Media Converters

AT-MC1001
1000Mbps Gigabit Ethernet Media Converter

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Extend the distance of Gigabit

The Allied Telesyn AT-MC1001 family of Gigabit Ethernet Media Converters allows users to extend the size of their Gigabit network by converting 1000SX ports to 1000LX. Using 1000LX technology can increase the maximum fibre cable distance from 220m to 70km.

Resilience and MissingLink™

The AT-MC1001 Gigabit media converters support the MissingLink™ feature. The MissingLink™ feature enables the fibre optic ports on the media converter to pass the 'Link' status of their connections to each other. When the media converter detects a problem with one of the ports, such as the loss of connection to an end-node, the media converter shuts down the connection to the other port, thus notifying the node that the connection has been lost.

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 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

All Allied Telesyn Gigabit Ethernet media converters have a limited lifetime warranty and free technical support, ensuring trouble-free installation.

About Allied Telesyn

Allied Telesyn International is a member of the Allied Telesis Group (ATI) who, founded in 1987, now has offices throughout the globe, over 3,000 employees worldwide and over $600M of worldwide annual revenue. The attributes which have led ATI to achieve its leading position in both the enterprise, operator and connectivity business segments can be summarised by four key elements: its business focus on networking technology for professional markets, where ATI has proved to be the only company capable of providing a total end-to-end solution at a high price/performance ratio; the ability to handle every aspect of its own products from design to marketing; the development of components and solutions which accommodate flexible, efficient and reliable network construction; support from sound warranty terms and quality services. Allied Telesyn connects the IP world efficiently thanks to affordable and highly reliable network solutions. For more information see: www.alliedtelesyneurope.com <http://www.alliedtelesyn.com>

Service & Support

Allied Telesyn provides value-added support services for its customers under its Net.Cover® programs. For more information on Net.Cover® support programs available in your area, contact your Allied Telesyn sales representative or visit our website.
www.alliedtelesyn.com

Key features

- Extend fibre 1000SX Gigabit up to 70km
- Standalone or rackmountable (AT-MCR12)
- Support Jumbo packets
- MissingLink™ support
- External power adapter

AT-MC1001, 1000Mbps Gigabit Ethernet Media Converter

STATUS INDICATORS

System LEDs:

Power	Indicates power is applied to the converter
Normal/Test	Fibre test or normal operation

Per Port LEDs:

Link	Indicates a valid receiver link exists
Receive	Indicates validation being received by converter

FEATURES

MissingLink™	Allows link test signal to propagate from one port to the other
Text Operation	Allows both ports to transmit and receive data (independently) in order to check fibre cable integrity
Half/full-duplex Jumper	Allows media converter to operate in both half and full-duplex networks

POWER CHARACTERISTICS

External Power Supply	120V AC 60Hz/240V AC 50Hz
Input Supply Voltage	12vDC +/- 5%
Max Current	.5
Power Consumption	6W

ENVIRONMENTAL SPECIFICATIONS

Operating Temp.	0°C to 40°C
Storage Temp.	-20°C to 80°C
Relative Humidity	5% to 95% non-condensing
Operating Altitude	0 to 10,000 feet

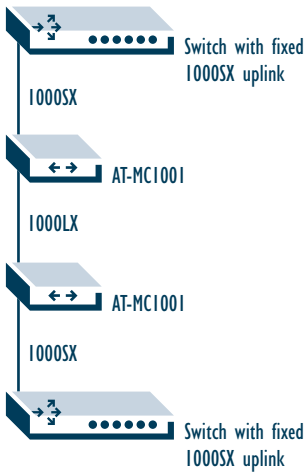
PHYSICAL CHARACTERISTICS

Dimensions	10.5cm x 9.5cm x 2.5cm (4.12" x 3.75" x 1.0")
Weight	294g (10.4oz)

ELECTRICAL/MECHANICAL APPROVALS

EMC	FCC Class B
Safety	UL-Cul, CSA/CSA, NRTL, TUV, CE compliant

Typical Application



ORDERING INFORMATION

AT-MC1001-xx
Gigabit Ethernet media converter, SX to LX, fibre SC, 10km

AT-MC1001SC/GS2-xx
Gigabit Ethernet media converter, SX to LX, fibre SC, 20km

AT-MC1001SC/GS3-xx
Gigabit Ethernet media converter, SX to LX, fibre SC, 50km

AT-MC1001SC/GS4-xx
Gigabit Ethernet media converter, SX to LX, fibre SC, 70km

Where xx =
10 AC Power supply, US power adapter
20 AC Power supply, European power adapter
30 AC Power supply, UK power adapter
40 AC Power supply, Australian power adapter

Port Type (Connector)	Cable Distance	Optical Frequency	Launch Power (dBm) Max.	Launch Power (dBm) Avg.	Launch Power (dBm) Min.	Receive Power (dBm) Min. Sensitivity	Receive Power (dBm) Typical Sensitivity	Receive Power (dBm) Saturation
10T UTP Copper	100m							
10Base2 Coax Copper	185m							
10FL MMF	2km	850nm	-10.0	-12.0	-15.0	-41.4	-43.0	-7.6
10FL SMF	15km	1310nm	-17.0	-21.0	-23.0	-41.5	-45.0	-14.0
100TX UTP Copper	100m							
100FX MMF	2km	1310nm	-14.0	-16.8	-19.0	-31.8	-34.5	-14.0
100SX MMF	300m	850nm	-10.0	-12.0	-15.0	-41.4	-43.0	-7.6
100FX SMF (15km)	15km	1310nm	-8.0	-11.5	-15.0	-31.0	-31.0	-8.0
100FX SMF (40km)	40km	1310nm	0.0	-3.0	-5.0	-35.0	-38.0	0.0
100FX SMF (75km)	75km	1310nm	0.0	-2.0	-4.0	-37.0	-37.0	-3.0
100FX SMF (100km)	100km	1550nm	0.0	-1.5	-3.0	-37.0	-37.0	-3.0
1000T UTP Copper	100m							
1000SX MMF	220-550m	850nm	-4.0	-7.0	-10.0	-16.0	-16.0	0.0
1000LX SMF (10km)	10km	1310nm	-3.0	-6.3	-9.5	-20.0	-20.0	-3.0
1000LX SMF (20km)	20km	1310nm	0.0	-1.5	-3.0	-24.0	-24.0	-3.0
1000LX SMF (50km)	50km	1550nm	0.0	-2.5	-5.0	-24.0	-24.0	-3.0
1000LX SMF (70km)	70km	1550nm	5.5	2.8	0.0	-24.0	-24.0	-3.0

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www.alliedtelesyn.com

Part Number 617-00338-05 Rev. C

Media Converters

AT-MC1000 Series
Gigabit Ethernet Media Converters

AT-MC1004
1000T to 1000SX (SC) Gigabit Ethernet media converter 220-550m

AT-MC1005/1
1000T to 1000LX (SC) Gigabit Ethernet media converter 10km

AT-MC1005/2
1000T to 1000LX (SC) Gigabit Ethernet media converter 20km

AT-MC1005/3
1000T to 1000LX (SC) Gigabit Ethernet media converter 50km

AT-MC1005/4
1000T to 1000LX (SC) Gigabit Ethernet media converter 70km

Long reach gigabit ethernet

Allied Telesyn's AT-MC1004 and AT-MC1005 series of standalone or rackmountable Gigabit Ethernet media converters extend the reach of Gigabit Ethernet networks through the use of multi-mode and single-mode fiber-optic cabling. By converting 1000T copper connections to 1000SX or LX connections, these Gigabit Ethernet media converters can extend segment lengths up to 70km

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.

Simple installation

To aid installation these media converters support an auto-sense MDI/MDIX port, allowing the media converter to connect directly with either a switch, PC adapter, or other Gigabit Ethernet device, using a standard cable.

Standalone or rackmount operation

The AT-MC1004 and AT-MC1005 series Gigabit Ethernet media converters are powered by an external power supply for use in standalone applications.Where multiple media converters are used, up to 12 standalone devices can be inserted into the low-cost AT-MCR12, AT-TRAY1 or AT-TRAY4 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.

About Allied Telesyn

Allied Telesyn leads the world in network technologies for the access edge. Since the company's inception in 1987, Allied Telesyn has been developing IP-based network products for use in video, voice and data networks at the metro edge, in education, government agencies and across the enterprise. Allied Telesyn's access, aggregation and core transport technologies range from simple Ethernet adapters, hubs and media converters to robust multi-layer Gigabit Ethernet switches and routers, wireless systems, DTM and WDM transport solutions for delivering real-time voice, video and data. Allied Telesyn's comprehensive support and professional service programs are suited to meet the growing demands of today's switched broadband infrastructures.

Key features

- Standalone or rackmountable into the AT-MCR12 chassis
- Reach extended distances up to 70km
- Auto-sense MDI/MDIX
- Full-Duplex operation
- Cost effective migration from Gigabit copper to Gigabit fiber
- Limited lifetime warranty (1 year on power supply)

Service & Support

Allied Telesyn provides value-added support services for its customers under its Net.Cover® programs. For more information on Net.Cover® support programs available in your area, contact your Allied Telesyn sales representative or visit our website.
www.alliedtelesyn.com

AT-MC1000 Series, Gigabit Ethernet Media Converters

STATUS INDICATORS

System LEDs:

Power	Indicates power is applied to the converter

Per Port LEDs:

Link	Indicates a valid receiver link exists
Receive	Indicates validation being received by converter

POWER CHARACTERISTICS

Input Voltage:

External Power Supply: 100-120/220-240vAC, 50/60Hz +/-3%

Input Supply Voltage	12vDC +/-5%
Max Current	.5A
Power Consumption	6W

ENVIRONMENTAL SPECIFICATIONS

Operating Temp.	0°C to 40°C
Storage Temp. -	20°C to 80°C
Relative Humidity	5% to 95% noncondensing
Operating Altitude	0 to 10,000 feet

PHYSICAL CHARACTERISTICS

Dimensions	10.5cm x 9.5cm x 2.5cm (4.12" x 3.75" x 1.0")
Weight	294g (10.4oz)

ELECTRICAL/MECHANICAL APPROVALS

EMC	FCC Class A
Safety	UL-Cul, CSA/CSA, NRTL, TUV, CE compliant

Port Type (Connector)	Cable Distance	Optical Frequency	Launch Power (dBm) Max.	Launch Power (dBm) Avg.	Launch Power (dBm) Min.	Receive Power (dBm) Min. Sensitivity	Receive Power (dBm) Typical Sensitivity	Receive Power (dBm) Saturation
1000T UTP Copper	100m							
1000SX MMF	220-550m	850nm	-4.0	-7.0	-10.0	-16.0	-16.0	0.0
1000LX SMF (10km)	10km	1310nm	-3.0	-6.3	-9.5	-20.0	-20.0	-3.0
1000LX SMF (20km)	20km	1310nm	0.0	-1.5	-3.0	-24.0	-24.0	-3.0
1000LX SMF (50km)	50km	1550nm	0.0	-2.5	-5.0	-24.0	-24.0	-3.0
1000LX SMF (70km)	70km	1550nm	5.5	2.8	0.0	-24.0	-24.0	-3.0

Ordering information

AT-MC1004-xx
1000T to 1000SX(SC) 220-550m

AT-MC1005/1-xx
1000T to 1000LX(SC) 10km

AT-MC1005/2-xx
1000T to 1000LX(SC) 20km

AT-MC1005/3-xx
1000T to 1000LX(SC) 50km

AT-MC1005/4-xx
1000T to 1000LX(SC) 70km

Where xx =
10 AC Power supply, US power adapter
20 AC Power supply, European power adapter
30 AC Power supply, UK power adapter
40 AC Power supply, Australian power adapter

Only nature can do better

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