



# HPE FLEXFABRIC 12916E SWITCH CHASSIS (JH103A)

## 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 12916E Switch Chassis

<b>Product Number</b>	JH103A
<b>Differentiator</b>	24-slot horizontal chassis, 21U, with 2 MPU slots, 6 switch fabric slots and 16 I/O slots
<b>Ports</b>	(16) I/O module slots Supports a maximum of 768 10GbE ports or 768 1/10GBASE-T ports or 768 1/10GbE ports or 768 Gigabit Ethernet ports or 768 autosensing 10/100/1000 ports or 768 40GbE ports or 576 100GbE ports, or a combination
<b>Memory and processor</b>	Quad Core MIPS64 @ 1.2 GHz 1 GB flash 8 GB DDR2 SDRAM
<b>Latency</b>	< 5 microseconds (64-byte packets)
<b>Throughput</b>	Up to 92.1 Bpps
<b>Routing/switching capacity</b>	184 Tbps
<b>Switching capacity</b>	184 Tbps
<b>Stacking capabilities</b>	IRF 2 switches
<b>Management features</b>	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
<b>Input voltage</b>	100 - 240 VAC, rated -48 to -60 VDC, rated (depending on power supply chosen)
<b>Operating humidity range</b>	5 to 95% (noncondensing)
<b>Power Consumption</b>	2400W
<b>Product Dimensions (metric)</b>	43.99 x 85.7 x 93.1 cm
<b>Weight</b>	86.1 kg



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

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- IT Training and personal development

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

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