# Product Specification

Bridge Media Converter

**FT-80x**

Version 3.0



Change History:

| **Revision** | **Date** | **Author** | **Change List** |
|---|---|---|---|
| Version 1.0 | 2001/11/23 | Marc Liao | Initial release |
| Version 2.0 | 2003/05/12 | Marc Liao | 1. LED indicators modified<br>2. TP port supports MDI/MDI-X |
| Version 3.0 | 2003/02/27 | Marc Liao | 1. Chip set change to IP113A<br>2. Featured with LFPT |

| | | | |
|---|---|---|---|
| Author | Marc Liao | Editor: | Marc Liao |
| Reviewed by: | Alan | Approved by: | Tom Shih |

# 1. PRODUCT DESCRIPTION

This converter is used to convert one type media signal to other type equivalent that allows two types of network segments connect easily, efficiently and inexpensively. This converter can be used as a standalone unit or as a slide-in module to the 10”/19” media chassis (up to 15 units) for a TP and Fiber combined networks at a central wiring closet.

Models includes, FT-801, FT-802, FT-802Sxx, FT-803, and FT-806A20/FT-806B20

# 2. PRODUCT FEATURES

- **Standard:** IEEE802.3/u, 10/100Base-TX and 100Base-FX
- **Connectors:**

  One RJ-45 (Auto-MDI/MDI-X) Twisted Pair, EIA568

  One Fiber-optic, connector-type vary with model

  FT-801: ST interface, multi-mode
  FT-802/FT-802Sxx: SC interface, multi-mode/single-mode; xx=km
  FT-803: MT-RJ, multi-mode
  FT-806A20 / FT-806B20: Single SC, single-mode; 20km
- **Fiber-optic wavelength:** 1310nm wavelength (except FT-806AFT-806B)

  FT-806A20: 1310nm, transmit / 1510nm, receive
  FT-806B20: 1510nm, transmit / 1310nm, receive
- **Data Transfer Rate:** 10/100Mbps (TP), 100Mbps (FX)
- **Duplex mode support:** Full or half-duplex mode by Auto- Negotiation (TP)

  Full or half-duplex mode by DIP-switch (FX)
- **LED indicators:** PWR, FX LNK/ACT, FX FDX/COL, TP 100, TP LNK/ACT, TP FDX/COL
- **Cable:**

  UTP: Cat 5 UTP cable
  Fiber: MM: 50/125 ㎜ or 62.5/125 ㎜ optic fiber
  Fiber: SM: 8.3/125, 8.7/125, 9/125 ㎜ optic fiber
- **Wiring Distance:**

  UTP: 100 meters
  Fiber: MM: 2 kilometers
  Fiber: SM: varies on part no.
- **DIP-switch:** 2 DIP-switches

  Rear DIP-switch: FX duplex mode selection
  Side DIP-switch: LFP (Link Fault Pass-through) mode selection

# 3. PRODUCT SPECIFICATION

## 3.1 MAIN COMPONENT

Chip: IC plus IP113A
Fiber-optic transceiver: vary by model

## 3.2 FUNCTIONAL SPECIFICATIONS

| | |
|---|---|
| Protocols and Standards | IEEE 802.3 (Ethernet), 10Base-T<br>IEEE 802.3u (Fast Ethernet), 100Base-TX, 100Base-FX |
| Maximum Speed | Full Duplex: 200Mbps<br>Half Duplex: 100Mbps |
| Cabling | UTP: Cat 5 UTP cable |

| | | | | | |
|---|---|---|---|---|---|
| | Fiber: MM: 50/125 ㎛m or 62.5/125 ㎛m optic fiber<br>Fiber: SM: 8.3/125, 8.7/125, 9/125 ㎛m optic fiber | | | | |
| DIP switch | 2; FX duplex mode, LFP mode | | | | |
| Port Mode | TP: Half and Full Duplex, auto-negotiation<br>FX: Half and Full Duplex via DIP switch | | | | |
| LFP mode | Enable: Either TP port or FX port is broken, shut down the other port<br>Disable: Link LED indicators still on if connection of the other end is broken | | | | |
| Packet Forwarding Rate (64bytes) | 14880pps @ 10Mbps<br>148800pps @ 100Mbps | | | | |
| Port Type (connector) | Cable Distance | Optical Frequency | Launch Power(dBm) Max. Min. | Receive Sensitivity | Maximum Input power |
| 100FX MMF | 2km | 1310nm | -14 -19.0 | -34.5 | -14 |
| 100FX SMF(15km) | 15km | 1310nm | -7 -20 | -28 | -8 |
| 100FX SMF(35km) | 35km | 1310nm | -5 -9 | -32 | -5 |
| 100FX SMF(50km) | 50km | 1310nm | -0 -5 | -34 | -8 |

### 3.3 PHYSICAL SPECIFICATION

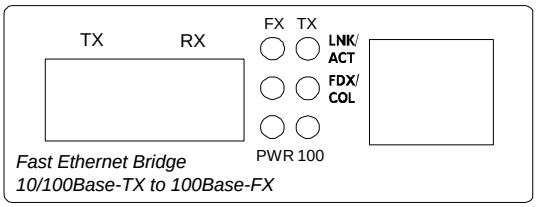
**Dimensions**

26 x 70 x 97mm (H x W x D)

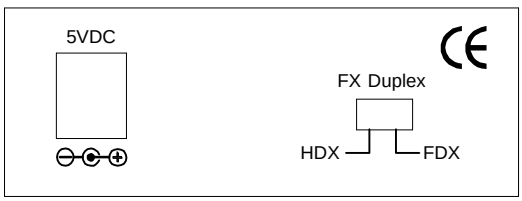
**Weight:**

0.2 kg

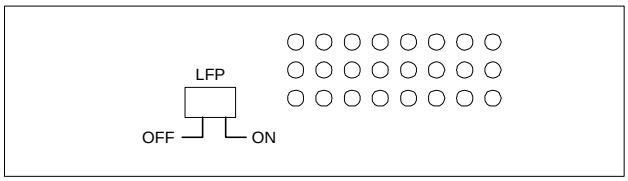
**Right View (FX connector vary on model)**




**Left View**




**Side View**




**LED definition**

| LED | Color | Description |
|---|---|---|
| FX LNK / ACT | Green | Blinks: when any FX packets transmitting and receiving |
| | | Lit: when Fiber connection is good |
| TX LNK / ACT | Green | Blinks: when any TP packets transmitting and receiving |
| | | Lit: when TP connection is good |
| FX FDX / COK | Green | Lit: when Full-duplex mode is enabled in FX port |
| | | Blinks: when FX port is in half-duplex mode and receive collision |
| TX FDX / COL | Green | Lit: when Full-duplex mode is enabled (detect by Auto-Negotiation) in TP port |
| | | Blinks: when TP port receive collision |
| 100 | Green | Lit when the TP port runs in 100Mbps.<br>Remains off while LINK LED lit represent the TP port runs in 10Mbps |
| PWR | Green | Lit when +5VDC power detected |

### 3.4 ENVIRONMENTAL SPECIFICATION

**Operating**

Temperature: 0~50°C
Relative Humidity: 5~90%(non-condensing)

### 3.5 ELECTRICAL SPECIFICATION

Power Requirement: 5V DC, 2A

### 3.6 REGULATORY COMPLIANCE

FCC Part 15 CE

### 3.7 Reliability

MTBF > 50,000Hrs @25degree C

### 3.8 BASIC PACKAGING

1 x Fast Ethernet Bridge Media Converter

1 x AC-DC Power Adapter (Output: 5VDC, 2 A max.)

1 x User’s manual