

Cisco C1000-48P-4G-L

Cisco Catalyst 1000-48P-4G-L Network Switch User Manual

Model: C1000-48P-4G-L

Brand: Cisco

1. INTRODUCTION

This manual provides essential information for the installation, operation, maintenance, and troubleshooting of the Cisco Catalyst 1000-48P-4G-L Network Switch. Please read this manual thoroughly before using the device to ensure proper functionality and safety.

2. PRODUCT OVERVIEW

The Cisco Catalyst 1000-48P-4G-L Network Switch is an enterprise-class, fixed managed Gigabit Ethernet Layer 2 switch designed for small businesses and branch offices. It offers a simple, flexible, and secure networking solution, ideal for critical IoT (Internet of Things) deployments. This switch operates on Cisco IOS Software and features both a command-line interface (CLI) and an intuitive web user interface for management.

Key Features:

- Hardware Configuration:** 48 10/100/1000 Gigabit Ethernet ports, 4 SFP+ uplink ports.
- Power:** Power over Ethernet Plus (PoE+) budget of 370W with Perpetual PoE+ support, ensuring uninterrupted power to connected PoE devices even during switch reboot.
- Management:** Flexible management options via Cisco IOS CLI and/or an intuitive web user interface. Supports central monitoring and configuration of up to 8 switches via a single IP address or with third-party network management tools.
- Security:** Enterprise-class security features including native IPv4/IPv6 First Hop Security (FHS) features such as port security, DHCP snooping, and dynamic ARP inspection. These can be easily configured using a single "Auto-Secure" command. Also includes 802.1x support for all connected devices.

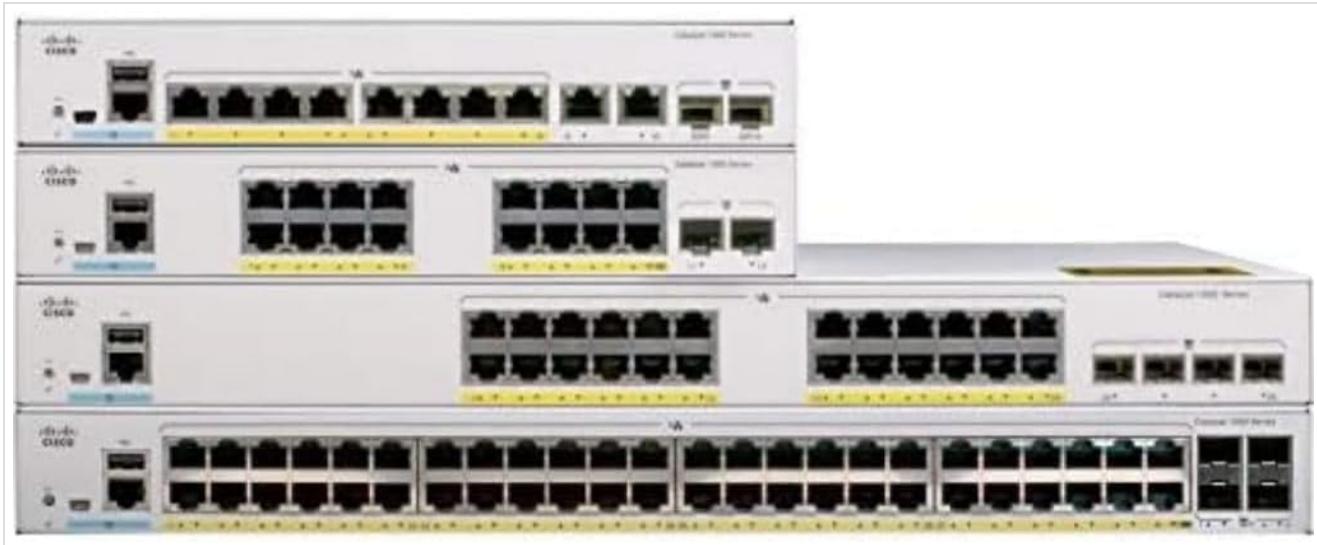


Figure 2.1: Cisco Catalyst 1000-48P-4G-L Network Switch (Front View)



Figure 2.2: Cisco Catalyst 1000 Series Switches in a Stack Configuration

3. SETUP

3.1 Unpacking and Inspection

Carefully unpack the switch and all included components. Inspect the contents for any signs of damage. If any components are missing or damaged, contact your vendor immediately.

Included Components:

- Cisco Catalyst 1000-48P-4G-L Switch
- Accessory Kit
- 1 printed document (this manual or a quick start guide)

3.2 Physical Installation

The Cisco Catalyst 1000-48P-4G-L switch can be installed on a desktop or mounted in a standard 19-inch equipment rack. Ensure the installation location provides adequate ventilation and is free from excessive heat, dust, and moisture.

- **Desktop Installation:** Place the switch on a flat, stable surface. Ensure there is sufficient space around the switch for airflow.
- **Rack Installation:** Use the provided rack-mount brackets from the accessory kit to secure the switch in a standard equipment rack. Follow the instructions in the accessory kit for proper mounting.

3.3 Power Connection

Connect the power cord to the AC power connector on the rear of the switch and then to a grounded electrical outlet. Ensure the power source meets the switch's power requirements.

3.4 Initial Network Connection

Connect a network cable from your computer to any of the Gigabit Ethernet ports on the switch for initial configuration access. Alternatively, use a console cable to connect to the console port for CLI access.

4. OPERATING THE SWITCH

4.1 Powering On

Once the power cord is connected, the switch will automatically power on. Observe the system LED indicators to confirm successful boot-up.

4.2 Initial Configuration

The switch can be configured using either the Command-Line Interface (CLI) or the intuitive Web User Interface (Web UI).

- **CLI Access:** Connect to the console port using a terminal emulator. Refer to the Cisco IOS Software documentation for detailed CLI commands.
- **Web UI Access:** Open a web browser and enter the default IP address of the switch (refer to the quick start guide or Cisco documentation for the default IP). Follow the on-screen prompts to complete the initial setup.

4.3 Connecting Devices

Connect network devices (computers, IP phones, wireless access points, etc.) to the Gigabit Ethernet ports. For Power over Ethernet (PoE+) compatible devices, simply connect them to the PoE+ enabled ports; the switch will automatically provide power.

4.4 Basic Network Management

After initial setup, you can configure VLANs, QoS settings, port security, and other network parameters through the chosen management interface (CLI or Web UI). For advanced configurations, consult the comprehensive Cisco Catalyst 1000 Series documentation.

5. MAINTENANCE

5.1 Firmware Updates

Regularly check the Cisco support website for the latest firmware updates. Keeping the switch firmware up-to-date ensures optimal performance, security, and access to new features. Follow the instructions provided with the firmware update package for the upgrade process.

5.2 Cleaning

Periodically clean the exterior of the switch with a soft, dry cloth. Do not use liquid or aerosol cleaners. Ensure ventilation openings are clear of dust and debris to maintain proper airflow.

5.3 Environmental Considerations

Ensure the switch operates within its specified environmental ranges for temperature and humidity. Avoid placing the switch near heat sources or in direct sunlight. Proper ventilation is crucial for long-term reliability.

6. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your Cisco Catalyst 1000-48P-4G-L Network Switch.

6.1 No Power

- Verify the power cord is securely connected to both the switch and a working electrical outlet.
- Check the power outlet with another device to ensure it is functional.
- Ensure the power supply unit (if external) is properly connected and its indicator light is on.

6.2 No Network Connectivity

- Check the link/activity LEDs on the switch ports and the connected devices. A solid green light usually indicates a good link, while blinking indicates activity.
- Ensure network cables are securely connected and are not damaged.
- Verify IP address configurations on connected devices and the switch.
- If using VLANs, ensure devices are assigned to the correct VLANs.

6.3 PoE+ Device Not Receiving Power

- Ensure the connected device is PoE+ compatible.
- Check the PoE status LED on the switch for the specific port.
- Verify that the total PoE budget (370W) of the switch is not exceeded by all connected PoE devices.
- Try connecting the device to a different PoE+ port.

6.4 Unable to Access Web UI or CLI

- Confirm your computer's IP address is in the same subnet as the switch's management IP.
- If using CLI, ensure correct serial port settings (baud rate, data bits, parity, stop bits).
- Reset the switch to factory defaults as a last resort (consult Cisco documentation for the procedure, as this will erase all configurations).

7. SPECIFICATIONS

Feature	Specification
Model Number	C1000-48P-4G-L (C1000-48P)
Switch Type	Network switch
Number of Ports	48 Gigabit Ethernet ports, 4 SFP+ uplink ports
PoE Budget	370W
Platform	iOS
Data Transfer Rate	1000 Megabits Per Second
Item Weight	16.25 pounds (7.37 kg)
Product Dimensions (LxWxH)	17.5 x 13.78 x 1.74 inches (44.45 x 35 x 4.42 cm)
Manufacturer	CISCO
UPC	889728248587
Color	White

8. WARRANTY AND SUPPORT

8.1 Warranty Information

The Cisco Catalyst 1000-48P-4G-L Network Switch comes with an **Enhanced Limited Lifetime Warranty**. For detailed terms and conditions of this warranty, please refer to the official Cisco warranty documentation or visit the Cisco website.

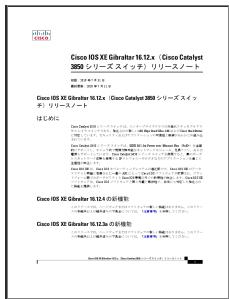
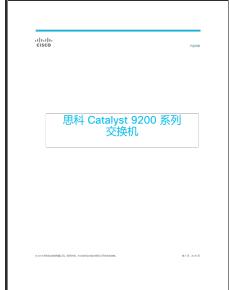
8.2 Technical Support

For technical assistance, troubleshooting beyond this manual, or to register your product, please visit the official Cisco support website or contact Cisco technical support. Having your product model number (C1000-48P-4G-L) and serial number ready will expedite the support process.

Note: Registering your switch upon receipt will facilitate easier support later on, as advised by experienced users.

Related Documents - C1000-48P-4G-L

 Cisco Catalyst 1000 Series Switch Hardware Installation Guide This guide provides detailed hardware installation instructions for Cisco Catalyst 1000 Series 8-Port and 16-Port Gigabit Ethernet switches, covering setup, mounting, connections, and troubleshooting for enterprise network environments.
 Cisco Catalyst 9200 Switch Datasheet A comprehensive datasheet detailing the Cisco Catalyst 9200 Series switches, covering features, specifications, platform details, accessories, licensing, and ordering information for enterprise network deployments.
 Cisco Catalyst 3850 Series Switches: Product Overview and Specifications A comprehensive overview of the Cisco Catalyst 3850 series switches, detailing product features, switch models, front and rear panel components, LEDs, network modules, power supply options, and management interfaces.
 Cisco Catalyst 9300 Series Switches FIPS 140-2 Security Policy This document outlines the FIPS 140-2 Level 1 Non-Proprietary Security Policy for Cisco Catalyst 9300 Series Switches, detailing their cryptographic module security, roles, services, algorithms, and secure operation procedures.

	<p><u>Cisco IOS XE Gibraltar 16.12.x Release Notes for Cisco Catalyst 3850 Series Switches</u></p> <p>This document provides release notes for Cisco IOS XE Gibraltar 16.12.x, detailing new features, hardware support, and software updates for the Cisco Catalyst 3850 Series Switches.</p>
	<p><u>Catalyst 9200</u></p> <p>Catalyst 9200 Catalyst 9200</p>