

N8050-32Q Bare Metal Switch

IDEAL FOR DATA CENTER NETWORKS AND HIGH-END CAMPUS NETWORKS

N8050-32Q bare metal switch is designed for data center networks and high-end campus networks, providing stable, reliable and secure Layer 2/Layer 3 switching services.



Overview

N8050-32Q is a Top-of-Rack (TOR) or spine switch for high-performance data centers. In a compact 1RU form factor, the switch provides line-rate L2 and L3 switching across 32 x QSFP+ ports, supporting 32x 40 GbE connections or 96x 10 GbE + 8x 40G connections.

Loaded with the Open Network Install Environment (ONIE), N8050-32Q supports the installation of compatible open source and commercial Network Operating Systems for different network use cases and requirements.

COMPATIBLE OPERATING

SYSTEM

- Big-Switch-BMF
- Big-Switch-BCF
- Cumulus - Cumulus®Linux®
- Pica8 PicOS™
- SnapRoute CN-NOS

What is ONIE (Open Network Install Environment)?

The Open Network Install Environment (ONIE) is an Open Compute Project open source initiative driven by a community to define an open "install environment" for bare metal network switches, such as N-series switches. ONIE enables a bare metal network switch ecosystem where end users have a choice among different network operating systems.

This family provides 10G/25G/40G/100G bare metal switches, enabling users to freely install and use Cumulus Linux, SONiC, PICOS®, etc. As the switch operating system, which breaks the dependency of using vendor-specific, closed-source software development kits (SDK).

Key Features and Benefits

Product Highlights

Cost-effective, bare-metal switch infrastructure for data center fabric.

32x 40 GbE QSFP+ switch ports in compact 1RU form factor, each supporting 40 GbE or 4 x 10 GbE via breakout cables. Maximum 24x 40 GbE QSFP+ switch ports support breakout cables.

Layer 2 or Layer 3 forwarding of 2.56 Tbps full duplex.

All ports on front. PSUs and fans inserted from rear.

Power Supply and Fan Modules

Hot swappable, load-sharing redundant AC PSUs.

4+1 redundant, hot-swappable fans modules.

Software

Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings.

Compatible with Open Network Linux (ONL), an open-source, OCP reference NOS.

Compatible with Switch Light OS from Big Switch Networks and Big Cloud Fabric™ SDN applications.

Compatible with Cumulus® Linux® r4.2.0 and before version from Cumulus Networks®.

Compatible with SnapRoute CN-NOS, Cloud Native - NOS software.

Compatible with PicOS™ from Pica8 Inc.

Technical Specification

N8050-32Q bare metal switch comes with the industry-standard hardware. Here's a look at the details.

CHARACTERISTICS

	N8050-32Q
Port	
Ports	32x QSFP+
QSFP+ Ports	Each port supports 40 GbE or 4x 10 GbE per port using breakout cables
RJ45 Management Port	1
Console Port	1
USB Type A Storage Port	1
Operating System	
OS	ONIE (Bare Metal Switch)
Key Components	
Switch Chip	Broadcom BCM56860 Trident II+
CPU	Intel Atom C2538 quad-core 2.4GHz x86 processor
DRAM	8GB SO-DIMM DDR3 RAM with ECC
SPI Flash	16MB
mSATA SSD	32GB
Performance	
Layer Type	Layer 3
Switching Capacity	2.56 Tbps full duplex
Forwarding Rate	1.9 Bpps

CHARACTERISTICS

	N8050-32Q
MAC Addresses	32K min./288K max.
Packet Buffer	16MB integrated packet buffer
VLAN IDs	4K
Jumbo Frames	Up to 9216 Bytes
IPv4	16K min./112K max. host entries
IPv6	8K min./56K max. host entries
Status Indicators	
QSFP+ Port LEDs	Link Status, Activity
Ethernet Management Port LED	Link Status, Activity
Console Port LED	Link Status
System LEDs	Diagnostic, Locator
Power	
Input Voltage	100-240VAC, 50-60Hz, 6-3A
Max. Power Consumption	310W
Physical and Environmental	
Dimensions (HxWxD)	1.73"x17.26"x20.28" (43.5x438.4x515mm)
Rack Space	1U
Hot-swappable Power Supplies	2 (1+1 Redundancy)

CHARACTERISTICS

N8050-32Q	
Hot-swappable Fans	5 (4+1 Redundancy)
Airflow	Back-to-Front
Operating Temperature	32°F to 104°F (0° to 40°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Operating Humidity	5% to 95% (Non-condensing)
Weight	19.9 lbs (9.025kg), with two installed PSUs
Warranty	
Warranty	5 Years (Hardware)

Accessories



Console Cable*1



Power Cords*2



Rack Mount Kit Bracket*1



M4 Screws*20



Ear-locking Screws*2



User Manual*1



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