

SuperStack II Switches

High-performance, stackable, switches for boosting performance at the desktop and in the workgroup



The SuperStack II family of switches make high performance, low cost switching a reality at the desktop and workgroup level. They also allow you to eliminate traffic bottlenecks by configuring high-speed FDDI, Fast Ethernet, or ATM connections to servers and network backbones.

> 3Com's SuperStack[™] II switches have revolutionized workgroup switching with fast, scalable, highly manageable designs. And now with the introduction of the SuperStack II Desktop Switch multiple users requiring dedicated 10 Mbps switched Ethernet to the desktop can be accommodated at a very affordable price.

> SuperStack II switches feature powerful switching engines that extend full wire-speed bandwidth to the desktop

> • SuperStack II System. You can make any of the SuperStack II switches part of a 3Com SuperStack II system. SuperStack II is a complete product family with scalable multitechnology connections, integrated management with a common look and feel, and optional uninterruptible and redundant power systems.

> • Ethernet bandwidth boost. SuperStack II switches let you increase workgroup performance easily and cost-effectively, minimizing traffic congestion. You get full 10 Mbps

and up to 155 Mbps to servers and the backbone.

Attractively priced the desktop and workgroup applications, yet providing exceptional functionality such as RMON support on every port, Virtual LAN capabilities and Full Duplex switching, SuperStack II switches boost performance and eliminate client/server bottlenecks without expensive changes to the desktop PC or cabling system.

bandwidth on every Switched Ethernet port.

• High-speed ports. FDDI, Fast Ethernet, and ATM connections provide "fat pipes" for server and backbone links up to 155 Mbps.

• Fault-tolerance and manageability. The switches automatically minimize error packets and broadcast storms. Centralized management makes trouble-shooting faster and easier.

Top value. SuperStack II switches maximize your investment with cost-

Key Benefits:





SuperStack II Switches

3Com's SuperStack II switches are the most cost-effective way to increase performance in client/server and other bandwidth-intensive Ethernet workgroup configurations. As part of 3Com's SuperStack II system, the SuperStack II switches easily grow with the network. Just add additional SuperStack II switches to existing stackables as bandwidth demand increases. SuperStack II switching is also effective for leveraging routing capability in departmental or small building LANs.

All the SuperStack II switches improve throughput in local LANs, while high-speed ports offer wide data pipes to servers, collapsed backbone devices and campus backbones.

Improved Performance at the Desktop

SuperStack II switches are an ideal solution for maximizing bandwidth at the desktop. This is increasingly important if organizations are to keep pace with the proliferation of powerful workstations that regularly access large files. With the lowest per-port cost in the networking industry, the SuperStack II Desktop Switch is a truly costeffective way to connect a single workstation to a switched port.

Investment Protection

SuperStack II switches work with your existing desktop hubs, switches, bridges, routers, and cabling, thereby protecting your network investment. With SuperStack II switches, you can install in minutes and upgrade your workgroups to higher performance simply and cost-effectively with minimum disruption.

Powerful Token Ring Switching

The SuperStack II family of switches also includes a high-throughput solution for bandwidth-constrained Token Ring networks. Supporting up to 12 fully populated Token Ring networks, the SuperStack II Switch 2000 TR eases bottlenecks and delivers wire-speed forwarding rates on all ports. In addition, it accommodates easy migration to FDDI and/or ATM. For further information please see the SuperStack II Switches and LANplex Family Token Ring Switches data sheet, order number 400216-00x.

Network Management for End-to-End Services

All SuperStack II switches are managed by 3Com's Transcend® Network Management; the comprehensive application-driven architecture which is designed to monitor, configure, troubleshoot, and protect all devices on the network. It is also available across a broad range of popular management platforms, including Microsoft Windows®, Sun Microsystems' SunNet Manager and HP OpenView®.

The 3Com Transcend® Network Management strategy includes two levels of Management:

- Embedded technologies, such as SmartAgent[®] and RMON within 3Com devices throughout the network
- Centralized and highly automated applications at the network center, which collect data from the distributed technologies and allow the network manager to act as needed

Management options range from basic capabilities such as Device View and Configuration Manager to more sophisticated enterprise management tools such as VLAN Manager and ATM Manager. Also available are the more proactive troubleshooting tools such as RMONbased statistics gathering FlexiProbe and Traffix, and the powerful automated application, Alarm Manager, for dealing with most typical network problems.

3Com Switching Solutions

Boundary Switching for the Edge of Enterprise Networks

3Com Boundary Switches are low cost, high performance, and simple to install and operate. This includes: the low-cost, flexible SuperStack™ II switches with a variety of stackable solutions incorporating Switched Ethernet and Fast Ethernet, FDDI, Token Ring, and ATM; the highperformance, multifunction chassisbased ONcore System integrating Switched Ethernet and Fast Ethernet connectivity for the workgroup and the CELLplex 4000 with cost-effective 25 Mbps ATM service to the desktop.

High-Funtion Switching for the Core of Enterprise Networks

3Com's High-Function Switches combine high funtionality with high performance. This includes: the ONcore[®] family of multifunction hubs (a chassis-based system supporting LAN and ATM switching along with LAN concentration, integrated LAN/WAN services, and comprehensive network management), the LANplex[®] family of high-density, packet-optimized LAN switches integrating multi-technologies and sophisticated software features (including Layer 2 and 3 functionality), and the ATM celloptimized CELLplex[™] family, offering high-performance dedicated ATM backbone switching.

SuperStack II Switching Decision Tree





3Com's SuperStack II system gives you a flexible, cost-effective connectivity solution for local, wide area, and SNA networks. You can combine diverse technologies and network services in one stacked system, strengthen it with uninterruptible and redundant power systems, and manage it all with Transcend management software. As an important part of 3Com's Transcend Networking framework, SuperStack II will meet your evolving network needsfuture-proofing your network investment. A single SuperStack II system provides connections for a range of network environments and protocols: Ethernet, 100BASE-T Fast Ethernet, Token Ring, FDDI, ISDN, X.25, Frame Relay, and ATM. Depending on your needs, you can build SuperStack II systems for virtually any network environment. Capabilities include:

■ Shared and Port Switched hubs for flexible workgroup connectivity with SNMP management

■ Industry-leading physical layer support for Token Ring networks

■ Full RMON support for Ethernet, Fast Ethernet, and Token Ring networks, as well as a dedicated RMON 2 Probe

■ Full range of switches to boost performance in high-speed client/server LANs

■ Full, multiprotocol network access for teleworkers or users at other off-site locations

Routing between central site and branch offices using innovative Boundary Routing[®] architecture or conventional routing software for multiple WAN choices, including ISDN

■ SNA-to-LAN conversion linking local and remote offices to an SNA host system

Choice of power systems to ensure uninterrupted network operation

SuperStack II Desktop Switch

SuperStack II Desktop Switch provides 24 affordable 10 Mbps Switched Ethernet connections to individual users and a 100 Mbps Fast Ethernet port for dramatically improved desktop-toserver performance. Effectively futureproofing users' LAN connections and preparing for new real-time multimedia applications, the SuperStack II Desktop Switch removes competition between users for bandwidth and provides increased total bandwidth to the LAN.

An optional Fast Ethernet 100BASE-FX or 100BASE-TX module or an ATM module can also be added. (Note: for ATM support in mid-1997, a free software upgrade will be required).

Per-port switching costs are close to those of traditional Ethernet repeating technology.

Dedicated Switching for End Stations

With the SuperStack II Desktop Switch, 3Com provides dedicated Switched Ethernet allowing for truly affordable, boundary switching at the network edge. Dedicated Switched Ethernet is ideal for power users and high performance access to the Internet and Intranet sites, and for real-time and multi-media applications.

With SuperStack II Desktop Switch, you can:

- Affordably connect 24 users directly to dedicated Switched Ethernet ports
- Maximize performance for power users with high speed access to the rest of the network, Internet, Intranet sites and real-time/multimedia applications

 Protect against packet loss under heavy load conditions with IFM flow control, minimizing delays and retransmission of data when the network gets busy

- Distribute the burden of managing large switched networks with the use of SmartAgents and ASIC technologies providing PACE, VLAN support, LAN Security and full SNMP management (including RMON on every port)
- Preserve existing desktop investment with no changes required to desktops, PCs, NICs, cabling, drivers and PC configurations

Advanced Features

- PACE technology Enhanced realtime, multimedia support and improved data throughput efficiency eliminates multiple collisions, ensuring fair access to the LAN and giving preferential treatment to high priority traffic
- Resilient links ensure fault tolerance via redundant connections to other network devices. The SuperStack II Redundant and Uninterruptible Power Systems provide increased fault tolerance
- LAN Security Disconnect Unauthorized Device (DUD) provides high security by controlling access to the LAN
- Intelligent Switching Mode offers maximum performance and error protection with the flexibility to ensure maximum throughput while keeping minimum error rates. It combines the best features of both cut-through and store & forward switching modes
- An optional ATM module provides connectivity for future migration to ATM (supported mid-97, via free software upgrade)

SuperStack II Desktop Switch -Dedicated Switched Ethernet to the desktop

Front view



Back view





SuperStack II Desktop Switch -Dedicated Switched Ethernet to the Desktop

Using the SuperStack II Desktop Switch, high performance users can easily and costeffectively be provided with 10 Mbps to each user/desktop. The SuperStack II Desktop Switch can easily be added to your existing network.

In this example, a SuperStack II Desktop Switch accommodates Intranetwork users and users running multimedia video-conferencing to the desktop. The 100BASE-TX port connects to a server, and the optional high-speed module provides a second connection to a SuperStack II Switch 3000 and the rest of the network.

Comprehensive SNMP Management

- Transcend Workgroup and Enterprise Manager for Windows, and Transcend Enterprise Manager for UNIX, support the SuperStack II Desktop Switch. They offer full SNMP management, including Remote Monitoring (RMON) for comprehensive per-port management; the Windows and UNIX versions of Transcend allow remote management from a PC or UNIX workstation, respectively
- Integrated RMON capability provides support for monitoring ports and traffic analysis, using Alarms, Events, Statistics, History, Host, HostTopN and Matrix groups on a per port basis
- You can manage in-band or out-ofband using a local terminal or telnet, or centrally using Transcend applications
- The switch supports a full complement of security-protected configuration and control features

• You can get detailed per-port statistics and use gauges and thresholds to automatically track error conditions, issue alarms, and optionally blip or disable a problem port

Virtual LAN Management

- Allows you to set up logical workgroups regardless of the physical wiring structure, allowing flexible configuration
- VLANs can be used to control traffic patterns and broadcast behavior, and provide security which eases the network management burden
- You can use Transcend VLAN network management functionality to "drag and drop" users across a stack of switches and to easily set up workgroups remotely

PACE[™]

Available in the **SuperStack II Switch 1000 & 3000 and Desktop Switch**; PACE (Priority Access Control Enabled) technology reduces the level of collisions on a dedicated Ethernet segment to a very low level at the same time prioritizing high priority LAN traffic. This provides two key benefits;

- Greater bandwidth is available providing an increase in useable bandwidth of up to 20%. On a highly utilized link this boosts system efficiency. This applies to today's applications involving graphics and file transfer such as Lotus Notes and Microsoft Office, as well as new multimedia applications.
- 2. By reducing and bounding latency and jitter, it becomes possible to support real time and high-quality multimedia applications such as voice and videoconferencing over Ethernet LANs.

PACE is backwards compatible with all existing Ethernet/IEEE 802.3 equipment. So replacing an Ethernet repeating hub with a PACE-enabled SuperStack II Switch provides all the above benefits without having to change desktop equipment - PC's, drivers, adapters, cabling, management tools, all remain the same.

SuperStack II Switch 1000

SuperStack II Switch 1000 provides 12 or 24 Switched Ethernet ports and a 100BASE-T Fast Ethernet port for dramatically improved desktop-toserver communication. This switch gives you a simple way to eliminate Ethernet LAN traffic congestion while preserving your existing investment in Ethernet, by attaching your Ethernet hubs into the switch ports of the SuperStack II Switch 1000.

With SuperStack II Switch 1000, you can:

- Boost performance in Ethernet workgroups at a price well within a workgroup LAN's budget
- Attach your Ethernet hub into the switch port providing a full 10 Mbps for users of that hub
- Open up server bottlenecks with a 100 Mbps Fast Ethernet connection based on state-of-the-art Ethernet/ Fast Ethernet ASIC technology
- Configure a link to a high-speed Fast Ethernet, ATM, or 10 Mbps Ethernet backbone

High Density, Low Price

• The switch offers 12 or 24 Switched Ethernet ports, and can be stacked with the SuperStack II Switch 3000 Fast Ethernet switch to achieve higher port densities

Exceptional Performance

- 3Com's Ethernet/Fast Ethernet Switching ASIC, the BRASICA chip, provides wire-rate packet switching, giving you a convenient, high-speed connection between client stations on Ethernet and high performance file servers via 100 Mbps Fast Ethernet
- Full duplex transmission on the highspeed ports supports greater distances over fiber (up to 2 kilometers) for campus networks, while doubling available network bandwidth and providing greater performance.
- An optional module provides an additional switched connection to a high-speed Fast Ethernet copper, fiber or ATM backbone

- The optional ATM OC-3c multimode module (155 Mbps OC-3c multi-mode) provides cost effective and easy connection to an ATM backbone or campus network (see pages 10 & 11 for more details)
- Optional Transceiver Interface Modules provide a link to a conventional Ethernet backbone over a variety of cabling media types

Advanced Features

- Software-selectable switching options are available—cut-through/fast forward, cut-through/fragment-free, store-and-forward and Intelligent Switching Mode—for greater switching flexibility
- Intelligent Switching Mode automatically selects between cut-through store-and-forward options
- The switch offers broadcast traffic control to protect against broadcast storms
- Resilient links ensure fault tolerance via redundant connections to other network devices. The SuperStack II Redundant and Uninterruptible Power Systems provide increased fault tolerance



Switched Ethernet and Fast Ethernet Workgroups

Using 3Com products, you can easily combine switched Ethernet workgroups and 100BASE-T Fast Ethernet workgroups in one network. 3Com's Fast Ethernet products provide highperformance, cost-effective connections for backbone infrastructures and for workgroups. In this example, a 3Com SuperStack II Switch 3000 FX (or SuperStack II Switch 3000 TX) switch accommodates 100 Mbps Fast Ethernet connection from a SuperStack II Hub 100 and a SuperStack II Switch 1000 Ethernet/Fast Ethernet switch. The SuperStack II Switch 3000 also extends Fast Ethernet links to a central server farm and to another switch in a second building. A NETBuilder II bridge/router provides connections to the wide area and FDDI campus networks.

- LAN Security architecture automatically disconnects unauthorized devices from the LAN
- Spanning Tree support provided as an alternative to Resilient links
- PACE[™] technology delivers enhanced multimedia support and bandwidth utilization, eliminating multiple collisions, ensuring fair access to the LAN, and giving preferential treatment to high priority traffic on dedicated Ethernet segments (see side bar on page 5 for more information)
- IFM traffic management for flow control avoids packet loss under heavy load conditions
- Virtual LAN (VLAN) support reduces broadcast traffic loading, increases security and eases traditional administrative constraints based on user locations

Comprehensive SNMP Management

- Transcend WorkGroup and Enterprise Manager for Windows, and Transcend Enterprise Manager for UNIX, support the SuperStack II Switch 1000. They offer full SNMP management, including Remote Monitoring (RMON) for comprehensive per-port management; the Windows and UNIX versions of Transcend allow remote management from a PC or UNIX workstation, respectively
- Integrated RMON capability provides support for Alarms, Events, Statistics, History, Host, HostTopN and Matrix groups on a per port basis
- You can manage in-band or out-ofband using a local terminal or telnet, or centrally using Transcend applications

- The switch supports a full complement of security-protected configuration and control features
- You can get detailed per-port statistics and use gauges to automatically track error conditions, issue alarms, and optionally blip or disable a problem port

Virtual LAN Management

- Allows you to set up logical workgroups regardless of the physical wiring structure, allowing flexible configuration
- VLANs can be used to control traffic patterns, to provide security and to control broadcast behavior
- You can use Transcend VLAN network management functionality to "drag and drop" users across a stack of switches and to easily set up workgroups remotely

SuperStack II Switch 1000 Ethernet to Fast Ethernet Switch

Front view



SuperStack II Switch 3000 FX and Switch 3000 TX

The SuperStack II Switch 3000 switches provide high performance connections to Fast Ethernet networks over both fiber and copper cablingensuring high performance at a low cost. The SuperStack II Switch 3000 FX supplies five 100BASE-FX (fiber) ports and one 100BASE-TX (twisted-pair copper) port for workgroup devices and backbones. Its companion product, the SuperStack II Switch 3000 TX, offers eight or twelve 100BASE-TX ports for floor configurations. All SuperStack II Switch 3000 models offer a slot for an optional, high-speed module and are part of 3Com's SuperStack II system.

With SuperStack II 3000 FX and 3000 TX, you can:

- Use standard 100BASE-FX and 100BASE-TX switching to build high-speed networks with simple, familiar technology
- Build collapsed backbone configurations that centralize other Ethernet/ Fast Ethernet switches and/or hubs
- Aggregate multiple servers, and SuperStack II Switch 1000, SuperStack II Desktop Switch and SuperStack II Hub 100
- Use an optional module that provides an extra high speed port (100BASE-TX, 100BASE -FX or ATM OC-3c multi-mode).
 Switch 3000 TX 12 port requires software upgrade available free of charge mid-97

SuperStack II Switch 3000 TX Fast Ethernet in the Workgroup

In this configuration, a SuperStack II Switch 3000 TX 100BASE-TX Fast Ethernet switch connects up to eight SuperStack II Switch 1000 or Desktop Switches, supporting as many as 192 users on dedicated 10 Mbps Ethernet segments. If these eight switches are attached to 24-port SuperStack II Hub 10 Ethernet hubs, the configuration can support up to 4080 end stations. Or the SuperStack II Switch 3000 TX can support very high-powered workstations through direct connections via the switch's Fast Ethernet ports.

Cost-Effective, Flexible Fast Ethernet Switching

- 3Com's BRASICA Fast Ethernet chip provides 800 Mbps bandwidth and throughput of up to 900,000 pps
- ASIC-based designs offer a practical migration path, letting network managers scale bandwidth cost-effectively to meet application demands

Full-Featured Management

- Intergrated RMON capability provides support for Alarms, Events, Statistics, History, Host, HostTopN, and Matrix groups.
- Transcend applications support the SuperStack II Switch 3000 FX and TX, offering full SNMP management, including Remote Monitoring (RMON) for comprehensive per-port management; the Windows and UNIX versions of Transcend allow remote management from a PC or UNIX workstation, respectively (see RMON sidebar on page 17)

- IFM congestion control prevents performance degradation and packet loss
- Local management port and telnet allow both local and remote out-ofband and in-band management

Configuration Flexibility

- Support for up to 4080 addresses extends bandwidth to large networks servicing many users
- Wide choice of collapsed backbone and floor configurations in combination with the SuperStack II Switch 1000 means enhanced flexibility and provides the option of shared and switched 100 Mbps and 10 Mbps networking to accommodate large and growing infrastructures
- Ability to operate as stand-alone devices or in SuperStack II configurations offers greater freedom



SuperStack II Switch 3000 FX

Front view



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connections

SuperStack II Switch 3000 TX (12 port shown 8 port also available)

Front view



Advanced Features

- The optional ATM OC-3c multi-mode module permits easy migration to ATM, (155 Mbps OC-3c multi-mode) protecting your investment.
 (Switch 3000 TX 12 port requires software upgrade available free of charge mid-97)
- Virtual LAN (VLAN) support eases traditional administrative constraints based on user locations
- PACE technology delivers enhanced multimedia support and bandwidth utilization by greatly reducing the collision rate, as well as by lowering and bounding latency and jitter on a dedicated Fast Ethernet segment
- Resilient links ensure fault tolerance via redundant connections to other network devices
- Full duplex transmission on high speed ports provides greater distance on fiber (up to 2 kilometers) for campus networks and provides greater performance
- Advanced RPS provides support for the SuperStack II Switch 3000 TX 12 port
- Spanning Tree support provides on alternative to Resilient links

ATM Key Features

Superior Fault-Tolerance and Performance in the Backbone

With an ATM network you can achieve unmatched fault-tolerance and scalability through multiple, meshed inter-switch connections (trunks) that support load-sharing. Multiple inter-switch connections allow for load sharing across the network, and a choice of OC-3: 155 Mbps and OC-12: 622 Mpbs help to eliminate network bottlenecks and offer superior throughput.

Support for Data, Video and Voice

ATM can support data, video and voice-traffic (multimedia) on one network. This results in lower overall costs of ownership as only a single network needs to be maintained and managed. Through the use of different virtual connections, Quality of Service (QoS) supports applications that require constant (CBR), variable (VBR), available (ABR) and unspecified bit rate (UBR). ATM switches can build a virtual circuit for each application and use QoS information to set traffic priorities, choose network routes, and manage trunk availability. QoS is particularly important in handling real-time applications, such as video conferencing or video-on-demand, because it guarantees that bandwidth will be available when it's needed.

SuperStack II[™] Switch ATM 0C-3c Module

The SuperStack II Switch ATM OC-3c Module may be connected to the SuperStack II Switch 1000, 3000 FX and 3000 TX 8 port Switches now (with support for the Desktop Switch and 3000 TX 12 port in mid-1997). The Module easily slots into the back of the unit to provide IT/IS managers one of the most future-proof and cost-effective strategies to migrate their networks to ATM. When integrated with ATM switches, such as the CELLplex 7000, 3Com provides a complete networking solution from the data center/backbone through to the workgroup.

The ATM OC-3c Module provides support for the ATM Forum Standards for LAN Emulation (LANE 1.0) allowing existing Fast Ethernet and Ethernet LAN users to transparently communicate over a high-speed ATM backbone. Full duplex operation gives wire speeds of 310 Mbps, virtually eliminating network bottlenecks.

Bringing ATM to the workgroup -Easily and cost-effectively

Cost-effective ATM support

Maximizing your current network investment, the SuperStack II Switch ATM OC-3c Module combined with the low cost per port of the SuperStack II Switch, provides the most economic ATM solution in the market place. It also supports the most common ATM backbone media; OC-3 155 Mbps multimode fiber.

SuperStack II Switch Back Panel



High Performance

Low latency of 68 microsec from Ethernet to ATM provides increased network performance. The ATM OC-3c Module absorbs traffic peaks preventing packet loss due to the deep 40,000 cells (2MB) buffer.

Virtual LAN support

Virtual LANs create secure workgroups, protect against broadcast storms and allow networks to be reconfigured - all without cable changes or added equipment. Virtual LANs are defined by their logical associations, not by their physical connections. The ATM OC-3c Module supports up to 512 Virtual Circuits (VCCs) and 16 LAN Emulation Clients (LECs). Each LEC allows you to extend a Virtual LAN out into the ATM network as an Emulated LAN (ELAN). Each SuperStack II Switch supports up to 16 VLANs.

LAN Emulation (LANE) protects network investment

Support for the ATM Forum LAN Emulation (LANE) standard allows existing LAN users to communicate over the high-speed ATM network, and provides investment protection for existing Ethernet NICs, Hubs, Switches, and routers. LANE defines a protocol-independent translation layer between conventional protocol stacks and ATM protocols to make existing devices and applications compatible with ATM. The ATM OC-3c Module provides 1 LAN Emulation client (LEC) per VLAN (maximum of 16 per workgroup).

Easy Installation

The ATM OC-3c Module simply slots into the back of the SuperStack II Switch and immediately enhances performance.

Reliablity

Highly integrated design, based on 3Com's BRASICA/ZIP technology gives unmatched reliability. You can create Resilient Links with 'main' ATM paths and 'standby' Ethernet or Fast Ethernet paths protecting against cabling and equipment failures. In the event of failure of the main link, the standby link is automatically selected and a signal sent to notify the network manager. However, once the error is corrected, the network will automatically swap back to the ATM link making best use of available network bandwidth.

When integrated with a SuperStack II Advanced Redundant Power System (RPS) or Uninterruptible Power System (UPS) the network can be protected against power failures (spikes, brownouts and blackouts), providing superior network uptime.

SmartAgents

In-band SNMP and Telnet (IP or IPX) combined with SmartAgent software embedded in 3Com products allow for easy network management. Features include Auto-calibrate, which simplifies management tasks, and Action on Event for pro-active management.

Transcend Network Management

3Com's Transcend Enterprise manager provides the key to integrating ATM into existing enterprise wide management. With Transcend, ATM management software runs side-by-side with existing network management applications.

RMON

The SuperStack II Switch 1000, 3000 and Desktop Switch all offer built-in RMON on all ports (7 groups: Alarms, Events, Stats, History, Host, HostTopN and Matrix). In addition, the ATM Module supports 4 groups per ATM ELAN (Stats, History, Alarms, Events) for remote monitoring and easy faultfinding.



Ethernet Switching with ATM Links and Virtual LANs

In addition to using SuperStack II Switch 1000/3000 switches as Ethernet bandwidthenhances on the floors, ATM is used to provide a high-speed backbone. ATM LANE allows existing Ethernet users to communicate transparently across an ATM backbone. The provision of multiple ELANs allows the extension of the 2 VLANs (Engineering and Finance) over the ATM network, even though these two workgroups are distributed over four different floors, LAN Emulation allows them to be managed as if the users were in the same physical location. ATM connections from the SuperStack II Switch 1000's on floors 2, 3, and 4 extend to a CELLplex 7000 ATM backbone switch on Floor 1. And the SuperStack II Switch 3000 TX offers high speed to connections to a server farm in the data center. A NETBuilder II bridge/router provides connectivity between virtual LANs, as well as campus backbone and WAN links.



SuperStack II Switch 2200

SuperStack II Switch 2200 is a fullfeatured Ethernet/FDDI switch that employs state-of-the-art RISC and ASIC-based technology for high-end workgroup performance and server/backbone connectivity. This switch packs a number of powerful switching features in a low-cost unit, making it the price/performance leader in its class. It provides 16 switched 10BASE-T Ethernet ports, and one high-speed FDDI port for server or backbone links.

With SuperStack II Switch 2200, you can:

- Increase data throughput in the workgroup dramatically with 3Com's leading-edge Intelligent Switching Engine (ISE) chip technology and advanced switching features
- Extend a high-speed FDDI link to servers or an FDDI backbone, and configure resilient links to ensure uptime

Exceptional Performance

- 3Com's ISE technology boosts aggregate throughput to 193,440 pps delivering peak performance at low cost
- Elastic Packet Buffering guarantees a maximum number of buffers for each port, dynamically allocating additional buffers as needed to alleviate port congestion and minimize dropped packets during high-traffic periods
- Advanced switching features include virtual workgroups for flexible management, user-definable packet filters to control traffic flow, and IP fragmentation for optimizing Ethernet/FDDI transfers
- Roving Analysis Port allows you to monitor traffic on any Ethernet port, including ports on other LANplex units

SuperStack II Switch 2200 Ethernet/FDDI Switch

Front view



FDDI port (DAS/SAS) 16 switched 10BASE-T/RJ-45 ports

Back view



Ethernet Switching with FDDI Links

In this network, the SuperStack II Switch 2200 switches in the SuperStack II systems on Floors 2 and 3 provide Ethernet switching for workgroups and FDDI server connections. Local servers on Floor 2 are linked to the workgroups using high-speed FDDI. An FDDI module connects the switch in the SuperStack II system on Floor 3 to a server farm on Floor 1 via a 3Com LANplex 6000 Switch. UNIX Workstation uperStack II Hub 10 Hubs and SuperStack II Switch d 10 Mbps Ethern cal Servers let Workgroup LinkBuilder FDDI Hub tack II System with נו איזייי perStack II Port Switch Hub: and SuperStack II Switch 2200 DD High Function Switch LANplex 6000 FND NETBuilder Bridge/Router

Sophisticated Switching

- User-defined packet filtering lets you control traffic based on characteristics you define, including multicast traffic, protocol type, or MAC address
- You can configure thresholds (firewalls) to control multicast/ broadcast storms, with the filters based on any packet attribute
- IP fragmentation makes Ethernet/FDDI data transfers more efficient by allowing FDDI packets greater than 1518 bytes to be forwarded to stations on an Ethernet segment, and letting FDDI stations communicate using maximum size (4500 byte) packets

Powerful Configuration

- The Virtual LAN capability allows you to set up logical relationships between users that are not tied to a physical location
- IEEE 802.1d Bridging lets you optimize switching in various LAN environments
- The FDDI port can be configured with DAS, allowing you to set up a resilient LAN

Comprehensive Management

- The LANplex Administrator Console provides easy-to-use menus from either a serial or in-band connection
- The Roving Analysis Port feature lets you use a network analyzer to scrutinize traffic from any Switched Ethernet port on any SuperStack II Switch 2200 or 3Com LANplex switch anywhere on the network
- The switch provides full SNMP management for both Ethernet and FDDI, including FDDI Station Management (SMT) proxy and can be administered with Transcend for Windows or UNIX or any other SNMP-compliant manager
- The SuperStack II Switch 2200 (software release 8.1.1) offers support for four groups of RMON (alarms, events, statistics, and history)

SuperStack II Switch 2700

SuperStack II Switch 2700 is a 12-port integrated Ethernet workgroup switch with the added advantage of an ATM port for high-speed backbone or server connections. The switch is ideal for workgroups that need increased bandwidth across Ethernet ports, and also require a high-speed ATM downlink to an ATM campus backbone now or in the future.

With SuperStack II Switch 2700, you can:

- Boost performance for large Ethernet segments or where bandwidth demands are not being met
- Relieve traffic bottlenecks to Ethernet workgroup servers and server clusters
- Establish Virtual LANs across the enterprise using standard LAN Emulation
- Future-proof your network with a workgroup switch that provides a high-throughput ATM link to a centralized ATM switch (such as a 3Com CELLplex[™] 7000)

Streamlined Cell-Based Workgroup Switching

- 3Com's leading-edge Ethernet/ATM ZipChip[™] ASIC provides cell-based, wire-speed switching. ZipChip technology segments Ethernet frames into cells and switches them at 780,000 cells per second, guaranteeing full 10 Mbps bandwidth on all Ethernet ports
- The ATM port accommodates an OC-3c multi-mode 155 Mbps SONET/SDH interface for local and collapsed backbone ATM connections, or a DS-3 45 Mbps interface for wide area links
- Two software-selectable options for Ethernet switching—cut-through and store-and-forward modes—so you can adapt the device more closely to your network requirements
- UTP connections for convenient local connections
- Single-mode ATM offers support over long-haul distances >2km

SuperStack II Switch 2700 Ethernet to ATM Switch

Front view



Back view



AC connection

Management Enhancements

- A powerful, on-board i960 RISC processor provides standard LAN Emulation and Switched Virtual Circuit (SVC) signaling for extending Virtual LANs across the network. With Virtual LANs, you can set up logical workgroups regardless of the physical wiring structure allowing flexible configuration
- SNMP management is provided, including support for Transcend Network Management applications which offer powerful graphical VLAN and ATM tools

Investment Protection

- SuperStack II Switch 2700 future-proofs your network with an ATM link capability built in, making ATM migration simple and economical
- Ethernet switching operates even if the ATM port is not configured, allowing you to implement Ethernet LAN switching now and connect the LAN to an ATM backbone later
- You get advanced cell-based switching without having to make changes in existing LAN devices, protecting your current network investment

Ethernet Switching with ATM Links and Virtual LANs

In addition to using SuperStack II Switch 2700 switches as Ethernet bandwidth-enhancers on the floors, the LAN Emulation capability has been employed to create two Virtual LANs: Engineering and Finance. Even though these two workgroups are distributed over four different floors, LAN Emulation allows them to be managed as if the users were in the same physical location. ATM connections from the SuperStack II Switch 2700 and Switch 1000 workgroup switches extend to a CELLplex 7000 ATM backbone switch on Floor 1. A NETBuilder II bridge/router provides connectivity between virtual LANs, as well as campus backbone and WAN links.

WAN

Campus

Backbone



SuperStack II Switches at a Glance

Product Name	SuperStack II Desktop Switch	SuperStack II Switch 1000	SuperStack II Switch 2200	SuperStack II Switch 2700	SuperStack II Switch 3000 FX	SuperStack II Switch 3000 TX
Switching technology	Ethernet/Fast Ethernet ATM ♡	Ethernet/Fast Ethernet ATM	Ethernet/FDDI	Ethernet/ATM	Fast Ethernet ATM	Fast Ethernet ATM ▽
Number of Ethernet workgroup ports	24	12 or 24	16	12	N/A	N/A
Fast Ethernet ports	One 100BASE-TX/	One 100BASE-TX/	N/A	N/A	Five 100BASE-FX/fiber One 100BASE-TX	Eight or twelve 100BASE-TX
FDDI Connectivity	N/A	N/A	One FDDI (DAS with two fiber MICs)	N/A	N/A	N/A
ATM Connectivity	Optional ATM OC-3c 155 Mbps multi-mode fiber ⊽	Optional ATM 0C-3c 155 Mbps multi-mode fiber	N/A	One ATM (155 Mbps OC-3c multi-mode/ single mode 11 dB SC connector) [†] & DS-3 45 MB	Optional ATM OC-3c 155 Mbps multi-mode fiber	Optional ATM OC-3c 155 Mbps multi-mode fiber
Optional extra	100BASE-FX/TX	100BASE-FX/TX	N/A	N/A	100BASE-FX/TX	100BASE-FX/TX
nigh-speed links	ATM 0C-3c multi-mode \bigtriangledown	ATM 0C-3c multi-mode			ATM OC-3c multi-mode	ATM OC-3c multi-mode \triangledown
Forwarding method	Cut-through/store & forward/Intelligent Switching Mode	Cut-through/store & forward/Intelligent Switching Mode	Store & forward	Cut-through/store & forward	Store & forward	Store & forward
Number of MAC addresses	One user per port (4 MAC addresses per port, unlimited on the backbone port)	500 per switch, unlimited on the backbone port	8,192	8,192	4,080	4,080
RMON support	Seven groups	Seven groups	Roving Analysis Port	N/A	Seven groups	Seven groups
Switching Engine	BRASICA™	BRASICA™	ISE	ZipChip	BRASICA	BRASICA
Height	2 3/4 in/7.0 cm	2 3/4 in/7.0 cm	2 1/2 in/6.4 cm	1 3/4 in/4.4 cm	2 3/4 in/7.0 cm	2 3/4 in/7.0 cm
Width	17 1/4 in/44 cm	17 1/4 in/44 cm	17 1/4 in/44cm	17 1/4 in/44 cm	17 1/4 in/44 cm	17 1/4 in/44 cm
Depth	12 in/30 cm	12 in/30 cm	14 1/2 in/36.8 cm	11 in/27.5 cm	12 in/30 cm	12 in/30 cm
Weight	9 2/3 lb/4.4 kg	9 2/3 lb/4.4 kg	10 lb/4.5 kg	5 1/2 lb/2.5 kg	9 lb/4.1 kg	9 lb/4.1 kg
Mounting	Includes hardware for m	ounting in a standard 19-i	nch rack.			
Warranty Summary	SuperStack II Switch 100 by 3Com's one -year limit	00, 2200, 2700, 3000 FX, 300 ted warranty	0 TX, Desktop Switch, and	I 100BASE-TX, 100BASE-F	X & ATM OC-3c multi-mod	e modules are covered
Performance						
Aggregate bandwidth	Full wire speed	Full wire speed	Full wire speed	Full wire speed	Full wire speed	Full wire speed
Forwarding rate	307,605 pps-24 port	307,605 pps-24 port 153,802 pps-12 port	193,440 pps	90,000 pps	446,400 pps	595,200 pps-8 port 892,800 pps-12 port
Ethernet latency	40 µsec (cut-through) 8 µsec (store & forward)	40 µsec (cut-through) 8 µsec (store & forward)	30 µsec	Ethernet to ATM 33 µsec (store & forward) 54 µsec (cut-through)	N/A	N/A
High-speed port latency	40 µsec (cut-through) 8 µsec (store & forward)	40 µsec (cut-through) 8 µsec (store & forward)	10/25 µsec [§] (store & forward)	130 µsec (cut-through)	8 µsec (store & forward)	8 µsec (store & forward)
Part Number	3C16902	3C16900A 24 port 3C16901A 12 port	3C220000A	3C32700A†	3C16940A	3C16941A 8 port 3C16942 12 port

Stackable, versatile switches—ideal solutions for workgroup management and performance

[†] See SuperStack II Switch 2700 options listed on back page \$ Nontranslational/translational
[▽] Support available mid-97 for Desktop Switch and 12 port 3000 TX (available now for 8 port version)

Transcend Network Management

3Com's Transcend management architecture offers a choice of applications: Microsoft® Windows 95 and NT, or a UNIX®-based platform to manage the hubs.

Transcend WorkGroup Manager for Windows

Transcend WorkGroup Manager for Windows 95 and NT (3C15000F) is a powerful and easy-to-use application that combines management for stackable Ethernet and Token Ring hubs, switches, and EtherLink® and TokenLink® adapters in a Windows 95 and NT-based package.

With Transcend WorkGroup Manager, you can:

- Manage hubs, switches, port switches and adapters in one application
- Group PCs and servers together to gather trend information
- Simplify installation by using the manager to automatically discover and configure network devices
- Display a multi-level network map
- Troubleshoot using color-coded device icons, audible alarms, and connectivity testing, and spot statistical trends

- Get a detailed historical record of network events
- Use adapter information from EtherLink SmartAgent to indicate congestion levels on hub ports and view configurations of the PCs attached to the hub ports
- Prevent unauthorized access with user passwords and access levels
- StackView functionality shows all units as one device enabling users to manage products as one SuperStack II system versus a number of separate devices

The management software works with the most popular network protocols, including SNMP over IP or IPX, and supports user-defined applications for seamless desktop integration.

Transcend Enterprise Manager for Windows

Proven management for all connectivity systems in your enterprise-wide network including workgroup, WAN backbones and remote sites. Transcend Enterprise Manager (3C15010E) includes all the features found in Transcend Workgroup Manager, plus these advantages:

 Full advanced RMON tools provide a summary screen showing packet size distribution, utilization and error rates, and top talkers; gives detailed views per historical and trend analysis

- Management across diverse network devices and technologies
- Creation, configuration, and management of resilient-pair hub ports for fault-tolerance in client/server LANs
- Automatic notification of a fault in a SuperStack II Redundant or Uninterruptible Power System
- Full on-line library, including management application and 3Com hardware documentation

Transcend Enterprise Manager for UNIX-Based Platforms

Transcend Enterprise Manager for UNIX (3C27850D) supports SunNet[™] Manager, HP OpenView,[®] and IBM[®] NetView[®] for AIX.[®] This comprehensive graphical software provides network management for 3Com's enterprisewide products. Major benefits include:

- Full implementation of Ethernet SNMP RMON (Remote Monitoring and analysis MIB), including network packet capture
- Full color-coded status displays for at-a-glance troubleshooting
- Context-sensitive, point-and-click configuration that is easy to learn and use
- Graphical statistics that help you spot potential problems before they occur
- Collection of historical statistics for network trend analysis
- An easy-to-use Alarm Manager

SuperStack II StackView showing multiple products managed as one device.



At-a-Glance RMON Support					
	SuperStack II Switches				
	Desktop Switch Switch 1000 Switch 3000	Switch 2200	Switch 2700		
RMON Support					
Statistics - Total LAN statistics	•	•			
History - Time-based statistics for trend analysis	•	•			
Alarms - Thresholding		•			
Hosts - Statistics by MAC address					
HostTopN - Ranked statistics by MAC address	•				
Martix - Traffic matrix showing who's talking to whom	•				
Events - Reporting mechanism	•	٠			
Filter - Packet-selection mechanism			•		
Packet Capture - Packet capture against filter			•		

Power Systems for Fail-Safe Operation

3Com gives you all the choices you need to ensure constant power to the stack. Depending on your requirements, there is a choice of two Power Supplies; Advanced Redundant Power System (ARPS) and the Uninterrruptible Power System (UPS). Both units work with any product in the SuperStack II family.

The ARPS is ideal as a back-up for individual power supplies in the SuperStack II units. It comprises of a modular chassis which can take a maximum of up to eight 60W

or 100W modules. These modules are hot swoppable and can be used in conjunction with Y-Cable to provide maximum uptime on your network. A standard ARPS bundle contains four 60W modules and four cables. This can be expanded as your network requirements grow or by purchasing the empty chassis and adding modules a bespoke configuration can be designed.

The UPS fully protects your SuperStack II system from the effects of brown-outs or spikes that occur in outside power lines. With the UPS, you have assurance that your stack will keep running at all times, while being shielded from potentially damaging events on the external power grid. In addition, the UPS participates in 3Com management via an optional slide-in SNMP management module.



RMON - Remote Enterprise Monitoring and Analysis

Now you can work smarter, not harder in managing your network with Transcend's powerful combination of RMON (Remote Monitoring, a superset of SNMP MIB II) and SmartAgent® software that reduces the processing burden on your management station, minimizes network traffic and saves time by automatically monitoring and analyzing your network.

RMON tells you at a glance how the network is performing and who is using it the most. For example, Transcend Enterprise Manager for Windows now includes RMON features that give you network segment performance summary information, user profiles, and diagnostic help. Transcend's improved RMON error detection and diagnostics, including peak and average bandwidth utilization graphs, interpret and display threshold breaches and give you the ability to set thresholds.

Transcend saves time by freeing you from having to perform repetitive tasks. RMON alarms, integrated with the SmartAgent autocalibrate feature, automatically determine and set appropriate RMON thresholds for each port and station. And Transcend gives you the added benefit of RMON features in your network without the processing and memory costs usually associated with RMON.

Specifications

SuperStack II High-Performance Stackable Switches

Interfaces

All have 1 RS-232 (DB-9 connector) management port and redundant power interface

SuperStack II Desktop Switch

24 Ethernet Ports: 10BASE-T interfaces (RJ-45 connectors) 1 Fast Ethernet Port: 100BASE-T interface (RJ-45 connector) Optional: Fast Ethernet module (SC fiber or RJ-45 connectors) ATM OC-3c multi-media (155 Mbps) module (mid-97) 10 Mbps transceiver module (AUI, BNC, ST fiber, TP and 10BASE-FB)

SuperStack II Switch 1000

12/24 Ethernet Ports: 10BASE-T interfaces (RJ-45 connectors) 1 Fast Ethernet Port: 100BASE-T interface (RJ-45 connector) Optional Fast Ethernet module (SC fiber or RJ-45 connectors) Optional ATM OC-3c multi-media (155 Mbps) module 10 Mbps transceiver interface module (AUI, BNC, ST fiber, TP and 10BASE-FB)

SuperStack II Switch 2200

16 Ethernet Ports: 10BASE-T interfaces (RI-45 connectors) 1 FDDI Port: DAS fiber MIC port (Each port also usable as a SAS connection) Full rate multicast support MAC-Layer Switching: transparent to all protocols

SuperStack II Switch 2700

12 Ethernet Ports: 10BASE-T interfaces (RJ-45 connectors) 1 ATM Port: 155 Mbps SONET/SDH multimode/single mode SC connector (11 dB), or 45 Mbps DS-3 (BNC connector) Full rate multicast support Full Rate Forward/Filter: 390 Kbps per 12 ports Full Rate Data Forward: 430 Mbps per 12 ports MAC-Layer Switching: transparent to all protocols IEEE 802.1d Spanning Tree support

ATM Switching

Standard LAN Emulation SVC signaling compliant with UNI 3.1

SuperStack II Switch 3000 FX

5 fiber Fast Ethernet Ports: 100BASE-FX interfaces (SC connectors) 1 copper Fast Ethernet Port: 100BASE-TX interface (RJ-45 connector) Optional Fast Ethernet module (SC fiber or RJ-45 copper) Optional ATM OC-3c multi-mode (155 Mbps) module Optional 10 Mbps transceiver module (AUI, BNC, ST fiber, TP and 10BASE-FB) Broadcast traffic control Detailed performance counters

SuperStack II Switch 3000 TX

8 or 12 copper Fast Ethernet Ports: 100BASE-TX interface (RJ-45 connector) Optional Fast Ethernet module (SC fiber or RJ-45 copper) Optional ATM OC-3c multi-mode (155 Mbps) module - mid-97 for 12 port version Broadcast traffic control Detailed performance counters

Power Requirements Desktop Switch and

SuperStack II Switch 1000 Power Consumption: 30W Fuse Protection: 5A Time Delay fuse Heat Dissipation/Hour: 341 BTU/hour max Input Voltage Range: 100-120/200-240 VAC Input Frequency: 50/60 Hz Input Current (max.): 3A at 100v, 2A at 200v

SuperStack II Switch 2200

Power Consumption: 48.5W Fuse Protection: T.3.15A Heat Dissipation/Hour: 165 BTU Input Voltage Range: 85-264 VAC Input Frequency: 50/60 Hz Input Current (typical): 2A at 110 VAC 1A at 240 VAC

Inrush Current (peak): 20A

SuperStack II Switch 2700

Power Consumption: 30W Fuse Protection: 2A Heat Dissipation/Hour: 105 BTU Input Voltage Range: 100-240 VAC Input Frequency: 50/60 Hz Input Current (typical): 2.5A at 115 VAC 1.5A at 230 VAC Inrush Current (peak): 25A at 115 VAC 50A at 230 VAC Option for 110 VAC only

SuperStack II Switch 3000 FX and 3000 TX

Power Consumption: 55.2 W Fuse Protection: 3A Heat Dissipation/hour: 341.2 BTU/hour (max) Input Voltage Range: 100-120/200-240 VAC Input Frequency: 50-60 Hz Input Current (max.): 3A at 100V 2A at 200V

Environmental Ranges

SuperStack II Desktop Switch, SuperStack II Switch 1000, SuperStack II Switch 2700, SuperStack II Switch 3000 FX, and SuperStack II Switch 3000 TX

Operating Temperature: 32° to 122° F relative humidity, (0° to 50° C)

Operating Humidity: 10% to 95% noncondensing Storage Temperature: -22° to 140° F (-30° to 70° C) Storage Humidity: 10% to 95%

noncondensing SuperStack II Switch 2200

Operating Temperature: 32° to 104° F (0° to 40° C) Operating Humidity: Up to 90% noncondensing Storage Temperature: -4° to 185° F (-20° to 85° C) Storage Humidity: 10% to 95% noncondensing

Indicators

SuperStack II Desktop Switch and SuperStack II Switch 1000

Ethernet Ports: per-port link status, packet activity Fast Ethernet Port: link status, packet activity Unit: transceiver interface module fitted, high-speed module fitted, power, fault

SuperStack II Switch 2200

Ethernet Ports: link status, error FDDI Port: ring up, error System: Run, Power, Diag, Over Temp

SuperStack II Switch 2700

Ethernet Ports: per-port link status, collision, activity ATM Port: link status, fail, activity Unit: power, fail, activity

SuperStack II Switch 3000 FX and SuperStack II Switch 3000 TX

Fast Ethernet Ports: per-port link status, packet activity Unit: transceiver interface module fitted, high-speed module fitted, power, fault

Specifications (continued)

SuperStack II High-Performance Stackable Switches

Management

All switches support SNMP and 3Com Transcend applications. SuperStack II Desktop Switch and 3000 12 port supports Transcend applications TEM/V4.1 and TEM/ Windows V.6.0 (December '96 release).

SuperStack II Desktop Switch, SuperStack II Switch 1000, SuperStack II Switch 3000 FX and SuperStack II Switch 3000 TX

In-band management over Ethernet/Fast Ethernet

Local management via RS-232 (DB-9 port)

MIBs Supported: MIB II, RMON, Bridge MIB, Repeater MIB

SuperStack II Switch 2200

In-band and out-of-band management over Ethernet Local management via RS-232

(DB-9 port) MIBs Supported: Ethernet MIB, FDDI SMT 7.3 MIB, Bridge MIB, SNMP/FDDI MIB

SuperStack II Switch 2700

In-band SNMP management over Ethernet

Local management via RS-232 (DB-9 port)

ILMI and OAM support

MIBs Supported: MIB II, Bridge MIB, Ethernet MIB, AToM MIB (based on draft 6.0), SONET MIB, Virtual LAN MIB (private)

Standards Compliance

SuperStack II Desktop Switch, SuperStack II Switch 1000, SuperStack II Switch 3000 FX, and 3000 TX

Electromagnetic Compatibility: EN55022 Class B; Vfg 243; FCC Part 15 Class A; C108.8-M1983 Class A; EN50082-1 (IEC801 Parts 2-5); EN60555 Part 2 VCCI Class 2 Shock and Vibration: EN60068 (IEC 68)

Safety: UL1950; EN60950 (BSI, TUV); CSA22.2, ECMA 97

Communication Protocols: RFC 826 ARP, RFC 791 IP, RFC 792 ICMP, RFC 768 UDP, RFC 793 TCP, RFC 768 UDP, RFC 793 TCP, RFC 783 TFTP IPX, Boot P. Management Protocols: RFC 1157 SNMP. RFC 854-859 Telnet options, RFC 1213 MIB II. RFC 1571 RMON; Statistics, History, Events, Alarms, Hosts, Hosts TopN, Matrix, RFC 1516 IETF 802.3, RFC 1493 Bridge MIB, IfStackTable RFC 1573 MIB V1.

SuperStack II Switch 2200

Electromagnetic Compatibility: FCC Part 15, Class B; CISPR22 Class A Safety: EN60950; UL1950; CSA22.2; TUV; VCCI "T"

Communications/Management Protocols: SNMP: SNMP protocol (RFC 1157), MIB II (RFC 1213), SNMP/FDDI MIB (RFC 1512), Ethernet MIB (RFC1398), Bridge MIB (RFC 1463)

SuperStack II Switch 2700

Electromagnetic Compatibility: EN55022; FCC Part 15, Class A; VDE 0871 Part 2; CISPR22 Safety: EN60950, UL1950, CSA22.2, TUV

Communications Protocols: RFC 826 ARP, RFC 791 IP, RFC 792 ICMP, RFC 768 UDP, RFC 793 TCP

Management Protocols: RFC 1157 SNMP, RFC 1212 Concise, RFC 1213 MIB II, RFC 1212 Traps Others: VT100 terminal interface protocol

The ATM OC-3c Module supports the following

SuperStack II Switch 1000 (12 & 24 port)

SuperStack II Switch 3000 FX and TX 8 Port

SuperStack II Desktop Switch will be supported in mid-1997 via a free software upgrade SuperStack II Switch 3000 TX 12 port will be supported in mid-1997 via a free software upgrade

General

1 ATM OC-3c Port: 155 Mbps multimode fiber port with SC connector. SONET / SDH framing

Management

In-band management over Ethernet/ Fast-Ethernet or ATM Ethernet LAN Emulation Supports SNMP and 3Com

Transcend (TEM/UNIX V5.0) management applications through SuperStack II Switch 1000 / 3000 over TCP/IP or IPX.

MIBs Supported on Switch: MIB II, Bridge MIB, Ethernet MIB, Repeater MIB, RMON (7groups per port)

MIBs Supported on ATM Module: AToM MIB, SONET MIB, ATM Forum LEC MIB, RMON (4 groups per LEC)

Local management via RS-232 (DB-9 port) on SuperStack II Switch 1000 / Switch 3000

ATM

ATM Forum LANE 1.0 ATM Forum UNI Signalling versions 3.0 / 3.1 ATM Forum ILMI

Environmental Specifications

Operating temperature: 0 to 50° (32

Operating humidity: 10 to 95% relative humidity Non-condensing

Power Requirements

Power Consumption: 35W Heat Dissipation/Hour: 119.3W BTU/hour

Standards Compliance

Electromagnetic Compatibility: EN55022 Class B, FCC Part 15 Class A; C108.8-M1983 Class A; EN50082-1 (IEC801 Parts 2-5); EN60555 Part 2

Shock and Vibration: EN60068 (IEC 68)

Safety: UL1950; EN60950; CSA22.2, No 950, ECMA 97

Communication Protocols: RFC 826 ARP, RFC 791 IP, RFC 792 ICMP, RFC 768 UDP, RFC 793 TCP,

RFC 783 TFTP

Management Protocols: RFC 1157 SNMP, RFC 854-859 Telnet options, RFC 1212 Concise, RFC 1213 MIB II, RFC 1215 Traps, RFC 1271 RMON, RFC 1516 Repeater MIB



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Ordering Information

SuperStack II Desktop Switch (24 ports)	
	3C16902
SuperStack II Switch 1000 (24 ports)	
	3C16900A
SuperStack II Switch 1000 (12 ports)	
	3C16901A
SuperStack II Switch 3000 FX	
	3C16940A
SuperStack II Switch 3000 TX	
	3C16941A
SuperStack II Switch 3000 TX (12 ports)
	, 3C16942
SuperStack II Switch 2200 (1 FDDI DA)	S MIC)
I	3C220000A
SuperStack II Switch 2700 (OC-3c multi	-mode/
single mode short reach ATM interface)	
	3C32711A
SuperStack II Switch 2700 (OC-3c multi	i-mode ATM
interface)	3C32700A
SuperStack II Switch 2700 (DS-3 ATM	interface)
-	3C32710A
SuperStack II Switch 2700 (TLI)	

SuperStack II Desktop Switch, SuperStack II Switch 1000, SuperStack II Switch 3000 FX and 3000 TX 100BASE-FX Fiber Module 3C16920 100BASE-TX Copper Module 3C16922 ATM OC-3c multi-mode Module 3C16930 **Transceiver Interface Modules** for SuperStack II Desktop Switch, SuperStack II Switch 1000 (12- and 24-port), SuperStack II Switch 3000 FX AUI Transceiver Interface Module (1 female AUI) 3C1206-1 Fan-Out Transceiver Interface Module (1 male AUI) 3C1206-4 Fiber-Optic Transceiver Interface Module (1 pair ST) 3C1206-5 Coaxial Transceiver Interface Module (1 BNC) 3C1206-6 TP Transceiver Interface Module (1 RJ-45) 3C12063 Twisted Pair Transceiver Interface Module **IOBASE-FB** 3C12067 Management Transcend WorkGroup Manager for Windows 95 & NT

High Speed Modules for

3C15000F Transcend Enterprise Manager for Windows 95 & NT 3C15010E

Transcend Enterprise Manager for UNIX

3C27850D

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