ARUBA INSTANT 205/ HP 205 INSTANT ACCESS POINT

Bringing 802.11ac to the masses

Multifunctional and affordable Instant 205 802.11ac wireless APs maximize mobile device performance in medium-density enterprise Wi-Fi environments.

These compact and cost-effective dual-radio APs deliver wireless data rates of up to 867 Mbps to 5-GHz devices with 802.11ac technology leveraging two spatial MIMO streams while simultaneously supporting 2.4-GHz 802.11n clients with data rates of up to 300 Mbps.

IAP-205 features four integrated omni-directional downtilt antennas.

UNIQUE BENEFITS

- Wi-Fi client optimization
  - To eliminate sticky client behavior while users roam, IAP-205 features patented ClientMatch™ technology, which continuously gathers session performance metrics from mobile devices.
  - If a mobile device moves away from an AP or if RF interference impedes performance, ClientMatch automatically steers the device to a better AP.
- Advanced Cellular Coexistence (ACC)
  - ACC lets WLANs perform at peak efficiency by minimizing interference from 3G/4G LTE networks, distributed antenna systems and commercial small cell/femtocell equipment.
- Quality of service for unified communication apps
  - IAP-205 supports priority handling and policy enforcement for unified communication apps, including Microsoft Lync with encrypted videoconferencing, voice, chat and desktop sharing.
- A single AP automatically distributes the network configuration to other Instant APs in the WLAN. Simply power-up one Instant AP, configure it over the air, and plug in the other APs – the entire process takes about five minutes.

SPECIFICATIONS

- 2.4-GHz (300 Mbps max rate) and 5-GHz (867 Mbps max rate) radios, each with 2x2 MIMO and four integrated omni-directional downtilt antennas.

ADVANCED FEATURES

- RF management
  - Adaptive Radio Management™ (ARM) technology automatically assigns channel and power settings, provides airtime fairness and ensures that APs stay clear of all sources of RF interference to deliver reliable, high-performance WLANs.
  - IAP-205 can be configured to provide part-time or dedicated air monitoring for spectrum analysis and wireless intrusion protection, VPN tunnels to extend remote locations to corporate resources, and wireless mesh connections where Ethernet drops are not available.
- Spectrum analysis
  - Capable of part-time or dedicated air monitoring, the spectrum analyzer remotely scans the 2.4-GHz and 5-GHz radio bands to identify sources of RF interference.
- Security
  - Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys
  - SecureJack-capable for secure tunneling of wired Ethernet traffic.

OPERATING MODES

- Aruba Instant AP
- Air monitor (AM) for wireless IDS, rogue detection and containment
- Spectrum analyzer, dedicated or hybrid
- Secure enterprise mesh

WIRELESS RADIO SPECIFICATIONS

- AP type: Indoor, dual radio, 5-GHz 802.11ac and 2.4-GHz 802.11n 2x2:2
- Software-configurable dual radio supports 5 GHz (Radio 0) and 2.4 GHz (Radio 1)
- 2x2 MIMO with two spatial streams and up to 867 Mbps wireless data rate
- Support for up to 255 associated client devices per radio, and up to 16 BSSIDs per radio
- Supported frequency bands (country-specific restrictions apply):
  - 2.4000 GHz 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 on configured regulatory domain
- Dynamic frequency selection (DFS) optimizes the use of available RF spectrum
- Supported radio technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM)
- Supported modulation types:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n/ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
- Transmit power: Configurable in increments of 0.5 dBm
- Maximum (aggregate, conducted total) transmit power (limited by local regulatory requirements):
  - 2.4-GHz band: +21 dBm (18 dBm per chain)
  - 5-GHz band: +21 dBm (18 dBm per chain)
- Advanced Cellular Coexistence (ACC) minimizes interference from cellular networks
- Maximum ratio combining (MRC) for improved receiver performance
- Cyclic delay/shift diversity (CDD/CSD) for improved downlink RF performance
- Short guard interval for 20-MHz, 40-MHz and 80-MHz channels

- Space-time block coding (STBC) for increased range and improved reception
- Low-density parity check (LDPC) for high-efficiency error correction and increased throughput
- Transmit beamforming (TxBF) for increased reliability in signal delivery
- Supported data rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: 6.5 to 300 (MCS0 to MCS15)
  - 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2)
- 802.11n high-throughput (HT) support: HT 20/40
- 802.11ac very high throughput (VHT) support: VHT 20/40/80
- 802.11n/ac packet aggregation: A-MPDU, A-MSDU

ANTENNAS

Four integrated downtilt omni-directional antennas for 2x2 MIMO with maximum antenna gain of 4.0 dBi in 2.4 GHz and 6.0 dBi in 5 GHz. Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP. The downtilt angle for maximum gain is approximately 30 degrees.

OTHER INTERFACES

- 10/100/1000BASE-T Ethernet network interface (RJ-45)
  - Auto-sensing link speed and MDI/MDX
  - 802.3az Energy Efficient Ethernet (EEE)
  - PoE-PD: 48 Vdc (nominal) 802.3af PoE
- DC power interface, accepts 1.7/4.0-mm center-positive circular plug with 9.5-mm length
- Visual indicators (LEDs):
  - Power/system status
  - Ethernet link status (ENET)
  - Radio status (two; RAD0, RAD1)
- Reset button: factory reset (during device power up)
- Serial console interface (RJ-45)
- Kensington security slot

POWER

- Maximum (worst-case) power consumption: 12.5 watts (PoE) or 11.7 watts (DC)
- Maximum (worst-case) power consumption in idle mode: 8.4 watts (PoE) or 7.7 watts (DC)
- Direct DC source: 12 Vdc nominal, +/- 5%
- Power over Ethernet (PoE): 48 Vdc (nominal) 802.3af-compliant source

- Power sources sold separately
- When both power sources are available, DC power takes priority

MOUNTING

- Included with AP:
  - Mounting brackets (2) for attaching to 9/16-inch or 15/16-inch T-bar drop-tile ceiling

MECHANICAL

- Dimensions/weight (unit, excluding mount accessories):
  - 150 mm x 150 mm x 41.5 mm (W x D x H)
  - 380 g
- Dimensions/weight (shipping):
  - 190 mm x 187 mm x 57 mm (W x D x H)
  - 550 g

ENVIRONMENTAL

- Operating:
  - Temperature: 0° C to +40° C (+32° F to +104° F)
  - Humidity: 5% to 95% non-condensing
- Storage and transportation:
  - Temperature: -40° C to +70° C (-40° F to +158° F)

REGULATORY

- FCC/Industry of Canada
- CE Marked
- R&TTE Directive 1995/5/EC
- Low Voltage Directive 72/23/EEC
- EN 300 328
- EN 301 489
- EN 301 893
- UL/IEC/EN 60950
- EN 60601-1-1 and EN 60601-1-2

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

RELIABILITY

MTBF: 711,187 hours (81.2 years) at +25° C operating temperature

REGULATORY MODEL NUMBER

- APIN0205

CERTIFICATIONS

- CB Scheme Safety, cTUVus
- UL2043 plenum rating
- Wi-Fi Alliance (WFA) certified 802.11a/b/g/n/ac

WARRANTY

- Aruba limited lifetime warranty

MINIMUM SOFTWARE VERSIONS

- Aruba InstantOS™ 4.1.1.0

RF PERFORMANCE TABLE		
	Maximum transmit power (dBm) per transmit chain	**Receiver sensitivity (dBm) per receive chain**
2.4 GHz		
802.11b		
1 Mbps	18.0	-95.0
11 Mbps	18.0	-88.0
802.11g		
6 Mbps	18.0	-92.0
54 Mbps	16.0	-74.0
802.11n HT20		
MCS0/8	18.0	-91.0
MCS7/15	16.0	-71.0
802.11n HT40		
MCS0/8	18.0	-88.0
MCS7/15	16.0	-68.0
5 GHz		
802.11a		
6 Mbps	18.0	-93.0
54 Mbps	16.0	-75.0
802.11n HT20		
MCS0/8	18.0	-91.0
MCS7/15	15.0	-71.0
802.11n HT40		
MCS0/8	18.0	-88.0
MCS7/15	15.0	-68.0
802.11ac VHT20		
MCS0	18.0	-91.0
MCS9	12.0	-64.0
802.11ac VHT40		
MCS0	18.0	-88.0
MCS9	12.0	-61.0
802.11ac VHT80		
MCS0	18.0	-85.0
MCS9	12.0	-58.0

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

ANTENNA PATTERN PLOTS

Horizontal or azimuth plane (top view), 0 degrees downtilt
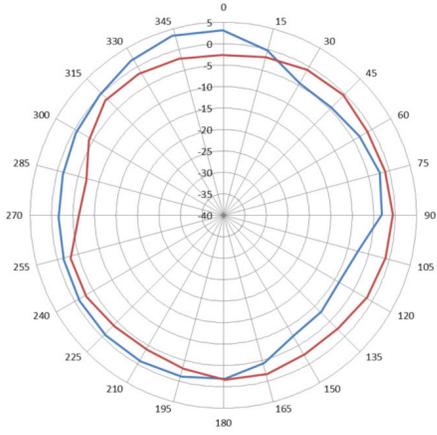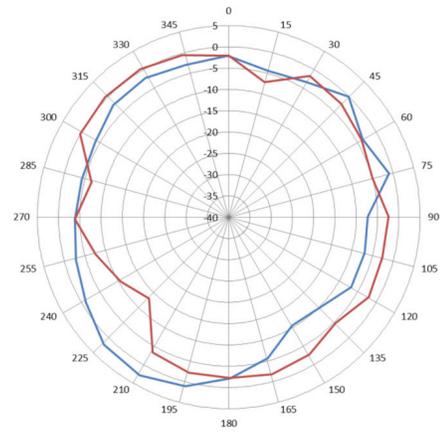
2.450 GHz

5.470 GHz

Horizontal or azimuth plane (top view), 30 degrees downtilt
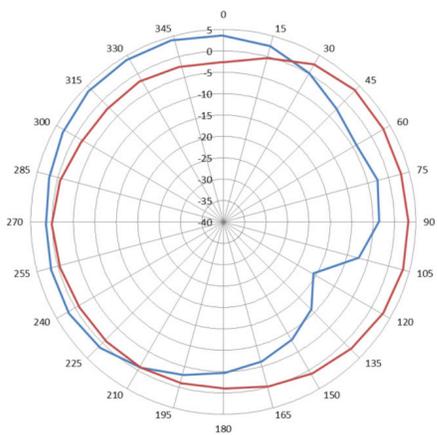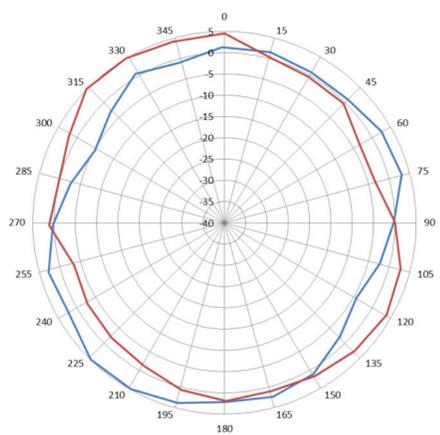
2.450 GHz

5.470 GHz

Elevation plane (side view, 0 degrees angle)
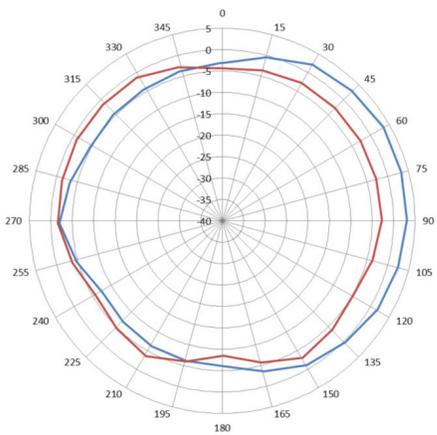
2.450 GHz
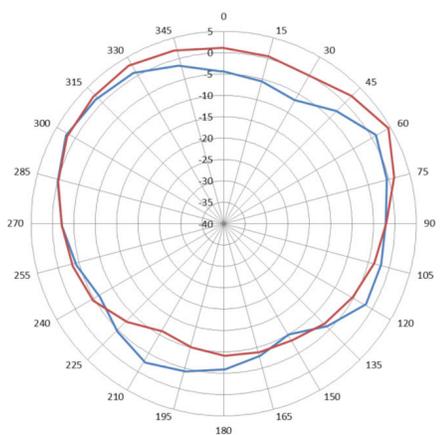
5.470 GHz

ANTENNA PATTERN PLOTS

Elevation plane (side view, 90 degrees angle)
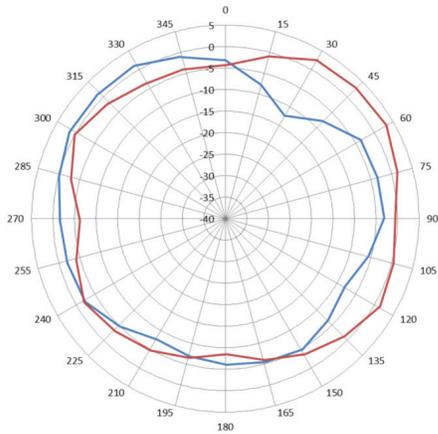
2.450 GHz
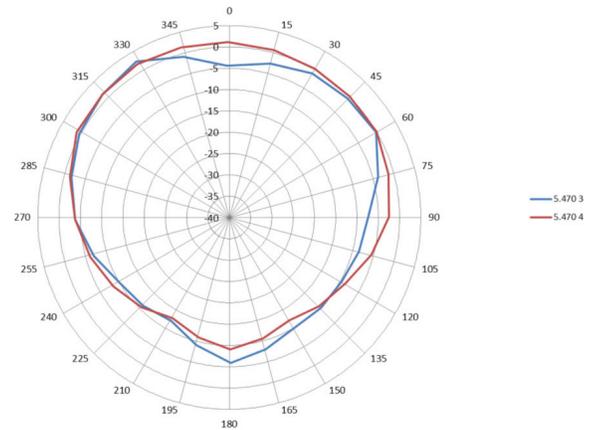
5.470 GHz

ORDERING INFORMATION	
Part Number	**Description**
Access Points	
JL184A	HP 205 Instant Dual Radio 802.11ac (WW) Access Point
JL185A	HP 205 Instant Dual Radio 802.11ac (US) Access Point
Accessories	
JL017A	HP 3xx Cloud-Managed Access Point Universal Power Supply
JL018A	HP 350 Cloud-Managed Access Point Wall Mount Kit
J9407B	HP 1-port Power Injector

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