

S3900 Series Switches

FLEXIBLE ACCESS SWITCHES FOR CONVERGED ENTERPRISE NETWORKS

S3900 series switches are high-performance Gigabit Ethernet L2+/L3 Lite managed switches with 128 Gbps/176 Gbps switching capacity.



Overview

S3900 series switches are Gigabit Ethernet access switches with 24 or 48 1G downlink ports and 10G uplinks.

The switches are ideal for Internet Service Providers (ISPs) and Multiple System Operators (MSOs) to provide home users with triple-play services with up to Gigabit bandwidth.

They are also ideal Gigabit access switches for SMB, enterprise, and campus networks.

S3900 series switches are packed with features that bring high availability, comprehensive security, robust multicast control, and advance QoS to the network edge, while maintaining simple management.

Benefits

- Layer 2+/Layer 3 Lite
- BCM56150/BCM56151 Switch Chip
- 2 Built-in 10G SFP+ Ports for Stack
- Industry-standard CLI & Web Management
- 1+1 Redundant Power Supply
- Green Ethernet, Low Power Consumption

Key Features

Performance and Scalability

S3900 series switches are high-performance Gigabit Ethernet L2+/L3 Lite managed switches with 128Gbps/176Gbps switching capacity. The switch delivers wire-speed switching performance on all Gigabit ports, taking full advantage of existing high-performance Gigabit CPEs, PCs, 11n/ac Wi-Fi Applications etc, significantly improving the responsiveness of applications and file transfer times. The 4 built-in 10G SFP+ ports provide uplink flexibility, allowing the insertion of fiber or copper, Gigabit or 10G transceivers, to create up to 10G high-speed uplinks and stack links to servers or service provider, corporate, or campus networks, reducing bottlenecks and increasing the performance of the access network.

Reliability and Energy Efficiency

The fanless design of S3900-24T4S ensures noise less operation and increases the reliability of the system. The design of the S3900 series switches incorporates high energy efficiency in order to reduce the impact on the environment. The Green Ethernet power-saving features and fanless design significantly reduce the power consumption.

Robust Multicast Control

IGMP snooping prevents the flooding of multicast traffic by dynamically configuring switch ports so that multicast traffic is forwarded to only those ports associated with an IP multicast receiver. IGMP increases the performance of networks by reducing multicast traffic flooding.

Superior Management

An industry-standard command-line interface (CLI), accessed through the console port or Telnet, provides a familiar user interface and command set for users to manage switches. An embedded user-friendly web interface helps users to quickly and simply configure switches.

Continuous Availability

The IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, to ensure faster recovery from failed links, enhancing overall network stability and reliability. The IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links up to 64 instances.

Technical Specification

S3900 series switches come with advanced hardware architecture design and abundant L2 and L2+ features. Here's a look at the details.

CHARACTERISTICS

| | S3900-24F4S | S3900-24T4S | S3900-48T4S |
|-------------------------|--------------|-------------|-------------|
| Ports | | | |
| 10/100/1000BASE-T RJ45 | -- | 24 | 48 |
| 1G SFP | 20 | -- | -- |
| 10G SFP+ | 4 | 4 | 4 |
| Combo Port | 4 (RJ45/SFP) | -- | -- |
| Management Port | 1 | 1 | 1 |
| Console Port | 1 | 1 | 1 |
| Operating System | | | |
| OS | FSOS | FSOS | FSOS |
| Key Component | | | |
| Switch Chip | BCM56151 | BCM56150 | BCM56150 |
| Performance | | | |
| Layer Type | Layer 2+ | Layer 2+ | Layer 2+ |
| Switching Capacity | 128 Gbps | 128 Gbps | 176 Gbps |
| Forwarding Rate | 95 Mpps | 95 Mpps | 130 Mpps |
| Jumbo Frame | 9KB | 9KB | 9KB |
| Packet Buffer | 1.5MB | 1.5MB | 1.5MB |
| Flash Memory | 64MB | 64MB | 64MB |
| DDRIII Capacity | 512MB | 512MB | 512MB |
| MAC Address | 16K | 16K | 16K |
| Auto.Negotiation | YES | YES | YES |
| Auto.MDI/MDIX | YES | YES | YES |
| Static Routes(IPv4) | -- | -- | 256 |
| Static Routes(IPv6) | -- | -- | 128 |

| | S3900-24F4S | S3900-24T4S | S3900-48T4S |
|--|-------------|-------------|-------------|
|--|-------------|-------------|-------------|

Power

| | | | |
|-------------------------------|---------------------------|---------------------------|---------------------------|
| Input Voltage | 100-240VAC, 50/60Hz, 1.5A | 100-240VAC, 50/60Hz, 0.8A | 100-240VAC, 50/60Hz, 1.5A |
| Max. Power Consumption | 43W | 21W | 45W |

Physical and Environmental

| | | | |
|------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Dimensions (HxWxD) | 1.73"x11.02"x17.32" (44x280x440mm) | 1.73"x11.02"x17.32" (44x280x440mm) | 1.73"x12.99"x17.32" (44x330x440mm) |
| Rack Space | 19" | 19" | 19" |
| Operating Temperature | 32°F to 122 °F (0°C to 50°C) | 32°F to 122 °F (0°C to 50°C) | 32°F to 122 °F (0°C to 50°C) |
| Storage Temperature | -40°F to 158°F (-40°C to 70°C) | -40°F to 158°F (-40°C to 70°C) | -40°F to 158°F (-40°C to 70°C) |
| Operating Relative Humidity | 5% to 90% (Non-condensing) | 5% to 90% (Non-condensing) | 5% to 90% (Non-condensing) |
| Weight | 9.41 lbs (4.27kg) | 8.76 lbs (3.975kg) | 10.8lbs (4.9kg) |

Warranty

| | | | |
|-----------------|---------|---------|---------|
| Warranty | 4 Years | 4 Years | 4 Years |
|-----------------|---------|---------|---------|

FEATURES

| Functionality | Description |
|-----------------------|--|
| | Tri-speed (10/100/1000BASE-T) Copper Interfaces <ul style="list-style-type: none"> • Auto-negotiation for port speed and duplex mode • Auto MDI/MDI-X |
| Physical Layer | SFP+ Fiber Interface <ul style="list-style-type: none"> • 1G SFP/10G SFP+ Transceivers Transceivers <ul style="list-style-type: none"> • Digital Diagnostic Monitoring DDM (The 10G SFP+ ports support.) |

FEATURES

| Functionality | Description |
|--|--|
| Layer 2 Features | <p>Flow Control</p> |
| | <ul style="list-style-type: none"> • IEEE 802.3x for Full Duplex Mode • Back-Pressure for Half Duplex Mode |
| | <p>DHCP</p> |
| | <ul style="list-style-type: none"> • DHCP Client |
| | <ul style="list-style-type: none"> • DHCP Relay |
| | <ul style="list-style-type: none"> • DHCP Option 82 |
| | <ul style="list-style-type: none"> • DHCP Snooping |
| | <p>Link Aggregation</p> |
| | <ul style="list-style-type: none"> • Static Link Aggregation |
| | <ul style="list-style-type: none"> • 802.3ad with LACP (Up to 8 Links) |
| <ul style="list-style-type: none"> • Unicast/Multicast Load Balance Over Trunk Port | |
| <p>Spanning Tree Protocol</p> | |
| <ul style="list-style-type: none"> • IEEE 802.1D Spanning Tree Protocol (STP) | |
| <ul style="list-style-type: none"> • IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) | |
| <ul style="list-style-type: none"> • IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) | |
| <ul style="list-style-type: none"> • BPDU Guard/filtering/transparent | |
| <ul style="list-style-type: none"> • Root Guard | |
| <ul style="list-style-type: none"> • Loopback Detection | |
| <p>VLANs</p> | |
| <ul style="list-style-type: none"> • Supports 4K VLAN | |
| <ul style="list-style-type: none"> • Supports Voice VLAN | |
| <ul style="list-style-type: none"> • Port-based VLAN | |
| <ul style="list-style-type: none"> • IEEE 802.1Q VLAN | |
| <ul style="list-style-type: none"> • GVRP (256 VLAN) | |
| <ul style="list-style-type: none"> • IEEE 802.1v Protocol-based VLAN | |
| <ul style="list-style-type: none"> • IP Subnet-based VLAN | |
| <ul style="list-style-type: none"> • MAC-based VLAN | |
| <ul style="list-style-type: none"> • VLAN Translation | |

FEATURES

| Functionality | Description |
|--------------------------------|---|
| | <ul style="list-style-type: none"> • Traffic Segmentation • IEEE 802.1ad QinQ <p>IGMP Snooping</p> <ul style="list-style-type: none"> • IGMP Proxy reporting • IGMP Filtering • IGMP Throttling • IGMP Immediate Leave • IGMP Querier • IGMP Mrouter-forward Mode • IGMP Router-port-expire-time • IGMP Tcn-flood • IGMP Tcn-query-solicit • IGMP unregistered-data-flood <p>Storm Control</p> <ul style="list-style-type: none"> • Broadcast/Multicast/ Unknown Unicast Storm Control |
| <p>Layer 2 Features</p> | <p>Jumbo Frames</p> <ul style="list-style-type: none"> • 9 KB <p>MVR (Multicast VLAN Registration)</p> <ul style="list-style-type: none"> • Supports 5 multicast VLANs <p>Port Mirroring</p> <p>Remote Port Mirror (RSPAN)</p> <p>Stacking Links</p> <ul style="list-style-type: none"> • L2/L3 Supported • VLAN Membership Supported • Trunking Supported • IPMC Supported <p>Non-Spanning Tree Loopback detection</p> <p>Port Security</p> <p>IP Source Guard</p> <p>Dynamic Arp Inspection</p> |

FEATURES

| Functionality | Description |
|-------------------------|---|
| Layer 2 Features | ERPS IEEE 802.1ag CFM ITU-T Y.1731 OAM UDLD |
| Layer 3 Features | Unicast Routing <ul style="list-style-type: none"> • Static Unicast Routes ARP |
| QoS Features | Scheduling for priority queues <ul style="list-style-type: none"> • WRR Priority Scheduling • Strict Priority Scheduling • Hybrid (DRR/WRR+ Strict) IEEE 802.1p COS DiffServ <ul style="list-style-type: none"> • 8 Priority Queues |
| Security | AAA <ul style="list-style-type: none"> • Radius client • Tacacs+ client 802.1X <ul style="list-style-type: none"> • Radius Authentication • Port-based Authentication • Mac-based Authentication HTTPS and SSL (v3) SSH V2.0 IP Source guard DoS Protection |
| ACL | L2/L3/L4 Ingress Egress |

FEATURES

| Functionality | Description |
|-------------------|--|
| ACL | Statistics IPv4/IPv6/MAC/ARP ACL |
| IPv6 | IPv4/IPv6 Dual Protocol Stack IPv6 Address Type <ul style="list-style-type: none"> • Unicast • Multicast ICMPv6 IPv6 Neighbor Discovery IPv6 Neighbor Discovery Snooping Manual Configuration IPv6 DHCP Snooping MVR over IPv6 SNMP over IPv6 HTTP over IPv6 |
| Management | Switch Management <ul style="list-style-type: none"> • CLI via console port or Telnet • Web management • SNMP v1, v2c, v3 Firmware & Configuration <ul style="list-style-type: none"> • Firmware upgrade via TFTP/HTTP/FTP server • Dual images • Multiple configuration files • Configuration file upload/download via TFTP/HTTP/FTP server • Firmware auto upgrade RMON(group 1, 2, and 9) MIB II |

FEATURES

| Functionality | Description |
|-------------------|---|
| Management | DHCP/BOOTP |
| | <ul style="list-style-type: none"> • Client • Relay |
| | SNTP/NTP |
| | DNS client |
| | Syslog |
| | SMTP |
| | Supports LLDP (802.1ab) |
| | Ping |
| | Traceroute |
| | sFlow |

Accessories



Console Cable*1



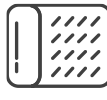
Power Cords*2



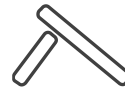
Grounding Cable*1



Screws*6



Rubber Pads*4



Rack Mount Brackets*2

Get started today

Getting started with FS S3900 series switches is easy. In fact, you can explore and test without spending too much time. Try FS S3900 series switches, bringing the scalability and agility to the network edge while also lowering total cost of ownership.



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