



## AP122

802.11ac Wall Plate Access Point



# Fortinet AP122

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## 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 WiFi 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 faculty.

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.

### 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



# 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<sup>®</sup> 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 5.250 GHz (UNII-1)  
 5.250 to 5.350 GHz (UNII-2, DFS)

## DEFAULT TRANSMIT POWER

	2.4 GHz: 10 dBm	5.2 GHz: 13 dBm
Default transmit power per antenna	2.4 GHz: 10 dBm	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

## RECEIVER SENSITIVITY

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

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: -40–185°F (-40–70°C) ambient  
 Storage humidity: 5–95% non-condensing

# SPECIFICATIONS

## 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 802.3af PD

Power Over Ethernet IEEE 802.3af PSE

Wireless IEEE 802.11a/b/g/n/ac

## CERTIFICATION PENDING

WiFi 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

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.



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