CTC Union Technologies Co., Ltd.
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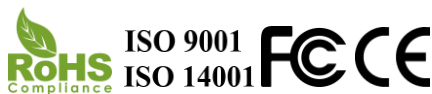# Quick Installation Guide

FMC-1001S
FMC-1001S-AC
FMC-1001S-DC
10/100/1000Base-T to 100/1000Base-X Fiber Media Converters

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RoHS Compliance   **ISO 9001** **ISO 14001** FC CE

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Introduction

FMC-1001S provides a cost-effective solution for Fast and Gigabit Ethernet fiber media conversion. By utilizing industry standard SFP modules, this converter can be utilized with multi-mode or single mode fibers with LC connectors as well as single fiber (WDM) transceivers. The fiber port provides 100/1000M connection, while the copper UTP port provides 10/100/1000M auto-negotiation to connect to a wide variety of Ethernet devices.

FMC-1001S gives you the freedom to extend your 10/100/1000M cabling distance by allowing connectivity up to 120KM over fiber. LED indicators signal the power status, UTP link & speed and fiber link & speed.

Features

- 10/100/1000Base-T to 100/1000Base-X SFP Converter
- Auto-Negotiation
- Auto MDI/MDIX
- Forward 2048K bytes (Max.) packets (Switch mode)
- Support 9K bytes packets (Converter mode)
- Supports Link Fault Pass Through (LFP)
- Supports IEEE 802.1Q Tag VLAN pass thru
- Supports Q in Q double tagged frame transparent
- Provides DIP switch to set functions

Specifications
Electrical Interface
- Standards: IEEE802.3 (10Base-T), 802.3u (100Base-TX), 802.3ab (1000Base-T)
- Speed: 10/100/1000Mbps
- Connector Type: 1 x RJ-45 connector
- Duplex Mode: Full duplex
- Cable Type: Cat. 5, 5e or higher

Specifications (Cont.)
Optical Interface
- Standards: IEEE802.3u (100Base-FX), 802.3z (1000Base-SX/LX)
- Connector Type: SFP LC
- Data Rate: 100/1000Mbps
- Duplex Mode: Full duplex
- Fiber: 50/125um (MM), 62.5/125um (MM); 9/125um (SM)
- Distance: 2KM (MM), 15/30KM (SM), 20/40KM (WDM)
- Wavelength: 1310nm (MM), 1310/1550nm (SM)
      1310nm TX/1550nm RX Type A (WDM)
      1550nm TX/1310nm RX Type B (WDM)

Power
- Adapter Type: Adapter Output 12VDC 0.5A
- Built-in AC Power: Input 100~240VAC
- Built-in DC Power: Input 18~60VDC
- Consumption: < 3W (SFP not included)

Mechanical
- Dimensions: 73.4mm × 108mm × 23mm (Adapter type); 73.4mm × 135mm × 23mm (Power built-in type)
- Mounting: Wall mounting (For wall mounting models only)
- Weight: 120g (Adapter type); 140g (Power built-in type)

Environment
- Operating Temperature: 0°C~50°C
- Storage Temperature: -10°C~70°C
- Humidity: 10%~90% (Non-condensing)
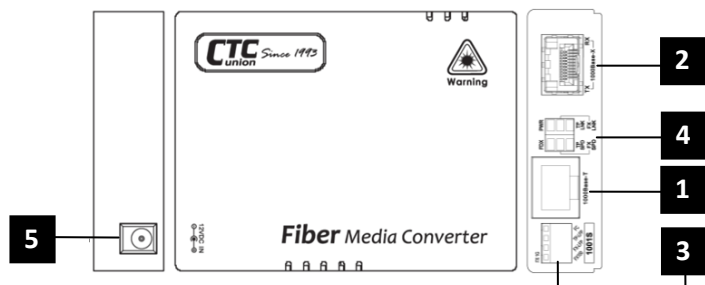
MTBF (MIL-HDBK-217)
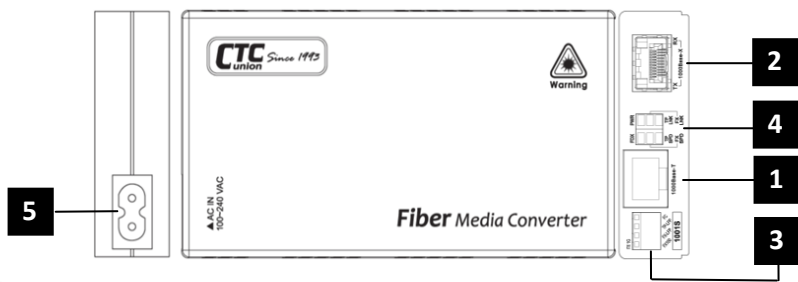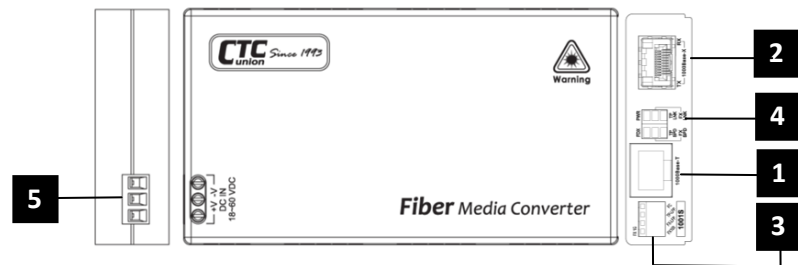- 65,000 Hours

Certifications
- EMC: FCC Class A, CE

Panels

➢ **FMC-1001S (Adapter type)**

➢ **FMC-1001S-AC (Built-in AC power type)**

➢ **FMC-1001S-DC (Built-in DC power type)**

No.	Description
1	LAN connection
2	SFP Fiber slot
3	DIP Switch
4	LED indicators
5	Power input

Table 1: Index Reference

DIP Switch Function Descriptions

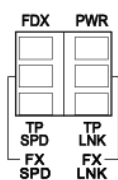| Pole No.	Function	Setting	Function Description
1	FX Speed	FX 1G*	Set fiber optic speed to 1000Mbps (1Gbps).
		FX 100M	Set fiber optic speed to 100Mbps.
2	FX-LFP	OFF*	Disable fiber link fault pass through.
		ON	Enable fiber link fault pass through.
3	TP LFP	OFF*	Disable UTP link fault pass through.
		ON	Enable UTP link fault pass through.
4	Flow Control	OFF*	Disable flow control function.
		ON	Enable flow control function.

NOTE 1: By default, all DIP switches are set to OFF position (marked with *).

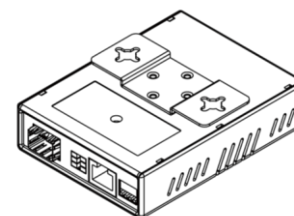**NOTE 2:** When LFP is enabled, the LAN port link down will force Fiber port link down and vice versa.
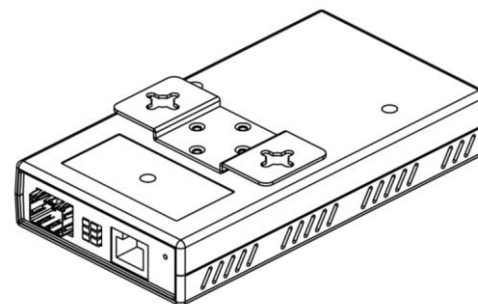
LED Indicators

LED	Color	Status	Description
PWR	Green	ON	Lit if power is connected and active.
		OFF	Power is not connected.
FX Link	Green	ON	Fiber link is connected and active.
		OFF	No fiber link.
FX Speed	Amber	ON	The connected fiber speed is 1000M.
	Green	ON	The connected fiber speed is 100M.
	Amber/Green	OFF	No fiber optic link.
TP Link	Green	ON	TP link is connected and active.
		OFF	No TP link.
TP Speed	Amber	ON	The connected LAN speed is 1000M.
	Green	ON	The connected LAN speed is 100M.
	Amber/Green	OFF	No Ethernet link or connected LAN speed is 10M.
FDX	Green	ON	Full duplex.
		OFF	Half duplex.

Wall Mounting (For Wall Mounting Models Only)

FMC-1001S standalone converters have the option of adding wall mount capability. One wall mount kit is required for installing a single standalone unit on the wall. Each wall mount kit provides all the necessary hardware for a complete installation.

Converter (Adapter type) with Wall Mounting Bracket

Converter (Built-in power type) with Wall Mounting Bracket