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10G Uplink 48-Port Gigabit L3 Managed Switch

S5700-48G-4TFR

Product Brochure

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

Hardware Specifications	
Network Interface	● 48 10/100/1000Mbps RJ45 port ● 4 10G DFP+ 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
Performance Specifications	● bandwidth：176Gbps ● Packet forwarding rate：130.9Mpps ● MAC address：16K ● port cache：12Mb ● Forwarding mode: store and forward
LED indicator	● 52 1000M Link/Act indicator ● 48 10/100M网口 Link/Act indicator ● 1 Power indicator ● 1 SYS indicator
Power	● Input：AC 100-240V/50-60Hz ● Dual power redundant input
Dimensions (LxWxH):	● 440mm×320mm×44mm
Environmental Specifications	● Operating temperature：0℃~40℃ ● Storage temperature：-40℃～70℃ ● Working 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) 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
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

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

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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 convergence	Support Static convergence Support Dynamic convergence Support based on IP, MAC and mixed load balancing mode Support 32 aggregation groups at most
IPv6	Support IPv6 Ping、IPv6 Tracert、IPv6 Telnet Support IPv6 SSH 、IPv6 SSL
Network management	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