



## ARUBA AP-105 ACCESS POINT

The AP-105 is a high-speed, affordable, and reliable 802.11n access point for indoor environments. Designed for both ceiling and wall mounting, the compact AP-105 delivers wire-like performance at data rates up to 300Mbps per radio. The AP-105 is built to deliver years of trouble-free operation and is backed by Aruba's limited lifetime warranty program.

Working in conjunction with the Aruba 600, 3000, and 6000 series of centralized controllers, the AP-105 delivers high-speed, secure network services that let users finally move to a "wireless where possible, wired where necessary" network access model. The network can then be *rightsized*, with unnecessary ports eliminated to lower operating costs. The key to rightsizing is Aruba's unique Adaptive Radio Management technology, which manages channel, power, and wireless client behavior to deliver wire-like performance and reliability. By rightsizing network infrastructure, organizations significantly enhance user mobility and efficiency while lowering total cost of ownership.

The multifunction AP-105 can be configured through the controller to provide wireless LAN access, air monitoring, remote networking, secure enterprise mesh, and wireless intrusion detection and prevention over the 2.4GHz and 5GHz RF spectrum. The AP-105 features a 100/1000Base-T Ethernet interface and operates from either standard 802.3af Power over Ethernet (PoE) sources or a 12VDC power supply.



### APPLICATION

- High-performance 802.11n enterprise campus or branch office applications, indoor use, concurrent dual-band operation

### OPERATING MODE

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

### RADIOS

- Dual Radio - software configurable, supporting 2.4GHz + 5GHz
- Both radios 802.11n capable, implementing 2x2 MIMO with 2 spatial streams, providing up to 300Mbps per radio

### 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

### POWER

- 48 V DC 802.3af Power over Ethernet
- 12 V DC for external AC supplied power (adapter sold separately)
- Maximum power consumption: 12.5 Watts

### WIRELESS RADIO SPECIFICATIONS

- AP type: 2x2 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

### ANTENNA

- 4 x integrated, omni-directional antenna elements (supporting up to 2x2 MIMO with spatial diversity)
- Maximum antenna gain:
  - 2.4 GHz / 2.5 dBi
  - 5.150 GHz - 5.875 GHz / 4.0 dBi

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## INTERFACES

- Network:
  - 1 x 100/1000Base-T Ethernet (RJ45), Auto-sensing link speed and MDI/MDX
- Power:
  - 1 x DC power connector
- 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 mount bracket
  - Wall box mount bracket (fits standard US single gang wall boxes)
  - Ceiling tile rail adapters (15/16" & 9/16" recessed or non-recessed)

## MECHANICAL

- Dimensions / Weight (unit):
  - 5.2" x 5.3" x 1.8" (132 mm x 135 mm x 45 mm)
  - 10.56 oz (0.3 kg)
- Dimensions / Weight (shipping):
  - 7.7" x 6.7" x 2.2" (195 mm x 170 mm x 55 mm)
  - 15.52 oz (0.44 kg)

## 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/Industry of Canada
- R&TTE Directive 1995/5/EC
- EN 300 328
- EN 301 893
- CB Scheme Safety, cTUVus
- Korea KCC
- Mexico NOM/COFETEL
- UL2043 Compliant
- CE Marked
- Low Voltage Directive 72/23/EEC
- EN 301 489
- UL/IEC/EN 60950
- Japan MIC/VCCI
- Brazil ANATEL
- China SRRC/CCC

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-105	Aruba 105 AP (802.11a/n and b/g/n)
AP-AC-UN	Aruba 12VDC Universal AC Power Adapter Kit - North America, Japan, United Kingdom, Italy, EC (Schuko), Australia, China, India, Korea
AP-105-MNT	Aruba 105 Access Point Wall/Ceiling Mounting Kit

## RF PERFORMANCE TABLE

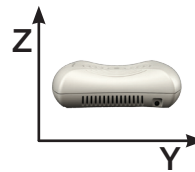
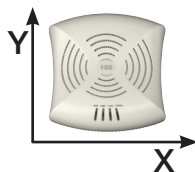
	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm) 2.4GHz	RX Sensitivity (dBm) 5GHz
<b>802.11b</b>			
1Mbps	+20.0	-96.0	
2Mbps	+20.0	-96.0	
5.5Mbps	+20.0	-94.0	
11Mbps	+20.0	-93.0	
<b>802.11a/g</b>			
6Mbps	+20.0	-96.0	-96.0
9Mbps	+20.0	-96.0	-96.0
12Mbps	+20.0	-96.0	-96.0
18Mbps	+20.0	-95.0	-95.0
24Mbps	+20.0	-92.0	-91.0
36Mbps	+19.0	-89.0	-88.0
48Mbps	+18.0	-85.0	-84.0
54Mbps	+17.0	-83.0	-83.0
<b>802.11n (HT20)</b>			
MCS0	+20.0	-96.0	-96.0
MCS1	+20.0	-95.0	-94.0
MCS2	+20.0	-93.0	-92.0
MCS3	+20.0	-90.0	-89.0
MCS4	+19.0	-87.0	-86.0
MCS5	+18.0	-82.0	-82.0
MCS6	+17.0	-81.0	-80.0
MCS7	+15.0	-80.0	-79.0
MCS8	+20.0	-95.0	-95.0
MCS9	+20.0	-93.0	-92.0
MCS10	+20.0	-91.0	-90.0
MCS11	+20.0	-87.0	-87.0
MCS12	+19.0	-84.0	-84.0
MCS13	+18.0	-81.0	-80.0
MCS14	+17.0	-80.0	-78.0
MCS15	+15.0	-77.0	-77.0

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

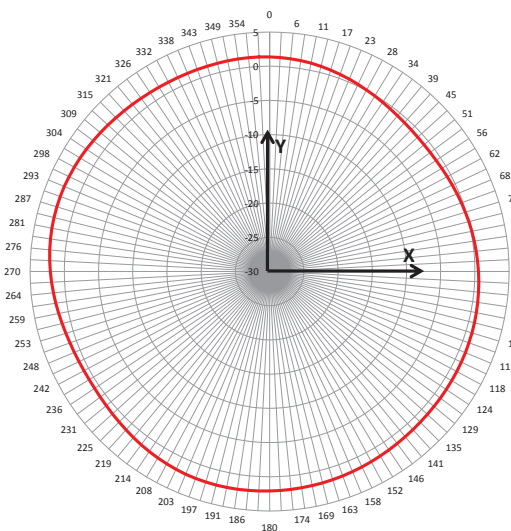


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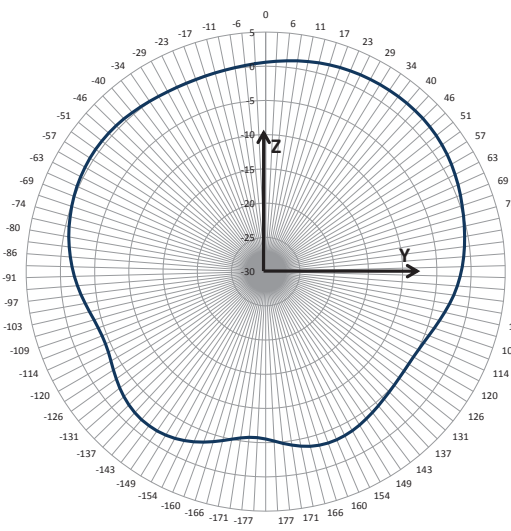
## ANTENNA PLOTS



2.45 GHz

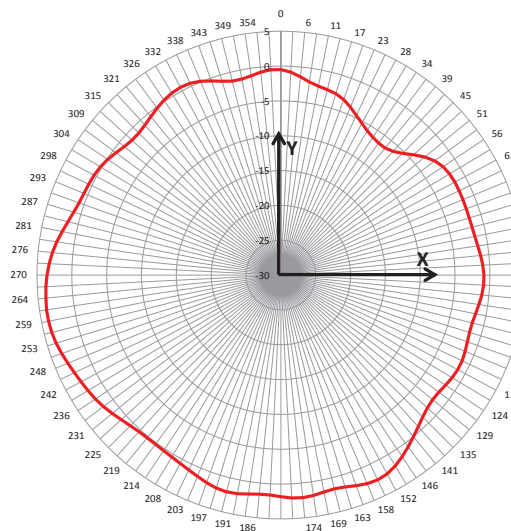


H-Plane

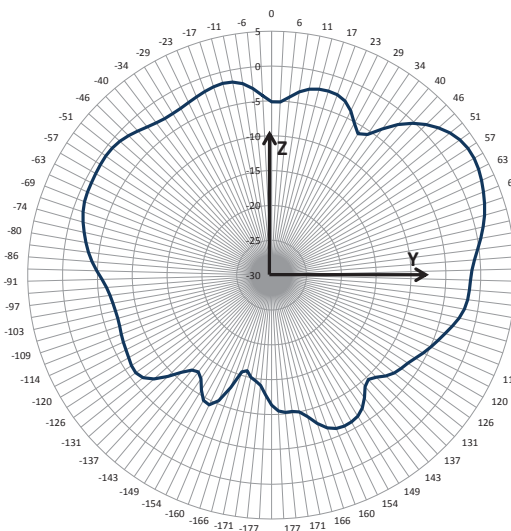


E-Plane

5.5 GHz



H-Plane



E-Plane



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