

SG4500 Series 10G uplink L2+ Switch

PRODUCT OVERVIEW

AP-SG4500 is L2 10G uplink intelligent switch designed for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (Dynamic VLAN, Voice VLAN, QinQ, N:1VLAN Translation etc), Ethernet Ring Protection Protocol (G.8032), classified bandwidth control, intelligent security control, OAM (Operations, Administration and Maintenance), manageability functions and Triple-Play services which fulfill the network requirements demanded by carrier network, MAN access. SG4500 Series switch offers green features like Fan-less design feature, which can dramatically lower power consumption, achieve green energy and save the cost for the carrier and MAN users.

SG4500 is equipped with the full GE ports and 4 SFP+ uplink ports. It integrates advanced management and security functions to provide performance and scalability.



KEY FEATURES AND HIGHLIGHTS

10G Uplink Access Switch:-

Equipped with the full GE ports and 4 SFP+ uplink ports, AP-SG4500-28GT-4XFP-R2 provides a solid foundation and more than enough bandwidth for your business applications today and in the future.

L3 Forwarding:-

AP-SG4500-28GT-4XFP-R2 supports L3 forwarding allowing you to segment your network into workgroups and communicate across VLANs without degrading application performance.

VSF (Virtual Switch Framework):-

Virtual Switch Framework can virtualize multiple AirPro switches into one logical device, achieving the sharing of information and data tables between different switches. The performance and ports density of the virtualized device is greatly enlarged by times under VSF. VSF also simplifies management work for the network administrator and provides more reliability.

Enhanced Security:-

IEEE 802.1X port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using any standard-based RADIUS server. Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets and forward by different policies. User-defined ACL provides more flexible access control for users. AP-SG4500-28GT-4XFP-R2 supports DHCP Snooping, which prevents DHCP attacks and illegal DHCP SERVER by setting trust ports and untrust ports. With DHCP Snooping binding and option82

enabled, it can combine modules like dot1x and ARP, or implement user-access-control independently.

AP-SG4500-28GT-4XFP-R2 supports abundant L2 security features such as ARP guard, Anti-ARP scanning, and other ARP and MAC Security technology to protect network security and reliability.

High Reliability:-

AP-SG4500-28GT-4XFP-R2 supports 4*10G uplink ports, which could be designed to offer redundant uplinks with various ring protection applications, effectively raised the expansibility and performance of the network. G.8032 provides sub-50ms protection and recovery switching for Ethernet traffic in a carrier ring topology. AP-SG4500-28GT-4XFP-R2 supports G.8032 v2 and can be deployed in a variety of complex network topologies including single ring, tangent ring, intersecting rings, double rings, and other home networking.

Abundant Multicast Features:-

AP-SG4500-28GT-4XFP-R2 also supports MVR (Multicast VLAN Register), selectively allows traffic to cross between different VLANs for bandwidth and security reasons. With the MVR Trunk function, which could associate multicast VLAN to trunk port, AP-SG4500-28GT-4XFP-R2 combines the VLAN data into the same link, saving lots of resources for users.

AP-SG4500-28GT-4XFP-R2 could prevent multicast traffic from flooding via IGMP Snooping, while multicast traffic is only forwarded to ports associated with multicast devices.

PRODUCT SPECIFICATIONS

Hardware Specifications

Item	AP-SG4500-28GT-4XFP-R2	
Ports	24 x 10/100/1000Base-T + 4 x 1/10GE(SFP+) Auto-MIDX	
Management port	1x Console port 1x USB2.0 interface 1x Reset key	
Performance		
Switching Capacity	128Gbps	
Forwarding Rate	95Mpps	
MAC ADDRESS	16K	
Jumbo Frame	10K bytes	
Packet Buffer	12Mbits	
ACL Table	512	
Queues per port	8	
VLAN TABLE	4K	
Physical		
Dimension(W×H×D)	440mm x 44mm x 170mm	
Power Input	100~240VAC, 50~60Hz	
Power Consumption	21W	
Cooling	Passive	
Temperature	Working 0°C~50°C, Storage -40°C~70°C	
Relative Humidity	5%~95%, non-condensing	
EMC Safety	CE, RoHS	
Power Supply	Dual AC/AC	
Main Features		
Forwarding	Storage and Forwarding	
VLAN	Port-based VLAN, IEEE802.1Q, private VLAN, Protocol VLAN, Voice VLAN, MAC VLAN Normal QinQ, Flexible QinQ VLAN Translation, N:1 VLAN Translation	
L3 Features	Static Routing, PBR	
DHCP	IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Relay Option 82, Option 37/38 IPv4/IPv6 DHCP Snooping, IPv4/IPv6 DHCP Server	
Reliability	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard, BPDU Guard, BPDU Forwarding, TCN filtering
	LACP	64 groups / 8 ports
	L2 Ring Protection	MRPP ERPS (G.8032) Loopback Detection Fast Link
Security	IP ACL, MAC ACL, MAC-IP ACL, User-Defined ACL Time Range ACL ACL rules can be configured to port, VLAN Storm Control based on packets Port Security, MAC Limit based on VLAN and Port Anti-ARP-Spoofing, Anti-ARP-Scan, ARP Binding ND Snooping DAI IEEE 802.1x Authentication, Authorization, Accounting Radius, TACACS+	

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Multicast	IGMP v1/v2/v3 snooping, IGMP Proxy, IGMP v3 MLD v1/v2 snooping	
QoS	8 Queues Per Port Bandwidth Control Flow Redirect	
QoS	Classification based on ACL, VLAN ID, COS, TOS, DSCP, Policing Based on Port and VLAN Single Rate single barrel double color for Policing SP DWRR SDWRR~SP+DWRR for Scheduling Match the IP fragmentation of a message	
Maintenance and Operation Management	TFTP/FTP CLI, Telnet, Console Cloud Managed Web/SSL (IPv4/IPv6) SSH (IPv4/IPv6) SNMPv1/v2c/v3 SNMP Trap Public & Private MIB interface RMON 1,2,3,9 Ping, Trace Route Radius Authentication Syslog (IPv4/IPv6) SNTP/NTP (IPv4/IPv6) Dual IMG, Multiple Configuration Files Port Mirror, RSPAN sFlow OAM EFM VCT, DDM ULDP (like Cisco UDLD) LLDP/LLDP MED	
Green Energy	Fanless	Auto-speed fan

ORDER INFORMATION

Product	Description
AP-SG4500-28GT-4XFP-R2	L2+ Full Gigabit Access Switch with 24 10/100/1000Base-T and 4 10GE(SFP+) ports, static routing, 2 fixed AC power