

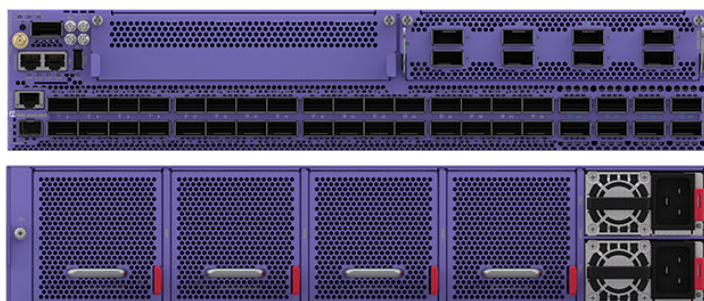
Extreme 7830

Highlights

- Next-generation high performance core switch offering high density 100G and 400G interfaces and Extreme Fabric in a compact 2RU fixed modular form factor.
- Extreme Platform ONE™, ExtremeCloud™ IQ management.
- Automated provisioning and secure micro and macro-segmentation, edge to core, with Extreme Fabric.

Key Hardware Features

- Native 32x100G QSFP28 + 8x400G QSFP-DD fixed ports and 2 expansion slots in a 2RU chassis.
- Modular Versatile Interface Modules (VIMs) offering flexible port expansion options with 10G/25G, 100G and 400G ports.
- 256-bit MACsec on all ports.
- AC and DC power options.
- Back-to-front and front-to-back airflow options.
- Non-blocking, wire-speed design.



Universal 400G Core Switch

Enterprise core and data center networks increasingly demand scalable, high-performance switching paired with network automation and security. Designed for high-performance 100G and 400G enterprise core and data center networks, the Extreme 7830 switch offers a fixed-modular design.

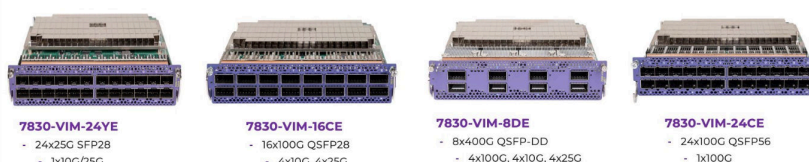
Powered by Extreme Fabric Engine Operating System (Fabric), the 7830 simplifies new service deployment and supports secure end-to-end network macro and microsegmentation from network edge to the core.

The Extreme 7830 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 7830 platform delivers a solution that optimizes power, cooling, and equipment room space, wherever the network operating center might be.

Flexible port expansion with versatile interface modules providing 100G, 400G and 10G/25G port options help protect customer investment.

One model of the 7830 (7830-32CE-8DE) is available with the following port capacity:

- 32 x 100Gb QSFP28 ports, 8 x 400Gb QSFP-DD fixed MACsec ready ports and 2 unpopulated modular VIM slots
- 7830-VIM-24YE : 24 x 10Gb/25Gb SFP28 VIM, MACsec ready
- 7830-VIM-16CE : 16 x 100Gb QSFP28 VIM, MACsec ready
- 7830-VIM-8DE : 8 x 400Gb QSFP-DD VIM, MACsec ready*
- 7830-VIM-24CE : 24 x 100Gb SFP-DD VIM, MACsec ready*



*Orderable 1H2026.

Network Management Flexibility

The 7830 Universal Switch series are managed by Extreme Platform ONE™ or ExtremeCloud™ IQ from the cloud or on-premises. Alternatively, 7830 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 the industry's first all-in-one AI for networking platform with integrated security and conversational, multimodal, and agentic AI.

- A composable workspace with personalized experiences provides the right information and capabilities to the right users.
 - Multi-domain, multi-layer physical, access, fabric, RF, and service views for Extreme and third-party devices in cloud make it simpler to monitor, configure, and troubleshoot the network.
 - Automation through built-in AI reduces time spent on manual tasks.
 - Inventory, subscription, and contract management simplifies budgeting, planning, and compliance.
 - Inclusive subscriptions make Extreme Platform ONE as simple to buy and renew as it is to use.
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Extreme Fabric

The 7830 series switch supports Extreme's network fabric natively for network virtualization, automation, and network security and segmentation. No network fabric solution is more turnkey, resilient, or cost-effective. Fabric automates the discovery and onboarding of network and user devices. Its sub-second convergence reduces unplanned downtime and maintenance windows. Automated macro and microsegmentation and stealth topology enhance and automate network security across campus, data center, and branch. Extreme Fabric is also included free with the purchase of the 7830, no additional licenses or controllers are required.

Key Features

- Flexible support for up to 8 ports of 400 Gigabit Ethernet, 120 ports of 100 Gigabit Ethernet or up to 184 ports of 25/10 Gigabit Ethernet.
- 2x Hot-swappable Ethernet Switch Modules.
- Non-blocking, wire-speed switching architecture.
- Integrated design that is optimized for low latency.
- Flexible table architecture delivers MAC, ARP, and IP Routing scalability.
- Feature-rich support for conventional VLAN, Link Aggregation, Spanning Tree technologies*.
- Support for IP Routing techniques including Static, RIP, OSPF, BGP, ECMP, VRRP, IP Anycast Gateway and VRF.
- Additionally, supports Static, RIPv6, OSPFv3, BGPv6 Peering, ECMP, VRRP, and VRF for IPv6 deployments*.
- Extreme Networks Fabric Connect technology supports L2 Virtual Service Networks (VSNs), Layer 3 Virtual Service Networks, Inter-VSN Routing, IP Shortcut Routing, IP Multicast-over-Fabric Connect and Fabric Connect-PIM Gateway, Fabric Attach Server and Client, Fabric Extend, and Zero-Touch Fabric Connect*.
- MACsec and Enhanced Security Mode options.
- High Availability Power and Cooling
 - Up to 2 field-replaceable, hot-swappable AC or DC internal Power Supplies
 - 4 field-replaceable Fan Modules

*Verify the OS version to confirm feature availability.

Switch Specifications

7830-32CE-8DE	<ul style="list-style-type: none"> • 2RU chassis with 32 x 100Gb QSFP28 fixed ports and 8 x 400Gb QSFP-DD fixed ports, 2 unpopulated VIM slots • 100Gb ports can be channelized as 4 x 10Gb/25Gb SFP+ ports or 1 x 40Gb QSFP+ ports • 400Gb ports can be channelized as 4 x 100Gb QSFP28 ports • All port MACsec capable • 1 x RJ45 Serial console port • 1 x 1G/10G SFP+ • 1 x 100M/1G/10GBase-T management ports • USB Type A storage port
7830-VIM-24YE	<ul style="list-style-type: none"> • 24 x 10Gb/25Gb SFP28 Modular VIM • All ports MACsec capable
7830-VIM-16CE	<ul style="list-style-type: none"> • 16 x 100Gb QSFP28 Modular VIM • 100Gb ports can be channelized as 4 x 10Gb/25Gb SFP+ ports or 1 x 40Gb QSFP+ ports • All ports MACsec capable
7830-VIM-8DE	<ul style="list-style-type: none"> • 8 x 400Gb QSFP-DD Modular VIM • 400Gb ports can be channelized as 4 x 100Gb QSFP28 ports • All ports MACsec capable
7830-VIM-24CE	<ul style="list-style-type: none"> • 24 x 100Gb SFP-DD Modular VIM • All ports MACsec capable
Power Supplies	<ul style="list-style-type: none"> • Modular 2400W AC power supply (up to 2 PSUs) • Modular 2400W DC power supply (up to 2 PSUs) • Front-Back and Back-Front airflow options
Fan Tray	<ul style="list-style-type: none"> • 4 fan modules, N+1 redundant • Front-Back and Back-Front airflow options
Chassis Dimensions	87.8mm (H) x 635mm (D) x 439.6mm (W)
Chassis Weight	17.2 kg
VIM Dimensions	41.40mm (H) x 279.91mm (D) x 190.25mm (W)
VIM Weight	7830-VIM-24YE: 1.36 kg 7830-VIM-16CE: 1.91 kg
Performance	Line rate 25.6 Tbps Switching Capacity (12.8Tbps Ingress, 12.8Tbps Egress)
CPU/Memory	Intel 8 core CPU @2.2Ghz 16GB DDR4 ECC memory 128GB SSD memory
Packet Buffers	80MB

Power Supply Specifications

	2400W AC PSU XN-ACPWR-2400W-F/R-A	2400W DC PSU XN-DCPWR-2400W-F/R-A
Dimensions	40.13mm (H) x 185.17mm (D) x 73.5mm (W)	40.13mm (H) x 185.17mm (D) x 73.66mm (W)
Weight	0.95Kg	0.93Kg
Voltage Input Range	100-240VAC (range 90 to 264VAC)	48 to 60VDC (range 40Vdc to 72Vdc)
Line Frequency Range	50-60Hz	N/A
PSU Input Socket	IEC 320 C20	Terminal Block
Operating Conditions	0° - 45°C operation	0° - 45°C operation

Technical Specifications

Primary Switch Table Scale

MAC Table: 160,000

IPv4 ARP Table: 40,000

IPv4 Route Table: 24,000

IP Multicast Entries: 6,000

IP Routing

IP Interfaces: 1,000

VRRP Interfaces: 500

RSMLT Interfaces: 500*

IPv4 VRFs: 256

OSPF v2/v3 Neighbors: 500

RIP Interfaces: 200

BGP v4 & v6 peers: 256

Anycast GW Interfaces: 500

Fabric

Max IS-IS Areas: 1

Max Fabric adjacencies: 255

Max Fabric nodes per area: 2,000 (BEB, BCB) as Interior Node

Maximum BEBs per I-SID: 2,000

L2 VSNs: 4,000

L3 VSNs: 256

Filters

IPv4 ACL Rules (Ingress/Egress): 4092

IPv6 ACL Rules (Ingress/Egress): 2046

Standards Compliance

IEEE

Bridging (Networking) and Network Management

802.1D MAC Bridges (a.k.a. Spanning Tree Protocol)

802.1p Traffic Class Expediting and Dynamic Multicast Filtering

802.1t 802.1D Maintenance

802.1w Rapid Reconfiguration of Spanning Tree

802.1Q Virtual Local Area Networking (VLAN)

802.1Qbp Equal-Cost Multi-Path (Shortest Path Bridging)

802.1Qcj Automatic Attachment to Provider Backbone Bridging (PBB) Services (Partial Support)

802.1s Multiple Spanning Trees (MSTP)

802.1v VLAN Classification by Protocol and Port

802.1ag Connectivity Fault Management

802.1ah Provider Backbone Bridges802.1aq Shortest Path Bridging (SPB) MAC-in-MAC

802.1X Port-based Network Access Control

802.1AB-2005 Station and Media Access Control

Connectivity Discovery; aka LLDP (partial support)

802.1AE Media Access Control Security

802.1AX Link Aggregation

*Check for feature availability on OS version.

Ordering Information

Part Number	Description
7830-32CE-8DE	7830 Chassis with 32x100G QSFP28 ports and 8x400G QSFP-DD Fixed ports, 2 unpopulated VIM Slots, No PSU or Fans
7830-32CE-8DE-AC-F	7830 Chassis with 32x100G QSFP28 ports and 8x400G QSFP-DD Fixed ports, 2 unpopulated VIM Slots, 2x2400W AC PSU with FB Cooling, 4xFans with FB cooling
7830-32CE-8DE-AC-R	7830 Chassis with 32x100G QSFP28 ports and 8x400G QSFP-DD Fixed ports, 2 unpopulated VIM Slots, 2x2400W AC PSU with BF Cooling, 4xFans with BF cooling
7830-VIM-16CE	7830 VIM with 16x100G QSFP28 ports
7830-VIM-24CE	7830 VIM with 24x100G SFP56-DD ports
7000-PRMR-LIC-P	Premier License for 7000 Series
7000-MACSEC-LIC-P	MACSec License for 7000 Series

Accessories

Part Number	Description
XN-4P-RKMT302	4-Post Rackmount Kit
XN-ACPWR-2400W-FB	2400W AC PSU Front to Back Airflow
XN-ACPWR-2400W-BF	2400W AC PSU Back to Front Airflow
XN-DCPWR-2400W-FB	2400W DC PSU Front to Back Airflow
XN-DCPWR-2400W-BF	2400W DC PSU Back to Front Airflow
XN-FAN-007-FB	Fans with Front to Back Airflow
XN-FAN-007-BF	Fans with Back to Front Airflow

Optics/Transceivers

For a list of the optics/transceivers supported on the 7830 Series, refer to our [Extreme Optics Compatibility Tool](#).

Power Cords

In support of Extreme Networks green initiatives, power cords are not included with the 7830 but can be ordered separately. They should be specified at time of ordering.

Warranty

All 7830 Series models are covered under Extreme's Universal LLW policy. For warranty details, visit: <http://www.extremenetworks.com/support/policies>

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.



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