1. Package Contents

Thank you for purchasing PLANET Industrial 4-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Ethernet Switch, IGS-624HPT. In the following sections, the term **"Industrial Gigabit PoE+ Switch"** means the IGS-624HPT.

Open the box of the Industrial Gigabit PoE+ Switch and carefully unpack it. The box should contain the following items:

Industrial Gigabit PoE+ Switch x 1	User's Manual x 1	SFP Dust Cap x 2
		
RJ45 Dust Caps x 4	DIN-rail Kit	Wall-mount Kit
		

If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

2. Hardware Introduction

2.1 Switch Front Panel

The front panel of the Industrial Gigabit PoE+ Switch consists of Ethernet interfaces and LED indicators.

■ Front View

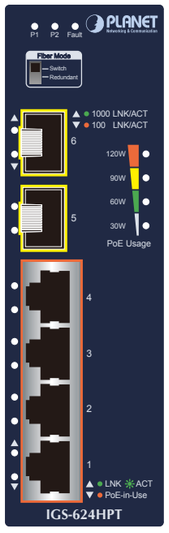
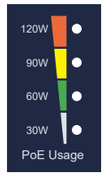


Figure 1: IGS-624HPT Front View

■ PoE Power Usage LED

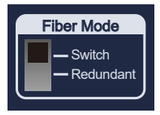
The front panel of the Industrial Gigabit PoE+ Switch has four LEDs which indicate **PoE Power Usages of 30W, 60W, 90W** and **120W**. With these LED indications, you can monitor the current PoE power in use status of Industrial Gigabit PoE+ Switch easily and efficiently.



■ DIP Switch

The front panel of the Industrial Gigabit PoE+ Switch provides one DIP Switch which is for configuring fiber redundant function.

The DIP Switch settings and descriptions:



	Fiber Mode (DIP Switch)
Switch (Default Mode)	This mode allows the Industrial Gigabit PoE+ Switch to use 6 ports.
Redundant	This mode allows one of the two SFP ports to be redundant while the other 5 ports are in operation.

■ Redundancy Overview

The Industrial Gigabit PoE+ Switch provides rapid fiber redundancy of link for highly critical Ethernet applications; the redundant mode supports auto-recover function. If the link of the destination port of a packet is down, it will forward the packet to the other port of the backup pair. The following figure shows the redundant functions.

Figure 2: Redundancy Behavior Topology

- Auto-detects link status and redundant dual ports with the same connector type.
- When Primary Port is active, the Backup Port is blocked.
- When Primary Port link fails, the traffic swaps to Backup Port automatically.
- Once the Primary Port status is connected, the traffic will swap from Backup Port to Primary Port.

Note

Using the **Redundant mode**, port 5 is defined as **Primary Port** and port 6 as **Backup Port**.

2.2 LED Definition:

System

LED	Color	Function
P1	Green	**Light:** indicates power 1 has power.
P2	Green	**Light:** indicates power 2 has power.
FAULT	Red	**Light:** indicates either power 1 or power 2 has no power.

10/100/1000BASE-T Interfaces (Port 1 to Port 4)

LED	Color	Function
LNK/ACT	Green	**Light:** indicates the Industrial Gigabit PoE+ Switch is successfully connecting to the network at 10/100/1000Mbps.
		Blink: indicates that the Industrial Gigabit PoE+ Switch is actively sending or receiving data over that port.
PoE-in-Use	Amber	**Light:** indicates the port is providing DC in-line power.
		Off: indicates the connected device is not a PoE powered device (PD).

SFP Interface (Port 5 to Port 6)

LED	Color	Function
1000 LNK/ACT	Green	**Light:** indicates the port is running at **1000Mbps** and successfully established.
		Blink: indicates that the Industrial Gigabit PoE+ Switch is actively sending or receiving data over that port.
100 LNK/ACT	Amber	**Light:** indicates the port is running at **100Mbps** and successfully established.
		Blink: indicates that the Industrial Gigabit PoE+ Switch is actively sending or receiving data over that port.

Per PoE Power Usage (Unit: Watt) (Lower LED to upper LED)

LED	Color	Function
30 60 90 120	Amber	**Light:** indicates the system is providing >30/60/90/120W PoE power usage. **Blinking:** indicates the system is providing 30/60/90/120W PoE power usage. 25 < X < 30, 30W LED flash; X >= 30, 30W LED light; 55 < X < 60, 60W LED flash; X >= 60, 60W LED light; 85 < X < 90, 90W LED flash; X >= 90, 90W LED light; 100 < X < 115, 120W LED flash; 115 < X < 120, 120W LED flash fast; X >= 120, 120W LED light.

2.3 Switch Upper Panel

The upper panel of the Industrial Gigabit PoE+ Switch consists of one terminal block connector within two DC power inputs. Figure 3 shows the upper panel of the Industrial Gigabit PoE+ Switch.

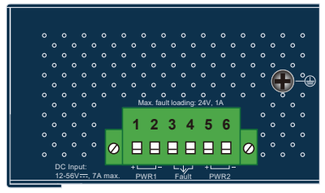


Figure 3: Industrial Gigabit PoE Switch Upper Panel

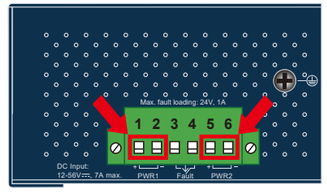
2.4 Wiring the Power Inputs

The 6-contact terminal block connector on the top panel of Industrial Gigabit PoE+ Switch is used for two redundant power inputs. Please follow the steps below to insert the power wire.

Caution

When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

1. Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or contacts 5 and 6 for POWER 2.



V1+ V1- V2+ V2-

2. Tighten the wire-clamp screws for preventing the wires from loosening.

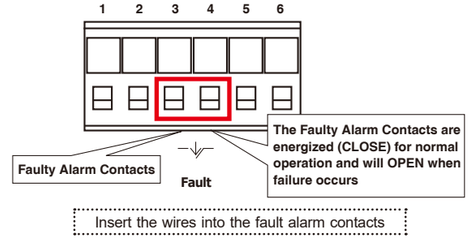
1 2 3 4 5 6
Power 1 + - Fault Power 2 + -

Note

The wire gauge for the terminal block should be in the range between 12 and 24 AWG.

2.5 Wiring the Faulty Alarm Contact

The faulty alarm contacts are in the middle of the terminal block connector as the picture shows below. Inserting the wires, the Industrial Gigabit PoE+ Switch will detect the fault status of the power failure and then forms an open circuit. The following illustration shows an application example for wiring the faulty alarm contacts.

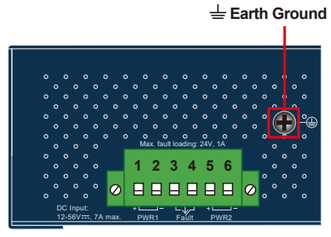


Note

1. The wire gauge for the terminal block should be in the range of 12 ~ 24 AWG.
2. Alarm relay circuit accepts up to 24V, max. 1A currents.

2.6 Grounding the Device

Users **MUST** complete grounding wired with the device; otherwise, a sudden lightning could cause fatal damage to the device.



Note

EMD (Lightning) DAMAGE IS NOT CONVERED UNDER WARRANTY.

3. Installation

This section describes the functionalities of the Industrial Gigabit PoE+ Switch's components and guides you to installing it on the DIN rail and wall. Please read this chapter completely before continuing.

Note

This following pictures show how to install the device. However, the device in the picture is not IGS-624HPT.

3.1 DIN-rail Mounting Installation

3.2 Wall-mount Plate Mounting

4. Product Specifications

This section describes the functionalities of the Industrial Gigabit PoE+ Switch's components and guides you to installing the Switch.

Model	IGS-624HPT
Hardware Specifications	
Copper Ports	4 10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
PoE Injector Ports	Four ports with 802.3at PoE+ injector function (Port-1 to Port-4)
SFP Slots (Auto Detection)	Two 1000BASE-SX/LX/BX SFP interface (Port 5 to Port 6) Compatible with 100BASE-FX SFP
DIP Switch	Switch (default)/fiber redundant mode
Connector	Removable 6-pin terminal block Pin 1/2 for Power 1; Pin 3/4 for fault alarm; Pin 5/6 for Power 2
Power Requirements	12~56V DC, 7A (max.) Redundant power with reverse polarity protection
Alarm	Provides one relay output for power failure Alarm relay current carry ability: 1A @ 24V DC
Power Consumption	Max. 7.02 watts/24BTU (Ethernet Full Loading) Max. 130.6 watts/445BTU (Ethernet + PoE Full Loading)
Dimensions (W x D x H)	32 x 87 x 135 mm
Weight	657g

Enclosure	IP40 metal case
Installation	DIN-rail kit and wall-mount kit
ESD Protection	6KV
Switch Specifications	
Switch Architecture	Store-and-Forward
Switch Fabric	12Gbps
Throughput (packet per second)	8.93Mpps@64bytes
Address Table	4K entries
Buffer Memory	1M bits on-chip buffer memory
Jumbo Frame	9Kbytes
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus PSE
PoE Power Supply Type	End-span
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Output	IEEE 802.3af Standard - Per port 48V~51V DC (depending on the power supply), max. 15.4 watts IEEE 802.3at Standard - Per port 51V~56V DC (depending on the power supply), max. 36 watts
PoE Power Budget (max.)	60W@12V DC input 90W@24V DC input 120W@48V-56V DC input
Max. Number of Class 4 PDs	4
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Stability Testing	IEC60068-2-32 (free fall) IEC60068-2-27 (shock) IEC60068-2-6 (vibration)
Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3az Gigabit SX/LX IEEE 802.3x Full-Duplex Flow Control IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus PSE IEEE 802.1p Class of Service
Environment	
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees C
Humidity (non-condensing)	Operating: 5~95% Storage: 5~95%

PLANET Networking & Communication

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User's Manual

www.PLANET.com.tw

Industrial 4-Port 10/100/1000T 802.3at PoE+ w/ 2-Port 100/1000X SFP Ethernet Switch

IGS-624HPT

PLANET Technology Corp.
10F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan

2350-AH0600-006

Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:
http://www.planet.com.tw/en/support/faq

Switch support team mail address:
support@planet.com.tw

FCC Warning

This equipment has been tested and found to comply with the regulations for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This device is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

WEEE Warning

To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.