

Industrial 8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Ethernet Switch w/ 12V Booster (-40~75 degrees C)



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

Featuring Plug and Play designed to be installed in heavy industrial demanding environments, PLANET IGS-1020PTF-12V is an Industrial-grade, DIN-rail type Unmanaged Gigabit Ethernet PoE+ Switch with **eight 10/100/1000BASE-T** ports featuring **IEEE 802.3at PoE+** and **two 100/1000BASE-X** fiber optic interfaces for uplink connection.



The IGS-1020PTF-12V is designed with redundant power system and 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 aluminum housing.

Convenient and Reliable Power System

To facilitate the 802.3at PoE+ usage with the commonly-used 12~54V DC power input for transportation and industrial-level applications, the IGS-1020PTF-12V adopts **12~54V DC to 54V DC power boost technology** to solve power source issue but does not require special power supplies. Its wide-ranging voltages design is suitable for worldwide operability with high availability applications requiring dual or backup power inputs.

Physical Port

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

Power over Ethernet

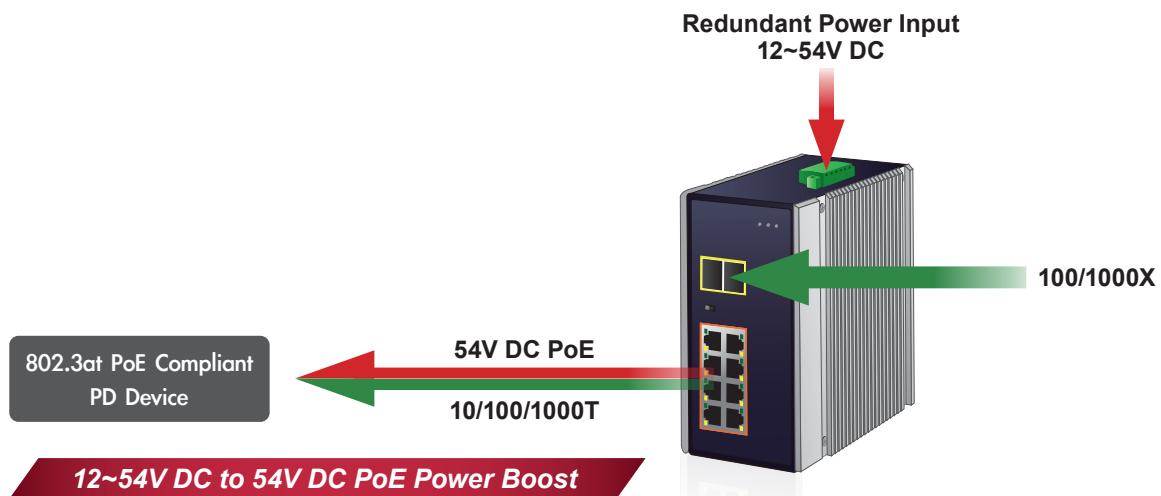
- Complies with IEEE 802.3at Power over Ethernet Plus, end-span PSE
- Backward compatible with IEEE 802.3af Power over Ethernet
- Up to 8 ports of IEEE 802.3af/802.3at devices powered
- 240-watt PoE budget
- Supports PoE power up to 30 watts for each PoE port
- Auto detects powered device (PD)
- Circuit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

Industrial Case and Installation

- IP30 aluminum case
- DIN-rail and wall-mount designs
- 12~54V redundant power with reverse polarity protection
- Supports 6KV DC Ethernet ESD protection
- -40 to 75 degrees C operating temperature

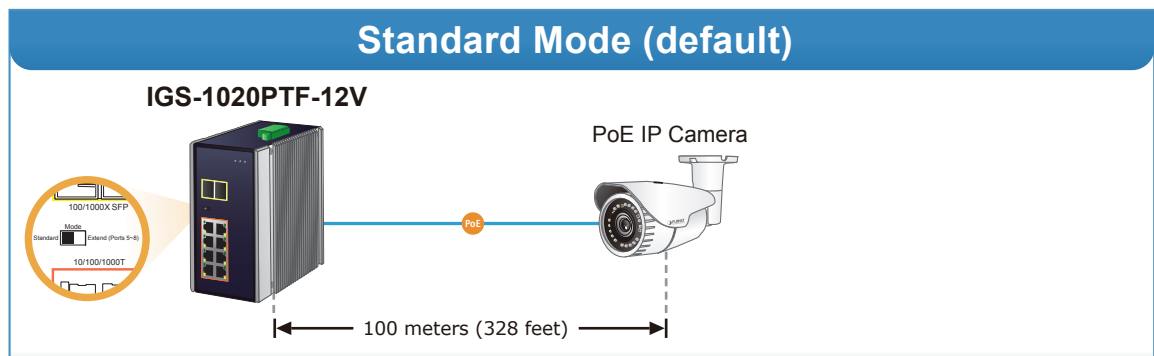
Switching

- 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
- 8K MAC address table size
- 20Gbps switch fabric
- 9K jumbo frame
- Hardware-based DIP switch for “**Standard**” and “**Extend**” mode selection; the “**Extend**” mode features 30-watt PoE transmission distance of 250m at speed of 10Mbps
- Automatic address learning and address aging

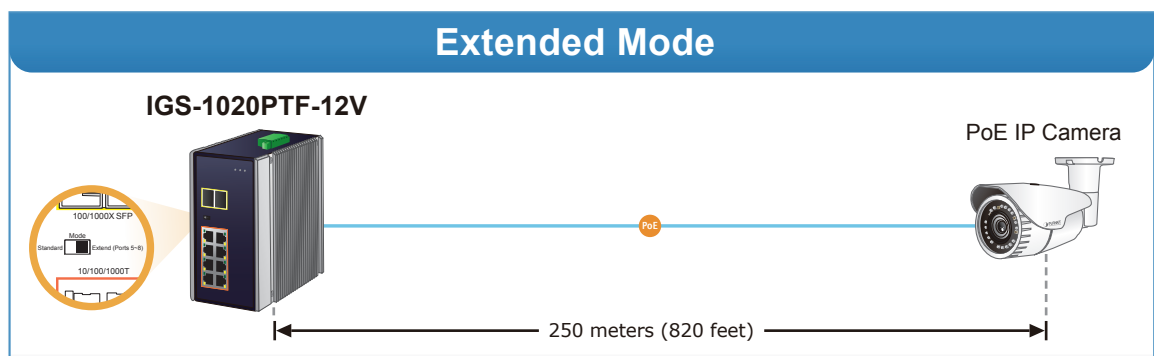


802.3at PoE+ Power and Ethernet Data Transmission Extension

The IGS-1020PTF-12V has a built-in solid DIP switch providing “**Standard**” and “**Extend**” operation modes. The IGS-1020PTF-12V operates as a normal IEEE 802.3at PoE+ Switch in the “**Standard**” operation mode. In the “**Extend**” operation mode, the IGS-1020PTF-12V operates on a per-port basis at 10Mbps full duplex operation and can support 20~25-watt PoE power output over a distance of up to **250 meters**, overcoming the 100-meter limit on Ethernet UTP cable.



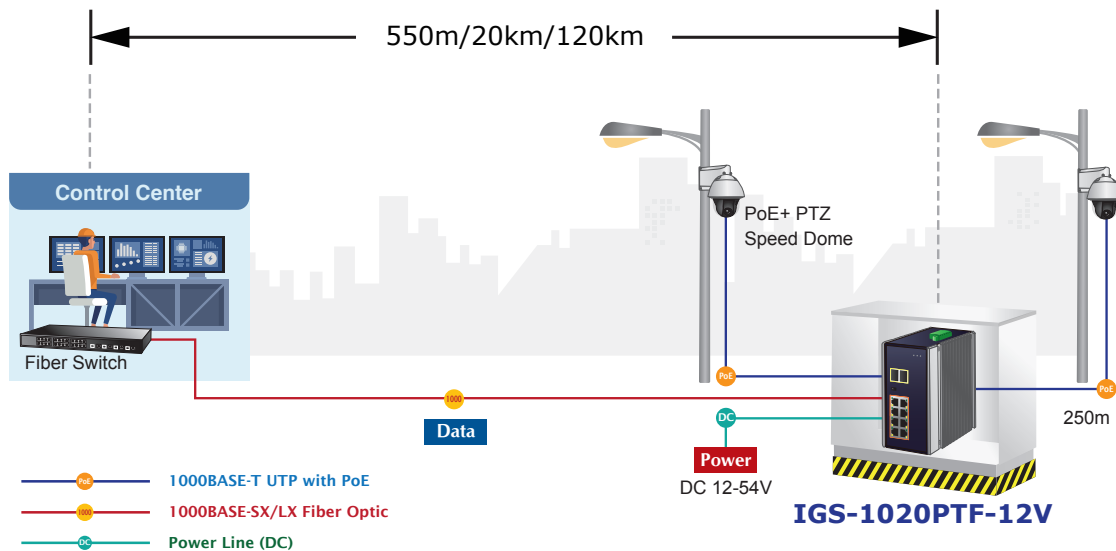
100BASE-TX UTP with PoE



10BASE-T UTP with PoE

Fiber Optic Link Capability for Flexible Distance Extension

The additional two mini-GBIC slots built in the IGS-1020PTF-12V 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 to 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 IP30 aluminum industrial case, the IGS-1020PTF-12V 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-1020PTF-12V can be placed in almost any difficult environment.

Robust Protection

The IGS-1020PTF-12V provides contact discharge of $\pm 6\text{KV}$ DC and air discharge of $\pm 6\text{KV}$ 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.

Intelligent LED Indicator for Real-time PoE Usage

The IGS-1020PTF-12V helps users to monitor the 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 60W, 120W, 180W and 240W of PoE power usage.

PoE Power Usage Display

