

48-Port Gigabit Layer 3 Managed PoE Switch with 10G Uplink

S5700-48GP-4TF

Product Brochure

Shenzhen Fengrunda Technology Co., Ltd

Product Introduction:

The S5700-48GP-4TF is a Layer 3 managed PoE switch specially designed for security transmission and Wi-Fi coverage, meeting the PoE power supply requirements of various devices such as Wi-Fi AP & bridge, IP camera and IP phone. Adopting a new generation of high-performance hardware and software platform, the product provides flexible and cost-effective full-Gigabit access and 10G 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 user requirements for easy management, high security and high-density networking of network devices, and is an ideal choice for various commercial network applications.



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.

Advanced Hardware Architecture with Powerful Processing Capability

In a 1U box switch, it achieves a high port density of 48 Gigabit plus 4 10G ports, and is equipped with a high-performance ARM A55 CPU, meeting application requirements in various complex scenarios and greatly improving network data processing speed.

Powerful Service Processing Capability

- Support 802.1Q VLAN, MAC VLAN and IP VLAN; VLANs can be divided flexibly as needed.
- Support QoS with 8 port queues, support port priority, 802.1P priority and DSCP priority, and support SP, WRR, SP+WRR and WFQ priority scheduling algorithms.
- Support ACL and L2 (Layer 2) ~ L4 (Layer 4) packet filtering, providing flexible and secure access control policies.
- Support IGMP v1/v2/v3 Snooping and MLD v1/v2 Snooping, meeting the requirements of multi-terminal HD video surveillance or video conferencing.
- Support the fast leave mechanism and querier of Layer 2 multicast, as well as Layer 2 IPv4 static multicast and Layer 2 IPv6 static multicast.
- Support RIP and OSPF dynamic routing protocols, solving route selection problems after subnetting in small and medium-sized networks and simplifying network configuration.
- Support static routing protocol; routing entries can be configured manually to enable communication between different network segments.
- Support proxy ARP, allowing hosts in different physical networks on the same network segment to communicate normally.

Complete Security Mechanisms

- Complete security authentication mechanism: support IEEE 802.1x, Radius, Tacacs+ and more, providing users with a complete security authentication mechanism.
- The complete loop detection mechanism ensures long-term stable network operation.

- Provide port isolation within the same VLAN, as well as DHCP-Snooping, IP+MAC+port binding and other security features, further ensuring user data security.
- Support ARP protection, IP source protection and DoS protection.
- Support restricting 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.
- Support loop protection, root bridge protection, TC protection, BPDU protection and BPDU filtering.
- Support 50ms switching of optical ports.

Complete PoE Power Supply Functions

- Support 802.3af/at standard with built-in high-power power supply, meeting the PoE requirements of scenarios such as security monitoring, wireless coverage and IP telephony.
- Support PoE power limit and PoE port priority setting; when power exceeds the limit, power supply of high-priority ports is ensured first.
- Support setting PoE power supply time periods, so users can control the PoE power supply period according to their own needs.
- Support PoE chip status check; users can view PoE chip temperature, output power and other parameters in real time on the Web page.

Flexible and Convenient Management and Maintenance

- Support multiple management methods such as Console, Telnet and SSH.
- Support WEB network management (HTTP, HTTPS, SSL V3), which is simpler and more efficient and convenient for user installation and debugging.
- Support file upload and download management in TFTP mode.
- Support SNMP V1/V2/V3, facilitating device management through the network management platform.

- Support one-stop management and maintenance on the Fengrunda Apollo cloud platform, enabling all-round remote operation and maintenance such as automatic device discovery, network topology management and remote device configuration management.

Product Specifications:

Hardware Specifications	
Network Interface	• 48 10/100/1000Mbps RJ45 ports (PoE) • 4 10G SFP+ optical ports • 1 Console port
Network Protocol Standard	• 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	• Backplane bandwidth: 176Gbps • Packet forwarding rate: 130.9Mpps • MAC address table: 16K • Port buffer: 12Mb • Forwarding mode: Store and forward
LED Indicator	• 52 Link/Act indicators • 48 PoE indicators • 1 Power indicator • 1 SYS indicator
PoE Pin	• 1/2 (+), 3/6 (-)
Power Support	• Input power: AC 100-240V/50-60Hz • Maximum output power per port: 30W • Maximum power of the whole machine: 360W
Physical Specifications	• Dimensions (LxWxH): 440mm×320mm×44mm

Environmental Specifications	• Operating temperature: 0°C~40°C • Storage temperature: -40°C~70°C • Operating humidity: 10%~90% RH non-condensing • Storage humidity: 5%~90% RH non-condensing
Safety Regulations	• CE/ROHS/FCC

Software Specifications

Protocol Standard	IEEE 802.3: Ethernet media access control (MAC) protocol 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 (fiber) IEEE 802.3ad: standard method for link aggregation IEEE 802.3x: flow control IEEE 802.1p: LAN Layer 2 QoS/CoS protocol for traffic prioritization (multicast filtering) 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
Layer 3 Interface	Support Layer 3 interfaces 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 Specifications	
VLAN	Support 4K VLANs Support 802.1Q VLAN, MAC VLAN, IP VLAN and Voice VLAN
DHCP	Support DHCP server Support DHCP relay Support DHCP Snooping
MAC Address Table	Comply with IEEE 802.1d standard Support MAC address automatic learning and aging Support static, dynamic and filtering address tables
Security Features	Password protection Support restricting user access based on port number, IP address and MAC address Support HTTPS, SSL V3, TLS V1, SSH V1/V2 Support IP-MAC-PORT ternary binding Support ARP protection, IP source protection and DoS protection Support DHCP Snooping and DHCP attack protection Support 802.1X authentication and AAA Support port security and port isolation Support CPU protection function
PoE Management	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
Access Control (ACL)	Support L2 (Layer 2) ~ L4 (Layer 4) packet filtering Support port mirroring, flow rate limiting and QoS remarking
Quality of Service (QoS)	Support 8 port queues Support port priority, 802.1P priority and DSCP priority Support SP, WRR, SP+WRR and WFQ priority scheduling algorithms

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 and BPDU filtering Support 50ms switching of optical ports
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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
Link Aggregation	Support static aggregation Support dynamic aggregation Support load balancing modes based on IP, MAC and mixed Support up to 32 aggregation groups
IPv6	Support IPv6 Ping, IPv6 Tracert and IPv6 Telnet Support IPv6 SSH and IPv6 SSL

Management and Maintenance

Support WEB network management (HTTP, HTTPS, SSL V3)
 Support CLI (Telnet, SSH V1/V2, local console)
 Support SNMP V1/V2/V3
 Support RMON V1/V2
 Support LLDP device discovery
 Support NTP time synchronization
 Support DNS Client
 Support CPU monitoring and memory monitoring
 Support system log and graded alarm
 Support Ping, Tracert detection and cable detection
 Support one-stop management and maintenance on Apollo cloud platform

Applications

