Air Pro®

Simple | Secure | Trusted

L3 10G Copper Routing Switch

PRODUCT OVERVIEW

AirPro AP-SG5550 series are the next generation of enterprise-class stackable routing switches with fixed, built-in 10GbE uplink ports and ship with one power supply. These fully managed switches provide high availability, scalability, security, energy efficiency, and ease of operation with innovative features such as VSF, IEEE 802.3at optional. It is ideal for aggregation or access layer as its high performance, availability and reliability.

MAIN FEATURES

- 24 x 10/100/1000BaseT + 4 x 10GE(SFP+).

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

- AC power supply.

- Switching capacity: 128Gbps.

- Forwarding rate: 95Mbps.

KEY FEATURES AND HIGHLIGHTS

Performance and Scalability
With high switching capacity, AP-SG5550 series support wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols. The 10 Gigabit Ethernet connectivity of AP-SG5550 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).

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 virtualized device are greatly enlarged by times under VSF. VSF also simplifies management work for network administrator and provides more reliability.

Rich L3 Features
AP-SG5550 series delivers high-performance, hardware based IP routing. RIP, OSPF and BGP provide dynamic routing by exchanging routing information with other Layer 3switches and routers. With AP-SG5550 series, customers could easily achieve Policy based Route (PBR), which is important when they need multi exit application.

Strong Multicast
AP-SG5550 series supports abundant multicast features. In Layer 2, such as IGMPv1/v2/v3 snooping and fast leave. L3 multicast protocols such as IGMPv1/v2/v3. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detect functions; AP-SG5550 series provides great application experience for customer.

Easy High Reliability network
MRPP is Multi-layer Ring Protection Protocol, which is AirPro's private fast Ethernet ring protocol. Comparing to spanning tree protocol, it has advantages of fast convergence, simple protocol calculation, less system resources cost and so on, which can improve the reliability of Ethernet network operation. Comprehensive QoS With 8 queues per port, AP-SG5550 series enable differentiated management of up to 8 traffic types. The traffic is prioritized according to IEEE802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.AP-SG5550 series also supports Bi-directional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources.

Abundant Ipv6 Support
AP-SG5550 series supports IPv6 switching and routing based on hardware for maximum performance. With increased network devices growing the need for larger addressing and higher security become critical, AP-SG5550 series will be a right product to meet this requirement.

PRODUCT SPECIFICATIONS

Hardware Specifications

Item	AP-SG5550 Series
Physical port	24 x 10/100/1000BaseT + 4 x 10GE(SFP+)
	Auto-MIDX
Management port	1 x RJ45 Ethernet Management port
	1 x Console port
	1 x Reset port
	1 x USB2.0 interface
Performance	
Switching Capacity	4M
Forwarding rate	95Mbps
Jumbo Frame	10K
MAC Address	16K
ARP Table	4K
Routing Table	1K
ACL Table	1K
Physical	
Dimension (W*H*D)	440mm x 44mm x 240mm
Relative Humidity	10%~90% non-condensing, storage 95%
Temperature	Working 0°C~50°C, storage -40°C~70°C
Power Supply	AC:100~240VAC, 50~60Hz
Power Consumption	<30W
Main Features	
L1, L2 Features	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)
	Port loopback detection
	LLDP and LLDP-MED
	ULDP
	802.3ad LACP, max 128 group trunks with max 8 ports for each trunk support max 64 group trunks with max 8 ports for each trunk)
	LACP load balance
	ERPS(G.8032)
	N:1 Port Mirroring
	RSPAN
	IEEEE802.1d(STP)
	IEEEE802.1w(RSTP)
	IEEEE802.1s(MSTP)
	Root Guard
	BPDU Guard
	BPDU Tunnel
	802.1Q, 4K VLAN
	MAC VLAN, Vocie VLAN, PVLAN, Protocol VLAN, Multicast VLAN
	QinQ, Flexible QinQ
	GVRP
	N:1 VLAN Translation
	Broadcast / Multicast / Unicast Storm Control
	IGMP v1/v2/v3 Snooping and L2 Query
	ND Snooping
	MLDv1/v2 Snooping
	Port Security
	Flow Control: HOL, IEEE802.3x
	Bandwidth Control
L3 Features	Static Routing,RIPv1/v2,OSPFv2,BGP4
	OSPFv3, BGP4+
	OSPF multiple process
	LPM Routing
	Policy-based Routing(PBR) for IPv4 and IPv6
	VRRP
	URPF,
	ECMP
	BFD
	IGMP v1/v2/v3, IGMP Proxy,
	Static Multicast Route
	Multicast Receive Control
	Illegal Multicast Source Detect
	ARP Guard, Local ARP proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit
	Anti ARP Cheat, Anti ARP Scan
	DNS Client, DNS Relay

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Hardware Specifications

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Ipv6	6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, ICMPv6,ND,DNSv6 IPv6 LPM Routing,IPv6 Policy-based Routing(PBR) IPv6 VRRPv3,IPv6 URPF,IPv6 RA RIPng,OSPFv3,BGP4+ MLD Snooping,IPv6 Multicast VLAN MLDv1/v2, IPv6 ACL, IPv6 QoS
QoS	8 Queues SP, WDRR, SWDRR Traffic Classification Based on 802.1p COS, ToS, DiffServ DSCP, ACL, port number Traffic Policing PRI Mark/Remark
ACL	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, VLAN routing interfaces Time Ranged ACL
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 Traffic Monitor	DHCP Server/Client for IPv4/IPv6 DHCP Relay/Option 82 DHCP Snooping/Option 82
Traffic Monitor	r 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
Data Center Features	VSF(Virtual Switch Framework)

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