



High-performance 800GbE router for Telecom, Data Center, DCI, and AI networking applications.

The EXA25600-32X is a high-performance 100GbE to 800GbE router designed for demanding telecom, data center, GPU cluster, and service provider environments. Featuring a compact 2RU form factor, the platform integrates 32 fixed 800GbE QSFP-DD interfaces, enabling high-density aggregation, data center interconnect, provider edge, and scale-across AI infrastructure deployments. Empowered by Exaware NOS, it support best of class scale and performance.

Engineered for large-scale data centers and carrier-grade networks, EXA25600-32X combines advanced merchant silicon with a robust server-grade CPU architecture to support scalable L2/L3 resources, deterministic performance, and simplified network design. Powered by Broadcom Qumran-3D silicon and embedded with Exaware's carrier-grade ExaNOS operating system, the platform delivers high capacity, deep packet buffering, advanced routing capabilities, and operational efficiency for next-generation network architectures.

## KEY FEATURES AND BENEFITS

- High-performance 100GbE to 800GbE aggregation router for telecom, data center, DCI, and AI infrastructure applications
- 32 x 100/200/400/800G QSFP-DD800 network interfaces
- Powered by Broadcom Qumran-3D silicon for scalable routing and aggregation
- Up to 25.6Tbps forwarding capacity
- 32GB on-chip deep packet buffer for lossless forwarding and high-performance traffic handling
- Supports front-to-back airflow SKU for high-density deployments
- Hot-swappable, load-sharing, 1+1 redundant AC, ORv3 DC, or -48VDC Telecom power supplies
- 3+1 hot-swappable modular fan tray for high availability
- Intel Xeon D 10-Core CPU module
- Precision timing support: SyncE, IEEE 1588v2 PTP, 1PPS, 10MHz, ToD, GNSS
- Embedded with Exaware's carrier-grade ExaNOS system - Industry leadins scale, performance and feture set.
- Designed for carrier-class routing, peering, DCI, and AI networking deployments

## APPLICATIONS

- Data Center Interconnect/Gaetway with full BGP scale
- Peering application
- Provider Edge router
- Scale-across DCI routers for GPU clusters
- High-capacity aggregation for telecom and service provider networks
- AI data center and GPU cluster connectivity

## Software

EXA25600-32X is embedded with Exaware's carrier-grade ExaNOS operating system, providing advanced routing, MPLS, management, high availability, QoS, security, and infrastructure capabilities for telecom, service provider, and data center gateway and DCI environments.



## Front View



## Rear View



## Description

1. 32 x 100/200/400/800G QSFP-DD800 ports	8. 1 x RJ-45 console port
2. Port LED indicators	9. 1 x RJ-45 ToD port
3. 4 x 25G SFP28 in-band management ports	10. Luggage tag
4. 2 x 25G SFP28 OOB management ports	11. System LEDs
5. 1 x GNSS antenna connector	12. 1 x 1PPS port
6. 100M/1G RJ-45 OOB management port	13. 1 x 10MHz port
7. 1 x USB 3.0 Type-A storage port	14. 1 x USB-C console port
15. Grounding connection	16. PSU1
17. 4 hot-swappable fans	18. PSU2

## PORTS

- Switch Ports
  - 32 x 100/200/400/800G QSFP-DD800 ports
  - Logical ports: max. 256
- Port Models:
  - 1 x 800G, 8 lanes 100G PAM4 QSFP-DD800
  - 2 x 400G, 4 lanes 100G PAM4 breakout
  - 4 x 200G, 2 lanes 100G PAM4 breakout
  - 8 x 100G, 1 lane 100G PAM4 breakout
  - 1 x 400G, 8 lanes 50G PAM4 QSFP-DD
  - 2 x 200G, 4 lanes 50G PAM4 breakout
  - 4 x 100G, 2 lanes 50G PAM4 breakout
  - 8 x 50G, 1 lane 50G PAM4 breakout
  - 2 x 100G, 4 lanes 25G NRZ breakout
  - 4 x 50G, 2 lanes 25G NRZ breakout
  - 8 x 25G, 1 lane 25G NRZ breakout
- Management Ports on Front Panel:
  - 1 x RJ-45 / USB-C combo serial console port
  - 1 x RJ-45 100/1000BASE-T management port
  - 2 x 25G SFP28 OOB management ports
  - 4 x 25G SFP28 in-band management ports
  - 1 x USB 3.0 Type-A storage port
- Timing:
  - 1 x RJ-45 ToD port
  - 1 x 1PPS port
  - 1 x 10MHz port
  - 1 x GNSS antenna connector
  - SyncE
  - IEEE 1588v2 PTP

## KEY COMPONENTS

- Switch Silicon: Broadcom BCM88870 Qumran-3D
- No PHYs
- CPU Module:
  - Intel Xeon D Ice Lake 10-Core
  - 2 x 32GB DDR4 SO-DIMM with ECC
  - 2 x 480GB M.2 NVMe SSD with RAID
  - TPM 2.0
- BMC: AST2620 with OpenBMC, secured by AST1060 Root of Trust
- Timing and Sync:
  - SyncE
  - IEEE 1588v2 PTP

## PERFORMANCE

- Switching Capacity: 25.6Tbps
- Packet Buffer Size: 32GB
- Jumbo Frames: up to 9416 bytes
- Logical Ports: max. 256

## PSU

- PSUs:
  - 2 redundant, load-sharing, hot-swappable 3000W AC, 48VDC ORv3, or -48VDC Telecom PSUs
- AC PSU:
  - 100–127VAC at 50–60Hz, 16A / 1500W max.
  - 200–240VAC at 50–60Hz, 16A / 3000W max.
  - AC Inlet: IEC 60320 C20
- ORv3 DC PSU:
  - -40VDC to -72VDC
  - 80A / 3300W max.
  - ORv3 DC Inlet: Amphenol 6-pin for ORv3
- -48VDC Telecom PSU:
  - -40VDC to -72VDC
  - 80A / 3200W max.
  - Telecom DC Inlet: Terminal screws

## PHYSICAL AND ENVIRONMENTAL

- Dimensions: 440 mm x 649.2 mm x 87 mm / 2RU
- Weight: TBD
- Fans: Hot-swappable 4 fans
- Airflow: Front-to-back
- 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 85%, non-condensing
- Operating Altitude: TBD

## POWER CONSUMPTION

- Power Draw: TBD
- Power Budget: TBD

## REGULATORY: (PRELIMINARY)

- Safety
  - UL / CSA 22.2 No. 62368-1
  - UL 62368-1
  - CB IEC / EN 62368-1
- Electromagnetic Compatibility
  - EN 55032 / CISPR 32 Class A
  - AS/NZS CISPR 32 Class A
  - EN 61000-3-2
  - EN 61000-3-3
  - FCC Title 47, Part 15, Subpart B Class A
  - ICES-003 Issue 7 Class A
  - VCCI-CISPR 32 Class A
- Immunity
  - EN 55035
  - EN 300 386
  - IEC 61000-4-2 / 3 / 4 / 5 / 6 / 8 / 11
- Environmental
  - GR-63-CORE, pre-test
  - RoHS 2.0 compliant
  - WEEE Directive 2002/96/EC
  - Country of Origin: Taiwan, TAA compliant

## ROUTING PROTOCOLS

- IPv4, IPv6 Dual Stack
- eBGP, iBGP at scale
- MP-BGP
- BGP RPKI
- BGP signaling for L3VPN
- BGP signaling for L2VPN
- Seamless MPLS
- Inter-AS 6PE and 6VPE
- VPWS
- H-VPLS
- OSPFv2, OSPFv3
- IS-IS IPv4/IPv6, Multi-Topology
- Multi-instance OSPF and IS-IS
- LDP, T-LDP
- RSVP-TE
- Segment Routing MPLS
- OSPF-TE
- IS-IS-TE
- PIM-SSM/SM
- IGMPv3
- VRRPv2, VRRPv3
- Static Route
- Route Leak

## HIGH AVAILABILITY

- Graceful restart for routing protocols
- MPLS FRR
- IP-LFA
- Hierarchical FIB
- BGP-PIC Core/Edge
- Two-level load balancing
- VRF at scale
- BFD
- Process restart

## MANAGEMENT

- Hierarchical commit-based CLI with two-phase commit
- NETCONF
- SSH
- Telnet
- Out-of-band and in-band management
- SNMPv2/v3
- RBAC
- AAA / TACACS+ / RADIUS
- NTP
- Syslog
- Enhanced logging
- Optical monitoring
- LLDP

## SECURITY

- Data Path ACL
- Control Plane ACL
- Management VRF separation
- Hardware policing for CPU traffic
- MD5 for routing protocols

## INFRASTRUCTURE

- ONIE Bootloader
- Standard ONL
- Embedded KVM
- Hypervisor

## QOS & POLICY

- Rich hierarchical policy language
- Hierarchical shaping
- Per-port / VLAN rate control
- WRED
- Weighted and strict priority queues
- Minimum latency queues
- 8 queues per port / VLAN
- Ingress policing
- PRI / DSCP / EXP classification
- Flexible packet field classification

## DATA PATH

- VLAN
- Any service on any port
- QinQ for all services
- LAG
- PW control word

Ordering Part Number:	Description:	Airflow:	Part Number:
EXA25600-32X-A-AC	EXA25600-32X, 32x800G QSFP-DD, 4x25G SFP28; Redundant AC PSU; Broadcom Qumran-Q3D, 25.6Tbps; Intel Xeon D 10-Core; 3+1 modular fan tray; front-to-rear airflow; 1 pair of rack mount kit; 3 years hardware warranty; ExaNOS perpetual license, all features included.	Front to back airflow	AS9927-32D-O-AC-F
EXA25600-32X-A-DC	EXA25600-32X, 32x800G QSFP-DD, 4x25G SFP28; Redundant ORv3 DC PSU; Broadcom Qumran-Q3D, 25.6Tbps; Intel Xeon D 10-Core; 3+1 modular fan tray; front-to-rear airflow; 1 pair of rack mount kit; 3 years hardware warranty; ExaNOS perpetual license, all features included.	Front to back airflow	AS9927-32D-O-48VO-F
EXA25600-32X-A-DCT	EXA25600-32X, 32x800G QSFP-DD, 4x25G SFP28; Redundant Telecom connectors DC PSU; Broadcom Qumran-Q3D, 25.6Tbps; Intel Xeon D 10-Core; 3+1 modular fan tray; front-to-rear airflow; 1 pair of rack mount kit; 3 years hardware warranty; ExaNOS perpetual license, all features included.	Front to back airflow	AS9927-32D-O-AC-F
EXA25600-M&S-1Y	1 Year System Maintenance and Support including software updates and bug fixes.		
EXA25600-M&S-3Y	3 Years System Maintenance and Support including software updates and bug fixes.		
EXA25600-M&S-5Y	5 Years System Maintenance and Support including software updates and bug fixes.		
EXA25600-32X-A-PSU-AC	ORv3 DC PSU for EXA25600-32X	F0TEC9664006Z	
EXA25600-32X-A-PSU-DC	Telecom DC PSU for EXA25600-32X	F0OZZ9664004A	
EXA25600-32X-A-PSU-DCT	Telecom DC PSU for EXA25600-32X	TBD	
EXA25600-32X-A-FAN	Fan tray for EXA25600-32X	TBD	

## For More Information

To find out more about Exaware Routing products and solutions, visit [www.exaware.com](http://www.exaware.com)

**About Exaware Routing LTD.** Exaware Routing LTD is providing end-to-end networking solutions for the data center, enterprise and telco/ISP networks - including HW, SW, management systems, support and professional services. Exaware Routing LTD delivers the software and systems that transform the way the world connects and serves customers and partners worldwide. Additional information can be found at [www.exaware.com](http://www.exaware.com). To purchase Exaware Routing solutions, please contact your Exaware Routing LTD representatives through <https://www.exaware.com/contact-us>

© Copyright 2026 Exaware Routing LTD. The information contained herein is subject to change without notice. This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered by Exaware Routing LTD. Exaware Routing LTD shall not be liable for technical or editorial errors or omissions contained herein.