

Summit X440 Series

The Intelligent, Affordable Edge



Highlights

Powered by the same robust, modular operating system as our BlackDiamond® X8 and other Summit® switches, the Summit X440 utilizes the benefits of the ExtremeXOS® operating system in an intelligent, affordable access edge. The Summit X440 series switches provide redundant power supplies, SummitStack™ capability, comprehensive security features and high performance switching in a cost effective, small access switch.

Key Features

- PoE/PoE+ for wireless access points, cameras and IP phones
- Extending Intelligent 10/100/1000 BASE-T connectivity to the desktop
- Line rate on all ports including 2 x 10GBASE-X SFP+ uplinks
- Stack using SummitStack ports or SummitStack-V over 10GBASE-X SFP+ ports
- Stack up to 8 members
- Stack with other Summit products from Extreme
- Fan at low speed or off when room temperature is < 30° C for minimal noise

Overview

The Extreme Networks® Summit X440 series switches extend the intelligence and resiliency of the ExtremeXOS network operating system to the converged access edge, enabling fine grained Quality of Service (QoS), stacking, high availability features and identity aware security in a compact, cost effective switch.

Standards-based PoE/PoE+ support (802.3af / 802.3at) allows the Summit X440 series to support the large-scale rollout of converged network devices such as IP telephones, wireless access points as well as physical security devices such as video cameras.

With high density, low latency, line rate 10/100/1000 Ethernet, dedicated 10 Gbps stacking ports, available redundant power supplies, hardware-based IP support (IPv4 and IPv6) and rich Layer 2 to Layer 4 functionality in a compact, 1RU form factor, the Summit X440 also provides effective enterprise class network access.

High Availability

- Modular ExtremeXOS operating system
- Ethernet Automatic Protection Switching (EAPS) resiliency protocol
- SummitStack™—highly available, high-speed stacking support
- External power supply for redundant power

High Performance

- High bandwidth, non-blocking architecture
- Quality of Service (QoS) with advanced traffic management capabilities
- Automatic provisioning via Universal Port capability
- Comprehensive network management functionality
- 12, 24, or 48-port Gigabit Ethernet (GbE) connectivity in a 1RU form factor
- SummitStack 40 Gbps
- 10 Gigabit Ethernet (10GbE) uplinks

Comprehensive Security Features

- Identity aware policy and host integrity enforcement
- Extensive MAC and IP security functionality to help prevent man-in-the-middle attacks
- Universal Port dynamic security profile to provide fine granular security policy in the network
- Multiple network edge authentication support with multiple endpoints per port
- Identity Manager allows network managers to track users who access their network

IEEE 802.3at PoE-plus

Summit X440 PoE+ models support both IEEE 802.3at PoE-plus and IEEE 802.3af PoE. Summit X440 Models that support PoE-plus provide a cumulative total 170 watt or 380 watt power budget, which can be allocated across all of the RJ45 ports on that particular switch.

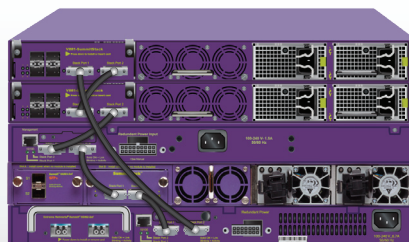
Stacking

Each of the Summit X440 models with two SummitStack stacking ports, provide a 40 Gigabit stacking solution. This stacking capability offers compatibility with other Extreme Networks stackable switches, including the Summit X250e, Summit X450a/e, Summit X460 with SummitStack module, Summit X480 with VIM2-SummitStack, and Summit X650 with VIM1-SummitStack or VIM1-10G8X – allowing up to eight units in a stack.

The Summit X440 models with two 10 Gigabit Ethernet (10GbE) links can also stack using SummitStack- V alternative stacking. This stacking method also offers compatibility with other Extreme stackable switches that use 10GbE ports for SummitStack-V including Summit X450e, X450a, X460, X480, X650, X670 and X670V.

The SummitStack stacking architecture is designed for rapid failover capability with n-1 master redundancy, distributed Layer 2 and Layer 3 switching, link aggregation across the stack, and 50 millisecond failover in most cases for path failure and hitless master/backup failover.

- Single management point for up to eight units
- High-speed 40 Gbps stacking
- Rapid Failover for converged applications
- Can mix Summit X250e, Summit X440 Series, Summit X450a/e,- Series, Summit X460, Summit X480, Summit X650 and Summit X670 Series switches for SummitStack™ 40 Gbps stacking



5251-03



Technical Specifications

Performance

Switch Model	Aggregated Switch Bandwidth	Frame Forwarding Rate
Summit X440-8t	64 Gbps	48 Mpps
Summit X440-8p	64 Gbps	48 Mpps
Summit X440-24t	88 Gbps	65 Mpps
Summit X440-24p	88 Gbps	65 Mpps
Summit X440-48t	136 Gbps	101 Mpps
Summit X440-48p	136 Gbps	101 Mpps
Summit X440-24t-10G	88 Gbps	65 Mpps
Summit X440-24p-10G	88 Gbps	65 Mpps
Summit X440-48t-10G	136 Gbps	101 Mpps
Summit X440-48p-10G	136 Gbps	101 Mpps

- Latency: <5 μs (64-byte)
- Max Packet Size: 9KB (Jumbo Frame Support)
- Total Trunks: 128 load sharing, members per trunk: 8
- VLANs: 4,094
- Ingress ACLs: 1,024

Forwarding Tables

- Layer 2/MAC Addresses: 16K
- Layer 2/Multicast Groups: 1K
- IPv4 LPM Entries: 32
- IPv6 LPM Entries: 16
- IPv4 Host Addresses: 509
- IPv6 Host Addresses: 256
- Layer 3 Interfaces: 256
- IP Multicast Groups: 64

CPU, Memory

- Single Core CPU, 500 MHz clock
- 512MB ECC DRAM
- 512MB Compact Flash

QoS, Rate Limiting

- Ingress bandwidth meters: 1,024
- Ingress metering granularity: 8 Kbps
- Ingress bandwidth policing/rate limiting per flow/ACL
- Egress QoS queues/port: 8
- Egress bandwidth rate shaping per egress queue and per port
- Egress rate granularity: 64 Kbps

LED Indicators

- Per port status LED including power status
- System Status LEDs: management, fan and power

Weight and Physical Dimensions

Switch Model	Weight	Physical Dimension
Summit X440-8t	5.8 lb (2.640 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 12.0 inches (30.5 cm) Depth: 10.3 inches (26.1 cm)
Summit X440-8p	6.7 lb (3.035 kg)	
Summit X440-24t	8.4 lb (3.825 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 10.0 inches (25.4 cm)
Summit X440-24p	9.8 lb (4.465 kg)	
Summit X440-48t	9.1 lb (4.125 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 10.0 inches (25.4 cm)
Summit X440-48p	10.7 lb (4.845 kg)	
Summit X440-24t-10G	8.5 lb (3.865 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 10.0 inches (25.4 cm)
Summit X440-24p-10G	9.8 lb (4.475 kg)	
Summit X440-48t-10G	9.1 lb (4.130 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 10.0 inches (25.4 cm)
Summit X440-48p-10G	10.6 lb (4.830 kg)	

Fan Speed

Switch Model	Minimum (< 30° C)	Maximum (> 30° C)
Summit X440-8t	0 RPM	0 RPM
Summit X440-8p	6800 RPM	11000 RPM
Summit X440-24t	0 RPM	11000 RPM
Summit X440-24p	5900 RPM	11000 RPM
Summit X440-48t	5900 RPM	11000 RPM
Summit X440-48p	5900 RPM	11000 RPM
Summit X440-24t-10G	0 RPM	11000 RPM
Summit X440-24p-10G	5900 RPM	11000 RPM
Summit X440-48t-10G	5900 RPM	11000 RPM
Summit X440-48p-10G	5900 RPM	11000 RPM

Operating Conditions Temperature Range

- 0° C to 45° C (32° F to 113° 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

- Packaged Random Vibration: 5-20 Hz @ 1.0 ASD w/-3dB/oct. from 20-200 Hz
- 14 drops min on sides & corners @ 42" (<15 kg box)

Storage & Transportation Conditions (Packaged)

- Transportation Temperature: -40° C to 70° C (-40° F to 158° F)
- Storage and Transportation Humidity: 10% to 95% RH, non-condensing
- Packaged Shock (Half Sine): 180 m/s² (18 G), 6ms, 600 shocks
- Packaged Sine Vibration: 5-62 Hz @ Velocity 5mm/s, 62-500 Hz @ 0.2G

Safety Standards

- 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)
- EN 60950-1:2007 2nd Ed.
- EN 60825-1+A2:2001 (Lasers Safety)
- TUV-R GS Mark by German Notified Body
- 2006/95/EC Low Voltage Directive
- CB Report & Certificate per IEC 60950-1 2nd Ed. + National Differences
- AS/NZS 60950-1 (Australia /New Zealand)

External Ports

Switch Model	Ports
Summit X440-8t	<ul style="list-style-type: none"> • 8 x 10/100/1000BASE-T (RJ45) ports • 4 x 100/1000BASE-X (SFP) unpopulated ports • 2 x SummitStack • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port
Summit X440-8p	<ul style="list-style-type: none"> • 8 x 10/100/1000BASE-T PoE-plus(RJ45) ports • 4 x 100/1000BASE-X (SFP) unpopulated ports • 2 x SummitStack • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port
Summit X440-24t	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ45) – 4 ports are combo ports • 4 x 100/1000BASE-X (SFP) unpopulated combo ports • 2 x SummitStack • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port • 1 x Redundant Power Supply connector
Summit X440-24p	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T PoE-plus(RJ45) – 4 ports are combo ports • 4 x 100/1000BASE-X (SFP) combo ports • 2 x SummitStack • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port • 1 x Redundant Power Supply connector
Summit X440-48t	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T (RJ45) – 4 ports are combo ports • 4 x 100/1000BASE-X (SFP) unpopulated combo ports • 2 x SummitStack • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port • 1 x Redundant Power Supply connector
Summit X440-48p	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T PoE-plus(RJ45) – 4 ports are combo ports • 4 x 100/1000BASE-X (SFP) combo ports • 2 x SummitStack • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port • 1 x Redundant Power Supply connector
Summit X440-24t-10G	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T (RJ45) – 4 ports are combo ports • 4 x 100/1000BASE-X (SFP) unpopulated combo ports • 2 x 10GBASE-X SFP+ (1G/10G dual speed) unpopulated • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port
Summit X440-24p-10G	<ul style="list-style-type: none"> • 24 x 10/100/1000BASE-T PoE-plus(RJ45) – 4 ports are combo ports • 4 x 100/1000BASE-X (SFP) combo ports • 2 x 10GBASE-X SFP+ (1G/10G dual speed) unpopulated • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port
Summit X440-48t-10G	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T (RJ45) – 2 ports are combo ports • 2 x 100/1000BASE-X (SFP) unpopulated combo ports • 2 x 10GBASE-X SFP+ (1G/10G dual speed) unpopulated • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port
Summit X440-48p-10G	<ul style="list-style-type: none"> • 48 x 10/100/1000BASE-T PoE-plus(RJ45) – 2 ports are combo ports • 2 x 100/1000BASE-X (SFP) combo ports • 2 x 10GBASE-X SFP+ (1G/10G dual speed) unpopulated • 1 x Serial (console port) • 1 x 10/100BASE-T out-of-band management port

EMI/EMC Standards

- FCC CFR 47 part 15 Class A (USA)
- ICES-003 Class A (Canada)
- 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
- 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
- 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)
- NEBS Level 1 Compliant in accordance with GR-1089-CORE, Issue4, and GR-63-CORE, Issue 3 as defined in SR-3580 Issue 3 and includes all Verizon and AT&T Level-1 variations
- NEBS Level 3 compliant to portions of GR-1089 Issue 4 & GR-63 Issue 3 as defined in SR3580 with exception to filter requirement
- MEF 9 compliant
- MEF 14 compliant

IEEE 802.3 Media Access Standards

- IEEE 802.3ab 1000BASE-T

- IEEE 802.3z 1000BASE-X
- IEEE 802.3at PoE Plus

Environmental Standards

- 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

Warranty

- Ltd. Lifetime with express Advanced Hardware Replacement
- For warranty details, visit <http://www.extremenetworks.com/go/warranty>

Acoustic Noise

Switch Model	Low Speed Fan dB(A)	High Speed Fan dB(A)
Summit X440-8t	0 (no fan)	0 (no fan)
Summit X440-8p	44	55
Summit X440-24t	0 (fan not on)	55
Summit X440-24p	42	57
Summit X440-48t	39	55
Summit X440-48p	42	57
Summit X440-24t-10G	0 (fan not on)	55
Summit X440-24p-10G	42	57
Summit X440-48t-10G	39	55
Summit X440-48p-10G	42	57

Power Specifications

Switch Model	Input Power at Full Load	Efficiency
Summit X440-8t	39W	70%
Summit X440-8p	240W	70%
Summit X440-24t	44W	70%
Summit X440-24p	585W	70%
Summit X440-48t	60W	70%
Summit X440-48p	600W	69%
Summit X440-24t-10G	44W	75%
Summit X440-24p-10G	585W	75%
Summit X440-48t-10G	95W	66%
Summit X440-48p-10G	600W	66%

Power Connections

Switch Model	Power Supply Input Socket	Power Cord Input Plug/Input Socket	Power Supply Cord Gauge	Redundant Power Supply Input Socket
Summit X440-8t	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	n/a
Summit X440-8p	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	n/a
Summit X440-24t	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	2x7 pin terminal block
Summit X440-24p	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	2x7 pin terminal block
Summit X440-48t	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	2x7 pin terminal block
Summit X440-48p	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	2x7 pin terminal block
Summit X440-24t-10G	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	2x7 pin terminal block
Summit X440-24p-10G	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	2x7 pin terminal block
Summit X440-48t-10G	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	2x7 pin terminal block
Summit X440-48p-10G	IEC 320 C14	IEC 320 C13/C14	Min 18AWG	2x7 pin terminal block

Accessories

External Power Supply

EPS-C2

The EPS-C2 is an external power supply that supplies redundant power to Summit X440 switches. The EPS-C2 is a standalone unit that can be rack mounted in a regular 19-inch rack system. The EPS-C2 can be populated with up to 3 Summit 750W PoE AC PSU to provide a total redundant power budget of up to 2040W. The EPS-C2 can connect up to 5 Summit X440s actively providing power to all 5 if needed.



Rear View of the EPS-C2



Front View of the EPS-C2 Populated with 3 750W Power Supplies



EPS-C2 Connected to a Summit X440

EPS Model	Redundant Power Supply Output Blocks
EPS-C2	1 terminal block of 2x5 pins - used for other Summits 5 terminal blocks of 2x9 pins - used by Summit X440s

EPS Model	Allowable PSU	Power Supply Input Socket	Power Cord Input Plug/Input Socket	Power Supply Cord Gauge
EPS-C2	Summit 750W PoE AC PSU	IEC 320 C14	IEC 320 C13/C14	Min 18AWG

EPS Model	Weight	Physical Dimension
EPS-C2	2.27 lb (5.0 kg)	Height: 1RU, 1.73 inches (4.4 cm) Width: 17.4 inches (44.1 cm) Depth: 15.1 inches (38.4 cm)

Ordering Information

Part Number	Name	Description
16501	Summit X440-8t	8 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP, Summit Stack Stacking ports, 1 AC PSU, ExtremeXOS Edge license
16502	Summit X440-8p	8 10/100/1000BASE-T PoE-plus, 4 1000BASE-X unpopulated SFP, Summit Stack Stacking ports, 1 AC PSU, ExtremeXOS Edge license
16503	Summit X440-24t	24 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP (4 SFP ports shared with 10/100/1000BASE-T ports), SummitStack Stacking ports, 1 AC PSU, ExtremeXOS Edge license, connector for external power supply
16504	Summit X440-24p	24 10/100/1000BASE-T PoE-plus, 4 1000BASE-X unpopulated SFP (4 SFP ports shared with 10/100/1000BASE-T ports), SummitStack Stacking ports, 1 AC PSU, ExtremeXOS Edge license, connector for external power supply
16505	Summit X440-48t	48 10/100/1000BASE-T, 4 1000BASE-X unpopulated SFP (4 SFP ports shared with 10/100/1000BASE-T ports), Summit Stack Stacking ports, 1 AC PSU, ExtremeXOS Edge license, connector for external power supply
16506	Summit X440-48p	48 10/100/1000BASE-T PoE-plus, 4 1000BASE-X unpopulated SFP (4 SFP ports shared with 10/100/1000BASE-T ports), Summit Stack Stacking ports, 1 AC PSU, ExtremeXOS Edge license, connector for external power supply
16507	Summit X440-24t-10G	24 10/100/1000BASE-T, 2 1000BASE-X unpopulated SFP (2 SFP ports shared with 10/100/1000BASE-T ports), 2 10GBASE-X SFP+, 1 AC PSU, ExtremeXOS Edge license, connector for external power supply
16508	Summit X440-24p-10G	24 10/100/1000BASE-T PoE-plus, 2 1000BASE-X unpopulated SFP (2 SFP ports shared with 10/100/1000BASE-T ports), 2 10GBASE-X SFP+, 1 AC PSU, ExtremeXOS Edge license, connector for external power supply
16509	Summit X440-48t-10G	48 10/100/1000BASE-T, 2 1000BASE-X unpopulated SFP (2 SFP ports shared with 10/100/1000BASE-T ports), 2 10GBASE-X SFP+, 1 AC PSU, ExtremeXOS Edge license, connector for external power supply
16510	Summit X440-48p-10G	48 10/100/1000BASE-T PoE-plus, 2 1000BASE-X unpopulated SFP (2 SFP ports shared with 10/100/1000BASE-T ports), 2 10GBASE-X SFP+, 1 AC PSU, ExtremeXOS Edge license, connector for external power supply
16521	Summit X440 Adv. Edge License	ExtremeXOS Advanced Edge License for Summit X440 Series Switches
10936	EPS-C2	External Power System Chassis 2. Accepts up to three Summit 750W AC PoE PSU 48V power supplies. Accepts up to 3 EPS-CBL-2x7 or up to 1 EPS-CBL-2x9 cables.
10939	EPS-CBL-2x7	External Power System Cable that connects EPS to any X440 for providing redundant DC power.
10931	Summit 750W PoE AC PSU	PoE AC Power Supply module for Summit X460 series switches
10301	10GBASE-SR SFP+	10GBASE-SR SFP+, 850nm, LC Connector, transmission length of up to 300m on MMF
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
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
10051	1000BASE-SX SFP	1000BASE-SX SFP, LC Connector
10052	1000BASE-LX SFP	1000BASE-LX SFP, LC Connector
10053	1000BASE-ZX SFP	1000BASE-ZX SFP, Extra Long Distance SMF 70 km/21 dB Budget, LC Connector
10056	1000BASE-BX-D SFP	1000BASE-BX-D SFP, SMF (1490nm TX/1310nm RX Wavelength)
10057	1000BASE-BX-U SFP	1000BASE-BX-U SFP, SMF (1310nm TX/1490nm RX Wavelength)

10060	100FX/1000LX SFP	100FX/1000LX SFP, SMF, LC Connector (Requires MCP and 6dB Attenuator for 100FX-MMF Operation)
10063	100FX SFP	100FX SFP, MMF, LC Connector
10064	1000BASE-LX100 SFP	1000BASE-LX100 SFP, Extra Long Distance SMF 100 km/30dB Budget, LC Connector
10065	10/100/1000Base-T SFP	10/100/1000BASE-T SFP module, Category 5 cable 100m link, RJ45-Connector

A list of supported protocols and standards is available on the Extreme Networks website at:

<http://www.extremenetworks.com/products/extreme-xos.aspx>



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