




# S4330 Series Stackable L3 Aggregation Switch Datasheet




## Product Overview

S4330 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.

S4330 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.

S4330 series switch includes S4330-30TXF, S4330-30TXP, S4330-54TXF, S4330-54TXP, S4330-54GXF, S4330-54TGXF six models.

Modem Name	Specification
 <p><b>S4330-30TXF</b></p>	<ul style="list-style-type: none"> <li>● 24*100/1000M Base-T + 4*10G SFP+</li> <li>● One Extension Slot (2-Port 10G Card)</li> <li>● Dual Modular Power Slots</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● Switching Capacity: 168Gbps</li> </ul>
 <p><b>S4330-54TXF</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>● Dual Modular Power Slots</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● Switching Capacity: 216Gbps</li> </ul>
 <p><b>S4330-30TXP</b></p>	<ul style="list-style-type: none"> <li>● 24*100/1000M Base-T + 4*10G SFP+</li> <li>● One Extension Slot (2-Port 10G Card)</li> <li>● Dual Modular Power Slots</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● 380W/760W PoE&amp;PoE+</li> <li>● Switching Capacity: 168Gbps</li> </ul>

 <p><b>S4330-54TXP</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>● Dual Modular Power Slots</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● 380W/760W PoE&amp;PoE+</li> <li>● Switching Capacity: 216Gbps</li> </ul>
 <p><b>S4330-54GXF</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>● Dual Modular Power Slots</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● Switching Capacity: 216Gbps</li> </ul>
 <p><b>S4330-54GTXF</b></p>	<ul style="list-style-type: none"> <li>● 32*100/1000M Base-T + 16*1000M SFP</li> <li>● 4*10G SFP+</li> <li>● Dual Modular Power Slots</li> <li>● RJ45 Console/USB2.0 Port</li> <li>● Switching Capacity: 216Gbps</li> </ul>

## Key Features

### Intelligent stacking technology

S4330 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.

S4330 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

S4330 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 S4330 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

S4330 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**

S4330 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**

S4330 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**

S4330 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 S4330 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**

S4330 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

Frame model	S4330-30TXF	S4330-30TXP	S4330-54TXF	S4330-54TXP	S4330-54GXF	S4330-54TGXF
<b>Hardware Specification</b>						
Device Structure	Desktop					
Physical Port	24*100/1000 M 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, 4*10G SFP+ interfaces	48*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, PoE Enable	48*100/1000M SFP interfaces, 4*10G SFP+ interfaces	32*100/1000 M Base-T interfaces, 16*100/1000 M SFP interfaces, 4*10G SFP+ interfaces
Extension Slots	1	1	1	1	1	1
RJ45 Console Port	1	1	1	1	1	1
USB Port	1	1	1	1	1	1
Power Supply	Dual Modular Power Slots	Dual Modular Power Slots	Dual Modular Power Slots	Dual Modular Power Slots	Dual Modular Power Slots	Dual Modular Power Slots
POE Power Consumption	N/A	380W/760W	N/A	380W/760W/1440W	N/A	N/A
Intelligent Fans	Yes	Yes	Yes	Yes	Yes	Yes
<b>Performance parameters</b>						
Switching Capability	168Gbps	168Gbps	216Gbps	216Gbps	216Gbps	216Gbps
Throughput	125Mpps	125Mpps	160.7Mpps	160.7Mpps	160.7Mpps	160.7Mpps
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					
<b>Physical index</b>						
Dimension (WxDxH)mm	442*420*44.2	442*420*44.2	442*420*44.2	442*420*44.2	442*420*44.2	442*420*44.2
<b>Power supply</b>						
Power Input	AC 100-240V, 50-60Hz DC -40~57V					

Power Consumption (MAX)	≤30W	≤40W	≤55W	≤80W	≤55W	≤55W
<b>Environment</b>						
Working Temperature	0°C~50°C					
Humidity	10~90%, non-condensing					
<b>Software Specification</b>						
Standard L2 protocol	LAN Features	Port Type UNI/NNI, Port Speed, Port MTU, Switch Port, Port Loopback, Port Energy Control, Loopback interfaces, 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 interfaces, 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, 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 802.3u (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)	

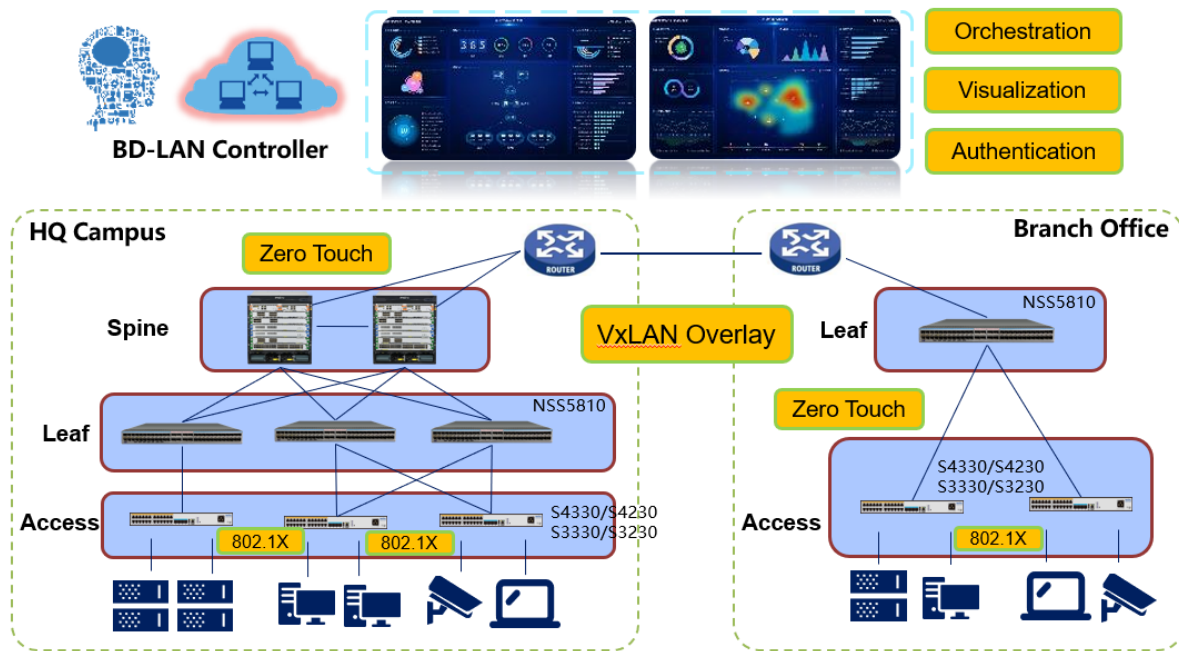
## Order Information

Series	Model	Description
<b>S4330 Series Host</b>		
S4330 Series	S4330-30TXF	24*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, One Extension Slot, Dual Power Slots.
	S4330-30TXP	24*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, One Extension Slot, Dual Power Slots, PoE&PoE+ Enable.
	S4330-54TXF	48*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, One Extension Slot, Dual Power Slots.
	S4330-54TXP	48*100/1000M Base-T interfaces, 4*10G SFP+ interfaces, One Extension Slot, Dual Power Slots, PoE&PoE+ Enable.
	S4330-54GXF	48*100/1000M SFP interfaces, 4*10G SFP+ interfaces, One Extension Slot, Dual Power Slots.
	S4330-54TGXF	32*100/1000M Base-T interfaces, 16*100/1000M SFP interfaces, 4*10G SFP+ interfaces, One Extension Slot, Dual Power Slots.
<b>Power Module</b>		
Power Module	AD120-1S005E	120W AC Power Module (For Non-POE model)
	AD500-1D005E	500W AC Power Module (For POE model)
	AD880-1D005E	880W AC Power Supply Module (Only for S4330-54TXP)
	DD250-5D005E	120W DC Power Module (For Non-POE model)

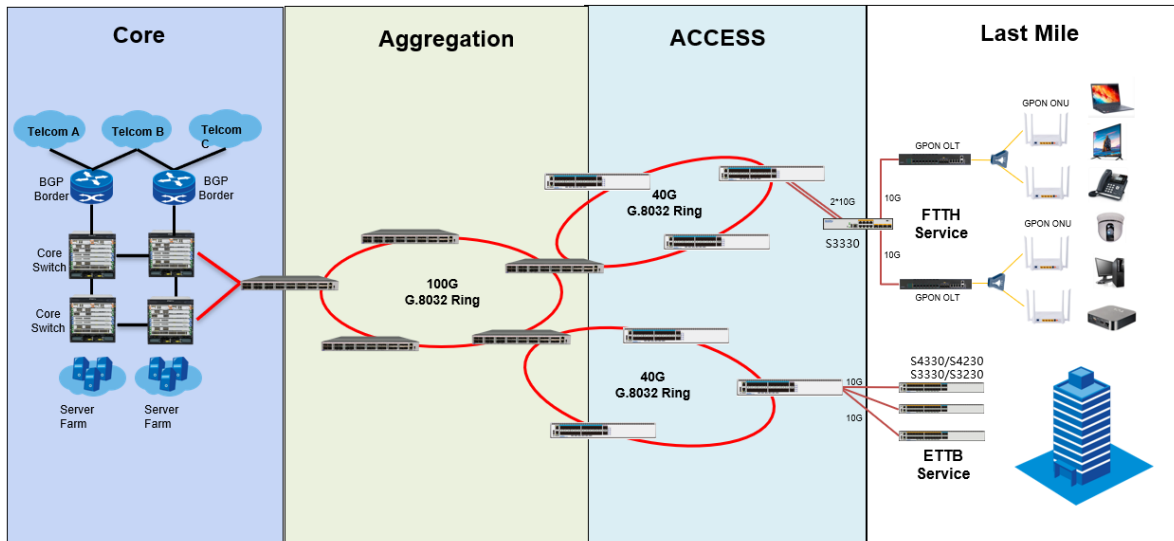
	DD500-5D005E	500W DC Power Module (For POE model)
<b>Extension Module</b>		
10G Module	SM4C-2XGEF	2-Port 10G SFP+ Extension Module
<b>Stacking Cable</b>		
Stacking Cable	SFP-STACK-15	High speed stacking cable, SFP+ to SFP+,10Gbps, L=1.5m
	SFP-STACK-30	High speed stacking cable, SFP+ to SFP+,10Gbps, L=3.0m
	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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