















# PRODUCT LINE MATRIX: 802.11N ACCESS POINTS

## ARUBA 802.11N ACCESS POINT PRODUCT LINE MATRIX

Model	AP-68 and AP-68P	AP-93H	AP-92 and AP-93	AP-104 and AP-105	AP-124 and AP-125	AP-134 and AP-135	AP-175	
Product Class	Indoor Campus	Indoor Campus	Indoor Campus	Indoor Campus	Indoor Campus	Indoor Campus	Outdoor Campus	
Form Factor								
Applications [1]	Description	The multifunction AP-68 and AP-68P[2] are low-cost 802.11n access points (APs) for small, very low-density deployments in offices, hospitals, schools and retail stores. The non-MIMO AP-68 has one 2.4-GHz radio with 100-milliwatt transmit power and two internal antennas while the AP-68P has one 2.4-GHz radio with 500-milliwatt transmit power and an external antenna. Both APs provide WLAN access with part-time air monitoring, dedicated air monitoring for wireless IPS, Remote AP (RAP) functionality or secure enterprise mesh.	The multifunction AP-93H 802.11n access point (AP) mounts to an Ethernet wall outlet and uses the existing cabling system to provide secure wired and Wi-Fi network access in dormitories, classrooms, hotels and multitenant environments. It features a single 2x2 MIMO dual-band 2.4-GHz/5-GHz radio with external antennas. The AP-93H can provide WLAN access with part-time air monitoring for wireless IPS and spectrum analysis, dedicated air monitoring for wireless IPS and spectrum analysis, Remote AP (RAP) functionality or secure enterprise mesh.	The multifunction AP-92 and AP-93 are entry-level indoor 802.11n access points (APs) designed for low-density deployments in offices, hospitals, schools and retail stores. The AP-92 features a single 2x2 MIMO dual-band 2.4-GHz/5-GHz radio with external antennas while the AP-93 features the same radio with internal antennas. Both APs can provide WLAN access with part-time air monitoring for wireless IPS and spectrum analysis, dedicated air monitoring for wireless IPS and spectrum analysis, Remote AP (RAP) functionality or secure enterprise mesh.	The multifunction AP-104 and AP-105 are affordable indoor 802.11n access points (APs) designed for high-density deployments in offices, hospitals, schools and retail stores. The AP-104 features two 2x2 MIMO dual-band 2.4-GHz/5-GHz radios with support for external antennas while the AP-105 features the same radios with internal antennas. Both APs can provide WLAN access with part-time air monitoring for wireless IPS and spectrum analysis, dedicated air monitoring for wireless IPS and spectrum analysis, Remote AP (RAP) functionality or secure enterprise mesh.	The multifunction AP-124 and AP-125 are ultra-high-performance indoor 802.11n access points (APs) designed for maximum deployment flexibility in high-density environments. The AP-124 features two 3x3:2 MIMO radios (2.4GHz / 5GHz) with external antenna interfaces while the AP-125 features the same radios with integrated antenna elements. Both APs can provide WLAN access with part-time air monitoring for wireless IPS and spectrum analysis, dedicated air monitoring for wireless IPS and spectrum analysis, Remote AP (RAP) functionality or secure enterprise mesh.	The two-radio, multifunction AP-134 and AP-135 are ultra-high-performance indoor 802.11n access points (APs) designed for high-density environments. The AP-134 features two 3x3:3 MIMO radios (2.4GHz / 5GHz) with external antenna interfaces while the AP-135 features the same radios with integrated antenna elements. Compared to 3x3:2 and 2x2:2 MIMO radios, AP-134 and 135 radios offer 50% greater aggregate performance. Both APs can provide WLAN access with part-time air monitoring for wireless IPS and spectrum analysis, dedicated air monitoring for wireless IPS and spectrum analysis, Remote AP (RAP) functionality or secure enterprise mesh.	The multifunction AP-175 is an affordable, fully hardened outdoor 802.11n access point (AP) that provides maximum deployment flexibility in high-density campuses, storage yards, warehouses, container/transportation facilities, extreme industrial production areas and other harsh environments. The high-performance AP-175 delivers wire-like performance at data rates up to 300 Mbps per radio
	Campus AP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Remote AP	Yes	Yes	Yes	Yes	Yes (ArubaOS 3.3.2+)	Yes	Yes
	Mesh	Yes	Yes	Yes	Yes	Yes (ArubaOS 3.4+)	Yes	Yes
	Remote Mesh	Yes	Yes	Yes	Yes	Yes (ArubaOS 3.4+)	Yes	Yes
	Air Monitor (AM)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	AP and AM	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spectrum Analysis	No.	Yes. Spectrum analysis (enabled with ArubaOS 6.0+) remotely scans the 2.4-GHz and 5-GHz radio bands to identify sources of RF interference. This provides visibility into non-802.11 RF interference sources and their effect on 802.11 channel quality. Monitors 4.9GHz frequency band when in dedicated Air Monitor (AM) mode.	Yes. Spectrum analysis (enabled with ArubaOS 6.0+) remotely scans the 2.4-GHz and 5-GHz radio bands to identify sources of RF interference. This provides visibility into non-802.11 RF interference sources and their effect on 802.11 channel quality. Monitors 4.9GHz frequency band when in dedicated Air Monitor (AM) mode.	Yes. Spectrum analysis (enabled with ArubaOS 6.0+) remotely scans the 2.4-GHz and 5-GHz radio bands to identify sources of RF interference. This provides visibility into non-802.11 RF interference sources and their effect on 802.11 channel quality. Interference classification, real-time FFT and Spectrograms are not supported on AP-12x series. Monitors 4.9GHz frequency band when in dedicated Air Monitor (AM) mode.	Yes. Spectrum analysis (enabled with ArubaOS 6.0+) remotely scans the 2.4-GHz and 5-GHz radio bands to identify sources of RF interference. This provides visibility into non-802.11 RF interference sources and their effect on 802.11 channel quality.	Yes. Spectrum analysis remotely scans the 2.4-GHz and 5-GHz radio bands to identify sources of RF interference. This provides visibility into non-802.11 RF interference sources and their effect on 802.11 channel quality.	Yes. Spectrum analysis remotely scans the 2.4-GHz and 5-GHz radio bands to identify sources of RF interference. This provides visibility into non-802.11 RF interference sources and their effect on 802.11 channel quality.	

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Model	AP-68 and AP-68P	AP-93H	AP-92 and AP-93	AP-104 and AP-105	AP-124 and AP-125	AP-134 and AP-135	AP-175	
Form Factor								
Number of Radios	Single Radio	Single Radio	Single Radio	Dual Radio <sup>[3]</sup>	Dual Radio <sup>[3]</sup>	Dual Radio <sup>[3]</sup>	Dual Radio <sup>[3]</sup>	
Operating Frequencies	2.400-2.4835 GHz Radio channel availability is centrally managed by the controller, based on configured regulatory domain	2.400-2.4835 GHz 5.150-5.875 GHz Radio channel availability is centrally managed by the controller, based on configured regulatory domain						
DFS Support	Not applicable	Yes (ETSI/EU, MKK/JP), planned (FCC/US)	Yes (ETSI/EU, MKK/JP), planned (FCC/US)	Yes (ETSI/EU, MKK/JP), planned (FCC/US)	Yes	Yes (ETSI/EU, MKK/JP), planned (FCC/US)	Yes (ETSI/EU, MKK/JP), planned (FCC/US)	
RF Management	Adaptive Radio Management (ARM) provides dynamic, application-aware channel management to maximize network capacity and ensure fairness in bandwidth availability per user. Capabilities include adaptive power and channel assignments, coordinated access to a single channel, band steering, channel load balancing, airtime fairness, airtime performance protection and coverage hole detection. In addition, spectrum analysis remotely scans the 2.4-GHz and 5-GHz radio bands to identify sources of RF interference. This provides visibility into non-802.11 RF interference sources and their effect on 802.11 channel quality.							
Number of BSSIDs per radio	Up to 8	Up to 8 (16 possible but not recommended)	Up to 8 (16 possible but not recommended)	Up to 8	Up to 8 (16 possible but not recommended)	Up to 8 (16 possible but not recommended)	Up to 8	
Antennas	AP-68: Integrated, omni-directional antenna elements (supporting receive spatial diversity). Antenna gain: 3 dBi (max) AP-68P (available only in China): RP-SMA interface for external antenna support	Two integrated omni-directional dipole antennas (supporting 2x2 MIMO)	AP-92: Two RP-SMA interfaces for external dual-band antennas (supporting 2x2 MIMO) AP-93: Two integrated omni-directional dual-band antennas (supporting 2x2 MIMO)	AP-104: Four RP-SMA interfaces (2 per band) for external 2.4GHz and 5GHz antennas (supporting 2x2 MIMO) AP-105: Four integrated omni-directional dual-band dipole antennas (supporting 2x2 MIMO)	AP-124: Three RP-SMA interfaces for external dual-band-antennas (supporting 3x3 MIMO) AP-125: Three attached articulating omni-directional dual-band dipole antennas (supporting 3x3 MIMO)	AP-134: Three RP-SMA interfaces for external dual-band antennas (supporting 3x3 MIMO) AP-135: Six integrated omni-directional antennas (supporting 3x3 MIMO)	Four N-type interfaces (two per band) for external 2.4GHz and 5GHz antennas (supporting 2x2 MIMO)	
Network Interfaces	1 x 10/100BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX	1x10/100/1000BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX 4x10/100BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX 1x passive RJ-45 pass-through interface (2 ports)	1x10/100/1000BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX	1x10/100/1000BASE-T Ethernet (RJ45), Auto-sensing link speed and MDI/MDX	2x100/1000BASE-T Ethernet (RJ45), Auto-sensing link speed and MDI/MDX	2x100/1000BASE-T Ethernet (RJ45), Auto-sensing link speed and MDI/DX Supports MACSec encryption, 802.3az (EEE)	1x10/100/1000BASE-T Ethernet (RJ45), Auto-sensing link speed and MDI/MDX	
Other Interfaces	Console interface (RJ-45)	Console Interface (RJ-45)	Console interface (RJ-45)	Console interface (RJ45)	Console interface (RJ45)	Console interface (RJ45)	Console interface (USB)	
Power over Ethernet (PoE) Interfaces	48V DC 802.3af compliant	48V DC 802.3af compliant	48V DC 802.3af compliant	48 V DC 802.3af compliant	48V DC 802.3af or 802.3at or PoE + inter operable with intelli-source PSE sourcing intelligence (both ports)	48V DC 802.3af or 802.3at or PoE+ inter operable with intelli-source PSE sourcing intelligence (both ports)	AP-175P: 802.3at compliant POE input (PD) AP-175AC and DC: 802.3af compliant POE output (PSE)	
DC Power Interfaces	12V, 1.25A	12V, 1.25A	12V, 1.25A	12 V, 1.25 A	5V, 3.2A	12 V, 1.25A	AP-175DC: 12-48 V	
AC Power Interfaces	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	AP-175AC: 100-240 V	
Power Consumption	8 watts (maximum)	9 watts (maximum)	10 watts (maximum)	12.5 watts (maximum)	16 watts (maximum)	15 watts (maximum)	AP-175P: 18 W (maximum)	
Environmental	Class	Indoor	Indoor	Indoor, plenum-rated	Indoor, plenum-rated	Indoor, plenum-rated	Indoor, plenum-rated	Outdoor
	Operating Temperature	0° C to +40° C (+32° F to +104° F)	0° C to +40° C (+32° F to +104° F)	0° C to +50° C (+32° F to +122° F)	0° C to +50° C (+32° F to +122° F)	0° C to +50° C (+32° F to +122° F)	0° C to +50° C (+32° F to +122° F)	AP-175P: -30C to +60C (-22F to +140F) AP-175AC and DC: -40C to +55C (-40F to +131F)
TAA	Planned	Planned	Planned	Planned	No	No	No	
TAA/FIPS (AP HW)	Planned	Planned	Planned	Planned	Yes	No	No	
FIPS (SW)	Planned	Planned	Planned	Planned	ArubaOS 3.3-FIPS	Planned	Planned	
CC-EAL	Planned	Planned	Planned	Planned	Planned	Planned	Planned	

[1] Number in parenthesis indicates minimum ArubaOS version

[2] Available in China only

[3] Concurrent operation of both radios in the same frequency band (2.4 GHz / 5 GHz) is not supported

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Model		AP-68 and AP-68P	AP-93H	AP-92 and AP-93	AP-104 and AP-105	AP-124 and AP-125	AP-134 and AP-135	AP-175
Form Factor								
Part Numbers	Access Points	AP-68 (802.11b/g/n: integrated antennas) AP-68P (available only in China) (high power 802.11b/g/n: antenna connector)	AP-93H (802.11a/n or 802.11b/g/n with integrated antennas, 4-port switch)	AP-92 (802.11a/n or 802.11b/g/n with antenna connectors) AP-93 (802.11a/n or 802.11b/g/n with integrated antennas)	AP-104 (802.11a/n and 802.11b/g/n with antenna connectors) AP-105 (802.11a/n and 802.11b/g/n with integrated antennas)	AP-124 (802.11a/n and 802.11b/g/n, antenna connectors) AP-125 (802.11a/n and 802.11b/g/n, attached antennas)	AP-134 (802.11a/n and 802.11b/g/n, antenna connectors) AP-135 (802.11a/n and 802.11b/g/n, integrated antennas)  Note: units ship with flat ceiling rail mount adapters	AP-175P (POE powered) AP-175AC (AC powered, POE out) AP-175DC (DC powered, POE out)
	Accessories	None	None	AP-90-MNT	AP-105-MNT and AP-105-MNT-DC: Wall-mount cradle brackets AP-105-MNT-C: Ceiling-tile rail adapter	AP-120-MNT (mount kit) AP-120-MNT-WJ (wall jack mounting kit) AP-120-MNT-CV (cover mounting kit)	AP-130-MNT: Wall-mount bracket	AP-LAR-1 (lightning surge arrestor) AINS2KKIT-00 (outdoor installation kit) CBL-AC-NA (Outdoor AC power cable, North America) CBL-AC-INTL (Outdoor AC power cable, International) CBL-DC-WW (Outdoor DC power cable) CKIT-AC-M (weatherproof AC power connector kit) CKIT-DC-M (weatherproof DC power connector kit)
	Attachable Antennas	Not supported	Not supported	AP-92: See <a href="#">Antenna Matrix</a> AP-93: Not supported	AP-104: See <a href="#">Antenna Matrix</a> AP-105: Not supported	AP-124: See <a href="#">Antenna Matrix</a> AP-125: Not supported	AP-134: See <a href="#">Antenna Matrix</a> AP-135: Not supported	See <a href="#">Antenna Matrix</a>
	AC Power Adapters	AP-AC-UN or AP-AC-12V18	AP-AC-UN or AP-AC-12V18	AP-AC-UN or AP-AC-12V18	AP-AC-UN or AP-AC-12V18	AP-AC-xx-2 (xx: country specific version)	AP-AC-UN or AP-AC-12V18	Not applicable
	POE Midspan Injectors	PD-3501-AC	PD-3501G-AC	PD-3501G-AC	PD-3501G-AC	PD-3501G-AC PD-9001G-AC	PD-3501G-AC PD-9001G-AC	PD-9001G-AC PD-9001GO
Product Warranty		1 year parts and labor	Limited lifetime	Limited lifetime	Limited lifetime	Limited lifetime	Limited lifetime	1 year parts and labor
Minimum ArubaOS Version		5.0.3.0	6.1.3.0	5.0.4.2, 6.0.2.1, 6.1.2.0	6.1.3.0 (AP-104) 3.4.1.0 (AP-105)	3.3.1.9	6.1.1.0	5.0.2.1



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