Extreme™
Customer-Driven Networking

ExtremeSwitching SLX 9250 Technical Specifications

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Contents

Preface

This section describes the text conventions used in this document, where you can find additional information, and how you can provide feedback to us.

Conventions

This section discusses the conventions used in this guide.

Notes, cautions, and warnings

Notes, cautions, and warning statements may be used in this document. They are listed in the order of increasing severity of potential hazards.

NOTE

A Note provides a tip, guidance, or advice, emphasizes important information, or provides a reference to related information.

ATTENTION

An Attention statement indicates a stronger note, for example, to alert you when traffic might be interrupted or the device might reboot.

CAUTION

A Caution statement alerts you to situations that can be potentially hazardous to you or cause damage to hardware, firmware, software, or data.

DANGER

A Danger statement indicates conditions or situations that can be potentially lethal or extremely hazardous to you. Safety labels are also attached directly to products to warn of these conditions or situations.

Text formatting conventions

Text formatting conventions such as boldface, italic, or Courier font may be used to highlight specific words or phrases.

Format	Description
bold text	Identifies command names.
	Identifies keywords and operands.
	Identifies the names of GUI elements.
	Identifies text to enter in the GUI.
italic text	Identifies emphasis.
	Identifies variables.
	Identifies document titles.

Format	Description
`Courier font`	Identifies CLI output. Identifies command syntax examples.

Command syntax conventions

Bold and italic text identify command syntax components. Delimiters and operators define groupings of parameters and their logical relationships.

Convention	Description
bold text	Identifies command names, keywords, and command options.
italic text	Identifies a variable.
[ ]	Syntax components displayed within square brackets are optional. Default responses to system prompts are enclosed in square brackets.
{ **x** | **y** | **z** }	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x | **y**	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, for example, passwords, are enclosed in angle brackets.
...	Repeat the previous element, for example, *member*[*member*...].
\	Indicates a "soft" line break in command examples. If a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

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- Current Product Documentation
- Archived Documentation (for earlier versions and legacy products)
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If you require assistance, contact Extreme Networks using one of the following methods:

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The Hub	A forum for Extreme Networks customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Call GTAC — For immediate support: (800) 998 2408 (toll-free in U.S. and Canada) or 1 (408) 579 2826. For the support phone number in your country, visit: www.extremenetworks.com/support/contact

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number, or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any actions already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

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3. Select the products for which you would like to receive notifications.

   NOTE
   You can modify your product selections or unsubscribe at any time.

4. Select **Submit**.

Providing Feedback

The Information Development team at Extreme Networks has made every effort to ensure the accuracy and completeness of this document. We are always striving to improve our documentation and help you work better, so we want to hear from you. We welcome all feedback, but we especially want to know about:

- Content errors, or confusing or conflicting information.
- Improvements that would help you find relevant information in the document.
- Broken links or usability issues.

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- Access the feedback form at https://www.extremenetworks.com/documentation-feedback/.
- Email us at documentation@extremenetworks.com.

Provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.

ExtremeSwitching SLX 9250 Technical Specifications

The ExtremeSwitching SLX 9250 Series includes the following switch models:

Part number	Description
SLX9250-32C	SLX9250-32C Switch with two empty power supply slots, and six empty fan slots. Supports 32x100/40GE
SLX9250-32C-AC-F	SLX9250-32C Switch AC with Front to Back Airflow. Supports 32x100/40GE with dual power supplies, six fans
SLX9250-32C-AC-R	SLX9250-32C Switch AC with Back to Front Airflow. Supports 32x100/40GE with dual power supplies, six fans

System specifications

SLX 9250 Software Specifications

TABLE 1 SLX 9250 Software Specifications

Software Specifications	Description
Connector options	• 40 GbE QSFP+ • 100 GbE QSFP28 • Out-of-band Ethernet management: 10/100/1000 Mbps RJ-45 • Console management: RJ45 serial port and USB type-C port with serial communication device class support • Storage: USB port, standard-A plug • Sound Pressure
Maximum MAC addresses	70,000
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	4096
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	9,126 bytes
QoS priority queues (per port)	8
IEEE Compliance	• IEEE 802.1D Spanning Tree Protocol • IEEE 802.1s Multiple Spanning Tree

TABLE 1 SLX 9250 Software Specifications (continued)

Software Specifications	Description
	• IEEE 802.1w Rapid Reconfiguration of Spanning Tree Protocol • IEEE 802.3 Ethernet • IEEE 802.3ad Link Aggregation with LACP • IEEE 802.3ab 1000BASE-T • IEEE 802.3z 1000BASE-X • IEEE 802.3ba / 80 2.3bm 40 GBASE-X and 100 GBASE-X • 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) • IEEE 802.3ae 10 GBASE-X • IEEE 802.3 10 GBASE-T (up to 100 m using Cat6a cabling or better)

Weights and Physical Dimensions

TABLE 2 SLX 9250 Switch Unpackaged Dimensions

SLX9250-32C (SLX 9250-32C base)	Height: 4.34 cm (1.71 in) Width: 43.96 cm (17.31 in) Length: 53.95 cm (21.24 in)
XN-FAN-001-F: Fan unit, front-to-back or XN-FAN-001-R: Fan Unit back-to-front	Height: 4.0 cm (1.57 in) Width: 4.0 cm (1.57 in) Length: 13.4 cm (5.28 in)
XN-4P-RKMT298 - Four-post rack mount kit (included with switch)	Height: 2.1 cm (0.83 in) Width: 4.4 cm (17.3 in) Length: 63.0 cm - 90.0 cm (24.80 in - 35.43 in)
XN-2P-RKMT299 - Two-post rack mount kit (separately orderable)	Height: 4.2 cm (1.65 in) Width: 2.4 cm (0.93 in) Length: 12.5 cm (4.92 in)

TABLE 3 SLX 9250 Switch Unpackaged Weight

SLX9250-32C (SLX 9250-32C base)	7.39 kg (16.29 lb)
SLX9250-32C switch with two AC PSUs (-F and -R models)	9.8 kg (21.56 lb)
Fan unit, front-to-back or back-to-front	0.14 kg (0.31 lb)
Four-post rack mount kit (included with switch)	2.65 kg (5.84 lb)
Two-post rack mount kit (separately orderable)	0.45 kg (0.99 lb)

TABLE 4 SLX 9250 Switch Packaged Dimensions

SLX9250-32C Switch	Height: 18.5 cm (7.28 in) Width: 60.0 cm (23.62 in) Length: 88.0 cm (34.65 in)
Fan unit, front-to-back or back-to-front	Height: 24.0 cm (9.45 in)

TABLE 4 SLX 9250 Switch Packaged Dimensions (continued)

	Width: 20.6 cm (8.11 in) Length: 22.1 cm (8.70 in)
Four-post rack mount kit (included with switch)	Height: 7.0 cm (2.76 in) Width: 11.0 cm (4.33 in) Length: 84.0 cm (33.07 in)
Two-post rack mount kit (separately orderable)	Height: 24.0 cm (9.45 in) Width: 20.6 cm (8.11 in) Length: 22.1 cm (8.70 in)

TABLE 5 SLX 9250-32 Switch Packaged Weight

SLX9250-32C switch with no PSUs	14.59 kg (32.17 lb)
SLX9250-32C switch with two AC PSUs (-F and -R models)	17 kg (37.40 lb)
Fan unit, front-to-back or back-to-front	1.82 kg (4.01 lb)
Four-post rack mount kit (included with switch)	2.71 kg (5.97 lb)
Two-post rack mount kit (separately orderable)	3.20 kg (7.05 lb)

Acoustic Specifications

TABLE 6 Acoustic Specifications

Switch Model	Bystander Sound Pressure (at 27°C)	Declared Sound Power (at 27°C)
SLX9250-32C-AC-F (SLX 9250-32C with front-to-back airflow	45 dB(A)	6.8 bels
SLX9250-32C-AC-R (SLX 9250-32C with back-to-front airflow)	47 dB(A)	6.7 bels

Fan Tray and Speed Variation

Fan speeds are adjusted based on calculations of the temperatures on all sensors. Due to one fan being located behind the other, air pushed from one fan may cause the other fan in the module to run at a higher speed. One fan can run at medium speed while the other can spin at high speed if one is close to the temperature boundary.

TABLE 7 Fan Tray and Speed Variation

Description	Operation Status	Operation Speed	Airflow Direction
Tray 1 Fan 1	up	high speed	Unknown*
Tray 1 Fan 2	up	medium speed	Unknown*
Tray 2 Fan 1	up	high speed	Unknown*
Tray 2 Fan 2	up	medium speed	Unknown*
Tray 3 Fan 1	up	high speed	Unknown*
Tray 3 Fan 2	up	medium speed	Unknown*
Tray 4 Fan 1	up	high speed	Unknown*
Tray 4 Fan 2	up	medium speed	Unknown*
Tray 5 Fan 1	up	high speed	Unknown*

TABLE 7 Fan Tray and Speed Variation (continued)

Description	Operation Status	Operation Speed	Airflow Direction
Tray 5 Fan 2	up	medium speed	Unknown*
Tray 6 Fan 1	up	high speed	Unknown*
Tray 6 Fan 2	up	medium speed	Unknown*

* - The color of the tab on the fan tray indicates the airflow direction:

- Red = Front-to-Back
- Blue = Back-to-Front

Power Options

TABLE 8 SLX 9250 Switch Power Options

SLX 9250 Switch	**750 W AC power supply:** Part # XN-ACPWR-750W-F (front-to-back) Part # XN-ACPWR-750W-R (back-to-front) AC Input: 100-120/200-240 VAC, 50/60 Hz 3.5/1.8 A max. for each PSU PSU Input Socket: IEC 320 C14 Power cord input plug: IEC 320 C13
	750 W DC power supply: Part # XN-DCPWR-750W-F (front-to-back) Part # XN-DCPWR-750W-R (back-to-front) DC Input: -54 VDC, 7.0 A max. for each PSU

Power Consumption

TABLE 9 SLX 9250 Switch Power Consumption

Operating Mode	Test Conditions				Power Consumption		
	Fan Duty	Traffic Load	Port Status	Packet Length (Bytes)	Dual Power: PSU1	Dual Power: PSU2	Single Power: PSU1
Empty mode	85%	NA	Down	NA	152.6 W	145.5 W	285.9 W
Standby mode	85%	NA	Up	NA	157.6 W	151.5 W	297.2 W
Typical mode	85%	70%	Up	1,518	165 W	159.8 W	313.6 W
Stress mode	100%	100%	Up	256	207.8 W	204.5 W	406.o W

Power and Heat Dissipation

TABLE 10 SLX 9150 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-F	734 BTU/ hr	215W	1573 BTU/ hr	461W
SLX9250-32C-AC-R	734 BTU/ hr	215W	1573 BTU/ hr	461W

Mean Time Between Failures (MTBF)

TABLE 11 SLX 9250 Mean Time Between Failures (MTBF)

Switch Model	Mean Time Between Failures
SLX9250-32C-AC-F (	384936 hrs @ 25°C
SLX9250-32C-AC-R	444822 hrs @ 25°C

CPU, Memory

TABLE 12 CPU, Memory

1GHz 64-bit CPU
16 Gb memory, 128 Gb SSD
4GB eMMC Flash Memory
24 MB buffer for ASIC, per chip

Standards

TABLE 13 Safety Standards

North American Safety of ITE	UL 62368-1 2nd Ed., 2014-12-01, Listed Device (US)
	UL 60950-1 2nd Ed., 2014-10-14, Listed Device (US)
	CAN/CSA 22.2 #62368-1-14 2nd Ed., Canada
	CAN/CSA 22.2 #60950-1-07 2nd Ed., Canada 2014-10
	Complies with FCC 21 CFR Chapter 1, Sub-chapter J in accordance with FDA & CDRH requirements (US Laser Safety)
	CDRH Letter of Approval (US FDA Approval)
European Safety of ITE	EN 62368-1:2014/A11:2017
	EN 60950-1:2006 + A11:2009 + A12:2010 + A2:2013
	2014/35/EU Low Voltage Directive
International Safety of ITE	CNS 14336-1
	AS/NZX 60950-1 (Australia /New Zealand)

TABLE 13 Safety Standards (continued)

	GB4943.1-2001
	IEC/EN 60825-1:2007, IEC/EN 60825-2:2004+A1+A2 or later (Lasers Safety)
	IEC 62368-1:2014 (2ndEd.)
	IEC 60950-1:2005 (2nd Ed.) + Am 1:2009 + Am 2:2013 + National Difference

TABLE 14 EMI/EMC Standards

North America EMC for ITE	FCC 47 CFR part 15 subpart B Class A (USA) ICES-003 (Canada)
European EMC standards	EN 300 386 V2.1.1(2016-07) Class A EN 55032:2015/AC:2016-07 Class A EN 55024:2010/A1:2015 EN 55011:2009+A1:2010 (Group 1, Class A) EN 61000-6-2:2005+AC:2005 EN 61000-6-4:2007+A1:2011 EN 61000-3-2:2014 Class A EN 61000-3-3:2013 EN 61000-4-2:2009 EN 61000-4-3:2006+A1:2008+A2:2010 EN 61000-4-4:2012 EN 61000-4-5:2014 EN 61000-4-6:2014/AC:2015 EN 61000-4-8:2010 EN 61000-4-11:2004/A1:2017
International EMC certifications	IEC 61000-6-2:2016 ED 3.0 IEC 61000-6-4:2018 ED 3.0 IEC 61000-4-2:2008 ED 2.0 IEC 61000-4-3:2006+AMD1:2007+AMD2:2010 ED 3.2 IEC 61000-4-4:2012 ED 3.0 IEC 61000-4-5:2014+AMD1:2017+ ED 3.1 IEC 61000-4-6:2013+ ED 4.0 IEC 61000-4-8:2009+ ED 2.0 IEC 61000-4-11:2004+AMD1:2017+ ED 2.1 CISPER 32:2015 ED 2.0 Class A CISPER 24:2010+AMD1:2015 Class A CISPER 11:2009 ED 5.0 Group 1, Class A AS/NZS CISPER 32:2015 Class A GB/T9254-2008 Class A ANSI C63.4:2014
Country-specific	RCM (Australia) VCCI Class A (Japan) MSIP KCC (Korea) BSMI (Taiwan) ANATEL (Brazil) CCC mark (China) SABS & NRCS (South Africa) UL, FCC (North America) EAC mark (Custom Union)

TABLE 15 Telecom Standards

EN/ETSI 300 386:2008 (EMC Telecommunications)
EN/ETSI 300 019 (Environmental for Telecommunications)
MEF9 and MEF14 certified for EPL, EVPL, and ELAN

TABLE 16 IEEE 802.3 Media Access Standards

IEEE 802.3ab 1000BASE-T
IEEE 802.3z 1000BASE-X
IEEE 802.3ae 10GBASE-X
IEEE 802.3ba 40GBASE-X

Environmental Data

TABLE 17 Environmental Data

Environmental standards	EN/ETSI 300 019-2-1 v2.1.2 (2000 - 2009) - Class 1.2 Storage EN/ETSI 300 019-2-2 v2.1.2 (1999 - 09) - Class 2.3 Transportation EN/ETSI 300 019-2-3 v2.1.2 (2003 - 04) - Class 3.1e Operational EN/ETSI 300 753 (1997-10) - Acoustic Noise ASTM D3580 Random Vibration Unpackaged 1.5G
Temperature range	• Front-to-back airflow: 0°C to 50°C (32°F to 122°F) up to 1800m (6000 ft) • Front-to-back airflow: 0°C to 45°C (32°F to 113°F) above 1800m (6000 ft) • Back-to-front airflow: 0°C to 45°C (32°F to 113°F) up to 1800m (6000 ft) • Back-to-front airflow: 0°C to 40°C (32°F to 104°F) above 1800m (6000 ft)
Other operating conditions	Humidity: 5% to 95% relative humidity, non-condensing Altitude: 0 to 3,000 meters (9,850 feet) Operational shock (half sine): 30 m/s^2 (3 G), 11 ms, 60 shocks Operational random vibration: 3 to 500 Hz at 1.5 G rms
Storage & transportation conditions (packaged)	Transportation temperature: -40°C to 70°C (-40°F to 158°F) Humidity: 5% to 95% relative humidity, non-condensing Packaged shock (half sine): 180 m/s^2 (18 G), 6 ms, 600 shocks Packaged sine 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 14 drops minimum on sides and corners at 42 in (<15 kg box)