BDCOM

Shanghai Baud Data Communication Co., Ltd.

Switch

BDCOM S2900-8S4C4X 10GE Ethernet Switch

BDCOM S2900-8S4C4X 10G Ethernet Switch

Product Overview

BDCOM S2900-8S4C4X is a new-generation smart switch developed for enterprise networks. Based on the new high-performance hardware and the BDROS platform, S2900-8S4C4X supports ACL, selective QinQ, 1:1 and N:1 VLAN switching, Ethernet OAM, carrier-level QoS, industry-level 10G Ethernet ring, etc.



S2900-8S4C4X

Product Characteristics

Industrial Ethernet Ring with Zero Delay and Zero Packet Loss

- The S2900-8S4C4X supports industrial Ethernet ring network protection protocol. The protection switching time is less than 50ms. The solution has been applied in power industry, rail transportation industry and military projects for decades. It can achieve zero packet loss.

Carrier-class Ethernet Switches

- The S2900-8S4C4X supports carrier Ethernet ring network protection protocol. The protection switching time is less than 50ms. It also supports simple and effective redundancy protection mechanism such as STP/RSTP/MSTP protocol and dual uplink standby link protection and LACP link aggregation. These functions meet the requirement of carrier grade high reliability.
- The solution has perfect Ethernet OAM, which can real time monitor the network operating state and rapidly detect and locate the malfunction.
- The solution supports strong ACL function. The solution supports L2~L7 data access and control based on the physical port, VLAN IDs, source MAC/IP addresses and protocol port, which provides flexible ways of policy control.

- The S2900-8S4C4X supports ISSU (In-Service Software Upgrade), guaranteeing the user data non-stop forwarding when the system is upgrading.
- The S2900-8S4C4X supports various L2 multicast function, including IGMP-Snooping, user fast-leave mechanism and cross VLAN multicast replication function.

Carrier QoS Policy

- The S2900-8S4C4X supports complex traffic classification based on VLAN, source MAC/IP addresses, destination MAC/IP addresses, IP protocols, or priorities. It also supports priority remark. These functions provide an effective way for users to optimize their businesses.
- The S2900-8S4C4X provides flexible bandwidth control policies and support a port base or flow-based Committed Access Rate (CAR) and guarantees Layer 3 line-speed forwarding.
- Every port supports 8 priority queues.
- The S2900-8S4C4X also supports multiple queue grooming algorithms such as SP, WRR or SP+WRR.

Comprehensive IPv6 Solutions

- The S2900-8S4C4X comprehensively supports IPv6 Neighbor Discovery, ICMPv6、Path MTU Discovery.
- The S2900-8S4C4X supports IPv6 based Ping, Traceroute, Telnet, SSH, ACL, meeting the need of IPv6 network equipment management and service control.

Comprehensive Security Mechanisms

- The S2900-8S4C4X adopts advanced hardware architecture design, realizing the hierarchical scheduling and protection of the packet. It provides multiple security measures to defend against DOS or TCP attacks; and supports command line authority control based on user levels.
- Comprehensive Security Certification: The S2900-8S4C4X complies with IEEE 802.1x, Radius, BDTacacs+.
- The S2900-8S4C4X supports the suppression of broadcast, multicast and unknown unicast packet, ensuring the equipment can operate normally in harsh network conditions.
- The S2900-8S4C4X has the perfect loop detection mechanism.
- The S2900-8S4C4X supports the port isolation in a same VLAN and DHCP-Snooping、IP+MAC+ port binding.

Convenient Management and Maintenance

- The S2900-8S4C4X supports multiple management styles such as Console, Telnet, SSH.
- The S2900-8S4C4X supports WEB based management. The management is simpler and more effective.
- The S2900-8S4C4X supports upload and download of TFTP files.
- The S2900-8S4C4X supports ISSU (In-Service Software Upgrade).
- The S2900-8S4C4X supports SNMP. By cooperating with Baud's smart "NMS", functions including the equipment auto-discovery, the topology management, the equipment configuration management, the performance data analysis, and the fault management can be realized. In this way, the network management is simplified and the user gets a new product experience.
- The S2900 series is compatible with mainstream third-party optical modules.

Product Specifications

Item		**S2900-8S4C4X**
Switching capacity		128Gbps
Forwarding rate		72Mpps
Port		4-Port Gigabit SFP, 4-Port RJ45/SFP combo, 4-Port 10G SFP+
Dimension mm（W×D×H）		440×180×44
Power consumption	No-load	9W
	Full-load	22W
Cooling		1 fan
Indicator		Power, system, link/active
Power supply		AC：100V-240V，50/60Hz
Environment		Operating temperature/humidity: 0℃-50℃，10%-90% non-condensing Storage temperature/ humidity: -40℃-70℃；5%-95% non-condensing
Standards		IEEE 802.1 Working Group IEEE 802.3 Working Group IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX

	IEEE 802.3z Gigabit 1000BASE-SX/LX IEEE 802.3ab Gigabit 1000BASE-T IEEE 802.3ae 10Gb/s Ethernet IEEE 802.3x flow control and back pressure IEEE 802.3ad port trunk with LACP IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol IEEE 802.1p Class of Service IEEE 802.1Q VLAN tagging IEEE 802.1ad Q-in-Q IEEE 802.1X port authentication network control IEEE 802.1ab LLDP and LLDP-MED IEEE 802.3ah OAM IEEE 802.3az EEE(Energy Efficient Ethernet) RFC 768 UDP RFC 793 TFTP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP RFC 1112 IGMP v1 RFC 2236 IGMP v2 RFC 3376 IGMP v3 RFC 2710 MLD v1 RFC 2328 OSPF v2 RFC 1058 RIP v1 RFC 2453 RIP v2
Certification	CE: EN55032:2015+A11:2020, EN55035:2017, EN IEC 61000-3-2:2019, EN IEC 61000-3-3:2013/A1:2019, AS/NZS Cispr 32:2015 CE LVD: IEC 62368-1:2004, IEC 62368-1:2004+A11:2017

MAC switching	Static configuration and dynamic MAC learning(16K) MAC browsing and removal Configurable aging time of the MAC address Limited number of learnable MAC addresses MAC filtration Black-hole MAC list
Jumbo frame	9K
VLAN	4K VLAN IDs, 4094 active VLAN, 64 SVI GVRP 1:1 and N:1 VLAN Mapping QinQ and selective QinQ Private VLAN Voice-VLAN
STP	802.1d STP, 802.1w RSTP, 802.1s MSTP BPDU protection, root protection and ring protection L2PT for BPDU
Multicast	IGMP v1/v2/v3(1024 groups) IGMP Snooping IGMP Fast Leave Multicast group policy and multicast number limit Multicast filtering MVR Support for transparent passing of multicast traffic without IGMP snooping in certain port and VLAN
IPv4	Static routing, RIP, OSPF, VRRP
IPv6	ICMPv6, DHCPv6, ACLv6, IPv6 Telnet, IPv6 QoS IPv6 Neighbor Discovery Path MTU Discovery MLD Snooping
DHCP	DHCP server, client, relay, snooping
QoS	Traffic classification of port/L2~4 protocol headers/VLAN/CoS/DSCP CAR traffic control

	802.1P/DSCP priority mapping and remark Multiple queuing algorithms such as SP, WRR or SP+WRR Tail-Drop, WRED Traffic supervision and traffic shaping 8 queues per port
Security	L2~L4 ingress/egress ACL (895 IPv4 FP, 384 IPv6 FP) Anti-DOS/IP spoofing/TCP/ping/SYN/ICMP flood attacks Broadcast/multicast/unknown-unicast storm-control Port isolation Port Security, MAC address limitation, IP+MAC+port binding DHCP Snooping, DHCP Option 82 DAI(Dynamic ARP Inspection) IPSG(IP Source Guard) IEEE 802.1x certification MAC-based authentication AAA Radius, TACACS+ Multiple user privileges
Reliability	Static and LACP link aggregation, 64 groups, ups to 8 ports in one group EAPS, ERPS ISSU
Management	CLI: Console, Telnet, SSHv1/2 Web-GUI: HTTP, HTTPS/SSL Reset button SNMP v1/v2c/v3, RMON, SNMP alarm/inform/traps Upload and download of FTP/TFTP files Debugging Syslog for alarm/notification/command/debug NTP SPAN, RSPAN (1:1 and N:1 mirror) LLDP, LLDP-MED ZTP（Zero Touch Provisioning） Optical DDM

	Ethernet cable diagnosis

Ordering Information

Item	Description
Switch	
S2900-8S4C4X	4-Port Gigabit SFP + 4-Port RJ45/SFP Combo + 4-Port 10G SFP+ L3-lite Stackable Managed Switch (single AC-220V power supply, with cooling fan, 1U, standard 19-inch rack-mounted installation)
Optical module	
GE optical module	
GSFP-TX-B	GE SFP-to-RJ45 module
GSFP-SX-D	Gigabit SFP multi-mode（500m，850nm，LC，DDM）
GSFP-LX-10-D	Gigabit SFP multi-mode（10Km，1310nm，LC，DDM）
GSFP-LX-20-D	Gigabit SFP multi-mode（20Km，1310nm，LC，DDM）
GSFP-LX-40-D	Gigabit SFP multi-mode（40Km，1310nm，LC，DDM）
GSFP-ZX-80-D	Gigabit SFP multi-mode（80Km，1550nm，LC，DDM）
GSFP-ZX-120-D	Gigabit SFP multi-mode（120Km，1550nm，LC，DDM）
GSFP-LX-SM1310-10-BIDI GSFP-LX-SM1550-10-BIDI	Gigabit SFP multi-mode, single-core, bidirectional（10Km，TX1310/RX1550，LC，DDM） Gigabit SFP multi-mode, single-core, bidirectional（10Km，TX1550/RX1310，LC，DDM）
GSFP-LX-SM1310-20-BIDI GSFP-LX-SM1550-20-BIDI	Gigabit SFP multi-mode, single-core, bidirectional（20Km，TX1310/RX1550，LC，DDM） Gigabit SFP multi-mode, single-core, bidirectional（20Km，TX1550/RX1310，LC，DDM）
GSFP-LX-SM1310-40-BIDI GSFP-LX-SM1550-40-BIDI	Gigabit SFP multi-mode, single-core, bidirectional（40Km，TX1310/RX1550，LC，DDM） Gigabit SFP multi-mode, single-core, bidirectional（40Km，TX1550/RX1310，LC，DDM）
GSFP-LX-SM1490-80-BIDI GSFP-LX-SM1550-80-BIDI	Gigabit SFP multi-mode, single-core, bidirectional（80Km，TX1490/RX1550，LC，DDM） Gigabit SFP multi-mode, single-core, bidirectional（80Km，TX1550/RX1490，LC，DDM）
GSFP-LX-SM1490-120	Gigabit SFP multi-mode, single-core, bidirectional（120Km，

GSFP-LX-SM1550-120	TX1490/RX1550，LC，DDM） Gigabit SFP multi-mode, single-core, bidirectional（120Km， TX1550/RX1490，LC，DDM）
10GE optical module	
SFP+SX	10GE SFP+ multi-mode（300m，850nm，LC）
SFP+LX-10	10GE SFP+ single mode（10Km，1310nm，LC，DDM）
SFP+LX-20	10GE SFP+ single mode（20Km，1310nm，LC，DDM）
SFP+LX-40-1310	10GE SFP+ single mode（40Km，1310nm，LC，DDM）
SFP+LX-80	10GE SFP+ single mode（80Km，1550nm，LC，DDM）
SFP+LX-SM-1270-10 SFP+LX-SM-1330-10	10GE SFP+ single mode，single-core, bidirectional（10Km， TX1270/RX1330，LC，DDM） 10GE SFP+ single mode，single-core, bidirectional（10Km， TX1330/RX1270，LC，DDM）
SFP+LX-SM-1270-20 SFP+LX-SM-1330-20	10GE SFP+ single mode，single-core, bidirectional（20Km， TX1270/RX1330，LC，DDM） 10GE SFP+ single mode，single-core, bidirectional（20Km， TX1330/RX1270，LC，DDM）
SFP+LX-SM-1270-40 SFP+LX-SM-1330-40	10GE SFP+ single mode，single-core, bidirectional（40Km， TX1270/RX1330，LC，DDM） 10GE SFP+ single mode，single-core, bidirectional（40Km， TX1330/RX1270，LC，DDM）

For More Information

For more information about BDCOM S2900-8S4C4X, please contact your local BDCOM account representative.

Shanghai Baud Data Communication Co., LTD.

No.123, Juli Road,

Pudong Zhangjiang High-Tech Park,

Shanghai 201203, P.R.China

www.bdcom.cn

Tel: +86-21-50800666

Copyright ©Shanghai Baud Data Communication Co., LTD. 2025. All rights reserved.

This document is BDCOM Public Information.

BDCOM reserves the right to alter, update and otherwise change the information contained in the document from time to time without notice.

DISTRIBUITO DA:

Advanced Innovations

Sede Usmate Velate

Via dell'Artigianato, 32F
20865 Usmate Velate (MB)
+39 039 682 96 36
info@ad-in.net
adin.it

Filiale Roma

Via Pontina, 583
00128 Roma (RM)
+39 06 80079273

Filiale Padova

Via San Crispino, 64
35129 Padova (PD)
+39 039 682 96 36