

AP-SG6500E-26XF2Q

# L3 40G Fiber Routing Switch



## PRODUCT OVERVIEW

AP-SG6500E-26XF2Q switch is new generation of intelligent aggregation and access switches designed by AirPro for carrier and MAN networks. AP-SG6500E-26XF2Q provides 24\*10GbE (SFP+) and 2\*40GbE(QSFP) physical ports and redundant power supplies, designed for data center 10G high-density access scenario and general network 10G convergence scenario with telecom grade design features of high reliability, redundancy, high density.

## FEATURES

- 24x10GbE (SFP+) + 2x40GbE(QSFP)
- 1 console, 1 USB, 1 reset, 1 RJ45 management port
- AC + 48VDC power supply
- Switching capacity: 640Gbps
- Forwarding rate: 480Mpps

## KEY FEATURES AND HIGHLIGHTS

### Performance and Scalability

The 10 Gigabit Ethernet connectivity of AP-SG6500E-26XF2Q is accomplished via a hot-pluggable 10 Gigabit SFP+ transceiver which supports distance up to 300 meters over multimode fiber and 10 to 40km over single-mode fiber (The distance depends the optical module chosen). Ap-SG6500E-26XF2Q supports built-in redundant AC and DC power supplies for different environment applications.

### Easy high reliability network

Virtual Switch Framework (VSF) could virtualized multiple AirPro switches into one logical device, achieves the sharing of information and data tables between different switches. The performance and ports density of virtualized device are greatly enlarged by times under VSF. VSF also provides simplified management work for network administrator and more reliability.

**G.8032** provides sub-50ms protection and recovery switching for Ethernet traffic in a carrier ring topology. AP-SG6500E-26XF2Q 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.

**Multi-process MSTP.** When a new access ring can be implemented through creating a new process of MSTP, the new ring does not affect the existing traffic. And each process may run different spanning tree protocol.

**AirPro EMVTE** technology (Enhanced Multi-VLAN subnet Traffic Engineering) is a multi-link backup and load balancing solution based on multiple VLAN subnets for dual homing network. It can achieve faster switching and convergence of the uplink through ULPP (Uplink Protection Protocol) and ULISM (Uplink State Monitor) protocol so that network performance is guaranteed.

### 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.

Ingress/Egress Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers information. And for some services are based on time, the product can support time based ACL to match the requirement.

AP-SG6500E-26XF2Q 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-SG6500E-26XF2Q supports 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.

### Abundant Multicast Features

AP-SG6500E-26XF2Q also supports **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-SG6500-26XF2Q combines the VLAN data into the same link, saving lots of resources for users.

AP-SG6500E-26XF2Q could prevent multicast traffic from flooding via IGMP Snooping, while multicast traffic is only forwarded to ports associated to multicast devices.

## PRODUCT SPECIFICATIONS

### Hardware Specifications

Item	AP-SG6500-26XF2Q	
Management Port	1 Console, 1 USB, 1 RJ45 management port	
Ports	24x10GbE (SFP+) + 2x40GbE (QSFP) (each 40GbE(QSFP) can be divided 4 10GbE (SFP+)) Auto-MIDX	
<b>Performance</b>		
Switching Capacity	640Gbps	
Forwarding Rate	480Mpps	
MAC ADDRESS	32K	
Jumbo Frame	12K	
ACL Table	3K (ingress) + 1K (egress)	
Queues per port	8	
VLAN TABLE	4K	
<b>Physical</b>		
Dimension(W×H×D)	440mm x 43.6mm x 318mm	
Power Input	AC: 100~240VAC, 50~60Hz DC: Input -60V ~ -40V	
Power Consumption	<70W	
Temperature	Working 0°C~50°C, Storage -40°C~70°C	
Relative Humidity	10%~90%,non-condensing	
EMC safety	CE, RoHS	
<b>Main Features</b>		
Forwarding	Storage and forwarding	
VLAN	Port-based VLAN IEEE802.1Q private VLAN Protocol VLAN Voice VLAN MAC VLAN Normal QinQ, Flexible QinQ VLAN Translation	
DHCP	IPv4/IPv6 DHCP Client, IPv4/IPv6 DHCP Relay Option 82 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 Multi-Process MSTP
	LACP	128 groups per device/8 ports per group Load balance
	L2 Ring Protection	MRPP ERPS(G.8032) Loopback Detection Fast Link
	Multi-link Backup	Enhanced Multi-VLAN subnet Traffic Engineering (ULPP+ULSM)
	VSF	Virtual Switch Framework

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Security	IP ACL, MAC ACL, MAC-IP ACL, User-Defined ACL Time Range ACL VLAN ACL Storm Control based on packets and bytes 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+
Multicast	IGMP v1/v2/v3 snooping, IGMP Fast leave MVR MLD v1/v2 snooping IPv4/IPv6 DCSCM(D)
QoS	8 Queues Per Port Bandwidth Control Flow Redirect Classification based on ACL, VLAN ID, COS, TOS, DSCP, IPv6 Flow Label Policing Based on Port and VLAN Single Rate Three Colors, Dual Rates Three Colors for Policing Remark DSCP, COS/802.1p, Precedence, TOS SP, WRR, SWRR, WDRR for Scheduling
Maintenance and Operation Management	XModem/TFTP/FTP CLI, Telnet, Console 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) SNMP/NTP (IPv4/IPv6) Dual IMG, Multiple Configuration Files Port Mirror, CPU Mirror, RSPAN sFlow OAM EFM; OAM CFM Dying GASP DDM ULDP(like Cisco UDLD) LLDP/LLDP MED
Green Energy	Auto Fan Speed Control, Temperature Alarm LED Shut-off

## ORDER INFORMATION

Product	Description
AP-SG6500E-26XF2Q	L3- 40G Ethernet Switch with 24 10GbE (SFP+) ports ,2 40GbE(QSFP) ,100-240VAC + -48VDC Power Input



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