

CloudEngine S5735-L-Q Series Quiet Switches Datasheet

Huawei CloudEngine S5735-L-Q series are fanless design simplified gigabit Ethernet switches that provide all GE downlink ports and GE or 10GE uplink ports.

Introduction

CloudEngine S5735-L-Q series switches are compact all-gigabit switches ideal for noise-sensitive service scenarios in OA, education, healthcare, and other scenarios. Built on next-generation, high-performance hardware and powered by Huawei's Versatile Routing Platform (VRP), CloudEngine S5735-L-Q stands out with flexible Ethernet networking, diversified security control, and support for multiple Layer 3 routing protocols — providing higher performance and more powerful service processing capabilities for networks. All switches in the series are fanless, quiet, and energy-efficient.

Product Overview

Models and Appearances

The following models are available in the CloudEngine S5735-L-Q series.

Models and Appearances	Description
 CloudEngine S5735-L8T4S-QA1	<ul style="list-style-type: none"> • 8 x 10/100/1000Base-T ports, 4 x GE SFP ports • AC power supply • Forwarding performance: 18 Mpps • Switching capacity: 24 Gbps/336 Gbps
 CloudEngine S5735-L8P4S-QA1	<ul style="list-style-type: none"> • 8 x 10/100/1000Base-T ports, 4 x GE SFP ports • AC power supply • PoE+ • Forwarding performance: 18 Mpps • Switching capacity: 24 Gbps/336 Gbps
 CloudEngine S5735-L24T4S-QA1	<ul style="list-style-type: none"> • 24 x 10/100/1000Base-T ports, 4 x GE SFP ports • AC power supply • Forwarding performance: 42 Mpps • Switching capacity: 56 Gbps/336 Gbps
 CloudEngine S5735-L24T4X-QA1	<ul style="list-style-type: none"> • 24 x 10/100/1000Base-T ports, 4 x 10 GE SFP+ ports, 1x USB port • AC power supply • Forwarding performance: 96 Mpps • Switching capacity: 128 Gbps/336 Gbps

Note: The value before the slash (/) refers to the device's switching capability, while the value after the slash (/) means the system's switching capability.

Product Features and Highlights

Energy-Saving and Quietness

- Adopts fanless design for noise-free operation and supports energy-saving technologies such as port sleep and automatic port power adjustment.

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-Q 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-Q supports Smart Link, which implements backup of uplinks. One CloudEngine S5735-L-Q switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.
- CloudEngine S5735-L-Q supports Ethernet OAM (IEEE 802.3ah/802.1ag) to fast-detect link faults.

Diversified Security Control

- CloudEngine S5735-L-Q 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-Q 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-Q 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-Q 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-Q 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-Q 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-Q 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-Q 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-Q 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-Q also supports VLAN Central Management Protocol (VCMP) and VLAN-Based Spanning Tree (VBST) protocol.

Note: Only those switches with USB ports can USB-based deployment.

iStack

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

Note: Mixed stacking between CloudEngine S5735-L-A/D and CloudEngine S5735-L-QA1 is not supported.

Excellent Network Traffic Analysis

- CloudEngine S5735-L-Q 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-Q 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-Q 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-L-Q supports the intelligent upgrade feature. Specifically, CloudEngine S5735-L-Q 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-Q 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-Q switch through Python scripts to quickly innovate functions and implement intelligent O&M.

Licensing

CloudEngine S5735-L-Q supports both the traditional feature-based licensing mode and the latest Huawei IDN One Software (N1 mode for short) licensing mode. The N1 mode is ideal for deploying Huawei CloudCampus Solution in the on-premises scenario, as it greatly enhances the customer experiences in purchasing and upgrading software services with simplicity.

Software Package Features in N1 Mode

Switch Functions	N1 Basic Software	N1 Foundation Software Package	N1 Advanced Software Package
Basic network functions: Layer 2 functions, IPv4, IPv6, SVF, and others Note: For details, see the Service Features	√	√	√
Basic network automation based on the iMaster NCE-Campus: <ul style="list-style-type: none"> • Basic automation: Plug-and-play • Basic monitoring: Application visualization • NE management: Image and topology management and discovery • User access authentication 	×	√	√
Advanced network automation and intelligent O&M: CampusInsight basic functions	×	×	√

Product Specifications

Functions and Features

Function and feature metrics for the CloudEngine S5735-L-Q series

Function and Feature		Description	CloudEngines S5735-L-Q
Ethernet features	Ethernet basics	Full-duplex, half-duplex, and auto-negotiation	Yes
		Rate auto-negotiation on an interface	Yes
		Auto MDI and MDI-X	Yes
		Flow control on an interface	Yes
		Jumbo frames	Yes
		Link aggregation	Yes
		Load balancing among links of a trunk	Yes
		Transparent transmission of Layer 2 protocol packets	Yes
		Device Link Detection Protocol (DLDP)	Yes
		Link Layer Discovery Protocol (LLDP)	Yes
		Link Layer Discovery Protocol-Media Endpoint Discovery (LLDP-MED)	Yes

Function and Feature		Description	CloudEngines S5735-L-Q
		Interface isolation	Yes
		Broadcast traffic suppression on an interface	Yes
		Multicast traffic suppression on an interface	Yes
		Unknown unicast traffic suppression on an interface	Yes
		VLAN broadcast traffic suppression	Yes
		VLAN multicast traffic suppression	Yes
		VLAN unknown unicast traffic suppression	Yes
	VLAN	VLAN specification	4094
		VLANIF interface specification	1024
		Access mode	Yes
		Trunk mode	Yes
		Hybrid mode	Yes
		QinQ mode	Yes
		Default VLAN	Yes
		VLAN assignment based on interfaces	Yes
		VLAN assignment based on protocols	Yes
		VLAN assignment based on IP subnets	Yes
		VLAN assignment based on MAC addresses	Yes
		VLAN assignment based on MAC address + IP address	Yes
		VLAN assignment based on MAC address + IP address + interface number	Yes
		Adding double VLAN tags to packets based on interfaces	Yes
		VLAN mapping	Yes
		Selective QinQ	Yes
		MUX VLAN	Yes
		Voice VLAN	Yes
		Guest VLAN	Yes
		GVRP	GARP
	GVRP		Yes
	VCMP	VCMP	Yes
	MAC	MAC address	32896(MAX)
		Automatic learning of MAC addresses	Yes

Function and Feature		Description	CloudEngines S5735-L-Q
		Automatic aging of MAC addresses	Yes
		Static, dynamic, and blackhole MAC address entries	Yes
		Interface-based MAC address learning limiting	Yes
		Sticky MAC	Yes
		MAC address flapping detection	Yes
		MAC address spoofing defense	Yes
		Port bridge	Yes
	ARP	Static ARP	Yes
		Dynamic ARP	Yes
		ARP entry	4096(MAX)
		ARP aging detection	Yes
		Intra-VLAN proxy ARP	Yes
		Routed proxy ARP	Yes
Ethernet loop protection	MSTP	STP	Yes
		RSTP	Yes
		MSTP	Yes
		VBST	Yes
		BPDU protection	Yes
		Root protection	Yes
		Loop protection	Yes
		Defense against TC BPDU attacks	Yes
	Loopback detection	Loop detection on an interface	Yes
	SEP	SEP	Yes
	Smart Link	Smart Link	Yes
		Smart Link multi-instance	Yes
		Monitor Link	Yes
	RRPP	RRPP	Yes
		Single RRPP ring	Yes
		Tangent RRPP ring	Yes
		Intersecting RRPP ring	Yes
		Hybrid networking of RRPP rings and other ring networks	Yes
	ERPS	G.8032 v1	Yes
		G.8032 v2	Yes

Function and Feature		Description	CloudEngines S5735-L-Q	
IPv4/IPv6 forwarding		ERPS semi-ring topology	Yes	
		ERPS closed-ring topology	Yes	
	IPv4 and unicast routing	IPv4 static routing	Yes	
		VRF	Yes	
		DHCP client	Yes	
		DHCP server	Yes	
		DHCP relay	Yes	
		Routing policies	Yes	
		IPv4 routes	4096(MAX)	
		RIPv1	Yes	
		RIPv2	Yes	
		OSPF	Yes	
		Policy-based routing (PBR)	Yes	
		Multicast routing features	IGMPv1/v2/v3	Yes
			PIM-DM	Yes
	PIM-SM		Yes	
	MSDP		Yes	
	IPv4 multicast routes		1500(MAX)	
	IPv6 multicast routes		1500(MAX)	
	Multicast routing policies		Yes	
	RPF		Yes	
	IPv6 features	IPv6 protocol stack	Yes	
		ND	Yes	
		ND entry	1024(MAX)	
		ND snooping	Yes	
		DHCPv6 snooping	Yes	
		RIPng	Yes	
		DHCPv6 server	Yes	
		DHCPv6 relay	Yes	
		OSPFv3	Yes	
IPv6 routes		1024(MAX)		
VRRP6		Yes		
MLDv1/v2		Yes		
PIM-DM for IPv6		Yes		

Function and Feature		Description	CloudEngines S5735-L-Q
		PIM-SM for IPv6	Yes
Layer 2 multicast features	-	IGMPv1/v2/v3 snooping	Yes
		IGMP snooping proxy	Yes
		MLD snooping	Yes
		Multicast traffic suppression	Yes
		Inter-VLAN multicast replication	Yes
Device reliability	Stacking	Service interface-based stacking	Yes
		Maximum number of stacked devices	9
		Stack bandwidth (Bidirectional)	80Gbps(MAX)
	VRRP	VRRP standard protocol	Yes
Ethernet OAM	EFM (802.3ah)	Automatic discovery of links	Yes
		Link fault detection	Yes
		Link troubleshooting	Yes
		Remote loopback	Yes
	CFM (802.1ag)	Software-level CCM	Yes
		802.1ag MAC ping	Yes
		802.1ag MAC trace	Yes
	OAM association	Association between 802.1ag and 802.3ah	Yes
	Y.1731	Unidirectional delay and jitter measurement	Yes
		Bidirectional delay and jitter measurement	Yes
QoS features	Traffic classification	Traffic classification based on ACLs	Yes
		Configuring traffic classification priorities	Yes
		Matching the simple domains of packets	Yes
	Traffic behavior	Traffic filtering	Yes
		Traffic policing (CAR)	Yes
		Modifying the packet priorities	Yes
		Modifying the simple domains of packets	Yes
		Modifying the packet VLANs	Yes
	Traffic shaping	Traffic shaping on an egress interface	Yes
		Traffic shaping on queues on an interface	Yes
	Congestion avoidance	Tail drop	Yes
	Congestion management	Priority Queuing (PQ)	Yes
		Weighted Deficit Round Robin (WDRR)	Yes

Function and Feature		Description	CloudEngines S5735-L-Q
		PQ+WDRR	Yes
		Weighted Round Robin (WRR)	Yes
		PQ+WRR	Yes
ACL	Packet filtering at Layer 2 to Layer 4	Number of rules per IPv4 ACL	2K
		Number of rules per IPv6 ACL	2K
		Basic IPv4 ACL	Yes
		Advanced IPv4 ACL	Yes
		Basic IPv6 ACL	Yes
		Advanced IPv6 ACL	Yes
		Layer 2 ACL	Yes
		User-defined ACL	Yes
Configuration and maintenance	Login and configuration management	Command line interface (CLI)-based configuration	Yes
		Console terminal service	Yes
		Telnet terminal service	Yes
		SSH v1.5	Yes
		SSH v2.0	Yes
		SNMP-based NMS for unified configuration	Yes
		Web page-based configuration and management	Yes
		EasyDeploy (client)	Yes
		SVF	Yes
		Cloud management	Yes
		OPS	Yes
	File system	Directory and file management	Yes
		File upload and download	Yes
	Monitoring and maintenance	eMDI	Yes
		Hardware monitoring	Yes
		Log information output	Yes
		Alarm information output	Yes
		Debugging information output	Yes
		Port mirroring	Yes
		Flow mirroring	Yes
		Remote mirroring	Yes
	Energy saving	Yes	
	Version upgrade	Version upgrade	Yes

Function and Feature		Description	CloudEngines S5735-L-Q
		Version rollback	Yes
Security	ARP security	ARP packet rate limiting	Yes
		ARP anti-spoofing	Yes
		Association between ARP and STP	Yes
		Dynamic ARP Inspection (DAI)	Yes
		Static ARP Inspection (SAI)	Yes
		Egress ARP Inspection (EAI)	Yes
	IP security	ICMP attack defense	Yes
		IPSG for IPv4	Yes
		IPSG user capacity	1K
		IPSG for IPv6	Yes
		IPSGv6 user capacity	512
	Local attack defense	CPU attack defense	Yes
	MFF	MFF	Yes
	DHCP snooping	DHCP snooping	Yes
		Option 82 function	Yes
		Dynamic rate limiting for DHCP packets	Yes
	Attack defense	Defense against malformed packet attacks	Yes
		Defense against UDP flood attacks	Yes
		Defense against TCP SYN flood attacks	Yes
		Defense against ICMP flood attacks	Yes
		Defense against packet fragment attacks	Yes
Local URPF		Yes	
User access and authentication	AAA	Local authentication	Yes
		Local authorization	Yes
		RADIUS authentication	Yes
		RADIUS authorization	Yes
		RADIUS accounting	Yes
		HWTACACS authentication	Yes
		HWTACACS authorization	Yes
		HWTACACS accounting	Yes
	NAC	802.1X authentication	Yes
		MAC address authentication	Yes

Function and Feature		Description	CloudEngines S5735-L-Q
		Portal authentication	Yes
		Hybrid authentication	Yes
	Policy association	Functioning as the access device	Yes
Network management	-	Ping	Yes
		Tracert	Yes
		NQA	Yes
		NTP	Yes
		sFlow	Yes
		SNMP v1	Yes
		SNMP v2c	Yes
		SNMP v3	Yes
		HTTP	Yes
		HTTPS	Yes
		RMON	Yes
		NETCONF/YANG	Yes
Interoperability	-	VLAN-based Spanning Tree (VBST)	Yes
		Link-type Negotiation Protocol (LNP)	Yes
		VLAN Central Management Protocol (VCMP)	Yes

NOTE

This content is applicable only to regions outside mainland China. Huawei reserves the right to interpret this content.

Hardware Specifications

Item		CloudEngine S5735-L8T4S-QA1	CloudEngine S5735-L8P4S-QA1	CloudEngine S5735-L24T4S-QA1	CloudEngine S5735-L24T4X-QA1
Physical specifications	Dimensions (H x W x D)	43.6 mm x 320 mm x 210 mm	43.6 mm x 320 mm x 210 mm	43.6 mm x 442 mm x 220 mm	43.6 mm x 442 mm x 220 mm
	Chassis height	1 U	1 U	1 U	1 U
	Chassis weight (including packaging)	3.10 kg	4.06 kg	4.45 kg	4.45 kg
Fixed port	GE port	8	8(PoE+)	24	24
	GE SFP port	4	4	4	NA
	10GE port	NA	NA	NA	4
Management port	Console port (RJ45)	Supported	Supported	Supported	Supported
	USB Port	NA	NA	NA	USB 2.0
CPU	Frequency	1000 MHz	1000 MHz	1000 MHz	1000 MHz

Item		CloudEngine S5735-L8T4S-QA1	CloudEngine S5735-L8P4S-QA1	CloudEngine S5735-L24T4S-QA1	CloudEngine S5735-L24T4X-QA1
	Core	2	2	2	2
Storage	Memory (RAM)	512 MB	512 MB	512 MB	512 MB
	Flash memory	Hardware: 512 MB, of which 306 MB is available for users	Hardware: 512 MB, of which 306 MB is available for users	Hardware: 512 MB, of which 306 MB is available for users	Hardware: 512 MB, of which 306 MB is available for users
Power supply system	Power supply type	Built-in AC	AC adapter	Built-in AC	Built-in AC
	Rated voltage range	AC input: 100 V AC to 240 V AC, 50/60 Hz	AC input: 100 V AC to 240 V AC, 50/60 Hz	AC input: 100 V AC to 240 V AC, 50/60 Hz	AC input: 100 V AC to 240 V AC, 50/60 Hz
	Maximum voltage range	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz 	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz 	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz 	<ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz
	Maximum input current	0.8 A	3 A	2 A	2 A
	Maximum power consumption of the device	22 W	<ul style="list-style-type: none"> 28 W (without PD) 159 W (with PD, PD power consumption of 114 W) 	33 W	34 W
	Power consumption in the case of 30% traffic load ¹	20.5 W	26.3 W	29.8 W	30.8 W
	Power consumption in the case of 100% traffic load ¹	20.8 W	27.9 W	31.8 W	33.2 W
Heat dissipation system	Heat dissipation mode	Natural heat dissipation	Natural heat dissipation	Natural heat dissipation	Natural heat dissipation
	Number of fan modules	NA	NA	NA	NA
	Airflow	NA	NA	NA	NA
	Maximum heat dissipation of the device (BTU/hour)	69.95	89.74	101.68	105.09
Environment parameters	Long-term operating temperature	<ul style="list-style-type: none"> 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude 	<ul style="list-style-type: none"> 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude 	<ul style="list-style-type: none"> 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the 	<ul style="list-style-type: none"> 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the

Item		CloudEngine S5735-L8T4S-QA1	CloudEngine S5735-L8P4S-QA1	CloudEngine S5735-L24T4S-QA1	CloudEngine S5735-L24T4X-QA1
		increases by 220 m.	increases by 220 m.	altitude increases by 220 m.	altitude increases by 220 m.
	Short-term operating temperature ³	NA	NA	NA	NA
	Storage temperature	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C	-40°C to +70°C
	Relative humidity	5%-95%(non-condensing)	5%-95%(non-condensing)	5%-95%(non-condensing)	5%-95%(non-condensing)
	Operating altitude	5000 m	5000 m	5000 m	5000 m
	Noise under normal temperature (sound power)	fanless, noise-free, <30dB (A)			
	Noise under high temperature (sound power)	fanless, noise-free, <30dB (A)			
	Noise under normal temperature (sound pressure)	fanless, noise-free, <20dB (A)			
	Surge protection specification (RJ45 service port)	±10 kV in common mode			
	Surge protection specification (power port)	<ul style="list-style-type: none"> Differential mode: ±6 kV Common mode: ±6 kV 	<ul style="list-style-type: none"> Differential mode: ±6 kV Common mode: ±6 kV 	<ul style="list-style-type: none"> Differential mode: ±6 kV Common mode: ±6 kV 	<ul style="list-style-type: none"> Differential mode: ±6 kV Common mode: ±6 kV
Reliability	MTBF (year) ²	71.82	66.56	66.16	62.05
	MTTR (hour)	2	2	2	2
	Availability	> 0.99999	> 0.99999	> 0.99999	> 0.99999
Certification		<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification 	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification 	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification 	<ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification

NOTE

1: The power consumption under different load conditions is calculated according to the ATIS standard. Additionally, the EEE function is enabled and there is no PoE power output.

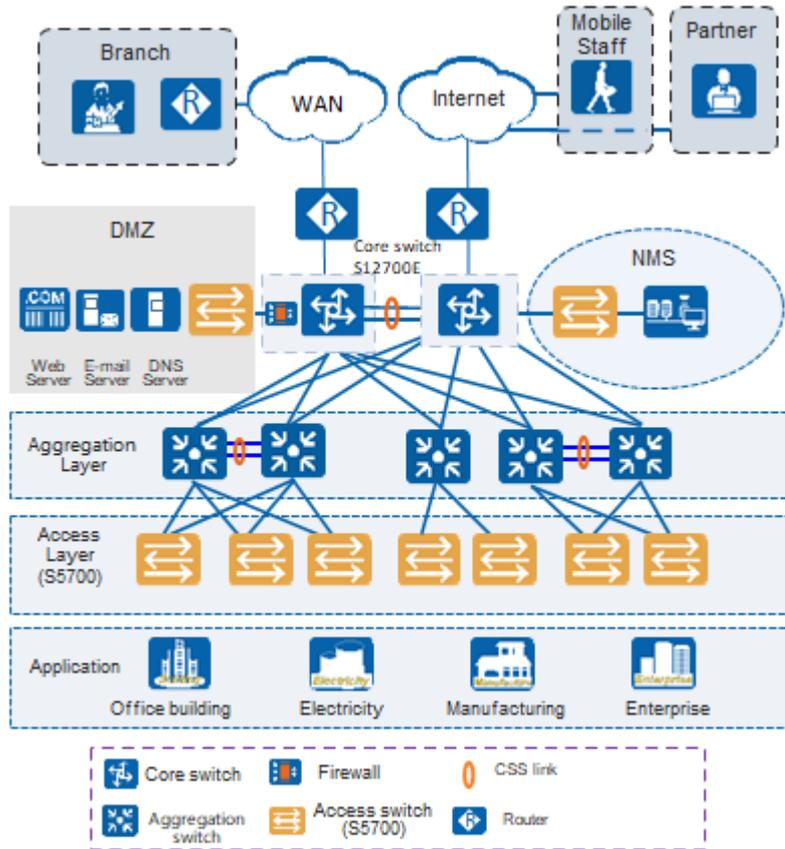
2: The reliability parameter values are calculated based on the typical configuration of the device. The parameter values vary according to the modules configured by the customer.

3: Short term indicates that the successive operating time is no more than 96 hours, the total operating time is no more than 360 hours, or the number of times the operating temperature is over 45° C is no more than 15 in a year.

Networking and Applications

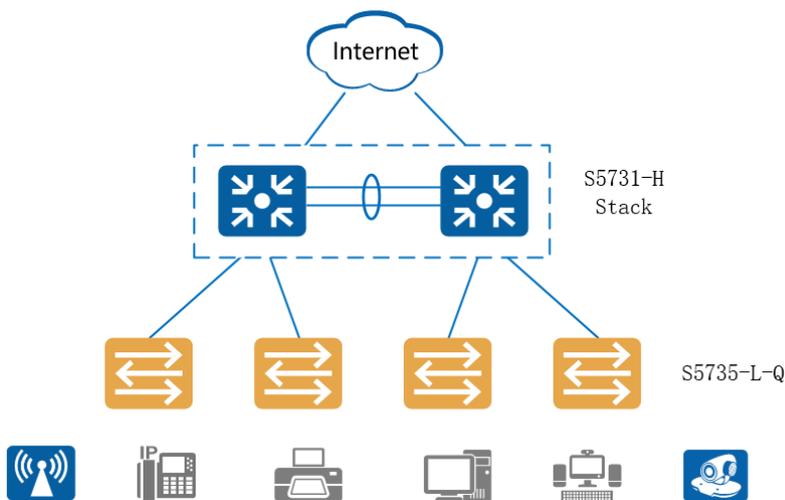
Large-Scale Enterprise Campus Network

CloudEngine S5735-L-Q series switches can be deployed at the access layer of a campus network to build a high-performance and highly reliable enterprise network.



Small- or Medium-scale Enterprise Campus Network

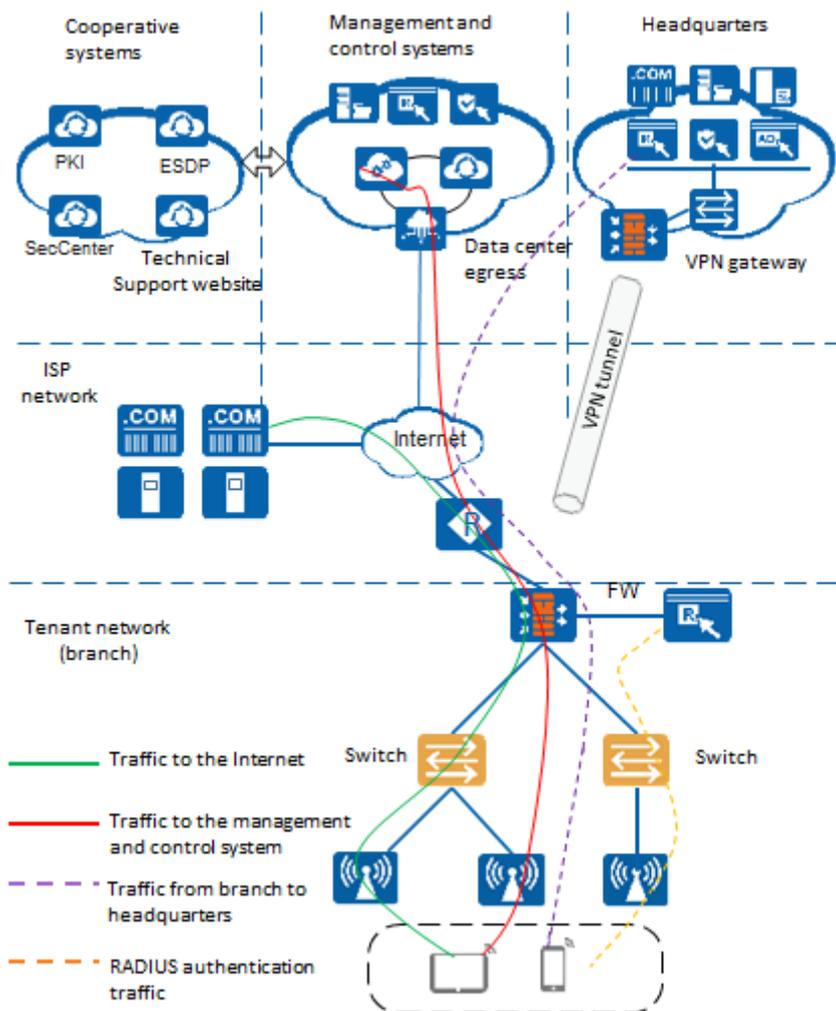
CloudEngine S5735-L-Q series switches are super quiet and can be deployed directly in the office/classroom/ward as the access layer of a campus network to build a high-performance, multi-service, and highly reliable enterprise network.



Application in Public Cloud

CloudCampus Solution is a network solution suite based on Huawei public cloud. CloudEngine S5735-L-Q series switches can be located at the access layer.

The switches are plug-and-play. They go online automatically after being powered on and connected with network cables, without the need for complex configurations. The switches can connect to the management and control system (iMaster NCE-Campus for switches running V200R021C00 and later versions), and use bidirectional certificate authentication to ensure management channel security. The switches provide the NETCONF and YANG interfaces, through which the management and control system delivers configurations to them. In addition, remote maintenance and fault diagnosis can be performed on the management and control system.



Safety and Regulatory Compliance

Safety and regulatory compliance of the CloudEngine S5735-L-Q series

Certification Category	Description
Safety	<ul style="list-style-type: none"> • IEC 60950-1 • EN 60950-1/A11/A12 • UL 60950-1 • CSA C22.2 No 60950-1 • AS/NZS 60950.1 • CNS 14336-1
Laser safety	<ul style="list-style-type: none"> • IEC60825-1 • IEC60825-2 • EN60825-1

Certification Category	Description
	<ul style="list-style-type: none"> EN60825-2
Electromagnetic Compatibility (EMC)	<ul style="list-style-type: none"> CISPR22 Class A CISPR24 EN55022 Class A EN55024 ETSI EN 300 386 Class A CFR 47 FCC Part 15 Class A ICES 003 Class A AS/NZS CISPR22 Class A VCCI Class A EN61000-3-2 EN61000-3-3 IEC61000-4-2 ITU-T K 20 ITU-T K 21 ITU-T K 44 CNS13438
Environment	<ul style="list-style-type: none"> RoHS REACH WEEE

NOTE

- EMC: electromagnetic compatibility
- CISPR: International Special Committee on Radio Interference
- EN: European Standard
- ETSI: European Telecommunications Standards Institute
- CFR: Code of Federal Regulations
- FCC: Federal Communication Commission
- IEC: International Electrotechnical Commission
- AS/NZS: Australian/New Zealand Standard
- VCCI: Voluntary Control Council for Interference
- UL: Underwriters Laboratories
- CSA: Canadian Standards Association
- IEEE: Institute of Electrical and Electronics Engineers
- RoHS: restriction of the use of certain hazardous substances
- REACH: Registration Evaluation Authorization and Restriction of Chemicals
- WEEE: Waste Electrical and Electronic Equipment

MIB and Standards Compliance

Supported MIBs

Supported MIBs by the CloudEngine S5735-L-Q series

Category	MIB
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Category	MIB
Public MIB	<ul style="list-style-type: none"> • BRIDGE-MIB • DISMAN-NSLOOKUP-MIB • DISMAN-PING-MIB • DISMAN-TRACEROUTE-MIB • ENTITY-MIB • EtherLike-MIB • IF-MIB • IP-FORWARD-MIB • IPv6-MIB • LAG-MIB • LLDP-EXT-DOT1-MIB • LLDP-EXT-DOT3-MIB • LLDP-MIB • NOTIFICATION-LOG-MIB • NQA-MIB • P-BRIDGE-MIB • Q-BRIDGE-MIB • RFC1213-MIB • RMON-MIB • SAVI-MIB • SNMP-FRAMEWORK-MIB • SNMP-MPD-MIB • SNMP-NOTIFICATION-MIB • SNMP-TARGET-MIB • SNMP-USER-BASED-SM-MIB • SNMPv2-MIB • SNMP-VIEW-BASED-ACM-MIB • TCP-MIB • UDP-MIB
Huawei-proprietary MIB	<ul style="list-style-type: none"> • HUAWEI-AAA-MIB • HUAWEI-ACL-MIB • HUAWEI-ALARM-MIB • HUAWEI-ALARM-RELIABILITY-MIB • HUAWEI-BASE-TRAP-MIB • HUAWEI-BRAS-RADIUS-MIB • HUAWEI-BRAS-SRVCFG-EAP-MIB • HUAWEI-BRAS-SRVCFG-STATICUSER-MIB • HUAWEI-CBQOS-MIB • HUAWEI-CDP-COMPLIANCE-MIB • HUAWEI-CONFIG-MAN-MIB • HUAWEI-CPU-MIB • HUAWEI-DAD-TRAP-MIB • HUAWEI-DATASYNC-MIB • HUAWEI-DEVICE-MIB

Category	MIB
	<ul style="list-style-type: none"> • HUAWEI-DHCPR-MIB • HUAWEI-DHCPS-MIB • HUAWEI-DHCP-SNOOPING-MIB • HUAWEI-DIE-MIB • HUAWEI-DNS-MIB • HUAWEI-DLDP-MIB • HUAWEI-ERPS-MIB • HUAWEI-ERRORDOWN-MIB • HUAWEI-ENERGYMNGT-MIB • HUAWEI-EASY-OPERATION-MIB • HUAWEI-ENTITY-EXTENT-MIB • HUAWEI-ENTITY-TRAP-MIB • HUAWEI-ETHARP-MIB • HUAWEI-ETHOAM-MIB • HUAWEI-FLASH-MAN-MIB • HUAWEI-FWD-RES-TRAP-MIB • HUAWEI-GARP-APP-MIB • HUAWEI-GTL-MIB • HUAWEI-HGMP-MIB • HUAWEI-HWTACACS-MIB • HUAWEI-IF-EXT-MIB • HUAWEI-INFOCENTER-MIB • HUAWEI-IPPOOL-MIB • HUAWEI-IPV6-MIB • HUAWEI-ISOLATE-MIB • HUAWEI-L2IF-MIB • HUAWEI-L2MAM-MIB • HUAWEI-L2VLAN-MIB • HUAWEI_LDT-MIB • HUAWEI-LLDP-MIB • HUAWEI-MAC-AUTHEN-MIB • HUAWEI-MEMORY-MIB • HUAWEI-MFF-MIB • HUAWEI-MFLP-MIB • HUAWEI-MSTP-MIB • HUAWEI-MULTICAST-MIB • HUAWEI-NTPV3-MIB • HUAWEI-PERFORMANCE-MIB • HUAWEI-PERFMGMT-MIB • HUAWEI-PORT-MIB • HUAWEI-PORTAL-MIB • HUAWEI-QINQ-MIB • HUAWEI-RM-EXT-MIB • HUAWEI-RRPP-MIB • HUAWEI-SECURITY-MIB

Category	MIB
	<ul style="list-style-type: none"> • HUAWEI-SEP-MIB • HUAWEI-SNMP-EXT-MIB • HUAWEI-SSH-MIB • HUAWEI-STACK-MIB • HUAWEI-SWITCH-L2MAM-EXT-MIB • HUAWEI-SWITCH-SRV-TRAP-MIB • HUAWEI-SYS-MAN-MIB • HUAWEI-TCP-MIB • HUAWEI-TFTPC-MIB • HUAWEI-TRNG-MIB • HUAWEI-UNIMNG-MIB • HUAWEI-USA-MIB • HUAWEI-XQOS-MIB

NOTE

For more detailed information of MIBs supported by the CloudEngine S5735-L-Q series, visit <https://support.huawei.com/enterprise/en/switches/s5700-pid-6691579?category=reference-guides&subcategory=mib-reference>.

Standard Compliance

Standard compliance list of the CloudEngine S5735-L-Q series

Standard Organization	Standard or Protocol
IETF	<ul style="list-style-type: none"> • RFC 768 User Datagram Protocol (UDP) • RFC 792 Internet Control Message Protocol (ICMP) • RFC 793 Transmission Control Protocol (TCP) • RFC 826 Ethernet Address Resolution Protocol (ARP) • RFC 854 Telnet Protocol Specification • RFC 951 Bootstrap Protocol (BOOTP) • RFC 959 File Transfer Protocol (FTP) • RFC 1058 Routing Information Protocol (RIP) • RFC 1112 Host extensions for IP multicasting • RFC 1157 A Simple Network Management Protocol (SNMP) • RFC 1256 ICMP Router Discovery • RFC 1305 Network Time Protocol Version 3 (NTP) • RFC 1349 Internet Protocol (IP) • RFC 1493 Definitions of Managed Objects for Bridges • RFC 1542 Clarifications and Extensions for the Bootstrap Protocol • RFC 1643 Ethernet Interface MIB • RFC 1757 Remote Network Monitoring (RMON) • RFC 1901 Introduction to Community-based SNMPv2 • RFC 1902-1907 SNMP v2 • RFC 1981 Path MTU Discovery for IP version 6 • RFC 2131 Dynamic Host Configuration Protocol (DHCP) • RFC 2460 Internet Protocol, Version 6 Specification (IPv6) • RFC 2461 Neighbor Discovery for IP Version 6 (IPv6)

Standard Organization	Standard or Protocol
	<ul style="list-style-type: none"> • RFC 2462 IPv6 Stateless Address Auto configuration • RFC 2463 Internet Control Message Protocol for IPv6 (ICMPv6) • RFC 2474 Differentiated Services Field (DS Field) • RFC 2863 The Interfaces Group MIB • RFC 2597 Assured Forwarding PHB Group • RFC 2598 An Expedited Forwarding PHB • RFC 2571 SNMP Management Frameworks • RFC 2865 Remote Authentication Dial In User Service (RADIUS) • RFC 3046 DHCP Option82 • RFC 3513 IP Version 6 Addressing Architecture • RFC 3579 RADIUS Support For EAP • draft-grant-tacacs-02 TACACS+ • RFC 6241 Network Configuration Protocol (NETCONF) • RFC 6020 YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF)
IEEE	<ul style="list-style-type: none"> • IEEE 802.1D Media Access Control (MAC) Bridges • IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering • IEEE 802.1Q Virtual Bridged Local Area Networks • IEEE 802.1ad Provider Bridges • IEEE 802.2 Logical Link Control • IEEE Std 802.3 CSMA/CD • IEEE Std 802.3ab 1000BASE-T specification • IEEE Std 802.3ad Aggregation of Multiple Link Segments • IEEE Std 802.3ae 10GE WEN/LAN Standard • IEEE Std 802.3x Full Duplex and flow control • IEEE Std 802.3z Gigabit Ethernet Standard • IEEE802.1ax/IEEE802.3ad Link Aggregation • IEEE 802.3ah Ethernet in the First Mile • IEEE 802.1ag Connectivity Fault Management • IEEE 802.1ab Link Layer Discovery Protocol • IEEE 802.1D Spanning Tree Protocol • IEEE 802.1w Rapid Spanning Tree Protocol • IEEE 802.1s Multiple Spanning Tree Protocol • IEEE 802.1x Port based network access control protocol • IEEE 802.3af DTE Power via MIDI • IEEE 802.3at DTE Power via the MDI Enhancements • IEEE 802.3az Energy Efficient Ethernet
ITU	<ul style="list-style-type: none"> • ITU SG13 Y.17ethoam • ITU SG13 QoS control Ethernet-Based IP Access • ITU-T Y.1731 ETH OAM performance monitor
MEF	<ul style="list-style-type: none"> • MEF 2 Requirements and Framework for Ethernet Service Protection • MEF 9 Abstract Test Suite for Ethernet Services at the UNI • MEF 11 UNI Requirements and Framework

Standard Organization	Standard or Protocol
	<ul style="list-style-type: none"> MEF 15 Requirements for Management of Metro Ethernet Phase 1 Network Elements MEF 17 Service OAM Framework and Requirements MEF 20 UNI Type 2 Implementation Agreement MEF 23 Class of Service Phase 1 Implementation Agreement XMODEM/YMODEM Protocol Reference

NOTE

The listed standards and protocols are fully or partially supported by Huawei switches. For details, visit <http://e.huawei.com/en> or contact your local Huawei sales office.

Ordering Information

Model	Product Description
CloudEngine S5735-L8T4S-QA1	CloudEngine S5735-L8T4S-QA1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, AC power, Fanless)
CloudEngine S5735-L8P4S-QA1	CloudEngine S5735-L8P4S-QA1 (8*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power, Fanless)
CloudEngine S5735-L24T4S-QA1	CloudEngine S5735-L24T4S-QA1 (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power, Fanless)
CloudEngine S5735-L24T4X-QA1	CloudEngine S5735-L24T4X-QA1 (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power, Fanless)
N1-S57L-M-Lic	S57XX-L Series Basic SW,Per Device
N1-S57L-M-SnS1Y	S57XX-L Series Basic SW,SnS,Per Device,1Year
N1-S57L-F-Lic	N1-CloudCampus,Foundation,S57XX-L Series,Per Device
N1-S57L-F-SnS	N1-CloudCampus,Foundation,S57XX-L Series,SnS,Per Device
N1-S57L-A-Lic	N1-CloudCampus,Advanced,S57XX-L Series,Per Device
N1-S57L-A-SnS	N1-CloudCampus,Advanced,S57XX-L Series,SnS,Per Device
N1-S57L-FToA-Lic	N1-Upgrade-Foundation to Advanced,S57XX-L,Per Device
N1-S57L-FToA-SnS	N1-Upgrade-Foundation to Advanced,S57XX-L,SnS,Per Device

More Information

For more information about Huawei Campus Switches, visit <http://e.huawei.com> or contact us in the following ways:

- Global service hotline: <http://e.huawei.com/en/service-hotline>
- Logging in to the Huawei Enterprise technical support website: <http://support.huawei.com/enterprise/>
- Sending an email to the customer service mailbox: support_e@huawei.com

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