

# WIRELESS PRODUCT MATRIX

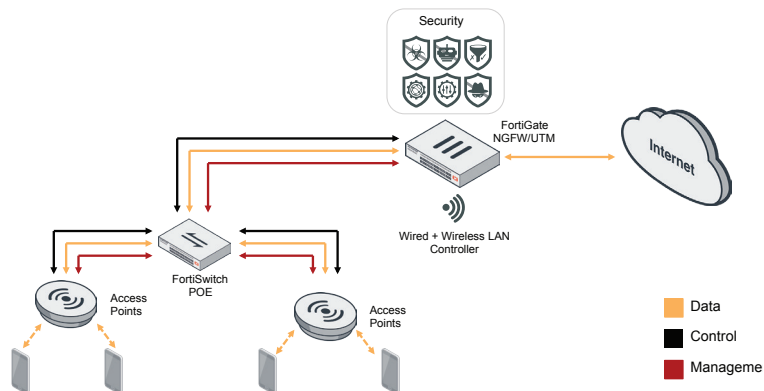
MAY 2016



# Fortinet Products for Wireless Solution

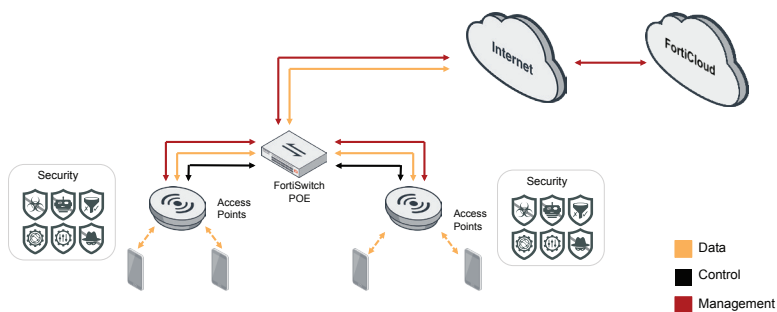
## Integrated Wi-Fi

Our Integrated offering is a family of controller-managed access points which function in cooperation with a FortiGate, our industry leading enterprise firewall. In addition to consolidating all the functions of a network firewall, IPS, anti-malware, VPN, WAN optimization, Web filtering, and application control in a single platform, FortiGate also has an integrated Wi-Fi controller. Wi-Fi is either integrated directly into the FortiGate (FortiWiFi) or connected as an access point (FortiAP) directly to a FortiGate to provide comprehensive wireless coverage.



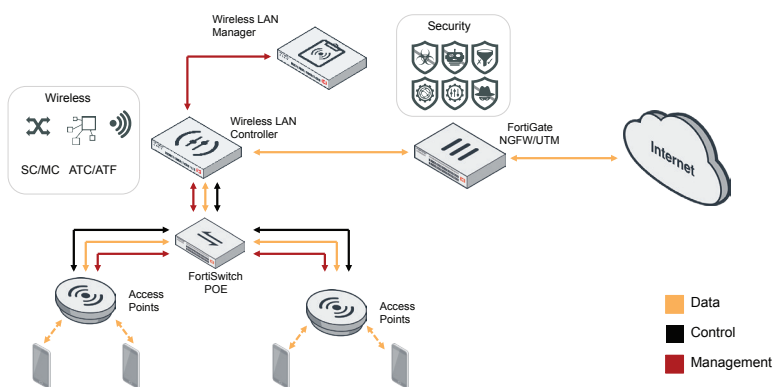
## Cloud Wi-Fi

Our cloud managed WLAN solutions contain capabilities unlike any other cloud Wi-Fi offering in the industry. The FortiAP-S series combines the elements of advanced firewall protection at the network edge with the simplicity and convenience of cloud management through our FortiCloud service. FortiCloud management capabilities also extend beyond the management of FortiAP-S to FortiAP and more.









## Infrastructure Wi-Fi






Our Infrastructure wireless offering, formerly Meru Networks, combines on-premise controller-based management, open application appliances, and a range of high-performance indoor and outdoor access points. This is the ideal solution when an organization needs to separate the access infrastructure from the underlying network's security infrastructure. With network controlled roaming, users benefit from the best possible mobility experience. The Infrastructure solution offers multiple channel configuration options and layering to simplify deployment while increasing performance, traffic segmentation, and capacity. This solution scales for implementation in small, medium, and large enterprises of all types.





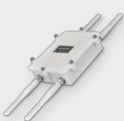


# FortiAP™ Integrated Indoor Access Points

	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 802.11ac indoor	High density indoor	High density, high performance 802.11ac indoor	Medium density 802.11ac indoor
<b>Hardware</b>						
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	•	•	•	•	•	•
<b>Wireless</b>						
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 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, MRC	•	•	•	•	•	•
802.11ac 80 MHz channel			•		•	•
<b>Rogue AP scanning</b>						
Dual Band Scanning	•	•	•	•	•	•
Background Scan		•	•	•	•	•
Full-time dedicated monitor	•	•	•	•	•	•
Single Radio Dual band scanning		•	•			
On-wire MAC address collector		•	•	•	•	•
<b>Management</b>						
WebUI & CLI	•	•	•	•	•	•
External serial console port				•	•	
Controller discovery: DNS, DHCP, over L3 boundary	•	•	•	•	•	•
<b>Cloud Management</b>						
Zero touch deployment (FortiDeploy)	•	•	•	•	•	
Report and Visualization	•	•	•	•	•	
Wireless Configuration	•	•	•	•	•	
Security Configuration						
<b>Certifications</b>						
Wi-Fi Alliance Certified*		•	•	•	•	•
DFS Certified**		221B: Region E, J	Region E, J, T (FAP-221C) Region E, A, J (FAP-223C)	Region E	Region E, J, A, T	Region E, J

# FortiAP™ Integrated Remote 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	
<b>Hardware</b>						
Form Factor	Small, portable	Desktop, wall mountable	Small, portable	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 x 2.8 x 1.4 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	AC adaptor, Wall mount Kit	AC adaptor, Wall mount Kit	
Resilient POE backup						
Plenum installable						
Mesh capable	•	•	•	•	•	
<b>Wireless</b>						
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 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, MRC						
802.11ac 80 MHz channel						
<b>Rogue AP scanning</b>						
Dual Band Scanning				•	•	
Background Scan						
Full-time dedicated monitor				•	•	
Single Radio Dual band scanning				•	•	
On-wire MAC address collector						
<b>Management</b>						
WebUI & CLI	•	•	•	•	•	
External serial console port						
Controller discovery: DNS, DHCP, over L3 boundary	•	•	•	•	•	
<b>Cloud Management</b>						
Zero touch deployment (FortiDeploy)	•	•	•	•	•	
Report and Visualization	•	•	•	•	•	
Wireless Configuration	•	•	•	•	•	
Security Configuration						
<b>Certifications</b>						
Wi-Fi Alliance Certified*						
DFS Certified**						

# FortiAP™ Integrated Outdoor Access Points



	FAP-112B	FAP-112D	FAP-222B	FAP-222C	FAP-224D
					
Suggested Use Case	Low density outdoor	Outdoor, POE pass-through for IP CCTV cameras.	Medium density outdoor	High density 802.11ac outdoor	Medium density outdoor
<b>Hardware</b>					
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 802.3at, 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	•	•	•	•	•
<b>Wireless</b>					
IEEE Standard	802.11 b/g/n	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
Number of Radios	1	1	2	2	2
Radio 1 Band (association rate)	2.4 GHz b/g/n (150 Mbps)	2.4 GHz / 5 GHz (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 (2.4 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, MRC	•	•		•	•
802.11ac 80 MHz channel				•	
<b>Rogue AP scanning</b>					
Dual Band Scanning			•	•	•
Background Scan			•	•	•
Full-time dedicated monitor			•	•	•
Single Radio Dual band scanning					
On-wire MAC address collector	•	•	•	•	•
<b>Management</b>					
WebUI & CLI	•	•	•	•	•
External serial console port					
Controller discovery: DNS, DHCP, over L3 boundary	•	•	•	•	•
<b>Cloud Management</b>					
Zero touch deployment (FortiDeploy)	•	•	•	•	•
Report and Visualization	•	•	•	•	•
Wireless Configuration	•	•	•	•	•
Security Configuration					
<b>Certifications</b>					
Wi-Fi Alliance Certified*			•	•	•
DFS Certified**		Region J		Region E, J	







# FortiAP-S Cloud Access Points

	FAP-S311C	FAP-S313C	FAP-S321C	FAP-S323C		
						
Suggested Use Case	High density, high performance 802.11ac indoor	High density, high performance 802.11ac indoor	High density, high performance 802.11ac indoor	High density, high performance 802.11ac indoor		
<b>Hardware</b>						
Form Factor	Wall or ceiling wall mountable	Wall or ceiling wall mountable	Wall or ceiling wall mountable	Wall or ceiling wall mountable		
Dimension	8.5 x 8.5 x 1.38 in	8.5 x 8.5 x 1.38 in	8.5 x 8.5 x 1.38 in	8.5 x 8.5 x 1.38 in		
Kensington Lock	•	•	•	•		
Ethernet Interfaces	1x GE RJ45	1x GE RJ45	1x GE RJ45	1x GE RJ45		
PoE	802.3at	802.3at	802.3at	802.3at		
Maximum power draw	18 W	18 W	23.5 W	23.5 W		
Included accessories	Ceiling, T-Rail and wall mount kit	Ceiling, T-Rail and wall mount kit	Ceiling, T-Rail and wall mount kit	Ceiling, T-Rail and wall mount kit		
Resilient POE backup						
Plenum installable						
Mesh capable						
<b>Wireless</b>						
IEEE Standard	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac		
Number of Radios	1	1	2	2		
Radio 1 Band (association rate)	2.4 GHz /5 GHz (up to 1300 Mbps)	2.4 GHz /5 GHz (up to 1300 Mbps)	2.4 GHz b/g/n (450 Mbps)	2.4 GHz b/g/n (450 Mbps)		
Radio 2 Band (association rate)	-	-	5 GHz a/n/ac (1300 Mbps)	5 GHz a/n/ac (1300 Mbps)		
MIMO	3x3 (3 stream)	3x3 (3 stream)	3x3 (3 stream)	3x3 (3 stream)		
Max / recommended number of concurrent clients	no limit / 50 per radio	no limit / 50 per radio	no limit / 50 per radio	no limit / 50 per radio		
Antenna Type and Count	3 - Internal	3 - RP-SMA External	3 internal	3 - RP-SMA External		
Antenna Gain	2dBi/(3dBi-5GHz)	2dBi/(3dBi-5GHz)	2dBi/(3dBi-5GHz)	2dBi/(3dBi-5GHz)		
Max TX Power	19 dBm (80 mW)	19 dBm (80 mW)	20 dBm (100 mW)	20 dBm (100 mW)		
Number of SSIDs	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		
802.11n 20/40Mhz HT	•	•	•	•		
802.11n MPDU/MSDU agg	•	•	•	•		
802.11n Dynamic MIMO PS	•	•	•	•		
802.11n LDPC encoding	•	•	•	•		
802.11n MLD, MRC	•	•	•	•		
802.11ac 80 MHz channel	•	•	•	•		
<b>Rogue AP scanning</b>						
Dual Band Scanning	•	•	•	•		
Background Scan	•	•	•	•		
Full-time dedicated monitor	•	•	•	•		
Single Radio Dual band scanning						
On-wire MAC address collector						
<b>Management</b>						
WebUI & CLI	•	•	•	•		
External serial console port	•	•	•	•		
Controller discovery: DNS, DHCP, over L3 boundary						
<b>Cloud Management</b>						
Zero touch deployment (FortiDeploy)	•	•	•	•		
Report and Visualization	•	•	•	•		
Wireless Configuration	•	•	•	•		
Security Configuration	•	•	•	•		
<b>Certifications</b>						
Wi-Fi Alliance Certified*						
DFS Certified**						

# FortiAP-C Cloud Access Points



	FAP-C220C	FAP-C225C				
						
Suggested Use Case	Entry Level cloud managed AP with basic connectivity features	Entry Level cloud managed AP with basic connectivity features				
<b>Hardware</b>						
Form Factor	Wall or ceiling wall mountable	Wall or ceiling wall mountable				
Dimension	8.5 x 8.5 x 1.38 in	8.5 x 8.5 x 1.38 in				
Kensington Lock						
Ethernet Interfaces	2x GE RJ45	2x GE RJ45				
PoE	802.3af	802.3af				
Maximum power draw	15.4 W	15.4 W				
Included accessories	Ceiling, T-Rail and wall mount kit	Ceiling, T-Rail and wall mount kit				
Resilient POE backup						
Plenum installable						
Mesh capable						
<b>Wireless</b>						
IEEE Standard	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac				
Number of Radios	2	2				
Radio 1 Band (association rate)	2.4 GHz (up to 300 Mbps)	2.4 GHz (up to 300 Mbps)				
Radio 2 Band (association rate)	5 GHz (up to 867 Mbps)	5 GHz (up to 867 Mbps)				
MIMO	2x2 (2 stream)	2x2 (2 stream)				
Max / recommended number of concurrent clients	32 / 20 per AP	32 / 20 per AP				
Antenna Type and Count	4 - Internal	4 - RP-SMA External				
Antenna Gain	3.5 dBi/(6dBi-5GHz)	3 dBi/(3dBi-5GHz)				
Max TX Power	23 dBm (200 mW)	23 dBm (200 mW)				
Number of SSIDs	4	4				
Traffic 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, MRC	•	•				
802.11ac 80 MHz channel	•	•				
<b>Rogue AP scanning</b>						
Dual Band Scanning						
Background Scan						
Full-time dedicated monitor						
Single Radio Dual band scanning						
On-wire MAC address collector						
<b>Management</b>						
WebUI & CLI	•	•				
External serial console port						
Controller discovery: DNS, DHCP, over L3 boundary	•	•				
<b>Cloud Management</b>						
Zero touch deployment (FortiDeploy)	•	•				
Report and Visualization	•	•				
Wireless Configuration	•	•				
Security Configuration						
<b>Certifications</b>						
Wi-Fi Alliance Certified*						
DFS Certified**						

# FortiWiFi™ Firewall and Wi-Fi Gateway

	FWF-30D	FWF-30E	FWF-50E	FWF-60D	FWF-80CM
					
Suggested Deployment	Home/small office	Home/small office	Home/small office	Distributed office	Distributed office
<b>Hardware</b>					
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	1.61 x 8.27 x 5.24 in	1.44 x 5.5 x 8.52	1.50 x 8.50 x 5.83 in	1.75 x 10.87 x 6.13 in
Kensington Lock	•				•
Ethernet Interfaces	1 x GE RJ45 WAN, 4 x GE RJ45 Switch ports	1 x GE RJ45 WAN, 4 x GE RJ45 Switch ports	2 x GE RJ45 WAN, 5 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
Mesh Root			•	•	•
Other WiFi Variants	POE (PSE)	-	+ Storage (FWF-51E)	POE (PSE)	-
<b>Wireless</b>					
IEEE Standard	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n	802.11 a/b/g/n
Number of Radios	1	1	1	1	1
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	2x2	2x2	2x3
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 F-type antennas	2 F-type 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)	•	•	•	•	•
<b>Rogue AP scanning</b>					
Dual Band Scanning	•	•	•	•	•
Background Scan	•	•	•	•	•
Full-time dedicated monitor	•	•	•	•	•
Single Radio Dual band scanning	•	•	•	•	•
On-wire MAC address collector	•	•	•	•	•
<b>Management</b>					
WebUI & CLI	•	•	•	•	•
Max managed APs	2	2	10	10	32
Cloud deployment support	•	•	•	•	•
<b>Certifications</b>					
Wi-Fi Alliance Certified*					
DFS Certified**	Region: J			Region: J	



# FortiWiFi™ Firewall and Wi-Fi Gateway







	FWF-90D	FWF-92D			
					
Suggested Deployment	Indoor Motels, Clinics, Small Enterprise, Retail	Indoor Motels, Clinics, Small Enterprise, Retail			
<b>Hardware</b>					
Form Factor	Desktop, wall mountable	Desktop, wall mountable			
Dimension	1.72 x 8.5 x 8.78 in	1.72 x 8.5 x 8.78 in			
Kensington Lock	•	•			
Ethernet Interfaces	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)				
<b>Wireless</b>					
IEEE Standard	802.11a/b/g/n	802.11a/b/g/n			
Number of Radios	1	1			
Radio 1 Band (association rate)	2.4GHz / 5GHz (300Mbps)	2.4GHz / 5GHz (300Mbps)			
Radio 2 Band (association rate)	-	-			
MIMO	2x2	2x2			
Max / recommended number of concurrent clients	no limit / 30	no limit / 30			
Antenna Type and Count	2 di-pole antennas	2 di-pole antennas			
Antenna Gain	up to 5dB	up to 5dB			
Max TX Power	17dBm	17dBm			
Number of SSIDs	8 (7 client, 1 monitor)	8 (7 client, 1 monitor)			
Traffic 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)	•	•			
<b>Rogue AP scanning</b>					
Dual Band Scanning	•	•			
Background Scan	•	•			
Full-time dedicated monitor	•	•			
Single Radio Dual band scanning	•	•			
On-wire MAC address collector	•	•			
<b>Management</b>					
WebUI & CLI	•	•			
Max managed APs	32	32			
Cloud deployment support	•	•			
<b>Certifications</b>					
Wi-Fi Alliance Certified*					
DFS Certified**	Region: J				

## FortiGate/FortiWiFi® Wireless Controller (with FortiOS 5.4)

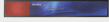






	FortiGate/FortiWiFi 30D, 30E, 50E & 60D Series	FortiGate/FortiWiFi 70D, 80D, 90D, 92D Series	FortiGate 100D Series	FortiGate 200D Series	FortiGate 300D, 400D & 500D
<b>Hardware</b>					
Product Range / Form Factor	Entry / Desktop	Entry / Desktop-2 RU	Mid Range / 1 RU	Mid Range / 1-2 RU	Mid Range / 1 RU
GE Interfaces	5-10	4 - 78	8 - 40	18 - 88	10 - 18
GE PoE/PoE+ Interfaces	2 / - (FG-60D-POE)	4 / - (FG-90D/70D-POE)	16 (FG-140D-POE)	8 (FG-200D-POE) 24 (FG-240D-POE) 32 (FG-280D-POE)	-
10 GE Interfaces	-	-	-	-	-
40 GE Interfaces	-	-	-	-	-
<b>Capacity</b>					
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 CAPWAP throughput	250 Mbps - 1.9 Gbps	260 Mbps - 1.2 Gbps	1.2 Gbps	1.8 Gbps	5.4 - 10 Gbps
Max Concurrent Sessions	500 K - 1.8 Mil	1.5 - 2 Mil	3 Mil	3.2 Mil	5.5 - 6 Mil
	FortiGate 600C, 600D, 800C, 800D & 900D	FortiGate 1000 & 3000 Series	FG-5000 Series	FG-VM Series	
<b>Hardware</b>					
Product Range / Form Factor	Mid Range / 1 RU	High End / 2-3 RU	High End / 3-13 RU	-	
GE Interfaces	16-34	18 - 34	2 - 28	Refer to Datasheet	
GE PoE/PoE+ Interfaces	-	-	-	-	
10 GE Interfaces	0 - 2	2 - 48	2 - 112	Refer to Datasheet	
40 GE Interfaces	-	4	-	-	
100 GE Interfaces	-	6	2	-	
<b>Capacity</b>					
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 57,344 (4,096/blade)	64 - 4,096	
Max number of SSIDs	256	1,024	Up to 14,336 (1,024/blade)	32 - 1,024	
Max CAPWAP throughput	5.5 Gbps - 11 Gbps	11 Gbps - 22 Gbps	Refer to Datasheet	Refer to Datasheet	
Max Concurrent Sessions	3 - 11 Mil	11 - 95 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 GHz WPA™ 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.

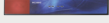



# Fortinet Infrastructure Wi-Fi Access Points

	AP 1010i/1010e	AP 1020i/1020e	AP 122	AP 822i/822e	AP 832i/832e	OAP 832e
						
<b>Suggested Use Case</b>	Classrooms, Dormitory Common Areas, Moderate Density Enterprise	Classrooms, Dormitory Common Areas, Moderate Density Enterprise	In-room hotel, hospital, dormitory	Classrooms, Dormitory Common Areas, Moderate Density Enterprise	Conference Rooms, Lecture Halls, Hospitals, Stadiums	Parking Lots, Courtyards, University Grounds
<b>Hardware</b>						
<b>Form Factor</b>	Wall or ceiling wall mountable	Wall or ceiling wall mountable	Small, wall mountable	Wall or ceiling wall mountable	Wall or ceiling wall mountable	Outdoor 67 rated, wall or pole wall mountable
<b>Dimension</b>	6.75 x 6.50 x 2.50 in / 6.33 x 4.50 x 1.50 in	6.75 x 6.50 x 2.50 in / 6.33 x 4.50 x 1.50 in	5.51 x 5.35 x 1.18 in	7.1 x 7.1 x 2.7 in	7.1 x 7.1 x 2.7 in	11.0 x 8.54 x 2.0 in
<b>Ethernet Interfaces</b>	1x GE RJ45 (PD)	1x GE RJ45 (PD)	1x GE RJ45 (PD), 1x FE, 1x FE PoE (PSE), 1x pass through RJ45 pair	1x GE RJ45 (PD), 1x GE RJ45	1x GE RJ45 (PD), 1x GE RJ45	1x GE RJ45 (PD), 1x GE RJ45
<b>PoE</b>	802.3af	802.3af	802.3af, 802.3at	802.3af, 802.3at	802.3af, 802.3at	802.3at
<b>Included accessories</b>	Lockable Mounting kit + Key	Lockable Mounting kit + Key	Mounting kit	Mounting kits	Mounting kits	Mounting kits
<b>Mesh capable</b>	•	•		•	•	•
<b>Wireless</b>						
<b>IEEE Standard</b>	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/ac	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac
<b>Number of Radios</b>	1	2	2	2	2	2
<b>Radio 1 Band (association rate)</b>	2.4 GHz / 5 GHz (300Mbps)	2.4 GHz / 5 GHz (300Mbps)	2.4 GHz / 5 GHz (300 Mbps)	2.4 GHz / 5 GHz (300 Mbps)	2.4 GHz / 5 GHz (1,300 Mbps)	2.4 GHz (450 Mbps)
<b>Radio 2 Band (association rate)</b>	-	2.4 GHz / 5 GHz (300Mbps)	5 GHz a/n/ac (867 Mbps)	5 GHz a/n/ac (867 Mbps)	2.4 GHz / 5 GHz (1,300 Mbps)	5 GHz a/n/ac (1,300 Mbps)
<b>MIMO</b>	2x2 (dual stream)	2x2 (dual stream)	2x2 (dual stream)	2x2 (dual stream)	3x3 (3 stream)	3x3 (3 stream)
<b>Antenna Type and Count</b>	1010i: 2 - Internal 1010e: 2 - External	1020i: 4 - Internal 1020e: 4 - External	4 - Internal	822i: 4 - Internal 822e: 4 - External	832i: 6 - Internal 832e: 6 - External	6 N-type External
<b>Antenna Gain</b>	1010i: 4 dBi / (5 dBi for 5 GHz) 1010e: 2 dBi / (3 dBi for 5 GHz)	1020i: 4 dBi / (5 dBi for 5 GHz) 1020i: 2 dBi / (3 dBi for 5 GHz)	3.6 dBi / (6 dBi for 5 GHz)	3.6 dBi / (5 dBi for 5 GHz)	832i: 2.5 dBi / (4 dBi for 5 GHz) 832e: 3 dBi / (4 dBi for 5 GHz)	6 dBi / (74 dBi for 5 GHz)
<b>Max TX Power</b>	23 dBm (2.4 GHz) 19 dBm (5 GHz)	23 dBm (2.4 GHz) 19 dBm (5 GHz)	21 dBm (2.4 GHz) 19 dBm (5 GHz)	24 dBm (2.4 GHz) 23 dBm (5 GHz)	24 dBm (2.4 GHz) 22 dBm (5 GHz)	25 dBm (2.4 GHz) 24 dBm (5 GHz)
<b>Number of SSIDs</b>	64	64	64	64	64	64
802.11n 20/40MHz HT	•	•	•	•	•	•
802.11ac 80 MHz channel			•	•	•	•
<b>Security</b>						
WEP, WPA-PSK, WPA-TKIP, WPA2-AES, 802.11i, 802.1X (EAP-TLS, EAP-TTLS, PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-AKA, and EAP-MD5)	•	•	•	•	•	•
802.1X and captive portal authentication against local database on the controller, RADIUS, and Active Directory	•	•	•	•	•	•
RADIUS-assisted per-user and per-ESSID access control via MAC filtering	•	•	•	•	•	•
<b>Operation Mode</b>						
Centralized deployment mode	•	•	•	•	•	•
Distributed deployment mode	•	•	•	•	•	•
Remote VPN tunnel mode			•	•	•	•
<b>Certifications</b>						
Wi-Fi Alliance Certified*	•	•	•	•	Remote 832i: •	•
DFS Certified**	1010i: Region A, K, CN, J, E 1010e: Region A, K, J, E	1020i: Region A, K, CN, J, E 1020e: Region A, K, J, E	Region A, K, J, E	Region A, K, J, E	Region A, K, CN, J, E	Region A, J, E

## Fortinet Infrastructure Wireless LAN Controller / FortiWLC Wireless Controllers

	MC1550	MC3200	MC4200	MC6000	
					
Suggested Use Case	Small enterprises, remote offices	Medium enterprises, branch offices	Large enterprises, regional offices	Very large enterprises, Headquarters, campuses	
<b>Hardware</b>					
Form Factor	1 RU	1 RU	1 RU	7 RU	
Ethernet Interfaces	2x GE RJ45	4x GE RJ45	4x GE RJ45, Optional 2-port 1GE/10GE SFP+ module	6x GE/10GE SFP+ interfaces per blade (max 10 blades)	
<b>Capacity</b>					
Max Access Points	50	200	500	5,000	
	FWLC-50D	FWLC-200D	FWLC-500D		
					
Suggested Use Case	Small enterprises, remote offices	Medium enterprises, branch offices	Large enterprises, regional offices		
<b>Hardware</b>					
Form Factor	1 RU	1 RU	1 RU		
Ethernet Interfaces	4x GE RJ45	4x GE RJ45	4x GE RJ45, 4x GE SFP, 2x 10GE SFP+		
<b>Capacity</b>					
Max Access Points	50	200	500		

## Fortinet Services Appliance / FortiWLM Wireless Manager

	SA250	SA2000			
					
Suggested Use Case	Small enterprises	Medium to large enterprises			
<b>Hardware</b>					
Form Factor	1 RU	1 RU			
Ethernet Interfaces	2x GE RJ45	4x GE RJ45			
<b>Capacity</b>					
Number of FortiWLC Controllers	10	250			
	FWLM-100D	FWLM-1000D			
					
Suggested Use Case	Small enterprises	Medium to large enterprises			
<b>Hardware</b>					
Form Factor	1 RU	1 RU			
Ethernet Interfaces	2x GE RJ45	4x GE RJ45, 4x GE SFP, 2x 10GE SFP+			
<b>Capacity</b>					
Number of FortiWLC Controllers	10	250			
Number of APs	500	12,500			
Number of Stations	1,000	50,000			

This document is provided as a convenient comparison of Fortinet products and services. The datasheet for any product or service can be found on [www.fortinet.com](http://www.fortinet.com) should be consulted for the most updated specifications.

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