AP-220 SERIES SPECIFICATIONS

AP-225 and IAP-225

- 2.4-GHz (600 Mbps max) and 5-GHz (1.3 Gbps max) radios, each with 3×3 MIMO and three integrated omni-directional downtilt antennas

AP-224 and IAP-224

- 2.4-GHz (600 Mbps max) and 5-GHz (1.3 Gbps max) radios, each with 3×3 MIMO and three combined, diplexed external antenna connectors

WIRELESS RADIO SPECIFICATIONS

AP type: Indoor, dual radio, 5 GHz 802.11ac and 2.4 GHz 802.11n

- In addition to 802.11n data rates, the 2.4-GHz radio supports 802.11ac data rates using 256-QAM modulation. This gives TurboQAM-enabled clients a 33% boost above the maximum supported data rate.

Software-configurable dual radio supports 5 GHz and 2.4 GHz

3×3 MIMO with three spatial streams and up to 1.3 Gbps wireless data rate

Supported frequency band (country-specific restrictions apply):

- 2.4000 GHz to 2.4835 GHz
- 5.150 to 5.250 GHz
- 5.250 to 5.350 GHz
- 5.470 to 5.725 GHz
- 5.725 to 5.850 GHz

Available channels: Dependent upon configured regulatory domain

Dynamic frequency selection (DFS) optimizes the use of available RF spectrum

Supported radio technologies:

- 802.11b: Direct-sequence spread-spectrum (DSSS)
- 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM)
- 802.11n/ac: 3×3 MIMO with up to three spatial streams

Supported modulation types:

- 802.11b: BPSK, QPSK, CCK
- 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM

Transmit power: Configurable in increments of 0.5 dBm

Maximum (aggregate, conducted total) transmit power (limited by local regulatory requirements):

- 2.4-GHz band: +23 dBm
- 5-GHz bands: +23 dBm

Advanced cellular coexistence (ACC) feature to effectively deal with interference from cellular systems

Maximum ratio combining (MRC) for improved receiver performance
Cyclic delay diversity (CDD) for improved downlink RF performance
Short guard interval for 20-MHz, 40-MHz and 80-MHz channels
Space-time block coding (STBC) for increased range and improved reception
Low-density parity check (LDPC) for high-efficiency error correction and increased throughput
Transmit beam-forming (TxBF) for increased reliability in signal delivery
Supported data rates (Mbps):

- 802.11b: 1, 2, 5.5, 11
- 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
- 802.11n: 6.5 to 450 (MCS0 to MCS23)
- 802.11ac: 6.5 to 1,300 (MCS0 to MCS9, NSS = 1 to 3)

802.11n high-throughput (HT) support: HT 20/40
802.11ac very high throughput (VHT) support: VHT 20/40/80
802.11n/ac packet aggregation: A-MPDU, A-MSDU

POWER

Worst-case power consumption from the AP (excluding power drawn by an attached USB device):

- In restricted mode (PoE): 13.5 watts
- In unrestricted mode (PoE): 17 watts
- In unrestricted mode (DC): 15.5 watts

Power sources sold separately
Direct DC source: 12 Vdc nominal, +/- 5%
Power over Ethernet (PoE): 48 Vdc (nominal) 802.3af or 802.3at-compliant source
Efficient mode PoE – power save with 802.3af PoE and limited functionality on 2.4 GHz

- USB port disabled
- Second Ethernet port disabled
- 2.4-GHz 802.11n radio in 1×3:1SS mode

Unrestricted functionality with 802.3at PoE+

OTHER INTERFACES

Two 10/100/1000BASE-T Ethernet network interfaces (RJ-45)
- Auto-sensing link speed and MDI/MDX
- PoE-PD: 48 Vdc 802.3af PoE or 802.3at PoE+

DC power interface, accepts 1.7/4.0mm center-positive circular plug with 9.5 mm length

USB 2.0 port (Type A connector)

Serial console interface (RJ-45, TTL levels)

Visual indicators (LEDs):
- Power/system status
- Ethernet link status (2x; ENET0, ENET1)
- Radio status (2x; RAD0, RAD1)

Kensington security slot

Reset button

-

ANTENNAS

AP-224: Three RP-SMA connectors for external dual-band antennas

AP-225: Six integrated down-tilt omni-directional antennas for 3×3 MIMO with maximum antenna gain of 3.5 dBi in 2.4 GHz and 4.5 dBi in 5 GHz. Built-in antennas are optimized for horizontal ceiling mounted orientation of AP-225.

MOUNTING

Included with AP:
- Mounting brackets (2) for attaching to 9/16-inch or 15/16-inch T-bar drop-tile ceiling

Optional mounting kits:
- AP-220-MNT-C2: Aruba 220 series AP mount kit contains two ceiling-grid rail adapters for Interlude and Silhouette style rails.
- AP-220-MNT-W1: Aruba 220 series AP mount kit contains one flat-surface wall/ceiling mount bracket.
- AP-220-MNT-W2: Aruba 220 series AP mount kit contains one flat-surface wall/ceiling secure mount cradle

MECHANICAL

Dimensions/weight (unit, excluding mount accessories):
- 203 mm (W) x 203 mm (D) x 54 mm (H), 8.0" (W) x 8.0" (D) x 2.1" (H)
- 750 g/27 oz

Dimensions/weight (shipping):
- 315 mm (W) x 265 mm (D) x 100 mm (H), 12.4" (W) x 10.4" (D) x 3.9" (H)
- 1,250 g/44 oz

ENVIRONMENTAL

Operating:
- Temperature: 0° C to +50° C (+32° F to +122° F)
- Humidity: 5% to 95% non-condensing

Storage and transportation temperature range:
- Temperature: -40° C to +70° C (-40° F to +158° F)

REGULATORY

FCC/Industry of Canada
CE Marked
R&TTE Directive 1999/5/EC
Low Voltage Directive 2006/95/EC
EN 300 328
EN 301 489
EN 301 893
UL/IEC/EN 60950
EN 60601-1-1, EN60601-1-2
For more country-specific regulatory information and approvals, please see your Aruba representative.

REGULATORY MODEL NUMBERS

AP-224 and IAP-224: APIN0224
AP-225 and IAP-225: APIN0225

CERTIFICATIONS

CB Scheme Safety, cTUVus
UL2043 plenum rating
Wi-Fi Alliance certified 802.11a/b/g/n/ac

REGULATORY MODEL NUMBERS

AP-224 and IAP-224: APIN0224
AP-225 and IAP-225: APIN0225

CERTIFICATIONS

CB Scheme Safety, cTUVusWi-Fi Alliance-certified 802.11a/b/g/n/ac

WARRANTY

Aruba limited lifetime warranty

MINIMUM SOFTWARE VERSIONS

ArubaOS™ 6.3.0.0Aruba Instant 4.0.0.0