



# Product Change Notification

## PCN 107467- 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 #:** 107467 – 00  
**Change Title:** Dual-Core Intel® Xeon® 5100 Series Processors (Woodcrest) and Quad-Core Intel® Xeon® 5300 Series Processors (Clovertown), PCN107467-00, Product Design, B2/3 to G0 Stepping Change  
**Date of Publication:** June 5, 2007

## Key Characteristics of the Change:

Product Design

## Forecasted Key Milestones:

	Tray Dual-Core Intel® Xeon® 5100 Series Processors	Tray Quad-Core Intel® Xeon® 5300 Series Processors
<b>Date of Samples Availability:</b>	June 15 <sup>th</sup> – June 29 <sup>th</sup> , 2007	
<b>Date of Qualification Data Availability:</b>	August 24, 2007	August 17, 2007
<b>Date Customer Must be Ready to Receive Post-Conversion Material:</b>	October 1, 2007	September 5, 2007
<b>Date of First Availability of Post-Conversion Material:</b>	August 17, 2007	August 17, 2007

## Description of Change to the Customer:

The Quad-Core Intel® Xeon® processors X5355, E5345, E5335, E5320, E5310, L5320, L5310 (Clovertown) will convert from B-3 to G-0. The Dual-Core Intel® Xeon® processors 5160, 5150, LV 5148, 5140, 5130, LV 5138, 5120, LV 5128, 5110 (Woodcrest) will convert from B-2 to G-0. Woodcrest and Clovertown will undergo the following changes as they convert to G-0:

- Increased Energy Efficiency
  - Certain SKUs will receive some amount of C1E power reduction on G-step
  - SKUs already at the lowest bus to core frequency ratio or lowest voltage operating point cannot drop to the lower power state required for Extended HALT
- Enhanced Virtualization Technology
  - APIC Task Priority Register (TPR) Virtualization
  - NMI-window exiting
  - Advanced VM-exit information for INS & OUTS
- Clovertown CUID will change from 06F7 to 06FB
  - Woodcrest CUID will change from 06F6 to 06FB.
- New SSPEC and MM numbers for the converting products

## Customer Impact of Change and Recommended Action:

Intel is finalizing a technical solution to allow mixed stepping configurations of B-step and G-step Woodcrest and Clovertown on Bensley platforms. This solution requires appropriate microcode updates to be loaded; current microcode updates for Woodcrest B-2 and Clovertown B-3 will need to be replaced. Solution requires BIOS change; BIOS will detect mixed stepping configuration and set a bit in a Model Specific Register (MSR).

Customers creating their own BIOS should adhere to the guidelines provided in the “Dual-Core Intel(R) Xeon(R) Processor 5100 Series [Woodcrest] / Quad-Core Intel(R) Xeon(R) Processor 5300 Series [Clovertown] Mixed Steppings Support Guide, May 2007” that can be found on IBL

- IBL Path: IBL Home > Information Desk > Processors > Server/Workstation > Quad Core Intel® Xeon® Processor 5300 Series > Technical
- IBL Path: IBL Home > Information Desk > Processors > Server/Workstation > Dual Core Intel® Xeon® Processor 5100 Series > Technical

Once customers implement the BIOS update, they will be able to support same stepping and mixed stepping configurations. Customers should be ready to receive a combination of both B-2/B-3 stepping material and G-0 stepping material by the “Date Customer Must be Ready to Receive Post-Conversion Material” above.

## Products Affected / Intel Ordering Codes:

### Tray Dual-Core Intel® Xeon® 5100 Series (Woodcrest)

Pro-cessor#	Frequency	Pre Conversion			Qual Samples		Post Conversion		
		Product Code	S-Spec	MM#	QDF#	MM#	Product Code	S-Spec	MM#
5160	3.00G 4M 1333	HH80556KJ0804M	SLABS	890633	QXQT	890428	HH80556KJ0804M	SLAG9	891706
5150	2.66G 4M 1333	HH80556KJ0674M	SLABM	890627	QXQX	890434	HH80556KJ0674M	SLAGA	891708
5140	2.33G 4M 1333	HH80556KJ0534M	SLABN	890628	QXRB	890429	HH80556KJ0534M	SLAGB	891730
LV 5138	2.13G 4M 1066 35W	HH80556JH0464M	SL9RN	884347	QXPJ	889966	HH80556JH0464M	SLAG3	891562
5130	2.00G 4M 1333	HH80556KJ0414M	SLABP	890630	QXRF	890430	HH80556KJ0414M	SLAGC	891731
LV 5128	1.86G 4M 1066	HH80556JH0364M	SL9XA	887535	QXQH	889970	HH80556JH0364M	SLAG6	891704
5120	1.86G 4M 1066	HH80556KH0364M	SLABQ	890631	QXRJ	890431	HH80556KH0364M	SLAGD	891732
5110	1.60G 4M 1066	HH80556KH0254M	SLABR	890632	QXRN	890432	HH80556KH0254M	SLAGE	891733
LV 5148	2.33G 4M 1333	HH80556JJ0534M	SLABH	890618	QXPZ	889967	HH80556JJ0534M	SLAG4	891675

## Tray Dual-Core Intel® Xeon® 5300 Series (Clovertown)

Pro-processor#	Frequency	Pre Conversion			Qual Samples		Post Conversion		
		Product Code	S-Spec	MM#	QDF#	MM#	Product Code	S-Spec	MM#
X5355	2.66G 8M 1333	HH80563KJ0678M	SLAC4	890661	QWTM	888849	HH80563KJ0678M	SLAEG	891114
E5345	2.33G 8M 1333	HH80563QJ0538M	SLAC5	890660	QWTW	888857	HH80563QJ0538M	SLAEJ	891115
E5335	2.00G 8M 1333	HH80563QJ0418M	SLAC7	890663	QWUB	888854	HH80563QJ0418M	SLAEK	891116
E5320	1.86G 8M 1066	HH80563QH0368M	SLAC8	890665	QWVE	888869	HH80563QH0368M	SLAEL	891118
E5310	1.60G 8M 1066	HH80563QH0258M	SLACB	890662	QWVK	888868	HH80563QH0258M	SLAEM	891121
L5320	1.86G 8M 1066	HH80563JH0368M	SLAC9	890664	QWVO	888867	HH80563JH0368M	SLAEP	891120
L5310	1.60G 8M 1066	HH80563JH0258M	SLACA	890666	QWVU	888874	HH80563JH0258M	SLAEQ	891119

### Reference Documents / Attachments:

Document:

Location #:

### PCN Revision History:

Date of Revision:

June 5, 2007

Revision Number:

00

Reason:

Originally Published PCN