HPE Networking Comware Switch Series 5945

What's new

- High-density spine and top-of-rack (ToR) connectivity with 100GbE/40GbE/25GbE/10GbE support, plus cut-through switching for low-latency, wire-speed performance
- New 32G and 16G Fibre Channel support for storage networking, plus ROCE v1/v2 for RDMA-based high-performance computing, along with VXLAN, EVPN, and MPLS capabilities for virtualized environments
- Greater flexibility with two-slot or four-slot options for use cases such as MACsec 256-bit encryption, high-performance data center leaf deployments, storage networking, and NVMe storage
- IPv4 and IPv6 support with a full Layer 2 and Layer 3 feature set, plus PTP 1588v2 for boundary clock, transparent clock, end-to-end, or peer-to-peer synchronization.
- HPE IMC Orchestrator and Analyzer to enhance network operations through orchestration, automation, and analytics

Overview

The HPE Networking Comware Switch Series 5945 is a family of high-density, ultra-low-latency top-of-rack (ToR) switches designed for large enterprise data centers and telecom environments. Ideal for aggregation or server access layers, these switches deliver exceptional performance and scalability—and are powerful enough for core deployments in medium-sized enterprises.

As virtualized applications and server-to-server traffic grow, data centers need spine and ToR switches that meet demanding throughput requirements. The 5945 series supports up to 100GbE per port, enabling high-performance server connectivity and seamless handling of virtual environments. With cut-through switching, wire-speed performance, and ultra-low latency, the 5945 series offers flexible options for port density and speeds, including 100GbE, 40GbE, 25GbE, and 10GbE, to fit your budget and IT environment.

– New TAA-compliant SKUs made in USA enhance security with manual and automated code analysis to mitigate vulnerabilities and strengthen supply chain integrity.

Features

High-density, Advanced, Data Center Switches with HPE IMC Orchestrator and Analyzer

The HPE Networking Comware Switch Series 5945 scales server-edge 1/10/25/40/100GbE ToR deployments with high-density options: 48×10GbE plus 6×40GbE or 6×100GbE, 32×40GbE, and 32×100GbE ports.

Available in a 2-slot modular version supporting two 40GbE or 100GbE ports, 48×10/25GbE, 4×100GbE, or up to 16×100GbE through expansion modules for flexible configurations.

A 4-slot modular version is also available with expanded port options, four 40GbE ports, for high-performance networking in demanding data center environments.

HPE IMC Orchestrator and Analyzer offers enhanced network operations with orchestration, automation, and analytical capabilities.

High-performance Data Center Switching

The HPE Networking Comware Switch Series 5945 delivers up to 2.56 Tbps switching capacity for demanding data center applications.

Supports up to 1,904 MPPS throughput for optimized performance in data-intensive environments and mission-critical workloads.

Provides ultra-low latency under 1µs for 40GbE, ensuring faster network response and improved application performance across deployments.

VXLAN support enables network virtualization and overlays for flexibility, with OVSDB integration for dynamic VXLAN tunnel management.

Business Agility and Resilience with Operating System Comware 7

The HPE Networking Comware Switch Series 5945 supports Intelligent Resilient Framework (IRF) with less than 50ms convergence time, enabling faster application response.

In-service software update (ISSU) applies modular updates without reboot or power cycle, ensuring high availability and minimal downtime.

Simplicity and Lower TCO

HPE Networking Comware Switch Series 5945 simplifies switch management with nine-unit IRF stacking for centralized configuration and control across multiple switches in complex networks.

It offers a single license per switch for all operating system features, eliminating hidden costs and simplifying procurement.

All switch ports are active and ready to use without requiring additional activation licenses, reducing complexity and deployment time.

Technical specifications	HPE Networking Comware Switch Series 5945
Power consumption	650W
Heat dissipation	Up to 2348 BTU/hr (2478 kJ/hr) depending on model
Input voltage	100–240 VAC rated, 90–264 VAC maximum -40 VDC to -60 VDC rated, -40 VDC to -72 VDC maximum
Ports	Up to 48 x 25G SFP28 ports, 8 x 100G QSFP28 ports, 2 x 1G SFP ports depending on model
Latency	< 1 µs (64-byte packets)
Routing/switching capacity	6.4 Tbps, maximum, depending on model and configuration
Switching capacity	Up to 6.4 Tbps depending on model
Stacking capabilities	Up to 10 members
Throughput	2024 Mpps
Memory and processor	1 GB flash Packet buffer size: 16 MB, 4 GB SDRAM or 32 MB 8 GB SDRAM
Power supply	Up to 4 power supply slots (ordered separately) depending on model
Operating temperature	32°F to 113°F (0°C to 45°C)
Management features	HPE Networking Intelligent Management Center (IMC) Command-line interface (CLI) Out-of-band management Simple Network Management Protocol (SNMP) Telnet File Transfer Protocol (FTP) Additional ports: - 1 x console port - 1 x mini USB port - 1 x USB port - 2 x out-of-band management ports (one fiber and one copper port)
Warranty	1-year. See the warranty duration.
Fans	Up to 5 fan tray slots depending on model

SKU comparison

	HPE Networking Comware Switch 2-slot 5945 (JQ075A)	HPE Networking Comware Switch 2-slot TAA 5945 (S3K88A)	HPE Networking Comware Switch 32p QSFP28 100G TAA 5945 (S3K90A)	HPE Networking Comware Switch 32QSFP28 5945 (JQ077A)	HPE Networking Comware Switch 4-slot 5945 (JQ076A)
Differentiator	1U height	TAA certified 1U height	TAA certified 1U height	1U height	2U height
Power consumption	650W				
Heat dissipation	1392 BTU/hr (1458 kJ/hr)	1392 BTU/hr (1458 kJ/hr)	1283 BTU/hr (1458 kJ/hr)	1283 BTU/hr (1458 kJ/hr)	2348 BTU/hr (2478 kJ/hr)
Input voltage	AC Rated voltage range: 100 VAC to 240 VAC @ 50/60 Hz Max voltage range: 90 VAC to 264 VAC @ 47 to 63 Hz DC Rated voltage range: –48 VDC to –60 VDC Max voltage range: –40 VDC to –72 VDC	100–240 VAC rated, 90–264 VAC maximum -40 VDC to -60 VDC rated, -40 VDC to -72 VDC maximum	100–240 VAC rated, 90–264 VAC maximum -40 VDC to -60 VDC rated, -40 VDC to -72 VDC maximum	AC Rated voltage range: 100 VAC to 240 VAC @ 50/60 Hz Max voltage range: 90 VAC to 264 VAC @ 47 to 63 Hz DC Rated voltage range: –48 VDC to –60 VDC Max voltage range: –40 VDC to –72 VDC	AC Rated voltage range: 100 VAC to 240 VAC @ 50/60 Hz Max voltage range: 90 VAC to 264 VAC @ 47 to 63 Hz DC Rated voltage range: –48 VDC to –60 VDC Max voltage range: –40 VDC to –72 VDC
Ports	2 module slots 2 x 100G QSFP28 ports Supports up to a maximum of 48 x 10/25GbE and 4 x 100GbE ports, or up to 16 x 100GbE ports from modules.	2 module slots 2 x 100G QSFP28 ports Supports up to a maximum of 48 x 10/25GbE and 4 x 100GbE ports, or up to 16 x 100GbE ports from modules.	32 x 100G QSFP28 ports, 2 x 1G SFP port	32 x 100G QSFP28 ports, 2 x 1G SFP port	4 module slots 2 x 1G SFP ports Supports up to a maximum of 96 x 10/25GbE and 8 x 100GbE ports, or up to 32 x 100GbE ports.
Latency	< 1 s (64-byte packets)				
Routing/switching capacity	6.4 Tbps, maximum, depending on model and configuration				
Switch fabric speed					6.4 Tbps
Switching capacity	3.6 Tbps	3.6 Tbps	6.4 Tbps	6.4 Tbps	6.4 Tbps
Stacking capabilities	Up to 10 members				

	HPE Networking Comware Switch 2-slot 5945 (JQ075A)	HPE Networking Comware Switch 2-slot TAA 5945 (S3K88A)	HPE Networking Comware Switch 32p QSFP28 100G TAA 5945 (S3K90A)	HPE Networking Comware Switch 32QSFP28 5945 (JQ077A)	HPE Networking Comware Switch 4-slot 5945 (JQ076A)
Throughput	2024 Mpps	2024 Mpps	2024 Mpps	2024 Mpps	< 1 s (64-byte packets) up to 2003 Mpps 3.2 Tbps
Memory and processor	1 GB flash Packet buffer size: 16 MB, 4 GB SDRAM or 32 MB 8 GB SDRAM	1 GB flash Packet buffer size: 16 MB, 4 GB SDRAM or 32 MB 8 GB SDRAM	1 GB flash Packet buffer size: 16 MB, 4 GB SDRAM or 32 MB 8 GB SDRAM	1 GB flash Packet buffer size: 16 MB, 4 GB SDRAM or 32 MB 8 GB SDRAM	1 GB flash; packet buffer size: 32 MB, 8 GB SDRAM
Power supply	2 power supply slots 1 minimum power supply required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)	4 power supply slots 2 minimum power supplies required (ordered separately)
Operating temperature	32°F to 113°F (0°C to 45°C)				
Management features	HPE Networking Intelligent Management Center (IMC) Command-line interface (CLI) Out-of-band management Simple Network Management Protocol (SNMP) Telnet File Transfer Protocol (FTP) Additional ports: - 1 x console port - 1 x mini USB port - 1 x USB port - 2 x out-of-band management ports (one fiber and one copper port)				
Warranty	1-year. See the warranty duration.				
Fans	5 fan tray slots (minimum five required)	5 fan tray slots (minimum five required)	5 fan tray slots (minimum five required)	5 fan tray slots (minimum five required)	2 fan tray slots (minimum two required)

	HPE Networking Comware Switch 4-slot TAA 5945 (S3K89A)	HPE Networking Comware Switch 48p SFP28 25G 8p QSFP28 100G TAA 5945 (S3K87A)	HPE Networking Comware Switch 48SFP28 8QSFP28 5945 (JQ074A)
Differentiator	TAA certified 2U height	TAA certified 1U height	1U height
Power consumption	650W		
Heat dissipation	2348 BTU/hr (2478 kJ/hr)	1381 BTU/hr (1458 kJ/hr)	1381 BTU/hr (1458 kJ/hr)
Input voltage	100–240 VAC rated, 90–264 VAC maximum -40 VDC to -60 VDC rated, -40 VDC to -72 VDC maximum	100–240 VAC rated, 90–264 VAC maximum -40 VDC to -60 VDC rated, -40 VDC to -72 VDC maximum	AC Rated voltage range: 100 VAC to 240 VAC @ 50/60 Hz Max voltage range: 90 VAC to 264 VAC @ 47 to 63 Hz DC Rated voltage range: –48 VDC to –60 VDC Max voltage range: –40 VDC to –72 VDC
Ports	4 module slots 2 x 1G SFP ports Supports up to a maximum of 96 x 10/25GbE and 8 x 100GbE ports, or up to 32 x 100GbE ports.	48 x 25G SFP28 ports 8 x 100G QSFP28 ports 2 x 1G SFP ports Supports 48 x 10/25GbE and 8 x 100GbE fixed ports, or up to 80 x 10GbE ports when using splitter cables.	48 x 25G SFP28 ports 8 x 100G QSFP28 ports 2 x 1G SFP ports Supports 48 x 10/25GbE and 8 x 100GbE fixed ports, or up to 80 x 10GbE ports when using splitter cables.
Latency	< 1 s (64-byte packets)		
Routing/switching capacity	6.4 Tbps, maximum, depending on model and configuration		
Switch fabric speed			3.2 Tbps
Switching capacity	6.4 Tbps	4 Tbps	4 Tbps
Stacking capabilities	Up to 10 members	Up to 10 members	10
Throughput	2024 Mpps	2024 Mpps	< 1 s (64-byte packets) up to 2003 Mpps 2 Tbps
Memory and processor	1 GB flash; packet buffer size: 32 MB, 8 GB SDRAM	1 GB flash Packet buffer size: 16 MB, 4 GB SDRAM or 32 MB 8 GB SDRAM	1 GB flash Packet buffer size: 16 MB, 4 GB SDRAM or 32 MB 8 GB SDRAM
Power supply	4 power supply slots 2 minimum power supplies required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)	2 power supply slots 1 minimum power supply required (ordered separately)

	HPE Networking Comware Switch 4-slot TAA 5945 (S3K89A)	HPE Networking Comware Switch 48p SFP28 25G 8p QSFP28 100G TAA 5945 (S3K87A)	HPE Networking Comware Switch 48SFP28 8QSFP28 5945 (JQ074A)
Operating temperature	32°F to 113°F (0°C to 45°C)		
Management features	HPE Networking Intelligent Management Center (IMC) Command-line interface (CLI) Out-of-band management Simple Network Management Protocol (SNMP) Telnet File Transfer Protocol (FTP) Additional ports: - 1 x console port - 1 x mini USB port - 1 x USB port - 2 x out-of-band management ports (one fiber and one copper port)		
Warranty	1-year. See the warranty duration.		
Fans	2 fan tray slots (minimum two required)	5 fan tray slots (minimum five required)	5 fan tray slots (minimum five required)

Related Options

The following options are available for these series:

SKU	Description
Cables/Cable Kits	
JD095C	HPE Networking X240 10G SFP+ SFP+ 0.65m DAC Cable
JD096C	HPE Networking X240 10G SFP+ SFP+ 1.2m DAC Cable
JD097C	HPE Networking X240 10G SFP+ SFP+ 3m DAC Cable
JG081C	HPE Networking X240 10G SFP+ SFP+ 5m DAC Cable
JL294A	HPE Networking X240 25G SFP28 to SFP28 1m DAC Cable
JL295A	HPE Networking X240 25G SFP28 to SFP28 3m DAC Cable
JL296A	HPE Networking X240 25G SFP28 to SFP28 5m DAC Cable
JL271A	HPE Networking X240 100G QSFP28 1m DAC Cable
JL272A	HPE Networking X240 100G QSFP28 3m DAC Cable
JL273A	HPE Networking X240 100G QSFP28 5m DAC Cable
Fans/Fan Options	
JH185A	HPE Networking 5930 4-slot B(Pwr) F(Prt) Fan Tray
JH186A	HPE Networking 5930 4-slot F(Prt) F(Pwr) Fan Tray
JH388A	HPE Networking X711 Frt(prt)-Bck(pwr) HV2 Fan Tray
JH389A	HPE Networking X712 Bck(pwr)-Frt(prt) HV2 Fan Tray
Modules	
JH183A	HPE Networking 5930 8-port QSFP+ Module
JH184A	HPE Networking 5930 24-port Converged Port and 2-port QSFP+ Module
JH182A	HPE Networking 5930 24p 10GBASE-T/2p MCsc QSFP+ Module
JH180A	HPE Networking 5930 24p SFP+ and 2p QSFP+ Module
JH181A	HPE Networking 5930 24p SFP+/2p QSFP+ w/Msec Module
JH957A	HPE Networking 5950 8-port QSFP28 MACsec Module
JH405A	HPE Networking 5950 16-port QSFP+ Module
JH450A	HPE Networking 5950 24p SFP28 and 2p QSFP28 Module
Networking Options	
JH406A	HPE Networking 5950 8-port QSFP28 Module
JL865A	HPE Networking Comware 16-Port 16/32G FC Converged Port Interface Module
Networking Software	

JL850AAE	HPE Networking IMC Orchestrator Analyzer Add-on License E-LTU
JL852AAE	HPE Networking IMC Orchestrator Analyzer IP Host Add-on License E-LTU
JL849AAE	HPE Networking IMC Orchestrator Base License E-LTU
JL851AAE	HPE Networking IMC Orchestrator Network Node Add-on License E-LTU

Power Management Options

JC680A	HPE Networking 58x0AF 650W AC Power Supply

Switches

JL255A	HPE Aruba Networking 2930F 24G PoE+ 4SFP+ Switch
JL845A	HPE Networking 12900E Type X Main Processing Unit
JL844A	HPE Networking 12904E Type X Main Processing Unit
JH262A	HPE Networking Comware Switch Chassis 12904E

Transceiver Options

AJ718A	HPE 8Gb Short Wave Fibre Channel SFP+ 1 Pack Transceiver
H6Z42A	HPE 16Gb FC/10GbE 100m SR SFP+ Transceiver
Q2P62A	HPE 32Gb SFP28 Short Wave 1-pack Pull Tab Optical Transceiver
P9H30A	HPE 32Gb SFP28 Short Wave Commercial Temperature Transceiver
JL855A	HPE Networking 25G SFP28 LC LR 10km SMF Transceiver
JG326A	HPE Networking Comware X240 40G QSFP+ QSFP+ 1m Direct Attach Copper Cable
JG327A	HPE Networking Comware X240 40G QSFP+ QSFP+ 3m Direct Attach Copper Cable
JG328A	HPE Networking Comware X240 40G QSFP+ QSFP+ 5m Direct Attach Copper Cable
JG329A	HPE Networking Comware X240 40G QSFP+ to 4x10G SFP+ 1m Direct Attach Copper Splitter Cable
JG330A	HPE Networking Comware X240 40G QSFP+ to 4x10G SFP+ 3m Direct Attach Copper Splitter Cable
JG331A	HPE Networking Comware X240 40G QSFP+ to 4x10G SFP+ 5m Direct Attach Copper Splitter Cable
JL290A	HPE Networking X2A0 10G SFP+ to SFP+ 7m Active Optical Cable
JL291A	HPE Networking X2A0 10G SFP+ to SFP+ 10m Active Optical Cable
JL292A	HPE Networking X2A0 10G SFP+ to SFP+ 20m Active Optical Cable
JH955A	HPE Networking X2A0 25G SFP28 to SFP28 3m Active Optical Cable
JH956A	HPE Networking X2A0 25G SFP28 to SFP28 5m Active Optical Cable
JL297A	HPE Networking X2A0 25G SFP28 to SFP28 7m Active Optical Cable
JL298A	HPE Networking X2A0 25G SFP28 to SFP28 10m Active Optical Cable
JL299A	HPE Networking X2A0 25G SFP28 to SFP28 20m Active Optical Cable
JL287A	HPE Networking X2A0 40G QSFP+ to QSFP+ 7m Active Optical Cable
JL288A	HPE Networking X2A0 40G QSFP+ to QSFP+ 10m Active Optical Cable
JL289A	HPE Networking X2A0 40G QSFP+ to QSFP+ 20m Active Optical Cable
JL796A	HPE Networking X2A0 100G QSFP28 5m Active Optical Cable

JL276A	HPE Networking X2A0 100G QSFP28 to QSFP28 7m Active Optical Cable
JL277A	HPE Networking X2A0 100G QSFP28 to QSFP28 10m Active Optical Cable
JL278A	HPE Networking X2A0 100G QSFP28 to QSFP28 20m Active Optical Cable
JD120B	HPE Networking X110 100M SFP LC LX Transceiver
JD102B	HPE Networking X115 100M SFP LC FX Transceiver
JD103A	HPE Networking X120 1G SFP LC LH100 Transceiver
JD119B	HPE Networking X120 1G SFP LC LX Transceiver
JD118B	HPE Networking X120 1G SFP LC SX Transceiver
JD089B	HPE Networking X120 1G SFP RJ45 T Transceiver
JL738A	HPE Networking X130 10G SFP+ LC BiDi 10km-Downlink Transceiver
JL737A	HPE Networking X130 10G SFP+ LC BiDi 10km-Uplink Transceiver
JL740A	HPE Networking X130 10G SFP+ LC BiDi 40km-Downlink Transceiver
JL739A	HPE Networking X130 10G SFP+ LC BiDi 40km-Uplink Transceiver
JG234A	HPE Networking X130 10G SFP+ LC ER 40km Transceiver
JG915A	HPE Networking X130 10G SFP+ LC LH 80km Transceiver
JD094B	HPE Networking X130 10G SFP+ LC LR Transceiver
JD092B	HPE Networking X130 10G SFP+ LC SR Transceiver
JG709A	HPE Networking X140 40G QSFP+ CSR4 300m Transceiver
JL306A	HPE Networking X140 40G QSFP+ LC ER4 40km SM Transceiver
JG661A	HPE Networking X140 40G QSFP+ LC LR4 SM 10km 1310nm Transceiver
JL286A	HPE Networking X140 40G QSFP+ LC LR4L 2km SM Transceiver
JG325B	HPE Networking X140 40G QSFP+ MPO SR4 Transceiver
JH673A	HPE Networking X150 100G QSFP28 CWDM4 2km SM Transceiver
JQ344A	HPE Networking X150 100G QSFP28 LC BiDi 100m MM Transceiver
JL275A	HPE Networking X150 100G QSFP28 LC LR4 10km SM Transceiver
JH419A	HPE Networking X150 100G QSFP28 LC SWDM4 100m MM Transceiver
JL274A	HPE Networking X150 100G QSFP28 MPO SR4 100m MM Transceiver
JH420A	HPE Networking X150 100G QSFP28 PSM4 500m SM Transceiver
JH672A	HPE Networking X150 100G QSFP28 eSR4 300m MM Transceiver
JL293A	HPE Networking X190 25G SFP28 LC SR 100m MM Transceiver
JL282A	HPE Networking X240 QSFP28 4xSFP28 1m Direct Attach Copper Cable
JL283A	HPE Networking X240 QSFP28 4xSFP28 3m Direct Attach Copper Cable
JL284A	HPE Networking X240 QSFP28 4xSFP28 5m Direct Attach Copper Cable

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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