# 8-Port 10/100/1000Mbps + 2 SFP Shared Industrial Gigabit Switch with Wide Operating Temperature
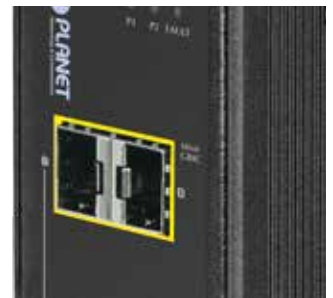
### Flexible Network Distance Extension

The PLANET IGS-802T is an 8-Port Industrial Gigabit Ethernet Switch with two SFP shared interfaces providing non-blocking wire-speed performance and great flexibility for Gigabit Ethernet extension in harsh industrial environment. The two SFP slots are shared with port 7 and port 8, and also compatible with 1000Base-SX / LX / WDM through SFP (Small Form Factor Pluggable) fiber-optic transceivers. The fiber optical uplink capability guarantees the throughput to all nodes hooked into the network and the Gigabit Ethernet distance can be extended from 550 meters (Multi-Mode fiber cable) up to 10/20/30/40/50/70/120 kilometers (Single-Mode fiber or WDM fiber). The IGS-802T is well suited for applications in the factory data centers and distributions.

### Environmentally Hardened Design

The IGS-802T is equipped with slim type IP-30 metal case for easy deployment in heavy Industrial demanding environments. With IP-30 industrial case protection, the IGS-802T 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. Being able to operate under the temperature range from -40 to 75 Degree C, the IGS-802T can be placed in almost any difficult environment.  The IGS-802T allows either DIN rail or wall mounting for efficient use of cabinet space.  The IGS-802T also possesses an integrated power supply source with wide range of voltages (12 to 48V DC) for worldwide high availability applications requiring dual or backup power inputs.

### Robust Gigabit Switch Performance

With a 16Gbps internal switching fabric and featuring auto negotiation support in each Gigabit port, the IGS-802T can handle large amounts of data in a secure topology linking to a backbone or high capacity servers.  The flow control function enables the IGS-802T to provide fast and reliable data transfer; all of the RJ-45 copper interfaces in the IGS-802T support 10/100/1000Mbps Auto-Negotiation for optimal speed detection through RJ-45 Category 6, 5 or 5e cables.  The standard Auto-MDI/MDI-X support can detect the type of connection to any Ethernet device without requiring special straight or crossover cables. The IGS-802T has 8K MAC Address table and offers wire-speed packets transfer performance without risk of packet loss; the high data throughput of the device makes it ideal for most Gigabit environments.

## KEY FEATURES

### PHYSICAL PORT

- 8-Port 10/100/1000Base-T RJ-45 with auto MDI / MDI-X function

- 2 SFP combo interface, SFP(Mini-GBIC) shared with port 7 and port 8

### LAYER 2 FEATURES

- Supports Auto-Negotiation and 10/100Mbps half / full duplex and 1000Mbps full duplex mode

- High performance Store and Forward architecture, runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth

- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)

- Backplane (Switching Fabric): 16Gbps

- Integrated address look-up engine, supports 8K absolute MAC addresses

- Automatic address learning and address aging
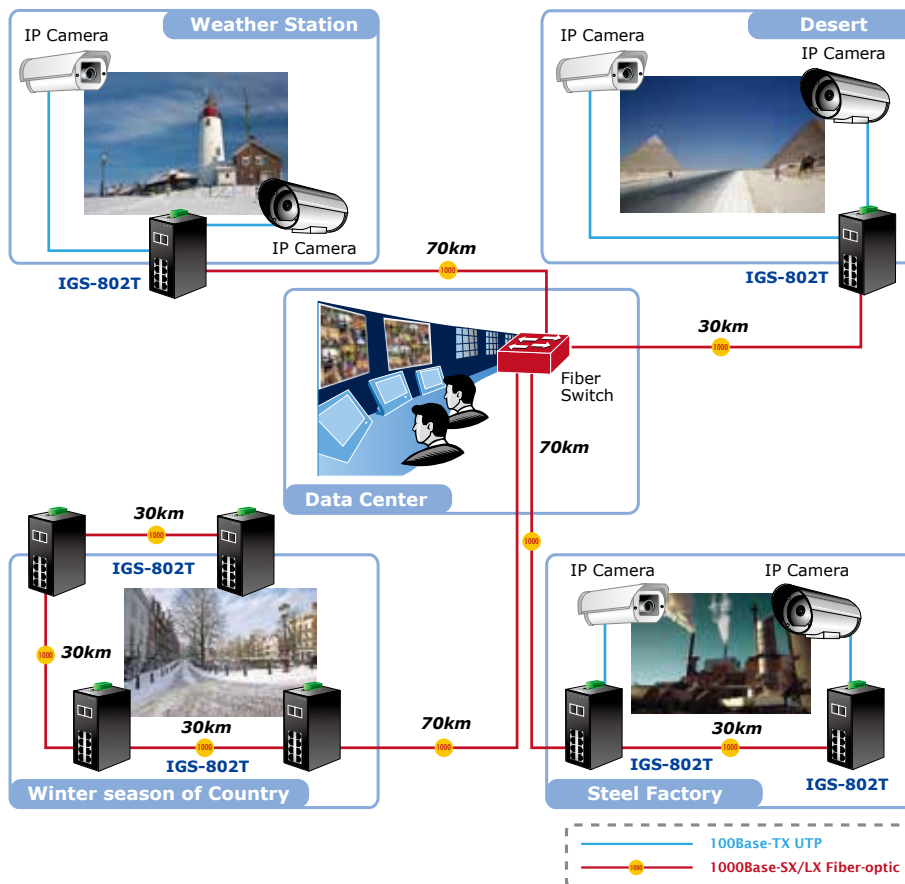
- CSMA/CD Protocol

### INDUSTRIAL CASE / INSTALLATION

- IP-30 Aluminum metal case / Protection

- DIN Rail and Wall Mount Design

- 12 to 48V DC, redundant power with polarity reverse protect function and connective removable terminal block for master and slave power

- Supports EFT protection 6000 VDC for power line

- Supports 6000 VDC Ethernet ESD protection

- -40 to 75 Degree C operating temperature

## APPLICATIONS

### Industrial Switch for High Performance Data Collection and Transfer

The IGS-802T is equipped with 8 10/100/1000Mbps ports offering auto MDI / MDIX feature and 2 Gigabit SFP interfaces (shared with port 7 & port 8) providing 16Gbps non-blocking switch fabric and the 8K MAC Address table so that IGS-802T can perform wire-speed packets transfer without risk of packet loss. The IGS-802T with the slim type IP 30 metal shape is ideal for most Heavy Industrial demanding environments.

## SPECIFICATION

| Product | 8-Port 10/100/1000Mbps + 2 SFP Shared Industrial Gigabit Switch |
|---|---|
| Model | IGS-802T |
| **Hardware Specification** | |
| 10/100/1000Base-T Ports | 8 |
| SFP Interfaces | Shared with port 7 & port 8 |
| Dimension (W x D x H) | 87 x 135 x 56 mm |
| Weight | 710g |
| Power Requirement | 12~48V DC, Redundant power with polarity reverse protection function |
| Power Consumption / Dissipation | 19 Watts / 64 BTU |
| Installation | DIN rail kit and wall mount ear |
| Alarm | Provides one relay output for power fail<br>Alarm Relay current carry ability: 1A @ DC 24V |
| **Switch Specification** | |
| Switch Processing Scheme | Store-and-Forward |
| Address Table | 8K entries |
| Flow Control | Back pressure for half duplex<br>IEEE 802.3x Pause Frame for full duplex |
| Switch Fabric | 16Gbps |
| Throughput (packet per second) | 11.9Mpps |
| Maximum Transmit Unit | 1632 bytes |
| Network cables | **10/100/1000Base-T:**<br>Cat. 3, 4, 5, 5e, 6 UTP cable (100meters, max.)<br>EIA/TIA-568 100-ohm STP (100meters, max.)<br>**1000Base-SX :**<br>50/125μm or 62.5/125μm multi-mode fiber optic cable, up to 220/ 550m  (vary on SFP module)<br>**1000Base-LX :**<br>9/125μm single-mode fiber optic cable, up to 10/ 15/ 20/ 30/ 40/ 50/ 60/ 70/ 120km (vary on SFP module) |
| **Standards Conformance** | |
| Standards Compliance | IEEE 802.3 Ethernet<br>IEEE 802.3u Fast Ethernet<br>IEEE 802.3ab Gigabit Ethernet<br>IEEE 802.3z Gigabit Ethernet<br>IEEE 802.3x Full-Duplex Flow Control |
| Regulation Compliance | FCC Part 15 Class A, CE |
| Stability Testing | IEC60068-2-32(Free fall)<br>IEC60068-2-27(Shock)<br>IEC60068-2-6(Vibration) |
| **Environment** | |
| Temperature | Operating: -40~75 Degree C<br>Storage: -40~75 Degree C |
| Humidity | Operating: 5~90% (Non-condensing)<br>Storage: 5~90% (Non-condensing) |

## ORDERING INFORMATION

| IGS-802T | 8-Port 10/100/1000Mbps + 2 SFP Shared Industrial Gigabit Switch (-40~75 Degree C) |
|---|---|

## AVAILABLE MODULES

| | |
|---|---|
| MGB-GT | SFP-Port 1000Base-T Module |
| MGB-SX | SFP-Port 1000Base-SX mini-GBIC module - 550m |
| MGB-LX | SFP-Port 1000Base-LX mini-GBIC module - 10km |
| MGB-L30 | SFP-Port 1000Base-LX mini-GBIC module - 30km |
| MGB-L50 | SFP-Port 1000Base-LX mini-GBIC module - 50km |
| MGB-L70 | SFP-Port 1000Base-LX mini-GBIC module - 70km |
| MGB-L120 | SFP-Port 1000Base-LX mini-GBIC module - 120km |
| MGB-LA10 | SFP-Port 1000Base-LX (WDM, TX:1310nm) mini-GBIC module-10km |
| MGB-LB10 | SFP-Port 1000Base-LX (WDM, TX:1550nm) mini-GBIC module-10km |
| MGB-LA20 | SFP-Port 1000Base-LX (WDM, TX:1310nm) mini-GBIC module-20km |
| MGB-LB20 | SFP-Port 1000Base-LX (WDM, TX:1550nm) mini-GBIC module-20km |
| MGB-LA40 | SFP-Port 1000Base-LX (WDM, TX:1310nm) mini-GBIC module-40km |
| MGB-LB40 | SFP-Port 1000Base-LX (WDM, TX:1550nm) mini-GBIC module-40km |
| MGB-TSX | SFP-Port 1000Base-SX mini-GBIC module - 550m (-40~75°C) |
| MGB-TLX | SFP-Port 1000Base-LX mini-GBIC module - 10km (-40~75°C) |
| MGB-TL30 | SFP-Port 1000Base-LX mini-GBIC module - 30km (-40~75°C) |
| MGB-TL70 | SFP-Port 1000Base-LX mini-GBIC module - 70km (-40~75°C) |

C-IGS-802T