Product Change Notification / LIAL-16EKMP130

Date:

07-Jul-2022

Product Category:

32-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5084 Final Notice: 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.

Affected CPNs:

LIAL-16EKMP130_Affected_CPN_07072022.pdf
LIAL-16EKMP130_Affected_CPN_07072022.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 ATSAMD11D14xx, ATSAMD10D13xx, ATSAMD10D14xx, ATSAMD09D14xx, 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.		

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 20, 2022 (date code: 2230)

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

Time Table Summary:

	May 2022					>	July 2022				
Workweek	19	20	21	22	23		27	28	29	30	31
Initial PCN Issue Date			x								
Qual Report Availability								x			
Final PCN Issue								x			

Date											
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: May 20, 2022: Issued initial notification.
July 7, 2022: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on July 20, 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-16EKMP130_Qual_Report.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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QUALIFICATION REPORT 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	Results
Bin Comparison	3,000 units matching to 0.1% yield and 33 (10% correlated) units of parametric data comparison	PASSED
Yield Comparison		
Parametric Comparison		

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

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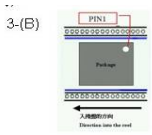
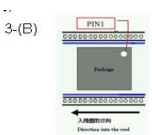
SMART | CONNECTED | SECURE

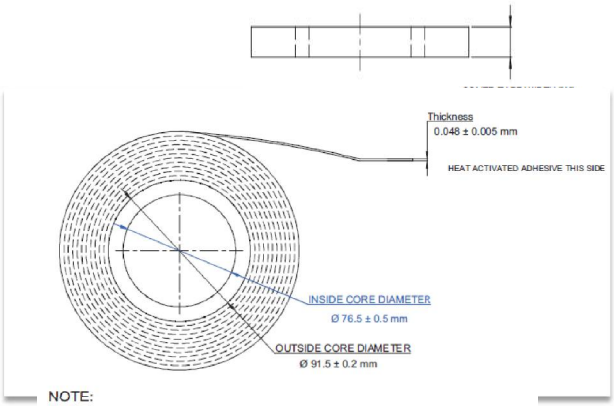
Pre and Post Change: Tape and Reel

Final Test Location	ASE9	MPHL
BQM (Base Quantity Multiple)	6000	6000
MSL Level	3	3
Pin1 Orientation	Quadrant 2 	Quadrant 2 
Carrier Tape	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

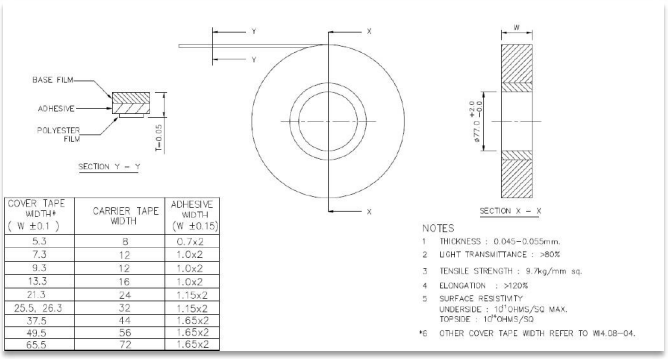
MICROCHIP

Pre and Post Change: Cover Tape

Final Test Location	ASE9	MPHL
Dimension	W: 9.2mm	W: 9.2mm



NOTE:
1. ADV P/N: HUBxxxx-yyy or HUBxxxx-yyyy
2. Width tolerance ± 0.10 mm
3. Length (M): -yyy +1 /-0 M or -yyyy +1/-0 M,where yyy or yyyy=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



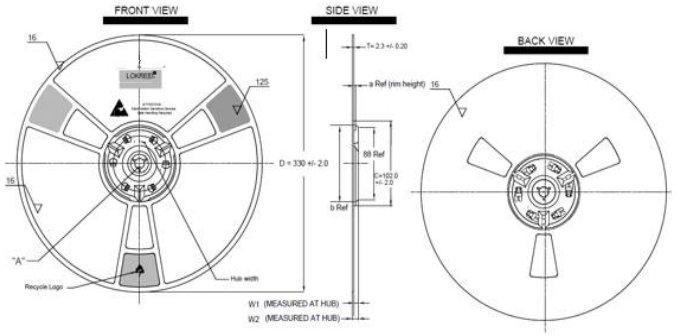
COVER TAPE WIDTH* (W ±0.1)	CARRIER TAPE WIDTH	ADHESIVE WIDTH (W ±0.15)
5.3	8	0.7x2
7.3	12	1.0x2
9.3	12	1.0x2
13.3	16	1.0x2
21.3	24	1.15x2
25.5, 26.3	32	1.15x2
37.5	44	1.65x2
49.5	56	1.65x2
65.5	72	1.65x2

Pre and Post Change: Reel

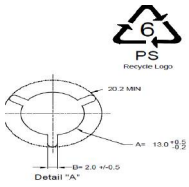
Final Test Location	ASE9	MPHL
Dimension	D: 330 mm Hub: 102mm	D: 330 mm Hub: 100mm
Color	White	White
Photo		

Pre and Post Change: Reel

ASE9

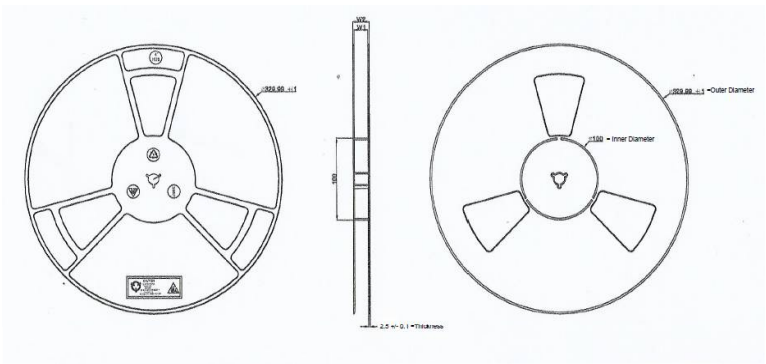


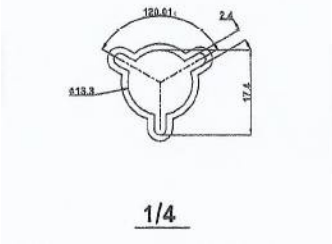
NOTE:
1.RB: Regrind Blue Lokreel
2.RBK: Regrind Black Lokreel
3.RC: Black Conductive Lokreel
4.SW: White Lokreel
5.SW-BL: Blue Lokreel
5.1 Suffix "DBK" : Black Reel :
SR (Surface Resistivity) : ≥1.0E+5, <1.0E+10 Ohms/sq. (23 ± 2°C, 50 ± 5 % RH)
SR (Surface Resistance) : ≥1.0E+4, <1.0E+9 Ohms (23 ± 2°C, 50 ± 5 % RH)
6.RD Series Lokreel:
SR (Surface Resistivity): ≥1.0E+5, < 1.0E+12 ohms/sq. (23 ± 2°C, 50 ± 5 % RH)
SR (Surface Resistance): ≥1.0E+4, < 1.0E+11ohms(23 ± 2°C, 50 ± 5 % RH)
7.RC Series Lokreel:
SR (Surface Resistivity): < 1.0E+5 ohms/sq. (23 ± 2°C, 50 ± 5 % RH)
SR (Surface Resistance): < 1.0E+4 ohms (23 ± 2°C, 50 ± 5 % RH)
8. Dimensions labeled 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	1.5	98.5
RD33008SW	8mm	8.4mm	11.1mm	1.5	98.5

MPHL



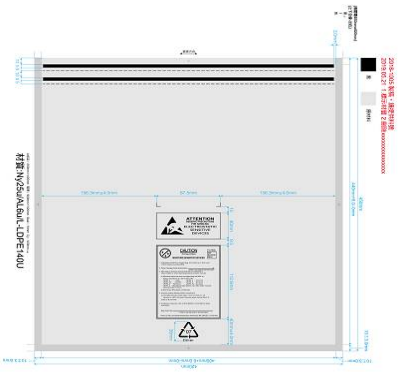


1/4

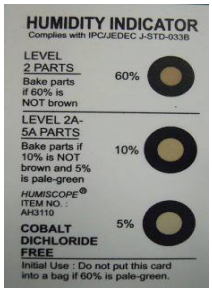
Tape Width	W1	W2
12mm	13.5 ± 0.5	17.5 ± 1.0
16mm	17.5 ± 0.5	21.5 ± 1.0
24mm	25.5 ± 0.5	29.5 ± 1.0
32mm	33.0 ± 0.5	36.5 ± 1.0

MICROCHIP

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

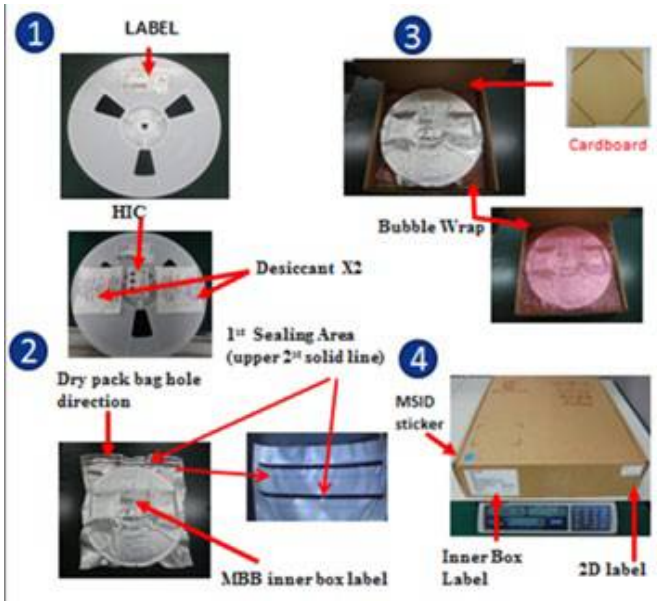
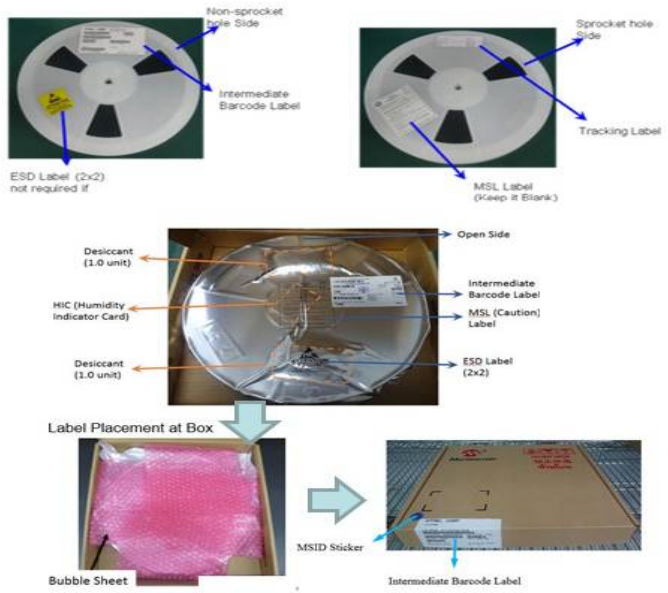
ASE9	MPHL
Dimension: 450mm x 420mm x 0.18mm	Bag Size: 406 x 457 mm
	

Pre and Post Change: Tape and Reel

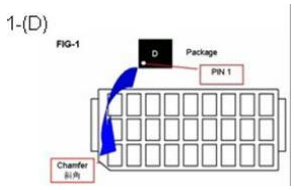
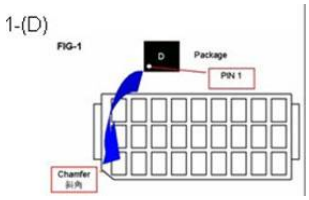
Final Test Location	ASE9	MPHL
Desiccant	 2 units x 2 Per MBB bag	 2 pcs of 1 unit desiccant per bag
HIC		

MICROCHIP

Pre and Post Change: Tape and Reel Packing Method

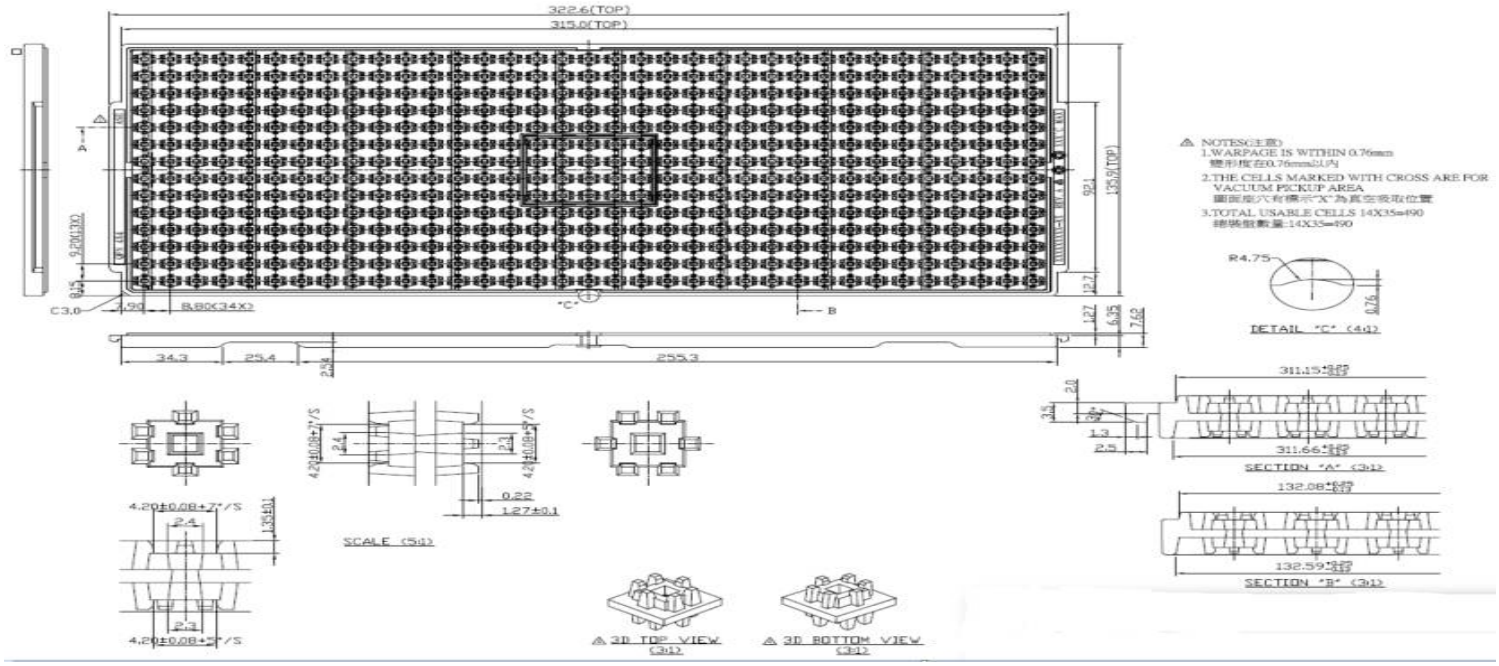
ASE9	MPHL
	

Pre and Post Change: Tray

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

Pre and Post Change: Tray

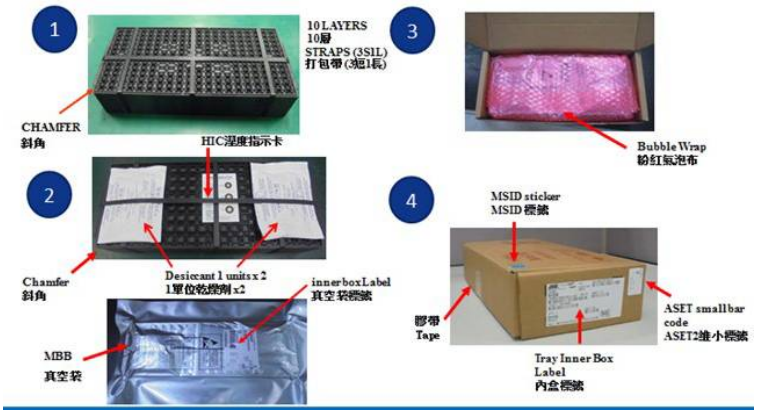
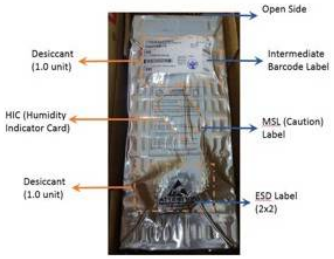
ASE9 / MPHL



Pre and Post Change: Tray

Final Test Location	ASE9	MPHL
Antistatic Shielding Bag / Moisture Barrier Bag	 570mmX300mmX0.18mm	 229mm x 483mm
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
	 Max: 10 full trays + 1 empty tray cover PP Strapping: 3 crosswise & 1 lengthwise   

LIAL-16EKMP130 - CCB 5(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