

Huawei AP5030DN and AP5130DN Brochure-Detailed



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Huawei AP5030DN and AP5130DN are cost-effective 802.11ac Access Points (APs) designed for Wireless Local Area Networks (WLANs). These models operate in Fit or Fat mode, provide comprehensive service support capabilities, and feature proven reliability, high security, simple network deployment, automatic AC discovery and configuration, and real-time management and maintenance.

The AP5030DN and AP5130DN comply with IEEE 802.11ac and provide gigabit access for wireless users, ensuring a quality user experience on wireless networks.



Huawei AP5030DN Access Point

- Built-in antennas
- 2.4 GHz and 5 GHz frequency bands
- IEEE 802.11a/b/g/n/ac

Huawei AP5130DN Access Point

- External antennas
- 2.4 GHz and 5 GHz frequency bands
- IEEE 802.11a/b/g/n/ac

Huawei AP5030DN&AP5130DN offers the following advantages:

- High-speed and reliable wireless access services: uses the latest 802.11ac chip for better performance and wider coverage.
- Integrated Multiple-Input Multiple-Output (MIMO) antennas: implements omnidirectional coverage without coverage holes, and provides a maximum rate of 1.75 Gbit/s.
- Comprehensive user access control capability: implements user access control based on user group policies and supports a maximum of 256 users.
- High network security: supports multiple authentication and encryption modes, as well as rogue AP detection.
- Flexible networking and strong environment adaptability: works for access, WDS, and mesh networking scenarios
- Easy management and maintenance: supports Plug-and-Play (PnP)

Product Features

- Recommended for use in locations with a large area or high user density, such as exhibition centers, hospitals, factories, and logistics centers
- 3 x 3 MIMO technology (three spatial streams): 450 Mbit/s at 2.4 GHz, 1.3 Gbit/s at 5 GHz, and 1.75 Gbit/s for the device
- Spectrum analysis
- Locating service
- Wireless Intrusion Detection System (WIDS)/Wireless Intrusion Prevention System (WIPS)
- Auto Radio
- High Density Boost
- User Awareness
- Beamforming
- IPv6 support
- Industry-level design with high waterproof and dustproof protection ratings for challenging environments
- PoE power supply in compliance with IEEE 802.3af/at, simplifying AP installation
- External antennas on the AP5130DN for flexibility in configuring antenna gains and selecting device positioning

Scalability

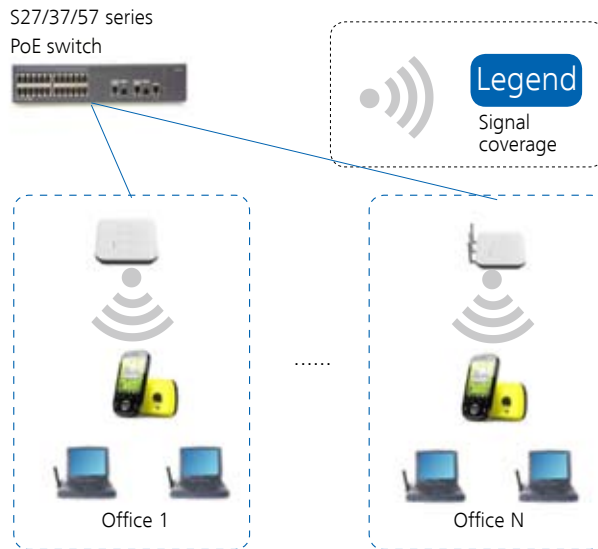
When coupled with Access Controllers (ACs) and Network Management Systems (NMSs), Huawei 802.11ac APs can implement real-time monitoring, intelligent Radio Frequency (RF) management, spectrum analysis, wireless positioning, load balancing, roaming, security policy control, wired/wireless network integration, as well as Bring Your Own Device (BYOD) network security control and a smart access strategy. The AC + Fit AP architecture is highly scalable and supports centralized management of multiple Fit APs on a single AC. Software upgrade technologies allow users to seamlessly add and upgrade APs without incurring additional administrative or equipment expense.

AP Networking

Huawei models AP5030DN and AP5130DN can work in AP, Wireless Distribution System (WDS), or mesh mode.

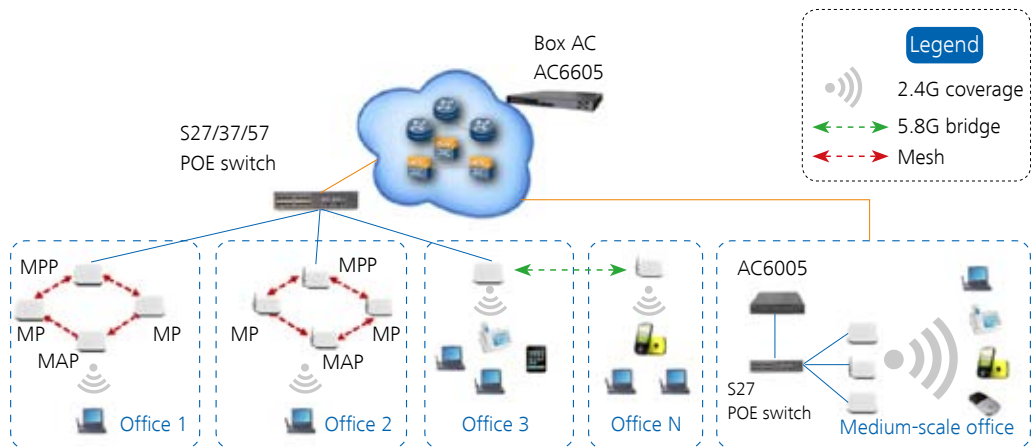
The following figures show typical AP5030DN and AP5130DN networking.

Fat AP networking



When working as a Fat AP, the AP5030DN and AP5130DN provide user authentication and access, data security, service data forwarding, Quality of Service (QoS), and other functions, without an AC.


Fit AP networking




When working as a Fit AP, the AP5030DN and AP5130DN provide bridging and data forwarding functions. An AC is required for user access, AP management, authentication, routing, security, and QoS. In WDS mode, the AP supports Point-to-Point (P2P) and Point-to-Multi-Point (P2MP) networking. With 5 GHz and 2.4 GHz frequency bands, the AP5030DN and AP5130DN provide wireless bridging and access functions.

Mesh Points (MPs) interconnect in a mesh topology to form a self-configuring and self-healing Wireless Mesh Network (WMN) backbone, and Mesh Portal Points (MPPs) provide a connection to the Internet. Stations can connect to the WMN network through Mesh Access Points (MAPs). Dedicated mesh routing protocols provide better transmission quality and ensure high bandwidth and highly stable Internet connections.

Basic Specifications

Item	Description	
Technical specifications	Dimensions (W x D x H)	220 mm x 220 mm x 53 mm
	Weight	1.0 kg
	System memory	<ul style="list-style-type: none"> • 256 MB DDR2 • 32 MB flash memory
Power specifications	Power input	<ul style="list-style-type: none"> • 12V DC \pm 10% • PoE power supply: -48V DC (in compliance with IEEE 802.3af/at)
	Maximum power consumption	13W  NOTE The actual maximum power consumption depends on local laws and regulations.
Environmental specifications	Operating temperature	-10°C to +50°C
	Storage temperature	-40°C to +70°C
	Operating humidity	5% to 95% (non-condensing)
	Dustproof and waterproof grade	IP41
	Altitude	-60 m to 4,000 m
	Atmospheric pressure	70 kPa to 106 kPa

Radio Specifications

Item	Description
Antenna type	AP5030DN: built-in antennas AP5130DN: external dual-band antennas
Antenna gain	<ul style="list-style-type: none"> • AP5030DN: 4 dBi (2.4 GHz); 5 dBi (5 GHz) • AP5130DN: 2.5 dBi (2.4 GHz); 4 dBi (5 GHz)
Maximum number of users	\leq 256
Maximum transmit power	20 dBm  NOTE The actual transmit power depends on local laws and regulations.
Power increment	1 dBm
Receiver sensitivity	2.4 GHz 802.11b (CCK): -96 dBm @ 1 Mb/s; -89 dBm @ 11 Mb/s
	2.4 GHz 802.11g (non-HT20): -87 dBm @ 6 Mb/s; -74 dBm @ 54 Mb/s

Item	Description
Receiver sensitivity	2.4 GHz 802.11n (HT20): -87 dBm @ MCS0; -71 dBm @ MCS7
	2.4 GHz 802.11n (HT40): -84 dBm @ MCS0; -68 dBm @ MCS7
	5 GHz 802.11a (non-HT20): -90 dBm @ 6 Mb/s; -73 dBm @ 54 Mb/s
	5 GHz 802.11n (HT20): -89 dBm @ MCS0; -70 dBm @ MCS7
	5 GHz 802.11n (HT40): -86 dBm @ MCS0; -66 dBm @ MCS7
	5 GHz 802.11ac (VTH20): -88 dBm @ MCS0NSS1; -65 dBm @ MCS8NSS1
	5 GHz 802.11ac (VTH40): -85 dBm @ MCS0NSS1; -60 dBm @ MCS9NSS1
	5 GHz 802.11ac (VTH80): -82 dBm @ MCS0NSS1; -57 dBm @ MCS9NSS1

Product Features

WLAN features	<p>Compliance with IEEE 802.11a/b/g/n/ac</p> <p>Maximum rate: 1.75 Gbit/s</p> <p>Maximum Ratio Combining (MRC)</p> <p>Maximum Likelihood Detection (MLD)</p> <p>Data unit aggregation, including A-MPDU (Tx/Rx) and A-MSDU (Rx only)</p> <p>802.11 Dynamic Frequency Selection (DFS)</p> <p>Short Guard Interval (GI)</p> <p>Priority mapping and packet scheduling based on a Wi-Fi Multimedia (WMM) profile to implement priority-based data processing and forwarding</p> <p>Automatic and manual rate adjustment (the rate is adjusted automatically by default)</p> <p>WLAN channel management and channel rate adjustment</p> <p>Automatic channel scanning and interference avoidance</p> <p>Service Set Identifier (SSID) hiding</p> <p>Signal Sustain Technology (SST)</p> <p>Unscheduled Automatic Power Save Delivery (U-APSD)</p> <p>Control and Provisioning of Wireless Access Points (CAPWAP) in Fit AP mode</p> <p>Automatic access in Fit AP mode</p> <p>WDS in Fit AP mode</p> <p>Mesh networking in Fit AP mode</p>
Network features	<p>Compliance with IEEE 802.3u</p> <p>Auto-negotiation of the rate and duplex mode; automatic switchover between the Media Dependent Interface (MDI) and Media Dependent Interface Crossover (MDI-X)</p> <p>SSID-based VLAN assignment</p> <p>VLAN trunk on uplink Ethernet ports</p> <p>4,094 VLAN IDs (1 to 4,094) and a maximum of 16 virtual APs (VAPs) for each radio</p> <p>AP control channel in tagged and untagged mixed mode</p> <p>DHCP client, obtaining IP addresses through DHCP</p> <p>Tunnel forwarding and direct forwarding</p> <p>STA isolation in the same VLAN</p> <p>Access control lists (ACLs)</p> <p>Link Layer Discovery Protocol (LLDP)</p> <p>Service holding upon CAPWAP link disconnection in Fit AP mode</p> <p>Unified authentication on the AC in Fit AP mode</p> <p>AC dual-link backup in Fit AP mode</p>

QoS features	<p>Priority mapping and packet scheduling based on a WMM profile to implement priority-based data processing and forwarding</p> <p>WMM parameter management for each radio</p> <p>WMM power saving</p> <p>Priority mapping for upstream packets and flow-based mapping for downstream packets</p> <p>Queue mapping and scheduling</p> <p>User-based bandwidth limiting</p> <p>Adaptive bandwidth management (the system dynamically adjusts bandwidth based on the number of users and radio environment to improve user experience)</p> <p>Airtime scheduling</p>
Security features	<p>Open system authentication</p> <p>WEP authentication/encryption</p> <p>WPA/WPA2-PSK authentication and encryption</p> <p>WPA/WPA2-802.1x authentication and encryption</p> <p>WAPI authentication and encryption</p> <p>WIDS including rogue AP and STA detection, attack detection, STA/AP blacklist and whitelist</p>
Maintenance features	<p>Unified management and maintenance on the AC in Fit AP mode</p> <p>Plug-and-Play (PnP) in Fit AP mode: automatic ally going online and loading configurations</p> <p>WDS zero-configuration deployment in Fit AP mode</p> <p>WMN zero-configuration deployment in Fit AP mode</p> <p>Batch upgrade</p> <p>Local AP management through the serial port or using Telnet</p> <p>Real-time configuration monitoring and fast fault location using the NMS</p> <p>System status alarm</p>
BYOD	<p>Identifies the device type according to the Organizationally Unique Identifier (OUI) in the MAC address.</p> <p>Identifies the device type according to the User Agent (UA) information in an HTTP packet</p> <p>Identifies the device type according to DHCP options.</p> <p>The RADIUS server delivers packet forwarding, security, and QoS policies according to the device type carried in the RADIUS authentication and accounting packets.</p>
Locating service	<p>Locates tags manufactured by AeroScout or Ekahau.</p> <p>Locates Wi-Fi terminals.</p>
Spectrum analysis	<p>Identifies interference sources such as baby monitors, Bluetooth devices, digital cordless phones (at 2.4 GHz frequency band only), wireless audio transmitters (at both the 2.4 GHz and 5 GHz frequency bands), wireless game controllers, and microwave ovens.</p> <p>Works with Huawei eSight to locate and perform spectrum analysis on interference sources.</p>

Standards Compliance

Safety standards	<ul style="list-style-type: none"> UL 60950-1 CAN/CSA 22.2 No.60950-1 IEC 60950-1 EN 60950-1 GB 4943
Radio standards	<ul style="list-style-type: none"> ETSI EN 300 328 ETSI EN 301 893 FCC Part 15C: 15.247 FCC Part 15C: 15.407 RSS-210 AS/NZS 4268
EMC standards	<ul style="list-style-type: none"> EN 301 489-1 EN 301 489-17 ETSI EN 60601-1-2 FCC Part 15 ICES-003 YD/T 1312.2-2004 ITU k.21 GB 9254 GB 17625.1 AS/NZS CIPSR22 EN 55022 EN 55024 CISPR 22 CISPR 24 IEC61000-4-6 IEC61000-4-2
IEEE standards	<ul style="list-style-type: none"> IEEE 802.11a/b/g IEEE 802.11n IEEE 802.11ac IEEE 802.11h IEEE 802.11d IEEE 802.11e
Security standards	<ul style="list-style-type: none"> 802.11i, Wi-Fi Protected Access 2 (WPA2), and WPA 802.1X Advanced Encryption Standards (AES) and Temporal Key Integrity Protocol (TKIP) EAP Type (s)
Environmental standards	<ul style="list-style-type: none"> ETSI 300 019-2-1 ETSI 300 019-2-2 ETSI 300 019-2-3 ETSI 300 019-1-1 ETSI 300 019-1-2 ETSI 300 019-1-3

EMF	CENELEC EN 62311 CENELEC EN 50385 OET65 RSS-102 FCC Parts 1 & 2 FCC KDB series
RoHS	Directive 2002/95/EC & 2011/65/EU
Reach	Regulation 1907/2006/EC
WEEE	Directive 2002/96/EC & 2012/19/EU

Professional Service and Support

Huawei WLAN planning tools deliver expert network design and optimization services using the most professional simulation platform in the industry. Backed by fifteen years of continuous investment in wireless technologies, extensive network planning and optimization experience, as well as rich expert resources, Huawei helps customers:

- Design, deploy, and operate a high-performance network that is reliable and secure.
- Maximize return on investment and reduce operating expenses.

More Information

For more information, please visit <http://e.huawei.com> or contact your local Huawei office.



Enterprise Services



Product Overview



Marketing Documentation