



AIRY-WB900P-5K

COMMANDO AirY 900Mbps, 5.8GHz, 14dBi,
802.11ac Wave 2, P2P/P2MP, PoE, Disp,
5KM Wireless Bridge

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Product Overview

COMMANDO AIRY-WB900P-5K is a high-performance 5.8GHz Outdoor Wireless Bridge designed to deliver reliable long-distance wireless connectivity for surveillance systems, industrial facilities, campuses, warehouses, and remote network deployments. Based on IEEE 802.11ac Wave 2 technology, it delivers high-performance 5.8GHz wireless connectivity with wireless data rates of up to 867Mbps.

Equipped with a built-in 14dBi high-gain directional antenna, the AIRY-WB900P-5K supports long-range wireless transmission for Point-to-Point (P2P) and Point-to-Multipoint (P2MP) deployments. The device is designed to provide stable connectivity over extended distances while maintaining excellent anti-interference performance.

Powered by powerful hardware platform with 128MB DDR2 memory and 16MB SPI NOR Flash, the AIRY-WB900P-5K delivers reliable performance for demanding outdoor networking applications. The device features one Gigabit PoE WAN port and three Gigabit PoE OUT LAN ports, enabling both network connectivity and power distribution to connected devices.

Supporting 48V PoE and 48V DC power input, along with one-key Master/Slave switching, integrated signal strength indicators, IP67-rated protection, and built-in surge and ESD protection, the COMMANDO AIRY-WB900P-5K provides a dependable and cost-effective solution for outdoor wireless bridge deployments.

Product Highlights

- Delivers high-performance 5.8GHz wireless connectivity with wireless data rates of up to 867Mbps based on IEEE 802.11ac Wave 2 technology.
- Supports Point-to-Point (P2P) and Point-to-Multipoint (P2MP) wireless bridge deployments with transmission distances of up to 5KM.
- Equipped with a built-in 14dBi high-gain directional antenna for stable long-distance wireless communication.
- Features 1 × Gigabit PoE IN port (IEEE 802.3bt) and 3 × Gigabit PoE OUT ports (IEEE 802.3af/at) for high-speed connectivity and powering external PoE devices.
- Supports 48V PoE and 48V DC dual power input for flexible deployment in various outdoor environments.
- Supports AP Mode, Wireless Bridge Mode, WISP Mode, and Gateway Mode for flexible deployment across multiple networking scenarios.
- Supports IPv4/IPv6, LLDP, Static Routing, DHCP Reservation, VLAN configuration, Traffic Control, DDNS, and Cloud Management for comprehensive network management.
- Supports intelligent channel selection, virtual APs, MAC ACL, DFS, scheduled wireless operation, one-key Master/Slave switching, and automatic reboot (Watchdog) for simplified deployment and reliable wireless performance.
- Supports up to 64 wireless clients, remote management through HTTP, Telnet, SSH, SNMP, and comprehensive configuration, monitoring, and logging capabilities.
- Industrial-grade IP67-rated outdoor enclosure with TVS protection, ESD protection, and surge protection for reliable operation in harsh outdoor environments.

Features and Benefits

Long-Distance Wireless Connectivity

The COMMANDO AIRY-WB900P-5K is designed to provide reliable long-range wireless communication for outdoor deployments. Equipped with a 14dBi high-gain directional antenna, it supports wireless transmission distances of up to 5KM, making it suitable for surveillance backhaul, campus connectivity, industrial networking, and remote site interconnection.

High-Speed Wireless Performance

Based on IEEE 802.11ac Wave 2 technology, the AIRY-WB900P-5K delivers high-performance 5.8GHz wireless connectivity with wireless data rates of up to 867Mbps based on IEEE 802.11ac Wave 2 technology, enabling efficient transmission of video, voice, and data traffic across long-distance wireless links.

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

Supports both:

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

This flexibility allows the wireless bridge to be deployed in a wide range of outdoor networking applications.

One-Key Master/Slave Switching

Features a dedicated Master/Slave (H/C) hardware switch, simplifying bridge deployment and reducing configuration time during installation.

Integrated Signal Strength Display

Built-in signal strength indicators assist installers in aligning wireless links and monitoring connection quality, helping achieve optimal bridge performance.

Gigabit Connectivity with PoE Output

Equipped with:

- 1 × Gigabit PoE IN WAN Port (IEEE 802.3bt)
- 3 × Gigabit PoE OUT LAN Ports (IEEE 802.3af/at)

The PoE OUT capability allows connected devices such as IP cameras and network equipment to receive power directly from the wireless bridge, simplifying deployment and reducing cabling requirements.

Flexible Operating Modes

Supports:

- AP Mode
- Wireless Bridge Mode
- WISP Mode
- Gateway Mode

These operating modes provide deployment flexibility for various networking scenarios.

Advanced Wireless Management

Supports:

- SSID Broadcast
- Hidden SSID
- Virtual AP (Up to 2 SSIDs)
- Channel Selection
- RF Power Adjustment
- Client Limitation
- DFS

- Country Code Selection
- BSSID Lock

These features help optimize wireless performance and improve deployment flexibility.

Enhanced Wireless Security

Provides multiple security mechanisms including:

- WPA/WPA2-PSK (AES)
- Wireless MAC ACL
- Client Isolation
- URL Filtering
- IP Filtering
- MAC Filtering

These features help improve wireless security and access control.

Reliable Outdoor Design

Featuring an IP67-rated enclosure, the AIRY-WB900P-5K is designed to withstand harsh outdoor environments while maintaining stable wireless operation.

Industrial-Grade Protection

The device includes dedicated protection mechanisms for outdoor deployments:

- TVS Protection Devices
- ESD Protection:
 - Air: $\pm 8\text{KV}$
 - Touch: $\pm 6\text{KV}$
- Electrical Surge Protection:

- Common Mode: 2KV
- Differential Mode: 1KV

These features help protect equipment from electrical disturbances and environmental challenges.

IPv4 and IPv6 Ready

Supports both IPv4 and IPv6 networking, ensuring compatibility with modern network infrastructures and future deployment requirements.

Cost-Effective Outdoor Wireless Bridge Solution

Combining 5KM wireless transmission, 14dBi directional antenna, P2P/P2MP support, Gigabit PoE connectivity, Master/Slave switching, signal strength display, and IP67 protection, the COMMANDO AIRY-WB900P-5K provides a reliable and cost-effective solution for long-distance outdoor wireless networking applications.

Software

COMMANDO AIRY-WB900P-5K provides comprehensive standalone management through an intuitive WEB GUI interface, offering advanced wireless bridge configuration, monitoring, security, network management, and maintenance capabilities for outdoor deployments.

Monitoring

Provides real-time monitoring of:

- Working Mode
- Network Topology
- Signal Strength
- CPU Usage
- Memory Usage
- Real-Time Traffic Statistics
- LAN Information
- WAN Information
- Wireless Information
- Bridge Information

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

Working Modes

Supports multiple deployment modes:

- AP Mode
- Wireless Bridge Mode
- WISP Mode

Gateway Mode

This flexibility allows the device to be deployed across a wide range of wireless networking applications.

Wireless Management

Wireless Configuration

Supports:

- SSID Broadcast
- Hidden SSID
- Channel Selection
- Virtual AP (Up to 2 SSIDs)
- Country Code Selection
- DFS (Dynamic Frequency Selection)
- Radio Mode Selection (2×2 MIMO / SISO)
- BSSID Lock
- RF Power Adjustment
- Scheduled Wireless Shutdown
- Wireless Client Limitation (0–64 Users)

These features help optimize wireless coverage, performance, and interference management.

Wireless Security

Supports:

- NONE (Open)
- WPA/WPA2-PSK (AES)

Additional security features include:

- MAC ACL
- Wireless Client Isolation
- URL Filtering
- IP Filtering
- MAC Filtering

These mechanisms help improve network security and user access control.

Bridge Management

Supports:

- Bridge Self-Management Function based on Private Protocol GHCP
- One-Key Master/Slave Switching
- Wireless Bridge Configuration and Monitoring

These features simplify deployment and maintenance of wireless bridge links.

Network Management

Supports:

- IPv4
- IPv6
- Port Configuration
- VLAN Configuration
- Static DHCP (Up to 32 Rules)
- Static Routing (Up to 16 Routes)
- Port Mapping
- DMZ

- LLDP Configuration

These features provide flexible network deployment and traffic management capabilities.

Diagnostic Tools

Built-in network diagnostic tools include:

- Ping
- Traceroute

These utilities assist administrators in troubleshooting connectivity and routing issues.

Device Management

Supports:

- Configuration Backup and Restore
- Factory Reset
- Firmware Upgrade
- Scheduled Reboot
- Auto-Reboot Policy (Watchdog Mechanism)
- Time Synchronization
 - NTP
 - Manual Time Setting
 - Host Synchronization

These management functions help ensure stable long-term operation.

Remote Access and Management

Supports:

- HTTP Management

- Telnet
- SSH
- SNMP

These management protocols provide flexible administration options for network operators.

Traffic and Service Management

Supports:

- Traffic Control Settings
- Time Group Management
- IP Group Management
- DDNS (Dynamic DNS)

These capabilities help administrators optimize network resources and simplify service management.

Logs

Supports system logging for device monitoring, maintenance, and troubleshooting purposes.

Easy Configuration

The COMMANDO AIRY-WB900P-5K supports one-key Master/Slave switching, bridge self-management, real-time signal monitoring, WEB GUI management, firmware upgrades, automated maintenance policies, and advanced diagnostic tools, helping simplify deployment and ongoing network administration.

Hardware

Solid Performance with Non-Blocking Architecture

Powered by powerful hardware platform with 128MB DDR2 memory and 16MB SPI NOR Flash, the COMMANDO AIRY-WB900P-5K is designed to deliver stable wireless bridge performance and reliable long-distance 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-WB900P-5K is equipped with multiple Gigabit Ethernet interfaces to support both network connectivity and power delivery.

- 1 × 10/100/1000Mbps WAN Port with 48V PoE IN (IEEE 802.3bt)
- 3 × 10/100/1000Mbps LAN Ports with 48V PoE OUT (IEEE 802.3af/at)
- DC 48V Power Input
- Reset Button
- Master/Slave Pairing Switch (H/C)
- LED Indicators (PWR, SYS, WiFi, LAN, Eth ×4, Signal ×4)

The integrated PoE OUT capability enables connected devices such as IP cameras and network equipment to receive power directly through the bridge, simplifying deployment and reducing cabling requirements.

High-Gain Directional Antenna System

The AIRY-WB900P-5K features a built-in 14dBi high-gain directional antenna designed specifically for long-distance wireless bridge applications.

- Operating Frequency: 5.150GHz – 5.850GHz
- Antenna Gain: 14dBi
- IEEE 802.11a/n/ac Wave 2 Support

- Wireless Data Rate: Up to 867Mbps

The directional antenna design helps improve signal focus, link stability, and wireless transmission efficiency in outdoor environments.

Long-Distance Wireless Bridge Design

Designed for outdoor wireless bridge deployments, the AIRY-WB900P-5K supports long-range wireless transmission and is suitable for:

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

The built-in 14dBi antenna supports wireless transmission distances of up to 5KM according to the specification sheet.

Flexible Power Options

Supports dual power input methods:

- 48V PoE
- 48V DC Power Input

These options provide installation flexibility across a wide range of outdoor deployment environments.

Reliable Outdoor Operation

Designed to operate reliably under demanding environmental conditions.

- Operating Temperature: -30°C to 55°C
- Storage Temperature: -40°C to 70°C

- Humidity: 5% to 95% (Non-Condensing)

These specifications help ensure stable performance in outdoor installations.

Industrial-Grade Protection

The AIRY-WB900P-5K includes dedicated protection mechanisms to improve reliability and equipment safety.

- Dedicated TVS Protection Devices
- 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 deployments.

Weather-Resistant Outdoor Design

Featuring an IP67-rated enclosure, the AIRY-WB900P-5K is designed to withstand harsh outdoor environments while maintaining reliable wireless bridge performance.

Energy-Efficient Operation

Despite supporting PoE output functionality and multiple Gigabit interfaces, the AIRY-WB900P-5K maintains efficient operation with a maximum power consumption of less than 60W.

Compact and Rugged Design

The robust outdoor enclosure enables easy installation and deployment across various outdoor environments.

- Dimensions: 190mm × 110mm × 50mm
- Weight: 0.6kg

The compact design helps simplify mounting while maintaining durability for long-term outdoor operation.

Specifications

The COMMANDO AIRY-WB900P-5K is a high-performance 5.8GHz Outdoor Wireless Bridge based on IEEE 802.11ac Wave 2 technology. It features a built-in 14dBi directional antenna, supports Point-to-Point (P2P) and Point-to-Multipoint (P2MP) deployments, Gigabit Ethernet connectivity with PoE IN and PoE OUT, and advanced management features for long-distance outdoor wireless networking applications.

Table 1. Specifications

Technical Parameters	Specification
Model	AIRY-WB900P-5K
Wireless Standard	IEEE 802.11a/n/ac Wave 2
Memory	128MB DDR2
Flash	16MB SPI NOR Flash
Frequency Band	5.8GHz
Frequency Range	5.150GHz – 5.850GHz
Wireless Data Rate	Up to 867Mbps
Wireless Transmission Distance	Up to 5KM
Wireless Deployment Mode	Point-to-Point (P2P), Point-to-Multipoint (P2MP)
Working Mode	AP, Wireless Bridge, WISP, Gateway
Maximum Wireless Clients	Up to 64 Users
Multiple SSID	Up to 2 SSIDs
Antenna Type	Built-in Directional Antenna

Technical Parameters	Specification
Antenna Gain	14dBi
Hardware Interfaces	1 × 10/100/1000Mbps WAN Port with 48V PoE IN (802.3bt), 3 × 10/100/1000Mbps LAN Ports with 48V PoE OUT (802.3af/at), DC Power Input, Reset Button, H/C Pairing Switch
LED Indicators	PWR, SYS, WiFi, LAN, Eth ×4, Signal ×4
Wireless Security	NONE (Open), WPA/WPA2-PSK (AES)
Access Control Features	MAC ACL, Wireless Client Isolation
Wireless Features	SSID Broadcast, Hide SSID, Channel Selection, DFS, Country Code Selection, RF Power Adjustment, BSSID Lock, Scheduled Wireless Shutdown
Network Features	IPv4, IPv6, VLAN Configuration, Static DHCP (32 Rules), Static Routing (16 Routes), Port Mapping, DMZ, LLDP
Management Protocols	HTTP, Telnet, SSH, SNMP
Diagnostic Tools	Ping, Traceroute
Additional Features	DDNS, Traffic Control, Time Group Management, IP Group Management
Bridge Management	GHCP-Based Bridge Self-Management
Device Management	Configuration Management, Firmware Upgrade, Scheduled Reboot, Auto-Reboot Policy (Watchdog), Time Synchronization
Power Input	PoE 48V 0.5A, DC 48V 2A
Maximum Power Consumption	< 60W

Technical Parameters	Specification
Dimension (L × W × H)	190mm × 110mm × 50mm
Weight	0.6kg
Protection Grade	IP67
Operating Temperature	-30°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-WB900P-5K LED Indication

LED Indicator	LED Status
PWR	ON: Device is receiving power and operating normally.
SYS	Blinking: System is operating normally.
WiFi	ON/Blinking: Wireless radio is enabled and wireless activity is present.
LAN	ON/Blinking: LAN connectivity is established and network activity is present.
ETH * 4	ON/Blinking: Ethernet port activity detected.
Signal * 4	Indicates wireless signal strength level.

Included in the Bundle/Box

COMMANDO AIRY-WB900P-5K comes with the following accessories:

- 1 × COMMANDO AIRY-WB900P-5K Wireless Bridge
- 1 × PoE Adapter
- 1 × Power Cord
- 2 × Nylon Cable Ties
- 1 × Gift Box

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

Document History

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