BDCOM S2200 Series
100M&1000M Access Switches

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Product Overview

BDCOM S2200 Series is a new-generation smart access switch designed for carrier's IP MAN and enterprise networks. Based on the new-generation high-performance hardware and BDROS platform, it supports functions such as ACL, QinQ and QoS.

BDCOM S2200 Series has five models: S2210, S2212, S2228C, S2228FB and S2448C.

S2210	S2212	S2228C

S2228FB	S2448C

> S2210: 8 10/100Base-T ports, 2 1000Base-X ports;

> S2212: 8 10/100Base-T ports, 4 1000Base-X ports;

> S2228C: 24 10/100 Base-T ports, 4 GE Combo ports (10/100/1000 Base-T or 100/1000 Base-X);

> S2228FB: 24 100Base-X ports, 2 10/100/1000 Base-T ports, 2 GE Comb ports (10/100/1000 Base-T or 1000 Base-X);

> S2448C: 48 10/100 Base-T ports, 2 10/100/1000 Base-T ports, 2 1000 Base-X ports;

Features

> **Telecom-Level Ethernet Access Switches**

● S2200 Series supports 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;

● S2200 Series has 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;

- S2200 Series supports In-Service Software Upgrade (ISSU) to ensure the unremitting data forwarding during system upgrade;

- S2200 Series supports 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

- S2200 Series supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority to better streamline carrier's services;

- S2200 Series provides 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;

- S2200 Series supports multiple queue schedule algorithms such as SP, WRR, or "SP plus WRR";

Varied Ipv6 Solutions

- S2200 Series supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, etc.

- S2200 Series supports Ping, Traceroute, Telnet, SSH, ACL and so like on the basis of IPv6, meeting IPv6 networks' equipment management requirements and service control requirements;

Complete 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+;

- S2200 Series supports storm/multicast/unicast limit which ensures the normal running of equipment in harsh network conditions;

- S2200 Series supports perfect ring detection mechanism which ensures the long-term stable running of network;
- S2200 Series supports port isolation within the same VLAN, DHCP-Snooping, and IP plus MAC plus Port binding for ensuring user data security;

➢ **Management and Maintenance**

- S2200 Series supports many management modes such as the console port, Telnet, SSH;
- S2200 Series supports the WEB management mode, which is easy and efficient so that it makes installation and debugging convenient;
- S2200 Series supports TFTP-patterned file upload/download management;
- S2200 Series supports ISSU;
- S2200 Series supports 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	S2210	S2212	S2228C	S2228FB	S2448C
Backplane	5.6Gbps	9.6Gbps	12.8Gbps	12.8Gbps	17.6Gbps
Forwarding rate	4.2Mpps	7.2Mpps	9.6Mpps	9.6Mpps	13.2Mpps
MAC	8K	8K	16K	8K	8K
Ports	1 Console port, 8 100M TX ports, 2 GE SFP ports	1 Console port, 8 100M TX ports, 4 GE SFP ports	1 Console port, 24 100M TX ports, 4 GE Combo ports (SFP, support 1000M/100M auto-adaptation)	1 Console port, 24 100M SFP ports, 2 GE TX ports, 2 GE Combo ports (SFP)	1 Console port, 48 100M TX ports, 2 GE TX ports, 2 GE SFP ports
Dimensions	240×150×42	280×180×44	440×180×44	442.5×315×44	442.5×225.5×44

(W×H×D)					
Consumption	<15W	<15W	<15W	<45W	<40W
Power supply	AC: 100V-240V, 50Hz±10% DC: -36V~-72V				
Environment	Operating temperature and humidity: 0℃-50℃, 10%-90% non-condensing Storage temperature and humidity: -20℃-70℃; 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				
VLAN	4K VLAN GVRP 1:1 VLAN mapping and N:1 VLAN mapping QinQ Private VLAN				
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

Ordering Information

Item	Description
S2200 Series	
S2210	Ethernet switch with 8 100M ports and 2 GE ports (1 Console port, 8 100M TX ports, 2 GE SFP ports; AC220V power

	supply, fanless, 1U, desktop, wall-mounted installation)
S2212	Ethernet switch with 8 100M ports and 4 GE ports (1 Console port, 8 100M TX ports, 4 GE SFP ports; AC220V power supply, fanless, 1U, desktop, wall-mounted installation)
S2228C	Ethernet switch with 24 100M ports and 4 GE Combo ports (1 Console port, 24 100M TX ports, 4 GE Combo ports (supports SFP, 100M/1000M auto-adaptation), AC220V power supply; fanless, 1U, standard 19-inch rack-mounted installation)
S2228FB	Ethernet switch with 24 100M SFP ports, 2 GE TX ports, and 2 GE Combo ports (1 Console port, 24 100M SFP ports, 2 GE TX ports, 2 GE Combo SFP ports; AC220V power supply; fanless, 1U, standard 19-inch rack-mounted installation)
S2448C	Ethernet switch with 48 100M ports, 2 GE ports and 2 GE SFP ports (1 Console, 48 100M TX ports, 2 GE TX ports, 2 GE SFP ports; AC220V power supply; fanless, 1U, standard 19-inch rack-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,

FSFP-LX-SM1550-40-BIDI	LC, DDM)
	100M SFP single-mode, single fiber (40Km, TX1550/RX1310, LC, DDM)
FSFP-LX-SM1310-80-BIDI FSFP-LX-SM1550-80-BIDI	100M SFP single-mode, single fiber (80Km, TX1310/RX1550, LC, DDM) 100M SFP single-mode, single fiber (80Km, TX1550/RX1310, LC, DDM)
GE optical modules	
GSFP-TX-B	GE SFP-to- RJ45 TX 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 GSFP-LX-SM1550-10-BIDI	GE SFP single-mode, single fiber　(10Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber　(10Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-20-BIDI GSFP-LX-SM1550-20-BIDI	GE SFP single-mode, single fiber　(20Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber　(20Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-40-BIDI GSFP-LX-SM1550-40-BIDI-1310	GE SFP single-mode, single fiber　(40Km, TX1310/RX1550, LC, DDM) GE SFP single-mode, single fiber　(40Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1490-80-BIDI GSFP-LX-SM1550-80-BIDI	GE SFP single-mode, single fiber　(80Km, TX1490/RX1550, LC, DDM)

	GE SFP single-mode, single fiber　(80Km, TX1550/RX1490, LC, DDM)

For More Information

For more information about BDCOM S2200 Series, please contact your local BDCOM account representative.

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