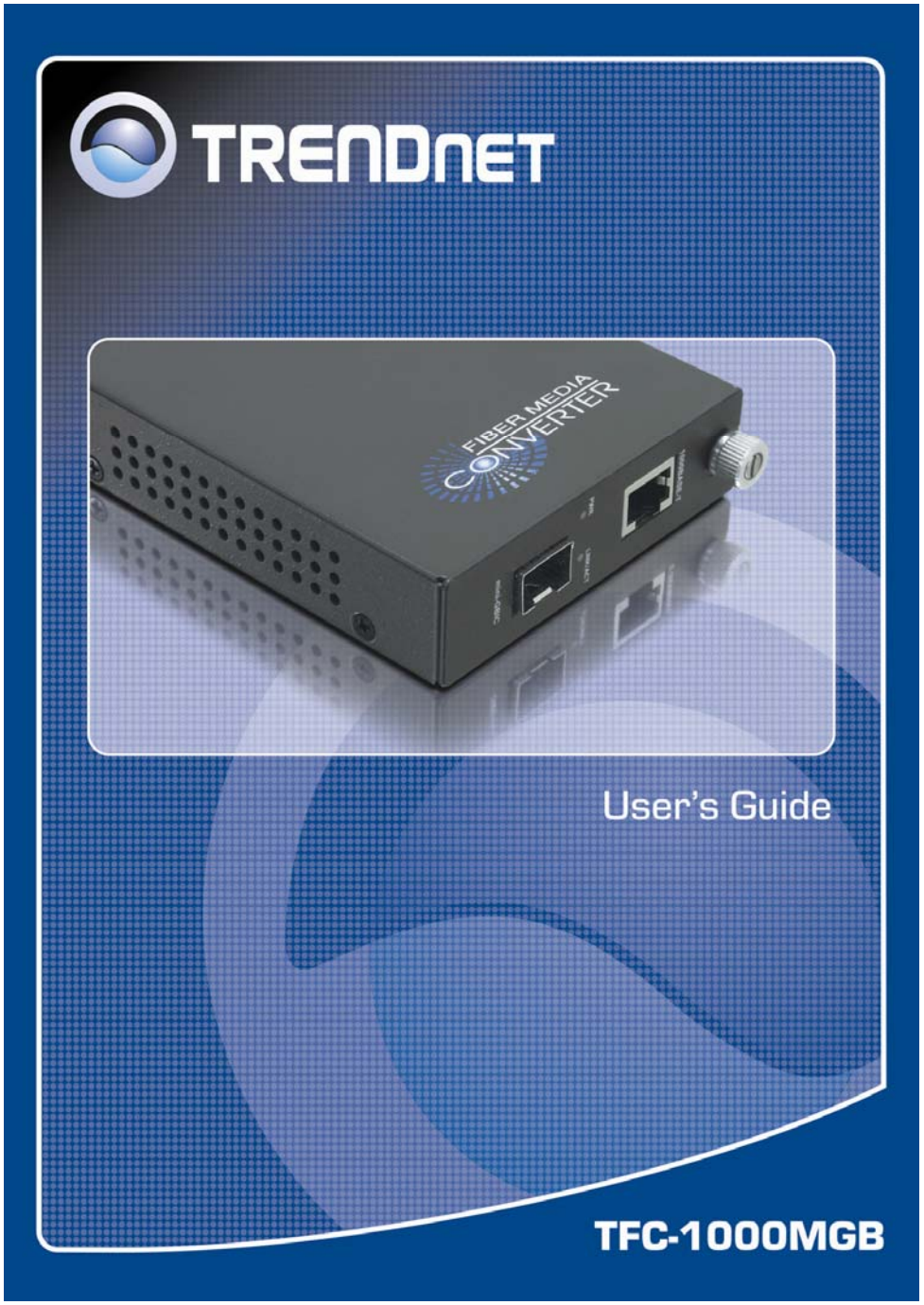


FCC Class B Certification

This equipment has been tested and found to comply with the regulations for a Class B 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 this user's guide, 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.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

VCCI Class B Compliance (Japan)

This is a product of VCCI Class B Compliance

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。
取扱説明書に従って正しい取り扱いをして下さい。

Introduction

Thank you for choosing the 1000Base Gigabit Ethernet Media Converter, The Converter introduced here provides one channel media conversion between 1000BASE-T and 1000BASE-SX/LX through mini-GBIC module.

About Media Converter

Media Converter is a network technology specified by IEEE 802.3ab 1000BASE-T and IEEE 802.3z 1000BASE-SX/LX standards.

Product Features

- One-channel media conversion between 1000BASE-T and 1000BASE-SX/LX mini-GBIC
- Fiber media allows: multi-mode fiber and single-mode fiber using LC connector
- Link Pass Through function
- Auto negotiation of duplex mode on TX port
- Auto-MDIX for TX port
- Full wire-speed forwarding rate
- Front panel status LEDs
- Used as a stand-alone device or with a chassis
- Hot-swappable when used with a chassis

.

Installation

This chapter gives step-by-step installation instructions for the Converter.

Selecting a Site for the Equipment

As with any electric device, you should place the equipment where it will not be subjected to extreme temperatures, humidity, or electromagnetic interference. Specifically, the site you select should meet the following requirements:

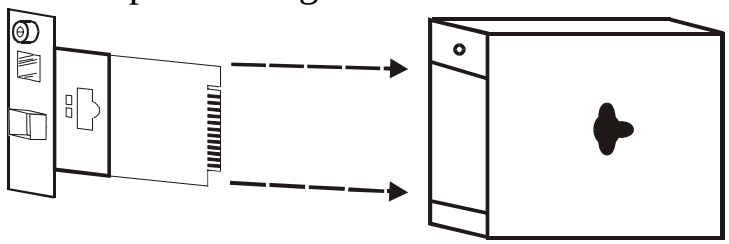
1. The ambient temperature should be between 32 and 104 degrees Fahrenheit (0 to 40 degrees Celsius).
2. The relative humidity should be less than 90 percent, non-condensing.
3. Surrounding electrical devices should not exceed the electromagnetic field (RFC) standards for IEC 801-3, Level 2 (3V/M) field strength.
4. Make sure that the equipment receives adequate ventilation. Do not block the ventilation holes on each side of the switch or the fan exhaust port on the side or rear of the equipment.
5. The power outlet should be within 1.8 meters of the switch.

Connecting to Power

1. This Converter is a plug-and-play device.
2. Connect the supplied AC to DC power adaptor with a power voltage of 7.5Vdc/1.5Amp to the DC-Jack on the converter, and then attach the plug into a standard AC outlet.

Installing in a Chassis

The Converter can be fit into any of the expansion slots on a special designed chassis.



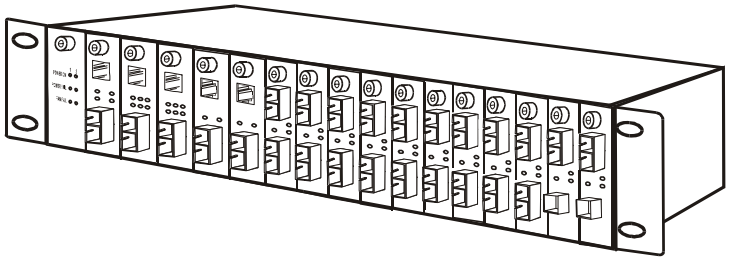
• First, install the converter onto a carrier supplied with the chassis:

Step 1- Unscrew and pull out the media converter board.

Step 2- Plug in the media board to any of the vacant slot.

Step 3- Fit the converter onto the carrier and

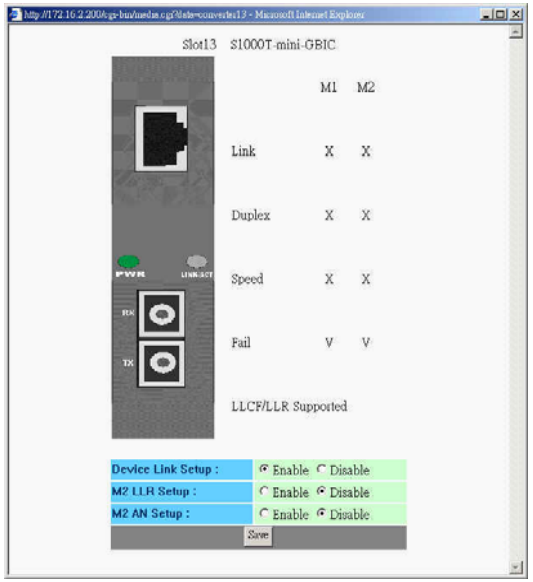
use the screw to secure it.



Monitoring the Converter through Management Module

There is a **management module** that can control this media converter through the **chassis system**, this media converter can be controlled through Web Browser, SNMP and terminal emulation program.

The **management module** will detect the default reset on the DIP switches and display out the status, also the **management module** can control the function through the **chassis system**.



NOTE: To control the function in a working station, need to collocate together with optional Chassis System and Management Module.

LED Indicator

The LED indicators give you instant feedback on status of the converter:

LEDs	State	Indication
Power (PWR)	Lights on	Power on
	Lights off	Power off
Link and Activity (LINK/ACT)	Lights on	Linking
	Lights Blinking	Data transmitting and receiving
	Lights off	Not Linking

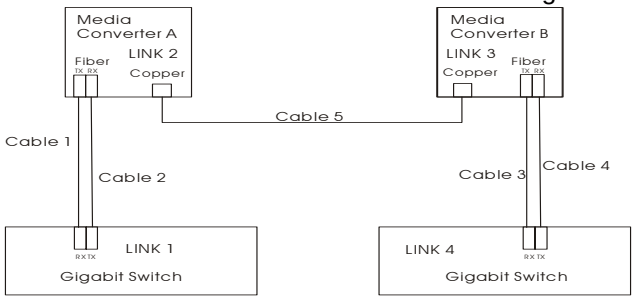
Link Pass Through Function

LLCF (Link Loss Carry Forward)

When a device connected to the converter and the TP line loss the link, the converter's fiber will disconnect the link of transmit, so that the other ends will know that there is a linkage error on this end. And when the Fiber line loss the link, the converter's TP will disconnected, and the other end will know that there is linkage problem exist.

There is a default LLCF setting on this converter.

The table below shows how LLCF function is working:



Link Status / Disconnect	Link 1	Link 2	Link 3	Link 4
Cable 1	Off	On	On	On
Cable 2	Off	Off	Off	Off
Cable 3	On	On	On	Off
Cable 4	Off	Off	Off	Off
Cable 5	Off	Off	Off	Off

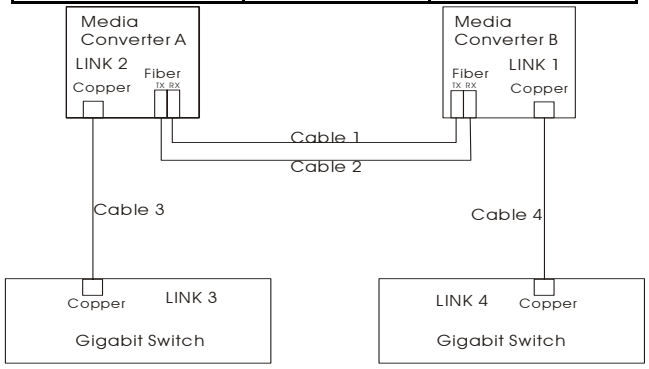
LLR (Link Loss Return)

When a device connected to the converter and the fiber line loss the link, the converter's fiber will disconnect the link of transmit.

There is a switch to enable or disable the function of the media converter.

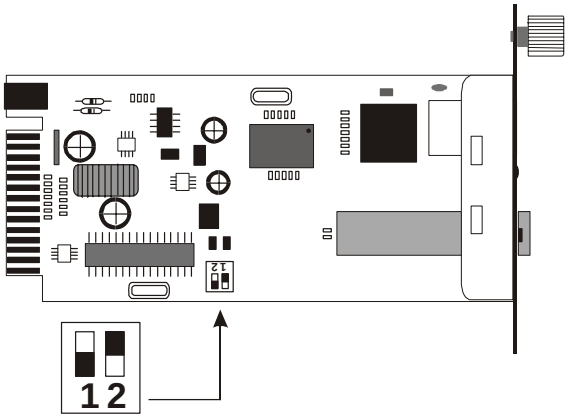
The table below shows how LLR function is working:

Media Converter	LLR	Auto-Negotiation
A	ON	OFF
B	OFF	OFF



Link Status / Disconnect	Link 1	Link 2	Link 3	Link 4
Cable 1	Off	Off	Off	Off
Cable 2	Off	On	On	Off
Cable 3	Off	Off	Off	Off
Cable 4	Off	Off	Off	Off

NOTE: If connecting two converters with LLR function in both end, it is recommended that the monitor end converter had to turn off the LLR function, and turn on the LLR function of the remote end converter.



Switch 1 : On -> Forced Mode
Off -> Auto Negotiation mode
Switch 2 : On -> LLR enable
Off -> LLR disable

Switch

There is a two pin DIP switch on the module which defines as switch 1 and switch 2:

Switch 1: Fiber mode switch

When the switch was turned to “On”, it means that the fiber was turned to forced mode, and “Off” for auto-negotiation mode.

Note: Be sure the opposite end is using the same setting (forced or Auto-negotiation). And when using two converters at the same time, the two converters MUST set to forced mode.

Switch 2: LLR

When the switch was turned to “On”, it means that the LLR was enabled and “Off” for disabled.

Note: When using two converters, don’t enable the both devices’ LLR function at the same time.

Specifications

Standards:	IEEE802.3ab 1000BASE-T
	IEEE802.3z 1000BASE-SX/LX
Data Transfer Rate:	1488000pps for 1000Mbps
Duplex Mode:	Full Duplex Mode
LED indicators:	PWR, LNK/ACT
Cable	**1000BASE-T --** 4 pair Cat. 5, EIA/TIA-568 100-ohm screened twisted-pair (STP), up to 100m **1000BASE-SX --** 62.5/125 μm multi-mode fiber optic cable, up to 220m 50/125 μm multi-mode fiber optic cable, up to 550m **1000BASE-LX --** 9/125 μm single-mode fiber optic cable, up to 20km
Dimensions	L120 × W88 × H25 mm
Weight	305 g
Power	External power adaptor 7.5V 1.5A
Media Interface:	RJ-45, mini-GBIC
EMI Compatiblity:	FCC Class B
	CE Certification, Class B
	VCCI Class B
Temperture:	Storage: -10°C ~ 70°C
	Operating: 0°C ~ 40°C
Humidity:	10% ~90% non-condensing
Power Consumption:	5.5 Watts (maximum)

AC/DC Power Adapter, Cooling Fan, and Power Supply carry

1 Year Warranty

Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

TFC-1000MGB – 5 Years Warranty

If a product does not operate as warranted above during the applicable warranty period, TRENDware shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product. All products that are replaced will become the property of TRENDware. Replacement products may be new or reconditioned.

TRENDware shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDware pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDware office within the applicable warranty period for a Return Material Authorization (RMA) number, accompanied by a copy of the dated proof of the purchase. Products returned to TRENDware must be pre-authorized by TRENDware with RMA number marked on the outside of the package, and sent prepaid, insured and packaged appropriately for safe shipment.

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Governing Law: This Limited Warranty shall be governed by the laws of the state of California.

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Tech Support Hours

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Product Warranty Registration

Please take a moment to register your product online.
Go to TRENDnet's website at http://www.trendnet.com

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