Allied Telesis®

FS200 Series
2 Port Fast Ethernet Speed/Media Converting Switch

AT-FS201-xx

2 port Fast Ethernet switch,
10/100TX to 100FX (ST), 2km

AT-FS202-xx

2 port Fast Ethernet switch,
10/100TX to 100FX (SC), 2km

AT-FS232-xx

2 port Fast Ethernet switch media converter
10/100TX to 100FX (SC), 2km

AT-FS232/1-xx

2 port Fast Ethernet switch media converter
10/100TX to 100FX (SC), 15km

AT-FS232/2-xx

2 port Fast Ethernet switch media converter
10/100TX to 100FX (SC), 40km

Extend Networks

The FS200 series switches are the ideal solution
when the time comes to upgrade your
traditional 10Mbps Ethernet network or extend
your 100Mbps Fast Ethernet network. The
FS200 series is designed to extend the distance
of your network by converting Fast Ethernet
data between twisted pair cabling and single-
mode fiber-optic cabling. The AT-FS200 features
a 100FX fiber-port and a 10/100TX twisted-pair
port. The fiber-optic port features an SC
connector and an operating distance of 2
kilometers (6,561 feet) to 40 kilometers (24.9
miles) depending on the model. The twisted-pair
port has an RJ-45 connector with a maximum
operating distance of 100 meters (328 feet).

VLAN Support

Many new backbone switch products now
support the industry standard IEEE 802.1Q
specification for Virtual LANs (VLANs) that
send extra-long data packets on the
network. The FS200 switches are fully
compatible with these long packets, enabling
them to be used in modern networks. Switches
not supporting this feature will discard these
extra long packets, making them unsuitable for
modern networks.

Small and Flexible

The small size and external power supply of the
FS200 series allows them to be used almost
anywhere. Additionally, they can be mounted in
a chassis along with Allied Telesis' media
converters, allowing users to construct any mix
of network conversions when they add the
optional redundant power supply.

MissingLink™ and Smart MissingLink™ (SML)

The MissingLink™ feature allows the ports on
the media converter to pass the Link status of
their connections to each other. When the
media converter detects a problem with a port
- such as the loss of connection to a node - it
shuts down the connection to the other port,
thereby notifying the node that the connection
has been lost. The Smart MissingLink™ (SML)
feature monitors network connections and
provides notification when network segments
fails, allowing network managers to quickly
identify the source and location of failed
segments and minimize downtime.

Key Features

- Convert speed as well as media type

- Auto MDI/MDI-X

- MissingLink™ (ML) (AT-FS232 only)

- Smart MissingLink™ (SML) (AT-FS232 only)

- Supports 1532 bytes frame

- Support for multi-mode and single-mode fiber

- Supports half and full-duplex operation

- 2k MAC address tables

- Store-and-forward switching mode

- Transparent to IEEE 802.1Q packets

- Standalone or rack-mountable

- Rack-mountable using optional AT-MCR12, AT-TRAY4, or AT-TRAY1 chassis

- Wall-mountable using AT-WLMT

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AT-FS201 and AT-FS202

Status Indicators

System LEDs

Power	Indicates power is applied to the converter

Per Fiber Port:

Link/Activity	Indicates valid/invalid link
	Indicated data is being received or transmitted
Full-duplex/Collision	Indicates operation at either full or half-duplex
	Indicates collision during transmission on the port

Per Copper Port:

Link/Activity	Indicates valid/invalid link
	Indicates data is being received or transmitted
Full-duplex/Collision	Indicates operation at either full or half-duplex
	Indicates collision during transmission on the port
Auto-negotiation	Indicates port is set for auto-negotiation
100M	Indicates operation at either 10T or 100TX

Operational Characterisitcs

(Each port can be configured via the following switches)

Per Fiber Port:

Duplex	Selects either full- or half-duplex operation
Bytes	Selects maximum packet size sent by switch (1518 or 1522 bytes)

Per Copper Port:

Auto	Selects auto-negotiation mode or manual setting
Duplex	Forces port to full or half-duplex operation (Auto setting = manual only)
Speed	Forces port to 10 or 100Mbps operation (Auto setting = manual only)
Bytes	Selects maximum packet size sent by switch (1518 or 1522 bytes)

MAC Address Table	2k addresses
Forwarding/Filtering Rate	
	148,880pps for 100Mbps
	14,880pps for 10Mbps
Latency	14.3 µsec
	(64 byte packet, 100Mbps full-duplex)

Operational Mode

MissingLink (ML)
Link Test

AT-FS232, AT-FS232/1 and AT-FS232/2

Status Indicators

System LEDs:

Power	Indicates power is applied to the converter
Mode status	Indicates operating mode, MissingLink™, Smart MissingLink™ and Link Test

Per Fiber Port:

Link	Indicates a valid receive link exists
Duplex	Indicates full or half-duplex operation
Collision	Indicates collision during packet transmission on the port

Per Copper Port:

Link	Indicates a valid receive link exists
Speed	Indicates either 10 or 100Mbps operation
Auto	Indicates port is set for auto-negotiation
FD/Collision	Indicates collision during packet transmission on the port
	Indicates full or half-duplex operation

Operational Characteristics

(Each port can be configured via the following switches)

Per Fiber Port:

Duplex	Selects either full or half-duplex operation

Per Copper Port:

Auto	Selects auto-negotiation mode or manual setting
Duplex	Forces port to full or half-duplex operation (Auto setting = manual only)
Speed	Forces port to 10 or 100Mbps operation (Auto setting = manual only)

MAC address table	2k addresses
Forwarding/filtering rate	
	148,880pps for 100Mbps
	14,880pps for 10Mbps
Latency	14.3 µsec
	(64 byte packet, 100Mbps full-duplex)

Operational Mode

MissingLink™ (ML)
Smart MissingLink™ (SML)
Link Test

Power Characteristics

Input voltage (auto-ranging)

External power supply	100-120V AC/60Hz, 220-240V AC/50Hz
Input supply voltage	12vDC +/- 5%
Max current	.5
Power consumption	6W

Environmental Specifications

Operating Temp.	0°C to 40°C
Storage Temp.	-20°C to 80°C
Relative humidity	5% to 95% non-condensing
Operating altitude	0 to 10,000 feet

Physical Characteristics

Dimensions	10.5cm x 9.5cm x 2.5cm (4.12" x 3.75" x 1.0")
Weight	0.7lb

Electrical/Mechanical Approvals

EMC	FCC Class A
Safety	UL-Cul, CSA/CSA, NRTL, TUV, CE compliant

Ordering Information

AT-FS201-xx
2 port Fast Ethernet switch,
10/100TX to 100FX (ST), 2km

AT-FS202-xx
2 port Fast Ethernet switch,
10/100TX to 100FX (SC)

AT-FS232/y-xx
2 port Fast Ethernet switch media converter
10/100TX to 100FX (SC)

Where y	=	Multi-mode fiber 2km
	=	1 single-mode fiber 15km
	=	2 single-mode fiber 40km
Where xx	=	10 AC Power supply, US power cord
	=	20 AC Power supply, European power cord
	=	30 AC Power supply, UK power cord
	=	40 AC Power supply, Australian power cord

Associated Products

AT-MCR12	12 slot AC or DC powered chassis
AT-TRAY4	Mounting tray for up to four devices
AT-TRAY1	Mounting tray for one device
AT-WLMT	Wall-mount for one device

Connecting The (IP) World

Allied Telesis