

# MC11x Series

## Fast Ethernet Media Converters

### AT-MC115XL

10/100TX to 10FL/100SX 850nm fiber ST media converter

### AT-MC116XL

10/100TX to 10FL/100SX 850nm fiber SC media converter



### Fiber Connections

The Allied Telesis range of 850nm fiber Fast Ethernet media converters allows users to extend the size of UTP networks with the use of fiber cabling. Converting between 10T and 10FL or 100TX and 100SX fiber quickly and reliably, the AT-MC115XL and AT-MC116XL address the growing demand for a low-cost solution for fiber installations of up to 300 meters for 100SX and up to 2km for 10FL. To maximize flexibility, the converters are available in ST (AT-MC115XL) and SC (AT-MC116XL) fiber connector styles.

### Auto-Negotiation

The AT-MC115XL and AT-MC116XL auto-negotiate during the link-up phase of the connection to set the speed (10/100) and operation mode (full or half-duplex). When connecting media converters to auto-negotiating Fast Ethernet switches, these media converters will automatically connect the link in either full or half-duplex mode, allowing the link to be established with the greatest bandwidth.

### MissingLink™

The MissingLink feature allows accurate reporting to network management systems as well as allowing devices with redundant link capability to be inter-connected with these media converters, failure in one fiber link will be signalled to the switch, allowing the second link to become active.

### Simple Installation

All the media converters with a UTP connection feature an internal MDI/MDI-X switch, allowing the converter to be connected to either a PC, hub or switch with a simple UTP cable. The media converters also allow the installer to test the integrity of fiber connection, by forcing the converters to communicate over the fiber cable. This link test feature allows installers to check for cable faults without the need for expensive fiber optic test equipment.

### Standalone or Rack-mountable

Each media converter is powered by an external power supply unit for use in standalone applications. Where multiple media converters are being used, up to 12 devices can be inserted into a low-cost rack-mount chassis, allowing all the converters to be powered by a single internal power supply. In critical applications, a second load sharing internal power supply can be installed into the rack-mount chassis.

## Key Features

- ▶ EnergyStar power adapters save customers a minimum of 20% power consumption\*
- ▶ 10/100TX copper port
- ▶ 10/100SX fiber port
- ▶ Half and full-duplex operation
- ▶ Transparent to IEEE 802.1Q packets
- ▶ Rack-mountable using optional AT-MCR12, AT-TRAY4 or AT-TRAY1 chassis
- ▶ MDI/MDI-X
- ▶ MissingLink
- ▶ Link test
- ▶ Auto-negotiation
- ▶ Wall-mountable using optional AT-WLMT bracket

\* Compared to previous models

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### Technical Specifications

#### Status Indicators

Power	Indicates power is applied to the converter
Normal	Indicates converter is operating in normal mode
Receive	Indicates port receiving or transmitting data
10	Indicates link established at 10Mbps
100	Indicates link established at 100Mbps

#### Packet Transmission Characteristics

Round trip delay	0.4µs maximum
Bit Error Rate (BER)	<10 <sup>-12</sup>

#### Twisted Pair Interface

UTP Differential Output Voltage

	Typical	Min.	Max.
	980mv	950mv	1050mv

Overshoot Voltage

	Typical	Max.
	4%	5%

Signal Amplitude Symmetry

	Typical	Min.	Max.
	1.0062	0.98	1.02

Rise and Fall Time

	Typical	Min.	Max.
Rise	4.6ns	3.0ns	5.0ns
Fall	4.2ns	3.0ns	5.0ns

Rise and Fall Time Symmetry

	Typical	Max.
	0.4ns	0.5ns

### Fiber Interface Parameters

	Typical	Min.	Max.
Wavelength	850nm		
Transmit power	-12 dBm	-15dBm	-10dBm
Receive sensitivity		-34.4dBm	-7.6dBm
Linkbudget	11.7dbm		

### Power Characteristics

External power supply	120V AC, 60Hz (US model) 240V AC, 50Hz (European models)
Input supply voltage	12vDC
Max current	500mA
Power consumption	6W

### Environmental Specifications

Operating temp.	0°C to 50°C (32°F to 122°F)
Storage temp.-	20°C to 80° (68°F to 176°F)
Relative humidity	5% to 95% non-condensing
Operating altitude	0 to 3.000m (10.000ft)

### Electrical/Mechanical Approvals

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

### Ordering Information

#### AT-MC115XL-XX

10/100TX to 10FL/100SX 850nm media converter with ST fiber connectors

#### AT-MC116XL-XX

10/100TX to 10FL/100SX 850nm media converter with SC fiber connectors

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-xx

12 slot power distribution chassis

#### AT-TRAY4

19-inch rack-mount chassis for up to four media converters

#### AT-TRAY1

19-inch rack-mount chassis for one media converter

#### AT-WLMT

Wall-mount bracket for one media converter