

# N8550-32C Bare Metal Switch

IDEAL FOR DATA CENTER NETWORKS AND HIGH-END CAMPUS NETWORKS

N8550-32C 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

N8550-32C 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 the 32x QSFP28 ports, and each QSFP28 port can be configured as 2x 50G, 4x 25G, 1x 40GbE or 4x10GbE by using DAC breakout cables.

Loaded with the White Box, N8550-32C supports the installation of compatible Network Operating System software, including the open source options Open Network Linux and commercial NOS offerings.

## COMPATIBLE OPERATING

### SYSTEM

- Cumulus - Cumulus Linux
- IP Infusion OcNOS
- Pica8 - PICOS®
- Altran/Aricent

## What is White Box?

The White Box 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. White Box enables a bare metal network switch ecosystem where end users have a choice among different network operating systems.

This family provides 10G/25G/100G bare metal switches, enabling users to freely install and use Cumulus Linux, 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.

Deploy as Top-of-Rack switch supporting 10 or 25 GbE to servers, with 40 GbE, 50 GbE, or 100 GbE uplinks.

Deploy as spine switch supporting 40 GbE, 50 GbE, or 100 GbE ToR and spine interconnects.

32x QSFP28 switch ports, each supporting 1x 100 GbE or 1x 40 GbE, or via breakout cables, 2x 50 GbE or 4x 25 GbE or 4x 10 GbE.

Layer 2 or Layer 3 forwarding of 6.4 Tbps (full duplex).

All ports on front; PSUs and fans accessible from rear.

### Power Supply and Fan Modules

Hot-swappable, load-sharing, redundant AC or -48V DC PSUs.

5+1 redundant, hot-swappable fan modules.

Energy efficient.

### Software

Hardware switch pre-loaded with White Box for automated loading of compatible open source and commercial NOS offerings.

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

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

Compatible with PicOS™ from Pica8 Inc.

Compatible with OcNOS™ 1.3.5 and later version from IP Infusion.

Compatible with Altran and Aricent.

## Technical Specification

N8550-32C bare metal switch comes with the industry-standard hardware. Here's a look at the details.

### CHARACTERISTICS

	N8550-32C
<b>Port</b>	
Ports	32x 100G QSFP28
QSFP28 Port	Each port supports 1x 40/100 GbE or 2x 50 GbE or 4x 10/25 GbE per port using breakout cables
RJ45 Management Port	1
Console Port	1
USB Type A Storage Port	1
<b>Operating System</b>	
OS	White Box(Bare Metal Switch)
<b>Key Components</b>	
Switch Chip	Broadcom BCM56870 Trident III
CPU	Intel® Xeon® D-1518 processor quad-core 2.2 GHz
DRAM	2x 8GB DDR4 SO-DIMM
SPI Flash	2x 16MB
M.2 SSD	61GB MLC
<b>Performance</b>	
Layer Type	Layer 3
Switching Capacity	6.4 Tbps full duplex
Forwarding Rate	4.7 Bpps

## CHARACTERISTICS

	N8550-32C
<b>MAC Addresses</b>	32K min./288K max.
<b>Packet Buffer</b>	32MB integrated packet buffer
<b>VLAN IDs</b>	4K
<b>Jumbo Frames</b>	Up to 9216 Bytes
<b>IPv4</b>	16K min./168K max. host entries
<b>IPv6</b>	8K min. /100K max. host entries
<b>Status Indicators</b>	
<b>QSFP 28 Port LEDs</b>	Link Status, Activity, Rate
<b>Ethernet Management Port LED</b>	Link Status, Activity
<b>Console Port LED</b>	Link Status
<b>System LEDs</b>	Diagnostic, Locator, PSU and Fan Status
<b>Power</b>	
<b>Input Voltage</b>	100-240VAC, 50-60Hz, 6A max.
<b>Max. Power Consumption</b>	550W
<b>Physical and Environmental</b>	
<b>Dimensions (HxWxD)</b>	1.71"x17.26"x20.28" (43.4x438.4x515mm)
<b>Rack Space</b>	1U
<b>Hot-swappable Power Supplies</b>	2 (1+1 Redundancy)
<b>Hot-swappable Fans</b>	6 (5+1 Redundancy)
<b>Airflow</b>	Back-to-Front

## CHARACTERISTICS

N8550-32C	
Operating Temperature	32°F to 113°F (0°C to 45°C)
Storage Temperature	-40°F to 158°F (-40°C to 70°C)
Operating Humidity	5% to 95% (Non-condensing)
Weight	23.96 lbs (10.87kg), with two installed PSUs
<b>Warranty</b>	
Warranty	5 Years

## 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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