HPE Aruba Networking 750 Series Campus Access Points

HPE Aruba Networking AP-754 (RW) Tri Radio 4x4 Wi-Fi 7 External Antennas Campus Access Point (S1G74A)

What's new

- Flagship Wi-Fi 7 access points ideal for the most demanding enterprise, healthcare, LPV, education, retail, and industrial IoT deployments.

- Three 4x4 MIMO radios provide comprehensive triband coverage across 2.4 GHz, 5 GHz, and 6 GHz for up to 18.7 Gbps maximum aggregate data rate.

- High availability with dual 10 Gbps wired ports for redundant Ethernet and power, as

Overview

The HPE Aruba Networking 750 Series Campus Access Points are our flagship Wi-Fi 7 APs that deliver impressive wireless performance, strengthen network security, provide precise location-based services, and offer an IoT platform with enterprise-grade security, enabling enterprises to fully realize the value of their wireless investment and unlock operational efficiencies.

This high-performance AP is designed with three 4x4 MIMO radios (2.4 GHz, 5 GHz, and 6 GHz), dual 10 Gbps Ethernet ports, and patented Ultra Tri-band (UTB) filtering for high capacity, fast, and resilient connectivity with enhanced security. HPE Aruba Networking Wireless Operating

well as the ability to combine (sum) power from both ports.

- High density IoT support with two integrated Bluetooth 5.4 and 802.15.4 radios for Zigbee support and two USB port extensions.

- Built-in GNSS receiver, barometric pressure sensor, and intelligent software enable APs to self locate and act as reference points for accurate indoor location measurements.

- Patented Ultra Tri-band (UTB) filtering enhances use of 5 GHz and 6 GHz bands.

System (AOS-10) and HPE Aruba Networking Central provide intelligent automation, AI insights, and unified infrastructure management to help drive efficient IT operations. The HPE Aruba Networking 750 Series Campus APs include a limited lifetime warranty.

Features

Flagship Wi-Fi 7 Performance

Based on the 802.11be standard, the HPE Aruba Networking 750 Series Campus APs are designed to take advantage of the 6 GHz band via three dedicated radios, which translates into far greater speeds, wider channels for multi gigabit traffic, and less interference.

With three 4x4 MIMO radios (2.4 GHz, 5 GHz, and 6 GHz), it delivers up to 18.7 Gbps maximum tri-band aggregate data rate and is capable of up to 28.8 Gbps maximum aggregate data rate using optional dual 5 GHz and 6 GHz radio modes.

Featuring high availability with two 10 GbE ports for hitless failover for both data and power, allowing these dual ports to provide business continuity for mission critical applications with flexibility to support speeds of 1, 2.5, 5, or 10 Gbps (or 100 Mbps),.

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

Patented Ultra Tri band filtering enables enterprises to take advantage of the high end of 5 GHz with the lower end of 6 GHz without creating coverage gaps or islands.

Simplified Access with Enhanced Security

The HPE Aruba Networking 750 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.

MACsec-capable 10 GbE port extends wired Ethernet protection to the access point.

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

Simplify policy enforcement by using the Policy Enforcement Firewall (PEF) to encapsulate all traffic from the AP to the gateway (or mobility controller) for end-to-end encryption and inspection.

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

AP as an IoT Platform

The HPE Aruba Networking 750 Series Campus Access can serve as flexible IoT platforms that bolsters network security and provide coverage for a broad range of IoT devices without the need for network overlays.

Provides two built-in Bluetooth 5.4 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. Two USB port extensions provide connectivity to a range of IoT devices.

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

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 to help non-Wi-Fi device onboarding and data collection.

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.

Energy Saving and Self-locating

The HPE Aruba Networking 750 Series Campus Access Points help organizations reduce energy consumption and deliver precision indoor location services with the APs that serve as reference points for client devices and other technologies using fine time measurement.

Offer precision locationing with support of FTM 802.11az for sub-1 meter accuracy and built-in GNSS receivers for high-accuracy indoor location measurements.

Built-in barometric sensor for altitude locationing within multi-story buildings provides floor-level mappings.

AI-powered dynamic power save mode enables the HPE Aruba Networking 750 Series Campus APs to automatically wake up at a schedule when connectivity demand arises, reducing power demands and lowering the energy footprint to align with the organization's sustainability initiatives.

Target Wake Time establishes a schedule for when clients need to communicate with an AP to help improve client power savings and reduce airtime contention. Intelligent Power Monitoring provides energy consumption insights as APs continuously monitor and report hardware energy usage.

Technical specifications

HPE Aruba Networking AP-754 (RW) Tri Radio 4x4 Wi-Fi 7 External Antennas Campus Access Point

Product Number	S1G74A
Certifications	Bluetooth SIG; Ethernet Alliance (PoE, PD device, class 6); UL2043 plenum rating; Wi-Fi Alliance (WFA): - Wi-Fi CERTIFIED a, b, g, n, ac, 6, 7 - WPA, WPA2 and WPA3 - Enterprise with CNSA option - Personal (SAE), Enhanced - Open (OWE) - WMM, WMM-PS, W-Fi Agile Multiband - Passpoint (release 2)
Input voltage	PoE-PD: 48Vdc (nominal) 802.3af/at/bt PoE (class 3 or higher); DC power interface: 12Vdc (nominal, +/- 5%), accepts 2.1mm/5.5mm center-positive circular plug with 9.5mm length
Regulatory	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; EN 60601-1-1; EN60601-1-2
Wi-Fi antenna	HPE Aruba Networking AP-754: Two sets of four (female) RP-SMA connectors for external antennas (A0 through A3 corresponding with radio chains 0 through 3 for the 2.4 GHz and 5 GHz radios, and B0 through B3 corresponding with radio chains 0 through 3 for the 6 GHz radio). Worst-case internal loss between radio interface and external antenna connectors: 0.8dB in 2.4 GHz, 1.2dB in 5 GHz, and 1.2dB in 6 GHz. HPE Aruba Networking AP-755: Integrated downtilt omni-directional antennas for 4x4 MIMO with peak antenna gain of 5.1dBi in 2.4 GHz, 5.5dBi in 5 GHz (5.2dBi in dual-5 GHz mode) and 5.3dBi in 6 GHz (5.2dBi in dual-6 GHz mode). Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP. The downtilt angle for maximum gain is roughly 30 to 40 degrees.
Connectivity, standard	Customize with AOS-10; Cloud-native HPE Aruba Networking Wireless Operating System AOS-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.
Ports	E0, E1: Two Ethernet wired network ports (RJ-45); U0, U1: Two USB 2.0 host interface (Type A connector); Kensington security slot; Serial console interface (proprietary, micro-B USB physical jack); Reset button: factory reset, LED mode control (normal/off); Visual indicators (four multi-color LEDs): for System (1x) and Radio (3x) status
Mounting	A mounting bracket has been pre-installed on the back of the AP. This bracket is used to secure the AP to any of the mount kits (sold separately) see the HPE Aruba Networking 750 Series Campus Access Points Ordering Guide for details.

Power consumption	Maximum (worst case) power consumption (without/with USB devices attached): DC powered: 35W/46W: PoE powered: 40W/51W; Notes: This assumes that up to 10W is supplied to the attached USB device(s). Maximum (worst-case) power consumption in idle mode: 14W/25W (DC) or 12W/23W (PoE). Maximum (worst-case) power consumption in deep-sleep mode: 2.4W (DC) or 3.5W (PoE).
Radio coverage	The HPE Aruba Networking 750 Series Campus Access Points are designed to take advantage of the 6 GHz band via three dedicated radios, which translates into far greater speeds, wider channels for multi-gigabit traffic, and less interference. It delivers up to 18.7 Gbps maximum tri-band aggregate data rate, using three 4x4 MIMO radios (2.4 GHz, 5 GHz, and 6 GHz).
Warranty	Limited lifetime warranty: https://www.arubanetworks.com/support-services/product-warranties/

For additional technical information, available models and options, please reference the QuickSpecs

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: arubanetworks.com/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, HPE Aruba Networking Managed Connectivity services, part of the HPE GreenLake services family, simplifies network operations, accelerates equipment handling, and increases the value of your HPE Aruba Networking network. If you need expert guidance and automation-based operations for your team, please explore the NaaS approach from HPE Aruba Networking here.

Make the right purchase decision. Contact our presales specialists.

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