Overview

## Aruba 580EX Series Hazardous Location Access Points

**Flagship Wi-Fi 6 (802.11ax) performance for hazardous locations and harsh outdoor environments**
Purpose-built to survive in the harshest outdoor environments, the Aruba 580EX Series APs withstand exposure to extreme high and low temperatures, persistent moisture and precipitation, and are fully sealed to keep out airborne contaminants. All electrical interfaces include industrial surge protection and are built for hazardous locations.

Aruba Wi-Fi 6 access points provide high-performance connectivity in dense mobile and IoT environments. With maximum aggregate on air data rates of 2.97 Gbps (HE80/HE20), the Aruba 580EX Series APs deliver the speed and reliability needed for demanding environments.



**Aruba 580EX Series Hazardous Location Access Points**

Standard Features

## Incredible Efficiency

The Aruba 580EX Series APs are designed to optimize user experience by maximizing Wi-Fi efficiency and dramatically reducing airtime contention between clients.

Features include Uplink and Downlink Orthogonal Frequency Division Multiple Access (OFDMA), Downlink Multi-User MIMO (MU-MIMO) and cellular co-location. With up to 4 spatial stream and 160 MHz channel capability, the Aruba 580EX Series provides groundbreaking wireless capabilities for any application.

Read the Multi-User 802.11ax white paper for further information.

## Advantages of OFDMA

This capability allows Aruba's Wi-Fi 6 APs to handle multiple Wi-Fi 6 capable clients on each channel simultaneously, regardless of device or traffic type. Channel utilization is optimized by handling each transaction via smaller sub-carriers or resource units (RUs), which means that clients are sharing a channel and not competing for airtime and bandwidth.

## Bi-directional Multi-User MIMO (MU-MIMO)

Similar to downlink MU-MIMO in Wi-Fi 5 (802.11ac Wave 2), the Aruba 580EX Series can simultaneously connect clients using downlink - and now - uplink spatial streams. The added benefit is the ability to multiply the number of clients that can now send traffic, thus optimizing client-to-AP spatial stream diversity.

## Wi-Fi 6 and MU-MIMO aware client optimization

Aruba's patented AI powered ClientMatch technology ensures that all clients are attached to their best serving Access Point. Session metrics, network metrics, applications and client type are used to identify and maintain the best connection.

## Intelligent Power and Temperature Monitoring (IPTM)

Aruba 580EX Series APs continuously monitor and report hardware energy consumption and temperature. APs can be configured to enable or disable capabilities based on the available PoE power - ideal when wired switches have exhausted their power budget. Additionally, with IPTM, if the AP gets too close to the maximum temperature limit, it can disable features to prevent overheating.

## Advanced Cellular Coexistence (ACC)

The ACC feature uses filtering to automatically minimize the impact of interference of high power cellular base stations, as well as small cell and femtocell equipment, necessary for outdoor APs installed nearby cell towers.

## Aruba Air Slice™ for Extended Application Assurance

Initially, APs in controller-less mode (Instant) can provide SLA-grade performance by allocating radio resources, such as time, frequency, and spatial streams, to specific traffic types. By combining Aruba's Policy Enforcement Firewall (PEF) and Layer 7 deep packet inspection (DPI) to identify user roles and applications, the APs will dynamically allocate the bandwidth needed. Non-Wi-Fi 6 clients can also benefit.

## IoT Platform Capabilities
### High Power BLE

The Aruba 580EX Series AP is the first Aruba AP with a high powered BLE radio, to ensure maximum range and performance for IoT applications

### Advanced IoT Coexistence (AIC)

This feature uses built-in filtering to allow Wi-Fi and BLE/ Zigbee radios to operate at maximum capacity without the impact of interference

## Standard Features

### Target Wake Time (TWT)
Ideal for IoT solutions that communicate infrequently, this Wi-Fi 6 capability allows IoT devices to use 802.11ax protocol. TWT coordinates with client devices to allow them to sleep for extended periods and use shorter wake times to communicate before returning to sleep. This substantially extends the useful operating life of Wi-Fi 6 based battery powered sensors.

### Aruba Secure Infrastructure
The Aruba 580EX Series is an integral part of Aruba's zero trust security approach to help protect user authentication and wireless traffic. Select capabilities include:

### WPA3 and Enhanced Open
With the introduction of WPA3 and Enhanced Open, a Wi-Fi 6 certified client will never send unencrypted traffic over the air. Even with an open authenticated network, Enhanced Open still provides strong encryption over the air. In all Wi-Fi 6 user sessions, each user is uniquely encrypted and if they disconnect and reconnect, the encryption changes from session to session.

### WPA2-MPSK
MPSK enables simpler passkey management for WPA2 devices - should the Wi-Fi password on one device change, no additional changes are needed for other devices. This feature is enabled when networks are deployed with ClearPass Policy Manager.

### VPN Tunnels
In Remote AP (RAP) and IAP-VPN deployments, the Aruba 580EX Series can be used to establish a secure SSL/IPSec VPN tunnel to a Gateway or Mobility Controller that is configured as a VPN concentrator.

### Trusted Platform Module (TPM)
For enhanced device assurance, all Aruba APs have an installed TPM for secure storage of credentials, keys and boot code.

### Simple and Secure Access
To simplify policy enforcement, the Aruba 580EX Series uses Aruba's Policy Enforcement Firewall (PEF) to encapsulate all traffic from the AP to the Mobility Controller (gateway) for end-to-end encryption and inspection. Policies are applied based on context including user role, device type, application, and location. This reduces the manual configuration of SSIDs, VLANs, and ACLs. PEF also serves as the underlying technology for Aruba Dynamic Segmentation.

### High Density Connectivity
Each Aruba 580EX Series AP provide connectivity for a maximum of 1024 associated clients per radio (2048 total). In real world scenarios, outdoors where client distances are longer, the maximum recommended range varies based on range and client requirements.

### Flexible Operation and Management
A unique feature of Aruba APs is the ability to operate in either controller-less or controller-based mode.

### Controller-less (Instant) Mode
In controller-less 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 central management of traffic forwarding, segmentation, encryption, and policy enforcement. Learn more in the ArubaOS datasheet.

### Management Options
Available management choices include Aruba Central (cloudbased) or Aruba AirWave (multi-vendor, on prem) solutions. For large installations across multiple sites, Aruba APs can be shipped and activated with Zero Touch Provisioning through Aruba Central or AirWave. This reduces deployment time, centralizes

## Standard Features

configuration, and provides inventory visibility

## Additional Wi-Fi Features

### Transmit Beamforming (TxBF)
Increased signal reliability and range

### Passpoint Release 2
Seamless cellular-to-Wi-Fi carryover for guests

### Dynamic Frequency Selection (DFS)
Optimized use of available RF spectrum

### Maximal Ratio Combining (MRC)
Improved receiver performance for multi antenna access points.

### Cyclic Delay/Shift Diversity (CDD/CSD)
Enable use of multiple transmit antennas

### Space-Time Block Coding (STBC)
Increased connection robustness

### Low-Density Parity Check (LDPC)
High performance error detection and correction coding for enhanced receiver performance.

### Key Features:
- Dual-radio (dual 4x4 MIMO) high-power 802.11ax AP with up-and downlink OFDMA and Multi-User MIMO (MU-MIMO)
- Maximum combined data rates of 2.9Gbps (HE80/HE20) in the most real-world settings, with a maximum 5GHz throughput of 2.4Gbps in 4SS HE80 (or 2SS HE160) and 574Mbps in the 2.4GHz band
- Support for 5Gbps NBase-T Ethernet, up to 10Gbps SFP+, and 1Gbps (w/PoE Out)
- Operate with 802.3bt Class 6 PoE or AC power, with reduced capabilities on 802.3at using IPTM
- Ideal for large scale outdoor environments including universities, large enterprises, and industrial applications
- High power BLE and Zigbee radio for IoT connectivity with support for maximum range and performance
- Aruba Intelligent Power and Temperature Monitoring (IPTM) which allows the AP to operate if there is not enough PoE power as well as manage heat to prevent overheating in the most extreme environments
- State of the art security with WPA3 and Enhanced open

## Configuration Information

### BTO Models
#### 580EX Unified HazLoc Access Points

| Rule # | Description | S |
|---|---|---|
| | Aruba AP-585EX (US) Dual Radio 4x4:4 802.11ax Internal Omni Antennas Unified HazLoc AP | R7T |
| | Aruba AP-585EX (RW) Dual Radio 4x4:4 802.11ax Internal Omni Antennas Unified HazLoc AP | R7T |
| | Aruba AP-585EX (EG) Dual Radio 4x4:4 802.11ax Internal Omni Antennas Unified HazLoc AP | R7T |
| | Aruba AP-585EX (IL) Dual Radio 4x4:4 802.11ax Internal Omni Antennas Unified HazLoc AP | R7T |
| | Aruba AP-585EX (JP) Dual Radio 4x4:4 802.11ax Internal Omni Antennas Unified HazLoc AP | R7T |
| | Aruba AP-587EX (US) Dual Radio 4x4:4 802.11ax Internal Directional Antennas Unified HazLoc AP | R7T |
| | Aruba AP-587EX (RW) Dual Radio 4x4:4 802.11ax Internal Directional Antennas Unified HazLoc AP | R7T |
| | Aruba AP-587EX (EG) Dual Radio 4x4:4 802.11ax Internal Directional Antennas Unified HazLoc AP | R7T |
| | Aruba AP-587EX (IL) Dual Radio 4x4:4 802.11ax Internal Directional Antennas Unified HazLoc AP | R7T |
| | Aruba AP-587EX (JP) Dual Radio 4x4:4 802.11ax Internal Directional Antennas Unified HazLoc AP | R7T |

**Notes:** OCA Only Model Selection Form - Aruba > Wireless > Access Points > Outdoor / Rugged: Aruba 580EX Series Hazardous Location Access Points

### Mounting Accessories
#### AP Mount Kits
Std (Min 0 // max 1) User Selection (min 0 // max 1)

| Rule # | Description | S |
|---|---|---|
| | AP-270-MNT-V1 AP-270 Series Outdoor Pole/Wall Long Mount Kit | JW0 |
| | AP-270-MNT-H1 AP-270 Series Outdoor AP Hanging or Tilt Install Mount Kit | JW0 |
| | AP-270-MNT-H2 AP-270 Series Access Flush Wall or Ceiling Mount | JW0 |
| | AP-270-MNT-H3 AP-270 Series Outdoor AP Hanging or Dual-Tilt Install Mount Kit | R6W |

**Notes:**
- For all AP-580EX models, the AP-270-MNT-V2 mounting bracket is not compatible with any AP-580 models
- For 585EX:
  - V1 bracket most often used for pole mount.
  - H1 bracket most often used for hanging from inclined or horizontal structure.
  - The AP-585EX chassis does not ship with bracket
- For 587EX:
  - H1 bracket most often with AP-587EX for mounting to a wall. Allows chassis tilt.
  - V1 brackets can be used but will result in the AP-587EX pointing down.
  - The AP-587EX chassis does not ship with bracket.

### Power Options
#### PoE Power Options
Std (Min 0 // max 1) User Selection (min 0 // max 1)

| Rule # | Description | S |
|---|---|---|
| 1 | AP-POE-BTSR 1-Port Smart Rate 802.3bt 60W midspan injector | R1C |
| | • Add AC power cord, Unrestricted | |
| | PD-9501-5GCO-AC 60W 802.3bt Smart Rate Outdoor Surge Protection Midspan Injector | R7T |
| | PD-9501-5GCO-DC 60W 802.3bt Smart Rate Outdoor Surge Protection Midspan Injector | R7T |

#### Configuration Rules

| Rule # | Description |
|---|---|
| 1 | If this Power Injector is selected, bring in (Min 1 // Max 1) Localized power cord based on the Aruba Localization Menu |

## Configuration Information

### Power Injector Mounts

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

| Rule # | Description | S |
|--------|-------------|---|
| | Aruba PD-MOUNT-OD Outdoor PoE Midspan Injectors Pole/Mast Mount Kit | JW6 |

**Notes:** This is optional but recommended for outdoor injectors R7T40A and R7T41A

### Power Cable Kit

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

| Rule # | Description | S |
|--------|-------------|---|
| | Aruba Outdoor AP-AC-MLX-EX Outdoor Molex AC Power Connector Kit | R9E |

**Notes:** The AP-AC-MLX-EX is an assembly kit including a HazLoc compliant cable gland, power cable type is installer supplied, should use outdoor rated, UV stabilized AC power cable. Check the installation guide for more details. Any site-specific HazLoc requirements may require additional 3rd party components.

## Transceivers

### SFP/SFP+

| Rule # | Description | S |
|--------|-------------|---|
| | Aruba 1G Ind-Temp SFP LC SX 500m MMF Transceiver | JL7 |
| | Aruba 1G Ind-Temp SFP LC LX 10km SMF Transceiver | JL7 |
| | Aruba 10G Ind-Temp SFP+ LC SR 300m MMF Transceiver | JL7 |
| | Aruba 10G Ind-Temp SFP+ LC LR 10km SMF Transceiver | JL7 |
| | CKIT-EX-OD-SFP Outdoor HazLoc SFP Fiber Strain Relief | R7L |

**Notes:** R7L09A is required if using SFP or SFP+ on AP-580EX.

## Accessories

### Spare Items

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

| Rule # | Description | S |
|--------|-------------|---|
| 1 | Outdoor AP Covers and Glands 1-pk M25/5-pk M20 Cover/2-pk M16 Cover/5-pk M20 Gland/2-pk Ground Kit | Q8N |

### Configuration Rules

| Rule # | Description |
|--------|-------------|
| 1 | This is a collection of extra covers and cabling glands, replicating what is in the shipping box |

**Notes:** Spares of items that are shipped with the AP-580EX chassis. Note this does NOT include HazLoc certified glands. If HazLoc certified glands are required, they must be purchased by 3rd party.

## Configuration Information

### Software

#### Central
**Cloud Services / Access Point Foundation Subscriptions**

| | |
|---|---|
| Aruba Central AP Foundation 1 year Subscription E-STU | Q9Y5 |
| Aruba Central AP Foundation 3 year Subscription E-STU | Q9Y5 |
| Aruba Central AP Foundation 5 year Subscription E-STU | Q9Y6 |
| Aruba Central AP Foundation 7 year Subscription E-STU | Q9Y6 |
| Aruba Central AP Foundation 10 year Subscription E-STU | Q9Y6 |
| Aruba Central AP Foundation 1-year Subscription SaaS | Q9Y5 |
| Aruba Central AP Foundation 3-year Subscription SaaS | Q9Y5 |
| Aruba Central AP Foundation 5-year Subscription SaaS | Q9Y6 |
| Aruba Central AP Foundation 7-year Subscription SaaS | Q9Y6 |
| Aruba Central AP Foundation 10-year Subscription SaaS | Q9Y6 |

**Cloud Services / Access Point Advanced Subscriptions**

| | |
|---|---|
| Aruba Central AP Advanced 1yr Subscription E-STU | Q9Y6 |
| Aruba Central AP Advanced 3yr Subscription E-STU | Q9Y6 |
| Aruba Central AP Advanced 5yr Subscription E-STU | Q9Y6 |
| Aruba Central AP Advanced 7yr Subscription E-STU | Q9Y6 |
| Aruba Central AP Advanced 10yr Subscription E-STU | Q9Y6 |
| Aruba Central AP Advanced 1-year Subscription SaaS | Q9Y6 |
| Aruba Central AP Advanced 3-year Subscription SaaS | Q9Y6 |
| Aruba Central AP Advanced 5-year Subscription SaaS | Q9Y6 |
| Aruba Central AP Advanced 7-year Subscription SaaS | Q9Y6 |
| Aruba Central AP Advanced 10-year Subscription SaaS | Q9Y6 |

**On-Prem Services / Access Point Foundation Subscriptions**

| | |
|---|---|
| Aruba Central On-Premises AP Foundation 1 year Subscription E-STU | R6U6 |
| Aruba Central On-Premises AP Foundation 3 year Subscription E-STU | R6U6 |
| Aruba Central On-Premises AP Foundation 5 year Subscription E-STU | R6U6 |
| Aruba Central On-Premises AP Foundation 7 year Subscription E-STU | R6U6 |
| Aruba Central On-Premises AP Foundation 10 year Subscription E-STU | R6U6 |

Technical Specifications

## Hardware Variants

- AP-585EX
  Built in omni-directional antennas (H and V polarized)
  5Ghz Antennas 4.5dBi uncorrelated avg (5.8dBi peak)
  2.4GHz Antennas 3.0dBi uncorrelated avg (4.4dBi peak)
  BLE Antenna 4.8dBi peak

- AP-587EX
  Built in directional antennas (H, V, and +/-45 polarized)
  5Ghz Antennas 5.2dBi uncorrelated avg (6.6dBi peak)
  2.4Ghz Antennas 5.7dBi uncorrelated (5.8dBi peak)
  BLE Antenna 6.3dBi peak

## WI-FI Radio Specifications

- AP type: Outdoor Hardened, Wi-Fi 6 dual radio, 5GHz and 2.4GHz 802.11ax 4x4 MIMO
- 5GHz radio: Four spatial stream Single User (SU) MIMO for up to 2.4Gbps wireless data rate with individual 4SS HE80 (or 2SS HE160) 802.11ax client devices, or with four 1SS or two 2SS HE80 802.11ax MU-MIMO capable client devices simultaneously
- 2.4GHz radio: Four spatial stream Single User (SU) MIMO for up to 1,150Mbps wireless data rate with individual 4SS HE40 802.11ax client devices or with two 2SS HE40 802.11ax MU-MIMO capable client devices simultaneously
- Support for up to 1,024 *associated* client devices per radio (typical recommended limit for *active outdoor* clients is 100-200 depending on distance), 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)
  802.11ax: Orthogonal frequency-division multiple access (OFDMA) with up to 37 resource units (for an 80MHz channel)

- Supported modulation types:
  802.11b: BPSK, QPSK, CCK
  802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM (proprietary extension)
  802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM (proprietary extension)
  802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM

- 802.11n high-throughput (HT) support: HT20/40
- 802.11ac very high throughput (VHT) support: VHT20/40/80/160
- 802.11ax high efficiency (HE) support: HE20/40/80/160
- 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 600 (MCS0 to MCS31, HT20 to HT40), 800 with 256-QAM
  802.11ac: 6.5 to 1,733 (MCS0 to MCS9, NSS = 1 to 4, VHT20 to VHT160), 2,166 with 1024-QAM
  802.11ax (2.4GHz): 3.6 to 1,147 (MCS0 to MCS11, NSS = 1 to 4, HE20 to HE40)
  802.11ax (5GHz): 3.6 to 2,402 (MCS0 to MCS11, NSS = 1 to 4, HE20 to HE160)

- 802.11n/ac packet aggregation: A-MPDU, A-MSDU
- Transmit power: Configurable in increments of 0.5 dBm

## Technical Specifications

- Maximum (aggregate, conducted total) transmit power (limited by local regulatory requirements):
  - 2.4 GHz band: +29 dBm (23dBm per chain)
  - 5 GHz band: +28 dBm (22 dBm per chain)
  - Hazardous Location APs do not exceed 33dBm total EIRP to stay under the ATEX Zone 2 intrinsic safety limits
    **Notes:** conducted transmit power levels exclude antenna gain. For total (EIRP) transmit power, add antenna gain.

- Advanced Cellular Coexistence (ACC) minimizes the impact of interference from cellular networks
- Maximum ratio combining (MRC) for improved receiver performance
- Cyclic delay/shift diversity (CDD/CSD) for improved downlink RF performance
- 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
- 802.11ax Target Wait Time (TWT) to support low-power client devices
- Advanced IoT Existence (AIC) allows for concurrent operation of the IoT and 2.4Ghz radios without issue

## Wi-Fi Antennas

- AP-585: Four integrated dual-band omni-directional antennas for 4x4 MIMO with peak antenna gain of 4.4dBi in 2.4GHz and 5.8dBi in 5GHz. Built-in antennas are optimized for a horizontally mounted orientation of the AP. The downtilt angle for maximum gain is roughly 10 degrees.
  - A mix of horizontally and vertically polarized antenna elements are used
  - Combining the patterns of each of the antennas of the MIMO radios, the peak gain of the combined, average pattern is 3.0dBi in 2.4GHz and 4.5dBi in 5GHz.

- AP-587: Four integrated dual-band directional antennas for 4x4 MIMO with peak antenna gain of 5.8dBi in 2.4GHz and 6.6dBi in 5Ghz. Built-in antennas are optimized for a vertically oriented installation to a wall or pole.
  - A mix of horizontal, vertical, and +/-45 degree antenna elements are used
  - Combining the patterns of each of the antennas of the MIMO radios, the peak gain of the combined, average pattern is 5.7dBi in 2.4Ghz, and 5.2dBi in 5Ghz

## Other Interfaces

- Wired network interface (E0)
  - 100/1000/2500/5000Base-T Ethernet
  - 5Gbps Smart Rate: NBase-T, 802.3bz
  - PoE PD support on E0
  - IEEE/802.3az support
  - Support for jumbo frames (MTU up to 9,216 bytes)

- Wired network interface (E1)
  - 10GBASE-R SFP+ port
  - IEEE/802.3az support (as applicable)
  - Support for jumbo frames (up to 9,216 bytes)
  - 1 x SFP+ cage
  - When used in operation it is expected that this is the primary uplink port
  - Only recommended industrial temperature SFP/SFP+ modules should be used for optimal performance

- Wired network interface (E2)
  - 10/100/1000BaseT Ethernet
  - IEEE/802.3az support (as applicable)
  - Support for jumbo frames (up to 9,216 bytes)
  - Support for PoE PSE of at 802.3at (preferable to possibly be able to reach 802.3at PSE with IPTM policy if needed)

- AC power interface: 110-240V (requires AP-AC-MLX power connector kit)
- Bluetooth (BLE5.0) and Zigbee (802.15.4) radio
  - BLE: up to 8dBm transmit power (class 2) and -98dBm receive sensitivity (125kbps)

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> Zigbee: up to 8dBm transmit power and -96dBm receive sensitivity

- Visual indictors (multi-color LED): for System and Radio status
- Reset button: factory reset, LED mode control (normal/off)
- USB-C console interface
- Shielded Twisted Pair (STP) Ethernet cable should be used on all Ethernet interfaces for proper surge protection

## Power Sources and Power Consumption

- The AP supports direct AC power and Power over Ethernet (802.3bt POE; on port E0 only)
- When both AC and POE power sources are available, AC power takes priority over POE
- Power sources are sold separately; see the ordering Information section below for details
- See below conditions for each power configuration:
  > When powered by AC, the AP will operate without restrictions, including 802.3af/at support (with upper thermal limitations).* With IPTM enabled, the AP will adjust power requirements to meet requirements, and will reduce according to established IPTM policy
  > When powered by 802.3bt Class 6, the AP will operate without restriction, limited to 802.3af PSE support.* With IPTM enabled, the AP will adjust power requirements to meet requirements, and will reduce according to established IPTM policy
  > When powered by 802.3bt Class 5 with LLDP, full function but no PSE support*
  > When powered by 802.3at, AP will reduce 2.4Ghz to 1 chain, and will reduce the 5Ghz to 3 chains, no PsE out*
  > When powered by 802.3af, the AP will boot up, but not enable any radios, regardless of IPTM settings.
  > **Notes:***With IPTM enabled, the AP will adjust power requirements to meet requirements, and will reduce power as necessary according to the established IPTM policy

- Maximum (worst-case) power consumption:
  > AC powered: 71W (802.3af/at*)
  > POE powered (802.3bt Class 6): 49.5W (802.3af PSE only)
  > POE powered (802.3bt Class 5): 35.5W (no PSE)
  > POE powered (802.3at, IPM disabled): 25.5W (1 chain @ 2.4Ghz, 3 chains @ 5Ghz, no PSE)

- Maximum (worst-case) power consumption in idle mode: 9.2W (POE) or 10.8W (AC)
- Maximum (worst-case) power consumption in deep-sleep mode: 3.0W (POE) or 4.4W (AC)

## Mounting Details

- AP-OUT-MNT-V1A - Long arm wall or pole mounting bracket
- AP-270-MNT-H1 - Single-tilt mounting bracket for wall or ceiling
- AP-270-MNT-H2 - Flush ceiling or wall mounting bracket
- AP-270-MNT-H3 - Dual-tilt mounting bracket for wall or ceiling

## Mechanical Specifications

**AP-585EX**

- Dimensions/weight (AP-585EX unit only):
  - 324mm (W) x 313mm (D) x 320mm (H) / 12.6" (W) x 12.3" (D) x 9.6" (H)
  - 5.24kg / 11.5lbs
- Dimensions/weight (AP-585EX shipping pkg, no mount):
  - 431mm (W) x 415mm (D) x 442mm (H) / 17" (W) x 16.3" (D) x 17.4" (H)
  - 7.81kg / 17.2lbs

**AP-587EX**

- Dimensions/weight (AP-587EX unit only):
  - 302mm (W) x 300mm (D) x 174mm (H) / 5.9" (W) x 11.8" (D) x 6.9" (H)
  - 4.51kg / 9.9lbs
- Dimensions/weight (AP-587EX shipping pkg, no mount):
  - 385mm (W) x 272mm (D) x 433mm (H) / 15.2" (W) x 10.7" (D) x 17" (H)

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  − 6.03kg / 13.3lbs

## Environmental Specifications

- Operating conditions
  - Temperature: -40C to +65C / -40F to +149F with full solar loading
  - Humidity: 5% to 93% non-condensing internal
  - Rated for operation in all weather conditions

- Storage and transportation conditions
  - Temperature: -40C to +70C / -40F to +158F.

- Operating Altitude: 3000m
- Water and Dust
  - IP66

- Salt Tolerance
  - Test to ASTM B117-07A Salt Spray 200hrs

## Reliability

Mean Time Between Failure (MTBF): 828,651hrs (~95yrs) at +25C operating temperature.

## Regulatory Compliance

- FCC/ISED
- CE Marked
- RED Directive 2014/53/EU
- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- UL/IEC/EN 60950-1
- IEC 60950-22
- UL/IEC/EN 62368-1
- IEC/EN60601-1-2
- EN 50155
- EN IEC 60079-0
- EN IEC 60079-7
- IEC 60079-0
- IEC 60079-7
- CSA C22.2 No.213-17
- UL 121201
- UL 50E

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

## Regulatory Model Numbers

- AP-585EX: APEX0585
- AP-587EX: APEX0587

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## Certifications

- Wi-Fi Alliance:
- Bluetooth SIG
- Ethernet Alliance (E0, PoE PD device, class 6; E2, PoE PSE device, class 3)
- Class 1 Div 2
- ATEX Zone 2

## Warranty
**Aruba's hardware limited lifetime warranty.**

## Minimum Operating System Software Versions
ArubaOS and Aruba InstantOS 8.10.0.0

## RF Performance Table

| Band / Rate | Maximum Transmit Power (dBm) per transmit chain | Receiver Sensitivity (dBm) per receive chain |
|---|---|---|
| **2.4Ghz, 802.11b** | | |
| 1Mbps | 23 | -95 |
| 11Mbps | 23 | -87 |
| **2.4Ghz, 802.11g** | | |
| 6Mpbs | 23 | -92 |
| 54 Mbps | 20 | -74 |
| **2.4Ghz, 802.11n/ac HT20** | | |
| MCS0 | 23 | -92 |
| MCS8 | 18 | -70 |
| **2.4Ghz, 802.11n/ac HT40** | | |
| MCS0 | 23 | -89 |
| MCS9 | 18 | -66 |
| **2.4Ghz, 802.11 ax HE20** | | |
| MCS0 | 23 | -92 |
| MCS11 | 16 | -62 |
| **2.4Ghz, 802.11 ax HE40** | | |
| MCS0 | 23 | -89 |
| MCS11 | 16 | -59 |
| **5Ghz, 802.11a** | | |
| 6Mpbs | 22 | -93 |
| 54Mpbs | 22 | -75 |
| **5Ghz, 802.11n/ac HT20** | | |
| MCS0 | 22 | -93 |
| MCS8 | 20 | -71 |
| **5Ghz, 802.11n/ac HT40** | | |
| MCS0 | 22 | -90 |
| MCS9 | 20 | -65 |
| **5Ghz, 802.11n/ac HT80** | | |
| MCS0 | 22 | -87 |
| MCS9 | 20 | -62 |
| **5Ghz, 802.11ax HE20** | | |
| MCS0 | 22 | -93 |
| MCS11 | 18 | -62 |

Technical Specifications

| 5Ghz, 802.11ax  HE40 | | |
|---|---|---|
| MCS0 | 22 | -90 |
| MCS11 | 18 | -59 |
| **5Ghz, 802.11ax HE80** | | |
| MCS0 | 22 | -87 |
| MCS11 | 18 | -56 |

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

## Summary of Changes

| Date | Version History | Action | Description of Change |
|---|---|---|---|
| 05-Jul-2022 | Version 2 | Changed | Configuration Information section was updated. |
| 04-Abr-2022 | Version 1 | New | New QuickSpecs |

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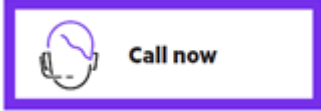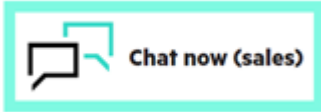
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