

FortiSwitch™

High Performance Gigabit and 10 Gigabit Ethernet Switches



Rightsize switch deployment

Fortinet's FortiSwitch family of Gigabit Ethernet (GbE) and 10 Gigabit switches delivers outstanding price, performance, and scalability to organizations with diverse operational needs. The FortiSwitch platforms are purpose-built to meet the Ethernet infrastructure and provisioning needs of today's network edge. You can scale up/out your operations performance needs with ease of use and low cost of ownership to meet the demands of bandwidth-intensive applications from small offices to large datacenters.

High-performance managed datacenter switching

The FortiSwitch-548B is the high-end datacenter top-of-rack server aggregation switch that provides 960 Gbps of Ethernet switch capacity over 48 10 GbE SFP+ ports. The FortiSwitch-548B & 248B-DPS are equipped with dual hot swappable power supplies for maximum availability and advanced link aggregation support for capacity planning.

The FortiSwitch-248B-DPS is a high performance 10/100/1000 Ethernet switch with quad dual-speed 1/10 SFP+ fiber uplinks ports, allowing up to 40 Gbps of core traffic. This switching platform is designed for datacenter top-of-rack server aggregation, or as a high performance access edge switch for the wire closet. It also ensures compatibility with existing 1 GbE fiber ports and your future 10 GbE fiber at no additional cost.

Both the FortiSwitch-248B-DPS and 548B models are packaged in a compact 1RU form factor and designed to connect network devices to the Ethernet fabric, thereby reducing your overall datacenter deployment costs.

PoE switching made easy

The FortiSwitch-80-PoE provides full 15.4 Watts/port of Power over Ethernet (PoE) in a cost-effective form factor for the distributed enterprise or small office. This eight-port GbE switch provides 62 Watts of PoE power, shared with four devices, the highest in the industry. You can connect wireless access points (such as the FortiAP product family), IP phones (such as the FortiFone product family), and IP cameras to the PoE ports. The FortiSwitch-80-PoE eliminates the need for additional PoE injectors, simplifying your small network architecture while improving performance. The remaining four GbE connections can accommodate uplink ports as well as additional devices such as printers, and back office equipment.

FortiSwitch-548B

- Supports deployments such as Three-tiered networks or 10 Gbps Server Top of Rack Switch application.
- Up to 960 Gbps capacity and 128K MAC address support with 80 Gbps link aggregation.
- High capacity switching helps transition to Virtualized and cloud computing.

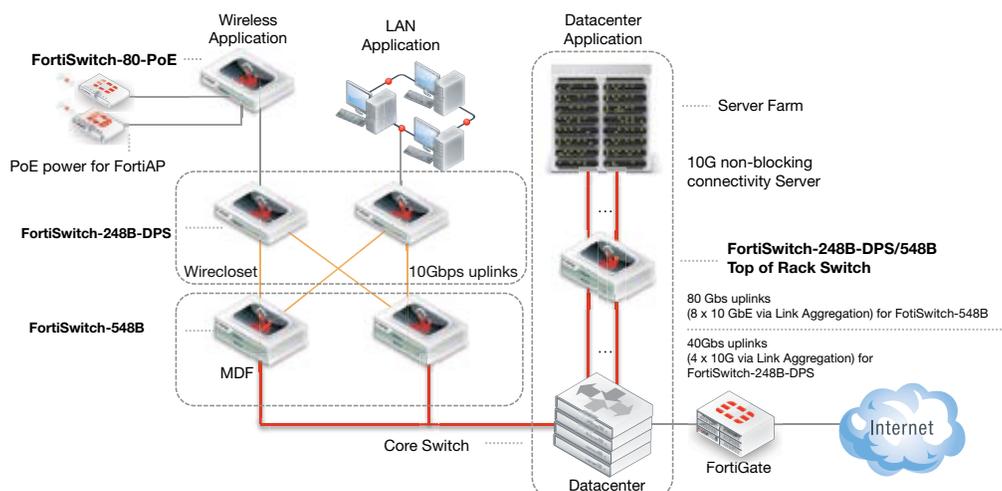
FortiSwitch-248B-DPS

- High performance LAN edge with investment protection for 10 Gbps uplink.
- Up to 176 Gbps capacity and 32K MAC address support.
- 4 dual-speed uplink ports offer maximum deployment flexibility and up to 40 Gbps traffic.
- Switch security features protect vulnerable infrastructure without adding latency.
- Supports high availability through dual hot swappable power supplies.

FortiSwitch-80-PoE

- Delivers convenience and flexibility for smaller networks.
- Powers any device accepting PoE while reducing deployment costs and supporting uplink connections.

FortiSwitch 548B/248B-DPS Deployment Example



Fortiswitch-248B-DPS/548B Features

LAYER 2 FEATURES

Wire speed L2 switching performance
10/100/1000 BASE-T ports supporting auto-sensing, auto-negotiation
MDI/MDIX Jumbo frame support: 9K
Flow control
– IEEE 802.3x full duplex mode
– Back-pressure flow control in half duplex mode
Broadcast, unicast and multicast storm protection
IGMP snooping
VLAN
– IEEE 802.1Q VLAN
– GARP/GVRP/GMRP
– Up to 512 VLANs, with up to 3965 VLAN IDs
– Port-based VLAN
– Protocol-based VLAN
Spanning tree
– IEEE 802.1d Spanning Tree Protocol
– IEEE 802.1w Rapid Spanning Tree
– IEEE 802.1s Multiple Spanning Tree
Link aggregation
– Up to 6 trunk groups
– Up to 8 ports per trunk group
– 802.3ad link aggregation and LACP
– Static trunk group
– Load balance for unicast and multicast traffic
Port mirror (many-to-1)

PERFORMANCE SPECIFICATIONS

Forwarding mode: Store-and-forward
Mean Time Between Failures (MTBF):
198,185 hours for FortiSwitch-548B and
46,140 hours for FortiSwitch-248B-DPS

SECURITY

User/password-protected system management
RADIUS client
TACACS+ client
SSH v1/v2
SSL v3/TLS v1
IEEE 802.1X
Port MAC lock

MULTICAST

Layer-2 IGMP snooping

QUALITY OF SERVICE

802.1p-based CoS
8 priority queues per port
IP TOS/precedence-based CoS
DSCP-based CoS
Policy-based Diffserv

MANAGEMENT

Web switch management
BOOTP and DHCP for IP address assignment
DHCP relay
XMODEM/FTP/TFTP
Dual firmware images
Up to three configuration files including factory default
SSH v1/v2 switch management
SSL v3/TLS v1 switch management
Simple Network Time Protocol (SNTP)
Telnet, Ping and Trace route functions
DNS client and DNS relay functions
Message/event/error/trap logs
Logging to local file and syslog server
Common command line interface (CLI) switch management
SNMP v1, v2c, and v3 switch management
Private Enterprise MIB
RMON groups 1, 2, 3, and 9
Port mirror (many-to-1)

NETWORK PROTOCOLS AND STANDARDS COMPATIBILITY

IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX
IEEE 802.3z 1000BASE-SX
IEEE 802.3x Flow Control
IEEE 802.3ad Link Aggregation
IEEE 802.1v Protocol VLAN and Port VLAN
IEEE 802.1d Spanning Tree Protocol
IEEE 802.1s Multiple Spanning Tree Protocol

SYSTEM PARAMETERS

Maximum RADIUS servers — 3
Maximum RADIUS accounting servers — 1
Maximum TACACS servers — 3
Maximum IP filter addresses — 5
Maximum telnet or SSH sessions — 5
Maximum WEB sessions — 8
Number of 802.1p traffic classes — 8
Number of MSTP instances — 5
Number of ACL — 100
Number of rules in an ACL — 10
Maximum classes — 32
Maximum rules per class — 7
Maximum member classes per policy — 10
Maximum attributes per class — 1

SWITCH SECURITY FEATURES

Port security and Broadcast, Multicast, Unicast Storm control
Dynamic ARP inspection
DHCP snooping
Spanning tree guards : BPDU filter + BPDU guard + loop guard + root guard + TCN guard
Denial of service protection: TCP fragment, Min TCP HDR, ICMP Size, ICMP fragment, SIP=DIP, TCP Flag checking, TCP Fragment offset checking

FIREWALL LOADBALANCING

HASH function for symmetric distribution of traffic across 8 firewalls

FortiSwitch-80-PoE Features

LAYER 2 FEATURES

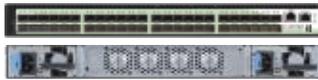
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IEEE 802.3z 1000BASE-SX
IEEE 802.3x Flow Control



	FortiSwitch-548B	FortiSwitch-248B-DPS	FortiSwitch-80-PoE
Performance Specifications			
Switch Type	Managed	Managed	Unmanaged
Switch Capacity	960 Gbps	176 Gbps	2 Gbps
MAC Address Storage	128,000	32,000	4,000
VLANs Supported	3965 configurable with support for VTP v1/v2	3965 configurable with support for VTP v1/v2	N/A
Link Aggregation Group Size	Up to 8 ports	Up to 8 ports	N/A
Total Link Aggregation Groups	8	8	N/A
Hardware Specifications			
10/100/1000 Ports	0	48	8
1000/10000 Ports	48 dual-speed SFP+ cages capable of 1G & 10 GbE speeds	4 Dual Speed SFP+ cages capable of 1 GbE and 10 GbE speeds	0
10/100/1000 Service Ports	1	1	N/A
RJ-45 serial console Port	1	1	0
PoE Ports	0	0	4 802.3af
PoE Power Budget	N/A	N/A	62 W
Dimensions			
Rack Mountable	1 RU Rack-Mount Appliance	1 RU Rack-Mount Appliance	N/A
Height x Width x Length	1.7 in x 17.1 in x 15.5 in (4.28 cm x 43.5 cm x 39.37 cm)	1.67 in x 17.32 in x 10.8 in (4.24 cm x 44.00 cm x 27.44 cm)	1.5 in x 4.7 in x 7.5 in (3.8 cm x 12 cm x 19 cm)
Weight	16.5 lbs (7.5 Kg)	12.83 lbs (5.82 Kg)	1.64 lbs (.75 kg)
Environment			
Voltage Range	100-240V AC 50-60 Hz	100-240V AC 50-60 Hz	100-240V AC 50-60 Hz
Power Consumption	Up to 250 W	Up to 140 W	Up to 6.2 W (PoE off) 68.2W (PoE on, based on 4 PoE devices)
Power Supply	Dual hot swappable AC	Dual hot swappable AC	External power supply adaptor
Storage Temperature	32 - 122 deg F (0 - 50 deg C)		
Operating Temperature	32 - 113 F (0 - 45 C)	32 - 104 F (0 - 40 C)	
Humidity	80% maximum relative humidity	5 - 95% RH non-condensing	
Compliance Directive	RoHS-Compliant		

All performance values are "up to" and vary depending on system configuration.

Ordering Info		
Product	SKU	Description
FortiSwitch-548B	FS-548B	48 1 GbE/10 GbE dual-speed SFP+ Ports top of Rack L2 Switch.
FortiSwitch-248B-DPS	FS-248B-DPS	48 10/100/100 copper ethernet Ports with four 1 GbE/10 GbE dual-speed uplink ports L2 Switch for Access Edge or top of Rack, with dual hot swappable AC power supplies.
FortiSwitch-80-PoE	FS-80-POE	8 10/100/1000 port switch with 4 802.3af PoE ports.

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