

10 GE ROUTING SWITCH

S3700 SERIES



Varied Service Characteristics
 Versatile IPv6 Solution
 Complete Security Mechanism



Innovative Virtual Cluster Switching Technique
 Carrier-Level High Reliability



Advanced Hardware Architecture and Industry-Leading Port Intensity



Supports maximum 48Gigabit ports and 8 10GE ports

Product Overview

BDCOM S3700 Series is a new generation of aggregation 10GE switches introduced by Shanghai Baud Data Communication Co., LTD. It is targeted at the IP MAN (metropolitan area network), campus networks and enterprise networks. It is developed on the basis of high performance hardware and BDROS - a software platform with BDCOM own independent intellectual property rights. It supports multiple services like IPv6, MPLS, VPN and network security based on L2/L3/L4 wire-speed switching service. It also supports nonstop upgrade, continuous forwarding, graceful restarting and redundancy protection.

BDCOM S3700 Series has 8 models: S3740, S3740F, 3756, S3756F, S3732P, S3756P, S3732M and S3756M. It supports 48 gigabit ports and 8 10GE ports.

Product Characteristics

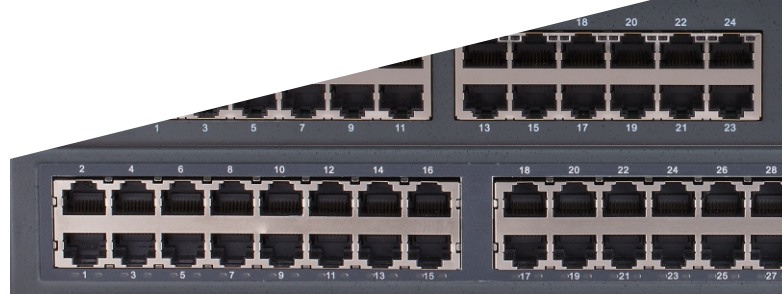
Advanced Hardware Architecture and Industry-Leading Port Intensity

1U box-shaped switch with 48 GE ports and 8 10GE ports with high-performance ASIC switch chip; 64K MAC and 64K routing items.

Innovative Virtual Cluster Switching Technique

Innovative BVSS (BDCOM Virtual Switch System): virtualize multiple physical devices into one. The performance, reliability and management of the virtual system are superior to the physical ones;

Improved Performance: BVSS makes full use of each link in the physical devices, which avoids STP blocking the link and protects the original link to the maximum extent;



Product Characteristics

Innovative Virtual Cluster Switching Technique

Easy Management: BVSS realizes single IP management, greatly improving the networking efficiency and lowering the operating cost.

Complete POE Power Supply

Supports 802.3AF/AT, built-in hot-swap modularized power, built-in dual power, no need for external power supply but with 48-port POE+ power supply;

Supports continuous POE power supply when the device performs a hot restart;

Supports power port priority in condition of inadequate power. The higher priority is the priority in power supply;

Supports thunder proof of POE port as high as 2KV and of the power supply as high as 4KV.

Carrier-level High Reliability

Based on HPS (Hitless Protection System), the key components of S3700 series such as the power module support dual back-up, hot-swap, seamless switching in the downtime without manual intervention;

Supports STP/RSTP/MSTP, VRRP protocol, Ethernet ring protection, dual master-slave uplink protection and LACP link aggregation;

Supports ISSU (In-Service Software Upgrade);

Supports BFD mechanism;

Supports Ethernet OAM mechanism, 802.3ah, 802.1ag and ITU-Y.1731;

High reliability (99.999%): MTTR of S3700 Series is 50ms, meeting the requirement of the carrier-level service.

Varied Service Characteristics

Supports layer2 and layer3 multicast routing protocol, which enable the device can access to IPTV, HD video surveillance and HD video conference;

Supports layer3 routing protocol and super-large routing table capacity, which enables the device is available in large campus networks, enterprise networks and industry networks;

Supports layer2 and layer3 MPLS VPN.

Versatile IPv6 Solution

Supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, DHCPv6, etc;

Supports Ping, Traceroute, Telnet, SSH, ACL based on IPv6;

Supports MLD, MLD Snooping, IPv6 static routing, RIPng, OSPFv3 and BGP4+, etc;

Supports IPv6 tunnel: manual tunnel, automatic tunnel, GRE tunnel, 6to4 tunnel, ISATAP;

Supports IPv4 transiting to IPv6: IPv6 manual tunnel, automatic tunnel, 6 to 4 tunnel, ISATAP tunnel.

Complete Security Mechanism

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;

Security Authentication Mechanism: IEEE 802.1x, Radius and BDTacacs+;

Enhanced Service Security Mechanism: S3700 Series supports the plaintext or MD5 authentication of relevant routing protocol, URPF, deep inspection of hardware packet, control packet and data packet and filtering technology.

Innovative Energy-saving Design

Intelligent power management: The power system of S3700 Series supports real-time monitoring the device and the slow-start. It is also power-saving;

Intelligent fan management system: The fan system of S3700 Series supports automatic speed regulation, which efficiently slow the fan speed and mitigate the noise;

Comply with the international standard IEEE 802.3az.

Model lists



S3740 32 GE Base-T ports L3 managed Ethernet switch



- 32 gigabit Base-T ports
- 8 GE/10GE SFP+ ports
- 2 power slots
- Standard hot-swap

S3740F 24 GE optical ports L3 managed Ethernet switch



- 24 gigabit optical ports
- 8 gigabit Base-T ports
- 8 10GE optical ports
- 2 power slots
- Standard hot-swap

S3756 48 GE Base-T ports L3 managed Ethernet switch



- 48 gigabit Base-T ports
- 8 GE/10GE SFP+ ports
- 2 power slots
- Standard hot-swap

S3756F 48 GE optical ports L3 managed Ethernet switch



- 48 gigabit optical ports
- 8 10GE optical ports
- 4 gigabit SFP/Base-T combo ports
- 2 power slots
- Standard hot-swap

S3756M 24 GE Base-T ports L3 managed Ethernet switch



- 24 gigabit Base-T ports
- 24 gigabit optical ports
- 8 GE/10GE SFP+ ports
- 2 power slots
- Standard hot-swap

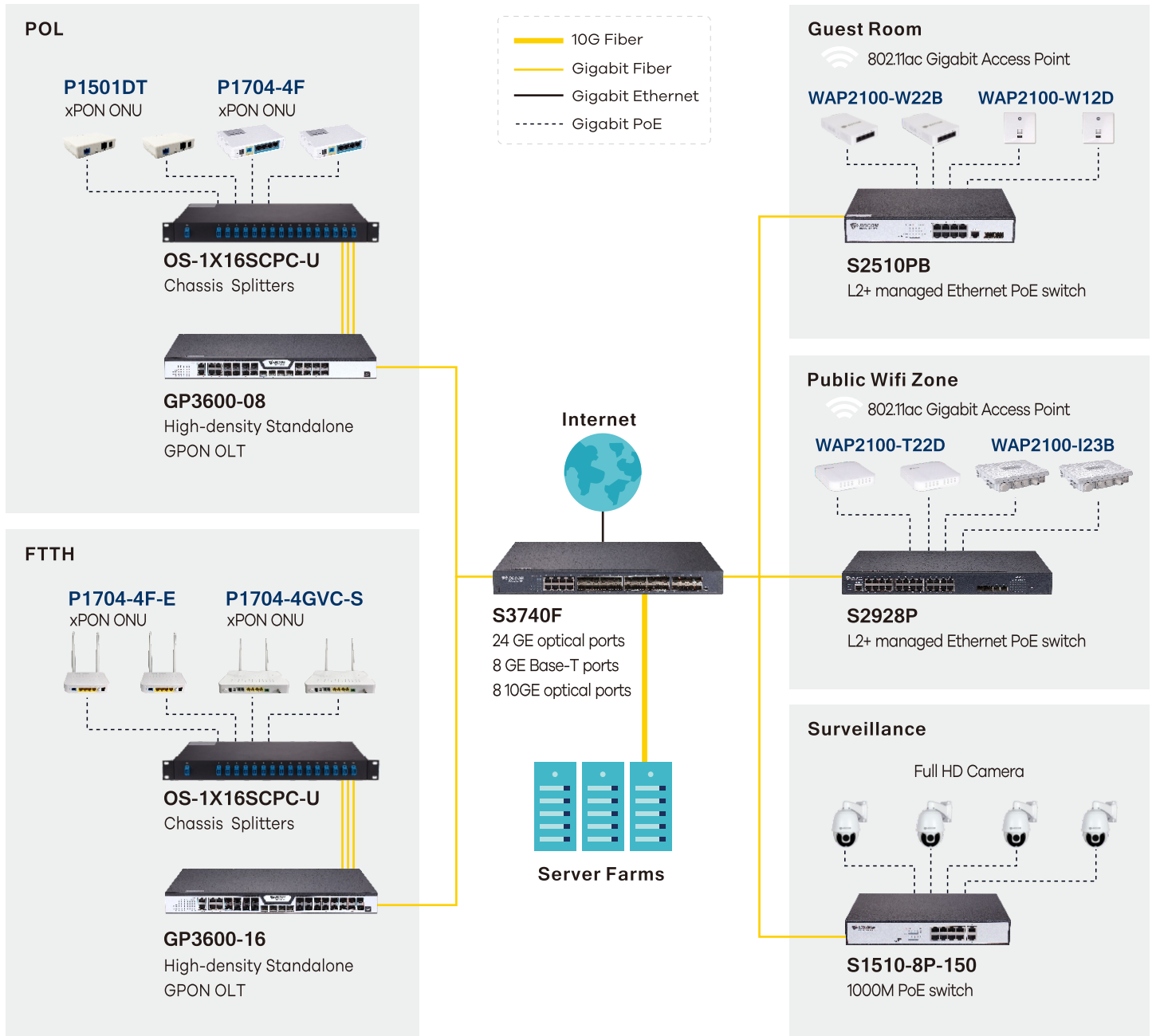
S3756P 48 GE POE ports L3 managed Ethernet switch



- 48 gigabit Base-T ports
- 8 10GE optical ports
- 2 power slots without power supplies



Application Diagram



Specifications

Item	S3740	S3740F	S3756	S3756F	S3756M	S3756P	
Product Name	Ethernet routing switch with 32 gigabit Base-T ports and 8 10GE optical ports	Ethernet routing switch with 24 gigabit optical ports, 8 gigabit Base-T ports and 8 10GE optical ports	Ethernet routing switch with 48 gigabit Base-T ports and 8 10GE optical ports	Ethernet routing switch with 48 gigabit optical ports, 4 gigabit SFP/Base-T combo ports and 8 10GE optical ports	Ethernet routing switch with 24 gigabit Base-T ports, 24 gigabit optical ports and 8 10GE optical ports	Ethernet routing switch with 48 gigabit Base-T ports and 8 10GE optical ports	
Switch Class	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3	
Port Density							
Total port count	40	40	56	60	56	56	
Gigabit SFP	-	24	-	48	24	-	
100/1000 Mbps	32	8	48	-	24	48POE	
Gigabit combo (SFP/RJ-45)	-	-	-	4	-	-	
10-Gigabit SFP+	8	8	8	8	8	8	
Performance							
Switching capacity (Gbps)	256	256	256	256	256	256	
Forwarding rate (Mpps)	168	168	192	192	192	192	
MAC address table	32/64K	32/64K	32/64K	32/64K	32/64K	32/64K	
Power							
Power supply	AC: 100V~240V, 50Hz±10% DC: -36V~-72V (POE doesn't support the DC power supply) Dual power supply (optional)						
PWR-150-AC Non-POE Power Modules	S3700 Series Non-POE Hot-swap AC Power (Max Power 150W, AC100~240V input, the isolated cooling fan)						
PWR-150-DC Non-POE Power Modules	S3700 Series Non-POE Hot-swap DC Power (Max Power 150W, DC-36V ~ -72V input, the isolated cooling fan)						
POE-500-AC POE Power Modules	S3700 Series POE Hot-swap AC Power (Max Power 500W, POE 370W, AC100~240V input, the isolated cooling fan)						
POE-500-DC POE Power Modules	S3700 Series POE Hot-swap AC Power (Max Power 1100W, POE 720W, AC100~240V input, the isolated cooling fan)						
Physical Specifications							
Item	Dimensions (WxDxH mm)	442.5×330×44	442×350×44	442×330×44	442×350×44	442.5×350×44	442.5×350×44
	Weight (kg)						
Environmental Specifications							
Operating Temperature		0°C ~ 50 °C	0°C ~ 50 °C	0°C ~ 50 °C	0°C ~ 50 °C	0°C ~ 50 °C	0°C ~ 50 °C
	Humidity	10%-90% (non-condensing)	10%-90% (non-condensing)	10%-90% (non-condensing)	10%-90% (non-condensing)	10%-90% (non-condensing)	10%-90% (non-condensing)
Storage Temperature		-20°C ~ 70 °C	-20°C ~ 70 °C	-20°C ~ 70 °C	-20°C ~ 70 °C	-20°C ~ 70 °C	-20°C ~ 70 °C
	Humidity	5%-95% (non-condensing)	5%-95% (non-condensing)	5%-95% (non-condensing)	5%-95% (non-condensing)	5%-95% (non-condensing)	5%-95% (non-condensing)

Features

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
- QinQ and flexible 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
- PIM-SM and PIM-DM

IPv4

- Static routing, RIP v1/v2, OSPF, BGP
- Strategy routing
- Load balance by equivalent routing
- BFD for OSPF, BGP

IPv6

- ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet
- IPv6 neighbor discovery
- Path MTU discovery
- MLD V1/V2
- MLD snooping
- IPv6 Static Routing, RIPng, OSPFv3, BGP4+
- Manual tunnel, ISATAP tunnel, 6 to 4 tunnel

MPLS VPN

- LDP protocol
- MCE
- P/PE of MPLS VPN
- MPLS TE
- MPLS OAM

QoS

- Flow classification based on 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
- URPF
- Level-based command line protection

Reliability

- Power 1+1 backup
- Static/LACP link aggregation and cross service card link aggregation
- EAPS
- VRRP
- GR for OSPF and BGP
- BFD for OSPF and BGP
- ISSU

Management

- Console, Telnet, SSH 2.0
- Web
- SNMP v1/v2/v3
- TFTP
- RMON
- sFLOW

Energy saving

- IEEE 802.3az

Ordering Information 10 GE Optical Modules

Item	Mode	Connector	Wavelength	Max.Distance	DDM
SFP+SX	Multi-mode	LC	850nm	300m	-
SFP+LX-10	Single-mode	LC	1310nm	10Km	DDM
SFP+LX-20	Single-mode	LC	1310nm	20Km	DDM
SFP+LX-40	Single-mode	LC	1550nm	40Km	DDM
SFP+LX-80	Single-mode	LC	1550nm	80Km	DDM
SFP+LX-SM-1270-10	Single-mode,Single-core bidirectional	LC	1270nm(Tx), 1330nm(Rx)	10Km	DDM
SFP+LX-SM-1330-10	Single-mode,Single-core bidirectional	LC	1330nm(Tx), 1270nm(Rx)	10Km	DDM
SFP+LX-SM-1270-20	Single-mode,Single-core bidirectional	LC	1270nm(Tx), 1330nm(Rx)	20Km	DDM
SFP+LX-SM-1330-20	Single-mode,Single-core bidirectional	LC	1330nm(Tx), 1270nm(Rx)	20Km	DDM
SFP+LX-SM-1270-40	Single-mode,Single-core bidirectional	LC	1270nm(Tx), 1330nm(Rx)	40Km	DDM
SFP+LX-SM-1330-40	Single-mode,Single-core bidirectional	LC	1330nm(Tx), 1270nm(Rx)	40Km	DDM

For more information about the BDCOM S3700 Series, please contact your local BDCOM account representative.



SHANGHAI BAUD DATA COMMUNICATION CO., LTD.

No.123, Juli Road, Pudong Zhangjiang High-Tech Park, Shanghai. P.R.C

Brand Hotline: +86 21-50800443

Website: www.bdcom.cn

*Due to our continued effort to advanced technology, product specifications are subject to change without notice.

