

Data Sheet

Extreme 7520



Highlights

- Manageable by Extreme Platform ONE^{TM*}, ExtremeCloudTM 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 AI
- ExtremeCloud Universal ZTNA 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

- Three models two models with no MACsec and one model with MACsec 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

*Extreme Platform ONETM General Availability (GA) in H2 2025



Universal Aggregation/Core Switches

The Extreme 7520 are purpose-built 48-port 10Gb and 48-port 25Gb switches designed for high-performance aggregation and core applications. As a universal hardware solution, the 7520 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 7520 a uniquely flexible solution that can be deployed in a variety of aggregation and core environments.

The Extreme 7520 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 7520 delivers a cost-effective solution that optimizes power, cooling, and equipment room space, wherever your network operating center might be.

Three models of the 7520 are available.

7520-48XT-6C

48 x 1Gb/10Gb 10GBaseT copper ports (no MACsec) 6 x 40Gb/100Gb QSFP28 fiber ports (no MACsec)

7520-48Y-8C

48 x 1Gb/10Gb/25Gb SFP28 fiber ports (no MACsec) 8 x 40Gb/100Gb QSFP28 fiber ports (no MACsec)

7520-48YE-8CE

48 x 10/25Gb SFP28 fiber ports with MACsec support 8 x 100Gb QSFP28 fiber ports with MACsec support Note: This model does not support stacking

Network Management Flexibility

The 7520 Universal Switch series are managed by Extreme Platform ONE or ExtremeCloud IQ from the cloud or on-premises. Alternatively, 7520 onbox 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 Al 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, deployment, and management.
- Extreme Fabric and third-party switch visualization and management in cloud.
- Inventory management simplifies budgeting, planning and compliance.

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 7520 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 7520, no additional licenses or controllers are required.

Instant Onboarding

7520 Series onboarding to the cloud is a hands-off operation using zero touch provisioning. Simply unpack the 7520 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 7520 Series switch ports, eliminating the need for manual port configuration. The 7520 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 7520 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 7520 Series switches in the network.

High-Performance Stacking

Two of the 7520's QSFP28 uplink ports can be used for high-speed 400Cb 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 on the 7520-48YE-8CE model or when running Fabric Engine (VOSS)).

Universal Hardware

The 7520 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. 7520 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 Secure Port*

Instant Secure Port leverages ExtremeCloud Universal ZTNA for authentication and zero-trust policy enforcement across the 7520 Series switch ports, while providing the same add, move, and change automation features of Instant Port. It simplifies 7520 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 7520 Series ports. In doing so, it delivers a consistent and frictionless security experience for any user or device connecting through the 7520 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. Realworld 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

Switch Specifications

Model	7520-48Y-8C 7520-48YE-8CE	7520-48XT-6C	
Ports • 48 x 1/10/25CbE SFP28 ports (48Y/8C) • 48 x 10/25CbE SFP28 ports (48YE-8CE) • 8 x 40/100GbE QSFP28 ports • 1 x Serial console port RJ-45 • 1 x 10/100/1000BASE-T out-of-band management port • USB Type A storage port		 48 x 1/10GbE 10GBaseT ports 6 x 40/100GbE QSFP28 ports 1 x Serial console port RJ-45 1 x 10/100/1000BASE-T out-of-band management port USB Type A storage port 	
Power Supplies	 Modular 800W AC power supply (up to two PSUs) Modular 800W DC power supply (up to two PSUs) Front to Back and Back to Front airflow option 	 Modular 800W AC power supply (up to two PSUs) Modular 800W DC power supply (up to two PSUs) Front to Back and Back to Front airflow options 	
Fan Modules	 6 fan modules Front-Back and Back-Front airflow options 	 6 fan modules Front-Back and Back-Front airflow options 	
Dimensions	 17.3in W/21.24in D/1.7in H (44.0cm/53.95cm/4.3cm) (48Y-8C) 17.31in W/21.69in D/1.71in H (44.0cm/53.95cm/4.3cm) (48YE-8CE) 	• 17.3in W/20.9in D/1.7in H (44.0cm/53.2cm/4.3cm)	
Weight	 16.71 lb (7.58 kg) empty chassis (48Y-8C) 22.29 lb (10.11 kg) with two AC PSUs (-F and -R models) (48Y-8C) 20.35 lb (9.23 kg) empty chassis (48YE-8CE) 26.23 lb (11.90 kg) with two AC PSUs (-F and -R models) (48YE-8CE) 	 16.34 lb (7.41 kg) no PSU 20.88 lb (9.47 kg) with two AC PSUs (-F and -R models) 	
Performance	 Line rate 4 Tbps Switching Capacity (2 Tbps ingress, 2 Tbps egress) Typical Latency: 800 ns Forwarding rate: 1000 Mpps 	 Line rate 2.16 Tbps Switching Capacity (1.08 Tbps ingress, 1.08 Tbps egress) Typical Latency: 2,400 ns Forwarding rate: 1000 Mpps 	
CPU/Memory	8-core Processor 16GB DDR4 ECC memory 128GB SSD memory	 8-core Processor 16GB DDR4 ECC memory 128GB SSD memory 	
Packet Buffers	32MB	32MB	
Environmental Operating ConditionsAC/DC, one fan failed, front-to-back: 		 AC/DC, one fan failed, front-to-back: 0°C (32°F) to 50°C (122°F) at sea level; 0°C (32°F) to 40°C (104°F) up to 3000 m (10,000 ft) AC/DC, one fan failed, back-to-front: 0°C (32°F) to 45°C (113°F) at sea level; 0°C (32°F) to 40°C (104°F) up to 3000 m (10,000 ft) 	

7520 Software Scaling Values

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 IPv4 ARP Table: 40,000 with SPB 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

One Policy Scaling

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

Fabric Engine

MAC Table: 160,000

Power and Heat Dissipation

Switch Model	Minimum Heat Dissipation (BTU/hr) (Idle, no ports linked)	Minimum Power Consumption (W) (Idle, no ports linked)	Maximum Heat Dissipation (BTU/hr) (Fans high, all ports 100% traffic)	Maximum Power Consumption (W) (Fans high, all ports 100% traffic)
7520-48XT-6C	407.48	119.42	1359.06	398.30
7520-48Y-8C	326.71	95.75	1307.36	383.15
7520-48YE-8CE	596.58	174.84	1638.51	480.20

Power Supply Specifications

	800W AC PSU XN-ACPWR-800W-F/R	800WDC PSU XN-DCPWR-800W-F/R	
Dimensions	3.15 in W x 1.57 in H x 8.11 in D (8.0 cm x 4.0 cm x 20.6 cm)	3.15 in W x 1.57 in H x 8.11 in D (8.0 cm x 4.0 cm x 20.6 cm)	
Weight	1.79 lb (0.81kg)	1.85 lb (0.85kg)	
Voltage Input Range	100VAC-140 VAC/200VAC-240 VAC	-48VDC to -60VDC	
Line Frequency Range	50Hz- 60Hz	N/A	
PSU Input Socket	IEC320 C14	Terminal Block	
PSU Output Cord	IEC320 C13	N/A	
Operating Conditions	0°C–55°C operation	0°C–55°C operation	

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/s2 (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/s2 (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 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 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 61000-4-3 Radiated Immunity 10V/m, Criteria B 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, 0.15-80MHz, 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 IEEE 802.3az Energy Efficient Ethernet (7520-48XT only)

Ordering Notes

Customers ordering an AC-bundled version of the 7520 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 7520 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 7520 operations. Additional power supplies, transceiver/optics, power cords, as well as Premier license, must be ordered separately.

Base Software and Optional Premier License

The Base software included with each 7520 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

Ordering Information

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 Your Switch

Each 7520 Series switch runs with two replaceable internal power supply modules that provide all of 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.

Part Number	Product Name	Description
7520-48XT-6C	7520-48XT Base System	Extreme 7520-48XT Switch - Ships with two empty power supply slots, six empty fan slots, one 4-post rack mount kit. Supports 48 x 1G/10G copper ports and 6 x 40G/100G fiber ports
7520-48XT-6C-AC-F	7520-48XT with front-to-back airflow	Extreme 7520-48XT Switch - Ships with two AC front-to-back airflow power supplies, six front- to-back airflow fans, one 4-post rack mount kit. Supports 48 x IG/10G copper ports and 6 x 40G/100G fiber ports
7520-48XT-6C-AC-R	7520-48XT with back-to-front airflow	Extreme 7520-48XT Switch - Ships with two AC back-to-front airflow power supplies, six back- to-front airflow fans, one 4-post rack mount kit. Supports 48 x IG/10G copper ports and 6 x 40G/100G fiber ports
7520-48Y-8C*	7520-48Y Base System	Extreme 7520-48Y Switch with two empty power supply slots, six empty fan slots, Ships with one 4-post rack mount kit. Supports 48 x 1G/10G/25G fiber ports and 8 x 40G/100G fiber ports
7520-48YE-8CE*	7520-48YE Base System	Extreme 7520-48YE Switch with two empty power supply slots, six empty fan slots, Ships with one 4-post rack mount kit. Supports 48 x 10G/25G fiber ports and 8 x 40G/100G fiber ports. Includes embedded MACsec capabilities.
7520-48Y-8C-AC-F*	7520-48Y with front- to-back airflow	Extreme 7520-48Y Switch - Ships with two AC front-to-back airflow power supplies, six front- to-back airflow fans, one 4-post rack mount kit. Supports 48 x 1G/10G/25G fiber ports and 8 x 40G/100G fiber ports

Part Number	Product Name	Description
7520-48YE-8CE-AC-F*	7520-48YE with front-to-back airflow	Extreme 7520-48YE Switch - Ships with two AC front-to-back airflow power supplies, six front- to-back airflow fans, one 4-post rack mount kit. Supports 48 x 10G/25G fiber ports and 8 x 40G/100G fiber ports. Includes embedded MACsec capabilities.
7520-48Y-8C-AC-R*	7520-48Y with back- to-front airflow	Extreme 7520-48Y Switch - Ships with two AC back-to-front airflow power supplies, six back- to-front airflow fans, one 4-post rack mount kit. Supports 48 x 1G/10G/25G fiber ports and 8 x 40G/100G fiber ports
7520-48YE-8CE-AC-R*	7520-48YE-8CE- AC-R with back-to- front airflow	Extreme 7520-48YE Switch - Ships with two AC back-to-front airflow power supplies, six back- to-front airflow fans, one 4-post rack mount kit. Supports 48 x 10G/25G fiber ports and 8 x 40G/100G fiber ports. Includes embedded MACsec capabilities.

* When running Fabric Engine on the 7520, 2 of the 7520 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, 7720, 8520, and 8720)
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, 7720, 8520, and 8720)
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
XN-4P-RKMT302	Four-post rack mount kit	Four-post rack mount kit for 7520-48YE switches

Software Licenses

Part Number	Product Name	Description
7000-PRMR-LIC-P	Premier License for 7000 Series	Perpetual Premier License for Extreme 7000 series (Includes Integrated Application Hosting)
7000-MACSEC-LIC-P	MACsec License for 7000 Series	Perpetual MACsec License for Extreme 7000 series

Warranty

All 7520 Series models are covered under Extreme's Universal LLW policy. For warranty details, visit: <u>http://www.extremenetworks.com/</u> <u>support/policies</u>

Maintenance Services

Extreme's maintenance and support services with 100% in-sourced engineering experts and over 90% first-person resolution ensure efficient operation of your business-essential network. 24x7x365 phone support, advanced parts replacement, and on-site support augment your staff with experienced resources that help you mitigate critical network issues fast. Visit our ExtremeWorks Maintenance Services page for more information.

Optics/Transceivers

For a list of the optics/transceivers supported on the 7520 Series, refer to our Extreme Optics Compatibility Tool.

Power Cords

In support of Extreme Networks green initiatives, power cords are not included with the 7520 but can be ordered separately. They should be specified at time of ordering.



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