



Cisco

C1-N9K-C93180LC-EX

Datasheet



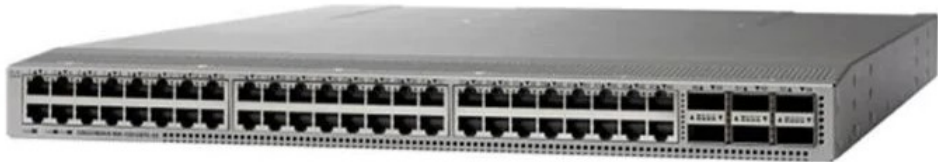
Product Overview

- Cisco Nexus 9300-EX Series switches are high-performance data center switches built on Cisco Cloud Scale technology.
- These switches target large enterprises and cloud service providers needing scalable, reliable, and flexible network infrastructure.
- Key hardware highlights include 48 × 10/25G SFP28 ports, 6 × 40/100G QSFP28 uplinks, and support for 1/10/25 Gbps server connections.
- Advanced buffer management and large L2/L3 scaling capabilities set these switches apart for demanding virtualized environments.
- Deployment options include NX-OS mode for standard switching or ACI mode for automated, policy-driven operations.
- The Cisco Nexus 9300-EX Series delivers reliable, future-ready networking to meet rapid growth and evolving data center demands.

Product Highlights

- **Architectural Flexibility:** Supports Cisco ACI™, standards-based VXLAN EVPN fabrics, and advanced BGP for scalable, web-scale networks.
- **Extensive Programmability:** Offers day zero automation, DevOps integration via Ansible, Puppet, Chef, and full RESTCONF/NETCONF API support.
- **Intelligent Buffer Management:** Advanced buffer features like Approximate Fair Dropping (AFD) and Dynamic Packet Prioritization ensure lossless data flows.
- **High Availability and NX-OS Innovations:** vPC, 64-way ECMP, hot/cold patching, N+1 redundant PSUs/fans, and single image NX-OS enhance system resiliency.

Detailed Features



C1-N9K-C93180LC-EX

[Quote](#) | [Help](#)

Component	Specification
Downlink Ports	48 × 10/25G SFP28
Uplink Ports	6 × 40/100G QSFP28
Total Ports	54
Downlink Speed	1/10/25 Gbps
Switch Form Factor	1RU fixed



High-Performance Cloud Scale Architecture

Built with Cisco Cloud Scale technology, the C1-N9K-C93180LC-EX delivers robust switching power for modern enterprise and cloud networks. The switch efficiently handles large-scale endpoint growth, high traffic loads, and cloud service integration while maintaining consistent low latency and superior reliability under demanding workloads.

Flexible Interface Migration and Port Density

With 48 × 10/25G SFP28 ports and 6 × 40/100G QSFP28 uplink ports, the switch enables seamless data center migration from legacy 1/10GbE speeds to 25GbE at the server level, and from 40GbE to 100GbE at aggregation. This flexibility supports diverse deployment requirements and preserves investment in changing network topologies.

Advanced Layer 2 and Layer 3 Scalability

The platform supports up to 896,000 LPM routes, 896,000 IP host entries, and 256,000 MAC addresses, ensuring deep scalability for large virtualized and multi-tenant environments. The comprehensive routing protocol suite enhances complex network fabric designs, supporting high traffic segmentation and dynamic workload mobility.

Intelligent Buffer and Traffic Management

The platform features innovative buffer management with Approximate Fair Dropping (AFD), Elephant Trap (ETRAP), and Dynamic Packet Prioritization (DPP). These technologies efficiently handle both short-lived and long-lived flows to optimize bandwidth allocation, prevent congestion, and support high-throughput applications in real time.

Day Zero Automation and Operational Simplicity

Power On Auto Provisioning and DevOps automation tools integration (Ansible, Chef, Puppet, SALT) streamline device rollouts and configuration management. Comprehensive programmable APIs and YANG/OpenConfig support further simplify network operations and accelerate deployment activities for IT teams.

Comprehensive Monitoring and Telemetry

Native support for Cisco Tetration Analytics enables real-time telemetry export at 100ms intervals from the ASIC, providing deep flow, inter-packet, and context insights. This allows for pervasive visibility, proactive troubleshooting, and algorithm-driven operations, supporting security and compliance frameworks across the infrastructure.

Resilient Design with Redundant Components

Hot-swappable power supplies and fans with N+1 redundancy, advanced vPC for L2 multipathing, and 64-way ECMP routing all contribute to high system availability and minimal risk of network disruption. The modular NX-OS also isolates protocol faults and supports in-service software upgrades for reliable operations.

Centralized Management and Compliance

Data Center Network Manager (DCNM) and Cisco Network Assurance Engine (NAE) provide unified administration, continuous policy verification, and configuration compliance. Graphical topology views, proactive impact analysis, and closed-loop remediation help organizations reduce downtime, optimize resources, and ensure secure fabric segmentation.

Technical Specifications

Product Specifications

Feature	Value
Model	C1-N9K-C93180LC-EX
Brand	Cisco
Port Configuration	48 × 10/25G SFP28 ports, 6 × 40/100G QSFP28 uplink ports, Total 54 ports
Downlink Speeds	1/10/25 Gbps
LPM Routes	896,000
IP Host Entries	896,000
MAC Addresses	256,000
Multicast Routes	32,000
IGMP Snooping Groups	8,000 (Max 32,000)



Feature	Value
ACL Capacity	4,000 ingress / 2,000 egress per slice
VLANs	4,096 (127 reserved)
VRF Instances	1,000 (Max 16,000)
CPU	4 cores
System Memory	24 GB
SSD	64 GB
System Buffer	40 MB
Power Supply Options	500W AC, 930W DC, 1200W HVAC/HVDC
Typical Power Consumption	210W (typical, AC/DC)
Max Power Consumption	470W (max, AC/DC)
Fans	4, hot-swappable
Airflow	Port-side intake & exhaust
Dimensions	1.72 × 17.3 × 22.5 in (4.4 × 43.9 × 57.1 cm)
MTBF	390,330 hours
Management Ports	2 (1 × RJ-45, 1 × SFP)
USB Ports	1
RS-232 Serial Ports	1
Operating Temperature	32°F to 104°F (0°C to 40°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Humidity	5% to 95% non-condensing
Minimum NX-OS Version	9.3(2)
Minimum ACI Image	14.2.1
RoHS Compliance	Yes
Safety Standards	UL 60950-1, EN 60950-1
EMC Certification	CE, FCC, VCCI Class A



Product Comparison

Feature	C1-N9K-C93180LC-EX	C1-N9K-C92160YC-X	Arista DCS-7280DR3K-24-F
Fixed Ports	48 × 10/25G SFP28 + 6 × 40/100G QSFP28	48 × 1/10/25G SFP+ + 6 × 40/100G QSFP28	24 × 400G QSFP-DD
Layer 2/3 Routing Table	896,000 LPM, 896,000 host	512,000 LPM, 512,000 host	1.5 million IPv4/IPv6 routes
System Memory	24 GB	16 GB	32 GB
System Buffer	40 MB	40 MB	64 MB
Power Supply	500W AC/930W DC/1200W HVAC	950W AC/1500W DC	2 × 3000W AC/DC
Management Ports	2 (1 × RJ-45, 1 × SFP)	2 (1 × RJ-45, 1 × SFP)	2 × RJ-45
Hot-Swappable Fans/PSU	4, N+1 redundancy	4, N+1 redundancy	N+1 hot-swap supported
ASIC Telemetry Support	Yes	Yes	Yes
Typical Power Consumption	210W	255W	1140W
Dimensions (H × W × D)	1.72 × 17.3 × 22.5 in	1.72 × 17.3 × 22.5 in	5.22 × 17.3 × 22.0 in
Suitable Use Case	Cloud-scale, scalable DC aggregation	High-density access or aggregation	High-performance spine/aggregation

Accessories

Category	Accessories
Included Accessories	- Power Supply Unit - Rack Mount Kit - Console Cable
Optional Accessories	- SFP28/ QSFP28 Transceivers - DC Power Supply Module - Extended Warranty



Support & Warranty



24/7 Online
Service



3-Year Premium
Warranty



Professional
Technical Support



100% Low Price
Guarantee



100% Quality
Assurance



100% Money
Back Guarantee

About Us



Router-switch.com, headquartered in Hong Kong since 2002, has been a trusted global leader in ICT distribution for 23 years. We provide cutting-edge networking, cybersecurity, data center, and AI solutions to meet evolving business needs. Our wide range includes products from top brands like Cisco, Arista, Aruba, Fortinet, Mellanox, and Huawei, ensuring access to the latest technology and innovations.

18,000+

global customers

600,000+

end-users

200+

countries & regions

23

years experience

500+

global vendors

100,000+

SKUs available

700+

local sales experts

50-98%

off global list prices

Contact Us

Email

High Connectivity: sales@router-switch.com

Expert Technical Support: ccie-support@router-switch.com

Cooperative Partnerships: ccie-support@router-switch.com

Phone

USA: +1-626-655-0998

Hong Kong: +852-25925389 / +852-25925411

Follow Us

Facebook: [@Routerswitchdotcom](https://www.facebook.com/Routerswitchdotcom)

LinkedIn: [Router-switch.com](https://www.linkedin.com/company/router-switch.com)

X: [@routerswitchcom](https://twitter.com/routerswitchcom)

Instagram: [@routerswitchdotcom](https://www.instagram.com/routerswitchdotcom)

Global Footprint

Global Warehouses & Service Centers Across Continents.



Global Branches

Headquarters (Hong Kong)

Rm 605, 6/F, Fa Yuen Comm Bldg, 75-77 Fa Yuen St, Mongkok, Kowloon, Hong Kong, China

USA Branch

3592 Rosemead Blvd, B #220, Rosemead, CA 91770, USA

Shenzhen Branch

Jingfeng Building, 1001 Shangbu South Road, Futian District, Shenzhen, China

UK Branch

Third Floor, 207 Regent Street, London W1B 3HH, UK



References

[1] Cisco. (2024). Cisco Nexus 9300-EX Series Switches Datasheet. Retrieved from <https://www.cisco.com/c/en/us/products/collateral/switches/nexus-9000-series-switches/datasheet-c78-742283.html>