



DATASHEET

## N8500-32C (100G Spine/Core Layer Switch)

N8500-32C (32\*100GbE) 100GbE Spine/Core Layer Switch

## Overview

FS.COM N8500-32C is a Top-of-Rack (TOR) or Spine switch in a compact 1U form factor, ideally suited for high performance and programmable data center environments. The N8500-32C provides 32 ports 100GbE QSFP28. Designed with top performance in mind, N8500-32C provides line-rate, high-bandwidth switching, filtering, and traffic queuing without delaying data. Redundant power and fans along with numerous high availability features ensure that N8500-32C is always available for business-sensitive traffic. With support for advanced features, including MLAG, VxLAN, SFLOW, SNMP, MPLS etc, this switch is ideal for traditional or fully virtualized data center.

The N8500-32C supports current and future data center requirements, including an x86-based control plane for easier integration of automation tools, an ONIE installer for 3rd party network operating systems and compatibility with Software Defined Networks via OpenFlow 1.3.11. Additionally, N8500-32C supports the advanced hardware based VXLAN feature to support over 16M virtual networks.

## Key Features and Benefits

### Layer 2 Hardware Supported

- 802.3ad LACP
- 802.1D STP, 802.1w RSTP, 802.1s MSTP, TRILL
- 802.1Q VLAN 4096, SVLAN, PVLAN
- 802.1 Q-in-Q double-tagged VLAN
- 802.1P L2 Prioritization
- 802.1AB LLDP
- 802.1x Network Access Control
- IGMP/MLD Snooping
- VM Switching/VEPA/VN-Tag/802.1Qbh
- Mirroring
- Storm Control

## Layer 3 Hardware Supported

- Hardware-based IP Forward
- IPv4/v6 Routing Protocols: OSPF, RIP, BGP
- VRF
- ECMP/WCMP, VRRP
- MPLS
- Hardware Based Tunneling: IPv4/v6, GRE, MiM
- IGMPv1/v2/v3
- IP Multicast: PIM-SM, PIM-DM, PIM-SSM

## Traffic Management

- Flexible QoS Queuing for UC Packets
- Separate QoS Queues for UC and MC Packets (10 each/port)
- 2-Rate, 3-Color Policing
- SP, WRR, WDRR Queuing
- DCBX (ETS, PFC, CN/QCN)
- Per-Port DSCP
- Per-Port Oversubscription

## Features

### Ports

Switch Ports:

- 32 x QSFP28 each supporting 100GbE or 10GbE or 40GbE or 25GbE

Management Ports on Front Panel:

- 1 x RJ-45 serial console
- 1 x RJ-45 100/1000BASE-T management port
- 1 x USB Type A port

### Key Components

- Switch Silicon: Broadcom BCM56960 Tomahawk
- CPU: Intel Rangeley C2538 2.4Ghz 4-core
- 2-16GB ECC DDR3,
- 4GB up to 128GB mSATA and optional NGFF

- NAND flash

## Performance

- Switching Capacity: 6.4 Tbps full duplex
- Forwarding Rate: 4.7 Bpps
- Jumbo frames support up to 9K Bytes
- Packet Buffer Size: 16 MB integrated packet buffer
- MAC Addresses: 32K
- VLAN IDs: 4 K

## Physical and Environmental

- Dimensions (WxDxH): 433.8 x 520 x 44 mm (17.1 x 20.5 x 1.7 in)
- Weight: 10 kg (23 lb)
- Operating Temperature: 0° C to 45° C (32° F to 113° F)
- Storage Temperature: -40° C to 70° C (-40° F to 158° F)
- Operating Humidity: 5% to 90% non-condensing

## Compatible Software Option

- Cumulus - Cumulus Linux
- Broadcom - ICOS
- Open Compute Project - Open Network Linux
- Pica8 - PicOS

## LEDs

- QSFP 28 Port LEDs: Link Status, Activity, Rate
- Ethernet Management Port LED: Link Status, Activity
- Console Port LED: Link Status
- System LEDs: Diagnostic, Locator, PSU and Fan Status

## Power and Cooling

- < 550W peak consumption DAC configuration, 1+1 redundant, hot swap PSUs
- 100 - 240VAC auto-ranging, 47-63Hz or 180-300VDC auto input
- 4+1 redundant fans, back to front system cooling

## Regulatory

- ISO9001, FCC, CE, CB, UL

## Warranty

- Five-year warranty, including the quality of any quality problems during the free maintenance. For more information, please check [www.fs.com](http://www.fs.com) for the warranty terms in your country.

## Ordering Information

Model Number	CPU	PSU	Airflow
N5850-48S6Q	Intel Rangeley C2538 2.4Ghz 4-core	dual PSUs	Back-to-Front
N8500-48B6C	Broadwell-DE 2.2Ghz 2-core	dual PSUs	Back-to-Front
N8000-32Q	Intel Rangeley C2538 2.4Ghz 4-core	dual PSUs	Back-to-Front
N8500-32C	Intel Rangeley C2538 2.4Ghz 4-core	dual PSUs	Back-to-Front

## Accessories



Item	Quantity
Grounding Cable	1
Console Cable	1
Power cord	2
M4/Screws M4	6
M6/Screws M6	8
Rubber Pads	4
Dummy PSU Bracket	1
Rack Mount Bracket	4



 <https://www.fs.com>



The information in this document is subject to change without notice. FS has made all efforts to ensure the accuracy of the information, but all information in this document does not constitute any kind of warranty.