



COMMANDO AirONE AIR-AP3000AX Wi-Fi 6 Indoor Access Point Data Sheet

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Product Overview

COMMANDO AirONE AP3000AX Wi-Fi 6 Indoor Access Point enables communication between wireless users with speed up to 3000Mbps with advanced WiFi 6, OFDMA technology with inbuilt 4*4dBi dual band MIMO Antenna. It is standalone device, comes with dual band with 2.4GHz (600Mbps 11ax 2*2) + 5GHz (2400Mbps 2*2), equipped with separate 1G WAN ports & LAN ports. It supports MU-MIMO and DL/UL-OFDMA modulation with 128 end users, this multiple users can upload or download multiple packets in 160MHz bandwidth at the same time. It has narrower sub-carrier spacing and longer symbol time which improves the stability and data processing efficiency, publicly to be used in high density access environment such as Small, Medium and Large enterprises, university campus, concert venue, gymnasium, etc.

It is powerful, long range & advance WiFi 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 250mW 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 WIFI channel analysis.
- Supports IEEE 802.11ax/ac/b/g/n with backward compatibility for wireless clients.
- Wireless Dual band with 2.4GHz (600Mbps 11ax 2*2) + 5GHz (2400Mbps 2*2) with radio RF Power 250mW .
- Support wireless RF power adjustable as per user movements and environment.
- Supports data rate up to 3000Mbps.
- Comply with 11ax 2x2 MU-MIMO, 160MHz, dual band, High power up to 24dBi for stronger signal strength.
- Supports large wireless coverage 91m and above in all directions depending on surrounding conditions.
- Build in 4*4dBi dual band MIMO Antenna
- Access end users 128 and Max 64 users to access each band.
- Supports 5G Prior band steering automatically moves to wider 5G band for faster connections, intelligent load balance based on users.
- Support tag VLAN and VLAN management & client isolation to improve the wireless stability.
- Supports advance security by MAC ACL, Static DHCP, Flow control, URL Mapping, IP/MAC/URL filters, Port mapping and DMZ.
- Support Seamless Roaming, TWT & OFDM.
- Dual purposes WAN or IEEE 802.3at Port (PoE+)port supporting 1x 10/100/1000Mbps and dedicated LAN ports 1x 10/100/1000Mbps.
- Dual input for power either PoE+ via WAN port or DC power inputs 12V, 1.5A.

- Support Open or encryption WPA, WPA2PSK_TKIPAES, WAP2_EAP, WPA3.
- Comply with IEEE 802.3az standard, Support Wi-Fi time on/off to save energy.
- 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, Compatible & Easy-to-Use AP for all sized business networks. Suitable for Deployment of Large Scale Commercial Scenarios
- Built-in High-Performance Processor with Flash: SPI NOR 8MB (1.8v) + NAND 128MB, and 512MB DDR3 RAM which greatly improved the data processing performance.
- Comes with 1 year default warranty – optionally extendable up to 3 years.

Features and Benefits

Easy to Use

COMMANDO AirONE AP3000AX 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. 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 data at 3000Mbps.

Gigabit Ethernet speed

It provides 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. RF power adjusts according to congestion or disturbance in environment & provides reliable performance.

Wireless client supported

Supports 128 wireless users/clients with Max 64 users to access each band. 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 protects 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 AP3000AX 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, WAP2_EAP, WPA3, 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 Functions | |
|--------------------|---|
| Wizard Function | <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> |
| Flow in bps | For AP downstream and AP Up stream |
| Network | LAN Settings with DHCP server option, Static DHCP, Cloud Server Settings. |
| Management | Configure, Reboot, Modify Password, Upgrade firmware, Time setting with NTP and from PC, Log, Restore the factory default. |
| Wi-Fi | SSID name setting, Bandwidth, Channel, Encryption options like Open/Encryption like WPA, WPA2PSK_TKIPAES, WAP2_EAP, WPA3, MAC ACL, Wi-Fi Timer OFF/ON with |

| | |
|--|---|
| | <p>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 512MB DDR3 RAM greatly improved the data processing performance.
- All ports are 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, 2.4G, 5.8G.
- Reset Button

Extra Long operational life

- High Quality PCB Circuit Board and PCB Surface Treatment Using Gold Sinking Process.
- Support temperature range -10°C to 45°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

| Hardware SPECIFICATION | |
|------------------------|---|
| Standard | IEEE 802.11ax/ac/b/g/n Wi-Fi 6 technology |
| RAM | 512MB |
| Flash | SPI NOR 8MB (1.8v) + NAND 128MB |
| Antenna | Build in 4*4dBi dual band MIMO |
| Interface | 10/100/1000Mbps LAN/WAN |
| Data Rate | 3000Mbps |
| Concurrent End Users | 128 |
| Reset | Hardware button |
| Power | DC 12V 1.5A or IEEE802.3at (WAN) |
| User Capacity | 128+ |
| Dimension | 198mmx198mmx28mm |

| | |
|-----------------|--|
| Environment | Operating Temperature: --10°C to 45°C Storage Temperature: -40°C to 70°C Humidity: 5%~95% non-condensing |
| Warranty Period | 1 Year |
| Indicator Light | Power/SYS, 2.4G, 5.8G |

Specifications

Technical Specifications

Supports 2.4GHz+5GHz, IEEE 802.11ax/ac/b/g/n with backward compatible wireless clients, OFDMA modulation technology, Standalone model with Multi SSIDs up to 8 with either open or WPA, WPA2PSK_TKIPAES, WAP2_EAP, WPA3 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 | 512MB 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 3000Mbps |
| Frequency | Radio 2.4GHz+5GHz |

| | |
|-------------------------|---|
| Throughput | Up to 3000Mbps |
| Network Functions | DHCP Server , Static, LAN and Gateway. |
| Wi-Fi Operational Modes | AP & Gateway Mode |
| Wireless Security | Open or Encryption WPA, WPA2PSK_TKIPAES, WAP2_EAP, WPA3 option |
| Multiple SSID | Up to 8 SSIDs. |
| Access control Features | MAC Access Control |
| Enclosure Type | Desktop/Ceiling/Wall mounted |
| Wi-Fi Transmit Power | Up to 24dBi |
| 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: -10°C to 45°C Storage Temperature: -40°C to 70°C Humidity: 5%~95% non-condensing |
| Weight | <1Kg |

Table 4 .COMMANDO AirONE AP3000AX LED indication

| LED Indicator | LED Status |
|---------------|---|
| Power/SYS | Green Blinking :-Power ON Indication Blue and Blinking : WiFi indication that SSID now available for use . |
| 2.4G | Green Blinking: Shows user activity in 2G band. |
| 5G | Green Blinking: Shows user activity in 5G band. |

Included in the bundle/box

COMMANDO AirONE AP3000AX

All COMMANDO AirONE AP3000AX are made available for use globally along with accessory used to facilitate or enhance operations. COMMANDO AirONE AP3000AX Comes with the following Accessories.

1x COMMANDO AirONE AIR-AP3000AX Indoor Access Point

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 AirONE 3000Mbps, 2.4GHz+5GHz, 802.11ax, OFDMA, Wi-Fi 6 Access Point (AIR-AP3000AX) |
| 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 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 commandonetworks.com for all available technical queries. |

Ordering Information

Ordering information for the COMMANDO AirONE AP3000AX, To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at www.commandonetworks.com/ordering

Table 7. COMMANDO AirONE AP3000AX Ordering Information

| Product Code | Information |
|---------------------|--|
| AIR-AP3000AX | COMMANDO AirONE 3000Mbps, 2.4GHz+5GHz, 802.11ax/ac/b/g/n, OFDMA, Wi-Fi 6 Indoor Access Point |

Document History

| Release | New or Revision | Described in | Date |
|-----------|-----------------|---------------|----------------|
| Release 1 | First Release | First Release | March 30, 2023 |