

Dell PowerSwitch E3224F-ON



High performance open networking 1GbE and 10GbE switch for modern workloads at the network edge

The Dell PowerSwitch E3224F-ON offers power-efficient and resilient 1GbE and 10GbE switching solution for advanced Layer 3 distribution for offices and campus networks. The switch has high-performance capabilities and wire-speed performance utilizing a non-blocking architecture to easily handle unexpected traffic loads. Use dual internal hot-swappable 80 PLUS Platinum certified power supplies for high availability and power efficiency. The switch offers simple management and scalability.

Modernize edge networking

Modernize your network edge with a power-efficient and resilient 1 and 10GbE switching solution.

Achieve high availability and full bandwidth utilization with Multichassis Link Aggregation (MLAG)*. E3224F-ON supports MLAG to create active/active loop-free redundancy without spanning tree. Server rooms can deliver reliable server and storage connectivity with features to help save time and avoid configuration errors. E3224F-ON supports VRF-lite*, allowing it to be partitioned into multiple virtual routers with isolated control and data planes on the same physical switch. For greater interoperability in multivendor networks, E3224F-ON offers the latest open-standard protocols.

Leverage familiar tools and practices

E3224F-ON supports Dell SmartFabric OS10, designed for greater interoperability and a lower learning curve for network administrators.

Deploy with confidence at any scale

E3224F-ON helps create performance assurance with a data rate up to 528Gbps (full duplex) and a forwarding rate up to 733Mpps. Uplink easily with built-in rear high-capacity ports.

Hardware, performance and efficiency

- 1RU switch with 24 line-rate 1GbE fiber ports and four integrated 10GbE SFP+ ports.
- 400Gbps bandwidth using two 100GbE QSFP28 integrated rear ports.
- Available with dual 80 PLUS Platinum certified hot swappable internal power supplies.
- 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.

* Network operating system specific. For details, refer to [Dell SmartFabric OS10](#) spec sheet

Deploying, configuring and managing*

- USB auto-configuration rapidly deploys the switch without complex TFTP configurations or sending technical staff to remote offices.
- Management via an intuitive and familiar CLI, embedded web server (GUI), SNMP-based management console application (including Dell OpenManage Network Manager), Telnet or serial connection.
- Private VLAN extensions and Private VLAN Edge support.
- AAA authorization, TACACS+ accounting and RADIUS support for comprehensive secure access support.
- Authentication tiering allows network administrators to tier port authentication methods such as 802.1x, MAC Authentication Bypass and Captive Portal in priority order so that a single port can provide flexible access and security.
- 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 in hardware only

Product	Description
E3200 series	With pre-installed Dell SmartFabric OS10 <ul style="list-style-type: none">• E3224F-ON IO/PS Airflow, 24x 1G SFP, 4x 10G SFP+ ports, 2x100G QSFP28 ports, 1x 550W AC PSU included
Power cords	C13 to NEMA 5-15, 3M C13 to C14, 2M
Power supplies (optional)	<ul style="list-style-type: none">• 550W AC hot swappable 80 PLUS Platinum certified with IO/PS airflow, adds redundancy to E3224F-ON• 550W DC hot swappable 80 PLUS Platinum certified with IO/PS airflow, add 2 for redundancy on E3224F-ON
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

Technical specifications

Hardware specifications

Physical
2 integrated rear 100GbE QSFP28 ports
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: I/O to power supply
Power supply: Integrated 550W
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): 14.25lbs/6.46kg
2-post rack mounting kit

Environmental
Power supply efficiency: 87% or better in all operating modes
Max. thermal output (BTU/hr): 764
Power consumption max (watts): 224
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: 4-core
CPU memory: 8GB
SSD: 32GB
Packet buffer memory: 8MB
Switch fabric capacity (full-duplex): 528Gbps
Forwarding rate: 733Mpps
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 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

Warranty
1 year return to depot constrained**

* Network operating system specific. For details, refer to [Dell SmartFabric OS10](#) spec sheet
** See details at <https://www.dell.com/networkingwarranty>

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.

Learn more at DellTechnologies.com/Services



[Learn more](#) about Dell Networking solutions



[Contact](#) a Dell Technologies Expert



[View more](#) resources



Join the conversation with [@DellTech](#)