

Windbit WAP680ax

WAP680ax Wi-Fi 6 Access Point

Introduction

The WAP680ax is a Wi-Fi 6 wireless outdoor 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 outdoor network scenarios, including outdoor hotspots such as parks and streets in smart cities, sports field scenarios in the education industry, and scenarios related to the energy and rail transportation industry.

The WAP680ax access point has IP68-rated housing, adapted to harsh outdoor environments

Interfaces

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

Highlight

- 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 1024 clients
- Dynamic Frequency Selection (DFS)
- IP68 rated housing, adapted to harsh environments



Competitive Advantages

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	Wall or Pole-mounting, 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).
- **Wide range operating temperature** -40°C to +65°C (-40°F to +149°F), ready to perform in the most demanding scenarios.
- **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.

HARDWARE TECHNICAL FEATURE

Interfaces and connectors

1x 10/100/1000M BASE-T Ethernet Port, PoE IN
1x 2.5G SFP Port
1 x RJ45 console port. 1 x Bluetooth 5.0

Antennas

4x WLAN Integrated Omnidirectional
Antenna Gain 2.4GHz: 4dBi, 5GHz: 6dBi
1x onboard bluetooth omnidirectional antenna 5dBi.

Dimensions and casing

251 mm x 168 mm x 64 mm
Weight. Device: 1.0Kg Mounting Kit: 0.9Kg
Wall or Pole-mounting (a mounting bracket is delivered with the main unit)

SOFTWARE TECHNICAL FEATURE

Wi-Fi Interface

Maximum clients per AP: 1024 (up to 512 STAs per radio)
SSID Hiding, 5G Priority (Band Steering)
SSID: authentication mode, encryption mechanism and VLAN attributes

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

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

IPv6 services

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

Multicast & VPN

Multicast-to-unicast conversion
PPPoE client IPsec VPN

ADDITIONAL TECHNICAL FEATURE

Certifications

EN 55032 EN 55035 EN 61000-3-3 EN IEC 61000-3-2 EN 301 489-1 EN 301 489-3
EN 301 489-17 EN 300 328 EN 301 893 EN 300 440 FCC Part 15
EN IEC 62311 IEC 62368-1 EN 62368-1 IEC 60950-22

Other buttons

1x reset button

Two WLAN radio modules

Radio 1: 2.4G 11ax: 2x2 MIMO, 802.11b/g/n/ax
Radio 2: 5G 11ax: 2x2 MIMO, 802.11a/n/ac/ax

Input power supply options to be purchased independently

48 V DC/0.35 A power input over DC connector
PoE input over LAN 1, it complies with IEEE 802.3af/at standard.
Maximum power consumption: 12.95 W, Idle mode: 6.0 W

Environmental Specifications

Operating temperature: -40°C to +65°C (-40°F to +149°F)
Storage temperature: -40°C to +85°C (-40°F to +185°F)
Operating humidity: 0% RH to 100% RH (non-condensing)

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

STA limiting

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

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

IP routing

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

Management and Maintenance

Telnet, SSH, TFTP, Web, WLAN Controller, Cloud Controller
SNMPV1, V2c, V3
Wireless Intelligent AI Optimization Service (SDLANet Manager)

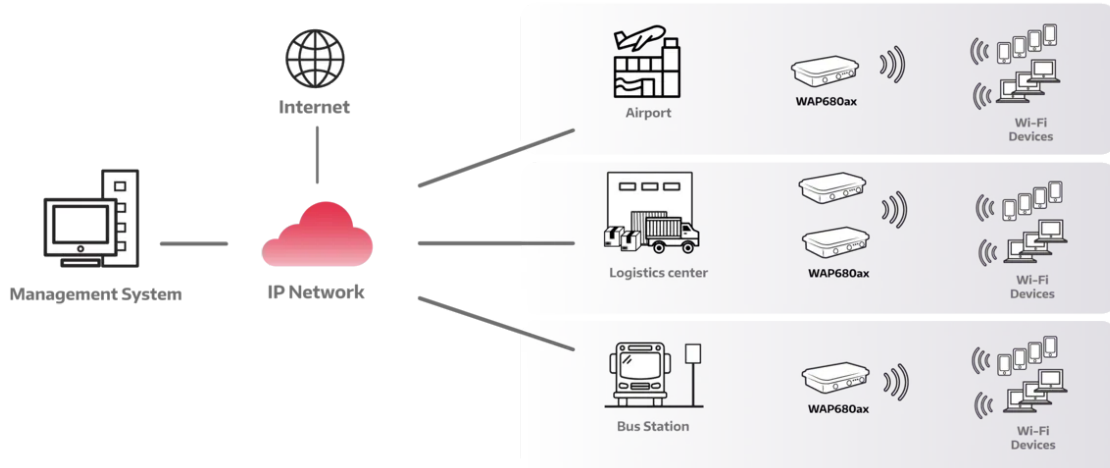
System memory

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)

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



Teldat Group