

# 4000 Series



#### Highlights

- Manageable by Extreme Platform ONE<sup>TM\*</sup>, ExtremeCloud<sup>TM</sup> 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 dual-persona Universal Hardware
- Reduced mean time to resolution with
- ExtremeCloud Universal ZTNA policy enforcement
- Automated and streamlined switch provisioning and day-to-day operations with cloud-based instant actions
- Mobile app to easily onboard, provision, and troubleshoot your switches
- Automated, maintenance-free feature and security updates delivered via the cloud

#### **Switch Features**

- 12-port, 24-port, and 48-port models with Gigabit and multi-Gigabit Ethernet access port options
- 4 x 1/10Gb uplink/stacking ports on all 4220 models
- $\cdot$  4 x 1/10/25Gb uplink ports plus 2 x 100Gb uplink/stacking ports on 4120 models
- 30W, 60W, 90W PoE options for powered connection of edge devices
- 8-port 1/10Gb SFP+ fiber model (4220)
- Silent operation up to 35°C on 12-port PoE, multi-gigabit and non-PoE models (4220)
- · Non-blocking, wire-speed design

\*Extreme Platform ONE<sup>TM</sup> - General Availability (GA) in H2 2025



#### Cloud-Managed Switching Made Easy

The 4000 Series are Extreme Platform ONE or ExtremeCloud IQ managed\* Layer 2 switches that simplify network operations while delivering all the power and flexibility of a traditional enterprise access switch. As a fully cloud-managed solution, the 4000 Series is ideal for enterprises looking for easy-to-manage, cost-effective Ethernet connectivity for their campus, branch or distributed sites.

Extreme Platform ONE<sup>TM</sup> is the enterprise connectivity platform that integrates networking and security with Al into one powerful and radically simplified experience and licensing model. It supports NetOps, SecOps, and business teams with built-in Al automation and enables organizations to regain control, unlock innovation, and boost productivity.

With 90W PoE, multi-gigabit access, stacking and policy services, the 4000 Series is a switch platform capable of addressing the evolving connectivity requirements of today's and tomorrow's wired networks.

The 4000 Series consists of 4120 and 4220 model families:

The **4120** family includes a 24-port and a 48-port model, with multi-gigabit (1/2.5Gb) and 90W PoE support across all access ports, and high-speed  $4 \times 10/25$ Gb uplink plus  $2 \times 100$ Gb uplink/stack ports, making it ideal as a wired concentrator for high-density Wi-Fi/IoT environments.

The **4220** family includes 8, 12, 24, and 48-port models with gigabit and multi-gigabit (1/2.5/5Gb) access ports, up to 90W PoE, and 4 x SFP+ uplink/stack ports and is a highly flexible enterprise Layer 2 wired access solution.

\* The 4000 Series is solely managed with Extreme's management solutions and each switch requires a Extreme Platform ONE Standard or ExtremeCloud IQ Pilot license.

## **Network Management Flexibility**

The 4000 Series switches are managed by Extreme Platform ONE or ExtremeCloud IQ from the cloud or on-premises. A Command Line Interface (CLI) is also available with an Extreme Platform ONE standard or ExtremeCloud IQ Pilot license.

## **Extreme Platform ONE<sup>TM</sup>**

Extreme Platform  $ONE^{TM}$  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.
- Al assisted workflows for configuration, monitoring, and troubleshooting.
- Extreme Fabric and third-party switch visualization and management in cloud.
- Inventory management simplifies budgeting, planning and compliance.

#### **Advanced PoE**

The 4000 Series offers models that include standards-based IEEE 802.3at 30W on 1 gigabit access ports and IEEE 802.3bt 30/60/90W on multi-gigabit ports. This includes 90W PoE support across all 24 or 48 ports of the 4120 hardware. PoE eliminates the need for additional electrical cabling and circuits otherwise needed to power edge devices, such as IP phones or wireless APs.

## **Multi-Gigabit Support**

The 4120 supports 1/2.5Gb multi-gigabit operation across all its access ports. This includes  $24 \times 1/2.5$ Gb ports on the 4120-24MW-4Y and  $48 \times 1/2.5$ Gb ports on the 4120-48MW-4Y.

The 4220 includes multi-gigabit PoE models with ports that operate at 1/2.5/5Gb. The 4220-4MW-8P-4X and 4220-4MW-20P-4X models support 4 multi-gigabit ports and the 4220-8MW-40P-4X supports 8 multi-gigabit ports. This enables the connection of APs or other powered devices requiring more than 1 Gigabit of bandwidth.

## **Quiet (Fan-Off) Operation**

Quiet (fan-off) mode operation at temperatures up to 35°C is supported on 4220 12-port PoE, non-PoE, and multi-gigabit models. This makes these models ideal for classrooms, hospitality suites, retail sites, or other noise-sensitive environments, especially outside of the wiring closet environment.

## **High-Performance Stacking**

4120 models support 200Gb stacking via two built-in QSFP28 ports. Up to eight systems can be stacked using qualified direct-attach cables and optical transceivers.

4220 models support 40Gb stacking via two built-in SFP+ uplink ports. Up to eight systems can be stacked using qualified 10Gb direct attach-cables and optical transceivers.

Note: Cross-stacking between 4120 and 4220 models is not supported.

#### **Universal Hardware**

Select 4220 Series models come 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. 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**

Select 4000 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 applicable 4220 switches, no additional licenses or controller required. Extreme's Switch Engine only product lines, such as 4120 models, are fabric-enabled and can be automatically attached to and configured by Extreme Fabric. This reduces time to deploy new devices, services, and sites, while maintaining Switch Engine's unique capabilities.

## **Instant Onboarding**

4000 Series onboarding to the cloud is a hands-off operation using zero-touch provisioning. Simply unpack the 4000 Series switch, connect it to the network, and it automatically finds its connection to the cloud, ready to be provisioned. The ExtremeCloud Companion mobile app makes onboarding even easier with on-site cloud set-up and switch troubleshooting capabilities.

## **Instant Port\***

Instant Port automates adds, moves or changes across 4000 Series switch ports, eliminating the need for manual port configuration. The 4000 Series automatically detects the connected device type and applies the correct port parameters. The result is significant time savings when adding or moving devices across the 4000 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 4000 Series switches in the network.

#### Instant Secure Port\*

Instant Secure Port leverages ExtremeCloud Universal ZTNA for authentication and zero-trust policy enforcement across 4000 Series switch ports, while providing the same add, moves, and change automation features of Instant Port. It simplifies 4000 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 4000 Series ports. In doing so, it delivers a consistent and frictionless security experience for any user or device connecting through the 4000 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**

## 4120 Systems

Switch Model	Interfaces	
4120-24MW-4Y	<ul> <li>24 x 10M/100M/1G/2.5GBase-T ports PoE (90W) ports</li> <li>4 x 1/10/25Gb SFP28 ports (unpopulated)</li> <li>2 x Stacking/QSFP28 ports (unpopulated)</li> <li>1 x 100/1000BASE-T out-of-band management port</li> <li>1x Serial console port (RJ-45)</li> <li>2 x USB A port</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine supported only</li> </ul>	
4120-48MW-4Y	<ul> <li>48 x 10M/100M/1C/2.5GBase-T ports PoE (90W) ports</li> <li>4 x 1/10/25Gb SFP28 ports (unpopulated)</li> <li>2 x Stacking/QSFP28 ports (unpopulated)</li> <li>1 x 100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>2 x USB A port</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine supported only</li> </ul>	

## 4220 Systems

Switch Model	Interfaces
4220-12T-4X	<ul> <li>12 x 10/100/1000Base-T ports</li> <li>4 x 1/10Gb SFP+ uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A port</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine and Fabric Engine supported</li> </ul>
4220-12P-4X	<ul> <li>12 x 10/100/1000Base-T 802.3at (30W) PoE ports</li> <li>4 x 1/10Gb SFP+ uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine and Fabric Engine supported</li> </ul>
4220-24T-4X	<ul> <li>24 x 10/100/1000Base-T ports</li> <li>4 x 1/10Gb SFP+ uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine and Fabric Engine supported</li> </ul>

Switch Model	Interfaces
4220-24P-4X	<ul> <li>24 x 10/100/1000Base-T 802.3at (30W) PoE ports</li> <li>4 x 1/10Gb uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine and Fabric Engine supported</li> </ul>
4220-48T-4X	<ul> <li>48 x 10/100/1000Base-T ports</li> <li>4 x 1/10Gb SFP+ uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine supported only</li> </ul>
4220-48P-4X	<ul> <li>48 x 10/100/1000Base-T 802.3at (30W) PoE ports</li> <li>4 x 1/10Gb uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine supported only</li> </ul>
4220-4MW-8P-4X	<ul> <li>4 x 1G/2.5G/5GBaseT 802.3bt (90W) PoE ports</li> <li>8 x 10/100/1000Base-T 802.3at (30W) PoE ports</li> <li>4 x 1/10Gb SFP+ uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine and Fabric Engine supported</li> </ul>
4220-4MW-20P-4X	<ul> <li>4 x 1G/2.5G/5GBaseT 802.3bt (90W) PoE ports</li> <li>20 x 10/100/1000Base-T 802.3at (30W) PoE ports</li> <li>4 x 1/10Gb SFP+ uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine and Fabric Engine supported</li> </ul>

Switch Model	Interfaces
4220-8MW-40P-4X	<ul> <li>8 x 1G/2.5G/5GBaseT 802.3bt (90W) PoE ports</li> <li>40 x 10/100/1000Base-T 802.3at (30W) PoE ports</li> <li>4 x 1/10Gb SFP+ uplink/stacking ports (unpopulated)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine supported only</li> </ul>
4220-8X	<ul> <li>8 x 1/10Gb SFP+ ports (unpopulated)</li> <li>1 x Serial console port (RJ-45)</li> <li>1 x 10/100/1000BASE-T out-of-band management port</li> <li>1 x USB A ports</li> <li>1 x USB Micro-B console port</li> <li>Note: Switch Engine and Fabric Engine supported</li> </ul>

# **Performance and Scaling**

## 4120 Systems

Switch Model	Max Active 10Mb/ 100Mb/1Gb ports	Max Active 10Mb/100Mb/ 1Gb/ 2.5Gb ports	Max Active 1Gb/2.5Gb/ 5Gb ports	Max Active 1Gb/10Gb SFP+ ports	Max Active 1/10/25Gb SFP28 ports	Max Active 100Gb QSFP28 ports*	Aggregated Switch Bandwidth	Frame Forwarding Rate
4120-24MW-4Y	0	24	0	0	4	2	720 Gbps	535.7 Mpps
4120-48MW-4Y	0	48	0	0	4	2	840 Gbps	625.0 Mpps

 $<sup>^{*}</sup>$  Operate at 100Gb as uplinks; 50Gb as stacking ports

## 4220 Systems

Switch Model	Max Active 10Mb/ 100Mb/1Gb ports	Max Active 10Mb/ 100Mb/1Gb/ 2.5Gb ports	Max Active 1Gb/2.5Gb/ 5Gb ports	Max Active 1Gb/10Gb SFP+ ports	Max Active 1/10/25Gb SFP28 ports	Max Active 100Gb QSFP28 ports*	Aggregated Switch Bandwidth	Frame Forwarding Rate
4220-12T-4X	12	0	0	4	0	0	104 Gbps	77.4 Mpps
4220-12P-4X	12	0	0	4	0	0	104 Gbps	77.4 Mpps
4220-24T-4X	24	0	0	4	0	0	128 Gbps	95.2 Mpps
4220-24P-4X	24	0	0	4	0	0	128 Gbps	95.2 Mpps
4220-48T-4X	48	0	0	4	0	0	176 Gbps	130.9 Mpps
4220-48P-4X	48	0	0	4	0	0	176 Gbps	130.9 Mpps
4220-4MW-8P-4X	8	0	4	4	0	0	136 Gbps	101.2 Mpps
4220-4MW-20P-4X	20	0	4	4	0	0	160 Gbps	119.0 Mpps

Switch Model	Max Active 10Mb/ 100Mb/1Gb ports	Max Active 10Mb/ 100Mb/1Gb/ 2.5Gb ports	Max Active 1Gb/2.5Gb/ 5Gb ports	Max Active 1Gb/10Gb SFP+ ports	Max Active 1/10/25Gb SFP28 ports	Max Active 100Gb QSFP28 ports*	Aggregated Switch Bandwidth	Frame Forwarding Rate
4220-8MW-40P-4X	40	0	8	4	0	0	240 Gbps	178.6 Mpps
4220-8X	0	0	0	8	0	0	160 Gbps	119.0 Mpps

 $<sup>^{*}</sup>$  Operate at 100Gb as uplinks; 50Gb as stacking ports

# **Weights and Dimensions**

## 4120 Systems

Part Number	Weight	Physical Dimensions
4120-24MW-4Y	11.9 lb / 5.42 kg	17.4 in W / 1.7 in H / 13.0 in D
4120-48MW-4Y	12.4 lb / 5.62 kg	441 mm / 44 mm / 330 mm

## **4120 Power Supplies**

Part Number	Weight	Physical Dimensions
XN-ACPWR-920W-FB-U	2.6 lb / 1.20 kg	
XN-ACPWR-1200W-FB-U	2.7 lb / 1.23 kg	2.9 in W / 1.6 in H / 7.6 in D 73 mm / 40 mm / 194 mm
XN-ACPWR-2000W-FB-U	2.8 lb / 1.25 kg	

## 4220 Systems

Part Number	Weight	Physical Dimensions
4220-12T-4X	5.5 lb / 2.52 kg	12.0 in W / 1.7 in H / 10.3 in D
4220-12P-4X	6.8 lb / 3.11 kg	305 mm / 44 mm / 261 mm
4220-24T-4X	7.0 lb / 3.16 kg	17.36 in W / 1.7 in H / 10.0 in D 441 mm / 44 mm / 254 mm
4220-24P-4X	9.6 lb / 4.37 kg	
4220-48T-4X	10.0 lb / 4.53 kg	17.4 in W / 1.7 in H / 13.0 in D 441 mm / 44 mm / 330 mm
4220-48P-4X	11.2 lb / 5.09 kg	
4220-4MW-8P-4X	7.1 lb / 3.23 kg	12.0 in W / 1.7 in H / 10.3 in D 305 mm / 44 mm / 261 mm
4220-4MW-20P-4X	10.6 lb / 4.83 kg	17.4 in W / 1.7 in H / 13.0 in D
4220-8MW-40P-4X	11.9 lb / 5.41 kg	441 mm / 44 mm / 330 mm
4220-8X	5.2 lb / 2.37 kg	12.0 in W / 1.7 in H / 10.3 in D 305 mm / 44 mm / 261 mm

### **4220 Redundant Power Supplies**

Part Number	Weight	Physical Dimensions
RPS-550	5.0 lb / 2.26 kg	12.6 in W / 1.7 in H / 7.9 in D
RPS-950	5.4 lb / 2.43 kg	320 mm / 43.5 mm / 200 mm

## **4120 Internal Fixed and Secondary Power Supply Options**

Switch Model	Internal Fixed PSU - Max Power	Secondary PSU
(120.27)	OCOM ACDCII	XN-ACPWR-920W-FB-U
4120-24MW-4Y	860W ACPSU	XN-ACPWR-1200W-FB-U
(120 (0) (1) (1)	1200W A CDCU	XN-ACPWR-1200W-FB-U
4120-48MW-4Y	1200W ACPSU	XN-ACPWR-2000W-FB-U

## **4220 Internal Fixed and Optional External Redundant Power Supply**

Switch Model	Internal Fixed PSU - Max Power	Secondary PSU
4220-12T-4X	65W	-
4220-12P-4X	370W	-
4220-24T-4X	65W	-
4220-24P-4X	370W	-
4220-48T-4X	150W	-
4220-48P-4X	550W	-
4220-4MW-8P-4X	370W	-
4220-4MW-20P-4X	550W	RPS-550W
4220-8MW-40P-4X	950W	RPS-950W
4220-8X	65W	-

# **4120 Max PoE Power Budget**

Switch Model	With Internal Fixed PSU	With Internal Fixed PSU + 920W PSU	With Internal Fixed PSU + 1200W PSU	With Internal Fixed PSU + 2000W PSU
4120-24MW-4Y (100-120VAC)	680W	1440W	1380W	Not Supported
4120-48MW-4Y (100-120VAC)	640W	Not Supported	1340W	1230W
4120-24MW-4Y (200-240VAC)	680W	1440W	1540W	Not Supported
4120-48MW-4Y (200-240VAC)	980W	Not Supported	1780W	2180W

## **4220 Max PoE Power Budget**

Switch Model	PoE Budget
4220-12P-4X	124W
4220-24P-4X	195W
4220-48P-4X	370W
4220-4MW-8P-4X	240W
4220-4MW-20P-4X	370W
4220-8MW-40P-4X	740W

## 4120 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)**
4120-24MW-4Y	48	164	1830	990
4120-48MW-4Y	56	191	2535	1211

## 4220 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)**
4220-12T-4X	12	41	26	89
4220-12P-4X	17	58	166	142
4220-24T-4X	15	50	31	104
4220-24P-4X	20	68	252	195
4220-48T-4X	28	96	52	177
4220-48P-4X	30	103	470	340
4220-4MW-8P-4X	19	64	304	219
4220-4MW-20P-4X	22	73	458	300
4220-8MW-40P-4X	35	118	899	542
4220-8X	11	38	30	103

<sup>\*</sup> Includes maximum PoE load (W) through the switch

## **4120 Acoustics**

Switch Model	Bystander Sound Pressure (dB(A))	Declared Sound Power (Bels)
4120-24MW-4Y	52.0	6.3
4120-48MW-4Y	51.4	6.3

<sup>\*\*</sup> Does not include PoE load heat dissipated through external electronic load

#### **4220 Acoustics**

Switch Model	Bystander Sound Pressure (dB(A))	Declared Sound Power (Bels)
4220-12T-4X	16.6	2.4
4220-12P-4X	20.4	3.0
4220-4MW-8P-4X	33	4.2
4220-24T-4X	36.4	4.9
4220-24P-4X	32.5	4.4
4220-4MW-20P-4X	23.5	3.5
4220-48T-4X	16.6	2.4
4220-48P-4X	25.3	3.6
4220-8MW-40P-4X	37.5	4.9
4220-8X	16.9	2.4
RPS-550W	59.7	7.1
RPS-950W	64	7.5

Acoustics measured at 25°C ambient temperature for 24 and 48 port switches, and at 40°C for 12 port switches, with 50% ports link up with full traffic and 50% PoE budget load.

#### **4000 Series Software Features**

The 4000 Series offers comprehensive Layer 2 as well as key Layer 3 routing features. It also includes support for role-based policy, bi-directional access control lists (ACLs), and 802.1X authentication services as described below.

## **Layer 2 Switching**

- VLANs: Port-based, tagging, MAC-based, private, VLAN translation
- · Multi-VLAN Registration Protocol (MVRP)
- Spanning Tree Protocol (STP), including:
  - IEEE 802.1D STP
  - IEEE 802.1w Rapid Spanning Tree Protocol
  - IEEE 802.1s Multiple Spanning Tree Protocol
  - Per VLAN Spanning Tree (PVST+)
- Link Layer Discovery Protocol (LLDP) IEEE 802.1ab, including LLDP-MED
- Internet Group Management Protocol (IGMP) static membership with support for IGMP v1/v2/v3 snooping (IPv4)
- · Link Access Groups (LAG) IEEE 802.3ad
- · Jumbo frame support
- · SFlow sampling for traffic monitoring

### **Layer 3 Services**

- · IPv4/IPv6 Static Routing
- Dynamic Host Configuration Protocol (DHCP) including DHCP server, client, relay, smart relay for IPv4 and IPv6
- Multicast Listener Discovery (MLD) static membership with support for MDLD v1/v2 snooping (IPv6)

## **Security/Policy**

- Access Control Lists (ACLs) on ingress and egress ports (IPv4/ IPv6)
- · Access Control Lists, ingress and egress meters
- Policy Based Routing (PBR) for IPv4/IPv6
- · IEEE 802.1X authentication
- $\cdot$  MAC-based port security, lockdown
- · Extreme ONEPolicy

## **4000 Series Software Scaling**

#### 4120 with Switch Engine

MAC Table: 16,000 IPv4 ARP Table: 400 IPv4 Route Table: 64 IP Multicast Entries (S,G,V): 150

IPv6 Neighbor Table: 200

IPv6 Route Table: 32

ACLs (Ingress/Egress): 1,024/256

VLANs: 4,094

Routed VLANs: 125

#### One Policy Scaling:

Policy Profiles: 63

Unique Permit/Deny Rules (ACL/Traditional): 440/184

#### **4220** with Switch Engine

MAC Table: 32,000

IPv4 ARP Table: 4,000

IPv4 Route Table: 1,000

IP Multicast Entries (S,G,V): 1,500

IPv6 Neighbor Table: 2,000

IPv6 Route Table: 500

ACLs (Ingress/Egress): 2,048/512

VLANs: 4,094

Routed VLANs: 509

#### One Policy Scaling:

Policy Profiles: 63

Unique Permit/Deny Rules (ACL/Traditional): 952/440

#### **4220** with Fabric Engine

MAC Table: 16,000 (32,000 non-Fabric)

IPv4 ARP/IP Host Table: 4,000/ (includes static and dynamic ARPs as well as

host routes (/32 routes))
IPv4 Route Table: 1,000

IP Multicast Routes: 500

IPv4 ACL (Ingress/Egress): 1,024/190

QoS Egress Queues/Port: 8

VLANs: 4,059

Routed VLANs: 128

#### Fabric Connect Scaling:

Fabric Adjacencies per switch: 12

BEB Nodes per VSN: 128

L2 VSN: 64

L3 VSN: 1

## **Environmental**

#### **Environmental Specifications**

EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage

EN/ETSI 300 019-2-2 v2.3.1 - 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 rms

#### **Environmental Compliance**

EU RoHS - 2011/65/EU and amendments

EU WEEE - 2012/19/EU

EU REACH - Regulation (EC) No 1907/2006 Reporting

China RoHS - GB/T 26572-2011 Taiwan RoHS - CNS 15663(2013.7)



List of Energy Star Certified Models:\*

4120-24MW-4Y

4120-48MW-4Y

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

#### **Environmental Operating Conditions**

Temperature: 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/s2 (30G), 11 ms, 3 axes, 6 shocks/axis

Random vibration: 3 to 500 Hz 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 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 62368-1

EN 60825-1 Class 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 55035

EN 61000-3-2 (Harmonics)

EN 61000-3-3 (Flicker)

EN 300 386 (EMC Telecommunications)

2014/30/EU EMC Directive

#### **International EMC Certifications**

CISPR 32, Class A (International Emissions)

AS/NZS CISPR32

IEC 61000-4-2 / EN 61000-4-2: Electrostatic Discharge, 8kV Contact, 15kV Air, Criteria B

IEC 61000-4-3 / EN 61000-4-3 Radiated Immunity 3V/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 / EN 61000-4-6 Conducted Immunity, 0.15-80 MHz, 3Vrms, 80%AM (IkHz), 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)

CQC Mark (China)

KCC Mark, EMC Approval (Korea)

BSMI (Taiwan)

Anatel (Brazil)

NoM (Mexico)

EAC (Russia, Belarus, Kazakhstan)

NRCS (South Africa)

TEC (India)

#### **IEEE 802.3 Media Access Standards**

IEEE 802.3ab 1000BASE-T

IEEE 802.3bz 2.5G/5GBASE-T

IEEE 802.3at PoE

IEEE 802.3bt Type 4 PoE

IEEE 802.3ae 10GBASE-R

IEEE 802.3by 25GBASE-R

IEEE 802.3bm/bj 100GBASE-R

IEEE 802.3az Energy Efficient Ethernet

## **Ordering Notes**

The 4000 Series is solely managed by ExtremeCloud IQ and/or ExtremeCloud IQ Site Engine, and each switch requires an ExtremeCloud IQ Pilot SaaS subscription.

## **Ordering Information**

### **4220 Gigabit Models**

Part Number	Product Name	Description
4220-12T-4X	12-Port Switch 12T-4X	4220 12-port cloud-managed stackable switch with 12x10/100/1000BaseT ports, 4x1G/10G SFP+ ports. Includes Fans (Quiet fan-off mode up to 35°C), 1 Fixed AC PSU, Rack-Mount Kit, Base software
4220-12P-4X	12-Port PoE+ Switch 12P-4X	4220 12-port cloud-managed stackable switch (124W PoE) with 12x10/100/1000BaseT 30W PoE ports, 4x1G/10G SFP+ ports. Includes Fans (Quiet fan-off mode up to 35°C), 1 Fixed AC PSU, Rack-Mount Kit, Base software
4220-24T-4X	24-Port Switch 24T-4X	4220 24-port cloud-managed stackable switch with 24x10/100/1000BaseT ports, 4x1G/10G SFP+ ports. Includes Fans, 1 Fixed AC PSU, Rack-Mount Kit, Base software
4220-24P-4X	24-Port PoE+ Switch 24P-4X	4220 24-port cloud-managed stackable switch (195W PoE) with 24x10/100/1000BaseT 30W PoE ports, 4x1G/10G SFP+ ports. Includes Fans, 1 Fixed AC PSU, Rack-Mount Kit, Base software
4220-48T-4X	48-Port Switch 48T-4X	4220 48-port cloud-managed stackable switch with 48x10/100/1000BaseT ports, 4x1G/10G SFP+ ports. Includes Fans, 1 Fixed AC PSU, Rack-Mount Kit, Base software
4220-48P-4X	48-Port PoE+ Switch 48P-4X	4220 48-port cloud-managed stackable switch (370W PoE) with 48x10/100/1000BaseT 30W PoE ports, 4x1G/10G SFP+ ports. Includes Fans, 1 Fixed AC PSU, Rack-Mount Kit, Base software

### **4220 Multi-Gigabit Models**

Part Number	Product Name	Description
4220-4MW-8P-4X	12-Port Multi-Gig Switch 4MW-8P-4X	4220 12-port cloud-managed stackable multi-gigabit switch (240W PoE) with 4x1G/2.5G/ 5GBaseT 90W PoE ports, 8x10/100/1000BaseT 30W PoE ports, 4x1G/10G SFP+ ports. Includes Fans (Quiet fan-off mode up to 35°C), 1 Fixed AC PSU, Rack-Mount Kit, Base software
4220-4MW-20P-4X	24-Port Multi-Gig Switch 4MW-20P-4X	4220 24-port cloud-managed stackable multi-gigabit switch (370W PoE) with 4x1G/2.5G/5GBaseT 90W PoE ports, 20x10/100/1000BaseT 30W PoE ports, 4x1G/10G SFP+ ports. Includes Fans, 1 Fixed AC PSU with option to add external redundant PSU, Rack-Mount Kit, Base software
4220-8MW-40P-4X	48-Port Multi-Gig Switch 8MW-40P-4X	4220 48-port cloud-managed stackable multi-gigabit switch (740W PoE) with 8x1G/2.5G/ 5GBaseT 90W PoE ports, 40x10/100/1000BaseT 30W PoE ports, 4x1G/10G SFP+ ports. Includes Fans, 1 Fixed AC PSU with option to add external redundant PSU, Rack-Mount Kit, Base software

#### 4220 10 Gigabit Fiber Model

Part Number	Product Name	Description
4220-8X	8-Port Switch 8X	4220 8-port cloud-managed stackable switch 8x1G/10G SFP+ ports. Includes Fans, 1 Fixed AC PSU, Rack-Mount Kit, Base software

### 4120 Multi-Gigabit Models

Part Number	Product Name	Description
4120-24MW-4Y	24-port Multi-Gig 90W PoE switch 24MW-4Y	4120 24-port cloud-managed stackable Multi-Gig switch with 24x10M/100M/1G/2.5GBaseT 90W PoE ports, 2x100G QSFP28 Universal/Stack ports, 4x25G SFP28 ports, fixed fans, 1 internal fixed AC PSU, 1 unpopulated modular PSU slot, Base Software
4120-48MW-4Y	48-port Multi-Gig 90W PoE switch 48MW-4Y	4120 48-port cloud-managed stackable Multi-Gig switch with 48x10M/100M/1G/2.5GBaseT 90W PoE ports, 2x100G QSFP28 Universal/Stack ports, 4x25G SFP28 ports, fixed fans, 1 internal fixed AC PSU, 1 unpopulated modular PSU slot, Base Software

## **4120 Power Supplies**

Part Number	Product Name	Description
XN-ACPWR-920W- FB-U	920W AC PSU	920W AC PSU for 4120 24-port model (4120-24MW-4Y)
XN-ACPWR-1200W- FB-U	1200W AC PSU	1200W AC PSU for 4120 24- or 48-port (4120-24MW-4Y or 4120-48MW-4Y)
XN-ACPWR-2000W- FB-U	2000W AC PSU	2000W AC PSU for 4120 48-port (4120-48MW-4Y)

## **4220 Redundant Power Supplies**

Part Number	Product Name	Description
RPS-550W	550W External Redundant Power Supply	550W (370W PoE) external redundant power supply (for use with 4220-4MW-20P-4X), includes Rack-Mount Kit
RPS-950W	950W External Redundant Power Supply	950W (740W PoE) external redundant power supply (for use with 4220-8MW-40P-4X), includes Rack-Mount Kit
RPS-CBL-1M	1-meter cable for use with External Redundant Power Supply	1-meter RPS cable for use with 550W & 950W external RPS for 4220

#### Accessories

Part Number	Product Name	Description
16573	Wall Mount for 4220 12-port switches	Wall Mount option for 4220 12-port switches
XN-2P-RMKIT-002	2P Rack-Mount Kit for RPS-550W/ 950W	Spare two-post rack mount kit for RPS-550W and RPS-950W external redundant power supplies
XN-2P-RMKIT-008	2P Rack-Mount Kit for 4120 and 4220 24/48-port switches	Spare two-post rack mount kit for 4120 and 4220 24 & 48 port switches. Includes brackets for front or mid-mount of chassis in a two-post or four-post rack
XN-2P-RMKIT-009	2P Rack-Mount Kit for 4220 12- port switches	Spare two post rack mount kit for 4220 12-port switches. Includes brackets for front or mid- mount of chassis in a two-post or four-post rack
XN-USB-BT500- ADAPTER	Bluetooth Adapter	Bluetooth Adapter for use with ExtremeCloud IQ Mobile Application
ESTS01	Air Temperature Thermal Sensor	Ambient Air Temperature Sensor for Energy Star (USB) (4120 series only)

#### **Software Licenses**

Part Number	Product Name	Description
XIQ-PIL-S-C-EW	XIQ Pilot SAAS Subscription and EW support (1 device)	ExtremeCloud IQ Pilot SaaS Subscription and EW SaaS support for one (1) device
XIQ-PIL-S-C-PWP	XIQ Pilot SAAS Subscription and PWP support (1 device)	ExtremeCloud IQ Pilot SaaS Subscription and PWP SaaS support for one (1) device

## **Warranty**

The 4000 Series is covered under Extreme's Universal LLW policy. For warranty details, visit <a href="https://www.extremenetworks.com/support/policies">https://www.extremenetworks.com/support/policies</a>.

#### **Power Cords**

In support of the Extreme Networks green initiatives, power cords can be ordered separately but need to be specified at time of ordering.

## **Optics/Transceivers**

For a list of the optics and transceivers supported on the 4000 Series hardware, refer to our Extreme Optics Compatibility Tool at <a href="https://optics.extremenetworks.com">https://optics.extremenetworks.com</a>.

### **Maintenance Services**

Extreme's maintenance and support services, with 100% in-sourced engineering experts and over 90% first-person resolution, ensure efficient operations of your business-essential network. 24x7x365 phone support, advanced part replacement, and on-site support augment your staff with experienced resources that help you mitigate critical network issues fast. Visit <a href="Extreme Maintenance Services">Extreme Maintenance Services</a> for more information.



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