



## Product Change Notification / LIAL-16EKMP130

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**Date:**

20-May-2022

**Product Category:**

32-bit Microcontrollers

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 5084 Initial Notice: Qualification of MPHL as an additional final test site for selected ATSAM11D14xx, ATSAM10D13xx, ATSAM10D14xx, ATSAM09D14xx, ATMPS001D14xx and NI32D14 device families available in 24L VQFN (4x4x0.9mm) package.

**Affected CPNs:**

[LIAL-16EKMP130\\_Affected\\_CPN\\_05202022.pdf](#)

[LIAL-16EKMP130\\_Affected\\_CPN\\_05202022.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 ATSAM11D14xx, ATSAM10D13xx, ATSAM10D14xx, ATSAM09D14xx, ATMPS001D14xx and NI32D14 device families available in 24L VQFN (4x4x0.9mm) 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	490	490	490
	Tape and Reel	6000	6000	6000
Pin 1 orientation	Tray	Near tray chamfer	Near tray chamfer	Near tray chamfer
	Tape and Reel	Quadrant 2	Quadrant 2	Quadrant 2
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 Qualification Completion Date:**June 2022

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:**

	May 2022				June 2022				
Workweek	1 9	2 0	2 1	2 2	2 3	2 4	2 5	2 6	2 7
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:**May 20, 2022: 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\\_LIAL-16EKMP130\\_Qual Plan.pdf](#)

[PCN\\_LIAL-16EKMP130\\_Pre\\_and\\_Post\\_Change\\_Summary.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.



**MICROCHIP**

**QUALIFICATION PLAN SUMMARY**

**PCN #: LIAL-16EKMP130**

**Date**

**March 22, 2022**

**Qualification of MPHL as an additional final test site for selected  
ATSAMD11D14xx, ATSAMD10D13xx, ATSAMD10D14xx,  
ATSAMD09D14xx, ATMPS001D14xx and NI32D14 device families  
available in 24L VQFN (4x4x0.9mm) package.**

**Purpose:** Qualification of MPHL as an additional final test site for selected ATSAMD11D14xx, ATSAMD10D13xx, ATSAMD10D14xx, ATSAMD09D14xx, ATMPS001D14xx and NI32D14 device families available in 24L VQFN (4x4x0.9mm) package.

**CCB No.:** 5084

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

**CCB 5084**  
**Pre and Post Change Summary**  
**PCN #: LIAL-16EKMP130**



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

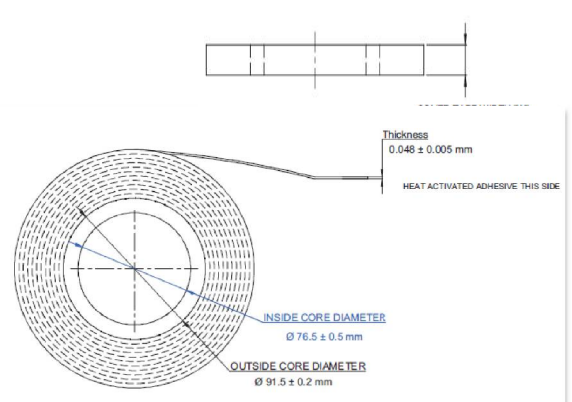
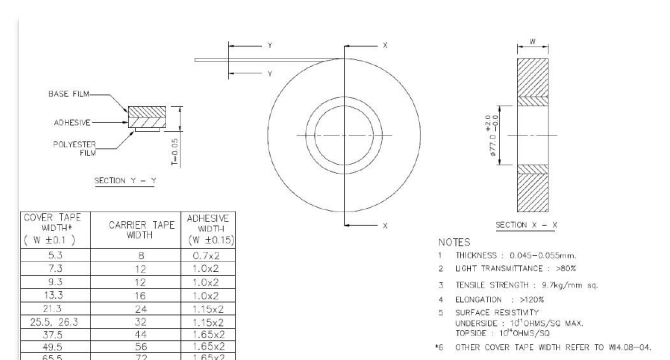


SMART | CONNECTED | SECURE

# Pre and Post Change: Tape and Reel

Final Test Location	ASE9	MPHL
<b>BQM (Base Quantity Multiple)</b>	6000	6000
<b>MSL Level</b>	3	3
<b>Pin1 Orientation</b>	Quadrant 2 	Quadrant 2 
<b>Carrier Tape</b>	W: 12 mm P1: 8 mm A0: 4.25 mm B0: 4.25 mm K0: 1.1 mm	W: 12 mm P1: 8 mm A0: 4.25 mm B0: 4.25 mm K0: 1.1 mm

# Pre and Post Change: Cover Tape

Final Test Location	ASE9	MPHL																														
Dimension	<p style="text-align: center;">W: 9.2mm</p>  <p><b>NOTE:</b></p> <ol style="list-style-type: none"> <li>1. ADV P/N: HUBxxxx-yyy or HUBxxxx-yyy</li> <li>2. Width tolerance <math>\pm 0.10</math> mm</li> <li>3. Length (M): -yyy +1 /-0 M or -yyyy +1/-0 M, where yyy or yyyy=Length</li> <li>4. Please refer to Tech Bulletins for related properties</li> <li>5. Overall (Roll) Diameter:             <ul style="list-style-type: none"> <li>- For 300 meter length roll = <math>163 \pm 5</math> mm</li> <li>- For 500 meter length roll = <math>197 \pm 5</math> mm</li> </ul> </li> <li>6. Core width dimension = Normal cover tape width <math>\pm 0.1</math> mm</li> </ol>	<p style="text-align: center;">W: 9.2mm</p>  <table border="1" data-bbox="893 1050 1120 1218"> <thead> <tr> <th>COVER TAPE WIDTH* (W <math>\pm 0.1</math>)</th> <th>CARRIER TAPE WIDTH</th> <th>ADHESIVE WIDTH† (W <math>\pm 0.15</math>)</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>48</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><b>NOTES</b></p> <ol style="list-style-type: none"> <li>1. THICKNESS : 0.045-0.055mm</li> <li>2. LIGHT TRANSMITTANCE : <math>&gt;80\%</math></li> <li>3. TENSILE STRENGTH : 4.7kg/mm sq.</li> <li>4. ELONGATION : <math>&gt;100\%</math></li> <li>5. SURFACE RESISTIVITY:             <ul style="list-style-type: none"> <li>UNDERSIDE : <math>10^{11}</math> OHMS/SQ MAX.</li> <li>TOPSIDE : <math>10^{10}</math> OHMS/SQ</li> </ul> </li> <li>*6. OTHER COVER TAPE WIDTH REFER TO #4.08-04.</li> </ol>	COVER TAPE WIDTH* (W $\pm 0.1$ )	CARRIER TAPE WIDTH	ADHESIVE WIDTH† (W $\pm 0.15$ )	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	48	1.65x2	49.5	56	1.65x2	65.5	72	1.65x2
	COVER TAPE WIDTH* (W $\pm 0.1$ )	CARRIER TAPE WIDTH	ADHESIVE WIDTH† (W $\pm 0.15$ )																													
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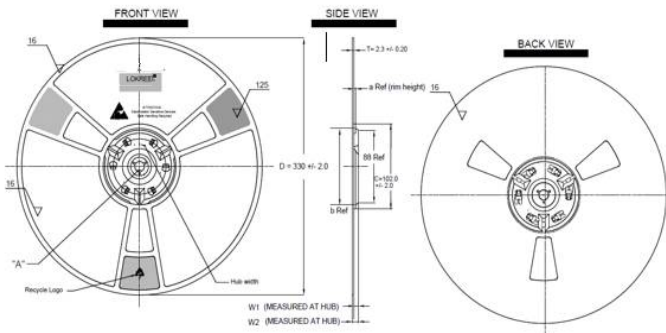


## Pre and Post Change: Reel

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

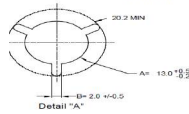
# Pre and Post Change: Reel

## ASE9



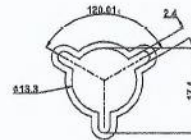
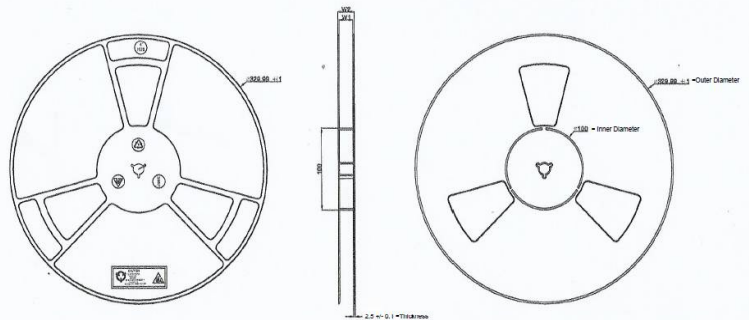
**NOTE:**

- 1 RB: Re grind Blue Lokreel
- 2 RBK: Re grind Black Lokreel
- 3 RC: Black Conductive Lokreel
- 4 SW: White Lokreel
- 5 SW-BL: Blue Lokreel
- 5.1 Sulfite "DBK": Black Reel
- SR (Surface Resistivity):  $\geq 1.0E+5$ ,  $< 1.0E+10$  Ohms/sq ( $23 \pm 2^{\circ}\text{C}$ ,  $50 \pm 5\%$  RH)
- SR (Surface Resistance):  $\geq 1.0E+4$ ,  $< 1.0E+9$  Ohms ( $23 \pm 2^{\circ}\text{C}$ ,  $50 \pm 5\%$  RH)
- 6 RD Series Lokreel
- SR (Surface Resistivity):  $\geq 1.0E+5$ ,  $< 1.0E+12$  ohms/sq ( $23 \pm 2^{\circ}\text{C}$ ,  $50 \pm 5\%$  RH)
- SR (Surface Resistance):  $\geq 1.0E+4$ ,  $< 1.0E+11$  ohms ( $23 \pm 2^{\circ}\text{C}$ ,  $50 \pm 5\%$  RH)
- 7 AC Series Lokreel
- SR (Surface Resistivity):  $< 1.0E+5$  ohms/sq ( $23 \pm 2^{\circ}\text{C}$ ,  $50 \pm 5\%$  RH)
- SR (Surface Resistance):  $< 1.0E+4$  ohms ( $23 \pm 2^{\circ}\text{C}$ ,  $50 \pm 5\%$  RH)
8. Dimensions labelled Ref are reference dimensions only. (a, b, etc.)
9. For 28MM hub width, protruding rib is required.
- This additional mechanism is added for manufacturing reasons, but will not and must not affect the functionality of the reel
10. Textured surface (shaded area), 125
- Remaining surface (unshaded - front and back) - 16
- Reference: E-9: E-D-M MicroFinish Comparator Scale
11. The font of hub width is Arial, height is 4, and thickness is 0.15mm.



Part Number	Nominal Hub Width	W1 +0.3mm -0.2mm	W2 MAX	a	b
RD33004SW	4mm	4.4mm	7.1mm	± s	68.5
RD33008SW	8mm	8.4mm	11.1mm	± s	68.5

## MPHL



1/4

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

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

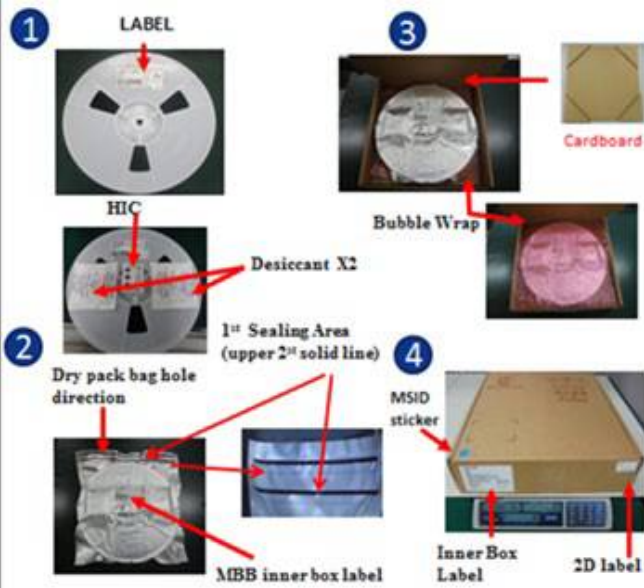
ASE9	MPHL
Dimension: 450mm x 420mm x 0.18mm	Bag Size: 406 x 457 mm
 <p>The technical drawing shows a rectangular bag with a width of 450mm and a height of 420mm. It features a central label with a triangular warning symbol and the text 'ANTISTATIC SHIELDING BAG'. The drawing includes various dimension lines and labels for different parts of the bag, such as the top edge, bottom edge, and the central label area.</p>	 <p>The photograph shows a white, rectangular bag with a central label. The bag appears to be made of a moisture barrier material. The label on the bag is similar to the one shown in the technical drawing, featuring a triangular warning symbol and text.</p>

# Pre and Post Change: Tape and Reel

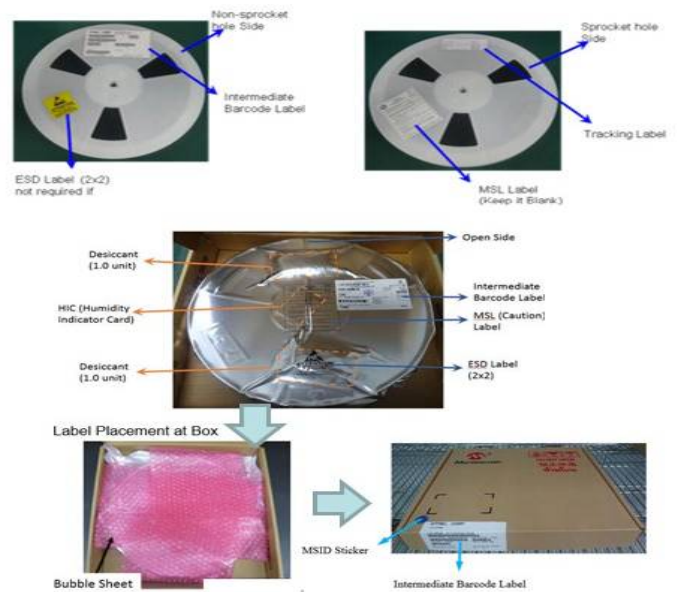
Final Test Location	ASE9	MPHL
Desiccant	 <p>2 units x 2 Per MBB bag</p>	 <p>2 pcs of 1 unit desiccant per bag</p>
HIC		

# Pre and Post Change: Tape and Reel Packing Method

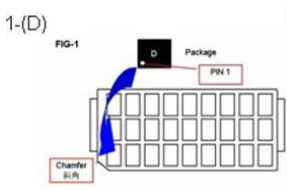
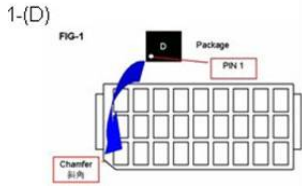
ASE9



MPHL









# Pre and Post Change: Tray

Final Test Location	ASE9	MPHL
<b>BQM (Base Quantity Multiple)</b>	490	490
<b>MSL Level</b>	3	3
<b>Pin1 Orientation</b>	<p>1-(D)</p>  <p>Near Tray Chamfer</p>	<p>1-(D)</p>  <p>Near Tray Chamfer</p>
<b>Tray</b>	<p>Tray Length qty: 35            Tray Width qty: 14            Pocket on Tray: 490 (BQM)            Tray Stack: 10 + 1 (10 + Cover)</p>	<p>Tray Length qty: 35            Tray Width qty: 14            Pocket on Tray: 490 (BQM)            Tray Stack: 10 + 1 (10 + Cover)</p>



# Pre and Post Change: Tray

Final Test Location	ASE9	MPHL
<p>Antistatic Shielding Bag / Moisture Barrier Bag</p>	 <p>570mmX300mmX0.18mm</p>	 <p>229mm x 483mm</p>
<p>Desiccant</p>	 <p>1 unit x 2 per MBB bag</p>	 <p>2 units of 1unit desiccant</p>
<p>Box</p>	 <p>371.5mmx162mmx88mm</p>	 <p>371mm x 162mm x 88 mm</p>





# Pre and Post Change: Tray Packing Method

## ASE9



## MPHL



LIAL-16EKMP130 - CCB 5084 Ini ATSAMd1( ATSAMd1( ATSAMd0! ATMPS001D14xx and NI32D14 device familie

Affected Catalog Part Numbers(CPN)

ATSAMD11D14A-MU  
ATSAMD10D13A-MNT  
ATSAMD10D14A-MNT  
ATSAMD11D14A-MNT  
ATSAMD11D14A-MUT  
ATSAMD10D14A-MUT  
ATSAMD10D13A-MUT  
ATSAMD09D14A-MUT  
ATSAMD10D14A-MUTB5  
ATMPS001D14A-MUT  
ATMPS001D14A-MUTA01  
NI32D14-MUT  
ATSAMD11D14A-MUTN03