Cisco SG250-10P-K9-NA

Cisco SG250-10P Smart Switch User Manual

Model: SG250-10P-K9-NA

INTRODUCTION

The Cisco SG250-10P Smart Switch is designed to provide reliable network connectivity and performance for small and midsize businesses. This 10-port Gigabit Ethernet switch includes Power over Ethernet (PoE+) capabilities and two Gigabit Ethernet Combo SFP ports, offering a flexible and secure foundation for your network infrastructure. This manual provides essential information for the setup, operation, maintenance, and troubleshooting of your SG250-10P Smart Switch.

PRODUCT OVERVIEW

The Cisco SG250-10P is a smart switch featuring 10 Gigabit Ethernet ports, with 8 ports supporting PoE+ and a total power budget of 62W. It also includes 2 Gigabit Ethernet Combo SFP ports for flexible uplink options. The switch is designed for ease of deployment and management, supporting features like Smart Network Application, FindIT Network Manager, and Network Plug and Play (PnP).

Figure 1: Front-angled view of the Cisco SG250-10P Smart Switch.

Key Features:

- 8 x 10/100/1G Ethernet ports with PoE+ support.
- 2 x 1G SFP uplink ports.
- 62W total PoE power budget.
- Fanless design for silent operation.
- Desktop or rackmount installation options (hardware included).
- Advanced security features.

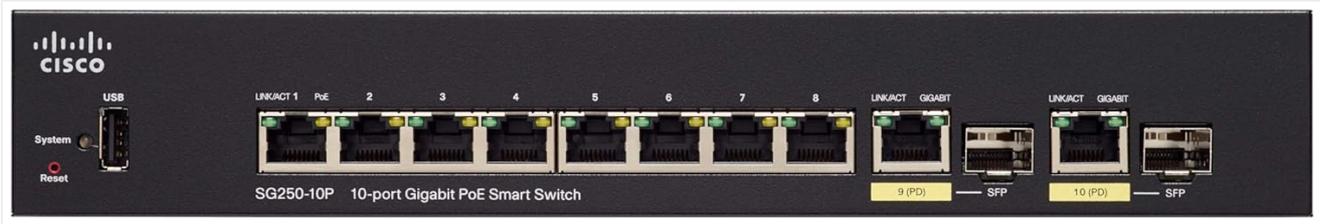- Intuitive web-based user interface and command-line interface (CLI).

Figure 2: Front panel layout of the SG250-10P, detailing Ethernet ports, SFP ports, USB, System LED, and Reset button.

Figure 3: Overview of the SG250-10P's port configuration and capabilities.

SETUP

Package Contents:

Before proceeding with installation, verify that your package contains the following items:

- Cisco SG250-10P Gigabit Smart Switch
- Power Cord
- Mounting Kit (for desktop or rackmount)
- Quick Start Guide

Physical Installation:

1. **Placement:** Position the switch on a stable, flat surface or mount it in a rack using the provided kit. Ensure adequate ventilation around the device.
2. **Power Connection:** Connect the power cord to the switch's power inlet and then to a grounded electrical outlet.
3. **Network Connections:**

    - Connect your network devices (computers, servers, access points, IP cameras, IP phones) to the RJ-45 Ethernet ports (1-8) using standard Ethernet cables.
    - For devices requiring power over Ethernet, ensure they are PoE-compatible. The switch will automatically detect and power these devices.
    - Use the SFP ports (9-10) with compatible SFP transceivers for fiber optic uplinks or additional Gigabit Ethernet connections.

Figure 4: The switch offers flexible connectivity options for various network devices.

Initial Configuration:

The SG250-10P supports various management options for initial setup:

- **Web-based User Interface (GUI):** Access the switch's management interface via a web browser. Refer to the Quick Start Guide for the default IP address and login credentials.
- **FindIT Network Manager:** Utilize the Cisco FindIT Network Manager for simplified discovery, monitoring, and management of your Cisco business network devices.
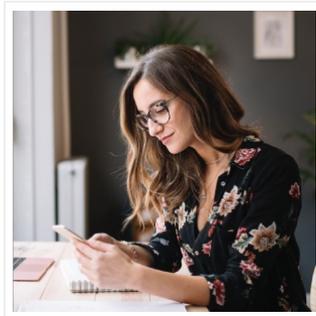- **Network Plug and Play (PnP):** For automated deployment in larger networks.

Figure 5: The switch is designed for simple and straightforward setup.

OPERATING THE SWITCH

Once powered on and connected, the SG250-10P operates as a smart switch, intelligently forwarding network traffic. Its smart capabilities allow for advanced configurations beyond basic plug-and-play functionality.

Management Interface:

- **Web GUI:** The primary method for managing the switch. It provides access to all features, including VLAN configuration, Quality of Service (QoS) settings, security policies, and port monitoring.
- **Command Line Interface (CLI):** Accessible via SSH, the CLI offers an alternative for advanced users to configure and monitor the switch. While not a full Cisco IOS, it provides essential commands for configuration and diagnostics.
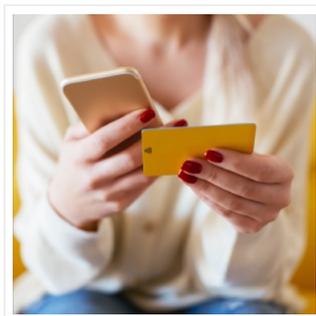

Figure 6: The switch provides robust security features for network protection.

Power over Ethernet (PoE+):

The SG250-10P delivers power to connected PoE-compatible devices through the Ethernet cable, simplifying deployments of IP phones, wireless access points, and IP cameras. The switch automatically detects PoE devices and supplies the necessary power up to its 62W budget.

Figure 7: Illustration of Power over Ethernet (PoE) functionality, powering devices like IP phones and cameras.

MAINTENANCE

The Cisco SG250-10P Smart Switch is designed for minimal maintenance due to its robust construction and fanless operation.

Routine Checks:

- **LED Indicators:** Periodically check the System LED and port status LEDs for normal operation. A solid green System LED indicates normal function.
- **Physical Environment:** Ensure the switch is in a clean, dust-free environment with adequate airflow for passive cooling.

Firmware Updates:

Cisco periodically releases firmware updates to enhance features, improve performance, and address security vulnerabilities. Firmware can be updated via the web GUI or through the USB port on the front panel. Always refer to the official Cisco documentation for the latest firmware and update procedures.

TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues.

Common Issues and Solutions:

- **No Power:**

  - Verify the power cord is securely connected to both the switch and the power outlet.
  - Ensure the power outlet is functional.

- **No Network Connectivity:**

  - Check the link/activity LEDs on the switch ports. A solid green or blinking green LED indicates a valid link and activity.

- Ensure Ethernet cables are properly connected and not damaged.
- Verify the connected device is powered on and functioning correctly.

- **PoE Device Not Powering On:**

  - Confirm the device is PoE-compatible.
  - Check the PoE status via the switch's web GUI to ensure power is being delivered and the total PoE budget is not exceeded.
  - Try connecting the device to a different PoE port.

- **Cannot Access Web GUI:**

  - Ensure your computer is on the same network segment as the switch.
  - Verify the switch's IP address. If unknown, use the Cisco FindIT Network Manager or reset the switch to factory defaults (refer to the Reset button on the front panel).
  - Clear your browser's cache or try a different browser.

For more detailed troubleshooting, consult the comprehensive documentation available on the Cisco support website or use the diagnostic tools within the switch's web interface.

SPECIFICATIONS

The following table outlines the key technical specifications for the Cisco SG250-10P Smart Switch (Model: SG250-10P-K9-NA).

Feature	Specification
Model Number	SG250-10P-K9-NA
Number of Ports	10 (8x Gigabit Ethernet PoE+, 2x Gigabit Ethernet Combo SFP)
PoE Power Budget	62 Watts
Data Transfer Rate	1 Gigabits Per Second
RAM	512 MB
Flash Memory Size	256 MB
Dimensions (LxWxH)	14.8 x 12.35 x 3.13 inches
Item Weight	4.1 pounds
Case Material	Metal
Interface Type	PoE, SFP
Manufacturer	CISCO SYSTEMS - ENTERPRISE
UPC / GTIN	882658767289

WARRANTY AND SUPPORT

The Cisco SG250-10P Smart Switch comes with **Limited Lifetime Protection**, ensuring long-term reliability and peace of mind. For specific terms and conditions of the warranty, please refer to the documentation included with your product or visit the official Cisco website.

For technical assistance, product documentation, or to download the latest firmware, please visit the official Cisco Support website. You can also utilize the Cisco FindIT Network Manager for support resources and community forums.

Cisco Support Website: www.cisco.com/go/support