

CloudEngine S6730-H Series 10GE Switches

Huawei CloudEngine S6730-H series 10GE switches are next-generation enterprise-class core and aggregation switches that provide 10GE downlink optical ports and 100GE uplink optical ports.

Introduction

Huawei CloudEngine S6730-H series switches are next-generation enterprise-class core and aggregation switches that offer high performance, high reliability, cloud management, and intelligent operations and maintenance (O&M). They build on an industry-leading Versatile Routing Platform (VRP) and are purpose-built with security, IoT, and cloud in mind. With these traits, CloudEngine S6730-H can be widely used in enterprise campuses, colleges/universities, data centers, and other scenarios.

CloudEngine S6730-H switches offer 10GE, 25GE, 40GE, and 100GE port types, flexibly adapting to diversified network bandwidth requirements. They also support cloud management and implement cloud-managed network services throughout the full lifecycle from planning, deployment, monitoring, experience visibility, and fault rectification, all the way to network optimization, greatly simplifying network management.

By integrating the native wireless access controller (WAC) capability, a single CloudEngine S6730-H switch can manage a vast number of wireless access points (APs). The results are simplified network architecture, fewer required devices, and lowered networking costs. Free mobility, another key differentiator of CloudEngine S6730-H, enables consistent user experience no matter the user location or IP address, fully meeting enterprises' demands for mobile offices.


CloudEngine S6730-H switches support VXLAN to implement network virtualization, achieving multi-purpose networks and multi-network convergence for greatly improved network capacity and utilization. As such, CloudEngine S6730-H switches are an ideal choice for building next-generation IoT converged networks in terms of cost, flexibility, and scalability.



The full series of CloudEngine S6730-H switches have built-in security probes to enable abnormal traffic detection, analysis of threats even in encrypted traffic, and network-wide threat deception. With such robust security features, CloudEngine S6730-H switches transform traditional passive security defense into proactive security protection, fully ensuring campus network security.

Product Overview

Models and Appearances


The following models are available in the CloudEngine S6730-H series.

| Appearance | Description |
|---|---|
|  <p>CloudEngine S6730-H48X6C</p> | <ul style="list-style-type: none"> • 48 x 10 Gig SFP+, 6 x 40/100 Gig QSFP28 • Dual pluggable power modules, 1+1 power backup • Switching capacity: 2.16Tbps/2.4Tbps <p>NOTE</p> <p>100GE QSFP28 interfaces support 40GE and 100GE optical module auto-sensing.</p> <p>The default uplink port is 40GE, which needs to be upgraded to 100GE through the</p> |

| Appearance | Description |
|---|---|
| | <p>license.</p> <p>The value before the slash (/) refers to the device's switching capability, while the value after the slash (/) means the chip's switching capability.</p> |
|  <p>CloudEngine S6730-H24X6C</p> | <ul style="list-style-type: none"> • 24 x 10 Gig SFP+, 6 x 40/100 Gig QSFP28 • Dual pluggable power modules, 1+1 power backup • Switching capacity: 1.68Tbps/2.4Tbps <p>NOTE</p> <p>100GE QSFP28 interfaces support 40GE and 100GE optical module auto-sensing. The default uplink port is 40GE, which needs to be upgraded to 100GE through the license.</p> <p>The value before the slash (/) refers to the device's switching capability, while the value after the slash (/) means the chip's switching capability.</p> |
|  <p>CloudEngine S6730-H24X4Y4C</p> | <ul style="list-style-type: none"> • 24 x 10 Gig SFP+, 4 x 25 Gig SFP28, 4 x 100 Gig QSFP28 • Dual pluggable power modules, 1+1 power backup • Switching capacity: 1.48Tbps/2.4Tbps <p>NOTE</p> <p>25GE SFP28 interfaces support 10GE and 25GE optical module auto-sensing. 100GE QSFP28 interfaces support 40GE and 100GE optical module auto-sensing. The default uplink port is 100GE.</p> <p>The value before the slash (/) refers to the device's switching capability, while the value after the slash (/) means the chip's switching capability.</p> |


Fan Module

The following table lists the fan module on the CloudEngine S6730-H series.

| Fan Module | Technical Specifications | Applied Switch Model |
|---|---|--|
|  <p>FAN-031A-B</p> | <ul style="list-style-type: none"> • Dimensions (W x D x H): 40 mm x 100.3 mm x 40 mm • Number of fans: 1 • Weight: 0.1 kg • Maximum power consumption: 21.6 W • Maximum fan speed: 24500±10% revolutions per minute (RPM) • Maximum wind rate: 31 cubic feet per minute (CFM) • Hot swap: Supported | <ul style="list-style-type: none"> • CloudEngine S6730-H48X6C • CloudEngine S6730-H24X6C |

Power Supply

The following table lists the power supplies on the CloudEngine S6730-H series.

| Power Module | Technical Specifications | Applied Switch Model |
|---|---|--|
|  <p>PAC600S12-CB</p> | <ul style="list-style-type: none"> • Dimensions (H x W x D): 40 mm x 90 mm x 215 mm • Weight: 0.95 kg (2.09 lb) • Rated input voltage range: <ul style="list-style-type: none"> - 100 V AC to 240 V AC, 50/60 Hz - 240 V DC • Maximum input voltage range: | <ul style="list-style-type: none"> • CloudEngine S6730-H48X6C • CloudEngine S6730-H24X6C |

| Power Module | Technical Specifications | Applied Switch Model |
|---|---|--|
| | <ul style="list-style-type: none"> - 90 V AC to 290 V AC, 45 Hz to 65 Hz - 190 V DC to 290 V DC • Maximum input current: <ul style="list-style-type: none"> - 100 V AC to 240 V AC: 8 A - 240 V DC: 4 A • Maximum output current: 50 A • Rated output voltage: 12 V • Maximum output power: 600 W • Hot swap: Supported | |
|  <p>PDC1000S12-DB</p> | <ul style="list-style-type: none"> • Dimensions (H x W x D): 40 mm x 90 mm x 215 mm • Weight: 1.02 kg (2.25 lb) • Rated input voltage range: -48 V DC to -60 V DC • Maximum input voltage range: -38.4 V DC to -72 V DC • Maximum input current: 30 A • Maximum output current: 83.3 A • Maximum output power: 1000 W • Hot swap: Supported | <ul style="list-style-type: none"> • CloudEngine S6730-H48X6C • CloudEngine S6730-H24X6C |
|  <p>PAC300S12-CL</p> | <ul style="list-style-type: none"> • Dimensions (H x W x D): 40.2 mm x 47.2 mm x 202.6 mm • Weight: 0.5 kg • Rated input voltage range: <ul style="list-style-type: none"> - 100 V AC to 240 V AC, 50/60 Hz - 240 V DC • Maximum input voltage range: <ul style="list-style-type: none"> - 90 V AC to 290 V AC, 45 Hz to 65 Hz - 190 V DC to 290 V DC • Maximum input current: <ul style="list-style-type: none"> - 100 V AC to 240 V AC: 4 A - 240 V DC: 2 A • Maximum output current: 25 A • Rated output voltage: 12 V • Maximum output power: 300 W • Hot swap: Supported | <p>CloudEngine S6730-H24X4Y4C</p> |
|  <p>PDC260S12-DL</p> | <ul style="list-style-type: none"> • Dimensions (H x W x D): 40.2 mm x 47.2 mm x 202.6 mm • Weight: 0.5 kg • Rated input voltage range: -48 V DC to -60 V DC • Maximum input voltage range: -38.4 V DC to -72 V DC • Maximum input current: 10 A • Maximum output current: 21.7 A • Rated output voltage: 12 V • Maximum output power: 260 W • Hot swap: Supported | <p>CloudEngine S6730-H24X4Y4C</p> |

The S6730-H uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy.

Product Features and Highlights

Abundant Convergence Feature

- This CloudEngine S6730-H provides the integrated WLAN AC function that can manage 1K APs, reducing the costs of purchasing additional WLAN AC hardware. The wireless forwarding performance breaking the forwarding performance bottleneck of an external WLAN AC. With this switch series, customers can stay ahead in the high-speed wireless era.

NOTE

The wireless forwarding performance is calculated based on 1024-byte packets.

- The S6730-H supports SVF and functions as a parent switch. With this virtualization technology, a physical network with the "Small-sized core/aggregation switches + Access switches + APs" structure can be virtualized into a "super switch", greatly simplifying network management.
- The S6730-H provides excellent QoS capabilities and supports queue scheduling and congestion control algorithms. Additionally, it adopts innovative priority queuing and multi-level scheduling mechanisms to implement fine-grained scheduling of data flows, meeting service quality requirements of different user terminals and services.

Providing Fine Granular Network Management

- The S6730-H uses the Packet Conservation Algorithm for Internet (iPCA) technology that changes the traditional method of using simulated traffic for fault location. iPCA technology can monitor network quality for any service flow anywhere, anytime, without extra costs. It can detect temporary service interruptions in a very short time and can identify faulty ports accurately. This cutting-edge fault detection technology turns "extensive management" to "fine granular management."
- The S6730-H supports Two-Way Active Measurement Protocol (TWAMP) to accurately check any IP link and obtain the entire network's IP performance. This protocol eliminates the need of using a dedicated probe or a proprietary protocol.

Flexible Ethernet Networking

- In addition to traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), the S6730-H supports Huawei-developed Smart Ethernet Protection (SEP) technology and the latest Ethernet Ring Protection Switching (ERPS) standard. 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 service switching within 50 ms. ERPS is defined in ITU-T G.8032. It implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.
- The S6730-H supports Smart Link and Virtual Router Redundancy Protocol (VRRP), which implement backup of uplinks. One S6730-H switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.

Intelligent Stack (iStack)

- The S6730-H supports the iStack function that 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 a stack's ports, bandwidth, and processing capability by simply adding member switches. iStack also simplifies device configuration and management. After a stack is set up, multiple physical switches can be virtualized into one logical device. You can log in to any member switch in the stack to manage all the member switches in it.

Cloud-based 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).

VXLAN Features

- VXLAN is used to construct a Unified Virtual Fabric (UVF). As such, multiple service networks or tenant networks can be deployed on the same physical network, and service and tenant networks are isolated from each other. This capability truly achieves 'one network for multiple purposes'. The resulting benefits include enabling data transmission of different services or customers, reducing the network construction costs, and improving network resource utilization.
- This series switches are VXLAN-capable and allow centralized and distributed VXLAN gateway deployment modes. These switches also support the BGP EVPN protocol for dynamically establishing VXLAN tunnels and can be configured using NETCONF/YANG.

Clock Synchronization

- CloudEngine S6730-H48X6C and CloudEngine S6730-H24X6C models supports the IEEE 1588v2 protocol, which implements low-cost, high-precision, and high-reliability time and clock synchronization. This feature can meet strict requirements of power and transportation industry customers on time and clock synchronization.

Link Layer Security

- The CloudEngine S6730-H24X4Y4C models support MACsec. MACsec protects transmitted Ethernet data frames through identity authentication, data encryption, integrity check, and anti-replay protection, reducing the risks of information leakage and malicious network attacks. With MACsec, these switch models are able to address strict information security requirements of customers in industries such as government and finance.

High-Performance VRP Software System

- Huawei S series switches build on a unified Versatile Routing Platform (VRP) software system, meeting the growing network scale and the evolving Internet technologies and guaranteeing network services and network quality.
- VRP is a network operating system developed by Huawei with independent intellectual property rights. It can run on multiple hardware platforms and provide unified network, user, and management views. VRP provides flexible application solutions for users. In addition, VRP is a future-proof platform that maximally protects customer investments.
- The VRP platform is focused on IP services and uses a component-based architecture to provide more than 300 features. Besides, VRP stands out for its application-based tailorable and scalable capabilities.

Open Programmability System(OPS)

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

Big Data-Powered Collaborative Security

- This series of switches supports encrypted communication analytics (ECA), a traffic identification and detection technology. ECA can precisely detect malicious traffic by efficiently identifying encrypted and non-encrypted traffic, extracting the characteristics of encrypted traffic, and sending these characteristics to HiSec Insight (a big data-powered security analysis system). Furthering to this, ECA-capable switches can work with the controller iMaster NCE-Campus to automatically isolate threats, thereby ensuring campus network security.
- This series of switches also supports network deception technology. Specifically, switches functioning as sensors can detect threats (such as IP address scanning and port scanning on the network) and lure threat traffic to the honeypot for simulated interaction with attackers. In this way, it is easy to obtain attack behaviors, extract attack tools, and analyze suspicious traffic in depth to create defense policies. Switches then work with iMaster NCE-Campus to automatically isolate threats and block the spread of attack behaviors, ensuring campus network security.

Intelligent O&M

- This series switches provides telemetry technology to collect device data in real time and send the data to Huawei campus network analyzer(iMaster NCE-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.
- This series switches 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

- 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.

Product Specifications

The following table describes the functions and features available on the CloudEngine S6730-H series.

Functions and Features

| Function and Feature | | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|----------------------|--|---|--------------------------|--------------------------|----------------------------|
| Ethernet features | Ethernet basics | Rate auto-negotiation on an interface | Yes | Yes | Yes |
| | | Flow control on an interface | Yes | Yes | Yes |
| | | Jumbo frames | Yes | Yes | Yes |
| | | Link aggregation | Yes | Yes | Yes |
| | | Load balancing among links of a trunk | Yes | Yes | Yes |
| | | Transparent transmission of Layer 2 protocol packets | Yes | Yes | Yes |
| | | Device Link Detection Protocol (DLDP) | Yes | Yes | Yes |
| | | Link Layer Discovery Protocol (LLDP) | Yes | Yes | Yes |
| | | Link Layer Discovery Protocol-Media Endpoint Discovery (LLDP-MED) | Yes | Yes | Yes |
| | | Interface isolation | Yes | Yes | Yes |
| | | Broadcast traffic suppression on an interface | Yes | Yes | Yes |
| | | Multicast traffic suppression on an interface | Yes | Yes | Yes |
| | | Unknown unicast traffic suppression on an interface | Yes | Yes | Yes |
| | | VLAN broadcast traffic suppression | Yes | Yes | Yes |
| | | VLAN multicast traffic suppression | Yes | Yes | Yes |
| | VLAN unknown unicast traffic suppression | Yes | Yes | Yes | |
| | VLAN | VLAN specification | 4094 | 4094 | 4094 |
| | | VLANIF interface specification | 4094 | 4094 | 4094 |
| | | Access mode | Yes | Yes | Yes |
| | | Trunk mode | Yes | Yes | Yes |

| Function and Feature | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|----------------------|--|--------------------------|--------------------------|----------------------------|
| | Hybrid mode | Yes | Yes | Yes |
| | QinQ mode | Yes | Yes | Yes |
| | Default VLAN | Yes | Yes | Yes |
| | VLAN assignment based on interfaces | Yes | Yes | Yes |
| | VLAN assignment based on protocols | Yes | Yes | Yes |
| | VLAN assignment based on IP subnets | Yes | Yes | Yes |
| | VLAN assignment based on MAC addresses | Yes | Yes | Yes |
| | VLAN assignment based on MAC address + IP address | Yes | Yes | Yes |
| | VLAN assignment based on MAC address + IP address + interface number | Yes | Yes | Yes |
| | Adding double VLAN tags to packets based on interfaces | Yes | Yes | Yes |
| | Super-VLAN | Yes | Yes | Yes |
| | Super-VLAN specification | 256 | 256 | 256 |
| | Sub-VLAN | Yes | Yes | Yes |
| | Sub-VLAN specification | 1024 | 1024 | 1024 |
| | VLAN mapping | Yes | Yes | Yes |
| | Selective QinQ | Yes | Yes | Yes |
| | MUX VLAN | Yes | Yes | Yes |
| | Voice VLAN | Yes | Yes | Yes |
| | Guest VLAN | Yes | Yes | Yes |
| GVRP | GARP | Yes | Yes | Yes |
| | GVRP | Yes | Yes | Yes |
| VCMP | VCMP | Yes | Yes | Yes |
| MAC | MAC address | 384K max | 384K max | 384K max |
| | Automatic learning of MAC addresses | Yes | Yes | Yes |
| | Automatic aging of MAC addresses | Yes | Yes | Yes |
| | Static, dynamic, and blackhole MAC address entries | Yes | Yes | Yes |
| | Interface-based MAC address learning limiting | Yes | Yes | Yes |
| | Sticky MAC | Yes | Yes | Yes |
| | MAC address flapping detection | Yes | Yes | Yes |
| | Configuring MAC address learning | Yes | Yes | Yes |

| Function and Feature | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C | |
|----------------------------|--------------------|---|--------------------------|----------------------------|------------------|
| | | priorities for interfaces | | | |
| | | MAC address spoofing defense | Yes | Yes | Yes |
| | | Port bridge | Yes | Yes | Yes |
| | ARP | Static ARP | Yes | Yes | Yes |
| | | Dynamic ARP | Yes | Yes | Yes |
| | | ARP entry | 140K max (share) | 140K max (share) | 140K max (share) |
| | | ARP aging detection | Yes | Yes | Yes |
| | | Intra-VLAN proxy ARP | Yes | Yes | Yes |
| | | Inter-VLAN proxy ARP | Yes | Yes | Yes |
| | | Routed proxy ARP | Yes | Yes | Yes |
| Multi-egress-interface ARP | | Yes | Yes | Yes | |
| Ethernet loop protection | MSTP | STP | Yes | Yes | Yes |
| | | RSTP | Yes | Yes | Yes |
| | | MSTP | Yes | Yes | Yes |
| | | VBST | Yes | Yes | Yes |
| | | BPDU protection | Yes | Yes | Yes |
| | | Root protection | Yes | Yes | Yes |
| | | Loop protection | Yes | Yes | Yes |
| | | Defense against TC BPDU attacks | Yes | Yes | Yes |
| | Loopback detection | Loop detection on an interface | Yes | Yes | Yes |
| | SEP | SEP | Yes | Yes | Yes |
| | Smart Link | Smart Link | Yes | Yes | Yes |
| | | Smart Link multi-instance | Yes | Yes | Yes |
| | | Monitor Link | Yes | Yes | Yes |
| | RRPP | RRPP | Yes | Yes | Yes |
| | | Single RRPP ring | Yes | Yes | Yes |
| | | Tangent RRPP ring | Yes | Yes | Yes |
| | | Intersecting RRPP ring | Yes | Yes | Yes |
| | | Hybrid networking of RRPP rings and other ring networks | Yes | Yes | Yes |
| | ERPS | G.8032 v1 | Yes | Yes | Yes |
| | | G.8032 v2 | Yes | Yes | Yes |

| Function and Feature | | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C | |
|-----------------------|----------------------------|----------------------------|--------------------------|--------------------------|----------------------------|-----|
| | | ERPS semi-ring topology | Yes | Yes | Yes | |
| | | ERPS closed-ring topology | Yes | Yes | Yes | |
| IPv4/I Pv6 forwarding | IPv4 and unicast routing | IPv4 static routing | Yes | Yes | Yes | |
| | | VRF | Yes | Yes | Yes | |
| | | DHCP client | Yes | Yes | Yes | |
| | | DHCP server | Yes | Yes | Yes | |
| | | DHCP relay | Yes | Yes | Yes | |
| | | DHCP policy VLAN | Yes | Yes | Yes | |
| | | URPF check | Yes | Yes | Yes | |
| | | Routing policies | Yes | Yes | Yes | |
| | | IPv4 routes | 256K max (share) | 256K max (share) | 256K max (share) | |
| | | RIPv1 | Yes | Yes | Yes | |
| | | RIPv2 | Yes | Yes | Yes | |
| | | OSPF | Yes | Yes | Yes | |
| | | BGP | Yes | Yes | Yes | |
| | | MBGP | Yes | Yes | Yes | |
| | | IS-IS | Yes | Yes | Yes | |
| | | Policy-based routing (PBR) | Yes | Yes | Yes | |
| | | Multicast routing features | IGMPv1/v2/v3 | Yes | Yes | Yes |
| | | | PIM-DM | Yes | Yes | Yes |
| | PIM-SM | | Yes | Yes | Yes | |
| | MSDP | | Yes | Yes | Yes | |
| | IPv4 multicast routes | | 64K-1 max (share) | 64K-1 max (share) | 64K-1 max (share) | |
| | IPv6 multicast routes | | 4K | 4K | 4K | |
| | Multicast routing policies | | Yes | Yes | Yes | |
| | RPF | | Yes | Yes | Yes | |
| | IPv6 features | IPv6 protocol stack | Yes | Yes | Yes | |
| | | ND | Yes | Yes | Yes | |
| | | ND entry | 80K max (share) | 80K max (share) | 80K max (share) | |
| | | ND snooping | Yes | Yes | Yes | |
| | | DHCPv6 snooping | Yes | Yes | Yes | |
| | | RIPng | Yes | Yes | Yes | |

| Function and Feature | | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C | |
|----------------------------|----------------------------|--|------------------------------|--------------------------|----------------------------|-----|
| | | DHCPv6 server | Yes | Yes | Yes | |
| | | DHCPv6 relay | Yes | Yes | Yes | |
| | | OSPFv3 | Yes | Yes | Yes | |
| | | BGP4+ | Yes | Yes | Yes | |
| | | IS-IS for IPv6 | Yes | Yes | Yes | |
| | | IPv6 routes | 80K max (share) | 80K max (share) | 80K max (share) | |
| | | VRRP6 | Yes | Yes | Yes | |
| | | MLDv1/v2 | Yes | Yes | Yes | |
| | | PIM-DM for IPv6 | Yes | Yes | Yes | |
| | | PIM-SM for IPv6 | Yes | Yes | Yes | |
| | IPv6 transition technology | IPv6 manual tunneling | Yes | Yes | Yes | |
| Layer 2 multicast features | - | IGMPv1/v2/v3 snooping | Yes | Yes | Yes | |
| | | IGMP snooping proxy | Yes | Yes | Yes | |
| | | MLD snooping | Yes | Yes | Yes | |
| | | Multicast traffic suppression | Yes | Yes | Yes | |
| | | Inter-VLAN multicast replication | Yes | Yes | Yes | |
| MPLS & VPN | MPLS basic functions | LDP protocol | Yes | Yes | Yes | |
| | | Double MPLS labels | Yes | Yes | Yes | |
| | | Mapping from 802.1p priorities to EXP priorities in MPLS packets | Yes | Yes | Yes | |
| | | Mapping from DSCP priorities to EXP priorities in MPLS packets | Yes | Yes | Yes | |
| | | LSP specification | 16K max | 16K max | 16K max | |
| | MPLS TE | | MPLS-TE tunnel establishment | Yes | Yes | Yes |
| | | | MPLS-TE tunnel specification | 512 | 512 | 512 |
| | | | MPLS-TE protection group | Yes | Yes | Yes |
| | VPN | | MCE | Yes | Yes | Yes |
| | | | GRE tunneling | Yes | Yes | Yes |
| | | | GRE tunnel specification | 512 | 512 | 512 |
| | | | VLL | Yes | Yes | Yes |
| | | | PWE3 | Yes | Yes | Yes |
| VPLS | | | Yes | Yes | Yes | |

| Function and Feature | | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|-----------------------------------|------------------------|---|--------------------------|--------------------------|----------------------------|
| Device reliability | | MPLS L3VPN | Yes | Yes | Yes |
| | | IPSec Efficient VPN | Yes | Yes | Yes |
| | BFD | Single-hop BFD | Yes | Yes | Yes |
| | | BFD for static routes | Yes | Yes | Yes |
| | | BFD for OSPF | Yes | Yes | Yes |
| | | BFD for IS-IS | Yes | Yes | Yes |
| | | BFD for BGP | Yes | Yes | Yes |
| | | BFD for PIM | Yes | Yes | Yes |
| | | BFD for VRRP | Yes | Yes | Yes |
| | Stacking | Service interface-based stacking | Yes | Yes | Yes |
| Maximum number of stacked devices | | 9 | 9 | 9 | |
| Stack bandwidth (Bidirectional) | | Up to 1.36 Tbit/s | Up to 1.36 Tbit/s | Up to 1 Tbit/s | |
| VRRP | VRRP standard protocol | Yes | Yes | Yes | |
| Ethernet OAM | EFM (802.3ah) | Automatic discovery of links | Yes | Yes | Yes |
| | | Link fault detection | Yes | Yes | Yes |
| | | Link troubleshooting | Yes | Yes | Yes |
| | | Remote loopback | Yes | Yes | Yes |
| | CFM (802.1ag) | Software-level CCM | Yes | Yes | Yes |
| | | 802.1ag MAC ping | Yes | Yes | Yes |
| | | 802.1ag MAC trace | Yes | Yes | Yes |
| | OAM association | Association between 802.1ag and 802.3ah | Yes | Yes | Yes |
| | Y.1731 | Unidirectional delay and jitter measurement | Yes | Yes | Yes |
| | | Bidirectional delay and jitter measurement | Yes | Yes | Yes |
| QoS features | Traffic classification | Traffic classification based on ACLs | Yes | Yes | Yes |
| | | Configuring traffic classification priorities | Yes | Yes | Yes |
| | | Matching the simple domains of packets | Yes | Yes | Yes |
| | Traffic behavior | Traffic filtering | Yes | Yes | Yes |
| | | Traffic policing (CAR) | Yes | Yes | Yes |
| | | Modifying the packet priorities | Yes | Yes | Yes |
| | | Modifying the simple domains of packets | Yes | Yes | Yes |
| | | Modifying the packet VLANs | Yes | Yes | Yes |

| Function and Feature | | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|-------------------------------|------------------------------------|--|------------------------------|--------------------------|----------------------------|
| | Traffic shaping | Traffic shaping on an egress interface | Yes | Yes | Yes |
| | | Traffic shaping on queues on an interface | Yes | Yes | Yes |
| | Congestion avoidance | Weighted Random Early Detection (WRED) on queues | Yes | Yes | Yes |
| | | Tail drop | Yes | Yes | Yes |
| | Congestion management | Priority Queuing (PQ) | Yes | Yes | Yes |
| | | Weighted Deficit Round Robin (WDRR) | Yes | Yes | Yes |
| | | PQ+WDRR | Yes | Yes | Yes |
| | | Weighted Round Robin (WRR) | Yes | Yes | Yes |
| | | PQ+WRR | Yes | Yes | Yes |
| | ACL | Packet filtering at Layer 2 to Layer 4 | Number of rules per IPv4 ACL | 6K (Shared with IPv6) | 6K (Shared with IPv6) |
| Number of rules per IPv6 ACL | | | 6K (Shared with IPv4) | 6K (Shared with IPv4) | 6K (Shared with IPv4) |
| Basic IPv4 ACL | | | Yes | Yes | Yes |
| Advanced IPv4 ACL | | | Yes | Yes | Yes |
| Basic IPv6 ACL | | | Yes | Yes | Yes |
| Advanced IPv6 ACL | | | Yes | Yes | Yes |
| Layer 2 ACL | | | Yes | Yes | Yes |
| User group ACL | | | Yes | Yes | Yes |
| User-defined ACL | Yes | Yes | Yes | | |
| Configuration and maintenance | Login and configuration management | Command line interface (CLI)-based configuration | Yes | Yes | Yes |
| | | Console terminal service | Yes | Yes | Yes |
| | | Telnet terminal service | Yes | Yes | Yes |
| | | SSH v1.5 | Yes | Yes | Yes |
| | | SSH v2.0 | Yes | Yes | Yes |
| | | SNMP-based NMS for unified configuration | Yes | Yes | Yes |
| | | Web page-based configuration and management | Yes | Yes | Yes |
| | | EasyDeploy (client) | Yes | Yes | Yes |
| | | EasyDeploy (commander) | Yes | Yes | Yes |
| | | SVF | Yes | Yes | Yes |
| | | Cloud management | Yes | Yes | Yes |

| Function and Feature | | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|---------------------------------|----------------------------|-------------------------------|--------------------------|--------------------------|----------------------------|
| | | OPS | Yes | Yes | Yes |
| | File system | Directory and file management | Yes | Yes | Yes |
| | | File upload and download | Yes | Yes | Yes |
| | Monitoring and maintenance | Deception | Yes | Yes | Yes |
| | | ECA | Yes | Yes | Yes |
| | | eMDI | Yes | Yes | Yes |
| | | Hardware monitoring | Yes | Yes | Yes |
| | | Log information output | Yes | Yes | Yes |
| | | Alarm information output | Yes | Yes | Yes |
| | | Debugging information output | Yes | Yes | Yes |
| | | Port mirroring | Yes | Yes | Yes |
| | | Flow mirroring | Yes | Yes | Yes |
| | | Remote mirroring | Yes | Yes | Yes |
| | | Energy saving | Yes | Yes | Yes |
| | | Version upgrade | Version upgrade | Yes | Yes |
| | Version rollback | | Yes | Yes | Yes |
| | Security | ARP security | ARP packet rate limiting | Yes | Yes |
| ARP anti-spoofing | | | Yes | Yes | Yes |
| Association between ARP and STP | | | Yes | Yes | Yes |
| ARP gateway anti-collision | | | Yes | Yes | Yes |
| Dynamic ARP Inspection (DAI) | | | Yes | Yes | Yes |
| Static ARP Inspection (SAI) | | | Yes | Yes | Yes |
| Egress ARP Inspection (EAI) | | | Yes | Yes | Yes |
| IP security | | ICMP attack defense | Yes | Yes | Yes |
| | | IPSG for IPv4 | Yes | Yes | Yes |
| | | IPSG user capacity | 3K | 3K | 3K |
| | | IPSG for IPv6 | Yes | Yes | Yes |
| | | IPSGv6 user capacity | 1.5K | 1.5K | 1.5K |
| Local attack defense | | CPU attack defense | Yes | Yes | Yes |
| MFF | | MFF | Yes | Yes | Yes |
| DHCP snooping | DHCP snooping | Yes | Yes | Yes | |
| | Option 82 function | Yes | Yes | Yes | |

| Function and Feature | | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|--------------------------------|---------------------|--|--------------------------|--------------------------|----------------------------|
| | | Dynamic rate limiting for DHCP packets | Yes | Yes | Yes |
| | Attack defense | Defense against malformed packet attacks | Yes | Yes | Yes |
| | | Defense against UDP flood attacks | Yes | Yes | Yes |
| | | Defense against TCP SYN flood attacks | Yes | Yes | Yes |
| | | Defense against ICMP flood attacks | Yes | Yes | Yes |
| | | Defense against packet fragment attacks | Yes | Yes | Yes |
| | | Local URPF | Yes | Yes | Yes |
| | Link Layer Security | MACsec | No | No | Yes |
| User access and authentication | AAA | Local authentication | Yes | Yes | Yes |
| | | Local authorization | Yes | Yes | Yes |
| | | RADIUS authentication | Yes | Yes | Yes |
| | | RADIUS authorization | Yes | Yes | Yes |
| | | RADIUS accounting | Yes | Yes | Yes |
| | | HWTACACS authentication | Yes | Yes | Yes |
| | | HWTACACS authorization | Yes | Yes | Yes |
| | | HWTACACS accounting | Yes | Yes | Yes |
| | NAC | 802.1X authentication | Yes | Yes | Yes |
| | | MAC address authentication | Yes | Yes | Yes |
| | | Portal authentication | Yes | Yes | Yes |
| | | Hybrid authentication | Yes | Yes | Yes |
| | Policy association | Functioning as the control device | Yes | Yes | Yes |
| Network management | - | Ping | Yes | Yes | Yes |
| | | Tracert | Yes | Yes | Yes |
| | | NQA | Yes | Yes | Yes |
| | | NTP | Yes | Yes | Yes |
| | | iPCA | Yes | Yes | Yes |
| | | NetStream | Yes | Yes | Yes |
| | | SNMP v1 | Yes | Yes | Yes |
| | | SNMP v2 | Yes | Yes | Yes |
| | | SNMP v3 | Yes | Yes | Yes |

| Function and Feature | | Description | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|----------------------|---|---|--------------------------|--------------------------|----------------------------|
| | | HTTP | Yes | Yes | Yes |
| | | HTTPS | Yes | Yes | Yes |
| | | RMON | Yes | Yes | Yes |
| | | RMON2 | Yes | Yes | Yes |
| | | NETCONF/YANG | Yes | Yes | Yes |
| WLAN | - | AP management | Yes | Yes | Yes |
| | | Number of managed APs | 1K | 1K | 1K |
| | | Radio management | Yes | Yes | Yes |
| | | WLAN service management | Yes | Yes | Yes |
| | | WLAN QoS | Yes | Yes | Yes |
| | | WLAN security | Yes | Yes | Yes |
| | | WLAN user management | Yes | Yes | Yes |
| VXLAN | - | VXLAN Layer 2 gateway | Yes | Yes | Yes |
| | | VXLAN Layer 3 gateway | Yes | Yes | Yes |
| | | Centralized gateway | Yes | Yes | Yes |
| | | Distributed gateway | Yes | Yes | Yes |
| | | BGP-EVPN | Yes | Yes | Yes |
| | | BGP-EVPN neighbor capacity | 256 | 256 | 256 |
| Interoperability | - | VLAN-based Spanning Tree (VBST) | Yes | Yes | Yes |
| | | Link-type Negotiation Protocol (LNP) | Yes | Yes | Yes |
| | | VLAN Central Management Protocol (VCMP) | Yes | Yes | Yes |

NOTE

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

Hardware Specifications

The following table lists hardware specifications of the CloudEngine S6730-H series.

| Item | | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|-------------------------|---|--|--|--|
| Physical specifications | Dimensions (H x W x D) | 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) | 43.6 mm x 442.0 mm x 420.0 mm (1.72 in. x 17.4 in. x 16.5 in.) | 43.6 mm x 442.0 mm x 220.0 mm (1.72 in. x 17.4 in. x 8.66 in.) |
| | Chassis height | 1 U | 1 U | 1U |
| | Chassis weight (full configuration weight, including weight of packaging) | 8.9 kg (19.62 lb) | 9.2 kg (20.28 lb) | 4.65 kg (10.25 lb) |

| Item | | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|---------------------|--|--|--|--|
| | materials) | | | |
| Fixed port | 10GE port | 24 | 48 | 24 |
| | 25GE port | - | - | 4 |
| | 40GE port | 6 (40GE and 100GE auto-sensing) | 6 (40GE and 100GE auto-sensing.) | 4 (40GE and 100GE auto-sensing.) |
| | 100GE port | 6 | 6 | 4 |
| Management port | ETH management port | Supported | Supported | Supported |
| | Console port (RJ45) | Supported | Supported | Supported |
| | USB port | USB 2.0 | USB 2.0 | USB 2.0 |
| CPU | Frequency | 1.4 GHz | 1.4 GHz | 1.4 GHz |
| | Cores | 4 | 4 | 4 |
| Memory | Memory (RAM) | 4GB | 4GB | 4GB |
| | Flash | Hardware: 2 GB | Hardware: 2 GB | Hardware: 2 GB |
| Power supply system | Power supply type | <ul style="list-style-type: none"> 600 W AC (pluggable) 1000 W DC (pluggable) | <ul style="list-style-type: none"> 600 W AC (pluggable) 1000 W DC (pluggable) | <ul style="list-style-type: none"> 300 W AC (pluggable) 260 W DC (pluggable) |
| | Rated voltage range | <ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC | <ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC | <ul style="list-style-type: none"> AC input: 100 V AC to 240 V AC, 50/60 Hz High-Voltage DC input: 240 V DC DC input: -48 V DC to -60 V DC |
| | Maximum voltage range | <ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC | <ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC | <ul style="list-style-type: none"> AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz High-Voltage DC input: 190 V DC to 290 V DC DC input: -38.4 V DC to -72 V DC |
| | Maximum input current | <ul style="list-style-type: none"> AC 600W: 8A DC 1000W: 30A | <ul style="list-style-type: none"> AC 600W: 8A DC 1000W: 30A | <ul style="list-style-type: none"> AC 300W: 4A DC 260W: 10A |
| | Typical power consumption (30% of traffic load, tested according to ATIS standard) | 149 W | 165 W | 186 W |
| | Maximum power consumption (100% throughput, full speed of fans) | 254 W | 291 W | 253 W |
| Heat | Heat dissipation | Air-cooled heat dissipation | Air-cooled heat dissipation | Air-cooled heat dissipation |

| Item | | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|------------------------|---|--|--|--|
| dissipation system | mode | and intelligent fan speed adjustment | and intelligent fan speed adjustment | and intelligent fan speed adjustment |
| | Number of fan modules | 4, Fan modules are pluggable | 4, Fan modules are pluggable | 3, Built-in fan |
| | Airflow | Air flows in from the front side and exhausts from the rear panel | Air flows in from the front side and exhausts from the rear panel | Air flows in from the left and exhausts from the right |
| Environment parameters | Long-term operating temperature | <ul style="list-style-type: none"> 0-1800 m: -5°C to 45°C 1800-5000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. | <ul style="list-style-type: none"> 0-1800 m: -5°C to 45°C 1800-5000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. | <ul style="list-style-type: none"> 0-1800 m: -5°C to 45°C 1800-5000 m: The operating temperature decreases 1°C for every 220 m increase in altitude. |
| | Storage temperature | -40°C to +70°C | -40°C to +70°C | -40°C to +70°C |
| | Relative humidity | 5% to 95%, noncondensing | 5% to 95%, noncondensing | 5% to 95%, noncondensing |
| | Operating altitude | 0-5000 m | 0-5000 m | 0-5000 m |
| | Noise under normal temperature (sound power) | < 65 dB(A) | < 65 dB(A) | < 64.5 dB(A) |
| | Noise under high temperature (sound power) | < 88 dB(A) | < 88 dB(A) | < 84.5 dB(A) |
| | Noise under normal temperature (sound pressure) | < 52 dB(A) | < 52 dB(A) | < 51.7 dB(A) |
| | Surge protection specification (power port) | <ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±2 kV in differential mode, ±4 kV in common mode | <ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±2 kV in differential mode, ±4 kV in common mode | <ul style="list-style-type: none"> Using AC power modules: ±6 kV in differential mode, ±6 kV in common mode Using DC power modules: ±2 kV in differential mode, ±4 kV in common mode |
| Reliability | MTBF (year) ² | 62.27 | 56.87 | 54.68 |
| | MTTR (hour) | 2 | 2 | 2 |
| | Availability | > 0.99999 | > 0.99999 | > 0.99999 |
| Certification | | <ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification <p>NOTE For details about certifications, see the section Safety and</p> | <ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification <p>NOTE For details about certifications, see the section Safety and</p> | <ul style="list-style-type: none"> EMC certification Safety certification Manufacturing certification <p>NOTE For details about certifications, see the section Safety and</p> |

| Item | CloudEngine S6730-H24X6C | CloudEngine S6730-H48X6C | CloudEngine S6730-H24X4Y4C |
|------|--------------------------|--------------------------|----------------------------|
| | Regulatory Compliance. | Regulatory Compliance. | Regulatory Compliance. |

NOTE

- 1: The power consumption under different load conditions is calculated according to the ATIS standard. Additionally.
- 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.

Licensing

Licensing

This series switches 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

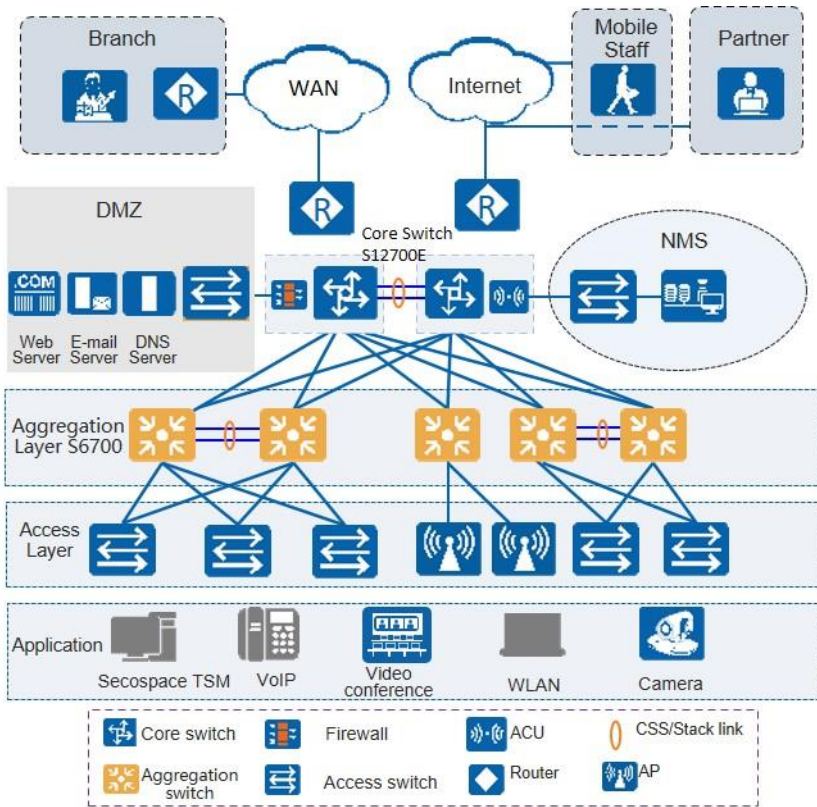
| Switch Functions | N1 Basic Software | N1 Foundation Software Package | N1 Advanced Software Package |
|--|-------------------|--------------------------------|------------------------------|
| Basic network functions: Layer 2 functions, IPv4, IPv6, MPLS, SVF, and others Note: For details, see the Service Features | √ | √ | √ |
| Basic network automation based on the iMaster NCE-Campus: <ul style="list-style-type: none"> • Basic automation: Plug-and-play, SSID, and AP group management • Basic monitoring: Application visualization • NE management: Image and topology management and discovery • WLAN enhancement: Roaming and optimization for up to 128 APs | x | √ | √ |
| Advanced network automation and intelligent O&M: VXLAN, user access authentication, free mobility, and CampusInsight basic functions | x | x | √ |

Note: Only V200R019C00 and later versions can support N1 mode

Networking and Applications

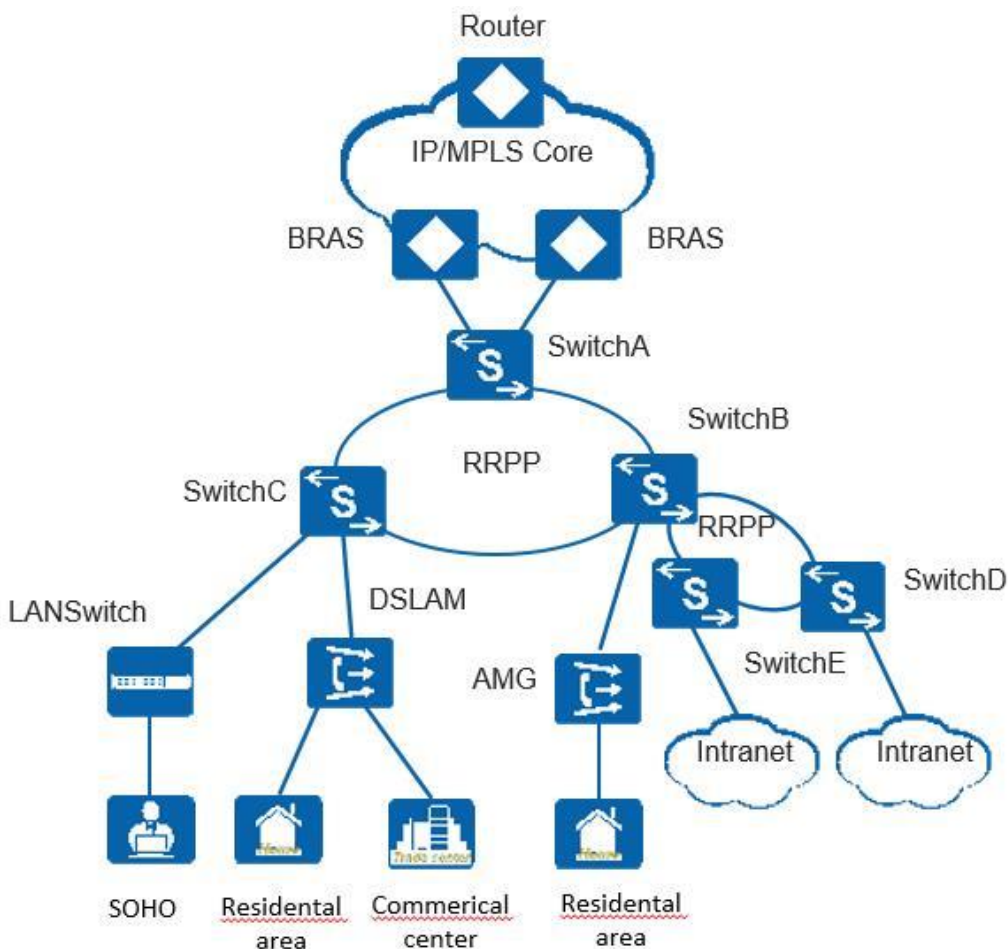
Large-scale Enterprise Campus Network

CloudEngine S6730-H series switches can be deployed at the aggregation layer of a large-scale enterprise campus network, creating a highly reliable, scalable, and manageable enterprise campus network.



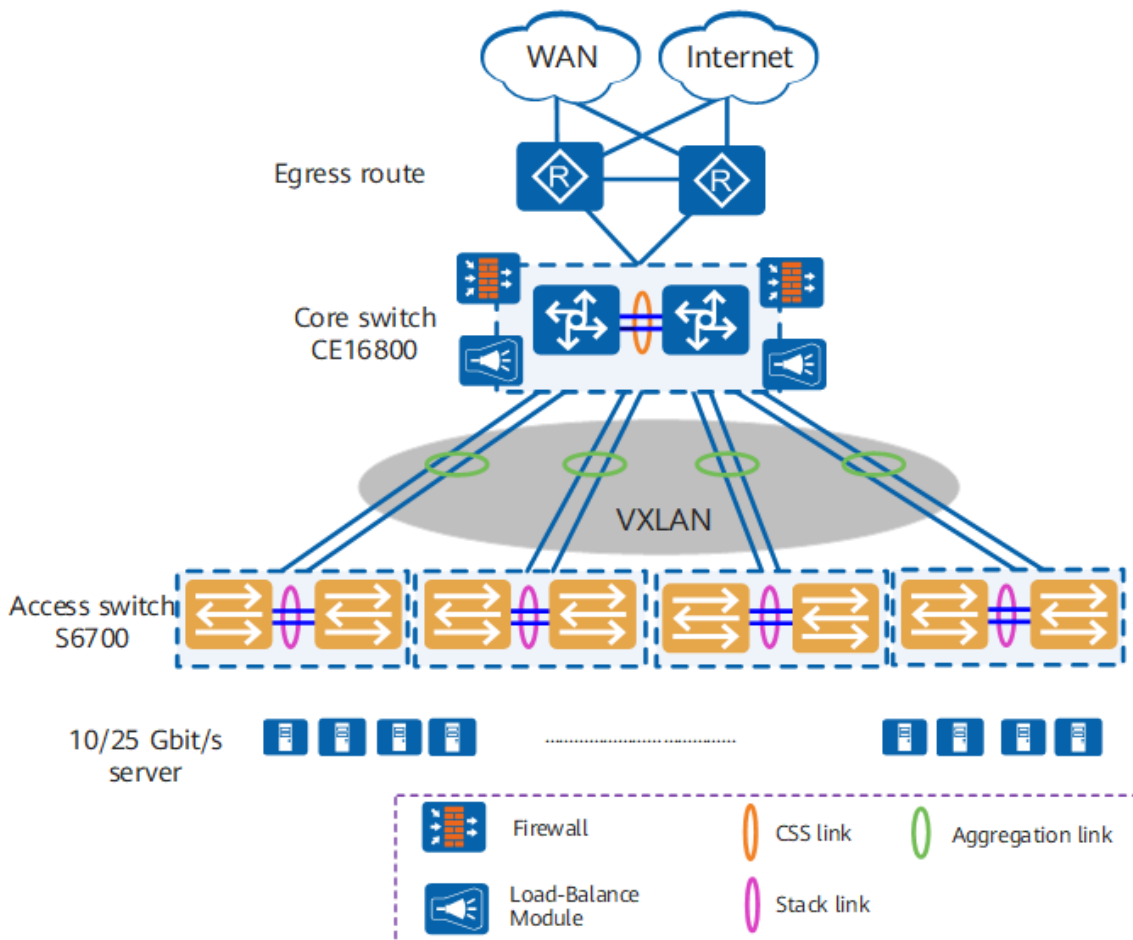
Application on a MAN

CloudEngine S6730-H series switches can be deployed at the access layer of a MAN (Metropolitan Area Network) to build a high-performance, multi-service, and highly reliable ISP MAN network.



Data Center

CloudEngine S6730-H switches can be deployed at the access layer build a virtualized, highly reliable, non-blocking, and energy conservative data center network.



Product Accessories

Optical Modules and Fibers

10GE SFP+ ports support optical modules and cables

- GE optical module
- GE-CWDM optical module
- GE-DWDM optical module
- GE copper module
- 10GE SFP+ optical module (OSXD22N00 not supported)
- 10GE-CWDM optical module
- 10GE-DWDM optical module
- 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables
- 3 m and 10 m SFP+ AOC cables
- 0.5 m and 1.5 m SFP+ dedicated stack cables (supported by the last 16 SFP+ ports and used only for zero-configuration stacking)

25GE SFP28 ports support optical modules and cables

- GE eSFP optical module
- GE SFP optical module

- GE-CWDM optical module
- GE-DWDM optical module
- 10GE SFP+ optical module (OSXD22N00 not supported)
- 10GE-CWDM optical module
- 10GE-DWDM optical module
- 25GE SFP28 optical module
- 1 m, 3 m, 5 m, and 10 m SFP+ high-speed cables
- 3 m and 10 m SFP+ AOC cables
- 1 m, 3 m, 5 m SFP28 high-speed cables
- 3 m, 5 m, 7 m, and 10 m SFP28 AOC cables

40GE/100GE QSFP28 ports support optical modules and cables

- QSFP+ optical module
- QSFP28 optical module
- 1 m, 3 m, and 5 m QSFP+ to QSFP+ high-speed copper cables
- 10 m QSFP+ to QSFP+ AOC cable
- 1 m QSFP28 to QSFP28 high-speed copper cable
- 10 m QSFP28 to QSFP28 AOC cable

NOTE

- A QSFP28 optical port cannot be split into four 10GE ports, regardless of whether the port uses a QSFP28 or QSFP+ optical module.
- By default, the S6730-H48X6C (part number: 02352FSF) does not have the license loaded, and QSFP28 ports on the switch are 40GE ports. The QSFP28 ports can work as 100GE ports after you activate the license, run the **assign port-speed 100GE** command, and restart the switch.
- On the S6730-H48X6C (part number: 02353FWL), the license has been activated and QSFP28 ports on these switches work as 100GE ports. To change the rate of QSFP28 ports from 100GE to 40GE, run the **undo assign port-speed 100GE** command and restart the switch.

Stack Cables

The CloudEngine S6730-H Series switches support service port stacking. The applicable stack cables are as follows:

| Port Supporting Stacking | Stack Cable | Rate of a Single Port |
|-------------------------------------|--|-----------------------|
| 10GE ports on the front panel | <ul style="list-style-type: none"> ● 1 m, 3 m, and 5 m SFP+ passive high-speed cables ● 10 m SFP+ active high-speed copper cables ● 3 m and 10 m AOC cables ● 10GE SFP+ optical module and optical fiber ● 0.5 m and 1.5 m SFP+ dedicated stack cable | 10 Gbit/s |
| 40GE/100GE ports on the front panel | <ul style="list-style-type: none"> ● 1 m QSFP28 high-speed copper cables ● 10 m QSFP28 AOC cables ● QSFP28 optical module and optical fiber | 100Gbit/s |

Safety and Regulatory Compliance

The following table lists the safety and regulatory compliance of the CloudEngine S6730-H.

| Certification Category | Description |
|------------------------|-------------|
|------------------------|-------------|

| Certification Category | Description |
|-------------------------------------|--|
| Safety | <ul style="list-style-type: none"> • IEC 60950-1 and all country deviations • EN 60950-1 • UL 60950-1 • CAN/CSA 22.2 No.60950-1 • GB 4943 |
| Electromagnetic Compatibility (EMC) | <ul style="list-style-type: none"> • EMI • FCC CFR47 Part 15 Class A • EN55022 Class A • CISPR 22 Class A • EN61000-3-2/IEC-1000-3-2, Power line harmonics • EN61000-4-3/IEC-1000-4-3, Radiated immunity • EN61000-4-2/IEC-1000-4-2, ESD • EN61000-4-4/IEC-1000-4-4, EFT • EN61000-4-5/IEC-1000-4-5, Surge Signal Port • EN61000-4-6/IEC-1000-4-6, Low frequency conducted immunity • EN61000-4-11/IEC-1000-4-11, Voltage dips and sags • EN61000-4-29/IEC61000-4-29, Voltage dips and sags • EMC Directive 89/336/EEC • EMC Directive 2004/108/EC • VCCI V-3 Class A • ICES-003 Class A • AS/NZS CISPR 22 Class A • CNS 13438 Class A • GB9254 Class A |

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

MIB and Standards Compliance

Supported MIBs

| Category | MIB |
|------------|--|
| Public MIB | <ul style="list-style-type: none"> • BRIDGE-MIB |

| Category | MIB |
|------------------------|--|
| | <ul style="list-style-type: none"> • 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 • OSPF-TRAP-MIB • P-BRIDGE-MIB • Q-BRIDGE-MIB • RFC1213-MIB • RIPv2-MIB • RMON2-MIB • RMON-MIB • SAVI-MIB • SNMP-FRAMEWORK-MIB • SNMP-MPD-MIB • SNMP-NOTIFICATION-MIB • SNMP-TARGET-MIB • SNMP-USER-BASED-SM-MIB • SNMPv2-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-DC-MIB |

| Category | MIB |
|----------|--|
| | <ul style="list-style-type: none"> • HUAWEI-DATASYNC-MIB • HUAWEI-DEVICE-MIB • HUAWEI-DHCPR-MIB • HUAWEI-DHCPS-MIB • HUAWEI-DHCP-SNOOPING-MIB • HUAWEI-DIE-MIB • HUAWEI-DNS-MIB • HUAWEI-DLDP-MIB • HUAWEI-ELMI-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-GTSM-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-NAP-MIB • HUAWEI-NTPV3-MIB • HUAWEI-PERFORMANCE-MIB • HUAWEI-PORT-MIB • HUAWEI-PORTAL-MIB • HUAWEI-QINQ-MIB |

| Category | MIB |
|----------|---|
| | <ul style="list-style-type: none"> • HUAWEI-RIPv2-EXT-MIB • HUAWEI-RM-EXT-MIB • HUAWEI-RRPP-MIB • HUAWEI-SECURITY-MIB • 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-XQOS-MIB |

NOTE

For more information about MIBs supported by the CloudEngine S6730-H series, visit: <https://support.huawei.com/enterprise/en/switches/s6700-pid-6691593?category=reference-guides>

Standards Compliance

The following table lists the standards that the CloudEngine S6730-H series complies with.

| 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) |

| Standard Organization | Standard or Protocol |
|-----------------------|--|
| | <ul style="list-style-type: none"> • RFC 2328 OSPF Version 2 • RFC 2453 RIP Version 2 • RFC 2460 Internet Protocol, Version 6 Specification (IPv6) • RFC 2461 Neighbor Discovery for IP Version 6 (IPv6) • RFC 2462 IPv6 Stateless Address Auto configuration • RFC 2463 Internet Control Message Protocol for IPv6 (ICMPv6) • RFC 2474 Differentiated Services Field (DS Field) • RFC 2740 OSPF for IPv6 (OSPFv3) • 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 3376 Internet Group Management Protocol, Version 3 (IGMPv3) • RFC 3513 IP Version 6 Addressing Architecture • RFC 3579 RADIUS Support For EAP • RFC 4271 A Border Gateway Protocol 4 (BGP-4) • RFC 4760 Multiprotocol Extensions for BGP-4 • 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 • IEEE802.1x Port based network access control protocol |
| ITU | <ul style="list-style-type: none"> • ITU SG13 Y.17ethoam |

| Standard Organization | Standard or Protocol |
|-----------------------|---|
| | <ul style="list-style-type: none"> ITU SG13 QoS control Ethernet-Based IP Access ITU-T Y.1731 ETH OAM performance monitor |
| ISO | <ul style="list-style-type: none"> ISO 10589 IS-IS Routing Protocol |
| 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 10.2 Ethernet Services Attributes Phase 2 MEF 11 UNI Requirements and Framework MEF 13 UNI Type 1 Implementation Agreement 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 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

The following table lists ordering information of the CloudEngine S6730-H series.

| Model | Product Description |
|----------------------------|--|
| CloudEngine S6730-H48X6C | S6730-H48X6C (48*10GE SFP+ ports, 6*40GE QSFP28 ports, optional license for upgrade to 6*100GE QSFP28, without power module) |
| CloudEngine S6730-H24X6C | S6730-H24X6C (24*10GE SFP+ ports, 6*40GE QSFP28 ports, optional license for upgrade to 6*100GE QSFP28, without power module) |
| CloudEngine S6730-H48X6C | S6730-H48X6C Bundle (48*10GE SFP+ ports, 6*40GE/100GE QSFP28 ports, with license, without power module) |
| CloudEngine S6730-H24X6C | S6730-H24X6C Bundle (24*10GE SFP+ ports, 6*40GE/100GE QSFP28 ports, with license, without power module) |
| CloudEngine S6730-H24X4Y4C | S6730-H24X4Y4C (24*10GE SFP+ ports, 4*25GE SFP28 ports, 4*100GE QSFP28 ports, without power module) |
| PAC600S12-CB | 600W AC power module (for S6730-H48X6C/S6730-H24X6C series models) |
| PDC1000S12-DB | 1000W DC power module (for S6730-H48X6C/S6730-H24X6C series models) |
| PAC300S12-CL | 300W AC power module (for S6730-H24X4Y4C series models) |
| PDC260S12-DL | 260W DC power module (for S6730-H24X4Y4C series models) |
| FAN-031A-B | Fan Module (for S6730-H48X6C/S6730-H24X6C series models) |

| License | Product Description |
|---------------|------------------------------------|
| N1-S67H-M-Lic | S67XX-H Series Basic SW,Per Device |

| License | Product Description |
|------------------------|---|
| N1-S67H-M-SnS1Y | S67XX-H Series Basic SW,SnS,Per Device,1Year |
| L-100GEUPG-S67H | S67XX-H Series,40GE to 100GE Electronic RTU License,Per Device |
| L-VxLAN-S67 | S67 Series, VxLAN License, Per Device |
| L-1AP-S67 | S67 Series, Wireless Access Controller AP Resource License-1AP |
| N1-S67H-F-Lic | N1-CloudCampus,Foundation,S67XX-H Series,Per Device |
| N1-S67H-F-SnS | N1-CloudCampus,Foundation,S67XX-H Series,SnS,Per Device |
| N1-S67H-A-Lic | N1-CloudCampus,Advanced,S67XX-H Series,Per Device |
| N1-S67H-A-SnS | N1-CloudCampus,Advanced,S67XX-H Series,SnS,Per Device |
| N1-S67H-FToA-Lic | N1-Upgrade-Foundation to Advanced,S67XX-H,Per Device |
| N1-S67H-FToA-SnS | N1-Upgrade-Foundation to Advanced,S67XX-H,SnS,Per Device |
| N1-AM-30-Lic | N1-CloudCampus, Add-On Package, Access Management, Per 30 Endpoints |
| N1-AM-30-SnS1Y | N1-CloudCampus, Add-On Package, Access Management, Software Subscription and Support, Per 30 Endpoints, 1 Year |
| N1-EPNP-30-Lic | N1-CloudCampus, Add-On Package, Endpoints Plug and Play, Per 30 Endpoints |
| N1-EPNP-30-SnS1Y | N1-CloudCampus, Add-On Package, Endpoints Plug and Play, Software Subscription and Support, Per 30 Endpoints, 1 Year |
| N1-APP-X7FSwitch | N1-CloudCampus, Add-On Package, Intelligent Application Analysis, X7 Series Fixed Switch, Per Device |
| N1-APP-X7FSwitch-SnS1Y | N1-CloudCampus, Add-On Package, Intelligent Application Analysis, X7 Series Fixed Switch, Software Subscription and Support, Per Device, 1 Year |

More Information


For more information about the 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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