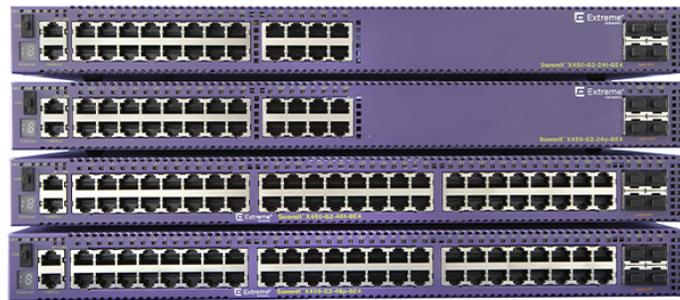# X450-G2 Series

Highlights

- Scalable edge switches with ExtremeXOS operating system
- 24-port or 48-port Gigabit Ethernet connectivity
- Copper and PoE+ models
- 4 x 10Gb SFP+ uplink ports on front faceplate
- Built-in 21 Gbps stacking ports on rear panel for all models (SummitStack-V84)
- Front-to-back airflow
- Modular PoE power supplies
- Hot-swappable fan tray and PoE power supplies
- All configurations non-blocking full duplex
- Role-based policy and Fabric Attach for secure, automated access to network applications or services

Smart Management Choices

- ExtremeCloud™ IQ for powerful, simple and secure public or private cloud management
- ExtremeCloud IQ – Site Engine for centralized, unified management capabilities

BUILT ON
BROADCOM

Scalable edge switch with ExtremeXOS® modular operating system

The X450-G2 series is based on Extreme Networks ExtremeXOS, a highly resilient OS that provides continuous uptime, manageability, and operational efficiency. Each switch offers the same high-performance, non-blocking hardware technology, The X450-G2 series switches provide high-performance routing and switching, flexible stacking, PoE+support, and comprehensive security, while extending the benefits of ExtremeXOS to the campus edge.

The X450-G2 Series easy-to-use, yet powerful, management options include ExtremeCloud IQ and ExtremeCloud IQ - Site Engine for either cloud-based or on-premise oversight and configuration. The X450-G2 also supports role-based policies and Fabric Attach for secure, automated access to specific network resources and applications.

Intelligent Switching

The X450-G2 supports sophisticated and intelligent Layer 2 switching, as well as Layer 3 IPv4/ IPv6 routing. It also provides role-based policy capabilities, bidirectional Access Control Lists, and granular ingress/egress bandwidth limiting. Altogether, these enable fine-grained control over traffic, as well as secured access to network services and resources.

High-Performance Stacking

Up to eight X450-G2 switches can be stacked using two different methods of stacking: Summit Stack-V, and SummitStack-V84. Each X450-G2 unit comes equipped with 2 ports of 21 Gigabit stacking ports via a QSFP interface. Standard passive 40Gb copper cables can be used for stacking X450-G2s together.

Power over Ethernet (PoE)

Switches support IEEE 802.3at PoE+ and IEEE 802.3af PoE to enable connection of standards compliant PoE devices. Power over Ethernet allows connection of Ethernet-powered devices, such as wireless access points, Voice over IP phones, and security cameras. The X450-G2 supports full PoE+ 30W power across all 24 or 48 ports using its internal power supplies.

Role-Based Policy

The X450-G2 supports role-based policies that can be centrally administered through the ExtremeControl policy manager. This policy framework empowers network administrators to define distinct roles or profiles to represent specific operational groups that may exist in an enterprise. Each defined role can then be granted individualized access to specific network services and applications and these access privileges remain associated with users as they move across both wired and wireless network access points.

Fabric Attach

Fabric Attach on the X450-G2 can be used to automate the connection to Extreme's campus-based Fabric Connect solution. Fabric Attach not only provides zero-touch edge provisioning, it also allows the X450-G2 to take advantage of the virtualized services and inherent security capabilities of the Extreme Fabric Connect infrastructure.

Audio Video Bridging

The X450-G2 series supports IEEE 802.1 Audio Video Bridging (AVB) to enable reliable, real-time audio/video transmission over Ethernet. AVB technology delivers the quality of service required for today's high-definition and time-sensitive multimedia streams.

Management

The X450-G2 can be managed in a variety of ways. Simple on-box management functions are delivered by a web-based GUI, and a generic CLI is available for manual configuration.

ExtremeCloud IQ along with ExtremeCloud IQ – Site Engine provide a comprehensive unified management capability with a consolidated view of users, devices, and applications for wired and wireless networks. Zero-touch provisioning lets one quickly bring new X450-G2 switches online, and a granular view of devices, ports and users enables efficient inventory and network topology management.

Note: Refer to New Features in the *ExtremeCloudIQ Release Notes* for the latest list of cloud-supported X450-G2 models.

Performance and Scale

Switch Model	Maximum Active 1Gbe Ports	Maximum Active 10Gbe Ports	21 Gbps Stacking Ports	Aggregated Switch Bandwidth*	Frame Forwarding Rate*
X450-G2-24t-10GE4	24	4	2	212 Gbps	157.7 Mpps
X450-G2-48t-10GE4	48	4	2	260 Gbps	193.4 Mpps
X450-G2-24p-10GE4	24	4	2	212 Gbps	157.7 Mpps
X450-G2-48p-10GE4	48	4	2	260 Gbps	193.4 Mpps
X450-G2-24t-GE4	28	0	2	140 Gbps	104.2 Mpps
X450-G2-48t-GE4	52	0	2	188 Gbps	139.9 Mpps
X450-G2-24p-GE4	28	0	2	140 Gbps	104.2 Mpps
X450-G2-48p-GE4	52	0	2	188 Gbps	139.9 Mpps

* Includes stacking ports

- Less than 4 microsecond latency (64-byte)
- Layer 2/MAC Addresses: 68K
- IPv4 LPM Entries: 16K
- IPv6 LPM (64-bit) Entries: 8K
- IPv6 LPM (128-bit) Entries: 256
- 4096 VLAN/VMANs*
- 9216 Byte Max Packet Size (Jumbo Frame)
- 128 load sharing trunks, up to 32 members per trunk
- 1,024 ingress bandwidth meters
- Ingress and egress bandwidth policing/rate limiting per flow/ACL
- 8 QoS egress queues/port
- Egress bandwidth rate shaping per egress queue and per port
- Rate Limiting Granularity: 8 Kbps
- Rate Limiting: Per Class of Service
- All ports Full Duplex - half duplex operation is not supported

* 2 VLANs reserved for system use

Policy Capabilities
- Policy Profiles: 63
- Rules per Profile: Up to 1464
- Authenticated Policy Users per Switch: Up to 1024
- Authenticated Policy Users per Port: Up to 1024
- Unique Permit/Deny Rules per switch: 1464
- MAC Rules: 512
- IPv4 Rules: 512
- IPv6 Rules: 256
- L2 Rules: 184

Note: Policy and rule limits here reflect support available in EXOS 22.1.

External Ports

Switch Hardware	Ports
X450-G2-24t-10GE4	• 24 x 10/100/1000BASE-T (RJ-45) • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-48t-10GE4	• 48 x 10/100/1000BASE-T (RJ-45) • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-24p-10GE4	• 24 x 10/100/1000BASE-T PoE-Plus • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-48p-10GE4	• 48 x 10/100/1000BASE-T PoE-Plus • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-24t-GE4	• 24 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-48t-GE4	• 48 x 10/100/1000BASE-T (RJ-45) • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel

Switch Hardware	Ports
X450-G2-24p-GE4	• 24 x 10/100/1000BASE-T PoE-Plus • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel
X450-G2-48p-GE4	• 48 x 10/100/1000BASE-T PoE-Plus • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) with RTS/CTS modem control • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB 2.0 port for external USB flash • 2 dedicated QSFP-form factor 21Gbps stacking ports on the rear panel

Physical

Switch Model	Weight	Physical Dimensions
X450-G2-24t-10GE4	13.71 lb (6.22 kg)	Height: 1 RU / 1.73 inches (4.4 cm) Width: 17.4 inches (44.2 cm) Depth: 19.2 inches (48.8 cm)
X450-G2-48t-10GE4	14.22 lb (6.45 kg)	
X450-G2-24p-10GE4	13.71 lb (6.22 kg)	
X450-G2-48p-10GE4	14.22 lb (6.45 kg)	
X450-G2-24t-GE4	13.93 lb (6.32 kg)	
X450-G2-48t-GE4	14.51 lb (6.58 kg)	
X450-G2-24p-GE4	13.93 lb (6.32 kg)	
X450-G2-48p-GE4	14.51 lb (6.58 kg)	
Front-to-Back fan module	1.0 lb (0.46 kg)	Height: 1.59 inches (4.04 cm) Width: 4.8 inches (12.2 cm) Depth: 6.2 inches (15.75 cm)

Note: Switch weights include installed fan module. PoE switches do not include PSUs.

Refer to the *Summit Family Switches Hardware Installation Guide* for packaged weight and dimensions.

LED Indicators

• Per port status LED including power status
• System Status LEDs: management, fan, and power
• 7 segment display of stack number

CPU/Memory

• 64-bit MIPS Processor, 1 GHz clock, dual core
• 1GB ECC DDR3 DRAM
• 4GB eMMC Flash
• 4MB packet buffer

Power

Switch Model	Minimum Heat Dissipation (BTU/HR)	Minimum Power Consumption (W)	Maximum Heat Dissipation (BTU/HR)	Maximum Power Consumption* (W)
X450-G2-24t-10GE4	149.4	43.8	244.6	71.1
X450-G2-48t-10GE4	178.1	52.2	290.0	85.0
X450-G2-24p-10GE4	214.3	62.8	604.7 (@720W PoE)	847.2
X450-G2-48p-10GE4	238.8	70.0	778 (@1440W PoE)	1668
X450-G2-24t-GE4	149.4	43.8	244.6	71.1
X450-G2-48t-GE4	178.1	52.2	290.0	85.0
X450-G2-24p-GE4	214.3	62.8	604.7 (@720W PoE)	847.2
X450-G2-48p-GE4	238.8	70.0	778 (@1440W PoE)	1668

* For PoE switches, the value includes maximum PoE load through the switch.

The Non-PoE Switches

	Fixed Internal Power Supply
Voltage Input Range	100-240 VAC †
Line Frequency Range	47to 64 Hz
Power Supply Input Socket	IEC320 C14
Power Cord Input Plug	IEC 320 C13
Operating Temperature	0°C to 50°C Normal Operation

PoE Power Supply Units

(Only Front-to-Back Supplies Are Supported)

	715W AC PSU (10951)	1100W AC PSU (10941)
Dimensions	Height: 40 mm (1.56 in) Width: 82.5 mm (3.25 in) Depth: 287 mm (11.3 in)	Height: 40 mm (1.56 in) Width: 82.5 mm (3.25 in) Depth: 287 mm (11.3 in)
Weight	1.16 kg (2.55 lb)	1.16 kg (2.55 lb)
Voltage Input Range	100-127/200-240 VAC[1]	100-127/200-240 VAC[1]
Line Frequency Range	47 to 63 Hz	47 to 63 Hz
Power Supply Input Socket	IEC 320 C16	IEC 320 C16
Power Cord Input Plug	IEC 320 C15	IEC 320 C15
Operating Temperature	0°C to 50°C Normal Operation	0°C to 50°C Normal Operation

[1] The power supplies will continue to operate +/- 10% of the rated input to accommodate temporary loss of input voltage regulation.

PoE Power Budget

Switch Model	1 PSU of 715W	1 PSU of 1100W	2 PSUs of 715W	1 PSU of 715W and 1 PSU of 1100W	2 PSUs of 1100W
X450-G2-24p-10GE4	490W	720W	720W	720W	720W
X450-G2-48p-10GE4	490W	840W	1021W	1350W	1440W
X450-G2-24p-GE4	490W	720W	720W	720W	720W
X450-G2-48p-GE4	490W	840W	1021W	1350W	1440W
X450-G2-24p-10GE4	16 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W
X450-G2-48p-10GE4	16 ports @ 30W 31 ports @ 15.4W	24 ports @ 30W 48 ports @ 15.4W	34 ports @ 30W 48 ports @ 15.4W	45 ports @ 30W 48 ports @ 15.4W	48 ports @ 30W 48 ports @ 15.4W
X450-G2-24p-GE4	16 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W
X450-G2-48p-GE4	16 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 48 ports @ 15.4W	34 ports @ 30W 48 ports @ 15.4W	45 ports @ 30W 48 ports @ 15.4W	48 ports @ 30W 48 ports @ 15.4W

Specifications

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)

Operating Conditions

- Temp: 0°C to 50°C (32°F to 122°F)
- Humidity: 10% to 95% relative humidity, non-condensing
- Altitude: 0 to 5,000 meters (16,404 feet) – PoE switches
- Altitude: 0 to 2,000 meters (6,562 feet) – non-PoE switches
- Shock (half sine): 30 m/s2 (3 G), 11 ms, 18 shocks
- Random vibration: 3 to 500 Hz at 1.5 G rms

Packaging and Storing 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/s2 (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)

Regulatory and Safety

North American ITE

- UL 60950-1 2nd Ed., Listed Device (U.S.)
- CSA 22.2 #60950-1-03 2nd Ed. (Canada)
- Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)
- CDRH Letter of Approval (US FDA Approval)

European ITE

- EN 60950-1:2007 2nd Ed.
- EN 60825-1:2007/IEC 60825 2007 Class 1
- (Lasers Safety)
- TUV-R GS Mark by German Notified Body
- 2014/35/EU Low Voltage Directive

International ITE

- CB Report & Certificate per IEC 60950-1 2nd Ed. + National Differences
- AS/NZX 60950-1 (Australia /New Zealand)

EMI/EMC Standards

North American EMC for ITE

- FCC CFR 47 part 15 Class A (USA)
- ICES-003 Class A (Canada)

European EMC Standards
- EN 55022:2006+A1:2007 Class A
- EN 55024:A2-2003 Class A includes IEC 61000-4-2, 3, 4, 5, 6, 11
- EN 61000-3-2,8-2006 (Harmonics)
- EN 61000-3-3 2008 (Flicker)
- ETSI EN 300 386 v1.4.1, 2008-04 (EMC Telecommunications)
- 2004/108/EC EMC Directive

International EMC Certifications
- CISPR 22: 2006 Ed 5.2, Class A (International Emissions)
- CISPR 24:A2:2003 Class A (International Immunity)
- IEC 61000-4-2:2008/EN 61000-4-2:2009 Electrostatic Discharge, 8kV Contact, 15 kV Air, Criteria A
- IEC 61000-4-3:2008/EN 61000-4-3:2006+A1:2008 Radiated Immunity 10V/m, Criteria A
- IEC 61000-4-4:2004 am1 ed.2./EN 61000-4-4:2004/A1:2010 Transient Burst, 1 kV, Criteria A
- IEC 61000-4-5:2005 /EN 61000-4-5:2006 Surge, 2 kV L-L, 2 kV L-G, Level 3, Criteria A

- IEC 61000-4-6:2008/EN 61000-4-6:2009 Conducted Immunity, 0.15-80 MHz, 10V/m unmod. RMS, Criteria A
- IEC/EN 61000-4-11:2004 Power Dips & Interruptions, >30%, 25 periods, Criteria C

Country Specific
- VCCI Class A (Japan Emissions)
- ACMA (C-Tick) (Australia Emissions)
- CCC Mark
- KCC Mark, EMC Approval (Korea)

Telecom Standards
- ETSI EN 300 386:2001 (EMC Telecommunications)
- ETSI EN 300 019 (Environmental for Telecommunications)
- CE 2.0 Compliant

IEEE 802.3 Media Access Standards
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-X
- IEEE 802.3ae 10GBASE-X
- IEEE 802.3at PoE Plus
- IEEE 802.3az (EEE)

Fan and Acoustic Noise

Switch Model	Acoustic Information	
X450-G2-24t-10GE4	Fixed AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 49.8 dB(A), 0°C to 39°C • 64.9 dB(A), 50°C	Declared Sound Power (LWAd)** • 6.1 bels, 0°C to 39°C • 7.6 bels, 50°C
X450-G2-48t-10GE4	Fixed AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 49.9 dB(A), 0°C to 39°C • 64.8 dB(A), 50°C	Bystander Sound Pressure* • 49.9 dB(A), 0°C to 39°C • 64.8 dB(A), 50°C
X450-G2-24p-10GE4	Dual 715W AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 51.1 dB(A), 0°C to 39°C • 65.5 dB(A), 50°C	Declared Sound Power (LWAd)** • 6.2 bels, 0°C to 39°C • 7.7 bels, 50°C
	Dual 715W AC PS with Front to Back (FB) Air Flow (with applied POE Load)	
	Bystander Sound Pressure* • 50.1 dB(A), 0°C to 39°C • 64.5 dB(A), 50°C	Declared Sound Power (LWAd)** • 6.1 bels, 0°C to 39°C • 7.6 bels, 50°C
X450-G2-48p-10GE4	Dual 1100W AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 50.8 dB(A), 0°C to 39°C • 65.4 dB(A), 50°C	Declared Sound Power (LWAd)** • 6.2 bels, 0°C to 39°C • 7.6 bels, 50°C

Switch Model	Acoustic Information	
	Dual 1100W AC PS with Front to Back (FB) Air Flow (with applied POE Load)	
	Bystander Sound Pressure* • 56.5 dB(A), 0°C to 39°C • 66.8 dB(A), 50°C	Declared Sound Power (LWAd)** • 6.8 bels, 0°C to 39°C • 7.8 bels, 50°C

* Sound Pressure is presented for comparison per ISO 7779

** Declared Sound Power is presented in accordance with ISO-7779, ISO 9296 per ETSI/EN 300 753

Accessories

Modular Fan Tray for All x450-G2 Switches

- X460/X450-G2 fan module FB
- Front-to-back airflow fan module for X460/X450-G2 series switches

External Redundant Power Supplies for Non-PoE Switches

All X450-G2 series non-PoE switches ship with one fixed internal power supply. If redundancy is required, an external RPS can be attached to the switch.

Modular Power Supplies for PoE X450-2 Switches

- **STK-RPS-150PS**: 150 watt non-PoE redundant power supply for X450-G2 switches
- **EPS-C2**: External Power System Chassis 2. Accepts up to three 750W AC PoE PSU 48V power supplies. Accepts up to 5 EPS-CBL-2x7 or up to 1 EPS-CBL- 2x9 cables.
- **EPS-CBL-2x7**: External Power System Cable (1M) that connects EPS to any X440 or X450-G2 non-PoE switch for providing redundant DC power.
- **750W AC PSU**: AC Power Supply module for EPS-C2 Chassis Redundant Power Supply
- **715W PoE AC PSU FB**: 715W PoE AC PSU with front-to-back airflow is compatible with X450-G2-24p/48p switches and provides 500 watts of PoE-plus power budget per one supply. When two PSUs are installed, the total PoE-plus power budget becomes 1031 watts.
- **1100W PoE AC PSU FB**: 1100W PoE AC PSU with front-to-back airflow is compatible with X450-G2-24p/48p switches and provides 850 watts of PoE-plus power budget per one supply. When two PSUs are installed, the total PoE-plus power budget becomes 1440 watts.

The STK-RPS-150PS can be rack mounted into the two slot RPS chassis STK-RPS-150CH2 where the power supplies are horizontally mounted or the eight slot RPS chassis STK- RPS-150CH8 where the power supplies are vertically mounted.

All X450-G2 series PoE switches support modular power supplies and do NOT ship with a power supply. Either a 715 watt or 1100 watt power supply needs to be added.

Only front-to-back power supplies and fans are certified for use in the X450-G2 PoE switches.

Warranty

The X450-G2 Series is covered under Extreme's Limited Warranty Express. For warranty details, visit: https://www.extremenetworks.com/support/policies/.

Power Cords

In support of the Extreme Networks Green initiatives, power cords can be ordered separately, but need to be specified at time of ordering.

Maintenance Services

Extreme's maintenance and support services with 100% in-sourced engineering experts and over 90% first-person resolution ensure efficient operations of your business- essential network. 24x7x365 phone support, advanced part replacement, and on-site support augment your staff with experienced resources that help you mitigate critical network issues fast. Visit Extreme Maintenance Services for more information.

Ordering Notes

The X450-G2 base switches do not ship with fan trays— these must be ordered separately. The X450-G2 PoE switchessupport modular power supplies and these must be ordered separately. The non-PoE X450-G2 switches have a fixed internal power supply so a power supply does not need to be ordered separately.

Non-PoE Switch - Fan Tray Must Be Ordered Separately

Ordered Empty   Shipped Empty

PoE Switch - Fan Tray and Power Supplies Must Be Ordered Separately

Ordered Empty   Ordered Empty

* Optional:Redundant or Additive Power Supply ordered separately

** Required:First Power Supply ordered separately

Ordering Information

X450-G2 Switches

Part Number	Name	Description
16172	X450-G2-24t-GE4-Base	X450-G2 24 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports, 1 Fixed AC PSU, 1 RPS port, fan module slot (unpopulated), ExtremeXOS Edge license
16173	X450-G2-24p-GE4-Base	X450-G2 24 10/100/1000BASE-T POE+, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports, 2 unpopulated power supply slots, fan module slot (unpopulated), ExtremeXOS Edge license
16174	X450-G2-48t-GE4-Base	X450-G2 48 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports (QSFP), 1 Fixed AC PSU, 1 RPS port, fan module slot (unpopulated), ExtremeXOS Edge license
16175	X450-G2-48p-GE4-Base	X450-G2 48 10/100/1000BASE-T POE+, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports, 2 unpopulated power supply slots, fan module slot (unpopulated), ExtremeXOS Edge license
16176	X450-G2-24t-10GE4-Base	X450-G2 24 10/100/1000BASE-T, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports, 1 Fixed AC PSU, 1 RPS port, fan module slot (unpopulated), ExtremeXOS Edge license
16177	X450-G2-24p-10GE4-Base	X450-G2 24 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports), 2 unpopulated power supply slots, fan module slot (unpopulated), ExtremeXOS Edge license
16178	X450-G2-48t-10GE4-Base	X450-G2 48 10/100/1000BASE-T, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports, 1 Fixed AC PSU, 1 RPS port, fan module slot (unpopulated), ExtremeXOS Edge license
16179	X450-G2-48p-10GE4-Base	X450-G2 48 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports, 2 unpopulated power supply slots, fan module slot (unpopulated), ExtremeXOS Edge license
16177T	X450-G2-24p-10GE4-FB-715-TAA	TAA 24 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports (QSFP), 2 power supply slots populated with 715W PS, fan module Front-to-Back, ExtremeXOS Edge license
16179T	X450-G2-48p-10GE4-FB-1100-TAA	TAA 48 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, two 21Gb stacking ports (QSFP), 2 power supply slots populated with 1100W PS, fan module Front-to-Back, ExtremeXOS Edge license
16172T	X450-G2-24t-GE4-FB-TAA	TAA 24 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports (QSFP), 1 Fixed AC PSU, 1 RPS port, fan module Front-to-Back, ExtremeXOS Edge license
16173T	X450-G2-24p-GE4-FB-715-TAA	TAA 24 10/100/1000BASE-T POE+, 4 1000BASE-X unpopulated SFP, two 21Gb stacking ports (QSFP), 2 power supply slots populated with 715W PS, fan module Front-to-Back, ExtremeXOS Edge license

Firmware Licenses

Part Number	Name	Description
16190	X450-G2 Edge to Advanced Edge Lic	ExtremeXOS Advanced Edge License for X450 series switches
16191	X450-G2 Core Lic from Edge Lic	ExtremeXOS Core License upgrade from Edge License for X450-G2 series switches
16192	X450-G2 Core Lic from Adv Edge	ExtremeXOS Core License upgrade from Advanced Edge License for X450-G2 series switches
11011	Direct Attach Feature Pack	Direct Attach Feature Pack
16200	X450-G2 OpenFlow Feature Pack	ExtremeXOS SDN-OpenFlow Feature Pack for X450 series switches

Part Number	Name	Description
16169	X450-G2 Multimedia (AVB) Feature Pack	ExtremeXOS Multimedia Service (Audio Video Bridging) Feature Pack for X450 series switches
16779	X450-G2 MACsec Feature Pack	MACsec Feature Pack for X450-G2 series switches. Enables MACsec when used with LRM/MACsec Adapter (10965)

Accessories

Part Number	Name	Description
10941	1100WPoE AC PSU FB	1100W AC PoE Power Supply module for X460-G2 and X450-G2 series switches with Front-to-Back airflow
10951	715WAC PSU FB	715W AC PoE Power Supply Module for X460-G2 and X450-G2 series switches with front to back airflow
10945	X460/X450-G2 fan module FB	Fan Module for X460-G2/X450-G2 Series Switches - front to back airflow
16777	Four Piece Rack Mount Kit, Spare	Spare Four Piece Rack Mount Kit compatible with X450-G2
STK-RPS-150PS	150WNon-PoE RPS	150W non-PoE redundant power supply for A, B, C and X450-G2 switches
STK-RPS-150CH2	2-Slot Modular Shelf for 150W RPS	2 slot modular shelf for rack-mounting STK-RPS-150PS external redundant power supplies horizontally
STK-RPS-150CH8	8-Slot Modular Shelf for 150W RPS	8 slot modular shelf for rack-mounting STK-RPS-150PS external redundant power supplies vertically
10936	EPS-C2	External Power System Chassis 2. Accepts up to three
10939	EPS-CBL-2x7	External Power System Cable (1M) that connects EPS to any Summit X440 for providing redundant DC power
10931	Summit 750W AC PSU	AC Power Supply module for EPS-C2 Chassis Redundant Power Supply
16777	Four Piece Rack Mount Kit, Spare	Spare Rack Mount Kit for X450-G2
10965	LRM/MACsec Adapter	LRM/MACsec Adapter, includes two host cables for host switch connection, and USB cable for optional power connection. Requires MACsec license on host switch.
10966	5-Unit Rack Mount Kit	Optional rack mount bracket for LRM/MACsec Adapter. Holds five units in 1RU

Note: PoE Power Supplies and fan tray MUST be ordered separately. Only non-PoE switches ships with a fixed internal power supply.

ExtremeCloud IQ Pilot Licenses

Part Number	Name	Description
XIQ-PIL-S-C-EW	XIQ Pilot SAAS Subscription and EW support (1 device)	ExtremeCloud IQ Pilot SaaS Subscription and EW SaaS support for one (1) device
XIQ-PIL-S-C-PWP	XIQ Pilot SAAS Subscription and PWP support (1 device)	ExtremeCloud IQ Pilot SaaS Subscription and PWP SaaS support for one (1) device