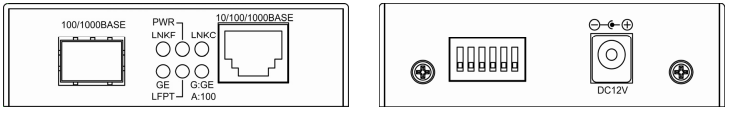
Manual

Important: Note that XSNet Series manuals may cover multiple models. To establish if a particular feature or specification in this manual applies to the unit at hand, consult the datasheet of the given model.

Quick Start Guide

This quick start guide describes how to install and use the Dual Rate SFP media converter. The converter introduced here provides one channel media conversion solution.

Physical Description

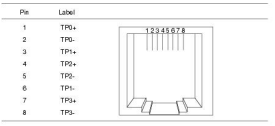


This Dual Rate SFP media converter is a plug-and-play device. Connect the supplied AC to DC power adaptor to the receptacle on the rear panel of the Dual Rate SFP media converter, and then attach the plug into a standard AC outlet.

No.	Down	Up	
1	Disable LFPT	Enable LFPT	LFPT: Link-Fault-Pass-Through function
2	Enable Auto-Negotiation for TX port	Enable Force mode for TX port	
3	TX port Force mode: Full-duplex	TX port Force mode: Half-duplex	
4	TX port Force mode: 100Mbps	TX port Force mode: 10Mbps	
5	SFP at 100Mbps	SFP at 1000Mbps	
6	Function reserved	Function reserved	

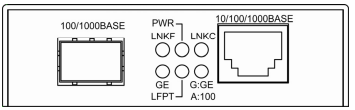
<Note> Power must be off/on after re-setting LFPT function.

The 10/100/1000Base-TX Connection
The following lists the pinouts of 10/100/1000Base-TX port.



The SFP Connection
The SFP socket for 100Base and 1000Base fiber optic expansion.

For SFP expansion



LEDs	State	Indication
PWR	Steady	Power on PWR stands for POWER
	Off	Power off
LFPT	Steady	LFPT function enabled
	Off	LFPT function disabled
LNKC	Steady	Copper port: A valid network connection established LNKC stands for LINK/Copper
	Off	No connection
G:GE A:100	Steady	Green: Connection at the speed of 1000Mbps Amber: Connection at the speed of 100Mbps
	Off	Connection at the speed of 10Mbps
LNKF	Steady	Fiber port: A valid network connection established LNKF stands for LINK/Fiber
	Off	No connection
GE	Steady	Force fiber port to 1000Base
	Off	Force fiber port to 100Base

Functional Description

- Complies with IEEE802.3 10Base-T, IEEE802.3u 100Base-TX/FX, IEEE802.3ab 1000Base-T, and IEEE802.3z 1000Base-SX/LX.
- Supports IEEE802.3x Flow control: Flow control for Full-duplex and Back pressure for Half-duplex.
- SFP fiber interface supports 100Base and 1000Base dual rate fiber transmission.
- DIP switch configuration for “Link-Fault-Pass-Through”.
- Gigabit transmission supports 9K Bytes jumbo frame.
- 1000Mbps-Auto/Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX.
- Full wire-speed forwarding rate.
- Operating voltage and Max. current consumption: 0.23A @ 12VDC. Power consumption: 2.76W Max.
- Power Supply: 12VDC external universal PSU.
- 0°C to 50°C (32°F to 122°F) operating temperature range.
- Aluminum case.
- Supports Wall Mounting installation.

FCC Statement

The FCC (Federal Communications Commission) restricts the amount of radio frequency emission and radiation coming from computer equipment.
The equipment introduced in this manual has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the 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, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user is required to correct the interference at his/her own expense.
Any changes or modifications not expressly approved by the manufacture would void the user's authority to operate the equipment.

Trademarks

Product names mentioned in this manual may be trademarks or registered trademarks of those products.
All trademarks or brand names mentioned are properties of their respective companies.

Preface

This manual describes how to install and use the Dual Rate SFP Media Converter. The Converter introduced here provides one channel media conversion solution:

10/100/1000Base-TX to 100Base and 1000Base dual rate SFP fiber interface with
link-fault-pass-through function

The Dual Rate SFP Media Converter fully complies with IEEE802.3 10Base-T, IEEE802.3u 100Base-TX/FX, IEEE802.3ab 1000Base-T, and IEEE802.3z 1000Base-SX/LX Ethernet standards.

In this manual, you will find:

- Product overview
- Features on the media converter
- Illustrative LED functions
- Installation instructions
- Specifications

Table of Contents

Introduction

The Dual Rate SFP Media Converter provides one channel for media conversion between 10/100/1000Base-TX to 100Base and 1000Base dual rate SFP fiber interface with link-fault-pass-through function.

Product Overview

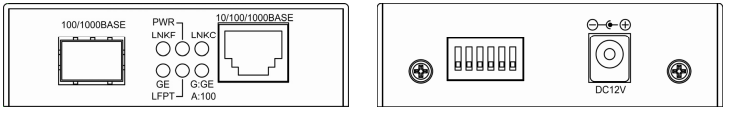


Figure 1:

Dual Rate SFP Media Converter with link-fault-pass-through function

Product Features

- Complies with IEEE802.3 10Base-T, IEEE802.3u 100Base-TX/FX, IEEE802.3ab 1000Base-T, and IEEE802.3z 1000Base-SX/LX.
- Supports IEEE802.3x Flow control: Flow control for Full-duplex and Back pressure for Half-duplex.
- SFP fiber interface supports 100Base and 1000Base dual rate fiber transmission.
- DIP switch configuration for “Link-Fault-Pass-Through”.
- Gigabit transmission supports 9K Bytes jumbo frame.
- 1000Mbps-Auto/Full-duplex, 10/100Mbps-Full/Half-duplex, Auto-Negotiation, Auto-MDI/MDIX.
- Full wire-speed forwarding rate.
- Operating voltage and Max. current consumption: 0.23A @ 12VDC. Power consumption: 2.76W Max.
- Power Supply: 12VDC external universal PSU.
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5	SFP at 100Mbps	SFP at 1000Mbps	
6	Function reserved	Function reserved	

<Note> Power must be off/on after re-setting LFPT function.

Packing List

When you unpack this product package, you will find the items listed below. Please inspect the contents, and report any apparent damage or missing items immediately to your authorized reseller.

- The Media Converter
- User's Manual
- AC to DC Power Adaptor

One-Channel Media Converter

Physical Ports

This converter provides one TX port and one 100Base and 1000Base dual rate SFP socket. For the 100Base and 1000Base dual rate SFP socket, it provides options of multi-mode/single-mode or WDM multi-mode/single-mode fiber. For the TX port, it uses RJ-45 connector and supports auto MDIX for uplink purpose.

Port Status LEDs

The LED indicators give you instant feedback on status of the converter:

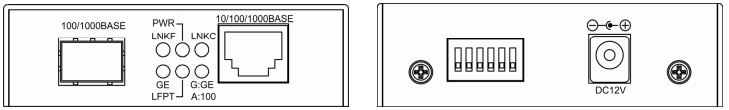

Figure 2:

Dual Rate SFP Media Converter with link-fault-pass-through function

LEDs	State	Indication
PWR	Steady	Power on PWR stands for POWER
	Off	Power off
LFPT	Steady	LFPT function enabled
	Off	LFPT function disabled
LNKC	Steady	Copper port: A valid network connection established LNKC stands for LINK/Copper
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G:GE A:100	Steady	Green: Connection at the speed of 1000Mbps Amber: Connection at the speed of 100Mbps
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LNKF	Steady	Fiber port: A valid network connection established LNKF stands for LINK/Fiber
	Off	No connection
GE	Steady	Force fiber port to 1000Base
	Off	Force fiber port to 100Base

Installation

This chapter gives step-by-step installation instructions for the Converter.

Selecting a Site for the Equipment

As with any electric device, you should place the equipment where it will not be subjected to extreme temperatures, humidity, or electromagnetic interference. Specifically, the site you select should meet the following requirements:

- The ambient temperature should be between 32 and 122 degrees Fahrenheit (0 to 50 degrees Celsius).
- The relative humidity should be less than 95 percent, non-condensing.
- Surrounding electrical devices should not exceed the electromagnetic field (RFC) standards for IEC 801-3, Level 2 (3V/M) field strength.
- Make sure that the equipment receives adequate ventilation. Do not block the ventilation holes of the equipment.
- The power outlet should be within 1.8 meters of the product.

Connecting to Power

This Converter is a plug-and-play device.

- Connect the supplied AC to DC power adapter to the receptacle at the back of the converter.
- Attach the plug into a standard AC outlet.

Specifications

Applicable Standards	IEEE802.3 10Base-T IEEE802.3u 100Base-TX/FX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-SX/LX
Fixed Ports	1 10/100/1000Base-TX port 1 100Base and 1000Base dual rate SFP fiber interface
Speed 10Base-T 100Base-TX/FX 1000Base-T 1000Base-SX/LX	 10/20Mbps for half/full-duplex 100/200Mbps for half/full-duplex 2000Mbps for full-duplex 2000Mbps for full-duplex
Forwarding rate	14,880pps for 10Mbps 148,810pps for 100Mbps 1,488,100pps for 1000Mbps
LED Indicators	PWR; LFPT; LNKC; Copper Port Speed; LNKF; SFP Port Speed
Dimensions	80.3mm (W) × 109.2mm (D) × 23.8mm (H) (3.16” (W) × 4.3” (D) × 0.94” (H))
Weight	150g (0.33lb.)
Power	External power adaptor 0.23A @ 12VDC
Power Consumption	2.76W Max.
Operating Temperature	0°C ~ 50°C (32°F ~ 122°F)
Storage Temperature	-10°C ~ 70°C (14°F ~ 158°F)
Humidity	5 ~ 95%, non-condensing
Emissions	FCC part 15 Class A, CE Mark Class A