

SSF-SFP-RJ45-1G / SSF-SFP-SFP-CON  
**Gigabit Fiber Media Converters**

# Manual



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# GIGABIT FIBER MEDIA CONVERTERS

## Ordering Information

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**SSF-SFP-RJ45-1G** Gigabit Media Converter 10/100/1000Base-Tx to 100/1000Base-X SFP slot, DIP sw config., AC adapter included

**SSF-SFP-SFP-CON** multi-rate Media Converter SFP slot to SFP slot, DIP sw config., AC adapter included

## Overview

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These Gigabit Ethernet fiber media converters provide high performance and reduced size. Units have DIP switches for custom speed and flow settings for strong networking flexibility. Physical dimensions have been reduced for minimum footprint and highest density attainable in 19" rack environment: 12 units/RU. Reliability is highly ranked with an MTBF exceeding 65,000 hours.

Converters support IEEE802.3u IEEE802.3z 1000Base-TX/FX protocols. Package includes AC adapter 100-240V to DC 5V and one User Manual.

## Features

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- 10/100/1000Base-T to 100/1000Base-X Conversion (or same rate transparent for SSF-SFP-SFP-CON model)
- Auto-Negotiation and Auto MDI/MDIX (LFC-1001/1002-SFP)
- Forward 2048 bytes (Max.) packets in switch mode (copper & fiber port in different speed)
- Forward 9k bytes in converter mode (fiber & copper port at the same speed)
- DIP switch settings for fiber speed (100/1000M), LFP and Flow control
- Support for Q in Q double tagged frame transparent
- Support for IEEE 802.1Q Tag VLAN pass thru
- 100M to 2.5G transparent O-E-O repeater – both optical ports must have same rate (model SSF-SFP-SFP-CON)
- Installs into high density 12 slot/1RU rack mountable chassis (with options of redundant and AC or DC48 power supplies)

## DIP Switch Settings

DIP	MODEL	SSF-SFP-SFP-CON	
DIP	Function	Settings	
SW 1	LFP	OFF – Disabled	ON – Enabled
SW 2	Forwarding Mode	OFF/OFF OFF/ON	Store & Forward Cut Through
SW 3	(paired setting 2&3)	ON/OFF ON/ON	Smart Pass Through Pass Through
SW 4	FX port 100M mode	OFF – 1000M	ON – 100M



## LED Indicators (Markings Will Vary with Models)

	FUNCTION
TP/LNK	Off – No link; On – RJ45 link OK; Blinking – data traffic present
SPD	Off – 10M/100M; On – 1000M on RJ45 port
FX/LNK SFP1 SFP2	Off – No link; On – Fiber link OK; Blinking – data traffic present
PWR	Off – No power available; On – Power is present

## Installation

1. Choose a flat secure surface with room for proper ventilation.
2. Power up the unit using the included AC adapter. Observe PWR LED status indicating proper power to the unit.
3. Connect RJ45 UTP port using Cat5e or better cable to another Ethernet device. Make sure the TP LED indicates proper connectivity.
4. Insert a Gigabit or Fast Ethernet rated SFP transceiver into the SFP slot. Make sure the fiber transceiver used matches the fiber type (MM or SM) and also matches a similar optical transceiver at the other end of the fiber. Inspect FX LED for proper fiber link status.

## Troubleshooting

1. No TP/LNK light: verify proper UTP cabling/pinout.
2. No FX/LNK light: verify fiber connectivity and fiber type. Consider cleaning up fiber connectors and SFPs with appropriate tools. Make sure Tx and RX ports are properly crossed between units. Make sure FX speed is properly set on DIP sw.
3. No PWR light: Use only the AC adapter included. Make sure AC power is available

## Technical Specifications

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Standards	IEEE 802.3, 802.3u, 802.3z, 802.3ab
Connectors	SFP slot, RJ45 UTP port, DC power plug
UTP port	RJ45, Auto MDI/MDI-X, full duplex, 10M, 100M or 1000M modes
SFP slot	Supports 100M or 1000M speed SFPs (up to 2.5G for SSF-SFP-SFP-CON)
Power Adapter	Adapter with AC 100-240V input, 0.5A AC frequency: 50-60Hz, Output DC 5V/1A
Power Requirements	DC 5-12V, 4W max. power consumption
Dimensions	90mm x 60mm x 20mm (SFP not included)
Mounting	Wall or shelf (optional bracket needed)
Environmental Conditions	Operating Ambient Temperature: 0 to 50°C Operating Humidity: Maximum 85%, Non-condensing Storage Temperature: -30 to 70°C Storage Humidity: Maximum 95%, Non-condensing Indoor rated operating device
MTBF	65,000 hours

## Warning

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1. Use only indoors in climate-controlled environment.
2. Avoid looking directly into fibers or lasers while unit is powered.
3. Use only the AC adapter included with the unit (or with the LFC series chassis available separately)

### FCC and CE markings

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

This is a CE class B device, intended to be used in residential, commercial or industrial applications.