

Product Specifications

8-Port 10/100/1000 Gigabit Ethernet Switch
with 4-Port 802.3at PoE+ Injector Function

GSD-804P

Version 3.0

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Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2011/5/16	Marc Liao	Initial Release
Version 2.0	2016/11/11	Bryant Wu	Product Improvement <ul style="list-style-type: none"> ■ Change PoE chipset ■ 802.3at PoE+ support ■ Extend mode support ■ Remove fan
Version 3.0	2018/12/19	Keithy Lin	Product Improvement <ul style="list-style-type: none"> ■ Change PoE chipset ■ Change housing

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Reviewed by:	Kent Kang	Approved by:	Kent Kang

1. PRODUCT DESCRIPTION

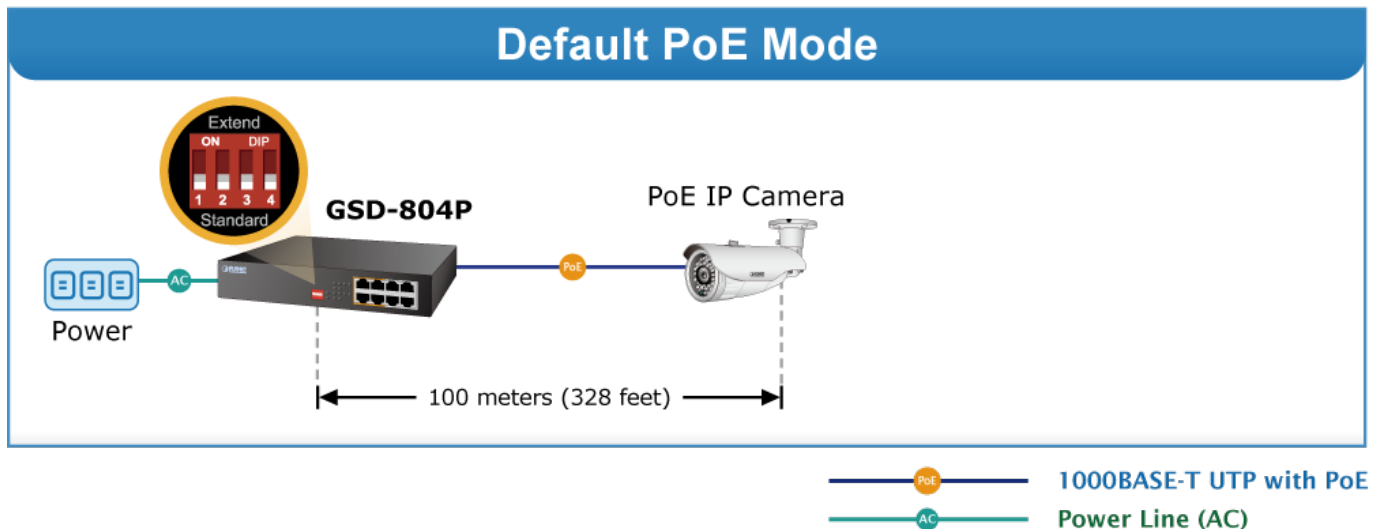


Ideal, High-performance Integration Solution for Small Secure IP Surveillance Infrastructure

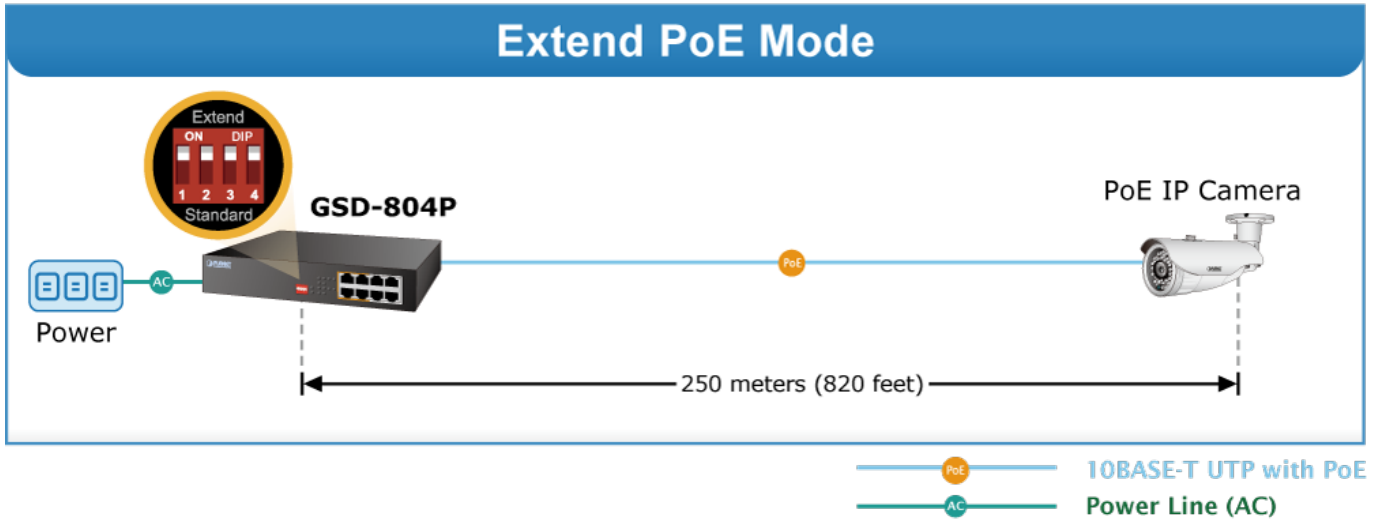
PLANET GSD-804P is equipped with **eight 10/100/1000BASE-T** ports, four of which are **802.3af PoE+** copper interfaces. With a total PoE power budget of up to 60 watts and non-blocking data switching performance, the GSD-804P fulfills the demand of sufficient PoE power for HD IP surveillance. It comes with a 9-inch desktop-sized metal housing and reliable PoE power solution suitable for SOHOs, small businesses and system integrators for deploying Power over Ethernet networks.

Extension of Ethernet Data Transmission Distance

The built-in solid DIP switch provides “**Standard**” and “**Extend**” operation modes. The GSD-804P operates as a normal IEEE 802.3af/at PoE Switch in the “**Standard**” operation mode.



In the “**Extend**” operation mode, the GSD-804P operates on a per-port basis at 10Mbps duplex operation but can support 25-watt PoE power output over a distance of up to 250 meters overcoming the 100m limit on Ethernet UTP cable. With this brand-new feature, the GSD-804P provides an additional solution for 802.3af/at PoE distance extension, thus saving the cost of Ethernet cable installation.

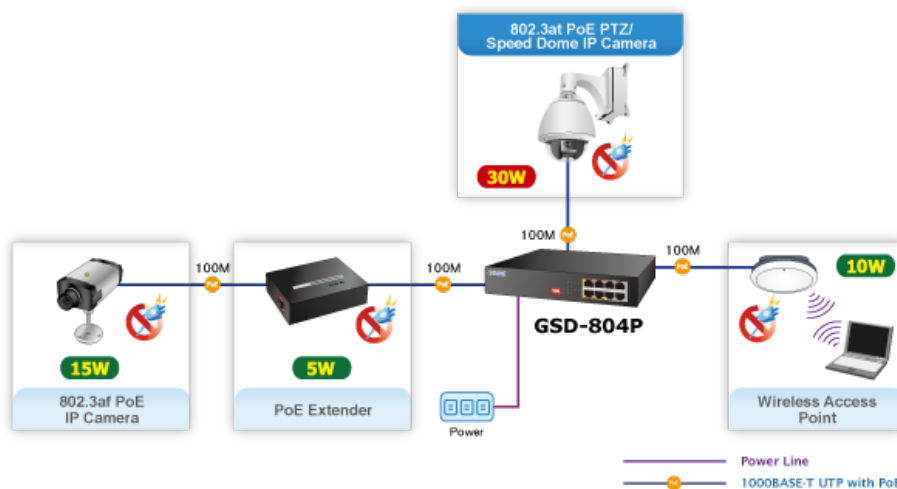


Environment-friendly, Fanless Design for Silent Operation

PLANET GSD-804P comes with a desktop-sized, compact metal housing, making the placement of the unit convenient. It features a ventilated construction in which a cooling fan is not necessary, thereby making its operation noiseless. Moreover, the GSD-804P is able to operate reliably and stably in any environment without affecting its performance. The deployment of PoE PDs with constant power feeding can be easily and quickly done.

Easy Cable Connection

With data switching and power over Ethernet integrated into one unit, the GSD-804P reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power can lower the installation costs, simplify the installation effort and eliminate the need for electricians or extension cords. With 4 PoE interfaces, the GSD-804P is ideal for small businesses and workgroups making the deployment of the PoE facility including wireless access points, IP-based surveillance camera and IP phones in any places easier, more efficient and more cost-effective.



2. PRODUCT FEATURES

▶ **Physical Port**

- 4 10/100/1000BASE-T Gigabit Ethernet RJ45 copper ports with IEEE 802.3at PoE+ Injector function (Port-1 to Port-4)
- 4 10/100/1000BASE-T Gigabit Ethernet RJ45 copper ports

▶ **Power over Ethernet**

- Complies with IEEE 802.3af/at Power over Ethernet end-span PSE
- Up to 4 ports of IEEE 802.3af/at devices powered
- Supports PoE Power up to 30.8 watts for each PoE port
- Each port supports 55V DC power to PoE powered device
- 60-watt PoE budget
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m in standard mode, 250m in extend mode

▶ **Switching**

- Hardware-based 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X
- Flow control for full duplex operation and back pressure for half duplex operation
- 4K MAC address table size
- 9K jumbo frame
- IEEE 802.1Q VLAN transparency
- Hardware-based DIP switch for “**Standard**” and “**Extend**” mode selection; the “**Extend**” mode features 25-watt PoE transmission distance of 250m at speed of 10Mbps (Port-1 to Port-4)

▶ **Hardware**

- 9-inch desktop size, 1U height, rack mountable
- LED indicators for system power, maximum PoE usage, per port PoE ready and PoE activity, speed, Link/Act
- Fanless design
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)
- Supports 4000VDC Ethernet ESD protection

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

Switch ASIC	RTL8370N-VB-CG	x 1
PoE Controller	STC8F2K64S4	x 1
PoE Controller MCU	TPS23861PW	x 1

3.2 FUNCTION SPECIFICATIONS

Model	GSD-804P
Hardware Specifications	
Hardware Version	3
10/100/1000BASE-T MDI/MDIX Ports	8
PoE Injector Port	4 ports with 802.3af/at PoE injector function (Port-1 to Port-4)
Switch Architecture	Store-and-forward
Switch Fabric	16Gbps/non-blocking
Switch Throughput@64 bytes	11.9Mpps@64 bytes
MAC Address Table	4K entries, automatic source address learning and aging
Jumbo Frame	9K bytes
Flow Control	IEEE 802.3x pause frame for full duplex Back pressure for half duplex
LED Indicators	System: Power (Green) PoE Max. (Green) 10/100/1000BASE-T RJ45 Interfaces: 10/100Mbps LNK/ACT (Red) 1000Mbps LNK/ACT (Green) PoE Interfaces: PoE-in-Use (Amber)
ESD Protection	4KV DC
DIP Switch	Selectable operation mode ■ Standard: IEEE 802.3a/at PoE transmission distance of 100m ■ Extend: 25-watt PoE transmission distance of 250m at speed of 10Mbps
Dimensions (W x D x H)	220 x 150 x 43 mm (1U height)
Enclosure	Metal
Weight	1120g
Power Requirements	AC 100~240V, 50/60Hz, 2.5A max.
Power Consumption/Dissipation	Max. 74 watts/252 BTU
Thermal Fan	Fanless

Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
PoE Power Supply Type	End-span
PoE Power Output	Per port 55V DC, 560mA. max. 30.8 watts
Power Pin Assignment	1/2 (+), 3/6 (-)
PoE Power Budget	60 watts
Max. Number of Class 2 PDs	4
Max. Number of Class 3 PDs	4
Max. Number of Class 4 PDs	2
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab Gigabit 1000BASE-T IEEE 802.3x Flow control and back pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet (EEE)
Environment	
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Standard Accessories	
Package Contents	GSD-804P User's manual Rack-mounting Brackets Screws Package Power Cord Rubber Feet

3.3 PHYSICAL SPECIFICATIONS:

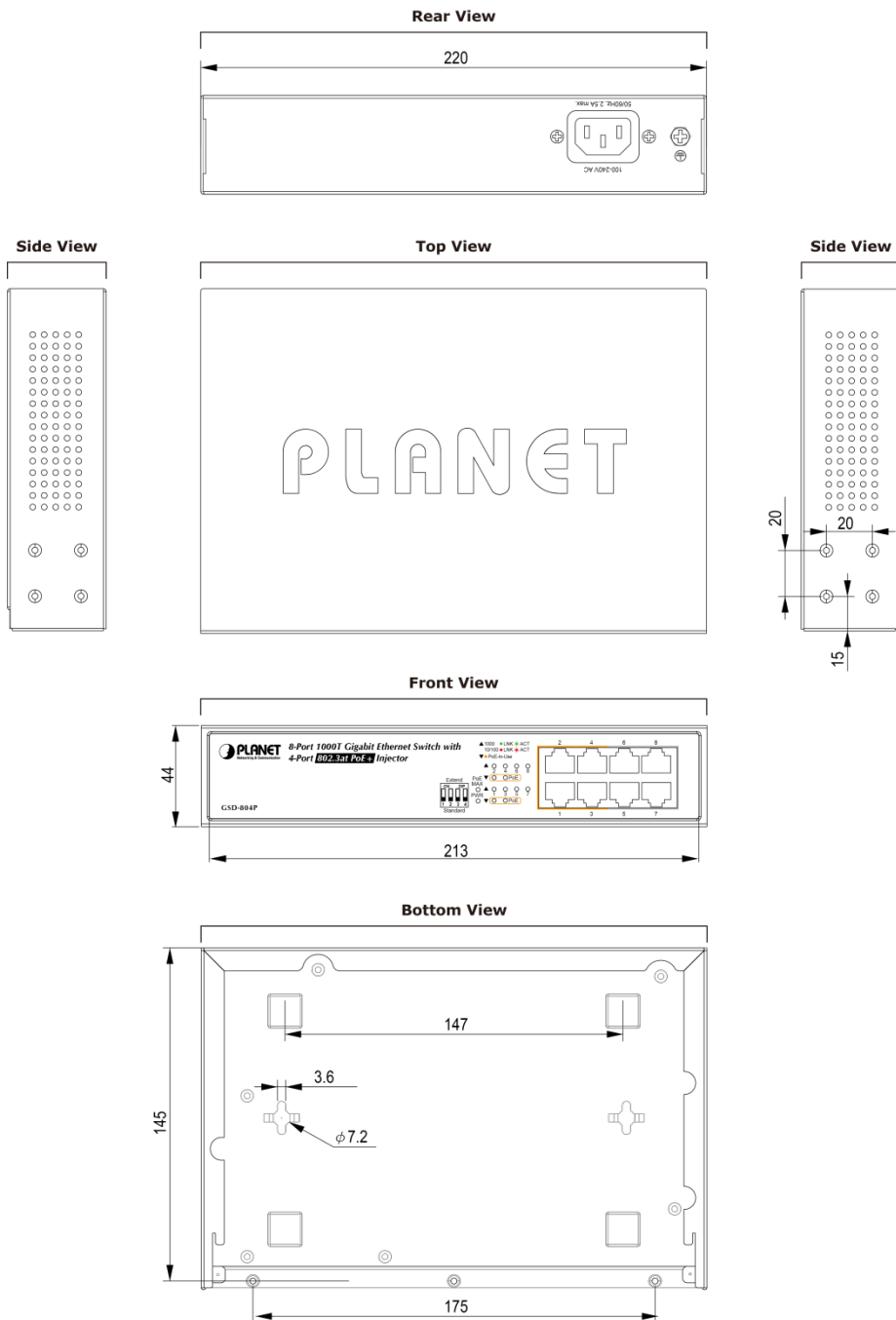
■ **Dimensions:**

220 x 150 x 43 mm (W x D x H, 1U height)

■ **Weight:**

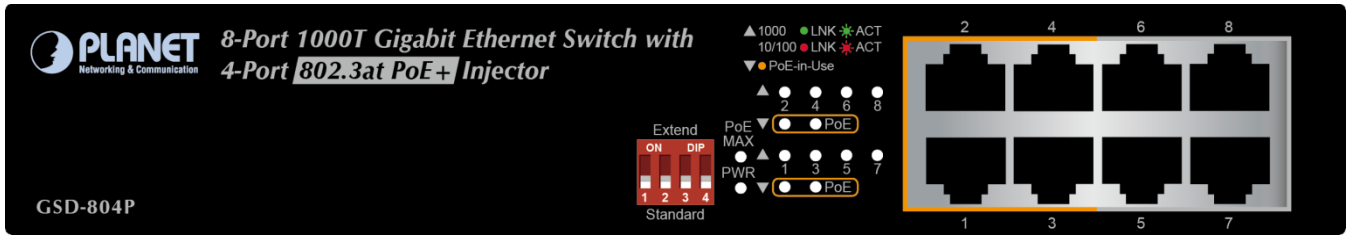
1120g

■ **Diagram**



Unit: mm

■ **Front Panel**



■ Rear Panel



■ LED Definition

■ System

LED	Color	Function
PWR	Green	Lights to indicate the Switch has power.
POE MAX	Green	Lights to indicate that the PoE usage is full.

■ Per 10/100/1000Mbps Port

LED	Color	Function
PoE-in-Use	Amber	Lights to indicate the port is providing 55V DC in-line power. (1-4 ports)
Speed/ LNK/ACT	Green	Lights to indicate the Switch is successfully connecting to the network at 1000Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port.
	Red	Lights to indicate the Switch is successfully connecting to the network at 10/100Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port.

3.4 ENVIRONMENTAL SPECIFICATIONS

Operating:

Temperature: 0 ~ 50 degrees C
Relative Humidity: 5 ~ 95% (non-condensing)

Storage:

Temperature: -10 ~ 70 degrees C
Relative Humidity: 5 ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATIONS

Input Voltage:	100~240V AC, 50/60Hz, 2.5A (max.)
Power Consumption (System on):	100V: 1.8 watts/6.1BTU
	110V: 1.9 watts/6.5BTU
	120V: 1.8 watts/6.1BTU
	220V: 1.8 watts/6.1BTU
	240V: 1.8 watts/6.1BTU
Power Consumption (PoE Full Loading):	100V: 67.4 watts/230BTU
	110V: 66.8 watts/227.9BTU
	120V: 66.2 watts/225.9BTU
	220V: 64.7 watts/220.8BTU
	240V: 64.6 watts/220.4BTU

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- The GSD-804P x 1
- User's Manual x 1
- Rack-mounting brackets with attachment screws package (For 19-inch rack) x 1
- Rubber Feet x 4
- Power Cord x 1

3.9 PACKING INFORMATION

Box Dimensions (W x D x H): 201.5 x 310 x 80 mm
Weight: 1750g

Carton Dimensions (W x D x H):	423 x 323 x 218 mm
Carton Weight:	15kg
Quantity:	8pcs in one carton