S2500-P SERIES

Supports Maximum 24 GE POE Ports and 4 GE SFP Uplink Ports

Advanced Hardware Architecture and Industry-leading Port Density

Carrier-Level High Reliability Layer-3 Routing Functions

Varied Service Characteristics Versatile IPv6 Solution Complete Security Mechanism

Product Overview

BDCOM S2500-P Series is a new-generation intelligent PoE 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. Its simple management mode and flexible installation can meet the requirement of any complicated scenarios;
BDCOM S2500-P Series has 4 models: S2500-8P2S, S2500-16P2S2C,S2500-24P4S and S2500-24P4C.

Product Characteristics

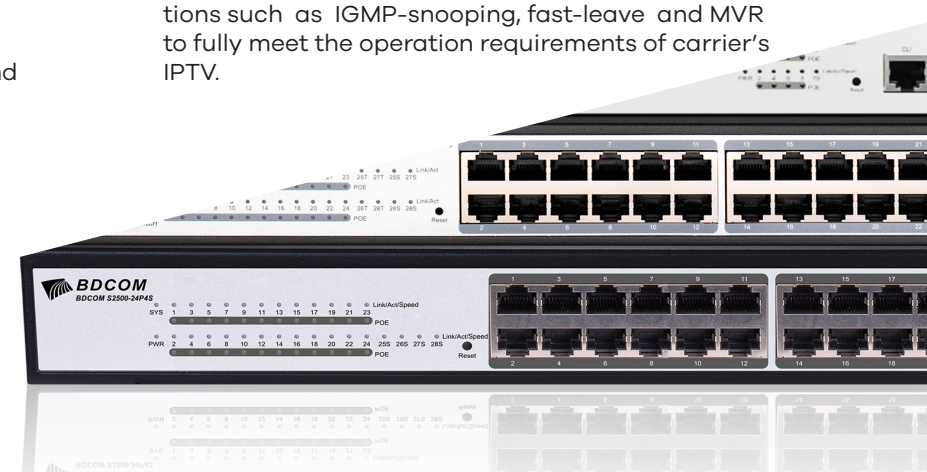
Carrier-Level Ethernet Access Switch

S2500-P Series supports the carrier-level Ethernet-ring protection protocol with less than 50ms recovery time , STP/RSTP/MSTP , backup uplink ports, and LACP link aggregation to cater to the requirements of high reliability of carriers;

S2500-P Series has powerful ACL functions to access and control L2-L7 data based on physical port, providing carriers flexible and various policy control methods;

S2500-P Series supports In-Service Software Upgrade (ISSU) to ensure the unremitting data forwarding during system upgrade;

S2500-P Series supports various L2 multicast functions such as IGMP-snooping, fast-leave and MVR to fully meet the operation requirements of carrier's IPTV.



Product Characteristics

Intelligent POE+

S2500-P Series supports IEEE 802.3AF/AT PoE standard, and power mapping scales up to a maximum of 370W of PoE+ power;

S2500-P Series supports PoE non-stop power supply. The PoE+ power is maintained during a switch reload;

S2500-P Series supports manual and dynamic PoE power allocation;

S2500-P Series supports up to 2KV thunder-proof of the PoE port and power supply;

Enhanced QoS

S2500-P Series supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority, better streamlining carrier's services;

S2500-P Series provides flexible bandwidth control policies, supporting port-/flow-based flow limit, ensuring the line speed forwarding of each port;

S2500-P Series supports multiple queue schedule algorithms such as SP, WRR and "SP + WRR";

Security+

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+.

S2500-P Series supports storm/multicast/unicast limit, ensuring the normal running of equipment in harsh network conditions.

S2500-P Series supports perfect ring detection mechanism, ensuring the long-term stable running of network.

S2500-P Series supports port isolation within the same VLAN, DHCP-Snooping, and IP + MAC + Port binding.

Easy Management and Maintenance

S2500-P Series supports many management modes such as the CLI, Telnet, SSH, SSL and SNMP; S2500-P Series supports the WEB management mode, which is easy and efficient for installing and debugging the device;

S2500-P Series supports FTP,TFTP and SFTP;

S2500-P Series supports ISSU (In-Service Software Upgrade);

S2500-P Series supports SNMP and BDCOM NMS smart network management platform. The combination realizes automatic equipment discovery, network topology management , equipment configuration management , performance data statistics and analysis and trouble management;

S2500-P Series supports Zero Touch Provisioning(ZTP) function to minimize manual operator intervention and helps reduce customers' initial deployment costs.

Model Lists

S2500-8P2S

- 8-Port Gigabit PoE+
- 2-Port Gigabit SFP

S2500-16P2S2C

- 16-Port Gigabit PoE
- 2-Port Gigabit RJ45/SFP combo
- 2-port Gigabit SFP

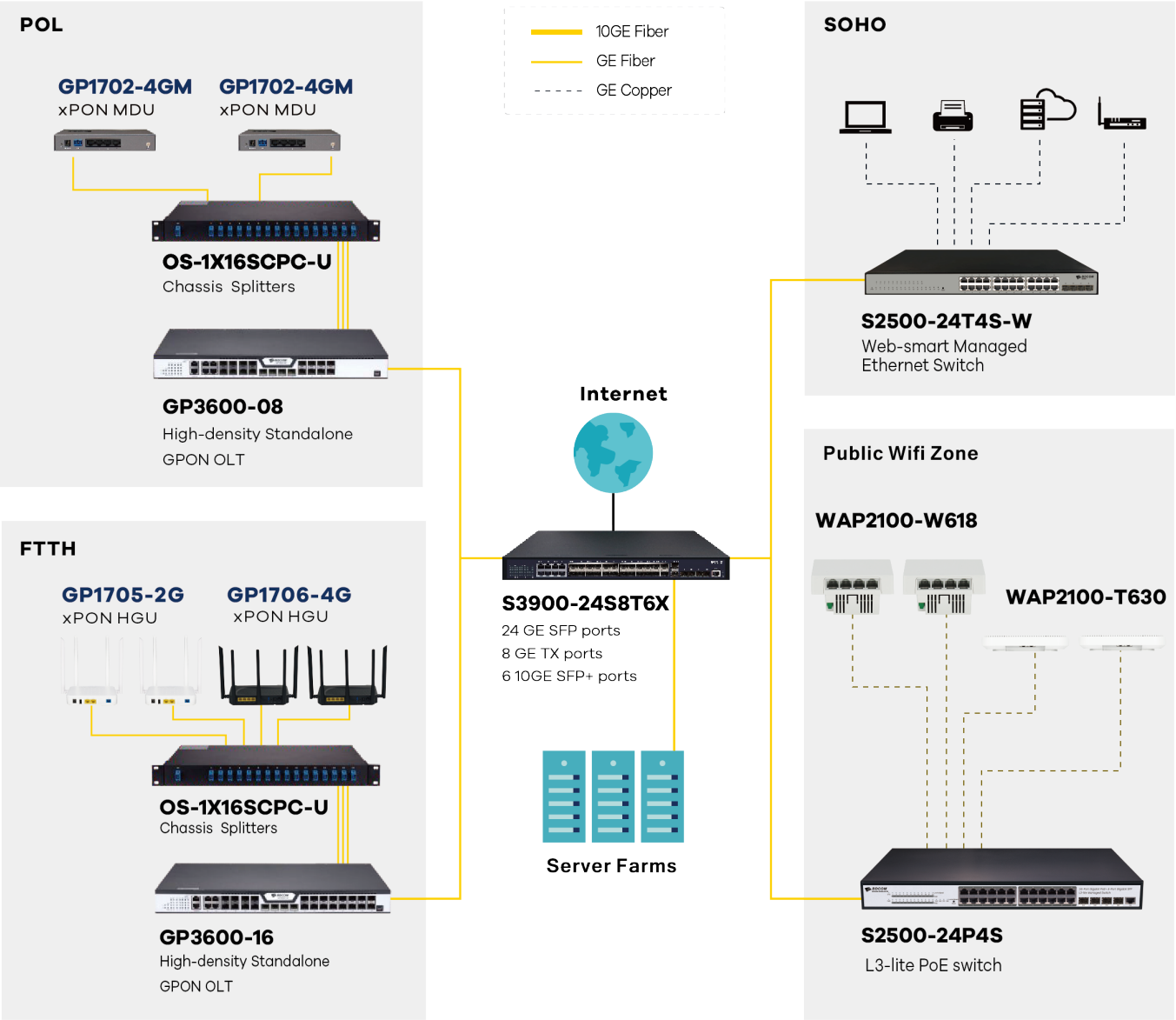
S2500-24P4S

- 24-Port Gigabit PoE+
- 4-Port Gigabit SFP

S2500-24P4C

- 24-Port Gigabit PoE+
- 4-Port Gigabit RJ45/SFP combo

Application Diagram



Product Specifications

Item		S2500-8P2S	S2500-16P2S2C	S2500-24P4S	S2500-24P4C
Interface		8-Port Gigabit PoE +, 2-Port Gigabit SFP	24-Port Gigabi t PoE+ 2-Port Gigabit RJ45/SFP combo 2-Port Gigabit SFP	24-Port Gigabit PoE+, 4-Port Gigabit SFP	24-Port Gigabi t PoE+, 4-Port Gigabit RJ45/SFP combo
Console		1 RJ45 port, 1 RST button	1 RJ45 port, 1 RST button	1 RJ45 port, 1 RST button	1 RJ45 port, 1 RST button
Backplane		20 Gbps	40 Gbps	56 Gbps	56 Gbps
Forwarding rate		15 Mpps	30 Mpps	42 Mpps	42 Mpps
Chassis	Dimensions (WxDxH)(mm)	280x180x44	440x210x44	440x210x44	440x210x44
	Weight(KG)(empty)	1.6	2.8	2.2	3
Package	Dimensions (WxDxH)(mm)	346x289x92	555x295x88	555x295x88	555x295x88
Power consumption	Weight(KG)	2.4	3.9	3.3	4.1
	no-load	< 7W	<15W	< 17W	< 17W
	full-load	152.5W	261.4W	393.5W	393.5W
Power supply	AC: 100V-240V, 50Hz±10%	160W	265W	400W	400W
POE power budget		140 W	250W	370 W	370 W
Total output BTU (1000BTU/H=293W)		520.47	892. 15	1365.19	1365.19
Fan number		/	2	2	2
Noise@25°C（dBA)		0	37.5	37.5	37.5
MTBF(H)		>50,000	>50,000	>50,000	>50,000
Forwarding mode		Store-forward			
Flash (MB)		16			
DRAM (MB)		128			
MAC		8K			
Buffer size(Mb)		4.1			
Jumbo frame		9K			
Total SVI		10			

Features

VLAN
- 4K Active VLAN,
- QinQ & Selective QinQ,
- GVRP, Private VLAN,
- Voice VLAN

Spanning Tree
- 802.1D (STP),
- 802.1W(RSTP)and 802.1S(MSTP)
- BPDU guard, root guard and loopback guard

Multicast
- IGMP v1/2/3
- IGMP Snooping
- IGMP Fast Leave
- IGMP Filter
- MVR

IP
- Static route
- RIP, OSPF
- 128 routing table
- IPv4/v6 dual stack
- DHCP Server/Client/Relay

QoS
- CAR, HQoS, MAC/IP/TCP/UDP/ VLAN/ COS/ DSCP/TOS based
- QoS, 802.1P/DSCP priority relabeling, SP,WRR, and "SP+WRR",
- Tail-Drop, WRED, flow monitoring and traffic shaping

Security
- Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky DHCP Snooping and option 82, DAI& IP source guard, PPPoE+,
- IEEE 802.1x, Radius and BDTacacs+
- L2/L3/L4 ACL flow identification and filtration Anti-attack from DDoS, TCP's SYN Flood, UDP Flood, etc.
- Broadcast/multicast/unknown unicast storm-control
- Md5, SHA-256, RSA-1024, AES256, etc.

Reliability
- Static/LACP link aggregation, Interface backup
- EAPS and ERPS
- ISSU

Management
- Console, Telnet,SSH v1/2,HTTP, HTTPS SNMP v1/v2/v3, RMON
- TFTP, FTP, SFTP
- NTP
- ZTP(Zero Touch Provisioning)
- SPAN, RSPAN

Accessories
- Power cord, rackmount kits, console cable, anti-slipping pad

Environment
- Operating temperature/humidity: -10°C-50°C, 10%-90% non condensing
- Storage temperature/humidity: -20°C-70°C, 5%-90% non-condensing

Certification
- CE, FCC,ROHS

Ordering Information

Item	Description
S2500PB Series POE Switches	
S2500-8P2S	8-Port Gigabit PoE+ 2-Port Gigabit SFP L3-lite Managed PoE Switch (single AC-220V power supply, 140W PoE budget, fanless, 1U, desktop/ rack-mounted installation)
S2500-16P2S2C	16-Port Gigabit PoE, 2-Port Gigabit RJ45/SFP combo, 2-port Gigabit SFP L3-lite Managed PoE Switch, (single AC-220V power supply, 250W PoE budget, fanless , 1U, standard 19-inch rack-mounted installation)
S2500-24P4S	24-Port Gigabit PoE+ 4-Port Gigabit SFP L3-lite Managed Switch (single AC-220V power supply, 370W PoE budget, fanless , 1U, standard 19-inch rack-mounted installation)
S2500-24P4C	24-Port Gigabit PoE+ 4-Port Gigabit RJ45/SFP Combo L3-lite Managed Switch (single AC-220V power supply, 370W PoE budget, with cooling fan, 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 FSFP-LX-SM1550-20-BIDI	100M SFP single-mode, single fiber (20Km, TX1310/RX1550, LC, DDM) 100M SFP single-mode, single fiber (20Km, TX1550/RX1310, LC, DDM)
FSFP-LX-SM1310-40-BIDI FSFP-LX-SM1550-40-BIDI	100M SFP single-mode, single fiber (40Km, TX1310/RX1550, 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 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 (40Km, 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-ZX-120-D	GE SFP single-mode (120Km, 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	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)
GSFP-LX-SM1490-120 GSFP-LX-SM1550-120	GE SFP single-mode, single fiber (120Km, TX1490/RX1550, LC, DDM) GE SFP single-mode, single fiber (120Km, TX1550/RX1490, LC, DDM)

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