



DATASHEET

EXA800-28X-B

The EXA800-28X-B is a high-performance 800 Gbps router. It is designed to address the changing needs of backhaul transport requirements as Telecoms make the transition from legacy technologies towards 5G. It enables telecoms and service providers to deploy edge computing, mobile backhaul, and broadband access applications. The EXA800-28X-B is future-proof with 28 high-speed interfaces, support for 400G ZR+, and carrier features including Ethernet OAM, IP/MPLS, Segment Routing v6 and more. It supports full timing features of IEEE 1588v2, SyncE, and TSN. Suitable for both indoor and outdoor deployments, the EXA800-28X-B has redundant, hot-swappable components for convenience, increased availability, reliability and lower costs of maintenance. The EXA800-28X-B is installed with ExaDOS carrier grade operating system.

KEY FEATURES AND BENEFITS

- Supports full SyncE and IEEE 1588v2 (T-GM, T-BC/OC, T-TC)
- Integrated Stratum 3E OCXO with optional hold over performances
- Supports Time Sensitive Networking (TSN) for low packet loss and low delay variation
- Class C timing accuracy support
- Rich timing interfaces: 10MHz, 1PPS, ToD, and BITS
- Internal GNSS receiver for master clock implementations
- Supports 10/25/40/100/200/400G for 5G
- Hot swappable power supplies with 1+1 redundancy support
- Hot swappable fan modules with 4+1 redundancy support
- Future-proof for 5G with ultra-low forwarding latency, high precision frequency and phase timing synchronizations.
- Temperature hardened to offer more flexibility for deploying outside plant cabinets for cell site backhauls.
- Suitable for WAN and long-haul applications, supports 400G ZR+ for metro and regional aggregation.

SOFTWARE

Exa NOS

FRONT VIEW



BACK VIEW



PORTS

- 2 x 100/400G QSFP-DD ports with 400G ZR+ support
- 2 x 40/100G QSFP28 ports
- 24 x 1/10/25G SFP28 ports
- 1 x RJ45 serial console port
- 1 x 100/1000M RJ45 management port
- 1 x USB 3.0 Type-A port

PHYSICAL

- Processor
 - Standard : Intel 4-Core CPU
- Memory
 - Standard : 8GB DDR4
- Storage
 - Standard : 32GB SSD
- ASIC
 - Broadcom Qumran-2A
- Timing Interfaces
 - 1 x GNSS input SMA
 - 1 x 10MHz input/output SMB
 - 1 x 1PPS input/output SMB
 - 1 x ToD input RJ45
 - 1 x BITS input/output RJ48
- Timing Support
 - Stratum 3E OCXO
 - ITU-T Synchronous Ethernet (SyncE)
 - IEEE 1588v2 (Default, G.8265.1 G8275.1, G.8275.2), T-GM, T-BC/OC, T-TC
 - Time Sensitive Networking (TSN)
- Chassis (W x D x H)
 - 1 RU, 440 x 302 x 43.5mm or 17.32" x 11.89" x 1.713"
 - Weight: 4.9kg or 10.80lb
- Redundancy
 - Hot swappable, 1+1 redundant PSU
 - Hot swappable, 4+1 redundant Fans

ENVIRONMENTAL

- Power Specs.
 - AC input: 100 to 240V, 6A
 - DC input: -36 to -75V, 16A
 - Typical power: 137 Watts (no transceiver)
- Max. Operating Specs.
 - Operating temperature: -40°C to 65°C (-40°F to 149°F)
 - Operating humidity: 5% to 85% (RH), non-condensing
- Max. Non-Operating Specs.
 - Storage temperature: -40°C to 70°C (-40°F to 158°F)
 - Storage humidity: 5% to 93% (RH), non-condensing

PERFORMANCE

- Switching Capacity
 - 800Gbps full-duplex
- Deep Buffer
 - 2GB

REGULATORY COMPLIANCE

- Safety
 - UL 62368-1
 - IEC 60950-1
 - IEC 62368-1
 - BSMI
 - MTCTE
 - NOM
- Environment
 - NEBS GR-63
 - NEBS GR-3160
 - ETSI 300 019
 - WEEE
 - RoHS
- EMC
 - FCC Part 15, Subpart B, Class A
 - ICES-003, Class A
 - EN 55032, Class A
 - EN 300 386
 - EN 301 489
 - EN 303 413
 - EN55035,
 - EN 50663,
 - EN 62479
 - BSMI
 - VCCI CISPR 32, Class A
 - RCM AS/NZS CISPR 32, Class A
 - MTCTE
 - Electric Power Substation IEC
 - 61850-3, IEEE 1613
 - Railway EN 50121-4
 - Railway IEC 62236-4
 - NEBS GR-1089, GR-3108

ROUTING PROTOCOLS

- IPv4, IPv6 Dual stack
- eBGP, iBGP at scale
- MP-BGP
- Multi-AS VPN/BGP-LU
- BGP signaling for L3VPN
- BGP signaling for L2VPN
- Seamless MPLS
- L3VPN
- L2VPN
- Inter-AS L3VPN
- 6PE and 6VPE
- VPWS
- H-VPLS
- OSPFv2, v3
- IS-IS – IPv4/IPv6, Multi topology
- Route distribution across protocols
- PIM-SSM/SM
- IGMPv3
- LDP, T-LDP
- RSVP-TE
- Segment Routing (MPLS)
- IGP shortcut
- OSPF-TE
- ISIS-TE
- Internet Access
- NH Tracking
- VRRP V2, V3 IPv4/IPv6
- Static-Route
- BGP RPKI
- Route leak
- DHCP Snooping

TIMING

- SyncE
- IEEE1588

MANAGEMENT

- Hierarchical, Commit based CLI
- 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

SECURITY

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

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
- QinQ for all services
- LAG
- MPLS FRR
- IP-LFA
- Hierarchical FIB
- BGP-PIC Core/Edge
- Two level load-balancing
- VRF at scale
- BFD

INFRASTRUCTURE

- ONIE Bootloader
- Standard ONL
- Embedded KVM Hypervisor

Ordering Part Number:

Description:

EXA800-28X-B-AC	Router System with Software and AC Power Supplies
EXA800-28X-B-DC	Router System with Software and DC Power Supplies
EXA800-28X-B-NOS	Router System Software
EXA800-28X-B-FAN	Spare Fan
EXA800-28X-B-PSU-AC	Spare AC Power Supply
EXA800-28X-B-PSU-DC	Spare DC Power Supply
EXA-M&S-System	Annual System Maintenance and Support (M&S) including software updates, bugs fixes

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