

# 7720 Series Switch



## 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 dual-persona Universal Hardware
- Extreme Platform One security policy enforcement
- Automated and streamlined switch provisioning and day-to-day operations with cloud-based instant actions
- High-performance, fixed-form switches for leaf, spine, aggregation, or core applications

## Key Hardware Features

- 32x 40Gb/100Gb fiber ports in a fixed 1U form factor
- AC and DC power options
- Back-to-front and front-to-back airflow options
- Up to 8-unit stacking
- Integrated Application Hosting enables 3rd-party applications without impacting switch performance
- Non-blocking, wire-speed design



## Universal Aggregation/Core Switches

The Extreme 7720 are purpose-built switches designed for high-performance aggregation and core applications. As a universal hardware solution, the 7720 provides end-to-end secure network segmentation, in addition to advanced policy capabilities, with a user-selectable choice of Extreme's flagship switch operating systems. This makes the 7720 a uniquely flexible solution that can be deployed in a variety of aggregation and core environments.

The Extreme 7720 network hardware solution enables organizations to design networks that accommodate a variety of applications and east-west traffic patterns. With its high-density scale-out architecture, leading power efficiency, and airflow options, the 7720 delivers a cost-effective solution that optimizes power, cooling, and equipment room space, wherever your network operating center might be. With a 1U form-factor, the 7720 packs in up to 32 ports of 40/100Gb connectivity with QSFP28 fiber ports.

## Network Management Flexibility

The 7720 Universal Switch is managed by Extreme Platform ONE or ExtremeCloud IQ from the cloud or on-premises. Alternatively, 7720 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.

## High-Performance Stacking

Two of the 7720's QSFP28 ports can be used for high-speed 400Gb stacking when running Switch Engine (EXOS). Up to eight systems can be stacked using qualified direct attach cables and/or optical transceivers. (Note: Stacking is not supported when running Fabric Engine (VOSS)).

## Universal Hardware

The 7720 Series 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. 7720 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.

## Instant Port\*

Instant Port automates adds, moves or changes across 7720 Series switch ports, eliminating the need for manual port configuration. The 7720 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 7720 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 7720 Series switches in the network

**\*Supported via Switch Engine only**

## 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 into 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 7720 switch supports 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 7720, no additional licenses or controllers are required.

## Instant Onboarding

7720 switch onboarding to the cloud is a hands-off operation using zero touch provisioning. Simply unpack the 7720 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 Secure Port\*

Instant Secure Port leverages Extreme Platform ONE Security for authentication and zero-trust policy enforcement across the 7720 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 authentication, unified visibility and reporting, as well as policy enforced locally on 7720 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 7720 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.

## Switch Specifications – 7720 (32 x 100Gb)

Ports	<ul style="list-style-type: none"> <li>• 32 x QSFP+QSFP28 40Gb/100Gb ports</li> <li>• 124 x 10G/25G ports using break-out cables</li> <li>• 1 x Serial console port RJ-45</li> <li>• 2 x 10/100/1000BASE-T out-of-band management port (only the first port is used for out-of-band management)</li> <li>• USB Type A storage port</li> </ul>
Power Supplies	<ul style="list-style-type: none"> <li>• Modular 800W AC power supply (up to 2 PSUs)</li> <li>• Modular 800W DC power supply (up to 2 PSUs)</li> <li>• Front-Back and Back-Front airflow options</li> </ul>
Fan Tray	<ul style="list-style-type: none"> <li>• 6 fan modules, support one fan redundancy</li> <li>• Front-Back and Back-Front airflow options</li> </ul>
Dimensions	• 17.3in W/22.44in D/1.7in H (44.0cm/57.0cm/4.3cm)
Weight	• 16.3 lb (7.4 kg) no PSU/19.9 lb (9.0 kg) with two PSUs
Performance	<ul style="list-style-type: none"> <li>• Line rate 6.4 Tbps Switching Capacity (3.2 Tbps ingress, 3.2 Tbps egress)</li> <li>• Forwarding Rate: 2000 Mpps</li> <li>• Typical Latency: 800 ns</li> </ul>
CPU/Memory	<ul style="list-style-type: none"> <li>• 8-core Processor</li> <li>• 16GB DDR4 ECC memory</li> <li>• 128GB SSD memory</li> </ul>
Packet Buffers	• 32MB
Operating Conditions	<ul style="list-style-type: none"> <li>• Environmental Operating Temperature</li> <li>• Front-to-back: <ul style="list-style-type: none"> <li>○ 0°C (32°F) to 50°C (124°F) at sea level</li> <li>○ 0°C (32°F) to 45°C (113°F) up to 1800 m (6000ft)</li> <li>○ 0°C (32°F) to 40°C (104°F), up to 3000m (10000 ft)</li> </ul> </li> <li>• Back-to-front: <ul style="list-style-type: none"> <li>○ 0°C (32°F) to 45°C (113°F) at sea level</li> <li>○ 0°C (32°F) to 40°C (104°F) up to 1800 m (6000ft)</li> <li>○ 0°C (32°F) to 35°C (95°F) up to 3000m (10000 ft)</li> </ul> </li> </ul>

## Software Scaling

### Switch Engine

- MAC Table: 294,000
- IPv4 ARP Table: 184,000
- IPv4 Route Table: 256,000
- IPv4 Multicast Entries (S,G,V): 104,000
- IPv6 Neighbor Table: 57,000
- IPv6 Route Table: 131,000
- ACLs (Ingress/Egress): 8,192/1,024
- QoS Egress Queues per port: 8
- VLANs: 4,094
- Routed VLANs: 2,048

### One Policy Scaling

- Policy Profiles: 63
- Unique Permit/Deny Rules per switch: 16,312

### Fabric Engine

- MAC Table: 160,000
- IPv4 ARP Table: 40,000
- IPv4 Route Table: 15,000
- IP Multicast Entries (S,G,V): 6,000
- IPv6 Neighbor Table: 32,000
- IPv6 Route Table: Up to 7,000
- ACLs (Ingress/Egress): 512/254 for non-IPv6
- QoS Egress Queues per port: 8
- VLANs: 4,059
- IP Interfaces (Routed VLANs): 1,000

### Fabric Connect Scaling

- Fabric Adjacencies per switch: 255
- BEB Nodes per VSN: 2,000
- L2 VSNs: 4,000
- L3 VSNs: 256

## Power and Heat Dissipation

Switch Model	Minimum Heat Dissipation (BTU/hr) (Idle, no ports linked)	Minimum Power Consumption (Watts) (Idle, no ports linked)	Maximum Heat Dissipation (BTU/hr) (Fans high, all ports 100% traffic)	Maximum Power Consumption (Watts) (Fans high, all ports 100% traffic)
7720-32C-AC (F/R)	972 BTU/hr	285W	1340 BTU/hr	393W
7720-32C-DC (F/R)	975 BTU/hr	286W	1381 BTU/hr	405W

\* Includes maximum PoE load (W) through the switch

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

## Power Supply Specifications

	800W AC PSU XN-ACPWR-800W-F/R	800W DC PSU XN-DCPWR-800W-F/R
Dimensions	3.15in W x 1.57in H x 8.11in D (8.0 cm x 4.0 cm x 20.6 cm)	3.15in W x 1.57in H x 8.11in D (8.0 cm x 4.0 cm x 20.6 cm)
Weight	1.79 lb (0.81 kg)	1.85 lb (0.85 kg)
Voltage Input Range	100-140 VAC/200-240 VAC	-48 to -60 VDC
Line Frequency Range	50-60 HZ	N/A
PSU Input Socket	IEC 320 C14	Terminal Block
PSU Output Cord	IEC 320 C13	N/A
Operating Conditions	0°-55°C operation	0°-55°C operation

# Product Specifications

## Environmental

### Environmental Specifications

EN/ETSI 300 019-2-1 v2.1.2 – Class 1.2 Storage  
EN/ETSI 300 019-2-2 v2.1.2 – Class 2.3 Transportation  
EN/ETSI 300 019-2-3 v2.1.2 – Class 3.1e Operational  
EN/ETSI 300 753 (1997-10) – Acoustic Noise  
ASTM D3580 Random Vibration Unpackaged 1.5 G

### Environmental Compliance

EU RoHS – 2011/65/EU  
EU WEEE – 2012/19/EU  
EU REACH – Regulation (EC) No 1907/2006 Reporting  
China RoHS – SJ/T 11363-2006  
Taiwan RoHS – CNS 15663(2013.7)

### Environmental Operating Conditions

Temp: 0°C to 50°C (32°F to 122°F)  
Humidity: 10% to 95% relative humidity, non-condensing  
Altitude: 0 to 3,000 meters (9,850 feet)  
Shock (half sine) 98m/s<sup>2</sup> (10G), 11ms, 18 shocks  
Random vibration: 3Hz to 500Hz at 1.5 G rms

### 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<sup>2</sup> (18 G), 6 ms, 600 shocks  
Packaged Vibration: 5Hz to 62Hz at velocity 5 mm/s, 62Hz to 500Hz at 0.2 G  
Packaged Random Vibration: 5Hz to 20Hz at 1.0 ASD w/-3 dB/oct. from 20Hz to 200Hz  
Packaged Drop Height: 14 drops minimum on sides and corners at 42 inches (<15 kg box)

## Regulatory and Safety

### North American ITE

UL 62368-1  
UL/CuL62368-1 Listed  
CAN/CSA-C22.2 No 60950-1-07 Incl. AM1 (2011) and AM2 (2014)  
CAN/CSA C22.2 No. 62368-1:19  
Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)  
CDRH Letter of Approval (US FDA Approval)

### European ITE

EN 60950-1 2nd Edition  
EN62368-1  
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 62368.1:2022 (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 55011  
EN 61000-3-2,2014 (Harmonics)  
EN 61000-3-3 2013 (Flicker)  
EN 61000-6-2  
EN 61000-6-4  
EN 300 386 (EMC Telecommunications) 2014/30/EU EMC Directive

### International EMC Certifications

CISPR 32, Class A (International Emissions) AS/NZS CISPR32  
CISPR24 Class A (International Immunity)  
IEC 61000-4-2/EN 61000-4-2 Electrostatic Discharge, 8 kV 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  
IEC61000-4-6 Conducted Immunity, 0.15-80MHz, 10V/rms, 80%AM (1kHz), Criteria A  
IEC/EN61000-4-11 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 802.3ae 10GBASE-X  
IEEE 802.3 10GBASE-T (up to 100m using Cat6a cabling or better)  
IEE 802.3by-2016 25Gb/s Operation  
IEEE 802.3ba/802.3bm 40 GBASE-X and 100 GBASE-X

## Ordering Notes

Customers ordering an AC-bundled version of the 7720 Series switch receive the hardware switch along with a Base software license, integrated power supply, fan modules, and rack-mount kit.

Customers ordering a non-bundled version of the 7720 Series switch customers will only receive the hardware switch, Base software license, and rackmount kit. Customers in this case, must order Power Supply Units (PSU) and fan modules separately.

At least one Power Supply Unit (PSU) is required for 7720 operations. Additional power supplies, transceiver/optics, console cables, power cords, as well as Premier license, must be ordered separately.

### Base Software and Optional Premier License

The Base software included with each 7720 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
- PIM DM/PIM SSM
- Anycast RP (Rendezvous Point)
- MultiSource Discovery Protocol (MSDP)
- IS-IS/BGP4/MBGP\*
- GRE Tunneling
- Ethernet VPN (EVPN)

\*Up to 2 BGP interfaces included in Base software

#### For Fabric Engine, a Premier License is required for:

- Layer 3 Virtual Services Networks (VSNs)
- Distributed Virtual Routing Controller
- VXLAN Gateway
- 5 or more active OSPF interfaces
- 17 or more BGP peers
- Insight Architecture/Integrated Application Hosting (IAH)

## Power Supplies for Use with 7720

Each 7720 switch runs with two replaceable internal power supply modules that provide all the power needed for the switch to operate. You can remove one power supply module without interrupting the switch's operation. Supported power supply configurations include two 800W AC power supply modules, two 800W DC power supply modules, or one 800W AC and one 800W DC power supply module. Power supply modules have integrated cooling fans that operate independently of the switch fans and are available with front-to-back or back-to-front airflow. The direction of the airflow in both power supply modules must be in the same direction and must also be in the same direction of the airflow in the fan modules

## Ordering Information

### 7720 Systems

Part Number	Product Name	Description
7720-32C*	7720-32C Base System	Extreme 7720-32C Switch with two empty power supply slots, six empty fan slots, Ships with one 4-post rack mount kit. Supports 32 x 40G/100G fiber ports
7720-32C-AC-F*	7720-32C with front-to-back airflow	Extreme 7720-32C Switch - Ships with two AC front-to-back airflow power supplies, six front-to-back airflow fans, one 4-post rack mount kit. Supports 32 x 40G/100G fiber ports
7720-32C-AC-R*	7720-32C with back-to-front airflow	Extreme 7720-32C Switch - Ships with two AC back-to-front airflow power supplies, six back-to-front airflow fans, one 4-post rack mount kit. Supports 32 x 40G/100G fiber ports

\* When running Fabric Engine on the 7720, 2 of the 7720 uplink ports are blocked in support of Ethernet Fabric Connect (SPB) functionality

## Accessories

Part Number	Product Name	Description
XN-ACPWR-800W-F	800W AC PSU (Front-to-Back)	AC800W PSU, Front to Back Airflow for use in 7520, 7720
XN-ACPWR-800W-R	800W AC PSU (Back-to-Front)	AC800W PSU, Back to Front Airflow for use in 7520, 7720
XN-DCPWR-800W-F	800W DC PSU (Front-to-Back)	DC800W PSU, Front to Back Airflow for use in 7520, 7720
XN-DCPWR-800W-R	800W DC PSU (Back-to-Front)	DC800W PSU, Back to Front Airflow for use in 7520, 7720
XN-FAN-001-F	Fan Module (Front-to-Back)	Single Fan module Front to Back Airflow (also used in X695, VSP 7400, SLX 9150, SLX 9250, 8520, 8720, and 7520)
XN-FAN-001-R	Fan Module (Back-to-Front)	Single Fan module Back to Front Airflow (also used in X695, VSP 7400, SLX 9150, SLX 9250, 8520, 8720, and 7520)
XN-2P-RKMT299	Two-post rack mount kit	Two-post rack mount kit for 7520 and 7720 switches
XN-4P-RKMT298	Four-post rack mount kit	Four-post rack mount kit for 7520-48Y, 7520-48XT, and 7720 switches
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
7000-PRMR-LIC-P	Premier License for 7000 Series	Extreme7000 Premier Feature License (Includes Integrated Application Hosting)

## 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 datasheet](#) for additional details on subscriptions and product tiers.

## Warranty

All 7720 Series models are covered under Extreme's Universal LLW policy. For warranty details, please visit our [Policies and Warranties page](#).

## Power Cords

In support of Extreme Networks green initiatives, power cords are not included with the 7720 but can be ordered separately. They should be specified at time of ordering.

## Console Cables

Console cables are not included with the 7720 in support of our green initiatives but can be ordered separately.

## Optics/Transceivers

For a list of the optics and transceivers supported on the 7720 Series hardware, refer to our [Extreme Optics Compatibility Tool](#).

## Maintenance Services

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

With 24x7x365 phone support, advanced parts replacement, and on-site support, we augment your staff with expert resources to help you mitigate critical network issues fast. Visit [Extreme Maintenance Services](#) for more information.

## Certifications

For information on Industry, Security, and Government certifications for 7720 Series models, contact your Sales Representative.

