

# Aerohive AP390

## High Performance 802.11ac/n Dual-Radio 3x3:3 Access Point with External Antenna

AEROHIVE NETWORKS AP390 Enterprise access points are where high-performance 802.11ac meets the simplicity of Aerohive's distributed, cooperative architecture. This power optimized access point line uniquely incorporates next generation 802.11ac, smoothly integrates into your existing 802.3af or 802.3at power and network infrastructure, and provides all the redundancy and power efficiency to set the stage for a future Wi-Fi technologies at the access layer.

The AP390 provides high-performance, dual concurrent 2.4Ghz 802.11n/g/b and 5Ghz 802.11ac/n/a radios which can support legacy 802.11a, b, g and n clients. The AP390 interoperates with the rest of the Aerohive Cooperative Control devices to provide a seamless enterprise-class experience for all connected users.

The AP390 is an enterprise-grade, high performance two radio (3x3) three stream MIMO 802.11ac/n Access Point, targeted at high capacity best range enterprise environments with external antenna and extended temperature option.



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### Key Features and Benefits

#### Cooperative Control

All Aerohive access points are built upon the deep, feature rich HiveOS operating system. HiveOS is the backbone of the Aerohive Cooperative Control architecture, and allows the access points to organize into groups or "hives" that coordinate advanced features such as layer 2, layer 3 roaming, cooperative RF management, and security information without dependency on any backend network. Cooperative Control provides all the benefits of coordinated, next generation Wi-Fi with lower Total Cost of Ownership (TCO), more reliability, more scalability, higher performance, and with a focus smooth, simple transition to future technologies.

#### Power-Optimized

With the AP390s, Aerohive allows enterprises to integrate 802.11ac into their networks to provide optimal high-density performance, while leveraging legacy power infrastructure or switches if called upon to do so. Leveraging the dual Ethernet ports of the AP390 allows them to be simultaneously connected to two different switches, enabling uninterrupted wireless service during infrastructure upgrades—crucial for today's mobile-first enterprises requiring ease of migration without wireless downtime or eliminating forced upgrades to any other part of the network.

Enabling a gradual migration strategy to 802.11ac allows organizations to upgrade in the most painless way possible, while ensuring their networks are equipped to handle high-density mobile usage and employees' needs for high speed performance.

#### Integrated Application Priority and Control

By using the robust Quality of Service (QoS) and stateful firewall built into Aerohive access points, the AP390 supports optimizing user application experience on the network. Aerohive access points allow an administrator to create customized user profiles based on context, such as identity of the user, device type, location, and time of day, to prioritize or block applications based on what is critical to that particular user. This user-focused approach ensures every user experience is optimized for mobility.

### 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 or 8x5 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.



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## Product Specifications

### Radio Specifications—802.11a

- 5.150–5.950 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 & 5.150–5.950 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

- 5.150–5.950 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

### Mounting

- Desktop
- Wall Mount included as part of AP
- Built-in slot for Kensington type locks
- Ceiling and Wall Mount locking accessory included with AP
- Ceiling Tile flush 15/16" included as part of AP
- 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

### Antennas

- 6xRP-SMA antenna connections for external antennas
- Articulated antennas available for ceiling or flexible mounting
- Non-articulated antennas available for wall mounting

### Interfaces

- 2x autosensing 10/100/1000 Base-T Ethernet Ports
- Dual Ethernet ports with backhaul capabilities
- Link Aggregation supported via Ether channel (link aggregation)
- 1x Serial RJ45 port (bits per second: 9600, data bits: 8, parity: none, stop bits: 1, flow control: none)
- USB 2.0 port (3G/4G WAN connection – Operating as a BR)
- 1x Reset Pinhole

### Physical

- WxHxD: 7.68in.x1.57in.(2.2in at peak) x 7.68in. (19.5cm x 4cm (5cm at peak) x 19.5cm)
- Weight: 1.5 lbs (0.68 kg)

### Environmental

- Operating: -20 to +55°C, Storage: -40 to +80°C, Humidity: 95%

### Environmental Compliance

- UL 2043

### Power Options (sold separately)

- 802.3af and/or 802.3at Power over Ethernet PoE Injector
- 12v DC external power adapter
- Aerohive switch products

### Power Specification

- AC/DC power adapter:
  - Input: 100–240 VAC
  - Output: 12v/2.0A
- PoE nominal input voltages: 48V, 0.35A, (802.3af) – 48V, 0.625A (802.3at)
- RJ-45 power input pins: Wires 4,5,7,8 or 1,2,3,6
- 802.3af compliant with Cat-5 cable or higher

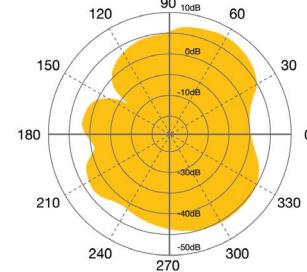
## Features & Benefits

### Flexible Hardware Platform

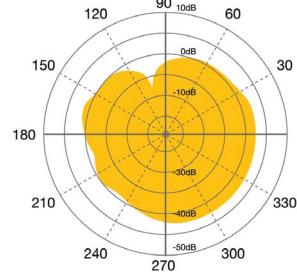
- Multiple radios provide concurrent 802.11a/n/ac and 802.11b/g/n connections with no degradation in performance
- Dual Ethernet ports with link aggregation and failover for extra redundancy
- Plenum Rated APs for indoor, office environments
- Supports 802.3af PoE or standard power adapter
- USB interface for future services
- Hardware acceleration for IPsec services
- Innovative Design
- Low profile design blends well into an office environment
- Feature optimized hardware design
- Low-distraction indicators appear as gently glowing rather than bright blinking lights

## RF Coverage Maps

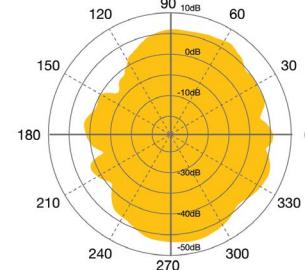
### 2.4 Ghz Horizontal



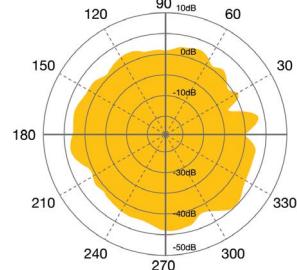
### 2.4 Ghz Vertical



### 5 Ghz Horizontal



### 5 Ghz Vertical



## Power & Sensitivity Table

Power shown is per transmit chain and is a maximum power that the radio is capable of, power limits will be limited by local radio regulations.

Rate	2.4GHz		5GHz		Rate	2.4GHz		5GHz	
	TX Power	RX Sensitivity	TX Power	RX Sensitivity		TX Power	RX Sensitivity	TX Power	RX Sensitivity
<b>802.11b</b>									
6 Mbps - 24 Mbps			20	-90					
36 Mbps			18	-82					
48 Mbps			16	-78					
54 Mbps			15	-77					
<b>802.11b</b>									
1 Mbps	21	-98							
2 Mbps	21	-95							
5.5 Mbps	21	-94							
11 Mbps	21	-91							
<b>802.11g</b>									
6 Mbps - 24 Mbps	20	-87							
36 Mbps	18	-84							
48 Mbps	17	-80							
54 Mbps	16	-78							
<b>802.11n HT20</b>									
MCS 0, 1, 2, 3, 4, 8, 9, 10, 11, 12, 16, 17, 18, 19, 20	20	-89	19	-87					
MCS 5, 13, 21	18	-77	18	-77					
MCS 6, 14, 22	17	-74	16	-75					
MCS 7, 15, 23	16	-74	15	-73					
<b>802.11ac VHT80</b>									
MCS 0, 1, 2					20	-85			
MCS 3, 4					19	-77			
MCS 5					18	-71			
MCS 6					16	-70			
MCS 7					14	-68			
MCS 8					13	-63			
MCS 9					12	-62			
<b>802.11ac VHT40</b>									
MCS 0, 1, 2					20	-85			
MCS 3, 4					19	-77			
MCS 5					18	-71			
MCS 6					16	-70			
MCS 7					14	-68			
MCS 8					13	-63			
MCS 9					12	-62			
<b>802.11ac VHT20</b>									
MCS 0, 1, 2					20	-85			
MCS 3, 4					19	-77			
MCS 5					18	-71			
MCS 6					16	-70			
MCS 7					14	-68			
MCS 8					13	-63			
MCS 9					12	-62			

## Hardware Assisted Features

### Security

- Trusted Platform Module (TPM)–Hardware-based key storage and encryption
- Wireless privacy & authentication Wi-Fi CERTIFIED™ WPA™ and WPA2™, 802.11i, WEP, 802.1x, PSK
- Encryption: AES:CCMP, TKIP, and RC4 (WEP only)
- Marking and policing—WMM(TM) (802.11e) for wireless, 802.1p and/or DiffServ
- Wi-Fi CERTIFIED WMM
- WMM power save (U-APSD)

### Anti-Theft

- Designed to work with Kensington-style locks
- Tamper-proof security screw (with bracket option)