

Network Processor Business Unit  
77 Reed Road  
Hudson, MA 01749

## IXP1200 Network Processor Family Frequently Asked Questions

- Q. Do I need to start my IXP1200 design from scratch, or are there example designs available?  
A. There are several example designs available using the IXP1200.

The Intel® IXDP1200 Advanced Development Platform is a CompactPCI development environment with a provision for interfacing optional I/O cards (LAN/WAN). This development platform greatly reduces the complexity of designing an IXP1200 based product, since the Network Processor Base Card is already designed and debugged for you. Details about these products can be found at:

<http://developer.intel.com/design/network/products/npfamily/ixdp1200.htm>

- Q. Does the Intel® IXP12x0 Network Processor Family include support for SDRAM CRC and ECC?  
A. Yes, the IXP1240 Network Processor includes SDRAM CRC support, and the IXP1250 Network Processor supports SDRAM CRC and ECC.
- Q. How do I interface to the IXP1200 for debugging my design?  
A. The IXP1200 has an integrated PCI interface, and a Serial UART port that can be used for debug.
- Q. What embedded Operating Systems are supported on the IXP1200?  
A. The Intel® Internet Exchange Architecture (Intel® IXA) Software Development Kit (SDK) includes support for both embedded Linux\*, and Wind River Systems VxWorks\* operating systems. Some developers are also using uC/OS, and Microware's OS-9®, but these operating systems are not directly supported by Intel for the IXP12x0 Network Processors.
- Q. Am I required to develop my IXP1200 Microengine application code in assembly language, or is there an easier way?  
A. The Intel® IXA SDK is now available with a Microengine C compiler, which greatly reduces the complexity of program development.
- Q. What provision is there for debugging my design before I have hardware?  
A. The Intel® IXA SDK includes a full suite of tools, including a cycle and data accurate simulator for Microengine debug. The Intel® IXP1200 Network Processor Developer's Workbench also includes the provision for simulating Intel® StrongARM\* code execution, and hardware interfacing on the PCI and IX busses.
- Q. Is the IXP1200 a good candidate for my Firewall application?  
A. Yes. Typical applications for the IXP1200 cover a broad spectrum, from multi-service switches, broadband access platforms, Web switches and network appliances, to systems designed for Layer 2/3 forwarding, protocol conversion, quality of service (QoS), filtering/firewalling, virtual private networks (VPNs), load balancing, remote monitoring (RMON) and intrusion detection.
- Q. What kind of documentation is available to help me with my IXP1200 design?  
A. The most useful documentation available to assist with an IXP1200 design includes the Datasheet, Hardware Reference Manual, Programmers Reference Manual, and IX-Bus Design Guide. These, and

many other documents are available on the IXA SDK CD-ROM, which can be ordered from the Intel® Developer's Web site:

<http://developer.intel.com/design/network/products/npfamily/index.htm>.

- Q. What are some recommendations for MAC devices that I can interface to the IXP1200?
- A. Intel manufactures several components specifically designed to interface to the IXP1200. The Intel® IXF1002 is a Dual-Port Gigabit MAC, and the Intel® IXF440 is a 10/100 Octal Port Ethernet MAC. Also, the Intel® IXB3208 is a Bus Scaling Fabric, and the Intel® IXB8055 UTOPIA/POS Reference Design assists customers in bridging between the IX Bus and the Universal Test and Operations PHY Interface for ATM (UTOPIA) and ATM Packet-over-SONET (POS) interfaces.
- Q. What external interfaces are implemented on the IXP1200?
- A. The IXP1200 has interfaces for SRAM, SDRAM, PCI, and of course the IX-Bus, which is the high-speed data path. Also, there is an RS232 serial port, and a JTAG port used for boundary scan.

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