

# 10/100/1000Base-T to 1000Base-SX/LX Gigabit Media Converter



Providing the flexibility of 10/100/1000Mbps Ethernet Media via RJ-45 port and highly stable Gigabit fiber performance, PLANET GT-802, GT-802S, GT-805A and GT-806A/B media converters support conversion between 10/100/1000Base-T and 1000Base-LX/SX network. There are SC/SFP/WDM connectors with single-mode or multi-mode media as required. The Ethernet signal allows three types of segments to connect easily, efficiently and inexpensively.

## Distance Extension with High Performance and Steady Network Communications

PLANET GT-80x gigabit media converter series extends communication distance with highly Gigabit performance via fiber optic cable. The GT-80x series provides media conversion between 10/100/1000Base-T and 1000Base-SX/LX interfaces such as multi-mode LC/SC connectors (220m / 550m), single-mode LC/SC connectors (10/20/30/40/50/70/120km) and single fiber connectors (WDM, 15/60km) for various fiber optic applications.

## Enhanced Smart Management Features

The GT-80x series provides auto MDI/MDI-X on its TP port and the DIP switch to configure the Link Fault Pass through function (LFP). The LFP function includes the Link Loss Carry Forward (LLCF)/Link Loss Return (LLR). LLCF/LLR can immediately alarm administrators the problem of the link media and provide efficient solution to monitoring the net. The DIP switch can disable or enable the LFP function. The LLCF means when a device connected to the converter and the TP line loses the link, the converter's fiber will disconnect the link of transmission. The LLR (Link Loss Return) means when a device connected to the converter and the fiber line loses the link, the converter's fiber will disconnect the link of transmission. Both can immediately alarm administrators the problem of the link media and provide efficient solution to monitoring the net.

## Physical Port

- Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-SX/LX.
- TP port supports 10/100/1000Base-T auto-negotiation and auto-MDI/MDI-X.
- 1000Base-SX: 50/125µm or 62.5/125µm multi-mode fiber cable, up to 220/550m (GT-802).
- 1000Base-LX: 9/125µm single-mode cable provides long distance for 10km (GT-802S).
- 1000Base-LX WDM interface for up to 15km (single-mode fiber 9µm/125µm) on GT-806A15/B15.
- 1000Base-LX WDM interface for up to 60km (single-mode fiber 9µm/125µm) on GT-806A60/B60.
- 1000Base-T: 2-pair Cat. 5/5e/6 UTP cable, up to 100 meters.
- Layer 2 key Features
  - IEEE 802.3x full-duplex flow-control and back-pressure in half-duplex eliminate the loss of packets
  - Supports auto MDI/MDI-X function
  - Store-and-Forward mechanism
  - Non-blocking full wire-speed forwarding rate
- Media conversion between 10/100/1000Base-T and 1000Base-SX/LX.
- Fiber media allows:
  - Multi-mode fiber using SC/LC/WDM connector;
  - Single-mode fiber using SC/LC/WDM connector
- Compact size for working with PLANET MC family media chassis (MC-700 / MC-1500 / MC-1500R / MC-1500R48)
- Wall-mountable design
- LED indicators for easy network diagnostics
- Provides DIP switch for LFP function (Disable / Enable) setting
- OAM TS-1000 supported
- 9K Jumbo Frame Supported
- Choice of fiber-connector from SC, LC and WDM, multi-mode / single-mode fiber for 1000Base SFP interface
- Compact in size, easy installation

Moreover, Even the web UI is not available on GT-80x, the network manager still can remotely control and monitor GT-80X by OAM TS-1000 terminal function such as remote failure indication, loop back test, port status, performance monitoring and troubleshooting. PLANET GT-90x and IGT-90xT models provide TS-1000/802.3ah OAM protocol (operations, administration, and maintenance) that helps the remote GT-80x device to manage and monitor.

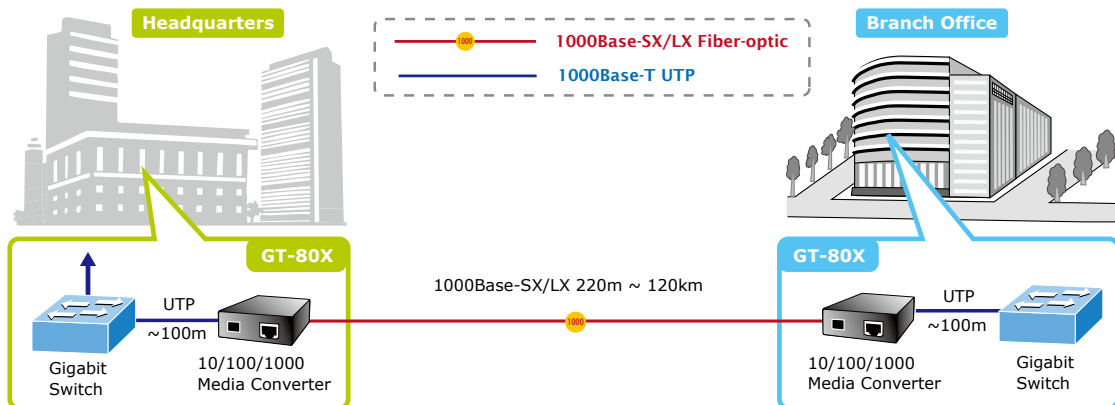
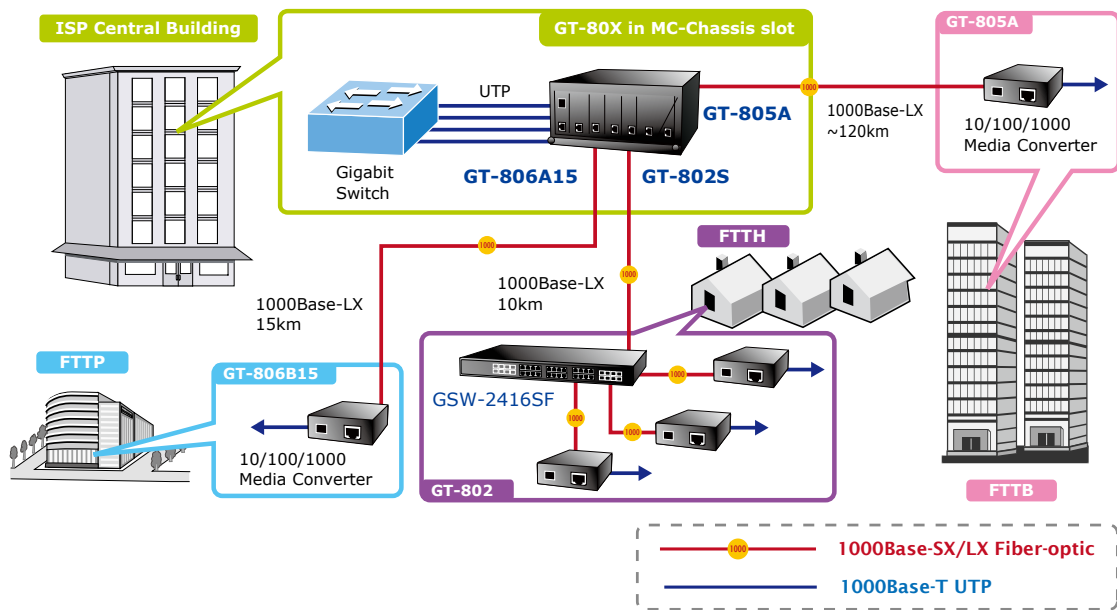
**Easy Installation**

The GT-80x series allows two types of the segment to connect easily. The GT-80x series can be used as a standalone unit when powered by its DC adapter or used as a slide-in module to PLANET 19-inch 7-/15-slot media converter chassis (MC-700/MC-1500/ MC-1500R / MC-1500R48). These media chassis can assist in producing the power for the GT-80x to maintain the fiber-optic network at one location. As the Gigabit Media Converter fully complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T and IEEE 802.3z 1000Base-LX/SX, the Gigabit media conversion installation is quite quick and easy with its plug and play feature. The GT-80x also supports flow control and back pressure in half-duplex to eliminate packet loss.

## Applications

**Fiber-optic Networking for ISPs, Enterprises, and homes**

With high performance of data transmission and easy installation, the GT-80x can build the ISP network solution of FTTH (Fiber to the Home) or FTTC (Fiber to the Curb) for ISPs and FTTBs (Fiber to the Building), for small office network environment of enterprises.



## Product Specifications

Product	GT-802	GT-802S	GT-805A	GT-806A15	GT-806B15	GT-806A60	GT-806B60
<b>Hardware Specifications</b>							
Hardware Version	3						
Standards	IEEE 802.3, 10Base-T IEEE 802.3u, 100Base-TX IEEE 802.3ab, 1000Base-T IEEE 802.3z, 1000Base-SX/LX						
Ports	1 x 10/100/1000Base-T port, 1 x 1000Base-SX/LX port						
Copper Interface	RJ-45 port (Auto-MDI/MDI-X) Twisted Pair						
Optic Interface	GT-802/GT-802S: SC GT-805A: SFP GT-806A15/GT-806B15/GT-806A60/GT-806B60: WDM						
Fiber Maximum Distance	GT-802: 220 / 550m GT-802S: 10km GT-805A: N/A GT-806A15: 15km GT-806B15: 15km GT-806A60: 60km GT-806B60: 60km						
Optic Wavelength	GT-802: 850nm GT-802S: 1310nm GT-805A: N/A GT-806A15: TX:1310nm RX:1550nm GT-806B15: TX:1550nm RX:1310nm GT-806A60: TX:1310nm RX:1550nm GT-806B60: TX:1550nm RX:1310nm						
Max. Optical Launch Power	GT-802: -4dBm GT-802S: -3dBm GT-805A: N/A GT-806A15: -3dBm GT-806B15: -3dBm GT-806A60: +5dBm GT-806B60: +4dBm						
Min. Optical Launch Power	GT-802: -9.5dBm GT-802S: -9.5dBm GT-805A: N/A GT-806A15: -9dBm GT-806B15: -9dBm GT-806A60: 0dBm GT-806B60: -1dBm						
Max. Input Power	GT-802: N/A GT-802S: -3 GT-805A: N/A GT-806A15: -3 GT-806B15: -3 GT-806A60: -2 GT-806B60: -2						
Min. Input Power	GT-802: -18 GT-802S: -20 GT-805A: N/A GT-806A15: -21 GT-806B15: -21 GT-806A60: -25 GT-806B60: -25						

Optical Link Budget	GT-802: 3dB(62.5/125µm) 4dB(50/125µm) GT-802S: 4.9dB GT-805A: N/A GT-806A15: 12dB GT-806B15: 12dB GT-806A60: 25dB GT-806B60: 24dB
Speed	Twisted-pair: 10/20Mbps for half/full-duplex 100/200Mbps for half/full duplex 200Mbps for full-duplex Fiber-optic: 2000Mbps for full-duplex
Cable	Twisted-pair 10Base-T: 2-pair UTP Cat. 3,4,5, up to 100m 100Base-TX: 2-pair UTP Cat. 5, up to 100m 1000Base-T: 4-pair STP Cat 5 up to 100m Fiber-optic Cable 50/125µm or 62.5/125µm multi-mode fiber cable, up to 220/550m. 9/125µm single-mode cable, providing long distance for 10/15/20/30/40/50/60/70/120km (vary on fiber transceiver or SFP module)
LED Indicator	<ul style="list-style-type: none"> <li>▪ PWR</li> <li>▪ TP LINK/ACT, 1000</li> <li>▪ Fiber LINK/ACT</li> </ul>
DIP Switch	LFP function (Disable / Enable) setting
OAM	TS-1000 and IEEE 802.3ah Terminal mode supported
Jumbo Packet Size	9K
Power Consumption	4.6 watts / 15 BTU (maximum)
Power Input	DC 5V / 2A
Dimensions (W x D x H)	26 x 70 x 97 mm
Weight	0.2kg
Operating Environment	Operating temperature: 0 to 50 degrees C; Humidity: 5~95% non-condensing
Storage Environment	storage temperature: -10 to 70 degrees C; Humidity: 5~95% non-condensing
Emissions	FCC Class A, CE Class A

## Ordering Information

GT-802	10/100/1000Base-T to 1000Base-SX Media Converter (SC,MM)-220/550m
GT-802S	10/100/1000Base-T to 1000Base-LX Media Converter (SC,SM)-10km
GT-805A	10/100/1000Base-T to 1000Base-SX/LX Media Converter (mini-GBIC, SFP)-distance depend on SFP module
GT-806A15	10/100/1000Base-T to 1000Base-LX (WDM) Media Converter TX:1310nm~15km
GT-806B15	10/100/1000Base-T to 1000Base-LX (WDM) Media Converter TX:1550nm~15km
GT-806A60	10/100/1000Base-T to 1000Base-LX (WDM) Media Converter TX:1310nm~60km
GT-806B60	10/100/1000Base-T to 1000Base-LX (WDM) Media Converter TX:1550nm~60km

## Related SFP Modules for GT-805A

MGB-SX	SFP-Port 1000Base-SX Transceiver, LC, MM-550m
MGB-LX	SFP-Port 1000Base-LX Transceiver, LC, SM-10km
MGB-L30	SFP-Port 1000Base-LX Transceiver, LC, SM-30km
MGB-L50	SFP-Port 1000Base-LX Transceiver, LC, SM-50km
MGB-L70	SFP-Port 1000Base-LX Transceiver, LC, SM-70km
MGB-L120	SFP-Port 1000Base-LX Transceiver, LC, SM-120km
MGB-LA10	1000Base-LX Transceiver, LC, WDM (TX:1310nm) SM-10km
MGB-LB10	1000Base-LX Transceiver, LC, WDM (TX:1550nm) SM-10km
MGB-LA20	1000Base-LX Transceiver, LC, WDM (TX:1310nm) SM-20km
MGB-LB20	1000Base-LX Transceiver, LC, WDM (TX:1550nm) SM-20km
MGB-LA40	1000Base-LX Transceiver, LC, WDM (TX:1310nm) SM-40km
MGB-LB40	1000Base-LX Transceiver, LC, WDM (TX:1550nm) SM-40km

## Related Products

MC-1500	15-Slot Media Converter Chassis
MC-1500R	15-Slot Media Converter Chassis (AC Power)
MC-1500R48	15-Slot Media Converter Chassis (DC Power)
MC-700	7-Slot Media Converter Chassis

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**C-GT-80xv3**