

S3938F Switch



Varied Service Characteristics
Versatile IPv6 Solution
Complete Security Mechanism



Carrier-Level High Reliability
Full Layer-3 Functions



Advanced Hardware Architecture and Industry-leading Port Density



Supports Maximum 48 GE Ports and 6 10GE SFP+ Uplink Ports



Product Overview

BDCOM S3900 Series is a new generation of aggregation 10G switches introduced by BDCOM S3900 Series has 5 models: 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 switch in-service. It also supports nonstop upgrade, continuous forwarding, graceful restarting and redundancy protection.

BDCOM S3938F supports up to 48 gigabit ports and 6 10GE ports.

Innovative Virtual Cluster Switching Technique

BVSS (BDCOM Virtual Switch System):

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.

Improved Performance: virtualize multiple physical devices into one. The performance, reliability and management of the virtual system are superior to the physical ones.

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 layer-3 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.

Product Characteristics

Carrier-Level QoS Policies

Supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority to better streamline carrier's services. Supports flexible bandwidth control policies and supports port-/flow based flow limit, and ensuring the line speed forwarding of each port to make sure the high quality of video, audio and data services. Supports 8 priority queues by each port. Supports multiple queue schedule algorithms such as SP, WRR, or "P plus WRR"

Varied Service Characteristics

Supports layer-2 and layer-3 multicast routing protocol, which enable the device can access to IPTV, HD video surveillance and HD video conference. Supports layer-3 routing protocol and super-large routing table capacity, which enables the device is available in large campus networks, enterprise networks and industry networks. Supports MPLS multi-VRF and layer-2 VPN.

Versatile IPv6 Solution

Supports the IPv6 protocol suite, IPv6 neighbor discovery, ICMPv6, path MTU discovery, DHCPv6, etc. Supports Ping, Trace route, Telnet, SSH, ACL. Supports MLD, MLD Snooping, IPv6 static routing, RIPng, OSPFv3 and BGP4+, etc. Supports IPv6 tunnel: manual tunnel, automatic tunnel, GRE tunnel, 6to4, ISATAP Supports IPv4 transits to IPv6: IPv6 manual tunnel, automatic tunnel, 6 to 4 tunnel, ISATAP tunnel.

Industrial Ethernet Ring with Zero Delay and Zero Packet Loss

Supports industry-level EAPS and ERPS, and their protection recovery time is less than 50ms. Their high reliability is represented by the null packet loss, which has been proved by many years of application in the Grid, rail transportation and defense systems.

Complete Security Mechanism

Equipment-Level Security: The advanced hardware infrastructure design realizes the level-based packet schedule and packet protection, prevents DoS-/TCPrelated 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: 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 S3900 series supports real-time monitoring the device and the slow-start. It is also power-saving. Intelligent fan management system: The fan system of S3900 Series supports automatic speed regulation, which efficiently slow the fan speed and mitigate the noise. Complies with the international standard IEEE 802.3a

Flexible and Convenient Management and Maintenance

Supports management modes such as the console port, Telnet, SSH, etc. Supports the WEB management mode, which is easy and efficient so that it makes installation and debugging convenient. Supports TFTP-patterned file upload/download management.

Supports ISSU (In-Service Software Upgrade). Supports SNMP and BDCOM NMS smart network management platform to realize automatic equipment discovery, network topology management, equipment configuration management, performance data statistics and analysis and trouble management.

Product Specifications

Item		S3938F
GE Interface	TX	8
	SFP	24
10GE Interface	SFP+	6 10GE/GE
Console		1 RJ45 Port
Backplane		216 Gbps
Forwarding Rate		138 Mpps
Physical Specifications		
Chassis	Dimensions (WxDxH mm)	440 x 350 x 44
Package	Dimensions (WxDxH mm)	576 x 448 x 94
Power		
Power Supply	AC: 100V-240V (hot-swap) 50Hz± 10%	75W
Total Output BTU (1000BTU/H=293W)		255.97
Noise @ 25°C (dBA)		45
MTBF (H)		>100,000
Forwarding Mode		Store-forward
Flash (MB)		32
DRAM (MB)		256

MAC	32k	
Buffer size (MB)	2	
Jumbo frame	9k	
Routing table	IPv4	12k
	IPv6	6k
ARP table	IPv4	12k
	IPv6	2k
Total SVI	1k	

Features:

VLAN	<ul style="list-style-type: none"> · 4K Active VLAN, · QinQ & Selective QinQ, · GVRP, · Private VLAN
Spanning Tree	<ul style="list-style-type: none"> · 802.1D (STP) · 802.1W (RSTP) and 802.1S (MSTP) BPDU guard, · root guard and loopback guard
Multicast	<ul style="list-style-type: none"> · PIM-SM, PIM-DM, · IGMP v1/v2/v3, · IGMP Snooping, · IGMP Fast Leave, · MVR, IGMP filter
IPv4	<ul style="list-style-type: none"> · Static routing, RIP v1/v2, OSPF, BGP, PBR, ECMP · BFD for OSPF, BGP
DHCP	<ul style="list-style-type: none"> · DHCP server/relay/client · DHCP snooping/option82
MPLS	LDP protocol, Multi-VRF
IPv6	<ul style="list-style-type: none"> · 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
QoS	<ul style="list-style-type: none"> · 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	<ul style="list-style-type: none"> · 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	<ul style="list-style-type: none"> · Static/LACP link aggregation, · Interface backup · BVSS virtual-stacking ups to 16 units per stock · EAPS and ERPS · URPF, LLDP · ISSU

	<ul style="list-style-type: none"> · VRRP · 1+1 power backup, Dying gasp
Management	<ul style="list-style-type: none"> · Console, Telnet, SSH v1/2, HTTP, HTTPS · SNMP v1/v2/v3, RMON · TFTP, FTP, SFTP · NTP, SPAN, RSPAN · sFLOW
Accessories	<ul style="list-style-type: none"> · Power cord, rackmount kits, console cable
Environment	<ul style="list-style-type: none"> · Operating temperature/humidity: 0°C -50°C ,10%-90% non-condensing · Storage temperature/humidity: -20°C -70°C , 5%-95% non-condensing
Certification	<ul style="list-style-type: none"> · CE, FCC, ROHS

Ordering Information:

S3938F	Ethernet routing swith with 32 GE and 6 10GE ports(1RJ45 console port, 24 GE TX ports, 6 10GE/GE SFP+ ports,2 power slots with 1 hot-swap AC220V power supply, the coolingfan, 1U, standard 19-inch rack-mounted installation)
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