

48-port GbE fixed configuration
1-RU switch

Up to four 10 GbE uplinks

Scalable stacking technology supports
144 GbE ports in up to three S50s

S-Series S50V High Performance GbE/10 GbE Access Switch

The Force10 S50V brings core-like resiliency in a compact form factor to the network edge, enabling cost-effective scalability. With PoE and low switching latency, the high density Gigabit Ethernet switch delivers the critical functionalities that advanced enterprise network edges demand.

Key Applications

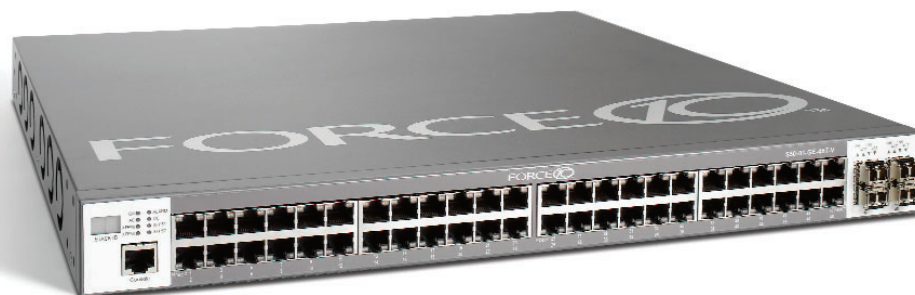
Coupled with the E-Series, which delivers unmatched resiliency and performance, the S50V enables IT managers to deploy a reliable end-to-end 10 GbE solution that spans from core to network edge.

- Line-rate GbE and 10 GbE rack switches for the most demanding data center, storage or compute facility
- PoE-ready for wiring closets that require core resiliency and high availability for VoIP and wireless connectivity
- Small form factor POP Layer 2 interconnects leveraging 10 GbE LAN PHY for cost effective metro or intra-POP transport

Key Features

The S50V is a PoE ready fixed configuration switch that delivers the reliability and scalability that wiring closets demand.

- 48 10/100/1000 ports in a 1-RU form factor
 - 44 ports 10/100/1000Base-T
 - 4 ports 10/100/1000Base-T shared with SFP pluggable optics
 - IEEE802.3af compliant PoE that provides up to 15.4W per port and 320W 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
- Switching fabric capacity of 288 Gbps and forwarding capacity of more than 131 Mpps
- Stack up to three S50Vs to deliver a scalable high capacity solution
- Supports Jumbo frames of up to 9,216 bytes; ideal for high-end server connectivity and network attached file servers
- Full complement of standards-based Layer 2 and Layer 3 features
- Built-in power redundancy



Specifications: S-Series S50V Power over Ethernet Switch



Ordering Information

ORDER NUMBER	DESCRIPTION
S50-01-GE-48T-V-1	48-port 10/100/1000BaseT chassis with four SFP ports, two modular slots, PoE, and SFTOS software
S50-01-10GE-2P	2-port 10 GbE XFP module*
S50-01-10GE-2C	2-port 10 GbE CX4 module*
S50-01-12G-2S	2-port 12 Gbps stacking module*
S50-01-24G-1S	1-port 24 Gbps stacking module*
S50-01-SSC-12G	60cm stacking cable - S50-01-12G-2S
S50-01-LSC-12G	4m stacking cable - S50-01-12G-2S
S50-01-SSC-24G	60cm stacking cable - S50-01-24G-1S
S50-01-LSC-24G	4m stacking cable - S50-01-24G-1S
S50-01-PSU-V	S50V redundant power supply unit*, includes one cable
S50-01-SW-L3	Layer 3 SFTOS software upgrade*

* Optional component for the S50V

Physical

48 line-rate ports 10/100/1000Base-T
4-ports SFP (shared)
1 RJ-45 Console/management port with RS-232 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, 1.7 h x 17.32 w x 16.73" d
(4.3 h x 44 w x 42.5 cm d)

Weight: 15.62 lbs (7.10 kg)

Power Supply: 100 - 240 VAC 50/60 Hz
-48V Terminal Type DC

Max. Thermal Output: 407 BTU/hr

Max. Current Draw per System:

- 4 A at 100/120 VAC, 2 A at 200/240 VAC

Max. Power Consumption: 470 W

19" rack mountable

Standard 1U chassis height

Max. Operating Specifications:

Temperature: 14° to 131°F (-10° to 55°C)

Operating humidity: 10 to 90% (RH), non-condensing

Max. Non-operating Specifications:

Storage Temperature: -40° to 158°F (-40° to 70°C)

Storage humidity: 10 to 90% (RH), non-condensing

Reliability: MTBF 130,000 hours

Redundancy

Redundancy in stack connectivity (self healing ring)

Redundancy with up to 4 ports of 10 GbE uplinks

Redundancy with dual modular slots

Redundancy with link aggregation across stack members

Power redundancy

Performance

Layer 2 MAC Addresses: 16K
Layer 3 Forwarding Entries: Up to 3K LPM table and 4K host entries
Switching Fabric Capacity: 288 Gbps
User Traffic Capacity: 176 Gbps (131 Mpps)
Jumbo Frame Support: 9216 bytes
Link Aggregation: 8 links per Link Aggregation Group & 48 groups per system
Stacking Capacity: Up to 96 Gbps
Queues per port: 8 Queues (8th queue reserved for stacking)
VLANs: 1024 VLANs with 4096 tag value support
Line-rate Layer 2 switching: all protocols, including IPv4 and IPv6
Line-rate Layer 3 routing: IPv4
LAG load balancing based on Layer 2, IPv4 or IPv6 headers

IEEE Compliance

802.1AB Link Layer Discovery Protocol
802.1D Bridging, STP
802.1p L2 Prioritization
802.1Q VLAN Tagging
802.1s Multiple Spanning Tree Protocol
802.1w Rapid Spanning Tree Protocol
802.1X Network Access Control
802.3ab Gigabit Ethernet (1000BASE-T)
802.3ad Link Aggregation with LACP
802.3ae 10 Gigabit Ethernet
802.3ak 10 Gigabit Ethernet (10GBASE-CX4)
802.3af Power over Ethernet
802.3i Ethernet (10BASE-T)
802.3u Fast Ethernet (100BASE-TX)
802.3x Flow Control
802.3z Gigabit Ethernet (1000BASE-X)

RFC Compliance

OSPF:

1765 OSPF Database overflow 2154 OSPF MD5 2328 OSPF v2
1850 OSPF MIB

RIP:

1058 RIP v1 2082 RIP MD5
1724 RIP MIB 2453 RIP v2

IP Multicast:

1112 IGMP 3376 IGMPv3
2236 IGMPv1 and v2 left-draft IGMP-snooping v1 and v2
2362 PIM-SM

General Routing and Switching Protocols:

768 UDP 1027 Proxy ARP
783 TFTP 1256 ICMP
791 IP 1519 CIDR
792 ICMP 1542 BootP (relay)
793 TCP 1812 IP v4 routers
826 ARP 2030 SNTP
854 Telnet 2131 BootP/DHCP helper
894 IP over Ethernet
903 Reverse ARP 2236 IGMP v1 & v2
951 BootP 2338 VRRP

Security:

1492 TACACS+ 3128 Protection Against a Variant of the Tiny Fragment Attack
2865 RADIUS

Port Security:

left-draft SSH v2, SSL, Layer 2/3/4 ACLs, IP Broadcast Control

Quality of Service:

7 user queues per port
IEEE 802.1p
IP DiffServ support
Per port rate limiting
Per queue rate limiting
Strict Priority and Weighted Round Robin Scheduling

Management and SNMP:

RADIUS/TACACS+ Authentication
Industry familiar CLI: Scripting, Command completion, Context sensitive help
1157 SNMP v1
1212 Concise MIB Definition
1213 SNMP v2 (MIB-II)
1493 Bridge MIB
1643 Ethernet-like MIB
1901 Community based SNMPv2
1905 Protocol Operations for SNMPv2
1906 Transport Mappings for SNMPv2
1907 Management Information Base for SNMPv2
1908 Coexistence between SNMPv1 and SNMPv2
1724 RIP v2 MIB extension
1850 OSPF v2 MIB
2096 IP forwarding table MIB
2233 The Interfaces Group MIB using SMI v2
2570 SNMP v3
2665 Ethernet-like interfaces
2674 VLAN MIB
2787 VRRP MIB
2819 RMON (Groups 1,2,3,9)
2933 IGMP MIB
2934 PIM MIB for IPv4

Compliances

Safety

CUS 60950, 3rd edition (US NRTL through CSA)
CSA 60950, 3rd edition
CE Mark (EN 60950)
CB Report, all country deviations
EN 60825-1 Safety of Laser Products-Part 1: Equipment Classification Requirements and User's Guide
EN 60825-2 Safety of Laser Products-Part 2: Safety of Optical Fibre Communications Systems
21 CFR 1040.10 and 1040.11 FDA laser device requirements

EMC

USA: FCC CFR47 Part 15, Subpart J, Class A
Canada: ICES-003, Issue-2, Class A
Europe: EN55022 1998 (CISPR 22: 1997), Class A
Japan: VCCI V3/01.4 Class A
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
EN 300 386 V1.3.1 (2001-09) EMC for Network Equipment
EN 55024 1998

Telecoms

JATE (for Japan)

RoHS Compliance

All S50V components are EU RoHS compliant with the exception of lead, which is exempt from the directive for network equipment.



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