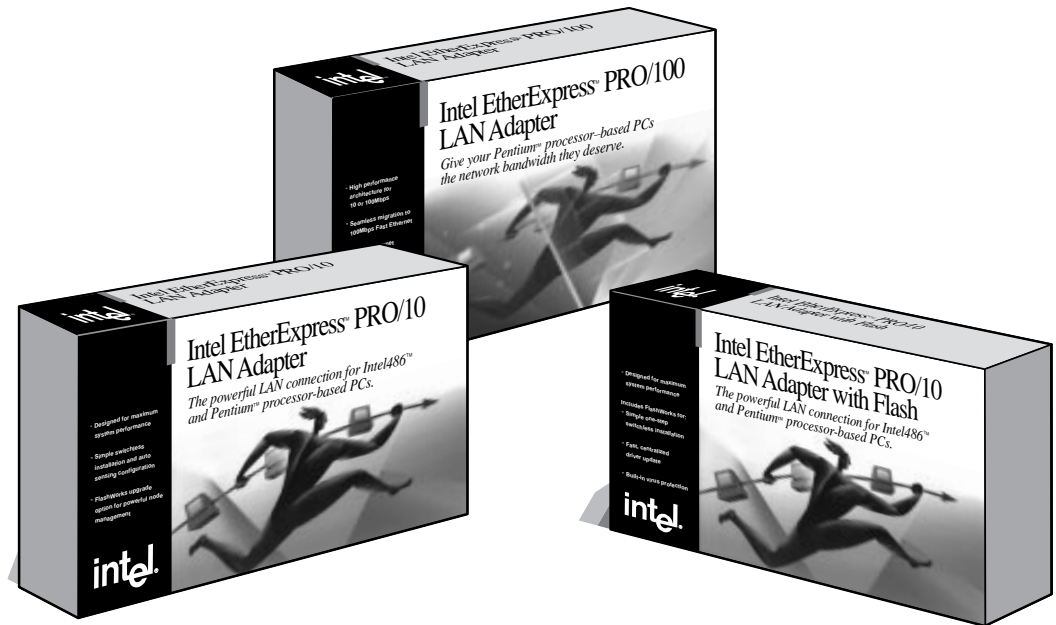


Intel EtherExpress™ LAN Adapters

A complete family of Ethernet network interface cards offering easy management and exceptional value.

- New Flash memory for easy management and one-step installation
- Automatic software configuration
- Remote node management made simple
- Driver support for popular networks



Intel EtherExpress™ LAN adapters are fast, affordable and full of features to make networks easier to build and manage.

We start with advanced Intel semiconductor technology to lower the chip count and improve performance and reliability. Then we make our Ethernet networking products compatible with the IEEE 802.3 standard and a broad range of network operating systems and hardware, so they'll fit — and work — just about anywhere you put them. Finally, we make our products so easy to use that you can literally “Plug and Forget” ‘em.

How smart and easy can you get?

Intel pioneered a convenience we call automatic software configuration, which means our adapters practically install themselves — there are no jumpers or switches to set, no need to master IRQs, I/O addresses or bus-timing parameters. Some even autosense the cable type (AUI, BNC or RJ45) you're using.

Tools to keep tabs on your network

Once installed, our network interface cards provide a wealth of management information to make your job easier. Intel's LANDesk® Express management software for Novell NetWare® networks makes it easy to keep tabs on workstations and network traffic from a central station. LANDesk Express tells you who's on the

EtherExpress™ LAN Adapters

network, where problems originate, what's causing performance bottlenecks, and generates detailed reports on network activity — all from your desk. And all free — LANDesk® Express is available at no charge via the Intel Bulletin Board Service (BBS).

Optional Intel SNMP Services software makes it easy for Novell NetWare* users to manage their network from a central SNMP console. You can easily manage up to 250 PCs per server from SNMP consoles such as HP Openview* and SunNet Manager*. Identify user names and locations as well as detailed traffic and error statistics without adding memory or processing overhead.

Support for popular network operating systems

Intel adapters support all the most popular network operating systems, so they'll fit just about anywhere and work with just about any equipment you already have.

No matter what your environment, speed requirements or budget, there's an Intel EtherExpress™ LAN Adapter for you.

Intel EtherExpress™ PRO/100 LAN Adapters

Give your Pentium® processor-based PCs the network bandwidth they deserve

- High performance architecture
- Seamless migration to 100Mbps
- Proven Ethernet technology
- Easy to install, use and manage

The EtherExpress PRO/100 Adapters are Intel's first 100Mbps Fast Ethernet LAN adapters, supporting both 10 and 100Mbps. This allows you to operate at 10Mbps Ethernet and then easily migrate to 100Mbps.

Supporting the 100BASE-TX standard for 100Mbps operation, the EtherExpress PRO/100 Adapters use Ethernet's CSMA/CD protocol, leveraging your existing Ethernet infrastructure.

Based on a high-performance 32-bit bus master architecture, the EtherExpress PRO/100 Adapters offer a PCI or EISA bus interface.

High performance architecture

The EtherExpress PRO/100 Adapter 32-bit bus master architecture employs optimized memory access, burst transfers, extended high-speed FIFO interface and dynamic transmit chaining resulting in high throughput with low bus utilization.

Seamless migration

The EtherExpress PRO/100 Adapter can be used in the 10Mbps Ethernet mode today and switches seamlessly to 100Mbps bandwidth at any time.

With a 10/100Mbps switching hub, some of your nodes can be running at 100Mbps while others continue to run at 10Mbps. The PRO/100 adapter automatically senses the speed of the hub port.

The EtherExpress PRO/100 Adapter is equipped with a single RJ45 connector supporting 100BASE-TX on 2-pair UTP CAT5 data grade wiring for 100Mbps Fast Ethernet operation. In the 10Mbps mode the same RJ45 is used for 10BASE-T connections.

Driver support

For ease of use, the same drivers are used for the EtherExpress PRO/100 EISA and PCI LAN Adapters. The same drivers also operate at 10Mbps and at 100Mbps Fast Ethernet.

Complete interoperability

The EtherExpress PRO/100 Adapters are carefully designed to comply with 10Mbps Ethernet standards such as the IEEE 802.2, 802.3 and 100BASE-TX.

EtherExpress™ LAN Adapters

DMI ready

The EtherExpress™ PRO/100 Adapters support the Desktop Management Interface (DMI) specification. From any DMI compliant application, information about the adapter's address, IRQ, packet information, drivers, and more can be viewed for maximum control.

Intel EtherExpress™ PRO/10 Adapters

The powerful LAN connection for Intel486™ and Pentium® processor-based PCs.

- Superior performance
- Benefits you don't expect from a LAN adapter
- Simplest installation
- Choice of management tools
- 90 day money back guarantee

Intel's EtherExpress PRO/10 Adapters are the powerful LAN connection for Intel486 and Pentium processor-based PCs. Three technologies give EtherExpress PRO/10 adapters an edge that increases the total system performance of your high power PCs:

- **Concurrent processing** uses early interrupt technology to increase throughput.
- **A large 32k buffer memory** increases performance by reducing the overhead burden on LANs with high network traffic and/or multitasking operating systems.
- The PRO/10 drivers use **32-bit instructions** for higher performance and lower CPU utilization.

Benefits you don't expect from an adapter

EtherExpress PRO/10 Adapters *with Flash* provide the following additional benefits:

- **Centralized driver update.** LAN administrators can keep client PCs up to date by automatically downloading new drivers and network utilities from a NetWare® file server to any node on the network.
- **Pre-boot virus protection.** A patented pre-boot anti-virus technology guards against thousands of harmful computer viruses. The Flash adapters automatically scan their host PCs prior to boot-up, detecting and removing boot sector and file viruses.
- **On-board PC configuration history.** Intel Flash adapters help troubleshoot all sorts of workstation problems. On-board Flash memory securely stores a record of the last five hardware inventory and software configuration changes so if a system worked yesterday and doesn't work today, EtherExpress PRO/10 adapters with Flash can help figure out why.
- **Remote boot software** for NetWare and LAN Manager makes a separate boot ROM unnecessary, saving you time and money.

One step installation

Installation in a Novell environment automatically configures a board, and downloads and installs drivers from a server in under three minutes. In addition, all PRO/10 adapters support the industry Plug 'n Play specification. Other NOS and multi-protocol environments provide easy configuration and on-line documentation.

Choice of management tools

Intel EtherExpress PRO/10 Adapters let you manage your client PCs using Intel's LANDesk® Express remote node management software, through the Desktop Management Interface (DMI) or through an SNMP gateway.

Intel stands behind

EtherExpress PRO/10 Adapters

Intel's entire EtherExpress line has been carefully designed and extensively tested to Ethernet standards such as IEEE 802.2 and 802.3. All Intel PRO/10 adapters are backed up to ensure your satisfaction:

- **90-Day money back guarantee.** If, during the first 90 days after purchase, you are unhappy with your EtherExpress PRO/10 Adapter for any reason, you can return it through your reseller for a full refund.
- **Limited lifetime warranty.** All Intel LAN adapters are covered by a limited lifetime warranty.

EtherExpress™ LAN Adapters

Intel EtherExpress™ MCA LAN Adapters

Intel EtherExpress™ MCA LAN Adapter cards are the interface cards of choice for IBM Micro Channel* networks. For starters, they're fully compatible with all IBM PS/2* Micro Channel computers and compatibles. They also have great price/performance with a 16-bit interface, highly integrated custom silicon, and 64 Kbytes of on-board DRAM. Intel flash memory, preprogrammed with remote boot code, makes it a snap to set up diskless workstations on NetWare* and LAN Manager* networks.

EtherExpress™ Flash32 LAN Adapter

The EtherExpress Flash32 LAN Adapter is positively the easiest to manage EISA card on the market. It offers full 32-bit bus master transfers with built-in FlashSet and FlashStart software for easy installation in Novell networks. It's the ideal choice for EISA servers and client workstations requiring maximum throughput.

Fast bus master data transfers.

Servers in large networks with multiple segments and heavy volumes of data will perform much better with a bus master EtherExpress Flash32 Adapter. That's because the EtherExpress Flash32 has a bus master 82596 32-bit Intel Ethernet coprocessor with an internal four-channel DMA controller. The card's full 32-bit bus mastering technology enables high-speed data transfers by allowing direct communication to and from host system memory.

High integration for superior reliability.

Reliable network connections are essential for any high-performance server platform. The EtherExpress Flash32 adapter uses state-of-the-art technology to achieve long-term stability and reliability. Its highly integrated hardware design and flash memory ensure that your network interface cards install easily and run reliably. High integration also means lower price, making Flash32 affordable for all client and server EISA platforms.

EtherExpress™ LAN Adapters

Intel Ethernet Adapter Feature Guide

| Network topology | | Ethernet LAN adapters | | | | |
|--|---|---|--------------------------------|--------------------------------|--------------------------------|--|
| Bus architecture | ISA | | EISA | | PCI | MCA |
| Product name | EtherExpress™ PRO/10 with Flash | EtherExpress PRO/10 | EtherExpress Flash32 | EtherExpress PRO/100 | EtherExpress PRO/100 | EtherExpress MCA |
| Versions/Connectors | PCLA8225: RJ45 only PCLA8215: RJ45/BNC PCLA8205: RJ45/BNC/AUI | PCLA8220: RJ45 only PCLA8210: RJ45/BNC PCLA8200: RJ45/BNC/AUI | EILA8225: RJ45/BNC/AUI | EILA8265: RJ45 | PILA8465: RJ45 | MCLA8110: BNC/AUI MCLA8120: RJ45/AUI |
| Multi-packs available | 5 & 20 packs | 5 & 20 packs | 5 packs | | 5 packs | |
| ADAPTER PRODUCT FEATURES | | | | | | |
| Switchless board configuration | ■ | ■ | ■ | ■ | ■ | ■ |
| Plug 'n Play specification support | ■ | ■ | n/a | n/a | n/a | n/a |
| Price/Performance leadership | ■ | ■ | ■ | ■ | ■ | ■ |
| Automatic driver installation | ■ | ■ | ■ | ■ | ■ | ■ |
| Boot ROM support | ■ | upgrade option | ■ | | | ■ |
| Pre-boot virus protection | ■ | upgrade option | | | | |
| Centralized driver update | ■ | upgrade option | | | | |
| On-board storage of PC config history | ■ | upgrade option | | | | |
| NETWORK MANAGEMENT | | | | | | |
| DML-ready | ■ | ■ | | ■ | ■ | |
| Board and network diagnostics | ■ | ■ | ■ | ■ | ■ | ■ |
| SNMP-manageable with SNMP Gateway | ■ | ■ | ■ | ■ | ■ | ■ |
| Remote node management software | LANDesk® Express free in 20 packs & on BBS | LANDesk Express free in 20 packs & on BBS | LANDesk Express free on BBS | LANDesk Express free on BBS | LANDesk Express free on BBS | LANDesk Express free on BBS |
| NOS SOFTWARE SUPPORT | | | | | | |
| Artisoft LANtastic* (NDIS 2.01) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| Banyan Vines* Client (NDIS 2.01) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| Banyan Vines Server 5.53 | | | | Q2 '95 | Q2 '95 | |
| DEC PathWorks* (NDIS 2.01) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| FTP PC/TCP for DOS (NOS 2.01) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| IBM LAN Server* (NDIS 2.01) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| Microsoft LAN Manager* (NDIS 2.01) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| Microsoft NDIS DOS & OS/2* v2.01 | ■ | ■ | ■ | March '95 | March '95 | ■ |
| Microsoft Win* (NDIS 3.1) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| Microsoft Windows* NT 3.5 (NDIS 3.1) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| Microsoft Windows NT 3.1 (NDIS 3.1) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| NextStep | March '95 | March '95 | March '95 | TBD | TBD | ■ |
| Novell NetWare* 3.11, 3.12 & 4.01 Server | ■ | ■ | ■ | ■ | ■ | ■ |
| Novell NetWare DOS ODI Client | ■ | ■ | ■ | ■ | ■ | ■ |
| Novell NetWare OS/2 ODI Requestor | ■ | ■ | ■ | ■ | ■ | ■ |
| Novell UnixWare* | March '95 | March '95 | | March '95 | March '95 | |
| SunSoft PC/NFS (NDIS 2.01) | ■ | ■ | ■ | March '95 | March '95 | ■ |
| SunSoft Solaris* | March '95 | March '95 | ■ | March '95 | March '95 | ■ |
| SCO Unix* | ■ | ■ | ■ | March '95 | March '95 | |
| Wollogong Pathway Access* (ODI) | ■ | ■ | ■ | ■ | ■ | ■ |
| TECHNICAL FEATURES | | | | | | |
| Data rate(s) supported | 10 Mbps | 10 Mbps | 10 Mbps | 10 & 100 Mbps | 10 & 100 Mbps | 10 Mbps |
| On-board memory | 32KB | 32KB | 0KB | 16KB | 16KB | 64KB |
| Interrupt levels | Software selectable | Software selectable | Software selectable | Software selectable | INTA | Software selectable |
| I/O base addresses | Software selectable | Software selectable | Slot specific | Slot specific | | Software selectable |
| Full IEEE compliance | 802.2 & 802.3 | 802.2 & 802.3 | 802.2 & 802.3 | 802.2 & 802.3 | 802.2 & 802.3 | 802.2 & 802.3 |
| Data path width | 8- & 16-bit | 8- & 16-bit | 32-bit | 32-bit | 32-bit | 16-bit |
| Hardware certifications | FCC B, VDE B | FCC B, VDE B | FCC B, VDE B | FCC B, VDE B | FCC B, VDE B | FCC B, VDE B |
| Data transfer mode | Programmed I/O | Programmed I/O | Bus-Master DMA | Bus-Master DMA | Bus-Master DMA | Programmed I/O /Shared memory |
| Controller or processor | Intel 82595TX | Intel 82595TX | Intel 82596 | Intel 82556 | Intel 82556 | Intel 82586 |
| Power requirement | 0.5Watts @+5VDC | 0.5Watts @+5VDC | 0.9Watts @+5VDC | 1.25Watts @+5VDC | 1.25Watts @+5VDC | 0.6 amps @5V (up to .5 amps at +12V w/ AUI) |
| Operating temperature | +10-55°C | +10-55°C | +10-55°C | +10-55°C | +10-55°C | +10-55°C |
| Humidity | 10-90% | 10-90% | 10-90% | 10-90% | 10-90% | 10-90% |
| INTEL BACKING | | | | | | |
| Limited lifetime warranty | ■ | ■ | ■ | ■ | ■ | ■ |
| 90-day money-back guarantee | ■ | ■ | | ■ | ■ | |

EtherExpress™ LAN Adapters

For More Information

For more information on any of Intel's products, call the appropriate product information number listed below. Or, to get complete details instantly by fax, use our FaxBack* 24-hour Information Services. Just call the appropriate number listed below from any touch-tone phone and use the specified document numbers to place your order.

Product support numbers

| | U.S. & Canada | Europe | Asia-Pacific |
|----------------------------|---------------------------------|-----------------|--|
| Product Information | 800-538-3373 or 503-264-7354 | +44-1793-431155 | Singapore +65-735-3811 Australia +61-2-975-3300 Japan +81-298-47-1841 Hong Kong +852-2-844-4456 |
| Automated Support | | | |
| FaxBack* | 800-525-3019 or 503-264-6835 | +44-1793-432509 | Singapore +65-256-5350 Australia +61-2-975-3922 Hong Kong +852-2-844-4448 Korea +822-767-2594 Taiwan +886-2-514-0815 |
| TalkBack | 800-368-3160 or 503-264-7777 | | |
| Intel BBS | 503-264-7999 | +44-1793-432955 | Singapore +65-256-4776 Australia +61-2-975-3066 Hong Kong +852-2-530-4116 Taiwan +886-2-718-6422 Korea +822-784-3430 |
| CompuServe | GO INTELFORUM | GO INTELFORUM | GO INTELFORUM |

In Singapore, Australia, Hong Kong and Taiwan request FaxBack document 9000 for a list of dealers and distributors.
In the U.S. request FaxBack document 9000 for U.S. pricing.

FaxBack documents

| | Document Number |
|---|-----------------|
| Intel EtherExpress PRO/10 Data Sheet | 6291 |
| Intel EtherExpress PRO/100 Data Sheet | 6285 |
| LANQuest Performance Benchmark on PRO/10 Report | 6353 |
| Introduction to Fast Ethernet | 6354 |
| Intel EtherExpress Flash32 Data Sheet | 6243 |

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