Overview

Aruba 300 Series Access Points

Entry-level 802.11ac Wave 2 (Wi-Fi 5) Access Points

The entry-level Aruba 300 Series Wave 2 access points deliver high performance and superb user experience for medium density environments. Featuring 3x3:3SS MU-MIMO capability, Aruba advanced ClientMatch radio management, and integrated Aruba Beacons, the 300 Series enables an all wireless digital work environment in a cost-effective manner.

With a maximum concurrent data rate of 1,300 Mbps in the 5GHz band and 300 Mbps in the 2.4GHz band (for an aggregate peak data rate of 1.6Gbps), the entry-level 300 Series brings an always-on wireless network experience with the performance required for enterprises. It is ideal for cost-sensitive high density environments across verticals.

The high performance and medium density 802.11ac 300 Series supports multi-user MIMO (MU-MIMO) and 3 spatial streams (3SS). It provides simultaneous data transmission to multiple devices (up to two), maximizing data throughput and improving network efficiency.

The 300 Series includes the enhanced ClientMatch technology that extends the client steering technology with MU-MIMO client awareness. It automatically identifies MU-MIMO capable mobile devices and steers those devices to the closest MU-MIMO capable Aruba access point. By grouping MU-MIMO capable mobile devices together, the network starts taking advantage of the simultaneous transmission to these devices, increasing its overall capacity. These dynamic roaming policies that are based on device types, help customers achieve the best WLAN performance in a mixed device environment during the technology transition period.



Aruba 300 Series Access Points

Standard Features

IoT Platform Capabilities

Like all Aruba Wi-Fi 6 APs, the 300 Series provides integrated Bluetooth capabilities to enable Meridian and IoT-based location services, asset tracking, and mobile engagement services. For expanded use cases, an IoT expansion radio can be added to support the Zigbee protocol. These features allow organizations to

leverage the AP as an IoT platform, which eliminates the need for an overlay infrastructure and additional IT resources.

Unique Benefits

- Dual Radio 802.11ac Access Point with Multi-User MIMO
  - Supports up to 1,300Mbps in the 5GHz band (with 3SS/VHT80 clients) and up to 300Mbps in the 2.4GHz band (with 2SS/HT40 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.
  - Enables management of your deployment of battery-powered Aruba Beacons.
- 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 300 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.
- Intelligent app visibility and control
  - AppRF technology leverages deep packet inspection to classify and block, prioritize, or limit bandwidth for thousands of applications in a range of categories.
- 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 300 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 exceeds the available power budget. In rare cases it may be necessary to take additional power saving measures, but in most cases, the 300 Series APs will operate in unrestricted mode.

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300 Series Access Point

- AP-304 (controller-managed) and IAP-304 (Instant):
  - 5GHz 802.11ac 3x3 MIMO (1,300Mbps max rate) and 2.4GHz 2x2 MIMO (300Mbps max rate) radios, with a total of three dual-band RP-SMA connectors for external antennas
- AP-305 (controller-managed) and IAP-305 (Instant):
  - 5GHz 802.11ac 3x3 MIMO (1,300Mbps max rate) and 2.4GHz 802.11n 2x2 MIMO (300Mbps max rate) radios, with a total of three integrated omni-directional downtilt dual-band antennas

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Choose your Operating Mode

Aruba 300 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 300 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 300 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.

WI-FI Antennas

- AP-304/IAP-304: Three RP-SMA connectors for external dual band antennas. Worst-case internal loss between radio interface and external antenna connectors (due to diplexing circuitry): 0.8dB in 2.4GHz and 1.6dB in 5GHz.
- AP-305/IAP-305: Three integrated dual-band downtilt omni-directional antennas for 3x3 MIMO with maximum antenna gain of 3.9dBi in 2.4GHz and 5.4dBi 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 5.4dBi in 2.4GHz and 7.6dBi 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 3dBm transmit power (class 2) and -92dBm receive sensitivity
- Integrated antenna with roughly 30 degrees downtilt and peak gain of 2.3dBi (AP-304/IAP-304) or 3.4dBi (AP-305/IAP-305)
- 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

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

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Warranty

- **Aruba Limited lifetime warranty**

Minimum Software Versions

- ArubaOS 6.5.1.0
- Aruba InstantOS 4.3.1.0

Configuration Information

Step 1: Select AP Model

Remarks	Description	SKU
	Controller-Managed Access Points	
1	Aruba AP-304 802.11n/ac 2x2:2/3x3:3 MU-MIMO Dual Radio Antenna Connectors AP	JX935A
1	Aruba AP-305 802.11n/ac 2x2:2/3x3:3 MU-MIMO Dual Radio Integrated Antenna AP	JX936A
	Controller-less (Instant) Access Points	
1	Aruba IAP-304 (RW) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Antenna Connectors Instant AP	JX939A
1	Aruba IAP-304 (US) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Antenna Connectors Instant AP	JX940A
1	Aruba IAP-304 (JP) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Antenna Connectors Instant AP	JX942A
2	Aruba IAP-305 (RW) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna Instant AP	JX945A
2	Aruba IAP-305 (US) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna Instant AP	JX946A
2	Aruba IAP-305 (IL) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna Instant AP	JX947A
2	Aruba IAP-305 (JP) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna Instant AP	JX948A
2	Aruba Instant IAP-305 (EG) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna AP	JY864A
Notes:	All models ship with ceiling rail adapters (for flat rails) in the box.	
	Central Managed Instant Access Points	
	Aruba CM Instant IAP-305 (RW) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna AP	JX945ACM
	Aruba CM Instant IAP-305 (US) 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna AP	JX946ACM
	TAA Controller-Managed Access Points	
2	Aruba AP-304 TAA-compliant 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Dual Radio Antenna Connectors AP	JX937A
2	Aruba AP-305 TAA-compliant 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Dual Radio Integrated Antenna AP	JX938A
	TAA Instant Access Points	
1	Aruba IAP-304 (RW) TAA 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Ant Connectors Instant AP	JX943A
1	Aruba IAP-304 (US) TAA 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Ant Connectors Instant AP	JX944A
2	Aruba IAP-305 (RW) TAA 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna Instant AP	JX949A
2	Aruba IAP-305 (US) TAA 802.11n/ac Dual 2x2:2/3x3:3 MU-MIMO Radio Integrated Antenna Instant AP	JX950A
Notes:	– 1= Add PoE injector or AC adapter, antennas – 2= Add PoE injector or AC adapter	

Step 2: Add Powering Accessories (Optional)

Select one of the following:

Remarks	Description	SKU
Notes:	– If this Power Supply is selected, bring in (Min 1 // Max 1) Localized power cord based on the Aruba Localization Menu – Most devices are PoE powered from switch so these are optional	
	Compatible with the 304/305 AP models	
	AP-POE-ATSR 1-Port Smart Rate 802.3at 30W midspan injector	R6P67A

	Aruba PD-9001GR-AC 30W 802.3at PoE+ 10/100/1000 Ethernet Indoor Rated Midspan Injector	JW629A
	AP-POE-AFGE 1-Port GbE 802.3af 15.4W midspan injector	R6P68A
	Aruba PD-3510G-AC 15.4W 802.3af PoE 10/100/1000Base-T Ethernet Midspan Injector	JW627A
Notes:	AP will operate in restricted (power-save) mode with this injector	
	AP-AC-12V30B 12V/30W AC/DC Desktop Style 2.1/5.5/9.5mm Circular 90 Deg Plug DoE Level VI Adapter	JX990A
	AP-AC2-12B 12V/48W AC/DC desktop style power adapter with 2.1/5.5mm connector	R3K00A
	Compatible with the 305C AP models	
	Aruba CM PD-9001GR-AC 802.3at PoE+ 10/100/1000 Ethernet Indoor Rated Midspan Injector	JW629ACM
	Aruba CM PD-3501G-AC 15.4W 802.3af PoE 10/100/1000Base-T Ethernet Midspan Injector	JW627ACM
	Aruba CM AP-AC-12V30B 12V/30W AC/DC desktop style power adapter with type B connector	JX990ACM
	Aruba CM AP-AC2-12B 12V/48W AC/DC desktop style power adapter with 2.1/5.5mm connector	R3K00ACM
Notes:	Most devices are PoE powered from switch so these are optional	
	Select three-prong AC power cord for injector or AC adapter	
	PC-AC-ARG AC power cord 250V/10A 1.8m C13 to IRAM 2073	JW113A
	PC-AC-AUS AC power cord 250V/10A 1.8m C13 to AS3112	JW114A
	PC-AC-BR AC power cord 250V/10A 1.8m C13 to NBR 14136	JW115A
	PC-AC-CHN AC power cord 250V/10A 1.8m C13 to GB2099	JW116A
	PC-AC-DEN AC power cord 250V/10A 1.8m C13 to AFSNIT 107-2-D1	JW117A
	PC-AC-EC AC power cord 250V/10A 1.8m C13 to CEE7/7	JW118A
	PC-AC-IN AC power cord 250V/6A 1.8m C13 to IS1293	JW119A
	PC-AC-IL AC power cord 250V/10A 1.8m C13 to SI32	JW120A
	PC-AC-IT AC power cord 250V/10A 1.8m C13 to CEI 23-50	JW121A
	PC-AC-JPN AC power cord 125V/12A 1.8m C13 to JISC 8303	JW122A
	PC-AC-KOR AC power cord 250V/7A 1.8m C13 to KSC 8305	JW123A
	PC-AC-NA AC power cord 125V/10A 1.8m C13 to NEMA 5-15P	JW124A
	PC-AC-SWI AC power cord 220V/10A 1.8m C13 to SEV 1011	JW125A
	PC-AC-TW AC power cord 125V/7A 1.8m C13 to CNS 10917	JW126A
	PC-AC-UK AC power cord 250V/10A 1.8m C13 to BS1363	JW127A
	PC-AC-ZA AC power cord 250V/10A 1.8m C13 to SANS 164-1	JW128A

Step 3: Add Mount Accessories (Optional)

For 304, 305 Std (Min 0 // max 1) User Selection (min 0 // max 1)

Remarks	Description	SKU
	Compatible with the 304/305 AP models	
	AP-220-MNT-C2 2x Ceiling Grid Rail Adapter for Interlude and Silhouette Mt Kit	JW045A
	AP-MNT-CM1 Industrial Grade Indoor Access Point Metal Suspended Ceiling Rail Mount Kit	JX961A
	AP-220-MNT-W1 Flat Surface Wall/Ceiling Black AP Basic Flat Surface Mount Kit	JW046A
	AP-220-MNT-W1W Flat Surface Wall/Ceiling White AP Basic Flat Surface Mount Kit	JW047A
	AP-200-MNT-W3 White Low Profile Box Style Secure Small Indoor AP Flat Surface Mount Kit	JY705A
	AP-220-MNT-W3 White Low Profile Box Style Secure Large Indoor AP Flat Surface Mount Kit	JY706A
	AP-MNT-W4 White Low Profile Basic AP Flat Surface Mount Kit	Q9U25A
	Compatible with the 305C AP models	
	Aruba CM AP-220-MNT-W1 Flat Surface Wall/Ceiling Black AP Basic Flat Surface Mount Kit	JW046ACM

	Aruba CM AP-220-MNT-W1W Flat Surface Wall/Ceiling White AP Basic Flat Surface Mount Kit	JW047ACM
*	Aruba CM AP-200-MNT-W3 White Low Profile Box Style Secure Small AP Flat Surface Mount Kit	JY705ACM
	Aruba CM AP-220-MNT-W3 White Low Profile Box Style Secure Large AP Flat Surface Mount Kit	JY706ACM
	Aruba CM AP-220-MNT-C2 2x Ceiling Grid Rail Adapter for Interlude and Silhouette Mt Kit	JW045ACM
	Aruba CM AP-MNT-CM1 Metal Suspended Ceiling Rail Mount Kit	JX961ACM
	Aruba CM AP-MNT-W4 White Low Profile Basic AP Flat Surface Mount Kit	Q9U25ACM

Notes: – *JY705A is compatible for all 304/305 AP, but it blocks the DC and console ports.

– 304/305 AP Unit ships with basic suspended ceiling rail clips (JW044A)

Step 4: Select Antennas (AP-304 Only)

For 304 Std (Min 0 // max 1) User Selection (min 0 // max 1)

Interface(s)	Qty	Target Environment	Mounting	Description	SKU
1x RP-SMA male connector	3	Indoor	Direct-mount	AP-ANT-1W 2.4-2.5GHz (4dBi)/4.9-5.875GHz (6dBi) Hi Gain Dual-band Omni-Dir Indoor Antenna	JW009A
1x RP-SMA male pigtail	3	Indoor	Direct, using pigtails	AP-ANT-13B 2.4-2.5GHz (2.3dBi)/4.9-5.9GHz (4.0dBi) Downtilt Smallest Omni-Dir Single Ant	JW001A
3x RP-SMA male pigtail	1	Indoor	Direct, using pigtails	AP-ANT-16 2.4-2.5Ghz (3.9dBi)/4.9-5.9GHz (4.7dBi) 3 Elmt MIMO Ant w/Downtilt Omni-Dir Antenna	JW003A
1x RP-SMA male pigtail	3	Indoor/outdoor	Direct, using pigtails	AP-ANT-19 2.4/5G Dual Band Omni-Dir 3dBi/6dBi Indr/Otdr RPSMA Cnctr Ant w/36in Intgrtd Cable	JW004A
1x RP-SMA male connector	3	Indoor	Direct-mount	AP-ANT-20W 2.4-2.5GHz (2dBi)/4.9-5.875GHz (2dBi) Compact Omni-Dir DMt Indr White Antenna	JW011A
3x RP-SMA male pigtail	1	Indoor/outdoor	Direct, using pigtails	AP-ANT-35A Dual Band 90x90deg 5dBi +/- 45 and V Pol 3 Element MIMO 3xRPSMA Pigtail Antenna	JW015A
3x RP-SMA male pigtail	1	Indoor/outdoor	Direct, using pigtails	AP-ANT-38 Dual Band 60x60deg 8dBi +/- 45 and V Pol 3 Element MIMO 3xRPSMA Pigtail Antenna	JW016A

Notes:
AP-ANT-1W, and AP-ANT-20W are usually direct connect to the chassis
AP-ANT-35A,AP-ANT-38 ship with hardware for flush mount to a flat surface
AP-304 has 3x RPSMA female, concurrent dual-band connections

Step 5: Add Antenna Mount Kit (Optional)

For 304 Std (Min 0 // max 1) User Selection (min 0 // max 1)

Remarks	Description	SKU
	AP-ANT-MNT-3 AP-ANT-25A/28/35A/38 Azimuth and Elevation Adjustable Mount Kit	JW020A

Notes: Compatible with AP-ANT-35A and AP-ANT-38

Step 6: Add Cosmetic Snap-on Cover (AP-305 Only, Optional)

For 305 Std (Min 0 // max 99) User Selection (min 0 // max 99)

	AP-305-CVR-20 20-pk for AP-305 with Holes for LED Indicators White Non-glossy Snap-on Covers	JX951A
	Aruba CM AP-305-CVR-20 20-pk White Non-glossy Snap-on Covers	JX951ACM
Notes:	One kit per 20 access points	

Step 7: Add Other (Optional)

Compatible with the 304/305 AP

Remarks	Description	SKU
	AP-CBL-SER Header TTL3.3V to DB9 female AP Console Adapter Cable	JW071A
	Aruba AP-USB-ZB External USB based Dongle with Zigbee and BLE for AP	R2X45A
	Aruba AP-USB-ZB 10-pk External USB based Dongle with Zigbee and BLE for AP	R2Y09A
	Aruba AP-USB-ZB 50-pk External USB based Dongle with Zigbee and BLE for AP	R2Y10A

Step 8: Add Software (Optional)

Compatible with the 304/305 AP

Remarks	Description	SKU
	Aruba Central AP Foundation 1 year Subscription E-STU	Q9Y58AAE
	Aruba Central AP Foundation 3 year Subscription E-STU	Q9Y59AAE
	Aruba Central AP Foundation 5 year Subscription E-STU	Q9Y60AAE
	Aruba Central AP Foundation 7 year Subscription E-STU	Q9Y61AAE
	Aruba Central AP Foundation 10 year Subscription E-STU	Q9Y62AAE
	Aruba Central AP Advanced 1yr Subscription E-STU	Q9Y63AAE
	Aruba Central AP Advanced 3yr Subscription E-STU	Q9Y64AAE
	Aruba Central AP Advanced 5yr Subscription E-STU	Q9Y65AAE
	Aruba Central AP Advanced 7yr Subscription E-STU	Q9Y66AAE
	Aruba Central AP Advanced 10yr Subscription E-STU	Q9Y67AAE
Notes:	Add the Central Cloud Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > Cloud Services	
	Aruba Central On-Premises AP Foundation 1 year Subscription E-STU	R6U63AAE
	Aruba Central On-Premises AP Foundation 3 year Subscription E-STU	R6U64AAE
	Aruba Central On-Premises AP Foundation 5 year Subscription E-STU	R6U65AAE
	Aruba Central On-Premises AP Foundation 7 year Subscription E-STU	R6U66AAE
	Aruba Central On-Premises AP Foundation 10 year Subscription E-STU	R6U67AAE
Notes:	Add the Central On-Prem Skus to the Aruba Catalog as Standalone: Aruba > Network Management > Central > On-Prem Services	

Technical Specifications

RF Performance Table

	Maximum transmit power (dBm) per transmit chain	Receiver sensitivity (dBm) per receive chain
802.11b 2.4GHz		
1 Mbps	18.0	-95.0
11 Mbps	18.0	-88.0
802.11g 2.4GHz		
6 Mbps	18.0	-92.0
54 Mbps	18.0	-74.0
802.11n HT20 2.4GHz		
MCS0/8	18.0	-91.0
MCS7/15	18.0	-71.0
802.11n HT40 2.4GHz		
MCS0/8	18.0	-88.0

MCS7/15	18.0	-68.0
802.11a 5GHz		
6 Mbps	18.0	-92.0
54 Mbps	18.0	-74.0
802.11n HT20 5 GHz		
MCS0/8/16	18.0	-91.0
MCS7/15/23	18.0	-71.0
802.11n HT40 5GHz		
MCS0/8/16	18.0	-88.0
MCS7/15/23	17.0	-68.0
802.11ac VHT20 5GHz (SU-MIMO)		
MCS0	18.0	-91.0
MCS8	18.0	-67.0
802.11ac VHT40 5GHz (SU-MIMO)		
MCS0	18.0	-88.0
MCS9	17.0	-63.0
802.11ac VHT80 5GHz (SU-MIMO)		
MCS0	18.0	-85.0
MCS9	17.0	-58.0

Notes: Maximum capability of the hardware provided (excluding antenna gain). Maximum transmit power is limited by local regulatory settings.

Mechanical

- Dimensions/weight (unit, excluding mount accessories):
  - 165mm x 165mm x 38mm
  - 460g
- Dimensions/weight (shipping):
  - 205mm x 205mm x 52mm
  - 620g

WI-FI Radio Specifications

- AP type: Indoor, dual radio, 5GHz 802.11ac 3x3 MIMO and 2.4GHz 802.11n 2x2 MIMO
- Software-configurable dual radio supports 5GHz (Radio 0) and 2.4GHz (Radio 1)
- 5GHz: Three spatial stream Single User (SU) MIMO for up to 1,300Mbps wireless data rate to individual 3x3 VHT80 client devices
- 5GHz: Two spatial stream Multi User (MU) MIMO for up to 867Mbps wireless data rate to up to two (1x1 VHT80) MU-MIMO capable client devices simultaneously
- 2.4GHz: Two spatial stream Single User (SU) MIMO for up to 300Mbps wireless data rate to individual 2x2 HT40 client devices
- 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, +21 dBm aggregate (2x2)
  - 5GHz band: +18 dBm per chain, +23 dBm aggregate (3x3)

    Notes: 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 and 80MHz 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 450 (MCS0 to MCS23)
  - 802.11ac: 6.5 to 1,300 (MCS0 to MCS9, NSS = 1 to 3 for VHT20/40/80
- 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 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 when the AP is powered by and 802.3af POE source
- Maximum (worst-case) power consumption: 13W (POE) or 12W (DC)
  - Excludes power consumed by external USB device (and internal overhead); this could add up to 6.5W (POE) or 5.5W (DC) for a 5W/1A USB device
- Maximum (worst-case) power consumption in idle mode: 3.7W (POE) or 2.6W (DC)

Environmental

- Operating:
  - Temperature: 0° C to +50° C (+32° F to +122° F)
  - Humidity: 5% to 93% 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: 1,116,000hrs (127yrs) at +25C operating temperature

Regulatory Model Numbers

- AP-304 and IAP-304: APIN0304
- AP-305 and IAP-305: APIN0305

Certifications

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

Summary of Changes

Date	Version History	Action	Description of Change
15-Mar-2021	Version 14	Changed	Central Software SKUs were added inConfiguration Information section.
08-Sep-2020	Version 13	Changed	Configuration Information section was updated. New SKUS were added.
09-Dec-2019	Version 12	Changed	Overview section was updated.
04-Nov-2019	Version 11	Changed	Configuration Information section was updated New SKUS were added.
07-Oct-2019	Version 10	Changed	Standard Features and Configuration Information sections were updated. New SKUS were added.
01-Oct-2018	Version 9	Changed	SKU descriptions updated.
07-May-2018	Version 8	Added	SKU added: Q9U25A
05-Mar-2018	Version 7	Changed	Minor changes made on Configuration Information section updated
05-Feb-2018	Version 6	Changed	Configuration Information section updated
18-Dec-2017	Version 5	Changed	Minor changes made on Standard Features
04-Dec-2017	Version 4	Changed	Minor change made on Environmental information
23-Oct-2017	Version 3	Changed	Standard Features was updated
02-Oct-2017	Version 2	Changed	Aruba information updated; SKU descriptions updated
01-Nov-2016	Version 1	New	New QuickSpecs

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