IDIS

10/100/1000 Base-T to Gigabit Fiber Media Converter

Operation Manual

DA-MC1101

Powered by Direct IP™

Before Using the Product

FCC Compliance Statement

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received,

including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

User's Caution Statement

Caution: Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Product Overview

DA-MC1101 is designed to fulfill requirements for forming a Gigabit network, and can extend a connection up to 10KM using fiber optic cables.

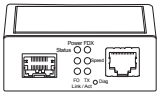
The LED indicators located on the front panel of DA-MC1101 shows the operating status of the product.

Product Features

- Supports automatic negotiation feature
- Supports automatic MDI/MDI-X detection
- Supports LED status indicators
- Mode switching using DIP switches

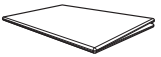
Accessories

The product consists of the following components.



Main Unit (DA-MC1101)

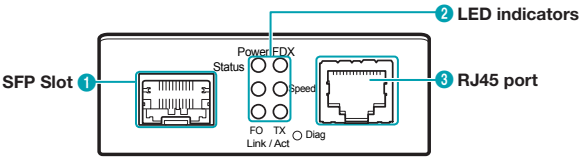
5V DC adapter



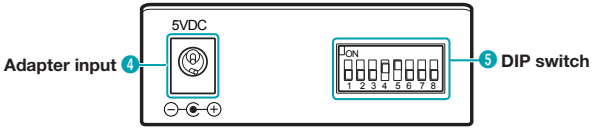
Operation Manual

Overview

Front



Back



1	**SFP Slot**	Insert the SFP module and connect the fiber optic cable.
2	**LED indicators**	Shows the status of DA-MC1101. Refer to "Checking LED Indicators" for more details.
3	**RJ45 port**	Use the RJ45 port to connect the UTP cable.
4	**Adapter input**	Connect a 5V DC adapter. Connect the adapter first before turning the device On.
5	**DIP switch**	Settings of DA-MC1101 can be changed using the DIP switches. Refer to "DIP Switch Settings" for more details.

Installation

Extending fiber optic cable using two DA-MC1101 units***

1 Connect the **Video In port of DirectIP™ NVR** and **RJ45 port of DA-MC1101 #1** using a UTP cable.

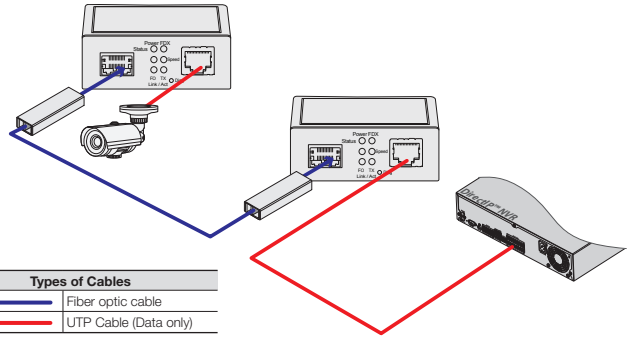
2 Insert an SFP module into **SFP slot of DA-MC1101 #1** and connect the fiber optic cable to the module.

The connection distance can be extended to 500m to 10km using fiber optic cables.

3 Insert an SFP module into **SFP slot of DA-MC1101 #2** and connect the fiber optic cable to the module.

4 Connect the RJ45 port of DA-MC1101 #2 to a DirectIP ™ Switching Hub or a network camera using a UTP cable.

Installation Layout



Types of Cables	
	Fiber optic cable
	UTP Cable (Data only)

Extending a fiber optic cable using and one DA-MC1101 and DirectIP™Gigabit PoE Switch***

1 Connect the **Video In port of DirectIP™ NVR** and **RJ45 port of DA-MC1101** using a UTP cable.

2 Insert an SFP module into **SFP slot of DA-MC1101** and connect the fiber optic cable to the module.

- The connection distance can be extended to 500m to 10km using fiber optic cables.
- The connection distance is determined by the SFP module and the fiber optic cable.
- For more details on supported SFP modules, refer to "7. Supported SFP Modules".

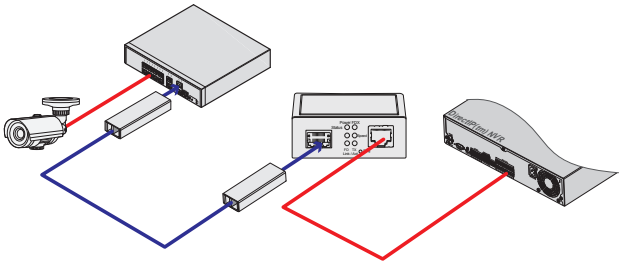
3 Insert an SFP module into **SFP slot of DirectIP™Gigabit PoE Switch** and connect the fiber optic cable to the module.

4 Connect the RJ45 port of DirectIP™Gigabit PoE Switchand the network camera using a UTP cable.

The SFP modules at both ends of the cable and the fiber optic cable must have identical types.

5 Connect the DC 5V adapter and check the status of the LED indicator.

Installation Layout



Types of Cables	
	Fiber optic cable
	UTP Cable (Data only)

Checking Other Information

DIP Switch Settings

In factory settings, Pin 1 and Pin 5 are switched On and the rest are switched Off.

Pin No.	Operation	Off	On
1	TX Auto-Negotiation	Disable	Enable
2	Manual TX Data Rate 10M/100M	10M	100M
3	Manual TX Data Rate 1000M	10M or 100M	1000M
4	Flow Control	Disable	Enable
5	Fiber Auto-Negotiation	Force	Enable
6	Reserved	Always Off	
7	LLF(Link Loss Forwarding)	Disable	Enable
8	TX configuration	From S/W	From DIP
Diag button	Press the button once to perform a loopback test. To return to initial settings, press and hold the button for 10 seconds. Diag button is located in the front panel.		

Auto-Negotiation must be disabled to change Data Rate and Duplex Mode settings.

Checking LED Indicators

LED	Color	Operation
Power	Green	Turns on when power is connected.
TX Link/Act	Green	Turns on when the connection between remote device and TX cable is established. Blinks when transferring data.
	Orange	Blinks when fiber optic cable connection is disconnected in LLF Mode.
FO Link/Act	Green	Turns on when the connection between remote device and fiber optic cable is established. Blinks when transferring data.
	Orange	Blinks when fiber optic cable connection is disconnected in LLF Mode.
FDX	Green	Turns on in Full Duplex Mode, turns off in Half Duplex Mode.
Speed	Green	Turns on when TX is operating on 100M network. Turns off when connected at 10M or disconnected.
	Orange	Turns on when TX is operating in 1000M network.
Status	Green	Turns on when TX and FO are connected. Blinks during loopback test.
	Orange	Turns on when connection to TX or FO is disconnected. Blinks when diagnostics fails.

Supported SFP Modules

The system's SFP ports support the following types of SFP modules:

Standard	Diameter (um)	Wavelength (nm)	Length	Mode	Connector	SFP Module
1000BASE-SX	50/125	850	500m	Multi	LC	Finisar FTLF8519P3BNL
	62.5/125	850	300m	Multi	LC	
1000BASE-LX	9/125	1310	10Km	Single	LC	Finisar FTLF1318P3BTL

Specifications

Model		DA-MC1101
Network Protocols		IEEE 802.3, 802.3u, 802.3ab, 802.3z
Port type		1 x RJ-45 LAN connector, 1 x SFP slot
LED type		Power, FDX, Status, Speed, FO Link/ACT, TX Link/ACT
Power adapter		I/P AC 100-240V O/P DC 5V, 2A
Power consumption		3.4W
Dimensions (W)X(D)X(H)		71 X 94 X 26 (mm)
Certifications		FCC Class A, CE, KC
Environmental Conditions	**Operating Temperature**	0℃ ~ 50℃
	Weight	160g
	Humidity	5%~90% RH

IDIS Co., Ltd.

For more information, please visit at
www.idisglobal.com

Ver. 1.00