

## AT-8000S/24

### Layer 2 Stackable Fast Ethernet Switch



#### AT-8000S/24

24 port stackable 10/100TX Layer 2 switch with 2 active SFP bays (unpopulated) and 2 standby 10/100/1000T ports (RJ-45)

#### Overview

One of a series of stackable switches from Allied Telesis, the AT-8000S/24 provides high performance Layer 2 switching in an affordable fixed configuration platform. This switch offers 24 10/100 ports, two fixed 1Gbps SFP slots plus two integrated stacking connectors that deliver a total of 4Gbps stacking bandwidth. The stacking capability integrated into this platform is configured as a resilient ring topology designed to provide high reliability and simplified management for higher port density applications.

#### Ideal Branch Office and Wiring Closet Connectivity

Powerful line rate performance and stackability make this switch ideal for branch offices or the wiring closet of larger offices. The state-of-the-art QoS capability of this product ensures reliable delivery of advanced network services such as voice while effectively controlling the continually increasing traffic needs found in today's networks.

#### Easy Access Networking

Featuring an industry standard CLI and Allied Telesis' intuitive yet fully featured Web interface the advanced features of the AT-8000S/24 are accessible to a wide range of system administrators. The well known CLI and Web interfaces significantly reduce learning time and minimize the cost of deployment.

#### Secure Management

Only authorized administrators can access the management interface of the 8000S series. Protocols such as SSL, SSH and SNMPv3 facilitate this protection of your network with local or remote connections.

#### Securing the Network Edge

To ensure the protection of your data, it is important to control access to your network. Protocols such as IEEE 802.1x port-based authentication guarantee that only known users are connected to the network. Unknown users who physically connect can be isolated to a pre-determined part of your network offering guests such benefits as Internet access while ensuring the integrity of your private network data.

#### Gigabit and Fast Ethernet SFP Support

All switches in the 8000S family support both Gigabit and Fast Ethernet Small Form-factor Pluggables (SFPs). This makes the 8000S series an ideal family for environments where Gigabit fiber switches will be phased in over time. The 8000S family allows for connectivity to the legacy 100FX hardware until it is upgraded to Gigabit. Support for both speeds of SFPs allows organizations to stay within budget as they migrate to faster technologies.

#### Key Features

##### Easy, Well Known Management

- Industry standard CLI
- Simple intuitive, full featured Allied Telesis Web Interface
- Secure encrypted Web and CLI management with SSHv2 and SSL
- SNMP
- Two level access privileges

##### Affordable Truly Stackable 10/100 Switching Platform

- Single IP address stack management
- 4Gig resilient ring stacking architecture
- Across stack link aggregation
- Across stack VLAN configuration
- Across stack port mirroring
- Redundant standby stack master

##### All the QoS Needed in the Wiring Closet for Today's Voice and Data Networking

- Eight priorities assigned to four queues
- IEEE 802.1p for Layer 2 QoS
- DSCP (DiffServ) for Layer 3 QoS
- IEEE 802.1p to DSCP remarking traffic ready for transport to the Layer 3 core of the network
- Layer 2 and Layer 3 ACL

##### Securing the Network at its Most Vulnerable Point

- IEEE 802.1x and RADIUS network login: for advanced control of user authentication and accountability
- Guest VLAN: to ensure visitors or unauthorized users connect only to services defined by IT. E.g. Internet
- TACACS+: for ease of management security administration
- Layer 2 and Layer 3 ACL
- Port MAC address security options

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## System Configuration

Dimensions	44cm x 25.7cm x 4.3cm
(W x D x H)	(17.3" x 10.1" x 1.7")
Weight	3.15kg (6.94lb)
Mounting	19" rack-mountable hardware included

## System Capacity

64MB RAM
16MB flash memory
400Mhz CPU
Up to 4,096 VLAN ID
8,000 MAC address

## Performance

Wirespeed switching on all Ethernet ports for all packet sizes

Throughput	9.52Mpps
Switching capacity	12.8Gbps

MTBF	255,344 hours in standalone operation
	221,210 hours in stacked operation (up to 6) with no free space between switches

MTBF figures apply to fanless model (v2) introduced 2009

Store and forward mode  
Non-blocking switch fabric  
Auto MDI/MDI-X

Port speed:	
10/100TX	RJ-45
10/100/1000T	RJ-45
100FX, 1000SX, 1000LX	SFP slot
RS232	DB9 pin, male port
Internal power supply and fan	

## Interface Standards

IEEE 802.3	10T and 10FL
IEEE 802.3u	100TX and 100FX
IEEE 802.3z	1000SX
IEEE 802.3ab	1000T

## General Standards

IEEE 802.1D	Bridging
IEEE 802.3x	BackPressure/ flow control

## Redundancy Standards

IEEE 802.1D	Spanning-Tree Protocol
IEEE 802.1W	Rapid Spanning-Tree
IEEE 802.1s	Multiple Spanning-Tree
IEEE 802.3ad	LACP link aggregation (with up to eight members per group and up to eight groups per device)

Static port trunk

## Quality of Services (QoS)

QoS in Layer 2 (IEEE 802.1p compliant Class of Service)

Traffic prioritization using IEEE 802.1p, ToS, DSCP fields  
Map IEEE 802.1p priorities to CoS queues to prioritize traffic at egress

Strict Scheduling and Weighted Round Robin

## VLANs

IEEE 802.1Q VLAN tagging
Up to 256 VLANs
Port-based VLANs
MAC-based VLANs
Private VLANs
GARP VLAN Registration Protocol (GVRP)

## Multicast Standards

RFC 1112	IGMP snooping (ver. 1)
RFC 2236	IGMP snooping (ver. 2)
RFC 3376	IGMP snooping (ver. 3)*
RFC 3376	IGMP querier

\* Future release

## Management and Monitoring

WEB, CLI, Serial	
RFC 1157	SNMPv1/v2c
RFC 2570	SNMPv3
RFC1213	MIB-II
RFC 1573	Evolution of MIB-II
RFC 1215	TRAP MIB
RFC 1493	Bridge MIB
RFC 2863	Interfaces group MIB
RFC 1643	Ethernet like MIB
RFC 1757	RMON 4 groups: Stats, History, Alarms, Events
RFC 2674	IEEE 802.1Q MIB
RFC 1866	HTML
RFC 2068	HTTP
RFC 854	Telnet
RFC 783	TFTP

IP address allocation

RFC 951/ RFC 1542	BootP/ DHCP
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Manual

RFC 2030 SNMP, Simple Network Time Protocol  
Syslog event  
Dual software images

Stacking

Up to six units

Single system appearance

Single IP management

Backup master

Full-duplex link with 2Gbps performance

Link aggregation/trunking across stack

Port mirroring across stack

VLAN across stack

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## Security

Management security: username and password protection  
SSHv2 for Telnet management  
SSLv3 for Web management  
RFC 1492 TACACS+  
RFC 2138 RADIUS authentication  
IEEE 802.1x Port-based network access control  
Guest VLANs  
RFC 2865 IEEE 802.1x port-based network access control  
MAC-based network access control  
ACL - Access Control Lists

## Fault Protection

Broadcast storm control

## Power Characteristics

Voltage input	100-240V AC
Voltage output	12vDC
Current	1.5A
Power consumption	54W
Heat dissipation	184.41 BTU/hour
Clock frequency	166MHz

## Environmental Specifications

Operating temp 0°C to 40°C (32°F to 104°F)  
Storage temp -25°C to 70°C (-13°F to 158°F)  
Relative humidity 10% to 90% non-condensing  
Storage humidity 5% to 95% non-condensing  
Operating altitude Maximum 3,000m (9,843ft)

## Electrical/ Mechanical Approvals

Safety UL 1950 (UL/cUL), EN60950 (TUV)  
EMI FCC Class A, EN55022 Class A, VCCI Class A, C-Tick, EN61000-3-2, EN61000-3-3  
Immunity EN55024  
RoHS compliant

## Package Description

One AT-8000S/24 switch  
Power cord AC  
Rack-mount kit  
Rubber feet for desktop installation  
RS232 management cable  
Stacking cable  
Install guide and user guide in CD

## Country of Origin

China

## Ordering Information

### AT-8000S/24-xx

24 port stackable 10/100TX Layer 2 switch with 2 active SFP bays (unpopulated) and 2 standby 10/100/1000T ports (RJ-45)

Where xx = 10 for US power cord  
20 for no power cord  
30 for UK power cord  
40 for Australian power cord  
50 for European power cord

## Accessories

### Small Form Pluggables (SFPs)

#### AT-SPFX/2

Multi-mode Fiber, 2km, 100FX, SFP, 1310nm

#### AT-SPFX/15

Single-mode Fiber, 15km, 100FX, SFP, 1310nm

#### AT-SPFX/40

Single-mode Fiber, 40km, 100FX, SFP, 1310nm

#### AT-SPTX

Copper, GbE Small Form-factor Pluggable (SFP)

#### AT-SPSX

Multi-mode Fiber, GbE Small Form-factor Pluggable (SFP) 850nm

#### AT-SPLX10

Single-mode Fiber, 10km, GbE SFP, 1310nm

#### AT-SPLX40

Single-mode Fiber, 40km, GbE SFP, 1310nm

#### AT-SPLX40/1550

Single-mode Fiber, 40km, GbE SFP, 1550nm

#### AT-SPZX80

Single-mode Fiber, 80km, GbE SFP, 1550nm

#### AT-SPZX80/xxxx

Single-mode Fiber, CWDM, 80km GbE SFP

#### CWDM wavelengths:

Where xxxx = 1470  
1490  
1510  
1530  
1550  
1570  
1590  
1610

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