

S3900 Series Switches

FLEXIBLE ACCESS SWITCHES FOR CONVERGED ENTERPRISE NETWORKS

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



Overview

S3900 series switches are Gigabit Ethernet access switches with twenty-four/ forty-eight 1G downlink ports and four 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
- Up to 10G Uplinks and Stack Links
- 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			
Gigabit RJ45 Ports	--	24	48
1GE SFP Ports	20	--	--
10GE SFP+ Ports	4	4	4
Combo Ports	4 (RJ45/SFP)	--	--
GE Management Port	1	1	1
Console Ports	1	1	1
Operating System			
OS	FSOS	FSOS	FSOS
Key Components			
Switch Chip	BCM56151	BCM56150	BCM56150
Performance			
Switch Class	Layer 2+	Layer 2+	Layer 2+
Switching Capacity	128 Gbps	128 Gbps	176 Gbps
Forwarding Performance	95 Mpps	95 Mpps	130 Mpps
Jumbo Frames	9KB	9KB	9KB
Packet Buffer	1.5MB	1.5MB	1.5MB
Flash Memory	64MB	64MB	64MB
DDRIII Capacity	512MB	512MB	512MB
MAC Address Table Size	16K	16K	16K
Auto-Negotiation	YES	YES	YES
Auto-MDI/MDIX	YES	YES	YES

	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 (WxDxH)	440 x 280 x 44mm	440 x 280 x 44mm	440 x 330 x 44mm
Rack Space	19"	19"	19"
Operating Temperature	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 (32°F to 122 °F)
Storage Temperature	-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 (-40°F to 158°F)
Relative Humidity	5% to 90% non-condensing	5% to 90% non-condensing	5% to 90% non-condensing
Weight	4.27kg	3.975kg	4.9kg
Warranty			
Warranty	4 Years	4 Years	4 Years

FEATURES

Functionality	Description
Physical Layer	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
	SFP+ Fiber Interface
	<ul style="list-style-type: none"> • 1G BASE-X /10G BASE-R
	Transceivers
	<ul style="list-style-type: none"> • Current/rx-power/temperature/tx-power • Voltage/high-low alarm and warning • 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 • DHCP Relay • DHCP Option 82 • DHCP Snooping
	<p>Link Aggregation</p> <ul style="list-style-type: none"> • Static link aggregation • 802.3ad with LACP • 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) • IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) • IEEE 802.1s Multiple Spanning Tree Protocol (MSTP) • BPDU Guard/filtering/transparent • Root Guard • Loopback detection
	<p>VLANs</p> <ul style="list-style-type: none"> • Supports 4K VLAN • Supports voice VLAN • Port-based VLAN • IEEE 802.1Q VLAN • GVRP (256 VLAN) • IEEE 802.1v Protocol-based VLAN • IP Subnet-based VLAN • MAC-based VLAN • 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"> • Local/radius Authentication • Port-based Authentication • Mac-based Authentication
	HTTPS and SSL (v3)
	SSH V2.0
	IP Source guard
	DoS Protection
	L2/L3/L4
	<ul style="list-style-type: none"> Ingress Egress
ACL	

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 IP clustering (32 members) 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 (groups 1, 2, 3 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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