

FortiAP™ UTP Access Point Series

FAP-U432F-A

4x4 Indoor/Outdoor tri-radio dual 5G 11ax APs



Highlights

Intelligently supports integrated security controllers and cloud management options

Establishes a new benchmark in flexibility, performance, and security

Built-in foundation for zero-trust 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

Wi-Fi 6 technology with data rates up to 4.8 Gbps and OFDMA improves client throughput and overall network efficiency

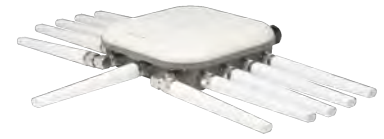
Provides unparalleled cybersecurity protection with Fortinet's Security Fabric integration and FortiGuard services

Unified Threat Protection Capable Access Points

The FortiAP-U family offers a wide range of models with the additional power of FortiGuard services and the flexibility of dual 5 GHz support for Wi-Fi 6 APs. Perfect for everything from a large campus to hundreds of branch locations, the FortiAP-U family has a variety of form factors and performance levels. FortiAP-U access points are managed centrally by the integrated WLAN controller of any FortiGate® security appliance or through the FortiLAN Cloud provisioning and management portal. Protect your LAN Edge from the campus to the branch with these high capacity capable APs.

FortiAP U432F

This enterprise class 802.11ax ruggedized indoor/outdoor AP provides three radios. 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 be configured for dual 5 GHz band access while still providing coverage for devices on the 2.4 GHz band, or can be configured to offer dedicated scanning. The integrated BLE radio can be used for beacons and locating applications.



802.11ax | Tri-Radio 5 GHz + 5 GHz + 2.4 GHz or 5 GHz + 2.4 GHz + scanning | 10 Antennas

 4x4 MIMO | Up to 4,804 Mbps + 4,804 Mbps + 300 Mbps

Specifications

FortiAP-U432F	
Hardware	
Hardware Type	Outdoor AP
Number of Radios	3 + 1 BLE
Number of External Antennas	11
Antenna Type and Peak Gain	Dual band Dipole Omni Directional Peak Gain 5.5dBi for 2.4GHz and 7dBi for 5.0GHz
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	2.4 GHz a/b/g/n (4x4 4stream) (64 QAM) or 5.0 GHz (high band) a/b/g/n/ac/ax (4x4 4 stream) 20/40/80/160 MHz (64/256/1024 QAM)
Radio 2 Capabilities	5.0 GHz a/b/g/n/ac/ax (4x4 4 stream) 20/40/80/160 MHz (64/256/1024 QAM)
Radio 3 Capabilities	2.4/5.0 GHz dual band b/g/n/ac (2x2 2 stream) 20/40 MHz (64 QAM)
Maximum Data Rate	Radio 1 up to 4,804 Mbps Radio 2 up to 4,804 Mbps Radio 3 up to 300 Mbps
Bluetooth Low Energy Radio	Bluetooth scanning and iBeacon advertisement @ 10 dBm max TX power
Interfaces	1x 100/1000/2500 Base-T RJ45(802.3bt PoE) , 1 x 10/100/1000 Base-T RJ45 (802.3af PSE OUT), 1x RS-232 RJ45 Serial Port
Power over Ethernet (PoE)	802.3bt PoE default (ships with Passive PoE injector • Powered by 802.3at PoE - Operate in 4x4 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.
Simultaneous SSIDs	Up to 16 (24 if third radio is servicing clients)
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCSHAPv2, 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 29 dBm / 794 mW (4 chains combined)* 5.0 GHz 28 dBm / 630 mW (4 chains combined)* Radio 2 5.0 GHz 26 dBm / 400 mW (2 chains combined)* Radio 3 2.4 GHz 26 dBm / 400 mW (2 chains combined) 5.0 GHz 24 dBm / 251 mW (2 chains combined)*
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, 802.11v, 802.11w, 802.11ac, 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az, 802.11ax, 802.3bz
SSID Types Supported	Local-Bridge, Mesh, and Tunnel
Per Radio Client Capacity	Up to 512 per Radio1 and Radio2
Cellular Co-existence**	Yes
LED Off Mode	No

** Frequency selection, power, and some communication features may be restricted to abide by regional regulatory compliance laws.

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



FortiAP U432F

Specifications

	FortiAP-U432F
Advanced 802.11 Features	Yes
Transmit Beam Forming (TxBF)	Yes
Low-Density Parity Check (LDPC) Encoding	Yes
Maximum Likelihood Demodulation (MLD)	Yes
Maximum Ratio Combining (MRC)	Yes
A-MPDU and A-MSDU Packet Aggregation	Yes
OFDMA	Yes (UL and DL)
2.4 GHz OFDMA	Yes
Spatial Reuse (BSS Coloring)	Yes
HE-MU-MIMO	Yes
UL-MU-MIMO 802.11ax mode	Yes
UL-MU-MIMO 802.11ac mode	No
DL-MU-MIMO	Yes
Enhanced Target Wake Time (TWT)	Yes
ZeroWait DFS /Agile DFS	Yes
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	8.23 x 8.23 x 2.38 inches (209 x 209 x 60.5 mm)
Weight	4.85 lb (2.2 kg)
Package (shipping) Weight	11.65 lb (5.3 kg)
Mounting Options	Wall and Pole
Included Accessories	1-3. Wall/ Pole/ Sector Ant. bracket 4. POE adapter 5. Power cable - PIN060 6. Grounding cable 7. Mounting Kit (Pole straps; mounting bolts, screws; grounding screws) 8. External Ant.(2.4GHz; 5GHz; 2.4/5GHz)
Environment	
Power Supply	802.3bt (ships with passive PoE injector with build in reset switch)
PSE Functionality	Yes (while powered by PoE injector shipped with product)
Power Consumption (Maximum)	32W max (without PSE) and 45W max (with PSE 12.99W)
Humidity	10% to 90% Non-Condensing
Operating / Storage Temperature	-40°F to 140°F (-40°C to 60°C) / -50°F to 176°F (-58°C to 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	
Wi-Fi Alliance Certified	Yes
DFS	FCC, IC, CE
Warranty	
Limited Lifetime Warranty	Yes

* Frequency selection, power, and some communication features may be restricted to abide by regional regulatory compliance laws.

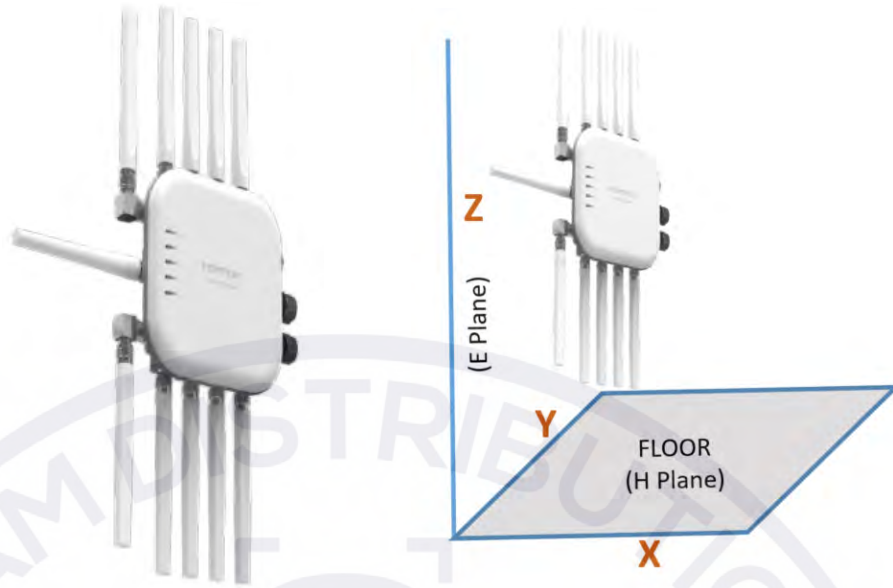
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RF RX/TX Performance Table

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	2.4 GHz		5 GHz	
	Tx Power (dBm)	Rx Sensitivity (dBm)	Tx Power (dBm)	Rx Sensitivity (dBm)
802.11 b				
1 Mbps	22	-93	—	—
11 Mbps	21	-93	—	—
802.11 a/g				
6 Mbps	21	-93	20	-91
54 Mbps	19	-75	17	-74
802.11 n HT20				
MCS0	21	-91	20	-91
MCS7	19	-71	16	-72
802.11 n HT40				
MCS0	20	-89	19	-88
MCS7	19	-69	16	-69
802.11 ac/ax VHT20				
MCS0	21	-91	19	-91
MCS8	18	-68	18	-69
802.11 ac/ax VHT40				
MCS0	20	-89	19	-88
MCS9	17	-66	16	-64
MCA 10 (QAM 1024)			15	-62
MCA 11 (QAM 1024)			15	-62
802.11 ac/ax VHT80				
MCS0			19	-85
MCS9			15	-61
MCA 10 (QAM 1024)			14	-60
MCA 11 (QAM 1024)			14	-60
802.11 ac/ax VHT160				
MCS0			17	-83
MCS9			13	-59
MCA 10 (QAM 1024)			13	-58
MCA 11 (QAM 1024)			13	-58

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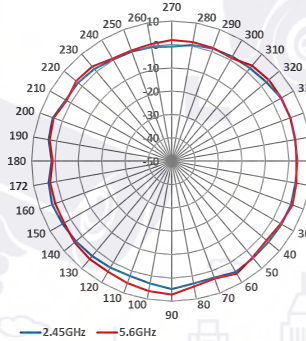
Pole/Wall Mounting Position



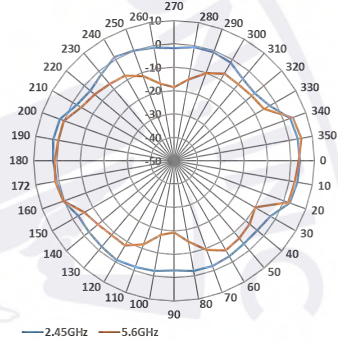
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Antenna Radiation Patterns

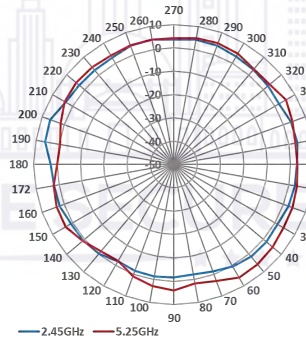
Radio1 & 2 Horizontal



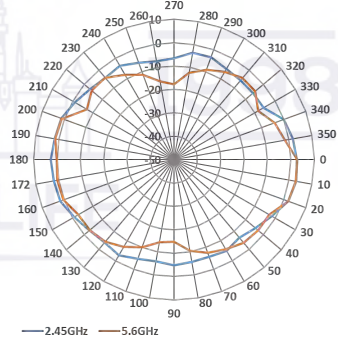
Radio1 & 2 Vertical



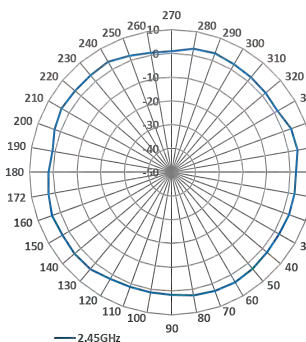
Radio3 Horizontal



Radio3 Vertical



BLE Horizontal



BLE Vertical

