Aerohive **AP230**

Performance optimized 802.11ac/n Dual-Radio 3x3:3 access point with internal antenna option

AEROHIVE NETWORKS AP230 Enterprise access points set a new price / performance standard for 802.11ac APs. By combining the latest in 3x3, 3-stream 802.11ac Gigabit Wi-Fi technology and advanced security and mobility management together into an economical package it allows you to deploy 802.11ac into every part of the network infrastructure – from Corp HQ to remote branches and outlets to every campus and classroom.

With HiveOS at its heart and the ability to provide full Wi-Fi functionality on legacy POE infrastructure, the AP230 maintains the controller-less price/performance standard Aerohive has set and creates solution pricing that allows enterprises of all sizes to broadly deploy 802.11ac for their mobility future.

The AP230 provides high-performance, dual concurrent 2.4Ghz 802.11n/g/b radio with Turbo-QAM™and 5Ghz 802.11ac/n/a radio with beamforming which can support legacy 802.11a, b, g and n clients and interoperate with the rest of the Aerohive Cooperative Control devices to provide a seamless enterprise-class experience for all connected users.

Key Features and Benefits

Engineered for Industry-leading price/performance
The challenges of pervasive mobility – high performance Wi-Fi, high client density, industry and government regulations, and advanced applications – are no longer the exclusive domain of the large enterprise. Engineered with security features to meet regulations like Payment Card Industry (PCI 3.0) and HIPAA and Wi-Fi technology to address high-density environments, like 1:1 computing classrooms and online testing initiatives, the AP230 incorporates the full advanced software features required by every organization. The AP230 also incorporates enough processing horsepower to run sophisticated Application Visibility and Control functionality that allows for tracking of 700 application signatures and even enables custom application signature tracking all at Gigabit data rates. Now policies can be set on any application fingerprint; even proprietary enterprise applications.

High Density Environments with Future-proof deployment

The latest release of HiveOS combined with the AP230 allows an Aerohive-based network to create a 'plug-n-play' solution that addresses high-density, high-performance requirements while laying the ground work for a phased approach to upgrading your network to 802.11ac and without requiring you to upgrade your existing POE infrastructure. Our advancements in energy efficiency allow the AP230 to provide improved client capacity and full 3-stream 802.11ac performance while using existing POE infrastructure (See Pg. 2) . As more APs are added to the network, HiveOS simply recognizes and automatically includes them in the network. Improvements to the radio management software account for the new 802.11ac radios automatically and allow for existing and new APs to coexist flawlessly.

BYOD and Advanced Client Services
When combined with Aerohive's Cloud Services Platform and Mobility Suite, the AP230 even packs enough power to fully control your BYOD environment. The Aerohive Mobility Suite featuring Client Management and ID Manager applications leverages Aerohive's HiveOS that runs on the AP230 and extends management and control over the complete spectrum of clients, from transient guests to company-issued devices. By combining simplified onboarding, management, and troubleshooting with context-based visibility, policies, and enforcement for all connected clients, Aerohive can provide a personalized mobile experience for every user and device on the network.

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.

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

The **AP230** is an enterprise-grade, two radio (3x3) three stream MIMO 802.11ac/n Access Point engineered with uncompromising performance for high capacity.

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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
- 3x Integrated single band, 2.4-2.5 GHz Omni-directional antennas, 6.0 dBi peak gain
- 3x Integrated single band, 5.1-5.8 GHz Omni-directional antennas, 6.0 dBi peak gain

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 (Future use)
- 1x Reset Pinhole

Physical
- WxHxD: 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: 1.6 lbs (.73 kilograms)

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

Environmental Compliance
- UL 2043

Power Options (sold separately)
- 802.3af (minimum required) 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 compatible with Cat-5 cable or higher (up to 14.5W draw with full functionality)

Features & Benefits

Flexible Hardware Platform
- Multiple radios provide concurrent 802.11a/n/ac and 802.11b/g/n performance
- Dual Ethernet ports with link aggregation with dual GigE
- Plenum Rated APs for indoor, office environments
- USB interface for future services
- 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

## 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™ (802.11e) for wireless,
- 802.1p and/or DiffServ
- Wi-Fi CERTIFIED WMM
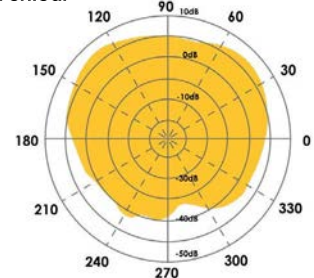- WMM power save (U-APSD)

Anti-Theft
- Designed to work with Kensington-style locks
- Tamper-proof security screw (with bracket option)
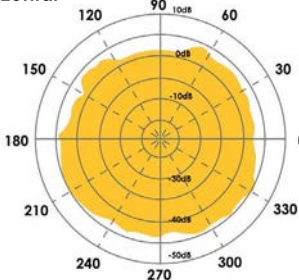
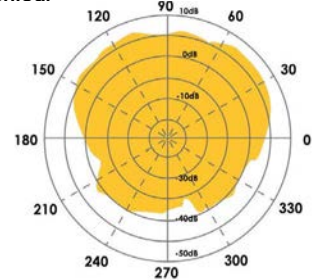## RF Coverage Maps

2.4 Ghz Horizontal
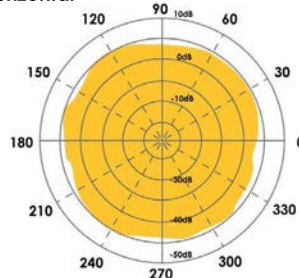
2.4 Ghz Vertical

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 TX Power	2.4GHz RX Sensitvity	5GHz TX Power	5GHz RX Sensitvity
802.11a				
6 Mbps – 24 Mbps			20	-90
36 Mbps			18	-82
48 Mbps			16	-78
54 Mbps			15	-77
802.11b				
1 Mbps	21	-98		
2 Mbps	21	-95		
5.5 Mbps	21	-94		
11 Mbps	21	-91		
802.11g				
6 Mbps – 24 Mbps	20	-87	23	-95
36 Mbps	18	-84	20	-80
48 Mbps	17	-80	23	-95
54 Mbps	16	-78	20	-80
802.11n HT20				
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

Rate	2.4GHz TX Power	2.4GHz RX Sensitvity	5GHz TX Power	5GHz RX Sensitvity
802.11ac VHT20				
MCS 0, 1, 2			20	-85
MCS 3, 4			19	-77
MCS 5			18	-71
MCS 6			16	-70
MCS 7			15	-68
MCS 8			14	-63
MCS 9			N/A	-62
802.11ac VHT40				
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
802.11ac VHT80				
MCS 0, 1, 2			20	-85
MCS 3, 4			19	-77
MCS 5			19	-71
MCS 6			18	-70
MCS 7			N/A	-68
MCS 8			13	-63
MCS 9			12	-62