Windbit WAP820-Iax

WAP820-Iax Wi-Fi 6 WLAN Access Point

Introduction

The WAP820-Iax is a Wi-Fi 6 wireless access point that integrates dual radios, high performance up to 2,976Gbps peak data rate, and enterprise-grade encryption technology. Due to the hybrid cloud management mode and high-density access design, it is suitable for flexible deployment in high-quality network scenarios, such as classroom, dormitory, and office scenarios in the education industry, production workshop and warehouse scenarios in the manufacturing industry, and outpatient clinics and mobile ward rounds scenarios in the medical industry.

Destacar

- **Optical 2,5GE SFP port for high speed scenarios**
- **Ultra-High Performance 1024QAM/OFDMA**
- **Hybrid Management (Cloud /Controller /Standalone)**
- **High Security(WPA3) and Reliability**
- **Minimal signal interference and up to 256 clients**
- **Dynamic Frequency Selection (DFS)**
- **Wi-fi Alliance certification**

Interfaces

LAN / WAN 1 PoE IN	1x10/100/1000M BASE-T Ethernet Port
LAN / WAN 2	1x 1G/2.5G SFP Port
Radio 1	2.4GHz 11ax: 2×2 MIMO, 802.11b/g/n/ax
Radio 2	5GHz 11ax: 2x2 MIMO, 802.11a/n/ac/ax
Console	1x RJ45 Console Port

Competitive Advantage

State of Art Wi-Fi Technology	Dual-Radio 2x2 MU-MIMO 802.11ax Wi-Fi 6 for high-density scenarios
Attractive Price-Performance Ratio	Competitive price reaching up to 2,97 Gbps aggregated PHY bitrate
Simple, efficient administration	Web configuration as standalone AP mode, Cloud Management and Wireless Lan Controller in managed mode.
Easy Installation	Ceiling mount kit, external PSU or Powered over PoE, compatible with PoE injectors. Zero Touch Provisioning with cloud tools or Wireless LAN Controller.

Key Features

- **1024-QAM High-speed Access** With the next-generation 802.11ax for 5GHz, the maximum access rate can reach 2.4Gbps. If dual-radio is enabled concurrently, the high-speed WiFi throughput can reach 2.97Gbps, offering the true highspeed experience
- **High Security and Reliability** Encryption and authentication technologies including WiFi Protected Access 3 (WPA3), enhanced open security, 802.1X, and Private Pre-shared Key (PPSK), enhancing data security.
- **All channels bandwidth in 5GHz** Channels can be 20 MHz, 40 MHz, 80 MHz, and 160 MHz
- **Wireless Intrusion Detection System(WIDS)** And User isolation, Rogue AP detection and containment. CPU Protect Policy (CPP). Network Foundation Protection Policy (NFPP).
- **OFDMA High-density User Access** By scheduling multiple users to receive and send packets concurrently via the AP, user competition and back-off can be reduced, thereby reducing network latency, and improving network efficiency.
- **Improved signal quality** It supports Cyclic Delay/Shift Diversity (CDD/CSD), Maximum Ratio Combining (MRC), Space-Time Block Coding (STBC), and Low-Density Parity Check (LDPC).
- **High number of BSSIDs** Network administrators can separately encrypt and isolate VLANs or subnets of the same SSID, thereby enabling specified authentication modes for each SSID. It supports up to 32 (16 BSSIDs per radio).
- **IPv4/IPv6 services** DHCPv4 server, NAT4, Neighbor Discovery (ND), ICMPv6,IPv6 DHCP client, static routing, PPPoE client, IPsec VPN.

CARACTERíSTICA TéCNICA DEL HARDWARE

Interfaces and connectors
1x 10/100/1000M BASE-T Ethernet Port, PoE IN
1x 1G/2.5G SFP Port
1 x RJ45 console port. 1 x Bluetooth 5.1

Two WLAN radio modules
Radio 1: 2.4G 11ax: 2×2 MIMO, 802.11b/g/n/ax
Radio 2: 5G 11ax: 2x2 MIMO, 802.11a/n/ac/ax

Antennas
4x WLAN Integrated Omnidirectional
Antenna Gain 2.4GHz: 2dBi 5GHz: 2dBi
1x onboard bluetooh omnidirectional antenna 2.4 dBi.

Input power supply options to be purchasd independently
48 V/0.6 A power input over DC connector.
PoE input over LAN 1, it complies with IEEE 802.3af standard.
Maximum power consumption: 12.95 W, Idle mode: 6 W

Dimensions and casing
220mm ×220mm ×49mm
Weight. Device: 0.6Kg Mounting Kit: 0.2Kg
Wall/Ceiling-mount (a mounting bracket is delivered with the main unit)

Environmental Specifications
Operating temperature: -10°C~50°C
Storage temperature: -40°C~70°C
Operating humidity: 0%~95% (non-condensing)

CARACTERíSTICA TéCNICA DEL SOFTWARE

Wi-Fi Interface
Maximum clients per AP: 256 (up to 128 STAs per radio)
SSID Hiding, 5G Priority (Band Steering)
SSID: authentication mode, encryption mechanism and VLAN attributes

Security
PSK, Web, and 802.1x, WPA (TKIP), WPA2 (AES), WPA-PSK, WPA3,WEP(64/128bits)
User isolation, Rogue AP detection and countermeasure, Dynamic ACL RADIUS, CPU Protection Policy (CPP), Network Foundation Protection Policy

ACL filtering
IP standard ACL, MAC extended ACL, IP extended ACL, and expert-level ACL
IPv6 ACL Time range-based ACL ACL based on a Layer 2 interface ACL based on a Layer 3 interface Ingress ACL based on a wireless interface

STA limiting
SSID-based STA limiting, Radio-based STA limiting
Bandwidth limiting
STA/SSID/AP-based rate limiting

VLAN
Max. number of SVIs (IPv4): 200
Max. number of SVIs (IPv6): 200
Max. number of VLANs: 4,094, VLAN ID range: 1–4,094

IPv4 services
Static and DHCP-assigned IPv4 addresses
Max. number of IPv4 addresses configured on each Layer 3 interface: 200
NAT, FTP ALG and DNS ALG

IPv6 services
IPv6 addressing, Neighbor Discovery (ND), ICMPv6, IPv6 ping, IPv6 tracert
IPv6 DHCP client
Max. number of IPv6 addresses configured on each Layer 3 interface: 400

IP routing
IPv4/IPv6 static route
Max. number of static IPv4 routes: 1,024
Max. number of static IPv6 routes: 1,000

Multicast
Multicast-to-unicast conversion

Management and Maintenance
Telnet, SSH, TFTP, Web, WLAN Controller, Cloud Controller
SNMPV1,V2c,V3, Syslog / Debug
Wireless Intelligent AI Optimization Service (WIS)

CARACTERíSTICA TéCNICAS ADICIONALES

Certifications
EN 300 328, EN 301 489-1, EN 301 489-17, EN 301 893 EN 55032, EN 55035
IEC EN 62311, IEC 62368-1, EN 62368-1 GB 4943.1, GB/T 17618, GB/T 19286

System memory
512 MB DRAM, 128 MB flash
Mean Time Between Failure (MTBF)
200,000 hours (22 years) at the operating temperature of 25°C (77°F)

Lock option
Kensington lock and securing latch
Other buttons
1 x Reset button

1 x multi-color system status LED
AP power-on status, Software initialization status and upgrade status
Uplink service interface status, Wireless user online status
CAPWAP tunnel timeout, Specific AP locating

Scenarios

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