AT-MC101XL & AT-MC102XL

Fast Ethernet Media Converters

AT-MC101XL-xx

TX to FX media converter with ST fiber connectors

AT-MC102XL-xx

TX to FX media converter with SC fiber connectors

FIBER CONNECTIONS

Providing a complete family of conversion devices, Allied Telesyn's Ethernet media converters enable service providers to use fiber cabling to extend the size of UTP networks. Supporting both SC and ST fiber connectors, these converters can be used to extend networks with up to 2km of fiber.

AUTO-NEGOTIATION & MISSINGLINK™

When connected to auto-negotiating Fast Ethernet switches, these media converters connect the link in either Ethernet full- or half-duplex mode, thereby establishing a link with the greatest-possible bandwidth.

The MissingLink™ feature allows the ports on the media converter to convey the status of their links. When the media converter detects a problem with a port—such as the loss of connection to a node—it shuts down the connection, thereby notifying the node that the connection has been lost. The value of this network monitoring and fault notification is that some hubs and switches are configured to take action in the event of the loss of connection on a port. In some cases, the unit is configured either to seek a redundant path or alert the network administrator of the problem.

SIMPLE INSTALLATION

Both media converters feature an internal MDI/MDIX switch, enabling the converter to connect to a PC, hub, or switch with a simple UTP cable. The media converters can also test the integrity of connections by forcing data across the fiber cable—enabling installers to check for cable faults without the need for expensive fiber-optic test equipment.

STAND-ALONE OR RACK-MOUNTED

Every small media converter is powered by an external power supply unit for use in stand-alone applications. When multiple media converters are in use, a low cost rack-mount chassis can accommodate up to 12 stand-alone devices, enabling a single internal power supply to power all the converters. In critical applications, the rack-mount chassis can accommodate a second load-sharing internal power supply.

HASSLE FREE SUPPORT

Allied Telesyn Fast Ethernet media converters come with a lifetime warranty and free technical support, ensuring trouble-free installation.

KEY FEATURES

- Half- & Full-Duplex operation
- Transparent to 802.1Q packets
- Rack-mountable using optional AT-MCR12, TRAY4, or TRAY1 chassis
- MDI/MDIX
- MissingLink™
- Link Test

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STATUS INDICATORS

Front Panel:

Power	Indicates power is applied to the converter
Link (2)	Indicates a valid receive link exists
Receive (2)	Indicates converter is receiving valid data
Normal/Test	Fiber test or normal operation

PACKET TRANSMISSION CHARACTERISTICS

Round Trip Delay 0.4μs Maximum
Bit Error Rate (BER) <10 -12

TWISTED PAIR INTERFACE

UTP Differential Output Voltage

Typical	Min.	Max.
980mv	950mv	1050mv

Overshoot Voltage

Typical	Max.
4%	5%

Single Amplitude Symmetry

Typical	Min.	Max.
1.006	2 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

POWER CHARACTERISTICS

External Power Supply	100-240vAC, 50/60Hz +/- 3%
Input Supply Voltage	12vDC +/- 5%
Max Current	.5
Power Consumption	6W

ENVIRONMENTAL SPECIFICATIONS

Operating Temp.	0°C to 40°C
Storage Temo.	-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	294g (10.4oz)

ELECTRICAL/MECHANICAL APPROVALS

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

ORDERING INFORMATION

AT-MC101XL-xx
TX to FX media converter with ST fiber connectors

AT-MC102XL-xx
TX to FX 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

Port Type (Connector)	Cable Distance	Optical Frequency	Launch Power (dBm)			Receive Power (dBm)		
			Max.	Avg.	Min.	Min. Sensitivity	Typical Sensitivity	Saturation
10T UTP Copper	100m							
102 Coax Copper	185m							
10FL MMF	2km	850nm	-10.0	-12.0	-15.0	-41.4	-43.0	-7.6
10FL SMF	15km	1310nm	-17.0	-21.0	-23.0	-41.5	-45.0	-14.0
100TX UTP Copper	100m							
100FX MMF	2km	1310nm	-14.0	-16.8	-19.0	-31.8	-34.5	-14.0
100SX MMF	300m	850nm	-10.0	-12.0	-15.0	-41.4	-43.0	-7.6
100FX SMF (15km)	15km	1310nm	-8.0	-11.5	-15.0	-31.0	-31.0	-8.0
100FX SMF (40km)	40km	1310nm	0.0	-3.0	-5.0	-35.0	-38.0	0.0
100FX SMF (75km)	75km	1310nm	0.0	-2.0	-4.0	-37.0	-37.0	-3.0
100FX SMF (100km)	100km	1550nm	0.0	-1.5	-3.0	-37.0	-37.0	-3.0
1000T UTP Copper	100m							
1000SX MMF	220-550m	850nm	-4.0	-7.0	-10.0	-16.0	-16.0	0.0
1000LX SMF (10km)	10km	1310nm	-3.0	-6.3	-9.5	-20.0	-20.0	-3.0
1000LX SMF (20km)	20km	1310nm	0.0	-1.5	-3.0	-24.0	-24.0	-3.0
1000LX SMF (40km)	40km	1550nm	0.0	-2.5	-5.0	-24.0	-24.0	-3.0
1000LX SMF (70km)	70km	1550nm	5.5	2.8	0.0	-24.0	-24.0	-3.0

ABOUT ALLIED TELESYN
Allied Telesyn was founded in 1987 with the goal of producing reliable, standards-based networking products. Focused on Ethernet/IP solutions geared to applications, Allied Telesyn offers access-edge products like switches, fiber/copper MAPs, and CPE. We're also a leading global manufacturer of media converters, unmanaged switches, and NICs. Our customer-driven approach has made Allied Telesyn the ideal choice for IT professionals looking for high-quality, feature-rich network solutions at a lower price. Allied Telesyn – It's Our Network, Too.
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