

# MMC2000 Series

## Gigabit Fiber Mini Media and Rate Converters



### AT-MMC2000/SC

10/100/1000T to 1000SX/SC Gigabit mini media converter with multi-mode SC fiber connector

### AT-MMC2000/ST

10/100/1000T to 1000SX/ST Gigabit mini media converter with multi-mode ST fiber connector

### AT-MMC2000/LC

10/100/1000T to 1000SX/LC Gigabit mini media converter with multi-mode LC fiber connector

### AT-MMC2000/SP

10/100/1000T to 1000X/SFP Gigabit mini media converter with SFP connector

The Allied Telesis MMC2000 Series of Gigabit mini media converters leverages its smaller size to not only help the environment with a small carbon footprint, but also to save space in its working environment. Despite its compact size, the MMC2000 Series delivers all the power and functionality of standard size media converters.

### Extend Networks

The MMC2000 Series mini media converters are the ideal solution for upgrading a traditional 100Mbps Ethernet network or extending a Gigabit network. The MMC2000 Series is designed to extend the distance of a network by converting Gigabit data between twisted pair and fiber-optic cabling. The MMC2000 features a 1000X fiber port and a 10/100/1000T twisted-pair port. The fiber-optic port features an SC, ST, LC, or SFP connector (depending on the model). The twisted-pair port has an RJ-45 connector with a maximum operating distance of 100 meters (328 feet).

### VLAN Support

Many new backbone switch products now support the industry-standard IEEE 802.1Q specification for Virtual LANs (VLANs) that send extra-long data packets on the network. The MMC2000 switches are fully compatible with these long packets,

enabling them to be used in modern networks. Media converters not supporting this feature discard these extra long packets, making them unsuitable for modern networks.

### Small and Flexible

The smaller size and external power supply of the MMC2000 Series allows them to be used almost anywhere.

### Smart MissingLink (SML)

The Smart MissingLink™ (SML) feature monitors network connections and provides notification when network segments fail, allowing network managers to quickly identify the source and location of failed segments and minimize downtime.

### Link Restoration

Link Restoration allows the devices, in cases of power failure, link loss or other interrupted service, to automatically restore the link without the need to restart/reset them.

### Power Saving

The MMC Series continues the Allied Telesis commitment to the environment with over 50% power savings.\* With just 1.7W of power usage, the MMC Series media converters are some of the most efficient in the market today.

\*Over previous models

## New Features

- ▶ Convert speed as well as media type
- ▶ 2K MAC address tables
- ▶ Store-and-forward switching mode
- ▶ Transparent to IEEE 802.1Q packets
- ▶ Auto Negotiation and Auto MDI/MDIX on 10/100/1000 copper port
- ▶ EEE support on copper port
- ▶ Far End Fault on 100Mb Fiber
- ▶ 10K byte Jumbo packets
- ▶ Link/Activity LED per port
- ▶ Smart MissingLink
- ▶ Fixed SC/ST/LC or SFP (100MB or 1000MB) optics
- ▶ 12VDC power supply
- ▶ Wall-mountable using AT-MMCWLMT
- ▶ Locking power supply jack to prevent accidental power disconnects

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MODEL	FIBER TYPE	FIBER OPTIC DIAMETER	OPTICAL WAVELENGTH	LAUNCH POWER (dBm)		RECEIVE POWER (dBm)			MAX DISTANCE
				Min	Max	Min	Typical	Saturation	
AT-MMC2000/XX	MMF	50/125	850 nm	-9.5	-4	-17	-20	-3	500 m
	MMF	62.5/125	850 nm	-9	-4	-17	-20	-3	220 m

### Specifications

#### Status LEDs

Power  
 ON power  
 OFF no power

SYS  
 ON System operating normally  
 OFF System not operating normally  
 Slow Blink fault condition

LAN fiber port (Left)  
 OFF no link is established  
 ON link is established  
 Blinking activity is detected

LAN copper port (Right)  
 OFF no link is established  
 ON link is established  
 Blinking activity is detected

#### Operational Characteristics

SW1 (left): LOW = Link Test  
 HIGH = Smart MissingLink  
 SW2 (right): LOW = auto-negotiation (normal operation)  
 HIGH = disable auto-negotiation on copper port  
 - force 100Mbps Full Duplex  
 MAC address table 2k addresses  
 Forwarding/filtering rate 1,488,000 for 1000Mbps  
 148,880pps for 100Mbps  
 14,880pps for 10Mbps  
 Latency 14.3µsec (64 byte packet, 100Mbps full-duplex)

#### Physical Specifications

Dimensions 5.49 cm × 10.16 cm × 2.18 cm  
 (W × D × H) 2.16 in × 4 in × 0.86 in  
 Weight 6 oz

#### Power Characteristics

Power consumption 140mA@12V typical

#### Environmental Specifications

Operating temperature 0°C to 50°C (32°F to 122°F)  
 Operating humidity 5% to 95% relative humidity (non-condensing)  
 Storage temperature -30°C to 70°C (-22°F to 158°F)  
 Storage humidity 5% to 95% relative humidity (non-condensing)  
 Altitude Up to 3048 m (10000 ft)

#### Electrical and Mechanical Approvals

Safety UL60950-1  
 EN60950-1

Emissions (EMI) FCC Class A  
 EN55022 Class A  
 CISPR 22 Class A  
 C-TICK  
 VCCI

### Ordering Information

#### AT-MMC2000/SC-xx

10/100/1000T to 1000SX/SC Gigabit mini media converter with multi-mode SC fiber connector

#### AT-MMC2000/ST-xx

10/100/1000T to 1000SX/ST Gigabit mini media converter with multi-mode ST fiber connector

#### AT-MMC2000/LC-xx

10/100/1000T to 1000SX/LC Gigabit mini media converter with multi-mode LC fiber connector

#### AT-MMC2000/SP-xx

10/100/1000T to 1000SX SFP Gigabit mini media converter with SFP connector

Where xx =

60 for AC power supply, multi-region (US, UK, AU, EU)  
 90 for AC power supply, US power cord, FED

### Associated Components

#### AT-MMCR18

18-slot chassis for MMC Series media converters

#### AT-MMCWLMT-05

Wall mount for MMC Series media converters (5 pack)

#### AT-MMCWLMT-50

Wall mount for MMC Series media converters (50 pack)