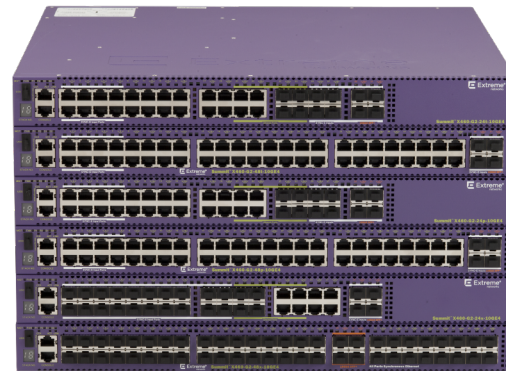


Highlights

- Scalable fixed-form switches for advanced edge access and aggregation
- 24- and 48-port Gigabit and multi-rate Gigabit connectivity
- Copper, Fiber, and PoE+ models
- 4 x 10Gb SFP+ or 4 x 1Gb SFP ports on front faceplate
- Additional 10Gb or 40Gb uplinks via optional VIM modules
- Up to 8-unit stacking 40Gb or 160Gb stacking
- Non-blocking, wire-speed design
- Hot-swappable power supplies and fan tray
- Front-to-Back or Back-to-Front airflow
- SyncE G.8232 and IEEE 1588 PTP Timing support
- 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
- Extreme Management Center for centralized, unified management capabilities



ExtremeSwitching™ X460-G2 Series

Scalable fixed-form switches for advanced edge access and aggregation

Product Overview

The ExtremeSwitching X460-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 X460-G2 series switches provide high-performance routing and switching, flexible stacking, PoE+ support and comprehensive security, while extending the benefits of ExtremeXOS to edge and aggregation deployments.

The X460-G2 Series easy-to-use, yet powerful, management options include ExtremeCloud™ IQ and Extreme Management Center for either cloud-based or on-premise oversight and configuration. The X460-G2 also supports role-based policies and Fabric Attach for secure, automated access to specific network resources and applications.



ExtremeSwitching™ X460-G2



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/elements.





Intelligent Switching

The X460-G2 supports sophisticated and intelligent Layer 2 switching, as well as Layer 3 IPv4/IPv6 routing including role-based policy capabilities, bidirectional Access Control Lists, as well as 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 X460-G2 switches can be stacked using three different methods of stacking: SummitStack, SummitStack-V or SummitStack-V160. These stacking options provide flexibility in terms of choice of cabling and optics technologies as well to adjust stacking bandwidth based on the volume of traffic traversing the stacking links.



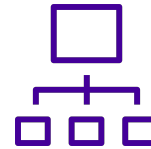
Power Over Ethernet

X460-G2 Series 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 X460-G2 supports full PoE+ 30W power across all 24 or 48 ports using its internal power supplies.



Fabric Attach

Fabric Attach on the X460-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.



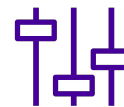
Role-based Policy

The X460-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.



Time-Sensitive Streaming

The X460-G2 supports both IEEE 1588 Precision Time Protocol (PTP) and IEEE 802.1 Audio Video Bridging (AVB) to enable real-time transmission over Ethernet. PTP allows connected devices to be synchronized down to microseconds of accuracy over Ethernet. While AVB delivers the quality of service required for high-quality, time-sensitive audio/video multimedia streams.



Management

The X460-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 Extreme Management Center (XMC) 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 X440-G2 switches online and a granular view of devices, ports and users enables efficient inventory and network topology management.

Specifications

Performance and Scale

Switch Model	Maximum Active 10/100/1000 Ports	Maximum Active 100/1/2.5GbE Ports	Maximum Active 10GbE Ports	Maximum Active 40GbE Ports	Aggregated Switch Bandwidth	Frame Forwarding Rate
X460-G2-24t-10GE4	28	-	6	2	296 Gbps	220.2 Mpps
X460-G2-48t-10GE4	48	-	6	2	336 Gbps	250 Mpps
X460-G2-24x-10GE4	28	-	6	2	296 Gbps	220.2 Mpps
X460-G2-48x-10GE4	48	-	6	2	336 Gbps	250 Mpps
X460-G2-24p-10GE4	28	-	6	2	296 Gbps	220.2 Mpps
X460-G2-48p-10GE4	48	-	6	2	336 Gbps	250 Mpps
X460-G2-24p-24hp-10GE4	48	-	6	2	336 Gbps	250 Mpps
X460-G2-24t-24ht-10GE4	48	-	6	2	336 Gbps	250 Mpps
X460-G2-16mp-32p-10GE4	32	16	6	2	384 Gbps	285.7 Mpps
X460-G2-24t-GE4	32	-	2	2	224 Gbps	166.7 Mpps
X460-G2-48t-GE4	52	-	2	2	264 Gbps	196.4 Mpps
X460-G2-24p-GE4	32	-	2	2	224 Gbps	166.7 Mpps
X460-G2-48p-GE4	52	-	2	2	264 Gbps	196.4 Mpps

- Less than 4 microsecond latency (64-byte)
 - Layer 2/MAC Addresses: 96K (98,304)
 - IPv4 Host Addresses: 62K
 - IPv4 LPM Entries: 12K, 16K on X460-G2-16mp-32p-10GE4
 - IPv6 Host Addresses: 24K
 - IPv6 LPM Entries: 6K, 8K on X460-G2-16mp-32p-10GE4
 - 4096 VLAN/VMANs
 - 9216 Byte Max Packet Size (Jumbo Frame)
 - 128 load sharing trunks, up to 32 members per trunk
 - 4,096 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
 - All ports Full Duplex - half duplex operation is not supported except for 24 ports on X460-G2-24p-24hp-10GE4 and X460-G2-24t-24ht-10GE4
 - Policy Capabilities
 - Rules per Profile: Up to 1464
 - Authenticated Policy Users per Switch: Up to 12,288
 - Authenticated Policy Users per Port: Up to 12,288
 - Unique Permit/Deny Rules per switch: 1464
 - The following number of rules listed below can be affected by the switch configuration options in EXOS 22.4 or greater
 - MAC Rules: up to 512
 - IPv4 Rules: up to 1280
 - IPv6 Rules: up to 256
 - L2 Rules: up to 184
 - Rate Limiting: Per Class of Service

NOTE: Policy and rule limits here reflect support available in EXOS 22.4 or greater

Specifications (cont.)

Front-Panel Ports

Switch Hardware	Ports
X460-G2-24t-10GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ-45) - 4 ports are combo ports • 8 x 100/1000BASE-X (SFP) unpopulated ports - 4 ports are combo ports • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-48t-10GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T (RJ-45) • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-24t-24ht-10GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T Full-Duplex (RJ-45) • 24 x 10/100/1000BASE-T Full/Half-Duplex (RJ-45) • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-24x-10GE4	<ul style="list-style-type: none"> • 24 x 100/1000BASE-X (SFP) unpopulated ports - 4 ports are combo ports • 8 x 10/100/1000BASE-T (RJ-45) - 4 ports are combo ports • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-48x-10GE4	<ul style="list-style-type: none"> • 48 x 100/1000BASE-X (SFP) unpopulated ports • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-24p-10GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T PoE-Plus - 4 ports are combo ports • 8 x 100/1000BASE-X (SFP) unpopulated ports - 4 ports are combo ports • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-48p-10GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T PoE-Plus • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-24p-24hp-10GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T Full-Duplex PoE-Plus • 24 x 10/100/1000BASE-T Full/Half-Duplex PoE-Plus • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-24t-GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ-45) - 4 ports are combo ports • 8 x 100/1000BASE-X (SFP) unpopulated ports - 4 ports are combo ports • 4 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash

Specifications (cont.)

Front-Panel Ports

Switch Hardware	Ports
X460-G2-24p-GE4	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T PoE-Plus - 4 ports are combo ports • 8 x 100/1000BASE-X (SFP) unpopulated ports – 4 ports are combo ports • 4 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-48p-GE4	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T PoE-Plus • 4 x 1GBASE-X SFP (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2-16mp-32p-10GE4	<ul style="list-style-type: none"> • 16 x 100Mb/1/2.5GbE PoE-Plus • 32 x 10/100/1000BASE-T PoE-Plus • 4 x 10GBASE-X SFP+ (unpopulated ports) • 1 x Serial (console port RJ-45) • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB port for external USB flash
X460-G2 VIM-2x	2 x 10GBASE-X SFP+ (unpopulated ports)
X460-G2 VIM-2t	2 x 10GBASE-T Ports
X460-G2 VIM-2ss	2 x SummitStack (CX4) Ports
X460-G2 VIM-2q	2 x 40GBASE-X QSFP+ (unpopulated ports)
X460-G2 TM-CLK	Clock Module for SyncE and 1588 with 2 mini-BNC connectors for 10MHz and 1PPS signals

NOTE: All X460-G2 switches have a USB 2.0 port that is supported as a port to a storage device with all EXOS versions of 22.1 or higher

NOTE: The multi-rate ports do NOT support SyncE

Physical

Switch Model	Weight	Physical Dimension
X460-G2-24t-10GE4	12.9 lb (5.85 kg)	Height: 1 RU / 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 16.94 inches (43.03 cm)
X460-G2-48t-10GE4	13.3 lb (6.03 kg)	
X460-G2-24t-24ht-10GE4	13.3 lb (6.03 kg)	
X460-G2-24x-10GE4	13.1 lb (5.94 kg)	
X460-G2-48x-10GE4	14.1 lb (6.4 kg)	
X460-G2-24t-GE4	12.9 lb (5.85 kg)	
X460-G2-48t-GE4	13.3 lb (6.03 kg)	Height: 1 RU / 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 19.2 inches (48.8 cm)
X460-G2-24p-10GE4	14.6 lb (6.62 kg)	
X460-G2-48p-10GE4	15.2 lb (6.9 kg)	
X460-G2-24p-24hp-10GE4	15.2 lb (6.9 kg)	
X460-G2-16mp-32p-10GE4	15.2 lb (6.9 kg)	
X460-G2-24p-GE4	14.6 lb (6.62 kg)	
X460-G2-48p-GE4	15.2 lb (6.9 kg)	Height: 1.4 inches (3.55 cm) Width: 3.4 inches (8.6 cm) Depth: 5.5 inches (13.9 cm)
X460-G2 VIM-2x	0.57 lb (0.26 kg)	
X460-G2 VIM-2t	0.57 lb (0.26 kg)	
X460-G2 VIM-2ss	0.57 lb (0.26 kg)	Height: 1.4 inches (3.55 cm) Width: 3.4 inches (8.6 cm) Depth: 5.5 inches (13.9 cm)

Specifications (cont.)

Physical (cont.)

Switch Model	Weight	Physical Dimension
X460-G2 VIM-2q	0.57 lb (0.26 kg)	Height: 1.4 inches (3.55 cm) Width: 3.4 inches (8.6 cm) Depth: 5.5 inches (13.9 cm)
X460-G2 TM-CLK	0.19 lb (0.08 kg)	Height: 1.4 inches (3.55 cm) Width: 0.9 inches (2.29 cm) Depth: 6.3 inches (16.0 cm)
X460-G2 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)
X460-G2 Back-to-Front 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. They do not include installed VIM2 modules or PSUs.

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

CPU/Memory

- 64-bit MIPS Processor, 1 GHz clock
- 1GB ECC DDR3 DRAM
- 4GB eMMC Flash
- 5MB packet buffer on X460-G2-16mp-32p-10GE4, 4MB packet buffer on other X460-G2 switches

LED Indicators

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

Power Supply Units (Each Has Front-to-Back and Back-to-Front Models)

	300W AC PSU	300 DC PSU	350W AC PSU	715W AC PSU	1100W AC PSU
Dimensions	Height 27 mm (1.06 inches) Width 78 mm (3.09 inches) Depth 277 mm (10.9 inches)	Height 27 mm (1.06 inches) Width 78 mm (3.09 inches) Depth 277 mm (10.9 inches)	Height 40 mm (1.56 inches) Width 82.5 mm (3.25 inches) Depth 287 mm (11.3 inches)	Height 40 mm (1.56 inches) Width 82.5 mm (3.25 inches) Depth 287 mm (11.3 inches)	Height 40 mm (1.56 inches) Width 82.5 mm (3.25 inches) Depth 287 mm (11.3 inches)
Weight	1.02 kg (2.25 lbs)	0.83 kg (1.83 lbs)	1.08 kg (2.38lbs)	1.16 kg (2.55 lbs)	1.16 kg (2.55 lbs)
Voltage Input Range	85-264 VAC	-18 to -72 VDC	100-127/200-240VAC	100-127/200-240VAC	100-127/200-240VAC
Line Frequency Range	47 to 63 Hz	N/A	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz
Power Supply Input Socket	IEC 320 C14	N/A	IEC 320 C14	IEC 320 C16	IEC 320 C16
Power Cord Input Plug	IEC 320 C13	N/A	IEC 320 C13	IEC 320 C15	IEC 320 C15
Operating Temperature	0°C to 50°C normal operation	0°C to 50°C normal operation	0°C to 50°C normal operation	0°C to 50°C normal operation	0°C to 50°C normal operation

Specifications (cont.)

PoE Power Budget

Switch Model	1 PSU of 350W	1 PSU of 715W	1 PSU of 1100W	2 PSUs of 350W	2 PSUs of 715W	1 PSU of 715W and 1 PSU of 1100W	2 PSUs of 1100W
X460-G2-24p-10GE4	150W	500W	720W	300W	720W	720W	720W
X460-G2-48p-10GE4	150W	500W	850W	300W	1031W	1350W	1440W
X460-G2-24p-24hp-10GE4	150W	500W	850W	300W	1031W	1350W	1440W
X460-G2-16mp-32p-10GE4	150W	500W	850W	300W	1031W	1350W	1440W
X460-G2-24p-GE4	150W	500W	720W	300W	720W	720W	720W
X460-G2-48p-GE4	150W	500W	850W	300W	1031W	1350W	1440W
X460-G2-24p-10GE4	5 ports @ 30W 9 ports @ 15.4W	16 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	10 ports @ 30W 19 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W
X460-G2-48p-10GE4	5 ports @30W 9ports @15.4W	16 ports @ 30W 32 ports @ 15.4W	28 ports @ 30W 48 ports @ 15.4W	10 ports @ 30W 19 ports @ 15.4W	34 ports @ 30W 48 ports @ 15.4W	45 ports @ 30W 48 ports @ 15.4W	48 ports @ 30W 48 ports @ 15.4W
X460-G2-24p-24hp-10GE4	5ports @ 30W 9 ports @ 15.4W	16 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	10 ports @ 30W 19 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W
X460-G2-16mp-32p-10GE4	5 ports @ 30W 9 ports @ 15.4W	16 ports @ 30W 32 ports @ 15.4W	28 ports @ 30W 48 ports @ 15.4W	10 ports @ 30W 19 ports @ 15.4W	34 ports @ 30W 48 ports @ 15.4W	45 ports @ 30W 48 ports @ 15.4W	48 ports @ 30W 48 ports @ 15.4W
X460-G2-24p-GE4	5 ports @ 30W 9 ports @ 15.4W	16 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	10 ports @ 30W 19 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W	24 ports @ 30W 24 ports @ 15.4W
X460-G2-48p-GE4	5 ports @ 30W 9 ports @ 15.4W	16 ports @ 30W 32 ports @ 15.4W	28 ports @ 30W 48 ports @ 15.4W	10 ports @ 30W 19 ports @ 15.4W	34 ports @ 30W 48 ports @ 15.4W	45 ports @ 30W 48 ports @ 15.4W	48 ports @ 30W 48 ports @ 15.4W

Minimum/Maximum Power Consumption and Heat Dissipation

Switch Model	Minimum Heat Dissipation (BTU/HR)	Minimum Power Consumption (Watts)	Maximum Heat Dissipation (BTU/HR)	Maximum Power Consumption (Watts)*
X460-G2-24t-10GE4	229	67	427	125
X460-G2-24p-10GE4	260	76	761 (@720W PoE)	943
X460-G2-48t-10GE4	250	73	427	125
X460-G2-48p-10GE4	287	84	1116 (@1440W PoE)	1767
X460-G2-24t-24ht-10GE4	250	73	427	125
X460-G2-24p-24hp-10GE4	287	84	1116 (@1440W PoE)	1767
X460-G2-16mp-32p-10GE4	287	84	1116 (@1440W PoE)	1767
X460-G2-24x-10GE4	209	61	443	130
X460-G2-48x-10GE4	202	59	485	143
X460-G2-24t-GE4	215	63	427	125
X460-G2-24p-GE4	250	73	761 (@720W PoE)	943
X460-G2-48t-GE4	243	71	427	127
X460-G2-48p-GE4	284	83	1116 (@1440W PoE)	1767

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

Specifications (cont.)

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

Operating Conditions

- Temp: 0° C to 50° C (32° F to 122° F)
- Humidity: 10% to 95% relative humidity, non-condensing
- Altitude: 0 to 3,000 meters (9,850 feet)
- Shock (half sine): 30 m/s² (3 G), 11 ms, 60 shocks
- Random vibration: 3 to 500 Hz at 1.5 G rms

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/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 edition A2:2014, Listed Device (U.S.)
 - CSA 22.2 No. 60950-1 2nd edition 2014 (Canada)
 - Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)
 - CDRH Letter of Approval (US FDA Approval)
- European ITE
 - EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 2nd Ed.
 - EN 60825-1:2007 / IEC 60825-1:2007 Class 1 (Lasers Safety)
 - 2014 / 35/ EU Low Voltage Directive
- International ITE
 - CB Report & Certificate per IEC 60950-1 : 2005+A1:2009+A2:2013 + 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 55032:2015 Class A
 - EN 55024:2010
 - EN 61000-3-2: 2014 (Harmonics)
 - EN 61000-3-3: 2013 (Flicker)
 - EN 300 386 v1.6.1 (EMC Telecommunications)
 - 2014/30/EU EMC Directive

Specifications (cont.)

Fan and Acoustics

Switch Model	Acoustic Information	
X460-G2-24t-10GE4 X460-G2-24t-GE4	Dual 300W AC or DC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 49.1 dB(A), 0C to 45C • 54.9 dB(A), 50C	Declared Sound Power (LWAd)** • 6.0 bels, 0C to 45C • 6.6 bels @ 50C
	Dual 300W AC or DC PS with Back to Front (BF) Air Flow	
	Bystander Sound Pressure* • 48.9 dB(A), 0C to 35C • 59.5 dB(A), 45C • 65.6 dB(A), 50C	Declared Sound Power (LWAd)** • 5.9 bels, 0C to 35C • 7.2 bels, 45C • 7.8 bels, 50C
X460-G2-48t-10GE4 X460-G2-48t-GE4 X460-G2-24t-24ht-10GE4	Dual 300W AC or DC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 47.6 dB(A), 0C to 45C • 64.5 dB(A), 50C	Declared Sound Power (LWAd)** • 5.9 bels, 0C to 45C • 7.7 bels, 50C
	Dual 300W AC or DC PS with Back to Front (BF) Air Flow	
	Bystander Sound Pressure* • 47.7 dB(A), 0C to 35C • 58.7 dB(A), 45C • 65.3 dB(A), 50C	Declared Sound Power (LWAd)** • 5.9 bels, 0C to 35C • 7.2 bels, 45C • 7.8 bels, 50C
X460-G2-48p-10GE4 X460-G2-48p-GE4 X460-G2-24p-24hp-10GE4 X460-G2-16mp-32p-10GE4	Dual 715W or 1100W AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 52.2 dB(A), 0C to 45C • 64.3 dB(A), 50C	Declared Sound Power (LWAd)** • 6.9 bels, 0C to 45C • 7.6 bels, 50C
	Dual 715W or 1100W AC PS with Back to Front (BF) Air Flow	
	Bystander Sound Pressure* • 50.9 dB(A), 0C to 31C • 64.2 dB(A), 35C • 70.8 dB(A), 50C	Declared Sound Power (LWAd)** • 7.2 bels, 0C to 31C • 7.6 bels, 35C • 7.9 bels 50C
X460-G2-24p-10GE4 X460-G2-24p-GE4	Dual 715W or 1100W AC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 52.2 dB(A), 0C to 45C • 61.8 dB(A), 50C	Declared Sound Power (LWAd)** • 7.3 bels, 0C to 35C • 8.1 bels, 50C
	Dual 715W or 1100W AC PS with Back to Front (BF) Air Flow	
	Bystander Sound Pressure* • 50.8 dB(A), 0C to 35C • 69.8 dB(A), 50C	Declared Sound Power (LWAd)** • 7.3 bels, 0C to 35C • 8.1 bels, 50C
X460-G2-24x-10GE4	Dual 300W AC or DC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 48.8 dB(A), 0C to 45C • 61.9 dB(A), 50C	Declared Sound Power (LWAd)** • 6.0 bels, 0C to 45C • 7.5 bels, 50C
	Dual 300W AC or DC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure* • 48.8 dB(A), 0C to 35C • 58.7 dB(A), 45C • 66.7 dB(A), 50C	Declared Sound Power (LWAd)** • 6.0 bels, 0C to 35C • 6.9 bels, 45C • 7.8 bels, 50C

Specifications (cont.)

Fan and Acoustics

Switch Model	Acoustic Information	
X460-G2-48x-10GE4	Dual 300W AC or DC PS with Front to Back (FB) Air Flow	
	Bystander Sound Pressure*	Declared Sound Power (LWAd)**
	<ul style="list-style-type: none">• 48.9 dB(A), 0C to 45C• 60.5 dB(A) @ 50C	<ul style="list-style-type: none">• 6.0 bels, 0C to 45C• 7.4 bels, 50C
	Dual 300W AC or DC PS with Back to Front (BF) Air Flow	
	Bystander Sound Pressure*	Declared Sound Power (LWAd)**
	<ul style="list-style-type: none">• 48.8 dB(A), 0C to 35C• 57.5 dB(A), 45C• 66.1 dB(A), 50C	<ul style="list-style-type: none">• 6.0 bels, 0C to 35C• 6.9 bels, 45C• 7.8 bels, 50C

* Bystander Sound Pressure is presented for comparison to other products measured using Bystander Sound Pressure..**Declared Sound Power is presented in accordance with ISO-7779:2010(E), ISO 9296:2010 per ETSI/EN 300 753:2012-01

Accessories

X460-G2 POWER SUPPLIES

All X460-G2 series switches are sold a la carte so power supplies and fans must be ordered separately. If redundancy or higher power Power-over-Ethernet plus capability is required, an additional power supply can be installed in the system. Each power supply has a front-to-back model and an equivalent back-to-front model for air flow control.

- 300W AC PSU
 - 300W AC PSU is compatible with X460-G2-24t/48t/24x/48x switches.
- 300W DC PSU
 - 300W DC PSU is compatible with X460-G2-24t/48t/24x/48x switches.
- 350W PoE AC PSU
 - 350W PoE AC PSU is compatible with all X460-G2 PoE switches and provides 150 watts of PoE-plus power budget per one supply. When two PSUs are installed, the total PoE-plus power budget becomes 300 watts.
- 715W PoE AC PSU
 - 715W PoE AC PSU is compatible with all X460-G2 PoE switches 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
 - 1100W PoE AC PSU is compatible with all X460-G2 PoE switches 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.

- Optional Rear Rail Mounting Kit
 - The Rear Rail Kit (order code 16776) is an optional accessory for certain X460-G2 non-PoE and SFP models. It enables four post mounting for non-PoE and SFP X460-G2 models when needed. Please note that "deeper" X460-G2 PoE models already ship with this mounting option included.

X460-G2 Optional Modules

X460-G2 series switches have two slots, VIM and Timing, to support optional modules that support 10 Gigabit Ethernet, 40 Gigabit Ethernet, stacking and timing modules. The VIM slot supports a two-port SFP+ 10 Gigabit Ethernet module, a two-port 10GBase-T Gigabit Ethernet module, a two-port SummitStack module, or a two-port QSFP+ 40 Gigabit Ethernet module. The Timing slot supports a timing module for SyncE and 1588PTP.

- VIM Modules
 - X460-G2 VIM-2x
 - X460-G2 VIM-2t
 - X460-G2 VIM-2ss
 - X460-G2 VIM-2q
- Timing Module
 - X460-G2 TM-CLK

X460-G2 VIM-2X

2-port 10 Gigabit Ethernet module - provides two SFP+ ports. These two SFP+ ports can support both 10 Gigabit Ethernet SFP+ transceivers and Gigabit Ethernet transceivers.

X460-G2 VIM-2T

2-port 10 Gigabit Ethernet module, provides two 10GBase-T copper ports.

X460-G2 VIM-2SS

SummitStack module has two SummitStack stacking ports, and provides a 40 Gigabit stacking solution. This stacking module offers compatibility with other Extreme Networks stackable switches, which are Summit X440, Summit X460, and Summit X480.

X460-G2 VIM-2Q

2-port 40 Gigabit Ethernet module – provides 2 fully functional QSFP+ ports for uplinks or can be used for SummitStack-V160 providing a 160 Gigabit stacking solution.

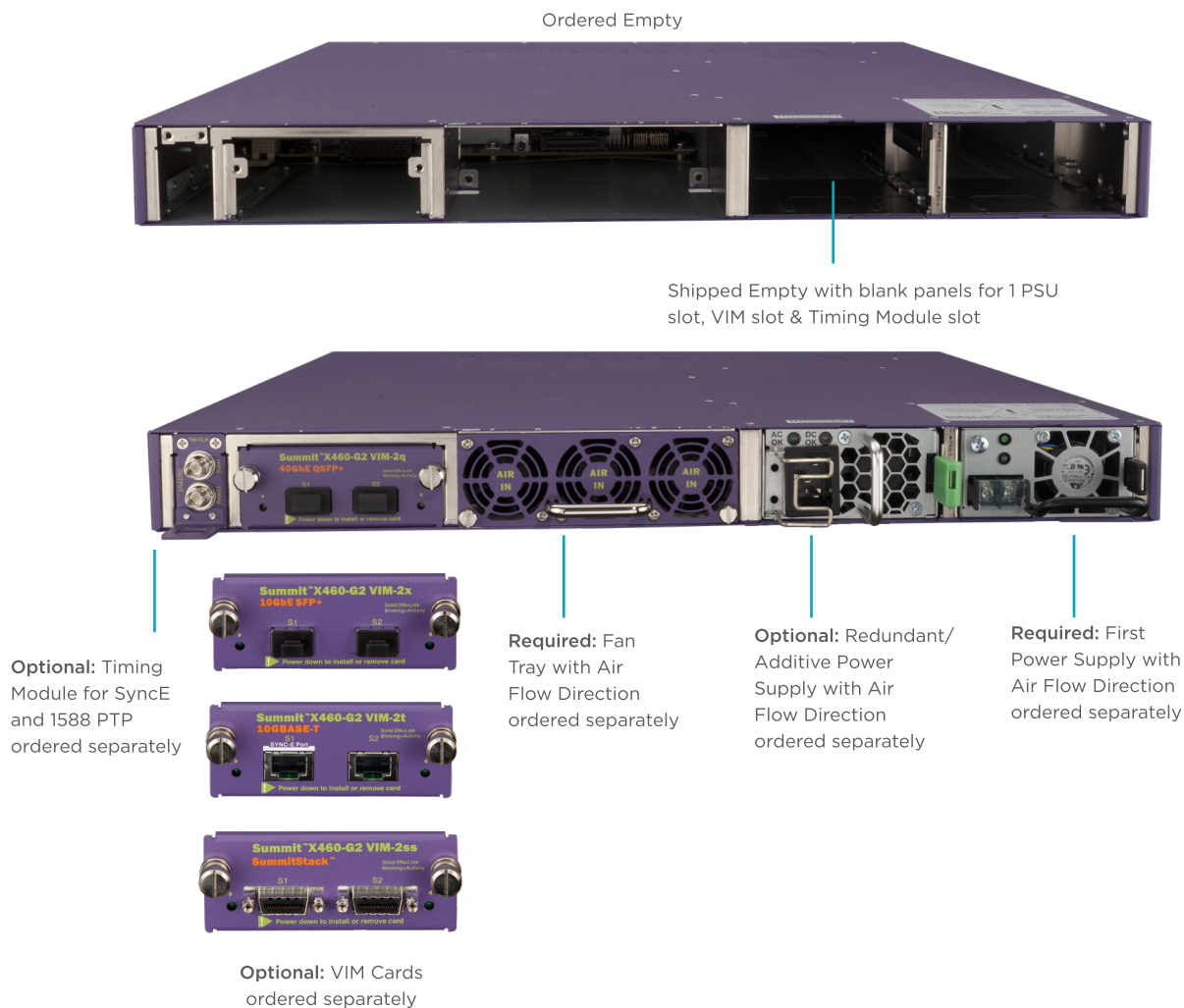
X460-G2 TM-CLK

Module required for supporting G.8232 Synchronous Ethernet (SyncE) and ITU 1588 Precision Time Protocol (PTP) – available on all X460-G2.

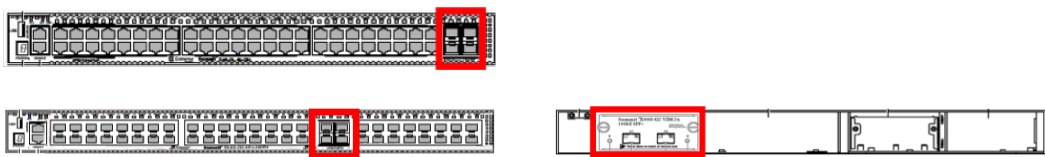
Warranty

Limited Lifetime with eAHR-2. For warranty details, visit <http://www.extremenetworks.com/go/warranty>

Power Supplies, Fan Tray, Timing Modules and VIMS Are Ordered Separately



Transceiver Support Matrix

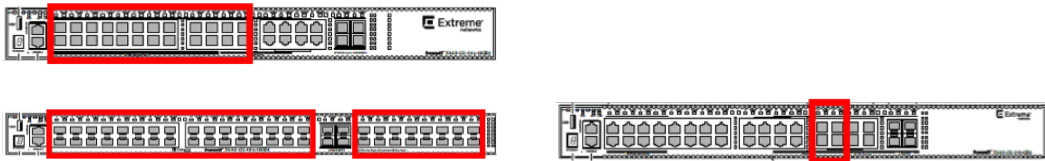


Part Number	Name	16701, 16702, 16703, 16704, 16705, 16706, 16720, 16756, 16757	16711
10GB Transceivers and Cables		10Gb Front Panel	10Gb SFP+ VIM
10301	10GBASE-SR SFP+	Y	Y
10302	10GBASE-LR SFP+	Y	Y
10309	10GBASE-ER SFP+	Y	Y
10310	ZR SFP+ module	Y	Y
10303	10GBASE-LRM SFP+	N	Y
10304	10GBASE-CR4 1m	Y	Y
10305	10GBASE-CR4 3m	Y	Y
10306	10GBASE-CR4 5m	N	Y
10307	10GBASE-CR4 10m	N	Y

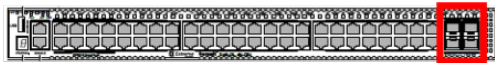


Part Number	Name	16701, 16702, 16703, 16704, 16705, 16706, 16720, 16756, 16757	16711
1GB and 100MB Transceiver		10Gb Front Panel	10Gb SFP+ VIM
10051H, 10071H	1000BASE-SX SFP	Y	Y
10052H, 10072H	1000BASE-LX SFP	Y	Y
10053H	1000BASE-ZX SFP	Y	Y
10056H, 10057H	1000BASE-BX-D SFP and BX-U SFP	Y	Y
10064	1000BASE-LX100 SFP	Y	Y
10063	100FX SFP	N	N
10060	100FX/1000LX SFP	N	N
10070H, 10065	10/100/1000BASE-T SFP	1Gb Mode Only	1Gb Mode Only
10067	100BASE-FX SFP	N	N
10066	100BASE-LX10 SFP	N	N
10058, 10059	100BASE-BX-D SFP and BX-U SFP	N	N

Transceiver Support Matrix (cont.)



Part Number	Name	16705, 16706	16701, 16703, 16716, 16718
1GB and 100MB Transceiver		24/48 Port SFP Switches	SFP Combo Ports
10051H, 10071H	1000BASE-SX SFP	Y	Y
10052H, 10072H	1000BASE-LX SFP	Y	Y
10053H	1000BASE-ZX SFP	Y	Y
10056H, 10057H	1000BASE-BX-D SFP and BX-U SFP	Y	Y
10064	1000BASE-LX100 SFP	Y	Y
10063	100FX SFP	Y	N
10060	100FX/1000LX SFP	Y	N
10070H, 10065	10/100/1000BASE-T SFP	Y	N
10067	100BASE-FX SFP	Y	Y
10066	100BASE-LX10 SFP	Y	Y
10058, 10059	100BASE-BX-D SFP and BX-U SFP	Y	Y



Part Number	Name	16716, 16717, 16718, 16719
1GB and 100MB Transceiver		1Gb Front Panel
10051H, 10071H	1000BASE-SX SFP	Y
10052H, 10072H	1000BASE-LX SFP	Y
10053H	1000BASE-ZX SFP	Y
10056H, 10057H	1000BASE-BX-D SFP and BX-U SFP	Y
10064	1000BASE-LX100 SFP	Y
10063	100FX SFP	Y
10060	100FX/1000LX SFP	Y
10070H, 10065	10/100/1000BASE-T SFP	1Gb Mode Only
10067	100BASE-FX SFP	N
10066	100BASE-LX10 SFP	N
10058, 10059	100BASE-BX-D SFP and BX-U SFP	N

Ordering Notes

The X460-G2 base switches do not ship with fan trays or power supplies. The fan tray, power supplies, and any optional VIM cards must be ordered separately. There is only one optional VIM slot on each X460-G2 switch.

The optional Timing Module has a separate dedicated slot on the back of the X460-G2 switch. Beginning with EXOS 22.1, all X460-G2 base systems will include an Advanced Edge license -- an upgrade over the Edge License bundled with earlier EXOS releases.

Ordering Information

Part Number	Name	Description
16701	X460-G2-24t-10GE4-Base-Unit	24 10/100/1000BASE-T, 8 100/1000BASE-X unpopulated SFP (4 SFP ports shared with 10/100/1000BASE-T ports), 4 1000/10GBaseX unpopulated SFP+ ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16702	X460-G2-48t-10GE4-Base-Unit	48 10/100/1000BASE-T, 4 1000/10GBaseX unpopulated SFP+ ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16703	X460-G2-24p-10GE4-Base-Unit	24 10/100/1000BASE-T PoE-plus, 8 100/1000BASE-X unpopulated SFP (4 SFP ports shared with 10/100/1000BASE-T ports), 4 1000/10GBaseX unpopulated SFP+ ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16704	X460-G2-48p-10GE4-Base-Unit	48 10/100/1000BASE-T PoE-plus, 4 1000/10GBaseX unpopulated SFP+ ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16705	X460-G2-24x-10GE4-Base-Unit	24 100/1000BASE-X unpopulated SFP, 8 10/100/1000BASE-T (4 10/100/1000BASE-T ports shared with SFP ports), 4 1000/10GBaseX unpopulated SFP+ ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16706	X460-G2-48x-10GE4-Base-Unit	48 100/1000BASE-X unpopulated SFP, 4 1000/10GBaseX unpopulated SFP+ ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16716	X460-G2-24t-GE4-Base-Unit	24 10/100/1000BASE-T, 8 100/1000BASE-X unpopulated SFP (4 SFP ports shared with 10/100/1000BASE-T ports), 4 1GBaseX unpopulated SFP ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16717	X460-G2-48t-GE4-Base-Unit	48 10/100/1000BASE-T, 4 1GBaseX unpopulated SFP ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), Extreme XOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16718	X460-G2-24p-GE4-Base-Unit	24 10/100/1000BASE-T PoE-plus, 8 100/1000BASE-X unpopulated SFP (4 SFP ports shared with 10/100/1000BASE-T ports), 4 1GBaseX unpopulated SFP ports, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16719	X460-G2-48p-GE4-Base-Unit	48 10/100/1000BASE-T PoE-plus, 4 1GBaseX, Rear VIM Slot (unpopulated), Rear Timing Slot (unpopulated), 2 unpopulated PSU slots, fan module slot (unpopulated), ExtremeXOS Advanced Edge license with EXOS Release 22.1 or greater (earlier releases include an Edge license only)
16710	X460-G2 VIM-2q	Optional Virtual Interface Module for the rear of the X460-G2 providing 2 40GBASE-X ports unpopulated QSFP+
16711	X460-G2 VIM-2x	Optional Virtual Interface Module for the rear of the X460-G2 providing 2 1000/10GBASE-X ports unpopulated SFP+
16712	X460-G2 VIM-2t	Optional Virtual Interface Module for the rear of the X460-G2 providing 2 10GBASE-T ports
16713	X460-G2 VIM-2ss	Optional Virtual Interface Module for the rear of the X460-G2 providing 2 ports of Extreme's SummitStack
16715	X460-G2 TM-CLK	Optional Timing Module for the rear of the X460-G2 providing the hardware for SyncE and 1588 PTP clocking with 2 ports of mini-BNC connectors for clocking outputs
16720	X460-G2-16mp-32p-10GE4	16 100Mb/1.0/2.5GbE PoE+, 32 10/100/1000BASE-T PoE+, 4 1000/10GBaseX unpop'd SFP+ ports, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 unpopulated PSU slots, fan module slot (unpop'd), EXOS Advanced Edge license with policy
16756	X460-G2-24p-24hp-10GE4-Base	X460-G2 24 10/100/1000BASE-T full duplex PoE+, 24 10/100/1000BASE-T full/half duplex PoE+, 4 1000/10GBaseX unpop'd SFP+ ports, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 unpop'd PSU slots, fan module slot (unpop'd), ExtremeXOS Advanced Edge

Ordering Information (cont.)

Part Number	Name	Description
16757	X460-G2-24t-24ht-10GE4-Base	X460-G2 24 10/100/1000BASE-T full duplex, 24 10/100/1000BASE-T full/half duplex, 4 1000/10GBaseX unpop'd SFP+ ports, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 unpop'd PSU slots, fan module slot (unpop'd), ExtremeXOS Advanced Edge
16716T	X460-G2-24t-GE4-FB-AC-TAA	TAA 24 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 power supply slots populated with 300W PS, fan module Front-to-Back, ExtremeXOS Advanced Edge license with Policy
16703T	X460-G2-24p-10GE4-FB-715-TAA	TAA 24 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 power supply slots populated with 715W PS, fan module Front-to-Back, ExtremeXOS Advanced Edge license with Policy
16704T	X460-G2-48p-10GE4-FB-1100-TAA	TAA 48 10/100/1000BASE-T POE+, 4 10GBASE-X unpopulated SFP+, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 power supply slots populated with 1100W PS, fan module Front-to-Back, ExtremeXOS Advanced Edge license with Policy
16705T	X460-G2-24x-10GE4-FB-AC-TAA	TAA 24 SFP, 4 10GBASE-X unpopulated SFP+, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 power supply slots populated with 300W PS, fan module Front-to-Back, ExtremeXOS Advanced Edge license with Policy
16706T	X460-G2-48x-10GE4-FB-AC-TAA	TAA 48 SFP, 4 10GBASE-X unpopulated SFP+, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 power supply slots populated with 300W PS, fan module Front-to-Back, ExtremeXOS Edge license with Policy
16718T	X460-G2-24p-GE4-FB-715-TAA	TAA 24 10/100/1000BASE-T POE+, 4 1000BASE-X unpopulated SFP, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 power supply slots populated with 715W PS, fan module Front-to-Back, ExtremeXOS Advanced Edge license with Policy
16719T	X460-G2-48p-GE4-FB-1100-TAA	TAA 48 10/100/1000BASE-T POE+, 4 1000BASE-X unpopulated SFP, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 power supply slots populated with 1100W PS, fan module Front-to-Back, ExtremeXOS Advanced Edge license with Policy
16710T	X460-G2 VIM-2q-TAA	TAA-compliant Optional Virtual Interface Module for the rear of the X460-G2 providing 2 40GBASE-X ports unpopulated QSFP+
16711T	X460-G2 VIM-2x-TAA	TAA-compliant Optional Virtual Interface Module for the rear of the X460-G2 providing 2 10GBASE-X ports unpopulated SFP+
16712T	X460-G2 VIM-2t-TAA	TAA-compliant Optional Virtual Interface Module for the rear of the X460-G2 providing 2 10GBASE-T ports
16713T	X460-G2 VIM-2ss-TAA	TAA-compliant Optional Virtual Interface Module for the rear of the X460-G2 providing 2 ports of Extreme's SummitStack
16715T	X460-G2 -TM-CLK-TAA	TAA-compliant Optional Timing Module for the rear of the X460-G2 providing the hardware for SyncE and 1588 PTP clocking with 2 ports of mini-BNC connectors for clocking outputs
16720T	X460-G2-16mp-32p-10GE4-FB-TAA	TAA-compliant 16 100Mb/1.0/2.5GbE PoE+, 32 10/100/1000BASE-T PoE+, 4 1000/10GBaseX unpop'd SFP+ ports, Rear VIM Slot (unpop'd), Rear Timing Slot (unpop'd), 2 1100 watt power supplies, fan module Front-to-Back, EXOS Advanced Edge license w Policy
16756T	X460-G2-24p-24hp-10GE4-FB-TAA	TAA-compliant X460-G2 24 10/100/1000 full duplex PoE+, 24 10/100/1000 full/half duplex PoE+, 4 1000/10G SFP+ ports, Rear VIM Slot, Rear Timing Slot, 2 1100W AC power supplies , fan module, Front-to-Back airflow, ExtremeXOS Advanced Edge w Policy
16757T	X460-G2-24t-24ht-10GE4-FB-TAA	TAA-compliant X460-G2 24 10/100/1000 full duplex, 24 10/100/1000 full/half duplex, 4 1000/10G SFP+ ports, Rear VIM Slot, Rear Timing Slot, two 300W AC power supplies, fan module, Front-to-Back airflow, ExtremeXOS Advanced Edge w Policy
16776	Rear Rail Kit-4 Post Mounting	Adapter kit for adding rear rails to enable four post mounting of X460-G2 17" or deeper switches
16777	Four Plece Rack Mount Kit, Spare	Spare Rack-Mount Kit for X460-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
Software Licenses		
16421	X460 Advanced Edge Lic	ExtremeXOS Advanced Edge License for X460 series switches. For those upgrading a X460-G2 switch already installed with an Edge License.
16422	X460 Core License from Edge Lic	ExtremeXOS Advanced Core License upgrade from Edge License for X460 series switches. For those upgrading a X460-G2 switch already installed with an Edge License.
16423	X460 Core License from Advanced Edge	ExtremeXOS Advanced Core License upgrade from Advanced Edge License for X460 series switches
16424	X460 MPLS Feature Pack	ExtremeXOS MPLS Feature Pack for X460 series switches
11011	Direct Attach Feature Pack	Direct Attach Feature Pack
16755	X460-G2 Network Timing Feature Pack	X460-G2 Network Timing Feature Pack
16425	X460 OpenFlow Feature Pack	ExtremeXOS SDN - OpenFlow Feature Pack for X460 series switches
16426	X460 Multimedia (AVB) Feature Pack	Multimedia (AVP) Feature Pack for X460-G2
16780	X460-G2 MACsec Feature Pack	MACsec Feature Pack for X460-G2 series switches. Enables MACsec when used with LRM/MACsec Adapter (10965)

Ordering Information (cont.)

Part Number	Name	Description
Power Supplies and Fans		
10941	1100W AC PSU FB	1100 Watt AC PoE Power Supply module for X460-G2 and X450-G2 series switches with Front-to-Back airflow
10942	1100W AC PSU BF	1100 Watt AC PoE Power Supply module for X460-G2 series switches with Back-to-Front airflow
10951	715W AC PSU FB	715W AC PoE Power Supply Module for X460-G2 and X450-G2 series switches with Front-to-Back airflow
10952	715W AC PSU BF	715W AC PoE Power Supply Module for X460-G2 series switches with Back-to-Front airflow
10930A	300W AC PSU XT	300W AC Power Supply module for X460 & E4G-400 Series Switches - Extended Temperature Range from -10 to +50 degrees Celsius - Front-to-Back airflow
10953	350W AC PSU FB	350W AC Power Supply Module - front to back airflow
10954	350W AC PSU BF	350W AC Power Supply Module - back to front airflow
10943	300W AC PSU BF	300W AC Power Supply Module - Back-to-Front airflow
10933	300W +24V/-48V DC PSU	300W +24V / -48V DC Power Supply Module for the X460 and the E4G-400 platforms - Front-to-Back airflow
10944	300W DC PSU BF	300W DC Power Supply Module - Back-to-Front airflow
10945	X460-G2 Fan Module FB	Front-to-back airflow fan module for X460-G2 series switches
10946	X460-G2 Fan Module BF	Back-to-front airflow fan module for X460-G2 series switches
Transceivers / Optics / Cables		
10319	QSFP+ SR4 Module ¹	40 Gigabit Ethernet QSFP+ SR4 optical module, MPO connector, 100m link length ¹
10320	QSFP+ 40GBASE-LR4 ¹	40 Gigabit Ethernet QSFP+ LR4 optical module, LC connectors, 10km SMF link length ¹
10326	QSFP+ PSM Optical Module ¹	QSFP+ (4X10GBASE) breakout optical module, MPO connector, 10km SMF link length ¹
10335	40Gb ER4 QSFP+ ¹	40Gb ER4, 40Km SMF, QSFP+, LC ¹
10334	40Gb LM4 QSFP+ ¹	40Gb LM4 140m OM3 MMF, 1Km SMF, QSFP+, LC ¹
10301	10GBASE-SR SFP+	10GBASE-SR SFP+, 850nm, LC Connector, transmission length of up to 300m on MMF
10302	10302 10GBASE-LR SFP+	10GBASE-LR SFP+, 1310nm, LC Connector, transmission length of up to 10km on SMF
10309	10GBASE-ER SFP+	10GBASE-ER SFP+, 1550nm, LC connector, transmission length of up to 40km on SMF
10303	SFP+ LRM Module	10 Gigabit Ethernet SFP+ module, 1310nm, legacy MMF 220m link, LC connector
10310	SFP+ ZR Module	10GBASE-ZR SFP+, 1550nm, LC connector, transmission length up to 80km on SMF
10325	Tunable DWDM SFP+	10 Gigabit Ethernet SFP+ Tunable DWDM module, SMF 80km, LC connector 10052H 1000BASE-LX SFP, Hi 1000BASE-LX SFP, MMF 220 & 550 meters, SMF 10km, LC connector, Industrial
10052H	1000BASE-LX SFP, Hi	1000BASE-LX SFP, MMF 220 & 550 meters, SMF 10km, LC connector, Industrial Temp
10056H	1000BASE-BX-D BiDi SFP, Hi	1000BASE-BX-D SFP, 1490-nm TX/1310-nm RX wavelength, Industrial Temp
10057H	1000BASE-BX-U BiDi SFP, Hi	1000BASE-BX-U SFP, 1310-nm TX/1490-nm RX wavelength, Industrial Temp
10060	100FX/1000LX SFP	Dual-speed 100 FX / 1000 LX SFP, LC connector
10063	100BASE-FX SFP (1G elec)	100BASE-FX SFP module, MMF 2km link, LC-connector for Fast Ethernet SFP Port, 1G electrical data rate
10067	100Base-FX SFP	100BASE-FX SFP module, MMF 2km link, LC-connector for Fast Ethernet SFP Port
10070H	10/100/1000BASE-T SFP, Hi	10/100/1000BASE-T SFP module, CAT5 cable 100m link, RJ45-connector for Giga Bit Ethernet SFP Port, Industrial Temp
10058	100BASE-BX-D SFP	100M SFP, 100BASE-BX-D, SMF (1550nm TX/1310nm RX wavelength), 100 Mbps bidirectional
10059	100BASE-BX-U SFP	100M SFP, 100BASE-BX-U, SMF (1310nm TX/1550nm RX wavelength), 100 Mbps bidirectional
10072H	1000BASE-LX SFP 10 Pack, Hi	1000BASE-LX SFP 10 Pack, Industrial Temp
10051H	1000BASE-SX SFP, Hi	1000BASE-SX SFP, MMF 220 & 550 meters, LC connector, Industrial Temp
10053H	1000BASE-ZX SFP, Hi	1000BASE-ZX SFP, SMF 70km, LC connector, Industrial Temp
10066	100BASE-LX10 SFP	100BASE-LX10 SFP module, SMF 10km link, LC-connector for Fast Ethernet SFP Port
10071H	1000BASE-SX SFP 10 Pack, Hi	1000BASE-SX SFP 10 Pack, Industrial Temp

Ordering Information (cont.)

Part Number	Name	Description
10311	QSFP+ passive copper cable, 0.5M	QSFP+ passive copper cable, 0.5M
10312	QSFP+ passive copper cable, 1.0M	QSFP+ passive copper cable, 1.0M
10313	QSFP+ Passive Copper Cable, 3.0M	QSFP+ passive copper cable, 3.0M
10323	QSFP+ Passive Copper Cable, 5.0M2	QSFP+ passive copper cable, 5.0M2
10315	QSFP+ active fiber cable, 10M	QSFP+ active fiber cable, 10M
10316	20m QSFP+ Active Optical Cable	QSFP+ active fiber cable, 20M
10318	QSFP+ active fiber cable, 100M	QSFP+ active fiber cable, 100M
10304	10GBASE-CR SFP+ 1m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 1m
10305	10GBASE-CR SFP+ 3m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 3m
10306	10GBASE-CR SFP+ 5m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 5m
10307	10GBASE-CR SFP+ 10m	10GBASE-CR SFP+ pre-terminated twin-ax copper cable with link lengths of 10m
10329	40Gb BiDi MMF QSFP+	40Gb Bidirectional MMF, 100m OM3, QSFP+, LC
10336	3m QSFP+ Active Optical Cable	40 Gigabit Ethernet QSFP+ active optical cable assembly, 3m length
10337	5m QSFP+ Active Optical Cable	40 Gigabit Ethernet QSFP+ active optical cable assembly, 5m length
10338	10Gb SFP+ 10GBASE-T3	10Gb SFP+, 10GBASE-T RJ45, 30m with Cat6a3
16106	Stacking Cable, 0.5M	SummitStack/UniStack™ Stacking Cable, 0.5M
16107	Stacking Cable, 1.5M	SummitStack/UniStack Stacking Cable, 1.5M
16108	Stacking Cable, 3.0M	SummitStack/UniStack Stacking Cable, 3.0M
16105	Stacking Cable, 5.0M	SummitStack Stacking Cable, 5.0M
10GB-F10-SFPP	10 GB, ACTIVE OPTICAL DAC, 10 M	10Gb, Active optical direct attach cable with 2 integrated SFP+ transceivers, 10m
10GB-F20-SFPP	10 GB, ACTIVE OPTICAL DAC, 20 M	10Gb, Active optical direct attach cable with 2 integrated SFP+ transceivers, 20m
10GB-BX10-D	10 GB, SINGLE FIBER SM, -D 10 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1330nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX10-U)
10GB-BX10-U	10 GB, SINGLE FIBER SM, -U 10 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1330nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX10-D)
10GB-BX40-D	10 GB, SINGLE FIBER SM, -D 40 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1330nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-U)
10GB-BX40-U	10 GB, SINGLE FIBER SM, -U 40 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1330nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-D)
ExtremeCloud IQ Pilot Licenses		
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
XIQ-PIL-S-OP-EW	XIQ Pilot RTU license and EW support (1 device)	ExtremeCloud IQ Pilot SW Subscription (RTU license, EW SW support for one (1) device
XIQ-PIL-S-OP-PWP	XIQ Pilot RTU License and PWP support (1 device)	ExtremeCloud IQ Pilot SW Subscription (RTU license, PWP SW support for one (1) device

¹ 1x40Gb Mode Only

² Data networking, not stacking

³ Supported configuration is to populate every other SFP+ port in system, with a maximum of half the 10Gb SFP+ ports configured with 10GBASE-T transceivers. An adjacent SFP+ port should remain unused for every 10GBASE-T SFP+ installed

NOTE: Power supplies and fan tray MUST be ordered separately. They are NOT INCLUDED in the base switch model.

Warranty

The X460-G2 Series is covered under Extreme's Limited Warranty Express. For warranty details, visit: <http://www.extremenetworks.com/go/warranty>.

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. Please refer to www.extremenetworks.com/product/powercords/ for details on power cord availability for this product.

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.



<http://www.extremenetworks.com/contact>

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