

1.7Tbps

24 x 10GE SFP+ | 6 x 100GE QSFP28

## Overview

The **AES6001** delivers high-throughput, low-latency switching optimized for spine-layer deployments in modern data centers. It supports line-rate Layer 2 and Layer 3 switching across 24 x 10GE SFP+ and 6 x 100GE QSFP28 ports.



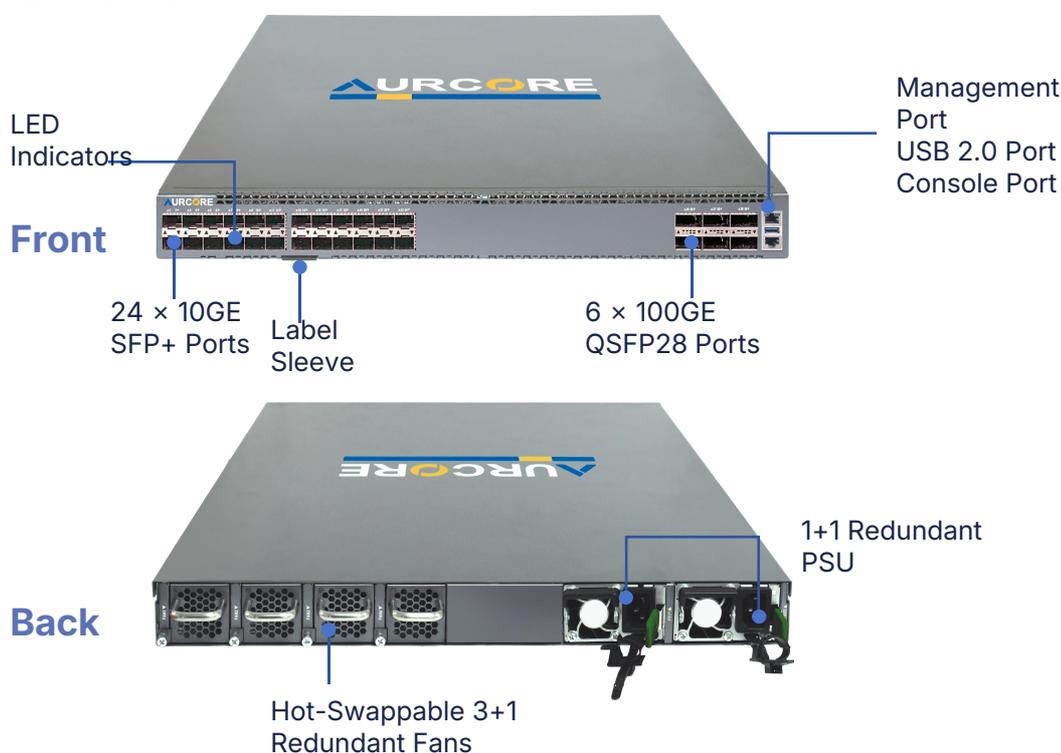
## Product Highlights

- Optimized for deployment as Top-of-Rack switch or as a part of a 40/100GE distributed spine.
- 24 x 10GE SFP+ and 6 x 100GE QSFP28 switch ports, each QSFP28 supporting 1 x 100GE or 1 x 40GE, or via breakout cables, 4 x 25GE, or 4 x 10GE.
- Layer 2 or Layer 3 forwarding at 1.7 Tbps.
- Supports hot/cold aisle with front-to-back and back-to-front airflow SKUs.
- All ports on front; PSUs and fans accessible from rear.
- Hot-swappable, load-sharing, redundant AC or DC PSUs.
- 3+1 redundant, hot-swappable fan modules.
- VXLAN, EVPN, MLAG, RoCE v2 support and advanced routing protocols including BGP, OSPF, IS-IS, and MPLS.
- Hardware switch pre-loaded with Open Network Install Environment (ONIE) for automated loading of compatible open source and commercial NOS offerings.

# Hardware Specifications

Model	AES6001
Interface	24 × 10GE SFP+ Slots + 6 × 100GE QSFP28 Slots
Management Port	1 × MGMT Port, 1 × Console Port, 1 × USB Port (USB 2.0)
Chipset	Marvell
Packet Forwarding Rate	600 Mpps
Switching Capacity	1.7 Tbps
System Memory	4GB(ECC)
Fan	4 hot-swappable fan modules for front/rear ventilation
Power Supply	2 (1+1 Redundancy), Hot-swappable
AC Input	Rated voltage range: 100~240V Maximum voltage range: 90~264V Frequency: 50~60Hz Rated input current: 0~2.5A(230VAC); 0~5A(100VAC)
DC Input	Input voltage range: 180~310V Input current range: 0~2.5A
Power Consumption	Static (Dual AC): 51W; Maximum (Dual AC): 225W
Operating Temperature	0 °C to 40 °C (-32 °F to 104 °F)
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Full Weight	9.0 kg / 19.84 lbs
Dimension (L×W×H)	16.14"(L) × 17.32"(W) × 1.73"(H) / 1U height
Installation	Rack Mount
Accessories	Mounting Bracket*2, Screw*6, Grounding Cable*1, Grounding Screw*1, Console Cable*1, Power Cord*2

## Hardware Panel



# Software Specifications

## DATA CENTER FEATURES

- **Overlay Network:** VxLAN, BGP-EVPN
- **Architecture:** M-LAG
- **High-performance Networking:** RoCE v2, PFC, ECN

## LAYER 2 PROTOCOLS

- **VLAN:** GVRP, PVLAN, Voice VLAN, VLAN Translation, Q-in-Q, Subnet-based VLANs, Protocol-based VLANs, MAC-based VLAN
- **MAC Address:** Dynamic/static/black hole MAC address table entries; auto learning/aging, learning restrictions, source MAC filtering

## LAYER 3 PROTOCOLS (IPv4/IPv6 DUAL STACK)

- **Rate Limiting:** Port-based (incoming/outgoing), Stream-based rate limiting
- **Class Of Service:** Based on port, source-destination MAC, source-destination IP, 802.1p, CoS, DSCP, IP priority
- **Prioritization Algorithm:** WRR, SP, WDRR, DSCP & CoS mapping
- **Loop Detection:** ERPS

## MULTICAST

- IGMP Snooping v1/v2/v3, MLD Snooping v1/v2, PIM-DM, PIM-SM, PIM-SSM, multicast VLAN, multicast traffic suppression

## QoS FUNCTION

- Rate Limiting: Port-based (incoming/outgoing), Stream-based rate limiting
- Class Of Service: Based on port, source-destination MAC, source-destination IP, 802.1p, CoS, DSCP, IP priority, Source-destination L4 Port
- Prioritization Algorithm: WRR, SP, DSCP & CoS mapping, Congestion avoidance mechanisms (WRED, tail drop)

## SECURITY

- **Access Control:** Port Security, Port Isolation, IP source protection, Dynamic ARP protection, DHCP Snooping, DHCP Relay, IEEE802.1x AAA, ACL, User hierarchy, RADIUS/TACACS+, RADIUS authentication (RFC2138), SSH v2.0
- **Data Protection:** Broadcast storm suppression, Illegal packet detection, DDoS Attack Prevention, HTTPS and SSL

## RELIABILITY

- **Link Protection:** STP, RSTP, MSTP, Stacking, BPDU Guard, STP Root Guard, Loop Protection/ Detection, BFD Detection, Ethernet OAM, ULDP, ERPS fast ring network protection, MRPP fast link switching

## MPLS

- MPLS L2VPN, MPLS L3VPN, VPLS, VPWS, LDP

## NETWORK VISUALIZATION

- MPLS L2VPN, MPLS L3VPN, VPLS, VPWS, LDP

## MANAGEMENT & MAINTENANCE

- **Interfaces:** Console port, MGMT port, USB port
- Protocols:** SNMPv1/v2c/v3, RMON (1,2,3 & 9), TFTP (file upload/download)
- Management Modes:** CLI command line, Web NMS, TELNET
- Functions:** Firmware Upgrade, Configuration Export/Import, DHCP Client (Option 82/66/67), Event/Error Logs (System Log), Management Access Control, Port Mirror, LLDP (IEEE802.1AB), LLDP-MED, DNS Client, Trace-route, Ping, DDMI, NTP/ SNTP (RFC2030)

