



## L2 10G Intelligent Switch

AP  
SG4500  
28GT-4XFP

- 24 x 10/100/1000Base-T + 4 x 10GE (SFP+), 1x Console Port
- Green Energy
- Simple and Flexible Operation and Maintenance
- Enhanced Security
- High Reliability
- High adaptability VLAN Features
- Abundant Multicast Features



## OVERVIEW

AP-SG4500-28GT-4XFP Series is L2 10G intelligent switch designed for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (VLAN VPN, Voice VLAN, QinQ, 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.

## KEY FEATURES

### GREEN ENERGY:-

- AP-SG4500 series comply with IEEE 802.3az (Energy-Efficient Ethernet) standard, dramatically lower power consumption
- Full account of low noise requirements of the environment, AP-SG4500 uses Smart fan strategies to real-time temperature monitoring system, and reduce the noise pollution.

### SIMPLE AND FLEXIBLE OPERATION AND MAINTENANCE:-

- Full Ethernet OAM technology (IEEE802.3ah/802.1ag), VCT, DDM (Digital Diagnostic Monitoring) and other features achieve rapid detection of the network failures; reduce operation and maintenance difficulty.

### ENHANCED SECURITY:-

- AP-SG4500 series provide a variety of security mechanisms like SYN Flood, Land, ICMP Flood attack prevention and other DOS class technology, BPDU Guard and Root Guard which avoid accidental topology loops and prevent illegal edge devices become root to cause unnecessary flapping.
- 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 support 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 series support much more L2 security features such as ARP guard, Anti-ARP scanning, and other ARP and MAC Security technology to protect network security and reliability.

## KEY FEATURES

### HIGH RELIABILITY:-

- AP-SG4500 series support 4 10Gigabit uplink ports, which could be designed to offer redundant uplinks with various ring protection applications, effectively raised the expansibility and performance of network.
- G.8032 provides sub-50ms protection and recovery switching for Ethernet traffic in a carrier ring topology. AP-SG4500 series support 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.

### HIGH ADAPTABILITY VLAN FEATURES:-

- AP-SG4500 series support 802.1Q and port based VLAN as well as MAC based VLAN, Voice VLAN and Protocol VLAN.
- Abundant QinQ technology including Normal QinQ and Flexible QinQ, gives users maximum freedom to configure QinQ policy.

### ABUNDANT MULTICAST FEATURES:-

- AP-SG4500 series also support MVR (Multicast VLAN Register), selectively allows traffic to cross between different VLANs for bandwidth and security reasons. With 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 to multicast devices.

## PRODUCT SPECIFICATIONS

ITEMS	AP-SG4500-28GT-4XFP
Ports	24 x 10/100/1000Base-T + 4 x 10GE (SFP+), 1x Console Port
Switching Capacity	128Gbps
Throughput	95Mpps
Jumbo Frame	10K
MAC ADDRESS	16K
ACL Table	512
Dimension(W×H×D)	NBD
Power Supply	AC: 100~240VAC, 50~60Hz;
Power Consumption	NBD
Temperature	Working 0°C~50°C, Storage -40°C~70°C
Relative Humidity	10%~90%,non-condensing, Storage 95%

**BUSINESS FEATURES :**

Hardware	
L1, L2 Features	<p>IEEE802.3(10Base-T), IEEE802.3u(100Base-TX), IEEE802.3z(1000BASE-X), IEEE802.3ab(1000Base-T), IEEE802.3ae(10GBase), IEEE802.3x, IEEE802.3ak(10GBASE-CX4)</p> <p>Port loopback detection LLDP and LLDP-MED ULDP 802.3ad LACP, max 128 group trunks with max 8 ports for each trunk LACP load balance</p> <p>N:1 Port Mirroring RSPAN</p> <p>IEEE802.1d(STP) IEEE802.1w(RSTP) IEEE802.1s(MSTP) Root Guard BPDU Guard BPDU Tunnel</p> <p>802.1Q, 4K VLAN MAC VLAN, Voice VLAN, PVLAN, Protocol VLAN, Multicast VLAN QinQ, Flexible QinQ GVRP Broadcast / Multicast / Unicast Storm Control</p> <p>IGMP v1/v2/v3 Snooping and L2 Query ND Snooping MLDv1/v2 Snooping</p> <p>Port Security</p> <p>Flow Control: HOL, IEEE802.3x Bandwidth Control</p>
QoS	<p>8 Queues SP, DWRR, SDWRR Traffic Classification Based on 802.1p COS, ToS, DiffServ DSCP, ACL, port number Traffic Policing PRI Mark/Remark</p>
ACL	<p>IP ACL ,MAC ACL,IP-MAC ACL Standard and Expanded ACL Based on source/destination IP or MAC, IP Protocol, TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS Redirect and statistics Rules can be configured to port, VLAN Time Ranged ACL</p>

**BUSINESS FEATURES :**

Hardware	
Security	802.1x AAA Port, MAC based authentication Accounting based on time length and traffic Guest VLAN and auto VLAN
	RADIUS for IPv4 and IPv6
	TACACS+ for IPv4 and IPv6
	MAB
DHCPv4/v6	DHCP Server/Client for IPv4/IPv6
Traffic Monitor	DHCP Relay/Option 82 DHCP Snooping/Option 82
Traffic Monitor	sFlow Traffic Analysis
Security Network Management	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6 Syslog and external Syslog Server HTTP SSL SNMP MIB, SNMP TRAP FTP/TFTP SNTP/NTP RMOM 1,2,3,9 Authentication by Radius/TACACS SSH v1/v2 Dual firmware images/ Configuration files 802.3ah OAM, 802.1ag OAM

**ORDERING INFORMATION :**

ITEMS	DESCRIPTION
AP-SG4500-28GT-4XFP	10G Ethernet Switch, 24 x 10/100/1000BaseT + 4 x 10GE(SFP+), 1 fixed AC power supply



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