FORTINET
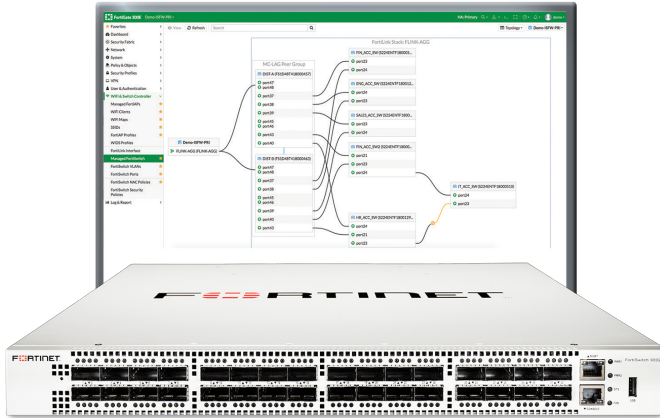
FortiSwitch™ Data Center Series

Available in:

Appliance

Secure, Simple, Scalable Ethernet Solution

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 link allows the same policies configured and applied to FortiGate interfaces to be applied to the FortiSwitch Ethernet ports, reducing complexity and decreasing 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.

Highlights

- High throughput Ethernet switch suitable for Top of Rack or large SD-Branch network deployments

- Compact 1 RU form factor

- 1GE, 2.5GE, 5GE, 10GE, 40GE, and 100GE capable access ports

- Fixed 10GE copper port option

- 40GE or 100GE capable uplinks with breakout support for 2×50G, 4×25G, 4×10G, and 4×1G

- 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

Product Offerings
**FortiSwitch FS-1024D, FS-1024E, FS-T1024E, FS-1048E, FS-3032E**

DEPLOYMENT

Deployment Overview

FortiSwitch is commonly managed and deployed through our FortiGate with FortiLink but can also be deployed and managed in non-FortiGate environments.

FortiGate

FortiGate management is accomplished through FortiLink, an innovative proprietary management protocol that allows our FortiGate security appliance to seamlessly manage any FortiSwitch. FortiLink enables the FortiSwitch to become a logical extension of the FortiGate, integrating it directly into the Fortinet Security Fabric.
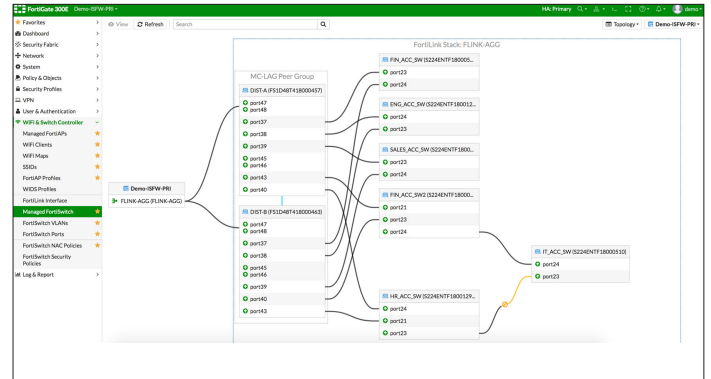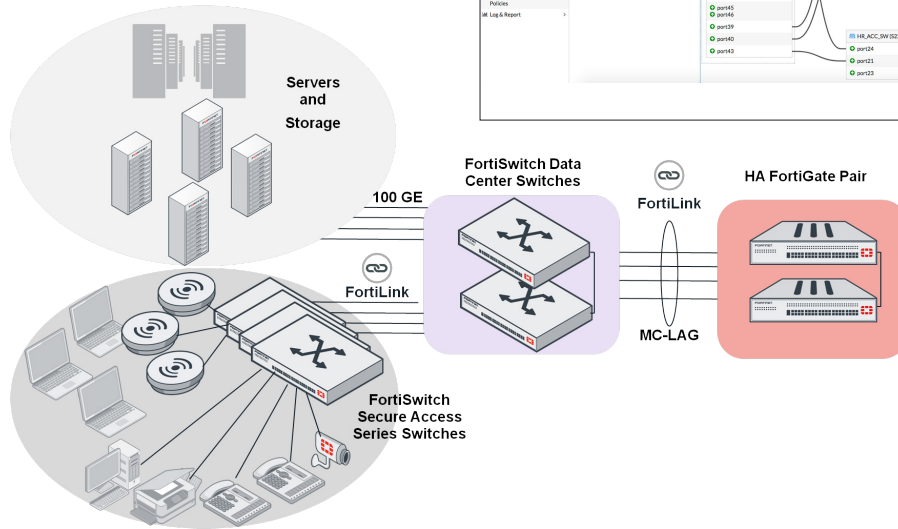
Non FortiGate

FortiSwitch can be managed without a FortiGate in a traditional stand-alone fashion with a native GUI and CLI interface. FortiSwitch Manager offers stacking and management at scale with a network design similar to a FortiGate-managed deployment. This design supports up to 2500 FortiSwitches but offers no traffic inspection or Security Fabric integration. Lastly, RESTful API's offer additional configuration and management tools.
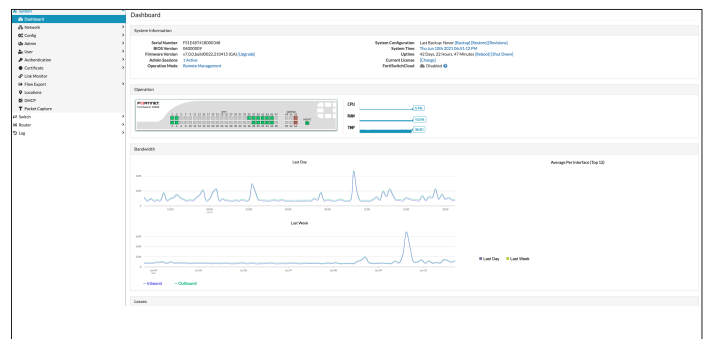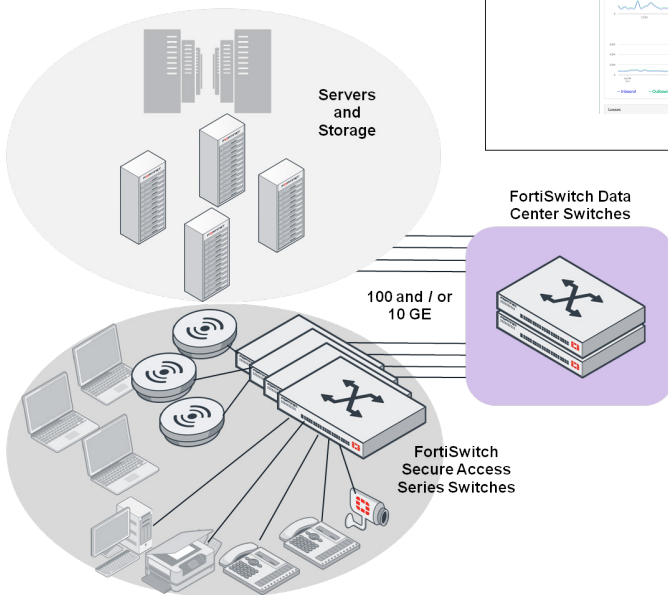
HARDWARE
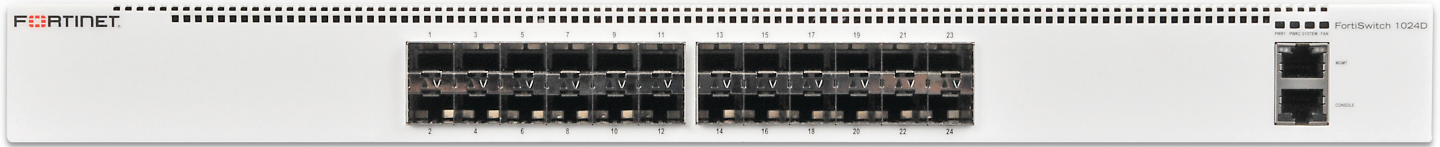
FortiSwitch 1024D — front

FortiSwitch 1024D — back

FortiSwitch 1024E — front

FortiSwitch 1024E — back

FortiSwitch T1024E — front

FortiSwitch T1024E — back

HARDWARE

FortiSwitch 1048E — front

FortiSwitch 1048E — back

FortiSwitch 3032E — front

FortiSwitch 3032E — back
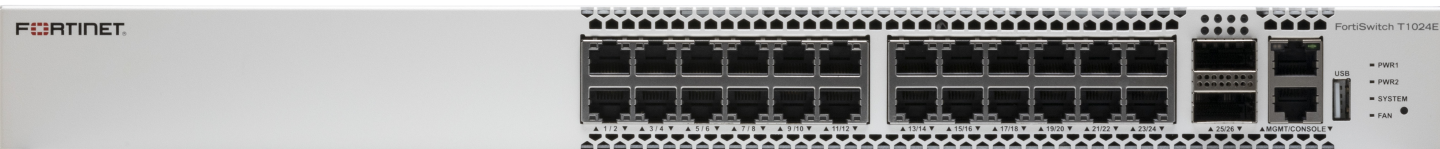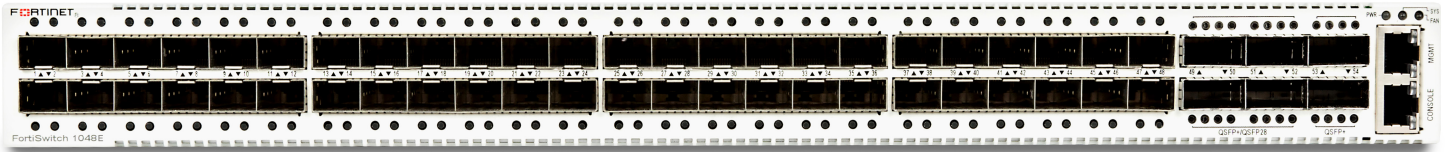
FEATURES

	FORTISWITCH D/E-SERIES FORTILINK MODE (WITH FORTIGATE)
Management and Configuration	
Auto Discovery of Multiple Switches	Yes
Automated Detection and Recommendations	Yes
Centralized VLAN Configuration	Yes
Dynamic Port Profiles for FortiSwitch ports	Yes
FortiLink Stacking (Auto Inter-Switch Links)	Yes
IGMP Snooping	Yes
L3 Routing and Services	Yes (FortiGate)
Link Aggregation Configuration	Yes
LLDP/MED	Yes
Number of Managed Switches per FortiGate	8 to 300 Depending on FortiGate Model (Please refer to admin-guide)
Policy-Based Routing	Yes (FortiGate)
Provision firmware upon authorization	Yes
Software Upgrade of Switches	Yes
Spanning Tree	Yes
Switch POE Control	Yes
Virtual Domain	Yes (FortiGate)
Health Monitoring	Yes
Security and Visibility	
802.1X Authentication (Port-based, MAC-Based, MAB)	Yes
Block Intra-VLAN Traffic	Yes
Device Detection	Yes
DHCP Snooping	Yes
FortiGuard IoT identification	Yes
FortiSwitch recommendations in Security Rating	Yes
Host Quarantine on Switch Port	Yes
Integrated FortiGate Network Access Control (NAC) function	Yes
MAC Black/While Listing	Yes (FortiGate)
Network Device Detection	Yes
Policy Control of Users and Devices	Yes (FortiGate)
Switch Controller traffic collector	Yes
Syslog Collection	Yes
Port Statistics	Yes
Clients Monitoring	Yes
UTM Features	
Firewall	Yes (FortiGate)
IPC, AV, Application Control, Botnet	Yes (FortiGate)
Quality for Service Egress Priority Tagging	Yes
Quality for Service Explicit Congestion Notification	Yes
High Availability	
Active-Active Split LAG from FortiGate to FortiSwitches for Advanced Redundancy	Yes
LAG Support for FortiLink Connection	Yes
Support FortiLink FortiGate in HA Cluster	Yes

FEATURES

	FS-1024D	FS-1024E / FS-T1024E	FS-1048E	FS-3032E
Layer 2				
Auto-Negotiation for Port Speed and Duplex	Yes	Yes	Yes	Yes
Auto Topology	Yes	Yes	Yes	Yes
Edge Port / Port Fast	Yes	Yes	Yes	Yes
IEEE 802.1ad QnQ	Yes	Yes	Yes	Yes
IEEE 802.1AX Link Aggregation	Yes	Yes	Yes	Yes
IEEE 802.1D MAC Bridging/STP	Yes	Yes	Yes	Yes
IEEE 802.1Q VLAN Tagging	Yes	Yes	Yes	Yes
IEEE 802.1Qbb Priority-based Flow Control	Yes	Yes	Yes	Yes
IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)	Yes	Yes	Yes	Yes
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)	Yes	Yes	Yes	Yes
IEEE 802.3 CSMA/CD Access Method and Physical Layer Specifications	Yes	Yes	Yes	Yes
IEEE 802.3ab 1000Base-T	Yes	Yes	Yes	Yes
IEEE 802.3ad Link Aggregation with LACP	Yes	Yes	Yes	Yes
IEEE 802.3ae 10 Gigabit Ethernet	Yes	Yes	Yes	Yes
IEEE 802.3ba, 802.3bj, 802.3bm 40 and 100 Gigabit Ethernet	No	Yes	Yes	Yes
IEEE 802.3bz Multi Gigabit Ethernet	No	Yes	No	No
IEEE 802.3u 100Base-TX	Yes	No / Yes	No	Yes
IEEE 802.3x Flow Control and Back-pressure	Yes	Yes	Yes	Yes
IEEE 802.3z 1000Base-SX/LX	Yes	Yes	Yes	Yes
Ingress Pause Metering	Yes	Yes	Yes	No
Jumbo Frames	Yes	Yes	Yes	Yes
LAG Min/Max Bundle	Yes	Yes	Yes	Yes
Loop Guard	Yes	Yes	Yes	Yes
MAC, IP, Ethertype-based VLANs	Yes	Yes	Yes	Yes
PHY Forward Error Correction	No	Yes	Yes	Yes
Private VLAN	Yes	Yes	Yes	Yes
Rapid PVST Interoperation	Yes	Yes	Yes	Yes
Spanning Tree Instances (MSTP/CST)	32/1	32/1	32/1	32/1
Split Port	No	No	Yes	Yes
Storm Control	Yes	Yes	Yes	Yes
STP BPDU Guard	Yes	Yes	Yes	Yes
STP Root Guard	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
Virtual-Wire	Yes	Yes	Yes	Yes
VLAN Mapping	Yes	Yes	Yes	Yes
Dynamically shared packet buffers	Yes	Yes	Yes	Yes

FEATURES

	FS-1024D	FS-1024E / FS-T1024E	FS-1048E	FS-3032E
Layer 3				
Bidirectional Forwarding Detection (BFD)	Yes	Yes	Yes	Yes
DHCP Relay	Yes	Yes	Yes	Yes
DHCP Server	Yes	Yes	Yes	Yes
Dynamic Routing Protocols (IPv4/IPv6)*	OSPF, RIP, VRRP, BGP, ISIS	OSPF, RIP, VRRP, BGP, ISIS	OSPF, RIP, VRRP, BGP, ISIS	OSPF, RIP, VRRP, BGP, ISIS
ECMP	Yes	Yes	Yes	Yes
Filtering Routemaps based on routing protocol	Yes	Yes	Yes	Yes
IGMP Proxy / Querier	Yes	Yes	Yes	Yes
IGMP Snooping	Yes	Yes	Yes	Yes
IP Conflict Detection and Notification	Yes	Yes	Yes	Yes
IPv6 Route Filtering	Yes	Yes	Yes	Yes
L3 Host Entries	16K	24K	32K	32K
MLD Proxy / Querier	Yes	Yes	Yes	Yes
MLD Snooping	Yes	Yes	Yes	Yes
Multicast Protocols*	PIM-SSM	PIM-SSM	PIM-SSM	PIM-SSM
Multicast Route Entries*	4k	8k	8k	8k
Policy-based Routing*	Yes	Yes	Yes	Yes
Route Entries (IPv4/IPv6)	16k/8k	24k/12k	16k/8k	8k/4k
Static Routing (Hardware-based)	Yes	Yes	Yes	Yes
Unicast Reverse Path Forwarding (uRPF)	Yes	Yes	Yes	Yes
VRF*	Yes	Yes	Yes	Yes
VXLAN	No	Yes	Yes	Yes
Security and Visibility				
ACL	Yes, 2K entries	Yes, 3K	Yes, 4K entries	Yes, 1K entries
ACL Multiple Ingress	Yes	Yes	Yes	Yes
ACL Multistage	Yes	Yes	Yes	Yes
ACL Schedule	Yes	Yes	Yes	Yes
Admin Authentication Via RFC 2865 RADIUS	Yes	Yes	Yes	Yes
Assign VLANs via Radius attributes (RFC 4675)	Yes	Yes	Yes	Yes
DHCP-Snooping	Yes	Yes	Yes	Yes
Dynamic ARP Inspection	Yes	Yes	Yes	Yes
FIPS 140-2 (level 2) support	No	Yes	Yes	Yes
Flow Export (NetFlow and IPFIX)	Yes	Yes	Yes	Yes
IEEE 802.1ab Link Layer Discovery Protocol (LLDP)	Yes	Yes	Yes	Yes
IEEE 802.1ab LLDP-MED	Yes	Yes	Yes	Yes
IEEE 802.1X Authentication MAC-based	Yes	Yes	Yes	Yes
IEEE 802.1X Authentication Port-based	Yes	Yes	Yes	Yes
IEEE 802.1X Dynamic VLAN Assignment	Yes	Yes	Yes	Yes
IEEE 802.1X EAP Pass-Through	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 Open Auth	Yes	Yes	Yes	Yes
IP Source Guard	Yes	Yes	Yes	Yes
IPv6 RA Guard	Yes	Yes	Yes	Yes
LLDP-MED ELIN support	Yes	Yes	Yes	Yes
MAC-IP Binding	Yes	Yes	Yes	Yes
Port Mirroring	Yes	Yes	Yes	Yes
RADIUS Accounting	Yes	Yes	Yes	Yes
RADIUS CoA	Yes	Yes	Yes	Yes
sFlow	Yes	Yes	Yes	Yes
Sticky MAC	Yes	Yes	Yes	Yes
Wake on LAN	Yes	Yes	Yes	Yes

* Requires 'Advanced Features' License

FEATURES

	FS-1024D	FS-1024E / FS-T1024E	FS-1048E	FS-3032E
High Availability				
Multi-Chassis Link Aggregation (MCLAG)	Yes	Yes	Yes	Yes
Multi-Stage Load Balancing	Yes	Yes	Yes	Yes
Quality of Service				
Egress Priority Tagging	Yes	Yes	Yes	Yes
Explicit Congestion Notification	Yes	Yes	Yes	Yes
IEEE 802.1p Based Priority Queuing	Yes	Yes	Yes	Yes
IP TOS/DSCP Based Priority Queuing	Yes	Yes	Yes	Yes
Percentage Rate Control	Yes	Yes	Yes	Yes
Management				
Automation Stitches	Yes	Yes	Yes	Yes
Display Average Bandwidth and Allow Sorting on Physical Port / Interface Traffic	Yes	Yes	Yes	Yes
Dual Firmware Support	Yes	Yes	Yes	Yes
HTTP / HTTPS	Yes	Yes	Yes	Yes
IPv4 and IPv6 Management	Yes	Yes	Yes	Yes
Link Monitor	Yes	Yes	Yes	Yes
Managed from FortiGate	Yes	Yes	Yes	Yes
Packet Capture	Yes	Yes	Yes	Yes
RMON Group 1	Yes	Yes	Yes	Yes
SNMP v1/v2c/v3	Yes	Yes	Yes	Yes
SNMP v3 traps	Yes	Yes	Yes	Yes
SNTP	Yes	Yes	Yes	Yes
Software download/upload: TFTP/FTP/GUI	Yes	Yes	Yes	Yes
SPAN, RSPAN, and ERSPAN	Yes	Yes	Yes	Yes
Standard CLI and web GUI interface	Yes	Yes	Yes	Yes
Support for HTTP REST APIs for Configuration and Monitoring	Yes	Yes	Yes	Yes
Syslog UDP/TCP	Yes	Yes	Yes	Yes
System Alias Command	Yes	Yes	Yes	Yes
System Temperature and Alert	Yes	Yes	Yes	Yes
Telnet / SSH	Yes	Yes	Yes	Yes
Services				
IEEE 1588 PTP (Transparent Clock)	No	Yes	Yes	Yes

RFC COMPLIANCE

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 Environment
RFC 7039: Source Address Validation Improvement (SAVI) Framework

RFC and MIB Support*
IP Multicast
RFC 2362: Protocol Independent Multicast-Sparse Mode (PIM-SM): Protocol Specification
RFC 2710: Multicast Listener Discovery (MLD) for IPv6 (MLDv1)
RFC 4541: Considerations for Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD) Snooping Switches
RFC 4605: Internet Group Management Protocol (IGMP)/Multicast Listener Discovery (MLD)-Based Multicast Forwarding ("IGMP/MLD Proxying")
RFC 4607: Source-Specific Multicast for IP
IPv6
RFC 2464: Transmission of IPv6 Packets over Ethernet Networks: Transmission of IPv6 Packets over Ethernet Networks
RFC 2474: Definition of the Differentiated Services Field (DS Field) in the and IPv6 Headers (DSCP)
RFC 2893: Transition Mechanisms for IPv6 Hosts and Routers
RFC 4213: Basic Transition Mechanisms for IPv6 Hosts and Router
RFC 4291: IP Version 6 Addressing Architecture
RFC 4443: Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification
RFC 4861: Neighbor Discovery for IP version 6 (IPv6)
RFC 4862: IPv6 Stateless Address Auto configuration
RFC 5095: Deprecation of Type 0 Routing Headers in IPv6
RFC 6724: Default Address Selection for Internet Protocol version 6 (IPv6)
RFC 7113: IPv6 RA Guard
RFC 8200: Internet Protocol, Version 6 (IPv6) Specification
RFC 8201: Path MTU Discovery for IP version 6
IS-IS
RFC 1195: Use of OSI IS-IS for Routing in TCP/IP and Dual Environments
RFC 5308: Routing IPv6 with IS-IS
MIB
RFC 1213: MIB II parts that apply to FortiSwitch 100 units
RFC 1354: IP Forwarding Table MIB
RFC 1493: Bridge MIB
RFC 1573: SNMP MIB II
RFC 1643: Ethernet-like Interface MIB

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

RFC COMPLIANCE

RFC and MIB Support*
MIB
RFC 1724: RIPv2-MIB
RFC 1850: OSPF Version 2 Management Information Base
RFC 2233: The Interfaces Group MIB using SMIv2
RFC 2618: Radius-Auth-Client-MIB
RFC 2620: Radius-Acc-Client-MIB
RFC 2674: Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering and Virtual LAN extensions
RFC 2787: Definitions of Managed Objects for the Virtual Router Redundancy Protocol
RFC 2819: Remote Network Monitoring Management Information Base
RFC 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
RFC 6933: Entity MIB (Version 4)
OSPF
RFC 1583: OSPF version 2
RFC 1765: OSPF Database Overflow
RFC 2328: OSPF version 2
RFC 2370: The OSPF Opaque LSA Option
RFC 2740: OSPF for IPv6
RFC 3101: The OSPF Not-So-Stubby Area (NSSA) Option
RFC 3137: OSPF Stub Router Advertisement
RFC 3623: OSPF Graceful Restart
RFC 5340: OSPF for IPv6 (OSPFv3)
RFC 5709: OSPFv2 HMAC-SHA Cryptographic Authentication
RFC 6549: OSPFv2 Multi-Instance Extensions
RFC 6845: OSPF Hybrid Broadcast and Point-to-Multipoint Interface Type
RFC 6860: Hiding Transit-Only Networks in OSPF
RFC 7474: Security Extension for OSPFv2 When Using Manual Key Management
RFC 7503: OSPF for IPv6
RFC 8042: CCITT Draft Recommendation T.4
RFC 8362: OSPFv3 Link State Advertisement (LSA) Extensibility

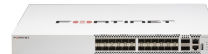| RFC and MIB Support* |
| --- |
| OTHER |
| RFC 2030: SNTP |
| RFC 3176: InMon Corporation's sFlow: A Method for Monitoring Traffic in Switched and Routed Networks |
| RFC 3768: VRRP |
| RFC 3954: Cisco Systems NetFlow Services Export Version 9 |
| RFC 5101: Specification of the IP Flow Information Export (IPFIX) Protocol for the Exchange of Flow Information |
| RFC 5798: VRRPv3 (IPv4 and IPv6) |
| RADIUS |
| RFC 2865: Admin Authentication Using RADIUS |
| RFC 2866: RADIUS Accounting |
| RFC 4675: RADIUS Attributes for Virtual LAN and Priority Support |
| RFC 5176: Dynamic Authorization Extensions to Remote Authentication Dial In User Service (RADIUS) |
| RIP |
| RFC 1058: Routing Information Protocol |
| RFC 2080: RIPng for IPv6 |
| RFC 2082: RIP-2 MD5 Authentication |
| RFC 2453: RIPv2 |
| RFC 4822: RIPv2 Cryptographic Authentication |
| SNMP |
| RFC 1157: SNMPv1/v2c |
| RFC 2571: Architecture for Describing SNMP |
| RFC 2572: SNMP Message Processing and Dispatching |
| RFC 2573: SNMP Applications |
| RFC 2576: Coexistence between SNMP versions |
| VXLAN |
| RFC 7348: Virtual eXtensible Local Area Network (VXLAN) |

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

SPECIFICATIONS

	FORTISWITCH 1024D	FORTISWITCH 1024E	FORTISWITCH T1024E
Hardware Specifications			
Total Network Interfaces	24x GE/10 GE SFP+ ports	24x GE/10GE SFP+ ports and 2× 40GE / 100GE QSFP+ / QSFP28 ports	24× 1G/2.5G/5G/10GBASE-T ports and 2× 40GE / 100GE QSFP+ / QSFP28 ports
10/100/1000 Service Ports	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
System Specifications			
Switching Capacity (Duplex)	480 Gbps	880 Gbps	880 Gbps
Packets Per Second (Duplex) 64 bytes	714 Mpps	1309 Mpps	1309 Mpps
Mac Address Storage	128 K	64k	64k
Network Latency	< 800ns	~1us	~1us
VLANs Supported	4 K	4k	4k
IPv4/IPv6 Routing	Yes	Yes	Yes
Link Aggregation Group Size	Up to 24	Up to 24	Up to 24
Total Link Aggregation Groups	Up to number of ports	Up to number of ports	Up to number of ports
Queues/Port	8	8	8
Packet Buffers	9 MB	8 MB	8 MB
DRAM	2 GB	8 GB	8 GB
NAND	128 MB	32 MB	32 MB
Dimensions			
Height x Depth x Width (inches)	1.71 × 18.11 × 17.26	1.71 × 18.11 × 17.26	1.71 × 18.11 × 17.26
Height x Depth x Width (mm)	43.5 × 460 × 438.5	43.5 × 460 × 438.5	43.5 × 460 × 438.5
Weight	17.62 lbs (8 kg)	14.5 lbs (6.58 kg)	14.4 lbs (6.54 kg)
Environment			
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Consumption (Maximum)	up to 140 W	176 W	128 W
Power Supply	Dual hot swappable AC	Dual hot swappable AC	Dual hot swappable AC
Heat Dissipation	369.87 BTU/h	599.13 BTU/h	436.48 BTU/h
Operating Temperature	32°–104°F (0°–40°C)	32°–104°F (0°–40°C)	32°–104°F (0°–40°C)
Storage Temperature	-13°–158°F (-25°–70°C)	-13°–158°F (-25°–70°C)	-13°–158°F (-25°–70°C)
Humidity	10%–90% RH non-condensing	10%–90% RH non-condensing	10%–90% RH non-condensing
Air Flow	Front to back	Front to back	Front to back
Noise Level	53.2 dBA	56 dBA	57.3 dBA
Mean Time Between Failures	> 10 years	> 10 years	> 10 years
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

SPECIFICATIONS

	FORTISWITCH 1048E	FORTISWITCH 3032E
Hardware Specifications		
Total Network Interfaces	48x GE/10 GE SFP+ ports and 6× 40 GE QSFP+ ports or 4× 100 GE QSFP28 ports	32× 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	1 RU Rack Mount
System Specifications		
Switching Capacity (Duplex) *	1760 Gbps	6400 Gbps
Packets Per Second (Duplex) 64 bytes	1518 Mpps	5952 Mpps
Mac Address Storage	144 K	72 K
Network Latency	< 800ns	< 1 us
VLANs Supported	4 K	4 K
IPv4/IPv6 Routing	Yes	Yes
Link Aggregation Group Size	Up to 48	Up to number of ports
Total Link Aggregation Groups	Up to number of ports	Up to number of ports
Queues/Port	8	8
Packet Buffers	12 MB	16 MB
DRAM	8 GB	8 GB
NAND	128 MB	128 MB
Dimensions		
Height x Depth x Width (inches)	1.69 × 18.11 × 17.26	1.69 × 18.11 × 17.26
Height x Depth x Width (mm)	43 × 460 × 438.5	43 × 460 × 438.5
Weight	18.96 lbs (8.6 kg)	19.34 lbs (8.77 kg)
Environment		
Power Required	100–240V AC, 50–60 Hz	100–240V AC, 50–60 Hz
Power Consumption (Maximum)	up to 181.7 W	up to 463.8 W
Power Supply	Dual hot swappable AC	Dual hot swappable AC
Heat Dissipation	620.4 BTU/h	1582.5 BTU/h
Operating Temperature	32°–113°F (0°–45°C)	32°–104°F (0°–40°C)
Storage Temperature	-4°–158°F (-20°–70°C)	-4°–158°F (-20°–70°C)
Humidity	10%–90% RH non-condensing	10%–90% RH non-condensing
Air Flow	Front to back	Front to back
Noise Level	59 dBA	69.1 dBA
Mean Time Between Failures	> 10 years	> 10 years
Certification and Compliance		
	FCC, CE, RCM, VCCI, BSMI, UL, CB, RoHS2	
Warranty		
Fortinet Warranty	Limited lifetime** warranty on all models	

* Full line rate with minimum packet size of 427 bytes on FS-1048E and 250bytes on FS-3032E

** 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 1024E	FS-1024E	Layer 2/3 FortiGate switch controller compatible switch with 24 x GE/10GE SFP/SFP+ slots and 2 × 100GE QSFP28. Dual AC power supplies.
FortiSwitch T1024E	FS-T1024E	Layer 2/3 FortiGate switch controller compatible switch with 24 × 1G/2.5G/5G/10GBase-T slots and 2 x 100GE QSFP28. 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 6× 40 GE QSFP+ or 4× 100 GE QSFP28. Dual AC power supplies.
FortiSwitch-3032E	FS-3032E	Layer 2/3 FortiGate switch controller compatible switch with 32× 100 GE QSFP28, Dual AC power supplies.
FortiLAN Cloud Management License	FC-10-FSW30-628-02-DD	FortiSwitch 1000 Series and Above FortiLAN Cloud Management SKU Including Forticare 24×7. Note, FortiCare only applicable when used with FortiLAN Cloud.
FortiGate Cloud Management*	FC-10-0030E-131-02-DD	FortiGate Cloud Management, Analysis and 1 Year Log Retention.
FortiSwitchManager 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.
Accessories		
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.
AC Power Supply	FS-PSU-460	Spare AC power supply for FS-1048E/1024D.
	FS-PSU-800	Spare AC power supply for FS-3032E.

* 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.

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