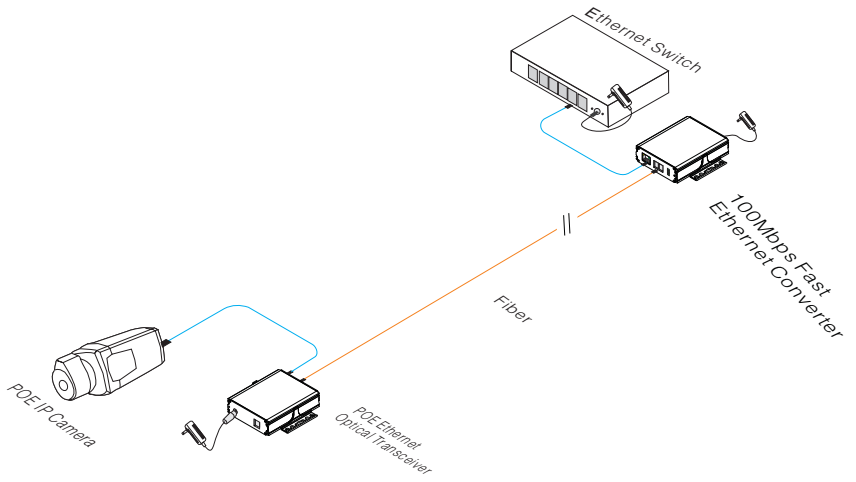
POE Ethernet Optical Transceiver

POE Ethernet Optical Transceiver is fast Ethernet fiber optic transmission equipment, which can converter between two different network cable and optical fiber transmission medium, and with PoE function. This product can be used in pair or match with other equipment. It is perfect for connecting PoE IP camera to supply power and network data transmission, avoid connecting the power socket. It is widely used in security network surveillance, network engineer and others system.

Application



Feature

- Provide 100Mbps 1 fiber port and1 Ethernet port which can converter between network data, fiber optic and power;
- Ethernet port with PoE, support IEEE802.3 af/at standard, maximum 30W output.
- Use SFP optical module, support hot plug and different SFP module optional;
- Compatible with IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX/FX Ethernet standard;
- Support 10/100Mbps full/half duplex auto adaptation, support auto MDI/MDIX;
- Excellent circuit isolation protection, effectively improve lightning protection, ESD and anti-interference ability;
- Dynamic LED indicator, real-time display current working status, provide simple working status tips and trouble shooting;
- Support DC48V ~ 57V wide range voltage input;
- Delicate aluminum MIT structure design, easily install in rack, desktop and wall.

Caution

1) 2 fibers need to cross connect with 2 fiber ports of media converters.

2) SFP modules need to purchase additional;

3) Grounding and anti-lightening can greatly increase the protection level of the switch, please connect the earth terminal by using at least wire 20.

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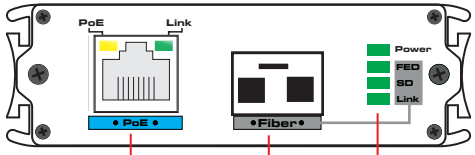
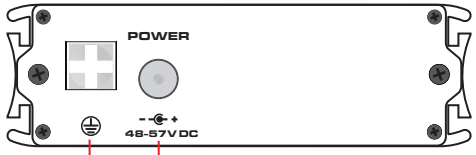
Board Diagram

Leftside



PoE Ethernet Port | Fiber Port | Power & Fiber LED Indicator

Rightside



Grounding Terminal | Power Input

Instruction:

1)Yellow light on the PoE Ethernet port is to indicate PoE working status, green light is to indicate link/act;

2)"Power" is power LED indicator; "FED, SD, LINK" is optical port LED indicator, they means:

Link indicates optical port connection status, On: connection OK; Off: connection failure; Flicker: connection OK and data is switching;

SD optical port signal detection, On: optical fiber connection is ok; Off: without optical fiber connection;

FED remote fault mode receive, On: 80ms; Off: 20ms; Often off: no receive;

3)LED failure indicator function, please see the table below:

LED Indicators of Power & Ethernet	Fiber Link	Fiber SD	Fiber FED	Status
On	On	On	Off	Connect well
Flicker	Flicker	On	Off	Connect well, with data transmission
Off	Off	On	Off	Remote power port unable to connect
Off	Off	Off	Off	Fiber optical RX drops, TX/RX drops
Off	Off	On	Flicker	Fiber optical TX/RX drops

Installation Steps

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

- POE Ethernet Optical Transceiver 1 pc
- Power adapter 1 pc
- MIT Hanger 2 pcs
- User manual 1 pc

Please follow the following steps

1) Please turn off the signal source and the device's power, installation with power on may damage the device;

2) Check if the network cable and other transmission line that will be used is occupied by other device;

3) Use a network cable to connect video to POE Ethernet Optical Transceiver's LAN port with PoE IP camera or other PoE network device;

4) Use two single mode double optical fibers to connect two converter's optical port, please attention the optical fiber which connect the RX and TX port should be across; that means one optical fiber, one side is to connect the optical module TX port, the other side should connect the RX port;

5) Check if the installation is correct and device is good, make sure all the connection is reliable and power up the system;

6) Make sure the Ethernet and PoE power supply is working normal.

Specification

Item		Description
Power	Power Supply	Power Adapter
	Voltage Range	DC48V~57V
	Consumption	<3W
Ethernet Port	Ethernet Port	Ethernet port: 10/100Mbps
	Transmission Distance	Ethernet port: 0 ~ 100m
PoE	PoE Protocol	IEEE802.3af/at
	PoE Power Supply	End-span
	PoE Power Consumption	≤30W
Fiber Port	Fiber Port	SFP module, LC connector
	Bandwidth	155Mbps
	Transmission Distance	Depend on SFP module performance
Network	Compatible with	IEEE802.3 10BASE-T, IEEE802.3u 100BASE-TX/FX
LED Status Indicator	Power	1 Green light
	Ethernet	Green light on the RJ 45 Socket
	Fiber	Link, SD, FED (3 green lights)
Protection	ESD	Level 3, Per: IEC61000-4-2
	Lightning Protection	Level 3, Per: IEC61000-4-5
Environmental	Working Temperature	0℃ ~ 55℃
	Storage Temperature	-40℃~85℃
	Humidity (Non-condensing)	0~95%
Mechanical	Dimension (L×W×H)	103mm × 82mm × 25mm
	Material	Aluminum Alloy
	Color	Black
	Weight	172g

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 over the maximum transmission distance;
- Please replace a normal device with a failure one to check if the device is broken;
- If the problem still exists, please contact the factory.

RJ 45 Making Method

Tools to make RJ45: wire crimper, network tester.

Wire sequence of RJ45 plug should conform with EIA/TIA568A or EIA/TIA568B standard.

1) Strip off the 2cm insulating layer to expose the 4 pairs UTP cable;

2) Seperate the 4 pairs of UTP cable and straighten them;

3) Line up the 8 separated pieces of cables per EIA/TIA 568A or 568B;

4) Cut the cables to leave 1.5cm bare wire and make sure 8 thread ends are flat and neat ;

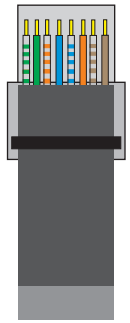
5) Insert 8 cables into RJ45 plugs, make sure each cable is inserted in each pin;

6)Then use wire crimper to crimp the RJ45;

7) Do the above 5 steps again to make the another end of the twisted pair and make sure consistent cable order between two ends ;

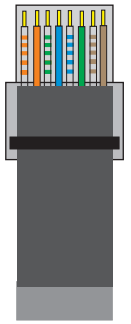
8) Using network tester to test the cable.

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 both ends use EIA/TIA568A connection method when using RJ45 port.
- Make sure both ends use EIA/TIA568B connection method when using RJ45 port.

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