



MyPower S4320 Series Enhanced Gigabit Aggregation L3 Switch

Datasheet

Maipu Communication Technology Co., Ltd
No. 16, Jiuxing Avenue
Hi-tech Park
Chengdu, Sichuan Province
People's Republic of China - 610041
Tel: (86) 28-85148850, 85148041
Fax: (86) 28-85148948
URL: [http:// www.maipu.com](http://www.maipu.com)
Email: overseas@maipu.com

All rights reserved. Printed in the People's Republic of China.

No part of this document may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise without the prior written consent of Maipu Communication Technology Co., Ltd.

Maipu makes no representations or warranties with respect to this document contents and specifically disclaims any implied warranties of merchantability or fitness for any specific purpose. Further, Maipu reserves the right to revise this document and to make changes from time to time in its content without being obligated to notify any person of such revisions or changes.

Maipu values and appreciates comments you may have concerning our products or this document. Please address comments to:

Maipu Communication Technology Co., Ltd
No. 16, Jiuxing Avenue
Hi-tech Park
Chengdu, Sichuan Province
People's Republic of China - 610041
Tel: (86) 28-85148850, 85148041
Fax: (86) 28-85148948
URL: [http:// www.maipu.com](http://www.maipu.com)
Email: overseas@maipu.com

All other products or services mentioned herein may be registered trademarks, trademarks, or service marks of their respective manufacturers, companies, or organizations.

Maipu Feedback Form

Your opinion helps us improve the quality of our product documentation and offer better services. Please fax your comments and suggestions to (86) 28-85148948, 85148139 or email to overseas@maipu.com.

Document Title	MYPOWER S4320 SERIES GIGABIT AGGREGATION ROUTING SWITCH FEATURE LIST												
Product Version		Document Revision Number	1.0										
Evaluate this document	Presentation: (Introductions, procedures, illustrations, completeness, arrangement, appearance) <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Average <input type="checkbox"/> Poor												
	Accessibility: (Contents, index, headings, numbering) <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Average <input type="checkbox"/> Poor												
	Editorial: (Language, vocabulary, readability, clarity, technical accuracy, content) <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Average <input type="checkbox"/> Poor												
Your suggestions to improve the document	Please check suggestions to improve this document: <table border="0"> <tr> <td><input type="checkbox"/> Improve introduction</td> <td><input type="checkbox"/> Make more concise</td> </tr> <tr> <td><input type="checkbox"/> Improve Contents</td> <td><input type="checkbox"/> Add more step-by-step procedures/tutorials</td> </tr> <tr> <td><input type="checkbox"/> Improve arrangement</td> <td><input type="checkbox"/> Add more technical information</td> </tr> <tr> <td><input type="checkbox"/> Include images</td> <td><input type="checkbox"/> Make it less technical</td> </tr> <tr> <td><input type="checkbox"/> Add more detail</td> <td><input type="checkbox"/> Improve index</td> </tr> </table>			<input type="checkbox"/> Improve introduction	<input type="checkbox"/> Make more concise	<input type="checkbox"/> Improve Contents	<input type="checkbox"/> Add more step-by-step procedures/tutorials	<input type="checkbox"/> Improve arrangement	<input type="checkbox"/> Add more technical information	<input type="checkbox"/> Include images	<input type="checkbox"/> Make it less technical	<input type="checkbox"/> Add more detail	<input type="checkbox"/> Improve index
<input type="checkbox"/> Improve introduction	<input type="checkbox"/> Make more concise												
<input type="checkbox"/> Improve Contents	<input type="checkbox"/> Add more step-by-step procedures/tutorials												
<input type="checkbox"/> Improve arrangement	<input type="checkbox"/> Add more technical information												
<input type="checkbox"/> Include images	<input type="checkbox"/> Make it less technical												
<input type="checkbox"/> Add more detail	<input type="checkbox"/> Improve index												
If you wish to be contacted, complete the following:													
Name		Company											
Postcode		Address											
Telephone		Email											

Contents

S4320 Series Switch	5
Key Features	7
Technical Specifications.....	9
Order Information	13

S4320 Series Switch

MyPower S4320 is a high-performance aggregation Gigabit routing switch developed by Maipu. It is applied in enterprise network center LAN and aggregation of IP MAN. It can forward L3 Ethernet data frames with line rate, and has rich QoS and multicast capability. It can perform the L2-L7 ACL filtering on packets according to user definitions and combine with 802.1x authentication protocol to meet the security requirements of users.

MyPower S4320 series includes SM4320-28TC, SM4320-52TC, SM4320-28TP, SM4320-52TP, SM4320-28FC models.

SM4320-28TC Provides 24 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots.

SM4320-28TP Provides 24 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots, POE&POE+ Supports.

SM4320-52TC Provides 48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots.

SM4320-52TP Provides 48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots, POE&POE+ Supports.

SM4320-28FC Provides 24 1000M SFP interfaces, 12 10/100/1000M electric (combo) interfaces, two 10G Extension Slots, Dual Power Slots.

SM4320-52FC Provides 48 1000M SFP interfaces, 4 10/100/1000M electric (combo) interface, two 10G Extension Slots, Dual Power Slots.



MyPower S4320 Gigabit Aggregation L3 Switch

MyPower S4320 series switch provides the perfect solutions in the aspects of multi-service capability, security, reliability, management and maintenance. It is the ideal aggregation device of the industry users and carriers. The system provides the security features, such as 802.1X access authentication and ARP anti-attack, which can prevent the virus and vicious attacks and is suitable for the networks with large scale, multiple services and complicated traffic. It has powerful multicast and QoS capability, meeting the real-time requirements of the enterprise network video, audio data and other high-priority services. Besides, S4320 supports QinQ, VLAN Mapping, and multi-service access capabilities. MyPower S4320 series gigabit L3 switch can provide the low-cost, high-performance, and easy-management solutions for the enterprise network center, IP MAN and district network aggregation.

Key Features

- Complete L2/L3 protocols
- Perfect security policy
- Powerful access control capability
- Advanced QoS
- VRRP/VBRP, BFD supports
- 50ms service protection
- Perfect OAM
- Comprehensive network management
- Green-power design and lead-free ROHS design

● Complete L2/L3 protocols

S4320 series switch provides 802.1d/w/s spanning tree protocol; 802.1q, 802.1p, 802.3ad, 802.3x, GVRP, DHCP, and STP protocols; IGMP, DVMRP, and PIM multicast protocols; Static, RIPv1/2, OSPF, BGP, and VRRP routing protocols. S4320 supports 1K concurrent multicast data flow; IGMP snooping and IGMP fast-adding/leaving protocol; L3 PIM and PIM-DM/SM protocol to meet the requirement of customers for multicast protocol.

● Perfect security policy

S4320 series switch provides various security policies such as user authority/identity authentication, port security, port rate limitation, port monitoring, address filtering, loopback check, and 802.1X authentication; provides various protect mechanisms for user access and network security. It has perfect security function design and supports user-based SNMP V3, 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.

● Powerful access control capability

S4320 series switch supports L2-L7 ACL access control. It can classify data flow according to source destination MAC address, source destination IP address, UDP/TCP port number, and IP protocol type, set access control rules according to data classification, that is, set permit or deny, and then apply the rules to VLANs or physical ports.

● Advanced QoS

Each port of S4320 supports eight queues and the queue scheduling policies such as SP, RR, WRR, and WDRR; rich priority mappings including 802.1p→802.1p, 802.1p→COS, DSCP→802.1p, and DSCP→DSCP; 64Kbps-based port traffic rate restriction and carriers can limit the rate according to the time period; Tail Drop and sRED packet loss algorithm. S4320 supports single-rate three-color mode (srTCM) and dual-rate three-color mode (trTCM) to meet the SLA requirements of operators, including CIR, CBS and PIR.

- **Supports VRRP/VBRP, BFD Protocols**

S4320 series switch supports VRRP/VBRP route redundant protocols which can realize the backup of the switch, it can be compatible with HSRP protocol which can satisfy the requirements of network expansion. S4320 supports the BFD function, to meet the rapid detection of the link and 50ms fast switching requirements.

- **50ms service protection**

S4320 series switch adopts Ethernet ring protection technology of Maipu, which can realize 50ms network protection in single-ring, dual-ring/multi-ring, tangent-ring and crossover-ring networking environments. In this way, the service continuity of carriers is ensured and customer satisfaction is improved.

- **Perfect OAM**

S4320 series switch is one of Ethernet aggregation devices that support perfect OAM. It can help carriers and enterprises to manage the network more efficiently. In this way, the operation cost of customers is reduced. The supported OAM standards include 802.1ag, 802.3ah and E-LMI.

- **Comprehensive network management**

S4320 series switch provides SHELL, TELNET, WEB, SNMP management, third-party software to realize across-platform and large-scale network management and friendly man-machine interface, and provide powerful support for users to manage devices and control network status.

- **Green-power design and lead-free ROHS design**

Adopting EEE chipset and intelligent variable speed fan, S4320 is excellent in energy saving. According to 10 °C rule, the reliability and life of semiconductor chip are related with working temperature. The working temperature increases 10°C and the reliability of semiconductor reduces a half, while the working temperature and power consumption are in direct proportion. S4320 series switch improves the product life and stable running of high-end devices, saves the running energy consumption of devices, and meets the green environmental protection requirements.

Technical Specifications

Product model	MyPower S4320		
Frame model	SM4320-28TC SM4320-52TC	SM4320-28TP SM4320-52TP	SM4320-28FC SM4320-52FC
Product configurations			
Device structure	Desktop		
Physical port	24/48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots	24/48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, POE&POE+ Supports	24/48 1000M SFP interfaces, 12/4 10/100/1000M electric (combo) interfaces, two 10G Extension Slots
RJ45 Console port	1	1	1
USB Console port	1	1	1
Reset Button	1	1	1
10G Extension Slots	2	2	2
Power Module Slots	2	2	2
Intelligent Fans	Yes	Yes	Yes
Performance parameters			
Switching capability	128Gbps 176Gbps	128Gbps 176Gbps	128Gbps 176Gbps
Throughput	95.2Mpps 131Mpps	95.2Mpps 131Mpps	95.2Mpps 131Mpps
Jumbo	13K	13K	13K
VLAN Entry	4K		
MAC Entry	32K		
Routing Table	12K		
Anti-static	Yes		
Anti-lightning	Yes		
MTBF	>80000 hours		

Software Features		
L2 protocol	LAN	Support MAC address learning quality limitation; static MAC configuration; blackhole MAC
		Dynamic and static ARP, proxy ARP, free ARP
		Ethernet, Ethernet II, VLAN, 802.3x, 802.1p, 802.1q, 802.1x, 802.3az
		Support VLAN based on port, MAC, protocol, IP subnet Support VLAN Mapping, support Voice VLAN, support GVRP
		QinQ, selective QinQ
		STP/RSTP/MSTP; support BPDU TUNNEL;
		IGMP Snooping, GVRP
		IEEE802.3ad LACP L2 aggregation
		Multiple-to-one port mirror, remote port mirror RSPAN, flow mirror
L3 protocol	Routing protocol	Static route, RIP v1/v2, OSPFv2, BGP, Equivalent route, route policy
	IPv6	IPv6 Dual stack, Neighbor discovery, Static routes, RIPng, OSPFv3
	Multicast protocol	IGMP v1/v2/v3
		IGMP Snooping
		PIM-DM, PIM-SM, PIM-SDM, PIM-SSM
	IP application	DHCP Server, DHCP Client, DHCP Relay, DHCP Snooping, Option 82, IPv6 DHCP
		DNS, DDNS
		FTP Server, FTP Client
		Ping, Traceroute, Ping IPv6, Traceroute IPv6
		IP Accounting, UDP Helper, NTP
Network security	Port	Port security, port isolation
	ARP	ARP Guard, DAI, static ARP binding, ARP Proxy, free ARP
	ACL	Standard IP ACL, extended IP ACL, standard MAC ACL, self-reserve ACL, advanced ACL, IPV6 ACL
	Security defending	Control plane protection, URPF
	DDOS anti-attack	ICMP Flood intercepting, Smurf attack intercepting, Fraggle attack intercepting, LAND attack intercepting, SYN Flood attack intercepting
	Authentication	Local authentication, Radius, Tacacs+, AAA

		802.1x authentication	
QoS	Flow classification	Based on port, MAC address, IP address, IP priority, DSCP priority, TCP/UDP port number, protocol type and so on	
	Traffic monitoring	CAR	
	Congestion management	SP, WRR, SP+WRR	
	Congestion avoidance	RED, WRED	
	Link reliability		Support BFD for BGP/IS-IS/OSPF/RSVP/VPLS PW/VRRP and so on
		Support Keepalive Gateway	
		Support VRRP	
Management	Device management	Port line detection (VCT), UDLD	
	Network management	SNMP v1/v2/v3, MIB, RMON, SYSLOG, SSH	
	System management	Console port login management, Telnet (VTY) remote management, SSH management, WEB management	
	Network quality guarantee (SLA)		ICMPECHO, ICMP-PATH-ECHO, ICMP-PATH-JITTER, JITTER, UDPECHO, FLOW-STATISTICS, MAC SLA and other protocol test
			Support the network delay, jitter, and packet loss test
Sflow	Support the sFlow traffic analysis		
IEEE		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) 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)	
Physical index			
Dimension (W×D×H)	440mm x 420mm x 44.2mm		
Power supply			
Input voltage (AC)	100-240V, 50-60Hz		
Input voltage (DC)	-48V		
Power consumption (MAX)	120W		
POE Power Consumption(MAX)	760W(380W*2)		

Environment	
Temperature	0~45°C
Humidity	10~90%, non-condensing

Order Information

Series	Model	Description
MyPower S4320 Series		
MyPower S4320 Series	SM4320-28TC	24 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots.
	SM4320-52TC	48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots.
	SM4320-28TP	24 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots, POE&POE+ Supports.
	SM4320-52TP	48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots, POE&POE+ Supports.
	SM4320-28FC	24 1000M SFP interfaces, 12 10/100/1000M electric (combo) interfaces, two 10G Extension Slots, Dual Power Slots.
	SM4320-52FC	48 1000M SFP interfaces, 4 10/100/1000M electric (combo) interfaces, two 10G Extension Slots, Dual Power Slots.
Extension Module		
Extension Module	SM4A-2GEF	2-Port SFP 1G Card for Uplink
	SM4A-2XGEF	2-Port SFP+10G Card for Uplink
	SM4A-2CX4	Stacking Module, two CX4 interfaces, need configure with CX4 cables
Stacking Module & Cable		
Power Module	AD120-1S005E	150W AC Power Supply Module
	DD250-5D005E	250W DC Power Supply Module
	AD500-1D005E	500W AC Power Supply Module
	DD500-5D005E	500W DC Power Supply Module
Stacking Cable		
Stacking Cable	CX4-STACK-5	CX4 Stacking Cable, L=0.5m
	CX4-STACK-10	CX4 Stacking Cable, L=1.0m
	CX4-STACK-30	CX4 Stacking Cable, L=3.0m