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DATA SHEET

ARUBA 560EX SERIES HAZARDOUS LOCATION ACCESS POINTS

Entry-level Wi-Fi 6 (802.11ax) for outdoor and hazardous location environments

Weatherproof and temperature hardened, Aruba 560 series access points deliver cost-effective Wi-Fi 6 wireless connectivity in outdoor and environmentally challenging hazardous locations.

Purpose-built to survive in the harshest outdoor environments, 560 series can 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 strength surge protection.

Aruba Wi-Fi 6 access points provide high-performance connectivity for any organization experiencing growing numbers of IoT and mobility requirements. With maximum aggregate on air data rate of 1.49 Gbps (HE80/HE20), they deliver the speed and reliability needed for most environments.

Aruba's advanced ClientMatch technology and an integrated Bluetooth beacon can help enable Aruba location services.

INCREDIBLE EFFICIENCY

The 560 Series access points (APs) are designed to optimize user experience by maximizing Wi-Fi efficiency and dramatically reducing airtime contention between clients.

Features include Orthogonal frequency-division multiple access (OFDMA), bi-directional multi-user MIMO and cellular optimization. With up to 2 spatial streams, the 560 Series provides reliable connectivity for most any application.

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

Advantages of OFDMA

OFDMA capability allows Aruba 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 yet not competing for airtime and bandwidth.

Aruba Air Slice™ for Extended OFDMA 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. For APs, Air Slice uses Aruba Central for management. Controller-based APs will be supported in a future software release.

Multi-User MIMO (MU-MIMO)

560 Series APs support downlink MU-MIMO just like Wi-Fi 5 (802.11ac Wave 2) APs. 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 eliminates sticky client issues by placing Wi-Fi 6 capable devices on the best available AP. Session metrics are used to steer mobile devices to the best AP based on available bandwidth, types of applications being used and traffic type – even as users roam.

Aruba Advanced Cellular Coexistence (ACC)

The ACC feature uses built-in filtering to automatically minimize the impact of interference from cellular networks, distributed antenna systems (DAS), and commercial small cell or femtocell equipment.

Intelligent Power Monitoring (IPM)

Aruba APs continuously monitor and report hardware energy consumption. They can also be configured to enable or disable capabilities based on available PoE power – ideal when wired switches have exhausted their power budget.

IOT PLATFORM CAPABILITIES

Like all Aruba Wi-Fi 6 APs, the 560 Series includes an integrated Bluetooth 5 and 802.15.4 radio (for Zigbee support) to simplify deploying and managing IoT-based location services, asset tracking services, security solutions and IoT sensors. This allows organizations to leverage the 560 Series as an IoT platform, which eliminates the need for an overlay infrastructure and additional IT resources.

Target Wake Time (TWT)

Ideal for IoTs that communicate infrequently, TWT establishes a schedule for when clients need to communicate with an AP. This helps improve client power savings and reduces airtime contention with other clients.

ARUBA SECURE INFRASTRUCTURE

The Aruba 560 Series includes components of Aruba's Zero Trust Security 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 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 Aruba ClearPass Policy Manager.

VPN Tunnels

In Remote AP (RAP) and IAP-VPN deployments, the Aruba 560 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 chip for secure storage of credentials and keys, and boot code.

SIMPLE AND SECURE ACCESS

To simplify policy enforcement, the Aruba 560 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.

HIGH DENSITY CONNECTIVITY

Each 560 Series AP provides connectivity for a maximum of 256 associated clients per radio (512 in total). In real-world scenarios, the maximum recommended client density is dependent on environmental conditions.

FLEXIBLE OPERATION AND MANAGEMENT

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 (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 WI-FI FEATURES

Each AP also includes the following standards-based technologies:

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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.

AP-560 SERIES SPECIFICATIONS

Hardware Variants

- AP-565
  - Built-in Omni Directional Antennas
    - 5 GHz Antennas 5.4 dBi
    - 2.4 GHz Antennas 3.2 dBi
    - BLE/802.15.4 Antennas 3.3d Bi
- AP-567
  - Built-in 90°H x 90°V Directional Antennas
  - 5 GHz Antennas 6.8 dBi
  - 2.4 GHz Antennas 7.1 dBi
  - BLE/802.15.4 Antennas 3.0 dBi

Wi-Fi Radio Specifications

- AP type: Outdoor Hardened, Wi-Fi 6 dual radio, 5 GHz 2x2 MIMO and 2.4 GHz 2x2 MIMO
- Software-configurable dual radio supports 5 GHz (Radio 0) and 2.4 GHz (Radio 1)
- 5 GHz:
  - Two spatial stream Single User (SU) MIMO for up to 1.2 Gbps wireless data rate with individual 2SS HE80 802.11ax client devices, or with two 1SS HE80 802.11ax MU-MIMO capable client devices simultaneously
- 2.4 GHz
  - Two spatial stream Single User (SU) MIMO for up to 574 Mbps (287 Mbps) wireless data rate with individual 2SS HE40 (HE20) 802.11ax client devices or with two 1SS HE40 (HE20) 802.11ax MU-MIMO capable client devices simultaneously
- Up to 256 associated client devices per radio
- 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
  - 5.850 to 5.925 GHz
  - 5.825 to 5.875 GHz
- 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 16 resource units (RU)
- 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: HT 20/40
- 802.11ac very high throughput (VHT) support: VHT 20/40/80
- 802.11ax high efficiency (HE) support: HE20/40/80
- 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, HT20 to HT40), 400 with 256-QAM
  - 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2, VHT20 to VHT80), 1,083 with 1024-QAM
  - 802.11ax (2.4GHz): 3.6 to 574 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE40)
- 802.11n/ac/ax Packet aggregation: A-MPDU, A-MSDU
- Transmit power: Configurable in increments of 0.5 dBm
- Maximum (conducted) transmit power (limited by local regulatory requirements):
  - 2.4 GHz band: +23 dBm per chain, +26 dBm aggregate (2x2)
  - 5 GHz band: +23 dBm per chain, +26 dBm aggregate (2x2)
  - Note: conducted transmit power levels exclude antenna gain.

- Maximum EIRP (limited by local regulatory requirements):
  - 2.4 GHz band:
    - 565: 29.2 dBm EIRP
    - 567: 33 dBm EIRP
  - 5 GHz band:
    - 565: 31.4 dBm EIRP
    - 567: 32.7 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) to enable the use of multiple transmit antennas
- Short guard interval for 20-MHz, 40-MHz, and 80-MHz
- 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

Power

- Maximum (worst-case) power consumption: 15.6W
- Maximum (worst case) power consumption in idle mode: 4.2W
- Maximum (worst case) power consumption in deep-sleep mode: 1.7
- Power sources sold separately
- Power over Ethernet (PoE+): 802.3at-compliant
- When powered by 1x 802.3at, there are no restrictions
- When powered by 1x 802.3af with IPM enabled, the AP will start up in unrestricted mode, but may dynamically apply restrictions depending on the POE budget and actual power. The feature restrictions can be programmed.
- When powered by 1x 802.3af with IPM disabled, the AP will lower the 2.4Ghz radio to 1x1:1

Additional Interfaces

- E0: 10/100/1000BASE-T (RJ-45)
  - Auto-sensing link speed and MDI/MDX
  - PoE-PD: 48Vdc (nominal) 802.3at/bt (Class 3 or higher)
  - 802.3az Energy Efficient Ethernet (EEE)
- Bluetooth 5 and 802.15.4 radio
  - 2.4 GHz
  - Bluetooth 5: up to 8 dBm transmit power and -95 dBm receive sensitivity
  - Zigbee: up to 8 dBm transmit power and -97 dBm receive sensitivity
  - Up to 4 dBm 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)
- USB-C console interface

Mounting

- AP-270-MNT-V1
- AP-270-MNT-V2
- AP-270-MNT-H1
- AP-270-MNT-H2
- AP-270-MNT-H3

Mechanical

- AP-565
  - Dimensions/weight (excluding mount):
    - 16.5 cm (W) x 16.5 cm (D) x 11 cm (H)
    - 6.5″ (W) x 6.5″ (D) x 4.3″ (H)
    - 1.03 kg/2.27 lbs
- AP-567
  - Dimensions/weight (excluding mount):
    - 16.5 cm (W) x 16.5 cm (D) x 11 cm (H)
    - 6.5″ (W) x 6.5″ (D) x 4.3″ (H)
    - 1.09 kg/2.4 lbs

Environmental

- Operating:
  - Temperature: -40° C to +55° C (-40° F to +140° F) with full solar loading
  - Humidity: 5% to 95% non-condensing internal
  - Rated for operation in all weather conditions
- 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-565EX: APEX0565
- AP-567EX: APEX0567

Certifications

- CB Scheme Safety, cTUVus
- UL2043 plenum rating
- Wi-Fi Alliance certified 802.11a/b/g/n/
- Wi-Fi Alliance certified Wi-Fi 6 (802.11ax)
- Wi-Fi CERTIFIED™ ac (with wave 2 features)
- Passpoint® (Release 2) with ArubaOS and Instant 8.3+
- Class 1 Division 2 certified*
- ATEX Zone 2 certified*

Warranty

- Limited Lifetime Warranty

Minimum Operating System Software

- ArubaOS and Aruba InstantOS 8.7.1.0

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*Pending completion from certification lab

RF PERFORMANCE TABLE		
Band, rate	**Maximum transmit power (dBm) per transmit chain**	**Receiver sensitivity (dBm) per receive chain**
2.4 GHz, 802.11b		
1 Mbps	22	-97
11 Mbps	22	-89
2.4 GHz, 802.11g		
6 Mbps	22	-93
54 Mbps	20	-76
2.4 GHz, 802.11n/ac HT20		
MCS0	22	-93
MCS8	19	-75
2.4 GHz, 802.11ax HE20		
MCS0	22	-93
MCS11	17	-62
5 GHz, 802.11a		
6 Mbps	22	-92
54 Mbps	20	-75
5 GHz, 802.11n/ac HT20/VHT20		
MCS0	22	-92
MCS8	19	-72
5 GHz, 802.11n/ac HT40/VHT40		
MCS0	22	-90
MCS9	19	-65
5 GHz, 802.11ac VHT80		
MCS0	22	-88
MCS9	19	-63
5 GHz, 802.11ax HE20		
MCS0	22	-94
MCS11	17	-62
5 GHz, 802.11ax HE40		
MCS0	22	-91
MCS11	17	-60
5 GHz, 802.11ax HE80		
MCS0	22	-87
MCS11	17	-57

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

CHASSIS ORDERING INFORMATION

Part Number	Description
AP-560EX Series Unified Outdoor HazLoc Access Points	
R4W62A	Aruba AP-565EX (RW) 802.11ax Dual 2x2:2 Radio Internal Omni Antenna Outdoor HazLoc AP
R4W63A	Aruba AP-565EX (US) 802.11ax Dual 2x2:2 Radio Internal Omni Antenna Outdoor HazLoc AP
R4W60A	Aruba AP-565EX (EG) 802.11ax Dual 2x2:2 Radio Internal Omni Antenna Outdoor Hazloc AP
R4W28A	Aruba AP-565EX (IL) 802.11ax Dual 2x2:2 Radio Internal Omni Antenna Outdoor HazLoc AP
R4W61A	Aruba AP-565EX (JP) 802.11ax Dual 2x2:2 Radio Internal Omni Antenna Outdoor HazLoc AP
R4W66A	Aruba AP-567EX (RW) 802.11ax Dual 2x2:2 Radio Internal Directional Ant Outdoor HazLoc AP
R4W67A	Aruba AP-567EX (US) 802.11ax Dual 2x2:2 Radio Internal Directional Ant Outdoor HazLoc AP
R4W64A	Aruba AP-567EX (EG) 802.11ax Dual 2x2:2 Radio Internal Directional Ant Outdoor HazLoc AP
R4W29A	Aruba AP-567EX (IL) 802.11ax Dual 2x2:2 Radio Internal Directional Ant Outdoor HazLoc AP
R4W65A	Aruba AP-567EX (JP) 802.11ax Dual 2x2:2 Radio Internal Directional Ant Outdoor HazLoc AP

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