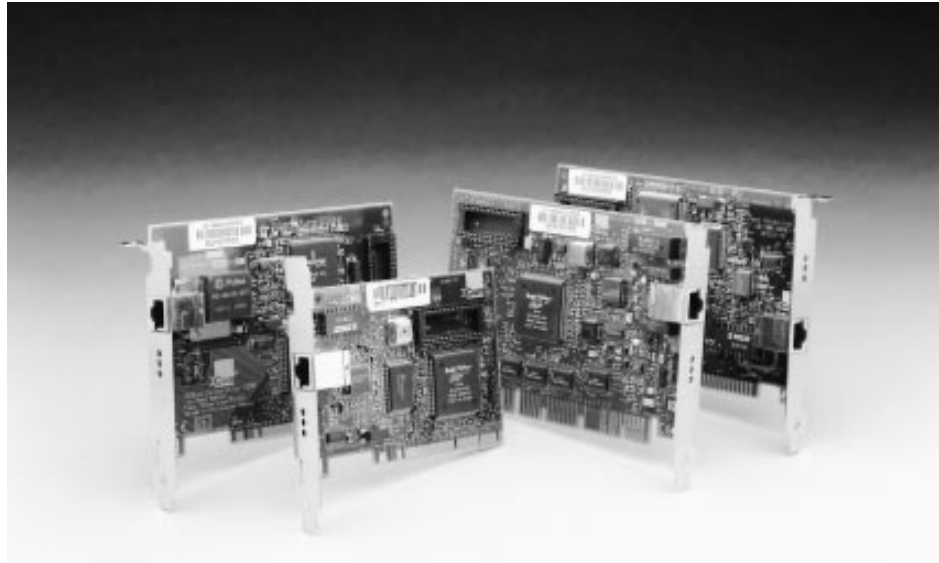




# Fast EtherLink XL and Fast EtherLink 10/100BASE-T Network Interface Cards

*High-performance, reliable networking at 10 or 100 Mbps for many PC buses, from the #1 supplier of Fast Ethernet*

Fast EtherLink XL and Fast EtherLink network interface cards set the industry standard for performance. With 3Com's exclusive Parallel Tasking technology, you get top speeds at both 10 Mbps and 100 Mbps. Fast EtherLink cards support 10/100 BASE-TX for EISA and ISA buses and 10/100BASE-T-4 (Category 3, 4 and 5 UTP) for the PCI bus. The Fast EtherLink XL card supports 10/100BASE-TX for the PCI bus.



3Com's leadership in Ethernet and enterprise-wide Fast Ethernet solutions ensures you a smooth migration to high-speed networking and unprecedented network functionality.

Supply your high-performance PCs and servers with dual-speed Fast EtherLink<sup>®</sup> XL PCI or Fast EtherLink PCI, ISA, or EISA cards, and they will run at the fastest available data throughput rates in both 10BASE-T and 100BASE-T environments.

3Com Fast EtherLink cards enable a total workgroup solution with high-speed connection to PCI or ISA client PCs and PCI or EISA servers. The cards support 100BASE-TX and 100BASE-T4, allowing you to use existing cabling without costly upgrades.

Together with 3Com's SuperStack<sup>™</sup> II switches and hubs, Fast EtherLink cards are the most powerful, reliable, and easy way to move to 100 Mbps networking.

## Key Benefits:



- **Top performance.** 3Com's patented Parallel Tasking<sup>®</sup> technology delivers unsurpassed throughput and low CPU utilization. Combining this technology with 3Com's PACE<sup>™</sup> Interactive Access, the Fast EtherLink XL PCI card achieves performance/efficiency ratings in a Novell<sup>®</sup> NetWare<sup>™</sup> environment that are up to 61% higher than competing cards.
- **Easy migration.** Fully compatible with 10BASE-T and 100BASE-T equipment, Fast EtherLink cards sense the speed of the switch or hub port and configure themselves automatically.
- **Flexible cable support.** Fast EtherLink 10/100BASE-T4 cards connect to Category 3,

4, and 5 UTP cabling; you save the cost of installing new cable.

- **Easy to install and manage.** Plug and Play compliant with Windows<sup>™</sup> 95, Fast EtherLink cards also come with 3Com's AutoLink<sup>™</sup> auto-installation software for automatic NIC detection and configuration. To simplify day-to-day operation, the cards provide SNMP manageability and LEDs that show link integrity, activity, and speed of operation.

- **High reliability.** State-of-the-art design and ASIC hardware integration have earned 3Com network interface cards a worldwide reputation for top quality and reliability.





## Fast Ethernet: Scaling Network Performance

How can you give your network users the speed they need?

The easiest, most affordable solution is 100BASE-T, or Fast Ethernet. Fast Ethernet lets you migrate to high-speed networking without having to change your existing cabling, buy expensive equipment, wrestle with interoperability, or support unfamiliar technologies.

When you install a Fast Ethernet solution from 3Com, the leading worldwide supplier of Fast Ethernet cards, you can get the highest throughput rates for the lowest cost of ownership.

Compatible with current 10BASE-T applications and IEEE 802.3u (the 100BASE-T Fast Ethernet standard), 3Com Fast EtherLink cards assure you can add bandwidth to a LAN when and where it's needed. Fast EtherLink PCI cards provide DynamicAccess™ features and the highest performance available for PCI PCs and servers. Fast EtherLink EISA cards deliver unmatched performance for EISA client PCs or servers. Fast EtherLink ISA cards maximize the performance of ISA-only client PCs by using bus mastering technology and

64 K of external RAM to provide ample buffering to the network. You can also extend the benefits of Fast Ethernet enterprise-wide, connecting your 100BASE-T LANs with 3Com's complete line of Fast Ethernet switching and routing products. The diagram below shows how.

## Revolutionary XL Cards

You can maximize performance and support real-time applications with Fast EtherLink XL cards. Revolutionary in their performance and functionality, Fast EtherLink XL cards integrate 3Com DynamicAccess features that transform the interface card into an active network component that interacts intelligently with the network.

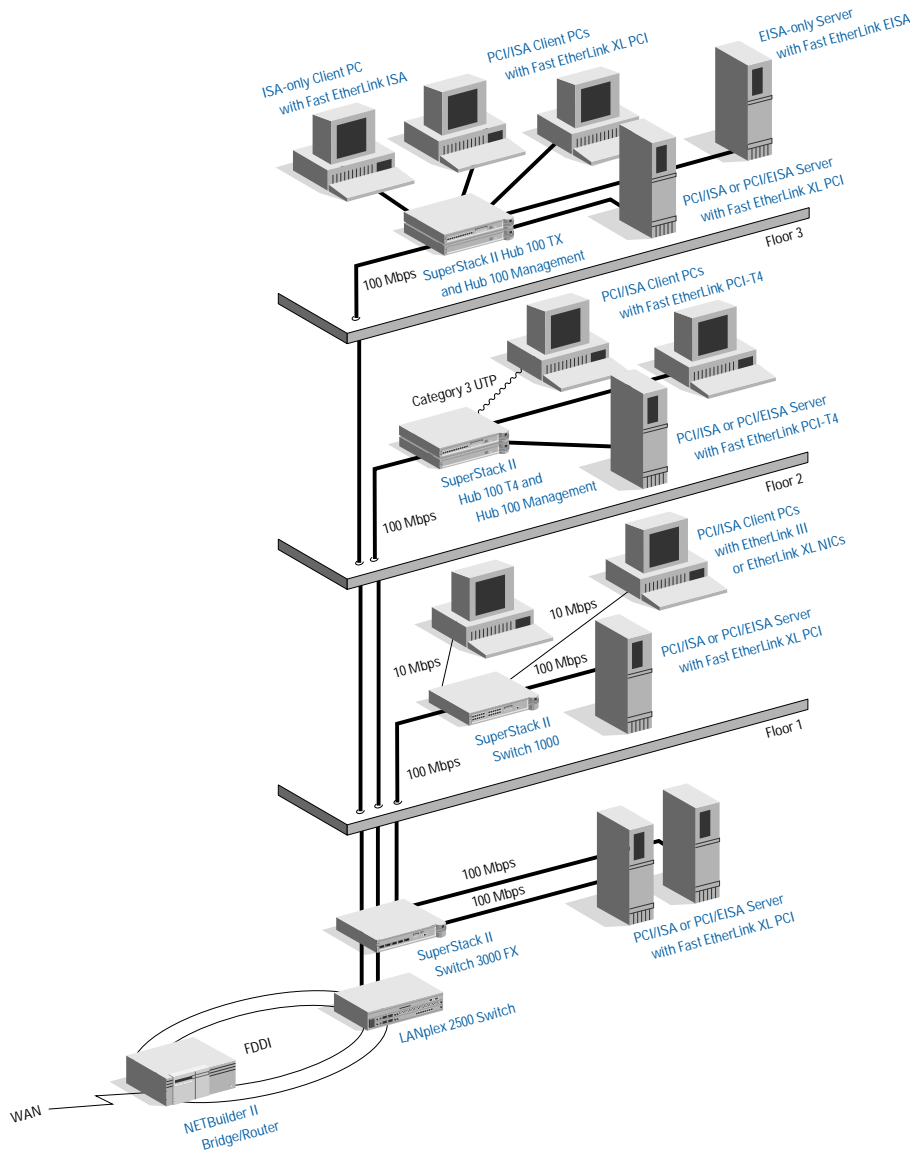
DynamicAccess features include 3Com's PACE Interactive Access technology, dRMON (distributed RMON) support, Efficient Multicast Control, PACE real-time and multimedia applications support, and PictureTel® LiveShare™ Plus dataconferencing software, as well as more features to come with software upgrades.

## Many Cabling Alternatives

With Fast EtherLink 10/100BASE-T cards in TX and T4 versions, 3Com ensures you can connect easily to your existing cabling.

The TX versions (for Fast EtherLink ISA, EISA, and XL PCI cards) support 100BASE-TX, the IEEE 802.3 standard for 100BASE-T running over Category 5 UTP ("data grade" UTP) cabling. Fast EtherLink TX cards require only two pairs of wire for 100 Mbps operation.

Fast EtherLink PCI T4 cards support 100BASE-T4, the IEEE 802.3 standard for 100BASE-T running over Category 3, 4, or 5 UTP ("voice grade" UTP) cabling. Fast EtherLink PCI T4 cards require four pairs of wire for 100 Mbps. There is no performance difference between 100BASE-TX and 100BASE-T4.



## Fast EtherLink 10/100BASE-T Features and Benefits

### Features

### Benefits

#### *Performance*

Parallel Tasking architecture	Highest peak throughput at 10 Mbps or 100 Mbps
32-bit bus mastering (PCI and EISA)	Wide data path and fast transfers with low CPU utilization provide optimum system performance
RAM partitioning flexibility	Tunes adapter for optimum performance in PCs and servers

#### *Easy Migration to 100BASE-T*

10/100BASE-T functionality with automatic reconfiguration	The dual-speed card can run at 10 Mbps or 100 Mbps, automatically sensing and configuring for the speed of the hub or switch port (NWay for XL PCI and ISA)
Support a variety of Ethernet hub technologies: shared and switched 10BASE-T, 100BASE-T4, shared and switched 100BASE-TX, half-duplex, and full-duplex	Flexibility in hub selection and configuration: Cards can automatically connect to virtually any Ethernet hub technology, without any changes
Support 100BASE-TX or 100BASE-T4	Flexibility to support Category 3, 4, or 5 UTP cable installations. 100 Mbps performance without the cost of installing new cable (Fast EtherLink PCI T4)

#### *Ease of Use*

AutoLink configuration software for NetWare drivers and support for Windows 95 Plug and Play features	Fast, easy installation and automatic detection and configuration of the NIC
LEDs that indicate link integrity and activity for both 10 Mbps and 100 Mbps	Simplify installation and troubleshooting by verifying connection status from the PC

#### *Compatibility*

IEEE 802.3 compliant	Full compliance with international Ethernet standards
Guaranteed compatibility	All adapters are guaranteed compatible with any PCI-, ISA-, or EISA-compliant system, or your money back
Ship with NetWare and NDIS drivers, and offers extensive third-party software support	Compatibility with leading network operating systems and applications in a wide range of LAN environments
Extensive compatibility testing with 100BASE-T hubs	Multi-vendor interoperability
Support 100BASE-TX for Category 5 UTP cabling	Provides 100 Mbps throughput using only two pairs of Category 5 UTP cable (Fast EtherLink XL PCI, Fast EtherLink EISA, Fast EtherLink ISA)
Support 100BASE-T4 for Category 3, 4, or 5 UTP cabling	Provides 100 Mbps throughput using four pairs of Category 3, 4, or 5 UTP cabling (Fast EtherLink PCI-T4)
Support Category 3, 4, or 5 UTP cabling for 10BASE-T mode	Standards-based 10BASE-T card functionality—can be used with any 10BASE-T hub

#### *Manageability*

SNMP manageability with SmartAgent® management agents (optional)	SNMP manageability to the desktop level; control links with familiar tools; integrate management with the full range of 3Com's Ethernet and Fast Ethernet products
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#### *DynamicAccess Features*

PACE Interactive Access Technology (XL only)	NICs can dynamically analyze network traffic, tuning network performance
PictureTel LiveShare Plus dataconferencing software (XL only)	Free application-sharing software from the leader in videoconferencing; discounted upgrades to full videoconferencing
PACE real-time and multimedia applications support (Available Q3CY96 for XL and ISA)	Optimized for switched environments and multimedia applications; First and only true Class of Service (CoS) capability available
Desktop dRMON management (Available Q4CY96 for XL and ISA)	Full RMON network management at a low cost in switched or Fast Ethernet networks
Desktop-configured Efficient Multicast Control (Available Q1CY97 for XL)	Allows desktop applications to control switch multicast filters (IEEE 802.1p) to optimize network performance

#### *Reliability*

One ASIC chip combines the Ethernet controller, encoder/decoder, and bus interface	Component integration delivers higher reliability and lower cost
Lifetime warranty	Assured reliability, for as long as you own the adapter



# Specifications

## Fast EtherLink XL and Fast EtherLink 10/100BASE-T Network Interface Cards

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**3Com Asia Limited**  
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Shanghai, China: 86 21 6374 0220  
Ext. 6115  
Hong Kong: 852 2501 1111  
India: 91 11 644 3974, 644 6123  
Indonesia: 62 21 523 9181  
Korea: 82 2 319 4711  
Malaysia: 60 3 732 7910  
Singapore: 65 538 9368  
Taiwan: 886 2 377 5850  
Thailand: 662 231 8151 4

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Netherlands: 31 30 6029700

**3Com Canada**  
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Montreal: 514 874 8008  
Ottawa: 613 566 7055  
Toronto: 416 498 3266  
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Munich, Germany: 49 89 627320  
Poland: 48 22 6451351  
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Chile: 56 2 633 9242  
Mexico: 52 5 520 7841  
3Com Northern Latin America  
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Colombia: 57 1 616 2884  
Peru: 51 1 221 5399  
Venezuela: 58 2 953 8122

**3Com Mediterraneo**  
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Rome, Italy: 39 6 5917756  
Spain: 34 1 3831700

**3Com Middle East**  
971 4 349049

**3Com Nordic AB**  
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Finland: 358 0 435 420 67  
Norway: 47 22 18 40 03  
Sweden: 46 8 632 56 00

**3Com South Africa**  
27 11 807 4397

**3Com UK Ltd.**  
Edinburgh: 44 1312 208228  
Manchester: 44 1618 737717  
Marlow: 44 1628 897000

### Compatibility

#### EtherDisk Software

Fast EtherLink cards ship with either the 3C90X EtherDisk™ XL (3.5") or 3C5xx EtherDisk™ (3.5") containing drivers for:

- Novell® NetWare™ v2.x and 3.1 (client), 3.12, 4.0, and 4.1 [client and server (except ISA)]
- NDIS version 2.01 and 3.0 compliant systems, including Microsoft® LAN Manager,™ Windows™ 95 (except EISA and PCI-T4), Windows™ NT v3.51 (except ISA), Windows for Workgroups v3.11., Banyan® and OS/2 (except ISA) clients

EtherDisk XL also contains drivers for:

- Windows v3.x
- HSM v3.2 and 3.3 support is available from 3Com

#### Other Software

Drivers for other third-party software are available from 3ComBBS or the third party. For a current list of drivers supported, retrieve Document 9071 from the 3ComFacts fax system.

### Hardware

#### Fast EtherLink XL:

- PCI bus computers

#### Fast EtherLink:

- PCI bus computers
- EISA bus computers
- ISA bus computers

### Connector, Cables, and Operating Distances

#### Fast EtherLink XL, ISA, EISA:

##### RJ-45 Connector (Female):

10BASE-T: Category 3, 4, or 5 UTP on two pairs up to 328 ft/100 m

100BASE-TX: Category 5 UTP on two pairs up to 328 ft/100 m

#### Fast EtherLink PCI-T4 only:

##### RJ-45 Connector (Female):

10BASE-T: Category 3, 4, or 5 UTP on two pairs up to 328 ft/100 m

100BASE-T4: Category 3, 4, or 5 UTP on two pairs up to 328 ft/100m

### Network Interface

Ethernet IEEE 802.3 industry-standard 10 Mbps baseband CSMA/CD (10BASE-T) and 100 Mbps baseband CSMA/CD (100BASE-T) standards.

### LEDs

Each card has three LEDs. The LED marked "10 LNK" glows green to indicate operation in 10 Mbps mode and link integrity with a 10BASE-T hub. The LED marked "100 LNK" glows green to indicate operation in 100 Mbps mode and link integrity with a 100BASE-T

hub. The LED marked "ACT" flashes yellow when there is link activity in either 10BASE-T or 100BASE-T mode.

### Interrupt Levels

**XL, PCI:** Interrupt line INTA, which conforms with the PCI specification  
**EISA and ISA:** Interrupt Levels 3, 5, 7, 9, 10, 11, 12, 15

### I/O Base Address

The card address can be selected via diagnostic software provided on the EtherDisk.

**XL, PCI:** Any 32-bit I/O Base Address. Card occupies 32 bytes of I/O space.

**EISA:** 16 possible addresses, 200 to 3EO. Card occupies 32 bytes of I/O space.

**ISA:** 11 possible addresses, 280 to 3EO in steps of 20.

### Transmit/Receive Buffer Memory

**Fast EtherLink XL:** 8 KB. May be partitioned as 6 KB/2 KB or 4 KB/4 KB.

**Fast EtherLink:** 64 KB. May be partitioned as 32 KB/32 KB or 48 KB/16 KB.

### Physical Dimensions

#### Fast EtherLink XL:

Width: 3.375 in/8.57 cm

Length: 4.75 in/12.07 cm

#### Fast EtherLink PCI:

Width: 4.2 in/10.67 cm

Length: 5.875 in/14.92 cm

#### Fast EtherLink EISA:

Width: 4.15 in/10.54 cm

Length: 6.15 in/15.62 cm

#### Fast EtherLink ISA:

Width: 4.15 in/10.64 cm

Length: 6.15 in/15.76 cm

### Power Requirements

**Fast EtherLink XL PCI:** +5V +/- 5% at 650 mA max.

+12V +/- 5% at 50 mA max

**Fast EtherLink PCI-T4:** +5V +/- 5% at 500 mA max

+12V +/- 5% at 50 mA max

**Fast EtherLink EISA:** +5V +/- 5% at 1150 mA max.

+12V +/- 5% at 110 mA max

#### Fast EtherLink ISA:

+5V +/- 5% at 750 mA max.

### Operating Ranges

**Fast EtherLink EISA, ISA; XL PCI:** Temperature: 32° to 158° F (0°-70° C)

**Fast EtherLink PCI-T4:** Temperature: 32° to 131° F (0°-55° C)

### Fast EtherLink XL, PCI, EISA, ISA:

Humidity: 10 - 90% (non-condensing)

Altitude: to 9800 ft/3000 m

### Safety and Electromagnetic Compatibility

**Fast EtherLink XL:** FCC Part 15, Subpart Class B Class A;

EN 55022 Class A (CISPR); VCCI

**Fast EtherLink:** FCC Part 15, Subpart Class B; VDE 0871, Class B; EN55022 Class B (CISPR), VCCI Class 2

### Customer Support

Quick access to support information is available through the 3ComBBS (electronic bulletin board system) and 3ComFacts interactive fax service.

To reach the 3ComFacts service in the United States or Canada, dial 408-727-7021 and follow the recorded instructions. In Europe call 44 1442 278279. In Hong Kong call 852 537 5610.

To reach the 3ComBBS service from the United States, set your modem to 8 data bits, no parity, and 1 stop bit (8,N,1), then transmit using the following baud rate and U.S. telephone number: Up to 14400 baud; 408-980-8204. To reach the 3ComBBS service from outside the United States, ask your local 3Com office or reseller for the appropriate baud rate and telephone number.

### Ordering Information

#### Fast EtherLink XL PCI

10/100BASE-TX	3C905-TX
5-pack	3C905-TX-5PK
20-pack	3C905-TX-20PK
60-pack	3C905-TX-60PK

#### Fast EtherLink PCI-T4

10/100BASE-T4	3C595-T4
5-pack	3C595-T4-5PK
20-pack	3C595-T4-20PK

#### Fast EtherLink EISA

10/100BASE-TX	3C597-TX
5-pack	3C597-TX-5PK

#### Fast EtherLink ISA

10/100BASE-TX	3C515-TX
5-pack	3C515-TX-5PK
20-pack	3C515-TX-20PK

#### Desktop Link Manageability

Transcend EtherLink SmartAgent	3C551B
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### Lifetime Warranty

3Com warrants its Fast EtherLink XL and Fast EtherLink network interface cards to be in good working order for as long as you own them.

To learn more about 3Com products, visit our World Wide Web site at <http://www.3com.com>.

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