



SNR-S2960 Series Fast Ethernet Intelligent Access Switch Datasheet

SNR-S2960-24G



SNR-S2960-48G

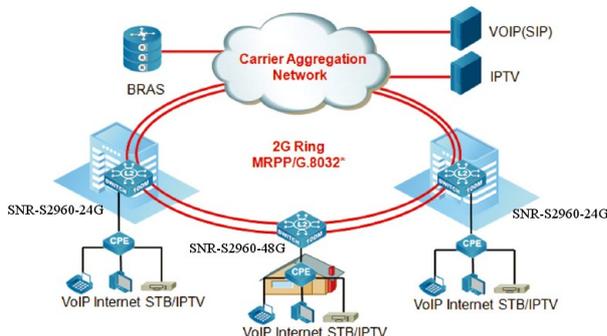


Product Overview

SNR-S2960 Series switch is Fast Ethernet intelligent security access switch for carrier and MAN networks. It supports comprehensive QoS, enhanced VLAN functions (Vlan VPN, Voice Vlan, QinQ, etc), classified bandwidth control, multi link aggregation, intelligent security control, which fulfill the network requirements for carrier network, MAN security access, and so on.

The SNR-S2960 series includes SNR-S2960-24G and SNR-S2960-48G. The product designed for ipv4 and ipv6 dual stack network. With the abundant ipv6 features, the product can still work for next generation network.

Application



Key Features and Benefits

► High Adaptability VLAN Features

SNR-S2960 series support 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-S2960 series (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.

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-S2960 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-S2960 series support Combo Gigabit uplink ports, which could be designed in various ring protection applications, effectively raised the expansibility and performance of network

SNR-S2960 series support VCT & DDM(Digital Diagnostic Monitoring), help to locate the error places in the link, make it fast to solve relative problems for network management

SNR-S2960 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 supported, to add link bandwidth and abundant connection between equipments

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With Lightning Protection, SNR-S2960 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-S2960 series supports 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-S2960 product support 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.

► Comprehensive QoS

SNR-S2960 series switch can classify stream by port, 802.1p, TOS, DSCP, TCP/UDP ports and assign different level of service, supports SWRR/WRR/SP to provide QOS for voice/data/video.

With QinQ, Selective QinQ, Flexible QinQ supported, SNR-S2960 series can also differentiate data packets effectively by its service, VLAN and area

► Abundant Multicast Features

SNR-S2960 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-S2960 series combines the VLAN data into the same link, saving lots of resources for users.

The SNR-S2960 series could prevent multicast traffic from flooding through IGMP Snooping, while multicast traffic is forwarded to ports associated to multicast devices only with 3rd management software.

► Simple Management

SNR-S2960 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.

The SNR-S2960 series switch also supports DHCPv6, based on IPv6, including DHCPv6 server, client, relay and snooping, etc.

SNR-S2960 supports Secure Shell(SSH), which will ensure the security of switch management and configuration.

SNR-S2960 can be managed by general network management platform with 3rd management software.

► **Abundant IPv6 Support**

The SNR-S2960 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-S2960 series switch will be a right product to meet the requirement.

Specification

Item	SNR-S2960-24G	SNR-S2960-48G
Ports	24*10/100Base-TX + 4*Gigabits Combo(SFP/GT)	48*10/100Base-TX + 4*Gigabits Combo(SFP/GT)
Performance		
Switching Capability	12,8Gbps	17,6Gbps
Forwarding Rate	9.6Mpps	13,2Mpps
MAC Address	16K	8K
VLAN Table	4K	4K
ACL TABLE	1K	1K
Port Queues	4	4
Physical		
Dimension(WHD)	443mm x 44mm x 230mm	443mm x 44mm x 230mm
Relative Humidity	5% ~ 95%, non-condensing	5% ~ 95%, non-condensing
Power Input	AC: 100V~240V	AC: 100V~240V
Operating Temperature	0°C ~ 50°C	0°C ~ 50°C
Storage Temperature	-40°C ~ 70°C	-40°C ~ 70°C
Power Consumption	≤20W	≤30W
MTBF	>80,000 hours	>80,000 hours
EMC safety	FCC, CE, RoHS,	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 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	Support LACP 802.3ad, max 14 groups trunk with max 8 ports for each trunk, Support Source / Destination MAC/IP based load balance
	MAC Operation	Support MAC Binding Support MAC Filter Support MAC Limit per port
	Storm Control	Support Broadcast / Multicast / Unicast Storm Control Supports control and can set rate for broadcast
	Port	Support VCT & DDM Support UDLD, LLDP, LLDP-MED Support 1:1 and N:1 port mirror Jumbo Frame 2048 bytes 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
Fast Ring	MRPP(Multi-Layer Ring Protection Protocol), compatible with EAPS	

QoS Features		Support QinQ, Selective QinQ, Flexible QinQ Traffic Classification based on IEEE 802.1p CoS, IP Precedence, DSCP, TCP/UDP port number, Access Control List Supports SP, WRR, SWRR for scheduling Support Flow Shaping
Security	IEEE 802.1x	Port, MAC Based Authentication Support Guest VLAN and Auto VLAN Work with private client can manage P2P traffic
	AAA	RADIUS for IPv4 and IPv6 TACACS+ for IPv4
	ACL	Support 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	IP Source Guard support L3 Forwarding Block Support DHCP Snooping Prevent illegal multicast source and limited multicast.
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, 802.1ag NMS software management MAX Cluster 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-S2960-24G	24*10/100Base-TX + 4*Gigabits Combo(SFP/GT)
SNR-S2960-48G	48*10/100Base-TX + 4*Gigabits Combo(SFP/GT)

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