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DATASHEET

XDC1-54T

The Exaware XDC1-54T is an easy-to-use Gigabit Ethernet L2 switch featuring 54 ports; 48 x 10/100/1000BASE-T ports and 6 x 1G/10G SFP+ uplink ports.

The XDC1-54T is ideal as a management switch in data center networking, enterprise access networking, and campus access networking. The switch includes redundant, hot-swappable AC PSUs and fixed 2+1 redundant fans with front-to-back airflow or back-to-front airflow. This open network switch is available with Exaware SONiC support.

KEY FEATURES AND BENEFITS

- Easy to use entry-level open networking switch for management in data center racks, and for enterprise or campus access networks.
- 1GbE connections to server node and storage node management ports in rack, with uplinks to management network aggregation switches.
- 48 x 10/100/1000BASE-T RJ-45 ports.
- 6 x SFP+ uplink ports supporting 1GE/10GE.
- Intel® Atom® COMe module with C3508 4-Core 1.6GHz x86 processor.
- Support TPM 2.0 with SPI Interface.
- Options to enable UEFI Secure Boot.
- Full line-rate L2/L3 forwarding and switching.
- Hot-swappable, load-sharing, redundant PSUs.
- Fixed 2+1 redundant fans.
- The switch is pre-loaded with Open Network Install Environment (ONIE) and SONiC distributions, with support by Exaware.

SONiC

Freedom of Choice

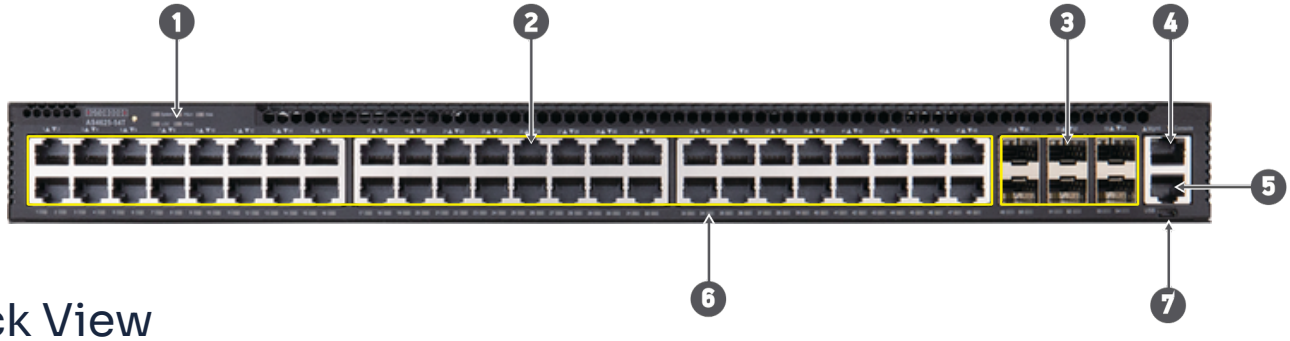
Greater Control

Rapid Innovation

Reduced CAPEX and OPEX

SW options

Front View



Back View

Description

1. System LEDs	8. Grounding point
2. 48x 10/100/1000BASE-T RJ-45 ports	9. Fixed 2 + 1 redundant fans (FAN1, FAN2, FAN3)
3. 6 x 1G/10G SFP+ ports	10. PSU 1: 150 W
4. Management port	11. PSU 2: 150 W
5. Console port	
6. Port indicators	
7. Micro-USB storage port	

Hardware Specifications

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PORTS

- Switch Ports:
  - 48 x 10/100/1000BASE-T RJ-45 ports 6 x 1G/10G SFP+ uplink ports
- Management Ports:
  - 1 x RJ-45 serial console 1 x RJ-45 100/1000BASE-T management port
  - 1 x Micro-USB storage port
- Supported Transceivers and Cables:
  - 1G SX to 1G ZX
  - 1G BIDI up to 40KM
  - 10G SR to 10G ZR
  - 10G BIDI up to 10KM
  - 10G tunable laser DWDM up to 80KM
- Note: More optics and detailed cabling information can be found at www.exaware.com.

KEY COMPONENTS

- Switch Silicon: Broadcom BCM56277 Trident III 130 Gpbs
- CPU: Intel® Atom® COMe module with C3508 4-Core 1.6 GHz x86 processor
- DDR4: 8 GB x 1 SO-DIMM
- SPI Flash: 16 Mb x 2
- m.2 SSD: 32 GB MLC
- TPM 2.0: SLB 9670XQ2.0 FW7.63 INFINEON

PERFORMANCE

- Switchibg Capacity: 108 Gpbs
- Forwarding Rate: 61.6 Mpps
- MAC Addresses: 64K min./112K max.
- VLAN IDs: 4K
- VLAN Translation: 4K Ingress/2K Egress
- Jumbo Frames: Up to 12,288 bytes
- Packet Buffer Size: 4 MB Integrated packet buffer memory
- LAG (802.3ad): 128 LAG Groups, with a total 256 members, with a maximum of 8 members per groups
- VRF: 1K
- L3 Hosts: IPv4 32K or IPv6: 16K
- L3 Multicast Groups 4K IPMC Groups
- ECMP: 256 groups with a total of 1024 members, maximum 64 members per group

LEDS

- LEDs
- GE RJ-45 SFP+ Port LEDs: Link Status, Activity
- Ethernet Management Port LED: Link Status, Activity

PHYSICAL AND ENVIRONMENTAL

- Dimensions (WxDxH): 44 x 35.03 x 4.4cm (17.32 x 13.79 x 1.73 in) Weight:
- 54T F2B: 5.8 kg unit with 2 PSU/packaged 7.5 kg
- 54T B2F: 5.765 kg unit with 2 PSU/packaged 7.465 kg
- Operating Temperature: 0°C to 40°C (32°F to 104°F) at 6000 ft
- Storage Temperature: -40°C to 70°C (-40°F to 158°F)
- Operating Humidity: 5% to 95% non-condensing

SOFTWARE

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

POWER

- PSUs: 2pcs 1+1 redundant, load-sharing, hot-swappable 150W AC (80Plus Platinum compliant)
- Input Voltage: 100 to 240 VAC at 50-60 Hz
- Maximum Power Consumption: 54T-F: 90.4 W 54T-B: 93.5 W
- Typical Power Consumption (no optics): 54T-F: 33.5 W 54T-B: 37.1 W

REGULATORY

- EN 55032 Class A
- EN 61000-3-2
- EN 61000-3-3
- FCC Class A
- VCCI Class A
- CCC GB 9254-2008, Class A
- BSMI Class A, CNS 13438
- IEC 61000-4-2/3/4/5/6/8/11
- EN 55024
- EN 55035
- UL (UL 62368-1 and CSA C22.2 No. 62368-1)
- CB (IEC/EN 60950-1, IEC/EN 62368-1)
- CCC GB4943.1-2011
- BSMI, CNS 14336-1

SONiC Features

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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
- 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)

Ordering Part Number

Base Model: XDC1-54T; Intel® Atom® processor C3508 4-Core COMe module Type 7; 48 x 1G RJ45 + 6 x 1G/10G SFP+ with ONIE Software Installer.

Model Number	PSU	Airflow	Region (Power Cord)
XDC1-54T-A-AC-B	Dual AC PSUs	Power-to-Port Airflow	
XDC1-54T-A-AC-F	Dual AC PSUs	Port-to-Power Airflow	
XDC1-54T-A-AC-B-EU	Dual AC PSUs	Power-to-Port Airflow	EU
XDC1-54T-A-AC-F-EU	Dual AC PSUs	Port-to-Power Airflow	EU
XDC1-54T-A-AC-B-UK	Dual AC PSUs	Power-to-Port Airflow	UK
XDC1-54T-A-AC-F-UK	Dual AC PSUs	Port-to-Power Airflow	UK
XDC1-54T-A-AC-B-US	Dual AC PSUs	Power-to-Port Airflow	N. America
XDC1-54T-A-AC-F-US	Dual AC PSUs	Port-to-Power Airflow	N. America
XDC1-54T-A-AC-B-JP	Dual AC PSUs	Power-to-Port Airflow	JP
XDC1-54T-A-AC-F-JP	Dual AC PSUs	Port-to-Power Airflow	JP
XDC1-54T-A-AC-B-TW	Dual AC PSUs	Power-to-Port Airflow	TW
XDC1-54T-A-AC-F-TW	Dual AC PSUs	Port-to-Power Airflow	TW
PSU Model Number	**Product Description**		
XDC1-54T-A-PSU-AC-B	150W PSU for XDC1-54T with Power-to-Port -B air flow		
XDC1-54T-A-PSU-AC-F	150W PSU for XDC1-54T with Port-to-Power -F air flow		
Sliding Rail Model Number	**Product Description**		
RKIT-1G-SLIDE	Tool-less mounting rail slide kit for XDC1-54 series		

Ordering Part Number

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	Part Number	Description
	XDC1-CNOS-1Y	SONiC support & maintenance - 1 year
	XDC1-CNOS-3Y	SONiC support & maintenance - 3 years
	XDC1-CNOS-5Y	SONiC support & maintenance - 5 years

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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.