

FasterSimpler
NETWORKS

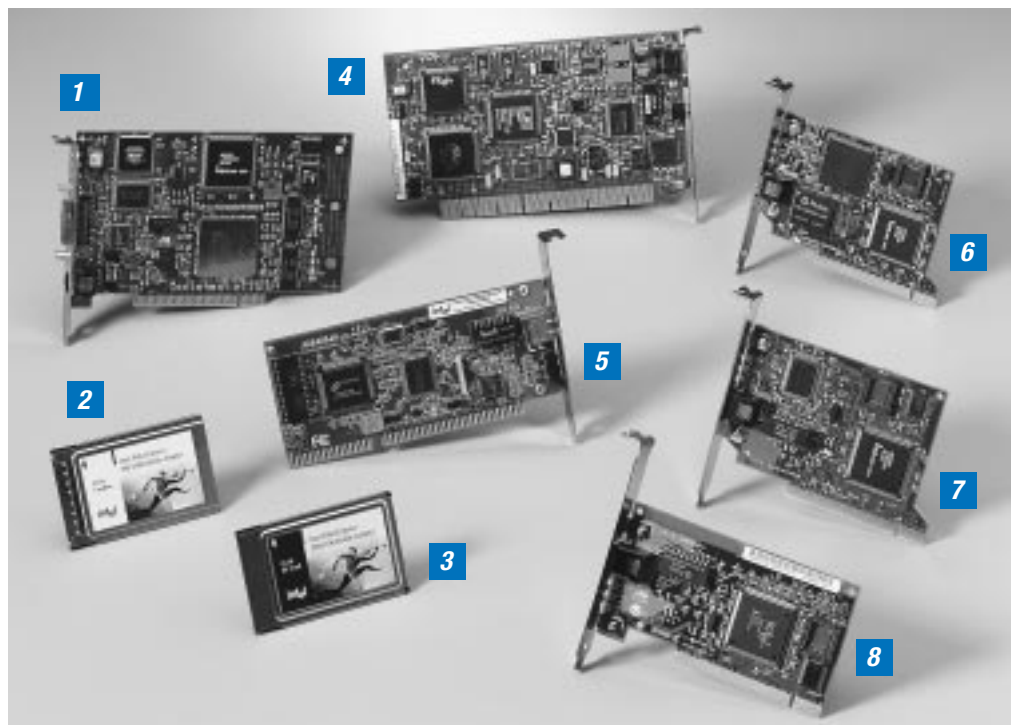
Intel
adaptive
TECHNOLOGY

KEY FEATURES

- *High-speed networking power for Intel Pentium®, Pentium Pro and Pentium II processor-based desktops, portables, and servers*
- *Intel switches, hubs, and print servers provide a complete Fast Ethernet solution*

Intel EtherExpress™ PRO/100 LAN Adapters

Fastest total system performance for networked clients and servers.



1. EtherExpress™ PRO/100 Server Adapter

2. EtherExpress PRO/100 Mobile Adapter CardBus

3. EtherExpress PRO/100 Mobile Adapter PC Card

4. EtherExpress PRO/100 EISA Adapter

5. EtherExpress PRO/100 ISA Adapter

6. EtherExpress PRO/100 T4 PCI Adapter

7. EtherExpress PRO/100 TX PCI Adapter

8. EtherExpress PRO/100+ PCI Adapter

Intel EtherExpress™ PRO/100 LAN Adapters are the total performance solution for networking Pentium®, Pentium Pro and Pentium II processor-based PCs and servers on Ethernet and Fast Ethernet LANs. By minimizing CPU utilization while maximizing throughput, they give you top performance with even the most demanding applications and operating environments.

For your PCs and servers that support the PCI bus architecture, the EtherExpress PRO/100+ PCI Adapter extends performance and reliability even further. Third generation enhancements include an innovative single chip design, Adapter Fault Tolerance for redundant network connectivity, and a powerful new driver suite that is fully backwards compatible with EtherExpress PRO/100 PCI Adapters.

Intel Adaptive Technology optimizes performance

Adaptive Technology is a silicon-based solution that optimizes adapter performance based on your existing network environment. It allows the adapter to adjust to future changes, ensuring continued peak performance without costly hardware upgrades. Adaptive Technology is incorporated in all EtherExpress PRO/100 PCI Adapters, including the EtherExpress PRO/100 Server Adapter.

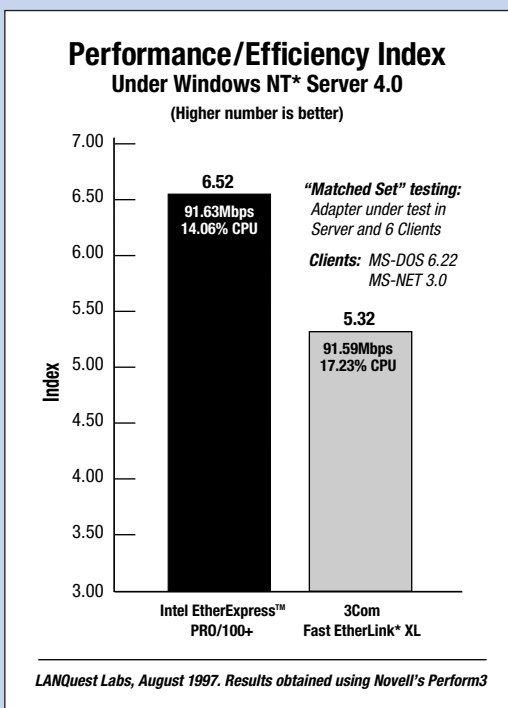
intel®

Self-tunes to match the toughest performance demands

Adaptive Technology enables a powerful Collision Reduction feature – the adapter intelligently monitors network traffic and tunes itself for best performance. Ideal for heavy-traffic networks with 32-bit operating systems like Windows* 95 and Windows NT* and other demanding applications.

Built-in 10/100Mbps auto-negotiation

Able to run at either 10 or 100Mbps, EtherExpress PRO/100 Adapters auto-negotiate the speed and duplex status of the port to which they are connected. You can install them on your clients and servers running at 10Mbps now, and let the adapter's high speed architecture give you maximum Ethernet performance. Then effortlessly switch to 100Mbps Fast Ethernet in the future – without changing the configuration or updating the drivers.



The Intel EtherExpress™ PRO/100+ Adapter tops the market in performance/efficiency, which demonstrates a strong balance of high data throughput and low CPU utilization. Your data flows quickly, while your PCs and servers reserve plenty of power for running applications.

EtherExpress™ PRO/100+ PCI Adapter

Optimized performance through Adaptive Technology.

EtherExpress PRO/100+ PCI Adapter

This third-generation adapter brings top performance to PCI-bus clients and servers that use the 100BASE-TX standard over Category 5 wiring. Adaptive Technology complements the powerful 32-bit bus-master architecture to ensure just the right balance of high throughput and low CPU utilization – even as network traffic varies and networking technologies evolve. Intel's new 82558 controller increases performance even further with an innovative, single-chip design that also improves on adapter reliability. And Adapter Fault Tolerance software enables an automatic back-up connection that ensures the highest possible availability for your adapter network links.

The EtherExpress PRO/100+ PCI Adapter includes a full driver suite plus intermediate drivers for advanced functionality. The base driver suite maintains backwards compatibility with Intel EtherExpress PRO/100 TX and T4 PCI Adapters (see next page) – so the new drivers will also support your installed base of adapters.

Other features include auto-negotiation to full duplex operation for maximum use of available bandwidth, easy Windows* OS-based setup, and full support for the IEEE 802.3 and 802.3u specifications.

KEY FEATURES

- *Innovative single chip design ensures high reliability*
- *Adapter Fault Tolerance offers redundant network connectivity*
- *Advanced architecture delivers high throughput with low CPU utilization*

EtherExpress PRO/100 Server Adapter

The 10/100Mbps adapter that maximizes server resources.

Built-in intelligence, robust Adapter Fault Tolerance and support for Cisco ISL VLANs enable the EtherExpress PRO/100 Server Adapter to provide leading server performance with high throughput, low CPU utilization and superior performance efficiency. The Server Adapter includes easy-to-use ProSet installation software for fast setup.

An onboard Intel i960® processor keeps server CPU utilization low and throughput high. You get top server performance and speedy response times because your server is freed to focus on service requests, while the onboard processor optimizes the network connection.

VLAN and Fault Tolerance support

Support for Cisco ISL Virtual LANs ensures security, while improving network performance and making it easier to logically group your network devices. Switched 10/100Mbps adapter connections help you reduce server bottlenecks and boost performance across Virtual LANs. And Intel's Adapter Fault Tolerance keeps your server link active if a switch or hub link fails by automatically switching to a backup link.

The EtherExpress PRO/100 Server Adapter also supports 100BASE-FX environments with the onboard MII connector and an external transceiver (not supplied by Intel).

KEY FEATURES

- *On-board i960® processor delivers low server CPU utilization*
- *Support for Cisco ISL Virtual LANs enhances flexibility and security*
- *Adapter Fault Tolerance provides high server link availability*

Server Adapter Advanced Software Features

	<i>Standard Mode</i>	<i>ISL VLAN</i>	<i>Adapter Fault Tolerance</i>
<i>Windows NT* 3.51</i>	✓		
<i>Windows NT 4.0</i>	✓	✓†	✓†
<i>NetWare* 3.12</i>	✓		
<i>NetWare 4.11</i>	✓	✓	✓

† ISL and Adapter Fault Tolerance will not run simultaneously.

EtherExpress PRO/100 LAN Adapters

Total system performance for networked PCs.

EtherExpress PRO/100 TX PCI Adapter

High-speed, second-generation networking power for PCI-bus servers and clients using the 100BASE-TX standard running over Category 5 wiring. This adapter takes full advantage of available bandwidth with its 32-bit bus-master architecture, auto-negotiation to full duplex operation, and Adaptive Technology for high performance in your changing network environment.

EtherExpress PRO/100 T4 PCI Adapter

32-bit bus-master architecture ensures fast total system performance with PCI-bus servers and clients using the 100BASE-T4 standard running over Category 3 wiring. Includes built-in Intel Adaptive Technology to protect your technology investment.

EtherExpress PRO/100 TX EISA Adapter

Increase the performance of your EISA file servers while also enabling them for 100Mbps operation by installing the market-leading EtherExpress PRO/100 Adapter. The RJ-45 connector supports both 10 and 100Mbps operation.

EtherExpress PRO/100 TX ISA Adapter

Intel also makes an EtherExpress PRO/100 Adapter for your legacy ISA clients. It supports 10BASE-T and 100BASE-TX, and permits full-duplex operation with auto-negotiation for increased bandwidth.

KEY FEATURES

- *Provides high-speed networking power for Intel Pentium®, Pentium Pro and Pentium II processor-based PCs*
- *Low CPU utilization and high throughput*

EtherExpress PRO/100 Mobile Adapter

Extending 10/100Mbps to your portable PCs.

Intel's EtherExpress PRO/100 Mobile Adapter extends all the benefits of high-bandwidth networking to your portable PCs. Available in PC Card and CardBus versions, it autosenses the speed of the network port to which it is connected. HotSwap support is provided for easy removal and reinsertion of the card, and a full driver suite.

The affordable, practical solution

The PRO/100 Mobile Adapter is the convenient, affordable way to give your Pentium processor-based portable PCs the bandwidth they deserve. When you look at the alternatives for networking mobile users, this is the choice that provides a direct, affordable connection – one that's fast, simple and accommodates increased performance demands. The user can simply plug into a RJ-45 network connection and get the full resources of the network including access to servers and databases.

16-bit PC Card or 32-bit CardBus to meet your needs

PC Card – Gives you the flexibility of 10/100 connectivity for your PCs using the 16-bit PC Card standard, in the convenient PCMCIA form factor.

CardBus – Provides 32-bit functionality for your CardBus equipped mobile PCs. Allows you to get the full power of your Pentium processor-based machines for superior performance.

With the EtherExpress PRO/100 Mobile Adapter, you can take the next step now in extending Fast Ethernet to your mobile and remote users, so you can have a complete 100Mbps network.

KEY FEATURES

- Autosenses network speed to run at either 10 or 100Mbps
- Easy to install, easy to use
- Proven 100BASE-TX Fast Ethernet technology

Intel Fast Ethernet Solution

Use these Intel products together with EtherExpress™ PRO/100 Adapters to increase your network response times and make the most of the growing power of PCs.

Intel Express 10/100 Stackable Hub – This cost-effective stackable hub comes in 12- and 24-port versions, allowing 10 and 100Mbps operation in a single, managed stack with up to 180 managed ports. You can deploy 100Mbps when and where it is needed, while still maintaining 10Mbps support.

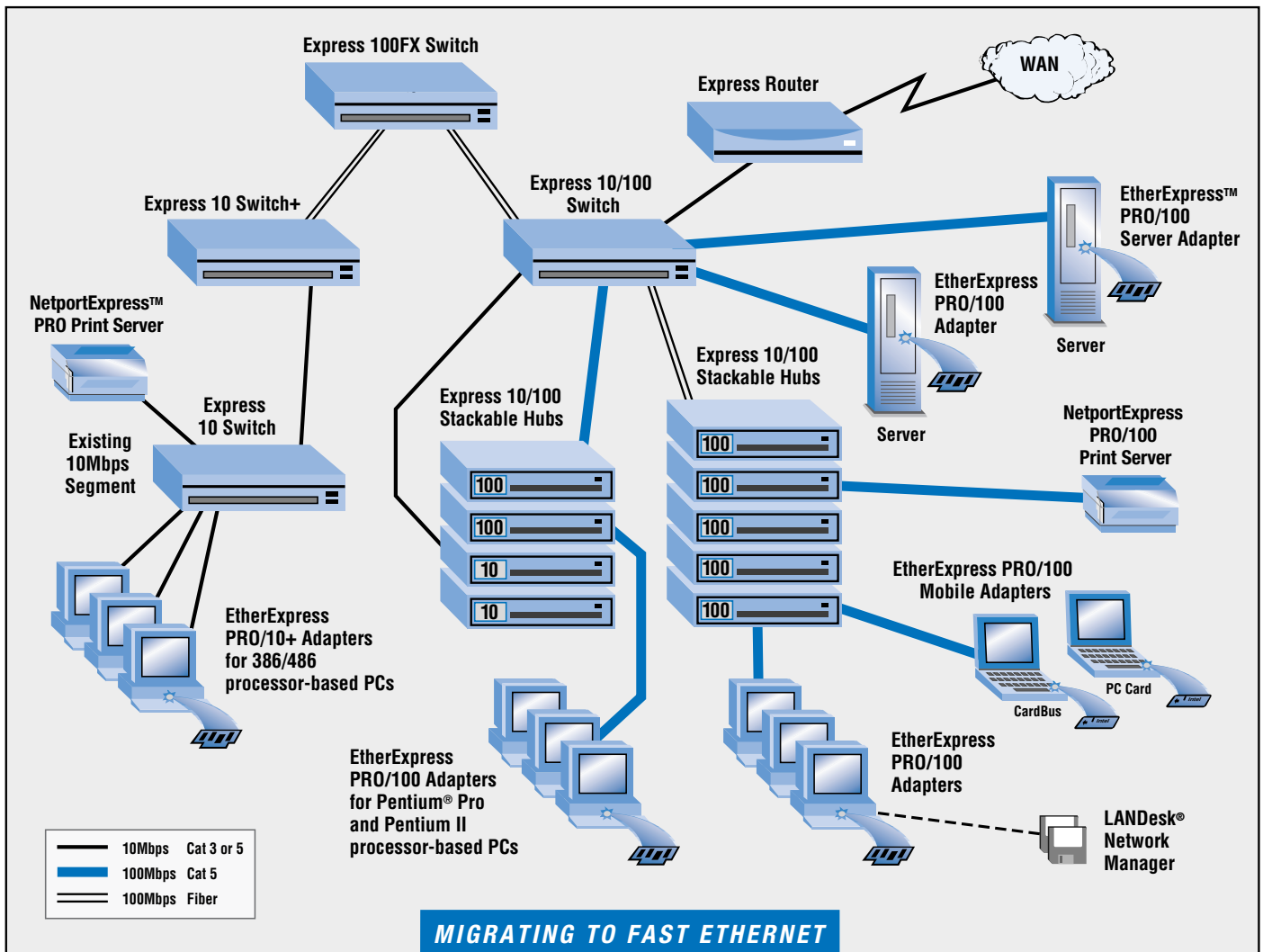
Intel Express Standalone Hub – Ideal for networking high-performance PCs in small businesses and workgroups, this 8-port, 100Mbps hub is simple to install and easy to use

Intel Express 10/100 Fast Ethernet Switch – Deploy dedicated 100Mbps bandwidth to your high performance workgroups, while still maintaining 10Mbps support for legacy segments. This cost-effective, 8-port switch supports an easy, planned migration to Fast Ethernet.

Intel Express 100FX Switch – An ideal campus solution, this cost effective Fast Ethernet fiber switch uses Adaptive Technology and Layer 3 Switching to boost performance even further. It supports eight 100BASE-FX connections of up to 2 kilometers each.

LANDesk® Network Manager – This optional software tool allows Windows® OS-based management of Express Stackable Hubs and Express Switches, including viewing, configuring, managing and monitoring within a workgroup environment.

NetportExpress™ PRO/100 Print Server – The only print server you'll ever need at 10 or 100Mbps. A high-performance, multi-NOS, centrally managed solution for connecting new and existing printers to the network. Available in single-port or 3-port external versions.



EtherExpress™ PRO/100 Adapters are part of a complete family of 10/100Mbps Fast Ethernet products from Intel. These products provide the simplest and most economical method for moving your network from 10Mbps to 100Mbps, while still allowing you to provide connectivity for legacy network segments. Based on the proven 10BASE-T and 100BASE-T technology, Intel's 10/100 enabled Fast Ethernet products will fit seamlessly into your existing Ethernet network.

Intel Ethernet Adapter Feature Guide

DESKTOP AND SERVER ADAPTERS

Bus architecture	PCI	PCI	PCI
Product name	EtherExpress™ PRO/100+	EtherExpress PRO/100	EtherExpress PRO/100 Server
IEEE Standard/Network Topology	10BASE-T, 100BASE-TX	10BASE-T, 100BASE-TX	10BASE-T, 100BASE-TX, 100BASE-FX
Wiring	Cat5, 2pr	Cat5, 2pr	Cat3,4, 5; 4pr
PCMCIA standard supported			
Product code: Connectors	PILA8460: RJ-45	PILA8465B: RJ-45	PILA8475B: RJ-45
PILA8480: RJ-45, MII			
ADAPTER PRODUCT FEATURES			
Adaptive Technology	■	■	■
Multi-packs available	5, 20 & 80 packs	5, 20 & 80 packs	5 & 20 packs
Switchless board configuration	■	■	■
Plug 'n Play specification support	Standard	Standard	Standard
Automatic driver installation	■	■	■
Boot ROM support	Upgrade option	Upgrade option	Upgrade option
Full Duplex Capable	■	■	10Mbps only
Auto-Negotiation	■	■	■
Hot Swap capability			
NETWORK MANAGEMENT			
DMI-ready	■	■	
Board and network diagnostics	■	■	■
SNMP-manageable with SNMP Gateway	■	■	■
NOS SOFTWARE SUPPORT			
Artisoft LANtastic* (NDIS 2.01)	■	■	
Banyan Vines* Client (NDIS 2.01)	■	■	
Banyan Server driver		■	
DEC PathWorks* (NDIS 2.01)	■	■	
FTP PC/TCP for DOS (NOS 2.01)	■	■	
IBM LAN Server* (NDIS 2.01)	■	■	
IBM OS/2, WARP (NDIS 2.01)	■	■	
Microsoft LAN Manager* (NDIS 2.01)	■	■	
Microsoft Windows* for Workgroups	■	■	
Microsoft Windows NT* 3.51, 4.0	■	■	■
Microsoft Windows 95 (NDIS 3.x)	■	■	
Novell NetWare* 3.12 & 4.1x Server	■	■	■
Novell NetWare DOS ODI Client	■	■	
Novell NetWare Client 32	■	■	
Novell NetWare NT ODI Requestor	■	■	
SunSoft PC/NFS (NDIS 2.01)	■	■	
SunSoft Solaris*	■	■	
SCO UnixWare*	■	■	
Wollogong Pathway Access* (ODI)	■	■	
ADVANCED SOFTWARE FEATURES			
Adapter Fault Tolerance	■		■
TECHNICAL FEATURES			
Data rate(s) supported	10 & 100Mbps	10 & 100Mbps	10 & 100Mbps
On-board memory	6KB cache	6KB cache	1MB
Interrupt levels	INTA	INTA	INTA
I/O base addresses	N/A	N/A	N/A
Full IEEE compliance	802.2 & 802.3	802.2 & 802.3	802.2 & 802.3
Data path width	32-bit	32-bit	32-bit
Hardware certifications	FCC A, CE	FCC B, CE	FCC A, CE
Data transfer mode	Bus-master DMA	Bus-master DMA	Bus-master DMA
Controller or processor	Intel 82558	Intel 82557	Intel 82557 and i960® RP processor
Power requirement	2.6Watts @+5VDC	5Watts @+5VDC	15Watts @+5VDC
Operating temperature	0-55°C	+10-55°C	+10-55°C
Operating Humidity	85% at +55°C	85% at +55°C	85% at +55°C
INTEL BACKING			
Limited lifetime warranty	■	■	■
90-day money-back guarantee	■	■	■
PCI compatibility guarantee	■	■	■

		MOBILE ADAPTERS	
EISA	ISA	PC Card (16-bit)	CardBus (32-bit)
EtherExpress PRO/100	EtherExpress PRO/100	EtherExpress PRO/100 Mobile	EtherExpress PRO/100 Mobile
10BASE-T, 100BASE-TX	10BASE-T, 100BASE-TX	10BASE-T, 100BASE-TX	10BASE-T, 100BASE-TX
Cat5, 2pr	Cat5, 2pr	Cat5, 2pr	Cat5, 2pr
		PC Card Feb 95 Type II	PC Card Feb 95 Type II
EILA8265: RJ-45	PCLA8560: RJ-45	MBLA1600: RJ-45	MBLA3200: RJ-45
	5 & 20 packs	5 & 20 packs	5 & 20 packs
■	■	■	■
■	■	■	Standard
■		■	■
	■	10Mbps only	■
	■		
		■	■
■			
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■	■	■	■
■			
■	■	■	■
10 & 100Mbps	10 & 100Mbps	10 & 100Mbps	10 & 100Mbps
16KB	8KB	32KB	4KB
Software selectable	Software selectable	Software selectable	INTA
Slot specific	Software selectable	Software selectable	N/A
802.2 & 802.3	802.2 & 802.3	802.2 & 802.3	802.2 & 802.3
32-bit	16-bit	16-bit	32-bit
FCC B, CE	FCC B, CE	FCC B, CE	FCC B, CE
Bus-master DMA	Programmed I/O	Programmed I/O	Bus-master DMA
Intel 82556	National	Xircom	DEC
5Watts @+5VDC	2.5Watts @+5VDC	1.6Watts @ 5VDC	2Watts @ 3.3VDC
+10-55°C	+0-55°C	+0-55°C	+0-55°C
85% at +55°C	80% at +55°C	95% max noncondensing	95% max noncondensing
■	■	■	■
■	■	■	■

COMPANION PRODUCTS

- *Intel Express Switches*
- *Intel Express Hubs*
- *Intel NetportExpress™
PRO/100 Print Servers*
- *Intel LANDesk®
Network Manager*

Intel EtherExpress™ PRO/100 Adapter Family

ORDER CODES

EtherExpress™ PRO/100+ PCI Adapter	PILA8460
EtherExpress PRO/100 TX PCI Adapter	PILA8465B
EtherExpress PRO/100 T4 PCI Adapter	PILA8475B
EtherExpress PRO/100 Server Adapter	PILA8480
EtherExpress PRO/100 EISA Adapter	EILA8265
EtherExpress PRO/100 ISA Adapter	PCLA8560
EtherExpress PRO/100 Mobile Adapter 16-bit PC Card	MBLA1600
EtherExpress PRO/100 Mobile Adapter 32-bit CardBus	MBLA3200

CUSTOMER SUPPORT

Intel Customer Support Services offer a broad selection of tiered support programs. For more information: visit us on the World Wide Web at <http://support.intel.com> or call 800-538-3373, ext. 276, or order FaxBack* 8549 at 800-525-3019.

FOR PRODUCT INFORMATION

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Taiwan, Korea, Singapore and ASEAN	+65-735-3811
Australia	+61-2-9937-5800

FOR MORE INFORMATION, ORDER THESE FAXBACK* DOCUMENTS

Fast Ethernet Overview and Deployment Guide	6354
Express 10/100 Stackable Hub Data Sheet	8589
Express Switches Data Sheet	8503
The Advantage of Fast Ethernet for New Networks	1308
Adaptive Technology – Networking Information Series	1034
LANQuest Labs Performance Report	6389
Intel Branded Products Price List	9000

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