UNIQUE BENEFITS

Dual Radio 802.11ac access point with Multi-User MIMO

- Supports up to 1,733Mbps in the 5GHz band (with 4SS/VHT80 or 2SS/VHT160 clients) and up to 400Mbps in the 2.4 GHz band (with 2SS/VHT40 clients).

Built-in Bluetooth Low-Energy (BLE) radio

- Enables location based services with BLE-enabled mobile devices receiving signals from multiple Aruba Beacons at the same time.

Advanced Cellular Coexistence (ACC)

- Minimizes interference from 3G/4G cellular networks, distributed antenna systems and commercial small cell/femtocell equipment.

Quality of service for Unified Communication apps

- Supports priority handling and policy enforcement for unified communication apps, including Microsoft Skype for Business with encrypted videoconferencing, voice, chat and desktop sharing.

RF Management

- Adaptive Radio Management (ARM) technology automatically assigns channel and power settings, provides airtime fairness and ensures that APs stay clear of all sources of RF interference to deliver reliable, high-performance WLANs.
- The Aruba 310 Series APs can be configured to provide part-time or dedicated air monitoring for spectrum analysis and wireless intrusion protection, VPN tunnels to extend remote locations to corporate resources, and wireless mesh connections where Ethernet drops are not available.

Support for additional 5GHz bands

- Supports software upgrade to enable additional 5GHz spectrum when governments expand available frequencies.

Intelligent app visibility and control

- AppRF technology leverages deep packet inspection to classify and block, prioritize or limit bandwidth for over 1,500 enterprise apps or groups of apps.

Security

- Integrated wireless intrusion protection offers threat protection and mitigation, and eliminates the need for separate RF sensors and security appliances.
- IP reputation and security services identify, classify, and block malicious files, URLs and IPs, providing comprehensive protection against advanced online threats.
- Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys.

Intelligent Power Monitoring (IPM):

- Enables the AP to continuously monitor and report its actual power consumption and optionally make autonomous decisions to disable certain capabilities

- For the 310 Series access points, the IPM power-save feature applies when the unit is powered by an 802.3af PoE source. By default, the USB interface will be the first feature to turn off if AP power consumption will exceed the available power budget. In rare cases, it may be necessary to take additional power saving measures, but in most cases, the 310 Series APs will operate in unrestricted mode.

CHOOSE YOUR OPERATING MODE

Aruba 310 Series APs offer a choice of operating modes to meet your unique management and deployment requirements.

- Controller-managed mode - When managed by Aruba Mobility Controllers, Aruba 310 Series APs offer centralized configuration, data encryption, policy enforcement and network services, as well as distributed and centralized traffic forwarding.
- Aruba Instant mode - In Aruba Instant mode, a single AP automatically distributes the network configuration to other Instant APs in the WLAN. Simply power-up one Instant AP, configure it over the air, and plug in the other APs - the entire process takes about five minutes. If WLAN requirements change, a built-in migration path allows 310 Series instant APs to become part of a WLAN that is managed by a Mobility Controller.
- Remote AP (RAP) for branch deployments
- Air monitor (AM) for wireless IDS, rogue detection and containment
- Spectrum analyzer, dedicated or hybrid, for identifying sources of RF interference
- Secure enterprise mesh

For large installations across multiple sites, the Aruba Activate service significantly reduces deployment time by automating device provisioning, firmware upgrades, and inventory management. With Aruba Activate, Instant APs are factory-shipped to any site and configure themselves when powered up.

SPECIFICATIONS

AP-314 (controller-managed) and IAP-314 (Instant):

- 802.11ac - 5GHz 4x4 MIMO (1,733Mbps max rate) and 2.4GHz 2x2 MIMO (400Mbps max rate) radios, with a total of four dual-band RP-SMA connectors for external antennas

AP-315 (controller-managed) and IAP-315 (Instant):

- 802.11ac - 5GHz 4x4 MIMO (1,733Mbps max rate) and 2.4GHz 2x2 MIMO (400Mbps max rate) radios, with a total of four integrated omni-directional downtilt dual-band antennas

WI-FI RADIO SPECIFICATIONS

AP type: Indoor, dual radio, 5GHz 802.11ac 4x4 MIMO and 2.4GHz 802.11n 2x2 MIMO
Software-configurable dual radio supports 5GHz (Radio 0) and 2.4GHz (Radio 1)
5GHz: Four spatial stream Single User (SU) MIMO for up to 1,733Mbps wireless data rate to individual 4x4 VHT80 or 2x2 VHT160 client devices
2.4GHz: Two spatial stream Single User (SU) MIMO for up to 400 Mbps wireless data rate to individual 2x2 VHT40 client devices (300Mbps for HT40 802.11n client devices)
5GHz: Four spatial stream Multi User (MU) MIMO for up to 1,733 Mbps wireless data rate to up to three MU-MIMO capable client devices simultaneously
Support for up to 255 associated client devices per radio, and up to 16 BSSIDs per radio
Supported frequency bands (country-specific restrictions apply):

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

Available channels: Dependent on 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)

Supported modulation types:

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

Transmit power: Configurable in increments of 0.5 dBm
Maximum (conducted) transmit power (limited by local regulatory requirements):

- 2.4GHz band: +18 dBm per chain, +21dBm aggregate (2x2)
- 5GHz band: +18 dBm per chain, +24dBm aggregate (4x4)
- Note: conducted transmit power levels exclude antenna gain. For total (EIRP) transmit power, add antenna gain

Advanced Cellular Coexistence (ACC) minimizes interference from cellular networks
Maximum ratio combining (MRC) for improved receiver performance
Cyclic delay/shift diversity (CDD/CSD) for improved downlink RF performance
Short guard interval for 20MHz, 40MHz, 80MHz and 160MHz 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 signal reliability and range
Supported data rates (Mbps):

- 802.11b: 1, 2, 5.5, 11
- 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
- 802.11n (2.4GHz): 6.5 to 300 (MCS0 to MCS15)
- 802.11n (5GHz): 6.5 to 600 (MCS0 to MCS31)
- 802.11ac: 6.5 to 1,733 (MCS0 to MCS9, NSS = 1 to 4 for VHT20/40/80, NSS = 1 to 2 for VHT160)

802.11n high-throughput (HT) support: HT 20/40
802.11ac very high throughput (VHT) support: VHT 20/40/80/160
802.11n/ac packet aggregation: A-MPDU, A-MSDU

WI-FI ANTENNAS

AP-314/IAP-314: Four RP-SMA connectors for external dual band antennas. Worst-case internal loss between radio interface and external antenna connectors (due to diplexing circuitry): 0.6dB in 2.4GHz and 1.2dB in 5GHz.
AP-315/IAP-315: Four integrated dual-band downtilt omni-directional antennas for 4x4 MIMO with maximum antenna gain of 3.1dBi in 2.4GHz and 5.0dBi in 5GHz. Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP. The downtilt angle for maximum gain is roughly 30 degrees.

- The maximum gain of the combined (summed) antenna patterns for all elements operating in the same band is 3.9dBi in 2.4GHz and 5.7dBi in 5GHz.

OTHER INTERFACES

One 10/100/1000BASE-T Ethernet network interface (RJ-45)

- Auto-sensing link speed and MDI/MDX

802.3az Energy Efficient Ethernet (EEE)
USB 2.0 host interface (Type A connector)
Bluetooth Low Energy (BLE) radio
Up to 4dBm transmit power (class 2) and -91dBm receive sensitivity
Integrated antenna with roughly 30 degrees downtilt and peak gain of 3.4dBi (AP-314/IAP-314) or 1.5dBi (AP-315/IAP-315)
Visual indicators (multi-color LEDs): for System and Radio status
Reset button: factory reset (during device power up)
Serial console interface (proprietary; optional adapter cable available)
Kensington security slot

POWER SOURCES AND CONSUMPTION

The AP supports direct DC power and Power over Ethernet (POE)
When both power sources are available, DC power takes priority over POE
Power sources are sold separately
Direct DC source: 12Vdc nominal, +/- 5%

- Interface accepts 2.1/5.5-mm center-positive circular plug with 9.5-mm length

Power over Ethernet (POE): 48 Vdc (nominal) 802.3af/802.3at compliant source

- Unrestricted functionality with 802.3at POE
- When using IPM, the AP may enter power-save mode with reduced functionality when powered by an 802.3af POE source (see details on *Intelligent Power Monitoring* elsewhere in this datasheet)
- Without IPM, the USB port is disabled and transmit power of the 2.4GHz radio chains is reduced by 3dB to 15dBm max when the AP is powered by and 802.3af POE source

Maximum (worst-case) power consumption: 14.4W (802.3at POE), 13.6W (802.3af POE) or 12.7W (DC)
Excludes power consumed by external USB device (and internal overhead); this could add up to 6.3W (POE) or 5.9W (DC) for a 5W/1A USB device
Maximum (worst-case) power consumption in idle mode: 6.4W (POE) or 5.9W (DC)

MOUNTING

The AP ships with two (white) mounting clips to attach to a 9/16-inch or 15/16-inch flat T-bar drop-tile ceiling.
Several optional mount kits are available to attach the AP to a variety of surfaces; see the Ordering Information section below for details

MECHANICAL

Dimensions/weight (unit, excluding mount accessories):

- 182mm(W) x 180mm(D) x 48mm (H)
- 650g/23oz

Dimensions/weight (shipping):

- 223mm(W) x 218mm(D) x 55mm(H) (W x D x H)
- 850g/30oz

ENVIRONMENTAL

Operating:

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

Storage and transportation:

- Temperature: -40° C to +70° C (-40° F to +158° F)

REGULATORY

FCC/Industry of Canada
CE Marked
R&TTE Directive 1995/5/EC
Low Voltage Directive 72/23/EEC
EN 300 328
EN 301 489
EN 301 893
UL/IEC/EN 60950
EN 60601-1-1 and EN 60601-1-2

For more country-specific regulatory information and approvals, please see your Aruba representative.

RELIABILITY

MTBF: 916,373hrs (105yrs) at +25C operating temperature

REGULATORY MODEL NUMBERS

AP-314 and IAP-314: APIN0314
AP-315 and IAP-315: APIN0315

CERTIFICATIONS

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

WARRANTY

Aruba limited lifetime warranty

MINIMUM SOFTWARE VERSIONS

ArubaOS 6.5.0.0
Aruba InstantOS 4.3.0.0