DATASHEET

N8000-32Q（40G Spine/Core Layer Switch）

N8000-32Q (32*40GbE) 40GbE Spine/Core Layer Switch

REV.1.0
2018

Overview

FS.COM N8000-32Q is a 32 port 40GbE switch in a compact 1U form factor, ideally suited for data center environments in either Leaf or Spine deployments. The N8000-32Q provides 32 QSFP+ ports, and each port can be configured as 4x10GbE with individual link LEDs, up to a total system limit of 104 10GbE ports. It provides superior low latency and power efficiency in a clean PHYless design, while offering high reliability features such as redundant and hot swappable power supplies and fans in forward and reverse airflow configurations.

The N8000-32Q 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, N8000-32Q 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: OSFP, 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
- Per-Port DSCP
- Per-Port Oversubscription

Features

Ports

Switch Ports:

- 32 QSFP+ fixed ports: 40 GbE or 4 x 10 GbE per port

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 Componets

- Switch Silicon: Broadcom Trident 2 BCM56850
- CPU: Intel Rangeley C2538 2.4Ghz 4-core
- 2-16GB ECC DDR3

- 4GB up to 128GB mSATA SSD and optional NGFF
- NAND flash

Performance

- Switching Capacity: 2.56 Tbps full duplex
- Forwarding Rate: 1.44 Bpps
- Jumbo frames support up to 9K Bytes
- Packet Buffer Size: 12 MB integrated packet buffer
- MAC Addresses: 32K
- VLAN IDs: 4 K

Physical and Environmental

- Dimensions (WxDxH): 433.8 x 520 x 43.8 mm (17.1 x 20.5 x 1.72 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+ 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

➢ 300W 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 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

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