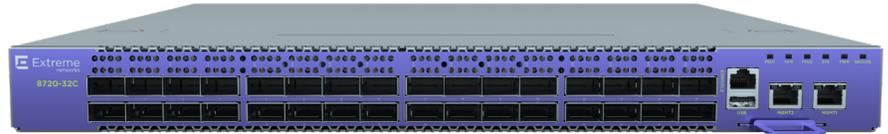


Highlights

- High-performance feature-rich, Fixed Form Factor Switch for Service Provider and Data Center
- Compact 1U form factor for reduced power and footprint
- Ability to deliver 100GbE to 4 x 25 GbE or 40GbE to 4 x 10 GbE using break out cable
- Supply chain, boot, and runtime protection with Measured Boot
- Baseboard Management Controller (BMC) for lights-out management (LOM) for remote operations such as reboots, shutdowns, and out of band troubleshooting
- Redundant management port
- Supports Integrated Application Hosting to enable organizations to deploy Extreme-provided or third-party applications and tools directly on the switch
- Non-blocking, wire-speed switching architecture
- Offers a choice of AC/DC power supplies and F/R fans
- Extreme Fabric Automation leverages Integrated Application Hosting and enables plug-n-play IP fabrics for infrastructure provisioning and configuration of all tenant services across the entire fabric at no additional cost
- Full featured SLX operating system with advanced features supporting switching, IP Fabrics, BGP- EVPN and VXLAN



Extreme 8720

Next Generation Secure Data Center and Mobile Edge Spine Switch

With the increasing need for high-performance edge compute and distributed cloud-native applications, enterprise data centers and service provider fixed, and mobile edge solutions require dense 40/100GbE switches for large scale BGP-EVPN IP Fabric spine and leaf architectures. As a part of Extreme's Universal platform, the Extreme 8720 delivers scalable L2 and L3 services and deterministic network performance while simplifying deployment and reducing cost.

The Extreme 8720 is a high performance, feature-rich, and purpose built 10/25/40/100 GbE network hardware platform built for uncompromising performance in enterprise data centers and for mobile operators delivering critical 5G micro data center and multi-access edge compute (MEC) environments.

As part of Extreme's Trusted Delivery initiative, the Extreme 8000 Series of Universal switches introduce powerful security enhancements with a combination of Secure Boot technology, enhanced by an industry-first Measured Boot implementation. Measured Boot extends the security posture of the system into the execution of the operating system itself for greater protection against threats.

The Extreme 8720 network hardware platform enables organizations to design open networks that accommodate a variety of applications and east-west traffic patterns. With its high-density scale-out architecture, leading power efficiency, and airflow options, the 8720 platform delivers a cost-effective solution that optimizes power, cooling, and data center space, wherever your center of data might be.



Trusted Delivery

Trusted Delivery from Extreme Networks is designed to protect your key service delivery infrastructure at remote, often-unattended sites, as well as within colocation and data center environments where shared facility access is a concern. With Measured Boot – a security mechanism designed to verify the boot and runtime processes - Extreme Networks provides the capability to validate hardware components, boot process, and the operating system from factory to installation. Combined with remote attestation, where a trusted off-box challenger provides an objective measurement of trust, Measured Boot provides ongoing binary-level validation during operation.



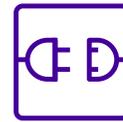
Modular, Virtualized Operation System

The 8720 runs Extreme SLX-OS, a fully virtualized Linux-based operating system that delivers process-level resiliency and fault isolation. SLX-OS supports advanced switching features and is highly programmable with support for REST API, Python, and NETCONF/RESTCONF. It is based on Linux, which offers all the advantages of open source and access to commonly used Linux tools. With enhanced support for Trusted Delivery features, such as Measured Boot and strong security defaults, Extreme SLX-OS continues to further protect against ever-growing security threats to infrastructure.



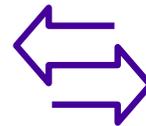
Management

The 8720 can be managed in a variety of ways. REST, NETCONF management interface or simple on-box management functions are delivered with CLI for manual configuration.



Plug-n-Play Data Center Fabrics with Extreme Fabric Automation

Extreme Fabric Automation simplifies and accelerates the deployment of the data center IP Fabric. The on-box application runs as a service on the Integrated Application Hosting environment within the 8720 and uses industry-standard open API based programmable interfaces to provide the easiest way to deploy, provision and automate single or multiple data center IP Fabric networks in the fastest and most efficient way. Extreme Fabric Automation is also the point of integration for VMware vCenter, Microsoft Hyper-V and OpenStack.



High-Availability and Reliability

The 8720 delivers the high performance and reliability required by modern enterprises and service provider data centers. It is designed for high availability from both a software and hardware perspective, such as a clear separation between the control plane and data plane and redundant power supplies and fan modules.



Integrated Application Hosting

The 8720 can run onboard VM-based applications alongside the switch OS—all without impacting performance. This flexible and open solution enables organizations to deploy Extreme- provided or third-party applications and tools directly on the switch for security, monitoring, troubleshooting or extended network functionality— based on customer need—without a separate hardware device. This unique design does not impact the control and forwarding plane of the switch and provides dedicated CPUs, memory and SSD storage for flexible packet capture and off-line processing.

8720 Switch Specifications

8720 (32 x 100 GbE)	
Ports	<ul style="list-style-type: none"> • 32 x QSFP+/QSFP28 40GbE/100GbE ports • 128 x 25/10 GbE using break-out cables • 1 x Serial console port RJ-45 • 2 x 10/100/1000BASE-T out-of-band management port • Micro-USB Type A storage port
Power Supplies	<ul style="list-style-type: none"> • Modular 750W AC power supply (up to 2 PSUs) • Modular 750W DC power supply (up to 2 PSUs) • Front-Back and Back-Front airflow options
Fan Tray	<ul style="list-style-type: none"> • 6 fan modules, support one fan redundancy • Front-Back and Back-Front airflow options
Dimensions	17.3in W/22.4in D/1.7in H (44cm/57.0cm/4.3cm)
Weight	16.3lb (7.4kg) no PSU/19.9 lb (9.0 kg) with two PSUs
Performance	<ul style="list-style-type: none"> • Line rate 6.4 Tbps Switching Capacity (3.2 Tbps ingress, 3.2 Tbps egress) • Forwarding Rate: 2000 Mpps • Average Latency: 800 ns
CPU/Memory	<ul style="list-style-type: none"> • 8 Core Processor • 16GB DDR4 ECC memory • 128GB SSD memory
Packet Buffers	32MB
Operating Conditions	<p>Operating Temperature</p> <p>Front-to-back: 0° (32°F) to 50°C (122°F) at sea level 0° (32°F) to 45°C (113°F) up to 1800 m (6000ft) 0° (32°F) to 40°C (104°F) up to 1800 m (6000ft), up to 3000m (10000 ft)</p> <p>Back-to-front: 0° (32°F) to 45°C (113°F) at sea level 0° (32°F) to 40°C (104°F) up to 1800 m (6000ft) 0° (32°F) to 35°C (95°F) up to 1800 m (6000ft), up to 3000m (10000 ft)</p>

Power and Heat Dissipation

Switch Model	Minimum Heat Dissipation (BTU/hr) (Idle, no ports linked)	Minimum Power Consumption (Watts) (Idle, no ports linked)	Maximum Heat Dissipation (BTU/hr) (Fans high, all ports 100% traffic)	Maximum Power Consumption (Watts) (Fans high, all ports 100% traffic)
8720-32C-AC-F 8720-32C-AC-R	972 BTU/hr	285W	1340 BTU/hr	393W
8720-32C-DC-F 8720-32C-DC-R	975 BTU/hr	286W	1381 BTU/hr	405W

Power Supply Specifications

	750W AC PSU XN-ACPWR-750W-F/R	750W DC PSU XN-DCPWR-750W-F/R
Dimensions	3.15in W x 1.57in H x 8.11in D (8.0 cm x 4.0 cm x 20.6cm)	3.15in W x 1.57in H x 8.11in D (8.0 cm x 4.0 cm x 20.6cm)
Weight	1.79lb (0.81Kg)	1.85lb (0.85Kg)
Voltage Input Range	100 -140 VAC/200 -240 VAC	-48 to -60 VDC
Line Frequency Range	50/60Hz	N/A
PSU Input Socket	IEC 320 C14	Terminal Block
PSU Output Cord	IEC 320 C13	N/A
Operating Conditions	0° - 55°C operation	0° - 55°C operation

Environmental Specifications

EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage

EN/ETSI 300 019-2-2 v2.1.2 - Class 2.3 Transportation EN/ETSI 300 019-2-3 v2.1.2 - Class 3.1e Operational EN/ETSI 300 753 (1997-10) - Acoustic Noise

ASTM D3580 Random Vibration Unpackaged 1.5 G

Environmental Compliance

EU RoHS 2011/65/EU EU WEEE 2012/19/EU

China RoHS 2 GB/T 26572

Taiwan RoHS CNS 15663(2013.7)

IEEE Compliance

Ethernet

- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1s Multiple Spanning Tree
- IEEE 802.1w Rapid Reconfiguration of Spanning Tree Protocol
- IEEE 802.3 Ethernet
- IEEE 802.3ad Link Aggregation with LACP
- IEEE 802.3ae 10G Ethernet
- IEEE 802.1Q VLAN Tagging
- IEEE 802.1p Class of Service Prioritization and Tagging
- IEEE 802.1v VLAN Classification by Protocol and Port
- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
- IEEE 802.3x Flow Control (Pause Frames)

For more information on the supported RFCs, please visit the [Extreme Documentation Portal](#). Search for the 'Extreme SLX-OS Scale and Standards Matrix' document for your version of SLX-OS.

Layer 2 Switching

- Conversational MAC Learning
- Virtual Link Aggregation Group (vLAG) spanning
- Layer 2 Access Control Lists (ACLs)
- Address Resolution Protocol (ARP) RFC 826
- Layer 2 Loop prevention in an overlay environment
- MLD Snooping
- IGMP v1/v2 Snooping
- MAC Learning and Aging
- Link Aggregation Control Protocol (LACP) IEEE 802.3ad/802.1AX
- Virtual Local Area Networks (VLANs)
- VLAN Encapsulation 802.1Q
- Per-VLAN Spanning Tree (PVST+/PVRST+)
- Rapid Spanning Tree Protocol (RSTP) 802.1w
- Multiple Spanning Tree Protocol (MSTP) 802.1s
- STP PortFast, BPDU Guard, BPDU Filter
- STP Root Guard
- Pause Frames 802.3x
- Static MAC Configuration
- Multi-Chassis Trunking (MCT)

Layer 3 Routing

- Border Gateway Protocol (BGP4+)
- DHCP Helper
- Layer 3 ACLs
- IGMPv2
- OSPF v2/v3
- Static routes
- IPv4/v6 ACL
- Bidirectional Forwarding Detection (BFD)
- 64-Way ECMP
- VRF Lite
- VRF-aware OSPF, BGP, VRRP, static routes
- VRRP v2 and v3

- IPv4/IPv6 dual stack
- ICMPv6 Route-Advertisement Guard
- Route Policies
- IPv6 ACL packet filtering
- BGP Additional-Path
- BGP-Allow AS
- BGP Generalized TTL Security Mechanism (GTSM)
- BGP Peer Auto Shutdown
- IPv6 routing
- OSPF Type-3 LSA Filter
- Wire-speed routing for IPv4 and IPv6 using any routing protocol
- BGP-EVPN Control Plane Signaling RFC 7432
- BGP-EVPN VXLAN Standard-based Overlay
- Multi-VRF
- IP Unnumbered Interface
- VRRP-E

Automation and Programmability

- gRPC Streaming protocol and API
- REST API with YANG data model
- Python
- PyNOS libraries
- DHCP automatic provisioning
- NETCONF API

High Availability

- BFD

Quality of Service

- ACL-based QoS
- Class of Service (CoS) IEEE 802.1p
- DSCP Trust
- DSCP to Traffic Class Mutation
- DSCP to CoS Mutation
- DSCP to DSCP Mutation
- Random Early Discard
- Per-port QoS configuration
- ACL-based Rate Limit
- Dual-rate, three-color token bucket
- ACL-based remarking of CoS/DSCP/Precedence
- ACL-based sFlow
- Scheduling: Strict Priority (SP), Deficit Weighted Round-Robin (DWRR)

Management and Monitoring

- Zero-Touch Provisioning (ZTP)
- IPv4/IPv6 management
- Industry-standard Command Line Interface (CLI)
- NETCONF API
- RESTCONF API with YANG data model
- SSH/SSHv2
- Link Layer Discovery Protocol (LLDP) IEEE 802.1AB
- MIB II RFC 1213 MIB
- Syslog (RASlog, AuditLog)
- Management VRF
- Switched Port Analyzer (SPAN)
- Telnet
- SNMP v1, v2C, v3
- sFlow version 5
- Out-of-band management
- RMON-1, RMON-2
- NTP
- Management Access Control Lists (ACLs)
- Role-Based Access Control (RBAC)
- Range CLI support
- Python
- DHCP Option 82 Insertion
- DHCP Relay
- Timestamping

Security

- Port-based Network Access Control 802.1X
- RADIUS
- AAA
- TACACS+
- Secure Shell (SSHv2)
- TLS 1.1, 1.2
- HTTP/HTTPS

- BPDU Drop
- Lightweight Directory Access Protocol (LDAP)
- Secure Copy Protocol
- Control Plane Policing (CPP)
- LDAP/AD
- SFTP
- Port SecurityOrdering Information

Ordering Information

Part Number	Description
8720-32C	Extreme 8720-32C Switch with two empty power supply slots, six empty fan slots and a 4-post rack mount kit, Supports 32x100/40GE
8720-32C-AC-F	Extreme 8720-32C Switch with front to back airflow. Supports 32x100/40G with two AC power supplies, six fans and a 4-post rack mount kit
8720-32C-AC-R	Extreme 8720-32C Switch with back to front Airflow, Supports 32x100/40G with dual AC power supplies, six fans and a 4-post rack mount kit
8720-32C-DC-F	Extreme 8720-32C Switch with front to back Airflow, Supports 32x100/40G with dual DC power supplies, six fans and a 4-post rack mount kit
8720-32C-DC-R	Extreme 8720-32C Switch with back to front Airflow, Supports 32x100/40G with dual DC power supplies, six fans and a 4-post rack mount kit
XN-ACPWR-750W-F	AC 750W PSU, Front -to-Back Airflow supported on VSP 7400, SLX 9150, SLX 9250, X695, 8720
XN-ACPWR-750W-R	AC 750W PSU, Back-to-Front Airflow supported on VSP 7400, SLX 9150, SLX 9250, X695, 8720
XN-DCPWR-750W-F	DC 750W PSU, Front -to-Back Airflow supported on VSP 7400, SLX 9150, SLX 9250, X695, 8720
XN-DCPWR-750W-R	DC 750W PSU, Back-to-Front Airflow supported on VSP 7400, SLX 9150, SLX 9250, X695, 8720
XN-FAN-001-F	Front to Back Fan for use in VSP 7400, SLX 9150, SLX 9250, X695, 8720
XN-FAN-001-R	Back to Front Fan for use in VSP 7400, SLX 9150, SLX 9250, X695, 8720
XN-4P-RKMT298	Four post rack mount rail kit supported on VSP 7400, SLX 9150, SLX 9250, X695, 8720
XN-2P-RKMT299	Two post rack mount rail kit supported on VSP 7400, SLX 9150, SLX 9250, X695, 8720
8000-PRMR-LIC-P	Extreme 8000 Premier Feature License (includes Integrated Application Hosting)

Optics/Transceivers

For the most up-to-date list of optics/transceivers supported on this product, refer to our [Extreme Optics Compatibility Tool](#).

Power Cords

Extreme 8000 power cords can be ordered separately but need to be specified at time of ordering. Refer to www.extremenetworks.com/powercords for details on power cord availability for this product.

Warranty

The Extreme 8000 is covered under Extreme's 1 Year Warranty policy. For warranty details, please visit: <https://www.extremenetworks.com/support/policies>

Services

Extreme's maintenance and support services with 100% in-sourced engineering experts and over 90% first-person resolution ensure efficient operation of your business-essential network. 24x7x365 phone support, advanced parts replacement, and on-site support augment your staff with experienced resources that help you mitigate critical network issues fast. Visit <https://www.extremenetworks.com/services/> for more information.

MTBFFor the most up-to-date list of MTBF values for this product, refer to our tool at: <https://www.extremenetworks.com/support/mean-time-between-failures>



<http://www.extremenetworks.com/contact>

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