

SKS8310-8X Layer 3 Switch

【Product Feature】



The SKS8310-8X switch is a high-performance core routing Layer 3 switch product. It can not only meet the high-density and high-bandwidth network application requirements of the next-generation enterprise network, data center and metropolitan area network, but also meet the application requirements of telecom network operators or campus Ethernet aggregation layer or access layer, and can also be used as a data center connection layer. The entry layer and the core layer of small and medium-sized enterprises provide rich server access solutions for the data center.

The SKS8310-8X switch supports rich service features, including L2, L3, VXLAN, OAM/APS and other features, supports security and flow control features, hardware-based NetFlow, and high-precision clock features.

The product has an elastic stacking function, which virtualizes multiple devices into one logical entity, which can not only meet the expansion of ports and switching capacity, but also realize the unified management, upgrade, and maintenance of multiple devices. In response to the requirements of large data traffic and non-blocking transmission in the data center, the product can provide a strong cache capacity, and support an advanced cache scheduling mechanism to ensure the maximum effective use of the device cache capacity. It is designed to meet the high-density and high-bandwidth network application requirements of next-generation enterprise networks, data centers and metropolitan area networks. It can be applied to network operators or campus Ethernet aggregation layer or access layer, and can also be used as data center access layer, small and medium-sized enterprise core layer, and provides rich server access solutions for data centers.

【Product Feature】

Carrier-level equipment stability

- Support IPv4/IPv6 dual protocol stack platform
- Support multiple link redundancy and network redundancy protocols such as STP/RSTP/MSTP/ERPS/LACP

Perfect safety mechanism

- Support ACL security filtering mechanism, which can provide security control functions based on MAC, IP, L4 port
- Support ARP attack automatic protection and user blocking functions
- Support DHCP attack automatic protection based on Mac Address and user blocking functions
- Support DDOS and virus attack protection
- Support DHCP-snooping/IP-source-Guard/802.1X and other security features
- Support link protection functions such as BFD, FlexLink, LACP and ERRP
- Support remote loop detection function
- Support CFM、EFM
- Support remote user authentication based on Tacacs+, Radius, and Local user authentication

Powerful QoS capabilities

- Support port speed and flow speed limit function
- Support classification based on service flow and Qos flow control function
- Support queue scheduling algorithms such as SP/WRR/SP+WRR
- Support port-based and service flow-based mirroring functions

Enhanced multi-service capabilities

- Support DHCP Server and DHCP Relay
- Support L2-Tunnel
- Support Ethernet OAM protocol such as CFM、EFM

Rich routing protocol

- Support static route
- Support dynamic route such as RIP, OSPF,BGP, ISIS

Simple and easy-to-use network management function

- Support CLI based on RS232 serial port, Telnet and SSHv2
- Support WEB-based configure operation management, support SNMP V1/V2/V3
- Support remote upgrade or equipment through FTP and TFTP

【Parameter index】

Hardware specifications:

Items	SKS8310-8X
Protocol	IEEE 802.3,802.3az,802.3ae,802.3x,802.3ad,802.1x,802.1Q,802.1p,802.1d,802.1w
Ethernet Port	8* 1G/2.5G/10G Base-X SFP+ port

Console Ports	1* RJ45
Chip	RTL9303
Switching Capacity	160Gbps
Forwarding Rate	119.05Mbps
MAC Address	16K
Jumbo Frame	12K Byte
Packet Buffer	12Mbit
LED	PWR, LINK/ACT, SYS
Flash	32MB
DDR Memory	512MB
Power Supply	DC 12V=1.5A
Power Consumption	≤20W

Software specifications:

Attributes	SKS8310-8X
MAC Address Table	Supports manual addition and deletion of MAC address tables Supports port shutdown MAC address learning Supports port MAC address number control Supportst port MAC address filtering function
VLAN	Supports 4K VLAN 802.1Q Supports VLANs based on ports, MACs and protocols Supports Access/Trunk/Hybrid Supports QinQ
Spanning Tree	Supports STP/RSTP/MSTP Supports remote loop detection
Ports	Supports bi-directional bandwidth control Supports static and LACP dynamic aggregation port aggregation Supports multi-port mirroring Supports port storm suppression Supports 12K Jumbo ultra-long frame forwarding
User Security	Supports Anti-ARP-spoofing spoofing protection. Supports automatic suppression of Anti-ARP-flooding attacks. Supports IP Source Guard to automatically create IP+MAC+Port+VLAN binding tables. Supports Port Isolation hardware to isolate messages between ports. Supports MAC address binding to ports and port MAC address filtering Supports IEEE 802.1x and AAA/Radius for user authentication
Switch Security	Supports for SSHv2 Secure Shell Supports SNMP v3 encryption management Supports Security IP's Telnet login and password mechanism.
Network	Supports one-click binding based on dynamic ARP tables

Security	Supports manual binding of IP address, VLAN ID, MAC address and port parameters Supports L2-L7 ACL flow filtering Supports port broadcast/multicast message suppression and automatic shutdown of dangerous ports Supports DHCP Option82 and PPPoE+ tagging to upload user physical location information
ACL	Supports for standard and extended ACLs Supports Time Range-based ACL policies. Provides flow classification and flow definition based on source/destination MAC address, VLAN, 802.1p, ToS, DiffServ, source/destination IP (IPv4/IPv6) address, TCP/UDP port number, protocol type and other IP message header information Supports 80-byte header filtering for IP messages from L2 to L7.
QoS	Supports COS/DSCP-based traffic classification Supports rate limiting of incoming and outgoing messages on ports or custom streams. Supports message mirroring and message redirection for ports or customized streams Supports priority marking of ports or customized streams and provides Remark capability for 802.1P and DSCP priorities. Supports advanced queue scheduling based on ports or customized streams, Supports 8 priority queues per port/stream, and provides various queue scheduling algorithms such as SP, WRR, SP+WRR, etc. Supports traffic supervision based on VLAN direction (in/out) Supports traffic supervision based on aggregated flow direction (inbound/outbound) Supports queue-based traffic shaping Supports port-based traffic shaping Supports SP strict priority scheduling Supports WRR (weighted round robin) scheduling Supports SP + WRR hybrid scheduling Supports for IPv4-v6 QoS (qc)
Multicast	Supports for IGMPv1/v2/v3 Snooping Supports IGMP Filter multicast filtering Supports IGMP Fast leave fast leave multicast groups Supports for IGMP Proxy
ARP	Supports ARP table entry aging Support for ARP Proxy
IPv4	Supports static IPv4 routes Ping, Traceroute are supported, VRRP support Supports OSPF, RIP, PIM, BGP and other protocols Supports ICMP redirect, ICMP unreachable
IPv6	Supports static IPv6 routing ICMPv6 support Supports for Neighbor Discover
Loop	Supports enhanced Ethernet ring protocol

Protection	Supports Loopback-detection port loopback detection
Link Protection	Supports FlexLink link backup Supports RSTP/MSTP link healing hardware acceleration capability Supports LACP dynamic link aggregation
Maintenance	Supports Telnet-based real-time port traffic, utilization, and incoming and outgoing packet statistics Supports LLDP neighbor device discovery protocol Supports Ethernet OAM 802.3ah EFM and 802.1ag CFM Supports for data logging and RFC 3164 BSD syslog Protocol Ping and Traceroute support
Management	Supports Command Line Interface (CLI), Console port, Telnet, SSH and WEB configuration management Supports Virtual Cable Testing (VCT) Supports SNMP V1/V2c/V3 management Supports for SNTTP protocol Supports for hierarchical user rights Supports user RADIUS remote authentication Supports for user Tacacs+ remote authentication
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