DATA SHEET

Aruba Instant

ARUBA INSTANT

Aruba Instant™ virtualizes Aruba Mobility Controller capabilities on 802.11n access points (AP), creating a feature-rich enterprise-grade wireless LAN (WLAN) that delivers the affordability and 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. Up to 16 Aruba Instant APs can be controlled by a single AP that automatically becomes a primary Virtual Controller. In the event of primary Virtual Controller failure, another Aruba Instant AP automatically takes on the role with no disruption.

The Aruba Instant product family consists of three access points – the Aruba IAP-105, IAP-92 and the IAP-93. The IAP-105 features two 2x2 MIMO dual-band 2.4- and 5-GHz radios with two internal omni-directional antennas. 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.

Virtual Controller Technology

The Virtual Controller technology in Aruba Instant delivers enterprise-grade capabilities such as AP auto discovery, 802.1X authentication, role- and device-based policy enforcement, rogue detection 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 three easy steps. To expand, just install more Aruba Instant APs – configurations are automatically uploaded from the designated Virtual Controller.

Management and Visibility

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

Investment Protection

As WLAN requirements expand, Aruba Instant can be re-imaged as an 802.11n campus AP and migrate to a centralized Mobility Controller architecture that supports up to 2,048 APs. In addition to providing WLAN access, APs in a centralized, controller architecture can provide wireless intrusion protection and powerful spectrum analysis capabilities.

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

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)

ADVANCED FEATURES

- Wireless intrusion detection
- Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys

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 (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")
- Mounting kit:
  - 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") 0.26 kg (9 oz)
  - IAP-105: 132 mm x 135 mm x 45 mm (5.2" x 5.3" x 1.8") 0.30 kg (10.6 oz)
- Dimensions/weight (shipping):
  - IAP-92/93: 180 mm x 155 mm x 45 mm (7.1" x 6.1" x 1.8") 0.37 kg (13.2 oz)
  - IAP-105: 195 mm x 170 mm x 55 mm (7.7" x 6.7" x 2.2") 0.44 kg (15.5 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/EEC
- 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

WARRANTY

- Limited lifetime warranty

CERTIFICATIONS

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

ORDERING INFORMATION

Part Number	Description
ARUBA INSTANT ACCESS POINTS	
IAP-92	Aruba Instant 92 Wireless Access Point, 802.11abgn, dual-band, single radio, antenna connectors. Unrestricted Regulatory Domain. These products should be considered as 'Rest of World' products and MUST NOT be used for deployments in the United States, Japan or Israel
IAP-92-US	Aruba Instant 92 Wireless Access Point, 802.11abgn, dual-band, single radio, antenna connectors. Restricted Regulatory Domain - US
IAP-92-IL	Aruba Instant 92 Wireless Access Point, 802.11abgn, dual-band, single radio, antenna connectors. Restricted Regulatory Domain - IL
IAP-92-JP	Aruba Instant 92 Wireless Access Point, 802.11abgn, dual-band, single radio, antenna connectors. Restricted Regulatory Domain - JP
IAP-93	Aruba Instant 93 Wireless Access Point, 802.11abgn, dual-band, single radio, integrated antennas. Unrestricted Regulatory Domain. These products should be considered as 'Rest of World' products and MUST NOT be used for deployments in the United States, Japan or Israel
IAP-93-US	Aruba Instant 93 Wireless Access Point, 802.11abgn, dual-band, single radio, integrated antennas. Restricted Regulatory Domain - US
IAP-93-IL	Aruba Instant 93 Wireless Access Point, 802.11abgn, dual-band, single radio, integrated antennas. Restricted Regulatory Domain - IL
IAP-93-JP	Aruba Instant 93 Wireless Access Point, 802.11abgn, dual-band, single radio, integrated antennas. Restricted Regulatory Domain - JP
IAP-105	Aruba Instant 105 Wireless Access Point, 802.11abgn, dual-band, dual radio, integrated antennas. Unrestricted Regulatory Domain. These products should be considered as 'Rest of World' products and MUST NOT be used for deployments in the United States, Japan or Israel
IAP-105-US	Aruba Instant 105 Wireless Access Point, 802.11abgn, dual-band, dual radio, integrated antennas. Restricted Regulatory Domain - US
IAP-105-IL	Aruba Instant 105 Wireless Access Point, 802.11abgn, dual-band, dual radio, integrated antennas. Restricted Regulatory Domain - IL
IAP-105-JP	Aruba Instant 105 Wireless Access Point, 802.11abgn, dual-band, dual radio, integrated antennas. Restricted Regulatory Domain - JP
ARUBA INSTANT ACCESSORIES	
AP-AC-UN	12VDC Universal AC Power Adapter Kit - North America, Japan, United Kingdom, Italy, EC (Europlug), Australia, China, India, Korea
PD-3501G-AC	1 Port 802.3af PoE Midspan 10/100/1000 15.4W
PD-9001G-AC	1 Port 802.3at PoE Midspan 10/100/1000 30W
AP-90-MNT	Aruba 90 Series Access Point Wall / Ceiling Mounting Kit
AP-105-MNT	Aruba 105 Access Point Mounting Kit
AP-105-MNT-C	Aruba AP-105 Ceiling Rail Adapter Kit
AP-105-MNT-DC	Aruba AP-105 Access Point Mounting Kit DC Pwr
ARUBA INSTANT IAP-92 DETACHABLE ANTENNA OPTIONS	
AP-ANT-1B	2.4-2.5GHz (3.8dBi) / 4.9-5.875GHz (5.8dBi), High-Gain Omni-Directional Detachable Antenna. RP-SMA
AP-ANT-1BP	2.4-2.5GHz (3.8dBi) / 4.9-5.875GHz (5.8dBi), High-Gain Omni-Directional Detachable Antenna. RP-SMA (Pair)
AP-ANT-13B	2.4-2.5GHz (4.4dBi) / 4.9-5.9GHz (3.3dBi), Down-Tilt, Smallest Form Factor Omni-Directional Single Antenna w/ ceiling mount hardware. RP-SMA Connector
AP-ANT-19	2.4/5G Dual Band, Omnidirectional 3dBi/6dBi, Indoor/Outdoor, RPSMA connector with 36 inch integrated pigtail cable. Pole mount, I-beam, and ceiling tile mount hardware included.

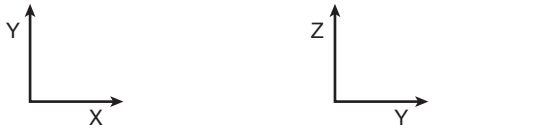
For more country-specific regulatory information, and approvals, please see your Aruba representative.

	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

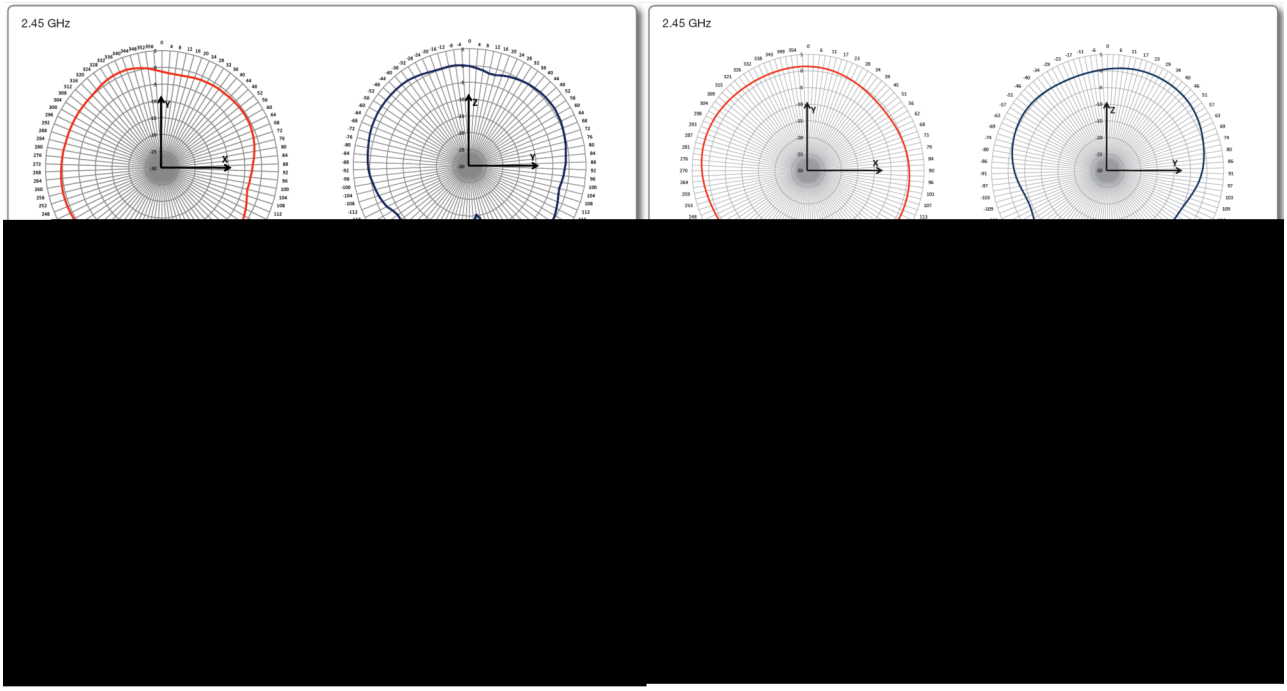
Maximum capability of the hardware provided. Maximum transmit power will be limited by local regulatory settings.

ANTENNA PLOTS

IAP-92/IAP-93



IAP-105



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