Dell PowerSwitch E3200-ON Series

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

The E3200 switch series offers power-efficient and resilient 1GbE and 1/2.5/5/10GbE Multigigabit range of switching solution for advanced Layer 3 distribution for large enterprise offices, branches and edge networks. The series 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. The switches offer simple management and scalability.

Modernize edge networking

Modernize your network edge with a power-efficient and resilient 1/2.5/5/10GbE switching solution with dense options of 802.3at (30W) or 802.3bt (60W/90W) PoE solutions to deliver clean power to wide range network devices such as wireless access points (APs), Voice-over-IP (VoIP) handsets, video conferencing systems, security cameras, LED luminaires and many more.

Achieve high availability and full bandwidth utilization with Multichassis Link Aggregation (MLAG)*. E3200 series switches support 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. E3200 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, E3200 switches offer the latest open-standard protocols.

Leverage familiar tools and practices

E3200 series 48-port models support Enterprise SONiC Distribution by Dell Technologies, an innovative, scalable open source network operating system designed for large-scale data center fabrics with enterprise-grade management features and 24/7 global support. 24 port model supports Dell SmartFabric OS10, designed for easier deployment, greater interoperability and a lower learning curve for network administrators. E3200 switches also support the Open Network Install Environment (ONIE), enabling installation of alternate network operating systems

Deploy with confidence at any scale

E3200 series switches help create performance assurance with a data rate up to 1560Gbps (full duplex) and a forwarding rate up to 2167Mpps. Uplink easily with built-in rear high capacity ports.

* Network operating system specific. For details, refer to Dell SmartFabric OS10 and Enterprise SONiC Distribution by Dell Technologies spec sheets

Hardware, performance and efficiency

- E3224F-ON: 1RU switch with 24 line-rate 1GbE ports of fiber, four integrated 10GbE SFP+ ports and 2 integrated 100GbE QSFP28 ports

- E3248P-ON: 1RU switch with 48 line-rate 1GbE copper ports with 802.3at (30W) PoE, four integrated 10GbE SFP+ ports and 2 integrated 100GbE QSFP28 ports

- E3248PXE-ON: 1RU switch with 48 line-rate 1G/2.5G/5G/10GbE copper ports with 802.3bt (90W) PoE, four integrated 25GbE SFP28 ports and 2 integrated 100GbE QSFP28 ports

- Available with dual 80PLUS Platinum certified hot swappable internal power supplies. Optional external power supply to extend PoE budgets on specific models.

- 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[*]

- 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

- MACsec support in E3248PXE-ON

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[*] Network operating system specific. For details, refer to Dell SmartFabric OS10 and Enterprise SONiC Distribution by Dell Technologies spec sheets

Product	Description
E3200 series	**NO-OS Options (no pre-installed NOS, recommended for use with Enterprise SONiC Distribution by Dell Technologies 4.03 or later)** • E3248P-ON IO/PS Airflow: 48x RJ45 10/100/1000Mb 802.3at (up to 30W) PoE auto-sensing ports, 4x 10G SFP+ ports, 2x 100G QSFP28 ports, 1x 1050W AC PSU included • E3248PXE-ON IO/PS Airflow: 48x RJ45 10M/100M/1G/2.5G/5G/10G 802.3bt (up to 90W) PoE auto-sensing ports; 4x 25G SFP28 ports, 2x 100G QSFP28 ports, 1x 1600W AC PSU included **OS10 Options (with pre-installed Dell SmartFabric OS10 10.5.4.1 or later)** • E3224F-ON IO/PS Airflow, 24x 1G SFP, 4x 10G SFP+ ports, 2x 100G QSFP28 ports, 1x 550W AC PSU included
Power cords	C13 to NEMA 5-15, 3M C13 to C14, 2M
Power shelves (optional)	• MPS-1S Shelf, External power shelf to hold 1 PSU (any of 1050W AC, 1600W AC, 2000W AC, 1300W DC), Extends PoE budget for E3248P-ON, E3248PXE-ON [3] • MPS-3S Shelf, External power shelf to hold up to 3 PSUs (any combination of 1050W AC or 1600W AC or 2000W AC PSUs, or up to three 1300W DC PSUs), Extends PoE budget for E3248P-ON, E3248PXE-ON [3]
Power supplies (optional)	• 550W AC hot swappable with IO/PS airflow, adds redundancy to E3224F-ON • 1050W AC hot swappable, adds redundancy and/or extends PoE budget for E3248P-ON. Also used with MPS-1S shelf, MPS-3S Shelf • 1600W AC hot swappable, adds redundancy and/or extends PoE budget for E3248PXE-ON. Also used with MPS-1S shelf, MPS-3S Shelf
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 (E3224F-ON) 1050W (E3248P-ON), 1600W (E3248PXE-ON)
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 (E3224F-ON),
  16.7lbs/7.57kg (E3248P-ON),
  17.6lbs/7.98kg (E3248PXE-ON
2-post rack mounting kit

Environmental
Power supply efficiency: 87% or better in all operating modes
Max. thermal output (BTU/hr):
  785 (E3224F-ON),
  6573 (E3248P-ON),
  18487 (E3248PXE-ON)
Power consumption max (watts):
  230 (E3224F-ON),
  1683 (E3248P-ON),
  4869 (E3248PXE-ON)
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 (E3224F-ON), 16GB (E3248P-ON, E3248PXE-ON)
SSD: 32GB
Packet buffer memory:
  8MB (32MB for E3248PXE-ON)
Switch fabric capacity (full-duplex):
  528Gbps (E3224F-ON),
  576Gbps (E3248P-ON),
  1560Gbps (E3248PXE-ON)
Forwarding rate:
  733Mpps (E3224F-ON),
  800Mpps (E3248P-ON),
  2167Mpps (E3248PXE-ON)
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 and Enterprise SONiC Distribution by Dell Technologies spec sheets.

Regulatory compliance
TAA-compliant, Trade Agreements Act (19 U.S.C. & 2501-2581)

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[**]

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

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

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

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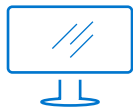
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