

# 10G uplink 24 Port Gigabit Layer 3 Managed Switch

S5700-24G-4F-4TF

**Product brochure** 

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## **Product introduction**

The S5700-24G-4F-4TF Layer 3 Managed Switch is designed for Small and Medium Enterprises (SMEs), Large Enterprises and Internet Service Providers (ISPs). They offer high performance, flexibility, fault tolerance and advanced software features for maximum return on investment. The S5700-24G-4F-4TF switch features Gigabit Ethernet RJ45 and SFP ports, 10 GbE SFP+ ports, advanced security features and advanced Quality of Service (QoS) and can be used as a core, distribution or access layer switch with high port Density,





### Main features:

#### Port 6KV lightning protection, dual power redundant design

- All ports support 6KV lightning protection.
- Dual power redundant design, support seamless switchover in case of failure without manual intervention.

#### Advanced hardware architecture design, powerful processing capability

•Using high-performance switching chips, it can meet the application requirements of various complex scenarios and greatly improve the network data processing rate.

#### 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 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.
- Support loop protection, root bridge protection, TC protection, BPDU protection, and BPDU filtering.
- Support 50ms switching of optical ports.

#### Flexible and convenient management and maintenance

- Support various management methods such as Console, Telnet, and SSH.
- Support WEB management (HTTP, HTTPS, SSL V3), which is simpler and more efficient, and is convenient for users to install and debug.
- Support 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:**

<b>Hardware Specifications</b>	
Network Interface	• 24 10/100/1000Mbps RJ45 Port
	• 4 10G SFP+ Port
	• 4 Gigabit SFP Port(Combo)
	• 1 RJ45 Console Port , 1 10/100Mbps RJ45 managed Port
	• 1 USB 2.0 interface,1 Mini-usb Console
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
Performance Specifications	Backplane bandwidth : 128Gbps
	Packet forwarding rate : 95.2Mpps
	MAC address table : 16K
Specifications	Port cache : 12Mb
	Forwarding Mode: Store and Forward
	• 321000M Link/Act indicators
LED indicator	● 24 10/100M网口 Link/Act indicators
LED Indicator	• 1 Power indicator
	• 1 SYS indicator
Power support	• Input power : AC 100-240V/50-60Hz
	Dual power redundant input
Physical Specifications	• Dimensions (LxWxH) : 440mm×320mm×44mm
	Working 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 Specifications		
Network 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 (optical)	
	IEEE 802.3ad: Standard way to perform link aggregation	
	IEEE 802.3x: flow control	
	IEEE 802.1p: LAN Layer 2 QoS/Cos protocol for traffic prioritization (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	
Layer 3 interface	Support Layer 3 interface	
	Support IPv4, 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 VLAN	
	Support 802.1Q VLAN、MAC VLAN ,IP VLAN , 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	
	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	
Safety features	Support ARP protection, IP source protection, DoS protection	
	Support DHCP Snooping, DHCP attack protection	
	Support 802.1X authentication, AAA	
	Support port security and port isolation	
	Support CPU protection function	
Access control (ACL)	Support L2 (Layer 2) ~ L4 (Layer 4) packet filtering function	
	Support port mirroring, flow rate limiting, QoS remarking	
Quality of service (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 Specificati	Software Specifications		
Multicast	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	Support multicast suppression		
	Support broadcast suppression		
	Support unknown unicast suppression		
Link aggregation	Support static aggregation		
	Support dynamic aggregation		
	Support based on IP, MAC, mixed load balancing mode		
	A maximum of 32 aggregation groups are supported		
IPv6	Support IPv6 Ping、IPv6 Tracert、IPv6 Telnet		
	Support IPv6 SSH 、IPv6 SSL		
Management and maintenance	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		
	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		



# **Networking application**

