



24-Port Gigabit Layer 3 Managed PoE Switch S5700-24GP-4FR

Product brochure

Shenzhen Fengrunda Technology Co., Ltd

Product Introduction

S5700-24GP-4FR is a Layer3 Managed PoE Switch specially designed for security transmission and WIFI coverage. It can meet the Po E power supply requirements of various types of equipment such as WIFI AP, IP-camera, WIFI bridge, and IP phone. The product adopts a new generation of high- performance hardware and software platform,provides flexible and cost- effective full-gigabit access and uplink ports, supports Layer 3 routing protocols,complete security protection mechanisms, complete ACL/QoS policies and rich VLAN functions. It is easy to manage and maintain, and meets users' requirements for easy management, high security, and low cost of network equipment. It is suitable for campus, hotel, and enterprise campus network access, aggregation, and core multiple application scenarios.



Main Features

Port 6KV lightning protection

- All ports support 6KV lightning protection, PSE short-circuit protection, PoE overload, power supply over-temperature protection, over-voltage protection, surge current protection and other protection features.

AI smart button

- AI Extend: 1-8 ports support long-distance power supply of 250 meters (recommended to use super five or more network cables).
- AIVLAN: Isolate ports 1-24 from each other, which can effectively suppress network storms and improve network performance.
- AIQoS: Prioritize the identified video data for smoother video transmission.
- AI PoE: Automatically detect the power receiving port, find a dead device, and restart the device after power off.

Powerful processing capabilities

- Support 802.1QVLAN, MAC VLAN, IPVLAN, users can flexibly divide VLAN as needed.
- Support QoS, 8 port queues, support port priority, 802.1P priority, DSCP priority, support SP, WRR, SP+WRR, WFQ priority scheduling algorithm.
- Support ACL, support L2 (Layer 2) ~ L4 (Layer 4) packet filtering function, provide flexible and secure access control policy.
- Support IGMP v1/v2/v3 Snooping, MLD v1/v2 Snooping, to meet the requirements of multi-terminal HD video surveillance or video conference.
- Supports the fast leave mechanism and querier of Layer 2 multicast, supports Layer 2 IPv4 static multicast and Layer 2 IPv6 static multicast.
- Support RIP dynamic routing protocol, solve the routing problem after the small and medium-sized network is divided into subnets, and simplify the network configuration.
- Support static routing protocol, and manually configure routing entries to realize communication between different network segments.
- Support proxy ARP, so that hosts in different physical networks on the same network segment can communicate normally.

Perfect security mechanism

- Complete security authentication mechanism: It supports IEEE 802.1x, Radius, Tacacs+, etc., and can provide users with a complete security authentication mechanism.
- The perfect loop detection mechanism can ensure the stable operation of the network for a long time.
- Provide port isolation in the same VLAN, and security features such as DHCP-Snooping, IP+MAC+port binding, etc., to further ensure user data security.
- Support ARP protection, IP source protection, DoS protection.
- Support to restrict user access based on port number, IP address, and MAC address.

Diverse reliability protection

- Support STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocols to eliminate Layer 2 loops and implement link backup.
- Supports loop protection, root bridge protection, TC protection, BPDU protection, and BPDU filtering.
- Support 50ms changing over optical ports.

Perfect POE power supply function

- It supports the 802.3af/at standard and has a built-in high-power power supply to meet the needs of POE scenarios such as security monitoring, wireless coverage, and IP telephony.
- Support PoE power limit and set PoE port priority. When the power exceeds the limit, the power supply of the high-priority port will be given priority.
- Support setting PoE power supply time period, users can control the time period of PoE power supply according to their own needs.
- Support PoE chip status check, users can view the PoE chip temperature, output power and other parameters in real time through the web page.

Flexible and convenient management and maintenance

- Supports various management methods such as Console, Telnet, and SSH.
- Support WEB network management (HTTP, HTTPS, SSL V3), which is simpler and more efficient, and is convenient for users to install and debug.
- Supports file upload and download management in TFTP mode.
- Support SNMP V1/V2/V3 to facilitate device management through the network management platform.
- Support one-stop management and maintenance of Fengrunda Apollo cloud platform, which can realize all-round remote operation and maintenance such as automatic device discovery, network topology management, and remote configuration management of devices.

Product Specifications

Hardware Specifications	
Network Interface	<ul style="list-style-type: none"> ● 24 10/100/1000Mbps RJ45 ports (POE) ● 4 Gigabit SFP fiber ports ● 1 Console port
Network protocol standard	<ul style="list-style-type: none"> ● IEEE 802.3,IEEE 802.3i,IEEE 802.3u,IEEE 802.3ab, IEEE 802.3z,IEEE 802.3ad,IEEE 802.3x,IEEE 802.1p, IEEE 802.1q,IEEE 802.1d,IEEE 802.1s,IEEE 802.1w, IEEE 802.3af,IEEE 802.3at
Performance Specifications	<ul style="list-style-type: none"> ● Bandwidth : 56Gbps ● Packet forwarding rate: 41.7Mpps ● MAC address table: 16K ●Port cache : 12Mb ● Forwarding Mode: Store and Forward
LED Indicator light	<ul style="list-style-type: none"> ● 28 Link/Act indicators ● 24 PoE Indicator light ● 1 Power indicator ● 1 SYS indicator
POE Pin	<ul style="list-style-type: none"> ● 1/2 (+) , 3/6 (-)
Power support	<ul style="list-style-type: none"> ● Input power: AC 100-240V/50-60Hz ● Single port maximum output power: 30W ● The maximum power of the whole machine: 360W
Physical Specifications	<ul style="list-style-type: none"> ● Dimensions (LxWxH): 440mm×320mm×44mm
Environmental Specifications	<ul style="list-style-type: none"> ● Operating temperature: 0°C~40°C ● Storage temperature: -40°C~70°C ● Working humidity: 10%~ 90% RH non-condensing ● Storage humidity: 5%~90% RH non-condensing
Safety regulations	<ul style="list-style-type: none"> ● CE/ROHS/FCC

Software Specifications	
Protocol standard	<p>IEEE 802.3:Ethernet Media Access Control (MAC) Protocol</p> <p>IEEE 802.3i:10BASE-TEthernet</p> <p>IEEE 802.3u:100BASE-TXFast Ethernet</p> <p>IEEE 802.3ab:1000BASE-TGigabit Ethernet</p> <p>IEEE 802.3z:1000BASE-XGigabit Ethernet (SFP)</p> <p>IEEE 802.3ad:Standard way to perform link aggregation</p> <p>IEEE 802.3x:flow control</p> <p>IEEE 802.1p:LAN Layer 2 QoS/Cos protocol for traffic prioritization (multicast filtering function)</p> <p>IEEE 802.1q:VLANBridge operation</p> <p>IEEE 802.1d:STP Spanning tree</p> <p>IEEE 802.1s:MSTP Spanning tree</p> <p>IEEE 802.1w:RSTP Spanning tree</p> <p>IEEE 802.3af&at</p>
One-click shortcut function	<p>AI VLAN</p> <p>AI Extend</p> <p>AI PoE</p> <p>AI QoS</p>
Layer 3 interface	<p>Support Layer 3 interface</p> <p>Support IPv4, IPv6 address configuration</p> <p>Support ARP configuration</p> <p>ND configuration supported</p>
Layer 3 routing	<p>Support IPv4 static routing</p> <p>Support IPv4 dynamic routing RIP v1/v2</p> <p>Support IPv4 dynamic routing OSPFv2</p> <p>Support IPv6 static routing</p> <p>Support IPv6 dynamic routing RIPng</p> <p>Support IPv6 dynamic routing OSPFv3</p>

Software Specifications	
VLAN	Support 4K VLAN Support 802.1QVLAN,MAC VLAN ,IPVLAN, Voice VLAN
DHCP	Support DHCP server Support DHCP relay Support DHCP Snooping
MAC address table	Follow IEEE 802.1d standard Support MAC address automatic learning and aging Support static, dynamic, filtering address table
Safety features	Password protection Support to restrict user access based on port number, IP address, MAC address Support HTTPS,SSL V3,TLS V1,SSH V1/V2 Support IP-MAC-PORT ternary binding Support ARP protection, IP source protection, DoS protection Support DHCP Snooping, DHCP attack defense Support 802.1X authentication, AAA Support port security and port isolation Support CPU protection function
PoE manage	Support PoE power limit Support PoE chip status check Support setting PoE port priority Support setting PoE power supply time period Support intelligent power supply
(ACL)	Support L2 (Layer 2) ~ L4 (Layer 4) packet filtering function Support port mirroring, flow rate limiting, QoS remarking
(QoS)	Supports 8 port queues Support port priority, 802.1P priority, DSCP priority Support SP, WRR, SP+WRR, WFQ priority scheduling algorithm
spanning tree	Support STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocols Support loop protection, root bridge protection, TC protection, BPDU protection, BPDU filtering Support optical port 50ms switching

Software Specifications	
Multicast	<ul style="list-style-type: none"> Support IGMP v1/v2/v3 Snooping Support MLD v1/v2 Snooping Fast leave mechanism and querier supporting Layer 2 multicast Support Layer 2 IPv4 static multicast Support Layer 2 IPv6 static multicast Support IGMP v1/v2/v3 Layer 3 Multicast
Storm suppression	<ul style="list-style-type: none"> Support multicast suppression Support broadcast suppression Support unknown unicast suppression
Link aggregation	<ul style="list-style-type: none"> Support static aggregation Support dynamic aggregation Support based on IP, MAC, mixed load balancing mode A maximum of 32 aggregation groups are supported
IPv6	<ul style="list-style-type: none"> Support Pv6 Ping,IPv6 Tracert,IPv6 Telnet Support IPv6 SSH ,IPv6 SSL
Management and maintenance	<ul style="list-style-type: none"> Support WEB Managed (HTTP,HTTPS,SSL V3) Support CLI (Telnet,SSH V1/V2,Local Console Port) Support SNMP V1/V2/V3 Support RMON V1/V2 Support LLDP device discovery Support NTP time synchronization Support DNS Client Support CPU monitoring, memory monitoring Support system log, graded warning Support Ping, Tracert detection, cable detection Support Apollo cloud platform one-stop management and maintenance