



Shanghai Baud Data
Communication Co., Ltd.

S2900 Series Switch

BDCOM S2900-8S4C4X
10GE Lite-L3 Switch

BDCOM S2900-8S4C4X 10GE Lite-L3 Switch

Product Overview

BDCOM S2900-8S4C4X is a new generation smart switch developed by BDCOM for carrier access networks and enterprise networks. Based on a new generation of high-performance hardware and BDCOM's proprietary BDROS software platform, S2900-8S4C4X supports robust ACL, QinQ, QoS functionalities, and Layer 3 routing. Its simple and comprehensive management methods, along with flexible installation options, enable this product to meet the access needs of various complex scenarios.



S2900-8S4C4X

Product Characteristics

Industrial Ethernet Ring with Zero Delay and Zero Packet Loss

- Supports industrial-grade Ethernet ring protection protocols, with protection switching time less than 50ms. The solution has been applied in power industry, rail transportation industry and military projects for decades, ensuring zero packet loss for high reliability requirements.

Carrier-class Ethernet Switches

- Supports carrier-grade Ethernet ring protection protocols, with protection switching time less than 50ms; also supports STP/RSTP/MSTP protocols, dual uplink primary/secondary link protection, LACP link aggregation, and other simple and efficient redundancy protection mechanisms to meet the high reliability requirements of carrier-grade networks.
- Comprehensive Ethernet OAM mechanisms that enable real-time monitoring of network operational status, allowing for rapid detection and troubleshooting.

- Powerful ACL functionality, supporting access and control based on physical ports, VLAN, MAC, IP, protocol port numbers, and other L2~L7 layer data, providing users with flexible and diverse strategy control methods.
- Supports a rich set of Layer 2 multicast features, including IGMP Snooping, fast leave mechanisms, and cross-VLAN multicast replication.

Carrier QoS Policies

- Supports complex traffic classification based on VLAN, MAC, source addresses, destination addresses, IP protocols, or priority, with capabilities for re-marking priorities, providing reliable and effective methods for optimizing user services.
- Offers flexible bandwidth control policies, supporting port-based or flow-based rate limiting functions to ensure line-speed forwarding for each port, effectively guaranteeing the quality of high-quality voice, video, and data network services.
- Every port supports 8 priority queues.
- Supports multiple queue grooming algorithms such as SP, WRR or SP+WRR.

Comprehensive Security Mechanisms

- Device-level security protection: Advanced hardware architecture design allows for graded scheduling and protection of messages at the hardware level, supporting defenses against DoS, TCP SYN Flood, UDP Flood, broadcast storms, and large traffic attacks; supports command line graded protection with different management permissions for different user levels.
- Comprehensive security authentication mechanisms: Supports IEEE 802.1x, Radius, BDTacacs+, etc., providing users with a comprehensive security authentication mechanism.
- Supports suppression functions for broadcast, multicast, and unknown unicast packets, ensuring the device operates normally under adverse network conditions.
- Perfect loop detection mechanism to ensure long-term network stability.
- Provides port isolation within the same VLAN, as well as security features like DHCP-Snooping and IP+MAC+port binding, further ensuring the security of user data.

Convenient Management and Maintenance

- Supports multiple management styles such as Console, Telnet, SSH.
- Supports WEB-based management for simpler and more efficient setup and troubleshooting.
- Supports WEB-based management, which is simpler and more effective.

- Supports file management through TFTP for uploading and downloading.
- Supports the standard SNMP protocol, and with BDCOM "NMS" intelligent network management platform, enables automatic device discovery, network topology management, device configuration management, performance data statistical analysis, and fault management. This simplifies network management and offers users a new experience.

Product Specifications

Item	S2900-8S4C4X
Switching capacity	336Gbps
Forwarding rate	72Mpps
MAC capacity	16K
Port Description	8-port Gigabit RJ45/SFP Combo, 4-port Gigabit RJ45, 4-port 10Gigabit SFP+
Dimensions (WxDxH)	280x180x44mm
Power consumption	21.5W
Operating temperature	0~45°C
Storage temperature	-40~70°C
Humidity	Operating humidity: 10%-90% non-condensing, Storage humidity: 5%-95% non-condensing
Power supply	AC: 100V-240V, 50/60Hz
Virtualization	BVSS Virtualization Cluster
MAC switching	Static configuration and dynamic MAC learning MAC browsing and removal Configurable aging time of the MAC address Limited number of learnable MAC addresses MAC filtration Black-hole MAC list
VLAN	4K VLAN entries GVRP QinQ Private VLAN Voice-VLAN

Ring Network Protection	<p>802.1D (STP), 802.1W (RSTP), 802.1S (MSTP)</p> <p>BPDU protection, root protection and ring protection</p> <p>EAPS (Ethernet Automatic Protection Switching) protocol</p> <p>ERPS (Ethernet Ring Protection Switching) protocol</p>
Multicast	<p>IGMP v1/v2/v3</p> <p>IGMP Snooping</p> <p>IGMP Fast Leave</p> <p>Multicast group policy and multicast number limit</p> <p>MVR</p>
IP routing	<p>IPv4/IPv6 dual-stack protocol</p> <p>Static routing</p> <p>RIP, OSPF dynamic routing</p> <p>VRRP virtual routing</p>
IPv6	<p>ICMPv6, DHCPv6, ACLv6, IPv6 Telnet</p> <p>IPv6 Neighbor Discovery</p> <p>Path MTU Discovery</p> <p>MLD v1/v2</p> <p>MLD Snooping</p>
DHCP	<p>DHCP Server</p> <p>DHCP Relay</p> <p>DHCP Client</p> <p>DHCP Snooping</p>
ACL	<p>Layer 2~4 ACLs</p> <p>IPv4 and IPv6 ACLs</p> <p>VLAN ACL</p>
QoS	<p>Traffic classification of L2~4 protocol headers</p> <p>CAR traffic control</p> <p>802.1P/DSCP priority remark</p> <p>Multiple queuing algorithms such as SP, WRR or SP+WRR</p> <p>Tail-Drop, WRED</p> <p>Traffic supervision and traffic shaping</p>
Security	<p>Identification and filtering of L2/L3/L4 based ACL</p> <p>Protection against DDoS attacks, TCP SYN and UDP Flood attacks</p>

	<p>Suppression of broadcast, multicast and unknown unicast packet.</p> <p>Port isolation</p> <p>Port Security, IP+MAC+port binding</p> <p>DHCP Snooping, DHCP Option 82</p> <p>IEEE 802.1x certification</p> <p>Radius, TACACS+</p> <p>Command line hierarchical protection</p>
Reliability	<p>Static/LACP mode for link aggregation</p> <p>UDLD (Unidirectional Link Detection)</p> <p>Ethernet OAM (Operations, Administration, and Maintenance)</p>
Management	<p>Supports Console, Telnet, SSH 2.0</p> <p>Supports browser-based WEB management</p> <p>Supports SNMP v1/v2/v3</p> <p>Supports file upload and download management via TFTP</p> <p>Supports RMON event logging</p>

Ordering Information

Item	Description
S2900P Series	
S2900-8S4C4X	8-port Gigabit RJ45/SFP Combo + 4-port Gigabit RJ45 + 4-port 10G SFP+ Ethernet switch (AC220V power supply, 1U height, standard 19-inch rack-mount installation)

For More Information

For more information about [BDCOM S2900-8S4C4X](#), please contact your local BDCOM account representative.

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