



**COMMANDO AirONE AIR-AP1800AX-HD Wi-Fi 6  
Indoor Wireless Access Point Data Sheet**

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## Product Overview

COMMANDO AirONE AP1800AX-HD Wi-Fi 6 Indoor Access Point 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(600Mbps 11ax 2x2) + 5GHz(1200Mbps 2x2), equipped with separate 1G WAN ports & LAN ports. It support MU-MIMO and DL/UL-OFDMA modulation. It supports data rate up to 1800Mbps for wireless users and supports concurrent 160+ wireless clients with simultaneous upload or download of multiple packets at same time which enhances the sharing of files, photo, audio, video and gaming experience over wireless network. It supports Seamless Roaming, OFDMA, 1024-QAM, narrower sub-carrier spacing and longer symbol time which improves the stability and data processing efficiency. It can provide powerful wireless coverage to enterprise environments such as Small, Medium and Large enterprises, university campus, concert venue, gymnasium, etc.

It is powerful, long range & advance Wi-Fi 6 Indoor Access Point with 2 configuration modes namely Gateway & AP mode(Default Mode is AP mode). It supports range of 91 meters and above depending on surrounding conditions with up to 300mW input Power. It is industrial grade Wall/Ceiling IEEE 802.3at 48V PoE+ standard, install at every place to work as an stable base station for access users. It is equipped with separate Gigabit Ethernet WAN & LAN port.

It can also be used as DHCP server and works as layer 3 device when configured in gateway mode. It supports (IEEE 802.3at) PoE+, which helps in easy installation by eliminating the need of a dedicated power source and need of a power adapter. 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

- Multiple Operational Modes like Gateway Mode, AP mode (Default mode is AP mode).
- Multi SSID up to 8 with inbuilt WI-FI channel analysis.
- Supports IEEE 811ax/ac/b/g/n with backward compatibility for wireless clients, 2.4GHz+5GHz Wireless dual band with radio RF Power up to 300mW .
- Support wireless RF power adjustable as per user movements from AP with data rate up to 1800Mbps.
- Access end users up to 256 max, with concurrent end users up to 160+.
- Supports band steering automatically move to wider 5G band for faster connections, intelligent load balance based on users.
- Support tag VLAN and VLAN management.
- Supports advance security by MAC ACL, Static DHCP, Flow control, URL Mapping, IP/MAC/URL filters, Port mapping and DMZ.
- Support Seamless Roaming, OFDMA, 1024-QAM.
- Dual purposes WAN or IEEE 802.3at Port (PoE+) port supporting 1x 10/100/1000Mbps and dedicated LAN ports 1x 10/100/1000Mbps.
- Supports Wi-Fi client distance 91 meters and above depending on surrounding conditions.
- Dual input for power either PoE+ via WAN port or DC power inputs 12V, 1.5A.
- Support Open or encryption like WPA/WPA2PSK\_TKIPAES.
- With best-in-class power amplifier and FEM, 300mW high power, N type antenna connector for high gain antenna, stronger signal strength & supports large wireless coverage (91m and above) in all directions.
- Comply with IEEE 802.3az standard
- Plug and Play design simplifies installation with self-adaption.
- Compact, silent design perfect for noise sensitive environments.
- With Zero Touch Provisioning: Plug and play and no setup. Affordable, Easy-to-Use AP for all sized business networks, with Zero Configuration Required.
- Built-in High-Performance Processor with Flash: SPI NOR 8MB (1.8v) + NAND 128MB, and 1GB DDR3 RAM which greatly improved the data processing performance. Suitable for Deployment of Large Scale Commercial Scenarios
- Comes with one-year default warranty – optionally extendable up to 3 years.

## Features and Benefits

### Easy to Use

COMMANDO AirONE AP1800AX-HD is standalone WEB GUI based easy to use and manage device. It requires minimal configuration, so setup is simple and hassle-free. Auto-negotiation senses the link speed of a network device in wired 10/100/1000Mbps and also for wireless devices intelligently adjusts for compatibility and optimal performance by DFS. Various options for setting channel bandwidth in 2G band like 11NG\_HT20, 11NG\_HT40 & 11AXG\_GHE20 and also in 5G band like 11NA\_HT20, 11NA\_HT40, 11AC\_VHT20, 11AC\_VHT40, 11AC\_VHT8, 11AXA\_AHE20, 11AXA\_AHE40, 11AXA\_AHE80, 11AXG\_GHE40. It can check free channels available with inbuilt Wi-Fi analysis. It is ideal for installation to any desktops/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.

### 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.

### Gigabit Ethernet speed

It provides with Gigabit Ethernet speed for LAN and WAN port. It Comply with IEEE 802.3az standard, energy efficient AP is well built, rigorously tested and can sustain very rough environment and provides reliable performance.

### Wireless client supported

Supports up to 256 Max wireless users/clients with concurrent users 160+. It supports distance of 91 meters and above from AP in all directions for wireless clients.

## **Firewall**

Support Flexible user Access Control Policies & network Security to meet varied Customer needs. MAC Filtering function to block the access of illegal hosts. Supporting One-Click IP-MAC Binding to avoid ARP spoofing. Access Rules can be applied like URL Filter , IP Filter , MAC Filter , Port Mapping and DMZ to permit or deny Wi-Fi users.

## **Auto MDIX Capabilities**

Auto sensing 10/100/1000Mbps 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+ power input with WAN port which protect from power failures and increases life of device. 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 IEEE 802.3az standard, 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 AirONE AP1800AX-HD supports software functions as follows.

### Home

Device Information like CPU Usage, Memory Usage, LAN Information like IP Mode Get IP From AC/Gateway/Static, Status with 2G/5G Wi-Fi, Clients Status with information like SSID, Channel, Bandwidth, Encrypt, MAC Address, Operation Mode configure like AP/ Fat AP Mode with Uptime, Flow in bps for AP Downstream and AP Up stream.

### Wizard

Gateway Mode, AP Mode (Default Selection).

### Wi-Fi

2G/5G Wi-Fi with Basic and VAP (1 to 3) ON/OFF with Wi-Fi Analyzer, SSID, Hide your SSID, Bandwidth, Channel, Encryption Open/Encryption with WPA/WPA2PSK\_TKIPAES, MAC ACL with Add, Delete, Apply with disable/Allow/Prohibit option, Wi-Fi Timer OFF/ON with Time Frame, Advanced setting like Country Region, 2G/5G Channels, Country Region, User Isolation, Short GI, Coverage Threshold, Packet Threshold, RTS Threshold and DFS.

### Network

LAN Settings with DHCP server option, Static DHCP, Cloud Server Settings.

### Firewall

URL Filter, IP Filter, MAC Filter, Port mapping and DMZ.

### Manage

Configure, Reboot, Modify Password, Upgrade, Time, Log, Flow Control, IP Group, Time Group and DDNS.

### Table 1. Software functions

SOFTWARE FUNCTION	
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<p>Wizard Function</p>	<p>Gateway Mode: In Gateway mode, all Ethernet is bridged together, and wireless clients will connect ISP access point or router connecting directly to the Internet via WAN PORT. NAT is enabled and PCs in Ethernet LAN port this is the same IP to ISP through wireless LAN.</p> <p>AP Mode: In AP mode, the device works as an access point to transform your existing wired network into a wireless network.</p>
<p>Flow in bps</p>	<p>For AP downstream and AP Up stream</p>
<p>Network</p>	<p>LAN Settings with DHCP server option, Static DHCP, Cloud Server Settings</p>
<p>Management</p>	<p>Configure, Reboot, Modify Password, Upgrade firmware, Time setting with NTP and from PC, Log, Restore the factory default.</p>
<p>Wi-Fi</p>	<p>SSID name setting, Bandwidth, Channel, Encryption options like Open/Encryption like WPA/WPA2PSK_TKIPAES, MAC ACL, Wi-Fi Timer OFF/ON with Time Frame. Advanced setting like Country Region, 2G/5G Channels, Country Region, User Isolation, Short GI, Coverage Threshold, Packet Threshold, RTS Threshold and DFS.</p>





## Hardware

### Solid performance with non-blocking architecture

- With Flash: SPI NOR 8MB (1.8v) + NAND 128MB, and 1GB DDR3 RAM greatly improved the data processing performance.
- All ports capable of Gigabit Ethernet speed. 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 10/100/1000Mbps Mbps RJ 45 Ethernet Ports with combined PoE+ with WAN and separate LAN port
- LED Indicators: Power/Sys, LAN, WAN.
- Reset Button

### Extra Long operational life

- High Quality PCB Circuit Board and PCB Surface Treatment Using Gold Sinking Process.
- Support temperature range 0° C to 50° C.
- Desktop, Ceiling and Wall mount design Which enables horizontal and vertical wall mounting.

### Noise-free Operation

- The ports support reduced power modes for silent operation. Perfect for noise sensitive environments.

### Table 2. Hardware Specifications

Parameters	Specification
Standard	IEEE 802.11ax/ac/b/g/n Wi-Fi 6 technology
RAM	1GB
Flash	SPI NOR 8MB (1.8v) + NAND 128MB
Antenna	N type antenna connector

<b>Parameters</b>	<b>Specification</b>
Interface	10/100/1000Mbps LAN/WAN
Data Rate	1800Mbps
Concurrent End Users	160+
Reset	Hardware button
Power	DC 12V 1.5A or IEEE802.3at (WAN)
User Capacity	Up to 256
Dimension	198mmx198mmx28mm
Environment	Operating Temperature: -20~45 Limit working temperature: -30~70 Storage Temperature: 0~70 Humidity: 5%~95% non-condensing
Warranty Period	1 Year
Indicator Light	Power/SYS, LAN, WAN

## Specifications

### Technical Specifications

Supports 2.4GHz+5GHz, IEEE 802.11ax/ac/b/g/n with backward compatible wireless clients, wave 2.0 technology, Standalone model with Multi SSIDs up to 8 with either open or WPA/WPA2PSK\_TKIPAES encryption with Dual option for input Power supply with either 48V PoE+ (IEEE 802.3at) or DC input power.

**Table 3. Specifications**

Technical Parameters	Specification
Hardware Specifications	1*10/100/1000Mbps auto-negotiation WAN port or IEEE 802.3at PoE+ port 1*10/100/1000Mbps auto-negotiation LAN port 1* Reset button/Restore to factory default 1*DC Port
Memory	1GB RAM
Flash	SPI NOR 8MB (1.8v) + NAND 128MB
IEEE Standard	IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac, IEEE 802.11ax
Data Transfer Rates	Dual band IEEE 802.11b up to 11Mbps IEEE 802.11g up to 54Mbps IEEE 802.11n up to 400Mbps IEEE 802.11ac up to 900Mbps IEEE 802.11ax up to 1200Mbps

<b>Technical Parameters</b>	<b>Specification</b>
Frequency	Radio 2.4GHz+5GHz
Throughput	Up to 1800Mbps
Network Functions	DHCP Server, Static, LAN and Gateway.
Wi-Fi Operational Modes	AP & Gateway Mode
Wireless Security	Open or Encryption WPA/WPA2PSK_TKIPAES option
Multiple SSID	Up to 8 SSIDs.
Access control Features	MAC Access Control
Enclosure Type	Desktop/Ceiling/Wall mounted
Wi-Fi Transmit Power	300mW
Input Power Supply	WAN port PoE+ IEEE802.3at Or DC 12V ,1.5A
Management	Web based management Backup & Restore to default Settings
ENVIRONMENTAL	Operating Temperature: -20~45 Limit working temperature: -30~70 Storage Temperature: 0~70 Humidity: 5%~95% non-condensing
Weight	<1Kg

**Table 4. COMMANDO AirONE AP1800AX-HD LED indication**

<b>LED Indicator</b>	<b>LED Status</b>
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Power/SYS	Green Blinking: Power ON Indication Blue and Blinking: Wi-Fi indication that SSID now available for use.
WAN	Upper LED WAN: Connect with Gateway or PoE+ devices and Green Blinking shows activity on WAN port.
LAN	Lower LED LAN: Connect to end users and Green ON shows activity on LAN port.

### **Included in the bundle/box**

#### **COMMANDO AirONE AIR-AP1800AX-HD**

COMMANDO AirONE AP1800AX-HD comes with following accessories.

- 1x COMMANDO AirONE AP1800AX-HD.
- 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**

<b>Warranty and Support</b>	
Products covered	COMMANDO AirONE 1800Mbps, 2.4GHz+5GHz, 802.11ax/ac/b/g/n, Wave 2.0, High Density, Wi-Fi 6 Access Point
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.

<b>Warranty and Support</b>	
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 Cis	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

To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at [www.commandonetworks.com/ordering](http://www.commandonetworks.com/ordering)

**Table 7. COMMANDO AirONE AP1800AX-HD Ordering Information**

Product Code	Information
<b>AIR-AP1800AX-HD</b>	COMMANDO AirONE 1800Mbps, 2.4GHz+5GHz, 802.11ax/ac/b/g/n, Wave 2.0, High Density, Wi-Fi 6 Access Point

## Document History

Release	Remark	Date
Release 1	First Release	July 15, 2021