

24-port GbE fixed configuration
1-RU switch

Up to four 10 GbE uplinks

Scalable stacking technology
supports 72 fiber 100M or GbE
ports in up to three S25Ps

S-Series S25P High Performance GbE/10 GbE Access Switch

The Force10 S25P is a compact form factor switch that delivers high Gigabit Ethernet fiber density at the network edge, enabling cost-effective scalability while eliminating bandwidth bottlenecks at key aggregation points.

Key Applications

Coupled with the E-Series, which delivers unmatched resiliency and performance, the S25P enables IT managers to deploy a reliable end-to-end 10 GbE solution that spans from core to network edge.

- Small form factor intra-POP Layer 2 interconnects
- Extend fiber reach in small to medium metro POPs
- 10 GbE LAN PHY or DWDM optics for cost-effective metro or inter-POP transport
- Scalable multi tenant unit (MTU) core or distribution switch
- Server interconnects from 100Base-FX to GbE speeds

Key Features

The S25P is a reliable and scalable fixed configuration fiber switch for high performance Ethernet environments.

- 24 SFP ports in a 1-RU form factor with two modular slots
 - 20 ports GbE or 100Base FX with SFP pluggable optics ports
 - 4 ports 10/100/1000Base-T shared with SFP pluggable optics ports
- 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 144 Gbps and forwarding capacity of more than 95 Mpps
- Stack up to three S25Ps to deliver a 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 S25P Fiber Switch



Ordering Information

ORDER NUMBER	DESCRIPTION
S25-01-GE-24P-AC	24-port 100FX/GbE SFP chassis with four 10/100/1000BaseT ports, two modular slots and two AC power supplies
S25-01-GE-24P-DC	24-port 100FX/GbE SFP chassis with four 10/100/1000BaseT ports, two modular slots and two DC power supplies
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 for S50-01-12G-2S
S50-01-LSC-12G	4m stacking cable for S50-01-12G-2S
S50-01-SSC-24G	60cm stacking cable for S50-01-24G-1S
S50-01-LSC-24G	4m stacking cable for S50-01-24G-1S
S50-01-SW-L3	Layer 3 software upgrade*

* Optional module for S25-01-GE-24P

Physical

24 line-rate ports supporting GbE or 100Base-FX SFPs
4-ports 10/100/1000Base-T (shared with SFP ports)
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: 14.43 lbs (6.56 Kg)

Power Supply:

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

Max. Thermal Output: 307 BTU/h

Max. Current Draw per System:

- 4 A at 100 VAC, 2 A at 240 VAC

Max. power consumption: 90 W

19" rack mountable

Standard 1U chassis height

Max. Operating Specifications:

- Temperature: 32° to 122°F (0° to 50°C)

Operating humidity: 10 to 85% (RH), non-condensing

Max. Non-operating Specifications:

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

- Storage humidity: 5 to 95% (RH), non-condensing

Reliability: MTBF 116,000 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

Built-in Power Redundancy

Performance

Layer 2 MAC Addresses: 16K
Layer 3 Forwarding Entries: Up to 3k LPM table and 4k host entries
Switching Fabric Capacity: 144 Gbps
User traffic capacity: 128 Gbps (95 Mpps)
Jumbo Frame Support: 9216 bytes
Link Aggregation: 8 links per Link Aggregation Group and 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, Double 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)
802.3i Ethernet (10BASE-T)
802.3u Fast Ethernet (100BASE-TX, 100BASE-FX)
802.3x Flow Control
802.3z Gigabit Ethernet (1000BASE-X)

RFC Compliance

OSPF:

1765 OSPF Database 2154 OSPF MD5
Overflow 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 SNMP
854 Telnet 2131 BootP/DHCP helper
894 IP over Ethernet
903 Reverse ARP 2236 IGMP v1 and v2
951 BootP 2338 VRRP

Security:

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

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, 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 S25P components are EU RoHS compliant with the exception of lead, which is exempt from the directive for network equipment.



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