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.

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 MMCWLMT kit
- Locking power supply jack to prevent accidental power disconnects
- Trade Agreement Act (TAA) Compliant

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

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)

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 MMM10G 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, TAA[1]

AT-SP10SR/I
10GBASE-SR, 850 nm, MMF, I-Temp, TAA[1]

AT-SP10LRa/I
10GBASE-LR, 1310 nm, 10 km with SMF, I-Temp, TAA[1]

AT-SP10ER40a/I
10GBASE-ER, 1550 nm, 40 km with SMF, I-Temp, TAA[1]

AT-SP10ZR80/I
10GBASE-ZR, 1550 nm, 80 km with SMF, I-Temp

AT-SP10TM
10/100/1G/2.5G/5G/10G, 30m/100m, TAA[1]

AT-SP10TW1
Twinax direct attach cable (1 m)

AT-SP10TW3[2]
Twinax direct attach cable (3 m)

AT-SP10TW7[2]
Twinax direct attach cable (7 m)

AT-SPSX
1000SX SFP, LC, MMF, 850 nm

AT-SPSX-90
1000SX SFP, LC, MMF, 850 nm, TAA[1]

AT-SPSX/I-90
1000SX SFP, LC, I-Temp, 550m. TAA[1]

AT-SPLX10a
1000LX SFP, LC, 10km, TAA[1]

AT-SPTXc
1000T SFP, RJ45, TAA[1]

AT-SPBD10
1000LX (LC) 1310/1490 BiDi, 10 km

AT-SPBD20LC/I
1000LX (LC) 1310/1490 BiDi I-Temp, 20km, TAA[1]

AT-SP10BD10/I
10G (LC) 1270/1330 BiDi, I-Temp, 10km, TAA[1]

AT-SP10BD40/I
10G (LC) 1270/1330 BiDi, I-Temp, 40km, TAA[1]

AT-SP10BD80/I
10G (LC) 1490/1550 BiDi, I-Temp, 80km, TAA[1]

[1] TAA = Trade Act Agreement Compliant

[2] MMC10GSP/SP only

617-000654 RevD