



Product Change Notification / NTDO-09RUGQ249

Date:

14-Sep-2021

Product Category:

Microprocessors

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4645 Initial Notice: Qualification of MPHL as additional final test site for selected ATSAMA5D3xA device families available in 324L LFBGA (15x15x1.4mm) package.

Affected CPNs:

[NTDO-09RUGQ249_Affected_CPN_09142021.pdf](#)

[NTDO-09RUGQ249_Affected_CPN_09142021.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 additional final test site for selected ATSAMA5D3xA device families available in 324L LFBGA (15x15x1.4mm) package.

Pre and Post Change Summary:

	Pre Change	Post Change	
Final Test Site	ASE-Shanghai (ASSH)	ASE-Shanghai (ASSH)	Microchip Technology Operations (Philippines)

				Corporation (MPHL)
Base Quantity Multiple (BQM)	T/R	500	500	500
	Tray	126	126	126
Pin 1 orientation		Quadrant 2	Quadrant 2	Quadrant 2
Carrier Tape		No dimensional changes*		
Cover Tape		Minor dimensional changes*		
Plastic Reel	Dimension	No dimensional changes*		
	Color	White	White	White
Tray	Dimension	No dimensional changes*		
	Color	Black	Black	Black
Packing Method		See attached Pre and Post comparison		

* See attached Pre and Post Change comparison

Impacts to Data Sheet: None

Change Impact:None

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

Change Implementation Status:In Progress

Estimated Qualification Completion Date:October 2021

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:

	September 2021					October 2021				
Workweek	3 6	3 7	3 8	3 9	4 0	4 1	4 2	43	44	45
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: September 14, 2021: 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_NTDO-09RUGQ249_Pre and Post Change Summary.pdf](#)
[PCN_NTDO-09RUGQ249_Qual_Plan.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.



QUALIFICATION PLAN SUMMARY

PCN #: NTDO-09RUGQ249

**Date:
September 9, 2021**

**Qualification of MPHL as additional final test site for selected
ATSAMA5D3xA device families available in 324L LFBGA
(15x15x1.4mm) package.**

Purpose: Qualification of MPHL as additional final test site for selected ATSAMA5D3xA device families available in 324L LFBGA (15x15x1.4mm) package.

CCB No.: 4645

Test / Evaluation	Test Conditions / Parameters
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
Correlation lot report	<ul style="list-style-type: none">• Yield at each step and reject analysis between systems. 3K units are tested for each program conversion we perform.• Accept on yield match within 1%
Parametric comparison	<ul style="list-style-type: none">• 100% test at room, hot, cold temperature if applicable based on production flow.

CCB 4645

Pre and Post Change Summary

PCN #: NTDO-09RUGQ249



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



Qualification of MPHL as additional final test site for selected ATSAMA5D3xA device families available in 324L LFBGA (15x15x1.4mm) package

Pre and Post Change Summary

Final Test Location		ASSH	MPHL
Base Quantity Multiple (BQM)	T/R	500	500
	Tray	126	126
Pin 1 Orientation		Quadrant 2	Quadrant 2

Pre and Post Change Summary

Final Test Location

ASSH

MPHL

Carrier Tape for T/R

Technical drawing of ASSH carrier tape. Dimensions include: 0.30 ±.05, R 0.3 MAX, 5° REF., K0, 2.00 ±.10 SEE NOTE 3, 4.00 SEE NOTE 1, Ø 1.5 ±0.1/-0.0, 20.00, Ø 1.50 MIN, 1.75 ±.10, 11.5 ±.1 SEE NOTE 3, 24.0 ±.3, A0, B0, .25, R.50. A revision table is present in the top right corner.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

Width (mm)	Pitch (mm)	A0 (mm)	B0 (mm)	K0 (mm)	Thickness
24	20	15.5	15.5	2.0	0.3

Technical drawing of MPH carrier tape. Dimensions include: 0.30 ±.05, R 0.3 MAX, 5° REF., K0, 2.00 ±.10 SEE NOTE 3, 4.00 SEE NOTE 1, Ø 1.5 ±0.1/-0.0, 20.00, Ø 1.50 MIN, 1.75 ±.10, 11.5 ±.1 SEE NOTE 3, 24.0 ±.3, A0, B0, .25, R.50.

Width (mm)	Pitch (mm)	A0 (mm)	B0 (mm)	K0 (mm)	Thickness
24	20	15.5	15.5	2.0	0.3

Pre and Post Change Summary

Final Test Location

Cover Tape for T/R

ASSH

Technical drawing of ASSH cover tape showing cross-sections Y-Y and X-X. The drawing includes a top view, a side view (SECTION Y-Y), and a cross-section (SECTION X-X). The side view shows a carrier tape with a width of 21.0 mm and a thickness of 0.053 mm. The cross-section shows a carrier tape with a width of 21.0 mm and a thickness of 0.053 mm. The carrier tape is made of polyethylene terephthalate and heat activated adhesive. The carrier tape is used for the assembly of the ASSH.

STANDARD COVER TAPE WIDTH* (W ±0.1)	CARRIER TAPE WIDTH
5.3, 5.4, 5.5	8
9.1, 9.2, 9.3, 9.5	12
13.1, 13.3, 13.5	16
21.0, 21.3	24
25.5, 26.0, 26.5	32
37.5	44
49.5	56

STANDARD COVER TAPE WIDTH* (W ±0.15)	CARRIER TAPE WIDTH
65.5	72
81.5	88

NOTES

- 1 THICKNESS : 0.048-0.058mm.
- 2 STANDARD LENGTH : 300mm
- 3 TENSILE STRENGTH : 6.4kg/mm sq.
- 4 ELONGATION : 100% min
- 5 SURFACE RESISTIVITY : 10^{10} OHMS/SQ MAX. (STATIC DISSIPATIVE)
- 6 PEEL STRENGTH CONFORMS TO EIA SPEC.:20g TO 80g
- 7 RECOMMENDED SHELF LIFE : TWO YEAR FROM MANUFACTURING DATE
- 8 LUMINOUS TRANSMITTANCE : 90%+
- 9 HAZE : 40% MAX
- 10 OTHER COVER TAPE WIDTH REFER TO W4.08-04

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

Width W (mm.)	Thickness T (mm.)	Sealing Methodology
21.3	0.048-0.058	Heat Active Type

MPHL

Technical drawing of MPHL cover tape showing cross-sections Y-Y and X-X. The drawing includes a top view, a side view (SECTION Y-Y), and a cross-section (SECTION X-X). The side view shows a carrier tape with a width of 21.0 mm and a thickness of 0.053 mm. The cross-section shows a carrier tape with a width of 21.0 mm and a thickness of 0.053 mm. The carrier tape is made of polyethylene terephthalate and heat activated adhesive. The carrier tape is used for the assembly of the 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^{10} OHMS/SQ MAX. TOPSIDE : 10^{10} OHMS/SQ
- *6 OTHER COVER TAPE WIDTH REFER TO W4.08-04.

ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

Width W (mm.)	Thickness T (mm.)	Sealing Methodology
21.3	0.045-0.055	Pressure Seal Activated

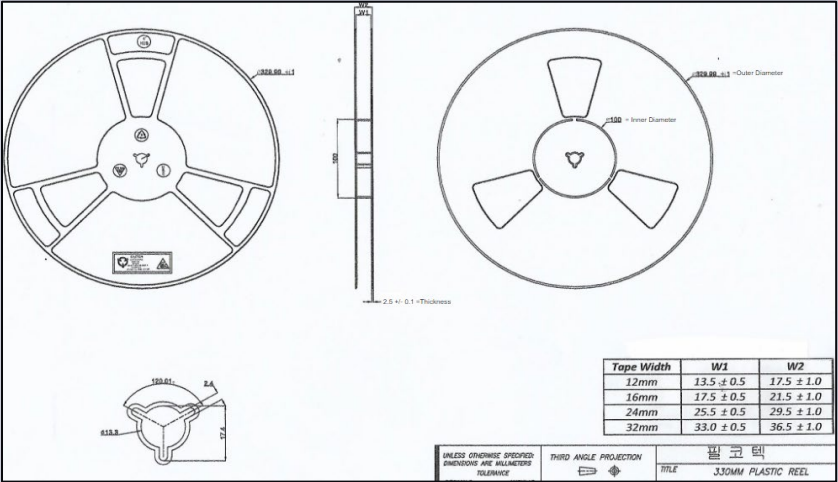
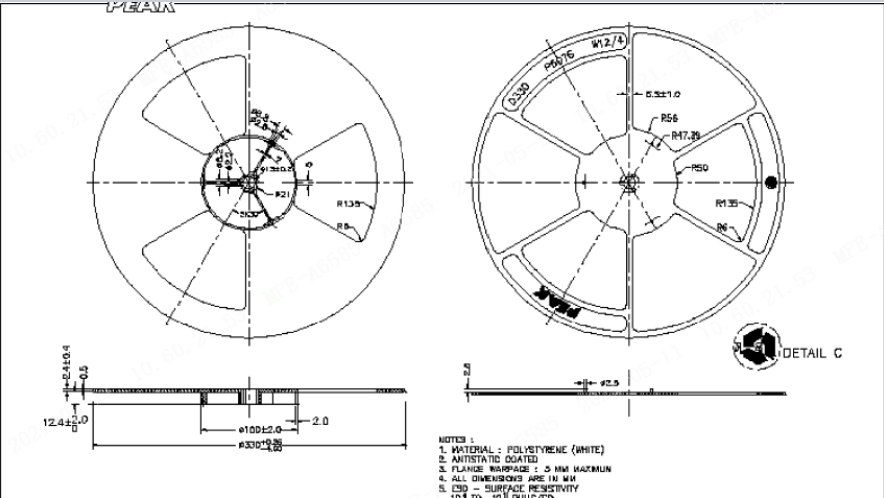
Pre and Post Change Summary

Final Test Location

ASSH


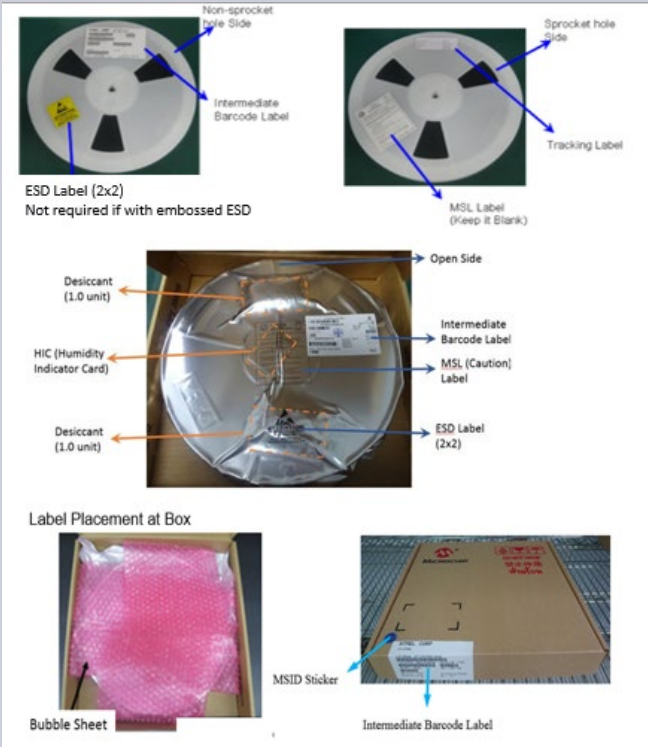
MPHL

Plastic Reel for T/R

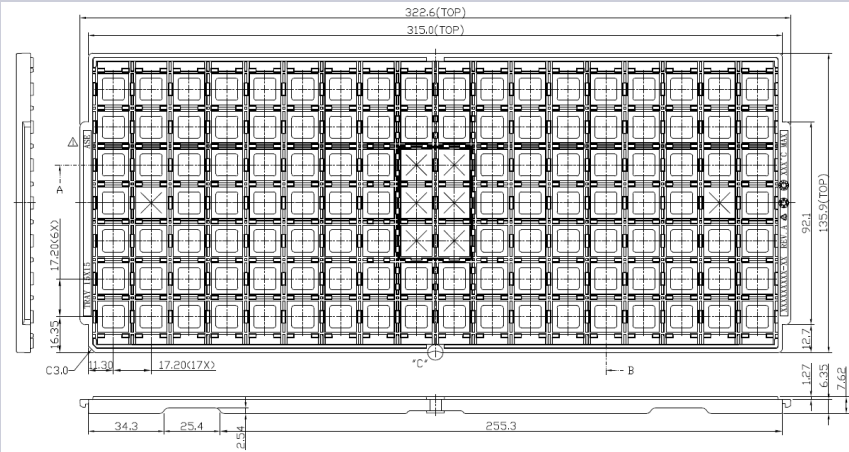
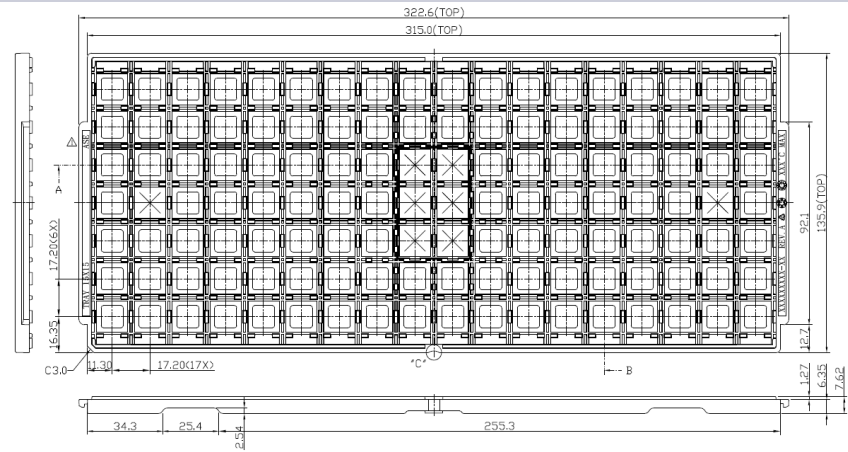


Width (mm)	Diameter (mm)	Hub (mm)	Color
24	330	100	White

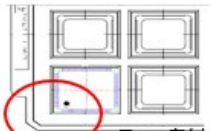













Pre and Post Change Summary

Final Test Location	ASSH	MPHL
Packing Method for T/R		

Pre and Post Change Summary

Final Test Location	ASSH	MPHL															
Tray																	
	<table><tr><th>Length – max outer (mm)</th><th>Width – max outer (mm)</th><th>Thickness – max (mm)</th><th>Color</th></tr><tr><td>322.6 mm</td><td>135.9 mm</td><td>7.62 mm</td><td>Black</td></tr></table>	Length – max outer (mm)	Width – max outer (mm)	Thickness – max (mm)	Color	322.6 mm	135.9 mm	7.62 mm	Black	<table><tr><th>Length – max outer (mm)</th><th>Width – max outer (mm)</th><th>Thickness – max (mm)</th><th>Color</th></tr><tr><td>322.6 mm</td><td>135.9 mm</td><td>7.62 mm</td><td>Black</td></tr></table>	Length – max outer (mm)	Width – max outer (mm)	Thickness – max (mm)	Color	322.6 mm	135.9 mm	7.62 mm
Length – max outer (mm)	Width – max outer (mm)	Thickness – max (mm)	Color														
322.6 mm	135.9 mm	7.62 mm	Black														
Length – max outer (mm)	Width – max outer (mm)	Thickness – max (mm)	Color														
322.6 mm	135.9 mm	7.62 mm	Black														

Pre and Post Change Summary

Final Test Location	ASSH	MPHL				
<div>Packing Method for Tray</div>	<div><div><p>Tray盘缺角 Tray Unfilled corner</p></div><div></div><div></div><div></div><div></div><div></div></div>	<div><table><tr><th>Pin 1 Orientation / Tray Bundling</th><th>Inner Box Packing</th></tr><tr><td><div>1. Pin 1 Orientation – near tray chamfer</div><div>2. Tray Bundling</div><div>> 10 full trays + 1 empty tray cover</div><div>> PP Strapping: 3 crosswise & 1 lengthwise</div><div></div><div>3. Moisture Barrier Bag Labels</div><div></div></td></tr></table></div>	Pin 1 Orientation / Tray Bundling	Inner Box Packing	<div>1. Pin 1 Orientation – near tray chamfer</div> <div>2. Tray Bundling</div> <div>> 10 full trays + 1 empty tray cover</div> <div>> PP Strapping: 3 crosswise & 1 lengthwise</div> <div></div> <div>3. Moisture Barrier Bag Labels</div> <div></div>	<div><div>4. Wrap bag with bubble pack</div><div></div><div>5. Tray Box Packing</div><div></div><div>Inner Box Tray: 16.2x37.1x8.8 cm</div></div>
Pin 1 Orientation / Tray Bundling	Inner Box Packing					
<div>1. Pin 1 Orientation – near tray chamfer</div> <div>2. Tray Bundling</div> <div>> 10 full trays + 1 empty tray cover</div> <div>> PP Strapping: 3 crosswise & 1 lengthwise</div> <div></div> <div>3. Moisture Barrier Bag Labels</div> <div></div>						

Affected Catalog Part Numbers (CPN)

ATSAMA5D31A-CU
ATSAMA5D31A-CUR
ATSAMA5D33A-CU
ATSAMA5D33A-CUR
ATSAMA5D34A-CU
ATSAMA5D34A-CUR
ATSAMA5D35A-CU
ATSAMA5D35A-CUR
ATSAMA5D36A-CU
ATSAMA5D36A-CUR
ATSAMA5D31A-CUC21
ATSAMA5D35A-CUC22
ATSAMA5D36A-CUC23
ATSAMA5D31A-CURC21
ATSAMA5D35A-CURC22
ATSAMA5D36A-CURC23