24-Port Gigabit Ethernet PoE+ Switch with 10 GbE Uplink

User Manual

Model 561143

INTELLINET NETWORK SOLUTIONS

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Contents

Chapter 1 Product Introduction

Thank you for purchasing the Intellinet 24-Port Gigabit Ethernet PoE Switch with 10 GbE Uplink. Before you install and use this product, please read this manual carefully to fully understand the functions of this product.

1.1 Product Overview

This 24-port 10/100/1000Mbps + 2 1000/10000Mbps SFP+ Slots PoE Ethernet Switch provides seamless network connection. The high performance of this switch upgrades your old network to a 1000Mbps Gigabit network. Based on Gigabit Ethernet Technology, the switch alleviates network bottlenecks that frequently develop as more advanced computer users and newer applications place greater demands on network resources. SFP+ supports trunking for high-bandwidth data links.

The switch's RJ45 PoE ports can automatically detect and supply power to IEEE802.3at-compliant Powered Devices (PD). Electrical power is transmitted along with data in a single cable, allowing you to expand your network where there are no power lines or outlets or where you wish to install devices like IP Cameras or IP Phones, etc.

The switch is easy to install and use. It requires no configuration and installation. It's a great selection for expanding your office network.

1.2 Features

This switch complies with IEEE802.3i, IEEE802.3u, IEEE802.3ab, IEEE802.3x, IEEE802.3az, IEEE802.3ae standards. Other features of the switch are as follows:

- Power and data connection for up to 24 PoE network devices
- Delivers data and power over existing network cables, which saves on electrical installation costs
- Includes two small form-factor pluggable 10 GbE SFP/SFP+ module slots
- 10/100/1000 auto-sensing ports automatically detect optimal network speeds
- Supports IEEE 802.3at and IEEE 802.3af-compliant PoE devices (wireless access points, VoIP phones, IP cameras)
- Trunking for SFP1 and SFP2 can be activated via switch on front panel
- 88 Gbps switch fabric
- PoE power budget of 400 watts
- Complies with the IEEE 802.3az (Energy Efficient Ethernet EEE) specification
- Two high-volume cooling fans ensure perfect ventilation
- Includes 19" rackmount brackets

1.3 Package Contents

- 24-Port Gigabit Ethernet PoE+ Switch with 2 x 10 GbE SFP+ Uplinks
- Power cable
- User manual
- 19" rackmount brackets

Chapter 2 External Component Description

2.1 Front Panel

The front panel of the switch consists of a series of LED indicators, 24 x 10/100/1000Mbps RJ-45 ports, 2 x 1000/10000Mbps SFP+ ports, one Flow Control switch and one Trunking switch, as shown below:

Figure 1 - Front Panel

10/100/1000Mbps RJ-45 ports (1-24):
Designed to connect to the device with a bandwidth of 10Mbps, 100Mbps or 1000Mbps. Each has a corresponding Link/Act LED.

SFP+ ports (25, 26):
Designed to install the SFP+ module and connect to the device with a bandwidth of 1000Mbps or 10000Mbps. Each has a corresponding Link/Act LED.

Flow Control switch:
Turns Flow Control ON or OFF.

Port Trunking switch:
Turns SFP+ port Trunking ON or OFF.

LED indicators:
The LED indicators allow you to monitor, diagnose and troubleshoot any potential problem with the switch, connection or its attached devices.

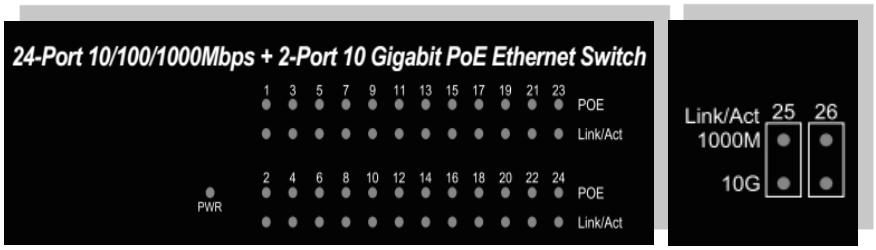

Figure 2 - LED Indicators

The following chart shows the LED indicators of the switch along with explanation of each indicator.

LED	COLOR	STATUS	STATUS DESCRIPTION
PWR	Green	On	Power On
		Off	Power Off
1-24 （Link/Act）	Orange (10/100Mbps)	On	A device is connected to the port.
		Off	A device is disconnected from the port.
	Green (1000Mbps)	Flashing	Sending or receiving data
1-24 （POE）	Green	On	There is a PoE PD connected to the port, which is successfully being supplied power.
		Off	No Powered Device is connected to the port, or no power is supplied according to the power limits of the port.
25-26 （Link/Act）	Orange (1000Mbps)	On	A device is connected to the port.
		Off	A device is disconnected from the port.
	Green （10G）	Flashing	Sending or receiving data

2.2 Rear Panel

The rear panel of the switch contains an AC power connector, as shown below.

Figure 3 - Rear Panel

AC Power Connector:
Power is supplied through an external AC power adapter. It supports AC 100~240V, 50/60Hz.

Grounding Terminal:
Located on the left side of the power supply connector; use a grounded connection to prevent electric shock.

Chapter 3 Installing and Connecting to the Switch

This chapter describes how to install your Ethernet switch and make connections to it. Read the following sections and perform the procedures in the order presented to avoid incorrect installation, which will cause damage to the device and will threaten its security.

3.1 Installation

Place the switch in a stable location or on a desktop.

Make sure the switch works in the proper AC-input range and matches the voltage labeled on the switch. **Do not ever open the switch's shell,** even in a power failure.

Ensure that there is adequate space around the switch for proper ventilation and heat dissipation. When installing the switch in a cabinet, make sure the cabinet will adequately support the weight of the switch and its accessories.

3.1.1 Desktop Installation

If installing the switch on a desktop, attach the provided cushioning rubber feet on the bottom of each corner of the switch to prevent external vibration. Allow adequate space for ventilation and heat dissipation between the device and the objects around it.

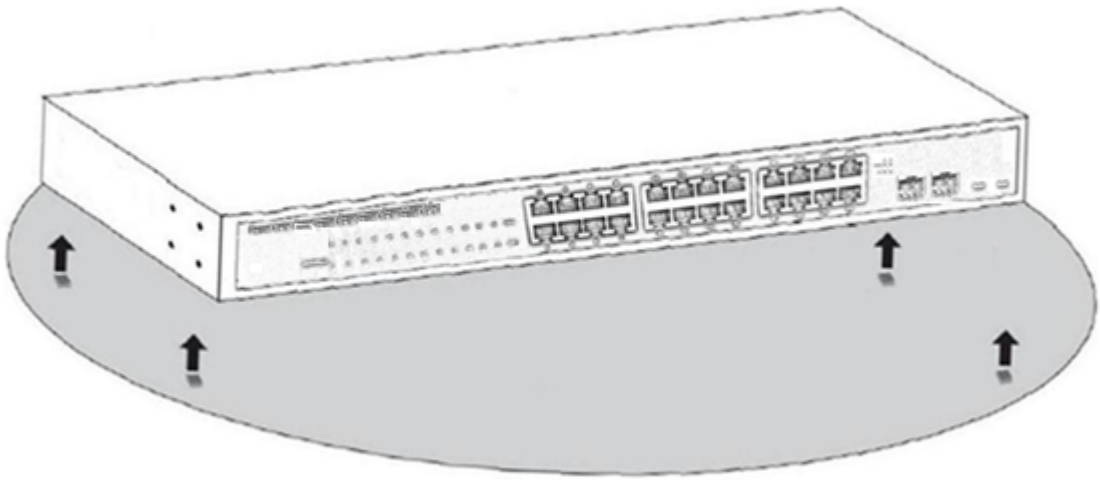

Figure 4 - Desktop installation

3.1.2 Rack-mountable Installation in a 19-inch Cabinet

The switch can be mounted with an EIA standard-sized, 19-inch rack, which can be placed in a wiring closet with other equipment. To install the switch, follow these steps:

Attach the mounting brackets on the switch's side panels (one on each side) and secure them with the screws provided.

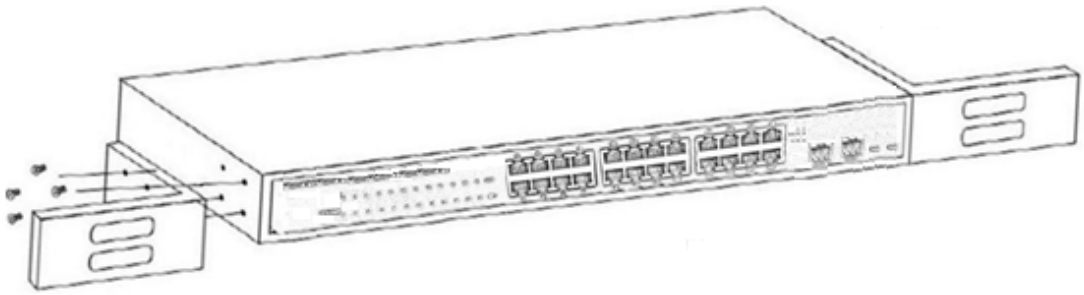

Figure 5 - Attaching Brackets

Use the screws provided with the equipment rack to mount the switch on the rack and tighten it.

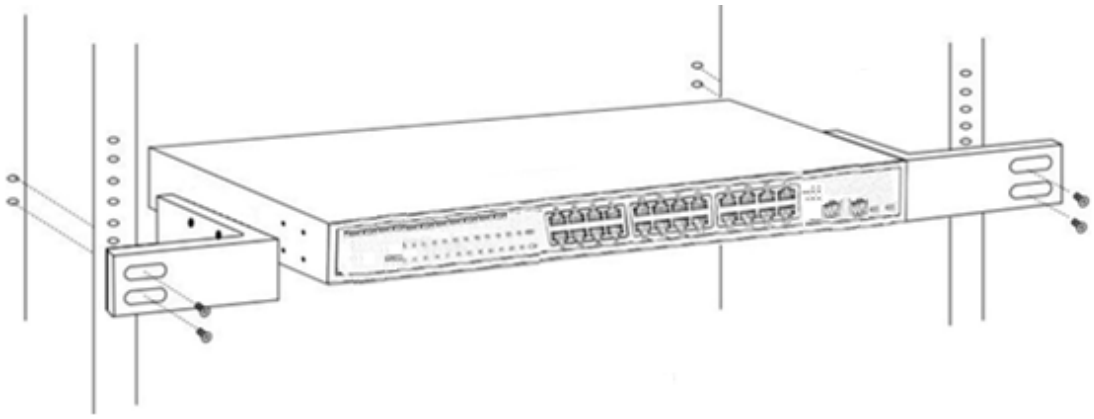

Figure 6 - Mounting switch

3.1.3 Power On the Switch

The switch is powered on by the AC 100~240V 50/60Hz internal high-performance power supply. Follow the next tips to turn on the switch:

AC Electrical Outlet:

Intellinet recommends using a single-phase three-wire receptacle with a neutral outlet or a multifunctional computer-professional receptacle. Make sure to connect the metal ground connector to the grounding source on the outlet.

AC Power Cord Connection:

Connect the AC power connector on the back panel of the switch to an external receptacle with the included power cord, and check that the power indicator turns on. When it is ON, the device is receiving power.

3.2 Connect Computer to the Switch

Connect one end of an Ethernet cable to an RJ45 jack on your computer; connect the other end to any RJ45 port of the switch. The maximum distance between the switch and the computer should not exceed 100 meters. Once your devices are connected and powered on, the Link/Act status indicator lights activate with the corresponding ports on the switch.

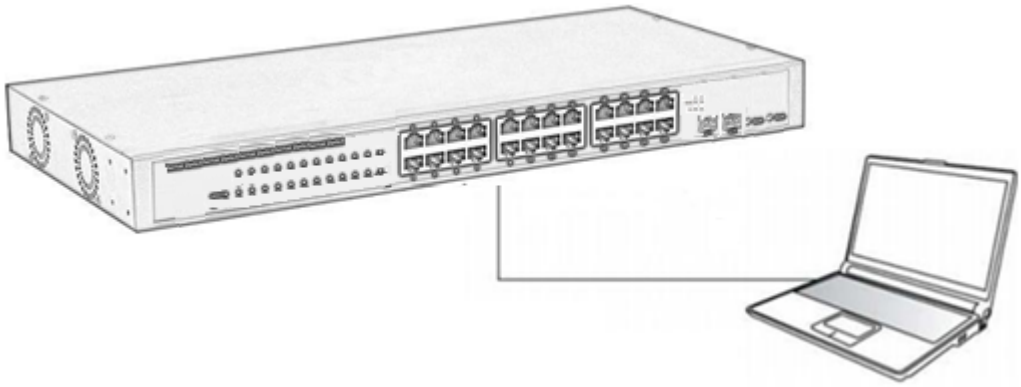

Figure 7 - Connect Computer (NIC) to the switch

3.3 Switch connection to the PD

All 24 ports on the switch have PoE power-supply capability. The maximum output power of one port is up to 30W. The switch powers PD devices such as Internet phones, network cameras, wireless access points, etc. through Ethernet cables.

Appendix:

Technical Specifications

Standards		IEEE802.3i, IEEE802.3u, IEEE802.3ab, IEEE802.3x, IEEE802.3az, IEEE802.3ae
Number of Ports		24 x 10/100/1000Mbps Auto-Negotiation ports 2 x 1000/10000Mbps SFP+ ports
Network Media (Cable)		10Base-T: UTP category 3, 4, 5 cable (maximum 100m) EIA/TIA-568 100Ù STP (maximum 100m) 100Base-Tx: UTP category 5, 5e cable (maximum 100m) EIA/TIA-568 100Ù STP (maximum 100m) 1000Base-T: UTP category 5e, 6 cable (maximum 100m)
Capability	Store-and-Forward	Supports
	Switching Capacity	88Gbps
	MAC Address Learning	Automatically learning, automatically Update 16K Table
LED indicators	Per-Port	Link/Act 10/100Mbps:orange 1000Mbps:green PoE: green
	SFP+	Link/Act 10000Mbps: green 1000Mbps: orange
	Other	Power: green
Environment		Operating Temperature: 0℃~40℃ (32°F~104°F) Storage Temperature: -40℃~70℃ (-40°F~158°F) Operating Humidity: 10%~90% non-condensing Storage humidity: 5%~90% non-condensing
PoE Power on RJ45		Power+: pin 1 & pin 2
		Power-: pin3 & pin 6
Power		AC 100V~240V 50/60HZ 6.5A (Internal Power supply)

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A. Garantizamos cámaras IP y productos con partes móviles por 3 años.
B. Garantizamos los demás productos por 5 años (productos sin partes móviles), bajo las siguientes condiciones:
1. Todos los productos a que se refiere esta garantía, ampara su cambio físico, sin ningún cargo para el consumidor.
2. El comercializador no tiene talleres de servicio, debido a que los productos que se garantizan no cuentan con reparaciones, ni refacciones, ya que su garantía es de cambio físico.
3. La garantía cubre exclusivamente aquellas partes, equipos o sub-ensambles que hayan sido instaladas de fábrica y no incluye en ningún caso el equipo adicional o cualesquiera que hayan sido adicionados al mismo por el usuario o distribuidor.
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Notes

Copyright

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

FCC Caution
This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Safety
This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use
The ETSI version of this device is intended for home and office use in Austria, Belgium, Bulgaria, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Turkey, and United Kingdom. The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries Not Intended for Use
None

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