

FortiAP™ UTP Access Point Series



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.

* Select models only, see listings

Available in



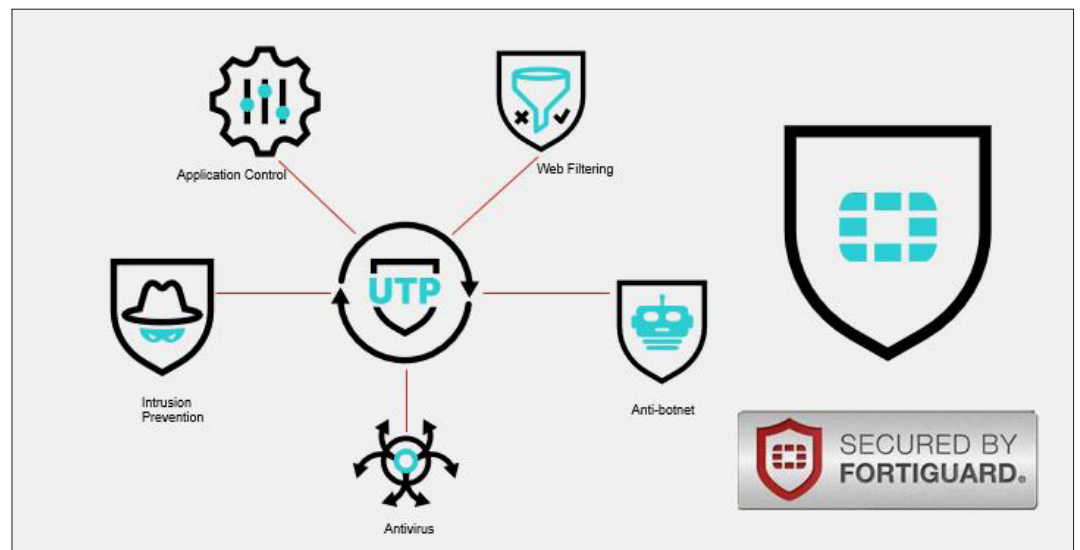
Appliance

Product Offerings

| 802.11ax Wi-Fi 6 | |
|-------------------------|---|
| FAP-U431F and FAP-U433F | 4×4 Indoor tri-radio dual 5G 11ax APs |
| FAP-U432F | 4×4 Indoor/Outdoor tri-radio dual 5G 11ax APs |
| FAP-U231F | 2×2 Indoor tri-radio dual 5G 11ax APs |
| FAP-U234F | 2×2 Indoor/Outdoor tri-radio dual 5G 11ax APs |

Highlights

Fortinet UTP access points are designed to support a variety of deployments from branches, to medium to large offices, schools, universities, hospitals, hotels, and large retail stores. These access points can serve such a wide range of applications because they can be managed by any of Fortinet's control and management. By supporting UTP services at the edge, deployments have the flexibility to enable security services wherever they need them in their network.



FortiGuard Services



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

*FortiGate-managed installations only.

FortiAP U431F and U433F

These enterprise class Wi-Fi 6 (802.11ax) indoor APs provide three radios. 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 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 locationing 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-U431F | FortiAP-U433F |
|------------------------------|--|--|
| Hardware | | |
| Hardware Type | Indoor AP | Indoor AP |
| Number of Radios | 3 + 1 BLE | 3 + 1 BLE |
| Number of Antennas | 10 Internal + 1 BLE Internal | 10 External (RP-SMA) + 1 BLE Internal |
| Antenna Type and Peak Gain | PIFA 4 dBi for 2.4 GHz, 6 dBi for 5 GHz | Dipole 3.5 dBi for 2.4 GHz, 5 dBi for 5 GHz |
| Frequency Bands (GHz) | 2.400–2.4835, 5.150–5.250, 5.250–5.350, 5.470–5.725, 5.725–5.850 | 2.400–2.4835, 5.150–5.250, 5.250–5.350, 5.470–5.725, 5.725–5.850 |
| Radio 1 Capabilities | 5.0 GHz a/n/ac/ax (4x4:4 stream) 20/40/80/160 MHz (64/256/1024 QAM) | 5.0 GHz a/n/ac/ax (4x4:4 stream) 20/40/80/160 MHz (64/256/1024 QAM) |
| Radio 2 Capabilities | 2.4 GHz or 5.0 GHz (high band) a/b/g/n/ac/ax (4x4:4 stream) 20/40/80/160 MHz (64/256/1024 QAM) | 2.4 GHz 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 3 Capabilities | 2.4/5.0 GHz dual band b/g/n/ac (2x2:2 stream) 20/40 MHz (64 QAM) | 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 | 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 @ 4 dBm max TX power | Bluetooth scanning and iBeacon advertisement @ 4 dBm max TX power |
| Interfaces | 1x 10/100/1000/2500 Base-T RJ45, 1x 10/100/1000 Base-T RJ45, 1x Type A USB, 1x RS-232 RJ45 Serial Port | 1x 10/100/1000/2500 Base-T RJ45, 1x 10/100/1000 Base-T RJ45, 1x Type A USB, 1x RS-232 RJ45 Serial Port |
| Power over Ethernet (PoE) | Dual redundant PoE power ports with support for IEEE 802.3at or dual 802.3af power | Dual redundant PoE power ports with support for IEEE 802.3at or dual 802.3af power |
| Simultaneous SSIDs | Up to 16 (24 if third radio is servicing clients) | Up to 16 (24 if third radio is servicing clients) |
| EAP Type(s) | EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-FAST | 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 blacklist and allowlist | WPA™, WPA2™, and WPA3™ with 802.1x or Preshared key, WEP, Web Captive Portal, MAC blacklist and allowlist |
| Maximum Tx Power (Conducted) | Radio 1 5 GHz 24 dBm / 251 mW (4 chains combined)* Radio 2 2.4 GHz 26 dBm / 398 mW (4 chains combined)* 5 GHz 24 dBm / 251 mW (4 chains combined)* Radio 3 2.4 GHz 22 dBm / 158 mW (2 chains combined)* | Radio 1 5 GHz 24 dBm / 251 mW (4 chains combined)* Radio 2 2.4 GHz 26 dBm / 398 mW (4 chains combined)* 5 GHz 24 dBm / 251 mW (4 chains combined)* Radio 3 2.4 GHz 22 dBm / 158 mW (2 chains combined)* |
| 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, 802.11v, 802.11w, 802.11ac, 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az, 802.11ax, 802.3bz, Wi-Fi 6 | 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, 802.3bz, Wi-Fi 6 |
| SSID Types Supported | Local-Bridge, Mesh, and Tunnel | Local-Bridge, Mesh, and Tunnel |
| Per Radio Client Capacity | Up to 512 per Radio1 and Radio2 | Up to 512 per Radio1 and Radio2 |
| Cellular Co-existence** | Yes | Yes |
| Reset Button | Yes | Yes |
| Threat Protection Capable | Yes | Yes |
| LED Off Mode | Yes | Yes |

** Frequency selection and power 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 U431F and U433F

Specifications

| | FortiAP-U431F | FortiAP-U433F |
|--|--|--|
| Advanced 802.11 Features | | |
| Transmit Beam Forming (TxBF) | Yes | Yes |
| Low-Density Parity Check (LDPC) Encoding | Yes | Yes |
| Maximum Likelihood Demodulation (MLD) | Yes | Yes |
| Maximum Ratio Combining (MRC) | Yes | Yes |
| A-MPDU and A-MSDU Packet Aggregation | Yes | Yes |
| 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 |
| UL-MU-MIMO 802.11ac mode | No | No |
| DL-MU-MIMO | Yes | Yes |
| Enhanced Target Wake Time (TWT) | Yes | Yes |
| ZeroWait DFS /Agile DFS | Yes | Yes |
| Wireless Monitoring Capabilities | | |
| Rogue Scan Radio Modes | Background, Dedicated | Background, Dedicated |
| WIPS / WIDS Radio Modes | Background, Dedicated (recommended) | Background, Dedicated (recommended) |
| Packet Sniffer Mode | Yes | Yes |
| Spectrum Analyzer | Yes | Yes |
| Dimensions | | |
| Length x Width x Height | 8.46 × 8.46 × 2.26 inches (215 × 215 × 57.5 mm) | 8.46 × 8.46 × 2.26 inches (215 × 215 × 57.5 mm) |
| Weight | 2.6 lb (1.2 kg) | 2.6 lb (1.2 kg) |
| Package (shipping) Weight | 3.5 lb (1.6 kg) | 3.95 lb (1.8 kg) |
| 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, 10x dipole antennas |
| Environment | | |
| Power Supply | GPI-130, or 2x GPI-115 GPI-130, or 2x GPI-115, or AC adapter SP-FAP43F-PA-X-5 | GPI-130, or 2x GPI-115 GPI-130, or 2x GPI-115, or AC adapter SP-FAP43F-PA-X-5 |
| Power Consumption (Maximum) | 24.5 W | 24.5 W |
| Humidity | 10% to 90% Non-Condensed 5% to 90% Condensed | 10% to 90% Non-Condensed 5% to 90% Condensed |
| Operating / Storage Temperature | 32°F to 122°F (0°C to 50°C) / -31°F to 158°F (-35°C to 70°C) | 32°F to 122°F (0°C to 50°C) / -31°F to 158°F (-35°C to 70°C) |
| Directives | Low Voltage Directive • RoHS | Low Voltage Directive • RoHS |
| UL2043 Plenum Material | Yes | Yes |
| Mean Time Between Failures | >30 Years | >30 Years |
| IP Rating | — | — |
| Surge Protection Built In | — | — |
| Hit-less PoE Failover | Yes (802.3at only) | Yes (802.3at only) |
| Certifications | | |
| Wi-Fi Alliance Certified | Yes | Yes |
| DFS | FCC, IC, CE, Japan, Taiwan, Korea, Brazil | FCC, IC, CE, Japan, Taiwan, Korea, Brazil |
| Warranty | | |
| Limited Lifetime Warranty | Yes | Yes |



FortiAP U431F and U433F

RF RX/TX Performance Table

| FortiAP U431F and U433F | | | | | | |
|-------------------------------|---------------------------------------|---|---------------------------------------|---|---------------------------------------|---|
| | Radio 1 | | Radio 2 | | Radio 3 | |
| | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) |
| 2.4 GHz, 802.11b | | | | | | |
| 1 Mbps | 20 | -98 | — | — | 19 | -96 |
| 11 Mbps | 20 | -89 | — | — | 19 | -87 |
| 2.4 GHz, 802.11g | | | | | | |
| 6 Mbps | 20 | -94 | — | — | 19 | -92 |
| 54 Mbps | 20 | -75 | — | — | 19 | -73 |
| 2.4 GHz, 802.11n HT20 | | | | | | |
| MCS0 | 19 | -93 | — | — | 18 | -91 |
| MCS7 | 17 | -74 | — | — | 16 | -72 |
| 2.4 GHz, 802.11n HT40 | | | | | | |
| MCS0 | 19 | -92 | — | — | 18 | -90 |
| MCS7 | 17 | -73 | — | — | 16 | -71 |
| 2.4 GHz, 802.11ax HE20 | | | | | | |
| MCS0 | 18 | -90 | — | — | 17 | -88 |
| MCS11 | 16 | -71 | — | — | 15 | -69 |
| 2.4 GHz, 802.11ax HE40 | | | | | | |
| MCS0 | 17 | -88 | — | — | 16 | -86 |
| MCS11 | 15 | -68 | — | — | 14 | -66 |
| 5.0 GHz, 802.11a | | | | | | |
| 6 Mbps | 20 | -92 | 20 | -92 | — | — |
| 54 Mbps | 20 | -72 | 20 | -72 | — | — |
| 5.0 GHz, 802.11n HT20 | | | | | | |
| MCS0 | 20 | -91 | 20 | -91 | — | — |
| MCS7 | 18 | -72 | 18 | -72 | — | — |
| 5.0 GHz, 802.11n HT40 | | | | | | |
| MCS0 | 20 | -88 | 20 | -88 | — | — |
| MCS7 | 18 | -69 | 18 | -69 | — | — |



FortiAP U431F and U433F

RF RX/TX Performance Table

| FortiAP U431F and U433F | | | | | | |
|---------------------------------|---------------------------------------|---|---------------------------------------|---|---------------------------------------|---|
| | Radio 1 | | Radio 2 | | Radio 3 | |
| | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) |
| 5.0 GHz, 802.11ac VHT20 | | | | | | |
| MCS0 | 20 | -91 | 20 | -91 | — | — |
| MCS9 | 18 | -67 | 18 | -67 | — | — |
| 5.0 GHz, 802.11ac VHT40 | | | | | | |
| MCS0 | 20 | -88 | 20 | -88 | — | — |
| MCS9 | 18 | -62 | 18 | -62 | — | — |
| 5.0 GHz, 802.11ac VHT80 | | | | | | |
| MCS0 | 19 | -85 | 19 | -85 | — | — |
| MCS9 | 17 | -59 | 17 | -59 | — | — |
| 5.0 GHz, 802.11ac VHT160 | | | | | | |
| MCS0 | 16 | -82 | 16 | -82 | — | — |
| MCS9 | 15 | -56 | 15 | -56 | — | — |
| 5.0 GHz, 802.11ax HE20 | | | | | | |
| MCS0 | 19 | -90 | 19 | -90 | — | — |
| MCS11 | 17 | -66 | 17 | -66 | — | — |
| 5.0GHz, 802.11ac HE40 | | | | | | |
| MCS0 | 19 | -87 | 19 | -87 | — | — |
| MCS11 | 17 | -61 | 17 | -61 | — | — |
| 5.0 GHz, 802.11ac HE80 | | | | | | |
| MCS0 | 18 | -94 | 18 | -94 | — | — |
| MCS11 | 16 | -58 | 16 | -58 | — | — |
| 5.0 GHz, 802.11ac HE160 | | | | | | |
| MCS0 | 15 | -81 | 15 | -81 | — | — |
| MCS11 | 14 | -55 | 14 | -55 | — | — |

Maximum capability of the hardware provided (excluding antenna gain)

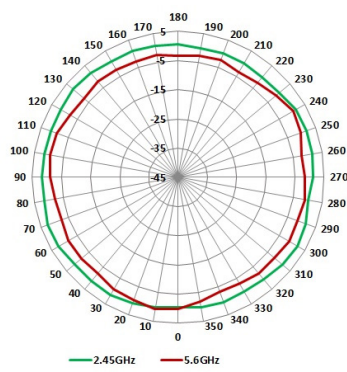


Antenna Radiation Patterns

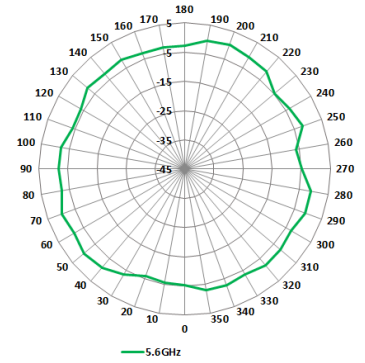
FAP-U431F



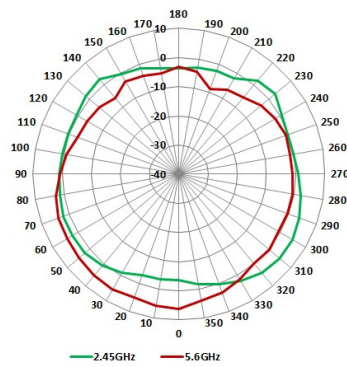
Internal Antenna
H-Plane Pattern
Radio 1 and 3



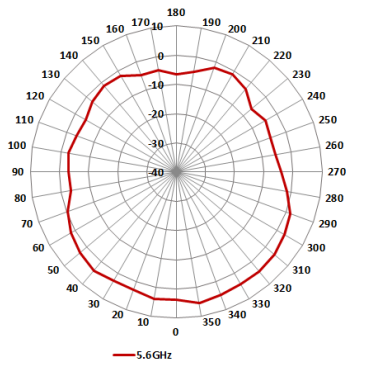
Internal Antenna
H-Plane Pattern
Radio 2



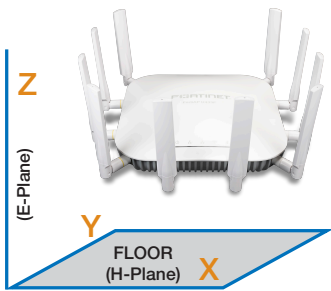
Internal Antenna
E-Plane Pattern
Radio 1 and 3



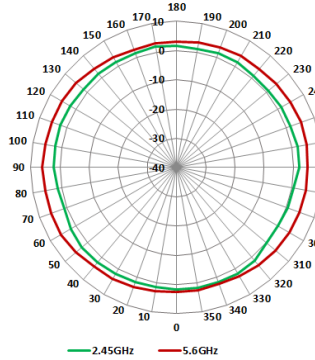
Internal Antenna
E-Plane Pattern
Radio 2



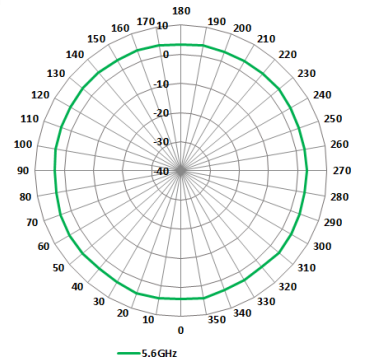
FAP-U433F



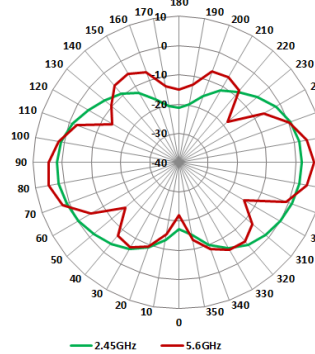
External Antenna
H-Plane Pattern
Dual Band



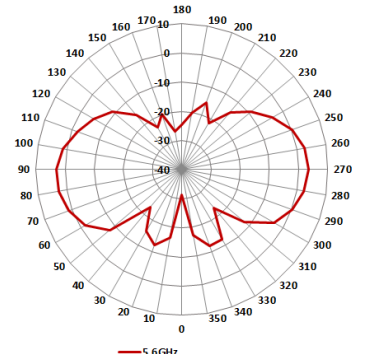
External Antenna
H-Plane Pattern



External Antenna
E-Plane Pattern
Dual Band



External Antenna
E-Plane Pattern



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 locationing 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) , 1x 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 <ul style="list-style-type: none"> 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/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 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, 802.11Q, 802.11X, 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 and power 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 |



FortiAP U432F

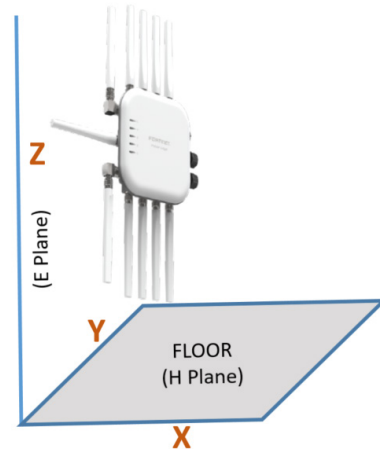
RF RX/TX Performance Table

| FortiAP U432F | | | | |
|----------------------------|----------------|----------------------|----------------|----------------------|
| | 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 |



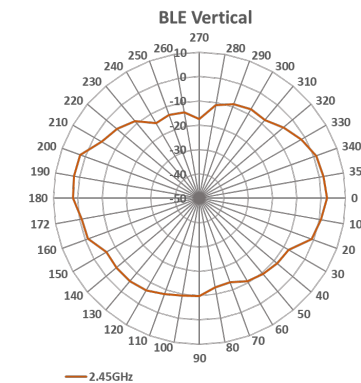
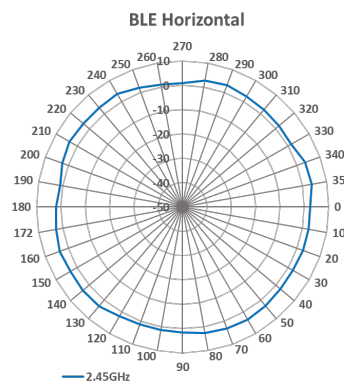
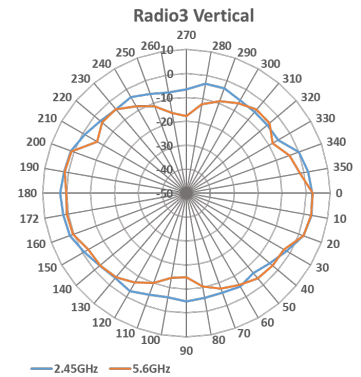
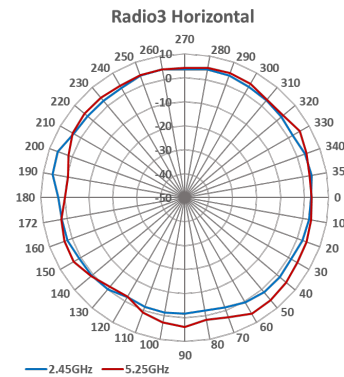
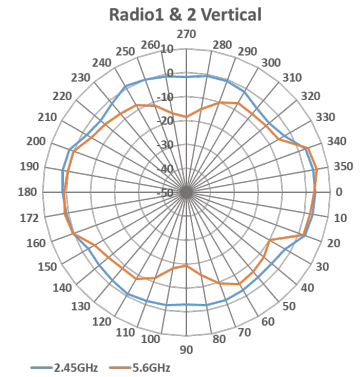
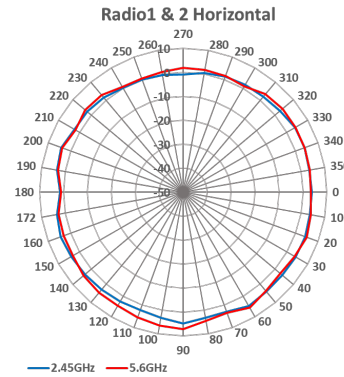
FortiAP U432F

Pole/Wall Mounting Position



FortiAP U432F

Antenna Radiation Patterns



FortiAP U231F

This enterprise class Wi-Fi 6 (802.11ax) indoor AP provides three radios as well as features such as OFDMA and dual 1 Gbps Ethernet ports for PoE diversity. The APs 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 locationing applications.



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

 **2x2 MIMO | Up to 1,201 Mbps + 1,201 Mbps + 574 Mbps**

Specifications

| FortiAP U231F | |
|------------------------------|--|
| Hardware | |
| Hardware Type | Indoor AP |
| Number of Radios | 3 + 1 BLE |
| Number of Antennas | 4 Dual band Wi-Fi + 2 5.0GHz Wi-Fi + 1 Single band 2.4GHz BLE/ZigBee |
| Antenna Type and Peak Gain | PIFA antenna Dual band 3.97 dBi for 2.4GHz and 5.89 dBi for 5GHz Single band 5Ghz antenna 5dBi for 2.4GHz band BLE antenna 3.5dBi at 2.4GHz band |
| Frequency Bands (GHz) | |
| Radio 1 Capabilities | Band 2.4 GHz or 5.0 GHz(High Band) a/b/g/n/ac/ax (2x2 2 stream) Channel width 20/40/80MHz Modulation BPSK, QPSK, 64/256/1024 QAM |
| Radio 2 Capabilities | 5.0 GHz a/b/g/n/ac/ax (2x2 2 stream), Channel width 20/40/80MHz, Modulation BPSK, QPSK, 64/256/1024QAM |
| Radio 3 Capabilities | Service (2x2 2 stream), Band 2.4 GHz service b/g/n/ax Channel width 20/40MHz Modulation BPSK, QPSK, 64/256/1024QAM, Scan dual band scan |
| Maximum Data Rate | Radio 1 up to 1201 Mbps Radio 2 up to 1201 Mbps Radio 3 up to 574 Mbps |
| Bluetooth Low Energy Radio | Bluetooth scanning and iBeacon advertisement @ 10 dBm max TX power |
| Interfaces | 2x 10/100/1000 Base-T RJ45, 1x Type 2.0 USB, 1x RS-232 RJ45 Serial Port |
| Power over Ethernet (PoE) | 1 x 802.3at PoE default 1 x 802.af PoE with reduce TX power and no USB function |
| Simultaneous SSIDs | Up to 16 (24 if third radio is servicing clients) |
| EAP Type(s) | EAP-TLS, EAP-TTLS/MSCMAPv2, 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 2.4GHz 23 dBm / 200 mW (2 chains combined)* 5GHz 22 dBm / 158 mW (2 chains combined)* Radio 2 5GHz 22 dBm / 158 mW (2 chains combined)* Radio 3 2.4GHz 23 dBm / 200 mW (2 chains combined)* 5GHz 22 dBm / 158 mW (2 chains combined)* |
| Kensington Lock | Yes |
| IEEE Standards | 802.11a, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11k, 802.11n, 802.11r, 802.11v, 802.11w, 802.11ac, 802.11ax, 802.1Q, 802.1X, 802.3ad, 802.3af, 802.3at, 802.3az, Wi-Fi 6 |
| SSID Types Supported | Local-Bridge, Tunnel, and Mesh |
| Per Radio Client Capacity | Up to 512 clients per radio (all radios) |
| Cellular Co-existence** | Yes |
| Reset Button | Yes |
| Threat Protection Capable | Yes |
| LED Off Mode | Yes |



FortiAP U231F

Specifications

| FortiAP U231F | |
|--|--|
| Advanced 802.11 Features | |
| 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 |
| 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 | 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 | 6.5 × 6.5 × 2.05 inches (165 × 165 × 52 mm) |
| Weight | 1.5 lbs (0.68 kg) |
| Package (shipping) Weight | 2.6 lbs (1.185 kg) |
| Mounting Options | Ceiling, T-Rail, and Wall |
| Included Accessories | Standard Mount kit for Ceiling, T-Rail and Wall |
| Environment | |
| Power Supply | GPI-130 or SP-FAP250-PA-10 |
| Power Consumption (Maximum) | 18.5W |
| Humidity | 5% to 90% non condensing |
| Operating / Storage Temperature | 32°F to 122°F (0°C to 50°C) / -22°F to 158°F (-30°C to 70°C) |
| Directives | Low Voltage Directive • RoHS |
| UL2043 Plenum Material | Yes |
| Mean Time Between Failures | > 10 Years |
| IP Rating | N/A |
| Surge Protection Built In | -- |
| Hit-less PoE Failover | N/A |
| Certifications | |
| Wi-Fi Alliance Certified | Yes |
| DFS | FCC, IC, CE, Japan, Taiwan, Korea, Brazil |
| Warranty | |
| Limited Lifetime Warranty | Yes |

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

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



FortiAP U231F

RF RX/TX Performance Table

| FortiAP U231F | | | | | | |
|--------------------------------|---------------------------------------|---|---------------------------------------|---|---------------------------------------|---|
| | Radio 1 | | Radio 2 | | Radio 3 | |
| | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) | Max Tx Power per transmit chain (dBm) | Rx Sensitivity per receiver chain (dBm) |
| 2.4 GHz, 802.11b | | | | | | |
| 1 Mbps | 20 | -98 | — | — | 20 | -96 |
| 11 Mbps | 20 | -89 | — | — | 20 | -87 |
| 2.4 GHz, 802.11g | | | | | | |
| 6 Mbps | 20 | -94 | — | — | 20 | -92 |
| 54 Mbps | 19 | -75 | — | — | 19 | -73 |
| 2.4 GHz, 802.11n HT20 | | | | | | |
| MCS0 | 20 | -93 | — | — | 20 | -91 |
| MCS7 | 18 | -75 | — | — | 18 | -72 |
| 2.4 GHz, 802.11n HT40 | | | | | | |
| MCS0 | 19 | -91 | — | — | 19 | -90 |
| MCS7 | 18 | -69 | — | — | 18 | -71 |
| 2.4 GHz, 802.11ax HE20 | | | | | | |
| MCS0 | 20 | 93 | — | — | 20 | -88 |
| MCS11 | 19 | -71 | — | — | 19 | -69 |
| 2.4 GHz, 802.11ax HE40 | | | | | | |
| MCS0 | 19 | -90 | — | — | 19 | -86 |
| MCS11 | 18 | -65 | — | — | 18 | -66 |
| 5.0 GHz, 802.11a | | | | | | |
| 6 Mbps | 21 | -92 | 20 | -92 | 21 | -92 |
| 54 Mbps | 20 | -75 | 19 | -75 | 20 | -75 |
| 5.0 GHz, 802.11n HT20 | | | | | | |
| MCS0 | 20 | -91 | 20 | -92 | 20 | -91 |
| MCS7 | 18 | -74 | 18 | -74 | 18 | -74 |
| 5.0 GHz, 802.11n HT40 | | | | | | |
| MCS0 | 20 | -90 | 20 | -89 | 20 | -90 |
| MCS7 | 18 | -72 | 18 | -71 | 18 | -72 |
| 5.0 GHz, 802.11ac VHT20 | | | | | | |
| MCS0 | 20 | -92 | 20 | -92 | 20 | -92 |
| MCS9 | 19 | -70 | 19 | -70 | 19 | -70 |
| 5.0 GHz, 802.11ac VHT40 | | | | | | |
| MCS0 | 20 | -89 | 20 | -90 | 20 | -89 |
| MCS9 | 18 | -66 | 18 | -65 | 18 | -66 |
| 5.0 GHz, 802.11ac VHT80 | | | | | | |
| MCS0 | 19 | -87 | 19 | -86 | 19 | -87 |
| MCS9 | 18 | -62 | 18 | -61 | 18 | -62 |
| 5.0 GHz, 802.11ax HE20 | | | | | | |
| MCS0 | 20 | -93 | 20 | -93 | 20 | -93 |
| MCS11 | 18 | -66 | 18 | -62 | 18 | -66 |
| 5.0GHz, 802.11ac HE40 | | | | | | |
| MCS0 | 20 | -87 | 20 | -90 | 20 | -87 |
| MCS11 | 18 | -61 | 18 | -60 | 18 | -61 |
| 5.0 GHz, 802.11ac HE80 | | | | | | |
| MCS0 | 19 | -94 | 19 | -89 | 19 | -94 |
| MCS11 | 17 | -58 | 17 | -58 | 17 | -58 |

Maximum capability of the hardware provided (excluding antenna gain)

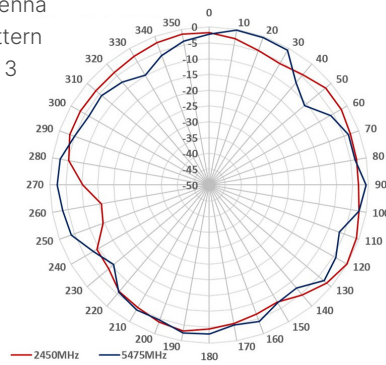


FortiAP U231F

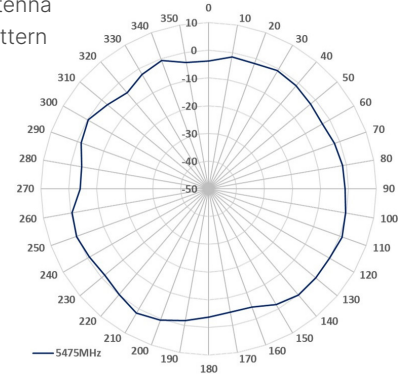
Antenna Radiation Patterns



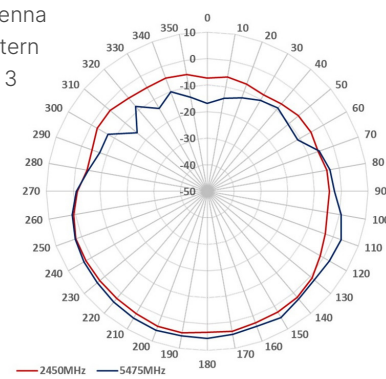
Internal Antenna
H-Plane Pattern
Radio 1 and 3



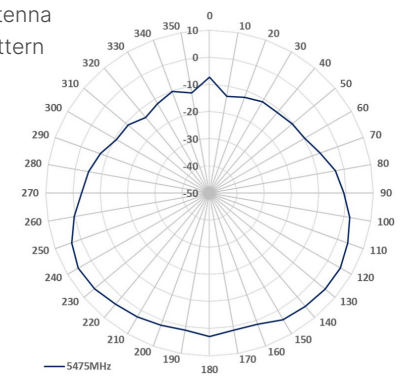
Internal Antenna
H-Plane Pattern
Radio 2



Internal Antenna
E-Plane Pattern
Radio 1 and 3



Internal Antenna
E-Plane Pattern
Radio 2



FortiAP U234F

This enterprise class Wi-Fi 6 ruggedized indoor/outdoor AP provides three radios with internal antennas as well as features such as OFDMA and dual 1 Gbps Ethernet ports. 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 locationing applications.



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

 2x2 MIMO | Up to 1,201 Mbps + 1,201 Mbps + 574 Mbps

Specifications

| FortiAP U234F | |
|------------------------------|--|
| Hardware | |
| Hardware Type | Outdoor AP |
| Number of Radios | 3 + 1 BLE |
| Number of Antennas | 2 Wi-Fi 5.0GHz band + 4 dual band Wi-Fi + 1 Single band 2.4GHz 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 Dual band scanning radio: 4.0 dBi in 2.4 GHz band and 4.0 dBi in 5 GHz band BLE antenna: 4.0 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 | 2.4 GHz a/b/g/n (2x2 2stream) (64 QAM) or 5.0 GHz (high band) a/b/g/n/ac/ax (2x2 2 stream) 20/40/80/160 MHz (64/256/1024 QAM) |
| Radio 2 Capabilities | 5.0 GHz a/n/ac/ax (2x2 2 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 2,402 Mbps Radio 2 up to 2,402 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/at PoE) 1 x 10/100/1000 Base-T RJ45 (802.3af PoE PSE), 1x RS-232 RJ45 Serial Port |
| Power over Ethernet (PoE) | 802.3bt PoE ships with PoE injector (reset functionality) |
| 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 2.4GHz 25 dBm / 316 mW (2 chains combined)* 5GHz 25 dBm / 316 mW (2 chains combined)* Radio 2 5GHz 25 dBm / 316 mW (2 chains combined)* Radio 3 2.4GHz 27 dBm / 501 mW (2 chains combined)* 5GHz 25 dBm / 316 mW (2 chains combined)* |
| 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 clients per Radio1 and Radio2 |
| Cellular Co-existence** | Yes |
| LED Off Mode | No |



FortiAP U234F

Specifications

| FortiAP U234F | |
|--|--|
| 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 |
| 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 | No |
| Wireless Monitoring Capabilities | |
| Rogue Scan radio modes | Background and Dedicated |
| WIPS / WIDS radio modes | Background and Dedicated (recommended) |
| Packet Sniffer Mode | Yes |
| Spectrum Analyzer | Yes |
| Dimensions | |
| Length x Width x Height | 12.45 x 8.59 x 1.66 inches (316.18 x 218.16 x 42.21 mm) |
| Weight | 2.66 lbs (1.207 kg) |
| Package (shipping) Weight | 5.86 lbs (3.6 kg) |
| Mounting Options | Wall / Pole |
| Included Accessories | 1-2. Wall/ Pole bracket 3. PoE adapter - PIN060-54PR 4. Power cable 5. Grounding cable 6. Mounting Kit (Pole straps; mounting bolts, screws; grounding screws) |
| Environment | |
| Power Supply | 802.3bt/at (ships with passive PoE injector with build in reset switch) |
| Power Consumption (Maximum) | 21 Watts |
| 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, Taiwan |
| Warranty | |
| Limited Lifetime Warranty | Yes |

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

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



FortiAP U234F

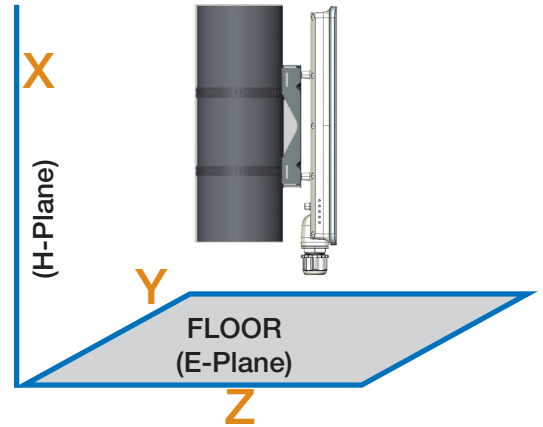
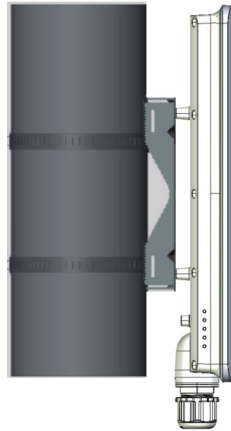
RF RX/TF Performance Table

| FortiAP U234F | | | | |
|----------------------------|----------------|----------------------|----------------|----------------------|
| | 2.4 GHz | | 5 GHz | |
| | Tx Power (dBm) | Rx Sensitivity (dBm) | Tx Power (dBm) | Rx Sensitivity (dBm) |
| 802.11 b | | | | |
| 1 Mbps | 23 | -98 | — | — |
| 11 Mbps | 23 | -90 | — | — |
| 802.11 a/g | | | | |
| 6 Mbps | 23 | -93 | 22 | -91 |
| 54 Mbps | 19 | -75 | 17 | -74 |
| 802.11 n HT20 | | | | |
| MCS0 | 23 | -91 | 22 | -91 |
| MCS7 | 19 | -71 | 16 | -72 |
| 802.11 n HT40 | | | | |
| MCS0 | 23 | -89 | 22 | -88 |
| MCS7 | 19 | -69 | 16 | -69 |
| 802.11 ac/ax VHT20 | | | | |
| MCS0 | 23 | -91 | 22 | -91 |
| MCS8 | 18 | -68 | 18 | -69 |
| 802.11 ac/ax VHT40 | | | | |
| MCS0 | 23 | -89 | 22 | -88 |
| MCS9 | 17 | -66 | 16 | -64 |
| MCA 10 (QAM 1024) | | | 15 | -62 |
| MCA 11 (QAM 1024) | | | 15 | -62 |
| 802.11 ac/ax VHT80 | | | | |
| MCS0 | | | 22 | -85 |
| MCS9 | | | 15 | -61 |
| MCA 10 (QAM 1024) | | | 14 | -60 |
| MCA 11 (QAM 1024) | | | 14 | -60 |
| 802.11 ac/ax VHT160 | | | | |
| MCS0 | | | 1722 | -83 |
| MCS9 | | | 13 | -59 |
| MCA 10 (QAM 1024) | | | 13 | -58 |
| MCA 11 (QAM 1024) | | | 13 | -58 |



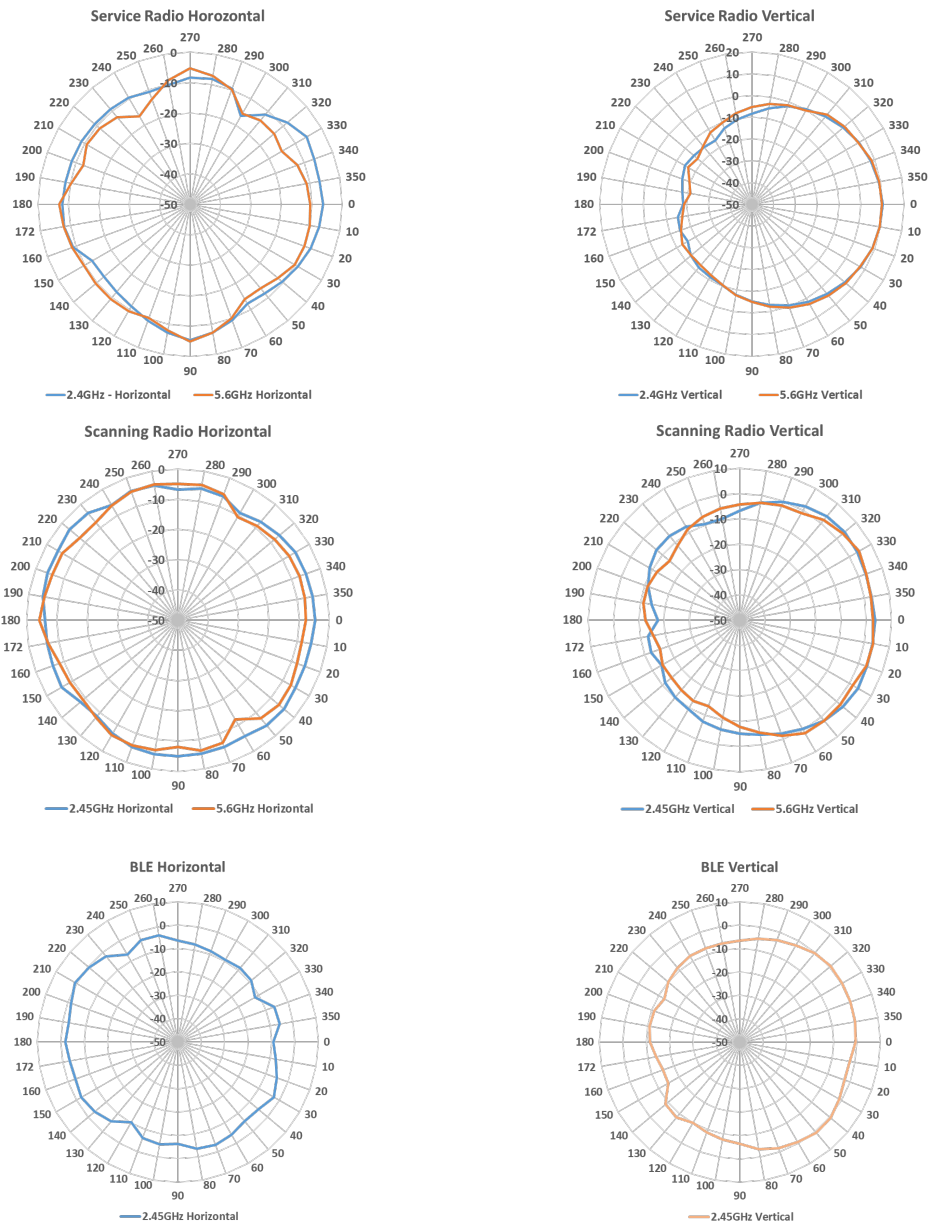
FortiAP U234F

Pole/Wall Mounting Position



FortiAP U234F

Antenna Radiation Patterns



Ordering Information

| Product | SKU | Description |
|-----------------------------|-----------------------|---|
| FortiAP U431F | FAP-U431F | Indoor Wireless UTP 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, 2×2 MU-MIMO), internal antennas, 1× 10/100/1000/2500 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 kit included. For power order: 802.3at PoE injector GPI-130 or AC adapter SP-FAP43F-PA-X-5. |
| | FC-10-90APU-443-02-DD | FortiAP-U Series FortiGuard Universal Threat Protection Subscription Service License. Applicable to FortiGate or FortiLAN Cloud managed F-Series or later FortiAP-U family Access Points. |
| | FC-10-P431F-247-02-DD | FortiCare Premium Support. |
| | FC-10-P431F-284-02-DD | FortiCare Elite Support. |
| FortiAP U432F | FAP-U432F | Outdoor Universal AP - Tri radio (1× 2.4GHz/5GHz 4×4 Wi-Fi 6, 1× 5GHz 4×4 Wi-Fi 6, 1× 2.4GHz/5GHz 1×1 Wi-Fi 5), external antennas included, 1× 100/1000/2500 RJ45, 1× 10/100/1000 RJ45, IoT Enabled (BT/BLE), 1x RS-232 RJ45 Serial Port. Pole/wall mount kit and PoE injector included. |
| | FC-10-90APU-443-02-DD | FortiAP-U Series FortiGuard Universal Threat Protection Subscription Service License. Applicable to FortiGate or FortiLAN Cloud managed F-Series or later FortiAP-U family Access Points. |
| | FC-10-PU432-247-02-DD | FortiCare Premium Support. |
| | FC-10-PU432-284-02-DD | FortiCare Elite Support. |
| FortiAP U433F | FAP-U433F | Indoor Wireless UTP 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, 2×2 MU-MIMO), external antennas included, 1× 10/100/1000/2500 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 kit included. For power order: 802.3at PoE injector GPI-130 or AC adapter SP-FAP43F-PA-X-5. |
| | FC-10-90APU-443-02-DD | FortiAP-U Series FortiGuard Universal Threat Protection Subscription Service License. Applicable to FortiGate or FortiLAN Cloud managed F-Series or later FortiAP-U family Access Points. |
| | FC-10-P433F-247-02-DD | FortiCare Premium Support. |
| | FC-10-P433F-284-02-DD | FortiCare Elite Support. |
| FortiAP U231F | FAP-U231F | Indoor Wireless UTP 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: SP-FAP250-PA-10. |
| | FC-10-90APU-443-02-DD | FortiAP-U Series FortiGuard Universal Threat Protection Subscription Service License. Applicable to FortiGate or FortiLAN Cloud managed F-Series or later FortiAP-U family Access Points. |
| | FC-10-P231-247-02-DD | FortiCare Premium Support. |
| | FC-10-P231F-284-02-DD | FortiCare Elite Support. |
| FortiAP U234F | FAP-U234F | Outdoor Universal AP - Tri radio (1× 2.4GHz/5GHz 2×2 Wi-Fi 6, 1× 5GHz 2×2 Wi-Fi 6, 1× 2.4GHz/5GHz 2×2 Wi-Fi 5), internal antennas, 2× 10/100/1000 RJ45, IoT Enabled (BT/BLE), 1x RS-232 RJ45 Serial Port. Pole/wall mount kit and PoE injector included. |
| | FC-10-90APU-443-02-DD | FortiAP-U Series FortiGuard Universal Threat Protection Subscription Service License. Applicable to FortiGate or FortiLAN Cloud managed F-Series or later FortiAP-U family Access Points. |
| | FC-10-PU234-247-02-DD | FortiCare Premium Support. |
| | FC-10-PU234-284-02-DD | FortiCare Elite Support. |
| Accessories | | |
| Gigabit PoE Injector | GPI-115 | 1-Port Gigabit PoE Injector, 802.3af up to 12.95 W. |
| | GPI-130 | 1-Port Gigabit PoE Power Injector, 802.3at up to 30W. |
| Power Adapter | SP-FAP43F-PA-X-5 | AC power adapter for FAP-U431F and FAP-U433F. |
| | SP-FAP400-PA | AC power adapter for FAP-U423EV. |
| | SP-FAP200-PA | AC power adapter for FAP-U321EV. |
| | SP-FAPU24-PA | AC power adapter for FAP-U24JEV. |
| | SP-FAP250-PA-10 | AC power adapter with US and EU plugs for FAP-U231F and FAP-231F. |
| FortiGuard Services | | |
| | FC-10-90APU-443-02-DD | FortiAP-U Series FortiGuard Universal Threat Protection Subscription Service License. Applicable to FortiGate or FortiLAN Cloud managed F-Series or later FortiAP-U family Access Points. |

Notes.

Additional external antenna options are available for some models. Please see the antenna datasheet for details.

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.

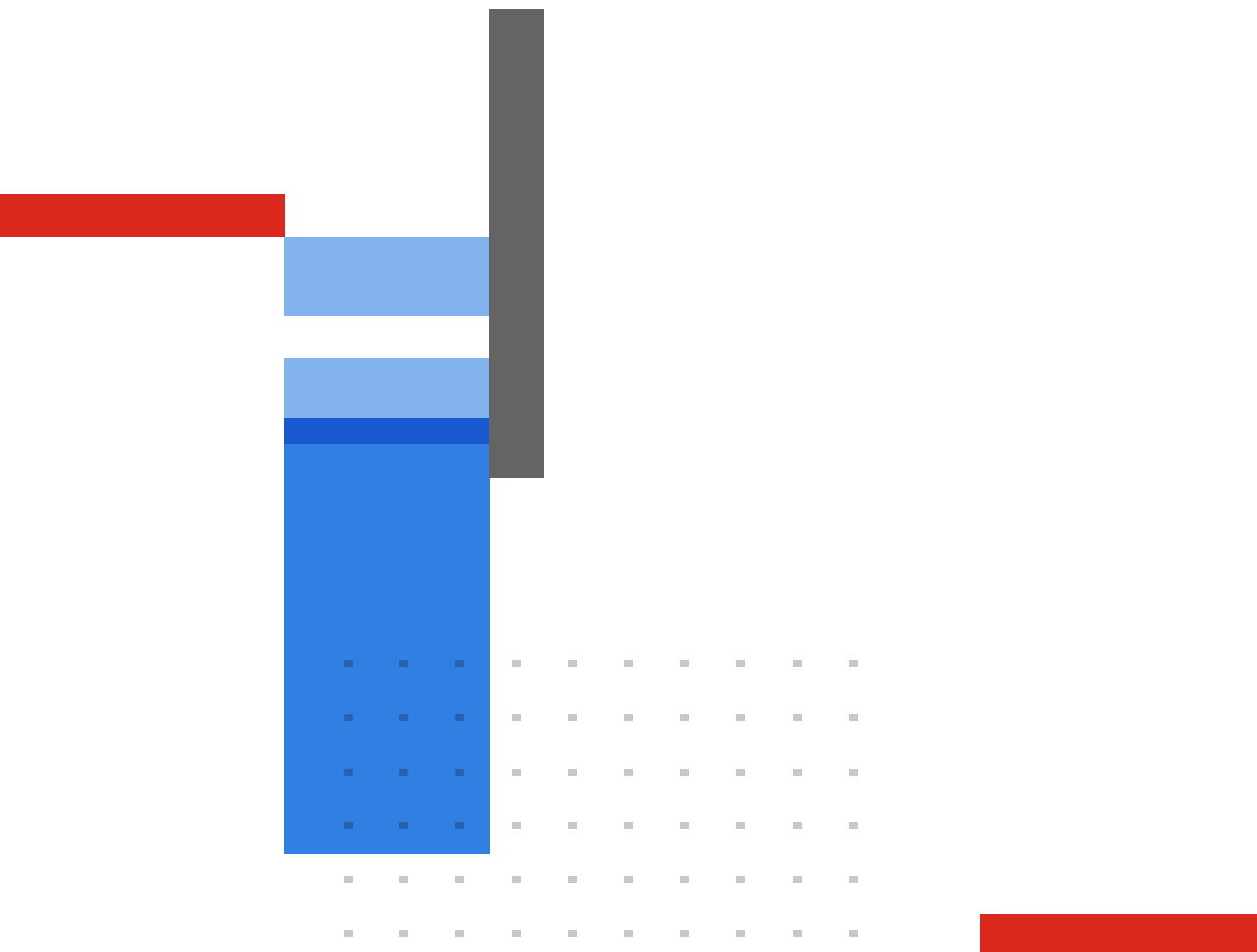
Access Points mentioned in this datasheet are covered by a Limited Lifetime Hardware Warranty.

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



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