Exaware

DATASHEET

EXA800-54X

The EXA800-54X is a carrier-grade 800 Gbps router providing Layer 2 and Layer 3 switching. This device can be used as a carrier access and aggregation router. Applications this device could be used for fiber broadband, video services, mobile backhaul, MPLS aggregation, and core.

The EXA800-54X hardware comes with high-availability design features, including redundant, hot-swappable AC or 48VDC PSUs, and 5+1 redundant fan modules with front-to-back airflow. The EXA800-54X router meets the high performance, availability, and scalability requirements of telecommunication providers. The EXA800-54X is installed with ExaNOS carrier grade operating system.
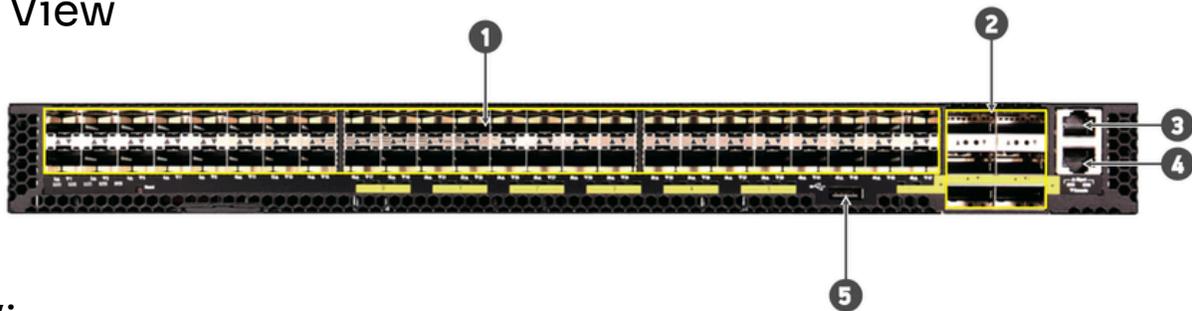
KEY FEATURES AND BENEFITS

- High performance carrier access/aggregation router.
- 48 x SFP+ ports, supporting 10 GbE (DAC, AOC, 10GBASE-SR/LR) or 1 GbE (1000BASE-T/SX/LX).
- 6 x 100G QSFP28 ports on the front.
- Support for IEEE1588v2 and SyncE functions in hardware.
- Rack mountable in standard 19" racks.
- Hot-swappable, load sharing, redundant AC or 48 VDC PSU power input options.
- Hot swappable 5+1 redundant fan modules.
- Management: Ethernet and console RJ-45 ports.
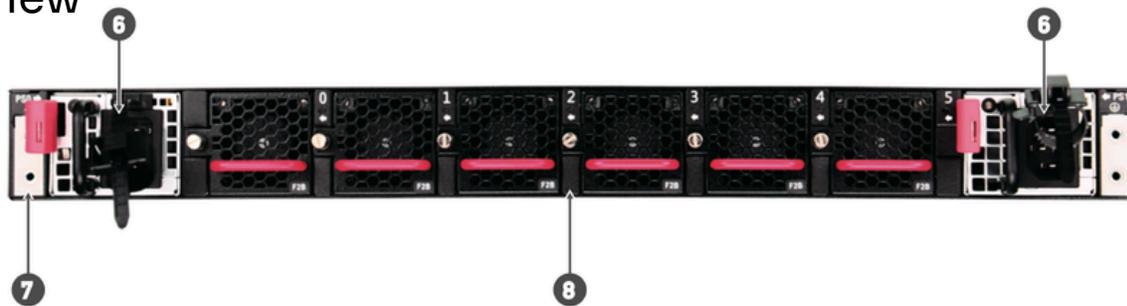- Embedded with Exaware's carrier-grade ExaNOS system.

Software

exaNOS

Front View

Rear View

Description

1. 48 x 1G/10G SFP+ ports	5. USB storage port
2. 6 x 40G/100G QSFP28 port	6. DC or AC PSU
3. RJ-45 management port	7. Grounding screw
4. RJ-45 console port	8. Hot-swappable 5 + 1 redundant fans

PORTS

- Ports:
  - 48 x SFP+ each supporting 10 GbE or 1 GbE
  - 6 x 100G QSFP28 each supporting 1 x 40/100 GbE
- Management Ports on Front Panel:
  - 1 x RJ-45 serial console
  - 1 x RJ-45 100/1000BASE-T management port
  - 1 x USB (storage)

KEY COMPONENTS

- Broadcom Qumran-MX
- CPU module:
  - Processor: Intel® Xeon® 4-core processor
  - Memory: DDR4 SO-DIMM 8 GB x 2

PERFORMANCE

- Switching Capacity: 800 Gbps full-duplex
- Processing Rate: 700 Mpps

SUPPORTED OPTICS AND CABLES

- SFP+ Ports:
  - 10GBASE-CR DAC: Up to 3 m passive; up to 10 m active 10GBASE-SR: Up to 100/300 m over OM3 MMF 10GBASE-LR: Up to 10 km over SMF
  - 10GBASE-ER4: Up to 40 km over SMF
  - 10GBASE-ZR: Up to 80 km over SMF
  - 1000BASE-SX, 1000BASE-LX, 100/1000BASE-T
- QSFP28 Ports:
  - 40GBASE-CR4 DAC: Up to 3 m passive; up to 10 m active 40GBASE-CR4 DAC: Up to 4 x SFP+ 10GBASE-CR DAC; up to 3 m
  - passive; up to 10 m active
  - 40GBASE-SR4: Up to 100 m over OM3 MMF, 150 m over OM4 MMF 40GBASE-LR4: Up to 10 km over SMF
  - 100GBASE-SR4: 100 Gbps short-reach transceiver 100GBASE-LR4: 100 Gbps long-reach transceiver
  - QSFP28 AOC Cable: 100 Gbps to 100 Gbps AOC cable with up to
  - 30 m 100G QSFP28 to 100G QSFP28

PHYSICAL AND ENVIRONMENTAL

- Dimensions (WxDxH): 438.4 x 501.9 x 44 mm (17.26 x 19.76 x 1.73 in)
- Weight: 9.7 kg (21.38 lb), with two installed PSU modules
- Fans: Hot-swappable 5+1 redundant fans
- Operating Temperature: 0°C to 40°C (32°F to 104°F)
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Humidity: 5% to 95% non-condensing

POWER

- PSUs: 2 redundant, load-sharing, hot-swappable AC or 48 VDC
- AC Input Range: 100 – 240 VAC
- DC Input Range: -36 – -72 VDC

REGULATORY COMPLIANCE

- Safety Compatibility
  - CB
  - UL/CUL
- EMI
  - CE Mark
  - EN55032 Class A
  - EN55024
  - EN61000-3-2
  - EN61000-3-3
  - FCC Part 15 Subpart B Class A VCCI Class A
- Environmental: NEBS Level 3
- RoHS 2.0 Compliant
- WEEE Standards: The switches complied with the following
  - WEEE standards: Waste Electrical and Electronic Equipment (WEEE Directive 2002/96/EC)

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, v3
- IS-IS – IPv4/IPv6, Multi topology
- Multi instance OSPF, IS-IS
  - including OSPF, IS-IS PE-CE
- Route distribution across protocols
- LDP, T-LDP
- RSVP-TE
- Segment Routing MPLS
- IGP shortcut
- OSPF-TE
- ISIS-TE
- PIM-SSM/SM
- IGMPv3
- Internet Access
- NH Tracking
- VRRP V2, V3
- IPv4/IPv6
- Static-Route
- Route leak
- DHCP Snooping

MANAGEMENT

- Hierarchical, Commit based CLI with two-oahse commit
- NETCONF SSH
- Telnet
- Out-of-band and in-band management
- SNMPv2/V3
- RBAC AAA/TACACS+/Radius
- NTP Syslog
- Rich, Hierarchical Policy Language
- Enhanced logging
- Optical monitoring
- LLDP

SECURITY

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

HIGH AVAILABILITY

- Process restart
- Graceful restart for all routing protocols

QOS & POLICY

- 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 fields classification
- Ethernet EBN (MW dynamic rate)

DATA PATH

- VLAN
- Any service any port
- QinQ for all services
- LAG
- MPLS FRR
- IP-LFA
- Hierarchical FIB
- BGP-PIC Core/Edge
- Two level load-balancing
- VRF at scale
- BFD
- PW Control word

INFRASTRUCTURE

- ONIE Bootloader
- Standard ONL
- Embedded KVM Hypervisor

Ordering Part Number	Description
EXA800-54X-A-AC-[Region]	Router System, Software included, AC Power Supplies Region options for power cord - US/EU/UK/JP/UN(C13-C14)/None
EXA800-54X-A-DC	Router System, Software included, DC Power Supplies
EXA800-54X-A-FAN	Spare Fan
EXA800-54X-A-PSU-AC	Spare AC Power Supply
EXA800-54X-A-PSU-DC	Spare DC Power Supply
EXA-M&S-System	Annual System Maintenance and Support (M&S) including software updates, bugs fixes

For More Information
To find out more about Exaware Routing products and solutions, visit 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. To purchase Exaware Routing solutions, please contact your Exaware Routing LTD representatives through https://www.exaware.com/contact-us.