

# 1000BaseT to 1000BaseSX/LX Media Converter Series

## User's Manual

### FCC Warning

This device has been tested and found to comply with limits for a Class B digital device, pursuant to Part 2 and 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates and radiates radio frequency energy and, if not installed and used in accordance with the user's manual, it may cause interference in which case users will be required to correct interference at their own expenses.

### CE Warning

This is a Class B product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

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### Introduction

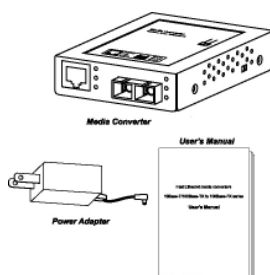
This Gigabit Ethernet Media Converter Series is designed to bridge a 1000BaseT signal to a 1000BaseSX/LX signal. It's used to extend the distance connection between two Gigabit Ethernet twisted-pair devices via the fiber cable transparently with no performance degradation.

This Media Converter Series is based on the switching hub design. It can support Auto-Negotiation and Flow Control function on the twisted-pair port. Besides, it can provide different types of fiber connectors, such as SC, LC, GBIC and SFP for multi-mode or single-mode cables.

### Package Contents

Before you start to install this switch, please verify your package that contains the following items:

- One Media Converter
- One Power Adapter
- One User's Manual



### Key Features

- Compliant with IEEE 802.3ab 1000BaseT and IEEE 802.3z 1000BaseSX/LX Standards
- One 1000BaseT Gigabit Ethernet TP Port and One 1000BaseSX/LX Gigabit Ethernet Fiber Port
- One 1000BaseSX/LX Fiber Port can support either Multi or Single Mode
- TP Port can support Half/Full-Duplex, Auto-MDI/MDI-X and Auto-Negotiation
- Multiple Fiber Connectors
- Providing 19" Converter Chassis for up to 16 slots with redundant power supply for optional expansion use

### Installation

#### **DC Input & External Power Adapter**

The External Power Adapter specification:

- AC Input range from 90VAC to 260VAC
- AC frequency range from 47Hz to 63Hz, TUV, CE, UL Safety
- Power Adapter DC Output is +5VDC 1.4A
- The device DC Input is +5VDC 1.4A.

#### **The TP Port**

The device TP port support Auto-MDIX, Auto-Negotiation and Flow Control functions. Please make sure it can't work in the 10BaseT or 100BaseTX environment and the cable length up

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to 100 meters is for Cat5, Cat5e or Cat6 shielded/unshielded twisted-pair cable.

### The Fiber Port

There're different types of fiber connectors, such as SC, LC, GBIC and SFP for multi-mode or single-mode fiber cables.

### LEDs

#### LED Indicators of Fast Ethernet Media Converter

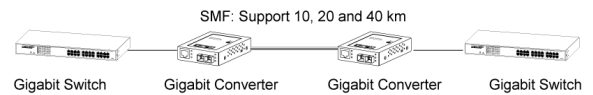
LED	Status	Operation
Power	On	Power is on.
TX	Flashing	Port is transmitting data
RX	Flashing	Port is transmitting data
LINK	On	Port is for connection

### Connections

#### Multi-Mode Fiber (MMF)



#### Single-Mode Fiber (SMF)



### Technical Specifications

<b>Standards</b>	IEEE 802.3ab 1000BaseT IEEE 802.3z 1000BaseSX/LX IEEE 802.3x Flow Control
<b>Features</b>	Number of Ports: 1 1000BaseT with RJ-45 Connector 1 1000BaseSX/LX with Fiber Connector (Multi/Single Mode)
<b>Data Transfer Rate</b>	2000Mbps/Full-Duplex
<b>Transmission Media</b>	TP: 1000BaseT Cat. 5, 5E, 6 UTP/STP, up to 100 m 1000BaseSX: 50/125µm Multi Mode Fiber optic cable, up to 220 m 62.5/125µm Multi Mode Fiber optic cable, up to 550 m 1000BaseLX: 9/125µm Single Mode Fiber optic cable
<b>LED Indicators</b>	Per Port: (TX): Link, TX (FX): Link, RX Per Unit: Power
<b>Power Requirement</b>	DC5V/2A
<b>Power Consumption</b>	10 Watts (Max)
<b>Dimensions</b>	102 x 74 x 22 mm (L x W x H)
<b>Weight</b>	240 g

<b>Operating Temperature</b>	0 to 60 °C
<b>Storage Temperature</b>	-20 to 90 °C
<b>Humidity</b>	10 to 90% RH (non-condensing)
<b>Certifications</b>	FCC Class B, CE

### Model Information

#### 1000BaseSX/LX Pluggable Series (850/1310nm)

GBIC	1 x 1000BaseT STP Port 1 x 1000BaseSX Fiber Port (+5V GBIC Module) The 62.5/125um MMF optic cables for 220m (722 ft.) links. The 50/125um MMF optic cable for 550m (1804 ft) links.
Pluggable	1 x 1000BaseT STP Port 1 x 1000BaseSX Fiber Port (+3.3V Pluggable LC Module) The 62.5/125um MMF optic cables for 220m (722 ft.) links. The 50/125um MMF optic cable for 550m (1804 ft) links

**1000BaseLX Series with 1310nm Wavelength**

Single-Mode SC Connector	1 x 1000BaseT STP Port 1 x 1000BaseLX Fiber Port, SC, SMF The 9/125um SMF optic cable for 10km, 20km, 40km links
Single-Mode LC Connector	1 x 1000BaseT STP Port 1 x 1000BaseLX Fiber Port , LC, SMF The 9/125um SMF optic cable for 10km, 20km, 40km links
Single-Mode GBIC Connector	1 x 1000BaseT STP Port 1 x 1000BaseLX Fiber port (+5V GBIC SC Type SMF) The 9/125um SMF optic cable for 10km, 20km, 40km links
Single-Mode Pluggable Connector	1 x 1000BaseT STP Port 1 x 1000BaseLX Fiber Port (+3.3V Pluggable LC SMF) The 9/125um SMF optic cable for 10km, 20km, 40km links

Multi -Mode LC Connector	1 x 1000BaseT STP Port 1 x 1000BaseSX Fiber Port, LC, MMF The 62.5/125um MMF optic cable for 220m (722 ft.) links. The 50/125um MMF optic cable for 550m (1804 ft) links
Multi -Mode GBIC Connector	1 x 1000BaseT STP Port 1 x 1000BaseSX Fiber Port (+5V GBIC SC Type MMF) The 62.5/125um MMF optic cable for 220m (722 ft.) links The 50/125um MMF optic cable for 550m (1804 ft.) links
Multi -Mode Pluggable Connector	1 x 1000BaseT STP Port 1 x 1000BaseSX Fiber Port (+3.3V Pluggable LC MMF) The 62.5/125um MMF optic cable for 220m (722 ft.) links The 50/125um MMF optic cable for 550m (1804 ft.) links

**1000BaseSX Series with 850nm Wavelength**

Multi-Mode SC Connector	1 x 1000BaseT STP Port 1 x 1000BaseSX Fiber Port, SC, MMF The 62.5/125um MMF optic cable for 220m (722 ft.) links. The 50/125um MMF optic cable for 550m (1804 ft) links.
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