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# Quick Installation Guide

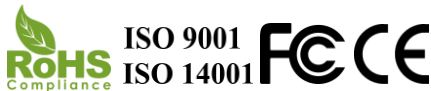
## FMC-1001S FMC-1001S-AC FMC-1001S-DC

10/100/1000Base-T to 100/1000Base-X Fiber Media Converters



**CTC Union Technologies Co., Ltd.**  
Far Eastern Vienna Technology Center  
(Neihu Technology Park)  
8F, No. 60, Zhouzi St., Neihu District, Taipei 114  
Taiwan

T +886-2-26591021  
F +886-2-26590237  
E sales@ctcu.com



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sales@ctcu.com

### 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)

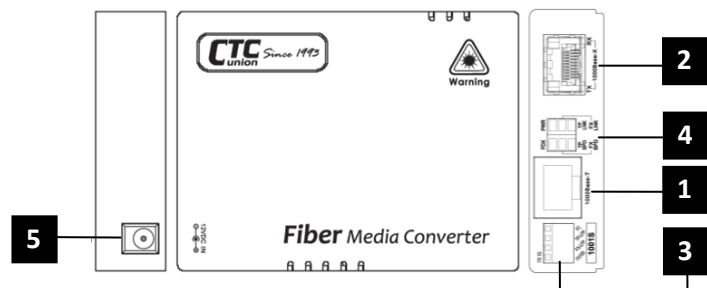
- 65,000 Hours

#### Certifications

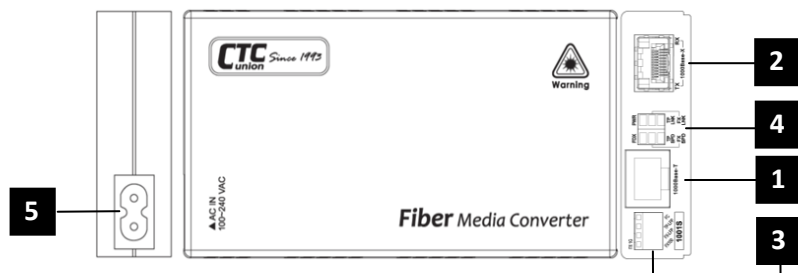
- EMC: FCC Class A, CE

## Panels

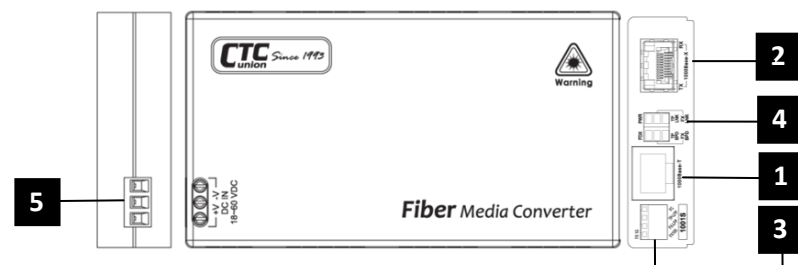
### ➤ FMC-1001S (Adapter type)



### ➤ 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.              |

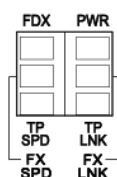
**NOTE 1:** By default, all DIP switches are set to OFF position (marked with \*).

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

- 3 -

- 4 -

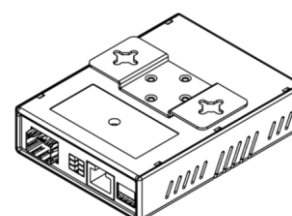
## LED Indicators



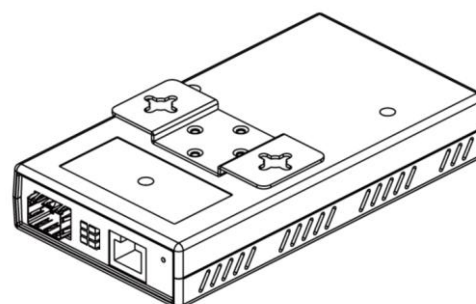
| LED      | Color       | Status | Description                                     |
|----------|-------------|--------|-------------------------------------------------|
| PWR      | Green       | ON     | Lit if power is connected and active.           |
|          |             | OFF    | Power is 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