



Product Change Notification

107667 - 01

Information in this document is provided in connection with Intel products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright or other intellectual property right. Intel products are not intended for use in medical, life saving, or life sustaining applications. Intel may make changes to specifications and product descriptions at any time, without notice.

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.

Americas Contact: asmo.pcn@intel.com

Asia Pacific Contact: apacgccb@intel.com

Europe Email: eccb@intel.com

Japan Email: jccb.ijkk@intel.com

Copyright © Intel Corporation 2007. Other names and brands may be claimed as the property of others.

Celeron, Centrino, Intel, the Intel logo, Intel Core, Intel NetBurst, Intel NetMerge, Intel NetStructure, Intel SingleDriver, Intel SpeedStep, Intel StrataFlash, Intel Viiv, Intel XScale, Itanium, MMX, Paragon, PDCharm, Pentium, and Xeon are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Learn how to use Intel Trade Marks and Brands correctly at <http://www.intel.com/intel/legal/tmusage2.htm>.



Product Change Notification

Change Notification #: 107667 - 01
Change Title: Intel® Pentium® Dual-Core Desktop Processors E2160 and E2140, PCN 107667-01, Product Design, L-2 to M-0 Stepping Conversion, Reason for Revision: Updated Description of Change
Date of Publication: July 03, 2007

Key Characteristics of the Change:

Product Design

Forecasted Key Milestones:

Date of Samples Availability:	Jul 27, 2007
Date of Qualification Data Availability:	Jul 13, 2007
Date Customer Must be Ready to Receive Post-Conversion Material:	Sep 28, 2007
Date of First Availability of Post-Conversion Material:	Jul 23, 2007

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:

Reason for Revision: Updated Description of Change.

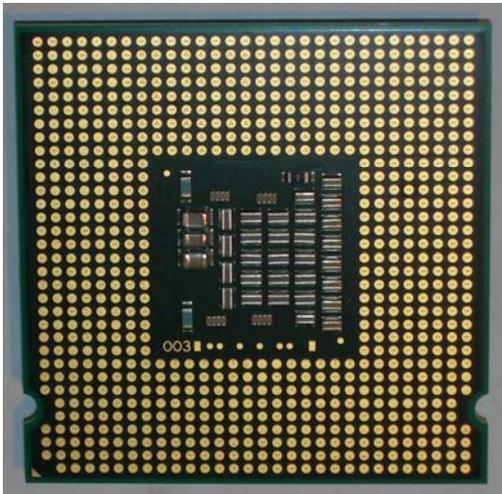
- *Removed* "Extended HALT power specification will reduce from 12 Watts to 8 Watts" statement as the L-2 Intel Pentium dual-core processors E2160 & E2140 Extended HALT power specification is already 8 Watts and is not changing
- *Added* Brand string will be set to report "Intel(R) Pentium(R) Dual CPU" as the L-2 Intel® Pentium® dual core processors E2160 and E2140 brand string was set to report "Genuine Intel(R) CPU" because an "Intel(R) Pentium(R)" string was unavailable with the L-2 stepping

The Intel® Pentium® dual-core desktop processors E2160 and E2140 will undergo the following changes for the L-2 to M-0 stepping conversion:

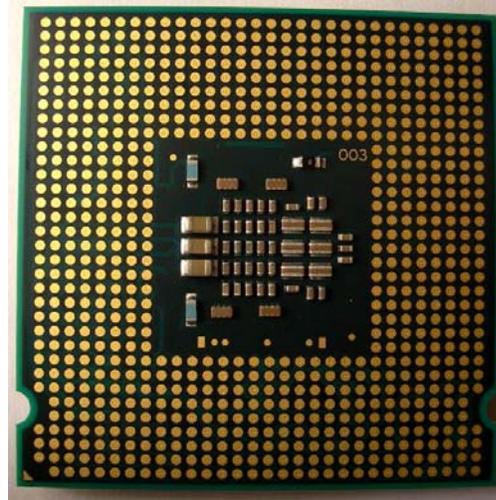
- New S-Spec and Material Master Number for the converting product
- CPUID will change from 6F2 to 6FD
- The Electrical and Mechanical Specifications remain within the current specifications. Intel anticipates no changes to customer platforms designed to previous Intel guidelines

- Thermal specification has changed:
 - Maximum allowed Case Temperature will increase from 61.4°C to 73.2°C
 - Tcontrol offset will remain the same relative to 0 with the increase in maximum allowed Case Temperature, which will help reduce acoustics
- Brand string will be set to report “Intel(R) Pentium(R) Dual CPU” as the L-2 Intel® Pentium® dual core processors E2160 and E2140 brand string was set to report “Genuine Intel(R) CPU” because an “Intel(R) Pentium(R)” string was unavailable with the L-2 stepping
- Minor visible difference between the L-2 and M-0 packages (see below for a visual comparison).
 - While the packages are visually different, the M-0 package is pin-compatible with the L-2 package and Intel anticipates no changes to customer platforms designed to Intel guidelines.

Original L-2 Package



New M-0 Package



Customer Impact of Change and Recommended Action:

Minimal re-qualification and/or validation is expected for the M-0 stepping conversion due to no feature set changes between the L-2 and M-0 steppings. Thermal qualification may be required if a new thermal solution is implemented to take advantage of the maximum allowed Case Temperature change.

Refer to Intel® Pentium® Dual-Core Desktop Processor E2000 Sequence Electrical, Mechanical, and Thermal Specifications (EMTS).

The Intel® Pentium® dual-core desktop processors E2160 and E2140 on M-0 stepping will require a BIOS update. Once customers implement the BIOS update, they will be able to accept both L-2 stepping material and M-0 stepping material. Customers should be ready to receive a combination of both L-2 stepping material and M-0 stepping material by the "Date Customer Must be Ready to Receive Post-Conversion Material" above.

The below listed E2160 1.80 GHz samples (QYRJ, MM# 889707) are limited to the marked frequency, but are not frequency locked. Therefore, customers should down-clock these samples to also qualify the Intel® Pentium® dual-core desktop processor E2140 (1.60 GHz) for the L-2 to M-0 stepping conversion.

To facilitate earlier qualification and enable “First Availability of Post-Conversion Material,” customers may use the Intel® Pentium® dual-core desktop processor 2.40 GHz M-0 samples (QZMV, MM# 890043) provided late June 2007 for an Intel® Pentium® dual-core desktop processor NPI. The 2.40 GHz M-0 samples are also limited to the marked frequency, but are not frequency locked such that customers can down-clock them to qualify the Intel® Pentium® dual-core desktop processors E2160 and E2140 L-2 to M-0 stepping conversion.

Products Affected / Intel Ordering Codes:

Processor#	Frequency	Pre Conversion Product Code	Pre Conversion S-Spec	Pre Conversion MM#	Post Conversion Qualification Samples QDF#	Post Conversion Qualification Samples MM#	Post Conversion Product Code	Post Conversion S-Spec	Post Conversion MM#
E2160	1.80 GHz	HH80557PG0331M	SLA3H	888211	QYRJ	889707	HH80557PG0331M	SLA8Z	890245
E2140	1.60 GHz	HH80557PG0251M	SLA3J	888212	Use QYRJ	Use 889707	HH80557PG0251M	SLA93	890248

Reference Documents / Attachments:

Document:

Location #:

PCN Revision History:

Date of Revision:

Revision Number:

Reason:

June 27, 2007

00

Originally Published PCN

July 03, 2007

01

Updated Description of Change to Customer