Cisco
C9300L-48PF-4G-A

Datasheet

Product Overview

- Cisco's Catalyst 9300 Series is a leading stackable enterprise switch lineup, redefining campus and branch network access.

- The C9300L-48PF-4G-A is ideal for distributed offices, educational campuses, and mid-to-large businesses aiming for secure, scalable connectivity.

- It features 48 full PoE+ Gigabit Ethernet ports, StackWise-320 technology with 320 Gbps stack bandwidth, and advanced Layer 3 routing support.

- Key differentiators include robust mixed stacking with backward compatibility and industry-leading PoE+ density for unified IT and OT deployments.

- Cloud-based or on-premises management options deliver flexibility, while simplified network virtualization and centralized policy reduce complexity.

- Empowering modern workspaces, this Catalyst switch streamlines secure connectivity and paves the way for future-driven, business-grade networking.

Product Highlights

- **High-Density PoE+ Ports:** Up to 48 1G PoE+ ports support diverse network devices, delivering power and data in one streamlined solution.

- **Stackable Scalability:** StackWise-320 technology enables seamless stacking up to 320 Gbps, supporting business growth and maximizing reliability.

- **Advanced Security Capabilities:** Built-in MACsec and secure tunnel connectivity help safeguard data across complex enterprise environments.

- **Flexible Management:** Choose from intuitive cloud, on-premises, or virtual management approaches for streamlined and adaptive oversight.

Detailed Features

C9300L-48PF-4G-A

Quote | Help

Component	Specification
Downlink Ports	48 × 1G PoE+ Ethernet
Uplink Ports	4 × 1G SFP
Stacking Bandwidth	320 Gbps
Switching Capacity	56–176 Gbps
PoE Power Budget	Full 48-port PoE+ capability

Robust Stackable Performance

With StackWise-320, the C9300L-48PF-4G-A delivers up to 320 Gbps of stacking bandwidth. This ensures high availability and simplified management as your network grows. It is engineered for environments needing exceptional flexibility and reliable scale-out.

Versatile Full PoE+ Support

All 48 downlink ports offer full PoE+ power, supporting a wide range of devices including VoIP phones, wireless APs, IoT sensors and surveillance cameras. Simplified power delivery reduces wiring complexity and deployment costs significantly for edge devices.

Advanced Layer 3 Routing

This model supports robust Layer 3 networking capabilities. Features such as OSPF, EIGRP and BGP allow for flexible, scalable routing and VLAN segmentation, empowering businesses to optimize traffic and ensure network efficiency even in complex topologies.

Cloud and On-Premises Management

Users can choose between Meraki cloud-based dashboards or on-premises Cisco DNA Center for unified monitoring, configuration, and troubleshooting. This flexibility suits organizations of all sizes, ensuring ease of adoption and ongoing operability.

Mixed Stacking Compatibility

Support for mixed stacking with previous Catalyst 9300 and 9300X models ensures backward compatibility, investment protection, and operational continuity. This flexibility allows seamless hardware upgrades as networks evolve, minimizing disruptions.

Comprehensive Security Suite

Integrated features such as MACsec encryption, secure tunnel IPsec support, and Ciscos TrustSec deliver strong end-to-end network protection. These capabilities help enterprises defend against diverse and evolving security threats.

Enhanced Application Hosting

With robust onboard resources, the switch can host Cisco-signed applications, including ThousandEyes for network analytics and ASAc for adaptive security. This application hosting unlocks enhanced visibility and operational intelligence.

Intuitive Network Automation

Integration with Ciscos SD-Access enables context-based policy automation, unified wired/wireless management, and simplified deployments. These automation capabilities empower IT teams to focus on strategic innovation over manual repetitive tasks.

Technical Specifications

Product Specifications

Feature	Value
Supported IOS	Network Advantage
Supported IOS	Network Essentials
Network modules options	Fixed Modules
Stack Technology	StackWise-320
Stacking bandwidth	320 Gbps
Total number of MAC addresses	32,000
Total number of IPv4 routes (ARP plus learned routes)	32,000 (24,000 direct routes and 8000 indirect routes)
IPv6 routing entries	16,000
Multicast routing scale	8,000
QoS scale entries	5,120
ACL scale entries	5,120

Feature	Value
Packet buffer per SKU	16 MB buffer for 24 and 48 port Gigabit Ethernet models
Flexible NetFlow (FNF) entries	64,000 flow on 24- and 48-port Gigabit Ethernet models
DRAM	8 GB
Flash	16 GB
VLAN IDs	4094
Total Switched Virtual Interfaces (SVIs)	1000
Jumbo frames	9198 bytes
Switching capacity	56 Gbps - 176 Gbps
Forwarding rate	41.66 Mpps - 130.95 Mpps

Product Comparison

Feature	C9300L-48PF-4G-A	C9300L-48T-4X-A	C9500-48Y4C-EDU
Downlink Ports	48 × 1G PoE+ Ethernet	48 × 1G Ethernet	48 × 25G SFP28
Uplink Ports	4 × 1G SFP	4 × 10G SFP+	4 × 100G QSFP28
PoE Support	Full 48-port PoE+	Not supported	Not supported
Stacking Bandwidth	320 Gbps	320 Gbps	Up to 1 Tbps
Layer 3 Features	Advanced Layer 3, OSPF, BGP	OSPF, BGP, EIGRP	OSPF, BGP, advanced routing
Management	Cloud/on-prem/virtual	Cloud/on-prem/virtual	Cloud/on-prem/virtual
Switching Capacity	56–176 Gbps	56–176 Gbps	Up to 3.2 Tbps
Target Usage	Enterprise edge/access	Enterprise access	High-performance core/aggregation

Accessories

Category	Accessories
Included Accessories	- Power Adapter - Rack Mount Kit - Console Cable

Category	Accessories
Optional Accessories	- SFP Transceiver - Redundant Power Supply - Stacking Cable

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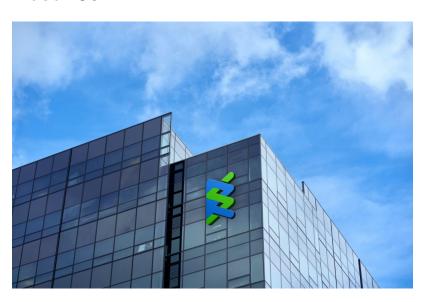
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References

[1] Cisco. (2024). Catalyst 9300 Series Switches Datasheet. Retrieved from https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-9300-series-switches/nb-06-cat9300-ser-data-sheet-cte-en.html