

# Industrial 8-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP/ SFP Combo Ethernet Switch (-40~75 degrees C)



# Efficient Full PoE+ Power and Gigabit Extension Solution Ideal for Hardened Environment

With the Plug and Play configuration, PLANET IFGS-1022HPT Industrial-grade, DIN-rail type Unmanaged Fast Ethernet PoE+ Switch featuring 8 10/100BASE-TX 802.3at PoE+ ports and 2 additional Gigabit copper/SFP combo interfaces for Gigabit Ethernet extension and video uplink is ideal for easily setting up a heavy industrial infrastructure.

The IFGS-1022HPT is designed with redundant power system and thus, it 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 **240 watts** for different kinds of PoE applications and operating temperature ranging from **-40** to **75 degrees C** in a rugged IP30 metal housing.



# 802.3at PoE+ Power and Ethernet Data Transmit Distance Extension

The IFGS-1022HPT has a built-in solid DIP switch providing "Standard" and "Extend" operation modes. The IFGS-1022HPT operates as a normal IEEE 802.3af/at PoE+ Switch in the "Standard" operation mode. In the "Extend" operation mode, the IFGS-1022HPT operates on a per-port basis at 10Mbps full duplex operation and can support 30-watt PoE power output over a distance of up to 250 meters, overcoming the 100-meter limit on Ethernet UTP cable.

# **Physical Port**

- Eight 10/100BASE-TX Fast Ethernet RJ45 ports with IEEE
  802.3at/af PoE+ Injector function (Ports 1 to 8)
- Two 10/100/1000BASE-T Gigabit Ethernet RJ45 ports (Ports 9 to 10)
- Two 1000BASE-X mini-GBIC/SFP ports for SFP type auto detection (Ports 9 to 10)

#### Power over Ethernet

- Complies with IEEE 802.3at Power over Ethernet Plus, endspan PSE
- · Backward compatible with IEEE 802.3af Power over Ethernet
- Up to 8 ports of IEEE 802.3af/802.3at devices powered
- · 240-watt PoE budget
- Supports PoE power up to 30 watts for each PoE port
- · Auto detects powered device (PD)
- · Circuit protection prevents power interference between ports
- · Remote power feeding up to 100 meters

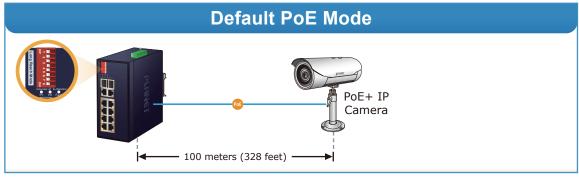
### Industrial Case and Installation

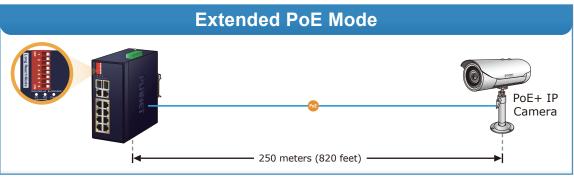
- · IP30 metal case
- · DIN-rail and wall-mount designs
- 48~54V DC, redundant power with reverse polarity protection
- · Supports 6000V DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature

#### Switching

- Hardware-based 10/100Mbps (half/full duplex), 1000Mbps (full duplex), auto-negotiation and auto MDI/MDI-X
- 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
- · 16K MAC address table size
- 10K jumbo frame
- IEEE 802.1Q VLAN transparency
- Hardware-based DIP switch for "Standard" and "Extend" mode selection; the "Extend" mode features 30-watt PoE transmit distance of 250m at speed of 10Mbps
- · Automatic address learning and address aging
- · Supports CSMA/CD protocol









### Two Gigabit Uplink Ports

The IFGS-1022HPT provides 2 extra Gigabit TP/SFP combo interfaces that enable network administrators to increase their network bandwidth to relieve traffic congestion when the 2 uplink ports are used to connect PoE-capable devices, such as NVR, video streaming server, NAS and more. With the combo design, administrators can easily connect and supply power to PoE-capable devices no matter how large the network expansion is.

## Flexibility and Long-distance Extension Solution

Through the two shared **Gigabit-speed fiber SFP slots**, it can also connect with the **1000BASE-SX/LX SFP** (small form-factor pluggable) fiber transceiver to uplink to backbone switch and monitoring center in long distance. The distance can be extended from 550 meters (multi-mode fiber) to 10/20/40/80/120 kilometers (single-mode fiber or WDM fiber). They are well suited for applications within the industrial data centers and distributions.

## **Environmentally Hardened Design**

With the IP30 metal industrial case, the IFGS-1022HPT 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. Being able to operate under the temperature range from -40 to 75 degrees C, the IFGS-1022HPT can be placed in almost any difficult environment.

#### **Robust Protection**

The IFGS-1022HPT provides contact discharge of ±6KV DC and air discharge of ±6KV 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.

# Safe and Easy PoE Network Deployment

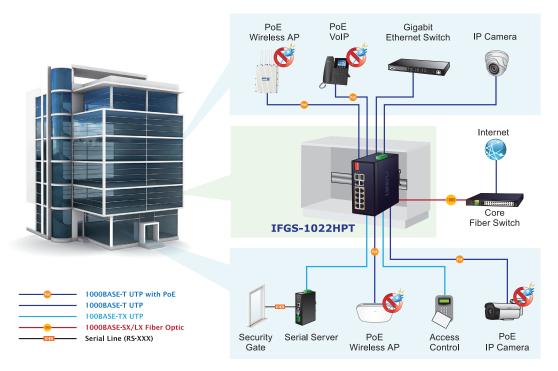
Carrying both Ethernet data and power simultaneously, the IFGS-1022HPT reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. It helps users to utilize just one Ethernet cable to install and deploy IP camera, wireless AP or VoIP phone more efficiently and cost-effectively.



# **Applications**

#### Industrial-grade PoE+ Switch for Building Automation and Security

Suitable for buildings where security is strictly enforced, the IFGS-1022HPT, with eight Fast Ethernet 802.3at PoE+, in-line power interfaces, can easily build a power centrally controlled for an IP phone system, IP surveillance system, and wireless AP group in the harsh Industrial environment. For instance, 8 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 IFGS-1022HPT makes the installation of IP cameras or wireless APs easier and more efficient.



# Perfect Integration Solution for IP PoE Camera and NVR System

The IFGS-1022HPT provides eight 10/100BASE-TX 802.3at PoE+ ports which can offer sufficient PoE power to 8 PoE IP cameras at the same time. In addition, with the two 1000BASE-X SFP combo interfaces, the IFGS-1022HPT can connect to a core fiber switch and send video streams to an NVR and monitoring center. Through the high-performance switch architecture, the IFGS-1022HPT facilitates the recorded video files from the 8 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 IFGS-1022HPT undoubtedly brings an ideal secure surveillance system at a lower total cost.

# **Extending Ethernet Distance**

