DATASHEET
AP-CS6100-24XF2QSF-E1

Air Pro®
Simple | Secure | Trusted

L3 + 10G & 100G Routing Switch

OVERVIEW

AirPro AP-CS6100-24XF2QSF-E1 is a next-generation L3 stackable routing switch series designed with high-performance hardware and advanced software architecture. It features 100GE fiber up-link ports and comes with dual redundant power supplies (RPS) for enhanced reliability.

The AP-CS6100-24XF2QSF-E1 series delivers high availability, scalability, security, and energy effi-ciency, making network operations smoother and more stable. With innovative technologies such as VSF (Virtual Switch Framework) and three fixed auto-adjustable fan units, the switch supports seamless stacking, simplified management, and efficient cooling.

This series is ideal for high-density aggregation in Enterprise or Campus Networks. For Enterprise deployments, the AP-CS6100-24XF2QSF-E1 serves as an excellent core switch, offering robust per-formance and easy integration into existing network architectures.

Appearance	Description
 AP-CS6100-24XF2QSF-E1	• 24x10GE(SFP+) + 2x100GE(QSFP28) • 1 modular AC+1 optional modular AC power supply • 1 console, 1 USB, 1 RJ45 management port • 1 Rest Button • Forwarding performance: 655Mpps • Switching capacity: 880Gbps • Auto MDI/MDIX

KEY FEATURES AND BENEFITS

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

Rich L3 Features
AP-CS6100-24XF2QSF-E1
delivers high-performance, hardware-based IP routing. RIP, OSPF, and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches & routers. With CS6100, customers could easily achieve a Policy-based Route (PBR), which is important when they need a multi exit application.

Strong Multicast
CS6100 supports abundant multicast features. In Layer 2, such as IGMPv1/v2/v3 snooping and fast leave. L3 multicast protocols such as IGMPv1/v2/v3, PIM-DM, PIM-SM, PIM-SSM, and even MSDP. With Multicast VLAN Register (MVR), multicast receiver/sender control and illegal multicast source detect functions; CS6100 provides a great application experience for the customer.

Easy High-Reliability network
G.8032 provides sub-50ms protection and re-covery switching for Ethernet traffic in a carri-er ring topology. SG4500 series support G.8032 v2 and can be deployed in a variety of complex network topologies including single ring, tan-gent ring, intersecting rings, double rings and other home networking

Comprehensive QoS
With 8 queues per port, CS6100 enable diffe-rentiated 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.

CS6100 also supports Bi-directional rate-limiting, per port or traffic class preserves network bandwidth, and allows full control of network resources.

Enhanced Security
IEEE 802.1X port-based access control and MAC-based access control ensure all users are authorized before being granted access to the network.

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 that are based on time, the product can support time-based ACL to match the requirement. Secure Shell (SSH) encrypts network manage-ment information via Telnet providing secure network management.

RADIUS Authentication enables centralized con-trol of the switch and restricts unauthorized users from altering the configuration of the switch.

AP-CS6100-24XF2QSF-E1

L3 + 10G & 100G Routing Switch

PRODUCT SPECIFICATIONS

Hardware Specifications

Item	AP-CS6100-24XF2QSF-E1
Physical port	24x10GE(SFP+) + 2x100GE(QSFP28)
Management port	1 x RJ45 Ethernet Management port 1x Console port 1x USB2.0 interface
Performance	
Switching Capacity	880Gbps
Forwarding Rate	655Mpps
Jumbo Frame	16K
MAC Address	96K
ARP Table	16K
Routing Table	32K
ACL Table	1K
L3 Interface	Max 1K
Physical	
Dimension (W*H*D)	440mm x 44mm x 420mm
Relative Humidity	5%~90% non-condensing, storage 95%
Temperature	Working 0°C~50°C, storage -40°C~70°C
Power Supply	1 modular AC + 1 optional AC (100~240VAC, 50~60Hz)
Power Consumption	<85W
Main Features	
L3 Features	Port loopback detection LLDP and LLDP-MED UDLD 802.3ad LACP, max 128 group trunks with max 8 ports for each trunk LACP load balance
	N:1 Port Mirroring RSPAN ERSPAN
	IEEEE802.1d(STP) IEEEE802.1w(RSTP) IEEEE802.1s(MSTP) Root Guard BPDU Guard
	802.1Q, 4K VLAN MAC VLAN, Voice VLAN, PVLAN, Protocol VLAN, Multicast VLAN QinQ, Selective QinQ, Flexible QinQ GVRP Broadcast / Multicast / Unicast Storm Control
	IGMP v1/v2/v3 Snooping and L2 Query , IGMP Proxy ND Snooping MLDv1/v2 Snooping
	Port Security
	Flow Control: HOL, IEEE802.3x Bandwidth Control
	Static Routing, RIPv1/v2, OSPFv2, BGP4 OSPFv3, BGP4+ OSPF multiple processes Policy-based routing (PBR) for IPv4 and IPv6 VRRP URPF, ECMP BFD
	DVMRP, PIM-DM, PIM-SM, PIM-SSM, Anycast RP, MSDP 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/NDP Cheat, Anti ARP/NDP Scan
	DNS Client, DNS Relay
IPv6	ICMPv6, ND, DNSv6 IPv6 Policy-based Routing (PBR) IPv6 VRRPv3, IPv6 URPF, IPv6 RA RIPng, OSPFv3, BGP4+ MLD Snooping, IPv6 Multicast VLAN MLDv1/v2, PIM-SM/DM for IPv6, IPv6 Anycast RP, IPv6 ACL, IPv6 QoS

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Item	AP-CS6100-24XF2QSF-E1
QoS	8 Queues SWRR, SP, WRR, 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 Accounting based ACL Rules can be configured to port, VLAN 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	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 RMON 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)

ORDER INFORMATION

Product	Description
AP-CS6100-24XF2QSF-E1	100G Ethernet Routing Switch, 24x10GE (SFP+) + 2x100GbE (QSFP28), AC + 1 optional AC power supply

All specifications in this document are subject to change without notice. AirPro products are sold with a limited warranty described at: www.airpronetworks.com
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