# Fortinet AP122

802.11ac Wall Plate Access Point

## 802.11ac in-room performance for hospitality and higher education

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.

Designed to be placed in any location flush to a wall utilizing a standard junction box, 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. The AP122 is built to provide years of trouble-free operation and is backed by a limited lifetime warranty.

With guest surveys commonly ranking Wi-Fi as the most requested guest amenity for the hospitality industry, ensuring a high-quality mobile experience has never been more critical. Like other Fortinet access points, the AP122 integrates seamlessly with our Network Manager, Mobile 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. With Fortinet organizations can easily offer tiered services to different users, differentiating guests, employees, students and facility.

Additionally, Fortinet's single-channel option within the Mobile***FLEX*** platform 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.

## Features

- 802.11ac 2x2:2 in-room wall plate form factor

- Multiple 10/100 client, PoE Out, pass-through ports

- Supports pervasive 80 MHz channel usage

## 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

**FortiCare Worldwide 24x7 Support**
support.fortinet.com

**FortiGuard Security Services**
www.fortiguard.com

# SPECIFICATIONS

| 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:<br>- 2.4 GHz Std 802.11b/g/n<br>- 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, QPS K, 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 5.250 GHz (UNII-1) |
| 5.250 to 5.350 GHz (UNII-2, upon DFS approval) |

| AP122 Default Transmit Power | | |
| --- | --- | --- |
| Default transmit power per antenna | 2.4 GHz:10dBm | 5.2 GHz:13 dBm |
| Maximum available transmit power per antenna | 2.4 GHz:17 dBm | 5.2 GHz:17 dBm |
| Transmit power adjustment | 1 dBm increments | |
| Actual Tx power dependent on national regulatory limits | | |

| AP122 Receiver Sensitivity | | |
| --- | --- | --- |
| Standard | Data rate (Mbps) | Receiver sensitivity (dBm) |
| 2.4GHz, IEEE 802.11b | 1 | -97 |
| | 11 | -89 |
| 2.4GHz, IEEE 802.11g | 6 | -94 |
| | 54 | -76 |
| 2.4GHz, IEEE 802.11n HT20 | MCS0/8 | -93 |
| | MCS7/15 | -72 |
| 2.4GHz, IEEE 802.11n HT40 | MCS0/8 | -91 |
| | MCS7/15 | -70 |
| 5GHz, IEEE 802.11a | 6 | -92 |
| | 54 | -72 |
| 5GHz, IEEE 802.11n HT20 | MCS0/8 | -90 |
| | MCS7/15 | -72 |
| 5GHz, IEEE 802.11n HT40 | MCS0/8 | -86 |
| | MCS7/15 | -68 |
| 5GHz, IEEE 802.11AC HT20 | MCS0NSS1/2 | -89 |
| | MCS8NSS1/2 | -68 |
| 5GHz,IEEE 802.11AC HT40 | MCS8NSS1/2 | -88 |
| | MCS8NSS1/2 | -62 |
| 5GHz, IEEE 802.11AC HT80 | MCS8NSS1/2 | -82 |
| | MCS8NSS1/2 | -60 |

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

| Physical Specifications |
| --- |

| Power |
| --- |
| IEEE PoE (Power over Ethernet) 802.3af/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 10/100 Mbps BASE-T Ethernet RJ45 port with PoE Out support. |
| One 10/100 Mbps BASE-T Ethernet RJ45 port |
| One USB 2.0 port (Type-A) |
| One reset button |
| One RJ45 Passthrough port: RJ45 to RJ45 |
| One USB 2.0 port (Type-A) |
| One reset button |
| One RJ45 Passthrough port: RJ45 to RJ45 |
| One USB (future use) |
| One tri-color LED over façade for AP status |

| LED Indicators |
| --- |
| One tri-color LED for AP status |

| Mounting |
| --- |
| Wall mount: junction box wall mount bracket included |

| Dimensions |
| --- |
| AP122: 5.51" x 5.35" x 1.18" (14.0 cm x 13.6 cm x 3.0 cm) |

| Environmental |
| --- |
| Operating temperature: 32˚ F to 104˚ F (0˚ C to 40˚ C) |
| Operating humidity: 5 to 95% (non-condensing) |
| Storage temperature: -40˚ F to 185˚ F (-40˚ C to 70˚ C) ambient |
| Storage humidity: 5 to 95% (non-condensing) |

# SPECIFICATIONS

| AP122 Regulatory Compliance |
| --- |
| **Unintentional Radiation Compliance Requirements** |
| FCC Part 15.107 - 47CFR15.107 October 1, 2008 Class B |
| FCC Part 15.109 - 47CFR15.109 October 1, 2008 Class B |
| ICES-003 Class B – issue 4, February 2004 |
| EN 301 489-1 |
| EN 301 489-17 |
| EN55022 Class B – 2006 |
| EN55024 / AS/NZS CISPR 24 / Immunity |
| EN61000-4-2,3,4,5,6 |
| Japan VCCI Class B |
| EN60601-1-2 |
| **Radio Compliance Requirements** |
| FCC Part 15.247 - 47 CFR Ch. I (10–1–00 Edition) |
| FCC Part 15.407  - 47 CFR15.407 October 1, 2008 |
| RSS-210 Issue 8, December 2010 |
| RSS-210 W52, W53 and W56 |
| EN 300 328 v1.7.1 (2006-05) |
| EN 301 893 V1.7.1 (2008-12) |
| Japan Radio Law 38-24-1 (Ninsho) - WW   2.4 GHz band |
| Japan Radio Law 38-24-1 (Ninsho) - XW   5.3 GHz band and YX 5.6 GHz band |
| **Safety Compliance Requirements** |
| UL 60950-1, 2nd Edition, 2011-12-19 |
| CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12 |
| EN 60950-1:2006+A11:2009+A1:2010+A12:2011 |
| 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 |
| REACH, Regulation (EC) No 1907/2006 |
| **Ethernet Standards** |
| Ethernet IEEE 802.3 |
| Power Over Ethernet IEEE 802.3at PD |
| Power Over Ethernet IEEE 802.3af PSE |
| Wireless IEEE 802.11a/b/g/n/ac |

| Certification Pending |
| --- |
| Wi-Fi Certification pending – 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 |