

## DATA SHEET

# AP 122X

Enterprise-Grade 2x2, 2-Stream, 802.11n/ac Access Points with External Antennas for Medium-Density Environments, as well as IoT and Location-Based Services







**AP122X provides the full breadth of Aerohive's enterprise-grade feature set and IoT readiness in medium density environments, achieving 802.11ac performance with data rates up to 867 Mbps, along with built-in BLE and USB port using existing 802.3af PoE infrastructure.**

Powered by HiveOS and the innovative distributed Cooperative Control architecture, AP122X brings the best of coverage and advanced 802.11ac technology. In addition, the integrated BLE radio and a USB interface in the access point opens up a multitude of deployment use-cases in IoT and proximity/location-oriented services.

The **AP122X** benefits from an AI-driven Wi-Fi architecture capable of self-organizing, self-learning, self-healing and self-optimizing in the most challenging environments. Cooperative Control eliminates single points of failure and bottlenecks, delivering bulletproof stability and unbridled performance, perfectly complementing the unrivalled capabilities of HiveOS - a stateful L2-L7 DPI firewall for context-based access security, advanced and customizable QoS for traffic optimization, intelligent meshing algorithms, Private Pre-Shared Key (PPSK) and much more.

All Aerohive APs can be centrally managed using Aerohive's out-of-band cloud network management system - HiveManager. HiveManager is an industry-leading and visionary approach to cloud-managed networking, built from the ground up to take full advantage of the SD-LAN and SD-WAN solution from Aerohive. Working in tandem with Aerohive's cutting-edge HiveOS, HiveManager leverages state-of-the-art cloud technology. Benefit from unified, full-stack management of Wi-Fi, switching and routing, centralized monitoring and configuration, real-time and historical reporting, simplified troubleshooting, integrated RF planner tools and much more.

HiveManager is available in two editions: *Connect* and *Select*. The *Connect* solution is bundled with Aerohive access points and switches and is free for the lifetime of the device. *Connect* is the perfect solution for those looking to provide robust, yet enterprise-grade connectivity, without having to invest in the full suite of management features. The optional upgrade to *Select* unlocks a slew of advanced features and capabilities that enhance network management, security and visibility.

## Radio Specifications

### 802.11a

- 5.150–5.850 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation
- Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/ auto fallback

### 802.11b

- 2.4–2.5 GHz Operating Frequency
- Direct-Sequence Spread-Spectrum (DSSS) Modulation
- Rates (Mbps): 11, 5.5, 2, 1 w/auto fallback

### 802.11g

- 2.4–2.5 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation
- 20 dBm (100 mW) Transmit Power
- Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/ auto fallback

### 802.11n

- 2.4–2.5 GHz & 5.150–5.850 GHz Operating Frequency
- 802.11n Modulation
- Rates (Mbps): MCS0 - MCS15 (6.5Mbps - 300Mbps)
- 2x2 Multiple-In, Multiple-Out (MIMO) Radio

### 802.11ac

- 5.150–5.850 GHz Operating Frequency
- 802.11ac Modulation (256-QAM)
- Rates (Mbps): MCS0–MCS9 (6.5Mbps – 867Mbps), NSS = 1-2.
- 2x2:2 Stream Multiple-In, Multiple-Out (MIMO) Radio
- VHT20/VHT40/VHT80 support
- TxBF ( Transmit Beamforming)

## Interfaces

- Autosensing 10/100/1000 Base-T Ethernet PoE (Power over Ethernet 802.3af) Port
- RJ-45 console port
- Standard USB port

## Power Specifications

- IEEE 802.3af PoE Power

## Power Options

- Power Draw: Typical 10.5W, Max 12.9W
- 802.3af / 802.3at (PoE/PoE+)

## Physical

- LxWxH 171X171X44.5 mm (6.75x6.75x1.75in). w/o mounting brackets
- Weight: 1.13 lb (0.51 kg)
- Shipping Physical Dimensions:  
 WxDxH: 8" x 7" x 3" (194mm x 186mm x 70mm)  
 Weight: 1.54 lbs (0.7 Kg)

## Antennas

- 2x external single band, 2.4-2.5GHz omnidirectional antennas *(sold separately)*
- 2x external single band, 5.1-5.8GHz omnidirectional antennas *(sold separately)*
- 1 x BLE internal antenna
- Antenna Gain:  
 2.4 GHz: 4 dBi  
 5 GHz: 4 dBi
- Max EIRP (dBm):  
 2400 MHz to 2500 MHz: 27 dBm  
 5250 MHz to 5350 MHz: 30 dBm  
 5725 MHz to 5875 MHz :30 dBm

## Mounting

- Desktop
- Wall Mount
- Ceiling Tile flush 15/16"
- Ceiling Tile Recessed 15/16", 3/8", 9/16" sold as an accessory
- Ceiling Tile Flush 3/8", 9/16" sold as an accessory
- Suspend Mount sold as an accessory
- TPM chip for added security

## Environmental

- Operating: 0 to 40 °C, Storage: -40 to 70 °C
- Humidity: 95%

## Environmental / Regulatory Compliance

- |                                    |                  |                    |
|------------------------------------|------------------|--------------------|
| • Environmental Compliance: UL2043 |                  |                    |
| • Regulatory Model: AP122X         |                  |                    |
| • FCC                              | • Canada         | • CE               |
| 15.247                             | ISED 15.247      | EN 300-328         |
| 15.407                             | ICES-003 Class B | EN 301-893         |
| OET65 Supplement C                 | RSS-102          | EN 301-489-1 / -17 |
| UL60950-1                          | CSA C22.2        | EN 62311           |
|                                    | 60950-1          | EN60950-1          |

## Power and Sensitivity Tables

## Power - 2.4 GHz

CHANNEL	DATA RATE	POWER (dBm)
<b>11b</b>	1-11 Mbps	18
<b>11g</b>	6 Mbps	17
	54 Mbps	16
<b>11n HT20</b>	MCS 7, 15, 23	17

## Receive Sensitivity - 2.4 GHz

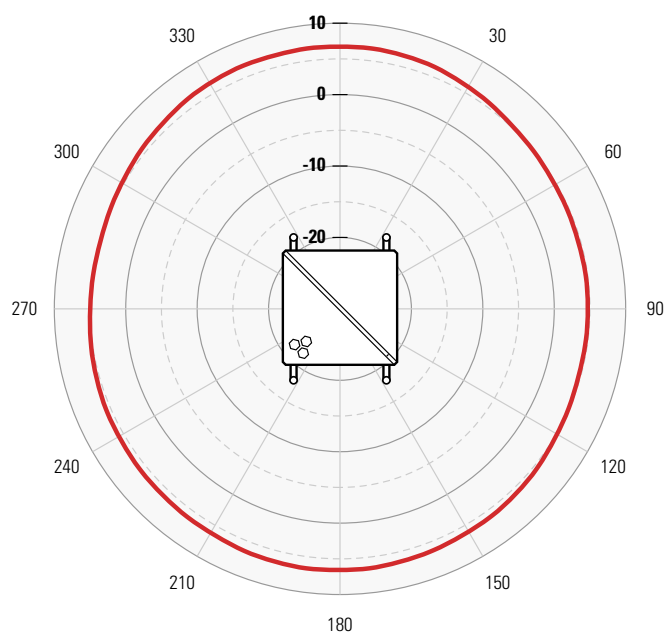
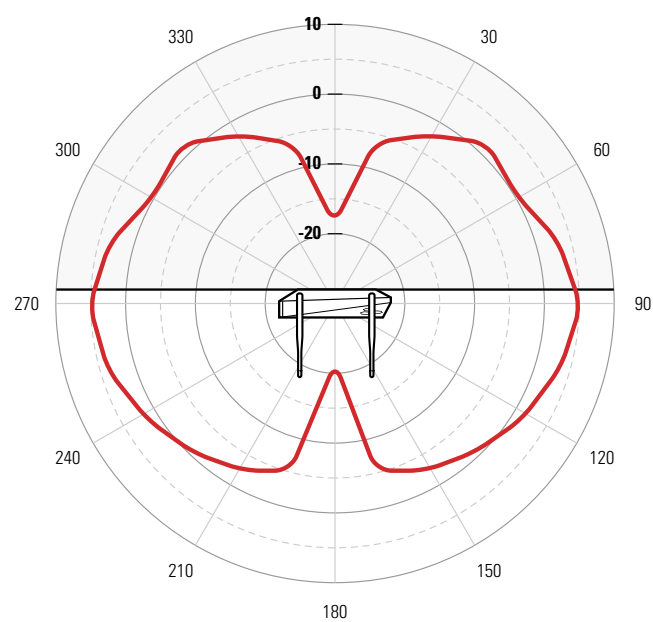
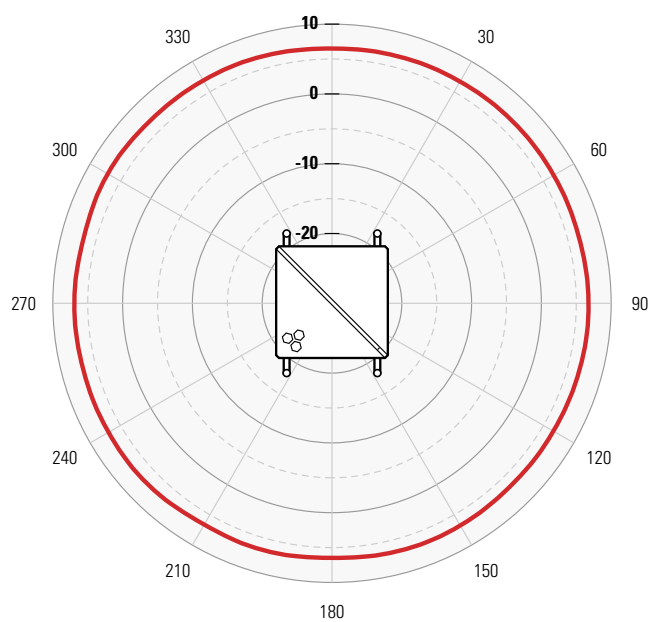
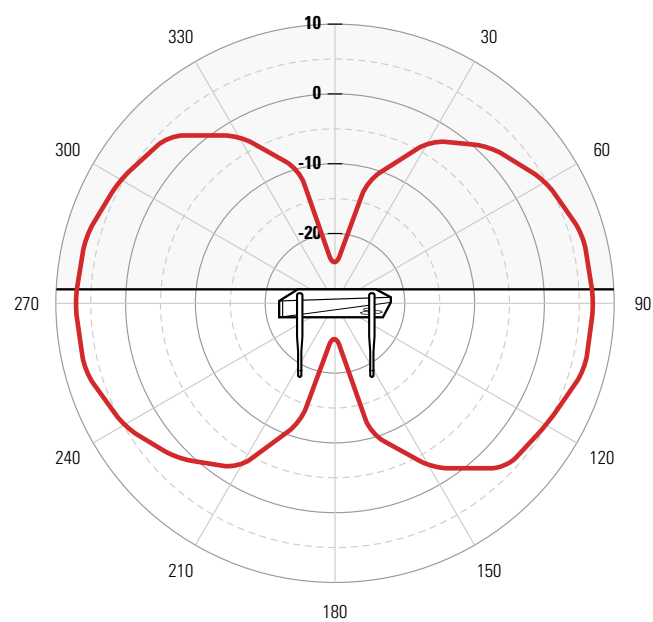
CHANNEL	DATA RATE	SENSITIVITY
<b>11b</b>	1-11 Mbps	-99
<b>11g</b>	6 Mbps	-94
	54 Mbps	-77
<b>11n HT20</b>	MCS 7, 15, 23	-94

## Power - 5 GHz

CHANNEL	DATA RATE	POWER (dBm)
<b>11a</b>	6 Mbps	17
	54 Mbps	16
<b>11n HT20</b>	MCS 0, 8, 16	17
	MCS 7, 15, 23	16
<b>11n HT40</b>	MCS 0, 8, 16	17
	MCS 7, 15, 23	14
<b>11ac VHT 20</b>	MCS0	17
	MCS9	16
<b>11acVHT40</b>	MCS0	17
	MCS9	16
<b>11acVHT80</b>	MCS0	15

## Receive Sensitivity - 5 GHz

CHANNEL	DATA RATE	SENSITIVITY
<b>11a</b>	6 Mbps	-93
	54 Mbps	-75
<b>11n HT20</b>	MCS 0, 8, 16	-93
	MCS 7, 15, 23	-75
<b>11n HT40</b>	MCS 0, 8, 16	-90
	MCS 7, 15, 23	-72
<b>11ac VHT 20</b>	MCS0	-93
	MCS9	-70
<b>11acVHT40</b>	MCS0	-90
	MCS9	-64
<b>11acVHT80</b>	MCS0	-87

**Radiation Patterns – Azimuth & Elevation****Azimuth - 2.4 GHz****Elevation - 2.4 GHz****Azimuth - 5 GHz****Elevation - 5 GHz**

## AP122X- SKUs

SKU	DESCRIPTION
<b>AH-AP-122X-AC-XX</b>	AP122X Indoor, 2 radio 2x2:2 802.11a/b/g/n/ac Access Point, external antennas, 1 10/100/1000 Ethernet port, without power injector (Antenna sold separately). Includes HiveManager Connect & HiveCare Community. (Regulatory Domains available: FCC, CE, W (World), CAN (Canada), CE)

## AP122X - MISCELLANEOUS SKUs

SKU	DESCRIPTION
<b>AH-ACC-INJ-30W-UK</b>	30W POE power injector with UK power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X
<b>AH-ACC-INJ-30W-US</b>	30W POE power injector with US power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X
<b>AH-ACC-SEC-BIT-3PK</b>	AP122,AP122X,AP130,AP230, AP245X, AP250, AP550 security screw bit (3pk)
<b>AH-ACC-SEC-KIT</b>	Security bracket, screws and security screw bit for AP122,AP122X, AP130, AP230, AP245x, AP250
<b>AH-ACC-BKT-916-KIT</b>	AP122, AP122X, AP130, AP200 series/AP500 series 9/16" ceiling mount brackets for recessed and flush ceiling tiles
<b>AH-ACC-BKT-AC-KIT</b>	AP122, AP122X, AP130, AP200 series/AP500 series 15/16" ceiling mount brackets for recessed and non-recessed ceiling tiles
<b>AH-ACC-BKT-AC-WALL</b>	AP122, AP122X, AP130/AP230/AP245X/AP250,AP550 wall mounting and 15/16" ceiling mount bracket
<b>AH-ACC-BKT-SILINT-KT</b>	AP122, AP122X, AP130,AP230/AP245X/AP250 ,AP550 Mounting bracket kit for Silhouette and Interlude ceiling types
<b>AH-ACC-BKT-SU-KIT</b>	AP122,AP122X,AP130,AP230,AP245X, AP250, AP550 Suspend Bracket Kit
<b>AH-ACC-BKT-WP-KIT</b>	Wall plate bracket kit for AP122, AP122X, AP130, AP230, AP245X, AP250,AP550 Includes the bracket and security screws
<b>AH-ACC-ANT-4-KIT</b>	Articulated male indoor antenna kit (2x2.4Ghz 4dBi and 2x5Ghz 4dBi antennas) for AP122X
<b>AH-ACC-INJ-30W-AU</b>	30W POE power injector with Australia/New Zealand power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X
<b>AH-ACC-INJ-30W-EU</b>	30W POE power injector with EU power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X
<b>AH-ACC-ANT-4-2G</b>	2.4GHz RP-SMA female indoor 4dBi articulated antenna for AP122X
<b>AH-ACC-ANT-4-5G</b>	5GHz RP-SMA female indoor 4dBi articulated antenna AP122X

