

# Cisco

# C1000-48P-4G-L

## Datasheet



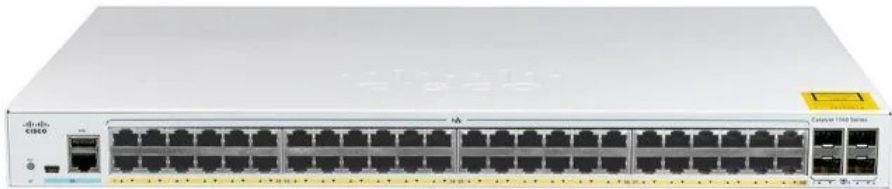
## Product Overview

- Cisco Catalyst 1000 Series delivers enterprise-class Layer 2 fixed managed switches tailored for SMBs and branch networks.
- It is an ideal solution for small businesses, retail shops, branch offices, and organizations needing secure wired or IoT connectivity.
- Offering 48 Gigabit Ethernet PoE+ ports, 4 SFP uplinks, and a 370W PoE budget, it ensures sustained high bandwidth and plenty of power.
- Flexible management is provided via CLI and on-box web UI, simplifying deployment and streamlining network supervision.
- Built-in sFlow, 802.1X security, and compact non-fanless models with a higher MTBF offer strong reliability and security for essential sites.
- Best for those seeking secure, reliable, and easy-to-manage networking infrastructure, supporting both office and edge IoT environments.

## Product Highlights

- **High-Density Gigabit PoE+:** Up to 48 Gigabit Ethernet PoE+ ports with a total PoE budget up to 740W, ideal for powering devices.
- **Flexible Uplink Options:** Four 1G SFP uplinks provide reliable high-speed network aggregation or upstream connectivity.
- **Smart Management Choices:** Manage through CLI or intuitive web UI for simplified configuration and monitoring.
- **Enhanced Security Features:** 802.1X, SPAN, and BPDU Guard strengthen protection for all connected endpoints.

## Detailed Features



C1000-48P-4G-L

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Component	Specification
Ethernet Ports	48 × 10/100/1000 PoE+
Uplink Ports	4 × 1G SFP
PoE Power Budget	370W
Switching Capacity	104 Gbps
Management	CLI, Web UI, SNMP



## Comprehensive High-Density Access

C1000-48P-4G-L provides 48 full PoE+ Gigabit Ethernet ports, capable of delivering up to 370W total power budget across connected IP phones, access points, or cameras. It is perfect for dense SMB or branch deployments needing reliable power distribution and flexible port utilization with no intermediary devices required.

## Flexible Uplink Performance

With four dedicated 1G SFP uplinks, the switch ensures seamless aggregation and uplink performance to the network core or other switches. This prevents traffic bottlenecks and optimizes network efficiency for users, endpoints, and servers in diverse deployment scenarios.

## Intuitive Device and Network Management

Supports configuration and monitoring via a full command-line interface (CLI) and on-device web user interface (UI), plus remote management by SNMP. These tools allow quick setup, robust troubleshooting, and granular control for both IT staff and managed service partners while reducing operational complexity.

## Advanced Security Protection

Integrates IEEE 802.1X for user authentication, Switched Port Analyzer (SPAN) for traffic mirroring, and Bridge Protocol Data Unit (BPDU) Guard to prevent misconfigurations or unauthorized devices, securing users and critical infrastructure from service interruptions and potential threats.

## Reliable PoE+ Power Delivery

Perpetual PoE+ design supports uninterrupted device operation with an advanced power budget and real-time power allocation. This ensures all connected endpoints such as IP cameras and access points stay online even during device reboots, boosting overall application uptime.

## Support for Advanced Monitoring

sFlow enables sampled network traffic monitoring for performance analysis and troubleshooting. Network admins benefit from precise, real-time visibility, making traffic optimization and anomaly detection straightforward, improving network reliability.

## Compact, Versatile Hardware Design

The switch features a compact form factor that fits standard racks or tight spaces beyond the traditional wiring closet. High mean time between failures (MTBF) values highlight durability, making the C1000-48P-4G-L suitable for critical office and IoT environments across varying operating conditions.

## Investment Protection and Warranty

Cisco offers enhanced limited lifetime warranty (E-LLW) and high MTBF, providing long-term operational confidence. These factors ensure reduced downtime, minimize service disruption, and safeguard customer investment for years to come.

# Technical Specifications

## Product Specifications

Feature	Value
Description	48x 10/100/1000 Ethernet PoE+ and 370W PoE budget ports, 4x 1G SFP uplinks
Gigabit Ethernet Ports	48
Uplink Interfaces	4 SFP
PoE+ Power Budget	370W
Fanless	No
Dimensions (WxDxH in inches)	17.5 x 13.78 x 1.73
RJ-45 Ethernet Console Ports	1
USB mini-B Console Ports	1
USB-A Port for Storage and Bluetooth Console	1
CPU	ARM v7 800 MHz
DRAM	512 MB



Feature	Value
Flash Memory	256 MB
Forwarding Bandwidth	52 Gbps
Switching Bandwidth	104 Gbps
Forwarding Rate (64-byte L3 Packets)	77.38 Mpps
Unicast MAC Addresses	16000
IPv4 Unicast Direct/Indirect Routes	542/256
IPv6 Unicast Direct/Indirect Routes	414/128
IPv4/IPv6 Static Routes	16 each
IPv4 Multicast Routes and IGMP Groups	1024
IPv6 Multicast Groups	1024
IPv4/MAC Security ACEs	600
IPv6 Security ACEs	600
Maximum Active VLANs	256
VLAN IDs Available	4094
Maximum STP Instances	64
Maximum SPAN Sessions	4
MTU-L3 Packet	9198 bytes
Jumbo Ethernet Frame	10,240 bytes
Dying Gasp	Yes
MTBF in Hours (Data)	1,452,667
MTBF in Hours (PoE/Full PoE)	856,329
Operating Temperature	-5 to 50°C*
Operating Temperature (Up to 5,000 ft)	-5 to 45°C
Operating Temperature (Up to 10,000 ft)	-5 to 40°C
Operating Altitude	10,000 ft (3,000 m)
Operating Relative Humidity	5% to 90% at 40°C
Storage Temperature	-13 to 158°F (-25 to 70°C)
Storage Altitude	15,000 ft (4500 m)
Storage Relative Humidity	5% to 95% at 65°C
Safety	UL 60950-1 Second Edition, CAN/CSA-C22.2 No. 60950-1 Second Edition, EN 60950-1 Second Edition,



Feature	Value
	IEC 60950-1 Second Edition, AS/NZS 60950-1, IEC 62368-1, UL 62368-1, GB 4943.1-2011
EMC: Emissions	47CFR Part 15 Class A, AS/NZS CISPR32 Class A, CISPR32 Class A, EN55032 Class A, ICES-003 Class A, VCCI-CISPR32 Class A, EN61000-3-2, EN61000-3-3, KN32 Class A, CNS13438 Class A
EMC: Immunity	EN55024 (including EN 61000-4-5), EN300386, KN35
Environmental	Reduction of Hazardous Substances (RoHS) including Directive 2011/65/EU
Telco	Common Language Equipment Identifier (CLEI) code
U.S. Government Certifications	TBD
Ethernet Interfaces	10BASE-T ports: RJ-45 connectors, 2-pair Category 3, 4, or 5 Unshielded Twisted Pair (UTP) cabling
Ethernet Interfaces	100BASE-TX ports: RJ-45 connectors, 2-pair Category 5 UTP cabling
Ethernet Interfaces	1000BASE-T ports: RJ-45 connectors, 4-pair Category 5 UTP cabling
Ethernet Interfaces	1000BASE-T SFP-based ports: RJ-45 connectors, 4-pair Category 5 UTP cabling
Indicator LEDs	Per-port status: link integrity, disabled, activity
Indicator LEDs	System status: system
Console Cables	CAB-CONSOLE-RJ45 Console cable 6 ft. with RJ-45
Console Cables	CAB-CONSOLE-USB Console cable 6 ft. with USB Type A and mini-B connectors
Power	Use the supplied AC power cord to connect the AC power connector to an AC power outlet
Power	Models have external power supply



## Product Comparison

Feature	C1000-48P-4G-L	C1000-8T-E-2G-L	C1000-24T-4G-L
Ethernet Ports	48 x 1G PoE+	8 x 1G	24 x 1G
Uplink Ports	4 x 1G SFP	2 x 1G SFP	4 x 1G SFP
PoE Power Budget	370W	No PoE	No PoE
Switching Capacity	104 Gbps	20 Gbps	56 Gbps
Forwarding Rate	77.38 Mpps	14.88 Mpps	41.66 Mpps
Management	CLI, Web UI, SNMP	CLI, Web UI, SNMP	CLI, Web UI, SNMP
Fanless	No	Yes	Yes
MTBF (Data/ Full PoE)	1,452,667/856,329 hours	2,129,114 hours	1,756,525 hours

## Accessories

Category	Accessories
Included Accessories	<ul style="list-style-type: none"><li>- Power Adapter</li><li>- Rack Mount Kit</li><li>- Console Cable</li></ul>
Optional Accessories	<ul style="list-style-type: none"><li>- SFP Transceiver</li><li>- External Power Supply</li><li>- Cable Management Kit</li></ul>



## Support & Warranty



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Assurance



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## Global Footprint

Global Warehouses & Service Centers Across Continents.



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### Shenzhen Branch

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### UK Branch

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## References

[1] Cisco Systems. (2023). Cisco Catalyst 1000 Series Switches Datasheet. Retrieved from <https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-1000-series-switches/nb-06-cat1k-ser-switch-ds-cte-en.html>