

MMC10G Series

10 Gigabit Mini Media Converters

Mini media converters offer a smaller size and smaller carbon footprint to help the environment and save space in the office.



Overview

The Allied Telesis MMC10G Series of mini media converters leverage their smaller size to not only help the environment with a small carbon footprint, but also to save space in the office. Despite its compact size, the MMC10G Series delivers all the power and functionality of standard size media converters.

Extend Networks

The MMC10G Series are available in 10G BASE-T to SFP+, and SFP+ to SFP+ configurations. The SFP+ connectors are capable of multi-mode or single-mode fiber connectivity. As well as 1G or 10G SFP's, the twisted-pair copper port has a 1G/10G RJ45 connector with a maximum operating distance of 100 meters (328 ft) using Cat6a/7 cabling.

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 MMC10G Series 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 MMC10G Series allows them to be used almost anywhere.

MissingLink (ML)

The MissingLink™ (ML) feature monitors network connections allowing network managers to quickly identify the source and location of failed segments and minimize downtime.

Smart Link Restoration

Smart 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 MMC10G Series continues Allied Telesis commitment to the environment. Using only 4W of power, the MMC10G Series media converters are some of the most efficient in the market today.

Loopback/Traffic Generator

The MMC10G Series has a loopback function and Traffic Generator to help diagnose network connections.

1G/10G support

The MMC10G supports both 1Gbps and 10Gbps media conversion. The speed must match on both ports – either 1Gbps copper to fiber, or 10Gbps copper to fiber, conversion.

Specifications

Status LEDs

| | |
|----------|-------------------------------|
| Power | |
| ON | Power |
| OFF | No power |
| SYS | |
| ON | System operating normally |
| OFF | System not operating normally |
| Blinking | Fault condition |

| | |
|-----------------------|------------------------|
| LAN fiber port (Left) | |
| OFF | No link is established |
| ON | Link is established |
| Blinking | Activity is detected |

| | |
|-------------------|------------|
| Fiber LED (left): | |
| Green | Fiber link |

| | |
|--------------------|-------------------|
| Fiber LED (right): | |
| Green | 10G SFP installed |
| Yellow | 1G SFP installed |

| | |
|-------------------------|------------------------|
| LAN copper port (Right) | |
| OFF | No link is established |
| ON | Link is established |
| Blinking | Activity is detected |

| | |
|--------------------|----------------------|
| Copper LED (left): | |
| Green | 10G link established |
| Yellow | 1G link established |

| | |
|---------------------|----------------------|
| Copper LED (right): | |
| Blinking | Activity is detected |

New Features

- ▶ 1G/10G SFP+ fiber port
- ▶ 1G/10G RJ-45 copper port
- ▶ Low latency
- ▶ Transparent to IEEE 802.1Q packets
- ▶ 10KB Jumbo packets
- ▶ Link, Speed and Activity LEDs
- ▶ MissingLink
- ▶ SFP+ and RJ45 options available
- ▶ 12VDC power supply
- ▶ Wall-mountable using MMCWLMK kit
- ▶ Locking power supply jack to prevent accidental power disconnects
- ▶ Trade Agreement Act (TAA) Compliant

Operational Characteristics

| | |
|-------------|-----------------|
| SW1 (left): | |
| LOW | MissingLink off |
| HIGH | MissingLink on |

| | |
|--------------|------------------------------------|
| SW2 (right): | |
| LOW | Normal operation |
| HIGH | Loopback/traffic generator enabled |

Physical Specifications

| | |
|-------------|-----------------------------|
| Dimensions | 5.6 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 | 500mA@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) |

MMC10G Series | 10G Mini Media Converters

Electrical and Mechanical Approvals

Safety
UL60950-1
EN60950-1

Emissions (EMI)

FCC Class A
EN55022 Class A
CISPR 22 Class A
C-TICK
VCCI

MMC10G Maximum Number Formula

The maximum number of MMC10G supported in one MMCR18 Chassis is 12 (with no other Media Converters installed). Use the chart below to determine how many Media Converters can be supported if MMC10G are installed.

| NO. OF MMC10G INSTALLED | NO. OF MMC200/2000 YOU CAN ADD TO MMCR18 CHASSIS |
|-------------------------|--|
| 12 | 0 |
| 11 | 2 |
| 10 | 4 |
| 9 | 6 |
| 8 | 8 |
| 7 | 10 |
| 6 | 12 |
| 5 | 13 |
| 4 | 14 |
| 3 | 15 |
| 2 | 16 |
| 1 | 17 |
| 0 | 18 |

Ordering Information

AT-MMC10GT/SP-960

10GT to SFP+ Mini Media Converter, Universal PSU, TAA compliant

AT-MMC10GSP/SP-960

SFP+ to SFP+ Mini Media Converter, Universal PSU, TAA compliant

Associated Components

AT-MMCR18

18-slot chassis for MMC Series media converters*
* Refer to the table above for the number of units in a chassis

AT-MMCWLMT-005

Wall mount for MMC Series media converters (5 pack)

AT-MMCTRAY6

1RU rack-mount tray for up to 6 MMC Series media converters

SFP Modules

AT-SP10SR

10GBASE-SR, 850 nm, MMF, TAA¹

AT-SP10SR/I

10GBASE-SR, 850 nm, MMF, I-Temp, TAA¹

AT-SP10LRM

10GBASE-LRM, 1310 nm FP, MMF

AT-SP10LR

10GBASE-LR, 1310 nm, 10 km with SMF

AT-SP10LR/I

10GBASE-LR, 1310 nm, 10 km with SMF, I-Temp

AT-SP10ER40/I

10GBASE-ER, 1550 nm, 40 km with SMF, I-Temp

AT-SP10ZR80/I

10GBASE-ZR, 1550 nm, 80 km with SMF, I-Temp

AT-SP10T²

100/1000/10000T, 20 m, CAT6a/7

AT-SP10TW1

Twinax direct attach cable (1 m)

AT-SP10TW3²

Twinax direct attach cable (3 m)

AT-SP10TW7²

Twinax direct attach cable (7 m)

AT-SPSX

1000SX SFP, LC, MMF, 850 nm

AT-SPSX-90

1000SX SFP, LC, MMF, 850 nm, TAA¹

AT-SPLX10

1000LX GbE single-mode 1310 nm fiber up to 10 km

AT-SPTX

1000T 100 m copper

¹ TAA = Trade Act Agreement Compliant

² MMC10GSP/SP only