QuickSpecs

Overview

HPE Aruba Networking 503 Series Campus Access Points

Affordable Wi-Fi 6 (802.11ax) for Low-to-Medium-Density Indoor Environments

The HPE Aruba Networking 503 Series Campus Access Points (APs) provide cost-effective, high-performance connectivity for any organization experiencing device growth due to increased mobility, the shift to cloud, or IoT. With a maximum real-world aggregate data rate of 1.49 Gbps (HE80/HE20), the 503 Series Campus Access Points deliver the speed and reliability needed for medium-density venues and workplaces such as schools, midsize offices, and retailers. Each 503 Series Campus Access Points provides connectivity for a maximum of 256 associated clients per radio (512 in total).

HPE Aruba Networking 503 Series Campus Access Points

Overview

Key Features

- 1.49 Gbps maximum real-world speed (HE80/HE20)
- WPA3 and Enhanced Open security
- Built-in technology that resolves sticky client issues
- OFDMA for enhanced multi-user efficiency
- IoT-ready Bluetooth 5 and Zigbee support (requires optional radio dongle)
- Offered as optional eco-friendly 10-packs

Standard Features

Optimized User Experience
The HPE Aruba Networking 503 Series Campus Access Points are designed to optimize user experience by maximizing Wi-Fi efficiency and dramatically reducing airtime contention between clients.

Features include orthogonal frequency-division multiple access (OFDMA) and cellular optimization. With up to 2 spatial streams (2SS) and 80MHz channel bandwidth (HE80), the 503 Series Campus Access Points provides the next generation of wireless capabilities for cost-conscious deployments.

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

HPE Aruba Networking Air Slice™ for application assurance
Air Slice delivers application assurance in order to optimize the user experience. By allocating radio resources such as time, frequency, and spatial stream to specific traffic types, HPE Aruba Networking APs can provide SLA-grade performance to client devices whether they support Wi-Fi 6 or prior standards.

Air Slice relies on HPE Aruba Networking's Policy Enforcement Firewall and Deep Packet Inspection (DPI) to identify user roles and applications so that bandwidth can be dynamically allocated to ensure performance. Air Slice is available for APs running controller-less mode (Instant) and with HPE Aruba Networking Central; controller-based APs will be supported in a future software release.

Wi-Fi 6 aware client optimization
HPE Aruba Networking's patented AI-powered ClientMatch technology eliminates sticky client issues by placing Wi-Fi 6 capable devices on the best available AP. Session metrics are used to steer mobile devices to the best AP based on available bandwidth, types of applications being used, and traffic type — even as users roam.

Resource management with AirMatch
To better support growth in client device density and in data volumes, AirMatch uses machine learning techniques that provide automated radio frequency optimization.

By analyzing the entire wireless network, AirMatch determines the optimum radio configuration and enables the network to automatically adapt in real time to changing RF conditions such as high noise and radar. It also adjusts for higher density, co-channel interference, and coverage gaps.

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

IOT Platform Capabilities
Using an optional **IoT expansion radio**, the HPE Aruba Networking 503 Series Campus Access Points can use the Bluetooth 5 and 802.15.4/Zigbee radio to simplify deploying and managing IoT-based location services, asset tracking services, security solutions, and IoT sensors. This allows organizations to leverage the HPE Aruba Networking 503 Series Campus Access Points as an IoT platform, which eliminates the need for an overlay infrastructure and additional IT resources.

Target Wake Time (TWT)
Ideal for IoT devices that communicate infrequently, TWT establishes a schedule for when clients need to communicate with an AP. This helps improve client power savings and reduces airtime contention with other clients.

Standard Features

HPE Aruba Networking Secure Infrastructure

The HPE Aruba Networking 503 Series Campus Access Points supports a Zero Trust/Secure Access Service Edge (SASE) architecture to better protect user authentication and wireless traffic. Select capabilities include:

- **WPA3 and Enhanced Open:** Support for stronger encryption and authentication is provided via the latest version of WPA for enterprise 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. This capability requires HPE Aruba Networking ClearPass Policy Manager.
- **Simple and Secure Access:** To improve security and ease of management, IT can centrally configure and automatically enforce rolebased 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, 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.

Flexible Operation and Management

Our unified Aps can operate as standalone access points or with a gateway for greater scalability, security, and manageability. Aps 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 Aps can be managed using cloud-based or on-premises solutions for any campus, branch, or remote work environment. As the management and orchestration console for HPE Aruba Networking ESP (Edge Services Platform), HPE Aruba Networking Central provides a single pane of glass for overseeing every aspect of wired and wireless LANs, WANs, and VPNs. AI-powered analytics, end-to-end orchestration and automation, and advanced security features are built natively into the solution. The HPE Aruba Networking 503 Series Campus Access Points can also be deployed using **HPE Greenlake for HPE Aruba Networking** for flexible consumption and financing options.

Configuration Information

BTO Models

503 Internal Antenna Access Points

Rule #	Description	SKU
3	HPE Aruba Networking AP-503-EG Dual Radio 2x2 802.11ax Wi-Fi 6 Campus Access Point	R8M95A
	• Includes Mount Bracket	
4	HPE Aruba Networking AP-503-IL Dual Radio 2x2 802.11ax Wi-Fi 6 Campus Access Point	R8M96A
	• Includes Mount Bracket	
5	HPE Aruba Networking AP-503-JP Dual Radio 2x2 802.11ax Wi-Fi 6 Campus Access Point	R8M97A
	• Includes Mount Bracket	
1, 6	HPE Aruba Networking AP-503-RW Dual Radio 2x2 802.11ax Wi-Fi 6 Campus Access Point	R8M98A
	• Includes Mount Bracket	
2, 7	HPE Aruba Networking AP-503-US Dual Radio 2x2 802.11ax Wi-Fi 6 Campus Access Point	R8M99A
	• Includes Mount Bracket	
8	HPE Aruba Networking AP-503 (RW1) Dual Radio 2x2 802.11ax Wi-Fi 6 Campus Access Point	S2C07A
	• Includes Mount Bracket	

503 Internal Antenna Access Points (Eco-Friendly 10-Packs)

Rule #	Description	SKU
1	HPE Aruba Networking AP-503 (RW) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E83A
	• Includes 10 Mount Brackets	
2	HPE Aruba Networking AP-503 (US) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E84A
	• Includes 10 Mount Brackets	

Configuration Rules

Rule #	Description	
1	Available everywhere except, US, Israel, Egypt and Japan.	
2	Available in US only	
3	Available in Egypt only	
4	Available in Israel only	
5	Available in Japan only	
6	– If the ordered qty of this AP is greater than 10, then the default will be the following Eco-Friendly 10-Pack(s) with the remainder as individual packs. Allow user to change the full quantity easily back to individual packs;	
	HPE Aruba Networking AP-503 (RW) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E83A
	– If ordering more than qty10 of this AP, consider ordering the Eco-Friendly 10-Packs(S1E83A). Please revert back to single pack if individual sale is desired.	
7	– If the ordered qty of this AP is greater than 10, then the default will be the following Eco-Friendly 10-Pack(s) with the remainder as individual packs. Allow user to change the full quantity easily back to individual packs;	
	HPE Aruba Networking AP-503 (US) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E84A
	– If ordering more than qty10 of this AP, consider ordering the Eco-Friendly 10-Packs(S1E84A). Please revert back to single pack if individual sale is desired.	
8	Available in India only	
Notes:	OCA Only Model Selection Form - HPE Aruba Networking > Wireless > Access Points > Campus: HPE Aruba Networking 503 Series Campus Access Points	

Configuration Information

Mount Accessories

AP Mount Kits

Rule #	Description	SKU
1	HPE Aruba Networking AP-220-MNT-C1 2x Ceiling Grid Rail Adapter for Basic Flat Rails Mount Kit	JW044A
1	HPE Aruba Networking AP-220-MNT-C2 2x Ceiling Grid Rail Adapter for Interlude and Silhouette Mt Kit	JW045A
1	HPE Aruba Networking AP-MNT-CM1 Industrial Grade Indoor AP Metal Suspended Ceiling Rail Mount Kit	JX961A
1	HPE Aruba Networking AP-220-MNT-W1 Flat Surface Wall/Ceiling Black AP Basic Flat Surface Mount Kit	JW046A
1	HPE Aruba Networking AP-220-MNT-W1W Flat Surface Wall/Ceiling White AP Basic Flat Surface Mount Kit	JW047A
1	HPE Aruba Networking AP-200-MNT-W3 Low Profile Box Style Small Indoor AP Flat Surface Mount Kit	JY705A
1	HPE Aruba Networking AP-MNT-W4 White Low Profile Basic AP Flat Surface Mount Kit	Q9U25A

Configuration Rules

Rule #	Description	
1	If configuring one of the following Eco-Friendly 10-Pack of AP's, then allow selection condition of 0(default) or 10:	
	HPE Aruba Networking AP-503 (RW) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E83A
	HPE Aruba Networking AP-503 (US) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E84A
Notes:	Clic **Warning:** 503 Access Points include a Mount Bracket. These Mount Kits are optional	

Power Options

Power Options

Rule #	Description	SKU
1, 2	HPE Aruba Networking AP-POE-AFGE 1-Port GbE 802.3af 15.4W Midspan Injector	R6P68A

- USB port disabled (when IPM disabled)

Configuration Rules

Rule #	Description	
1	If this Power Supply is selected, bring in (Min 1 // Max 1) Localized power cord based on the HPE Aruba Networking Localization Menu	
2	If configuring one of the following Eco-Friendly 10-Pack of AP's, then allow selection condition of 0(default) or 10:	
	HPE Aruba Networking AP-503 (RW) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E83A
	HPE Aruba Networking AP-503 (US) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E84A
Notes:	Most devices are PoE powered from switch so these are optional	

Accessories

Other Accessories

Rule #	Description	SKU
	HPE Aruba Networking USB LTE Modem for Access Points and Gateways	R8F34A
	HPE Aruba Networking AP-CBL-SERU Micro-USB TTL3.3V to USB2.0 AP Console Adapter Cable	JY728A
	HPE Aruba Networking AP-MOD-SERU Micro-USB TTL3.3V to RJ45 RS232 AP Console Adapter Module	R6Q99A
	HPE Aruba Networking AP-USB-ZB External USB based Dongle with Zigbee and BLE for AP	R2X45A
	HPE Aruba Networking AP-USB-ZB 10-pk External USB based Dongle with Zigbee and BLE for AP	R2Y09A
	HPE Aruba Networking AP-USB-ZB 50-pk External USB based Dongle with Zigbee and BLE for AP	R2Y10A

Configuration Information

Software

Central

Cloud Services / Access Point Foundation Subscriptions

2, 8	HPE Aruba Networking Central AP Foundation 1-year Subscription E-STU	Q9Y58AAE
2, 8	HPE Aruba Networking Central AP Foundation 3 year Subscription E-STU	Q9Y59AAE
2, 8	HPE Aruba Networking Central AP Foundation 5 year Subscription E-STU	Q9Y60AAE
2, 8	HPE Aruba Networking Central AP Foundation 7 year Subscription E-STU	Q9Y61AAE
2, 8	HPE Aruba Networking Central AP Foundation 10 year Subscription E-STU	Q9Y62AAE

Cloud Services / Access Point Advanced Subscriptions

2, 8	HPE Aruba Networking Central AP Advanced 1 year Subscription E-STU	Q9Y63AAE
2, 8	HPE Aruba Networking Central AP Advanced 3 year Subscription E-STU	Q9Y64AAE
2, 8	HPE Aruba Networking Central AP Advanced 5 year Subscription E-STU	Q9Y65AAE
2, 8	HPE Aruba Networking Central AP Advanced 7 year Subscription E-STU	Q9Y66AAE
2, 8	HPE Aruba Networking Central AP Advanced 10 year Subscription E-STU	Q9Y67AAE

On-Prem Services / Access Point Foundation Subscriptions

3, 8	HPE Aruba Networking Central on Prem AP Foundation 1 year Subscription E-STU	R6U63AAE
3, 8	HPE Aruba Networking Central on Prem AP Foundation 3 year Subscription E-STU	R6U64AAE
3, 8	HPE Aruba Networking Central on Prem AP Foundation 5 year Subscription E-STU	R6U65AAE
3, 8	HPE Aruba Networking Central on Prem AP Foundation 7 year Subscription E-STU	R6U66AAE
3, 8	HPE Aruba Networking Central on Prem AP Foundation 10 year Subscription E-STU	R6U67AAE

FedRAMP Services / Access Point Advanced Subscriptions

6, 8	HPE Aruba Networking Central AP Advanced Government 1-year Subscription E-STU	R8K84AAE
6, 8	HPE Aruba Networking Central AP Advanced Government 3-year Subscription E-STU	R8K85AAE
6, 8	HPE Aruba Networking Central AP Advanced Government 5-year Subscription E-STU	R8K86AAE
6, 8	HPE Aruba Networking Central AP Advanced Government 7-year Subscription E-STU	R8K87AAE
6, 8	HPE Aruba Networking Central AP Advanced Government 10-year Subscription E-STU	R8K88AAE

Configuration Rules

Rule #	Description	SKU
2	Add the Central Cloud Skus to the Catalog as Standalone: HPE Aruba Networking > Network Management > Central > Cloud Services	
3	Add the Central On-Prem Skus to the Catalog as Standalone: HPE Aruba Networking > Network Management > Central > On-Prem Services	
6	Add the Central FedRAMP Service Skus to the Catalog as Standalone: HPE Aruba Networking > Network Management > Central > FedRAMP	
8	For OCA: When configuring the following AP 10-Pack, selection condition for this Subscription should be 0(default) or 10	
	HPE Aruba Networking AP-503 (RW) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E83A
	HPE Aruba Networking AP-503 (US) 10-Pack Dual Radio 2x2:2 Wi-Fi 6 Campus Access Point	S1E84A

As-a-Service

Cloud Services / Access Point Foundation Subscriptions

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

Configuration Information

Cloud Services / Access Point Advanced Subscriptions

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

Configuration Rules

Rule#	Description	SKU
7	For IRIS reference only. No action required for OCX and Clic	

Technical Specifications

Additional WI-FI Features

Each AP also includes the following standards-based technologies:

- Transmit Beamforming: Increased signal reliability and range
- Passpoint Wi-Fi (Release 2) (Hotspot 2.0): Seamless cellular to Wi-Fi handover for guests
- Dynamic Frequency Selection (DFS): Optimized use of available RF spectrum
- Maximum Rate Combining (MRC): Improved receiver performance
- Cyclic Delay/Shift Diversity (CDD/CSD): Greater downlink RF performance
- Space-Time Block Coding (STBC): Increased range and improved reception
- Low-Density Parity Check (LDPC): High-efficiency error correction for improved throughput

Hardware Variants

AP-503: Campus AP platform, integrated antennas

WI-FI Radio Specifications

- AP type: Indoor, dual-radio, 2.4GHz and 5GHz (dual concurrent) 802.11ax 2x2 MIMO
- 2.4GHz radio: Two spatial stream Single User (SU) MIMO for up to 574Mbps wireless data rate with 2SS HE40 802.11ax client devices (287Mbps for HE20)
- 5GHz radio: Two spatial stream Single User (SU) MIMO for up to 1.2Gbps wireless data rate with 2SS HE80 802.11ax client devices
- Up to 256 associated client devices per radio, and up to 16 BSSIDs per radio
- Supported frequency bands (country-specific restrictions apply):
    - 2.400 to 2.4835GHz ISM
    - 5.150 to 5.250GHz U-NII-1
    - 5.250 to 5.350GHz U-NII-2A
    - 5.470 to 5.725GHz U-NII-2C
    - 5.725 to 5.850GHz U-NII-3/ISM
    - 5.850 to 5.895GHz U-NII-4
- Available bands and channels: Dependent on configured regulatory domain (country)
- Dynamic frequency selection (DFS) optimizes the use of available RF spectrum in the 5GHz 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
- 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
- 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)

Technical Specifications

- 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 (2.4GHz / 5GHz): +21 dBm (18dBm per chain)
  - **Notes:** Conducted transmit power levels exclude antenna gain. For total (EIRP) transmit power, add antenna gain.
- Advanced Cellular Coexistence (ACC) minimizes the impact of interference from cellular networks
- Maximum ratio combining (MRC) for improved receiver performance
- Cyclic delay/shift diversity (CDD/CSD) for improved downlink RF performance
- Space-time block coding (STBC) for increased range and improved reception
- Low-density parity check (LDPC) for high-efficiency error correction and increased throughput
- Transmit beam-forming (TxBF) for increased signal reliability and range
- 802.11ax Target Wait Time (TWT) to support low-power client devices

Wi-Fi Antennas

- AP-503: Integrated downtilt omni-directional antennas for 2x2 MIMO with peak antenna gain of 1.7dBi in 2.4GHz and 4.8dBi in 5GHz. Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP. The downtilt angle for maximum gain is roughly 30 degrees.
  - Combining the patterns of each of the antennas of the MIMO radios, the peak gain of the combined, average pattern is 1.5dBi in 2.4GHz and 3.9dBi in 5GHz.

Other Interfaces and Features

- E0: Ethernet wired network port (RJ-45)
  - Auto-sensing link speed (10/100/1000BASE-T) and MDI/MDX
  - POE-PD: 48Vdc (nominal) 802.3af POE (class 3 or higher)
  - 802.3az Energy Efficient Ethernet (EEE)
- USB 2.0 host interface (Type A connector)
  - Capable of sourcing up to 100mA / 500mW to an attached device
- Built-in Trusted Platform Module (TPM) for enhanced security and anti-counterfeiting
- Visual indicators (two multi-color LEDs): for System and Radio status
- Reset button: factory reset, LED mode control (normal/off)
- Serial console interface (proprietary, micro-B USB 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 503 Series Campus Access Points Ordering Guide for details
- Maximum (worst-case) power consumption: 10.9W
- Maximum (worst-case) power consumption in idle mode: 4.7W
- Both numbers assume no power is drawn from the USB interface
  - Drawing 0.5W from the USB interface increases max AP power consumption by up to 0.7W

Mounting Details

A generic / universal mounting bracket ships with the AP. This bracket is used to secure the AP to a ceiling (solid surface or suspended ceiling rails) or wall (solid surface). Alternate or spare mount brackets can be ordered separately; see the HPE Aruba Networking 503 Series Campus Access Points Ordering Guide for details.

Technical Specifications

Mechanical Specifications

- Dimensions/weight (AP-503; unit with mount bracket):
    - 145mm (W) x 145mm (D) x 51mm (H)
    - 270g
- Dimensions/weight (AP-503; unit without mount bracket):
    - 145mm (W) x 145mm (D) x 35mm (H)
    - 255g
- Dimensions/weight (AP-503; shipping):
    - 196mm (W) x 183mm (D) x 67mm (H)
    - 515g

Environmental Specifications

- Operating conditions
    - Temperature: 0C to +40C / +32F to +104F
    - Relative humidity: 5% to 95%
    - ETS 300 019 class 3.2 environments
    - AP is plenum rated for use in air-handling spaces
- Storage conditions
    - Temperature: -25C to +55C / +13F to +131F
    - Relative humidity: 10% to 100%
    - ETS 300 019 class 1.2 environments
- Transportation conditions
    - Temperature: -40C to +70C / -40F to +158F
    - Relative humidity: up to 95%
    - ETS 300 019 class 2.3 environments

Reliability

Mean Time Between Failure (MTBF): 930khrs (106yrs) at +25C operating temperature.

Regulatory Compliance

- FCC/ISED
- CE Marked
- RED Directive 2014/53/EU
- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- UL/IEC/EN 60950
- IEC/EN 62368-1

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

Regulatory Model Numbers

- AP-503 (all models): APIN0503

Technical Specifications

Certifications

- Wi-Fi Alliance (WFA):
    - Wi-Fi CERTIFIED a, b, g, n, ac
    - Wi-Fi CERTIFIED 6
    - WPA, WPA2 and WPA3 – Enterprise with CNSA option,
    - Personal (SAE), Enhanced Open (OWE)
    - WMM, WMM-PS, Wi-Fi Agile Multiband
    - Passpoint (release 2)
- Ethernet Alliance (POE, PD device, class 3)

Warranty
Limited lifetime warranty

Minimum Operating System Software Versions
HPE AOS and HPE Networking InstantOS 8.11.1.0, HPE AOS 10.5.0.0

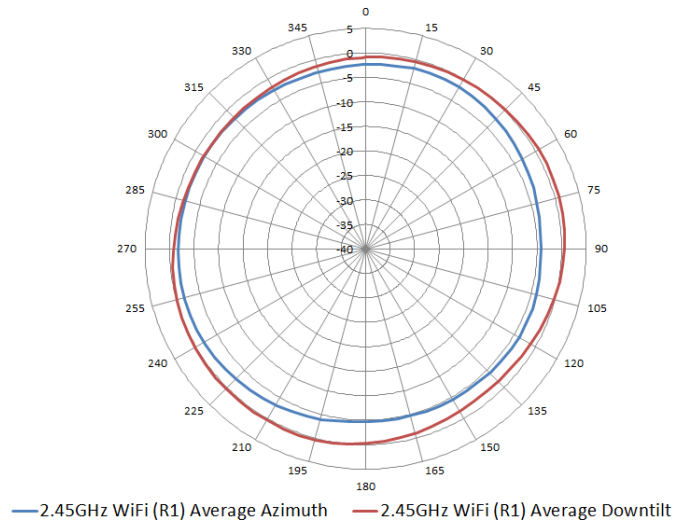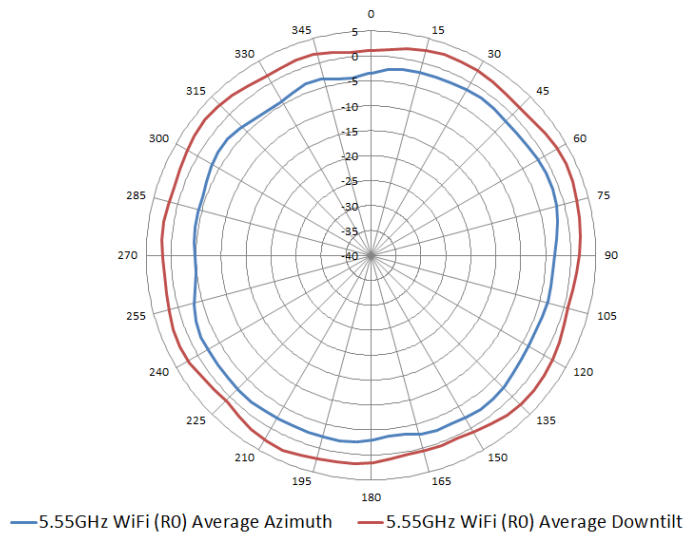| RF Performance Table		
Band, Rate	**Maximum Transmit Power (dBm) per Transmit Chain**	**Receiver Sensitivity (dBm) per Receive Chain**
2.4GHz, 802.11b		
1Mbps	18.0	-96.0
11Mbps	18.0	-88.0
2.4GHz, 802.11g		
6Mbps	18.0	-92.0
54Mbps	18.0	-74.0
2.4GHz, 802.11n HT20		
MCS0	18.0	-93.0
MCS7	16.0	-72.0
2.4GHz, 802.11ax HE20		
MCS0	18.0	-92.0
MCS11	12.0	-62.0
5GHz, 802.11a		
6Mbps	18.0	-94.0
54Mbps	16.0	-74.0
5GHz, 802.11n HT20 / HT40		
MCS0	18.0 / 18.0	-93.0 / -90.0
MCS7	16.0 / 16.0	-73.0 / -70.0
5GHz, 802.11ac VHT20 / VHT40 / VHT80		
MCS0	18.0 / 18.0 / 18.0	-93.0 / -90.0 / -87.0
MCS9	14.0 / 14.0 / 14.0	-67.0 / -64.0 / -61.0
5GHz, 802.11ax HE20 / HE40 / HE80		
MCS0	18.0 / 18.0 / 18.0	-91.0 / -89.0 / -86.0
MCS11	12.0 / 12.0 / 12.0	-64.0 / -61.0 / -58.0

Technical Specifications

Antenna Patterns
Horizontal Planes (Top View)
Showing azimuth (0 degrees) and 30 degrees downtilt patterns (averaged patterns for all applicable antennas)


— 2.45GHz WiFi (R1) Average Azimuth   — 2.45GHz WiFi (R1) Average Downtilt

2.45GHz Wi-Fi (antennas 1, 2)

— 5.55GHz WiFi (R0) Average Azimuth   — 5.55GHz WiFi (R0) Average Downtilt

5.55GHz Wi-Fi (antennas 1, 2)

Technical Specifications

Vertical (elevation) planes (side view, AP facing down)

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

2.45GHz Wi-Fi (antennas 1, 2)

5.55GHz Wi-Fi (antennas 1, 2)
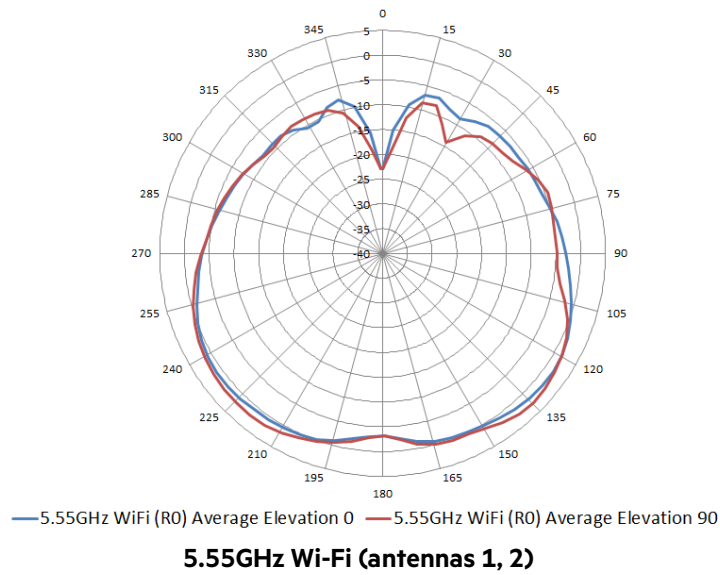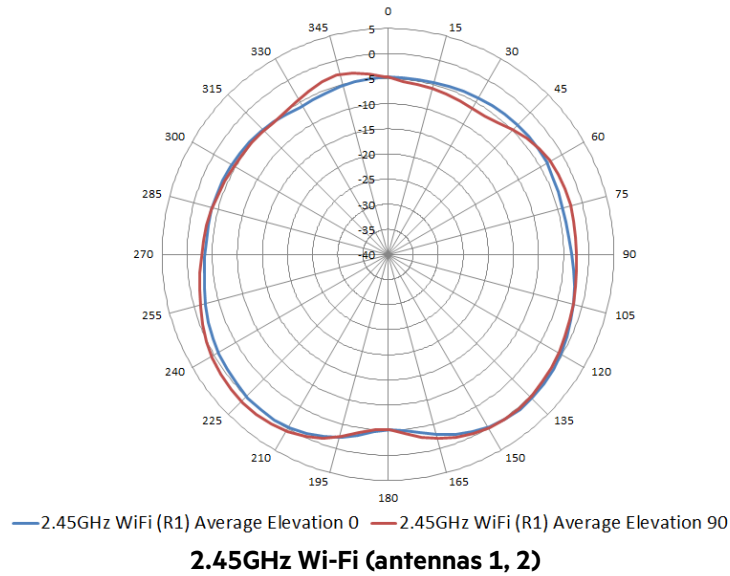
Summary of Changes

Date	Version History	Action	Description of Change
21-Jan-2025	Version 6	Changed	Standard Features section was updated.
16-Dec-2024	Version 5	Changed	QuickSpecs was updated.
04-Dec-2023	Version 4	Changed	Series name was updated.
07-Aug-2023	Version 3	Changed	Configuration Information section was updated.
10-Jul-2023	Version 2	Changed	Configuration Information section was updated.
06-Mar-2022	Version 1	New	New QuickSpecs

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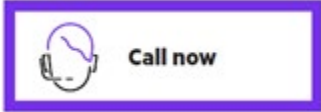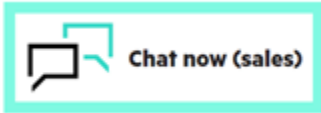
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