HPE Aruba Networking 760 Series Hardened Access Points

Compact and versatile high performance Wi-Fi 7 connectivity for indoor industrial, outdoor, and hazardous locations

HPE

The HPE Aruba Networking 760 Series Hardened Access Points bring high performance Wi-Fi 7 to outdoor and environmentally challenging locations such as industrial sites, warehouses, and large public venues. Leveraging the latest Wi-Fi 7 standard, these small form factor access points enhance security across both wired and wireless networks, support IoT devices, and provide accurate location-aware capabilities. HPE Aruba Networking Central provides a single pane of glass for overseeing every aspect of wired and wireless LANs, WANs, and SD-WAN, and helps drive efficient operations with AI-automation and machine learning (ML) insights for improved wireless connectivity.

With integrated high-power Bluetooth and Zigbee radios, fast wired connectivity, and a limited lifetime warranty, the HPE Aruba Networking 760 Series Hardened Access Points provides high performance outdoor connectivity you can depend on, delivering up to 5.8 Gbps maximum aggregate data rates using 6 GHz (4x4).

For more extreme environments, the HPE Aruba Networking 760 Series Hardened Access Points includes models that are hazardous location (HazLoc) compliant, making them ideal for environments such as oil rigs, industrial manufacturing, and transportation sites.

AI-powered Wi-Fi 7

Managing Wi-Fi 7 access points is easier with HPE Aruba Networking Central that provides intelligent automation, AI insights, and unified infrastructure management. HPE Aruba Networking access points work in tandem with the HPE Aruba Networking Central network management system to securely orchestrate users, apps, and IoT connections. HPE Aruba Networking Central provides observability that extends to third-party devices and management of campus wired and wireless assets, powered by purpose-built AI. The HPE Aruba Networking 760 Series Hardened

Access Points are supported by HPE Aruba Networking Central running HPE Aruba Networking Wireless Operating System (OS 10).

More capacity

The HPE Aruba Networking 760 Series Hardened Access Points are designed to take advantage of every bit of available spectrum using three dedicated radios, which translates into high speeds, wider channels for multigigabit traffic, and less interference. Supports up to 160 MHz wide channels, the series delivers up to 4.3 Gbps maximum 5 GHz + 6 GHz aggregate data rate, using dual 2x2 MIMO radios (5 GHz and 6 GHz 2x2), or up to 5.76 Gbps (in 6 GHz only 4x4).

Ruggedized and outdoor ready

The versatile HPE Aruba Networking 760 Series Access Points are purpose-built to deliver high performance Wi-Fi 7 across a range of environmental conditions: indoors, outdoors, and hazardous environments. Models are ready to withstand exposure to extremely high and low temperatures, with SP models have protection from persistent moisture and precipitation. The HPE Aruba Networking 760 Series Hardened Access Points are fully IP 66/IP 67 rated to keep out airborne contaminants. All electrical interfaces include industrial-strength surge protection as well. Ideal environments include:

— **Industrial and outdoor environments:** The HPE Aruba Networking 760 Series Hardened Access Points are ideal for deployment in harsh outdoor weather conditions such as parking lots, stadiums, and public venues.

— **Large public venues:** The smaller size of the HPE Aruba Networking 760 Series Hardened Access Points allows for deployment in large public venues (LPVs) either underseat

or overhead, supporting a wide temperature range for both indoor arenas and outdoor stadiums.

— **Hazardous environments:** The HPE Aruba Networking AP-765EX models are Class 1 Division 2, Class 2 Division 2, ATEX Zone 2, and IECEx certified to survive in extreme intrinsic environments, making it ideal for outdoor oil rigs, industrial manufacturing, mining facilities, and transportation sites. Also, they're ideal for deployment where networks need to be protected from extreme temperatures, flammable gases or vapors, and dust concentrations.

Table 1. Channel bandwidth and peak data rate

Band	Channel bandwidth	Peak data rate
6 GHz (single 4x4)	160 MHz	5.76 Gbps
6 GHz (2x2)	160 MHz	2.88 Gbps
5 GHz (single 4x4)	80 MHz	2.88 Gbps
5 GHz (2x2)	80 MHz	1.44 Gbps
2.4 GHz (2x2)	40 MHz	688 Mbps
	20 MHz	344 Mbps
Total using 6 GHz (4x4) with 160 MHz		**5.76 Gbps**
Total using 6 GHz + 5 GHz (2x2) with 160/80 MHz		**4.32 Gbps**
Total using 5 GHz + 2.4 GHz (2x2) with 80/40 MHz		**2.13 Gbps**

Wi-Fi 7 for faster speeds, more capacity

The Wi-Fi 7 standard (802.11be) extends the capabilities of Wi-Fi 6E, including the use of the 6 GHz band. New capabilities include multi-link operation (MLO) for channel aggregation across different bands and failover, 4096 QAM (4K QAM) modulation for higher peak data rates, and spectrum puncturing to avoid interference or incumbent users of the 6 GHz band.

Advantages of 6 GHz
Wi-Fi 7 takes advantage of up to 1200 MHz in the 6 GHz band for higher throughput and improved application performance. The HPE Aruba Networking 760 Series Hardened Access Points support up to seven 160 MHz channels or fourteen 80 MHz channels, enabling improved support of low-latency, bandwidth-hungry applications such as high-definition video and artificial reality/virtual reality applications. Only Wi-Fi 6E or Wi-Fi 7 capable devices can use the 6 GHz band, so there is no interference or slowdowns due to legacy devices.

Device class support
HPE Aruba Networking 760 Series Hardened Access Points include versatile models designed to operate as either an LPI or SP device.

When operating as a SP device and, where required, access points 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 in SP mode only enables the 6 GHz radio once the SP 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. Connectorized models will typically operate as SP devices but

may also be allowed to operate as LPI devices in some countries.

— HPE Aruba Networking AP-763: It operates as an indoor LPI/SP (composite) device and is ideal for indoor warehouses, LPVs, industrial facilities, and indoor enterprise, where directional-LPI is required (IP50 rating).

— HPE Aruba Networking AP-765: It operates as an outdoor SP and is ideal for outdoor Wi-Fi 7 coverage, indoor or outdoor warehouses, LPV, industrial facilities (IP66/IP 67 rating). This model is also available in an EX variant for HazLoc applications.

— HPE Aruba Networking AP-764: It operates as an outdoor SP device and is ideal for industrial enclosures, LPV enclosures, potential mesh, and for connectorized requirements (IP66/67 rating).

Global readiness
While the need for more Wi-Fi capacity is recognized across the globe, countries are approaching 6 GHz differently. The HPE Aruba Networking 760 Series Hardened Access Points are set up to automatically update regulatory rules once Wi-Fi 7 regulations have been approved and certified, and help ensure that even without 6 GHz approvals, they can operate unrestricted in 2.4 and 5 GHz.

Extends the benefits of Wi-Fi 6
The HPE Aruba Networking 760 Series Hardened Access Points are based on the 802.11be 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 so on, are fully supported on HPE Aruba Networking Wi-Fi 6E and Wi-Fi 7 access points as well.

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

Flexible operation and simplified deployment

Our unified access points can operate as stand-alone access points or with a gateway for greater scalability, security, and manageability. HPE Aruba Networking access points can be managed by AI-powered HPE Aruba Networking Central that provides a single pane of glass for overseeing every aspect of wired and wireless LANs, WANs, and SD-WAN. AI-powered analytics, end-to-end orchestration and automation, and advanced security features are built natively into the solution.

Zero touch provisioning
With HPE Aruba Networking Central, onboarding, configuring, and provisioning are simpler and require no manual CLI configuration or maintenance windows. 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.

Simplified, flexible consumption
The HPE Aruba Networking 760 Series Hardened Access Points require HPE Aruba Networking Central subscription-based licenses, which are purchased on a per-device basis for access points. 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. HPE Aruba Networking Wireless Operating System (OS-10) is included in the subscription. Learn more about HPE Aruba Networking Central.

HPE Aruba Networking Wireless Operating System

Cloud-native HPE Aruba Networking Wireless Operating System (OS-10) is the distributed network operating system working with HPE Aruba Networking Central that acts as the control layer for HPE Aruba Networking access points and gateways. With its flexible architecture, IT can deliver reliable and secure wireless connectivity for small offices, midsized branches, large campus environments, and remote workers.

Wi-Fi optimization

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

Automated Wi-Fi radio frequency management
To help optimize the user experience and provide greater stability, HPE Aruba Networking AirMatch allows organizations to automate network optimization using ML. It 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.

Reduce interference
Unique HPE Aruba Networking Advanced Cellular Coexistence (ACC) uses built-in filtering to automatically reduce the impact of interference from cellular networks, distributed antenna systems (DAS), and commercial small cell or femtocell equipment.

Energy saving

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 vendors' access points, HPE Aruba Networking access points can also be configured to enable or disable capabilities based on available Power over Ethernet (PoE) power—ideal when wired switches have exhausted their power budget. Enterprises can deploy Wi-Fi 7 access points and update switching and power at a later time if needed, based on their actual usage.

Location-aware services
Indoor location shouldn't require guesswork or costly or complex overlay technologies. HPE Aruba Networking Wi-Fi 6, Wi-Fi 6E, and Wi-Fi 7 access points help organizations leverage their wireless investment to deliver indoor location capabilities everywhere. As part of HPE Aruba Networking indoor location solutions, they serve as reference points for client devices and other technologies using fine time measurement. Open Locate, an emerging standard that allows access points to share their location over the air and through cloud-based APIs, enables mobile devices to locate themselves and applications to support network analytics.

The HPE Aruba Networking 760 Series Hardened Access Points include built-in GPS receivers and support fine time measurement (FTM 802.11az for sub-1 meter accuracy) to allow them to automatically locate themselves accurately within the universal framework of latitude and longitude

and place themselves in HPE Aruba Networking Central floor plan maps. As part of the location solutions of Hewlett Packard Enterprise, they serve as reference points for customer devices and other technologies using FTM and Bluetooth. This makes it easier and faster to develop location-aware services to support use cases such as wayfinding, asset tracking, and proximity marketing.

Access points as flexible and secure IoT platform

By combining the IoT radio with a zero trust network framework, the HPE Aruba Networking 760 Series Hardened Access Points can serve as flexible IoT platforms that bolster network security, provide coverage for a broad range of IoT devices, and reduce the need for network overlays just for IoT devices.

The HPE Aruba Networking 760 Series Hardened Access Points includes an integrated Bluetooth 5.4 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. There is also a USB host port to provide IoT connectivity to a wider range of devices.

These IoT capabilities allow organizations to leverage the access point as an IoT platform, which eliminates the need for an overlay infrastructure and additional IT resources and can accelerate IoT initiatives.

In addition, Target Wake Time (TWT) establishes a schedule for when clients need to communicate with an access point. This helps improve client power savings and reduces airtime contention with other clients, which is ideal for IoT.

Streamline IoT operations
HPE Aruba Networking Central IoT Operations unifies visibility of IT and OT infrastructure within the network health dashboard by extending network monitoring and insights to BLE, Zigbee, and other non-IP IoT devices. It helps streamline non-Wi-Fi device onboarding and data collection. The HPE Aruba Networking 760 Series Hardened Access Points can run IoT containerized applications from the application store within HPE Aruba Networking Central to move processing to the Edge, making it ideal for real-time AI inference.

AI client insights
AI-based classification of all clients and IoT devices through HPE Aruba Networking Central Client 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.

Technology partnerships
A broad ecosystem of technology partners provides interoperability for easier installations and operations, and certified solutions are available to help digital transformation and extend the capabilities of network infrastructure.

Security built-in

The HPE Aruba Networking 760 Series Hardened Access Points include security capabilities such as:

WPA3 and Enhanced Open
Support for stronger encryption and authentication is provided through the latest version of WPA for enterprise-protected networks. Enhanced Open offers seamless new protection for users connecting to open networks, where each session is automatically encrypted to protect user passwords and data on guest networks.

WPA2-MPSK
MPSK enables simpler passkey management for WPA2 devices—should the Wi-Fi password on one device or device type change, no additional changes are needed for other devices.

Trusted Platform Module (TPM)

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

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 enable 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 resolve issues caused by rogue APs and clients. Wired and wireless data are 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.

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 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.

Seamless handoffs to cellular

Built on the technical foundations of Passpoint and Wi-Fi Calling, HPE Aruba Networking Air Pass creates a roaming network across the HPE Aruba Networking enterprise customer footprint, extending cellular coverage and enhancing the visitor and subscriber experience to deliver a great experience for your guests while reducing costs and management overhead for DAS.

Standards-based technologies

The HPE Aruba Networking 760 Series Hardened 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 Ratio 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

Summary: HPE Aruba Networking Wi-Fi solutions

Wherever Wi-Fi is needed, HPE Aruba Networking Wi-Fi 7, Wi-Fi 6E, and Wi-Fi 6 access points are ready to provide fast, reliable, and secure coverage. Our access points provide broad network observability, improve mobile client coverage, optimize Wi-Fi bandwidth, and increase operational efficiencies with a choice of cloud or on-premises deployment options. Our portfolio includes Wi-Fi-certified indoor, outdoor, ruggedized, and remote Wi-Fi access points to address a wide range of enterprise use cases and price points, with solutions backed by a limited lifetime warranty.

As part of a full portfolio of Wi-Fi 7 access points, the HPE Aruba Networking 760 Series Hardened Access Points offer a versatile, small form factor, high performance industrial and ruggedized solution for fast, resilient, and secure Wi-Fi 7 wireless access. Supported by HPE Aruba Networking Central, they help deliver an AI-powered, security-first network.

Technical specifications

Hardware variants
HPE Aruba Networking 760 Series Hardened Access Points (AP-763)

— Built-in dynamic antennas (software selectable omnidirectional or directional antennas)

  • The AP-763 is a Low Power Indoor (LPI) or Indoor Standard Power Only (Composite Device or CD), for indoor deployments only.

  • 2.4 GHz (2x2) antennas: 2.8 dBi omnidirectional/6.1 dBi directional

  • 5 GHz (2x2) antennas 3.9 dBi omnidirectional/6 dBi directional

  • 6 GHz (2x2) antennas 3.3 dBi omnidirectional/7.4 dBi directional

  • 5 GHz (4x4) antennas 3.0 dBi omnidirectional/6.1 dBi directional

  • 6 GHz (4x4) antennas 3.2 dBi omnidirectional/7.2 dBi directional

  • BLE/Zigbee (2x2): Integrated omnidirectional antenna with peak gain of ~3.9 dBi

  • GNSS antenna gain ~3.0 dBi

HPE Aruba Networking 760 Series Hardened Access Points (AP-764)

— The AP-764 is a fully outdoor IP66/67 rated connectorized Standard Power (SP) access point, supporting indoor and outdoor deployments where standard power rules apply

— Two dual-band RP-SMA connectors for external 2.4 GHz and 5 GHz antenna operation

— Two 6 GHz RP-SMA connectors for external 6 GHz antenna operation

— Two IoT (BLE/Zigbee) RP-SMA connectors for external IoT antenna operation

  • Two basic IoT antennas are included, see ordering guide for more options

— One GPS/GNSS RP-SMA connector for external GPS antenna

  • 30 dBi GPS antenna and external mount included

HPE Aruba Networking 760 Series Hardened Access Points (AP-765)

— Built-in dynamic antennas (software selectable omnidirectional or directional antennas)

  • The AP-765 and AP-765EX are fully IP 66/67 outdoor rated, with extreme temperature range support, operating as a "Standard Power" (SP) device (the AP-765EX support HazLoc environments)

- 2.4 GHz (2x2) antennas: 2.8 dBi omnidirectional/6.1 dBi directional

- 5 GHz (2x2) antennas 3.9 dBi omnidirectional/6 dBi directional

- 6 GHz (2x2) antennas 3.3: dBi omnidirectional/7.4 dBi directional

- 5 GHz (4x4) antennas 3.0 dBi omnidirectional/6.1 dBi directional

- 6 GHz (4x4) antennas 3.2 dBi omnidirectional/7.2 dBi directional

- BLE/Zigbee (2x2): Integrated omnidirectional antenna with peak gain of ~3.9 dBi

- GNSS antenna gain ~3.0 dBi

Wi-Fi radio specifications
— Access point type: Temperature hardened, tri-band capable, dual-radio AP supporting 2.4 GHz, 5 GHz, and 6 GHz (any two) 802.11be 2x2 MIMO, with the integrated antenna models supporting single-band 802.11be 4x4 MIMO in either 5 GHz or 6 GHz

— 2.4 GHz radio:

- Two spatial stream single user (MU) MIMO for up to 688 Mbps wireless data rate with 4SS EHT40 802.11be customer devices

— 5 GHz radio:

- Single-Radio Mode: Four spatial stream SU MIMO for up to 2.9 Gbps wireless data rate with 2SS EHT80 802.11be client devices

- Dual-Radio Mode: Two spatial stream MU MIMO for up to 1.44 Gbps wireless data rate with 4SS HE80 802.11ax customer devices

— 6 GHz radio:

- Single-Radio Mode: Four spatial stream SU MIMO for up to 5.8 Gbps wireless data rate with 2SS EHT160 802.11be client devices

- Dual-Radio Mode: Two spatial stream SU MIMO for up to 2.9 Gbps wireless data rate with 2SS HE160 802.11ax customer devices

— Up to 400 associated customer devices per radio, and up to 16 BSSIDs per radio (limited to 8 for the 6 GHz 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

- 6.525 to 6.875 GHz U-NII-7

- 6.875 to 7.125 GHz U-NII-8

— Available bands and channels: Dependent on the 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/be: OFDMA with up to 37 RU

— 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

- 802.11be: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM, and 4096-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

— 802.11be extreme high throughput (EHT) support: EHT20/40/80/160

— 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 MCS15, HT20 to HT40)

- 802.11ac: 6.5 to 3,467 (MCS0 to MCS9, NSS = 1 to 4, VHT20 to VHT160)

- 802.11ax: 7.3 to 4,804 (MCS0 to MCS11, NSS = 1 to 4, HE20 to HE160)

- 802.11be: 7.3 to 11,530 (MCS0 to MCS13, NSS = 1 to 4, EHT20 to EHT160)

— 802.11n/ac packet aggregation: A-MPDU, A-MSDU

— Transmit power: Configurable in increments of 0.5 dBm

— ACC minimizes the impact of interference from cellular networks

— MRC for improved receiver performance

— CDD/CSD for improved downlink RF performance

— STBC for increased range and improved reception

— LDPC for high-efficiency error correction and increased throughput

— TxBF for increased signal reliability and range

— 802.11ax Target Wait Time (TWT) to support low-power client devices

— 802.11mc/az Fine Timing Measurement (FTM) for precision distance ranging

Wi-Fi antennas
— HPE Aruba Networking AP-763/765/765EX: Integrated tri-band dynamic antennas (software-provisionable omnidirectional or directional mode)

- Omnidirectional Mode—peak antenna gain of 2.8 dBi in 2.4 GHz (2x2), 3.9 dBi in 5 GHz (2x2), 3.0 dBi in 5 GHz (4x4), 3.3 dBi in 6 GHz (2x2), and 3.2 dBi in 6 GHz (4x4)

- Omnidirectional mode antennas are optimized for horizontal ceiling mounted orientation of the access points. The highest gain is achieved at a downtilt between 10 and 20 degrees from the AP horizontal.

- Directional Mode—peak antenna gain of 6.1 dBi in 2.4 GHz (2x2), 6.0 dBi in 5 GHz (2x2), 6.1 dBi in 5 GHz (4x4), 7.4 dBi in 6GHz (2x2), and 7.2 dBi in 6GHz (4x4)

- Directional mode antennas are optimized for wall or pole mounting for directional coverage with the orientation of the access points facing the direction of coverage with approximately 90˚ x 90˚ beamwidth

— HPE Aruba Networking AP-764: Outdoor IP rated RP-SMA connectors for external antenna support:

- Two sets of two (female) RP-SMA connectors for external antennas

- DB0 and DB1 corresponding with radio chains 0 and 1 for the 2.4 GHz and 5 GHz radios

- 6G0 and 6G1 corresponding with radio chains 0 and 1 for the 6 GHz radio

- Worst-case internal loss between radio interface and external antenna connectors: 1.0 dB in 2.4 GHz, 1.0 dB in 5 GHz and 1.0 dB in 6 GHz.

Other interfaces and features
— Wired network interface (E0)

- Auto-sensing link speed (100/1000/2500/5000BASE-T) and MDI/MDIX

- 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)

— USB 2.0 host interface (Type C connector), supporting 2A/10W maximum

— Bluetooth (BLE5.4 w/HADM) and Zigbee (802.15.4) radio

— Bluetooth: Up to 14 dBm transmit power (class 1) and –100 dBm receive sensitivity (125 kbps)

— Zigbee: Up to 14 dBm transmit power and –97 dBm receive sensitivity (250 kbps)

— GNSS L1 (1575.42 MHz) and L5 (1176.45 MHz) receiver

- Receive sensitivity: –160 dBm (tracking)

- Integrated omnidirectional antenna with roughly 30° to 40° downtilt and peak gain of up to +3 dBi maximum (AP-763/765)

- 30 dBi GPS antenna and external mount included (AP-764)

— AIC allows concurrent operation of multiple radios in the 2.4 GHz band

— Built-in TPM for enhanced security and anti-counterfeiting

— Visual indicators for system and radio status (1x multicolor LED), auto-disable after 15 minutes of uptime

— Reset button: factory reset, LED mode control (normal/off)

— Serial console interface (integrated serial, standard USB-C cable provided)

— Automatic thermal shutdown and recovery function

Reliability
— Mean time between failure (MTBF): +750 khrs (+85 years) @ 25°C operating temperatures, 325 khrs (+37 years) @ 45°C operating temperatures

Power sources and power consumption
— The access point supports PoE on port E0

— Power sources are sold separately

— When powered by 802.3bt (class 5) PoE, the access point will operate without restrictions.

— When powered by 802.3at (class 4) PoE with the IPM feature disabled, the access point will disable the USB-C port.

— Operating the access point with an 802.3af (class 3 or lower) PoE source is not supported (except for access point staging)

— With IPM enabled, the access point 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

— Maximum (worst case) power consumption (without/with USB devices attached):

- PoE Powered: 25.5W (802.3at)/34.5W (802.3bt Class 5)

- This assumes that up to 10W is supplied to the attached USB devices

- Maximum (worst case) power consumption in idle mode: 10.5W/21.5W (PoE)

— Maximum (worst case) power consumption in deep-sleep mode: 3.8W (PoE)

Mounting
— HPE Aruba Networking 760 Series Hardened Access Points (AP-763): Mounting bracket rail is preinstalled on the back to secure the AP-763 to one of the compatible indoor mounting kits (sold separately). Includes posts to support the addition of AP-270-MNT-ADP for use with the outdoor AP mounts (also sold separately).

— HPE Aruba Networking 760 Series Hardened Access Points (AP-764) and HPE Aruba Networking 760 Series Outdoor Access Points (AP-765): Mounting bracket mount holder is preinstalled on the back to secure the AP-764/AP-765 to one of the compatible outdoor mounting brackets (sold separately).

Mechanical specifications
— Dimensions/weight (HPE Aruba Networking AP-763; unit without mount bracket):

  • Bare AP—263.3 x 170 x 93 (mm)/10.36 x 6.69 x 3.66 (in)

  • With included mount bracket—263.3 x 170 x 108.8 (mm)/10.36 x 6.69 x 4.28 (in)

  • Unit Weight w/mount bracket—1.53 (kg)/3.37 (lb)

— Dimensions/weight (HPE Aruba Networking AP-764; unit without mount bracket):

  • Bare AP—266.4 x 174 x 83 (mm)/10.48 x 6.85 x 3.26 (in)

  • With included mount bracket—266.4 x 174 x 125.4 (mm)/10.48 x 6.85 x 4.93 (in)

  • Unit Weight w/ mount bracket—2.03 (kg)/4.47 (lb)

— Dimensions/weight (HPE Aruba Networking AP-765; unit without mount bracket):

  • Bare AP - 266.4 x 174 x 100 (mm)/10.48 x 6.85 x 3.93 (in)

  • With included mount bracket—266.4 x 174 x 142.4 (mm)/10.48 x 6.85 x 5.6 (in)

  • Unit Weight w/mount bracket—2 (kg)/4.4 (lb)

— Dimensions/weight (HPE Aruba Networking AP-765EX; unit without mount bracket):

  • Bare AP—266.1 x 174 x 100 (mm)/10.47 x 6.85 x 3.93 (in)

  • With included mount bracket—266.1 x 174 x 142.4 (mm)/10.47 x 6.85 x 5.6 (in)

  • Unit Weight w/mount bracket—2.04 (kg)/4.49 (lb)

— Dimensions/weight (AP-735; shipping):

  • Single Box Dimensions—222 x 196 x 314 (mm)/8.74 x 7.71 x 12.36 (in)

    ◦ 2.23 (kg)/4.91 (lb) (AP-763)

    ◦ 2.76 (kg)/6.08 (lb) (AP-764)

    ◦ 2.71 (kg)/5.97 (lb) (AP-765)

    ◦ 2.75 (kg)/6.06 (lb) (AP-765EX)

  • Multi-Box (4-pack) Dimensions—465 x 409 x 342 (mm)/18.3 x 16.1 x 13.46 (in)

    ◦ 9.92 (kg)/21.86 (lb) (AP-763)

    ◦ 12.04 (kg)/26.54 (lb) (AP-764)

    ◦ 11.84 (kg)/26.1 (lb) (AP-765)

    ◦ 11.98 (kg)/26.41 (lb) (AP-765EX)

Environmental specifications
— Indoor operating conditions (AP-763)

- Temperature:

  ○ –40°C to +55°C/–40°F to +131°F

- Relative humidity: 5% to 95%

- Compliant with Low Power Indoor (LPI) form factor

- Storage and transportation temperature and conditions: –40°C to +70°C/–40°F to +158°F

- Operating altitude: 3000m

- Water and dust rating

- IP 50

— Outdoor operating conditions (AP-764, AP-765, and AP-765EX)

- Temperature:

  ○ With solar cover: –40°C to +65°C/–40°F to +149°F

  ○ Without solar cover: –40°C to +55°C/–40°F to +131°F

- Humidity: 5% to 100% noncondensing internal

- Rated for operation in all weather conditions

- Storage and transportation temperature and conditions: –40°C to +70°C / –40°F to +158°F

  ○ Operating altitude: 3000m

- Wind, water, and dust

  ○ Wind: 165 mph/265 km/hr

  ○ IP 66/IP 67

- Salt tolerance

  ○ Test to ASTM B117-07A salt spray 200 hr

General regulatory statements
HPE Aruba Networking WLAN access points comply with all regulatory rules that apply in the country they are configured for. In most countries these products may not be allowed to enable all available radios and channels, and various restrictions may apply (RF transmit power levels, radar detection, and so on). Hewlett Packard Enterprise will continue to upgrade the software and regulatory restrictions that apply to these products to help ensure they remain in compliance with the latest regulatory rules in the country of operation.

However, this does not imply a promise or commitment to enable all radios in all countries where we ship these products, and/or enabling all deployment scenarios (indoor/outdoor for example) that they can be configured for. Consult your HPE representative to confirm the latest regulatory status for each product in the country of operation and any anticipated future enhancements or other changes, as well as check the regulatory rules through the host country's regulatory agencies for more.

Regulatory compliance
— FCC/ISED

— CE marked

— EU RED with NB TA (as needed)

- ETSI EN 300 328 2.4 GHz

- ETSI EN 301 893 5 GHz

- ETSI EN 303 687 (6 GHz)

- EN 301-489-1/489-17

- EN 300 440

- EN 303 413 GNSS (GPS)

— IEC/EN 62368-1

— EN 60601-1-1, EN60601-1-2

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

AP-763

AP-765 / AP-765EX

AP-764

Regulatory model numbers
— AP-763—APIN0763

— AP-764—APEX0764

— AP-765—APEX0765

— AP-765EX—APEX0765EX

Certifications
— Wi-Fi Alliance:

  • Wi-Fi certified a, b, g, n, ac, 6, 7

  • WPA2 and WPA3 (enterprise, personal), Enhanced Open (OWE)

  • WMM, WMM PS, Wi-Fi agile multiband

— Bluetooth SIG

— Ethernet Alliance (E0, PoE PD Device Class 6)

— Class 1 Division 2 (AP-765EX only)

— Class 2 Division 2 (AP-765EX only)

— ATEX Zone 2 (AP-765EX only)

— IECEx (AP-765EX only)

Warranty
HPE Aruba Networking hardware limited lifetime warranty

Minimum operating system software versions
HPE Aruba Networking Wireless Operating System HPE Aruba Networking Wireless Operating System (OS-10.8)

Table 2. Ordering information

Part number	Description
HPE Aruba Networking 760 Series Hardened Access Points	
S4K09A	HPE Aruba Networking AP-763 (US) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Indoor AP
S4K10A	HPE Aruba Networking AP-763 (RW) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional In-door AP
S4K11A	HPE Aruba Networking AP-763 (JP) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Indoor AP
S4K12A	HPE Aruba Networking AP-763 (IL) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Indoor AP
S4K13A	HPE Aruba Networking AP-763 (EG) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Indoor AP
S4K14A	HPE Aruba Networking AP-763 (USF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Indoor AP
S4K15A	HPE Aruba Networking AP-763 (RWF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Indoor AP
S4K16A	HPE Aruba Networking AP-763 (JPF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Indoor AP
S4K17A	HPE Aruba Networking AP-763 (ILF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Indoor AP
S4K18A	HPE Aruba Networking AP-763 (EGF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Indoor AP
S4K19A	HPE Aruba Networking AP-765 (US) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Out-door AP
S4K20A	HPE Aruba Networking AP-765 (RW) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Out-door AP
S4K21A	HPE Aruba Networking AP-765 (JP) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Out-door AP
S4K22A	HPE Aruba Networking AP-765 (IL) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Out-door AP
S4K23A	HPE Aruba Networking AP-765 (EG) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Out-door AP
S4K24A	HPE Aruba Networking AP-765 (USF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Outdoor AP
S4K25A	HPE Aruba Networking AP-765 (RWF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Outdoor AP
S4K26A	HPE Aruba Networking AP-765 (JPF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Outdoor AP
S4K27A	HPE Aruba Networking AP-765 (ILF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Outdoor AP
S4K28A	HPE Aruba Networking AP-765 (EGF1) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional TAA Outdoor AP
S4K29A	HPE Aruba Networking AP-765EX (US) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional HazLoc AP
S4K30A	HPE Aruba Networking AP-765EX (RW) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional HazLoc AP
S4K31A	HPE Aruba Networking AP-765EX (JP) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional HazLoc AP
S4K32A	HPE Aruba Networking AP-765EX (IL) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Haz-Loc AP
S4K33A	HPE Aruba Networking AP-765EX (EG) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional HazLoc AP
S4K34A	HPE Aruba Networking AP-764 (US) Flex Radio 2x2 Wi-Fi 7 Connectorized Hardened AP
S4K35A	HPE Aruba Networking AP-764 (RW) Flex Radio 2x2 Wi-Fi 7 Connectorized Hardened AP
S4K36A	HPE Aruba Networking AP-764 (JP) Flex Radio 2x2 Wi-Fi 7 Connectorized Hardened AP
S4K37A	HPE Aruba Networking AP-764 (IL) Flex Radio 2x2 Wi-Fi 7 Connectorized Hardened AP

Table 2. Ordering information (continued)

Part number	Description
HPE Aruba Networking 760 Series Hardened Access Points	
S4K38A	HPE Aruba Networking AP-764 (EG) Flex Radio 2x2 Wi-Fi 7 Connectorized Hardened AP
S4K39A	HPE Aruba Networking AP-764 (USF1) Flex Radio 2x2 Wi-Fi 7 Connectorized TAA Hardened AP
S4K40A	HPE Aruba Networking AP-764 (RWF1) Flex Radio 2x2 Wi-Fi 7 Connectorized TAA Hardened AP
S4K41A	HPE Aruba Networking AP-764 (JPF1) Flex Radio 2x2 Wi-Fi 7 Connectorized TAA Hardened AP
S4K42A	HPE Aruba Networking AP-764 (ILF1) Flex Radio 2x2 Wi-Fi 7 Connectorized TAA Hardened AP
S4K43A	HPE Aruba Networking AP-764 (EGF1) Flex Radio 2x2 Wi-Fi 7 Connectorized TAA Hardened AP
S6A19A	HPE Aruba Networking AP-763 (ID) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Indoor AP
S6A20A	HPE Aruba Networking AP-764 (ID) Flex Radio 2x2 Wi-Fi 7 Connectorized Hardened AP
S6A21A	HPE Aruba Networking AP-765 (ID) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional Out-door AP
S6A22A	HPE Aruba Networking AP-765EX (ID) Flex Radio 2x2 Wi-Fi 7 Dynamic Omni-Directional HazLoc AP

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