



# Product Change Notification

**Change Notification #:** 116196 - 00  
**Change Title:** Select Intel Atom® Processors, E3845, E3827, E3826, E3825, E3815 & E3805, PCN 116196-00, Product Design, Order Code, Stepping Conversion with new Order Codes  
**Date of Publication:** April 09, 2018

## Key Characteristics of the Change:

Product Design, Order Code

## Forecasted Key Milestones:

<b>Date of First Availability of Post-Conversion Material:</b>	April 9, 2018
<b>Date of Qualification Data Availability:</b>	April 27, 2018
<b>Date Customer Must be Ready to Receive Post-Conversion Material:</b>	October 12, 2018

*The date of "First Availability of Post-Conversion Material" is the projected date that a customer may expect to receive the Post-Conversion Materials. This date is determined by the projected depletion of inventory at the time of the PCN publication. The depletion of inventory may be impacted by fluctuating supply and demand, therefore, although customers should be prepared to receive the Post-Converted Materials on this date, Intel will continue to ship and customers may continue to receive the pre-converted materials until the inventory has been depleted.*

## Description of Change to the Customer:

Intel will start transitioning the D-0 stepping of the Intel® Atom® Processor E3800 Automotive Series to D-1. The new D-1 stepping will be physically and electrically drop in compatible, no change to form and fit.

Summary of changes of the D-1 stepping:

1. Intel identified possible circuit design issues in the LPC bus, USB2.0 LS/FS and SD Card logic which may result in degradation of the LPC bus, USB2.0 LS/FS and SD Card signals over time at a rate higher than Intel's quality goals. The D-1 stepping dispositions these possible issues.
2. The D-1 stepping CPU ID will remain the same as the D-0 stepping.
  - a. The CPUID will report the processor as a D-0 stepping. D-0 and D-1 stepping can be differentiated by reading the Manufacturer ID (PCIE\_REG\_MANUFACTURER\_ID) register field - [B:0, D:31, F:0, Offset:F8h, Bits 23:16]. D-0 stepping processors will have a value of 11h and D-1 stepping processors will have a value of 13h.
3. Microcode Compatibility for D-1 stepping Intel® Atom™ Processor E3800 Product Family

As listed in the Identification Table in the corresponding NDA specification updates (RDC# 539130), microcode update (MCU) M0F30679909 (or later) should be used with D-1 stepping processors. M013067990x microcode updates, intended for D-0 stepping processors only, may work with D-1

stepping processors but this combination has not been validated and Intel recommends customers to use MOF30679909 (or later).

### Customer Impact of Change and Recommended Action:

Intel anticipates no impact to customers as a result of the change. The following list provides specific impact to orders:

1. New S-Spec and new MM numbers are required for the D-1 stepping. See products listed in the "Products Affected/Intel Ordering Codes" table below.
2. Customers should be ready to receive the new material listed in the "Products Affected/Intel Ordering Codes" table below by the "Date Customer Must be Ready to Receive Post-Conversion Material" as shown above in the Key Milestones.
3. Customer transition to the D-1 stepping should be complete by the "Date Customer Must be Ready to Receive Post-Conversion Material" as shown above in the Key Milestone

Please contact your Intel Field Sales Representative with any questions, requests or concerns.

### Products Affected / Intel Ordering Codes:

Marketing Name	Product Code	Pre Conversion Step	Pre Conversion S-Spec	Pre Conversion MM#	Post Conversion Step	Post Conversion S-Spec	Post Conversion MM#
Intel Atom® Processor E3845	FH8065301487719	D-0	S R2UF	950576	D-1	S R3UU	962763
Intel Atom® Processor E3827	FH8065301487920	D-0	S R2UG	950579	D-1	S R3UW	962765
Intel Atom® Processor E3826	FH8065301542217	D-0	S R2UH	950580	D-1	S R3UY	962767
Intel Atom® Processor E3825	FH8065301567315	D-0	S R2UJ	950581	D-1	S R3V0	962769
Intel Atom® Processor E3815	FH8065301567416	D-0	S R2UK	950582	D-1	S R3V2	962771
Intel Atom® Processor E3805	FH8065301989701	D-0	S R2UL	950583	D-1	S R3V4	962773

### PCN Revision History:

**Date of Revision:**

April 9, 2018

**Revision Number:**

00

**Reason:**

Originally Published PCN



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**Should you have any issues with the timeline or content of this change, please contact the Intel Representative(s) for your geographic location listed below. No response from customers will be deemed as acceptance of the change and the change will be implemented pursuant to the key milestones set forth in this attached PCN.**

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