

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

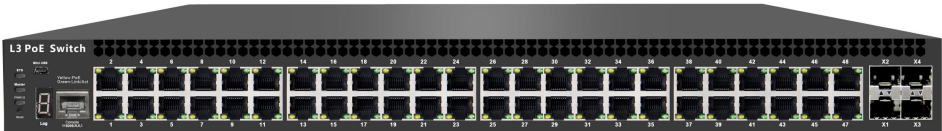
S5700-48GP-4TF

Product Datasheet

**Shenzhen Fengrunda
Technology Co., Ltd.**

Product Overview:

The S5700-48GP-4TF is a Layer 3 managed PoE switch purpose-built for security transmission and Wi-Fi coverage deployments, meeting the PoE power needs of Wi-Fi APs, bridges, IP cameras, IP phones, and other devices. Built on a new-generation, high-performance hardware and software platform, it delivers flexible, cost-effective full-Gigabit access ports and 10-Gigabit uplinks, along with Layer 3 routing protocols, comprehensive security protection, complete ACL/QoS policies, and rich VLAN features. Easy to manage and maintain, it is the ideal choice for a wide range of commercial network applications that demand simple management, high security, and high port density.



Key Features:

6KV Port Lightning Protection

- All ports support 6KV lightning surge protection, along with PSE short-circuit protection, PoE overload protection, over-temperature protection, over-voltage protection, inrush current protection, and other safeguards.

Advanced Hardware Architecture, Powerful Processing

- Delivers 48 Gigabit + 4 10-Gigabit high port density in a compact 1U form factor, powered by a high-performance ARM A55 CPU to handle demanding application scenarios and significantly boost network data processing speed.

Powerful Service Processing

- Supports 802.1Q VLAN, MAC VLAN, and IP VLAN, letting users flexibly partition VLANs as needed.
- Supports QoS with 8 queues per port, port priority, 802.1P priority, and DSCP priority, using SP, WRR, SP+WRR, and WFQ scheduling algorithms.
- Supports ACLs with Layer 2 to Layer 4 packet filtering, providing flexible and secure access control policies.
- Supports IGMP v1/v2/v3 Snooping and MLD v1/v2 Snooping, meeting the demands of multi-endpoint HD video surveillance and video conferencing.
- Supports Layer 2 multicast fast-leave and querier functions, as well as Layer 2 IPv4 and IPv6 static multicast.
- Supports the RIP dynamic routing protocol, resolving route-selection issues after subnetting in small and medium-sized networks and simplifying network configuration.
- Supports static routing, allowing routing entries to be configured manually for communication between different network segments.
- Supports proxy ARP, enabling hosts on different physical networks within the same segment to communicate normally.

Comprehensive Security Mechanisms

- Comprehensive security authentication: supports IEEE 802.1x, RADIUS, TACACS+, and more, giving users a complete authentication framework.
- A robust loop-detection mechanism ensures stable, long-term network operation.
- Provides port isolation within the same VLAN, along with DHCP Snooping and IP+MAC+port binding, further safeguarding user data.
- Supports ARP protection, IP source guard, and DoS protection.
- Supports restricting user access based on port number, IP address, or MAC address.

Diverse Reliability Protection

- Supports STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s) to eliminate Layer 2 loops and enable link backup.
- Supports loop protection, root bridge protection, TC protection, BPDU protection, and BPDU filtering.
- Supports 50ms fiber port switchover.

Comprehensive PoE Power Supply

- Supports the 802.3af/at standards with a built-in high-power supply, meeting the PoE needs of security surveillance, wireless coverage, IP telephony, and other applications.
- Supports PoE power limiting and configurable port priority, ensuring power is allocated to higher-priority ports first when the power budget is exceeded.
- Supports scheduled PoE power supply, letting users control the power delivery time window as needed.
- Supports PoE chip status monitoring, letting users check chip temperature, output power, and other parameters in real time via the web interface.

Flexible and Convenient Management

- Supports Console, Telnet, SSH, and other management methods.
- Supports web-based management (HTTP, HTTPS, SSL V3) for simpler, more efficient installation and configuration.
- Supports file upload and download management via TFTP.
- Supports SNMP V1/V2/V3 for convenient device management through network management platforms.
- Supports one-stop management and maintenance through the Foreedge Apollo cloud platform, enabling automatic device discovery, network topology management, remote configuration, and comprehensive remote operations.

Product Specifications:

Hardware Specifications	
Network Interfaces	• 48 x 10/100/1000Mbps RJ45 ports (PoE) • 4 x 10G SFP+ fiber ports • 1 x Console port
Network Protocol Standards	• 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	• Switching capacity: 176Gbps • Packet forwarding rate: 130.9Mpps • MAC address table: 16K • Packet buffer: 12Mb • Forwarding mode: Store-and-forward
LED Indicators	• 52 x Link/Act LEDs • 48 x PoE LEDs • 1 x Power LED • 1 x SYS LED
PoE Pinout	• 1/2 (+), 3/6 (-)
Power Supply	• Input power: AC 100-240V/50-60Hz • Max. output power per port: 30W • Max. total power budget: 360W
Physical Specifications	• Dimensions (L x W x H): 440mm x 320mm x 44mm
Environmental Specifications	• Operating temperature: 0°C to 40°C • Storage temperature: -40°C to 70°C • Operating humidity: 10%-90% RH, non-condensing • Storage humidity: 5%-90% RH, non-condensing
Safety/Compliance	• CE/ROHS/FCC

Software Specifications	
Protocol Standards	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 bridging IEEE 802.1d: STP spanning tree IEEE 802.1s: MSTP spanning tree IEEE 802.1w: RSTP spanning tree IEEE 802.3af&at
Layer 3 Interfaces	Supports Layer 3 interfaces Supports IPv4 and IPv6 address configuration Supports ARP configuration Supports ND configuration
Layer 3 Routing	Supports IPv4 static routing Supports IPv4 dynamic routing (RIP v1/v2) Supports IPv4 dynamic routing (OSPFv2) Supports IPv6 static routing Supports IPv6 dynamic routing (RIPng) Supports IPv6 dynamic routing (OSPFv3)

Software Specifications	
VLAN	Supports up to 4K VLANs Supports 802.1Q VLAN, MAC VLAN, IP VLAN, and Voice VLAN
DHCP	Supports DHCP server Supports DHCP relay Supports DHCP Snooping
MAC Address Table	Complies with the IEEE 802.1d standard Supports automatic MAC address learning and aging Supports static, dynamic, and filtering address entries
Security Features	Password protection Supports restricting user access based on port number, IP address, or MAC address Supports HTTPS, SSL V3, TLS V1, and SSH V1/V2 Supports IP-MAC-Port binding Supports ARP protection, IP source guard, and DoS protection Supports DHCP Snooping and DHCP attack protection Supports 802.1X authentication and AAA Supports port security and port isolation Supports CPU protection
PoE Management	Supports PoE power limiting Supports PoE chip status monitoring Supports configurable PoE port priority Supports scheduled PoE power supply Supports intelligent power supply
Access Control (ACL)	Supports Layer 2 to Layer 4 packet filtering Supports port mirroring, rate limiting, and QoS remarking
Quality of Service (QoS)	Supports 8 queues per port Supports port priority, 802.1P priority, and DSCP priority Supports SP, WRR, SP+WRR, and WFQ scheduling algorithms
Spanning Tree	Supports STP (IEEE 802.1d), RSTP (IEEE 802.1w), and MSTP (IEEE 802.1s) Supports loop protection, root bridge protection, TC protection, BPDU protection, and BPDU filtering Supports 50ms fiber port switchover

Software Specifications	
Multicast	Supports IGMP v1/v2/v3 Snooping Supports MLD v1/v2 Snooping Supports Layer 2 multicast fast-leave and querier Supports Layer 2 IPv4 static multicast Supports Layer 2 IPv6 static multicast Supports IGMP v1/v2/v3 Layer 3 multicast
Storm Control	Supports multicast storm control Supports broadcast storm control Supports unknown unicast storm control
Link Aggregation	Supports static aggregation Supports dynamic aggregation (LACP) Supports IP-based, MAC-based, and hybrid load-balancing modes Supports up to 32 aggregation groups
IPv6	Supports IPv6 Ping, IPv6 Tracert, and IPv6 Telnet Supports IPv6 SSH and IPv6 SSL
Management & Maintenance	Supports web management (HTTP, HTTPS, SSL V3) Supports CLI (Telnet, SSH V1/V2, local console) Supports SNMP V1/V2/V3 Supports RMON V1/V2 Supports LLDP device discovery Supports NTP time synchronization Supports DNS client Supports CPU and memory monitoring Supports system logging and tiered alerts Supports Ping, Tracert, and cable diagnostics Supports one-stop management via the Foreedge Apollo cloud platform

Network Deployment

