DATA SHEET

3Com® Fast Ethernet Secure Copper and Fiber Network Interface Cards

Key Benefits

LAN Security
3Com® Fast Ethernet Secure NICs help protect LANs with standards based IPSec encryption and authentication offloads.*

Upgradeable Features
These high-performance network connections can be easily upgraded with new features and technologies to meet changing business needs.

Advanced Desktop Performance
Intelligent NIC processing offloads* and powerful traffic-control features reduce the burden imposed on the host CPU and accelerate system performance.

Comprehensive Monitoring and Management
Standards-compliant remote control and management—including DMI, PXE, and remote wake up—reduce administration time and costs.

Easy Installation
3Com Connection Assistant's easy-to-use interface provides self- and assisted-service functions for end users and support technicians.

Upgrade LAN Security without Impacting Network Performance

Today's sophisticated networks have evolved well beyond simple file and print sharing. Likewise, enterprise systems are being asked to handle more sophisticated business applications and heavier processing loads. That's the reasoning behind our 3Com Fast Ethernet Secure Copper and Fiber NICs. Faced with an Internet filled with viruses and worms, companies appreciate how LAN security contributes to network performance and availability. Unfortunately, many have already learned the hard way that an unprotected network is vulnerable to hostile attacks, the kind that can bring day-to-day operations to a screeching halt and cost thousands of dollars (or more) in lost productivity.

These advanced-platform NICs let IT administrators implement end-to-end LAN security without sacrificing system performance for end users. High-performance features, such as processing offloads* and fiber-optic compatibility, help systems run faster.

*Windows 2003 Server, 2000, or XP operating system required for offload capabilities.

The standards-compliant remote management, inventory, and troubleshooting features help reduce administration time and network total cost of ownership (TCO). In short, installing 3Com secure NICs can make the whole LAN faster, more secure, highly available, and easier to manage—which is exactly the kind of innovation you would expect from the company that pioneered smart network connections.

End-to-End LAN Security
Copper- and fiber-cabled corporate LANs are protected with the packet-level security of IPSec. The fiber NIC is additionally resistant to electrical interference and packet snooping. The embedded processor offloads and processes encryption and authentication* tasks, for hardware-based information security. These secure connections work with our other end-to-end LAN security products that include secure switches, perimeter firewalls, and firewall cards for notebooks, servers, and desktops.

Better Performance Today and Beyond
Optimized for Windows 2003 Server, 2000, and XP operating systems, the security processor significantly accelerates system and application response. This custom-designed embedded processor offloads cycle-intensive TCP/IP, IPSec, and authentication processing*. The auto-negotiating NICs automatically match the throughput of upstream switch or hub ports.

Easy Installation
The 3Com Connection Assistant gives end users and support staff one easy-to-use tool for management, troubleshooting, and repair. Its automated interface provides options for either self or assisted service, helping users get and stay connected.

Limited Lifetime Warranty
3Com Fast Ethernet Secure Copper and Fiber NICs are backed by a Limited Lifetime warranty.

*Windows 2003 Server, 2000, or XP operating system required for offload capabilities.

Features and Benefits

Feature	Benefit
LAN Security*	
Encryption and authentication	Secure sensitive data at wire speeds—with DES/3DES encryption, MD5 and SHA-1 hashing, and RFC 2402 authentication.
Security associations (SA)	Onboard RAM supports 75 security associations.
Performance	
Security processor*	Offloads and processes network traffic so host can devote CPU cycles to application tasks—resulting in optimal system performance.
IPSec	Secures sensitive data up to five times faster than software-based encryption.
Authentication	Processes and verifies authentication headers using the RFC 2402 algorithm.
TCP segmentation†	Supports larger packets, segments TCP frames for the Ethernet MAC, and adds TCP sequence numbers to each packet.
TCP/UDP/IP checksum	Generates and verifies TCP, UDP, and IP checksum operations.
Flow control	Reduces lost packets and retransmissions for more efficient data transfer between the NIC and switch.
10/100 Mbps autonegotiation	Transparently adjusts connection throughput to match switch or hub port.
Firmware upgradability	Keeps secure NICs up-to-date with the latest features.
Management	
Installation CD-ROM	Includes graphical user interface for installation, configuration, and diagnostics—reducing installation time.
3Com Connection Assistant	Provides self- and assisted-service functions for end users and support technicians; automated interface is extremely easy to use.
Keepalives	Respond to router-based management requests while NIC is in sleep mode to help solve IP address-aging issues.
3Com Managed PC Boot Agent	Supports pre-OS management capabilities including network boot, Remote Program Load (RPL), NetWare Core Protocol (NCP), BootP, and Pre-boot Execution Environment (PXE).
ACPI compliance	Conserves system power when PC is not being used; enables remote wake up and management.
DMI 2.0 compliance	Allows managers to inventory desktops and NICs from a remote location.

*Windows 2003 Server, 2000, or XP operating system required for offload capabilities.

† Windows 2003 Server or XP operating system required for TCP segmentation.

Specifications

Media
Copper: 10BASE-T/100BASE-TX, autonegotiation

Fiber: 100BASE-FX

Connectors
Copper: RJ-45

Fiber: SC

Bus Interface
32-bit, 33 MHz PCI

Processor
ARM9 security processor, 100 MHz RISC

Encryption and Authentication
3DES, DES, SHA-1, MD5, RFC 2402

Cables and Operating Distances
10BASE-T: Category 3, 4, 5 or 5e UTP up to 100 m (328 ft)

100BASE-TX: Category 5 or 5e UTP up to 100 m (328 ft)

100BASE-FX: Long-wavelength fiber-optic cable (1300 nm); 50 µ/125 µ or 62.5 µ/125 µ multi-mode fiber; full-duplex up to 2,000 m (6,560 ft), half-duplex up to 412 m (1,351 ft)

Management
SNMP manageable

System Requirements
Hardware: 32-bit PCI; PCI 2.2-compliant

Software: Linux 2.4, Microsoft Windows 2003 Server/2000/XP/NT 4.0, Novell NetWare 5.x/6.x

Standards Compliance
PC 99, WfM 1.1a/2.0, ACPI 1.0, DMI, PXE 2.0, RIS, IEEE 802.3, PCI 2.2

Safety and Electromagnetic Compatibility
Meets FCC requirements, FCC B, CE, C Tick

Physical Dimensions
Copper: length, 13.34 cm (5.25 in); width, 5.23 cm (2.06 in)

Fiber: length, 13.34 cm (5.25 in); width, 6.35cm (2.50 in)

Power Requirements
+5V +/- 5% @ 1.26 A max.

Operating Ranges
Temperature: 0° to 70° C (32° to 158° F) operating, -30° to 90° C (-22° to 194° F) storage

Humidity: 10% to 90% noncondensing operating/storage

Ordering Information

3Com SKU	Product description
3CR990B-97	3Com 10/100 Secure Copper NIC
3CR990B-97-25	3Com 10/100 Secure Copper NIC (25 pack)
3CR990B-LP-97	3Com 10/100 Secure Copper NIC, Low Profile
3CR990B-FX-97	3Com 100 Secure Fiber-FX NIC
3CR990B-FX-97-25	3Com 100 Secure Fiber-FX NIC (25 pack)
3CR990B-FXLP-97	3Com 100 Secure Fiber-FX NIC, Low Profile

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