



Product Change Notification / MAAN-12GHBU233

Date:

14-Feb-2024

Product Category:

8-Bit Microcontrollers, Capacitive Touch Sensors

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6692 Initial Notice: Qualification of MPHL as new final test site for ATTINY20, ATTINY24xx, ATTINY44xx, ATTINY84xx and AT42QT1070 device families available in 14L SOIC (.150in) package.

Affected CPNs:

[MAAN-12GHBU233_Affected_CPN_02142024.pdf](#)
[MAAN-12GHBU233_Affected_CPN_02142024.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 new final test site for ATTINY20, ATTINY24xx, ATTINY44xx, ATTINY84xx and AT42QT1070 device families available in 14L SOIC (.150in) package.

Pre and Post Change Summary:

| | Pre Change | Post Change |
|--|------------|-------------|
|--|------------|-------------|

| Final Test Site | | Lingsen Precision Industries, LTD. (LPI) | Microchip Technology Operations (Philippines) Corporation (MPHL) |
|------------------------------|---------------|--|--|
| Base Quantity Multiple (BQM) | Tape and Reel | 3000 | 3000 |
| | Tube | 57 | 57 |
| Pin1 Orientation | Tape and Reel | Quadrant 1 | Quadrant 1 |
| | Tube | See pre and post change summary for comparison. | |
| Carrier Tape | | With minor dimensional change. See pre and post change for comparison. | |
| Cover Tape | | | |
| Plastic Reel | Color | White | White |
| | Dimension | With dimensional change. See pre and post change for comparison. | |
| Packing Method | | See pre and post change for comparison | |

Impacts to Data Sheet:None

Change ImpactNone

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

Change Implementation Status:In Progress

Estimated Qualification Completion Date:March 2024

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:

| | February 2024 | | | | | March 2024 | | | | |
|------------------------|---------------|----|----|----|----|------------|----|----|----|----|
| Workweek | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 |
| 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:February 14, 2024: 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_MAAN-12GHBU233_Pre_and_Post_Change_Summary.pdf](#)
[PCN_MAAN-12GHBU233_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.

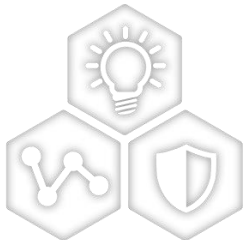
Affected Catalog Part Numbers (CPN)

ATTINY44A-SSNR
ATTINY44A-SSURB09
ATTINY44A-SSURA0
ATTINY24-20SSUR
ATTINY24V-10SSUR
ATTINY84A-SSU
ATTINY84A-SSUR
ATTINY84A-SSFRA0
ATTINY44-20SSU
ATTINY44V-10SSU
ATTINY24A-SSF
ATTINY20-SSU
ATTINY44-20SSUR
ATTINY44V-10SSUR
ATTINY44-20SSURA0
ATTINY84-20SSU
ATTINY24-20SSU
ATTINY24V-10SSU
ATTINY24A-SSN
ATTINY24A-SSNR
ATTINY84-20SSUR
ATTINY24A-SSUR880
ATTINY24A-SSURA0
AT42QT1070-SSUR
ATTINY20-SSUR
ATTINY84V-10SSU
ATTINY84V-10SSUR
ATTINY44A-SSN
ATTINY24A-SSFR

CCB 6692
Pre and Post Change Summary
PCN #: MAAN-12GHBU233



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



SMART | CONNECTED | SECURE


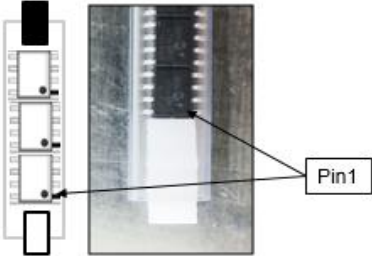
Pre and Post Change Summary

Tape and Reel

| Test Site | Pin 1 Orientation | Base Quantity Multiple (BQM) |
|-----------|--|------------------------------|
| LPI | <div><div><div>Media</div><div>Pin1 Side</div></div><div><div>T/R</div><div><div>Carrier Tape</div><div><div><div>1</div><div>2</div><div>3</div><div>4</div></div><div>Quadrant 1</div></div></div></div></div> <div>Quadrant 1</div> | 3000 |
| MPHL | <div><div><div>Media</div><div>Pin1 Side</div></div><div><div>T/R</div><div><div>Carrier Tape</div><div><div><div>1</div><div>2</div><div>3</div><div>4</div></div><div>Quadrant 1</div></div></div></div></div> <div>Quadrant 1</div> | 3000 |

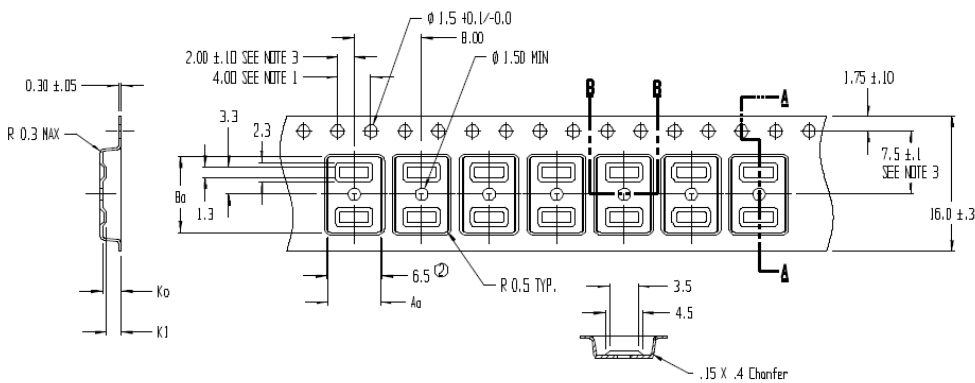
Pre and Post Change Summary

Tube

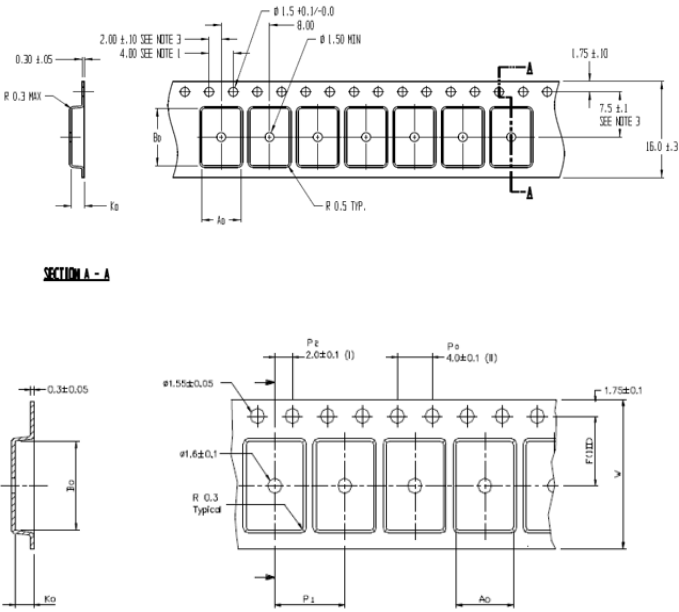
| Test Site | Pin 1 Orientation | Base Quantity Multiple (BQM) |
|-----------|--|------------------------------|
| LPI |  Green Side | 57 |
| MPHL |  White Side | 57 |

Pre and Post Change Summary - Carrier Tape – T/R

LPI



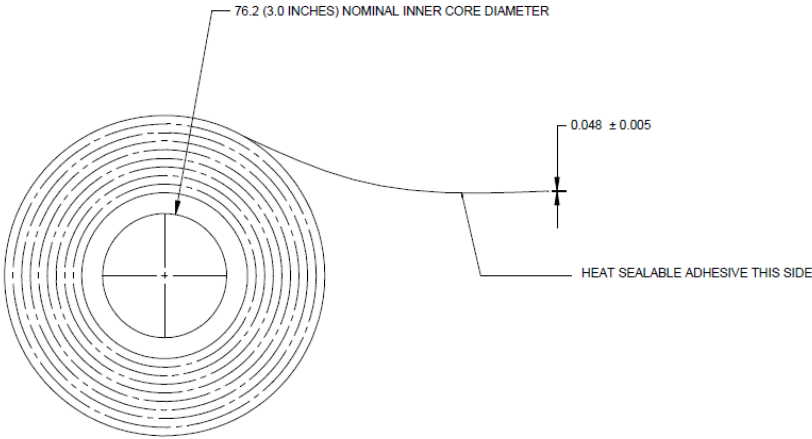
MPHL



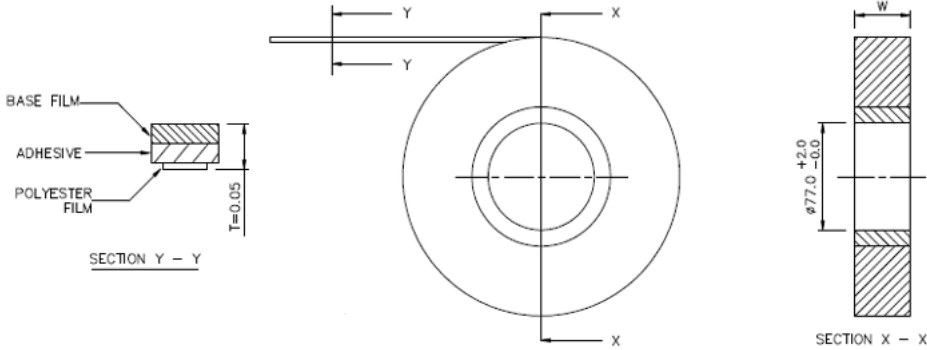
| Plant | Width (mm) | Pitch (mm) | A0 (mm) | B0 (mm) | K0 (mm) |
|-------|------------|------------|---------|---------|---------|
| LPI | 16 | 8 | 6.5 | 9 | 2.2 |
| MPHL | 16 | 8 | 6.5 | 9.5 | 2.1 |
| | 16 | 8 | 6.55 | 9.5 | 2.1 |

Pre and Post Change Summary – Cover Tape – T/R

LPI





MPHL



| Plant | Width (mm) | Thickness (mm) | Sealing Method |
|-------|------------|----------------|----------------|
| LPI | 13.3±0.1mm | 0.048 ± 0.005 | Heat Seal |
| MPHL | 13.3±0.1mm | 0.05 ± 0.005 | Pressure Seal |

Pre and Post Change Summary - Plastic Reel – T/R

| LPI | MPHL |
|--|---|
|  |  |

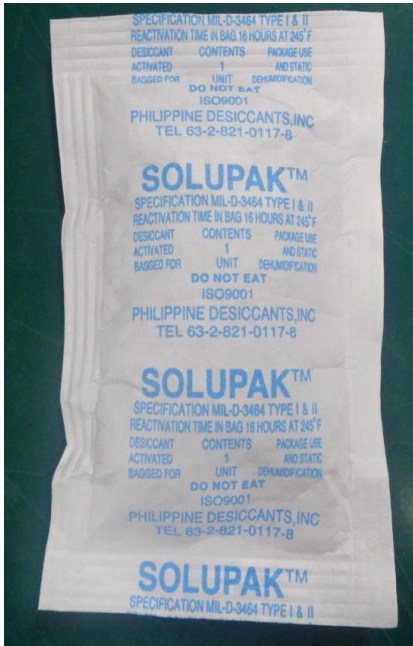
| Plant | Reel Diameter (mm) | Reel Hub Size (mm) | W1 (mm) | W2 (mm) | Color |
|-------|--------------------|--------------------|---------|---------|-------|
| LPI | 330 | 100 | 4.4 | 7.1 | White |
| MPHL | 330 | 100 | 17.5 | 21.5 | White |

Pre and Post Change Summary - Desiccant – T/R

LPI



MPHL



Pre and Post Change Summary - Antistatic Shielding Bag/Moisture Barrier Bag – T/R

| LPI | MPHL |
|---|---|
|  |  |

| Plant | Length (mm) | Width (mm) |
|-------|-------------|------------|
| LPI | 450 | 420 |
| MPHL | 406.4 | 457.2 |

Pre and Post Change Summary – Carton Box – T/R

LPI



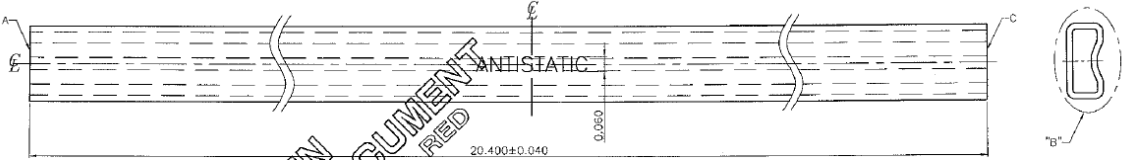
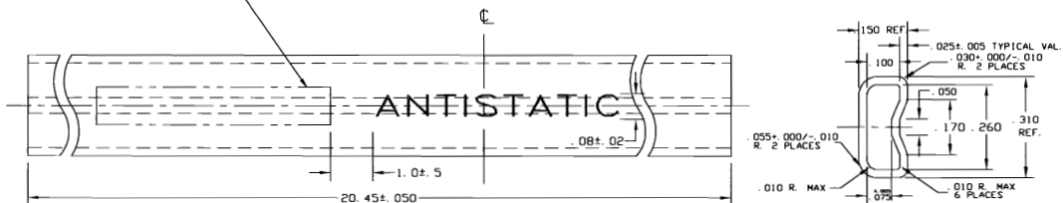
| Length (mm) | Width (mm) | Height (mm) |
|-------------|------------|-------------|
| 370 | 384 | 110 |
| 370 | 384 | 225 |
| 370 | 390 | 390 |

MPHL



| Length (mm) | Width (mm) | Height (mm) |
|-------------|------------|-------------|
| 375 | 352 | 53 |

Pre and Post Change Summary - Tube

| LPI | MPHL |
|--|--|
|  <p>Technical drawing of LPI tube. The main view shows a tube with a length dimension of 20.400 ± 0.040 and a width dimension of 0.0250. A cross-section view shows a rectangular profile with a width dimension of 0.0250. The word 'ANTISTATIC' is printed on the tube. A diagonal line with the text 'CURRENT RED' is drawn across the tube.</p> |  <p>Technical drawing of MPHL tube. The main view shows a tube with a length dimension of 20.45 ± 0.050 and a width dimension of 0.08 ± 0.02. A cross-section view shows a rectangular profile with a width dimension of 0.08 ± 0.02. The word 'ANTISTATIC' is printed on the tube. A diagonal line with the text 'CURRENT RED' is drawn across the tube. A detailed view of the cross-section shows dimensions: 150 REF, 100, 0.025 ± 0.005 TYPICAL VAL., 0.030 ± 0.000 ± 0.010 R. 2 PLACES, 0.050, 1.70, 260 REF., 0.310 REF., 0.055 ± 0.000 ± 0.010 R. 2 PLACES, 0.010 R. MAX, 0.075, 0.010 R. MAX 6 PLACES.</p> |

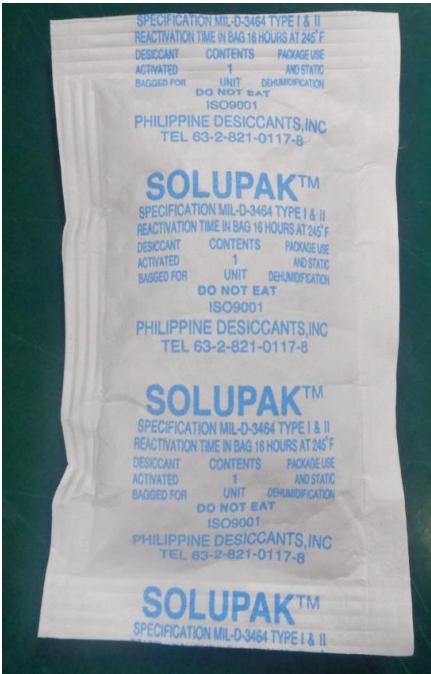
| Plant | Length (inch) | Width (inch) | Color |
|-------|----------------|-----------------|-------|
| LPI | 20.40 +/- 0.04 | 0.310 +/- 0.005 | Clear |
| MPHL | 20.45 +/- 0.05 | 0.310 | Clear |

Pre and Post Change Summary - Desiccant – Tube

LPI



MPHL



Pre and Post Change Summary - Antistatic Shielding Bag/Moisture Barrier Bag – Tube

| LPI | MPHL |
|--|---|
| <div><p>TUBE</p></div> | <div></div> |

| Plant | Length (mm) | | Width (mm) | Thickness (mm) |
|-------|--------------------------|-----|------------|----------------|
| LPI | Vacuum Aluminum Foil Bag | 255 | 764 | 0.15 |
| | Black conductive bag | 210 | 770 | 0.08 |
| MPHL | 680 | | 230 | N/A |
| | 760 | | 230 | N/A |

Pre and Post Change Summary – Carton Box – Tube

LPI



| Length (mm) | Width (mm) | Height (mm) |
|-------------|------------|-------------|
| 600 | 430 | 188 |
| 600 | 280 | 105 |

MPHL



| Length (mm) | Width (mm) | Height (mm) |
|-------------|------------|-------------|
| 370 | 380 | 110 |



MICROCHIP

QUALIFICATION PLAN SUMMARY

PCN#: MAAN-12GHBU233

Date

February 1, 2024

Qualification of MPHL as new final test site for ATTINY20, ATTINY24xx, ATTINY44xx, ATTINY84xx and AT42QT1070 device families available in 14L SOIC (.150in) package.



MICROCHIP
PACKAGE QUALIFICATION PLAN

Purpose: Qualification of MPHL as new final test site for ATTINY20, ATTINY24xx, ATTINY44xx, ATTINY84xx and AT42QT1070 device families available in 14L SOIC (.150in) package.

CCB No.: 6692

| Test / Evaluation | Test Condition / Parameter |
|-----------------------------|---|
| 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. |
| Site by Site Verification | <ul style="list-style-type: none">• Verifies the channel map has the correct site assignments and tester/handler communications work correctly. |
| Correlation Lot Report | <ul style="list-style-type: none">• Yield comparison between systems and test sites.• Accept on yield match within 0.1%. |
| Test Stability Verification | <ul style="list-style-type: none">• 50 loop test performed with no datalog delays.<ul style="list-style-type: none">- Accept on 0 fails |