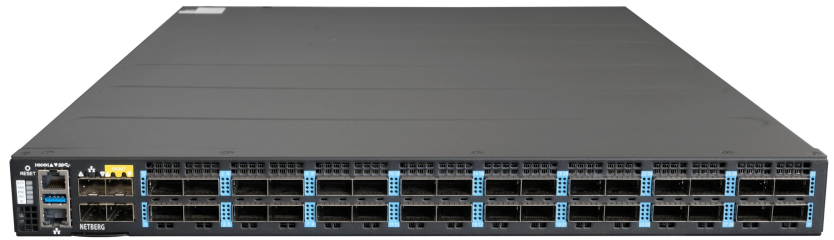


400G Data Center Switch

- Spine/Fabric open network switch
- Broadcom Trident4-X11 Silicon
- Programmable pipelines by NPL
- SONiC-ready
- Ubuntu-ready
- NPB apps with InfiniCore



The Aurora 830 is a high-density 400GbE switch designed to address the performance, capacity, and service requirements of next-gen networks, high-bandwidth data centers, and 5G applications. It's based on the StrataXGS® Trident4-X11 series and delivers fully user-programmable forwarding and instrumentation capabilities while offering minimal power consumption and latency. 32 QSFP-DD interfaces are backward compatible with QSFP28 and provide a flexible solution for any data center, enterprise, or CSP environment supporting break-out configuration to 64x200GbE or 128x 100GbE ports. Six ports support OpenZR+ 400G transceivers.

Aurora 830 has extensive features to address the rapidly increasing scale of data center network deployments and distributed computing applications. These features include flexible in-band and streaming telemetry, large-scale forwarding databases with flexible allocations to allow tailoring to the required application, and support for the latest in data center protocols.

Key Features & Benefits

- Spine/Fabric/Data center interconnect with 400G or 100G links.
- 32x400GbE QSFP-DD ports, each supports breakout to 2x200GbE or 4x100GbE ports.
- Switching silicon: 12.8Tbps Broadcom Trident4-X11 BCM56880.
- NPL runtime programmability.
- Intel Xeon D-2145NT eight-core processor for application deployment.
- Redundant hot-swappable 1+1 AC or DC power.
- Redundant hot-swappable 1+1 cooling.
- Pre-installed Open Network Install Environment (ONIE) automates the loading of compatible NOS as part of data center provisioning in the fashion that servers are provisioned.
- BMC-enabled

Network OS (NOS) options

- Ubuntu Linux with open Broadcom SDK for application development.
- SONiC offers a full suite of network functionality, like BGP and RDMA, that has been production-hardened in the data centers of some of the largest cloud service providers.
- InfiniCORE Network Visibility Studio transforms the Aurora 830 into a visibility powerhouse, leveraging the NPL programmability in the Trident4-X11 chipset.

Ports

- Switch Ports:
32 x 400G QSFP-DD ports
2 x 10G SFP+ TD4 management ports
- Management Ports:
1 x RJ45 serial console
1 x RJ45 100/1000BASE-T management port
2 x 10G SFP+ out-of-band management ports
1 x USB 3.0 Type A storage port

Performance

- Switching silicon: 12.8Tbps Broadcom Trident4-X11 BCM56880
- Forwarding rate: 5.4Bpps
- Latency: 900n
- Packet Buffer: 132MB
- Intel® Xeon™ Processor D-2145NT
- 32GB DDR4 ECC
- 128GB SSD

LED

- Power, ID, and System status LEDs per unit
- Link and Activity LEDs per port
- FAN Status LED per FAN
- PSU Status LED per PSU

Scalability

- MAC Addresses: 384K max.
- Programmable pipelines by NPL
- LAG (802.3ad): 128 LAG Groups, with a maximum of 64 members per groups
- Jumbo frame: 9216 bytes
- IPv4: 384K max. host entries; 1.75M ALPM entries
- IPv6: 320K max. host entries; IPv6/64: 620K ALPM entries

Ordering Information

Base model: Netberg Aurora 830 32x400G QSFP-DD, Intel D-2145NT, 32GB DDR4/128GB SSD, tool-less rails

Part Number	PSU	Airflow
NBA830-AC-F	2x AC 1300W	Front-to-Back
NBA830-AC-B	2x AC 1300W	Back-to-Front
NBA830-DC-F	2x DC 1300W	Front-to-Back
NBA830-DC-B	2x DC 1300W	Back-to-Front

Accessories

Compatible Transceivers

- 400GE QSFP-DD ZR, 400GE QSFP-DD ER4, 400GE QSFP-DD LR4, 400GE QSFP-DD SR8, 400GE QSFP-DD FR4, 400GE QSFP-DD DR4, 400GE QSFP-DD DR4+, 400GE QSFP-DD PLR4, 200GE QSFP56 SR4, 200GE QSFP56 FR4, 100GE QSFP28 ZR4, 100GE QSFP28 ER4, 100GE QSFP28 LR4, 100GE QSFP28 SR4

Fan Modules

- FAN-NBA830-F, FtB airflow
- FAN-NBA830-B, BtF airflow

About us

Netberg provides innovative hardware solutions for data centers and enterprises worldwide. With vast expertise in hardware and software, we provide versatile, flexible, and scalable Ethernet switches, telecom solutions, and custom HW/SW products. More information about Netberg is available at www.netbergtw.com

© 2024 Netberg. The product information provided is subject to change without notice. This document is for information purposes only. Any reference in this publication to branded products, programs, or services does not constitute a warranty. Netberg shall not be liable for omissions or technical or editorial errors.

Physical and Environmental

- Dimensions (WxDxH): 440 x 650 x 44mm (17.32 x 25.6 x 1.72 in)
- Weight: 11.8kg (26 lbs)
- 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 95% non-condensing

Power Specs

- 1+1 1300W redundant, load sharing, hot-swappable PSU modules
- AC/HVDC input: 100-240V~, 15-7.5A/190-310V==, 7.5A (Inlet: IEC 60320 C15)
- DC input: -36 to -72V, 38A
- Typical power: 310 Watts (without optics)

Regulatory Compliance

- Safety
IEC 62368-1
- EMC
FCC Part 15, Subpart B, Class A
EN 61000-3-2:2014, Class A
EN 61000-3-3:2013
EN 55032:2015+AC:2016, Class A
EN 55024:2010+A1:2015
IEC 61000-4-2/3/4/5/6/8/11
EN 55035:2017
- Environment
Electrical and Electronic Equipment (WEEE Directive 2012/19/EU)
RoHS-3.0 Compliant

Software

- Pre-installed Open Network Install Environment (ONIE)
- Compatible with: SONiC, Ubuntu Linux 20.04, InfiniCORE Network Visibility Studio

FtB airflow



BtF airflow



Power Supplies

- PSU-NBA830-ACF, 1300W AC, FtB airflow
- PSU-NBA830-ACB, 1300W AC, BtF airflow
- PSU-NBA830-DCF, 1300W DC, FtB airflow
- PSU-NBA830-DCB, 1300W DC, BtF airflow