

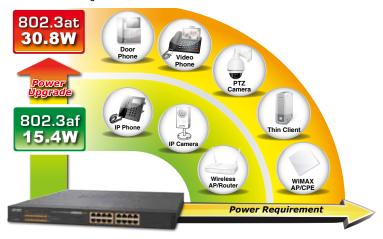
### GSW-1600HP

# 16-Port 10/100/1000T 802.3at PoE+ Ethernet Switch



#### Centralized Power Management for Gigabit Ethernet PoE Networking

To facilitate 30W PoE power network applications with Gigabit speed transmission, PLANET **GSW-1600HP 16-port Gigabit 802.3at Power over Ethernet Plus Switch** features high-performance Gigabit **IEEE 802.3af PoE (Up to 15.4W)** and **IEEE 802.3at PoE+ (Up to 30.8W)** capabilities on all ports. By offering reliable switching technology and advanced networking features, the GSW-1600HP optimizes the installation and power management of network devices such as wireless access points, VoIP phones, and security cameras. It also eliminates time and cost of deployment by integrating power and data switching into one unit, and freeing network devices from restrictions of power outlet locations and the additional AC wiring.



#### Perfect Integrated Solution for PoE IP Surveillance

The GSW-1600HP brings an ideal secure surveillance system at a lower total cost. The GSW-1600HP provides 16 10/100/1000Mbps 802.3at PoE+ ports able to feed sufficient PoE power for 16 IEEE 802.3af/IEEE 802.3at PoE+ IP cameras at the same time. It is also able to connect with one 16-channel NVR or two 8-channel NVRs, uplinked to backbone switch and the monitoring center. With such highperformance switch architecture, the recorded video files from the PoE IP cameras can be saved to the NVR system where the administrator can control and monitor the surveillance images in both the local LAN and remote sites.

#### Interface

· 16-port 10/100/1000BASE-T Gigabit Ethernet RJ45 ports

#### **Power over Ethernet**

- Complies with IEEE 802.3at Power over Ethernet Plus Standard
- · Complies with IEEE 802.3af Power over Ethernet
- Up to 16 ports of IEEE 802.3af/802.3at devices powered
- · Supports PoE Power up to 30.8 watts for each PoE port
- Each port supports 52V DC power to PoE powered device
- · 220-watt PoE budget
- · Auto detects powered device (PD)
- Circuit protection prevents power interference between
   ports
- · Remote power feeding up to 100m

#### 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 8K absolute MAC addresses
- 9K jumbo frame supports all speeds (10/100/1000Mbps)
- IEEE 802.1Q VLAN transparency
- · Automatic address learning and address aging
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)

#### Hardware

- 19-inch desktop size, 1U height
- · LED indicators for PoE ready and PoE activity
- · Ethernet Link Energy-saving technology
  - Link down power saving
  - Intelligent scales power based on cable length



#### Energy-saving Design

The GSW-1600HP uses new engine that incorporates two advanced Green Networking technologies:

- Idle Mode Link Down power saving
- Intelligent Scales Power based on cable length

The Idle mode Link Down power saving of the GSW-1600HP complies with IEEE 802.3az Energy Efficient Ethernet (EEE) standard to automatically lower power for a given port when it is not linked. The Intelligent Scales Power technology actively determines the appropriate power level based on the cable length. When connecting to the GSW-1600HP with Ethernet cable shorter than 20m, a device can obtain maximum power saving because the GSW-1600HP would automatically detect the Ethernet cable length and reduce power usage. The connected device can substantially reduce the overall power consumption, which makes a significant contribution to energy saving.

#### Easy Installation and Cable Connection

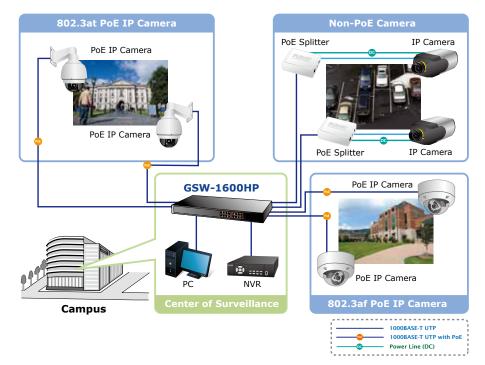
Providing data transfer and high Power PoE in one unit, the GSW-1600HP is able to reduce the need of extension cables and dedicated electrical outlets on the wall, ceiling or any unreachable place. It helps to lower the installation costs and simplify the installation effort. All RJ45 copper interfaces of the GSW-1600HP support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ45 Category 6, 5 or 5e cables. It also supports standard auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.



### **Applications**

#### Department / Workgroup PoE Network

Providing 16 PoE in-line power interfaces, the GSW-1600HP can easily build a power that can centrally control IP phone system, IP camera system and wireless AP group for the enterprise. Cameras can be installed around the corner in the company or campus for surveillance demands. Without the power-socket limitation, the GSW-1600HP makes the installation of cameras easier and more efficient.





## **Product Specifications**

Model	GSW-1600HP
Hardware Specification	
Hardware Version	2
10/100/1000BASE-T Copper Ports	16 auto-MDI/MDI-X ports
802.3af / 802.3at PoE Injector Port	16
Switch Architecture	Store-and-Forward
Switch Fabric	32Gbps/non-blocking
Switch Throughput@64 bytes	23.8Mpps@64 bytes
MAC Address Table	8K entries
Jumbo Frame	9216 bytes
Flow Control	IEEE 802.3x pause frame for full-duplex; back pressure for half-duplex
LED	System: Power (Green) 10/100/1000T RJ45 Interfaces 1000 LNK / ACT (Green), 10/100 LNK/ACT (Orange) PoE (Orange)
Dimensions (W x D x H)	445 x 207 x 45 mm (1U height)
Enclosure	Metal
Weight	2.65kg
Power Requirements	AC 100~240V, 50/60Hz, 3.5A max.
Power Consumption/Dissipation	Max. 260 watts/885 BTU
Thermal Fan	2
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: 1/2 (+), 3/6 (-)
PoE Power Output	Per port 52V DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per port 52V DC, 600mA. max. 30 watts (IEEE 802.3at)
PoE Power Budget	220 watts
Number of PDs, 7 watts	16
Number of PDs, 15.4 watts	14
Number of PDs, 30 watts	7
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 802.3at flow control and back pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy-Efficient Ethernet
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)

## Ordering Information

GSW-1600HP

16-Port 10/100/1000T 802.3at PoE+ Ethernet Switch



### **Related PoE Products**

ICA-2250VT	Industrial PoE Plus Outdoor IR IP Camera
ICA-E3550V	5 Mega-pixel Bullet IR PoE IP Camera
ICA-4200V	Full HD 20M IR Vari-focal Dome IP Camera
ICA-E5550V	5 Mega-pixel Vandalproof IR PoE IP Camera
ICA-E8550	5 Mega-pixel Outdoor IR PoE Fisheye IP Camera
ICA-HM620	2 Mega-pixel PoE Plus Speed Dome IP Camera
POE-162S	IEEE 802.3at Gigabit High Power over Ethernet Splitter
POE-E201	IEEE 802.3at Power over Ethernet Extender
WDAP-1750AC	1750Mbps 802.11ac Dual Band Wall-mount Enterprise Wireless Access Point
WNAP-C3220E	802.11n Wireless Ceiling-mount PoE Access Point
WNAP-W220UE	802.11n 300Mbps In-Wall Access Point w/USB Charger (EU Type)
WDAP-C7200E	1200Mbps 802.11ac Dual Band Ceiling-mount Wireless Access Point
ICF-1800	HD Touch Screen Android Multimedia Conferencing Phone
VIP-5060PT	Professional HD PoE IP Phone (6-Line)

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