Navijin

DATASHEET

NETWORK INFRASTRUCTURE / L3 MANAGED SWITCH

NJS-9848X

48x 10G SFP+ and 8x 100G QSFP28 L3 Data Center

PRODUCT PAGE

Enterprise | Campus | Hospital | Data Center

NJS-9848X



Overview

The Navijin NJS-9848X is a Layer 3 managed switch for data center and core networks – 48x 10G SFP+ + 8x 40/100G QSFP28 L3 Data Center Routing Switch. Key specifications include: 48x 10G SFP+ and 8x 100G QSFP28 ports; 2.56Tbps switching capacity; MPLS and full L3 routing. It provides routing, VLANs, QoS and advanced security for enterprise, campus, hospital and data center networks.

Key Features

- Support 48x 10G SFP+ and 8x 100G QSFP28 ports
- Support 6.4Tbps switching capacity, line-rate L2/L3
- Support OSPF, BGP, IS-IS, ECMP and MPLS
- Support VXLAN / EVPN and M-LAG for data center fabrics
- Support PFC/ECN lossless Ethernet for storage and AI traffic
- Support dual hot-swap power supplies and 4 redundant fans

Hardware Specification

Power Supply

- 2 hot-swap power slots, 1+1 redundant (dual PSU included)
- AC 100~240V 50/60Hz or DC -36V~-72V

Interfaces

- 48x 10Gbps SFP+ ports (1G/10G)
- 8x 100Gbps QSFP28 ports (40G/100G)
- 1x Out-of-band MGMT port
- 1x Console port

Network Protocol

- IEEE 802.3 Ethernet MAC Protocol, IEEE 802.3x Flow Control
- IEEE 802.3ae 10G Ethernet, IEEE 802.3by 25G Ethernet
- IEEE 802.3ba 40G/100G Ethernet, IEEE 802.3bm 100G Ethernet
- IEEE 802.3ad Link Aggregation (LACP), IEEE 802.1ab LLDP
- IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP
- IEEE 802.1Q VLAN, IEEE 802.1ad QinQ, IEEE 802.1p CoS
- IEEE 802.1X Port-based Access Control
- IEEE 802.3ah / 802.1ag Ethernet OAM, ITU-T Y.1731

Network Medium

- 10GBASE-SR/LR via SFP+; 25GBASE-SR/LR via SFP28; DAC/AOC
- 40GBASE-SR4/LR4 via QSFP+; 100GBASE-SR4/LR4/CWDM4 via QSFP28

LED Indicator

- System, power, fan and alarm indicators; port Link/Act indicators

Dimensions

- 440mm x 420mm x 44mm (1U, 19" rack mount); 4 hot-swap fan slots

Working Environment

- Working Temperature: 0~50°C / Working Humidity: 10%~90%, non-condensing
- Storage Temperature: -20~70°C / Storage Humidity: 5%~95%, non-condensing
- MTBF: >200,000 hours

Performance

Switching Capacity	6.4Tbps
Packet Forwarding Rate	1920Mpps
VLANs	VLAN Range 1-4094, with a maximum active VLAN of 4K

Software Function

L3 Switching Features

- Static Routing - IPv4/IPv6
- RIP v1/v2, RIPng
- OSPF, OSPFv3
- BGP, BGP4+
- IS-IS
- Policy-Based Routing (PBR)
- Equal-Cost Multi-Path (ECMP)
- VRRP
- BFD for OSPF and BGP
- Multi-VRF
- MPLS L2VPN / L3VPN
- VXLAN, BGP EVPN
- Address Resolution Protocol (ARP)

L2 Switching Features

- Flow Control 802.3x
- Spanning Tree
- IEEE 802.1D (STP)
- IEEE 802.1w (RSTP)
- IEEE 802.1s (MSTP)
- BPDU Guard, Root Guard, Loopback Guard
- ERPS, EAPS ring protection
- Link Aggregation
- Static and IEEE 802.3ad LACP
- Interface Backup
- M-LAG (multi-chassis link aggregation)

VLAN

- 4K active VLANs
- IEEE 802.1Q Tagged-based
- QinQ and Selective QinQ
- GARP VLAN Registration Protocol (GVRP)
- Private VLAN

Multicast

- PIM-SM
- PIM-DM
- IGMP v1/v2/v3
- IGMP Snooping
- IGMP Fast Leave
- IGMP Filter
- Multicast VLAN Registration (MVR)
- MLD Snooping

Quality of Service (QoS)

- CAR
- HQoS
- Classification by MAC/IP/TCP/UDP/VLAN/CoS/DSCP/ToS
- 802.1p / DSCP re-marking
- Queue Scheduling
- SP, WRR, SP+WRR
- Tail-drop, WRED
- Traffic Shaping
- Flow Monitoring
- PFC / ECN (lossless Ethernet)

Access Control List (ACL)

- ACL Type - L2/L3/L4
- IPv4 ACL
- IPv6 ACL (ACLv6)

Security

- AAA Authentication
- RADIUS
- TACACS+
- IEEE 802.1X
- Port Security, MAC Sticky
- Port Isolation
- IP + MAC + Port Binding
- DHCP Snooping (with Option 82)
- Dynamic ARP Inspection (DAI)
- IP Source Guard
- PPPoE+
- Anti-DDoS: SYN Flood, UDP Flood
- Storm Control
- uRPF
- SSH, HTTPS
- MD5, SHA-256, RSA-1024, AES-256

IPv6

- IPv6 Static Routing
- RIPng
- OSPFv3
- BGP4+
- ICMPv6
- DHCPv6
- ACLv6
- IPv6 Neighbor Discovery (ND)
- Path MTU Discovery
- Telnet over IPv6
- IPv6 Tunnels
- Manual, ISATAP, 6to4

Management

- CLI
- Console
- Telnet
- SSH v1/v2
- WebUI
- HTTP/HTTPS
- SNMP (v1, v2c, v3)
- RMON
- File Management
- TFTP, FTP, SFTP
- Firmware Upgrade
- In-Service Software Upgrade (ISSU)
- Time Management
- NTP

Discovery

- IEEE 802.1AB Link Layer Discovery Protocol (LLDP)

Diagnostics

- Port Mirroring - SPAN
- Remote Mirroring - RSPAN
- Ethernet OAM IEEE 802.3ah
- Connectivity Fault Management IEEE 802.1ag
- ITU-T Y.1731
- BFD

Reliability

- 1+1 hot-swap power supplies
- Redundant hot-swap fans
- M-LAG
- ERPS / EAPS ring protection
- Graceful Restart
- Continuous Forwarding
- ISSU

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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