Air Pro®

Simple | Secure | Trusted

AirPro 10G Layer 2+ Switch

PRODUCT OVERVIEW

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-SGXQ7200-24X2Q-R1 supports built-in redundant AC and DC power supplies for different environment applications.

MAIN FEATURES

- 24x10GbE (SFP+) + 2x40GbE(QSFP).

- 1 console, 1 USB, 1 reset, 1 RJ45 management port.

- AC + 48VDC power supply.

- Switching capacity: 640Gbps.

- Forwarding rate: 480Mbps.

KEY FEATURES AND HIGHLIGHTS

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-SGXQ7200-24X2Q-R1 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 ULSM (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 ACLto match the requirement.
AP-SGXQ7200-24X2Q-R1 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-SGXQ7200-24X2Q-R1 supports much more L2 security features such as ARP guard, AntiARP scanning, and other ARP and MAC Security technology to protect network security and reliability.

Abundant Multicast Features
AP-SGXQ7200-24X2Q-R1 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-SGXQ7200-24X2Q-R1 combines the VLAN data into the same link, saving lots of resources for users.

AP-SGXQ7200-24X2Q-R1 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-SGXQ7200-24X2Q
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
PERFORMANCE	
Switching Capacity	640Gbps
Forwarding Rate	480Mbps
MAC ADDRESS	32K
Jumbo Frame	12K
ACL Table	3K (ingress) + 1K (egress)
Queues per port 8	
VLAN TABLE	4K
PHYSICAL	
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℃~50℃, Storage -40℃~70℃
Relative Humidity	10%~90%,non-condensing
EMC safety	CE, RoHS
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
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

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+

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	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)
	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

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