Huawei CloudEngine S6730-S-V2 Series Switches Datasheet

Huawei CloudEngine S6730-S-V2 switches are next-generation enterprise-class access switches that provide 10GE downlink ports and 40GE/100GE uplink optical ports.

Introduction

Huawei CloudEngine S6730-S-V2 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 software and hardware platform and are purpose-built with security, IoT, and cloud in mind. With these traits, CloudEngine S6730-S-V2 can be widely used in enterprise campuses, colleges/universities and other scenarios.

CloudEngine S6730-S-V2 switches offer 10GE 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.

CloudEngine S6730-S-V2 switches support free mobility, enables consistent user experience no matter the user location or IP address, fully meeting enterprises' demands for mobile offices.

CloudEngine S6730-S-V2 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-S-V2 switches are an ideal choice for building next-generation IoT converged networks in terms of cost, flexibility, and scalability.

Product Overview

Models and Appearances

The following models are available in CloudEngine S6730-S-V2 switches.

Appearance	Description
 CloudEngine S6730-S24X6Q-V2	• 24*10GE SFP+ ports, 6*40GE QSFP28 ports, optional license for upgrade to 6*100GE QSFP28 • Dual pluggable power modules, 1+1 power backup • Forwarding performance: 490 Mpps • Switching capacity: 1.68Tbps/2.4Tbps* *Note: All ports support 40GE by default. You can purchase right-to-use (RTU) licenses to upgrade the port rate from 40GE to 100GE*
 CloudEngine S6730-S48X6Q-V2	• 48*10GE SFP+ ports, 6*40GE QSFP28 ports, optional license for upgrade to 6*100GE QSFP28 • Dual pluggable power modules, 1+1 power backup • Forwarding performance: 490 Mpps

Appearance	Description
	• Switching capacity: 2.16Tbps/2.4Tbps* *Note: All ports support 40GE by default. You can purchase right-to-use (RTU) licenses to upgrade the port rate from 40GE to 100GE*

*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.

Fan Module

The following table lists the fan module on CloudEngine S6730-S-V2 switches.

Fan Module	Technical Specifications	Applied Switch Model
 FAN-031A-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: 21.6 W • Maximum fan speed: 24500±10% revolutions per minute (RPM) • Maximum wind rate: 31 cubic feet per minute (CFM) • Hot swap: Supported	• CloudEngine S6730-S24X6Q-V2 • CloudEngine S6730-S48X6Q-V2

Power Supply

The following table lists the power supplies on CloudEngine S6730-S-V2 series.

Power Module	Technical Specifications	Applied Switch Model
 PAC600S12-CB	• 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: – 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: – 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 swapping: Supported	• CloudEngine S6730-S24X6Q-V2 • CloudEngine S6730-S48X6Q-V2
 PAC600S12-EB	• Dimensions (H x W x D): 40 mm x 90 mm x 215 mm • Weight: 0.985 kg • Rated input voltage range: – 100 V AC to 240 V AC, 50/60 Hz – 240 V DC • Maximum input voltage range:	• CloudEngine S6730-S24X6Q-V2 • CloudEngine S6730-S48X6Q-V2

Power Module	Technical Specifications	Applied Switch Model
	– 90 V AC to 290 V AC, 45 Hz to 65 Hz – 190 V DC to 290 V DC • Maximum input current: – 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 swapping: Supported	
 PAC600S12-DB	• Dimensions (H x W x D): 40 mm x 90 mm x 215 mm • Weight: 0.95 kg • 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: – 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 swapping: Supported	• CloudEngine S6730-S24X6Q-V2 • CloudEngine S6730-S48X6Q-V2
 PDC1000S12-DB	• 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 swapping: Supported	• CloudEngine S6730-S24X6Q-V2 • CloudEngine S6730-S48X6Q-V2

The S6730-S-V2 uses pluggable power modules. It can be configured with a single power module or double power modules for 1+1 power redundancy. Pluggable AC and DC power modules can be used together in the same switch.

Product Features and Highlights

Enable Networks to be More Agile for Services

- Built-in high-speed and flexible processor chips, with their flexible packet processing and traffic control capabilities, CloudEngine S6730-S-V2 switches are close to services, meeting current and future challenges, and helping customers build scalable networks.
- CloudEngine S6730-S-V2 switches support fully customizing the forwarding mode, forwarding behavior, and search algorithm of traffic. New services are implemented through microcode programming. Customers do not need to replace new hardware and new services can be rolled out within six months.

- CloudEngine S6730-S-V2 switches provide open interfaces and user-defined forwarding processes to meet customized service requirements of enterprises. Enterprises can use multi-layer open interfaces to develop new protocols and functions independently. They can also hand over their requirements to vendors and jointly develop them to build an enterprise-dedicated campus network.

Delivering Abundant Services More Agilely

- Huawei switches support post-quantum cryptography (PQC) algorithms and encryption capabilities within transport security protocols, effectively defending against decryption threats posed by quantum computing to deliver future-proof quantum-resistant security for network infrastructure.
- With the unified user management function, the CloudEngine S6730-S-V2 switches authenticates both wired and wireless users, ensuring a consistent user experience no matter whether they are connected to the network through wired or wireless access devices. The unified user management function supports various authentication methods, including 802.1x, MAC address, and is capable of managing users based on user groups, domains, and time ranges. These functions visualize user and service management and boost the transformation from device-centric management to user experience-centric management.
- The CloudEngine S6730-S-V2 switches provide excellent quality of service(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.

Fine-Grained Network Management and Visualized Fault Diagnosis

- In-situ Flow Information Telemetry (IFIT) is an in-band Operations, Administration, and Maintenance (OAM) measurement technology that uses service packets to measure real performance indicators of an IP network, such as the packet loss rate and delay. IFIT can significantly improve the timeliness and effectiveness of network O&M, thereby promoting the development of intelligent O&M.
- Three IFIT modes are available: application-level quality measurement, tunnel-level quality measurement, and native-IP IFIT measurement. Currently, CloudEngine S6730-S-V2 switches support native-IP IFIT measurement only. By providing in-band measurement capabilities, CloudEngine S6730-S-V2 switches can monitor indicators such as the delay and packet loss rate of service flows in real time. CloudEngine S6730-S-V2 switches also offer visualized O&M capabilities to centrally manage and control networks and graphically display performance data. Designed with IFIT capabilities featuring high measurement precision and easy deployment, CloudEngine S6730-S-V2 switches are ideal for constructing an intelligent O&M system and stand out with future-proof scalability.

Flexible Ethernet Networking

- In addition to traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), the CloudEngine S6730-S-V2 switches support 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.
- CloudEngine S6730-S-V2 switches support Smart Link and Virtual Router Redundancy Protocol (VRRP), which implement backup of uplinks. One CloudEngine S6730-S-V2 switch can connect to multiple core switches through multiple links, significantly improving reliability of aggregation devices.

Mature IPv6 Features

- The CloudEngine S6730-S-V2 series swithes are 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 S6730-S-V2 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)

- CloudEngine S6730-S-V2 switches support 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, 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 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.

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.

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.

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.

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-S-V2 switches.

Functions and Features

Category	Service Feature
MAC address table	Automatic MAC address learning, synchronization, and aging
	Static MAC address and dynamic MAC address management
	Static, dynamic, and blackhole MAC address entries
	Packet filtering based on source MAC addresses
	MAC address learning limiting based on ports
VLAN	Support for 4K VLANs simultaneously
	Voice VLAN

	MUX VLAN
	Super-VLAN and sub-VLAN
	VLAN stacking and VLAN mapping
	LNP, VCMP, and GVRP
	Basic QinQ and selective QinQ
Layer 2 ring network protocol	Smart Link tree topology and Smart Link multi-instance, providing millisecond-level protective switchover
	ERPS (G.8032) support, enabling less than 50 ms switchover upon a fault
	STP (IEEE 802.1d), RSTP (IEEE 802.1w), MSTP (IEEE 802.1s), and VBST
	BPDU protection, root protection, and loop protection
	BPDU tunnel
	SEP
Detection protocol	LBDT, L2PT, and DLDP
	Smart Link and Monitor Link
	802.1ag, 802.3ah, and Y.1731
Multicast	PIM DM, PIM SM, and PIM SSM
	IGMP v1/v2/v3, IGMP v1/v2/v3 snooping, and MLD snooping
	IPv4/IPv6 multicast routing and multicast load balancing
	Multicast VPN
	IP multicast over VXLAN, including Layer 2/Layer 3 multicast over VXLAN
	Multicast traffic statistics on a per-port basis
	Multicast VLAN and static multicast MAC
IP services	Dual-stack IPv4 and IPv6
	ARP
	Neighbor discovery (ND)
	DNS, mDNS
	DHCPv4 client, DHCPv4 relay, DHCPv4 server, and DHCPv4 snooping
	DHCPv6 client, DHCPv6 relay, DHCPv6 server, and DHCPv6 snooping
	URPF
	6to4 Tunnel、6over4 Tunnel、4over6 Tunnel、6PE
	IPv4/v6 ping, tracert, and telnet
IP routing	Static route, routing policy, and policy-based routing
	RIPv1/v2, RIPng, OSPFv2, OSPFv3, IS-IS, ISISv6, BGP, and BGP4+
MPLS	MPLS LDP
	MPLS TE
	MPLS QoS

VPN	MPLS L2VPN (VPLS/VPWS) and MPLS L3VPN
	MPLS BGP VPN
	GRE
Segment routing	SRv6 BE (L3 EVPN)
	BGP EVPN
	SRv6 configuration through NETCONF
VXLAN	VXLAN distributed gateway and centralized gateway modes
	BGP EVPN
	VXLAN Layer 2 forwarding
	VXLAN Layer 3 forwarding
	VXLAN configuration through NETCONF and SDN-based automated wired network deployment
	VXLAN over IPv6 (static)
	VXLAN-Routing, VXLAN-Bridge, VXLAN-Tunnel, and VXLAN-Access
Reliability	LACP
	M-LAG
	VRRP
	BFD
	LLDP
User access and authentication	Multiple authentication modes, including AAA, RADIUS, RADIUS over DTLS, and HWTACACS
	Policy association
	Endpoint identification and unauthorized access prevention
	NAC Authentication in an M-LAG Scenario
	Free mobility
	802.1X, MAC address, and Portal authentication
QoS/ACL	Rate limiting on packets sent and received by a port
	Packet redirection
	Port-based traffic policing and two-rate three-color CAR
	Eight queues on each port
	SP, DRR, WDRR, SP+DRR, and SP+WDRR queue scheduling algorithms
	WRED
	Marking of 802.1p and DSCP priorities of packets
	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 source port number/destination port number, protocol type, and VLAN ID
	Rate limiting in each queue and traffic shaping on ports

	VLAN slicing
Security features	Hierarchical user management and password protection
	DoS attack defense, ARP attack defense, and ICMP attack defense
	Binding of the IP address, MAC address, port number, and VLAN ID
	Port isolation, port security, and sticky MAC
	ARP security features including ARP snooping, ND snooping, ARP conflict detection, Dynamic ARP Inspection (DAI), and Egress ARP Inspection (EAI).
	Blackhole MAC addresses
	Unknown unicast, unknown multicast, and broadcast storm control on a per-port basis
	IEEE 802.1X authentication, with per-port maximum user limits
	IP Source Guard (IPSG)
	Public Key Infrastructure (PKI)
	SSH v2.0
	HTTPS
	CPU attack defense, CPU protection
	Blacklist and whitelist mechanisms
	Host Intrusion Prevention System (HIPS) and Federal Information Processing Standard (FIPS)
	Source Address Validation Improvement (SAVI)
Network management and monitoring	iStack and fast stack upgrade, Up to 9 switches in a stack
	SNMPv1/v2c/v3
	NETCONF/YANG-based cloud management
	Management via the eSight or web system
	RMON
	iPCA, Netstream, sFlow, NQA, and Telemetry
	Port mirroring, traffic mirroring, RSPAN, and ERSPAN
	Packet loss visibility
	Application identification
	iFlow-based full-flow quality degradation analysis
	USB-based deployment, deployment through the registration query center, and SZTP
	RESTCONF, gRPC, and EVA
Network maintenance	Telnet for remote configuration and maintenance
	Ping and traceroute
	Virtual Cable Test (VCT)
	FTP, SFTP, and TFTP file management
	Time management

	CPU and memory resource monitoring
	System logs and hierarchical alarms
	Hot patching
	User operation logs
	IEEE 802.3az Energy-Efficient Ethernet (EEE)
	Configuration rollback
	Webmaster-based management
Interoperability	VBST (compatible with PVST/PVST+/RPVST)

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-S-V2 switches.

Item		CloudEngine S6730-S24X6Q-V2	CloudEngine S6730-S48X6Q-V2
Physical specifications	Chassis dimensions (H x W x D, mm)	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 17.40 in. x 16.54 in.)
	Chassis height	1 U	1 U
	Weight with packaging [kg(lb)]	8.9 kg (19.62 lb)	9.2 kg (20.28 lb)
Fixed port	GE port	24(GE and 10GE auto-sensing)	48(GE and 10GE auto-sensing)
	10GE port	24	48
	40GE port	6	6
	100GE port	6 (*RTU upgrade*)	6 (*RTU upgrade*)
Management port	ETH management port	Supported	Supported
	Console port (RJ45)	Supported	Supported
	USB port	USB 2.0	USB 2.0
CPU	Frequency	1.4 GHz	1.4 GHz
	Cores	4	4
Memory	Memory (RAM)	4GB	4GB
	Flash	Hardware: 2 GB	Physical space: 2 GB
Power supply system	Power supply type	• 600 W AC (pluggable) • 1000 W DC (pluggable)	• 600 W AC (pluggable) • 1000 W DC (pluggable)
	Rated input voltage [V]	• 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	• 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
	Input voltage range [V]	• AC input: 90 V AC to 290 V AC,	• AC input: 90 V AC to 290 V AC,

Item		CloudEngine S6730-S24X6Q-V2	CloudEngine S6730-S48X6Q-V2
		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	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	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.	The current specifications are related to the pluggable power module. For details, see Pluggable Power Modules.
	Typical power consumption (30% of traffic load, tested according to ATIS standard)	149 W	165 W
	Maximum power consumption [W]	High temperature 45°C (113°F), 100% traffic, and dual power modules: 181 W High temperature 45°C (113°F), 100% traffic, long-distance optical module, 100% fan speed, and dual power modules: 254 W	High temperature 45°C (113°F), 100% traffic, and dual power modules: 207 W High temperature 45°C (113°F), 100% traffic, long-distance optical module, 100% fan speed, and dual power modules: 291 W
Heat dissipation system	Heat dissipation mode	Heat dissipation with fan, intelligent fan speed adjustment	Heat dissipation with fan, intelligent fan speed adjustment
	Number of fan modules	4, Fan modules are pluggable	4, Fan modules are pluggable
	Airflow direction	Air intake from front, air exhaustion from rear (front-to-rear) Air intake from front, air exhaustion from rear (front-to-rear)	Air intake from front, air exhaustion from rear (front-to-rear)
Environment parameters	Long-term operating temperature	• 0-1800 m: -5°C to 45°C • 1800-5000 m: The operating temperature decreases 1°C for every 220 m increase in altitude.	• 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°F to +158°F)	–40°C to +70°C (–40°F to +158°F)
	Relative humidity	5% to 95%, noncondensing	5% to 95%, noncondensing
	Operating altitude	0-5000 m	0-5000 m
	Noise under normal temperature (sound power)	65 dB(A)	65 dB(A)
	Noise under normal temperature (sound pressure)	52 dB(A)	52 dB(A)
	Power supply surge protection [kV]	• AC power module configured: ±6 kV in differential mode, ±6 kV in common mode • DC power module configured: ±2 kV in differential mode, ±4 kV in common mode	• AC power module configured: ±6 kV in differential mode, ±6 kV in common mode • DC power module configured: ±2 kV in differential mode, ±4 kV in common mode

Item		CloudEngine S6730-S24X6Q-V2	CloudEngine S6730-S48X6Q-V2
Reliability	MTBF (year)	62.27	56.87
	Availability	> 0.99999	> 0.99999
Certification		• EMC certification • Safety certification • Manufacturing certification **NOTE** For details about certifications, see the section Safety and Regulatory Compliance.	• EMC certification • Safety certification • Manufacturing certification **NOTE** For details about certifications, see the section Safety and Regulatory Compliance.

Performance Specification

Entries	S6730-S-V2 series switches
Number of dynamic MAC address entries	up to 64K
Number of static MAC address entries	1024
Maximum number of VLANs	4094
Number of VLANIF interfaces	1024
IPv4 routing entries	up to 64K
IPv6 routing entries	up to 32K
Number of ARP entries	up to 64K
Number of ND entries	up to 32K
ACL scale entries	6.5K@320 bits (K = 1024)
IPv4/IPv6 multicast L2 entries	4K
IPv4/IPv6 multicast L3 entries	4K
Device buffer (byte)	18MB
Jumbo frames	9600

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

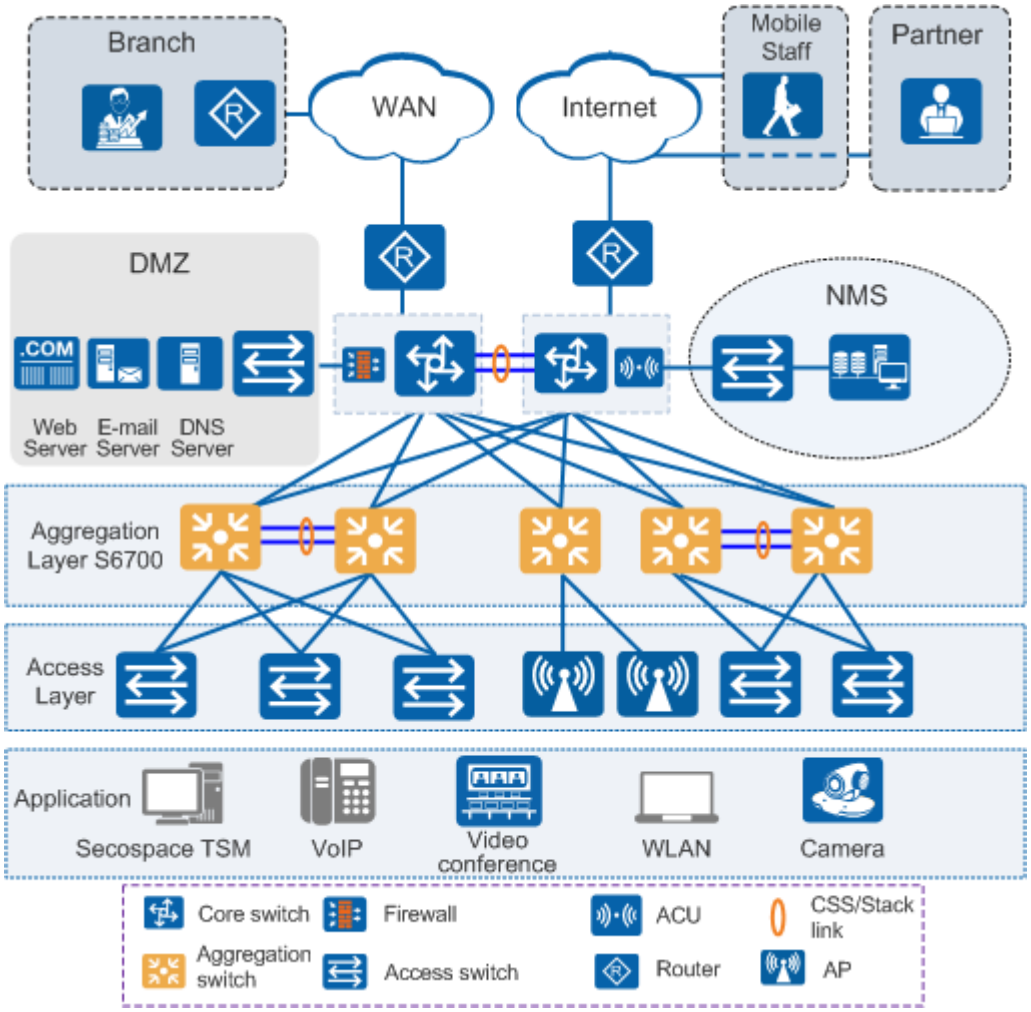
Switch Functions	N1 Basic Software	N1 Foundation Software Package	N1 Advanced Software Package
Basic network functions: Layer 2 functions, IPv4, IPv6, and others Note: For details, see the Service Features	√	√	√

Switch Functions	N1 Basic Software	N1 Foundation Software Package	N1 Advanced Software Package
Basic network automation based on the iMaster NCE-Campus: • NE management: Device management, topology management and discovery • User access authentication	×	√	√
Automation and intelligent O&M: Basic functions for intelligent network analysis of CampusInsight.	×	√	√
Advanced network automation and intelligent O&M: VXLAN, free mobility, Endpoint plug&play of iMaster NCE-Campus and Application analysis function of CampusInsight.	×	×	√

Networking and Applications

Large-scale Enterprise Campus Network

CloudEngine S6730-S-V2 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.



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
- 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
- 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

Stack Cables

CloudEngine S6730-S-V2 switches support service port stacking. The applicable stack cables are as follows:

Port Supporting Stacking	Stack Cable	Rate of a Single Port
10GE SFP+ optical port	• All SFP+ optical modules supported by the device and the matching optical fibers • 1 m, 3 m, 5 m, and 10 m SFP+ high-speed copper cables	10 Gbit/s

Port Supporting Stacking	Stack Cable	Rate of a Single Port
	• 3 m and 10 m SFP+ AOC cables • 0.5 m and 1.5 m SFP+ dedicated stack cables (configuration-free in V600R023C00 and later versions)	
40GE/100GE QSFP28 optical port	• All 40GE QSFP+ optical modules supported by the device and the matching optical fibers • 1 m, 3 m, and 5 m QSFP+ to QSFP+ high-speed copper cables • 10 m QSFP+ to QSFP+ AOC cable	40 Gbit/s
	• All 100GE QSFP28 optical modules supported by the device and the matching optical fibers • 1 m and 3 m QSFP28 to QSFP28 high-speed copper cables • 10 m QSFP28 to QSFP28 AOC cable • 2 m QSFP28 dedicated stack cable (configuration-free)	100 Gbit/s

Safety and Regulatory Compliance

The following table lists the safety and regulatory compliance of the CloudEngine S6730-S-V2 switches.

Certification Category	Description
Safety	IEC 62368-1
	EN 62368-1
	UL 62368-1
	CSA C22.2 No 62368-1
Electromagnetic Compatibility (EMC)	CISPR32
	CISPR35
	EN 55032
	EN 55035
	ETSI EN 300 386
	CFR 47 FCC Part 15
	ICES 003
	AS/NZS CISPR32
	VCCI
	IEC61000-4-2
Environment	RoHS
	REACH
	WEEE
Laser safety	IEC60825-1

Certification Category	Description
	IEC60825-2
	EN60825-1
	EN60825-2

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	• BRIDGE-MIB • DISMAN-NSLOOKUP-MIB • DISMAN-PING-MIB • DISMAN-TRACEROUTE-MIB • ENTITY-MIB • EtherLike-MIB • IF-MIB • IP-FORWARD-MIB • IPv6-MIB • LAG-MIB • LLDP-EXT-DOT1-MIB • LLDP-EXT-DOT3-MIB • LLDP-MIB • NOTIFICATION-LOG-MIB • NQA-MIB • OSPF-TRAP-MIB • P-BRIDGE-MIB • Q-BRIDGE-MIB • RFC1213-MIB • RIPv2-MIB • RMON2-MIB

Category	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 • HUAWEI-CBQOS-MIB • HUAWEI-CDP-COMPLIANCE-MIB • 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

Category	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 • 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 CloudEngine S6730-S-V2 switches, visit:
https://support.huawei.com/enterprise/en/switches/s6700-pid-6691593?category=reference-guides

Standards Compliance

The following table lists the standards that CloudEngine S6730-S-V2 switches comply with.

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 1256 ICMP Router Discovery • RFC 1305 Network Time Protocol Version 3 (NTP) • RFC 1349 Internet Protocol (IP) • RFC 1493 Definitions of Managed Objects for Bridges • RFC 1542 Clarifications and Extensions for the Bootstrap Protocol • RFC 1643 Ethernet Interface MIB • RFC 1757 Remote Network Monitoring (RMON) • RFC 1901 Introduction to Community-based SNMPv2 • RFC 1902-1907 SNMP v2 • RFC 1981 Path MTU Discovery for IP version 6 • RFC 2131 Dynamic Host Configuration Protocol (DHCP) • RFC 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 2475 An Architecture for Differentiated Services • 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/Relay • 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

Standard Organization	Standard or Protocol
	• draft-grant-tacacs-02 TACACS+ • RFC5340 OSPF for IPv6 • RFC 5798 Virtual Router Redundancy Protocol (VRRP) Version 3 for IPv4 and IPv6 • RFC 6241 Network Configuration Protocol (NETCONF) • RFC 6020 YANG - A Data Modeling Language for the Network Configuration Protocol (NETCONF) • RFC 7348 Virtual eXtensible Local Area Network (VXLAN): A Framework for Overlaying Virtualized Layer 2 Networks over Layer 3 Networks • RFC 8365 A Network Virtualization Overlay Solution Using Ethernet VPN (EVPN)
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 • IEEE 802.1ax/IEEE802.3ad Link Aggregation • IEEE 802.3ah Ethernet in the First Mile. • IEEE 802.1ag Connectivity Fault Management • IEEE 802.1ab Link Layer Discovery Protocol • IEEE 802.1D Spanning Tree Protocol • IEEE 802.1w Rapid Spanning Tree Protocol • IEEE 802.1s Multiple Spanning Tree Protocol • IEEE 802.1x Port based network access control protocol • IEEE 802.3az Automatic power adjustment on Ethernet interfaces
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

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 CloudEngine S6730-S-V2 switches.

Model	Product Description
CloudEngine S6730-S24X6Q-V2	S6730-S24X6Q-V2(24*10GE SFP+ ports, 6*40GE QSFP28 ports, optional license for upgrade to 6*100GE QSFP28, without power module)
CloudEngine S6730-S48X6Q-V2	S6730-S48X6Q-V2(48*10GE SFP+ ports, 6*40GE QSFP28 ports, optional license for upgrade to 6*100GE QSFP28, without power module)
PAC600S12-CB	600W AC power module
PAC600S12-EB	600W AC power module
PAC600S12-DB	600W AC power module
PDC1000S12-DB	1000W DC power module
FAN-031A-B	Fan Module

License	Product Description
L-VxLAN-S67	S67 Series, VxLAN License, Per Device
N1-S67S-M-Lic	S67XX-S Series Basic SW,Per Device
N1-S67S-M-SnS1Y	S67XX-S Series Basic SW,SnS,Per Device,1Year
N1-S67S-F-Lic	N1-CloudCampus, Foundation, S67XX-S Series, Per Device
N1-S67S-F-SnS	N1-CloudCampus, Foundation, S67XX-S Series, SnS, Per Device (Annual fee validity period:3 years from " 90 days after PO signed ")
N1-S67S-A-SnS	N1-CloudCampus, Advanced, S67XX-S Series, SnS, Per Device (Annual fee validity period:3 years from " 90 days after PO signed ")
N1-S67S-FToA-Lic	N1-Upgrade-Foundation to Advanced, S67XX-S, Per Device
N1-S67S-FToA-SnS	N1-Upgrade-Foundation to Advanced, S67XX-S, SnS, Per Device (Annual fee validity period:3 years from " 90 days after PO signed ")
N1-S67S-A-Lic	N1-CloudCampus, Advanced, S67XX-S Series,Per Device
N1-AM-30-Lic	N1-CloudCampus, Add-On Package, Access Management, Per 30 Endpoints
N1-AM-30-SnS	N1-CloudCampus, Add-On Package, Access Management, Software Subscription and Support, per 30 Endpoints (Annual fee validity period:3 years from " 90 days after PO signed ")
N1-EPNP-30-Lic	N1-CloudCampus, Add-On Package, Endpoints Plug and Play, Per 30 Endpoints
N1-EPNP-30-SnS	N1-CloudCampus, Add-On Package, Endpoints Plug and Play, Software Subscription and Support, per 30 Endpoints (Annual fee validity period:3 years from " 90 days after PO signed ")
N1-APP-X7FSwitch	N1-CloudCampus, Add-On Package, Intelligent Application Analysis, X7 Series Fixed

License	Product Description
	Switch, Per Device
N1-APP-X7FSwitch-SnS	N1-CloudCampus, Add-On Package, Intelligent Application Analysis, X7 Series Fixed Switch, Software Subscription and Support, Per Device (Annual fee validity period:3 years from " 90 days after PO signed ")
N1-S67S-A-NVXLAN-Lic	N1-CloudCampus, Advanced non-vxlan, S67XX-S Series, Per Device
N1-S67S-A-NVXLAN-SnS1Y	N1-CloudCampus, Advanced non-vxlan, S67XX-S Series, SnS, Per Device,1 Year
N1-S67S-F2A-NVXLAN-Lic	N1-Upgrade-Foundation to Advanced non-vxlan, S67XX-S, Per Device
N1-S67S-F2A-NVXLAN-SnS1Y	N1-Upgrade-Foundation to Advanced non-vxlan, S67XX-S, SnS, 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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