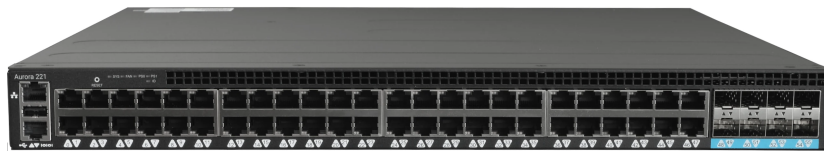# Enterprise and Management Switch

- Edge and Campus Deployments
- Broadcom Trident3-X2 Silicon
- Strong Layer3 Performance
- SONiC-ready
- Ubuntu-ready

The Netberg Aurora 221 open networking switch re-envigorates the 1G world. It's an easy-to-use Gigabit Ethernet device with 48x 10/100/1000Base-T RJ45 and 8x 10G SFP+ ports. Its unique port configuration allows for flexible network architectures in data centers or enterprise environments, where an all-10G connection is not yet required.

With Broadcom Trident3-X2 BCM56277 at heart, Aurora 221 addresses the need for bandwidth and network intelligence at data centers and the edge of modern campus networks. Its high-availability design features redundant, hot-swappable PSU and fan modules.

Key Features & Benefits
- An easy-to-use open networking switch with top connectivity for data centers, wiring closets,and enterprise and campus access networks.
- 48x 10Base-T/100Base-T/1000Base-T RJ45 for server and client connectivity.
- 8x 1/10G SFP+ ports uplink to network aggregation level.
- Switching silicon: 130Gbps Broadcom Trident3-X2 BCM56277.
- Line-rate L2/L3 forwarding and switching.
- Intel Atom C3308 dual-core processor for application deployment.
- Redundant hot-swappable 1+1 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.

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.

Ports
• Switch Ports:
48 x 10/100/1000BASE-T RJ45 ports
8 x 1G/10G SFP+ uplink ports
• Management Ports:
1 x RJ45 serial console
1 x RJ45 100/1000BASE-T management port
1 x USB 3.0 Type A storage port

Performance
• Switching silicon: 130Gbps Broadcom Trident3-X2 BCM56277
• Forwarding rate: 61.6Mpps
• Packet Buffer: 4MB
• Intel® Atom™ Processor C3308
• 8GB DDR4 ECC (up to 32GB)
• 32GB SSD

LED
• Power 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: 64K min./112K max.
• VLAN IDs: 4K
• VLAN Translation: 4K Ingress/2K Egress
• Jumbo Frames: Up to 12,288 bytes
• LAG (802.3ad): 128 LAG Groups, with a total 256 members, with a maximum of 8 members per groups
• VRF: 1K
• L3 Hosts: IPv4 32K or IPv6: 16K
• L3 Multicast Groups 4K IPMC Groups
• ECMP: 256 groups with a total of 1024 members, maximum 64 members per group

Physical and Environmental
• Dimensions (WxDxH): 440 x 440 x 44mm (17.32 x 17.32 x 1.72 in)
• Weight: 5.6kg (12.4lbs)
• 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 150W redundant, load sharing, hot-swappable PSU modules
• AC/HVDC input: 100-240V~, 6-3A/190-310V⎓, 3A (Inlet: IEC 60320 C14)
• DC input: -36 to -72V, 2A
• Typical power: 40 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 2002/96/EC)
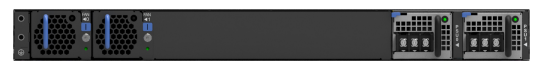RoHS-2.0 Compliant

Sofware
• Pre-installed Open Network Install Environment (ONIE)
• Compatible with: SONiC, Ubuntu Linux 20.04

Ordering Information

Base model: Netberg Aurora 221 48x1G RJ45 + 8x10G SFP+, Intel C3308, 8GB DDR4/32GB SSD, rack mount kit

Part Number	PSU	Airflow
NBA221-AC-F	2x AC 150W	Front-to-Back
NBA221-AC-B	2x AC 150W	Back-to-Front
NBA221-DC-F	2x DC 150W	Front-to-Back
NBA221-DC-B	2x DC 150W	Back-to-Front

FtB airflow

BtF airflow

Accessories

Compatible Transceivers

• 10G SFP+ SR, 10G SFP+ LR, 10G SFP+ ER, 10G SFP+ ZR

Fan Modules

• FAN-NBA221-F, FtB airflow

• FAN-NBA221-B, BtF airflow

Power Supplies

• PSU-NBA221-ACF, 150W AC, FtB airflow

• PSU-NBA221-ACB, 150W AC, BTF airflow

• PSU-NBA221-DCF, 150W DC, FtB airflow

• PSU-NBA221-DCB, 150W DC, 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