



Product Change Notification

Product Change Notification Number: NC094203

Date*: November 4, 2009

Title: AT32UC3A0512 Design Fix

Product Identification:

Existing Part Number	Revision K Part Number
AT32UC3A0512-ALTR	AT32UC3A0512-ALTR A
AT32UC3A0512-ALTT	AT32UC3A0512-ALTT A
AT32UC3A0512-ALTES	Not proposed in ES

Reason for Change:

☒ Design

☐ Manufacturing Location

☒ Processing

☐ Quality/Reliability

☐ Logistics

☐ Material

Change Description:

Atmel release revision K of the chip design.

This fix was operated via interconnection layers (Poly2 to top metal). There is no layout change.

Description:

- Flash: reduce Iref current source dependency to temperature by bandgap as voltage reference in order to optimize read access time.
- Extension of 5V tolerance in general purpose I/Os.
- Minor functional corrections related to the previous design version errata list (3119: RETE does not clear SREG[L] from interrupts; 1835: CPU ifetch stage causing code execution from external SDRAM to fail; 3483: Exceptions when system stack is protected by MPU; 2064 : Corrupted code fetch in flash after Erase/Write Page commands)

In parallel to revision K introduction, the following wafer fab process changes are released:

- Metal capping thickness increased from 300A to 600A in all metal layers.
- Metal 2/3/4 layers photo using sacrificial BARC layer (bottom anti-reflecting coating)
- Field oxide liner growth 50A/950°C replacing 100A/1050°C

Full binary and electrical compatibility is ensured with the previous version.

Identification Method to Distinguish Change:

The changed product can be identified by the topside mark date code (from 1005 onwards); the format of the date code is YYWW ("YY" corresponds to the last two digits of the year; "WW" corresponds to the workweek).

An "A" designation has been added to the part number to distinguish changed product.

The new part number will be: AT32UC3A0512-ALTR**A**

Qualification Data:	☒ available	☐ will be available on	☐ not applicable
Samples:	☐ available	☒ will be available on January 2010.	☐ not applicable

Quantifiable Impact on Quality & Reliability:

None

Proposed First Ship Date:	May 1, 2010
Last time buy date:	January 31, 2010
Last time ship date:	April 30, 2010

** All orders for the present products 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 Atmel Contact e-mail address listed above.

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