

HPE FlexFabric 12908E Switch Chassis (JH255A)

Switches



What's new

- Introducing small form-factor 1- and 2-slot chassis for next-generation fabric needs.
- Modular 1RU line cards with support for HPE FlexFabric 59xx Switch modules.
- High-density 100GbE as well as support for 100GbE MACsec.
- Support for full internet routing tables when using "HF" line cards.
- Open industry standards-based programming interfaces.

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 and 100GbE 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.

Advanced Comware modular operating system brings native high stability, independent process monitoring, and restart through the modular design and multiple processes of Hewlett Packard Enterprise Comware v7 software; enhanced serviceability functions are supported.

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

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

Distributed scalable fabric architecture offers up to six fabric modules delivering more than 43.2 Tbps per slot bandwidth.

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.

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 12908E Switch Chassis

Product Number (SKU)	JH255A
Differentiator	16-slot horizontal chassis, 12U, with 2 MPU slots, 6 switch fabric slots and 8 I/O slots
Ports	(8) I/O module slots Supports a maximum of 384 10GbE ports or 384 1/10GBASE-T ports or 384 1/10GbE ports or 384 Gigabit Ethernet ports or 384 autosensing 10/100/1000 ports or 384 40GbE ports or 288 100GbE ports, or a combination
Memory and processor	Quad Core MIPS64 @ 1.2 GHz 1 GB flash 8 GB DDR3 SDRAM
Throughput	up to 46.0 Bpps
Switching capacity	92.0 Tbps
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	100 - 240 VAC, rated -48 to -60 VDC, rated (depending on power supply chosen)
Operating temperature range	0 to 40°C
Operating humidity range	5 to 95% (noncondensing)
Minimum dimensions (W x D x H)	43.99 x 85.7 x 53.1 cm
Weight	47 kg

Additional resources

QuickSpecs

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HPE Pointnext

HPE Pointnext leverages our breadth and depth of technical expertise and innovation to help to accelerate digital transformation. A comprehensive portfolio that includes—Advisory, Professional, and Operational Services is designed to help you evolve and grow today and into the future.

Operational Services


- **HPE Flexible Capacity** is a new consumption model to manage on-demand capacity, combining the agility and economics of public cloud with the security and performance of on-premises IT.
- **HPE Datacenter Care** offers a tailored operational support solution built on core deliverables. It includes hardware and software support, a team of experts to help personalize deliverables and share best practices, as well as optional building blocks to address specific IT and business needs.
- **HPE Proactive Care** is an integrated set of hardware and software support including an enhanced call experience with start to finish case management helping resolve incidents quickly and keeping IT reliable and stable.
- **HPE Foundation Care** helps when there is a hardware or software problem offering several response levels dependent on IT and business requirements.

Advisory Services includes design, strategy, road map, and other services to help enable the digital transformation journey, tuned to IT and business needs. Advisory Services helps customers on their journey to Hybrid IT, Big Data, and the Intelligent Edge.

Professional Services helps integrate the new solution with project management, installation and startup, relocation services, and more. We help mitigate risk to the business so there is no interruption when new technology is being integrated in the existing IT environment.

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