

5120 Series Switches



Highlights

- Manageable by Extreme Platform ONE™, ExtremeCloud™ IQ, or ExtremeCloud IQ Site Engine
- Powered uniquely by Switch Engine Operating System
- Extreme Platform ONE Security policy enforcement
- Automated and streamlined switch provisioning and day-to-day operations with cloud-based instant actions
- 24- and 48-port stackable 10Gb aggregation switches with 25Gb and 100Gb uplinks
- 10Gb copper and 10Gb Fiber models in 24 port switches providing cost-optimized and flexible connectivity options
- High-Performance stacking enables multi-switch resiliency and simplified management at scale

Key Hardware Features

- 24 x 10Gb SFP+ switch with 4 x 25G SFP28 uplinks
- 24 x 10GBase-T switch with 4 x 25G SFP28 uplinks
- 44 x 10Gb SFP+, 4 x 10G/25G SFP28 with 2 x 100G QSFP28 uplinks
- Stacking of up to eight switches
- Hot-swappable, redundant AC power supplies and fans
- Front to Back and Back to Front cooling options
- Line rate MACsec on all ports for secure link encryption**



Edge/Aggregation Switches

The 5120 Series is a family of 10Gb edge/aggregation switches enabling flexible and cost optimized connectivity to end devices and edge stacks. These switches are primarily targeted for solutions requiring 10Gb connectivity to end devices such as video encoders/decoders and other IoT devices. These switches can also be deployed in typical campus networks to aggregate edge stacks while providing high speed uplinks to upstream L3 switches/routers.

10Gb Copper and 10Gb Fiber switch models enable flexible connectivity options for a wide variety of use cases. The 24-port switches come with 4 x 25Gb fixed uplinks, while the 48-port switch offers 2 x 100Gb fixed uplinks, along with 4 x 25Gb ports. The 5120 switches can stack between themselves using the 4 x 25Gb ports or the 2 x 100Gb ports.

The 5120 switches will support line rate MACsec on all the ports offering 256-bit MACsec encryption for secure connectivity to end devices and uplinks.**

Front-to-Back and Back-to-Front cooling options enable the 5120 switches for deployment in data centers as well for management port connectivity of the servers and switches.

** Roadmap Item – Planned for future release

Network Management Flexibility

The 5120 Universal Switch series are managed by Extreme Platform ONE or ExtremeCloud IQ from the cloud or on premises. Alternatively, 5120 on-box management can be done manually via a web-based GUI or generic command-line interface (CLI).

Extreme Platform ONE™

Extreme Platform ONE is an enterprise connectivity platform that integrates networking and security with AI into one powerful and radically simplified experience and licensing model. It supports NetOps, SecOps, and business teams with built-in automation and enables organizations to regain control, unlock innovation, and boost productivity through:

- One integrated experience that is easy to use.
- Automation through built-in AI that boosts productivity, reducing cycle time for many tasks from hours to minutes.
- Simplified licensing that makes the solution as easy to buy as it is to use.
- AI-assisted workflows for configuration, deployment, and management.
- Inventory management simplifies budgeting, planning and compliance.

High-Performance Stacking

The 5120 Series supports high-speed stacking when running Switch Engine via its two built-in QSFP28 stacking ports. Up to eight switches can be stacked using qualified SFP+/QSFP28 direct attach cables and optical transceivers.

Instant Onboarding

5120 Series onboarding to the cloud is a hands-off operation using zero touch provisioning. Simply unpack the 5120 Series switch, connect it to the network, and it automatically connects to the cloud, ready to be provisioned. New switches can be configured, one-by-one, with a few clicks. Instant Port, Instant Secure Port, and Instant Stack all further reduce time spent on deployment.

Instant Port*

Instant Port automates adds, moves or changes across 5120 Series switch ports, eliminating the need for manual port configuration. The 5120 Series automatically detects the connected device and applies the correct port parameters. The result is significant time savings when adding or moving devices across the 5120 Series wired network. A simple cloud interface allows Instant Port definitions of customer designated device types which can then be applied across a single switch, a stack, or even all 5120 Series switches in the network.

Audio Video Bridging

The 5120 series will support IEEE 802.1 Audio Video Bridging* when running Switch Engine OS. This allows 5120 models to deliver reliable, real-time audio/video transmission over Ethernet, meeting the quality of service required for today's high-definition, time-sensitive multimedia streams.

*Audio Video Bridging is a roadmap item and planned for a future release

Security

Extreme Universal hardware enables the extension and enforcement Extreme Platform ONE Security policies. Wherever users connect through the network, their access is secure and segmented. Extreme Platform ONE Security, which combines zero trust network and application access into a single solution, automatically configures devices to enforce security policies with one click.

Instant Secure Port*

Instant Secure Port leverages Extreme Platform ONE Security for authentication and zero trust policy enforcement across the 5120 Series switch ports, while providing the same add, move, and change automation features of Instant Port. By using Extreme Platform ONE Security's cloud-based capabilities, including RADIUS (Remote Authentication Dial-In User Service), unified visibility and reporting, as well as policy enforced locally on 5120 Series ports, it greatly simplifies switch security. In doing so, it delivers a consistent and frictionless security experience for any user or device connecting through the 5120 Series switch.

Note: Extreme Platform ONE Security requires a separate license.

Instant Stack*

Instant Stack simplifies cloud-based stack provisioning, enabling the entire switch stack to be set up through a single push-button operation. Real-world stack information, including each switch model and their stack order is captured and replicated in the cloud. Once set up, the entire stack is then ready to be cloud provisioned.

*Supported via Switch Engine Only

External Interfaces

Switch Model	Interfaces
5120-24X-4Y	<ul style="list-style-type: none"> • 24 x 100M*/1G/10GbE SFP+ ports • 4 x 1/10/25GbE SFP28 ports (includes 2 stacking ports) • 1 x Serial console port (RJ-45), 1 x USB Micro-B console port • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB A ports for management or external USB flash
5120-24XT-4Y	<ul style="list-style-type: none"> • 24 x 100M*/1G/10GBASE-T ports • 4 x 1/10/25GbE SFP28 ports (includes 2 stacking ports) • 1 x Serial console port (RJ-45), 1 x USB Micro-B console port • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB A ports for management or external USB flash
5120-44X-4Y-2C	<ul style="list-style-type: none"> • 44 x 100M*/1G/10GbE SFP+ ports • 4 x 1/10/25GbE SFP28 ports (includes 2 stacking ports) • 2 x Stacking/QSFP28 ports (unpopulated) <ul style="list-style-type: none"> ◦ 100GbE ports can be channelized as 4x25G or 4x10G ports • 1 x Serial console port (RJ-45), 1 x USB Micro-B console port • 1 x 10/100/1000BASE-T out-of-band management port • 1 x USB A ports for management or external USB flash

*100M support will be available only on the first 12 ports of the switch with 100Base-Fx transceiver (part #10063). Half Duplex will not be supported on any port.

Performance and Scaling

Switch Model	Max Active 1Gb/10Gb ports	Max Active 1Gb/10Gb SFP+ ports	Max Active 1/10/25Gb SFP28 ports	Max Active 100Gb QSFP28 ports	Max Active 25Gb Stacking ports	Max Active 50Gb Stacking ports	Aggregated Switch Bandwidth	Frame Forwarding Rate
5120-24X-4Y	-	24	4	-	2	-	680 Gbps	506 Mpps
5120-24XT-4Y	24	-	4	-	2	-	680 Gbps	506 Mpps
5120-44X-4Y-2C	-	44	4	2	2	2	1480 Gbps	1101 Mpps

Software Scaling

Switch Engine

- MAC Table: 16,000
- VLANs: 4,094
- IPv4 ARP Table: 400
- IPv4 Route Table: 64
- IP Multicast Entries (S,G,V): 150
- IPv6 Neighbor Table: 200
- IPv6 Route Table: 32
- Routed VLANs: 125
- ACL (Ingress/Egress): 1,024/256

One Policy Scaling

- Policy Profiles: 63
- Unique permit/deny rules per switch: 184

Weights and Dimensions

Switch Model	Weight*	Physical Dimensions
5120-24X-4Y	5.89 kg (12.98 lb.)	Height: 43.18 mm (1.7 in.) Width: 40.44 mm (1.734 in.) Depth: 33.32 mm (1.06 in.)
5120-24XT-4Y	5.89 kg (12.98 lb.)	Height: 43.18 mm (1.7 in.) Width: 40.44 mm (1.734 in.) Depth: 33.32 mm (1.06 in.)
5120-44X-4Y-2C	6.09 kg (13.43 lb.)	Height: 43.18 mm (1.7 in.) Width: 40.44 mm (1.734 in.) Depth: 33.32 mm (1.06 in.)

*Switch weights include fans but no PSUs

Power Supply Unit Specifications

	XN-ACPWR-550W-FB-A	XN-ACPWR-550W-BF-A
Voltage Input Range (Nominal)	100VAC-127VAC / 200VAC-240VAC	100VAC-127VAC / 200VAC-240VAC
Line Frequency Range	50 Hz to 60 Hz	50 Hz to 60 Hz
Power Supply Input Socket	IEC/EN 60320 C14	IEC/EN 60320 C14
Power Cord Input Plug	IEC/EN 60320 C13	IEC/EN 60320 C13

* 200VAC-240VAC is required to achieve full 2000W output. If run at 100VAC-120VAC, output is limited to 1100W.

Minimum/Maximum Power Consumption and Heat Dissipation

Switch Model	Minimum Power Consumption (W)	Minimum Heat Dissipation (BTU/hr)	Maximum Power Consumption (W)	Maximum Heat Dissipation (BTU/hr)
5120-24X-4Y	29.95	102.10	172.82	589.69
5120-24XT-4Y	36.78	125.49	173.09	590.62
5120-44X-4Y-2C	61.6	210.18	315.52	1076.60

Fan and Acoustic Noise

Switch Model	Acoustic Information	
5120-24X-4Y	Bystander Sound Pressure <ul style="list-style-type: none"> • Typical F2B @35°C 50dB(A) • Maximum F2B @50°C 55.8dB(A) • Typical B2F @35°C 58.6dB(A) • Maximum B2F @50°C 62.6dB(A) 	Sound Power <ul style="list-style-type: none"> • Typical F2B @35°C 6.3B(A) • Maximum F2B @50°C 6.7B(A) • Typical B2F @35°C 6.1B(A) • Maximum B2F @50°C 7.3B(A)
5120-24XT-4Y	Bystander Sound Pressure <ul style="list-style-type: none"> • Typical F2B @35°C 49.8dB(A) • Maximum F2B @50°C 62.7dB(A) • Typical B2F @35°C 48.5dB(A) • Maximum B2F @50°C 77.1dB(A) 	Sound Power <ul style="list-style-type: none"> • Typical F2B @35°C 6.3B(A) • Maximum F2B @50°C 7.4B(A) • Typical B2F @35°C 6.1B(A) • Maximum B2F @50°C 8.8B(A)
5120-44X-4Y-2C	Bystander Sound Pressure <ul style="list-style-type: none"> • Typical F2B @35°C 50.7dB(A) • Maximum F2B @50°C 69.8dB(A) • Typical B2F @35°C 50.2dB(A) • Maximum B2F @50°C 79.8dB(A) 	Sound Power <ul style="list-style-type: none"> • Typical F2B @35°C 6.5B(A) • Maximum F2B @50°C 8.1B(A) • Typical B2F @35°C 6.2B(A) • Maximum B2F @50°C 9.0B(A)

Typical:

- Single PSU, 75% loaded with 10G SR optics
- Ambient Temperature 0°C to 35°C
- Traffic @50% load on all ports
- Target Bystander Sound Pressure: <55dB(A), <65dB(A) BTF

Maximum:

- Dual PSU, 100% loaded with 10G SR optics
- Ambient Temperature – Up to maximum operating temperature
- Traffic @70% load on all ports

Product Specifications

Environmental

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
- EU REACH – Regulation (EC) No 1907/2006 – Reporting
- China RoHS – SJ/T 11363-2006
- Taiwan RoHS – CNS 15663(2013.7)

Environmental Operating Conditions

- Temp: 0° C to 50° C (32° F to 122° F)
- Humidity: 5% to 95% relative humidity, non-condensing
Altitude: 0 to 3,000 meters (9,850 feet)
- Shock (half sine) 98m/s² (10G), 11 ms, 18 shocks
- Random vibration: 3 Hz to 500 Hz at 1.5 G rms

Packaging and Storage Specifications

- Temp: -40° C to 70° C (-40° F to 158° F)
- Humidity: 5% to 95% relative humidity, non-condensing
- Packaged Shock (half sine): 180 m/s² (18 G), 6 ms, 600 shocks
- Packaged Vibration: 5 Hz to 62 Hz at velocity 5 mm/s, 62 Hz to 500 Hz at 0.2 G
- Packaged Random Vibration: 5 Hz to 20 Hz at 1.0 ASD w/3dB/oct. from 20 Hz to 200 Hz
- Packaged Drop Height: 14 drops minimum on sides and corners at 42 inches (<15 kg box)

Energy Star Certified Models*

- 5120-24X-4Y
- 5120-24XT-4Y
- 5120-24X-4Y-AC-F
- 5120-24XT-4Y-AC-F
- 5120-24X-4Y-AC-R
- 5120-24XT-4Y-AC-R



* Energy Star Models must be ordered with Air Temp sensor ESTS01

Regulatory and Safety

North American ITE

- UL 60950-1
- UL/CuL 62368-1 Listed
- Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)
- CDRH Letter of Approval (US FDA Approval)
- CAN/CSA 22.2 No. 60950-1

European ITE

- EN 60950-1, EN 62368-1
- EN 60825-1 Class 1 (Lasers Safety)
- 2014/35/EU Low Voltage Directive

International ITE

- CB Report and Certificate per IEC 60950-1 IEC 62368-1

EMI/EMC Standards

North American EMC for ITE

- FCC CFR 47 Part 15 Class A (USA)
- CB Report and Certificate IEC 62368-1
- RoHS Directive 2011/65/EU
- AS/NZS 60950-1 (Australia /New Zealand)

European EMC Standards

- EN 55035
- EN 55032 Class A
- EN 55024
- EN 55011
- EN 61000-3-2,2014 (Harmonics)
- EN 61000-3-3 2013 (Flicker)
- EN 300 386 (EMC Telecommunications)
- 2014/30/EU EMC Directive

International EMC Certifications

- CISPR 32, Class A (International Emissions)
- AS/NZS CISPR32
- CISPR 24 Class A (International Immunity)
- IEC 61000-4-2/EN 61000-4-2 Electrostatic Discharge, 8kV Contact, 15 kV Air, Criteria B
- IEC 61000-4-3 /EN 61000-4-3 Radiated Immunity 10V/m, Criteria A
- IEC 61000-4-4/EN 61000-4-4 Transient Burst, 1 kV, Criteria AB
- IEC 61000-4-5 /EN 61000-4-5 Surge, 2 kV L-L, 2 kV L-G, Level 3, Criteria B
- IEC 61000-4-6 Conducted Immunity, 0.15-80MHz, 10V/m unmod. RMS, Criteria A
- IEC/EN 61000-4-11 Power Dips & Interruptions, >30%, 25 periods, Criteria C

Country Specific

- VCCI Class A (Japan Emissions)
- ACMA RCM (Australia Emissions)
- CCC Mark (China)
- KCC Mark, EMC Approval (Korea)
- EAC Mark (Custom Union)
- NRCS (South Africa)
- BSMI Mark (Taiwan)
- Anatel (Brazil)
- NoM (Mexico)

Ordering Notes

Customers ordering a 5120 Series switch receive the hardware switch along with a Base software license and integrated power supply. Optical transceivers, console cables, power cords, Premier licenses, and MACsec licenses must be ordered separately.

Base Software and Optional Premier License

The Base software included with each 5120 unit supports most available software features. Certain features, however, require a Premier License to operate. A Premier license is available in two forms – a perpetual license or included as part of an Extreme Platform ONE Standard subscription license.

For Switch Engine, a Premier License is required for:

- 5 or more OSPF interfaces
- PIM DM/PIM SSM
- Anycast RP (Rendezvous Point)
- Multicast Source Discovery Protocol (MSDP)
- IS-IS/BGP4/MBGP
- GRE Tunneling
- Ethernet VPN (EVPN)

Ordering Information

Base Chassis

Part Number	Product Name	Description
5120-24X-4Y	5120-24X-4Y, No PS, No Fans	5120 24 port stackable switch with 24 x 1G/10G SFP+ ports, 4x10G/25G SFP28 ports, 4 unpopulated fan slots, 2 unpopulated modular PSU slots
5120-24XT-4Y	5120-24XT-4Y, No PS, No Fans	5120 24 port stackable 24 x 1G/10GBase-T Non-PoE ports, 4x10G/25G SFP28 ports, 4 unpopulated fan slots, 2 unpopulated modular PSU slots
5120-44X-4Y-2C	5120-44X-4Y-2C, No PS, No Fans	5120 48 port stackable switch with 44 x 1G/10G SFP+ ports, 4 x 10G/25G SFP28 ports, 2x100G QSFP28 Universal/Stack ports, 6 unpopulated fan slots, 2 unpopulated modular PSU slots
5120-24X-4Y-TAA	5120-24X-4Y, No PS, No Fans TAA	5120 stackable switch with 24 x 1G/10G SFP+ ports, 4 x 10G/25G SFP28 ports, 4 unpopulated fan slots, 2 unpopulated modular PSU slots TAA Compliant
5120-24XT-4Y-TAA	5120-24XT-4Y, No PS, No Fans TAA	5120 stackable switch with 24 x 1G/10GBase-T Non-PoE ports, 4x10G/25G SFP28 ports, 4 unpopulated fan slots, 2 unpopulated modular PSU slots TAA Compliant
5120-44X-4Y-2C-TAA	5120-44X-4Y-2C, No PS, No Fans TAA	5120 stackable switch with 44 x 1G/10G SFP+ ports, 4 10G/25G SFP28 ports, 2x100G QSFP28 Universal/Stack ports, 6 unpopulated fan slots, 2 unpopulated modular PSU slots TAA Compliant

Bundles

Part Number	Product Name	Description
5120-24X-4Y-AC-F	5120-24X-4Y with 1 AC PS, 4 Fans FB	5120 stackable switch with 24 x 1G/10G SFP+ ports, 4 x 10G/25G SFP28 ports, 4 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot, Front to Back airflow
5120-24XT-4Y-AC-F	5120-24XT-4Y with 1 AC PS, 4 Fans FB	5120 stackable switch with 24 x 1G/10GBase-T Non-PoE ports, 4 x 10G/25G SFP28 ports, 4 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot, Front to Back airflow
5120-44X-4Y-2C-AC-F	5120-44X-4Y-2C with 1 AC PS, 6 Fans FB	5120 stackable switch with 44 x 1G/10G SFP+ ports, 4 x 10G/25G SFP28 ports, 2 x 100G QSFP28 Universal/Stack ports, 6 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot, Front to Back airflow
5120-24X-4Y-AC-R	5120 24prt 10G SFP+ 1AC PS, 4 Fans BF	5120 24 port stackable switch with 24 x 1G/10G SFP+ ports, 4 x 10G/25G SFP28 ports, 4 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot, Back to Front airflow
5120-24XT-4Y-AC-R	5120 24prt 10GBase-T 1AC PS, 4 Fans BF	5120 24 port stackable switch with 24 x 1G/10GBase-T Non-PoE ports, 4 x 10G/25G SFP28 ports, 4 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot, Back to Front airflow
5120-44X-4Y-2C-AC-R	5120 48prt 10G SFP+ 1 AC PS, 6 Fans BF	5120 48 port stackable switch with 44 x 1G/10G SFP+ ports, 4 x 10G/25G SFP28 ports, 2x100G QSFP28 Universal/Stack ports, 6 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot, Back to Front airflow
5120-24X-4Y-AC-F-TAA	5120-24X-4Y with 1 AC PS, 4 Fans TAA	5120 stackable switch with 24 x 1G/10G SFP+ ports, 4x10G/25G SFP28 ports, 4 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot TAA Compliant
5120-24XT-4Y-AC-F-TAA	5120-24XT-4Y with 1 AC PS, 4 Fans TAA	5120 stackable switch with 24 x 1G/10GBase-T Non-PoE ports, 4x10G/25G SFP28 ports, 4 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot TAA Compliant
5120-44X-4Y-2C-AC-F-TA	5120-44X-4Y-2C with 1 AC PS, 6 Fans TAA	5120 stackable switch with 44 x 1G/10G SFP+ ports, 4 x 10G/25G SFP28 ports, 2 x 100G QSFP28 Universal/Stack ports, 6 fans, 1 x 550W AC PSU, 1 unpopulated modular PSU slot TAA Compliant

Accessories

Part Number	Product Name	Description
XN-ACPWR-550W-FB-A	550W AC PSU FB	550 Watt AC Power Supply Module – Front to Back airflow
XN-ACPWR-550W-BF-A	550W AC PSU BF	550 Watt AC Power Supply Module – Back to Front airflow
XN-FAN-005-R	5120 Fan module BF Airflow	Fan module with Back to Front Airflow for use with 5120 switches
XN-FAN-005-F	5120 Fan module FB Airflow	Fan module with Front to Back Airflow for use with 5120 switches
XN-2P-RMKIT-014	2P Rack Mount for 5120 switches	Two-piece rack mount kit for 5120 switches, usable with 2 post or 4 post racks
XN-RJ45-DB9-CONSOLE-CBL	RJ45 to DB9 Console cable	RJ45 to DB9 console cable 6ft
XN-RJ45-USBA-CONSOLE-CBL	RJ45 to USBA Console cable	RJ45 to USB 2.0 Type A male console cable 6ft
XN-RJ45-USBC-CONSOLE-CBL	RJ45 to USBC Console cable	RJ45 to USB-C console cable 6ft

Software Licenses

Part Number	Product Name	Description
5000-PRMR-LIC-P	5000-PRMR-LIC-P	Premier License for 5000 Series switches
5000-MACSEC-LIC-P*	5000-MACSEC-LIC-P	MACsec license for the 5000 Series switches

*Roadmap Item – Planned for future release

Management Platform Software Subscriptions

Extreme Networks offers a simple, inclusive subscription program with Extreme Platform ONE. For additional details on subscriptions and product tiers, please refer to the [Extreme Platform ONE data sheet](#).

Warranty

All 5120 Series models are covered under Extreme's Universal LLW policy. For warranty details, please visit our [Policies and Warranties page](#).

Power Cords

In support of Extreme Networks green initiatives, power cords are not included with the 5120 but can be ordered separately. They should be specified at the time of ordering.

Console Cables

Console cables are not included with the 5120 in support of our green initiatives but can be ordered separately.

Optics/Transceivers

For a list of the optics and transceivers supported on the 5120 Series hardware, refer to our [Extreme Optics Compatibility Tool](#)

Maintenance Services

Extreme's maintenance and support services are provided by in-house engineering experts. We have a rate of over 90% first-person resolution, ensuring efficient operation of your business-essential network.

With 24x7x365 phone support, advanced parts replacement, and on-site support, we augment your staff with expert resources to help you mitigate critical network issues fast.

Visit [Extreme Maintenance Services](#) for more information.

Certifications

For information on Industry, Security, and Government certifications for 5120 Series models, contact your Sales Representative.

