

## DATA SHEET

# ARUBA 370EX SERIES HAZARDOUS LOCATION ACCESS POINTS

High performance Wi-Fi 5 (802.11ac Wave 2) for hazardous locations and harsh outdoor environments

In outdoor and environmentally challenging locations such as oil rigs, mining facilities, and industrial plants, networks need to be protected from extreme temperatures, flammable gas, vapor, and dust concentrations. With Class 1 Division 2 the Aruba 370EX Series Access Points deliver hardened multi-gigabit Wi-Fi to hazardous locations.

The 370EX series provides a maximum aggregate data rate of over 2 Gbps (2.4GHz: 300Mbps; 5GHz: 1,733 Mbps) as well as multi-user MIMO (MU-MIMO), 4 spatial streams (4SS), and optional 160MHz channel bandwidth (VHT160) to quickly add performance and capacity to existing or new wireless networks.

### CERTIFIED FOR EXTREME WEATHER RESILIENCY

Purpose-built to survive in the harshest environments, the 370EX Series have undergone extensive certification testing (Class 1 Division 2 and IP66/67) to demonstrate the ability to withstand exposure to high and low temperature extremes, windspeeds 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.

### MU-MIMO AWARE CLIENT OPTIMIZATION

The 370EX 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.



### KEY FEATURES

- Deliver gigabit Wi-Fi to outdoor and extreme environments.
- 2 Gbps of maximum throughput
- WPA3 and Enhanced Open security
- Patented ClientMatch technology resolves sticky client issues and optimizes Wave 2 performance
- AI-powered AirMatch automates RF optimization
- IoT-ready with integrated Bluetooth Low Energy (BLE)
- Participates in Aruba's Dynamic Segmentation solution

### IOT-READY

The 370EX 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 SECURE INFRASTRUCTURE

The Aruba 370EX Series includes components of Aruba's 360 Secure Fabric to help protect user authentication and wireless traffic. Select capabilities include:

#### 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 370EX 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.

## SIMPLE AND SECURE ACCESS

To simplify policy enforcement, the Aruba 370EX 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.

## FLEXIBLE OPERATION AND MANAGEMENT

A unique feature of Aruba APs is the ability to operate in either controllerless (Instant) or controller-based mode.

### Controller-less (Instant) mode

In controllerless mode, one AP serves as a virtual controller for the entire network. Learn more about Instant mode in this technology brief.

### 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. Learn more in the ArubaOS datasheet.

## Management options

Available management solutions include Aruba Central (coming soon) 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. 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 (ACC)

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-370EX SERIES SPECIFICATIONS

- AP-375EX
  - 5GHz 802.11ac 4x4 MU-MIMO (1,733 Mbps max rate)
    - Internal Omni Antennas 4.6 dBi
  - 2.4 GHz 802.11n 2x2 MIMO (300 Mbps max rate) radios
    - Internal Omni Antennas 4.0 dBi
- AP-377EX
  - 5GHz 802.11ac 4x4 MU-MIMO (1,733 Mbps max rate)
    - Internal 80°H x 80°V Directional Antennas 6.3 dBi
  - 2.4 GHz 802.11n 2x2 MIMO (300 Mbps max rate) radios
    - Internal 80°H x 80°V Directional Antennas 6.4 dBi

## WI-FI RADIO SPECIFICATIONS

- AP type: Outdoor Hardened, dual radio, 5 GHz 802.11ac 4x4 MIMO and 2.4 GHz 802.11n 2x2 MIMO
- Software-configurable dual radio supports 5 GHz (Radio 0) and 2.4 GHz (Radio 1)
- 5 GHz: 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

- 5 GHz: Four spatial stream Single User (SU) MIMO for up to 1,733 Mbps wireless data rate to individual 4x4 VHT80 or 2x2 VHT160 client devices
- 2.4 GHz: Two spatial stream Single User (SU) MIMO for up to 300 Mbps wireless data rate to individual 2x2 HT40 client devices
- Support for up to 256 associated client devices per radio, and up to 16 BSSIDs per radio
- Supported frequency bands (country-specific restrictions apply):
  - 2.400 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
  - 5.825 to 5.875 GHz
- Available channels: Dependent on configured regulatory domain.
- Dynamic frequency selection (DFS) maximizes the use of available RF spectrum.
- Supported radio technologies:
  - 802.11b: Directsequence 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):
  - 2.4 GHz band: +25 dBm per chain, +28dBm aggregate (2x2)
  - 5 GHz band: +22 dBm per chain, +28dBm aggregate (4x4)
  - Note: conducted transmit power levels exclude antenna gain.
- Maximum EIRP (limited by local regulatory requirements):
  - 2.4 GHz band:
    - 375EX: 32.0 dBm EIRP
    - 377EX: 34.4 dBm EIRP
  - 5 GHz band:
    - 375EX: 35.6 dBm EIRP
    - 377EX: 36 dBm EIRP
- 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 20-MHz, 40-MHz, 80-MHz and 160-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 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

## POWER

- Worst-case power consumption from the AP: 23W
- Power sources sold separately
- Power over Ethernet (PoE+): 802.3at-compliant

## OTHER INTERFACES

- One 10/100/1000BASE-T Ethernet network interfaces (RJ-45)
  - Autosensing link speed and MDI/MDX
  - 802.3az Energy Efficient Ethernet (EEE)
- One 1000BASE-X SFP Port
  - C1D2 certification is pending
- Bluetooth Low Energy (BLE) radio
  - Up to 4dBm transmit power (class 2) and 91 dBm receive sensitivity
- Visual indicator (multi-color LED): For system and radio status
- Reset button: Factory reset (during device power up)
- Micro USB console interface
- Kensington security slot

## MOUNTING

- AP-270-MNT-V1
- AP-270-MNT-V2
- AP-270-MNT-H1
- AP-270-MNT-H2

## MECHANICAL

### AP-375EX

- Dimensions/weight (excluding mount):
  - 23 cm (W) x 24 cm (D) x 27 cm (H)
  - 9.0" (W) x 9.4" (D) x 10.6" (H)
  - 2.4 kg/5.3 lbs

### AP-377EX

- Dimensions/weight (excluding mount):
  - 23 cm (W) x 22 cm (D) x 13 cm (H)
  - 9.0" (W) x 8.7" (D) x 5.1" (H)
  - 2.1 kg/4.6 lbs

## ENVIRONMENTAL

- Operating:
  - Temperature: -40° C to +65° C (-40° F to +149° F)
  - Humidity: 5% to 95% noncondensing
- Storage and transportation:
  - Temperature: -40° C to +70° C (-40° F to +158° F)
- Operating Altitude: 3,000 m
- Water and Dust
  - IP66/67
- Salt Tolerance
  - Tested to ASTM B117-07A Salt Spray 200hrs
- Wind Survival: Up to 165 Mph
- Shock and Vibration ETSI 300-19-2-4

## REGULATORY

- FCC/ISED
- CE Marked
- RED Directive 2014/53/EU
- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- 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 NUMBER

- AP-375EX: APEX0375
- AP-377EX: APEX0377

## CERTIFICATIONS

- CB Scheme Safety, cTUVus
- UL2043 plenum rating
- Wi-Fi Alliance certified 802.11a/b/g/n
- Wi-Fi CERTIFIED™ ac (with wave 2 features)
- Passpoint® (Release 2) with ArubaOS and Instant 8.3+

## WARRANTY

- Limited Lifetime Warranty

## MINIMUM OPERATING SYSTEM SOFTWARE

- ArubaOS & Aruba InstantOS 8.3.0.0

RF PERFORMANCE TABLE		
	Maximum transmit power (dBm) per transmit chain	Receiver sensitivity (dBm) per receive chain
<b>802.11b 2.4 GHz</b>		
1 Mbps	25	-95
2 Mbps	25	-93
5.5 Mbps	25	-90
11 Mbps	25	-88
<b>802.11g 2.4 GHz</b>		
6 Mbps	25	-93
54 Mbps	19	-75
<b>802.11n HT20 2.4 GHz</b>		
MCS0/8	25	-93
MCS7/15	18	-71
<b>802.11n HT40 2.4 GHz</b>		
MCS0/8	22	-90
MCS7/15	18	-68
<b>802.11a 5 GHz</b>		
6 Mbps	22	-93
54 Mbps	19	-75
<b>802.11n HT20 5 GHz</b>		
MCS0/8	22	-93
MCS7/15	18	-71
<b>802.11n HT40 5 GHz</b>		
MCS0/8	22	-90
MCS7/15	18	-68
<b>802.11ac VHT20 5 GHz</b>		
MCS0	22	-93
MCS9	16	-68
<b>802.11ac VHT40 5 GHz</b>		
MCS0	22	-90
MCS9	15	-63
<b>802.11ac VHT80 5 GHz</b>		
MCS0	22	-87
MCS9	15	-61
<b>802.11ac VHT80 5 GHz</b>		
MCS0	22	-86
MCS9	15	-57

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

## ORDERING INFORMATION

Part Number	Description
<b>AP-370EX Series Unified Outdoor Access Points</b>	
R3P73A	Aruba AP-375EX (EG) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Omni Antenna Outdoor HazLoc AP
R3P72A	Aruba AP-375EX (IL) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Omni Antenna Outdoor HazLoc AP
R3P71A	Aruba AP-375EX (JP) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Omni Antenna Outdoor HazLoc AP
R3P70A	Aruba AP-375EX (RW) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Omni Antenna Outdoor HazLoc AP
R3P69A	Aruba AP-375EX (US) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Omni Antenna Outdoor HazLoc AP
R3P96A	Aruba AP-377EX (EG) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Directional Ant Outdoor HazLoc AP
R3P95A	Aruba AP-377EX (IL) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Directional Ant Outdoor HazLoc AP
R3P94A	Aruba AP-377EX (JP) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Directional Ant Outdoor HazLoc AP
R3P93A	Aruba AP-377EX (RW) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Directional Ant Outdoor HazLoc AP
R3P90A	Aruba AP-377EX (US) 802.11n/ac Dual 2x2:2/4x4:4 Radio Int Directional Ant Outdoor HazLoc AP