

ARUBA INSTANT IAP-92 AND IAP-93 ACCESS POINTS

For low-density Wi-Fi client environments



The IAP-92 and IAP-93 virtualize Aruba Mobility Controller functionality to create a feature-rich, enterprise-grade wireless LAN (WLAN) that combines affordability with unmatched configuration simplicity.

Deployed at a single location or at multiple sites, the IAP-92 and IAP-93 maximize mobile device performance in low-density Wi-Fi client environments.

Multiple Aruba Instant APs can be managed by a single AP that is dynamically elected the Virtual Controller, and multiple Virtual Controller networks can be centrally managed with the Aruba AirWave™ network management system.

The IAP-92 features one 2x2 MIMO dual-band 2.4-GHz or 5-GHz radio with external antenna connectors, while the IAP-93 features the same radio with internal antennas. Both provide years of trouble-free operation and are backed by a limited lifetime warranty.

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.

EASY TO DEPLOY

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.

HIGH AVAILABILITY

Aruba Instant employs a fully distributed architecture and is resilient to failure. If an Aruba Instant AP functioning as the primary Virtual Controller fails, another Aruba Instant AP automatically

inherits the role of the primary Virtual Controller with no service disruption. The primary Virtual Controller operates like any other Aruba Instant AP with full WLAN functionality.

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 secure enterprise mesh functionality.

INVESTMENT PROTECTION

As application and WLAN requirements change over time, Aruba Instant can migrate to a centralized Mobility Controller architecture.

OPERATING MODES

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

RADIOS

- Software-configurable single radio capable of supporting 2.4 GHz or 5 GHz
- 2x2 MIMO with two spatial streams and up to 300 Mbps data rate

RF MANAGEMENT

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

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

INTERNET-WIDE SECURITY

With an OpenDNS service subscription, Aruba Instant delivers integrated web filtering, malware and botnet protection to every device connected to the WLAN.

WIRELESS RADIO SPECIFICATIONS

- AP type: Single-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 two 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:
 - 2.4 GHz: 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-MCS15/6.5-300 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: 10 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

INTERFACES

- Network: One 10/100/1000BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
- Power: One DC power connector
- Other: One 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" and 9/16" recessed or non-recessed)
- Optional mounting kit: Wall-mount bracket for offset wall mounting, providing spacing between wall and unit (cable bend radius)
- Security: Kensington security lock point

MECHANICAL

- Dimensions/weight (unit):
 - 120 mm x 130 mm x 35 mm (4.7" x 5.1" x 1.4")
 - 255 g (9 oz)
- Dimensions/weight (shipping):
 - 180 mm x 155 mm x 45 mm (7.1" x 6.1" x 1.8")
 - 375 g (13.2 oz)

ENVIRONMENTAL

- Operating:
 - Temp: 0° C to 50° C (+32° F to +122° F)
 - Humidity: 5% to 95% non-condensing
- Storage and transportation:
 - 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
- CE Marked
- Low Voltage Directive
- EN 301 489
- UL/IEC/EN 60950
- Japan MIC/VCCI
- Brazil ANATEL
- China SRRC/CCC
- AS/NZS 4260, 4771, 3548

WARRANTY

- Limited lifetime warranty

CERTIFICATIONS

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

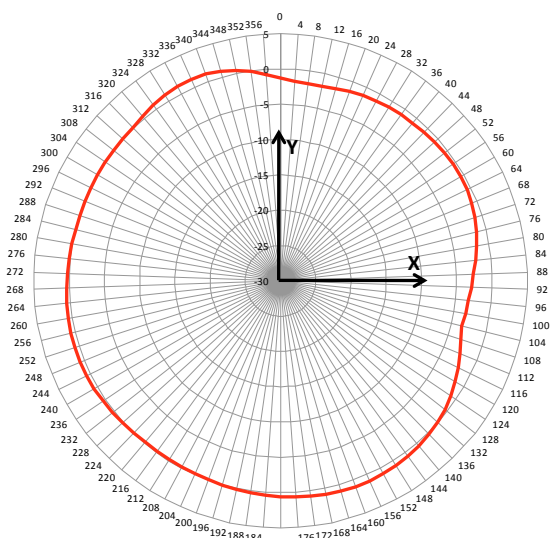
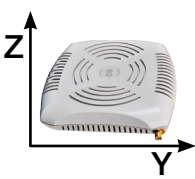


IAP-93 RF PERFORMANCE TABLE

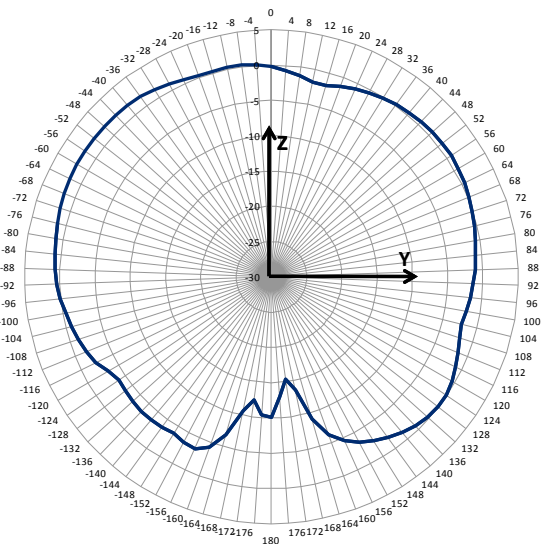
	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)	Max TX power per active TX chain (dBm)	RX Sensitivity (dBm)
	2.4 GHz		5 GHz	
802.11b				
1Mbps	18	-96		
2Mbps	18	-96		
5.5Mbps	18	-94		
11Mbps	18	-93		
802.11a/g				
6Mbps	18	-93	18	-93
9Mbps	18	-93	18	-93
12Mbps	18	-87	18	-87
18Mbps	18	-87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

Maximum capability of the hardware provided. Maximum transmit power will be limited by local regulatory settings.
 RF performance numbers for IAP-92 are slightly lower due to additional internal RF circuitry.

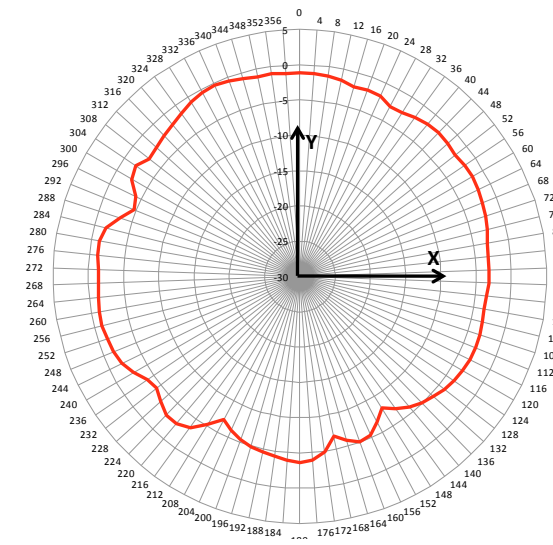
ANTENNA PLOTS



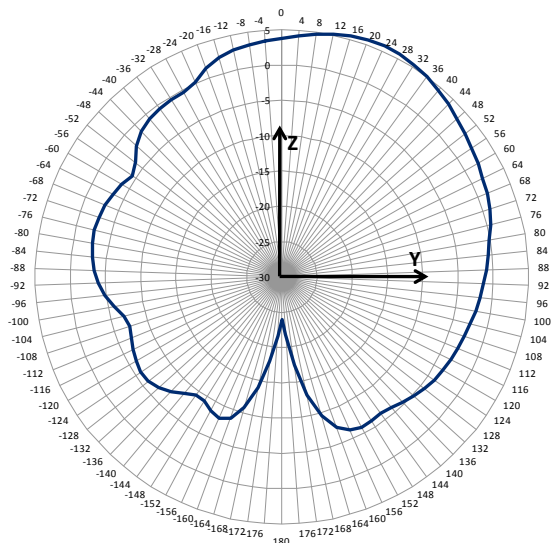
H-plane – 2.45 GHz



E-plane – 2.45 GHz



H-plane – 5.5 GHz



E-plane – 5.5 GHz

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
AP-AC-UN	Aruba 12 V DC universal AC power adapter kit – North America, Japan, United Kingdom, Italy, EC (Europlug), Australia, China, India, Korea

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



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