MyPower S3120 Series Enhanced L3- Access Switch Datasheet

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Overview

MyPower S3120 series switch is the enhanced version of S3100 Series, it is developed by Maipu for the enterprise network access, MAN and district network access, and the building convergence of the medium/small network.

MyPower S3120 series switch provides the perfect solutions in the aspects of multi-service capability, security, reliability, management and maintenance. It is the ideal access 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, S3120 supports QinQ, VLAN Mapping, and multi-service access capabilities. MyPower S3120 series switch can provide the low-cost, high-performance, and easy-management solutions for the enterprise network center, IP MAN and district network access.
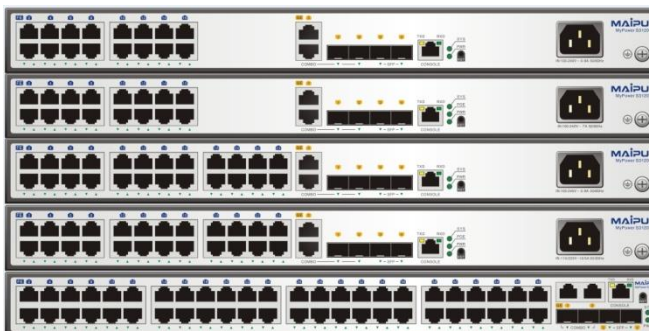
MyPower S3120 series includes SM3120-12TC-AC, SM3120-12TP-AC, SM3120-20TC-AC, SM3120-20TP-AC, SM3120-28TC-AC, SM3120-28TP-AC, SM3120-52TC-AC.

SM3120-12TC-AC provides 8 10/100M electric ports and two 1G COMBO (RJ45 or SFP) ports and two 1G SFP interfaces;

SM3120-12TP-AC provides 8 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, POE&POE+ supports;

SM3120-20TC-AC provides 16 10/100M electric ports and two 1G COMBO (RJ45 or SFP) ports and two 1G SFP interfaces;

SM3120-20TP-AC provides 16 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, POE&POE+ supports;

SM3120-28TC-AC provides 24 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces;

SM3120-28TP-AC provides 24 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, POE&POE+ supports;

SM3120-52TC-AC provides 48 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces.

Key Features

➢ Multi-service supporting capability

➢ Perfect security policy

➢ 50ms service protection

➢ Powerful access control capability

➢ Rich QoS mechanism

➢ Perfect OAM

➢ Comprehensive network management

● **Multi-service supporting capability**

S3120 series switch supports QinQ and VLAN Mapping and provides the flexible solutions for the multi-service isolation of the industry users and the MAN services of carriers. S3120 supports IGMP Snooping and multicast VLAN technology, which is suitable for the triple-play services of carriers and video communication requirement of the enterprise network customers. Meanwhile, S3120 provides PoE remote power supply, which is convenient for deploying IP Phone and wireless AP and meets the multi-service requirement.

● **Perfect security policy**

S3120 series switch supports 802.1x and MAC address authentication function and the static or dynamic binding of the user account, IP and port, realizes the delivering and management of user policies, and diagnoses the network illegal actions in real time. S3120 series switch provides the ARP Guard technology to prevent the ARP spoofing attack and supports the AM function to filter the packets forwarded by the ports. S3120 series switch supports extended ACL. It can classify the data flow according to the destination/source MAC address, source/destination IP address, UDP/TCP port number and protocol type. Meanwhile, it supports the ACL based on time domain and VLAN-based ACL and realizes the hierarchical access control flexibly.

● **50ms service protection**

S3120 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.

- **Powerful access control capability**

S3120 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.

- **Rich QoS mechanism**

S3120 series switch supports 802.1P/DSCP/TOS priority marking and mapping, and provides various priority queue scheduling algorithms, such as SP and WRR. It can realize the QoS functions, such as port speed limitation and traffic monitoring, meeting the requirement of the user network for data processing priority.

- **Perfect OAM**

S3120 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**

S3120 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.

Specifications

Product	MyPower S3120 Series				
Shelf	**SM3120-12TC-AC** **SM3120-12TP-AC**	**SM3120-20TC-AC** **SM3120-20TP-AC**	**SM3120-28TC-AC**	**SM3120-28TP-AC**	**SM3120-52TC-AC**
Product Configuration					
Device structure	Desktop	Desktop	Desktop	Desktop	Desktop
Physical ports	8 10/100M electric ports and two 1G combo ports and two 1G SFP interfaces;	16 10/100M electric ports and two 1G combo ports and two 1G SFP interfaces, POE&POE+ supports;	24 10/100M electric ports and two 1G combo ports and two 1G SFP interfaces;	24 10/100M electric ports and two 1G combo and two 1G SFP interfaces, POE&POE+ supports;	48 10/100M electric ports and two 1G combo ports and two 1G SFP interfaces;
POE&POE+	Yes	Yes	/	Yes	/
RJ45 Console	1	1	1	1	1
DDMI	Yes	Yes	Yes	Yes	Yes
Intelligent Fans	Yes	Yes	Yes	Yes	Yes
Performance parameters					
Switching Capacity	9.6Gbps	11.2Gbps	12.8Gbps	12.8Gbps	17.6Gbps
Throughput	7.14Mpps	8.4Mpps	9.6Mpps	9.6Mpps	13.2Mpps
Jumbo	13K	13K	13K	13K	13K
Static Routing Entry	16				
VLAN	4K				
MAC	32K				
Anti-static	Yes				
Anti-lightning	Yes				
Anti-Surge	6KV				
MTBF	80,000 hours				
Standards & Protocols					
Port &	Port rate and duplex mode, Port MDIX, Port MTU, Auto energy-saving, Loopback Detection, Cable-				

Interface	diagnostics(VCT), UNI/NNI, Storm-control, Port isolation;
L2 Features	LACP Link Aggregation, Static/dynamic aggregation; VLAN isolation, Port-based VLAN, MAC-based VLAN, IP-Subnet based VLAN, Protocol-based VLAN; Port-based QinQ, Selective QinQ, VLAN 1:1 mapping, VLAN N:1 mapping, PVLAN, Voice-VLAN; MAC address aging time configuration, Static/Dynamic MAC address learning, MAC address learning limitation; Port mirroring, Local SPAN, RSPAN, ERSPAN, SPAN Monitoring and Maintaining;
Spanning Tree	MSTP/RSTP/STP, Spanning Tree Protection, BPDU Guard, Root Guard, Loop Guard, Flap Guard, TC Protection;
Error Disable	Error-disable detect, Error-disable auto recovery;
IP Protocol	Static ARP, Dynamic ARP, ARP Limitation, ARP aging, ARP Proxy, ARP attack-detection; Management IP Address, default IP Address, ICMP redirection, IP TCP transmitting/receiving cache, IP UDP transmitting/receiving cache, IP TCP/UDP/ICMP/Socket statistics ; DHCP Server, DHCP Pool, DHCP Client, DHCP Relay, DHCP Binding, DHCP Ping; DNS Client, DNC static/Dynamic Domain Resolution, DNS Monitoring and Maintaining;
Multicast	L2 Static Multicast, Multicast Forwarding Policy; IGMP Snooping, IGMP snooping Query, IGMP snooping Router Port, IGMP snooping TCN Event, IGMP snooping Policy, IGMP Snooping Proxy, IGMP filtering, Multicast Receiving Control; MVR, Multicast VLAN Monitoring and Maintaining;
QoS	802.1P, DSCP, Priority Mapping, Remarking, Traffic Shaping, Rate Limitation, WRED, SP, WDRR, SP+WRR;
Security	Rate Limitation of CPU Queue, Route Protocol Packet to Be Processed by CPU, Customized Protocol Packet to Be Processed by CPU, Monitoring and Maintaining of CPU Protection; Port Security; port-security aging static; MAC and IP Rule of Port Security, STICKY Rule of Port Security; IP Source Guard, IP Source Guard Function Based on IP+VLAN, IP Source Guard Function Based on IP+MAC+VLAN; DHCP snooping Option82, Storing of DHCP snooping Bound Entries; Dynamic ARP Inspection(DAI), Port Dynamic ARP Inspection, Global Dynamic ARP Inspection, DAI Combining With DHCP Snooping; AAA Authentication, AAA Authorization, RADIUS, TACACS; 802.1X Port-based Authentication, 802.1X Mac-based Authentication , 802.1X Transparent Transmission, 802.1X Free-Client Authentication, 802.1X Secure Channel; Anti-DDOS Attack Detection, Intercepting Attack with Same Source and Destination IP Address;
ACL	IP Standard ACL, IP Extended ACL, MAC Standard ACL, MAC Extended ACL, Hybrid Extended ACL, ACL Rule Quantity Limitation, Time Domain, ACL Monitoring and Maintaining;
Reliability	ULFD(UDLD Compatible), EIPS (50ms Ring Protection), ULPP(Flexy Link), Monitoring BFD Session;
L3 Protocol	Static Route, Load Balancing Routes, Floating route, IP Route VRF;
POE&POE+	802.3af, 802.3at, PDI(PoE Dynamic Inspection);
50ms	EIPS(Ethernet Intelligent Protection Switching) ;
OAM	EFM(802.3ah), CFD(802.1ag), Support the network delay, jitter, and packet loss test;
SLA	IP-SLA for ICMP-echo, ICMP-path-echo, ICMP-path-jitter, VoIP-jitter and UDP-echo;
Management	NTP server and client, NTP with MD5 Authentication ; Keepalive, Keepalive gateway, keepalive gateway statistics ; Ping, traceroute, telnet, Concole, sFlow, LLDP ,MIB, Syslog, Web, HTTP/HTTPS, SSH ; SNMP v1/v2c Proxy Server, SNMP v3 Proxy Server, SNMP v3 Notify, SNMP v3 Proxy Forwarding; RMON Alarm Group, RMON Event Group, RMON History Event, RMON Statistics Group, RMON Monitoring and Maintaining ; IP Cluster, MCMP(Maipu cluster Management Protocol) ;
Physical indexes	

Dimension (W × D × H)	440mmx 220mm x 44.2mm(Non-PoE) 440mmx 320mm x 44.2mm(PoE)	440mm x 220mm x 44.2mm(Non-PoE) 440mmx 320mm x 44.2mm(PoE)	440mm x 220mms x 44.2mm	440mm x 320mm x 44.2mm	440mmx 220mm x 44.2mm
Power supply					
Input voltage (AC)	90-265V, 50-60Hz				
AC Power consumption (MAX, POE included)	24W(Non-PoE) 295W(PoE)	24W(Non-PoE) 435W(PoE)	25W	448W(PoE)	40W
POE Power Consumption (MAX)	180W	380W	/	380W	/
Environment parameters					
Working temperature	0-45℃				
Working humidity	10-90% non-condensing				

Order Information

Product Model	Description
MyPower S3120	
SM3120-12TC-AC	8 10/100M electric ports and two 1G COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, AC host;
SM3120-12TP-AC	8 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, POE&POE+ supports, AC host;
SM3120-20TC-AC	16 10/100M electric ports and two 1G COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, AC host;
SM3120-20TP-AC	16 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, POE&POE+ supports, AC host;
SM3120-28TC-AC	24 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, AC host;
SM3120-28TP-AC	24 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, AC host;
SM3120-52TC-AC	48 10/100M electric ports and two 1G electric COMBO (RJ45 or SFP) ports and two 1G SFP interfaces, AC host;