

## 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/I-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 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

# FS200 Series | 2 Port Fast Ethernet Speed/Media Converting Switch

## 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  
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

#### 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 Characteristics

(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/I 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)  
Linktest

### 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-VLMT Wall-mount for one device

USA Headquarters | 19800 North Creek Parkway | Suite 100 | Bothell | WA 98011 | USA | T: +1 800 424 4284 | F: +1 425 481 3895

European Headquarters | Via Motta 24 | 6830 Chiasso | Switzerland | T: +41 91 69769.00 | F: +41 91 69769.11

Asia-Pacific Headquarters | 11 Tai Seng Link | Singapore | 534182 | T: +65 6383 3832 | F: +65 6383 3830

[www.alliedtelesis.com](http://www.alliedtelesis.com)

© 2011 Allied Telesis Inc. All rights reserved. Information in this document is subject to change without notice. All company names, logos, and product designs that are trademarks or registered trademarks are the property of their respective owners.

617-00342 Rev K