

Teldat

# Windbit WAP841-IBE

## Quad radio Wi-fi 7 access point

### Introduction

Windbit WAP841-IBE is a next-generation enterprise-grade wireless access point designed to meet the demands of high-density, high-performance Wi-Fi environments. Built on a modern hardware architecture, it delivers reliable, high-throughput wireless connectivity for businesses, campuses, hospitality, and public venues.

Engineered for scalability and long-term reliability, the Windbit WAP841-IBE is an ideal solution for organizations seeking to upgrade their wireless networks with a future-ready access point that combines performance, stability, and enterprise-class features.

### Interfaces

LAN RJ45(PoE IN)	1 x 100/1000/2.5G/5GBASE-T port, shared with SFP+
LAN SFP+	1 x 10GE SFP+ port, compatible with 1GE/2.5GE/10GE
LAN IoT	1 x 10/100/1000BASE-T port, PoE 802.3af out
Radio 1	2.4 GHz: 2x2 MIMO, 802.11n, ax, be
Radio 2	5 GHz: 2x2 MIMO, 802.11n, ac, ax, be
Radio 3	6 GHz: 2x2 MIMO, 802.11ax, be
Radio 4	AI Radio, 2.4 GHz/5 GHz, MIMO 2x2
Others	1x Console RJ45, 1x USB 2.0, 1x BT 5.3

### Highlight

- Quad radio architecture supporting concurrent operation in the 2.4GHz, 5GHz, and 6GHz bands
- Wi-Fi7-class performance with support for advanced modulation, wide channel bandwidths, OFDMA, MLO
- Up to 8 spatial streams delivering an aggregate wireless throughput of up to 9.3Gbps
- Multi-gigabit uplink connectivity, including high-speed Ethernet interfaces up to 10GbE
- AI radio enables real-time full-band scanning, ensuring high security and superior user experience
- Advanced RF optimization, including dynamic channel selection, adaptive transmit power control
- Enterprise-grade security features, supporting modern authentication, encryption, and



## Competitive Advantages

Ultra-high wireless capacity	Quad-radio architecture and Wi-Fi 7 class features deliver high aggregate throughput, ensuring consistent performance in all scenarios.
Automatic Wi-Fi network optimization	The device dynamically adjusts channels and transmission power, optimizing the radio environment and improving wireless efficiency.
Simple and efficient administration	Flexible for all scenarios: Web configuration in standalone access point mode, or cloud management, or ready for a wireless LAN controller.
Captive portal, centralized management	The management platform incorporates a captive portal and integrated tools, avoiding external solutions and reducing operating costs.

## Key Features

- **Advanced 4096-QAM technology** With 4096-QAM modulation and 802.11be, the maximum access speed can reach 9,335 Gbps. With all radios activated simultaneously, a high-speed and highly efficient Wi-Fi 7 experience is achieved.
- **High security and reliability** Encryption and authentication technologies including WPA3, 802.1X and PPSK, ensuring secure communications, advanced access control and comprehensive data protection in corporate environments.
- **Channel width up to 320MHz** The channels can be 20 MHz, 40 MHz, 80 MHz, 160MHz, and 320 MHz.
- **Wireless Intruder Detection System (WIDS)** And user isolation, detection and containment of unauthorized access points. CPU Protection Policy (CPP). Network Foundation Protection Policy (NFPP).
- **Orthogonal Frequency-Division Multiple Access (OFDMA)** OFDMA allows multiple users to simultaneously receive/send packets through the AP, minimizing user contention and data forwarding, thereby reducing latency and improving network efficiency.
- **Improved signal quality** It supports cyclic shift/delay diversity (CDD/CSD), maximum ratio combination (MRC), space-time block coding (STBC), and low-density parity checking (LDPC).
- **High number of BSSIDs** Network administrators can encrypt and isolate separate VLANs or subnets of the same SSID, with specific authentication methods for each SSID. Supports up to 48 (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

1 x 100/1000/2.5G/5GBASE-T port, combo with SFP+. PoE IN  
1 x 10GE SFP+ port, compatibility with 1GE/2.5GE/10GE modules  
IoT port: 1 x 10/100/1000BASE-T port, supplying IEEE 802.3af power. 1 x RJ45 console port, 1 x USB 2.

### Integrated internal omnidirectional Wi-Fi 7 antennas

2x antennas 2.4 GHz (3 dBi)  
2x antennas 5 GHz (3 dBi)  
2x antennas 6 GHz (3 dBi)

### Environmental specifications

Operating temperature: -10 °C to +50 °C. Storage temperature: -40°C to +70°C

Storage: -40 °C to +70 °C. Storage humidity: 5% RH to 95% RH (non-condensing)

Operating humidity: 5%–95%. Operating altitude: -500 m to +5,000 m

## SOFTWARE TECHNICAL FEATURE

### Wi-Fi interface

Maximum number of users per AP: 768 (256 per radio). Practical max: 100  
Hide SSID, 5GHz priority (Band Steering)

SSID: authentication modes, encryption mechanisms, and VLAN attributes

### Filtering with ACLs

Standard IP ACL, MAC extended ACL, IP extended ACL, and expert-level ACL

IPv6 ACLs with time-based control and Layer 2 interface-based ACLs  
Layer 3 interface-based ACLs and Ingress ACLs associated with Wi-Fi interface

### VLAN

Maximum number of SVIs (IPv4): 200

Maximum 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

Maximum number of IPv6 addresses configured per L3 interface: 400

### Multicast & VPN

Multicast-to-Unicast Conversion

Client PPPoE

VPN IPsec

## 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, and EN 62368-1

### Security lock option

Kensington lock

Other buttons

1x reset button

### Quad radio modules

2.4 GHz: 2x2 MIMO, 802.11n, ax, be

5 GHz: 2x2 MIMO, 802.11n, ac, ax, be

6 GHz: 2x2 MIMO, 802.11ax, be. AI Radio, 2.4 GHz/5 GHz, MIMO 2x2

### Dimensions, weight and mounting kit

Dimensions: 220 mm × 220 mm × 42,7 mm

Weight: Equipment: 1,2 kg / Mounting kit 0.05 kg

Wall/ceiling kit included by default

### Security methods

PSK, Web y 802.1X, WPA (TKIP), WPA2 (AES), WPA2-PSK, WPA3 y WEP

User isolation, Rogue APs and containment, dynamic ACLs

Support for RADIUS, CPU Protection Policy (CPP), and Network

Foundation Protection Policy (NFPP)

### Control and limitations of connections

Connection limitations by SSID or radio interface

Bandwidth limitation

Rate Limiting based on STA/SSID/AP

### IPv4 Services

Static addressing or DHCP Client

Maximum number of IPv4 addresses configured per L3 interface: 200

NAT, FTP ALG and DNS ALG

### Routing IP

Static IPv4/IPv6 routes

Maximum number of static IPv4 routes: 1,024

Maximum number of static IPv6 routes: 1,000

### Management and maintenance

Telnet, SSH, TFTP, Web, WLAN Controller, Cloud Controller

SNMPV1,V2c,V3,

Cloud management, Wireless Intelligent AI Optimization Service

### Device Memory

1024MB DRAM + 256 MB flash

Mean Time Between Failure (MTBF)

200,000 hours (22 years) at 25°C (77°F)

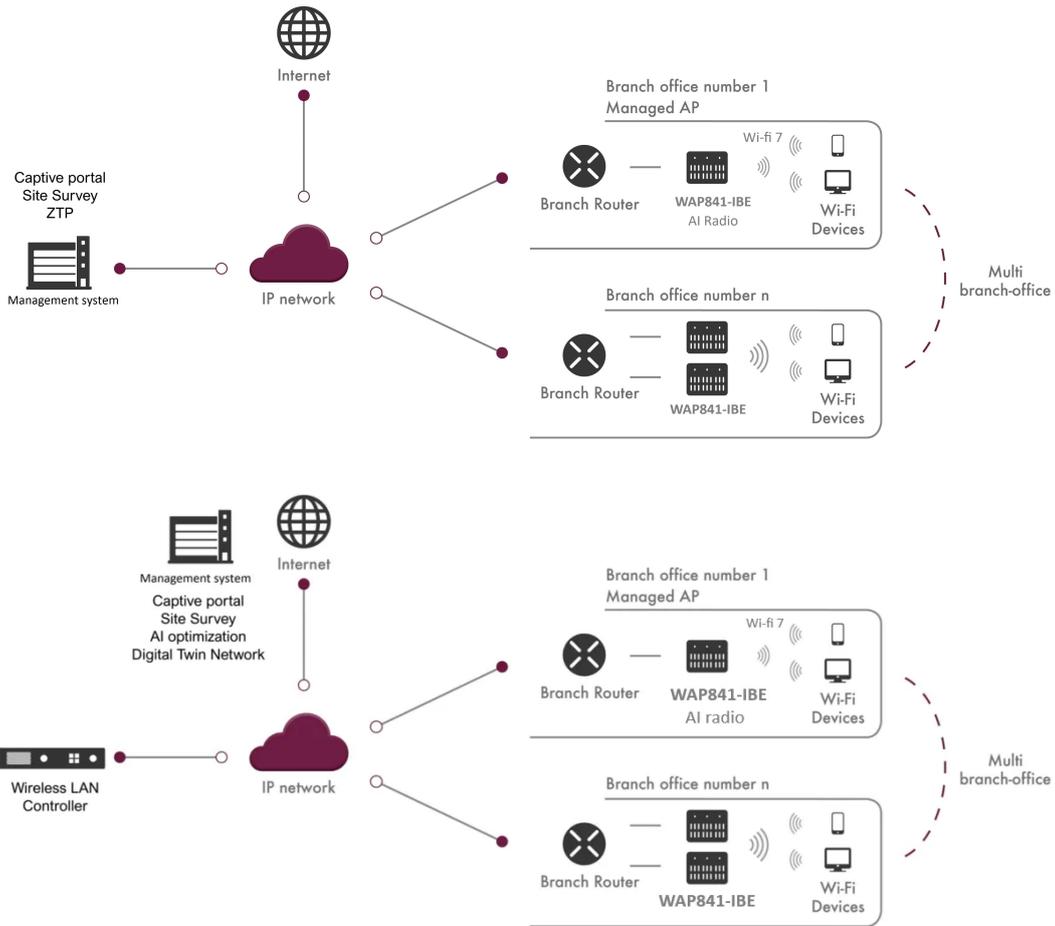
### 1x Multicolor LED for system status

AP status. SW update.

CAPWAP management connection status.

Wireless user online status

Scenarios



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