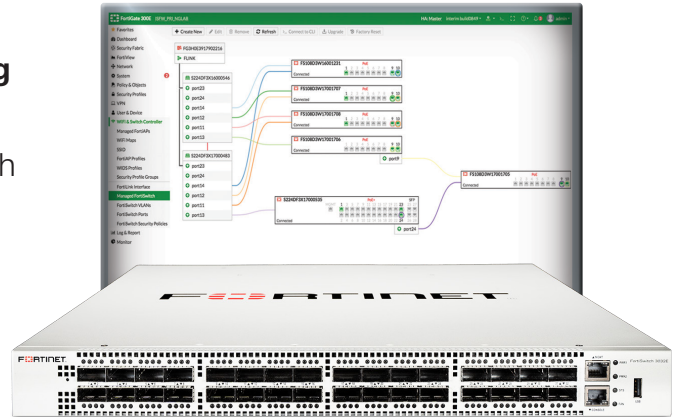


# FortiSwitch™ Data Center Series

**FortiSwitch Data Center switches deliver a Secure, Simple, Scalable Ethernet solution with outstanding throughput, resiliency and scalability.** Virtualization and cloud computing have created dense high-bandwidth Ethernet networking requirements. FortiSwitch Data Center switches meet these challenges by providing a high performance 10 GE, 40 GE or 100 GE capable switching platform, with a low Total Cost of Ownership. Ideal for Top of Rack server or firewall aggregation applications, as well as SD-Branch network core deployments, these switches are purpose-built to meet the needs of today's bandwidth intensive environments.



## Security Fabric Integration through FortiLink

The FortiSwitch Data Center Series supports FortiGate management through FortiLink, extending the Fortinet Security Fabric to the Ethernet port level. This allows the same policies configured and applied to FortiGate interfaces to be applied to the FortiSwitch Ethernet ports, reducing complexity and decreases management cost. With network security and access layer functions enabled and managed through a single console, centralized policy management, including role-based access and control, are easy to implement and manage. Users or devices can be authenticated against the same database and have the same security policy applied regardless of how or where they connect to the network.

## Product Offerings

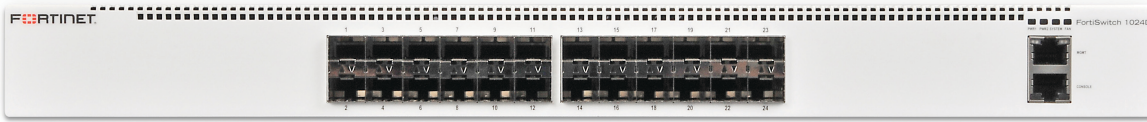
FortiSwitch 1024D, 1048E, 3032D and 3032E

### Highlights

- High throughput Ethernet switch suitable for Top of Rack or large SD-Branch network deployments
- 1 GE, 10 GE, or 100 GE access ports, in a compact 1 RU form factor with 40 or 100 GE capable uplinks
- FortiGate management through FortiLink, enabling the Security Fabric
- Stackable up to 300 switches per FortiGate depending on model
- Dual hot swappable power supplies for redundancy
- Supports Wire-speed switching with both Store and Forward and Cut Through forwarding modes



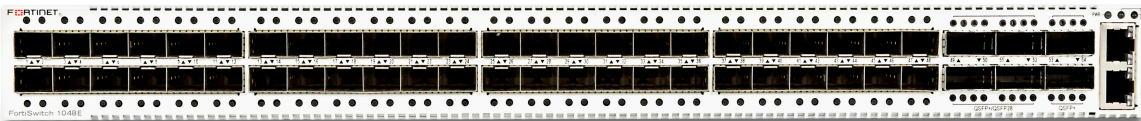
# Hardware



FortiSwitch 1024D – front



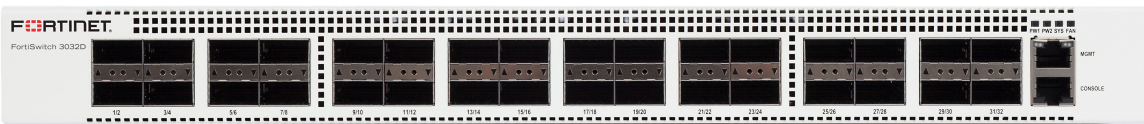
FortiSwitch 1024D – back



FortiSwitch 1048E – front



FortiSwitch 1048E – back



FortiSwitch 3032D – front



FortiSwitch 3032D – back



FortiSwitch 3032E – front



FortiSwitch 3032E – back

# Features

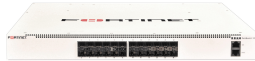
| FORTISWITCH D-SERIES FORTILINK MODE (WITH FORTIGATE)   |   |                   |                   |                   |
|--|---|-------------------|-------------------|-------------------|
| <b>Management and Configuration</b>  |   |                   |                   |                   |
| Auto 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)   |                   |                   |                   |
| <b>Security and Visibility</b>   |   |                   |                   |                   |
| 802.1x Authentication (Port-based, MAC-Based, MAB)   | Yes   |                   |                   |                   |
| Syslog Collection  | Yes   |                   |                   |                   |
| DHCP Snooping  | Yes   |                   |                   |                   |
| Device Detection   | Yes   |                   |                   |                   |
| MAC Black/White Listing  | Yes (FortiGate)   |                   |                   |                   |
| Policy Control of Users and Devices  | Yes (FortiGate)   |                   |                   |                   |
| <b>UTM Features</b>  |   |                   |                   |                   |
| Firewall   | Yes (FortiGate)   |                   |                   |                   |
| IPC, AV, Application Control, Botnet   | Yes (FortiGate)   |                   |                   |                   |
| <b>High Availability</b>   |   |                   |                   |                   |
| 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   |                   |                   |                   |
|  | FORTISWITCH 1024D   | FORTISWITCH 1048E | FORTISWITCH 3032D | FORTISWITCH 3032E |
| <b>Layer 2</b>   |   |                   |                   |                   |
| Jumbo Frames   | Yes   | Yes               | Yes               | Yes               |
| Auto-negotiation for port speed and duplex   | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.1D MAC Bridging/STP   | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)  | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)   | Yes   | Yes               | Yes               | Yes               |
| STP Root Guard   | Yes   | Yes               | Yes               | Yes               |
| Edge Port / Port Fast  | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.1Q VLAN Tagging   | Yes   | Yes               | Yes               | Yes               |
| Private VLAN   | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.3ad Link Aggregation with LACP  | Yes   | 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               | Yes               |
| IEEE 802.1AX Link Aggregation  | Yes   | Yes               | Yes               | Yes               |
| Spanning Tree Instances (MSTP/CST)   | 15/1  | 15/1              | 15/1              | 15/1              |
| IEEE 802.3x Flow Control and Back-pressure   | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.1Qbb Priority-based Flow Control  | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.3u 100Base-TX   | Yes   | No                | No                | Yes               |
| IEEE 802.3z 1000Base-SX/LX   | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.3ab 1000Base-T  | Yes   | Yes               | No                | Yes               |
| IEEE 802.3ae 10 Gigabit Ethernet   | Yes   | Yes               | Yes               | Yes               |
| IEEE 802.3 CSMA/CD Access Method and Physical Layer Specifications   | Yes   | Yes               | Yes               | Yes               |
| Storm Control  | Yes   | Yes               | Yes               | Yes               |
| MAC, IP, Ethertype-based VLANs   | Yes   | Yes               | Yes               | Yes               |
| Virtual-Wire   | Yes   | Yes               | Yes               | Yes               |
| Split Port   | Yes   | Yes               | Yes               | Yes               |

# Features

|   | FORTISWITCH 1024D              | FORTISWITCH 1048E              | FORTISWITCH 3032D              | FORTISWITCH 3032E              |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| <b>Layer 3</b>  |                                |                                |                                |                                |
| Static Routing (Hardware-based)                             | Yes                            | Yes                            | Yes                            | Yes                            |
| Routing Entries   | 16K                            | 16K                            | 16K                            | 8K                             |
| L3 Host Entries   | 16K                            | 32K                            | 16K                            | 32K                            |
| Dynamic Routing Protocols*                                  | OSPFv2, RIPv2, VRRP, BGP, ISIS | OSPFv2, RIPv2, VRRP, BGP, ISIS | OSPFv2, RIPv2, VRRP, BGP, ISIS | OSPFv2, RIPv2, VRRP, BGP, ISIS |
| Multicast Protocols   | PIM-SSM                        | PIM-SSM                        | PIM-SSM                        | PIM-SSM                        |
| ECMP  | Yes                            | Yes                            | Yes                            | Yes                            |
| Bidirectional Forwarding Detection (BFD)                    | Yes                            | Yes                            | Yes                            | Yes                            |
| DHCP Relay  | Yes                            | Yes                            | Yes                            | Yes                            |
| IGMP Snooping   | Yes                            | Yes                            | Yes                            | Yes                            |
| <b>Security and Visibility</b>                              |                                |                                |                                |                                |
| Port Mirroring  | Yes                            | Yes                            | Yes                            | Yes                            |
| Admin Authentication Via RFC 2865 RADIUS                    | Yes                            | Yes                            | Yes                            | Yes                            |
| IEEE 802.1x authentication Port-based                       | Yes                            | Yes                            | Yes                            | Yes                            |
| IEEE 802.1x Authentication MAC-based                        | Yes                            | Yes                            | Yes                            | Yes                            |
| IEEE 802.1x Guest and Fallback VLAN                         | Yes                            | Yes                            | Yes                            | Yes                            |
| IEEE 802.1x MAC Access Bypass (MAB)                         | Yes                            | Yes                            | Yes                            | Yes                            |
| IEEE 802.1x Dynamic VLAN Assignment                         | Yes                            | Yes                            | Yes                            | Yes                            |
| MAC-IP Binding  | Yes                            | Yes                            | Yes                            | Yes                            |
| sFlow   | Yes                            | Yes                            | Yes                            | Yes                            |
| ACL   | Yes, 2K entries                | Yes, 8K entries                | Yes, 2K entries                | Yes, 6K entries                |
| IEEE 802.1ab Link Layer Discovery Protocol (LLDP)           | Yes                            | Yes                            | Yes                            | Yes                            |
| IEEE 802.1ab LLDP-MED                                       | Yes                            | Yes                            | Yes                            | Yes                            |
| DHCP-Snooping   | Yes                            | Yes                            | Yes                            | Yes                            |
| Dynamic ARP Inspection                                      | Yes                            | Yes                            | Yes                            | Yes                            |
| Sticky MAC  | Yes                            | Yes                            | Yes                            | Yes                            |
| <b>High Availability</b>                                    |                                |                                |                                |                                |
| Multi-Chassis Link Aggregation (MCLAG)                      | Yes                            | Yes                            | Yes                            | Yes                            |
| <b>Quality of Service</b>                                   |                                |                                |                                |                                |
| IEEE 802.1p Based Priority Queuing                          | Yes                            | Yes                            | Yes                            | Yes                            |
| IP TOS/DSCP Based Priority Queuing                          | Yes                            | Yes                            | Yes                            | Yes                            |
| <b>Management</b>   |                                |                                |                                |                                |
| IPv4 and IPv6 Management                                    | Yes                            | Yes                            | Yes                            | Yes                            |
| Telnet / SSH  | Yes                            | Yes                            | Yes                            | Yes                            |
| HTTP / HTTPS  | Yes                            | Yes                            | Yes                            | Yes                            |
| SNMP v1/v2c/v3  | Yes                            | Yes                            | Yes                            | Yes                            |
| SNTP  | Yes                            | Yes                            | Yes                            | Yes                            |
| Standard CLI and web GUI interface                          | Yes                            | Yes                            | Yes                            | Yes                            |
| Software download/upload: TFTP/FTP/GUI                      | Yes                            | Yes                            | Yes                            | Yes                            |
| Managed from FortiGate                                      | Yes                            | Yes                            | Yes                            | Yes                            |
| Support for HTTP REST APIs for Configuration and Monitoring | Yes                            | Yes                            | Yes                            | Yes                            |
| <b>Additional RFC and MIB Support</b>                       |                                |                                |                                |                                |
| RFC 2571 Architecture for Describing SNMP Framework         | Yes                            | Yes                            | Yes                            | Yes                            |
| DHCP Client   | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 854 Telnet Server                                       | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 2865 RADIUS   | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 1643 Ethernet-like Interface MIB                        | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 1213 MIB-II   | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 1354 IP Forwarding Table MIB                            | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 2572 SNMP Message Processing and Dispatching            | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 1573 SNMP MIB II  | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 1157 SNMPv1/v2c   | Yes                            | Yes                            | Yes                            | Yes                            |
| RFC 2030 SNTP   | Yes                            | Yes                            | Yes                            | Yes                            |

\* Requires 'Advanced Features' License

# Specifications



|                                     | FORTISWITCH 1024D                        | FORTISWITCH 1048E  |
|-------------------------------------|--|--|
| <b>Hardware Specifications</b>      |  |  |
| Total Network Interfaces (Proposed) | 24x GE/10 GE SFP+ ports                  | 48x GE/10 GE SFP+ ports and<br>6x 40 GE QSFP+ ports or<br>4x 100 GE QSFP28 ports |
| 10/100/1000 Service Ports           | 1  | 1  |
| RJ-45 Serial Console Port           | 1  | 1  |
| Form Factor                         | 1 RU Rack-Mount Appliance                | 1 RU Rack Mount  |
| <b>System Specifications</b>        |  |  |
| Switching Capacity (Duplex)         | 480 Gbps                                 | 1020 Gbps  |
| Packets Per Second (Duplex)         | 714 Mpps                                 | 1518 Mpps  |
| Mac Address Storage                 | 128 K                                    | 144 K  |
| Network Latency                     | < 800ns                                  | < 800ns  |
| VLANs Supported                     | 4 K                                      | 4 K  |
| IPv4/IPv6 Routing                   | Yes                                      | Yes  |
| Link Aggregation Group Size         | Up to 24                                 | Up to 48   |
| Total Link Aggregation Groups       | Up to number of ports                    | Up to number of ports  |
| Queues/Port                         | 8  | 8  |
| Packet Buffers                      | 9 MB                                     | 12 MB  |
| DRAM                                | 2 GB                                     | 8 GB   |
| NAND                                | 128 MB                                   | 128 MB   |
| <b>Dimensions</b>                   |  |  |
| Height x Depth x Width (inches)     | 1.71 x 18.11 x 17.26                     | 1.69 x 18.11 x 17.26   |
| Height x Depth x Width (mm)         | 43.5 x 460 x 438.5                       | 43 x 460 x 438.5   |
| Weight                              | 17.62 lbs (8 kg)                         | 18.96 lbs (8.6 kg)   |
| <b>Environment</b>                  |  |  |
| Power Required                      | 100–240V AC, 50–60 Hz                    | 100–240V AC, 50–60 Hz  |
| Power Consumption (Maximum)         | up to 140 W                              | up to 181.7 W  |
| Power Supply                        | Dual hot swappable AC                    | Dual hot swappable AC  |
| Heat Dissipation                    | 369.87 BTU/h                             | 620.4 BTU/h  |
| Operating Temperature               | 32–104°F (0–40°C)                        | 32–113°F (0–45°C)  |
| Storage Temperature                 | -13–158°F (-25–70°C)                     | -4–158°F (-20–70°C)  |
| Humidity                            | 10–90% RH non-condensing                 | 10–90% RH non-condensing   |
| Mean Time Between Failures          | > 10 years                               | > 10 years   |
| <b>Certification and Compliance</b> |  |  |
|                                     | FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2  |  |
| <b>Warranty</b>                     |  |  |
| Fortinet Warranty                   | Limited lifetime* warranty on all models |  |

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

# Specifications



|                                     | FORTISWITCH 3032D                        | FORTISWITCH 3032E                       |
|-------------------------------------|--|---|
| <b>Hardware Specifications</b>      |  |   |
| Total Network Interfaces (Proposed) | 32x 40 GE QSFP+ ports                    | 32x 40 GE / 100 GE QSFP+ / QSFP28 ports |
| 10/100/1000 Service Ports           | 1  | 1                                       |
| RJ-45 Serial Console Port           | 1  | 1                                       |
| Form Factor                         | 1 RU Rack-Mount Appliance                | 1 RU Rack Mount                         |
| <b>System Specifications</b>        |  |   |
| Switching Capacity (Duplex)         | 1920 Gbps                                | 4000 Gbps                               |
| Packets Per Second (Duplex)         | 2858 Mpps                                | 5952 Mpps                               |
| Mac Address Storage                 | 288 K                                    | 40 K                                    |
| Network Latency                     | < 800ns                                  | < 1 us                                  |
| VLANs Supported                     | 4 K                                      | 4 K                                     |
| IPv4/IPv6 Routing                   | Yes                                      | Yes                                     |
| Link Aggregation Group Size         | Up to 24                                 | Up to 48                                |
| Total Link Aggregation Groups       | Up to number of ports                    | 48                                      |
| Queues/Port                         | 8  | 8                                       |
| Packet Buffers                      | 12 MB                                    | 16 MB                                   |
| DRAM                                | 2 GB                                     | 8 GB                                    |
| NAND                                | 128 MB                                   | 128 MB                                  |
| <b>Dimensions</b>                   |  |   |
| Height x Depth x Width (inches)     | 1.71 x 18.11 x 17.26                     | 1.69 x 18.11 x 17.26                    |
| Height x Depth x Width (mm)         | 43.5 x 460 x 438.5                       | 43 x 460 x 438.5                        |
| Weight                              | 19.40 lbs (8.8 kg)                       | 19.34 lbs (8.77 kg)                     |
| <b>Environment</b>                  |  |   |
| Power Required                      | 100–240V AC, 50–60 Hz                    | 100–240V AC, 50–60 Hz                   |
| Power Consumption (Maximum)         | up to 387 W                              | up to 463.8 W                           |
| Power Supply                        | Dual hot swappable AC                    | Dual hot swappable AC                   |
| Heat Dissipation                    | 656.83 BTU/h                             | 1582.5 BTU/h                            |
| Operating Temperature               | 32–104°F (0–40°C)                        | 32–104°F (0–40°C)                       |
| Storage Temperature                 | -13–158°F (-25–70°C)                     | -4–158°F (-20–70°C)                     |
| Humidity                            | 10–90% RH non-condensing                 | 10–90% RH non-condensing                |
| Mean Time Between Failures          | > 10 years                               | > 10 years                              |
| <b>Certification and Compliance</b> |  |   |
|                                     | FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2  |   |
| <b>Warranty</b>                     |  |   |
| Fortinet Warranty                   | Limited lifetime* warranty on all models |   |

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

## Order Information

| Product                               | SKU                   | Description  |
|---------------------------------------|-----------------------|--|
| FortiSwitch 1024D                     | FS-1024D              | Layer 2/3 FortiGate switch controller compatible switch with 24x GE/10 GE SFP/SFP+ slots. Dual AC power supplies.  |
| FortiSwitch 1048E                     | FS-1048E              | Layer 2/3 FortiGate switch controller compatible switch with 48x GE/10 GE SFP/SFP+ slots and 6x 40 GE QSFP+ or 4x 100 GE QSFP28. Dual AC power supplies. |
| FortiSwitch 3032D                     | FS-3032D              | Layer 2/3 FortiGate switch controller compatible switch with 32x 40 GE QSFP+ slots. Dual AC power supplies.  |
| FortiSwitch-3032E                     | FS-3032E              | Layer 2/3 FortiGate switch controller compatible switch with 32x 100 GE QSFP28. Dual AC power supplies.  |
| FortiSwitch Cloud Management License* | FC-10-WMSC1-190-02-DD | FortiSwitch Cloud Management License subscription 1 Year Contract.   |
| FortiGate Cloud Management*           | FC-10-0030E-131-02-DD | FortiGate Cloud Management, Analysis and 1 Year Log Retention.   |
| <b>Accessories</b>                    |                       |  |
| FortiSwitch Advanced Features License | FS-SW-LIC-1000        | SW License for FS-1000 Series Switches to activate Advanced Features.  |
|                                       | FS-SW-LIC-3000        | SW License for FS-3000 Series Switches to activate Advanced Features.  |

\* 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](#).



www.fortinet.com

Copyright © 2020 Fortinet, Inc. All rights reserved. Fortinet®, FortiGate®, FortiCare® and FortiGuard®, and certain other marks are registered trademarks of Fortinet, Inc., and other Fortinet names herein may also be registered and/or common law trademarks of Fortinet. All other product or company names may be trademarks of their respective owners. Performance and other metrics contained herein were attained in internal lab tests under ideal conditions, and actual performance and other results may vary. Network variables, different network environments and other conditions may affect performance results. Nothing herein represents any binding commitment by Fortinet, and Fortinet disclaims all warranties, whether express or implied, except to the extent Fortinet enters a binding written contract, signed by Fortinet's General Counsel, with a purchaser that expressly warrants that the identified product will perform according to certain expressly-identified performance metrics and, in such event, only the specific performance metrics expressly identified in such binding written contract shall be binding on Fortinet. For absolute clarity, any such warranty will be limited to performance in the same ideal conditions as in Fortinet's internal lab tests. Fortinet disclaims in full any covenants, representations, and guarantees pursuant hereto, whether express or implied. Fortinet reserves the right to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable. Fortinet disclaims in full any covenants, representations, and guarantees pursuant hereto, whether express or implied. Fortinet reserves the right to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable.