ARUBA AP-120 AND AP-121 ACCESS POINTS

The AP-120 and AP-121 are high-performance, multi-band [802.11a/b/g and 802.11n (3x3 MIMO)] single-radio indoor wireless access points capable of delivering wireless data rates of up to 300Mbps. These multi-function access points provide wireless LAN access, air monitoring, and wireless intrusion detection and prevention over the 2.4GHz and 5GHz RF spectrum. The access points work in conjunction with Aruba's Multi-Service Controllers to deliver high-speed, secure network services.

802.11n enables the use of wireless as a primary connection with speed and reliability comparable to a wired LAN. 802.11n increases performance through techniques such as channel bonding, block acknowledgement, and Multiple In Multiple Out (MIMO). In addition, advanced antenna technology also increases range and reliability.

The AP-120 and AP-121 feature dual 100/1000 Ethernet interfaces and operate from standard 802.3af Power over Ethernet (PoE) sources. The AP-120 features detachable antenna interfaces while the AP-121 features integrated 3x3 MIMO dual-band antenna elements.

The access points are also available in a 802.11a/b/g-only variant that can be converted to full 802.11n support through a software unlock key. This feature allows organizations to prepare for future 802.11n deployments without paying for 802.11n today.

APPLICATION
- High-performance 802.11n enterprise campus or branch office applications, high-performance SecureJack, indoor use.

OPERATING MODE
- Multi-service 802.11a/n or b/g/n WLAN
- 802.11a/b/g/n air monitor
- Hybrid combination of WLAN/AM
- Remote AP
- Configurable to support 802.11n HT 20/40 channels or mixed-mode deployment IEEE 802.11a/b/g/n

RADIOS
- Single Radio - software configurable to support 2.4GHz or 5 GHz

RF MANAGEMENT
- Automatic transmit power and channel management control with auto coverage hole correction via Adaptive Radio Management (ARM)

ADVANCED FEATURES
- Remote AP capable with addition of ArubaOS RAP license
- Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys
- SecureJack capable for secure tunneling of wired Ethernet traffic

ANTENNA
- AP-120: Three RP-SMA interfaces for external antenna support (supports up to 3x3 MIMO with spatial diversity)
- AP-121: Integral, Tri, Omni-directional multi-band dipole antenna elements (supports up to 3x3 MIMO with spatial diversity)
- AP-121 Antenna Max Gain:
  - 2.4-2.5 GHz / 3.2 dBi
  - 5.150-5.875 GHz / 5.2 dBi

WIRELESS RADIO SPECIFICATIONS
- AP type: 3x3 Multiple-In, Multiple-Out (MIMO)
- Supported Frequency Bands (country-specific restrictions apply):
  - 2.400 - 2.4835 GHz
  - 5.150 - 5.250 GHz
  - 5.250 - 5.350 GHz
  - 5.470 - 5.725 GHz
  - 5.725 - 5.850 GHz
- Available Channels: Controller-managed, dependent upon configured regulatory domain
- Supported Radio Technologies:
  - 802.11b: Direct-Sequence Spread-Spectrum (DSSS)
  - 802.11a/g/n: Orthogonal Frequency Division Multiplexing (OFDM)
  - 802.11n: 2x2 MIMO with 2 spatial streams
- Supported Modulation Types:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Transmit Power: Configurable in increments of 0.5 dBm
- Maximum Ratio Combining (MRC) for improved receiver performance
- Association Rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: MCS0 - MCS15 (6.5Mbps - 300Mbps)
- 802.11n High-Throughput (HT) Support: HT 20/40
- 802.11n Packet Aggregation: A-MPDU, A-MSDU

POWER
- 48 V DC 802.3af or 802.3at or PoE+
- 5 V DC for external AC supplied power (adapter sold separately)
- Maximum power consumption: 12 Watts

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INTERFACES
- Network:
    - 2 x 100/1000Base-T Ethernet (RJ45), Auto-sensing link speed and MDI/MDX
    - 48 V DC 802.3af or 802.3at or PoE+ interoperable Power-over-Ethernet (PoE) (both ports)
- Antenna (model AP-120 only):
    - 3 x RP-SMA antenna interfaces (supports up to 3x3 MIMO with spatial diversity)
- Other:
    - 1 x RJ-45 console interface

MOUNTING
- Standard:
    - Wall
    - Tool-less ceiling tile rail (15/16")
- Optional mounting kit:
    - Desk Stand & Wall Outlet Mount Plate
    - Solid wall stand-off
    - Ceiling tile rail (15/16" & 9/16" recessed or non-recessed)
- Security:
    - Kensington security lock point (AP-121 only)

MECHANICAL
- Dimensions / Weight:
    - 4.9" x 5.13" x 2.0" (124 mm x 130 mm x 51 mm)
    - 15 oz (0.42 Kgs)

ENVIRONMENTAL
- Operating:
    - Temp: 0° to 50° C (32° to 122° F)
    - Humidity: 5 to 95% non-condensing
- Storage and Transportation Temperature Range:
    - Temp: -40° to +70° C (-40° to +158° F)

REGULATORY
- FCC Part 15
- Industry of Canada
- MIC
- Anatel
- NOM/COFETEL
- SRRC / CCC
- GS Mark
- CE Mark
- R&TTE Directive - 1995/5/EC
- Low Voltage Directive - 72/23/EEC
- EN 300 328
- EN 301 893
- EN 301 489
- UL/IEC/EN 60950-1:2001
- CB, cULus
- AS/NZS 4268, 4771
- UL2043 Compliant

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

CERTIFICATIONS
- Wi-Fi certified: 802.11a/b/g/n

WARRANTY
- Limited lifetime warranty

ORDERING INFORMATION

Part number	Description
AP-120	Aruba 120 AP (802.11a/n or b/g/n only)
AP-120abg	Aruba 120 AP (802.11a or b/g only, n upgradeable)
AP-121	Aruba 121 AP (802.11a/n or b/g/n only)
AP-121abg	Aruba 121 AP (802.11a or b/g only, n upgradeable)
LIC-xx-AP120	AP-120abg Access Point 802.11n upgrade license for xx APs (8, 16, 32, 64, 128, 256, and 512)
LIC-xx-AP121	AP-121abg Access Point 802.11n upgrade license for xx APs (8, 16, 32, 64, 128, 256, and 512)
AP-AC-NA-2	AC Power Adapter Kit - North America
AP-AC-JPN-2	AC Power Adapter Kit - Japan
AP-AC-UK-2	AC Power Adapter Kit - United Kingdom
AP-AC-IT-2	AC Power Adapter Kit - Italy
AP-AC-EC-2	AC Power Adapter Kit - Schuko
AP-AC-AUS-2	AC Power Adapter Kit - Australia
AP-AC-LA-2	AC Power Adapter Kit - North America 2 Prong Version
AP-AC-CHN-2	AC Power Adapter Kit - China
AP-AC-IN-2	AC Power Adapter Kit - India
AP-AC-KOR-2	AC Power Adapter Kit - Korea
AP-120-MNT	Aruba 120 Family Wireless Access Point Desktop/Wall / Ceiling Mounting Kit
AP-120-MNT-WJ	Mounting hardware kit and product enclosure to facilitate secure wall or ceiling mounting of an Aruba AP-121 or AP-125 access point to a standard North American or BS telecom/data port wall gang box, or to a 15/16" or 9/16" ceiling tile rail.
AP-120-MNT-CV	Cabling cover mounting kit to to facilitate tamper - proof mounting of an Aruba AP-121 or AP-125 access point.
AP-ANT-xx	Detachable antennas (for use with AP-120 only)

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RF PERFORMANCE TABLE

	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)
802.11b 2.4GHz		
1Mbps	+18.0	-93.0
2Mbps	+18.0	-91.0
5.5Mbps	+18.0	-90.0
11Mbps	+18.0	-88.0
802.11g 2.4GHz		
6Mbps	+17.0	-92.0
9Mbps	+17.0	-92.0
12Mbps	+17.0	-92.0
18Mbps	+17.0	-91.0
24Mbps	+17.0	-88.0
36Mbps	+17.0	-85.0
48Mbps	+16.0	-81.0
54Mbps	+13.0	-79.0
802.11a 5GHz		
6Mbps	+17.0	-91.0
9Mbps	+17.0	-91.0
12Mbps	+17.0	-91.0
18Mbps	+17.0	-90.0
24Mbps	+17.0	-87.0
36Mbps	+16.0	-83.0
48Mbps	+15.0	-79.0
54Mbps	+13.0	-77.0
802.11n 2.4GHz		
MCS0 HT20	+18.0	-92.0
MCS1 HT20	+18.0	-91.0
MCS2 HT20	+18.0	-89.0
MCS3 HT20	+18.0	-85.0
MCS4 HT20	+18.0	-82.0
MCS5 HT20	+17.0	-78.0
MCS6 HT20	+13.0	-76.0
MCS7 HT20	+11.0	-75.0
MCS8 HT40	+18.0	-87.0
MCS9 HT40	+18.0	-85.0
MCS10 HT40	+18.0	-82.0
MCS11 HT40	+18.0	-82.0
MCS12 HT40	+18.0	-76.0
MCS13 HT40	+17.0	-72.0
MCS14 HT40	+13.0	-70.0
MCS15 HT40	+11.0	-69.0
802.11n 5GHz		
MCS0 HT20	+17.0	-91.0
MCS1 HT20	+17.0	-89.0
MCS2 HT20	+17.0	-87.0
MCS3 HT20	+17.0	-84.0
MCS4 HT20	+17.0	-80.0
MCS5 HT20	+17.0	-76.0
MCS6 HT20	+13.0	-74.0
MCS7 HT20	+12.0	-72.0
MCS8 HT40	+17.0	-86.0
MCS9 HT40	+17.0	-83.0
MCS10 HT40	+17.0	-81.0
MCS11 HT40	+17.0	-78.0
MCS12 HT40	+17.0	-75.0
MCS13 HT40	+17.0	-70.0
MCS14 HT40	+13.0	-68.0
MCS15 HT40	+12.0	-65.0

Maximum capability of the hardware provided. Maximum transmit power will be limited by local regulatory settings.

ARUBA networks

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