





# S3230 Series Stackable L3 Lite Access Switch Datasheet

## Product Overview

S3230 series switch is a high-performance stackable 10G L3 Lite access routing switch developed by Maipu. It is applied in enterprise campus network and easy to deploy Layer2/3 switching solution that offers enhanced security and 10GE uplinks, Static Route, L2 Multicast, VST/M-LAG stacking enabled and flexible management.

S3230 series switch can be used as access devices on enterprise branch networks. The switches help build highly reliable enterprise campus networks that are easy to expand and manage.

S3230 series switch includes S3230-28TXF-AC, S3230-28TXP-AC, S3230-54TXF-AC and S3230-54TXP-AC.

Modem Name	Specification
 <p><b>S3230-28TXF-AC</b></p>	<ul style="list-style-type: none"> <li>● 24*100/1000M Base-T + 4*10G SFP+</li> <li>● Fixed Single AC Power</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● Switching Capacity: 128Gbps</li> </ul>
 <p><b>S3230-28TXP-AC</b></p>	<ul style="list-style-type: none"> <li>● 24*100/1000M Base-T + 4*10G SFP+</li> <li>● Fixed Single AC Power</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● 380W PoE&amp;PoE+</li> <li>● Switching Capacity: 128Gbps</li> </ul>
 <p><b>S3230-54TXF-AC</b></p>	<ul style="list-style-type: none"> <li>● 48*100/1000M Base-T + 6*10G SFP+</li> <li>● Fixed Single AC Power.</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● Switching Capacity: 216Gbps</li> </ul>
 <p><b>S3230-54TXP-AC</b></p>	<ul style="list-style-type: none"> <li>● 48*100/1000M Base-T + 4*10G SFP+</li> <li>● One Extension Slot (2-Port 10G Card)</li> <li>● Fixed Single AC Power.</li> <li>● 760W PoE&amp;PoE+</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● Switching Capacity: 216Gbps</li> </ul>

# Key Features

## Intelligent stacking technology

S3230 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.

S3230 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

S3230 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.

## Perfect security policy

S3230 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

S3230 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

S3230 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.

## BD-LAN Controller Management

S3230 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	S3230-28TXF-AC	S3230-28TXP-AC	S3230-54TXF-AC	S3230-54TXP-AC
<b>Hardware Specification</b>				
Device Structure	Desktop			
Physical Port	24*100/1000M Base-T interfaces, 4*10G SFP+ interfaces	24*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, PoE Enable	48*100/1000M Base-T interfaces, 6*10G SFP+ interfaces	48*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, PoE Enable, One Extension Slot
Extension Slot	N/A	N/A	N/A	1
RJ45 Console Port	1	1	1	1
USB2.0 Port	1	1	1	1
Power Supply	One Fixed AC	One Fixed AC	One Fixed AC	One Fixed AC
POE Power Consumption	N/A	380W	N/A	760W
Intelligent Fans	Yes	Yes	Yes	Yes
<b>Performance Parameters</b>				
Switching Capability	128Gbps	128Gbps	216Gbps	216Gbps
Throughput	95.2Mpps	95.2Mpps	160.7Mpps	160.7Mpps
Flash	256MB		256MB	
Memory	512MB		1GB	
MAC Address Entry	16K		32K	
ARP Entry	2K		8K	
Static Route Entry	256		12K	
L2 Multicast Group	3K		6K	
Jumbo	12K		12K	
VLAN Entry	4K		4K	
MSTP Instance	64		64	
Anti-lightning	6KV			
Anti-Static	6KV			
MTBF	>80000 hours			
<b>Physical Index</b>				
Dimension (W×D×H) (mm)	442*220*44.2mm	442*380*44.2mm	442*380*44.2mm	442*420*44.2mm
<b>Power Supply</b>				
Power Input	AC:100-240V			
Power Consumption (MAX)	≤50W	≤50W	≤55W	≤55W
<b>Environment</b>				
Working Temperature	0°C~50°C			
Humidity	10~90%, non-condensing			
<b>Software Specification</b>				
Standard protocol	L2	LAN Features	Port Type UNI/NNI, Port Speed, Port MTU, Switch Port, Port Loopback, Port Energy Control, Loopback interface, Null interface, Storm Control	
			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, Multicast Control	
		LACP Link aggregation, LACP Port Priority, LACP Load Balance, LACP Rate Monitor, LACP Debug	
		Error-disable based on bpduguard Dai DHCP Snooping Link-Flap Loopback-detect Port Security Storm Control Transceiver Power, Error-disable recovery	
		UDLD, Track, Loopback Detection, Loopback Debug	
Standard protocol	L3	Routing Protocol	Static route
		DHCP	DHCP Client, DHCP Option51/82
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 through 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	
	Anti-attack	Anti-attack detect drop flood log	
	AAA	Authentication, Authorization, Accounting, Radius, TACACS, 802.1x	
QoS	Flow Classification	LP, 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, DNS, CLI, PING, Telnet, FTP/TFTP, NTP, Debug, Telemetry	
	Network Monitoring	SPAN, LLDP, sFlow	
IEEE Standard	IEEE 802.3 (10BASE-T)	IEEE 802.3u (100BASE-T)	
	IEEE 802.3z (1000BASE-X)	IEEE 802.3ab (1000BASE-T)	
	IEEE 802.3ae (10G BASE-X)	IEEE 802.1x (port authentication)	
	IEEE 802.3ad (Link Aggregation)	IEEE 802.3x (Flow Control)	

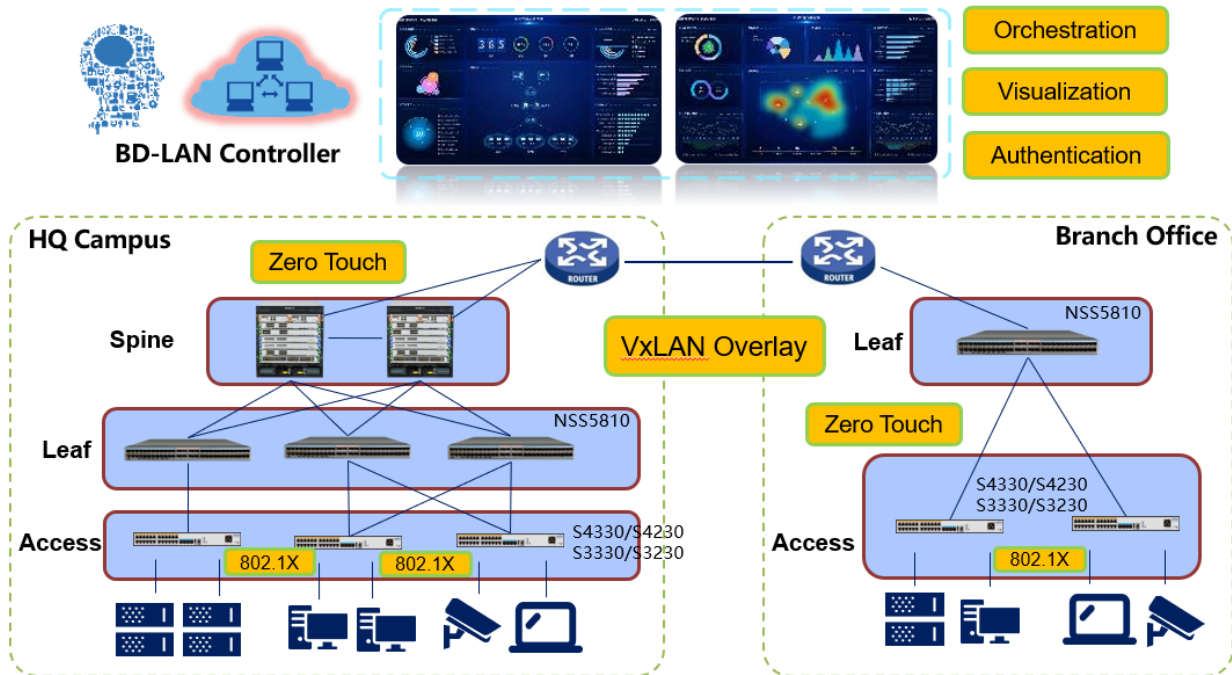
	IEEE802.3az (Energy Efficient Ethernet) IEEE 802.1d (STP) IEEE 802.1Q (Virtual LAN) IEEE 802.1w (RSTP) IEEE 802.1s (MSTP) IEEE 802.1p (Cos priority)
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## Order Information

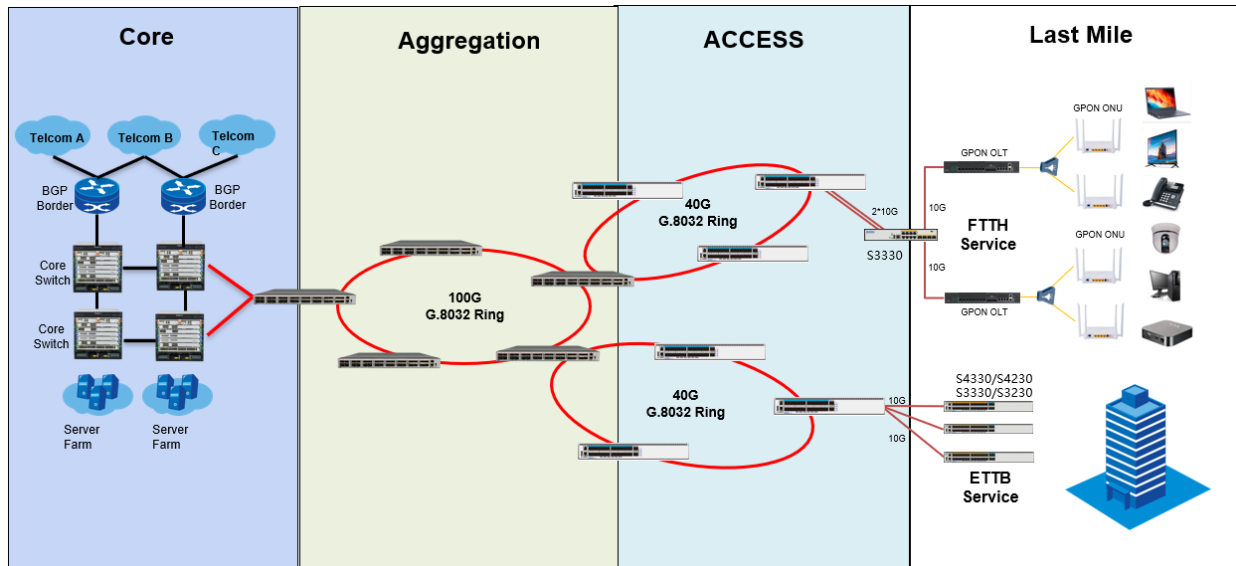
Series	Model	Description
<b>S3230 Series Host</b>		
S3230 Series	S3230-28TXF-AC	24*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, Fixed One AC Power Supply.
	S3230-28TXP-AC	24*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, PoE Enable, Fixed One AC Power Supply.
	S3230-54TXF-AC	48*100/1000M Base-T interfaces, 6*10G SFP+ interfaces, Fixed One AC Power Supply.
	S3230-54TXP-AC	48*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, PoE Enable, One Extension Slot, Fixed One AC Power Supply.
<b>Extension Module</b>		
10G Module	SM4C-2XGEF	2-Port 10G SFP+ Extension Module (For S3230-56TXP-AC)
<b>Stacking Cable</b>		
Stacking Cable	SFP-STACK-30	High speed stacking cable, SFP+ to SFP+,10Gbps, L=1.5m
	SFP-STACK-50	High speed stacking cable, SFP+ to SFP+,10Gbps, L=3.0m
	SFP-STACK-15	High speed stacking cable, SFP+ to SFP+,10Gbps, L=5.0m

# Typical Application

## Campus LAN Network



## ISP FTTH Network



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