Media Converters

Allied Telesyn

MC100XL Series, Fast Ethernet Media Converters

AT-MC101XL

TX to FX Fast Ethernet media converter with multi-mode ST fibre connectors

AT-MC102XL

TX to FX Fast Ethernet media converter with multi-mode SC fibre connectors

Fibre connections

The Allied Telesyn range of Fast Ethernet Media converters provides a complete family of conversion devices, allowing users to extend the size of UTP networks with the use of fibre cabling. Supporting both SC and ST fibre connectors, these converters can be used to extend networks with up to 2km of fibre.

Auto-negotiation and MissingLink™

The MissingLink™ feature enables the fibre optic ports on the media converter to pass the 'Link' status of their connections to each other. When the media converter detects a problem with one of the ports, such as the loss of connection to an end-node, the media converter shuts down the connection to the other port, thus notifying the node that the connection has been lost.

Simple installation

Both media converters 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 fibre connection, by forcing the converters to communicate over the fibre cable. This 'Link Test' feature allows installers to check for cable faults without the need for expensive fibre-optic test equipment.

Standalone or rackmounted

Each small 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 standalone devices can be inserted into a low cost rackmount 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 rackmount chassis.

Hassle free support

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

Key features

- Half & full-duplex operation

- Transparent to IEEE 802.1Q packets

- Rackmountable using optional AT-MCR12, TRAY4 or TRAY1 chassis

- MDI/MDI-X

- MissingLink™

- Link Test

MC100XL Series, Fast Ethernet Media Converters

STATUS INDICATORS

Front Panel:

Power	Indicates power is applied to the converter
Link (2)	Indicates a valid receive link exists
Receive (2)	Indicates valid data being received by converter
Normal/Test	Fibre 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
	1.0062	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

POWER CHARACTERISTICS

External Power Supply	120V AC 60Hz/ 240V AC 50Hz
Input Power Supply	12vDC +/- 5%
Max Current	.5
Power Consumption	6W

ENVIRONMENTAL SPECIFICATIONS

Operating Temp	0°C to 40C
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 × 9.5cm × 2.5cm (4.12" × 3.75" × 1.0")
Weight	294g (10.4oz)

ELECTRICAL/MECHANICAL APPROVALS

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

ORDERING INFORMATION

AT-MC101XL-xx

TX to FX media converter with ST fibre connectors

AT-MC102XL-xx

TX to FX media converter with SC fibre connectors

Where xx =

10 (US power adapter)
20 (European power adapter)
30 (UK power adapter)
40 (Australian power adapter)

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							
10Base2 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 (50km)	50km	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

Allied Telesyn