

2U Core L3 Managed Switch

S7802

Product Brochure

Shenzhen Fengrunda Technology Co., Ltd

Product Introduction:

The S7802 L3 managed switch is designed for small and medium enterprises (SMEs), large enterprises and Internet service providers (ISPs). It delivers high performance, flexibility, fault tolerance and advanced software features for maximum return on investment. Based on a chassis architecture, the S7802 provides 48 x 2.5G copper ports, 28 x 10G optical ports and 4 x 100G high-speed optical ports in 2U of rack space, together with advanced security features and advanced quality of service (QoS). With high port density, switch stacking and easy manageability, it can act as a campus core or aggregation switch and is ideal for a wide range of commercial network applications.



Main Features:

Port 6KV Lightning Protection, Dual Power Supply Redundancy

- All ports support 6KV lightning protection.
- Dual power supply redundancy design supports seamless switchover on failure without manual intervention.

Advanced Hardware Architecture and Powerful Processing Capability

- High-performance switching chips meet the application requirements of complex scenarios and greatly increase network data processing rates.
- High-density port design provides 48 x 2.5G copper ports, 28 x 10G optical ports and 4 x 100G high-speed optical ports in 2U of space.

Powerful Service Processing Capability

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

Complete Security Mechanisms

- Complete security authentication mechanisms: supports IEEE 802.1x, Radius, Tacacs+ and more, providing users with comprehensive security authentication.
- Complete loop detection mechanism ensures long-term stable network operation.
- Provides port isolation within the same VLAN, plus security features such as DHCP-Snooping and IP+MAC+port binding, further ensuring user data security.
- Supports ARP protection, IP source protection and DoS protection.
- Supports user access control based on port number, IP address and MAC address.

Diverse Reliability Protection

- Supports STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocols, eliminating Layer 2 loops and enabling link backup.
- Supports loop protection, root bridge protection, TC protection, BPDU protection and BPDU filtering.
- Supports 50ms switchover on optical ports.
- Supports M-LAG protocol for redundant backup and load sharing.

Flexible and Convenient Management and Maintenance

- Supports Console, Telnet, SSH and other management methods.
- Supports WEB network management (HTTP, HTTPS, SSL V3) for simpler, more efficient installation and debugging.
- Supports file upload and download management via TFTP.
- Supports SNMP V1/V2/V3 for easy device management through a network management platform.
- Supports one-stop management and maintenance on the Fengrunda Apollo cloud platform, enabling all-round remote O&M such as automatic device discovery, network topology management and remote device configuration management.

Specifications:

Hardware Specifications	
Network Interface	• 28 x Gigabit/10G SFP+ optical ports • 48 x 2.5G/1G copper ports
	• 4 x 40/100G QSFP28 optical ports
	• 1 x RJ45 console port, 1 x RJ45 management port
	• 1 x USB 2.0 port
	• 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: 4Tbps
	• Packet forwarding rate: greater than 1000Mpps
	• MAC address table: 96K
	• Port buffer: 32Mb
	• Forwarding mode: store-and-forward

LED Indicators	• 28 x SFP+ Link/Act indicators • 4 x 40/100G QSFP28 Link/Act indicators • 1 x Power indicator • 1 x SYS indicator
Power Supply and Fans	• Input power: AC 100-240V/50-60Hz • Fans support 3+1 backup and intelligent speed control
Physical Specifications	• Dimensions (WxDxH): 880mm x 320mm x 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 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 IEEE 802.1s: MSTP IEEE 802.1w: RSTP
Layer 3 Interface	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
Stacking	Supports M-LAG, a cross-device link aggregation technology

Software Specifications	
VLAN	Supports 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 IEEE 802.1d
	Supports automatic MAC address learning and aging
	Supports static, dynamic and filtering address tables
Security Features	Password protection Supports user access control based on port number, IP address and MAC address Supports HTTPS, SSL V3, TLS V1 and SSH V1/V2 Supports IP-MAC-PORT binding Supports ARP protection, IP source protection 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
Access Control (ACL)	Supports L2 (Layer 2) to L4 (Layer 4) packet filtering
	Supports port mirroring, flow rate limiting and QoS remarking
Quality of Service (QoS)	Supports 8 port queues
	Supports port priority, 802.1P priority and DSCP priority
	Supports SP, WRR, SP+WRR and WFQ priority scheduling algorithms
Spanning Tree	Supports STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocols
	Supports loop protection, root bridge protection, TC protection, BPDU protection and BPDU filtering
	Supports 50ms switchover on optical ports

Software Specifications	
Multicast	Supports IGMP v1/v2/v3 Snooping
	Supports MLD v1/v2 Snooping
	Supports fast leave mechanism and querier for Layer 2 multicast
	Supports Layer 2 IPv4 static multicast
	Supports Layer 2 IPv6 static multicast
	Supports IGMP v1/v2/v3 Layer 3 multicast
Storm Suppression	Supports multicast suppression Supports broadcast suppression Supports unknown unicast suppression

Link Aggregation	Supports static aggregation
	Supports dynamic aggregation
	Supports IP-based, MAC-based and mixed 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 and Maintenance	Supports WEB network management (HTTP, HTTPS, SSL V3)
	Supports CLI (Telnet, SSH V1/V2, local serial port)
	Supports SNMP V1/V2/V3
	Supports RMON V1/V2
	Supports LLDP device discovery
	Supports NTP time synchronization
	Supports DNS Client
	Supports CPU monitoring and memory monitoring
	Supports system logs and graded alarms
	Supports Ping and Tracert detection and cable detection
	Supports one-stop management and maintenance on the Apollo cloud platform