

PCN Number: NC133602

Notification Date*: September 10, 2013

Title: Technology Shrink of Automotive Microcontrollers Product ATmega48/88/168 and ATmega164P/324P

Product Identification:

Discontinued Product	New Product	Discontinued Product	New Product
ATmega48-15MT	ATmega48PA-15MZ	ATmega48-15AZ	ATmega48PA-15AZ
ATmega48-15MT1	ATmega48PA-15MZ	ATmega88-15AT	ATmega88PA-15AZ
ATmega48-15MZ	ATmega48PA-15MZ	ATmega88-15AT1	ATmega88PA-15AZ
ATmega88-15MT	ATmega88PA-15MZ	ATmega88-15AZ	ATmega88PA-15AZ
ATmega88-15MT1	ATmega88PA-15MZ	ATmega168-15AT	ATmega168PA-15AZ
ATmega88-15MZ	ATmega88PA-15MZ	ATmega168-15AT1	ATmega168PA-15AZ
ATmega168-15MT	ATmega168PA-15MZ	ATmega168-15AZ	ATmega168PA-15AZ
ATmega168-15MT1	ATmega168PA-15MZ	ATmega164P-A15MZ	ATmega164P-B15MZ
ATmega168-15MZ	ATmega168PA-15MZ	ATmega324P-A15MZ	ATmega324P-B15MZ
ATmega48-15AT	ATmega48PA-15AZ	ATmega164P-A15AZ	ATmega164P-B15AZ
ATmega48-15AT1	ATmega48PA-15AZ	ATmega324P-A15AZ	ATmega324P-B15AZ

Reason for Change:

- | | |
|---|---|
| <input type="checkbox"/> Material / Composition | <input type="checkbox"/> Manufacturing Location |
| <input type="checkbox"/> Processing / Manufacturing | <input type="checkbox"/> Quality / Reliability |
| <input checked="" type="checkbox"/> Design / Firmware | <input type="checkbox"/> Logistics |
| <input type="checkbox"/> Datasheet | <input type="checkbox"/> Other: |

Change Description:

Optimized std logic cells and metal interconnection width reduction. Resulting is reduced die size. Replacements are: pin-to-pin and backward compatible; production tested using similar automotive test programs; meet similar datasheet specifications as the current products.

Summarised as: same technology, different std cells, smaller die.

	Current Product	New Product
Technology	0.35µm 6"	Same
Wafer Production	Atmel, CSO	Same
Voltage Range	2.7V to 5.5V	Same
Package Type	QFN/TQFP	Same
Packaging Location	Multiple (see PPAP)	Same
Plating Type	Sn Matte	Same
Pin Positioning	Per datasheet	Same
Functionality	Per datasheet	Same
Docs provided as part of PCN process		Datasheet PPAP Packaging Spec

See product datasheet (available on Atmel website) for details of electrical characteristics.

Identification Method to Distinguish Change: New catalog part number.			
Qualification Data:	<input checked="" type="checkbox"/> Available	<input type="checkbox"/> Will be available (mm/dd/yr):	<input type="checkbox"/> Not Applicable
Samples:	<input checked="" type="checkbox"/> Available	<input type="checkbox"/> Will be available (mm/dd/yr):	<input type="checkbox"/> Not Applicable
Quantifiable Impact on Quality & Reliability: None			
Forecasted Availability Date: September 15, 2013 Last Time Buy Date: March 15, 2014 Last Ship Date: September 15, 2014 <i>*All orders placed after the notification date are non-cancellable and non-returnable (NCNR).</i>			
Atmel Contact: Please contact your Atmel Sales Representative or Distributor for additional information (when replying via e-mail please include the PCN number in subject line).			
<p>Information provided herein is in connection with Atmel products and this information is provided "AS IS". Atmel assumes no responsibility for any errors that may appear in this document. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Atmel's Terms and Conditions of Sale for such products, Atmel assumes no liability whatsoever, and Atmel disclaims any express or implied warranty, including liability or warranties relating to fitness for a particular purpose, merchantability, or non-infringement of any patent, copyright or other intellectual property right. Atmel products are not intended for use in a product or system intended to support or sustain life which, if it fails, can be reasonably expected to result in significant personal injury. Atmel may make changes to specifications and product descriptions at any time, without notice.</p> <p>Attention Distributors: Product(s) identified in this notification will become obsolete and as such this EOL notification will act as the official written notification. All obsolete products will be listed in the next published quarterly distributor price book, following an PCN/EOL change, and listed on the obsolescence form which accompanies said price book. Within thirty (30) days from the published date of the price book, Distributor shall notify Atmel in writing of Distributor's then current inventory of the obsolete product</p>			

CUSTOMER ACKNOWLEDGEMENT OF RECEIPT: Atmel requests you acknowledge receipt of this PCN / EOL. Please complete and email to pcnadm@atmel.com and the Atmel Contact listed above. In your acknowledgement, you can grant approval or request additional information. **Atmel will deem this change accepted unless specific conditions of acceptance are provided in writing within 30 days from the date of this notice.**

To be completed by customer:

Approved

Rejected (Please state reason for rejection): _____

Company: Name: Title: Date: Email Address: Location: Comments:	
---	--