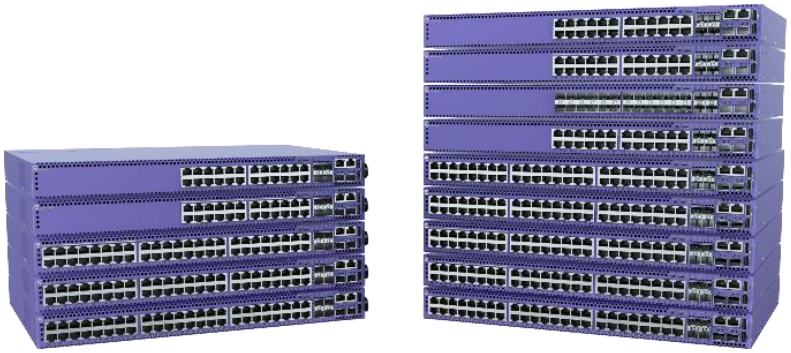
Data Sheet

5420 Series Switches



Highlights

- Manageable by Extreme Platform ONE™, ExtremeCloud™ IQ, or ExtremeCloud IQ Site Engine
- Simplified network operations with automated end-to-end network segmentation using Extreme Fabric
- Choice of operating system (OS) with Universal Hardware
- Automated Extreme Platform ONE Security 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.

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.

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.

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.

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 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 in a single solution, automatically configures devices to enforce security policies with one click. When used in concert with Extreme Fabric, Extreme Platform ONE Security becomes part of the fabric services that automate segmentation and enable the network to flex for efficiency and resiliency while maintaining a consistent security policy 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 microsegmentation 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.

***Supported via Switch Engine only**

Instant Secure Port*

Instant Secure Port leverages Extreme Platform ONE Security 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. 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 5420 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 5420 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.

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

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

Switch Model	Interfaces

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

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

Switch Model	Interfaces

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

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 Scaling

5420F Performance and Scale

Switch Model	Max Active 10Mb/100Mb/ 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	208 Gbps	154.8 Mpps
5420F-24P-4XE	24	0	0	6*	0	2	208 Gbps	154.8 Mpps
5420F-24S-4XE	0	0	24	6*	0	2	208 Gbps	154.8 Mpps
5420F-48T-4XE	48	0	0	6*	0	2	256 Gbps	190.5 Mpps
5420F-48P-4XE	48	0	0	6*	0	2	256 Gbps	190.5 Mpps
5420F-48P-4XL	48	0	0	6*	0	2	256 Gbps	190.5 Mpps
5420F-8W-16P-4XE	24	0	0	6*	0	2	208 Gbps	154.8 Mpps
5420F-16W-32P-4XE	48	0	0	6*	0	2	256 Gbps	190.5 Mpps
5420F-16MW-32P-4XE	32	16	0	6*	0	2	304 Gbps	226.2 Mpps

5420M Performance and Scale

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

*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

Switches

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), does not include optional power supply unit(s).

Optional Power Supply Unit Specifications

Item	XN-ACPWR-150W XN-ACPWR-150W-FB	XN-ACPWR-600W XN-ACPWR-600W-FB	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
Line Frequency Range	47 Hz to 63 Hz	47 Hz to 63 Hz	47 Hz to 63 Hz	47 Hz to 63 Hz
Power Supply Input Socket	IEC/EN 60320 C14	IEC/EN 60320 C14	IEC/EN 60320 C16 IEC/EN 60320 C14 (for -FB)	IEC/EN 60320 C16 IEC/EN 60320 C14 (for -FB-A)
Power Cord Input Plug	IEC/EN 60320 C13	IEC/EN 60320 C13	IEC/EN 60320 C15 IEC/EN 60320 C13 (for -FB)	IEC/EN 60320 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 45°C (32°F to 113°F)***

*200-240 VAC 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

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

Switch 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, XN-ACPWR-150W-FB	XN-ACPWR-150W, XN-ACPWR-150W-FB
5420M-24W-4YE	XN-ACPWR-1200W-FB	XN-ACPWR-1200W-FB
5420M-48T-4YE	XN-ACPWR-150W, XN-ACPWR-150W-FB	XN-ACPWR-150W, XN-ACPWR-150W-FB
5420M-48W-4YE	XN-ACPWR-2000W or XN-ACPWR-1200W-FB	XN-ACPWR-2000W or XN-ACPWR-1200W-FB, XN-ACPWR-2000W-FB-A
5420M-16MW-32P-4YE	XN-ACPWR-2000W or XN-ACPWR-1200W-FB	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-1200W-FB	720W	1440W
5420M-24W-4YE	XN-ACPWR-1200W-FB	720W	1440W
5420M-48W-4YE	XN-ACPWR-1200W-FB	804W	1558W
	XN-ACPWR-2000W XN-ACPWR-2000W-FB-A	884W*/1440W**	1704W*/2880W**
5420M-16MW-32P-4YE	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

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
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
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 25oC (77°F) in compliance with ISO 7779
**5420M-48W-4YE and 5420M-16MW-32P-4YE results using 2000 W PSUs (XN-ACPWR-2000W)

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

- 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 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): 300 m/s^2 (30G), 11ms, 3axes, 6 shocks/axis
- Random vibration: 3 Hz to 500 Hz at 1.5G rms
- Accelerations: 3 Hz @ +10dB/Octave PSD 10 Hz @ 0.006 PSD 500 Hz @ 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/s^2 (18G), 3 axes, 100 shocks/axis
- Packaged Vibration: 5 Hz to 20 Hz at .01 g^2/Hz (PSD), 20 Hz to 500 Hz at –3 dB/Oct (PSD)
- Packaged Random Vibration: 5 Hz to 62 Hz at velocity 5 mm/s, 62 Hz to 500 Hz at 0.2G
- Packaged Drop Height: 13 drops minimum on faces, sides, and corners at 42 inches (<10 kg box)

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

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

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)

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 5420F or 5420M switches), transceiver/optics, power cords, console cables 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:

- Anycast RP incl. using PIM (RFC 4610)
- BGP4 and MBGP (BGP4+) for IPv4/IPv6
- EVPN
- IS-IS for IPv4/IPv6
- MSDP
- OpenAPI
- OSPFv2/v3 "Full" (not limited to 4 active interfaces)
- PIM DM/SM/SSM "Full"
- PTPv2 End-to-End Transparent Clock

For Fabric Engine, a Premier License is required for:

- Fabric Connect Layer 3 Virtual Services Networks (VSNs)
- Greater than 2 BGP Peers
- OpenAPI
- Greater than four OSPF active interfaces
- Precision Time Protocol version 2
- Segmented VRF if using Layer 3 VSN

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 w/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 w/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 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-16W-32P-4XE	5420F 48-port Switch w/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 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-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 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
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 1/10/25Gb SFP28 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 1/10/25Gb SFP28 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-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)
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	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

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

Power Cords

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

Console Cables

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

Optics/Transceivers

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

Support Services

Extreme offers a portfolio of services that adapts to your unique environment and technical support needs. Globally available technical support and professional services from our in-house team of experts provide the resiliency and optimization that accelerate your business and innovation.

Combined with Extreme Networks Platform ONE agentic support tools and workflows, Extreme Services helps you to anticipate issues and identify risks before they impact your business. For more information, visit our Services page.

Certifications

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

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