

ExtremeSwitching™ X620

10Gb Edge Ethernet Switch

HIGHLIGHTS

FAMILY OF 10GB EDGE SWITCHES WITH ADVANCED ENTERPRISE CAPABILITIES

- Full featured ExtremeXOS® operating system with advanced features supporting switching, edge L3 routing, SDN, Data Center Bridging, and Audio Video Bridging applications
- SummitStack-V flexible stacking

EASE OF USE - FLEXIBLE MANAGEMENT OPTIONS

- Integrated web based management application
- Enterprise Extreme Control Center management application
- Advanced command line interface

FLEXIBLE SYSTEM CONFIGURATIONS

- 10GBASE-T and 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

MODULAR 16 PORT 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
- Desktop and rack mount options

LIMITED LIFETIME WARRANTY



Product Overview

INTELLIGENT 10GB EDGE SWITCHING

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, Provider Bridges, bidirectional ingress and egress Access Control Lists, and bandwidth control by 8 Kbps granularity both for ingress and egress. 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-X SFP+ 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.

MODEL	X620-16x	X620-16t	X620-10x	X620-8t-2x
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"> 12 x 100Mb / 1Gb / 10GBASE-T ports with EEE 4 x 100Mb/1Gb/10GBASE-T with EEE shared with 4 x 1Gb/10GBASE-X SFP+ (with 10GBASE-LRM support) 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 * 	<ul style="list-style-type: none"> 8 x 100Mb/1Gb/10GBASE-T with EEE 2 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 Mix AC and DC configuration F-B or B-F airflow options 	<ul style="list-style-type: none"> Modular 300W power supply (up to two PSUs) AC and DC power options Mix AC and DC configuration F-B or B-F airflow options 	<ul style="list-style-type: none"> Integrated 100W AC PSU RPS connector for external redundant PSU Side to side airflow (Left to Right) 	<ul style="list-style-type: none"> Integrated 100W AC PSU RPS connector for external redundant PSU Side to side airflow (Left to Right)
DIMENSIONS	17in W / 17.4in D / 1.7in H (43.2cm / 44.2cm / 4.3cm)	17in W / 17.4in D / 1.7in H (43.2cm / 44.2cm / 4.3cm)	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	11.11 lbs / 5.04 Kg (base system)	12.04 lbs / 5.46 Kg (base system)	6.04 lbs / 2.74 Kg	6.37 lbs / 2.89 Kg
PERFORMANCE	Line Rate 320Gbps Switching Capacity	Line Rate 320Gbps Switching Capacity	Line Rate 200Gbps Switching Capacity	Line Rate 200Gbps Switching Capacity
CPU / MEMORY	<ul style="list-style-type: none"> 1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory 	<ul style="list-style-type: none"> 1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory 	<ul style="list-style-type: none"> 1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory 	<ul style="list-style-type: none"> 1GHz CPU 1GB DDR3 ECC memory 4GB eMMC Flash memory
PACKET BUFFERS	2MB	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 ² (3 G), 11 ms, 6 shocks Random vibration: 3 to 500 Hz at 1.5 G rms			

* USB port supported in a future release

** 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 operating temperature

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

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 & 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 (802.1Qaz & 802.1Qbb)
 - 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)	MAXIMUM HEAT DISSIPATION (BTU/HR) (FANS HIGH ALL PORTS 100% TRAFFIC)	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
X620-8t-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	300W DC PSU 10933 / 10944	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)	Internal
WEIGHT	2.3 lbs / 1 kg	2.35 lbs / 1.1 kg	Internal
VOLTAGE INPUT RANGE	100 - 240 VAC +/- 10%	+24/-48 VDC -15% +20%	100 - 240 VAC +/- 10%
LINE FREQUENCY RANGE	100 - 240 VAC +/- 10%	N/A	50 - 60 Hz +/- 5%
PSU INPUT SOCKET	IEC 320 C14	Terminal Block	IEC 320 C14
POWER CORD INPUT PLUG	IEC 320 C13	N/A	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)
X620-8t-2x (Left-Right 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 (Left-Right 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/s² (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

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

PART NUMBER	PRODUCT NAME	PRODUCT DESCRIPTION
MODULAR 16 PORT X620 SYSTEMS		
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 X620-16x and X620-16t, Front to Back airflow
10946	Fan Module BF	Fan module for X620-16x and X620-16t, 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 AC PSU XT	300W DC power supply for X620-16x and X620-16t, Back to Front 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.		
FIXED 10 PORT X620 SYSTEMS AND REDUNDANT POWER SYSTEMS		
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
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	External Power System Cable (1M with 2x7 pin) that connects EPS-C2 to X620 for providing redundant power
10939	EPS-CBL-2x7	External Power System Cable (1M with 2x7 pin) that connects EPS-C2 to X620 for providing redundant power
FIRMWARE LICENSES		
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
11011	Direct Attach Feature Pack	ExtremeXOS Direct Attach Feature Pack
OPTICAL TRANSCEIVERS AND CABLES		
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 SFP+ DWDM Tunable
10303*	SFP+ LRM Module	10 Gigabit Ethernet SFP+ module, 1310nm, legacy MMF 220m link, LC connector* (only supported with X620-16t SFP+ combo ports)
10GB-BX40-D	10 GB, SINGLE FIBER SM, -D 40 KM	10Gb, Single Fiber SM, Bidirectional, Downstream, 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, Upstream, 40Km, Simplex LC SFP+ (must be paired with 10GB-BX40-D)
10GB-BX10-D	10 GB, SINGLE FIBER SM, -D 10 KM	10Gb, Single Fiber SM, Bidirectional, Downstream, 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, Upstream, 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

PART NUMBER	PRODUCT NAME	PRODUCT DESCRIPTION
OPTICAL TRANSCEIVERS AND CABLES (CONT.)		
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 length of 10m *(only supported with X620-16t SFP+ combo ports)
10051H	1000BASE-SX SFP, Hi	1000BASE-SX SFP, MMF 220 and 550 meters, LC connector, Industrial Temp
10052H	1000BASE-LX SFP, Hi	1000BASE-LX SFP, MMF 220 and 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 combo SFP+ ports)
10063	100FX SFP	100Mb, 100BASE-FX, MMF 2Km, LC (not supported on X620-16t combo SFP+ 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)

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

POWER CORDS

In support of the Extreme Networks Green Initiatives, power cords can be ordered separately but need to be specified at the time order. Please refer to 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> / Phone +1-408-579-2800

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