



AT-8400 Series Layer 2 Managed Switches

A Complete Solution

A 13-slot modular switch, the Allied Telesis AT-8400 is the complete solution for Layer 2 switching needs. The AT-8400/12 includes 12 payload slots for a variety of Ethernet line cards, and because each line card is viewed as an independent Ethernet switch, wirespeed local switching is supported at all times with all packet sizes. Each of the twelve slots connects to the backplane via a 1.25Gbps serial bus for transmitting and receiving. The center slot is reserved for a management/switch fabric module, and the central switch fabric is designed with a non-blocking crossbar fabric, capable of 30Gbps of raw switching capacity.

Two hot-swappable power supplies are included in the single chassis in addition to one fixed-power supply fan and two redundant rear-mounted hot-swappable fan trays. Each chassis is customized for either an AC or DC application.

Effective Network Management

Effective network management is the key to any network. The AT-8400 includes SNMP support, and the S60 software includes a MIB that can be compiled in any major network management platforms.

High-flexibility

With flexible deployment options for wiring-closets, aggregation, and data centers, the AT-8400/12 provides excellent investment protection and uncompromising performance. Its high-density design—providing 96 Fast Ethernet ports or 12 Gigabit Ethernet ports—combines with leading-edge, flexible, and battle-proven switching software. Finally, designed to save space at a height of only 3.5 rack units, the unit offers superior redundancy and the fault isolation of a chassis system.

Module Options

AT-8401

management switch fabric module
32MB RAM, 4MB Flash memory, 200MHz PowerPC CPU, 30Gbps crossbar fabric

AT-8411

8-port 10/100TX line card
Auto-selecting MDI/MDIX, Auto-negotiating, Half/full-duplex

AT-8412/xx

4-port 100FX line card (xx for SC or MT)
multimode fiber with SC or MT-RJ connectors,
2km full-duplex (62.5 Micron fiber)
412m half-duplex (62.5 Micron fiber)

AT-8413

1 active plus 1 redundant Gigabit Ethernet port line card with one 1000X and one 10/100/1000T (RJ-45) connectors
Auto-selecting MDI/MDIX, Auto-negotiating (10/100/1000), Half/full-duplex (10/100/1000), GBICs: SX, LX, LX-70, color (for CDWM support)

AT-8414/xx

4-port 10FL line card (xx for SC or ST)
multimode fiber with SC or ST connectors
2km full-duplex (62.5 Micron fiber)
412m half-duplex (62.5 Micron fiber)

Key Features

- 13-slot modular chassis
- 12 payload slots
- 1 switch fabric / management slot
- 2 Redundant Power Supply slots (AC)
- 2 replaceable fan trays
- Fully hot-swappable
- DC chassis available
- 30Gbps non-blocking crossbar switch fabric
- 17.32Mpps total throughput
- Wire-speed local switching
- Head-of-line blocking prevention
- 255 VLANs
- 8K MAC addresses

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System Configuration

13-slot modular chassis
12 payload slots
1 Switch fabric/management slot
2 Redundant Power Supply slots (AC)
2 Replaceable fan trays
Fully hot-swappable
DC chassis available

Performance

Wirespeed switching on all Ethernet ports
14,880pps for 10Mbps Ethernet
148,800pps for 100Mbps Fast Ethernet
1,443,360pps for 1000Mbps Gigabit Ethernet
30Gbps non-blocking crossbar switch fabric
17.32Mpps total throughput
Wire-speed local switching
Head-of-Line blocking prevention
Low latency <40 usec for 10Mbps
<20 usec for 100Mbps
<10 usec for 1000Mbps

System Capacity

Fully-loaded configuration
48-port 10FL (SC or ST)
48-port 100FX (SC or MT-RJ)
96-port 10/100TX (RJ45)
12 active plus 12 redundant Gigabit Ethernet ports
with 1000X (GBIC) and 10/100/1000T (RJ-45) connectors
255 VLANs
8K MAC addresses

Alarms & Events

AlliedTelesis Private MIB

MTBF

AT-8400/12 chassis	145,000 hours (with Redundant Power Supplies)
AT-8401 line card	740,000 hours
AT-8411 line card	1,300,000 hours
AT-8412 line cards	340,000 hours
AT-8413 line card	530,000 hours
AT-8414 line cards	190,000 hours
AT-PWR10 power supply	250,000 hours
AT-PWR11 power supply	250,000 hours
AT-8403 chassis fan tray	210,000 hours

Interface Standards

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

General Standards

802.1p Class of service	802.1Q VLAN Bridge
802.3ac VLAN Tagging Ext.	802.3x Flow control
GVRP/GARP/GMRP	RFC 1350 TFTP
RFC951 BOOTP	

Software Features

Broadcast Storm Control	Enhanced Stacking™
Port-based VLAN	Protocol-based VLAN
MAC-based VLAN	Multiple VLAN

Fault Detection

Bad-Cable Detection
Cable Tester (open/ short/ crossed/ length)
up to 1 meter accuracy (on AT-8415 only)

Redundancy

802.1D Spanning Tree Protocol
802.1w Rapid Spanning Tree
802.3ad Link Aggregation (static)
Link Aggregation across line cards (AT-8413 only)
Redundant Gigabit port (AT-8413)

Security

802.1x Port Network Access Control
RADIUS Authentication RADIUS Accounting
FIBS186 SSH2 SSL
TACACS+

QoS

802.1p Class of service DiffServ

Multicast

RFC 2236 IGMP Snooping (ver. 2.0)

Management & Monitoring

Web, CLI, Telnet, Serial
SNMP v1 & v2c
RMON 1 (Groups: 1, 2, 3, 9)
RFC 2030 Simple Network Time Protocol
ASCII-based Configuration File
ATI View support

SNMP

RFC 1157 SNMPv1/v2c
RFC 1213 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

Power Characteristics

AC model (AT-PWR10)	Voltage	100-240vAC
	Current	4.0/2.0A
DC model (AT-PWR11)	Voltage	-48vDC
	Current	5.0A
Input Frequency		50-60Hz
Power Consumption		250w max.

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 5% to 90% max. non-condensing

Physical Characteristics

Width	43.82cm (17.25")
Height	15.56cm (6.125")
Depth	30.48cm (12")
Weight	12.98kgs (28.85lbs) unpopulated

Agency Certifications

RFI Emission	FCC Class A, EN55022 Class A, EN61000-3-2, EN61000-3-3, VCCI Class A, C-TICK
Immunity	EN55024
Electrical Safety	EN60950 (TUV), UL60950 (UL/cUL)
Laser	EN60825

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Ordering Information

Chassis

AT-8400/12-10

12-slot Layer 2 managed switch chassis
with AC power supply

AT-8400/12-10-48TX

12-slot chassis - complete bundle with 48 Fast Ethernet
ports and 1 management/fabric module; AC power supply

AT-8400/12-20-48TX

12-slot chassis - complete bundle with 48 Fast Ethernet
ports and 1 management/fabric module; without power
supply

AT-8400/12-80

12-slot Layer 2 managed switch chassis
with DC power supply

Line Cards

AT-8401

Management switch fabric card
(Minimum of 1 required)

AT-8411

8-port 10/100TX line card

AT-8411/6Pack

Pack of 6 AT-8411 or 48 10/100TX ports

AT-8412/MT

4-port 100FX line card
(MT-RJ connector; multimode fiber)

AT-8412/SC

4-port 100FX line card
(SC connector; multimode fiber)

AT-8413

1 active plus 1 redundant Gigabit Ethernet
port line card with one 1000X and
one 10/100/1000T (RJ-45) connectors

AT-8414/SC

4-port 10FL line card
(SC connector; multimode fiber)

AT-8414/ST

4-port 10FL line card
(ST connector; multimode fiber)

Accessories & Spare Parts

AT-8403

System fan tray (2 req. for full-redundancy)
2 power cord retaining clips
2-19" mounting brackets

AT-8400/acc-19

2-8 mounting bracket screws, 4 rubber feet,
2 power cord retaining clips
2-23" mounting brackets

AT-8400/acc-23

2-8 mounting bracket screws,
4 rubber feet, 3 line card cover plates

AT-8400/CVR

1 power supply cover plate
(required for proper cooling)

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