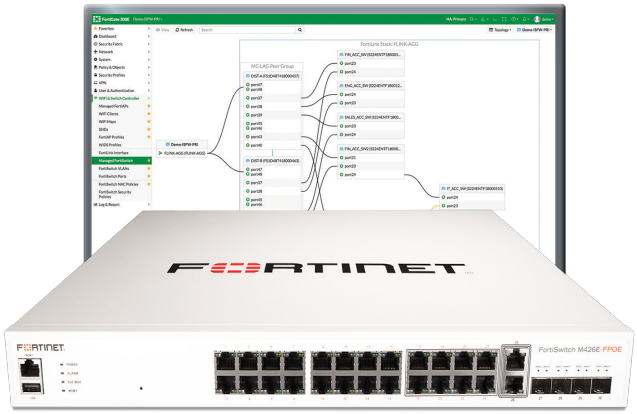
DATA SHEET

FortiSwitch™ Secure Access Family

The FortiSwitch™ Secure Access Family delivers outstanding security, performance, and manageability. Secure, simple, and scalable, FortiSwitch is the right choice for threat-conscious businesses of all sizes.

Tightly integrated into the Fortinet Security Fabric via FortiLink, FortiSwitch can be managed directly from the familiar FortiGate interface. This single pane of glass management provides complete visibility and control of users and devices on the network regardless of how they connect. This makes the FortiSwitch ideal for SD-Branch deployments with applications that range from desktop to data center aggregation, enabling businesses to converge their security and network access.



Product Offerings

FS-108E, 108E-POE, 108E-FPOE, 124E, 124E-POE, 124E-FPOE, 148E, 148E-POE, 124F, 124F-POE, 124F-FPOE, 148F, 148F-POE, 148F-FPOE, 224D-FPOE, 224E, 224E-POE, 248D, 248E-POE, 248E-FPOE, 424D, 424D-POE, 424D-FPOE, 448D, 448D-POE, 448D-FPOE, 424E-FIBER, M426E-FPOE, 424E, 424E-POE, 424E-FPOE, 448E, 448E-POE, 448E-FPOE, 524-D, 524D-FPOE, 548D, 548D-FPOE

Security Fabric Integration through FortiLink

FortiLink is an innovative proprietary management protocol that allows our FortiGate Next Generation Firewall to seamlessly manage any FortiSwitch. FortiLink enables the FortiSwitch to become a logical extension of the FortiGate, integrating it directly into the Fortinet Security Fabric. This management option reduces complexity and decreases management costs as network security and access layer functions are enabled and managed through a single console. FortiLink integration enables centralized policy management, including role-based access and control, making it easy to implement and manage. This control and manageability make FortiSwitch ideal for SD-Branch deployments.

Highlights

- Designed for installations from desktops to wiring closets
- Ideal for SD-Branch deployments
- Centralized security and access management from FortiGate interfaces with FortiLink
- Optimal for converged network environments; enabling voice, data, and wireless traffic to be delivered across a single network
- Supports non-FortiLink deployments through onboard GUI, API, or command line configuration
- Up to 48 ports in a compact 1 RU form factor
- Stackable up to 300 switches per FortiGate, depending on model
- Supports Wire-speed switching and Store and Forward forwarding mode

Highlights

Entry

100 Series

- Entry level switch
- 8-48 GE ports, PoE+ capable
- Desktop to wiring closet
- 2-4 GE SFP uplink ports
- 4x 10GE SFP+ uplink ports

Mid-Range

200 Series

- Mid-level switch
- 24-48 GE ports, PoE+ capable
- Typical wiring closet switch
- 4 GE SFP uplink ports

Premium

400 Series

- Enterprise switch
- 24-48 GE ports, PoE+ capable
- Larger wiring closet or high throughput requirements
- 4x 10 GE SFP+ uplink ports

Aggregation

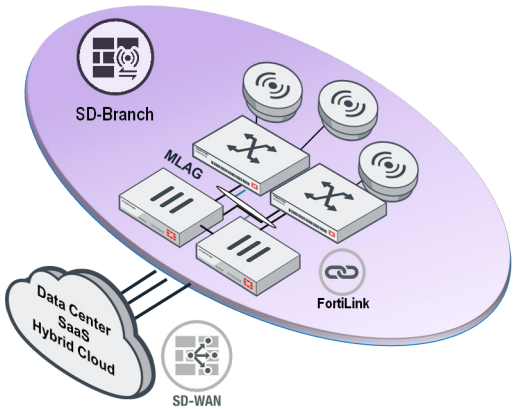
500 Series

- Aggregation switch
- 24-48 GE ports, PoE+ capable
- Larger wiring closet or high throughput requirements
- 4x 10 GE SFP+ and 2x 40 GE QSFP uplink ports

Deployment

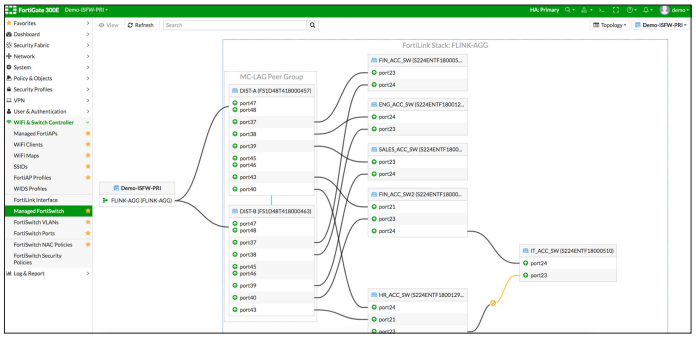
FortiLink

FortiGate Managed. Security Fabric Enabled.
Most common deployment model.



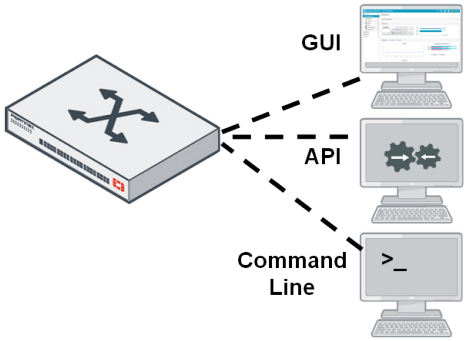
Cloud Management Option

FortiGate Cloud



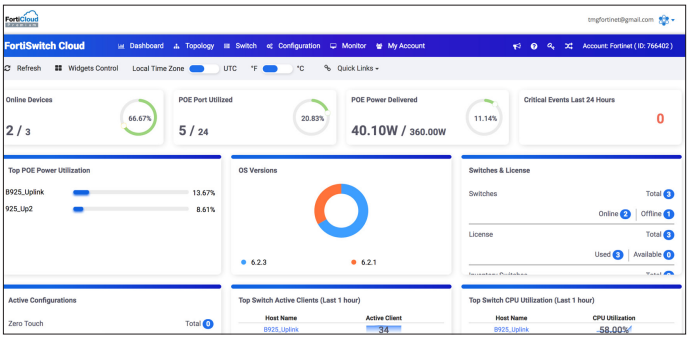
Standalone

Industry Standard Deployment Model.
Common in non-FortiGate environments.



Cloud Management Option

FortiSwitch Cloud



Features

	FORTISWITCH FORTILINK MODE (WITH FORTIGATE)		
Management and Configuration			
Auto Discovery of Multiple Switches	Yes		
Number of Managed Switches per FortiGate	8 to 300 Depending on FortiGate Model (Please refer to admin guide)		
FortiLink Stacking (Auto Inter-Switch Links)	Yes		
Software Upgrade of Switches	Yes		
Centralized VLAN Configuration	Yes		
Switch POE Control	Yes		
Link Aggregation Configuration	Yes		
Spanning Tree	Yes		
LLDP/MED	Yes		
IGMP Snooping	Yes		
L3 Routing and Services	Yes (FortiGate)		
Policy-Based Routing	Yes (FortiGate)		
Virtual Domain	Yes (FortiGate)		
Security and Visibility			
802.1x Authentication (Port-based, MAC-based, MAB)	Yes		
Syslog Collection	Yes		
DHCP Snooping	Yes		
Device Detection	Yes		
MAC Black/While Listing	Yes (FortiGate)		
Policy Control of Users and Devices	Yes (FortiGate)		
Block Intra-VLAN Traffic	Yes		
UTM Features			
Firewall	Yes (FortiGate)		
IPC, AV, Application Control, Botnet	Yes (FortiGate)		
High Availability			
Support FortiLink FortiGate in HA Cluster	Yes		
LAG support for FortiLink Connection	Yes		
Active-Active Split LAG from FortiGate to FortiSwitches for Advanced Redundancy	Yes (with FS-2xx, 4xx, 5xx)		
FORTISWITCH MODEL SERIES	**2XXD, 4XXD, 5XXD**	**1XXE / 1XXF**	**2XXE, 4XXE**
Layer 2			
Jumbo Frames	Yes	Yes	Yes
Auto-negotiation for Port Speed and Duplex	Yes	Yes	Yes
MDI/MDIX Auto-crossover	Yes	Yes	Yes
IEEE 802.1D MAC Bridging/STP	Yes	Yes	Yes
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)	Yes	Yes	Yes
IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	Yes	Yes	Yes
STP Root Guard	Yes	Yes	Yes
STP BPDU Guard	Yes	Yes	Yes
Edge Port / Port Fast	Yes	Yes	Yes
IEEE 802.1Q VLAN Tagging	Yes	Yes	Yes
Private VLAN	Yes	No	Yes
IEEE 802.3ad Link Aggregation with LACP	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	Yes	Yes
IEEE 802.1AX Link Aggregation	Yes	Yes	Yes
Spanning Tree Instances (MSTP/CST)	15/1	15/1	15/1
IEEE 802.3x Flow Control and Back-pressure	Yes	Yes	Yes
IEEE 802.3 10Base-T	Yes	Yes	Yes
IEEE 802.3u 100Base-TX	Yes	Yes	Yes
IEEE 802.3z 1000Base-SX/LX	Yes	Yes	Yes
IEEE 802.3ab 1000Base-T	Yes	Yes	Yes
IEEE 802.3ae 10 Gigabit Ethernet	4xx and 5xx Family	N/A / Yes	Yes
IEEE 802.3az Energy Efficient Ethernet	Yes	Yes	Yes
IEEE 802.3bz Multi Gigabit Ethernet	No	No	Yes (M426E-FPOE)
IEEE 802.3 CSMA/CD Access Method and Physical Layer Specifications	Yes	Yes	Yes
Storm Control	Yes	Yes	Yes
MAC, IP, Ethertype-based VLANs	Yes	Yes	Yes
Virtual-Wire	Yes	No	Yes
Split Port (QSFP+ breakout to 4x10G SFP+ or 4x1G SFP)	FS-5xx Family	N/A	N/A
Time-Domain Reflectcometry (TDR) Support	Yes	Yes	Yes

Features

FORTISWITCH MODEL SERIES	2XXD, 4XXD, 5XXD	1XXE / 1XXF	2XXE, 4XXE
Layer 3*			
Static Routing (Hardware-based)	Yes	N/A**	Yes
Routing Entries	64 on FS-2xx, 4xx Family; 16K on FS-5xx Family	N/A	64 on 2xxE 1K on 424E, 424E-POE, 424E-FPOE, M426E-FPOE 16K on 448E, 448E-POE, 448E-FPOE, 424E-Fiber
Host Entries	1K on FS-2xx, 4xx Family; 24K on FS-5xx Family	N/A	1K on 2xxE 2K on 424E, 424E-POE, 424E-FPOE, M426E-FPOE 16K on 448E, 448E-POE, 448E-FPOE, 424E-Fiber
Dynamic Routing Protocols***	OSPFv2, RIPv2, VRRP; BGP, ISIS on FS-5xx	N/A	OSPFv2, RIPv2, VRRP
Multicast Protocols***	PIM-SSM on FS-5xx	N/A	N/A
ECMP	FS-5xx Family	N/A	No
Spanning Tree Instances	32 instances max for FS-5xx from 6.2.0+	N/A	N/A
Bidirectional Forwarding Detection (BFD)	Yes	N/A	Yes
DHCP Relay	Yes	Yes	Yes
Services			
IGMP Snooping	Yes	Yes	Yes
Security and Visibility			
Port Mirroring	Yes	Yes	Yes
Admin Authentication Via RFC 2865 RADIUS	Yes	Yes	Yes
IEEE 802.1x authentication Port-based	Yes	Yes	Yes
IEEE 802.1x Authentication MAC-based	Yes	Yes	Yes
IEEE 802.1x Guest and Fallback VLAN	Yes	Yes	Yes
IEEE 802.1x MAC Access Bypass (MAB)	Yes	Yes	Yes
IEEE 802.1x Dynamic VLAN Assignment	Yes	Yes	Yes
Radius CoA (Change of Authority)	Yes	Yes	Yes
Radius Accounting	Yes	Yes	Yes
MAC-IP Binding	5xx only	No	No
sFlow	Yes	No	Yes
ACL	1K entries on FS-5xx Family 512 on 2xx, 4xx Families	640 for 1xxE 768 for 1xxF	512 entries on 2xxE 1K on 424E, 424E-POE, 424E-FPOE, M426E-FPOE 1.5K on 448E, 448E-POE, 448E-FPOE, 424E-Fiber
IEEE 802.1ab Link Layer Discovery Protocol (LLDP)	Yes	Yes	Yes
IEEE 802.1ab LLDP-MED	Yes	Yes	Yes
IEEE 802.1ae MAC Security (MAC Sec)	FS-5xxD 10G ports	No	No
DHCP-Snooping	Yes	Yes	Yes
Dynamic ARP Inspection	Yes	Yes	Yes
Sticky MAC and MAC Limit	Yes	Yes	Yes
High Availability			
Multi-Chassis Link Aggregation (MCLAG)	Yes	N/A	Yes
Quality of Service			
IEEE 802.1p Based Priority Queuing	Yes	Yes	Yes
IP TOS/DSCP Based Priority Queuing	Yes	Yes	Yes
IEEE 1588 PTP (Transparent Clock)	Yes	No	Yes
Management			
IPv4 and IPv6 Management	Yes	Yes	Yes
Telnet / SSH	Yes	Yes	Yes
HTTP / HTTPS	Yes	Yes	Yes
SNMP v1/v2c/v3	Yes	Yes	Yes
SNTP	Yes	Yes	Yes
Standard CLI and Web GUI Interface	Yes	Yes	Yes
Software download/upload: TFTP/FTP/GUI	Yes	Yes	Yes
Managed from FortiGate	Yes	Yes	Yes
Support for HTTP REST APIs for Configuration and Monitoring	Yes	Yes	Yes

* Supported on 2xx, 4xx and 5xx. **Supported in software only. ***Requires 'Advanced Features' License.

Features

ALL FORTISWITCH MODELS

RFC and MIB Support*

- BFD
  - RFC 5880: Bidirectional Forwarding Detection (BFD)
  - RFC 5881: Bidirectional Forwarding Detection (BFD) for IPv4 and IPv6 (Single Hop)
  - RFC 5882: Generic Application of Bidirectional Forwarding Detection (BFD)
- BGP
  - RFC 1771: A Border Gateway Protocol 4 (BGP-4)
  - RFC 1965: Autonomous System Confederations for BGP
  - RFC 1997: BGP Communities Attribute
  - RFC 2545: Use of BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing
  - RFC 2796: BGP Route Reflection - An Alternative to Full Mesh IBGP
  - RFC 2842: Capabilities Advertisement with BGP-4
  - RFC 2858: Multiprotocol Extensions for BGP-4
  - RFC 4271: BGP-4
  - RFC 6286: Autonomous-System-Wide Unique BGP Identifier for BGP-4
  - RFC 6608: Subcodes for BGP Finite State Machine Error
  - RFC 6793: BGP Support for Four-Octet Autonomous System (AS) Number Space
  - RFC 7606: Revised Error Handling for BGP UPDATE Messages
  - RFC 7607: Codification of AS 0 Processing
  - RFC 7705: Autonomous System Migration Mechanisms and Their Effects on the BGP AS_PATH Attribute
  - RFC 8212: Default External BGP (EBGP) Route Propagation Behavior without Policies
  - RFC 8654: Extended Message Support for BGP
- DHCP
  - RFC 2131: Dynamic Host Configuration Protocol
  - RFC 3046: DHCP Relay Agent Information Option
  - RFC 7513: Source Address Validation Improvement (SAVI) Solution for DHCP
- IP/IPv4
  - RFC 3168: The Addition of Explicit Congestion Notification (ECN) to IP
  - RFC 5227: IPv4 Address Conflict Detection
  - RFC 5517: Cisco Systems' Private VLANs: Scalable Security in a Multi-Client Environment
  - RFC 7039: Source Address Validation Improvement (SAVI) Framework
- IP Multicast
  - RFC 2362: Protocol Independent Multicast-Sparse Mode (PIM-SM): Protocol Specification
  - RFC 2710: Multicast Listener Discovery (MLD) for IPv6 (MLDv1)
  - RFC 4541: Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches
  - RFC 4605: Internet Group Management Protocol (IGMP)/Multicast Listener Discovery (MLD)-Based Multicast Forwarding ("IGMP/MLD Proxying")
  - RFC 4607: Source-Specific Multicast for IP
- IPv6
  - RFC 2464: Transmission of IPv6 Packets over Ethernet Networks: Transmission of IPv6 Packets over Ethernet Networks
  - RFC 2474: Definition of the Differentiated Services Field (DS Field) in the and IPv6 Headers (DSCP)
  - RFC 2893: Transition Mechanisms for IPv6 Hosts and Routers
  - RFC 4213: Basic Transition Mechanisms for IPv6 Hosts and Router
  - RFC 4291: IP Version 6 Addressing Architecture
  - RFC 4443: Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification
  - RFC 4861: Neighbor Discovery for IP version 6 (IPv6)
  - RFC 4862: IPv6 Stateless Address Auto configuration
  - RFC 5095: Deprecation of Type 0 Routing Headers in IPv6
  - RFC 6724: Default Address Selection for Internet Protocol version 6 (IPv6)
  - RFC 7113: IPv6 RA Guard
  - RFC 8200: Internet Protocol, Version 6 (IPv6) Specification
  - RFC 8201: Path MTU Discovery for IP version 6
- IS-IS
  - RFC 1195: Use of OSI IS-IS for Routing in TCP/IP and Dual Environments
  - RFC 5308: Routing IPv6 with IS-IS
- MIB
  - RFC 1213: MIB II parts that apply to FortiSwitch 100 units
  - RFC 1354: IP Forwarding Table MIB
  - RFC 1493: Bridge MIB
  - RFC 1573: SNMP MIB II
  - RFC 1643: Ethernet-like Interface MIB
- MIB
  - RFC 1724: RIPv2-MIB
  - RFC 1850: OSPF Version 2 Management Information Base
  - RFC 2233: The Interfaces Group MIB using SMIv2
  - RFC 2618: Radius-Auth-Client-MIB
  - RFC 2620: Radius-Acc-Client-MIB
  - RFC 2674: Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering and Virtual LAN extensions
  - RFC 2787: Definitions of Managed Objects for the Virtual Router Redundancy Protocol
  - RFC 2819: Remote Network Monitoring Management Information Base
  - RFC 2932: IPv4 Multicast Routing MIB
  - RFC 2934: Protocol Independent Multicast MIB for IPv4
  - RFC 3289: Management Information Base for the Differentiated Services Architecture
  - RFC 3433: Entity Sensor Management Information Base
  - RFC 3621: Power Ethernet MIB
  - RFC 6933: Entity MIB (Version 4)
- OSPF
  - RFC 1583: OSPF version 2
  - RFC 1765: OSPF Database Overflow
  - RFC 2328: OSPF version 2
  - RFC 2370: The OSPF Opaque LSA Option
  - RFC 2740: OSPF for IPv6
  - RFC 3101: The OSPF Not-So-Stubby Area (NSSA) Option
  - RFC 3137: OSPF Stub Router Advertisement
  - RFC 3623: OSPF Graceful Restart
  - RFC 5340: OSPF for IPv6 (OSPFv3)
  - RFC 5709: OSPFv2 HMAC-SHA Cryptographic Authentication
  - RFC 6549: OSPFv2 Multi-Instance Extensions
  - RFC 6845: OSPF Hybrid Broadcast and Point-to-Multipoint Interface Type
  - RFC 6860: Hiding Transit-Only Networks in OSPF
  - RFC 7474: Security Extension for OSPFv2 When Using Manual Key Management
  - RFC 7503: OSPF for IPv6
  - RFC 8042: CCITT Draft Recommendation T.4
  - RFC 8362: OSPFv3 Link State Advertisement (LSA) Extensibility
- OTHER
  - RFC 2030: SNTP
  - RFC 3176: InMon Corporation's sFlow: A Method for Monitoring Traffic in Switched and Routed Networks
  - RFC 3768: VRRP
  - RFC 3954: Cisco Systems NetFlow Services Export Version 9
  - RFC 5101: Specification of the IP Flow Information Export (IPFIX) Protocol for the Exchange of Flow Information
  - RFC 5798: VRRPv3 (IPv4 and IPv6)
- RADIUS
  - RFC 2865: Admin Authentication Using RADIUS
  - RFC 2866: RADIUS Accounting
  - RFC 5176: Dynamic Authorization Extensions to Remote Authentication Dial In User Service (RADIUS)
- RIP
  - RFC 1058: Routing Information Protocol
  - RFC 2080: RIPng for IPv6
  - RFC 2082: RIP-2 MD5 Authentication
  - RFC 2453: RIPv2
  - RFC 4822: RIPv2 Cryptographic Authentication
- SNMP
  - RFC 1157: SNMPv1/v2c
  - RFC 2571: Architecture for Describing SNMP
  - RFC 2572: SNMP Message Processing and Dispatching
  - RFC 2573: SNMP Applications
  - RFC 2576: Coexistence between SNMP versions

* RFC and MIB supported by FortiSwitch Operating System. Check feature matrix in administration guide for model specific support.

Specifications



	FORTISWITCH 108E	FORTISWITCH 108E-POE	FORTISWITCH 108E-FPOE
Hardware Specifications			
Total Network Interfaces	7x GE RJ45, 1x GE/POE-PD RJ45, and 2x GE SFP	8x GE RJ45 and 2x GE SFP	8x GE RJ45 and 2x GE SFP
Dedicated Management 10/100 Port	0	0	0
RJ-45 Serial Console Port	1	1	1
Form Factor	Desktop	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0	4 (802.3af/at)	8 (802.3af/at)
PoE Power Budget	0	65 W	130 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	20 Gbps	20 Gbps	20 Gbps
Packets Per Second (Duplex)	30 Mpps	30 Mpps	30 Mpps
MAC Address Storage	8 K	8 K	8 K
Network Latency	4µs	4µs	4µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	8	8	8
Packet Buffers	512 KB	512 KB	512 KB
DRAM	256 MB DDR3	256 MB DDR3	256 MB DDR3
FLASH	32 MB	32 MB	32 MB
Dimensions			
Height x Depth x Width (inches)	1.5 x 6.3 x 8.7	1.7 x 8.2 x 13	1.7 x 8.2 x 13
Height x Depth x Width (mm)	38 x 160 x 220	44 x 209 x 330	44 x 209 x 330
Weight	2.2 lbs (1 kg)	4.3 lbs (1.95 kg)	4.5 lbs (2.04 kg)
Environment			
Power Required	100–240V AC, 50/60 Hz / PoE-PSE(af)	100–240V AC, 50/60 Hz	100–240V AC, 50/60 Hz
Power Supply	AC & PoE-PD Built in	AC Built in	AC Built in
Redundant Power	—	—	—
Power Consumption* (Average / Maximum)	5.54 W / 6.26 W	70.19 W / 71.10 W	135.19 W / 136.10 W
Heat Dissipation	18.9 BTU/h	17.7 BTU/h	17.7 BTU/h
Operating Temperature	32-113°F (0–45°C)	32-113°F (0–45°C)	32-113°F (0–45°C)
Storage Temperature	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 108E

FortiSwitch 108E-POE

FortiSwitch 108E-FPOE

Specifications



	FORTISWITCH 124E	FORTISWITCH 124E-POE	FORTISWITCH 124E-FPOE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 and 4x GE SFP	24x GE RJ45 and 4x GE SFP	24x GE RJ45 and 4x GE SFP
Dedicated Management 10/100 Port	0	0	0
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0	12 (802.3af/at)	24 (802.3af/at)
PoE Power Budget	0	185 W	370 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	56 Gbps	56 Gbps	56 Gbps
Packets Per Second (Duplex)	83 Mpps	83 Mpps	83 Mpps
MAC Address Storage	8 K	8 K	8 K
Network Latency	4µs	4µs	4µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	8	8	8
Packet Buffers	512 KB	512 KB	512 KB
DRAM	256 MB DDR3	256 MB DDR3	256 MB DDR3
FLASH	32 MB	32 MB	32 MB
Dimensions			
Height x Depth x Width (inches)	1.7 x 8.2 x 13	1.7 x 12.2 x 17.3	1.7 x 12.2 x 17.3
Height x Depth x Width (mm)	44 x 209 x 330	44 x 309 x 440	44 x 309 x 440
Weight	4.7 lbs (2.13 kg)	11.1 lbs (5.03 kg)	11.2 lbs (5.03 kg)
Environment			
Power Required	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
Redundant Power	—	—	—
Power Consumption* (Average / Maximum)	15.83 W /17.79 W	202.78 W / 205.45 W	387.78 W / 390.45 W
Heat Dissipation	54 BTU/h	60.67 BTU/h	60.67 BTU/h
Operating Temperature	32-113°F (0–45°C)	32-113°F (0–45°C)	32-113°F (0–45°C)
Storage Temperature	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 124E

FortiSwitch 124E-POE

FortiSwitch 124E-FPOE

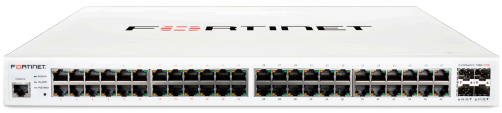
Specifications


	FORTISWITCH 148E	FORTISWITCH 148E-POE
Hardware Specifications		
Total Network Interfaces	48x GE RJ45 and 4x GE SFP	48x GE RJ45 and 4x GE SFP
Dedicated Management 10/100 Port	0	0
RJ-45 Serial Console Port	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0	24 (802.3af/at)
PoE Power Budget	0	370 W
Mean Time Between Failures	> 10 years	> 10 years
System Specifications		
Switching Capacity (Duplex)	104 Gbps	104 Gbps
Packets Per Second (Duplex)	155 Mpps	155 Mpps
MAC Address Storage	16 K	16 K
Network Latency	3860 ns	3860 ns
VLANs Supported	4 K	4 K
Link Aggregation Group Size	8	8
Total Link Aggregation Groups	16	16
Packet Buffers	1.5 MB	1.5 MB
DRAM	256 MB DDR3	256 MB DDR3
FLASH	64 MB	64 MB
Dimensions		
Height x Depth x Width (inches)	1.73 x 12.2 x 17.3	1.73 x 13.7 x 17.3
Height x Depth x Width (mm)	44 x 309 x 440	44 x 348 x 440
Weight	8.6 lbs (3.9 kg)	11.5 lbs (5.2 kg)
Environment		
Power Required	100–240V AC, 50/60 Hz	100–240V AC, 50/60 Hz
Power Supply	AC Built in	AC Built in
Redundant Power	No	No
Power Consumption* (Average / Maximum)	19.804 W / 22.137 W	389.742 W /393.109 W
Heat Dissipation	67.574 BTU/h	78.82 BTU/h
Operating Temperature	32-113°F (0–45°C)	32-113°F (0–45°C)
Storage Temperature	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)
Humidity	10–90% non-condensing	10–90% non-condensing
Air-Flow Direction	side-to-back	side-to-back
Certification and Compliance		
	FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty		
Fortinet Warranty	Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 148E



FortiSwitch 148E-POE

Specifications



	FORTISWITCH 124F	FORTISWITCH 124F-POE	FORTISWITCH 124F-FPOE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 and 4x 10GE SFP+	24x GE RJ45 and 4x 10GE SFP+	24x GE RJ45 and 4x 10GE SFP+
Dedicated Management 10/100 Port	0	0	0
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0	12 (802.3af/at)	24 (802.3af/at)
PoE Power Budget	0	185 W	370 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	128 Gbps	128 Gbps	128 Gbps
Packets Per Second (Duplex)	190 Mpps	190 Mpps	190 Mpps
MAC Address Storage	32 K	32 K	32 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	16	16	16
Packet Buffers	2 MB	2 MB	2 MB
DRAM	512 MB DDR3	512 MB DDR3	512 MB DDR3
FLASH	64 MB	64 MB	64 MB
Dimensions			
Height x Depth x Width (inches)	1.73 x 9.06 x 12.99	1.73 x 10.24 x 17.32	1.73 x 10.24 x 17.32
Height x Depth x Width (mm)	44 x 230 x 330	44 x 260 x 440	44 x 260 x 440
Weight	4.48 lbs (2.03 kg)	7.85 lbs (3.56 kg)	8.42 lbs (3.82 kg)
Environment			
Power Required	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
Redundant Power	No	No	No
Power Consumption* (Average / Maximum)	24.8 W / 26.3 W	235.9 W / 237.4 W	449.8 W / 451.3 W
Heat Dissipation	89.683 BTU/h	102.982 BTU/h	118.327 BTU/h
Operating Temperature	32–113°F (0–45°C)	32–113°F (0–45°C)	32–113°F (0–45°C)
Storage Temperature	-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
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 124F

FortiSwitch 124F-POE

FortiSwitch 124F-FPOE

Specifications



	FORTISWITCH 148F	FORTISWITCH 148F-POE	FORTISWITCH 148F-FPOE
Hardware Specifications			
Total Network Interfaces	48x GE RJ45 and 4x 10GE SFP+	48x GE RJ45 and 4x 10GE SFP+	48x GE RJ45 and 4x 10GE SFP+
Dedicated Management 10/100 Port	0	0	0
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0	24 (802.3af/at)	48 (802.3af/at)
PoE Power Budget	0	370 W	740 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	176 Gbps	176 Gbps	176 Gbps
Packets Per Second (Duplex)	260 Mpps	260 Mpps	260 Mpps
MAC Address Storage	32 K	32 K	32 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	16	16	16
Packet Buffers	2 MB	2 MB	2 MB
DRAM	512 MB DDR3	512 MB DDR3	512 MB DDR3
FLASH	64 MB	64 MB	64 MB
Dimensions			
Height x Depth x Width (inches)	1.73 x 10.24 x 17.32	1.73 x 12.20 x 17.32	1.73 x 12.20 x 17.32
Height x Depth x Width (mm)	44 x 260 x 440	44 x 310 x 440	44 x 310 x 440
Weight	7.63 lbs (3.46 kg)	10.32 lbs (4.68 kg)	10.32 lbs (4.68 kg)
Environment			
Power Required	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
Redundant Power	No	No	No
Power Consumption* (Average / Maximum)	55.8 W / 57 W	474.8 W / 476.3 W	893.5 W / 895.7 W
Heat Dissipation	194.37 BTU/h	195.73 BTU/h	198.46 BTU/h
Operating Temperature	32–113°F (0–45°C)	32–113°F (0–45°C)	32–113°F (0–45°C)
Storage Temperature	-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
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 148F

FortiSwitch 148F-POE

FortiSwitch 148F-FPOE

Specifications



	FORTISWITCH 224D-FPOE	FORTISWITCH 224E	FORTISWITCH 224E-POE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 ports and 4x GE SFP ports	24x GE RJ45 ports and 4x GE SFP ports	24x GE RJ45 ports and 4x GE SFP ports
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	24 (802.3af/802.3at)	NA	12 (802.3af/802.3at)
PoE Power Budget	370 W	NA	180 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	56 Gbps	56 Gbps	56 Gbps
Packets Per Second (Duplex)	83 Mpps	83 Mpps	83 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	1.5 MB	1.5 MB	1.5 MB
DRAM	512 MB DDR3	512 MB DDR3	512 MB DDR3
FLASH	128 MB	128 MB	128 MB
Dimensions			
Height x Depth x Width (inches)	1.73 x 12.2 x 17.5	1.73 x 9 x 12.99	1.73 x 9 x 12.99
Height x Depth x Width (mm)	44 x 310 x 440	44 x 230 x 330	44 x 230 x 330
Weight	10.64 lbs (4.83 kg)	4.78 lbs (2.17 kg)	5.37 lbs (2.44 kg)
Environment			
Power Required	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
Redundant Power	Optional FRPS-740	Redundant AC	Optional FRPS-740
Power Consumption* (Average / Maximum)	380 W / 397 W	17.2 W / 17.3 W	220.18 W / 223.57 W
Heat Dissipation	85 BTU/h	59.095 BTU/h	74.29554 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°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)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 224D-FPOE

FortiSwitch 224E

FortiSwitch 224E-POE

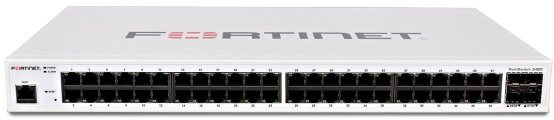
Specifications



	FORTISWITCH 248D	FORTISWITCH 248E-POE	FORTISWITCH 248E-FPOE
Hardware Specifications			
Total Network Interfaces	48x GE RJ45 ports and 4x GE SFP ports	48x GE RJ45 ports and 4x GE SFP ports	48x GE RJ45 ports and 4x GE SFP ports
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	—	24 (802.3af/802.3at)	48 (802.3af/802.3at)
PoE Power Budget	N/A	370 W	740 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	104 Gbps	104 Gbps	104 Gbps
Packets Per Second (Duplex)	155 Mpps	155 Mpps	155 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	1.5 MB	1.5 MB	1.5 MB
DRAM	512 MB DDR3	512 MB DDR3	512 MB DDR3
FLASH	128 MB	128 MB	128 MB
Dimensions			
Height x Depth x Width (inches)	1.73 x 9.68 x 17.3	1.73 x 16.1 x 17.3	1.73 x 16.1 x 17.3
Height x Depth x Width (mm)	44 x 246 x 440	44 x 410 x 440	44 x 410 x 440
Weight	7.81 lbs (3.54 kg)	12.12 lbs (5.5 kg)	13.44 lbs (6.1 kg)
Environment			
Power Required	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
Redundant Power	—	Optional FRPS-740	Optional FRPS-740
Power Consumption* (Average / Maximum)	38.66 W / 39.19 W	457.46 W / 466.47 W	842 W / 855.02 W
Heat Dissipation	134 BTU/h	177.14268 BTU/h	162.87865 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°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)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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



FortiSwitch 248D

FortiSwitch 248E-POE

FortiSwitch 248E-FPOE

Specifications



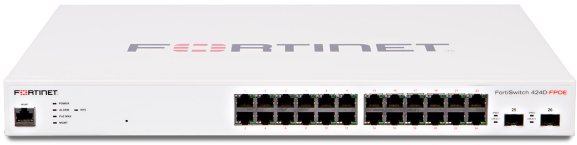
	FORTISWITCH 424D	FORTISWITCH 424D-POE	FORTISWITCH 424D-FPOE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 and 2x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	24x GE RJ45 and 2x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	24x GE RJ45 and 2x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	—	24 (802.3af/at)	24 (802.3af/at)
PoE Power Budget	N/A	185 W	370 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	88 Gbps	88 Gbps	88 Gbps
Packets Per Second (Duplex)	131 Mpps	131 Mpps	131 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	1.5 MB	1.5 MB	1.5 MB
DRAM	1 GB DDR3	1 GB DDR3	1 GB DDR3
FLASH	128 MB	128 MB	128 MB
Dimensions			
Height x Depth x Width (inches)	1.75 x 10.12 x 17.3	1.75 x 10.12 x 17.3	1.73 x 12.2 x 17.5
Height x Depth x Width (mm)	44 x 250 x 440	44 x 250 x 440	44 x 310 x 440
Weight	7.14 lbs (3.24 kg)	8.42 lbs (3.82 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
Power Supply	AC built in	AC built in	AC built in
Redundant Power	Redundant AC	Optional FRPS-740	Optional FRPS-740
Power Consumption* (Average / Maximum)	17.3 W / 17.2 W	208 W / 210 W	397 W / 403 W
Heat Dissipation	69 BTU/h	89 BTU/h	100 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°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)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 424D

FortiSwitch 424D-POE



FortiSwitch 424D-FPOE

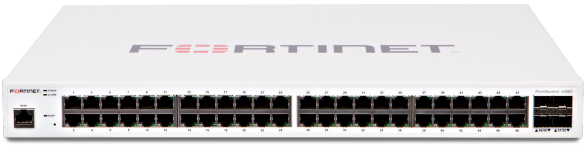
Specifications



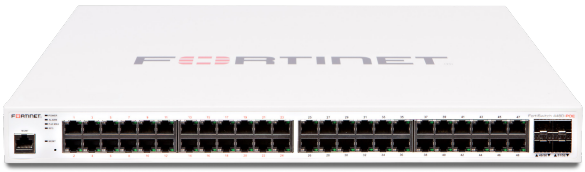
	FORTISWITCH 448D	FORTISWITCH 448D-POE	FORTISWITCH 448D-FPOE
Hardware Specifications			
Total Network Interfaces	48x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	48x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	48x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	—	48 (802.3af/at)	48 (802.3af/at)
PoE Power Budget	N/A	370 W	740 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	176 Gbps	176 Gbps	176 Gbps
Packets Per Second (Duplex)	262 Mpps	262 Mpps	262 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	1.5 MB	1.5 MB	1.5 MB
DRAM	1 GB DDR3	1 GB DDR3	1 GB DDR3
FLASH	128 MB	128 MB	128 MB
Dimensions			
Height x Depth x Width (inches)	1.75 x 12.2 x 17.3	1.73 x 16.1 x 17.3	1.73 x 16.1 x 17.3
Height x Depth x Width (mm)	44 x 310 x 440	44 x 410 x 440	44 x 410 x 440
Weight	9.15 lbs (4.15 kg)	13.44 lbs (6.1 kg)	15.45 lbs (7.01 kg)
Environment			
Power Required	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
Redundant Power	Redundant AC	Optional FRPS-740	Redundant AC
Power Consumption* (Average / Maximum)	38 W / 38 W	417 W / 419 W	790 W / 792 W
Heat Dissipation	147 BTU/h	177 BTU/h	193 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°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)
Humidity	10–90% non-condensing	10–90% non-condensing	10–90% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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



FortiSwitch 448D



FortiSwitch 448D-POE

FortiSwitch 448D-FPOE

Specifications

	FORTISWITCH-424E-FIBER	FORTISWITCH-M426E-FPOE
Hardware Specifications		
Total Network Interfaces	24x GE SFP and 4x 10GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	16x GE RJ45, 8x 2.5 GE RJ45 ports, 2x 5 GE RJ45, and 4x 10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP
Dedicated Management 10/100 Port	1	1
RJ-45 Serial Console Port	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	N/A	24 (16x 802.3af/at, 8x 802.3af/at/bt Type 3)
PoE Power Budget	N/A	420 W
Mean Time Between Failures	> 10 years	> 10 years
System Specifications		
Switching Capacity (Duplex)	128 Gbps	172 Gbps
Packets Per Second (Duplex)	204 Mpps	255 Mpps
MAC Address Storage	32 K	16 K
Network Latency	< 1µs	< 1µs
VLANs Supported	4 K	4 K
Link Aggregation Group Size	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports
Packet Buffers	4 MB	2 MB
DRAM	1 GB DDR4	1 GB DDR4
FLASH	256 MB	256 MB
Dimensions		
Height x Depth x Width (inches)	1.75 x 7.87 x 17.3	1.73 x 16.14 x 17.3
Height x Depth x Width (mm)	44 x 200 x 440	44 x 410 x 440
Weight	5.62 lbs (2.55 kg)	13.00 lbs (5.9 kg)
Environment		
Power Required	100–240V AC, 50/60 Hz	100–240V AC, 50/60 Hz
Power Supply	AC built in	AC built in
Redundant Power	Redundant AC	Redundant AC
Power Consumption* (Average / Maximum)	36 W / 38 W	441 W / 442 W
Heat Dissipation	132.5 BTU/h	132.734 BTU/h
Operating Temperature	32–113°F (0–45°C)	32–122°F (0–50°C)
Storage Temperature	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)
Humidity	5–95% non-condensing	5–95% non-condensing
Air-Flow Direction	side-to-back	side-to-back
Certification and Compliance		
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2
Warranty		
Fortinet Warranty		Limited lifetime** warranty on all models

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 424E-Fiber

FortiSwitch M426E-FPOE

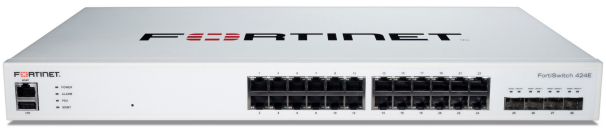
Specifications



	FORTISWITCH 424E	FORTISWITCH 424E-POE	FORTISWITCH 424E-FPOE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	24x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	24x GE RJ45 and 4x10 GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	—	24 (802.3af/at)	24 (802.3af/at)
PoE Power Budget	N/A	250 W	421 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	128 Gbps	128 Gbps	128 Gbps
Packets Per Second (Duplex)	204 Mpps	204 Mpps	204 Mpps
MAC Address Storage	16 K	16 K	16 K
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	2 MB	2 MB	2 MB
DRAM	1 GB DDR4	1 GB DDR4	1 GB DDR4
FLASH	256 MB	256 MB	256 MB
Dimensions			
Height x Depth x Width (inches)	1.75 x 10.23 x 17.3	1.75 x 16.14 x 17.3	1.75 x 16.14 x 17.3
Height x Depth x Width (mm)	44 x 260 x 440	44 x 410 x 440	44 x 410 x 440
Weight	6.83 lbs (3.1 kg)	11.57 lbs (5.25 kg)	12.72 lbs (5.77 kg)
Environment			
Power Required	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
Redundant Power	Redundant AC	Redundant AC	Redundant AC
Power Consumption* (Average / Maximum)	22.3 W / 23.6 W	281.3 W / 283.5 W	431.2 W / 433.7 W
Heat Dissipation	76.04 BTU/h	102.64 BTU/h	117.2 BTU/h
Operating Temperature	32–113°F (0–45°C)	32–113°F (0–45°C)	32–122°F (0–45°C)
Storage Temperature	-40–158°F (-40–70°C)	-4–158°F (-40–70°C)	-40–158°F (-40–70°C)
Humidity	5–95% non-condensing	5–95% non-condensing	5–95% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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



FortiSwitch 424E

FortiSwitch 424E-POE

FortiSwitch 424E-FPOE

Specifications



	FORTISWITCH 448E	FORTISWITCH 448E-POE	FORTISWITCH 448E-FPOE
Hardware Specifications			
Total Network Interfaces	48x GE RJ45 and 4x 10GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	48x GE RJ45 and 4x 10GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP	48x GE RJ45 and 4x 10GE SFP+ ports Note: SFP+ ports are compatible with 1 GE SFP
Dedicated Management 10/100 Port	1	1	1
RJ-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	—	48 (802.3af/at)	48 (802.3af/at)
PoE Power Budget	—	421 W	772 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	176 Gbps	176 Gbps	176 Gbps
Packets Per Second (Duplex)	262 Mpps	262 Mpps	262 Mpps
MAC Address Storage	32 K	32 K	32 K
Network Latency	<1µs	<1µs	<1µs
VLANs Supported	4 K	4 K	4 K
Link Aggregation Group Size	8	8	8
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	2 MB	2 MB	2 MB
DRAM	1GB DDR4	1GB DDR4	1GB DDR4
FLASH	256 MB	256 MB	256 MB
Dimensions			
Height x Depth x Width (inches)	1.75 x 12.2 x 17.3	1.73 x 16.1 x 17.3	1.73 x 16.1 x 17.3
Height x Depth x Width (mm)	44 x 310 x 440	44 x 410 x 440	44 x 410 x 440
Weight	9.17 lbs (4.16 kg)	13.8 lbs (6.26 kg)	14.04 lbs (6.37 kg)
Environment			
Power Required	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
Redundant Power	Redundant AC	Redundant AC	Redundant AC
Power Consumption* (Average / Maximum)	46.5 W / 47.81 W	440.12 W / 442.234 W	921.4 W / 923.6 W
Heat Dissipation	163.032 BTU/h	163.066 BTU/h	163.1 BTU/h
Operating Temperature	32–122°F (0–50°C)	32–122°F (0–50°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)
Humidity	10–90% non condensing	10–90% non condensing	10–90% non condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty			
Fortinet Warranty		Limited lifetime** warranty on all models	

* POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 448E

FortiSwitch 448E-POE

FortiSwitch 448E-FPOE

Specifications




	FORTISWITCH 524D	FORTISWITCH 524D-FPOE	FORTISWITCH 548D	FORTISWITCH 548D-FPOE
Hardware Specifications				
Total Network Interfaces	24 GE/RJ45 ports, 4x 10 GE SFP+ ports and 2x 40 GE QSFP Note: SFP+ ports are compatible with 1G SFP	24 GE/RJ45 ports, 4x 10 GE SFP+ ports and 2x 40 GE QSFP Note: SFP+ ports are compatible with 1G SFP	48x GE/RJ45 ports, 4x 10 GE SFP+ ports and 2x 40 GE QSFP Note: SFP+ ports are compatible with 1G SFP	48x GE/RJ45 ports, 4x 10 GE SFP+ ports and 2x 40 GE QSFP Note: SFP+ ports are compatible with 1G SFP
Dedicated Management 10/100/1000 Ports	1	1	1	1
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	N/A	24 (802.3af/at)	N/A	48 (802.3af/at)
PoE Power Budget	N/A	400 W	N/A	750 W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years	> 10 years
System Specifications				
Switching Capacity (Duplex)	288 Gbps	288 Gbps	336 Gbps	336 Gbps
Packets Per Second (Duplex)	428 Mpps	428 Mpps	512 Mpps	512 Mpps
MAC Address Storage	96 K	96 K	96 K	96 K
Network Latency	< 2µs	< 2µs	< 2µs	< 2µs
VLANs Supported	4 K	4 K	4 K	4 K
Link Aggregation Group Size	24	24	48	48
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports	Up to number of ports
Packet Buffers	4 MB	4 MB	4 MB	4 MB
DRAM	2 GB DDR3	2 GB DDR3	2 GB DDR3	2 GB DDR3
FLASH	128 MB	128 MB	128 MB	128 MB
Dimensions				
Height x Depth x Width (inches)	1.75 x 13.8 x 17.3	1.75 x 13.8 x 17.3	1.75 x 13.8 x 17.3	1.75 x 13.8 x 17.3
Height x Depth x Width (mm)	44 x 350 x 439	44 x 350 x 439	44 x 350 x 439	44 x 350 x 439
Weight	13.6 lbs (6.2 kg)	15.74 lbs (7.14 kg)	14.1 lbs (6.4 kg)	15.74 lbs (7.14 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	150 W AC PSU*	600 W AC PSU*	150 W AC PSU*	920 W AC PSU*
Redundant Power	Optional FS-PSU-150* (for 150 W backup only)	Optional FS-PSU-600* (for 600 W for additional PoE)	Optional FS-PSU-150* (for 150 W backup only)	Optional FS-PSU-920* (for 900 W for additional PoE)
Power Consumption** (Average / Maximum)	73 W / 75 W	570 W / 579 W (full PoE load)	74 W / 77 W	925 W / 961 W (full PoE load)
Heat Dissipation	247 BTU/h	296 BTU/h (full PoE loading)	252 BTU/h	318 BTU/h (full PoE loading)
Operating Temperature	32–113°F (0–45°C)	32–113°F (0–45°C)	32–113°F (0–45°C)	32–113°F (0–45°C)
Storage Temperature	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)
Humidity	5–95% non-condensing	5–95% non-condensing	5–95% non-condensing	5–95% non-condensing
Air-Flow Direction	front-to-back	front-to-back	front-to-back	front-to-back
Certification and Compliance				
	FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2			
Warranty				
Fortinet Warranty	Limited lifetime*** warranty on all models			

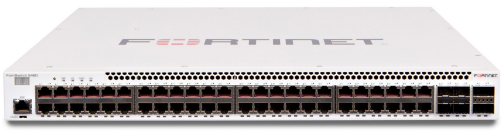
*FS-524D, FS-524D-FPOE, FS-548D, FS-548D-FPOE Power Supply Units are Hot-Swappable

** POE models power consumption is similar to non-POE model if POE is not in use

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

FortiSwitch 524D

FortiSwitch 524D-FPOE



FortiSwitch 548D

FortiSwitch 548D-FPOE

Order Information

Product	SKU	Description
FortiSwitch 108E	FS-108E	Layer 2 FortiGate switch controller compatible switch with 8 GE RJ45 + 2 SFP ports, line AC and PSE dual powered. Fanless.
FortiSwitch 108E-POE	FS-108E-POE	Layer 2 FortiGate switch controller compatible PoE+ switch with 8 GE RJ45 + 2 SFP ports, 4 port PoE with maximum 65 W PoE limit. Fanless.
FortiSwitch 108E-FPOE	FS-108E-FPOE	Layer 2 FortiGate switch controller compatible PoE+ switch with 8 GE RJ45 + 2 SFP ports, 8 port PoE with maximum 130 W PoE limit. Fanless.
FortiSwitch 124E	FS-124E	Layer 2 FortiGate switch controller compatible switch with 24 GE RJ45 + 4 SFP ports. Fanless.
FortiSwitch 124E-POE	FS-124E-POE	Layer 2 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 SFP ports, 12 port PoE with maximum 185 W limit.
FortiSwitch 124E-F-POE	FS-124E-FPOE	Layer 2 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 SFP ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 148E	FS-148E	Layer 2 FortiGate switch controller compatible switch with 48 GE RJ45 + 4 SFP ports.
FortiSwitch 148E-POE	FS-148E-POE	Layer 2 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4 SFP ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 124F	FS-124F	Layer 2 FortiGate switch controller compatible switch with 24 GE RJ45 + 4 10G SFP+ ports.
FortiSwitch 124F-POE	FS-124F-POE	Layer 2 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 10G SFP+ ports, 12 port PoE with maximum 185 W limit.
FortiSwitch 124F-FPOE	FS-124F-FPOE	Layer 2 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 10G SFP+ ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 148F	FS-148F	Layer 2 FortiGate switch controller compatible switch with 48 GE RJ45 + 4 10G SFP+ ports.
FortiSwitch 148F-POE	FS-148F-POE	Layer 2 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4 10G SFP+ ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 148F-FPOE	FS-148F-FPOE	Layer 2 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4 10G SFP+ ports, 48 port PoE with maximum 740 W limit.
FortiSwitch 224D-FPOE	FS-224D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 SFP ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 224E	FS-224E	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45 + 4 SFP ports. Fanless.
FortiSwitch 224E-POE	FS-224E-POE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 4 SFP ports, 12 port PoE with maximum 180 W limit.
FortiSwitch 248D	FS-248D	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45 + 4 SFP ports.
FortiSwitch 248E-POE	FS-248E-POE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4 SFP ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 248E-FPOE	FS-248E-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4 SFP ports, 48 port PoE with maximum 740 W limit.
FortiSwitch 424D	FS-424D	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45 + 2x 10 GE SFP+ ports.
FortiSwitch 424D-POE	FS-424D-POE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 2x 10 GE SFP+ ports, 24 port PoE with maximum 185 W limit.
FortiSwitch 424D-FPOE	FS-424D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45 + 2x 10 GE SFP+ ports, 24 port PoE with maximum 370 W limit.
FortiSwitch 448D	FS-448D	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45 + 4x 10 GE SFP+ ports.
FortiSwitch 448D-POE	FS-448D-POE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4x 10 GE SFP+ ports, 48 port PoE with maximum 370 W limit.
FortiSwitch 448D-FPOE	FS-448D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45 + 4x 10 GE SFP+ ports, 48 port PoE with maximum 740 W limit.
FortiSwitch 424E-Fiber	FS-424E-Fiber	Layer 2/3 FortiGate switch controller compatible switch with 24x GE SFP and 4x 10 GE SFP+ Uplinks
FortiSwitch M426E-FPOE	FS-M426E-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+/802.3bt Type 3 switch with 16x GE RJ45, 8x 2.5 RJ45, 2x 5 GE RJ45 and 4x 10 GE SFP+, 24 port PoE+ with maximum 420 W limit.
FortiSwitch 424E	FS-424E	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45, 4x 10 GE SFP + ports.
FortiSwitch 424E-POE	FS-424E-POE	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45, 4x 10 GE SFP + ports, 24 port PoE+ with maximum 283.5 W limit.
FortiSwitch 424E-FPOE	FS-424E-FPOE	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45, 4x 10 GE SFP + ports, 24 port PoE+ with maximum 433.7 W limit.
FortiSwitch 448E	FS-448E	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45, 4x 10 GE SFP + ports.
FortiSwitch 448E-POE	FS-448E-POE	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45, 4x 10 GE SFP + ports, 48 port PoE+ with maximum 421 W limit.
FortiSwitch 448E-FPOE	FS-448E-FPOE	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45, 4x 10 GE SFP + ports, 48 port PoE+ with maximum 772 W limit.
FortiSwitch 524D	FS-524D	Layer 2/3 FortiGate switch controller compatible switch with 24 GE RJ45, 4x 10 GE SFP+ and 2x 40 GE QSFP+ ports.
FortiSwitch 524D-FPOE	FS-524D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 24 GE RJ45, 4x 10 GE SFP+, 2x 40 GE QSFP+ ports, 24 port PoE with maximum 400 W limit.
FortiSwitch 548D	FS-548D	Layer 2/3 FortiGate switch controller compatible switch with 48 GE RJ45, 4x 10 GE SFP+ and 2x 40 GE QSFP+ ports.
FortiSwitch 548D-FPOE	FS-548D-FPOE	Layer 2/3 FortiGate switch controller compatible PoE+ switch with 48 GE RJ45, 4x 10 GE SFP+ and 2x 40 GE QSFP+ ports, 48 port PoE with maximum 750 W limit.
FortiSwitch Cloud Management License*	FC-10-WMSC1-190-02-DD	FortiSwitch Cloud Management License subscription 1 Year Contract.

Order Information

Accessories		
FortiSwitch Advanced Features License	FS-SW-LIC-200	SW License for FS-200 Series Switches to activate Advanced Features.
	FS-SW-LIC-400	SW License for FS-400 Series Switches to activate Advanced Features.
	FS-SW-LIC-500	SW License for FS-500 Series Switches to activate Advanced Features.
External Redundant AC Power Supply	FRPS-740	Redundant AC power supply for up to 2 units: FS-224D-FPOE, FS-248D-FPOE, FS-424D-FPOE, FS-448D-POE and FS-424D-POE.
Redundant AC Power Supply	FS-PSU-150	AC power supply for FS-548D and FS-524D.
	FS-PSU-600	AC power supply for FS-524D-FPOE.**
	FS-PSU-920	AC power supply for FS-548D-FPOE.**

* When managing a FortiSwitch with a FortiGate via FortiGate Cloud, no additional license is necessary. ** Provides additional PoE capacity.

For details of Transceiver modules, see the Fortinet Transceivers datasheet. Note that all PoE FortiSwitches are Alternative-A.

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