



Product Change Notification

105807 - 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 #: 105807 - 00
Change Title: Intel® IXP455/46X Product Line of Network Processors, PCN 105807-00, FFF, A-0 to A-1 Stepping Conversion
Date of Publication: January 13, 2006

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

Key Characteristics of the Change:

Product Design
Order Code

Forecasted Key Milestones:

Date of Samples Availability:	Jan 13, 2006
Date of Qualification Data Availability:	Jan 13, 2006
Date Customer Must be Ready to Receive Post-Conversion Material:	Feb 01, 2006
Date of First Availability of Post-Conversion Material:	Feb 01, 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:

Stepping change from A-0 to A-1 is a form, fit, function change only. Please refer to the table below for changes.

Legend to be used with the tables below:

Stepping	
X	This erratum exists in the stepping indicated.
(No mark) or (Blank box)	This erratum is fixed in listed stepping or specification change does not apply to listed stepping.
N/A	This erratum or document update is not applicable to this stepping of the silicon.
Page	
(Page)	Page location of item in to version 3 of the Intel® IXP4XX Product Line of Network Processors Specification Update available online.
Status	
Doc	Document change or update will be implemented.
Fixed	This erratum has been fixed for all steppings that are still being shipped.

Non-Core Errata

Errata No.	Steppings				Page	Status	Errata
	IXP455 A0	IXP46X A0	IXP455 A1	IXP46X A1			
40	X	X			37	Fixed	Timer Issues with Prescale Programming Sequence and Pause/Resume Operation (SCR 4216)
41	N/A	X	N/A		39	Fixed	IEEE-1588 Time Sync Lock-up Fails to Time-Stamp a Second PTP Message (SCR 4239)

Specification Changes

Errata No.	Steppings				Page	Status	Errata
	IXP455 A0	IXP46X A0	IXP455 A1	IXP46X A1			
1				X	45	Doc	Increase Core Voltage from 1.4 V to 1.5 V for 667 MHz Operation only (SCR 4291)
2	X	X	X	X	46	Doc	PCI ID Changes to Support A1 Stepping of IXP46X (No SCR)

Specification Clarifications

Errata No.	Steppings				Page	Status	Errata
	IXP455 A0	IXP46X A0	IXP455 A1	IXP46X A1			
13	X	X	X	X	51	Doc	OSC_VSSP Pin Assignment Contradiction (SCR 4326)
14	X	X	X	X	51	Doc	Memory Controller Maximum Throughput Clarification (SCR 4327)
15	X	X	X	X	51	Doc	Memory Controller Refresh Counter Bit Width Clarification (SCR 4328)
16	X	X	X	X	51	Doc	Clarification on Number of MII (Ethernet) Ports for IXP460 (SCR 4331)
17	X	X	X	X	52	Doc	PCI to South AHB Address Error (SCR 4322)
18	X	X	X	X	52	Doc	APB Clocks Incorrectly Defined (No SCR)
20	X	X	X	X	52	Doc	IXP46X Power Clarification for Total ICC in Power Table (No SCR)
21	X	X	X	X	53	Doc	Memory Controller Clarification on why 8 ECC bits are supported (SCR 4336)
22	X	X	X	X	53	Doc	TPOWER_UP Sequence Needs to be Fixed (SCR 4337)

Documentation Changes

Errata No.	Steppings				Page	Status	Errata
	IXP455 A0	IXP46X A0	IXP455 A1	IXP46X A1			
	X	X	X	X	54	Doc	Memory Controller Cross Reference Error (SCR 4329)
	X	X	X	X	54	Doc	Memory Controller Text Clarifications in 6 Places (SCR 4330)
	X	X	X	X	54	Doc	HSS Figure and Table Text Clarifications (SCR 4333)

Please refer to version 3 of the *Intel® IXP4XX Product Line of Network Processors Specification Update* for more details on the changes mentioned above. This document is located online in the IXP4XX home page under the “Technical Documents” tab.

Customer Impact of Change and Recommended Action:

Please take note the date to implement this change is a non-standard compressed timeline and A0 material will only be available until supply is depleted.

It is recommended that a full qualification be done with the Intel® IXP455/46X product line of network processor, with the new A-1 stepping core. Application testing should include verification that major operating systems continue to boot and run confidence tests.

Please note that the MM#s corresponding to A-0 silicon will be retired in the system. For future orders, please use the MM#s corresponding to the A-1 silicon as stated in the table below.

Products Affected / Intel Ordering Codes:

Component Product Table

Intel® IXP455/46X Product Line of Network Processors

Core Frequency (MHz)	Pre-Conversion Production Units		Post-Conversion Production Units	
	Product Code	MM#	Product Code	MM#
266	GW IXP455AB	870317	GW IXP455AAB	873709
533	GWIXP455AD	870318	GW IXP455AAD	873798
266	GWIXP460AB	870315	GW IXP460AAB	873801
533	GWIXP460AD	869525	GW IXP460AAD	873800
266	GWIXP465AB	870316	GW IXP465AAB	873799
533	GWIXP465AD	869447	GW IXP465AAD	873872
667	GWIXP465AE	869520	GW IXP465AAE	873802
533	GWIXP460ADT	869631	GW IXP460AADT	873726
533	GWIXP465ADT	869557	GW IXP465AADT	873724
266	EWIXP455AB	874221	EW IXP455AAB	874222
533	EWIXP465AD	870656	EW IXP465AAD	873319
667	EWIXP465AE	872936	EW IXP465AAE	873733
533	EWIXP465ADT	870660	EW IXP465AADT	873732

Reference Documents / Attachments:

Document:

Location #:

PCN Revision History:

Date of Revision:

Revision Number:

Reason:

January 13, 2006

00

Originally Published PCN