

IGS-500T/IGS-510TF IGS-800T/IGS-820TF

Compact Industrial 5-/8-port Gigabit Ethernet Switch



Compact Size for More Practicability and Convenience

PLANET IGS-500T, IGS-510TF, IGS-800T and IGS-820TF Compact Industrial Gigabit Ethernet Switches are specially designed to be installed in a narrow environment, such as wall enclosure and kiosks. It can be installed by fixed wall mounting or DIN rail, thereby making its usability more flexible and easier in any space-limited location. The IGS switches, featuring multiple 10/100/1000BASE-T copper ports and up to two 100/1000BASE-X SFP fiber ports, are packed in an IP30-rated rugged case. Being able to operate under the temperature ranging from -40 to 75 degrees C and a wideranging redundant power system (9~48V DC or 24V AC), the IGS switches provide reliable, stable and continuous long-range data transmission and can be installed in any harsh environment.



Model No.	10/100/1000BASE-T RJ45 Copper	100/1000BASE-X S FP Slot	Power Input
IGS-500T	5	-	Dual 9~48V DC 24V AC
IGS-510TF	4	1	
IGS-800T	8	-	
IGS-820TF	6	2	

Physical Port

- IGS-500T: 5-port 10/100/1000BASE-T RJ45 with auto-MDI/ MDI-X.
- IGS-510TF: 4-port 10/100/1000BASE-T RJ45 with auto-MDI/MDI-X, and 1 SFP slot supporting 100/1000BASE-X and 100BASE-FX dual-mode transceivers.
- IGS-800T: 8-port 10/100/1000BASE-T RJ45 with auto-MDI/ MDI-X.
- IGS-820TF: 6-port 10/100/1000BASE-T RJ45 and 2 100/1000BASE-X SFP ports for flexible fiber uplink options.

Layer 2 Features

- Full compliance with IEEE 802.3 standards, including 10BASE-T, 100BASE-TX, 1000BASE-T, and 1000BASE-X, ensuring compatibility and scalability.
- Auto-negotiation support for 10/100Mbps half/full duplex and 1000Mbps full duplex.
- Flow control with back pressure (half-duplex) and IEEE 802.3x pause frames (full-duplex) to prevent packet loss.
- High-performance Store and Forward architecture with broadcast storm control and runt/CRC filtering to eliminate erroneous packets and optimize bandwidth.
- · Switching fabric capabilities:
 - IGS-500T: 10Gbps
 - IGS-510TF: 10Gbps
 - IGS-800T and IGS-820TF: 16Gbps
- Integrated address look-up engines supporting 2K MAC addresses (IGS-500T, IGS-510TF) or 4K MAC addresses (IGS-800T, IGS-820TF).
- Support for jumbo frames up to 9K bytes for highthroughput environments.
- Automatic address learning and aging with CSMA/CD protocol.

Industrial Case and Installation

- IP30 compact metal case
- DIN-rail and wall-mount designs
- 9 to 48V DC, redundant power with reverse polarity protection, and connective, removable terminal block for master and slave power; 24V AC power support
- Supports 6000 VDC Ethernet ESD protection.
- -40 to 75 degrees C operating temperature
- · Free fall, shock-proof and vibration-proof for industries



As the trend for an IIoT (Industrial Internet of Things) infrastructure continues to grow, the IGS switches simplify industrial network deployment with its Plug and Play feature. Beyond offering stable and reliable fast data and power transmission, they align with the AIoT (Artificial Intelligence of Things) vision by enabling seamless integration of intelligent systems. This integration facilitates real-time decision-making, operational efficiency, and valuable data analysis across various industrial applications.

Fiber-Optic Link Capability Enables Seamless Extension of Network Deployment (For IGS-510TF and IGS-820TF)

The IGS-510TF and IGS-820TF are equipped with one and two 1000X SFP Gigabit Ethernet ports, both supporting dual-speed functionality and compatible with 100BASE-FX and 1000BASE-SX/LX SFP fiber-optic modules, respectively. These ports feature auto-detection, allowing administrators to flexibly select the most suitable SFP transceiver based on the required transmission distance or speed, ranging from 550 meters to 120 kilometers depending on the fiber type.

The key difference between the two lies in the application flexibility offered by their respective SFP configurations. The IGS-510TF, with a single SFP, is primarily suited for one-directional fiber-optic uplink, ideal for connecting to backbone switches or monitoring centers. In contrast, the IGS-820TF's two SFPs enable greater versatility, allowing one port to receive incoming data while the other transmits it further, effectively acting as a fiber relay to extend network coverage. This setup is particularly beneficial in scenarios requiring long-distance connectivity, where daisy-chaining switches is necessary to span large industrial sites or connect remote locations.

The fiber-optic uplink capability of both models ensures high throughput to connected nodes and enables efficient network extension for applications like FTTH (Fiber to the Home), FTTC (Fiber to the Curb), or FTTB (Fiber to the Building). The IGS-510TF and IGS-820TF excel in handling high-capacity data transmission, making it ideal for robust, secure, and scalable network deployments in industrial environments.





Low Power Consumption for ESG Principles

The IGS switches adopt advanced green networking technology that meets the Environmental, Social, and Governance (ESG) principles. They provides link-on cable length power-saving and link-down power-saving features. These characteristics enable the IGS-820TF to maintain extremely low power consumption even under full-load operation, effectively conserving energy while delivering outstanding performance. Compared to the regular Industrial Ethernet Switch, using the IGS switch can save over 50% of energy consumption.

With Auto Power Savings and the IEEE 802.3az Energy Efficient Ethernet (EEE) protocol, the IGS switches can automatically detect cable link status and network traffic, adjusting their power consumption accordingly. When the device is less active, the switch consumes less power, achieving greater energy efficiency.



Dual Power Input for High Availability Network System

The IGS switches feature a strong dual power input system with wide-ranging voltages (9V~48V DC or 24V AC) to enhance system reliability and uptime in automation networks. For example, if power supply 1 fails, the hardware failover function is automatically activated to power the IGS switch through power supply 2, ensuring uninterrupted operation.



Non-stop Ethernet Server Dual Power Input with Auto Failover

1000BASE-T UTP 1000BASE-SX/LX Fiber Optic