

# Fortinet FS-148E

## Datasheet

## Product Overview

- The Fortinet FortiSwitch Secure Access Family brings integrated security, high performance, and streamlined manageability for networks.
- Built for organizations seeking unified network access, it suits small businesses and large enterprises needing secure, scalable access control.
- With 48 GE RJ45 ports and 4 GE SFP uplinks, high switching capacity, and a compact 1RU form, FS-148E is suited for high-demand deployments.
- Advanced FortiLink integration enables direct management from FortiGate, while VLAN and port profiles simplify administration.
- FortiSwitch includes features like wire-speed switching, robust stacking, and support for unified policies across wired and wireless environments.
- Ideal for branch, campus, and data center edge installations, the FortiSwitch FS-148E unifies network access, boosts security, and enables simplified operations.

## Product Highlights

- **Flexible Deployment Options:** Designed for desktop, rack, or wiring closet installations, adapting to varied network environments.
- **Centralized Security Integration:** Centralized management with FortiLink via FortiGate ensures unified access control and policy enforcement.
- **Unified Network Delivery:** Supports converging voice, data, and wireless traffic across a single network infrastructure for operational efficiency.
- **Scalable High-Density Stacking:** Stack up to 300 switches per FortiGate (model dependent), allowing growth without compromising manageability.

## Detailed Features



FS-148E

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Component	Specification
Total Network Interfaces	48x GE RJ45 and 4x GE SFP
Dedicated Management 10/100 Port	0
Form Factor	1 RU Rack Mount
Switching Capacity	104 Gbps
Weight	8.6 lbs (3.9 kg)



## Advanced Centralized Management

FortiSwitch supports centralized management via FortiLink and FortiGate, enabling seamless configuration, monitoring, and control from a single interface. Administrators gain full network visibility and can execute simultaneous firmware upgrades, VLAN changes, and dynamic port policies, streamlining large-scale deployments and reducing maintenance overhead in complex environments.

## Robust Stacking and Auto Discovery

Integrated FortiLink stacking allows automated inter-switch links and the management of up to 300 switches from a FortiGate appliance. Auto discovery and dynamic addition of switches make scaling straightforward. This approach minimizes manual intervention, simplifies lifecycle management, and ensures network expansion is both efficient and secure even as your business grows.

## Flexible Access Control and VLAN Management

Centralized VLAN configuration, policy-based routing, Link Aggregation, and advanced controls (such as dynamic port profiles and POE management) are all supported. These allow precise segmentation, optimized performance, and fine-tuned user/device policies, guaranteeing that network resources are allocated efficiently and comply with security mandates for every access scenario.

## High Availability and Resilience

Supporting features such as switch HA, firmware provisioning on authorization, support for HA clusters, and active-active split LAGs, FortiSwitch maximizes uptime. These enhancements prevent outages from impacting core business functions, offer strong redundancy, and enable advanced load balancing, essential for mission-critical and distributed branch deployments.

## Comprehensive Security Enforcement

The device employs 802.1X authentication (port/MAC/MAB), DHCP snooping, and integrated network access control. Administrators can enforce granular policy controls based on user or device, including MAC black/white lists and host quarantine at the switch port, strengthening security posture across the enterprise edge or branch.

## Powerful Layer 3 Integration

FortiSwitch leverages FortiGate for advanced Layer 3 services, including routing, virtual domains, and policy-based routing. This integration supports intelligent network segmentation, application-aware policy delivery, and ensures that network traffic can be optimized and inspected at advanced levels for compliance and performance management.

## Full UTM and IoT Identification Support

Co-working with FortiGate, the switch supports features such as firewall, antivirus, application control, and botnet detection for all connected endpoints. FortiGuard IoT identification helps isolate and safeguard unmanaged or risky devices, contributing to a thorough security audit and enforcement framework as part of the Security Fabric.

## Detailed Network Monitoring and Troubleshooting

Integrated Syslog collection, IGMP snooping, LLDP/MED, and sFlow-like telemetry enable real-time monitoring and diagnostics. Device detection, security rating recommendations, and traffic collectors facilitate faster troubleshooting and help maintain a healthy, reliable network well-aligned with IT governance standards.

## Technical Specifications

### Product Specifications

Feature	Value
Product Model	FortiSwitch 148E
Total Network Interfaces	48x GE RJ45 and 4x GE SFP
Dedicated Management 10/100 Port	0
RJ-45 Serial Console Port	1
Form Factor	1 RU Rack Mount
Power over Ethernet (PoE) Ports	0
PoE Power Budget	0



Feature	Value
Mean Time Between Failures	> 10 years
Switching Capacity (Duplex)	104 Gbps
Packets Per Second (Duplex)	155 Mpps
MAC Address Storage	16 K
Network Latency	3860μs
VLANs Supported	4 K
Link Aggregation Group Size	8
Total Link Aggregation Groups	16
Packet Buffers	1.5 MB
DRAM	256 MB DDR3
FLASH	64 MB
Height x Depth x Width (inches)	1.73 x 12.2 x 17.3
Height x Depth x Width (mm)	44 x 309 x 440
Weight	8.6 lbs (3.9 kg)
Power Required	100–240V AC, 50–60 Hz
Power Supply	AC Built in
Redundant Power	No
Power Consumption (Average / Maximum)	19.804 W / 22.137 W
Heat Dissipation	67.574 BTU/h
Operating Temperature	min
Storage Temperature	min
Humidity	10–90% non-condensing
Certification and Compliance	FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2

## Product Comparison

Feature	FS-148E	C9300L-48PF-4X-10E	C9200L-48PXG-4X-A
Fixed Ports	48x GE RJ45 and 4x GE SFP	48x 10/100/1000 PoE+ + 4x 10G SFP+	48x 10/100/1000 PoE+ + 4x 10G SFP+
Switching Capacity	104 Gbps	176 Gbps	176 Gbps



Feature	FS-148E	C9300L-48PF-4X-10E	C9200L-48PXG-4X-A
PoE Capability	No PoE	PoE+ Supported	PoE+ Supported
Stacking Support	Stack up to 300 per FortiGate	Stackwise-320, up to 8 units	Stackwise-160, up to 8 units
Management	FortiGate/FortiLink Integrated	Cisco DNA Center, Web UI, CLI	Cisco DNA Center, Web UI, CLI
MAC Address Table	16 K	32 K	32 K
Redundant Power	Not supported	Supported	Supported
Layer 3 Routing	With FortiGate	Yes	Yes
Port Buffer	1.5 MB	16 MB	16 MB
Operating Temp Range	0–45°C	0–45°C	0–45°C

## Accessories

Category	Accessories
Included Accessories	<ul style="list-style-type: none"> <li>- Power Adapter</li> <li>- Mounting Brackets</li> <li>- Quick Installation Guide</li> </ul>
Optional Accessories	<ul style="list-style-type: none"> <li>- SFP Transceiver</li> <li>- Advanced Stacking Module</li> <li>- Console Cable</li> </ul>



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## References

[1] Fortinet. (2023). FortiSwitch Secure Access Series Datasheet. Retrieved from [https://25396221.fs1.hubspotusercontent-eu1.net/hubfs/25396226/Security/Fortinet/Datasheet\\_FortiSwitch\\_Secure\\_Access\\_Series.pdf](https://25396221.fs1.hubspotusercontent-eu1.net/hubfs/25396226/Security/Fortinet/Datasheet_FortiSwitch_Secure_Access_Series.pdf)