Dell PowerSwitch N3248TE-ON

48-port switch for data center management and workloads at the network edge.

The N3248TE-ON offers power-efficient and resilient 1GbE switching solution for advanced Layer 3 distribution with integrated 10GbE SFP+ and 100GbE QSFP28 ports. The N3248TE-ON has high-performance capabilities and wire- speed performance utilizing a non-blocking architecture to easily handle unexpected traffic loads. Use dual internal hot-swappable 80PLUS Platinum certified power supplies for high availability and power efficiency.

Modernize network architectures

N3248TE-ON supports VRF, allowing it to be partitioned into multiple virtual routers with isolated control and data planes on the same physical switch.

Deploy with confidence at any scale

N3248TE-ON helps create performance assurance with a data rate up to 576Gbps (full duplex) and a forwarding rate up to 800Mpps. The N3248TE-ON switches' lifetime warranty covers software upgrades, hardware repair or replacement, and optics and cables purchased with the switch.[1]

Dell's ProSupport Infrastructure Suite is available for enterprise-class support that aligns with the criticality of your systems, the complexity of your environment, and how you allocate your IT resources.

Hardware, performance and efficiency

- 1U switch with 48 line-rate RJ45 1GbE ports, and four integrated 10GbE SFP+ ports.

- Two 100GbE QSFP28 integrated rear ports.

- Add a second 80PLUS Platinum certified hot swappable internal power supply.

- Variable speed fan operation helps decrease cooling and power costs.

- Energy-efficient Ethernet and lower power PHYs reduce power to inactive ports and idle links, providing energy savings from the power cord to the port.

- Dell Fresh Air compliance for operation in environments up to 113°F (45°C) reduces cooling costs.

Deploying, configuring and managing

- OpenConfig gNMI interface for system management.

- Private VLAN extensions and Private VLAN Edge support.

- AAA authorization, TACACS+ accounting and RADIUS support for comprehensive secure access support.

- Achieve high availability and full bandwidth utilization with MLAG and support firmware upgrades without taking the network offline.

- Layer 3 Advanced IPv4 and IPv6 functionality including BGP, VRF, BFD, PIM-SM/DM/SSM, IGMP/MLD, RIPv1/v2, OSPFv2/v3

- VXLAN support

1 Select Networking products carry a Lifetime Limited Warranty with Basic Hardware Service (repair or replacement) for life. Repair or replacement does not include troubleshooting, configuration, or other advanced service provided by Dell ProSupport. See details at www.dell.com/networkingwarranty

Product	Description
N3248TE-ON	Options with pre-installed Dell SmartFabric OS10 • N3248TE-ON IO/PS Airflow, with OS10: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 2x 100G QSFP28 ports, 1x 550W AC PSU included • N3248TE-ON PS/IO Airflow, with OS10: 48x RJ45 10/100/1000Mb auto-sensing ports, 4x 10G SFP+ ports, 2x 100G QSFP28 ports, 1x 550W AC PSU included
Power cords	C13 to NEMA 5-15 C13 to C14
Power supplies (optional)	• 550W AC hot swappable with IO/PS airflow, adds redundancy to N3248TE-ON • 550W AC hot swappable with PS/IO airflow, adds redundancy to N3248TE-ON • 550W DC hot swappable with IO/PS airflow, adds DC power • 550W DC hot swappable with PS/IO airflow, adds DC power
Optics, Cables and Cable Management	Please refer to Dell Networking Transceivers and Cables spec sheet for complete list of optics and cables.
Fans (spare)	Fan module, IO to PSU Airflow Fan module, PSU to IO Airflow

Technical specifications

Hardware specifications

Physical

48 RJ45 ports of 1G, 4 SFP+ ports of 10G and 2 QSFP28 ports of 100G

Out-of-band management port (10/100/1000BASE-T)

USB (Type A) port for configuration via USB flash drive

MicroUSB (Type B) console port (MicroUSB to USB connector cable included)

RJ45 console port with RS232 signaling (RJ-45 to female DB-9 connector cable included)

Auto-negotiation for speed and flow control Auto-MDI/MDIX, port mirroring

Flow-based port mirroring Broadcast storm control

Energy-Efficient Ethernet per port settings Redundant variable speed fans

Air flow: Normal or Reverse Power supply:

550W 80PLUS. Optional 2nd PSU for reduncancy.

Dual firmware images on-board

Switching engine model: Store and forward

Chassis

Size (1RU, H x W x D):

1.71 in x 17.09 in x 15.75 in (power supply/ fan tray handle adds add'l 1.18 in)

Approximate weight

(Switch with 1 PSU installed): 15.4lbs/6.99kg

2-post rack mounting kit

Environmental

Power supply efficiency: 88% or better in all operating modes Max. thermal output (BTU/hr): 723

Power consumption max (watts): 212

Operating temperature: 32° to 113°F (0° to 45°C)

Operating relative humidity: 95%

Storage temperature: −40° to 158°F

(−40° to 70°C)

Storage relative humidity: 95%

Performance

CPU memory: 4GB SSD: 32GB

Packet buffer memory: 8MB

Switch fabric capacity (full-duplex): 576Gbps

Forwarding rate: 800Mpps

Line-rate Layer 2 switching: All (non-blocking)
Line-rate Layer 3 routing: All (non-blocking)

Network Operating System specifications

For Network Operating System (NOS) specific features, refer to Dell SmartFabric OS10 spec sheet.

Regulatory, environment and other compliance

Safety and emissions

Australia/New Zealand: ACMA RCA Class A
Canada: ICES Class A; cUL

China: CCC Class A; NAL Europe: CE Class A
Japan: VCCI Class A

USA: FCC Class A; NRTL UL; FDA 21 CFR 1040.10 and 1040.11

Eurasia Customs Union: EAC Germany: GS mark

Product meets EMC and safety standards in many countries inclusive of USA, Canada, EU, Japan, China. For more country-specific regulatory information, and approvals, please see your Dell Technologies representative.

RoHS

Product meets RoHS compliance standards in many countries inclusive of USA, EU, China, and India. For more country-specific RoHS compliance information, please see your Dell Technologies representative.

EU WEEE

EU Battery Directive REACH

Energy

Japan: JEL

IT Lifecycle Services for Networking

Experts, insights and ease

Our highly trained experts, with innovative tools and proven processes, help you transform your IT investments into strategic advantages.

Plan & Design
Let us analyze your multivendor environment and deliver a comprehensive report and action plan to build upon the existing network and improve performance.

Deploy & Integrate
Get new wired or wireless network technology installed and configured with ProDeploy. Reduce costs, save time, and get up and running fast.

Educate
Ensure your staff builds the right skills for long- term success. Get certified on Dell Networking technology and learn how to increase performance and optimize infrastructure.

Manage & Support
Gain access to technical experts and quickly resolve multivendor networking challenges with ProSupport. Spend less time resolving network issues and more time innovating.

Optimize
Maximize performance for dynamic IT environments with Dell Optimize. Benefit from in-depth predictive analysis, remote monitoring and a dedicated systems analyst for your network.

Retire
We can help you resell or retire excess hardware while meeting local regulatory guidelines and acting in an environmentally responsible way.

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