# L3 10G Copper Routing Switch

# Air Pro® Simple | Secure | Trusted

#### **PRODUCT OVERVIEW**

AirPro AP-SG6500E-24X-4XG series are the next generation ofenterpriseclass 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-SG6500E-24X-4XG support wirespeed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

The 10 Gigabit Ethernet connectivity of AP-SG6500E-24X-4XG 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-SG6500E-24X-4XG 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-SG6500E-24X-4XG, customers could easily achieve Policy based Route (PBR), which is important when they need multi exit application.

#### STRONG MULTICAST:-

 $\label{eq:AP-SG6500E-24X-4XG} \ \text{Supports abundant multicast features. In Layer}$ 



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-SG6500E-24X-4XG 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-SG6500E-24X-4XG 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-SG6500E-24X-4XG 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-SG6500E-24X-4XG 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-SG6500E-24X-4XG will be a right product to meet this requirement.



# **PRODUCT SPECIFICATIONS**

# **Hardware Specifications**

Item	AP-SG6500E-24X-4XG
Physical port	24 x 10/100/1000BaseT + 4 x 10GE(SFP+)
Thysical porc	Auto-MIDX
Management port	1 x RJ45 Ethernet Management port
management port	1 x Console port
	1 x Reset port
	1 x USB2.0 interface
PERFORMANCE	1x 0332.0 menjace
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	Jow
- Train reactives	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)
L1, L2 Features	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
	Static Routing,RIPv1/v2,OSPFv2,BGP4
	OSPFv3, BGP4+
	OSPF multiple process
	LPM Routing
	Policy-based Routing(PBR) for IPv4 and IPv6
	VRRP
	URPF,
	ECMP
L3 Features	BFD 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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Item	AP-SG6500E-24X-4XG
	6to4 Tunnel, Configured Tunnel, ISATAP Tunnel,
	ICMPv6,ND,DNSv6
	IPv6 LPM Routing,IPv6 Policy-based Routing(PBR)
Ipv6	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
	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
ACL	Redirect and statistics
	Rules can be configured to port, VLAN, VLAN routing interfaces
	Time Ranged ACL
	802.1x AAA
	Port, MAC based authentication
	Accounting based on time length and traffic
Security	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	r sFlow Traffic Analysis
	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6
	Syslog and external Syslog Server
	HTTP SSL
	SNMP MIB, SNMP TRAP
	FTP/TFTP
Security Network	SNTP/NTP
Management	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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