Trademarks

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FCC Warning

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1. Checklist

The OPTOLINX Fast Ethernet Switching Converter carton should contain following items:
— OPTOLINX Fast Ethernet Switching Converter
— AC-DC Power Adapter

Please notify your sales representative immediately if any items are missing or damaged.

2. Overview

The OPTOLINX Fast Ethernet Switching Converter is designed to meet the needs for massive optical fiber network deployment. This solution allows users to extend a legacy copper based network via fiber cable to a maximum distance of up to 30KM.

The OPTOLINX Fast Ethernet Switching Converter is fully compliant with IEEE 802.3 & 802.3u standards; built-in Switching ASIC allows the OPTOLINX Fast Ethernet Switching Converter to function more like a 2 ports switch rather than just a traditional converter. Users can get all switching benefits such like traffic segmentation, frames checking, and error filtering. In addition, the Link Alarm allows users to monitor & maintain their critical fiber link more easily and effectively.

The installation & operation procedures of the OPTOLINX Fast Ethernet Switching Converter are simple & straightforward. Operation status can be monitored through a set of Diagnostic LED located in the front panel.

Features

- 10/100Base-TX to 100Base-FX converter
- Store & Forward switching mechanism
- Complies with IEEE 802.3, 802.3u standards
- MDI/MDIX Auto-Crossover supported
- Auto-Negotiation or Manual mode setting of Speed & Duplex mode
- LED Indication
  - Power, FDX,
  - TP 100, TP Link/Activity
  - FX 100, FX Link/Activity
- Fiber Link Alarm function

3. Installation

The installation procedure is simple and straightforward.

- Attach fiber cable from the OPTOLINX Fast Ethernet Switching Converter to the fiber network.

- Attach UTP cable from the 10/100Base-TX network to the RJ-45 port on the OPTOLINX Fast Ethernet Switching Converter.

- Connect the power adapter to the OPTOLINX Fast Ethernet Switching Converter and check that the Power LED lights up. The TP Link and FX Link LED will light when all the cable connections are satisfactory.
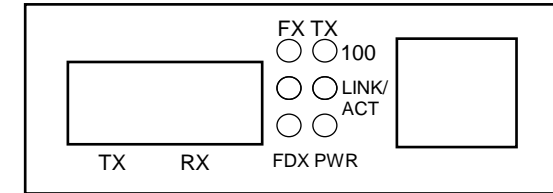

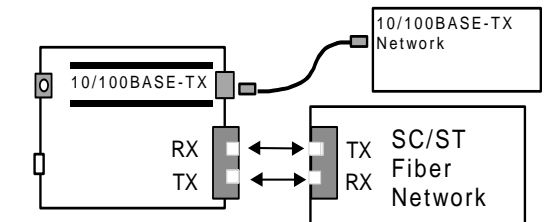Fig. 1 Fast Ethernet Switching Converter Front & Rear Panel

Fig. 2 Basic Network Connection

4. LED Description

LED	Color	Function
PWR	Green	Lit when power is available
FX 100	Green	Lit when FX port speed is 100M
FX Link/ACT	Green	Lit when fiber link is up
	Blink	Blink when traffic present
FDX	Green	Lit when TP port Full Duplex Mode is enabled
TP 100	Green	Lit when TP port speed is 100M
TP Link/ACT	Green	Lit when TP link is up
	Blink	Blink when traffic present

5. Technical Specifications

Standards	IEEE 802.3 & IEEE 802.3u
Switching Mechanism	Store & Forward
MAC table	1K Entries
Forward & Filter Rate	10Base-T 14,800 pps
(64 Bytes)	100Base-TX 148,800 pps
LED	Power, FDX, TP 100, TP Link/Act, Fiber 100, Fiber Link/Act
Power	DC 5V, 1.6A
Power Consumption	5W
Weight	1.8LB
Dimensions	71mm x 97mm x 26mm(W x D x H)
Temperature	Operating: 0 ~ 50 $^{\circ}$C
	Storage: -20 ~ 60 $^{\circ}$C
Humidity	5% ~ 90% RH
Safety	UL, CSA
Emission	FCC/CE Class A
UTP	Cat. 5 UTP cable
Fiber	50/125, 62.5/125, or 100/140μm multimode
	8.3/125, 8.7/125, 9/125 or 10/125μm single-mode

6. Rear Panel DIP Switch

Pin 1 Off/On   TP Auto-negotiation Enable/Disable
Pin 2 Off/On   TP Speed   100M/10M
Pin 3 Off/On   TP Duplex   Full / Half
Pin 4 Off/On   Link Alarm   Disable/Enable

Default is set to **OFF** from PIN 1 to PIN 4

Please perform Power On reset after modifying the DIP switch setting.

7. Link Alarm

The Link Alarm allows users to easily identify and diagnose the linking status. If the Link Alarm switch is set to Enable, the UTP and Fiber port can link up only when both linking conditions are good. In addition, if any of the fiber or UTP port link is down during operation, the other port will also go down to alert the user. Turning the Link Alarm switch to Enable provides users a transparent link indication between two network devices interconnected by the Fast Ethernet Switching Converter.

If the Link Alarm is disabled, the UTP and fiber port will link up based on their individual linking condition. Further, if the fiber port link is down during operation, it will not turn off the UTP port link and vice versa.

Notice
The Link Alarm will be effective only when the TP Auto-negotiation is enabled.
This version of user's guide is only valid for hardware version H or later version.

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FCU-100SX

Fast Ethernet Switching Converter

User's Guide

v2.9

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