IT-PMC-3010

10/100M Ethernet SFP Media Converter

(SM & MM)

Introduction:

The high performance Fiber Link Ethernet Extenders provide up to 120KM of Ethernet extension over single-mode fiber. The Model 3010 is ideal for campus networks, connecting remote LANs, and facilitating the optical last-mile connection to the metropolitan-area network (MAN) and beyond.

It provides a cost effective plug-and-play solution for long-range 10Base-T or 100Base-TX Ethernet extensions and added benefit of 10/100 auto-negotiation, making it the perfect choice when planning future upgrades of 10Base-T networks. Ethernet Fiber converters are ultra-miniature in size and feature a shielded RJ45 Ethernet jack, SFP style fiber-optic connections. Built-in auto-sensing capabilities enable full or half-duplex Ethernet operation with no configuration required!

Packing List:

IT-PMC-3010 is shipped with following items.

1. IT-PMC-3010×1

2. 5VDC power adapter ×1(Media converter/5VDC)

3. User manual ×1

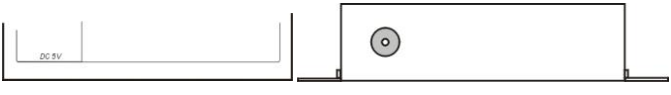
Features:

1. Accord to IEEE802.1 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3 100Base-FX.
2. MDI/MDI-X auto negotiation, 10M/100M auto negotiation.
3. Supports full /half duplex, Point-to-point transparent transfer.
4. Power External 5VDC input.
5. Plug-and-play, easy to installation.
6. Can insert to 2U 19", 14 slots Rack (power external).

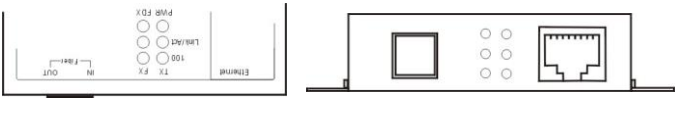
Pinout Configuration:

Power

IT-PMC-3010 adopt the power supply input is 5VDC external.



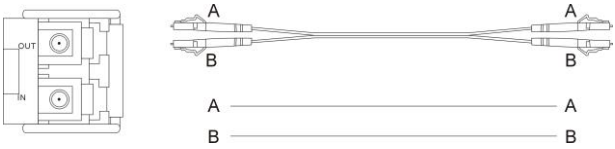
Ethernet (RJ45), Optical fiber interface



Optical fiber interface:

Optic fiber interface need use in pairs, OUT port is fiber send side, connect another long-range light of interface fiber receive end IN; IN port is fiber receive side, connect long-range same fiber send side:

Optic fibers spent both ends mark the label (the following picture show: A-A, B-B, can also mark another: A1-A2, B1-B2), in order to use.



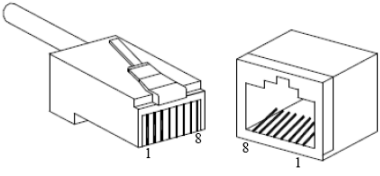
Ethernet interface:

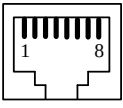
Ethernet (RJ45) interface supports MDI/MDI-X auto negotiation, can use straight-through cable connect PC or server, use across-over connect cable Switch or HUB.

MDI: PIN 1, 2, 3, 6 connects opposite.

MID-X: 1→3, 2→6, 3→1, 6→2

MDI/MDI-X 10Base-T/100Base-TX PIN define as follow:

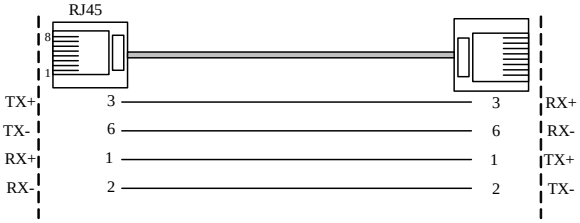




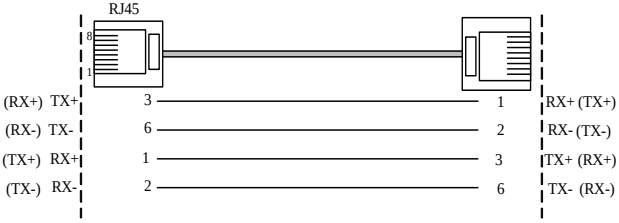
PIN	MDI	MDI-X
1	TX+	RX+
2	TX-	RX-
3	RX+	TX+
6	RX-	TX-
4、5、7、8	—	—

Note：“TX±”Transfer data±，“RX±”Receive data±，“—”None。

MDI:



MDI-X:



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LED indications:

LED		Color	Description
FX	**100**	Green	ON:100Mbps OFF:10Mbps
	Link/Act	Green	Blinking when fiber is transmitting data
	FDX	Green	Blinking when has data conflict
TX	**100**	Green	ON:100Mbps OFF:10Mbps
	Link/Act	Green	Blinking when fiber is receiving data
PWR		Green	ON: power is ON

Specifications:

Standards: comply with IEEE802.1 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3 100Base-FX

RJ45 port rate: 10/100Mbps auto negotiation

Optic port rate: 100Mbps

Transfer distance: RJ45port: 100m

Fiber optic: 20, 40, 60, 80, 120km(SM),

2, 5 km (MM) optional

RJ45 port cable: UTP 5E

Fiber connector: 2×LC

Fiber optic cables: Single Mode:8.3/125,8.7/125,9/125 or 10/125 um

Multi-Mode:50/125,62.5/125 um

Wavelength: 850nm, 1310nm, 1550nm

Power supply: External 5VDC input

Dimensions: 94.0mm×71.0mm×26.0mm

Installation: support DIN-Rail installation

Operating temp:-10°C to 65°C

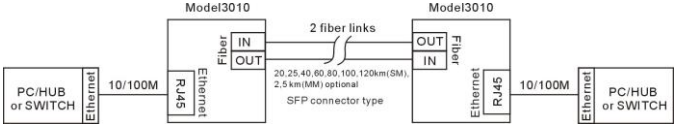
Storage temperature: -20 to 70°C

Operating humidity: 5% to 95 %(no condensation)

Warranty: 5 years

Approvals: FCC, CE, RoHS approvals

Applications:

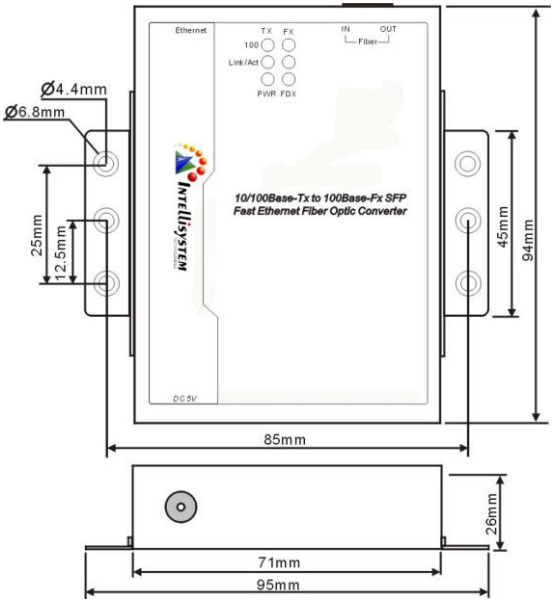


Extending 10/100M Ethernet data distance

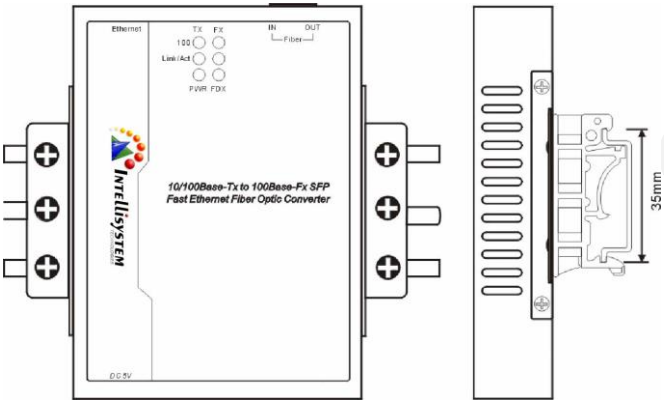
Installation:

IT-PMC-3010 provides DIN-rail and wall mounting two types of installation.

Wall mounting installation



DIN-Rail Installation



Troubleshooting instructions:

1. Make sure the power is connected and turned on.
2. Make sure the converter Ethernet and fiber optic cables are connected properly.
3. Check the connections according to the connection diagram.
4. Check the LED Indication status and identify possible problems from the Indication LED table above.

Note:

1. Media Converter is a sensitive electronic item, please do handle with extra care on delivery, shifting and humidity.
2. This unit will be warranty for 5 years.
3. Whenever there is a problem regarding the quality issue within the warranty period, we will take the responsibility to repair with free.
4. After the warranty period, we will charge accordingly depending on the fault or damage.

5. Whenever there is a fault, you can contact our technical support after you identify the problem and the alarm.

Common Problems:

1. PWR power supply indicator lamp not lighting

Cause:

1. Power supply not properly connected.
2. Protector tube damaged.
3. Power input tie-line in reverse connection.
4. Internal power supply circuit with failure.

Solution:

1. Check power switch and jack.
2. Replace protector tube.
3. Correct power supply line connection.
4. Returned to the manufacturer for repair.

2. FX Port Link/Act indicator lamp not lighting

Cause:

Optic fiber port link is fault.

Solution:

1. Check fiber optic is link or not.
2. Check fiber optic loss is high.
3. Clean the connector of optic interface.
4. Insert the well connector in place.
5. Returned to the manufacturer for repair.

3. TX Port Link/Act indicator lamp not lighting

Cause:

Ethernet port link is fault.

Solution:

1. Check Ethernet (RJ45) line is link or not.
2. Check Ethernet (RJ45) port is loose.
3. Check the rate of selected media converter

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4. Check the rate of Network.
5. Returned to the manufacturer for repair.

4. Network packet loss

Solution:

1. Check Ethernet rate or full/half duplex is matched or not.
2. Ethernet (RJ45) port is loose contact, or optic port is loose contact and soiled.
3. Ethernet cable not comply with Ethernet standard.

Certifications: