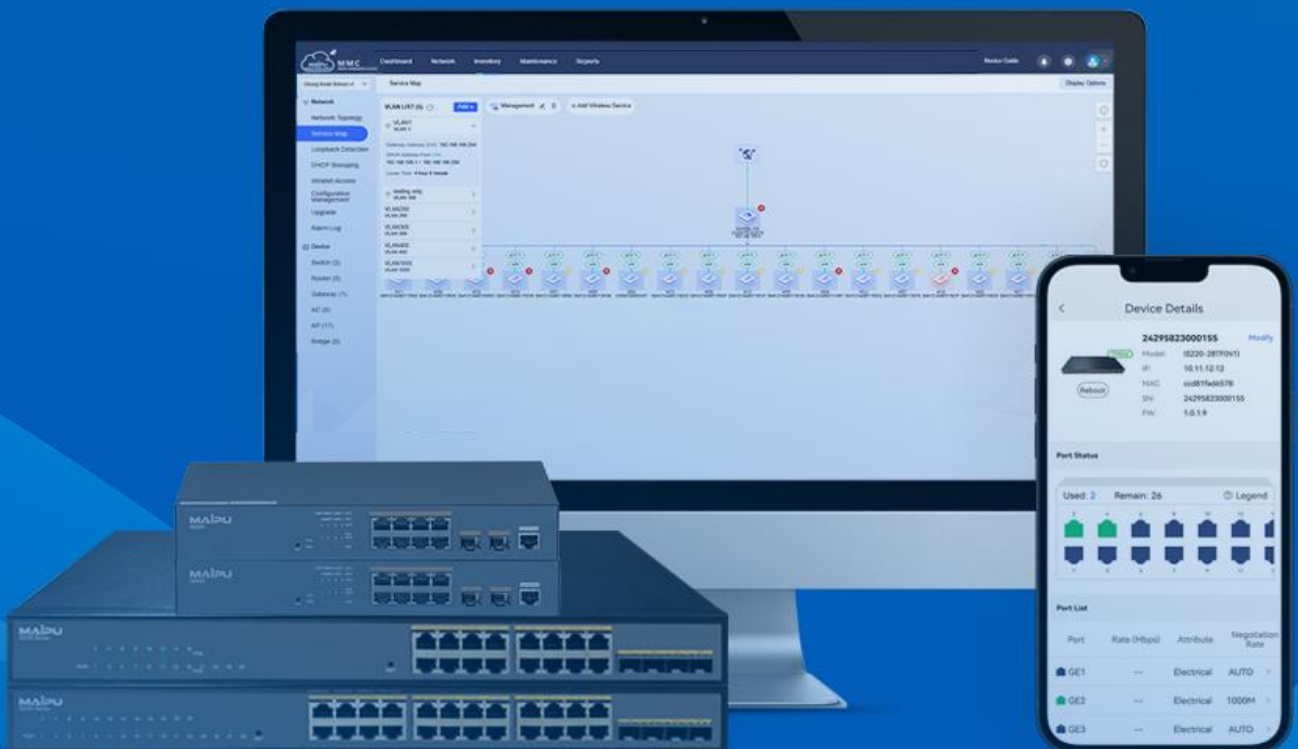


# IS320 Series





## L3 Lite Cloud Managed Access Switch



## Overview

The IS320 series switch is a high-performance stackable L3 Lite access switch developed by Maipu. It is applied in SMB LAN 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 comprehensive management methods. The IS320 series switch well meets the comprehensive SMB customer requirements such as branch office, hotel, restaurant, school, logistic, chain store, etc.

The IS320 series switch includes IS320-12TXF-AC, IS320-28TXF-AC, IS320-28TXP-AC, IS320-52TF-AC four models.

Model Name	Specification
 <b>IS320-12TXF-AC</b>	<ul style="list-style-type: none"><li>● 8*10/100/1000M Base-T + 4*10G SFP+</li><li>● Fixed Single AC Power</li><li>● RJ45 Console/USB2.0 Port</li><li>● Switching Capacity: 96Gbps</li><li>● Reset Button</li></ul>
 <b>IS320-28TXF-AC</b>	<ul style="list-style-type: none"><li>● 24*10/100/1000M Base-T + 4*10G SFP+</li><li>● Fixed Single AC Power</li><li>● RJ45 Console/USB2.0 Port</li><li>● Switching Capacity: 128Gbps</li><li>● Reset Button</li></ul>
 <b>IS320-28TXP-AC</b>	<ul style="list-style-type: none"><li>● 24*10/100/1000M 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><li>● Reset Button</li></ul>
 <b>IS320-52TF-AC</b>	<ul style="list-style-type: none"><li>● 48*10/100/1000M Base-T + 4*1G SFP</li><li>● Fixed dual AC Power</li><li>● RJ45 Console/USB2.0 Port</li><li>● Switching Capacity: 104Gbps</li></ul>

# Key Features

- **Cloud Management**

The IS320 series switch support cloud management by the MMC (Maipu Managed Cloud), the switches can be quickly deployed and configured from the cloud, reducing the installation cost. With cloud management, IT staff can remotely access and manage switches from anywhere with an internet connection, making it easier to troubleshoot.



- **Intelligent stacking technology**

The IS320 series switch is equipped with Maipu VST stacking function that allows devices to be stacked into one logical device via the 10G SFP+ ports. VST (Virtual Switching Technology) stacking combines multiple switches to form a logical virtual switch, improving device and link reliability, network expansion, and simplifying configuration and management.

- **High availability**

The IS320 series switch offers advanced redundancy and reliability features, catering to diverse networking requirements. In addition to supporting traditional spanning tree protocols such as STP, RSTP, and MSTP, the switch also complies with the ITU-T G.8032 international standard. This Ethernet Ring Protection Switching (ERPS) protocol enables rapid 50ms failover within Ethernet ring network topologies, ensuring seamless connectivity and minimal downtime.

- **Perfect security policy**

The IS320 series switch offers a comprehensive suite of security features, including user authentication, port security, ACLs, loopback detection, and 802.1X authentication. It also incorporates IP Source Guard, DHCP/ND Snooping, Host Guard, Dynamic ARP Inspection, and PPPoE+ security mechanisms. These robust security functions ensure user access and network protection.

- **Intelligent PoE&PoE+ Detection**

The IS320 series switches support POE/PoE+ function meeting the international 802.11af/at standard. A single port can provide maximum 30W power consumption. The IS320 series PoE switches support IPDD (Intelligent PoE Dynamic Detection) function. With this function, the switch can dynamically detect whether the terminal device is online or transmitting data normally. If an exception is found, the switch will reset PoE power and restart the terminal device.

- **Advanced QoS**

The IS320 series switch offers sophisticated QoS capabilities for optimal network performance. Supporting eight queues per port and advanced scheduling algorithms such as SP, RR, WRR, and WDRR. The switch accommodates diverse priority mapping techniques, including 802.1p, COS, and DSCP, enabling fine-grained control over traffic classification and prioritization.

# Technical Specifications

Model	IS320-28TXF-AC	IS320-28TXP-AC	IS320-52TF-AC	IS320-12TXF-AC
Hardware Specification				
Physical Traffic Port	24*10/100/1000M Base-T interfaces 4*10G SFP+ interfaces	24*10/100/1000M Base-T interfaces 4*10G SFP+ interfaces	48*10/100/1000M Base-T interfaces 4*1G SFP interfaces	8*10/100/1000M Base-T interfaces 4*10G SFP+ interfaces
Switching Capability	128Gbps	128Gbps	104Gbps	96Gbps
Fixed Power Supply	One	One	Dual	One
Fixed Fan	Yes	Yes	Yes	Yes
Max PoE Power Consumption	N/A	380W	N/A	N/A
PoE Standard	N/A	IEEE 802.af/at	N/A	N/A
Power Consumption (Without PoE)	≤30W	≤40W	≤55W	≤25W
Dimension (W×D×H)mm	442×350×44.2	442×380×44.2	442×320×44.2	275×230×44.2
Physical Management Port	1*RJ45 Console 1*USB2.0 Port			
Input Voltage	AC:100-240V/50-60Hz			
Temperature	Work Temperature: -5℃ to 50℃ Storage Temperature: -40℃ to 70℃			
Humidity	Work Humidity:10% ~ 90%, non-condensing Storage Humidity:5% ~ 95%, non-condensing			
Anti-Lightning	6KV			
Anti-Static	6KV			
MTBF	>80000 hours			
Performance Parameters				
MAC Address Entry	16K	16K	16K	16K
Jumbo Frame	12K	12K	12K	12K
ARP Entry	2K	2K	2K	2K
ND Entry	1.5K	1.5K	1.5K	1.5K
VLAN Entry	4K	4K	4K	4K
LACP Group	64	64	64	64
LACP Member in Group	8	8	8	8
MSTP Instance	64	64	64	64
L2 Multicast Entry	3K	3K	3K	3K
Software Specification				
Interface	Physical Interface	Auto MDI/MDIX, Port Type UNI/NNI, Port Speed, Port MTU, Switch Port, Port Loopback, Port Energy Control		
	Logic Interface	Loopback Interface, L2/L3 VLAN Interface, L3 Ethernet Interface		
	MAC Address Management	Storm Control, Flood Control, MAC Address Aging Time, Mac Address Learning on/off, Mac Address Learning Limitation, Mac Address VLAN Binding, MAC Debug		

VLAN	VLAN Management	VLAN, QINQ, Flexible QINQ, VLAN PVID, VLAN Tag/Untag, VLAN Trunk, MAC VLAN, Protocol VLAN, Subnet VLAN, Super VLAN, Voice VLAN, Private VLAN, Guest VLAN, VLAN Debug, GVRP, VLAN Isolation
Ring Protection	Spanning Tree Protocols	STP/RSTP/MSTP, BPDU Guard, Flap Guard, Loop Guard, Root Guard, TC Guard
	Other Ring Protocols	VIST/VIST+, G.8032(ERPSv1&v2)
Link Aggregation	LACP Configuration	LACP Link Aggregation, LACP Port Priority, LACP Load Balance, LACP Rate Monitor, LACP Debug
Error Handling	Error-disable Configuration	Error-disable Based on BPDU guard  DAI  DHCP Snooping  Link-Flap Loopback-detect Port Security  Storm Control  Transceiver Power, Error-disable Recovery
Fault Detection	Fault Detection Features	ULFD, Track, Loop-back Detection, CFM (802.1ag)
IP Services	IP Protocol	ARP, DNS, NTP Server/Client, ICMP
	Routing Protocol	Static Routing v4/v6
	DHCP Service	DHCP v4/v6 Client, DHCP Snooping, DHCP Option51/82
Multicast Protocols	L2 Multicast Protocols	IGMPv1/v2/v3 Snooping, IGMP Snooping Proxy, MLD Snooping, MVR, MVP
QoS	Priority Mapping	802.1P Priority, DSCP priority
	Traffic Classification	Three Color Marker, Priority Remark, Traffic Redirect, Traffic Meter, Traffic Mirror
	Traffic Control	Rate Limitation, Traffic Shaping
	Scheduling Algorithm	SP, RR, WRR, WDRR, SP+WRR, SP+WDRR
	Congestion Management	Tail-drop, RED, WRED
Security	Port Security	Port Security On aging  deny  permit  violation  ACL
	Network Access Control	IP Source Guard (ISG), DHCP Snooping, ND Snooping, Host Guard
	Threat Prevention	Dynamic ARP Inspection (DAI), ARP Check, AARF ARP-Guard, ARP Speed Limit, ARP Source Suppression, PPPoE+
	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, Time-based ACL
	Anti-Attack	Anti-Attack Detect  Drop  Flood  Log, URPF, White List, Black List
	AAA	AAA, Radius, TACACS+, 802.1x, Portal
High Availability	Device Virtualization	H-VST, M-VST
	Multi-Active Detection	MAD LACP, MAD BFD, MAD Fast-Hello, MAD LACP
	High Availability Protocols	HA, ULFD, UDLD, G.8032, ULPP, Monitor Link, EEP, BFD with Static Route
Configuration and Maintenance	Monitoring and Diagnostics	SPAN, RSPAN, VLAN SPAN, s-Flow, Telemetry, LLDP
	Device Management	TR069, SNMP v1/v2/v3, MIB, RMON, SYSLOG, WEB(HTTP/HTTPS), CLI, Telnet, FTP/FTPS/TFTP/SFTP, Debug, Telemetry, ISSU, Hot Patch, Keepalive Gateway, Cloud Management
	Zero Touch Provisioning	ZTP Provisioning Through DHCP Server, ZTP Provisioning Through USB Flash Disk
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 802.3ah (Ethernet in the First Mile Operations, Administration, and Maintenance) IEEE 802.1x (Port-Based Network Access Control) IEEE 802.3ad (Link Aggregation) IEEE 802.3x (Flow Control) IEEE 802.3az (Energy Efficient Ethernet) IEEE 802.1d (Spanning Tree Protocol) IEEE 802.1ab (Link Layer Discovery Protocol) IEEE 802.1Q (Virtual LAN) IEEE 802.1w (Rapid Spanning Tree Protocol) IEEE 802.1s (Multiple Spanning Tree Protocol) IEEE 802.1p (Class of Service Priority) IEEE 802.1ag (Connectivity Fault Management)
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## Order Information

Model		Description
IS320 Series Host		
IS320 Series	IS320-28TXF-AC	24*10/100/1000M Base-T interfaces, 4*10G SFP+ interfaces, Fixed One AC Power Supply.
	IS320-28TXP-AC	24*10/100/1000M Base-T interfaces, 4*10G SFP+ interfaces, PoE Enable, Fixed One AC Power Supply.
	IS320-52TF-AC	48*10/100/1000M Base-T interfaces, 4*1G SFP interfaces, Fixed Dual AC Power Supply.
	IS320-12TXF-AC	12*10/100/1000M Base-T interfaces, 4*10G SFP+ interfaces, Fixed One AC Power Supply.
Stacking Cable		
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
SFP Module		
1.25G Dual-Core SFP	MP-S85123-3CDLM	1.25G SFP 850nm 550m LC DDM Multi-mode
	MP-S31121-3CDL20	1.25G SFP 1310nm 10-20Km LC DDM Single-mode
1.25G BIDI SFP	MP-B35121-3CDL20	1.25G SFP Tx1310/Rx1550nm 10-20Km LC DDM Single-mode
	MP-B53122-3CDL20	1.25G SFP Tx1550/Rx1310nm 10-20Km LC DDM Single-mode
1.25G Copper	SFP-GETA	V2 Version: 10/100/1000M Base-T, RJ45 interface, Serdes
10G Dual-Core SFP+	MP-S851X3-NCLM	10G SFP+ 850nm 300m LC DDM Multi-mode
	MP-S311X2-NCL10	10G SFP+ 1310nm 10Km LC DDM Single-mode
	MP-S311X2-NCL20	10G SFP+ 1310nm 20Km LC DDM Single-mode
10G BIDI SFP+	MP-B231XL-3CD10	10G SFP+ Tx1270/Rx1330nm 10Km LC DDM Single-mode
	MP-B321XL-3CD10	10G SFP+ Tx1330/Rx1270nm 10Km LC DDM Single-mode
10G Copper	SFP-XGEA	SFP-XGEA, 10GBASE-T RJ45, 30m



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