



FortiSwitch™ Secure Access Switches



FortiSwitch

FortiSwitch 28C, 108D-POE, 124D, 124D-POE, 224D-POE, 324B-POE, 348B and 448B Secure Access Switches

FortiSwitch Secure Access switches deliver outstanding security, performance and manageability for threat conscious small to mid-sized businesses, distributed enterprises and branch offices. Tightly integrated into the FortiGate® Network Security Platform, the FortiSwitch Secure Access switches can be managed directly from the familiar FortiGate interface. This single pane of glass management provides complete visibility and control of all users and devices on the network, regardless of how they connect.

When a device connects to a Secure Access Switch Ethernet port, it is first identified, and then the user is authenticated. Once authenticated, access to the network is granted based on pre-defined security policy from the FortiGate, ensuring secure network access across the enterprise, without impacting the user experience.

Secure Managed Switches for Wire Closet Installation

The FortiSwitch 224D-POE, 324B-POE, 348B, 124D, 124D-POE and 448B switches are ideal for the next generation applications, where increased productivity can be achieved through faster network access speeds via dedicated Gigabit Ethernet ports. With a compact 1RU form factor, these switches are ideally suited for high density enterprise or classroom wire closet installations, delivering a truly secure network access platform for wired Ethernet devices.

Simple Network Deployment and Compliance

The Power over Ethernet (PoE) capability enables simple installation of wireless Access Points and IP phones in the network, with power and data being delivered over the same network cable. There is no need to contract electricians to install power for your PoE capable devices anymore, reducing your overall network TCO.

By leveraging the FortiSwitch VLAN segmentation feature of the switches, enterprise networks can support the convergence of voice, data and wireless traffic onto a single network platform. FortiSwitch network segmentation can even be managed from the FortiGate interface, simplifying the process of meeting compliance requirements for data separation.

FortiSwitch Secure Access switches deliver outstanding security, performance and manageability for threat conscious small to mid-sized businesses, distributed enterprises and branch offices.

Highlights

- Secure Access switches suitable for wire closet and desktop installations.
- Devices are identified and users authenticated prior to being granted access to the network.
- Centralized security management and reporting from FortiGate interface.
- Up to 48 ports in a compact 1 RU form factor.
- Power over Ethernet capable, including PoE+.
- Ideal for converged network environments; enabling voice, data and wireless traffic to be delivered across a single network.



Key Features & Benefits

Single Management Framework	Reduces complexity and decreases management cost with network security functions managed through a single console.
Single Policy Provisioning	The same security policy can apply to a user or device regardless of how or where they connect to the network. Enables access to certain network ports based on the role of a user within the organization, such as in shared conference rooms or engineering facilities.
Centralized Authentication	All users are authenticated against the same user database, regardless of whether they connect to the wired or wireless network, including temporary guest users.
Role-Based Ports	Enables access to certain network ports based on the role of a user within the organization, such as in shared conference rooms or engineering facilities.

SOFTWARE FEATURES (FORTILINK MODE)

The following capabilities are enabled when FortiGate wireless and wired controller is managing the FortiSwitch devices.

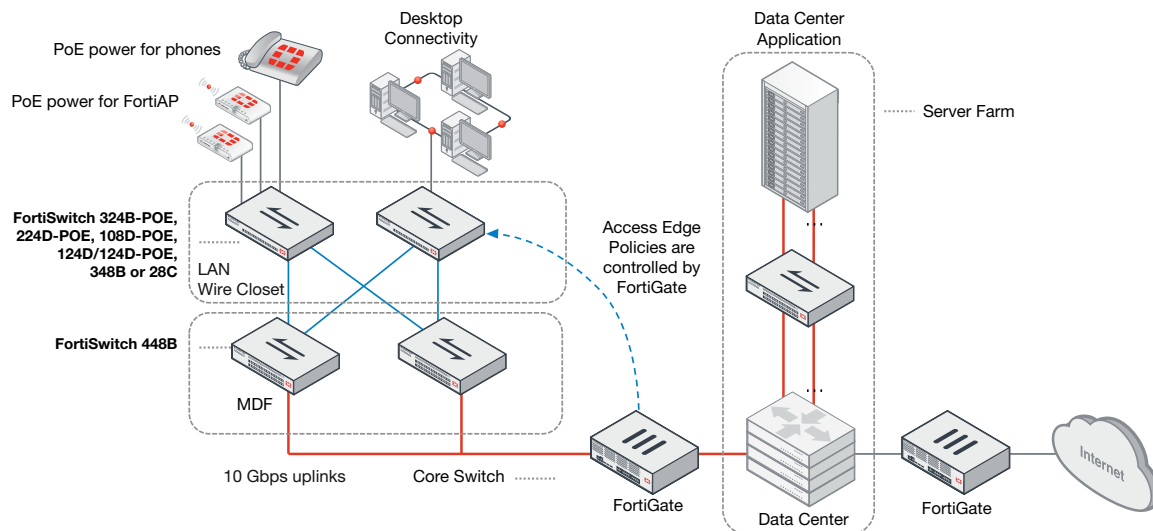
	FS-28C	FS-108D-POE*	FS-124D*	FS-124D-POE*	FS-224D-POE*	FS-324B-POE	FS-348B	FS-448B
Security								
802.1x port authentication and Captive Portal web authentication to identify guests and employees and provide segmentation.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Role-based access control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MAC black/white listing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Layer 3, 4 Stateful firewall to control user access to network	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Routing								
Layer-3 routing, OSPF, BGP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Inter-VLAN routing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Visualization								
Identifies which user and device is connected to which port	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Identifies application usage and policy violations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Front panel switch display on FortiOS GUI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Management								
Centralized management of several switches from FortiGate	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Centralized software upgrade	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Centralized VLAN configuration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Centralized authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Centralized policy control of users and devices	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* For -D- models there is a dependency on the software version running on the FortiSwitch and on the FortiGate in order to use FortiLink mode.

FortiLink is only enabled on certain ports on FortiGate and FortiSwitch. Refer to FortiLink documentation.

Note: Please refer to FortiSwitch Admin Guide for details re: port connections supported for FortiLink functionality.

FortiSwitch deployment example



SOFTWARE FEATURES (STANDALONE MODE)

	FS-28C	FS-108D-POE*	FS-124D	FS-124D-POE	FS-224D-POE*	FS-324B-POE	FS-348B	FS-448B
Layer 2								
Jumbo Frames	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Auto-negotiation for port speed and duplex	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.1D MAC Bridging/STP (will interoperate)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP, will interoperate)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.1p Mapping to Priority Queue	No	No	No	No	No	No	No	No
Edge Port / Port Fast	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
IEEE 802.1Q VLAN Tagging	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Private VLAN	No	No	No	No	No	Yes	Yes	No
IEEE 802.3ad Link Aggregation with LACP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unicast/Multicast traffic balance over trunking port (dst-ip, dst-mac, src-dst-ip, src-dst-mac, src-ip, src-mac)	Yes (MAC only)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.1AX Link Aggregation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.3x Flow Control and back-pressure	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.3 10Base-T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.3u 100Base-TX	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.3z 1000Base-SX/LX	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.3ab 1000Base-T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
802.3ae 10 Gigabit Ethernet	No	No	No	No	No	No	No	Yes
802.3 CSMA/CD Access Method and Physical Layer Specifications	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.3af-2003/2009 POE	No	Yes	No	Yes	Yes	Yes	No	No
Layer 3								
Static Routing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security								
Port Mirroring	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Admin Authentication Via RFC 2865 RADIUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Supports Fortified Access (FortiLink) mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
802.1x authentication with port-based assignment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Management								
Telnet / SSH	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HTTP / HTTPS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
SNMP v1/v2c	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SNTP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LLDP (802.1ab, Link Layer Discovery Protocol) (receive only)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Standard CLI and web GUI interface	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Software download/upload: TFTP/FTP/GUI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC and MIB Support**								
RFC 2571 Architecture for Describing SNMP Framework	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 2131 DHCP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 854 Telnet Server	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 2865 RADIUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 1643 Ethernet-like Interface MIB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 3176 sFlow	No	No	No	No	No	No	No	No
RFC 1213 MIB-II	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 1354 IP Forwarding Table MIB	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 2572 SNMP Message Processing and Dispatching	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 1573 SNMP MIB II	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 1157 SNMPv1/v2c	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RFC 2030 SNTP	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

* Note: Check release notes for software feature availability.

** MIBs have been tested with Solarwinds NPM tool.

SPECIFICATIONS

	FORTISWITCH 28C	FORTISWITCH 108D-POE	FORTISWITCH 124D	FORTISWITCH 124D-POE
Hardware Specifications				
Total Network Interfaces	8x GE RJ45 LAN ports and 2x GE RJ45 WAN ports	8x GE RJ45 ports and 2x GE RJ45/SFP combo ports	24x GE/RJ45 ports and 2x GE SFP ports	24x GE/RJ45 ports and 2x GE SFP ports
Dedicated Management 10/100/1000 Ports	0	0	0	1
RJ-45 Serial Console Port	0	0	1	1
Form Factor	Desktop (Rack Mount option)	1 RU Rack Mount	1 RU Rack Mount Appliance	1 RU Rack Mount Appliance
Power over Ethernet (PoE) Ports	0	8 (802.3af)	0	12
PoE Power Budget	0	75 W	0	100 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years	> 10 years
System Specifications				
Switch Type	Managed	Managed	Web and CLI Managed	Web and CLI Managed
Switching Capacity	16 Gbps	20 Gbps	52 Gbps	52 Gbps
Packets Per Second	32 Mpps	40 Mpps	104 Mpps	104 Mpps
MAC Address Storage	2,000	16,000	8K	16K
Network Latency	< 2µs	< 2µs	< 1µs	< 1µs
VLANs Supported	512 configurable from range of 4096 with support for VTP v1/V2	4K	4K	4K
Link Aggregation Group Size	2	8	12	12
Total Link Aggregation Groups	1	4	12	12
Packet Buffers	192 KB	1 MB	1.5 MB	1.5 MB
Dimensions				
Height x Width x Length (inches)	1.4 x 8.4 x 7.1	1.7 x 7.9 x 13	1.7 x 5.5 x 17.3	1.7 x 17.3 x 18.1
Height x Width x Length (mm)	35 x 214 x 180	44 x 200 x 330	44 x 140 x 440	44 x 330 x 460
Weight	1.1 lbs (0.5 kg)	4.19 lbs (1.9 kg)	3.74 lbs (1.7 kg)	19.40 lbs (8.8 kg)
Environment				
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	External DC power adapter	AC built in	AC built in	AC built in + RPS option
Power Consumption (Average / Maximum)	12 W / 15 W	52.8 W / 95.1 W	14 W / 19 W	19 W / 131 W
Heat Dissipation	45.0 BTU/h	324.32 BTU/h	64.81 BTU/h	448 BTU/h
Operating Temperature	32–104°F (0–40°C)	32–113°F (0–45°C)	32–122°F (0–50°C)	32–122°F (0–50°C)
Storage Temperature	-13–158°F (-25–70°C)	-13–158°F (-25–70°C)	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)
Humidity	20–90% non-condensing	5–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Certification and Compliance				
FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB, RoHS				
Warranty				
Fortinet Warranty		Limited lifetime* warranty on all models		
* Fortinet Warranty Policy: http://www.fortinet.com/doc/legal/EULA.pdf				



FortiSwitch 28C



FortiSwitch 108D-POE



FortiSwitch 124D

SPECIFICATIONS

	FORTISWITCH 224D-POE	FORTISWITCH 324B-POE	FORTISWITCH 348B	FORTISWITCH 448B
Hardware Specifications				
Total Network Interfaces	20x GE RJ45 ports and 4x GE RJ45/SFP combo ports	20x GE RJ45 ports and 4x GE RJ45/SFP combo ports	48x GE RJ45 ports and 2x GE RJ45/SFP combo (available only in FortiLink mode)	48x GE RJ45 ports and 2x 10 GE SFP+ ports (1x GE mode is not supported on the 448B on its SFP+ ports)
Dedicated Management 10/100/1000 Ports	0	1	0	0
RJ-45 Serial Console Port	1	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	12 (802.3af)	24 (802.3af, includes 4x 802.3at ports)	0	0
PoE Power Budget	180 W (802.11af)	185 W	0	0
Mean Time Between Failures	> 10 years	> 10 years	> 10 years	> 10 years
System Specifications				
Switch Type	Managed	Managed	Managed	Web and CLI Managed
Switching Capacity	48 Gbps	48 Gbps	96 Gbps	136 Gbps
Packets Per Second	96 Mpps	96 Mpps	192 Mpps	272 Mpps
MAC Address Storage	16,000	16,000	16,000	16,000
Network Latency	< 2µs	< 2µs	< 2µs	< 2µs
VLANs Supported	4K	512 configurable from range of 4096 with support for VTP v1/v2	512 configurable from range of 4096 with support for VTP v1/v2	512 configurable from range of 4096 with support for VTP v1/v2
Link Aggregation Group Size	8	8	8	8
Total Link Aggregation Groups	12	12	24	24
Packet Buffers	1 MB	1 MB	1 MB	1 MB
Dimensions				
Height x Width x Length (inches)	1.7 x 17.3 x 10.1	1.7 x 17.2 x 12.2	1.7 x 17.3 x 10.3	1.73 x 17.32 x 10.16
Height x Width x Length (mm)	44 x 440 x 257	44 x 438 x 311	44 x 440 x 262	44 x 440 x 258
Weight	8.49 lbs (3.85 kg)	10.15 lbs (4.6 kg)	8.8 lbs (4.0 kg)	8.6 lbs (3.9 kg)
Environment				
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Supply	AC built in	AC built in	AC built in	AC built in
Power Consumption (Average / Maximum)	190 W / 225 W	263 W / 310 W	56.1 W / 67.3 W	57.1 W / 68.5 W
Heat Dissipation	767.7 BTU/h	1058 BTU/h	230 BTU/h	233.7 BTU/h
Operating Temperature	32–104°F (0–40°C)	32–104°F (0–40°C)	32–104°F (0–40°C)	32–104°F (0–40°C)
Storage Temperature	–4–158°F (–20–70°C)	–13–158°F (–25–70°C)	–13–158°F (–25–70°C)	–13–158°F (–25–70°C)
Humidity	10–90% non-condensing	5–95% non-condensing	20–90% non-condensing	20–90% non-condensing
Certification and Compliance				
	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB, RoHS	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB, RoHS	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB, RoHS	FCC, C-Tick, VCCI, CE, UL, CB, RoHS
Warranty				
Fortinet Warranty	Limited lifetime* warranty on all models			

* Fortinet Warranty Policy: <http://www.fortinet.com/doc/legal/EULA.pdf>



FortiSwitch 224D-POE



FortiSwitch 324B-POE



FortiSwitch 348B



FortiSwitch 448B

ORDER INFORMATION

Product	SKU	Description
FortiSwitch 28C	FS-28C	10x GE RJ45 ports (including 2x WAN ports, 8x switch ports), FortiGate switch controller compatible.
FortiSwitch 108D-POE	FS-108D-POE	L2 PoE Switch — 8x GE RJ45 ports (including 8x PoE ports with 75 W power budget), 2x shared media pairs (including 2x GE RJ45, 2x GE SFP slots), FortiGate switch controller compatible.
FortiSwitch 124D	FS-124D	L2 PoE Switch — 24x GE RJ45 ports, 2x GE SFP slots. Fanless switch. FortiGate switch controller compatible.
FortiSwitch 124D-POE	FS-124D-POE	L2 PoE Switch — 24x GE RJ45 ports (including 12x PoE+ ports with 100 W power budget), 2x GE SFP slots, FortiGate switch controller compatible.
FortiSwitch 224D-POE	FS-224D-POE	L2 PoE Switch — 20x GE RJ45 ports (including 12x PoE ports with 185 W power budget), 4x shared media pairs (including 4x GE RJ45, 4x GE SFP slots), FortiGate switch controller compatible.
FortiSwitch 324B-POE	FS-324B-POE	L2 PoE Switch — 20x GE RJ45 ports (including 16x PoE, 4x GE PoE+), 4x shared media pairs (including 4x GE RJ45 with PoE, 4x GE SFP slots), FortiGate switch controller compatible.
FortiSwitch 348B	FS-348B	L2 Switch — 48x GE RJ45 ports, 2x shared media pairs (including 2x GE RJ45, 2x GE SFP slots), FortiGate switch controller compatible.
FortiSwitch 448B	FS-448B	L2 Switch — 48x GE RJ45 ports, 2x 10 GE SFP+ ports, FortiGate Switch controller compatible.
Accessories		
1 GE SFP RJ45 Transceiver Module	FG-TRAN-GC	1 GE SFP RJ45 transceiver module for all systems with SFP and SFP/SFP+ slots.
1 GE SFP SX Transceiver Module	FG-TRAN-SX	1 GE SFP SX transceiver module for all systems with SFP and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, Short Range	FG-TRAN-SFP+SR	10 GE SFP+ transceiver module, short range for all systems with SFP+ and SFP/SFP+ slots.
10 GE SFP+ Transceiver Module, Short Range	FS-TRAN-SFP+SR	10 GE SFP+ transceiver module, short range for FortiSwitch with SFP+ and SFP/SFP+ slots.
1 GE SFP RJ45 Transceiver Module	FS-TRAN-GC	1 GE SFP RJ45 transceiver module for FortiSwitch with SFP and SFP/SFP+ slots.
External Redundant AC Power Supply	FRPS-100*	External redundant AC power supply for up to 4 units: FG-300C, FG-310B, FS-348B and FS-448B. Up to 2 units: FG-200B, FG-200D, FG-240D, FG-300D, FG-500D, FDD-200B, FDD-400B and FDD-800B. Not supported for: FG-200D-POE/240D-POE.
	FRPS-740**	External redundant AC power supply for up to 2 units: FS-124D-POE.

* Works with the FS-448B and FS-348B.

** Works with the FS-124D-POE only.



GLOBAL HEADQUARTERS
Fortinet Inc.
899 Kifer Road
Sunnyvale, CA 94086
United States
Tel: +1.408.235.7700
www.fortinet.com/sales

EMEA SALES OFFICE
120 rue Albert Caquot
06560, Sophia Antipolis,
France
Tel: +33.4.8987.0510

APAC SALES OFFICE
300 Beach Road 20-01
The Concourse
Singapore 199555
Tel: +65.6513.3730

LATIN AMERICA SALES OFFICE
Prol. Paseo de la Reforma 115 Int. 702
Col. Lomas de Santa Fe,
C.P. 01219
Del. Alvaro Obregón
México D.F.
Tel: 011-52-(55) 5524-8480