

# Huawei CloudEngine S5735-L Series

# **Switches Datasheet**



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## OVERVIEW

<u>Huawei CloudEngine S5735</u> -L series switches are ideal for scenarios such as enterprise campus network access and gigabit to the desktop. Built on next-generation, high-performance hardware and the Huawei Versatile Routing Platform (VRP), CloudEngine S5735-L switches stand out with compelling features such as intelligent stack (iStack), flexible Ethernet networking, and diversified security control. They support multiple Layer 3 routing protocols and provide high performance and service processing capabilities.

## MODELS & APPEARANCE

Appearance	Description
	- 12 x 10/100/1000Base-T ports, 4 x GE SFP ports
	- AC power supply
CloudEngine S5735-L12T4S-A	- Forwarding performance: 24 Mpps
	- Switching capacity: 32 Gbps/336 Gbps
	- 12 x 10/100/1000Base-T ports, 4 x GE SFP ports
	- AC power supply
	- PoE+
CloudEngine S5735-L12P4S-A	- Forwarding performance: 24 Mpps
	- Switching capacity: 32 Gbps/336 Gbps
	- 24 x 10/100/1000Base-T ports, 4 x GE SFP ports
	- AC power supply
CloudEngine S5735-L24T4S-A	- Forwarding performance: 42 Mpps
	- Switching capacity: 56 Gbps/336 Gbps
	- 24 x 10/100/1000Base-T ports, 4 x GE SFP ports
	- AC power supply

CloudEngine S5735-L24P4S-A	- PoE+
	- Forwarding performance: 42 Mpps
	- Switching capacity: 56 Gbps/336 Gbps
	- 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports
	- AC power supply
	- Forwarding performance: 96 Mpps
CloudEngine S5735-L24T4X-A	- Switching capacity: 128 Gbps/336 Gbps
	- 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports
	- AC power supply
	- PoE+
CloudEngine S5735-L24P4X-A	- Forwarding performance: 96 Mpps
	- Switching capacity: 128 Gbps/336 Gbps
	- 48 x 10/100/1000Base-T ports, 4 x GE SFP ports
	- AC power supply
CloudEngine S5735-L48T4S-A	- Forwarding performance: 78 Mpps
	- Switching capacity: 104 Gbps/432 Gbps
	- 48 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports
	- AC power supply
CloudEngine S5735-L48T4X-A	- Forwarding performance: 132 Mpps
	- Switching capacity: 176 Gbps/432 Gbps

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## **KEY FEATURES AND BENEFITS**

#### **Flexible Ethernet Networking**

- In addition to supporting traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), CloudEngine S5735-L 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-L supports Smart Link, which implements backup of uplinks. One CloudEngine S5735-L switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.

- CloudEngine S5735-L supports Ethernet OAM (IEEE 802.3ah/802.1ag) to fast-detect link faults.

#### **Diversified Security Control**

- CloudEngine S5735-L supports 802.1X authentication, MAC address authentication, and hybrid authentication on a per port basis, as well as Portal authentication on a per VLANIF interface basis, and implements dynamic policy delivery (VLAN, QoS, and ACL) to users.

- CloudEngine S5735-L 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-L 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-L supports strict ARP learning. This feature prevents ARP spoofing attackers from exhausting ARP entries so that users can connect to the Internet normally.

#### **Easy Operation and Maintenance**

- CloudEngine S5735-L 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 Easy Operation solution facilitates device deployment, upgrade, service provisioning, and other management and maintenance operations, and also greatly reduces O&M costs. CloudEngine S5735-L can be managed and maintained using Simple Network Management Protocol (SNMP) V1, V2, and V3, Command Line Interface (CLI), web-based network management system, or Secure Shell (SSH) V2.0. Additionally, it supports remote network monitoring (RMON), multiple log hosts, port traffic statistics collection, and network quality analysis, paving the way for network optimization and reconstruction.

- CloudEngine S5735-L supports the EasyDeploy function. Specifically, the Commander collects the topology information of the downstream clients and saves client startup information based on the topology. Clients can be replaced without configuration. Configuration and scripts can be delivered to clients in batches. In addition, the configuration delivery result can be queried. The Commander can also collect and display power consumption information on the entire network.

- CloudEngine S5735-L can use the GARP VLAN Registration Protocol (GVRP) to implement VLAN dynamic distribution, registration, and attribute propagation. GVRP reduces manual configuration workload and ensures correct configuration.

- CloudEngine S5735-L supports MUX VLAN, which involves a principal VLAN and multiple subordinate VLANs.

Subordinate VLANs are classified into group VLANs and separate VLANs. Ports in the principal VLAN can communicate with ports in subordinate VLANs. Ports in a subordinate group VLAN can communicate with each other, whereas ports in a subordinate separate VLAN cannot communicate with each other. CloudEngine S5735-L also supports VLAN Central Management Protocol (VCMP) and VLAN-Based Spanning Tree (VBST) protocol.

#### iStack

- CloudEngine S5735-L 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-L support stacking through electrical ports.

#### **Excellent Network Traffic Analysis**

- CloudEngine S5735-L supports the 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.

#### **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-L 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-L supports a variety of intelligent O&M features for audio and video services, including the enhanced Media Delivery Index (eMDI). With this eDMI 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-L supports the intelligent upgrade feature. Specifically, CloudEngine S5735-L 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-L 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-L switch through Python scripts to quickly innovate functions and implement intelligent O&M.

PRODUCT S	PECIFICATION	S				
Product	CloudEngine	CloudEngine	CloudEngine	CloudEngine <u>S</u>	CloudEngine	CloudEngine <u>S</u>
Model	<u>S5735-L12T4S-</u>	<u>S5735-L24T4S-</u>	<u> 55735-</u>	<u>5735-L48T4S-</u>	<u> S5735-</u>	<u>5735-</u>
	A	<u>A</u>	<u>L24T4X-A</u>	<u>A</u>	<u>L48T4X-A</u>	<u>L32ST4X-A</u>
	CloudEngine <u>S</u>	CloudEngine <u>S</u>	CloudEngine <u>S</u>		CloudEngine <u>S</u>	
	<u>5735-L12P4S-</u>	<u>5735-L24P4S-</u>	<u>5735-L24P4X-</u>		<u>5735-L48P4X-</u>	
	A	A	A		A	
Forwarding Performanc e	24 Mpps	42 Mpps	96 Mpps	78 Mpps	132 Mpps	108 Mpps

Switching	32 Gbit/s/336	56 Gbit/s/336	128	104	176	144
Capacity2	Gbit/s	Gbit/s	Gbit/s/336	Gbit/s/432	Gbit/s/432	Gbit/s/432
			Gbit/s	Gbit/s	Gbit/s	Gbit/s
Fixed Ports	12 x	24 x	24 x	48 x	48 x	24 x GE SFP
	10/100/1000B	10/100/1000B	10/100/1000B	10/100/1000B	10/100/1000B	ports, 8 x
	ase-T ports, 4	ase-T ports, 4	ase-T ports, 4	ASE-T ports, 4	ASE-T ports, 4	10/100/1000E
	x GE SFP ports	x GE SFP ports	x 10 GE SFP+	x GE SFP ports	x 10 GE SFP+	ASE-T ports, 4
			ports		ports	x 10 GE SFP+ ports
PoE+	CloudEngine <u>S5</u>	7 <u>35-L12P4S-A</u> : Su	pported	1	1	1
	CloudEngine <u>S5</u>	<u>735-L24P4S-A</u> : Su	pported			
	CloudEngine <u>S5</u>	<u>735-L24P4X-A</u> : Su	pported			
		<u>735-L48P4X-A</u> : Su	pported			
	Other: Not supp	ort				
MAC	MAC address au	to-learning and a	ging			
Features	Static, dynamic,	and blackhole M	AC address entries	5		
	Packet filtering	based on source N	MAC addresses			
	Interface-based	MAC address lea	rning limiting			
VLAN	4094 VLANs					
Features	Guest VLAN, Vo	ice VLAN				
	GVRP					
	MUX VLAN					
	_		addresses, protoc	ols, IP subnets, po	olicies, and ports	
	1:1 and N:1 VLA	N mapping				
IP Routing	Static route, RIP	, RIPng, OSPF, OS	PFv3			
Super	Plug-and-play S	/F clients				
Virtual	Automatic softw	vare package and	patch loading to S	SVF clients		
Fabric	One-click and au	utomatic delivery	of service configu	rations		
(SVF)	Independent SV	F client operation	IS			

Interopera	VBST (compatible with PVST/PVST+/RPVST)
bility	LNP (similar to DTP)
	VCMP (similar to VTP)

BASIC ORDERING INFORMATION		
SKU	Description	
<u>S5735-L12T4S-A</u>	Huawei S5735-L switch, 12 x 10/100/1000Base-T ports, 4 x GE SFP ports	
<u>S5735-L24T4S-A</u>	Huawei S5735-L switch, 24 x 10/100/1000Base-T ports, 4 x GE SFP ports	
<u>\$5735-L24T4X-A</u>	Huawei S5735-L switch, 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports	
<u>S5735-L32ST4X-A</u>	Huawei S5735-L switch, 24 x GE SFP ports, 8 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports	
<u>S5735-L48T4S-A</u>	Huawei S5735-L switch, 48 x 10/100/1000BASE-T ports, 4 x GE SFP ports	
<u>S5735-L48P4X-A</u>	Huawei S5735-L switch, 48 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports, PoE+	
<u>S5735-L48T4X-A</u>	Huawei S5735-L switch, 48 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports	
<u>S5735-L12P4S-A</u>	Huawei S5735-L switch, 12 x 10/100/1000Base-T ports, 4 x GE SFP ports, PoE+	
<u>S5735-L24P4S-A</u>	Huawei S5735-L switch, 24 x 10/100/1000Base-T ports, 4 x GE SFP ports, PoE+	
<u>S5735-L24P4X-A</u>	Huawei S5735-L switch, 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, PoE+	
<u>S5735S-L12T4S-A</u>	Huawei S5735-L switch, 12 x 10/100/1000Base-T ports, 4 x GE SFP ports, Distribution model	
<u>S5735S-L12P4S-A</u>	Huawei S5735-L switch, 12 x 10/100/1000Base-T ports, 4 x GE SFP ports, PoE+, Distribution model	
<u>S5735S-L24T4S-A</u>	Huawei S5735-L switch, 24 x 10/100/1000Base-T ports, 4 x GE SFP ports, Distribution model	

<u>S5735S-L24T4X-A</u>	Huawei S5735-L switch, 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, Distribution model
<u>S5735S-L24P4S-A</u>	Huawei S5735-L switch, 24 x 10/100/1000Base-T ports, 4 x GE SFP ports, PoE+, Distribution model
<u>S5735S-L24P4X-A</u>	Huawei S5735-L switch, 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, PoE+, Distribution model
<u>S5735S-L48T4S-A</u>	Huawei S5735-L switch, 48 x 10/100/1000BASE-T ports, 4 x GE SFP ports, Distribution model
<u>S5735S-L48T4X-A</u>	Huawei S5735-L switch, 48 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports, Distribution model
<u>S5735S-L48P4S-A</u>	Huawei S5735-L switch, 48 x 10/100/1000Base-T ports, 4 x GE SFP ports, PoE+, Distribution model
<u>S5735S-L48P4X-A</u>	Huawei S5735-L switch, 48 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports, PoE+, Distribution model
<u>S5735S-L32ST4X-A</u>	Huawei S5735-L switch, 24 x GE SFP ports, 8 x 10/100/1000BASE-T ports, 4 x 10 GE SFP+ ports, Distribution model
<u>S5735S-L24FT4S-A</u>	Huawei S5735-L switch, 12 10/100Base-Tx ports, 12 10/100/1000Base-T ports,4 GE SFP ports, AC, Distribution model
<u>S5735S-L48FT4S-A</u>	Huawei S5735-L switch, 24 10/100Base-Tx ports, 24 10/100/1000Base-T ports,4 GE SFP ports, AC, Distribution model
<u>S5735S-L24T4S-MA</u>	Huawei S5735-L switch, 24 10/100/1000Base-T ports, 4 GE SFP ports, AC Management, Distribution model
<u>S5735S-L24P4S-MA</u>	Huawei S5735-L switch, 24 10/100/1000Base-T ports, 4 GE SFP ports, PoE+, AC Management, 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

#### About us

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### SOURCES

https://e.huawei.com/us/products/enterprise-networking/switches/campus-switches/s5735-l