Exaware

DATASHEET

XDC400-32D

The Exaware XDC400-32D is a spine switch for high-performance data centers. The switch provides line-rate L2 and L3 switching across the 32 x QSFP-DD ports, each supporting 1 x 400 GbE or 1 x 100 GbE, or via breakout cables 4 x 100 GbE or 4 x 25 GbE. The XDC400-32D can be deployed as a spine switch supporting 100/400 GbE spine interconnects. This open network switch is loaded with the Open Network Install Environment (ONIE), which supports the installation of compatible Network Operating System software, including SONiC distributions. This open network switch is available with Exaware SONiC support.
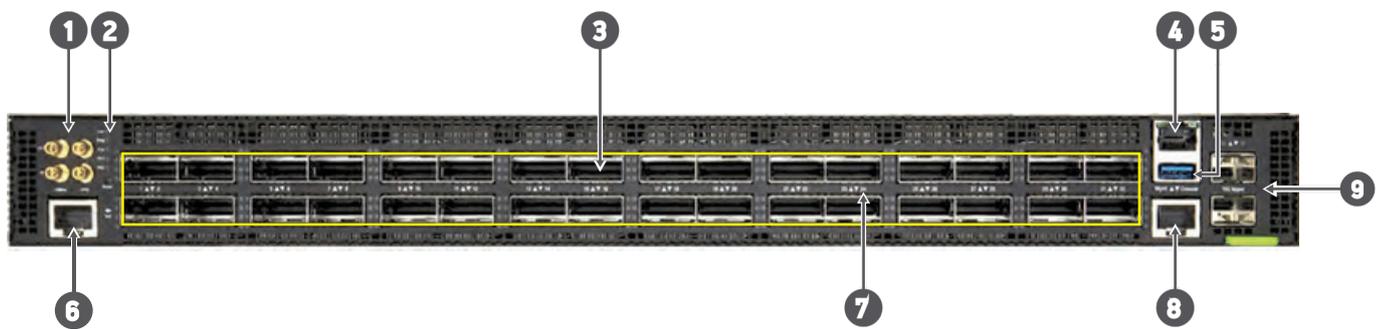
KEY FEATURES AND BENEFITS

- 32 x QSFP-DD switch ports, each supporting 1 x 400 GbE or 1 x 100 GbE, or via breakout cables 4 x 100 GbE or
  4 x 25 GbE.
- Incorporates Broadcom Tomahawk 3 switch series silicon.
- 1 RU form factor.
- Supports hot/cold aisles 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 1300 W PSUs.
- 5+1 redundant, hot-swappable fan modules.
- Hardware switch available with SONiC distribution with support by Exaware.
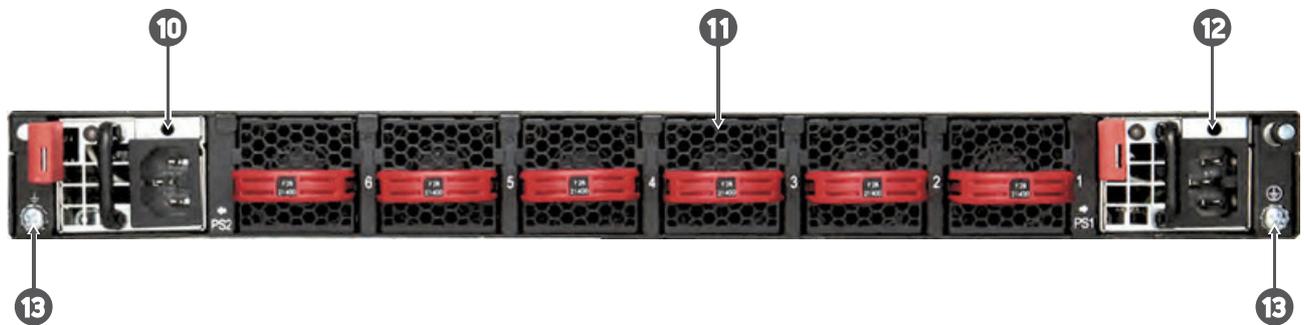- The switch is available with SONiC distribution with support by Exaware.

SONiC   OPEN ACCEPTED   OPEN Compute Project SOLUTION PROVIDER   OPEN PLATINUM   Freedom of Choice   Greater Control   Rapid Innovation

SW OPTIONS

onie

SONiC

FRONT VIEW

BACK VIEW

Description

1.	10 MHz and 1PPS timing ports	8.	Console port
2.	System LEDs	9.	2 x 10G SFP+ management ports
3.	32 x 400G QSFP-DD Ports	10.	PSU 2
4.	RJ-45 management port	11.	Hot-swappable 5 + 1 redundant
5.	USB storage port	12.	fans PSU
6.	ToD port	13.	1 Grounding point
7.	Port indicators		

PORTS

- Switch ports: 32 x QSFP-DD 400 GbE
- Management ports on port side: 1 x RJ-45 serial console 1 x RJ-45 1000BASE-T management 2 x SFP+ 10G management
- Supported Transceivers and Cables:
  40GBASE-SR4/LR4
  40G-DAC cable
  100GBASE-SR4/CWDM4/LR4
  100G-DAC/AOC cable 400GBASE-SR8/DR4/FR4 400G-DAC/AOC cable
  · Note: More optics and detailed cabling information can be found at www.exaware.com.

KEY COMPONETS

- Switch silicon: BCM56980 Tomahawk 3
- CPU modules:
- Intel® Xeon® Processor D-1518 4-Core DDR4: 8 GB x 2 SO-DIMM SPI Flash: 16 MB x 2 m.2 SSD: 50G MLC x 1

PERFORMANCE

- Switching Capability: 12.8 Tbps full duplex
- Forwarding Rate: 5.21 Bpps
- Jumbo frames support up to 9 Kbytes
- Packet Buffer Zize: 64 MB integrated packet buffer
- Subject to NOS:

MAC Addresses: 8 K
VLAN IDs: 4 K
L3 Host
IPv4 UC: 16 K
IPv4 MC: 8 K
IPv6 UC: 8 K
IPv6 MC: 4 K

PHYSICAL AND ENVIRONMENTAL

- Dimensions (WxDxH): 43.84 x 53.6 x 4.31 cm (17.25 x 21.1 x 1.69 in)
- Weight: 11.06 kg (24.38 lb)
- Fans: Hot-swappable 5 + 1 redundant fans
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Temperature: 0°C ~ 45°C (32°F ~ 113°F)
- Operating Humidity: 5% ~ 95% non-condensing
  Green (50G)

SYSTEM AND PORT LEDS

- QSFP-DD Port LEDs: Blue (400G), White (200G), Green (100G),
- Management Port LED: Green: (10 G), Flashing: Activity
- System LEDs: PSU1, PSU2, Fan, Diag, and Loc
- Reset button

SOFTWARE

- Switch is loaded with Open Network Install Environment (ONIE) software installer
- Compatible with SONiC support by Exaware.

POWER

- PSUs: 2 redundant, load-sharing, hot-swappable AC
- AC Input Range: 100~240 VAC at 50-60 Hz VAC

REGULATORY

- EMI
CE Mark EN55032 CISPR 32 AS/NZS CISPR 32 EN55024 CISPR 24 CISPR 35 EN 61000-3-3 EN 61000-3-2 FCC Title 47, Part 15, Subpart B Class A VCCI Class A CCC
- Safety
  CB EN60950,
  UL60950 EN62368, UL62368
- Environmental:
- GR63-CORE (Pre-test)
- RoHS-2.0 Compliant
- Electrical and Electronic Equipment (WEEE Directive 2002/96/EC)

Layer 2

- DHCP Snooping
- IGMP Snooping
- LAG (LACP)
- LLDP
- MAC Aging
- MC-LAG
- MSTP
- Port Mirroring
- QinQ (802.1Q Tunneling)
- STP/PVST
- TPID Configuration
- VLAN Translation
- VLAN/VLAN Trunk

Layer 3

- BGP
- BGP Graceful Restart
- BGP Graceful Restart Helper
- BGP Multi-protocol
- BGP Unnumbered Links
- Critical Resource Monitoring
- ECMP
- EVPN/VxLAN
- VPN Multihoming
- IPv6
- IS-IS
- NAT
- OSPF
- Proxy ARP
- Static Anycast Gateway
- VRF
- VRRP
- VxLAN

Security Features

- COPP
- Ingress/Egress ACL Permit/Deny
- Port MAC Security
- RADIUS
- TACACS+

QoS

- Asymmetric PFC
- CoS
- Differentiated Services (DiffServ)
- DSCP
- ECN
- Egress Port Shaping (port, queue)
- Ingress ACL-based Mirroring (ERSPAN)
- PFC-WD
- PFC Watermark
- Port Rate Limiting
- Priority Flow Control (PFC)
- WRED

Management and Monitoring Features

- CLI/SSH
- DHCPv6 Relay

www.exaware.com

- Dynamic Port Breakout
- Everflow
- Fast Reload
- Kubernets
- Management VRF
- MTU Setting
- NTP
- Object Track for Port Interface
- OpenSSH/SCP/SFTP
- PINS
- Platform Monitoring
- Port Speed Setting
- RoCEv2
- Sensor Transceiver Monitoring
- sFlow
- SNMP/SNMPv2
- Telemetry Support
- Thermal Monitor
- Warm Reboot
- Zero Touch Provisioning (ZTP)

Standards Compliance

- RFC792 ICMP Specifications
- RFC1157 Simple Network Management Protocol (SNMP)
- RFC1213 MIB-II Specifications
- RFC1213 Management Information Base for Network Management of TCP/IP-based internets: MIB-II
- RFC1267 Border Gateway Protocol 3 (BGP-3)
- RFC1771 A Border Gateway Protocol 4 (BGP-4)
- RFC1772 Application of the Border Gateway Protocol in the Internet
- RFC1901 Introduction to Community-based SNMPv2
- RFC1902 Structure of Management Information for Version 2 of the Simple Network Management Protocol (SNMPv2)
- RFC1905 Protocol Operations for Version 2 of the Simple Network Management Protocol (SNMPv2)
- RFC1907 SNMP MIB Specifications
- RFC1965 AS Confederations for BGP
- RFC1966 BGP Specifications
- RFC1981 Path MTU Discovery for IP version 6
- RFC1997 BGP Communities Attribute
- RFC2011 IP MIB Specifications
- RFC2012 Management Information Base for the Transmission Control Protocol (TCP)
- RFC2013 SNMPv2 Management Information Base for the User Datagram Protocol using SMIv2
- RFC2068 HTTP Specifications
- RFC2101 IPv4 Address Behaviour Today
- RFC2138 RADIUS Specifications
- RFC2270 Using a Dedicated AS for Sites Homed to a Single Provider
- RFC2283 Multiprotocol Extensions for BGP-4
- RFC2328 OSPF Specifications
- RFC2370 OSPF Opaque LSA Option Specifications
- RFC2373 IP Version 6 Addressing Architecture
- RFC2374 An IPv6 Aggregately Global Unicast Address Format
- RFC4760 Multiprotocol Extensions for BGP-4
- RFC7348 Virtual eXtensible Local Area Network (VXLAN): A Framework for Overlaying Virtualized Layer 2 Networks over Layer 3 Networks
- IEEE802.1D Spanning Tree Protocol
- IEEE802.1p Priority tagging implementation idea
- IEEE802.1AB Link Layer Discovery Protocol
- IEEE802.1ad QinQ, VLAN Stacking
- IEEE802.3ad Link aggregation (LAG), bound mode 4 (LACP)

Base Model: XDC400-32D ; Intel® Xeon® Processor D-1518 4-Core; 32-Port 400G QSFP-DD; ONIE Software Installer.

Model Number	PSU	Air flow	Region (Power Cord)
XDC400-32D-A-AC-F-US	Dual AC PSUs	Front-to-Back airflow	N. America
XDC400-32D-A-AC-B-US	Dual AC PSUs	Back-to-Front airflow	N. America
XDC400-32D-A-AC-F-EU	Dual AC PSUs	Front-to-Back airflow	EU
XDC400-32D-A-AC-B-EU	Dual AC PSUs	Back-to-Front airflow	EU
XDC400-32D-A-AC-F-UK	Dual AC PSUs	Front-to-Back airflow	UK
XDC400-32D-A-AC-B-UK	Dual AC PSUs	Back-to-Front airflow	UK
XDC400-32D-A-AC-F-JP	Dual AC PSUs	Front-to-Back airflow	JP
XDC400-32D-A-AC-B-JP	Dual AC PSUs	Back-to-Front airflow	JP

	Part Number	Description
C SONiC 1 Year	XDC400-32D -CNOS-1Y	Community SONiC support 1 year
C SONiC 3 Years	XDC400-32D -CNOS-3Y	Community SONiC support 3 years
C SONiC 5 Years	XDC400-32D -CNOS-5Y	Community SONiC support 5 years

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.