



Huawei CloudEngine S5735-S Series

Switches Datasheet



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OVERVIEW

[Huawei CloudEngine S5735-S](#) is a series of standard gigabit access switches that provide 24–48 flexible all-GE downlink ports and four fixed 10 GE uplink ports.

S5735-S switches are designed for scenarios such as enterprise campus network access and aggregation, as well as data center access. Built on next-generation, high-performance hardware and with the Huawei Versatile Routing Platform (VRP), CloudEngine S5735-S switches boast advanced features, such as enhanced Layer 3 functionality, simplified O&M, flexible Ethernet networking, and mature IPv6 capabilities.

MODELS & APPEARANCE

Appearance	Description
 CloudEngine S5735-S24T4X	<ul style="list-style-type: none">- 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports- 1+1 power supply backup- Forwarding performance: 96 Mpps- Switching capacity: 128 Gbps/336 Gbps
 CloudEngine S5735-S24P4X	<ul style="list-style-type: none">- 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports- 1+1 power supply backup- PoE+- Forwarding performance: 96 Mpps- Switching capacity: 128 Gbps/336 Gbps
 CloudEngine S5735-S48T4X	<ul style="list-style-type: none">- 48 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports- 1+1 power supply backup- Forwarding performance: 132 Mpps- Switching capacity: 176 Gbps/432 Gbps

 <p><u>CloudEngine S5735-S32ST4X</u></p>	<ul style="list-style-type: none"> - 24 x GE SFP ports, 8 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports - 1+1 power supply backup - Forwarding performance: 108 Mpps - Switching capacity: 144 Gbps/432 Gbps
 <p><u>CloudEngine S5735-S48S4X</u></p>	<ul style="list-style-type: none"> - 48 x GE SFP ports, 4 x 10 GE SFP+ ports - 1+1 power supply backup - Forwarding performance: 132 Mpps - Switching capacity: 176 Gbps/432 Gbps

KEY FEATURES AND BENEFITS

Powerful Service Processing Capability and Multiple Security Control Mechanisms

- CloudEngine S5735-S supports a broad set of Layer 2/Layer 3 multicast protocols, such as PIM SM, PIM DM, PIM SSM, MLD, and IGMP snooping. This capability is ideal for high-definition video surveillance and video conferencing access.
- CloudEngine S5735-S provides multiple Layer 3 features including OSPF, IS-IS, BGP, and VRRP, meeting enterprises' access and aggregation service needs and enabling a variety of voice, video, and data applications.
- CloudEngine S5735-S supports MAC address authentication, 802.1X authentication, and Portal authentication, and implements dynamic delivery of policies (VLAN, QoS, and ACL) to users.
- CloudEngine S5735-S provides a series of mechanisms to defend against DoS attacks and user-targeted attacks. DoS attacks are targeted at switches and include SYN flood, Land, Smurf, and ICMP flood attacks. User-targeted attacks include bogus DHCP server attacks, IP/MAC address spoofing, DHCP request flood, and changing of the DHCP CHADDR value.
- CloudEngine S5735-S sets up and maintains a DHCP snooping binding table, and discards the packets that do not match the table entries. The DHCP snooping trusted port feature ensures that users connect only to the authorized DHCP server.
- CloudEngine S5735-S supports strict ARP learning, which protects a network against ARP spoofing attacks to ensure that users can connect to the Internet normally.

Easy O&M

- CloudEngine S5735-S supports Super Virtual Fabric (SVF), which innovatively virtualizes the "core/aggregation switch + access switch + AP" into one logical device. This simplifies device management and achieves plug-and-play for access switches and APs. In addition, CloudEngine S5735-S supports service configuration templates. The templates are configured on core devices and automatically delivered to access devices, enabling centralized control, simplified service configuration, and flexible configuration adjustment. CloudEngine S5735-S functions as a client in an SVF system.
- CloudEngine S5735-S supports Huawei Easy Operation, a solution that provides zero-touch deployment, replacement of faulty devices without additional configuration, USB-based deployment, batch device configuration, and batch remote upgrade.

The capabilities facilitate device deployment, upgrade, service provisioning, and other management and maintenance operations, and also greatly reduce O&M costs. CloudEngine S5735-S can be managed using SNMP v1/v2c/v3, CLI, webbased network management system, or SSH v2.0. Additionally, it supports RMON, multiple log hosts, port traffic statistics collection, and network quality analysis, which facilitate network optimization and reconstruction.

- CloudEngine S5735-S supports the Sampled Flow (sFlow) function. It uses a method defined in the sFlow standard to sample traffic passing through it and sends sampled traffic to the collector in real time. The collected traffic statistics are used to generate statistical reports, helping enterprises maintain their networks.

Multiple Reliability Mechanisms

- CloudEngine S5735-S is equipped with two pluggable power modules that work in 1+1 redundancy backup mode. Mixed installation of AC and DC power modules is supported, allowing for flexible configuration of AC or DC power modules according to service requirements.
- In addition to supporting traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), CloudEngine S5735-S is also designed with Huawei-developed Smart Ethernet Protection (SEP) technology and the industry's latest Ethernet Ring Protection Switching (ERPS) technology. SEP is a ring protection protocol specific to the Ethernet link layer, and applies to various ring network topologies, such as open ring topology, closed ring topology, and cascading ring topology. This protocol is reliable, easy to maintain, and implements fast protection switching within 50 ms. ERPS is defined in ITU-T G.8032, and it implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.
- CloudEngine S5735-S supports Smart Link, which implements backup of uplinks. One CloudEngine S5735-S switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.
- CloudEngine S5735-S supports Ethernet OAM (IEEE 802.3ah/802.1ag) to fast-detect link faults.

Mature IPv6 Technologies

- CloudEngine S5735-S uses the mature, stable VRP platform and supports IPv4/IPv6 dual stack, IPv6 RIPng, and IPv6 over IPv4 tunnels (including manual, 6-to-4, and ISATAP tunnels).
- CloudEngine S5735-S can be deployed on a pure IPv4 network, a pure IPv6 network, or a shared IPv4/IPv6 network, helping achieve IPv4-to-IPv6 transition.

iStack

- CloudEngine S5735-S supports intelligent stack (iStack). This technology combines multiple switches into a logical switch. Member switches in a stack implement redundancy backup to improve device reliability and use inter-device link aggregation to improve link reliability.
- iStack provides high network scalability. You can increase ports, bandwidth, and processing capacity of a stack by simply adding member switches to the stack.
- iStack also simplifies device configuration and management. After a stack is set up, multiple physical switches are virtualized into one logical device. You can log in to any member switch in the stack to manage all the member switches in the stack. CloudEngine S5735-S support stacking through electrical ports.

PoE Function

- Perpetual PoE: When a PoE switch is abnormal Power-off or the software version is upgraded, the power supply to PDs is not interrupted. This capability ensures that PDs are not powered off during the switch reboot.
- Fast PoE: PoE switches can supply power to PDs within seconds after they are powered on. This is different from common switches that generally take 1 to 3 minutes to start to supply power to PDs. When a PoE switch reboots due to a power failure, the PoE switch continues to supply power to the PDs immediately after being powered on without waiting until it finishes reboot. This greatly shortens the power failure time of PDs.

Intelligent O&M

- CloudEngine S5735-S provides telemetry technology to collect device data in real time and send the data to Huawei campus network analyzer CampusInsight. The CampusInsight analyzes network data based on the intelligent fault identification algorithm, accurately displays the real-time network status, effectively demarcates and locates faults in a timely manner, and identifies network problems that affect user experience, accurately guaranteeing user experience.
- CloudEngine S5735-S supports a variety of intelligent O&M features for audio and video services, including the enhanced Media Delivery Index (eMDI). With this eMDI function, the switch can function as a monitored node to periodically

conduct statistics and report audio and video service indicators to the CampusInsight platform. In this way, the CampusInsight platform can quickly demarcate audio and video service quality faults based on the results of multiple monitored nodes.

Intelligent Upgrade

- CloudEngine S5735-S supports the intelligent upgrade feature. Specifically, CloudEngine S5735-S obtains the version upgrade path and downloads the newest version for upgrade from the Huawei Online Upgrade Platform (HOUP). The entire upgrade process is highly automated and achieves one-click upgrade. In addition, preloading the version is supported, which greatly shortens the upgrade time and service interruption time.

- The intelligent upgrade feature greatly simplifies device upgrade operations and makes it possible for the customer to upgrade the version independently. This greatly reduces the customer's maintenance costs. In addition, the upgrade policies on the HOUP platform standardize the upgrade operations, which greatly reduces the risk of upgrade failures.

Cloud Management

- The Huawei cloud management platform allows users to configure, monitor, and inspect switches on the cloud, reducing on-site deployment and O&M manpower costs and decreasing network OPEX. Huawei switches support both cloud management and on-premise management modes. These two management modes can be flexibly switched as required to achieve smooth evolution while maximizing return on investment (ROI).

OPS

- CloudEngine S5735-S supports Open Programmability System (OPS), an open programmable system based on the Python language. IT administrators can program the O&M functions of a CloudEngine S5735-S switch through Python scripts to quickly innovate functions and implement intelligent O&M.

PRODUCT SPECIFICATIONS

Product Model	CloudEngine S 5735-S24T4X	CloudEngine S 5735-S24P4X	CloudEngine S 5735-S32ST4X	CloudEngine S 5735-S48T4X	CloudEngine S 5735-S48P4X	CloudEngine S 5735-S48S4X
Forwarding Performance	96 Mpps	96 Mpps	108 Mpps	132 Mpps	132 Mpps	132 Mpps
Switching Capacity2	128 Gbps/336 Gbps	128 Gbps/336 Gbps	144 Gbps/432 Gbps	176 Gbps/432 Gbps	176 Gbps/432 Gbps	176 Gbps/432 Gbps
Fixed Ports	24 x 10/100/1000B ASE-T ports, 4 x 10 GE SFP+ ports	24 x 10/100/1000B ASE-T ports, 4 x 10 GE SFP+ ports	24 x GE SFP ports, 8 x 10/100/1000B ASE-T ports, 4 x 10 GE SFP+ ports	48 x 10/100/1000B ASE-T ports, 4 x 10 GE SFP+ ports	48 x 10/100/1000B ASE-T ports, 4 x 10 GE SFP+ ports	48 x GE SFP ports, 4 x 10 GE SFP+ ports
PoE+	Not supported	Supported	Not supported	Not supported	Supported	Not supported
MAC Features	IEEE 802.1d compliance MAC address auto-learning and aging Static, dynamic, and black hole MAC address entries Packet filtering based on source MAC addresses					
VLAN Features	4094 VLANs Guest VLAN, Voice VLAN GVRP MUX VLAN VLAN assignment based on MAC addresses, protocols, IP subnets, policies, and ports 1:1 and N:1 VLAN mapping					
IP Routing	Static route, RIPv1/v2, RIPv6, OSPF, OSPFv3, ECMP, IS-IS, IS-ISv6, BGP, BGP4+					
Super Virtual	Plug-and-play SVF clients Automatic software package and patch loading to SVF clients					

Fabric (SVF)	One-click and automatic delivery of service configurations Independent SVF client operation
Interoperability	VBST (compatible with PVST/PVST+/RPVST) LNP (similar to DTP) VCMP (similar to VTP)

BASIC ORDERING INFORMATION

SKU	Description
<u>S5735-S24T4X</u>	Huawei S5735-S switch, 24 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports
<u>S5735-S24P4X</u>	Huawei S5735-S switch, 24 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports, PoE+
<u>S5735-S32ST4X</u>	Huawei S5735-S switch, 24 x GE SFP ports, 8 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports
<u>S5735-S48T4X</u>	Huawei S5735-S switch, 48 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports
<u>S5735-S48P4X</u>	Huawei S5735-S switch, 48 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports, PoE+
<u>S5735-S48S4X</u>	Huawei S5735-S switch, 48 x GE SFP ports, 4 x 10 GE SFP+ ports
<u>S5735S-S24T4S-A</u>	Huawei S5735-S switch, 24 10/100/1000Base-T ports, 4 GE SFP ports, 1 60W AC Power Supply, Distribution model
<u>S5735S-S48T4S-A</u>	Huawei S5735-S switch, 48 10/100/1000Base-T ports, 4 GE SFP ports, 1 60W AC Power Supply, Distribution model
<u>S5735S-S32ST4X-A</u>	Huawei S5735-S switch, 24 GE SFP Ports, 8 10/100/1000BASE-T, 4 10G SFP+, 1 60W AC Power Supply, Distribution model

WHERE TO BUY

Want to buy this series of products? please contact:

- Tel: +1-626-239-8066 (USA)/ +852-3050-1066 / +852-3174-6166
- Fax: +852-3050-1066 (Hong Kong)
- Email: sales@router-switch.com (Sales Inquiries)

Or visit: [Huawei CloudEngine S5735-S and S5735-L Switches](#)

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SOURCES

<https://e.huawei.com/us/products/enterprise-networking/switches/campus-switches/s5735-s>