COMMANDO AirBULLET 1800Mbps, 802.11ax, Dual Band, Built-in FEM (PA+LNA), Wi-Fi 6 USB 3.0 Adapter (AIR-WA1800AX) Data Sheet

Contents

Product Overview

COMMANDO AirBULLET 1800Mbps, 802.11ax, Dual Band, Built-in FEM (PA+LNA), Wi-Fi 6 USB 3.0 Adapter with Hi-Speed Connector enables communication between wireless users with speed up to 1800Mbps with advanced Wi-Fi 6 Technology. It is standalone device, comes with dual band with 2.4GHz (573.5Mbps 11ax 2x2) + 5GHz (1201Mbps 2x2). Built-in FEM (PA + LNA) module creates stronger signal and wider signal receiving range. Both 2.4G and 5.8G bands can be simultaneously used for browse, stream, chat, and play online games without any delay. The 64/128-bit WEP, complies with 128bit WPA standard (TKIP/AES), supports MIC, IV Expansion, Shared Key Authentication, IEEE 802.1X encryption that provides a protected wireless network connection and protects transmitted data.

It is easy to setup and establishes a fast, protected home/office network. It is backward compatible with all current/old wireless products. It can be deployed in harsh environments, robust to deliver fast speeds to mission-critical devices. It provides long range to expand network to areas with no or weaker Wi-Fi signal without having to do any configuration.

Product Highlights

• Wi-Fi 6 with speed up to 1800Mbps wireless transmission rate

• Dual band frequency with 2.4GHz band maximum speed up to 573.5Mbps & 5GHz band maximum speed up to 1201Mbps

• Driver CD or download the driver online from https://commandonetworks.com/download-center

• Built-in FEM (PA + LNA) module creates stronger signal and wider signal receiving range.

• 1024-QAM high data rate Modulation delivers powerful, continuous Wi-Fi to fully unlock the potential of Wi-Fi 6 router.

• Supports Windows 11/10/7

• Seamlessly compatible with 802.11ax/ac/a/b/g/n devices

• USB 3.0 support maximizes data transfer speeds for compatible devices with extended wireless range

• Delivers power and data over the single USB port

• Auto-determine the necessary power requirements, Power classification as per need.

• Compact Design, High Safety with Short Circuit Protection

• Quick and Easy Installation. Plug-and-play installation, requires no con¬figuration

• Comes with One Year warranty

Features and Benefits

Wi-Fi 6 Technology

The IEEE 802.11ax is a emerging standard, also known as High-Efficiency Wireless (HEW) or Wi-Fi 6, builds on 802.11ac. Equipped with the latest and fastest Wi-Fi 6 (802.11ax) technology, Multi-User (MU) Orthogonal Frequency Division Multiple Access (OFDMA). This subdivides the Wi-Fi channel into smaller frequency allocations (called Resource Units). Spatial reuse also known as BSSID coloring allows the access points and their clients to differentiate between other SSID, thus permitting more simultaneous transmissions. This capability permits an Access Point to synchronize communication with multiple individual client devices at the same time on the uplink and downlink when it comes to sending and receiving small packets of data. Supporting two spatial streams, MU-MIMO enables access points to split spatial streams between client devices to maximize throughput. It has 1024-QAM modulation signals which is better at penetrating solid objects like walls.

USB 3.0 support

USB 3.0 backwards compatible designed to work with older USB versions including USB 2.0 and USB 1.1. It can plug a USB 2.0 device into a USB 3.0 port, but it will only run at the speed of the USB 2.0 technology. The theoretical transfer speed of USB 3.0 is 4.8 Gbps and USB 2.0 is 480 Mbps but still a significant advancement in transfer speed.

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 with backward compatibility with Wi-Fi 3/4/5 AP leads to value to money.

High Speed Connectivity

It is designed to be deployed in situations where high bandwidth is demanded. It provides speed up to 1800Mbps.

Wireless Security

Supports 64/128-bit WEP, complies with 128bit WPA standard (TKIP/AES), supports MIC, IV Expansion, Shared Key Authentication, IEEE 802.1X which prevent unauthorized access data using wireless networks, which include Wi-Fi networks.

Dust proof Enclosure

It has dust proof enclosure protects the against harsh outdoor conditions with no Ingress of dust. It can withstand harsh environments, robust to deliver hassle free power.

Easy to Use

Easy installation with software driver configuration required to be installed.

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, most of the packaging material can be recycled and reused.

Hardware

Physical Ports and Networking Interfaces

• 1 x Wireless USB 3.0 Adapter

Standards Compliance

• IEEE802.11ax, IEEE802.11ac, IEEE802.11a, IEEE802.11b, IEEE 802.11g, IEEE802.11n, IEEE 802.1X

Environmental Specifications

• Operating Temperature: -20º C to 70 º C

• Storage Temperature: -40 º C to 90 º C

• Operating Humidity: 5% to 95%

• Storage Humidity: 5% to 95% Max 90% (non-condensing)

Dimensional Drawing

Extra Long Operational life

• High Quality enclosure to withstand Harsh Outdoor Climates with dust proof ensuring it can with stand harsh outdoor and indoor environments.

Specifications

It connects with faster wireless speeds with Wireless network. Simply plug the adapter into an available USB port and connect to a secure wireless network.

Table 1. Specifications

Interface	USB 3.0 Hi-Speed Connector
Wireless Speed	11n: Up to 573.5Mbps AC: Up to 1201Mbps
Frequency Range	2.4GHz & 5.8GHz
Wireless Transmit Power	20dBm (MAX EIRP)
Modulation Technique	OFDM/CCK/16-QAM/64-QAM/128-QAM
Work Mod	Ad-Hoc / Infrastructure
Wireless Security	64/128 bits WEP, WPA/WPA2, WPA-PSK/WPA2-PSK (TKIP/AES)
Temperature Range	Operating Temperature: -20ºC to 70ºC, Storage: -40ºC to 90ºC
Humidity	Operating: 5% to 95% (non-condensing), Storage: Max 90% (non-condensing)
Supporting OS	Windows 11/10/7
Dimension (H x W x D)	82.5 x 36 x 10 mm

RF Performance for 2.4GHz

Frequency	Data Rate	TX Power	Tolerance
2.4GHz	1Mbps	16dBm	±2dB
802.11b	11Mbps	16dBm	±2dB
2.4GHz	6Mbps	15dBm	±2dB
802.11g	54Mbps	13dBm	±2dB
2.4GHz	MCS0	14dBm	±2dB
802.11n	MCS7	13dBm	±2dB
20MHz	MCS8	13dBm	±2dB
2.4GHz			
802.11n			
40MHz	MCS9	13dBm	±2dB
5.8GHz			
802.11ac			
80MHz	MCS11	13dBm	±1.5dB
5.8GHz			
802.11ax			
160MHz	MCS11	13dBm	±1.5dB

Frequency	Data Rate	RX Specifcations Sensitivity	Tolerance

2.4GHz	1Mbps	-97dBm	±2dB
802.11b	11Mbps	-90dBm	±2dB
2.4GHz	6Mbps	-92dBm	±2dB
802.11g	54Mbps	-76dBm	±2dB
2.4GHz	MCS0	-92dBm	±2dB
802.11n	MCS7	-75dBm	±2dB
20MHz	MCS8	-71dBm	±2dB
2.4GHz			
802.11n			
40MHz	MCS9	-67dBm	±2dB
5.8GHz	6Mbps	-94dBm	±2dB
11a	54Mbps	-78dBm	±2dB
5.8GHz	MSC0	-89dBm	±2dB
11ac 80MHz	MCS9	-64dBm	±2dB
5.8GHz	MSC0	-82dBm	±2dB
11ax 160MHz	MCS11	-51dBm	±2dB

Table 2. Model Comparison

Product Code	Speed (Mbps)	IEEE Standard Supported	Wireless Adapter	Operation Band

AIR-WA150	150	802.11 b/g/n	USB 2.0 Hi-Speed Connector	2.4 - 2.4835GHz
AIR-WA300	300	802.11 b/g/n	USB 2.0 Hi-Speed Connector	2.4 - 2.4835GHz
AIR-WA1300	1300	802.11ac/b/g/n	USB 3.0 Hi-Speed Connector	2.4GHz & 5.8GHz
AIR-WA1800AX	1800	802.11ax/ac/a/b/g/n	USB 3.0 Hi-Speed Connector	2.4GHz & 5.8GHz

Included in the bundle/box

All COMMANDO AirBULLET 1800Mbps are made available for use globally along with accessories in the bundle to facilitate for enhance operations.

The switch box comes included with the following accessories:

• 1 x COMMANDO AirBULLET 1800Mbps Wi-Fi 6 Adapter
• 1 x Installation CD
• 1 x Quick Installation Guide

Support and Warranty

COMMANDO AirBULLET 1800Mbps come with One-year replacement warranty and lifetime support.

• 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.
• Comes with one-year warranty

Support and Warranty

Warranty and Support	
Products covered	COMMANDO AirBULLET 1800Mbps, 802.11ax, Dual Band, Built-in FEM (PA+LNA), Wi-Fi 6 USB 3.0 Adapter (AIR-WA1800AX)
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.

Warranty and Support	
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

Table 3 lists ordering information for the COMMANDO AirBULLET 1800Mbps. To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at www.commandonetworks.com/ordering

Table 3. COMMANDO AirBULLET 1800Mbps Ordering Information

Product Code	Information
AIR-WA1800AX	COMMANDO AirBULLET 1800Mbps, 802.11ax, Dual Band, Built-in FEM (PA+LNA), Wi-Fi 6 USB 3.0 Adapter

Document History

Release	New or Revision	Described in	Date
Release 1	First Release	First Release	October 24, 2022