# Huawei CloudEngine S3710-H Series Switches Datasheet

Huawei CloudEngine S3710-H series are simplified gigabit Ethernet switches that provide 24/48 x GE downlink ports, 4 x GE uplink ports.

## Introduction

CloudEngine S3710-H series switches are ideal for scenarios such as enterprise campus network access and gigabit to the desktop. Built on next-generation, high-performance hardware and software platform, CloudEngine S3710-H switches stand out with compelling features such as flexible Ethernet networking, and diversified security control.

## Product Overview

### Models and Appearances

The following models are available in the CloudEngine S3710-H series.

Models and appearances of the CloudEngine S3710-H series

| Models and Appearances | Description |
|---|---|
| <br>CloudEngine S3710-H24P4S-A | • 24 x 10/100/1000Base-T ports, 4 x GE SFP ports<br>• PoE+<br>• AC power supply<br>• Forwarding performance: 42 Mpps<br>• Switching capacity: 56 Gbps/520 Gbps* |
| <br>CloudEngine S3710-H24T4S-A | • 24 x 10/100/1000Base-T ports, 4 x GE SFP ports<br>• AC power supply<br>• Forwarding performance: 42 Mpps<br>• Switching capacity: 56 Gbps/520 Gbps* |
| <br>CloudEngine S3710-H48LP4S-A | • 48 x 10/100/1000Base-T ports, 4 x GE SFP ports<br>• AC power supply<br>• PoE+<br>• Forwarding performance: 78 Mpps<br>• Switching capacity: 104 Gbps/520 Gbps* |
| <br>CloudEngine S3710-H48T4S-A | • 48 x 10/100/1000Base-T ports, 4 x GE SFP ports<br>• AC power supply<br>• Forwarding performance: 78 Mpps |

| Models and Appearances | Description |
| --- | --- |
| | • Switching capacity: 104 Gbps/520 Gbps* |

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

## Power Supply

Power supply of CloudEngine S3710-H24P4S-A

| Power Module | Available PoE Power | Maximum Number of Ports (Fully Loaded) |
| --- | --- | --- |
| Built-in AC Power Module | 400 W | • 802.3af (15.4 W per port): 24<br>• 802.3at (30 W per port): 13 |

Power supply of CloudEngine S3710-H48LP4S-A

| Power Module | Available PoE Power | Maximum Number of Ports (Fully Loaded) |
| --- | --- | --- |
| Built-in AC Power Module | 380 W | • 802.3af (15.4 W per port): 24<br>• 802.3at (30 W per port): 12 |

# Product Features and Highlights

## Flexible Ethernet Networking

- In addition to supporting traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), CloudEngine S3710-H is also designed with the industry's latest Ethernet Ring Protection Switching (ERPS) technology. ERPS is defined in ITU-T G.8032, and it implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.
- CloudEngine S3710-H supports Smart Link, which implements backup of uplinks. One CloudEngine S3710-H switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.

## Diversified Security Control

- CloudEngine S3710-H supports 802.1X authentication, MAC address authentication, and hybrid authentication on a per port basis, and implements dynamic policy delivery (VLAN, QoS, and ACL) to users.
- CloudEngine S3710-H provides a series of mechanisms to defend against DoS attacks and user-targeted attacks. DoS attacks are targeted at switches and include SYN flood, Land, Smurf, and ICMP flood attacks. User-targeted attacks include bogus DHCP server attacks, IP/MAC address spoofing, DHCP request flood, and changing of the DHCP CHADDR value.
- CloudEngine S3710-H sets up and maintains a DHCP snooping binding table, and discards the packets that do not match the table entries. The DHCP snooping trusted port feature ensures that users connect only to the authorized DHCP server.
- CloudEngine S3710-H supports strict ARP learning. This feature prevents ARP spoofing attackers from exhausting ARP entries so that users can connect to the Internet normally.

## Easy Operation and Maintenance

- CloudEngine S3710-H supports Huawei Easy Operation, a solution that provides zero-touch deployment, replacement of faulty devices without additional configuration, USB-based deployment*, batch device configuration, and batch remote upgrade. The Easy Operation solution facilitates device deployment, upgrade, service provisioning, and other management and maintenance operations, and also greatly reduces O&M costs. CloudEngine S3710-H can be managed and maintained using Simple Network Management Protocol (SNMP) V1, V2, and V3, Command Line Interface (CLI), web-based network management system, or Secure Shell (SSH) V2.0. Additionally, it supports remote network monitoring (RMON), multiple log hosts, port traffic statistics collection, and network quality analysis, paving the way for network optimization and reconstruction.
- CloudEngine S3710-H supports MUX VLAN, which involves a principal VLAN and multiple subordinate VLANs. Subordinate VLANs are classified into group VLANs and separate VLANs. Ports in the principal VLAN can communicate with

ports in subordinate VLANs. Ports in a subordinate group VLAN can communicate with each other, whereas ports in a subordinate separate VLAN cannot communicate with each other. CloudEngine S3710-H also supports VLAN-Based Spanning Tree (VBST) protocol.

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

### PoE Function

- **Perpetual PoE**: When a PoE switch is abnormal Power-off or the software version is upgraded, the power supply to PDs is not interrupted. This capability ensures that PDs are not powered off during the switch reboot.
- **Fast PoE**: PoE switches can supply power to PDs within seconds after they are powered on. This is different from common switches that generally take 1 to 3 minutes to start to supply power to PDs. When a PoE switch reboots due to a power failure, the PoE switch continues to supply power to the PDs immediately after being powered on without waiting until it finishes reboot. This greatly shortens the power failure time of PDs.

### Intelligent O&M

- CloudEngine S3710-H provides telemetry technology to collect device data in real time and send the data to Huawei campus network analyzer CampusInsight. The CampusInsight analyzes network data based on the intelligent fault identification algorithm, accurately displays the real-time network status, effectively demarcates and locates faults in a timely manner, and identifies network problems that affect user experience, accurately guaranteeing user experience.

### Intelligent Upgrade

- CloudEngine S3710-H supports the intelligent upgrade feature. Specifically, CloudEngine S3710-H obtains the version upgrade path and downloads the newest version for upgrade from the Huawei Online Upgrade Platform (HOUP). The entire upgrade process is highly automated and achieves one-click upgrade. In addition, preloading the version is supported, which greatly shortens the upgrade time and service interruption time.
- The intelligent upgrade feature greatly simplifies device upgrade operations and makes it possible for the customer to upgrade the version independently. This greatly reduces the customer's maintenance costs. In addition, the upgrade policies on the HOUP platform standardize the upgrade operations, which greatly reduces the risk of upgrade failures.

### Cloud Management

- The Huawei cloud management platform allows users to configure, monitor, and inspect switches on the cloud, reducing on-site deployment and O&M manpower costs and decreasing network OPEX. Huawei switches support both cloud management and on-premise management modes. These two management modes can be flexibly switched as required to achieve smooth evolution while maximizing return on investment (ROI).

### OPS

- CloudEngine S3710-H supports Open Programmability System (OPS), an open programmable system based on the Python language. IT administrators can program the O&M functions of a CloudEngine S3710-H switch through Python scripts to quickly innovate functions and implement intelligent O&M.

## Licensing

CloudEngine S3710-H 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:**<br>Layer 2 functions, IPv4, IPv6 and others<br>Note: For details, see the Service Features | √ | √ | √ |

| Switch Functions | N1 Basic Software | N1 Foundation Software Package | N1 Advanced Software Package |
|---|---|---|---|
| **Basic network automation based on the iMaster NCE-Campus:**<br>• Basic automation: Plug-and-play<br>• Basic monitoring: Application visualization<br>• NE management: Image and topology management and discovery<br>• User access authentication | × | √ | √ |
| **Advanced network automation and intelligent O&M:**<br>CampusInsight basic functions | × | × | √ |

# Product Specifications

## Functions and Features

| Item | Description |
|---|---|
| MAC address table | MAC address learning and aging |
| | 10K MAC entries (MAX) |
| | Static, dynamic, and blackhole MAC address entries |
| | Packet filtering based on source MAC addresses |
| | Interface-based MAC learning limiting |
| VLAN features | 4094 VLANs |
| | Voice VLAN |
| | MUX VLAN |
| | VLAN assignment based on MAC addresses, protocols, IP subnets, policies, and interfaces |
| | VLAN Stacking |
| Ethernet loop protection | Smart Link tree topology and Smart Link multi-instance, providing millisecond-level protection switchover |
| | ERPS (G.8032) |
| | STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s) |
| | BPDU protection, root protection, and loop protection |
| | BPDU tunnel |
| Multicast | IGMPv1/v2/v3 snooping |
| | Multicast load balancing among member ports of a trunk |
| | Interface-based multicast traffic statistics |
| IP routing | Static route |
| | Up to 64 FIBv4 entries (MAX) |
| | Up to 64 FIBv6 entries (MAX) |

| Item | Description |
| --- | --- |
| IPv6 features | Up to 64 ND entries (MAX) |
| | Path MTU (PMTU) |
| | IPv6 ping, IPv6 tracert, and IPv6 Telnet |
| Reliability | LACP |
| | VRRP |
| | BFD |
| QoS/ACL | Rate limiting on packets sent and received by an interface |
| | Packet redirection |
| | Interface-based traffic policing and two-rate and three-color CAR |
| | Eight queues on each interface |
| | DRR, SP, and DRR+SP queue scheduling algorithms |
| | Re-marking of the 802.1p priority and DSCP priority |
| | Packet filtering at Layer 2 to Layer 4, filtering out invalid frames based on the source MAC address, destination MAC address, source IP address, destination IP address, TCP/UDP port number, protocol type, and VLAN ID |
| | Rate limiting in each queue and traffic shaping on interfaces |
| Security | Hierarchical user management and password protection |
| | DoS attack defense, ARP attack defense, and ICMP attack defense |
| | Binding of the IP address, MAC address, interface number, and VLAN ID |
| | Port isolation, port security, and sticky MAC |
| | Blackhole MAC address entries |
| | Limit on the number of learned MAC addresses |
| | IEEE 802.1x authentication and limit on the number of users on an interface |
| | AAA authentication, RADIUS authentication, HWTACACS authentication, and NAC |
| | SSH V2.0 |
| | Hypertext Transfer Protocol Secure (HTTPS) |
| | CPU defense |
| | Blacklist and whitelist |
| | DHCP Client, DHCP Snooping |
| | DHCPv6 Client, DHCPv6 Snooping |
| Management and maintenance | Cloud management based on Netconf/Yang |
| | Virtual Cable Test (VCT) |
| | Remote configuration and maintenance using Telnet |
| | SNMPv1/v2/v3 |
| | RMON |

| Item | Description |
|---|---|
| | eSight and web-based NMS |
| | HTTPS |
| | LLDP/LLDP-MED |
| | System logs and multi-level alarms |
| | 802.3az EEE |
| Interoperability | Supports VBST (Compatible with PVST/PVST+/RPVST) |

## Hardware Specifications

Hardware specifications of CloudEngine S3710-H24P4S-A/S3710-H24T4S-A/S3710-H48LP4S-A/S3710-H48T4S-A models

| Item | | CloudEngine S3710-H24P4S-A | CloudEngine S3710-H24T4S-A | CloudEngine S3710-H48LP4S-A | CloudEngine S3710-H48T4S-A |
|---|---|---|---|---|---|
| Physical specifications | Dimensions (H x W x D) | 43.6 mm x 442 mm x 220 mm | 43.6 mm x 442 mm x 220 mm | 43.6 mm x 442 mm x 220 mm | 43.6 mm x 442 mm x 220 mm |
| | Chassis height | 1 U | 1 U | 1 U | 1 U |
| | Chassis weight (including packaging) | 6.76 kg | 5.87 kg | 7.57 kg | 6.39 kg |
| Fixed port | GE port | 24(PoE+) | 24 | 48(PoE+) | 48 |
| | GE SFP port | 4 | 4 | 4 | 4 |
| | 10GE port | NA | NA | NA | NA |
| Management port | Console port (RJ45) | Supported | Supported | Supported | Supported |
| | USB Port | NA | NA | NA | NA |
| CPU | Frequency | 1.1 GHz | 1.1 GHz | 1.1 GHz | 1.1 GHz |
| | Core | 2 | 2 | 2 | 2 |
| Storage | Memory (RAM) | 2 GB | 2 GB | 2 GB | 2 GB |
| | Flash memory | 1 GB in total. To view the available flash memory size, run the display | 1 GB in total. To view the available flash memory size, run the display | 1 GB in total. To view the available flash memory size, run the display | 1 GB in total. To view the available flash memory size, run the display |
| Power supply system | Power supply type | Built-in AC | Built-in AC | Built-in AC | Built-in AC |
| | Rated voltage range | 100 V AC to 240 V AC, 50/60 Hz | 100 V AC to 240 V AC, 50/60 Hz | 100 V AC to 240 V AC, 50/60 Hz | 100 V AC to 240 V AC, 50/60 Hz |
| | Maximum voltage range | • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz | • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz | • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz | • AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz |
| | Maximum input current | 6 A | 0.8 A | 6 A | 1.6 A |
| | Maximum power consumption of the | • 43.6 W (without PD) | 33.4 W | • 52.48 W (without PD) | 43 W |

| Item | | CloudEngine S3710-H24P4S-A | CloudEngine S3710-H24T4S-A | CloudEngine S3710-H48LP4S-A | CloudEngine S3710-H48T4S-A |
|---|---|---|---|---|---|
| | device | • 488.6 W (with PD, PD power consumption of 400 W) | | • 474.7 W (with PD, PD power consumption of 380 W) | |
| | Typical power consumption | 36.6 W | 26.6 W | 44 W | 36 W |
| | Power consumption in the case of 100% traffic load[1] | 36.6 W | 27.6 W | 46 W | 37 W |
| Heat dissipation system | Heat dissipation mode | Air-cooled heat dissipation and intelligent speed adjustment | Air-cooled heat dissipation and intelligent speed adjustment | Air-cooled heat dissipation and intelligent speed adjustment | Air-cooled heat dissipation and intelligent speed adjustment |
| | Number of fan modules | 2 | 1 | 2 | 1 |
| | Airflow | Air intake from left and front, air exhaustion from right | Air intake from left and front, air exhaustion from right | Air intake from left, air exhaustion from right | Air intake from left, air exhaustion from right |
| | Maximum heat dissipation of the device (BTU/hour) | • Without PDs: 148.77<br>• With PDs: 1667.15 | 113.96 | • Without PDs: 179.07<br>• With PDs: 1619.72 | 146.72 |
| Environment parameters | Long-term operating temperature | • 0-1800 m altitude: -5°C to +50°C<br>• 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m. | • 0-1800 m altitude: -5°C to +50°C<br>• 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m. | • 0-1800 m altitude: -5°C to +50°C<br>• 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m. | • 0-1800 m altitude: -5°C to +50°C<br>• 1800-5000 m altitude: The operating temperature reduces by 1ºC every time the altitude increases by 220 m. |
| | Storage temperature | -40°C to +70°C | -40°C to +70°C | -40°C to +70°C | -40°C to +70°C |
| | Relative humidity | 5%-95%(non-condensing) | 5%-95%(non-condensing) | 5%-95%(non-condensing) | 5%-95%(non-condensing) |
| | Operating altitude | 5000 m | 5000 m | 5000 m | 5000 m |
| | Noise under normal temperature (sound power) | 49.3 dB(A) | 47 dB(A) | 49.3 dB(A) | 46.6 dB(A) |
| | Noise under high temperature (sound power) | 63 dB(A) | 51 dB(A) | 63 dB(A) | 54.3 dB(A) |
| | Noise under normal | 37.3 dB(A) | 35 dB(A) | 37.3 dB(A) | 34.6 dB(A) |

| Item | | CloudEngine S3710-H24P4S-A | CloudEngine S3710-H24T4S-A | CloudEngine S3710-H48LP4S-A | CloudEngine S3710-H48T4S-A |
|---|---|---|---|---|---|
| | temperature (sound pressure) | | | | |
| | Surge protection specification (RJ45 service port) | ±7 kV in common mode | ±7 kV in common mode | ±6 kV in common mode | ±7 kV in common mode |
| | Surge protection specification (power port) | • Differential mode: ± 6 kV<br>• Common mode: ± 6 kV | • Differential mode: ± 6 kV<br>• Common mode: ± 6 kV | • Differential mode: ± 6 kV<br>• Common mode: ± 6 kV | • Differential mode: ± 6 kV<br>• Common mode: ± 6 kV |
| Reliability | MTBF (year)[2] | 60.18 | 70.75 | 48.14 | 40.61 |
| | MTTR (hour) | 2 | 2 | 2 | 2 |
| | Availability | > 0.99999 | > 0.99999 | > 0.99999 | > 0.99999 |
| Certification | | • EMC certification<br>• Safety certification<br>• Manufacturing certification | • EMC certification<br>• Safety certification<br>• Manufacturing certification | • EMC certification<br>• Safety certification<br>• Manufacturing certification | • EMC certification<br>• Safety certification<br>• Manufacturing certification |

NOTE

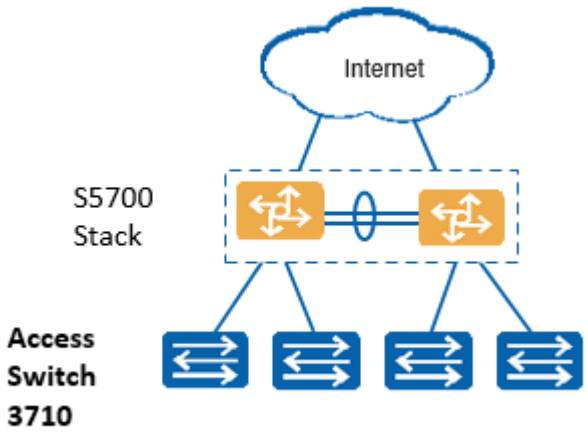
1: The power consumption under different load conditions is calculated according to the ATIS standard. Additionally, the EEE function is enabled and there is no PoE power output.

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

# Networking and Applications

## Small-scale Enterprise Campus Network

CloudEngine S3710-H series switches make them suitable for use as access switches in a small-scale enterprise network. They provide a variety of access control policies to achieve centralized management and simplify configuration.



# Safety and Regulatory Compliance

Safety and regulatory compliance of the CloudEngine S3710-H series

| Certification Category | Description |
| --- | --- |
| Safety | • IEC 60950-1<br>• EN 60950-1/A11/A12<br>• UL 60950-1<br>• CSA C22.2 No 60950-1<br>• AS/NZS 60950.1<br>• CNS 14336-1 |
| Laser safety | • IEC60825-1<br>• IEC60825-2<br>• EN60825-1<br>• EN60825-2 |
| Electromagnetic Compatibility (EMC) | • CISPR22 Class A<br>• CISPR24<br>• EN55022 Class A<br>• EN55024<br>• ETSI EN 300 386 Class A<br>• CFR 47 FCC Part 15 Class A<br>• ICES 003 Class A<br>• AS/NZS CISPR22 Class A<br>• VCCI Class A<br>• EN61000-3-2<br>• EN61000-3-3<br>• IEC61000-4-2<br>• ITU-T K 20<br>• ITU-T K 21<br>• ITU-T K 44<br>• CNS13438 |
| Environment | • RoHS<br>• REACH<br>• WEEE |

**NOTE**

- EMC: electromagnetic compatibility
- CISPR: International Special Committee on Radio Interference
- EN: European Standard
- ETSI: European Telecommunications Standards Institute
- CFR: Code of Federal Regulations
- FCC: Federal Communication Commission
- IEC: International Electrotechnical Commission
- AS/NZS: Australian/New Zealand Standard
- VCCI: Voluntary Control Council for Interference
- UL: Underwriters Laboratories

- CSA: Canadian Standards Association
- IEEE: Institute of Electrical and Electronics Engineers
- RoHS: restriction of the use of certain hazardous substances
- REACH: Registration Evaluation Authorization and Restriction of Chemicals
- WEEE: Waste Electrical and Electronic Equipment

# MIB and Standards Compliance

## Supported MIBs

Supported MIBs by the CloudEngine S3710-H series

| Category | MIB |
| --- | --- |
| Public MIB | • BRIDGE-MIB<br>• DISMAN-NSLOOKUP-MIB<br>• DISMAN-PING-MIB<br>• DISMAN-TRACEROUTE-MIB<br>• ENTITY-MIB<br>• EtherLike-MIB<br>• IF-MIB<br>• IP-FORWARD-MIB<br>• IPv6-MIB<br>• LAG-MIB<br>• LLDP-EXT-DOT1-MIB<br>• LLDP-EXT-DOT3-MIB<br>• LLDP-MIB<br>• NOTIFICATION-LOG-MIB<br>• NQA-MIB<br>• P-BRIDGE-MIB<br>• Q-BRIDGE-MIB<br>• RFC1213-MIB<br>• RMON-MIB<br>• SAVI-MIB<br>• SNMP-FRAMEWORK-MIB<br>• SNMP-MPD-MIB<br>• SNMP-NOTIFICATION-MIB<br>• SNMP-TARGET-MIB<br>• SNMP-USER-BASED-SM-MIB<br>• SNMPv2-MIB<br>• SNMP-VIEW-BASED-ACM-MIB<br>• TCP-MIB<br>• UDP-MIB |
| Huawei-proprietary MIB | • HUAWEI-AAA-MIB<br>• HUAWEI-ACL-MIB<br>• HUAWEI-ALARM-MIB<br>• HUAWEI-ALARM-RELIABILITY-MIB |

| Category | MIB |
| --- | --- |
| | • HUAWEI-BASE-TRAP-MIB<br>• HUAWEI-BRAS-RADIUS-MIB<br>• HUAWEI-BRAS-SRVCFG-EAP-MIB<br>• HUAWEI-BRAS-SRVCFG-STATICUSER-MIB<br>• HUAWEI-CBQOS-MIB<br>• HUAWEI-CDP-COMPLIANCE-MIB<br>• HUAWEI-CONFIG-MAN-MIB<br>• HUAWEI-CPU-MIB<br>• HUAWEI-DAD-TRAP-MIB<br>• HUAWEI-DATASYNC-MIB<br>• HUAWEI-DEVICE-MIB<br>• HUAWEI-DHCPR-MIB<br>• HUAWEI-DHCPS-MIB<br>• HUAWEI-DHCP-SNOOPING-MIB<br>• HUAWEI-DIE-MIB<br>• HUAWEI-DNS-MIB<br>• HUAWEI-DLDP-MIB<br>• HUAWEI-ERPS-MIB<br>• HUAWEI-ERRORDOWN-MIB<br>• HUAWEI-ENERGYMNGT-MIB<br>• HUAWEI-EASY-OPERATION-MIB<br>• HUAWEI-ENTITY-EXTENT-MIB<br>• HUAWEI-ENTITY-TRAP-MIB<br>• HUAWEI-ETHARP-MIB<br>• HUAWEI-ETHOAM-MIB<br>• HUAWEI-FLASH-MAN-MIB<br>• HUAWEI-FWD-RES-TRAP-MIB<br>• HUAWEI-GARP-APP-MIB<br>• HUAWEI-GTL-MIB<br>• HUAWEI-HGMP-MIB<br>• HUAWEI-HWTACACS-MIB<br>• HUAWEI-IF-EXT-MIB<br>• HUAWEI-INFOCENTER-MIB<br>• HUAWEI-IPPOOL-MIB<br>• HUAWEI-IPV6-MIB<br>• HUAWEI-ISOLATE-MIB<br>• HUAWEI-L2IF-MIB<br>• HUAWEI-L2MAM-MIB<br>• HUAWEI-L2VLAN-MIB<br>• HUAWEI_LDT-MIB<br>• HUAWEI-LLDP-MIB<br>• HUAWEI-MAC-AUTHEN-MIB<br>• HUAWEI-MEMORY-MIB<br>• HUAWEI-MFF-MIB<br>• HUAWEI-MFLP-MIB |

| Category | MIB |
| --- | --- |
| | • HUAWEI-MSTP-MIB<br>• HUAWEI-MULTICAST-MIB<br>• HUAWEI-NTPV3-MIB<br>• HUAWEI-PERFORMANCE-MIB<br>• HUAWEI-PERFMGMT-MIB<br>• HUAWEI-PORT-MIB<br>• HUAWEI-PORTAL-MIB<br>• HUAWEI-QINQ-MIB<br>• HUAWEI-RM-EXT-MIB<br>• HUAWEI-RRPP-MIB<br>• HUAWEI-SECURITY-MIB<br>• HUAWEI-SEP-MIB<br>• HUAWEI-SNMP-EXT-MIB<br>• HUAWEI-SSH-MIB<br>• HUAWEI-STACK-MIB<br>• HUAWEI-SWITCH-L2MAM-EXT-MIB<br>• HUAWEI-SWITCH-SRV-TRAP-MIB<br>• HUAWEI-SYS-MAN-MIB<br>• HUAWEI-TCP-MIB<br>• HUAWEI-TFTPC-MIB<br>• HUAWEI-TRNG-MIB<br>• HUAWEI-UNIMNG-MIB<br>• HUAWEI-USA-MIB<br>• HUAWEI-XQOS-MIB |

NOTE

For more detailed information of MIBs supported by the CloudEngine S3710-H series, visit https://support.huawei.com/enterprise/en/switches/s5700-pid-6691579?category=reference-guides&subcategory=mib-reference.

## Standard Compliance

Standard compliance list of the CloudEngine S3710-H series

| Standard Organization | Standard or Protocol |
| --- | --- |
| IETF | • RFC 768 User Datagram Protocol (UDP)<br>• RFC 792 Internet Control Message Protocol (ICMP)<br>• RFC 793 Transmission Control Protocol (TCP)<br>• RFC 826 Ethernet Address Resolution Protocol (ARP)<br>• RFC 854 Telnet Protocol Specification<br>• RFC 951 Bootstrap Protocol (BOOTP)<br>• RFC 959 File Transfer Protocol (FTP)<br>• RFC 1058 Routing Information Protocol (RIP)<br>• RFC 1112 Host extensions for IP multicasting<br>• RFC 1157 A Simple Network Management Protocol (SNMP)<br>• RFC 1256 ICMP Router Discovery<br>• RFC 1305 Network Time Protocol Version 3 (NTP) |

| Standard Organization | Standard or Protocol |
| --- | --- |
| | • RFC 1349 Internet Protocol (IP)<br>• RFC 1493 Definitions of Managed Objects for Bridges<br>• RFC 1542 Clarifications and Extensions for the Bootstrap Protocol<br>• RFC 1643 Ethernet Interface MIB<br>• RFC 1757 Remote Network Monitoring (RMON)<br>• RFC 1901 Introduction to Community-based SNMPv2<br>• RFC 1902-1907 SNMP v2<br>• RFC 1981 Path MTU Discovery for IP version 6<br>• RFC 2131 Dynamic Host Configuration Protocol (DHCP)<br>• RFC 2460 Internet Protocol, Version 6 Specification (IPv6)<br>• RFC 2461 Neighbor Discovery for IP Version 6 (IPv6)<br>• RFC 2462 IPv6 Stateless Address Auto configuration<br>• RFC 2463 Internet Control Message Protocol for IPv6 (ICMPv6)<br>• RFC 2474 Differentiated Services Field (DS Field)<br>• RFC 2863 The Interfaces Group MIB<br>• RFC 2597 Assured Forwarding PHB Group<br>• RFC 2598 An Expedited Forwarding PHB<br>• RFC 2571 SNMP Management Frameworks<br>• RFC 2865 Remote Authentication Dial In User Service (RADIUS)<br>• RFC 3046 DHCP Option82<br>• RFC 3513 IP Version 6 Addressing Architecture<br>• RFC 3579 RADIUS Support For EAP<br>• draft-grant-tacacs-02 TACACS+<br>• RFC 6241 Network Configuration Protocol (NETCONF)<br>• RFC 6020 YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF) |
| IEEE | • IEEE 802.1D Media Access Control (MAC) Bridges<br>• IEEE 802.1p Traffic Class Expediting and Dynamic Multicast Filtering<br>• IEEE 802.1Q Virtual Bridged Local Area Networks<br>• IEEE 802.1ad Provider Bridges<br>• IEEE 802.2 Logical Link Control<br>• IEEE Std 802.3 CSMA/CD<br>• IEEE Std 802.3ab 1000BASE-T specification<br>• IEEE Std 802.3ad Aggregation of Multiple Link Segments<br>• IEEE Std 802.3ae 10GE WEN/LAN Standard<br>• IEEE Std 802.3x Full Duplex and flow control<br>• IEEE Std 802.3z Gigabit Ethernet Standard<br>• IEEE802.1ax/IEEE802.3ad Link Aggregation<br>• IEEE 802.1ab Link Layer Discovery Protocol<br>• IEEE 802.1D Spanning Tree Protocol<br>• IEEE 802.1w Rapid Spanning Tree Protocol<br>• IEEE 802.1s Multiple Spanning Tree Protocol<br>• IEEE 802.1x Port based network access control protocol<br>• IEEE 802.3af DTE Power via MIDI |

| Standard Organization | Standard or Protocol |
|---|---|
| | • IEEE 802.3at DTE Power via the MDI Enhancements<br>• IEEE 802.3az Energy Efficient Ethernet |
| ITU | • ITU SG13 Y.17ethoam<br>• ITU SG13 QoS control Ethernet-Based IP Access<br>• ITU-T Y.1731 ETH OAM performance monitor |
| MEF | • MEF 2 Requirements and Framework for Ethernet Service Protection<br>• MEF 9 Abstract Test Suite for Ethernet Services at the UNI<br>• MEF 11 UNI Requirements and Framework<br>• MEF 15 Requirements for Management of Metro Ethernet Phase 1 Network Elements<br>• MEF 17 Service OAM Framework and Requirements<br>• MEF 20 UNI Type 2 Implementation Agreement<br>• MEF 23 Class of Service Phase 1 Implementation Agreement<br>• XMODEM/YMODEM Protocol Reference |

**NOTE**

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

# Ordering Information

| Model | Product Description |
|---|---|
| CloudEngine S3710-H24P4S-A | CloudEngine S3710-H24P4S-A (24*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power) |
| CloudEngine S3710-H24T4S-A | CloudEngine S3710-H24T4S-A (24*10/100/1000BASE-T ports, 4*GE SFP ports, AC power) |
| CloudEngine S3710-H48LP4S-A | CloudEngine S3710-H48LP4S-A (48*10/100/1000BASE-T ports, 4*GE SFP ports, PoE+, AC power) |
| CloudEngine S3710-H48T4S-A | CloudEngine S3710-H48T4S-A (48*10/100/1000BASE-T ports, 4*GE SFP ports, AC power) |
| L-MLIC-S37H | S37XX-H Series Basic SW,Per Device |
| N1-S37H-M-Lic | S37XX-H Series Basic SW,Per Device |
| N1-S37H-M-SnS-1Y | S37XX-H Series Basic SW,SnS,Per Device,1 Year |
| N1-S37H-M-SnS-3Y | S37XX-H Series Basic SW,SnS,Per Device,3 Year |
| N1-S37H-M-SnS-5Y | S37XX-H Series Basic SW,SnS,Per Device,5 Year |
| N1-S37H-M-SnS-10Y | S37XX-H Series Basic SW,SnS,Per Device,10 Year |
| N1-S37H-F-Lic | N1-CloudCampus,Foundation,S37XX-H Series,Per Device |
| N1-S37H-F-SnS-1Y | N1-CloudCampus,Foundation,S37XX-H Series,SnS,Per Device,1 Year |
| N1-S37H-F-SnS-3Y | N1-CloudCampus,Foundation,S37XX-H Series,SnS,Per Device,3 Year |
| N1-S37H-F-SnS-5Y | N1-CloudCampus,Foundation,S37XX-H Series,SnS,Per Device,5 Year |

| Model | Product Description |
| --- | --- |
| N1-S37H-F-SnS-10Y | N1-CloudCampus,Foundation,S37XX-H Series,SnS,Per Device,10 Year |
| N1-S37H-A-Lic | N1-CloudCampus,Advanced,S37XX-H Series,Per Device |
| N1-S37H-A-SnS-1Y | N1-CloudCampus,Advanced,S37XX-H Series,SnS,Per Device,1 Year |
| N1-S37H-A-SnS-3Y | N1-CloudCampus,Advanced,S37XX-H Series,SnS,Per Device,3 Year |
| N1-S37H-A-SnS-5Y | N1-CloudCampus,Advanced,S37XX-H Series,SnS,Per Device,5 Year |
| N1-S37H-A-SnS-10Y | N1-CloudCampus,Advanced,S37XX-H Series,SnS,Per Device,10 Year |
| N1-S37H-MToF-Lic | N1-Upgrade-Basic Software to Foundation,S37XX-H Series,Per Device |
| N1-S37H-MToF-SnS-1Y | N1-Upgrade-Basic Software to Foundation,S37XX-H Series,SnS,Per Device,1 Year |
| N1-S37H-MToF-SnS-3Y | N1-Upgrade-Basic Software to Foundation,S37XX-H Series,SnS,Per Device,3 Year |
| N1-S37H-MToF-SnS-5Y | N1-Upgrade-Basic Software to Foundation,S37XX-H Series,SnS,Per Device,5 Year |
| N1-S37H-MToF-SnS-10Y | N1-Upgrade-Basic Software to Foundation,S37XX-H Series,SnS,Per Device,10 Year |
| N1-S37H-FToA-Lic | N1-Upgrade-Foundation to Advanced,S37XX-H Series,Per Device |
| N1-S37H-FToA-SnS-1Y | N1-Upgrade-Foundation to Advanced,S37XX-H Series,SnS,Per Device,1 Year |
| N1-S37H-FToA-SnS-3Y | N1-Upgrade-Foundation to Advanced,S37XX-H Series,SnS,Per Device,3 Year |
| N1-S37H-FToA-SnS-5Y | N1-Upgrade-Foundation to Advanced,S37XX-H Series,SnS,Per Device,5 Year |
| N1-S37H-FToA-SnS-10Y | N1-Upgrade-Foundation to Advanced,S37XX-H Series,SnS,Per Device,10 Year |

# 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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