



BDCOM S2200I Series

100M/1000M Carrier-Level Access Switches

Introduction

BDCOM S2200I Series switches are new-generation smart access ones developed by Shanghai Baud Data Communication Co., Ltd for carrier's IP MAN and enterprise networks. S2200I, based on new-generation high-performance hardware and the BDROS platform, supports functions such as powerful ACL, QinQ, 1:1 or N:1 VLAN switching, Ethernet OAM and carrier-level QoS. Various management modes, flexible installation modes, lightning protection, low-consumption and being fan-free of this switch series meet the multi-service bearing requirements and the access requirements of all complicated applications.

BDCOM S2200I Series switches include three models: S2210I, S2218I, S2226I and S2226FI, catering to the access requirements of different sizes of networks.



S2226I

- S2210I: 8 10/100M TX ports, 2 gigabit Combo ports (10/100/1000Base-T or 100/1000Base-X)
- S2218I: 16 10/100M TX ports, 2 gigabit Combo ports (10/100/1000Base-T or 100/1000Base-X)
- S2226I: 24 10/100M TX ports, 2 gigabit Combo ports (10/100/1000Base-T or 100/1000Base-X)
- S2226FI: 24 100M SFP slots, 2 gigabit Combo ports (10/100/1000Base-T or 100/1000Base-X)

Properties

Telecom-Level Ethernet Access Switch

- Supporting the telecom-level Ethernet-ring protection protocol with a protection shift time of less than 50ms, STP/RSTP/MSTP, backup of active and standby uplinks, and LACP link aggregation to cater to the requirements of high reliability of carriers
- Providing the perfect Ethernet OAM mechanism to monitor the network running status in real time for rapid trouble locating and detection
- Having powerful ACL functions to access and control L2-L7 data based on physical port, VLAN, MAC, IP and protocol port ID, and providing carriers flexible and various policy control methods
- Supporting In-Service Software Upgrade (ISSU) to ensure the unremitting data forwarding during system upgrade
- Supporting various L2 multicast functions such as IGMP-snooping, user fast-leave mechanism and trans-vlan multicast copy to fully meet the operation requirements of carrier's IPTV

Carrier-Level QoS Policies

- Supporting priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority to better streamline carrier's services
- Providing flexible bandwidth control policies, supporting port-/flow-based flow limit, and ensuring the line speed forwarding of each port to make sure the high quality of video, audio and data services
- Supporting 8 priority queues by each port
- Supporting multiple queue schedule algorithms such as SP, WRR, or "P plus WRR"

Versatile IPv6 Solution

- Support the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, etc.
- Support Ping, Traceroute, Telnet, SSH, ACL and so like on the basis of IPv6, meeting IPv6 networks' equipment management requirements and service control requirements.

Perfect Security Mechanisms

- Equipment-level security: The advanced hardware infrastructure design realizes the level-based packet schedule and packet protection, prevents DoS-/TCP-related SYN Flood, UDP Flood, Broadcast Storm or large traffic attacks, and supports level-based command line protection, endowing different levels of users with different management permissions.
- Perfect security authentication mechanisms: IEEE 802.1x, Radius and BDTacacs+

- Storm/multicast/unicast limit to ensure the normal running of equipment in harsh network conditions
- Perfect ring detection mechanism to ensure the long-term stable running of network
- Port isolation within the same VLAN, DHCP-Snooping, and IP plus MAC plus Port binding for ensuring user data security

Flexible and Convenient Management and Maintenance

- Supporting many management modes such as the console port, Telnet, SSH, etc
- Supporting the WEB management mode, which is easy and efficient so that it makes installation and debugging convenient
- Supporting TFTP-patterned file upload/download management
- Supporting ISSU
- Supporting SNMP and BDCOM NMS smart network management platform to realize automatic equipment discovery, network topology management, equipment configuration management, performance data statistics and analysis and trouble management

Specifications

Item	S2210I	S2218I	S2226I/S2226FI
Backplane	5.6Gbps	7.2Gbps	8.8Gbps
Forwarding rate	4.2Mpps	5.4Mpps	6.6Mpps
MAC	16K	16K	16K
Ports	8 10/100M TX ports and 2 gigabit Combo ports (10/100/1000Base-T or 100/1000Base-X)	16 10/100M TX ports and 2 gigabit Combo ports (10/100/1000Base-T or 100/1000Base-X)	24 10/100M TX(S2226I) or 24 100M SFP(S2226FI) and 2 gigabit Combo ports (10/100/1000Base-T or 100/1000Base-X)
Dimensions (W*H*D)	310×162×44mm	310×162×44mm	310×162×44mm
Consumption	<10W	<20W	<20W (S2226I) <45W (S2226FI)
Power source	AC : 100V-240V , 50Hz±10% DC : -36V~-72V		
Environment	Working temperature and humidity: 0℃-50℃ , 10%-90% non-condensing		

	Storage temperature and humidity: -20°C-70°C, 5%-95% non-condensing
MAC exchange	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 GVRP 1:1 VLAN mapping and N:1 VLAN mapping Supporting QinQ PVLAN
STP	802.1D (STP), 802.1W (RSTP) and 802.1S (MSTP) BPDU protection, root protection, and loopback protection
Multicast	IGMP v1/v2/v3 IGMP snooping IGMP Fast Leave Multicast group strategy and quantity limitation Multicast flow copying over VLANs
IPv6	ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet IPv6 neighbor discovery Path MTU discovery MLD V1/V2 IGMP snooping
QoS	Flow classification based on each field in the heads of L2/L3/L4 protocols CAR flow limit 802.1P/DSCP priority re-labeling SP, WRR, and “SP+WRR” Congestion avoidance mechanisms like Tail-Drop and WRED Flow monitoring and flow shaping
Security features	L2/L3/L4 ACL flow identification and filtration DDoS attack prevention, TCP’s SYN Flood attack prevention, UDP Flood attack prevention, etc Broadcast/multicast/unknown unicast storm-control

	Port isolation Port security, and “IP+MAC+port” binding DHCP snooping and DHCP option 82 IEEE 802.1x authentication Radius BDTacacs+ authentication Level-based command line protection
Reliability	Static/LACP link aggregation EAPS and ERPS ISSU uninterrupted system upgrade
Management	Console, Telnet, SSH, Web SNMP v1/v2/v3 TFTP- RMON

Order Information

Item	Description
S2210I	Ethernet switch with 8 100M ports and 2 GE ports (1 console port, 8 100M TX ports, 2 GE TX/SFP combo ports, AC 220V power supply, no fan, 1U, desktop or wall-mounted installation)
S2210I-DC	Ethernet switch with 8 100M ports and 2 GE ports (1 console port, 8 100M TX ports, 2 GE TX/SFP combo ports, DC -48V power supply, no fan, 1U, desktop or wall-mounted installation)
S2218I	Ethernet switch with 16 100M ports and 2 GE ports (1 console port, 16 100M TX ports, 2 GE TX/SFP combo ports, AC 220V power supply, no fan, 1U, desktop or wall-mounted installation)
S2218I-DC	Ethernet switch with 16 100M ports and 2 GE ports (1 console port, 16 100M TX ports, 2 GE TX/SFP combo ports, DC -48V power supply, no fan, 1U, desktop or wall-mounted installation)
S2226I	Ethernet switch with 24 100M ports and 2 GE ports (1 console port, 24 100M TX ports, 2 GE TX/SFP combo ports, AC 220V power supply, no fan, 1U, desktop or wall-mounted installation)
S2226I-DC	Ethernet switch with 24 100M ports and 2 GE ports (1 console port,

	24 100M TX ports, 2 GE TX/SFP combo ports, DC -48V power supply, no fan, 1U, desktop or wall-mounted installation)
S2226FI	Ethernet switch with 24 100M ports and 2 GE ports (1 console port, 24 100M SFP slots, 2 GE TX/SFP combo ports, AC 220V power supply, no fan, 1U, desktop or wall-mounted installation)
S2226FI-DC	Ethernet switch with 24 100M ports and 2 GE ports (1 console port, 24 100M SFP slots, 2 GE TX/SFP combo ports, DC -48V power supply, no fan, 1U, desktop or wall-mounted installation)
Optical modules	
100M optical modules	
FSFP-SX-1310	100M SFP multi-mode (2Km, 1310nm, LC, DDM)
FSFP-LX-15	100M SFP single-mode (15Km, 1310nm, LC, DDM)
FSFP-LX-40	100M SFP single-mode (40Km, 1310nm, LC, DDM)
FSFP-ZX-80	100M SFP single-mode (80Km, 1550nm, LC, DDM)
FSFP-LX-SM1310-20-BIDI	100M SFP single-mode, single-fiber (20Km, TX1310/RX1550, LC, DDM)
FSFP-LX-SM1550-20-BIDI	100M SFP single-mode, single-fiber (20Km, TX1550/RX1310, LC, DDM)
FSFP-LX-SM1310-40-BIDI	100M SFP single-mode, single-fiber (40Km, TX1310/RX1550, LC, DDM)
FSFP-LX-SM1550-40-BIDI	100M SFP single-mode, single-fiber (40Km, TX1550/RX1310, LC, DDM)
FSFP-LX-SM1310-80-BIDI	100M SFP single-mode, single-fiber (80Km, TX1310/RX1550, LC, DDM)
FSFP-LX-SM1550-80-BIDI	100M SFP single-mode, single-fiber (80Km, TX1550/RX1310, LC, DDM)
GE optical modules	
GSFP-TX-B	GE SFP-to-RJ45 module
GSFP-SX-D	GE SFP multi-mode (500m, 850nm, LC, DDM)
GSFP-LX-10-D	GE SFP single-mode (10Km, 1310nm, LC, DDM)
GSFP-LX-20-D	GE SFP single-mode (20Km, 1310nm, LC, DDM)
GSFP-LX-40-D	GE SFP single-mode (40Km, 1310nm, LC, DDM)
GSFP-ZX-80-D	GE SFP single-mode (80Km, 1550nm, LC, DDM)

GSFP-LX-SM1310-10-BIDI	GE SFP single-mode, single-fiber (10Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-10-BIDI	GE SFP single-mode, single-fiber (10Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-20-BIDI	GE SFP single-mode, single-fiber (20Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-20-BIDI	GE SFP single-mode, single-fiber (20Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-40-BIDI	GE SFP single-mode, single-fiber (40Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-40-BIDI-1310	GE SFP single-mode, single-fiber (40Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1490-80-BIDI	GE SFP single-mode, single-fiber (80Km, TX1490/RX1550, LC, DDM)
GSFP-LX-SM1550-80-BIDI	GE SFP single-mode, single-fiber (80Km, TX1550/RX1490, LC, DDM)

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