

# Aerohive AP245X

High performance, general purpose 802.11ac Wave2 Dual-Radio 3x3:3 access point with external antennas.

AP245X enterprise access point combines high-performance 802.11ac Wave2 with the simplicity of Aerohive's distributed, cooperative architecture. This power optimized access point line uniquely incorporates next generation 802.11ac, integrated BLE radio for iBeacon and other beacon applications and a standard USB port for variety of IoT applications. AP245X smoothly integrates into your existing 802.3af or 802.3at power and network infrastructure.

The AP245X provides dual concurrent 2.4Ghz 3x3, 3 stream MIMO and 5 GHz 3x3, 3 stream MU-MIMO radios. This access point has an extended operating temperature range and external antenna connectors. AP245X is a perfect fit for challenging environments where deployments require specialized antennas or higher temperature ranges.

## Key Benefits

- Enterprise software features including RADIUS, DHCP server, location services and spectrum analysis are combined with hardware assisted security and zero-touch deployment.
- Upgrading your network to 802.11ac Wave 2 does not require you to upgrade your existing PoE infrastructure. Our advancements in energy efficiency allow the AP245X full 3-stream, 2.4GHz and 5 GHz 802.11ac performance while using existing 802.3af PoE infrastructure.
- Integrated BLE ( Bluetooth Low-Energy) radio enables mobile engagement services that can be based on ambient data, micro-location or orientation.
- A TPM chip (Trusted Platform Module) provides hardware-based key and configuration encryption for added security.
- Application Visibility and Control functionality, including reporting, stateful firewall, and powerful Aerohive Quality of Service (QoS) on the access point
- Managed from public or private cloud -based HiveManager NG platform.



## Advanced Features

- Integrated application visibility and control (AVC)
- Advanced Automatic Channel Selection Protocol (ACSP) for optimum radio performance.
- On-device RADIUS Server with directory integration support (max 256 concurrent authentications), Captive, Web Portal, DHCP server( max 512 DHCP clients per AP), and spectrum analysis

## Features & Benefits Details

- Wave 2 802.11ac Access Point with MU-MIMO capability
- Extended operation temperature range ( 0 to 50 degrees Celsius)
- Automatic or dedicated mesh backup
- Built-in Bluetooth Low Energy for iBeacon and other beacon technologies
- IOT readiness with USB port for other wireless technologies to connect seamlessly

## Security Features

- Trusted Platform Module (TPM)–Hardware-based key storage and encryption
- Wireless privacy & authentication Wi-Fi CERTIFIED WPA and WPA2, private PSK
- Granular user profile-based management defines traffic and security policies for groups of users or individual users
- Encryption: AES:CCMP, TKIP, and RC4 (WEP only)
- Classifying, Marking and policing–WMM (802.11e) for wireless, 802.1p and/or DiffServ for wired
- Wi-Fi CERTIFIED WMM
- WMM power save (U-APSD Certified)

## Product Specifications

### 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

### Radio Specifications—802.11b

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

### Radio Specifications—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

### Radio Specifications—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

### Radio Specifications—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

### Included Mounting Options

- Wall Mount
- Ceiling Tile flush 15/16" and Wall Mount locking accessory included with AP

### Mounting

- 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

### Antennas

- 3x RP-SMA connector 2.4 GHz
- 3x RP-SMA connector 5 GHz
- 1x BLE internal antenna

### Interfaces

- Two Autosensing 10/100/1000 Base-T Ethernet ports. PoE (Power over Ethernet 802.3af) capability on one of the ports
- RJ-45 console port
- Standard USB port

### Physical

- WxDxH: 7.25" x 7.25" by 1 7/8" tall (plus .25" for the mounting hardware) – so 2.12" (5.4 cm) high total
- Weight: 1.8 lb (0.81 kg)

### Environmental

- Operating: 0 to +50°C, Storage: -40 to +70°C
- Humidity: 95%

### Environmental Compliance

- UL2043

### Power Specifications

- IEEE 802.3af PoE Power: Full 3x3:3 802.11ac MU-MIMO performance and BLE. 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)

### Power Options

- Power Draw: Typical 11.22W, Max 15.74W

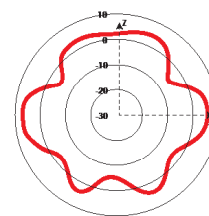
## Aerohive Power Table

2.4 GHz	Data Rate	Power dBm
11b	1,2,5,11	17/20
11g	54 Mbps	15/17
	48 Mbps	16/18
	36 Mbps	17/19
	6 Mbps	17/19
11n HT20	MCS7,15,23	15/17
	MCS6,14,22	16/18
	MCS5,13,21	17/19
	MCS0,1,2,3,4	17/19
	MCS8,9,10,11,12	
	MCS16,17,18,19,20	
5 GHz	Data Rate	Power dBm
11a	54 Mbps	15/17
	48 Mbps	16/18
	36 Mbps	17/19
	6 Mbps	17/19
11n HT20	MCS7,15,23	15/17
	MCS6,14,22	16/18
	MCS13,21	17/19
	MCS0,2,3,4,8,9,10,11	17/19
	MCS12,16,17,18,19,20	
11n HT40	MCS7,15,23	15/17
	MCS6,14,22	16/18
	MCS5,13,21	17/19
	MCS0,1,2,3,4,8	17/19
	MCS9,10,11,12,16	
	MCS17,18,19,20	
11ac VHT	256QAM@3/4 Code Rate	12/14
	256QAM@5/6 Code Rate	11/13

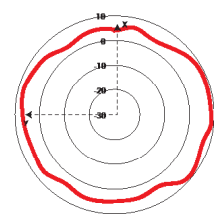
## Aerohive Power Table

2.4 GHz	Data Rate	Sensitivity
11b	1 Mbps	-100
	11 Mbps	-93
11g	6 Mbps	-95
	36 Mbps	-86
	48 Mbps	-82
	54 Mbps	-80
11n HT20	MCS0, 8, 16	-95
	MCS5,13, 21	-81
	MCS6,14, 22	-79
	MCS7, 15, 23	-77
5 GHz	Data Rate	Sensitivity
11a	6 Mbps	-95
	36 Mbps	-86
	48 Mbps	-81
	54 Mbps	-80
11n HT20	MCS0, 8, 16	-91
	MCS5, 13, 21	-78
	MCS6, 14, 22	-76
	MCS7, 15, 23	-74
11n HT40	MCS0, 8, 16	-88
	MCS5, 13, 21	-75
	MCS6, 14, 22	-73
11ac HT20	Code Rate 3/4	-65
	Code Rate 5/6	-63
11ac HT40	Code Rate 3/4	-62
	Code Rate 5/6	-60
11ac HT80	Code Rate 3/4	-59
	Code Rate 5/6	-57

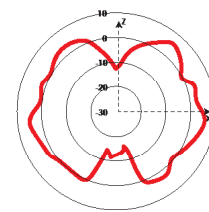
## Radiation Patterns



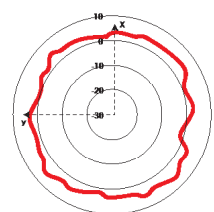
Vertical  
2GHz Dual-band



Horizontal  
2GHz Dual-band



Vertical  
5GHz Dual-band



Horizontal  
5GHz Dual-band

## Aerohive Access Points

Part Number	Description
AH-AP-245X-AC-FCC	AP245X Indoor plenum rated Access Point, 2 radio 3x3:3 802.11a/b/g/n/ac, MU-MIMO, external antennas, 2 10/100/1000 Ethernet ports, FCC regulatory domain, without power supply (Antennas sold separately)
AH-AP-245X-AC-W	AP245X Indoor plenum rated Access Point, 2 radio 3x3:3 802.11a/b/g/n/ac, MU-MIMO, external antennas, 2 10/100/1000 Ethernet ports, configurable regulatory domain, without power supply (Antennas sold separately)

## Warranty and Support

Every Aerohive Networks device is backed by a limited lifetime hardware warranty. Extended product and technical support may be purchased separately and can include next day advanced replacement, 24x7 technical support, web and email support access, and software updates. For complete support terms go to [www.aerohive.com/support](http://www.aerohive.com/support).

**Contact us today** to learn how your organization can benefit from an Aerohive wireless LAN architecture.