



## **COMMANDO AirNET Wireless Bridge Data Sheet**

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## Product Overview

COMMANDO AirNET Series Wireless Bridge comes with default AP mode where bridge be step up by keeping one device in Station mode and one device in AP mode and supports Super Channel Setting, Diagnostics Network Utilities, Network Watchdog (NWD) and Auto power adjustment. It complies with IEEE 802.11ac standard and is backward compatible with IEEE 802.11b/g/n standard along with build in MIMO High Gain 27/25/23/20dBi Internal Antenna as per model. All Bridges Supports HI-MAX TDMA Technology which use polling technique to solve the hidden node and resource waste problem between the AP and Base Station. It provides low latency, high throughput in PTP application likes IP camera, long range Wi-Fi Transmission) with Beamforming Technology.

It has separate Gigabit 1 WAN & 1 LAN port IP65 Waterproof and Dust proof Enclosure casing. It enables the connection of two or more different local area network (LAN) segments by bridging a wireless connection between them. It works much like a wired network bridge and is used to connect LANs that are logically separated and/or located in different physical locations. It is primarily used in corporate LANs, which often span across geographical locations. At the backend the wireless bridges are connected to the LAN switch or router. For the two network segments to communicate, each data packet travels from the local Ethernet/router to the wireless bridge, which wireless broadcasts it to the wireless bridge of the other LAN segment. Besides point-to-point bridging, unlike traditional enterprise Wi-Fi systems that required a controller. It comes as a standalone device.

It is designed for the Outdoors with weather resistant IP65 case specifically for outdoor installations. It has 2 in 1 mode with AP mode and Station mode with range up to 10 Kms. It is industrial grade Bridge with great communication efficiency, equipped with separate Gigabit WAN & LAN port which enhances the sharing of files, photo, audio, video, and gaming experience over wireless network.

It can identify and determine the correct transmission speed and half/full duplex mode of the attached devices. It also supports standard Auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables, Store-and-Forward forwarding scheme to ensure low latency and high data integrity.

## Product Highlights

- Support AP as well as Station mode.
- Supports IEEE 802.11ac 5GHz Wireless bands.
- Dual input for power either POE IN or DC power inputs as per models.
- IEEE 802.1q Tag based VLAN
- Support Enterprise security: WPA, WPA2, 802.1x RADIUS
- Supports IEEE 802.11ac 5GHz Wireless with inbuilt 27/25/23/20dBi gain Antenna panel antenna.
- Support wireless RF power adjustable as per user movements from bridge.
- Supports intelligent load balance based on users.
- Support seamless roaming and low-rate terminal access.
- Dual purposes WAN or LAN port supporting 1x 10/100/1000Mbps.
- Supports Wi-Fi client distance up to 10KM depending on surrounding conditions.
- Support Open or encryption
- Plug and Play design simplifies installation with self-adaption.
- Compact IP65 casing comes with ABS waterproof, dust proof and sunscreen shell which avoid the damage from dust & rainy weather. Meantime, it is adaptive to various environment.
- Silent design perfect for noise sensitive environments.
- With Zero Touch Provisioning: Plug and play and no setup. Affordable, Easy-to-Use AP for Small Business Networks, with Zero Configuration Required.
- Built-in High-Performance Processor with long life, Suitable for Deployment of large scale Commercial Scenarios
- Comes with one-year default warranty – optionally extendable up to 3 years.

## Features and Benefits

### Multiple Operational Modes

It has 2 in 1 mode like AP Mode or Station mode. AirNET bridge can act as AP as well as Bridge but one at a time.

### Gigabit LAN speed

It provides and offers a wide range of models for different network deployment requirements with gigabit speed. Auto-negotiation senses the link speed of a network device in wired 10, 100, or 1000Mbps.

### Easy to Use

COMMANDO AirNET Bridge are WEB GUI based easy to use and manage standalone device. It requires minimal configuration, so setup is simple and hassle-free. For wireless clients/users, it can intelligently adjust for compatibility and optimal performance by DFS. Its compact size makes it ideal for Outdoor wall/ceiling with limited space. Dynamic LED lights provide real-time work status display and basic fault diagnosis. Easy Installation, Plug-and-play installation with no configuration required.

### Wireless speed for client and bridge

By setting channel bandwidth up to 20/40/80/160 MHz can increase the speed of bridge connection up to 900Mbps between bridges.

### Weatherproof Enclosure with IP65

It has IP65 resilient weatherproof enclosure protects the access points against harsh outdoor condition. It comes with ABS waterproof, dust proof and sunscreen shell which avoid the damage from dust & rainy weather. Meantime, it is adaptive to various environment with  $\pm 6KV$  Lightning Protection with no Ingress of dust as well as waterproof enclosure. These energy efficient Bridges are well built and rigorously tested and can sustain in very rough environment to provide the reliable performance.

## **Wi-Fi That Goes the Distance**

Supports bridge distance of up to 10KM with (Point to Point) PTP 27dBi MIMO high gain panel antenna which can greatly increase the Wi-Fi range to 10KM distance and supply stable Wi-Fi signal for users.

## **Auto MDIX Capabilities**

Auto sensing 10/100/1000 ports with auto MDIX capabilities which also removes speed and duplex mismatches automatically.

## **Compact and Silent Performance**

It operates quietly, making it ideal for use in virtually any room or office. Perfect for noise sensitive environments.

## **Support uninterrupted critical network infrastructure**

It has Dual power options with DC input power and POE IN power input which protect from power failures and increases life of device. It comes with Lightning surge protection Common mode  $\pm 6\text{KV}$  and Differential mode  $\pm 2\text{KV}$ . With this feature protect on cost and the impact to your business by losing these network devices and thus the users/servers connected to them.

## **Cost Efficient**

State of art quality product that can serve on real time high-speed Performance with AC input power, highly reliable, conformance to international open standards, durable, serviceable, aesthetics, perceived quality, enhanced performance leads to value to money.

## **Green Technology**

It features the energy-efficient Ethernet that can save power. It automatically adjusts power consumption according to the link status to limit the carbon footprint of your network. It also complies with RoHS, prohibiting the use of certain hazardous materials. Besides that most of the packaging material can be recycled and reused.

## Software

COMMANDO AirNET Bridge supports software functions as follows.

### Guide

Guide Wizard helps for Fast Setup to Finish config in several steps

### Status

A) Overview: shows Status of System/Model/MAC/Uptime/Load Average/ Memory (Total Available, Free, Buffered) /Active Connections/ Associated Stations

B) Real time Graphs: Load, Traffic, Wireless, Connections

### Network

LAN, Wi-Fi Basic, Wi-Fi Advanced (For setting Super channels), Diagnostics, Autotxpower, Network, Watchdog

### System

Password, Upgrade/Reset, Auto-reboot, Reboot

### Logout

User Logout from Web access.

## Hardware

### Solid performance with non-blocking architecture

- Full speed of data transferring with (Auto-Negotiation/Auto MDI/MDIX).
- Solid performance with non-blocking architecture.

### Physical Ports and Networking Interfaces

- Up to 2 x 10/100/1000 Mbps Rj45 Ethernet Ports with combined POE IN with WAN/LAN
- LED Indicators: Power, LAN, Wi-Fi, WAN
- Reset Button
- DC Input

### Extra Long operational life

- High Quality PCB Circuit Board and PCB Surface Treatment Using Gold Sinking Process.
- Support temperature range 0° C to 55° C
- Lighting surge protection Common mode  $\pm 6\text{KV}$  and Differential mode  $\pm 2\text{KV}$ .
- Exceptional Performance in Harsh Outdoor Climates with IP65 weatherproof and dust proof enclosure ensuring it can withstand harsh outdoor and indoor environments.

**Table 2 Hardware Specifications**

| HARDWARE SPECIFICATION |                |
|------------------------|----------------|
| Standard               | 802.11ac/b/g/n |



|                        |                                                     |
|------------------------|-----------------------------------------------------|
| RAM                    | 32-128 MB                                           |
| Flash                  | 8 -32MB                                             |
| Interface              | 2* 10/100/1000M LAN/WAN with<br>POE IN option Port  |
| Hardware<br>button     | Reset Button                                        |
| Power                  | DC In 12V, 0.5 to 1 A and POE IN<br>24V, 0.5 to 1 A |
| Antenna                | Directional 27/25/23/20dBi MIMO<br>Panel antenna.   |
| Working<br>Temperature | 0°C to +55°C                                        |
| Working<br>Humidity    | 5%~95%RH(Non-condensing)                            |
| Warranty<br>Period     | 1 Year                                              |
| LED Indicator<br>Light | PWR, LAN, Wi-Fi, WAN                                |

## Specifications

### Technical Specifications

Supports 802.11ac, with Standalone models with either open or encryption with Dual option for input Power supply with either 24V, 0.5 to 1A POE IN or DC input power 12V, 0.5 to 1A and also have 27/25/23/20dBi gain Internal Panel Antenna.

Table 3. Specifications

| Technical Parameters    | Specification                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hardware Specifications | 1*10/100/1000Mbps auto-negotiation WAN port<br><br>1*10/100/1000Mbps auto-negotiation LAN port<br><br>1* Reset button                                  |
| Memory                  | 32-128RAM                                                                                                                                              |
| Flash                   | 8-32MB                                                                                                                                                 |
| IEEE Standard           | IEEE 802.11b, IEEE 802.11g, IEEE 802.11n , IEEE 802.11ac MIMO technology                                                                               |
| Data Transfer Rates     | For Single band<br><br>IEEE 802.11b up to 11Mbps<br><br>IEEE 802.11g up to 54Mbps<br><br>IEEE 802.11n up to 300Mbps<br><br>IEEE 802.11ac up to 900Mbps |
| Frequency               | Radio 2.4GHz or 5GHz                                                                                                                                   |
| Throughput              | Up to 900Mbps                                                                                                                                          |
| Wi-Fi Operational Modes | AP, Station Mode                                                                                                                                       |

|                    |                                                                                                                                                             |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wireless Security  | Open or Encryption                                                                                                                                          |
| Enclosure Type     | Desktop/Wall/Ceiling mounted depending on models.                                                                                                           |
| Input Power Supply | POE IN 24V 0.5 to 1 Amp OR DC 12V ,0.5 to 1A<br>depending on model                                                                                          |
| Management         | Web based management<br><br>Backup & Restore to default Settings                                                                                            |
| ENVIRONMENTAL      | Operating Temperature: 0° C to +55° C<br>Humidity: 5% to 95% non-condensing<br>Storage and transportation Temperature: -40° C to +70° C (-40° F to +158° F) |
| Weight             | <1Kg                                                                                                                                                        |

Table 4. Model Comparison

| Product Code       | AIR-WB5G-1K      | AIR-WB5G-2K      | AIR-WB5G-3K      | AIR-WB5G-5K           | AIR-WB5G-10K     | AIR-WB5G-10K-HG       | AIR-WB-1K             | AIR-WB-5K        |
|--------------------|------------------|------------------|------------------|-----------------------|------------------|-----------------------|-----------------------|------------------|
| Wireless data rate | 300Mbps          | 300Mbps          | 300Mbps          | 300Mbps               | 867Mbps          | 867Mbps               | 150Mbps               | 300Mbps          |
| Operation Mode     | AP or station    | AP or station    | AP or station    | AP or station         | AP or station    | AP or station         | AP or station         | AP or station    |
| Distance covered   | 1KM              | 2KM              | 3KM              | 5KM                   | 10KM             | 10KM                  | 1KM                   | 5KM              |
| IEEE Standard      | 802.11n          | 802.11n          | 802.11n          | 802.11n               | 802.11ac         | 802.11ac              | 802.11n               | 802.11n          |
| Frequency          | 5GHz,            | 5GHz,            | 5GHz,            | 5GHz,                 | 5GHz,            | 5GHz,                 | 2.4GHz                | 2.4GHz           |
| Antenna            | 2x13dBi          | 2x13dBi          | 2x13dBi          | 2x14dBi               | 2x14dBi          | 2x16dBi               | 1x8dBi                | 2x12dBi          |
| RF Power           | 23dBm            | 23dBm            | 25dBm            | 27dBm                 | 25dBm,           | 25dBm,                | 20dBm                 | 27dBm            |
| WAN                | 1*<br>10/100Mbps | 1*<br>10/100Mbps | 1*<br>10/100Mbps | 1*<br>10/100/1000Mbps | 1*<br>10/100Mbps | 1*<br>10/100/1000Mbps | 1*<br>10/100/1000Mbps | 1*<br>10/100Mbps |
| LAN                | 1*<br>10/100Mbps | -                | -                | 1*<br>10/100/1000Mbps | 1*<br>10/100Mbps | -                     | 1*<br>10/100/1000Mbps | -                |

**Table 5. COMMANDO AirNET Series Wireless Bridge LED indication**

| LED Indicator | LED Status                                                                                                                                 |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Power         | Green OFF: No power.<br>Green ON: POE/ DC power given.                                                                                     |
| WAN           | Green OFF: WAN not connected<br>Green ON: <b>WAN</b> connect with Gateway or POE devices and<br>Green blinking shows activity on WAN port. |
| LAN           | Green OFF: LAN not connected<br>Green ON: <b>LAN</b> connect with Gateway or POE devices and<br>Green blinking shows activity on LAN port. |
| Wi-Fi         | Green ON: Wi-Fi Device connected and Green blinking<br>shows user activity.<br>Green OFF: User not connected                               |
| 5G            | Green ON: 5G channel selected<br>Green OFF: 5G not enabled.                                                                                |

**Included in the bundle/box**

**COMMANDO AirNET Series Bridge**

All COMMANDO AirNET series Bridge made available for use globally along with accessory used to facilitate or enhance operations. All COMMANDO AirNET series Bridge Comes with following Accessories.

1x COMMANDO AirNET Series Wireless Bridge.

1x Patch Cord

1x Wall Mount with Mounting Screws

1x LAN cable

## 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.
- One-year default warranty with option of warranty extension up to 3 years

COMMANDO WarrantyX Program available on: [www.commandonetworks.com/warranty](http://www.commandonetworks.com/warranty)

Table 6. Support and Warranty

| Warranty and Support |                                                                                                                                                                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Products covered     | COMMANDO AirNET Series Wireless Bridge                                                                                                                                                                                                                                                                                |
| Warranty duration    | One 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 <a href="http://commandonetworks.com">commandonetworks.com</a> for all available technical queries.                                                                                                                                                                                   |

# Ordering Information

Ordering information for the COMMANDO AirNET series Bridge, To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at [www.commandonetworks.com/catalog](http://www.commandonetworks.com/catalog)

Table 7. COMMANDO AirNET series Bridge Ordering Information

| Product Code    | Information                                                                                       |
|-----------------|---------------------------------------------------------------------------------------------------|
| AIR-WB5G-10K    | COMMANDO AirNET 10KM, 867Mbps, 5GHz, 802.11ac, 2x14dBi Ant, 25dBm, 2GE, Wireless Bridge           |
| AIR-WB5G-10K-HG | COMMANDO AirNET 10KM, 867Mbps, 5GHz, 802.11ac, 2x16dBi High Gain Ant, 25dBm, 1GE, Wireless Bridge |



Document History

| Release   | New or Revision | Described in  | Date           |
|-----------|-----------------|---------------|----------------|
| Release 1 | First Release   | First Release | March 18, 2021 |