Aerohive NETWORKS

datasheet

Aerohive **AP1130**

802.11ac outdoor access point

AEROHIVE NETWORKS AP1130 is a high-performing and ruggedized 802.11ac outdoor access point (AP). The AP1130 provides high-performance dual band concurrent (2.4GHz and 5GHz) 802.11ac (2x2:2) MIMO and has a 10/100/1000 Ethernet port.

The Aerohive AP1130 is an enterprise-grade, high performance product, designed for high bandwidth outdoor wireless environments. With extended temperature range and a watertight chassis, the AP1130 can be deployed in almost any outdoor environment on earth. With two antennas on each radio and the ability to provide service concurrently on both 2.4Ghz and 5Ghz bands, the AP1130 provides support for 802.11ac as well as legacy 802.11a, b, g and n clients, through Aerohive's industry unique and resilient controller-less architecture.

The **Aerohive AP1130** is a durable, enterprise-grade, high performance (2x2:2) 802.11ac MIMO solution, specially designed for outdoor high-bandwidth-demand wireless deployments in harsh environments.

Key Features and Benefits

802.11ac

AP1130 is a 2x2:2 802.11ac access point which provides high speed data access not just with the new 802.11ac capable wireless clients but also improves user experience on the traditional 802.11n clients. 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.

Light Weight and Intuitive Design

AP1130 is one of industry's lightest 802.11ac access points, allowing easy installation in hard to reach places like rooftops and poles by a single person. The AP also features intuitive LEDs which indicate the AP status and backhaul connections either over Ethernet or wireless (mesh backhaul). Additionally, AP1130 features a brand new capability to provide accurate tuning of directional antennas for long range point to point mesh connections. This capability provides for a visual and audio mechanism to accurately identify the most suitable orientation for antennas, such that the mesh link is formed at the highest possible negotiated rate, leading to improved user experience in areas without Ethernet connected APs.

Aerohive's Cooperative Control Architecture

AP1130, like all Aerohive access points, is built upon the 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, security information, and mesh networking without requiring a centralized controller. 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 on truly optimizing mobility in a mobile first enterprise.

Integrated Application Visibility and Control (AVC)

AP1130 supports full layer 7 Application Visibility and Control for a wide variety of applications, allowing prioritization of resources based on business priorities. Aerohive's cloud or on-premise based management application – HiveManager allows the administrators to view top applications and users and design policies to prioritize or block applications based on what is critical to that particular environment. 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.

Wi Fi CERTIFIED

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

Product Specifications

Included Mounting Options
- Wall Mount
- Pole Mount 1 to 2.75 inches in diameter

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
- 2.4–2.5 GHz 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
- 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 - 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
- 5.150–5.950 GHz Operating Frequency
- 802.11ac Modulation (256-QAM)
- Rates (Mbps): MCS0–MCS9 (6.5Mbps - 867Mbps), NSS = 1-2.
- 2x2:2 Stream Multiple-In, Multiple-Out (MIMO) Radio
- VHT20/VHT40/VHT80 support

Mounting
- Wall Mounted
- Pole mounted – 1-2.75inch pole strap included with the AP

Antennas
- 4x N-type jack antenna connections for external antennas
- Antennas sold as accessory

Interfaces
- Autosensing 10/100/1000 Base-T Ethernet PoE (Power over Ethernet 802.3at) Port

Physical
- LxWxH: 9 5/8 x 7 7/8 x 3 in. w/ locking hole extensions
- LxWxH: 8 13/16 x 7 1/8 x 2 3/4 w/o locking hole extensions
- 4.3 lbs, 6.05 lbs w/antennas and bracket

Environmental
- Operating: -40 to +55˚C, Storage: -40 to +80˚C
- Humidity: 95%

Environmental Compliance
- IP 67

Power Options (sold separately)
- 802.3at Power over Ethernet (PoE) port

Power Specifications
- IEEE 802.3at PoE Power
- 12 V DC input
- RJ-45 powerinputpins:Wires4,5,7,8 or 1,2,3,6

Features & Benefits

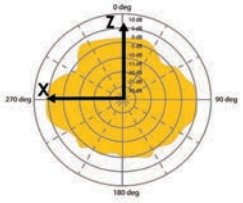
Flexible Hardware Platform
- Two radios provide concurrent 802.11a/n/ac and 802.11b/g/n connections with no degradation in performance
- Automatic or dedicated mesh backup
- Supports 802.3at PoE
- Buzzer for long distance point to point mesh tuning

Advanced Features
- Integrated application visibility and control
- On-Device RADIUS Server with directory support, Captive Web Portal, DHCP server, and spectrum analysis - Max 256 concurrent RADIUS authenticated users
- Max 512 DHCP clients per AP

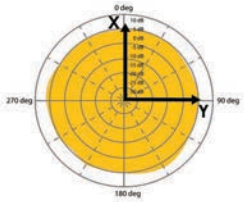
Security Features
- Trusted Platform Module (TPM)–Hardware-based key storage and encryption
- Wireless privacy & authentication Wi-Fi CERTIFIED WPA and WPA2, 802.11i, WEP, 802.1x, PSK
- Granular user profile-based management defines QoS, mobility policies, and security policies for each user that enters the network
- Encryption: AES:CCMP, TKIP, and RC4 (WEP only)
- Marking and policing–WMMTM (802.11e) for wireless
- 802.1p and/or DiffServ
- Wi-Fi CERTIFIED WMM
- WMM power save (U-APSD)

RF Coverage Maps

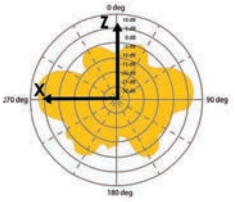
2.4 Ghz Vertical



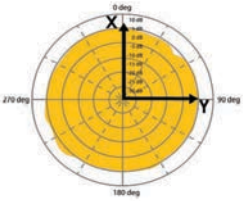
2.4 Ghz Horizontal



5 Ghz Vertical



5 Ghz Horizontal



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.

	2.4GHz		5GHz	
Rate	TX Power	RX Sensitvity	TX Power	RX Sensitvity
802.11a				
6 Mbps – 24 Mbps			21	-94, -86
36 Mbps			19	-82
48 Mbps			18	-78
54 Mbps			17	-77
802.11b				
1 Mbps	23	-98		
2 Mbps	23	-95		
5.5 Mbps	23	-93		
11 Mbps	23	-90		
802.11g				
6 Mbps – 24 Mbps	21	-94, -85		
36 Mbps	20	-82		
48 Mbps	19	-77		
54 Mbps	18	-76		
802.11n HT20				
MCS 0, 1, 2, 3, 4, 8, 9, 10, 11, 12,	22	-93, -80	21	-93, -81
MCS 5, 13	21	-76	19	-76
MCS 6, 14	19	-74	18	-75
MCS 7, 15	18	-73	17	-73

	2.4GHz		5GHz	
Rate	TX Power	RX Sensitvity	TX Power	RX Sensitvity
802.11ac VHT20				
MCS 0	22	-92	21	-93
MCS 1	22	-89	21	-89
MCS 2	22	-87	21	-87
MCS 3	22	-84	21	-84
MCS 4	20	-80	21	-81
MCS 5	20	-76	19	-76
MCS 6	19	-74	17	-75
MCS 7	18	-73	18	-73
MCS 8	17	-69	16	-69
MCS 9	16	N/A	15	N/A
802.11ac VHT40				
MCS 0	22	-90	20	-90
MCS 1	22	-87	20	-87
MCS 2	22	-84	20	-85
MCS 3	22	-81	20	-81
MCS 4	22	-78	20	-78
MCS 5	20	-74	19	-74
MCS 6	19	-72	18	-72
MCS 7	18	-71	17	-71
MCS 8	17	-66	16	-66
MCS 9	16	-65	15	-64
802.11ac VHT80				
MCS 0	N/A	N/A	20	-87
MCS 1	N/A	N/A	20	-84
MCS 2	N/A	N/A	20	-81
MCS 3	N/A	N/A	20	-78
MCS 4	N/A	N/A	20	-75
MCS 5	N/A	N/A	19	-70
MCS 6	N/A	N/A	18	-69
MCS 7	N/A	N/A	17	-68
MCS 8	N/A	N/A	16	-63
MCS 9	N/A	N/A	15	-61

SKUs & Accessories

Aerohive Access Points	
Part Number	Description
AH-AP-AC-FCC	AP1130, outdoor rated, 2 radio 2x2 802.11a/b/g/n/ac, 1 10/100/1000, FCC regulatory domain, without power supply
AH-AP-1130-AC-W	AP1130, outdoor rated, 2 radio 2x2 802.11a/b/g/n/ac, 1 10/100/1000, configurable regulatory domain, without power supply
Outdoor Access Points Accessories	
Part Number	Description
AH-ACC-1130-ANT-2G	2.4Ghz N-Plug outdoor 5dBi antenna for AP1130
AH-ACC-1130-ANT-5G	5Ghz N-Plug outdoor 5dBi antenna for AP1130
AH-ACC-1130-ANT-KIT	AP1130 outdoor antenna kit (2x2.4Ghz 5dBi and 2x5Ghz 5dBi)
AH-ACC-1130-ANT-18	5Ghz 18-dBi Outdoor Directional Antenna with N-connectors for AP1130
AH-ACC-1130-CBL-DC	AP1130 Outdoor AP DC cable kit (7 ft.)
AH-ACC-1130-STRP-3-15	AP1130 Metal Hose Strap for 3-15 in diameter pole (Larger Pole)
AH-ACC-1130-CVR-RF	AP1130 RF connector cover (2x) - Accessory to protect connectors
AH-ACC-OINJ-30W	30W Outdoor PoE injector for AP170 and AP1130 with US Plug ONLY