TP-Link TL-SG3452P

TP-Link TL-SG3452P 48-Port Gigabit L2+ Managed PoE Switch

User Manual

Model: **TL-SG3452P** | Brand: **TP-Link**

1. Introduction

The TP-Link TL-SG3452P is a JetStream 48-Port Gigabit L2+ Managed PoE Switch with 4 SFP Slots, designed for robust and scalable network solutions. This device integrates seamlessly into the Omada Software Defined Networking (SDN) platform, offering centralized cloud management. It provides advanced features such as PoE+ for powering compatible devices, static routing for efficient traffic management, and comprehensive security protocols to protect your network infrastructure.

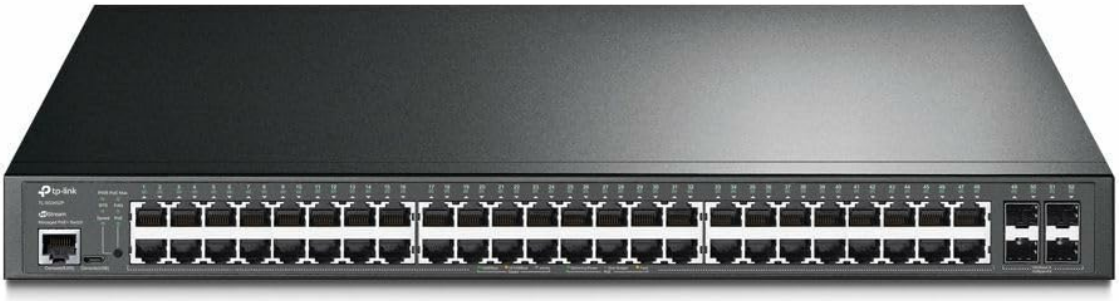

Figure 1: TP-Link TL-SG3452P 48-Port Gigabit L2+ Managed PoE Switch

2. Product Features

- **Full Gigabit 52-Port PoE Configuration:** 48 PoE+ (802.3at/af) 10/100/1000 Mbps RJ45 ports providing up to 30W per port and a total PoE power budget of 384W, along with 4 Gigabit SFP slots for high-speed connections.
- **Omada SDN Support:** Integrates with the Omada Software Defined Networking platform for centralized management of network devices including switches, APs, and gateways. Multiple control options are available: Omada Hardware Controller or Software Controller. Standalone Mode is also supported.
- **Cloud Access:** Remote cloud access and the Omada app enable centralized cloud management of the entire network across different sites from a single interface, anytime, anywhere.
- **Enhanced Network Security:** Advanced security features include 802.1Q VLAN, IP-MAC-Port binding, ACL, Port Security, DoS defense, Storm control, DHCP Snooping, and 802.1X RADIUS authentication.
- **L2+ Features:** Static Routing helps route internal traffic for more efficient use of network resources.
- **Standalone Management:** Web, CLI (Console Port, Telnet, SSH), SNMP, RMON, and Dual Image provide powerful management capabilities.

3. What's in the Box

Upon unpacking your TP-Link TL-SG3452P switch, please verify that all the following items are included:

- TL-SG3452P Switch
- Power Cord
- Quick Installation Guide
- Rackmount Kit
- Rubber Feet

4. Setup

Follow these steps to set up your TP-Link TL-SG3452P switch:

1. **Physical Placement:** Place the switch on a stable, flat surface or mount it in a standard 19-inch rack using the provided rackmount kit. Ensure adequate ventilation around the device to prevent overheating.
2. **Connect Power:** Connect the provided power cord to the switch's power inlet and then to a suitable power outlet. The power LED on the front panel should illuminate.
3. **Connect Network Devices:** Connect your network devices (e.g., computers, servers, IP cameras, access points) to the RJ45 ports (1-48) using Ethernet cables. For devices requiring Power over Ethernet (PoE), ensure they are PoE-compatible. The switch will automatically detect and provide power to PoE-enabled devices.
4. **Connect Uplink (Optional):** For high-speed connections to other network devices or the internet, use the SFP slots (SFP1-SFP4) with compatible SFP modules and fiber optic cables.
5. **Initial Configuration (Standalone Mode):** Access the switch's web-based management interface by connecting a computer directly to one of the RJ45 ports and configuring your computer's IP address to be in the same subnet as the switch's default IP address (refer to the Quick Installation Guide for default IP). Open a web browser and enter the switch's IP address.
6. **Omada SDN Integration (Optional):** If you plan to manage the switch via the Omada SDN platform, ensure your Omada Controller (hardware or software) is set up and running. The switch can then be adopted and managed centrally through the Omada Controller interface. Refer to the Omada SDN documentation for detailed integration steps.

Figure 2: Approximate dimensions of the TL-SG3452P switch (17.32"L x 12.99"W x 1.73"H)

5. Operating

Once the switch is set up, it operates automatically for basic network connectivity. For advanced features and management, use the web-based interface or Omada SDN Controller.

- **Power over Ethernet (PoE):** The switch automatically detects and supplies power to 802.3at/af compliant devices connected to its PoE+ ports. This eliminates the need for separate power adapters for devices like IP cameras, VoIP phones, and wireless access points.
- **Omada SDN Management:** If integrated with Omada SDN, all configurations, monitoring, and troubleshooting can be performed from a single dashboard. This includes VLAN setup, QoS settings, port mirroring, and more.
- **Static Routing:** Configure static routes within the switch to direct traffic between different network segments, optimizing data flow and network performance.
- **LED Indicators:** Monitor the status of the switch and its ports using the front panel LEDs. These indicators provide information on power, link/activity, PoE status, and speed.

6. Maintenance

Regular maintenance ensures optimal performance and longevity of your switch:

- **Firmware Updates:** Periodically check the TP-Link official website for the latest firmware updates. Updating the firmware can improve performance, add new features, and fix security vulnerabilities.
- **Cleaning:** Keep the switch clean and free from dust. Use a soft, dry cloth to wipe the exterior. Ensure ventilation openings are not blocked.
- **Environmental Conditions:** Operate the switch within the recommended temperature and humidity ranges (refer to specifications). Avoid exposing it to direct sunlight, excessive heat, or moisture.
- **Backup Configuration:** Regularly back up your switch's configuration settings. This allows for quick restoration in case of accidental changes or device replacement.

7. Troubleshooting

If you encounter issues with your TL-SG3452P switch, consider the following troubleshooting steps:

- **No Power:** Ensure the power cord is securely connected to both the switch and the power outlet. Verify the power outlet is functional.
- **No Link/Activity:** Check the Ethernet cables for secure connections at both ends. Ensure the connected device is powered on and functioning correctly. Try a different port or cable.
- **PoE Device Not Powering On:** Verify that the connected device is PoE-compatible (802.3at/af). Check the PoE status LED for the port. Ensure the total PoE power budget of 384W is not exceeded.
- **Cannot Access Web Interface:** Verify your computer's IP address is in the same subnet as the switch. Clear your browser's cache or try a different browser. Ensure no firewall is blocking access.
- **Network Performance Issues:** Check for excessive network traffic or loops. Review QoS settings if configured. Ensure all cables are in good condition.
- **Reset to Factory Defaults:** If issues persist, you may need to reset the switch to its factory default settings. Locate the reset button (usually a small pinhole) and press and hold it for several seconds while the switch is powered on. This will erase all custom configurations.

8. Specifications

Feature	Specification
Brand	TP-Link
Model Number	TL-SG3452P
Number of Ports	52 (48x RJ45 PoE+, 4x SFP)
PoE+ Ports	48
Total PoE Power Budget	384W
SFP Slots	4
Data Transfer Rate	1000 Megabits Per Second (Gigabit)
Switch Type	Managed PoE Switch (L2+)
Omada SDN Integrated	Yes
Static Routing	Yes
IPv6 Support	Yes
Dimensions (L x W x H)	17.32"L x 12.99"W x 1.73"H
Item Weight	5.74 Kilograms
Case Material Type	Plastic
Maximum Power Consumption	485.7 Watts
Upper Temperature Rating	40 Degrees Celsius

9. Warranty and Support

The TP-Link TL-SG3452P switch comes with a**5-year manufacturer's warranty**. For technical support, product information, or warranty claims, please utilize the following resources:

- **Online Support:** Visit the official TP-Link support website for FAQs, troubleshooting guides, and firmware downloads.
- **Contact Support:** For direct assistance, you can reach TP-Link technical support via phone or email. Specific contact details are typically provided in the Quick Installation Guide or on the TP-Link website.

Figure 3: TP-Link Contact Support Information