# 4-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T Desktop Switch

Cost-effective IP Surveillance System Solution

PLANET's new GSD-604HP provides four 802.3at PoE+ ports for catering to small-scale IP surveillance or home networks at a lower total cost. With **Dual** 10/100/1000BASE-T uplink ports, the recorded HD video streams from the 4 PoE IP cameras can be powered by the GSD-604HP and saved in the 4-channel NVR systems or surveillance software to perform comprehensive security monitoring and manage the surveillance system in the LAN or the remote site via Internet.

The GSD-604HP's advanced features are as follows:

- ■ Four PoE+ port with a total budget of 65 watts
- ■ Two 10/100/1000Mbps uplink ports
- ■ Port-based VLAN
- ■ Compact size, fanless design
- ■ Extended mode

4 x Gigabit 802.3at PoE+ Port

Standard/Extend Mode DIP Switch

2 x 10/100/1000BASE-T Uplink Port (Non-VLAN Mode)
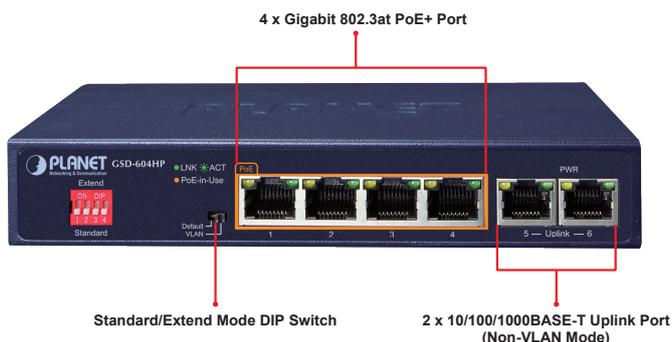
Two Gigabit Uplink Ports

The GSD-604HP comes with two uplink ports with 1000Mbps transfer rate to ensure high-speed data and video transmission, and reliable assurance for connection between the surveillance system and outside network where the four PoE+ ports can be used to their full potential.

RJ45 Interface

- • 6 10/100/1000BASE-T RJ45 ports with 4-port IEEE 802.3af/at injector function

Power over Ethernet

- • Complies with IEEE 802.3af/at Power over Ethernet end-span PSE
- • Up to 4 ports of IEEE 802.3af/802.3at devices powered
- • Supports PoE power up to 30 watts for each PoE port
- • Each port supports 54V DC power to PoE powered device
- • 65-watt PoE budget
- • Auto detects powered device (PD)
- • Circuit protection prevents power interference between ports
- • Remote power feeding up to 100m in standard mode and 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
- • Integrates address look-up engine, supporting 4K absolute MAC addresses
- • Automatic address learning and address aging
- • Supports port-based VLAN

Hardware

- • LED indicators for PoE ready/activity and LINK/ACT
- • One 54V DC power jack
- • Fanless design

Innovative Port-based VLAN

The GSD-604HP features "**Port-based VLAN**" whose ports can be isolated from each other via one DIP switch. This can help to prevent the IP camera's multicast or broadcast storm from influencing each other, thus fully meeting the requirements of the IP surveillance systems and Ethernet projects.
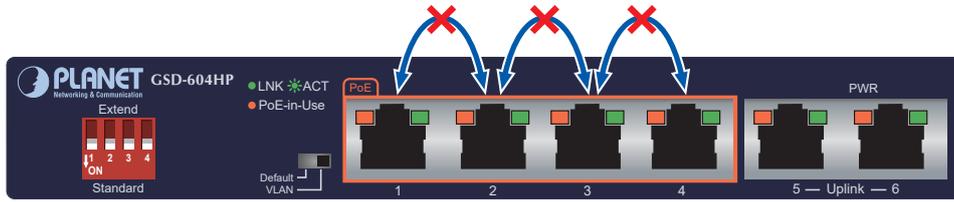
Port-based VLAN
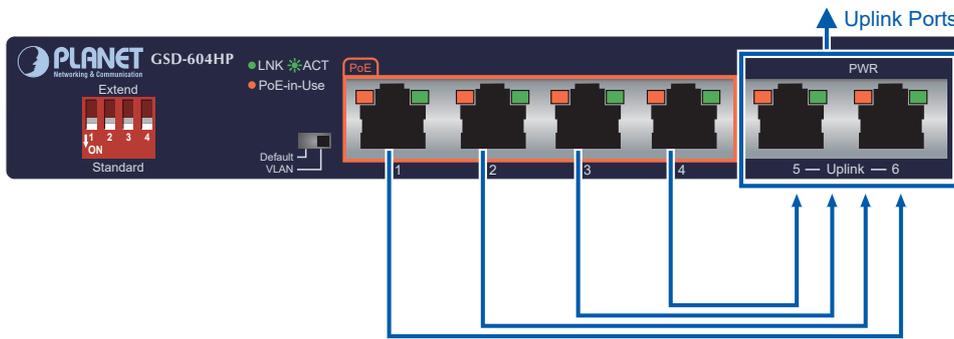
Standard, VLAN and Extend Operation Modes

■ The GSD-604HP provides **Standard**, **VLAN** and **Extend** operation modes. The GSD-604HP operates as a normal IEEE 802.3at/af PoE switch in the standard operation mode.

Standard Mode (default)

PoE IP Camera

Power

GSD-604HP

← 100 meters (328 feet) →

1000BASE-T UTP with PoE
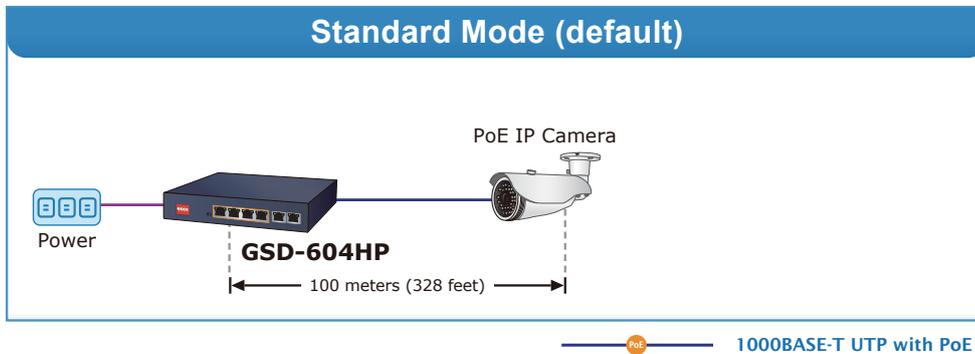
■ The **VLAN operation mode** features the port-based VLAN function that can help to prevent the IP camera's multicast or broadcast storm from influencing each other.

VLAN Isolation Mode

NVR

IP Camera

IP Camera

Ports 1 to 4
Access Denied

IP Camera

GSD-604HP

PC

Power Line (DC)

1000BASE-T UTP

1000BASE-T UTP with PoE
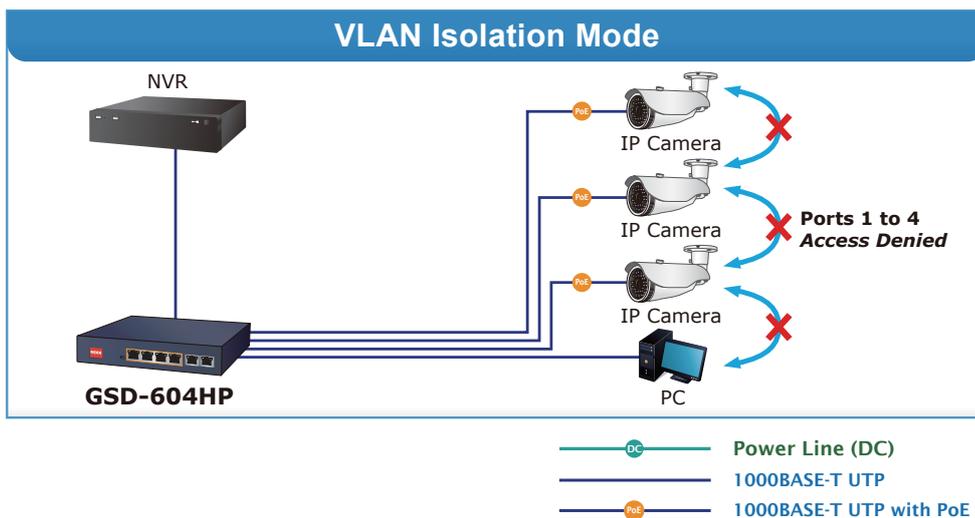
■ In the **Extend operation mode**, the GSD-604HP operates on a per-port basis at 10Mbps duplex operation but can support 20-watt PoE power output over a distance of up to 250 meters overcoming the 100m limit on Ethernet UTP cable. With this brand-new feature, the GSD-604HP provides an additional solution for 802.3at/af PoE distance extension, thus saving the cost of Ethernet cable installation. Its VLAN isolation function isolates ports so as to prevent broadcast storm and defend DHCP spoofing in the extend operation mode.

Extend Mode

PoE IP Camera

Power

GSD-604HP

◄——————————————— 250 meters (820 feet) ———————————————►
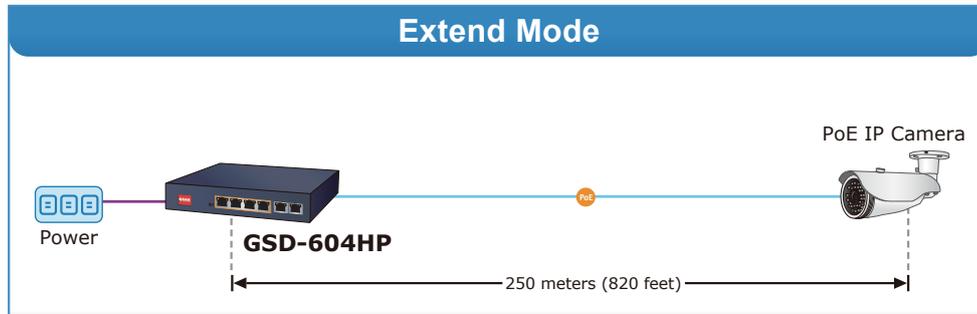
Environment-friendly, Fanless Design for Silent Operation

The GSD-604HP 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-604HP 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.

Robust Protection

The GSD-604HP protects against the ESD 6kV surge to improve product stability and also protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Ideal Solution for SOHO Having Secure IP Surveillance Infrastructure

Targeting the growing popular IP surveillance applications, the GSD-604HP PoE+ Switch is also positioned as a Surveillance Switch **for a quick and easy PoE IP camera deployment with power feeding**. The GSD-604HP supports both 802.3at and 802.3af PoE standards along with 4 10/100/1000BASE-T ports featuring up to 30 watts per RJ45 copper interface, and 2 extra Gigabit Ethernet TP interfaces supporting high-speed transmission of surveillance images and videos.

Applications

Perfectly Integrated Solution for PoE IP Camera and NVR System

The GSD-604HP provides four 802.3at/af PoE ports for catering to small-scale home and SOHO IP surveillance networks at a lower total cost. The GSD-604HP comes with a high-performance switch architecture and 65-watt PoE power budget. The recorded video files from the 4 PoE IP cameras can be powered by the GSD-604HP and saved in the 4-channel NVR system or using surveillance software to perform comprehensive security monitoring.

For instance, one GSD-604HP can be combined with one 4-channel NVR; that is, each of its PoE port can be linked to a specific 802.3af/at PoE IP camera for the administrators to centrally and efficiently manage the surveillance system in one site. The GSD-604HP's Gigabit Ethernet TP interface also provides Gigabit Ethernet TP connection for uplink to NVR systems or public server groups.

Perfect Combination of 4-Port PoE Switch + 4-ch NVR

4 PoE IP Cameras

GSD-604HP

Power

Gigabit Ethernet Uplink

4-channel NVR

	Power Line
	1000BASE-T UTP
	1000BASE-T UTP with PoE
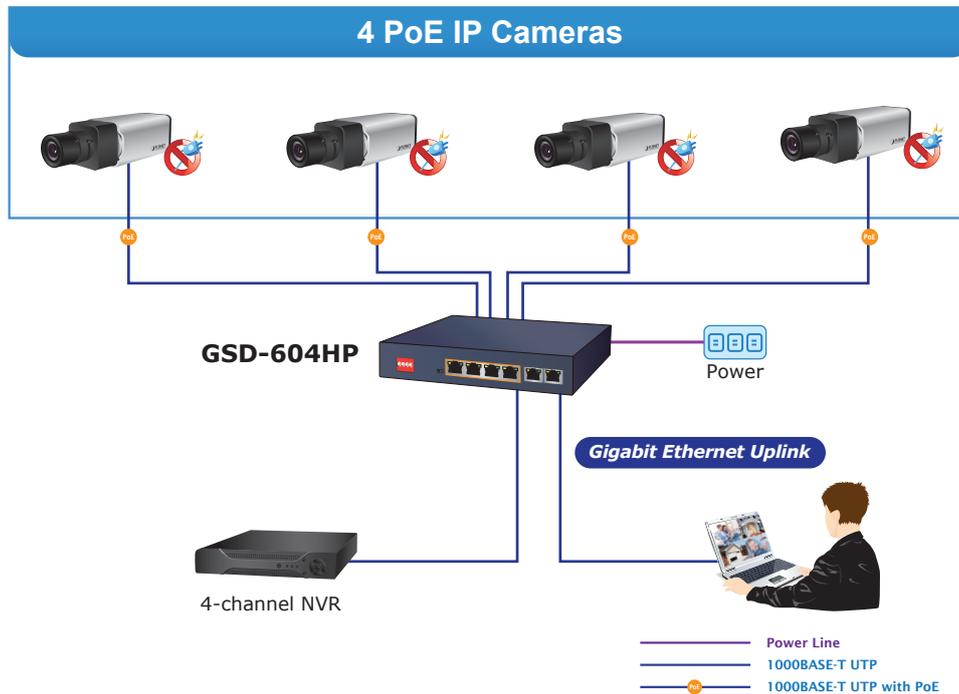
IP Office Department/Workgroup PoE Switch

To further expand the office premises, the additional telephones required could be installed at less cost via the PoE IP telephony system, better than the traditional circuit wiring telephony system. The GSD-604HP PoE+ Switch helps enterprises to create an integrated data, voice, and powered network. The IEEE 802.3af/at compliant IP phones can be installed without the need of an additional power cable because the power can be provided via the standard Ethernet cable from the connected GSD-604HP. With the GSD-604HP, IP telephony deployment becomes more reliable and cost effective, thus helping enterprises save tremendous cost when upgrading from the traditional telephony system to IP telephony communications infrastructure.

Office Building

Speed Dome

IEEE 802.3at PoE Splitter

Office Area

IEEE 802.3af PoE VoIP Phone

GSD-604HP

PoE Extender

Control Room

IEEE 802.3af PoE IP Camera

IEEE 802.3af PoE IP Camera

Office Building

Warehouse

	Power Line (DC)
	1000BASE-T UTP
	1000BASE-T UTP with PoE

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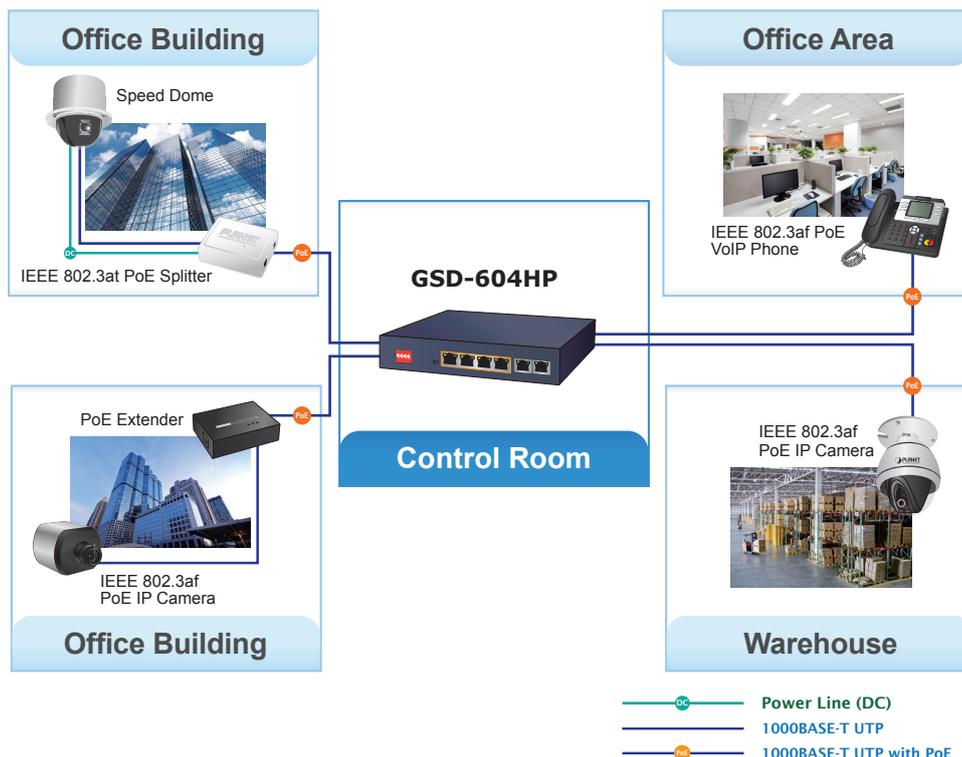
Specifications

Model	GSD-604HP
Hardware Specifications	
Network Connector	6 10/100/1000BASE-T RJ45 auto MDI/MDIX ports
PoE Inject Port	4 ports with 802.3at/af PoE injector function (Ports1 to 4)
LED Display	**System**: Power (Orange) **Per PoE port**: PoE (Orange, port 1 to port 4) **Ethernet port**: LNK(Green)
Thermal Fan	Fanless design
Switch Architecture	Store and Forward
MAC Address Table	4K MAC address table with auto learning function
Switch Fabric	12Gbps
Switch Throughput	8.92Mpps @64 bytes
Jumbo Packet	9K bytes
Flow Control	Back pressure for half duplex. IEEE 802.3x pause frame for full duplex
Power Requirements	54V DC, 1.3A
ESD Protection	6KV DC
Power Consumption	Max. 66.69 watts, 227.5 BTU
Dimensions (W x D x H)	168 x 93 x 32mm
Weight	374g
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
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Output	Per Port 54V DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per Port 54V DC, 600mA. max. 30 watts (IEEE 802.3at)
PoE Power Budget	65 watts
Standard Conformance	
EMI Safety	FCC Part 15 Class A, CE
Standard 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 Environment	0 ~ 50 degrees C
Storage Environment	-10 ~ 70 degrees C
Operating Humidity	5 ~ 95%, relative humidity, non-condensing
Storage Humidity	5 ~ 95%, relative humidity, non-condensing

Ordering Information

GSD-604HP	4-port 10/100/1000T 802.3at PoE + 2-port 10/100/1000T Desktop Switch

Related Products

GSD-908HP	8-Port 10/100/1000T 802.3at PoE + 1-Port Gigabit Desktop Switch
GSD-804P	8-Port 10/100/1000Mbps Gigabit Ethernet Switch with 4-Port 802.3at PoE+ Injector Function

GSD-604HP