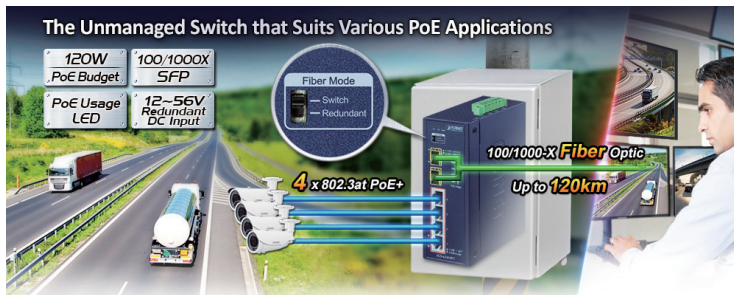# Industrial 4-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Ethernet Switch (-40~75 degrees C)

Cost-effective Full PoE+ Power Solution Ideal for Hardened Environment
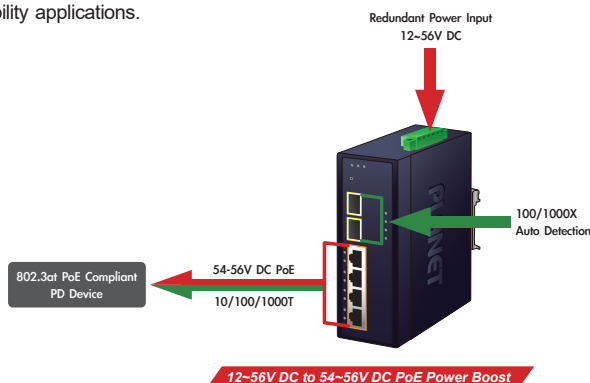
Featuring Plug and Play designed to be installed in heavy industrial demanding environments, the IGS-624HPT is a PLANET Industrial-grade, DIN-rail type Unmanaged Gigabit Ethernet PoE+ Switch with **four 10/100/1000BASE-T** ports featuring **IEEE 802.3at PoE+** and **two extra 100/1000BASE-X fiber SFP** optic interfaces for uplink connection.

The IGS-624HPT, designed with redundant power system, is able to operate reliably, stably and quietly in any hardened environment without affecting its performance. 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 12~56V DC power input for transportation and industrial-level applications, the IGS-624HPT adopts **12~54V DC to 54V power boost technology** to solve power source issue but does not require special power supplies. The IGS-624HPT provides an integrated power solution with a wide range of voltages (12~56V DC) for worldwide operability. It also provides dual-redundant, reversible polarity 12~56V DC power supply inputs for high availability applications.

Interface

- 4 10/100/1000BASE-T Gigabit Ethernet RJ45 copper ports
- Two SFP slots, supporting 1000BASE-X and 100BASE-FX transceiver in dual modes (auto detection)

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
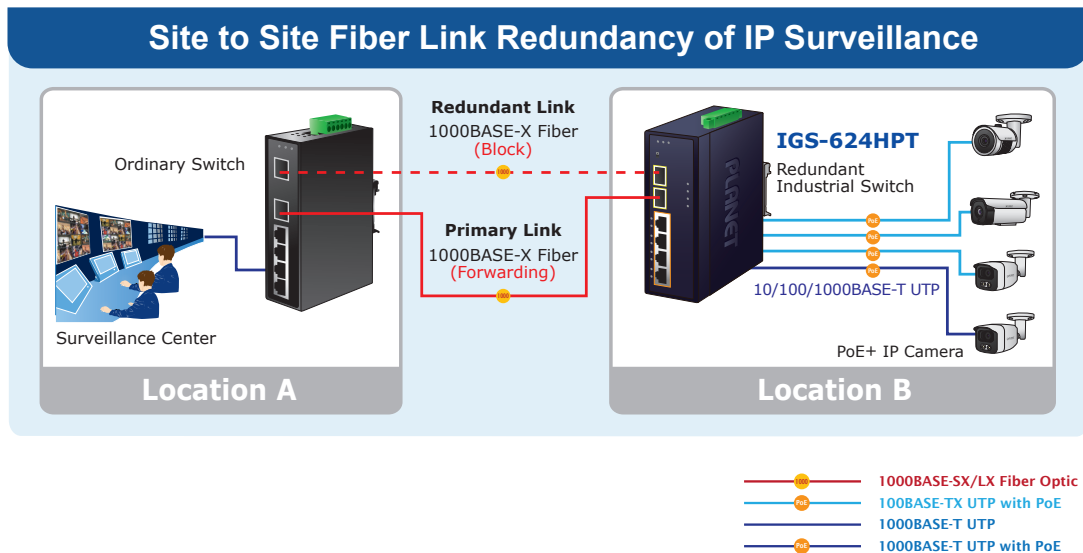
Layer 2 Switching

- 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
- 9K jumbo frame
- IEEE 802.1Q VLAN transparency
- Automatic address learning and address aging
- Supports CSMA/CD protocol

Industrial Case and Installation

- IP40 metal case
- DIP switch for switch or redundant mode selection
- 4 real-time PoE power usage indicators
- DIN-rail, wall-mount or side wall-mount design
- 12~56V DC redundant power with reverse polarity protection
- Fault alarm for power input failed
- Supports 6KV DC Ethernet ESD protection
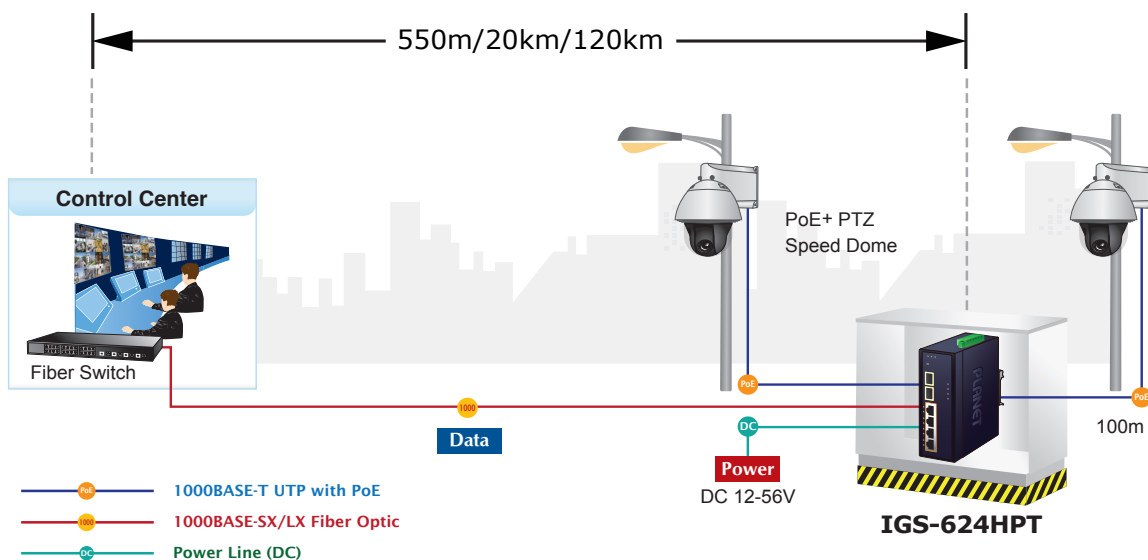- -40 to 75 degrees C operating temperature

Adjustable 6-Port Switch Mode or 4 + 2 Fiber Redundant Mode

Via the built-in DIP switch, the IGS-624HPT can be configured as 6-port Gigabit Ethernet switch or 4+2 fiber redundant mode. With the 6-port Gigabit Switch mode, the IGS-624HPT can operate in Store-and-Forward mechanism with high performance; on the other hand, when in the 4+2 fiber redundant mode, it provides rapid fiber redundancy of link for highly critical Ethernet applications. The redundant mode also supports auto-recovering function. If the destination port of a packet is link down, it will forward the packet to the other port of the backup pair.

Site to Site Fiber Link Redundancy of IP Surveillance

Fiber Optic Link Capability for Flexible Distance Extension

The additional two mini-GBIC slot built in the IGS-624HPT supports SFP auto-detection and dual speed as it features **100BASE-FX** and **1000BASE-SX/LX SFP** (Small Form-factor Pluggable) fiber-optic modules, meaning the administrator now can flexibly choose the suitable SFP transceiver according to the transmission distance or the transmission speed required to extend the network efficiently. The distance can be extended from 550 meters to 2 kilometers (multi-mode fiber) and 10/20/40/60/80/120 kilometers (single-mode fiber or WDM fiber). They are well suited for applications to uplink to backbone switch and monitoring center in long distance.
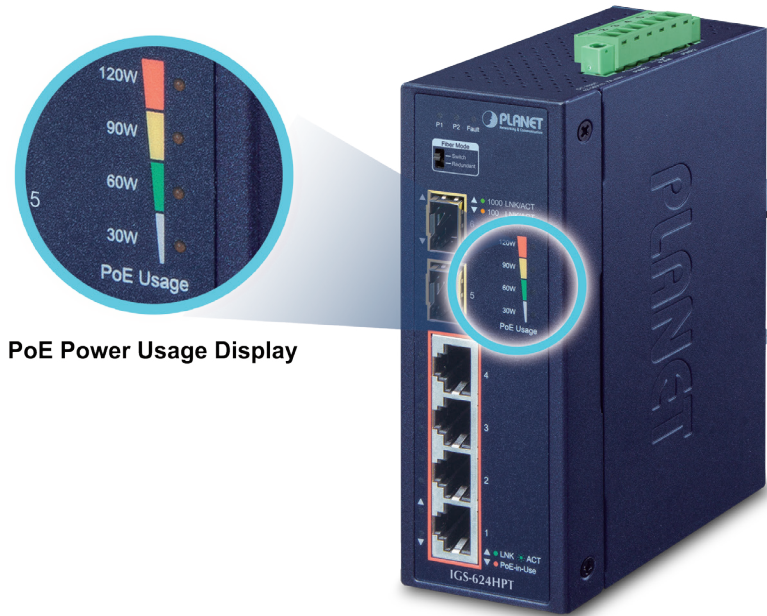

Environmentally Hardened Design

With the IP40 metal industrial case, the IGS-624HPT 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-624HPT can be placed in almost any difficult environment.

Robust Protection

The IGS-624HPT provides contact discharge of ±6KV DC and air discharge of ±8KV DC for Ethernet ESD protection. It also supports ±6KV surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Intelligent LED Indicator for Real-time PoE Usage

The IGS-624HPT 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.

PoE Power Usage Display

Flexible and Easy Installation with Limited Space

The compact-sized IGS-624HPT 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.
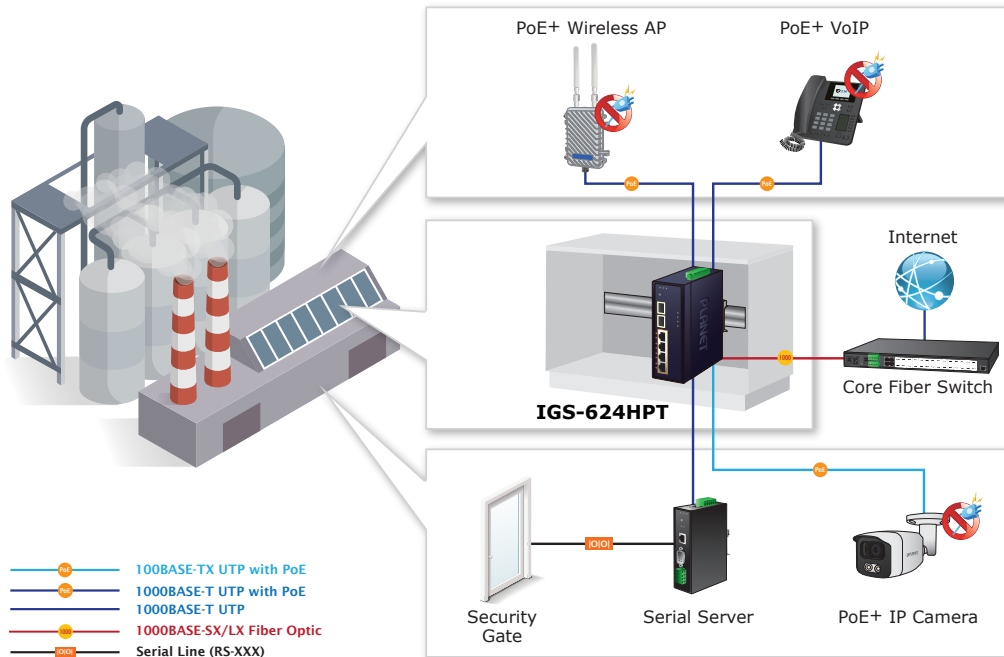

DIN-rail Mounting

Wall Mounting

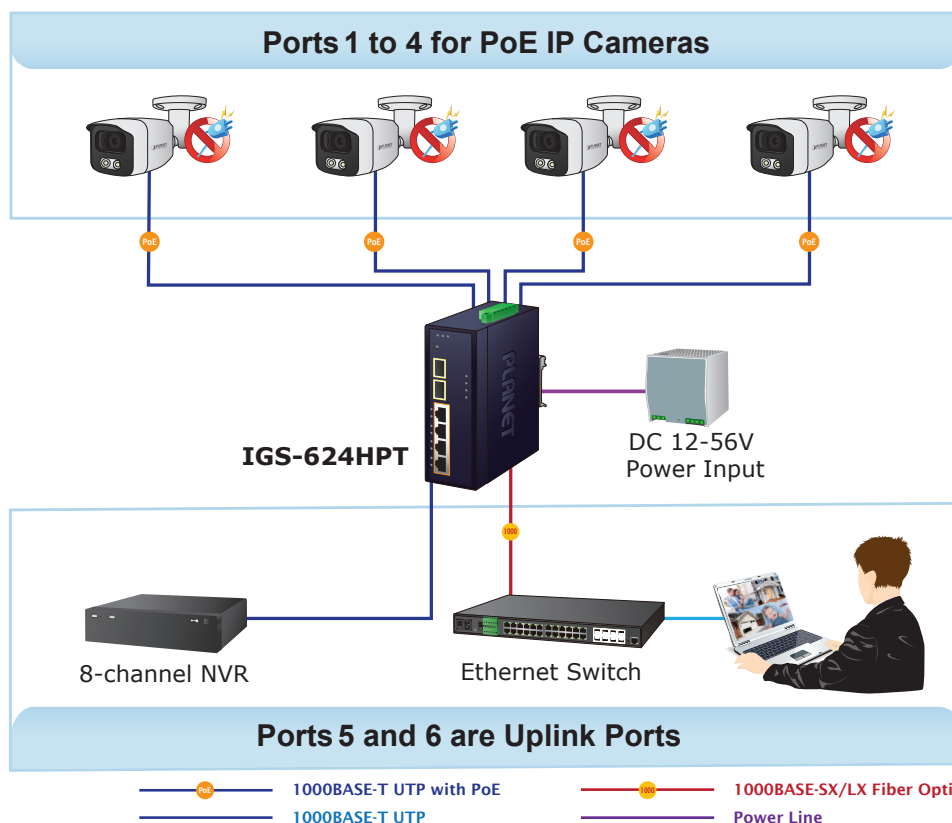**Side Wall Mounting**
(Space saving)

Applications

Industrial-grade PoE+ Switch for Building Automation and Security

Suitable for buildings where security is strictly enforced, the IGS-624HPT, 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 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-624HPT makes the installation of IP cameras or wireless APs easier and more efficient.

PoE+ Wireless AP PoE+ VoIP Internet **IGS-624HPT** Core Fiber Switch

Security Gate Serial Server PoE+ IP Camera

———	100BASE-TX UTP with PoE
———	1000BASE-T UTP with PoE
———	1000BASE-T UTP
———	1000BASE-SX/LX Fiber Optic
———	Serial Line (RS-XXX)

Perfect Integration Solution for IP PoE Camera and NVR System

The IGS-624HPT 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 two 100/1000BASE-X SFP interfaces, the IGS-624HPT can connect to a core fiber switch and send video streams to an NVR and monitoring center. Through the high-performance switch architecture, the IGS-624HPT 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-624HPT undoubtedly brings an ideal secure surveillance system at a lower total cost.

Ports 1 to 4 for PoE IP Cameras
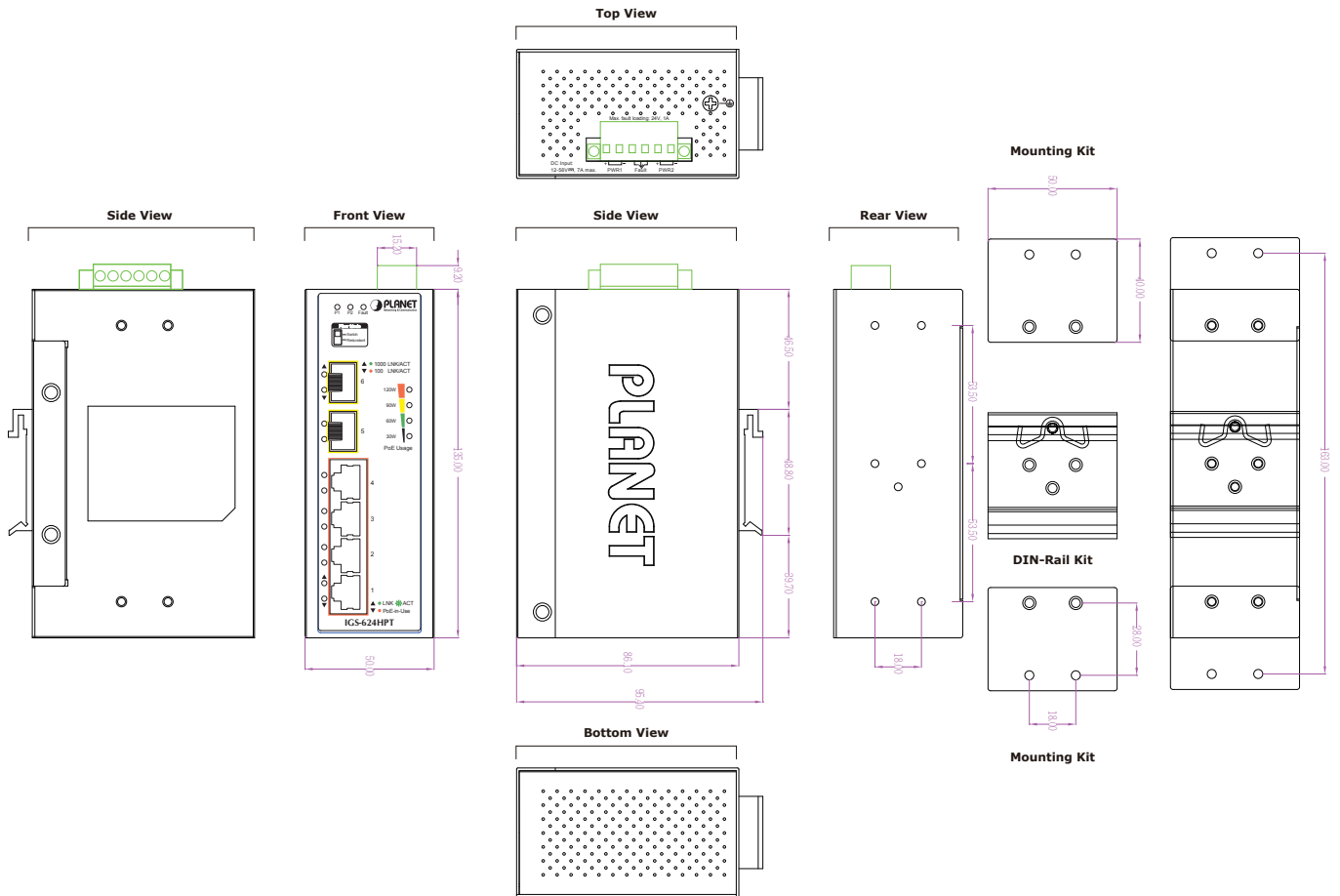
IGS-624HPT DC 12-56V Power Input

8-channel NVR Ethernet Switch

Ports 5 and 6 are Uplink Ports

———	1000BASE-T UTP with PoE
———	1000BASE-T UTP
———	1000BASE-SX/LX Fiber Optic
———	Power Line

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Product Specifications

Model	IGS-624HPT
Hardware Specifications	
Copper Ports	4 10/100/1000BASET RJ45 auto-MDI/MDI-X ports
PoE Injector Ports	Four ports with 802.3at PoE+ injector function (Port-1 to Port-4)
SFP Slots (Auto Detection)	Two 1000BASE-SX/LX/BX SFP interface (Port 5 to Port 6) Compatible with 100BASE-FX SFP
DIP Switch	Switch (default)/fiber redundant mode
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
Alarm	Provides one relay output for power failure Alarm relay current carry ability: 1A @ 24V DC
Power Consumption	Max. 7.02 watts/24BTU (Ethernet Full Loading) Max. 130.6 watts/445BTU (Ethernet + PoE Full Loading)
Dimensions (W x D x H)	32 x 87 x 135 mm
Weight	657g
Enclosure	IP40 metal case
Installation	DIN-rail kit and wall-mount kit
ESD Protection	6KV
Switch Specifications	
Switch Architecture	Store-and-Forward
Switch Fabric	12Gbps
Throughput (packet per second)	8.93Mpps@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	IEEE 802.3af Standard - Per port 48V~51V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 51V~56V DC (depending on the power supply), 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 802.3az Gigabit SX/LX IEEE 802.3x Full-Duplex Flow Control 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)

Dimensions

Top View

Side View

Front View

Side View

Rear View

Mounting Kit

DIN-Rail Kit

Mounting Kit

Bottom View

Unit: mm

Ordering Information

IGS-624HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Ethernet Switch (-40~75 degrees C)

Related Products

IGS-504HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T Gigabit Ethernet Switch
IGS-614HPT	Industrial 4-Port 10/100/1000T 802.3at PoE + 1-Port 10/100/1000T + 1-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

Available 100Mbps Modules for IGS-624HPT

MFB-FX	SFP-Port 100BASE-FX Transceiver (1310nm) - 2km
MFB-F20	SFP-Port 100BASE-FX Transceiver (1310nm) - 20km
MFB-F40	SFP-Port 100BASE-FX Transceiver (1310nm) - 40km
MFB-F60	SFP-Port 100BASE-FX Transceiver (1310nm) - 60km
MFB-FA20	SFP-Port 100BASE-BX Transceiver (WDM,TX:1310nm) - 20km
MFB-FB20	SFP-Port 100BASE-BX Transceiver (WDM,TX:1550nm) - 20km
MFB-TFX	SFP-Port 100BASE-FX Transceiver (1310nm) - 2km (-40 ~ 75 degrees C)
MFB-TF20	SFP-Port 100BASE-FX Transceiver (1310nm) - 20km (-40 ~ 75 degrees C)

Available 1000Mbps Modules for IGS-624HPT

MGB-GT	SFP-Port 1000 BASE-T Module
MGB-LX	SFP-Port 1000 BASE-LX mini-GBIC module - 20km
MGB-SX	SFP-Port 1000 BASE-SX mini-GBIC module - 550m
MGB-SX2	SFP-Port 1000 BASE-SX mini-GBIC module - 2km
MGB-L40	SFP-Port 1000 BASE-LX mini-GBIC module - 40km
MGB-L80	SFP-Port 1000 BASE-LX mini-GBIC module - 80km
MGB-L120	SFP-Port 1000 BASE-LX mini-GBIC module - 120km
MGB-LA10	SFP-Port 1000 BASE-BX (WDM, TX:1310nm) mini-GBIC module - 10km
MGB-LB10	SFP-Port 1000 BASE-BX (WDM, TX:1550nm) mini-GBIC module - 10km
MGB-LA20	SFP-Port 1000 BASE-BX (WDM, TX:1310nm) mini-GBIC module - 20km
MGB-LB20	SFP-Port 1000 BASE-BX (WDM, TX:1550nm) mini-GBIC module - 20km
MGB-LA40	SFP-Port 1000 BASE-BX (WDM, TX:1310nm) mini-GBIC module - 40km
MGB-LB40	SFP-Port 1000 BASE-BX (WDM, TX:1550nm) mini-GBIC module - 40km
MGB-LA80	SFP-Port 1000 BASE-BX (WDM, TX:1490nm) mini-GBIC module - 80km
MGB-LB80	SFP-Port 1000 BASE-BX (WDM, TX:1550nm) mini-GBIC module - 80km
MGB-TSX	SFP-Port 1000 BASE-SX mini-GBIC module - 550m (-40~75ºC)
MGB-TSX2	SFP-Port 1000 BASE-SX mini-GBIC module – 2km (-40~75ºC)
MGB-TL40	SFP-Port 1000 BASE-LX mini-GBIC module - 40km (-40~75ºC)
MGB-TL80	SFP-Port 1000 BASE-LX mini-GBIC module - 80km (-40~75ºC)
MGB-TLA10	SFP-Port 1000 BASE-BX (WDM, TX:1310nm) mini-GBIC module - 10km (-40~75ºC)
MGB-TLB10	SFP-Port 1000 BASE-BX (WDM, TX:1550nm) mini-GBIC module - 10km (-40~75ºC)
MGB-TLA20	SFP-Port 1000 BASE-BX (WDM, TX:1310nm) mini-GBIC module - 20km (-40~75ºC)
MGB-TLB20	SFP-Port 1000 BASE-BX (WDM, TX:1550nm) mini-GBIC module - 20km (-40~75ºC)
MGB-TLA40	SFP-Port 1000 BASE-BX (WDM, TX:1310nm) mini-GBIC module - 40km (-40~75ºC)
MGB-TLB40	SFP-Port 1000 BASE-BX (WDM, TX:1550nm) mini-GBIC module - 40km (-40~75ºC)
MGB-TLA80	SFP-Port 1000 BASE-BX (WDM, TX:1490nm) mini-GBIC module - 80km (-40~75ºC)
MGB-TLB80	SFP-Port 1000 BASE-BX (WDM, TX:1550nm) mini-GBIC module - 80km (-40~75ºC)

IGS-624HPT