Dell Force10 S-Series
S25V and S50V Power-over-Ethernet Switches

Modular Dell Force10 Operating System (FTOS) software delivers inherent stability; 24-port and 48-port GbE fixed configuration 1-RU switch with up to four 10 GbE ports; scalable stacking technology supports 384 GbE ports with up to eight S50Vs.

S-Series High Performance GbE/10 GbE Switch
The Dell Force10 S25V and S50V bring core-like resiliency in a compact form factor to the network edge, enabling cost-effective scalability. These high performance and low latency Gigabit Ethernet switches deliver the critical functionality that advanced enterprise network edges demand.

Key applications
Coupled with the Dell Force10 E-Series and C-Series, which deliver unmatched resiliency and performance, the S25V and S50V enable IT managers to deploy a reliable end-to-end 10 GbE solution that spans from core to network edge.
- Line-rate GbE edge switches with 10 GbE uplinks for converged services and high bandwidth desktop applications
- Cost-effective PoE-enabled 10/100/1000Base-T wiring closet aggregation of VoIP phones, wireless access points, video cameras or other IEEE 802.3af-compliant devices

Key features
The S25V and S50V are fixed configuration switches with PoE that deliver the reliability and scalability that wiring closets demand.
- 24 or 48 10/100/1000 ports in a 1-RU form factor
  - 20 or 44 ports 10/100/1000Base-T
  - 4 ports 10/100/1000Base-T shared with SFP ports
  - IEEE802.3af compliant PoE that provides up to 15.4 W per port and 790 W per switch
- Optional modules
  - 2-port 10 GbE LAN PHY (pluggable XFP modules)
  - 2-port 10 GbE (CX4)
  - 2-port 12 Gbps stacking
  - 1-port 24 Gbps stacking
- Modular Dell Force10 FTOS with advanced monitoring and serviceability functions
- Suite of security, access control and wiring closet edge features for enterprise networks
- PowerSmart™ suite of intelligent power management features provide automatic sensing, provisioning and management of PoE power
- Full complement of standards-based Layer 2, IPv4 and IPv6 features for unicast and multicast applications
- Switching fabric capacity of up to 288 Gbps and forwarding capacity of more than 131 Mpps
- Stack up to eight S25N, S25P, S25V, S50N or S50V switches to deliver a scalable and flexible high capacity solution

High performance, low latency Layer 2 Gigabit switching for powering the data center edge
Specifications: S-Series Power-over-Ethernet Switches

Ordering Information

Order Number  Description
225-2456  24-port 10/100/1000Base-T chassis with 4 SFP ports, 2 modular slots, 1AC + 1 DC power supply, FTOS software
225-2516  48-port 10/100/1000Base-T chassis with PoE, 4 SFP ports, 2 modular slots, 1AC + 1 DC power supply, FTOS software
331-5389  2 port 10 GbE XFP module
331-5313  2 port 10 GbE CMX module
331-5314  1 port 2 Gbps stacking module
331-5364  60 cm stacking cable for S50-01-12G-2S
331-5361  4 m stacking cable for S50-01-12G-2S
331-5365  60 cm stacking cable for S50-01-24G-1S
331-5263  4 m stacking cable for S50-01-24G-1S
421-6978  Layer 3 FTOS software upgrade

Physical

- S25V: 24-port 10/100/1000Base-T ports
- S50V: 48-port 10/100/1000Base-T ports
- 4 SFP ports (shared)
- 1 RJ45 console/management port with RS232 signaling

Optional modules:
- 2 line-rate ports 10 Gigabit Ethernet XFP
- 2 line-rate ports 10 Gigabit Ethernet CX4
- 2 line-rate ports 12 Gigabit Stacking
- 1 line-rate port 24 Gigabit Stacking

Size: 1 RU, 17.1 x 17.32 x 16.73 (d 4.3 x 4.4 x 4.25 cm d)
Weight: 15.62 lbs (710 kg)
ISO 7779 A-weighted sound pressure level:
- 225V: 42.9 dBA at 73.4°F (23°C), 40.2 dBA at 100°F (40°C)
- 200/240V: 50.4 dBA at 73.4°F (23°C), 52.7 dBA at 100°F (40°C)
- -48V: 50.4 dBA at 73.4°F (23°C), 52.7 dBA at 100°F (40°C)

Redundancy

Ring stacking topology with dynamic master election
Redundancy

Reliability: S25V: MTBF 107,720 hours, S50V: MTBF 130,482 hours
Storage temperature: –40° to 158°F (–40° to 70°C)

Max. non-operating specifications:
- Max. power consumption:
  - 225V: 105 W, 80 W, 132 W
  - S25V: 20 A, S50V: 23 A
- Max. current draw per system:
  - 225V: 17 A, 15 A, 12 A
- Max. thermal output:
  - S25V: 349 BTU/h, S50V: 497 BTU/h
- Power supply: 100-240 VAC 50/60 Hz, –48 VDC

Performance

- MAC addresses: 5256
- IPv4 routes: 32K
- IPv6 routes: 4K
- Switching fabric capacity: 525V: 144 Gbps, 505V: 288 Gbps
- User traffic capacity: 525V: 128 Gbps (95 Mbps), 505V: 176 Gbps (131 Mbps)
- Link aggregation: 8 links per group, 16 links per stack
- Stacking capacity: 4 queues for each stack member
- VLANs: 2048 VLANs
- Line-rate Layer 2 switching: based on Layer 2, IPv4 or IPv6 headers
- Switching latency: <5 µs for 64 byte frames
- IEEE Compliance:
  - 802.1AB: LLDP
  - 802.1ag: Connectivity Fault Management

S25V-12G Stackable, 12 line-rate ports 10 Gigabit Stacking
S25V-24G Stackable, 24 line-rate ports 10 Gigabit Stacking
S50V-48G Stackable, 48 line-rate ports 10/100/1000Base-T

RFC and I-D Compliance

General Internet Protocols

- 768 UDP
- 793 TCP
- 854 Telnet
- 959 FTP

General IPv4 Protocols

- 701 IP
- 719 ICMP
- 826 ARP
- 1027 Proxy ARP
- 1035 DNS (client)
- 1042 Ethernet Transmission
- 1191 Path MTU Discovery
- 1193 NTPv4
- 1328 CIDR
- 1420 Border Gateway Protocol

IPv6 Protocols

- 1981 Path MTU Discovery
- 2460 IPv6
- 2461 Neighbor Discovery
- 2462 Stateless Address Autconfiguration
- 1058 RIP
- 1059 OSPF

Network Management

- 1155 SNMPv1
- 1156 SNMPv2c
- 1157 SNMPv3
- 1212 Concise MIB Definitions
- 1213 SNMP Traps
- 1305 MD5
- 1321 MD5
- 1519 IPv6
- 1521 IPv4
- 1524 IPv4

Regulatory Compliance

Safety

UL/CSA 60950-1, 1st Edition
EN 60950-1, 1st Edition
IEC 60950-1, 1st Edition

EMissions

Australia/New Zealand: AS/NZS CISPR 22: 2006, Class A

Immunity

EN 300 385-1:2007 EMC for Network Equipment
EN 61000-3-2: Harmonic Currents
EN 61000-3-3: Voltage Fluctuations and Flicker
EN 61000-4-2: ESD
EN 61000-4-3: Radiated Immunity
EN 61000-4-4: EFT
EN 61000-4-5: Surge
EN 61000-4-6: Low Frequency Conducted Immunity

RohS

All S-Series components are EU RoHS compliant

The features and specifications are for FTOS. For SFTOS features, please refer to the SFTOS data sheet.