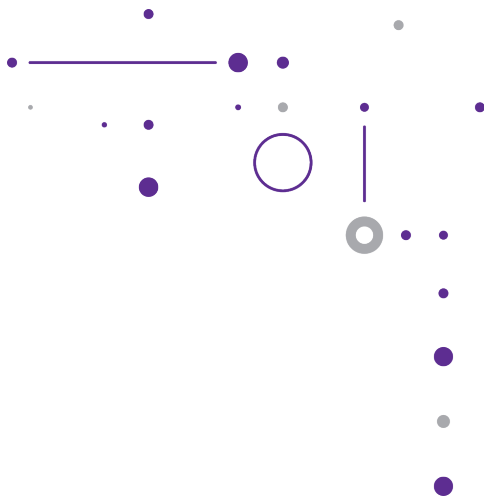
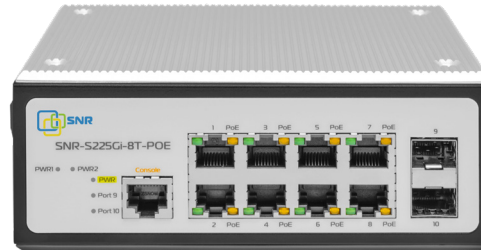


# SNR-S225Gi-8T-POE

L2 Managed Industrial Switch



SNR-S225Gi-8T-POE - GigabitEthernet managed L2 switch in industrial design with PoE support, designed for use in smart networks with difficult environmental conditions.

## Main features:

- Temperature range from -40 to +85C
- Dust protection IP40
- Possibility of mounting on a DIN-rail
- GigabitEthernet uplink and downlink ports
- Build-in power surge protection on each port
- Non-blocking architecture

## Switch Models

The SNR-S225Gi-8T-POE switches are equipped with GigabitEthernet downlink ports and GigabitEthernet SFP uplink ports.

Model	10/100/1000 Base-T	100/1000 Base-X SFP
SNR-S225Gi-8T-POE	8	2

## High performance

The SNR-S225Gi-8T-POE switches 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-S225Gi-8T-POE	20 Gbps	14,9 Mpps	8K

## Resilience

For organizing resilient networks, support for standard protocols STP/RSTP/MSTP as well as ERPS (G.8032) including ERPS + CFM is implemented.

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.

## PoE+ support

The SNR-S225Gi-8T-POE switches 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-S225Gi-8T-POE	8	180 Watt

## Multicast management

The SNR-S225Gi-8T-POE switches have all the necessary functionality for multicast control on Layer 2: IGMP Snooping, MVR, IGMP packet filtering, and multicast filtering. It allows to organize an efficient transporting of multicast-based services, such as IPTV.

## 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-S225Gi-8T-POE	512	8	1408

## Security

The SNR-S225Gi-8T-POE 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. MAC-IP-Port binding functionality helps to protect the network from IP/MAC address spoofing by clients. Support for 802.1x and MAB protocols provides authentication of devices connected to the network.

## Dimensions and and power supply

SNR-S225Gi-8T-POE is equipped with an RPS connector for connecting two redundant DC 50-57V power supplies. The switch has a DIN-rail mounting and a compact form-factor, which expands the possibilities of its application.

Model	Weight (Brutto)	Dimension	Power Consumption	Cooling	Power Supply
SNR-S225Gi-8T-POE	1,7 kg	165 x 140 x 60 mm	200 Watt	Passive	50-57V DC

## Operational convenience

The SNR-S225Gi-8T-POE switches work under the control SNR system NOS (Networking Operating System) with the typical syntax CLI and SNMP MIB for all SNR switches. 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, Web and SNMP.

## Technical Brief:

### Switching type

- Store-and-Forward

### MAC address table

- 8K entries

### Switching Capacity

- 20 Gbps

### MAC address table features

- Limiting max number MAC addresses on a port, VLAN
- Static MAC addresses
- MAC-notification
- Disabling MAC address learning on a port, VLAN

### Jumbo frame

- 10 Kbytes

### Flash memory size

- 32 Mbytes

### PoE

- 802.3af/at on 1-8 ports
- Total PoE power 180 Watt

### Ring Protection

- ERPS ITU-T G.8032
- MRPP
- Fast Link
- ULPP / ULSM

### RAM size

- 128 Mbytes

### Flow Control

- 802.3x Flow Control

### VLAN

- 4094 VLAN
- Port-based VLAN
- IEEE 802.1Q
- Private VLAN
- Protocol VLAN
- Voice/MAC VLAN
- Multicast VLAN
- VLAN Trunking
- VLAN Translation
- GVRP

### Logging

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

### Spanning Tree

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

### Loopback Detection

- Per-port
- Per-port-per-vlan
- Action shutdown/block

### Port Aggregation

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

## Security

- SSH v1/v2
- SSL v1/v2/v3
- MAC binding
- MAC filter
- Limiting the number of MAC addresses on a port
- Limiting Broadcast/Multicast/Unicast packets on a port by Kbps
- Access Management (IP-MAC-Port Binding)
- Port Security
- Port Isolation
- ARP Guard
- ARP Binding
- ARP/ND Limit
- Anti-ARP-Scan
- Dynamic ARP inspection (DAI)
- RA Snooping
- ND Snooping
- SAVI
- CPU protection
- IEEE 802.3az (Energy Efficient Ethernet),
- CE, RoHS
- CB, cUL, LVD

## DHCP

- IPv4/IPv6 DHCP Клиент/Relay
- Option 82, Option 37/38
- IPv4/IPv6 DHCP Snooping/Server

## QoS

- 8 queues per port
- Bandwidth Control
- Flow Redirect
- Traffic classification per port, ACL (L2-L4), VLAN ID, CoS, ToS, DSCP, IPv6 Flow Label, TCP/UDP ports, protocol type, traffic class IPv6, IPv4/IPv6-address.
- Per port/VLAN policing
- Single Rate Three Colors
- Dual Rates Three Colors for Policing
- Remarking DSCP, CoS/802.1p, Precedence, ToS
- SP, WRR, SWRR, DWRR

## ACL

- 1408 ACL
- Per port/VLAN
- Filtering based on: switch port, VLAN ID, 802.1p priority, MAC address, EtherType, IPv4 / IPv6 address, IPv6 traffic class, IPv6 flow label, ToS, DSCP, protocol type, TCP / UDP port number, CPU Interface Filtering
- Time Range ACL.
- Userdefined ACL
- ACL statistics

## QinQ

- Port-Based / Selective QinQ
- Flexible QinQ

## Management and monitoring

- RADIUS, TACACS+
- 802.1x (host/port based access control, Dynamic VLAN, Guest VLAN, Auto VLAN)
- MAC Authentication Bypass
- Up to 15 levels of user privileges
- Passing privilege levels via RADIUS/TACACS+
- Xmodem/TFTP/FTP, CLI, Telnet, Console
- Web/SSL, SSH (IPv4/IPv6)
- SNMPv1/v2c/v3, SNMP Traps, Public & Private MIB interface
- RMON 1,2,3,9
- Bootp/DHCP Client
- Autoprovisioning
- PPPoE Intermediate agent
- Debug commands
- Password recovery
- Password encryption
- Backup and restore settings
- Ping, Traceroute
- Syslog (IPv4/IPv6)
- SNTP/NTP (IPv4/IPv6)
- Dual IMG, Multiple Configuration Files
- Port/CPU Mirror, RSPAN
- OAM, VCT, DDM
- Multiple IP Interface
- ULDP (like Cisco UDLD), LLDP/LLDP MED
- Management of Indication



## IPv6

- ICMPv6
- NDP
- SNMP over IPv6
- HTTP over IPv6
- IPv6 ping/traceroute
- IPv6 Telnet IPv6 Syslog
- RFC1981 Path MTU Discovery
- RFC2460 IPv6
- RFC2461 4861 Neighbor Discovery
- RFC2462,4862 IPv6 Stateless Address Auto-configuration
- RFC2464 IPv6 Neighbor over Ethernet and definition
- RFC3515, 4291 IP Version 6 Addressing Architecture
- RFC2893, 4213 IPv4/IPv6 Dual-stack
- IPv6 Ready Logo Phase 2

## Multicast

- 512 IGMP groups
- IGMP v1/v2/v3 Snooping
- IGMP Fast Leave
- IGMP Snooping Immediately Leave
- IGMP Snooping Querier
- Multicast VLAN Registration (MVR)
- Multicast Source/Destination Control
- Illegal source detection
- Multicast policy
- Multicast Filter
- IGMP Snooping RADIUS Authentication
- MLD v1/v2 Snooping, MLD Snooping Immediately Leave

## Traffic Mirroring

- 4 groups
- One-to-one / Many-to-one
- Flow-based (ACL)
- RSPAN VLAN

## Humidity

- 5%-95%, no condensation

## Operating temperature

- -40C ~ 85C

## Storage temperature

- -40C ~ 70C

## Surge protection

- Up to 4 kV

## MBTF

- >800000 hours

## Power consumption

- 200 Watt



## Ordering information

Model	Description
SNR-S225Gi-8T-POE	L2 Managed industrial PoE switch, 8 x 10/100/1000Base-T, 2 x 100/1000Base-X SFP ports. Power: RPS 50-57V DC

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Firmware and  
Documentation

