

HPE Aruba Networking 500 Series Campus Access Points

HPE Aruba Networking AP-505 (US) Dual Radio 2x2 802.11ax Internal Antennas Unified Campus AP (R2H29A)



What's new

- Entry level Wi-Fi 6 access points provide up to 1.49 Gbps maximum combined data rate.
- Support for OFDMA for enhanced multi-user efficiency, and WPA3 and Enhanced Open for greater security.

Overview

HPE Aruba Networking 500 Series Campus Access Points deliver cost-effective Wi-Fi 6 coverage for indoor environments such as mid-sized offices, schools, and retail spaces where fewer people are on the network at the same time. With 1.49 Gbps maximum combined data rate, the 500 Series delivers reliable Wi-Fi for medium density environments and is supported by HPE Aruba Networking Central, AI-powered management that simplifies and improves IT operations across branch, remote office, campus, data center, and IoT networks with a

- IoT-ready with built-in [1] Bluetooth 5 and Zigbee support.
- Dynamic Segmentation and policy enforcement firewalls automatically enforce consistent policies across wired and wireless networks, enhancing user and device security.
- Built-in technology that resolves sticky client issues and improves performance of mobile Wi-Fi clients.
- Available in optional eco-friendly 10-packs.

single point of visibility and control.

The 500 Series is Wi-Fi CERTIFIED™ and supports Wi-Fi 6 (802.11ax) features: OFDMA for multi-user efficiency, target wake time (TWT) to extend the battery life of connected IoT devices, and WPA3 and Enhanced Open for greater password and guest security. The 500 Series includes a limited lifetime warranty.

Features

Wi-Fi 6 Performance

HPE Aruba Networking 500 Series Campus Access Points deliver a maximum combined data rate of 1.49 Gbps with 2 spatial streams to meet the needs of low and medium density environments.

Wi-Fi CERTIFIED™ with support for Wi-Fi 6 features such as OFDMA, bidirectional MU-MIMO, and target wait time (TWT) to drive improved efficiency. Handles multiple Wi-Fi 6 capable clients on each channel simultaneously, regardless of device or traffic type.

Enhanced wireless experience with HPE Aruba Networking ClientMatch technology that removes sticky client issues by steering a client to the access point where it receives the best radio signal.

Cloud Management and Ready for IoT

HPE Aruba Networking 500 Series Campus Access Points can be managed with HPE Aruba Networking Central, an AI-powered solution that simplifies IT operations, improves agility, and reduces costs by unifying management of campus, branch, remote, data center, and IoT networks from one dashboard.

Supports Bluetooth 5 and Zigbee wireless protocols through an integrated IoT radio, and third-party expansion with an integrated USB port.

HPE Aruba Networking Central Client Insights uses deep packet inspection to provide additional context and behavioral information that help verify devices are receiving proper policy enforcement and continuously monitor for rogue devices.

Simple and Secure Access

HPE Aruba Networking 500 Series Campus Access Points offer enhanced security with Dynamic Segmentation to remove the time-consuming and error-prone task of managing complex and static VLANs, ACLs, and subnets by dynamically assigning policies and keeping traffic protected and separated.

Offers stronger encryption and authentication with WPA3, protected credentials/keys storage for guest access with Enhanced Open, and user and IoT access policy enforcement firewalls (PEF).

WPA3 and Enhanced Open security increases enterprise-level security by providing stronger guest access protections without increasing complexity.

For enhanced device assurance, the access points include an installed Trusted Platform Module (TPM) for protected storage of credentials and keys, and boot code.

Technical specifications		HPE Aruba Networking AP-505 (US) Dual Radio 2x2 802.11ax Internal Antennas Unified Campus AP
Product Number	R2H29A	
Differentiator	Available in US only	
Wi-Fi antenna	Two integrated dual-band downtilt omni-directional antennas for 2x2 MIMO with peak antenna gain of 4.9 dBi in 2.4 GHz and 5.7 dBi in 5 GHz.	
Certifications	UL2043 plenum rating Wi-Fi Alliance: Wi-Fi CERTIFIED a, b, g, n, ac Wi-Fi CERTIFIED 6 (ax) WPA, WPA2 and WPA3-Enterprise with CNSA option, Personal (SAE), Enhanced Open (OWE) WMM, WMM-PS, W-Fi Agile Multiband Wi-Fi CERTIFIED Location™ Bluetooth SIG Ethernet Alliance (PoE, PD device, Class 4)	
Regulatory	FCC/ISED CE Marked RED Directive 2014/53/EU EMC Directive 2014/30/EU Low Voltage Directive 2014/35/EU UL/IEC/EN 62368-1 EN 60601-1-1, EN60601-1-2	
Warranty	Limited lifetime warranty. See the warranty duration.	
Weight	500 g	
Product dimensions	37 x 160 x 161 mm	
Connectivity, standard	Wi-Fi 6 (IEEE 802.11ax)	
Ports	EO: Ethernet wired network port (RJ-45) USB 2.0 host interface (type A connector) Serial console interface (proprietary, micro-B USB physical jack) Kensington security slot.	
Mounting	Optional mounting kits available, see the ordering guide.	
Power consumption	Maximum (worst-case) power consumption (without/with a USB device attached): PoE powered (802.3at): 11.0W / 16.5W PoE powered (802.3af): 11.0W / 13.5W This assumes that up to 5W is supplied to the attached USB device Maximum (worst-case) power consumption in idle mode: 4.3W (DC) or 6.2W (PoE) Maximum (worst-case) power consumption in deep-sleep mode: 1.7W (DC) or 3.7W (PoE)	

Technical specifications	HPE Aruba Networking AP-505 (US) Dual Radio 2x2 802.11ax Internal Antennas Unified Campus AP
Radio coverage	AP type: Indoor, dual radio, 5 GHz and 2.4 GHz 802.11ax 2x2 MIMO 5 GHz radio: Two spatial stream Single User (SU) MIMO for up to 1.2 Gbps wireless data rate with 2SS HE80 802.11ax client devices. 2.4 GHz radio: Two spatial stream Single User (SU) MIMO for up to 574 Mbps (287 Mbps) wireless data rate with 2SS HE40 (HE20) 802.11ax client devices.

[1] Bluetooth is a trademark owned by its proprietor and used by Hewlett Packard Enterprise under license. All third-party marks are property of their respective owners.

HPE Aruba Networking Services

HPE Aruba Networking services simplify and accelerate the network technology lifecycle, enabling your network to scale with better predictability and cost-effectiveness. Whether you operate your own network and need to improve your IT efficiencies, or you want to offload some of the burden, we have the services you need to reach your goals.

Learn more about what HPE Services - Aruba Networking has to offer at: hpe.com/edge/services

Support Services

Our support portfolio provides the essential support elements as well as proactive and preventive features to help you improve your team's productivity and get the most from your network. Our support customers benefit from faster issue resolution, simplified operations and efficiencies, and reduced network issues.

Professional Services

With deep intellectual capital and purpose-built tools, our team delivers a range of standard and custom professional services designed to accelerate your value from HPE Aruba Networking technology.

Project based services include:

- Planning, audit, and assessment
- Architecture review and design
- Deployment, migration, and knowledge transfer

Annual subscription services include:

- Network optimization
- Intelligent Operations
- Customer Experience Management

Our [Education Services](#) allow your team to come up to speed quickly.

HPE GreenLake for Networking

Our NaaS solution, is part of the HPE GreenLake services family, and simplifies network operations, accelerates equipment handling, and increases the value of your HPE Aruba Networking solution. If you need expert guidance and automation-based operations for your team, please explore our NaaS approach through HPE GreenLake for Networking.

[For additional technical information, available models and options, please reference the QuickSpecs](#)

Visit [HPE.com](#)

[Chat now](#)

© Copyright 2026 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

Parts and Materials: HPE will provide HPE-supported replacement parts and materials required to maintain the covered hardware.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

Image may differ from the actual product.

[PSN1012087560USEN](#), January, 2026.

HEWLETT PACKARD ENTERPRISE

[hpe.com](#)

