DATASHEET

SNR-S7550Y-48C

L3 Managed Switch

L3/MPLS/VXLAN switch SNR-S7550Y-48C - it is the latest generation of high-performance device designed for application at the level of aggregation and the core of the network or in the data center.

Main features:

· Dynamic routing OSPF, BGP, PIM

· MPLS support, include L2 and L3 VPN

· EVPN-VXLAN support

· 128K IPv4 routes

· 104K MAC

· 48x 25/10GE SFP28

· 6x 100/40GE QSFP28

· Hot-swap PSU 1+1

SNR

Switch Models

The SNR-S7550Y-48C switch is equipped with 25/10GbE SFP28 and 100/40GbE QSFP28 interfaces.

Model	25/10G SFP28	100/40G QSFP28
SNR-S7550Y-48C	48	6

High performance

The SNR-S7550Y-48C switch supports commutation and routing simultaneously at full speed at all ports. The switch has multiple hardware profiles for optimal resource allocation.

Model	Switching Capacity	Forwarding Rate	MAC *
SNR-S7550Y-48C	3600 Gbps	2600 Mpps	40K (Standard)/ 8K (Route)/ 104K (Bridge)

L3 features

The SNR-S7550Y-48C switch supports IPv4/IPv6 hardware routing. Support for dynamic routing protocols (RIP, OSPF, BGP), multicast packet routing (PIM, MSDP), Policy-Based routing (PBR) and ECMP functionality allows building high performance multiservice L3 networks based on the SNR-S7550Y-48C switch.

Model	L3 Interfaces	Routing Table *	Arp table *
SNR-S7550Y-48C	1K	32K (Standard)/ 128K (Route)/ 8K (Bridge)	32K (Standard)/ 8K (Route)/ 32K (Bridge)

MPLS

The SNR-S7550Y-48C switch supports MPLS L3 VPN/MPLS L2 VPN(VPLS) and helps customer to construct more secure/extendable network. With max.255 VRF instances, SNR-S7550Y-48C series could be deployed as P & PE devices, guarantees the variety of services.

Model	MPLS label	VRF Instance
SNR-S7550Y-48C	8K	256

* the number of entries depends on the mode UFT (Unified Forwarding Table)

Multicast management

The switch has all the necessary functionality for multicast control on Layer 2: IGMP Snooping, MVR, IGMP packets filtering. On Layer 3 - routing of multicast traffic using the PIM-SM, PIM-DM, MSDP protocols. This allows building scalable networks to provide high-quality Triple Play services.

Quality of Service (QoS)

The Support for 8 hardware queues per port allows to create 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-S7550Y-48C	3K	8	768

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.

Stacking Support

VSF protocol allows stacking two SNR-S7550Y-48C switches into a single logical device, thereby simplifying configuration and increasing network reliability. Stacking does not require the purchase of additional cards.

Dimensions and power supply

The SNR-S7550Y-48C switch support modular 1+1 redundant power supplies and 4+1 redundant fans. Business won't be interrupted in case replacing power supplies and fans.

Model	Dimension	Power Consumption	Cooling	Power Supply
SNR-S7550Y-48C	438 x 44 x 473 mm	511 Watt	Active	Modular PSU

Operational convenience

S7550Y series SNR 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.

VXLAN

The SNR-S7550Y-48C switch support static unicast VXLAN and EVPN-VXLAN, which allows it to be used in the construction of data center networks. Support for up to 265 tunnels and up to 3.7K NVI (Network Virtual Instance) allows the SNR-S7550Y-48C to act as a TOR or Leaf switch. The open VXLAN protocol makes it easy to integrate network equipment into an existing data center network.

Model	NVI	Tunnel
SNR-S7550Y-48C	3,7K	256

Technical Brief:

Switching type
· Store-and-Forward

MAC address table
· 40K (Standard)/8K (Route) /104K (Bridge)

Switching Capacity
· 3600 Gbps

Jumbo frame
· 9K Kbytes

Flash memory size
· 32 Gbytes

RAM size
· 16 Gbytes

VLAN
· 4094 VLAN
· Port-based VLAN
· IEEE 802.1Q
· Private VLAN, Protocol VLAN
· Voice VLAN, MAC VLAN
· Port-Based, Selective QinQ
· N:1 Vlan Translation

Multicast
· IGMP v1/v2/v3 Snooping - 3K IGMP groups
· IGMP Fast Leave
· MVR
· MLD v1/v2 Snooping

Multicast Routing
· 3K routes
· IGMP proxy
· PIM-DM / PIM-SM / PIM-SSM
· Anycast RP
· MSDP

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

Port Aggregation
· Up to 128 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, enhance-profile

Ring Protection
· ERPS ITU-T G.8032
· Loopback Detection
· Fast Link

Arp table
· 32K (Standard) /8K (Route)/ 32K (Bridge)

Datacenter
· Static unicast VXLAN
· EVPN-VXLAN
· 3,7K NVI
· 256 tunnels

Routing
· 32K (Standard)/128K (Route)/ 8K (Bridge) routes
· Static routing
· Policy-Based routing (PBR)
· RIPv1/v2
· OSPFv2/v3
· BGPv4+

Signaling Protocols
· BFD

Tunneling
· GRE

Redundancy Protocols
· VRRPv2

ECMP
· Up to 32 equal routes

MPLS
· MPLS, VRF, signaling LDP
· MPLS L3 VPN, MPLS L2 VPN, VPWS
· 8K MPLS labels
· 256 VRF

ACL

- 768ACL
- IP ACL
- MAC ACL
- MAC-IP ACL
- User-Defined ACL
- Time Range ACL
- ACL for VLAN

Security

- Storm Control
- Port Security
- Limiting the number of MAC addresses on a port
- Anti-ARP-Spoofing, Anti-ARP-Scan, ARP Binding
- IP+MAC+Port binding
- ND Snooping, RA Snooping
- SAVI
- DAI
- IEEE 802.1x
- IPv4/IPv6 RADIUS, TACACS+ AAA

QoS

- 8 queues per port
- Strict Priority, WRR, Strict+WRR, DWRR, SDWRR
- Bandwidth Control
- Flow Redirect
- Traffic classification per port, ACL (L2-L4), VLAN ID, CoS, ToS, DSCP, IPv6 Flow Label
- Traffic Shaping
- Remarking DSCP, CoS/802.1p, Precedence, ToS

Management and monitoring

- Xmodem/TFTP/FTP, CLI, Telnet, Console
- Web/SSL (IPv4/IPv6), SSH (IPv4/IPv6)
- SNMPv1/v2c/v3, SNMP Trap, Public & Private MIB interface
- RMON 1,2,3,9
- Ping, Trace Route
- Syslog (IPv4/IPv6)
- SNTP/NTP (IPv4/IPv6)
- Dual IMG, Multiple Configuration Files
- Port Mirror, CPU Mirror, RSPAN, ERSPAN
- OAM, Dying GASP, VCT, DDM
- ULDP (like Cisco UDLD), LLDP/LLDP MED
- OpenFlow
- NETCONF

DHCP

- IPv4/IPv6 DHCP client
- IPv4/IPv6 DHCP Relay
- Option 82, Option 37/38
- IPv4/IPv6 DHCP Snooping
- IPv4/IPv6 DHCP server

Stacking

- Stacking via QSFP+
- Stack link bandwidth up to 200 Gbps
- Up to 2 switches in a stack

Humidity

- 5%-95%, no condensation

Operating temperature

- 0C ~ 45C

Storage temperature

- -40C ~ 70C

MBTF

- >800000 hours

Power consumption

- 511 Watt

Buffer size

- 32 Mbytes

Ordering information

Model	Description
SNR-S7550Y-48C	L3 Managed Ethernet switch, 48 x 10/25GE SFP28, 6 x QSFP28. Power: 2 slots for modular power supplies (pre-installed two PSU)

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