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HPE Aruba Networking 580 Series Outdoor Access Points QuickSpecs

Flagship Wi-Fi 6 performance and flexible options for challenging outdoor environments

Purpose-built to survive in the harshest outdoor environments, HPE Aruba Networking 580 Series Outdoor Access Points are designed for the highest levels of performance and greater deployment flexibility — all backed by a limited lifetime warranty. The 580 series access points deliver the speed and reliability needed for large enterprise and Industrial IoT deployments with high power Bluetooth and 802.15.4/Zigbee radios and flexible power options.

Overview





Key features

- Purpose built to survive in the harshest outdoor environments and extreme temperatures (-40 to +65˚C) with IP66/67 ratings
- Ultimate Wi-Fi 6 performance and speed with a maximum aggregate data rate of 2.97Gbps
- Bluetooth and 802.15.4/Zigbeeradios with high power to meet demanding Industrial IoT requirements
- Dual redundant power/port failover and support for AC ensure high availability with uninterrupted performance
- Backed by HPE Aruba Networking’s Limited Lifetime Warranty

Standard Features

Designed for Outdoor Flexibility

Weatherproofed, and temperature hardened to survive in the harshest outdoor environments, HPE Aruba Networking 580 Series Outdoor Access Points 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 IP66/67 certified.

To support high-performance connectivity in dense mobile and IoT outdoor environments, 580 series access points deliver maximum aggregate on air data rates of 2.97 Gbps and include 5 Gbps Smart Rate Ethernet ports. In addition, dual redundant power/port failover and support for AC ensure high availability with uninterrupted performance.

WI-FI 6 Benefits

The 580 series access points are based on the Wi-Fi 6/802.11ax standard, which means that Wi-Fi 6 features such as Uplink and Downlink Orthogonal Frequency Division Multiple Access (OFDMA), BSS coloring, Downlink Multi-User MIMO (MU-MIMO), and cellular co-location are fully supported making it more efficient and secure.

Advantages of OFDMA

This capability allows HPE Aruba Networking's access points to handle multiple 802.11ax 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), 580 series access points 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-access point spatial stream diversity.

Wi-Fi Optimization

Client Optimization

HPE Aruba Networking's patented AI-powered ClientMatch technology eliminates sticky client issues by steering a client to the AP where it receives the best radio signal. ClientMatch also dynamically steers traffic to load balance APs to improve the user experience.

Automated Wi-Fi radio frequency management

To optimize the user experience and provide greater stability, HPE Aruba Networking AirMatch allows organizations to automate network optimization using machine learning. AirMatch provides dynamic bandwidth adjustments to support changing device density, enhanced roaming using an even distribution of Effective Isotropic Radiated Power (EIRP) to radios, and real-time channel assignments to mitigate co-channel interference.

Intelligent Power Monitoring (IPM)

HPE Aruba Networking 580 Series Outdoor Access Points 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 IPM, if the access point gets too close to the maximum temperature limit, it can disable features to prevent overheating.

HPE Aruba Networking Advanced Cellular Coexistence (ACC)

Unique to HPE Aruba Networking, Advanced Cellular Coexistence 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.

IoT Capabilities

High power Bluetooth and Zigbee

The 580 series was the first HPE Aruba Networking access point to feature a high-powered Bluetooth and 802.15.4/Zigbee radio, ensuring maximum range and performance for IoT applications. Built in Bluetooth and Zigbee capabilities simplify deploying and managing IoT-based location services, asset tracking services, security solutions and IoT sensors and allows organizations to leverage the 580 Series as an IoT platform. There is no need for an overlay infrastructure or additional IT resources.

Advanced IoT coexistence (AIC)

Built-in filtering allows Wi-Fi and Bluetooth/Zigbee radios to operate at maximum capacity without the impact of interference.

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 IoT 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.

HPE Aruba Networking Secure Infrastructure

The 580 series is an integral part of HPE Aruba Networking's SASE and 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.

Standard Features

Simple and Secure Access

To improve security and ease of management, IT can centrally configure and automatically enforce role-based policies that define proper access privileges for employees, guests, contractors, and other user groups — no matter where users connect on wired and wireless networks.

Dynamic Segmentation eliminates the time consuming and error-prone task of managing complex and static VLANs, ACLs, and subnets by dynamically assigning policies and keeping traffic secure and separated.

Flexible Operation and Management

Our unified 580 series can operate as standalone access points or with a gateway for greater scalability, security, and manageability. Access points can be deployed using Zero Touch Provisioning — without on-site technical expertise — for ease of implementation. HPE Aruba Networking access points can be managed using cloud-based or on-premises solutions for any campus, branch, or remote work environment. HPE Aruba Networking Central provides a single pane of glass for overseeing every aspect of wired and wireless LANs, WANs, and VPNs. AI-powered analytics, end-to-end orchestration and automation, and advanced security features are built natively into the solution.

Additional Wi-Fi Features

Transmit Beamforming (TxBF)
Increased signal reliability and range

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

Maximum 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
Increased connection robustness

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

Standard Features

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 5 GHz throughput of 2.4Gbps in 4SS HE80 (or 2SS HE160) and 574Mbps in the 2.4 GHz 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 IPM
- Ideal for large scale outdoor environments including universities, large enterprises, and industrial applications
- High power Bluetooth and Zigbee radio for IoT connectivity with support for maximum range and performance
- HPE Aruba Networking Intelligent Power Monitoring (IPM) which allows the access point 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

580 Unified Outdoor Access Points

Description	SKU
HPE Aruba Networking AP-584 (US) Dual Radio 4x4 802.11ax External Antennas Unified Outdoor AP	R7S99A
HPE Aruba Networking AP-584 (RW) Dual Radio 4x4 802.11ax External Antennas Unified Outdoor AP	R7T00A
HPE Aruba Networking AP-584 (EG) Dual Radio 4x4 802.11ax External Antennas Unified Outdoor AP	R7T01A
HPE Aruba Networking AP-584 (IL) Dual Radio 4x4 802.11ax External Antennas Unified Outdoor AP	R7T02A
HPE Aruba Networking AP-584 (JP) Dual Radio 4x4 802.11ax External Antennas Unified Outdoor AP	R7T03A
HPE Aruba Networking AP-584 (ID) Dual Radio 4x4 802.11ax External Antennas Outdoor Access Point	S5E03A
HPE Aruba Networking AP-585 (US) Dual Radio 4x4 802.11ax Internal Omni Antennas Unified Outdoor AP	R7T04A
HPE Aruba Networking AP-585 (RW) Dual Radio 4x4 802.11ax Internal Omni Antennas Unified Outdoor AP	R7T05A
HPE Aruba Networking AP-585 (EG) Dual Radio 4x4 802.11ax Internal Omni Antennas Unified Outdoor AP	R7T06A
HPE Aruba Networking AP-585 (IL) Dual Radio 4x4 802.11ax Internal Omni Antennas Unified Outdoor AP	R7T07A
HPE Aruba Networking AP-585 (JP) Dual Radio 4x4 802.11ax Internal Omni Antennas Unified Outdoor AP	R7T08A
HPE Aruba Networking AP-585 (ID) Dual Radio 4x4 802.11ax Internal Omni Antennas Outdoor Access Point	S5D99A
HPE Aruba Networking AP-587 (US) Dual Radio 4x4 Wi-Fi 6 Internal Directional Outdoor Access Point	R7T09A
HPE Aruba Networking AP-587 (RW) Dual Radio 4x4 Wi-Fi 6 Internal Directional Outdoor Access Point	R7T10A
HPE Aruba Networking AP-587 (EGF1) Dual Radio 4x4 Wi-Fi 6 Internal Directional TAA Outdoor AP	R7T11A
HPE Aruba Networking AP-587 (IL) Dual Radio 4x4 Wi-Fi 6 Internal Directional TAA Outdoor AP	R7T12A
HPE Aruba Networking AP-587 (JP) Dual Radio 4x4 Wi-Fi 6 Internal Directional Outdoor Access Point	R7T13A
HPE Aruba Networking AP-587 (ID) Dual Radio 4x4 802.11ax Internal Directional Ants Outdoor AP	S5E00A

580 TAA Unified Outdoor Access Points

Description	SKU
HPE Aruba Networking AP-584 (US) Dual Radio 4x4 802.11ax External Antennas Unified TAA Outdoor AP	R7T14A
HPE Aruba Networking AP-584 (RW) Dual Radio 4x4 802.11ax External Antennas Unified TAA Outdoor AP	R7T15A
HPE Aruba Networking AP-584 (EG) Dual Radio 4x4 802.11ax External Antennas Unified TAA Outdoor AP	R7T16A
HPE Aruba Networking AP-584 (IL) Dual Radio 4x4 802.11ax External Antennas Unified TAA Outdoor AP	R7T17A
HPE Aruba Networking AP-584 (JP) Dual Radio 4x4 802.11ax External Antennas Unified TAA Outdoor AP	R7T18A

Configuration Information

HPE Aruba Networking AP-585 (US) Dual Radio 4x4 802.11ax Internal Omni Ants Unified TAA Outdoor AP	R7T19A
HPE Aruba Networking AP-585 (RW) Dual Radio 4x4 802.11ax Internal Omni Ants Unified TAA Outdoor AP	R7T20A
HPE Aruba Networking AP-585 (EG) Dual Radio 4x4 802.11ax Internal Omni Ants Unified TAA Outdoor AP	R7T21A
HPE Aruba Networking AP-585 (IL) Dual Radio 4x4 802.11ax Internal Omni Ants Unified TAA Outdoor AP	R7T22A
HPE Aruba Networking AP-585 (JP) Dual Radio 4x4 802.11ax Internal Omni Ants Unified TAA Outdoor AP	R7T23A
HPE Aruba Networking AP-587 (USF1) Dual Radio 4x4 Wi-Fi 6 Internal Directional TAA Outdoor AP	R7T24A
HPE Aruba Networking AP-587 (RWF1) Dual Radio 4x4 Wi-Fi 6 Internal Directional TAA Outdoor AP	R7T25A
HPE Aruba Networking AP-587 (EG) Dual Radio 4x4 Wi-Fi 6 Internal Directional Outdoor Access Point	R7T26A
HPE Aruba Networking AP-587 (ILF1) Dual Radio 4x4 Wi-Fi 6 Internal Directional TAA Outdoor AP	R7T27A
HPE Aruba Networking AP-587 (JPF1) Dual Radio 4x4 Wi-Fi 6 Internal Directional TAA Outdoor AP	R7T28A

Mounting Accessories

AP Mount Kits

Description	SKU
HPE Aruba Networking AP-OUT-MNT-V1A Outdoor AP Long Arm Pole/Wall Mounting Bracket	R9H97A
HPE Aruba Networking AP-270-MNT-H1 Outdoor AP Hanging One-Way Tilt Pole/Wall Mounting Bracket	JW054A
HPE Aruba Networking AP-270-MNT-H2 Outdoor AP Flush Wall Mounting Bracket	JW055A
HPE Aruba Networking AP-270-MNT-H3 Outdoor AP Hanging Dual-Tilt Pole/Wall Mounting Bracket	R6W11A

Power Options

PoE Power Options

Description	SKU
HPE Aruba Networking AP-POE-BTSR 1-Port Smart Rate 802.3bt 60W Midspan Injector	R1C73A
HPE Aruba Networking PD-9501-5GCO-AC 60W 802.3bt Smart Rate Otdr Surge Protection Midspan Injector	R7T40A
HPE Aruba Networking PD-9501-5GCO-DC 60W 802.3bt Smart Rate Otdr Surge Protection Midspan Injector	R7T41A

Power Injector Mounts

Description	SKU
HPE Aruba Networking PD-MOUNT-OD Outdoor PoE Midspan Injectors Pole/Mast Mount Kit	JW620A

Power Connector Kit

Description	SKU
HPE Aruba Networking Outdoor AP-AC-MLX Outdoor Molex AC Power Connector Kit	R8Q74A

Configuration Information

Transceivers

SFP

Description	SKU
HPE Aruba Networking 1G Ind-Temp SFP LC SX 500m MMF Transceiver	JL780A
HPE Aruba Networking 1G Ind-Temp SFP LC LX 10km SMF Transceiver	JL781A
HPE Aruba Networking 10G Ind-Temp SFP+ LC SR 300m MMF Transceiver	JL782A
HPE Aruba Networking 10G Ind-Temp SFP+ LC LR 10km SMF Transceiver	JL783A
HPE Aruba Networking Outdoor SFP Weathertight Strain Relief Kit	Q8N54A

Antennas

Antennas

For 584 Std (Min 0 // max 1) User Selection (min 0 // max 1)

Description	SKU
HPE Aruba Networking ANT-2x2-2005 Pair 2.4GHz 5dBi Omni N-type Direct Mount Outdoor Antennas	JW023A
HPE Aruba Networking ANT-2x2-5005 Pair 5GHz 5dBi Omni N-type Direct Mount Outdoor Antennas	JW026A
HPE Aruba Networking ANT-2x2-5010 Pair 5GHz 10dBi Omni N-Type Direct Mount Outdoor Antennas	JW027A
HPE Aruba Networking ANT-4x4-5314 5.15-5.9GHz 14dBi Dual Pol MIMO Hi Gain Dir N-Type Outdoor Ant	JX988A
HPE Aruba Networking ANT-2x2-2314 2.4GHz 14dBi Dual Pol MIMO High Gain Dir N-Type Outdoor Antennas	JW024A
HPE Aruba Networking ANT-4x4-D707 Dual-Band 60x60deg 7dBi Panel V/H/+/-45 4 Element MIMO Outdoor Ant	S0A65A

Cables

RF Cables

Description	SKU
HPE Aruba Networking AFC7DL03-00 3m Nm to Nm Outdoor Rated RF Cable	JW064A
HPE Aruba Networking AFC7DL04-00 4m Nm to Nm Outdoor Rated RF Cable	JW065A
HPE Aruba Networking ANT-CBL-1 1m Nm to Nm Flexible Outdoor Rated RF Cable	JW068A
HPE Aruba Networking ANT-CBL-2 2m Nm to Nm Flexible Outdoor Rated RF Cable	JW069A
HPE Aruba Networking AP-CBL-1 10ft(3m) Nm to Nf Outdoor Rated RF Cable	JW070A

Accessories

Lightning Surge Arrestor

Description	SKU
HPE Aruba Networking AP-LAR-1 Nm to Nf Outdoor DC to 6 GHz In-line Coaxial Lightning Arrestor	JW061A

Configuration Information

Spare Items

Description	SKU
HPE Aruba Networking Otdr AP Covers/Glands 1pk M25/5pk M20 Cover and Gland/2pk M16 Cover Ground Kit	Q8N47A
HPE Aruba Networking Outdoor AP Metric to Standard M20 to 1/2 inch NPT 5-pk Thread Adapter	Q8N48A

Software

Central

Cloud Services / Access Point Foundation Subscriptions

HPE Aruba Networking Central AP Foundation 1-year Subscription E-STU	Q9Y58AAE
HPE Aruba Networking Central AP Foundation 3 year Subscription E-STU	Q9Y59AAE
HPE Aruba Networking Central AP Foundation 5 year Subscription E-STU	Q9Y60AAE
HPE Aruba Networking Central AP Foundation 7 year Subscription E-STU	Q9Y61AAE
HPE Aruba Networking Central AP Foundation 10 year Subscription E-STU	Q9Y62AAE

Cloud Services / Access Point Advanced Subscriptions

HPE Aruba Networking Central AP Advanced 1 year Subscription E-STU	Q9Y63AAE
HPE Aruba Networking Central AP Advanced 3 year Subscription E-STU	Q9Y64AAE
HPE Aruba Networking Central AP Advanced 5 year Subscription E-STU	Q9Y65AAE
HPE Aruba Networking Central AP Advanced 7 year Subscription E-STU	Q9Y66AAE
HPE Aruba Networking Central AP Advanced 10 year Subscription E-STU	Q9Y67AAE

On-Prem Services / Access Point Foundation Subscriptions

HPE Aruba Networking Central on Prem AP Foundation 1 year Subscription E-STU	R6U63AAE
HPE Aruba Networking Central on Prem AP Foundation 3 year Subscription E-STU	R6U64AAE
HPE Aruba Networking Central on Prem AP Foundation 5 year Subscription E-STU	R6U65AAE
HPE Aruba Networking Central on Prem AP Foundation 7 year Subscription E-STU	R6U66AAE
HPE Aruba Networking Central on Prem AP Foundation 10 year Subscription E-STU	R6U67AAE

On-Prem Services / Access Point Advanced Subscriptions

HPE Aruba Networking Central On-Premises AP Advanced 1-year Subscription E-STU	R6U68AAE
HPE Aruba Networking Central On-Premises AP Advanced 3-year Subscription E-STU	R6U69AAE
HPE Aruba Networking Central On-Premises AP Advanced 5-year Subscription E-STU	R6U70AAE
HPE Aruba Networking Central On-Premises AP Advanced 7-year Subscription E-STU	R6U71AAE
HPE Aruba Networking Central On-Premises AP Advanced 10 year Subscription E-STU	R6U72AAE

On-Prem Services / Access Point Foundation Government Subscriptions

HPE Aruba Networking COP AP Foundation Government 1-year Subscription E-STU	S1P56AAE
HPE Aruba Networking COP AP Foundation Government 3-year Subscription E-STU	S1P57AAE
HPE Aruba Networking COP AP Foundation Government 5-year Subscription E-STU	S1P58AAE
HPE Aruba Networking COP AP Foundation 7-year Government Subscription E-STU	S1P59AAE
HPE Aruba Networking COP AP Foundation 10-year Government Subscription E-STU	S1P60AAE

Configuration Information

On-Prem Services / Access Point Advanced Government Subscriptions

HPE Aruba Networking Central On-Premises Access Point Advanced 3-year Government Subscription E-STU	S1P97AAE
HPE Aruba Networking Central On-Premises Access Point Advanced 5-year Government Subscription E-STU	S1P98AAE

As-a-Service

Cloud Services / Access Point Foundation Subscriptions

HPE Aruba Networking Central AP Foundation 1 year Subscription SaaS	Q9Y58AAS
HPE Aruba Networking Central AP Foundation 3 year Subscription SaaS	Q9Y59AAS
HPE Aruba Networking Central AP Foundation 5 year Subscription SaaS	Q9Y60AAS
HPE Aruba Networking Central AP Foundation 7 year Subscription SaaS	Q9Y61AAS
HPE Aruba Networking Central AP Foundation 10 year Subscription SaaS	Q9Y62AAS

Cloud Services / Access Point Advanced Subscriptions

HPE Aruba Networking Central AP Advanced 1 year Subscription SaaS	Q9Y63AAS
HPE Aruba Networking Central AP Advanced 3 year Subscription SaaS	Q9Y64AAS
HPE Aruba Networking Central AP Advanced 5 year Subscription SaaS	Q9Y65AAS
HPE Aruba Networking Central AP Advanced 7 year Subscription SaaS	Q9Y66AAS
HPE Aruba Networking Central AP Advanced 10 year Subscription SaaS	Q9Y67AAS

Technical Specifications

Hardware Variants

- AP-584
  - Four dual-band Nf connectors for external antenna operation
  - One BLE Nf connector for the BLE/Zigbee radio
    - 5dBi omni-directional antenna included
- AP-585
  - 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-587
  - Built in directional antennas (H, V, and +/-45 polarized)
  - 5Ghz Antennas 5.2dBi uncorrelated avg (6.6dBi peak)
  - 2.4Ghz Antennas 5.7dBi uncorrelated avg (5.8dBi peak)
  - BLE Antenna 6.3dBi peak

WI-FI Radio Specifications

- AP type: Indoor, dual radio, 5 GHz 802.11ax 4x4 MIMO and 2.4 GHz 802.11ax 4x4 MIMO
- 5 GHz radio: Four spatial stream Single User (SU) MIMO for up to 2.4 Gbps 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
- 2.4 GHz radio: Four spatial stream Single User (SU) MIMO for up to 1,150 Mbps 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 2.4835 GHz (ISM)
  - 5.150 to 5.250 GHz (U-NII-1)
  - 5.250 to 5.350 GHz (U-NII-2A)
  - 5.470 to 5.725 GHz (U-NII-2C)
  - 5.725 to 5.850 GHz (U-NII-3/ISM)
- 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)

Technical Specifications

  - 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 (2.4 GHz): 3.6 to 1,147 (MCS0 to MCS11, NSS = 1 to 4, HE20 to HE40)
  - 802.11ax (5 GHz): 3.6 to 2,402 (MCS0 to MCS11, NSS = 1 to 4, HE20 to HE160)
- 802.11n/ac/ax packet aggregation: A-MPDU, A-MSDU
- Transmit power: Configurable in increments of 0.5 dBm
- Maximum (aggregate, conducted total) transmit power (limited by local regulatory requirements):
  - 2.4 GHz band: +29 dBm (23 dBm per chain)
  - 5 GHz band: +28 dBm (22 dBm per chain)
  - 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 2.4 GHz radios without issue
- 802.11mc Fine Timing Measurement (FTM) for precision distance ranging

Wi-Fi Antennas

- AP-584: Four Nf connectors for external dual band antennas (Wi-Fi 0 through Wi-Fi 3, corresponding with radio chains 0 through 3), and one Nf connector for BT (includes 5 dBi 2.4 GHz omni-directional antenna). Worst-case internal loss between radio interface and external antenna connectors: 0.8dB in 2.4 GHz (Wi-Fi), 0.8 dB in 2.4 GHz (BT) and 1.0dB in 5 GHz.
- AP-585: Four integrated dual-band omni-directional antennas for 4x4 MIMO with peak antenna gain of 4.4 dBi in 2.4 GHz and 5.8 dBi in 5 GHz. Built-in antennas are optimized for a horizontally mounted orientation of the access point. The down tilt 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 3.0 dBi in 2.4 GHz and 4.5 dBi in 5 GHz.
- AP-587: Four integrated 90°H x 90°V dual-band directional antennas for 4x4 MIMO with peak antenna gain of 5.8 dBi in 2.4 GHz and 6.6 dBi in 5 GHz. 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 5.7 dBi in 2.4 GHz, and 5.2 dBi in 5 GHz

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 802.3af (may be able to reach 802.3at PSE with IPM policy if needed depending on temperature and load)
- AC power interface: 110-240V (requires AP-AC-MLX power connector kit)
- Bluetooth (BT5.0) and Zigbee (802.15.4) radio
  - BT: up to 8dBm transmit power (class 2) and -98 dBm receive sensitivity (125 kbps)
  - Zigbee: up to 8 dBm transmit power and -96 dBm receive sensitivity
- Visual indictors (multi-color LED): for System and Radio status
- GNSS L1 (1575.42 MHz) receiver supporting GPS, Galileo, GLONASS, and BeiDou signal
  - Receive sensitivity: -163 dBm (tracking)
  - Integrated antenna with gain of ~2 dBi
- 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

Technical Specifications

Power Sources and Power Consumption

- The AP supports direct AC power and Power over Ethernet (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 access point will operate without restrictions, including 802.3af/at support (with upper thermal limitations).* With IPM enabled, the access point will adjust power requirements to meet requirements, and will reduce according to established IPM policy
  - When powered by 802.3bt Class 6, the access point will operate without restriction, limited to 802.3af PSE support.* With IPM enabled, the AP will adjust power requirements to meet requirements, and will reduce according to established IPM policy
  - When powered by 802.3bt Class 5 with LLDP, full function but no PSE support*
  - When powered by 802.3at, the access point will reduce both radios to 2 chains only, and will disable PSE out
  - When powered by 802.3af, the access pointwill boot up, but not enable any radios, regardless of IPM settings
    - With IPM enabled, the AP will adjust power requirements to meet requirements, and will reduce power as necessary according to the established IPM 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 with LLDP): 35.5W (no PSE)
  - PoE powered (802.3at, IPM disabled): 25.5W (2 chains @ 2.4 GHz, 2 chains @ 5 GHz, 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

- Optional mounting kits: AP-OUT-MNT-V1A: Outdoor Pole/Wall Long Mount Kit
  - AP-270-MNT-H1: Outdoor AP Hanging or Tilt Install Mount Kit
  - AP-270-MNT-H2: Outdoor Flush Wall or Ceiling Mount
  - AP-270-MNT-H3: Outdoor AP Hanging or Dual-Tilt Install Mount Kit

Mechanical Specifications

AP-584

- Dimensions/weight (AP-584 unit only):
  - 324mm (W) x 312mm (D) x 244mm (H) / 12.6″ (W) x 12.3″ (D) x 9.6″ (H)
  - 5.52kg / 11.5lbs
- Dimensions/weight (AP-584 shipping pkg, no mount):
  - 410mm (W) x 322mm (D) x 433mm (H) / 16.1″ (W) x 12.7″ (D) x 17″ (H)
  - 7.56kg / 16.8lbs

Technical Specifications

AP-585

- Dimensions/weight (AP-585 unit only):
  - 324mm (W) x 313mm (D) x 320mm (H) / 12.6″ (W) x 12.3″ (D) x 12.7″ (H)
  - 5.24kg / 11.5lbs
- Dimensions/weight (AP-585 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-587

- Dimensions/weight (AP-587 unit only):
  - 302mm (W) x 300mm (D) x 174mm (H) / 11.9″ (W) x 11.8″ (D) x 6.9″ (H)
  - 4.51kg / 9.9lbs
- Dimensions/weight (AP-587 shipping pkg, no mount):
  - 385mm (W) x 272mm (D) x 433mm (H) / 15.2″ (W) x 10.7″ (D) x 17″ (H)
  - 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
  - IP66/67
- Salt Tolerance
  - Test to ASTM B117-07A Salt Spray 200hrs Wind Survival: 150mph (GR-487)

Reliability

Mean Time Between Failure (MTBF): 828,651hrs (~95yrs) at +25°C 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 62368-1
- IEC 60950-22

- IEC/EN60601-1-2
- EN 50155

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

Regulatory Model Numbers

- AP-584: APEX0584
- AP-585: APEX0585
- AP-587: APEX0587

Certifications

- Wi-Fi Alliance:
- Bluetooth SIG
- Ethernet Alliance (E0, PoE PD device, class 6; E2, PoE PSE device, class 3)

Warranty

HPE Aruba Networking's hardware limited lifetime warranty.

Minimum Operating System Software Versions

- HPE Aruba Networking Wireless Operating System and InstantOS 8.10.0.1
- HPE Aruba Networking Operating System 10.4.0.0

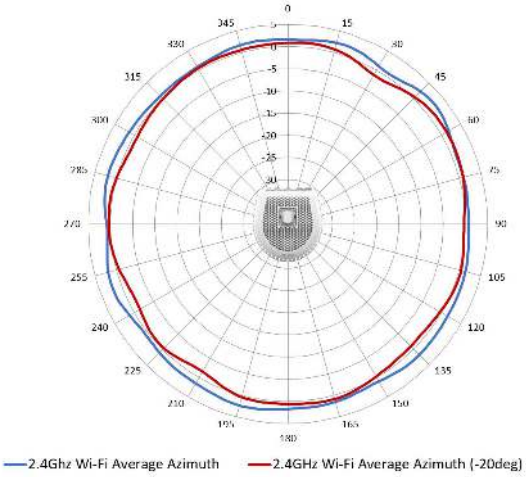
Technical Specifications

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

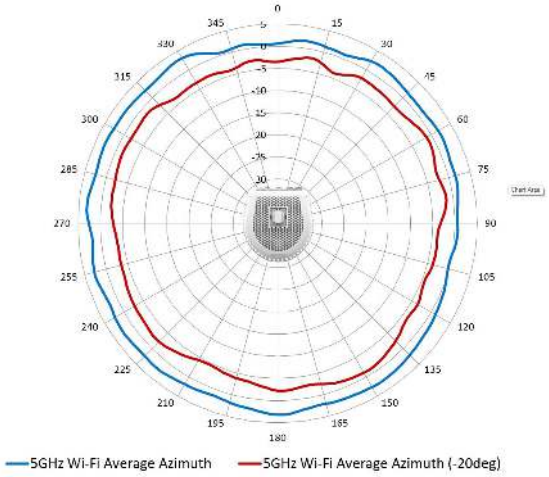
Antenna Patterns

AP-585 — Horizontal planes (top view)

Showing azimuth (0 degrees) and 30 degrees downtilt patterns (averaged patterns for all applicable antennas)



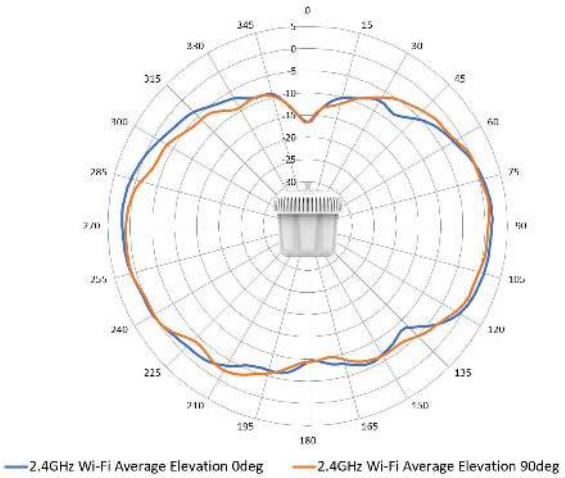
2.45 GHz Wi-Fi (antennas 1, 2, 3, 4)



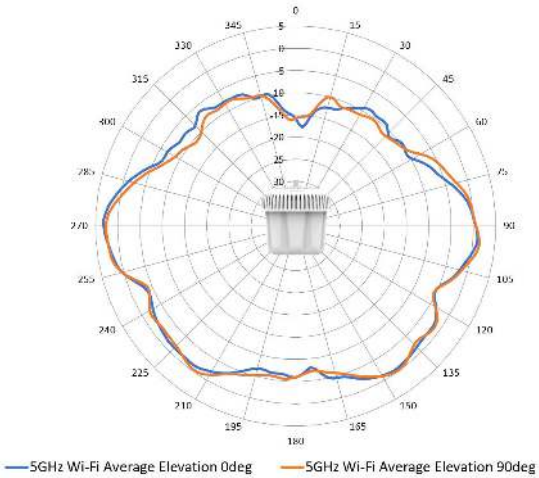
5.5 GHz Wi-Fi (antennas 1, 2, 3, 4)

AP-585 — Vertical (elevation) planes (side view, access point facing up)

Showing side view with AP rotated 0 and 90 degrees (averaged patterns for all applicable antennas)



2.45 GHz Wi-Fi (antennas 1, 2, 3, 4)

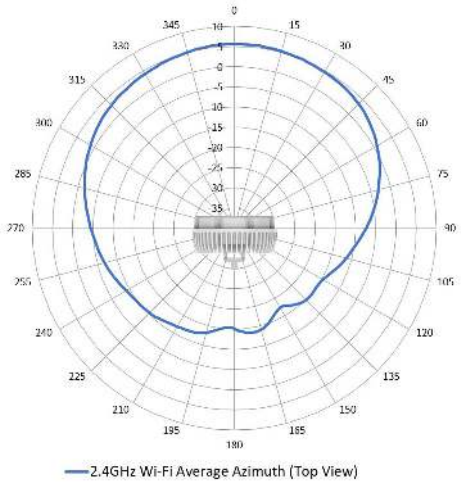


5.5 GHz Wi-Fi (antennas 1, 2, 3, 4)

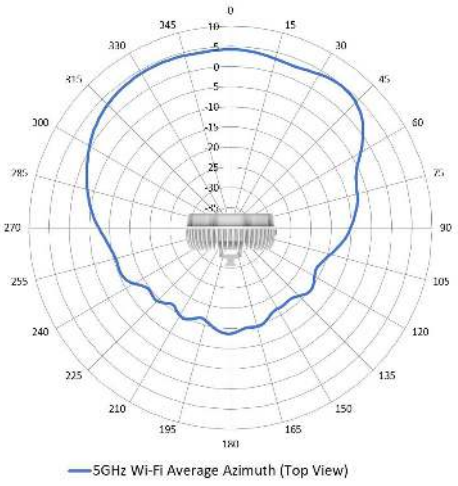
Technical Specifications

AP-587 — Horizontal planes (top view, access point facing up)

Showing azimuth (top view, averaged patterns for all applicable antennas)



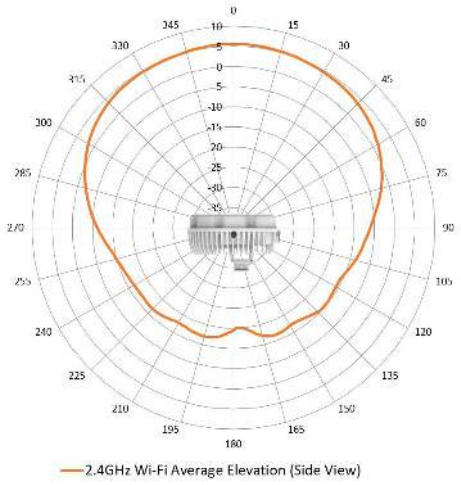
2.45 GHz Wi-Fi (antennas 1, 2, 3, 4)



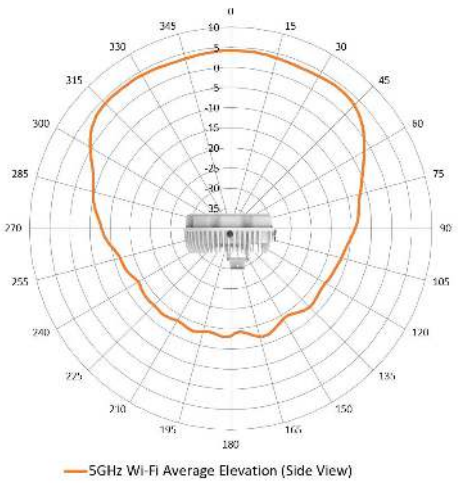
5.5 GHz Wi-Fi (antennas 1, 2, 3, 4)

AP-587 — Vertical (elevation) planes (side view, access point facing up)

Showing elevation (side view, averaged patterns for all applicable antennas)



2.45 GHz Wi-Fi (antennas 1, 2, 3, 4)



5.5 GHz Wi-Fi (antennas 1, 2, 3, 4)

Summary of Changes

Date	Version History	Action	Description of Change
17-Aug-2026	Version 13	Changed	New Central SKUs were added in Configuration Information section: S1P97AAE, S1P98AAE.
06-Jul-2026	Version 12	Changed	Internal QS Updates: Survey Text link and portrait brand format update.
27-Feb-2026	Version 11	Changed	Rebranding applied to QuickSpecs.
28-Jul-2025	Version 10	Changed	Update survey link.
07-Apr-2025	Version 9	Changed	Overview, Standard Features, Configuration Information, and Technical Specifications sections were updated.
21-Jan-2025	Version 8	Changed	QuickSpecs was updated.
16-Dec-2024	Version 7	Changed	QuickSpecs was updated.
04-Dec-2023	Version 6	Changed	Series name was updated.
16-Oct-2023	Version 5	Changed	Configuration Information section was updated
07-Aug-2023	Version 4	Changed	Configuration Information section was updated.
01-Aug-2022	Version 3	Changed	Configuration Information section was updated.
05-Jul-2022	Version 2	Changed	Configuration Information section was updated.
04-Apr-2022	Version 1	New	New QuickSpecs

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