



Product Change Notification

Product Change Notification Number: WC100902

Notification Date: March 10, 2010

Title: AVR Microcontroller Design Revision

Product Identification:

Affected part numbers are identified throughout the document.

Reason for Change:

☒ Design

☒ Manufacturing Location

☒ Processing

☐ Quality/Reliability

☐ Logistics

☐ Material

Change Description:

1. *New process variant:* To optimize device manufacturing yield, Atmel has introduced new design revisions of the AVR Microcontrollers listed in the table below. The new die revisions are package and pin out equivalents of the current die revisions.
Electrical characteristics meet the same specifications as the previous revisions.

Part Number	Part Number
ATmega8L-8PU	ATmega32-16PU
ATmega8-16PU	ATmega32L-8AU
ATmega8L-8AU	ATmega32-16AU
ATmega8-16AU	ATmega32L-8MU
ATmega8L-8MU	ATmega32-16MU
ATmega8-16MU	ATmega64L-8AU
ATmega16L-8PU	ATmega64-16AU
ATmega16-16PU	ATmega64L-8MU
ATmega16L-8AU	ATmega64-16MU
ATmega16-16AU	ATmega128L-8AU
ATmega16L-8MU	ATmega128-16AU
ATmega16-16MU	ATmega128L-8MU
ATmega32L-8PU	ATmega128-16MU

2. *Dual fab sourcing for selected devices:* The optimized process variant also prepares the devices for manufacturing in foundry to ensure an uninterrupted flow of products to meet customer production demands. The new design revision of the products listed in the table below will be manufactured at two different locations, Atmel's Colorado Springs (US) wafer fabrication facility, and foundry at Semiconductor Manufacturing International Corporation, SMIC (CN).

Part Number	Part Number
ATmega16L-8PU	ATmega32L-8AU
ATmega16-16PU	ATmega32-16AU
ATmega16L-8AU	ATmega32L-8MU
ATmega16-16AU	ATmega32-16MU
ATmega16L-8MU	ATmega128L-8AU
ATmega16-16MU	ATmega128-16AU
ATmega32L-8PU	ATmega128L-8MU
ATmega32-16PU	ATmega128-16MU

3. *Change in production test:*
Production test limit for VOL parameter has been changed as shown in the table below.

Symbol	Parameter	Condition	Previous limit		New limit		Units
			Min	Max	Min	Max	
V _{OL}	Output Low Voltage (Ports A - G)	I _{OL} =20mA, V _{CC} =5V	-	0.7	-	0.9	V
		I _{OL} =10mA, V _{CC} =3V	-	0.5	-	0.6	V

This change in production test applies only to the products listed in the table below.

Part Number	Part Number
ATmega8L-8PU	ATmega8-16AU
ATmega8-16PU	ATmega8L-8MU
ATmega8L-8AU	ATmega8-16MU

Identification Method to Distinguish Change:

- All parts manufactured in the new process variant have a **D** printed after the date code in the top side marking.

Ex: Top side of ATmega64-16AU will be marked:

Old process variant:

ATMEL MEGA64 16AU1021
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New process variant:

ATMEL MEGA64 16AU1021D

- The production test change applies to all material shipped after proposed first ship date.

Qualification Data:	☒ available	☐ will be available in WW____	☐ not applicable
Samples:	☒ available	☐ will be available in WW____	☐ not applicable

Quantifiable Impact on Quality & Reliability:

None

Proposed First Ship Date*: June 1, 2010

**The Proposed First Ship Date is the forecasted date that a customer may expect to receive changed product. This is determined by the estimated date of inventory depletion on the PCN issue date. This may be affected by fluctuations in supply and demand. Consequently, although customers should be prepared to receive changed product on this date, Atmel will continue to ship pre-changed product until a time in which inventory has been depleted. This may result in pre-changed product being shipped to customers after this forecasted date.*

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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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