S5860-48M4X2Q

L3 Managed Ethernet Switch

Product Overview

The S5860-48M4X2Q is a high-performance Layer 3 core routing switch designed to meet the high-density and high-bandwidth needs of next-generation enterprise networks, data centers, and metropolitan area networks. It also serves the requirements of telecom network operators and can be used in the aggregation or access layers of campus Ethernet networks.

This versatile switch can function as a connection layer, entry layer, or core layer in small and medium-sized enterprises, offering comprehensive server access solutions for data centers. It supports a wide range of service features, including Layer 2, Layer 3, VXLAN, OAM/APS, and security and flow control features, along with hardware-based NetFlow.

The S5860-48M4X2Q includes VSF (Virtual Switch Framework) stacking, allowing multiple devices to be virtualized into a single logical entity. This feature facilitates the expansion of ports and switching capacity while enabling unified management, upgrades, and maintenance of multiple devices.

Product Interface



S5860-48M4X2Q

- 48* 100/1000M/2.5G Base-T RJ45 port
- 4*10G/25G SFP+
- 2*40G QSFP
- 880Gbps switching capacity
- 128K MAC address
- AC input: 100~240V,47/63 Hz

Key Features

Stacking Capabilities

- Support Stacking of 8 units through a single IP address
- Support Unified management

- Support Redundancy mechanism
- Support High speed interconnect

Equipment Stability

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

Carrier-level equipment stability

- Based on Linux operating system，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 DHCP snooping/IP-source-Guard/802.1X and other security features
- Support link protection functions such as BFD, Flex Link, 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
- Support IPV4/IPV6 dual protocol stack，Support RIPng、OSPFv3

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

Hardware Specification

Attributes	S5860-48M4X2Q
Ethernet Port	48*10/100/1000M/2.5G Base-T; 4*10G/25G SFP+; 2*40G QSFP
Management Port	1x Console, 1x Mgmt port
Exchange Capacity	600Gbps
Packet Forwarding Rate	446.43Mpps
MAC Address	32K
Packet Buffer	72Mbit
ACL Table	11.5K (8 Slices)
Routing Table	64K/16K (IPv4/IPv6)
Memory and Storage	Memory: 1GB; Flash: 8GB
Power	AC: 100 ~ 240V; 47/63 Hz (optional dual-fixed AC)
Power Consumption	Full load ≤125W
Cooling System	4*smart speed fan (Fixed)
Dimensions	440X330X44mm (W * D * H)
Environment Temperature	Working Temperature: -10℃ ~ 50℃ Storage temperature: -40℃ ~ 70℃ Relative Humidity: 5%~95%, non-condensing

Software Specification

Attributes	S5860-48M4X2Q
VLAN	Support 4K VLAN Support VLAN based on port, MAC and protocol Support dual Tag VLAN, port-based Static QinQ and Flexible QinQ Access/Trunk/Hybrid

	VLAN Swap
Ethernet	Ethernet interface operating modes Ethernet interface operating rates Jumbo Frame Port enable/disable Flow-control TX/RX Port based storm-control Unknow unicast/multicast/broadcast storm-control Port-isolate
Stack	Support Stacking of 8 units through a single IP address Support Unified management Support Redundancy mechanism Support High speed interconnect
VXLAN	IPv4 VXLAN tunnel, Static Distributed, Centralized Gateway
MAC	Support static MAC address setting Support black hole MAC address filtering Support port MAC address limit Automatic learning and aging of MAC addresses
ARP	Static and dynamic ARP entries Aging of ARP entries ARP-Proxy
Port Control	Support two-way bandwidth control Support port storm suppression Support 9K Jumbo ultra-long frame forwarding
Port Aggregation	Support static link aggregation Support dynamic LACP Each aggregation group supports a maximum of 8 ports LAG load balance（SIP/DIP/SMAC/DMAC）
Mirroring	Supports multi-port mirroring analysis Service flow-based image analysis
ACL	Support standard and extended ACL Support ACL policy based on time period Provide MAC, IP, L4 port and port level security control functions

QoS	Traffic classification based on COS/DSCP (simple classification) Traffic classification based on ACL (complex classification) Traffic classification based on inner header of the tunnel packets Queue scheduling Remark the priority fields (COS/DSCP) of the packet based on ACL Flow redirection Flow mirror Traffic policing based on direction(in/out) of Port Traffic policing based on direction(in/out) of VLAN Traffic policing based on direction(in/out) of flow Traffic policing based on direction(in/out) of aggregated flow Queue based traffic shaping Port based traffic shaping SP（Strict Priority）scheduling WRR（Weighted Round Robin）scheduling SP + WRR mixed scheduling IPv4-v6 QoS
Safety	Support user hierarchical management and password protection Support IEEE 802.1X authentication Support Radius & TACACS+ authentication Support MAC address learning limit, support black hole MAC function Support port isolation Support broadcast message rate suppression Support IP Source Guard Support ARP flood suppression and ARP spoofing protection
Layer 3	Support ARP learning and aging Support IPv4/IPv6 static route Support dynamic route RIP/OSPF/BGP/ISIS Support IPv4/IPv6 dual-stack platform Support VRRP、CLI、Telnet、WEB、SNMP V1/V2/V3、SSHv2 mode
Terminal Services	Configurations through CLI Console Terminal service
Maintenance	Per-module Debug features ICMP Debug CPU usage display and alarm

	Memory usage display and alarm Device temperature、PSU、FAN、status display and alarm User operation logs Management of logs, alarms, and debugging information VCT（Virtual Cable Test） Detailed Diagnostic-information collection Manual /Schedule reboot Reboot Information logging Ping IPv6 Ping Trace route Port/Flow/Remote mirror Multi-destination mirror（m:n） To CPU/From CPU packets statistics Time configuration Timezone
System Security	SSHv1/v2 RADIUS TACACS+ Authentication Accounting Port based dot1x MAC based dot1x MAC/IP ACL Basic Mode ACL Port/VLAN/L4-Port ACL Time Range IP Source Guard Limitation on MAC address learning on interface Rate limit CPU Traffic Limit CLI/WEB/SNMP/Telnet/SSH filtering
Spanning-Tree	Rapid Spanning-Tree Protocol Multi-instance Spanning-Tree Protocol
Network	DHCP Server

Management	DHCP Relay DHCP Snooping DHCP Option60 DHCP Option82 SNTP（Simple Network Time Protocol） LLDP
Configuration Management	In-band management interface and configuration Out-band management interface and configuration Privileged user priority and privileged commands Network management based on SNMPv1/v2c/v3 Public and private MIB Public and private Trap Configuration and management based on WEB Restore factory default configuration
File System	Upload and download files through FTP or TFTP Upload and download files through X-modem
System Management	Support FTP, TFTP file upload and download Support SNTP Support system work log Support LLDP neighbor device discovery protocol Support 802.3ah Ethernet OAM Support RFC1213 SNMP network management Support Ping and Trace route Supports configuration management based on WEB pages Support the whole machine power failure alarm function
Upgrade	Upgrade with the local image file Upgrade with the remote TFTP server Online upgrade U-boot

Purchase Info

Product Name	Product Description
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