Navijin

DATASHEET

PRODUCT PAGE

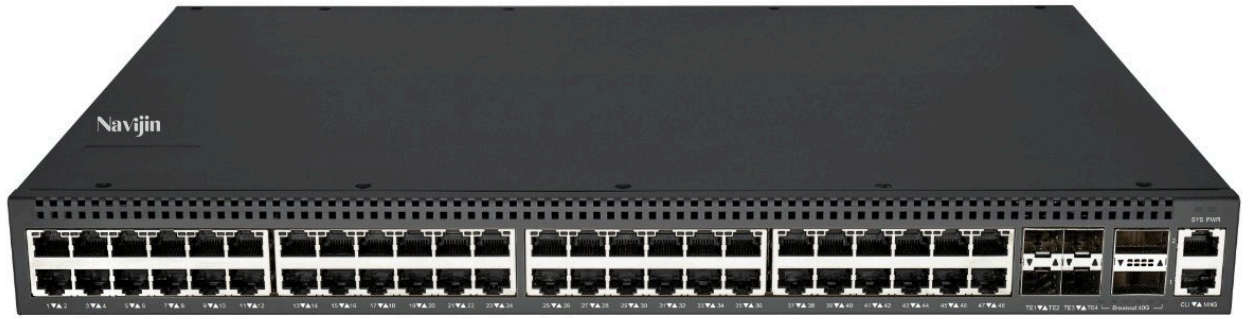
NETWORK INFRASTRUCTURE / **L3 MANAGED SWITCH**

NJS-7248M

48× 2.5G RJ45, 4× 10G SFP+ and 2× 40G QSFP+ Layer 3 Managed Switch

Enterprise | Campus | Hospital | Data Center

NJS-7248M



48×	10G / 40G	480 Gbps	360 Mpps	1+1
2.5G RJ45 PORTS	4× SFP+ · 2× QSFP+	SWITCHING CAPACITY	FORWARDING RATE	HOT-SWAP POWER

Overview

The Navijin NJS-7248M is a Layer 3 managed switch built for high-density multi-gigabit access. Forty-eight 2.5G RJ45 ports give Wi-Fi 6/7 access points and workstations headroom beyond gigabit, while 10G SFP+ and 40G QSFP+ uplinks carry the traffic to the aggregation or core layer. Full IPv4/IPv6 routing, dual hot-swap power slots and sub-50 ms ERPS ring protection make it a dependable building block for enterprise, campus, hospital and data center networks.

Key Features

- **Multi-gigabit access.** 48× 2.5G RJ45 for Wi-Fi 6/7 access points and high-speed endpoints.
- **High-speed uplinks.** 4× 10G SFP+ and 2× 40G QSFP+ toward aggregation and core.
- **Full Layer 3 routing.** Static, RIP, OSPF, BGP, VRRP, PBR and ECMP for IPv4 and IPv6.
- **Always-on power.** Dual hot-swap power slots for 1+1 redundancy; AC or DC supply.
- **Resilient topologies.** Navijin Virtual Stacking (NVS) and ERPS ring recovery under 50 ms.
- **Secure by design.** 802.1X, DHCP Snooping, DAI, IP Source Guard and anti-DDoS.

Hardware

Interfaces	48× 100M/1G/2.5G RJ45 ports 4× 10G SFP+ ports (1G/10G) 2× 40G QSFP+ ports 1× Console port (RJ45)
Power Supply	Dual hot-swap power slots 1× AC 100–240 V 50/60 Hz PSU included DC 36–72 V PSU optional
Power Consumption	< 100 W
Network Medium	2.5GBASE-T / 1000BASE-T via RJ45 (Cat5e or better) 1000BASE-SX/LX via SFP; 10GBASE-SR/LR via SFP+; 10G DAC 40GBASE-SR4/LR4 via QSFP+
LED Indicators	System, power, fan and alarm; per-port Link/Act
Dimensions	440 × 300 × 44 mm (1U, 19-inch rack mount)
Operating Environment	Temperature 0–50 °C Humidity 10–90 %, non-condensing
Storage Environment	Temperature −20–70 °C Humidity 5–95 %, non-condensing
MTBF / Noise	> 200,000 hours / 55 dBA at 25 °C

Performance

Switching Capacity	480 Gbps
Packet Forwarding Rate	360 Mpps
MAC Address Table	64K
Routing Table	IPv4 16K / IPv6 8K
ARP / ND Table	ARP 16K / ND 8K
VLANs	1–4094, 4K active VLANs, 1K SVIs
Jumbo Frame	16 KB

Standards & Protocols

IEEE 802.3 Ethernet MAC · IEEE 802.3x Flow Control · IEEE 802.3bz 2.5GBASE-T · IEEE 802.3ab 1000BASE-T · IEEE 802.3ae 10G Ethernet · IEEE 802.3ba 40G Ethernet · IEEE 802.3ad 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 · IEEE 802.3ah / 802.1ag OAM · ITU-T Y.1731

Software Features

Layer 3 Routing

- Static routing IPv4/IPv6
- RIP v1/v2, RIPng
- OSPF, OSPFv3
- BGP, BGP4+
- Policy-Based Routing (PBR)
- Equal-Cost Multi-Path (ECMP)
- VRRP
- BFD for OSPF and BGP
- ARP

Layer 2 Switching

- STP / RSTP / MSTP
- BPDU, Root and Loopback Guard
- ERPS and EAPS ring protection
- Static and LACP link aggregation
- Interface backup
- NVS virtual stacking
- IEEE 802.3x flow control

VLAN

- 4K active VLANs
- IEEE 802.1Q tag-based VLAN
- QinQ and Selective QinQ
- GVRP
- Private VLAN

Multicast

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

Quality of Service

- CAR rate limiting
- Classification by MAC/IP/TCP/UDP/VLAN/CoS/DSCP/ToS
- 802.1p / DSCP re-marking
- SP, WRR, SP+WRR scheduling
- Tail-drop, WRED
- Traffic shaping, flow monitoring

Access Control

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

Security

- AAA, 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 / UDP flood
- Storm control, uRPF
- SSH, HTTPS
- MD5, SHA-256, RSA-1024, AES-256

IPv6

- Static routing, RIPng, OSPFv3, BGP4+
- ICMPv6, DHCPv6, ACLv6
- Neighbor Discovery (ND)
- Path MTU Discovery
- Telnet over IPv6
- IPv6 tunnels: manual, ISATAP, 6to4

Management

- CLI, Console, Telnet, SSH v1/v2
- Web UI over HTTP/HTTPS
- SNMP v1/v2c/v3, RMON
- File management via TFTP, FTP, SFTP
- Firmware upgrade, ISSU
- NTP time management
- LLDP discovery

Diagnostics

- Port mirroring (SPAN)
- Remote mirroring (RSPAN)
- Ethernet OAM 802.3ah
- CFM 802.1ag, ITU-T Y.1731
- BFD

Reliability

- 1+1 hot-swap power redundancy
- NVS virtual stacking
- ERPS / EAPS ring protection
- Graceful restart
- Continuous forwarding
- ISSU

Ordering Information

MODEL	DESCRIPTION
NJS-7248M	L3 managed switch, 48× 2.5G RJ45, 4× 10G SFP+, 2× 40G QSFP+, 1U, 2 hot-swap power slots, 1× AC PSU included
Optional	Second AC power supply for 1+1 redundancy
Optional	DC 36–72 V power supply

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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