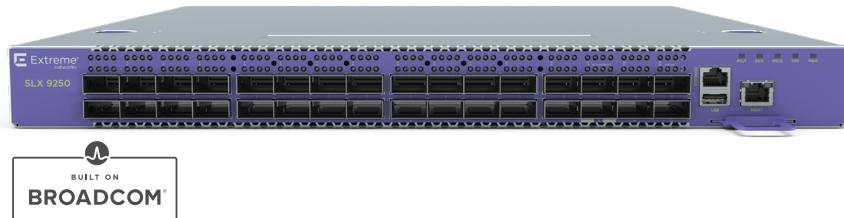


## Highlights

- Delivers agility at all layers of the data center stack
- Provides high-density 100/40 GbE spine and leaf connectivity in a 1U fixed form factor
- Ability to deliver 100GbE to 4 x 25 GbE or 40GbE to 4 x 10 GbE using break out cable
- Full featured SLX operating system with advanced features supporting switching, Data Center Fabrics, BGP-EVPN and VXLAN
- Supports Integrated Application Hosting to enable organizations to deploy Extreme-provided or third-party applications and tools directly on the switch
- 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



# ExtremeSwitching™ SLX 9250

## Next-Generation Spine Switch

As data centers and cloud service providers embrace new high-performance servers and distributed applications, they increasingly need dense 100/40 GbE switches for leaf and spine configurations. Traditionally, infrastructure has been slow to evolve, and it can be a barrier to innovation. With flexibility at all layers of the data center stack, IT teams can drive agility. The ExtremeSwitching SLX 9250 Switch is designed to help organizations stay ahead of this application- and data-driven network transformation without compromising performance.

By leveraging this high-density switch, data center networks can dramatically improve power, space, and cooling efficiencies, even at scale. A programmable ASIC enables the adoption of new protocols and technologies through an OS, rather than a forklift upgrade. Payload timestamping improves the accuracy of performance SLA setting and measurement.

 Extreme Elements™  
ExtremeSwitching™ SLX 9250

 Hu Human  
 Sr Switches Data Center

### Built to Suit Your Business Needs

**Extreme Elements** are the building blocks that allow you to tailor your network to your specific business environment, goals, and objectives. They enable the creation of an Autonomous Network that delivers the positive experiences and business outcomes most important to your organization.

Combining architecture, automation, and artificial intelligence, Extreme Elements enable you to ensure that your users get what they need — when and where they need it. Providing these superior user experiences is as simple as mixing and matching the right elements.

Learn more at [extremenetworks.com/extreme-elements](http://extremenetworks.com/extreme-elements).



## Application Telemetry

Application Telemetry is a unique feature of ExtremeAnalytics that enables the ExtremeSwitching infrastructure to participate in the forwarding and analysis of network application flows. By combining packet flow information from the SLX 9250 along with the deep packet inspection abilities of ExtremeAnalytics, actionable insights into network and application performance can be provided. This all without the need for expensive sensors or collectors.



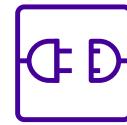
## Modular, Virtualized Operation System

The SLX 9250 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 with the YANG data model, Python, and NETCONF. It is based on Ubuntu Linux, which offers all the advantages of open source and access to commonly used Linux tools.



## Integrated Application Hosting

The SLX 9250 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.



## 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 Guest VM within the SLX 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 SLX 9250 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.



## Management

The SLX 9250 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. For centralized management, the Extreme Management Center (XMC) delivers a comprehensive unified management capability. XMC provides a consolidated view of users, devices and applications for wired and wireless networks – from data center to edge.

# SLX 9250 Switch Specifications

SLX9250 (32 x 100 GbE)	
Ports	<ul style="list-style-type: none"> <li>32 x QSFP+/QSFP28 40GbE/100GbE ports</li> <li>128 x 25/10 GbE using break-out cables</li> <li>1 x Serial console port RJ-45</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>Micro-USB Type A storage port</li> </ul>
Power Supplies	<ul style="list-style-type: none"> <li>Modular 750W AC power supply (up to 2 PSUs)</li> <li>Modular 750W DC power supply (up to 2 PSUs)</li> <li>Front-Back and Back-Front airflow options</li> </ul>
Fan Tray	<ul style="list-style-type: none"> <li>6 fan modules</li> <li>Front-Back and Back-Front airflow options</li> </ul>
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 single PSU
Performance	<ul style="list-style-type: none"> <li>Line rate 6.4 Tbps Switching Capacity (3.2 Tbps ingress, 3.2 Tbps egress)</li> <li>Forwarding Rate: 2000 Mpps</li> <li>Average Latency: 800 ns</li> </ul>
CPU/Memory	<ul style="list-style-type: none"> <li>8 Core Processor</li> <li>16GB DDR4 ECC memory</li> <li>128GB SSD memory</li> </ul>
Packet Buffers	32MB
Operating Conditions	<ul style="list-style-type: none"> <li>0° - 45°C operation</li> <li>10% to 95% relative humidity, non-condensing</li> <li>0 - 3000 meters altitude</li> </ul>

## 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)
SLX9250-32C AC or DC PSU	734 BTU/ hr	215W	1573 BTU/ hr	412W

## 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 - 60 HZ N	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

# SLX 9250 Software Specifications

Connector options	<ul style="list-style-type: none"> <li>40 GbE QSFP+</li> <li>100 GbE QSFP-28</li> <li>Out-of-band Ethernet management: 10/100/1000 Mbps RJ-45</li> <li>Console management: RJ45 serial port and USB type-C port with serial communication device class support</li> <li>Storage: USB port, standard-A plug</li> </ul>
Maximum MAC addresses	Up to 64,000
Maximum VLANs	4,096
Maximum ACLs (IPv4/IPv6/L2)	2,000
Maximum members in a standard LAG	64
Maximum number of MCT switches	2
Maximum number of bridge domains	2,048
Maximum IPv4 unicast routes	128,000
Maximum IPv6 unicast routes	10,000
Maximum IPv4 host routes	47,000
Maximum IPv6 host routes	33,000
Maximum jumbo frame size	9,216 bytes
QoS priority queues (per port)	8

## 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 SJ/T 11363-2006  
 Taiwan RoHS CNS 15663(2013.7)

## Packaging and Storage Specifications

Temp: -40° C to 70° C (-40° F to 158° F)  
 Humidity: 10% to 95% relative humidity, non-condensing  
 Packaged Shock (half sine): 180 m/s<sup>2</sup> (18 G), 6 ms, 600 shocks  
 Packaged Vibration: 5 to 62 Hz at velocity 5 mm/s, 62 to 500 Hz at 0.2 G  
 Packaged Random Vibration: 5 to 20 Hz at 1.0 ASD w/-3 dB/oct. from 20 to 200 Hz  
 Packaged Drop Height: 14 drops minimum on sides and corners at 42 inches (<15 kg box)

## 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)

## RFC Compliance

### General Protocols

- RFC 768 User Datagram Protocol (UDP)
- RFC 783 TFTP Protocol (revision 2)
- RFC 791 Internet Protocol (IP)
- RFC 792 Internet Control Message Protocol (ICMP)
- RFC 793 Transmission Control Protocol (TCP)
- RFC 826 ARP
- RFC 854 Telnet Protocol Specification
- RFC 894 A Standard for the Transmission of IP Datagram over Ethernet Networks
- RFC 959 FTP
- RFC 1027 Using ARP to Implement Transparent Subnet Gateways (Proxy ARP)
- RFC 1112 IGMP v1
- RFC 1157 Simple Network Management Protocol (SNMP) SNMP SNMP v1 and v2c
- RFC 1305 Network Time Protocol (NTP) Version 3
- RFC 1492 TACACS+
- RFC 1519 Classless Inter-Domain Routing (CIDR)
- RFC 1584 Multicast Extensions to OSPF
- RFC 1765 OSPF Database Overflow
- RFC 1812 Requirements for IP Version 4 Routers
- RFC 1908 Coexistence between Version 1 and Version 2 of the Internet-standard Network Management Framework
- RFC 1908 Coexistence between Version 1 and Version 2 of the Internet-standard Network Management Framework
- RFC 1997 BGP Communities Attribute
- RFC 2068 HTTP Server
- RFC 2131 Dynamic Host Configuration Protocol (DHCP)
- RFC 2154 OSPF with Digital Signatures (Password, MD-5)

- RFC 2236 IGMP v2
- RFC 2267 Network Ingress Filtering Option—Partial Support
- RFC 2328 OSPF v2 RFC 2385 Protection of BGP Sessions with the TCP MD5 Signature Option
- RFC 2370 OSPF Opaque Link-State Advertisement (LSA)
- RFC 2375 IPv6 Multicast Address Assignments
- RFC 2439 BGP Route Flap Damping
- RFC 2460 Internet Protocol, Version 6 (v6) Specification (on management interface)
- RFC 2462 IPv6 Stateless Address Auto-Configuration
- RFC 2464 Transmission of IPv6 Packets over Ethernet Networks (on management interface)
- RFC 2545 Use of BGP-MP Extensions for IPv6
- RFC 2474 Definition of the Differentiated Services Field in the IPv4 and IPv6 Headers
- RFC 2571 An Architecture for Describing SNMP Management Frameworks
- RFC 2578 Structure of Management Information Version 2
- RFC 2579 Textual Conventions for SMIV2
- RFC 2580 Conformance Statements for SMIV2
- RFC 2710 Multicast Listener Discovery (MLD) for IPv6 (future)
- RFC 2711 IPv6 Router Alert Option
- RFC 2740 OSPFv3 for IPv6
- General Protocols (cont.)
- RFC 2865 Remote Authentication Dial-In User Service (RADIUS)
- RFC 3101 The OSPF Not-So-Stubby Area (NSSA) Option
- RFC 3137 OSPF Stub Router Advertisement
- RFC 3176 sFlow
- RFC 3392 Capabilities Advertisement with BGPv4
- RFC 3410 Introduction and Applicability Statements for Internet Standard Management Framework
- RFC 3411 An Architecture for Describing SNMP Frameworks
- RFC 3412 Message Processing and Dispatching for the SNMP
- RFC 3413 Simple Network Management Protocol (SNMP) Applications
- RFC 3414 User-based Security Model
- RFC 3415 View-based Access Control Model
- RFC 3416 Version 2 of SNMP Protocol Operations
- RFC 3417 Transport Mappings
- RFC 3418 Management Information Base (MIB) for the SNMP
- RFC 3584 Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network
- RFC 3587 IPv6 Global Unicast Address Format RFC 4291 IPv6 Addressing Architecture
- RFC 3623 Graceful OSPF Restart—IETF Tools
- RFC 3768 VRRP
- RFC 3826 The Advanced Encryption Standard (AES) Cipher Algorithm in the SNMP User-based Security Model
- RFC 4271 BGPv4
- RFC 4443 ICMPv6 (replaces 2463)
- RFC 4456 BGP Route Reflection
- RFC 4510 Lightweight Directory Access Protocol (LDAP): Technical Specification Road Map
- RFC 4724 Graceful Restart Mechanism for BGP
- RFC 4760 Multiprotocol Extensions for BGP
- RFC 4750 OSPFv2.MIB
- RFC 4861 IPv6 Neighbor Discovery
- RFC 4893 BGP Support for Four-Octet AS Number Space
- RFC 5082 Generalized TTL Security Mechanism (GTSM)
- RFC 5880 Bidirectional Forwarding Detection (BFD)
- RFC 5881 Bidirectional Forwarding Detection (BFD) for IPv4 and IPv6 (Single Hop)RFC 5882 Generic Application of Bidirectional Forwarding Detection (BFD)
- RFC 5883 Bidirectional Forwarding Detection (BFD) for Multihop Paths

- RFC 5942 IPv6 Neighbor Discovery
- RFC 7348 Virtual eXtensible Local Area Network (VxLAN)
- RFC 7432 BGP-EVPN—Network Virtualization Using VXLAN Data Plane

### SSH/SCP/SFTP

- RFC 4250 Secure Shell (SSH) Protocol Assigned Numbers
- RFC 4251 Secure Shell (SSH) Protocol Architecture
- RFC 4252 Secure Shell (SSH) Authentication Protocol
- RFC 4253 Secure Shell (SSH) Transport Layer Protocol
- RFC 4254 Secure Shell (SSH) Connection Protocol
- RFC 4344 SSH Transport Layer Encryption Modes
- RFC 4419 Diffie-Hellman Group Exchange for the Secure Shell (SSH) Transport Layer Protocol

### MIBS

- RFC 2674 Bridge MIB
- RFC 2819 RMON Groups 1, 2, 3, 9
- RFC 2863 The Interfaces Group MIB
- RFC 3826 SNMP-USM-AES-MIB
- RFC 4022 TCP MIB
- RFC 4113 UDP.MIB
- RFC 4133 Entity MIB (Version 3); rmon.mib, rmon2.mib, sflow\_v5.mib, bridge.mib, pbridge.mib, qbridge.mib, rstp. mib, lag.mib, lldp.mib, lldp\_ext\_dot1.mib, lldp\_ext\_dot3.mib
- RFC 4273 BGP-4 MIB
- RFC 4292 IP Forwarding MIB
- RFC 4293 Management Information Base for the Internet Protocol (IP)
- RFC 4750 OSPFv2.MIB
- RFC 7331 BFD MIB

### 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 Security

## Ordering Information

Part Number	Description
SLX9250-32C	SLX9250-32C Switch with two empty power supply slots, six empty fan slots, Supports 32x100/40GE
SLX9250-32C-AC-F	SLX9250-32C Switch AC with Front to Back Airflow, Supports 32x100GE/40GE with dual power supplies, six fans
SLX9250-32C-AC-R	SLX9250-32C Switch AC with Back to Front Airflow, Supports 32x100GE/40GE with dual power supplies, six fans
XN-ACPWR-750W-F	AC 750W PSU, Front -to-Back Airflow supported on VSP 7400, SLX 9150, SLX9250
XN-ACPWR-750W-R	AC 750W PSU, Back-to-Front Airflow supported on VSP 7400, SLX 9150, SLX9250
XN-DCPWR-750W-F	DC 750W PSU, Front -to-Back Airflow supported on VSP 7400, SLX 9150, SLX9250
XN-DCPWR-750W-R	DC 750W PSU, Back-to-Front Airflow supported on VSP 7400, SLX 9150, SLX9250
XN-FAN-001-F	Front to Back Fan for use in VSP 7400, SLX 9150, SLX 9250
XN-FAN-001-R	Back to Front Fan for use in VSP 7400, SLX 9150, SLX 9250
XN-4P-RKMT298	Spare four post rack mount rail kit supported on VSP 7400, SLX 9150, SLX9250
XN-2P-RKMT299	Spare two post rack mount rail kit supported on VSP 7400, SLX 9150, SLX9250
SLX9250-ADV-LIC-P	SLX 9250 Advanced Feature License for BGP-EVPN and 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 at <https://optics.extremenetworks.com>.

## Power Cords

SLX series power cords can be ordered separately but need to be specified at time of ordering. Refer to <https://www.extremenetworks.com/powercords/> for details on power cord availability for this product.

## Warranty

The SLX 9740 is covered under Extreme's 1 Year Warranty policy. For warranty details, please visit: <https://www.extremenetworks.com/support/policies>.

## Maintenance 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 [Extreme Maintenance Services](https://www.extremenetworks.com/maintenance) for more information.

## MTBF

For 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/>.