


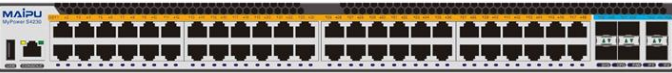


S4230 Series Stackable L3 Aggregation Switch Datasheet

Product Overview

S4230 series switch is a high-performance stackable L3 aggregation routing switch developed by Maipu. It is applied in enterprise campus network and easy to deploy Layer3 switching solution that offers enhanced security and 10GE uplinks, RIP/OSPF/BGP/IS-IS, L2&L3 Multicast, VST/M-LAG stacking enabled and flexible management.

S4230 series switch can be used as L3 access devices on large-sized campus networks. They can also be used as aggregation devices on small and medium-sized campus networks. The switches help build highly reliable enterprise campus networks that are easy to expand and manage.

S4230 series switch includes S4230-30TXF-AC, S4230-54TXF-AC, S4230-36GTXF-AC, S4230-36GTXF-DC48 four models.

Modem Name	Specification
 <p>S4230-30TXF-AC</p>	<ul style="list-style-type: none"> ● 24*100/1000M Base-T + 6*10G SFP+ ● Fixed Dual AC Power ● RJ45 Console/USB2.0 Port ● Switching Capacity: 168Gbps
 <p>S4230-54TXF-AC</p>	<ul style="list-style-type: none"> ● 48*100/1000M Base-T + 6*10G SFP+ ● Fixed Dual AC Power ● RJ45 Console/USB2.0 Port ● Switching Capacity: 216Gbps
 <p>S4230-36GTXF-AC</p>	<ul style="list-style-type: none"> ● 24*100/1000M SFP + 8*100M/1000M Base-T ● 4*10G SFP+ ● Fixed Dual AC Power ● RJ45 Console/USB2.0 Port ● Switching Capacity: 144Gbps
 <p>S4230-36GTXF-DC48</p>	<ul style="list-style-type: none"> ● 24*100/1000M SFP + 8*100M/1000M Base-T ● 4*10G SFP+ ● Fixed Single DC Power Dual Input ● RJ45 Console/USB2.0 Port ● Switching Capacity: 144Gbps

Key Features

Intelligent stacking technology

S4230 series switch supports Maipu VST stacking function. Multiple switches supporting stacking feature are combined to form a virtual switch logically. VST stacking system improves the device-class reliability by redundant backup among multiple member devices, and improves the link-class reliability by the link aggregation function across devices. VST provides a powerful network expansion capability. By adding member devices, it can easily expand the number of ports, bandwidth and processing capacity of the stacking system. VST simplifies the configuration and management. After stacking is formed, many physical devices become a virtual device, and users can log into the master switch to configure and manage all member devices of the stacking system in a unified manner.

S4230 series also support multi-chassis link aggregation group (M-LAG), which enables links of multiple switches to aggregate into one to implement cross-device link backup. The rest of switches in the M-LAG group are working actively regardless any switch failure. During the upgrade, other switches in the system take over traffic forwarding to ensure uninterrupted services.

High availability

S4230 series switch not only supports the traditional STP/RSTP/MSTP spanning tree protocol, but also supports the G.8032 international standard G.8032 protocol issued by ITU-T. This standard can realize 50ms millisecond fast protection switching of Ethernet ring network.

The S4230 also supports Virtual Router Redundancy Protocol (VRRP), which implement backup of uplinks. One switch can connect to multiple aggregation switches through multiple links, significantly improving the reliability of access devices.

Perfect security policy

S4230 series switch provides various security policies such as user authority/identity authentication, port security, port rate limitation, port monitoring, ACL, loopback detection, and 802.1X authentication; provides various protect mechanisms for user access and network security. It has perfect security function design and supports MAC+IP+VLAN binding and 802.1X authentication security policies, and anti-network storm attack, anti DOS/DDOS attack, anti ARP attack, and anti-network protocol packet attack security technologies. In this way, the attacks and virus can be prevented and it is more suitable for large-scale, multi-service and complicated-traffic networks.

Advanced QoS

S4230 series switch supports eight queues per port and the queue scheduling policies such as SP, RR, WRR, and WDRR; rich priority mappings including 802.1p, COS, DSCP; Kbps-level port traffic rate restriction and carriers can limit the rate according to the time period; Tail Drop and RED packet loss algorithm.

Zero Touch Implementing

S4230 series support Zero Touch Provisioning (ZTP). It enables the switch to automatically obtain and load version files from file server through DHCP server or USB flash disk.

IPv4&IPv6 Dual-stack ability

S4230 series switch comes with IPv4/IPv6 dual-stack platform which provides hardware-based IPv4/IPv6 wire-speed forwarding and IPv4/IPv6 Layer3 routing protocols (RIPng, OSPFv3, BGP4+ and IS-IS for IPv6). With these IPv6 features, the S4230 can be deployed on a pure IPv4 network, a pure IPv6 network, or a shared IPv4/IPv6 network, helping achieve IPv4-to-IPv6 transition.

BD-LAN Controller Management

S4230 can be managed by Maipu BD-LAN controller, which is an integrated SDN platform for campus network. It simplifies campus network security, deployment, and management with the latest software-defined network technologies. It helps the network team complete most of the work on the BD-LAN controller platform. Compared with

traditional methods, BD-LAN solution can make the network deployment faster, maintain the network easier, troubleshoot much more efficient, and save customer's overall cost.

Free Licensing Policy

Maipu always insists on “One-time investment” free license policy, the standard features and advanced features will be never divided to different version. For any new firmware version, Maipu will share to customers without extra charge. Compared with other manufacturers, Maipu free license policy can better protect users' short-term and long-term investment.

Technical Specifications

Product Model	S4230-30TXF-AC	S4230-54TXF-AC	S4230-36GTXF-AC	S4230-36GTXF-DC48
Hardware Specification				
Device Structure	Desktop			
Physical Port	24*100/1000M Base-T interfaces, 6*10G SFP+ interfaces	48*100/1000M Base-T interfaces, 6*10G SFP+ interfaces	24*100/1000M SFP interfaces, 8*100M/1000M Base-T interfaces, 4*10G SFP+ interfaces	24*100/1000M SFP interfaces, 8*100M/1000M Base-T interfaces, 4*10G SFP+ interfaces
RJ45 Console Port	1	1	1	1
USB Port	1	1	1	1
Power Supply	Fixed Dual AC	Fixed Dual AC	Fixed Dual AC	Fixed Single DC
Intelligent Fans	Yes	Yes	Yes	Yes
Performance Parameters				
Switching Capability	168Gbps	216Gbps	144Gbps	144Gbps
Throughput	125Mpps	160.7Mpps	107Mpps	107Mpps
Flash	256MB			
Memory	1GB			
MAC Address Entry	32K			
ARP Entry	8K			
L2 Multicast Group	6K			
L3 Multicast Group	6K			
Static Route Entry	2K			
Dynamic Route Entry	12K			
Jumbo	12K			
VLAN Entry	4K			
VRF Entry	256			
MSTP Instance	64			
VRRP Group	255			
Anti-lightning	6KV			
Anti-Static	6KV			
MTBF	>100000 hours			
Physical Index				
Dimension (W×D×H) mm	442*320*44.2	442*320*44.2	442*320*44.2	442*320*44.2
Power Supply				

Power Input	AC:100-240V, 50-60Hz	AC:100-240V, 50-60Hz	AC:100-240V, 50-60Hz	DC: -40-57V
Power Consumption (MAX)	≤30W	≤55W	≤75W	≤75W
Environment				
Working Temperature	0°C~50°C			
Humidity	10~90%, non-condensing			
Software Specification				
Standard L2 Protocol	LAN Features	Port Type UNI/NNI, Port Speed, Port MTU, Switch Port, Port Loopback, Port Energy Control, Loopback interface, Null interface		
		MAC address aging time, Mac address learning on off, Mac address learning limitation, Mac address VLAN bunding, MAC debug		
		VLAN, VLAN PVID, VLAN interface, VLAN Tag/Untag, VLAN Trunk, MAC VLAN, Protocol VLAN, Subnet VLAN, Super VLAN, Voice VLAN, VLAN Debug		
		STP/RSTP/MSTP, BPDU Guard, Flap Guard, Loop Guard, Root Guard, TC Guard		
		G.8032(ERPSv1&v2)		
		Static Multicast, IGMP Snooping, IGMP Snooping Proxy, MLD		
		LACP Link aggregation, LACP Port Priority, LACP Load Balance, LACP Rate Monitor, LACP Debug, M-LAG		
		Error-disable based on bpduguard Dai DHCP Snooping Link-Flap Loopback-detect Port Security Storm Control Transceiver Power, Error-disable recovery		
		ULFD, Track, Loopback Detection, Loopback Debug		
Standard L3 Protocol	Routing Protocol	Static route, RIP v1/v2, RIPng, OSPFv2, OSPFv3, BGP, BGPv6, ISIS, VRRP, VRRPv3, Policy Route, IP-VRF		
	BFD	BFD with Static RIP OSPF BGP ISIS		
	L3 Multicast	IGMP, PIM-SM		
	DHCP	DHCP Server, DHCP Client, DHCP Relay, DHCP Snooping, DHCP Option51/82, DHCPv6		
Virtualization	Stacking	H-VST, M-VST, M-LAG		
	MAD	MAD LACP, MAD BFD, MAD Fast-hello		
ZTP	ZTP Mode A	ZTP provisioning through DHCP server		
	ZTP Mode B	ZTP provisioning trough USB flash disk		
Network Security	Port Security	Port Security On aging deny permit violation ACL		
	Network Security	IP Source Guard, DHCP Snooping, Host Guard, Dynamic ARP Inspection		
	Access Control List	Standard IP ACL, extended IP ACL, standard MAC ACL, extended MAC ACL, Standard Hybrid ACL, extended Hybrid ACL, Standard IPv6 ACL, extended IPv6 ACL		
	Anti-attack	Anti-attack detect drop flood log		

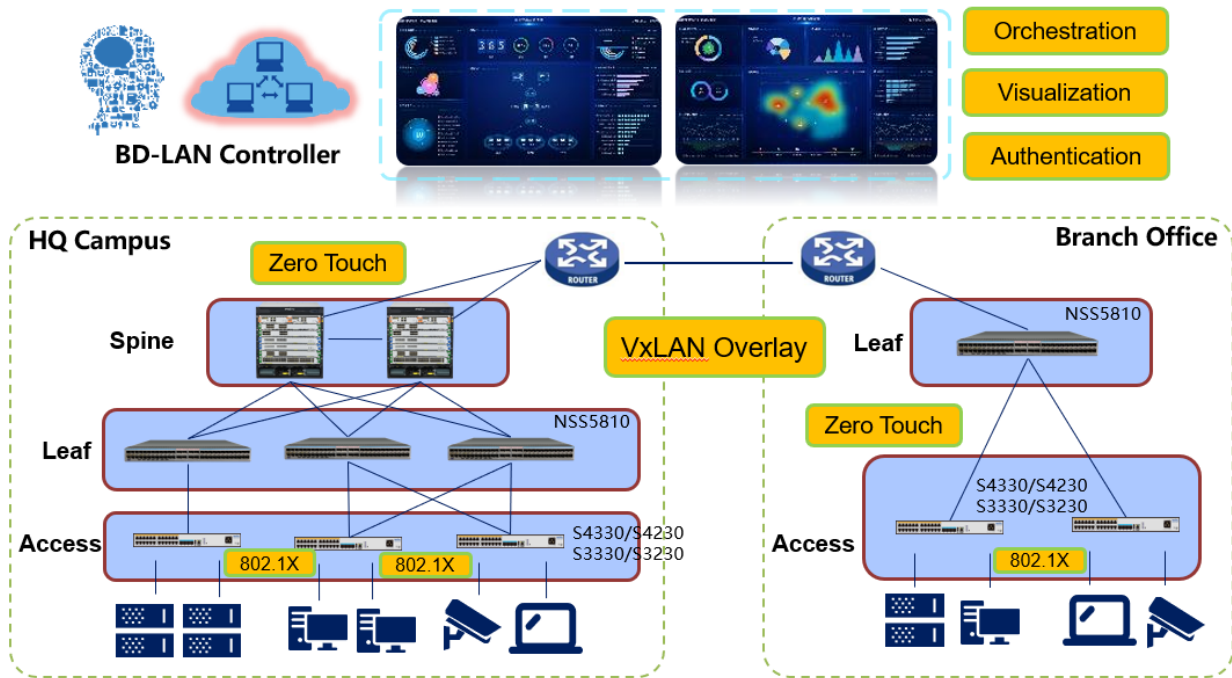
	AAA	Authentication, Authorization, Accounting, Radius, TACACS, 802.1x
QoS	Flow Classification	802.1P priority, DSCP priority
	Traffic Speed Control	Rate Limit, Traffic Shaping
	Congestion Management	SP, RR, WDRR, SP+WRR
	Congestion Avoidance	Tail-drop, RED, WRED
Management	Network Management	SNMP v1/v2/v3, MIB, RMON, SYSLOG, WEB(HTTP/HTTPS), DNS, CLI, Telnet, FTP/TFTP, Debug, Telemetry
	Network Monitoring	SPAN, sFlow, LLDP, IP-SLA Based On ICMP-echo ICMP-path-echo ICMP-path-jitter VoIP jitter UDP echo
IEEE Standard	IEEE 802.3 (10BASE-T) IEEE 802.3z (1000BASE-X) IEEE 802.3ae (10G BASE-X) IEEE 802.3ad (Link Aggregation) IEEE802.3az (Energy Efficient Ethernet) IEEE 802.1d (STP) IEEE 802.1Q (Virtual LAN) IEEE 802.1w (RSTP) IEEE 802.1s (MSTP) IEEE 802.1p (Cos priority)	IEEE 802.3u (100BASE-T) IEEE 802.3ab (1000BASE-T) IEEE 802.1x (port authentication) IEEE 802.3x (Flow Control)

Order Information

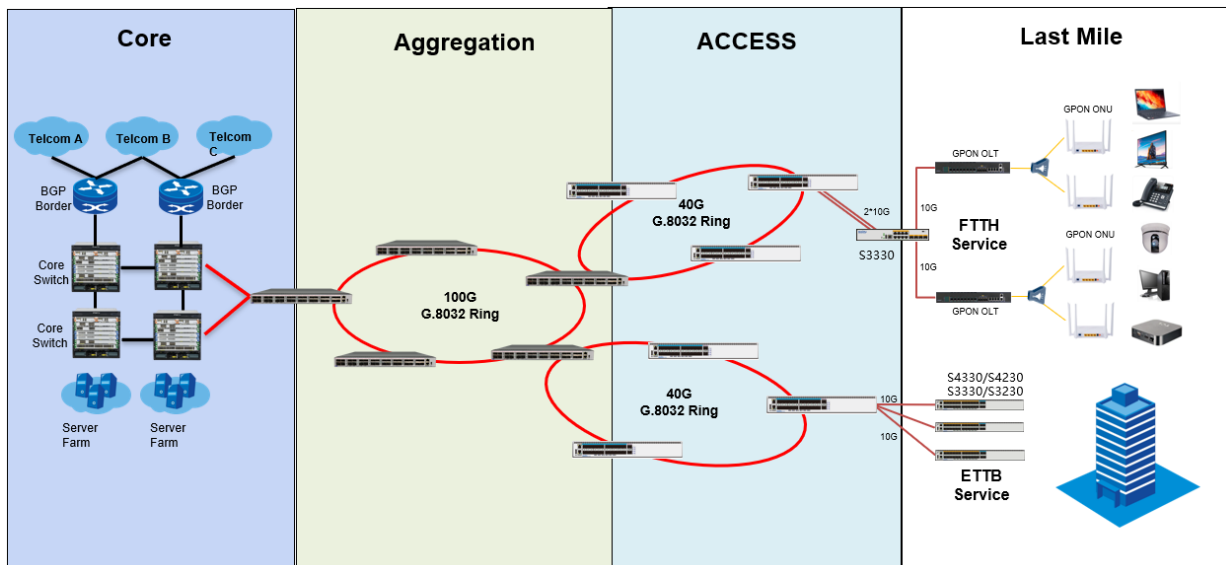
Series	Model	Description
S4230 Series Host		
S4230 Series	S4230-30TXF-AC	24*100/1000M Base-T interfaces, 6*10G SFP+ interfaces, Dual AC Power Supply.
	S4230-54TXF-AC	48*100/1000M Base-T interfaces, 6*10G SFP+ interfaces, Dual AC Power Supply.
	S4230-36GTXF-AC	24*100/1000M SFP interfaces, 8*100M/1000M Base-T interfaces, 4*10G SFP+ interfaces, Dual AC Power Supply.
	S4230-36GTXF-DC48	24*100/1000M SFP interfaces, 8*100M/1000M Base-T interfaces, 4*10G SFP+ interfaces, One DC Power Supply Dual Input.
Stacking Cable		
Stacking Cable	SFP-STACK-15	High speed stacking cable, SFP+ to SFP+,10Gbps, L=1.5m
	SFP-STACK-30	High speed stacking cable, SFP+ to SFP+,10Gbps, L=3.0m
	SFP-STACK-50	High speed stacking cable, SFP+ to SFP+,10Gbps, L=5.0m

Typical Application

Campus LAN Network



ISP FTTH Network



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