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## Overview

N3K-C31108PC-V is the Nexus 31108PC-V, providing 48 SFP+ and 6 QSFP28 ports. The Cisco Nexus 3100-V switch platform is the latest addition to the industry's widely deployed Cisco Nexus 3100 platform. The Cisco Nexus 3100-V platform consists of high-density, low-power-consumption, and low-latency fixed-configuration data center switches with line-rate Layer 2 and 3 features that support enterprise applications, service provider hosting, High-Performance Computing (HPC), and cloud computing environments. These switches support a wide range of port speeds with flexible combinations of 1/10/40/100-Gbps connectivity with improved port density and scalability in compact 1-rack-unit (1RU) form factors.

## Quick Specification

Product Code	N3K-C31108PC-V
Physical	<p>1RU fixed form factor</p> <p>Cisco Nexus 31108PC-V</p> <p>48 SFP ports support 1 and 10 Gigabit Ethernet</p> <p>6 QSFP ports support 4 x 10 Gigabit Ethernet or 40 Gigabit Ethernet each or 100 Gigabit Ethernet</p> <p>Redundant fans (3+1)</p> <p>2 redundant power supplies</p> <p>Management, console, and USB flash-memory ports</p>
Performance	<p>2.16-Tbps switching capacity and forwarding rate of up to 1.2 bpps for 31108PC-V and 31108TC-V</p> <p>Line-rate traffic throughput (both Layer 2 and 3) on all ports</p> <p>Configurable maximum transmission units (MTUs) of up to 9216 bytes (jumbo frames)</p>
Dimension (height x width x depth)	1.72 x 17.3 x 22.3 in. (4.4 x 43.9 x 56.6 cm)
Net Weight	21.4 lb (9.7 kg)

## Product Details:

### The Front Panel:



### The Cisco Nexus 3100-V platform provides the following main benefits:

- High performance and scalability

The Cisco Nexus 3100-V platform provides wire-rate Layer 2 and 3 switching of up to 2.56 terabits per second (Tbps) and up to 1.4 billion packets per second (bps) on all ports.

The Cisco Nexus 3100-V platform delivers ultra-low nominal latency (approximately 650 nanoseconds [ns]), which allows customers to implement high performance infrastructure for High-Frequency-Trading (HFT) workloads.

- Line-rate Virtual Extensible LAN (VXLAN) routing

VXLAN is designed to provide the same Ethernet Layer 2 network services as VLAN does today, but with greater extensibility and flexibility.

The Cisco Nexus 3100-V platform offers native line-rate VXLAN routing.

The Border Gateway Protocol (BGP) Ethernet Virtual Private Network (EVPN) control plane provides scalable multitenancy and host mobility (for more information, refer to the document “VXLAN Network with MP-BGP EVPN Control Plane).

- Enhanced buffer for applications

The Cisco Nexus 3100-V platform offers 16 MB of shared buffer space.

In today’s data center, application teams require the network to be flexible and capable of handling the rapid growth of applications. The Cisco Nexus 3100-V platform provides deep shared buffers (16 MB) to absorb bursts of traffic and a wide variety of applications, such as multicast feeds, voice traffic, video traffic, and healthcare applications.

These deep buffers also provide flexibility to expand your network as your needs change. The shared buffers are also instrumental in situations in which one or more servers are consuming most of the bandwidth in highly oversubscribed environments.

- Higher ingress Access Control List (ACL) entries

The Cisco Nexus 3100-V platform offer 16,000 ACL entries and 1000 egress ACL entries.

The increased number of ingress ACL entries can be especially useful in today’s data centers, particularly in virtualized environments.

- High availability

Virtual-Port-Channel (vPC) technology provides Layer 2 multipathing through the elimination of Spanning Tree Protocol. It also enables fully utilized bisectional bandwidth

and simplified Layer 2 logical topologies without the need to change the existing management and deployment models.

The 64-way Equal-Cost Multipath (ECMP) routing enables the use of Layer 3 fat-tree designs and allows organizations to prevent network bottlenecks, increase resiliency, and add capacity with little network disruption.

Advanced reboot capabilities are included through In Service Software Upgrade (ISSU) and Fast Reboot capabilities.

Power-Supply Units (PSUs) and fans are hot swappable.

- Purpose-built on the NX-OS operating system with comprehensive, proven innovations

Power-on Auto Provisioning (POAP) enables touchless bootup and configuration of the switch, drastically reducing provisioning time.

Cisco Embedded Event Manager (EEM) and Python scripting enable automation and remote operations in the data center.

Advanced buffer monitoring reports real-time buffer use per port and per queue, which allows organizations to monitor traffic bursts and application traffic patterns.

Ethanalizer is a built-in packet analyzer for monitoring and troubleshooting control-plane traffic and is based on the popular Wireshark open-source network protocol analyzer.

Precision Time Protocol (PTP; IEEE 1588) provides accurate clock synchronization and improved data correlation with network captures and system events.

Complete Layer 3 unicast and multicast routing protocol suites are supported, including Border Gateway Protocol (BGP), Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), Routing Information Protocol Version 2 (RIPv2), Protocol-Independent Multicast sparse mode (PIM-SM), Source-Specific Multicast (SSM), and Multicast Source Discovery Protocol (MSDP).

- Network traffic monitoring with Cisco Nexus Data Broker

Build simple, scalable and cost-effective network test access point (TAP) or Cisco Switched Port Analyzer (SPAN) aggregation for network traffic monitoring and analysis.

## The Accessories

### Modules and Cables:

Models	Description
NXA-FAN-30CFM-F	Nexus 2K/3K single fan, Forward airflow (port side exhaust)
NXA-FAN-30CFM-B	Nexus 2K/3K single fan, Reversed airflow (port side intake)
NXA-PAC-650W-PI	Nexus 9000 650W AC PS, Port-side Intake [Use with Nexus 31108PC-V or 31108TC-V]
NXA-PAC-650W-PE	Nexus 9000 650W AC PS, Port-side Exhaust [Use with Nexus 31108PC-V or 31108TC-V]
NXA-PDC-930W-PE	Nexus 9000 930W DC PS, Port-side Exhaust [Use with Nexus 31108PC-V or 31108TC-V]
NXA-PDC-930W-PI	Nexus 9000 930W AC PS, Port-side Intake [Use with Nexus 31108PC-V or 31108TC-V]
L-N3K-LAN1K9=	Nexus 3000 LAN Enterprise License, eDelivery

### Compare to Similar Items

Product Code	N3K-C3132Q-XL	<a href="#">N3K-C31108PC-V</a>
Ports	32 QSFP+ ports; each supports native 40 Gigabit Ethernet and 4 x 10 Gigabit Ethernet modes	48 SFP ports support 1 and 10 Gigabit Ethernet 6 QSFP28 ports support 4 x 10 Gigabit Ethernet or 40 Gigabit Ethernet each or 100 Gigabit Ethernet
Physical dimensions (H x W x D)	1.72 x 17.3 x 19.7 in. (4.4 x 43.9 x 50.5 cm)	1.72 x 17.3 x 22.3 in. (4.4 x 43.9 x 56.6 cm)
Weight	21.5 lb (9.3 kg)	21.4 lb (9.7 kg)

Get more information:

Do you have any question about the Cisco N3K-C31108PC-V?

Contact us now via e-mail: [info@hi-network.com](mailto:info@hi-network.com)

## Specific Data Sheet:

Type	N3K-C31108PC-V
Physical	<p>1RU fixed form factor</p> <p>Cisco Nexus 31108PC-V</p> <p>48 SFP ports support 1 and 10 Gigabit Ethernet</p> <p>6 QSFP28 ports support 4 x 10 Gigabit Ethernet or 40 Gigabit Ethernet each or 100 Gigabit Ethernet</p> <p>Redundant fans (3+1)</p> <p>2 redundant power supplies</p> <p>Management, console, and USB flash-memory ports</p>
Performance	<p>2.16-Tbps switching capacity and forwarding rate of up to 1.2 bpps for 31108PC-V and 31108TC-V</p> <p>Line-rate traffic throughput (both Layer 2 and 3) on all ports</p> <p>Configurable maximum transmission units (MTUs) of up to 9216 bytes (jumbo frames)</p>
MAC addresses	288,000
Number of VLANs	4096
Spanning-tree instances	<p>RSTP: 512</p> <p>MSTP: 64</p>
ACL entries	<p>16,000 ingress</p> <p>1000 egress</p>
Routing table	<p>16,000 prefixes and 16,000 host entries</p> <p>8000 multicast routes</p>
Number of EtherChannels	64 (with vPC)
Number of ports per EtherChannel	32
System memory	16 GB
Buffers	16 MB shared
Boot flash memory	64 GB SSD (31108PC-V, 31108TC-V, and 31108TCV-32T)
Number of power supplies	2
Power supply types	<p>AC (forward and reverse airflow)</p> <p>NXA-PAC-650W-PE and NX-PAC-650W-PI (31108 models)</p> <p>DC (forward and reverse airflow)</p> <p>NXA-PDC-930W-PE and NX-PDC-930W-PI (31108 models)</p>
Typical operating power	Cisco Nexus 31108PC-V: 150W
Maximum power	Cisco Nexus 31108PC-V: 360W
AC PSUs	
Input voltage	100 to 240 VAC
Frequency	50 to 60 Hz
Efficiency	89 to 91% at 220V

# N3K-C31108PC-V Datasheet



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DC PSUs	
Input voltage	-40 to -72 VDC
Maximum current	33A (400W unit), 78A (930W unit)
Efficiency	85 to 88%
Typical heat dissipation	Cisco Nexus 31108PC-V: 512 BTU/hr
Maximum heat dissipation	Cisco Nexus 31108PC-V: 1228 BTU/hr
Cooling	Forward and reversed airflow schemes Forward airflow: Port-side exhaust (air enters through fan-tray and power supplies and exits through ports) Reversed airflow: Port-side intake (air enters through ports and exits through fan tray and power supplies) Redundant fans Hot swappable (must swap within 1 minute)
Measured sound power (maximum)	
Fan speed: 40% duty cycle	64.9 dBA
Fan speed: 60% duty cycle	69.3 dBA
Fan speed: 100% duty cycle	76.7 dBA
Dimensions (height x width x depth)	1.72 x 17.3 x 22.3 in. (4.4 x 43.9 x 56.6 cm)
Weight	21.4 lb (9.7 kg)
Operating temperature	32 to 104°F (0 to 40°C)
Storage temperature	-40 to 158°F (-40 to 70°C)
Operating relative humidity	10 to 85% noncondensing Up to 5 days at maximum (85%) humidity Recommend ASHRAE data center environment
Storage relative humidity	5 to 95% noncondensing
Altitude	0 to 10,000 ft (0 to 3000m)



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