

IEEE802.3 10Mbps Ethernet TP-Fiber Converter TP-BNC Converter

User's Manual

(620-0012-000)

1. Overview

IEEE802.3 10Mbps Ethernet supports various type media for network connection such as 10Base-2, 10Base-T and 10Base-FL. The media converter is used to convert one type media signal to other type equivalent that allows multiple type segments connect easily and inexpensively. The converters can be used as a standalone unit or as a slide-in module to the 19" converter rack (up to 10 units) for use at a central wiring closet.

2. Model Description

| Model | Connector Type |
|--------|-----------------------------|
| TP-FL | RJ-45 ↔ 820nm ST multi-mode |
| TP-BNC | RJ-45 ↔ BNC |

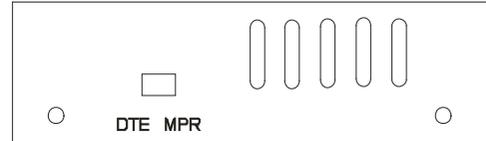
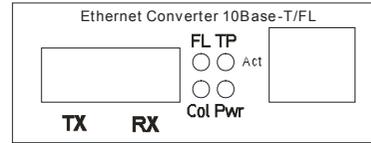
3. Checklist

Before you start installing the Converter, verify that the package contains the following:

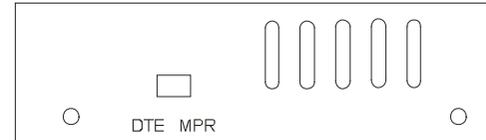
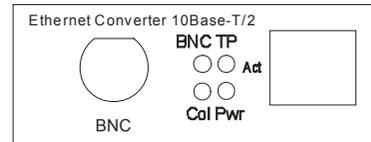
- The Converter
- AC-DC Power Adapter
- This User's Manual
- T-Connector(for TP-BNC Converter model only)

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

10Mbps TP-to-Fiber Converter Front and Side Panel



10Mbps TP-to-BNC Converter Front and Side Panel



4. Installing the Converter

For as a standalone unit:

- ⇒ Verify the AC-DC adapter conforms to your country AC power requirement and insert the power plug
- ⇒ Connect the media cable for network connection

For as a slide-in unit:

- ⇒ The slide-in Media Converter and Converter Rack should be supplied only from the same source, both Media Converter and Rack are built to match on dimensions, DC jack, receptacle and power safety
- ⇒ Turn off the 19" converter rack power
- ⇒ Ensure that there is no activity in the network
- ⇒ Locate +5VDC power jack on converter back, carefully slide in and plug to 19" rack +5VDC power receptacle
- ⇒ Connect the media cable for network connection
- ⇒ Turn on the converter rack power, the Power LED will light up

| | |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fiber Port: | Attach the fiber cable. The Tx, Rx fiber cable must be paired at both ends |
| TP Port: | Attach UTP Cat. 3 or 5 cable to TP port MPR: To a Hub or Repeater DTE : To a workstation or NIC Slide switch "DTE" / "MPR" is on the side panel. Default: MPR |
| BNC Port: | Attach T-Connector to BNC port and connect the RG-58 coaxial network. Ensure the coaxial cable/segment is terminated at both ends properly |

Note:

- a. Use the straight-through cable.
Cable pin-outs for RJ-45 jack 1, 2, 3, 6 to 1, 2, 3, 6
- b. **MPR(Default):** To a Hub or Repeater
DTE : To a workstation or NIC
(DTE pin-outs are crossover on board already)

Configure the MPR-DTE slide switch on the side panel for connection to a Hub or NIC(Network interface Card).

5. Connecting to 10/100Mbps NWay Device

| Converter Model | 10/100 NWay Inter-operating |
|--------------------|------------------------------------------------------------|
| TP-Fiber Converter | 10/100Mbps is auto-sensing and comes to 10Mbps Half-duplex |
| TP-BNC Converter | 10/100Mbps is auto-sensing and comes to 10Mbps Half-duplex |

6. LED Description

TP-Fiber Converter:

| LED | Color | Function |
|-------------|-------|-------------------------------------------------------------------------------|
| FL Link/Act | Green | Lit when Fiber connection is good Blinks when any FL traffic is present |
| TP Link/Act | Green | Lit when TP cable connection is good Blinks when any TP traffic is present |
| Collision | Amber | Blinks when any collision is present |
| Power | Green | Lit when +5V power is coming up |

TP-BNC Converter:

| LED | Color | Function |
|-------------|-------|---------------------------------------------------------------------|
| BNC Act | Green | Blinks when BNC traffic is present |
| TP Link/Act | Green | Lit when TP connection is good Blinks when TP traffic is present |
| Collision | Amber | Blinks when any collision is present |
| Power | Green | Lit when +5V power is coming up |

7. TP-Fiber Technical Specifications

- **Standards** : IEEE802.3 10Base-T/10Base-FL
- **TP Port** : RJ-45 jack with a slide switch for "MPR" or "DTE" selection

Fiber Port :

| The 10Mbps Fiber Transceiver: | | |
|-------------------------------|-------|---------|
| ST multi-mode | 820nm | Default |
| | | |

- **UTP Cable** : Cat. 3 or 5 cable up to 100m
- **Fiber Cable** : 50/125, 62.5/125, or 100/140 μ m multi-mode

| 10Mbps Fiber Cable Limitations: | | |
|---------------------------------|-------------|-----|
| Fiber | Multi-mode: | 2Km |
| | | |

- **Data Transfer Rate** : 10Mbps at half-duplex
- **LED Indicators** : FL Link/Act, TP Link/Act, Col, Power
- **Power Requirement** : 1A@+5VDC
- **Ambient Temperature** : 0° to 50°C
- **Humidity** : 5% to 90%
- **Dimensions** : 26.2(H) × 70.3(W) × 94(D) mm

Note: Connecting to Router, Bridge, or Switch, please refer to the device's Technical Manual.

8. TP-BNC Technical Specifications

- **Standards** : IEEE802.3 10Base-T/10Base-2
- **TP Port** : RJ-45 jack with a slide switch for "MPR" or "DTE" selection

BNC Port : BNC connector

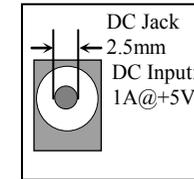
• **Cable and Distance** :

- Cat. 3/5 unshielded or shielded twisted pair (UTP/STP) wire, maximum length 100 meters (328ft)
- 0.2 inch diameter RG-58A/U, 50 Ω (ohm) coaxial cable, maximum length 185 meters(607ft)

- **Data Transfer Rate**: 10Mbps at Half-duplex mode
- **LED Indicators** : BNC/Act, TP Link/Act, Col, Power
- **Power Requirement** : 1A@+5V
- **Ambient Temperature** : 0° to 50°C
- **Humidity** : 5% to 90%
- **Dimensions** : 26.2(H) × 70.3(W) × 94 mm(D)

9. DC Power Jack and AC-DC Power Adapter

The DC jack's central post is 2.5mm wide, it conforms to the DC receptacle(2.5mm) on the 19-inch Converter Rack slot.



Keep the AC-DC adapter as spare parts when Media converter is installed in a 19-inch Media Converter Rack.

AC-DC power adapter
AC Input : 100~240VAC 50/60Hz
DC Output: 1A@+5VDC