

HPE Networking Comware Switch Series 12900E

HPE Networking 12904E v2 Main Processing Unit (JH668A)



What's new

- Introducing next-generation, high performance 400G/100G H2 modules with improved features ideal for Telco, Cloud Service Providers and large enterprises
- High density 10GbE, 40GbE, 100GbE and 400GbE connectivity with nonblocking wirespeed performance. (H2 modules supports 100GbE/400GbE with OS-Comware v9)
- New generation OS-Comware v9 available with H2 modules offers enhanced software features such as

Overview

The HPE Networking Comware Switch Series 12900E 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 1GbE, 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 Networking Comware Switch Series 12900E supports a full Layer 2 and Layer 3 feature set as well as advanced data center features to build resilient scalable fabrics and deliver outstanding convergence times.

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

Features

Modern, Scalable and Distributed Architecture

The HPE Networking Comware Switch Series 12900E 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-generation networks, a new generation 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.

It provides 2x scalability with H2 modules at the same price per port of HB modules

High-Performance Switch Series with Broad Interface Options

The HPE Networking Comware Switch Series 12900E provides the 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 ports, 576 100GbE ports and 192 400GbE ports.

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

Optimized for the Next-Generation Data Center

The HPE Networking Comware Switch Series 12900E provides the Layer 2 fabrics which are flexible, resilient, and scalable with VXLAN, TRILL and/or HPE Intelligent Resilient Fabric (IRF).

Type X modules that offer automation capabilities with HPE Intelligent Management Center (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 gives the ability to virtualize a physical switch into multiple logical device.

Network and storage convergence with support for [Fibre 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

The Intelligent Resilient Fabric (IRF) creates virtual resilient switching fabrics where two HPE Networking Comware Switch Series 12900E 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.

This 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 Networking 12904E v2 Main Processing Unit
Product Number	JH668A
Differentiator	Main processing unit, v2 for use with the FlexFabric 12904E Switch
Power consumption	Power output: 2400W
Input voltage	100 - 240 VAC -48 to -60 VDC Depending on model and configuration
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
Latency	Low latency under 5 microsecond latency (64-byte packets)
Routing capabilities	BGP-4, BGP+, ECMP, IS-IS, IPV4, IPV6, MPLS, OSPF, OspfV3, RIP, RIPng, URPF, VPLS
Switching capacity	184 Tbps Maximum, depending on model and configuration
Throughput	92.1 Bpps Maximum, depending on model and configuration
Memory and processor	Quad Core MIPS64 at 1.2 GHz, 1 GB flash, 8 GB DDR2 SDRAM
Power supply	16 power supply slots 1 minimum power supply required (ordered separately)
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
Weight	2.8 kg
Product dimensions (metric)	20.1 x 41.1 x 4.1 cm
Warranty	1-year warranty

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

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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.

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