FURTINET®
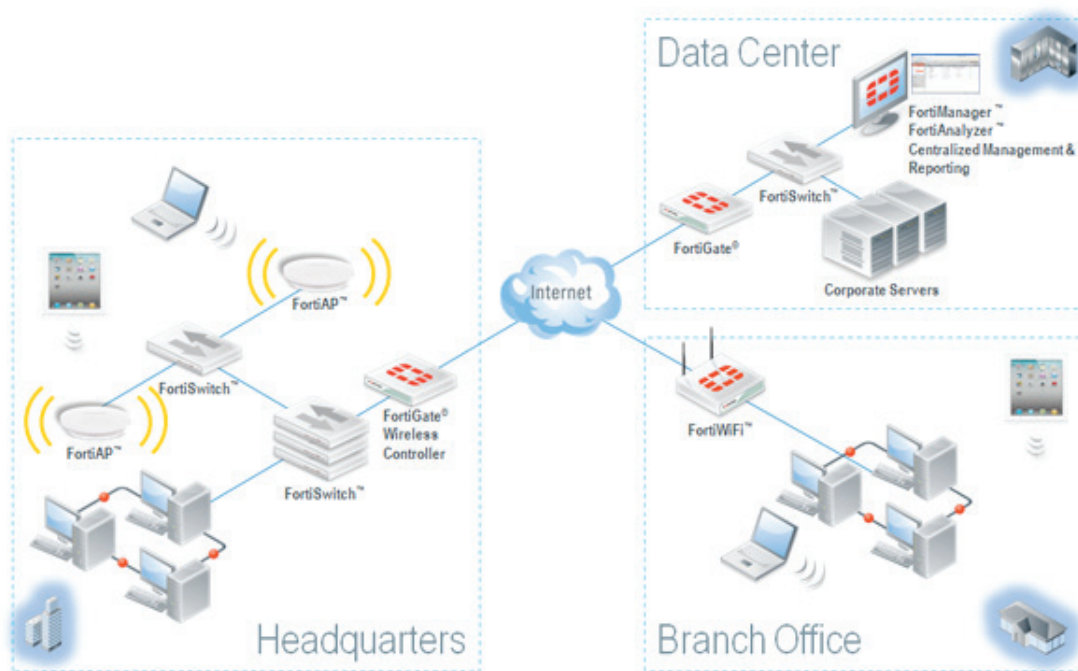
High Performance Network Security

WIRELESS PRODUCT MATRIX

JANUARY 2015

Fortinet Products for Wireless Solution

Thin AP - FortiAP

Organizations deploying the NP (Network Processor) 6 powered FortiGate 1000 Series firewalls at their data center will enjoy superior protection and performance with industry-leading, high capacity firewall technologies that deliver exceptional throughput and ultra-low latency, enabling the security, flexibility, scalability and manageability expected on a core platform. These firewalls come with numerous high-speed 40 GbE and 10 GbE interfaces which are ideal for segmenting network physically. Running on the latest FortiOS, these platform are virtualization and cloud-ready, They support next-generation data center architectures, multi-tenant requirements, provides APIs for rapid orchestration and easy integration with 3rd party ecosystems.

Thick AP - FortiWiFi

FortiWiFi Thick Access Points are a consolidated appliance that integrates wireless AP capabilities into the FortiGate network security platform, making it ideal for small and medium business, distributed enterprise or branch office deployments. Each FortiWiFi provides secure access to both the wired and wireless LAN, as well as various WAN connections, in a cost-effective device.

Wireless Controller - FortiGate

The FortiGate network security platform acts as a wireless controller for FortiAP Thin Access Points, while providing firewall, VPN, intrusion prevention, application control, web filtering and many other security and networking capabilities. There are FortiGate platforms to meet the requirements of any network, from small businesses to large enterprises and service providers.

Presence Analytics - FortiPresence

FortiPresence enables brick-and-mortar retailers to better understand customer behavior, including when they come into the store, how long they stay, and if they are a new or repeat customer. By combining statistical analytics with a sophisticated customer engagement engine, retailers are able to influence customers purchasing decisions to increase sales.

WLAN Planning Utility - FortiPlanner

FortiPlanner WLAN Planning Utility is a graphical wireless LAN planning and post-deployment site survey utility, designed to simplify WLAN planning and deployment of Fortinet FortiAP based wireless networks.

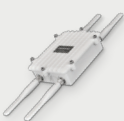# FortiAP™ Indoor Thin Access Points

	FAP-24D	FAP-221B/223B	FAP-221C/223C	FAP-320B	FAP-320C	FAP-321C
Suggested Use Case	Low density indoor	Medium density indoor	Medium density indoor	Indoor high performance AP	high density 802.11ac, streaming app, resilience	Medium density 802.11ac without resilience
Hardware						
Form Factor	Desktop, wall mountable	Smoke Detector, wall or ceiling wall mountable	Smoke Detector, wall or ceiling wall mountable	Wall or ceiling wall mountable	Wall or ceiling wall mountable	Smoke Detector, wall or ceiling wall mountable
Dimension	6.69 x 4.37 x 1.02 in	6.5 x 1.2 in	6.5 x 1.5 in	6.5 x 6.5 x 1.6 in	6.5 x 6.5 x 1.4 in	6.5 x 1.5 in
Kensington Lock		•	•	•	•	•
Ethernet Interfaces	1x GE RJ45 WAN port, 4x FE RJ45 LAN ports	1x GE RJ45	1x GE RJ45	2x GE RJ45	2x GE RJ45	1x GE RJ45
PoE	802.3af	802.3af	802.3af	802.3af	802.3af	802.3af
Maximum power draw	12.9 W	12.9 W	12.9 W	12.9W	12.9W	12.9W
Included accessories	Mounting kits	Mounting kits, anchors, antennas for 223B	Mounting kits, anchors, antennas for 223C	Mounting kits, anchors	Mounting kits, anchors	Mounting kits, anchors
Resilient POE backup				•	•	
Plenum installable				•	•	
Mesh capable	•	•	•	•	•	•
Wireless						
IEEE Standard	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n/ac	802.11 a/b/g/n	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac
Number of Radios	1	2	2	2	2	2
Radio Band	Single	Dual	Dual	Dual	Dual	Dual
Radio 1 Band (association rate)	2.4 GHz / 5 GHz (300 Mbps)	221B: 2.4 GHz / 5GHz, 223B: 5 GHz (300 Mbps)	2.4 GHz / 5GHz (300 Mbps)	2.4 GHz b/g/n (450 Mbps)	2.4 GHz b/g/n (450 Mbps)	2.4 GHz b/g/n (450 Mbps)
Radio 2 Band (association rate)	-	2.4 GHz (300 Mbps)	5GHz a/n/ac (867 Mbps)	5 GHz a/n (450 Mbps)	5 GHz a/n/ac (1300 Mbps)	5 GHz a/n/ac (1300 Mbps)
MIMO	2x2 (dual stream)	2x2 (dual stream)	2x2 (dual stream)	3x3 (3 stream)	3x3 (3 stream)	3x3 (3 stream)
Max / recommended number of concurrent clients	no limit / 30 per radio	no limit / 30 per radio	no limit / 30 per radio	no limit / 50 per radio	no limit / 50 per radio	no limit / 50 per radio
Antenna Type and Count	2 - Internal	221B: 4 - Internal 223B: 4 - External	221C: 4 - Internal 223C: 4 - External	6 - Internal	6 - Internal	6 - Internal
Antenna Gain	4.6dBi/(6.3dBi-5GHz)	3dBi/(4dBi-5GHz)	3.5dBi/(6dBi-5GHz)	5dBi/(6dBi-5GHz)	5dBi/(6dBi-5GHz)	4dBi/(5dBi-5GHz)
Max TX Power	18dBm (63mW)	17 dBm (50mW)	20 dBm (100mW)	24 dBm (250mW)	21 dBm (126mW)	20 dBm (100mW)
Number of SSIDs	8 (7 client, 1 monitor)	16 (14 client, 2 monitor)	16 (14 client, 2 monitor)	16 (14 client, 2 monitor)	16 (14 client, 2 monitor)	16 (14 client, 2 monitor)
Traffic Queues	4 queues	4 queues	4 queues	4 queues	4 queues	4 queues
802.11n 20/40Mhz HT	•	•	•	•	•	•
802.11n MPDU/MSDU agg	•	•	•	•	•	•
802.11n Dynamic MIMO PS	•	•	•	•	•	•
802.11n LDPC encoding	•	•	•	•	•	•
802.11n MLD	•	•	•	•	•	•
802.11n Max ratio combining	•	•	•	•	•	•
802.11ac 80 MHz channel			•		•	•
Rogue AP scanning						
Dual Band Scanning	•	•	•	•	•	•
Background Scan	•	•	•	•	•	•
Full-time dedicated monitor	•	•	•	•	•	•
Single Radio Dual band scanning		•	•			
On-wire MAC address collector		•	•	•	•	•
Management						
WebUI & CLI	•	•	•	•	•	•
External serial console port						
Cloud deployment/management	•	•	•	•	•	•
Controller discovery: DNS, DHCP, over L3 boundary	•	•	•	•	•	•
Certifications						
Wi-Fi Alliance Certified*		•	• (FAP-221C)	•	•	
DFS Certified**		221B: Region E, J	Region E (FAP-221C)	Region E	Region E, A	

FortiAP™ Remote Thin Access Points

	FAP-11C	FAP-14C	FAP-21D	FAP-25D	FAP-28C
Suggested Use Case	Portable AP for traveller	Remote office or SOHO desktop	FortiPresence Sensor or Travel/SOHO (USB powered)	Hotels/Hospitality desktop	Remote office or SOHO desktop
Hardware					
Form Factor	Small, portable	Desktop, wall mountable	Small, portable, wall mountable	Small, portable Powerstrip design, wall mountable	Desktop, wall mountable
Dimension	4.3 x 3.5 x 1.5 in	1.06 x 4.92 x 3.86 in	2.9 x 3.2 x 0.9 in	0.9 x2.8 x1.4 in	1.38 x 8.43 x 7.09 in
Kensington Lock					•
Ethernet Interfaces	2x GE RJ45	5x FE RJ45	2 x FE RJ45	1x GE RJ45 WAN, 4x FE RJ45 LAN	10x GE RJ45
PoE					
Maximum power draw					
Included accessories	Power plugs	AC adaptor, Wall mount Kit	AC adaptor, Wall mount Kit	AC adaptor, Wall mount Kit	AC adaptor, Wall mount Kit
Resilient POE backup					
Plenum installable					
Mesh capable	•	•	•	•	•
Wireless					
IEEE Standard	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 a/b/g/n	802.11 a/b/g/n
Number of Radios	1	1	1	1	1
Radio Band	Single	Single	Single	Single	Single
Radio 1 Band (association rate)	2.4 GHz b/g/n (150 Mbps)	2.4 GHz b/g/n (150 Mbps)	2.4 GHz b/g/n (300 Mbps)	2.4 GHz / 5GHz (300 Mbps)	2.4 GHz / 5GHz (300 Mbps)
Radio 2 Band (association rate)	-	-	-	-	-
MIMO	1x1 (1 stream)	1x1 (1 stream)	2x2 (dual stream)	2x2 (dual stream)	2x2 (dual stream)
Max / recommended number of concurrent clients	no limit / 5	no limit / 10	no limit / 20	no limit / 20	no limit / 20
Antenna Type and Count	1 - Internal	1 - Internal	2 - Internal	2 - Internal	2 - Internal
Antenna Gain	2dBi	2dBi	2.5dBi	2dBi/3dBi-5GHz)	3dBi/(4dBi-5GHz)
Max TX Power	17 dBm (50mW)	17 dBm (50mW)	17 dBm (50mW)	16 dBm (40mW)	17 dBm (50mW)
Number of SSIDs	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)
Traffic Queues	4 queues	4 queues	4 queues	4 queues	4 queues
802.11n 20/40Mhz HT					
802.11n MPDU/MSDU agg					
802.11n Dynamic MIMO PS					
802.11n LDPC encoding					
802.11n MLD					
802.11n Max ratio combining					
802.11ac 80 MHz channel					
Rogue AP scanning					
Dual Band Scanning				•	•
Background Scan					
Full-time dedicated monitor				•	•
Single Radio Dual band scanning				•	•
On-wire MAC address collector					
Management					
WebUI & CLI	•	•	•	•	•
External serial console port					
Cloud deployment/management	•	•	•	•	•
Controller discovery: DNS, DHCP, over L3 boundary	•	•	•	•	•
Certifications					
Wi-Fi Alliance Certified*					
DFS Certified**					

FortiAP™ Outdoor/Indoor Thin Access Points

	FAP-112B	FAP-112D	FAP-222B	FAP-222C	FAP-224D
Suggested Use Case	Low density outdoor	Low density outdoor, POE pass-through for IP CCTV cameras.	Medium density outdoor	High density 802.11ac outdoor	Medium density outdoor
Hardware					
Form Factor	Outdoor IP55 rated, wall or pole wall mountable	Outdoor IP55 rated, wall or pole wall mountable	Outdoor IP67 rated, wall or pole wall mountable	Outdoor IP67 rated, wall or pole wall mountable	Outdoor IP66 rated, wall or pole wall mountable
Dimension	7.3 x 2.6 x 1.3 in	10.51 x 5.71 x 1.73 in	2.75 x 7.75x10in	9.8 x 8.7 x 2.1 in	6.9 x 6.9 x 1.9 in
Kensington Lock					
Ethernet Interfaces	2x FE RJ45	2x FE RJ45 ports with PoE pass-through. (1x PoE-PD, 1x PoE-PS)	1x GE RJ45	1x GE RJ45	1x GE RJ45
PoE	Proprietary	Proprietary	802.3at & proprietary	802.3at & proprietary	IEEE 802.3af, IEEE 802.3at
Maximum power draw	12.9 W	23.3 W	25 W	18.4 W	15.4 W
Included accessories	AC adaptor & proprietary POE injector	AC adaptor & proprietary POE injector	AC adaptor & proprietary POE injector, outdoor Kit, antennas	AC adaptor & proprietary POE injector, outdoor Kit, antennas	AC adaptor & POE injector, outdoor Kit, antennas
Resilient POE backup					
Plenum installable					
Mesh capable	●	●	●	●	●
Wireless					
IEEE Standard	802.11 b/g/n	802.11 b/g/n	802.11 a/b/g/n	802.11 a/b/g/n/ac	802.11 a/b/g/n
Number of Radios	1	1	2	2	2
Radio Band	Single	Single	Dual	Dual	Dual
Radio 1 Band (association rate)	2.4 GHz b/g/n (150 Mbps)	2.4 GHz b/g/n (150 Mbps)	2.4 GHz b/g/n (300 Mbps)	5 GHz a/n/ac (867 Mbps)	5 GHz a/n (300 Mbps)
Radio 2 Band (association rate)	-	-	5 GHz a/n (300 Mbps)	2.4 GHz b/g/n (300 Mbps)	2.4 GHz b/g/n (300 Mbps)
MIMO	1x1 (1 stream)	1x1 (1 stream)	2x2 (dual stream)	2x2 (dual stream)	2x2 (dual stream)
Max / recommended number of concurrent clients	no limit / 30	no limit / 30	no limit / 30 per radio	no limit / 30 per radio	no limit / 30 per radio
Antenna Type and Count	1 - Internal	1 - Internal	4 N-type External	4 N-type External	4 RP-SMA External
Antenna Gain	8 dBi	6 dBi / (6 dBi for 5 GHz)	5 dBi / (7 dBi for 5 GHz)	3.5 dBi / (6 dBi for 5 GHz)	5 dBi / (5 dBi for 5 GHz)
Max TX Power	24 dBm (250mW)	18dBm (2 Ghz), 16dBm (5 Ghz)	27dBm (500mW)	26dBm (398mW)	20dBm (50mW)
Number of SSIDs	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)	16 (14 client,2 monitor)	16 (14 client,2 monitor)	16 (14 client,2 monitor)
Traffic Queues	4 queues	4 queues	4 queues	4 queues	4 queues
802.11n 20/40Mhz HT			●	●	●
802.11n MPDU/MSDU agg				●	●
802.11n Dynamic MIMO PS				●	●
802.11n LDPC encoding				●	●
802.11n MLD	●	●		●	●
802.11n Max ratio combining	●	●		●	●
802.11ac 80 MHz channel				●	
Rogue AP scanning					
Dual Band Scanning			●	●	●
Background Scan			●	●	●
Full-time dedicated monitor			●	●	●
Single Radio Dual band scanning					
On-wire MAC address collector	●		●	●	●
Management					
WebUI & CLI	●	●	●	●	●
External serial console port					
Cloud deployment/management	●	●	●	●	●
Controller discovery: DNS, DHCP, over L3 boundary	●	●	●	●	●
Certifications					
Wi-Fi Alliance Certified*			●	●	●
DFS Certified**					

FortiWiFi™ Indoor Thick Access Points

	FWF-30D	FWF-60D	FWF-80CM	FWF-90D	FWF-92D
Suggested Deployment	Home/small office	Distributed office	Distributed office	Indoor Motels, Clinics, Small Enterprise, Retail	Indoor Motels, Clinics, Small Enterprise, Retail
Hardware					
Form Factor	Desktop, wall mountable	Desktop, wall mountable	Desktop, wall mountable	Desktop, wall mountable	Desktop, wall mountable
Dimension	1.38 x 7.17 x 5.24 in	1.50 x 8.50 x 5.83 in	1.75 x 10.87 x 6.13 in	1.72 x 8.5 x 8.78 in	1.72 x 8.5 x 8.78 in
Kensington Lock	•		•	•	•
Ethernet Interfaces	1 x GE RJ45 WAN, 4 x GE RJ45 Switch ports	3 x GE RJ45 WAN/DMZ, 7 x GE RJ45 Switch ports	2 x GE RJ45 WAN, 1 x FE RJ45 DMZ, 6 x FE RJ45 Switch ports	2 x GE RJ45 WAN ports, 14 x GE RJ45 Switch ports	2 x GE RJ45 WAN ports, 14 x GE RJ45 Switch ports
Mesh Root		•	•	•	
Other WiFi Variants	POE (PSE)	POE (PSE)	-	POE (PSE)	
Wireless					
IEEE Standard	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n	802.11a/b/g/n	802.11a/b/g/n
Number of Radios	1	1	1	1	1
Radio Band	Dual	Dual	Dual	Dual	Dual
Radio 1 Band (association rate)	2.4GHz / 5GHz (300Mbps)	2.4GHz / 5GHz (300Mbps)	2.4GHz / 5GHz (300Mbps)	2.4GHz / 5GHz (300Mbps)	2.4GHz / 5GHz (300Mbps)
Radio 2 Band (association rate)	-	-	-	-	-
MIMO	2x2	2x2	2x3	2x2	2x2
Max / recommended number of concurrent clients	no limit / 30	no limit / 30	no limit / 30	no limit / 30	no limit / 30
Antenna Type and Count	2 F-type antennas	2 di-pole antennas	2 di-pole antennas	2 di-pole antennas	2 di-pole antennas
Antenna Gain	up to 5dB	up to 5dB	up to 5dB	up to 5dB	up to 5dB
Max TX Power	17dBm	17dBm	17dBm	17dBm	17dBm
Number of SSIDs	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)
Traffic Queues	4 queues	4 queues	4 queues	4 queues	4 queues
802.11n 20/40Mhz HT	•	•	•	•	•
Short Guard	•	•	•	•	•
802.11ac 80 MHz channel					
MAC Service Data Unit (MSDU) aggregation and MAC Protocol Data Unit (MPDU) frame aggregation	•	•		•	•
Cyclic-delay diversity (CDD)	•	•	•	•	•
Power Save (WME-PS)	•	•	•	•	•
802.11n Max ratio combining (MRC)	•	•	•	•	•
Transmit Beam Forming (TxBF)	•	•		•	•
Low Density Parity Check encoding (LDPC)	•	•		•	•
802.11n Maximum Likelihood Detection (MLD)	•	•	•	•	•
Rogue AP scanning					
Dual Band Scanning	•	•	•	•	•
Background Scan	•	•	•	•	•
Full-time dedicated monitor	•	•	•	•	•
Single Radio Dual band scanning	•	•	•	•	•
On-wire MAC address collector	•	•	•	•	•
Management					
WebUI & CLI	•	•	•	•	•
Max managed APs	2	10	32	32	32
Cloud deployment support	•	•	•	•	•
Certifications					
Wi-Fi Alliance Certified*					
DFS Certified**	Region: J	Region: J		Region: J	

FortiGate/FortiWiFi® Wireless Controller

	FortiGate/FortiWiFi 30D, 40C, 60C & 60D Series	FortiGate/FortiWiFi 80C & 90D Series	FortiGate 1xxC, 100D, 200B	FortiGate 200D Series	FortiGate 3xxB, 300C, 300D, 500D & 62xB
Hardware					
Product Range / Form Factor	Desktop / Desktop	Desktop / Desktop	Mid Range / 1 RU	Mid Range / 1-2 RU	Mid Range / 1 RU
GE Interfaces	5-10	2 - 16	8 - 40	18 - 88	10 - 18
GE PoE/PoE+ Interfaces	1-20 / 4 (FG-30D, 60D. 60C-POE)	4 (FG-90D-POE)	16 (FG-140D-POE)	8 (FG-200D-POE) 24 (FG-240D-POE) 32 (FG-280D-POE)	-
10 GE Interfaces	-	-	-	-	-
40 GE Interfaces	-	-	-	-	-
Capacity					
Maximum Supported APs (Tunnel Mode)	2 - 5	16	32	64	256
Maximum Supported APs (Total)	2 - 10	32	64	128	512
Max number of SSIDs	32	32	256	256	256
Max Concurrent Sessions	40 K - 1.5 Mil	1 - 1.5 Mil	1.4 - 3.2 Mil	1.4 Mil	2 Mil

	FortiGate 600C & 800C	FortiGate 1000 & 3000 Series	FG-5000 Series	FG-VM Series	
Hardware					
Product Range / Form Factor	Mid Range / 1 RU	High End / 2-3 RU	High End / 3-13 RU	-	
GE Interfaces	16-18	18 - 108	2 - 28	Refer to Datasheet	
GE PoE/PoE+ Interfaces	-	-	-	-	
10 GE Interfaces	0 - 2	2 - 28	2 - 112	Refer to Datasheet	
40 GE Interfaces	-	4	-		
Capacity					
Maximum Supported APs (Tunnel Mode)	512	1,024	Up to 14,336 (1,024/blade)	32 - 1,024	
Maximum Supported APs (Total)	1,024	4,096	Up to 53,744 (4,096/blade)	64 - 4,096	
Max number of SSIDs	256	1,024	Up to 14,336 (1,024/blade)	32 - 1,024	
Max Concurrent Sessions	3 - 7 Mil	10 - 44 Mil	10 - 100 Mil	Refer to Datasheet	

* Certification covers following specifications: - 802.11a/b/g/n, Short Guard Interval, TX A-MPDU, STBC, 40 MHz operation in 5 GHzWPA™ Personal, WPA™ Enterprise /Personal, WPA2™ , Enterprise / Personal, WMM™, EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST, 802.11 d/h, WMM Power Save..

** Requires latest FortiOS version.