



AIRY-WB300-1K

COMMANDO AirY 300Mbps, 2.4GHz, 6dBi,
802.11n, P2P/P2MP, 1KM Wireless Bridge

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Product Overview

COMMANDO AIRY-WB300-1K is a compact and reliable 2.4GHz Outdoor Wireless Bridge designed to provide stable wireless connectivity for surveillance systems, industrial facilities, campuses, warehouses, and other short-range outdoor networking applications. Based on IEEE 802.11n technology, it up to 300Mbps based on IEEE 802.11n technology for efficient transmission of voice, video, and data.

Equipped with a built-in 6dBi high-gain directional antenna, the AIRY-WB300-1K supports wireless transmission distances of up to 1KM, making it suitable for Point-to-Point (P2P) and Point-to-Multipoint (P2MP) wireless bridge deployments. The device also supports intelligent channel analysis and automatic optimal channel selection, helping optimize wireless performance and reduce interference in outdoor environments.

Powered by powerful hardware platform with 64MB DDR2 memory and 8MB Flash, the AIRY-WB300-1K provides dependable performance for outdoor wireless networking. It features one 10/100Mbps WAN port with 12V Passive PoE support and one 10/100Mbps LAN port, enabling reliable wired connectivity and simplified installation. Designed for outdoor deployment, the AIRY-WB300-1K features an IP65-rated enclosure, built-in ESD and surge protection, one-click pairing, and support for AP Mode and Repeater Mode, making it a cost-effective solution for outdoor wireless bridge applications.

Product Highlights

- Delivers reliable 300Mbps wireless connectivity based on IEEE 802.11n technology for long-distance outdoor wireless bridge deployments.
- Supports Point-to-Point (P2P) and Point-to-Multipoint (P2MP) wireless bridge deployments for flexible outdoor connectivity.
- Equipped with a built-in 6dBi high-gain directional antenna supporting wireless transmission distances of up to 1KM.
- Equipped with 1 × Fast Ethernet WAN port with 12V Passive PoE support and 1 × Fast Ethernet LAN port for reliable wired connectivity.
- Supports 12V Passive PoE and 12V DC power input for flexible installation options.
- Supports intelligent channel analysis and automatic optimal channel selection to improve wireless performance and minimize interference.
- Supports one-click pairing for quick and simplified wireless bridge deployment.
- Supports AP Mode and Repeater Mode for flexible outdoor networking applications.
- Supports up to 4 SSIDs, Wireless MAC Filtering, Wireless Isolation, RF Power Adjustment, and up to 64 wireless clients for enhanced wireless management and security.
- Industrial-grade IP65 outdoor enclosure with built-in ESD and surge protection for reliable operation in harsh outdoor environments.

Features and Benefits

Reliable Outdoor Wireless Connectivity

The COMMANDO AIRY-WB300-1K is designed to provide stable and reliable outdoor wireless communication. Equipped with a built-in 6dBi high-gain directional antenna, it supports wireless transmission distances of up to 1KM, making it suitable for CCTV surveillance, building-to-building links, warehouses, campuses, industrial facilities, and other outdoor networking applications.

High-Speed Wireless Performance

Based on IEEE 802.11n technology, the AIRY-WB300-1K delivers wireless speeds of up to 300Mbps, ensuring reliable transmission of voice, video, and data across wireless bridge links.

Point-to-Point and Point-to-Multipoint Deployment

Supports both:

- Point-to-Point (P2P)
- Point-to-Multipoint (P2MP)

This enables flexible deployment across various outdoor wireless bridge applications.

Intelligent Channel Optimization

Supports intelligent channel analysis and automatic optimal channel selection, helping reduce wireless interference and improve link stability for consistent network performance.

One-Click Pairing

Supports one-click pairing, simplifying wireless bridge deployment and reducing installation time and configuration complexity.

Flexible Operating Modes

Supports:

- AP Mode
- Repeater Mode

These operating modes provide deployment flexibility for different outdoor networking scenarios.

Reliable Wired Connectivity

Equipped with:

- 1 × 10/100Mbps WAN Port with 12V Passive PoE
- 1 × 10/100Mbps LAN Port

These interfaces provide dependable wired connectivity while enabling simplified installation through Passive PoE support.

Advanced Wireless Management

Supports:

- Up to 4 SSIDs
- Hidden SSID
- Relay Function
- WiFi Timing OFF Function
- RF Power Adjustment
- Wireless Client Limitation (Up to 64 Users)

These features help optimize wireless performance and simplify network administration.

Enhanced Wireless Security

Provides multiple security mechanisms including:

- OPEN
- WPA
- WPA2
- WPA-PSK
- WPA2-PSK

Additional security features include:

- Wireless MAC Address Filtering (Whitelist)
- Wireless Network Isolation
- AP Internal Isolation

These features help secure wireless communications and control network access.

Reliable Outdoor Design

Featuring an IP65-rated enclosure, the AIRY-WB300-1K is designed to operate reliably in outdoor environments exposed to dust and water.

Industrial-Grade Protection

The device incorporates built-in protection mechanisms including:

- **ESD Protection**
 - Air: $\pm 8\text{KV}$
 - Touch: $\pm 6\text{KV}$

- **Electrical Surge Protection**
 - Common Mode: 2KV
 - Differential Mode: 1KV

These protection features help improve equipment reliability in outdoor deployments.

Energy-Efficient Operation

With power consumption of less than 3W, the AIRY-WB300-1K delivers reliable outdoor wireless performance while maintaining exceptionally low energy consumption.

Cost-Effective Wireless Bridge Solution

Combining 1KM wireless transmission, 6dBi directional antenna, 300Mbps wireless performance, P2P/P2MP support, one-click pairing, and an IP65-rated enclosure, the COMMANDO AIRY-WB300-1K provides a reliable and cost-effective solution for short-range outdoor wireless networking applications.

Software

COMMANDO AIRY-WB300-1K provides comprehensive standalone management through an intuitive WEB GUI interface, enabling easy configuration, monitoring, wireless security, and device maintenance for outdoor wireless bridge deployments.

Monitoring

Provides real-time monitoring of:

- System Information
- Device Status
- Wireless Status
- Network Status
- Connected Wireless Clients
- Running Status

These monitoring features help administrators quickly assess device health and network performance.

System Setup

Supports:

- Configuration Backup
- Configuration Restore
- Restore Factory Settings
- Firmware Upgrade
- Scheduled Restart
- Immediate Restart
- Time Management

- Time Synchronization
- System Logs

These features simplify device maintenance and long-term management.

Network Management

Supports:

- DHCP Server
- VLAN Configuration

These networking features enable flexible deployment and efficient network segmentation.

Wireless Management

Operating Modes

Supports:

- AP Mode
- Repeater Mode

Wireless Features

Supports:

- Up to 4 SSIDs
- Hidden SSID
- Relay Function
- WiFi Timing OFF Function
- RF Power Adjustment
- Wireless Client Limitation (Up to 64 Users)

- One-Click Pairing
- Intelligent Channel Analysis
- Automatic Optimal Channel Selection

These features help optimize wireless performance, reduce interference, and simplify deployment.

Wireless Security

Supports:

- OPEN
- WPA
- WPA2
- WPA-PSK
- WPA2-PSK

Additional security features include:

- Wireless MAC Address Filtering (Whitelist)
- Wireless Network Isolation
- AP Internal Isolation

These mechanisms help secure wireless communications and control user access.

User Management

Supports wireless client management with:

- Wireless Client Monitoring
- Wireless Client Limitation (Up to 64 Users)

These features help maintain stable wireless performance in multi-user environments.

Device Management

Supports:

- Configuration Backup
- Configuration Restore
- Factory Reset
- Firmware Upgrade
- Scheduled Restart
- Immediate Restart
- Time Synchronization
- System Logging

These tools simplify administration, maintenance, and troubleshooting.

Easy Configuration

The AIRY-WB300-1K supports one-click pairing, AP/Repeater mode selection, intelligent channel analysis, automatic optimal channel selection, and WEB GUI management, helping reduce deployment time and simplify wireless bridge installation.

Logs

Supports System Logs for monitoring, diagnostics, and maintenance activities.

Hardware

Solid Performance with Non-Blocking Architecture

Powered by the powerful hardware platform with 64MB DDR2 memory and 8MB Flash, the COMMANDO AIRY-WB300-1K is designed to deliver stable wireless bridge performance and reliable data transmission. The optimized hardware architecture ensures efficient operation for Point-to-Point and Point-to-Multipoint wireless networking deployments.

Physical Ports and Networking Interfaces

The AIRY-WB300-1K is equipped with reliable Fast Ethernet interfaces for dependable wired connectivity and simplified outdoor installation.

- 1 × 10/100Mbps WAN Port with 12V Passive PoE
- 1 × 10/100Mbps LAN Port
- DC 12V Power Input
- Reset Button
- AP/Repeater Mode Selection Switch
- LED Indicators (SYS, WAN, LAN, WiFi, Signal ×4)

The integrated Passive PoE support enables both power and data transmission through a single Ethernet cable, simplifying deployment in outdoor environments.

High-Gain Directional Antenna System

The AIRY-WB300-1K features a built-in 6dBi high-gain directional antenna designed for outdoor wireless bridge applications.

- Operating Frequency: 2.412GHz – 2.484GHz
- Antenna Gain: 6dBi
- Radiation Pattern: Directional
- Polarization: Vertical / Horizontal Dual Polarization

The directional antenna helps provide stable wireless connectivity while minimizing interference for reliable Point-to-Point and Point-to-Multipoint deployments.

Long-Distance Wireless Bridge Design

Designed for outdoor wireless bridge deployments, the AIRY-WB300-1K supports transmission distances of up to 1KM and is ideal for:

- Building-to-Building Connectivity
- CCTV Surveillance Backhaul
- Campus Networking
- Industrial Networking
- Remote Site Interconnection

Flexible Power Options

Supports multiple power input methods:

- 12V Passive PoE
- DC 12V Power Input

These power options provide installation flexibility for various outdoor deployment scenarios.

Reliable Outdoor Operation

Designed for dependable operation under varying environmental conditions.

- Operating Temperature: -20°C to 55°C
- Storage Temperature: -40°C to 70°C
- Humidity: 5%–95% (Non-Condensing)

These specifications help ensure stable operation in demanding outdoor environments.

Industrial-Grade Protection

The AIRY-WB300-1K incorporates built-in protection mechanisms to improve equipment reliability.

- **ESD Protection**
 - Air: $\pm 8\text{KV}$
 - Touch: $\pm 6\text{KV}$
- **Electrical Surge Protection**
 - Common Mode: 2KV
 - Differential Mode: 1KV

These protection features help safeguard the device against electrical disturbances commonly encountered in outdoor installations.

Weather-Resistant Outdoor Design

Featuring an IP65-rated enclosure, the AIRY-WB300-1K is designed to withstand harsh outdoor conditions while maintaining reliable wireless bridge performance.

Energy-Efficient Operation

With power consumption of less than 3W, the AIRY-WB300-1K delivers reliable outdoor wireless connectivity while maintaining exceptionally low energy consumption.

Compact and Lightweight Design

The compact outdoor enclosure enables quick installation and easy deployment.

- Dimensions: $168 \times 86 \times 39 \text{ mm}$
- Weight: 0.5 kg

Its lightweight design simplifies mounting while ensuring durability for long-term outdoor operation.

Specifications

Technical Specifications

The COMMANDO AIRY-WB300-1K is a compact 2.4GHz Outdoor Wireless Bridge based on IEEE 802.11b/g/n technology. It supports wireless transmission distances of up to 1KM, features a built-in 6dBi directional antenna, and provides Point-to-Point (P2P) and Point-to-Multipoint (P2MP) connectivity with Fast Ethernet interfaces for reliable outdoor wireless networking.

Table 1. Specifications

Technical Parameters	Specification
Model	AIRY-WB300-1K
Wireless Standard	IEEE 802.11b/g/n
Memory	64MB DDR2
Flash	8MB
Frequency Band	2.4GHz
Frequency Range	2.412GHz – 2.484GHz
Wireless Data Rate	Up to 300Mbps
Wireless Transmission Distance	Up to 1KM
Wireless Deployment Mode	Point-to-Point (P2P), Point-to-Multipoint (P2MP)
Working Mode	AP Mode, Repeater Mode
Maximum Wireless Clients	Up to 64 Users
Multiple SSID	Up to 4 SSIDs

Technical Parameters	Specification
Antenna Type	Built-in Directional Panel Antenna
Antenna Gain	6dBi
Antenna Polarization	Vertical / Horizontal Dual Polarization
Hardware Interfaces	1 × 10/100Mbps WAN Port with 12V Passive PoE, 1 × 10/100Mbps LAN Port, DC Power Interface, Reset Button, AP/Repeater Switch
LED Indicators	SYS, WAN, LAN, WiFi, Signal Strength (4 LEDs)
Wireless Security	OPEN, WPA, WPA2, WPA-PSK, WPA2-PSK
Access Control Features	Wireless MAC Address Filtering (Whitelist), Wireless Isolation, AP Internal Isolation
Wireless Features	Hidden SSID, Relay Function, WiFi Timing OFF, RF Power Adjustment, Intelligent Channel Analysis, Automatic Optimal Channel Selection, One-Click Pairing
Network Features	DHCP Server, VLAN Configuration
Management	WEB GUI Management
Device Management	Configuration Backup, Configuration Restore, Factory Reset, Firmware Upgrade, Scheduled Restart, Immediate Restart, Time Synchronization, System Logs
Power Input	12V Passive PoE or DC 12V
Power Consumption	< 3W
Protection Grade	IP65
Dimensions (L × W × H)	168 × 86 × 39 mm
Weight	0.5 kg

Technical Parameters	Specification
Operating Temperature	-20°C to 55°C
Storage Temperature	-40°C to 70°C
Humidity	5%–95% (Non-Condensing)
ESD Protection	Air: ±8KV, Touch: ±6KV
Electrical Surge Protection	Common Mode: 2KV, Differential Mode: 1KV
Warranty Period	2 Year

Table 2. COMMANDO AIRY-WB300-1K LED Indication

LED Indicator	LED Status
SYS	Blinking: System is operating normally.
WAN	ON/Blinking: WAN port is connected and transmitting data.
LAN	ON/Blinking: LAN port is connected and transmitting data.
WiFi	ON/Blinking: 2.4GHz wireless radio is enabled and wireless activity is present.
Signal * 4	Indicates wireless signal strength level.

Included in the Bundle/Box

COMMANDO AIRY-WB300-1K comes with the following accessories:

- 1 × COMMANDO AIRY-WB300-1K Wireless Bridge (CPE)
- 1 × PoE Adapter
- 2 × Nylon Ties
- 1 × Gift Box

This section is fully aligned with the AIRY-WB300-1K specification sheet and follows the same format as the previous COMMANDO wireless bridge datasheets.

Support and Warranty

- Same-day assistance
- Comprehensive 24-hour support using common communication/chat platforms, Email and Telephone.
- Provide FAQs and troubleshooting help online (self-service) through cloud-based solutions.
- Highly technical and trained representatives to resolve issues.
- Two-year default warranty with option of warranty extension up to 3 years.

COMMANDO WarrantyX Program available on:

<https://www.commandonetworks.com/warranty>

Table 3. Support and Warranty

Warranty and Support	
Products covered	COMMANDO AirY 300Mbps, 2.4GHz, 6dBi, 802.11n, P2P/P2MP, 1KM Wireless Bridge
Warranty duration	Two Year RTB (Return To Base) replacement warranty – optionally extendable up to 3 years.
Hardware replacement	COMMANDO, its resellers or its service center will use commercially reasonable efforts to replace the product subject to stock availability. Otherwise, a replacement will be arranged within 15 working days after receipt of the Return Materials Authorization (RMA) request.
End-of-life policy	In case of discontinuation of the product, support is limited to 3 years from announcement date.

Effective date	Hardware warranty commences from the date of shipment to customer (and in case of resale by a COMMANDO reseller, not more than 90 days after original shipment by COMMANDO).
Support duration	Lifetime support.
COMMANDO Care	COMMANDO will provide 24x7 support for basic configuration, diagnosis, and troubleshooting of device-level problems for up to one year from the date of shipment of the originally purchased product. This support does not include solution or network-level support beyond the specific device under consideration.
Online Portal Access	Warranty allows guest access to commandonetworks.com for all available technical queries.

Ordering Information

To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at www.commandonetworks.com/catalog

Table 4. COMMANDO wireless bridge Ordering Information

Product Code	Product Description
AIRY-WB300-1K	COMMANDO AirY 300Mbps, 2.4GHz, 6dBi, 802.11n, P2P/P2MP, 1KM Wireless Bridge
AIRY-WB900-8K	COMMANDO AirY 900Mbps, 5.8GHz, 18dBi, 802.11ac Wave 2, P2P/P2MP, 8KM Wireless Bridge
AIRY-WB900P-5K	COMMANDO AirY 900Mbps, 5.8GHz, 14dBi, 802.11ac Wave 2, P2P/P2MP, PoE, Disp, 5KM Wireless Bridge
AIRY-WB900-5K	COMMANDO AirY 900Mbps, 5.8GHz, 15dBi, 802.11ac Wave 2, P2P/P2MP, 5KM Wireless Bridge
AIRY-WB900-3K	COMMANDO AirY 900Mbps, 5.8GHz, 12dBi, 802.11ac Wave 2, P2P/P2MP, 3KM Wireless Bridge

Document History

Release	New or Revision	Described in	Date
Release 1	First Release	First Release	July 1st, 2026