

## Highlights

### Family of 10Gb Edge Switches with Advanced Enterprise Capabilities

- Full featured ExtremeXOS® operating system
- SummitStack-V flexible stacking

### Ease of Use - Flexible Management Options

- Integrated web-based management application
- Enterprise Extreme Control Center management
- Advanced command line interface
- ExtremeCloud Management option (X620-16x)

### Flexible System Configurations

- 10GBASE-T and fiber connectivity
- Wide range of port speeds from 100Mb to 10Gb
- 2.5Gb and 5Gb Ethernet options
- High power 60W PoE++ options
- Hot swappable modular systems and compact small form versions
- Redundancy options for high availability
- All systems provide non-blocking, wire-speed performance

### Advanced Modular 16 Ports 10Gb Ethernet Switches - 10GBASE-T and SFP+

- Hot-swappable modular power and fans
- AC and DC power supply options
- Front to Back or Back to Front air flow options

### Compact 10 Port 10Gb Ethernet Switches - 10GBASE-T and SFP+

- Integrated power supplies and fans
- External redundant power supply (RPS) options



# ExtremeSwitching™ X620

10Gb Edge Ethernet Switch

## Product Overview

The ExtremeSwitching X620 product family is a compact 10Gb Ethernet switch for 10Gb edge applications in a small 1RU form factor. ExtremeSwitching X620 supports sophisticated, intelligent Layer 2 switching, as well as Layer 3 IPv4/IPv6 routing including policy-based switching/routing. The X620 simplifies network operation with the ExtremeXOS modular operating system, which is used among all ExtremeSwitching networking products. The high availability ExtremeXOS operating system provides simplicity and ease of operation through the use of one OS everywhere in the network.

### ExtremeSwitching X620 Models

- **X620-16x** - 16 100Mb/1Gb/10Gb SFP+ ports using hot-swappable power supplies and fan modules
- **X620-16t** - 12 100Mb/1Gb/10GBASE-T ports with EEE, 4 ports 100Mb/1Gb/10GBASE-T with EEE shared with 4 ports of 1Gb/10GBASE-XSFP+ using hot-swappable power supplies and fan modules
- **X620-16p** - 12 100Mb/1Gb/2.5Gb/5Gb/10GBASE-T PoE (8 PoE++ and 4 PoE+) and EEE, 4 100Mb/1Gb/10GBASE-T PoE+ and EEE shared with 4 1Gb/10GBASE-X SFP+ ports using hot-swappable power supplies and fan modules
- **X620-10x** - 10 100Mb/1Gb/10Gb SFP+ ports with integrated power supply and fans
- **X620-8t-2x** - 8 100Mb/1Gb/10GBASE-T ports with EEE, plus 2 ports of 100Mb/1Gb/10GBASE-X SFP+ with integrated power supply and fans

## High-Performance Stacking

Up to eight X620 switches can be stacked using SummitStack-V. Each X620 unit can use two SFP+ interfaces for stacking. Standard 10 Gb Ethernet Optics and passive and active cables can be used in the SFP+ ports for stacking X620's via SummitStack-V. X620 SummitStack-V is compatible with X440-G2, X450-G2 switches, X460-G2, X670-G2 and X770 switches running the same version of ExtremeXOS.

## Product Specifications

Model	X620-16x	X620-16t	X620-16p
<b>Product Specifications - X620 16 Port Models</b>			
Ports	<ul style="list-style-type: none"> <li>16 x 100Mb / 1Gb / 10GBASE-X SFP+ ports</li> <li>1 x Serial console port RJ-45</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>USB 2.0 port</li> </ul>	<ul style="list-style-type: none"> <li>12 x 100Mb / 1Gb / 10GBASE-T ports with EEE (RJ45)</li> <li>4 x 100Mb/1Gb/10GBASE-T with EEE (RJ45) shared with 4 x 1Gb/10GBASE-X SFP+ (with 10GBASE-LRM support)</li> <li>1 x Serial console port RJ-45</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>USB 2.0 port</li> </ul>	<ul style="list-style-type: none"> <li>12 x 100Mb / 1Gb / 2.5Gb / 5Gb / 10GBASE-T ports with EEE (RJ45)</li> <li>4 100Mb/1Gb/10GBASE-T PoE+ and EEE (RJ45) shared with 4 1Gb/10GBASE-X SFP+ ports with 10GBASE-LRM support</li> <li>16 Ports Power over Ethernet <ul style="list-style-type: none"> <li>8 ports 802.3bt Type 3 PSE 60W PoE++ (ports 5-12)</li> <li>8 ports 802.3at PoE+ Type 2 PSE 30W (ports 1-4, 13-16)</li> </ul> </li> <li>1 x Serial console port RJ-45</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>USB 2.0 port</li> </ul>
Power Supplies	<ul style="list-style-type: none"> <li>Modular 300W power supply (up to two PSUs)</li> <li>AC and DC power options</li> <li>Mixed AC and DC configuration</li> <li>Front-Back or Back-Front airflow options</li> </ul>	<ul style="list-style-type: none"> <li>Modular 300W power supply (up to two PSUs)</li> <li>AC and DC power options</li> <li>Mixed AC and DC configuration</li> <li>Front-Back or Back-Front airflow options</li> </ul>	<ul style="list-style-type: none"> <li>Modular 750W AC power supply (up to two PSUs)</li> <li>380W PoE power per PSU (720W total PoE power per system)</li> <li>Front-Back airflow</li> </ul>
Dimensions	17in W / 17.4in D / 1.7in H (43.1cm / 44.1cm / 4.4cm)	17in W / 17.4in D / 1.7in H (43.1cm / 44.1cm / 4.4cm)	17in W / 17.4in D / 1.7in H (43.1cm / 44.1cm / 4.4cm)
Weight	11.1 lbs / 5.0 Kg (base system)	12.0 lbs / 5.5 Kg (base system)	12.0 lbs / 5.5 Kg (base system)
Performance	Line rate 320Gbps / 238Mpps Switching Capacity	Line Rate 320Gbps / 238Mpps Switching Capacity	Line rate 320Gbps / 238Mpps Switching Capacity
CPU / Memory	1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory	1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory	1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory
Packet Buffers	2MB	2MB	2MB
Operating Conditions	0° - 50°C operation* 10% to 95% relative humidity, non-condensing 0 - 3000 meters altitude Shock (half sine): 30 m/s <sup>2</sup> (3 G), 11 ms, 6 shocks Random vibration: 3 to 500 Hz at 1.5 G rms		

\*When using 10GBASE-ZR transceivers, maximum operating temperature will be de-rated for some models as per the following:

- X620-16x Front-to-Back airflow: two ports with 10GBASE-ZR max 45°C / all ports max 35°C
- X620-16x Back-to-Front airflow: two ports with 10GBASE-ZR max 40°C / all ports 10GBASE-ZR max 30°C

Model	X620-10x	X620-8t-2x
<b>Product Specifications - X620 10 Port Models</b>		
Ports	<ul style="list-style-type: none"> <li>10 x 100Mb/1Gb / 10GBASE-X SFP+ ports</li> <li>1 x Serial console port RJ-45</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>USB 2.0 port</li> </ul>	<ul style="list-style-type: none"> <li>8 x 100Mb/1Gb/10GBASE-T with EEE (RJ45)</li> <li>2 x 100Mb/1Gb/10GBASE-X SFP+ ports</li> <li>1 x Serial console port RJ-45</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>USB 2.0 port</li> </ul>
Power Supplies	<ul style="list-style-type: none"> <li>Integrated 100W AC PSU</li> <li>RPS connector for external redundant PSU</li> <li>Side to side airflow</li> </ul>	<ul style="list-style-type: none"> <li>Integrated 100W AC PSU</li> <li>RPS connector for external redundant PSU</li> <li>Side to side airflow</li> </ul>
Dimensions	12in W / 10.3in D / 1.7in H (30.48cm / 26.2cm / 4.3cm)	12in W / 10.3in D / 1.7in H (30.48cm / 26.2cm / 4.3cm)
Weight	6.04 lbs / 2.74 Kg	6.37 lbs / 2.89 Kg
Performance	Line rate 200Gbps / 148.8Mpps Switching Capacity	Line Rate 200Gbps / 148.8Mpps Switching Capacity
CPU / Memory	1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory	1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory
Packet Buffers	2MB	2MB
Operating Conditions	0° - 50°C operation* 10% to 95% relative humidity, non-condensing 0 - 3000 meters altitude Shock (half sine): 30 m/s <sup>2</sup> (3 G), 11 ms, 6 shocks Random vibration: 3 to 500 Hz at 1.5 G rms	

\*When using 10GBASE-ZR transceivers, maximum operating temperature will be de-rated for some models as per the following:

- X620-10x: Any 10GBASE-ZR max 35°C
- X620-8t-2x: Any 10GBASE-ZR max 40°C

## Scaling and Performance

MAC Addresses: 16K

IPv4 LPM Entries: 480

IPv4 Hosts:

- with min LPM IPv4 entries: 1500
- with max LPM IPv4 entries: 1500

IPv6 LPM (/64) Entries: 240

IPv6 Hosts: 1500

IP Multicast

- Groups: 256
- Max (S,G) entries: 1500

Latency:

- SFP+: average 900ns (64 byte packet)
- 10GBASE-T: average 2.4µsec (64 byte packet)

4092 user-created VLAN/VMANs

9216 Byte Max Packet Size (Jumbo Frame)

128 load sharing trunks, up to 8 members per trunk

ACLs 2048 ingress / 512 egress

Ingress and egress bandwidth policing/rate limiting per flow/ACL

1,024 ingress bandwidth meters, 256 egress meters

8 QoS egress queues/port

Egress bandwidth rate shaping per egress queue and per port

Rate Limiting Granularity: 8 Kbps

All ports only full duplex at all speeds

Policy Capabilities

- Policy Profiles: 63
- Rules per Profile: Up to 440
- Authenticated Policy Users per Switch: Up to 256
- Authenticated Policy Users per Port: Up to 256
- Unique Permit/Deny Rules per switch: 440
  - MAC Rules: N/A
  - IPv4 Rules: 256
  - IPv6 Rules: N/A
  - L2 Rules: 184

Rate Limiting: Per Class of Service

Data Center Bridging

- DCBx Data Center Bridging Exchange Protocol
- Priority Flow Control (PFC)
- Enhanced Transmission Selection (ETS)

Power over Ethernet - X620-16p only

- 802.3bt 60W 4-Pair PoE++ - Type 3 PSE (Ports 5-12)
- 802.3at 30W PoE+ (Ports 1-4, 13-16)

2.5Gb and 5Gb Ethernet - IEEE 802.3bz and NBASE-T Alliance - X620-16p only

- 2.5GBASE-T - at least 100m with Cat5e cabling or better
- 5GBASE-T - at least 100m with Cat6 cabling or better

## Power and Heat Dissipation

Switch Model	Minimum Heat Dissipation (BTU/hr) (Idle no ports linked)	Minimum Power Consumption (Watts) (Idle no ports linked)	Dissipation (BTU/hr) (fans high all ports)	Maximum Power Consumption (Watts) (fans high all ports 100% traffic)
X620-16t	175 BTU/hr	51 W	347 BTU/hr	102 W
X620-16t (DC)	148 BTU/hr	43 W	326 BTU/hr	96 W
X620-16x	111 BTU/hr	33 W	214 BTU/hr	63 W
X620-16x (DC)	80 BTU/hr	23 W	180 BTU/hr	53 W
X620-16p No PoE 720W PoE	208 BTU/hr 501 BTU/hr	61 W 867 W	328 BTU/hr 684 BTU/hr	114 W 920 W
X620-8t-2x	74 BTU/hr	22 W	177 BTU/hr	52 W
X620-10x	60 BTU/hr	18 W	123 BTU/hr	36 W

## Power Supply Specifications

Model	300W AC PSU 10930A / 10943 X620-16x X620-16t	300W DC PSU 10933 / 10944 X620-16x X620-16t	750W AC PoE PSU 10931 X620-16p	Fixed Internal PSU X620-10x / X620-8t-2x
Dimensions	3.09in W / 10.9in D / 1.06in H (7.8cm / 27.7cm / 2.7cm)	3.09in W / 10.9in D / 1.06in H (7.8cm / 27.7cm / 2.7cm)	3.15in W / 9.5in D / 1.57in H (8.0cm / 24.1cm / 4.0cm)	Internal
Weight	2.3 lbs / 1 kg	2.35 lbs / 1.1 kg	2.25 lbs / 1 kg	Internal
Voltage Input Range	100 - 240 VAC +/- 10%	+24/-48 VDC -15% +20%	100 - 240 VAC +/- 10%	100 - 240 VAC +/- 10%
Line Frequency Range	50 - 60 Hz +/- 5%	N/A	50 - 60 Hz +/- 5%	50 - 60 Hz +/- 5%
PSU Input Socket	IEC 320 C14	Terminal Block	IEC 320 C14	IEC 320 C14
Power Cord Input Plug	IEC 320 C13	N/A	IEC 320 C13	IEC 320 C13
Operating Conditions	0° - 50° C Operation			

## Acoustic Specifications

Switch Model	Bystander Sound Pressure	Declared Sound Power
X620-16t (Front-Back Airflow)	47.2 dB(A) up to 35°C 65.6 dB(A) @ 50°C (max)	6.2 bels up to 35°C 8.0 bels @ 50°C (max)
X620-16t (Back-Front Airflow)	46.9 dB(A) up to 30°C 65.2 dB(A) @ 50°C (max)	6.2 bels up to 30°C 8.1 bels @ 50°C (max)
X620-16x (Front-Back Airflow)	47.0 dB(A) up to 40°C 65.7 dB(A) @ 50°C (max)	6.1 bels up to 40°C 8.0 bels @ 50°C (max)
X620-16x (Back-Front Airflow)	46.9 dB(A) up to 40°C 64.8 dB(A) @ 50°C (max)	6.1 bels up to 40°C 8.0 bels @ 50°C (max)
X620-16p - No PoE configured (Front-Back Airflow)	47.3 dB(A) up to 35°C 65.6 dB(A) @ 50°C (max)	6.2 bels up to 35°C 8.0 bels @ 50 °C (max)
X620-16p - with PoE configured (Front-Back Airflow)	50.5 dB(A) up to 35°C (50% PoE power) 67.1 dB(A) @ 50°C (100% PoE power)	6.5 bels up to 35°C (50% PoE power) 8.2 bels @ 50 °C (100% PoE power)
X620-8t-2x (Side-Side Airflow)	35.6 dB(A) up to 25°C 38.8 dB(A) up to 30°C 65.4 dB(A) @ 50°C (max)	4.8 bels up to 25°C 5.2 bels up to 30°C 7.9 bels @ 50°C (max)
X620-10x (Side-Side Airflow)	28.2 dB(A) up to 35°C 66.3 dB(A) @ 50°C (max)	3.8 bels up to 35°C 7.9 bels @ 50°C (max)

## 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

## 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/s<sup>2</sup> (18 G), 6 ms, 600 shocks  
Packaged Vibration: 5 to 62 Hz at velocity 5 mm/s, 62 to 500Hz at 0.2 G  
Packaged Random Vibration: 5 to 20 Hz at 1.0 ASD w/-3 dB/oct. from 20 to 200Hz  
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+A2:2001 (Lasers Safety)  
2006/95/EC Low Voltage Directive

## International ITE

CB Report & Certificate per IEC 60950-1 2nd Ed. + National Differences  
AS/NZS 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

North American EMC for ITE  
FCC CFR 47 part 15 Class A (USA)  
ICES-003 Class A (Canada)

## 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 RCM (Australia Emissions)  
CCC Mark  
KCC Mark, EMC Approval (Korea)

## Telecom Standards

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 802.3an 10GBASE-T  
IEEE 802.3az Energy Efficient Ethernet  
IEEE 802.3bz 2.5GBASE-T  
IEEE 802.3bz 5GBASE-T  
IEEE 802.3u, 100Base-FX  
IEEE 802.3at 30W PoE+  
IEEE 802.3bt 4-Pair 60W PoE++

## Ordering Information

Part Number	Product Name	Product Description
Modular 16 Port X620 Systems - Non-PoE		
17401	X620-16x-Base	X620 16 100Mb/1Gb/10GBASE-X SFP+ ports, 2 unpopulated power supply slots, 1 unpopulated Fan Module slot, ExtremeXOS Edge license
17402	X620-16t-Base	X620 12 100Mb/1Gb/10GBASE-T ports with EEE, 4 100Mb/1Gb/10GBASE-T with EEE shared with 4 1Gb/10GBASE-X SFP+ ports, 2 unpopulated power supply slots, 1 unpopulated Fan Module slot, ExtremeXOS Edge license
10945	Fan module FB	Fan module for X620, Front to Back airflow
10946	Fan module BF	Fan module for X620, Back to Front airflow
10930A	300W AC PSU XT	300W AC power supply for X620-16x and X620-16t, Front to Back airflow
10943	300W AC PSU BF	300W AC power supply for X620-16x and X620-16t, Back to Front airflow
10933	300W +24V/-48V DC PSU	300W DC power supply for X620-16x and X620-16t, Front to Back airflow

## Ordering Information (cont.)

Part Number	Product Name	Product Description
<b>Modular 16 Port X620 Systems – Non-PoE (cont.)</b>		
10944	300W DC PSU BF	300W DC power supply for X620-16x and X620-16t, Back to Front airflow
17401T	X620-16x-FB TAA	TAA X620 16 100Mb/1Gb/10GBASE-X SFP+ ports, 2 300W PSU, 1 Fan Module, front-back airflow, ExtremeXOS Edge License
17401G	X620-16x-BF TAA	TAA X620 16 100Mb/1Gb/10GBASE-X SFP+ ports, 2 300W PSU, 1 Fan Module, back-front airflow, ExtremeXOS Edge License
17402T	X620-16t-FB TAA	TAA X620 16 100Mb/1Gb/10GBASE-T ports with EEE, 2 300W PSU, 1 Fan Module, front-back airflow, ExtremeXOS Edge License
17402G	X620-16t-BF TAA	TAA X620 16 100Mb/1Gb/10GBASE-T ports with EEE, 2 300W PSU, 1 Fan Module, back-front airflow, ExtremeXOS Edge License
<b>Modular 16 Port X620 Multi-rate Ethernet PoE System</b>		
17403	X620-16p-Base	X620 12 100Mb/1Gb/2.5Gb/5Gb/10GBASE-T PoE (8 PoE++ and 4 PoE+) and EEE, 4 100Mb/1Gb/10GBASE-T PoE+ and EEE shared with 4 1Gb/10GBASE-X SFP+ ports, 2 unpopulated power supply slots, 1 unpopulated Fan Module slot, ExtremeXOS Edge license
10931	750W PoE AC PSU	750W PoE AC power supply for X620, Front to Back Airflow
10945	Fan module FB	Fan module for X620, Front to Back airflow
Fan module and power supplies must be ordered separately for modular 16 port X620 systems Air flow direction of the fan module and power supplies must be the same Rack mount kits included		
<b>Fixed 10 Port X620 Systems and Optional Redundant Power Systems (Rack mount kits included)</b>		
17404	X620-10x-Base	X620 10 100Mb/1Gb/10GBASE-X SFP+ ports, integrated power supply and fans, ExtremeXOS Edge license
17405	X620-8t-2x-Base	X620 8 100Mb/1Gb/10GBASE-T with EEE, and 2 100Mb/1Gb/10GBASE-X SFP+ ports, integrated power supply and fans, ExtremeXOS Edge license
<b>Optional Redundant Power Systems and Accessories</b>		
STK-RPS-1005CH3	3-Slot Modular RPS Shelf	3-Slot Modular RPS Shelf for rack mounting up to three of any combination of extended temperature 150 watt (10932 - RPS-150 XT) external redundant power supplies
10932	RPS-150 XT	External Redundant Power Supply Unit 150 Watts with cable - Extended Temperature Range from 0 to +60 degrees Celsius, Power cord ordered separately. One RPS 2x7 included.
10936	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 cables for connecting to switch. One EPS-CBL-2x7 included. Power supplies purchased separately.
10931	750W AC PSU	AC Power Supply module for EPS-C2 Chassis Redundant Power Supply
10939	EPS-CBL-2x7	External Power System Cable (1M with 2x7 pin) that connects EPS-C2 to X620 for providing redundant power
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
<b>Firmware Licenses – All Models</b>		
17431	X620 Adv Edge License	ExtremeXOS Advanced Edge License for X620 switches
17433	X620 AVB License	Extreme XOS Multimedia (AVB) Feature Pack for X620 switches
17434	X620 OpenFlow Feature Pack	ExtremeXOS OpenFlow Feature Pack for X620 switches
17435	X620 MACsec Feature Pack	MACsec Feature Pack for X620 series switches. Enables MACsec when used with LRM/MACsec Adapter (10965)
<b>Optical Transceivers and Cables</b>		
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
10310	10GBASE-ZR SFP+	10Gb, 10GBASE-ZR, SMF, 1550nm, up to 80Km, LC SFP+
10325	10Gb SFP+ DWDM Tunable	10Gb DWDM Tunable, 80km, LC SFP+
10303	SFP+ LRM Module	10 Gigabit Ethernet SFP+ module, 1310nm, legacy MMF 220m link, LC connector (only supported with X620-16t and X620-16P SFP+ combo ports)
10GB-BX40-D	10 GB, SINGLE FIBER SM, -D 40 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1270nm 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, 1270nm Tx / 1330nm RX, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-D)

## Ordering Information (cont.)

Part Number	Product Name	Product Description
<b>Optical Transceivers and Cables (cont.)</b>		
10GB-BX10-D	10 GB, SINGLE FIBER SM, -D 10 KM	10Gb, Single Fiber SM, Bidirectional, 1330nm Tx / 1270nm 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, 1270nm Tx / 1330nm RX, 10Km, Simplex LC SFP+ (must be paired with 10GB-BX10-D)
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
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
10338**	10Gb SFP+ 10GBASE-T	10Gb SFP+, 10GBASE-T RJ45, 30m with Cat6a
10051H	1000BASE-SX SFP, Hi	1000BASE-SX SFP, MMF 220 & 550 meters, LC connector, Industrial Temp
10052H	1000BASE-LX SFP, Hi	1000BASE-LX SFP, MMF 220 & 550 meters, SMF 10km, LC connector, Industrial Temp
10053H	1000BASE-ZX SFP, Hi	1000BASE-ZX SFP, SMF 70km, LC connector, Industrial Temp
10056H	1000BASE-BX-D BiDi SFP, Hi	1000BASE-BX-D SFP, 1490-nm TX/1310-nm RX wavelength, 10Km Industrial Temp
10057H	1000BASE-BX-U BiDi SFP, Hi	1000BASE-BX-U SFP, 1310-nm TX/1490-nm RX wavelength, 10Km Industrial Temp
MGBIC-BX40-D	1000BASE-BX-U BiDi SFP 40Km	1000BASE-BX-D SFP, single fiber, 40Km Industrial Temp
MGBIC-BX40-U	1000BASE-BX-U BiDi SFP 40Km	1000BASE-BX-U SFP, single fiber, 40Km Industrial Temp
MGBIC-BX120-D	1000BASE-BX-U BiDi SFP 120Km	1000BASE-BX-D SFP, single fiber, 120Km Industrial Temp
MGBIC-BX120-U	1000BASE-BX-U BiDi SFP 120Km	1000BASE-BX-U SFP, single fiber, 120Km Industrial Temp
10060	100FX/1000LX SFP	100FX/1000LX SFP, SMF, LC Connector, 100BASE-LX 10km / 100BASE-FX 2Km / 1000BASE-LX 10Km, Dual Rate (Requires MCP and 6dB Attenuator for 100FX-MMF Operation) (not supported on X620-16t or X620-16p combo ports)
10063	100FX SFP	100Mb, 100BASE-FX, MMF 2Km, LC (not supported on X620-16t or X620-16p combo ports)
10070H	10/100/1000BASE-T SFP, Hi	10/100/1000BASE-T, SFP, CAT 5 cable 100m, RJ-45 Connector, Industrial Temp (1Gb speed only on X620) (not supported on X620-16t or X620-16p combo ports)

\* 10307 supported only in X620-16t and X620-16p models in SFP+ combo ports 13-16.

\*\*10338 supported with configuration of every other SFP+ port in system, up to 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. 10338 is not supported in combo ports of the X620-16t and X620-16p.

Note: See the ExtremeXOS Hardware/Software Compatibility and Recommendation Matrices document for a full list of supported devices and ExtremeXOS release recommendations.

ExtremeCloud Management - 17401, the X620-16x switch, is Cloud ready for use with ExtremeCloud. For details and ordering part numbers for ExtremeCloud Management, see the [ExtremeCloud Data Sheet](#).

## Power Cords

In support of the Extreme Networks Green Initiatives, power cords can be ordered separately but need to be specified at the time of order. Please refer to [www.extremenetworks.com/product/powercords/](http://www.extremenetworks.com/product/powercords/) for details on power cord availability for this product.

## Warranty

Limited Lifetime with eAHR - 2.

For warranty details, visit:

<http://www.extremenetworks.com/go/warranty>



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

©2020 Extreme Networks, Inc. All rights reserved. Extreme Networks and the Extreme Networks logo are trademarks or registered trademarks of Extreme Networks, Inc. in the United States and/or other countries. All other names are the property of their respective owners. For additional information on Extreme Networks Trademarks please see <http://www.extremenetworks.com/company/legal/trademarks>. Specifications and product availability are subject to change without notice. 10436-0620-09