COMMANDO AirNET Wireless Bridge Data Sheet

Contents

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 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 Lighting surge protection Common mode ±6KV and Differential mode ±2KV. 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 ±6KV and Differential mode ±2KV.

• 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 POE IN option Port
Hardware button	Reset Button

Power	DC In 12V, 0.5 to 1 A and POE IN 24V, 0.5 to 1 A
Antenna	Directional 27/25/23/20dBi MIMO Panel antenna.
Working Temperature	0°C to +55°C
Working Humidity	5%~95%RH(Non-condensing)
Warranty Period	1 Year
LED Indicator 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 1*10/100/1000Mbps auto-negotiation LAN port 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 IEEE 802.11b up to 11Mbps IEEE 802.11g up to 54Mbps IEEE 802.11n up to 300Mbps 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 depending on model
Management	Web based management Backup & Restore to default settings
ENVIRONMENTAL	Operating Temperature: 0° C to +55° C Humidity: 5% to 95% non-condensing 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 * 10/100 Mbps	1 * 10/100 Mbps	1 * 10/100 Mbps	1 * 10/100 /1000 Mbps	1 * 10/100 Mbps	1 * 10/100 /1000 Mbps	1 * 10/100 /1000 Mbps	1 * 10/100 Mbps
LAN	1 * 10/100 Mbps	-	-	1 * 10/100 /1000 Mbps	1 * 10/100 Mbps	-	1 * 10/100 /1000 Mbps	-

Table 5. COMMANDO AirNET Series Wireless Bridge LED indication

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

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 commandonetworks.com 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/ordering

Table 7. COMMANDO AirNET series Bridge Ordering Information

Product Code	Information
AIR-WB5G-1K	COMMANDO AirNET 1KM, 300Mbps, 5GHz, 802.11n, 2x13dBi Ant, 23dBm, Wireless Bridge
AIR-WB5G-2K	COMMANDO AirNET 2KM, 300Mbps, 5GHz, 802.11n, 2x13dBi Ant, 23dBm, Wireless Bridge
AIR-WB5G-3K	COMMANDO AirNET 3KM, 300Mbps, 5GHz, 802.11n, 2x13dBi Ant, 25dBm, 1GE, Wireless Bridge
AIR-WB5G-5K	COMMANDO AirNET 5KM, 300Mbps, 5GHz, 802.11n, 2x14dBi Ant, 27dBm, Wireless Bridge
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
AIR-WB-1K	COMMANDO AirNET 1KM, 150Mbps, 2.4GHz, 802.11n, 1x8dBi Ant, 20dBm, Wireless Bridge
AIR-WB-5K	COMMANDO AirNET 5KM, 300Mbps, 2.4GHz, 802.11n, 2x12dBi Ant, 27dBm, Wireless Bridge

Document History

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