BDCOM
Professional Network Technology

BDCOM S3700 Series
10GE Routing Switches

BDCOM S3700 Series

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, S3756, S3756F, S3732P, S3756P, S3732M and S3756M. It supports 48 gigabit ports and 8 10GE ports.
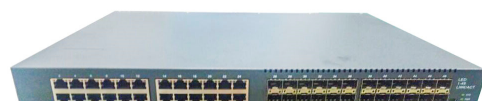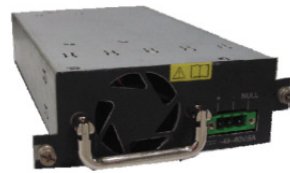
S3740

S3740F

S3756

S3756F

S3756P

S3756M

Non-POE AC power module

Non-POE DC power module

500W POE AC power module

1100W POE AC power module

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;

● **High Reliability**: Based on the advanced distribution mechanism and efficient cross-physical link aggregation link function, the logic control plane, service control plane and service data

plane are separated. Thus, the device can support continuous layer3 routing forwarding, avoiding service interruption as a result of a single point of failure;

- **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.

Product Specifications

Item	S3740	S3740F	S3756	S3756F	S3756P	S3756M
Backplane	256 Gbps	256 Gbps	256 Gbps	256 Gbps	256 Gbps	256 Gbps
Forwarding	168 Mpps	168 Mpps	192 Mpps	192 Mpps	192 Mpps	192 Mpps
MAC table	32K/64K	32K/64K	32K/64K	32K/64K	32K/64K	32K/64K
Ports	32 GE Base-T ports and 8 10GE optical ports	24 GE optical ports + 8 GE Base-T ports + 8 10GE optical ports	48 GE Base-T ports + 8 10GE optical ports	48 GE optical ports + 4 GE SFP/Base-T combo ports + 8 10GE optical ports	48 GE POE ports + 8 10GE optical ports	24 GE Base-T ports + 24 GE optical ports + 8 10GE optical ports
POE/POE+	Non-support				Support	Non-support
Dimensions mm (W×D×H)	442.5× 330×44	442×350× 44	442×330× 44	442×350× 44	442.5×35 0×44	442.5×350× 44
Power supply	AC: 100V-240V, 50Hz±10% DC: -36V~-72V (POE doesn't support the DC power supply.) Dual power supply (optional)					
Environment	Operating temperature/humidity: 0℃-50℃; 10%-90% non-condensing Storage temperature/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 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
MCE	MCE
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

Item	Description
S3740 Series 10GE Switches	
S3740	Ethernet routing switch with 32 gigabit Base-T ports and 8 10GE

	optical ports (1 Mini USB console port, 32 gigabit Base-T ports, 8 GE/10GE auto-adaptation SFP+ ports; the standard AC220V power supply, expanded dual power supply; the cooling fan, 1U, standard 19-inch rack-mounted installation)
S3740F	Ethernet routing switch with 24 gigabit optical ports, 8 gigabit Base-T ports and 8 10GE optical ports (1 Mini USB console port, 24 100M/1000M auto-adaptation SFP ports, 8 gigabit Base-T ports, 8 GE/10GE auto-adaptation SFP+ ports; the standard AC220V hot-swap power supply, the expanded dual power supply; the cooling fan, 1U, standard 19-inch rack-mounted installation)
S3756	Ethernet routing switch with 48 gigabit Base-T ports and 8 10GE optical ports (1 Mini USB console port, 48 gigabit Base-T ports, 8 GE/10GE auto-adaptation SFP+ ports; the standard hot-swap AC220V power supply, the expanded dual power supply; the cooling fan, 1U, standard 19-inch rack-mounted installation)
S3756F	Ethernet routing switch with 48 gigabit optical ports, 4 gigabit SFP/Base-T combo ports and 8 10GE optical ports (1 Mini USB console port, 48 100M/1000M auto-adaptation SFP ports, 4 gigabit SFP/Base-T combo ports, 8 GE/10GE auto-adaptation SFP+ ports; the standard hot-swap AC220V power supply, the expanded dual power supply; the cooling fan, 1U, standard 19-inch rack-mounted installation)
S3756P	Ethernet routing switch with 48 gigabit Base-T ports and 8 10GE optical ports (1 Mini USB console port, 48 gigabit POE ports, 8 GE/10GE auto-adaptation optical ports; 2 power slots without power supplies; the cooling fan, 1U, 19-inch rack-mounted installation)
S3756M	Ethernet routing switch with 24 gigabit Base-T ports, 24 gigabit

	optical ports and 8 10GE optical ports (1 Mini USB console port, 24 gigabit Base-T ports, 24 100M/1000M auto-adaptation optical ports, 8 GE/10GE auto-adaptation optical ports; 2 power slots with one hot-swap AC220V power supply; the cooling fan, 1U, standard 19-inch rack-mounted installation)
S3756M-DC	Ethernet routing switch with 24 gigabit Base-T ports, 24 gigabit optical ports and 8 10GE optical ports (1 Mini USB console port, 24 gigabit Base-T ports, 24 100M/1000M auto-adaptation optical ports, 8 GE/10GE auto-adaptation optical ports; 2 power slots with one hot-swap DC-48V power supply; the cooling fan, 1U, standard 19-inch rack-mounted installation)
S3700 Series Non-POE Power Modules	
PWR-150-AC	S3700 Series Non-POE Hot-swap AC Power (Max Power 150W, AC100~240V input, the isolated cooling fan)
PWR-150-DC	S3700 Series Non-POE Hot-swap DC Power (Max Power 150W, DC-36V ~ -72V input, the isolated cooling fan)
S3700 Series POE Power Modules	
POE-500-AC	S3700 Series POE Hot-swap AC Power (Max Power 500W, POE 370W, AC100~240V input, the isolated cooling fan)
POE-1100-AC	S3700 Series POE Hot-swap AC Power (Max Power 1100W, POE 720W, AC100~240V input, the isolated cooling fan)
Optical Modules	
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 (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	GE SFP single-mode, single-core bidirectional (10Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-10-BIDI	GE SFP single-mode, single-core bidirectional (10Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-20-BIDI	GE SFP single-mode, single-core bidirectional (20Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-20-BIDI	GE SFP single-mode, single-core bidirectional (20Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-40-BIDI	GE SFP single-mode, single-core bidirectional (40Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-40-BIDI-1310	GE SFP single-mode, single-core bidirectional (40Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1490-80-BIDI	GE SFP single-mode, single-core bidirectional (80Km, TX1490/RX1550, LC, DDM)
GSFP-LX-SM1550-80-BIDI	GE SFP single-mode, single-core bidirectional (80Km, TX1550/RX1490, LC, DDM)
GSFP-LX-SM1490-120	GE SFP single mode, single-core bidirectional (120Km, TX1490/RX1550, LC, DDM)
GSFP-LX-SM1550-120	GE SFP single mode, single-core bidirectional (120Km, TX1550/RX1490, LC, DDM)
10GE Optical Modules	
SFP+SX	10GE SFP+ multi-mode (300m, 850nm, LC)
SFP+LX-10	10GE SFP+ single-mode (10Km, 1310nm, LC, DDM)
SFP+LX-20	10GE SFP+ single-mode (20Km, 1310nm, LC, DDM)
SFP+LX-40	10GE SFP+ single-mode (40Km, 1550nm, LC, DDM)
SFP+LX-80	10GE SFP+ single-mode (80Km, 1550nm, LC, DDM)
SFP+LX-SM-1270-10	10GE SFP+ single-mode, single-core bidirectional (10Km,

SFP+LX-SM-1330-10	TX1270/RX1330, LC, DDM)
	10GE SFP+ single-mode, single-core bidirectional (10Km, TX1330/RX1270, LC, DDM)
SFP+LX-SM-1270-20 SFP+LX-SM-1330-20	10GE SFP+ single-mode, single-core bidirectional (20Km, TX1270/RX1330, LC, DDM)
	10GE SFP+ single-mode, single-core bidirectional (20Km, TX1330/RX1270, LC, DDM)
SFP+LX-SM-1270-40 SFP+LX-SM-1330-40	10GE SFP+ single-mode, single-core bidirectional (40Km, TX1270/RX1330, LC, DDM)
	10GE SFP+ single-mode, single-core bidirectional (40Km, TX1330/RX1270, LC, DDM)

For More Information

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 201203, P.R.China

www.bdcom.cn

Tel: +86-21-50800666