Navijin

DATASHEET

NETWORK INFRASTRUCTURE / L3 MANAGED SWITCH

NJS-9224X

24x 10G SFP+ + 2x 100G QSFP28 Layer 3 Managed

PRODUCT PAGE

Enterprise | Campus | Hospital | Data Center

NJS-9224X



Overview

The Navijin NJS-9224X is a Layer 3 managed switch for aggregation and core networks – 24x 10G SFP+ + 2x 100G QSFP28 Layer 3 Managed Switch. Key specifications include: 24x 10G SFP+ & 2x 100G QSFP28 High-Speed Ports; Advanced L3 Routing with BGP, OSPF, VRRP & Policy Routing. It provides static and dynamic routing, VLANs, QoS and advanced security for enterprise, campus, hospital and data center networks.

Key Features

- 24x 10G SFP+ & 2x 100G QSFP28 High-Speed Ports
- Advanced L3 Routing with BGP, OSPF, VRRP & Policy Routing
- Enterprise Security: ACL, DHCP Snooping, 802.1X, DoS Protection
- 880Gbps Switching Capacity with 654Mpps Throughput
- Flexible Management via CLI, Web, SNMPv3, SSH, & Stacking

Hardware Specifications

QSFP28 Slots	2 with each having native 100/40 Gigabit Ethernet and 4 10 Gigabit Ethernet ports
SFP+ Slots	24 10GBASE-SR/LR SFP+ interfaces, Compatible with 1000BASE-SX/LX/BX SFP transceiver
MGMT	1 x 10/100/1000BASE-T RJ45 port
Console	1 x RJ45-to-DB9 serial port (9600, 8, N, 1)
USB	1 x USB 2.0
LED Indicator	System: PWR, SYS(Green), Ports: 10G SFP+ interfaces: LNK/ACT(Green), 40G/100G QSFP Port: LNK/ACT(Green)
Dimensions (W x D x H)	442.5 x 300.1 x 44.6 mm 1U height
Weight	5716g

Power Consumption	50.5 watts/172 BTU (maximum)
Power Requirements	AC 100~240V, 50/60Hz
Fan	4

Switching Performance

Switch Architecture	Store-and-forward
Switch Capacity	880Gbps/non-blocking
Switch Throughput	654Mpps
Address Table	132K MAC address table with auto learning function
Shared Data Buffer	4.5MB
Flow Control	Back pressure for half duplex, IEEE 802.3x pause frame for full duplex
Jumbo Frame	9KB
Routing Table	IPv4: 16K, IPv6: 8K

IPv4 Layer 3 Functions

IP Routing Protocol	RIP v1/v2, OSPFv2, BGP (Border Gateway Protocol), Static routing
Multicast Routing Protocol	PIM-DM and PIM-SM, PIM-SSM
VRRP	Configure VRRP in interface VLAN ： VRRP priority, VRRP standby, VRRP track
Routing Features	VRRP, Policy routing, Load balance through equal-cost routing, BFD (Bidirectional Forwarding Detection) for OSPF and BGP
DHCP	DHCP client, DHCP server, default route, DHCP relay

IPv6 Layer 3 Functions

IP Routing Protocol	RIPng, OSPFv3, BGP4+
Routing Features	Manual tunnel, ISATAP tunnel, 6-to-4 tunnel
IPv6 Functions	ICMPv6, DHCPv6, ACLv6, IPv6 Telnet, IPv6 Neighbor Discovery, Path MTU Discovery

Layer 2 Function

Port Configuration	Port disable/enable, Auto-negotiation 10/100/1000Mbps full and half duplex mode selection, Flow control disable/enable, Bandwidth control on each port, Port loopback detect
Port Status	Display each port’s speed duplex mode, link status, flow control status and auto negotiation status
VLAN	IEEE 802.1Q tag-based VLAN, up to 4K VLAN entries, IEEE 802.1ad Q-in-Q VLAN stacking/tunneling, GVRP for VLAN management, Private VLAN Edge (PVE) supported, Protocol- based VLAN, MAC-based VLAN, IP subnet VLAN
Spanning Tree Protocol	IEEE 802.1D Spanning Tree Protocol (STP), IEEE 802.1w Rapid Spanning Tree Protocol (RSTP), IEEE 802.1s Multiple Spanning Tree Protocol (MSTP), BPDU protection, root protection
IPv4 IGMP Snooping	IPv4 IGMP v1/v2/v3 snooping, IGMP Fast Leave, IPv4 Querier mode support, IGMP Filtering and IGMP Throttling, IGMP Proxy reporting
IPv6 MLD Snooping	IPv6 MLD v1/v2 snooping, Multicast VLAN Register (MVR)
Bandwidth Control	Ingress and Egress, At least 64Kbps stream
Ring	Supports ITU-T G.8032 ERPS
Link Aggregation	IEEE 802.3ad LACP/static trunk, Supports 32 groups with 8 ports per trunk group

QoS	8 priority queues on all switch ports, Traffic Supervision and Traffic Shaping, Scheduling for priority queues, Weighted Round Robin (WRR), Strict priority (SP), SP+WRR, Traffic classification: IEEE 802.1p CoS, DSCP, DiffServ, Precedence, TOS, VLAN ID, IP ACL, MAC ACL, Port ACL, Policy-based ingress and egress QoS, 802.1p and DSCP priority remark
Authentication	IEEE 802.1x port-based network access control, AAA authentication: TACACS+ and IPv4/IPv6 over RADIUS

Security Function

Access Control List	Supports Standard and Expanded ACL, IP-based ACL/MAC-based ACL/Port-based ACL, Time- based ACL, Up to 1K entries
Security	Port isolation, Port security, supports IP + MAC + port binding, Identification and filtering of L2/L3/L4 based ACL, Defend against DOS or TCP attacks, Suppression of broadcast, multicast and unknown unicast packet, DHCP Snooping, DHCP Option 82, Command line authority control based on user levels
AAA	TACACS+ and IPv4/IPv6 over RADIUS
Network Access Control	IEEE 802.1x port-based network access control

Management Function

System Configuration	Console and Telnet, Web browser, SNMP v1, v2c
Secure Management Interfaces	SSHv2, SSLv3 TLS v1.3 and SNMPv3, Maximum 8 sessions for SSH and Telnet connection
System Management	Supports both IPv4 and IPv6 Protocols, Supports the user IP security inspection for IPv4/IPv6 SNMP, Supports MIB and TRAP, Supports TFTP, FTP, Supports IPv4/IPv6 NTP, Supports RMON 1, 2, 3, 9 groups, Supports the RADIUS authentication for IPv4/IPv6 Telnet user name and password, Supports Change of Authorization (COA), The right configuration for users to adopt RADIUS server's shell management, Supports CLI, console, Telnet, Supports Security IP safety net management function: avoid unlawful landing at non-restrictive area, Supports TACACS+, Supports SPAN, RSPAN
Stacking Management	10 members max., 2 software-defined ports function as Stacking Up and Down interfaces
Event Management	Supports syslog server for IPv4 and IPv6
SNMP MIBs	RFC 1213 MIB-II, RFC 1215 Internet Engineering Task Force, RFC 1271 RMON, RFC 1354 IP-Forwarding MIB, RFC 1493 Bridge MIB, RFC 1643 Ether-like MIB, RFC 1907 SNMPv2, RFC 2011 IP/ICMP MIB, RFC 2012 TCP MIB, RFC 2013 UDP MIB, RFC 2096 IP forward MIB, RFC 2233 if MIB, RFC 2452 TCP6 MIB, RFC 2454 UDP6 MIB, RFC 2465 IPv6 MIB, RFC 2466 ICMP6 MIB, RFC 2573 SNMPv3 notification, RFC 2574 SNMPv3 VACM, RFC 2674 Bridge MIB Extensions

Environment

Operating	Temperature: 0 ~ 50 °C, Relative Humidity: 10 ~ 85% (non-condensing)
Storage	Temperature: -40 ~ 80 °C, Relative Humidity: 5 ~ 95% (non-condensing)

Warranty & support Local RMA and technical support through our regional hub in Dubai and our authorized partners. Certificates and project pricing on request. **navijin.com** · **sales@navijin.com**

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