2-Port Fast Ethernet 10/100Base-TX to 100Base-FX Managed Media Converter Module User's Manual (620–1141–000)

1. Overview

The Converter is designed to make conversion between 10/100Base-TX and 100Base-FX Fiber Ethernet. With SNMP agent, web-based management and Telnet text-based manual driven management, the network administrator can logon the converter to monitor, configure and control the activity of each port. In addition, the converter implements bandwidth rating management capability via the intelligent software. The overall network flexibility is enhanced, and the network efficiency is also improved to accommodate and deliver high bandwidth applications.

2. Checklist

Before you start installing the Converter, verify that the package contains the following:
— The TP-Fiber Converter Module
— This User's Manual

Please notify your sales representative immediately if any of the aforementioned items is missing or damaged.

LC Mode   SC Mode

Fig. 1 The TP-Fiber Converter Front Panel

3. Model Description

Mode	Description
SC	10/100Base-TX to 100Base-FX fiber with multi-mode SC converter module
SC.SXX	10/100Base-TX to 100Base-FX fiber with single-mode SC converter module
ST	10/100Base-TX to 100Base-FX fiber with multi-mode ST converter module
BSX.SXX	10/100Base-TX to 100Base-FX fiber with single-mode Bidi SC converter module
LC	10/100Base-TX to 100Base-FX fiber with multi-mode LC converter module
LC.SXX	10/100Base-TX to 100Base-FX fiber with single-mode LC converter module
BLX.SXX	10/100Base-TX to 100Base-FX fiber with single-mode Bidi LC converter module

Note:
BS5.SXX and BS3.SXX must be installed in pair, i.e., BS5.S20 at one end and BS3.S20 at the other.

4. LED Description

LED	Color	Function
POWER	Green	Lit when +5V power is coming up
CPU/LOOP	Green	Lit when CPU function is on Blinks when LOOP test is present
FX LINK/ACT	Green	Lit when fiber connection is good Blinks when any traffic is present
TP LINK/ACT	Green	Lit when TP connection is good Blinks when any traffic is present
TP 100	Green	Lit when 100Base-TX connection is good
TP FDX/ COL	Yellow	Lit when TP full-duplex mode is active or TP Collision happens in half-duplex mode

5. Installing the Converter

Note: Converter slide-in modules are hot-swappable.
⇒ Wear a grounding device for electrostatic discharge.
⇒ Unscrew and remove the vacant slot dummy panel from the converter chassis.
⇒ Verify the converter module is the right model and conforms to the chassis slot.
⇒ Slide the module along two guides in slot and fasten the thumb knob, be sure the converter module is properly seated on the slot socket/connector.
⇒ Install the media cable for network connection.
⇒ Repeat the above steps, as needed, for each module to be installed into slot(s).

| Fiber Port	**Default: 100FD** Attach the fiber cable. The Tx, Rx fiber cable must be paired at both ends
TP Port	Attach TP Cat. 5 cable to TP port
	Mode: 10/100Mbps with NWay
	The 10/100Mbps TP port is transmit/receive wires auto-link (e.g. either MDI-X or MDI-II). It will auto-cross-connect transmit/receive wires to a switch or to a workstation. Make sure of the proper wiring and that the Link LED will light up when TP Cat. 5 cable was attached to TP port.
Serial Port	The serial port is reserved interface.
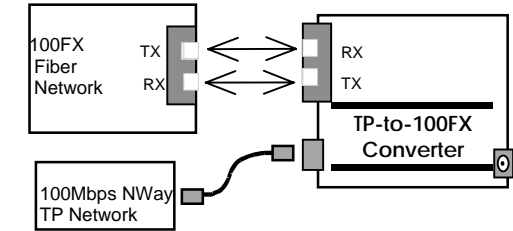
Fig. 2 Basic Network Connection
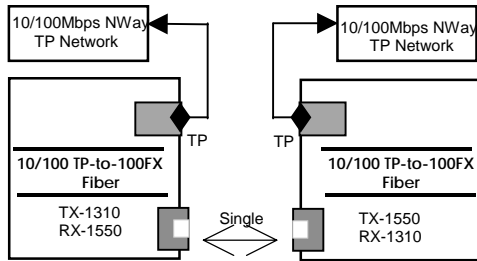
Fig. 3 Basic Network Connection

Warning:

— When TP NWay port is connected to TP 100FDX(force mode) instead of NWay partner, it will result in 100HDX mode with invalid collision signal

— Ensure that all network nodes are configured at an identical operation mode. Improper operation and flow control mode between TP and Fiber port connections will render the LAN to work poorly

6. Cable Connection Parameter

- **TP Cable Limitations:** Cat. 5 and up to 100m
- **Fiber Cable Limitations:** Single-mode fiber 9/125μm and up to 60Km
  Multi-mode fiber 62.5/125μm, 50/125μm and up to 2Km

7. Module Board and Bus Connector

The module board of TP-Fiber converter module series and its 20 pin fingers conform to the bus connector on the RACK-16 19-inch Converter Chassis slot.

Converter Chassis Model	Description
RACK-16 AC 100/240V Telecom DC –48V	16-slot intelligent with redundant power

8. TP-Fiber Technical Specifications

- **Standards:** IEEE802.3u 10/100Base-TX, 100Base-FX
- **UTP Cable:** Cat. 5 cable and up to 100m
- **Fiber Cable:**
  9/125μm single-mode
  62.5/125μm, 50/125μm multi-mode
- **LED Indicators:**
  PWR, CPU/LOOP
  FX LINK/ACT,
  TP LINK/ACT, SPEED, FDX/COL
- **Data Transfer Rate:**

Speed	Forwarding Rate
100Mbps	148,800 PPS
10Mbps	14,880 PPS

- **TP** : 10/100FDX/HDX with NWay auto-negotiation
  Fiber : 100FDX/HDX
- **Power Requirement** : 0.8A up @+5VDC
- **Power Consumption** : 3.8W
- **Ambient Temperature** : 0° to 40°C
- **Humidity** : 5% to 90%
- **PCB Dimensions** : 135.6(L) × 66.8(W) mm