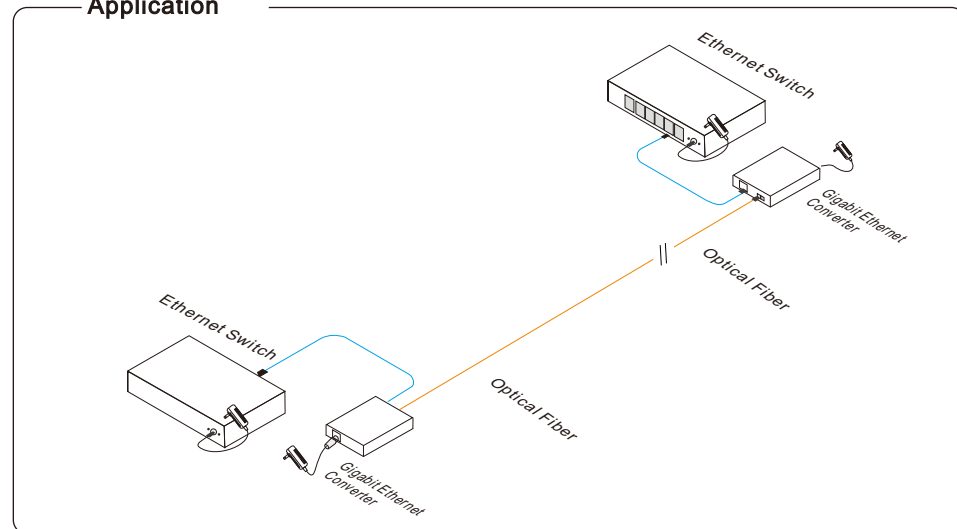


# Industrial Gigabit Media Converter User manual

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It is an industrial gigabit Ethernet fiber optical transmission equipment which can convert between network cable and optical fiber cable. It supports 10/100/1000Mbps network bandwidth. It can be used in pairs and can also be used together with other equipments. It is widely used in surveillance, home network fiber, etc.

## Application



## Feature

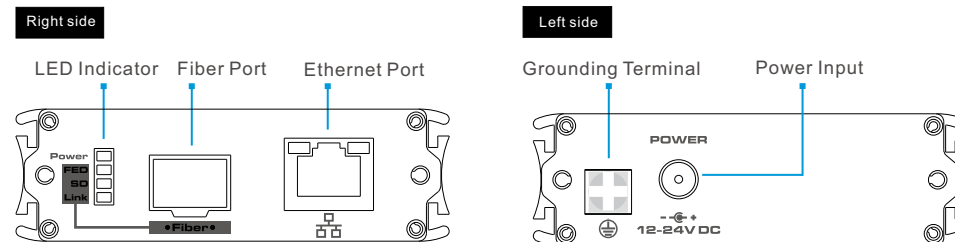
- Provide 1\*gigabit fiber optical port and 1\*gigabit Ethernet port which can convert between 10/100/1000BASE-T and 1000BASE-X.
- Apply to SFP optical module, support hot plug and SFP optical module with different performances.
- Compatibility with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab/z, and Ethernet standard of 10/100/1000Base-T and 1000Base-X.
- Support 10/100/1000Mbps full/half duplex automatic adaptation and automatic MDI/MDIX.
- Support 6kV surge protection, 6kV/8kV ESD protection.
- Support -40°C~75°C working temperature.



## Caution

- 1) Please note that two optical fiber cables should be cross connected to fiber optical ports of two Fast Ethernet Converters.
- 2) SFP modules need to be purchased separately.
- 3) Device must be connected with lightning protection grounding; otherwise protection level will be reduced; please use above 20AWG wire to connect the grounding terminal.

## Board Diagram



### LED Indicator Instruction:

LED	Function	Status	Instruction
Power	Power LED Indicator	On	Power On
		Off	Power Off
FED	SFP Detection Indicator	On	SFP insert
		Off	No SFP inserted
SD	Remote Device Failure Alarm Indicator	On	Remote device failed
		Off	Remote device connected normal and Working well
Link	Optical Fiber port Connection Status	On	Connection Normal
		Flicker	Connection Normal With Data Switching
		Off	Connection Failed
RJ 45 Indicator (Link/Act)	Ethernet Port Connection	On	Ethernet Port Connection Normal
		Flicker	Connection Normal With Data Switching
		Off	No Connection

## Installation

Please check the following items before installation. If any missing, please contact the dealer.

- Gigabit Ethernet Converter 1pc
- Power Adapter 1pc
- AC Power Cord 1pc
- Hanger 2 pcs
- User Manual 1pc

### Installation Steps

- 1) Please turn off the signal source and device power before installation; Installation with power on may damage the device.
- 2) Please check if the network cables is being taken up by other devices.
- 3) Use network cable to connect RJ45 Port of the Converter with NVR or network devices like computer.
- 4) Use two optical fibers of single mode, dual fiber to connect fiber optical ports of two Fast Ethernet Converters. Please note that the optical fiber cable should be CROSS connected to RX and TX unit of fiber optical ports, that is, the one end of optical fiber cable shall be connected to TX unit of optical module and the other end of optical fiber cable should be connected to the RX unit of optical module.
- 5) Please check if the installation is correct and power the system.
- 6) Please check if the network is working.

## Specifications

Item	Specifications
Ethernet Ports	
Ethernet Ports	Ethernet port:10/100/1000Mbps
Transmission Distance	0 ~ 100m
Fiber Ports	
Fiber Port	LC Port, SFP Optical Module, Single Fiber or Dual Fiber Optional
Bandwidth	1.25Gbps
Transmission Distance	Depend on SFP module performance
Standards	
Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab/z, 10/100/1000BASE-T and 1000BASE-X, IEEE 802.3 X.
LED Indicator	
Power Indicator Light	1 Red
Network Indicator Light	1 Green on RJ45 Socket
Fiber Indicator Light	3 Green (Link,SD,FED)
Power Supply	
Input Voltage	12~24V DC
Environment	
Surge Immunity	6kV,Standard: IEC61000-4-5
ESD Protection	Level 3,Standard:IEC61000-4-2
Operating Temperature	-40°C~75°C
Storage Temperature	-40°C~85°C
Operating Humidity	0~95% (Non-condensation)
Physical Parameter	
Dimensions (W*D*H)	103mm*82mm*25mm
Net Weight	160g
Material	Aluminum Alloy

## Trouble Shooting

Please find the following solutions when the device doesn't work:

- Please confirm if the installation is correct;
- Please confirm if the RJ45 cable order is in accordance with the EIA/TIA568A or 568B industry standards;
- The maximum transmission distance depends on the signal source and cable quality, please do not exceed the maximum transmission distance;
- Please replace a failure device with a normally working device to check if the device is in normal operation or not;
- If the problem still exists, please contact the factory.

## RJ 45 Making Method

Instruments to be used: wire crimper, network tester.

Wire sequence of RJ45 plug should conforms with EIA/TIA568A or 568B standards.

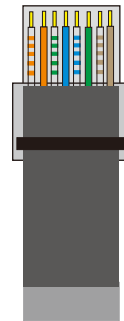
- 1) Shuck off about 2cm long of the insulating layer to expose the 4 pairs UTP cables;
- 2) Seperate the 4 pairs UTP cables and straighten them up;
- 3) Line up the 8 pieces of cables per EIA/TIA 568A or 568B standards;
- 4) Brunt cut the cables to leave 1.5cm wire exposed and make sure the wire ends are leveled off;
- 5) Plug 8 cables into RJ45 plug, make sure each cable is in each pin;
- 6)Then use wire crimper to crimp it;
- 7) Repeat above 5 steps to make the another end;
- 8) Using network tester to test the cable .

pin color	
1	white/green
2	green
3	white/orange
4	blue
5	white/blue
6	orange
7	white/brown
8	brown



EIA/TIA 568A

pin color	
1	white/orange
2	orange
3	white/green
4	blue
5	white/blue
6	green
7	white/brown
8	brown



EIA/TIA 568B



### Notice

- Make sure if one end is EIA/TIA568A,the other end should also be EIA/TIA568A.
- Make sure if one end is EIA/TIA568B,the other end should also be EIA/TIA568B.

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