DATASHEET
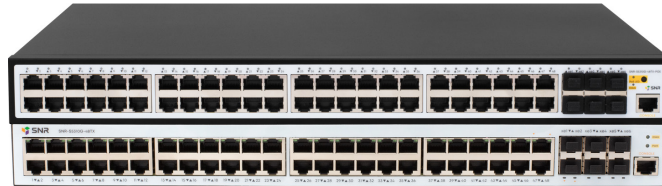
SNR S5310G series
L2+ Managed Ethernet switches

The SNR S5310G series switches are high-performance Layer 2+ GigabitEthernet switches designed for for use at the access level of telecom operators and corporate networks.

The combination of high performance and variety of functionality allows the switches to be used to solve a wide range of tasks

Main features:

· 1/10GbE SFP+ Uplink ports
· Wide range of security features
· Non-blocking switching matrix
· Simple configuration via SNR CLI
· Built-in surge protection on all copper ports
· Static routing

Switch models

Model	10/100/1000Base-T	Combo ports 10/100/1000Base-T|100/1000Base-X SFP	100/1000BaseX-SFP	1/10GbE SFP+
SNR-S5310G-48TX	48	-	-	6
SNR-S5310G-48TX-POE	48	-	-	6

High performance

The S5310G series switches are built with modern chipsets and have a non-blocking switching matrix that allows all switch ports to operate simultaneously at full speed. It also guarantees high performance and minimal network latency.

Model	Switching Capacity	Forwarding Rate	MAC
SNR-S5310G-48TX	216 Gbps	162 Mpps	32K
SNR-S5310G-48TX-POE	216 Gbps	162 Mpps	32K

Resilience

For organizing resilient networks, support for standard protocols STP/RSTP/MSTP.

Link aggregation functionality using LACP or static aggregation allows combining up to 8 ports into one logical interface, increasing the bandwidth ability and resilience at the data link level.

Due to equipping each RJ-45 port with surge protection, the switch components are protected from damage when high voltage applied to the port.

Security

The S5310G series switches provide a wide range of security features for both service providers and enterprise networks. Hardware Access Control Lists (ACLs) can filter traffic by L2-L4 header fields without performance brake.

Operational convenience

The S5310G series switches have a convenient and intuitive CLI. The system supports all the necessary functionality of the Enterprise/ISP level for building modern data networks and has extensive management and monitoring capabilities via CLI and SNMP.

Quality of Service (QoS)

Support for 8 hardware queues per port allows creating flexible service policies for different types of traffic, thus ensuring high quality of sensitive services under high load conditions. Traffic can be classified by field values in L2-L4 headers, including CoS, DSCP, VLAN ID, IP/MAC addresses, and TCP/UDP ports.

Model	Multicast group	Queues per Port	ACL
SNR-S5310G-48TX	16K	8	1536
SNR-S5310G-48TX-POE	16K	8	1536

PoE+ support

The SNR-S5310G-48TX-POE switch support PoE 802.3af и PoE+ 802.3at standards with a smart capacity management. The PoE technology reduces cost of ownership and makes network maintenance easier. It allows to supply with power directly from switch different types of equipment such as WiFi hotspots, IP/Video phones, thin clients and others.

Model	Number of PoE ports	Total PoE capacity
SNR-S5310G-48TX-POE	48	450 Watt

Dimensions and power supply

The switches are powered by a built-in AC power supply. current 100-240V AC

Model	Dimension	Weight (Brutto)	Power Consumption	Cooling	Power Supply
SNR-S5310G-48TX	440 x 44 x 280 mm	5,5 kg	50 Watt	Active	100-240V AC
SNR-S5310G-48TX-POE	440 x 44 x 330 mm	6,98 kg	550 Watt	Active	100-240V AC

Technical Brief:

Switching type
- Store-and-Forward

MAC address table
- 16K entries

MAC address table features
- Limiting max number MAC addresses on a port, switch
- Static MAC addresses
- MAC-notification

Flow Control
- 802.3x Flow Control

Jumbo frame
- 12 Kbytes

Flash memory size
- 64 Mbytes

RAM size
- 256 Mbytes

Ring Protection
- ERPS ITU-T G.8032*

Loopback Detection
- Per-port

VLAN
- 4094 VLAN
- Protocol VLAN
- Voice/MAC VLAN
- VLAN Translation

L3 functions
- Static routing
- 32 IP interfaces
- 512 IPv4 routes
- 2K IPv4 ARP

Spanning Tree
- 802.1D STP
- 802.1W RSTP
- 802.1S MSTP
- Root/BPDU Guard
- BPDU Forwarding

Port Aggregation
- LACP 802.3ad / 802.1ax
- Up to 64 groups per switch / up to 8 ports in group
- Load balance src/dst MAC, src/dst IP

Multicast
- 1024 IGMP groups
- IGMP v1/v2/v3 snooping
- IGMP Fast leave
- IGMP Snooping Querier
- Multicast VLAN Registration
- IGMP Fillter
- IGMP limit

QoS
- 8 queues per port
- Bandwidth Control
- Traffic classification per port, ACL, VLAN ID, CoS, ToS, DSCP, IPv6 Flow Label, TCP/UDP ports, protocol type, traffic class IPv6, IPv4
- Remarking DSCP, CoS/802.1p, Precedence, ToS
- SP, WFQ

ACL
- 1536 ACL
- Filtering based on: switch port, VLAN ID, COS, 802.1p priority, MAC-address, EtherType, IPv4-address, IPv6-address*, ToS, DSCP, protocol type, port number TCP/UDP
- Userdefined ACL*
- ACL for telnet/SSH connections

DHCP
- IPv4 DHCP Client/Relay
- IPv4/IPv6 DHCP Snooping
- Option 82, Option 37/38
- DHCP Snooping Binding (IP Source Guard)
- DHCP Server

Security

- SSH v1/v2
- SSL v1/v2/v3
- Limiting the number of MAC addresses on a port
- MAC Authentication Bypass
- Limiting Broadcast/Multicast/Unicast packets on a port by pps/Kbps
- Access Management (IP-MAC-Port Binding)
- Port Security
- Port Isolation
- CPU protection
- Dynamic ARP inspection (DAI)
- RA Snooping
- SAVI

Logging

- RAM logging
- Flash logging
- Logging to Syslog server
- Configuring the logging level
- Logging executed command

QinQ

- Port-Based
- Selective QinQ

Management and monitoring

- TACACS+
- RADIUS
- Different levels of user privileges
- Passing privilege levels via RADIUS/TACACS+
- SCP/SFTP/TFTP/FTP, CLI, Telnet, Console
- SSH
- SNMPv1/v2c/v3, SNMP Traps, Public & Private MIB interface
- NTP
- ZTP
- Password encryption
- Backup and restore settings
- Ping, Traceroute
- Syslog (IPv4/IPv6)
- VCT, DDM
- Multiple IP Interface
- LLDP
- Iperf3 client
- Virtual Cabel Test (VCT)
- PPPoE Intermediate agent
- Packet-capture
- Dying gasp (exept SNR-S5310G-48TX-POE)
- ULDP

Traffic Mirroring

- Support 4 groups
- One-to-one / Many-to-one
- RSPAN

Humidity

- 5%-95%, no condensation

Storage temperature

- 0C ~ 50C

Storage temperature

- -40C ~ 70C

Surge protection

- Up to 4 kV

* - functionality will be implemented in future software versions

Ordering information

Model	Description
SNR-S5310G-48TX	L2+ Managed switch, 48 x 10/100/1000Base-T, 6 x 1/10GbE SFP+. Power: 220V AC
SNR-S5310G-48TX-POE	L2+ Managed PoE switch, 48 x 10/100/1000Base-T, 6 x 1/10GbE SFP+. Power: 220V AC, POE 450W

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