Fortinet AP Series
Controller-Managed Access Points

Fortinet AP series Access Points (APs) provide a high-performance, premise-managed WiFi network with a broad range of 802.11ac Wave 1 and Wave 2 APs that ease deployment and scaling and offer a number of compelling quality-of-experience advantages. They also provide a complete portfolio of security services that offer additional means of protection to combat the ever-evolving threat landscape. **Fortinet also offers an RF technology that uniquely manages the spectrum utilization, allowing it to dramatically simplify deployment vs competing solutions.**

**Application Control**
Provides administrators with Application Visibility to prioritize applications to improve the user experience by guaranteeing more capacity to select groups, such as mission-critical applications or mobile point-of-sale (mPoS) devices.

**Air Traffic Control**
Provides sophisticated air traffic control mechanisms to govern station airtime so every client gets a fair turn on-air, which prevents the slowest, or the fastest, devices from hogging resources.

**Single Channel Technology**
Unique technology that manages spectrum utilization to overcome the interference-related deployment barriers commonly encountered in high density environments.

### Product Offerings

<table>
<thead>
<tr>
<th>802.11ac</th>
<th>AP822i</th>
<th>APs with dual 2.4 GHz and 5 GHz radios, 2x2 MIMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP822e</td>
<td>OAP832e</td>
<td>Outdoor AP with dual 2.4 GHz and 5 GHz radios, 3x3 MIMO</td>
</tr>
<tr>
<td>AP122</td>
<td></td>
<td>Wall plate AP with dual 2.4 GHz and 5 GHz radios</td>
</tr>
</tbody>
</table>
Highlights

Fortinet AP822i and AP822e
The AP822 catalyzes the migration to Gigabit WiFi by bringing the power of enterprise-wide, full channel 802.11ac to more customers. The AP822 is a cost-effective solution designed to meet the mid-range performance requirements of offices, schools, universities, hospitals, hotels, and retail stores, and it supports up to an aggregate 1.17 Gbps data rate for the most demanding business applications such as video and voice.

802.11ac Wave 1 | Dual Radio 2.4 GHz and 5 GHz | 4 Internal/External Antennas
Up to 300 + 867 Mbps

The AP822 is positioned to accelerate the adoption of 802.11ac into more cost-sensitive market segments. For schools, this provides a very cost-effective solution which can be deployed to meet the growing throughput demand from on-campus wireless devices. Hotels can more easily offer a richer WiFi experience where availability of high-quality wireless services is often the primary criterion — above other amenities — for making reservations. Providing high-speed, high-capacity wireless LAN services for the small and medium business is now more attainable with the AP822.

The AP822 access point allows administrators to prioritize applications to improve the user experience based on Fortinet’s unique ability to associate specific applications with deployed channel layers. For schools, this means Learning Management System applications can be assigned to one dedicated channel layer, while online classroom video feeds can be dedicated to another channel layer. For healthcare, life-critical applications such as patient monitoring can be assigned to one channel layer, doctor and nursing applications can be assigned to a second layer, and patient applications can be placed on a third channel layer.

Fortinet’s single-channel option uniquely allows the AP822 to support wide WiFi channels in real-world deployments, effectively doubling the data rate over 802.11n and dramatically increasing throughput for Fortinet customers. The AP822 also provides unique roaming support. Fortinet’s patented Air Traffic Control® technology enables the network to control client roamrs, resulting in the industry’s lowest roaming latency figures — a true zero-handoff.

Benefits
- Provides an optimized 802.11ac experience, with VHT capabilities
- Only vendor to recommend one or two 80 MHz channel usage for maximum 802.11ac throughput
- No channel planning, and delivers seamless mobility
- Offers flexible deployment options for diverse customer requirements
Specifications for AP822i and AP822e

**OPERATING MODES**
- Centralized deployment mode
  - Network Director
- Bridge mode
- Remote VPN tunnel mode

**SECURITY**
- WEP, WPA-PSK, WPA-Enterprise, 2AES, 802.11i, 802.1X (EAP-TLS, EAP-TTLS, PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-AKA, and EAP-MD5)
- 802.1X and captive portal authentication against local database on the controller, RADIUS, and Active Directory
- RADIUS-assisted per-user and per-ESSID access control via MAC filtering
- Upgrades and management via System Director Manager
- Support for SNMP

**WIRELESS SPECIFICATIONS**

**TRANSMIT POWER (TX) AND RECEIVE SENSITIVITY (RX) PER STREAM**

<table>
<thead>
<tr>
<th>CONFIGURATION</th>
<th>MAXIMUM CONDUCTIVE POINT TRANSMIT POWER PER STREAM (DBM)</th>
<th>MAXIMUM EIRP PER STREAM (DBM), EXTERNAL ANTENNA SKU</th>
<th>MAXIMUM EIRP PER STREAM (DBM), INTERNAL ANTENNA SKU</th>
<th>RX (DBM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>802.11a</td>
<td>20.0</td>
<td>24.0</td>
<td>23.0</td>
<td>-91</td>
</tr>
<tr>
<td>802.11g</td>
<td>19.0</td>
<td>23.0</td>
<td>22.0</td>
<td>-77</td>
</tr>
<tr>
<td>802.11n, 2.4 GHz</td>
<td>18.0</td>
<td>22.0</td>
<td>21.0</td>
<td>-73</td>
</tr>
<tr>
<td>802.11n, 2.4 GHz</td>
<td>18.0</td>
<td>21.3</td>
<td>21.0</td>
<td>-71</td>
</tr>
<tr>
<td>802.11a</td>
<td>18.0</td>
<td>24.0</td>
<td>22.0</td>
<td>-77</td>
</tr>
<tr>
<td>802.11n, 5 GHz, HT20</td>
<td>17.0</td>
<td>23.0</td>
<td>21.0</td>
<td>-73</td>
</tr>
<tr>
<td>802.11n, 5 GHz, HT40</td>
<td>17.0</td>
<td>23.0</td>
<td>21.0</td>
<td>-70</td>
</tr>
<tr>
<td>802.11ac, 5 GHz, HT20</td>
<td>17.0</td>
<td>23.0</td>
<td>21.0</td>
<td>-71</td>
</tr>
<tr>
<td>802.11ac, 5 GHz, HT40</td>
<td>16.0</td>
<td>22.0</td>
<td>20.0</td>
<td>-65</td>
</tr>
<tr>
<td>802.11ac, 5 GHz, VHT80</td>
<td>16.0</td>
<td>22.0</td>
<td>20.0</td>
<td>-63</td>
</tr>
</tbody>
</table>

**DATA SHEET | Fortinet AP Series**

**PHYSICAL SPECIFICATIONS**

- **Weight**
  - AP822e without façade and mounting bracket: 1.5 lbs (0.7 kg)
  - AP822e (with mounting bracket): 1.9 lbs (0.9 kg)
  - AP822i (with mounting bracket): 2.3 lbs (1.1 kg)
  - AP822i or AP822e (with mounting bracket): 7.1 lbs (3.2 kg)

- **Dimensions**
  - AP822e metal enclosure only by removing plastic façade
  - Dimensions: 17.1 x 17.1 x 2.7 inches (43.4 x 43.4 x 6.9 cm)
  - AP822e with plastic façade: 17.1 x 17.1 x 2.7 inches (43.4 x 43.4 x 6.9 cm)
  - AP822e without façade and mounting bracket: 7.1 x 17.1 x 2.7 inches (18.0 x 43.4 x 6.9 cm)

- **Mounting**
  - Wall mount: junction box wall mount bracket included
  - Three mounting kits included with access point
  - Option (ordered separately)
    - One RJ45 Console: CBL-RJ45-ADAPT-X5, GbE extension adapter
    - One RJ45 Adapter X5, RJ45 extension adapter
    - One RJ45 Adapter X5, RJ45 extension adapter
    - One RJ45 Adapter X5, RJ45 extension adapter
    - MNT-FEET-SET-X5, rubber feet for desktop staging
    - CBL-RJ45-ADAPT-X5, GbE extension adapter

- **Installation in the Air-Handling Space**
  - Flat surface wall mount bracket (sold with AP822e)
  - 660-00033, 530 T bar adapter
  - AP822e metal enclosure only by removing plastic façade

**ADDITIONAL LEDS**

- One tri-color LED for AP status
  - Additional LEDs for Ethernet activity over two RJ45 ports (G1 & G2)

- One LED indicator
  - One reset button
  - One LED indicator

- One Kensington security slot

**Wireless Specifications**

- Model Introduction
  - AP822i dual-band, single-band IEEE Std 802.11b/g/n for 2.4 GHz and IEEE Std 802.11a/n/ac for 5 GHz band access point with four internal omnidirectional antennas
  - AP822e dual-band, single-band IEEE Std 802.11b/g/n for 2.4 GHz band and IEEE Std 802.11a/n/ac for 5 GHz band access point with four RP-SMA connectors and four external omnidirectional antennas

- **Supported Radio Technologies**
  - Dual radio access point for indoor environment
  - 2x2:2SS (two spatial streams)
  - IEEE Std 802.11b: BPSK, QPSK, CCK
  - IEEE Std 802.11a/g: BPSK, QPSK, 16-QAM, and 64-QAM
  - IEEE Std 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, and 256-QAM
  - IEEE Std 802.11a/g: BPSK, QPSK, 16-QAM, and 64-QAM

- **Supported Modulation**
  - IEEE Std 802.11a, 256-QAM
  - IEEE Std 802.11n, 256-QAM
  - IEEE Std 802.11n, 256-QAM
  - IEEE Std 802.11n, 256-QAM

- **Supported Frequency Bands**
  - IEEE Std 802.11a, 256-QAM
  - IEEE Std 802.11n, 256-QAM
  - IEEE Std 802.11n, 256-QAM
  - IEEE Std 802.11n, 256-QAM

- **Country-specific restrictions apply, adjusted by controller upon approval**

- **Data Rates Supported (Mbps)**
  - IEEE Std 802.11a: 54 Mbps (b), 48 Mbps (g)
  - IEEE Std 802.11n: 150 Mbps (a), 130 Mbps (g)
  - IEEE Std 802.11ac: 1 Gbps (a)

- **Supported MCS Index**
  - Supported MCS0-MCS7 for IEEE Std 802.11a (NSS=1–2)
  - Supported MCS0-MCS7 for IEEE Std 802.11a (NSS=1–2)
  - Supported MCS0-MCS7 for IEEE Std 802.11a (NSS=1–2)
  - Supported MCS0-MCS7 for IEEE Std 802.11a (NSS=1–2)

- **Supported Transmit Beam-forming (TxBF)**
  - Supported 2.4 GHz and 5 GHz band access point with four external omnidirectional antennas

- **Antennas**
  - Four integrated and external single-band omnidirectional antennas for 2x2 MIMO with maximum antenna gain of 3.3 dBi in 2.4 GHz and 6 dBi in 5 GHz
  - Internal antennas on the 822i are optimized for vertical wall-mounted orientation of the AP.
Specifications for AP822i and AP822e

**Environmental**
- Operating temperature: 32–122°F (0–50°C)
- Operating humidity: 5–95% non-condensing
- Storage temperature: -40–158°F (-40–70°C) ambient
- Storage humidity: 5–95% non-condensing

**REGULATORY APPROVAL**
- FCC (United States of America)
- CE Mark (European Community)
- Industry Canada (Canada)
- TELEC (Japan)
- Safety Approval (worldwide)

For more country-specific regulatory approval, please contact your Fortinet representative

**CERTIFICATIONS**
- WiFi CERTIFIED™
- EU RoHS
- CB Report

**WARRANTY**
- Limited lifetime warranty

**PART NUMBERS**
- **AP822i**
  - Four integrated dual-band omnidirectional metal PIFA antennas
- **AP822e**
  - Four reverse polarity SMA connectors; shipment comes with four omnidirectional antennas

**SPECIFICATION OF DEFAULT ANTENNA**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ANT-01ABGN-0406-0</td>
<td>External antenna (Default in AP822e): ANT-01ABGN-0406-0. 2.4/5 GHz 3.3/6 dBi omnidirectional antenna with a single RP-SMA jack</td>
</tr>
</tbody>
</table>

**SPECIFICATION OF OPTIONAL EXTERNAL ANTENNAS (SOLD SEPARATELY)**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ANT-ABGN23O-W</td>
<td>2.4/5 GHz 2/3 dBi omnidirectional rubber ducky antenna with a single RP-SMA jack</td>
</tr>
<tr>
<td>2 ANT-ABGN-47O</td>
<td>2.4/5 GHz 4.7/4.7 dBi omnidirectional rubber ducky antenna with a single RP-SMA jack</td>
</tr>
<tr>
<td>3 ANT-02ABGN-0304-0</td>
<td>2.4/5 GHz 3/4 dBi omnidirectional ceiling mount antenna, with 36-inch external coaxial cables and 2x RP-SMA jacks</td>
</tr>
</tbody>
</table>
# Antenna Model

**AP822i**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2.4–2.5 GHz</th>
<th>4.9–5.9 GHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Antenna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Antenna Gain</td>
<td>3.3 dBi</td>
<td>6.0 dBi</td>
</tr>
<tr>
<td>Polarization</td>
<td>Linear</td>
<td>Linear</td>
</tr>
<tr>
<td>Azimuth Beam-width</td>
<td>360°</td>
<td>360°</td>
</tr>
<tr>
<td>Elevation Beam-width</td>
<td>75°</td>
<td>55°</td>
</tr>
<tr>
<td>VSWR</td>
<td>1:1.5</td>
<td>1:1.5</td>
</tr>
</tbody>
</table>

![2.4 GHz H-plane](image1.png)

![2.4 GHz E-plane](image2.png)

![5 GHz H-plane](image3.png)

![5 GHz E-plane](image4.png)
Antenna Model

AP822e

<table>
<thead>
<tr>
<th>External Antenna</th>
<th>2.4–2.5 GHz</th>
<th>4.9–5.9 GHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Antenna Gain</td>
<td>3.3 dBi</td>
<td>6.0 dBi</td>
</tr>
<tr>
<td>Polarization</td>
<td>Linear</td>
<td>Linear</td>
</tr>
<tr>
<td>Azimuth Beam-width</td>
<td>360°</td>
<td>360°</td>
</tr>
<tr>
<td>Elevation Beam-width</td>
<td>75°</td>
<td>55°</td>
</tr>
<tr>
<td>VSWR</td>
<td>1:1.5</td>
<td>1:1.5</td>
</tr>
</tbody>
</table>

2.4 GHz H-plane

2.4 GHz E-plane

5 GHz H-plane

5 GHz E-plane
The OAP832e access point allows administrators to prioritize applications with Fortinet's unique channel-layering technology to improve the user experience. For schools, this means Learning Management System applications can be assigned to a dedicated channel layer, while online classroom video feeds can be carried on another channel layer. For healthcare, life-critical applications such as patient monitoring can be dynamically assigned to one channel layer, doctor and nursing applications to a second layer, and patient applications to a third.

The OAP832e also provides unique roaming support because Fortinet enables the network (not the client) to control AP client hand-off via our Air Traffic Control® technology, resulting in the industry’s lowest roaming latency figures — a true zero-handoff.

Additionally, Fortinet’s single-channel technology allows the OAP832e to leverage the 802.11ac design for pervasive, real-world deployments of 80 MHz channels, effectively doubling the available data rate and dramatically increasing throughput. It should be noted that all the Fortinet APs in this document can operate in multi channel mode as well as virtual cell mode.

As with other Fortinet APs, the OAP832e integrates seamlessly with FortiConnect and other applications to bring intelligent management and resilient wireless services to your network.

**Benefits**
- Provides an optimized 802.11ac experience with Very High Throughput (VHT) capabilities
- Delivers seamless mobility, with no channel planning
- Offers flexible deployment options for different customer requirements
- Offers full management and security assurances
Specifications for OAP832e

QoS
- 802.11E support (including WMM)
- Dynamic WMM rate adaptation
- Configurable QoS rules per user and application

OPERATING MODES
- Centralized deployment mode
- Distributed deployment mode
- Remote VPN tunnel mode

SECURITY
- WEP, WPA-PSK, WPA-TKIP, WPA2-AES, 802.11i, 802.1X (EAP-TLS, EAP-TTLS, PEAP, LEAP, EAP-FAST, EAP-4KA, and EAP-MD5)
- 802.1X and captive portal authentication against local database on the controller, RADIUS, and Active Directory
- RADIUS-assisted per-user and per-ESSID access control via MAC filtering

MANAGEMENT
- Centrally managed by any Fortinet controller running System Director
- Automatically discovers controllers and downloads configuration settings for plug-and-play deployment
- Upgrades and management using System Director / Network Manager
- Support for SNMP

WIRELESS SPECIFICATIONS
Model Introduction
OAP832e IEEE802.11a/b/g/n/ac access point, dual radio with six N-type connectors for external antennas

Supported Radio Technologies
- 2.4 GHz and 5 GHz radio access point
- 3x3:3SS (three spatial streams)
- Outdoor application
- Supported 2.4 GHz (TurboQAM Mode)
- Supported transmit beam-forming (TxBF)
- IEEE Std 802.11ac standard
- IEEE Std 802.11n/ac with Orthogonal Frequency Division Multiplexing (OFDM)
- IEEE Std 802.11a/g with Direct Sequence Spread Spectrum (DSSS)
- IEEE Std 802.11a/g with 20 MHz channel
- IEEE Std 802.11b with Direct Sequence Spread Spectrum (DSSS)
- IEEE Std 802.11b with 22 MHz channel
- IEEE Std 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
- IEEE Std 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- IEEE Std 802.11b: 1, 2, 5.5, 11 Mbps
- IEEE Std 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM
- IEEE Std 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- IEEE Std 802.11b: 1, 2, 5.5, 11 Mbps

Operational Channels
- 2.4 GHz channels
- 5 GHz channels
- CH1–13 for Japan, Europe, rest of world
- 5 GHz HT20 (20 MHz) Channel
- 5 GHz HT40 (40 MHz) Channel
- 5 GHz HT40 (40 MHz) Center Channel
- 5 GHz HT80 (80 MHz) Center Channel
- 5 GHz HT140 (140 MHz) Center Channel
- 5 GHz HT280 (280 MHz) Center Channel
- 2.4 GHz channels
- 5 GHz channels
- Non-DFS channel: CH36, 40, 44, 48, 144, 149, 153, 157
- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153
- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153
- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153
- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153

TRANSMIT POWER (TX) AND RECEIVER SENSITIVITY (RX) PER STREAM

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Maximum Conductive Point Transmit Power (dBm)</th>
<th>Maximum EIRP with External Antennas (dBm)</th>
<th>Receiver Sensitivity (dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>802.11b</td>
<td>25.0</td>
<td>29.0</td>
<td>-90</td>
</tr>
<tr>
<td>802.11g</td>
<td>24.0</td>
<td>28.0</td>
<td>-76</td>
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<tr>
<td>802.11n</td>
<td>23.0</td>
<td>28.0</td>
<td>-73</td>
</tr>
<tr>
<td>802.11ac</td>
<td>22.0</td>
<td>23.0</td>
<td>-75</td>
</tr>
<tr>
<td>802.11n</td>
<td>21.0</td>
<td>22.0</td>
<td>-64</td>
</tr>
<tr>
<td>802.11ac</td>
<td>21.0</td>
<td>21.0</td>
<td>-61</td>
</tr>
</tbody>
</table>

Note: Maximum EIRP is country specific and based on the country regulatory approvals.

Supported Data Rate (Mbps)
- IEEE Std 802.11a: three streams: 19.5–1300 Mbps (MS0-HT2008000s to MS0-HT4008000s)
- IEEE Std 802.11b: two streams: 0.5–6 Mbps (MS0-HT200400ns to MS0-HT400800ns)
- IEEE Std 802.11g: two streams: 1.6–54 Mbps (MS0-HT200400ns to MS0-HT400800ns)
- IEEE Std 802.11n: three streams: 1.6–600 Mbps (MS0-HT200400ns to MS0-HT400800ns)
- IEEE Std 802.11ac: three streams: 6.5–1733.3 Mbps (MS0-HT200400ns to MS0-HT400800ns)

Supported MCS Index
- Supported MCS0–MCS39 (MCS1=1–3) for IEEE Std 802.11ac
- Supported MCS0–MCS23 for IEEE Std 802.11n

Supported Frequency Bands
- 2.400–2.4835 GHz (ISM)
- 5.150–5.250 GHz (VHT20)
- 5.250–5.350 GHz (VHT20)
- 5.350–5.470 GHz (VHT20)
- 5.470–5.625 GHz (VHT20)
- 5.625–5.725 GHz (VHT20)
- 5.725–5.825 GHz (VHT20)

Country-specific restrictions apply: adjusted by controller upon approval

Data Sheet | Fortinet AP Series
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Operating Channels
- 2.4 GHz channels
- 5 GHz channels
- CH1–13 for Japan, Europe, rest of world
- 5 GHz HT20 (20 MHz) Channel
- Non-DFS channel: CH36, 40, 44, 48, 144, 149, 153, 157
- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153
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- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153
- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153
- 5 GHz HT40 (40 MHz) Channel
- 5 GHz HT80 (80 MHz) Channel
- 5 GHz HT140 (140 MHz) Channel
- 5 GHz HT280 (280 MHz) Channel
- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153
- DFS channel upon approval: CH 36, 40, 44, 48, 144, 149, 153

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- IEEE Std 802.11a: three streams: 19.5–1300 Mbps (MS0-HT2008000s to MS0-HT4008000s)
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- IEEE Std 802.11g: two streams: 1.6–54 Mbps (MS0-HT200400ns to MS0-HT400800ns)
- IEEE Std 802.11n: three streams: 1.6–600 Mbps (MS0-HT200400ns to MS0-HT400800ns)
- IEEE Std 802.11ac: three streams: 6.5–1733.3 Mbps (MS0-HT200400ns to MS0-HT400800ns)

Supported MCS Index
- Supported MCS0–MCS39 (MCS1=1–3) for IEEE Std 802.11ac
- Supported MCS0–MCS23 for IEEE Std 802.11n

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- 2.400–2.4835 GHz (ISM)
- 5.150–5.250 GHz (VHT20)
- 5.250–5.350 GHz (VHT20)
- 5.350–5.470 GHz (VHT20)
- 5.470–5.625 GHz (VHT20)
- 5.625–5.725 GHz (VHT20)
- 5.725–5.825 GHz (VHT20)

Country-specific restrictions apply: adjusted by controller upon approval

Supported Transmission Power
- Transmission power configurable in 1.0 dBm increments
- Unused radios can be disabled via software for lower power consumption
- Antennas
  - 6 external omnidirectional antennas for 3x3 MIMO with maximum antenna gain of 6 dBi at 2.4 GHz and 7 dBi in 5 GHz.

Platforms supports Dynamic Frequency Selection (DFS & DFS/TPC) for future 5 GHz channel adoption

Certified by the following standards:
- FCC
- CE
- CB
- RRL
- VCCI
- IC
- NCC
- BSI
- TUV
- GOST-R
- KCC
- BIS
- ROSH

Certification Information
- Certification/Registration Numbers
- Facility Location Information
- Environmental Requirements
- Additional Requirements

Note: Maximum EIRP is country specific and based on the country regulatory approvals.
Specifications for OAP832e

**PHYSICAL SPECIFICATIONS**

**Power**
- Operates at IEEE 802.3at power
- Powered by IEEE 802.1at PoE (Power over Ethernet) injector or switch

**Other Interfaces**
- 6 N-Type connectors for external antenna SKU (AP832e)
- 1 RJ45 port (G1) supports IEEE Std 802.3at or 802.3at PoE
- 1 USB 2.0 port (Type-A) for future feature
- 1 Kensington security slot

**LED Indicators**
- 1 LED for AP Power ON status
- 2 LEDs for Ethernet activity over two RJ45 ports (LAN1 & LAN2)
- 2 LEDs for the 2.4 GHz and 5.0 GHz radio status indicator

**Mounting**
- 1.5–1.6 inch (5–7.5 cm) diameter pole-mounting kit (included).
- Wall-mounting kit (included).

**Dimensions**
- 11.0 x 8.54 x 2.0 inches (28.0 x 21.7 x 5.0 cm)

**Weight**
- OAP832e (without mounting bracket): 5 lbs (2.27 kg)
- OAP832e (with mounting bracket): 7 lbs (3.18 kg)

**Environmental**
- Operating temperature: -40˚–149°F (-40–65°C)
- Operating humidity: 5–95% non-condensing
- Storage temperature: -40–158˚ F (-40–70°C) ambient
- Storage humidity: 5–95% non-condensing
- Surge protection built-in

**REGULATORY APPROVAL**
- FCC (United States of America)
- CE Mark (European Community)
- Industry Canada (Canada)
- TEC Mark (Japan)
- Safety Approval (worldwide)
- EU RoHS
- For more country-specific regulatory approval, please contact your Fortinet representative.

**CERTIFICATIONS**
- WiFi certified IEEE Std 802.11a/b/g/n (ac)
- CB Report

**WARRANTY**
- 1 year hardware warranty

**PART NUMBER**
- OAP832e
- 6 extended Type N female connectors

**SPECIFICATION OF OPTIONAL EXTERNAL ANTENNAS (SOLD SEPARATELY)**

<table>
<thead>
<tr>
<th>MODEL NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ANT-O6ABGN-0606-O</td>
<td>2.4/5.0 GHz 6/6 dBi omnidirectional wall/pole-mount antenna, with 36-inch external coaxial cables and 6x RP-SMA male connector</td>
</tr>
<tr>
<td>2 ANT-O6ABGN-0607-PT</td>
<td>2.4/5.0 GHz 6/7 dBi directional patch wall/pole-mount antenna, with 36-inch external coaxial cables and 6x RP-SMA male connector</td>
</tr>
<tr>
<td>3 ANT-BG08O-NM</td>
<td>2.4 GHz 8-dBi omnidirectional outdoor antenna with 1 N-type male connector</td>
</tr>
<tr>
<td>4 AN-T-A08O-NM-2</td>
<td>5.0 GHz UNII-2 &amp; 3 Band 8 dBi omnidirectional outdoor antenna with 1 N-type male connector</td>
</tr>
<tr>
<td>5 ANT-O6ABGN-0606-PN</td>
<td>Dual band panel 6-lead antenna for MIMO applications. Features 3 integrated 2.4 GHz panel antennas and 3 integrated 5 GHz panel antennas, 6 dBi at 2.4 GHz, 6 dBi at 5 GHz.</td>
</tr>
</tbody>
</table>

Please note the range of Fortinet infrastructure access points are supported by a combination of specific controller firmware and hardware and are not designed to function with third-party controllers. Specific supported access point and controller combinations will change from time to time and such changes are detailed in the respective firmware release notes. The Fortinet range of controllers, whether they are infrastructure or integrated into FortiOS, only support Fortinet provided access points. Note that not all access points are supported by all controller types.
### Highlights

**Fortinet AP122**

The AP122 is the first wall plate access point specifically designed to meet the ever-increasing mobile data needs of hotel guests and resident college and university students. With gigabit-data rates, the AP122 is perfectly suited for in-room deployment needs of the hotel, cruise line and higher-education residence-hall markets.

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#### 802.11ac Wave 1 | Dual Radio 2.4 GHz and 5 GHz | 4 Internal Antennas

- **Up to 300 + 867 Mbps**

Designed to be placed in any location flush to a wall, the AP122 can be installed by standard service personnel using existing CAT5/6 cabling connected from a standard wall junction box. For wired connectivity, it features two 10/100 BASE-T switch ports to support a range of in-room IP device and user connectivity options. Additionally, one of the wired ports can operate as an IEEE 802.3af-compliant PoE Out port offering up to 13 watts of power, capable of powering devices such as IP telephones. This reduces costs in additional cabling, switch ports, and power sourcing equipment. An additional pass-through port allows connectivity for digital phones and a USB port offers options for future uses.

Like other Fortinet access points, the AP122 integrates seamlessly with our Network Manager, Fortinet Connect, and other application solutions to bring intelligent management and resilient wireless services to your network. The AP122 is ideal for supporting IP-based services such as VoIP, IPTV, high-speed Internet access and in-room device connectivity.

Additionally, Fortinet’s Virtual Cell, single-channel option uniquely allows the AP122 to support pervasively, full channel 802.11ac in real-world deployments, which more than double the data rate over legacy 802.11n solutions. This architecture also greatly simplifies RF coverage planning and significantly reduces wireless LAN (WLAN) deployment costs.

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### Benefits

- Support for in-room, IP-based services such as VoIP, streaming video, and high-speed Internet access
- Support for in-room IP devices and digital phones with native access to in-house PBX system
- Maximizes full-channel 802.11ac throughout the enterprise
- No infrastructure upgrades
Specifications for AP122

OPERATING MODES
- Centralized deployment mode
- Distributed deployment mode
- Remote VPN Tunnel mode

SECURITY
- WEP, WPA-PSK, WPA-TKIP, WPA2- AES, 802.11i, 802.1X (EAP-TLS, EAP-TTLS, PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-AKA, and EAP-MD5)
- 802.1X and captive portal authentication against local database on the controller, RADIUS, and Active Directory
- RADIUS-assisted per-user and per-ESSID access control via MAC filtering

MANAGEMENT
- Automatically discovers controllers and downloads configuration settings for plug-and-play deployment
- Upgrades and management using System Director/E(z)RF® Network Manager
- Support for SNMP

WIRELESS SPECIFICATIONS
Model Introduction
AP122 is at dual-radio architecture with:
- 2.4 GHz Std 802.11b/g/n
- 5.6 GHz 802.11a/n/ac

Supported radio technologies
- 2x2:2SS (two spatial streams)
- IEEE Std 802.11b with Direct Sequence Spread Spectrum (DSSS)
- IEEE Std 802.11ac with 20/40/80 MHz (HT20/HT40/VHT80) channel width
- IEEE Std 802.11n with 40 MHz (HT40) channel width
- IEEE Std 802.11a/g with 20 MHz channel

Supported Modulation
- IEEE Std 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, and 256-QAM
- IEEE Std 802.11a/g/n: BPSK, QPSK, 16-QAM, and 64-QAM
- IEEE Std 802.11b: BPSK, QPSK, CCK

Supported MCS Index
- Supported MCS0 to MCS9 for IEEE Std 802.11ac (NSS=1 to 2)
- Supported MCS0 to MCS15 for IEEE Std 802.11n

Supported Frequency Bands
- 2.400 to 2.4835 GHz (ISM)
- 5.150 to 5.725 GHz (UNII-1)
- 5.470 to 5.875 GHz (UNII-2, DFS)
- 5.450 to 5.725 GHz (UNII-2 Extends, DFS)
- 5.725 to 5.850 GHz (UNII-2, DFS)

DEFAULT TRANSMIT POWER
- Default transmit power per antenna:
  - 2.4 GHz: 10 dBm
  - 5.2 GHz: 13 dBm
- Maximum available transmit power per antenna:
  - 2.4 GHz: 20 dBm
  - 5.2 GHz: 20 dBm
- Transmit power adjustment:
  - 1 dBm increments
- Actual Tx power dependent on national regulatory limits

RECEIVER SENSITIVITY

<table>
<thead>
<tr>
<th>Standard</th>
<th>Data rate (Mbps)</th>
<th>Receiver sensitivity (dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4 GHz, IEEE 802.11b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4 GHz, IEEE 802.11g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4 GHz, IEEE 802.11n HT20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4 GHz, IEEE 802.11n HT40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 GHz, IEEE 802.11a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 GHz, IEEE 802.11n HT20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 GHz, IEEE 802.11n HT40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 GHz, IEEE 802.11ac HT20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 GHz, IEEE 802.11ac HT40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 GHz, IEEE 802.11ac HT80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Antennas
Four integrated Single band omni-directional antennas for 2x2 MIMO with maximum antenna gain of 3.6 dB in 2.4 GHz and 5 dB in 5 GHz. Antennas are optimized for vertical wall-mounted orientation of the AP.

PHYSICAL SPECIFICATIONS

Power
- IEEE PoE (Power over Ethernet) 802.3at/802.3at injector or switch
- 48V external power adapter (sold separately)

Other Interfaces
- One 10/100/1000 Mbps BASE-T Ethernet RJ45 for Data uplink (G1)
- One USB 2.0 port (Type-A)
- One RJ45 Passthrough port: RJ45 to RJ45

LED Indicators
- One tri-color LED for AP status
- One reset button

Mounting
- Wall mount: junction box wall mount bracket included

Dimensions
- 5.51 x 5.35 x 1.18 inches (14.0 x 13.6 x 3.0 cm)

Environmental
- Operating temperature: 32–104°F (0–40°C)
- Operating humidity: 5–95% non-condensing
- Storage temperature: -40–158°F (-40–70°C) ambient
- Storage humidity: 5–95% non-condensing
Specifications for AP122

REGULATORY COMPLIANCE

Unintentional Radiation Compliance Requirements

ICES-003 Class B – issue 4, February 2004
EN 301 489-17
EN 301 489-11
EN65022 Class B – 2006
EN55022 / AS/NZS CSIRF 24 / Immunity
EN61000-4-2,3,4,5,6
Japan VCCI Class B
EN60601-1-2

Radio Compliance Requirements

RSS-210 Issue 8, December 2010
EN 300 220 v1.7.1 (2006-05)
EN 301 893 V1.7.1 (2009-12)
Japan Radio Law 39-24-1 (Koshin) – WW 2.4 GHz band
Japan Radio Law 39-24-1 (Koshin) – XW 5.3 GHz band and YX 5.6 GHz band

Safety Compliance Requirements

UL 60950-1, 2nd Edition, 2011-12
IEC 60950-1(ed. 2), IEC 60950-1(ed. 2):am1

Environmental Compliance Requirements

RoHS, Directive 2011/65/EU (RoHS 2)
WEEE, Directive 2012/19/EU

Ethernet Standards

Ethernet IEEE 802.3
Power Over Ethernet IEEE 802.3at Pd
Power Over Ethernet IEEE 802.3af Pse
Wireless IEEE 802.11ac/b/g/n/6

CERTIFICATION

WiFi Certified — IEEE Std 802.11a/b/g/n/ac

WARRANTY

Limited lifetime warranty

PART NUMBER

AP122: 802.11ac 2x2:2 dual radio, dual concurrent wall plate access point

Please note the range of Fortinet controller-managed access points are supported by a combination of specific controller firmware and hardware and are not designed to function with third-party controllers. Specific supported access point and controller combinations will change from time to time and such changes are detailed in the respective firmware release notes. The Fortinet range of controllers, whether they are standalone or integrated into FortiOS, only support Fortinet provided access points. Note that not all access points are supported by all controller types.