S1700 Series Enterprise Switches

Huawei S1700 series switches are next-generation energy-saving Ethernet access switches designed for small- and medium-sized enterprises, Internet cafes, hotels, and schools.

Product Overview

The S1700 series switches are easy to install and maintain and come with diverse service features, helping customers build secure, reliable, high-performance networks.

The S1700 series consists of unmanaged switches, web-managed switches, and fully-managed switches:

- Unmanaged switches:

Include S1700-16G, S1700-24-AC, S1700-24GR, S1724G-AC, S1700-52R-2T2P-AC and S1700-52GR-4X

- Web-managed switches:

Include S1720-10GW-2P, S1720-10GW-PWR-2P, S1720-28GWR-4P, S1720-28GWR-4X, S1720-28GWR-PWR-4P, S1720-28GWR-PWR-4TP, S1720-28GWR-PWR-4X, S1720-52GWR-4P, S1720-52GWR-4X, S1720-52GWR-PWR-4P and S1720-52GWR-PWR-4X

Models and Appearances
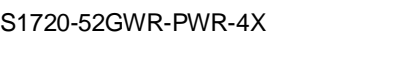
Unmanaged switches

Product Appearance	Description
S1700-16G	- 16 Ethernet 10/100/1000 ports - AC power supply - Forwarding performance: 24Mpps - Switching Capacity: 32Gbps
S1700-24-AC	- 24 Ethernet 10/100 ports - AC power supply - Forwarding performance: 3.6Mpps - Switching Capacity: 4.8Gbps
S1700-24GR	- 24 Ethernet 10/100/1000 ports - AC power supply - Forwarding performance: 36Mpps - Switching Capacity: 48Gbps

Product Appearance	Description
S1724G-AC	• 24 Ethernet 10/100/1000 ports • AC power supply • Forwarding performance: 36Mpps • Switching Capacity: 48Gbps
S1700-52R-2T2P-AC	• Downlink: 48 Ethernet 10/100 ports • Uplink: 2 Ethernet 10/100/1000 ports, 2 Gig SFP ports • AC power supply • Forwarding performance: 13.2Mpps • Switching Capacity: 17.6Gbps
S1700-52GR-4X	• Downlink: 48 Ethernet 10/100/1000 ports • Uplink: 4 10 Gig SFP+ • AC power supply • Forwarding performance: 132Mpps • Switching Capacity: 336Gbps

Web-managed switches

Product Appearance	Description
S1720-10GW-2P	• Downlink: 8 Ethernet 10/100/1000 ports • Uplink: 2 Gig SFP ports • AC power supply • Forwarding performance: 15Mpps • Switching Capacity: 68Gbps
S1720-10GW-PWR-2P	• Downlink: 8 Ethernet 10/100/1000 ports • Uplink: 2 Gig SFP ports • PoE+ • AC power supply • Forwarding performance: 15Mpps • Switching Capacity: 68Gbps
S1720-28GWR-4P	• Downlink: 24 Ethernet 10/100/1000 ports • Uplink: 4 Gig SFP ports • AC power supply • Forwarding performance: 42Mpps • Switching Capacity: 68Gbps
S1720-28GWR-4X	• Downlink: 24 Ethernet 10/100/1000 ports • Uplink: 4 10 Gig SFP+ • AC power supply • Forwarding performance: 96Mpps • Switching Capacity: 168Gbps
S1720-28GWR-PWR-4P	• Downlink: 24 Ethernet 10/100/1000 ports • Uplink: 4 Gig SFP ports • PoE+

Product Appearance	Description
	• AC power supply • Forwarding performance: 42Mpps • Switching Capacity: 68Gbps
S1720-28GWR-PWR-4TP	• Downlink: 24 Ethernet 10/100/1000 ports • Uplink: 2 Gig SFP and 2 dual-purpose 10/100/1000 or SFP • PoE+ • AC power supply • Forwarding performance: 42Mpps • Switching Capacity: 68Gbps
S1720-28GWR-PWR-4X	• Downlink: 24 Ethernet 10/100/1000 ports • Uplink: 4 10 Gig SFP+ • Support PoE+ • AC power supply • Forwarding performance: 96Mpps • Switching Capacity: 168Gbps
S1720-52GWR-4P	• Downlink: 48 Ethernet 10/100/1000 ports • Uplink: 4 Gig SFP ports • AC power supply • Forwarding performance: 78Mpps • Switching Capacity: 336Gbps
S1720-52GWR-4X	• Downlink: 48 Ethernet 10/100/1000 ports • Uplink: 4 10 Gig SFP+ • AC power supply • Forwarding performance: 132Mpps • Switching Capacity: 336Gbps
S1720-52GWR-PWR-4P	• Downlink: 48 Ethernet 10/100/1000 ports • Uplink: 4 Gig SFP ports • PoE+ • AC power supply • Forwarding performance: 78Mpps • Switching Capacity: 336Gbps
S1720-52GWR-PWR-4X	• Downlink: 48 Ethernet 10/100/1000 ports • Uplink: 4 10 Gig SFP+ • PoE+ • AC power supply • Forwarding performance: 132Mpps • Switching Capacity: 336Gbps

Features and Highlights

Innovative Energy-saving Design

- The S1700 supports Energy Efficient Ethernet (EEE), which enables the switch to enter a power-saving mode when traffic is light.

- The S1700 can adjust the power output for transmissions based on the cable length. It can also set any ports that are not transmitting traffic to sleep mode.

- The models that use a fan-free design reduce power consumption and noise.

Non-blocking and High-speed Forwarding

- All S1700 ports provide Layer 2 wire-speed forwarding capabilities to ensure non-blocking packet forwarding. S1700 models provide optical and electrical GE uplink ports, which facilitate user access and are cost-effective.

- The S1700/S1720 MAC address table supports up to 8K/16K of MAC addresses, making it easy to expand networks and deploy new services. The S1700 support layer 3 static routing-forwarding which include IPv4 and IPv6 protocols.

Perpetual PoE

- When a PoE switch is rebooted after 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.

Convenient Management and Maintenance

- The S1700 is easy to manage and maintain, being equipped with a one-key operation button on the front panel.

- Web-managed S1700 models come with a web network management system, making it easy to configure switches.

- Fully-managed S1700 models allow for the use of an Simple Network Management Protocol (SNMP)-based Network Management System (NMS) for centralized configuration and management.

Intelligent O&M

- Web-managed and fully-manged S1700 models provide 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.

- Web-managed and fully-manged S1700 models support a variety of intelligent O&M features for audio and video services, including the enhanced Media Delivery Index (eMDI). With this eDMI function, the switch can function as a monitored node to periodically conduct statistics and report audio and video service indicators to the CampusInsight platform. In this way, the CampusInsight platform can quickly demarcate audio and video service quality faults based on the results of multiple monitored nodes.

Intelligent Upgrade

- Switches support the intelligent upgrade feature. Specifically, switches obtain the version upgrade path and download the newest version for upgrade from the Huawei Online Upgrade Platform (HOUP). The entire upgrade process is highly automated and achieves one-click upgrade. In addition, preloading the version is supported, which greatly shortens the upgrade time and service interruption time.

- The intelligent upgrade feature greatly simplifies device upgrade operations and makes it possible for the customer to upgrade the version independently. This greatly reduces the customer's maintenance costs. In addition, the upgrade policies on the HOUP platform standardize the upgrade operations, which greatly reduces the risk of upgrade failures.

Powerful Security Performance

- The S1700 provides a range of security features, including 802.1x, RADIUS, Portal and NAC. The S1700 also supports packet filtering based on MAC addresses or ports in order to defend against hackers and virus attacks.

Great Networking and Bandwidth Extensibility

- The S1700 provides LACP, STP, RSTP and MSTP functions to implement link aggregation and backup. Fully-managed S1720 switches support up to 64 MSTP instances for flexible networking.

Product Specifications

Item	S1700-16G S1724G-AC S1700-24GR	S1700-24-AC	S1700-52GR-4X	S1700-52R-2T2P-AC
Downlink port	• S1700-16G: 16 Ethernet 10/100/1000 ports • S1724G-AC: 24 Ethernet 10/100/1000 ports • S1700-24GR: 24 Ethernet 10/100/1000 ports	24 Ethernet 10/100 ports	48 Ethernet 10/100/1000 ports	48 Ethernet 10/100 ports
Uplink port	Shared with downlink ports	Shared with downlink ports	4 10 Gig SFP+	2 Ethernet 10/100/1000 ports, 2 Gig SFP
MAC Address Table	8K MAC	8K MAC	16K MAC	8K MAC
Dimensions (W x D x H)	• S1700-16G: 320 mm x 208 mm x 43.6 mm • S1724G-AC: 320 mm x 208 mm x 43.6 mm • S1700-24GR: 442 mm x 220 mm x 43.6 mm	320 mm x 208 mm x 43.6 mm	442 mm x 220 mm x 43.6 mm	442 mm x 220 mm x 43.6 mm
Input voltage	• Rated AC power: 100 V-240 V AC, 50–60 Hz • Max AC voltage: 90 V-264 V AC, 47–63 Hz	• Rated AC power: 100 V-240 V AC, 50–60 Hz • Max AC voltage: 90 V-264 V AC, 47–63 Hz	• Rated AC power: 100 V-240 V AC, 50–60 Hz • Max AC voltage: 90 V-264 V AC, 47–63 Hz	• Rated AC power: 100 V-240 V AC, 50–60 Hz • Max AC voltage: 90 V-264 V AC, 47–63 Hz
Power Consumption	• S1700-16G: <10 W • S1724G-AC: <14.2 W • S1720-24GR: <14.2 W	<3.9 W	<44.6 W	<22.6 W
Operating temperature	0°C–45°C	0°C–45°C	0°C–45°C	0°C–45°C
Humidity (non-condensing)	5%–95%	5%–95%	5%–95%	10%–90%
Heat dissipation	Nature heat dissipation without fan	Nature heat dissipation without fan	Heat dissipation without fan	Nature heat dissipation without fan

Item	S1720-10GW-2P S1720-10GW-PWR-2P	S1720-28GWR-4P S1720-28GWR-PWR-4P	S1720-28GWR-4X S1720-28GWR-PWR-4X	S1720-28GWR-PWR-4TP
Downlink port	8 Ethernet 10/100/1000 ports	24 Ethernet 10/100/1000 ports	24 Ethernet 10/100/1000 ports	24 Ethernet 10/100/1000 ports
Uplink port	2 Gig SFP	4 Gig SFP	4 10 Gig SFP+	4 Gig SFP, 2 dual-purpose 10/100/1000 or SFP
MAC Address Table	16K MAC	16K MAC	16K MAC	16K MAC
Routing Feature	Support IPv4, IPv6 static routing	Support IPv4, IPv6 static routing	Support IPv4, IPv6 static routing	Support IPv4, IPv6 static routing
Dimensions (W x D x H)	• 250 mm x 180 mm x 43.6 mm • 320 mm x 220 mm x 43.6 mm (PoE)	• 442 mm x 220 mm x 43.6 mm • 442 mm x 310 mm x 43.6 mm (PoE)	• 442 mm x 220 mm x 43.6 mm • 442 mm x 310 mm x 43.6 mm (PoE)	442 mm x 220 mm x 43.6 mm
Input voltage	100 V-240 V AC, 50–60 Hz	100 V-240 V AC, 50–60 Hz	100 V-240 V AC, 50–60 Hz	100 V-240 V AC, 50–60 Hz
EEE	Supported	Supported	Supported	Supported
Power Consumption	• Non-PoE model: 11.86 W • PoE model: − Without PD: 14.63 W − With PD: 159.2 W (PoE: 123.2 W)	• Non-PoE model: 20.2 W • PoE model: − Without PD: 40.4 W − With PD: 446.7 W (PoE: 370 W)	• Non-PoE model: 27.9 W • PoE model: − Without PD: 42.7 W − With PD: 448.5 W (PoE: 370 W)	• Without PD: 24.4 W • With PD: 165.528 W (PoE: 123.2 W)
Operating temperature	0°C–45°C	0°C–45°C	0°C–45°C	0°C–45°C
Humidity (non-condensing)	5%–95%	5%–95%	5%–95%	5%–95%
Heat dissipation	Fan-free natural heat dissipation	• Non-PoE model: Fan-free natural heat dissipation • PoE model: Heat dissipation using fans supporting intelligent speed adjustment	• None-PoE model: Fan-free natural heat dissipation • PoE model: Heat dissipation using fans supporting intelligent speed adjustment	Fan-free natural heat dissipation

Item	S1720-52GWR-4P S1720-52GWR-PWR-4P	S1720-52GWR-4X S1720-52GWR-PWR-4X
Downlink port	48 Ethernet 10/100/1000 ports	48 Ethernet 10/100/1000 ports
Uplink port	4 Gig SFP	4 10 Gig SFP+

| Item	S1720-52GWR-4P S1720-52GWR-PWR-4P	S1720-52GWR-4X S1720-52GWR-PWR-4X
MAC Address Table	16K MAC	16K MAC
Routing Feature	Support IPv4, IPv6 static routing	Support IPv4, IPv6 static routing
Dimensions (W x D x H)	• 442 mm x 220 mm x 43.6 mm • 442 mm x 310 mm x 43.6 mm (PoE)	• 442 mm x 220 mm x 43.6 mm • 442 mm x 310 mm x 43.6 mm (PoE)
Input voltage	100 V-240 V AC, 50–60 Hz	100 V-240 V AC, 50–60 Hz
EEE	Supported	Supported

Power Consumption	• Non-PoE model: 47.3 W
	• PoE model:
	  − Without PD: 61.7 W
	  − With PD: 461.8 W (PoE: 370 W)
		• Non-PoE model: 50.3 W
		• PoE model:
		  − Without PD: 63.5 W
		  − With PD: 464.3 W (PoE: 370 W)

Operating temperature	0°C–45°C	0°C–45°C
Humidity (non-condensing)	5%–95%	5%–95%
Heat dissipation	Heat dissipation using fans supporting intelligent speed adjustment	Heat dissipation using fans supporting intelligent speed adjustment

Service Features

Item	Web-managed Switch	Fully-managed Switch
Security features	Packet filtering based on MAC addresses MAC address authentication Port-based 802.1x authentication RADIUS authentication Portal authentication Port isolation Storm suppression DHCP snooping	Hardware ACL Packet filtering based on MAC addresses MAC address authentication Port-based 802.1x authentication. RADIUS authentication Portal authentication Port isolation Storm suppression Attack defense, which prevents broadcast traffic, ARP attacks, ICMP attacks, TCP attacks, worm viruses, and DoS attacks DHCP snooping
VLANs	4K VLANs Access port Trunk port Hybrid port Management VLAN Voice VLAN	4K VLANs Access port Trunk port Hybrid port Management VLAN Voice VLAN
QoS	PQ and WRR Eight queues on each port Queue scheduling based on 802.1p or DSCP priorities	PQ and WRR Eight queues on each port Queue scheduling based on 802.1p or DSCP priorities

| Item	Web-managed Switch	Fully-managed Switch
STP	STP (IEEE 802.1d) RSTP (IEEE 802.1w) MSTP (IEEE 802.1s)	STP (IEEE 802.1d) RSTP (IEEE 802.1w) MSTP (IEEE 802.1s)
Multicast	IGMP snooping and a maximum of 1K multicast groups Fast leave	IGMP snooping and a maximum of 1K multicast groups Fast leave
Routing feature	IPv4 and IPv6 static routing	IPv4 and IPv6 static routing
Link aggregation	64 link aggregation groups (LAGs) with a maximum of eight ports in each LAG Static LACP	64 link aggregation groups Static LACP
Port mirroring	Port-based bidirectional flow mirroring	Port-based bidirectional flow mirroring
Broadcast storm suppression	Broadcast storm suppression based on the interface rate Alarm sending when the traffic rate reaches the upper limit	Broadcast storm suppression based on the interface rate Alarm sending when the traffic rate reaches the upper limit
Device management	Web system network management DHCP client One-key restoration **NOTE** You can upgrade the web-managed S1720 model to the fully-managed model by purchasing a license.	SNMP Web system network management (HTTPS) DHCP client User password protection One-key restoration CLI configuration
Device maintenance	System log Ping Virtual Cable Test (VCT) Link Layer Discovery Protocol (LLDP)	Remote Network Monitoring (RMON) System log Ping and traceroute Virtual Cable Test (VCT) Link Layer Discovery Protocol (LLDP)

Networking and Applications

Hotel Scenarios
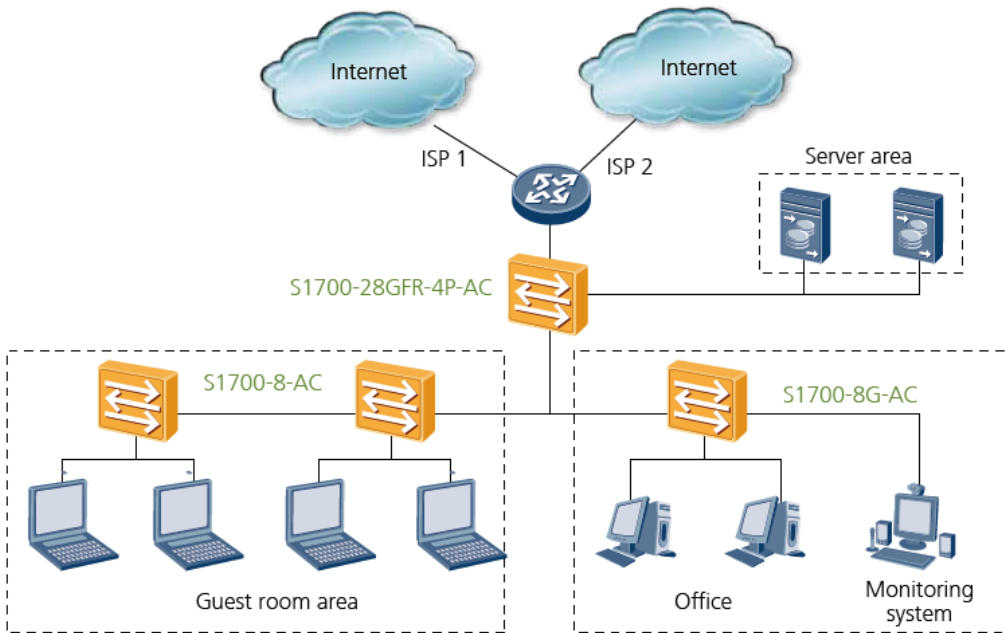
School Scenarios
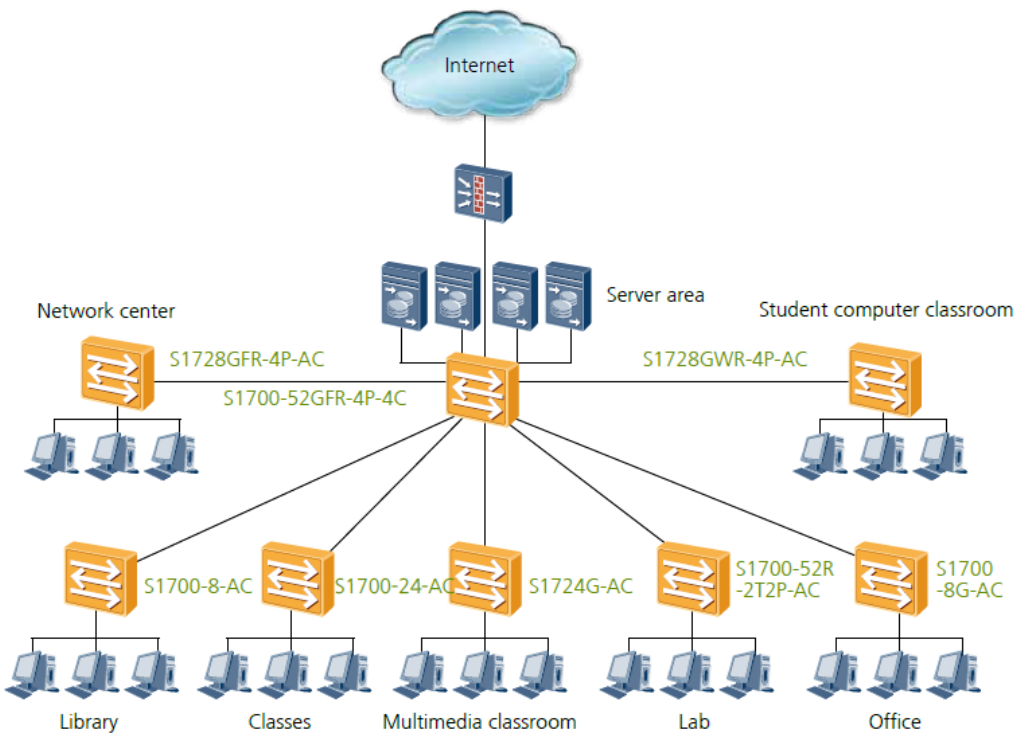
Ordering Information

The following table lists ordering information of the S1700 series switches.

Part Number	Description

Part Number	Description
98010542	S1700-16G (16 Ethernet 10/100/1000 ports, AC 110/220V)
98010455	S1700-24-AC (24 Ethernet 10/100 ports, AC 110/220V)
98010436	S1724G-AC (24 Ethernet 10/100/1000 ports, AC 110/220V)
98010495	S1700-24GR (24 Ethernet 10/100/1000 ports, AC 110/220V)
98010456	S1700-52R-2T2P-AC (48 Ethernet 10/100 ports, 2 Ethernet 10/100/1000 ports and 2 Gig SFP, AC 110/220V)
98010642	S1700-52GR-4X (48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, AC 110/220V)
98010574	S1720-10GW-2P (8 Ethernet 10/100/1000 ports, 2 Gig SFP, AC 110/220V)
98010576	S1720-10GW-PWR-2P (8 Ethernet 10/100/1000 PoE+ ports, 2 Gig SFP, AC 110/220V)
98010580	S1720-28GWR-4P (24 Ethernet 10/100/1000 ports, 4 Gig SFP, AC 110/220V)
98010587	S1720-28GWR-4X (24 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, AC 110/220V)
98010592	S1720-28GWR-PWR-4P (24 Ethernet 10/100/1000 PoE+ ports, 4 Gig SFP, 370W PoE AC 110/220V)
98010599	S1720-28GWR-PWR-4X (24 Ethernet 10/100/1000 PoE+ ports, 4 10 Gig SFP+, 370W PoE AC 110/220V)
98010610	S1720-52GWR-4P (48 Ethernet 10/100/1000 ports, 4 Gig SFP, AC 110/220V)
98010611	S1720-52GWR-4X (48 Ethernet 10/100/1000 ports, 4 10 Gig SFP+, AC 110/220V)
98010623	S1720-52GWR-PWR-4P (48 Ethernet 10/100/1000 PoE+ ports, 4 Gig SFP, 370W PoE AC 110/220V)
98010624	S1720-52GWR-PWR-4X (48 Ethernet 10/100/1000 PoE+ ports, 4 10 Gig SFP+, 370W PoE AC 110/220V)
98010636	S1720-28GWR-PWR-4TP (24 Ethernet 10/100/1000, 2 Gig SFP and 2 dual-purpose 10/100/1000 or SFP, 8 ports PoE+, 124W PoE AC)

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