5420 Series



Highlights

- Manageable by Extreme Platform ONE™, ExtremeCloud™ IQ or ExtremeCloud IQ Site Engine
- Fabric-enabled operations with Extreme Fabric for simplified and secure network provisioning and automation
- Choice of operating system (OS) with Universal Hardware
- Reduced mean time to resolution with AI
- ExtremeCloud Universal ZTNA policy enforcement
- Automated and streamlined switch provisioning and day-to-day operations with cloud-based instant actions

Key Hardware Features

- Fixed 24 and 48-port models with gigabit and multi-gigabit support
- 30W, 60W, and 90W PoE (Power over Ethernet) support for powering connected devices
- 4 x 1/10Gb SFP+ or 4 x 1/10/25Gb built-in uplink ports
- 80Gb per unit stacking of up to eight switches
- Secure link encryption with MACsec across both access and uplink ports
- Non-blocking wire speed design

Universal Edge Switches

The 5420 Series is a family of high-performance, feature-rich, stackable edge switches designed for the next-generation digital enterprise. Available in 24 and 48-port models, the 5420 features both gigabit and multi-gigabit (1/2.5G) versions with up to 90W PoE enabling it to be deployed across a range of edge and wiring-closet environments. As a universal hardware solution, the 5420 also offers a user-selectable choice of Extreme's flagship switch operating systems.

The 5420 Series consists of 5420M and 5420F families to address a variety of end-user needs and price points. 5420M models offer field-replaceable power supplies and fans as well as four 1/10/25Gb built-in uplink ports, while 5420F models offer fixed power supply (with support for a second field-replaceable power supply), fixed fans, and four 1/10Gb built-in uplink ports. All models provide 30/60/90W PoE capabilities making them an ideal wired back end for wireless APs or in support of Next Gen powered Ethernet devices, such as digital signage, pan-tilt-zoom cameras, smart lighting, or point-of-sale terminals.

Network Management Flexibility

The 5420 Universal Switch series are managed by Extreme Platform ONE or ExtremeCloud IQ from the cloud or on-premises. Alternatively, 5420 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.
- Extreme Fabric and third-party switch visualization and management in cloud.
- Inventory management simplifies budgeting, planning and compliance.

Audio Video Bridging

The 5420 Series supports IEEE 802.1 Audio Video Bridging (AVB) when running Switch Engine OS. This allows 5420 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.

MACsec Link Encryption

IEEE 802.1AE MACsec* is supported on 5420 access and built-in uplink ports, enabling the encryption and decryption of packets between connected switches or devices. As a link-only encryption, 5420 switches can still apply services to the packet, such as policy or QoS, without compromising the security of packets across the link. With 128-bit and 256-bit Advanced Encryption Standard (AES) support, the 5420 provides the most secure link encryption.

* Supported on specific hardware revisions; refer to the 5420 Hardware Installation Guide for details.

High-Performance Stacking

The 5420 Series supports high-speed stacking when running Switch Engine via its two built-in SFP-DD stacking ports. Up to eight switches can be stacked using qualified SFP+/SFP-DD direct attach cables and optical transceivers. Stacking is not supported when running Fabric Engine.

Power over Ethernet (PoE)

All 5420 models support 30W, 60W, and 90W PoE that conforms with IEEE 802.3bt. This enables the 5420 to address the needs of powered edge devices, while eliminating the need for additional electrical cabling and circuits. In addition, 5420 PoE models support perpetual and fast PoE for even more efficient and reliable powered edge device operation.

Universal Hardware

The 5420 comes with a dual-persona capability, allowing you to choose your Operating System (OS). Either the Switch Engine (EXOS) or Fabric Engine (VOSS) OS can be selected at switch start-up or changed at a later stage. When selected, the switch assumes the features and capabilities of that OS. 5420 OS selection can also be automated with Extreme Platform ONE or ExtremeCloud IQ so that the desired OS can be automatically loaded at switch start-up, facilitating remote OS enablement.

Security

Extreme Universal hardware enables the extension and enforcement of Fabric and Universal ZTNA policies. Wherever users connect through the network, their access is secure and segmented. ExtremeCloud Universal ZTNA, which combines zero-trust network and application access in one solution, automatically configures devices to enforce security policy consistently. When used in concert with Extreme Fabric, Universal ZTNA becomes part of the fabric services that automate segmentation and allow the network to flex for efficiency and resiliency while keeping security policy consistent end-to-end.

Network Fabric

The 5420 series switches support Extreme's network fabric natively for network virtualization, automation, and network security. Extreme Fabric is the industry's most simple, resilient, and secure end-to-end, enterprise network fabric solution. Fabric automates discovery and onboarding of network and user devices. Its sub-second convergence reduces unplanned downtime and maintenance windows. Automated micro-segmentation and stealth topology enhance and automate network security across campus, data center, and branch. Fabric is included free with the purchase of the 5420, no additional licenses or controllers are required.

Instant Onboarding

5420 Series onboarding to the cloud is a hands-off operation using zero touch provisioning. Simply unpack the 5420 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 5420 Series switch ports, eliminating the need for manual port configuration. The 5420 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 5420 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 5420 Series switches in the network.

Instant Secure Port*

Instant Secure Port leverages ExtremeCloud Universal ZTNA for authentication and zero-trust policy enforcement across the 5420 Series switch ports, while providing the same add, move, and change automation features of Instant Port. It simplifies 5420 Series security by using Universal ZTNA's cloud-based security capabilities, including RADIUS authentication, unified visibility and reporting, as well as policy enforced locally on 5420 Series ports. In doing so, it delivers a consistent and frictionless security experience for any user or device connecting through the 5420 Series switch. (Note: ExtremeCloud Universal ZTNA 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
5420F-24T-4XE	24 x 10/100/1000BASE-T ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports(unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420F-24P-4XE	24 x 10/100/1000BASE-T 802.3at (30W) ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports(unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420F-24S-4XE	24 x 100/1000BASE-X (SFP) ports (unpopulated) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports(unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420F-48T-4XE	48 x 10/100/1000BASE-T ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports(unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port

Switch Model	Interfaces
5420F-48P-4XE	48 x 10/100/1000BASE-T 802.3at (30W) ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports(unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420F-48P-4XL	48 x 10/100/1000BASE-T 802.3at (30W) ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports(unpopulated) • MACsec-capable • LRM-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420F-8W-16P-4XE	8 x 10/100/1000BASE-T 802.3bt (90W) ports • Full Duplex at 1000M, Full / Half-Duplex (autosensing) at 10/100M • MACsec-capable 16 x 10/100/1000BASE-T 802.3at (30W) ports • Full/Half-Duplex(autosensing) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports (unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420F-16W-32P-4XE	16 x 10/100/1000BASE-T 802.3bt (90W) ports • Full Duplex at 1000M, Full / Half-Duplex (autosensing) at 10/100M • MACsec-capable 32 x 10/100/1000BASE-T 802.3at (30W) ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports(unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port

Switch Model	Interfaces
5420F-16MW-32P-4XE	16 x 100M/1G/2.5GBASE-T 802.3bt (90W) ports • MACsec-capable 32 x 10/100/1000BASE-T 802.3at (30W) ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10Gb SFP+ uplink ports(unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420M-24W-24S-4YE	24 x 10/100/1000BASE-T 802.3bt (90W) ports • Full Duplex at 1000M, Full / Half-Duplex (autosensing) at 10/100M • MACsec-capable 24 x 100/1000BASE-X (SFP) ports (unpopulated) • MACsec-capable 4 x 1/10/25Gb SFP28 uplink ports (unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB C console port
5420M-24T-4YE	24 x 10/100/1000BASE-T ports • Full / Half-Duplex (autosensing) • MACsec-capable 4 x 1/10/25Gb SFP28 uplink ports (unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420M-24W-4YE	24 x 10/100/1000BASE-T 802.3bt (90W) ports • Full Duplex at 1000M, Full / Half-Duplex (autosensing) at 10/100M • MACsec-capable 4 x 1/10/25Gb SFP28 uplink ports (unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port

Switch Model	Interfaces
5420M-48T-4YE	48 x 10/100/1000BASE-T ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10/25Gb SFP28 uplink ports (unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420M-48W-4YE	48 x 10/100/1000BASE-T 802.3bt (90W) ports • Full Duplex at 1000M, Full / Half-Duplex (autosensing) at 10/100M • MACsec-capable 4 x 1/10/25Gb SFP28 uplink ports (unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port
5420M-16MW-32P-4YE	16 x 100M/1G/2.5GBASE-T 802.3bt (90W) ports • MACsec-capable 32 x 10/100/1000BASE-T 802.3at (30W) ports • Full / Half-Duplex(autosensing) • MACsec-capable 4 x 1/10/25Gb SFP28 uplink ports (unpopulated) • MACsec-capable 2 x Stacking/SFP-DD ports* (unpopulated) 1 x Serial console port (RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 2 x USB A ports for management or external USB flash 1 x USB Micro-B console port

* Notes on use of the 2 x Stacking/SFP-DD ports

1. With Switch Engine, the 2 x SFP-DD ports can be used either for stacking or as Ethernet uplink ports (when not stacking).
2. With Fabric Engine, the 2 x SFP-DD ports can be used as Ethernet uplinks when in non-Fabric mode.
3. SFP-DD ports support either 10Gb or 20Gb data rates with the use of appropriate transceivers/cables.
4. When used as uplinks, 5420M models support up to 2 x 10Gb channels on each SFP-DD port
5. When used as uplinks, 5420F models support a single 10Gb channel on each SFP-DD port.

Performance and Scale

5420F Performance and Scale

Switch Model	Max Active 10/100/1000Mb Ports	Max Active 100Mb/1Gb/ 2.5Gb Ports	Max Active 100Mb/1Gb SFP Ports	Max Active 1Gb/10Gb SFP+ Ports	Max Active 1Gb/10Gb/ 25Gb SFP28 Ports	Max Active 20Gb Stacking Ports***	Aggregated Switch Bandwidth	Frame Forwarding Rate
5420F-24T-4XE	24	0	0	6*	0	2	208Gbps	154.8Mpps
5420F-24P-4XE	24	0	0	6*	0	2	208Gbps	154.8Mpps
5420F-24S-4XE	0	0	24	6*	0	2	208Gbps	154.8Mpps
5420F-48T-4XE	48	0	0	6*	0	2	256Gbps	190.5Mpps
5420F-48P-4XE	48	0	0	6*	0	2	256Gbps	190.5Mpps
5420F-48P-4XL	48	0	0	6*	0	2	256Gbps	190.5Mpps
5420F-8W-16P-4XE	24	0	0	6*	0	2	208Gbps	154.8Mpps
5420F-16W-32P-4XE	48	0	0	6*	0	2	256Gbps	190.5Mpps
5420F-16MW-32P-4XE	32	16	0	6*	0	2	304Gbps	226.2Mpps

5420M Performance and Scale

Switch Model	Max Active 10/100/1000Mb Ports	Max Active 100Mb/1Gb/ 2.5Gb Ports	Max Active 100Mb/1Gb SFP Ports	Max Active 1Gb/10Gb SFP+ Ports	Max Active 1Gb/10Gb/ 25Gb SFP28 Ports	Max Active 20Gb Stacking Ports***	Aggregated Switch Bandwidth	Frame Forwarding Rate
5420M-24W-24S-4YE	24	0	24	8**	4	2	376Gbps	279.7Mpps
5420M-24T-4YE	24	0	0	8**	4	2	328Gbps	244.0Mpps
5420M-24W-4YE	24	0	0	8**	4	2	328Gbps	244.0Mpps
5420M-48T-4YE	48	0	0	8**	4	2	376Gbps	279.7Mpps
5420M-48W-4YE	48	0	0	8**	4	2	376Gbps	279.7Mpps
5420M-16MW-32P-4YE	32	16	0	8**	4	2	424Gbps	315.5Mpps

* Includes 2 x 1 /10G ports available using the SFP-DD ports when these ports are not used for stacking with Switch Engine, or when in non-Fabric mode with Fabric Engine

** Includes 4 x 1 /10Gb ports available through channelization of the 2 x SFP-DD ports when these ports are not used for stacking with Switch Engine, or when in non-Fabric mode with Fabric Engine. It also includes the 4 x SFP28 uplink ports when run at 1/10Gb

*** Switch Engine only: 20Gb stacking requires SFP-DD transceivers/cables; 10Gb stacking supported using SFP+ transceivers/cables

Software Scaling

5420F Series with Switch Engine

- MAC Table: 32,000
- IPv4 ARP Table: 16,000
- IPv4 Route Table: 12,000
- IP Multicast Entries (S,G,V): 6,000
- IPv6 Route Table: 6,000
- IPv6 Neighbor Table 6,000
- ACL (Ingress/Egress): 8,000/1,024
- QoS Egress Queues/Port: 8
- VLANs: 4,094
- IP Interfaces (aka Routed VLANs): 1,533

One Policy Scaling

- Policy Profiles: 63
- Unique Permit/deny rules per switch: 4,024

5420M Series with Switch Engine

- MAC Table: 64,000
- IPv4 ARP Table: 24,000
- IPv4 Route Table: 12,000
- IP Multicast Entries (S,G,V): 12,000
- IPv6 Route Table: 6,000
- IPv6 Neighbor Table 12,000
- ACL (Ingress/Egress): 18,000/1,024
- QoS Egress Queues/Port: 8
- VLANs: 4,094
- IP Interfaces (aka Routed VLANs): 1,533

One Policy Scaling

- Policy Profiles: 63
- Unique Permit/deny rules per switch: 8,120

5420F Series with Fabric Engine

- MAC Table: 16,000 (32,000 non-Fabric)
- IPv4 ARP Table: 8,000
- IPv4 Route Table: 11,750
- IP Multicast Entries (S,G,V): 4,000
- IPv6 Route Table: 5,750
- IPv6 Neighbor Table 8,000
- ACL (Ingress/Egress): 1,024/336
- QoS Egress Queues/Port: 8
- VLANs: 4,059
- IP Interfaces (aka Routed VLANs): 248

Fabric Connect Scaling

- Fabric Adjacencies per switch: 50
- BEB Nodes per VSN (I-SID): 500
- L2 VSNs: 512
- L3 VSNs: 64

5420M Series with Fabric Engine

- MAC Table: 32,000 (64,000 non-Fabric)
- IPv4 ARP Table: 24,000
- IPv4 Route Table: 11,750
- IP Multicast Entries (S,G,V): 4,000
- IPv6 Route Table: 5,750
- IPv6 Neighbor Table 16,000
- ACL (Ingress/Egress): 1,024/336
- QoS Egress Queues/Port: 8
- VLANs: 4,059
- IP Interfaces (aka Routed VLANs): 248

Fabric Connect Scaling

- Fabric Adjacencies per switch: 50
- BEB Nodes per VSN (I-SID): 500
- L2 VSNs: 512
- L3 VSNs: 64

Weights and Dimensions

Switch Model	Weight*	Physical Dimensions
5420F-24T-4XE	4.10 kg (9.03 lb.)	Height: 43.7 mm (1.7 in.) Width: 441.0 mm (17.4 in.) Depth: 287.02 mm (11.3 in.)
5420F-24P-4XE	4.64 kg (10.23 lb.)	
5420F-24S-4XE	4.12 kg (9.08 lb.)	
5420F-8W-16P-4XE	4.64 kg (10.23 lb.)	
5420F-48T-4XE	4.64 kg (10.23 lb.)	
5420F-48P-4XE	5.28 kg (11.64 lb.)	Height: 43.7 mm (1.7 in.) Width: 441.0 mm (17.4 in.) Depth: 330.20 mm (13.0 in.)
5420F-48P-4XL	5.28 kg (11.64 lb.)	
5420F-16W-32P-4XE	5.36 kg (11.82 lb.)	
5420F-16MW-32P-4XE	5.30 kg (11.68 lb.)	
5420M-24W-24S-4YE	4.47 kg (9.7 lb.)	
5420M-24T-4YE	4.18 kg (9.22 lb.)	
5420M-24W-4YE	4.40 kg (9.70 lb.)	
5420M-48T-4YE	4.39 kg (9.68 lb.)	
5420M-48W-4YE	4.73 kg (10.43 lb.)	
5420M-16MW-32P-4YE	5.30 kg (11.68 lb.)	

* Measured weight includes fan (XN-FAN-000) and PSU cover(s), but does not include optional power supply unit(s).

Optional Power Supply Unit Specifications

	XN-ACPWR-150W XN-ACPWR-150W-FB	XN-ACPWR-600W XN-ACPWR-600W-FB	XN-ACPWR-920W	XN-ACPWR-1200W* XN-ACPWR-1200W-FB	XN-ACPWR-2000W** XN-ACPWR-2000-FB-A
Voltage Input Range (Nominal)	100-127/200-240 VAC	100-127/200-240 VAC	100-127/200-240 VAC	100-127/200-240 VAC	100-127/200-240 VAC
Line Frequency Range	47Hz to 63Hz	47Hz to 63Hz	47Hz to 63Hz	47Hz to 63Hz	47Hz to 63Hz
Power Supply Input Socket	IEC/EN60320 C14	IEC/EN60320 C14	IEC/EN60320 C14	IEC/EN60320 C16 IEC/EN 60320 C14 (for -FB)	IEC/EN60320 C16 IEC/EN 60320 C14 (for -FB-A)
Power Cord Input Plug	IEC/EN60320 C13	IEC/EN60320 C13	IEC/EN60320 C13	IEC/EN60320 C15 IEC/EN 60320 C13 (for -FB)	IEC/EN60320 C15 IEC/EN 60320 C13 (for -FB-A)
Operating Temperature	0°C to 50°C (32°F to 122°F) Normal Operation	0°C to 50°C (32°F to 122°F) Normal Operation	0°C to 50°C (32°F to 122°F) Normal Operation	0°C to 50°C (32°F to 122°F) Normal Operation	0°C to 45°C (32°F to 113°F)***

* 200-240VAC is required to achieve full 1200W output. If run at 100-120 VAC, output is limited to 860W

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

*** At sea-level, 0°C to 40°C (32°F to 104°F) at 1500 m; 0°C to 35°C (32°F to 95°F) at 3000 m

5420F Internal Fixed and Secondary Power Supply Options

Model	Internal Fixed Power Supply Unit (PSU)*	Secondary Power Supply Unit (PSU)**
5420F-24T-4XE	120W AC PSU	XN-ACPWR-150W or XN-ACPWR-150W-FB
5420F-24P-4XE	660W AC PSU	XN-ACPWR-600W or XN-ACPWR-600W-FB
5420F-24S-4XE	150W AC PSU	XN-ACPWR-150W or XN-ACPWR-150W-FB
5420F-48T-4XE	120W AC PSU	XN-ACPWR-150W or XN-ACPWR-150W-FB
5420F-48P-4XE	860W AC PSU	XN-ACPWR-920W or XN-ACPWR-1200W-FB
5420F-48P-4XL	860W AC PSU	XN-ACPWR-920W or XN-ACPWR-1200W-FB
5420F-8W-16P-4XE	660W AC PSU	XN-ACPWR-600W or XN-ACPWR-600W-FB
5420F-16W-32P-4XE	1200W AC PSU	XN-ACPWR-1200W or XN-ACPWR-1200W-FB
5420F-16MW-32P-4XE	1200W AC PSU	XN-ACPWR-1200W or XN-ACPWR-1200W-FB

* Internal Fixed PSU is non-orderable and comes pre-installed with each 5420F model

** Secondary PSU provides power redundancy in 5420F non-PoE models and enables maximum PoE Power Budget in 5420F PoE models (see table below). Model/PSU combinations other than those listed above are blocked physically or in software.

Note: Refer to the Hardware Installation Guide for minimum software versions needed on the switch for supported power supply units.

5420F PoE Power Budget

Model	PoE Budget with Single Internal Fixed PSU	PoE Budget with Recommended Secondary PSU
5420F-24P-4XE	380W	720W
5420F-48P-4XE	740W	1440W
5420F-48P-4XL	740W	1440W
5420F-8W-16P-4XE	480W	960W
5420F-16W-32P-4XE	872W*/960W**	1437W*/1874W**
5420F-16MW-32P-4XE	860W*/960W**	1425W*/1862W**

* @ 100-120 VAC

** @ 200-240 VAC

5420M Primary and Secondary Power Supply Options

Model	Primary Power Supply Unit (PSU)*	Secondary Power Supply Unit (PSU)*
5420M-24W-24S-4YE	XN-ACPWR-920W-FB-U or XN-ACPWR-1200W-FB	XN-ACPWR-920W-FB-U or XN-ACPWR-1200W-FB
5420M-24T-4YE	XN-ACPWR-150W or XN-ACPWR-150W-FB	XN-ACPWR-150W or XN-ACPWR-150W-FB
5420M-24W-4YE	XN-ACPWR-920W or XN-ACPWR-1200W-FB	XN-ACPWR-920W or XN-ACPWR-1200W-FB
5420M-48T-4YE	XN-ACPWR-150W or XN-ACPWR-150W-FB	XN-ACPWR-150W or XN-ACPWR-150W-FB
5420M-48W-4YE	XN-ACPWR-920W, XN-ACPWR-2000W, or XN-ACPWR-1200W-FB	XN-ACPWR-920W, XN-ACPWR-2000W, or XN-ACPWR-1200W-FB, XN-ACPWR-2000W-FB-A
5420M-16MW-32P-4YE	XN-ACPWR-920W, XN-ACPWR-2000W, or XN-ACPWR-1200W-FB	XN-ACPWR-920W, XN-ACPWR-2000W, or XN-ACPWR-1200W-FB, XN-ACPWR-2000W-FB-A

* Primary PSU is required; Secondary PSU provides power redundancy and enables maximum PoE Budget in 5420M PoE models (see table below). Model/PSU combinations other than those listed above are blocked physically or in software.

Note: Refer to the Hardware Installation Guide for minimum software versions needed on the switch for supported power supply units.

5420M PoE Power Budget

Model	Power Supply	PoE Budget with Single Primary PSU	PoE Budget with Optional Secondary PSU
5420M-24W-24S-4YE	XN-ACPWR-920W XN-ACPWR-1200W-FB	720W	1440W
5420M-24W-4YE	XN-ACPWR-920W XN-ACPWR-1200W-FB	720W	1440W
5420M-48W-4YE	XN-ACPWR-920W XN-ACPWR-1200W-FB	804W	1558W
	XN-ACPWR-2000W XN-ACPWR-2000W-FB-A	884W*/1440W**	1704W*/2880W**
5420M-16MW-32P-4YE	XN-ACPWR-920W XN-ACPWR-1200W-FB	787W	1541W
	XN-ACPWR-2000W XN-ACPWR-2000W-FB-A	884W*/1440W**	1687W*/2400W**

* @ 100-120 VAC

** @ 200-240 VAC

Minimum/Maximum Power Consumption and Heat Dissipation

5420F Switches

Switch Model	Minimum Power Consumption (W)	Minimum Heat Dissipation (BTU/hr)	Maximum Power Consumption (W)*	Maximum Heat Dissipation (BTU/hr)**
5420F-24T-4XE	24	81	62	211
5420F-24P-4XE	37	127	833	387
5420F-24S-4XE	35	119	114	388
5420F-48T-4XE	31	106	75	255
5420F-48P-4XE	48	164	1674	663
5420F-48P-4XL	49	168	1657	604
5420F-8W-16P-4XE	37	127	1092	452
5420F-16W-32P-4XE	46	156	2150	785
5420F-16MW-32P-4XE	50	172	2152	790

* Includes maximum PoE load (W) through the switch

**Does not include PoE load heat dissipated through external electronic load

5420M Switches

Switch Model	Minimum Power Consumption (W)	Minimum Heat Dissipation (BTU/hr)	Maximum Power Consumption (W)*	Maximum Heat Dissipation (BTU/hr)**
5420M-24W-24S-4YE	45.5	155	1632	656
5420M-24T-4YE	28	95	57	194
5420M-24W-4YE	43	148	1601	551
5420M-48T-4YE	34	117	68	232
5420M-48W-4YE	72	245	3090	716
5420M-16MW-32P-4YE	69	234	2564	560

* Includes maximum PoE load (W) through the switch

**Does not include PoE load heat dissipated through external electronic load

Acoustic Noise

	Bystander Sound Pressure – dB(A)*		Declared Sound Power – Bels*	
Switch Model	1 PSU	2 PSUs	1 PSU	2 PSUs
5420F-24T-4XE	35.50	36.20	4.83	4.93
5420F-24P-4XE	39.60	39.90	5.16	5.24
5420F-24S-4XE	39.70	39.60	5.21	5.22
5420F-48T-4XE	35.30	34.90	4.78	4.77

	Bystander Sound Pressure – dB(A)*		Declared Sound Power – Bels*	
Switch Model	**1 PSU**	**2 PSUs**	**1 PSU**	**2 PSUs**
5420F-48P-4XE	41.30	42.00	5.42	5.48
5420F-48P-4XL	44.00	42.60	5.67	5.57
5420F-8W-16P-4XE	42.30	43.20	5.52	5.63
5420F-16W-32P-4XE	44.30	54.10	5.72	6.62
5420F-16MW-32P-4XE	45.30	54.40	5.77	6.64
5420M-24W-24S-4YE	36.8	42.1	5.0	5.5
5420M-24T-4YE	33.50	33.00	4.59	4.65
5420M-24W-4YE	33.00	42.80	5.02	5.51
5420M-48T-4YE	33.40	33.00	4.56	4.59
5420M-48W-4YE**	52.70	59.80	6.42	6.97
5420M-16MW-32P-4YE**	51.70	50.50	6.30	6.25

* Noise measurements are based on operational tests conducted at 25°C (77°F) in compliance with ISO 7779

** 5420M-48W-4YE and 5420M-16MW-32P-4YE results using 2000 W PSUs (XN-ACPWR-2000W)

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)

List of Energy Star Certified Models:*

5420F-16MW-32P-4XE

5420F-16W-32P-4XE

5420F-24P-4XE

5420F-48P-4XE

5420F-48P-4XL

5420F-8W-16P-4XE

5420M-16MW-32P-4YE

5420M-24T-4YE

5420M-24W-4YE

5420M-48T-4YE

5420M-48W-4YE

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

Environmental Operating Conditions

Temp: 0°C to 50°C (32°F to 122°F)

Humidity: 10% to 95% relative humidity, non-condensing

Altitude: 0 to 3,000 meters (9,850 feet)

Shock (half sine) 300m/s2 (3G), 11ms, 3 axes, 6 shocks/axis

Random vibration: 3Hz to 500Hz at 1.5 G rms

Accelerations: 3Hz @ +10dB/Octave PSD 10Hz @ 0.006 PSD 500Hz @ 0.006 PSD

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), 3 axes, 100 shocks/axis

Packaged Vibration: 5Hz to 20Hz at .01 g2/Hz (PSD), 20Hz to 500Hz at -3 dB/Oct (PSD)

Packaged Random Vibration: 5Hz to 62Hz at velocity 5 mm/s, 62Hz to 500Hz at 0.2 G

Packaged Drop Height: 13 drops minimum on faces, sides, and corners at 42 inches (<10 kg box)

Regulatory and Safety

North American ITE

UL 60950-1

UL/CuL 62368-1 Listed

CSA 22.2 No. 60950-1 2nd edition 2014 (Canada)

Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)

CDRH Letter of Approval (US FDA Approval)

European ITE

EN 60950-1 2nd Edition

EN 62368-1

EN 60825-1Class 1 (Lasers Safety)

2014/35/ EU Low Voltage Directive

International ITE

CB Report & Certificate per IEC 60950-1

CB Report & Certificate IEC 62368-1

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 55032 Class A

EN 55024

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, 2 kV, Criteria B

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, 0.15-80 MHz, 10V/rms, 80%AM (1kHz), 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)

BSMI (Taiwan)

Anatel (Brazil)

NoM (Mexico)

EAC (Russia, Belarus, Kazakhstan)

NRCS (South Africa)

IEEE 802.3 Media Access Standards

IEEE 802.3ab 1000BASE-T

IEEE 802.3bz 2.5G/5GBASE-T

IEEE 802.3bt Type4 PoE

IEEE 802.3ae 10GBASE-X

IEEE 802.3aq 10GBASE-LRM

IEEE 802.3by 25GBASE-X

IEEE 802.3az Energy Efficient Ethernet

Ordering Notes

Customers ordering a 5420F Series switch receive the hardware switch along with Base software license, integrated power supply, fan modules and rack-mount kit. 5420M Series switch customers receive the same components, except for power supplies which are not included with the unit.

At least one Power Supply Unit (PSU) is required for 5420M operation. Additional power supplies (either for 5420For 5420M switches), transceiver/optics, power cords, as well as Premier and/or MACsec licenses must be ordered separately.

Base Software and Optional Premier License

The Base software included with each 5420 unit supports most available software features. Certain features, however, require a Premier License to operate.

For Switch Engine, a Premier License is required for:

5 or more OSPF interfaces

PIMDM/PIM SSM

Anycast RP (Rendezvous Point)

MultiSource Discovery Protocol (MSDP)

IS-IS/BGP4/MBGP*

GRE Tunneling

Ethernet VPN (EVPN)

For Fabric Engine, a Premier License is required for:

5 or more OSPF active interfaces

3 or more BGP Peers

Layer 3 Virtual Service Networks (L3 VSNs)

Ordering Information

Part Number	Product Name	Description
5420F-24T-4XE	5420F 24-port Switch	5420 Universal Switch with 24 x 10/100/1000BASE-T Full / Half-Duplex ports, includes 4 x 1/10Gb SFP+ uplink ports,2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license.
5420F-24P-4XE	5420F 24-port 30W PoE Switch	5420 Universal Switch with 24 x 10/100/1000BASE-T Full / Half-Duplex 802.3at 30W PoE ports, includes 4 x 1/10Gb SFP+ uplink ports, 2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license.
5420F-24S-4XE	5420F 24-port SFP Switch	5420 Universal Switch with 24 x 100M/1Gb SFP ports, includes 4 x 1/10Gb SFP+ uplink ports, 2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license.
5420F-48T-4XE	5420F 48-port Switch	5420 Universal Switch with 48 x 10/100/1000BASE-T Full / Half-Duplex ports, includes 4 x 1/10Gb SFP+ uplink ports,2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license.
5420F-48P-4XE	5420F 48-port 30W PoE Switch	5420 Universal Switch with 48 x 10/100/1000BASE-T Full / Half-Duplex 802.3at 30W PoE ports, includes 4 x 1/10Gb SFP+ uplink ports, 2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license
5420F-48P-4XL	5420F 48-port 30W PoE Switch with LRM	5420 Universal Switch with 48 x 10/100/1000BASE-T Full / Half-Duplex 802.3at 30W PoE ports, includes 4 x 1/10Gb SFP+ LRM and uplink ports, 2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license.
5420F-8W-16P-4XE	5420F 24-port Switch with 8 ports 90W and 16 ports 30W PoE	5420 Universal Switch with 8 x 10/100/1000BASE-T Full / Half-Duplex 802.3bt 90W PoE ports and 16 x10/100/1000BASE-T Full / Half-Duplex 802.3at 30W PoE ports, includes 4 x 1/10Gb SFP+ uplink ports, 2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license.
5420F-16W-32P-4XE	5420F 48-port Switch with 16 ports 90W and 32 ports 30W PoE	5420 Universal Switch with 16 x 10/100/1000BASE-T Full / Half-Duplex 802.3bt 90W PoE ports and 32 x10/100/1000BASE-T Full / Half-Duplex 802.3at 30W PoE ports, includes 4 x 1/10Gb SFP+ uplink ports, 2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license.

Part Number	Product Name	Description
5420F-16MW-32P-4XE	5420F 48-port Switch with 16 ports 90W multi-rate and 32 ports 30W PoE	5420 Universal Switch with 16 x 100Mb/1Gb/2.5Gb 802.3bt 90W PoE ports plus 32 x 10/100/1000BASE-T Full / Half-Duplex 30W PoE ports, includes 4x 1/10Gb SFP+ uplink ports, 2 x Stacking/SFP-DD ports, 1 internal fixed PSU, one unpopulated PSU slot, fixed fan module, Base software license.
5420M-24W-24S-4YE	48-port with 24-port 90W PoE and 24-port SFP switch	5420M Universal Switch with 24 x 10/100/1000BASE-T Full / Half-Duplex 802.3at 90W PoE ports, 24 x 100M/1G SFP ports, includes 4 x 1/10Gb/25Gb SFP28 uplink ports, 2 x Stacking/ SFP-DD ports, two unpopulated modular PSU slots, modular fan module, Base software license.
5420M-24T-4YE	5420M 24-port Switch	5420 Universal Switch with 24 x 10/100/1000BASE-T Full / Half-Duplex ports, includes 4 x 1/10/25Gb SFP28 uplink ports, 2 x Stacking/SFP-DD ports, two unpopulated PSU slots, modular fan module, Base software license.
5420M-24W-4YE	5420M 24-port 90W PoE Switch	5420 Universal Switch with 24 x 10/100/1000BASE-T 802.3bt 90W PoE Full / Half-Duplex ports, includes 4 x 1/10/25GbSFP28 uplink ports, 2 x Stacking/SFP-DD ports, two unpopulated PSU slots, modular fan module, Base software license.
5420M-48T-4YE	5420M 48-port Switch	5420 Universal Switch with 48 x 10/100/1000BASE-T Full / Half-Duplex ports, includes 4 x 1/10/25Gb SFP28 uplink ports, 2 x Stacking/SFP-DD ports, two unpopulated PSU slots, modular fan module, Base software license.
5420M-48W-4YE	5420M 48-port 90W PoE Switch	5420 Universal Switch with 48 x 10/100/1000BASE-T 802.3bt 90W PoE Full / Half-Duplex ports, includes 4 x 1/10/25GbSFP28 uplink ports, 2 x Stacking/SFP-DD ports, two unpopulated PSU slots, modular fan module, Base software license.
5420M-16MW-32P-4YE	5420M 48-port Switch with 16 ports 90W multi-rate and 32 ports PoE	5420 Universal Switch with 16 x 100Mb/1Gb/2.5Gb 802.3bt 90W PoE ports plus 32 x 10/100/1000BASE-T Full / Half-Duplex 30W PoE ports, includes 4 x 1/10/25Gb SFP28 uplink ports, 2 x Stacking/SFP-DD ports, two unpopulated PSU slots,modular fan module, Base software license.

Accessories

Part Number	Product Name	Description
XN-ACPWR-150W	150W AC PSU FB	150W AC PSU, Front to Back Airflow
XN-ACPWR-150W-FB	150W AC PSU FB	150W AC PSU, Front to Back Airflow
XN-ACPWR-600W	600W AC PSU FB	600W AC PSU, Front to Back Airflow
XN-ACPWR-600W-FB	600W AC PSU FB	600W AC PSU, Front to Back Airflow
XN-ACPWR-920W	920W AC PSU FB	920W AC PSU, Front to Back Airflow
XN-ACPWR-920W-FB-U	920W AC PSU FB	920W AC PSU, Front to Back Airflow
XN-ACPWR-1200W	1200W AC PSU FB	1200W AC PSU, Front to Back Airflow
XN-ACPWR-1200W-FB	1200W AC PSU FB	1200W AC PSU, Front to Back Airflow
XN-ACPWR-2000W	2000W AC PSU FB	2000W AC PSU, Front to Back Airflow
XN-ACPWR-2000W-FB-A	2000W AC PSU FB	2000W AC PSU, Front to Back Airflow
XN-FAN-000	Spare Fan Module FB	Spare Fan Module for 5420 Series, Front to Back Airflow
ESTS01	Air Temperature Thermal Sensor	Ambient Air Temperature Sensor for Energy Star (USB)

Software Licenses

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

Warranty

All 5420 Series models are covered under Extreme's Universal LLW policy. For warranty details, visit our Policies and Warranties page.

Optics/Transceivers

For a list of the optics and transceivers supported on the 5420 Series hardware, refer to our Extreme Optics Compatibility Tool.

Power Cords

Power cords are not included with the 5420 in support of our green initiatives but can be ordered separately.

Maintenance Services

Extreme's maintenance and support services are provided 100% 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 our ExtremeWorks Maintenance Services for more information.

Certifications

For information on Industry, Security, and Government certifications for 5420 Series models, contact your Sales Representative.

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