



# **COMMANDO AirPRO Ceiling Wireless Access Points Data Sheet**

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## Product Overview

COMMANDO AirPRO series Ceiling AP enables communication between wireless and wired computers/laptops and mobile devices in the network. It complies with IEEE 802.11ac standard and is backward compatible with IEEE 802.11b/g/n standard and comes with single band 2.4GHz, Dual Band 2.4GHz+5GHz along with Wave 2.0, 2\*2 MU-MIMO Omni Antenna with Separate Gigabit 1 WAN with PoE+ input & 1 LAN port.

It supports range up to 35 meters. It is industrial grade Ceiling PoE+ Wireless Ceiling Access Point. It supports 2 \* 2 MIMO (Multiple-Input Multiple-Output) and 4 Spatial Streams, greatly to improve the communication efficiency, with combined Concurrent 2.4GHz (300Mbps) + 5GHz (900Mbps) up to 1200Mbps Wi-Fi speed depending on models, equipped with separate Gigabit WAN & LAN port which enhances the sharing of files, photo, audio, video and gaming experience over wireless network.

Wireless Controller for COMMANDO PRO Series Ceiling AP has Cloud based multiple authentications with captive portal for online configuration and monitoring. It's controller is a Cloud Base Multi-Functional Wired Router with functions like Router, Wireless Controller, Multi WAN Load Balancer, Firewall with Captive portal along with Standard Wireless Roaming Mechanism (802.11r) , Authentication Server to Integrate and Simplify the Traditional Networking Mode, AC Management, Portal Authentication, Deep Packet Inspection (DPI) Seven-Layer flow Control, Supports Intelligent Networking (SD-WAN), 3200+ Application Protocol Identification with multiple powerful functions including Multi WAN Load Balance, Access Control, Blacklisting and Whitelisting AP, Bandwidth Control, Session Limit, IM/P2P Blocking, VPN server, PPPoE Server, auto WAN failover recovery and captive portal to access infrastructure from anywhere via internet.

## Product Highlights

- Controller supports DPI (Deep Packet Inspection) Seven Layer Flow Control with One Click Flow Control and Manual Flow Control
- Controller supports Multi-WAN load balance with auto failover recovery for reliable and efficient access
- Controller supports Access Point Management via Easy WEB GUI, Telnet and Cloud based Portal Authentication
- Controller supports AC Intelligent Management Function, works together with COMMANDO PRO Series Access Points, easy Access Point Management
- Controller supports COMMANDO Platform Management, Centralized Management and Maintenance via lifetime free Cloud base account
- Standard Wireless Roaming Mechanism (802.11r), Wireless roaming for seamless network experience on the move
- Controller supports VPN for Encrypted Communication, Ensure Remote Access Security
- Controller supports Multi-Vendor WAN Line simultaneous Access, WAN load sharing and balancing by different ISP, Rational use, Load Balancing with failover , Reduce Bandwidth Costs
- Controller supports Wireless Marketing Function, Various Authentication Methods to meet the needs of Different Users and Scenarios
- Controller supports Tag based and port based VLANs to group control and relocate traffic pattern
- Controller supports Full protocol stack for both IPv4 and IPv6, afford to 100+ concurrent users and 100,00 concurrent sessions
- Controller supports IPsec, PPTP and L2TP VPN support up to 64 concurrent tunnels with max 2Gbps throughput (Ipsec).
- Controller supports QoS and Bandwidth Management for optimal bandwidth usage.
- Controller supports High Availability for mission critical application with muti-WAN load balance
- Controller can manage up to 100 APs & 100+ users, with Discovery, Configuration, and Monitoring Functions.

- Controller supports User certification by X.509 and authentication by Radius/AD/LDAP server for user and group management.
- Controller supports Multiple WANs, Failover/ Load Balance with configurable Ethernet
- Controller supports Support DHCP based dynamic IP, Static IP, PPPoE, PPTP, L2TP
- Controller supports IPv6 with Dual Stack, 6-in-4, 6-to-4, Dynamic, Static, PPPoE
- Controller supports VLAN Port Based, Tag- based
- Controller supports NAT: ALG, Special AP, DMZ Host, Virtual Server/ Computer, PPTP/ L2TP/IPSec Pass-through, Up to 100,000 Sessions
- Controller supports Routing with Static, Default and Dynamically learn connected route
- Controller supports Client & Server for DHCP, DDNS, IGMP
- Controller supports AP Auto Discovery, Monitoring & Alerting, Profile based Configuration, AP Load balance, AP Blacklisting and Whitelisting
- Controller supports User Accounts, User Grouping, Bound Services
- Controller supports Firewall, Access Control with Packet Filters, URL Blocking, Web Content Filters, Application Filters, MAC filter
- Controller supports 3200+ Application Protocol Identification, for more Accurate Flow Control, Improved Bandwidth Utilization
- Controller based with captive portal for online monitoring of clients
- Multiple SSID with Up to 4 SSIDs in single band device , 8 SSID in Dual Band
- 2\* 2 MU-MIMO Gain Omni with 2dBi(2.4GHz)/3.5dBi (5GHz) Internal Antenna
- Dual purposes WAN or IEEE 802.3at Port (PoE+) port supporting 1x 10/100/1000Mbps
- Supports IEEE802.11 a/b/g/n/ac Wireless Standard
- Single/Dual Radio Wireless AP having (2.4GHz+5GHz)
- Dual purposes WAN or IEEE 802.3at Port (PoE+) port supporting 1x 10/100/1000Mbps
- Support encryption like WPA-PSK, WPA2-PSK and WPA-PSK+WPA2-PSK Wireless Protection
- 5G Priority access and fast roaming
- SSID Vlan, divide Vlan for SSID
- Independent SSID setting and hiding
- Independent setting of signal strength and channels
- Custom AP start time and scheduled restart
- Support English and Chinese SSID, SSID independent setting and hiding
- Support wireless roaming, experience a better network on the move
- Adopt of 86 Type wall mount junction box design
- Supports Wi-Fi client distance up to 35 meters depending on models and surrounding conditions

- Intelligent AC Unified Management, easy management and maintenance
- Single/Dual Radio Wireless AP having (2.4GHz+5GHz)
- 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 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

### Easy to Use

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, or 1000Mbps and also for wireless devices intelligently adjusts for compatibility and optimal performance by DFS and setting channel bandwidth 20 or 40MHz along with self-adaptation option. Wireless band can also check free channels /available channels within built-in Wi-Fi analysis . It compact size makes it ideal for 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.

### Gigabit LAN speed

offers a wide range of models for different network deployment requirements with gigabit speed. These energy efficient AP are well built and rigorously tested and can sustain in very rough environment to provide the reliable performance.

### Single, and Dual band Supports

Supports multiple frequency of operation with non-interference channels with maximum concurrent data rate of 900 Mbps in the 5GHz band and 300 Mbps in the 2.4GHz band with accumulated speed up to 1200Mbps

### Wireless client supported

Supports up to Max wireless users/clients from 30+ to 200+ with up to distance of 35

meters from AP in all directions depending on models.

## **Network Security**

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 to permit or deny Wi-Fi users. SSID /AP/Frequency blacklisting or whitelisting options.

## **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 PoE+ power input 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 controller, 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 AirPRO Ceiling AP depends on cloud-based controller for setting AP parameters. It's software functions that can be set by controller is as follows.

### **Monitoring**

Interface, Terminal, Protocol, Policy, System, Flow Control.

### **System Setup**

Basic Setting, Disk management, Cloud Account, Advanced Settings like ALG Set, Administration, Upgrading, Reboot.

### **Network**

Interfaces, DHCP, DNS, IP/MAC Group, Static Routes, VLAN,VPN Client,UPNP NAT, Port Mapping, IPv6, IGMP Agent.

### **Flow Control**

Multi-WAN features Load Balancing/Protocol/Port Forward/Domain Name/Upload/Download, Smart Flow Control, IP/MAC Limiters, Protocol Library.

### **Access Controller**

Wireless overview, AP Configuration, AP group, AP Firmware Upgrades, Wireless black and white list, User Information.

#### **1. Wireless overview:**

Open Access Controller with ON/OFF button. The connected AP will automatically enter the AP device list and can Manage AP. Running State of AP status with Online AP, Offline AP, fast roaming, 5G first along with terminal statistics like 2.4G online, 5G online, peak online, active terminal, inactive terminal. Wireless Network Rating with traffic statistics, terminal association details with Access evaluation, Access times, Average access success rate with Network transmission quality.

#### **2. AP Configuration:**

Access Point Configuration with All groupings, All Status like Online/Offline/Upgrading, All

Frequency like (2.4G/2.4G+5G) and IP/MAC/Model/Remarks.

Interference Analysis with Start Searching AP, MAC, Remarks, BSSID, BSSID Remark, SSID, Signal Value, Channel along with Import or Export configuration files.

Default Configuration for 2.4G, 5G Radio with other Setting like SSID1 Name COMMANDO01

SSID1 Security No Password, SSID1 VLAN Close, Hide SSID1 Name Open, SSID rate limit Open, Guest Mode Open (Isolate guest devices discovery and access to wired network) Channel Auto, AP Signal 80% default Channel width 20 MHz can change to 40MHz or self-adaptation, Airtime scheduling, Advanced settings like Beacon frame power

Follow AP signal strength Beacon frame interval 200 ms, RTS threshold 0, Low-rate access license Allow all, Management frame rate 1Mbps.

### **3. AP group:**

AP Group Add/Delete with Group name, Number of AP, channel, Maximum belt capacity, SSID, Actions. With Add button click we can set Group name with 2.4G/5G control state information.

### **4. AP Firmware Upgrades:**

Access Point Upgrades with MAC/Model, Upgrade All, Batch Upgrade with information like MAC Address, Current Version, Latest Version, Status, AP Remarks, Actions

### **5. Wireless black and white list:**

With Add, Import, Export, Enable, Disable, Delete which also shows Mode, Terminal MAC address, SSID, AP, week, time, comment, Status, Actions

### **6. User Information:**

User Information with IP/MAC/SSID, All Frequency (2.4G/5G), All users along with weak signal users and normal users showing information like IP Address, MAC, AP Information, SSID, Signal, Connect Time, Tx, Rx, Comment, Actions.

## **Authentication**

Captive Portal, VPN Server, Authentication Account, Push Notification.

## **Behavior**

Behavior Audit with Mark MAC Address, MAC Control, Website Control, URL Control, Application Protocol Control, Secondary Routing, QQ, Blacklist/Whitelist.

## **Firewall**

ACL Rules, ARP binding, Connection Limiter, Advanced Firewall.

Advanced application-->Dynamic DNS, SNMP, Application across three layers, Wake on LAN, FTP Server, HTTP Server, UDPXY Set.

## **Services**

Ping Test, Capture Packet, Trace Route, IP Sub-netting, Speed Test, Diagnostics, Watchdog.

## **Log**

User Logs, Function Logs, System Logs.

COMMANDO AirPRO Ceiling AP's controller also has cloud captive portal with AirPRO Cloud Login <http://commandonetworks.com.cn/#/login>.

## **Hardware** \_

### **Physical Ports and Networking Interfaces**

- Up to 2 x 10/100/1000 Mbps Rj45 Ethernet Ports with combined PoE+ with WAN and separate LAN port
- LED Indicators :Power, SYS, LAN, NET, 2.4G, 5G

### **Extra Long operational life**

- Operating Temperature -40 +70 .
- Operating Humidity 5%~95% RH Non-Condensing.
- Dust proof enclosure ensuring it can withstand harsh Ceiling environments.
- Ceiling design that enables to mounts Which enables horizontal mounting.

**Table 1. Hardware Specifications**

| Product Code      | Interface                  | Frequency    | Power Supply | Dimension    |
|-------------------|----------------------------|--------------|--------------|--------------|
| AIR-AP300-PRO     | 1*10/100 Base-TX port      | 2.4GHz       | 48V POE+     | 168X168X32mm |
| AIR-AP1200-PRO    | 2*10/100 Base-TX port      | 2.4GHz ,5GHz | 48V POE+     | 160×160×28mm |
| AIR-AP1200-PRO-HD | 1*10/100/1000 Base-TX port | 2.4GHz ,5GHz | 48V POE+     | 158×158×28mm |

## Specifications

### Technical Specifications

Supports Dual Radio 2.4GHz+5GHz with 802.11ac/b/g/n, with Standalone models with Multi SSIDs up to 8 with either open or encryption with 48V POE+ input power and also have Wave 2.0 2\*2 MU-MIMO Omni Antenna.

**Table 2. Specifications**

| Product Code      | Wireless Standards    | User Capacity | Transmit Power ( dBm) | Cover Radius (Meters) | Antenna Gain (dBi) |
|-------------------|-----------------------|---------------|-----------------------|-----------------------|--------------------|
| AIR-AP300-PRO     | IEEE802.11 b/g/n      | 30+           | 20dBm                 | 20m                   | -                  |
| AIR-AP1200-PRO    | IEEE802.11 a/b/g/n/ac | 130+          | 26dBm                 | 35m                   | -                  |
| AIR-AP1200-PRO-HD | IEEE802.11 a/b/g/n/ac | 200+          | 24dBm                 | 30m                   | -                  |

**Table 3. COMMANDO AirPRO series AP LED indication**

| LED Indicator | LED Status  |
|---------------|---|
| Power         | Green On PoE+/ DC power given.<br>Green OFF Power OFF                               |
| SYS           | Green On Flicking Not connected to controller.<br>Green On Connected to controller. |
| LAN           | Green On Flicking Connected to Switches/controller on LAN port.                     |
| 2.4G          | Green On 2.4G Available<br>Green OFF 2.4G not available                             |
| 5G            | Green On 5G Available<br>Green OFF 5G not available                                 |
| NET           | Green On Connected to internet<br>Green OFF Internet not available                  |

**Included in the bundle/box  
COMMANDO AirPRO series Ceiling AP**

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

- 1x COMMANDO AirPRO series Ceiling AP.
- 1x Patch Cord
- 1x Wall Mount with Mounting Screws

## 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        |   |
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|-------------------|--|
| Warranty duration | One Year RTB (Return To Base)<br>)<br>replacement warranty -<br>optionally extendable up to 3 years. |
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| End-of-life policy | In case of discontinuation of the product, support is limited to 3 years from announcement date. |
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| Online<br>Portal<br>Access | Warranty<br>allows<br>guest<br>access<br>to<br>comman<br>don<br>etwo<br>rks.c<br>om<br>for<br>all<br>avail<br>able<br>tech<br>nical<br>quer<br>ies. |
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## Orderring Information

Ordering information for the COMMANDO AirPRO series Ceiling AP, 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 4. COMMANDO AirPRO series Ceiling AP Ordering Information**

| Product Code      | Information   |
|-------------------|---|
| AIR-AP300-PRO     | COMMANDO AirPRO 300Mbps, 2x2 MIMO Omni Ant, Cloud Access Point                                    |
| AIR-AP1200-PRO    | COMMANDO AirPRO 1200Mbps, Dual Radio, 2x2 MU-MIMO Omni Ant, Cloud Access Point                    |
| AIR-AP1200-PRO-HD | COMMANDO AirPRO 1200Mbps, Dual Radio, 2x2 MU-MIMO Omni Ant, 1GE, High Density, Cloud Access Point |

# Document History -

| Release   | New or Revision | Described in  | Date            |
|-----------|-----------------|---------------|-----------------|
| Release 1 | First Release   | First Release | January 4, 2021 |