



Product Change Notification / CENO-06HQHG649

Date:

08-Jun-2023

Product Category:

8-bit Microcontrollers

PCN Type:

Manufacturing Change

Notification Subject:

CCB 6331 Initial Notice: Qualification of MTAI as a new final test site for selected ATTINY204-SSxx, ATTINY214-SSxx and ATTINY404-SSxx device families available in 14L SOIC (.150in) package.

Affected CPNs:

[CENO-06HQHG649_Affected_CPN_06082023.pdf](#)

[CENO-06HQHG649_Affected_CPN_06082023.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 MTAI as a new final test site for selected ATTINY204-SSxx, ATTINY214-SSxx and ATTINY404-SSxx device families available in 14L SOIC (.150in) package.

Pre and Post Change Summary:

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

| Final test Site | | Microchip Technology Operations (Philippines) Corporation (MPHL) | Microchip Technology Thailand (HQ) (MTAI) |
|------------------------------|------------------|---|--|
| Base Quantity Multiple | Tube | 56 units/tube | 57 units/tube |
| | Tape and Reel | 3000 units/reel | 3000 units/reel |
| Pin Orientation | Tube | See Pre and Post Change comparison. | |
| | Tape and Reel | Quadrant 1 | Quadrant 1 |
| Carrier Tape | | No dimensional changes. See Pre and Post Change comparison. | |
| Cover Tape | | Minor dimensional changes. See Pre and Post Change comparison. | |
| Plastic Reel | Dimension | Minor dimensional changes. See Pre and Post Change comparison. | |
| | Color | White | Dark Blue |
| Packing Method | | See Pre and Post Change comparison. | |

Impacts to Data Sheet:None

Change Impact:None

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

Change Implementation Status:In Progress

Estimated Qualification Completion Date:June 2023

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:

| | June 2023 | | | |
|----------|-----------|---|---|---|
| Workweek | 2 | 2 | 2 | 2 |

| | 3 | 4 | 5 | 6 |
|--------------------------|---|---|---|---|
| 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:June 8, 2023: 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_CENO-06HQHG649_Qual Plan.pdf](#)

[PCN_CENO-06HQHG649_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 6331
Pre and Post Change Summary
PCN #: CENO-06HQHG649


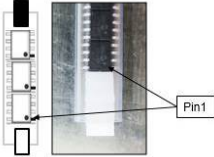


A Leading Provider of Smart, Connected and Secure Embedded Control Solutions

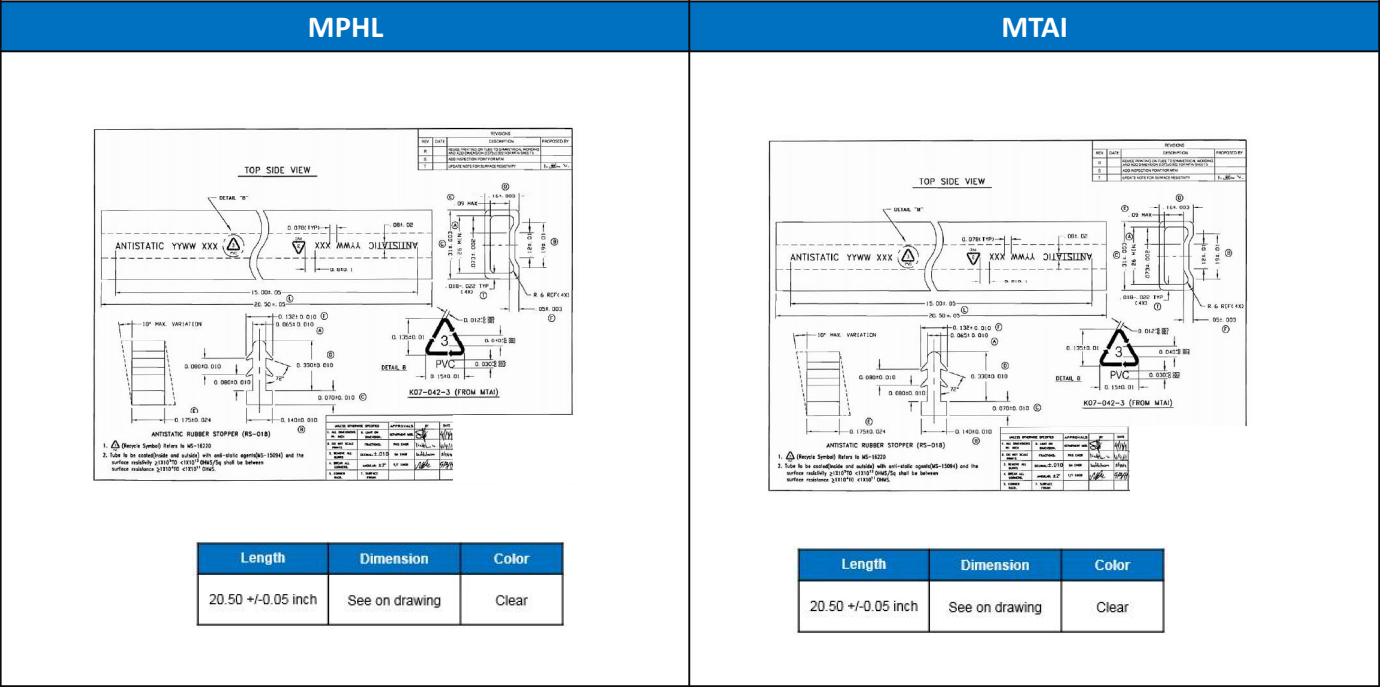


SMART | CONNECTED | SECURE


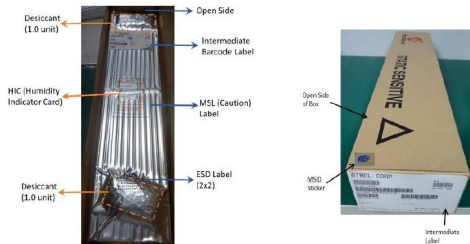

Tube – BQM and Pin 1 Orientation

| | MPHL | MTAI | | | | | | |
|------------------------------|--|---|-------|-----------|---------------|------|-------|-------|
| Base Quantity Multiple (BQM) | 56 units/tube | 57 units/tube | | | | | | |
| Pin 1 orientation | <div><p>For SOIC</p><p>Pin #1 Direction</p><p>End plug 1</p><p>End plug 2</p></div> | <div><p>Pin1</p><table><tr><th>Media</th><th>Pin1 Side</th><th>Opposite Side</th></tr><tr><td>TUBE</td><td>White</td><td>Black</td></tr></table></div> | Media | Pin1 Side | Opposite Side | TUBE | White | Black |
| Media | Pin1 Side | Opposite Side | | | | | | |
| TUBE | White | Black | | | | | | |




Tube - Drawing



Tube - Packing Method

| | MPHL | MTAI |
|---|--|---|
| Antistatic Shielding Bag / Moisture Barrier Bag | <div></div> | <div></div> |

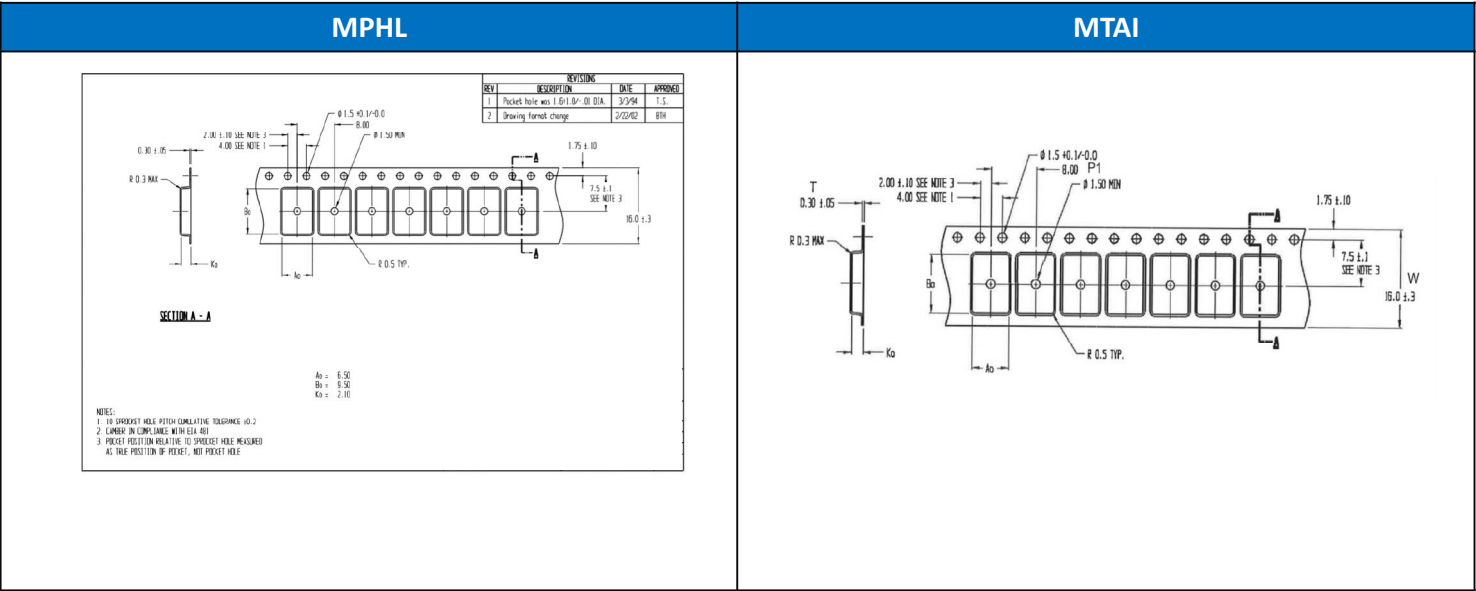
Tube - Packing Method

| | MPHL | MTAI | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--|----------------------|-------|--------|-----|-----|----|--|--------|--------------------------|----------------------|--------------|-----------|---|--------------|----------|---|--------------|----------|---|--------------|----------|---|--------------|------------|---|--------------|----------|---|
| Desiccant | 1-unit desiccant  | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carton Box |  <table><tr><th>Length</th><th>Width</th><th>Height</th></tr><tr><td>560</td><td>130</td><td>78</td></tr></table> | Length | Width | Height | 560 | 130 | 78 |  <table><tr><th>Carton</th><th>Dimension W x L x H (cm)</th><th>Number of Bag/carton</th></tr><tr><td>MD1-025 (C1)</td><td>15x64x5.5</td><td>1</td></tr><tr><td>MD1-026 (C2)</td><td>15x64x10</td><td>2</td></tr><tr><td>MD1-027 (C3)</td><td>15x64x14</td><td>3</td></tr><tr><td>MD1-028 (C4)</td><td>28x63x11</td><td>4</td></tr><tr><td>MD1-029 (C6)</td><td>28x63x15.5</td><td>6</td></tr><tr><td>MD1-030 (C8)</td><td>28x63x20</td><td>8</td></tr></table> | Carton | Dimension W x L x H (cm) | Number of Bag/carton | MD1-025 (C1) | 15x64x5.5 | 1 | MD1-026 (C2) | 15x64x10 | 2 | MD1-027 (C3) | 15x64x14 | 3 | MD1-028 (C4) | 28x63x11 | 4 | MD1-029 (C6) | 28x63x15.5 | 6 | MD1-030 (C8) | 28x63x20 | 8 |
| Length | Width | Height | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 560 | 130 | 78 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carton | Dimension W x L x H (cm) | Number of Bag/carton | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MD1-025 (C1) | 15x64x5.5 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MD1-026 (C2) | 15x64x10 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MD1-027 (C3) | 15x64x14 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MD1-028 (C4) | 28x63x11 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MD1-029 (C6) | 28x63x15.5 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MD1-030 (C8) | 28x63x20 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Tape and Reel – BQM and Pin-1 Orientation

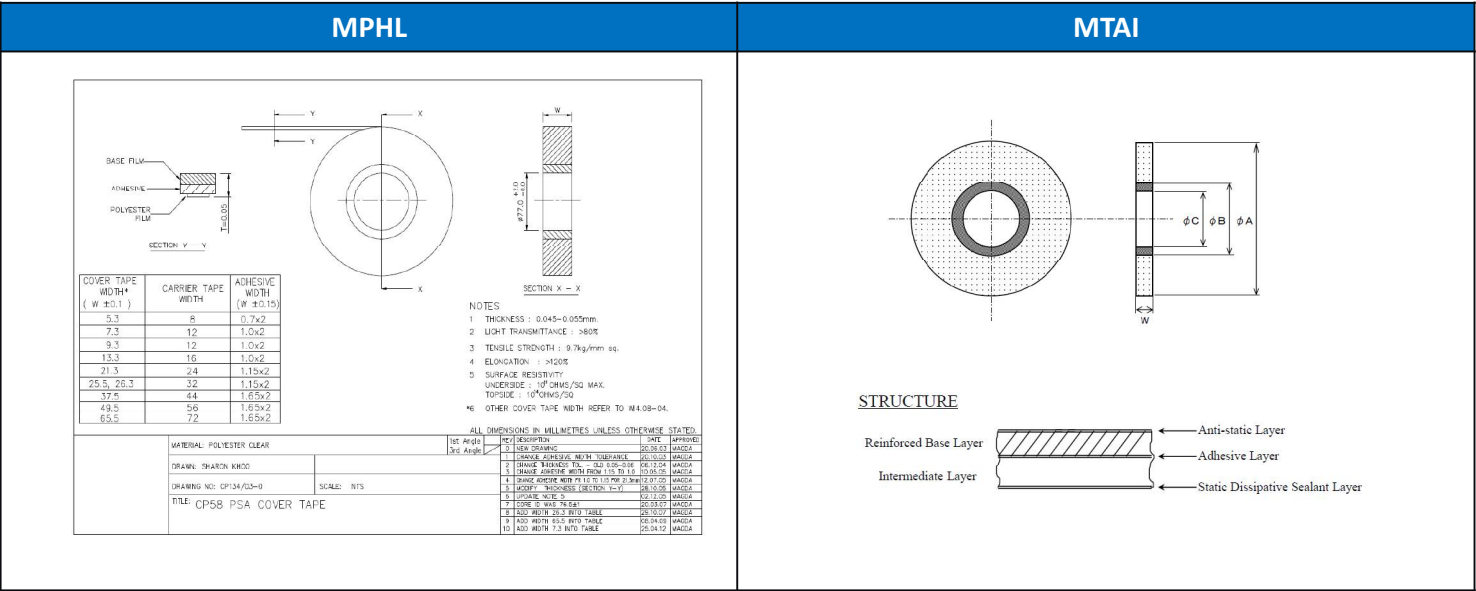
| | MPHL | MTAI |
|------------------------------|--|--|
| Base Quantity Multiple (BQM) | 3000 units/reel | 3000 units/reel |
| Pin 1 orientation | <div><div><div>Media</div><div>Pin1 Side</div></div><div><div>T/R</div><div><div>Carrier Tape</div><div><div><div>1</div><div>2</div><div>3</div><div>4</div></div><div>Quadrant 1</div></div></div></div></div> | <div><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> |

Tape and Reel – Carrier Tape



| Plant | W (mm.) ±0.3 or Specific | P (mm.) ±0.1 or Specific | A0 ±0.1 or Specific | B0 ±0.1 or Specific | K0 ±0.1 or Specific |
|-------|--------------------------|--------------------------|---------------------|---------------------|---------------------|
| MPHL | 16 | 8 | 6.50 | 9.50 | 2.10 |
| MTAI | 16 | 8 | 6.50 | 9.50 | 2.10 |

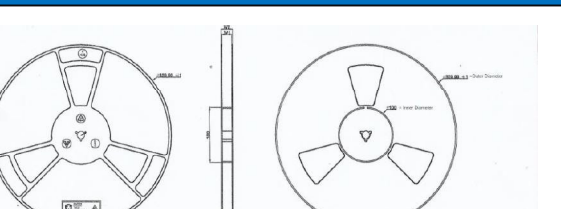
Tape and Reel – Cover Tape



| Plant | Width "W" (mm) | Thickness (mm) |
|-------|----------------|----------------|
| MPHL | 13.3 ± 0.1 | 0.05 ± 0.005 |
| MTAI | 13.3 ± 0.1 | 0.050 ± 0.010 |

Tape and Reel – Plastic Reel

MPHL

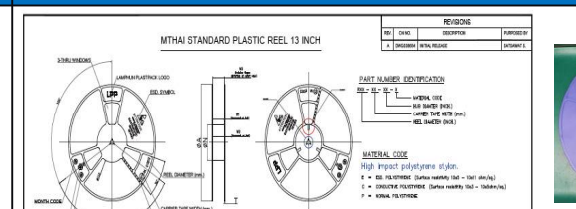


MPHL 33mm Plastic Reel Drawing showing front, side, and top views. Dimensions include 33mm outer diameter, 15mm inner diameter, and 1.5mm thickness. A table lists tape width and weight specifications.

| Tape Width | W1 | W2 |
|------------|------------|------------|
| 12mm | 15.5 ± 0.5 | 17.5 ± 1.0 |
| 16mm | 17.5 ± 0.5 | 21.5 ± 1.0 |
| 24mm | 25.5 ± 0.5 | 28.5 ± 1.0 |
| 32mm | 33.0 ± 0.5 | 36.5 ± 1.0 |

33mm PLASTIC REEL



MTAI



MTAI STANDARD PLASTIC REEL 13 INCH. Drawing showing front, side, and top views. Dimensions include 13 inch outer diameter, 5 inch inner diameter, and 1.5mm thickness. A table lists tape width and weight specifications.

| Tape Width | W1 | W2 |
|------------|------------|------------|
| 12mm | 15.5 ± 0.5 | 17.5 ± 1.0 |
| 16mm | 17.5 ± 0.5 | 21.5 ± 1.0 |
| 24mm | 25.5 ± 0.5 | 28.5 ± 1.0 |
| 32mm | 33.0 ± 0.5 | 36.5 ± 1.0 |

13 INCH PLASTIC REEL







| Plant | Diameter | Hub | Color |
|-------|----------|--------|-----------|
| MPHL | 330 mm | 101 mm | White |
| MTAI | 330 mm | 100 mm | Dark Blue |

Tape and Reel - Packing Method

| | MPHL | MTAI | | | | | | |
|---|-------------|---|-----|-------|--------|--------|-----|-----|
| Antistatic Shielding Bag / Moisture Barrier Bag | <div></div> | <div><table border="1"><thead><tr><th>P/N</th><th>WIDTH</th><th>LENGTH</th></tr></thead><tbody><tr><td>DY3650</td><td>370</td><td>420</td></tr></tbody></table></div> | P/N | WIDTH | LENGTH | DY3650 | 370 | 420 |
| P/N | WIDTH | LENGTH | | | | | | |
| DY3650 | 370 | 420 | | | | | | |

Tape and Reel - Packing Method

| | MPHL | MTAI | | | | | | | | | | | | | | | | | | | | | |
|--------------|--|--------------------|-------|--------|--------|--------|-------|--|--------|-----------------------------|--------------------|--------------|--------------|----|--------------|-------------|---|--------------|-------------|---|--------------|----------------|---|
| Desiccant | 1-unit desiccant <div></div> | N/A | | | | | | | | | | | | | | | | | | | | | |
| Carton Box | <div></div> <table><tr><td>Length</td><td>Width</td><td>Height</td></tr><tr><td>375 mm</td><td>352 mm</td><td>53 mm</td></tr></table> | Length | Width | Height | 375 mm | 352 mm | 53 mm | <div></div> <table><tr><th>Carton</th><th>Dimension W x L x H (cm)</th><th>Total Reel per Box</th></tr><tr><td>M01-011 (TT)</td><td>36.5x38x39.5</td><td>14</td></tr><tr><td>M01-013 (B2)</td><td>35.5x35.5x4</td><td>1</td></tr><tr><td>M01-014 (B3)</td><td>35.5x35.5x6</td><td>2</td></tr><tr><td>M01-015 (B8)</td><td>35.5x35.5x16.5</td><td>6</td></tr></table> | Carton | Dimension W x L x H (cm) | Total Reel per Box | M01-011 (TT) | 36.5x38x39.5 | 14 | M01-013 (B2) | 35.5x35.5x4 | 1 | M01-014 (B3) | 35.5x35.5x6 | 2 | M01-015 (B8) | 35.5x35.5x16.5 | 6 |
| Length | Width | Height | | | | | | | | | | | | | | | | | | | | | |
| 375 mm | 352 mm | 53 mm | | | | | | | | | | | | | | | | | | | | | |
| Carton | Dimension W x L x H (cm) | Total Reel per Box | | | | | | | | | | | | | | | | | | | | | |
| M01-011 (TT) | 36.5x38x39.5 | 14 | | | | | | | | | | | | | | | | | | | | | |
| M01-013 (B2) | 35.5x35.5x4 | 1 | | | | | | | | | | | | | | | | | | | | | |
| M01-014 (B3) | 35.5x35.5x6 | 2 | | | | | | | | | | | | | | | | | | | | | |
| M01-015 (B8) | 35.5x35.5x16.5 | 6 | | | | | | | | | | | | | | | | | | | | | |



QUALIFICATION PLAN SUMMARY
RELIABILITY LABORATORY

PCN #: CENO-06HQHG649

Date
May 23, 2023

Qualification of MTAI as a new final test site for selected ATTINY204-SSxx, ATTINY214-SSxx and ATTINY404-SSxx device families available in 14L SOIC (.150in) package.

Purpose: Qualification of MTAI as a new final test site for selected ATTINY204-SSxx, ATTINY214-SSxx and ATTINY404-SSxx device families available in 14L SOIC (.150in) package.

CCB# 6331

| Test | Parameters |
|--|--|
| Datalog/Bin Comparison | Compare test numbers, test names, test sequence bin assignments & pass/fail results Accept if all match or justify the differences |
| Site by site verification | Verifies the channel map has the correct site assignments and tester/handler communications work correctly |
| Correlation lot report | Yield at each step and reject analysis between systems. 5K units are tested for each program conversion we perform. Accept on yield match within 0.1% |
| Unit to unit parametric correlation | A full assembly strip characterized on both systems and graphed vs each other & the data sheet limits |
| Test stability verification | 50 loop test performed with no datalog delays Accept on 0 fails |
| Parametric test stability verification | Use Real Time Statistics software to create CPK report of all parametric tests |

CENO-06HQHG649 - CCB 63 ATTINY214-SSxx and ATTINY404-SSxx device families available in 14L SOIC (.150i

Affected Catalog Part Numbers(CPN)

ATTINY204-SSF
ATTINY214-SSF
ATTINY404-SSF
ATTINY204-SSN
ATTINY214-SSN
ATTINY404-SSN
ATTINY204-SSNR
ATTINY214-SSNR
ATTINY404-SSNR
ATTINY204-SSFR
ATTINY214-SSFR
ATTINY404-SSFR