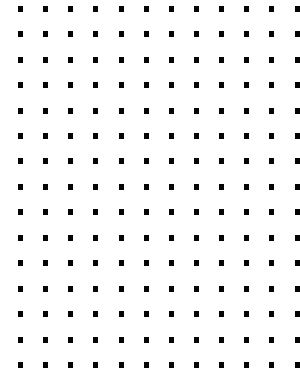


# Wireless Product Matrix

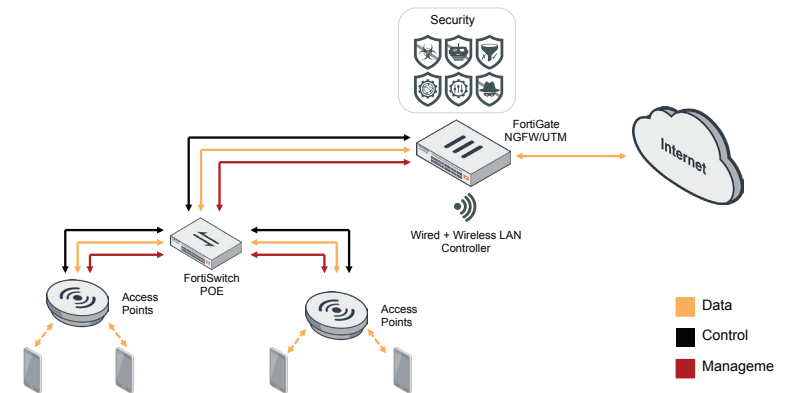
March 2024



Large campuses, distributed enterprises, and small businesses all have diverse WLAN architecture needs. That's why Fortinet provides a variety of models, from 2x2 to 4x4, internal or external antenna, to address any use case. Fortinet offers flexibility for configuration and control, either using our FortiGate security appliance as a controller or our cloud platform FortiLAN Cloud.

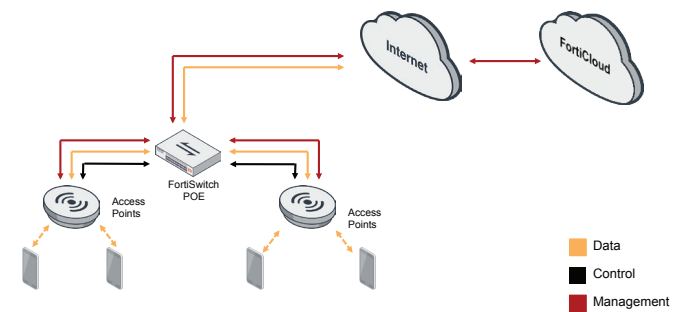
## FortiGate Managed

The FortiGate Wireless Controller is built into all FortiGate models and does not require any additional licensing to use. This results in security-driven networking, where the network is converged with, and driven by security. The FortiLink protocol allows the FortiGate appliance to extend its best in class security directly to the wireless edge. Base NAC features are also included, giving more features and lower TCO. As part of our Security Fabric, the FortiGate Managed offering also allows for an extensive set of troubleshooting and reporting tools with FortiWLM and Artificial Intelligence with Machine Learning using FortiAIOps all within our Fabric Management Center.





## FortiLAN Cloud Managed





FortiLAN Cloud management allows for centralized hosted cloud control of standalone FortiAP devices, scaling from a handful to thousands of FortiAPs. A FortiLAN Cloud subscription enables advanced features & troubleshooting plus additional configuration options and log retention.





# FortiAP™ Integrated or Cloud Managed Wi-Fi 7 (802.11be) Access Points

	FAP-441K	FAP-443K	
			
<b>Suggested Use Case</b>	WiFi-7 indoor	WiFi-7 indoor	
<b>Hardware</b>			
<b>Number of Radios</b>	4 + 1 BLE	4 + 1 BLE	
<b>Number of Antennas</b>	10 Internal + 1 BLE Internal + 1 Internal GPS	10 External + 1 BLE External + 1 Internal GPS	
<b>Antenna Type and Peak Gain</b>	Refer to Data Sheet	Refer to Data Sheet	
<b>Radio 1 Capabilities</b>	2.4 GHz 4x4 20/40MHz	2.4 GHz 4x4 20/40MHz	
<b>Radio 2 Capabilities</b>	5.0 GHz 4x4 20/40/80/160/240MHz	5.0 GHz 4x4 20/40/80/160/240MHz	
<b>Radio 3 Capabilities</b>	6.0 GHz 4x4 20/40/80/160/240MHz	2.4/5.0/6.0 GHz 2x2 20/40/80/160/240MHz	
<b>Radio 4 Capabilities (scanning only)</b>	2.4/5.0/6.0GHz 2x2 20/40/80/160MHz	2.4/5.0/6.0GHz 2x2 20/40/80/160MHz	
<b>Maximum Data Rate</b>	Radio 1: up to 1.148 Gbps Radio 2: up to 8.648 Gbps Radio 3: up to 11.530 Gbps	Radio 1: up to 1.148 Gbps Radio 2: up to 8.648 Gbps Radio 3: up to 11.530 Gbps	
<b>BLE/ZigBee</b>	• / •	• / •	
<b>Interfaces</b>	2x 10/5/2.5/GE RJ45, 1x RS-232 RJ45 Serial Port	2x 10/5/2.5/GE RJ45, 1x RS-232 RJ45 Serial Port	
<b>Power over Ethernet (PoE)</b>	802.3bt PoE default or x2 802.3at PoE (Dual PoE current sharing)	802.3bt PoE default or x2 802.3at PoE (Dual PoE current sharing)	
<b>Power Consumption (Max.)</b>	41.7 W	41.7 W	
<b>Simultaneous SSIDs</b>	Up to 24	Up to 24	
<b>Maximum Tx Power</b>	Radio 1: 2.4GHz: 29 dBm / 794 mW (4 chains combined) Radio 2: 5GHz: 27.8 dBm / 602 mW (4 chains combined) Radio 3: 6GHz: 23 dBm 200 mW (4 chains combined @ 160MHz BW)	Radio 1: 2.4GHz: 29 dBm / 794 mW (4 chains combined) Radio 2: 5GHz: 27.8 dBm / 602 mW (4 chains combined) Radio 3: 6GHz: 23 dBm 200 mW (4 chains combined @ 160MHz BW)	
<b>SSID Types Supported</b>	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	
<b>Per Radio Client Capacity</b>	Up to 512 per radio (Radio1, 2 & 3)	Up to 512 per radio (Radio1, 2 & 3)	
<b>Certifications</b>			
<b>Wi-Fi Alliance Certified</b>	•	•	
<b>DFS Certified</b>			





# FortiAP™ Integrated or Cloud Managed Wi-Fi 6E (802.11ax) Access Points

	FAP-231G	FAP-233G	FAP-431G	FAP-433G
				
<b>Suggested Use Case</b>	WiFi-6E indoor	WiFi-6E indoor	High performance WiFi-6E indoor	High performance WiFi-6E indoor
<b>Hardware</b>				
<b>Number of Radios</b>	3 + 1 BLE	3 + 1 BLE	3 + 1 BLE	3 + 1 BLE
<b>Number of Antennas</b>	4 Internal + 1 BLE Internal	4 External + 1 BLE Internal	8 Internal + 1 BLE Internal	8 External + 1 BLE Internal
<b>Antenna Type and Peak Gain</b>	PIFA: 4.5 dBi for 2.4GHz, 5.5 dBi for 5 GHz & 5.5dBi for 6GHz	4.5 dBi for 2.4GHz, 4.5 dBi for 5 GHz & 4.5dBi for 6GHz	PIFA: 4.0 dBi for 2.4GHz, 6.0 dBi for 5 GHz & 5.7dBi for 6GHz	5.0 dBi for 2.4GHz, 5.0 dBi for 5 GHz & 4.0dBi for 6GHz
<b>Radio 1 Capabilities</b>	2.4 GHz 2x2 20/40MHz	2.4 GHz 2x2 20/40MHz	2.4 GHz 4x4 20/40MHz	2.4 GHz 4x4 20/40MHz
<b>Radio 2 Capabilities</b>	5.0 GHz 2x2 20/40/80MHz	5.0 GHz 2x2 20/40/80MHz	5.0 GHz 4x4 20/40/80MHz	5.0 GHz 4x4 20/40/80MHz
<b>Radio 3 Capabilities (Service and Scanning)</b>	2.4/5.0/6.0 GHz 2x2 20/40/80MHz	2.4/5.0/6.0 GHz 2x2 20/40/80MHz	2.4/5.0/6.0 GHz 4x4 20/40/80/160MHz	2.4/5.0/6.0 GHz 4x4 20/40/80/160MHz
<b>Maximum Data Rate</b>	Radio 1: up to 574 Mbps Radio 2: up to 1201 Mbps Radio 3: up to 2401 Mbps	Radio 1: up to 574 Mbps Radio 2: up to 1201 Mbps Radio 3: up to 2401 Mbps	Radio 1: up to 1148 Mbps Radio 2: up to 2402 Mbps Radio 3: up to 4804 Mbps	Radio 1: up to 1148 Mbps Radio 2: up to 2402 Mbps Radio 3: up to 4804 Mbps
<b>BLE/ZigBee</b>	• / •	• / •	• / •	• / •
<b>Interfaces</b>	1x 2.5GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port	1x 2.5GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port	2x 5GE RJ45, 1x RS-232 RJ45 Serial Port	2x 5GE RJ45, 1x RS-232 RJ45 Serial Port
<b>Power over Ethernet (PoE)</b>	802.3at PoE default	802.3at PoE default	1x 802.3bt PoE default or 2x 802.3at PoE (Dual PoE current sharing)	1x 802.3bt PoE default or 2x 802.3at PoE (Dual PoE current sharing)
<b>Power Consumption (Max.)</b>	Depends on PoE connected	Depends on PoE connected	31.7 W	31.7 W
<b>Simultaneous SSIDs</b>	Up to 24	Up to 24	Up to 24	Up to 24
<b>Maximum Tx Power</b>	Radio 1: 2.4GHz: 23 dBm / 200 mW (2 chains combined) Radio 2: 5GHz: 23 dBm / 158 mW (2 chains combined) Radio 3: 6GHz: 21 dBm 80 mW (2 chains combined @ 160MHz BW)	Radio 1: 2.4GHz: 23 dBm / 200 mW (2 chains combined) Radio 2: 5GHz: 23 dBm / 158 mW (2 chains combined) Radio 3: 6GHz: 21 dBm 80 mW (2 chains combined @ 160MHz BW)	Radio 1: 2.4GHz: 27 dBm / 501 mW (4 chains combined) Radio 2: 5GHz: 26 dBm / 400 mW (4 chains combined) Radio 3: 6GHz: 24 dBm 251 mW (4 chains combined @ 160MHz BW)	Radio 1: 2.4GHz: 27 dBm / 501 mW (4 chains combined) Radio 2: 5GHz: 26 dBm / 400 mW (4 chains combined) Radio 3: 6GHz: 24 dBm 251 mW (4 chains combined @ 160MHz BW)
<b>SSID Types Supported</b>	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh
<b>Per Radio Client Capacity</b>	Up to 512 per radio (Radio1, 2 & 3)	Up to 512 per radio (Radio1, 2 & 3)	Up to 512 per radio (Radio1, 2 & 3)	Up to 512 per radio (Radio1, 2 & 3)
<b>Certifications</b>				
<b>Wi-Fi Alliance Certified</b>	•	•	•	•
<b>DFS Certified</b>	CE	CE	CE	CE





# FortiAP™ Integrated or Cloud Managed Wi-Fi 6E (802.11ax) Outdoor Access Points

	FAP-234G	FAP-432G	
			
<b>Suggested Use Case</b>	WiFi-6E Outdoor	WiFi-6E Outdoor	
<b>Hardware</b>			
<b>Number of Radios</b>	3 + 1 BLE	3 + 1 BLE	
<b>Number of Antennas</b>	8 Internal + 1 BLE Internal, 1 GPS Internal	8 External + 1 BLE	
<b>Antenna Type and Peak Gain</b>	Refer to Data Sheet	Refer to Data Sheet	
<b>Radio 1 Capabilities</b>	2.4 GHz 2x2 20/40MHz	2.4 GHz 4x4 20/40MHz	
<b>Radio 2 Capabilities</b>	5.0 GHz 2x2 20/40/80MHz	5.0 GHz 4x4 20/40/80MHz	
<b>Radio 3 Capabilities (Service and Scanning)</b>	2.4/5.0/6.0 GHz 2x2 20/40/80/160 MHz	6.0 GHz 4x4 20/40/80/160 MHz	
<b>Maximum Data Rate</b>	Radio 1: up to 574 Mbps Radio 2: up to 1201 Mbps Radio 3: up to 2401 Mbps	Radio 1: up to 1182 Mbps Radio 2: up to 2475 Mbps Radio 3: Up to 4804 Mbps	
<b>BLE/ZigBee</b>	• / •	• / •	
<b>Interfaces</b>	1x 2.5GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port	1x 10GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port	
<b>Power over Ethernet (PoE)</b>	802.3bt	802.3bt	
<b>Power Consumption (Max.)</b>	28 W	41.2 W	
<b>Simultaneous SSIDs</b>	Up to 24	Up to 8 per client serving radio	
<b>Maximum Tx Power</b>	Radio 1: 2.4GHz: 26 dBm / 398 mW (2 chains combined) Radio 2: 5GHz: 26 dBm / 398 mW (2 chains combined) Radio 3: 5GHz: 26 dBm / 398 mW (2 chains combined), 6GHz: 26dBm/398 mW (2 chains combined EIRP)	Radio 1: 2.4GHz: 29.8 dBm / 955 mW (4 chains combined) Radio 2: 5GHz: 29.8 dBm / 955 mW (4 chains combined) Radio 3: 6GHz: 26 dBm / 400 mW (4 chains combined @ 160MHz BW)	
<b>SSID Types Supported</b>	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	
<b>Per Radio Client Capacity</b>	Up to 512 per radio (Radio1, 2 & 3)	Up to 512 per radio (Radio1, 2 & 3)	
<b>Certifications</b>			
<b>Wi-Fi Alliance Certified</b>			
<b>DFS Certified</b>			



# FortiAP™ Integrated or Cloud Managed Wi-Fi 6 (802.11ax) Access Points

	FAP-231F	FAP-431F	FAP-433F	FAP-831F
				
<b>Suggested Use Case</b>	802.11ax indoor	High performance 802.11ax indoor	High performance 802.11ax indoor	High performance 802.11ax indoor
<b>Hardware</b>				
<b>Number of Radios</b>	3 + 1 BLE	3 + 1 BLE	3 + 1 BLE	3 + 1 BLE
<b>Number of Antennas</b>	3 Internal + 1 BLE Internal	5 Internal + 1 BLE Internal	5 External + 1 BLE Internal	13 Internal + 1 BLE Internal
<b>Antenna Type and Peak Gain</b>	PIFA: 4.5dBi for 2.4GHz and 5.5dBi for 5GHz	PIFA: 4 dBi for 2.4 GHz, 5 dBi for 5 GHz	Omni directional rubber duck antenna : 4 dBi for 2.4 GHz, 6 dBi for 5 GHz	PIFA: 4 dBi for 2.4 GHz, 6 dBi for 5.0 GHz, 4 dBi for dual band Scanning
<b>Radio 1 Capabilities</b>	2.4 GHz 2x2 20/40MHz	2.4 GHz 4x4 20/40MHz	2.4 GHz 4x4 20/40MHz	2.4 GHz 4x4 20/40MHz
<b>Radio 2 Capabilities</b>	5.0 GHz 2x2 20/40/80MHz	5.0 GHz 4x4 20/40/80MHz, 2x2 160MHz	5.0 GHz 4x4 20/40/80MHz, 2x2 160MHz	5.0 GHz 8x8 (Mode 1), 4x4 = 4x4 (Mode 2)
<b>Radio 3 Capabilities (Monitor Only)</b>	2.4/5.0 GHz (1x1)	2.4/5.0 GHz (1x1)	2.4/5.0 GHz (1x1)	2.4/5.0 GHz (1x1)
<b>Maximum Data Rate</b>	Radio 1: up to 574 Mbps Radio 2: up to 1201 Mbps Radio 3: scan only	Radio 1: up to 1147 Mbps Radio 2: up to 2402 Mbps Radio 3: scan only	Radio 1: up to 1147 Mbps Radio 2: up to 2402 Mbps Radio 3: scan only	Radio 1: up to 1147 Mbps Radio 2: up to 4.804 Gbps Radio 3: scan only
<b>BLE/ZigBee</b>	• / •	• / -	• / -	• / -
<b>Interfaces</b>	2 x GE RJ45	1x 2.5GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port	1x 2.5GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port	1x 2.5GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port
<b>Power over Ethernet (PoE)</b>	802.3af/at	802.3at & dual redundant 802.3af/at	802.3at & dual redundant 802.3af/at	Dual 802.3at for full function, 802.3at with USB disabled
<b>Power Consumption (Max.)</b>	17 W	24.5 W	24.5 W	33 W
<b>Simultaneous SSIDs</b>	16 (14 if background scanning enabled)	16 (14 if background scanning enabled)	16 (14 if background scanning enabled)	
<b>Maximum Tx Power</b>	Radio 1: 2.4GHz: 23 dBm / 200 mW (2 chains combined) Radio 2: 5GHz: 22 dBm / 158 mW (2 chains combined) Radio 3: Radio 3: NA	Radio 1: 5GHz: 23 dBm / 200 mW (4 chains combined) Radio 2: 2.4GHz: 24 dBm / 251 mW (4 chains combined) 5GHz: 23 dBm / 200 mW (4 chains combined), Radio 3: NA	Radio 1: 5GHz: 23 dBm / 200 mW (4 chains combined) Radio 2: 2.4GHz: 24 dBm / 251 mW (4 chains combined) 5GHz: 23 dBm / 200 mW (4 chains combined), Radio 3: NA	Radio 1: 2.4GHz: 27 dBm / 500 mW (4 chains combined) Radio 2: 5GHz: 25.5 dBm / 354 mW (4 chains combined), Radio 3: NA
<b>SSID Types Supported</b>	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh
<b>Per Radio Client Capacity</b>	Up to 512 per radio Radio1 and Radio2	Up to 512 per radio Radio1 and Radio2	Up to 512 per radio Radio1 and Radio2	Up to 512 per radio Radio1 and Radio2
<b>Certifications</b>				
<b>Wi-Fi Alliance Certified</b>	•	•	•	•
<b>DFS Certified</b>	FCC, IC, CE, Japan, Brazil, Taiwan, Korea	FCC, IC, CE, Japan, Brazil, Taiwan	FCC, IC, CE, Japan, Brazil, Taiwan	FCC, IC, CE, Japan, Brazil




# FortiAP™ Integrated or Cloud Managed Wi-Fi 6 (802.11ax) Outdoor and Wall Plate Access Points

	FAP-234F	FAP-432F	FAP-432FR	FAP-23JF
				
<b>Suggested Use Case</b>	802.11ax outdoor	High performance 802.11ax outdoor	Ruggedized indoor/outdoor/industrial	802.11ax wall plate
<b>Hardware</b>				
<b>Number of Radios</b>	3 + 1 BLE	3 + 1 BLE	3 + 1 BLE	3 + 1 BLE
<b>Number of Antennas</b>	3 Internal + 1 BLE External	5 External + 1 BLE External	5 External + 1 BLE External	3 Internal + 1 BLE Internal
<b>Antenna Type and Peak Gain</b>	Dipole: 10 dBi for 2.4 GHz band, 10 dBi for 5.0 GHz	Dipole: 5.5 dBi for 2.4 GHz and 7.2 dBi for 5 GHz	Dipole: 5.5 dBi for 2.4 GHz and 7.2 dBi for 5 GHz	PCB: 4.0 dBi for 2.4 GHz and 4.0 dBi for 5 GHz
<b>Radio 1 Capabilities</b>	2.4 GHz 20/40MHz	2.4 GHz 20/40MHz	2.4 GHz 20/40MHz	2.4 GHz 20/40MHz
<b>Radio 2 Capabilities</b>	5.0 GHz 2x2 20/40/80MHz	5.0 GHz 4x4 20/40/80MHz, 2x2 160MHz	5.0 GHz 4x4 20/40/80MHz, 2x2 160MHz	5.0 GHz 2x2 20/40/80MHz
<b>Radio 3 Capabilities (Monitor Only)</b>	2.4/5.0 GHz (1x1)	2.4/5.0 GHz (1x1)	2.4/5.0 GHz (1x1)	2.4/5.0 GHz (1x1)
<b>Maximum Data Rate</b>	Radio 1: up to 574 Mbps Radio 2: up to 1200 Mbps Radio 3: scan only	Radio 1: up to 1147 Mbps Radio 2: up to 2402 Mbps Radio 3: scan only	Radio 1: up to 1147 Mbps Radio 2: up to 2402 Mbps Radio 3: scan only	Radio 1: up to 574 Mbps Radio 2: up to 1200 Mbps Radio 3: scan only
<b>Bluetooth (BT/BLE)</b>	• / •	• / •	• / •	• / •
<b>Interfaces</b>	2 x GE RJ45, 1x RS-232 RJ45 Serial Port	1x 2.5GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port	1x 2.5GE RJ45, 1 x GE RJ45, 1x RS-232 RJ45 Serial Port	2x GE RJ45, 1x 802.3at PoE (PD), 1x 802.3af PoE (PSE), 2x pass-thru (in and out), 1x RS-232 RJ45 Serial Port
<b>Power over Ethernet (PoE)</b>	802.3af/at	802.3bt/at	802.3bt/at	802.3af/at
<b>Power Consumption (Max.)</b>	15.5 W	25 W w/o PSE out / 37.9 W with PSE out	25 W w/o PSE out / 37.9 W with PSE out	17.5W w/o PSE out / 31W with PSE out
<b>Simultaneous SSIDs</b>	16 (14 if background scanning enabled)	16 (14 if background scanning enabled)	16 (14 if background scanning enabled)	16 (14 if background scanning enabled)
<b>Maximum Tx Power</b>	Radio 1: 2.4 GHz: 27 dBm / 500 mW (2 chains combined)* Radio 2: 5 GHz: 25.5 dBm / 354 mW (2 chains combined)* Radio 3: N/A	Radio 1: 2.4 GHz 30 dBm / 1000 mW (4 chains combined)* Radio 2: 5 GHz 26 dBm / 398 mW (4 chains combined)* Radio 3: N/A	Radio 1: 2.4 GHz 29 dBm / 794 mW (4 chains combined)* Radio 2: 5 GHz 28 dBm / 630 mW (4 chains combined)* Radio 3: N/A	Radio 1: 2.4 GHz: 25 dBm / 158 mW (2 chains combined)* Radio 2: 5 GHz: 21 dBm / 158 mW (2 chains combined)* Radio 3: N/A
<b>SSID Types Supported</b>	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh
<b>Per Radio Client Capacity</b>	Up to 512 per radio Radio1 and Radio2	Up to 512 per radio Radio1 and Radio2	Up to 512 per radio Radio1 and Radio2	Up to 512 per radio Radio1 and Radio2
<b>Certifications</b>				
<b>Wi-Fi Alliance Certified</b>	•	•	•	•
<b>DFS Certified</b>	FCC, IC, CE, Japan, Brazil, Taiwan, Korea	FCC, IC, CE, Japan, Brazil, Taiwan	FCC, IC, CE, Japan, Brazil, Taiwan	FCC, IC, CE, Japan, Brazil, Taiwan, Korea

# FortiAP™ Integrated Indoor and Wall Plate Indoor 802.11ac Access Points



	FAP-221E	FAP-223E	
			
<b>Suggested Use Case</b>	Medium density indoor	Medium density indoor	
<b>Hardware</b>			
<b>Number of Radios</b>	2	2	
<b>Number of Antennas</b>	4 Internal	4 External (RP-SMA)	
<b>Antenna Type and Peak Gain</b>	Patch: 4 dBi for 2.4 GHz, 5 dBi for 5 GHz	Dipole: 4 dBi for 2.4 GHz, 5 dBi for 5 GHz	
<b>Radio 1 Capabilities</b>	2.4 GHz b/g/n (2×2:2) 20/40 MHz (256 QAM)	2.4 GHz b/g/n (2×2:2) 20/40 MHz (256 QAM)	
<b>Radio 2 Capabilities</b>	5 GHz a/n/ac (2×2:2) 20/40/80 MHz (256 QAM)	5 GHz a/n/ac (2×2:2) 20/40/80 MHz (256 QAM)	
<b>Radio 3 Capabilities (Monitor Only)</b>	-	-	
<b>Maximum Data Rate</b>	Radio 1: up to 400 Mbps Radio 2: up to 867 Mbps	Radio 1: up to 400 Mbps Radio 2: up to 867 Mbps	
<b>Bluetooth (BT/BLE)</b>	•	•	
<b>Interfaces</b>	1x GE RJ45	1x GE RJ45	
<b>Power over Ethernet (PoE)</b>	IEEE 802.3af	IEEE 802.3af	
<b>Power Consumption (Max.)</b>	12.36 W	12.36 W	
<b>Simultaneous SSIDs</b>	16 (14 client, 2 monitor)	16 (14 client, 2 monitor)	
<b>Maximum Tx Power</b>	2.4 GHz: 23 dBm / 200 mW (2 chains combined)** 5 GHz: 24 dBm / 251 mW (2 chains combined)**	2.4 GHz: 23 dBm / 200 mW (2 chains combined)** 5 GHz: 24 dBm / 251 mW (2 chains combined)**	
<b>SSID Types Supported</b>	Local-Bridge, Tunnel, Mesh	Local-Bridge, Tunnel, Mesh	
<b>Per Radio Client Capacity</b>	Up to 512	Up to 512	
<b>Certifications</b>			
<b>Wi-Fi Alliance Certified</b>	•	•	
<b>DFS Certified</b>	FCC, IC, CE, Japan, Taiwan, Korea	FCC, IC, CE, Japan, Taiwan, Korea	

# FortiAP Unified Threat Protection Capable Indoor Access Points







	FAP-U231F	FAP-U431F	FAP-U433F
			
<b>Suggested Use Case</b>	Mid-range 802.11ax indoor	High performance 802.11ax indoor	High performance 802.11ax indoor
<b>Hardware</b>			
<b>Number of Radios</b>	3 + 1 BLE	3 + 1 BT/BLE	3 + 1 BT/BLE
<b>Number of Antennas</b>	4 Internal + 1 BLE/ZigBee Internal	10 Internal + 1 BT/BLE Internal	10 External (RP-SMA) + 1 BT/BLE Internal
<b>Antenna Type and Peak Gain</b>	PIFA: 4 dBi for 2.4GHz, 6 dBi for 5GHz	PIFA: 4 dBi for 2.4 GHz, 6 dBi for 5 GHz	Dipole: 3.5 dBi for 2.4 GHz, 5 dBi for 5 GHz
<b>Radio 1 Capabilities</b>	2.4 GHz or 5.0 GHz (High Band) a/b/g/n/ac/ax (2x2:2) 20/40/80MHz (BPSK, QPSK, 64/256/1024 QAM)	5.0 GHz a/n/ac/ax (4x4:4) 20/40/80/160 MHz (64, 1024 QAM)	5.0 GHz a/n/ac/ax (4x4:4) 20/40/80/160 MHz (64, 1024 QAM)
<b>Radio 2 Capabilities</b>	5.0 GHz a/n/ac/ax (2x2:2) 20/40/80MHz (BPSK, QPSK, 64/256/1024 QAM)	2.4/5.0 GHz a/b/g/n/ac/ax (4x4:4) 20/40/80/160 MHz (64, 1024 QAM)	2.4/5.0 GHz a/b/g/n/ac/ax (4x4:4) 20/40/80/160 MHz (64, 1024 QAM)
<b>Radio 3 Capabilities</b>	2.4 GHz service b/g/n/ax (2x2:2), dual band scan, 20/40MHz (BPSK, QPSK, 64/256/1024 QAM)	2.4/5.0 GHz a/b/g/n/ac (2x2:2) 20/40 MHz (64 QAM)	2.4/5.0 GHz a/b/g/n/ac (2x2:2) 20/40 MHz (64 QAM)
<b>Maximum Data Rate</b>	Radio 1: up to 1201 Mbps Radio 2: up to 1201 Mbps Radio 3: up to 574 Mbps	Radio 1: up to 4,804 Mbps Radio 2: up to 4,804 Mbps Radio 3: up to 300 Mbps	Radio 1: up to 4,804 Mbps Radio 2: up to 4,804 Mbps Radio 3: up to 300 Mbps
<b>BLE/ZigBee</b>	• / •	• / -	• / -
<b>Interfaces</b>	2x GE RJ45, 1x Type A USB, 1x RS-232 RJ45 Serial Port	1x 2.5GE RJ45, 1x GE RJ45, 1x Type A USB, 1x RS-232 RJ45 Serial Port	1x 2.5GE RJ45, 1x GE RJ45, 1x Type A USB, 1x RS-232 RJ45 Serial Port
<b>Power over Ethernet (PoE)</b>	1 x 802.3at PoE default, 1 x 802.af PoE with reduce TX power and no USB function	Dual redundant PoE power ports with support for IEEE 802.3af & 802.3at	Dual redundant PoE power ports with support for IEEE 802.3af & 802.3at
<b>Power Consumption (Max.)</b>	18.5W	24.5 W	24.5 W
<b>Simultaneous SSIDs</b>	24 (21 if background scanning enabled)	16 (14 client, 2 monitor)	16 (14 client, 2 monitor)
<b>Maximum Tx Power</b>	Radio 1: 2.4GHz: 23 dBm / 200 mW (2 chains combined)* 5GHz: 22 dBm / 158 mW (2 chains combined)* Radio 2: 5GHz: 22 dBm / 158 mW (2 chains combined)* Radio 3: 2.4GHz: 23 dBm / 200 mW (2 chains combined)* 5GHz: 22 dBm / 158 mW (2 chains combined)	Radio 1: 5 GHz: 24 dBm / 251 mW (4 chains combined)* Radio 2: 2.4 GHz: 26 dBm / 398 mW (4 chains combined)* 5 GHz: 24 dBm / 251 mW (4 chains combined)* Radio 3: 2.4 GHz: 22 dBm / 158 mW (2 chains combined)*	Radio 1: 5 GHz: 24 dBm / 251 mW (4 chains combined)* Radio 2: 2.4 GHz: 26 dBm / 398 mW (4 chains combined)* 5 GHz: 24 dBm / 251 mW (4 chains combined)* Radio 3: 2.4 GHz: 22 dBm / 158 mW (2 chains combined)*
<b>SSID Types Supported</b>	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh
<b>Per Radio Client Capacity</b>	Up to 512	Up to 512	Up to 512
<b>Certifications</b>			
<b>Wi-Fi Alliance Certified</b>		•	•
<b>DFS Certified</b>		FCC, IC, CE, Japan, Taiwan, Korea	FCC, IC, CE, Japan, Taiwan, Korea



# FortiAP Unified Threat Protection Capable Outdoor Access Points

	FAP-U234F	FAP-U432F
		
<b>Suggested Use Case</b>	Mid-range 802.11ax Outdoor	High performance 802.11ax Outdoor
<b>Hardware</b>		
<b>Number of Radios</b>	3 + 1 BLE	3 + 1 BLE
<b>Number of Antennas</b>	3 Internal + 1 BLE External	10 External + 1 BT/BLE
<b>Antenna Type and Peak Gain</b>	Directional patch Antenna	Dual band Dipole Omni Directional Peak Gain 5.5dBi for 2.4GHz and 7dBi for 5.0GHz
<b>Radio 1 Capabilities</b>	2.4 GHz a/b/g/n (2x2:2) or 5.0 GHz (high band) a/b/g/n/ac/ax (2x2:2) (64/256/1024 QAM)	2.4 GHz a/b/g/n (4x4:4) (64 QAM) or 5.0 GHz (high band) a/b/g/n/ac/ax (4x4:4) (64/256/1024 QAM)
<b>Radio 2 Capabilities</b>	5.0 GHz a/n/ac/ax (2x2:2) 20/40/80/160 MHz (64/256/1024 QAM)	5.0 GHz a/b/g/n/ac/ax (4x4:4) 20/40/80/160 MHz (64/256/1024 QAM)
<b>Radio 3 Capabilities</b>	2.4/5.0 GHz dual band b/g/n/ac (2x2:2) 20/40 MHz (64 QAM)	2.4/5.0 GHz dual band b/g/n/ac (2x2:2) 20/40 MHz (64 QAM)
<b>Maximum Data Rate</b>	Radio 1: up to 2,402 Mbps Radio 2: up to 2,402 Mbps Radio 3: up to 300 Mbps	Radio 1: up to 4,804 Mbps Radio 2: up to 4,804 Mbps Radio 3: up to 300 Mbps
<b>Bluetooth (BT/BLE)</b>	• / -	• / -
<b>Interfaces</b>	1 x GE RJ45, 1 x 2.5GE RJ45, 1x RS-232 RJ45 Serial Port	1 x GE RJ45, 1 x 2.5GE RJ45, 1x RS-232 RJ45 Serial Port
<b>Power over Ethernet (PoE)</b>	802.3at	802.3at
<b>Power Consumption (Max.)</b>	21 W	32W max (without PSE) & 45W max (with PSE 12.99W)
<b>Simultaneous SSIDs</b>	16 (14 if background scanning enabled)	16 (14 if background scanning enabled)
<b>Maximum Tx Power</b>	Radio 1: 2.4GHz: 25 dBm / 316 mW (2 chains combined)* 5GHz: 25 dBm / 316 mW (2 chains combined)* Radio 2: 5GHz: 25 dBm / 316 mW (2 chains combined)* Radio 3: 2.4GHz: 27 dBm / 501 mW (2 chains combined)* 5GHz: 25 dBm / 316 mW (2 chains combined)*	Radio 1: 2.4 GHz: 29 dBm / 794 mW (4 chains combined)* 5.0 GHz: 28 dBm / 630 mW (4 chains combined)* Radio 2: 5.0 GHz: 26 dBm / 400 mW (2 chains combined)* Radio 3: 2.4 GHz: 26 dBm / 400 mW (2 chains combined) 5.0 GHz: 24 dBm / 251 mW (2 chains combined)*
<b>SSID Types Supported</b>	Local-Bridge, Tunnel & Mesh	Local-Bridge, Tunnel & Mesh
<b>Per Radio Client Capacity</b>	Up to 512 per radio Radio1 and Radio2	Up to 512 per radio Radio1 and Radio2
<b>Certifications</b>		
<b>Wi-Fi Alliance Certified</b>		
<b>DFS Certified</b>		CE

# FortiWiFi™ Firewall and WiFi Gateway

	FWF-30E	FWF-40F	FWF-50E	FWF-60E	FWF-60F	FWF-80F-2R
						
<b>Suggested Deployment</b>	Home/small office	Home/small office	Home/small office	Distributed office	Distributed office	Distributed office
<b>Hardware</b>						
<b>Form Factor</b>	Desktop, wall mountable	Desktop, wall mountable	Desktop, wall mountable	Desktop, wall mountable	Desktop, wall mountable	Desktop, wall mountable
<b>Dimension</b>	1.61 × 8.27 × 5.24 in	1.6 × 8.5 × 6.61in	1.44 × 5.5 × 8.52	1.5 × 8.5 × 6.3 in	1.5 × 8.5 × 6.3 in	2.4 × 8.5 × 7 in
<b>Kensington Lock</b>						
<b>Ethernet Interfaces</b>	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	3 x GE RJ45 WAN/DMZ, 7 x GE RJ45 Switch ports	2 x RJ45/SFP shared media, 8 x GE RJ45 Switch ports
<b>Other WiFi Variants</b>	—	—	+ Storage (FWF-51E)	+ Storage (FWF-61E)	+ Storage (FWF-61F)	+ Storage (FWF-81F-2R)
<b>Wireless</b>						
<b>IEEE Standard</b>	802.11 a/b/g/n	802.11 a/b/g/n/ac-W2	802.11 a/b/g/n	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac-W2	802.11 a/b/g/n/ac/ax
<b>Number of Radios</b>	1	1	1	1	1	2 wifi + 1 scan
<b>Radio 1 Band (association rate)</b>	2.4GHz / 5GHz (300Mbps)	2.4GHz / 5GHz (450 / 1300Mbps)	2.4GHz / 5GHz (300Mbps)	2.4GHz / 5GHz (300 / 867 Mbps)	2.4GHz / 5GHz (450 / 1300Mbps)	2.4 GHz (574 Mbps)
<b>Radio 2 Band (association rate)</b>	—	—	—	—	—	5.0 GHz (1201 Mbps)
<b>MIMO</b>	2×2	3×3	2×2	2×2	3×3	2×2
<b>Max / recommended number of concurrent clients</b>	128 / 30	128 / 30	128 / 30	128 / 30	128 / 30	128 / 30
<b>Antenna Type and Count</b>	2 F-type antennas (RP-SMA)	3 di-pole antennas (RP-SMA)	2 F-type antennas (RP-SMA)	2 di-pole antennas (RP-SMA)	3 di-pole antennas (RP-SMA)	3 di-pole antennas (RP-SMA)
<b>Antenna Gain</b>	3 dBi/(3dBi-5GHz)	4.2 dBi/(3.5dBi-5GHz)	3 dBi/(3dBi-5GHz)	3 dBi/(6dBi-5GHz)	4.2 dBi/(3.5dBi-5GHz)	4.5 dBi/(5.5dBi-5GHz)
<b>Max TX Power</b>	17dBm	20dBm	17dBm	17dBm	20dBm	23 dBm
<b>Number of SSIDs</b>	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)	8 (7 client, 1 monitor)
<b>Traffic Queues</b>	4 queues	4 queues	4 queues	4 queues	4 queues	8 (7 client, 1 monitor)
<b>Rogue AP scanning</b>						
<b>Dual Band Scanning</b>	•	•	•	•	•	•
<b>Background Scan</b>	•	•	•	•	•	•
<b>Full-time dedicated monitor</b>	•	•	•	•	•	•
<b>Single Radio Dual band scanning</b>	•	•	•	•	•	•
<b>Management</b>						
<b>WebUI &amp; CLI</b>	•	•	•	•	•	•
<b>Max managed APs</b>	2	16	10	30	64	96
<b>Cloud deployment support</b>	•	•	•	•	•	•
<b>Certifications</b>						
<b>Wi-Fi Alliance Certified</b>						
<b>DFS Certified</b>						

\* 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..

\*\* Additional filtration added to reduce interference in 2.4GHz band from nearby cellular equipment.

# FortiGate/FortiWiFi® Wireless Controller (with FortiOS 7.0)

	FortiGate/FortiWiFi 40 Series	FortiGate/FortiWiFi 60 & 70 Series	FortiGate/FortiWiFi 80 & 90 Series	FortiGate 100 Series	FortiGate 200 Series
<b>Hardware</b>					
Product Range / Form Factor	Entry / Desktop	Entry / Desktop	Entry / Desktop	Mid Range / 1 RU	Mid Range / 1 RU
GE PoE/PoE+ Interfaces	-	-	- / 8 (FG80/81F-POE)	-	-
<b>Capacity</b>					
Maximum Supported APs (Tunnel Mode)	8	32	48	64	128
Maximum Supported APs (Total)	16	64	96	128	256
Max number of SSIDs	32	32	32	256	256
Max CAPWAP throughput	3.5 Gbps	8 to 8.5 Gbps	9 to 23.6 Gbps	15 to 35 Gbps	20 Gbps
	FortiGate 400 Series	FortiGate 600 to 900 Series	FortiGate 1000 to 3000 Series	FG-4000 Series	FG-VM Series
<b>Hardware</b>					
Product Range / Form Factor	Mid Range / 1 RU	Mid Range / 1 RU	High End / 2-3 RU	High End / 3 RU	-
<b>Capacity</b>					
Maximum Supported APs (Tunnel Mode)	256	512	2,048	4,096	32 - 2,048
Maximum Supported APs (Total)	512	1,024	4,096 - 8,192	8,192	64 - 4,096
Max number of SSIDs	256	256	1,024 - 4,096	4,096	32 - 1,024
Max CAPWAP throughput	14.8 - 65 Gbps	18 Gbps - 70 Gbps	11 Gbps - 65 Gbps	47 - 63 Gbps	Refer to Data Sheet



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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