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FortiSwitch[™] Secure Access



Highlights

- Standalone or Integrated FortiLink deployment option
- Zero-touch deployment
- On premise and cloudbased management options
- Intuitive management allows for ease of set up for network access and security
- Easy-to-use network access control (NAC) at no cost
- User- and device-based access control and policy enforcement
- Secure access service edge (SASE) support
- Scalable and flexible for branches or small business
- Up to 48 access ports in a compact 1 RU form factor
- Power over Ethernet and PoE+ support
- Wire-speed switching with up to 10GE uplinks

Security, Ease of Use, and Scalability

The FortiSwitch[™] Access Family is tailored to meet the unique demands of enterprise branch offices and small businesses. An unparalleled combination of security, ease of use, and scalability makes FortiSwitch[™] the ideal choice for Ethernet infrastructure.

Managing a remote enterprise branch or small business network can be a challenging task due to various factors including a lack of visibility of connected devices, limited time and tools for LAN management, and a shortage of skilled personnel. The FortiSwitch Secure Access family seamlessly integrates Ethernet networking with advanced security features, effectively eliminating the silos that hinder day-to-day management. Feature-rich and easy to manage with a low total cost of ownership, FortiSwitch emerges as the optimal choice for remote enterprise-branch and small-businesses Ethernet networks.

Secure Networking Through FortiLink

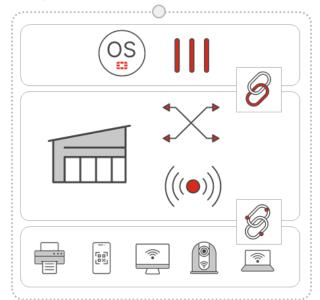
Available in

Appliance

FortiLink is an innovative proprietary management protocol that enables seamless integration and management between a FortiGate Next-Generation Firewall and the FortiSwitch Ethernet switching platform. By using FortiLink, the FortiSwitch becomes a logical extension of the FortiGate, allowing for centralized management of both network security and access layer functions through a single interface.

Easy-to-use Network Access Control (NAC) at No Cost

FortiLink integration enables basic NAC functionality to profile and securely onboard devices as they connect. FortiLink NAC offers visibility into all connected devices, automated segmentation and security policies for IoT devices, quarantine if compromised, and virtual patching to help protect against threats.



Built-in Ethernet Port Security

Traditional Ethernet port security demands manual effort and continuous maintenance, which is impractical for IT administrators of remote branches or small business. Consequently, Ethernet ports are frequently left unprotected. FortiSwitch access switching offers IT administrators the ability secure ports ensuring only approved users and devices get access to the network. The automation of port security without requiring 802.1x makes making policy enforcement easy to implement and manage while NGFW-level policies ensure granular control and zero-trust access for users and devices.

User- and Device-Based Access Control and Policy Enforcement

Whether leveraging Fortinet Identity Access Management (IAM) or third-party identity providers, FortiLink automation can leverage user identity to make granular role-based policy decisions, allowing you to implement zero-trust principles.

Secure Access Service Edge (SASE)

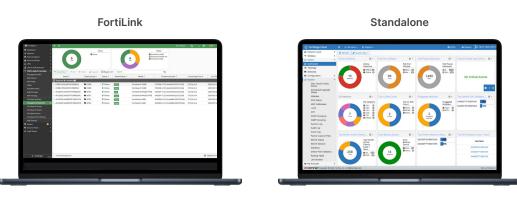
This FortiSwitch enterprise architecture offers a built-in foundation for zero-trust network access (ZTNA) and secure access service edge (SASE), offering the flexibility to easily deploy the type and level of security you need at the edge of your network.

Operational Simplicity

Deploying, managing, and perfecting an Ethernet switching infrastructure can be challenging and time-consuming, particularly when done remotely or with limited staff.

FortiSwitch switching architecture can be securely deployed and managed in minutes through zero-touch deployment. Whether FortiSwitch is deployed in standalone mode or FortiLink mode, its easy-to-use intuitive workflows and unified views let you provision, manage, and optimize your small business or remote branches at scale.

Whether cloud or on-premises, centralized management delivers a unified view of the LAN, security, and in the case of SD-Branch: SD-WAN and 5G wireless gateways. This feature provides a consistent user experience for optimal operational efficiency, simplifying management, optimization, and troubleshooting. The result is a shorter mean time to repair both network and security issues.



FortiOS

FortiEdge Cloud

Scalable and Flexible for Branches or Small Business

FortiSwitch access architecture scales to meet the need of today's small business and remote branches without sacrificing security. Supporting up to 48 ports in a compact 1 RU form factor, FortiSwitch can deliver the performance and scale you require.

Eliminate Bottlenecks

With wire speed 1GE access ports and dedicated uplinks capable of speeds up 10GE, the FortiSwitch Access Series provides the performance and speed needed for next generation SD-Branch applications.

Next-Generation Power Over Ethernet Support

With PoE+ support in all models, FortiSwitch delivers and manages power for devices such as cameras, sensors, and wireless access points.

Product Offerings

Model Numbers

100F Series: FS-108F, FS-108F-POE, FS-108F-FPOE, FS-124F, FS-124F-POE, FS-124F-FPOE, FS-148F, FS-148F-POE, FS-148F-FPOE 100G Series: FS-110G-FPOE, FS-124G, FS-124G-FPOE

200 Series: FS-224D-FPOE, FS-224E, FS-224E-POE, FS-248D, FS-248E-POE, FS-248E-FPOE

Features

Refer to the FortiSwitch Feature Matrix for details about the features supported by each FortiSwitch model.

FORTISWITCH FORTILINK MODE (WITH FORTIGATE)	FORTISWITCH FORTILINK MODE (WITH FORTIGATE)
Management and Configuration	Security and Visibility
Auto Discovery of Multiple Switches	Authentication 802.1X (Port-based, MAC-based, MAB)
Automated detection and recommendations	Block Intra-VLAN Traffic
Centralized VLAN Configuration	Clients Monitoring
Dynamic Port Profiles for FortiSwitch ports	Device Detection
FortiLink Secure Fabric	DHCP Snooping
FortiLink Stacking (Auto Inter-Switch Links)	DHCP/ARP Monitor
FortiSwitch Management over VXLAN	FortiGuard IoT identification
Health Monitoring	FortiSwitch recommendations in Security Rating
IGMP Snooping	Host Quarantine on Switch Port
L3 Routing and Services (FortiGate)	Integrated FortiGate Network Access Control (NAC) function
Link Aggregation Configuration	MAC Black/While Listing (FortiGate)
LLDP/MED	NAC Device Telemetry
Managed Switches 8 to 300 depending on FortiGate model	Network Device Detection
Policy-Based Routing (FortiGate)	Policy Control of Users and Devices (FortiGate)
Provision firmware upon authorization	Port Statistics
Software Upgrade of Switches	Security Fabric Automation
Spanning Tree	Switch Controller traffic collector
Switch POE Control	Syslog Collection
Virtual Domain (FortiGate)	UTM Features
High Availability	Firewall (FortiGate)
Active-Active Split LAG from FortiGate to FortiSwitches for Advanced Redundancy	
LAG support for FortiLink Connection	IPC, AV, Application Control, Botnet (FortiGate)
Support FortiLink FortiGate in HA Cluster	

Refer to the FortiSwitch Feature Matrix for details about the features supported by each FortiSwitch model.

FORTISWITCH	FORTISWITCH
ayer 2	Layer 3
uto-negotiation for Port Speed and Duplex	Bidirectional Forwarding Detection (BFD)
uto topology	DHCP Relay
ynamically shared packet buffers	DHCP server
dge Port / Port Fast	Dynamic Routing Protocols: OSPFv2, RIPv2, VRRP, ISIS *
EE 802.1ad QinQ	Filtering routemaps based on routing protocol
EEE 802.1AX Link Aggregation	IP conflict detection and notification
EE 802.1D MAC Bridging/STP	IPv6 route filtering
EE 802.1Q VLAN Tagging	Static Routing (Hardware-based)
EE 802.1s Multiple Spanning Tree Protocol (MSTP)	Unicast Reverse Path Forwarding - uRPF
EEE 802.1w Rapid Spanning Tree Protocol (RSTP)	Security and Visibility
EE 802.3 10Base-T	ACL
EE 802.3ab 1000Base-T	ACL Multiple Ingress
EE 802.3ad Link Aggregation with LACP	
EE 802.3ae 10 Gigabit Ethernet	ACL Multistage
EE 802.3az Energy Efficient Ethernet	ACL Schedule
EE 802.3ba, 802.3bj, and 802.3bm 40 and 100 Gigabit Ethernet	Admin Authentication Via RFC 2865 RADIUS
EE 802.3bz Multi Gigabit Ethernet	Assign VLANs via Radius attributes (RFC 4675)
EE 802.3 CSMA/CD Access Method and Physical Layer Specifications	DHCP-Snooping
EE 802.3u 100Base-TX	Dynamic ARP Inspection
EE 802.3x Flow Control and Back-pressure	Flow Export (NetFlow and IPFIX)
EE 802.3z 1000Base-SX/LX	IEEE 802.1ab Link Layer Discovery Protocol (LLDP)
gress Pause Metering	IEEE 802.1ab LLDP-MED
umbo Frames	IEEE 802.1ae MAC Security (MAC Sec)
AG min/max bundle	IEEE 802.1X Authentication MAC-based
pop Guard	IEEE 802.1X Authentication Port-based
IAC, IP, Ethertype-based VLANs	IEEE 802.1X Dynamic VLAN Assignment
DI/MDIX Auto-crossover	IEEE 802.1X EAP pass-through
er-port storm control	IEEE 802.1X Guest and Fallback VLAN
riority-based Flow Control (802.1Qbb)	IEEE 802.1X MAC Access Bypass (MAB)
rivate VLAN	IEEE 802.1X open auth
apid PVST interoperation	IP source guard
panning Tree Instances (MSTP/CST)	IPv6 RA Guard
torm Control	LLDP-MED ELIN support
TP BPDU Guard	MAC-IP Binding
TP Root Guard	Per-port and per-VLAN MAC learning limit
me-Domain Reflectcometry (TDR) Support	Port Mirroring
nicast/Multicast traffic balance over trunking port	Radius Accounting
st-ip, dst-mac, src-dst-ip, src-dst-mac, src-ip, src-mac)	Radius CoA (Change of Authority)
rtual-Wire	sFlow
LAN Mapping	Sticky MAC and MAC Limit
ervices	Wake on LAN
GMP proxy / querier	*Requires 'Advanced Features' License.
GMP Snooping	nequires Auvanceu reatures License.
ILD proxy / querier	
/LD Snooping	

Refer to the FortiSwitch Feature Matrix for details about the features supported by each FortiSwitch model.

FORTISWITCH	
High Availability	
Multi-Chassis Link Aggregation (MCLAG)	
Quality of Service	
Egress priority tagging	
Explicit Congestion Notification	
IEEE 1588 PTP (Transparent Clock)	
IEEE 802.1p Based Priority Queuing	
IP TOS/DSCP Based Priority Queuing	
Percentage Rate Control	

FORTISWITCH
Management
Automation Stitches
Display Average Bandwidth and Allow Sorting on Physical Port / Interface Traffic
Dual Firmware Support
HTTP / HTTPS
IPv4 and IPv6 Management
Link Monitor
Managed from FortiGate
Packet Capture
POE Control Modes
Provide warning if L2 table is getting full
RMON Group 1
SNMP v1/v2c/v3
SNMP v3 traps
SNTP
Software download/upload: TFTP/FTP/GUI
SPAN, RSPAN, and ERSPAN
Standard CLI and Web GUI Interface
Support for HTTP REST APIs for Configuration and Monitoring
Syslog UDP/TCP
System alias command
System Temperature and Alert
Telnet / SSH

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 2697: A Single Rate Three Color Marker	
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 Environm	nent
RFC 7039: Source Address Validation Improvement (SAVI) Framework	
IP Multicast	
RFC 2710: Multicast Listener Discovery (MLD) for IPv6 (MLDv1)	
RFC 3569: An Overview of Source-Specific Multicast (SSM)	
RFC 4541: Considerations for Internet Group Management Protocol (IGMP) and Multi- Listener Discovery (MLD) Snooping Switches	cast
RFC 4605: Internet Group Management Protocol (IGMP)/Multicast Listener Discovery (MLD)-Based Multicast Forwarding ("IGMP/MLD Proxying")	
RFC 4607: Source-Specific Multicast for IP	

	ALL FORTISWITCH MODELS
RFC ar	d MIB Support*
IPv6	
	2464: Transmission of IPv6 Packets over Ethernet Networks: Transmission of IPv6 ets over Ethernet Networks
	2474: Definition of the Differentiated Services Field (DS Field) in the and IPv6 lers (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
	4443: Internet Control Message Protocol (ICMPv6) for the Internet Protocol Versior /6) 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
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	2665: Definitions of Managed Objects for the Ethernet-like Interface Types
	2674: Definitions of Managed Objects for Bridges with Traffic Classes, Multicast ing 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	2863: The Interfaces Group MIB
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
REC	6933: Entity MIB (Version 4)

* RFC and MIB supported by FortiSwitch Operating System. Check FortiSwitch Feature Matrix for model specific support.

ALL FORTISWITCH MODELS
RFC and MIB Support*
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
DTHER
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)

ALL FOI	RTISWITCH MODELS
RFC and MIB Support*	
RADIUS	
RFC 2865: Admin Authentication Usi	ng RADIUS
RFC 2866: RADIUS Accounting	
RFC 4675: RADIUS Attributes for Virt	ual LAN and Priority Support
RFC 5176: Dynamic Authorization Ext Service (RADIUS)	tensions to Remote Authentication Dial In User
RIP	
RFC 1058: Routing Information Proto	col
RFC 2080: RIPng for IPv6	
RFC 2082: RIP-2 MD5 Authentication	1
RFC 2453: RIPv2	
RFC 4822: RIPv2 Cryptographic Auth	nentication
SNMP	
RFC 1157: SNMPv1/v2c	
RFC 2571: Architecture for Describing	g SNMP
RFC 2572: SNMP Message Processir	ng and Dispatching
RFC 2573: SNMP Applications	
RFC 2576: Coexistence between SN	MP versions

* RFC and MIB supported by FortiSwitch Operating System. Check FortiSwitch Feature Matrix for model specific support.

	FORTISWITCH 108F	FORTISWITCH 108F-POE	FORTISWITCH 108F-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	Desktop / 19 inch rack bracket	Desktop / 19 inch rack bracket
Power over Ethernet (PoE) Ports	0	8 (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	4 µs	4 µs	4 µs
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
Memory	256 MB DDR3	256 MB DDR3	256 MB DDR3
Flash	32 MB	32 MB	32 MB
ACL	640	640	640
Spanning Tree Instances	32	32	32
Dimensions			
Height x Depth x Width (inches)	1.18 × 4.72 × 7.09	1.73 × 8.23 × 9.85	1.73 × 8.23 × 9.85
Height x Depth x Width (mm)	30 × 120 × 180	44 × 209 × 250	44 × 209 × 250
Weight	1.36 lbs (0.62 kg)	3.75 lbs (1.70 kg)	4.05 lbs (1.84 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	12V/1A DC power adapter included, PoE-PD Built in	AC built in	AC built in
Redundant Power	No	No	No
Power Consumption	6.2 W	74.4 W	139.2 W
Heat Dissipation	21.142 BTU/h	34.12 BTU/h	34.56 BTU/h
Operating Temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Storage Temperature	-49°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
lumidity	5% to 95% non-condensing	5% to 95% non-condensing	5% to 95% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Noise Level	Fanless	Fanless	Fanless
Certification and Compliance			
		FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	

Warranty

Fortinet Warranty

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

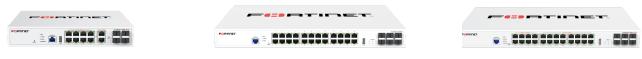
Limited lifetime* warranty on all models

FortiSwitch 108F

FortiSwitch 108F-FPOE

	FORTISWITCH 110G-FPOE	FORTISWITCH 124G	FORTISWITCH 124G-FPOE
Hardware Specifications			
Total Network Interfaces	2× 5G/2.5G/1G/100M	24× 2.5G/1G/100M/10M	24× 2.5G/1G/100M/10M
	8× 2.5G/1G/100M/10M RJ45	6× 10G/1G SFP+/SFP	6× 10G/1G SFP+/SFP
	4× 10G/1G/100 SFP+/SFP		
Dedicated Management 10/100 Port	1	_	_
RJ-45 Serial Console Port	1	1	1
Form Factor	Desktop	1 RU Rack Mount	1 RU Rack Mount
Power over Ethernet (PoE) Ports	2× 5G with PoE bt 8× 2.5G with PoE af/at	_	8x PoE bt 16x PoE af/at
PoE Power Budget	200 W	_	780W
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
Switching Capacity (Duplex)	140 Gbps	240Gbps	240Gbps
Packets Per Second (Duplex)	208 Mpps	355Mpps	355Mpps
MAC Address Storage	32k	32k	32k
Network Latency	< 1µs	< 1µs	< 1µs
VLANs Supported	4k	4k	4k
Link Aggregation Group Size	10	8	8
Total Link Aggregation Groups	12	16	16
Packet Buffers	2MB	2MB	2MB
Memory	1GB DDR4	1GB DDR4	1GB DDR4
Flash	8MB NOR	256MB NAND	256MB NAND
ACL	640	640	640
Spanning Tree Instances	32	32	32
Dimensions			
Height x Depth x Width (inches)	1.71 × 10.63 × 8.97	1.71 × 12.2 × 17.3	1.71 × 12.2 × 17.3
Height x Depth x Width (mm)	44 × 270 × 228	44 × 310 × 440	44 × 310 × 440
Weight	4.05 lbs (1.84 kg)	8.75 lbs (3.97 kg)	10.72 lbs (4.86 kg)
Environment			
Power Required	100-240V AC, 50-60 Hz	100-240V AC, 50-60 Hz	100-240V AC, 50-60 Hz
Power Supply	100V-240VAC/54V DC power adapter included	AC built in	AC built in
Redundant Power	No	No	No
Power Consumption	250W	43.5W	880W
Heat Dissipation	102.36 BTU/h	148.4 BTU/h	194.8 BTU/h
Operating Temperature	32°F to 113°F (0°C to 45°C)	23°F to 113°F (-5°C to 45°C)	23°F to 113°F (-5°C to 45°C)
Storage Temperature	-49°F to 158°F (-40°C to 70°C)	-49°F to 158°F (-40°C to 70°C)	-49°F to 158°F (-40°C to 70°C)
Humidity	5% to 95% RH non-condensing	5% to 95% RH non-condensing	5% to 95% RH non-condensing
Air-Flow Direction	side to back/top	side-to-back	side-to-back
Noise Level	Fanless	Fanless	48.2 dBA
Certification and Compliance			
	FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	FCC, ICES, CE, UKCA, RCM, VCCI, BSMI, UL, CB, RoHS2	FCC, ICES, CE, UKCA, RCM, VCCI, BSMI, UL CB, RoHS2
Ingress Protection	IP30	IP30	IP20
Warranty			
Fortinet Warranty		Limited lifetime* warranty on all models	

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



FortiSwitch 110G-FPOE

FortiSwitch 124G-FPOE

	FORTISWITCH 124F	FORTISWITCH 124F-POE	FORTISWITCH 124F-FPOE
Hardware Specifications			
Total Network Interfaces	24x GE RJ45 and 4× 10GE SFP+	24x GE RJ45 and 4× 10GE SFP+	24x GE RJ45 and 4× 10GE SFP+
Dedicated Management 10/100 Port	0	0	0
J-45 Serial Console Port	1	1	1
Form Factor	1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
ower over Ethernet (PoE) Ports	0	12 (802.3af/at)	24 (802.3af/at)
oE Power Budget	0	185 W	370 W
lean Time Between Failures	> 10 years	> 10 years	> 10 years
System Specifications			
witching Capacity (Duplex)	128 Gbps	128 Gbps	128 Gbps
Packets Per Second (Duplex)	190 Mpps	190 Mpps	190 Mpps
IAC Address Storage	32 K	32 K	32 K
letwork Latency	< 1µs	< 1µs	< 1µs
/LANs Supported	4 K	4 К	4 K
ink Aggregation Group Size	8	8	8
otal Link Aggregation Groups	16	16	16
Packet Buffers	2 MB	2 MB	2 MB
/lemory	512 MB DDR3	512 MB DDR3	512 MB DDR3
lash	64 MB	64 MB	64 MB
ACL	640	640	640
Spanning Tree Instances	32	32	32
Dimensions			
leight x Depth x Width (inches)	1.73 × 9.06 × 12.99	1.73 × 10.24 × 17.32	1.73 × 10.24 × 17.32
leight x Depth x Width (mm)	44 × 230 × 330	44 × 260 × 440	44 × 260 × 440
Veight	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
leat Dissipation	89.683 BTU/h	102.982 BTU/h	118.327 BTU/h
Operating Temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
lumidity	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Noise Level	Fanless	46.3 dBA	45.8 dBA
Certification and Compliance			

Warranty

Fortinet Warranty

FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2

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

	FORTISWITCH 148F	FORTISWITCH 148F-POE	FORTISWITCH 148F-FPOE
Hardware Specifications			
Total Network Interfaces	48x GE RJ45 and 4× 10GE SFP+	48x GE RJ45 and 4× 10GE SFP+	48x GE RJ45 and 4× 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
/LANs Supported	4 K	4 K	4 K
ink Aggregation Group Size	8	8	8
Total Link Aggregation Groups	16	16	16
Packet Buffers	2 MB	2 MB	2 MB
Memory	512 MB DDR3	512 MB DDR3	512 MB DDR3
lash	64 MB	64 MB	64 MB
ACL	640	640	640
Spanning Tree Instances	32	32	32
Dimensions			
leight x Depth x Width (inches)	1.73 × 10.24 × 17.32	1.73 × 12.20 × 17.32	1.73 × 12.20 × 17.32
leight x Depth x Width (mm)	44 × 260 × 440	44 × 310 × 440	44 × 310 × 440
Veight	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
leat Dissipation	194.37 BTU/h	195.73 BTU/h	198.46 BTU/h
Operating Temperature	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)	32°F to 113°F (0°C to 45°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
lumidity	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing
Air-Flow Direction	side-to-back	side-to-back	side-to-back
Noise Level	42.8 dBA	46.9 dBA	46.5 dBA
Certification and Compliance			

Warranty

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FortiSwitch 148F

FortiSwitch 148F-POE

FortiSwitch 148F-FPOE

	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	
lean Time Between Failures	> 10 years	> 10 years	> 10 years	
System Specifications				
Switching Capacity (Duplex)	56 Gbps	56 Gbps	56 Gbps	
ackets Per Second (Duplex)	83 Mpps	83 Mpps	83 Mpps	
IAC Address Storage	16 K	16 K	16 K	
letwork Latency	< 1µs	< 1µs	< 1µs	
LANs Supported	4 K	4 K	4 K	
ink Aggregation Group Size	8	8	8	
otal Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports	
acket Buffers	1.5 MB	1.5 MB	1.5 MB	
lemory	512 MB DDR3	512 MB DDR3	512 MB DDR3	
lash	128 MB	128 MB	128 MB	
CL	512	512	512	
panning Tree Instances	32	32	32	
oute Entries (IPv4/IPv6)	64/64	64/64	64/64	
ost Entries (IPv4/IPv6)	512/512	512/512	512/512	
imensions				
leight x Depth x Width (inches)	1.73 × 12.2 × 17.5	1.73 × 9 × 12.99	1.73 × 9 × 12.99	
eight x Depth x Width (mm)	44 × 310 × 440	44 × 230 × 330	44 × 230 × 330	
/eight	10.64 lbs (4.83 kg)	4.78 lbs (2.17 kg)	5.37 lbs (2.44 kg)	
nvironment				
ower Required	100-240V AC, 50/60 Hz	100-240V AC, 50/60 Hz	100-240V AC, 50/60 Hz	
ower Supply	AC built in	AC built in	AC built in	
edundant Power	Optional FRPS-740	Redundant AC	Optional FRPS-740	
ower Consumption* (Average / Maximum)	380 W / 397 W	17.2 W / 17.3 W	220.18 W / 223.57 W	
eat Dissipation	85 BTU/h	59.095 BTU/h	74.29554 BTU/h	
perating Temperature	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)	
torage Temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	
umidity	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing	
ir-Flow Direction	side-to-back	side-to-back	side-to-back	
loise Level	42.7 dBA	Fanless	30.6 dBA	
ertification and Compliance				
	FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2			

Warranty

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FortiSwitch 224D-FPOE

FortiSwitch 224E-POE

FORTISWITCH 248D	FORTISWITCH 248E-POE	FORTISWITCH 248E-FPOE
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
1	1	1
1	1	1
1 RU Rack Mount	1 RU Rack Mount	1 RU Rack Mount
—	24 (802.3af/802.3at)	48 (802.3af/802.3at)
N/A	370 W	740 W
> 10 years	> 10 years	> 10 years
104 Gbps	104 Gbps	104 Gbps
155 Mpps	155 Mpps	155 Mpps
16 K	16 K	16 K
< 1µs	< 1µs	< 1µs
4 K	4 K	4 K
8	8	8
Up to number of ports	Up to number of ports	Up to number of ports
1.5 MB	1.5 MB	1.5 MB
512 MB DDR3	512 MB DDR3	512 MB DDR3
128 MB	128 MB	128 MB
512	512	512
32	32	32
64/64	64/64	64/64
512/512	512/512	512/512
1.73 × 9.68 × 17.3	1.73 × 16.1 × 17.3	1.73 × 16.1 × 17.3
$44 \times 246 \times 440$	44 × 410 × 440	44 × 410 × 440
7.81 lbs (3.54 kg)	12.12 lbs (5.5 kg)	13.44 lbs (6.1 kg)
100-240V AC, 50/60 Hz	100-240V AC, 50/60 Hz	100-240V AC, 50/60 Hz
AC built in	AC built in	AC built in
_	Optional FRPS-740	Optional FRPS-740
38.66 W / 39.19 W	457.46 W / 466.47 W	842 W / 855.02 W
134 BTU/h	177.14268 BTU/h	162.87865 BTU/h
32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)	32°F to 122°F (0°C to 50°C)
-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing
side-to-back	side-to-back	side-to-back
32.3 dBA	34.2 dBA	44.7 dBA
	48x GE RJ45 ports and 4x GE SFP ports 1 1 1 1 RU Rack Mount 	48x GE RJ45 ports and 4x GE SFP ports 48x GE RJ45 ports and 4x GE SFP ports 1 1 1 37 104 Gbps 104 Gbps 155 Mpps 155 Mps 16 K 16 K 18 8 19 1.15 MB 15.1 MB 1.5 MB 128 MB 128 MB 512 512 32<

FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2

Limited lifetime** warranty on all models

Warranty

Fortinet Warranty

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FortiSwitch 248D

FortiSwitch 248E-POE

FortiSwitch 248E-FPOE

Ordering Information

Product	SKU	Description
FortiSwitch Models		
FortiSwitch 108F	FS-108F	Layer 2 FortiGate switch controller compatible switch with 8 x GE RJ45 ports, 2 x GE SFP, Fanless, 12V/3A power adapter of input voltage 100 – 240VAC, and PSE dual powered.
FortiSwitch 108F-POE	FS-108F-POE	Layer 2 FortiGate switch controller compatible PoE+ switch with 8 x GE RJ45 ports, 2 x GE SFP, Fanless with automatic Max 65W POE output limit.
FortiSwitch 108F-FPOE	FS-108F-FPOE	Layer 2 FortiGate switch controller compatible PoE+ switch with 8 x GE RJ45 ports, 2 x GE SFP, Fanless with automatic Max 130W POE output limit.
FortiSwitch 110G-FPOE	FS-110G-FPOE	Layer 2 FortiGate switch controller compatible PoE+ switch with 2× 5 GE ports with PoE 802.3bt, 8× 1GE RJ45 ports with PoE 802.3af/at, 4× 10 GE SFP+, Fanless with maximum 200W PoE output limit.
FortiSwitch 124F	FS-124F	Layer 2 FortiGate switch controller compatible switch with 24 GE RJ45 + 4 10G SFP+ ports. Fanless.
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 124G	FS-124G	Layer 2 FortiGate switch controller compatible switch with 24× 2.5G/1G/100M/10M RJ45 and 6× 10G/1G SFP+/ SFP ports, and 1x RJ45 console port. Fanless.
FortiSwitch 124G-FPOE	FS-124G-FPOE	Layer 2 FortiGate switch controller compatible PoE switch with 24× 2.5G/1G/100M/10M RJ45 ports - 8× 802.3bt (90W) PoE and 16× 802.3af/at (30W) PoE - and 6× 10G/1G SFP+/SFP ports, and 1x RJ45 console port. Max 780W PoE output limit with smart fan/temperature control.
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.
Licenses		
FortiEdge Cloud Management License*	FC-10-FSW00-628-02-DD	FortiSwitch 100 Series (No FSW Rugged Models) FortiEdge Cloud Management SKU Including FortiCare Premium (Note, FortiCare only applicable when used with FortiEdge Cloud).
	FC-10-FSW10-628-02-DD	FortiSwitch 200-400 Series (incl all FSW Rugged Models) FortiEdge Cloud Management SKU Including FortiCare Premium (Note, FortiCare only applicable when used with FortiEdge Cloud).
FortiSwitch Manager Subscription License	FC1-10-SWMVM-258-01-DD	Subscription license for 10 FortiSwitch Units managed by FortiSwitchManager VM. 24×7 FortiCare support (for FSWM VM) included.
	FC2-10-SWMVM-258-01-DD	Subscription license for 100 FortiSwitch Units managed by FortiSwitchManager VM. 24×7 FortiCare support (for FSWM VM) included.
	FC3-10-SWMVM-258-01-DD	Subscription license for 1000 FortiSwitch Units managed by FortiSwitchManager VM. 24×7 FortiCare support (for FSWM VM) included.
FortiSwitch Advanced Features License	FS-SW-LIC-200	SW License for FS-200 Series Switches to activate Advanced Features.
Accessories		
External Redundant AC Power Supply	FRPS-740	Redundant AC power supply for up to two units: FS-224D-FPOE, FS-224E-POE, FS-248E-POE, FS-248E-FPOE.

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

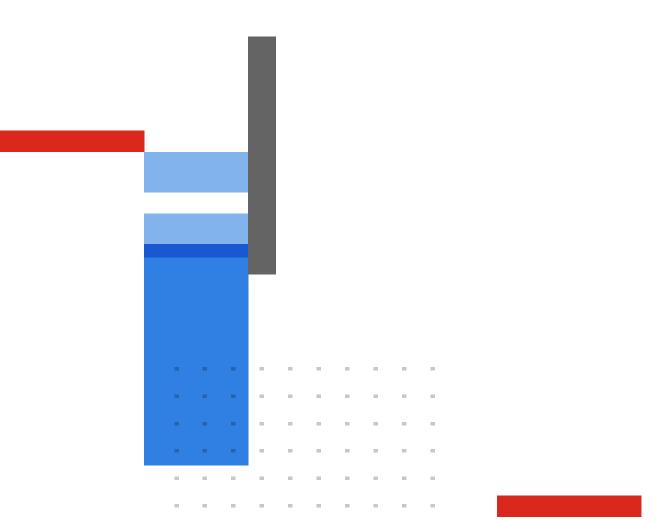
For details of Transceiver modules, see the Fortinet Transceivers datasheet.

Note that all PoE FortiSwitches are Alternative-A.

Visit https://www.fortinet.com/resources/ordering-guides for related ordering guides.

Fortinet Corporate Social Responsibility Policy

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