

### Overview

**Shape the Future of QuickSpecs – Your Input Matters**

### HPE Aruba Networking 670 Series Outdoor Access Points

#### High-performance Wi-Fi 6E for outdoor with 670EX for hazardous locations

Weatherproof, temperature hardened, and ready for hazardous environments, the HPE Aruba Networking 670 Series Outdoor Access Points bring high performance Wi-Fi 6E to outdoor and environmentally challenging locations.

The 670 series delivers more wireless capacity and wider channels taking advantage of Wi-Fi 6E and the 6 GHz band to more than double capacity to enable the speed and reliability needed by enterprise and industrial Internet of Things (IoT) environments.

With integrated high-power Bluetooth and Zigbee radios, fast wired connectivity, and a limited lifetime warranty, the 670 series provides high performance outdoor connectivity you can depend on, delivering up to 3.9 Gbps maximum aggregate data rates with a tri-radio 2x2:2 MIMO access point.

For the most extreme conditions, the 670 series includes 670EX models that are Hazardous Location (HazLoc) compliant, making them ideal for environments such as oil rigs, industrial manufacturing, and transportation sites.



### HPE Aruba Networking AP-670 Series Outdoor Access Points family

#### Key Features

- Ideal for outdoor and environmentally challenging locations.
- Tri-band coverage across 2.4 GHz, 5 GHz, and 6 GHz for 3.9 Gbps peak aggregate data rate.
- Industrial IoT-ready with high-power Bluetooth and Zigbee radios.
- Fast wired connectivity with 2.5GbE and 1GbE SFP ports.
- Standard Power (SP) device operation and self-locating with embedded GPS receiver.
- Class 1 Division 2 and ATEX Zone 2 certified<sup>1</sup> AP-670EX models.
- Connectorized model supports external antennas.

## Standard Features

### Ruggedized and outdoor ready

Purpose-built to survive harsh outdoor environments and deliver maximum wireless capacity and range, the 670 Series APs withstand exposure to extreme high and low temperatures, persistent moisture, and precipitation. They are fully sealed to keep out airborne contaminants and all electrical interfaces include industrial-strength surge protection. Available with choice of internal antenna (omni, directional, or point-to-point) and external antenna to optimize wireless coverage, the 670 Series also includes EX models for additional protection for hazardous locations and harsh outdoor environments, and TAA models.

### 670 access point models for outdoor environments

The 670 models are ideal for deployment in harsh outdoor weather conditions such as parking lots, stadiums, and public venues.

### 670EX access points models for hazardous environments

The 670EX models are Class 1 Division 2 and ATEX Zone 2 certified to survive in extreme environments making them ideal for outdoor oil rigs, industrial manufacturing, mining facilities, and transportation sites. Also ideal for deployment where networks need to be protected from extreme temperatures, flammable gases or vapors, and dust concentrations.

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### Wi-Fi 6E for faster speeds, more capacity

670 series access points are designed to take advantage of Wi-Fi 6E and the 6 GHz band, which translates into far greater speeds, wider channels for multi-gigabit traffic, and less interference. The 670 series delivers 3.9 Gbps maximum aggregate data rates with tri-radio, 2x2:2 MIMO in all three bands (3.9 Gbps aggregate peak).

### Advantages of 6 GHz

Wi-Fi 6E provides up to 1200 MHz in the 6 GHz band for higher throughput and improved application performance. With up to seven 160 MHz channels<sup>1</sup>, Wi-Fi 6E can better support low-latency, bandwidth-hungry applications such as high-definition video and augmented reality/virtual reality applications. Only Wi-Fi 6E capable devices can use the 6 GHz band so there is no interference or slowdowns since legacy devices use the 5 GHz or 2.4 GHz bands. And to help ensure both 6E and legacy devices are supported, the 670 series provides flexible coverage across the 2.4 GHz, 5 GHz, and 6 GHz bands.

### Standard power support

670 series outdoor access points operate as SP devices and, where required, use an Automated Frequency Coordination service (AFC) before enabling the 6 GHz radio to protect incumbent outdoor services (such as microwave links, broadcast auxiliary service, and cable television relay service) in the 6 GHz band. Note that the access point only enables the 6 GHz radio once the standard power requirements are met and the 6 GHz radio is authorized, however the 2.4 GHz and 5 GHz radios function normally regardless of the 6 GHz radio's state.

### 6 GHz global readiness

At launch, the 670 series will be orderable in U.S. and Canada only. It may become available in other countries as they begin or announce their 6 GHz certification standards and requirements. While the need for more Wi-Fi capacity is recognized across the globe, countries are approaching the 6 GHz band differently. 670 series access points are set up to automatically update regulatory rules once Wi-Fi 6E regulations have been approved and certified.

### Extends the benefits of Wi-Fi 6

670 series access points are based on the 802.11ax (Wi-Fi 6) standard, which means that all its efficiency and security enhancements are also available on the 6 GHz band. Wi-Fi 6 features such as orthogonal frequency-division multiple access (OFDMA), BSS coloring, and more, are fully supported on the HPE Aruba Networking Wi-Fi 6E access points as well.

### Advantages of OFDMA

This capability allows HPE Aruba Networking access points to handle multiple 802.11ax capable customers on each channel simultaneously, regardless of device or traffic type. Channel utilization is optimized by handling each transaction through smaller sub-carriers or resource units (RUs), which means that customers are sharing a channel and not competing for airtime and bandwidth.

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## Standard Features

### Simplified deployment and operations

HPE Aruba Networking access points can operate as stand-alone 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 in branch offices and for remote work.

HPE Aruba Networking access points can be managed using cloud-based or on-premises solutions for any campus, branch, or remote work environment. With HPE Aruba Networking Central, onboarding, configuring, and provisioning are simpler and require no manual CLI configuration or maintenance windows. Once the access point is plugged in, the device connects and receives its running configuration from the cloud using zero touch provisioning, which allows remote workers and offices to onboard and configure wireless connectivity without any on-site IT support. HPE Aruba Networking Central licenses are available in 1-, 3-, 5-, 7-, and 10-year increments, making it easy to align requirements for AIOps, security, and other desired management features.

### Flexible power deployment

Power through PoE 802.3bt (802.3at w/IPM) or for AC or DC power, use outdoor power injector (PD-9501-5GCO AC/DC Outdoor Power over Ethernet [PoE] injectors).

### Key Wi-Fi features

#### Wi-Fi 6E

670 series outdoor access points meet the requirements for Wi-Fi 6E (802.11ax) for greater efficiency including OFDMA, MU-MIMO, and Target Wake Time (TWT) to extend the battery life of devices.

#### Client optimization

HPE Aruba Networking patented AI-powered ClientMatch technology helps eliminate sticky customer issues by steering a customer to the access point where it receives the best radio signal. HPE Aruba Networking ClientMatch steers traffic from the noisy 2.4 GHz band to the preferred 5 GHz or 6 GHz band depending on customer capabilities. HPE Aruba Networking ClientMatch also dynamically steers traffic to load balance access points to improve the user experience.

#### RF optimization

HPE Aruba Networking AirMatch, a radio frequency optimization technique with machine learning capabilities, aims to dynamically adjust resources like power to improve coverage and potentially reduce coverage gaps.

#### Reduce interference

Unique advanced cellular coexistence (ACC) 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.

#### Self-locating access points

The 670 series access points include built-in GPS receivers and fine time measurement (FTM) to allow them to automatically locate themselves accurately within the universal framework of latitude and longitude. As part of location solutions of Hewlett Packard Enterprise, they serve as reference points for customer devices and other technologies using FTM.

Open Locate, an emerging standard that allows access points to share their location over the air and through cloud-based application programming interface (APIs), enables mobile devices to locate themselves and applications to support network analytics.

#### IoT ready

By combining IoT radios with a zero trust network framework, the 670 series outdoor access points can serve as flexible IoT platforms that bolster network security, provide coverage for broad range of IoT devices, and help eliminate the need for network overlays just for IoT devices.



## Standard Features

The 670 series access points include integrated high-power Bluetooth and 802.15.4 radios for Zigbee support to simplify deploying and managing IoT-based location services, asset tracking services, security solutions, and IoT sensors. There are also two USB-ports to provide IoT connectivity to a wider range of devices. These IoT capabilities allow organizations to leverage our access points as an IoT transport, which helps eliminate the need for an overlay infrastructure and additional IT resources and can accelerate IoT initiatives.

In addition, TWT establishes a schedule when customers need to communicate with an access point. This helps in improving customer power savings and reducing airtime contention with other customers, which is ideal for IoT.

The Advanced IoT Coexistence (AIC) feature uses built-in filtering to allow Wi-Fi, Bluetooth, and Zigbee radios to operate at increased capacity without the impact of interference.

### AI-powered dynamic power save mode

Access points switch into a dynamic power save mode and automatically wake up at a schedule when connectivity demand arises, reducing power demands and saving money in alignment with the organization's sustainability initiatives.

### Intelligent power monitoring (IPM)

For better insights into energy consumption, HPE Aruba Networking access points continuously monitor and report hardware energy usage. Unlike other vendor's access points, HPE Aruba Networking access points can also be configured to enable or disable capabilities based on available PoE power—ideal when wired switches have exhausted their power budget. Enterprises can deploy Wi-Fi 6E access points and update switching and power at a later date if needed based on their actual usage.

In addition, Target Wake Time (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, which is ideal for IoT.

The Advanced IoT Coexistence (AIC) feature uses built-in filtering to allow Wi-Fi, Bluetooth and Zigbee radios to operate at maximum capacity without the impact of interference.

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## Key security features

### AI customer insights

ML-based classification of all customer through customer insights uses deep packet inspection to provide additional context and behavioral information that help ensure devices are receiving proper policy enforcement and continuously monitor for rogue devices.

### User and device authentication

Cloud-native network access control (NAC) provided by HPE Aruba Networking Central further simplifies how IT controls network access while providing a frictionless experience for end users. Global policy automation and orchestration enables IT to define and maintain global policies at scale with ease, using UI-driven, intuitive workflows that automatically translate security intent into policy design and map user roles for employees, contractors, guests, and devices to their proper access privileges.

### Intrusion detection

HPE Aruba Networking Central utilizes the Rogue AP Intrusion Detection Service (RAPIDS) to identify and help resolve issues caused by rogue access points and customers. Wired and wireless data is automatically correlated to identify potential threats, thereby strengthening network security and improving incident response processes by reducing false positives.

### Web content filtering

Web content classification (WebCC) classifies websites by content category and rates them by reputation and risk score, enabling IT to block malicious sites to help prevent phishing, DDoS, botnets, and other common attacks.

### WPA3 and Enhanced Open

As part of Wi-Fi 6E (802.11ax), Wi-Fi Protected Access 3 (WPA3) helps ensure stronger encryption and authentication while Enhanced Open offers protection for users connecting to open networks by automatically encrypting each session to protect user passwords and data on guest networks.



## Standard Features

### 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 HPE Aruba Networking ClearPass Policy Manager).

### Trusted platform module (TPM)

For enhanced device assurance, all HPE Aruba Networking access points include an installed TPM for secure storage of credentials and keys, and boot code.

### 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 WLANs. Dynamic segmentation helps eliminate 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.

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## Standards Based Technologies

### 670 series access points also include the following standards-based technologies:

- Transmit beamforming (TxBF) to increase signal reliability and range
  - Dynamic frequency selection (DFS) to optimize use of available RF spectrum
  - Maximum rate combining (MRC) for improved receiver performance
  - Cyclic delay / shift diversity (CDD/CSD) to deliver greater downlink RF performance
  - Space-time block coding (STBC) to increase range and improve reception
  - Low-density parity check (LDPC) to provide high-efficiency error correction and improve throughput
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## Configuration Information

### BTO Models

Remarks	Description	SKU
<b>HPE Aruba Networking 670 Series Outdoor Access Points</b>		
2	HPE Aruba Networking AP-674 (US) Tri Radio 2x2 Wi-Fi 6E Connectorized Outdoor AP	SOP45A
1	HPE Aruba Networking AP-674 (RW) Tri Radio 2x2 Wi-Fi 6E Connectorized Outdoor AP	SOP46A
5	HPE Aruba Networking AP-674 (JP) Tri Radio 2x2 Wi-Fi 6E Connectorized Outdoor AP	SOP47A
4	HPE Aruba Networking AP-674 (IL) Tri Radio 2x2 Wi-Fi 6E Connectorized Outdoor AP	SOP48A
3	HPE Aruba Networking AP-674 (EG) Tri Radio 2x2 Wi-Fi 6E Connectorized Outdoor AP	SOP49A
6	HPE Aruba Networking AP-679 (ID) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional Outdoor AP	S5E11A
2	HPE Aruba Networking AP-675 (US) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional Outdoor AP	SOP50A
1	HPE Aruba Networking AP-675 (RW) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional Outdoor AP	SOP51A
5	HPE Aruba Networking AP-675 (JP) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional Outdoor AP	SOP52A
4	HPE Aruba Networking AP-675 (IL) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional Outdoor AP	SOP53A
3	HPE Aruba Networking AP-675 (EG) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional Outdoor AP	SOP54A
6	HPE Aruba Networking AP-675 (ID) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional Outdoor AP	S5E09A
2	HPE Aruba Networking AP-677 (US) Tri Radio 2x2 Wi-Fi 6E Internal Directional Outdoor AP	SOP55A
1	HPE Aruba Networking AP-677 (RW) Tri Radio 2x2 Wi-Fi 6E Internal Directional Outdoor AP	SOP56A
5	HPE Aruba Networking AP-677 (JP) Tri Radio 2x2 Wi-Fi 6E Internal Directional Outdoor AP	SOP57A
4	HPE Aruba Networking AP-677 (IL) Tri Radio 2x2 Wi-Fi 6E Internal Directional Outdoor AP	SOP58A
3	HPE Aruba Networking AP-677 (EG) Tri Radio 2x2 Wi-Fi 6E Internal Directional Outdoor AP	SOP59A
6	HPE Aruba Networking AP-677 (ID) Tri Radio 2x2 Wi-Fi 6E Internal Directional Outdoor Access Point	S5E10A
2	HPE Aruba Networking AP-679 (US) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional Outdoor AP	SOP60A
1	HPE Aruba Networking AP-679 (RW) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional Outdoor AP	SOP61A
5	HPE Aruba Networking AP-679 (JP) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional Outdoor AP	SOP62A
4	HPE Aruba Networking AP-679 (IL) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional Outdoor AP	SOP63A
3	HPE Aruba Networking AP-679 (EG) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional Outdoor AP	SOP64A
6	HPE Aruba Networking AP-679 (ID) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional Outdoor AP	S5E11A
<b>HPE Aruba Networking 670 Series TAA Outdoor Access Points</b>		
2	HPE Aruba Networking AP-674 (USF1) Tri Radio 2x2 Wi-Fi 6E Connectorized TAA Outdoor AP	S0Q34A
1	HPE Aruba Networking AP-674 (RWF1) Tri Radio 2x2 Wi-Fi 6E Connectorized TAA Outdoor AP	S0Q33A
5	HPE Aruba Networking AP-674 (JPF1) Tri Radio 2x2 Wi-Fi 6E Connectorized TAA Outdoor AP	S0Q32A
4	HPE Aruba Networking AP-674 (ILF1) Tri Radio 2x2 Wi-Fi 6E Connectorized TAA Outdoor AP	S0Q31A
3	HPE Aruba Networking AP-674 (EGF1) Tri Radio 2x2 Wi-Fi 6E Connectorized TAA Outdoor AP	S0Q30A
2	HPE Aruba Networking AP-675 (USF1) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional TAA Outdoor AP	S0Q35A
1	HPE Aruba Networking AP-675 (RWF1) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional TAA Outdoor AP	S0Q38A
5	HPE Aruba Networking AP-675 (JPF1) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional TAA Outdoor AP	S0Q37A
4	HPE Aruba Networking AP-675 (ILF1) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional TAA Outdoor AP	S0Q36A
3	HPE Aruba Networking AP-675 (EGF1) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional TAA Outdoor AP	S0Q39A
2	HPE Aruba Networking AP-677 (USF1) Tri Radio 2x2 Wi-Fi 6E Internal Directional TAA Outdoor AP	S0Q44A
1	HPE Aruba Networking AP-677 (RWF1) Tri Radio 2x2 Wi-Fi 6E Internal Directional TAA Outdoor AP	S0Q43A
5	HPE Aruba Networking AP-677 (JPF1) Tri Radio 2x2 Wi-Fi 6E Internal Directional TAA Outdoor AP	S0Q42A
4	HPE Aruba Networking AP-677 (ILF1) Tri Radio 2x2 Wi-Fi 6E Internal Directional TAA Outdoor AP	S0Q41A
3	HPE Aruba Networking AP-677 (EGF1) Tri Radio 2x2 Wi-Fi 6E Internal Directional TAA Outdoor AP	S0Q40A

## Configuration Information

2	HPE Aruba Networking AP-679 (USF1) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional TAA Outdoor AP	S0Q49A
1	HPE Aruba Networking AP-679 (RWF1) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional TAA Outdoor AP	S0Q48A
5	HPE Aruba Networking AP-679 (JPF1) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional TAA Outdoor AP	S0Q47A
4	HPE Aruba Networking AP-679 (ILF1) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional TAA Outdoor AP	S0Q46A
3	HPE Aruba Networking AP-679 (EGF1) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional TAA Outdoor AP	S0Q45A

### HPE Aruba Networking 670EX Series HazLoc Access Points

2	HPE Aruba Networking AP-675EX (US) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional HazLoc AP	S0Q50A
1	HPE Aruba Networking AP-675EX (RW) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional HazLoc AP	S0Q51A
5	HPE Aruba Networking AP-675EX (JP) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional HazLoc AP	S0Q52A
4	HPE Aruba Networking AP-675EX (IL) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional HazLoc AP	S0Q53A
3	HPE Aruba Networking AP-675EX (EG) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional HazLoc AP	S0Q54A
6	HPE Aruba Networking AP-675EX (ID) Tri Radio 2x2 Wi-Fi 6E Internal Omni-Directional HazLoc AP	S5E12A
2	HPE Aruba Networking AP-677EX (US) Tri Radio 2x2 Wi-Fi 6E Internal Directional HazLoc AP	S0Q55A
1	HPE Aruba Networking AP-677EX (RW) Tri Radio 2x2 Wi-Fi 6E Internal Directional HazLoc AP	S0Q56A
5	HPE Aruba Networking AP-677EX (JP) Tri Radio 2x2 Wi-Fi 6E Internal Directional HazLoc AP	S0Q57A
4	HPE Aruba Networking AP-677EX (IL) Tri Radio 2x2 Wi-Fi 6E Internal Directional HazLoc AP	S0Q58A
3	HPE Aruba Networking AP-677EX (EG) Tri Radio 2x2 Wi-Fi 6E Internal Directional HazLoc AP	S0Q59A
6	HPE Aruba Networking AP-677EX (ID) Tri Radio 2x2 Wi-Fi 6E Internal Directional HazLoc Access Point	S5E13A
2	HPE Aruba Networking AP-679EX (US) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional HazLoc AP	S0Q60A
1	HPE Aruba Networking AP-679EX (RW) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional HazLoc AP	S0Q61A
5	HPE Aruba Networking AP-679EX (JP) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional HazLoc AP	S0Q62A
4	HPE Aruba Networking AP-679EX (IL) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional HazLoc AP	S0Q63A
3	HPE Aruba Networking AP-679EX (EG) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional HazLoc AP	S0Q64A
6	HPE Aruba Networking AP-679EX (ID) Tri Radio 2x2 Wi-Fi 6E Internal Dyn Directional HazLoc AP	S5E14A

### Configuration Rules

#### Rule # Description

- 1 Available everywhere except US, Israel, Egypt, Indonesia and Japan. Partners must have an SOT (Cross border agreement).
- 2 Available in US only
- 3 Available in Egypt only
- 4 Available in Israel only
- 5 Available in Japan only
- 6 Available in Indonesia only. Partners must have an SOT (Cross border agreement).

**Notes:** OCA Only Model Selection Form – HPE Aruba Networking > Wireless > Access Points > Outdoor / Rugged: 670 Series Outdoor Access Points

## Mounting Accessories

Remarks	Description	SKU
	<b>AP Mount Kits</b>	
	For 675, 677, 679 Std (Min 0 // max 1) User Selection (min 0 // max 1)	
	HPE Aruba Networking AP-OUT-MNT-V1A Outdoor AP Long Arm Pole/Wall Mounting Bracket	R9H97A
	<ul style="list-style-type: none"> <li>AP-OUT-MNT-V1A Outdoor AP Pole/Wall Long Mount Kit v2</li> </ul>	
	HPE Aruba Networking AP-270-MNT-V2 Outdoor AP Short Arm Pole/Wall Mounting Bracket	JW053A



## Configuration Information

<ul style="list-style-type: none"> <li>AP-270-MNT-V2 AP-270 Series Outdoor Pole/Wall Short Mount Kit</li> </ul>	
HPE Aruba Networking AP-270-MNT-H1 Outdoor AP Hanging One-Way Tilt Pole/Wall Mounting Bracket	JW054A
<ul style="list-style-type: none"> <li>AP-270-MNT-H1 AP-270 Series Outdoor AP Hanging or Tilt Install Mount Kit</li> </ul>	
HPE Aruba Networking AP-270-MNT-H2 Outdoor AP Flush Wall Mounting Bracket	JW055A
<ul style="list-style-type: none"> <li>AP-270-MNT-H2 AP-270 Series Access Flush Wall or Ceiling Mount</li> </ul>	
HPE Aruba Networking AP-270-MNT-H3 Outdoor AP Hanging Dual-Tilt Pole/Wall Mounting Bracket	R6W11A
<ul style="list-style-type: none"> <li>AP-270-MNT-H3 AP-270 Series Access Flush Wall or Ceiling Mount</li> </ul>	

### AP Mount Kit Accessories

For 675, 677, 679 Std (Min 0 // max 1) User Selection (min 0 // max 1)

HPE Aruba Networking AP-OUT-MNT-ACC Accessory Mount	SOP69A
<ul style="list-style-type: none"> <li>AP-OUT-MNT-ACC Acc HW Mount Accessor for AP-OUT-MNT-V1A Only</li> </ul>	

- Notes:**
- This Mount Kit accessory can only be selected when R9H97A is selected
  - For 675:
    - V1A bracket most often used for pole mount.
    - V2 bracket most often used for wall mount.
    - H1 bracket most often used for hanging from inclined or horizontal structure.
  - For 677 and 679:
    - H1 bracket most often with AP-677 or AP-679 for mounting to a wall. Allows chassis tilt.
    - V1A and V2 brackets can be used but will result in the AP-677 or AP-679 pointing down.
  - For AP-OUT-MNT-ACC, it is ONLY compatible with the AP-OUT-MNT-V1A
  - The AP-67x chassis does not ship with bracket. .

## Power Options

Rule #	Description	SKU
	<b>PoE Power Options</b>	
	For 675, 677, 679 Std (Min 0 // max 1) User Selection (min 0 // max 1)	
	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
*	HPE Aruba Networking AP-POE-BTSR 1-Port Smart Rate 802.3bt 60W Midspan Injector	R1C73A

- Notes:**
- Add AC power cord, Unrestricted
  - \* If this Power Injector is selected, bring in (Min 1 // Max 1) Localized power cord based on the Localization Menu
  - **OCA Blue Notes:**
  - Indoor Injector provides no surge protection
  - Indoor injector requires indoor AC power cord
  - AP-670 Series are powered by PoE Only
  - The listed power injectors are not HazLoc certified and must be located outside of classified areas
  - R7T40A and R7T41A do not include a power cord, power cord must be constructed by installer using the included power connector parts and assembled per the user guide by a certified installer





## Configuration Information

### Power Injector Mounts

For 675, 677, 679 Std (Min 0 // max 1) User Selection (min 0 // max 1)

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

JW620A

**Notes:** This is optional but recommended for outdoor injectors

### Transceivers

#### Remarks Description

#### SKU

#### SFP

For 675, 677, 679 Std (Min 0 // max 1) User Selection (min 0 // max 1)

\* 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 Outdoor SFP Weathertight Strain Relief Kit

Q8N54A

HPE Aruba Networking CKIT-EX-OD-SFP Outdoor HazLoc SFP Fiber Strain Relief

R7L09A

**Notes:**

- Q8N54A is required if using SFP on AP-670 or AP-670-TAA
- R7L09A is required if using SFP on AP-670EX

### Antennas

#### 6.0 GHz Antennas

For 674 Std (Min 0 // max 1) User Selection (min 0 // max 1)

HPE Aruba Networking eANT-2x2-56O-10 5/6Ghz 10dBi Omni-Directional Outdoor Antenna

SOP65A

HPE Aruba Networking eANT-2x2-56D30-14 5/6Ghz 14dBi Directional Outdoor Antenna

SOP66A

HPE Aruba Networking ANT-2x2-256O-6 6dBi Tri Band 2x2 Outdoor Omni Directional Antenna

S2H56A

**Notes:**

- All antennas defined for AP-574 ship with bracket
  - ANT-2x2-256O-6 are N(m) and usually direct connect
  - eANT-2x2-56O-10 and eANT-2x2-56D30-14 are N(f) connectorized and use external cables and the included mounting bracket
- Radio 0 (2.4/5GHz) has 2x N(f) connectors, Radio 1 has 2x N(f) connectors, the BLE/IOT Radio has 1x N(f) connector (antenna included), and the GPS/GNSS radio has 1x N(f) connector (with included GPS antenna and cable)

#### 2.4/5.0 GHz Antennas

For 674 Std (Min 0 // max 1) User Selection (min 0 // max 1)

HPE Aruba Networking eANT-2x2-56O-10 5/6Ghz 10dBi Omni-Directional Outdoor Antenna

SOP65A

HPE Aruba Networking eANT-2x2-56D30-14 5/6Ghz 14dBi Directional Outdoor Antenna

SOP66A

HPE Aruba Networking ANT-2x2-256O-6 6dBi Tri Band 2x2 Outdoor Omni Directional Antenna

S2H56A

HPE Aruba Networking ANT-2x2-5010 Pair 5GHz 10dBi Omni N-Type Direct Mount Outdoor

JW027A

Antennas

HPE Aruba Networking ANT-4x4-D707 Dual-Band 60x60deg 7dBi Panel V/H/+/-45 4 Element MIMO Outdoor Ant

SOA65A

HPE Aruba Networking ANT-2x2-2314 2.4GHz 14dBi Dual Pol MIMO High Gain Dir N-Type Outdoor Antennas

JW024A

HPE Aruba Networking ANT-2x2-2714 2.4G 14dBi 70deg Sector Dual Pol MIMO N-type Outdoor Antennas

JW025A

**Notes:**

- All antennas defined for AP-674 ship with bracket
  - ANT-2x2-256O-6 and ANT-2x2-5010 are N(m) and usually direct connect
  - eANT-2x2-56O-10 and eANT-2x2-56D30-14 are N(f) connectorized and use the included mounting bracket and external cables (separately)
- Radio 0 (2.4/5GHz) has 2x N(f) connectors, Radio 1 has 2x N(f) connectors, the BLE/IOT Radio has 1x N(f) connector (antenna included), and the GPS/GNSS radio has 1x N(f) connector (with included GPS antenna and cable)



Configuration Information

Cables

RF Cables

For 674 Std (Min 0 // max 6) User Selection (min 0 // max 6)		
HPE Aruba Networking AP-CBL-1 10ft(3m) Nm to Nf Outdoor Rated RF Cable		JW070A
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 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

**Notes:** AP-CBL-1 (JW070A) is an RF extension cable only  
Radio 0 has 2 connectors  
Radio 1 has 2 connectors  
BLE/IoT has 1 connector  
GPS/GNSS has 1 connector (to included cable and GPS antenna)  
No cables required for direct connect omnis

Accessories

Spare Items

Std (Min 0 // max 99) User Selection (min 0 // max 99)		
1	HPE Aruba Networking Otdr AP Covers/Glands 1pk M25/5pk M20 Cover and Gland/2pk M16 Cover Ground Kit	Q8N47A
2	HPE Aruba Networking Outdoor AP Metric to Standard M20 to 1/2 inch NPT 5-pk Thread Adapter	Q8N48A

Configuration Rules

Rule #	Description
1	This is a collection of extra covers and cabling glands, replicating what is in the shipping box This covers and glands kit IS NOT HazLoc compliant and should not be used on AP-670EX
2	This thread adapter normally used to allow direct interface for 1/2" NPT conduit This thread adapter is NOT HazLoc compliant and should not be used on AP-670EX



## Technical Specifications

### Specifications

#### Hardware variants

- HPE Aruba Networking AP-674
  - Two dual band Nf connectors for external 2.4/5 GHz antenna operation
  - Two 6 GHz NF connectors for external 6 GHz antenna operation
  - One 2.4GHz IoT (BLE/Zigbee) Nf connectors for external IoT antenna operation
  - 5 dBi IoT omni-directional direct attach antennna included
  - One GPS/GNSS Nf connector for external GPS antenna
  - 30 dBi GPS antenna and external mount included
- HPE Aruba Networking AP-675
  - Built-in Omnidirectional Antennas
  - 2.4 GHz Antennas 3.5dBi
  - 5 GHz Antennas 5dBi
  - 6 GHz Antennas 5dBi
  - BLE/Zigbee: Integrated omnidirectional antenna with peak gain of 6dBi
- HPE Aruba Networking AP-677
  - Built-in Directional Antennas
  - 2.4 GHz Antennas 5.6dBi
  - 5 GHz Antennas 6dBi
  - 6 GHz Antennas 7dBi
  - BLE/Zigbee: Integrated omnidirectional antenna with peak gain of 8dBi
- HPE Aruba Networking AP-679
  - Built-in Dynamic Directional Antennas
  - 2.4 GHz Antennas 6dBi
  - 5 GHz Antennas
    - Wide 9dBi
    - Narrow 12dBi
  - 6 GHz Antennas
    - Wide 9dBi
    - Narrow 13dBi
  - BLE/Zigbee: Integrated omnidirectional antenna with peak gain of 6dBi

#### Wi-Fi radio specifications

- AP type: Outdoor, tri radio, 2.4GHz, 5GHz and 6GHz (concurrent) 802.11ax 2x2 MIMO
- 2.4 GHz radio: Two spatial stream Single User (SU) MIMO for up to 574 Mbps wireless data rate with 2SS HE40802.11ax client devices
- 5 GHz radio: Two spatial stream Single User (SU) MIMO for up to 1.2 Gbps wireless data rate with 2SS HE80802.11ax client devices
- 6 GHz radio: Two spatial stream Single User (SU) MIMO for up to 2.4 Gbps wireless data rate with 2SS HE160802.11ax client devices
- Up to 512 associated client devices per radio, and up to 16 BSSIDs per radio (limited to 8 for the 6GHz 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-2
  - 5.470 to 5.725 GHz U-NII-2E
  - 5.725 to 5.850 GHz U-NII-3/ISM
  - 5.850 to 5.895 GHz U-NII-4
  - 5.925 to 6.425 GHz U-NII-5
  - 6.425 to 6.525 GHz U-NII-6

## Technical Specifications

- 6.525 to 6.875 GHz U-NII-7
- 6.875 to 7.125 GHz U-NII-8
- Available bands and channels: Dependent on configured regulatory domain (country)
- Dynamic frequency selection (DFS) optimizes the use of available RF spectrum in the 5 GHz band
- 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 8 resource units (37 for the 6GHz radio)
- Supported modulation types
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM and 256-QAM (proprietary extension)
  - 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM and 1024-QAM (proprietary extension)
  - 802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, and 1024-QAM
- 802.11n high-throughput (HT) support: HT20/40
- 802.11ac very high throughput (VHT) support: VHT20/40/80
- 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 300 (MCS0 to MCS15, HT20 to HT40), 400 with 256-QAM (proprietary extension)
  - 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2, VHT20 to VHT80); 1,083 with 1024-QAM (MCS10 and MCS11, proprietary extension)
  - 802.11ax (2.4GHz): 3.6 to 574 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE40)
  - 802.11ax (5GHz): 3.6 to 1,201 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE80)
  - 802.11ax (6GHz): 3.6 to 2,402 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE160)
- 802.11n/ac 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)
  - Per radio/band (2.4 GHz/5 GHz/6 GHz): +25 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 beamforming (TxBF) for increased signal reliability and range
- 802.11ax Target Wake Time (TWT) to support low-power client devices
- 802.11mc Fine Timing Measurement (FTM) for precision distance ranging

## Wi-Fi antennas

- HPE Aruba Networking AP-674: Two Nf dual band (2.4/5 GHz) connectors (chains DBO + DB1), two Nf 6GHz connectors (chains 6G0 + 6G1), one Nf 2.4GHz IoT connector (5dBi antenna included), and one Nf GPS/GNSS connector (30dBi antenna included)
  - Worst-case internal loss between radio interface and external antenna connector should be 0.8 dB for IoT, 1 dB for 2.4/5GHz, and 1.5dBi for 6 GHz.
- HPE Aruba Networking AP-675: Two integrated tri-band omni-directional antennas for 2x2 MIMO with antenna gain of 3.8dBi in 2.4GHz, 5.7dBi in 5GHz, and 5.9dBi in 6GHz. Built-in antennas are optimized for a horizontally mounted orientation of the AP. The downtilt angle for maximum gain is roughly 5-10 degrees.
  - A mix of horizontally and vertically polarized antenna elements are used

## Technical Specifications

- Combining the patterns of each of the antennas of the MIMO radios, the peak gain of the combined, average pattern is 4.6dBi in 2.4GHz, 7.9dBi in 5GHz, and 6.2dBi in 6Ghz
- HPE Aruba Networking AP-677: Two integrated tri-band directional antennas for 2x2 MIMO with antenna gain of 6.9dBi in 2.4GHz, 6.5dBi in 5GHz, and 6.9dBi in 6Ghz. Built-in antennas are optimized for either wall/pole vertically oriented (or with downtilt), or down-firing in a horizontally mounted orientation of the AP. The antenna beamwidth is approx. 90° x 90°.
  - Cross-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 6.9dBi in 2.4GHz, 6.5dBi in 5GHz, and 6.9dBi in 6Ghz
- HPE Aruba Networking AP-679: Integrated tri-band directional antennas for 2x2 MIMO with two different modes for the 5 GHz and 6 GHz antennas (a wider 90°x30° antenna, and a narrow 30°x30°) that are software provisioned. The built-in antennas are optimized for either wall/ pole vertically oriented (or with downtilt), or down-firing in a horizontally mounted orientation of the AP. The antenna beamwidth is approx. 90° x 90°.
  - Wide 90°x30° has 7.1dBi in 5Ghz and 8.1dBi in 6Ghz (peak of 7.7dBi and 8.6dBi respectively)
  - Narrow 30°x30° has 10.5dBi in 5Ghz and 10.1dBi in 6Ghz (peak of 11dBi and 11.2dBi respectively)
  - 6.1dBi in 2.4GHz (approx. 90°x90°) in either mode –6.6dBi for BLE/IoT in either mode
  - Cross-polarized antenna elements are used

## Other interfaces and features

- Wired network interface (E0)
  - Auto-sensing link speed (100/1000/2500BASE-T) and MDI/MDX
  - 2.5 Gbps speed complies with NBase-T and 802.3bz specifications
  - PoE-PD: 48 Vdc (nominal) 802.3at/bt PoE (class 4 or higher)
  - 802.3az Energy Efficient Ethernet (EEE)
- Wired Network Interface (E1)
  - SFP Fiber Port
  - 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
- USB 2.0 host interface (Type C connector), supporting 2A/10W maximum
- USB 2.0 host interface (Type A connector), supporting 1A/5W maximum
- Bluetooth Low Energy (BLE5.0) and Zigbee (802.15.4) radio
- BLE: up to 8 dBm transmit power (class 1) and -100 dBm receive sensitivity (125 kbps)
- Zigbee: up to 8 dBm transmit power and -97 dBm receive sensitivity (250 kbps)
- 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
- Advanced IoT Coexistence (AIC) allows concurrent operation of multiple radios in the 2.4 GHz band
- Built-in Trusted Platform Module (TPM) for enhanced security and anti-counterfeiting
- Visual indicators for System and Radio status (1x multi-color LED), auto-disable after 15 min when up
- Reset button: factory reset, LED mode control (normal/off)
- Serial console interface (proprietary, USB-C physical jack)
- Automatic thermal shutdown and recovery function

## Power sources and power consumption

- The AP supports Power over Ethernet (PoE) on port E0
- Power sources are sold separately; see the HPE Aruba Networking 670 Series Ordering Guide for details
- When powered by 802.3bt (class 6) PoE, the AP will operate without restrictions.
- When powered by 802.3bt (class 5) PoE with the IPM feature disabled, the AP will disable the USB-C port.
- Operating the AP with an 802.3at (class 4) PoE with the IPM feature disabled, the AP will disable the USB ports, the SFP port, and one of the two chains on the 2.4Ghz radio

## Technical Specifications

- With IPM enabled, the AP will start up in unrestricted mode but may dynamically apply restrictions depending on the available power budget and actual consumption. The feature restrictions and order in which these get applied are configurable.
- Operating the AP with an 802.3af (class 3 or lower) source is not supported (except for AP staging)
- Maximum (worst-case) power consumption (without/with a USB device attached):
  - PoE powered: 29W/45.5W
  - This assumes that up to 16.5W total is supplied the attached USB devices
- Maximum (worst-case) power consumption in idle mode: 11W/27.5W (both USB active at max).
- Maximum (worst-case) power consumption in deep-sleep mode: 3.2W (PoE).

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## Mounting

A mounting bracket holder has been preinstalled on the AP. This bracket is used to secure the AP to any of the mount kits (sold separately); see the HPE Aruba Networking 670 Series Ordering Guide for details. The HPE Aruba Networking 670 Series Outdoor APs also share the same mounting hardware and accessories so upgrades from previous HPE Aruba Networking outdoor APs are quick and easy.

- AP-OUT-MNT-V1A: Outdoor Pole/Wall Long Mount Kit
- AP-270-MNT-V2: Outdoor Pole/Wall Short 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

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## Mechanical

**Notes:** AP-670EX variants include HazLoc compliant Ethernet glands.

- AP-674
  - Dimensions/weight (unit only):
    - 290mm (W) x 288mm (D) x 226mm (H)
    - 11.4 in (W) x 11.3 in (D) x 12.3in (H)
    - 4.2 kg / 9.3lbs
  - Dimensions/weight (package, no mount):
    - 372mm (W) x 300mm (D) x 359mm (H)
    - 14.6 in (W) x 11.8 in (D) x 14.1in (H)
    - 6.2 kg / 13.7lbs
- AP-675/AP-675EX
  - Dimensions/weight (unit only):
    - 290mm (W) x 288mm (D) x 312mm (H)
    - 11.4 in (W) x 11.3 in (D) x 12.3in (H)
    - 4kg / 8.8lbs
  - Dimensions/weight (package, no mount):
    - 392mm (W) x 372mm (D) x 330mm (H)
    - 15.4 in (W) x 14.6 in (D) x 13in (H)
    - 6 kg / 13.2lbs
- AP-677/AP-677EX
  - Dimensions/weight (unit only):
    - 290mm (W) x 288mm (D) x 171mm (H)
    - 11.4 in (W) x 11.3 in (D) x 6.7 in (H)
    - 3.6kg / 7.9lbs
  - Dimensions/weight (package, no mount):
    - 322mm (W) x 250mm (D) x 364mm (H) / 12.7 in (W) x 9.8 in (D) x 14.3in (H)
    - 5.2 kg / 11.5lbs



## Technical Specifications

- AP-679/AP-679EX
  - Dimensions/weight (unit only):
    - 290mm (W) x 288mm (D) x 171mm (H)
    - 11.4 in (W) x 11.3 in (D) x 6.7 in (H)
    - 3.8kg / 8.4lbs
  - Dimensions/weight (package, no mount):
    - 322mm (W) x 250mm (D) x 364mm (H) / 12.7 in (W) x 9.8 in (D) x 14.3in (H)
    - 5.4 kg / 11.9lbs
- HazLoc variants include intrinsically certified ethernet glands (CMP A2F), but other certified Explosive Atmosphere glands can be used, subject to approvals by the safety authority.

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## Environmental Specifications

- Operating conditions
  - Temperature: -40C to +65C / -40F to +149F with full solar loading
  - Humidity: 5% to 100% 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): 500,562hrs (59.4 yrs.) at +25C ambient operating temperature.

## Regulatory compliance

- FCC/ISED
- CE Marked
- RED Directive 2014/53/EU
- IEC/EN 62368-1
- EN 60601-1-1, EN60601-1-2

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

## Regulatory model numbers

- AP-674: APEX0674
- AP-675: APEX0675
- AP-677: APEX0677
- AP-679: APEX0679

## Certifications

- Wi-Fi Alliance:
  - Bluetooth SIG
  - Ethernet Alliance (E0, PoE PD device, class 6)
  - Class 1 Div 2 (EX models only)
  - ATEX Zone 2 (EX models only)
  - IECEX (EX models only)





## Technical Specifications

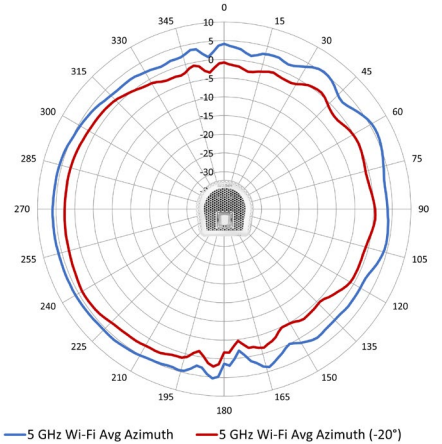
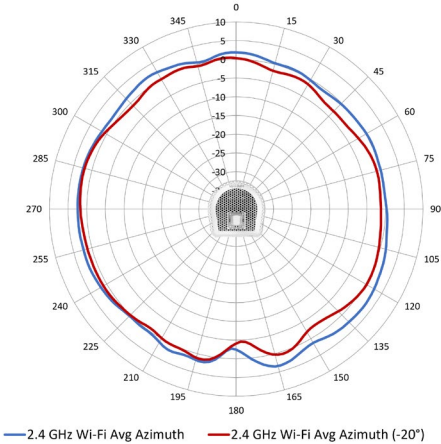
RF Performance Table		
	Maximum transmit power (dBm) per transmit chain	Receiver sensitivity (dBm) per receive chain
<b>2.4 GHz, 802.11b</b>		
1 Mbps	22	-95
11 Mbps	22	-87
<b>2.4 GHz, 802.11g</b>		
6 Mbps	22	-92
54 Mbps	20	-74
<b>2.4 GHz, 802.11n/ac HT20</b>		
MCS0	22	-92
MCS8	20	-74
<b>2.4 GHz, 802.11ax HE20</b>		
MCS0	22	-92
MCS11	18	-62
<b>5 GHz, 802.11a</b>		
6 Mbps	22	-93
54 Mbps	20	-75
<b>5GHz, 802.11n HT20/HT40</b>		
MCS0	22 / 22	-93 / -90
MCS7	21 / 21	-73 / -70
<b>5GHz, 802.11ac VHT20/ VHT40 / VHT80</b>		
MCS0	22 / 22 / 22	-93 / -90 / -87
MCS9	20 / 20 / 20	-68 / -65 / -62
<b>5GHz, 802.11ax HE20/ HE40 / HE80</b>		
MCS0	22 / 22 / 22	-92 / -89 / -86
MCS11	18 / 18 / 18	-62 / -59 / -56
<b>6GHz, 802.11ax HE20 / HE40 / HE80 / HE160</b>		
MCS0	22/ 22 7 21 / 20	-92/ -89 / -86 / -83
MCS11	18/ 17/ 17/ 17	-63/ -66 / -57 / -54



Technical Specifications

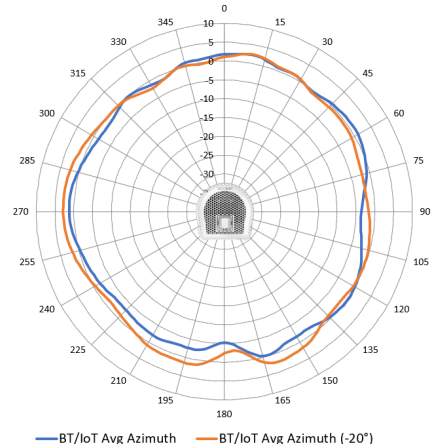
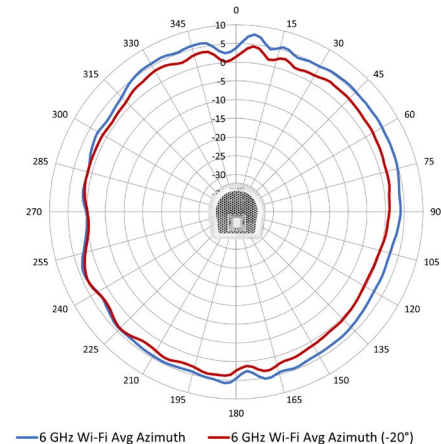
Antenna patterns AP-675/675EX  
Horizontal planes (Azimuth, top view)

Showing top-view azimuth patterns (averaged patterns for all applicable antennas and frequencies within the bands)



Antenna patterns AP-675/675EX Horizontal planes  
(Azimuth, top view)

Antenna patterns AP-675/675EX Horizontal planes  
(Azimuth, top view)



Antenna patterns AP-675/675EX Horizontal planes  
(Azimuth, top view)

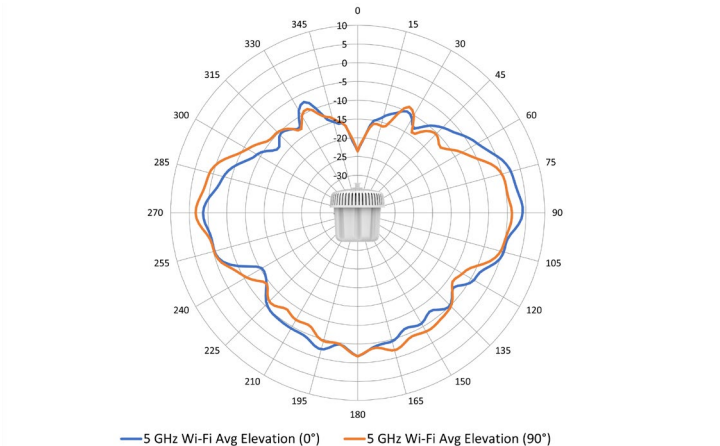
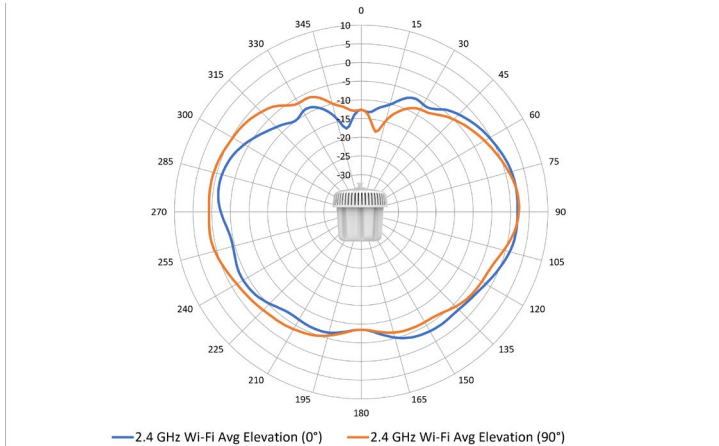
AP-675/675EX Horizontal planes  
(Azimuth, top view)



Technical Specifications

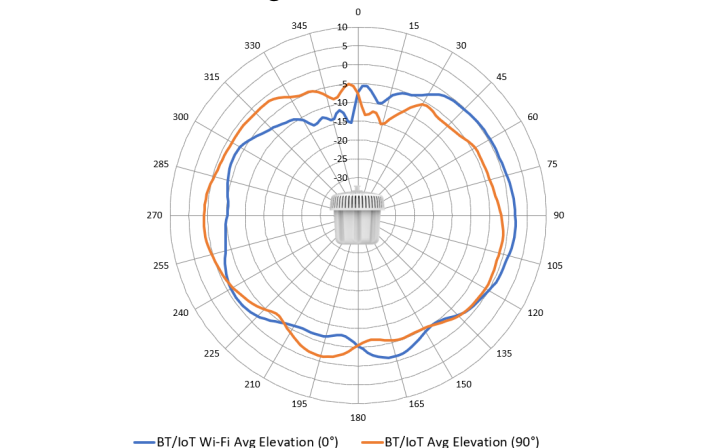
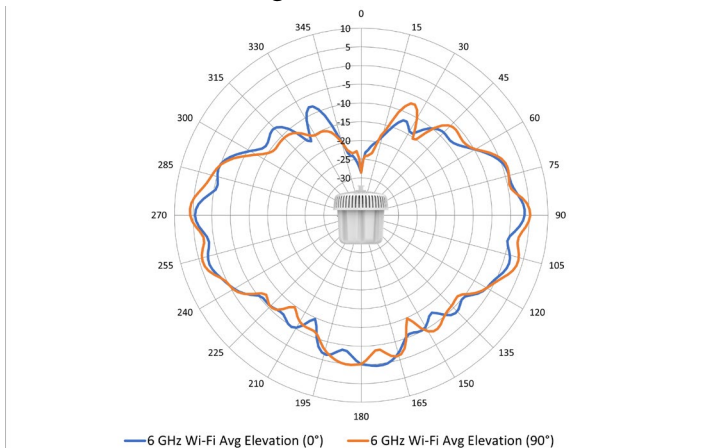
Vertical planes (Elevation, side view radome facing down)

Showing side-view with access point rotated 0° and 90° (averaged patterns for all applicable antennas and frequencies within the bands)



Antenna patterns AP-675/675EX Vertical planes (Elevation, side view radome facing down)

Antenna patterns AP-675/675EX Vertical planes (Elevation, side view radome facing down)



Antenna patterns AP-675/675EX Vertical planes (Elevation, side view radome facing down)

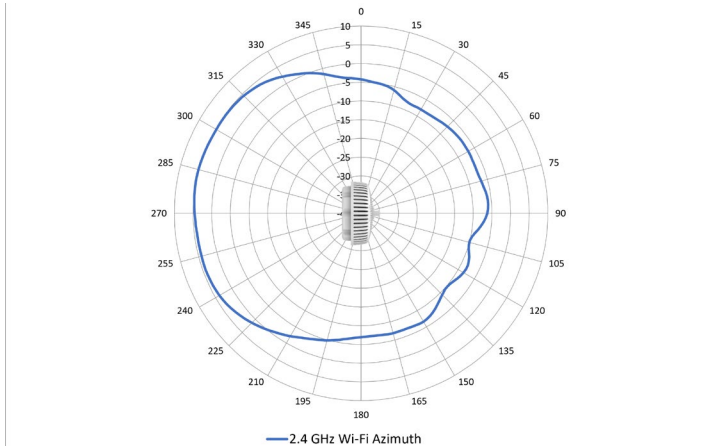
AP-675/675EX Vertical planes (Elevation, side view radome facing down)



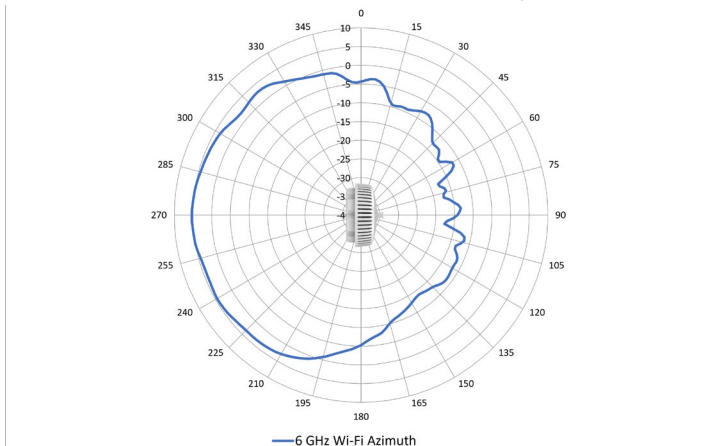
Technical Specifications

Antenna patterns AP-677/677EX  
Horizontal planes (Azimuth, top view, radome facing left)

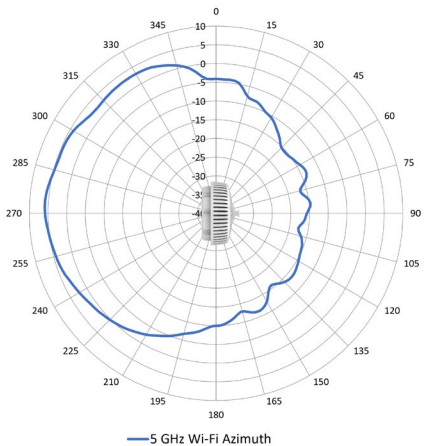
Showing top-view patterns (averaged patterns for all applicable antennas and frequencies within the bands)



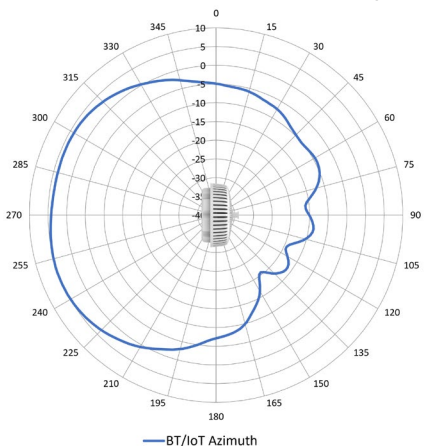
Antenna patterns AP-677/677EX Horizontal planes  
(Azimuth, top view radome facing left)



Antenna patterns AP-677/677EX Horizontal planes  
(Azimuth, top view radome facing left)



Antenna patterns AP-677/677EX Horizontal planes  
(Azimuth, top view radome facing left)

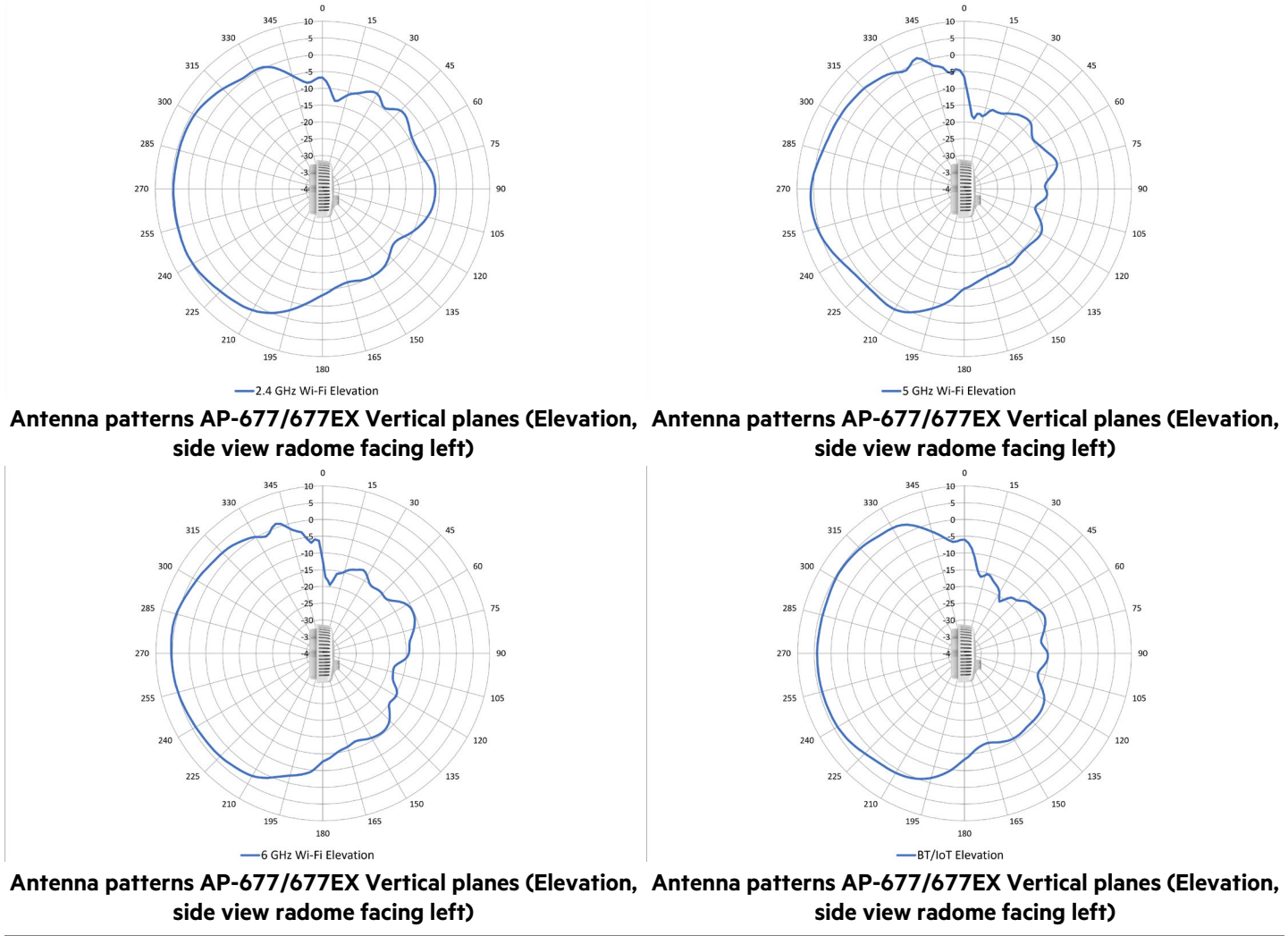


Antenna patterns AP-677/677EX Horizontal planes  
(Azimuth, top view radome facing left)

Technical Specifications

Vertical planes (Elevation, side view, radome facing left)

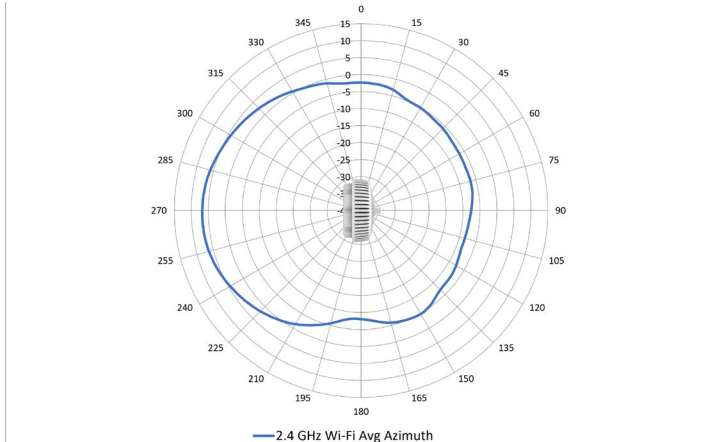
Showing side-view patterns (averaged patterns for all applicable antennas and frequencies within the bands)



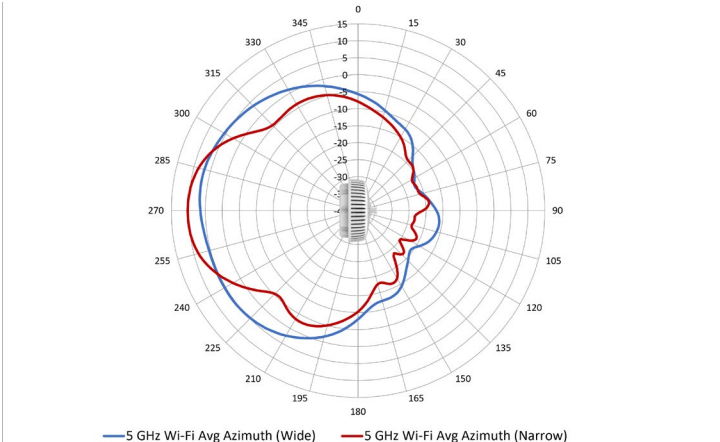
Technical Specifications

Antenna patterns AP-679/679EX  
Horizontal planes (Azimuth, top view, radome facing left)

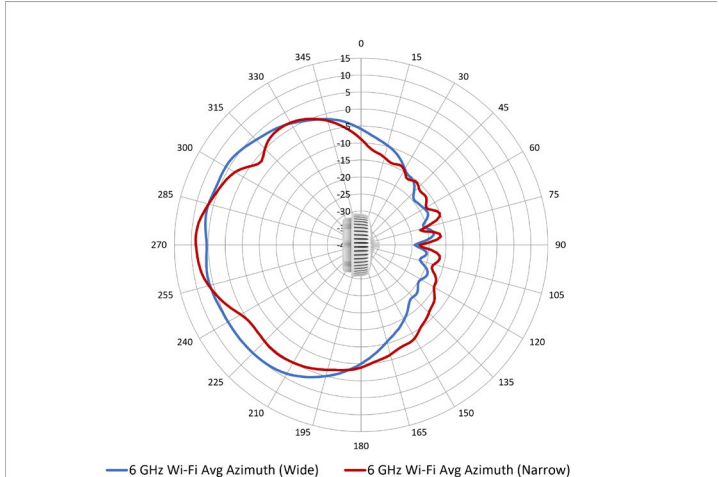
Showing top-view patterns with both wide (90°x30°) and narrow (30°x30°) modes for 5 GHz and 6 GHz (averaged patterns for all applicable antennas and frequencies within the bands)



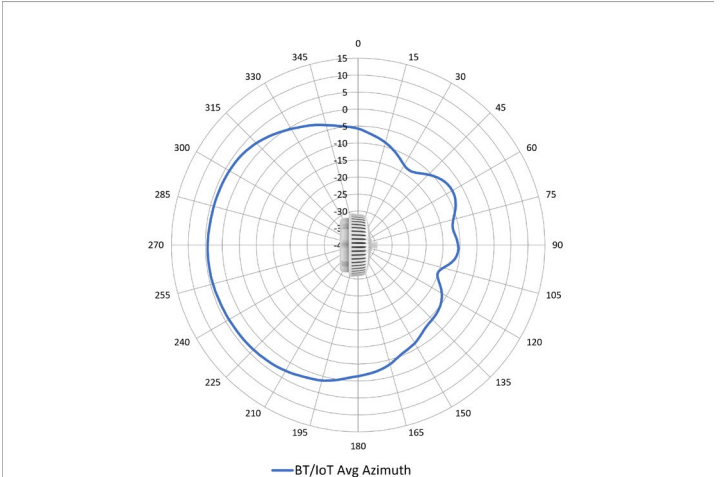
Antenna patterns AP-679/679EX Horizontal planes (Azimuth, top view radome facing left)



Antenna patterns AP-679/679EX Horizontal planes (Azimuth, top view radome facing left)



Antenna patterns AP-679/679EX Horizontal planes (Azimuth, top view radome facing left)



AP-679/679EX Horizontal planes (Azimuth, top view radome facing left)

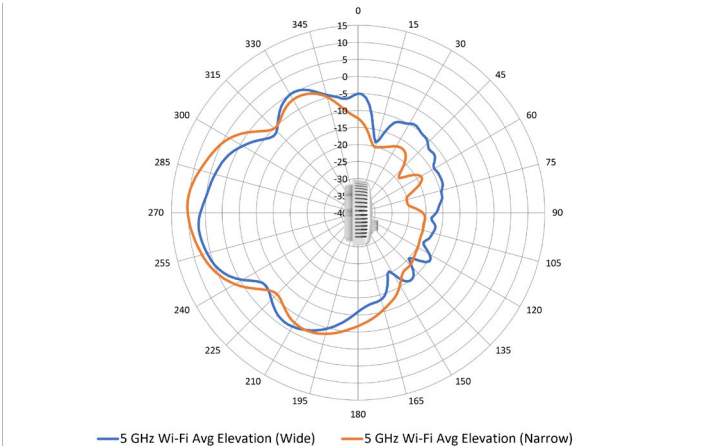
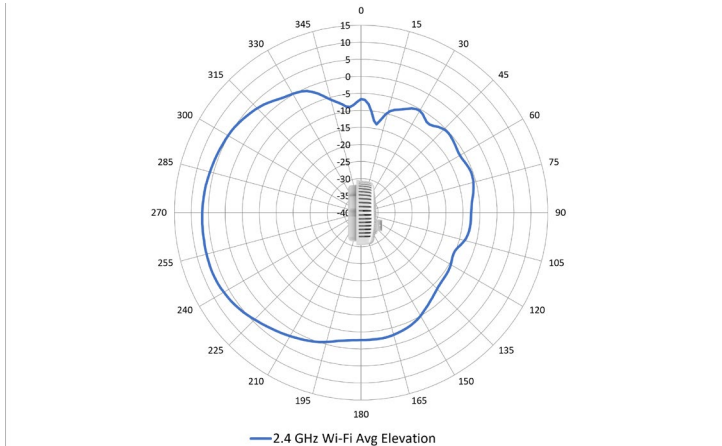




Technical Specifications

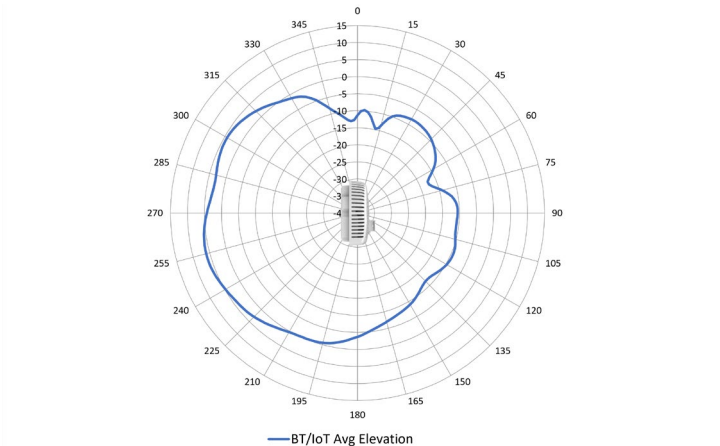
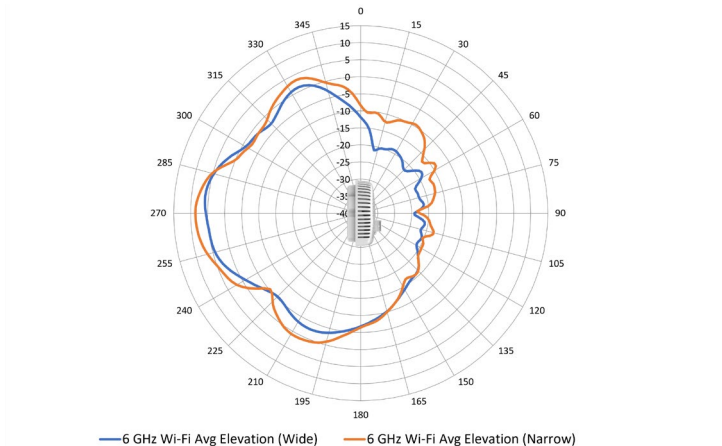
Vertical planes (Elevation, side view, radome facing left)

Showing side-view patterns with both wide (90°x30°) and narrow (30°x30°) modes for 5 GHz and 6 GHz (averaged patterns for all applicable antennas and frequencies within the bands)



Antenna patterns AP-679/679EX Vertical planes (Elevation, side view radome facing left)

Antenna patterns AP-679/679EX Vertical planes (Elevation, side view radome facing left)



Antenna patterns AP-679/679EX Vertical planes (Elevation, side view radome facing left)





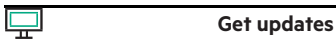
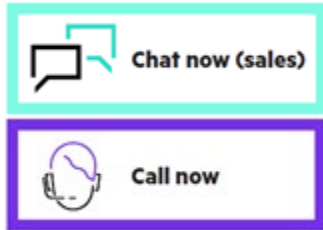
## Summary of Changes

Date	Version History	Action	Description of Change
28-Jul-2025	<b><u>Version 6</u></b>	Changed	Update survey link.
07-Apr-2025	<b><u>Version 5</u></b>	Changed	Overview, Standard Features, Configuration Information, and Technical Specifications sections were updated.
21-Jan-2025	<b><u>Version 4</u></b>	Changed	Technical Specifications section was updated.
02-Dec-2024	<b><u>Version 3</u></b>	Changed	Configuration Information section was updated.
04-Nov-2024	<b><u>Version 2</u></b>	Changed	Overview, Standard Features, Configuration Information, and Technical Specifications sections were updated.
05-Feb-2024	<b><u>Version 1</u></b>	New	New QuickSpecs



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