

**HORED** 丰润达®

# 10G Uplink 48-Port Gigabit L3 Managed Switch S5700-48G-4TFR

## Product Brochure

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## Product introduction

S5700-48G-4TFR layer3 management switch is designed for small and medium-sized enterprises (SMEs), large enterprises and Internet service providers (ISPs). They have high performance, flexibility and advanced software functions, which can achieve the maximum return on investment. S5700-48G-4TFR has 48 gigabit RJ45 port and 4 10 GbE SFP + port , advanced security functions and advanced quality of service (QoS), which can be used as core, distribution or access layer switches. With high port density, switch stacking and ease of management, it is an ideal choice for various commercial network applications.



## Main features

### Port 6kV lightning protection, dual power redundancy design

- the full port supports 6kV lightning protection.
- dual power redundancy design supports seamless switching in case of failure without manual intervention.

### Advanced hardware architecture design, powerful processing capability

- On the 1U rack switch, realize a high port density of 48 Gigabit and 4 \* 10 Gigabit, equipped with Realtek's high-performance 800MHz MIPS-34Kc CPU, which can meet the application requirements of various complex scenarios and significantly improve 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 MAC

## **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.

## **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

<b>Hardware Specifications</b>	
<b>Network Interface</b>	<ul style="list-style-type: none"> <li>● 48 10/100/1000Mbps RJ45 port</li> <li>● 4 10G DFP+ fiber port</li> <li>● 1 Console port</li> </ul>
<b>Network protocol</b>	<ul style="list-style-type: none"> <li>● 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</li> </ul>
<b>Performance Specifications</b>	<ul style="list-style-type: none"> <li>● bandwidth : 176Gbps</li> <li>● Packet forwarding rate: 130.9Mpps</li> <li>● MAC address: 16K</li> <li>● port cache: 12Mb</li> <li>● Forwarding mode: store and forward</li> </ul>
<b>LED indicator</b>	<ul style="list-style-type: none"> <li>● 52 1000M Link/Act indicator</li> <li>● 48 10/100M网口 Link/Act indicator</li> <li>● 1 Power indicator</li> <li>● 1 SYS indicator</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>● Input: AC 100-240V/50-60Hz</li> <li>● Dual power redundant input</li> </ul>
<b>Dimensions (LxWxH):</b>	<ul style="list-style-type: none"> <li>● 440mm×320mm×44mm</li> </ul>
<b>Environmental Specifications</b>	<ul style="list-style-type: none"> <li>● Operating temperature: 0°C~40°C</li> <li>● Storage temperature: -40°C~70°C</li> <li>● Working humidity: 10%~ 90% RH non condensing</li> <li>● Storage humidity: 5%~90% RH non condensing</li> </ul>
<b>Safety regulations</b>	<ul style="list-style-type: none"> <li>● CE/ROHS/FCC</li> </ul>

**Software Specifications**

<p><b>Protocol standard</b></p>	<p>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:VLANBridge operation          IEEE 802.1d:STP Spanning tree          IEEE 802.1s:MSTP Spanning tree          IEEE 802.1w:RSTP Spanning tree</p>
<p><b>Layer3 interface</b></p>	<p>Support Layer3 interface          Support IPv4 and IPv6 address configuration          Support ARP configuration          Support ND configuration</p>
<p><b>Layer 3 routing</b></p>	<p>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</p>

<b>Software Specifications</b>	
<b>VLAN</b>	Support 4K VLAN Support 802.1Q VLAN、MAC VLAN ,IP VLAN , Voice VLAN
<b>DHCP</b>	Support DHCP server Support DHCP relay Support DHCP Snooping
<b>MAC address table</b>	Comply IEEE 802.1d standard Support MAC address automatic learning and aging Support static, dynamic and filtered address tables
<b>Safety features</b>	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, DOS protection Support DHCP Snooping、DHCP Attack protection Support 802.1X certification、AAA Support Port security, port isolation Support CPU Protection function
<b>Access control(ACL)</b>	Support L2(Layer 2) ~ L4(Layer 4) packet filtering function Support Port mirroring, flow speed restriction, QoS re marking
<b>QoS</b>	Support 8 port queues Support port priority, 802.1p priority, DSCP priority Support SP、WRR、SP+WRR、WFQ priority scheduling
<b>Spanning tree</b>	Support STP(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

<b>Software Specifications</b>	
<b>Multicast</b>	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
<b>Storm suppression</b>	Support Multicast suppression Support Broadcast suppression Support Unknown unicast suppression
<b>Link convergence</b>	Support Static convergence Support Dynamic convergence Support based on IP, MAC and mixed load balancing mode Support 32 aggregation groups at most
<b>IPv6</b>	Support IPv6 Ping、IPv6 Tracert、IPv6 Telnet Support IPv6 SSH 、IPv6 SSL
<b>Network management</b>	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, classification warning Support Ping、Tracert Detection, cable detection Support Apollo cloud platform one-stop management and maintenance



# Networking application

