

# LO-MC-1000DMS User's Manual

## 1. Overview

IEEE802.3z/AB 1000Mbps Gigabit Ethernet Media Converter supports two types media for network connection such as 10/100/1000Base-T and 1000Base-SX/LX/ZX. The media converter is designed with a switch controller and buffer memory that connects two types segments to operate smoothly. With internal power unit or external power unit, it provides good stability and reliability.

The Gigabit Ethernet Media Converter supports MDI/MDIX auto crossover.

The Single-mode Single Fiber Converter is specially designed with an optic Wavelength Division Multiplexing(WDM) model that can transport bi-directional full duplex signal over a single fiber simultaneously. It must be used in couples.

The 1(A) models wavelength are option TX(Transmit) 1310nm, RX(Receive) 1550nm.

The 2(B) models wavelength are option TX(Transmit) 1550nm, RX(Receive) 1310nm.

## 2. Checklist

Before you installing the Converter, verify that the package contains the following:

1. The TP-Fiber Media converter.
2. AC Power Cord or Cable.
3. This User's Manual.

Please notify your sales representative immediately if

any of the aforementioned items is missing or damaged.

## 3. LED Description

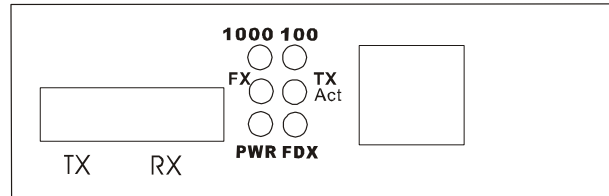


Fig 1 Front View of Gigabit Converter

TP 100	Lit when TP speed is 100Mbps
TP 1000	Lit when TP speed is 1000Mbps
TP Act	Lit when TP connection is good. Blinks when TP data is transmitting.
TP FDX	Lit when TP full-duplex mode is active. Off when TP half-duplex mode is active. Blinks when collision signal is present.
FX Act	Lit when TP connection is good. Blinks when TP data is transmitting.
PWR	Lit when +5V power is coming up.

## 4. Dip Switch Setting

SW1	ON	Disable LFP
	OFF	Enable LFP
SW2	ON	Converter Mode
	OFF	Switch Mode

## 5. Fiber Technical Specifications

Connector type	SC	SC	SC
Fiber type	Multi-mode	Single-mode	Single-mode
Wavelength	850nm	1310nm	1310nm
Max Distance	62.5μm: 224m 50μm: 550m	20Km	40Km
Min TX PWR	-11.0dBm	-9.0dBm	-4.0dBm
Max TX PWR	-6.0dBm	-5.0dBm	0dBm
Sensitivity	< -18dBm	< -21dBm	< -24dBm
Link Budget	7.0dBm	12.0dBm	20.0dBm

Connector type	SC	SC
Fiber type	Single-mode	Single-mode
Wavelength	1550nm	1550nm
Max Distance	60Km	80Km
Min TX PWR	-8.0dBm	-3.0dBm
Max TX PWR	0dBm	0dBm
Sensitivity	< -25dBm	< -25dBm
Link Budget	17.0dBm	22.0dBm

### Single Fiber Technical specification

Connector type	SC	SC
Fiber type	Single-mode	Single-mode
Wavelength	1310/1550nm	1310/1550nm
Max Distance	20Km	40Km
Min TX PWR	-10.0dBm	-4.0/-8dBm
Max TX PWR	-4.0dBm	0dBm
Sensitivity	< -22dBm	< -25dBm
Link Budget	12.0dBm	20/17dBm

Connector type	SC	SC
Fiber type	Single-mode	Single-mode
Wavelength	1310/1550nm	1490/1550nm
Max Distance	60Km	80Km
Min TX PWR	0/-5.0dBm	-1dBm
Max TX PWR	3/0dBm	3dBm
Sensitivity	-25dBm	< -25dBm
Link Budget	25/20dBm	24.0dBm

## 6. Installing the Converter

1. Attach fiber cable from the Converter to the fiber network.. The fiber connections must be matched: transmit socket to receive socket.
2. Attach a UTP cable from the TP network device to the RJ45 port on the Converter.
3. Connect the power cord to the Converter and check that the Power LED lights up. The TP Act and FX Act LEDs will light when all the cable connections satisfactory.

## 7. Technical Specifications

The Converter conforms to the following standards:

- **Standards:** IEEE 802.3z/AB 10/1001000Base-T  
1000Base-SX/LX/ZX
- **UTP Cable:** Cat.5e or Cat.6 cable up to 100m.
- **Fiber Cable:**  
1000SX: 50/125, 62.5/125 $\mu$ m multi-mode  
1000LX/ZX: 9/125 $\mu$ m single-mode.
- **Data Transfer Rate:**

2000Mbps for full-duplex at 1000Mbps speed.

- **LED Indicators:**

TP Act, Fdx, 100, 1000

Power, FX Act

- **TP Flow Control:** NWay auto-negotiation

**Fiber Flow Control:** NWay at full-duplex mode

- **Power Requirement:** 220V(175-260V)AC, 50Hz

- **Ambient Temperature:** 0 ~ 50°C

- **Humidity:** 5% ~ 90%

- **Dimensions:** Internal Power 30×110×140mm

External Power 26×70×95mm (H×W×D)

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