

## Bi-Di 10 /100M Media Converter

With DC power adapter switching type 110-250Vac



### Description:

The XTR101-LD1310 (1550) series consists of a series of 10/100Base-TX to 100Base-FX Auto-negotiation mode Media Converter. User now may upgrade or extend their existing 100Base-TX or even 10Base-T network into fiber network easily.

XTR100-LD1310 (1550) series are fully compliant with IEEE802.3 Ethernet standard. The RJ45 (STP) port of XTR101 support auto-negotiation functions, provide a maximum bandwidth of up to 200Mbps (100M full duplex) or up to 20Mbps (10M, full duplex) for distances of up to 2Km - when using multi-mode fiber cable; or up to 100km - when using single-mode fiber cable. Installation and operation of the XTR101-LD13 (15) is simple and straightforward.

## Specifications:

### The Converter conforms to the following standards:

Standards: IEEE802.3u 10/100Base-TX and 100Base-FX

Connectors (RJ45-UTP/STP and Fiber SC)

Data Transfer Mode: 100Mbps

Power Requirement: 1A@+5VDC

Operation Temperature: -10°C to 65°C

Storage Temperature: -40°C to 70°C

Humidity: 10% to 90% no condensing

Dimensions: 94 X 70 X 25 mm (L x W x H)

UTP Cable: Cat.5 cable up to 100m

Fiber Cable: 50/125,62.5/125 or 100/140μm multi-mode

8.3/125,8.7/125,9/125 or 10/125μm single-mode

| Model            | Optical Power |               |              | Receive Sensitive |               |              |
|------------------|---------------|---------------|--------------|-------------------|---------------|--------------|
|                  | Min<br>(dBm)  | Type<br>(dBm) | Max<br>(dBm) | Min<br>(dBm)      | Type<br>(dBm) | Max<br>(dBm) |
| XTR100-MM1310    | -19           | -             | -8           |                   |               | -33          |
| XTR101-LD1310-20 | -14           | -             |              |                   |               | -35          |
| XTR101-LD1550-20 | -14           |               |              |                   |               | -35          |
| XTR101-LD1310-40 | -8            | -7            |              |                   |               | -35          |
| XTR101-LD1550-40 | -9            | -8            |              |                   |               | -35          |
| XTR101-LD1310-60 | -             | -3            |              |                   |               | -35          |
| XTR101-LD1550-60 | -             | -6            |              |                   |               | -35          |
| XTR101-LD1310-80 |               | +3            |              |                   |               | -35          |
| XTR101-LD1550-80 | -2            | 0             |              |                   |               | -35          |

## Production Information

### 1. Overview

The 10/100Base-TX Fast Ethernet Converter is fully compliant with all IEEE802.3&802.3u standards.

This converter is available in SIX different Models:

| MODEL            | Connector<br>TYPE | TYPICAL<br>DISTANCE | Transmission<br>SPEED | TRANSMISSION MEDIUM AND<br>OTHERS                        |
|------------------|-------------------|---------------------|-----------------------|--|
| XTR100-MM1310    | RJ-45-SC          | 0 ~ 2km             | 10M/100M              | 1310TX /RX, DC-power, bi-direction, and dual fiber       |
| XTR101-LD1310-20 | RJ-45-SC          | 0 ~ 20km            | 10M/100M              | 1310TX /1550RX, DC-power, bi-direction and single fiber. |
| XTR101-LD1550-20 | RJ-45-SC          | 0 ~ 20km            | 10M/100M              | 1550TX /1310RX, DC-power, bi-direction and single fiber. |
| XTR101-LD1310-40 | RJ-45-SC          | 0 ~ 40km            | 10M/100M              | 1310TX /1550RX, DC-power, bi-direction and single fiber. |
| XTR101-LD1550-40 | RJ-45-SC          | 0 ~ 40km            | 10M/100M              | 1550TX /1310RX, DC-power, bi-direction and single fiber. |
| XTR101-LD1310-60 | RJ-45-SC          | 0 ~ 60km            | 10M/100M              | 1310TX /1550RX, DC-power, bi-direction and single fiber. |
| XTR101-LD1550-60 | RJ-45-SC          | 0 ~ 60km            | 10M/100M              | 1550TX /1310RX, DC-power, bi-direction and single fiber. |
| XTR101-LD1310-80 | RJ-45-SC          | 0 ~ 80km            | 10M/100M              | 1310TX /1550RX, DC-power, bi-direction and single fiber. |
| XTR101-LD1550-80 | RJ-45-SC          | 0 ~ 80km            | 10M/100M              | 1550TX /1310RX, DC-power, bi-direction and single fiber. |

Six LED display instant status monitoring for Power, Full-Duplex, FX Link, FX Activity, TX Link, TX Activity.

## 2. Checklist

Your XTR100 series carton should contain the following items:

XTR100-S13/L13 or XTR100-S85, XTR101-LD, or XTR100-MM etc.

AC-DC Power Adapter

This User's Guide

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

## 3. Installation

### For as a stand-alone unit:

→ Verify the AC-DC adapter conforms to your country AC power requirement and inset 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

→ Verter and rack are built to match each other at dimensions, DC receptance 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 racd+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, select the duplex mode to match the remote fiber partner mode.<br>Default: Full duplex mode |
| TP port    | Attach TP Cat.5 cable to TP port   |

### Note for TP port cable connection:

- Use the straight-through cable.  
Cable pin-outs for RJ-45 jack 1,2,3,6 to 1,2,3,6
- MPR (Default): To a Switch or Hub,  
DTE: to a workstation, or NIC (Network Interface Card)  
(DTE pin-outs is crossover on bard already)  
Configure the MPR-DTE slide switch on the side panel for cable connection to a Hub or NIC
- Be sure the proper wiring and the Link LED status

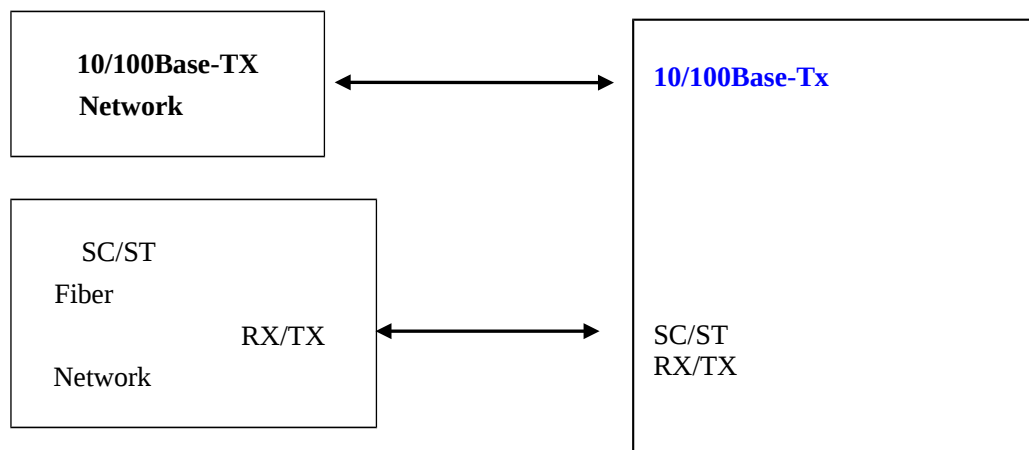


Fig.1 Basic Network Connection

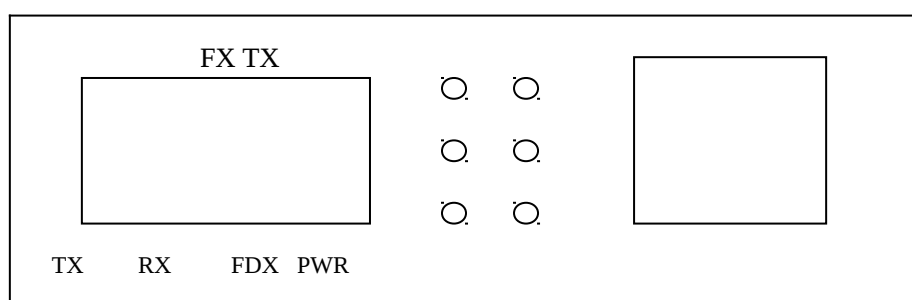


Fig.2 XTR101 Converter Front Panel

#### 4. LED Description

| LED   | Color | Function   |
|-------|-------|--|
| ACT   | Green | Lit when fiber connection is good<br>Blinks when fiber data is present   |
| Link  | Green | TP connection is Normal.   |
| FDX   | Green | Lit when full-duplex mode is active<br>Off when half-duplex mode is active<br>Blinks when collision is present |
| TX    | Green | Lit when TP speed is 100Mbps<br>Off when TP speed is 10Mbps  |
| FX    | Green | Optical Transmit is OK.  |
| Power | Green | Lit when +5V power is coming up  |

#### 5. Connecting to TP, Fiber Device

|                               |  |
|-------------------------------|--|
| Converter TP port<br>10/100TX | 10/100Mbps Auto-negotiation mode                   |
| Converter Fiber Port<br>100FX | 100Mbps with Full-duplex for 100FX fiber link mode |

## **6. User's Notice Guide:**

### **FCC Warning**

The XTR101 Series Media Converter (Include XTR101-S13/L13 and XTR101-S85 and XTR101-LD, XTR100-MM) 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 can use, generate and radiate radio frequency energy and may cause harmful interface to radio communications unless installed in accordance with this User's Guide. Operation of this device in a residential area is likely to cause harmful interface, 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 interface in which case the user will need to consider adequate preventative measures.