Dell Networking S3100 series
High-performance managed Ethernet switches designed for non-blocking access

The S3100 switch series offers a power-efficient and resilient Gigabit Ethernet (GbE) switching solution with integrated 10GbE uplinks for advanced Layer 3 distribution for offices and campus networks. The S3100 switch 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-certified power supplies for high availability and power efficiency. The switches offer simple management and scalability via an 84Gbps (full-duplex) high-availability stacking architecture that allows management of up to 12 switches from a single IP address.

Modernize campus network architectures
Modernize campus network architectures with a power-efficient and resilient 1/10GbE switching solution with dense Power over Ethernet Plus (PoE+). Select S3100 models offer 24 or 48 ports of PoE+ to deliver clean power to network devices such as wireless access points (APs), Voice-over-IP (VoIP) handsets, video conferencing systems and security cameras. For greater interoperability in multivendor networks, S3100 series switches offer the latest open-standard protocols and include technology to interface with Cisco protocol PVST+. The S3100 series supports Dell Networking OS9, VLT and network virtualization features such as VRF-lite and support for Dell Embedded Open Automation Framework.

Leverage familiar tools and practices
All S3100 switches include Dell Networking OS9 for easier deployment and greater interoperability. One common command line interface (CLI) using a well-known command language means a faster learning curve for network administrators.

Deploy with confidence at any scale
S3100 series switches help create performance assurance with a data rate up to 260Gbps (full duplex) and a forwarding rate up to 193Mpps. Scale easily with built-in rear stacking ports. Switch stacks of up to 624 ports can be managed from a single screen using the highly-available stacking architecture that allows management of up to 12 switches from a single IP address.

Hardware, performance and efficiency
- Up to 48 line-rate GbE ports of copper or 24 line-rate ports of fiber, two combo ports for fiber/copper flexibility, and two integrated 10GbE SFP+ ports
- Up to 48 ports of PoE+ in 1RU without an external power supply
- Hot swappable expansion module supporting dual-port SFP+ or dual-port 10GBaseT
- Integrated stacking ports with support up to 84Gbps
- Up to 624 ports in a 12-unit stack for high-density, high-availability aggregation and distribution in wiring closets/MDFs. Non-stop forwarding and fast failover in stack configurations
- Available with dual 80PLUS-certified hot swappable 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) helps reduce cooling costs in temperature constrained deployments

Deploying, configuring and managing
- Tool-less ReadyRails™ significantly reduces rack installation time
- Management via an intuitive and familiar CLI, SNMP-based management console application (including Dell OpenManage Network Manager), Telnet or serial connection
- Private VLAN support
- AAA authorization, TACACS+ accounting and RADIUS support for comprehensive secure access
- Authentication tiering allows network administrators to tier port authentication methods such as 802.1x, MAC Authentication Bypass in priority order so that a single port can provide flexible access and security
- Achieve high availability and full bandwidth utilization with VLT and support firmware upgrades without taking the network offline
- Interfaces with PVST+ protocol for greater flexibility and interoperability in Cisco networks
- Advanced Layer 3 IPv4 and IPv6 functionality
- Flexible routing options with policy-based routing to route packets based on assigned criteria beyond destination address
- Routed Port Monitoring (RPM) covers a Layer 3 domain without costly dedicated network taps
- OpenFlow 1.3 provides the ability to separate the control plane from the forwarding plane for deployment in SDN environments

Get more starting on day one
Trust Dell experts to lead deployments from planning and basic hardware installations to configuration and complex integrations. The Dell ProDeploy Enterprise Suite saves you time, reduces the cost of implementing new technology, and offers you confidence that your new systems will be easy to maintain.

Learn more at Dell.com/ProDeploy.

*Contact your Dell representative for a full list of validated storage arrays.

1GbE switches utilizing a comprehensive enterprise-class Layer 2 and 3 advanced feature set in Dell Networking OS9
Specifications: Dell Networking S3100 series

Ordering information
S3124F: 24x 10/100/1000Mb auto-sensing ports, 2x SFP+, 2x QGE combo media ports, 1x hot swap expansion module bay, 1x 200W PSU included
S3124FP: 24x 1000BASE-T (up to 80m distance) and 1000BASE-X (up to 10km distance) SFP+ ports, 2x SFP+, 2x QGE combo media ports, 1x hot swap expansion module bay, 1x 240W PSU included
S3148F: 48x RJ45 10/100/1000Mb PoE+ (up to 30.3W) auto-sensing ports, 2x SFP+ ports, 2x QGE combo media ports, 1x hot swap expansion module bay, 1x 200W PSU included
S3148FP: 48x RJ45 10/100/1000Mb PoE+ (up to 30.3W) auto-sensing ports, 2x SFP+ ports, 2x QGE combo media ports, 1x hot swap expansion module bay, 1x 280W PSU included

IPv6 host table size: 16K (both global + Link Local) (S32 in L3 scaled hosts mode)
Based on Layer 2, IPv4 or IPv6 headers

LAG load balancing:

- 201A/B: LLDP
- 201C: Bridging, STP
- 201Q: VLAN Tagging, QVLAN Tagging
- 201P: FCT
- MSTP
- RSTP
- 201W: VTP
- 201X: Network Access Control
- 201T: Port Based Network Access Control

IPv4 host table size:
193Mpps (S3148 and S3148P)

Switch fabric capacity:
212Gbps (S3124, S3124F and S3148)

- IPv4 static routes: 16K (IPv4)/8K (IPv6)
- MAC addresses: 56K (80K in L2 scaled mode)

Physical
- 2 rear stacking ports (2Gbps) supporting up to 84Gbps (full-duplex)
- 2 integrated front 10G SFP+ dedicated ports

- 10G native port (to support 802.11n)
- 802.3af PoE+ (for S3124P and S3148P)

Optics (optional)
- Transceiver, SFP-100BASE-X: 1310nm wavelength, up to 10km reach
- Transceiver, SFP-100BASE-X: 1310nm wavelength, up to 10km reach
- Transceiver, SFP-100BASE-X: 1310nm wavelength, up to 80km reach

Power supplies (optional)
- 200W AC hot swappable with V-Lock, adds redundancy to non-PoE switches (S3124, S3124F and S3148)
- 110W AC hot swappable, adds redundancy to S3148F and S3148P upgrade for additional PoE power (S3124F and S3148P only)

- Optics (optional)

- 200W AC hot swappable with V-Lock, adds redundancy to non-PoE switches (S3124, S3124F and S3148)
- 110W AC hot swappable, adds redundancy to S3148F and S3148P upgrade for additional PoE power (S3124F and S3148P only)

- Optical interfaces:
  - SFP+ ports, 2x GbE combo media ports, 1x hot swap expansion module bay, 1x 1100W PSU included

Cables (optional)
- Stacking cable 0.25m, 1m and 3m

- Dell Networking cable, SPF+ to SPF+, copper twinax direct attach cable, 0.5m, 1m, 3m and 7m

- Requires C115 plug

Fan and airflow
- 10,712cm³/s(17.0866in x 17.0866in x 16.0236in)
- 19970m³/h (715W AC hot swappable, adds redundancy to S3124P (S3124P non-PoE switches (S3124, S3124F and S3148 only)

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