TP-Link TL-SG1005P

TP-Link TL-SG1005P 5-Port Gigabit Unmanaged Desktop Switch User Manual

Model: TL-SG1005P

1. Product Overview

The TP-Link TL-SG1005P is a 5-Port Gigabit Unmanaged Desktop Switch designed for small office and home network environments. It features four Power over Ethernet (PoE+) ports, allowing it to power compatible devices such as IP cameras, IP phones, and wireless access points directly through the Ethernet cable, simplifying network deployment and reducing cable clutter. The switch is housed in a durable steel case, ensuring longevity and reliable performance. Being an unmanaged switch, it offers plug-and-play functionality, requiring no configuration for basic operation.

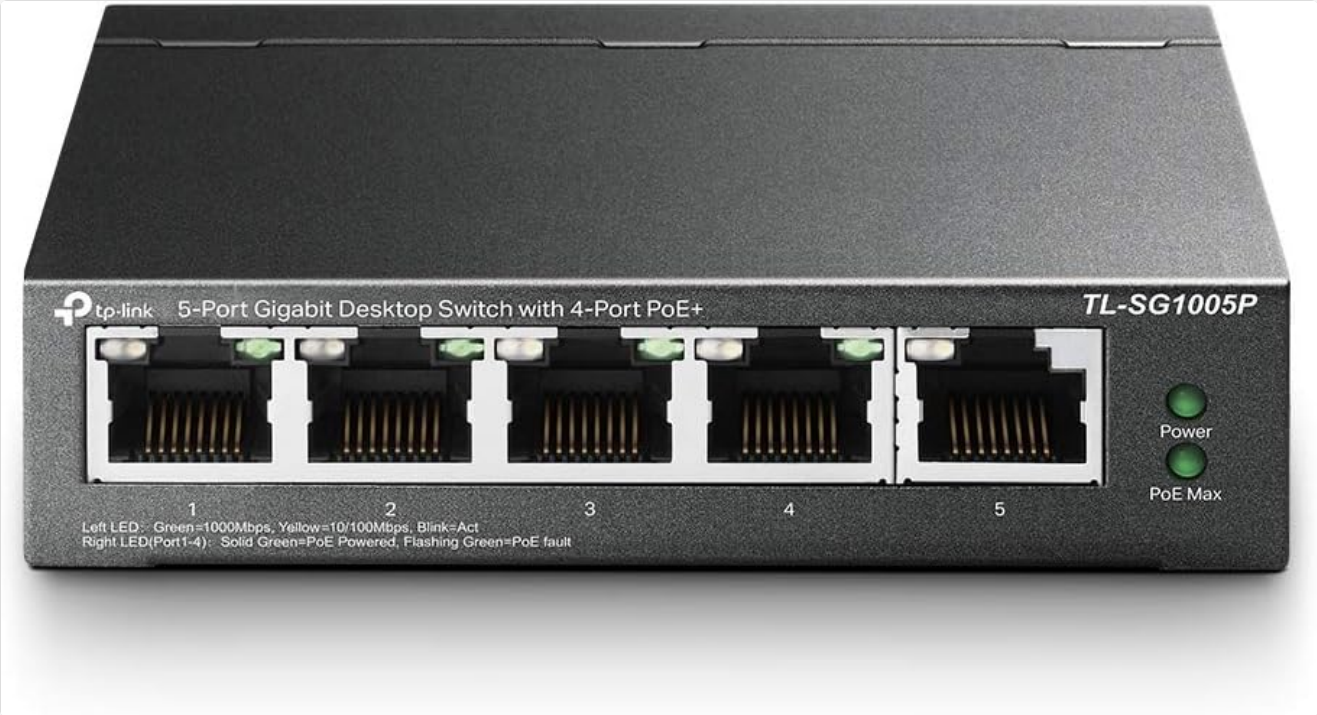

Figure 1: Front view of the TL-SG1005P switch, showing 5 Ethernet ports and LED indicators.

LED Indicators

- **Power LED:** Indicates the power status of the switch.
- **PoE Max LED:** Indicates if the total PoE power budget is nearing its limit.
- **Left LED (Per Port):** Green indicates 1000Mbps link speed. Yellow indicates 10/100Mbps link speed. Blinking indicates activity.
- **Right LED (Per PoE Port 1-4):** Solid Green indicates PoE powered. Flashing Green indicates PoE fault.

2. Setup Instructions

The TL-SG1005P is an unmanaged switch, making its setup straightforward and plug-and-play.

1. **Connect to Power:** Connect the provided power adapter to the switch's power input port and then plug the adapter into a standard electrical outlet. The Power LED on the switch should illuminate.
2. **Connect Devices:**
    - For non-PoE devices (e.g., router, PC), connect an Ethernet cable from the device to any of the 5 ports on the switch.
    - For PoE-compatible devices (e.g., IP camera, IP phone, wireless access point), connect an Ethernet cable from the device to one of the PoE ports (ports 1-4) on the switch. The switch will automatically detect and provide power to the PoE device.
3. **Verify Connection:** Check the LED indicators for each connected port. A solid green or yellow left LED indicates a successful link, and a blinking LED indicates data activity. For PoE devices, the right LED should be solid green.

Figure 2: Simplified setup diagram for the TL-SG1005P.

3. Operating the Switch

The TL-SG1005P is an unmanaged switch, meaning it operates automatically without requiring any user configuration. Once connected, it functions as a central connection point for your network devices.

Power over Ethernet (PoE) Functionality

The switch's four PoE+ ports (ports 1-4) can automatically detect and supply power to IEEE 802.3af/at compliant Powered Devices (PDs). This eliminates the need for separate power adapters for your PoE devices, simplifying installation and reducing cabling.

Figure 3: Illustration of Power over Ethernet (PoE) functionality.

Application Scenarios

The TL-SG1005P is suitable for various applications, including:

- **Surveillance:** Powering IP cameras for security systems.
- **Conference Call:** Connecting and powering IP phones in office environments.
- **Wi-Fi Coverage:** Providing power and data to Omada EAPs (Enterprise Access Points) for extended Wi-Fi networks.

Figure 4: Multiple application scenarios for the TL-SG1005P.

Advanced Functions

While unmanaged, the switch incorporates certain advanced functions for optimized performance:

- **QoS (Quality of Service):** Prioritizes network traffic to ensure a fluent online experience, especially for latency-sensitive applications like gaming or video streaming.
- **IGMP Snooping:** Optimizes traffic for IPTV and other multicast applications, preventing unnecessary data flooding.

Figure 5: Advanced functions for higher performance.

4. Maintenance

The TP-Link TL-SG1005P is designed for reliable, maintenance-free operation. However, following these general guidelines can help ensure its longevity:

- **Placement:** Place the switch in a cool, dry place away from direct sunlight, heat sources, and excessive moisture. Ensure adequate ventilation around the device.
- **Cleaning:** Keep the switch clean by gently wiping its exterior with a soft, dry cloth. Do not use liquid cleaners or aerosols.
- **Cable Management:** Ensure network cables are neatly organized and not excessively bent or strained.
- **Power Supply:** Use only the power adapter provided with the switch.

5. Troubleshooting

If you encounter issues with your TL-SG1005P switch, consider the following troubleshooting steps:

- **No Power:**
  - Ensure the power adapter is securely connected to the switch and a working power outlet.
  - Verify the power outlet is functional by plugging in another device.
- **No Link/Activity on Port:**
  - Check that the Ethernet cable is securely connected to both the switch port and the connected device.
  - Try a different Ethernet cable.
  - Ensure the connected device is powered on and functioning correctly.
  - Try connecting the device to a different port on the switch.
- **PoE Device Not Powering On:**
  - Ensure the PoE device is IEEE 802.3af/at compliant.
  - Check the PoE Max LED on the switch. If it's on, the total power budget might be exceeded. Disconnect some PoE devices or use a separate power source for some devices.
  - Try connecting the PoE device to a different PoE port (1-4).
  - Verify the Ethernet cable is of good quality and suitable for PoE (e.g., Cat5e or higher).
- **Slow Network Speed:**
  - Ensure all connected devices and cables support Gigabit Ethernet for optimal speed.
  - Check for excessive network traffic or bandwidth-intensive applications.

6. Specifications

Feature	Specification
Model Number	TL-SG1005P
Number of Ports	5 (4 PoE+ ports, 1 Uplink port)
Data Transfer Rate	10/100/1000 Mbps (Gigabit)
Interface Type	PoE (IEEE 802.3af/at compliant)
Case Material	Alloy Steel
Product Dimensions (L x W x H)	3.93 x 3.86 x 0.98 inches (9.98 x 9.8 x 2.5 cm)
Item Weight	8.8 ounces
Voltage	53.5 Volts (DC)
Compatible Devices	Desktop, IP Cameras, IP Phones, Wireless Access Points

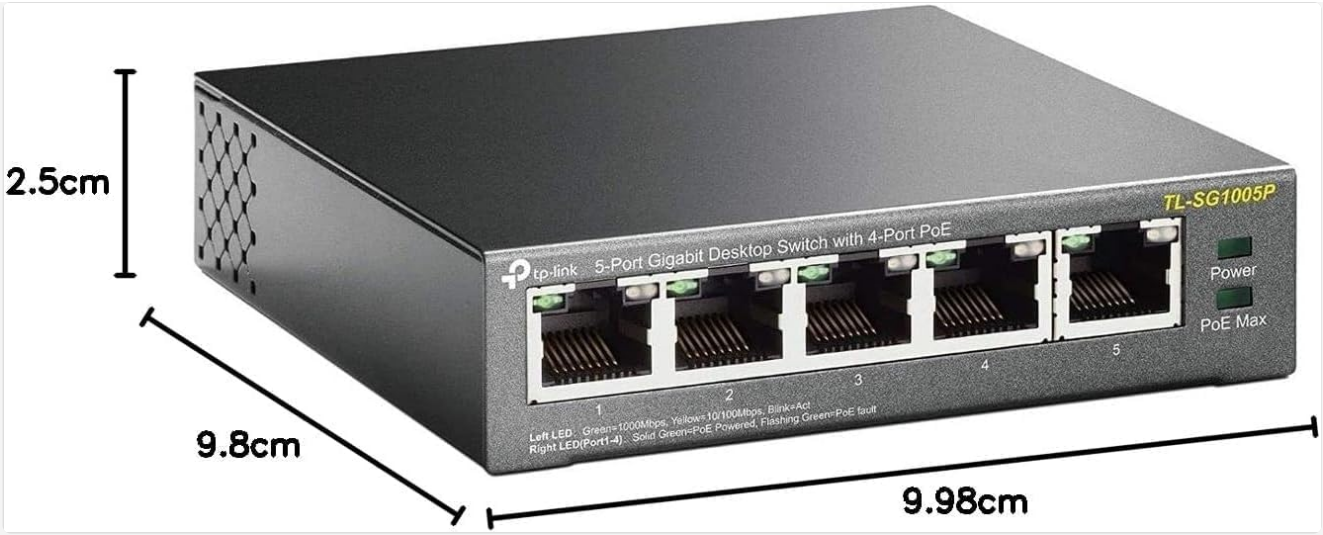

Figure 6: Dimensions of the TL-SG1005P switch.

7. Warranty and Support

For detailed warranty information, please refer to the warranty card included with your product or visit the official TP-Link website. TP-Link provides technical support and resources for its products.
For further assistance, product registration, or to download the latest firmware and drivers, please visit the official TP-Link support page:
https://www.tp-link.com/support/