



Product Change Notification / ASER-30YJUP974

**Date:**

15-Sep-2021

**Product Category:**

Wireless Modules

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 3344.004 Final Notice: Qualification of MPHL as an additional final test site for selected AT86RF232-ZX and AT86RF232-ZXR catalog part numbers available in 32L VQFN (5x5x0.9mm) package.

**Affected CPNs:**

[ASER-30YJUP974\\_Affected\\_CPN\\_09152021.pdf](#)  
[ASER-30YJUP974\\_Affected\\_CPN\\_09152021.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 AT86RF232-ZX and AT86RF232-ZXR catalog part numbers available in 32L VQFN (5x5x0.9mm) 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)	T/R	5000	5000	5000
	Tray	490	490	490
Packing Color	T/R	White	White	White
	Tray	Black	Black	Black
Pin 1 Orientation	T/R	Quadrant 1	Quadrant 1	Quadrant 1
	Tray	Tray Chamfer Side	Tray Chamfer Side	Tray Chamfer Side
Carrier Tape		See Pre and Post Change Summary for Comparison.		
Cover Tape				
Reel				
Packing Method				

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve manufacturability by qualifying MPHL an additional final test site.

**Change Implementation Status:**In Progress

**Estimated First Ship Date:**

November 29, 2021 (date code: 2149)

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

**Time Table Summary:**

Workweek	August 2021					September 2021					>	November 2021				
	3 2	3 3	3 4	3 5	3 6	3 7	3 8	3 9	3 10	3 11		45	46	47	48	49
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:**

**August 6, 2021:** Issued initial notification.

**September 15, 2021:** Issued final notification. Attached the Qualification Report. Revised the affected parts list to remove CPNs AT86RF233-ZU/ZUR that were previously qualified. Revised notification subject and description to reflect the change in affected parts list. Provided estimated first ship date to be on November 29, 2021.

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-30YJUP974\\_Qual Report.pdf](#)

[PCN\\_ASER-30YJUP974 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.

Affected Catalog Part Numbers (CPN)

AT86RF232-ZX

AT86RF232-ZXR

**CCB 3344.004**  
**Pre and Post Change Summary**  
**PCN #: ASER-30YJUP974**



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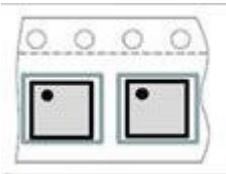
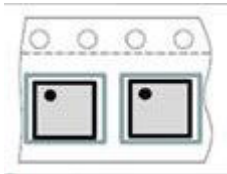
A Leading Provider of Smart, Connected and Secure Embedded Control Solutions



SMART | CONNECTED | SECURE

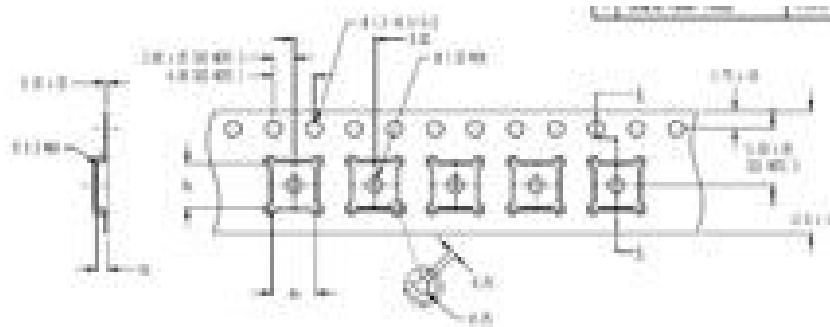
**Qualification of MPHL as an additional final test site for selected AT86RF232-ZX and AT86RF232-ZXR catalog part numbers available in 32L VQFN (5x5x0.9mm) package.**

# BQM and Pin 1 Orientation

		ATP7	MPHL
Base Quantity Multiple (BQM)	Tape and Reel	5000	5000
	Tray	490	490
Pin 1 orientation	Tape and Reel	Quadrant 1 	Quadrant 1 
	Tray	Tray Chamfer Side	Tray Chamfer Side

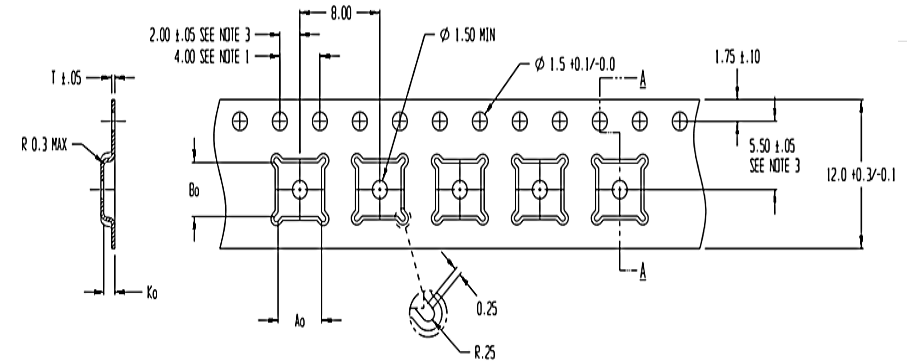
# Tape and Reel - Carrier Tape

## ATP7



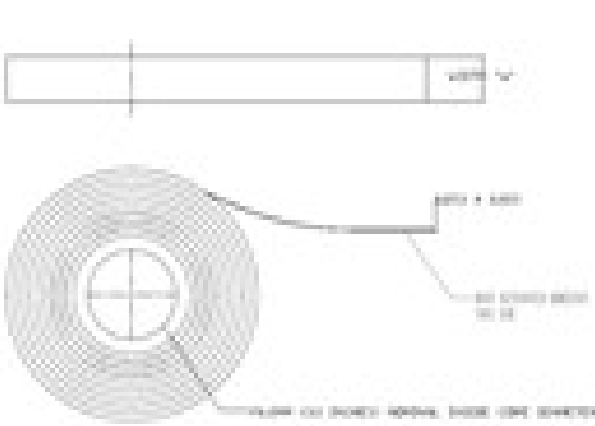
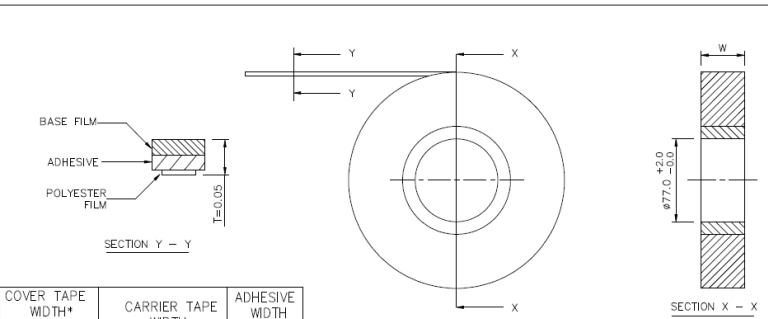
Supplier Mfg. part no.	ML0505-A
Width (mm)	12
Pitch (mm)	8
A0 (mm)	5.25
B0 (mm)	5.25
K0 (mm)	1.1

## MPHL





Supplier Mfg. part no.	ML0505-A	QFN0500X0500E
Width (mm)	12	12
Pitch (mm)	8	8
A0 (mm)	5.25	5.30
B0 (mm)	5.25	5.30
K0 (mm)	1.1	1.1

# Tape and Reel - Cover Tape


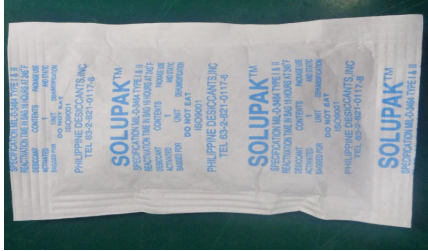

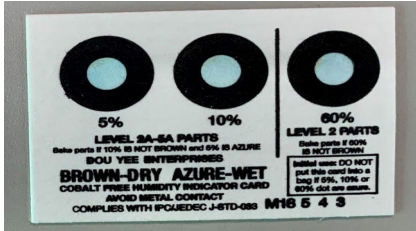




ATP7		MPHL									
											
<table border="1"> <thead> <tr> <th>Cover Tape Width</th> <th>Color</th> </tr> </thead> <tbody> <tr> <td>9.2 mm</td> <td>Black</td> </tr> </tbody> </table>		Cover Tape Width	Color	9.2 mm	Black	<table border="1"> <thead> <tr> <th>Cover Tape Width</th> <th>Color</th> </tr> </thead> <tbody> <tr> <td>9.3 mm</td> <td>Black</td> </tr> </tbody> </table>		Cover Tape Width	Color	9.3 mm	Black
Cover Tape Width	Color										
9.2 mm	Black										
Cover Tape Width	Color										
9.3 mm	Black										



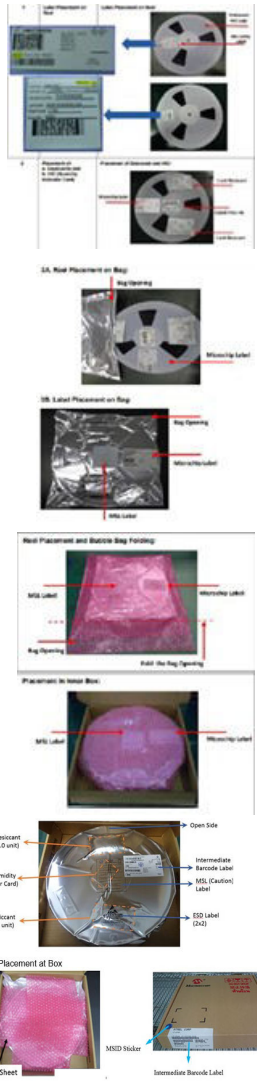

# Tape and Reel – Plastic Reel

ATP7	MPHL
 <p data-bbox="751 1168 919 1219">12mm</p>	 <p data-bbox="1730 1168 1898 1219">12mm</p>

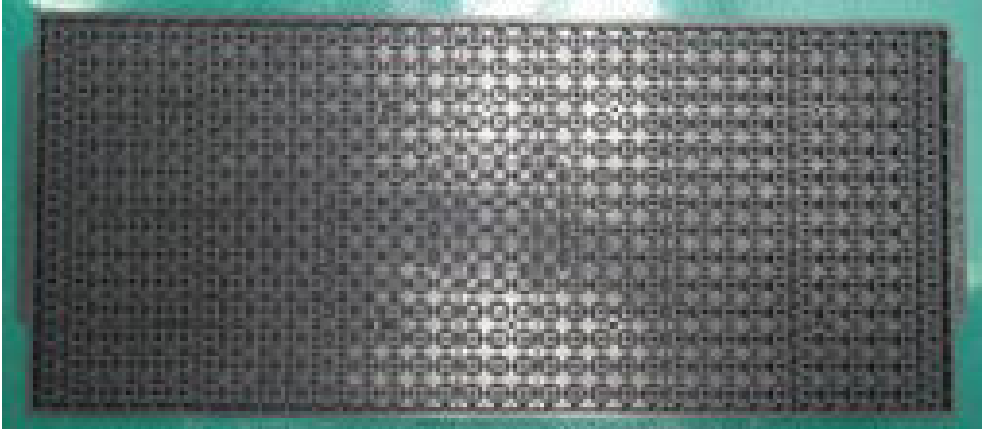
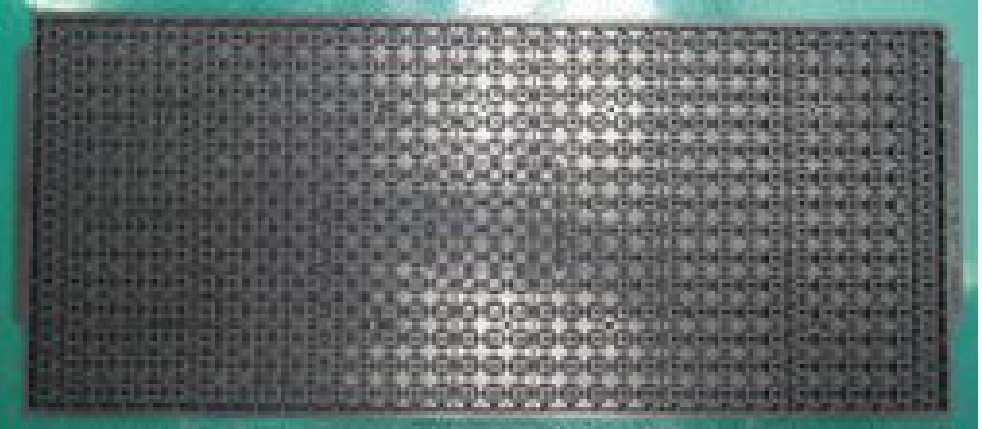
# Tape and Reel – Packaging

Final Test Site	ATP7	MPHL
Desiccant		
HIC		
Boxes		
Bags		




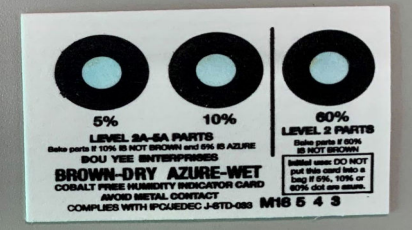




# Tape and Reel – Packing Procedure

ATP7	MPHL
 <p>The ATP7 section contains several diagrams illustrating the packing process:</p> <ul style="list-style-type: none"> <li><b>Initial Reel Labels:</b> Shows a reel with labels for 'ESD Label (2x2) not required', 'Intermediate Reel Label', and 'MSL Label (2x2) (Step 2 Blank)'. Arrows indicate the placement of 'Rings' and 'Sprocket hole'.</li> <li><b>2A. Reel Placement on Bag:</b> Shows the reel being placed into a bag with 'Bag opening' and 'MSL Label'.</li> <li><b>2B. Label Placement on Bag:</b> Shows the bag with 'Bag opening', 'MSL Label', and 'Intermediate Label'.</li> <li><b>Reel Placement and Bubble Bag Forcing:</b> Shows a pink bubble bag being forced into the bag, with 'MSL Label', 'Intermediate Label', and 'Bag opening' labeled.</li> <li><b>Placement in Inner Box:</b> Shows the bagged reel in a box with 'MSL Label' and 'Intermediate Label'.</li> <li><b>Final Box Contents:</b> Shows the inner box with 'Open Side', 'Desiccant (1.0 unit)', 'HC (Humidity Indicator Card)', 'Intermediate Reel Label', 'MSL (Caution) Label', and 'ESD Label (2x2)'.</li> <li><b>Label Placement at Box:</b> Shows the final box with 'Bubble Sheet' and 'Intermediate Reel Label'.</li> </ul>	 <p>The MPHL section contains diagrams illustrating the packing process:</p> <ul style="list-style-type: none"> <li><b>Initial Reel Labels:</b> Shows a reel with labels for 'ESD Label (2x2) not required', 'Intermediate Reel Label', 'MSL Label (2x2) (Step 2 Blank)', and 'Tracking Label'. Arrows indicate the placement of 'Rings' and 'Sprocket hole'.</li> <li><b>Label Placement, Loading and QP Sealing of Inner Box:</b> Shows the reel being placed into a box with 'MSL Label' and 'Intermediate Reel Label'.</li> <li><b>MSL Label Placement and Closing of Inner Box:</b> Shows the box with 'MSL Label', 'Intermediate Reel Label', and 'ESD Label'.</li> <li><b>Final Box Contents:</b> Shows the final box with 'MSL Label', 'Intermediate Reel Label', and 'ESD Label'.</li> </ul>

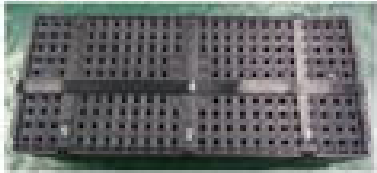
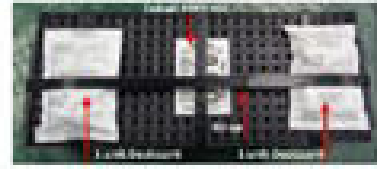
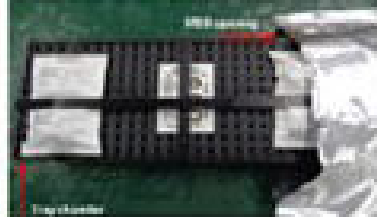
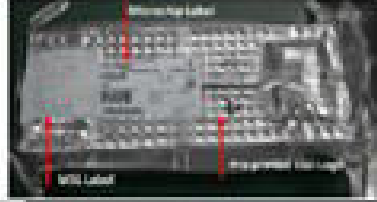




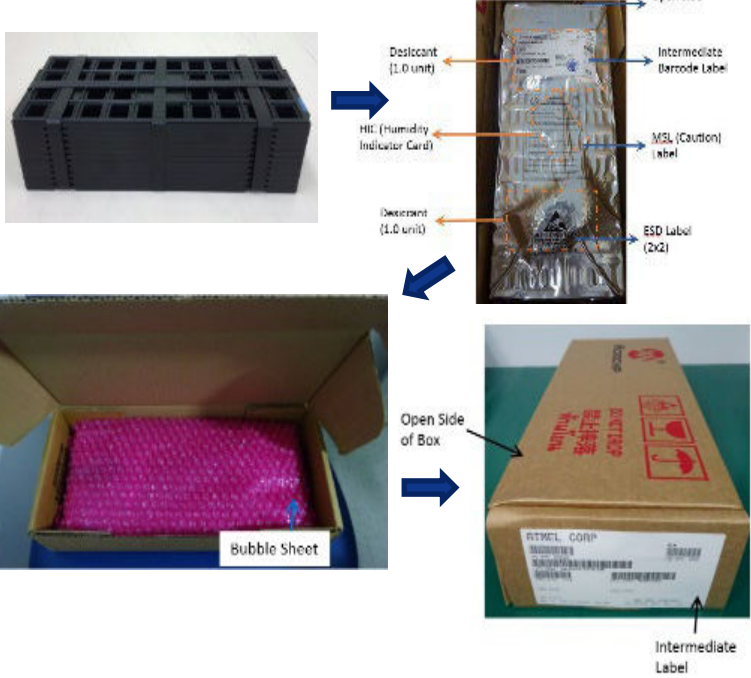
# Tray

ATP7	MPHL
 A rectangular microarray chip with a dense grid of small, dark, circular spots. The spots are arranged in a regular pattern across the surface of the chip.	 A rectangular microarray chip with a dense grid of small, dark, circular spots. The spots are arranged in a regular pattern across the surface of the chip.

# Tray – Packaging

Final Test Site	ATP7	MPHL
Desiccant		
HIC		
Boxes		
Bags		

# Tray – Packing Procedure

ATP7	MPHL
<p><b>Tray Strapping</b></p>  <p><b>Placement of Desiccant and IHL</b></p>  <p><b>Tray Placement on IWB</b></p>  <p><b>Label Placement on IWB</b></p>  <p><b>4A. Inner Box Preparation</b></p>  <p><b>4B. Tray Placement on Inner Box</b></p>  <p><b>5A. Label Placement and Closing of Inner Box</b></p>  <p><b>5B. QA Stamp</b></p> 	<p><b>Desiccant (1.0 unit)</b></p> <p><b>HC (Humidity Indicator Card)</b></p> <p><b>Desiccant (1.0 unit)</b></p> <p><b>Open Side</b></p> <p><b>Intermediate Barcode Label</b></p> <p><b>MSL (Caution) Label</b></p> <p><b>ESD Label (2x2)</b></p> <p><b>Open Side of Box</b></p> <p><b>Bubble Sheet</b></p> <p><b>Open Side</b></p> <p><b>Intermediate Label</b></p> 



**MICROCHIP**

## **QUALIFICATION REPORT SUMMARY**

**PCN #: ASER-30YJUP974**

**Date**

**July 25, 2021**

**Qualification of MPHL as an additional final test site for selected AT86RF232-ZX and AT86RF232-ZXR catalog part numbers available in 32L VQFN (5x5x0.9mm) package.**

**Purpose:** Qualification of MPHL as an additional final test site for selected AT86RF232-ZX and AT86RF232-ZXR catalog part numbers available in 32L VQFN (5x5x0.9mm) package.

**CCB No.:** 3344.004

Test / Evaluation	Test Conditions / Parameters	Results
Datalog / Bin Comparison	<ul style="list-style-type: none"><li>5,000-unit yield sample for bin comparison</li></ul>	PASSED
Yield Comparison	<ul style="list-style-type: none"><li>Lot Validation, Good vs. rejects comparison.</li><li>5,000 units matching to 0.1% yield</li></ul>	PASSED
Parametric Comparison	<ul style="list-style-type: none"><li>50 units of parametric data comparison</li></ul>	PASSED