

ExtremeSwitching SLX 9030 Technical Specifications

Legal Notice

Extreme Networks, Inc. reserves the right to make changes in specifications and other information contained in this document and its website without prior notice. The reader should in all cases consult representatives of Extreme Networks to determine whether any such changes have been made.

The hardware, firmware, software or any specifications described or referred to in this document are subject to change without notice.

Trademarks

Extreme Networks and the Extreme Networks logo are trademarks or registered trademarks of Extreme Networks, Inc. in the United States and/or other countries.

All other names (including any product names) mentioned in this document are the property of their respective owners and may be trademarks or registered trademarks of their respective companies/owners.

For additional information on Extreme Networks trademarks, please see: www.extremenetworks.com/company/legal/trademarks

Open Source Declarations

Some software files have been licensed under certain open source or third-party licenses. End-user license agreements and open source declarations can be found at: www.extremenetworks.com/support/policies/software-licensing

Contents

Preface	5
Conventions.....	5
Notes, cautions, and warnings.....	5
Text formatting conventions.....	5
Command syntax conventions.....	6
Documentation and Training.....	6
Training.....	6
Getting Help.....	6
Subscribing to Service Notifications.....	7
Providing Feedback to Us.....	7
ExtremeSwitching SLX 9030 Technical Specifications	9
SLX 9030 Switch Specifications.....	9
Power and Heat Dissipation.....	10
Power Supply Specifications.....	10
Acoustics Specifications	10
SLX 9030 Software Specifications.....	11
Ethernet.....	11
LEDs.....	11
Other.....	12
Weight and physical dimensions.....	12
Data port specifications (Ethernet).....	12
Serial port specifications (pinout RJ-45).....	12
Serial port specifications (pinout - mini-USB).....	13
Serial port specifications (protocol).....	13
Memory specifications	13
Regulatory compliance (EMC).....	13
Regulatory compliance (safety).....	14
Regulatory compliance (environmental).....	14

Preface

- Conventions..... 5
- Documentation and Training..... 6
- Getting Help..... 6
- Providing Feedback to Us..... 7

This section discusses the conventions used in this guide, ways to provide feedback, additional help, and other Extreme Networks® publications.

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.
<i>italic text</i>	Identifies text to enter in the GUI. 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.
<i>italic text</i>	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, <i>member[member...]</i> .
\	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.

Documentation and Training

To find Extreme Networks product guides, visit our documentation pages at:

Current Product Documentation	www.extremenetworks.com/documentation/
Archived Documentation (for earlier versions and legacy products)	www.extremenetworks.com/support/documentation-archives/
Release Notes	www.extremenetworks.com/support/release-notes
Hardware/Software Compatibility Matrices	https://www.extremenetworks.com/support/compatibility-matrices/
White papers, data sheets, case studies, and other product resources	https://www.extremenetworks.com/resources/

Training

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For more information, visit www.extremenetworks.com/education/.

Getting Help

If you require assistance, contact Extreme Networks using one of the following methods:

- Extreme Portal** Search the GTAC (Global Technical Assistance Center) knowledge base, manage support cases and service contracts, download software, and obtain product licensing, training, and certifications.
- 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: 1-800-998-2408 (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 and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) 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

Subscribing to Service Notifications

You can subscribe to email notifications for product and software release announcements, Vulnerability Notices, and Service Notifications.

1. Go to www.extremenetworks.com/support/service-notification-form.
2. Complete the form with your information (all fields are required).
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. Click **Submit**.

Providing Feedback to Us

Quality is our first concern at Extreme Networks, and we have 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 especially want to know about:

- Content errors or confusing or conflicting information.
- Ideas for improvements to our documentation so you can find the information you need faster.
- Broken links or usability issues.

If you would like to provide feedback to the Extreme Networks Information Development team, you can do so in two ways:

- Use our short online feedback form at <https://www.extremenetworks.com/documentation-feedback/>.
- Email us at documentation@extremenetworks.com.

Please 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 9030 Technical Specifications

SLX 9030 Switch Specifications

System component	Description
Enclosure	Chassis-mountable on a desktop, or in a standard 2 or 4-post rack kit
Ports	SLX 9030-48S amd SLX 9030-48T Switch Models <ul style="list-style-type: none"> • 48 1Gb/10Gb SFP+ ports • 2 10Gb/40Gb QSFP+ ports • 4 10Gb/25 Gb/40 Gb/100Gb QSFP28 ports • 1x Serial console port RJ-45 • 1x 10/100/1000BASE-T out-of-band management port • Micro-USB Type A storage port
Power supplies	SLX 9030-48S amd SLX 9030-48T Switch Models <ul style="list-style-type: none"> • Modular 770 W AC power supply (up to two PSUs) • Modular 1100 W DC power supply (up to two PSUs) • Front-Back and Back-Front airflow options
Fan assemblies	SLX 9030-48S amd SLX 9030-48T Switch Models <ul style="list-style-type: none"> • 6 Fan modules • Front-Back and Back-Front airflow options
Dimensions	SLX 9030-48S amd SLX 9030-48T Switch Models 17.4in W / 19.2in D / 1.7in H (44.1cm / 48.8cm / 4.3cm)
Performance	SLX 9030-48S amd SLX 9030-48T Switch Models Line rate 1.76 Tbps Switching Capacity with Average Latency: <ul style="list-style-type: none"> • 800 ns for SLX 9030-48S • 2.3 μsec for SLX 9030-48T
CPU and Memory	SLX 9030-48S amd SLX 9030-48T Switch Models <ul style="list-style-type: none"> • 2.4GHz Quad core CPU • 8GBE DDR3 ECC memory • 32GBE SSD memory
Packet Buffers	SLX 9030-48S amd SLX 9030-48T Switch Models 12 Mb
Operating Conditions	SLX 9030-48S amd SLX 9030-48T Switch Models <ul style="list-style-type: none"> • 0 ° - 45°C operation • 10 % to 95% relative humidity, non-condensing • 0 - 3000 meters altitude • Shock (half sine): 98 m/ s² (10 G), 11ms, 9 shocks • Random vibration: 3 to 50 0 Hz at 1.5 G rms

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)	
SLX 9030-48S AC	AC 282 BTU/hr	83 W	1124 BTU/ hr	329 W	
SLX 9030-48S DC	311BTU/ hr	91W	1178 BTU/ hr	345 W	
SLX 9030-48T AC	425 BTU/ hr	125 W	1271BTU/ hr	373 W	
SLX 9030-48T DC	421BTU/ hr	123 W	1315 BTU/ hr	385 W	
	1 PSU		2 PSU		

Power Supply Specifications

PSU Specifications/Part Numbers	770W AC PSU / 10960/10961	1100W DC PSU / 10962/10963
Dimensions	2.3 in W x 1.6 in H x 14.1in D (5.9 cm x 4.1cm x 35.9 cm)	2.3 in W x 1.6 in H x 14.1in D (5.9 cm x 4.1cm x 35.9 cm)
Weight	2.2 lb (1Kg)	2.2 lb (1Kg)
Voltage Input Range	100 - 240 VAC +/- 10%	100 - 240 VAC +/- 10%
Line Frequency Range	50 - 60 Hz +/- 5%	N/A
PSU Input Socket	IEC 320 C14	Terminal Block
Power Cord Input Plug	IEC 320 C13	N/A
Operating Conditions	0 ° - 45°C Operation	0 ° - 45°C Operation

Acoustics Specifications

Switch Model	Bystander Sound Pressure	Declared Sound Power
SLX 9030-48S (Front -Back Airflow)	55.4 dB(A) up to 30 °C 61.3 dB(A) up to 40 °C 76.8 dB(A) @ 45°C (max)	6.9 bels up to 30 °C 7.5 bels up to 40 °C 9.0 bels @ 45°C (max)
SLX 9030-48S (Back-Front Airflow) 5	6.9 dB(A) up to 30 °C 63.3 dB(A) up to 40 °C 77.4 dB(A) @ 45°C (max)	7.1bels up to 30 °C 7.7 bels up to 40 °C 9.1bels @ 45°C (max)
SLX 9030-48T (Front -Back Airflow)	58 dB(A) up to 25°C 72.8 dB(A) up to 35°C 76.3 dB(A) @ 45°C (max)	7.2 bels up to 25°C 8.7 bels up to 35°C 9.0 bels @ 45°C (max)
SLX 9030-48T (Back-Front Airflow)	59.1dB(A) up to 25°C 72.5 dB(A) up to 35°C 77.5 dB(A) @ 45°C (max)	7.3 bels up to 25°C 8.7 bels up to 35°C 9.0 bels @ 45°C (max)

SLX 9030 Software Specifications

Software Specifications	Description
Connector Options	<ul style="list-style-type: none"> • 10/1 GbE SFP+ • 40GbE QSFP+ • 100GbE QSFP-28 • 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
Maximum MAC addresses	Up to 80,000
Maximum VLANS	4,096
Maximum ACLs	2048
Maximum members in a standard LAG	32
Maximum per-port priority pause level	8
Maximum switches an mLAG can span	2
Maximum IPv4 unicast routes	128,000
Maximum IPv6 unicast routes	15,000
Maximum jumbo frame size	9,126 bytes
QoS priority queues (per port)	8

Ethernet

System component	Description	Maximum ports supported
QSFP-28 ports	The QSFP-28 ports can support 10Gb/25Gb/40Gb/100Gb	4
SFP+ ports	The SFP+ ports can support 1Gb/10Gb interfaces (SLX 9030-48S). User port numbering is from left to right and top to bottom.	48
10GBASE-T ports	RJ-45 port with 1Gb/10Gb speeds (SLX-9030-48T) User port numbering is from left to right and top to bottom.	48
Ethernet management port	RJ-45 port with 10Mb/100Mb/1Gb speeds	1

LEDs

System component	Description
Interface module LEDs	<ul style="list-style-type: none"> • Power: Green - Power OK, off - No power • Status: Green- Status OK, Amber - Error; Off - Unexpected error • Link status (1 LED per physical port): Green (Solid) - Link is up; Green (Blinking) - Link is up and running traffic; Off - No link
Power supply LEDs	<ul style="list-style-type: none"> • LED 1 and LED 2: Steady Green - Input and output voltages are within range • LED 1: Off and LED 2: Flashing Yellow - Power supply does not have incoming power and is not providing power to the device, or the Input AC voltage is out of range. • LED 1: Green and LED 2: Yellow - Output voltage is out of range

System component	Description
Fan module LEDs	<ul style="list-style-type: none"> LED 1: Green and LED 2: Flashing Yellow/Green - Over-temperature warning or fan error Power (Fan) LED: No light (LED is off) - Fan assembly does not have power. Steady green - Fan assembly has power. Status (Fan) LED: No light (LED is off) - Fan assembly is either healthy or does not have power. Steady amber - Fan assembly is being initialized or has a failure (full or partial).

Other

System component	Description
Serial Cable	RJ-45 console cable
RJ-45 to DB9 adapter	1 (RJ-45 port to female DB9 connector)
AC power cord, power clip	For both units

Weight and physical dimensions

The SLX 9030/9030-T Switch is 1 RU and 19.2" in depth.

Model	Dimensions (with Fan FRU)	Weight (with 6 x Fan FRUs and 2 x PSUs without optics)
SLX 9030/9030-T Switch	445 x 43.7 x 451.5 mm	8.96 Kg (19.712 lbs)
Fan tray	42.0 x 41.2 x 94.6 mm	0.18 Kg (.396 lb.)
Power Supply Unit	54.4 x 40.0 x 236.6 mm	0.76 Kg (1.672 lbs)

Data port specifications (Ethernet)

System component	Description	Maximum ports supported
QSFP28 ports	100 GbE QSFP28 ports	6
SFP+ ports	The SFP+ ports can support 10GbE/1GbE interfaces. There are 48 x SFP+ ports.	48
Ethernet management port	RJ-45 port with 10/100/1000 Mbps auto-negotiating capability	1

Serial port specifications (pinout RJ-45)

Pin	Signal	Description
1	Not supported	N/A
2	Not supported	N/A
3	RXD	Receive data
4	GND	Logic ground
5	Not supported	N/A

Pin	Signal	Description
6	TXD	Transmit data
7	Not supported	N/A
8	Not supported	N/A

Serial port specifications (pinout - mini-USB)

Pin	Signal	Description
1	Reserved	Not used
2	UART0_RX	Debug port (data received by SLX)
3	UART0_TX	Console port (data transmitted by SLX)
4	Reserved	Not used
5	GND	Ground

Serial port specifications (protocol)

Parameter	Value
Baud	115200
Data bits	8
Parity	None
Stop bits	1
Flow control	None

Memory specifications

Parameter	Type	Size
Main memory	DDR3	8 GB
Boot flash	NOR Flash	32 MB
SSD	M.2 SATA III (2 slots)	32GB

Regulatory compliance (EMC)

- FCC Part 15, Subpart B
- EN 55024
- EM 55032 (CE Mark) (Class A)
- ICES-003
- VCCI
- EN 300 386
- CNS 13438

- KN 32
- KN 35
- TCVN 7189
- EN 61000-3-2
- EN 61000-3-3
- GB 9254
- CISPR 32
- 2014/30/EU
- AS/NZS CISPR32 (Australia) (Class A)

Regulatory compliance (safety)

- EN/UL 60825
- EN/UL/CSA/IEC 60950-1
- GB 4943.1
- CNS 14336-1
- 2014/35/EU

Regulatory compliance (environmental)

- 2011/65/EU - Restriction of the use of certain hazardous substance in electrical and electronic equipment (EU RoHS).
- 2012/19/EU - Waste electrical and electronic equipment (EU WEEE).
- 94/62/EC - packaging and packaging waste (EU).
- 2006/66/EC - batteries and accumulators and waste batteries and accumulators (EU battery directive).
- 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (EU REACH).
- Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 - U.S. Conflict Minerals.
- 30/2011/TT-BCT - Vietnam circular.
- SJ/T 11363-2006 Requirements for Concentration Limits for Certain Hazardous Substances in EIPs (China).
- SJ/T 11364-2006 Marking for the Control of Pollution Caused by EIPs (China).