

DATA SHEET

# AP 250

High Performance, General-Purpose 802.11ac Wave 2 Dual-Radio 3x3:3 Access Point





**AP250 is an excellent choice to provide instant adaption to ever-changing capacity needs; featuring dual radio, 3x3:3 MU-MIMO, providing full 802.11ac technology performance with data rates up to 2.6 Gbps per access point using existing 802.3af PoE infrastructure.**

While **AP250** inherits the signature elements of Aerohive access points such as the powerful HiveOS and innovative distributed Cooperative Control architecture, it also includes new features such as built-in BLE and software-defined radio. Built-in BLE (Bluetooth Low-Energy) radio enables proximity, indoor location tracking and other location-based mobile engagement services. Software defined radios allow IT managers to enable 802.11ac performance on both radios to provide the best of coverage and capacity.

The AP250 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 complimenting 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

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### 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–MCS23 (6.5Mbps - 450Mbps)
- 3x3:3 Stream Multiple-In, Multiple-Out (MIMO) Radio
- HT20 High-Throughput (HT) Support for both 2.4 GHz and 5 GHz
- A-MPDU and A-MSDU Frame Aggregation

### 802.11ac

- 5.150–5.850 GHz Operating Frequency
- 802.11ac Modulation (256-QAM)
- Rates (Mbps): MCS0–MCS9 (6.5Mbps - 1300Mbps), NSS = 1-3.
- 3x3:3 Stream Multiple-In, Multiple-Out (MIMO) Radio
- VHT20/VHT40/VHT80 support

## Interfaces

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- Two Autosensing 10/100/1000 BASE-T Ethernet ports.  
PoE/ PoE+ capability on one of the ports
- RJ-45 console port
- Standard USB port

## Power Specifications

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- IEEE 802.3af PoE Power: Full 3x3:3 802.11ac MU-MIMO performance, BLE and Dual 5 GHz. No USB port, no 2nd Ethernet port.
- IEEE 802.3at PoE Power: full set of features (all of the above plus USB port and 2nd Ethernet port).
- 2.4 GHz typical power draw: 17 dBm, max 20 dBm
- 5 GHz typical power draw: 18 dBm, max 19 dBm

## Physical

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- WxDxH: 7.25" x 7.25" x 1.87"(18.4 cm x 18.4 cm x 1.87cm)  
[plus .25", mounting hardware – 2.12" (5.4 cm) H total ]
- Weight: 1.8 lb ( 0.81 kg)

## Antennas

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- 6 + 2 internal Wi-Fi antennas for spatial and polarization diversity
- 1x BLE internal antenna

## Mounting

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- Desktop
- 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
- Plenum Mount sold as an accessory
- Silhouette and Interlude sold as an accessory
- TPM chip for added security

## Environmental

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

## Environmental Compliance

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- UL2043

## Power and Sensitivity Tables

## Power - 2.4 GHz

CHANNEL	DATA RATE	POWER (dBm)
<b>11b</b>	1,2,5,5,11 Mbps	20
	54 Mbps	17
<b>11g</b>	48 Mbps	18
	36 Mbps	19
	6 Mbps	19
	MCS7,15,23	17
<b>11n HT20</b>	MCS6,14,22	18
	MCS5,13,21	19
	MCS0,1,2,3,4	19
	MCS8,9,10,11,12	19
	MCS16,17,18,19,20	19

## Receive Sensitivity - 2.4 GHz

CHANNEL	DATA RATE	SENSITIVITY
<b>11b</b>	1 Mbps	-100
	11 Mbps	-93
<b>11g</b>	6 Mbps	-95
	36 Mbps	-86
	48 Mbps	-82
	54 Mbps	-80
<b>11n HT20</b>	MCS0, 8, 16	-95
	MCS5,13,21	-81
	MCS6, 14, 22	-79
	MCS7, 15, 23	-77

## Power - 5 GHz

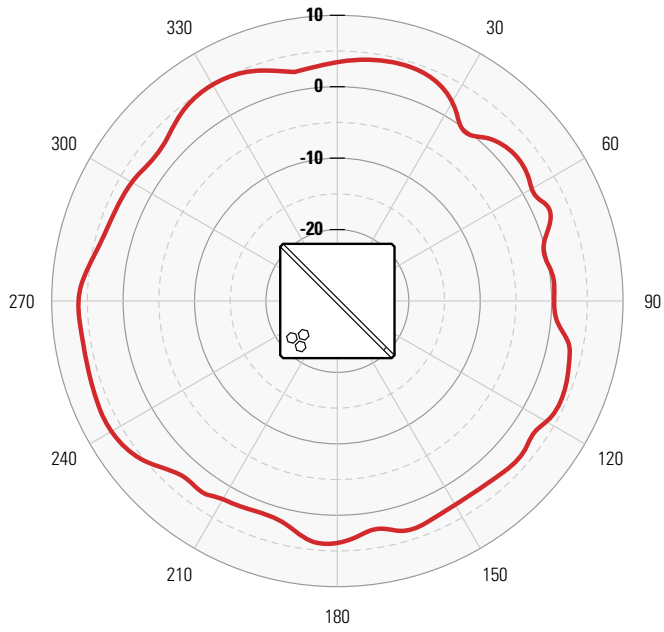
CHANNEL	DATA RATE	POWER (dBm)
<b>11a</b>	54 Mbps	17
	48 Mbps	18
	36 Mbps	19
	6 Mbps	19
<b>11n HT20</b>	MCS7,15, 23	17
	MCS6,14, 22	18
	MCS5,13, 21	19
	MCS0, 2, 3, 4, 8, 9, 10, 11	19
	MCS12, 16, 17, 18, 19, 20	19
<b>11n HT40</b>	MCS7,15, 23	17
	MCS6,14, 22	18
	MCS5,13, 21	19
	MCS0, 1, 2, 3, 4, 8	19
	MCS9, 10, 11, 12, 16	19
	MCS17, 18, 19, 20	19
<b>11ac VHT</b>	256QAM @ 3/4 Code Rate	14
	256QAM @ 5/6 Code Rate	13

## Receive Sensitivity - 5 GHz

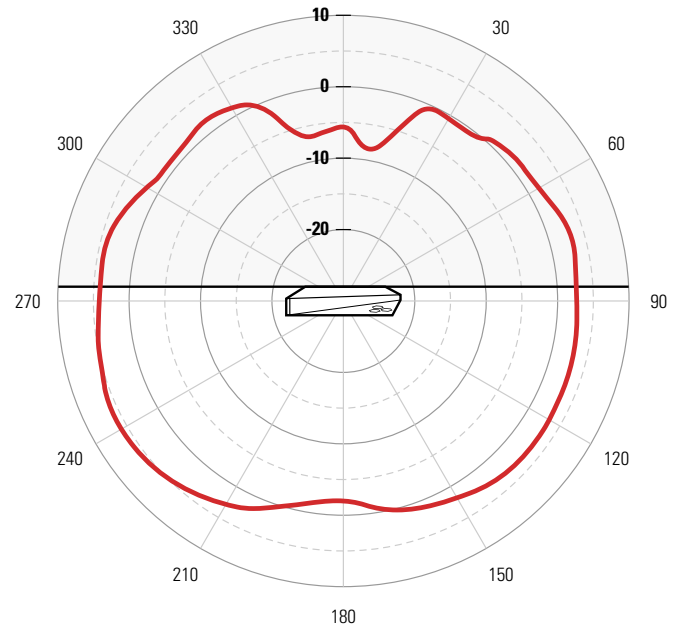
CHANNEL	DATA RATE	SENSITIVITY
<b>11a</b>	6 Mbps	-95
	36 Mbps	-86
	48 Mbps	-81
	54 Mbps	-80
<b>11n HT20</b>	MCS0, 8, 16	-91
	MCS5,13,21	-78
	MCS6, 14, 22	-76
	MCS7, 15, 23	-74
<b>11n HT40</b>	MCS0, 8, 16	-88
	MCS5,13,21	-75
	MCS6, 14, 22	-73
<b>11ac HT20</b>	MCS7, 15, 23	-71
	Code Rate 3/4	-65
<b>11ac HT40</b>	Code Rate 5/6	-63
	Code Rate 3/4	-62
<b>11ac HT80</b>	Code Rate 5/6	-60
	Code Rate 3/4	-59
	Code Rate 5/6	-57

# Radiation Patterns – Azimuth & Elevation

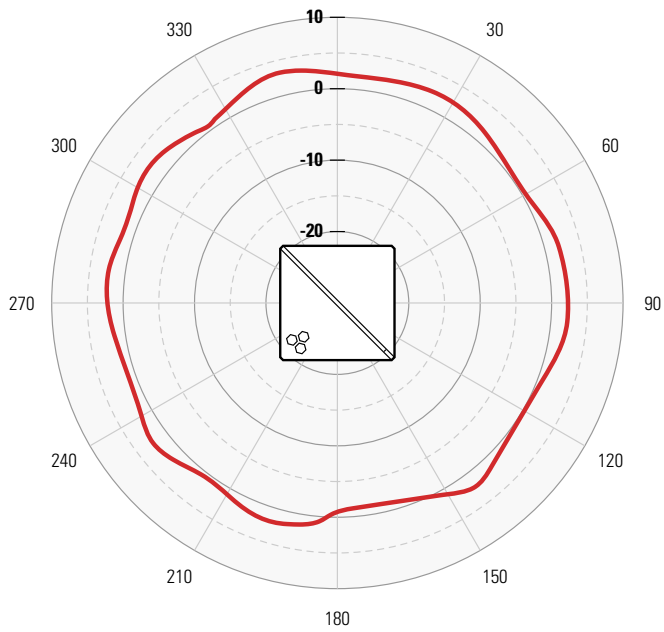
**Azimuth - 2.4 GHz**



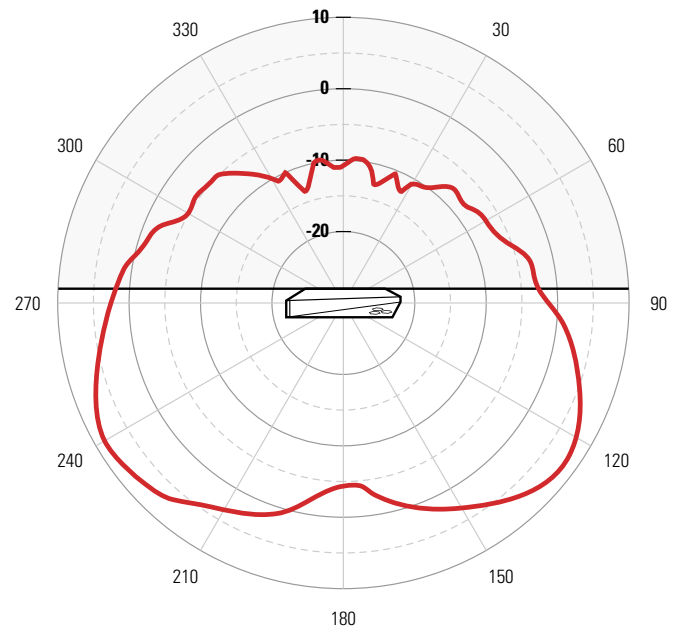
**Elevation - 2.4 GHz**



**Azimuth - 5 GHz**



**Elevation - 5 GHz**



AP250 - SKUs

SKU	DESCRIPTION
<b>AH-AP-250-AC-XX</b>	AP250 Indoor plenum rated Access Point, 2 radio 3x3:3 802.11a/b/g/n/ac MU-MIMO, 2 10/100/1000 Ethernet ports, without power supply (Internal Antenna only). Includes HiveManager Connect & HiveCare Community. (Regulatory Domains available: FCC, CE, W (World), CAN (Canada))

AP250 - 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-PLENUM-KIT</b>	AP130,AP230, AP245X, AP250, AP550 Plenum Bracket Kit
<b>AH-ACC-RBR-FT</b>	Rubber feet for AP130/AP200 series/AP550
<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-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