Huawei AP4030DN and AP4130DN Access Points Datasheet

HUAWEI TECHNOLOGIES CO., LTD.

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Huawei AP4030DN and AP4130DN are 802.11ac access points (APs) that work in Fat or Fit mode on Wireless Local Area Networks (WLANs). They support 2x2 MIMO, provide comprehensive service support capabilities, and possess the following features: proven reliability, high security, simple network deployment, automatic AC discovery and configuration, and real-time management and maintenance. The AP4030DN and AP4130DN comply with IEEE 802.11ac and provide gigabit access for wireless users, ensuring a superb experience for wireless network users.

Wi Fi CERTIFIED

Huawei AP4030DN Access Point

Built-in antennas

2.4 GHz and 5 GHz frequency bands

IEEE 802.11a/b/g/n/ac

Huawei AP4130DN Access Point

External antennas

2.4 GHz and 5 GHz frequency bands

IEEE 802.11a/b/g/n/ac

Huawei AP4030DN and AP4130DN features:

- 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 rate of up to 1.167 Gbit/s.
- Comprehensive user access control: implements user access control according to user group policies with support for up to 256 users.
- High level of security: supports multiple authentication and encryption methods, as well as rogue AP detection.
- Flexible networking and strong environmental adaptability: applies to access, WDS, and Mesh networking scenarios.
- Easy to manage and maintain: supports Plug-and-Play (PnP)

Product Features

- Recommended for use in locations with a simple structure, a small area, or high user density, such as small and medium enterprises, smart buildings, hospitals, and large shopping malls
- 2 x 2 MIMO technology (two spatial streams): 1.167 Gbit/s for the device
- Spectrum analysis for detecting and analyzing surrounding interference sources
- Locating service
- WIDS/WIPS for monitoring and countering rogue terminals and APs
- High Density Boost with unparalleled multi-user concurrent performance
- Beamforming
- IPv4/IPv6 dual stack
- PoE power supply in compliance with IEEE 802.3af/at, simplifying AP installation
- External antennas on the AP4130DN with high flexibility in antenna gain configuration and device deployment locations

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 and wireless convergence, as well as Bring Your Own Device (BYOD) network security control and smart access management. 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 costs.

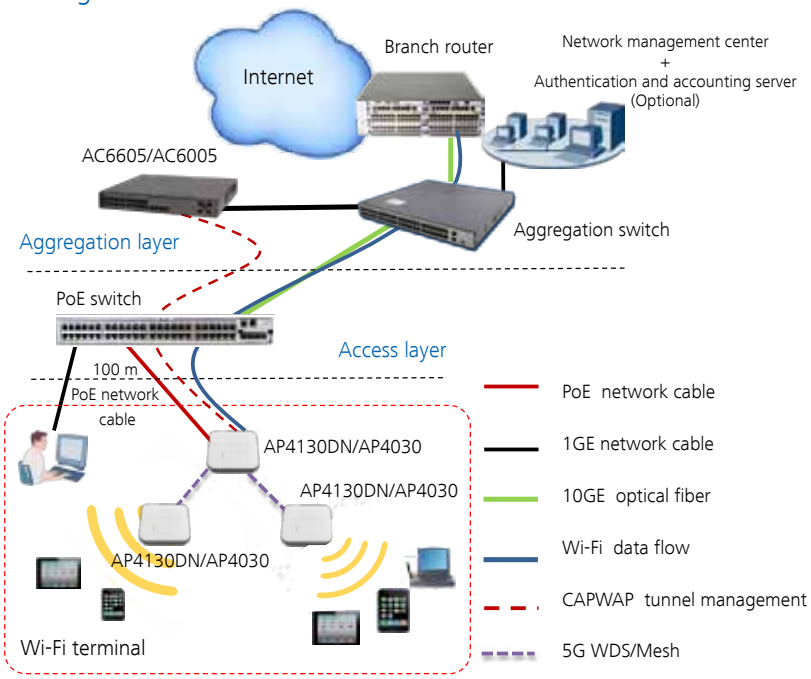
AP Networking

Huawei AP4030DN and AP4130DN can work in AP, WDS, or Mesh mode.
The following figures show typical AP4030DN and AP4130DN networking.

Fat AP networking

When working as a Fat AP, the AP4030DN and AP4130DN 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 AP4030DN and AP4130DN 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 AP4030DN and AP4130DN 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, with Mesh Portal Points (MPPs) providing 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
Physical specifications	Dimensions (W x D x H)	180 mm x 180 mm x 39.5 mm
	Weight	0.4 kg
	Ethernet port	RJ45 x 1
	System memory	• 256 MB DDR2 • 32 MB flash memory
Power specifications	Power input	• 12 V DC ± 10% • PoE power supply: -48 V DC (in compliance with IEEE 802.3af/at)
	Maximum power consumption	10.2 W 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 5,000 m
	Atmospheric pressure	70 kPa to 106 kPa

Radio Specifications

Item	Description
Antenna type	AP4030DN: built-in antennas AP4130DN: external dual-band combined antennas
Antenna gain	• AP4030DN: 4 dBi (2.4 GHz); 6 dBi (5 GHz) • AP4130DN: 2.5 dBi (2.4 GHz); 4 dBi (5 GHz)
Maximum number of users	256
Maximum transmit power	23 dBm NOTE: The actual maximum transmit power depends on local laws and regulations.
Power increment	1 dBm
Receiver sensitivity	2.4 GHz 802.11b (CCK): -101 dBm @ 1 Mb/s; -89 dBm @ 11 Mb/s
	2.4 GHz 802.11g (non-HT20): -95 dBm @ 6 Mb/s; -79dBm @ 54 Mb/s
	2.4 GHz 802.11n (HT20): -93 dBm @ MCS0; -75dBm @ MCS7
	2.4 GHz 802.11n(HT40): -90 dBm @ MCS0; -73dBm @ MCS7
	5 GHz 802.11a (non-HT20): -95 dBm @ 6 Mb/s; -78dBm @ 54 Mb/s
	5 GHz 802.11n (HT20): 95 dBm @ MCS0; -75 dBm @ MCS7
	5 GHz 802.11n (HT40): -92 dBm @ MCS0; -73dBm @ MCS7

Item	Description
Receiver sensitivity	5 GHz 802.11ac (VTH20): -95dBm @ MCS0NSS1; -72 dBm @ MCS8NSS1
	5 GHz 802.11ac (VTH40): -92 dBm @ MCS0NSS1; -67 dBm @ MCS9NSS1
	5 GHz 802.11ac (VTH80): -87 dBm @ MCS0NSS1; -62 dBm @ MCS9NSS1

Product Features

WLAN features	Compliance with IEEE 802.11a/b/g/n/ac Maximum rate: 1.167 Gbit/s Maximum Ratio Combining (MRC) Cyclic Shift Diversity (CSD) Maximum Likelihood Detection (MLD) Data unit aggregation, including A-MPDU (Tx/Rx) and A-MSDU (Rx only) 802.11 Dynamic Frequency Selection (DFS) Short Guard Interval (GI) at 20-MHz, 40-MHz, and 80-MHz modes Priority mapping and packet scheduling according to a Wi-Fi Multimedia (WMM) profile for priority-based data processing and forwarding Automatic and manual rate adjustment (the rate is adjusted automatically by default) WLAN channel management and channel rate adjustment Automatic channel scanning and interference avoidance Service Set Identifier (SSID) hiding, support for SSIDs in Chinese Signal Sustain Technology (SST) Unscheduled Automatic Power Save Delivery (U-APSD) Control and Provisioning of Wireless Access Points (CAPWAP) Automatic access in Fit AP mode WDS in Fit AP mode Mesh in Fit AP mode Dual-MPP Mesh networking in Fit AP mode Hotspot2.0 in Fit AP mode 802.11k and 802.11v smart roaming in Fit AP mode
Network features	Compliance with IEEE 802.3u Auto-negotiation of the rate and duplex mode and automatic switchover between the Media Dependent Interface (MDI) and Media Dependent Interface Crossover (MDI-X) SSID-based VLAN assignment 4094 VLAN IDs (1-4094) and a maximum of 16 Virtual APs (VAPs) for each radio AP control channel in tagged and untagged mixed mode
Network features	DHCP client (IP addresses are obtained through DHCP) Tunnel forwarding and direct forwarding STA isolation in the same VLAN Multicast Domain Name Service (mDNS) gateway protocol: supports AirPlay and AirPrint service sharing between users of different VLANs Access Control Lists (ACLs) Link Layer Discovery Protocol (LLDP) Service holding upon CAPWAP link disconnection in direct forwarding in Fit AP mode Unified authentication on the AC in Fit AP mode AC dual-link backup in Fit AP mode Soft GRE

QoS features	Priority mapping and packet scheduling according to a WMM profile for priority-based data processing and forwarding WMM parameter management for each radio WMM power saving Priority mapping for upstream packets and flow-based mapping for downstream packets Queue mapping and scheduling User-based bandwidth limiting Adaptive bandwidth management (the system dynamically adjusts bandwidth allocation based on the user quantity and environment to improve user experience) Fair airtime scheduling
Security features	Open system authentication WEP authentication/encryption WPA/WPA2-PSK authentication and encryption WPA/WPA2-802.1x authentication and encryption WAPI authentication and encryption WIDS including rogue AP and STA detection, attack detection, STA/AP blacklist and whitelist 802.11w Protected Management Frames (PMFs)
Maintenance features	Unified management and maintenance on the AC in Fit AP mode Plug-and-Play (PnP) in Fit AP mode: automatic access and configuration loading in Fit AP mode WDS zero-configuration deployment in Fit AP mode WMN zero-configuration deployment in Fit AP mode Automatic batch upgrades Local AP management using Telnet Real-time configuration monitoring and rapid fault location using the NMS System status alarm
BYOD	Identifies the device type according to the Organizationally Unique Identifier (OUI) in the MAC address. Identifies the device type according to the User Agent (UA) information in an HTTP packet. Identifies the device type according to DHCP options. The RADIUS server delivers packet forwarding, security, and QoS policies according to the device type carried in the RADIUS authentication and accounting packets.
Locating service	Locates tags manufactured by AeroScout or Ekahau. Locates Wi-Fi terminals.
Spectrum analysis	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. Works with the Huawei eSight system to locate and perform spectrum analysis on interference sources.

Standards Compliance

Safety standards	UL 60950–1 IEC 60950–1	EN 60950–1 GB 4943
Radio standards	ETSI EN 300 328 ETSI EN 301 893	RSS-210 AS/NZS 4268

EMC standards	EN 301 489–1 EN 301 489–17 ETSI EN 60601-1-2 ICES-003 YD/T 1312.2-2004 ITU k.21 GB 9254	GB 17625.1 EN 55022 EN 55024 CISPR 22 CISPR 24 IEC61000-4-6 IEC61000-4-2
IEEE standards	IEEE 802.11a/b/g IEEE 802.11n IEEE 802.11ac IEEE 802.11h IEEE 802.11d	IEEE 802.11e IEEE 802.11k IEEE 802.11u IEEE 802.11v IEEE 802.11w
Security standards	802.11i, Wi-Fi Protected Access 2(WPA2), WPA 802.1X Advanced Encryption Standards(AES), Temporal Key Integrity Protocol(TKIP) EAP Type(s)	
Environmental standards	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 RSS-102	
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

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