

1. Product Features

FT-80x Fast Ethernet Media Converter:

- Complies with IEEE 802.3/802.3u, 10/100BASE-TX, 100BASE-FX Standard
- Data Transfer Rate: TP - 10/100Mbps; FX - 100Mbps
- Duplex mode support:
 - Full or half-duplex mode by auto-negotiation (twisted-pair port)
 - Full or half-duplex mode by DIP switch (fiber port)
- DIP switch: 2 DIP switches; FX duplex mode selection & LFP mode selection
- Compliant with PLANET's 10"/19" media converter chassis

GT-80x Gigabit Ethernet Media Converter:

- Complies with IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T, IEEE 802.3z 1000BASE-SX/LX standard
- Data transfer rate: TP - 10/100/1000Mbps; FX - 1000Mbps
- DIP switch for LFP function (Disable/Enable) setting
- OAM (TS-1000 and IEEE 802.3ah) supported
- 9K jumbo frame supported
- Compliant with PLANET's 10"/19" media converter chassis

In the following sections, the term "FT-80x/GT-80x" indicates the product family above; the term "MM" and "SM" represent Multi-Mode and Single Mode fiber optic, respectively.

2. Checklist

Your FT-80x/GT-80x carton should contain the following items:

- The Fast/Gigabit Ethernet Media Converter
- AC-DC Power Adapter (Output: 5V DC, 2A max.)
- This User's Manual

If any item is missing or damaged, please consult the dealer from whom you purchased your Fast/Gigabit Ethernet Media Converter.

The GT-805A comes with one vacant SFP module slot. The mini GBIC SFP module is not bundled with in the package.

3. Product Outlook

Right View (FT-80x)

There are one RJ45 twisted-pair jack (auto-MDI/MDI-X), one fiber-optic connector (may vary by model) and six LED indicators.

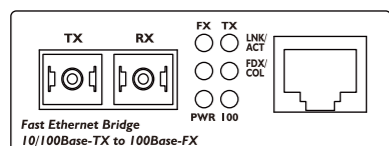


Figure 1: FT-80x Right View

Right View (GT-80x)

There are one RJ45 twisted-pair jack (auto-MDI/MDI-X), one fiber-optic connector (may vary by model) and four LED indicators. Also one DIP switch for Link-Fault Passthrough (LFP) feature and "ON" to turn on the LLCF and LLR detection. And "OFF" to turn off the feature. Please refer to the following sections for more.

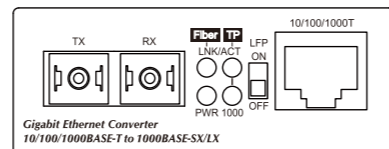


Figure 2: GT-802/802S/802S40/802S60 Right View

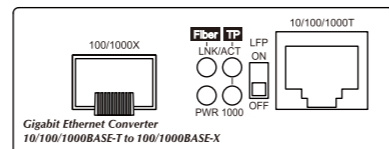


Figure 3: GT-805A Right View

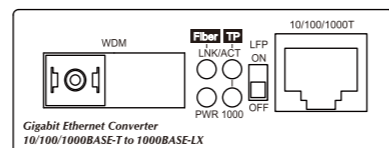


Figure 4: GT-806A15/B15/A40/B40/A60/B60 Right View

Left View (FT-80x)

One 5V DC power socket and one DIP switch for fiber-optic operating mode selection, FDX for full-duplex, and HDX for half-duplex.

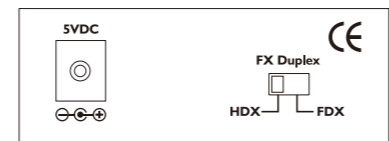


Figure 5: FT-80x Left View

Left View (GT-80x)

The rear panel of the Gigabit Ethernet Media Converter indicates one DC jack, which accepts input power with 5V DC 2A.



Figure 6: GT-80x Left View

Side View (FT-80x)

One DIP switch for Link Fault Pass-through (LFP) feature, "ON" to turn on the LLCF and LLR detection and "OFF" to turn off this feature. Please refer to the following sections for more.

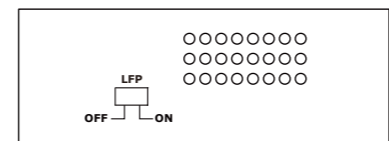


Figure 7: FT-80x Side View

4. Link Fault Passthrough (LFP)

The LFP function includes the Link-Fault-Passthrough function (LLCF/LLR) and the DIP Switch design. LLCF/LLR can immediately alarm administrators the problem of the link media and provide efficient solution to monitor the network. The DIP Switch will disable or enable the LFP function.

LLCF (Link Loss Carry Forward) means when a device is connected to the converter and the TP line loses the link, the converter's fiber will disconnect the link of transmission. LLR (Link Loss Return) means when a device is connected to the converter and the fiber line loses the link, the converter's fiber will disconnect the link of transmission.

LFP function is ON by default setting. If you are familiar with the network installation and for diagnostic purpose (i.e. check which end is broken), you can turn it off and reset the converter to make it take effect. Otherwise, please remain it in the default position.

5. Installing The Converter

To install FT-80x/GT-80x stand-alone unit on a desktop or shelf, simply complete the following steps:

Step 1: Turn off the power of the device/station in a network to which the FT-80x/GT-80x will be attached.

Step 2: Attach fiber cable from the FT-80x/GT-80x to the fiber network. **TX** and **RX** must be paired at both ends.

Step 3: Attach a Cat. 5/5e/6 UTP cable from the 10/100BASE-TX or 10/100/1000BASE-T network to the RJ45 port on the FT-80x/GT-80x.

Step 4: Connect the 5V DC power adapter to the FT-80x/GT-80x and verify that the Power LED lights up.

Step 5: Turn on the power of the device/station; the TX Link and FX Link LEDs should light up when all cables are attached.

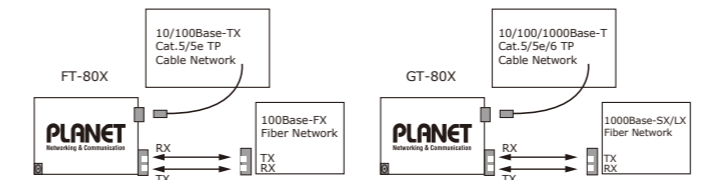


Figure 8: FT-80x Installation

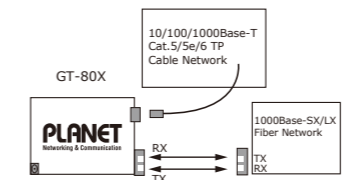


Figure 9: GT-80x Installation

- It is recommended to use PLANET MGB-SX/MGB-LX series 1000BASE-SX/LX SFP on the GT-805A. If you insert an SFP transceiver that is not supported, the GT-805A will not recognize it.
- Please check the link-budget of your SFP transceivers and its physical wiring distance. In some installation, an in-line optical attenuator may be required to protect your transceivers.

6. Duplex Mode Support

The FT-80x TP port supports duplex mode detection by auto-negotiation (A-N). It will auto detect the link speed and the duplex mode by default. And will auto return to 100 or 10Mbps half-duplex mode with its link partner. The fiber port supports DIP switch selection for full duplex (default) or half duplex.

The GT-80x TP port supports triple speed -- 10/100/1000BASE-T, auto-negotiation. It will auto detect the link speed and the duplex mode by default with its link partner. The fiber port (1000BASE-SX/LX) allows 1000Mbps full duplex by auto-negotiation. Please also check the setting of the link partner as well.

7. LED Indication

FT-80x:

LED	Color	Description
FX LNK/ACT	Green	Blinks when any FX packets are transmitting and receiving.
		Lit when Fiber connection is good.
TX LNK/ACT	Green	Blinks when any TP packets are transmitting and receiving.
		Lit when TP connection is good.

FX FDX/COL	Green	Lit when full-duplex mode is enabled in FX port.
		Blinks when FX port is in half-duplex mode and receives collision.
TX FDX/COL	Green	Lit when full-duplex mode is enabled (detect by auto-negotiation) in TP port.
		Blinks when TP port receives collision.
100	Green	Lit when the TP port runs at 100Mbps. Remains off while LINK LED is lit, indicating the TP port runs at 10Mbps.
PWR	Green	Lit when +5V DC power is detected.

GT-80x:

LED	Color	Description
PWR	Green	Lit when +5V DC power is detected.
Fiber LNK/ACT	Green	Lit: To indicate the link through fiber port is successfully established. Blinks: To indicate the fiber port is actively sending or receiving data.
TP LNK/ACT	Green	Lit: To indicate the link through TP port is successfully established. Blinks: To indicate the port is actively sending or receiving data.
TP 1000 LNK/ACT	Green	Lit: To indicate the port runs at 1000Mbps. Blinks: To indicate the port is actively sending or receiving data. Off: To indicate the port runs at 10/100Mbps.

8. Cable Connection Parameter

Cables:


Standard (Wavelength)	100BASE-FX (1310nm)	1000BASE-SX (850nm)	1000BASE-LX (1310nm)
Fiber Type & Cable Specification	Multi-mode	50/125µm or 62.5/125µm	
	Single-mode	9/125µm	

FT-80x:

The wiring details are shown below:
Wiring distance:

Duplex	Connection	Limitation (max.)
Twisted Pair		
Half/Full	Node to Node Node to Switch/Hub	100 meters
Multi-Mode Converters		
MM Half	Node to Node Node to Switch	412 meters
MM Full	Node to Node Node to Switch	2 kilometers
Single-Mode Converters* (FT-80xynn; x= 2, 6; y= S, A, B; nn=km)		
SM Full	Node to Node Node to Switch	Depending on model


Copper Connector	10/100Mbps RJ45
Copper Modes	Full duplex, auto-negotiation
Packet Forwarding Rate (64bytes)	14880pps @10Mbps/ 148810pps @100Mbps
DIP Switch	LFP Disable/Enable; FX Full-/Half-duplex
Protocols and Standards	IEEE 802.3, 10BASE-T IEEE 802.3u, 100BASE-TX, 100BASE-FX
Dimensions	94 x 70 x 26mm (W x D x H)
Weight	0.2kg
Power	5V DC, 2A max.
Emission	FCC, CE
Temperature	Operating: 0 ~ 50°C/Storage: -40 ~ 70°C
Humidity	5% ~ 95% non-condensing
Installation	Wall mount, DIN-rail, Chassis installation

 Note	<ol style="list-style-type: none"> Please note FT-806A20 and FT-806B20 are designed to work together. It means you must connect FT-806A20 to FT-806B20 in pair. If both ends are FT-806A20 or FT-806B20, or any of the above models to any 3rd-party device, they can't work normally and may damage the fiber connectors. The FT-802xxx/FT-806xxx single mode media converter series provides long distance support from 15 km to 50km. When shorter distance of single-mode fiber cable is used, you might need to insert an in-line optical attenuator in the link to avoid overloading of the receiver.
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GT-80x:

Wiring Distances:


Standard	Fiber	Diameter (micron)	Bandwidth (MHz x km)	Max. Distance (meters)
1000BASE-SX	MM	62.5	100	220
		50	500	550
1000BASE-LX	MM	62.5	5	550
		50	5	550
	SM	9	N/A	5000*

 Note	<p>The single-mode port (1000BASE-LX port) of GT-802S, GT-802S40, GT-802S60, GT-805A, GT-806A15/B15, GT-806A40/B40 and GT-806A60/B60 is complied with LX 5 kilometers and provides an additional margin allowing for a 10/15/20/40/60/80/120 kilometers Gigabit Ethernet link on single mode fiber.</p>
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9. Product Specifications

FT-80x

Model	FT-801	FT-802	FT-802S15	FT-802S35	FT-802S50	FT-806A20 FT-806B20
Fiber Connector	ST	SC	SC			SC WDM
Fiber Mode	Multi-mode		Single-mode			
Fiber Maximum Distance	2km	15km	35km	50km	20km	

 Note	<ol style="list-style-type: none"> For connection to the Fast Ethernet products, please refer to the device's Technical Manual. Consult your dealer for DIN-rail or Chassis installation.
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GT-80x

Model	GT-802	GT-802S	GT-802S40	GT-802S60
Fiber Connector	SC-type connector			
Fiber Mode	Multi-mode	Single mode	Single mode	Single mode
Fiber Maximum Distance	220m/550m	20km	40km	60km
Copper Connector	10/100/1000Mbps RJ45			
Copper Modes	Full duplex, auto-negotiation			
Packet Forwarding Rate (64bytes)	14880pps @10Mbps/ 148810pps @100Mbps/ 1488000pps @1000Mbps			
DIP Switch	LFP Disable/Enable			
Protocols and Standards:	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX			
Jumbo Packet Size	9K			
Dimensions	94 x 70 x 26mm (W x D x H)			
Power	5V DC, 2A max.			

www.PLANET.com.tw

Fast Ethernet/Gigabit Ethernet Media Converter

FT-80X/GT-80X Series



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2350-AA4230-006

Warning:
This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.




Energy Saving Note of the Device
This power required device does not support Standby mode operation. For energy saving, please remove the DC-plug or push the hardware Power Switch to OFF position to disconnect the device from the power circuit. Without removing the DC-plug from or switching off the device, the device will still consume power from the power source. In view of Saving the Energy and reducing the unnecessary power consumption, it is strongly suggested to power off or to remove the DC-plug from the device if this device is not intended to be active.

Emission	FCC CE
Temperature	Operating: 0 ~ 50°C/Storage: -10 ~ 70°C
Humidity	5% ~ 95% non-condensing
Installation	Wall mount, DIN-rail, chassis installation

Model	GT-805A	GT-806A15 GT-806B15	GT-806A40 GT-806B40	GT-806A60 GT-806B60
Fiber Connector	SFP, LC type	SC-type connector (WDM)		
Fiber Mode	May vary on module	Single mode		
Fiber Maximum Distance	May vary on module	20km	40km	60km
Copper Connector	10/100/1000Mbps RJ45			
Copper Modes	Full duplex, auto-negotiation			
Packet Forwarding Rate (64bytes)	14880pps @10Mbps 148810pps @100Mbps 1488000pps @1000Mbps			
DIP Switch	LFP Disable/Enable			
Protocols and Standards	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX (GT-805A SFP slot only, auto detection) IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX			
Jumbo Packet Size	9K			

Dimensions	94 x 70 x 26mm (W x D x H)
Power	5V DC, 2A max.
Emission	FCC CE
Temperature	Operating: 0 ~ 50°C/Storage: -10 ~ 70°C
Humidity	5% ~ 95% non-condensing
Installation	Wall mount, DIN-rail, chassis installation

 Note	<ol style="list-style-type: none"> Please note GT-806A15/806B15 and GT-806A60/806B60 are designed to work together. It means you must connect GT-806A15 to GT-806B15 or GT-806A60 to GT-806B60 in pairs. If both ends are GT-806A15 or GT-806A60 and GT-806B15 or GT-806B60, or any above model to any 3rd-party device, they can't work normally and may damage the fiber connectors. The GT-802S/GT-806xxx single mode media converter series provides long distance support from 20 km to 60km. When shorter distance of single-mode fiber cable is used, you might need to insert an in-line optical attenuator in the link to avoid overloading the receiver. For connection to the Gigabit Ethernet products, please refer to the device's technical manual. Consult your dealer for DIN-rail or chassis installation.
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