#### Overview

## Aruba 360 Series Outdoor Access Points

#### Entry-level outdoor and warehouse connectivity with Wi-Fi 5 (802.11ac Wave 2)

Multi-functional 360 Series 802.11ac Wave 2 outdoor access points deliver cost-effective wireless connectivity to mobile and IoT devices in a wide range of outdoor and warehouse environments.

With a maximum aggregate data rate of 1.2 Gbps (1.167 Gbps), the 360 Series comes with multi-user MIMO (MU-MIMO), 4 spatial streams (4SS), and optional 160MHz channel bandwidth (VHT160) to quickly add performance and capacity to existing or wireless networks.

Able to survive in harsh outdoor environments and provide connectivity in warehouses and distribution centers, the 360 Series can withstand exposure to high and low temperature extremes, wind speeds up to 165 mph, and tolerate persistent moisture, precipitation, and dust and salt sprays for extended periods of time. All electrical interfaces include industrial strength surge protection.

To simplify policy enforcement, the Aruba 360 Series uses Aruba's policy enforcement firewall (PEF) feature to encapsulate all traffic from the AP to the Mobility Controller (or Gateway) for end-to-end encryption and inspection. Policies are applied based on user role, device type, applications, and location. This reduces the manual configuration of SSIDs, VLANs and ACLs. PEF also serves as the underlying technology for Aruba Dynamic Segmentation.

The 360 Series includes Aruba's patented ClientMatch technology to eliminate sticky client issues while optimizing 802.11ac Wave 2 performance. These APs continuously gather session performance metrics to steer mobile devices to the best-available AP - even while users roam. With MU-MIMO awareness, ClientMatch can group MU-MIMO capable devices together to increase network capacity and efficiency. ClientMatch also participates in Aruba's AI-powered Mobility solution.

Like all Aruba Wi-Fi 6 APs, the 360 Series includes an integrated Bluetooth Low Energy radio to simplify the deployment and management of location services, asset tracking services, security solutions and IoT sensors. This allows organizations to leverage the 360 Series as an IoT platform, which eliminates the need for an overlay infrastructure and additional IT resources.



Aruba 360 Series Outdoor Access Points



## **Standard Features**

#### **Unique Benefits**

- WPA3 and Enhanced Open
  - Support for stronger encryption and authentication is provided via the latest version of WPA for enterprise
    protected networks.
  - Enhanced Open offers seamless new protection for users connecting to open networks where each session is automatically encrypted to protect user passwords and data on guest networks.
- WPA2-MPSK
  - MPSK enables simpler passkey management for WPA2 devices should the Wi-Fi password on one device or device type change, no additional changes are needed for other devices. Requires ClearPass Policy Manager.
- VPN Tunnels
  - In Remote AP (RAP) and IAP-VPN deployments, the Aruba 318 Series can be used to establish a secure SSL/IPSec VPN tunnel to a Mobility Controller that is acting as a VPN concentrator.
- Trusted Platform Module (TPM)
  - For enhanced device assurance, all Aruba APs have an installed TPM for secure storage of credentials and keys, and boot code.
- Flexible operations and management
  - Controller-less (Instant) mode For enhanced device assurance, all Aruba APs have an installed TPM for secure storage of credentials and keys, and boot code.
  - Mobility Controller mode For optimized network performance, roaming and security, APs tunnel all traffic to a
    mobility controller for centrally managed traffic forwarding and segmentation, data encryption, and policy
    enforcement.
  - Other management options Available management solutions include Aruba Central (cloud-managed) or Aruba AirWave – a multi-vendor on-premises management solution. For large installations across multiple sites, APs can be factory-shipped and can be activated with Zero Touch Provisioning through Aruba Central or AirWave. This reduces deployment time, centralizes configuration, and helps manage inventory.
- Additional Features
  - Zero Touch Provisioning APs can be factory-shipped and zero-touch provisioned through Aruba Central or AirWave using a cloud-based service to reduce deployment time, centralize configuration, and manage inventory.
  - Advanced Cellular Coexistence Minimizes interference from 3G/4G LTE cellular networks, distributed antenna systems (DAS), and commercial small cell or femtocell equipment.
  - Hardened, industrial design Extends the temperature range capabilities of indoor access points for environments that lack heating and cooling. It also provides sealed connector interfaces to protect against dust and moisture.

#### **AP-360 Series Specification**

- AP-365
  - 2.4-GHz (400 Mbps max) and 5-GHz (866 Mbps max) radios, each with 2x2 MIMO and integrated omnidirectional antennas.
- AP-367
  - 2.4-GHz (400 Mbps max) and 5-GHz (866 Mbps max) radios, each with 2x2 MIMO and integrated directional antennas.

#### **Other Interfaces**

- One 10/100/1000BASE-T Ethernet network interfaces (RJ-45)
  - Auto-sensing link speed and MDI/MDX
  - 802.3az Energy Efficient Ethernet (EEE)
  - PoE-PD: 802.3af PoE
- Serial console interface (micro USB)
- Reset button
- Visual indicator (LED):
  - Power/system status

## **Standard Features**

### **Choose Your Operating Mode**

The 360 Series APs offer a choice of operating modes to meet your unique management and deployment requirements.

- Controller-managed AP or Remote AP (RAP) running ArubaOS When managed by Aruba Mobility Controllers, 360 Series APs offer centralized configuration, data encryption, policy enforcement and network services, as well as distributed and centralized traffic forwarding.
  - Please refer to the **<u>Aruba Mobility Controller</u>** data sheets for more details
- Aruba 360 Series APs running InstantOS In Aruba Instant mode, a single AP automatically distributes the network configuration with other APs in Instant mode in the WLAN.
- Air monitor
- Hybrid WLAN AP and air monitor
- 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, Aruba APs in Instant mode are factory shipped to any site and configure themselves when powered up.

If WLAN and network requirements change, a built-in migration path allows 360 Series APs in Instant mode to become part of a WLAN that is centrally managed by a Mobility Controller.

#### Antennas

Supports 802.11ac TxBF which provides an effectively infinite variety of antenna patterns

- AP-365: Integrated Omni antennas (H and V polarized)
  - 2.7 dBi @ 2.4 GHz
  - 4.3 dBi @ 5.x GHz
- AP-367: Integrated Directional antennas (+/-45 polarized)
  - 6.3 dBi @ 2.4 GHz (90° Vertical x 90° Horizontal)
  - 6.5 dBi @ 5.x GHz (90° Vertical x 100° Horizontal)

#### Mounting

- Ordered separately
- Optional mounting kits:
  - AP-270-MNT-V1: Outdoor AP long mount kit for pole/wall mounting. Reduces impact of obstruction by pole or extends away from corner
  - AP-270-MNT-V2: Outdoor AP short mount kit for pole/wall mounting
  - AP-270-MNT-H1: Outdoor AP mount kit for hanging from inclined/horizontal structures
  - AP-270-MNT-H2: Outdoor AP flush mount kit for hanging from inclined/horizontal structures

#### Warranty

<u>Aruba Limited lifetime warranty</u>

#### **Minimum Software Versions**

- ArubaOS 6.5.2.0
- Aruba InstantOS 4.3.2

## **Configuration Information**

BTO Models	
Remarks Description	SKU
365 Unified Access Points	
Aruba AP-365 (EG) 802.11n/ac Dual 2x2:2 Radio Integrated Omni Ant Outdoor AP	JX963A
Aruba AP-365 (IL) 802.11n/ac Dual 2x2:2 Radio Integrated Omni Antenna Outdoor AP	JX964A
Aruba AP-365 (JP) 802.11n/ac Dual 2x2:2 Radio Integrated Omni Ant Outdoor AP	JX965A
Aruba AP-365 (RW) 802.11n/ac Dual 2x2:2 Radio Integrated Omni Antenna Outdoor AP	JX966A
Aruba AP-365 (US) 802.11n/ac Dual 2x2:2 Radio Integrated Omni Antenna Outdoor AP	JX967A
Aruba AP-365 (IN) 802.11n/ac Dual 2x2:2 Radio Integrated Omni Antenna Outdoor AP	R3P89A
367 Unified Access Points	
Aruba AP-367 (EG) 802.11n/ac Dual 2x2:2 Radio Integrated Directional Antenna Outdoor AP	JX970A
Aruba AP-367 (IL) 802.11n/ac Dual 2x2:2 Radio Integrated Directional Antenna Outdoor AP	JX971A
Aruba AP-367 (JP) 802.11n/ac Dual 2x2:2 Radio Integrated Directional Antenna Outdoor AP	JX972A
Aruba AP-367 (RW) 802.11n/ac Dual 2x2:2 Radio Integrated Directional Antenna Outdoor AP	JX973A
Aruba AP-367 (US) 802.11n/ac Dual 2x2:2 Radio Integrated Directional Ant Outdoor AP	JX974A
365/367 TAA Unified Access Points	
Aruba AP-365 (RW) FIPS/TAA 802.11n/ac Dual 2x2:2 Radio Integrated Omni Ant Outdoor AP	JX968A
Aruba AP-365 (US) FIPS/TAA 802.11n/ac Dual 2x2:2 Radio Integrated Omni Ant Outdoor AP	JX969A
Aruba AP-367 (RW) FIPS/TAA 802.11n/ac Dual 2x2:2 Radio Integrated Direct Ant Outdoor AP	JX975A
Aruba AP-367 (US) FIPS/TAA 802.11n/ac Dual 2x2:2 Radio Integrated Direct Ant Outdoor AP	JX976A

#### **Mounting Accessories**

For 365, 367 Std (Min 0 // max 1) User Selection (min 0 // max 1)

Outdoor AP Mount Kits	
Aruba AP-OUT-MNT-V1A Outdoor AP Pole/Wall Long Mount Kit v2	R9H97A
AP-270-MNT-V2 AP-270 Series Outdoor Pole/Wall Short Mount Kit	JW053A
AP-270-MNT-H1 AP-270 Series Outdoor AP Hanging or Tilt Install Mount Kit	JW054A
AP-270-MNT-H2 AP-270 Series Access Flush Wall or Ceiling Mount	JW055A
AP-270-MNT-H3 AP-270 Series Outdoor AP Hanging or Dual-Tilt Install Mount Kit	R6W11A
<ul> <li>Add mounting bracket</li> </ul>	

- For 365
  - V2 bracket most often used for wall or pole mount.
  - H1 bracket most often used for hanging from inclined or horizontal structure.
  - The AP-36x chassis does not ship with bracket

#### o For 367

- H1 bracket most often with (I)AP-367 for mounting to a wall. Allows chassis tilt.
- V1A and V2 brackets can be used but will result in the AP-367 pointing down.
- The AP-36x chassis does not ship with bracket.

#### **Power Options**

1 1

Notes:

#### **PoE Power Options**

For 365, 367 Std (Min 0 // max 1) User Selection (min 0 // max 1)	
PD-9501-5GCO-AC 60W 802.3bt Smart Rate Outdoor Surge Protection Midspan Injector	R7T40A
PD-9501-5GCO-DC 60W 802.3bt Smart Rate Outdoor Surge Protection Midspan Injector	R7T41A
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
Aruba PD-9001GO-DC 30W 802.3at PoE+ 10/100/1000 12-24V DC in Outdoor Surge Prot Midspan	
Injector	JW630A
Aruba PD-9001GO-INTL 30W 802.3at PoE+ 10/100/1000 Outdoor Surge Prot Intl Power Cord Injector	JW701A
Aruba PD-9001GO-NA 30W 802.3at PoE+ 10/100/1000 Otdr Surge Prot NA Power Cord Mdspan	
Injector	JW700A



	Configuration Rules	
Rule	Description	SKU
1	If this Power Injector is selected, bring in (Min 1 // Max 1) Localized power cord based on the Aruba Localization Menu	
Notes:	<ul> <li>Add PoE accessories for units to be PoE powered</li> <li>Indoor Injector provides no surge protection</li> <li>Indoor injector requires indoor AC power cord</li> <li>AP-36x is powered by PoE only</li> <li>Power Cord for JW630A, R7T40A, R7T41A should be provided by installer</li> <li>R7T40A and R7T41A do not include a power cord, power cord must be constructed by installer using the included power connector parts and assembled per the user guide by a certified installer</li> </ul>	
Notes:	Power Injector Mounts For 365, 367 Std (Min 0 // max 1) User Selection (min 0 // max 1) Aruba PD-MOUNT-OD Outdoor PoE Midspan Injectors Pole/Mast Mount Kit Add mounting kit for Outdoor PoE Midspan Injector (optional). This is optional but recommended for	JW620A
Access	outdoor injectors ories	

#### Spare Items

Std (Min 0 // max 99) User Selection (min 0 // max 99)	
For 365, 367 Std (Min 0 // max 1) User Selection (min 0 // max 1)	
Outdoor AP Covers and Glands 1-pk M25/5-pk M20 Cover/2-pk M16 Cover/5-pk M20 Gland/2-pk	Q8N47A
Ground Kit	
Outdoor AP Metric to Standard M20 to 1/2 inch NPT 5-pk Thread Adapter	Q8N48A
These items are replacement items or special application	

#### Software

Notes:

Remarks	s 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 2.4 GHz		receive chain	
1 Mbps	18.0	-91.0	
11 Mbps	18.0	-88.0	
802.11g 2.4 GHz			
6 Mbps	18.0	-91.0	
54 Mbps	18.0	-73.0	
802.11n HT20 2.4 GHz			
MCSO/8	18.0	-91.0	
MCS7/15	18.0	-72.0	
802.11n HT40 2.4 GHz			
MCSO/8	18.0	-88.0	
MCS7/15	18.0	-69.0	
802.11ac VHT20 2.4 GHz			
MCSO Nss1&Nss2	18.0	-91.0	
MCS8 Nss1&Nss2	18.0	-67.0	
802.11ac VHT40 2.4 GHz			
MCSO Nss1&Nss2	18.0	-88.0	
MCS9 Nss1&Nss2	17.0	-63.0	
802.11a VHT80 5 GHz			
6 Mbps	22.0	-91.0	
54 Mbps	20.0	-74.0	
802.11n HT20 5 GHz			
MCSO/8	22.0	-91.0	
MCS7/15	20.0	-72.0	
802.11n HT40 5 GHz			
MCSO/8	22.0	-88.0	
MCS7/15	20.0	-69.0	
802.11ac VHT20 5 GHz (SU-MIMC			
MCSO Nss1&Nss2	22.0	-91.0	
MCS8 Nss1&Nss2	19.0	-68.0	
802.11ac VHT40 5 GHz (SU-MIMC			
MCSO Nss1&Nss2	22.0	-87.0	
MCS9 Nss1&Nss2	19.0	-63.0	
802.11ac VHT80 5 GHz (SU-MIMC			
MCSO Nss1&Nss2	22.0	-85.0	
MCS8 Nss1&Nss2	19.0	-59.0	

Notes: please check with your country manager for regional product schedules...

## **Technical Specifications**

### Mechanical

- Dimensions/weight (unit, excluding mount accessories):
  - 165mm (W) x 165mm (D) x 110mm (H), 6.5" (W) x 6.5" (D) 4.3" (H)
  - 800g/1.75lbs
- Dimensions/weight (shipping):
  - 198mm (W) x 198mm (D) x 128mm (H), 7.8" (W) x 7.8" (D) x5.0" (H)
  - 1,000g/2.2lbs

#### **WI-FI Radio Specifications**

- AP type: outdoor, 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.
  - 2x2 MIMO with two spatial streams and up to 1,266 Mbps wireless data rate
- Supported frequency bands (country-specific restrictions apply):
  - 2.4000 GHz to 2.4835 GHz
  - 5.150 GHz to 5.250 GHz
  - 5.250 GHz to 5.350 GHz
  - 5.470 GHz to 5.725 GHz
  - 5.725 GHz to 5.875 GHz
- Available channels: Dependent upon configured regulatory domain
- Dynamic frequency selection (DFS) compliant to radar coexistence requirements
- Supported radio technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM)
  - 802.11n/ac: 2x2 MU-MIMO with up to two 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 (conducted aggregate) transmit power (limited by local regulatory requirements):
  - 2.4-GHz band: +21 dBm (18 dBm per chain)
  - 5-GHz bands: +25 dBm (22 dBm per chain)
- 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
- 802.11ac wave 2 MU-MIMO
- 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 300 (MCS0 to MCS15)
    - 802.11ac: 6.5 to 866 (MCS0 to MCS9, NSS = 1 to 2)
- 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
- Maximum power consumption: 12.5 watts
- Power over Ethernet (PoE): 48 Vdc (nominal) 802.3af-compliant source



## **Technical Specifications**

## Environmental

- Operating:
  - Temperature: -40° C to +55° C (-40° F to +131°F) ambient in full sun
  - Humidity: 5% to 95% non-condensing
- Storage and transportation:
  - Temperature: -40° C to +70° C (-40° F to +158°F)
  - EN 300 019 Storage and Transportation
- Shock, vibration, and earthquake
  - IEC 60068-2-64/-27/-6
- Weather resistance
  - IP66/67
  - ASTM B117-07A: Salt spray testing per UL50 NEMA 4x
  - EN 300 019 Environmental testing
  - Non-weather protected locations
  - Full solar exposure

### 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, EN60601-1-2

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

#### **Regulatory Model Numbers**

- AP-365: APEX0365
- AP-367: APEX0367

### Certifications

- CB Scheme Safety, cTUVus
- Wi-Fi CERTIFIED a,b,g,n
- Wi-Fi CERTIFIED ac (with wave 2 features

# Summary of Changes

Date	Version History	Action	Description of Change
21-Nov-2022	Version 9	Changed	Configuration Information section was updated.
06-Dec-2021	Version 8	Changed	SKUs were added in Configuration Information section.
15-Mar-2021	Version 7	Changed	SKUs were added in Configuration Information section.
02-Nov-2020	Version 6	Changed	Configuration Information section was updated. New SKUs were added.
08-Sep-2020	Version 5	Changed	Configuration Information section was updated. New SKUs were added.
04-Nov-2019	Version 4	Changed	Overview and Configuration Information sections were updated. New SKUs were added.
07-Oct-2019	Version 3	Changed	New SKU R3P89A was added.
06-Nov-2017	Version 2	Added	SKUs added: Q8N47A, Q8N48A
09-Jan-2017	Version 1	New	New QuickSpecs

## Copyright

Make the right purchase decision. Contact our presales specialists.

Chi	at now (sales)
Cal	l now
<b>_</b>	Get updates

© Copyright 2022 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Hewlett Packard Enterprise

To learn more, visit: http://www.hpe.com/networking

c05348011 - 15770 - Worldwide - V9 - 21-November-2022