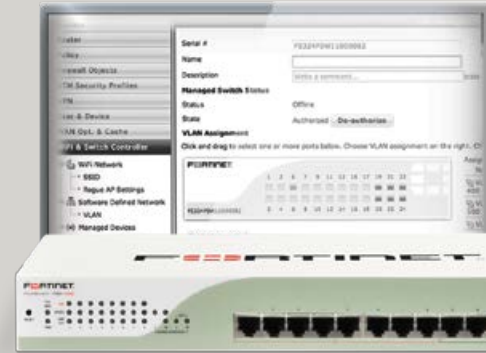FortiSwitch™ Secure
Access Switches

# FortiSwitch Secure Access Switches

FS-108D-POE, 124D, 124D-POE, 224D-POE, 224D-FPOE, 248D, 248D-POE, 248D-FPOE, 424D, 424D-POE, 424D-FPOE, 448D, 448D-POE, 448D-FPOE, 524D, 524D-FPOE, 548D and 548D-FPOE (henceforth referred to as FortiSwitch D-series)

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 D-Series 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.*
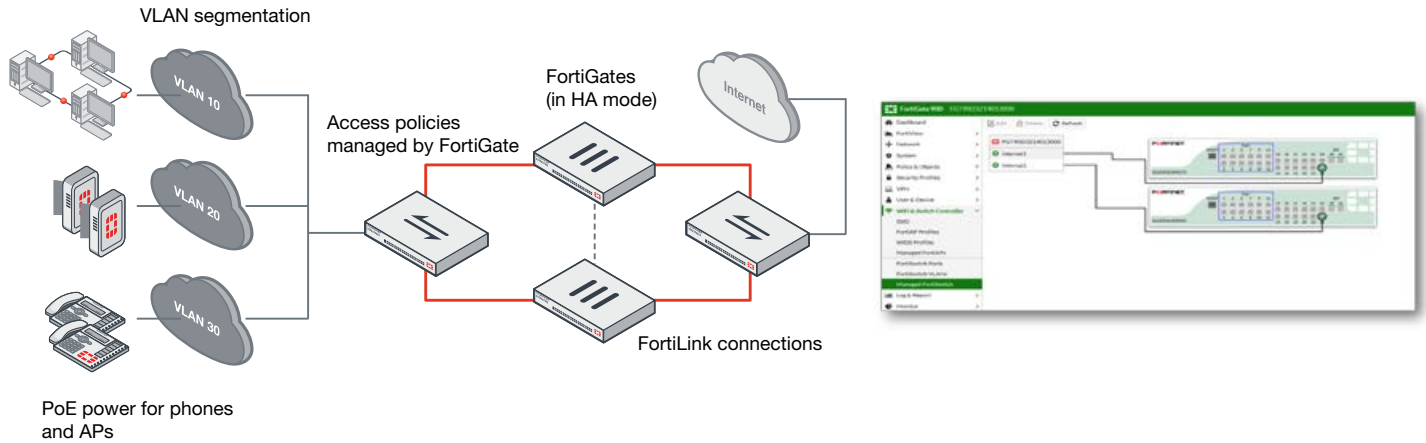
## Highlights

- 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.

**FortiCare Worldwide 24x7 Support**
support.fortinet.com

**FortiGuard Security Services**
www.fortiguard.com
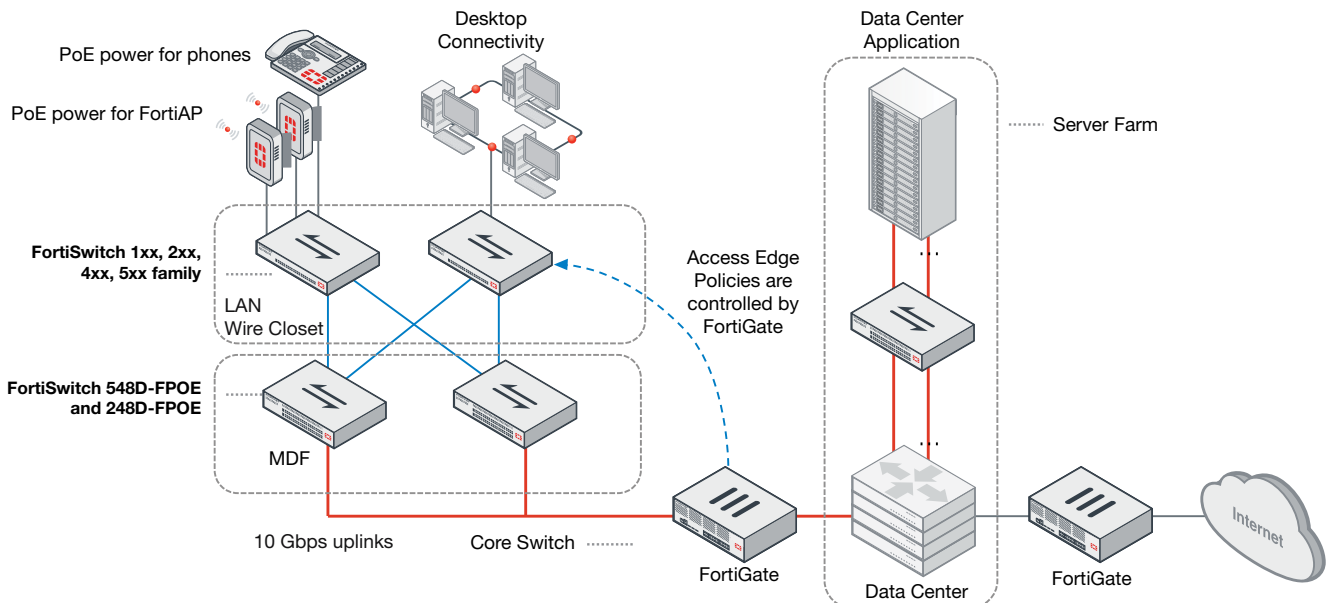
# DEPLOYMENT OPTIONS

## FortiLink Mode

The FortiSwitch Secure Access Switch series integrates directly into the FortiGate* Connected UTM, with switch administration and access port security managed from the familiar FortiGate interface. Regardless of how users and devices connect to the network, you have complete visibility and control over your network security and access through this single pane of glass, perfectly suited to threatconscious organizations of any size.

VLAN segmentation

FortiGates
(in HA mode)

Internet

Access policies
managed by FortiGate

FortiLink connections

VLAN 10

VLAN 20

VLAN 30

PoE power for phones
and APs

* Selected models only

## Standalone Mode

Virtualization and cloud computing have created dense high-bandwidth Ethernet networking requirements in the data center, pushing the limits of existing data center switching. FortiSwitch Data Center switches meet these challenges by providing a high performance 10 or 40 GE capable switching platform, with a low Total Cost of Ownership. Ideal for Top of Rack server or firewall aggregation applications, as well as enterprise network core or distribution deployments, these switches are purpose-built to meet the needs of today's bandwidth intensive environments.

PoE power for phones

Desktop
Connectivity

Data Center
Application

PoE power for FortiAP

Server Farm

FortiSwitch 1xx, 2xx,
4xx, 5xx family

Access Edge
Policies are
controlled by
FortiGate

LAN
Wire Closet

FortiSwitch 548D-FPOE
and 248D-FPOE

MDF

10 Gbps uplinks

Core Switch

FortiGate

Data Center

FortiGate

Internet

## 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

| | FORTISWITCH D-SERIES | |
|---|---|---|
| | 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 | Yes* | Yes |
| Policy-Based Routing | No | Yes |
| DNS Server | No | Yes |
| VLANs Supported | 4K | 1K |
| **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 | Yes** |
| LAG support from FortiSwitch to FortiGate | Yes | Yes** |
| **High Availability** | | |
| Support for FortiGate in HA cluster | Yes | Yes** |
| **UTM Features** | | |
| Firewall | No | Yes |
| IPS, AV, Application Control | No | Yes |

 * supported in 124D, 124D-POE, 200 (except 224D-POE), 400 and 500 series.
** enabled with FOS 5.4 release

# SOFTWARE FEATURES (STANDALONE MODE)

| | FORTISWITCH D-SERIES |
|---|---|
| **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 |
| IEEE 802.1AX Link Aggregation | Yes |
| Spanning Tree Instances (MSTP/CST) | 15/1 |
| 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 | in FS-5xx, 4xx family |
| 802.3 CSMA/CD Access Method and Physical Layer Specifications | Yes |
| Storm Control | Yes (except FS-108D-POE, FS-224D-POE) |
| MAC, IP, Ethertype-based VLANs | Yes |
| Virtual-Wire | Yes |
| **Layer 3** | |
| Static Routing (Software-based only) | Up to 64 static routes, usable for software routing (like management traffic) |
| Static Routing (Hardware-based) | 64 static routes (16K on FS-5xx family)* |
| L3 Host/ARP Entries | 4K on FS-1xx, 2xx, 4xx family*; 24K on FS-5xx family |
| **Services** | |
| IGMP Snooping (v1/v2/v3) | Please refer to the Release Notes. |
| **Security** | |
| Port Mirroring | Yes |
| Admin Authentication Via RFC 2865 RADIUS | Yes |
| 802.1x authentication with port-based assignment | Yes |
| 802.1x authentication with mac-based assignment | Yes |
| MAC-IP Binding | Yes** |
| sFlow | Yes, All models except FS-108D-POE, FS-224D-POE |
| ACL Tables | 1K entries on FS-5xx family; 512 on FS-1xx, 2xx, 4xx families; Not supported on FS-108D-POE, FS-224D-POE |
| **Management** | |
| Telnet / SSH | Yes |
| HTTP / HTTPS | Yes |
| SNMP v1/v2c/v3 | Yes |
| SNTP | Yes |
| LLDP (802.1ab, Link Layer Discovery Protocol) (receive and transmit) | Yes |
| Standard CLI and web GUI interface | Yes |
| Software download/upload: TFTP/FTP/GUI | Yes |
| Managed from FortiGate | Yes |
| Support for HTTP REST APIs for Configuration and Monitoring | 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 |

\* Check Release notes/Admin guide for Static Routing release details.　　\*\* Available on 500 Series.　　\*\*\* MIBs have been tested with Solarwinds NPM tool.

# SOFTWARE FEATURES (STANDALONE MODE)

| | FORTISWITCH D-SERIES |
|---|---|
| **RFC and MIB Support**\*\* | |
| 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 |

\*\* MIBs have been tested with Solarwinds NPM tool.

# SPECIFICATIONS

| | FORTISWITCH 108D-POE | FORTISWITCH 124D | FORTISWITCH 124D-POE |
|---|---|---|---|
| **Hardware Specifications** | | | |
| Total Network Interfaces | 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 Port | 0 | 0 | 1 |
| RJ-45 Serial Console Port | 0 | 1 | 1 |
| Form Factor | 1 RU Rack Mount | 1 RU Rack Mount Appliance | 1 RU Rack Mount Appliance |
| Power over Ethernet (PoE) Ports | 8 (802.3af) | 0 | 12 (802.3af/802.3at) |
| PoE Power Budget | 75 W | 0 | 100 W |
| Mean Time Between Failures | > 10 years | > 10 years | > 10 years |
| **System Specifications** | | | |
| Switch Type | Web and CLI Managed | Web and CLI Managed | Web and CLI Managed |
| Switching Capacity | 20 Gbps | 52 Gbps | 52 Gbps |
| Packets Per Second | 40 Mpps | 77 Mpps | 77 Mpps |
| MAC Address Storage | 16K | 8K | 16K |
| Network Latency | < 2µs | < 1µs | < 1µs |
| VLANs Supported | 4K | 4K | 4K |
| Link Aggregation Group Size | 8 | 8 | 8 |
| Total Link Aggregation Groups | 4 | 13 | 13 |
| Packet Buffers | 1 MB | 1.5 MB | 1.5 MB |
| DRAM | 256 MB | 512 MB | 512 MB |
| FLASH | 32 MB | 64 MB | 64 MB |
| **Dimensions** | | | |
| Height x Width x Length (inches) | 1.7 x 7.9 x 13 | 1.73 x 5.51 x 17.32 | 1.73 x 9 x 12.99 |
| Height x Width x Length (mm) | 44 x 200 x 330 | 44 x 140 x 440 | 44 x 230 x 330 |
| Weight | 4.19 lbs  (1.9 kg) | 3.74 lbs  (1.7 kg) | 5.4 lbs  (2.4 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 |
| Power Consumption (Average / Maximum) | 52.8 W / 95.1 W | 14 W / 19 W | 116 W / 116 W |
| Heat Dissipation | 47.5 BTU/h | 64.81 BTU/h | 77 BTU/h |
| Operating Temperature | 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) | -4–158°F  (-20–70°C) | -4–158°F  (-20–70°C) |
| Humidity | 5–90% 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



FortiSwitch 108D-POE



FortiSwitch 124D

# SPECIFICATIONS

| | FORTISWITCH 224D-POE | FORTISWITCH 224D-FPOE |
|---|---|---|
| **Hardware Specifications** | | |
| Total Network Interfaces | 20x GE RJ45 ports and<br>4x GE RJ45/SFP combo ports | 24x GE RJ45 ports and<br>4x GE SFP ports |
| Dedicated Management 10/100 Port | 0 | 1 |
| RJ-45 Serial Console Port | 1 | 1 |
| Form Factor | 1 RU Rack Mount | 1 RU Rack Mount |
| Power over Ethernet (PoE) Ports | 12 (802.3af) | 24 (802.3af/802.3at) |
| PoE Power Budget | 180 W (802.11af) | 370 W |
| Mean Time Between Failures | > 10 years | > 10 years |
| **System Specifications** | | |
| Switch Type | Web and CLI Managed | Web and CLI Managed |
| Switching Capacity | 48 Gbps | 56 Gbps |
| Packets Per Second | 71 Mpps | 83 Mpps |
| MAC Address Storage | 16K | 16K |
| Network Latency | < 2μs | < 1μs |
| VLANs Supported | 4K | 4K |
| Link Aggregation Group Size | 8 | 8 |
| Total Link Aggregation Groups | 12 | 14 |
| Packet Buffers | 1 MB | 1.5 MB |
| DRAM | 512 MB | 512 MB |
| FLASH | 128 MB | 128 MB |
| **Dimensions** | | |
| Height x Width x Length (inches) | 1.73 x 17.32 x 10.12 | 1.73 x 12.2 x 17.5 |
| Height x Width x Length (mm) | 44 x 440 x 257 | 44 x 310 x 440 |
| Weight | 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 |
| Power Supply | AC built in | AC built in |
| Redundant Power | — | Optional FRPS-740 |
| Power Consumption (Average / Maximum) | 190 W / 225 W | 380 W / 397 W |
| Heat Dissipation | 83.5 BTU/h | 85 BTU/h |
| Operating Temperature | 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) |
| Humidity | 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

FortiSwitch 224D-POE

FortiSwitch 224D-FPOE

# SPECIFICATIONS

| | FORTISWITCH 248D | FORTISWITCH 248D-POE | FORTISWITCH 248D-FPOE |
|---|---|---|---|
| **Hardware Specifications** | | | |
| Total Network Interfaces | 48x GE RJ45 ports and 4x GE SFP ports | 48x GE RJ45 ports and 2x 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) | 48 (802.3af/802.3at) |
| PoE Power Budget | N/A | 370 W | 370 W |
| Mean Time Between Failures | > 10 years | > 10 years | > 10 years |
| **System Specifications** | | | |
| Switch Type | Web and CLI Managed | Web and CLI Managed | Web and CLI Managed |
| Switching Capacity | 104 Gbps | 104 Gbps | 104 Gbps |
| Packets Per Second | 155 Mpps | 155 Mpps | 155 Mpps |
| MAC Address Storage | 16K | 16K | 16K |
| Network Latency | < 1μs | < 1μs | < 1μs |
| VLANs Supported | 4K | 4K | 4K |
| Link Aggregation Group Size | 8 | 8 | 8 |
| Total Link Aggregation Groups | 26 | 26 | 26 |
| Packet Buffers | 1.5 MB | 1.5 MB | 1.5 MB |
| DRAM | 512 MB | 512 MB | 512 MB |
| FLASH | 128 MB | 128 MB | 128 MB |
| **Dimensions** | | | |
| Height x Width x Length (inches) | 1.73 x 9.68 x 17.3 | 1.73 x 17.32 x 16.93 | 1.73 x 16.1 x 17.3 |
| Height x Width x Length (mm) | 44 x 246 x 440 | 44 x 440 x 430 | 44 x 410 x 440 |
| Weight | 7.81 lbs  (3.54 kg) | 13.67 lbs  (6.20 kg) | 15.4 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 | — | — | Optional FRPS-740 |
| Power Consumption (Average / Maximum) | 38.66 W / 39.19 W | 476 W / 476 W | 410 W / 411 W |
| Heat Dissipation | 134 BTU/h | 180 BTU/h | 188 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 |
| **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 248D



FortiSwitch 248D-POE



FortiSwitch 248D-FPOE

**FORTINET**

# SPECIFICATIONS

| | FORTISWITCH 424D | FORTISWITCH 424D-POE | FORTISWITCH 424D-FPOE |
|---|---|---|---|
| **Hardware Specifications** | | | |
| Total Network Interfaces | 24x GE RJ45 and 2x10 GE SFP+ ports<br>Note: SFP+ ports are compatible with 1 GE SFP | 24x GE RJ45 and 2x10 GE SFP+ ports<br>Note: SFP+ ports are compatible with 1 GE SFP | 24x GE RJ45 and 2x10 GE SFP+ ports<br>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** | | | |
| Switch Type | Web and CLI Managed | Web and CLI Managed | Web and CLI Managed |
| Switching Capacity | 88 Gbps | 88 Gbps | 88 Gbps |
| Packets Per Second | 131 Mpps | 131 Mpps | 131 Mpps |
| MAC Address Storage | 16K | 16K | 16K |
| Network Latency | < 1µs | < 1µs | < 1µs |
| VLANs Supported | 4K | 4K | 4K |
| Link Aggregation Group Size | 8 | 8 | 8 |
| Total Link Aggregation Groups | 13 | 13 | 13 |
| Packet Buffers | 1.5 MB | 1.5 MB | 1.5 MB |
| DRAM | 1 GB | 1 GB | 1 GB |
| FLASH | 128 MB | 128 MB | 128 MB |
| **Dimensions** | | | |
| Height x Width x Length (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 Width x Length (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 | Dual power supplies | 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 |
| **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 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** | | | |
| Switch Type | Web and CLI Managed | Web and CLI Managed | Web and CLI Managed |
| Switching Capacity | 176 Gbps | 176 Gbps | 176 Gbps |
| Packets Per Second | 262 Mpps | 262 Mpps | 262 Mpps |
| MAC Address Storage | 16K | 16K | 16K |
| Network Latency | < 1µs | < 1µs | < 1µs |
| VLANs Supported | 4K | 4K | 4K |
| Link Aggregation Group Size | 8 | 8 | 8 |
| Total Link Aggregation Groups | 26 | 26 | 26 |
| Packet Buffers | 1.5 MB | 1.5 MB | 1.5 MB |
| DRAM | 1 GB | 1 GB | 1 GB |
| FLASH | 128 MB | 128 MB | 128 MB |
| **Dimensions** | | | |
| Height x Width x Length (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 Width x Length (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 | Dual power supplies | Optional FRPS-740 | Dual power supplies |
| 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 |
| **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 448D



FortiSwitch 448D-POE



FortiSwitch 448D-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** | | | | |
| Switch Type | Web and CLI Manage | Web and CLI Manage | Web and CLI Manage | Web and CLI Manage |
| Switching Capacity | 288 Gbps | 288 Gbps | 336 Gbps | 336 Gbps |
| Packets Per Second | 428 Mpps | 428 Mpps | 512 Mpps | 512 Mpps |
| MAC Address Storage | 96K | 96K | 96K | 96K |
| Network Latency | < 2µs | < 2µs | < 2µs | < 2µs |
| VLANs Supported | 4K | 4K | 4K | 4K |
| Link Aggregation Group Size | 24 | 24 | 48 | 48 |
| Total Link Aggregation Groups | 15 | 15 | 26 | 26 |
| Packet Buffers | 4 MB | 4 MB | 4 MB | 4 MB |
| DRAM | 2 GB | 2 GB | 2 GB | 2 GB |
| FLASH | 128 MB | 128 MB | 128 MB | 128 MB |
| **Dimensions** | | | | |
| Height x Width x Length (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 Width x Length (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-900 (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 |
| **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 524D**

**FortiSwitch 524D-FPOE**

**FortiSwitch 548D**

**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). Fanless switch. 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-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 224D-FPOE | FS-224D-FPOE | L2 PoE+ Switch — 24x GE RJ45 ports, 2x 1 GE SFP slots. FortiGate switch controller compatible. |
| FortiSwitch 248D | FS-248D | L2 Switch — 48x GE RJ45 ports, 4x GE SFP slots. FortiGate switch controller compatible. |
| FortiSwitch 248D-POE | FS-248D-POE | L2 PoE Switch — 48x GE RJ45 ports (24 PoE), 2x 1 GE SFP slots. FortiGate switch controller compatible. |
| FortiSwitch 248D-FPOE | FS-248D-FPOE | L2 PoE+ Switch — 48x GE RJ45 ports, 4x 1 GE SFP slots. FortiGate switch controller compatible. |
| FortiSwitch 424D | FS-424D | L2 Switch — 24x GE RJ45 ports, 2x 10 GE SFP+ ports, FortiGate switch controller compatible. |
| FortiSwitch 424D-POE | FS-424D-POE | L2 PoE+ Switch — 24x GE RJ45 ports, 2x 10 GE SFP+ slots. 185 W power budget. FortiGate switch controller compatible. |
| FortiSwitch 424D-FPOE | FS-424D-FPOE | L2 PoE+ Switch — 24x GE RJ45 ports, 2x 10 GE SFP+ slots. FortiGate switch controller compatible. |
| FortiSwitch 448D | FS-448D | L2 Switch — 48x GE RJ45 ports, 4x 10 GE SFP+ slots. FortiGate switch controller compatible. |
| FortiSwitch 448D-POE | FS-448D-POE | L2 PoE+ Switch (185 W) — 48x GE RJ45 ports, 4x 10 GE SFP+ slots. FortiGate switch controller compatible. |
| FortiSwitch 448D-FPOE | FS-448D-FPOE | L2 PoE+ Switch (370 W) — 48x GE RJ45 ports, 4x 10 GE SFP+ slots. FortiGate switch controller compatible. |
| FortiSwitch 524D | FS-524D | L2 Switch — 24x GE RJ45 ports, 4x 10 GE SFP+ slots, 2x 40 GE QSFP+ slots. FortiGate switch controller compatible. |
| FortiSwitch 524D-FPOE | FS-524D-FPOE | L2 PoE+ Switch — 24x GE RJ45 ports, 4x 10 GE SFP+ slots, 2x 40 GE QSFP+ slots. FortiGate switch controller compatible. |
| FortiSwitch 548D | FS-548D | L2 Switch — 48x GE RJ45 ports, 4x 10 GE SFP+ slots, 2x 40 GE QSFP+ 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. 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 (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. |
| 1 GE SFP LX Transceiver Module, SMF | FR-TRAN-LX | 1 GE SFP LX transceiver module, -40–85°C, over SMF, for all systems with SFP and SFP/SFP+ slots. |
| 1 GE SFP LX Transceiver Module | FG-TRAN-LX | 1 GE SFP LX transceiver module for all systems with SFP and SFP/SFP+ slots. |
| 10 GBase-ER SFP+ Transceiver Module | FS-TRAN-SFP+ER | 10 GBase-ER SFP+ transceiver module, 1550nm. SMF, 40km range for systems with 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, FDD-600B and FDD-800B. Not supported for: FG-200D-POE/240D-POE. |
| | FRPS-740 | Redundant AC power supply for up to 2 units: FS-124D-POE, 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-900 | AC power supply for FS-548D-FPOE.** |

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

\*\* Provides additional PoE capacity.

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