Owner's Manual

Media Converters

Models: N784-001-SC & N784-001-ST

Overview	2
Package Checklist	2
Model Description	2
Wiring the Power Inputs	3
Communication Connection	4
Dip Switch Setting	4
Link Fault pass-Through	5
LED Description	6
Cable Connection Parameter	6
Specifications	7

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Note: Follow these instructions and operating procedures to ensure correct performance and to prevent damage to this unit or to its connected devices.

Overview

The N784 Series Media Converter is a standalone physical layer device that converts between 10/100BaseT(X) and 100BaseFX segments of the same network. The converter supports Link Fault Pass-through (LFP) for easy tracing of network link failures, and the LFP function enhances the integrity and conformity of twisted pair (TP)-Fiber linking to make the network easier to maintain. The converter is powered by an external power adapter or USB port on the hosting device (e.g., PC).

Package Checklist

- Media Converter
- AC-DC Power Adapter (100-240V)
- Owner's Manual

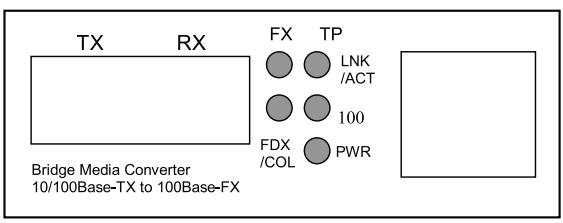
Model Description

N784-001-SC 10/100BaseT(X) to 100BaseFX media converter; multi mode, SC type fiber connection

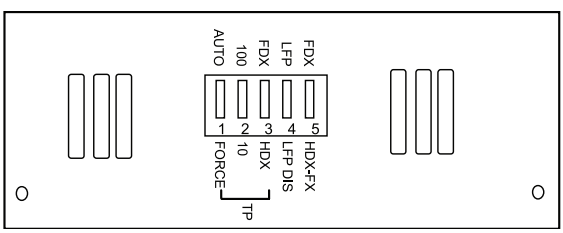
N784-001-ST 10/100BaseT(X) to 100BaseFX media converter; multi mode, ST type fiber connection

Panel Layout

- Front Panel View

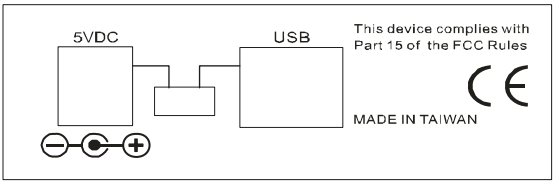


- Side Panel View



Model Description *(continued)*

- Rear Panel View



Wiring the Power Inputs

Using the Converter with the AC-DC Power Adapter

1. Use DIP switch settings to enable power through the AC-DC Power Adapter (refer to DIP switch settings section)
2. Verify that the AC-DC adapter conforms to your country's AC power requirements and then insert the power plug.
3. Connect the Converter to the network.

Note: Wear a grounding device to safeguard against damage due to electrostatic charge.

Using the Converter with power Over USB

1. Use DIP switch settings to enable power from the USB port (refer to DIP switch settings section).

Note: Please ensure that the DIP switch is positioned on the USB side of the slider.

2. Install the USB cable. Plug type A connector in the PC's USB port and the type B connector in the Converter's USB port (see Fig. 1).
3. Connect the Converter to the network.

WARNING
Make sure that the PC's power is turned on. Otherwise the Converter will not receive power.

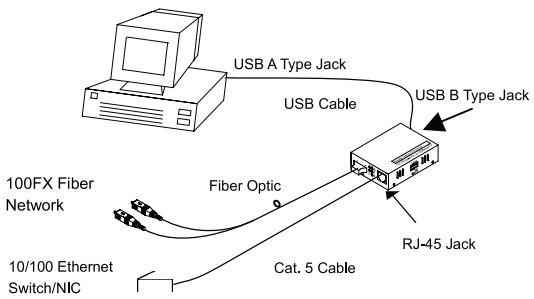


Fig. 1: Media Converter with USB power source (Type B-to-Type A Plug) and FX/TP connection

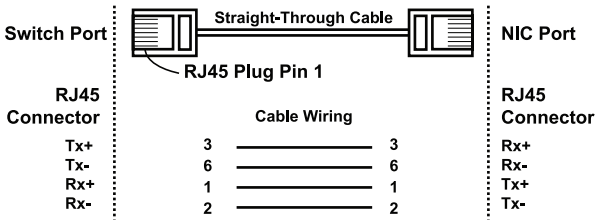
Communication Connection

The Media Converter has one 10/100BaseT(X) Ethernet port, and one 100BaseFX (SC or ST type connector) fiber port.

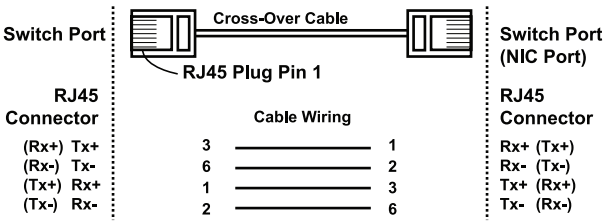
10/100BaseT(X) Ethernet Port Connection

The Converter supports auto MDI/MDI-X. Below are the pinouts for both MDI (NIC-type) ports and MDI-X (HUB/Switch-type) ports. Also shown are the cable wiring diagrams for straight-through and cross-over Ethernet cables.

- RJ45 (8-pin) to RJ45 (8-pin) Straight-Through Cable Wiring
  (Tripp Lite N105, N001, N002 and N201 Series Cables)



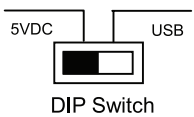
- RJ45 (8-pin) to RJ45 (8-pin) Cross-Over Cable Wiring
  (Tripp Lite N010 and N210 Series Cables)



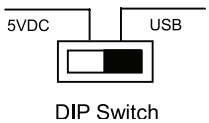
Dip Switch Setting

Power Input Setting

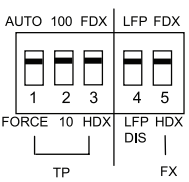
- Power source from AC-DC Power Adapter enabled



- Power over USB enabled



Communication Setting



Dip Switch Setting *(continued)*

DIP Switch		Dip Function
FX	FDX	FX at full duplex (default)
	HDX	FX at half duplex
LFP		Enable Link Fault Pass-Through (default)
LFP DIS		Disable Link Fault Pass-Through
TP	FDX	TP at full duplex (default)
	HDX	TP at half duplex when TP at Force
	100	TP at 100M (default)
	10	TP at 10M when TP at Force
	AUTO	TP at auto-negotiation (default)
	FORCE	Force TP at 10M or at half duplex

Note: • You must set DIP Switch 1 to "FORCE" when DIP Switches 2 and 3 are set to "10" and "HDX", respectively
• For N784-001-SC, DIP Switch 5 must be set to "HDX"
• After resetting the DIP Switches, you must reboot the Converter to activate the new settings.

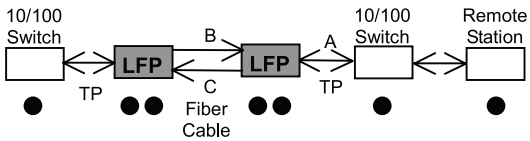
Link Fault Pass-Through

Note: The Link Fault Pass-Through (LFP) function is enabled using the DIP switch. Disable the LFP function by setting the DIP switch to the LFP DIS position.

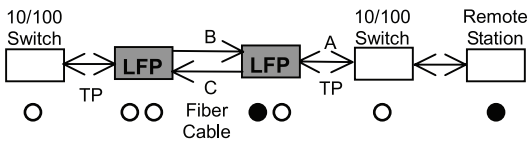
This media converter supports Link Fault Pass-Through (LFP) for TX/FX converter applications.

Link status on one port is propagated to the other port to notify remote nodes. If the TP port is unplugged, the converter stops transmitting over the fiber port, causing the remote fiber link node to fail. The LED will show link failure on both the TP and fiber ports. If the fiber link fails, the converter restarts auto-negotiation on the TP port, but stays in the link failure state. This causes the remote TP node link to fail. The LED also shows the link failure on both the TP and fiber ports. The figures below show normal status when the link succeeds, and the error status when TP Cable A, Fiber Cable B, or Fiber Cable C fails to connect.

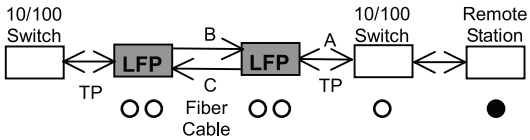
- Normal status via a pair of LFPs



- Status if TP Cable A is broken



- Status if Fiber Cable B or C is broken



Note: ● indicates LNK/ACT LED Lit ○ indicates LNK/ACT LED Off

Link Fault Pass-Through *(continued)*

WARNING
The LFP (Link Fault Pass-Through) function works only when two converters working as a pair have LFP capability. Furthermore, both LFP converters should be supplied by the same manufacturer/vendor. If you are using an odd number of converters, or models that don't support LFP, then the LFP function will not work.

LED Description

LED	Color	Function
FX LNK/ACT	Green	Lit when FX port is linking Blinks when FX port is transmitting data
FX FDX/COL	Amber	Lit when full-duplex mode is active Off when half-duplex is active Blinks when a collision occurs
TP LNK/ACT	Green	Lit when TP port is linking Blinks when FX port is transmitting data
TP 100	Green	Lit when TP port is transmitting data at 100 Mbps Off when TP port is transmitting data at 10 Mbps
PWR	Green	Lit when +5V power is supplying

Cable Connection Parameter

- **TP Cable Limitations:** Cat. 5 and up to 100m
- **Converter Fiber Cable Limitations:** Multi mode 2 km

Specifications

- **Standards:** IEEE802.3u 10/100Base-TX, 100Base-FX
- **Flow Control:** IEEE802.3x compliant for full-duplex back pressure flow control for half-duplex
- **Fiber Cable:** 50/125, 62.5/125 or 100/140 µm multi-mode
- **Wavelength:** 1310 nm
- **Power Requirement:** 1A@+5VDC from AC-DC Adapter, 0.5@+5VDC from USB port
- **Ambient Temperature:** 0° to 50°C
- **Humidity:** 5% to 90%
- **Dimensions:** 26.2 (H) x 70.3 (W) x 94 (D) mm
- **Complies with FCC Part 15 Class A and CE Mark**

FCC Radio/TV Interference Notice

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 instruction manual, 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. The user must use shielded cables and connectors with this product. Any changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1-Year Limited Warranty

TRIPP LITE warrants its products to be free from defects in materials and workmanship for a period of one (1) year from the date of initial purchase. TRIPP LITE's obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. To obtain service under this warranty, you must obtain a Returned Material Authorization (RMA) number from TRIPP LITE or an authorized TRIPP LITE service center. Products must be returned to TRIPP LITE or an authorized TRIPP LITE service center with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment, which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

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Warranty Registration

Visit www.tripplite.com/warranty today to register the warranty for your new Tripp Lite product. You'll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!*

* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

This product is designed and engineered in the USA.

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