


# L3-40G Fiber Routing Switch

## OVERVIEW

The AirPro AP-SG6500E-26XF2Q is designed to deliver high-speed, reliable connectivity for modern networks. Featuring 24x10GbE SFP+ ports and 2x40GbE QSFP ports, this switch is perfect for SMB core and campus aggregation scenarios. With 640Gbps switching capacity, advanced security features, and flexible multicast support, this switch ensures seamless network performance and scalability.

Appearance	Description
 <p data-bbox="285 781 520 808">AP-SG6500E-26XF2Q</p>	<ul data-bbox="743 651 1265 786" style="list-style-type: none"><li>• 24x10GbE (SFP+) + 2x40GbE(QSFP)</li><li>• 1 console, 1 USB, 1 reset, 1 RJ45 management port</li><li>• AC + 48VDC power supply</li><li>• Switching capacity: 640Gbps</li><li>• Forwarding rate: 480Mpps</li></ul>

## KEY FEATURES AND BENEFITS

### Performance and Scalability

The 10 Gigabit Ethernet connectivity of the AP-SG6500E-26XF2Q is achieved through hot-pluggable 10 Gigabit SFP+ transceivers. These support distances of up to 300 meters over multimode fiber and 10 to 40 kilometers over single-mode fiber, depending on the selected optical module.

The AP-SG6500E-26XF2Q is equipped with built-in redundant AC and DC power supplies, ensuring reliable performance across diverse environmental conditions.

### Easy high reliability network

The Virtual Switch Framework (VSF) enables the virtualization of multiple AirPro switches into a single logical device, allowing seamless sharing of information and data tables across interconnected switches. This greatly enhances both the performance and port density of the virtualized device, providing simplified network management for administrators and improving reliability.

The G.8032 protocol delivers sub-50ms protection and recovery switching for Ethernet traffic in carrier ring topologies. The AP-SG6500E-26XF2Q supports G.8032 v2, making it adaptable to complex network configurations, including single rings, tangent rings, intersecting rings, double rings, and various other networking scenarios.

The Multi-Process MSTP (Multiple Spanning Tree Protocol) feature enables the implementation of new access rings without disrupting existing network traffic. Each process operates independently, allowing different spanning tree protocols to run simultaneously.

The Enhanced Multi-VLAN Subnet Traffic Engineering (EMVTE) technology ensures multi-link backup and efficient load balancing for dual-homing networks. By leveraging ULPP (Uplink Protection Protocol) and ULSM (Uplink State Monitor), it facilitates faster uplink switching and convergence, ensuring high network performance and stability.

### Enhanced Security

The IEEE 802.1X port-based access control ensures that all users are authorized before being granted access to the network. User authentication is conducted using any standard RADIUS server, providing secure and centralized access management.

Ingress/Egress Access Control Lists (ACLs) can restrict access to sensitive network resources by filtering packets based on Layer 2, Layer 3, and Layer 4 headers. Additionally, the AP-SG6500E-26XF2Q supports time-based ACLs, enabling policies to align with specific service requirements.

The switch also features DHCP Snooping, which safeguards against DHCP attacks and unauthorized DHCP servers by differentiating between trusted and untrusted ports. With DHCP Snooping binding and Option 82 enabled, the switch can integrate seamlessly with modules such as dot1x and ARP or function independently for enhanced user access control.

The AP-SG6500E-26XF2Q provides comprehensive Layer 2 security features, including ARP guard, Anti-ARP scanning, and advanced ARP and MAC security technologies, ensuring robust network security and reliability.

### Abundant Multicast Features

The AP-SG6500E-26XF2Q supports MVR (Multicast VLAN Register), enabling selective traffic crossing between VLANs to optimize bandwidth and enhance security. With the MVR Trunk function, multicast VLANs can be associated with trunk ports, consolidating VLAN data into a single link and significantly saving network resources.

Additionally, the switch prevents multicast traffic flooding through IGMP Snooping, ensuring that multicast traffic is forwarded only to ports connected to multicast-enabled devices. This enhances network efficiency and minimizes unnecessary traffic.

## PRODUCT SPECIFICATIONS

### Hardware Specifications

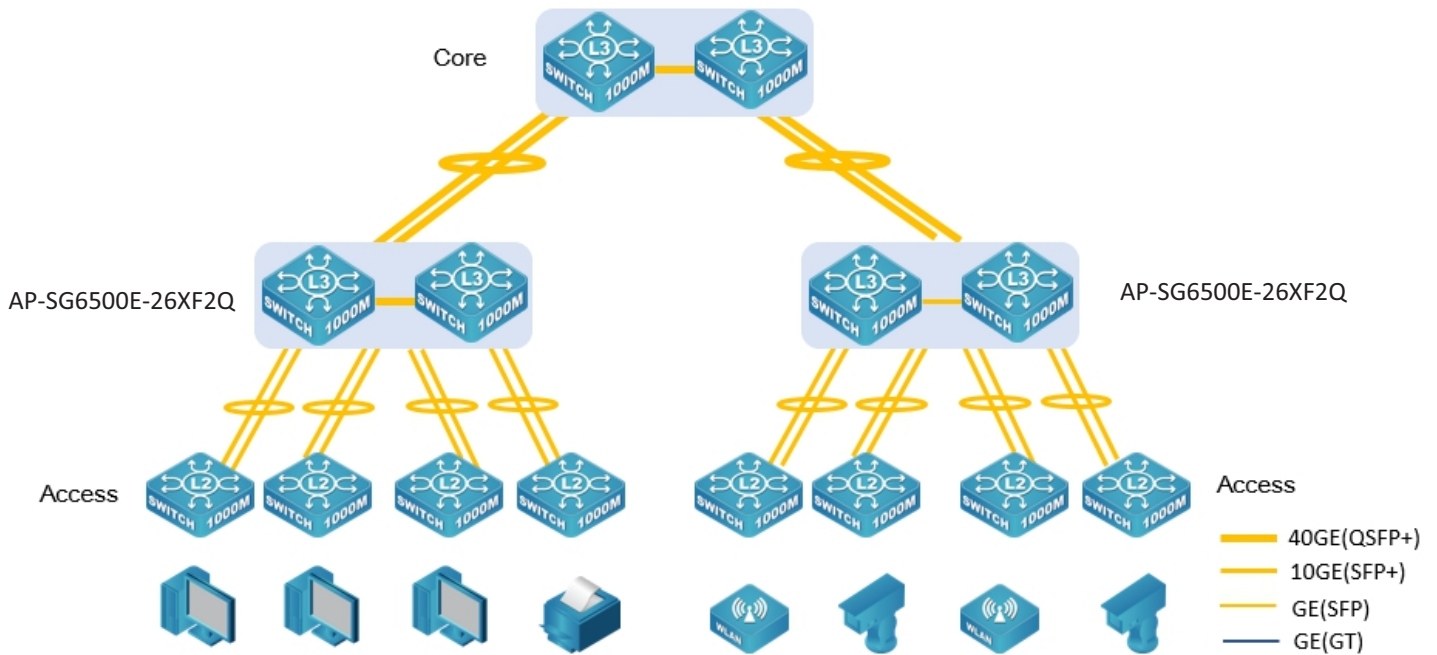
<b>Main Features</b>		<b>AP-SG6500E-26XF2Q</b>
Management Port		1 Console, 1 USB, 1 RJ45 management port
Ports		24x10GbE (SFP+) + 2x40GbE(QSFP)(each 40GbE(QSFP) can be divided 4 10GbE (SFP+)) Auto-MIDX
<b>Performance</b>		
Switching Capacity		640Gbps
Forwarding Rate		480Mpps
MAC ADDRESS		32K
Jumbo Frame		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	MRPP ERPS (G.8032) Loopback Detection Fast Link
	Multi-link Backup VSF	Enhanced Multi-VLAN subnet Traffic Engineering (ULPP+ULSM) Virtual Switch Framework
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

**PRODUCT SPECIFICATIONS**  
**Hardware Specifications**

Main Features	AP-SG6500E-26XF2Q
Maintenance and Operation Management	XModem/TFTP/FTP CLI, Telnet, Console Cloud Managed Optional 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, 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

**APPLICATIONS**

Full 10G aggregation switches in campus network



## APPLICATIONS

Full 10G Core switches in SMB



## 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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