Product Change Notification / GBNG-09BQZG101

Date:

24-Jun-2022

Product Category:

32-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 5083 Final Notice: Qualification of MPHL as an additional final test site for selected ATSAMD21J17 and ATSAMD21J18 device families available in 64L VQFN (9x9x1mm) package.

Affected CPNs:

GBNG-09BQZG101_Affected_CPN_06242022.pdf
GBNG-09BQZG101_Affected_CPN_06242022.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 ATSAMD21J17 and ATSAMD21J18 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 1, 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:

	May 2022				**June 2022**				**July 2022**				
Workweek	19	20	21	22	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: May 11, 2022: Issued initial notification.
June 23, 2022: Issued final notification. Added estimated first ship date on July 1, 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_GBNG-09BQZG101_Qual_Report.pdf
PCN_GBNG-09BQZG101_Pre_and_Post_Change_Summary.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

Terms and Conditions:

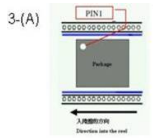
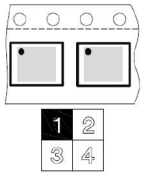
If you wish to receive Microchip PCNs via email please register for our PCN email service at our PCN home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the PCN FAQ section.

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.

CCB 5083
Pre and Post Change Summary
PCN #: GBNG-09BQZG101

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

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

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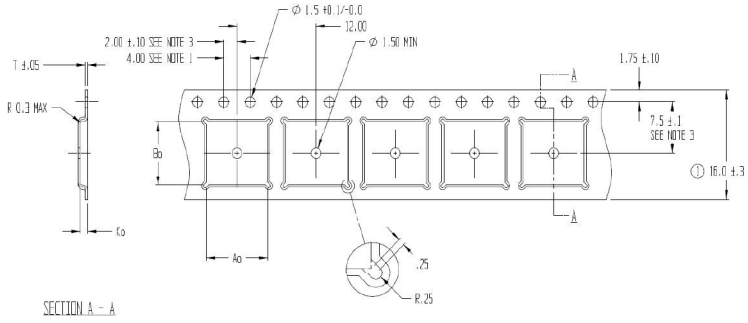
Pre and Post Change: Carrier Tape

ASE9



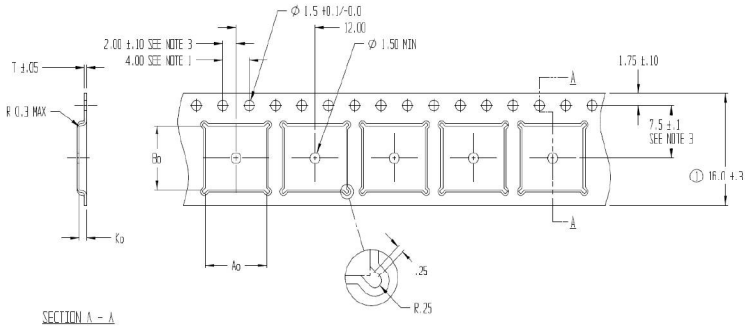
Ao = 9.30
Bo = 9.30
Ko = 1.10

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.
ML0909-BC	0.30	PS+C	T102535AT
ML0909-BD	0.30	PS+C	T102535AT

TOLERANCES - UNLESS	MATERIAL PS+C		
NOTED 1PL ±.2 2PL ±.10	ALL DIMENSIONS IN MILLIMETERS		DWG SIZE B
DRAWN BY TMD/BTH	DATE 10/08/99	SCALE 3:1	SHEET 1 OF 1

MPHL



Ao = 9.30
Bo = 9.30
Ko = 1.10

NOTES:
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ML0909-BC	0.30	PS+C	T102535AT
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TOLERANCES - UNLESS	MATERIAL PS+C		
NOTED 1PL ±.2 2PL ±.10	ALL DIMENSIONS IN MILLIMETERS		DWG SIZE B
DRAWN BY TMD/BTH	DATE 10/08/99	SCALE 3:1	SHEET 1 OF 1

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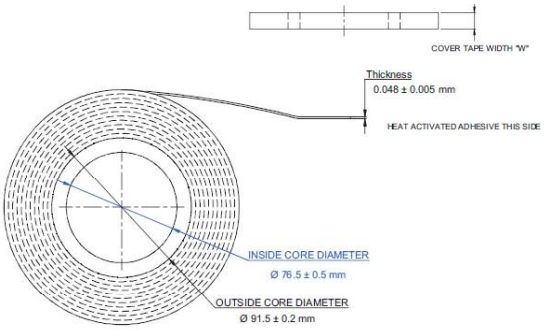
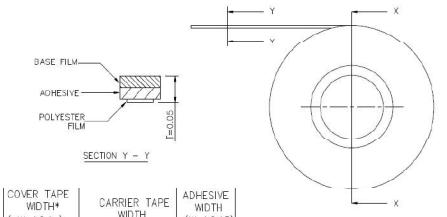
Pre and Post Change: Cover Tape

Final Test Location	ASE9	MPHL
Dimension	W: 13.3 mm	W: 13.3 mm



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

TOLERANCES UNLESS - SPECIFIED
1 PL ± 0.2 2 PL ± 0.10
DIA./ RAD. ± .003



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^{9} OHMS/SQ MAX.
TOPSIDE : 10^{10}OHMS/SQ
'0 OTHER COVER TAPE WIDTH REFER TO WI-00-04.

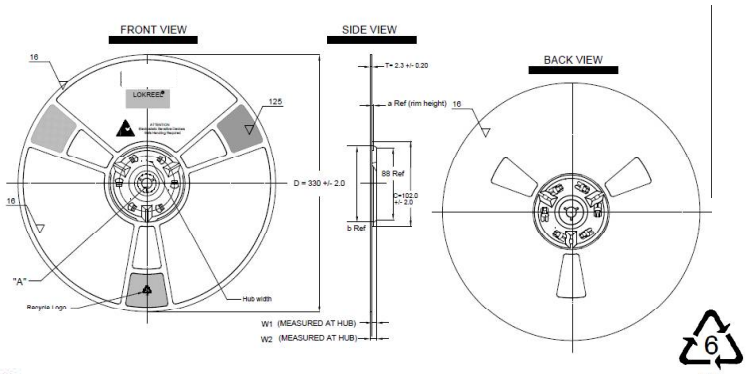
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

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

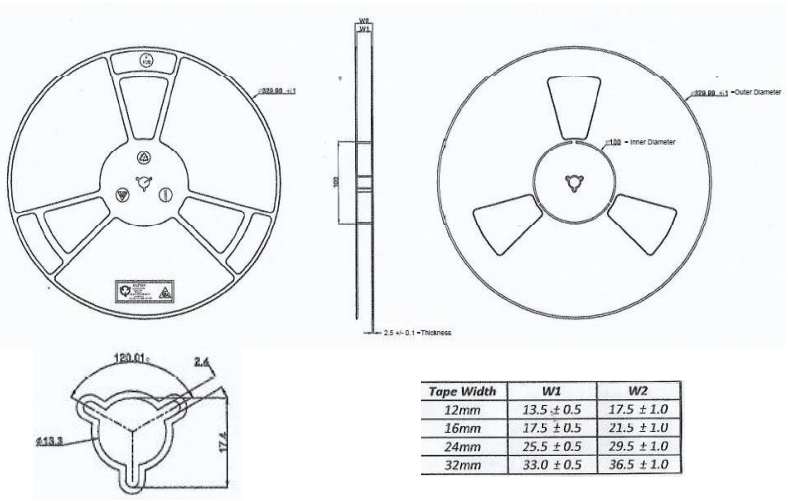


NOTE:
1.RB: Regrind Blue Lokreel
2.RBK: Regrind Black Lokreel
3.RC: Black Conductive Lokreel
4.SW: White Lokreel
5.SW-BL: Blue Lokreel
5.1 Suffix "DBK" : Black Reel ;
SR (Surface Resistivity) : ≥1.0E+5, <1.0E+10 Ohms/sq. (23 ± 2°C, 50 ± 5 % RH)
SR (Surface Resistance) : ≥1.0E+4, <1.0E+9 Ohms (23 ± 2°C, 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 reasc
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.

-All Dimensions in Millimeters-

Part Number	Nominal Hub Width	W1 +0.3mm -0.2mm	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 ± 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

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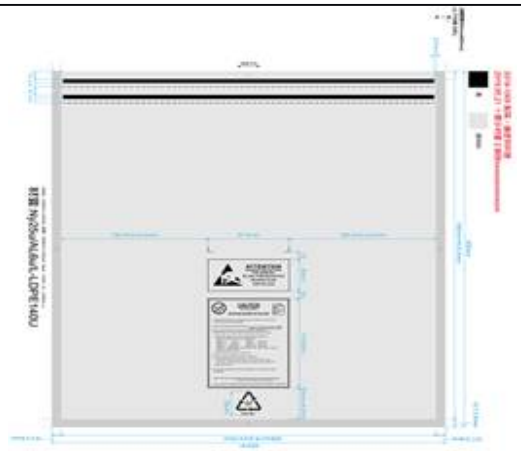
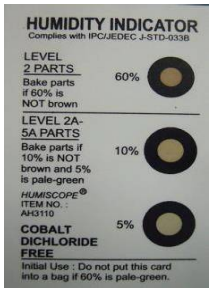
Pre and Post Change: Tape and Reel - Antistatic Shielding Bag / Moisture Barrier Bag

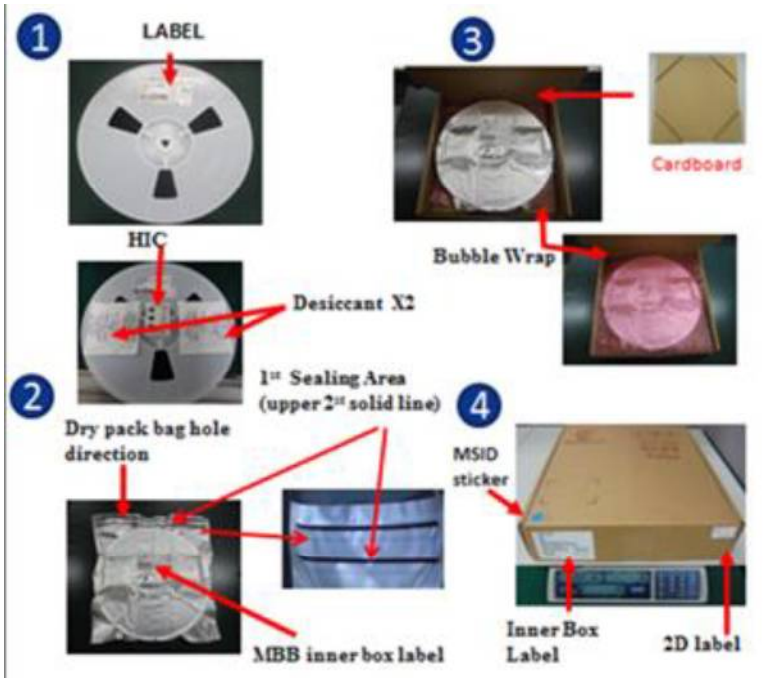
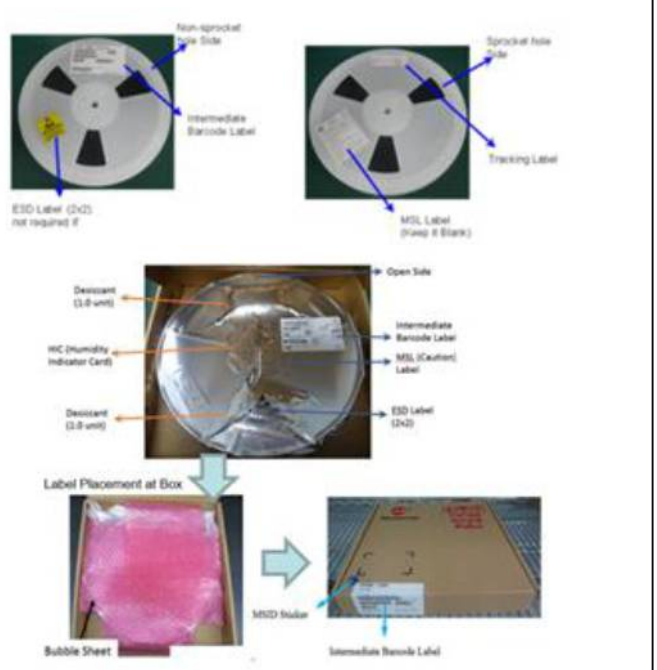
ASE9	MPHL
Dimension: 450mm x 420mm x 0.18mm	Bag Size: 406 x 457 mm
	

Pre and Post Change: Tape and Reel

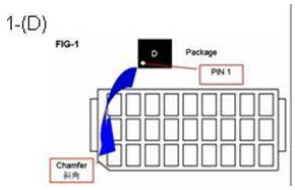
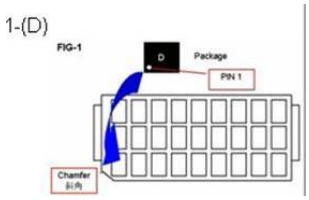
Final Test Location	ASE9	MPHL
Desiccant	 2 units x 2 Per MBB bag	 2 pcs of 1 unit desiccant per bag
HIC		

MICROCHIP

Pre and Post Change: Tape and Reel Packing Method

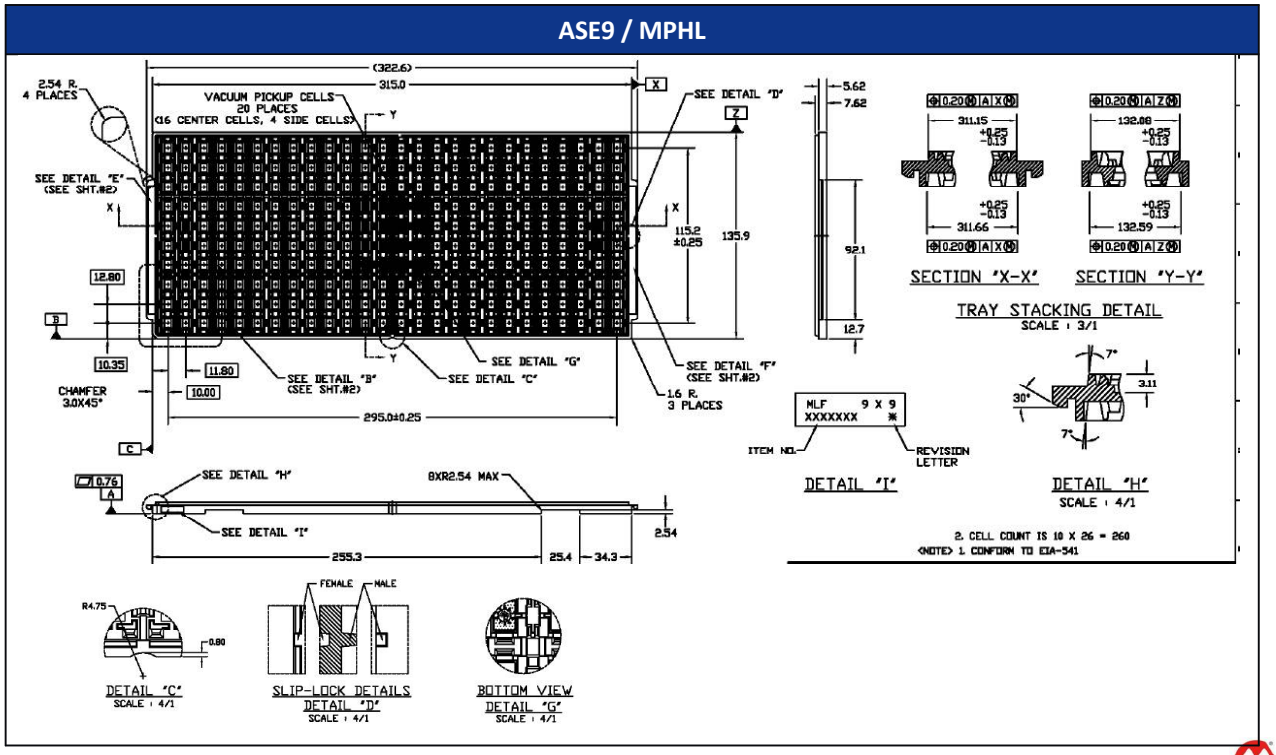
ASE9	MPHL
	

Pre and Post Change: Tray

Final Test Location	ASE9	MPHL
BQM (Base Quantity Multiple)	260	260
MSL Level	3	3
Pin1 Orientation	 Near Tray Chamfer	 Near Tray Chamfer
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 / MPHL



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

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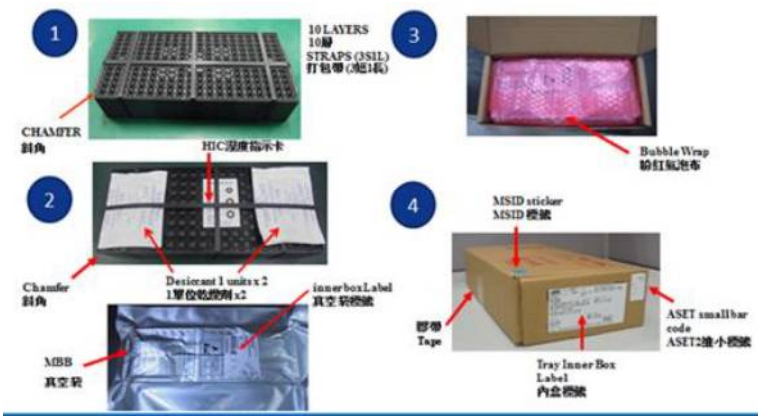
Pre and Post Change: Tray Packing Method

ASE9	MPHL
	

MICROCHIP

QUALIFICATION REPORT SUMMARY

PCN #: GBNG-09BQZG101

Date:
June 14, 2022

Qualification of MPHL as an additional final test site for selected ATSAMD21J17 and ATSAMD21J18 device families available in 64L VQFN (9x9x1mm) package.

Purpose: Qualification of MPHL as an additional final test site for selected ATSAMD21J17 and ATSAMD21J18 device families available in 64L VQFN (9x9x1mm) package.

CCB No.: 5083

Test / Evaluation	Test Conditions / Parameters	Result
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

GBNG-09BQZG101 - CCB 5083 Final Notice: Qualification of MPHL as an additional final test site for selected A

Affected Catalog Part Numbers(CPN)

ATSAMD21J17A-MF
ATSAMD21J18A-MF
ATSAMD21J17A-MU
ATSAMD21J18A-MU
ATSAMD21J18A-MUA1
ATSAMD21J17A-MUA1
ATSAMD21J18A-MU-SLL
ATSAMD21J17A-MUT
ATSAMD21J18A-MUT
ATSAMD21J18A-MUTA1
ATSAMD21J17A-MUTA1
ATSAMD21J18A-MUTN01
ATSAMD21J17A-MFT
ATSAMD21J18A-MFT