

HPE Networking Comware Switch Series 12900E

HPE Networking 12904E Type H2 Main Processing Unit (R9F17A)



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 segment routing MPLS, egress ACL, egress rate limiting and others for highly distributed environments
- HB/HF, Type X and H2 modules

Overview

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 Type H2 Main Processing Unit	
Product Number	R9F17A		
Differentiator	Type H2 main processing unit for use in select HPE products.		
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	2.7 kg		
Product dimensions	4.1 x 20.1 x 41.1 cm		
Warranty	1-year warranty		

HPE Services

No matter where you are in your transformation journey, you can count on HPE Services to deliver the expertise you need when, where and how you need it. From strategy and planning to deployment, ongoing operations and beyond, our experts can help you realize your digital ambitions.

Advisory & Professional services

Experts can help you map out your path to hybrid cloud and optimize your operations.

Managed services

HPE runs your IT operations, giving you unified control, so can focus on innovation.

Support services

Optimize your entire IT environment and drive innovation. Manage day-to-day IT operational tasks while freeing up valuable time and resources.

- **HPE Complete Care Service:** a modular service designed to help optimize your entire IT environment and achieve agreed upon IT outcomes and business goals. All delivered by an assigned team of HPE experts.
- **HPE Tech Care Service:** the operational service experience for HPE products. The service provides access to product specific experts, an AI driven digital experience, and general technical guidance to help reduce risk and search for ways to do things better.
- **HPE Multivendor Services:** Single point of accountability for managing on-site hardware and software support for multivendor products. HPE experts help manage your IT across technologies and platforms for HPE and non-HPE technologies, acting as the single point of contact for your IT operational needs.

Lifecycle Services

Address your specific IT deployment project needs with tailored project management and deployment services.

HPE Education Services

Training and certification designed for IT and business professionals across all industries. Create learning paths to expand proficiency in a specific subject. Schedule training in a way that works best for your business with flexible continuous learning options

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

GreenLake

[GreenLake](#) is the cloud to run and manage your entire hybrid landscape—private, public, and edge. It helps you to:

- Streamline IT Operations across compute, storage, and networking without the chaos
- Unify and secure data, as you move faster
- Accelerate AI, from pilot to production

The result: greater operational efficiency, lower TCO, and faster AI delivery—all from one unified, intelligent platform built for today's hybrid enterprise.

[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.

Image may differ from the actual product.

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