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FCC Warning

The converter 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 standards are designed to provide reasonable protection against harmful interference when these devices are operated in a commercial environment. These devices generate, use, and can radiate radio frequency energy and may cause harmful interference to radio communications unless installed in accordance with this User's Guide. Operation of these devices in a residential area is likely to cause harmful interference 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 interference in which case the user will need to consider adequate preventative methods.

1. Checklist

The package should contain the following items:

- One Media Converter
- AC-DC Power Adapter
- This User's Guide

Please notify your sales representative immediately if any items are missing or damaged.

2. Overview

The media converter is designed to meet the needs for massive optical fiber network deployment and able to extend a legacy copper based network via fiber cable to a maximum distance of 100KM.

This converter is fully compliant with IEEE 802.3 & 802.3u standards; the built-in Switching ASIC has turned the converter function more like a 2-port switch than a traditional converter. Users can get all switching benefits such as traffic segmentation, frames checking & error filtering. In addition, Link Alarm allows users to monitor & maintain their critical fiber link more easily and effectively.

The installation and operation procedures of the converter are simple & straightforward. Operation status can be monitored through a set of Diagnostic LED indicators on the front panel.

Major Features:

- Provide one 10/100/1000Base-TX RJ-45 port & one 100Base-FX SFP port
- Compatible with IEEE 802.3, 802.3u, 802.3ab
- Support 9K Jumbo Frames
- Store & Forward Switching Mechanism
- MDI/MDIX Auto-Crossover supported
- Support Auto-Negotiation or Manual mode for TP port's speed & duplex configuration.
- Link Alarm function
- Support 128K bytes packet buffer

3. Network Installation

Please follow the steps described below and refer to Figure 1 and 2 to complete the network installation.

- ① Attach a fiber cable from the Converter to the fiber network.
- ② Attach a UTP cable from the 10/100Base-TX network to the RJ-45 port on the Converter.
- ③ Connect the power adapter to the Converter and the Power LED will light up. The TX and FO Link/Act LEDs will light up as soon as all the cable connections are satisfactory.

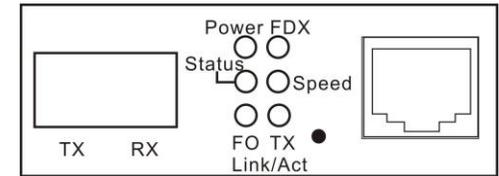


Fig. 1 Front Panel of the Converter

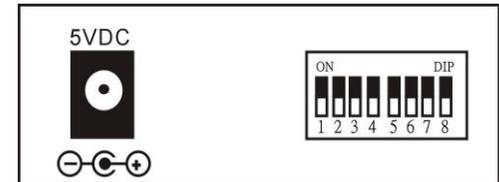
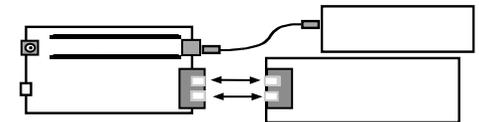


Fig. 2 Rear Panel of the Converter



4. DIP SWITCH Setting

The default setting for PIN 1 through PIN 8 is OFF.

PIN NO.	Function	OFF	ON
1	TP Auto-Negotiation	Enable	Disable
2	Manual TP Speed	1000M	10/100M
3	Manual TP Duplex	Full	Half
4	Link Alarm	Disable	Enable
5	Reserved	Always Keep OFF	
6	Reserved	Always Keep OFF	
7	Reserved	Always Keep OFF	
8	Reserved	Always Keep OFF	

NOTE:

1. Before adjusting the configuration of the DIP Switch, the power should be unplugged.
2. Disable TP Auto-Negotiation function before configuring TP speed/duplex manually.

5. LED Description

LED	Color	Function
Power	Green	Lit when power is available.
TX Link/Act	Green	Lit when TP port link is up.
		Blinking when TP port is receiving and transmitting data. Off when TP port link is down.
FO Link/Act	Green	Lit when Fiber port link is up.
		Blinking when Fiber port is receiving and transmitting data. Off when Fiber port link is down.
FDX	Green	Lit when TP port works in full-duplex mode.
		Off when TP port works in half-duplex mode.
Speed	Green	Lit when TP 1000M port link is up.
		Off when TP 10/100M port link is up.
Status	Green	Lit when both TP and Fiber port links are up.
	Orange	Lit when either TP or Fiber port link is down.

6. Technical Specifications

Standards	IEEE 802.3, IEEE 802.3u, & IEEE 802.3ab
Interface	1 X 10/100/1000Base-TX RJ-45 1 X 100Base-FX SFP
MAC Table	2K Entries
Forward & Filter Rate (64 Bytes)	10Base-T: 14,880 pps 100Base-TX: 148,800 pps 1000Base-T: 1,488,000 pps
LED	Power, FDX, Status, Speed, FO Link/Act, TX Link/Act
Power	DC 5V, 2A
Power Consumption	1.5W
Shipping Weight	0.45 lb
Dimensions	71(W) x 94(D) x 26(H)mm
Temperature	Operating: 0 ~ 50 °C Storage: -20 ~ 60 °C
Humidity	5% ~ 90% RH non-condensing
Certification	FCC/CE Class A
Media	TP: Cat. 5 UTP cable Fiber: 50/125 or 62.5/125µm multi-mode 9/125µm single-mode

* Please contact us for further reports and updates.

NOTE: Specifications may change without prior notice.

7. Link Alarm

Link Alarm allows users to easily identify and diagnose the linking status. If Link Alarm is enabled (PIN 4 is set to ON), the UTP and fiber port can link up only when both linking conditions are good. In addition, if the fiber or UTP port link is down during the operation, the other port link will also be turned into the “Down” status to alert the user. Configure Link Alarm DIP switch as “Enabled” status, it provides users transparent link indication between two network devices interconnected by the Converter.

If Link Alarm is disabled, the UTP and fiber port will link up based on their individual linking condition. Furthermore, if the fiber port link is down during the operation, the UTP port link will not be turned into the “Down” status, and vice versa.

8. Fiber Transceiver Information

100M Multi-Mode:

TYPE	SC	ST
Connector Type	SC	ST
Wavelength	1310nm	1310nm
Typical Distance	2Km	2Km
Min TX PWR	-20.0dBm	-20.0dBm
Max TX PWR	-14.0dBm	-14.0dBm
Sensitivity	-31.0dBm	-31.0dBm
Link Budget	11.0dB	11.0dB

100M Single-Mode:

TYPE	SC-S3	SC-S5	SC-S8	SC-S10
Connector Type	SC	SC	SC	SC
Wavelength	1310nm	1310nm	1310nm	1550nm
Typical Distance	30Km	50Km	80Km	100Km
Min TX PWR	-15.0dBm	-5.0dBm	0dBm	-5.0dBm
Max TX PWR	-8.0dBm	0dBm	5.0dBm	0dBm
Sensitivity	-34.0dBm	-35.0dBm	-36.0dBm	-35.0dBm
Link Budget	19.0dB	30.0dB	36.0dB	30.0dB

NOTE: Specifications may change without prior notice.

Contact Information

- **Antaira’s Web Sites & Repair/Support Emails:**
www.antaira.com / support@antaira.com
www.antaira.eu / info@antaira.eu
www.antaira.com.tw / info@antaira.com.tw

*Any changes will be announced on the Antaira website.



Antaira Technologies

EMC-0201G-XX

**Gigabit Ethernet
Media Converter**

Quick Installation Guide

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