MC100 Series
Fast Ethernet Media Converters

AT-MC101XL
TX to FX Fast Ethernet media converter with multi-mode ST fiber connectors

AT-MC102XL
TX to FX Fast Ethernet media converter with multi-mode SC fiber connectors

AT-MC103XL
TX to FX Fast Ethernet media converter with single-mode 15 km SC fiber connectors

AT-MC103LH
TX to FX Fast Ethernet media converter with single-mode 40 km SC fiber connectors

AT-MC104XL
FX multi-mode to FX single-mode with SC fiber connectors

Fiber Connections
The Allied Telesis 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 fiber cabling. Supporting both SC and ST fiber connectors, MC100 Series converters can be used to extend networks with up to two km of multi-mode fiber or 40 km of single-mode fiber.

Simple Installation
All the media converters feature auto MDI/MDI-X, 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 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 Telesis Fast Ethernet media converters include free technical support, ensuring trouble-free installation.

Link Test
The link test is a fast and easy way for you to test the connections between the media converter ports and the end nodes that are connected to the ports. If a network problem occurs, you can perform a link test to determine which port is experiencing a problem, and be able to focus your troubleshooting efforts on the cable or end node where the problem resides.

MissingLink
The MissingLink feature enables the two ports on the media converter to pass the “Link” status of their connections to each other. When the media converter detects a loss of connection to an end node, the media converter shuts down the connection to the other port, thus notifying the end node that the connection has been lost.

Key Features
- Half- and full-duplex operation
- Transparent to IEEE 802.1Q packets
- Rackmountable using optional AT-MCR12, AT-TRA4 or AT-TRA1 chassis
- Wallmountable using AT-WLMT
- Auto MDI/MDI-X
- MissingLink
- Link test
- RoHS compliant
MC100 Series | Fast Ethernet Media Converters

<table>
<thead>
<tr>
<th>PORT TYPE (CONNECTOR)</th>
<th>CABLE DISTANCE</th>
<th>OPTICAL FREQUENCY</th>
<th>LAUNCH POWER (dBm)</th>
<th>RECEIVE POWER (dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>MAXIMUM</td>
<td>AVERAGE</td>
</tr>
<tr>
<td>100FX MMF (2 km)</td>
<td>2 km</td>
<td>1310nm</td>
<td>-14.0</td>
<td>-16.8</td>
</tr>
<tr>
<td>100FX MMF (2 km)</td>
<td>15 km</td>
<td>1310nm</td>
<td>-8.0</td>
<td>-11.5</td>
</tr>
<tr>
<td>100FX MMF (2 km)</td>
<td>40 km</td>
<td>1310nm</td>
<td>0.0</td>
<td>-3.0</td>
</tr>
<tr>
<td>100FX SMF (15 km)</td>
<td>15 km</td>
<td>1310nm</td>
<td>-8.0</td>
<td>-11.5</td>
</tr>
<tr>
<td>100FX SMF (40 km)</td>
<td>40 km</td>
<td>1310nm</td>
<td>0.0</td>
<td>-3.0</td>
</tr>
</tbody>
</table>

Technical Specifications

Status Indicators

- **Power**: Indicates power is applied to the converter
- **Link (2)**: Indicates a valid receive link exists
- **Activity (2)**: Indicates TX/RX on the port
- **FDX**: Indicates full-duplex operation (MC104XL only)
- **ML**: Indicates MissingLink

Switches

- **ML - link Test**: Enable MissingLink
- **A/N**: Enable auto-negotiation

Packet Transmission Characteristics

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

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 temperature**: 0ºC to 40ºC (32°F to 104°F)
- **Relative humidity**: 5% to 95% (non-condensing)
- **Storage temperature**: -20ºC to 80ºC (-4°F to 176°F)
- **Operating altitude**: 0 to 10,000 feet

Physical Characteristics

- **Dimensions (W x D x H)**: 10.5 cm x 9.5 cm x 2.5 cm (4.12 in x 3.75 in x 1.0 in)
- **Weight**: 294 g (10.4 oz)

Electrical/Mechanical Approvals

- **EMC**: FCC Class A (MC104XL)
- **Safety compliant**: UL-Cul, CSA/CSA, NRTL, TUV, CE compliant

Ordering Information

- **AT-MC101XL-xx**: UTP to multi-mode ST (2 km) fiber
- **AT-MC102XL-xx**: UTP to multi-mode SC (2 km) fiber
- **AT-MC103XL-xx**: UTP to single-mode SC (15 km) fiber
- **AT-MC103LH-xx**: UTP to single-mode long-haul SC (40 km) fiber
- **AT-MC104XL-xx**: Multi-mode fiber to single-mode SC (15km) fiber

Associated Products

- **AT-TRAY1**: Rackmounting tray for one media converter
- **AT-TRAY4**: Rackmounting tray for up to four media converters
- **AT-WLMT**: Wallmount bracket for one media converter
- **AT-MCR12**: 12-slot AC/DC powered chassis for media converters

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