Industrial 4/8-Port Multi-Gigabit (802.3bt PoE) + 2/4-Port 10G SFP+ Ethernet Switch

Reliable Industrial Ethernet Networks with 10G Fiber, and Plug and Play Configuration

Featuring Plug and Play and 10G SFP+ uplink ports, PLANET IGS-1000 Industrial-grade, DIN-rail type Unmanaged Gigabit Ethernet Switch is perfect for heavy industrial environments. The IGS-1000-8T4X and IGS-1000-8UP4X feature eight **10/100/1000BASE-T** ports and four auto-detected **1G/2.5G/10GBASE-X** SFP+ fiber optic uplink ports. The IGS-1000-4UP2X features **four 10/100/1000/2500BASE-T** ports and two auto-detected **1G/2.5G/100/10GBASE-X** SFP+ fiber optic uplink ports that provide long-distance, high-speed and stable data transmission for the IoT and AIoT next-generation networks.

The IGS-1000 Series is designed with redundant power system and is able to operate reliably, stably and quietly in any hardened environment without affecting its performance and operating temperature ranging from **-40 to 75 degrees C** in a rugged IP30 metal housing. Though it includes robust features designed for industrial Ethernet networks, its Plug and Play makes configuration easy.

10Gbps Fiber Ports and Multiple Dual Speed Ports Deliver High-speed Networking

Featuring a 10Gbps uplink, the IGS-1000 Series is suitable for connecting to an industrial backbone or high-capacity servers. Operating flawlessly across an extensive temperature range, it guarantees a non-blocking switch fabric, delivering astonishing wire-speed throughput of up to **96Gbps**. The 10G fiber port serves as a backbone for high-bandwidth applications, such as video streaming, cloud computing, and virtualization, ensuring seamless and swift data transmission. This transformative capability simplifies the process of industrial LAN upgrades, efficiently catering to escalating bandwidth requirements.

Interface
- IGS-1000-8T4X and IGS-1000-8UP4X
  - 8 10/100/1000BASE-T RJ45 copper ports
  - 4 10GBASE-X SFP+ slots, compatible with 1000BASE-X and 2500BASE-X SFP
- IGS-1000-4UP2X
  - 4 10/100/1000/2500 BASE-T RJ45 copper ports
  - 2 10GBASE-X SFP+ slots, compatible with 100/1000/2500BASE-X SFP

Power over Ethernet (For IGS-1000-4UP2X and IGS-1000-8UP4X)
- Complies with IEEE 802.3bt PoE++ type 4 PSE
- Backward compatible with IEEE 802.3at PoE+
- Up to 8 ports of IEEE 802.3at/bt devices powered (For IGS-1000-8UP4X)
- Up to 4 ports of IEEE 802.3at/bt devices powered (For IGS-1000-4UP2X)
- Up to 360-watt PoE budget
- Supports PoE power up to 95 watts for each PoE port
- Each port supports 48~54V DC power to PoE powered device
- Auto detects powered device (PD)
- Auto detects IEEE 802.3bt equipment and protects devices from being damaged by incorrect installation
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

Industrial hardened design
- IP30 aluminum case
- DIN-rail and wall-mount designs
- Fault alarm for power input failed
- Supports ESD ±4KV contact and ±8KV air DC Ethernet protection
- Supports surge protection up to ±5KV
- -40 to 75 degrees C operating temperature
- 9~48V DC redundant power with reverse polarity protection (For IGS-1000-8T4X)
- 48~54V DC redundant power with reverse polarity protection (For IGS-1000-8UP4X and IGS-1000-4UP2X)

10G Fiber-optic Linking Capability Enables Extension of Network Deployment

The SFP+ slot of the IGS-1000 Series is compatible with 10GBASE-SR or 10GBASE-LR (Small Form Factor Pluggable) fiber-optic transceiver. The fiber optic uplink capability guarantees the throughput to all nodes hooked into the network and the 10 Gigabit Ethernet distance can be extended from 300 meters (multi-mode fiber cable) to 2/10/20/40/60/70/80 kilometers (single-mode fiber cable). It is ideal for applications within the data centers and distributions

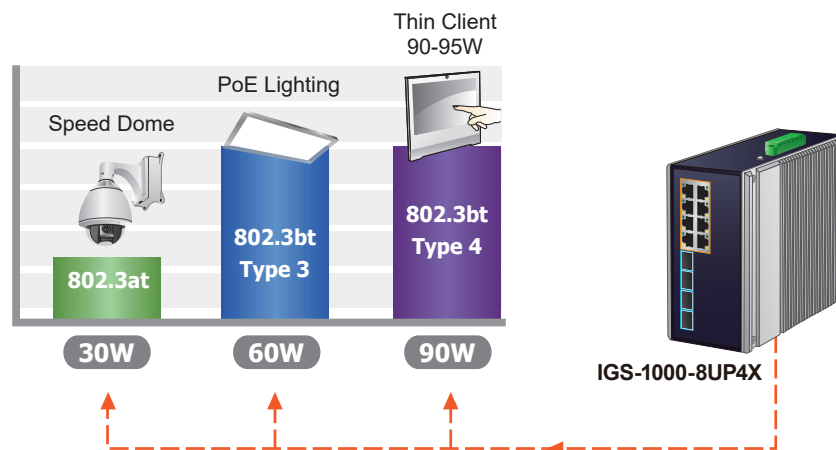| Optic Mode	Connector Type	Distance	1000/10G
Multi-mode	Duplex LC	300m	4
Single mode	Duplex LC	2/10/20/40/60/80km	4
Single mode WDM	Simplex LC	10/20/40/60/70km	4

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
- 16K MAC address table size (For IGS-1000-8T4X and IGS-1000-8UP4X)
- 4K MAC address table size (For IGS-1000-4UP2X)
- 12K jumbo frame
- IEEE 802.1Q VLAN transparency
- Automatic address learning and address aging
- Supports CSMA/CD protocol

802.3bt PoE++ 90~95-watt Power over 4-pair UTP Solution (For IGS-1000-8UP4X and IGS-1000-4UP2X)

As the IGS-1000-8UP4X and IGS-1000-4UP2X adopt the **IEEE 802.3bt PoE++** standard technology, they are capable to source up to 95 watts of power by using all the four pairs of standard Cat5e/6 Ethernet cabling to deliver power and full-speed data to each remote PoE compliant powered device (PD). They possess triple amount of power capability more than the conventional 802.3at PoE+ and is an ideal solution to satisfy the growing demand for higher power consuming network PDs, such as:

- ■ PoE PTZ speed dome cameras
- ■ Thin clients
- ■ AIO (all-in-one) touch PCs, point of sale (POS) and information kiosks
- ■ Remote digital signage displays
- ■ PoE lightings

IGS-1000-8UP4X

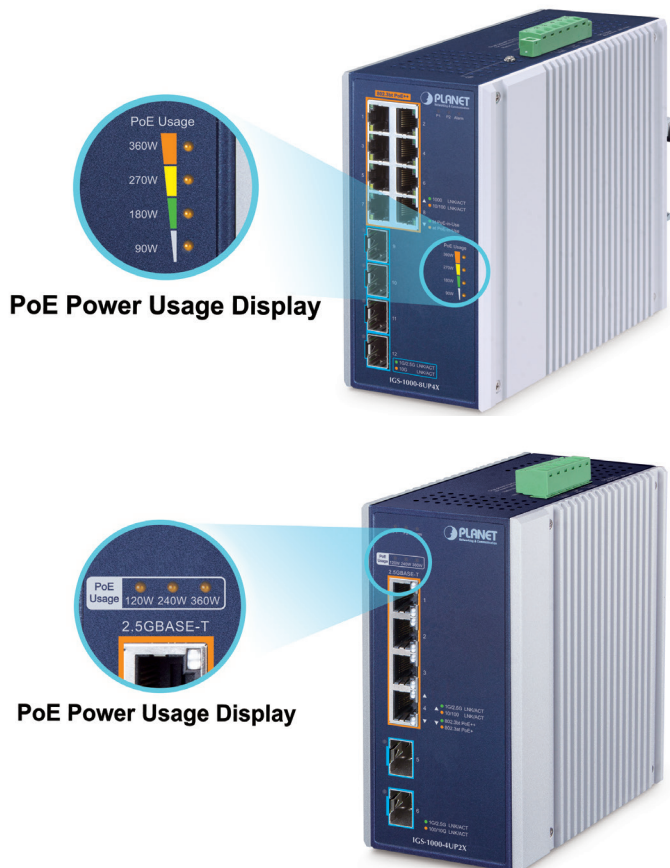## *2.5Gbps Capability for Diversified Bandwidth Applications (For IGS-1000-4UP2X)*

With terminal access rates of 802. 11ax/be wireless APs reaching up to 1.2Gbps to 3.6Gbps, Gigabit ports no longer suffice. The IGS-1000-4UP2X supports 2.5Gbps capability and 802.3at/bt PoE output, enabling it to deliver both high-speed data and power over existing CAT5e Ethernet cables to devices such as APs and IP cameras. It provides the speed you need and features Plug and Play for easy installation.

New Generation of Multigigabit Switch

Intelligent LED Indicator for Real-time PoE Usage (For IGS-1000-8UP4X and IGS-1000-4UP2X)

The IGS-1000-8UP4X and IGS-1000-4UP2X help users to monitor the current status of PoE power usage easily and efficiently via its advanced LED indicator. On the front panel of the IGS-1000-8UP4X, there are four different power usage LED indicators indicating 90W, 180W, 270W, and 360W. On the front panel of the IGS-1000-4UP2X, there are three different power usage LED indicators indicating 120W, 240W, and 360W.

PoE Power Usage Display

PoE Power Usage Display

Dual Power Input for High Availability Network System

The IGS-1000 Series features a strong dual power input system with 9~48V DC (IGS-1000-8UP4X and IGS-1000-4UP2X support 48~54V DC) to enhance system reliability and uptime. In the example below, when power supply 1 fails to work, the hardware failover function will be activated automatically to keep powering the IGS-1000 Series via power supply 2 alternatively without any loss of operation.

Non-stop Ethernet Service
Dual Power Input with Auto Failover

Power Line (DC)

1000BASE-T UTP