

H3C S5000PV5-EI Series Gigabit Managed Switches

Product Overview

The H3C S5000PV5-EI series Ethernet switches are a new generation of high-performance, full-gigabit managed switches launched by H3C for the small and medium-sized business (SMB) market. Based on the industry-leading comware V7 platform (the S5008PV5-EI and S5008PV5-HPWR are comware V5), they support IRF2 stacking, provide comprehensive security access policies, and enhance network management and maintenance usability. They can be widely used in network construction scenarios in industries such as government, small and medium-sized enterprises, schools, and hotels.



S5008PV5-EI



S5016PV5-EI



S5024PV5-EI



S5048PV5-EI



S5008PV5-EI-HPWR



S5024PV5-EI-PWR



S5024PV5-EI-HPWR



S5048PV5-NO-PWR

Features

Rich port types

The entire series supports the combination of "Ethernet port + optical port", adapting to the networking needs of various scenarios and facilitating flexible networking for users;

• Provide 8/16/24/48 multi-specification port products, all ports have Gigabit line-speed forwarding capabilities to meet the needs of different users.

IRF2 (Intelligent Resilient Fabric, Second Generation)

The H3C S5000PV5 series switches support IRF2 (Intelligent Resilient Fabric 2) technology (not supported by the S5008PV5-EI and S5008PV5-HPWR). This technology connects multiple physical devices to form a single, virtualized logical device. This allows users to manage and use these multiple devices as if they were a single device. IRF provides the following benefits:

• **Simplified management** After the IRF architecture is formed, you can connect to any port of any device to log in to a unified logical device. By configuring a single device, you can manage the entire intelligent elastic system and all member devices in the system without having to physically connect to each member device to configure and manage them separately.

• **Simplified business**: Various control protocols running in the logical device formed by IRF also run uniformly as a single device. For example, the routing protocol will be calculated uniformly as a single device. With the application of cross-device link aggregation technology, it can replace the original spanning tree protocol. This can eliminate the interaction of a large number of protocol messages between devices, simplify network operation, and shorten the convergence time during network turbulence.

• **Elastic expansion** can be realized according to user needs to ensure user investment. And when new devices join or leave the IRF architecture, they can be "hot-swapped" without affecting the system performance, affecting the normal operation of other devices.

High Reliability: IRF's high reliability is reflected in three aspects: links, devices, and protocols. Physical ports between member devices support aggregation, as do physical connections between the IRF system and upstream and downstream devices. This improves link reliability through multi-link backup. An IRF system consists of multiple member devices. If the master device fails, the system automatically elects a new master to ensure uninterrupted service, thus achieving device-level 1:N backup. The IRF system also features real-time protocol hot backup, which backs up protocol configuration information to all other member devices, achieving 1:N protocol reliability.

For **high** - end switches, performance and port density improvements are often limited by the hardware structure. However, the performance and port density of an IRF system are the sum of the performance and port counts of all devices within the IRF fabric. Therefore, IRF technology can easily multiply a device's switching capacity and user port density, significantly improving device performance.

Reliable security strategy

• Supports unique ARP intrusion detection function, which can effectively prevent hackers or attackers from implementing "ARP spoofing attacks" through ARP packets;

- Support IP Source Guard feature to prevent illegal address spoofing including MAC spoofing, IP spoofing, MAC/IP spoofing, and DoS attacks;
 - Support DHCP Snooping feature, effectively preventing the private establishment of DHCP servers and ensuring the authenticity and consistency of the DHCP environment;
 - Supports port security feature family, which can effectively prevent MAC address-based attacks and implement MAC address-based traffic permission/restriction;
 - Supports 802.1X and MAC authentication, client software version detection, Guest VLAN and other functions. It can work with iMC to realize proxy detection, dual network card detection, etc.
- Function.

Enhanced multi-service capabilities

- Support port speed limit and flow speed limit functions to prevent malicious occupation of network bandwidth and provide a variety of refined management methods;
- Supports three queue scheduling algorithms: SP (Strict Priority), WRR (Weighted Round Robin), and SP+WRR, and supports multi-priority data transmission;
- Supports rich IPV6 business features and multiple IPv6 management methods.

Easy-to-use network management

- Supports CLI command line, Web network management, and TELNET, making device management more convenient. It also supports encryption methods such as SSH2.0, making management more secure;
 - Supports remote upgrade of devices via FTP and TFTP, supports SNMP v1/v2c/v3, and supports general network management platforms such as iMC Intelligent Management Center and Open View.
- tower.

Green energy-saving design

- Energy-saving design significantly reduces power consumption and failure points of the equipment, while also reducing radiation to meet the radiation standards of household appliances, without causing harm to the human body;
- The entire product meets the EU RoHS standards for material environmental protection and safety.

Product Specifications

property	S5008PV5-NO	S5016PV5-EI	S5024PV5-NO	S5048PV5-NO	S5008PV5-EI-HPWR	S5024PV5-HIS-POWER	S5024PV5-EI-HPWR	S5048PV5-HIS-POWER
Switching capacity	336Gbps							
Packet forwarding rate	72Mpps 84Mpps		96Mpps	126Mpps 72Mpps		96Mpps	96Mpps	126Mpps
Management mouth	1 console port							
Fixed port	8*10/100/1000Base-T Ethernet Network port 2*1000Base-X SFP optical port	16*10/100/1000 Base-T Ethernet port 4*1000Base-X SFP Optical port	24*10/100/1000Base-T Ethernet port 4*1000Base-X SFP Optical port	48*10/100/1000Base-T Ethernet port 4*1000Base-X SFP Optical port	8*10/100/1000Base-T Ethernet port 2*1000Base-X SFP Optical port	24*10/100/1000Base-T Ethernet port 4*1000Base-X SFP Optical port	24*10/100/1000Base-T Ethernet port 4*1000Base-X SFP Optical port	48*10/100/1000Base-T Ethernet port 4*1000Base-X SFP Optical port
The electrical port supports half-duplex, full-duplex, and auto-negotiation working modes								

property	S5008PV 5-NO	S5016PV5-EI	S5024PV5- NO	S5048PV5- NO	S5008PV5- EI-HPWR	S5024PV5- HIS-POWER	S5024PV5- EI-HPWR	S5048PV5- HIS-POWER
Support MDI/MDI-X								
Ethernet functionality	<p>Supports IRF2 (supports up to 9 stacking units; S5008PV5-EI & S5008PV5-EI-HPWR do not support IRF2)</p> <p>Support LLDP</p> <p>Static MAC configuration</p> <p>Supports MAC address learning limit (MAC address depth supports up to 8K)</p> <p>Support port mirroring and flow mirroring functions</p> <p>Support port aggregation (aggregation group port maximum 8 ports, maximum 24 aggregation groups) Support port isolation Support STP/RSTP/MSTP</p> <p>Support IEEE 802.3ad (dynamic link aggregation) and static port aggregation</p>							
VLAN	<p>Support 802.1Q (up to 4K VLANs)</p> <p>Support protocol-based VLAN</p> <p>Support MAC-based VLAN Support</p> <p>GUEST VLAN</p> <p>Support VLAN mapping</p> <p>Support for MVRP</p>							
IP routing supports static routing								
DHCP	<p>Support DHCP Relay</p> <p>Support DHCP Client</p> <p>Support DHCP Snooping</p>							
Multicast	<p>Support IGMP V1/V2/V3 Snooping Support PIM</p> <p>Snooping Support multicast</p> <p>VLAN</p> <p>Support IPv6 multicast settings</p>							
QoS	<p>Support SP/WRR/SP+WRR queue scheduling</p> <p>Support 802.1p, DSCP priority mapping Support port speed limit</p>							
ACL	<ul style="list-style-type: none"> •Support Layer 2, Layer 3, and Layer 4 ACL Supports IPv4 and IPv6 ACLs •Support VLAN ACL 							
IPv6	<p>Support IPv6 static routing, dual protocol stack</p> <p>Supports DHCPv6 Client and DHCPv6 Snooping</p> <p>Support ND, PMTU</p> <p>Support IPv6 Ping, IPv6 Telnet, IPv6 SSHv2, IPv6 domain name resolution</p>							

property	S5008PV5-NO	S5016PV5-EI	S5024PV5-NO	S5048PV5-NO	S5008PV5-EI-HPWR	S5024PV5-HIS-POWER	S5024PV5-EI-HPWR	S5048PV5-HIS-POWER
reliability	Support Ethernet OAM and DLDP Support Monitor Link							
Security	Support user hierarchical management and password protection Support SSH, providing a secure encrypted channel for user login. Support FTP login and password mechanism with controllable IP address. Supports protection against attacks such as ARP, unknown multicast messages, broadcast messages, unknown unicast messages, TTL=1 messages, and protocol messages Support MAC address restriction Support IPyMAC+PORT binding function Support IEEE 802.1x Support Radius, support AAA, support security network management SNMPv3, support broadcast message suppression							
System Management	Support Console/AUX Modem/Telnet/SSH command line configuration Support FTP, TFTP, Xmodem, SFTP file upload and download management Supports SNMP V1/V2c/V3 Support Sflow Support NQA Support NTP clock Support system work log							
Ambient temperature	Operating temperature: -5°C to 45°C							
Ambient humidity	Operating humidity: 10% to 95% (non-condensing) Storage environment humidity: 10% to 95% (non-condensing)							
Environmental	protection China RoHs, EEE							
POE not supported					Support POE+, single port maximum power output power 30W			
Power consumption	12W ~ 19W		~ 23W	~ 41W	MAX 150W ~POE 125W	MAX 294W ~POE 240W	MAX 448W ~POE 370W	MAX 467W ~POE 370W
Weight (fully configured)	~ 1kg ~ 2kg		~ 2.5kg ~ 3.5kg	~ 1.5kg ~ 4kg			~ 4.5kg ~ 6kg	
Input voltage	AC: • Rated voltage range: 100V to 240V AC, 50/60Hz • Maximum voltage range: 90V to 264V AC, 47 to 63Hz							
Overall dimensions (length x width x height) (Unit: mm)	264x162x44	330x230x44	440x160x44	440x230x44	330x230x44	440x260x44	440x260x44	440x400x44

Ordering Information

Select the chassis configured according to the specific product model

describe	Quantity range	Remark
H3C S5008PV5-EI	1	Optional
H3C S5016PV5-EI	1	Optional
H3C S5024FV5-EI	1	Optional
H3C S5048PV5-EI	1	Optional
H3C S5008PV5-EI-HPWR	1	Optional
H3C S5024PV5-EI-PWR	1	Optional
H3C S5024PV5-EI-HPWR	1	Optional
H3C S5048PV5-EI-PWR	1	Optional



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