FORTINET

FortiGate® 5000 Series Solution

Scalable Data Center and Carrier-Graded Security Systems

With so many enterprise initiatives around big data, public cloud and Internet of things, security infrastructure providers must deliver even more performance, reliability and scalability to their customers. Fortinet's 5000 series chassis-based scalable platforms offer groundbreaking throughput and proven resilience to satisfy the most demanding carrier and enterprise data center requirements.

Security Fabric Integration

FortiGate appliances, interconnected with the Fortinet Security Fabric, form the backbone of the Fortinet Enterprise Solution.

Bundles

Bundle	Firewall Throughput*	Concurrent Sessions*	New Session/ Second*	IPS Throughput*
FG-5144C (Base)	160 Gbps	46 Million	1.13 Million	36 Gbps
FG-5144C (Base 2)	320 Gbps	92 Million	2.26 Million	72 Gbps
FG-5144C (Base 3)	480 Gbps	138 Million	3.39 Million	108 Gbps
FG-5144C (Base 4)	640 Gbps	184 Million	4.52 Million	144 Gbps
FG-5144C (Full)	960 Gbps	276 Million	6.78 Million	216 Gbps
Security Blade				
FG-5001D	80 Gbps	23 Million	565,000	18 Gbps

* Based on sum of individual Security Blades, not as a controller-based system.

Deployment Modes
Data Center Firewall

Carrier-Class Firewall

Hardware Acceleration
SPU CP8 and NP6

SPU

20,000   5,000   4,096   Yes

Third-Party Certifications

ICSA labs CERTIFIED ANTI-VIRUS

ICSA labs CERTIFIED FIREWALL-CORPORATE

ICSA labs CERTIFIED IPSEC-BASIC

ICSA labs CERTIFIED NETWORK IPS

ICSA labs CERTIFIED SSL VPN

CHASSIS

FortiGate 5144C

Next Generation 14U 19-inch rack mount ATCA chassis with 40 Gbps Backplane and capable of Dual-Dual-Star topology.
It can install up to 14 FortiGate 5000 series blades.
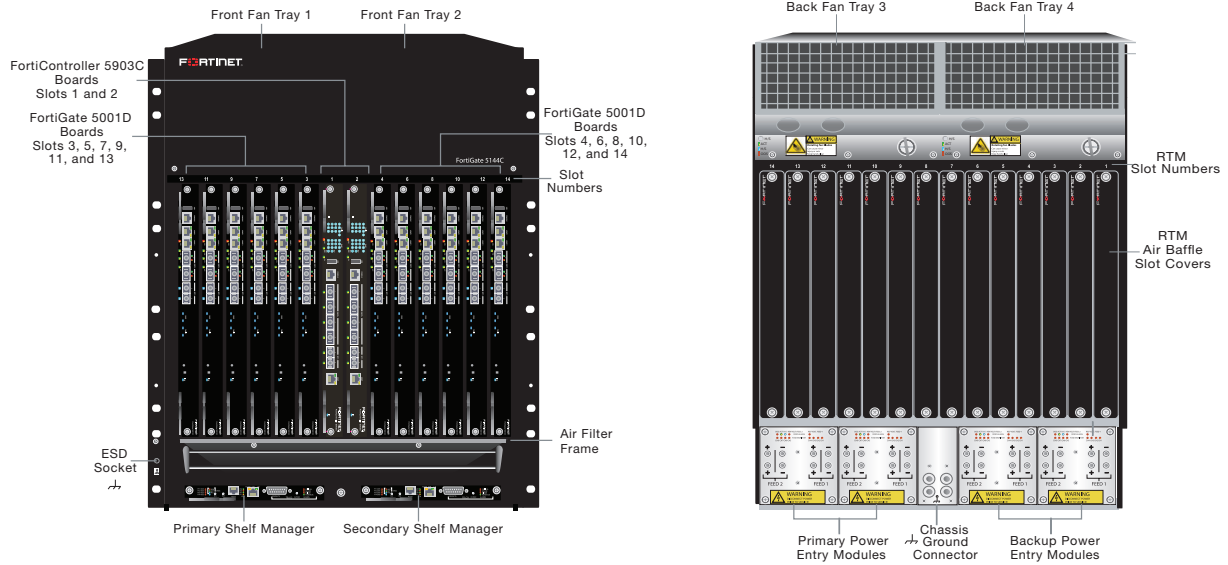
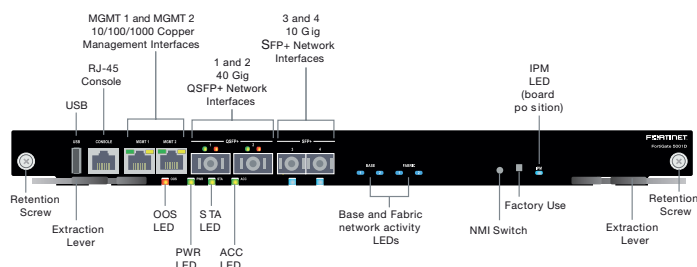|	FORTIGATE 5144C
Hardware Specifications	
Available Slots	14
High Availability Backplane Fabric	Built-in
40 Gbps Backplane Support	Yes
Shelf Manager (Default / Maximum)	1 / 2
Dual Networking Blade Support	Yes
Dimensions	
Height x Width x Length (inches)	24.44 x 19.06 x 21.63
Height x Width x Length (cm)	62.1 x 48.4 x 55.0
Weight	108 lbs (50 kg)
Power and Environment	
Power Required	DC/AC[1]
Chassis Only Power Consumption (Maximum) **	960 W
Heat Dissipation (Maximum) **	3,276 BTU/h
Operating Temperature	32–104°F (0–40°C)
Storage Temperature	-13–158°F (-35–70°C)
Humidity	5–90% non-condensing
Compliance	
Certifications	FCC Part 15 Class A, C-Tick, VCCI, CE, BSMI, UL/cUL
NEBS Certified	Yes

[1] Optional FortiGate-5053B Power Supply Shelf used to provide AC power to the FortiGate

** Please refer to respective Chassis Guide for computation of total power requirement.

SECURITY BLADE

FortiGate 5001D

Latest purpose-built FortiGate security blade with carrier-class capacity and protection.

|	FORTIGATE 5001D
Interfaces and Storage	
40 GE QSFP+ Ports	2
10 GE SFP+ Ports	2
GE RJ45 Ports	2
RJ45 Console Port	1
Included Transceivers	2x 10 GE SFP+ SR
Local Storage	200 GB
System Performance	
Firewall Throughput (1518 / 512 / 64 byte UDP packets)	80 / 80 / 45 Gbps
Firewall Latency (64 byte UDP packets)	3 µs
Firewall Throughput (Packets Per Second)	67.5 Mpps
Concurrent Sessions (TCP)	23 Million
New Sessions/Second (TCP)	565,000
Maximum Firewall Policies	200,000
IPsec VPN Throughput (512 byte packets)	25 Gbps
Gateway-to-Gateway IPsec VPN Tunnels	40,000
Client-to-Gateway IPsec VPN Tunnels	64,000
SSL-VPN Throughput	6.5 Gbps
Concurrent SSL-VPN Users (Recommended Maximum)	25,000
IPS Throughput (HTTP / Enterprise Mix) [1]	18 / 13 Gbps
SSL Inspection Throughput [2]	9 Gbps

	FORTIGATE 5001D
Application Control Throughput [3]	18 Gbps
NGFW Throughput [4]	10 Gbps
Threat Protection Throughput [5]	7.7 Gbps
CAPWAP Throughput [6]	15 Gbps
Virtual Domains (Default / Maximum)	10 / 500
Maximum Number of FortiTokens	5,000
Maximum Number of Registered FortiClients	20,000
Maximum Number of FortiAPs (Total / Tunnel)	4,096 / 1,024
Power and Environment	
Power Consumption (Average / Maximum)	189 / 226 W
Heat Dissipation (Average)	774 BTU/h
Operating Temperature	32–104°F (0–40°C)
Storage Temperature	-13–158°F (-25–70°C)
Humidity	20–90% non-condensing
Compliance	
Certifications	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB, ICSA Labs: Firewall, IPsec, IPS, Antivirus, SSL-VPN; USGv6/IPv6
NEBS Certified	Yes

Note: All performance values are "up to" and vary depending on system configuration. IPsec VPN performance is based on 512 byte UDP packets using AES-256+SHA1. 1. IPS performance is measured using 1 Mbyte HTTP and Enterprise Traffic Mix. 2. SSL Inspection is measured with IPS enabled and HTTP traffic, using TLS v1.2 with AES256-SHA. 3. Application Control performance is measured with 64 Kbytes HTTP traffic. 4. NGFW performance is measured with IPS and Application Control enabled, based on Enterprise Traffic Mix. 5. Threat Protection performance is measured with IPS and Application Control and Malware protection enabled, based on Enterprise Traffic Mix. 6. CAPWAP performance is based on 1444 byte UDP packets.

NETWORKING BLADE

FortiController 5913C

High performance, SPU DP2 accelerated networking blade with 100 GE interfaces and 10/40-gigabit fabric and 1-gigabit base backplane channel.
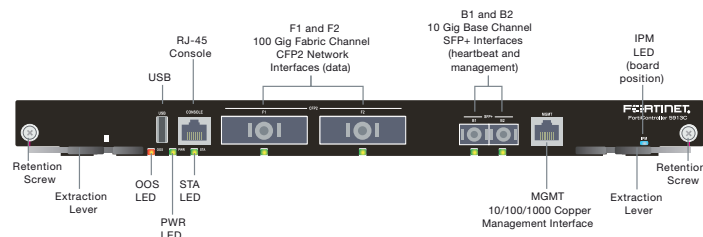
	FORTICONTROLLER 5913C
Interfaces	
Fabric Channel Interfaces	2x 100 GE CFP2
Base Channel Interfaces	2x 10 GE SFP+
Management Interfaces	1x GE RJ45
Included Transceivers	2x 10 GE SFP+ SR
40 GE Backplane Fabric Support	Yes
10 GE Backplane Fabric Support	Yes
GE Backplane Fabric Support	—
System Performance	
Maximum Traffic Throughput	200 Gbps
Maximum Concurrent Sessions	135 Million
New Sessions/Second (TCP)	3.6 Million
Power and Environment	
Power Consumption (Average / Maximum)	280 / 400 W
Heat Dissipation	955 BTU/h
Operating Temperature	32–104°F (0–40°C)
Storage Temperature	-13–158°F (-35–70°C)
Humidity	5–90% non-condensing
Compliance	
Certifications	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB
NEBS Certified	Yes

ORDER INFORMATION

SKU		COMPONENTS			
Hardware-only Bundle	Hardware + Services Bundle	Chassis	Security Blade	Networking Blade	Services*
FG-5144C-HW-BASE	FG-5144-BASE-BDL-950-DD	FG-5144C-DC	2x FG-5001D	1x FCTRL-5913C	
FG-5144C-HW-BASE-2	FG-5144C-BASE-2-BDL-950-DD	FG-5144C-DC	4x FG-5001D	1x FCTRL-5913C	UTM Bundle (24x7 FortiCare plus NGFW, AV, Web Filtering and Antispam Services) for each security blade.
FG-5144C-HW-BASE-3	FG-5144C-BASE-3-BDL-950-DD	FG-5144C-DC	6x FG-5001D	2x FCTRL-5913C	
FG-5144C-HW-BASE-4	FG-5144C-BASE-4-BDL-950-DD	FG-5144C-DC	8x FG-5001D	2x FCTRL-5913C	
FG-5144C-HW-FULL	FG-5144-FULL-BDL-950-DD	FG-5144C-DC	12x FG-5001D	2x FCTRL-5913C	

* Applicable to Hardware + Services Bundle only

BUNDLE ITEMS	SKU	DESCRIPTION
FortiGate 5144C BASE HW Bundle	FG-5144C-HW-BASE	14U 14-slot 5144C chassis, 2x FG-5001D security blades, 1x FCTRL-5913C networking blade, 4 PEMs, 4 fan Units, 2 shelf FRU data modules, 1 shelf manager, front and RTM air baffles, and 4 pairs DC cables for connecting to FG-5053B power shelves.
FortiGate 5144C BASE HW Bundle with Services	FG-5144C-BASE-BDL-950-DD	FG-5144C-HW-BASE plus 2x 24x7 FortiCare and FortiGuard UTM bundles for FG-5001D security blades and 1x 24x7 FortiCare for FCTRL-5913C networking blade.
FortiGate 5144C BASE 2 HW Bundle	FG-5144C-HW-BASE-2	14U 14-slot 5144C chassis, 4x FG-5001D security blades, 1x FCTRL-5913C networking blade, 4 PEMs, 4 fan units, 2 shelf FRU data modules, 1 shelf manager, front and RTM air baffles, and 4 pairs DC cables for connecting to FG-5053B power shelves.
FortiGate 5144C BASE 2 HW Bundle with Services	FG-5144C-BASE-2-BDL-950-DD	FG-5144C-HW-BASE-2 plus 4x 24x7 FortiCare and FortiGuard UTM bundles for FG-5001D security blades and 1x 24x7 FortiCare for FCTRL-5913C networking blade.
FortiGate 5144C BASE 3 HW Bundle	FG-5144C-HW-BASE-3	14U 14-slot 5144C chassis, 6x FG-5001D security blades, 2x FCTRL-5913C networking blade, 4 PEMs, 4 fan units, 2 shelf FRU data modules, 1 shelf manager, front and RTM air baffles, and 4 pairs DC cables for connecting to FG-5053B power shelves.
FortiGate 5144C BASE 3 HW Bundle with Services	FG-5144C-BASE-3-BDL-950-DD	FG-5144C-HW-BASE-3 plus 6x 24x7 FortiCare and FortiGuard UTM bundles for FG-5001D security blades and 2x 24x7 FortiCare for FCTRL-5913C networking blade.
FortiGate 5144C BASE 4 HW Bundle	FG-5144C-HW-BASE-4	14U 14-slot 5144C chassis, 8x FG-5001D security blades, 2x FCTRL-5913C networking blade, 4 PEMs, 4 fan units, 2 shelf FRU data modules, 1 shelf manager, front and RTM air baffles, and 4 pairs DC cables for connecting to FG-5053B power shelves.
FortiGate 5144C BASE 4 HW Bundle with Services	FG-5144C-BASE-4-BDL-950-DD	FG-5144C-HW-BASE-4 plus 8x 24x7 FortiCare and FortiGuard UTM bundles for FG-5001D security blades and 2x 24x7 FortiCare for FCTRL-5913C networking blade.
FortiGate 5144C FULL HW Bundle	FG-5144C-HW-FULL	14U 14-slot 5144C chassis, 12x FG-5001D security blades, 2x FCTRL-5913C networking blade, 4 PEMs, 4 fan units, 2 shelf FRU data modules, 1 shelf manager, front and RTM air baffles, and 4 pairs DC cables for connecting to FG-5053B power shelves.
FortiGate 5144C FULL HW Bundle with Services	FG-5144C-FULL-BDL-950-DD	FG-5144C-HW-FULL plus 12x 24x7 FortiCare and FortiGuard UTM bundles for FG-5001D security blades and 2x 24x7 FortiCare for FCTRL-5913C networking blade.

OPTIONAL ITEMS	SKU	DESCRIPTION
Chassis		
FortiGate 5144C Shelf Manager	FG-5144C-SM	5144C shelf manager with ShMM-700R mezzanine card and radial IPMB bus
FortiGate 5144C Fan Tray	FG-5144C-FAN-F	FG-5144C fan tray front
FortiGate 5144C Fan Tray	FG-5144C-FAN-R	FG-5144C fan tray rear
FortiGate 5144C Shelf FRU Data Module	FG-5144C-SFRU	FG-5144C shelf FRU data module
FortiGate 5144C Power Entry Module	FG-5144C-PEM	FG-5144C PEM, power entry module
FortiGate 5144C Air Filter	FG-5144C-AF	FG-5144C air filter
FortiGate 5144C Blank Panel	FG-5144C-ABF	5000 front slot blank panel with air baffle (aluminum/plastic)
FortiGate 5144C Blank Panel	FG-5144C-ABR	5000 RTM slot blank panel with air baffle (aluminum/plastic)
FortiGate 5053B Power Converter Tray	FG-5053B	AC power converter shelf for high capacity 5000 chassis, supports up to 4 PSU-5000B power supply units, unpopulated
FortiGate 5000 Series Power Supply Unit	PSU-5000B	Power supply unit for FG-5000 series, AC power supply unit, 1,200 Watts maximum, requires FortiGate 5053B shelf
Security Blades		
FortiGate 5001D	FG-5001D	Security blade with 2x 40 GE QSFP+, 2x 10 GE SFP+/GE SFP slots, 2x GE RJ45 management ports, 200 GB SSD onboard storage
Networking Blades		
FortiController 5913C	FCTRL-5913C	Networking blade with 2x 100 GE CFP2 fabric ports and 2x 10 GE SFP+ base ports, includes 2 SR SFP+

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