

# CloudEngine S1730S Series Switches

Huawei CloudEngine S1730 series switches are next-generation energy-saving Ethernet access switches designed for small- and medium-sized enterprises, Internet cafes, hotels, and schools.

## Product Overview

Huawei CloudEngine S1730 series switches are easy to install and maintain and come with a wide range of service features, helping customers build secure, reliable, and high-performance networks.

There are two types of CloudEngine S1730S series switches: web-managed switches and fully-managed switches.

## Models and Appearances

CloudEngine S1730S-S web-managed switches

Appearance	Description
 <p>S1730S-S24T4S-A</p>	<ul style="list-style-type: none"> <li>• 24 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports</li> <li>• Built-in 60 W AC power module</li> <li>• Forwarding performance: 41.66 Mpps</li> <li>• Switching capacity: 168 Gbps</li> </ul>
 <p>S1730S-S24P4S-A</p>	<ul style="list-style-type: none"> <li>• 24 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports</li> <li>• Built-in 460 W AC power module</li> <li>• PoE+</li> <li>• Forwarding performance: 41.66 Mpps</li> <li>• Switching capacity: 168 Gbps</li> </ul>
 <p>S1730S-S24T4X-A</p>	<ul style="list-style-type: none"> <li>• 24 x 10/100/1000Base-T Ethernet ports, 4 x 10GE SFP+ ports</li> <li>• Built-in 60 W AC power module</li> <li>• Forwarding performance: 95.23 Mpps</li> <li>• Switching capacity: 168 Gbps</li> </ul>
 <p>S1730S-S48T4S-A</p>	<ul style="list-style-type: none"> <li>• 48 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports</li> <li>• Built-in 60 W AC power module</li> <li>• Forwarding performance: 77.38 Mpps</li> <li>• Switching capacity: 216 Gbps</li> </ul>

Appearance	Description
 <p>S1730S-S48P4S-A</p>	<ul style="list-style-type: none"> <li>• 48 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports</li> <li>• Pluggable 1000 W AC power module</li> <li>• PoE+</li> <li>• Forwarding performance: 77.38 Mpps</li> <li>• Switching capacity: 216 Gbps</li> </ul>

#### CloudEngine S1730S-H fully-managed switches

Appearance	Description
 <p>S1730S-H24T4S-A</p>	<ul style="list-style-type: none"> <li>• 24 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports</li> <li>• Built-in 60 W AC power module</li> <li>• Forwarding performance: 41.66 Mpps</li> <li>• Switching capacity: 168 Gbps</li> </ul>
 <p>S1730S-H48T4S-A</p>	<ul style="list-style-type: none"> <li>• 48 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports</li> <li>• Built-in 60 W AC power module</li> <li>• Forwarding performance: 77.38 Mpps</li> <li>• Switching capacity: 216 Gbps</li> </ul>

## Features and Highlights

### Innovative Energy-saving Design

- CloudEngine S1730S series switches can adjust the output power based on the cable length. It can also set any ports that are not transmitting traffic to sleep mode.
- The models that use a fan-free design reduce power consumption and noise.

### Non-blocking and High-speed Forwarding

- All ports on CloudEngine S1730S series switches provide Layer 2 line-rate forwarding capabilities to ensure non-blocking packet forwarding. CloudEngine S1730S models provide both optical and electrical GE uplink ports, which facilitate user access and are cost-effective.
- The CloudEngine S1730S-S and S1730S-H support up to 8K and 16K MAC address entries, respectively, facilitating network expansion and new service provisioning.
- CloudEngine S1730S series switches support flow control. If congestion occurs on the local device, the local device sends a message to the remote device, instructing the remote device to temperately stop sending packets.

### Perpetual PoE

- When a PoE switch is restarted after its software version is upgraded, the power supply to PDs is not interrupted. This capability ensures that the connected PDs are not powered off during the switch restart.

### Convenient Management and Maintenance

- Web-managed S1730S-S models come with a web network management system (NMS), simplifying device configuration and management.
- Fully-managed S1730S-H models allow for the use of a Simple Network Management Protocol (SNMP) NMS for centralized configuration and management.

## Intelligent O&M

- Web-managed and fully-managed S1730S models support a variety of intelligent O&M features for audio and video services, including the Enhanced Media Delivery Index (eMDI). With eMDI, the switch can act as a monitored node to periodically collect statistics and report audio and video service indicators to CampusInsight. In this way, CampusInsight can quickly demarcate audio and video service quality faults based on the results of multiple monitored nodes.

## Intelligent Upgrade

- Switches support the intelligent upgrade feature. Specifically, switches obtain the version upgrade path and download 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.

## Powerful Security Performance

- CloudEngine S1730S series switches provide a wide range of security features, including 802.1X, RADIUS, Portal, and NAC. These switches also support packet filtering based on MAC addresses or interfaces in order to defend against hackers and virus attacks.

## High Networking and Bandwidth Extensibility

- CloudEngine S1730S series switches provide LACP, STP, RSTP, and MSTP functions to implement link aggregation and backup.

# Product Specifications

CloudEngine S1730S-S web-managed switches

Item	CloudEngine S1730S-S24T4S-A	CloudEngine S1730S-S24P4S-A	CloudEngine S1730S-S48T4S-A	CloudEngine S1730S-S48P4S-A	CloudEngine S1730S-S24T4X-A
Fixed port	24 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports	24 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports	48 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports	48 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports	24 x 10/100/1000Base-T Ethernet ports, 4 x 10GE SFP+ ports
Dimensions (H x W x D)	43.6 mm x 442 mm x 220 mm	43.6 mm x 442 mm x 220 mm	43.6 mm x 442 mm x 220 mm	43.6 mm x 442 mm x 420 mm	43.6 mm x 442 mm x 220 mm
Chassis height	1U	1U	1U	1U	1U
voltage range	<ul style="list-style-type: none"> <li>Rated AC voltage: 100 V AC to 240 V AC, 50–60 Hz</li> <li>Max AC voltage: 90 V AC to 264 V AC, 47–63 Hz</li> </ul>	<ul style="list-style-type: none"> <li>Rated AC voltage: 100 V AC to 240 V AC, 50–60 Hz</li> <li>Max AC voltage: 90 V AC to 264 V AC, 45–65 Hz</li> </ul>	<ul style="list-style-type: none"> <li>Rated AC voltage: 100 V AC to 240 V AC, 50–60 Hz</li> <li>Max AC voltage: 90 V AC to 264 V AC, 47–63 Hz</li> </ul>	<ul style="list-style-type: none"> <li>Rated AC voltage: 100 V AC to 240 V AC, 50–60 Hz</li> <li>Max AC voltage: 90 V AC to 290 V AC, 45–65 Hz</li> </ul>	<ul style="list-style-type: none"> <li>Rated AC voltage: 100 V AC to 240 V AC, 50–60 Hz</li> <li>HVDC: 190 V to 290 V</li> <li>Max AC voltage: 90 V AC to 264 V AC, 47–63 Hz</li> </ul>
Power supply	Built-in 60 W AC power module	Built-in 460 W AC power module	Built-in 60 W AC power module	Pluggable 1000 W AC power moduler	Built-in 60 W AC power module

Item	CloudEngine S1730S-S24T4S-A	CloudEngine S1730S-S24P4S-A	CloudEngine S1730S-S48T4S-A	CloudEngine S1730S-S48P4S-A	CloudEngine S1730S-S24T4X-A
Maximum power consumption	34W	Without PoE: 53 W 100% PoE loads: 451 W (PoE: 380 W)	53W	Without PoE: 75 W 100% PoE loads: 911 W (PoE: 874 W)	43W
Surge protection	Power port: $\pm 6$ kV in differential mode; $\pm 6$ kV in common mode Service port: $\pm 7$ kV in common mode (Max: $\pm 10$ kV, without damaging the device)				
Operating temperature	-5°C to +55°C				
Storage temperature	-40°C to +70°C				
Relative humidity	5% to 95% (non-condensing)				
Heat dissipation	Natural heat dissipation	Air-cooled heat dissipation and intelligent speed adjustment	Air-cooled heat dissipation and intelligent speed adjustment	Air-cooled heat dissipation and intelligent speed adjustment	Natural heat dissipation

#### CloudEngine S1730S-H fully-managed switches

Item	CloudEngine S1730S-H24T4S-A	CloudEngine S1730S-H48T4S-A
Fixed port	24 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports	48 x 10/100/1000Base-T Ethernet ports, 4 x GE SFP ports
Dimensions (H x W x D)	43.6 mm x 442 mm x 220 mm	43.6 mm x 442 mm x 220 mm
Chassis height	1U	1U
Voltage range	<ul style="list-style-type: none"> <li>Rated AC voltage: 100 V AC to 240 V AC, 50–60 Hz HVDC: 190 V to 290 V</li> <li>Max AC voltage: 90 V AC to 264 V AC, 47–63 Hz</li> </ul>	<ul style="list-style-type: none"> <li>Rated AC voltage: 100 V AC to 240 V AC, 50–60 Hz HVDC: 190 V to 290 V</li> <li>Max AC voltage: 90 V AC to 264 V AC, 47–63 Hz</li> </ul>
Power supply	Built-in 60 W AC power module	Built-in 60 W AC power module
Maximum power consumption	34W	53W
Surge protection	Power port: $\pm 6$ kV in differential mode; $\pm 6$ kV in common mode Service port: $\pm 7$ kV in common mode (Max: $\pm 10$ kV, without damaging the device)	
Operating temperature	-5°C to +55°C	
Storage temperature	-40°C to +70°C	
Relative humidity	5% to 95% (non-condensing)	
Heat dissipation	Natural heat dissipation	Air-cooled heat dissipation and intelligent speed adjustment

# Service Features

CloudEngine S1730S-S web-managed switches

Item	CloudEngine S1730S-S
Port	<ul style="list-style-type: none"> <li>VLAN/Voice VLAN</li> <li>Port bridge</li> <li>Jumbo frames</li> <li>Detect link</li> <li>Flow control auto-negotiation</li> <li>Traffic statistics collection on interfaces</li> <li>Interface rate auto-negotiation</li> <li>VLANIF interfaces</li> <li>MTU</li> <li>Link aggregation</li> <li>Static interface aggregation</li> </ul>
Security	<ul style="list-style-type: none"> <li>Port security</li> <li>Sticky MAC</li> <li>Suppressing broadcast, multicast, and unknown unicast traffic on interfaces</li> <li>Controlling broadcast, multicast, and unknown unicast storms</li> <li>Port isolation</li> <li>IPSG</li> <li>ARP security</li> <li>CPU security protection</li> </ul>
Ethernet	<ul style="list-style-type: none"> <li>4K VLANs</li> <li>Access modes of access, trunk, hybrid, and QinQ</li> <li>Interface-based VLAN assignment</li> <li>Interface-based MAC address learning</li> <li>Static MAC address entry</li> <li>Automatic aging of MAC addresses</li> </ul>
STP	<ul style="list-style-type: none"> <li>STP (IEEE 802.1d)</li> <li>RSTP (IEEE 802.1w)</li> <li>MSTP (IEEE 802.1s)</li> </ul>
Multicast	<ul style="list-style-type: none"> <li>Multicast VLAN</li> <li>Layer 2 multicast policy</li> <li>IGMP V1/V2/V3 snooping</li> <li>MLD V1/V2 snooping</li> <li>Static multicast MAC address</li> </ul>
Routing	<ul style="list-style-type: none"> <li>Dynamic routes</li> <li>Static routes</li> <li>ARP</li> <li>ND</li> <li>DNS client</li> </ul>
QoS	CAR

Item	CloudEngine S1730S-S
	<ul style="list-style-type: none"> <li>Traffic policing</li> <li>Traffic shaping</li> <li>Priority mapping</li> <li>Queue scheduling</li> <li>Congestion avoidance</li> <li>IPv4 and IPv6 ACL</li> </ul>
NAC	<ul style="list-style-type: none"> <li>DHCP client</li> <li>DHCP relay</li> <li>DHCP server</li> <li>DHCP snooping</li> <li>DHCPv6 relay</li> <li>802.1X authentication</li> <li>MAC address authentication</li> <li>Portal authentication</li> <li>Terminal type identification</li> <li>AAA</li> </ul>
Device management	<ul style="list-style-type: none"> <li>Web system network management</li> <li>USB-based deployment</li> <li>Dormancy of electrical interfaces</li> <li>Automatic power adjustment on Ethernet interfaces (802.3az)</li> <li>Intelligent upgrade</li> </ul>
Device maintenance	<ul style="list-style-type: none"> <li>System log</li> <li>Ping</li> <li>Mirroring</li> <li>Loopback detection</li> <li>Virtual Cable Test (VCT)</li> <li>Link Layer Discovery Protocol (LLDP)</li> <li>NTP</li> </ul>

#### CloudEngine S1730S-H fully-managed switches

Item	CloudEngine S1730S-H
Port	<ul style="list-style-type: none"> <li>VLAN/Voice VLAN</li> <li>Port bridge</li> <li>Jumbo frames</li> <li>Detect link</li> <li>Flow control auto-negotiation</li> <li>Traffic statistics collection on interfaces</li> <li>Interface rate auto-negotiation</li> <li>VLANIF interfaces</li> <li>MTU</li> <li>Link aggregation</li> <li>Static interface aggregation</li> </ul>

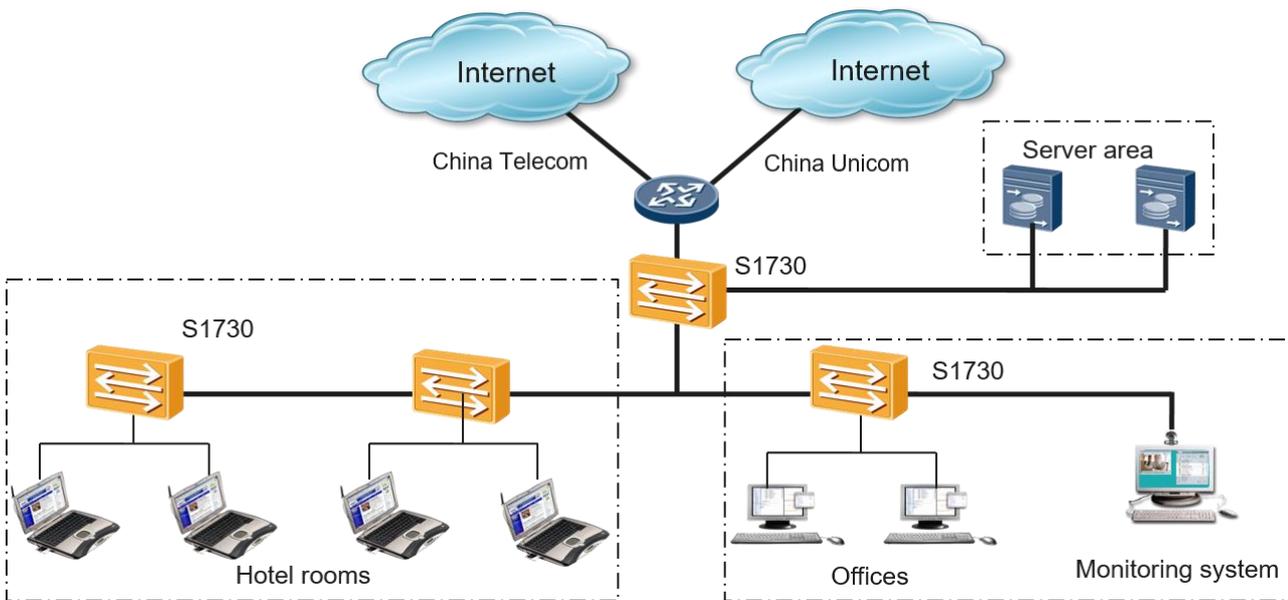
Item	CloudEngine S1730S-H
Security	Hardware ACL Packet filtering based on MAC addresses MAC address authentication Port-based 802.1X authentication. RADIUS authentication Portal authentication Port isolation Storm suppression Attack defense, which prevents broadcast traffic, ARP attacks, ICMP attacks, TCP attacks, worm viruses, and DoS attacks DHCP snooping Port security Suppressing broadcast, multicast, and unknown unicast traffic on interfaces Controlling broadcast, multicast, and unknown unicast storms IPSG ARP defense CPU security protection Attack defense
VLAN	4K VLANs Access modes of access, trunk, hybrid, and QinQ Interface-based VLAN assignment Interface-based MAC address learning Static MAC address entry Automatic aging of MAC addresses
QoS	CAR Traffic policing Traffic shaping Priority mapping Congestion avoidance IPv4/IPv6 ACL PQ scheduling, WRR scheduling, and hybrid scheduling Eight queues on each interface DiffServ domain
STP	STP (IEEE 802.1d) RSTP (IEEE 802.1w) MSTP (IEEE 802.1s)
Multicast	Multicast VLAN Layer 2 multicast policy IGMP V1/V2/V3 snooping MLD V1/V2 snooping Static multicast MAC address
VPN	IPv4/IPv6 VPN IPsec

Item	CloudEngine S1730S-H
	Efficient VPN
Routing	Dynamic routes Static routes ARP ND DNS client
NAC	DHCP client DHCP relay DHCP server DHCP snooping DHCPv6 relay 802.1X authentication MAC address authentication Portal authentication Terminal type identification RADIUS PPPoE+ ND snooping
Ethernet OAM	Y.1731 802.1ag 802.3ah
Ring network protocols	Smart Link SEP RRPP MSTP ERPS DLDP VBST
IP OAM & SLA	NQA eMDI
Device management	SNMP Web system network management DHCP client User password protection One-click restoration CLI configuration USB-based deployment Dormancy of electrical interfaces Automatic power adjustment on Ethernet interfaces (802.3az) Intelligent upgrade
Device maintenance	Remote network monitoring (RMON) System log

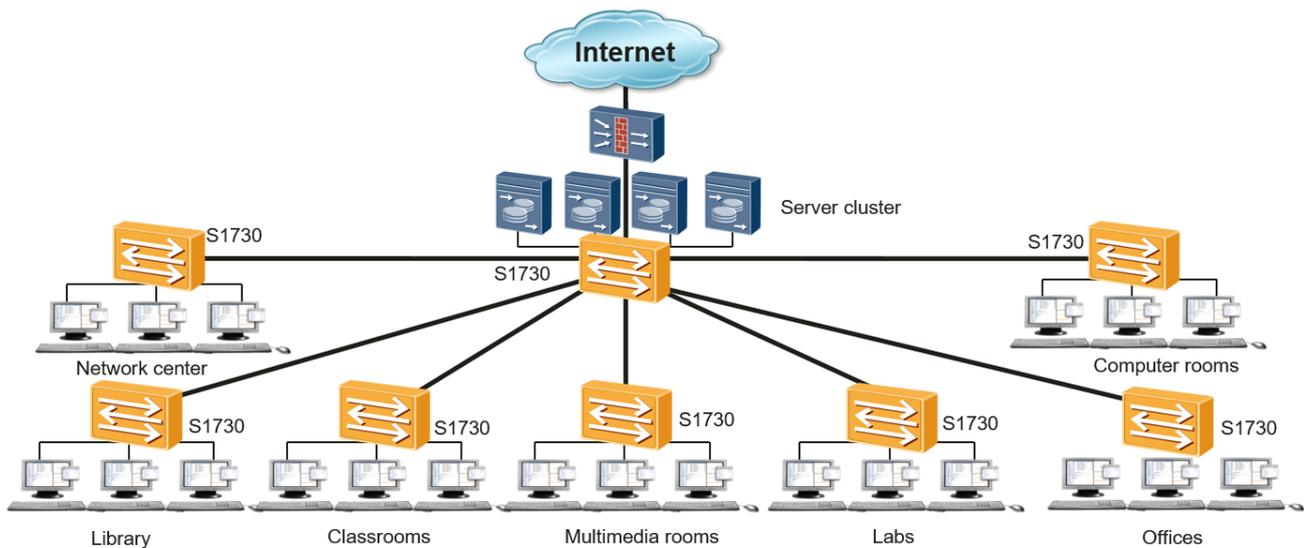
Item	CloudEngine S1730S-H
	Ping Mirroring Loopback detection Virtual Cable Test (VCT) Link Layer Discovery Protocol (LLDP) NTP

## Networking and Applications

### Hotel Scenarios



### School Scenarios



## Ordering Information

The following table lists ordering information of the CloudEngine S1730S series switches.

Part Number	Description
98010900	S1730S-S24T4S-A (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
98010901	S1730S-S24P4S-A (24*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power)
98010953	S1730S-S24T4X-A (24*10/100/1000BASE-T ports, 4*10GE SFP+ ports, AC power)
98010902	S1730S-S48T4S-A (48*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
98010955	S1730S-S48P4S-A (48*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, 1*1000W PoE AC power)
98010952	S1730S-H24T4S-A (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)
98010956	S1730S-H48T4S-A (48*10/100/1000BASE-T ports, 4*GE SFP ports, AC power)

## 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](mailto:support_e@huawei.com)

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