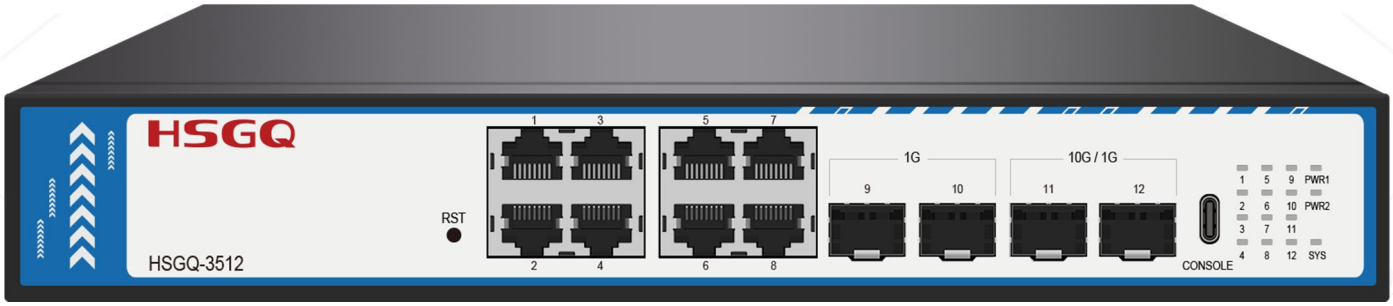


Product Overview

HSGQ-3512 is an L2+ managed switch with 8*10M/ 100M/1000M RJ45 ports , 2*SFP gigabit fiber optic module slots, 2*1G/2.5G/10Gbps SFP+ fiber optic module slots, 1*Type-C console management interface . It supports static routing, provides comprehensive security policies, robust QoS policies, and rich VLAN functionality, making it easy to manage and maintain, and meeting the networking access needs of enterprises, residential communities, hotels, office networks, and campus networks.

Features

- 8*Gigabit RJ45 ports + 2*Gigabit SFP optical ports + 2*(SFP+) 10 Gigabit optical ports + 1*Type-C Console interface;
- Supports AC and DC dual power supply redundancy design; standard AC+DC dual power supply, AC100-240V, industrial Phoenix terminal DC12V.
- Optional support for RTC real-time clock; optional support for temperature sensor;
- Supports STP/RSTP/MSTP link protection technologies and ERPS ring network protocol ;
- It supports two aggregation modes: static link aggregation and LACP dynamic link aggregation, which effectively increases link bandwidth and improves link reliability, while also enabling load balancing and link backup.
- Supports IPv4 / IPv6 dual protocol stack , static routing, DHCP Server, DHCP Relay, and DHCP Snooping ;
- It has loop detection capabilities and adopts an intelligent resolution mechanism to achieve intelligent network self-healing;
- Supports multiple management methods including Type-C Console, Web CLI, Telnet, SSH, and

SNMP (v1/v2c/v3);

- Supports bilingual (Chinese and English) web interface management, making product debugging simpler and more efficient;
- Supports MQTT protocol connection to EDMS cloud management platform, cloud platform supports local deployment and cloud deployment;
- Supports firmware upload and download management via HTTP, TFTP, and FTP transfer methods.

Hardware Specifications

Product Name	HSGQ-3512
Network Standards	IEEE802.3, IEEE802.3u, IEEE 802.3ab, IEEE802.3z, IEEE802.3ae, IEEE802.3x, IEEE802.1x, IEEE802.1q, IEEE802.1p, IEEE802.1d, IEEE802.1w, IEEE802.1s, IEEE802.3ad, IEEE802.1ab
interface	8*10/100/1000Mbps RJ45 ports 2*Gigabit SFP Fiber Optic Module Slots 2*SFP+ 10 Gigabit Fiber Optic Module Slots 1*Type-C Console (115200,8,N,1)
LED indicator light	PWR1 (green), PWR2 (green), SYS (green), Port LED (green)
Network media (cables)	100BASE-TX: Cat 5, 5e and above unshielded twisted pair cable (≤100m) 1000BASE-T: Cat 5e, 6 and above unshielded twisted pair cable (≤100m) 1000BASE-X: MMF, SMF Modules 10GBASE-X: MMF, SMF Modules 10GBASE-SR: OM1/OM2/OM3 or higher MMF (2m～300m) 10GBASE-LR: IEC B1.1 and B1.3 SMF (2m~10000m)
MAC address table	16K
Giant Frame	12K Byte
Packet buffer	8.4Mbit
Forwarding mode	Store-and-forward
Switching capacity	60 Gbps
Packet forwarding rate	45 Mpps
fan	none
Power input	Dual power supply redundancy design standard configuration includes AC +DC dual power supply AC100-240V, 50/60Hz Industrial Phoenix Terminal DC12V
Power supply	20W
Dimensions (L*W*H)	285x19 2 x44mm, rack mountable
Static electricity standards	Contact ±6KV, air ±8KV
Lightning protection level	Common mode ± 6KV
Operating temperature	-10℃ ~ 50℃
Storage temperature	-40 °C ~ 85 °C
Operating humidity	10% ~ 90% Non-condensing
Storage humidity	5% ~ 90% Non-condensing
Mean Time Between Failures	50,000 hours

Software Specifications

L2+ Features	DHCPv4 Server、DHCPv6 Server
	IPv4/IPv6 Static Route
System Info	Port Status
	Product Model、SN、Firmware Version、Hardware Version
	Memory Usage、CPU Usage
	HTTP/HTTPS/Web-Telnet
	OPEN API
NTP	NTP Client
	Supports domain name resolution
	Support RTC(real-time clock)
System Upgrade	Full firmware upgrade support over FTP/TFTP/Web
Device Management	Type-C Console
	Support SSH/Telnet/HTTP/HTTPS/SNMP/Web-Telnet/Cloud Management
	Timer Task
	Ping、Traceroute
	IPv4 and IPv6 dual protocol stack
	Supports MQTT protocol
	RMON（Remote Network Monitoring）
Access Management	IP-Based Access Control
	MAC-Based Access Control
	Port-Based Access Control
Management	View current config
	Upload/Download Configuration File
	Restore Factory
User Management	Supports multiple users with different permissions
	root group / admin group
	Supports multiple users working simultaneously
Port Config	Port Speed/Duplex Mode/Auto
	Flow Control（IEEE802.3x）
	EEE(IEEE802.3az)
	MTU
	Jumbo Frame
	Rate Limit, Ingress/Egress Rate Limit
	Traffic statistics
	Port Status alarm
	Storm Control(Broadcast/Multcast/Unicast)

	DDM
	Port Security
	Loop Detection
	Port Isolation
Link Aggregation	Manual Aggregation
	LACP Aggregation(IEEE802.3ad)
	Load Balance(SRC-MAC/DST-MAC/SRC-IP/DST-IP)
	Max groups and ports per group
Mirror	Port-Based Mirror, Support one to one, Many to one
	Support Ingress/Egress/Both
	Support 4 sets of mirror configuration
MAC Address Table	MAC Address Table
	MAC Aging Time
	MAC Filter (Sticky MAC)
	Static MAC Address
	Port-Based MAC address count limit
	Enable dynamic MAC address learning
	Clear MAC Address Table
	MAC Authentication
	Supports port-based MAC address drift prevention
VLAN	IEEE802.1Q VLAN
	Port VLAN, Access/Trunk/Hybird
	VLAN Translate
	VLAN QinQ
	Protocol VLAN
	Voice VLAN
	GVRP
LLDP	LLDP(IEEE802.1ab)
Spanning-Tree	IEEE802.1d（STP）/802.1w（RSTP）/802.1s（MSTP）
	L2 Tunnel-BPDU Guard, Root Guard、BPDU filtering、BPDU Tunnel（12 protocol-tunnel）、BPDU transparent
ERPS	ERPS v1
IGMP	IGMP Snooping v1/v2
	IGMP Proxy
	IGMP Fast leave
	Multicast-VLAN
	IPv6 MLD Snooping v1/v2
DHCP	DHCP Server（IPv4/IPv6）
	DHCP Client（IPv4/IPv6）
	DHCP Snooping（IPv4/IPv6）
	DHCP Option82、Option18、Option37

Route	IPv4/IPv6 Static Route
	IPv6 ND（Neighbor Discovery）
	IPv6 PMTU
ARP	ARP Scanning Prevention
	ARP Spoofing Prevention
	ARP Guard
	Free ARP
	Dynamic ARP Inspection
	ARP Quantity Control
SNMP	SNMPv1/v2c/v3
	SNMP Trap
ACL	MAC-ACL，SRC/DST MAC
	IP-ACL，SIP/DIP/IP Protocol/SRC Port/DST Port
	VLAN/COS/SRC MAC/DST MAC/Tag/Untag/Time-Range
	Traffic Limit
	Packet-Filter
QoS	Trust COS/DSCP
	Trust Port
	SP/WRR/PQ/WRR+PQ Scheduling
	Based on VLAN/COS/DSCP PolicyMap Stream
	Traffic Classes (8 active priorities)
	Ingress Policing、CAR Stream Shaping
	Supports Tail-Drop/WRED congestion avoidance mechanisms
Alarm	System Alarm
	Support CPU and Memory threshold alarm
	Port alarm，supports port up/down alarm and rate alarm
	Alarm level configuration
Syslog	System log level configuration
	Support system log download
	Support operation log
	Support Syslog Server
	Enable CLI alarm
Security	Radius Client，Supports plaintext and ciphertext
	Tacacs+
	802.1x，Port-Based Authentication
	Openssl 1.1.0
	IP Source Guard，IP+MAC+Port+VLAN Binding
	Link Flap Detect
Deny DoS Attack	TCP Flag
	Support IP address verification
	Support port check

	Support ICMP attack detection
Redundant Backup	Smart Link
	Monitor Link

Ordering Information

Product Name	Product Information
HSGQ-3512	8*GE+2*SFP+2*10G SFP+ L2+ Managed Switch