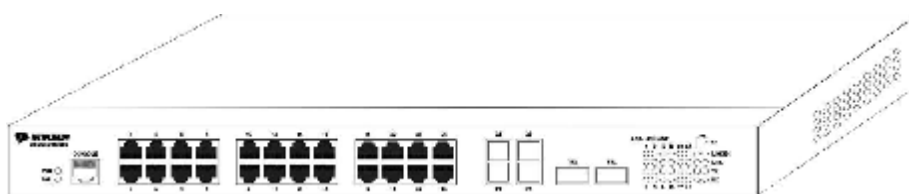


BDCOM S3900 Switch

— High Performance 10Gigabit Ethernet Switch

BDCOM S3900 is a standard L3 congestion-less switch series, which are capable of multi-layer switching and wire-speed route forwarding. Its high-performance ASIC and modular design enable users to employ a suitable number of interfaces and to configure scales of their networks with great flexibility, all based on their individual requirements. It supports plenty of access authentication models that can be flexibly configured, making it especially ideal for community access networks. Due to its high performance and low cost, BDCOM S3900 is considered a very competitive Ethernet switching solution for community networking and workgroup networking in enterprise networks.



3900

Application

- Aggregation level of large enterprise networks
- Giga core of small- to Medium-sized business networks
- Connection server cluster of data centers
- High performance-price ratio multi-layer switching solution in other situations where multiple Giga ports are needed

Features

Excellent performance

- S3928/S2928GX: 240 Gbps switch fabric, at least extend to 4*10GE XFP ports
- S3948: 280 Gbps switch fabric, at least extend to 4*10GE XFP ports
- Hardware routing, wire-speed L3 switching, packet forwarding rate: 131Mpps
- Giga optical fiber supports up to 80 km long-distance transfer, direct connection to MAN backbone networks

Security and reliability

- Quota system for connected hosts per port
- IEEE 802.1x port-based user authentication
- Ethernet port trunking provides more bandwidth and system redundancy
- Powerful ACL supports L2-L4 data filtering

Easy maintenance

- Supports device stacking through cluster technology. Central management with unified IP address saves IP addresses
- Management via CONSOLE port, Web, SNMP, etc.
- BootRom and other software upgrade through TFTP/Z-MODEM
- Support DHCP and relay, provide dynamic IP address assignment
- Support GBIC/SFP standard interface, protect your investment
- Redundant power supply

Powerful traffic and broadcast control

- Automatically detect and restrain broadcast storm, support IGMP datagram snooping, effectively restrict broadcast flooding
- Full- and half- duplex traffic control
- Ethernet port bit rate quota
- Advanced buffer management supports 802.1p, with 4 dispatching queues per port mapping the 8 priority queues in 802.1p
- IP multicast and QoS support

Multiple routing polices

- Static routing
- Support RIP v1/v2, OSPF v2, BGPv4 and many other dynamic routing protocols
- Support PIM-SM, PIM-DM, DVMRP and many other multicast routing protocols

Specifications

| | | | |
|--------------------|--|--|--|
| Processor | RISC 300MHz | | |
| Flash | 8 MB | | |
| Memory | 64 MB (up to 512MB) | | |
| Port | BDCOM S3928 | BDCOM S3928GX | BDCOM S3948 |
| | 20 10/100/1000M TX Ports 4 10/100/1000M SFP/TX Combo Ports 2 slots for 10G modules(up to 4 XFP ports) 1 Console Port | 20TX SEP Ports 4 10/100/1000M SFP/TX Combo Ports 2 slots for 10G modules(up to 4 XFP ports) 1 Console Port | 44 10/100/1000M TX Ports 4 10/100/1000M SFP/TX Combo Ports 2 slots for 10G modules(up to 4 XFP ports) 1 Console Port |
| L3 Forwarding Rate | 96Mpps all wire-speed, with filtering | 96Mpps all wire-speed, with filtering | 131Mppsall wire-speed, with filtering |

| | | | |
|------------------------|-------------------|----------|----------|
| Switch Fabric | 240G bps | 240G bps | 280G bps |
| Switching Mode | Store-and-forward | | |
| MAC Address Table Size | 64K | | |
| Queue Buffer | 64 MB | | |

Functions

| | |
|----------------------|---|
| Spanning Tree | IEEE 802.1D (STP), IEEE 802.1w (RSTP), PVST/PVST+ |
| VLAN | Port-based VLAN, 802.1Q tag VLAN, Super VLAN, Private VLAN, GVRP dynamic VLAN configuration, VLAN Stacking (QinQ) |
| Traffic Control | Back pressure at half-duplex, 802.3x at full-duplex, CAR support, 100M port: 1M step size; 1000M port: 8M step size |
| Broadcast Control | Stop sending at threshold to restrict broadcast storms |
| Multicast Control | IGMP snooping |
| Multicast Protocol | IGMP v1/v2/v3, PIM-SM, OLINK&PIM-DM, DVMRP, GMRP |
| Port Trunking | Up to 8 groups with up to 6 ports per group, dynamic LACP or static aggregation |
| Port Mirroring | Supported. Can be based on flow classification |
| Stack | Hardware stack up to 16, cluster up to 32, manageable through single IP |
| Unicast | Static, RIP v1/v2, OSPF v2, BEIGRP (compatible with Cisco EIGRP), BGP v4, Intelligent forwarding to defend against virus attacks and illegal access |
| Policy-based Routing | IP-based routing policies |
| Redundant Routing | VRRP, HSRP |
| Proxy | Proxy ARP, DNS Proxy |
| DHCP | DHCP Server/Client/DHCP Relay |
| NAT | Static or dynamic NAT |
| Security | IEEE 802.1x port-based user authentication Port Security Hardware support for IP ACL, MAC ACL, VLAN ACL Hardware support for port-based user authentication by combinations and bandings of port, IP address, and MAC address Web user authentication RADIUS, TACACS+ User privilege classification and password protection |

| | |
|--------------------|---|
| QoS | Head Of Line (HOL) blocking prevention mechanism 4 dispatching queues per port, mapping the 8 priority queues in 802.1p WRED, WFQ, SP, and FIFO queuing algorithms Best Effort Service Differentiated Service Strict Priority Weighted Round Robin First Come First Serve TOS re-tagging RTS |
| Network Management | SNMP v1/v2 RMON (Group 1, 2, 3, 9) Telnet Command Line Interface (CLI) Web Interface Support BDCOM network management tools suite: Broad Director NTP SSH PDP (compatible with Cisco CDP) |

Physical and electrical parameters

| | |
|--------------------------------|--|
| Dimensions (mm) (L × W × H) | 442 × 316 × 44 |
| Power Consumption | 60 W (max) |
| LED Indicators | Power, system, link, activity, 10/100M |
| Power Supply | AC 100 ~ 240 V, 47 ~ 63 Hz, 1A/230V, RPS power hot standby |

Working environment

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|-------------|--|
| Temperature | Operating: 0 ~ 50°C, non-operating: -40 ~ 70°C |
| Humidity | 0 ~ 90% (no condensing) |

Order Information

| | |
|-------------|--|
| BDCOM S3928 | Network management Router Switch, 20 ports 10/100/100MBase-TX + 4 ports 10/100/1000Base-TX/SFP Combo + 2 extended slots for 10G modules (up to 4 XFP ports), 1 console |
|-------------|--|

| | |
|----------------|--|
| BDCOM S3928GX | Network management Router Switch, 20 SEP ports 10/100/100MBase-TX + 4 ports 10/100/1000Base-TX/SFP Combo + 2 extended slots for 10G modules (up to 4 XFP ports), 1 console |
| BDCOM S3948 | Network management Router Switch, 44 ports 10/100/100MBase-TX + 4 ports 10/100/1000Base-TX/SFP Combo + 2 extended slots for 10G modules (up to 4 XFP ports) |
| GSFP-SX | 1000M SFP module, Multi-mode, 850nm, 500m, LC interface |
| GSFP-LX-10 | 1000M SFP module, Single-mode, 1310nm, 10km, LC interface |
| GSFP-LX-40 | 1000M SFP module, Single-mode, 1310nm, 40km, LC interface |
| GSFP-ZX-80 | 1000M SFP module, Single-mode, 1550nm, 80km, LC interface |
| LS3928-1TE-XFP | 1 port 10G XFP module base board for 3928/3928GX |
| LS3928-2TE-XFP | 2 port 10G XFP module base board for 3928/3928GX |
| LS3948-1TE-XFP | 1 port 10G XFP module base board for 3948 |
| LS3948-2TE-XFP | 2 port 10G XFP module base board for 3948 |
| XFP-SX | 10 Gigabit XFP Multi-mode, 850nm,300m, LC interface optical module |
| XFP-LX-10 | 10 Gigabit XFP Single-mode, 1310nm,10km, LC interface optical module |
| XFP-LX-40 | 10 Gigabit XFP Single-mode, 1550nm,40km, LC interface optical module |

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