



## **L2+10G Intelligent Access Switch 8 x 10/100/1000Base-T + 4 x 1/10GE(SFP+)**

**AP-SG4500-12GT-P-4XFP**

- 8 x 10/100/1000Base-T + 4 x 10GE(SFP+)
- 1 Console, 1 USB port
- PoE+, up to 125w
- AC power supply
- Switching capacity: 96Gbps
- Forwarding rate: 71.4Mpps

## Quick Overview

AirPro AP-SGS4500 series is L2 10G uplink intelligent switch designed for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (Dynamic VLAN, Voice VLAN, Q-in-Q, N:1 VLAN 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 series is equipped with the full GE ports and 4 SFP+ uplink ports, it integrates advanced management and security functions to provide performance and scalability.

## Features

- 8 x 10/100/1000Base-T + 4 x 10GE(SFP+)
- 1 Console, 1 USB port
- PoE+, up to 125w
- AC power supply
- Switching capacity: 96Gbps
- Forwarding rate: 71.4Mpps

### 10G Uplink Access Switch:-

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

### L3 Forwarding:-

AP-SG4500 Series 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 Series supports DHCP snooping, which prevents DHCP attacks and illegal DHCP SERVER by setting trust ports and untrustports. With DHCP Snooping binding and option82 enabled, it can combine modules like dot1x and ARP, or implement user-access-control independently.

AP-SG4500 Series 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 Series 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 Series 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 Series 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 Series combines the VLAN data into the same link, saving lots of resources for users.

AP-SG4500 Series could prevent multicast traffic from flooding via IGMP Snooping, while multicast traffic is only forwarded to ports associated with multicast devices.

## TECHNICAL SPECIFICATIONS

| HARDWARE FEATURES   |   |
|---------------------|---|
| Item                | AP-SG4500-12GT-P-4XFP   |
| Ports               | 8 x 10/100/1000Base-T + 4 x 1/10GE(SFP+) Auto-MIDX  |
| Management port     | 1x Console port<br>1x USB2.0 interface  |
| Performance         |   |
| Switching Capacity  | 96Gbps  |
| Forwarding Rate     | 71.4Mpps  |
| 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)    | 330mm x 44mm x 219mm  |
| Power Input         | 100~240VAC, 50~60Hz   |
| Power Consumption   | < 170W  |
| Cooling             | Passive   |
| Temperature         | Working 0°C~50°C, Storage -40°C~70°C  |
| Relative Humidity   | 5%~95%, non-condensing  |
| EMC Safety          | CE, RoHS  |
| PoE                 | EEE 802.3af POE (15.4W) IEEE 802.3at POE+ (30W) PoE output 125w   |
| Main Features       |   |
| Forwarding          | Storage and Forwarding  |
| VLAN                | Port-based VLAN, IEEE802.1Q, private VLAN, Protocol VLAN, Voice VLAN,<br>MAC VLAN<br>Normal QinQ, Flexible QinQ<br>VLAN Translation, N:1 VLAN Translation |
| L3 Features         | Static Routing, PBR   |
| DHCP                | IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Relay<br>Option 82, Option 37/38<br>IPv4/IPv6 DHCP Snooping, IPv4/IPv6 DHCP Server                                  |
| <b>Reliability:</b> |   |
| Spanning Tree       | 802.1D STP, 802.1W RSTP, 802.1S MSTP<br>Root Guard, BPDU Guard, BPDU Forwarding, TCN filtering  |
| LACP                | 64 groups / 8 ports   |
| L2 Ring Protection  | MRPP<br>ERPS (G.8032)<br>Loopback Detection<br>Fast Link  |

## TECHNICAL SPECIFICATIONS

| HARDWARE FEATURES                          |   |
|--|---|
| Security                                   | IP ACL, MAC ACL, MAC-IP ACL, User-Defined ACL<br>Time Range ACL<br>ACL rules can be configured to port, VLAN<br>Storm Control based on packets<br>Port Security, MAC Limit based on VLAN and Port<br>Anti-ARP-Spoofing, Anti-ARP-Scan, ARP Binding<br>ND Snooping<br>DAI<br>IEEE 802.1x<br>Authentication, Authorization,<br>Accounting Radius, TACACS+   |
| Multicast                                  | IGMP v1/v2/v3 snooping, IGMP Proxy, IGMP v3<br>MLD v1/v2 snooping   |
| QoS  | 8 Queues Per Port<br>Bandwidth Control<br>Flow Redirect<br>Classification based on ACL, VLAN ID, COS, TOS, DSCP,<br>Policing Based on Port and VLAN<br>Single Rate single barrel double color for Policing<br>SP DWRR SDWRR, SP+DWRR for Scheduling<br>Match the IP fragmentation of a message  |
| Maintenance and<br>Operation<br>Management | TFTP/FTP<br>CLI, Telnet, Console<br>Web/SSL (IPv4/IPv6)<br>SSH (IPv4/IPv6)<br>SNMPv1/v2c/v3<br>SNMP Trap<br>Public & Private MIB interface<br>RMON 1,2,3,9<br>Ping, Trace Route<br>Radius Authentication<br>Syslog (IPv4/IPv6)<br>SNTP/NTP (IPv4/IPv6)<br>Dual IMG, Multiple Configuration Files<br>Port Mirror, RSPAN<br>sFlow<br>OAM EFM<br>VCT, DDM<br>ULDP (like Cisco UDLD)<br>LLDP/LLDP MED |
| Green Energy                               | Fanless <span style="float: right;">Auto-speed fan</span>   |
| DataCenter Features                        | VSF(Virtual Switch Framework) (only 28 & 52 ports of models)  |

## ORDER INFORMATION

| PRODUCT             | DESCRIPTION  |
|---------------------|--|
| AP-SG4500-12GT-4XFP | L2+ Full Gigabit Access Switch with 8* 10/100/1000Base-T PoE and 4* 10GE(SFP+) ports,static routing, 1 fixed AC power, PoE output up to 125w |



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