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Aerohive NETWORKS

Aerohive AP130 802.11ac Dual Radio Access Point

802.11ac Dual-Radio 2x2:2 access point with internal antennas designed for ultra-high density environments.

Aerohvie Networks AP130 Enterprise access points provide a seamless transition to 802.11ac. With more users, more devices, more things, more applications, and strained infrastructure and budget, the AP130 is a powerful option to meet those challenges. Aerohive has built an AP for pervasive Wi-Fi prepared for ultra-high density environments, powerful enough to provide all the services needed for an enterprise network, and inexpensive enough to deploy for ultrahigh capacity networks. The AP130 combines 2x2, 2-stream, 802.11ac Wi-Fi technology and advanced security and device lifecycle management together into a cost-optimized solution that allows you to deploy high speed Wi-Fi into every office or classroom. Combining Aerohive innovative distributed Cooperative Control architecture with the powerful HiveOS operating system, coupled with the ability to provide full functionality on legacy PoE infrastructure, the AP130 maintains the Aerohive standard for cost-effective solution pricing that allows enterprises of all sizes to deploy capacity-oriented Wi-Fi networks.

The AP130 provides an enterprise-class experience for all types of mobile devices, including legacy Wi-Fi types. The AP130 provides high-performance data rates up to 867Mbps in the 5-GHz band. It supports dual concurrent 2.4Ghz 802.11b/g/n and 5Ghz 802.11a/n/ac radios

Key Features & Benefits

Engineered for ultra-high density

Pervasive access – thousands of new devices, used in more places, storing more data, on new device types- BYOD, Consumerisation of IT, wearables and IoT, high performance Wi-Fi, very-high client density, industry and government regulations, advanced applications and services – are no longer the exclusive domain of the large enterprise and are pretty much required by every organisation. Companies of all sizes must accommodate every user laptop, personal devices, and in the very near future lighting, security, air conditioning, and other connected devices. The AP130 with the latest HiveOS incorporates the advanced software features required by every organisation, including an integrated RADIUS server, DHCP server, Captive Web Portal, and automatic mesh for wireless network redundancy. Add the simplified management experience with Aerohive HiveManager, including auto-discovery and AP130 auto-provisioning experience, flexible network policies and APspecific configurations and you get a powerful solution for any enterprise that's simple enough for any deployment.

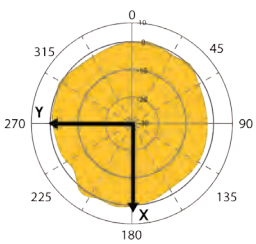
Future-proof deployment

Upgrading your network to 802.11ac DOES NOT require you to upgrade your existing PoE infrastructure. Our advancements in energy efficiency allow the AP130 full 2-stream 802.11ac performance while using existing 802.3af PoE infrastructure. Improvements to the radio management protocol allow adding more access points to the network, such as an AP in every classroom for schools. AP130 features a thin, lightweight, sleek design for a very clean install. A TPM chip (Trusted Platform Module) provides hardware-based key and configuration encryption for added security.

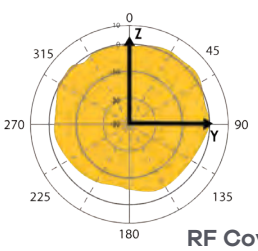
Enterprise-Class Services

The AP130 supports granular location tracking for devices and a complete Application Visibility and Control functionality, including reporting, stateful firewall, and powerful Aerohive Quality of Service (QoS), which assures prioritisation of the data traffic and data rate limits for different users, groups of users, and devices. The Aerohive Mobility Suite featuring Client Management, ID Manager, and Social Login applications take advantage of Aerohive's HiveOS that runs on the AP130 and extends management and control with simplified onboarding, management, and troubleshooting with context-based visibility, policies, and enforcement for the entire spectrum of client devices.

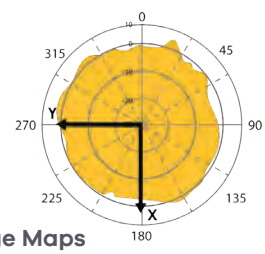
2.4 Ghz Horizontal



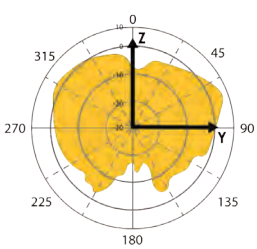
2.4 Ghz Vertical



5 Ghz Horizontal



5 Ghz Vertical



RF Coverage Maps

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Advanced Features
- Integrated application visibility and control (AVC)
- On-device RADIUS Switch directory support, Captive, Web Portal, DHCP server, and spectrum analysis - Max 256 concurrent RADIUS authenticated users
- Max 512 DHCP clients per AP
- Hardware Assisted Features

Flexible Hardware Platform
- Small, light weight intuitive design.
- Two radios provide concurrent 802.11a/n/ac and 802.11b/g/n connections with no degradation in performance
- Automatic or dedicated mesh backup
- Full 802.11ac performance with IEEE 802.3af power

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
- Granular user profile-based management defines QoS, mobility policies, and security policies for each user that enters the network
- 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)

AP130 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
- 2.4–2.5 GHz Operating Frequency
- Direct-Sequence Spread-Spectrum (DSSS)

Modulation
- Rates (Mbps): 11, 5.5, 2, 1 w/ auto fallbackRates

Radio Specifications—802.11g
- 2.4–2.5 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM)

Modulation
- Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/ auto fallback

Radio Specifications—802.11n
- 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
- HT20 and HT40 High-Throughput (HT) Support
- 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 – 867 Mbps), NSS = 1-2.
- 2x2:2 Stream Multiple-In, Multiple-Out (MIMO)

Radio
- VHT20/VHT40/VHT80 support
- TxBF (Transmit Beamforming)

Antennas
- 2x Integrated single band, 2.4-2.5 GHz Omnidirectional antennas
- 2x Integrated single band, 5.1-5.8 GHz Omnidirectional antennas Interfaces
- Autosensing 10/100/1000 Base-T Ethernet PoE (Power over Ethernet 802.3af) Port

Physical
- LxWxH 147X147X42 mm (5.79x5.79x1.65in). w/o mounting brackets
- .51kg (1.13 lbs) w/o brackets

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

Environmental Compliance
- UL2043

Power Specifications
- IEEE 802.3af PoE Power

Power Options
- Power Draw: Typical 9.05W, Max 11W
- 802.3af Power over Ethernet (PoE) capable Gigabit Ethernet port (RJ-45 power input pins: Wires 4,5,7,8 or 1,2,3,6)
- 802.3af Power over Ethernet injector

Mounting
- Desktop
- Wall Mount included as part of AP
- Built-in slot for Kensington type locks

Accessories Sold Separately
- 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

Rate	2.4GHz TX Power	2.4GHz RX Sensitvity	5GHz TX Power	5GHz RX Sensitvity
802.11a				
6 Mbps 24 Mbps			19	94, 86
36 Mbps			18	82
48 Mbps			17	78
54 Mbps			16	77
802.11b				
1 Mbps	21	99		
2 Mbps	21	97		
5.5 Mbps	21	94		
11 Mbps	21	91		
802.11g				
6 Mbps 24 Mbps	20	95, 86		
36 Mbps	18	82		
48 Mbps	17	78		
54 Mbps	16	77		
802.11n HT20				
MCS 0, 1, 2, 3, 4, 8, 9, 10, 11, 12	20	94, 81	19	93, 81
MCS 5, 13	18	77	18	76
MCS 6, 14	17	74	17	75
MCS 7, 15	16	74	16	73
802.11n HT40				
MCS 0			19	93
MCS 1			19	90
MCS 2			19	88
MCS 3			19	84
MCS 4			18	81
MCS 5			17	77
MCS 6			16	75
MCS 7			14	74
MCS 8			19	90
MCS 9			19	87
MCS 10			19	85
MCS 11			19	81
MCS 12			18	78
MCS 13			17	74
MCS 14			16	72
MCS 15			14	71

Rate	2.4GHz TX Power RX	5GHz TX Power	5GHz RX Sensitvity
802.11ac VHT20			
MCS 0		19	-93
MCS 1		19	-89
MCS 2		19	-87
MCS 3		19	-84
MCS 4		19	-81
MCS 5		18	-76
MCS 6		16	-75
MCS 7		15	-73
MCS 8		13	-69
MCS 9			
802.11ac VHT40			
MCS 0		19	-90
MCS 1		19	-87
MCS 2		19	-85
MCS 3		19	-81
MCS 4		19	-78
MCS 5		18	-74
MCS 6		16	-72
MCS 7		15	-71
MCS 8		13	-66
MCS 9		12	-64
802.11ac VHT80			
MCS 0		19	-87
MCS 1		19	-84
MCS 2		19	-81
MCS 3		19	-78
MCS 4		19	-75
MCS 5		18	-70
MCS 6		16	-69
MCS 7		15	-68
MCS 8		13	-63
MCS 9		12	-61

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.

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.

Contact Krome today on 01932 232345 to learn how your organisation can benefit from an Aerohive wireless LAN architecture.

Telephone: +44 (0) 1932 232345
Email: info@krome.co.uk

Krome Wireless Deployment Planning Service

We can deliver you a Wireless solution that caters for your individual business, and specific site requirements.

To create a WLAN solution that works effectively, there are several considerations that have to be made, the multiple client device and application types that are required to perform over the wireless infrastructure is just the start, in addition to that you need to add the speed and complexity of 802.11n, the variety of potentially high demanding applications or high-density environments and the security risks, with so many factors to consider tricky deployment scenarios can easily arise, causing unexpected challenges to the success of your Wireless deployment.

Krome offer a comprehensive wireless deployment planning service to fully assess and effectively plan the solution prior to installation.

Assessing Your Requirements

To get started with your WLAN installation, Krome will examine the requirements of your implementation, including departmental, individual user, site, and application requirements, gaining a basic overview of what your Wireless network will need to support. We will identify mission critical applications, paying special attention to those that generate high levels of traffic and those requiring deterministic behavior. Once we have identified such applications we can then evaluate the expected service levels.

Effective Planning

Whether you are upgrading from an existing WLAN or planning a completely new greenfields site Krome can fully evaluate and plan the deployment by using a WLAN planning tool and building floor plans. The planning tool is designed to help scope and plan a WiFi Deployment to determine the number of APs required to achieve an intended coverage, AP placement and data rates. This tool calculates the loss in signal strength as it passes through open air and various materials to show predicted coverage.

Upgrading from Existing Wi-Fi

If you are upgrading your existing WLAN, you already have plenty of data about how your current network is performing. Krome will initially perform a quick site survey with the existing access points in place, evaluating the current coverage, capacity, and type of APs (access points). Using the survey information allows us to make informed decisions about your new implementation. Krome will provide a report on how to achieve optimal results and performance with your new deployment, along with the quickest and most effective way to migrate systems.

New WLAN Deployment

In a new, or greenfield, WLAN deployment; when you do not have the benefit of an existing network for testing and analysis, the planning stage is more complex. Determining the scope of your WLAN deployment will have a major impact on capacity and coverage. Krome will evaluate users, applications, interference's, devices and performance requirements, along with building plans and site information. Site plans and blueprints are hugely beneficial for planning as we are able to evaluate the building characteristics; location of elevators, load-bearing walls and material of walls. With this information loaded into the planning tool combined with our analysis of your service requirements we are able to comprehensively plan for your deployment.

Deploying with Confidence

Moving a large enterprise, or even a small one, to a WLAN for the very first time need not be daunting; with proper planning in place, you can prevent poor performance and eliminate unforeseen solution costs. By engaging with highly experienced Wireless deployment partner Krome Technologies to effectively assess and plan your deployment you can be assured that your WLAN solution is a success.

Find Out More

If you're interested in learning more about Aerohive Networks WLAN solutions or our deployment planning service please do get in touch with one of our Business Managers, we'd love to share our experiences, and help you to plan and deliver your Aerohive WLAN solution.

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