# **FHTINET**®

# FortiAP<sup>™</sup> Series

### FortiLAN Cloud- or FortiGate-Managed Access Points

FortiAP<sup>™</sup> access points are managed centrally by the integrated WLAN controller of any FortiGate<sup>®</sup> security appliance or through the FortiLAN Cloud provisioning and management portal. With the integration of the wireless controller functionality into the market-leading FortiGate appliance, these APs are perfect for campus and branch deployments. Fortinet's Security Fabric enables you to easily manage wired and wireless security from a Singlepane-of-glass management console and protects your network from the latest security threats.

#### Highlights

- Unified management console simplifies operations, ensuring consistency in effective policy enforcement and compliance
- Built-in foundation for zerotrust network access (ZTNA) and secure access service edge (SASE), allowing you the flexibility to easily deploy microbranches with the security you need at the edge of your network
- Wireless LAN security done right, from the leader in network security. Integrated Firewall, IPS, Application Control, and Web Filter protect the wireless LAN from the latest security threats
- Protects the network from advanced wireless threats and satisfies industry compliance such as PCI DSS

HARDWARE O	FFERINGS	ANTENNA TYPE	INDOOR USE	OUTDOOR USE
802.11ax Wi-F	i 6E			
FAP-431G	4×4 Indoor tri-radio 11ax 6Ghz Capable APs	Internal	$\bigcirc$	
FAP-433G	4×4 Indoor tri-radio 11ax 6Ghz Capable APs	External	$\bigcirc$	
FAP-231G	2×2 Indoor tri-radio 11ax 6Ghz Capable APs	Internal	$\bigcirc$	
FAP-233G	2×2 Indoor tri-radio 11ax 6Ghz Capable APs	External	$\bigcirc$	
802.11ax Wi-F	i 6			
FAP-831F	8×8 Indoor tri-radio 11ax AP	Internal	$\bigcirc$	
FAP-433F	4×4 Indoor tri-radio 11ax APs	External	$\bigcirc$	
FAP-432F	4×4 Ruggedized indoor/outdoor tri-radio 11ax AP	External	$\bigcirc$	$\bigcirc$
FAP-432FR	4×4 C1D2 Certified tri-radio 11ax AP	External	$\bigcirc$	$\bigcirc$
FAP-431F	4×4 Indoor tri-radio 11ax APs	Internal	$\bigcirc$	
FAP-231F	2×2 Indoor tri-radio 11ax AP	Internal	$\bigcirc$	
FAP-234F	2×2 Ruggedized indoor/outdoor tri-radio 11ax AP	Internal	$\bigcirc$	$\bigcirc$
FAP-23JF	2×2 Wall-mount tri-radio AP	Internal	$\bigcirc$	
802.11ac (Way	ve 2) Wi-Fi 5			
FAP-223E	2×2 Indoor dual-radio APs	External	$\bigcirc$	
FAP-221E	2×2 Indoor dual-radio APs	Internal	$\bigcirc$	

### **Use Cases**

FortiAPs allow for a versatile collection of installation topologies with options to fit any enterprise.



#### Campus

A single building with multiple floors, or a corporate or education campus with a group of large buildings.

- High-capacity designs including Dual 5GHz and tri-band with Wi-Fi 6E allow a maximal number of client devices to attach to the network at the same time without over-air congestion
- Complete NOC functionality with network visibility and AIOps simplify a complex network deployment into a solution manageable by IT teams of any size



#### Branch Office / SD-Branch

A highly distributed number of small sites, often with no on-site IT.

- Built in NAC functions\* allow secure onboarding of devices at remote locations where IT doesn't have reliable visibility
- Management orchestration with zero-touch deployment allows for quick and easy rollouts without the need for skilled installers at each site



#### Micro Branch

Ultra small sites that still fall under IT's responsibility.

- Can act as a SASE endpoint as a foundation for zero-trust network access (ZTNA)
- Simple management and provisioning through FortiSASE interface



#### **Remote Workers**

A remote AP installed at a worker's home or at micro-branch office space.

- Split tunneling allows local traffic to remain local while sending other traffic to the data center for inspection when needed
- Desktop mounting options for wall-plate models allow the use of Ethernet as well as Wi-Fi connectivity while leveraging the same secure tunnel



#### SMB

Single site or small collection of sites with limited IT resources.

- Built-in NAC functions\* bring security to the wireless network with no need to install and manage additional products
- Network and security convergence decreases management overhead while keeping the network secure

#### FortiAP 431G and 433G

These high performing enterprise class extended frequency band Wi-Fi 6E indoor APs provide three radios and four spatial streams. These access points support the 6 GHz band, OFDMA, and a 5 Gigabit Ethernet port. The APs can provide 24/7 scanning across all bands while still providing access on both the 2.4 GHz and 5 GHz bands or 2.4 GHz and dual 5 GHz service or the AP can be configured to provide simultaneous access on 2.4 GHz, 5 GHz, and the 6 GHz bands. The integrated BLE/ ZigBee radio can be used for beacons and locationing applications.



4×4 MU-MIMO | Up to 1148 Mbps + 2402 Mbps + 4804 Mbps



FAP-431G

FAP-433G

# **Specifications**

	FortiAP 431G	FortiAP 433G		
Hardware				
Hardware Type	Indoor AP	Indoor AP		
Number of Radios	3 + 1 BLE	3 + 1 BLE		
Number of Antennas	Internal: x4 Dual band Wi-Fi + x4 Tri-band Wi-Fi & Scanning + 1 Single band 2.4GHz BLE/ ZigBee	External: x4 Dual band Wi-Fi + x4 Tri-band Wi-Fi & Scanning Internal: 1 Single band 2.4GHz BLE/ZigBee		
Antenna Type and Peak Gain	Omni Directional antenna. Dual band: 4.0 dBi for 2.4GHz, 5.6 dBi for 5 GHz Tr-band: 4.0 dBi for 2.4GHz, 6.0 dBi for 5 GHz & 5.7dBi for 6GHz band BLE antenna: 5.1dBi for 2.4Ghz	Omni Directional antenna. Dual band: 5.0 dBi for 2.4GHz, 5.0 dBi for 5 GHz Tr-band: 5.0 dBi for 5 GHz 2.4GHz, 5.0 dBi for 5 GHz & 4.0dBi for 6GHz band BLE Omni Directional antenna Single band: 4.0dBi for 2.4GHz		
Frequency Bands (GHz)*	2.400–2.4835, 5.150–5.250, 5.2 5.470–5.725, 5.725–5.850, 5.92 5.925–6.875, 6.875–7.125	250–5.350, 5.350-5.470m 25–6.425, 6.425–6.525, 6.525–7,		
Radio 1 Capabilities	Frequency band: 2.4GHz Channel width: 20/40MHz Modulation: BPSK, QPSK, 64/2 MIMO Chains: 4×4 Service	56/1024 QAM		
Radio 2 Capabilities	Frequency band: 5.0GHz Channel width: 20/40/80/80+80MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 4×4 Service			
Radio 3 Capabilities	Frequency band: 2.4GHz, 5.0GHz, and 6.0GHz Channel width: 20/40/80/160MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 4X4 Service (2×2 when Scanning)			
Maximum Data Rate	Radio 1: up to 1148 Mbps Radio 2: up to 2402 Mbps Radio 3: Up to 4804 Mbps			
Bluetooth Low Energy Radio	Bluetooth scanning and iBeacon advertizement @10 dBm max TX power			
Interfaces	x2 100/1000/2500/5000 Base- 1 Type 3.0 USB, 1 RS-232 RJ45			
MDI/MDIX	Supported Supported			
Power over Ethernet (PoE)	1 802.3bt PoE default or x2 80 (Dual PoE current sharing)	12.3at PoE		
Simultaneous SSIDs	Up to 8 per client serving radic enabled)	(7 if background scanning is		
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv PEAPv1/EAP-GTC, EAP-SIM, EA	AP-AKA, EAP-FAST		
User/Device Authentication	WPA™, WPA2™, and WPA3™ with WEP, Web Captive Portal, MAC			
Maximum Tx Power	Radio 1: 2.4GHz: 27 dBm / 501 mW (4 chains combined)* Radio 2: 5GHz: 26 dBm / 400 mW (4 chains combined)* Radio 3: 5GHz: 26 dBm / 400 mW (4 chains combined)* 6GHz: 24 dBm 251 mW (4 chains combined @ 160MHz BW)*			
Kensington Lock	Yes	Yes		
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w, 802.11ac, 802.11ax, 802.10, 802.1X, 802.3ad, 802.3at, 802.3bt, 802.3az, 802.3bz			
SSID Types Supported	Local-Bridge, Mesh, and Tunne	2		
Per Radio Client Capacity	Up to 512 clients per radio (Rad	dio1, Radio2 and Radio3)		
Cellular Co-existence	Yes	Yes		
LED Off Mode	Yes Yes			

FortiAP 431G       Advanced 802.11 Features       OFDMA     Yes       Spatial Reuse (BSS Coloring)     Yes       UL MU-MIMO     Yes	FortiAP 433G Yes				
OFDMA Yes Spatial Reuse (BSS Yes Coloring)					
Spatial Reuse (BSS Yes Coloring)					
Coloring)	Vaa				
UL MU-MIMO Yes	Yes				
	Yes				
DL- MU-MIMO Yes	Yes				
Enhanced Target Wake Yes Time (TWT)	Yes				
ZeroWait DFS No	No				
Wireless Monitoring Capabilities					
Rogue Scan Radio Modes Background, Dedicated					
WIPS / WIDS Radio Background, Dedicated Modes	(recommended)				
Packet Sniffer Mode Yes	Yes				
Spectrum Analyzer Yes	Yes				
Dimensions					
Length x Width x Height 8.85× 8.85 × 2.12 inche	s (225.0× 225.0 × 54.0 mm)				
Weight 3.05 lbs (1.4 kg)					
Package (shipping) 5.25 lbs (2.4 kg) Weight					
Accessories					
Mounting Options Ceiling, T-Rail, and Wall	Ceiling, T-Rail, and Wall				
Included Accessories Standard Mounting kit f	Standard Mounting kit for Ceiling, T-Rail and Wall				
Power Supply SP-FAP250-PA-10 or SP 802.3bt PoE(GPI-145)	SP-FAP250-PA-10 or SP-FAP400-PA-XX or 802.3bt PoE(GPI-145)				
Environment					
Power Consumption 31.7 Watts (Max)	31.7 Watts				
802.3at : Low – Tx Pow	os Disabled ; USB – Disabled er 17dBm ; Chain 4×4; USB – Disabled Power Full ; Chain 4×4;USB – Enabled				
Humidity 5%–90% non-condensir	ıg				
Operating / Storage 32°-122°F (0°-50°C) / - Temperature	22°-158°F (-30°-70°C)				
Directives Low Voltage Directive •	RoHS				
UL2043 Plenum Material Yes	Yes				
Mean Time Between >10 Years Failures	>10 Years				
IP Rating N/A	N/A				
Surge Protection Built In No	No				
Hit-less PoE Failover Yes	Yes				
Certifications					
Wi-Fi Alliance Certified Yes (includes Passpoint	) Yes (includes Passpoint)				
DFS CE, FCC, Singapore	CE, FCC, Singapore				
Warranty					
Limited Lifetime Yes Warranty	Yes				

\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

	Rad 802.11	lio 1 ax 4×4	Rad 802.11	io 2 ax 4×4	Radio3 4×4 Tri band Service and	
	Tx power/chain	Rx Sensitivity	Tx power/chain	Rx Sensitivity	2×2 Scanr Tx power/chain	ning radio Rx Sensitivity
Data rate	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
.4GHz, 802.11b						
Mbps	21	-99				-99
1 Mbps	21	-91				-91
2.4GHz, 802.11g						
Mbps	21	-93				-95
64 Mbps	21	-77				-78
2.4GHz, 802.11n HT20						
MCSO	21	-95				-92
MCS7	19	-77				-74
2.4GHz, 802.11n HT40						
ACS0	20	-92				-90
ICS7	18	-74				-72
2.4GHz, 802.11ax HE20						
ACS0	21	-94				-90
MCS11	19	-64				-71
2.4GHz, 802.11ax HE40						
ACS0	21	-91				-91
ACS11	19	-62				-72
5.0GHz, 802.11a						
6 Mbps			23	-93	22	-93
64 Mbps			21	-76	21	-76
i.0GHz, 802.11n HT20						
ACSO			22	-93	21	-93
ACS7			20	-75	18	-73
i.0GHz, 802.11n HT40						
ICSO			21	-93	21	-90
/CS7			18	-78	18	-71
5.0GHz, 802.11ac VHT20						
MCSO			22	-93	21	-93
MCS9			20	-72	18	-69
5.0GHz, 802.11ac VHT40						
MCSO			22	-91	21	-90
ИСЅ᠑			19	-70	18	-64
5.0GHz, 802.11ac VHT80						
MCSO			20	-86	19	-88
MCS9			18	-65	16	-61
5.0GHz, 802.11ax HE20						
MCSO			22	-93	22	-92
MCS11			19	-63	19	-65
5.0GHz, 802.11ax HE40						
ИСЅО			21	-90	22	-88
ACS11			19	-70	19	-61
.0GHz, 802.11ax HE80						
ACSO			18	-86	20	-85
ACS11			16	-59	17	-58
.0GHz, 802.11ax HE160						
лсsо					19	-82
MCS11					16	-57
5.0GHz, 802.11ax HE160						
ACS0					17	-82
ACS11					14	-56

Maximum capability of the Hardware provided (Excluding antenna gain)

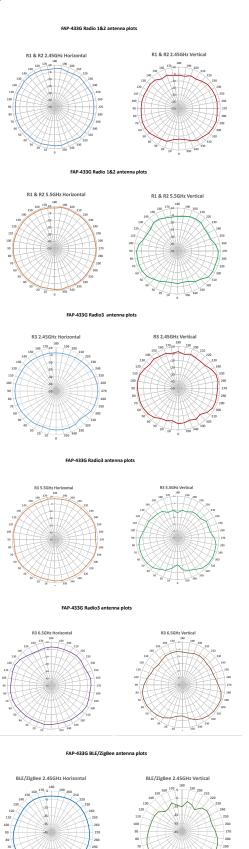
#### **Data Sheet**

#### Antenna Radiation Patterns FAP-431G

#### FAP-433G



20 10 0





20 10 0

350 34

#### FortiAP 231G and 233G

These enterprise class extended frequency band Wi-Fi 6E indoor APs provide three radios and two spatial streams. These access points support the 6 GHz band, OFDMA, a 2.5 Gigabit Ethernet port, plus an additional 1 Gbps Ethernet port for PoE diversity. The APs can provide 24/7 scanning across all bands while still providing access on both the 2.4 GHz and 5 GHz bands or 2.4 GHz and dual 5 GHz service or the AP can be configured to provide simultaneous access on 2.4 GHz, 5 GHz, and the 6 GHz bands. The integrated BLE/ ZigBee radio can be used for beacons and locationing applications.



Wi-Fi 6E | Tri-Radio 2.4 GHz + 5 GHz + 5 GHz / 6 GHz / scanning | 4 Internal Antennas / 2 External RPSMA Connectors + 2 External Permanently attached Antennas

2×2 MU-MIMO | Up to 574 Mbps + 1201 Mbps + 2402 Mbps



FAP-231G

FAP-233G

#### **Data Sheet**

# Specifications

	FortiAP 231G	FortiAP 233G			
Hardware					
Hardware Type	Indoor AP Indoor AP				
Number of Radios	3 + 1 BLE	3 + 1 BLE			
Number of Antennas	Internal x2 Dual band Wi-Fi + x2 Tri-band Wi-Fi & Scanning + 1 Single band 2.4GHz BLE/ZigBee	External x2 Dual band Wi-Fi + x2 Tri- band Wi-Fi & Scanning + Internal 1 Single band 2.4GHz BLE/ZigBee			
Antenna Type and Peak Gain	Omni Directional antenna.Omni Directional antenna.Dual band: 4.5 dBi forDual band: 4.5 dBi for2.4GHz, 5.5 dBi for 5 GHz2.4GHz, 4.5 dBi for 5Tr-band: 4.5 dBi for 5 GHzTr-band: 4.5 dBi for 52.4GHz, 5.5 dBi for 5 GHz2.4GHz, 4.5 dBi for 5& 5.5dBi for 6GHz band4.5 dBi for 5 GHzBLE antenna: 4.0dBi for4.5dBi for 6GHz bandOmni Directional anteSingle band: 4.0dBi for2.4GHz2.4GHz				
Frequency Bands (GHz)*	2.400-2.4835, 5.150-5.250, 5.250-5.350, 5.470-5.725, 5.725-5.850, 5.925-6.425, 6.425-6.525, 6.525-7, 5.925- 6.875, 6.875-7.125				
Radio 1 Capabilities	Frequency band: 2.4GHz Channel width: 20/40MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 Service				
Radio 2 Capabilities	Frequency band: 5.0GHz Channel width: 20/40/80MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 Service				
Radio 3 Capabilities	Frequency band: 2.4GHz, 5.0GHz, and 6.0GHz Channel width: 20/40/80/160MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 Service and Scanning				
Maximum Data Rate	Radio 1: up to 574 Mbps Radio 2: up to 1201 Mbps Radio 3: Up to 2401 Mbps				
Bluetooth Low Energy Radio	Bluetooth scanning and iBeacon advertizement @10 dBm max TX power				
Interfaces	1 100/1000/2500 Base-T RJ4 1x Type 3.0 USB, 1 RS-232 R	5, 1 10/100/1000 Base-T RJ45, J45 Serial Port			
MDI/MDIX	Supported	Supported			
Power over Ethernet (PoE)	1 × 802.3at PoE default				
Simultaneous SSIDs	Up to 8 per client serving rad is enabled)	io (7 if background scanning			
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAF PEAPv1/EAP-GTC, EAP-SIM, E				
User/Device Authentication	WPA <sup>™</sup> , WPA2 <sup>™</sup> , and WPA3 <sup>™</sup> w WEP, Web Captive Portal, MA				
Maximum Tx Power	Radio 1: 2.4GHz: 23 dBm / 200 mW (2 chains combined)* Radio 2: 5GHz: 23 dBm / 200 mW (2 chains combined)* Radio 3: 5GHz: 23 dBm / 200 mW (2 chains combined)* 6GHz: 21 dBm 126 mW (2 chains combined @ 160MHz BW)*				
Kensington Lock	Yes	Yes			
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w, 802.11ac, 802.11ax, 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az, 802.3bz				
SSID Types Supported	Local-Bridge, Mesh, and Tuni	nel			
Per Radio Client Capacity	Up to 512 clients per radio (Radio1, Radio2 and Radio3)				
Cellular Co-existence	Yes Yes				
LED Off Mode	Yes Yes				

	F	E		
	FortiAP 231G	FortiAP 233G		
Advanced 802.11 Features				
OFDMA	Yes	Yes		
Spatial Reuse (BSS Coloring)	Yes	Yes		
UL MU-MIMO	Yes	Yes		
DL- MU-MIMO	Yes	Yes		
Enhanced Target Wake Time (TWT)	Yes	Yes		
ZeroWait DFS	No	No		
Wireless Monitoring Capabili	ties			
Rogue Scan Radio Modes	Background, Dedicated			
WIPS / WIDS Radio Modes	Background, Dedicated (reco	mmended)		
Packet Sniffer Mode	Yes	Yes		
Spectrum Analyzer	Yes	Yes		
Dimensions				
Length x Width x Height	7.18 × 7.18 × 2.12 inches (182	.4 × 182.4 × 54.0 mm)		
Weight	1.75 lbs (0.8 kg)	1.95 lbs (0.88 kg)		
Package (shipping) Weight	3.05 lbs (1.4 kg)	3.35 lbs (1.51 kg)		
Accessories				
Mounting Options	Ceiling, T-Rail, and Wall			
Included Accessories	Standard Mounting kit for Ceiling, T-Rail and Wall			
Power Supply	SP-FAP200-PA-XX or 802.3at PoE (GPI-130)			
Environment				
Power Consumption (Maximum)	Based on the PoE standard. 802.3af = 15.4W max 802.3at = 25.5W max			
PoE Mode	802.3af : Low – Tx Power limi Disabled ;USB – Disabled	ted to 17 dBm ;Radio3 –		
	802.3at / DC: High/Full – Tx P	ower Full;USB – Enabled ;		
Humidity	5%-90% non-condensing			
Operating / Storage Temperature	32°-122°F (0° - 50°C) / -22°-	-158°F (-30°-70°C)		
Directives	Low Voltage Directive • RoHS	3		
UL2043 Plenum Material	Yes	Yes		
Mean Time Between Failures	>10 Years	>10 Years		
IP Rating	N/A	N/A		
Surge Protection Built In	No	No		
Hit-less PoE Failover	N/A	N/A		
Certifications				
Wi-Fi Alliance Certified	Yes (includes Passpoint)	Yes (includes Passpoint)		
DFS	CE, FCC, JP, Indonesia, Korea, Taiwan			
Warranty				
Limited Lifetime Warranty	Yes	Yes		

\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

		Radio 1 Radio 2			Radio3	
	802.1 Tx power/chain	1ax 4×4 Rx Sensitivity	802.11 Tx power/chain	ax 4×4 Rx Sensitivity	Tri band Service ar Tx power/chain	nd Scanning radio Rx Sensitivity
Data rate	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
2.4GHz, 802.11b						
Mbps	23	-99				-92
1 Mbps	23	-91				-91
2.4GHz, 802.11g						
6 Mbps	23	-94				-92
54 Mbps	23	-78				-77
2.4GHz, 802.11n HT20						
MCSO	23	-94				-92
MCS7	21	-75				-74
2.4GHz, 802.11n HT40						
MCS0	22	-92				-90
MCS7	20	-73				-72
2.4GHz, 802.11ax HE20						
/CS0	23	-90				-90
MCS11	21	-71				-71
2.4GHz, 802.11ax HE40						
MCS0	22	-91				-91
MCS11	20	-72				-72
5.0GHz, 802.11a	20	72				12
3 Mbps			23	-92	19	-93
54 Mbps			23	-76	19	-76
5.0GHz, 802.11n HT20			20	70	10	, 0
ACS0			23	-93	19	-93
ACS7			23	-74	18	-73
5.0GHz, 802.11n HT40			21	7 -	10	,0
ACS0			22	-91	21	-90
ACS7			22	-72	18	-71
0.0GHz, 802.11ac VHT20			21	12	10	71
MCS0			23	-91	21	-93
ACS0 ACS9			23	-72	18	-69
5.0GHz, 802.11ac VHT40			21	-72	10	-09
MCS0			22	-91	21	-90
MCS9 5.0GHz, 802.11ac VHT80			19	-72	18	-64
MCS0			01	_00	20	-88
исso Исs9			21	-86	20	-88
			٥١	-02	17	-01
5.0GHz, 802.11ax HE20			0.0	01	10	01
ACS0			23	-91	19	-91
ACS11			20	-72	17	-72
.0GHz, 802.11ax HE40			<u></u>		01	
1000			22	-91	21	-91
ICS11			19	-72	18	-72
.0GHz, 802.11ax HE80						
1CS0			21	-87	21	-87
MCS11			18	-58	17	-58
.0GHz, 802.11ax HE160						
ICS0					18	-87

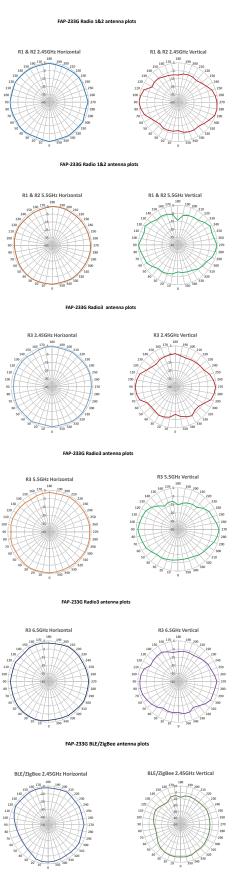
Maximum capability of the Hardware provided (Excluding antenna gain)

#### Data Sheet

#### Antenna Radiation Patterns FAP-231G

#### FAP-233G

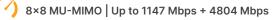




#### FortiAP 831F

This high throughput enterprise class 802.11ax indoor AP provides three radios and 8 spatial streams. This top-of-the line access point supports OFDMA, a 5.0 Gigabit Ethernet port, plus an additional 1 Gbps Ethernet port for PoE diversity. The AP can provide 24/7 scanning across both bands while still providing access on both the 2.4 GHz and 5 GHz bands. The integrated BLE radio can be used for beacons and locationing applications.







FAP-831F

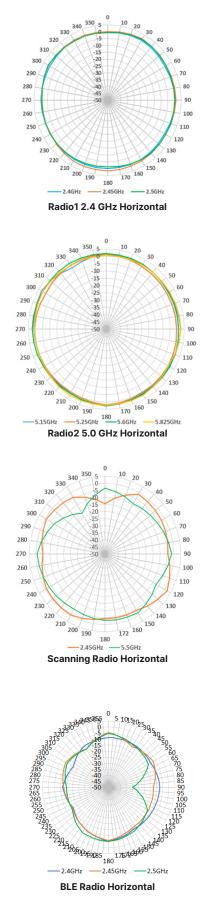
# **Specifications**

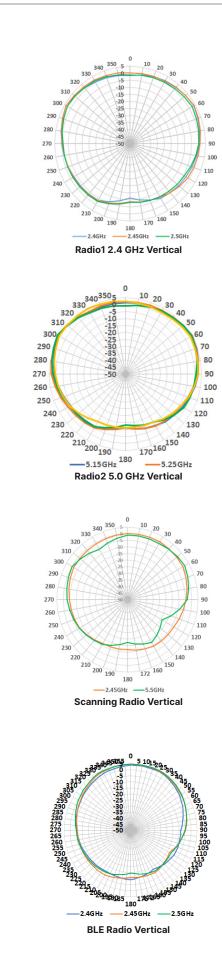
	FortiAP 831F			
Hardware				
Hardware Type	Indoor AP			
Number of Radios	3 + 1 BLE			
Number of Antennas	4 2.4GHz band WiFi + 8 5GHz band WiFi + I Dual band Scanning + 1 2.4GHz band BLE			
Antenna Type and Peak Gain	PIFA: 4.0 dBi for 2.4 GHz band WiFi antennas 6.0 dBi for 5.0 GHz band WiFi antennas 4.0 dBi for dual band Scanning radio antenna 4.5 dBi for 2.4 GHz band BLE antenna			
Frequency Bands (GHz)*	2.400-2.4835, 5.150-5.250, 5.250-5.350, 5.470-5.725, 5.725-5.850			
Radio 1 Capabilities	Frequency Band: 2.4 GHz Channel width: 20/40 MHz Modulation: BPSK, QPSK, QAM64 MIMO chains: 4×4 service			
Radio 2 Capabilities	Frequency Band: 5.0 GHz Channel width: 20/40/80/80+80/160MHz Modulation: BPSK, QPSK, QAM64, QAM256, and QAM1024 Mimo chains: 8×8 service in mode 1 or 4×4+4×4 service in mode 2			
Radio 3 Capabilities	Frequency band: 2.4/5.0 GHz MIMO chains: 1×1 frequency scanning			
Maximum Data Rate	Radio 1: up to 1147.5 Mbps Radio 2: up to 4.804 Gbps in 8×8 MIMO and in 4×4 + 4×4 MIMO modes			
Bluetooth Low Energy Radio	Bluetooth scanning and iBeacon advertisement @ 10 dBm max TX power			
Interfaces	1× 100/1000/2500/5000 Base-T RJ45 1 × 10/100/1000 Base-T RJ45 1x Type 3.0 USB, 1x RS-232 RJ45 Serial Port			
MDI/MDIX	Supported Supported			
Power over Ethernet (PoE)	2× 802.3at/bt/30W Passive PoE in (Full function) 1× 802.3at PoE in (USB3.1 disabled)			
Simultaneous SSIDs	Up to 8 per client serving radio (7 if background scanning is enabled)			
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, EAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST			
User/Device Authentication	WPA <sup>™</sup> , WPA2 <sup>™</sup> , and WPA3 <sup>™</sup> with 802.1x or Preshared key, WEP, Web Captive Portal, MAC blocklist and allowlist			
Maximum Tx Power (Conducted)	Radio 1: 2.4 GHz 27 dBm / 500 mW (4 chains combined)* Radio 2: 5 GHz 25.5 dBm / 354 mW (4 chains combined)* Radio 3: NA			
Kensington Lock	Yes			
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i,802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11ac, 802.11ax (Wi-Fi 6), 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az, 802.3bz			
SSID Types Supported	Local-Bridge, Mesh, Tunnel			
Per Radio Client Capacity	Local-Bridge, Mesh, Tunnel			
Per Radio Client Capacity	up to 512 clients per radio (Radio1 and Radio2)			
Cellular Co-existence	up to 512 clients per radio (Radio1 and Radio2) Yes			

	FortiAP-831F
Advanced 802.11 Features	
OFDMA	Yes (UL and DL)
Spatial Reuse (BSS Coloring)	Yes
UL-MU-MIMO 802.11ax mode	Yes
DL-MU-MIMO	Yes
Enhanced Target Wake Time (TWT)	Yes
ZeroWait DFS /Agile DFS	No
Wireless Monitoring Capabilities	
Rogue Scan Radio Mode	Dedicated
WIPS / WIDS RAdio Modes	Dedicated
Packet Sniffer Mode	Yes
Spectrum Analyzer	Yes
Dimensions	
Length x Width x Height	9.05 × 89.05 × 2.15 inches (230 × 230 × 55 mm)
Weight	2.25 lbs (1.02 kg)
Package (shipping) Weight	4.2 lbs (1.9 kg)
Accessories	
Mounting Options	Ceiling, T-Rail, and Wall
Included Accessories	Mount kit for Ceiling, T-Rail, and Wall
Derror Commits	
Power Supply	SP-FAP400-PA-XX or GPI-130
Environment	N
PSE Functionality	No
Power Consumption (Max)	33 W
PoE Mode Single 5G	DC/2at → Full Mode ; Radios will be in (8×8 4×4) & USB Enabled 1at/2af → High Mode ; Radios will be in (8×8 4×4) & USB Disabled 1af → Low Mode ; Radios will be [2×2 2×2], Tx Power 10 dBm & USB Disabled
Dual 5G	$\begin{array}{l} DC/2at \longrightarrow Full \; Mode \; ; \; Radios \; will \; be \; in \; [4\!\times\!4] \!$
Humidity	5–90% Non-Condensing
Operating / Storage Temp.	32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C)
Directives	Low Voltage Directive • RoHS
UL2043 Plenum Material	No
Mean Time Betw. Failures	>10 Years
Surge Protection Built In	No
Certifications	
Wi-Fi Alliance Certified	Yes (includes Passpoint)
DFS	FCC, IC, CE, Brazil and Taiwan
Warranty	
Limited Lifetime Warranty	Yes

				FortiAP 831F				
	Radi	o 1	Rac	Radio 2			Radio 3	
Data rate	2.4 GHz Tx Power per chain (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity(dBm)	2.4 GHz Tx Power per chain (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)
302.11b	per onun (upin)	(abiii)	per enan (abii)	ochonitivity (abiii)	per onani (abiii)	(abiii)	per onam (abiii)	(dbiii)
Mbps	21	-98	_	_	21	-96	_	_
I1 Mbps	23	-89	_	_	18	-87	_	_
802.11g								
6 Mbps	20	-94	_	_	20	-92	_	_
54 Mbps	22	-75	_	_	18	-73	_	_
802.11n HT20								
MCS0	20	-93	_	_	20	-91	_	_
MCS7	20	-74	_	_	17	-72	_	_
802.11n HT40								
MCS0	17	-92	_	_	19	-90	_	_
MCS7	18	-73			17	-71	_	_
802.11ax HE20		, 0			• *	2.1		
MCS0	21	-90	_		_	_	_	_
MCS11	17	-71						
	17	/ 1				_	_	
802.11ax HE40 MCS0	17	-88	_	_	_	_	_	_
MCS0 MCS11	17	-68						_
	17	-08	_			_	_	_
802.11a			00	22			00	0.0
6 Mbps		—	20	-92	_	_	20	-90
54 Mbps	—	_	20	-72	_	_	17.5	-72
802.11n HT20								
MCS0	_	_	20	-91	_	_	20	-90
MCS7	—	-	19	-72	—	-	17.5	-71
802.11n HT40								
MCS0	—	—	20	-88	—	—	19	-88
MCS7	-	-	18	-69	—	_	16.5	-69
802.11ac VHT20								
MCS0	_	_	20	-91	_	_	19	-90
MCS9	—	—	19	-67	—	_	17.5	-67
802.11ac VHT40								
MCS0	—	_	20	-88	_	_	19	-88
MCS9	_	—	18	-62	—	—	16	-62
802.11ac VHT80								
MCS0	—	—	18	-85	—	—	18	-85
MCS9	—	—	17	-59	—	—	16	-58
802.11ax HE20								
MCS0	_	—	20	-90	—	_	_	—
MCS11	_	—	18	-66	_	_	_	—
802.11ax HE40								
MCS0	_	—	20	-87	_	_	_	
MCS11	_	_	18	-61	_	_	_	_
802.11ax HE80								
002.11ax 11L00								
MCS0	_	_	18	-94	_	_	_	_

#### FAP 831F Antenna Radiation Patterns





#### FortiAP 431F and 433F

These enterprise class 802.11ax indoor APs provide three radios and four spacial streams. These top-of-the-line access points provide OFDMA, a 2.5 Gigabit Ethernet port, plus an additional 1 Gbps Ethernet port for PoE diversity. The APs can provide 24/7 scanning across both bands while still providing access on both the 2.4 GHz and 5 GHz bands. The integrated BLE radio can be used for beacons and locationing applications.





4×4 MU-MIMO | Up to 1147 Mbps + 2402 Mbps



FAP-433F

FAP-431F

#### **Data Sheet**

# **Specifications**

	FortiAP 431F	FortiAP 433F			
Hardware					
Hardware Type	Indoor AP	Indoor AP			
Number of Radios	3 + 1 BLE	3 + 1 BLE			
Number of Antennas	5 Internal + 1 BLE Internal	5 External (RP-SMA) + 1 BLE Internal			
Antenna Type and Peak Gain	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			
Frequency Bands (GHz)*	2.400–2.4835, 5.150–5.250, 5 5.725–5.850	.250-5.350, 5.470-5.725,			
Radio 1 Capabilities	Frequency Band: 2.4 GHz Channel width: 4×4 20/40 MHz Modulation: BPSK, QPSK, QAM64, QAM256, and QAM1024 MIMO chains: 4×4 service				
Radio 2 Capabilities	Frequency Band: 5.0 GHz Channel width: 4×4 20/40/80MHz and 2×2 160MHz contiguous Modulation: BPSK, QPSK, QAM64, QAM256, and QAM1024 Mimo chains: 4×4 service				
Radio 3 Capabilities	Frequency band: 2.4/5.0 GHz MIMO chains: 1×1 frequency s				
Maximum Data Rate	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			
Bluetooth Low Energy Radio	Bluetooth scanning and iBeac max TX power	con advertisement @ 6 dBm			
Interfaces	1× 100/1000/2500 Base-T RJ45, 1 × 10/100/1000 Base-T RJ45, 1x Type A USB, 1x RS-232 RJ45 Serial Port				
MDI/MDIX	Supported	Supported			
Simultaneous SSIDs	Up to 8 per client serving radio (7 if background scanning is enabled)				
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST				
User/Device Authentication	WPA™, WPA2™, and WPA3™ with 802.1x or Preshared key, WEP, Web Captive Portal, MAC blocklist and allowlist				
Maximum Tx Power (Conducted)	Radio 1: 2.4 GHz 24 dBm / 25 Radio 2: 5 GHz 23 dBm / 200 Radio 3: NA				
Kensington Lock	Yes	Yes			
IEEE Standards	802.11a, 802.11b, 802.11d, 802 802.11i,802.11j, 802.11k, 802.1 802.11w, 802.11ac, 802.11ax (\ 802.3ad, 802.3af, 802.3at, 80	1n, 802.11r, 802.11u, 802.11v, Wi-Fi 6), 802.1Q, 802.1X,			
SSID Types Supported	Local-Bridge, Mesh, Tunnel	Local-Bridge, Mesh, Tunnel			
Per Radio Client Capacity	512 per Radio1 and Radio2	512 per Radio1 and Radio2			
Cellular Co-existence	Yes	Yes			
Reset Button	Yes	Yes			
LED Off Mode	Yes	Yes			
Advanced 802.11 Features					
OFDMA	Yes (UL and DL)	Yes (UL and DL)			
2.4 GHz OFDMA	Yes	Yes			
Spatial Reuse (BSS Coloring)	Yes	Yes			
HE-MU-MIMO	Yes	Yes			
UL-MU-MIMO 802.11ax mode	Yes	Yes			
DL-MU-MIMO	Yes	Yes			
Enhanced Target Wake Time (TWT)	Yes	Yes			
ZeroWait DFS /Agile DFS	No	No			

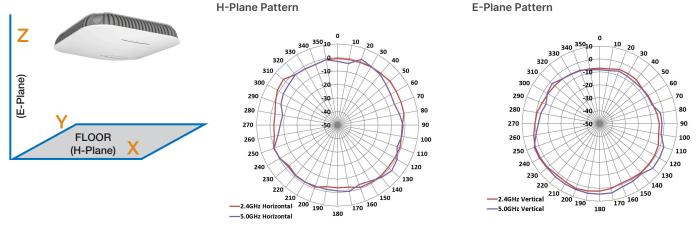
	FortiAP-431F	FortiAP-433F	
Wireless Monitoring Capabil	ities		
Rogue Scan Radio Mode	Background, Dedicated	Background, Dedicated	
WIPS / WIDS RAdio Modes	Background, Dedicated (reco	mmended)	
Packet Sniffer Mode	Yes	Yes	
Spectrum Analyzer	Yes	Yes	
Dimensions			
Length x Width x Height	8.27 × 8.27 × 2.22 inches (21	0 × 210 × 56.5 mm)	
Weight	2.16 lbs (0.98 kg)	2.19 lbs (0.995 kg)	
Package (shipping) Weight	3.97 lbs (1.8 kg)	4.4 lbs (2 kg)	
Accessories			
Mounting Options	Ceiling, T-Rail, and Wall	Ceiling, T-Rail, and Wall	
Included Accessories	Mount kit for Ceiling, T-Rail and Wall	Mount kit for Ceiling, T-Rail and Wall. 5 RP-SMA Male dual-band dipole antenna	
Power Supply	SP-FAP400-PA-XX or GPI-130	SP-FAP400-PA-XX or GPI-130	
Optional Antennas** (Professional Installer Required for FCC domains)	N/A	FANT-04ABGN-0606-O-R FANT-04ABGN-0606-P-R	
Environment			
Power Consumption (Max)	24.5 W	24.5 W	
PoE Mode	802.3at PoE default		
	1 port powered by 802.3at or Full System functionality + US	2 ports powered by 802.3af - SB support	
	1 port is connected to 802.3a in 2×2 mode with reduced po		
Humidity	5–90% Non-Condensing	5–90% Non-Condensing	
Operating / Storage Temperature	32-113°F (0-45°C) / -3194°	°F (-35–70°C)	
Directives	Low Voltage Directive • RoHS	Low Voltage Directive • RoHS	
UL2043 Plenum Material	No	No	
Mean Time Between Failures	>10 Years	>10 Years	
IP Rating	_	_	
Surge Protection Built In	No	No	
Hit-less PoE Failover	Yes	Yes	
Certifications			
Wi-Fi Alliance Certified	Yes (includes Passpoint)	Yes (includes Passpoint)	
DFS	FCC, IC, CE, Japan, Brazil and Taiwan	FCC, IC, CE, Japan, Brazil and Taiwan	
Warranty			
Limited Lifetime Warranty	Yes	Yes	

 $\ensuremath{^*}$  Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

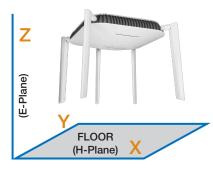
\*\* Refer to the Fortinet Antenna datasheet here.

				FortiAP 431F / 433				
	Radio 1		Rad	io 2		Radio 3		
Data rate	2.4 GHz Tx Power per chain (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)	2.4 GHz Tx Power per chain (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)
802.11b								
1 Mbps	23	-98	—	_	20	-96	—	_
11 Mbps	23	-89	—	—	18	-87	—	—
802.11g								
6 Mbps	23	-94	_	_	20	-92	_	_
54 Mbps	22	-75	_	_	18	-73	—	_
802.11n HT20								
MCS0	22	-93	_	_	20	-91	_	_
MCS7	20	-74	_	_	17	-72	_	_
802.11n HT40								
MCS0	20	-92	_	_	19	-90	_	_
MCS7	18	-73	_	_	17	-71	_	_
802.11ax HE20								
MCS0	22	-90	_	_	_	_	_	_
MCS11	17	-71	_		_	_	_	_
802.11ax HE40								
MCS0	19	-88	_	_	_	_	_	_
MCS11	17	-68	_	_	_	_	_	_
802.11a		00						
6 Mbps	_	_	20	-92	_	_	20	-90
54 Mbps			20	-72			17.5	30
802.11n HT20			20	12			17.5	
MCS0			20	-91			20	-90
MCS0 MCS7		_	19	-72		_	17.5	-90
			15	12			17.5	71
802.11n HT40 MCS0			20	20			10	00
MCSU MCS7	_		20	-88			19	-88
	_	-	18	-69	-	-	16.5	-69
802.11ac VHT20								
MCS0	—	—	20	-91	—	—	19	-90
MCS9	—	_	19	-67	—	_	17.5	-67
802.11ac VHT40								
MCS0	_		20	-88	_	_	19	-88
MCS9	_	—	18	-62	—	_	16	-62
802.11ac VHT80								
MCS0	—	—	18	-85	—	—	18	-85
MCS9	—	—	17	-59	—	_	16	-58
802.11ax HE20								
MCS0	—	_	20	-90	_	_	—	_
MCS11	—	—	18	-66	_	_	—	—
802.11ax HE40								
MCS0	—	_	20	-87	_	_	_	_
MCS11	_	_	18	-61	—	_	—	_
802.11ax HE80								
MCS0	_	_	18	-94	_	_	_	_
MCS11	_	_	17	-58	_	_	_	_

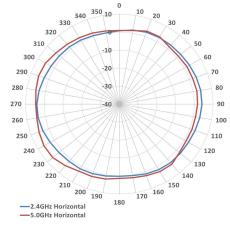
#### FAP-431F



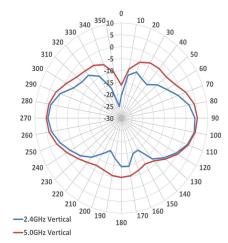
#### FAP-433F



### H-Plane Pattern



#### E-Plane Pattern



#### FortiAP 432F

This enterprise class 802.11ax ruggedized indoor/outdoor AP provides three radios and four spacial streams. As a top-of-the-line Wi-Fi 6 access point it provides OFDMA, a 2.5 Gigabit Ethernet port, plus an additional 1 Gbps Ethernet port with PoE out. The AP can provide 24/7 scanning across both bands while still providing access on both the 2.4 GHz and 5 GHz bands. The integrated BLE radio can be used for beacons and locationing applications.



802.11ax | Tri-Radio 2.4 GHz + 5 GHz + scanning | 6 External Antennas

4×4 MU-MIMO | Up to 1147 Mbps + 2402 Mbps



FAP-432F

# **Specifications**

	FortiAP 432F
Hardware	
Hardware Type	Ruggedized indoor/outdoor AP
Number of Radios	3 + 1 BLE
Number of Antennas	4 dual band WiFi + 1 dual band scanning + 1 single band 2.4 GHz BLE/ZigBee
Antenna Type and Peak Gain	WiFi and scanning radio dual band antenna: 5.5 dBi in 2.4 GHz and 7.2 dBi in 5 GHz band BLE antenna: 5.0 dBi in 2.4 GHz band
Frequency Bands (GHz)*	2.400–2.4835, 5.150–5.250, 5.250–5.350, 5.470–5.725, 5.725–5.850
Radio 1 Capabilities	Frequency band: 2.4 GHz Channel width: 20/40MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 4×4 Service
Radio 2 Capabilities	Frequency band: 5.0 GHz Channel width: 4×4 20/40/80MHz and 2×2 160 MHz contiguous Modulation: BPSK, QPSK, QAM64, QAM256, and QAM1024 MIMO Chains: 4×4 Service
Radio 3 Capabilities	Frequency bands: 2.4 GHz and 5.0 GHz MIMO Chains: 1×1 Frequency Scanning
Maximum Data Rate	Radio 1: up to 1147 Mbps Radio 2: up to 2402 Mbps Radio 3: Frequency scanning only
Bluetooth Low Energy Radio	Bluetooth scanning and iBeacon advertisement @ 10 dBm max TX power
Interfaces	1× 100/1000/2500 Base-T RJ45, 1 × 10/100/1000 Base-T RJ45 (802.3af PoE PSE), 1x RS-232 RJ45 Serial Port
MDI/MDIX	Supported Supported
Simultaneous SSIDs	Up to 8 per client serving radio (7 if background scanning is enabled)
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST
User/Device Authentication	WPA <sup>™</sup> , WPA2 <sup>™</sup> , and WPA3 <sup>™</sup> with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist
Maximum Tx Power (Conducted)	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
Kensington Lock	No
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i,802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w, 802.11ac, 802.11ax (Wi-Fi 6), 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az, 802.3bt, 802.3bz
SSIDs Supported	Local-Bridge, Tunnel, and Mesh
Per Radio Client Capacity	Up to 512 clients per radio (Radio1 and Radio2)
Cellular Co-existence	Yes
LED Off Mode	Yes
Advanced 802.11 Features	
OFDMA	Yes (UL and DL)
Spatial Reuse (BSS Coloring)	Yes
UL MU-MIMO	Yes
DL-MU-MIMO	Yes
Enhanced Target Wake Time (TWT)	Yes
ZeroWait DFS	No

Wireless Monitoring CapabilitionRogue Scan radio modesBackground, DedicatedPacket Sniffer ModeYesSpectrum AnalyzerYesDimensionsElectron StateWeight8.23 × 8.23 × 2.38 inches (209 × 209 × 60.5 mm)Weight5.25 o.93 lbs (5.7 kg)AccessoriesWall and PoleIncluded AccessoriesWall and PolePower Supply802.3bt PoE, ships with PoE injector (reset functionality)Power Supply802.3bt PoE, ships with PoE injector (reset functionality)Power Supply802.3bt PoE, ships with PoE injector spipped with product)Power SupplySea (while powered by PoE injector spipped with product)Power Consumption25 W without PSE out and 37.9 W with PSE outPoer Gossimption25 W without PSE out and 37.9 W with PSE outPoer Gossimption25.3bt PoE default (ships with Passive POE injectorPowere Oby Sol Sat PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBmThis product only supports PSE functionality when it is powered by PoE injector that ships with the product.Poer Mode\dot -140°F (-40°-60°C) / -40°-160°F (-40°-80°C)Powered by PoE injector that ships with the product.PortentiesLow Voltage Directive - RoHSUL2043 Plenum MaterialNoPating10 YearsPating10 YearsPatingYea (includes Passpoint)PortentiesVec (includes Passpoint)PortentiesYea (includes Passpoint)PortentiesYea (includes Passpoint)PortentiesYea (includes Pas		FortiAP 432F
WIPS / WIDS radio modesBackground, Dedicated (recommended)Packet Sniffer ModeYesSpectrum AnalyzerYesDimensionsULength x Width x Height8.23 × 8.23 × 2.38 inches (209 × 209 × 60.5 mm)Weight5.12 lbs (2.325 kg)Package (shipping) Weight12.56.93 lbs (5.7 kg)AccessoriesWall and PoleIncluded AccessoriesWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Pfrofessional Installer Required for FCC domainsFANT-04ABGN-144-P-N FANT-04ABGN-104-PN FANT-04ABGN-104-PN FANT-04ABGN-104-PN FANT-04ABGN-144-P-N FANT-04ABGN-144-P-N FANT-04ABGN-144-P-N FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-04ABGN-144-PN FANT-1	Wireless Monitoring Capabil	ities
Packet Sniffer ModeYesSpectrum AnalyzerYesDimensionsImage: Construct AnalyzerLength x Width x Height8.23 × 8.23 × 2.38 inches (209 × 209 × 60.5 mm)Weight5.12 lbs (2.325 kg)Package (shipping) Weight12.56.93 lbs (5.7 kg)AccessoriesWall and PoleIncluded AccessoriesWall and Pole spice injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-414-P-N Fequrited for FCC domains)Power Supply802.3bt POE, ships with POE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-0-N FANT-04ABGN-0607Power By 002.3at POE operate in 4x4 mode with reduced Tx power Radio1/R2 17d8m This product only supports PSE functionality when it is powered by POE injector that ships with the product.Humidity10%-90% non c	Rogue Scan radio modes	Background, Dedicated
Spectrum AnalyzerYesDimensionsUesLength x Width x Height8.23 x 8.23 x 2.38 inches (209 x 209 x 60.5 mm)Weight5.12 lbs (2.325 kg)Package (shipping) Weight12.56.93 lbs (5.7 kg)AccessoriesWall and PoleIncluded AccessoriesWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas** (Professional Installer Required for FCC domains)FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-0606-0-N FANT-04ABGN-040BGN-04DGN-	WIPS / WIDS radio modes	Background, Dedicated (recommended)
DimensionsLength x Width x Height8.23 × 2.38 inches (209 × 209 × 60.5 mm)Weight5.12 lbs (2.325 kg)Package (shipping) Weight12.56.93 lbs (5.7 kg)AccessoriesWall and PoleMounting OptionsWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-O-NProfessional Installer Required for FCC domainsFANT-04ABGN-0606-O-NProfessional Installer Required for FCC domainsFANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1406-S065-P-NEnvironmentStart-04ABGN-1414-P-N FANT-04ABGN-1406-S065-P-NPSE functionalityYes (while powered by PoE injector shipped with product)Power Consumption (Maximum)25 W without PSE out and 37.9 W with PSE outPoE Mode802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at POE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by POE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage>10 YearsUL2043 Plenum MaterialNoIP RatingPe67Surge Protection Built In Yes (Includes Passpoint)Piti Alliance CertifiedYes (Includes Passpoint)Diff Alliance CertifiedYes (Includes Passpoint)DFSPC, Ci, C, C, Japan, Brazil and Talwan	Packet Sniffer Mode	Yes
Length x Width x Height8.23 × 8.23 × 2.38 inches (209 × 209 × 60.5 mm)Weight5.12 lbs (2.325 kg)Package (shipping) Weight12.56.93 lbs (5.7 kg)AccessoriesWall and PoleMounting OptionsWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-O-N FANT-04ABGN-0606-P-N FANT-04ABGN-0606-P-NProfessional Installer Required for FCC domainsFANT-04ABGN-0606-O-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1406-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1404-P-N FANT-04ABGN-1405-P-NEnvironmentStatistic Statistic Statist	Spectrum Analyzer	Yes
Weight5.12 lbs (2.325 kg)Package (shipping) Weight12.56.93 lbs (5.7 kg)AccessoriesVall and PoleMounting OptionsWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-O-N FANT-04ABGN-1414-P-N FANT-04ABGN-1408-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1408-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1408-P-N FOR FAILPower Opset Consumption (Derating / Storage Parting / Storage Parting / Storage Parting Piefor FANT-140°F (-40°-60°C) / -40°-176°F (-40°-80°C) / -40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)Power Diffectives PalineesPole Palinees PalineesPole Palinees PalineesPower Diffectives PalineesPole Palinees PalineesPole Palinees Palinees <t< th=""><th>Dimensions</th><th></th></t<>	Dimensions	
Package (shipping) Weight12.56.93 lbs (5.7 kg)AccessoriesWall and PoleMounting OptionsWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-O-N FANT-04ABGN-1414-P-N FANT-04ABGN-1405-0-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-1405-0-N FANT-04ABGN-1414-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N FANT-04ABGN-1400-P-N Powered by POE injector shipped with product)Power Onsumption (Maximum)25 W without PSE out and 37.9 W with PSE out 10%-90% non condensing This product only supports PSE functionality when it is powered by POE injector that ships with the product.Humidity10%-90% non condensing100Operating / Storage Certification> 10 YearsIP Rating10 Years10 YearsIP Rating10 Years10 YearsIP RatingYea (includes Passpoint)YeaDiff Alliance Certified DFSYea (includes Passpoint) <th>Length x Width x Height</th> <th>8.23 × 8.23 × 2.38 inches (209 × 209 × 60.5 mm)</th>	Length x Width x Height	8.23 × 8.23 × 2.38 inches (209 × 209 × 60.5 mm)
AccessoriesMounting OptionsWall and PoleIncluded AccessoriesWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-0-NProfessional Installer Required for FCC domainsFANT-04ABGN-1414-P-NPower Consumption25 W without PSE out and 37.9 W with PSE outPoe Mode802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBmPoE Mode802.3bt PoE default (ships with Passive PoE injector Powered by PoE injector that ships with the product.)Poe Mode802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBmThis product only supports PSE functionality when it is powered by PoE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage Encetives-40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)Itz043 Plenum Material PailuresNoMean Time Between Pailures> 10 YearsIP RatingIP67Surge Protection Built In Yes (includes Passpoint)Pire Atiliance Certified Ves (includes Passpoint)DFSFC, IC, CE, Japan, Brazil and TaiwanWiFi Alliance CertifiedYes (includes Passpoint)DFSFCC, IC, CE, Japan, Brazil and Taiwan	Weight	5.12 lbs (2.325 kg)
Mounting OptionsWall and PoleIncluded AccessoriesWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-O-N FANT-04ABGN-8065-P-NProfessional Installer equired for FCC domainsFANT-04ABGN-8065-P-NEnvironmentYes (while powered by PoE injector shipped with product)Power Consumption25 W without PSE out and 37.9 W with PSE outPoE Mode802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by PoE injector that ships with the product.Humidity10%-90% non condensingOperating / StorageLow Voltage Directive • RoHSUL2043 Plenum MaterialNoMean Time Between Pailures10/67Furstop10/67Surge Protection Built In Ves (includes Passpoint)Pit Alliance CertifiedYes (includes Passpoint)DFSFACI, C, C, Japan, Brazil and TaiwanPitarentyYes (includes Passpoint)PitarentyYes (includes Passpoint) <th>Package (shipping) Weight</th> <th>12.56.93 lbs (5.7 kg)</th>	Package (shipping) Weight	12.56.93 lbs (5.7 kg)
Included AccessoriesWall and Pole mounting kitPower Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-O-N FANT-04ABGN-1414-P-N FANT-04ABGN-8065-P-NEnvironmentFANT-04ABGN-8065-P-NPSE functionalityYes (while powered by PoE injector shipped with product)Power Consumption (Maximum)25 W vithout PSE out and 37.9 W with PSE out Powered by 802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by PoE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage Emperature-40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)DirectivesLow Voltage Directive • RoHSUL2043 Plenum Material MailuresNoIn Pef7Surge Protection Built In YesHit-less PoE Failover WiFi Alliance CertifiedYes (includes Passpoint)DFSFOC, IC, CE, Japan, Brazil and TaiwanWiFi Alliance CertifiedYes (includes Passpoint)DFSFOC, IC, CE, Japan, Brazil and Taiwan	Accessories	
Power Supply802.3bt PoE, ships with PoE injector (reset functionality)Optional Antennas**FANT-04ABGN-0606-0-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-8065-P-NEnvironmentVes (while powered by PoE injector shipped with product)Power Consumption (Maximum)25 W without PSE out and 37.9 W with PSE outPoE Mode802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by PoE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage Temperature-40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)UL2043 Plenum Material MailuresNoIP Rating1P67Surge Protection Built In Yes (includes Passpoint)Hut-less POE Failover WiFi Alliance CertifiedYes (includes Passpoint)DFSCc. (C, C, L, Japan, Brazil and TaiwanWiFi Alliance CertifiedYes (includes Passpoint)	Mounting Options	Wall and Pole
Optional Antennas** (Professional Installer Required for FCC domains)FANT-04ABGN-0606-0-N FANT-04ABGN-1414-P-N FANT-04ABGN-1414-P-N FANT-04ABGN-8065-P-NEnvironmentFSE functionalityYes (while powered by POE injector shipped with product)Power Consumption (Maximum)25 W without PSE out and 37.9 W with PSE outPoE Mode802.3bt POE default (ships with Passive POE injector Powered by 802.3at POE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by POE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage Pemperature-40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)DirectivesLow Voltage Directive • RoHSUL2043 Plenum Material FailuresNoIP Rating1P67Surge Protection Built In Yes (includes Passpoint)Yes (includes Passpoint)DirestivesV/AWiFi Alliance Certified DFSYes (includes Passpoint)DFSFC. [C. C. L. Japan, Brazil and TaiwanWarrantyYes	Included Accessories	Wall and Pole mounting kit
KProfessional Installer Required for FCC domainsFANT-04ABGN-1414-P-N FANT-04ABGN-8065-P-NEnvironmentFant-04ABGN-8065-P-NPSE functionalityYes (while powered by PoE injector shipped with product)Power Consumption (Maximum)25 W without PSE out and 37.9 W with PSE outPower Consumption (Maximum)802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at POE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by POE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage Pareperature-100°F (-40°-60°C) / -40°-176°F (-40°-80°C)UL2043 Plenum Material MiluresNoMean Time Between Pailures>10 YearsIP RatingIP67Surge Protection Built In VesYes (includes Passpoint)UFI Alliance Certified DFSYes (includes Passpoint)OFSC. (. C, C, L, Japan, Brazil and TaiwanWirrantyYes	Power Supply	802.3bt PoE, ships with PoE injector (reset functionality)
PSE functionality       Yes (while powered by PoE injector shipped with product)         Power Consumption (Maximum)       25 W without PSE out and 37.9 W with PSE out         PoE Mode       802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by PoE injector that ships with the product.         Humidity       10%-90% non condensing         Operating / Storage femperature       -40°-140°- (-40°-60°C) / -40°-176°F (-40°-80°C)         Directives       Low Voltage Directive • RoHS         UL2043 Plenum Material       No         Mean Time Between Failures       >10 Years         IP Rating       IP67         Surge Protection Built In Hit-less PoE Failover       N/A         Certifications       Yes (includes Passpoint)         DFS       FCC, IC, CE, Japan, Brazil and Taiwan         Varranty       Yes (includes Passpoint)	(Professional Installer	FANT-04ABGN-1414-P-N
Power Consumption25 W without PSE out and 37.9 W with PSE outPoE Mode802.3bt PoE default (ships with Passive PoE injector Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by PoE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage Temperature-40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)DirectivesLow Voltage Directive • RoHSUL2043 Plenum MaterialNoMean Time Between Failures> 10 YearsBirge Protection Built In YesYesHit-less POE FailoverN/ACertificationsYes (includes Passpoint)DFSFC, IC, CE, Japan, Brazil and TaiwanWarrantyCertifications	Environment	
(Maximum)       Bol2.3bt PoE default (ships with Passive PoE injector Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is 	PSE functionality	Yes (while powered by PoE injector shipped with product)
Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBmThis product only supports PSE functionality when it is powered by PoE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage remperature-40°-140°-60°C) / -40°-176°F (-40°-80°C)DirectivesLow Voltage Directive • RoHSUL2043 Plenum MaterialNoMean Time Between Failures>10 YearsBirectionsIP67Surge Protection Built In YesYesHit-less PoE FailoverN/ACertificationsYes (includes Passpoint)DFSFCC, IC, CE, Japan, Brazil and TaiwanWirrantyFCC, IC, CE, Japan, Brazil and Taiwan		25 W without PSE out and 37.9 W with PSE out
reduced Tx power Radio1/R2 17dBm This product only supports PSE functionality when it is powered by PoE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage Operature-40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)DirectivesLow Voltage Directive • RoHSUL2043 Plenum MaterialNoMean Time Between Failures> 10 YearsBitres Potection Built In VesYesCertificationsV/AWiFi Alliance CertifiedYes (includes Passpoint)DFSCc. (C. C. L. Japan, Brazil and TaiwanWarrantyCertifications	PoE Mode	802.3bt PoE default (ships with Passive PoE injector
powered by PoE injector that ships with the product.Humidity10%-90% non condensingOperating / Storage-40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)DirectivesLow Voltage Directive • RoHSDL2043 Plenum MaterialNoMean Time Between Failures>10 YearsIP RatingIP67Surge Protection Built In CertificationsYesWiFi Alliance CertifiedYes (includes Passpoint)DFSFCC, IC, CE, Japan, Brazil and TaiwanWarrantyYes		
Operating / Storage Temperature     -40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)       Directives     Low Voltage Directive • RoHS       UL2043 Plenum Material     No       Mean Time Between Failures     > 10 Years       IP Rating     IP67       Surge Protection Built In     Yes       Hit-less PoE Failover     N/A       Certifications     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil and Taiwan       Warranty     Yes		
Temperature     Low Voltage Directive • RoHS       Directives     Low Voltage Directive • RoHS       UL2043 Plenum Material     No       Mean Time Between Failures     > 10 Years       IP Rating     IP67       Surge Protection Built In     Yes       Hit-less PoE Failover     N/A       Certifications     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil and Taiwan       Warranty     Yes (includes Passpoint)	Humidity	10%-90% non condensing
UL2043 Plenum Material     No       Mean Time Between Failures     > 10 Years       IP Rating     IP67       Surge Protection Built In     Yes       Hit-less PoE Failover     N/A       Certifications     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil and Taiwan       Warranty     Yes (includes Passpoint)		-40°-140°F (-40°-60°C) / -40°-176°F (-40°-80°C)
Mean Time Between Failures     > 10 Years       IP Rating     IP67       Surge Protection Built In     Yes       Hit-less PoE Failover     N/A       Certifications     Yes (includes Passpoint)       WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil and Taiwan       Warranty     Yes (Yes (Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Directives	Low Voltage Directive • RoHS
Failures         IP Rating       IP67         Surge Protection Built In       Yes         Hit-less PoE Failover       N/A         Certifications       Yes (includes Passpoint)         WiFi Alliance Certified       Yes (includes Passpoint)         DFS       FCC, IC, CE, Japan, Brazil and Taiwan         Warranty       Yes (includes Passpoint)	UL2043 Plenum Material	No
Surge Protection Built In     Yes       Hit-less PoE Failover     N/A       Certifications     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil and Taiwan       Warranty     Yes (includes Passpoint)		> 10 Years
Hit-less PoE Failover     N/A       Certifications     ViFi Alliance Certified       WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil and Taiwan       Warranty     Vertified	IP Rating	IP67
Certifications       WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil and Taiwan       Warranty	Surge Protection Built In	Yes
WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil and Taiwan       Warranty     Varianty	Hit-less PoE Failover	N/A
DFS FCC, IC, CE, Japan, Brazil and Taiwan Warranty	Certifications	
Warranty	WiFi Alliance Certified	Yes (includes Passpoint)
-	DFS	FCC, IC, CE, Japan, Brazil and Taiwan
Limited Lifetime Warranty Yes	Warranty	
	Limited Lifetime Warranty	Yes

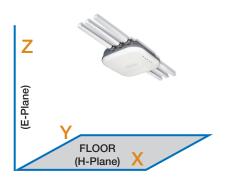
\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

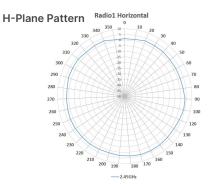
\*\* Refer to the Fortinet Antenna datasheet here.

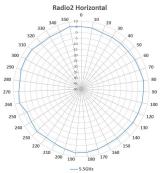
			FortiA	P 432F			
	Ra	adio 1	Ra	dio 2		Radio 3 Scanning	
Data rate	2.4 GHz Tx Power per chain (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)	2.4 GHz Tx Power per chain (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)
802.11b	,		. ,		, , ,	. ,	
1 Mbps	24	-99	_	_	20	_	-92
11 Mbps	24	-91	_	_	18	_	-91
802.11g							
6 Mbps	24	-94	_	_	20	_	-92
54 Mbps	23	-78	_	_	18	_	-77
802.11n HT20							
MCS0	24	-94	_	_	20	_	-92
MCS7	23	-75			17	_	-74
802.11n HT40							
MCS0	23	-92	_	_	19	_	-90
MCS0 MCS7	23	-73			13		-72
	22	75			17		12
802.11ax HE20 MCS0	23	-90	_	_	_	_	_
MCS0 MCS11	23	-90					
802.11ax HE40	21	71		_	_		_
	01	01					
MCS0 MCS11	21	-91					
	19	-72	-	_	_	_	_
802.11a							
6 Mbps	_	_	22	-92	_	20	-93
54 Mbps	_	_	22	-76	_	19	-76
802.11n HT20							
MCS0	—	—	22	-93	—	20	-93
MCS7	-	—	21	-74	—	19	-73
802.11n HT40							
MCS0	_	_	22	-91	_	19	-90
MCS7	_	—	21	-72	—	18	-71
802.11ac VHT20							
MCS0	—	—	22	-91	—	19	-93
MCS9	—	—	20	-72	—	18	-69
802.11ac VHT40							
MCS0	—	_	22	-91	_	19	-90
MCS9	—	_	19	-72	_	16	-64
802.11ac VHT80							
MCS0	—	_	20	-86	_	17	-88
MCS9	_	_	17	-62	_	17	-61
802.11ax HE20							
MCS0	_	_	22	-91	_	_	_
MCS11	_	_	19	-72	_	—	_
802.11ax HE40							
MCS0	_	_	22	-91	_	_	_
MCS11	_	_	19	-72	_	_	_
802.11ax HE80							
MCS0	_	_	20	-87	_	_	_
MCS11		_	18	-58		_	
			10	00			

170 160

#### Antenna Radiation Patterns FAP-432F







**BLE Horizonta** 

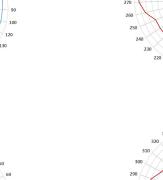
200 190

\_\_\_\_\_2.45GHz \_\_\_\_\_5.5GHz

 200 190

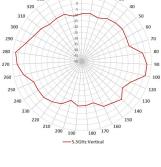
\_\_\_\_\_2.45GHz

Scanning Radio Horizontal



180 170

180 170



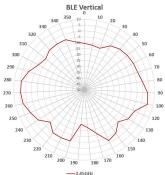
Radio1 Vertical

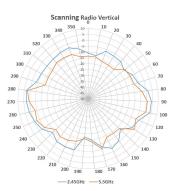
**E-Plane Pattern** 

-2.45GH

190 180

Radio2 Vertical





#### FortiAP 432FR

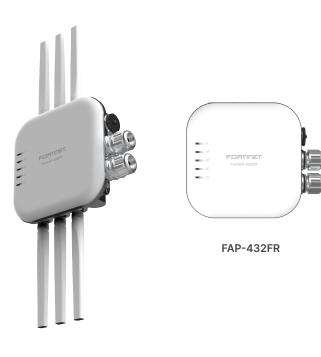
This enterprise class 802.11ax ruggedized indoor/outdoor/industrial AP provides three radios and four spacial streams. As a top-of-the-line Wi-Fi 6 access point it provides OFDMA, a 2.5 Gigabit Ethernet port, plus an additional 1 Gbps Ethernet port with PoE out. The AP can provide 24/7 scanning across both bands while still providing access on both the 2.4 GHz and 5 GHz bands. The integrated BLE radio can be used for beacons and locationing applications.

FAP-432FR is ideal for hazardous environments such as oil rigs, industrial manufacturing, and transportation sites.



#### 802.11ax | Tri-Radio 2.4 GHz + 5 GHz + scanning | 6 External Antennas

4×4 MU-MIMO | Up to 1147 Mbps + 2402 Mbps



FAP-432FR

# **Specifications**

	FortiAP 432FR
Hardware	
Hardware Type	Indoor / Outdoor / Industrial AP
Number of Radios	3 + 1 BLE
Number of Antennas	4 dual band WiFi + 1 dual band scanning + 1 single band 2.4 GHz BLE/ZigBee
Antenna Type and Peak Gain	WiFi and scanning radio dual band antenna: 5.5 dBi in 2.4 GHz and 7.2 dBi in 5 GHz band BLE antenna: 5.0 dBi in 2.4 GHz band
Frequency Bands (GHz)*	2.400–2.4835, 5.150–5.250, 5.250–5.350, 5.470–5.725, 5.725–5.850
Radio 1 Capabilities	Frequency band: 2.4 GHz Channel width: 20/40MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 4×4 Service
Radio 2 Capabilities	Frequency band: 5.0 GHz Channel width: 4×4 20/40/80MHz and 2×2 160 MHz contiguous Modulation: BPSK, QPSK, QAM64, QAM256, and QAM1024 MIMO Chains: 4×4 Service
Radio 3 Capabilities	Frequency bands: 2.4 GHz and 5.0 GHz MIMO Chains: 1×1 Frequency Scanning
Maximum Data Rate	Radio 1: up to 1147 Mbps Radio 2: up to 2402 Mbps Radio 3: Frequency scanning only
Bluetooth Low Energy Radio	Bluetooth scanning and iBeacon advertisement @ 10 dBm max TX power
Interfaces	1× 100/1000/2500 Base-T RJ45, 1 × 10/100/1000 Base-T RJ45 (802.3af PoE PSE), 1x RS-232 RJ45 Serial Port
MDI/MDIX	Supported Supported
Simultaneous SSIDs	Up to 8 per client serving radio (7 if background scanning is enabled)
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST
User/Device Authentication	WPA <sup>™</sup> , WPA2 <sup>™</sup> , and WPA3 <sup>™</sup> with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist
Maximum Tx Power (Conducted)	Indoor / Outdoor / Industrial: 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
Kensington Lock	No
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i,802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w, 802.11ac, 802.11ax (Wi-Fi 6), 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az, 802.3bt, 802.3bz
SSIDs Supported	Local-Bridge, Tunnel, and Mesh
Per Radio Client Capacity	Up to 512 clients per radio (Radio1 and Radio2)
Cellular Co-existence	Yes
LED Off Mode	Yes
Advanced 802.11 Features	
OFDMA	Yes (UL and DL)
Spatial Reuse (BSS Coloring)	Yes
UL MU-MIMO	Yes
DL-MU-MIMO	Yes
Enhanced Target Wake Time (TWT)	Yes
ZeroWait DFS	No

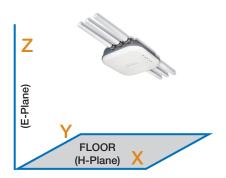
	FortiAP 432FR
Wireless Monitoring Capabili	
Rogue Scan radio modes	Background, Dedicated
WIPS / WIDS radio modes	Background, Dedicated (recommended)
Packet Sniffer Mode	Yes
Spectrum Analyzer	Yes
Dimensions	165
Length x Width x Height	8.23 × 8.23 × 2.38 inches (209 × 209 × 60.5 mm)
Weight	5.12 lbs (2.325 kg)
Package (shipping) Weight	12.56.93 lbs (5.7 kg)
Accessories	12.50.55 lbs (5.7 kg)
Mounting Options	Wall and Pole
Included Accessories	
	Wall and Pole mounting kit
Power Supply	802.3bt PoE, ships with PoE injector (reset functionality) FANT-04ABGN-0606-O-N
Optional Antennas** (Professional Installer Required for FCC domains)	FANT-04ABGN-0606-0-N FANT-04ABGN-1414-P-N FANT-04ABGN-8065-P-N
Environment	
PSE functionality	Yes (while powered by PoE injector shipped with product)
Power Consumption (Maximum)	25 W without PSE out and 37.9 W with PSE out
PoE Mode	802.3bt PoE default (ships with Passive PoE injector
	Powered by 802.3at PoE - Operate in 4×4 mode with reduced Tx power Radio1/R2 17dBm
	This product only supports PSE functionality when it is powered by PoE injector that ships with the product.
Humidity	10%-90% non condensing
Operating / Storage Temperature	-40°–140°F (-40°-60°C) / -50°–176°F (-58°–80°C)
Directives	Low Voltage Directive • RoHS
UL2043 Plenum Material	No
Mean Time Between Failures	> 10 Years
IP Rating	IP67
Surge Protection Built In	Yes
Hit-less PoE Failover	N/A
Certifications	FCC/ISED CE Marked UKCA Marked AS/NZS Radio Equipment Directive (RED) 2014/53/EU UL/IEC/EN 62368-1 IEC 60529 Class I Division 2 (CID2) EN 50385 EN 62311
Radio Equipment Directive (RED)	2014/53/EU
WiFi Alliance Certified	Yes (includes Pass point)
DFS	In Process
Warranty	
Limited Lifetime Warranty	Yes

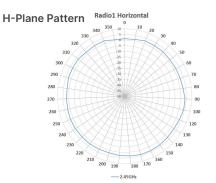
\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

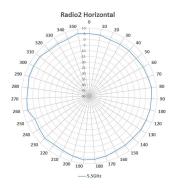
\*\* Refer to the Fortinet Antenna datasheet here.

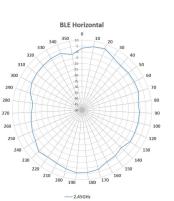
			FortiA	P 432FR			
	Ra	idio 1	Radio 2 Radio 3			Radio 3 Scanning	
Data rate	2.4 GHz Tx Power per chain (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)	2.4 GHz Tx Power per chain (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)
802.11b	per chain (dbhi)	KX Sensitivity (ubiii)	Chain (dbhi)	its densitivity (dbiii)	per chain (ubin)	Chain (dbin)	it sensitivity (usin)
1 Mbps	24	-99	_	_	20	_	-92
11 Mbps	24	-91	_	_	18	_	-91
802.11g							
6 Mbps	24	-94	_	_	20	_	-92
54 Mbps	23	-78		_	18		-77
802.11n HT20	20	, , ,			10		
MCS0	24	-94	_	_	20	_	-92
MCS0 MCS7	23	-75			17	_	-74
	20	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			17		7 -
802.11n HT40 MCS0	23	-92	_	_	19		-90
MCS0 MCS7	23	-92			13		-72
	22	/3			17	_	-72
802.11ax HE20	00	00					
MCS0 MCS11	23	-90					
	21	-/1	-	—	_	—	_
802.11ax HE40							
MCS0	21	-91	_			_	
MCS11	19	-72	-	—	_	-	—
802.11a							
6 Mbps	_	_	22	-92	—	20	-93
54 Mbps	-	-	22	-76	—	19	-76
802.11n HT20							
MCS0	—	—	22	-93	—	20	-93
MCS7	—	—	21	-74	—	19	-73
802.11n HT40							
MCS0	_	—	22	-91	_	19	-90
MCS7	—	—	21	-72	—	18	-71
802.11ac VHT20							
MCS0	_	_	22	-91	—	19	-93
MCS9	—	—	20	-72	_	18	-69
802.11ac VHT40							
MCS0	_	—	22	-91	—	19	-90
MCS9	—	—	19	-72	—	16	-64
802.11ac VHT80							
MCS0	—	—	20	-86	—	17	-88
MCS9	_	_	17	-62	_	17	-61
802.11ax HE20							
MCS0	_	—	22	-91	—	—	_
MCS11	_	_	19	-72	_	_	_
802.11ax HE40							
MCS0	-	-	22	-91	_	-	_
MCS11	_	—	19	-72	_	—	—
802.11ax HE80							
MCS0	_	_	20	-87	_	_	_
MCS11	_	_	18	-58	_	_	_

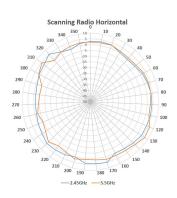
#### Antenna Radiation Patterns FAP-432FR

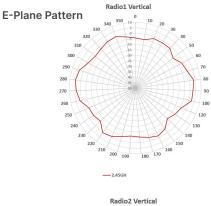


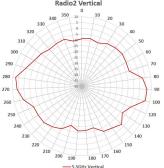


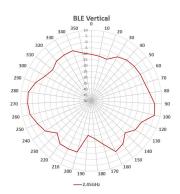


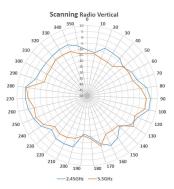






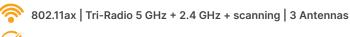






#### FortiAP 231F

This enterprise class Wi-Fi 6 indoor AP provides three radios and two spacial streams, as well as features such as OFDMA and dual 1 Gbps Ethernet ports. The AP can provide 24/7 scanning across both bands while still providing access on both the 2.4 GHz and 5 GHz bands. The integrated BLE radio can be used for beacons and locationing applications.



2×2 MU-MIMO | Up to 574 Mbps + 1201 Mbps + scanning



FAP-231F

#### **Data Sheet**

# **Specifications**

	FortiAP 231F
Hardware	
Hardware Type	Indoor AP
Number of Radios	3 + 1 BLE
Number of Antennas	3 Dual band Internal Wi-Fi + 1 BLE/ZigBee
Antenna Type and Peak Gain	Omni Directional antenna Dual band: 4.5dBi for 2.4Ghz and 5.5dBi for 5GHz BLE antenna 4.0dBi at 2.4GHz band
Frequency Bands (GHz)*	2.400–2.4835, 5.150–5.250, 5.250–5.350, 5.470–5.725, 5.725–5.850
Radio 1 Capabilities	Frequency band: 2.4GHz Channel width: 20/40MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 Service
Radio 2 Capabilities	Frequency band: 5.0GHz Channel width: 20/40/80MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 Service
Radio 3 Capabilities	Frequency bands: 2.4GHz and 5.0GHz MIMO Chains: 1×1 Frequency Scanning
Maximum Data Rate	Radio 1: up to 574 Mbps Radio 2: up to 1201 Mbps Radio 3: Frequency scanning only
Bluetooth Low Energy Radio	Bluetooth scanning and iBeacon advertisement @ 10 dBm max TX power
Interfaces	2× 10/100/1000 Base-T RJ45, 1x Type 2.0 USB, 1x RS- 232 RJ45 Serial Port
MDI/MDIX	Supported Supported
Simultaneous SSIDs	Up to 8 per client serving radio (7 if background scanning is enabled)
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST
User/Device Authentication	WPA™, WPA2™, and WPA3™ with 802.1x or Preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist
Maximum Tx Power (Conducted)	Radio 1: 2.4GHz: 23 dBm / 200 mW (2 chains combined)* Radio 2: 5GHz: 22 dBm / 158 mW (2 chains combined)* Radio 3: NA
Kensington Lock	Yes
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w, 802.11ac, 802.11ax, 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az
SSID Types Supported	Local-Bridge, Tunnel, and Mesh
Per Radio Client Capacity	Up to 512 clients per radio (Radio1 and Radio2)
Cellular Co-existence	Yes
Reset Button	Yes
LED Off Mode	Yes

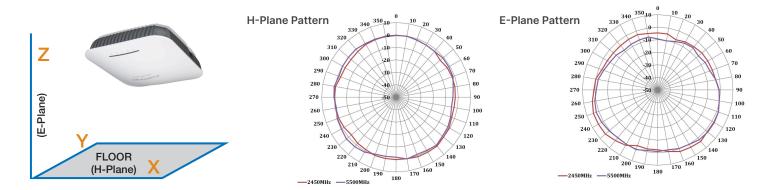
	FortiAP 231F
Advanced 802.11 Features	
OFDMA	Yes (UL and DL)
Spatial Reuse (BSS Coloring)	Yes
UL MU-MIMO 802.11ax mode	Yes
DL-MU-MIMO	Yes
Enhanced Target Wake Time	Yes
(TWT)	105
ZeroWait DFS/Agile DFS	No
Wireless Monitoring Capabilities	
Rogue Scan radio modes	Background, Dedicated
WIPS / WIDS radio modes	Background, Dedicated (recommended)
Packet Sniffer Mode	Yes
Spectrum Analyzer	Yes
Dimensions	
Length x Width x Height	6.0 × 6.0 × 2.86 inches (153.2 × 153.2 × 53.0 mm)
Weight	1.0 lbs (0.543 kg)
Package (shipping) Weight	2.1lbs (0.95 kg)
Accessories	
Mounting Options	Ceiling, T-Rail, and Wall
Included Accessories	Standard Mount kit for Ceiling, T-Rail, and Wall
Power Supply	SP-FAP200-PA-XX, or SP-FAP250-PA-10, or 802.3at PoE GPI-130
Environment	
Power Consumption (Maximum)	17W
PoE Mode	802.3at PoE default
PoE Mode	802.3at PoE default 1 port powered by 802.3at - full system functionality + USB support
PoE Mode	1 port powered by 802.3at - full system functionality
PoE Mode Humidity	1 port powered by 802.3at - full system functionality + USB support
	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support
Humidity Operating / Storage	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing
Humidity Operating / Storage Temperature	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C)
Humidity Operating / Storage Temperature Directives	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS
Humidity Operating / Storage Temperature Directives UL2043 Plenum Material	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS No
Humidity Operating / Storage Temperature Directives UL2043 Plenum Material Mean Time Between Failures	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS No > 10 Years
Humidity Operating / Storage Temperature Directives UL2043 Plenum Material Mean Time Between Failures IP Rating	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS No > 10 Years N/A
Humidity Operating / Storage Temperature Directives UL2043 Plenum Material Mean Time Between Failures IP Rating Surge Protection Built In	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS No > 10 Years N/A No
Humidity Operating / Storage Temperature Directives UL2043 Plenum Material Mean Time Between Failures IP Rating Surge Protection Built In Hit-less PoE Failover	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS No > 10 Years N/A No
Humidity Operating / Storage Temperature Directives UL2043 Plenum Material Mean Time Between Failures IP Rating Surge Protection Built In Hit-less PoE Failover Certifications	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS No > 10 Years N/A No N/A
Humidity Operating / Storage Temperature Directives UL2043 Plenum Material Mean Time Between Failures IP Rating Surge Protection Built In Hit-less PoE Failover Certifications WiFi Alliance Certified	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS No > 10 Years N/A No N/A No Yes (includes Passpoint)
Humidity Operating / Storage Temperature Directives UL2043 Plenum Material Mean Time Between Failures IP Rating Surge Protection Built In Hit-less PoE Failover Certifications WiFi Alliance Certified DFS	1 port powered by 802.3at - full system functionality + USB support 1 port is connected to 802.3af - no USB support 5%-90% non condensing 32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C) Low Voltage Directive • RoHS No > 10 Years N/A No N/A No Yes (includes Passpoint)

\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

		FortiAP 231F		
	Radio	1	Radio 2	
Data rate	2.4 GHz Tx Power per chain (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)
02.11b		(dbiii)		(ubiii)
Mbps	21	-99	_	_
1 Mbps	21	-90		_
802.11g	21	00		
6 Mbps	20	-94	_	_
54 Mbps	20	-77		
	20	//		
302.11n HT20				
MCS0	19	-94	-	_
MCS7	18	-76	-	_
302.11n HT40				
MCS0	19	-92	—	_
MCS7	19	-73	_	—
302.11ax HE20				
MCS0	19	-94		_
MCS11	17	-65	—	_
302.11ax HE40				
MCSO	19	-91	_	_
MCS11	16	-63	_	_
302.11a				
6 Mbps	—	_	22	-94
54 Mbps	_	_	21	-77
302.11n HT20				
MCS0	_	_	21	-94
MCS7		_	19	-76
802.11n HT40				
MCSO	_	_	21	-91
MCS7	_	_	19	-73
302.11ac VHT20				
MCS0	_	_	21	-94
MCS9		_	18	-72
302.11ac VHT40				
MCS0	_	_	21	-91
MCS0			18	-68
	—		10	00
302.11ac VHT80			10	~~~
MCSO		_	19 17	-88
MCS9	_	—	17	-64
302.11ax HE20				
ACS0	—	_	21	-94
/ICS11	_	—	17	-64
02.11ax HE40				
//CS0	—	—	21	-91
MCS11	—	—	17	-62
302.11ax HE80				
//CS0	_	—	19	-88
ACS11	_	_	16	-58

# Antenna Radiation Patterns

FAP-231F



#### FortiAP 234F

This enterprise class Wi-Fi 6 ruggedized indoor/outdoor AP provides three radios with internal antennas and two spacial streams, as well as features such as OFDMA and dual 1 Gbps Ethernet ports. The AP can provide 24/7 scanning across both bands while still providing access on both the 2.4 GHz and 5 GHz bands. The integrated BLE radio can be used for beacons and locationing applications.



802.11ax | Tri-Radio 5 GHz + 2.4 GHz + scanning | 2 5G antenna + 2 2.4G antenna + 1 dual band antenna + 1 single band 2.4 Ghz BLE/Zigbee

2×2 MU-MIMO | Up to 574 Mbps + 1201 Mbps + scanning



FAP-234F

#### **Data Sheet**

# **Specifications**

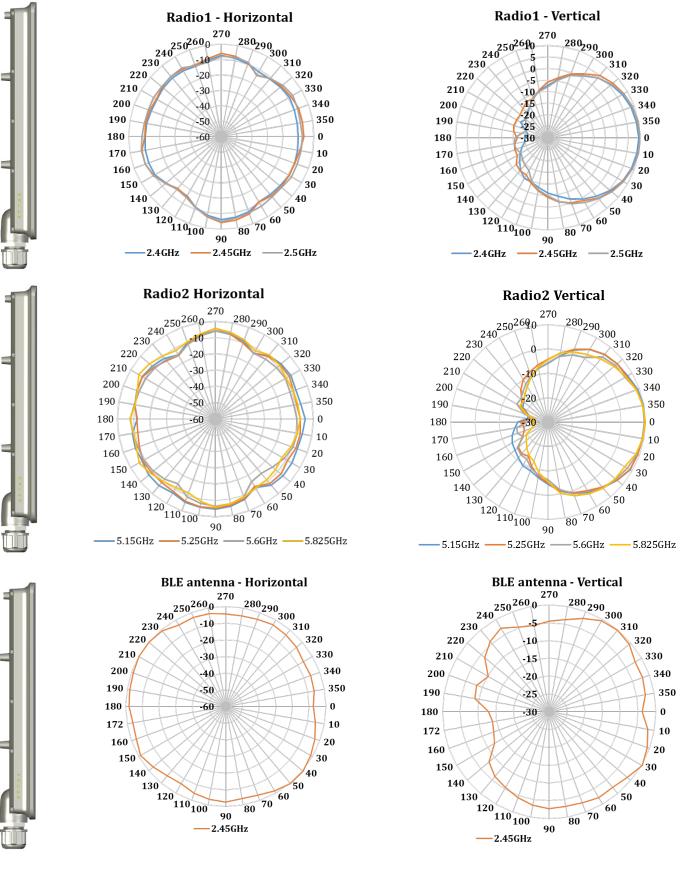
	FortiAP 234F
Hardware	
Hardware Type	Ruggedized indoor/outdoor AP
Number of Radios	3 + 1 BLE
Number of Antennas	2 dual band WiFi + 1 dual band scanning + 1 single band 2.4 GHz BLE/ZigBee
Antenna Type and Peak Gain	Directional patch antenna Single band antennas: 10 dBi in 2.4 GHz band, 10 dBi in 5.0 GHz band Scanning radio: 3.5 dBi in 2.4 GHz band and 4.5 dBi in 5 GHz band BLE antenna: 3.5 dBi in 2.4 GHz band
Antenna Beam Width	2.4GHz Horizontal BW 70 degree Vertical BW 30 degree 5.0GHz Horizontal BW 78 degree Vertical BW 25 degree
Frequency Bands (GHz)*	2.400–2.4835, 5.150–5.250, 5.250–5.350, 5.470–5.725, 5.725–5.850
Radio 1 Capabilities	Frequency band: 2.4GHz Channel width: 20/40MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 Service
Radio 2 Capabilities	Frequency band: 5.0GHz Channel width: 20/40/80MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 Service
Radio 3 Capabilities	Frequency bands: 2.4 GHz and 5.0 GHz MIMO Chains: 1×1 Frequency Scanning
Maximum Data Rate	Radio 1: up to 574 Mbps Radio 2: up to 1200 Mbps Radio 3: Frequency scanning only
Bluetooth Low Energy Radio	Bluetooth scanning and iBeacon advertisement @ 10 dBm max TX power
Interfaces	2× 10/100/1000 Base-T RJ45, 1x RS-232 RJ45 Serial Port
MDI/MDIX	Supported Supported
Simultaneous SSIDs	Up to 8 per client serving radio (7 if background scanning is enabled)
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST
User/Device Authentication	WPA™, WPA2™, and WPA3™ with 802.1x or Preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist
Maximum Tx Power (Conducted)	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
Kensington Lock	No
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w, 802.11ac, 802.11ax (Wi-Fi 6), 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az
SSID Types Supported	Local-Bridge, Tunnel, and Mesh
Per Radio Client Capacity	Up to 512 clients per radio (Radio1 and Radio2)
Cellular Co-existence	Yes

Advanced 802.11 FeaturesOFDMAYes (UL and DL)Spatial Reuse (BSS Coloring)YesUL MU-MIMOYesDL-MU-MIMOYesCarrowait DFSNoZeroWait DFSNoWireless Monitoring CapabilitiesRegues Can radio modesRogues Can radio modesBackground, Dedicated (recommended)Packet Sniffer ModeYesSpectrum AnalyzerYesPacket Sniffer Mode2.45 × 8.6 × 1.66 inches (316 × 218 × 42 mm)Wieght2.48 los (1.307 kg)Packet Sniffer ModeYesSpectrum AnalyzerYesIncluded AccessoriesWall and PoleIncluded AccessoriesWall and PolePower SupplyNoPower SupplySol 2.34 PoE: GPI-130; ships with PoE Injector (reset functionality)Power Consumption (Maximu)15.5 WPower Consumption (Maximu)Sol 2.34 PoE Indexi (Ships with PoE Injector) l port is connected to 802.34 r. No USB support, Operate in 2×2 mode with reduced Tx power RI/R2 l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is connected to 802.34 r. No USB support, l Port is c		FortiAP 234F
OFDMAYes (UL and DL)Spatial Reuse (BSS Coloring)YesULMU-MIMOYesDL-MU-MIMOYesChanced Target Wake TimeYesRogue Scan radio modesBackground, DedicatedWireless Monitoring CapabilitiesRogue Scan radio modesRogue Scan radio modesBackground, Dedicated (recommended)Packed Siffer ModeYesPacked Siffer Mode245 × 8.6 × 1.66 inches (S16 × 218 × 42 mm)Wireless Monitoring Capabilities245 × 8.6 × 1.66 inches (S16 × 218 × 42 mm)Packed Siffer Mode2.48 × 8.6 × 1.66 inches (S16 × 218 × 42 mm)Wireless Monitoring Capabilities2.48 × 8.6 × 1.66 inches (S16 × 218 × 42 mm)Wireless Monitoring Capabilities2.88 \los (1.307 kg)Package (shipping) Weight2.88 \los (1.307 kg)AccessoriesVell and PolePactorionaltyS02 34 role: GPI-130 ; ships with PoE Injector (resetPartorionatityS02 34 role: GPI-130 ; ships with PoE Injector (resetPower Consumption (Maximu)5.5 WPower Consumption (Maximu)5.6 WS02 34 r PoE Idefault (Ships with Passive PoE injector) r lop size and rele vez words with reduced Tx powered by 802.34 r Po USB support, lop size in x-2 mode with reduced Tx powered by 802.34 r Po USB support, lop size in x-2 mode with reduced Tx powered by 802.34 r Po USB support, lop size in x-2 mode with reduced Tx powered by 802.34 r Po USB support, lop size in x-2 mode with reduced Tx powered by 802.34 r Po USB support, lop size in x-2 mode with reduced Tx powered by 802.34 r Po USB support, lop size in x-2 mode with reduced Tx powered by 802.34 r Po USB support, lop size in x-	Advanced 802.11 Features	
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Mean Time Between Failures     > 10 Years       IP Rating     IP67       Surge Protection Built In     Yes       Hit-less PoE Failover     N/A       Certifications     Yes (includes Passpoint)       DFS     FCC, ICC, EL, Japan, Brazil, Taiwan and Korea       Warranty     Yes	Directives	Low Voltage Directive • RoHS
IP Rating     IP67       Surge Protection Built In     Yes       Hit-less PoE Failover     N/A       Certifications     Yes (includes Passpoint)       WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil, Taiwan and Korea       Warranty     Yes (includes Passpoint)	UL2043 Plenum Material	No
Surge Protection Built In     Yes       Hit-less PoE Failover     N/A       Certifications     ViFi Alliance Certified       WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil, Taiwan and Korea       Warranty     Yes (includes Passpoint)	Mean Time Between Failures	> 10 Years
Hit-less PoE Failover     N/A       Certifications     ViFi Alliance Certified       WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil, Taiwan and Korea       Warranty     Vertified	IP Rating	IP67
Certifications       WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil, Taiwan and Korea       Warranty     FCC, IC, CE, Japan, Brazil, Taiwan and Korea	Surge Protection Built In	Yes
WiFi Alliance Certified     Yes (includes Passpoint)       DFS     FCC, IC, CE, Japan, Brazil, Taiwan and Korea       Warranty	Hit-less PoE Failover	N/A
DFS FCC, IC, CE, Japan, Brazil, Taiwan and Korea Warranty	Certifications	
Warranty	WiFi Alliance Certified	Yes (includes Passpoint)
-	DFS	FCC, IC, CE, Japan, Brazil, Taiwan and Korea
Limited Lifetime Warranty Yes	Warranty	
	Limited Lifetime Warranty	Yes

\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

			FortiA	AP 234F			
	Radio 1		Ra	dio 2		Radio 3 Scanning	
Data rate	2.4 GHz Tx Power per chain (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)	2.4 GHz Tx Power per chain (dBm)	5 GHz Tx Power per Chain (dBm)	Rx Sensitivity (dBm)
802.11b							
1 Mbps	24	-99	_	_	20	_	-92
11 Mbps	24	-91	_	_	18	_	-91
802.11g							
6 Mbps	24	-95	_	_	20	_	-92
54 Mbps	23	-78	_	_	18	_	-77
802.11n HT20							
MCS0	24	-94	_	_	20	_	-92
MCS7	23	-78	_	_	17	_	-74
802.11n HT40							
MCS0	23	-92	_	_	19	_	-90
MCS7	22	-74	_	_	17	_	-72
802.11ax HE20							
MCS0	23	-90	_	_	_	_	_
MCS11	21	-71		_	_		
802.11ax HE40							
MCS0	21	-91	_	_	_	_	_
MCS11	19	-72	_		_	_	_
302.11a							
6 Mbps	_	_	21	-93	_	20	-93
54 Mbps	_	_	21	-77	_	19	-76
302.11n HT20			2.1			10	,,,
MCS0	_	_	21	-91	_	20	-93
MCS0 MCS7			20	-72		19	-73
302.11n HT40			20	12		10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
MCS0	_	_	21	-91	_	19	-90
MCS0 MCS7			20	-72		19	-90
	_	_	20	12	_	10	71
302.11ac VHT20			20	01		10	00
MCS0 MCS9			20	-91		19 18	-93 -69
	_	—	10	-72	_	10	-09
302.11ac VHT40			10	07		10	00
MCS0		_	19	-87	_	19	-90
MCS9	-	-	17	-64	-	16	-64
302.11ac VHT80							
MCS0	—	—	22	-91	—	17	-88
MCS9	_	-	19	-72	_	17	-61
302.11ax HE20							
MCS0	—	—	22	-91	—	—	—
MCS11	—	—	19	-72	—	—	—
302.11ax HE40							
MCS0	_	_	22	-91	_	_	_
MCS11	—	_	19	-72	—	—	—
302.11ax HE80							
MCS0	_	_	20	-89	_	_	_
MCS11	_	_	18	-59	_	—	_

#### Antenna Radiation Patterns FAP-234F



#### FortiAP 23JF

This enterprise class Wi-Fi 6 wall plate AP provides three radios with internal antennas and two spacial streams, as well as features such as OFDMA and is PSE-capable. The AP can provide 24/7 scanning across both bands while still providing access on both the 2.4 GHz and 5 GHz bands. The integrated BLE radio can be used for beacons and locationing applications. Additional features include PoE out for downstream devices and RJ45 passthrough. This access point can be installed in minutes, right over the existing wall plate , or with the optional desk mount, makes a perfect remote / work from home AP.



802.11ax | Tri-Radio 5 GHz + 2.4 GHz + scanning | 3 Antennas

2×2 MU-MIMO | Up to 574 Mbps + 1200 Mbps + scanning



FAP-23JF

#### **Data Sheet**

# **Specifications**

HardwareHardware TypeIndoor walljack/desktop APNumber of Radios3 + 1 BLENumber of Antennas3 dual band internal Wi-Fi + 1 single band 2.4 GHz BLE/ZigBeeAntenna Type and Peak GainPCB Santenna Dual band: 4.0 dBi in 2.4 GHz band BLE antenna: 3.5 dBi in 2.4 GHz bandFrequency Bands (GHz)*2.400-2.4835, 5150-5.250, 5.250-5.350, 5.470-5.725, 5.725-5.850Radio 1 CapabilitiesFrequency band: 2.4 GHz Channel width: 20/40/Mtz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 2 CapabilitiesFrequency band: 5.0 GHz Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency band: 5.0 GHz Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency band: 2.4 GHz and 5.0 GHz Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 1×1 Frequency ScanningMaximum Data Rate Radio 3: Frequency bands: 2.4 GHz and 5.0 GHz MIMO Chains: 1×1 Frequency Scanning onlyBluetooth Low Energy Radio Bluetooth scanning and IBeacon advertisement @ 10 dBm max TX powerMDI/MDIXSupportedSupportedSimultaneous SSIDsUp to 8 per client serving radio (7 if background scanning is enabled)EAP Type(s)EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FASTVser/Device AuthenticationWPA", WPA", WA2", and WPA3" with 802.1x or preshared key		FortiAP 23JF		
Number of Radios3 + 1 BLENumber of Antennas3 dual band internal Wi-Fi + 1 single band 2.4 GHz BLE/ZigBeeAntenna Type and Peak GainPCB antenna Dual band: 4.0 dBi in 2.4 GHz band and 4.0 dBi in 5 GHz band BLE antenna: 3.5 dBi in 2.4 GHz band and 4.0 dBi in 5 GHz bandFrequency Bands (GHz)*2.400-2.4835, 5150-5.250, 5.250-5.350, 5.470-5.725, 5.725-5.850Radio 1 CapabilitiesFrequency band: 2.4 GHz Channel width: 20/40 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 2 CapabilitiesFrequency band: 5.0 GHz Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 1×1 Frequency ScanningMaximum Data RateRadio 1: up to 574 Mbps Radio 2: up to 1200 Mbps Radio 3: Frequency Scanning onlyBluetooth Low Energy RadioBluetooth scanning and iBeacon advertisement @ 10 dBm max TX powerInterfaces4 × 10/100/1000 Base-T RJ45 Ports (1× 802.3at POE(PD), 1× 802.3af POE (PSE), 2x Non-POE Ports) 3 RJ-45 Ports (1xPas-through in, 1x Pass-through out, 1x RS-232 Serial Port)MDI/MDIXSupportedSupportedSupportedSimultaneous SSIDsUp to 8 per client serving radio (7 if background scanning is enabled)EAP Type(s)EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FASTUser/Device AuthenticationWPA", WPA2", and WPA3" with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowilst Radio 3: N/AKesnigton LockYes	Hardware			
Number of Antennas       3 dual band internal Wi-Fi + 1 single band 2.4 GHz         BLE/ZigBee       PCB antenna         Dual band: 4.0 dBi in 2.4 GHz         band and 4.0 dBi in 5 GHz band         BLE antenna: 3.5 dBi in 2.4 GHz         band and 4.0 dBi in 5 GHz band         BLE antenna: 3.5 dBi in 2.4 GHz         channel width: 20/40 MHz         Modulation: BPSK, QPSK, 64/256/1024 QAM         MiMO Chains: 2×2 Service         Radio 2 Capabilities       Frequency band: 5.0 GHz         Channel width: 20/40/80 MHz         Modulation: BPSK, QPSK, 64/256/1024 QAM         MIMO Chains: 2×2 Service         Radio 3 Capabilities       Frequency bands: 2.4 GHz and 5.0 GHz         Channel width: 20/40/80 MHz         Modulation: BPSK, QPSK, 64/256/1024 QAM         MIMO Chains: 1×1 Frequency Scanning         Maximum Data Rate       Radio 1: up to 574 Mbps         Radio 3: Prequency scanning only         Bluetooth Low Energy Radio       Bluetooth scanning and IBeacon advertisement @ 10 dBm max TX power         Interfaces       4× 10/100/1000 Base-T RJ45 Ports (1× 802.3at PoE(PD), 1× 802.3af PoE(PD), 1×	Hardware Type	Indoor walljack/desktop AP		
BLE/ZigBeeAntenna Type and Peak GainPCB antenna Dual band: 4.0 dBi in 2.4 GHz band and 4.0 dBi in 2.4 GHz channel witch: 20/40 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 1 CapabilitiesFrequency band: 2.4 GHz Channel witch: 20/40 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 2 CapabilitiesFrequency band: 2.0 GHz Channel witch: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency band: 2.4 GHz and 5.0 GHz MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency bands: 2.4 GHz and 5.0 GHz MIMO Chains: 1×1 Frequency ScanningMaximum Data RateRadio 1: up to 574 Mbps Radio 2: up to 1200 Mbps Radio 2: up to 1200 Mbps Radio 2: up to 1200 Mbps Radio 3: Frequency scanning onlyBluetooth Low Energy RadioBluetooth scanning and iBeacon advertisement @ 10 dBm max TX powerInterfaces4× 10/100/1000 Base-T RJ45 Ports (1× 802.3at PoE(PD), 1× 802.3af PoE (PSE), 2x Non-PoE Ports) 3 RJ-45 Ports (1xPass-through out, t x RS-232 Serial Port)MDI/MDIXSupportedSimultaneous SSIDsUp to 8 per client serving radio (7 if background scanning is enabled)EAP Type(s)EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FASTUser/Device AuthenticationWPA?", wH2?", and WPA3" with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlistMaximum Tx Power (Conducted)Radio 1: 2.4 GHz: 25 dBm / 158 mW (2 chains combined)* Radio 3: N/A	Number of Radios	3 + 1 BLE		
Dual band: 4.0 dBi in 2.4 GHz band and 4.0 dBi in 5 GHz band BLE antenna: 3.5 dBi in 2.4 GHz bandFrequency Bands (GHz)*2.400-2.4835, 5.150-5.250, 5.250-5.350, 5.470-5.725, 5.725-5.850Radio 1 CapabilitiesFrequency band: 2.4 GHz Channel width: 20/40 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 2 CapabilitiesFrequency band: 5.0 GHz Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency band: 5.0 GHz Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency bands: 2.4 GHz and 5.0 GHz MIMO Chains: 1×1 Frequency ScanningMaximum Data Rate Radio 2: up to 1200 Mbps Radio 2: up to 1200 Mbps Radio 3: Frequency scanning onlyBluetooth Low Energy Radio Bluetooth scanning and iBeacon advertisement @ 10 dBm max TX powerInterfaces4× 10/100/1000 Base-T RJ45 Ports (1× 802.3at POE(PD), 1× 802.3af POE (PSE), 2× Non-POE Ports) 3 RJ-45 Ports (1×Pass-through nut, 1x RS-232 Serial Port)MDI/MDIXSupportedSimultaneous SSIDsUp to 8 per client serving radio (7 if background scanning is enabled)EAP Type(s)EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FASTUser/Device Authentication (Conducted)WPA", WPA2", and WPA3" with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlistMaximum Tx Power (Conducted)Radio 1: 2.4 GHz: 25 dBm / 158 mW (2 chains combined)* Radio 3: N/AKensington LockYes	Number of Antennas	0		
5.725-5.850Radio 1 CapabilitiesFrequency band: 2.4 GHz Channel width: 20/40 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 2 CapabilitiesFrequency band: 5.0 GHz Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency band: 2.4 GHz and 5.0 GHz MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency bands: 2.4 GHz and 5.0 GHz MIMO Chains: 1×1 Frequency ScanningMaximum Data RateRadio 1: up to 574 Mbps Radio 2: up to 1200 Mbps Radio 3: Frequency scanning onlyBluetooth Low Energy RadioBluetooth scanning and iBeacon advertisement @ 10 dBm max TX powerInterfaces4× 10/100/1000 Base-T RJ45 Ports (1× 802.3at PoE(PD), 1× 802.3af PoE (PSE), 2x Non-PoE Ports) 3 RJ-45 Ports (1xPass-through in, 1x Pass-through out, 1x RS-232 Serial Port)MDI/MDIXSupportedSupportedSupportedSimultaneous SSIDsUp to 8 per client serving radio (7 if background scanning is enabled)EAP Type(s)EAP-TLS, EAP-TLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FASTUser/Device AuthenticationWPA", WPA2", and WPA3" with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlistMaximum Tx Power (Conducted)Radio 1: 2.4 GHz: 25 dBm / 158 mW (2 chains combined)* Radio 3: N/AKensington LockYes	Antenna Type and Peak Gain	Dual band: 4.0 dBi in 2.4 GHz band and 4.0 dBi in 5 GHz band		
Channel width: 20/40 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 2 CapabilitiesFrequency band: 5.0 GHz Channel width: 20/40/80 MHz 	Frequency Bands (GHz)*			
Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM MIMO Chains: 2×2 ServiceRadio 3 CapabilitiesFrequency bands: 2.4 GHz and 5.0 GHz MIMO Chains: 1×1 Frequency ScanningMaximum Data RateRadio 1: up to 574 Mbps Radio 2: up to 1200 Mbps Radio 3: Frequency scanning onlyBluetooth Low Energy RadioBluetooth scanning and iBeacon advertisement @ 10 dBm max TX powerInterfaces4× 10/100/1000 Base-T RJ45 Ports (1× 802.3at PoE(PD), 1× 802.3af PoE (PSE), 2x Non-PoE Ports) 3 RJ-45 Ports (1xPass-through in, 1x Pass-through out, 1x RS-232 Serial Port)MDI/MDIXSupportedSupportedSimultaneous SSIDsUp to 8 per client serving radio (7 if background scanning is enabled)EAP Type(s)EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FASTUser/Device AuthenticationWPA™, WPA2™, and WPA3™ with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlistMaximum Tx PowerRadio 1: 2.4 GHz: 25 dBm / 158 mW (2 chains combined)* Radio 3: N/AKensington LockYes	Radio 1 Capabilities	Channel width: 20/40 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM		
MIMO Chains: 1×1 Frequency ScanningMaximum Data RateRadio 1: up to 574 Mbps Radio 2: up to 1200 Mbps Radio 3: Frequency scanning onlyBluetooth Low Energy RadioBluetooth scanning and iBeacon advertisement @ 10 dBm max TX powerInterfaces4× 10/100/1000 Base-T RJ45 Ports (1× 802.3at 	Radio 2 Capabilities	Channel width: 20/40/80 MHz Modulation: BPSK, QPSK, 64/256/1024 QAM		
Radio 2: up to 1200 Mbps Radio 3: Frequency scanning onlyBluetooth Low Energy RadioBluetooth scanning and iBeacon advertisement @ 10 dBm max TX powerInterfaces4× 10/100/1000 Base-T RJ45 Ports (1× 802.3at POE(PD), 1× 802.3af POE (PSE), 2x Non-PoE Ports) 	Radio 3 Capabilities			
dBm max TX power         Interfaces       4× 10/100/1000 Base-T RJ45 Ports (1× 802.3at PoE(PD), 1× 802.3af PoE (PSE), 2x Non-PoE Ports) 3 RJ-45 Ports (1xPass-through in, 1x Pass-through out, 1x RS-232 Serial Port)         MDI/MDIX       Supported       Supported         Simultaneous SSIDs       Up to 8 per client serving radio (7 if background scanning is enabled)         EAP Type(s)       EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST         User/Device Authentication       WPA™, WPA2™, and WPA3™ with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist         Maximum Tx Power (Conducted)       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         Kensington Lock       Yes	Maximum Data Rate	Radio 2: up to 1200 Mbps		
PoE(PD), 1× 802.3af PoE (PSE), 2x Non-PoE Ports) 3 RJ-45 Ports (1xPass-through in, 1x Pass-through out, 1x RS-232 Serial Port)MDI/MDIXSupportedSupportedSimultaneous SSIDsUp to 8 per client serving radio (7 if background scanning is enabled)EAP Type(s)EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP- MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FASTUser/Device AuthenticationWPA™, WPA2™, and WPA3™ with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlistMaximum Tx Power (Conducted)Radio 1: 2.4 GHz: 25 dBm / 158 mW (2 chains combined)* Radio 3: N/AKensington LockYes	Bluetooth Low Energy Radio	•		
1x RS-232 Serial Port)         MDI/MDIX       Supported       Supported         Simultaneous SSIDs       Up to 8 per client serving radio (7 if background scanning is enabled)         EAP Type(s)       EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST         User/Device Authentication       WPA <sup>™</sup> , WPA2 <sup>™</sup> , and WPA3 <sup>™</sup> with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist         Maximum Tx Power (Conducted)       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         Kensington Lock       Yes	Interfaces			
Simultaneous SSIDs       Up to 8 per client serving radio (7 if background scanning is enabled)         EAP Type(s)       EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST         User/Device Authentication       WPA <sup>™</sup> , WPA2 <sup>™</sup> , and WPA3 <sup>™</sup> with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist         Maximum Tx Power (Conducted)       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         Kensington Lock       Yes				
EAP Type(s)       EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST         User/Device Authentication       WPA <sup>™</sup> , WPA2 <sup>™</sup> , and WPA3 <sup>™</sup> with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist         Maximum Tx Power (Conducted)       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         Kensington Lock       Yes	MDI/MDIX	Supported Supported		
MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST         User/Device Authentication       WPA™, WPA2™, and WPA3™ with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist         Maximum Tx Power (Conducted)       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         Kensington Lock       Yes	Simultaneous SSIDs			
key, WEP, Web Captive Portal, MAC blocklist & allowlist       Maximum Tx Power (Conducted)     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       Kensington Lock     Yes	EAP Type(s)	MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA,		
(Conducted)     combined)* Radio 2: 5 GHz: 21 dBm / 158 mW (2 chains combined)* Radio 3: N/A       Kensington Lock     Yes	User/Device Authentication			
-		combined)* Radio 2: 5 GHz: 21 dBm / 158 mW (2 chains combined)*		
IEEE Standards 802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h,	Kensington Lock	Yes		
802.11i,802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w, 802.11ac, 802.11ax (Wi-Fi 6), 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az	IEEE Standards	802.11i,802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w, 802.11ac, 802.11ax (Wi-Fi 6), 802.1Q,		
SSID Types Supported Local-Bridge, Tunnel, and Mesh				
Per Radio Client Capacity Up to 512 clients per radio (Radio1 and Radio2)	Per Radio Client Capacity	Up to 512 clients per radio (Radio1 and Radio2)		
Cellular Co-existence Yes	Cellular Co-existence	Yes		
LED Off Mode Yes	LED Off Mode	Yes		

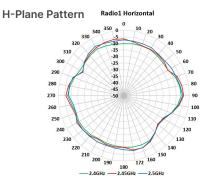
	FortiAP 23JF
Advanced 802.11 Features	
OFDMA	Yes (UL and DL)
Spatial Reuse (BSS Coloring)	Yes
UL MU-MIMO	Yes
DL-MU-MIMO	Yes
Enhanced Target Wake Time (TWT)	Yes
ZeroWait DFS	No
Wireless Monitoring Capabilities	
Rogue Scan radio modes	Background, Dedicated
WIPS / WIDS radio modes	Background, Dedicated (recommended)
Packet Sniffer Mode	Yes
Spectrum Analyzer	Yes
Dimensions	
Length x Width x Height	6.6 × 4.6 × 1.1 inches (168 × 117 × 28 mm)
Weight	0.99 lbs (0.45 kg)
Package (shipping) Weight	1.54 lbs (0.7 kg)
Accessories	
Mounting Options	Wall Plate, Optional Desk Mount FAP-MNT-WJ-20
Included Accessories	Standard Mount kit for Ceiling, T-Rail, and Wall
Power Supply	802.3at PoE: GPI-130 Optional DC power adaptor SP-FAP23J-PA-10
Environment	
PSE functionality	Yes
Power Consumption (Maximum)	17.5W without PSE out and 31W with PSE out
PoE Mode	802.3at PoE default( optional DC adaptor)
	Powered via DC power supply - Full System functionality + USB + PSE (8023af 15.4W)
	Powered by 802.3af - Only Radio functionality is operational (No USB/PSE supported)
	Powered by 802.3at - Full System functionality+ PSE(7w)
Humidity	10%-90% non condensing
Operating / Storage Temperature	32°-122°F (0°-50°C) / -22°-158°F (-30°-70°C)
Directives	Low Voltage Directive • RoHS
UL2043 Plenum Material	No
Mean Time Between Failures	> 10 Years
IP Rating	N/A
Surge Protection Built In	No
Hit-less PoE Failover	N/A
Certifications	
WiFi Alliance Certified	Yes (includes Passpoint)
DFS	FCC, IC, CE, Japan, Brazil, Taiwan and Korea
Warranty	
Limited Lifetime Warranty	Yes

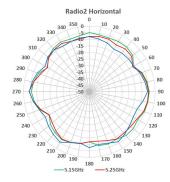
\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

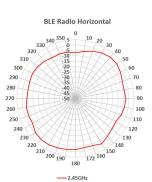
			FortiA	NP 23JF			
	Radio 1		Radio 2		Radio 3 Scanning		
Data wata	2.4 GHz Tx Power	De Constituite (dDas)	5 GHz Tx Power per		2.4 GHz Tx Power	5 GHz Tx Power per	Du Coucitionite (JDue)
Data rate 802.11b	per chain (dBm)	Rx Sensitivity (dBm)	Chain (dBm)	Rx Sensitivity (dBm)	per chain (dBm)	Chain (dBm)	Rx Sensitivity (dBm)
1 Mbps	22	-98		_	20		-92
11 Mbps	20	-90			18		-92
	20	30		_	10		31
802.11g							
6 Mbps	22	-93	_	_	20	_	-92
54 Mbps	20	-77	_	—	18	-	-//
802.11n HT20							
MCS0	22	-94	_	_	20	_	-92
MCS7	20	-76	-	-	17	_	-74
802.11n HT40							
MCS0	22	-92	_	—	19	—	-90
MCS7	20	-73	—	—	17	—	-72
802.11ax HE20							
MCS0	22	-90	—	—	—	—	—
MCS11	20	-71	—	—	—	—	—
802.11ax HE40							
MCS0	20	-90	_	_	_	_	_
MCS11	18	-70	_	_	_	—	_
802.11a							
6 Mbps	_	_	18	-93	_	20	-91
54 Mbps	_	_	18	-77	_	19	-75
802.11n HT20							
MCS0	_	_	19	-94	_	20	-90
MCS7		_	19	-75	_	19	-72
802.11n HT40							
MCS0	_	_	21	-91	_	19	-90
MCS7	_	_	20	-72	_	18	-71
802.11ac VHT20							
MCS0	_	_	21	-91	_	19	-93
MCS9	_	_	20	-72	_	18	-69
802.11ac VHT40							
MCS0	_	_	20	-91	_	19	-90
MCS9	_		18	-72	_	16	-64
802.11ac VHT80							
MCS0	_	_	19	-87	_	17	-88
MCS9			19	-64		17	-61
	_	_	17	04		17	10.
802.11ax HE20			20	01			
MCS0	—	—	20	-91	—	_	—
MCS11	—	—	18	-72	—	_	_
802.11ax HE40							
MCS0	—		19	-91	—	—	—
MCS11	—	—	17	-62	—	—	—
802.11ax HE80							
MCS0	—	_	18	-89	—	_	_
MCS11	—	—	16	-60	—	—	—

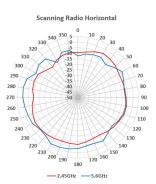
#### Antenna Radiation Patterns FAP-23JF

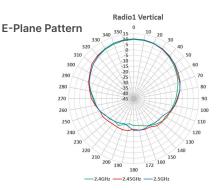
Z ELOOR (H-Plane)

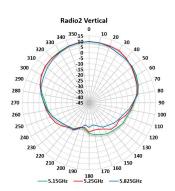


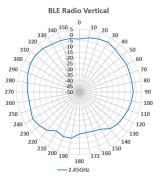




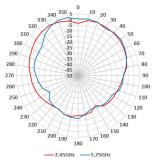








Scanning Radio Vertical



#### FortiAP 221E and 223E

The FortiAP 221E and 223E are medium-density 802.11ac Wave 2 access points and provides two radio and two spacial streams. These enterprise-class access points are ideal for medium-density environments such as an office or classroom with performance throughput of up to 867 Mbps.



2×2 MU-MIMO | Up to 400 + 867 Mbps



FAP-221E



FAP-223E

# **Specifications**

	FortiAP 221E	FortiAP 223E	
Hardware			
Hardware Type	Indoor AP	Indoor AP	
Number of Radios	2 + 1 BLE	2 + 1 BLE	
Number of Antennas	4 Internal + 1 Internal BLE	4 External + 1 Internal BLE	
Antenna Type and Peak Gain	Patch: 4 dBi for 2.4 GHz, 5 dBi for 5 GHz	Dipole: 4 dBi for 2.4 GHz, 5 dBi for 5 GHz	
Frequency Bands (GHz)*	2.400–2.4835, 5.150–5.250, 5. 5.725–5.850	250–5.350, 5.470–5.725,	
Radio 1 Capabilities	2.4 GHz b/g/n (2×2:2 stream) 20/40 MHz (256 QAM)	2.4 GHz b/g/n (2×2:2 stream) 20/40 MHz (256 QAM)	
Radio 2 Capabilities	5 GHz a/n/ac (2×2:2 stream) 20/40/80 MHz (256 QAM)	5 GHz a/n/ac (2×2:2 stream) 20/40/80 MHz (256 QAM)	
Maximum Data Rate	Radio 1: up to 400 Mbps Radio 2: up to 867 Mbps	Radio 1: up to 400 Mbps Radio 2: up to 867 Mbps	
Bluetooth Low Energy Radio	Bluetooth scanning and iBeaco max TX power	on advertisement @ 4 dBm	
Interfaces	1× 10/100/1000 Base-T RJ45	1× 10/100/1000 Base-T RJ45	
MDI/MDIX	Supported	Supported	
Power over Ethernet (PoE)	IEEE 802.3af	IEEE 802.3af	
Simultaneous SSIDs	Up to 8 per client serving radio (7 if background scanning enabled)		
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAP PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST		
User/Device Authentication	WPA™, WPA2™, and WPA3™ with 802.1x or preshared key, WEP, Web Captive Portal, MAC blocklist & allowlist		
Maximum Tx Power	2.4 GHz: 23 dBm / 200 mW (2 chains combined)* 5 GHz: 24 dBm / 251 mW (2 chains combined)*		
Kensington Lock	Yes Yes		
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.1 802.11j, 802.11k, 802.11n, 802.11r, 802.11u, 802.11v, 802.11w 802.11ac, 802.1Q, 802.1X, 802.3af, 802.3az		
SSID Types Supported	Local-Bridge, Tunnel, Mesh	Local-Bridge, Tunnel, Mesh	
Per Radio Client Capacity	Up to 512	Up to 512	
Cellular Co-existence	Yes	Yes	
Reset Button	Yes	Yes	
LED Off Mode	Yes	Yes	
Advanced 802.11 Features			
802.11ac Wave 2 MU- MIMO	Yes Yes		
Transmit Beam Forming (TxBF)	Yes Yes		
Low-Density Parity Check (LDPC) Encoding	<b>k</b> Yes Yes		
Maximum Likelihood Demodulation (MLD)	Yes Yes		
Maximum Ratio Combining (MRC)	Yes Yes		
A-MPDU and A-MSDU Packet Aggregation	Yes Yes		
MIMO Power Save	Yes	Yes	
Short Guard Interval	interval Yes Yes		

	FortiAP 221E	FortiAP 223E	
Wireless Monitoring Capab	ilities		
Rogue Scan Radio Modes	Background, Dedicated	Background, Dedicated	
WIPS / WIDS Radio Modes	Background, Dedicated	Background, Dedicated	
Packet Sniffer Mode	Yes	Yes	
Spectrum Analyzer	Yes	Yes	
Dimensions			
Length x Width x Height	6.3 × 6.3 × 1.85 inches (160 ×	160 × 47 mm)	
Weight	1.1 lbs (0.5 kg)	1.1 lbs (0.5 kg)	
Package (shipping) Weight	4.95 lbs (2.2 kg)	5.3 lbs (2.4 kg)	
Accessories			
Mounting Options	Ceiling, T-Rail, and Wall	Ceiling, T-Rail, and Wall	
Included Accessories	Mount kits for Ceiling, T-Rail, and Wall	Mount kits for Ceiling, T-Rail, and Wall, 4 dipole antennas	
Power Supply	SP-FAP200-PA-XX, GPI-115, or GPI-130		
Environment			
Power Consumption (Max.)	12.36 W	12.36 W	
Humidity	5%-90% non-condensing	5%–90% non-condensing	
Operating / Storage Temperature	-4°-113°F (-20°-45°C)/-40°-158°F (-40°-70°C)		
Directives	Low Voltage Directive • RoHS	Low Voltage Directive • RoHS	
UL2043 Plenum Material	No	No	
Mean Time Between Failures	>30 Years	>30 Years	
IP Rating	—	_	
Surge Protection Built In	_	_	
Hit-less PoE Failover	No	No	
Certifications			
Wi-Fi Alliance Certified	Yes (includes Passpoint)	Yes (includes Passpoint)	
DFS	FCC, IC, CE, Japan, Taiwan, Korea	FCC, IC, CE, Japan, Taiwan. Korea	
Warranty			
Limited Lifetime Warranty	Yes	Yes	

\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

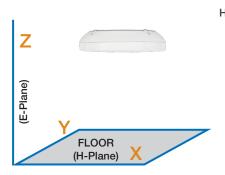
FortiAP 221E / 223E				
RADIO 1 RADIO 2				DIO 2
Data rate	2.4 GHz Tx Power (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power (dBm)	Rx Sensitivity (dBm)
802.11 a/g				
6 Mbps	20	-93	21	-91
9 Mbps	20	-91	21	-90
12 Mbps	20	-90	21	-89
18 Mbps	19	-88	21	-86
24 Mbps	19	-85	21	-83
36 Mbps	18	-82	21	-80
48 Mbps	18	-77	19	-76
54 Mbps	17	-75	19	-74
802.11n HT20				
MCS 0/8/16	20	-91	21	-91
MCS 1/9/17	19	-89	21	-88
MCS 2/10/18	19	-86	21	-86
MCS 3/11/19	18	-83	21	-83
MCS 4/12/20	18	-80	21	-79
MCS 5/13/21	17	-75	21	-75
MCS 6/14/22	17	-73	19	-74
MCS 7/15/23	16	-71	19	-72
802.11n HT40				
MCS 0/8/16	19	-89	20	-88
MCS 1/9/17	19	-86	20	-85
MCS 2/10/18	18	-84	20	-82
MCS 3/11/19	18	-81	20	-79
MCS 4/12/20	17	-77	20	-76
MCS 5/13/21	17	-73	20	-72
MCS 6/14/22	16	-71	19	-70
MCS 7/15/23	16	-69	19	-69
802.11ac VHT20				
MCS 0	19	-91	21	-91
MCS 1	19	-89	21	-88
MCS 2	19	-86	21	-86
MCS 3	18	-83	21	-83
MCS 4	18	-80	21	-79
MCS 5	18	-76	21	-75
MCS 6	18	-73	19	-74
MCS 7	18	-71	19	-72
MCS 8	18	-68	18	-69

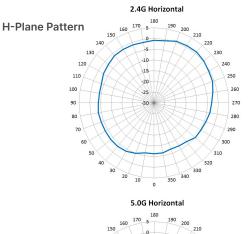
		FortiAP 221E / 223E			
			RADIO 2		
Data rate	2.4 GHz Tx Power (dBm)	Rx Sensitivity (dBm)	5 GHz Tx Power (dBm)	Rx Sensitivity (dBm)	
802.11ac VHT40					
MCS 0	19	-89	20	-88	
MCS 1	19	-86	20	-85	
MCS 2	19	-84	20	-82	
MCS 3	18	-81	20	-79	
MCS 4	17	-77	20	-76	
MCS 5	17	-73	20	-72	
MCS 6	17	-71	19	-70	
MCS 7	17	-69	19	-69	
MCS 8	17	-68	18	-65	
MCS 9	16	-66	17	-64	
802.11ac VHT80					
MCS 0	_	_	19	-85	
MCS 1	_	_	19	-83	
MCS 2	_	_	19	-80	
MCS 3	_	_	19	-77	
MCS 4	_	_	19	-74	
MCS 5	_	_	19	-71	
MCS 6	_	_	18	-69	
802.11acVHT80					
MCS 7	_	_	18	-68	
MCS 8	_	_	17	-63	
MCS 9	_	_	17	-61	

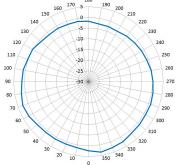
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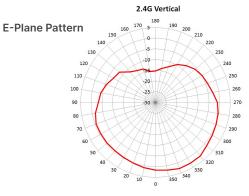
### **Antenna Radiation Patterns**

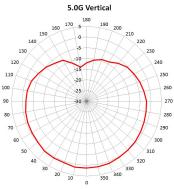
FAP-221E



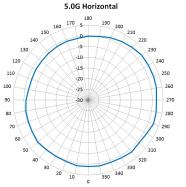


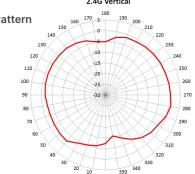




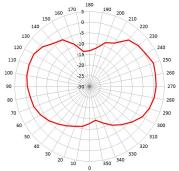


FAP-223E 2.4G Horizontal 2.4G Vertical **H-Plane Pattern** 170 5 **E-Plane Pattern** Ζ -5 -10 -10 -15 -20 -20 -25 -25 (E-Plane) FLOOR (H-Plane) Х 5.0G Vertical 5.0G Horizontal









# **Ordering Information**

Product	SKU	Description
FortiAP 431G	FAP-431G	Indoor Wireless AP - Tri radio (Wi-Fi-6E IEEE 802.11ax Tri-band 2.4/5/6GHz and dual 5G operation 4+4+4 4 streams 3 radios), internal antennas, 2× 5G Base-T RJ45, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Ceiling/wall mount kit included. For power order: 802.3bt PoE injector or AC adapter SP-FAP400-PA. SP-FAP-250-PA
	FC-10-PG431-247-02-DD	FortiCare Premium Support
	FC-10-PG431-284-02-DD	FortiCare Elite Support
FortiAP 433G	FAP-433G	Indoor Wireless AP - Tri radio (Wi-Fi-6E IEEE 802.11ax Tri-band 2.4/5/6GHz and dual 5G operation 4+4+4 4 streams 3 radios), external antennas, 2× 5G Base-T RJ45, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Ceiling/wall mount kit included. For power order: 802.3bt PoE injector or AC adapter SP-FAP400-PA. SP-FAP-250-PA. Region Code A.
	FC-10-PG433-247-02-DD	FortiCare Premium Support
	FC-10-PG433-284-02-DD	FortiCare Elite Support
FortiAP 231G	FAP-231G	Indoor Wireless AP - Tri radio (Wi-Fi-6E IEEE 802.11ax Tri-band 2.4/5/6GHz and dual 5G operation 2+2+2 2 streams 3 radios), internal antennas, 1×10/100/1000 RJ45 , 1× 100/1000/2500 Base-T RJ45, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Ceiling/wall moun kit included. For power order: 802.3at PoE injector GPI-130 or AC adapter SP-FAP200-PA.
	FC-10-PG231-247-02-DD	FortiCare Premium Support
	FC-10-PG231-284-02-DD	FortiCare Elite Support
FortiAP 233G	FAP-233G	Indoor Wireless AP - Tri radio (Wi-Fi-6E IEEE 802.11ax Tri-band 2.4/5/6GHz and dual 5G operation 2+2+2 2 streams 3 radios), external antennas, 1×10/100/1000 RJ45 , 1× 100/1000/2500 Base-T RJ45, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Ceiling/wall moun kit included. For power order: 802.3at PoE injector GPI-130 or AC adapter SP-FAP200-PA.
	FC-10-PG233-247-02-DD	FortiCare Premium Support
	FC-10-PG233-284-02-DD	FortiCare Elite Support
FortiAP 831F	FAP-831F	Indoor Wireless AP - Tri radio (1× 802.11 a/b/g/n/ac/ax 4×4 MIMO, 1× 802.11 a/b/g/n/ac/ax 8×8 MIMO and 1× 802.11 a/b/g/n/ac Wave 2 1×1 MU-MIMO), internal antennas, 1× 100/1000/5000 Base-T RJ45, 1× 10/100/1000 Base-T RJ45, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Ceiling/wall mount kit included. For power order 802.3at PoE injector GPI-130 or AC adapter SP-FAP400-PA.
	FC-10-F831F-247-02-DD	FortiCare Premium Support
	FC-10-P831F-284-02-DD	FortiCare Elite Support
FortiAP 431F	FAP-431F	Indoor Wireless AP - Tri radio (2× 802.11 a/b/g/n/ac/ax, 4×4 MIMO and 1× 802.11 a/b/g/n/ac Wave 2, 1×1 MU-MIMO), internal antennas, 1× 100/1000/2500 Base-T RJ45, 1× 10/100/1000 Base-T RJ45, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Ceiling/wall mount k included. For power order 802.3at PoE injector GPI-130 or AC adapter SP-FAP400-PA.
	FC-10-F431F-247-02-DD	FortiCare Premium Support
	FC-10-F431F-284-02-DD	FortiCare Elite Support
FortiAP 433F	FAP-433F	Indoor Wireless AP - Tri radio (2× 802.11 a/b/g/n/ac/ax, 4×4 MIMO and 1× 802.11 a/b/g/n/ac Wave 2, 1×1 MU-MIMO), external antennas included, 1× 100/1000/2500 Base-T RJ45, 1× 10/100/1000 Base-T RJ45, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Ceiling/wa mount kit included. For power order 802.3at PoE injector GPI-130 or AC adapter SP-FAP400-PA.
	FC-10-F433F-247-02-DD	FortiCare Premium Support
	FC-10-F433F-284-02-DD	FortiCare Elite Support
FortiAP 432F	FAP-432F	Ruggedized indoor/outdoor Wireless FortiAP - Tri radio (1× 802.11b/g/n/ax 4×4 radio, 1 × 802.11a/n/ac/ax 4×4 Radio and 1× 802.11 a/b/g/n/ac Wave 2, 2×2), 1× 100/1000/2500 Base-T RJ45, 1× 10/100/1000 Base-T RJ45, BT/BLE + Zigbee, 1x Type A USB, 1x RS-232 RJ45 Serial Port. External Dual Band N-Type Omnidirectional antennas, Integrated mounting bracket for Antenna included + Wall/Pole Mount mounting kit. Ships with passive PoE injector.
	FC-10-PF432-247-02-DD	FortiCare Premium Support
	FC-10-PF432-284-02-DD	FortiCare Elite Support
FortiAP 432FR	FAP-432FR	UL Class 1, Division 2 .Outdoor Wireless FortiAP - Tri radio (1× 802.11b/g/n/ax 4×4 radio, 1 × 802.11a/n/ac/ax 4×4 Radio and 1× 802.11 a/b/g/n/ac Wave 2, 2×2), 1× 10/100/1000/2500 Base-T RJ45, 1× 10/100/1000 Base-T RJ45, BT/BLE + Zigbee, 1x Type A USB, 1x RS-232 RJ45 Serial Port. External Dual Band N-Type Omni Directional antennas, Integrated mounting bracket for Antenna included + Wall/Pole Mount mounting kit. For power order: 802.3at PoE injector GPI-130 or AC adapter SP-FAP400-PA.
	FC-10-FR432-247-02-DD	FortiCare Premium Support
	FC-10-FR432-284-02-DD	FortiCare Elite Support
FortiAP 231F	FAP-231F	Indoor Wireless AP - Tri radio (802.11 b/g/n/ax 2×2 MU-MIMO, 802.11 a/n/ac/ax 2×2 MU-MIMO and 1× 802.11 a/b/g/n/ac Wave 2, 1×1 ), internal antennas, 2× 10/100/1000 RJ45 port, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Ceiling/wall mount kit included. For power order 802.3at PoE injector GPI-130 or AC adapter SP-FAP250-PA-10.
	FC-10-PF231-247-02-DD	FortiCare Premium Support
	FC-10-PF231-284-02-DD	FortiCare Elite Support
FortiAP 234F	FAP-234F	Outdoor Wireless AP - Tri radio (802.11 b/g/n/ax 2×2 MU-MIMO, 802.11 a/n/ac/ax 2×2 MU-MIMO and 1× 802.11 a/b/g/n/ac Wave 2, 1×1 ) internal antennas, 2× 10/100/1000 RJ45 port, BT/BLE, 1x Type A USB, 1x RS-232 RJ45 Serial Port. Pole/wall mount kit and PoE injector included. Region Code A.
	FC-10-P234F-247-02-DD	FortiCare Premium Support
	FC-10-P234F-284-02-DD	FortiCare Elite Support

### **Ordering Information**

Product	SKU	Description
FortiAP 23JF	FAP-23JF	Wall Plate AP - Tri radio (802.11 b/g/n/ax 2×2 MU-MIMO, 802.11 a/n/ac/ax 2×2 MU-MIMO and 1× 802.11 a/b/g/n/ac Wave 2, 1×1), internal antennas, 4 × 10/100/1000 RJ45 port (1× 802.3at PoE PD, 1× 802.3af PoE PSE, 2x Non-PoE Ports), 2 RJ-45 Ports (1xPass-through in, 1x Pass-through out), BT / BLE, 1x RS-232 RJ45 Serial Port. Wall plate mounting kit included. For power order 802.3at PoE injector GPI-130. Optional Accessory AC power adapter SP-FAP23J-PAX-10; Desktop stand FAP-MNT-WJ-20.
	FC-10-P23JF-247-02-DD	FortiCare Premium Support
	FC-10-P23JF-284-02-DD	FortiCare Elite Support
FortiAP 221E	FAP-221E	Indoor Wireless AP - Dual radio (802.11 b/g/n and 802.11 a/n/ac Wave 2, 2×2 MU-MIMO), internal antennas, 1 × 10/100/1000 RJ45 port, BT / BLE. Ceiling/wall mount kit included. For power order 802.3af PoE injector GPI-115 or AC adapter SP-FAP200-PA.
	FC-10-PE221-247-02-DD	FortiCare Premium Support
	FC-10-PE221-284-02-DD	FortiCare Elite Support
FortiAP 223E	FAP-223E	Indoor Wireless AP - Dual radio (802.11 b/g/n and 802.11 a/n/ac Wave 2, 2×2 MU-MIMO), external antennas included, 1 × 10/100/1000 RJ45 port, BT / BLE. Ceiling/wall mount kit included. For power order 802.3af PoE injector GPI-115 or AC adapter SP-FAP200-PA.
	FC-10-PE223-247-02-DD	FortiCare Premium Support
	FC-10-PE223-284-02-DD	FortiCare Elite Support
Gigabit PoE Injector	GPI-115	1-port Gigabit PoE power injector, 802.3af 15.4 W, 10/100/1000.
	GPI-130	1-port Gigabit PoE power injector, 802.3at up to 30 W.
	GPI-145	1-port Multi-Gigabit PoE power injector, 802.3bt up to 60W
Power Adapter	SP-FAP400-PA	AC power adapter 12v, 3.0A - 36W for FAP-231G, FAP-233G, FAP-431G, FAP-433G, FAP-831F, FAP-431F, FAP-433F, and FAP-C24JE.
	SP-FAP200-PA	AC power adapter 12v, 2.5A - 30W for FAP-221E, and FAP-223E.
	SP-FAP23J-PA-10	AC power adapter 48v, 1.04A - 50W without power cord for FAP-23JF.
	SP-FAP250-PA-10	AC power adapter 12v, 4.0A - 48W with Extended operating temp 0°C - 50°C with US and EU plugs for FAP-U231F, FAP-231F, FAP-431G and FAP-433G.
Desktop Stand	FAP-MNT-WJ-20	Desktop stand for FAP/FAP-C/FAP-U wall jack style APs. Converts wall mounting hardware included with unit to desktop mounting - 20 pack.

Notes.

1.Additional external antenna options available for some models. See antenna datasheet for details.

2.A country suffix code (-A, -B, -C, -D, -E, -F, -I, -J, -K, -N, -P, -S, -T, -U, -V, -W, or -Y) applies to all AP models based upon country of deployment.

Work with your local supplier for the correct model in your regulatory domain.

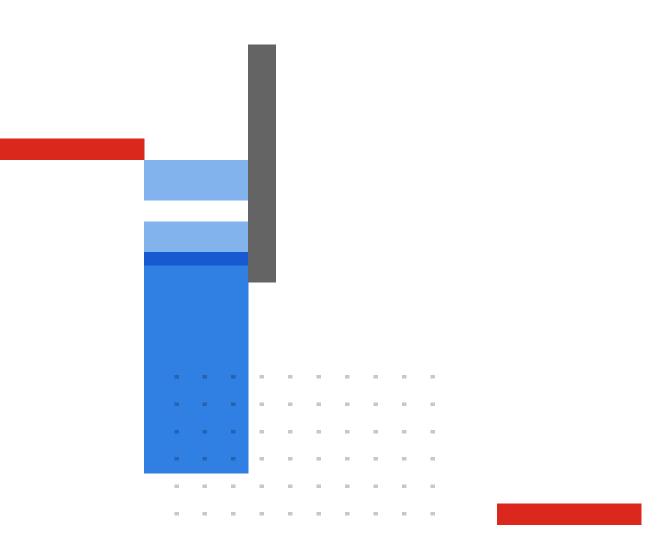
3.Access Points mentioned in this datasheet are covered by a Limited Lifetime Hardware Warranty.

Terms and conditions can be found in the EULA at https://www.fortinet.com/content/dam/fortinet/assets/legal/EULA.pdf

For more information on Support levels, please reference FortiCare Services here.

#### **Fortinet CSR Policy**

Fortinet is committed to driving progress and sustainability for all through cybersecurity, with respect for human rights and ethical business practices, making possible a digital world you can always trust. You represent and warrant to Fortinet that you will not use Fortinet's products and services to engage in, or support in any way, violations or abuses of human rights, including those involving illegal censorship, surveillance, detention, or excessive use of force. Users of Fortinet products are required to comply with the Fortinet EULA and report any suspected violations of the EULA via the procedures outlined in the Fortinet Whistleblower Policy.



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October 23, 2023