

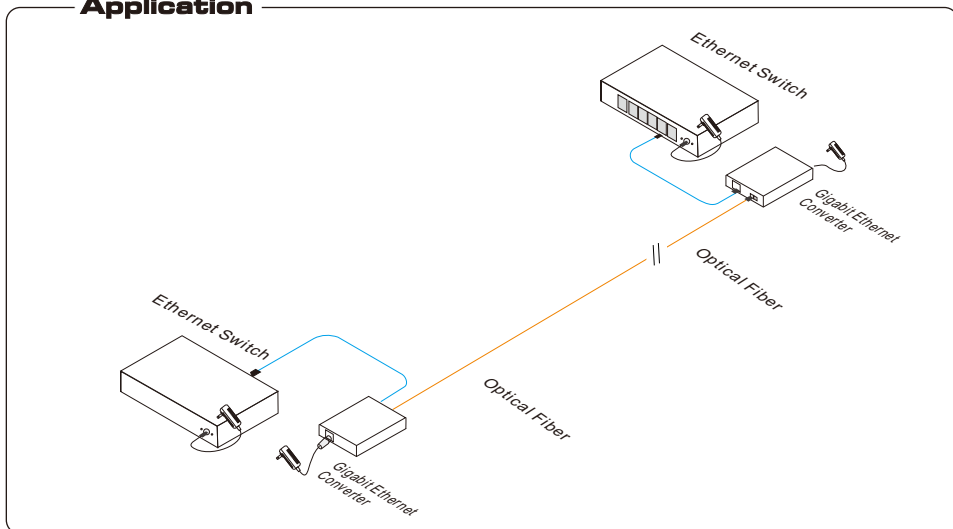
# Industrial Gigabit Media Converter

## User manual

V1.1

It is industrial gigabit Ethernet fiber optic transmission equipment which can converter between two different network cables and optical fiber transmission medium. Supporting 10/100/1000 Mbps network bandwidth, this product can be used in pairs and also can be used with other equipments. It is widely used in surveillance, home network fiber, etc.

### Application



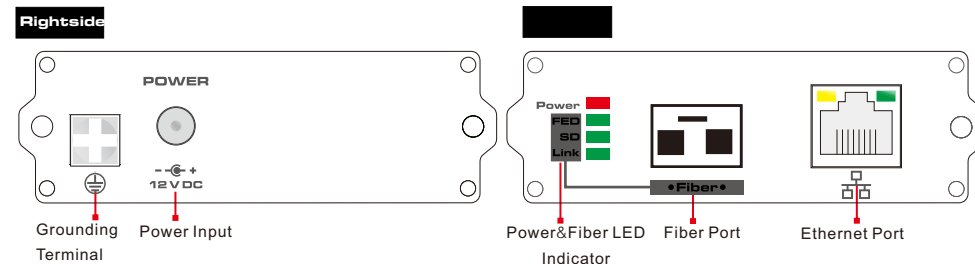
### Feature

- Provide 1000Mbps 1 fiber optic port and 1 Ethernet port which can converter between 10 /100 /1000BASE-T and 1000BASE-X;
- Use SFP optical module, support hot plug and SFP optical module with different performances ;
- Compatibility with IEEE 802.3, IEEE 802.3u, IEEE802.3ab/z, and Ethernet standard of 10/100/1000BASE-TX and 1000BASE-FX;
- 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 tempreture.

### Caution

- 1) Please attention that 2 optical fibers need to be across connected with Fiber Port of two Gigabit Ethernet Converters;
- 2) SFP module need to purchase additionally.
- 3) The equipment requires lightning protection, otherwise its protection level will be greatly reduced. please use 20th or over wire to connect ground port to the ground ,

### Board Diagram



#### LED Indicator Instruction:

LED	Function	Status	Instruction
Power	Power LED Indicator	On	Power On
		Off	Power Off
FED	Remote Device Failure Detection Indicator	On	Remote device failed
		Off	Working well
SD	SFP Detection Indicator	On	SFP insert
		Off	No SFP inserted
Link	Optical Fiber port Connection Status	On	Connection Normal
		Flicker	Connection Normal And With Data Switch
		Off	Connection Failed
RJ 45 Indicator ( Link/Act )	Ethernet Port Connection	On	Ethernet Port Connection Normal
		Flicker	Connection Normal and With Data Switch
		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
- 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 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 single mode optical fibers for connect two fiber ports of two Fast Ethernet Converters. Pay attention to that the optical fibers connecting RX and TX line should be CROSS connected. That is: if one end of optical fiber line connected to the module TX interface, the other end should be connected to the RX interface;
- 5) Please check if the installation is correct and power the system;
- 6) Please check if the network is working.

## Specification

Item		Description
Power	Power Supply	Power Adapter
	Voltage range	DC12V
	Consumption	< 3W
Ethernet Port parameter	Ethernet Port	Ethernet port:10/100/1000Mbps
	Transmission Distance	Ethernet port:0 ~ 100m
Fiber Port parameter	Fiber Port	LC Port, SFP Optical Module, Single Fiber or Dual
	Bandwidth	1.25Gbps
	Transmission Distance	Depend on SFP module performance
network exchange specification	Ethernet standard	IEEE802.3、IEEE802.3u、IEEE802.3ab/z、10/100/1000BASE-TX and 1000BASE-FX、IEEE802.3 X.
Status indicator	Power indicator light	1 Red
	Network indicator light	1 Green on RJ45 Socket
	Fiber indicator light	3 Green (Link,SD,FED)
Protection level	ESD	3 level,Standard:IEC61000-4-2
	Protection level	6KV,Standard: IEC61000-4-5
Operation environment	Working Temperature	-40°C~75°C
	Storage Temperature	-40°C~85°C
	Humidity (non-condensing)	0~95%
Mechanical	Dimension (L×W×H)	103mm×82mm×25mm
	Material	Aluminum Alloy
	Color	Black
	Weight	160g

Product are subject to change without prior notice

## Trouble Shooting

Please find the following solution 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 broken;
- 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) Separate 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.