MAIPU

MyPower S3320 Series L3 Lite Gigabit Access Switch

Datasheet

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Document Title	MYPOWER S3320 SERIES GIGABIT AGGREGATION ROUTING SWITCH FEATURE LIST		
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Contents

S3320 Series Switch

MyPower S3320 is a high-performance aggregation Gigabit L3 Lite switch developed by Maipu. It is applied in access or aggregation layer of enterprise LAN network and district access of IP MAN. It can forward L2/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 S3320 series includes SM3320-28TC-AC, SM3320-52TC-AC, SM3320-28TC, SM3320-52TC, SM3320-28TP, SM3320-52TP.

SM3320-28TC-AC Provides 24 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Fixed AC Power.

SM3320-52TC-AC Provides 48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Fixed AC Power.

SM3320-28TC Provides 24 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots.

SM3320-52TC Provides 48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots.

SM3320-28TP Provides 24 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots, POE&POE+ Supports.

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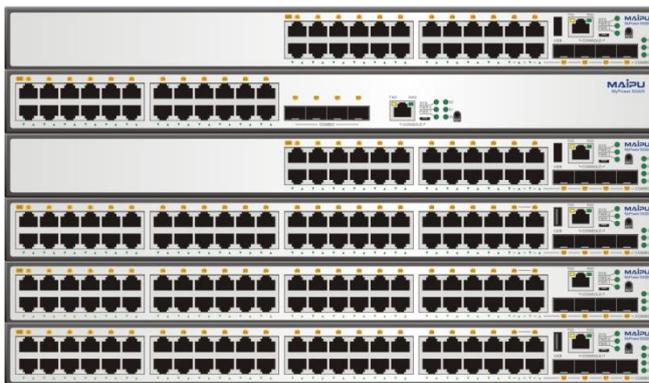
MyPower S3320 Gigabit L3 Lite Switch

MyPower S3320 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, S3320 supports QinQ, VLAN Mapping, and multi-service access capabilities. MyPower S3320 series gigabit L3 Lite switch can provide the low-cost, high-performance, and easy-management solutions for the enterprise network access and aggregation, IP MAN and district network aggregation.

Key Features

- Complete L2 protocols, L3 lite protocols
- Perfect security policy
- Powerful access control capability
- Advanced QoS
- 50ms service protection
- Unique PDI technology
- Comprehensive network management
- Green-power design and lead-free ROSH design
- Horizontal and vertical virtualization technology

- **Complete L2 protocols, L3 lite protocols**

S3320 series switch provides 802.1d/w/s spanning tree protocol; 802.1q, 802.1p, 802.3ad, 802.3x, GVRP, DHCP, and SNTP protocols; IGMP protocols; Static routing protocols. S3320 supports 1K concurrent multicast data flow; IGMP snooping and IGMP fast-adding/leaving protocol to meet the requirement of customers for multicast protocol.

- **Perfect security policy**

S3320 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**

S3320 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 S3320 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. S3320 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.

- **50ms service protection**

S3320 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.

- **Unique PDI technology**

S3120 series switch supports Maipu proprietary PDI (Powered device inspection) technology, switch will constantly detect POE terminal status, and automatically reboot powered device when software malfunction occurred, which can highly reduce the recovery time.

- **Comprehensive network management**

S3320 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.

- **Horizontal and vertical virtualization technology**

S3320 series switch supports horizontal virtualization VST (Virtual Switching Technology), multiple switches can be virtualized into one switch, with unified management and data forwarding. VST can realize link aggregation across device, 0 second failover while link malfunction, can highly enhance network stability and bandwidth utilization.

S3320 series switch supports vertical management virtualization technology, S3320 series switch can connect to core switch via Gigabit ports, maximum 128 device can be virtualized into one logical switch for unified management, highly reduce workload for deployment and maintenance, simplify network structure.

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

Adopting EEE chipset and intelligent variable speed fan, S3320 is excellent in energy saving. According to 10 ℃ rule, the reliability and life of semiconductor chip are related with working temperature. The working temperature increases 10℃ and the reliability of semiconductor reduces a half, while the working temperature and power consumption are in direct proportion. S3320 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 S3320		
Frame model	**SM3320-28TC-AC** **SM3320-52TC-AC**	**SM3320-28TC** **SM3320-52TC**	**SM3320-28TP** **SM3320-52TP**
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	24/48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, POE&POE+ Supports
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	Fixed Dual AC	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		
Anti-static	Yes		
Anti-lightning	Yes		
MTBF	>80000 hours		
Software Features			

L2 protocol	Support MAC address learning quantity 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 Super-VLAN, support Voice VLAN, support GVRP, support PVLAN; QinQ, selective QinQ; STP/RSTP/MSTP; support LACP; support L2 protocol tunnel; Multiple-to-one port mirror, flow mirror; loopback detection
L3 protocol	Default routing, static routing, RIP V1/V2,VRRP
Multicast	IGMP Snooping, IGMP PROXY, Fast leave, MVR, controllable multicast, MVLAN plus
Security mechanism	Port security, port isolation; DHCP snooping, IP source guard, DAI, static ARP binding, ARP Proxy, free ARP; Standard IP ACL, extended IP ACL, standard MAC ACL, extended MAC ACL, advanced ACL; Control plane protection, URPF; illegal ICMP/TCP/IP attack detection, Smurf attack intercepting, LAND attack intercepting, SYN Flood attack intercepting; Ping flood detection; Anti TearDrop; Radius, Tacacs, AAA; 802.1x authentication
Network Protocols	DHCP Server, DHCP Client, DHCP Relay, DHCP Snooping, DHCP Option 82, DNS server, DNS client, PING, FTP Server, FTP Client, IP Accounting, UDP Helper, NTP server, NTP client, TFTP
QoS	Based on port, MAC address, IP address, IP priority, DSCP priority, TCP/UDP port number, protocol type and so on; CAR; SP, WRR, SP+WRR, WDRR, SP+WDRR; RED, WRED, Tail-drop
Reliability	EIPS(Ethernet Intelligent Protection Switching), UDLD, ULPP
OAM	802.1ag, 802.3ah, E-LMI; EVC; SLA
Management	Port line detection (VCT); Cluster management; LLDP; SPAN; SNMP v1/v2/v3, MIB, RMON, SYSLOG; Console port login management, Telnet (VTY) remote management, SSH management, Support sFlow traffic analysis
Virtual switching technology	Support VST (Virtual Switching Technology), maximum 8 device in one stacking group via Gigabit ports
	Support vertical management virtualization, with the coordination of core switch, maximum 128 device can be virtualized into one logical switch for unfied management
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) IEEE 802.1d (STP)　IEEE 802.1Q (Virtual LAN) IEEE 802.1w (RSTP)　IEEE 802.1s (MSTP) IEEE 802.1p (Cos priority)　　IEEE 802.3az (EEE) IEEE 802.3af (POE)　　　IEEE 802.3at (POE+)

Physical index			
Dimension (W×D×H)	440mm x 380mm x 44.2mm	440mm x 420mm x 44.2mm	440mm x 420mm x 44.2mm

Power supply			
Input voltage (AC)	100-240V, 50-60Hz		
Input voltage (DC)	-40~-57V		
Power consumption (MAX)	48W 80W	48W 72W	852W(POE included) 896W(POE included)
POE Power Consumption(MAX)	/	/	760W 760W

Environment			

Temperature	0～45℃
Humidity	10～90%, non-condensing

Order Information

Series	Model	Description
MyPower S3320 Series		
MyPower S3320 Series	SM3320-28TC-AC	24 10/100/1000M electric interfaces, four 1000M SFP (combo) interfaces, two 10G Extension Slots, Dual Fixed AC Power.
	SM3320-52TC-AC	48 10/100/1000M electric interfaces, four 1000M SFP (combo) interfaces, two 10G Extension Slots, Dual Fixed AC Power.
	SM3320-28TC	24 10/100/1000M electric interfaces, four 1000M SFP (combo) interfaces, two 10G Extension Slots, Dual Power Slots.
	SM3320-52TC	48 10/100/1000M electric interfaces, four 1000M SFP (combo) interfaces, two 10G Extension Slots, Dual Power Slots.
	SM3320-28TP	24 10/100/1000M electric interfaces, four 1000M SFP (combo) interfaces, two 10G Extension Slots, Dual Power Slots, POE&POE+ Supports.
	SM3320-52TP	48 10/100/1000M electric interfaces, four 1000M SFP(combo) interfaces, two 10G Extension Slots, Dual Power Slots, POE&POE+ Supports.
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
	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
Power Supply		
Power Module	AD120-1S005E	120W AC Power Supply Module
	AD250-1S005E	250W AC Power Supply Module
	AD500-1D005E	500W AC Power Supply Module
	DD500-5D005E	500W DC Power Supply Module