

## H3C S5120V3-LI Series Managed Access Switches

### Product Overview

H3C S5120V3-LI switch is a Layer 2 Ethernet switch product independently developed by H3C Technologies Co., Ltd. (hereinafter referred to as H3C).

The second generation of intelligent managed switches designed for high port density and easy installation network environments.

H3C S5120V3-LI series Ethernet switches provide 10/100/1000Base-T adaptive Ethernet ports or SFP optical ports. In enterprise networks, they can be used as access devices to provide Gigabit to desktop applications; in metropolitan area networks or industrial users, it can provide Gigabit access to end users or connect to low-end switches, and can be connected to Gigabit optical fibers or links.

Aggregate to a large-capacity L3 switch.

H3C S5120V3-LI series Ethernet switches support the innovative IRF (Intelligent Resilient Framework) technology. Users can connect up to 9 S5120V3-LI switches to form a logically independent entity, thereby building a new type of intelligent network with high reliability, easy scalability and easy manageability.



S5120V3-10P-LI



S5120V3-10P-PWR-LI



S5120V3-12TP-HPWR-LI



S5120V3-28P-HPWR-LI



S5120V3-28S-HPWR-LI



S5120V3-20P-LI



S5120V3-28P-LI



S5120V3-52P-LI



S5120V3-28S-LI



S5120V3-52S-LI



S5120V3-28P-PWR-LI



S5120V3-28P-HPWR-LI-Q



S5120V3-52P-PWR-LI



S5120V3-28S-PWR-LI



S5120V3-S2S-PWR-LI

# Features

## Rich business performance

Support Internet broadband access, mainly support gigabit access for users of small and medium-sized enterprise networks, provide gigabit port access, gigabit uplink interface. Support Jumbo Frame, support 802.1X,

MAC authentication, port security, support LACP protocol, support 4K VLANs, support maximum 16K MAC addresses and black hole MAC, support port-based layer 2 and layer 3

Automatic priority mapping, support for port-based mirroring, support for redirection, support for port isolation, support for access control lists, support for port speed limiting, support for rich Ethernet IPv6

Function.

## IRF2 (Intelligent Resilient Fabric, Second Generation)

H3C S5120V3-LI series switches support IRF2 (Intelligent Resilient Framework II) technology, which connects multiple physical devices to form a single logical device.

In other words, users can manage and use these multiple devices as 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 the unified logical device, and achieve the system can be managed as a whole and all member devices without having to physically connect to each member device to configure and manage them separately.
- Simplify the business IRF formed logical device running various control protocols are also run as a single device unified, for example, the routing protocol will be calculated as a single device, and with the application of cross-device link aggregation technology, it can replace the original spanning tree protocol, so that you can save a lot of protocol message interaction between devices, simplify the network  
It can effectively ensure the smooth operation of the network 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 any interruption. Affect the normal operation of other equipment.
- High reliability The high reliability of IRF is reflected in the three aspects of link, device and protocol. The physical ports between member devices support aggregation function, and the IRF system and upper and lower layer devices are connected. The physical connection between the devices also supports aggregation, which improves the reliability of the link through multi-link backup. The IRF system consists of multiple member devices. Once the Master If a device fails, the system will automatically elect a new Master to ensure that services passing through the system are not interrupted, thus achieving device-level 1:N backup; the IRF system will have The real-time protocol hot backup function is responsible for backing up the protocol configuration information to all other member devices, thereby achieving 1:N protocol reliability.
- For high-end switches, the performance and port density improvements are limited by the hardware structure. The performance and port density of the IRF system are determined by the IRF internal Therefore, IRF technology can easily increase the switching capacity of the device and the density of user ports by several times, thereby significantly improving the performance of the device.
- The entire elastic architecture shares a single IP management interface, which simplifies network device management, simplifies network topology management, improves operational efficiency, and reduces maintenance costs.

## Complete security control strategy

- ARP attacks and ARP viruses are the biggest threats to LAN security. H3C S5120V3-LI series switches support a variety of ARP defense functions, such as ARP Detection, to implement user legitimacy check function and ARP message validity check function, ARP rate limit, to avoid the impact of a large number of ARP messages on the CPU, etc.
- H3C S5120V3-LI series switches support EAD (Terminal Access Control) function, which can be used with the background system to integrate terminal anti-virus, patch repair and other terminal security measures with the system. Network access control, access permission control and other network security measures are integrated into a coordinated security system, through the inspection, isolation, repair and management of network access terminals. The whole network changes from passive defense to active defense, from single point defense to comprehensive defense, and from decentralized management to centralized strategy management, thus improving the network's ability to resist viruses and worms. Improve overall defense capabilities against emerging security threats such as worms.

- It supports multiple authentication methods, including 802.1X authentication, centralized MAC authentication, etc., and can flexibly adapt to the multiple authentication requirements of this network environment.

### Rich QoS policies

- H3C S5120V3-LI series switches support L2 (Layer 2) ~ L4 (Layer 4) packet filtering functions and provide flow classification technology. It provides flexible queue scheduling algorithms. It can be set based on ports and queues at the same time, supporting three modes: SP, WRR, and SP+WRR. It also supports inbound/outbound bidirectional ACL and traffic monitoring function. It supports port/flow mirroring in the outbound/inbound direction, which is used to monitor the messages on the specified port for network detection and troubleshooting.

### Excellent management features

- H3C S5120V3-LI series switches support SNMPv1/v2/v3 (Simple Network Management Protocol) and iMC intelligent management center. Supports CLI command line, Web network management, and TELNET, making device management more convenient, and supports encryption methods such as SSH2.0, making management more secure.
- H3C S5120V3-LI series switches support VLAN division based on MAC addresses, which is a good solution for intelligent and flexible management of mobile offices. VLAN sends ACL policies, which simplifies user configuration and greatly saves hardware resources.

### Layer 3 routing features

- Supports rich three-layer routing features, including static routing, RIP, RIPng, OSPF V1/V2/V3 and other routing features.

### Product Specifications

item	S5120V 3-10P- LI/S51 20V3-1 0P-PWR -LI	S5120V 3-12TP -HPWR- THAT	S5120V 3 -20P-L I	S5120V3 -28P-LI	S5120V3 -52P-LI	S5120V3 -28S-LI	S5120V3 -52S-LI	S5120V 3 -28P-P WR-LI/ S5120V 3-28P- HPWR-L I	S5120V3-2 8P-HPWR-L I-Q	S5120V 3 -52P-P WR-LI	S5120V 3 -28S-P WR-LI/ S5120V 3-28S- HPWR-L I	S5120V3 -52S-PW R-LI
pay	336Gbps/3.36Tbps											
Bag	81/108Mp ps	81/108Mp ps	81/108Mp ps	108/126Mp ps	126/144Mp ps	108/126Mp ps	126/144Mp ps	108/126M pps	108/126Mpps	126/144M pps	108/126M pps	126/144Mp ps
Industry	8 10/100/10 00BASE- T electrical port, support	8 10/100/10 00BASE- T electrical port, support	16 10/100/10 00BASE- T electrical port, support	24 10/100/100 0BASE-T port, supports 4 1000BASE- X SFP ports	48 10/100/100 0BASE-T port, supports 4 1000BASE- X SFP ports	24 10/100/100 0BASE-T port, supports 4 1G/10G BASE-X SFP+ ports	48 10/100/100 0Base-T Adapt to Ethernet Ports, 4 1G/10G BASE-X SFP+ ports	24 10/100/10 00BASE-T Electrical port, support	24 10/100/1000B ASE-T electrical port, support	48 10/100/10 00BASE- T electrical port, support	24 10/100/10 00BASE- T electrical port, support	48 10/100/100 0Base-T Adapt to Ethernet Ports, 4 1G/10G BASE-X SFP+ ports
Service	Hold 2 1000BAS E-X SFP port	Hold 2 10/100/10 00BASE- T Combo Mouth, Support 2 100/1000 BASE-X SFP ports, Support 2	Hold 4 1000BAS E-X SFP port	port, supports 4 1000BASE- X SFP ports	port, supports 4 1000BASE- X SFP ports	port, supports 4 1G/10G BASE-X SFP+ ports	port, supports 4 1G/10G BASE-X SFP+ ports	4 1000BAS E-X SFP port	Hold 4 1000BASE-X SFP port	Hold 4 1000BAS E-X SFP port	Hold 4 1G/10G BASE-X SFP+ ports	Adapt to Ethernet Ports, 4 1G/10G BASE-X SFP+ ports

item	S5120V 3-10P- LI/S51 20V3-1 0P-PWR -LI	S5120V 3-12TP -HPWR- THAT	S5120V 3 -20P-L I	S5120V3 -28P-LI	S5120V3 -52P-LI	S5120V3 -28S-LI	S5120V3 -52S-LI	S5120V 3 -28P-P WR-LI/ S5120V 3-28P- HPWR-L I	S5120V3-2 8P-HPWR-L I-Q	S5120V 3 -52P-P WR-LI	S5120V 3 -28S-P WR-LI/ S5120V 3-28S- HPWR-L I	S5120V3 -52S-PW R-LI
eye												
stack		1000BAS E-X SFP port										
heap	Maximum number of stacking units: 9 units											
shape		330x230 x43.6mm	330x230 x43.6 mm	440x160x4 3.6 mm	440x230x4 3.6 mm	440x160x4 3.6 mm	440x230x4 3.6 mm	440x260 x43.6 mm	440x422x43.6 mm	440x400x 43.6	440x260x 43.6	440x160x4 3.6 mm
ruler												
inch												
width	S5120V3- 10P-LI 266x161 x 43.6mm S5120V3- 10P-PWR -LI: 330x230 x43.6mm											
depth												
height												
weight	S5120V3- 10P-LI 1.5kg S5120V3- 10P-PWR -LI: 3kg	3kg	2kg	2.5kg	3.5kg	2.5kg	3.5kg	4kg	6kg	6kg	4.5kg	6kg
CO												
NS												
OL	1											
lose												
enter	AC											
specify	• Rated voltage range: 100V-240V AC, 50/60Hz											
pressure												
all	S5120V3- 10P-LI 15W	156W (POE is 125W)	19W	23W	41W	24W	44W	S5120V3- 28P-PWR -LI: 294W (poe is 240W) S5120V3- 28P-HPW	400W (PoE 370W)	467W (PoE is 370W)	S5120V3- 28S-PWR -LI: 294W (poe is 240W) S5120V3- 28S	467W PoE 370W)
machine												
most												
big												



item	S5120V	S5120V	S5120V	S5120V3	S5120V3	S5120V3	S5120V3	S5120V	S5120V3-2	S5120V	S5120V	S5120V3
eye	3-10P-LI/S5120V3-10P-PWR-LI	3-12TP-HPWR-THAT	3-20P-LI	-28P-LI	-52P-LI	-28S-LI	-52S-LI	3-28P-HPWR-LI	8P-HPWR-LI-Q	3-52P-PWR-LI	3-28S-HPWR-LI	-52S-PWR-LI
land site surface	Support setting the maximum number of port MAC addresses to learn											
VL AN	Support port-based VLAN QinQ support Support Voice VLAN Support protocol VLAN Support MAC VLAN											
WITH P	Support ARP Detection function Support ARP rate limit											
ND support ND												
VL AN Virtual catch mouth	support											
DH CP	Support DHCP Client Support DHCP Snooping Support DHCP Relay Support DHCP Server Support DHCP Option 82											
DN S	Support static domain name resolution Support dynamic domain name resolution client Supports IPv4 and IPv6 addresses											
road	Support IPv4/IPv6 static routing Support RIP/RIPng, OSPFV1/V2/V3											
wide / many / one / wind	Support storm suppression based on port rate percentage Support PPS-based storm suppression											

item	S5120V 3-10P- LI/S51 20V3-1 0P-PWR -LI	S5120V 3-12TP -HPWR- THAT	S5120V 3 -20P-L I	S5120V3 -28P-LI	S5120V3 -52P-LI	S5120V3 -28S-LI	S5120V3 -52S-LI	S5120V 3 -28P-P WR-LI/ S5120V 3-28P- HPWR-L I	S5120V3-2 8P-HPWR-L I-Q	S5120V 3 -52P-P WR-LI	S5120V 3 -28S-P WR-LI/ S5120V 3-28S- HPWR-L I	S5120V3 -52S-PW R-LI
system												
Sm with t That like	support											
two layer ring net	<p>Supports STP/RSTP/MSTP protocols</p> <p>Supports STP Root Protection</p> <p>Support RRPP</p>											
Qo S/ AC L	<p>Support packet filtering function</p> <p>Support SP/WRR/SP+WRR queue scheduling</p> <p>Support bidirectional ACL</p> <p>Support port-based speed limiting</p> <p>Supports flow-based redirection</p>											
mirror picture	<p>Support port mirroring</p> <p>Support flow mirroring</p>											
install complete special sex	<p>Support user hierarchical management and password protection</p> <p>Support SSH2.0</p> <p>Support port isolation</p> <p>Support 802.1X</p> <p>Support port security</p> <p>Support MAC address authentication</p> <p>Support IP Source Guard</p> <p>Support HTTPs</p> <p>Support EAD</p>											
add load and Lift class	<p>Support FTP (File Transfer Protocol) loading and upgrading</p> <p>Support TFTP (Trivial File Transfer Protocol) loading and upgrading</p>											
Tube reason	<p>Support command line interface (CLI) configuration</p> <p>Support Telnet remote configuration</p> <p>Support configuration through the Console port</p> <p>Support SNMP (Simple Network Management Protocol)</p> <p>Support RMON (Remote Monitoring) alarms, events, and history records</p> <p>Support BMC network management system</p>											

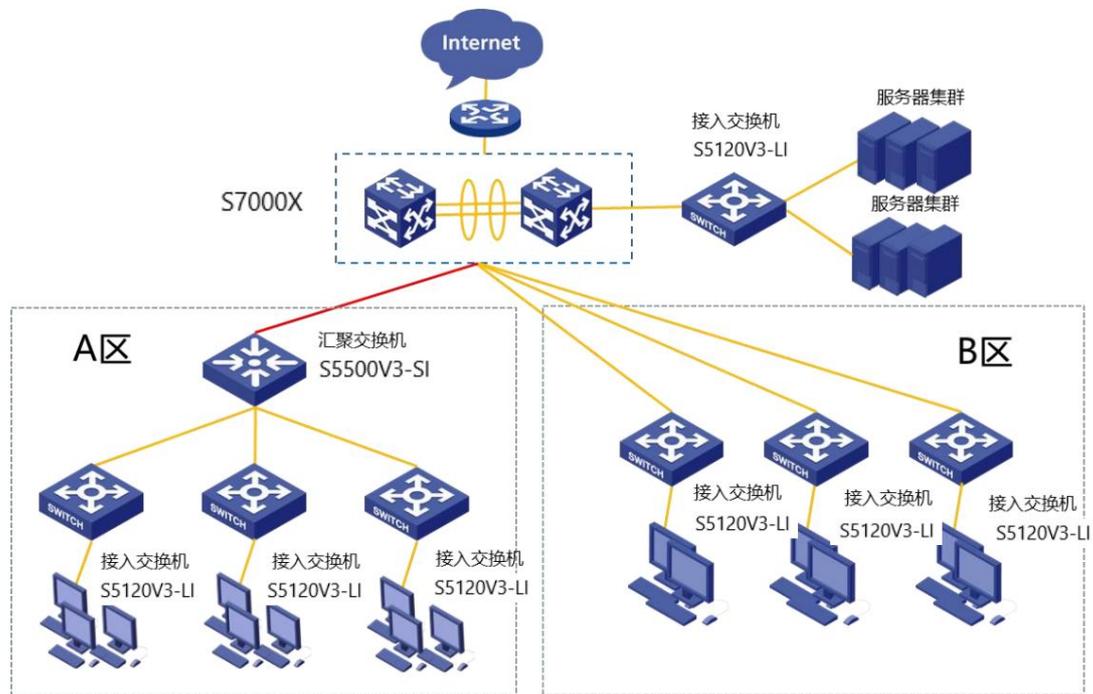
item	S5120V 3-10P- LI/S51 20V3-1 0P-PWR -LI	S5120V 3-12TP -HPWR- THAT	S5120V 3 -20P-L I	S5120V3 -28P-LI	S5120V3 -52P-LI	S5120V3 -28S-LI	S5120V3 -52S-LI	S5120V 3 -28P-P WR-LI/ S5120V 3-28P- HPWR-L I	S5120V3-2 8P-HPWR-L I-Q	S5120V 3 -52P-P WR-LI	S5120V 3 -28S-P WR-LI/ S5120V 3-28S- HPWR-L I	S5120V3 -52S-PW R-LI
feature	Support WEB network management Support system log Support graded alarms Support IRF Support NTP											
protect	Support debugging information output Support Ping and Tracert Support Telnet remote maintenance Support NQA Support DLDLP Supports Virtual Cable Test											

## Typical networking

### Typical applications in small and medium-sized campus networks

In the campus network of small and medium-sized enterprises, the S5120V3-LI series Ethernet switches can be used as access switches, providing high-performance, large-capacity switching services and supporting GE uplink Interface, providing stable bandwidth for access devices. In addition, the core layer, aggregation layer and high-performance access layer of the entire network all adopt H3C's innovative IRF2 (Intelligent Resilient Framework) technology. Without changing the original network topology, multiple devices are virtualized into a unified logical device to simplify the network topology, services, and management, achieving 1:N reliability.

It has multiple advantages, such as exponential improvement and significant improvement in network operation performance.



S5120V3-LI Access Switch Application Diagram

## Ordering Information

### H3C S5120V3-LI Series Switch Ordering List

Device Name	quantity	Remark
S5120V3-10P-LI Ethernet switch host	1	Optional
S5120V3-20P-LI Ethernet switch host	1	Optional
S5120V3-28P-LI Ethernet switch host	1	Optional
S5120V3-52P-LI Ethernet switch host	1	Optional
S5120V3-28S-LI Ethernet switch host	1	Optional
S5120V3-52S-LI Ethernet switch host	1	Optional
S5120V3-10P-PWR-LI Ethernet switch host	1	Optional
S5120V3-12TP-HPWR-LI Ethernet switch host	1	Optional
S5120V3-28P-PWR-LI Ethernet switch host	1	Optional
S5120V3-28P-HPWR-LI Ethernet switch host	1	Optional
S5120V3-28P-HPWR-LI-Q Ethernet switch host	1	Optional
S5120V3-52P-PWR-LI Ethernet switch host	1	Optional
S5120V3-28S-PWR-LI Ethernet switch host	1	Optional
S5120V3-28S-HPWR-LI Ethernet switch host	1	Optional
S5120V3-52S-PWR-LI Ethernet switch host	1	Optional



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