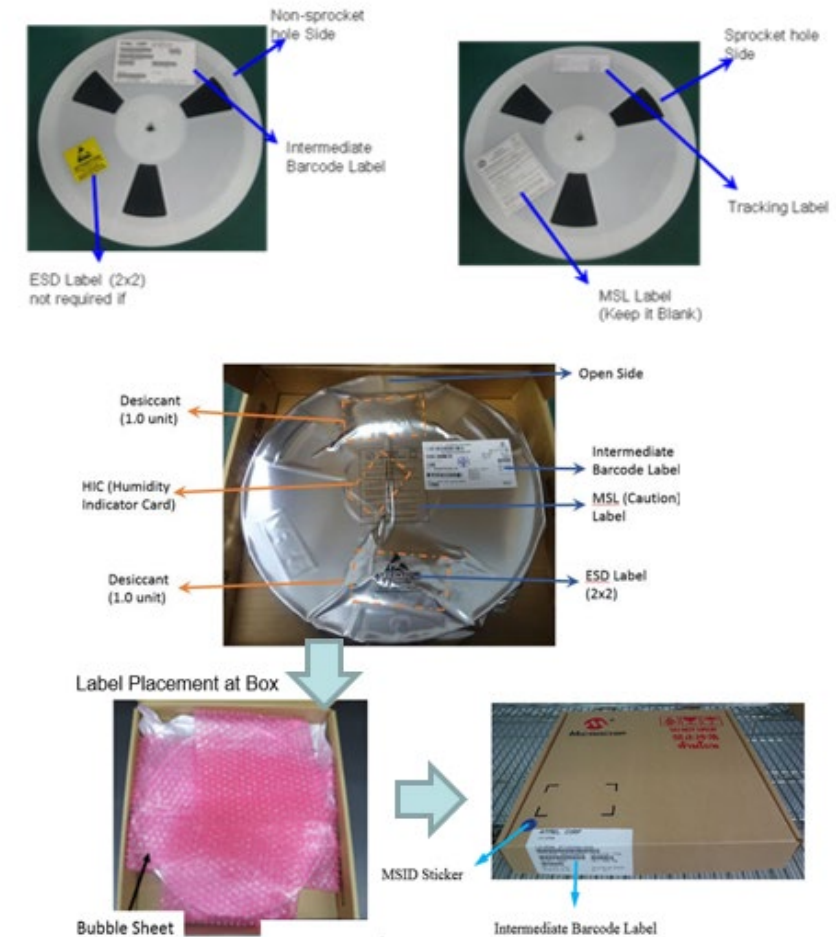
Final Test Location	ASE9	MPHL
Desiccant	<div></div> <p>2 units x 2 Per MBB bag</p>	<div></div> <p>2 pcs of 1 unit desiccant per bag</p>
HIC	<div></div>	<div></div>

Pre and Post Change: Tape and Reel Packing Method

ASE9



MPHL



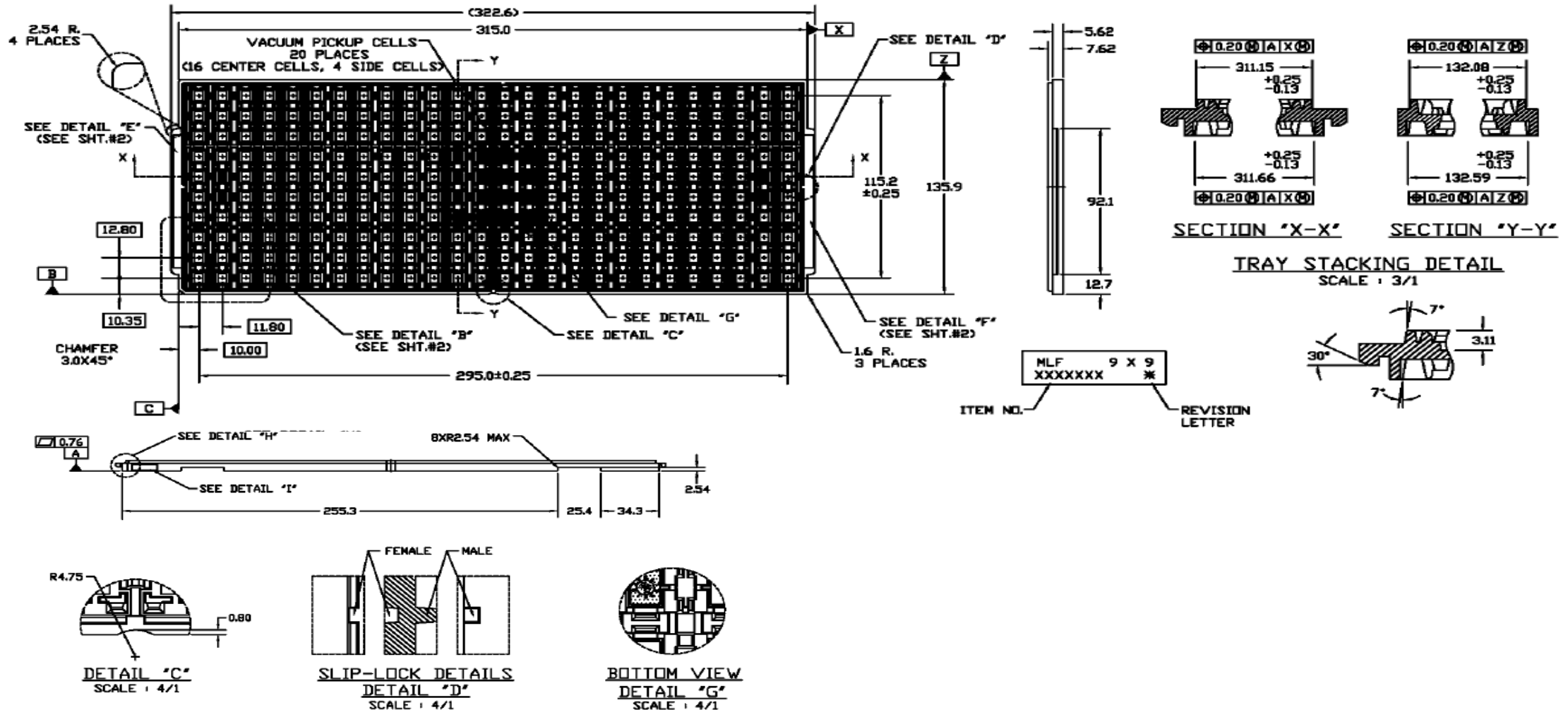
Pre and Post Change: Tray

Final Test Location	ASE9	MPHL
BQM (Base Quantity Multiple)	260	260
MSL Level	3	3
Pin1 Orientation	<div> <div> <div>1-(D)</div> <div> </div> </div> <div>Near Tray Chamfer</div> </div>	<div> <div> <div>1-(D)</div> <div> </div> </div> <div>Near Tray Chamfer</div> </div>
Tray	Tray Length qty: 26 Tray Width qty: 10 Pocket on Tray: 260 (BQM) Tray Stack: 10 + 1 (10 + Cover)	Tray Length qty: 26 Tray Width qty: 10 Pocket on Tray: 260 (BQM) Tray Stack: 10 + 1 (10 + Cover)

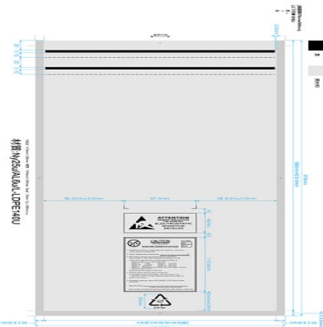


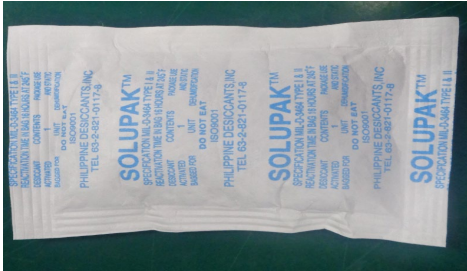


Pre and Post Change: Tray

ASE9 / MPH

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Pre and Post Change: Tray

Final Test Location	ASE9	MPHL
Antistatic Shielding Bag / Moisture Barrier Bag		
Desiccant	 1 unit x 2 per MBB bag	 2 units of 1unit desiccant
Box	 371.5mmx162mmx88mm	 371mm x 162mm x 88 mm

Pre and Post Change: Tray Packing Method

ASE9



MPHL



Affected Catalog Part Numbers (CPN)

ATSAMD20J14A-MU
ATSAMD20J15A-MU
ATSAMD20J16A-MU
ATSAMD20J17A-MU
ATSAMD20J18A-MU
ATSAMD20J18A-MUA2
ATSAMD20J17A-MUA2
ATSAMD20J16A-MUA2
ATSAMD20J15A-MUA2
ATSAMD20J14A-MUA2
ATSAMD20J17A-MUN01
ATSAMD20J14A-MN
ATSAMD20J18A-MN
ATSAMD20J15A-MN
ATSAMD20J16A-MN
ATSAMD20J17A-MN
ATSAMD20J18A-MNT
ATSAMD20J14A-MNT
ATSAMD20J15A-MNT
ATSAMD20J16A-MNT
ATSAMD20J17A-MNT
ATSAMD20J14A-MUT
ATSAMD20J15A-MUT
ATSAMD20J16A-MUT
ATSAMD20J17A-MUT
ATSAMD20J18A-MUT
ATSAMD20J18A-MUTA2
ATSAMD20J16A-MUTA2
ATSAMD20J15A-MUTA2
ATSAMD20J14A-MUTA2
ATSAMD20J17A-MUTA2