1. PRODUCT FEATURES

- Comply with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-SX/LX Ethernet standard
- Bridge mode media converter with TP port supports 10/100/1000Base-T and auto-MDI / MDIX
- Auto-Negotiation for 10/100/1000Base-T; Half-duplex or Full-duplex for 10Mbps and 100Mbps, full-duplex for 1000Mbps
- LED indicators for simple diagnostics and management
- Compact in size, easy installation
- OAM (TS-1000 and IEEE 802.3ah) supported
- 9K Jumbo frame supported
- Can be installed on PLANET's 10"/19" Media Converter Chassis **(MC-700/1000R/1500)**
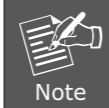
2. MODEL LIST

Your Gigabit Ethernet Converter comes with one of the following models.

GT-802	10/100/1000Base-T to 1000Base-SX (SC)
GT-802S	10/100/1000Base-T to 1000Base-LX (SC)
GT-805A	10/100/1000Base-T to 1000Base-SX/LX (SFP)
GT-806A15	10/100/1000Base-T to 1000Base-LX (WDM)
GT-806B15	10/100/1000Base-T to 1000Base-LX (WDM)
GT-806A60	10/100/1000Base-T to 1000Base-LX (WDM)
GT-806B60	10/100/1000Base-T to 1000Base-LX (WDM)

In the following sections, the term **"GT-80X"** indicates the product family above, the term **"MM"** and **"SM"** represent Multi-Mode and Single Mode fiber-optic mode.

Note Please note GT-806A15/806B15 and GT-806A60/806B60 is 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.

3. CHECKLIST

Your GT-80X carton should contain the following items:

> The Gigabit Ethernet Converter

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

> This user's manual

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

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

4. PRODUCT OUTLOOK

Right View (GT-80X)

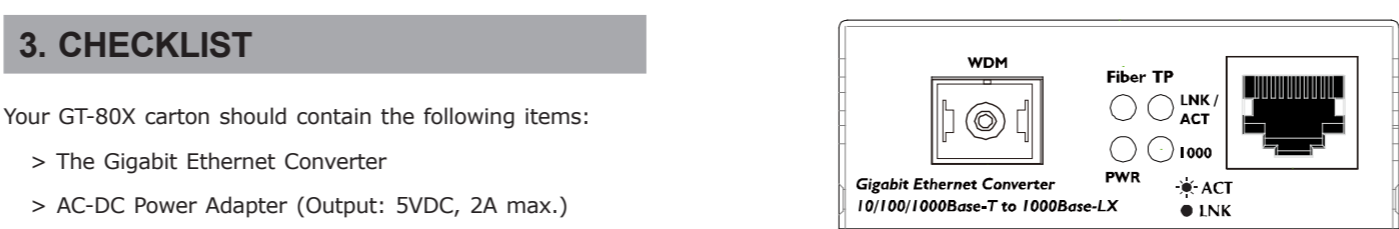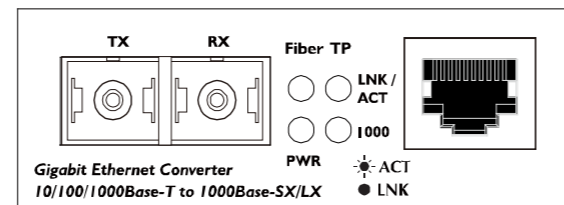**Figure 1:** GT-802/GT-802S

Figure 2: GT-805A

Figure 3: GT-806A15/B15/A60/B60

Left: Fiber-optic connector, Right: TP connector. Two LED indicators for TP / fiber port.

Rear View (GT-80X)

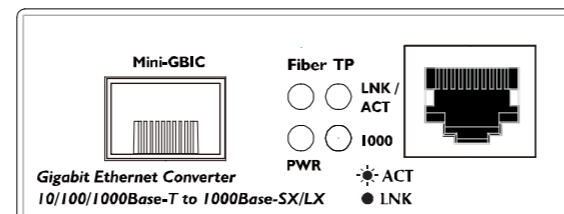**Figure 4:** One DC jack for DC power input.

One DC jack for DC power input.

5. INSTALLING THE CONVERTER

Stand-alone Installation

To install a GT-80X stand-alone, 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 GT-80X will be attached.

Step 2: Ensure that there is no activity in the network.

Step 3: Attach fiber cable from the GT-80X to the fiber network. TX, RX must be paired at both ends.

Step 4: Connect the 5VDC power adapter to the GT-80X and verify that the Power LED lights up.

Step 5: Turn on the power of the device/station; the PWR LEDs should light when all cables are attached.

Figure 5: GT-80X installation

Note To prevent from optic acceptor malfunction, check the both wires / transmitter before power on the converter.

GT-805A Installation

Step 1: Connect the fiber cable. Attach the duplex LC connector on the network cable into the SFP transceiver.

Step 2: Attach fiber cable from the GT-805A to the fiber network. TX, RX must be paired at both ends.

Step 3: Connect the 5VDC power adapter to the GT-805A and verify that the Power LED lights up.

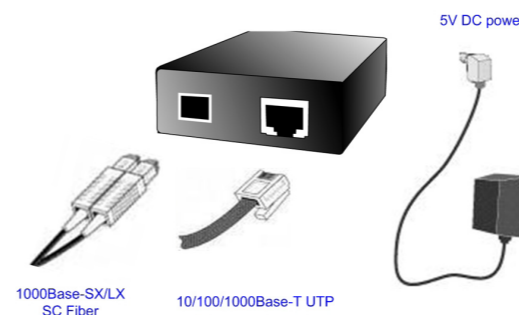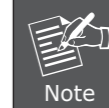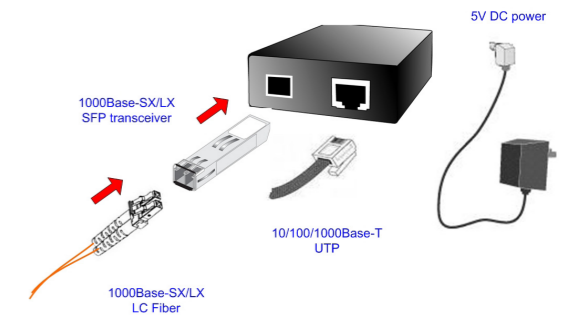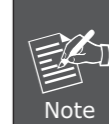Step 4: Turn on the power of the device/station; the PWR LEDs should light when all cables are attached.

Figure 6: GT-805A installation

Note It is recommends using PLANET MGB-SX / MGB-LX series 1000Base-SX/LX SFP on the converter. If you insert a SFP transceiver that is not supported, the converter will not recognize it.

6. DUPLEX MODE SUPPORT

The GT-80X is one-channel media conversion between 10/100/1000Base-T and 1000Base-SX/LX. 10/100/1000Base-T port can work under Auto-negotiation mode. 1000Base-SX/LX fiber port only allow to work under fixed 1000Mbps full duplex mode.

7. LED INDICATION

LED	Color	Description
PWR	Green	Lit: When +5VDC power detected.
Fiber LNK/ACT	Green	Lit: To indicate the link through that fiber port is successfully established. Blink: Indicate that the Fiber port is actively sending or receiving data over that port.
TP LNK/ACT	Green	Lit: To indicate the link through that port is successfully established. Blink: Indicate that the port is actively sending or receiving data over that port.
TP 1000	Green	Lit: When the port runs in 1000Mbps Full duplex. Blink: When the port runs in 100Mbps Full duplex. Off: When the port runs in 10Mbps Full duplex.

8. PRODUCT SPECIFICATION

The GT-80X comes with the following standard features:

Model	GT-802	GT-802S	GT-805A	GT-806A15 GT-806B15	GT-806A60 GT-806B60
Connector – Fiber	SC-type connector		SFP, LC type	SC-type connector (WDM) LX	
Mode	Multi-mode	Single mode	Vary on module	Single mode	
Fiber Maximum Distance	220m / 550m	10km	Vary on module	15km	60km
Connector - Copper	10/100/1000Mbps RJ-45				
Modes	Full Duplex, auto-negotiation				
Packet Forwarding Rate (64bytes)	14880pps @10Mbps 148810pps @100Mbps 1488000pps @ 1000Mbps				
LED indicators:	PWR, 1000, Fiber/LNK/ACT, TP/LNK/ACT				
Protocols and Standards:	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3ab 1000Base-T IEEE 802.3z 1000Base-SX/LX				
Cable	10/100/1000Base-T: 1000Base-T-2-pair UTP Cat. 5/5e/6, up to 100m 1000Base-SX: 50/125µm or 62.5/125µm multi-mode fiber optic cable, up to 220/550m 1000Base-LX: 9/125µm single-mode fiber optic cable, up to 10/15/60km				
OAM	TS-1000, IEEE 802.3ah terminal				
Jumbo Packet Size	9K				
Dimensions	26 x 70 x 97mm (H x W x D)				
Power	External power adaptor 5V 2A max.				
EMI Compatibility:	FCC Class A, CE Certification Class A				
Temperature:	Storage: -40°C ~ 70°C / Operating: 0°C ~ 50°C				
Humidity:	5% ~90% non-condensing				

Note Connecting to the Gigabit Ethernet products, please refer to the device's Technical Manual.

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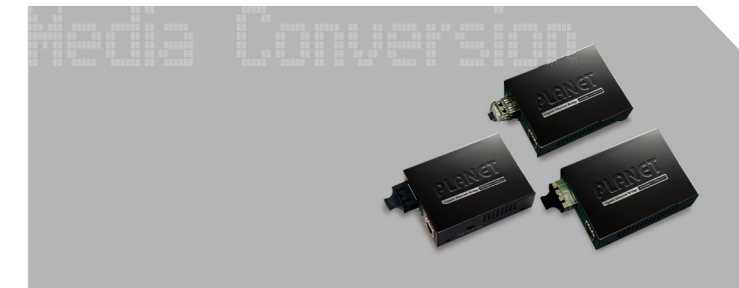
9. CABLE CONNECTION PARAMETER

The wiring details are as below:

Cables:

Standard	Fiber Type	Cable Specification
1000Base-SX(850nm)	Multi-mode	50/125µm or 62.5/125µm
1000Base-LX(1300nm)	Multi-mode	50/125µm or 62.5/125µm
	Single-mode	9/125µm

Wiring Distances:

Standard	Fiber	Diameter (micron)	Modal Bandwidth (MHz * km)	Max. Distance (meters)
1000Base-SX	MM	62.5	100	220
		62.5	200	275
		50	400	500
		50	500	550
1000Base-LX	MM	62.5	5	550
		50	4	
		50	5	
	SM	9	N/A	5000*

Note The Single-mode port (1000Base-LX port) of GT-802S, GT-805A, GT-806A15/B15 and GT-806A60/B60 is complied with LX 5 kilometers and provides additional margin allowing for a 10/15/60 kilometers Gigabit Ethernet link on single mode fiber.