HSGQ-7912

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10G L3 Managed Switch

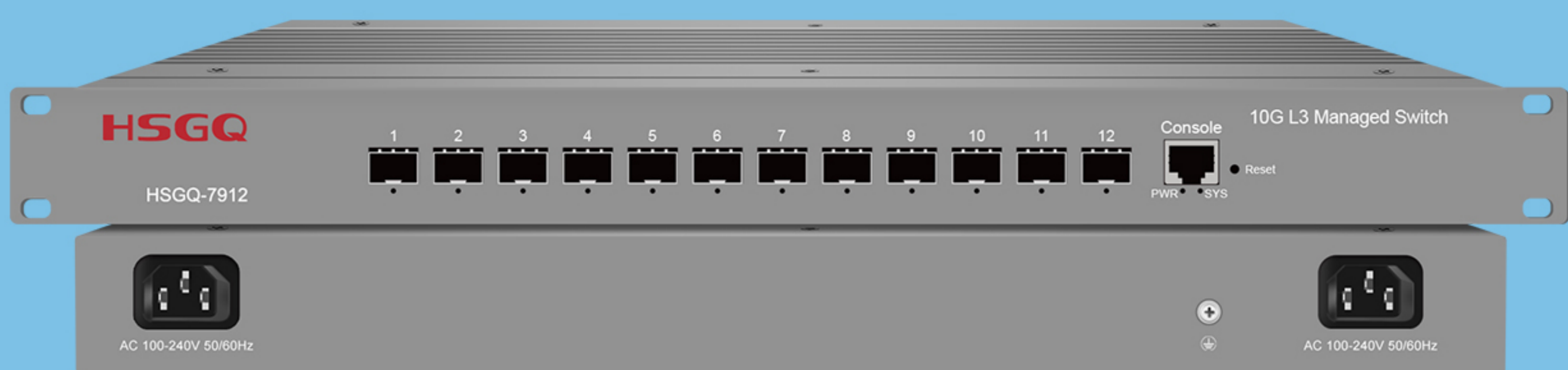## Product Description

12-port 10G L3 managed industrial switch, supporting 12 SFP+ ports and 1 R45 console port. Improve the security control strategy and CPU protection strategy, improve the fault tolerance of the product to ensure stable network operation and link load balancing; the device supports SNMP, IEEE802.19, Spanning Tree, Rapid Spanning Tree Protocol, Link Aggregation, Route Management and other functions. Advanced security features and advanced service quality of service (Qos) can be used as core, distribution or access layer switches with high port density, easy to manage, and ideal for a variety of commercial network applications.

Product Features

Interface

Port	12×10G SFP+
Console	1×RS-232 (115200,8,N,1)

Switch Property

Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.ab, IEEE 802.3z, IEEE 802.3x, IEEE 802.1q, IEEE 802.1p, IEEE 802.3ad, IEEE 802.1d, IEEE 802.1x
Forwarding Modes	Store and Forward
Packet Buffer	12Mbit
MAC Table	32k
Switching Capacity	240Gbps / Non-blocking
Packet Forwarding Rate	179Mpps
Jumbo Frame	12kB

Power Supply

Input Voltage	AC100V-240V, 50Hz/60Hz
Power Consumption	40W

Reliability

ESD Protection	8kV Contact Discharge, 15kV Air Discharge, Standard: IEC61000-4-2
MTBF	100000 h
MTBF Standards	Telcordia SR-332, 25℃
Operating Temperature	-40℃~75℃
Storage Temperature	-40℃~85℃
Operating Humidity	5%~95%(Non-condensation)

Physical Parameter

Led Indicators	1×Power supply indicators 1×System working indicator 12×Optical port status indicator
Reset Button	Short press to restart the switch, long press >7s to initialise the system
Dimensions (W×D×H)	445×193×44mm
Net Weight	1.7 KG
Material	Aluminium
Desktop/DIN-Rail/ Wall Mounted	Desktop/Rack-Mounted

Key Features

- Supports IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, IEEE 802.1p, IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3z, IEEE 802.3ab, IEEE 802.3ae standards.
- L3 management, support DHCP server, DHCP relay, DHCP listen, DHCP Option82, QoS, ACL control, support SNMP V1/V2V/3, IGMP listen V1/V2.
- Support STP/RSTP/MSTP and ERPS, loop detection and self-healing, remote loopback monitoring (802.3ah OAM)
- Support multi-VLAN segmentation, protocol VLAN
  - Supports MAC address+VLAN+port binding
  - Support IPv4/IPv6 static routing, RIP, OSPF
  - Supports AAA management and 802.1x authentication

Ordering Information

Product Model	Description
HSGQ-7912	12×10Gbps SFP+ Port 1×RJ45 CONSOLE Port

Software Specifications

System State		
Basic Functions	Hardware watchdog, factory reset, system and port LED	
	System information, port statistics, and log information	
	User management, alarm management, and configuration management	
	Port rate, duplex, flow control, and MTU configuration	
	Port mirroring and port speed limiting	
Cloud Management	Remotely access the device's WEB, Telnet	
	Detect new version and upgrade device online	
	View device information and alarms	
	Remotely restart the device	
Layer 3 Interface	Layer 3 interface	Support ARP table
	ND discovery	
	IPv4 and IPv6 address configuration	
Layer 3 Routing	IPv4 static routing	RIP
	IPv6 static routing	OSPF
DHCP	DHCPv6 configuration	DHCP relay
	DHCP Option82 configuration	DHCP server
VLAN	VLAN translate, VLAN QinQ	4K VLANs
	Access, Trunk, Hybrid VLAN modes	
	GVRP (Generic VLAN Registration Protocol)	
	802.1Q VLAN, port-based VLAN	
MAC Address Table	MAC address automatic learning and aging	
	static MAC and black hole MAC	
Safety Features	MAC authentication	DHCP Snooping
	HTTPS, SSH V1/V2	802.1X authentication
	port isolation and loop detection	
	Restricting user access based on port ID, IP address, and MAC address	
	AAA (authentication, authorization, accounting), support RADIUS protocol, TACACS+	
Access Control	L2(Layer 2)~L4(Layer 4) packet filtering function	
	Flow rate limiting and QoS re-marking	
Quality of Service (QOS)	8 port queues	
	Port priority, 802.1P priority, DSCP priority	
	SP, WRR, priority scheduling algorithms	
STP	STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s)	
	Multiple instances	BPDU protection
Multicast	IGMP v1/v2/v3 Snooping	Layer 2 IPv4 static multicast
	IGMP v1/v2/v3 layer 3 multicast	
	Fast leaving mechanism and querier of Layer 2 multicast	
Storm Control	Multicast control	Broadcast control
	Unicast control	
Ring Network Protection	Support ring network protection	
Link Aggregation	Static aggregation	LACP dynamic aggregation
	IP, MAC, and hybrid load balancing modes	
	Up to 8 aggregation groups (8 ports per aggregation group)	
IPv6	IPv6 Ping, IPv6 Traceroute, IPv6 Telnet	
	IPv6 HTTP, IPv6 HTTPS	
Management and Maintenance	SNMP V1/V2/V3	SNTP time synchronization
	LLDP device discovery	DNS Client
	Timer task	Ping and Traceroute
	WEB network management (HTTP, HTTPS), WEB Telnet	
	CLI (Telnet, SSH V1/V2, console port)+	
	System operation log, system log, and graded alarm	
	CPU monitoring, memory monitoring, system monitoring, port traffic monitoring	