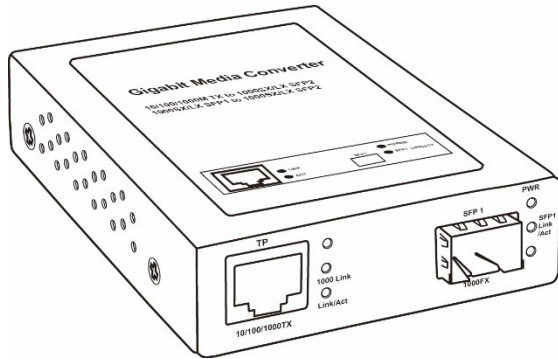




## Ethernet Media Converter Series

### 1GbE RJ-45 to SFP



## Quick Installation Guide

Version 1.0

## INTRODUCTION

The Gigabit Ethernet Media Converter Series is designed to bridge a 10/100/1000Base-T(X) signal to a 1000Base-SX/LX signal. It extends the connection distance between two Gigabit Ethernet twisted-pair devices via fiber optic cable, with no performance degradation.

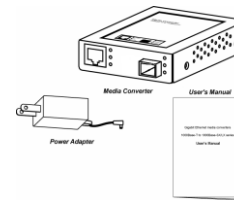
The Gigabit converter series supports Auto-Negotiation, Auto-MDI/MDI-X, and Flow Control functions on the twisted-pair port. It also features Link Fault Pass-Through (LFP) functionality for easy network link failure detection.

This converter is specially designed for lower operating temperatures than typical Gigabit converters and is highly compatible with most popular SFP Duplex LC fiber modules and fiber switches.

## PACKAGE CONTENTS

Before installing the media converter, please verify that your package contains the following items:

- 1 x Media Converter (*SFP Transceiver Module Not Included*)
- 1 x Power Adapter
- 1 x Quick Installation Guide



## KEY FEATURES

- Compliant with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, and IEEE 802.3z 1000Base-SX/LX Gigabit Ethernet standards
- One 10/100/1000Base-T(X) GbE TP port and one SFP slot for either MM or SM 1G SFP Modules
- TP port supports Auto-Negotiation, Flow Control, and Auto-MDI/MDI-X
- Supports Link Fault Pass-Through (LFP) function
- DIP switch for enabling/disabling forwarding and LFP functions

## INSTALLATION

### DC Input & External Power Adapter

The specifications for the external power adapter are as follows:

- Adapter AC Range: 90 ~ 260 VAC, 47 ~ 63 Hz
- Adapter DC Output and device DC Input: +5V DC

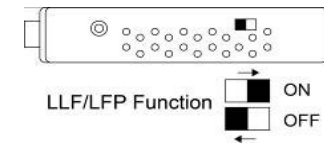
### TP Port

The TP port of the converter supports 10Base-T, 100Base-TX, and 1000Base-T with Auto-Negotiation, Auto-MDI/MDI-X, and Flow Control functions. It supports cable lengths of up to 100m using Cat5e, 6 or 6a shielded or unshielded twisted pair cables.

### SFP Module Port

The converter provides an SFP slot for the installation of multimode or single-mode duplex LC fiber modules.

### DIP Switch Setting

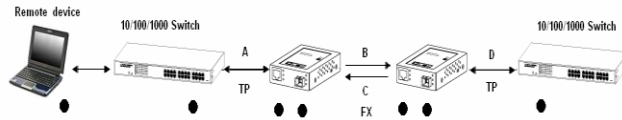


### Link Fault Pass-Through (LFP) Function

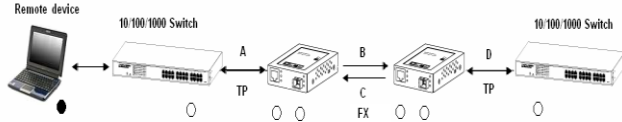
When the LFP function is enabled, any link loss on either the TP (Twisted Pair) port or the fiber port will be passed through to the corresponding port on the same device. If the TP port is disconnected or its link is lost, the converter will stop transmitting data on the fiber port, causing the remote fiber link to also fail. Similarly, if the fiber link fails, the converter will disable the TP link, resulting in a link failure at the remote TP device.

In both cases, the LEDs on the converter will indicate link failure for both the TP and fiber ports. The figures in the next section show normal status when the link succeeds and the error status when TP cable A / D or fiber cable B/C fails to connect.

### Normal status via a pair of LFPs



### Status if one of all cables A, B, C and D isn't link.



**Note:** ● indicates LNK/ACT LED On  
○ indicates LNK/ACT LED Off



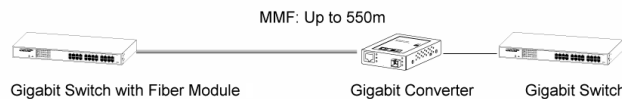
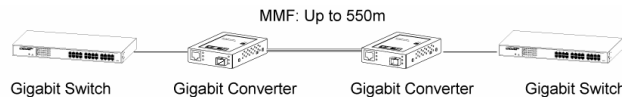
When changing the DIP switch settings, power off the device first. The new settings will take effect after the device is powered on

### LED Indicators

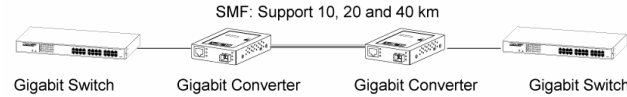
LED	Status	Description
Power	On/Off	Power On/Off
LINK/ACT	On	Fiber Link
	Flashing	Data Active
10/100M/ACT	On	Link on 10/100M
	Flashing	Data Active
1000M/ACT	On	Link on 1000M
	Flashing	Data Active

### Connection Examples

#### Multimode Fiber Application:



#### Single Mode Fiber Application:



### SPECIFICATIONS

<b>Standards</b>	IEEE 802.3 - 10Base-T IEEE 802.3u - 100Base-TX IEEE 802.3ab - 1000Base-T IEEE 802.3z - 1000Base-SX/LX IEEE 802.3x - Flow Control
<b>Features</b>	<b>Number of Ports:</b> <ul style="list-style-type: none"> <li>One 10/100/1000Base-T(X) with RJ-45 Connector</li> <li>One SFP Module Slot</li> </ul>
<b>Data Transfer Rate</b>	Full Duplex 1000Mbps
<b>Transmission Media</b>	<b>TP:</b> 10/100/1000Base-T(X) CAT 5e, CAT6, or CAT6A cable, up to 100m  Fiber transmission distance depends on the SFP transceiver and fiber cable types. For example, <b>1000Base-SX:</b> 50/125µm multimode fiber optic cable, up to 550m <b>1000Base-LX:</b> 9/125µm single-mode fiber optic cable, up to 20Km
<b>LED Indicators</b>	<b>Per Port:</b> (TX): 100M/Act, 1000M/Act (FX): Link/Act <b>Per Unit:</b> Power
<b>Power Requirement</b>	DC 5V/2A
<b>Power Consumption</b>	2 Watts (Max)
<b>Dimensions</b>	75 x 23 x 102 mm (W x H x D)
<b>Operating Temp.</b>	0 to 50 °C
<b>Storage Temp.</b>	-20 to 80 °C
<b>Humidity</b>	Max. 90% RH (non-condensing)



#### Limited Warranty

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