



CloudEngine S5736-S Series All-Optical Switches

CloudEngine S5736-S series switches are next-generation standard all-optical GE access switches that provide 24-port and 48-port models, and provide four 10GE ports and one extended slot(optional).

Introduction

CloudEngine S5736-S series all-optical GE access switches are developed based on next-generation high-performing hardware and the Huawei Versatile Routing Platform (VRP), support enhanced Layer 3 features simplified operations and maintenance (O&M), flexible Ethernet networking and mature IPv6 features. CloudEngine S5736-S switches can be used in various scenarios. For example, it can be used as an access or aggregation switch on a campus network or as an access switch for Metropolitan Area Network.

Product Overview

The following models are available in the CloudEngine S5736-S series.

Models and appearances of the CloudEngine S5736-Sseries

| Models and Appearances | Description |
|----------------------------|---|
| CloudEngine S5736-S24S4XC | 24 x GE SFP ports, 4 x 10 GE SFP+ ports One extended slot 1+1 power supplybackup Forwarding performance: 240 Mpps Switching capacity: 448 Gbps/1.36 Tbps |
| CloudEngine S5736-S48S4XC | 48 x GE SFP ports, 4 x 10 GE SFP+ ports One extended slot 1+1 power supplybackup Forwarding performance: 240 Mpps Switching capacity: 496 Gbps/1.36 Tbps |
| CloudEngine S5736-S48S4X-A | 48 x GE SFP ports, 4 x 10 GE SFP+ ports Built-in AC power Forwarding performance: 480 Mpps Switching capacity: 1.04 Tbps/2.72 Tbps Note: All ports support GE by default. You can purchase right-to-use (RTU) licenses to upgrade the port rate from GE to 10GE. |

| Models and Appearances | Description |
|----------------------------|---|
| CloudEngine S5736-S48S4X-D | 48 x GE SFP ports, 4 x 10 GE SFP+ ports Built-in DC power Forwarding performance: 480 Mpps Switching capacity: 1.04 Tbps/2.72 Tbps Note: All ports support GE by default. You can purchase right-to-use (RTU) licenses to upgrade the port rate from GE to 10GE. |

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.

Models and Appearances

Subcards

The following table lists the subcards applicable to the CloudEngine S5736-S.

Technical specifications of the subcards applicable to the CloudEngine S5736-S series

| Subcards | Technical Specifications | Applied Switch Model |
|-----------------|--|--|
| S7Q02001 | 2*40GE QSFP+ Operating temperature: 0°C to 45°C (32°F to 113°F) Relative humidity: 5% RH to 95% RH Storage temperature: -40°C to +70°C (-40°F to +158°F) Note: Only V200R021C01 and later versions | CloudEngine S5736-S24S4XC CloudEngine S5736-S48S4XC |
| ES5D21Q04Q01 | 4*40GE QSFP+ Operating temperature: 0°C to 45°C (32°F to 113°F) Relative humidity: 5% RH to 95% RH Storage temperature: -40°C to +70°C (-40°F to +158°F) | |
| | 8*10GE SFP+ or 2*25GE SFP28 Operating temperature: 0°C to 45°C (32°F to 113°F) Relative humidity: 5% to 95% Storage temperature: -40°C to +70°C (-40°F to +158°F) | |
| S7X08000 | Note: The 8*10GE SFP+ subcard works as 8*10GE SFP+ by default, and can be changed to 2*25GE SFP28 as required. | |

Fan Models

The following table lists the fan module applicable to the CloudEngine S5736-S.

Technical specifications of the fan module applicable to the CloudEngine S5736-S series

| Fan Module | Technical Specifications | Applied Switch Model |
|------------|--|--|
| FAN-023A-B | 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: 7.2 W Maximum fan speed: 18500±10% revolutions per minute (RPM) Maximum wind rate: 23 cubic feet per minute (CFM) Hot swap: Supported | CloudEngine S5736-S24S4XC CloudEngine S5736-S48S4XC |

Power Supply

Technical specifications of the power supplies applicable to the CloudEngine S5736-S series

| Power Module | Technical Specifications | Applied Switch Model |
|--------------|---|--|
| PAC150S12-R | Dimensions (H x W x D): 40 mm x 90 mm x 215 mm (1.6 in. x 3.5 in. x 8.5 in.) Weight: 0.8 kg (1.76 lb) Rated input voltage range: 100 V AC to 240 V AC, 50/60 Hz Maximum input voltage range: 90 V AC to 264 V AC, 47 Hz to 63 Hz Maximum input current: 3 A Maximum output current: 12.5 A Maximum output power: 150 W Hot swap: Supported | CloudEngine S5736-S24S4XC CloudEngine S5736-S48S4XC |
| PDC180S12-CR | Dimensions (H x W x D): 40 mm x 90 mm x 215 mm (1.6 in. x 3.5 in. x 8.5 in.) Weight: 0.8 kg (1.76 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: 6 A Maximum output current: 3.75 A Maximum output power: 180 W Hot swap: Supported | CloudEngine S5736-S24S4XC CloudEngine S5736-S48S4XC |
| PAC600S12-CB | Dimensions (H x W x D): 40 mm x 90 mm x 215 mm (1.6 in. x 3.5 in. x 8.5 in.) Weight: 0.95 kg (2.09 lb) Rated input voltage range: 100 V AC to 240 V AC, 50/60 Hz 240 V DC Maximum input voltage range: 90 V AC to 290 V AC, 45 Hz to 65 Hz 190 V DC to 290 V DC Maximum input current: | CloudEngine S5736-S24S4XC CloudEngine S5736-S48S4XC |

| Power Module | Technical Specifications | Applied Switch Model |
|---------------|---|--|
| | 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 | |
| PDC1000S12-DB | Dimensions (H x W x D): 40 mm x 90 mm x 215 mm (1.6 in. x 3.5 in. x 8.5 in.) 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 | CloudEngine S5736-S24S4XC CloudEngine S5736-S48S4XC |

Product Features and Highlights

Flexible Port Access On-demand

• CloudEngine S5736-S series switches provide 48 downlink optical ports and four 10GE uplink optical ports. Based on the innovative RTU mode(only S5736-S48S4X-A/D support), the downlink port rate can be increased on demand. With the rapid growth of services, the rate can be smoothly upgraded from 1 Gbit/s to 10 Gbit/s, maximizing the investment on the existing network.

Powerful Service Processing Capability

• CloudEngine S5736-S supports a broad set of Layer 2/Layer 3 multicast protocols, such as PIM SM, PIM DM, PIM SSM, MLD, and IGMP snooping. This capability is ideal for high-definition video backhaul and video conferencing access.

• CloudEngine S5736-S provides multiple Layer 3 features including OSPF, IS-IS, BGP, and VRRP, meeting enterprises' access and aggregation service needs and enabling a variety of voice, video, and data applications.

Flexible Ethernet Networking

• In addition to traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), the CloudEngine S5736-S 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 la yer, 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. It implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.

• The CloudEngine S5736-S supports Smart Link and Virtual Router Redundancy Protocol (VRRP), which implement backup of uplinks. One CloudEngine S5736-S switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.

Various Security Control Methods

• The CloudEngine S5736-S supports 802.1 x authentication, MAC address authentication, Portal authentication, and hybrid authentication, and can dynamically delivery user policies such as VLANs, QoS policies, and access control lists (ACL). It also supports user management based on user groups.

• The CloudEngine S5736-S provides a series of mechanisms to defend against DoS 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 change of the DHCP CHADDR value.

• The CloudEngine S5736-S sets up and maintains a DHCP snooping binding table, and discards the packets that do not match the table entries. You can specify DHCP snooping trusted and untrusted ports to ensure that users connect only to the authorized DHCP server.

• The CloudEngine S5736-S supports strict ARP learning, which prevents ARP spoofing attackers from exhausting ARP entries.

• The CloudEngine S5736-S supports Media Access Control Security (MACsec) with the port of subcard (8*10GE SFP+ subcard). It provides identity authentication, data encryption, integrity check, and replay protection to protect Ethernet frames and prevent attack packets.

Easy Network deployment

• CloudEngine S5736-S supports Super Virtual Fabric (SVF), which innovatively virtualizes the "core/aggregation switch + access switch + AP" into one logical device. This simplifies device management and achieves plug-and-play for access switches and APs. In addition, CloudEngine S5736-S supports service configuration templates. The templates are configured on core devices and automatically delivered to access devices, enabling centralized control, simplified service configuration, and flexible configuration adjustment. CloudEngine S5736-S functions as a client in an SVF system.

• CloudEngine S5736-S supports Huawei Easy Operation, a solution that provides zero-touch deployment, replacement of faulty devices without additional configuration, USB-based deployment, batch device configuration, and batch remote upgrade. The capabilities facilitate device deployment, upgrade, service provisioning, and other management and maintenance operations, and also greatly reduce O&M costs. CloudEngine S5736-S can be managed using SNMP v1/v2c/v3, CLI, web-based network management system, or SSH v2.0. Additionally, it supports RMON, multiple log hos ts, port traffic statistics collection, and network quality analysis, which facilitate network optimization and reconstruction.

Mature IPv6 Features

• The CloudEngine S5736-S is developed based on the mature, stable VRP and supports IPv4/IPv6 dual stacks, IPv6 routing protocols (RIPng, OSPFv3, BGP4+, and IS-IS for IPv6). With these IPv6 features, the CloudEngine S5736-S can be deployed on a pure IPv4 network, a pure IPv6 network, or a shared IPv4/IPv6 network, helping achieve IPv4-to-IPv6 transition.

Intelligent Stack (iStack)

• The CloudEngine S5736-S 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 capacity by simply adding member switches. iStack also simplifies device configuration and management. After a stack is set up, up to nine 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 the stack.

Note: CloudEngine S5736-S series all-optical switches can stack with CloudEngine S5736-S series Multi-GE switches.

Intelligent O&M

• The CloudEngine S5736-S provides telemetry technology to collect device data in real time and send the data to Huawei campus network analyzer Campus Insight. The Campus Insight 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.

• The CloudEngine S5736-S supports a variety of intelligent O&M features for audio and video services, including the enhanced Media Delivery Index (eMDI). With this eDMI function, the switch can function as a monitored node to periodically conduct statistics and report audio and video service indicators to the Campus Insight platform. In this way, the Campus Insight platform can quickly demarcate audio and video service quality faults based on the results of multiple monitored nodes.

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.

• The CloudEngine S5736-S series switches are hardware ready to support VXLAN 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.

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.

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).

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.

Licensing

IDN One Software

CloudEngine S5736-S 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 | \checkmark | \checkmark | \checkmark |
| Basic network automation based on the iMaster NCE-Campus: Basic automation: Plug-and-play Basic monitoring: Application visualization NE management: Image and topologymanagement and discovery | × | \checkmark | \checkmark |
| Advanced network automation and intelligent O&M: User access authentication and CampusInsight basic functions | × | × | 1 |

RTU license

CloudEngine S5736-S series all-optical switches use the innovative RTU license design. The RTU license is used to flexibly manage and control downlink GE ports. The switches can be configured and upgraded on demand, when working with Wi-Fi 6 APs, aggregation switches, and core switches, they can quickly build a flexible campus network to meet actual service requirements, enable customers' networks and services to grow together, and avoid excessive investment

RTU license

| RTU license description | CloudEngine S5736-S48S4X-A/D |
|--------------------------------------|------------------------------|
| SPF 1G to 10G Electronic RTU License | \checkmark |

Note: Only V200R020C30 and later versions can support N1 mode and RTU

Product Specifications

Functions and Features

 $\label{eq:construction} \text{Except for special instructions, the following features are supported by Cloud Engine S5736-S with N1 basic software.}$

Function and feature metrics for the CloudEngine S5736-S series

| Function and Feature | | Description | CloudEngine S5736-S Series |
|----------------------|-----------------|--|----------------------------|
| Ethernet features | Ethernet basics | Full-duplex, half-duplex, and auto- negotiation | Yes |
| | | Rate auto-negotiation on an interface | Yes |
| | | Flow control on an interface | Yes |
| | | Jumboframes | 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 |
| | | 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 |

| Function and Fea | ature | Description | CloudEngine S5736-S Series |
|------------------|--------------|---|----------------------------|
| | | 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 assignmentbased on MAC addresses | Yes |
| | | VLAN assignmentbased 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 |
| | | Super-VLAN | Yes |
| | | Super-VLAN specification | 256 |
| | | Sub-VLAN | Yes |
| | | Sub-VLAN specification | 1К |
| | | VLAN mapping | Yes |
| | | Selective QinQ | Yes |
| | | MUX VLAN | Yes |
| | | Voice VLAN | Yes |
| | | GuestVLAN | Yes |
| | GVRP | GARP | Yes |
| | | GVRP | Yes |
| | VCMP | VCMP | Yes |
| | MAC | MAC address | 32K |
| | | Automatic learning of MAC addresses | Yes |
| | | 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 |
| | | Configuring MAC address learning priorities for interfaces | Yes |
| | | MAC address spoofing defense | Yes |

| Function and Fea | ature | Description | CloudEngine S5736-S Series |
|------------------|-----------------------|---|----------------------------|
| | | Port bridge | Yes |
| | ARP | Static ARP | Yes |
| | | Dynamic ARP | Yes |
| | | ARP entry | 20K |
| | | ARP aging detection | Yes |
| | | Intra-VLAN proxy ARP | Yes |
| | | Inter-VLAN proxy ARP | Yes |
| | | Routed proxy ARP | Yes |
| | | Multi-egress-interface ARP | Yes |
| Ethernet loop | MSTP | STP | Yes |
| protection | | 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 |
| | SmartLink | SmartLink | 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 |
| | | ERPS semi-ring topology | Yes |
| | | ERPS closed-ring topology | Yes |
| IPv4/IPv6 | IPv4 and unicast | IPv4 static routing | Yes |
| forwarding | routing | VRF | Yes |

| Function and Fea | ature | Description | CloudEngine S5736-S Series |
|------------------|-------------------|----------------------------|----------------------------|
| | | DHCP client | Yes |
| | | DHCPserver | Yes |
| | | DHCP relay | Yes |
| | | DHCP policy VLAN | Yes |
| | | URPF check | Yes |
| | | Routing policies | Yes |
| | | IPv4 routes | 8К |
| | | RIPv1 | Yes |
| | | RIPv2 | Yes |
| | | OSPF | Yes |
| | | BGP | Yes |
| | | MBGP | Yes |
| | | IS-IS | Yes |
| | | Policy-based routing (PBR) | Yes |
| | Multicast routing | IGMPv1/v2/v3 | Yes |
| | features | PIM-DM | Yes |
| | | PIM-SM | Yes |
| | | MSDP | Yes |
| | | IPv4 multicast routes | 1.5K |
| | | IPv6 multicast routes | 500 |
| | | Multicast routing policies | Yes |
| | | RPF | Yes |
| | IPv6 features | IPv6 protocol stack | Yes |
| | | ND | Yes |
| | | ND entry | 10K |
| | | ND snooping | Yes |
| | | DHCPv6 snooping | Yes |
| | | RIPng | Yes |
| | | DHCPv6 server | Yes |
| | | DHCPv6 relay | Yes |
| | | OSPFv3 | Yes |
| | | BGP4+ | Yes |
| | | IS-IS for IPv6 | Yes |
| | | IPv6 routes | 4K |

| Function and Feature | | Description | CloudEngine S5736-S Series |
|----------------------|-------------------------------|-----------------------------------|----------------------------|
| | | VRRP6 | Yes |
| | | MLDv1/v2 | Yes |
| | | PIM-DM for IPv6 | Yes |
| | | PIM-SM for IPv6 | Yes |
| | IPv6 transition technology | IPv6 manual tunneling | Yes |
| Layer 2 multicast | - | IGMPv1/v2/v3 snooping | Yes |
| features | | IGMP snooping proxy | Yes |
| | | MLD snooping | Yes |
| | | Multicast traffic suppression | Yes |
| | | Inter-VLAN multicast replication | Yes |
| VPN | VPN | MCE | Yes |
| | | Ping based-on VPN | Yes |
| | | Telnet based-on VPN | Yes |
| | | Trace based-on VPN | Yes |
| | | VPN-Instance(IPV4) | 64 |
| | | VPN-Instance(IPV6) | 64 |
| | | Interface per VPN | 64 |
| Device reliability | BFD | Single-hop BFD | Yes |
| | | BFD for static routes | Yes |
| | | BFD for OSPF | Yes |
| | | BFD for IS-IS | Yes |
| | | BFD for BGP | Yes |
| | | BFD for PIM | Yes |
| | | BFD for VRRP | Yes |
| | Stacking | Service interface-based stacking | Yes |
| | | Maximum number of stacked devices | 9 |
| | | Stack bandwidth (Bidirectional) | 320Gbps(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 |

| Function and Fea | ature | Description | CloudEngine S5736-S Series |
|-------------------------------|--------------------------|--|----------------------------|
| | | 802.1ag MAC trace | Yes |
| | OAM association | Association between 802.1ag and 802.3ah | Yes |
| | Y.1731 | Unidirectional delayand jitter measurement | Yes |
| | | Bidirectional delayand jitter measurement | Yes |
| QoS features | Traffic | Traffic classification based on ACLs | Yes |
| | classification | 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 | Weighted Random EarlyDetection (WRED) on queues | Yes |
| | | Tail drop | Yes |
| | Congestion management | Priority Queuing (PQ) | Yes |
| | | Weighted Deficit Round Robin (WDRR) | Yes |
| | | PQ+WDRR | Yes |
| | | Weighted Round Robin (WRR) | Yes |
| | | PQ+WRR | Yes |
| ACL | Packet filtering at | Basic IPv4 ACL | Yes |
| | Layer 2 to Layer 4 | Advanced IPv4 ACL | Yes |
| | | Basic IPv6 ACL | Yes |
| | | Advanced IPv6 ACL | Yes |
| | | Layer 2 ACL | Yes |
| | | User group ACL | Yes |
| | | User-defined ACL | Yes |
| Configuration and maintenance | Login and configuration | Command line interface (CLI)-based configuration | Yes |
| | management | Console terminal service | Yes |
| | | Telnet terminal service | Yes |
| | | SSH v1.5 | Yes |
| | | SSH v2.0 | Yes |
| | | SNMP-based NMS for unified configuration | Yes |

| Function and Fea | ature | Description | CloudEngine S5736-S Series |
|------------------|-------------------------|---|----------------------------|
| | | Web page-based configuration and management | Yes |
| | | EasyDeploy (client) | Yes |
| | | EasyDeploy(commander) | Yes |
| | | SVF | Yes |
| | | Cloud management | Yes |
| | | OPS | Yes |
| | File system | Directory and file management | Yes |
| | | File upload and download | Yes |
| | Monitoring and | eMDI | Yes |
| | maintenance | Hardwaremonitoring | Yes |
| | | Log information output | Yes |
| | | Alarm information output | Yes |
| | | Debugging information output | Yes |
| | | Port mirroring | Yes |
| | | Flow mirroring | Yes |
| | | Remotemirroring | Yes |
| | | Energysaving | Yes |
| | Version upgrade | Version upgrade | Yes |
| | | Version rollback | Yes |
| Security | ARP security | ARP packet rate limiting | Yes |
| | | ARP anti-spoofing | Yes |
| | | Association between ARP and STP | Yes |
| | | ARP gateway anti-collision | 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 | 1000 |
| | | IPSG for IPv6 | Yes |
| | | IPSGv6 user capacity | 512 |
| | MACSEC | MACSec-256 | Yes(with 8*10GE subcard) |
| | Local attack defense | CPU attack defense | Yes |

| Function and Fea | ature | Description | CloudEngine S5736-S Series |
|------------------|--------------------|--|----------------------------|
| | MFF | MFF | Yes |
| | DHCPsnooping | 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 | AAA | Local authentication | Yes |
| authentication | | 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 |
| | | Portal authentication | Yes |
| | | Hybrid authentication | Yes |
| | Policy association | Functioning as the control device | Yes |
| Network | - | Ping | Yes |
| management | | Tracert | Yes |
| | | NQA | Yes |
| | | NTP | Yes |
| | | iPCA | Yes |
| | | Smart Application Control (SAC) | Yes |
| | | NetStream | Yes |
| | | SNMP v1 | Yes |
| | | SNMP v2c | Yes |
| | | SNMP v3 | Yes |
| | | НТТР | Yes |

| Function and Fea | ature | Description | CloudEngine S5736-S Series |
|------------------|-------|--|----------------------------|
| | | HTTPS | Yes |
| | | RMON | Yes |
| | | RMON2 | Yes |
| | | NETCONF/YANG | Yes |
| VXLAN* | - | VXLAN Layer 2 gateway | Yes |
| | | VXLAN Layer 3 gateway | Yes |
| | | Centralized gateway | Yes |
| | | Distributed gateway | Yes |
| | | BGP-EVPN | Yes |
| | | BGP-EVPN neighbor capacity | Yes |
| Interoperability | - | VLAN-based Spanning Tree (VBST) | Yes |
| | | Link-type Negotiation Protocol (LNP) | Yes |
| | | VLAN Central Management Protocol (VCMP) | Yes |

*Hardware ready

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 the hardware specifications of the CloudEngine S5736-S.

Hardware specifications of the CloudEngine S5736-S24S4XC/-S48S4XC models

| ltem | | CloudEngine S5736-S24S4XC | CloudEngine S5736-S48S4XC |
|-------------------------|---|--|---------------------------|
| Physical specifications | Dimensions (H x W x D, mm) | 43.6 mm x 442 mm x 420 mm | 43.6 mm x 442 mm x 420 mm |
| | Chassisheight | 1 U | 1 U |
| | Chassis weight (including packaging) | 8.2 kg | 8.6kg |
| Fixed port | GE port | 24 | 48 |
| | 10GE port | 4 | 4 |
| Extended slot | | One extended slot, support 4 x 40GE QSFP+, $2 x 40GE QSFP+$ and $8 x 10GE SFP+$ cards* | |
| Management port | ETH management port | Supported | Supported |
| | Console port (RJ45) | Supported | Supported |
| | USB port | USB 2.0 | USB 2.0 |
| CPU | Frequency | 1.2GHz | 1.2GHz |
| | Cores | 4 | 4 |

| ltem | | CloudEngine S5736-S24S4XC | CloudEngine S5736-S48S4XC |
|----------------------------|---|--|--|
| Storage | Memory (RAM) | 2 GB | 2 GB |
| | Flashmemory | 1 GB | 1 GB |
| Power supply system | Powersupplytype | 150 W AC 600 W AC 180 W DC 1000 W DC | 150 W AC 600 W AC 180 W DC 1000 W DC |
| | Power supply redundancy | 1+1 NOTE The backup power supply is optional. | 1+1 NOTE The backup power supplyis optional. |
| | Rated voltage range | AC input (150/600 W AC): 100 V AC to 240 V AC, 50/60 Hz DC input (180/1000 W DC): -48 VDC to -60 V DC | AC input (150/600 W AC): 100 V AC to 240 V AC, 50/60 Hz DC input (180/1000 W DC): -48 VDC to -60 V DC |
| | Maximum voltage range | AC input (150/600 W AC): 90 V AC to 290 V AC, 45 Hz to 65 Hz High-voltage DC input (600 W AC): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification) DC input (180/1000 W DC): -38.4 V DC to -72V DC | AC input (150/600 W AC): 90 V AC to 290 V AC, 45 Hz to 65 Hz High-voltage DC input (600 W AC): 190 V DC to 290 V DC (meeting 240 V high-voltage DC certification) DC input (180/1000 W DC): -38.4 V DC to -72V DC |
| | Maximum input current | 150W AC: 3A 180W DC: 6A 600W AC: 8A 1000W DC: 30A | 150W AC: 3A 180W DC: 6A 600W AC: 8A 1000W DC: 30A |
| | Maximum power consumption of the device | 74W | 100W |
| | Power consumption in the case of 30% traffic load ¹ | 63 W | 87 W |
| | Power consumption in the case of 100% traffic load ¹ | 64 W | 89 W |
| Heat dissipation system | Heat dissipation mode | Air-cooled heat dissipation and intelligent fan speed adjustment | Air-cooled heat dissipation and intelligent fan speed adjustment |
| | Number of fan modules | 2 | 2 |
| | Airflow | Air flows in from the left,right sides and front panel, exhausts from the rear panel | Air flows in from the left,right sides and front panel, exhausts from the rear panel |
| | Maximum heat dissipation of the device (BTU/hour) | 225.2 | 341.21 |

| ltem | | CloudEngine S5736-S24S4XC | CloudEngine S5736-S48S4XC |
|---------------------------|---|--|--|
| Environment parameters | Long-term operating temperature | 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m. | 0-1800 m altitude: -5°C to +45°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m. |
| | Short-term operating temperature ³ | 0-1800 m altitude: -5°C to +50°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m. | 0-1800 m altitude: -5°C to +50°C 1800-5000 m altitude: The operating temperature reduces by 1°C every time the altitude increases by 220 m. |
| | Storage temperature | -40°C to +70°C | -40°C to +70°C |
| | Relative humidity | 5% to 95% (non-condensing) | 5% to 95% (non-condensing) |
| | Operating altitude | 5000 m | 5000 m |
| | Noise under normal temperature (sound power) | 49.9 db(A) | 49.9 db(A) |
| | Noise under high temperature (sound power) | 73.9 db(A) | 73.9 db(A) |
| | Noise under normal temperature (sound pressure) | 37.8 db(A) | 37.8 db(A) |
| | Surge protection specification (power port) | AC power port: ±6 kV in differential mode, ±6 kV in common mode DC powerport: ±2 kV (in differential | AC power port: ±6 kV in differential mode, ±6 kV in common mode DC powerport +2 kV/in differential |
| | P 9 | DC power port: ±2 kV in differential mode, ±4 kV in common mode | DC power port: ±2 kV in differential mode, ±4 kV in common mode |
| Reliability | MTBF (year) ² | 65.79 | 53.69 |
| | MTTR (hour) | 2 | 2 |
| | Availability | > 0.99999 | > 0.99999 |
| Certification | | EMC certificationSafety certificationManufacturing certification | EMC certificationSafety certificationManufacturing certification |

*Note: The 8*10GE SFP+ subcard works as 8*10GE SFP+ by default, and can be changed to 2*25GE SFP28 as required.

Hardware specifications of CloudEngine S5736-S models

| Item | | CloudEngine S5736-S48S4X-A | CloudEngine S5736-S48S4X-D |
|-------------------------|---|----------------------------|----------------------------|
| Physical specifications | Dimensions (H x W x D, mm) | 43.6 x 442 x 220 | 43.6 x 442 x 220 |
| | Chassisheight | 1 U | 1 U |
| | Chassis weight (including packaging) | 4.7kg | 4.3kg |
| Fixed port | Multi-GE port | 48 | 48 |
| | 10GE SFP+ port | 4 | 4 |

| Item | | CloudEngine S5736-S48S4X-A | CloudEngine S5736-S48S4X-D |
|---------------------------|---|---|---|
| Management | ETH port | Supported | Supported |
| port | Console port (RJ45) | Supported | Supported |
| CPU | Frequency | 1.2 GHz | 1.2 GHz |
| | Cores | 4 | 4 |
| Storage | Memory (RAM) | 2 GB | 2 GB |
| | Flashmemory | 1 GB | 1 GB |
| Powersupply | Powersupplytype | Built-in AC | Built-in DC |
| system | Rated voltage range | • AC input: 100 V AC to 240 V AC, 50/60 Hz | • DC input: -48 V DC to -60 V DC |
| | | High-voltage DC input : 240 V DC | |
| | Maximum voltage range | AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz | DC input: -36 V DC to -72 V DC |
| | | High-voltage DC input: 190 V DC to 290 V DC (meeting 240 V high- voltage DC certification) | |
| | Maximum power consumption | 111 W | 108 W |
| | Power consumption in the case of 30% traffic load ¹ | 87 W | 87 W |
| | Power consumption in the case of 100% traffic load ¹ | 92 W | 92 W |
| | Minimum power consumption | 39 W | 39 W |
| Heat dissipation system | Heat dissipation mode | Air-cooled heat dissipation and intelligent fan speed adjustment | Air-cooled heat dissipation and intelligent fan speed adjustment |
| | Number of fan modules | 3 | 3 |
| | Airflow | Air flows in from the left side and front panel, and exhausts from the right side | Air flows in from the left side and front panel, and exhausts from the right side |
| | Maximum heat dissipation of the device (BTU/hour) | 378.74 | 368.51 |
| Environment parameters | Long-term operating | • 0-1800 m: -5°C to 45°C | • 0-1800 m: -5°C to 45°C |
| | temperature | 1800-5000 m: The operating temperature decreases 1°C every time the altitude increases 220 m. | 1800-5000 m: The operating temperature decreases 1°C every time the altitude increases 220 m. |
| | Short-term operating temperature | -5℃ ~50℃ | -5℃ ~50℃ |
| | Storagetemperature | -40°C to +70°C | -40°C to +70°C |
| | Relative humidity | 5%–95% (non-condensing) | 5%—95% (non-condensing) |

| ltem | | CloudEngine S5736-S48S4X-A | CloudEngine S5736-S48S4X-D |
|---------------|---|---|---|
| | Operating altitude | 5000 m | 5000 m |
| | Noise under normal temperature (sound power) | 56.8 dB (A) | 56.8 dB (A) |
| | Noise under high temperature (sound power) | 73.9 dB (A) | 73.9 dB (A) |
| | Noise under normal temperature (sound pressure) | 44.8 dB (A) | 44.8 dB (A) |
| | Surge protection specification (power port) | ±6 kV in differential mode ±6 kV in common mode | ±2 kV in differential mode ±4 kV in common mode |
| Reliability | MTBF (year) ² | 41.97 | 41.97 |
| | MTTR (hour) | 2 | 2 |
| | Availability | > 0.99999 | > 0.99999 |
| Certification | | EMC certificationSafety certification | EMC certificationSafety certification |
| | | Manufacturing certification | Manufacturing certification |
| | | For details about certifications, see the section Safety and Regulatory Compliance. | For details about certifications, see the section Safety and Regulatory Compliance. |

D NOTE

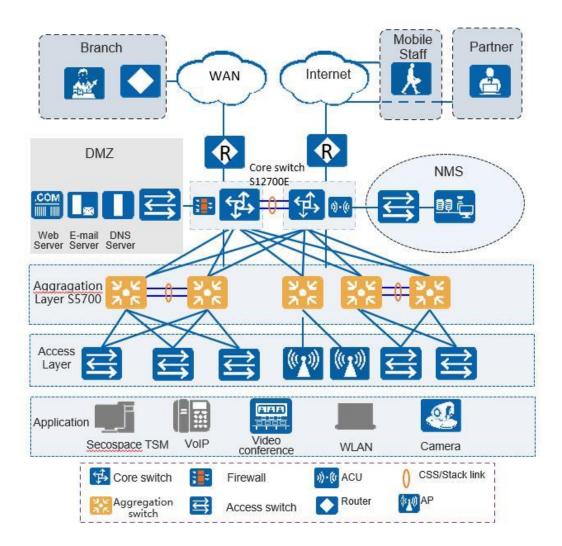
1: The power consumption under different load conditions is calculated according to the ATIS standard. Additionally, the EEE function is enabled and there is no PoE power output.

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.

Networking and Applications

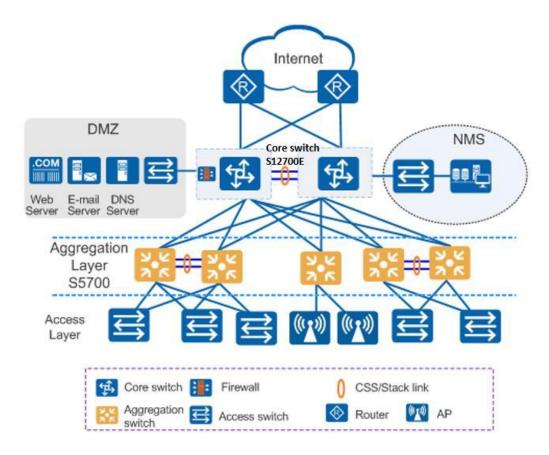
Large-Scale Enterprise Campus Network

CloudEngine S5736-S series switches can be deployed at the access layer of a campus network to build a high -performance and highly reliable enterprise network.



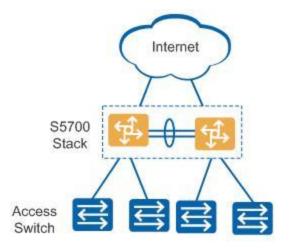
Small- or Medium-scale Enterprise Campus Network

CloudEngine S5736-S series switches can be deployed at the aggregation layer of a campus network to build a high-performance, multi-service, and highly reliable enterprise network.



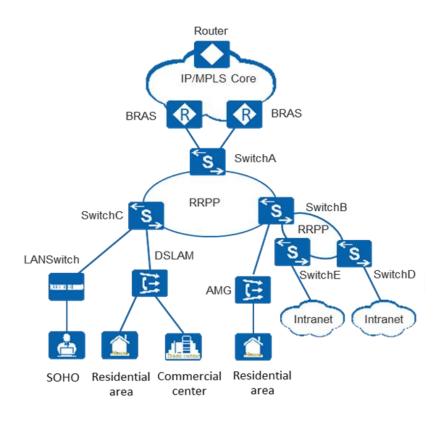
Small-scale Enterprise Campus Network

With powerful aggregation and routing capabilities of CloudEngine S5736-S series switches make them suitable for use as core switches in a small-scale enterprise network. Two or more S5736-S switches use iStack technology to ensure high reliability. They provide a variety of access control policies to achieve centralized management and simplify configuration.



Application on a MAN

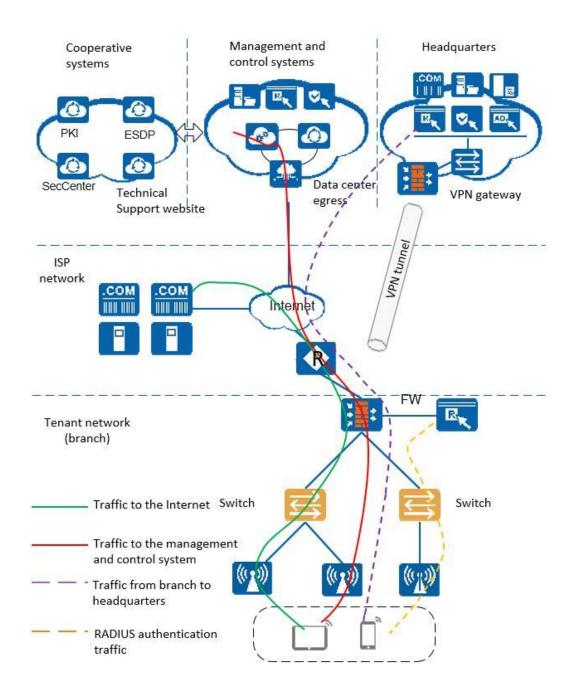
CloudEngine S5736-S series switches can be deployed at the access layer of a MAN (Metropolitan Area Network) to build a high-performance, multi-service, and highly reliable ISP MAN network.



Application in Public Cloud

CloudCampus Solution is a network solution suite based on Huawei public cloud. CloudEngine S5736-S 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 V200R019C10 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

The following table lists the safety and regulatory compliance of the CloudEngine S5736-S.

Safety and regulatory compliance of the CloudEngine S5736-S series

| Certification Category | Description |
|------------------------|------------------------|
| Safety | • IEC 60950-1 |
| | • EN 60950-1/A11/A12 |
| | • UL 60950-1 |
| | • CSA C22.2 No 60950-1 |
| | • AS/NZS 60950.1 |
| | • CNS 14336-1 |
| | • IEC60825-1 |
| | • IEC60825-2 |

| Certification Category | Description |
|-------------------------------------|----------------------------|
| | • EN60825-1 |
| | • EN60825-2 |
| Electromagnetic Compatibility (EMC) | 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 |
| | • IEC61000-4-2 |
| | • ITU-T K 20 |
| | • ITU-T K 21 |
| | • ITU-T K 44 |
| | • CNS13438 |
| Environment | • 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

The following table lists the MIBs supported by the CloudEngine S5736-S.

MIBs supported by the Cloud Engine S5736-Sseries

| Category | мів |
|------------|------------|
| Public MIB | BRIDGE-MIB |

| Category | мів |
|------------------------|-----------------------------------|
| | 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 |
| | MPLS-FTN-STD-MIB |
| | MPLS-L3VPN-STD-MIB |
| | MPLS-LDP-GENERIC-STD-MIB |
| | MPLS-LDP-STD-MIB |
| | MPLS-LSR-STD-MIB |
| | MPLS-TE-STD-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 | 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 |

| Cotogony | MID |
|----------|---------------------------|
| Category | |
| | |
| | |
| | HUAWEI-CONFIG-MAN-MIB |
| | HUAWEI-CPU-MIB |
| | HUAWEI-DAD-TRAP-MIB |
| | HUAWEI-DC-MIB |
| | 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-BGP-VPN-MIB |

| Category | мів |
|----------|-----------------------------|
| | HUAWEI-CCC-MIB |
| | HUAWEI-MULTICAST-MIB |
| | HUAWEI-NAP-MIB |
| | HUAWEI-NTPV3-MIB |
| | HUAWEI-PERFORMANCE-MIB |
| | HUAWEI-PORT-MIB |
| | HUAWEI-PORTAL-MIB |
| | HUAWEI-QINQ-MIB |
| | 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 |

Standard Compliance

The following table lists the standards that the CloudEngine S5736-S complies with.

Standard compliance list of the CloudEngine S5736-S series

| Standard Organization | Standard or Protocol |
|-----------------------|--|
| IETF | 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 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 |

| Standard Organization | Standard or 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 2328 OSPF Version 2 |
| | RFC 2453 RIP Version 2 |
| | RFC 2460 Internet Protocol, Version 6 Specification (IPv6) |
| | RFC 2461 Neighbor Discoveryfor 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 | 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 |

| Standard Organization | Standard or 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 |
| ITU | ITU SG13 Y.17ethoam |
| | ITU SG13 QoS control Ethernet-Based IP Access |
| | ITU-T Y.1731 ETH OAM performance monitor |
| ISO | ISO 10589 IS-IS Routing Protocol |
| MEF | 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 |

Ordering Information

The following table lists ordering information of the CloudEngine S5736-S series switches.

| Model | Product Description |
|-------------------------------|--|
| CloudEngine S5736-S24S4XC | CloudEngine S5736-S24S4XC (24 x GE SFP ports, 4 x 10 GE SFP+ ports, 1*expansion slot, without power module) |
| CloudEngine S5736-S48S4XC | CloudEngine S5736-S48S4XC (48 x GE SFP ports, 4 x 10 GE SFP+ port, 1*expansion slot, without power module) |
| CloudEngine S5736-S48S4X-A | CloudEngine S5736-S48S4X-Abase (48*GE SFP ports, optional RTU upgrade to 10G, 4*10GE SFP+ ports, AC power supply, front access) |
| CloudEngine S5736-S48S4X-D | CloudEngine S5736-S48S4X-D base (48*GE SFP ports, optional RTU upgrade to 10G, 4*10GE SFP+ ports, DC power supply, front access) |
| PAC150S12-R | 150 W AC power module |
| PDC180S12-CR | 180 W DC power module |
| PAC600S12-CB | 600 W AC power module |
| PAC600S12-DB | 600 W AC power module |
| PAC600S12-EB | 600 W AC power module |
| PDC1000S12-DB | 1000 W DC power module |
| S7X08000 | 8-port 10GE SFP+ interface card |
| S7Q02001 | 2-port 40GE QSFP+ interface card |
| ES5D21Q02Q00 | 2-port 40GE QSFP+ interface card |

| Model | Product Description |
|---------------------------|--|
| ES5D21Q04Q01 | 4-port 40GE QSFP+ interface card |
| L-P1GUPG10G- S57S | S57-S Series, SFP 1G to 10G Electronic RTU License,Per Device |
| N1-S57S-M-Lic | S57XX-S Series Basic SW, Per Device |
| N1-S57S-M-SnS1Y | S57XX-S Series Basic SW,SnS,Per Device,1Year |
| N1-S57S-F-Lic | N1-CloudCampus,Foundation,S57XX-S Series,Per Device |
| N1-S57S-F-SnS | N1-CloudCampus,Foundation,S57XX-S Series,SnS,Per Device,1Year |
| N1-S57S-A-Lite-Lic | N1-CloudCampus,Advanced,S57XX-S Series,Per Device |
| N1-S57S-A-Lite- SnS | N1-CloudCampus,Advanced,S57XX-S Series,SnS,PerDevice,1Year |
| N1-S57S-FToA- Lite-Lic | N1-Upgrade-Foundation to Advanced, S57XX-S, Per Device |
| N1-S57S-FToA- Lite-SnS | N1-Upgrade-Foundation to Advanced,S57XX-S,SnS,Per Device,1Year |

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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