



MC-MM1002

10/100M Media converter series

USER'S MANUAL

Copyright statement

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FCC warning

The 10/100M series media converter have been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These standards are designed to provide reasonable protection against harmful interference when these devices are operated in commercial

environment These devices can use, generate and radiate radio frequency energy and may cause harmful interface to radio communications unless installed in accordance with this User's Guide. Operation of this device in a residential area is likely to cause harmful interface which will make the user responsible for the appropriate remedial action at his/her own expense.

CE mark Warning

These are Class A products. In a domestic environment these products may cause radio interface in which case the user will need to consider adequate preventative measures.

Package Content

Thank you for purchasing our Ethernet Media Converter. Before you start installing the Media Converter, verify the following items in the package

1. Media Converter
2. User's Manual
3. Power Adapter

10/100 Series Converter

The 10/100M Series 10/100BASE-TX to 100BASE-SX/LX converter is

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primarily designed for larger and higher bandwidth demanding workgroups that require expansion of the Ethernet network. The 10/100M features a RJ45 jack and a SC or SFP fiber optic connector, connecting the 10/100BASE-TX network to the 100BASE-SX/LX (fiber optic) network. At full duplex mode, the converter can extend distance up to 550 meters for Multi-mode fiber and up to 80 kilometers for Single-mode fiber. It is fully compliant with IEEE 802.3u & 802.3 standards. The Installation & operation procedures of the 10/100M Series are simple & straightforward. User can monitor the real time

operation status easily via a set of LED located in the front panel.

Package Content

1. MDI-MDIX Auto-crossover supported
2. Support flux controlling of full duplex/backpressure of half duplex
3. Comply to IEEE802.3 100Base-SX/LX &IEEE 802.3u 100Base-T
4. Work wavelength 850nm、1310nm、1550nm optional
5. Link between RJ45 and fiber port, dynamic data transmission, full/half duplex, speed lights indication
6. Supply Slot, internal power and external power , UTP port supports 10/100M auto-negotiation

Cable Connection of 10/100M Series Converter

Port type	Cable Type	Max.Length
10/100BASE-T	Cat. 5, 5E UTP, RJ-45	100 meters
100BASE-SX	Multi-mode Fiber of 850n (62.5/125µm)	220 meters
100BASE-SX	Multi-mode Fiber of 850nm (50/125µm)	550meter
100BASE-LX	Single-mode Fiber of 1310nm(9/125um)	10-100km

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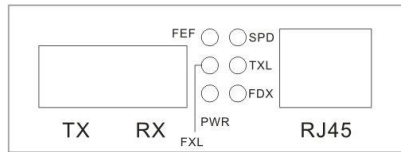
LED Indication

Please refer to the following table for LED indication of 10/100M Series Converter

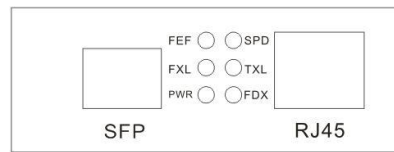
LED	Status	Indication
PWR	ON	The Power is on
SPD	ON	Ethernet Speed is 100M
	Off	Ethernet Speed is 10M

FEF	Off	No connection
	ON	A valid network connection established on Fiber port
FDX	ON	Full Speed
	Off	half Speed
FXL	Flash	Fiber Data
TXL	Flash	UTP Data

Physical Description



1X9 fiber connector



SFP fiber connector

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Specifications of 10/100M Series Converter

MODEL	1、 10/100M Series	2、 10/100M Series
STANDARD	IEEE802.3u 100BASE-T;	IEEE802.3u 100BASE-T;
	IEEE802.3 100BASE-SX	IEEE802.3 100BASE-LX

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Typical Optical Power Budget

10/100M Series					
Connector	SC	SC	SC	SC	SC
Wavelength	850nm	1310nm	1310nm	1310nm	1550nm

INTERFACE	RJ-45 part x 1 (10/100 Mbps) SC/SFP connector Fiber port x 1 (100 Mbps)	
TP CONNECTIONS	10/100BASE-T:UTP Category 5, 5E	
FIBER CONNECTIONS	100BASE-SX:62.5/125µm or 50/125µm Multi-mode fiber, SC/SFP connector	100BASE-LX:9 or 10/125µm Single-mode fiber ,SC/SFP connector
LED INDICATIONS	PWR, FEF, FDX, FXL, TXL, SPD	
MAX.DISTANCE	550m/220m	10km and 20km,80km
ENVIRONMENT	Operating Temp:0~+70°C Storage Temp:-40~+85°C Humblbty:10~90% non-condensing	
POWER	5V 1.2A	
NET WELGHT	500 g	
EMISSION	FCC Class A, CE	

Typical	550m/220m	20Km	40Km	60Km	80-100Km
Optical power	≥-12dBm	≥-14dBm	≥-11dBm	≥-6dBm	≥-5dBm
Sensitivity	≤-23dBm	≤-34dBm	≤-36dBm	≤-38dBm	≤-38dBm

Setting of Media Converter

Our media converter has DIP switch as follows:

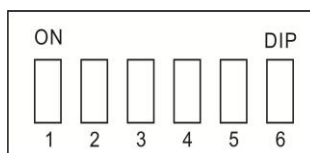


Diagram 2-5

- Set with DIP switch
- Set RJ45 port in full duplex/half duplex or auto-negotiation
- Set RJ45 port at 10Mbps、100Mbps or 10/100Mbps

The DIP switch in front panel is marked 1-6 from left to right, the definition of the setting is as below

1	2	3	Function
OFF	OFF	OFF	Auto-negotiation(default setting)
ON	OFF	OFF	Compelling 100M full duplex

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ON	OFF	ON	Compelling 100M half duplex
ON	ON	OFF	Compelling 10M full duplex
ON	ON	ON	Compelling 10M half duplex

4 ,5-mode setting

4-OFF 5-OFF, store-and-forward mode(default setting)

4-ON 5-OFF, straightforward mode

6. LFPT function: ON-open; OFF-close

Notice: when start up LFPT function, please pay attention to set the DIP switch 6 to “ON” firstly, then power on the product.

Installation

As with any electric device, you should place the equipment where it will not be subject to extreme temperatures, humidity, or electromagnetic interference.

Specifically, the site you select should meet the following requirements:

Please follow the steps to install the media converter. This Converter is a plug-and-play device.

1. Turn off the power of the device/station in the network in which the media converter will be installed.
2. Ensure that there is no activity in the network.
3. Attach fiber cable from the media converter to the fiber network. The fiber connections must be Matched-Transmit socket to receive socket
4. Attach a UTP cable from the 100Base-Tx network to the RJ-45 port on the product
5. Connect the power cord to the media converter and check if the power LED lights up. The TP Link and FX link LED will light when all the cable connections are satisfactory.
6. Turn on the power of the device/station.