

MC1000 Series

Unmanaged Gigabit Media Converters

AT-MC1004

1000TX to 1000SX Gigabit media converter with multi-mode SC fiber connectors

AT-MC1008/SP

1000TX to 1000SFP Gigabit media converter with SFP connector



Overview

Allied Telesis MC1000 Series unmanaged Gigabit media converters are designed to extend the distance of your network by interconnecting LAN devices that are physically separated by large distances. These media converters have the functionality to connect any managed/unmanaged 1000Mbps (1Gbps) switch or hub using standard 1000T RJ-45 connections and convert the signal to 1000Base fiber via a fixed ST or SFP connector. The pluggable optics feature allows for flexible network configurations of reach while reducing the number of products for sparing and inventory.

Extend the Distance of Ethernet

For the Allied Telesis AT-MC1004, the fiber optic port has a fixed multi-mode fiber 1000SX (SC) connector and a maximum operating distance of 550m.

Each AT-MC1008 media converter features a 1000T twisted pair port and an SFP port. The twisted pair port has an RJ-45 connector and a maximum operating distance of 100 meters (328 feet). The SFP port has a maximum operating distance dependent on the SFP.

Cost-effective Migration

Although the provisioning of Gigabit Ethernet connections is becoming relatively inexpensive, thanks in part to the availability of lower-cost copper Gigabit network adapters, the distance limitations of copper cabling make fiber segments a necessity in most networks. Small, comparatively inexpensive copper-to-fiber Gigabit Ethernet media converters present a simple and very cost-effective way of connecting Gigabit Ethernet LANs over extended distances.

Standalone or Rack-mounted

Each small media converter is powered by an external power supply unit for use in standalone applications. Where multiple media converters are used, up to 12 standalone devices can be inserted into a low-cost AT-MCR12 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.

Hassle-Free Support

All Allied Telesis Ethernet media converters offer free technical support, ensuring trouble-free installation.

Key Features

- ▶ System and port LEDs
- ▶ Auto-sense MDI/MDI-X
- ▶ Full-duplex operation
- ▶ Cost-effective migration from Gigabit copper to Gigabit fiber
- ▶ MissingLink™ and Smart MissingLink™ troubleshooting features
- ▶ External AC power adapter
- ▶ Standalone, wall- or rack-mountable into the AT-MCR12 chassis
- ▶ MC1008 Series supports all Allied Telesis Gigabit fiber SFP for distances up to 80km
- ▶ Jumbo frames up to 10K

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 so 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.

Smart MissingLink

The Smart MissingLink feature performs exactly the same function as MissingLink with one additional feature. When a link is lost on a port, the LINK LED of the port which still has a valid connection to its end-node starts to blink. This allows you to quickly determine which port still has a valid connection (LINK LED blinking) and which port has lost its connection (LINK LED off).

Technical Specifications

System LEDs

| | | |
|-----|-------|--|
| PWR | Green | Indicates that the converter power is ON |
| | OFF | Indicates that the converter has no power signal |

Fiber Optic Port LEDs

| | | |
|----------------------|----------------|---|
| (SFP Expansion Slot) | | |
| LNK | Solid Green | Indicates a valid link has been established between the port and the end-node |
| | OFF | Indicates that there is no link between the port and the end-node |
| ACT | Flashing Green | Indicates that the port is transmitting and/or receiving data packets |
| | OFF | Indicates that there is no activity on the port |

Mode Push Button LEDs

| | | |
|-----|-------|------------------------------------|
| ML | Green | MissingLink mode is enabled |
| | OFF | MissingLink mode is disabled |
| SML | Green | Smart MissingLink mode is enabled |
| | OFF | Smart MissingLink mode is disabled |
| LT | Green | Link Test mode is enabled |
| | OFF | Link Test mode is disabled |

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: | 0.27 kg (0.60 lbs) |

Power Characteristics

| | |
|-----------------------|--|
| External power supply | 1100-120/220-240V AC, 50/60Hz +/-3% |
| Input supply voltage | 12VDC +/-5% |
| Max current | 0.5A |
| Power consumption | 6W |

Environmental Specifications

| | |
|-----------------------|--------------------------------|
| Operating temperature | 0°C to 40°C (32°F to 104°F) |
| Storage temperature | -25°C to 70°C (-13°F to 158°F) |
| Operating altitude | Up to 3,048 m (10,000 feet) |
| Relative humidity | 5% to 95% (non-condensing) |

Electrical/Mechanical Approvals

| | |
|----------|--|
| Safety | Conforms to all standards normally supported by Allied Telesis products including safety standards EN 60950 (TUV), UL 60950 (cULus), CE compliant, EN 60825 |
| Standard | IEEE 802.3, IEEE 802.3u |
| Immunity | Conforms to EN 55024 immunity standard EMI/RFI FCC Class A, EN 55022 Class A, VCCI Class A, C-TICK |

Ordering Information

AT-MC1004-xx

1000TX to 1000SX Gigabit media converter with multi-mode SC fiber connectors

Where xx = 10 for US power adapter
20 for European power adapter
30 for UK power adapter
40 for Australian power adapter

AT-MC1008/SP-60

1000TX to 1000SFP Gigabit media converter with SFP connector

UTP to single-mode SC (15 km) fiberProduct supplied with universal external power adapter for US, EU, UK, AU.

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