

# S2500-P SERIES



Supports Up to 24-Port  
Gigabit PoE+ and  
4-Port Gigabit SFP  
Uplink



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, S2500-16P4S, 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 manual and dynamic PoE power allocation;

S2500-P Series supports up to 4KV 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

## S2500-16P4S



- 16-Port Gigabit PoE+
- 4-Port Gigabit SFP

## S2500-24P4S



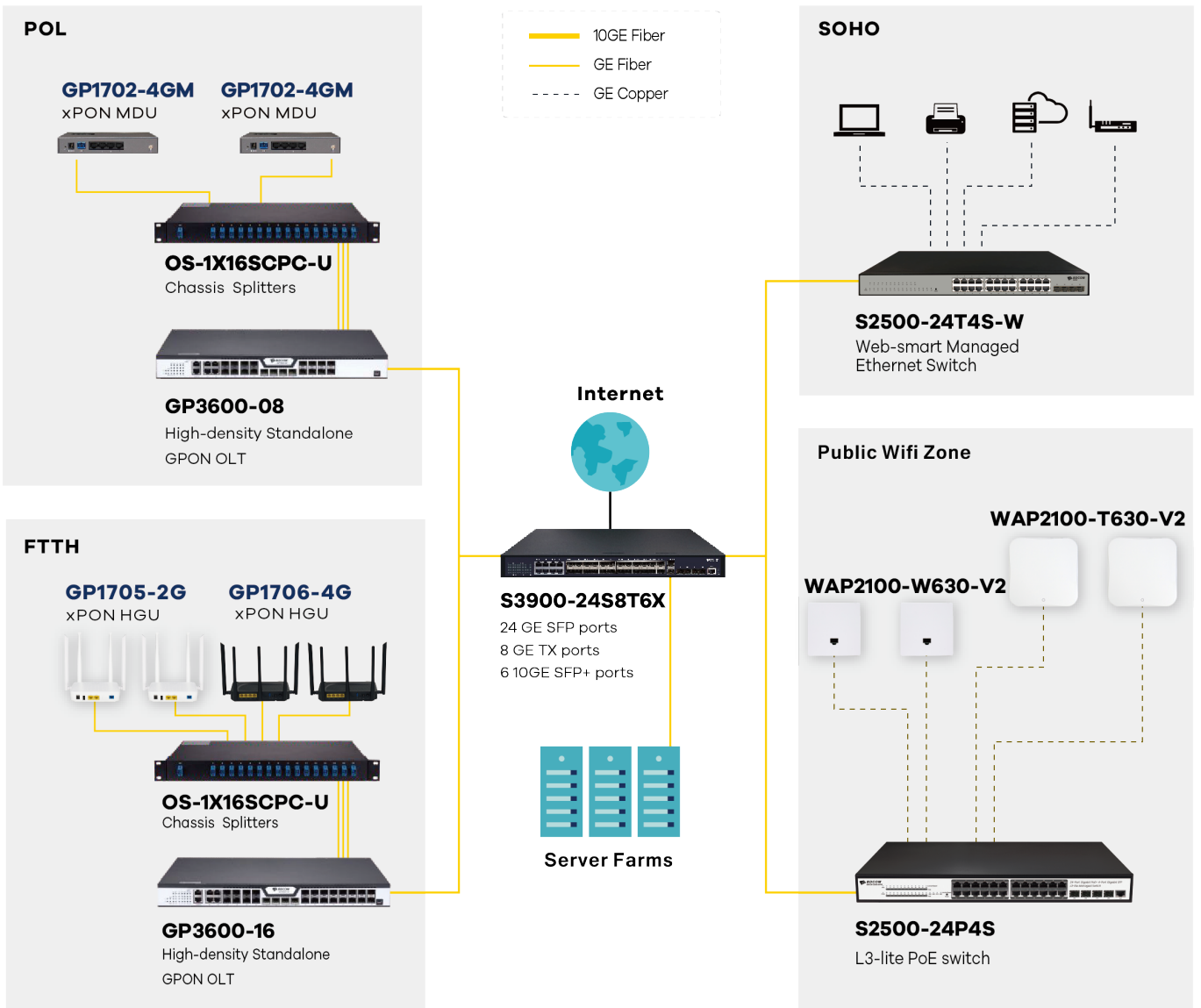
- 24-Port Gigabit PoE+
- 4-Port Gigabit SFP

## S2500-24P4C



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

# Application Diagram



# Product Specifications

Item		S2500-8P2S	S2500-16P4S	S2500-24P4S	S2500-24P4C
Interface		8-Port Gigabit PoE+, 2-Port Gigabit SFP	16-Port Gigabit PoE+ 4-Port Gigabit SFP	24-Port Gigabit PoE+, 4-Port Gigabit SFP	24-Port Gigabit 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	56 Gbps	56 Gbps	56 Gbps
Forwarding rate		15 Mpps	30Mpps	42 Mpps	42 Mpps
Chassis	Dimensions (WxDxH)(mm)	280x180x44	440x208x44	440x210x44	440x210x44
	Weight(KG)(empty)	1.6	2.9	2.2	3
Package	Dimensions (WxDxH)(mm)	346x289x92	555x295x88	555x295x88	555x295x88
	Weight(KG)	2.4	3.6	3.3	4.1
Power consumption	no-load	< 7W	<15W	< 17W	< 17W
	full-load	152.5W	260W	393.5W	393.5W
Power supply	AC: 100V-240V, 50/60Hz	160W	270W	400W	400W
POE power budget		140 W	240W	370 W	370 W
Total output BTU (1000BTU/H=293W)		520.47	880	1365.19	1365.19
Fan number		1	2	2	2
Noise@25°C (dBA)		33	45	45	45
MTBF(H)		>200,000	>200,000	>200,000	>200,000
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
- Syslog

### 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
<b>S2500PB Series POE Switches</b>	
S2500-8P2S	8-Port Gigabit PoE+ 2-Port Gigabit SFP L3-lite Managed PoE Switch ( AC-220V power supply, 140W PoE budget, fanless, 1U, desktop/rack-mounted installation)
S2500-16P4S	16-port Gigabit PoE+ 4-port Gigabit SFP L3-lite PoE Switch (standard AC 220V power supply; 240W PoE budget, fan cooling, 1U, 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)
<b>Optical Modules</b>	
<b>100M Optical Modules</b>	
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)
<b>GE Optical Modules</b>	
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-ZX-120-D	GE SFP single-mode (120Km, 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	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)
GSFP-LX-SM1490-120	GE SFP single-mode, single fiber (120Km, TX1490/RX1550, LC, DDM)
GSFP-LX-SM1550-120	GE SFP single-mode, single fiber (120Km, TX1550/RX1490, LC, DDM)

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