



SNR-S3650G Series L2+ Gigabit Ethernet Switch Datasheet

SNR-S3650G-24S-E



SNR-S3650G-48S-E

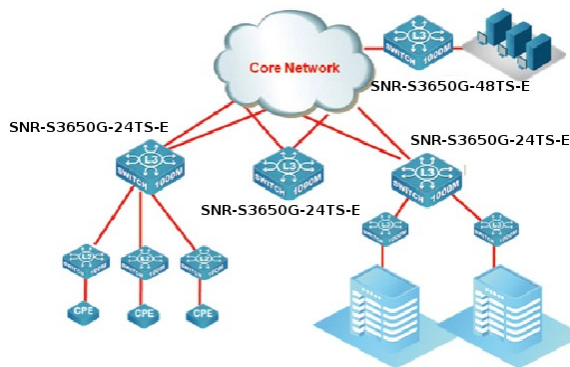


Product Overview

SNR-S3650G Series switches are 10G full optical Ethernet Layer 2+ switches for carrier and MAN networks. They support dual stack(IPv4/IPv6), comprehensive QoS, enhanced VLAN functions (Multicast VLAN, Voice VLAN, QinQ, etc), Classified Bandwidth Control, Multiple Link Aggregation, Intelligent Security Control. It is ideal for the Metro Ethernet market, using in the access layer of three-tier networks provides long distance fiber connections to end user to provide Triple play service. It also an excellent choice as a distribution/aggregation switch for large enterprises, to provide long distance fiber connections to aggregate access layer switches that are dispersed in different locations.

The 3650G series carrier level switch has 2 types: SNR-S3650G-24S-E, SNR-S3650G-48S-E. The switches support IPv6 with hardware and pass the IPv6 form certification Phase II. With the abundant ipv6 features, the product can still work for next generation network.

Application



Key Features and Benefits

► Performance and Scalability

With high switching capacity, the SNR-S3650G series switch supports wire-speed L2/L3 forwarding and high routing performance for IPv4 and IPv6 protocols.

The SFP-based Gigabit ports support various optional 1000M/100M Ethernet mini GBIC transceivers, for different distance fiber connections.

The 10 Gigabit Ethernet connectivity of SNR-S3650G is accomplished via a hot-pluggable 10 Gigabit XFP/SFP+ transceiver which supports distance up to 300 meters over multimode fiber and 10 to 80km over single-mode fiber (The distance depend the optical module chosen).

The SNR-S3650G series switch supports redundant AC and DC power supplies for different environment applications.

► L3 Features

The SNR-S3650G series delivers high-performance, hardware based IP routing. RIP, OSPF and BGP provide dynamic routing by exchanging routing information with other Layer 3 switches and routers.

► Powerfull Multicast

The SNR-S3650G supports abundant multicast features. The product support rich multicast features such as IGMPv1/v2/v3 snooping etc. As the rich application experience, the product supports Multicast VLAN Registration (MVR) with VLAN and Trunk Association, and Multicast Receiver/Sender Control and Illegal Multicast Source Detection functions.

► Easy high reliability network

MRPP is Multi-layer Ring Protection Protocol. It introduces Layer concept for loop at the basis of traditional loop protect protocol. Each loop layer has multiple same-level Ethernet loop networks. With multi-loop layers, it can achieve quick convergence from core to aggregation.

VRRP is a high reliability protocol for network and the SNR-S3650G can support also. With the protocol support the product can help customer network increase network reliability and upgrade network more smoothly.

► Comprehensive QoS

8 queues per port enable differentiated management of up to 8 traffic types.

Traffic is prioritized according to IEEE802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.

Bi-directional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources.

► Enhanced Security

IEEE 802.1X port-based access control and MAC-based access control ensure all users are authorized before being granted access to the network.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers information. And for some service is based on time, the product can support time based ACL to match the requirement.

Secure Shell (SSH) encrypts network management information via Telnet providing secure network management.

RADIUS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

► Expedient Management

SNR-S3650G series support DDM (Digital Diagnostic Monitor), which makes the detailed digital diagnostic function standard in SFF-8472 MSA. DDM is more requested by carrier users.

SNR-S3650G series support OAM to improve the effectively management mechanism, which greatly extends Ethernet application to Metropolitan Area Network and Wide Area Network by implementing OAM on Ethernet.

► Abundant IPv6 Support

The SNR-S3650G series supports IPv6 routing in hardware for maximum performance. As more network devices growing and the need for larger addressing and higher security become critical, the SNR-S3650G series will be a right product to meet the requirement. The SNR-S3650G passed IPv6 form Phase II certificate is the best proof of the application.

Specification

Item	SNR-S3650G-24S-E	SNR-S3650G-48S-E
Ports	12 GE SFP ports, 12 COMBO (SFP/GT) 2 slots and max 4 10GE,	44 GE SFP ports, 4 COMBO (SFP/GT) 2 slots and max 4 10GE,
Performance		
Switching Capability	128Gbps	176Gbps
Forwarding Rate	96Mpps	132Mpps
MAC Address	Max 16K	Max 16K
VLAN Table	Max 4K	Max 4K
ACL TABLE	Max 1k	Max 1k
Routing Table	Max IPv4 128 & IPv6 128	Max IPv4 128 & IPv6 128
L3 Interface	Max 256	Max 256
Port Queues	8	8
Physical		
Dimension(WHD)	440mm×44mm×325mm	440mm×44mm×325mm
Relative Humidity	5% ~ 90%, non-condensing	5% ~ 90%, non-condensing
Power Input	AC: 100V~240V DC: -48V ~ -60V	AC: 100V~240 VDC: -48V ~ -60V
Operating Temperature	0°C ~ 50°C	0°C ~ 50°C
Storage Temperature	-40°C ~ 70°C	-40°C ~ 70°C
Power Consumption	<70W (full) <45W (without 10GE)	<110W (full) <85 W(without 10GE)
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 up to 4K Vlan QinQ, Selective QinQ, Flexibe QinQ Voice VLAN, Port based VLAN, MAC based VLAN, IP subnet VLAN, Protocol based VLAN, Private VLAN, GVRP
	Spanning Tree	802.1D STP, 802.1W RSTP, 802.1S MSTP Root Guard, BPDU Guard, BPDU Forwarding, BPDU Tunnel
	Link Aggregation	Support LACP 802.3ad, max.128 groups trunk with max 8 ports for each trunk, Source / Destination MAC/IP based load balance
	MAC Operation	MAC Binding MAC Filtering MAC Limit per port
	Broadcast storm control	Broadcast / Multicast / Unicast Storm Control control and can set rate for broadcast
	Port	VCT & DDM UDLD, LLDP, LLDP-MED 1:1 and N:1 port mirror Jumbo Frame (9K) Loopback Interface, Port Loop Detection Bandwidth Control: At least 64Kbps step HOL preventing first packet jam, semi-duplex backpressure, duplex IEEE802.3x GE combo ports could be compatible with FE SFP module Port Protection
L3 Features	IP Protocol (IP support both of Ipv4 and Ipv6)	
	Default Routing, Static Routing, Black hole route, VLSM and CIDR	
	RIPv1/v2	
	VRRP, VRRP v3	
	BFD ARP Guard, Local ARP Proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit	

Item		SNR-S3750G-24S-E	SNR-S3750G-48S-E
QoS		8 Queues per port	
		Support 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	
		Shaping	
Security	IEEE 802.1x	Port, MAC based authentication Account based on time length and traffic Guest VLAN and Auto VLAN Work with private client can manage P2P traffic	
	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	
	ARP	ARP Binding, ARP Limit ARP Guard, Anti ARP Scanning	
	Enhanced	IP Source Guard support under controlled L3 forwarding block Support DHCP Snooping, and DHCP Snooping option 82	
Multicast		IGMP v1/v2/v3 snooping Multicast VLAN Register (MVR) Source / Destination Control Illegal Multicast Source Detection IGMP Fast Leave	
IPv6		ICMPv6, NDP, SNMP over IPv6, HTTP over IPv6, Pw6 Ping/tracer, IPv6 Telnet, IPv6 RADIUS+, IPv6 Syslog, IPv6 SNTP, IPv6 FTP/TFTP DHCPv6 Server, Relay, Snooping MLD Snooping IPv6 MVR	
Management	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 Syslog servers OAM 802.3ah DDM(Digital Diagnostic Monitor) Custer IPv4 and IPv6 Security IP management	
	Firmware & Configuration	Multiple firmware images/ configuration files Firmware upgrade via TFTP/FTP server Configuration file upload/download via TFTP/FTP server	
	DHCP	BOOTP, DHCP server/client for IP address assignment DHCP Relay, DHCP Relay Option 82, DHCP Snooping, and DHCP Snooping Option 82	

Ordering Information

Product	Description
SNR-S3650G-24S-E	10G IPv6 Routing Switch, 12* GE SFP and 12 Gigabit Combo (SFP/GT) ports and 2 slots, AC+DC redundant power supply
SNR-S3650G-48S-E	10G IPv6 Routing Switch, 44* GE SFP and 4 Gigabit Combo (SFP/GT) ports and 2 slots, AC+DC redundant power supply
SNR-S3-2SFP+	2* 10G module(SFP+ interface) for SNR-S3750, SNR-S3650 series

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