

# ExtremeSwitching SLX 9140 Technical Specifications

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## System specifications

System component	Description
Enclosure	Chassis-mountable on a desktop, or in a standard 2- or 4-post rack
Power supplies	Dual redundant, hot-swappable power supplies supported with 650 W AC intake or exhaust airflow, or 650 W DC intake or exhaust airflow.
Fans	Five (4+1) redundant, hot-swappable fan assemblies with intake or exhaust airflow. A sixth fan assembly can be installed for extended temperature range performance.
Cooling	Forced-air cooling front-to-back or back-to-front
System architecture	Non-blocking shared-memory switch
System processors	Intel Broadwell-DE D-1508 dual-core CPU running at 2.2 GHz

## Ethernet

System component	Description	Maximum ports supported
100 GbE QSFP28 ports	100/40 GbE QSFP28 ports	6
25 GbE SFP28 ports	25/10/1 GbE SFP28 ports	48
Ethernet management port	RJ-45 port with 10/100/1000 Mbps auto-negotiating capability	1

## LEDs

System component	Description
Device status and management	Two LED types indicate device status: Power (power supply) Status (diagnostics)
Ports	LEDs indicate port status (link/activity)

## Other

System component	Description
Serial cable	1 (Mini-USB to RJ-45)
RJ-45 to DB9 adapter	1 (RJ-45 port to female DB9 connector)
AC power cord	IEC 320-C14

## Weight and physical dimensions

Height	Width	Depth	Fully loaded weight (no transceivers)
4.37 cm	44.0 cm	44.47 cm	8.99 kg
1.72 inches	17.32 inches	17.51 inches	19.82 lb

## Environmental requirements

Condition	Operational	Non-operational
Ambient temperature	-5°C to 50°C (23°F to 122°F) (F2B) -5°C to 45°C (23°F to 113°F) (B2F), temporarily to 55°C with 6 fan assemblies	-40°C to 70°C (-40°F to 158°F)
Relative humidity	5% to 95% at 50°C (122°F)	5% to 95% at 70°C (158°F)
Altitude	0 to 3,000 m (9,843 ft) safety -60 to 4,000 m (13,123 ft) operational	0 to 12,000 m (39,370 ft)
Shock	20 G, 11 ms, half-sine wave	33 G, 11 ms, half-sine wave
Vibration	1 G sine, 0.4 grms random, 5-500 Hz	2.4 G sine, 1.1 grms random, 5-500 Hz
Airflow	134 cfm (estimated with 2 power supplies, 5 fan assemblies)	N/A
Heat dissipation (worst case)	DC power supply 475 W AC power supply 489 W	N/A
Operating noise	52.6 dBA (5 fan assemblies, 25°C, typical loading)	N/A
MTBF (25°C, 60% CL, Telec)	303,683 hours with DC power supply 324,414 hours with AC power supply	N/A

\* Worst case operational temperature is measured at sea level with at least 4 fan assemblies, with maximum power consumption optics modules (5W QSFP28/2W SFP28) fully loaded.

## Power supply specifications (per power supply)

Power supply model	Maximum output power rating (DC)	Input voltage	Input line frequency	Maximum input current	Input line protection	Maximum inrush current
XBR-ACPWR-650-F	650 W	100-240V	50-60Hz	12 A	Fuses	25A
XBR-ACPWR-650-R	650 W	100-240V	50-60Hz	12 A	Fuses	25A
XBR-DCPWR-650-F	650 W	-48 - -60V	-	14 A	Fuses	25A
XBR-DCPWR-650-R	650 W	-48 - -60V	-	13.3 A	Fuses	25A

## Power consumption (typical configuration)

All 25 GbE and two 100 GbE ports are linked up, loading with 10 percent traffic rate. Five fan assemblies. Fans at nominal speed.

@100 VAC Input (Input power ±5%)	@200 VAC Input (Input power ±5%)	@-48VDC	Minimum number of power supplies	Notes
174 W 594 BTU/hr	171 W 583 BTU/hr	173 W 590 BTU/hr	1 x 650 W AC 1 x 650 W DC	1 power supply
184 W 628 BTU/hr	181 W 618 BTU/hr	183 W 624 BTU/hr	1 x 650 W AC 1 x 650 W DC	2 power supplies

## Power consumption (maximum configuration)

All 25 GbE and six 100 GbE ports are linked up, loading with 100 percent traffic rate. Two power supplies and five fan assemblies. Fans at high speed.

@100 VAC Input (Input power ±5%)	@200 VAC Input (Input power ±5%)	@-48VDC	Minimum number of power supplies	Notes
475.9 W 1,624 BTU/hr	451.9 W 1,542 BTU/hr	456.3 W 1,557 BTU/hr	1 x 650 W AC 1 x 650 W DC	1 power supply
488.9 W 1,668 BTU/hr	474.7 W 1,620 BTU/hr	474 W 1,617 BTU/hr	1 x 650 W AC 1 x 650 W DC	2 power supplies

## Data port specifications (Ethernet)

Port type	Number (in module)	Description
100 GbE	6	QSFP28 ports, compatible with LR4 or SR4 optical transceivers, or direct attached copper cable
25 GbE	48	SFP28 ports, compatible with ER, LR, LRM, SR, ZR, orUSR optical transceivers

## 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	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

## Memory specifications

Memory	Type	Size
Main memory	DDR4	16 GB
Boot Flash	NOR Flash	32 MB
SSD	M.2 SATA III (2 slots)	64 GB per slot

## Regulatory compliance (EMC)

- FCC Part 15, Subpart B (Class A)
- EN 55032 (CE mark) (Class A)
- EN 55024 (CE mark) (Immunity) for Information Technology Equipment
- ICES-003 (Canada) (Class A)
- AS/NZ 55032 (Australia/New Zealand) (Class A)
- VCCI (Japan) (Class A)
- EN 300 386
- CNS 13438 (BSMI) (Taiwan) (Class A)
- KN 32 (South Korea) (Class A)
- KN 35 (South Korea) (Class A)
- TCVN 7189 / TCVN 7317 (Vietnam) (Class A)
- EN 61000-3-2



- EN 61000-3-3

## Regulatory compliance (safety)

- CAN/CSA-C22.2 No. 60950/UL 60950 - Safety of Information Technology Equipment
- EN 60825 Safety of Laser Products - Part 1: Equipment Classification, Requirements and User's Guide
- EN 60950/IEC 60950 Safety of Information Technology Equipment

## Regulatory compliance (environmental)

- 2014/35/EU and 2014/30/EU
- 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)

Regulatory compliance (environmental)