

# 10G Uplink 48-Port Gigabit L3 Managed PoE Switch S5700-48GP-4TF

**Product Brochure** 

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## **Product introduction**

S5700-48GP-4TFis a managed PoE switch specially designed for security transmission and WIFI coverage. It can meet the PoE power supply requirements of various types of devices 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, meets users' requirements for easy management, high security, and low cost of network equipment. It is suitable for campus, hotel, and enterprise park 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 protection, power supply over temperature protection, over voltage protection, surge current protection and other protection features

# Advanced hardware architecture design, powerful processing capability

• On the 1U rack switch, the high port density of 48 Gigabit +4 10 Gigabit switch with high-performance ARM A55 CPU to meet the application requirements of various complex scenarios and greatly improve the network data processing speed.

### Powerful business processing capabilities

- Support 802.1Q VLAN, MAC VLAN, IP VLAN, 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 ARP configuration, 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 MA

#### 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 switching of optical ports.

#### Perfect POE power supply function

- Support 802.3af/at standard, built-in power supply, meet the needs of PoE scenarios such as security monitoring, wireless coverage and IP phone.
- Support PoE power limit and set PoE port priority. When the power exceeds the limit, the power will be given priority port.
- 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.



# **Specifications**

Hardware Specifications		
Network Interface	• 48 10/100/1000Mbps RJ45 pory ( POE )	
	• 4 10GSFP+ fiber port	
	• 1 Console port	
Network protocol	• 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	
	bandwidth: 176Gbps	
Performance Specifications	Packet forwarding rate: 130.9Mpps	
	MAC addres: 16K	
	• port cache: 12Mb	
	Forwarding mode: store and forward	
	• 52 Link/Act indicator	
LED indicator	• 48 PoE indicator	
LLD illuicator	• 1 Power indicator	
	• 1 SYS indicator	
POE pin	• 1/2 ( + ) , 3/6 ( - )	
	● Input: AC 100-240V/50-60Hz	
Power	• Single port max power: 30W	
	• Total power: 360W	
Dimensions (LxWxH)	• 440mm×320mm×44mm	
	Operating temperature: 0°C~40°C	
Environmental	■ Storage temperature: -40°C∽70°C	
Specifications	• Working humidity: 10%~ 90% RH non condensing	
	• Storage humidity: 5%~90% RH non condensing	
Safety regulations	CE/ROHS/FCC	



Software Sp	ecifications
Protocol standard	IEEE 802.3: Ethernet media access control (MAC)
	IEEE 802.3i:10BASE-T Ethernet
	IEEE 802.3u:100BASE-TX fast Ethernet
	IEEE 802.3ab:1000BASE-T gigabit Ethernet
	IEEE 802.3z:1000BASE-X Gigabit Ethernet (optical fiber)
	IEEE 802.3ad:standard method of link aggregation
	IEEE 802.3x:flow control
	IEEE 802.1p:LAN layer 2 qos/cos protocol related to traffic priority (multicast filtering function)
	IEEE 802.1q:VLAN Bridge operation
	IEEE 802.1d:STP Spanning tree
	IEEE 802.1s:MSTP Spanning tree
	IEEE 802.1w:RSTP Spanning tree
	IEEE 802.3af&at
Layer3 interface	Support Layer3 interface
	Support IPv4 and IPv6 address configuration
	Support ARP configuration
	Support ND configuration
Layer 3 routing	Support IPv4 static routing
	Support IPv4 dynamic routing RIP v1/v2
	Support IPv4 dynamic routing OSPFv2
	Support IPv6 static routing
	Support IPv6 dynamic routing RIPng
	Support IPv6 dynamic routing OSPFv3



Software Spe	ecifications
VLAN	Support 4K VLAN
	Support 802.1Q VLAN、MAC VLAN ,IP VLAN , Voice VLAN
DHCP	Support DHCP server
	Support DHCP relay
	Support DHCP Snooping
MAC address table	Comply IEEE 802.1d standard
	Support MAC address automatic learning and aging
	Support static, dynamic and filtered address tables
	Password protection
Safety features	Support restricting user access based on port number, IP address and MAC address
	Support HTTPS、SSL V3、TLS V1、SSH V1/V2
	SupportIP-MAC-PORT ternary binding
	Support ARP protection, IP source protection, DOS protection
	SupportDHCP Snooping、DHCP Attack protection
	Support802.1X certification、AAA
	Support Port security, port isolation
	SupportCPU Protection function
	Support PoE power limit
	Support PoE chip status check
PoE management	Support setting PoE port priority
management	Support setting PoE power supply time period
	Support intelligent power supply
Access	SupportL2(Layer 2) ~ L4(Layer 4) packet filtering function
control(ACL)	Support Port mirroring, flow speed restriction, QoS re marking
QoS	Support 8 port queues
	Support port priority, 802.1p priority, DSCP priority
	SupportSP、WRR、SP+WRR、WFQ priority scheduling
Spanning tree	SupportSTP(IEEE 802.1d),RSTP(IEEE 802.1w) and MSTP(IEEE 802.1s) standard
	Support Loop protection, root bridge protection, TC protection, BPDU protection, BPDU filtering
	Support optical port 50ms switching



Software Specifications		
Multicast	Support IGMP v1/v2/v3 Snooping	
	Support MLD v1/v2 Snooping	
	Support Fast leave mechanism and querier of 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	Support Multicast suppression	
	Support Broadcast suppression	
	Support Unknown unicast suppression	
	Support Static convergence	
Link convergence	Support Dynamic convergence	
	Support based on IP, MAC and mixed load balancing mode	
	Support 32 aggregation groups at most	
IPv6	SupportIPv6 Ping、IPv6 Tracert、IPv6 Telnet	
	SupportIPv6 SSH 、IPv6 SSL	
	Support WEB management(HTTP、HTTPS、SSL V3)	
	Support CLI (Telnet、SSH V1/V2、local serial port)	
	Support SNMP V1/V2/V3	
	Support RMON V1/V2	
Network	Support LLDP device discovery	
managemen t	Support NTP time synchronization	
	Support DNS Client	
	Support CPU Monitoring, memory monitoring	
	Support System log, classification warning	
	Support Ping、Tracert Detection, cable detection	
	Support Apollo cloud platform one-stop management and maintenance	



# **Networking application**

