



SNR-S2980G Series Gigabit Ethernet Intelligent Switch Datasheet

SNR-S2980G-8T



SNR-S2980G-24T



SNR-2980G-24F



SNR-S2980G-48T

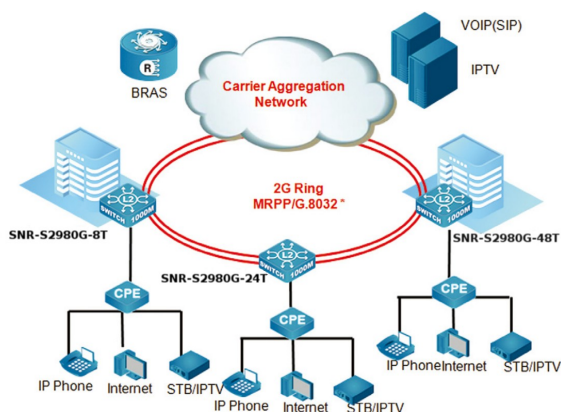


Product Overview

SNR-S2980G Series switch is L2 Gigabits intelligent security switch for the access layer and aggregation layer of enterprise, datacenter, MAN and carrier networks. It supports comprehensive QoS, enhanced VLAN functions (Vlan VPN, Voice VLAN, Flexible QinQ, etc), classified bandwidth control, multilink aggregation, intelligent security control, static route, which fulfill the network requirements for Gigabits to desktop, server farm connection, MAN security access, and so on.

The 2980 series included SNR-S2980G-8T, SNR-S2980G-24T, SNR-S2980G-48T and SNR-2980G-24F. The product designed for IPv4 and IPv6 dual stack network. With the abundant IPv6 features and full Gigabits rate, the product can still work for next generation network.

Application



Key Features and Benefits

► High Adaptability VLAN Features

SNR-S2980G series supports 802.1q and port based VLAN, as well as MAC based VLAN. When user move from one port to another, system can still record it as the same user through identified MAC and then keep the same VLAN for the user.

SNR-S2980G series has unique Stacking VLAN technology, supporting up to 16 million VLAN, thus can provide one VLAN to each user. The advantages are: most small broadcast domain, with high efficiency; separate data between users on L2 with high security; unique VLAN for each user to identify the user; and VLAN for each user improves the management and operation level.

SNR-S2980G series VLAN VPN(QinQ) technique provide low cost, easy operation, manageable L2 VPN function, and differentiate data packets by its service and area to support more and more business.

Voice VLAN function enables to add IP Phone to Voice VLAN to ensure effective QoS.

► High Reliability

SNR-S2980G series supports large number combo Gigabit uplink ports, which could be designed in various ring protection applications, effectively raised the expansibility and performance of network

SNR-S2980G series supports VCT & DDM(Digital Diagnostic Monitoring), helps to locate the error places in the link, makes it fast to solve relative problems for network management. SNR-S2980G series support STP, RSTP, MSTP based on 802.1D, 802.1W, 802.1S, to avoid loop link and configure abundant backup link in network. 802.3ad port aggregation is supported to add link bandwidth and abundant connection between equipments

With Lightning Protection, SNR-S2980G series could ensure the network stability in physical aspect.

► Enhanced Security

IEEE 802.1X port-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using any standard-based RADIUS server.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets and forward by different policies.

The SNR-S2980G series support DHCP snooping, which prevents DHCP attacks and illegal DHCP SERVER by setting trust ports and untrust ports. With DHCP Snooping binding and option82 enabled, it can combine modules like dot1x and ARP, or implement user-access-control independently

The SNR-S2980G product supports much more L2 security features such as ARP guard, Anti-ARP scanning, and other ARP and MAC security technology to protect network security and reliability.

DAI(Dynamic ARP Inspection) intercept, record and drop the ARP packets which are bound to the invalid MAC address/IP address, stops the illegal ARP packet from accessing the network and ensures the system safety efficiently.

► Comprehensive QoS

SNR-S2980G series switch can classify stream by port, 802.1p, TOS, DSCP, TCP/UDP ports and assign different level of service, supports DWRR/SWRR/WRR/SP to provide QOS for voice/data/video.

With QinQ, Selective QinQ, Flexible QinQ, SNR-S2980G series can also differentiate data packets effectively by its service, vlan and area

► **Abundant IPv6 Support**

The SNR-S2980G series switch supports IPv6 in hardware for maximum performance. As more network devices growing and the need for larger addressing and higher security become critical, the SNR-S2980G series switch will be a right product to meet the requirement. SNR passed IPv6 form Phase II certificate is the best proof of the application.

The SNR-S2980G series switch also supports DHCPv6, based on IPv6, including DHCPv6 server, client, relay and snooping, etc.

► **Abundant Multicast Features**

SNR-S2980G series also supports MVR (Multicast VLAN Register), selectively allows traffic to cross between different VLANs for bandwidth and security reasons. With MVR Trunk function, which could associate multicast VLAN to trunk port, SNR-S2980G series combines the VLAN data into the same link, saving lots of resources for users.

The SNR-S2980G series could prevent multicast traffic from flooding through IGMP Snooping, while multicast traffic is forwarded to ports associated to multicast devices only.

► **Simple Management**

SNR-S2980G supports Simple Network Management Protocol (SNMP), in-band and out-of-band. Supports Command Line Interface(CLI) and WEB, supports Security IP function to prevent illegal users log in or change the configuration.

As an important feature of carrier network, OAM can help the user to monitor and manage the network across different protocols and equipments.

SNR-S2980G supports Secure Shell(SSH), which will ensure the security of switch management and configuration.

SNR-S2980G can be managed by general network management platform with third-party management software.

Support power-off alarm Dying Gasp function, the device is triggered by SNMP alarm information communicated to the remote network management platform after the system power is lost. Together with Ethernet OAM, VCT, DDM (Digital Diagnostic Monitoring), it can reduce the difficulty of operation and maintenance.

DHCP option61/67 makes sure that the switch can install or upgrade automatically when it accessed the network by the first time

Specification

Item	SNR-S2980G-8T	SNR-S2980G-24T	SNR-S2980G-48T	SNR-S2980G-24F
Ports	8*10/100/1000M ports + 2 gigabits combo(SFP/GT) ports	24*10/100/1000M ports + 2 gigabits combo(SFP/GT) ports + 2 gigabits SFP ports	48*10/100/1000M ports + 4 gigabits SFP ports	12* GE SFP and 12 Gigabit Combo(SFP/GT)ports
Performance				
Switching Capability	20Gbps	56Gbps	104Gbps	48Gbps
Forwarding Rate	15Mpps	42Mpps	78Mpps	36Mpps
MAC Address	16K	16K	16K	16K
VLAN Table	4K	4K	4K	4K
ACL TABLE	1K	1K	1K	1K
Port Queues	8	8	8	8
Physical				
Dimension(WHD)	330 x 44 x 204mm	440 x 44 x 230mm	442 x 44 x 220mm	440mm×44mm×325mm
Relative Humidity	5% ~ 95%, non-condensing	5% ~ 95%, non-condensing	5% ~ 95%, non-condensing	5% ~ 95%, non-condensing
Power Input	AC: 100V~240V	AC: 100V~240V	AC: 100V~240V	AC: 100V~240V
Operating Temperature	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 50°C	0°C ~ 40°C
Storage Temperature	-40°C ~ 70°C	-40°C ~ 70°C	-40°C ~ 70°C	-40°C ~ 70°C
Power Consumption	≤24W	≤30W	≤40W	≤45W
Physical protection	Lightning Protection Level: 10/700 4KV			
MTBF	>80,000 hours			
EMC safety	FCC, CE, RoHS			
Features				
Forwarding Mode	Storage and Forwarding			
L1, L2 Features	VLAN Type	802.1Q based VLAN and support upto 4K VLAN Support QinQ,Selective QinQ, Flexibe QinQ Support Voice VLAN Port Based VLAN MAC Based VLAN IP subnet VLAN Protocol Based VLAN Private VLAN Support GVRP		

	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Support Root Guard, BPDU Guard, BPDU Forwarding, BPDU Tunnel
	Link Aggregation	LACP 802.3ad, max.128 groups trunk with max 8 ports for each trunk, src-mac/dst-mac/src-dst-mac/src-ip/dst-ip/src-dst-ip based load balance
	MAC Operation	Support MAC Binding Support MAC Filter Black Hole MAC Support MAC Limit per port
	Storm Control	Broadcast / Multicast / Unicast Storm Control
	Port	VCT & DDM UDLD, LLDP, LLDP-MED RSPAN, ERSPAN 1:1 and N:1 port mirror Jumbo Frame 12k Loopback Interface Port loop Detection Bandwidth Control: At least 64Kbps step Support HOL preventing first packet jam, semi-duplex backpressure, duplex IEEE802.3x GE combo ports could be compatible with FE SFP module Port Protection
L3 Lite	Maximum128 static routes and route summarization	
QoS Features		8 queues per port QinQ, Selective QinQ, Flexible QinQ Traffic Classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number, Access Control List SP, WRR, SWRR, DWRR for scheduling Flow Shaping
Security	IEEE 802.1x	Port, MAC Based Authentication Support Guest VLAN and Auto VLAN
	AAA	RADIUS for IPv4 and IPv6 TACACS+ for IPv4
	ACL	Based on source/destination IP address, source/destination MAC address, IP type, TCP/UDP port number, IP precedence, time range, ToS. ACL on VLAN interface Flow Redirect Based on ACL
	Enhanced	IPSource Guard Prevent illegal multicast source and limited multicast. Prevent illegal multicast source and limited multicast. Support DAI(Dynamic ARP Inspection)
Multicast		IGMP v1/v2/v3 snooping Multicast VLAN Register (MVR) Source / Destination Control Illegal multicast source detect IGMP Authentication IGMP Fast Leave
IPv6	ICMPv6, NDP, SNMP over IPv6, HTTP over IPv6, IPv6Ping/Tracer, IPv6Telnet, IPv6RADIUS+, IPv6Syslog, IPv6 SNTP, IPv6 FTP/TFTP	
	Support DHCPv6 Server, Relay, Snooping	
	Support IPv6 MVR	
Switch Management		CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6 RMON 1,2,3,9 SSHv1,v2 & SSL support Public & Private MIB interface SNTP/NTP, Summer Saving Time Multiple sys-log servers OAM 802.3ah NMS software management MAX 24 unites Custer IPv4 and IPv6 Security IP management BOOTP, DHCP Server/Client for IP address assignment
Firmware & Configuration		Multiple Configuration Files Firmware Upgrade via TFTP/FTP server Configuration file upload/download via TFTP/FTP server
DHCP		DHCP Relay, DHCP Relay Option 82, DHCP Snooping, and DHCP Snooping Option 82

Ordering Information

Product	Description
SNR-S2980G-8T	L2 1000M copper switch, 8*10/100/1000M ports + 2 gigabits combo(SFP/GT) ports
SNR-S2980G-24T	L2 1000M copper switch, 24*10/100/1000M ports + 2 gigabits combo(SFP/GT) ports + 2 gigabits SFP ports
SNR-S2980G-48T	L2 1000M copper switch, 48*10/100/1000M ports + 4 gigabits SFP ports
SNR-S2980G-24F	12* GE SFP and 12 Gigabit Combo(SFP/GT)ports, AC power supply

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