

# S2500-P SERIES



Varied Service Characteristics Versatile IPv6 Solution Complete Security Mechanism



Carrier-Level High Reliability Layer-3 Routing Functions



Advanced Hardware Architecture and Industry-leading Port Density



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

## 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 3 models: S2510-P, S2520-P and S2528-P;

## 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

## S2510-P



- 8 GE PoE ports
- 2 100/1000M SFP ports

## S2520-P



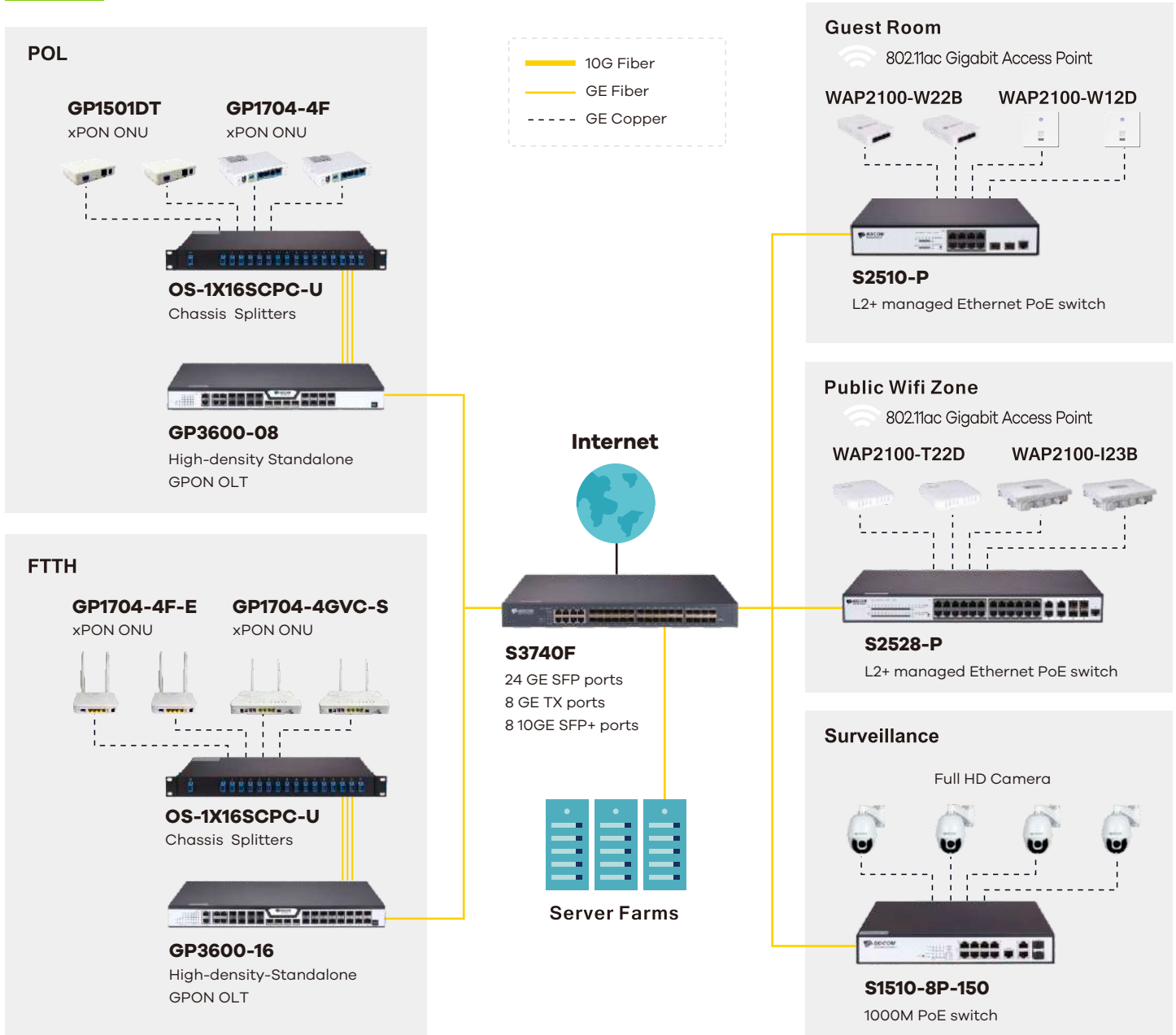
- 16 GE PoE ports
- 2 GE TX/SFP combo ports
- 2 100/1000M SFP ports

## S2528-P



- 24 GE PoE ports
- 4 GE TX/SFP combo ports

# Application Diagram



# Product Specifications

Item		S2510-P	S2520-P	S2528-P
Interface		8 GE PoE ports, 2 100/1000M SFP ports	16 GE PoE ports, 2 GE TX/SFP combo ports 2 100/1000M SFP ports	24 GE PoE ports, 4 GE TX/SFP combo ports
Console		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
Forwarding rate		15 Mpps	30 Mpps	42 Mpps
Chassis	Dimensions (WxDxH)(mm)	280x180x44	440x210x44	440x210x44
	Weight(KG)(empty)	1.6	2.8	3
Package	Dimensions (WxDxH)(mm)	346x289x92	555x295x88	555x295x88
	Weight(KG)	2.4	3.9	4.1
Power consumption	no-load	<7W	<15W	<17W
	full-load	142.5W	261.4W	393.5W
	Power supply	AC: 100V-240V, 50/60Hz	150W	265W
POE power budget		130 W	250W	370 W
Total output BTU (1000BTU/H=293W)		511.95	892. 15	1365.19
Fan number		/	2	2
Noise@25°C(dBA)		0	37.5	37.5
MTBF(H)		>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
- 512 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 re-labeling, 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
<b>S2500-P Series PoE Switches</b>	
S2510-P	Ethernet PoE switch with 10 GE ports (1 console port, 8 GE PoE ports, 2 100/1000M SFP ports, 1 standard AC220V power supply, 150W , fanless, 1U, rack-mounted installation)
S2520-P	Ethernet PoE switch with 20GE ports (1 console port, 16 GE PoE ports, 2 100/1000M SFP ports, 2GE TX/SFP combo ports, 1 standard AC220V power supply, 265W, thecooling fan, 1U, standard 19-inch rack-mounted installation)
S2528-P	Ethernet PoE switch with 28 GE ports (1 console port, 24 GE PoE ports, 4 GE TX/SFP combo ports, 1 standard AC220V power supply, 400W, the 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 single-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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