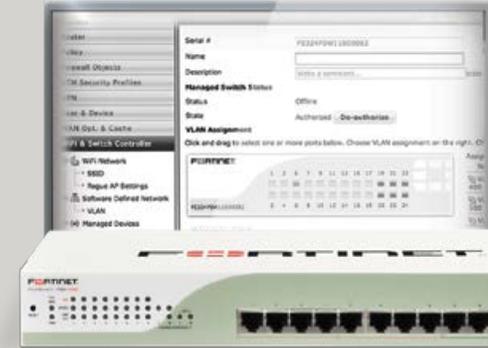




FortiSwitch™ D-Series
Secure Access Switches



FortiSwitch D-Series

FortiSwitch 108D-POE, 124D, 124D-POE, 224D-FPOE, 224D-POE and 548D-FPOE

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 548D-FPOE, 224D-FPOE, 224D-POE, 124D and 124D-POE 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.

CAPABILITIES: FORTILINK MODE VS. STANDALONE MODE

	FS-108D-POE*, FS-124D*, FS-124D-POE*, FS-224D-FPOE*, FS-224D-POE* and FS-548D-FPOE*	
	STANDALONE SWITCH	FORTILINK MODE (FORTIGATE)
Security		
802.1x Port Authentication	Yes	Yes
MAC Address-Based Authentication	No	Yes
MAC Black/White Listing	No	Yes
Layer 3,4 Stateful Firewall to Control Access	No	Yes
TACACS+/RADIUS Admin Access	Yes	Yes
DHCP Relay/DHCP Snooping	No	Yes
Virtual Domain	No	Yes
Routing		
Layer 3, Dynamic Routing	No	Yes
Inter-VLAN Routing	No	Yes
Policy-Based Routing	No	Yes
DNS Server	No	Yes
Management		
Auto Discovery of Multiple Switches	1	16 (model dependent)
Software Upgrade of Switches	1 switch	Central upgrade of each switch
VLAN Configuration	1 switch	Central VLAN provisioning of entire switch network
Policy Control of Users and Devices	No	Yes
Syslog Collection	Yes	Yes (FortiGate syslog only)
Switch POE Control	Yes	No**
LAG support from FortiSwitch to FortiGate	Yes	No**
UTM Features		
Firewall	No	Yes
IPS, AV, Application Control	No	Yes

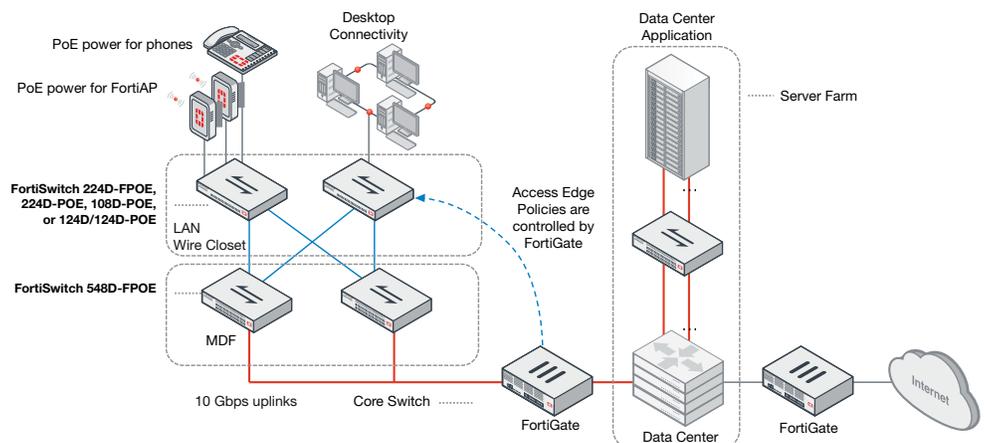
* For -D- models there is a dependency on the software version running on the FortiSwitch and on the FortiGate in order to use FortiLink mode.

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.

** Roadmap

FortiSwitch deployment example



SOFTWARE FEATURES (STANDALONE MODE)

FS-108D-POE*, FS-124D*, FS-124D-POE*, FS-224D-FPOE*, FS-224D-POE* and FS-548D-FPOE*	
Layer 2	
Jumbo Frames	Yes
Auto-negotiation for port speed and duplex	Yes
IEEE 802.1D MAC Bridging/STP (will interoperate)	Yes
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP, will interoperate)	Yes
IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	Yes
IEEE 802.1p Mapping to Priority Queue	Not supported
Edge Port / Port Fast	Yes
IEEE 802.1Q VLAN Tagging	Yes
Private VLAN	Not supported on FS-108D-POE, FS-224D-POE
IEEE 802.3ad Link Aggregation with LACP	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)
IEEE 802.1AX Link Aggregation	Yes
IEEE 802.3x Flow Control and back-pressure	Yes
IEEE 802.3 10Base-T	Yes
IEEE 802.3u 100Base-TX	Yes
IEEE 802.3z 1000Base-SX/LX	Yes
IEEE 802.3ab 1000Base-T	Yes
802.3ae 10 Gigabit Ethernet	Not supported
802.3 CSMA/CD Access Method and Physical Layer Specifications	Yes
IEEE 802.3af-2003/2009 POE	Not supported on FS-124D
Layer 3	
Static Routing (Management Access only)	Yes
Security	
Port Mirroring	Yes
Admin Authentication Via RFC 2865 RADIUS	Yes
Supports Fortified Access (FortiLink) mode	Yes
802.1x authentication with port-based assignment	Yes
Management	
Telnet / SSH	Yes
HTTP / HTTPS	Yes
SNMP v1/v2c	Yes
SNTP	Yes
LLDP (802.1ab, Link Layer Discovery Protocol) (receive only)	Yes
Standard CLI and web GUI interface	Yes
Software download/upload: TFTP/FTP/GUI	Yes
RFC and MIB Support**	
RFC 2571 Architecture for Describing SNMP Framework	Yes
DHCP Client	Yes
RFC 854 Telnet Server	Yes
RFC 2865 RADIUS	Yes
RFC 1643 Ethernet-like Interface MIB	Yes
RFC 3176 sFlow	Not supported
RFC 1213 MIB-II	Yes
RFC 1354 IP Forwarding Table MIB	Yes
RFC 2572 SNMP Message Processing and Dispatching	Yes
RFC 1573 SNMP MIB II	Yes
RFC 1157 SNMPv1/v2c	Yes
RFC 2030 SNTP	Yes

* Note: Check release notes for software feature availability.

** MIBs have been tested with Solarwinds NPM tool.

SPECIFICATIONS

	FORTISWITCH 124D	FORTISWITCH 124D-POE	FORTISWITCH 224D-POE	FORTISWITCH 224D-FPOE
Hardware Specifications				
Total Network Interfaces	24x GE/RJ45 ports and 2x GE SFP ports	24x GE/RJ45 ports and 2x GE SFP ports	20x GE RJ45 ports and 4x GE RJ45/SFP combo ports**	24x GE RJ45 ports and 4x GE SFP ports**
Dedicated Management 10/100/1000 Ports	0	1	0	1
RJ-45 Serial Console Port	1	1	1	1
Form Factor	1 RU Rack Mount Appliance	1 RU Rack Mount Appliance	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0	12 (802.3af/802.3at)	12 (802.3af)	24 (802.3af/802.3at)
PoE Power Budget	0	100 W	180 W (802.11af)	370 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years	> 10 years
System Specifications				
Switch Type	Web and CLI Managed	Web and CLI Managed	Web and CLI Managed	Web and CLI Managed
Switching Capacity	52 Gbps	52 Gbps	48 Gbps	56 Gbps
Packets Per Second	104 Mpps	104 Mpps	96 Mpps	112 Mpps
MAC Address Storage	8K	16K	16K	16K
Network Latency	< 1µs	< 1µs	< 2µs	< 1µs
VLANs Supported	4K	4K	4K	4K
Link Aggregation Group Size	12	12	8	12
Total Link Aggregation Groups	12	12	12	14
Packet Buffers	1.5 MB	1.5 MB	1 MB	1.5 MB
Dimensions				
Height x Width x Length (inches)	1.7 x 5.5 x 17.3	1.7 x 17.3 x 18.1	1.7 x 17.3 x 10.1	1.7 x 12.2 x 17.3
Height x Width x Length (mm)	44 x 140 x 440	44 x 330 x 460	44 x 440 x 257	44 x 310 x 440
Weight	3.74 lbs (1.7 kg)	19.40 lbs (8.8 kg)	8.49 lbs (3.85 kg)	10.64 lbs (4.83 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 + RPS option	AC built in	AC built in + RPS option
Power Consumption (Average / Maximum)	14 W / 19 W	19 W / 131 W	190 W / 225 W	380 W / 397 W
Heat Dissipation	64.81 BTU/h	448 BTU/h	767.7 BTU/h	85 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°C)	32–104°F (0–40°C)	32–122°F (0–50°C)
Storage Temperature	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Certification and Compliance				
FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2				
Warranty				
Fortinet Warranty				
Limited lifetime* warranty on all models				

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

** Routed ports only



FortiSwitch 124D



FortiSwitch 224D-POE



FortiSwitch 224D-FPOE

SPECIFICATIONS

FORTISWITCH 108D-POE	
Hardware Specifications	
Total Network Interfaces	8x GE RJ45 ports and 2x GE RJ45/SFP combo ports
Dedicated Management 10/100/1000 Ports	0
RJ-45 Serial Console Port	0
Form Factor	1 RU Rack Mount
Power over Ethernet (PoE) Ports	8 (802.3af)
PoE Power Budget	75 W
Mean Time Between Failures	> 10 years
System Specifications	
Switch Type	Web and CLI Managed
Switching Capacity	20 Gbps
Packets Per Second	40 Mpps
MAC Address Storage	16K
Network Latency	< 2µs
VLANs Supported	4K
Link Aggregation Group Size	8
Total Link Aggregation Groups	4
Packet Buffers	1 MB
Dimensions	
Height x Width x Length (inches)	1.7 x 7.9 x 13
Height x Width x Length (mm)	44 x 200 x 330
Weight	4.19 lbs (1.9 kg)
Environment	
Power Required	100–240V AC, 50–60 Hz
Power Supply	AC built in
Power Consumption (Average / Maximum)	52.8 W / 95.1 W
Heat Dissipation	324.32 BTU/h
Operating Temperature	32–113°F (0–45°C)
Storage Temperature	-13–158°F (-25–70°C)
Humidity	5–90% non-condensing
Certification and Compliance	
	FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2
Warranty	
Fortinet Warranty	Limited lifetime* warranty on all models

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



FortiSwitch 108D-POE

SPECIFICATIONS

FORTISWITCH 548D-FPOE	
Hardware Specifications	
Total Network Interfaces	48x GE/RJ45 ports and 4x 10 GE SFP+ ports and 2x 40 GE QSFP
Dedicated Management 10/100/1000 Ports	0
RJ-45 Serial Console Port	1
Form Factor	1 RU Rack Mount
Power over Ethernet (PoE) Ports	48
PoE Power Budget	750 W
Mean Time Between Failures	> 10 years
System Specifications	
Switch Type	Web and CLI Manage
Switching Capacity	336 Gbps
Packets Per Second	512 Mpps
MAC Address Storage	96K
Network Latency	< 2µs
VLANs Supported	4K
Link Aggregation Group Size	24
Total Link Aggregation Groups	26
Packet Buffers	4 MB
Dimensions	
Height x Width x Length (inches)	1.7 x 13.8 x 17.3
Height x Width x Length (mm)	44 x 310 x 440
Weight	15.74 lbs (7.14 kg)
Environment	
Power Required	100–240V AC, 50–60 Hz
Power Supply	AC PSU
Power Consumption (Average / Maximum)	925 W / 961 W (full POE load)
Heat Dissipation	3160 BTU/h (full POE loading)
Operating Temperature	32–113°F (0–45°C)
Storage Temperature	-40–158°F (-40–70°C)
Humidity	5–95% non-condensing
Certification and Compliance	
Warranty	
Fortinet Warranty	Limited lifetime* warranty on all models

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



FortiSwitch 548D-FPOE

ORDER INFORMATION

Product	SKU	Description
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 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-FPOE	FS-224D-FPOE	L2 POE+ Switch — 24x GE RJ45 ports, 2x 1 GE SFP slots.
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 548D-FPOE	FS-548D-FPOE	L2 POE+ Switch — 48x GE RJ45 ports, 4x 10 GE SFP+ slots, 2x 40 GE QSFP+ slots.
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 (D-series) with SFP+ and SFP/SFP+ slots.
1 GE SFP RJ45 Transceiver Module	FS-TRAN-GC	1 GE SFP RJ45 transceiver module for FortiSwitch (D-series) 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 and FS-224D-FPOE.

* Works with the FS-448B and FS-348B. ** Works with the FS-124D-POE only.



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