

# 100/1000BASE-X to 10/100/1000BASE-T PoE+ Media Converter

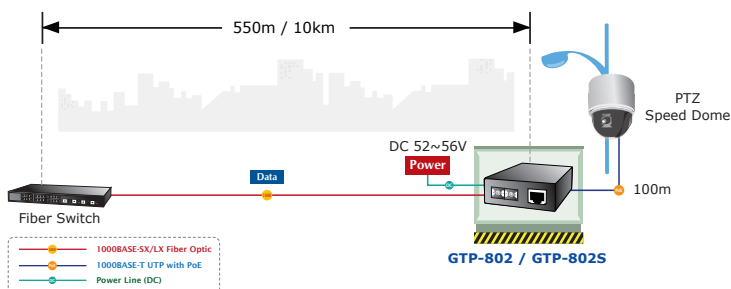


## The Best Data Link and Power Sourcing Solution

As more and more PoE powered devices need higher power input and long distance transmission, PLANET **GTP-80x** PoE Media Converter series is designed to do the job. With the **IEEE 802.3at Power over Ethernet Plus technology applied**, the GTP-80x series provides the following key features:

- IEEE 802.3af/IEEE 802.3at PoE+ standard compliance
- Supports a maximum of 30 watts of output power
- 1000BASE-T port supports 10/100/1000Mbps in full-duplex mode
- 1000Mbps fiber-optic support (GTP-802/GTP-802S)
- 100/1000Mbps fiber-optic support (GTP-805A)

The GTP-80x series is a **Single-port, Mid-span IEEE 802.3at Power over Ethernet Plus Media Converter** designed specifically to satisfy the growing demand for higher power required network equipment such as **PTZ (pan, tilt & zoom) network cameras, PTZ speed dome cameras, color touch-screen VoIP telephones, multi-channel wireless LAN access points** and other network devices that need higher power to function normally. The **GTP-80x IEEE 802.3at Power over Ethernet Plus Media Converter series** is an ideal solution to deliver data and power to network devices directly via the RJ45 interface without the need of installing extra power outlets and electrical cabling.



## Interface

- 1 RJ45 interface
  - 1-Port Data + Power output
- 1 fiber optic port
  - GTP-802: SC Fiber Interface
  - GTP-802S: SC Fiber Interface
  - GTP-805A: LC Fiber Interface
- DC 52V power input socket

## PoE

- Complies with IEEE 802.3at Power over Ethernet Plus standard, mid-span PSE
- Backward compatible with IEEE 802.3af Power over Ethernet
- Provides DC 52V power over RJ45 Ethernet cable to devices with Ethernet port
- Supports PoE Power up to 30 watts for PoE port
- Auto detects IEEE 802.3at/IEEE 802.3af PoE equipment, protecting the devices from being damaged by incorrect installation
- Remote power feeding up to 100m
- IEEE 802.3at/IEEE 802.3af splitter devices compatibility

## Hardware

- Metal case
- LED indicators
  - Power LED
  - PoE-in-use
  - Fiber LNK/ACT
  - TP LNK/ACT
- DIP switch: LFP (Link Fault Passthrough) mode selection
- 9K maximum frame size supporte

## Standard Compliance

- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX/100BASE-FX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-X
- IEEE 802.3af Power over Ethernet standard
- IEEE 802.3at Power over Ethernet Plus Standard
- FCC Part 15 Class A, CE

### Fiber-optic Link Capability Extends the Range of Network Deployment

The maximum distance between the PoE PSE and PD is 100 meters. To extend the network device deployment range, the GTP-80x is integrated with fiber interface. The GTP-80x PoE+ Media Converter is used to convert optical Ethernet signal to electrical Ethernet signal that allows two different segments to connect easily, efficiently and inexpensively. It can convert 10/100/1000BASE-T signal to 1000BASE-X and provides different diverse fiber connecting types to meet different network applications.

The GTP-80x series and its fiber connecting type includes:

- GTP-802: SC Fiber Interface supports multi-mode with distance up to 220m and 550m
- GTP-802S: SC Fiber Interface supports single-mode with distance up to 10km
- GTP-805A: LC Fiber Interface supports multi/single mode SFP module with distance up to 120km (may vary on SFP module)

With the long fiber distance support, it still sustains the transmission performance as high as 1000Mbps. It works in the high performance Store and Forward mechanism, and can prevent packet loss with IEEE 802.3x flow control (full-duplex) and the LP (Link Fault Passthrough function) (LLCF/LLR) with the DIP switch design. Furthermore, it can immediately alarm the administrators over the issue from the link media and provide an efficient solution to monitor the network power usage.

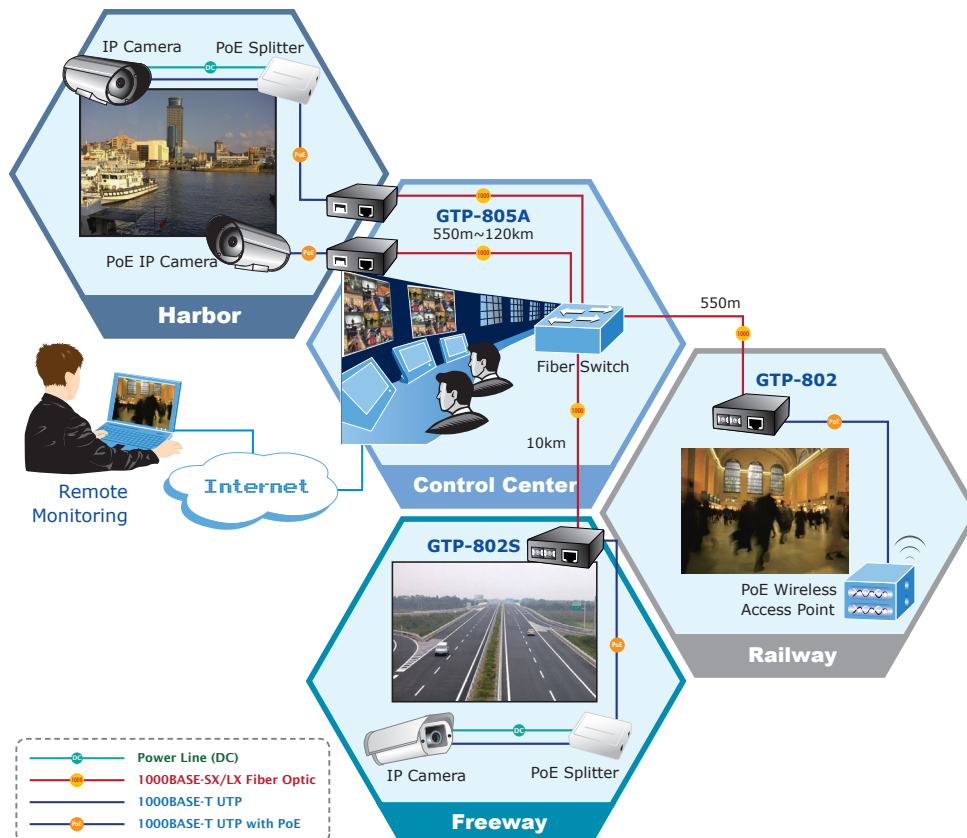
### Quick and Easy High Power PoE Network Deployment

The GTP-80x series provides 52V DC power over Ethernet cables -- just insert DC voltage into Cat.5/5e/6 cable, allowing the cable between the PoE splitters (POE-161S/POE-162S/IPOE-162S) to transfer data and power simultaneously for up to 100 meters. Then it will split the digital data and the power into two kinds of selectable DC outputs (5V DC/12V DC) or (12V DC/24V DC). Thus, it reduces cables and the dedicated electrical outlets on the wall, ceiling or any unreachable place. Most of all, it also eliminates the time for installation. The high Power over Ethernet solution frees the security IP camera and wireless AP deployment from restrictions of power outlet locations.

## Applications

### Flexible and User-friendly PoE Deployment

For the places difficult to find the power outlet, the GTP-80x series provides the easiest way to power your Ethernet devices such as PLANET IEEE 802.3at PoE+ splitter (POE-161S/POE-162S/IPOE-162S) and non PoE compliant Internet camera or wireless PoE access point. For instance, users can flexibly install the security IP camera, wireless access point and other IEEE 802.3at compliant network equipment around the corner in the public areas such as station or freeway for surveillance demands, or build a wireless roaming environment on the campus or at the airport.



## Specifications

Product	GTP-802	GTP-802S	GTP-805A
<b>Interface</b>			
Version	3		
Copper Port	10/100/1000BASE-T Ethernet TP interface Auto-negotiation, auto MDI/MDI-X with PoE injector function		
Fiber Port	1000BASE-X		100/1000BASE-X SFP
Fiber Mode	Multi-mode: 50/125 μm or 62.5/125 μm optic fiber	Single-mode: 9/125 μm optic fiber	May vary on SFP Module
Fiber Port Type (connector)	SC	SC	SFP
Cable Distance	220m & 550m	10km	May vary on SFP Module
Optical Frequency	850nm	1310nm	
Launch Power (dBm)	Max. -4 Min. -9.5	Max. -3 Min. -9.5	
Receive Sensitivity	-13.5	-14.4	
Maximum Input Power	-18	-20	
<b>Power Over Ethernet</b>			
PoE Output	IEEE 802.3at Power over Ethernet Plus standard IEEE 802.3af Power over Ethernet standard		
Power Output	PoE 52V DC, max. 30 watts		
PoE Power Supply Type	Mid-span		
Power Pin Assignment	1/2 (+), 3/6 (-)		
PoE Power Budget	30 watts		
<b>Hardware Specifications</b>			
Switch Architecture	Store-and-Forward		
Flow Control	Back pressure for half duplex mode IEEE 802.3x pause frame for full duplex mode		
Maximum Frame Size	9K		
LED	System: PWR (Green) Fiber 100/1000BASE-X: LNK/ACT (Green, GTP-805A) Fiber 1000BASE-X: LNK/ACT (Green, GTP-802/GTP-802S) TP 10/100/1000BASE-T: LNK/ACT (Green) PoE: Power-in-use (Orange)		
Dimensions (W x D x H)	96 x 26 x 70 mm		
Weight	0.21kg		
Power Supply	52V DC, 0.58A external AC-to-DC adapter		
LFP mode	Enable: Shut down either TP port or fiber port that is broken Disable: Link LED indicators still on if connection of the other end is broken		
<b>Standards Conformance</b>			
Regulatory Compliance	FCC Part 15 Class A, CE		
Protocols and Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3ab Gigabit Ethernet IEEE 802.3z Gigabit Ethernet over Fiber Optic IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet. IEEE 802.3at Power over Ethernet Plus standard		
Cables	TP: Cat 5 / 5e / 6 UTP cable Fiber: Multi-mode: 50/125 μm or 62.5/125 μm optic fiber Single-mode: 9/125 μm optic fiber		
<b>Environment</b>			
Temperature	0~50 degrees C		
Humidity	5~90% (non-condensing)		

## Ordering Information

GTP-802	1000BASE-X to 10/100/1000BASE-T 802.3at PoE Media Converter (SC,MM) -- 550m
GTP-802S	1000BASE-X to 10/100/1000BASE-T 802.3at PoE Media Converter (SC,SM) -- 10km
GTP-805A	100/1000BASE-X to 10/100/1000BASE-T 802.3at PoE Media Converter (mini-GBIC, SFP)

## Related PoE Products

IGTP-805AT	Industrial 1000BASE-X to 10/100/1000BASE-T 802.3at PoE+ Media Converter
POE-161S	IEEE 802.3at Gigabit Power over Ethernet Plus Splitter with 5V/12VDC output (10/100/1000Mbps)
POE-162S	IEEE 802.3at Gigabit Power over Ethernet Plus Splitter with 12V/24VDC output (10/100/1000Mbps)
IPOE-162S	Industrial IEEE 802.3at Gigabit High Power over Ethernet Splitter
POE-E101	IEEE 802.3af Power over Ethernet Extender
POE-E201	IEEE 802.3at Power over Gigabit Ethernet Extender
POE-E202	1-Port 802.3at PoE+ to 2-Port 802.3af/at Gigabit PoE Extender
LRP-101CH	1-Port 10/100TX PoE PD + 1-Port Coax Long Reach PoE Injector
LRP-101UH	1-Port 10/100TX PoE PD + 1-Port UTP Long Reach PoE Injector

## Available 1000Mbps Modules

Gigabit Ethernet Transceiver (1000BASE-X SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MGB-GT	--	1000	Copper	--	100m	--	0 ~ 60 degrees C
MGB-SX(V2)	YES	1000	LC	Multi Mode	550m	850nm	0 ~ 60 degrees C
MGB-SX2(V2)	YES	1000	LC	Multi Mode	2km	1310nm	0 ~ 60 degrees C
MGB-LX(V2)	YES	1000	LC	Single Mode	20km	1310nm	0 ~ 60 degrees C
MGB-L40	YES	1000	LC	Single Mode	40km	1310nm	0 ~ 60 degrees C
MGB-L80	YES	1000	LC	Single Mode	80km	1550nm	0 ~ 60 degrees C
MGB-L120(V2)	YES	1000	LC	Single Mode	120km	1550nm	0 ~ 60 degrees C

Gigabit Ethernet Transceiver (1000BASE-BX, Single Fiber Bi-directional SFP)

Model	DDM	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MGB-LA10(V2)	YES	1000	WDM(LC)	Single Mode	10km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB10(V2)		1000	WDM(LC)	Single Mode	10km	1550nm	1310nm	0 ~ 60 degrees C
MGB-LA20(V2)	YES	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB20(V2)		1000	WDM(LC)	Single Mode	20km	1550nm	1310nm	0 ~ 60 degrees C
MGB-LA40(V2)	YES	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	0 ~ 60 degrees C
MGB-LB40(V2)		1000	WDM(LC)	Single Mode	40km	1550nm	1310nm	0 ~ 60 degrees C
MGB-LA80	YES	1000	WDM(LC)	Single Mode	80km	1490nm	1550nm	0 ~ 60 degrees C
MGB-LB80		1000	WDM(LC)	Single Mode	80km	1550nm	1490nm	0 ~ 60 degrees C

## Available 100Mbps Modules

Fast Ethernet Transceiver (100BASE-X SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MFB-FX	100	LC	Multi Mode	2km	1310nm	0 ~ 60 degrees C
MFB-F20	100	LC	Single Mode	20km	1310nm	0 ~ 60 degrees C
MFB-F40	100	LC	Single Mode	40km	1310nm	0 ~ 60 degrees C
MFB-F60	100	LC	Single Mode	60km	1310nm	0 ~ 60 degrees C
MFB-F120	100	LC	Single Mode	120km	1310nm	0 ~ 60 degrees C

Fast Ethernet Transceiver (100BASE-BX, Single Fiber Bi-directional SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MFB-FA20	100	WDM(LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60 degrees C
MFB-FB20	100	WDM(LC)	Single Mode	20km	1550nm	1310nm	0 ~ 60 degrees C