Huawei CloudEngine S5735I-S-V2 Series Extended-Temperature Switches Datasheet

Huawei CloudEngine S5735I-S-V2 series extended-temperature switches are standard gigabit Ethernet switches that provide 24 x GE downlink ports and 4 x 10GE uplink ports, and provide two stacking ports.

Introduction

Huawei CloudEngine S5735I-S-V2 series extended-temperature switches (S5735I-S-V2 for short) are next-generation standard Layer 3 gigabit switches that provide flexible all-gigabit access and 10GE uplink ports, and provide two stacking ports.

Extended-temperature switches have an industrial-grade operating temperature range as well as professional outdoor surge protection to withstand harsh outdoor cabinet environments. As such, they can be widely used in access scenarios such as Safe City and Ethernet to the x (ETTx).

Product Overview

Models and Appearances

The following models are available in the CloudEngine S5735I-S-V2 series.

Models and appearances of the CloudEngine S5735I-S-V2 series

Models and Appearances	Description
 CloudEngine S5735I-S24T4XE-V2	• 24 x 10/100/1000Base-T Ethernet ports, 4 x 10GE SFP+ ports and 2 x 12GE stack ports • 1+1 power supply backup • Forwarding performance: 132 Mpps • Switching capacity*: 176 Gbps/520 Gbps
 CloudEngine S5735I-S24T4XE-T-V2**	• 24 x 10/100/1000Base-T Ethernet ports, 4 x 10GE SFP+ ports and 2 x 12GE stack ports • 1+1 power supply backup • Forwarding performance: 132 Mpps • Switching capacity*: 176 Gbps/520 Gbps
 CloudEngine S5735I-S24U4XE-V2	• 24 x 10/100/1000Base-T Ethernet ports, 4 x 10GE SFP+ ports and 2 x 12GE stack ports • 3 power supplies, N+1 power supply backup • PoE++（90W） • Forwarding performance: 132 Mpps • Switching capacity*: 176 Gbps/520 Gbps

Models and Appearances	Description
 CloudEngine S5735I-S24U4XE-T-V2**	• 24 x 10/100/1000Base-T Ethernet ports, 4 x 10GE SFP+ ports and 2 x12GE stack ports • 3 power supplies, N+1 power supply backup • PoE++（90W） • Forwarding performance: 132 Mpps • Switching capacity*: 176 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.

**Note：‘-T ’means Trusted Platform Module(TPM), support hardware root of trust and measurement startup.

Power Supply

Technical specifications of the power supplies applicable to the CloudEngine S5735-S series

Power Module	Technical Specifications	Applied Switch Model


PAC180S12-CN
	• Dimensions (H x W x D): 40 mm x 66 mm x 215 mm
	• Weight: 0.8 kg
	• Rated input voltage range:
	  − 100 V AC to 130 V AC; 50/60 Hz
	  − 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 66 Hz
	  − 190 V DC to 290 V DC
	• Maximum input current:
	  − 3 A
	• Rated output current:
	  − 15 A
	• Rated output voltage: 12 V
	• Rated output power:
	  − 180 W
	• Hot swap: Supported
		• CloudEngine S5735I-S24T4XE-V2
		• CloudEngine S5735I-S24T4XE-T-V2


PDC1K2S12-CE
	• Dimensions (H x W x D): 39.6 mm x 66 mm x 215 mm
	• Weight: 1.5 kg
	• Rated input voltage range:
	  − +48 V DC
	  − -48V DC to -60 V DC
	• Maximum input voltage range:
	  − +40 V DC to +57 V DC
	  − -38.4V DC to -72 V DC
	• Maximum Input current:
	  − 38 A
	• Rated output voltage:
	  − 12 V
		• CloudEngine S5735I-S24T4XE-V2
		• CloudEngine S5735I-S24T4XE-T-V2

Power Module	Technical Specifications	Applied Switch Model
	• Rated output power: – 1200W • Hot swap: Supported	


PAC600S56-EB
	• Dimensions (H x W x D): 40 mm x 66 mm x 215 mm
	• Weight: 0.9 kg
	• Rated input voltage range:
	  – 100 V AC to 130 V AC; 50/60 Hz
	  – 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 66 Hz
	  – 190 V DC to 290 V DC
	• Maximum input current:
	  – 100 V AC to 130 V AC: 8 A
	  – 100 V AC to 240 V AC: 8 A
	  – 240 V DC: 4 A
	• Rated output current:
	  – 53.5 V: 11.21 A
	  – 55.5 V: 10.81 A
	• Rated output voltage: 53.5 V or 55.5 V
	• Rated output power:
	  – 100 V AC to 130 V AC input: 300W
	  – 100 V AC to 240 V AC & 240 V DC input: 600W
	• Hot swap: Supported
		• CloudEngine S5735I-S24U4XE-V2
		• CloudEngine S5735I-S24U4XE-T-V2


PAC1000S56-EB
	• Dimensions (H x W x D): 40 mm x 66 mm x 215 mm
	• Weight: 1.1 kg (2.43 lb)
	• Rated input voltage range:
	  – 100 V AC to 130 V AC, 50/60 Hz
	  – 200 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 66 Hz
	  – 190 V DC to 290 V DC
	• Input current:
	  – 100 V AC to 130 V AC: 12 A
	  – 200 V AC to 240 V AC: 8 A
	  – 240 V DC: 8 A
	• Maximum output current:
	  – 100 V AC to 130 V AC input: 12 A
	  – 200 V AC to 240 V AC input and 240 V DC input: 8 A
	  – 240V DC: 8 A
	• Maximum output power:
		• CloudEngine S5735I-S24U4XE-V2
		• CloudEngine S5735I-S24U4XE-T-V2

Power Module	Technical Specifications	Applied Switch Model
	– Total power: 900 W (100 V AC to 130 V AC input)/1000 W (200 V AC to 240 V AC input and 240 V DC input) • Hot swap: Supported	
 PDC1000S56-EB	• Dimensions (H x W x D): 40 mm x 66 mm x 215 mm • Weight: 1 kg • Rated input voltage range: -48 V DC to -60 V DC • Maximum input voltage range: -38.4 V DC to -72 V DC • Maximum input current: 30 A • Rated output voltage: 53.5 V or 55.5 V • Rated output current: – 53.5 V: 18.69 A – 55.5 V: 18.02 A • Rated output power: 1000 W • Hot swap: Supported	• CloudEngine S5735I-S24U4XE-V2 • CloudEngine S5735I-S24U4XE-T-V2

The following table lists its power supply configurations.

Power supply configurations of CloudEngine S5735I-S-V2

Module	Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
• CloudEngine S5735I-S24U4XE-V2 • CloudEngine S5735I-S24U4XE-T-V2	1000 W AC (220 V)	–	–	306 W	• 802.3af (15.4 W per port): 19 • 802.3at (30 W per port): 10 • 802.3at (60 W per port): 5 • 802.3at (90 W per port): 3
	1000 W AC (110 V)	–	–	270 W	• 802.3af (15.4 W per port): 17 • 802.3at (30 W per port): 9 • 802.3at (60 W per port): 4 • 802.3at (90 W per port): 3
	1000 W DC	–	–	306 W	• 802.3af (15.4 W per port): 19 • 802.3at (30 W per port): 10 • 802.3at (60 W per port): 5 • 802.3at (90 W per port): 3
	600 W AC (220 V)	–	–	171 W	• 802.3af (15.4 W per port): 11 • 802.3at (30 W per port): 5 • 802.3at (60 W per port): 2 • 802.3at (90 W per port): 1
	600 W AC (110 V)	–	–	57 W	• 802.3af (15.4 W per port): 3 • 802.3at (30 W per port): 1 • 802.3at (60 W per port): 0 • 802.3at (90 W per port): 0
	1000 W AC	1000 W AC	–	666 W	• 802.3af (15.4 W per port): 24

Module	Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
	(220 V) 1000 W DC	(220 V) 1000 W DC			• 802.3at (30 W per port): 22 • 802.3at (60 W per port): 11 • 802.3at (90 W per port): 7
	1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	–	594 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 19 • 802.3at (60 W per port): 9 • 802.3at (90 W per port): 6
	600 W AC (220 V)	600 W AC (220 V)	–	399 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 13 • 802.3at (60 W per port): 6 • 802.3at (90 W per port): 4
	1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	–	522 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 17 • 802.3at (60 W per port): 8 • 802.3at (90 W per port): 5
	1000 W DC	600 W AC (110 V)	–	306 W	• 802.3af (15.4 W per port): 19 • 802.3at (30 W per port): 10 • 802.3at (60 W per port): 5 • 802.3at (90 W per port): 3
	1000 W AC (110 V)	600 W AC (110 V)	-	270 W	• 802.3af (15.4 W per port): 17 • 802.3at (30 W per port): 9 • 802.3at (60 W per port): 4 • 802.3at (90 W per port): 3
	600 W AC (110 V)	600 W AC (110 V)	–	171 W	• 802.3af (15.4 W per port): 11 • 802.3at (30 W per port): 5 • 802.3at (60 W per port): 2 • 802.3at (90 W per port): 1
	1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	1083 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3at (60 W per port): 18 • 802.3at (90 W per port): 12
	600 W AC (220 V)	600 W AC (220 V)	600 W AC (220 V)	627 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 20 • 802.3at (60 W per port): 10 • 802.3at (90 W per port): 6
	1000 W AC (220 V) 1000 W DC	1000 W AC (220 V) 1000 W DC	600 W AC (220 V)	882 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3at (60 W per port): 14 • 802.3at (90 W per port): 9
	1000 W AC	600 W AC (220	600 W AC (220	738 W	• 802.3af (15.4 W per port): 24

Module	Power Module 1	Power Module 2	Power Module 3	Available PoE Power	Maximum Number of Ports (Fully Loaded)
	(220 V) 1000 W DC	V)	V)		• 802.3at (30 W per port): 24 • 802.3at (60 W per port): 12 • 802.3at (90 W per port): 8
	1000 W AC (110 V) 1000 W DC	1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	918 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 24 • 802.3at (60 W per port): 15 • 802.3at (90 W per port): 10
	1000 W AC (110 V) 1000 W DC	1000 W AC (110 V)	600 W AC (110 V)	594 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 19 • 802.3at (60 W per port): 9 • 802.3at (90 W per port): 6
	1000 W DC	1000 W DC	600 W AC (110 V)	666 W	• 802.3af (15.4 W per port): 24 • 802.3at (30 W per port): 22 • 802.3at (60 W per port): 11 • 802.3at (90 W per port): 7
	1000 W AC (110 V)	600 W AC (110 V)	600 W AC (110 V)	270 W	• 802.3af (15.4 W per port): 17 • 802.3at (30 W per port): 9 • 802.3at (60 W per port): 4 • 802.3at (90 W per port): 3
	1000 W DC	600 W AC (110 V)	600 W AC (110 V)	306 W	• 802.3af (15.4 W per port): 19 • 802.3at (30 W per port): 10 • 802.3at (60 W per port): 5 • 802.3at (90 W per port): 3
	600 W AC (110 V)	600 W AC (110 V)	600 W AC (110 V)	285 W	• 802.3af (15.4 W per port): 18 • 802.3at (30 W per port): 9 • 802.3at (60 W per port): 4 • 802.3at (90 W per port): 3

Product Features and Highlights

Powerful Service Processing Capability

- CloudEngine S5735I-S-V2 supports a broad set of Layer 2/Layer 3 multicast protocols, such as PIM SM, PIM DM, PIM SSM, and IGMP snooping. This capability is ideal for high-definition video backhaul and video conferencing access.
- CloudEngine S5735I-S-V2 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.

Multiple Security Control Mechanisms

- CloudEngine S5735I-S-V2 supports MAC address authentication, 802.1X authentication, and implements dynamic delivery of policies (VLAN, QoS, and ACL) to users.
- CloudEngine S5735I-S-V2 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 S5735I-S-V2 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 S5735I-S-V2 supports strict ARP learning, which protects a network against ARP spoofing attacks to ensure that users can connect to the Internet normally.

Multiple Reliability Mechanisms

- CloudEngine S5735I-S-V2 is equipped with two pluggable power modules that work in 1+1 redundancy backup mode. Mixed installation of AC and DC power modules is supported, allowing for flexible configuration of AC or DC power modules according to service requirements.
- In addition to supporting traditional Spanning Tree Protocol (STP), Rapid Spanning Tree Protocol (RSTP), and Multiple Spanning Tree Protocol (MSTP), CloudEngine S5735I-S-V2 is also designed with the industry's latest Ethernet Ring Protection Switching (ERPS) technology. This protocol is reliable, easy to maintain, and implements fast protection switching within 50 ms. ERPS is defined in ITU-T G.8032, and it implements millisecond-level protection switching based on traditional Ethernet MAC and bridging functions.
- CloudEngine S5735I-S-V2 supports Smart Link, which implements backup of uplinks. One CloudEngine S5735I-S-V2 switch can connect to multiple aggregation switches through multiple links, significantly improving reliability of access devices.

Easy Network deployment

- CloudEngine S5735I-S-V2 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 S5735I-S-V2 can be managed using SNMP v1/v2c/v3, CLI, web-based network management system, or SSH v2.0. Additionally, it supports RMON, multiple log hosts, port traffic statistics collection, and network quality analysis, which facilitate network optimization and reconstruction.

Mature IPv6 Technologies

- CloudEngine S5735I-S-V2 uses the mature, stable VRP platform and supports IPv4/IPv6 dual stack, IPv6 RIPng.
- CloudEngine S5735I-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 S5735I-S-V2 supports intelligent stack (iStack). This technology 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 ports, bandwidth, and processing capacity of a stack by simply adding member switches to the stack.
- iStack also simplifies device configuration and management. After a stack is set up, multiple physical switches are 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. CloudEngine S5735I-S-V2 support stacking through electrical ports.
- CloudEngine S5735I-S-V2 supports two 12GE dedicated stack ports, which release uplink ports and do not need to be configured.

PoE Function

CloudEngine S5735I-S-V2 PoE models can support PoE++(up to 90W power supply), Meeting high-power power supply requirements for Wi-Fi 6 APs, IP cameras, and Video phones.

- **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 S5735I-S-V2 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 S5735I-S-V2 supports the intelligent upgrade feature. Specifically, CloudEngine S5735I-S-V2 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(Open Programmability System)

- CloudEngine S5735I-S-V2 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 S5735I-S-V2 switch through Python scripts to quickly innovate functions and implement intelligent O&M.

Licensing

CloudEngine S5735I-S-V2 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	√	√	√
Basic network automation based on the iMaster NCE-Campus: • Basic automation: Plug-and-play • Basic monitoring: Application visualization • NE management: Image and topology management and discovery • User access authentication	×	√	√
Advanced network automation and intelligent O&M: CampusInsight basic functions	×	×	√

Product Specifications

Functions and Features

Item	Description
MAC address table	IEEE 802.1d compliance
	32K MAC entries(MAX)
	MAC address learning and aging
	Static, dynamic, and blackhole MAC address entries
	Packet filtering based on source MAC addresses
VLAN	4094 VLANs
	Voice VLAN
	MUX VLAN
	VLAN assignment based on MAC addresses, protocols, IP subnets, policies, and ports
Reliability	Smart Link tree topology and Smart Link multi-instance, providing millisecond-level protection switchover
	STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s)
	ERPS (G.8032)
	BPDU protection, root protection, and loop protection
IP routing	Static route, RIPv1/v2, RIPng, OSPF, OSPFv3, ECMP, IS-IS, IS-ISv6, BGP, BGP4+, VRRP, and VRRP6
	Up to 8192 FIBv4 entries
	Up to 3072 FIBv6 entries
IPv6 features	Up to 3072 ND entries
	Path MTU (PMTU)
	IPv6 ping, IPv6 tracert, and IPv6 Telnet
Multicast	PIM DM, PIM SM, PIM SSM
	IGMP v1/v2/v3, IGMP v1/v2/v3 snooping and IGMP fast leave
	Multicast load balancing among member ports of a trunk
	Port-based multicast traffic statistics
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
	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

Item	Description
	Rate limiting in each queue and traffic shaping on ports
Security	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
	Blackhole MAC address entries
	Limit on the number of learned MAC addresses
	IEEE 802.1x authentication and limit on the number of users on a port
	AAA authentication, RADIUS authentication, HWTACACS authentication, and NAC
	SSH v2.0
	HTTPS
	CPU defense
	Blacklist and whitelist
	IEEE 802.1x authentication, MAC address authentication
	DHCPv4 client/relay/server/snooping
	DHCPv6 client/relay
	Attack source tracing and punishment for IPv6 packets such as ND, DHCPv6
Management and maintenance	iStack
	Cloud management based on Netconf/Yang
	Virtual cable test
	SNMP v1/v2c/v3
	RMON
	Web-based NMS
	System logs and alarms of different levels
	802.3az EEE
Interoperability	Supports VBST (Compatible with PVST/PVST+/RPVST)

Hardware Specifications

Hardware specifications of the CloudEngine S5735-S24T4XE-V2/-S24P4XE-V2/-S24U4XE-V2 models

Item		CloudEngine S5735I-S24T4XE-V2 CloudEngine S5735I-S24T4XE-T-V2	CloudEngine S5735I-S24U4XE-V2 CloudEngine S5735I-S24U4XE-T-V2
Physical specifications	Dimensions (H x W x D, mm)	43.6 mm x 442.0 mm x 420.0 mm	43.6 mm x 442.0 mm x 420.0 mm
	Chassis height	1 U	1 U

Item		CloudEngine S5735I-S24T4XE-V2 CloudEngine S5735I-S24T4XE-T-V2	CloudEngine S5735I-S24U4XE-V2 CloudEngine S5735I-S24U4XE-T-V2
	Chassis weight (including packaging)	11.34 kg	12.33 kg
Fixed port	GE port	24	24(PoE++)
	GE SFP port	NA	NA
	10GE SFP+ port	4	4
	Dedicated 12GE stack port	2	2
Management port	Console port (RJ45)	Supported	Supported
	USB port	USB 2.0	USB 2.0
CPU	Frequency	1.1 GHz	1.1 GHz
	Cores	2	2
Storage	Memory (RAM)	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
Power supply system	Power supply type	• 180 W AC (pluggable) • 1200 W DC (pluggable)	• 600 W PoE AC (pluggable) • 1000 W PoE AC (pluggable) • 1000 W PoE DC (pluggable)
	Power supply redundancy	1+1	1+1+1
	Rated voltage range	• 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 130 V, 200 V AC to 240 V AC, 50/60 Hz • High-Voltage DC input: 240 V DC • DC input: -48 V DC to -60 V DC
	Maximum voltage range	• AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC	• AC input: 90 V AC to 290 V AC, 45 Hz to 65 Hz • High-Voltage DC input: 190 V DC to 290 V DC • DC input: -38.4 V DC to -72 V DC

	Maximum input current	• 180 W AC: 3 A
		• 1200 W DC: 38 A
			• 600 W PoE AC:
			  − 100V AC～130V AC & 200V AC～240V AC: 8 A
			  − 240V DC: 4 A
			• 1000 W PoE AC:
			  − 100V AC～130V AC: 12 A
			  − 200V AC～240V AC: 8 A
			  − 240V DC: 8 A
			• 1000 W PoE DC: 30 A

	Maximum power consumption of the	• 53 W (2 *180W AC)	• 81 W (without PD)

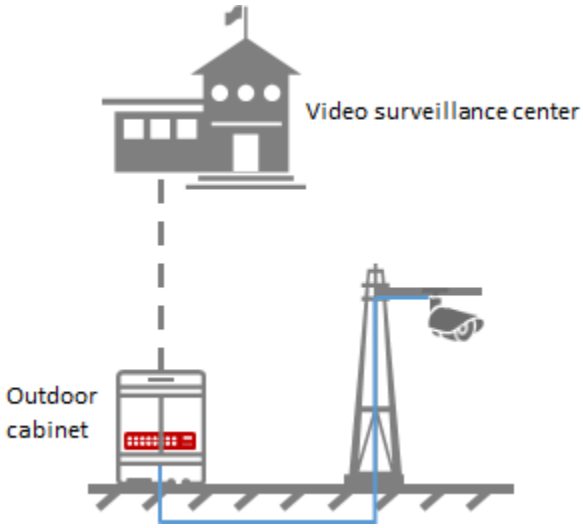
Item		CloudEngine S5735I-S24T4XE-V2 CloudEngine S5735I-S24T4XE-T-V2	CloudEngine S5735I-S24U4XE-V2 CloudEngine S5735I-S24U4XE-T-V2
	device	• 87 W (2* 1200W DC)	• 1285 W(with PD,PD Power consumption of :1083 W)
	Typical power consumption	34.6 W	50 W
	Power consumption in the case of 100% traffic load[1]	35.6 W	52 W
Heat dissipation system	Heat dissipation mode	Air-cooled heat dissipation and intelligent speed adjustment	Air-cooled heat dissipation and intelligent speed adjustment
	Number of fan modules	3	3
	Airflow	Air intake from left, front, and right and air exhaust from rear	Air intake from left, front, and right and air exhaust from rear
	Maximum heat dissipation of the device (BTU/hour)	• 190.84 (2 *180W AC) • 296.85 (2* 1200W DC)	• Without PDs: 276.38 • With PDs: 4384.55
Environment parameters	Long-term operating temperature	–40°C to +65°C (-40°F to 149°F) at an altitude of 0–1800 m (0–5906 ft.), mapping industrial optical modules	• –40°C to +65°C (-40°F to 149°F) at an altitude of 0–1800 m (0–5906 ft.), mapping industrial optical modules
	Short-term operating temperature	NA	NA
	Storage temperature	-40°C to +75°C	-40°C to +75°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)	51.5 dB(A)	3*600W PoE AC 30% load: 50 dB(A) 3*1000W PoE AC 30% load: 49.9 dB(A) 3*100W PoE DC 30% load: 48.5 dB(A)
	Noise under high temperature (sound power)	55.5 dB(A)	3*600W PoE AC 30% load: 54.9 dB(A) 3*1000W PoE AC 30% load: 54.8 dB(A) 3*100W PoE DC 30% load: 53.3 dB(A)
	Noise under normal temperature (sound pressure)	39.5 dB(A)	3*600W PoE AC 30% load: 38 dB(A) 3*1000W PoE AC 30% load: 37.9 dB(A) 3*100W PoE DC 30% load: 36.5 dB(A)
	Surge protection specification (RJ45 service port)	±7 kV in common mode	±6 kV in common mode
	Surge protection specification (power	• AC power port: ±6 kV in differential mode, ±6 kV in common mode	• AC power port: ±6 kV in differential mode, ±6 kV in common mode

Item		CloudEngine S5735I-S24T4XE-V2 CloudEngine S5735I-S24T4XE-T-V2	CloudEngine S5735I-S24U4XE-V2 CloudEngine S5735I-S24U4XE-T-V2
	port)	• 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]	146.35/168.93	92.58/90.49
	MTTR (hour)	2	2
	Availability	> 0.99999	> 0.99999
Certification		• EMC certification • Safety certification • Manufacturing certification	• EMC certification • Safety certification • Manufacturing certification

Networking and Applications

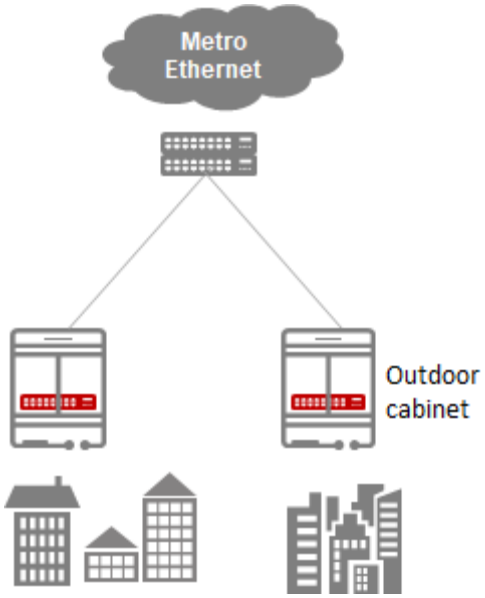
Video surveillance application, outdoor cabinet

CloudEngine S5735I-S-V2 series switches supports extended operating temperature range, with professional surge protection capabilities, suitable for outdoor cabinet environment. CloudEngine S5735I-S-V2 series switch can be used for safe city scenario to provide remote access for the camera.



ETTx scenario

CloudEngine S5735I-S-V2 series switches supports extended operating temperature and provides GE access and 10GE uplinks for ETTx access scenarios.



Safety and Regulatory Compliance

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 • 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

Certification Category	Description
	• 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

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 • RMON-MIB • SAVI-MIB

Category	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 • HUAWEI-GTSM-MIB • HUAWEI-HGMP-MIB

Category	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 detailed information of MIBs supported by the CloudEngine S5735-S series, visit https://support.huawei.com/enterprise/en/switches/s5700-pid-6691579?category=reference-guides&subcategory=mib-reference.

Standard Compliance

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 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+
IEEE	• IEEE 802.1D Media Access Control (MAC) Bridges

Standard Organization	Standard or Protocol
	• 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 802.1ab 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 802.3af DTE Power via MIDI • IEEE 802.3at DTE Power via the MDI Enhancements
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/YMODEM Protocol Reference

Ordering Information

The following table lists ordering information of the CloudEngine S5735I-S-V2 series switches.

Model	Product Description
CloudEngine S5735I-S24T4XE-V2	CloudEngine S5735I-S-24T4XE-V2 (24x10/100/1000BASE-T ports, 4x10GE SFP+ ports, 2x12GE stack ports, without power module)
CloudEngine S5735I-S24T4XE-T-V2	CloudEngine S5735I-S-24T4XE-T-V2 (24x10/100/1000BASE-T ports, 4x10GE SFP+ ports, 2x12GE stack ports, HTM, without power module)

Model	Product Description
CloudEngine S5735I-S24U4XE-V2	CloudEngine S5735I-S-24U4XE-V2 (24x10/100/1000BASE-T ports, 4x10GE SFP+ ports, 2x12GE stack ports, PoE++,without power module)
CloudEngine S5735I-S24U4XE-T-V2	CloudEngine S5735I-S-24U4XE-T-V2 (24x10/100/1000BASE-T ports, 4x10GE SFP+ ports, 2x12GE stack ports, PoE++,HTM,without power module)
PAC180S12-CN	180 W AC power module, used in Non-PoE models
PDC1K2S12-CE	1200 W DC power module, used in Non-PoE models
PAC600S56-EB	600 W AC PoE power module, used in PoE models
PAC1000S56-EB	1000 W AC PoE power module, used in PoE models
PDC1000S56-EB	1000 W DC PoE power module, used in PoE models
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-SnS1Y	N1-CloudCampus,Foundation,S57XX-S Series,SnS,Per Device,1Year
N1-S57S-A-Lic	N1-CloudCampus,Advanced,S57XX-S Series,Per Device
N1-S57S-A-SnS1Y	N1-CloudCampus,Advanced,S57XX-S Series,SnS,Per Device,1Year
N1-S57S-FToA-Lic	N1-Upgrade-Foundation to Advanced,S57XX-S,Per Device
N1-S57S-FToA-SnS1Y	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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