



## Product Change Notification / RMES-20LCEZ199

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**Date:**

02-Aug-2023

**Product Category:**

8-bit Microcontrollers

**PCN Type:**

Manufacturing Change

**Notification Subject:**

CCB 6369 Initial Notice: Qualification of ASE9 as a new final test site for selected ATMEGA16xx, ATMEGA32xx, ATMEGA644xx, and ATMEGA85xx device families available in 44L TQFP (10x10x1mm) package.

**Affected CPNs:**

[RMES-20LCEZ199\\_Affected\\_CPN\\_08022023.pdf](#)

[RMES-20LCEZ199\\_Affected\\_CPN\\_08022023.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 ASE9 as a new final test site for selected ATMEGA16xx, ATMEGA32xx, ATMEGA644xx, and ATMEGA85xx device families available in 44L TQFP (10x10x1mm) package.

**Pre and Post Change Summary:**

|                              |               | Pre Change  | Post Change       |
|------------------------------|---------------|---|-------------------|
| Final Test Site              |               | Lingsen Precision Industries, LTD. (LPI)                                | ASE Test (ASE9)   |
| Base Quantity Multiple (BQM) | Tape and Reel | 2000  | 2000              |
| Pin 1 Orientation            |               | Quadrant 1  | Quadrant 1        |
| Carrier Tape                 |               | No dimensional changes. See Pre and Post Change Summary for comparison. |                   |
| Reel                         |               | No dimensional changes.   |                   |
| Dimension                    |               |   |                   |
| Color                        |               | White   | White             |
| Packing Method               |               | See Pre and Post Change Summary for comparison.                         |                   |
| Base Quantity Multiple (BQM) | Tray          | 160   | 160               |
| Pin 1 Orientation            |               | Near Tray Chamfer   | Near Tray Chamfer |
| Packing Method               |               | See Pre and Post Change Summary for comparison.                         |                   |

**Impacts to Data Sheet:**None

**Change Impact:**None

**Reason for Change:**To improve productivity by qualifying ASE9 as a new final test site.

**Change Implementation Status:**In Progress

**Estimated Qualification Completion Date:**November 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:**

|                        | July 2023 |    |    |    |    | > | November 2023 |    |    |    |    |
|------------------------|-----------|----|----|----|----|---|---------------|----|----|----|----|
| Workweek               | 27        | 28 | 29 | 30 | 31 |   | 44            | 45 | 46 | 47 | 48 |
| 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:July 25, 2023:** Issued initial notification.

**August 02, 2023:** Re-issued initial notification to correct the typo error for LPI carrier tape data. Updated the PCN letter and ppt file to reflect that there are no dimensional changes in carrier tape.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

## Attachments:

[PCN\\_RMES-20LCEZ199\\_Pre\\_and\\_Post\\_Change\\_Summary.pdf](#)

[PCN\\_RMES-20LCEZ199\\_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)

ATMEGA164A-AUA2  
ATMEGA164A-AURA2  
ATMEGA16-16AU  
ATMEGA16L-8AU  
ATMEGA16-16AUR  
ATMEGA16L-8AUR  
ATMEGA32-16AU  
ATMEGA32L-8AU  
ATMEGA32A-AURA5  
ATMEGA32L-8AUR  
ATMEGA32-16AUR  
ATMEGA164PA-AN  
ATMEGA164PA-ANR  
ATMEGA644PA-AN  
ATMEGA644PA-ANR  
ATMEGA16-16AUA6  
ATMEGA16L-8AQ  
ATMEGA16L-8AQRA5  
ATMEGA16L-8AQR  
ATMEGA16L-8AURA0  
ATMEGA16L-8AURA5  
ATMEGA16-16AURA5  
ATMEGA8515-16AUR  
ATMEGA8535-16AU  
ATMEGA8535L-8AU  
ATMEGA8535-16AUR  
ATMEGA8535L-8AUR  
ATMEGA32L-8AURA0  
ATMEGA32L-8AURA2  
ATMEGA32L-8AURA4  
ATMEGA644-20AU  
ATMEGA644V-10AU  
ATMEGA644-20AUR  
ATMEGA644V-10AUR  
ATMEGA324P-20AURA0  
ATMEGA644PV-10AU  
ATMEGA644P-20AU  
ATMEGA644PV-10AUR  
ATMEGA644P-20AUR



## **QUALIFICATION PLAN SUMMARY**

**PCN #: RMES-20LCEZ199**

**Date:  
June 2, 2023**

**Qualification of ASE9 as a new final test site for selected  
ATMEGA16xx, ATMEGA32xx, ATMEGA644xx, and  
ATMEGA85xx device families available in 44L TQFP  
(10x10x1mm) package.**

**Purpose:** Qualification of ASE9 as a new final test site for selected ATMEGA16xx, ATMEGA32xx, ATMEGA644xx, and ATMEGA85xx device families available in 44L TQFP (10x10x1mm) package.

**CCB:** 6369

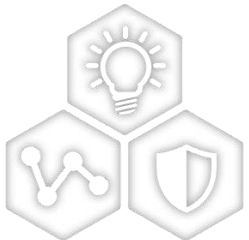
| Test Name                 | Test Conditions   |
|---------------------------|---|
| Site by Site Verification | Verifies the channel map has the correct site assignments and tester/handler communications work correctly.                               |
| Test Stability            | 50 loop test performed with no datalog delays. <ul style="list-style-type: none"><li>• Accept on 0 fails</li></ul>                        |
| Correlation Lot Report    | Yield at each step and reject analysis between systems. <ul style="list-style-type: none"><li>• Accept on yield match within 2%</li></ul> |

**CCB 6369**  
**Pre and Post Change Summary**  
**PCN #: RMES-20LCEZ199**



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SMART | CONNECTED | SECURE

# Pre and Post Change – Tape and Reel

|                                    | LPI                 | ASE9                |
|------------------------------------|---------------------|---------------------|
| BQM<br>(Base Quantity<br>Multiple) | 2000 units per tray | 2000 units per tray |
| Pin 1 orientation                  | Quadrant 1          | Quadrant 1          |

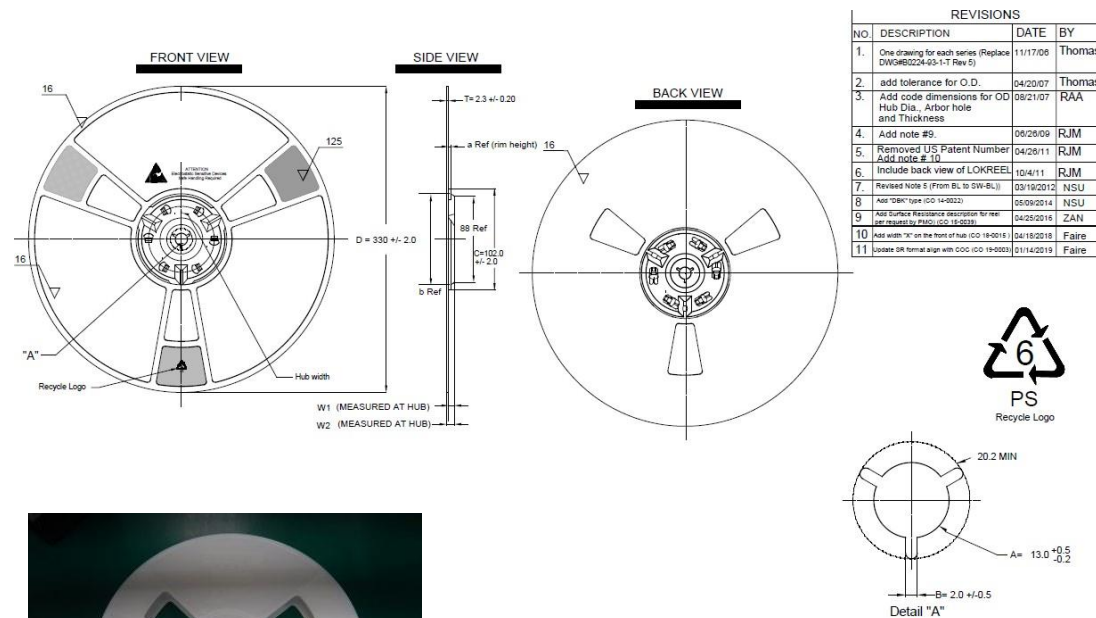


# Pre and Post Change – Tape and Reel

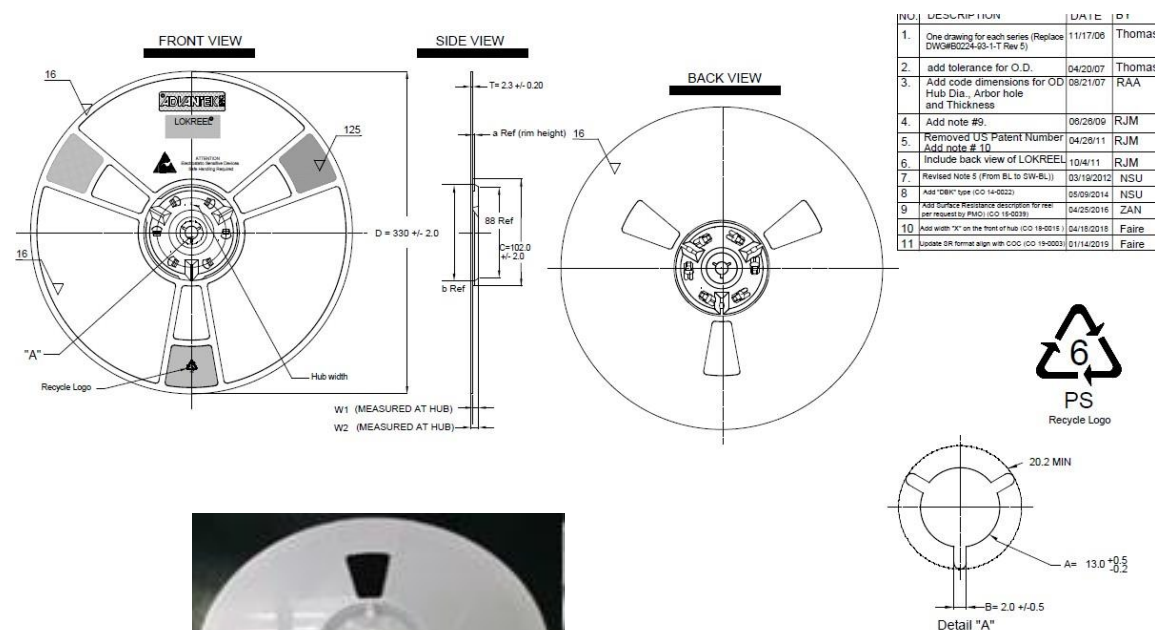
|              | LPI   |       |         |         |        | ASE9  |       |         |         |        |
|--------------|-------|-------|---------|---------|--------|-------|-------|---------|---------|--------|
| Carrier Tape |       |       |         |         |        |       |       |         |         |        |
|              | Width | Pitch | A0      | B0      | K0     | Width | Pitch | A0      | B0      | K0     |
|              | 24mm  | 16mm  | 12.35mm | 12.35mm | 1.65mm | 24mm  | 16mm  | 12.35mm | 12.35mm | 1.65mm |

# Pre and Post Change – Tape and Reel

## LPI



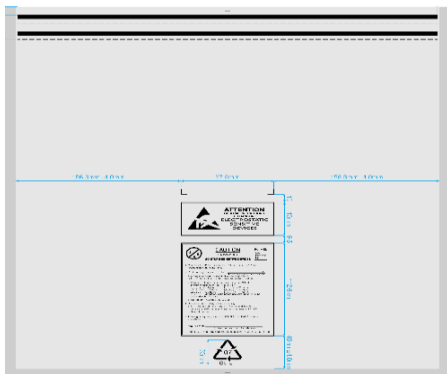




## ASE9

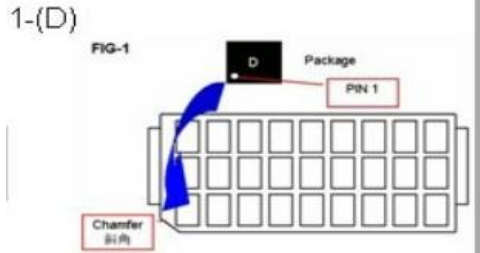


| Final Test Site | Color | Diameter | Hub Dia | W1              | W2               |
|-----------------|-------|----------|---------|-----------------|------------------|
| LPI             | White | 330      | 102mm   | 8.4mm<br>16.4mm | 11.1mm<br>19.1mm |
| ASE9            | White | 330      | 102mm   | 8.4mm<br>16.4mm | 11.1mm<br>19.1mm |






# Pre and Post Change – Tape and Reel

|                      | LPI  | ASE9   |        |        |       |       |       |  |        |       |        |        |       |      |
|----------------------|--|--------|--------|--------|-------|-------|-------|--|--------|-------|--------|--------|-------|------|
| Moisture Barrier Bag | <div></div> <table><tr><th>Length</th><th>Width</th></tr><tr><td>430mm</td><td>470mm</td></tr><tr><td>392mm</td><td>430mm</td></tr></table> | Length | Width  | 430mm  | 470mm | 392mm | 430mm | <div></div> <table><tr><th>Length</th><th>Width</th></tr><tr><td>450 mm</td><td>420 mm</td></tr></table>                            | Length | Width | 450 mm | 420 mm |       |      |
|                      | Length   | Width  |        |        |       |       |       |  |        |       |        |        |       |      |
| 430mm                | 470mm  |        |        |        |       |       |       |  |        |       |        |        |       |      |
| 392mm                | 430mm  |        |        |        |       |       |       |  |        |       |        |        |       |      |
| Length               | Width  |        |        |        |       |       |       |  |        |       |        |        |       |      |
| 450 mm               | 420 mm   |        |        |        |       |       |       |  |        |       |        |        |       |      |
| Pizza Box            | <div></div> <table><tr><th>Length</th><th>Width</th><th>Height</th></tr><tr><td>370mm</td><td>351mm</td><td>53mm</td></tr></table>  | Length | Width  | Height | 370mm | 351mm | 53mm  | <div></div> <table><tr><th>Length</th><th>Width</th><th>Height</th></tr><tr><td>370mm</td><td>353mm</td><td>78mm</td></tr></table> | Length | Width | Height | 370mm  | 353mm | 78mm |
|                      | Length   | Width  | Height |        |       |       |       |  |        |       |        |        |       |      |
| 370mm                | 351mm  | 53mm   |        |        |       |       |       |  |        |       |        |        |       |      |
| Length               | Width  | Height |        |        |       |       |       |  |        |       |        |        |       |      |
| 370mm                | 353mm  | 78mm   |        |        |       |       |       |  |        |       |        |        |       |      |

# Pre and Post Change - Tray

|                              | LPI                | ASE9   |
|------------------------------|--------------------|--|
| BQM (Base Quantity Multiple) | 160 units per tray | 160 units per tray   |
| Pin 1 orientation            | Chamfer Side       |  <p>1-(D)<br/>FIG-1<br/>Package<br/>PIN 1<br/>Chamfer (A)</p> <p>Chamfer Side</p> |

# Pre and Post Change - Tray

|                      | LPI   | ASE9  |       |        |         |       |      |  |        |       |        |         |       |      |
|----------------------|---|---|-------|--------|---------|-------|------|--|--------|-------|--------|---------|-------|------|
| Moisture Barrier Bag |   |   |       |        |         |       |      |  |        |       |        |         |       |      |
| Inner Box            |  <table> <tr> <td>Length</td><td>Width</td><td>Height</td></tr> <tr> <td>37.15mm</td><td>162mm</td><td>88mm</td></tr> </table> | Length  | Width | Height | 37.15mm | 162mm | 88mm |  <table> <tr> <td>Length</td><td>Width</td><td>Height</td></tr> <tr> <td>37.15mm</td><td>162mm</td><td>88mm</td></tr> </table> | Length | Width | Height | 37.15mm | 162mm | 88mm |
| Length               | Width   | Height  |       |        |         |       |      |  |        |       |        |         |       |      |
| 37.15mm              | 162mm   | 88mm  |       |        |         |       |      |  |        |       |        |         |       |      |
| Length               | Width   | Height  |       |        |         |       |      |  |        |       |        |         |       |      |
| 37.15mm              | 162mm   | 88mm  |       |        |         |       |      |  |        |       |        |         |       |      |