



PCN / EOL Notification

Product Change Notification Number: CC072302

Date*: June 11, 2007

Title: AT24C04 / AT24C04A Clock Frequency Increase

Product Identification:

All Wafers, Packages and Voltages of the AT24C04 and AT24C04A, Industrial Temperature

[See Attachment A](#)

Reason for Change:

- | | | |
|---|--|------------------------------------|
| <input checked="" type="checkbox"/> Design | <input type="checkbox"/> Processing | <input type="checkbox"/> Logistics |
| <input type="checkbox"/> Manufacturing Location | <input type="checkbox"/> Quality/Reliability | <input type="checkbox"/> Material |

Change Description:

Atmel has optimized the layout of the AT24C04 / AT24C04A devices and increased clock frequency up to 1MHz. The new devices are pin-to-pin and backward compatible with the current AT24C04 / AT24C04A devices.

NEW catalogue part numbers will be created: The AT24C04 (FULL WP) will now be AT24C04B. The 24C04A (1/2 WP) will now be AT24HC04B. In an effort to streamline our product offering, the AT24C04B / AT24HC04B will be offered with one marking scheme, 1.8V, and will operate in voltage range from 1.8V to 5.5V.

To accommodate the growing movement to Lead-Free products, the AT24C04B / AT24HC04B will ONLY be available in Pb-Free / Halogen-Free (Green), and RoHS compliant packaging. The 8-SOIC, 8-TSSOP, 8-ULA and 8-ULTRA THIN MINI-MAP (AT24C04B only) packages with NiPdAu lead finish will be designated by "H" in the catalogue part number. The 8-PDIP, 5-SOT23 and dBGA2 (AT24C04B only) with the Matte Tin lead finish will be designated by "U" in the catalogue part number. Please refer to "Attachment A" for complete cross reference table.

New physical part marking scheme:

AT24C04B

8 - SOIC

| | | | |
|---|-----------|--------------------|----------------|
| TOP MARK | Seal Year | Y = SEAL YEAR | WW = SEAL WEEK |
| | Seal Week | 6: 2006 0: 2010 | 02 = Week 2 |
| | | 7: 2007 1: 2011 | 04 = Week 4 |
| --- --- --- --- --- --- --- --- | | 8: 2008 2: 2012 | :: : :::: : |
| A T M L H Y W W | | 9: 2009 3: 2013 | :: : :::: :: |
| --- --- --- --- --- --- --- --- | | | 50 = Week 50 |
| 0 4 B 1 | | | 52 = Week 52 |
| --- --- --- --- --- --- --- --- | | | |
| * Lot Number | | | |
| --- --- --- --- --- --- --- --- | | | |
| | | BOTTOM MARK | |
| Pin 1 Indicator (Dot) | | No Bottom Mark | |

Lot Number to Use ALL Characters in Marking

8-TSSOP

TOP MARK

```

Pin 1 Indicator (Dot)
|
|---|---|---|---|
*  H  Y  W  W
|---|---|---|---|
0  4  B      1
|---|---|---|---|

```

Y = SEAL YEAR WW = SEAL WEEK

| | | |
|---------|---------|--------------|
| 6: 2006 | 0: 2010 | 02 = Week 2 |
| 7: 2007 | 1: 2011 | 04 = Week 4 |
| 8: 2008 | 2: 2012 | :: : :::: : |
| 9: 2009 | 3: 2013 | :: : :::: :: |
| | | 50 = Week 50 |
| | | 52 = Week 52 |

BOTTOM MARK

```

|---|---|---|---|---|---|---|
P  H
|---|---|---|---|---|---|---|
A  A  A  A  A  A  A
|---|---|---|---|---|---|---|
<- Pin 1 Indicator

```

8-Ultra Thin Mini MAP

TOP MARK

```

|---|---|---|
0  4  B
|---|---|---|
H  1
|---|---|---|
Y  X  X
|---|---|---|
*
|
Pin 1 Indicator (Dot)

```

Y = YEAR OF ASSEMBLY

XX = ATMEL LOT NUMBER TO COORESPOND WITH NSEB TRACE CODE LOG BOOK.
(e.g. XX = AA, AB, AC, ...AX, AY, AZ)

Y = SEAL YEAR

| | |
|---------|---------|
| 6: 2006 | 0: 2010 |
| 7: 2007 | 1: 2011 |
| 8: 2008 | 2: 2012 |
| 9: 2009 | 3: 2013 |

8-PDIP

TOP MARK

```

Seal Year
| Seal Week
| | |
|---|---|---|---|---|---|---|
A  T  M  L  U  Y  W  W
|---|---|---|---|---|---|---|---|
0  4  B      1
|---|---|---|---|---|---|---|---|
*  Lot Number
|---|---|---|---|---|---|---|---|
|
Pin 1 Indicator (Dot)

```

Y = SEAL YEAR WW = SEAL WEEK

| | | |
|---------|---------|--------------|
| 6: 2006 | 0: 2010 | 02 = Week 2 |
| 7: 2007 | 1: 2011 | 04 = Week 4 |
| 8: 2008 | 2: 2012 | :: : :::: : |
| 9: 2009 | 3: 2013 | :: : :::: :: |
| | | 50 = Week 50 |
| | | 52 = Week 52 |

Lot Number to Use ALL Characters in Marking

BOTTOM MARK

No Bottom Mark

AT24HC04B

8 - SOIC

TOP MARK

```

                Seal Year
                | Seal Week
                | | |
|---|---|---|---|---|---|---|---|
  A   T   M   L   H   Y   W   W
|---|---|---|---|---|---|---|---|
  H   4   B           1
|---|---|---|---|---|---|---|---|
  *   Lot Number
|---|---|---|---|---|---|---|---|
  |
  Pin 1 Indicator (Dot)
    
```

```

Y = SEAL YEAR      WW = SEAL WEEK
6: 2006   0: 2010   02 = Week 2
7: 2007   1: 2011   04 = Week 4
8: 2008   2: 2012   :: : :::: :
9: 2009   3: 2013   :: : :::: ::
                    50 = Week 50
                    52 = Week 52
    
```

Lot Number to Use ALL Characters in Marking

BOTTOM MARK

No Bottom Mark

8 - TSSOP

TOP MARK

```

                Pin 1 Indicator (Dot)
                |
                |---|---|---|---|
  *   H   Y   W   W
|---|---|---|---|---|
  H   4   B           1
|---|---|---|---|---|
    
```

```

Y = SEAL YEAR      WW = SEAL WEEK
6: 2006   0: 2010   02 = Week 2
7: 2007   1: 2011   04 = Week 4
8: 2008   2: 2012   :: : :::: :
9: 2009   3: 2013   :: : :::: ::
                    50 = Week 50
                    52 = Week 52
    
```

BOTTOM MARK

```

|---|---|---|---|---|---|---|
  P   H
|---|---|---|---|---|---|---|
  A   A   A   A   A   A   A
|---|---|---|---|---|---|---|
  <- Pin 1 Indicator
    
```

8 - PDIP

TOP MARK

```

                Seal Year
                | Seal Week
                | | |
|---|---|---|---|---|---|---|---|
  A   T   M   L   U   Y   W   W
|---|---|---|---|---|---|---|---|
  H   4   B           1
|---|---|---|---|---|---|---|---|
  *   Lot Number
|---|---|---|---|---|---|---|---|
  |
  Pin 1 Indicator (Dot)
    
```

```

Y = SEAL YEAR      WW = SEAL WEEK
6: 2006   0: 2010   02 = Week 2
7: 2007   1: 2011   04 = Week 4
8: 2008   2: 2012   :: : :::: :
9: 2009   3: 2013   :: : :::: ::
                    50 = Week 50
                    52 = Week 52
    
```

Lot Number to Use ALL Characters in Marking

BOTTOM MARK

No Bottom Mark

Identification Method to Distinguish Change:

A NEW catalogue part number will be created for the optimized layout: The AT24C04 (FULL WP) will now be AT24C04B. The 24C04A (1/2 WP) will now be AT24HC04B.

| | | | |
|----------------------------|------------------------------------|--|---|
| Qualification Data: | <input type="checkbox"/> available | <input checked="" type="checkbox"/> will be available in Q3 2007 | <input type="checkbox"/> not applicable |
| Samples: | <input type="checkbox"/> available | <input checked="" type="checkbox"/> will be available in June 2007 | <input type="checkbox"/> not applicable |

Quantifiable Impact on Quality & Reliability:

The new devices utilize the same 0.35u process technology and are a form, fit and functional equivalent of the current devices, which meet all data book specifications.

| | |
|----------------------------------|--------------------|
| Proposed First Ship Date: | September 10, 2007 |
|----------------------------------|--------------------|

| | |
|----------------------------|-------------------|
| Last Time Buy Date: | December 10, 2007 |
|----------------------------|-------------------|

| | |
|------------------------|---------------|
| Last Ship Date: | June 10, 2008 |
|------------------------|---------------|

* All orders placed after the notification date are **non-cancellable** and **non-returnable (NCNR)**.

Atmel Contact: pcnadm@atmel.com

Atmel will deem this change accepted unless specific conditions of acceptance are provided in writing within 30 days from the date of this notice. All correspondence must be sent to the Quality Contact e-mail address listed above.

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Attachment A

| Current Part Number | Replacement Part Number |
|--------------------------------|---|
| AT24C04-10PU-1.8 | AT24C04B-PU |
| AT24C04-10PU-2.7 | AT24C04B-PU |
| AT24C04-TSU-1.8 SL383 (T&R) | AT24C04B-TSU-T (5k per reel) |
| AT24C04-10TU-1.8 BULK | AT24C04B-TH-B |
| AT24C04-10TU-1.8 SL383 (T&R) | AT24C04B-TH-T (5k per reel) |
| AT24C04-10TU-2.7 BULK | AT24C04B-TH-B |
| AT24C04-10TU-2.7 SL383 (T&R) | AT24C04B-TH-T (5k per reel) |
| AT24C04-W1.8-11 | AT24C04B-W-11 |
| AT24C04-W1.8-27 | AT24C04B-W-11 |
| AT24C04-W1.8-7 | AT24C04B-W-11 |
| AT24C04-W2.7-11 | AT24C04B-W-11 |
| AT24C04-W2.7-21 | AT24C04B-W-11 |
| AT24C04-W2.7-27 | AT24C04B-W-11 |
| AT24C04N-10SU-1.8 BULK | AT24C04BN-SH-B |
| AT24C04N-10SU-1.8 SL383 (T&R) | AT24C04BN-SH-T (4k per reel) |
| AT24C04N-10SU-2.7 BULK | AT24C04BN-SH-B |
| AT24C04N-10SU-2.7 SL383 (T&R) | AT24C04BN-SH-T (4k per reel) |
| AT24C04U3-10UU-1.8 SL383 (T&R) | AT24C04BU3-UU-T (5k per reel) |
| AT24C04U3-10UU-2.7 SL383 (T&R) | AT24C04BU3-UU-T (5k per reel) |
| AT24C04Y1-10YU-1.8 SL383 (T&R) | AT24C04BY6-YH-T (5k per reel) *Recommend Ultra Thin Mini MAP (Y6) for replacement (not a direct replacement) |
| AT24C04Y6-10YH-1.8 SL383 (T&R) | AT24C04BY6-YH-T (5k per reel) |
| AT24C04A-10PU-1.8 | AT24HC04B-PU |
| AT24C04A-10PU-2.7 | AT24HC04B-PU |
| AT24C04A-10TU-1.8 BULK | AT24HC04B-TH-B |
| AT24C04A-10TU-1.8 SL383 (T&R) | AT24HC04B-TH-T (5k per reel) |
| AT24C04A-10TU-2.7 BULK | AT24HC04B-TH-B |
| AT24C04A-10TU-2.7 SL383 (T&R) | AT24HC04B-TH-T (5k per reel) |
| AT24C04AN-10SU-1.8 BULK | AT24HC04BN-SH-B |
| AT24C04AN-10SU-1.8 SL383 (T&R) | AT24HC04BN-SH-T (4k per reel) |
| AT24C04AN-10SU-2.7 BULK | AT24HC04BN-SH-B |
| AT24C04AN-10SU-2.7 SL383 (T&R) | AT24HC04BN-SH-T (4k per reel) |

Note: This PCN also applies to CAN part numbers that are not listed in the above table.