

SWM-5700-P

10 GIGABIT ETHERNET SWITCH LAYER 3 - POE SERIES



24*2.5G POE++
AND
6*10G SFP+

VIRTUAL SWITCH
STACKING 16

CARRIER-LEVEL
HIGH RELIABILITY
FULL LAYER-3
FUNCTIONS

VARIED SERVICE
CHARACTERIS-
TICS VERSATILE
IPV6 SOLUTION
COMPLETE
SECURITY
MECHANISM

Description

SWM-5700-P Series is a CXR-developed multigigabit Ethernet PoE switch oriented for the next generation IP metropolitan area network, large campus network, and enterprise network.

On the basis of providing high-performance L2/L3/L4 wire-speed switching services, **SWM-5700-P** Series further integrates various network services such as IPv6 and network security.

Combined with multiple high-reliability technologies such as uninterrupted upgrade, uninterrupted forwarding, graceful restart, and redundancy protection, **SWM-5700-P** Series ensures the long-term stable communication capability of the network.

SWM-5700-P Series is widely used in high-end WiFi6 deployment, cyber cafes, E-sports hotels, and high-speed enterprise network.

SWM-5700-P Series has 2 models: **SWM-5700-P-8EP4X** and **SWM-5700-P-24EP6X**.

Highlights

Advanced hardware architecture, cutting edge processing capability

SWM-5700-P Series 1U pizza-box switch realizes the ultra-high port density of 8-Port 2.5G PoE++, 16-Port 2.5G PoE+ and 6-Port 10G SFP+. Equipped with high-performance ASIC switch chips, **SWM-5700-P** Series can meet the application requirements of various complex scenarios.

Doubled performance: The virtualized system makes full use of every link between physical devices, avoiding the link congestion of the traditional networking model Spanning Tree Protocol, making the best use of devices, doubling the performance, and protecting the original link investment to the greatest extent.

High reliability: Based on advanced distributed processing technology, the efficient cross-physical device link aggregation function separates the logical control plane, service control plane and service data plane, providing uninterrupted Layer 3 routing and forwarding and avoiding business interruption caused by the single failure. Therefore, the reliability of the virtual system is greatly improved.

Easy management: The entire virtual system realizes unified management of a single IP, and physical devices are visible to users, which simplifies the management of network devices and network topology, greatly improves operation efficiency, and effectively reduces operation and maintenance costs.

Highlights

Carrier-level high reliability

Based on Hitless Protection System (HPS), the key components of the SWM-5700-P Series, such as power supply modules, are redundant backup and hot-swappable, which supports seamless switchover in case of failure without manual intervention.

SWM-5700-P Series supports STP/RSTP/MSTP, VRRP, ring network protection, dual uplink active/standby link protection, LACP and other simple and efficient redundancy protection mechanisms.

SWM-5700-P Series supports In-Service Software Upgrade (ISSU), ensuring the unremitting data forwarding during system upgrade.

The ultra-high-precision BFD mechanism, through linkage with Layer 2 and Layer 3 protocols, realizes millisecond-level fault detection and service recovery, which greatly improves the reliability of the network system.

Perfect Ethernet OAM mechanism, supporting 802.3ah and 802.1ag, realizes rapid detection and location of faults through real-time monitoring of network operation status.

The high reliability hardware and software of the SWM-5700-P Series meet the fault recovery time requirement of 50ms for carrier-level services, and truly achieve the high reliability (99.999%) of carrier-class core devices.

Innovative BVSS

The SWM-5700-P Series supports innovative Virtual Switch System (BVSS), which can virtualize multiple physical devices into one logical device with unparalleled performance, reliability, and management compared to stand-alone physical devices.

Rich service features

Perfect Layer 2 and Layer 3 multicast routing protocols meet the access requirements of IPTV, multi-terminal high-definition video surveillance and video conferencing.

Complete Layer 3 routing protocols and large routing table capacity meet the needs of various network interconnection, and can built up ultra-large campus network, enterprise network and industry private network.

Comprehensive IPv6 solutions

Supports the IPv6 protocol suite, IPv6 neighbour discovery, ICMPv6, path MTU discovery, DHCPv6, etc.

Supports Ping, Traceroute, Telnet, SSH, ACL and so on, meeting IPv6 networks' device management and service control requirements.

Supports IPv6 multicast features such as MLD, MLD Snooping, IPv6 static routing, IPv6 Layer 3 routing protocols such as RIPng, OSPFv3, BGP4+, providing complete IPv6 Layer 2 and Layer 3 solutions.

Supports a wealth of IPv4 to IPv6 transition technologies, including: IPv6 manual tunnel, automatic tunnel, 6to4 tunnel, and ISATAP tunnel to ensure the smooth transition from IPv4 network to IPv6 network.

Perfect security mechanisms

Equipment-level security: The advanced hardware infrastructure design realizes the level-based packet schedule and packet protection, prevents DoS-/TCP- related SYN Flood, UDP Flood, Broadcast Storm or large traffic attacks, and supports level-based command line protection, endowing different levels of users with different management permissions.

Perfect security authentication mechanisms: IEEE 802.1x, Radius and TACACS+.

Enhanced service security mechanism: Supports clear text or MD5 authentication of related routing protocols, and Unicast Reverse Path Forwarding (uRPF), which can effectively control illegal services; supports in-depth detection and filtering of control packets and data packets, thereby effectively isolating illegal data packets and improving the security of the network system.

Highlights

Innovative eco-friendly design

Intelligent power management system: SWM-5700 series adopts advanced power system architecture design to achieve efficient power conversion, unique power monitoring, slow start function, real-time monitoring of the running status, intelligent adjustment, and deep energy saving.

Intelligent fan management system: Intelligent fan design supports automatic speed regulation, effectively reduces the speed, reduces noise, and prolongs the service life of the fan.

Supports energy efficient Ethernet function and complies with the international standard IEEE 802.3az EEE, effectively reducing energy consumption.

Intelligent POE++

SWM-5700-P Series supports IEEE 802.3af/at/bt PoE standard, and supports 90W PoE output.

SWM-5700-P Series supports up to a maximum of 740W PoE power budget.

SWM-5700-P Series supports manual and dynamic PoE power allocation.

SWM-5700-P Series supports PoE non-stop power supply. The PoE power is maintained during a switch reload.

Range of products



SWM-5700-P-8EP4X

- 8-Port 2.5G/GE PoE++
- 4-Port 10G/GE SFP+



SWM-5700-P-24EP6X

- 8-Port 2.5G/GE PoE++
- 16-Port 2.5G/GE PoE+
- 6-Port 10G/GE SFP+

Specifications

Item	SWM-5700-P-8EP4X	SWM-5700-P-24EP6X
Interface RJ45	8-Port 2.5G/GE PoE++	8-Port 2.5G/GE PoE++ 16-Port 2.5G/GE PoE+
Interface SFP+	4-Port 10G/GE	6-Port 10G/GE
Console	1-Port RJ45	1--Port RJ45
Switching capacity	120 Gbps	240 Gbps
Forwarding rate	90 Mpps	180 Mpps
Physical Specifications		
Chassis Dimensions (WxDxH)	300*240*44 mm	440*280*44 mm
Package Dimensions (WxDxH)	576x448x94 mm	576x448x94 mm
Power		
Power Supply	AC: 100V-240V, 50/60Hz	AC: 100V-240V, 50/60Hz
PoE Budget	370 W	740 W
Total output BTU (1000BTU/ H=293W)	1433.45	2901
Noise@25°C	45 dBA	45 dBA
MTBF	>200.000 H	>200.000H
Forwarding mode	Store-forward	Store-forward
Flash	16 MB	16 MB
Dram	256 MB	512 MB
MAC	16K	32K
Buffer size	1.5 MB	1.5 MB
Jumbo frame	9K	9K
Routing table IPV4	512	8K
Routing table IPV6	128	4K
ARP IPV4	2K	12K
ARP IPV6	2K	2K
Total SVI	63	1K

Features

Multicast	QoS	Reliability
<ul style="list-style-type: none"> IGMP v1/v2c/v3 IGMP Snooping IGMP Fast Leave Multicast group policy and multicast number limit Multicast filtering MVR IGMP snooping in certain port and VLAN Support for transparent passing of multicast traffic without IGMP Snooping in certain port and VLAN PIM-DM/SM/SSM 	<ul style="list-style-type: none"> Traffic classification of port/L2~4 protocol headers/VLAN/CoS/DSCP CAR traffic control 802.1P/DSCP priority mapping and remark Multiple queuing algorithms such as SP, WRR or SP+WRR Tail-Drop, WRED Traffic supervision and traffic shaping 8 queues per port 	<ul style="list-style-type: none"> 802.3ad Static/LACP link aggregation EAPS G.8032 ERPS ISSU VRRP GR for OSPF and BGP BFD for OSPF and BGP BVSS virtual stacking system
IPv6	Security	Management
<ul style="list-style-type: none"> IPv4/v6 dual stack ICMPv6, DHCPv6, ACLv6 and IPv6 Telnet IPv6 neighbour discovery Path MTU discovery MLD V1 MLD snooping IPv6 Static Routing, RIPng, OSPFv3, BGP4+ Manual tunnel, ISATAP tunnel, 6-to-4 tunnel 	<ul style="list-style-type: none"> DDoS attack prevention, TCP-SYN/UDP/ARP Flood attack prevention IEEE 802.1x authentication, multiple-user authentication, guest vlan L2~L4 ACL Anti-DOS/IP spoofing/TCP/ping/SYN/ICMP flood attacks Broadcast/multicast/unknown-unicast storm-control Port isolation Port Security, MAC address limitation, IP+MAC+port binding DHCP Snooping, DHCP Option 82 DAI(Dynamic ARP Inspection) IPSG(IP Source Guard) IEEE 802.1x certification MAC-based authentication AAA Radius, TACACS+ Multiple user privileges 	<ul style="list-style-type: none"> CLI: Console, Telnet, SSHv1/2 Web-GUI: HTTP, HTTPS/SSL SNMP v1/v2c/v3, RMON, SNMP alarm/inform/traps Upload and download of FTP/TFTP/SFTP files Debugging Syslog for alarm/notification/command/debug Web-GUI: HTTP, HTTPS/SSL NTP SPAN, RSPAN (1:1 and N:1 mirror) LLDP, LLDP-MED sFLOW ZTP(Zero Touch Provisioning) Optical DDM Ethernet cable diagnosis 802.3ah, 802.1ag
IPv4	DHCP	Environment
<ul style="list-style-type: none"> Static routing, RIP v1/v2, OSPF, BGP Policy Based Routing(PBR) ECMP BFD for static routing, RIP, OSPF, BGP 	<ul style="list-style-type: none"> DHCP server, client, relay, snooping 	<ul style="list-style-type: none"> Operating temperature/humidity: 0°C -50°C ,10%-90% non-condensing Storage temperature/humidity: -20°C -70°C , 5%-95% non-condensing

Ordering information

Reference	Description
SWM-5700-P-8EP4X	8-Port 2.5G PoE++ 4-Port 10G SFP+ L3-lite Managed Switch (built-in single AC-220V power supply; 370W POE budget; with cooling fan, 1U, standard 19-inch rack-mounted installation)
SWM-5700-P-24EP6X	24-Port 2.5G PoE+ 6-Port 10G SFP+ L3 Managed Switch (built-in single AC-220V power supply 740W POE budget; with cooling fan, 1U, standard 19-inch rack-mounted installation)



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CXR Networks
T +33 (0) 237 62 87 90
www.cxr.com

17 Rue de l'Ornette 28410 Abondant France
contact@cxr.com