

X620 Series

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
- Centralized management via ExtremeCloud™ IQ - Site Engine
- Advanced command line interface

Flexible System Configurations

- 10GBASE fiber connectivity
- Wide range of port speeds from 100Mb to 10Gb
- 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 airflow options

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

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



10Gb Edge Ethernet Switch

The X620 product family are compact 10Gb Ethernet switches designed for high-speed edge applications in a small 1RU form factor. The 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 many networking products. The high availability ExtremeXOS operating system provides simplicity and ease of operation through the use of one OS everywhere in the network.

X620 Models

- X620-16x – 16 100Mb/1Gb/10Gb SFP+ ports using hot-swappable power supplies and fan modules
- X620-10x – 10 100Mb/1Gb/10Gb SFP+ ports 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 10Gb Ethernet Optics and passive and active cables can be used in the SFP+ ports for stacking X620s using SummitStack-V. X620 SummitStack-V is compatible with X440-G2, X450-G2, X460-G2, X670-G2, and X770 switches running the same version of ExtremeXOS.

Product Specifications

X620 16 Port Models

	X620-16x	X620-10x
Ports	<ul style="list-style-type: none"> 16 x 100Mb/1Gb/10GBASE-X SFP+ ports 1 x Serial console port RJ-45 1 x 10/100/1000BASE-T out-of-band management port USB 2.0 port 	<ul style="list-style-type: none"> 10 x 100Mb/1Gb/10GBASE-X SFP+ ports 1 x Serial console port RJ-45 1 x 10/100/1000BASE-T out-of-band management port USB 2.0 port
Power Supplies	<ul style="list-style-type: none"> Modular 300W power supply (up to two PSUs) AC and DC power options Mixed AC and DC configuration Front-Back or Back-Front airflow options 	<ul style="list-style-type: none"> Integrated 100W AC PSU RPS connector for external redundant PSU Side to side airflow
Dimensions	17 in W / 17.4 in D / 1.7 in H (43.1 cm / 44.1 cm / 4.4 cm)	12 in W / 10.3 in D / 1.7 in H (30.48 cm / 26.2 cm / 4.3 cm)
Weight	11.1 lb / 5.0 kg (base system)	6.04 lb / 2.74 kg
Performance	Line rate 320Gbps/ 238Mpps 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°C - 50°C operation 10% to 95% relative humidity, non-condensing 0-3000 meters altitude Shock (half sine): 30 m/s ² (3G), 11 ms, 6 shocks Random vibration: 3Hz to 500Hz at 1.5 G rms	

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 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)
X620-16x	111 BTU/hr	33W	214 BTU/hr	63W
X620-16x(DC)	80 BTU/hr	23W	180 BTU/hr	53W
X620-10x	60 BTU/hr	18W	123 BTU/hr	36W

Power Supply Specifications

Model	300WAC PSU 10930A/ 10943 X620-16x	300W DC PSU 10933/ 10944 X620-16x	Fixed Internal PSU X620-10x
Dimensions	3.09 in W / 10.9 in D / 1.06 in H (7.8 cm / 27.7 cm / 2.7 cm)	3.09 in W / 10.9 in D / 1.06 in H (7.8 cm / 27.7 cm / 2.7 cm)	Internal
Weight	2.3 lb / 1 kg	2.35lb / 1.1 kg	Internal
Voltage Input Range	100- 240 VAC +/- 10%	+24/-48VDC -15% +20%	100- 240 VAC +/- 10%
Line Frequency Range	50Hz - 60Hz +/- 5%	N/A	50Hz - 60Hz +/- 5%
PSU Input Socket	IEC320 C14	Terminal Block	IEC320 C14
Power Cord Input Plug	IEC 320 C13	N/A	IEC 320 C13
Operating Conditions	0°C – 50°C Operation		

Acoustic Specifications

Switch Model	Bystander Sound Pressure	Declared Sound Power
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)
X620-10x (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)

Other Specifications

Environmental Specifications

- EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage
- EN/ETSI 300 019-2-2 v2.1.2 - Class 2.3 Transportation
- EN/ETSI 300 019-2-3 v2.1.2 - Class 3.1e Operational
- EN/ETSI 300 753 (1997-10) - Acoustic Noise
- ASTM D3580 Random Vibration Unpackaged 1.5 G

Environmental Compliance

- EU RoHS 2011/65/EU
- EU WEEE 2012/19/EU
- China RoHS SJ/T 11363-2006

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: 5Hz to 62Hz at velocity 5 mm/s, 62Hz to 500Hz at 0.2 G
- Packaged Random Vibration: 5Hz to 20Hz at 1.0 ASD w/-3 dB/oct. from 20Hz 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

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

International EMC Certifications

- CISPR 22:2006 Ed 5.2, Class A (International Emissions)
- CISPR 24:A2:2003 Class A (International Immunity)
- IEC 61000-4-2:2008/EN 61000-4-2:2009 Electrostatic Discharge, 8kV Contact, 15 kV Air, Criteria A
- IEC 61000-4-3:2008/EN 61000-4-3:2006+A1:2008 Radiated Immunity 10V/m, Criteria A
- IEC 61000-4-4:2004 am1 ed.2./EN 61000-4-4:2004/A1:2010 Transient Burst, 1 kV, Criteria A
- IEC 61000-4-5:2005/EN 61000-4-5:2006 Surge, 2 kV L-L, 2 kV L-G, Level 3, Criteria A
- IEC 61000-4-6:2008/EN 61000-4-6:2009 Conducted Immunity, 0.15-80 MHz, 10V/m unmod. RMS, Criteria A
- IEC/EN 61000-4-11:2004 Power Dips & Interruptions, >30%, 25 periods, Criteria C

Country Specific

- VCCI Class A (Japan Emissions)
- ACMA 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 802.3u, 100Base-FX

Ordering Information

Modular 16 Port X620 Systems – Non-PoE

Part Number	Product Name	Product Description
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
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
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

Fixed 10-Port X620 Systems and Optional Redundant Power Systems (Rack mount kits included)

Part Number	Product Name	Product Description
17404	X620-10x-Base	X62010 100Mb/1Gb/10GBASE-X SFP+ ports, integrated power supply and fans, ExtremeXOS Edge license

Optional Redundant Power Systems and Accessories

Part Number	Product Name	Product Description
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

Firmware Licenses – All Models

Part Number	Product Name	Product Description
17431	X620 Adv Edge License	ExtremeXOS Advanced Edge License for X620 switches
17433	X620 AVB License	ExtremeXOS 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)

Power Cords

In support of Extreme Networks green initiatives, power cords are not included with the X620 but can be ordered separately. They should be specified at time of ordering.

Warranty

All X620 Series models are covered under Extreme's Universal LLW policy. For warranty details, visit: <http://www.extremenetworks.com/support/policies>

Optics / Transceivers

For a list of the optics/transceivers supported on the X620 Series hardware, refer to our Extreme Optics Compatibility Tool at <https://optics.extremenetworks.com>.

Maintenance Services

Extreme's maintenance and support services with 100% in-sourced engineering experts and over 90% first-person resolution ensure efficient operation of your business- essential network. 24x7x365 phone support, advanced parts 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.



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