



HPE FLEXFABRIC 12900E SWITCH SERIES

Modular Ethernet Switches

WHAT'S NEW

- Introducing next generation, high performance 400G/100G H2 modules with improved features ideal for telcos, Cloud Service Providers and large enterprises
- High density 10GbE, 40GbE, 100GbE and 400GbE connectivity with nonblocking wirespeed performance. (H2 modules supports 100GbE/400GbE with Comware v9)
- New gen OS-Comware v9 available with H2 modules offering enhanced software features such as Segment Routing-MPLS, egress ACL, egress rate limiting and others for highly distributed environments.
- HB/HF, Type X and H2 modules support the same chassis, fan tray and power supply resulting in investment protection for customer
- Nonblocking, lossless Clos architecture
- VXLAN, EVPN, IRF, and DRNI support for virtualized and cloud deployments

OVERVIEW

The HPE FlexFabric 12900E Switch Series is a next-generation modular data center core switch designed to support virtualized data centers and the evolving needs of private and public cloud deployments. It offers unprecedented levels of performance, buffering, scale, and availability with high-density GbE, 10GbE, 40GbE, 100GbE and 400GbE connectivity. The switch series includes 1-, 2-, 4-, 8- and 16-slot chassis. Ready for software-defined networking (SDN), the HPE FlexFabric 12900E Switch supports a full Layer 2 and 3 feature set as well as advanced data center features to build resilient scalable fabrics and deliver outstanding convergence times.

FEATURES

Modern, Scalable and Distributed Architecture

The HPE FlexFabric 12900E Switch Series provides non-blocking, lossless Clos architecture with VOQs and large buffers with the flexibility and scalability for future growth.

Distributed architecture with separation of data and control planes delivers enhanced fault tolerance and facilitates continuous operation and zero service disruption during planned or unplanned control-plane events.

To meet the demands of next-gen networks, a new version of OS—Comware v9 has been introduced that provides rich new features built on a modular and open architecture, supports containerized deployment and can run third-party software applications.

In-Service Software Upgrade (ISSU) provides an upgrade of the entire chassis, or an individual task or process, with zero packet loss.

2X scalability with H2 modules at the same price per port of HB modules

High-Performance Switch Series with Broad Interface Options

The HPE FlexFabric 12900E Switch Series lets you build Layer 2 and Layer 3 fabrics which are flexible, resilient, and scalable with VxLAN support and sub-second convergence times.

High-density 1GbE, 10GbE, 40GbE, 100GbE and 400GbE interface connectivity with up to 16 interface module slots scales up to 768 1GbE/10GbE/40GbE, 576 100GbE ports and 192 400GbE ports.

Delivers up to 184 Tbps (bi-directional) switching capacity and 92.1 Bpps throughput with nonblocking wirespeed performance and up to 6 fabric modules for a distributed scalable fabric architecture

Optimized for the Next-Generation Data Center

The HPE FlexFabric 12900E Switch Series let you build Layer 2 fabrics which are flexible, resilient, and scalable with VxLAN, TRILL and/or Hewlett Packard Enterprise IRF.

Type X modules that offer automation capabilities with HPE IMC Orchestrator and Analyzer, streaming telemetry support with Precision Timing Protocol (PTP) and up to 16K multicast group support.

Enhanced HPE Multitenant Device Context (MDC) for multi-tenancy giving you the ability to virtualize a physical switch into multiple logical device.

Network and storage convergence with support for Fiber Channel over Ethernet (FCoE) and Data Center Bridging (DCB) protocols includes IEEE 802.1Qaz Data Center Bridging Exchange (DCBX), Enhanced Transmission Selection (ETS), and IEEE 802.1Qbb Priority Flow Control (PFC).

Enterprise-Class Availability and Resiliency with Broad Layer 2 and Layers 3 Feature Set

Intelligent Resilient Fabric (IRF) creates virtual resilient switching fabrics where two HPE FlexFabric 12900E Switch Series perform as a single Layer 2 switch and Layer 3 router that can be attached using standard LACP for automatic load balancing and high availability.

The switch series offers hot-swappable modules and redundant load-sharing fabrics, management, power and high-speed fan assemblies which provides you with optimum network performance and availability while simplifying your network operations.

Comprehensive switching, routing and service provider feature set with full IPv4/IPv6, ACLs, QoS, MPLS/VPLS and multicast capabilities is offered.



Technical specifications

HPE FlexFabric 12900E Switch Series

Differentiator	HPE FlexFabric 12900E Switch Series is the next generation modular data center core switch designed to support virtualized data centers and evolution needs of private and public clouds deployments.
Ports	16 I/O module slots, maximum Supports a maximum of 768 40GbE, 768 10GbE, 1/10GbE copper, 1/10GbE fiber, 1GbE fiber, or 10/100/1000 ports, or 576 100GbE ports, or a combination
Throughput	92.1 Bpps Maximum, depending on model and configuration
Switching capacity	184 Tbps Maximum, depending on model and configuration
Stacking capabilities	IRF 2 switches
Management features	IMC - Intelligent Management Center Command-line interface Out-of-band management (serial RS-232C) SNMP manager Telnet Terminal interface (serial RS-232C) Modem interface IEEE 802.3 Ethernet MIB Ethernet interface MIB
Input voltage	-48 to -60 VDC, depending on model and configuration



For additional technical information, available models and options, please reference [the QuickSpecs](#)

HPE POINTNEXT SERVICES

[HPE Pointnext Services](#) brings together technology and expertise to help you drive your business forward and prepare for whatever is next.

Operational Services from HPE Pointnext Services

[HPE Pointnext Tech Care](#) provides fast access to product-specific experts, an AI-driven digital experience, and general technical guidance to help enable constant innovation. We have reimagined IT support from the ground up to deliver faster answers and greater value. By continuously searching for better ways to do things—as opposed to just fixing things that break—HPE Pointnext Tech Care helps you focus on achieving your business goals.

[HPE Pointnext Complete Care](#) is a modular, edge-to-cloud IT environment service that provides a holistic approach to optimizing your entire IT environment, and achieving agreed upon IT outcomes and business goals through a personalized and customer-centric experience. All delivered by an assigned team of HPE Pointnext Services experts.

HPE Integration and Performance Services help you customize your experience at any stage of your product lifecycle with a menu of services based on individual needs, workloads, and technologies.

- Advise, design, and transform
- Deploy
- Integrate and migrate
- Operate and improve
- Financial Services
- Greenlake Management Services
- Retire and sanitize
- IT Training and personal development

Other related services

[HPE Education Services](#) delivers a comprehensive range of services to support your people as they expand their skills required for a digital transformation. Consult your HPE Sales Representative or Authorized Channel Partner of choice for any additional questions and support options.

Defective Media Retention is optional and allows you to retain Disk or eligible SSD/Flash Drives replaced by HPE due to malfunction.

HPE GREENLAKE

[HPE GreenLake](#) is HPE's market-leading IT as-a-Service offering that brings the cloud experience to apps and data everywhere – data centers, multi-clouds, and edges – with one unified operating model. HPE GreenLake delivers public cloud services and infrastructure for workloads on premises, fully managed in a pay per use model.

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Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

Image may differ from the actual product
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