



Product Change Notification

106853 - 00

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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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Product Change Notification

Change Notification #: 106853 - 00
Change Title: Intel® Core™2 Duo E6000 Sequence Processors & Dual-Core Intel® Xeon® 3000 Series Processors, PCN 106853-00, Product Design, E6300, E6400, 3040 & 3050 B2 to L2 Stepping Change and E6600, E6700, 3060 & 3070 S-Spec Change
Date of Publication: October 18, 2006

Key Characteristics of the Change:

Product Design

Forecasted Key Milestones:

Date of L2 Samples Availability:	Nov 08-22, 2006
Date of L2 Qualification Data Availability:	Nov 17, 2006
Date Customer Must be Ready to Receive All Post-Conversion Material:	Feb 06, 2007
Date of First Availability of All Post-Conversion Material:	Dec 15, 2006

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.

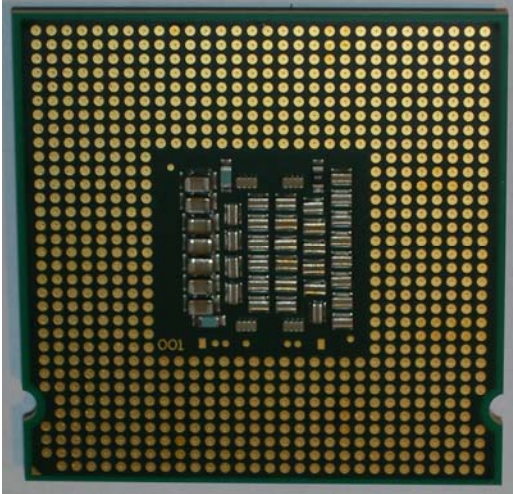
Description of Change to the Customer:

Intel® is initiating a B-2 to L-2 stepping conversion for Intel® Core™2 Duo processors E6300 & E6400 (Conroe) and Dual-Core Intel® Xeon® processors 3040 & 3050 (UP Xeon processors based on Conroe) where they will undergo the following changes:

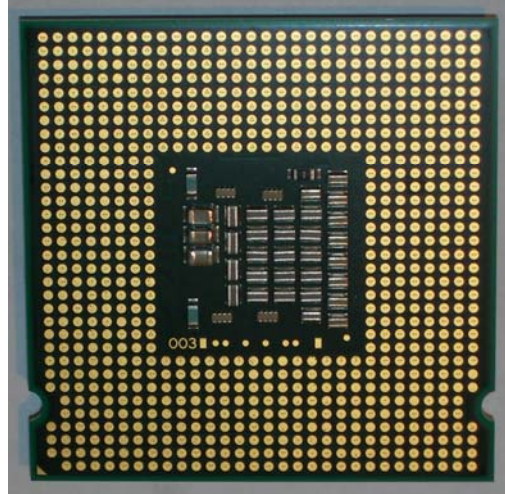
- New S-Spec and MM numbers for the converting products
- CPUID will change from 6F6 to 6F2
- Extended HALT power specification will reduce from 22 Watts to 12 Watts
- Die size optimized for manufacturability
- Minor visible difference between the B-2 and L-2 packages; see below for a visual comparison
- L-2 package is pin compatible with B-2 package

Visual B-2 & L-2 Package Differences

Original B-2 Package



New L-2 Package



While the packages are visually different, the L-2 stepping package is pin compatible with the B-2 stepping package and Intel anticipates no changes to customer platforms designed to Intel guidelines.

Additionally, the Extended HALT power specification will reduce from 20-22 Watts to 12 Watts for Intel® Core™2 Duo processors E6600 & E6700 (Conroe) and Dual-Core Intel® Xeon® processors 3060 & 3070 (UP Xeon processors based on Conroe), and Intel is initiating new S-Spec and MM numbers to better identify these processors having the new specification.

- The stepping will not change (remains B-2) for these processors
- CPUID will not change (remains 6F6) for these processors
- Die size and package will not change for these processors

Customer Impact of Change and Recommended Action:

Intel anticipates no changes to customer platforms designed to Intel guidelines.

- Refer to Intel® Core™2 Extreme Processor X6800 and Intel® Core™2 Duo Desktop Processor E6000 and E4000 Sequence EMTS.
- Refer to Dual-Core Intel® Xeon® Processor 3000 Series EMTS.

Minimal re-qualification and/or validation is expected for the L-2 stepping conversion due to no feature set changes between the B-2 and L-2 steppings. The Intel® Core™2 Duo desktop processors E6300, E6400, 3040, and 3050 L-2 stepping will require a BIOS update. Once customers implement the BIOS update, they will be able to accept both B-2 stepping material and L-2 stepping material. Customers should be ready to receive a combination of both B-2 stepping material and L-2 stepping material by TBD (See “Date Customer Must be Ready to Receive Post-Conversion Material” above.) For customers implementing their own BIOS, it is necessary to incorporate the latest Microcode Update (MCU) to support the L-2 stepping.

Products Affected / Intel Ordering Codes:

Processor#	Frequency	Pre Conversion			Qual Samples		Post Conversion		
		Product Code	S-Spec	MM#	QDF#	MM#	Product Code	S-Spec	MM#
E6700	2.66G 4M 1066	HH80557PH0674M	SL9S7	884351	NA, S-Spec Change Only	NA, S-Spec Change Only	HH80557PH0674M	SL9ZF	887370
E6600	2.40G 4M 1066	HH80557PH0564M	SL9S8	884354	NA, S-Spec Change Only	NA, S-Spec Change Only	HH80557PH0564M	SL9ZL	887379
E6400	2.13G 2M 1066	HH80557PH0462M	SL9S9	884352	QUHB (L2)	885760 (L2)	HH80557PH0462M	SL9T9	885032
E6300	1.86G 2M 1066	HH80557PH0362M	SL9SA	884355	QUHG (L2)	885762 (L2)	HH80557PH0362M	SL9TA	885033
3070	2.66G 4M 1066	HH80557KH0674M	SL9U2	885513	NA, S-Spec Change Only	NA, S-Spec Change Only	HH80557KH0674M	SL9ZC	887378
3060	2.40G 4M 1066	HH80557KH0564M	SL9TZ	885514	NA, S-Spec Change Only	NA, S-Spec Change Only	HH80557KH0564M	SL9ZH	887380
3050	2.13G 2M 1066	HH80557KH0462M	SL9TY	885515	QUUG (L2)	885796 (L2)	HH80557KH0462M	SL9VS	885932
3040	1.86G 2M 1066	HH80557KH0362M	SL9TW	885516	QUUK (L2)	885798 (L2)	HH80557KH0362M	SL9VT	885934

Reference Documents / Attachments:

Document:

Location #:

PCN Revision History:

Date of Revision:

October 18, 2006

Revision Number:

00

Reason:

Originally Published PCN