

ARUBA INSTANT

Creates a Feature-Rich, Enterprise-Grade Wireless LAN



Aruba Instant™ virtualizes Aruba Mobility Controller capabilities on 802.11n access points (APs), creating a feature-rich enterprise-grade wireless LAN (WLAN) that delivers the affordability and configuration simplicity of an entry-level Wi-Fi network.

Offering impressive scalability, Aruba Instant can be installed at a single site or deployed across multiple geographically-dispersed locations. A group of up to 16 Aruba Instant APs can be managed by a single AP designated as a Virtual Controller. Multiple Virtual Controller networks can be centrally managed with the Aruba AirWave™ management system.

Aruba Instant includes the entry-level IAP-92 and IAP-93, which provide low-density WLAN access in offices, hospitals, schools and retail stores. The IAP-92 features a single 2x2 MIMO dual-band 2.4- or 5-GHz radio with external antennas while the IAP-93 offers the same features with internal antennas.

The IAP-105 provides affordable, high-density WLAN access for server and device deployments in offices, hospitals, schools, retail stores and warehouses. The IAP-105 features two 2x2 MIMO dual-band 2.4- or 5-GHz radios with two internal omni-directional antennas.

VIRTUAL CONTROLLER TECHNOLOGY

The Virtual Controller technology in Aruba Instant delivers enterprise-grade capabilities such as automatic quality of service (QoS), 802.1X authentication, role- and device-based policy enforcement, rogue containment and Adaptive Radio Management (ARM), which optimizes Wi-Fi client behavior by making sure that APs stay clear of RF interference.

EASE OF DEPLOYMENT

Aruba Instant is up and running in minutes. From a laptop, simply connect wirelessly to an SSID to perform over-the-air provisioning in minutes. To expand wireless coverage, simply install more Aruba Instant APs – configurations are automatically distributed from the Virtual Controller.

MANAGEMENT AND VISIBILITY

Multiple Aruba Instant networks can be securely and centrally managed by AirWave, allowing Aruba Instant to operate in hundreds of distributed locations. With AirWave, IT has real-time visibility into users, mobile devices, and the wired and wireless infrastructure from a single management console.

The multifunction Aruba Instant can be configured to provide WLAN access with part-time air monitoring, dedicated air monitoring for wireless IPS and spectrum analysis or secure enterprise mesh functionality.

INVESTMENT PROTECTION

As application and WLAN requirements change over time, Aruba Instant can migrate to a centralized Mobility Controller architecture that supports up to 2,048 APs.

APPLICATION

- Cost-effective indoor 802.11n single- or dual-radio, dual-band APs for medium- to high-density deployments.

OPERATING MODE

- 802.11a/b/g/n AP
- Spectrum monitor
- Air monitor (AM)

RADIOS

- Software-configurable single/dual radio capable of supporting 2.4 GHz and 5 GHz
- Dual radio 802.11n-capable (IAP-105 only), implementing 2x2 MIMO with two spatial streams, providing up to 300 Mbps data rate per radio

RF MANAGEMENT

- Automatic transmit power and channel management control with auto coverage-hole correction via Adaptive Radio Management (ARM)
- 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 802.11n channel quality.

ADVANCED FEATURES

- Wireless intrusion detection and prevention
- Secure enterprise mesh
- Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys
- RADIUS support
- Bandwidth limiting

WIRELESS RADIO SPECIFICATIONS

- AP type: Single-radio / Dual-radio, dual-band 802.11n indoor
- Supported frequency bands (country-specific restrictions apply):
 - 2.400 to 2.4835 GHz
 - 5.150 to 5.250 GHz
 - 5.250 to 5.350 GHz
 - 5.470 to 5.725 GHz
 - 5.725 to 5.850 GHz
- Available channels: 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 transmit power:
 - 2.4GHz: 23 dBm (limited by local regulatory requirements)
 - 5 GHz: 23 dBm (limited by local regulatory requirements)
- 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 (6.5 Mbps - 300 Mbps)
- 802.11n high-throughput (HT) Support: HT 20/40
- 802.11n packet aggregation: A-MPDU, A-MSDU

POWER

- 48 V DC 802.3af power over Ethernet
- 12 V DC for external AC supplied power (adapter sold separately)
- Maximum power consumption:
 - IAP-92/93: 10 watts
 - IAP-105: 12.5 watts

ANTENNA

- IAP-92: dual, RP-SMA interfaces for external antenna support
- IAP-93: integrated, omni-directional antenna elements (supporting up to 2x2 MIMO with spatial diversity)
 - 2.4 GHz/2.5 dBi
 - 5 GHz/5.8 dBi
- IAP-105: 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 to 5.875 GHz/4.0 dBi

INTERFACES

- Network:
 - 1 x 10/100/1000BASE-T Ethernet (RJ-45), 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")
- Mounting kit:
 - Desk stand and 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):
 - IAP-92/93: 120 mm x 130 mm x 35 mm (4.7" x 5.1" x 1.4")
255 g (9 oz)
 - IAP-105: 132 mm x 135 mm x 45 mm (5.2" x 5.3" x 1.8")
0.30 kg (10.56 oz)
- Dimensions/weight (shipping):
 - IAP-92/93: 180 mm x 155 mm x 45 mm (7.1" x 6.1" x 1.8")
375 g (13.2 oz)
 - IAP-105: 195 mm x 170 mm x 55 mm (7.7" x 6.7" x 2.2")
0.44 kg (15.52 oz)

ENVIRONMENTAL

- Operating:
 - Temp: 0° C to 50° C (+32° F to +122° F)
 - Humidity: 5% to 95% non-condensing
- Storage and transportation temperature range:
 - Temp: -40° C to +70° C (-40° F to +158° F)

REGULATORY

- FCC/Industry of Canada
- R&TTE Directive 1995/5/EC 72/23/EECC
- EN 300 328
- EN 301 893
- CB Scheme Safety, cTUVus
- Korea KCC
- Mexico NOM/COFETEL
- UL2043 Compliant

WARRANTY

- Limited lifetime warranty

CERTIFICATIONS

- Wi-Fi certified 802.11a/b/g/n pending



Ordering Information

Part Number	Description
IAP-92	Aruba Instant 92 AP (802.11a/n or 802.11b/g/n: antenna connectors)
IAP-93	Aruba Instant 93 AP (802.11a/n or 802.11b/g/n: integrated antenna)
AP-90-MNT	Aruba 90 Series Access Point Mounting Kit
IAP-105	Aruba Instant 105 AP (802.11a/n and 802.11b/g/n)
AP-105-MNT	Aruba 105 Access Point Mounting Kit for flat surfaces or wall boxes (note: covers DC power interface)
AP-105-MNT-C	Aruba 105 Access Point Ceiling Mounting Kit (rail adapters)
AP-105-MNT-DC	Aruba 105 Access Point Mounting Kit for flat surfaces or wall boxes (leaves DC power interface exposed)
AP-AC-UN	Aruba 12 V DC Universal AC Power Adapter Kit – North America, Japan, United Kingdom, Italy, EC (Schuko), Australia, China, India, Korea

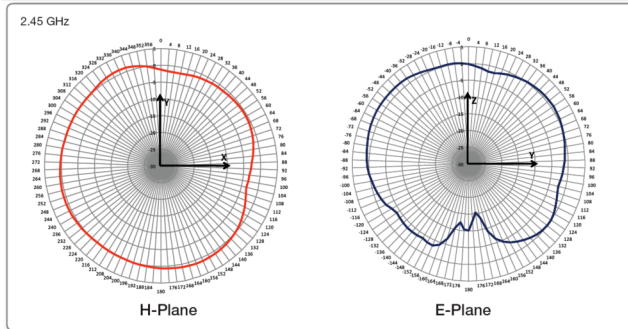
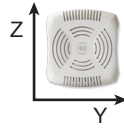
For more country-specific regulatory information, and approvals, please see your Aruba representative.

	IAP-92/IAP-93				IAP-105			
	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)
	2.4 GHz		5 GHz		2.4 GHz		5 GHz	
802.11b								
1Mbps	18	-96			20	-96		
2Mbps	18	-96			20	-96		
5.5Mbps	18	-94			20	-94		
11Mbps	18	-93			20	-93		
802.11a/g								
6Mbps	18	-93	18	-93	20	-96	20	-96
9Mbps	18	-93	18	-93	20	-96	20	-96
12Mbps	18	-87	18	-87	20	-96	20	-96
18Mbps	18	-87	18	-87	20	-95	20	-95
24Mbps	18	-85	18	-85	20	-92	20	-91
36Mbps	15	-82	15	-82	19	-89	19	-88
48Mbps	14	-80	14	-80	18	-85	18	-84
54Mbps	14	-80	14	-80	17	-83	17	-83
802.11n HT20								
MCS0	18	-93	18	-93	20	-96	20	-96
MCS1	17	-93	17	-93	20	-95	20	-94
MCS2	17	-87	17	-87	20	-93	20	-92
MCS3	16	-87	16	-87	20	-90	20	-89
MCS4	16	-83	16	-83	19	-87	19	-86
MCS5	15	-80	15	-80	18	-82	18	-82
MCS6	14	-77	14	-77	17	-81	17	-80
MCS7	13	-75	13	-75	15	-80	15	-79
MCS8	18	-93	18	-93	20	-95	20	-95
MCS9	17	-93	17	-93	20	-93	20	-92
MCS10	17	-87	17	-87	20	-91	20	-90
MCS11	16	-87	16	-87	20	-87	20	-87
MCS12	16	-83	16	-83	19	-84	19	-84
MCS13	15	-80	15	-80	18	-81	18	-80
MCS14	14	-77	14	-77	17	-80	17	-78
MCS15	13	-75	13	-75	15	-77	15	-77
802.11n HT40								
MCS0	18	-90	18	-90	20	-93	20	-92
MCS1	17	-90	17	-90	20	-93	20	-92
MCS2	17	-87	17	-87	20	-90	20	-89
MCS3	16	-84	16	-84	20	-86	20	-86
MCS4	16	-80	16	-80	19	-83	19	-83
MCS5	15	-77	15	-77	18	-79	18	-80
MCS6	14	-77	14	-77	17	-77	17	-77
MCS7	13	-73	13	-73	15	-76	15	-76
MCS8	18	-90	18	-90	20	-92	20	-92
MCS9	17	-90	17	-90	20	-89	20	-90
MCS10	17	-87	17	-87	20	-87	20	-87
MCS11	16	-84	16	-84	20	-84	20	-84
MCS12	16	-80	16	-80	19	-82	19	-81
MCS13	15	-77	15	-77	18	-76	18	-77
MCS14	14	-77	14	-77	17	-76	17	-75
MCS15	13	-73	13	-73	15	-73	15	-73

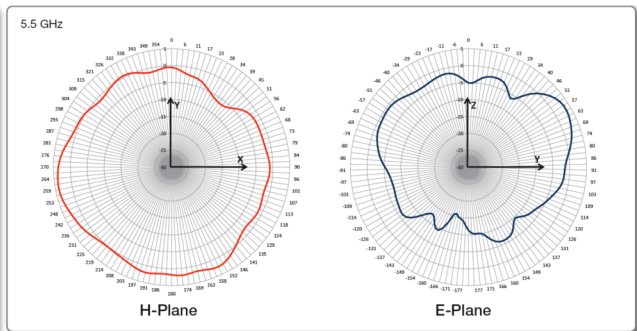
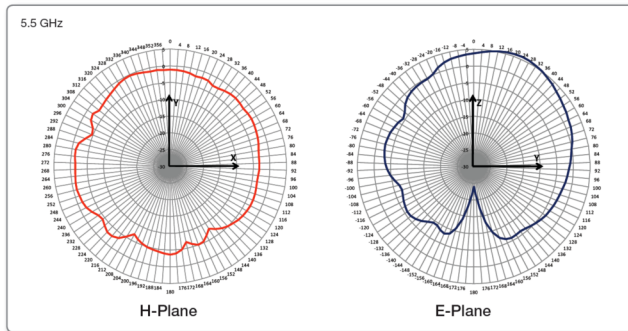
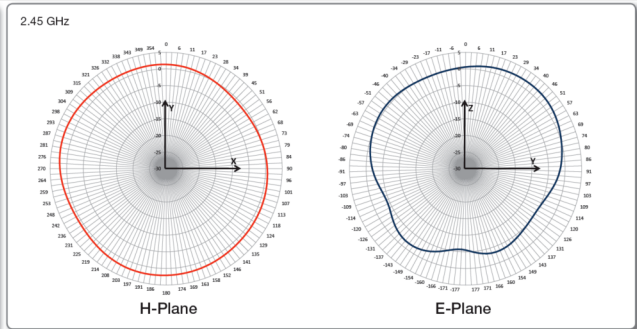
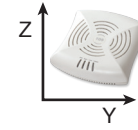
Maximum capability of the hardware provided. Maximum transmit power will be limited by local regulatory settings.

ANTENNA PLOTS

IAP-92/IAP-93



IAP-105



www.arubanetworks.com

1344 Crossman Avenue, Sunnyvale, CA 94089

1-866-55-ARUBA | Tel. +1 408.227.4500 | Fax. +1 408.227.4550 | info@arubanetworks.com