



Product Change Notification

104760 - 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.

Americas Contact: asmo.pcn@intel.com

Asia Pacific Contact: apacgccb@intel.com

Europe Email: eccb@intel.com

Japan Email: jccb.ijkk@intel.com

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Product Change Notification

Change Notification #: 104760 - 00
Change Title: PXA27x, PCN 104760-00, FFF, Stepping and Part Number Change
Date of Publication: January 21, 2005

Type of Change Notification:
FFF - (Form-Fit-Function)

Key Characteristics of the Change:
Product Design
Order Code

Forecasted Key Milestones:

| | Discrete (13mm x13mm) | Discrete (23mm X 23mm) | MCP |
|---|--------------------------|---------------------------|---------------------|
| First Availability of Pre-Production Samples | Feb. 4, 2005 | Mar 4, 2005 | Apr 22, 2005 |
| First Availability of Post Conversion Material | Mar 4, 2005 | Mar 4, 2005 | Apr 22, 2005 |
| Customer Must be Ready to Receive Post-Conversion Material | Apr 21, 2005 | May 2, 2005 | Jun 20, 2005 |

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:

There are both functional & errata fix differences between the PXA27x Processor Family C0 stepping to C5 stepping. Although the C5 stepping is a new die (when compared to the C0 stepping), it can function as a drop-in replacement, with the exception of CPU & JTAG ID Register changes.

The PXA27x C5 stepping provides the following new enhancements / features to previous releases:

- Five new product points, providing 104 MHz Mem Clock operation for all L=16 product points
- Functional enhancements:
 - 48 MHz clock on GPIO 11 & 12 - No longer dependant on USB peripheral active

- o SSP2 Tx/Rx line swappable - Provides enhanced GPIO alternate function feature for SSP2

Please contact your local Intel support person for a detailed description of these enhancements.

Also, an updated version of the "Intel® PXA27x Processor Family Specification Update" will be available through Intel's Developer web site March 4, 2005.

To provide traceability of the PXA27x C5 stepping, the contents of the product's ID Register have also been updated. The function of the CPU & JTAG ID Registers and how they are updated is defined in the Intel® PXA27x Developer's Manual. This function remains unchanged.

Since the contents of the ID Register can be read by customer software, it's possible that the change in register content could require software changes for some customers. The register contents were changed as follows:

| Stepping | CPU ID | JTAG ID |
|----------|-------------|-------------|
| C0 | 0x6905 4114 | 0x4926 5013 |
| C5 | 0x6905 4117 | 0x7926 5013 |

Customer Impact of Change and Recommended Action:

This change reflects a form-fit-function change to the PXA27x Processor family:

- Orders for Discrete (13mm²) PXA27x C0 material will be converted to the C5 stepping April 21, 2005 or later, based on Intel's inventory status.
- Orders for Discrete (23mm²) PXA27x C0 material will be converted to the C5 stepping May 2, 2005 or later, based on Intel's inventory status.
- Orders for stacked or MCP (14mm²) PXA27x C0 material will be converted to the C5 stepping June 20, 2005 or later, based on Intel's inventory status.

Intel recommends customers obtain samples to qualify the new products for their applications. For further questions or technical assistance, please contact your local Intel support person.

Products Affected / Intel Ordering Codes:

Component Product Table

| Pre-Conversion Product Code | Pre-Conversion MM# | Post-Conversion Product Code | Post-Conversion MM# |
|-----------------------------|--------------------|------------------------------|---------------------|
| RCPXA270C0C312 | 859603 | RCPXA270C5C312 | 868389 |
| RCPXA270C0C416 | 859556 | RCPXA270C5C416 | 868387 |
| RCPXA270C0C520 | 859553 | RCPXA270C5C520 | 868381 |
| RCPXA270C0C624 | 860966 | RCPXA270C5C624 | 868400 |
| RTPXA270C0C312 | 865314 | RTPXA270C5C312 | 868403 |
| RTPXA270C0C416 | 865317 | RTPXA270C5C416 | 868401 |
| FWPXA270C0C312 | 863696 | FWPXA270C5C312 | 868458 |
| FWPXA270C0C416 | 863721 | FWPXA270C5C416 | 868457 |
| FWPXA270C0C520 | 863695 | FWPXA270C5C520 | 868456 |
| NHPXA270C0C312 | 866199 | NHPXA270C5C312 | 868461 |
| NHPXA270C0C416 | 866198 | NHPXA270C5C416 | 868460 |
| NHPXA270C0C520 | 866197 | NHPXA270C5C520 | 868459 |
| LVPXA271FC0312 | 858798 | LVPXA271FC5312 | 868444 |
| LVPXA271FC0416 | 858797 | LVPXA271FC5416 | 868441 |
| LVPXA272FC0312 | 858802 | LVPXA272FC5312 | 868477 |
| LVPXA272FC0416 | 858801 | LVPXA272FC5416 | 868478 |
| LVPXA272FC0520 | 858800 | LVPXA272FC5520 | 868476 |
| RVPXA272FC0312 | 867801 | RVPXA272FC5312 | 869039 |
| RVPXA272FC0416 | 869033 | RVPXA272FC5416 | 869038 |
| RVPXA272FC0520 | 869034 | RVPXA272FC5520 | 869037 |

Reference Documents / Attachments:

Document:

Intel ® PXA27x
Developers Manual
Intel® PXA27x Spec
Update

Location #:

<http://developer.intel.com/design/pca/applicationsprocessors/manuals/280000.htm>

Available through developer.intel.com March 4, 2005

PCN Revision History:

Date of Revision:

January 21, 2005

Revision Number:

00

Reason:

Originally Published PCN