

Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T Gigabit Ethernet Switch



Cost-effective Full PoE+ Power Solution Ideal for Hardened Environment

Featuring Plug and Play designed to be installed in heavy industrial demanding environments, the IGS-504HPT is a PLANET Industrial-grade, DIN-rail type Unmanaged Gigabit Ethernet PoE+ Switch with **four 10/100/1000BASE-T** ports featuring IEEE **802.3at PoE+** and **one extra 10/100/1000BASE-T** RJ45 copper interface for uplink connection.



The special and convenient power system of the IGS-504HPT supports **12~56V DC** power input for power redundancy and operational flexibility. It comes with a total power budget of up to **120 watts** for different kinds of PoE applications and operating temperature ranging from **-40 to 75 degrees C** in a rugged IP40 metal housing.

Convenient and Reliable Power System

To facilitate the 802.3at PoE+ usage with commonly used 12~48V DC power input for transportation and industrial-level applications, the IGS-504HPT adopts **power boost technology** to solve power source issue but does not require special power supplies. The IGS-504HPT provides an integrated power solution with a wide range of voltages (**12~56V DC**) for worldwide operability. It also provides dual-redundant, reversible polarity power supply inputs for high availability applications.

Interface

- 5 10/100/1000BASE-T Gigabit Ethernet RJ45 copper ports

Power over Ethernet

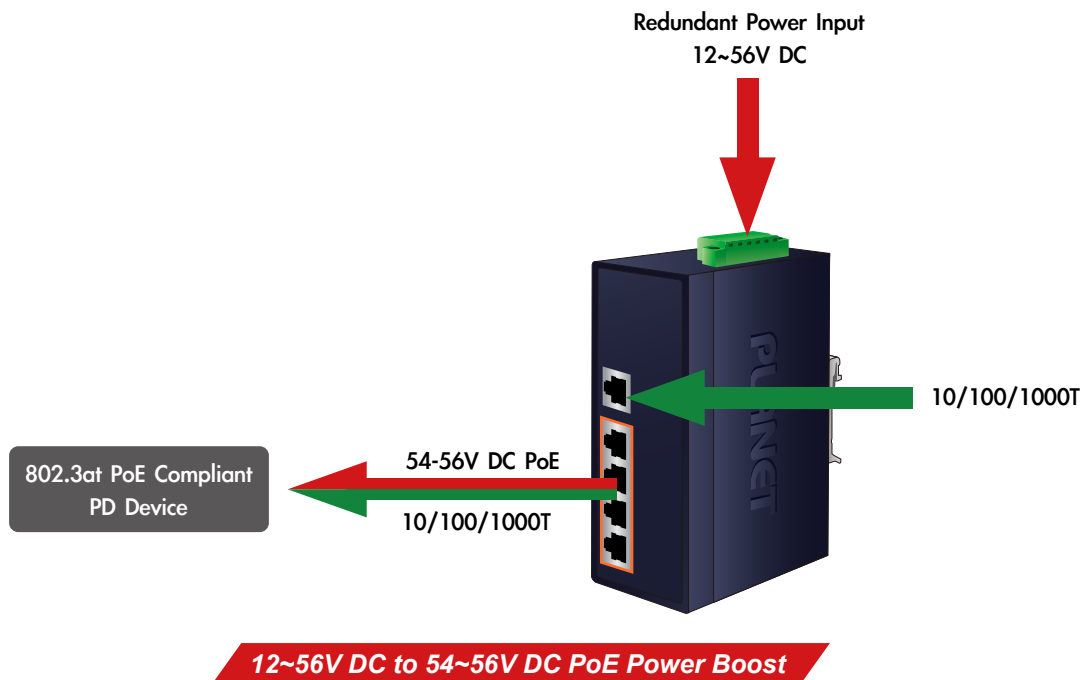
- Complies with IEEE 802.3at Power over Ethernet Plus, end-span PSE
- Backward compatible with IEEE 802.3af Power over Ethernet
- Up to 4 ports of IEEE 802.3af/at devices powered
- Up to 120-watt PoE budget
- Supports PoE power up to 36 watts for each PoE port
- Each port supports 54V DC power to PoE powered device
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

Layer 2 Switching

- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- 4K MAC address table size
- 10K jumbo frame
- IEEE 802.1Q VLAN transparency
- Automatic address learning and address aging
- Supports CSMA/CD protocol

Industrial Case and Installation

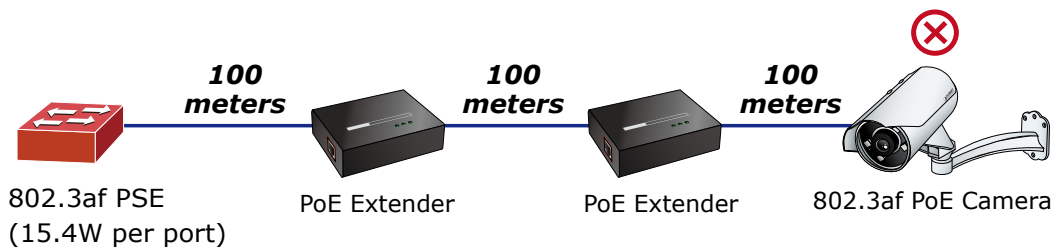
- IP40 metal case
- DIN-rail, wall-mount or side wall-mount design
- 12~48V DC redundant power with reverse polarity protection
- Fault alarm for power input failed
- Supports 6KV DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- 4 real-time PoE power usage indicators



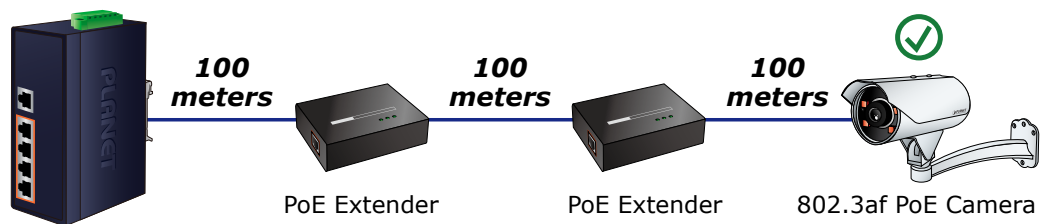
Plug and Play High Power Sourcing Solution

Complying with the **IEEE 802.3at Power over Ethernet Plus** technology, the IGS-504HPT provides up to **36 watts** of PoE output power to allow users to flexibly deploy standard and high powered devices simultaneously with no need of software configuration. Furthermore, the IGS-504HPT can extend much longer distance by using PLANET PoE Extender for powering up the PoE PD devices which can be installed over more than 100 meters away. By daisy-chaining multiple PoE extenders, it offers the great flexibility of doubling, tripling or quadrupling the distance of PoE network.

Because of heavy consumption, power isn't enough for powering



Though consumption is heavy, there's still enough power for powering



IGS-504HPT
802.3at PSE(36W per port)

Intelligent LED Indicator for Real-time PoE Usage

The IGS-504HPT helps users to monitor current status of PoE power usage easily and efficiently by its advanced LED indication. Called “PoE Power Usage”, the front panel of the Industrial Gigabit PoE+ Switch has four orange LEDs indicating **30W**, **60W**, **90W** and **120W** of PoE power usage.



Environmentally Hardened Design

With the **IP40** metal industrial case, the IGS-504HPT provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb-side traffic control cabinets without air conditioning. It features a ventilated construction in which a cooling fan is not necessary, thereby making its operation noiseless. Being able to operate under the temperature range from **-40 to 75 degrees C**, the IGS-504HPT can be placed in almost any difficult environment.

Robust Protection

The IGS-504HPT provides contact discharge of $\pm 6\text{KV}$ DC and air discharge of $\pm 8\text{KV}$ DC for Ethernet ESD protection. It also supports $\pm 6\text{KV}$ surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Flexible and Easy Installation with Limited Space

The compact sized IGS-504HPT is specially designed to be installed in a narrow environment, such as wall enclosure. It can be installed by fixed wall mounting or DIN rail, thereby making its usability more flexibly and easily in any space-limited location.



DIN-rail Mounting



Wall Mounting

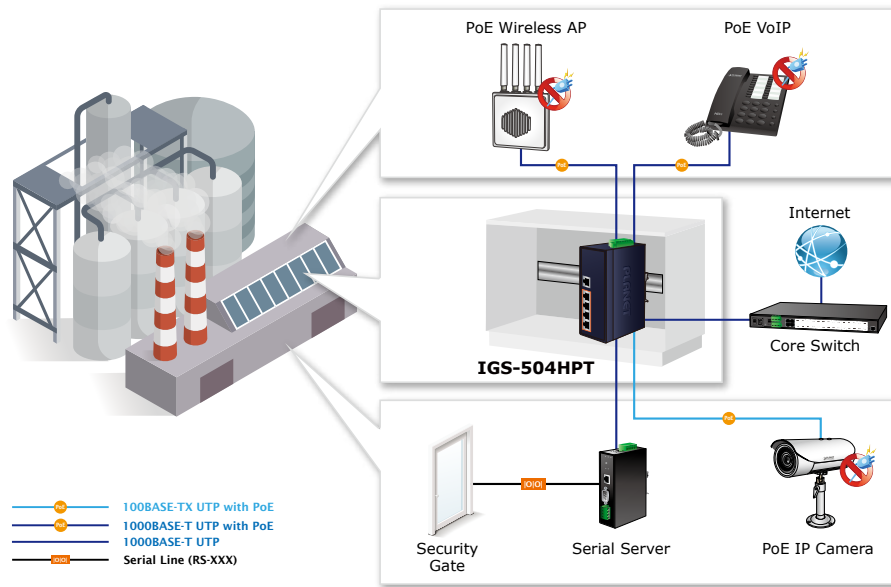


**Side Wall Mounting
(Space saving)**

Applications

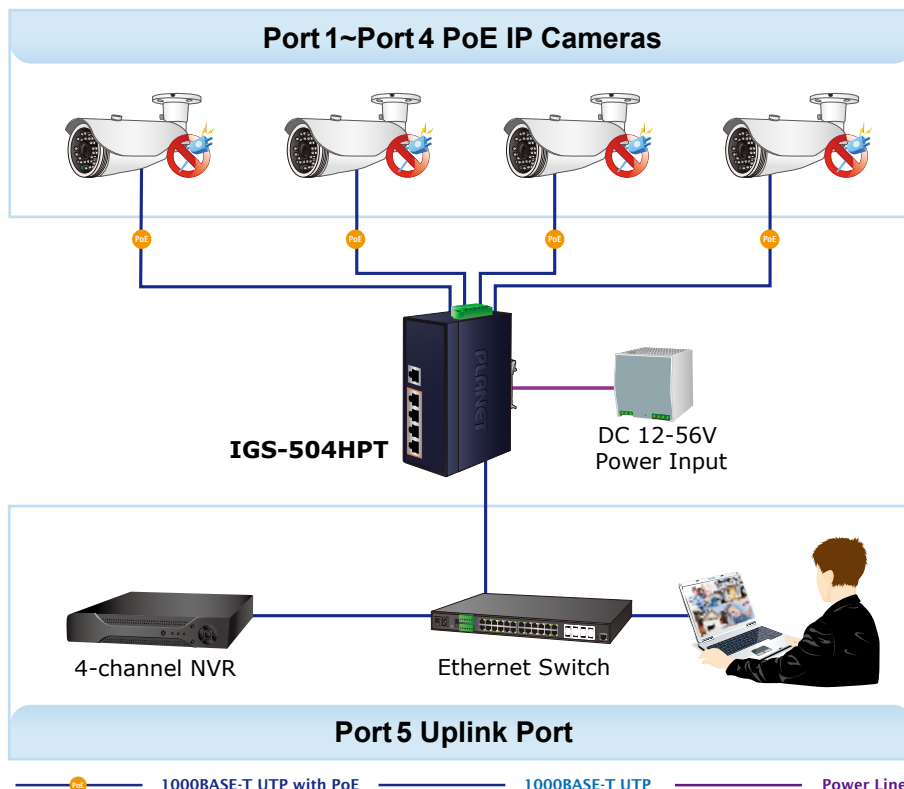
Industrial-grade PoE+ Switch for Building Automation and Security

Suitable for buildings where security is strictly enforced, the IGS-504HPT, with four Gigabit Ethernet 802.3at PoE+, in-line power interfaces, can easily build a power that can centrally control an IP phone system, IP surveillance system, and wireless AP group in the harsh Industrial environment. For instance, 4 PoE IP cameras or PoE wireless APs can be easily installed for surveillance demands or a wireless roaming environment in the industrial area can be built. Without the power-socket limitation, the IGS-504HPT makes the installation of IP cameras or wireless APs easier and more efficient.



Perfect Integration Solution for IP PoE Camera and NVR System

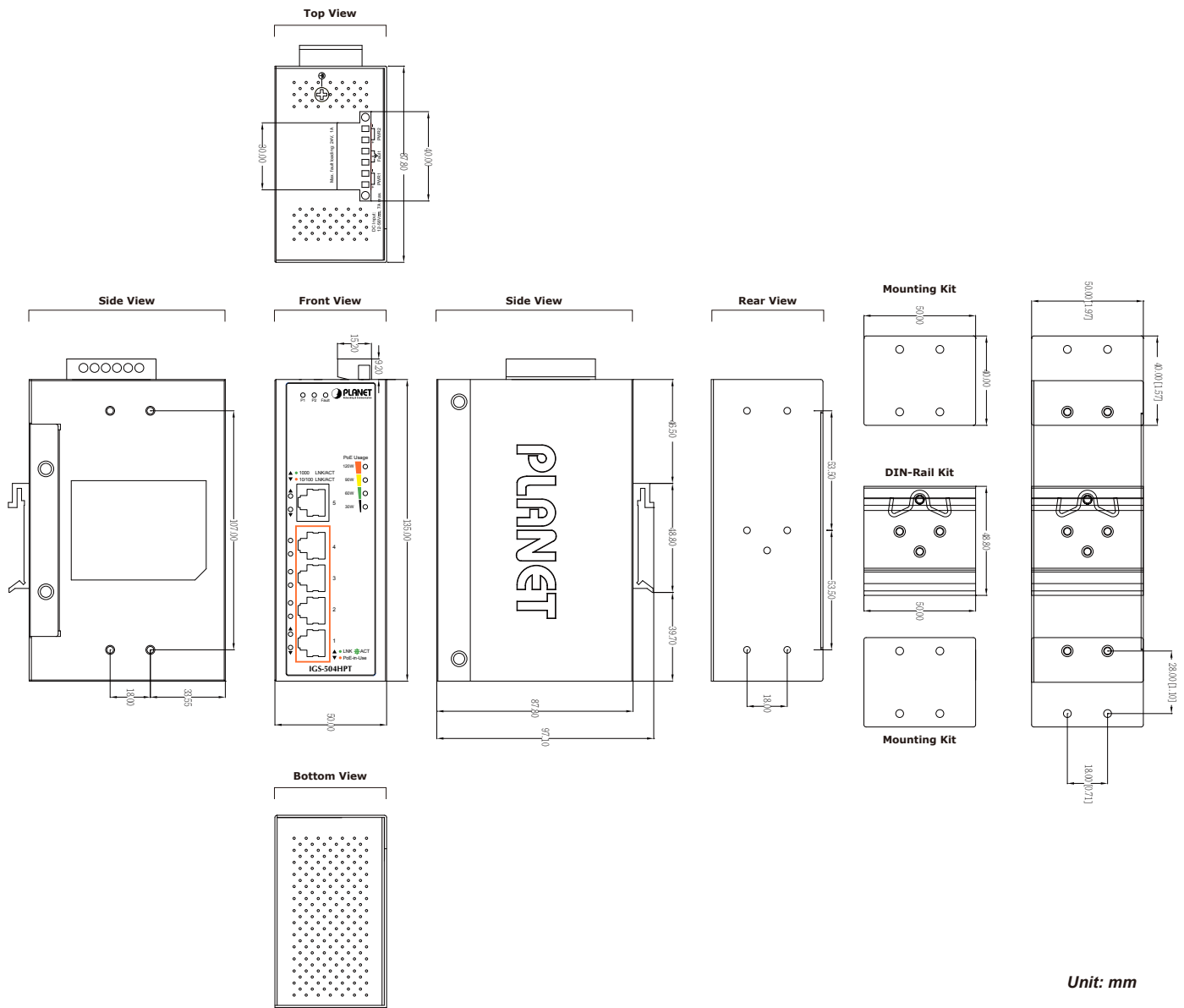
The IGS-504HPT provides four 10/100/1000BASE-T 802.3at PoE+ ports which can offer sufficient PoE power to 4 PoE IP cameras at the same time. In addition, with the 100/1000BASE-X interfaces, the IGS-504HPT can connect to a core switch and send video streams to an NVR and monitoring center. Through the high-performance switch architecture, the IGS-504HPT facilitates the recorded video files from the 4 PoE+ IP cameras to be saved in the NVR systems. Furthermore, the NVR systems can be controlled and monitored in both the local LAN and the remote site via Internet. The IGS-504HPT undoubtedly brings an ideal secure surveillance system at a lower total cost.



Specifications

Model	IGS-504HPT
Hardware Specifications	
Copper Ports	5 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
PoE Injector Ports	Four ports with 802.3at PoE+ injector function (Port-1 to Port-4)
SFP Slots	N/A
Connector	Removable 6-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for fault alarm; Pin 5/6 for Power 2
Power Requirements	12~56V DC, 7A (max.) Redundant power with reverse polarity protection function
Power Consumption	Max. 7.02 watts/24BTU (Ethernet Full Loading) Max. 132 watts/450BTU (Ethernet + PoE Full Loading)
Dimensions (W x D x H)	50 x 87 x 135 mm
Weight	605g
Enclosure	IP40 metal case
Installation	DIN-rail kit and wall-mount kit
ESD Protection	6KV
Switch Specifications	
Switch Architecture	Store-and-Forward
Switch Fabric	10Gbps
Throughput (packet per second)	7.4Mpps@64bytes
Address Table	4K entries
Buffer Memory	1M bits on-chip buffer memory
Jumbo Frame	9Kbytes
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
Power over Ethernet	
PoE Standard	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, max. 36 watts
PoE Power Budget (max.)	60W@12V DC input 90W@24V DC input 120W@48V-56V DC input
Max. Number of Class 4 PDs	4
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC 60068-2-32 (free fall) IEC 60068-2-27 (shock) IEC 60068-2-6 (vibration)
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x Full-Duplex Flow Control IEEE 802.3az Energy Efficient Ethernet (EEE) IEEE 802.3at Power over Ethernet Plus PSE IEEE 802.3af Power over Ethernet Plus IEEE 802.1p Class of Service
Environment	
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees C
Humidity	Operating: 5~90% (non-condensing) Storage: 5~90% (non-condensing)

Mechanical Drawing



Unit: mm

Ordering Information

IGS-504HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T Gigabit Ethernet Switch
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Related Products

IGS-614HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T + 1-Port 100/1000XSFP Gigabit Ethernet Switch
IGS-624HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000XSFP Gigabit Ethernet Switch
ISW-504PT	Industrial 4-port 10/100TX 802.3at PoE+ plus 1-Port 10/100TX Ethernet Switch
ISW-514PTF	Industrial 4-port 10/100TX 802.3at PoE+ plus 1-Port 100FX Ethernet Switch
IFGS-1022HPT	Industrial 8-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP/SFP Combo Ethernet Switch
IGS-5225-4P2S	L2+ Industrial 4-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Ethernet Switch

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