

## Cisco Nexus [N9K-C9232C](#) Fixed Spine Switch Datasheet

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### Product Overview

Based on Cisco Cloud Scale technology, the [N9K-C9232C](#) is a high-density spine switch designed for modern data centers. It delivers wire-rate performance for cloud-scale deployments with integrated security and telemetry. Key innovations include:

- **MACsec Encryption:** Hardware-based Layer 1 security on all 32 ports
- **Streaming Telemetry (SSX):** Real-time ASIC-level analytics without CPU impact
- **Dual-Mode Operation:** Supports both Cisco ACI (policy-driven automation) and NX-OS (traditional CLI)

### Physical Design:

- **Form Factor:** 1RU compact chassis (4.4×43.9×58.1 cm)
  - **Port Configuration:**
    - 32 × 40/100G QSFP28 ports (8 ports with MACsec encryption)
    - 2 × 1/10G SFP+ uplinks
  - **Cooling:** 5 hot-swappable fans (port-side intake/exhaust options)
  - **Weight:** 11.4 kg (fully loaded)
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### Technical Specifications

Category	Specifications
Performance	Switching Capacity: 6.4 Tbps • Forwarding Rate: 4.4 Bpps
Memory/Storage	16GB DDR4 RAM • 128GB SSD
Power	750W/1100W AC or 1100W DC/HVDC options • Typical Consumption: 296W • Max: 700W
Environmental	Operating Temp: 0–40° C • Humidity: 5–90% non-condensing • MTBF: 363,500 hours
Acoustics	76.4 dBA @ 50% fan speed • 92.1 dBA @ 100%
Management	1 × 10/100/1000 BASE-T • 1 × 1G SFP • USB • RS-232 console

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## Performance & Scalability

Feature	Capacity
IPv4/IPv6 Host Entries	96,000 (default) • 262,000 (LPM-heavy)
Multicast Routes	8,000 (default) • 32,768 (max)
ACL Entries	16,000 ingress • 8,000 egress
VRF Instances	1,000
ECMP Paths	64
Port Channels	64

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## Compatibility & Expansion

### Software Integration:

- **Hypervisors:** VMware vSphere 7.0+ (VXLAN setup <2 sec)
- **Cloud Platforms:** Kubernetes CNI, OpenStack
- **Automation:** Ansible, Terraform, Cisco DNA Center

### Optics Support:

- **100G Optics:** QSFP-100G-SR4, QSFP-100G-LR4
- **40G Optics:** QSFP-40G-SR-BD, QSFP-40G-LR4

Full list: [Cisco Optics Compatibility Table](#)

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## Licensing & Software

License Tier	Features Enabled
Base NX-OS	Layer 2 switching, basic security
LAN Advanced	Layer 3 routing (OSPF, BGP), VXLAN, multicast
Enterprise	MACsec encryption, telemetry, ACI mode

**Note:** Upgrade requires license activation via Cisco Smart Software Manager.

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## Ordering Information

Part Number	Description	Price (USD)
<b>Hardware</b>		
N9K-C9232C	Chassis (32×100G + 2×10G)	\$18,500
<b>Power Options</b>		
NXA-PAC-1100W-PI	1100W AC PSU (port-side intake)	\$1,200
NXA-PDC-1100W-PI	1100W DC PSU	\$1,350
<b>Accessories</b>		
N9K-C9300-RMK	Rack mount kit	\$180
CAB-9K10A-NA	North America power cord	\$45

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## Key Advantages

### 1. Cost Efficiency:

- 28% lower power consumption vs. previous-gen spines
- Eliminates external encryption appliances (saves \$15K/rack)

### 2. Deployment Flexibility:

- Mixed airflow options (intake/exhaust) for hot/cold aisle containment
- Zero-Touch Provisioning (ZTP) for rapid scaling

### 3. Reliability:

- 99.999% availability with redundant power/fans
  - Hardware-validated MACsec FIPS 140-2 compliance
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## Regulatory Compliance

- **Safety:** UL 60950-1, EN 60950-1, IEC 60950-1
- **EMC:** EN55032, FCC Part 15, CISPR 32
- **Environmental:** RoHS, REACH, WEEE

Full reports: [Cisco Compliance Portal](#)

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## About Linknewnet

We provide certified pre-owned **Cisco Nexus 9000 Series** switches with:

- 90-day hardware warranty
- Lifetime technical support
- Verified firmware updates

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*Data sourced from Cisco Nexus 9000 Series documentation (NX-OS 10.2).  
Specifications subject to change. Last updated: Aug 2024.*

## About Linknewnet

Linknewnet provides used mid-to-high-end network products with various accessories from mainstream brands such as [Cisco](#), [Huawei](#), [H3C](#), [Juniper](#), Brocade, HP, [F5](#), [FortiGate](#), [A10](#) Networks, etc. to global users.

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