COMMANDO AirONE Outdoor Access Points Data Sheet

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Product Overview _

Super Wds mode where bridge can act as Ap+ Gateway+ Mesh+ Repeater+ Bridge, all in one at a same time with up to 4 bridges connected at a same time. All bridges act as master and slave simultaneously. With this Super WDS meshing of bridges makes network failure rate to zero. It 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 along with build in MIMO High Gain 18/15/11 dBi 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 CPE and base station. It provides low latency, high throughput in PTP/PTMP/MTMP application likes IP camera, long range Wi-Fi Transmission) with Beamforming Technology.

eparate 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 back-end 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, a wireless bridge can also be connected to more than one (Up to 4) wireless bridge simultaneously forming a mesh network. 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 4 in 1 mode Access Point with Gateway, Repeater,Super WDS and Wireless AP mode with range up to 10 Kms with up to 500mW input Power. 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 also be used as DHCP server and works as layer 3 device when configured in gateway mode. 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 Super WDS mode, device can act as AP as well as Bridge both simultaneously and can connect multi point to multi point connection to other bridges and APs (Up to 4).

• Supports IEEE 802.11ac 5GHz Wireless bands.

• Multiple Operational Modes like Gateway Mode, Super WDS Mode, Repeater mode, AP mode. All COMMANDO AirONE series Bridge default mode is Super WDS mode. In 10KM bridge also support WISP mode.

• Dual input for power either POE IN or DC power inputs.

• IEEE 802.1q Tag based VLAN

• Support Enterprise security : WPA, WPA2, 802.1x RADIUS

• Supports IEEE 802.11ac 5GHz Wireless with inbuilt 18/15/11 dBi gain Antenna panel antenna with RF input Power up to 500mW.

• 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.

• Support inbuilt Wi-Fi channel analyzer.

• 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 like WPA/WPA2-PSK

• 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 4 in 1 mode like Gateway Mode, Super WDS Mode, Repeater mode, AP mode. All COMMANDO AirONE series Bridge default mode is in Super WDS mode. In 10KM bridge has 5 in 1 mode, it also supports WISP mode.

Super WDS mode

device can act as AP as well as Bridge both simultaneously and can connect multi point to multi point connection to other bridges and AP's (Up to 4). In this mode bridge can act as Ap+ Gateway+ Mesh+ Repeater+ Bridge, all in one at a same time with up to 4 bridges connected at a same time. It can act as AP as well as Bridge both simultaneously and can connect other bridges and APs.

Gigabit LAN speed

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 AirONE 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 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.

Wireless speed for client and bridge

By setting channel bandwidth up to 20/40/80 MHz can increase the speed of bridge connection up to 900Mbps between bridges and also can check free channels available with inbuilt Wi-Fi analysis.

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 water proof 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/ (Point to Multi Point) PTMP /(Multi Point to Multi Point) MTMP. Designed for Point-to-Point and Point-to-Multipoint applications with 500mW high power and 18dBi MIMO high gain panel antenna which can greatly increase the Wi-Fi range to 10KM distance and supply stable Wi-Fi signal for users.

Network Security

Support Flexible user Access Control Policies. MAC Filtering function to block the access of illegal hosts. Access Rules can be applied to permit or deny Wi-Fi 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

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 AirONE Bridge supports software functions as follows.

Home

Default Working Mode Super WDS Mode, Uptime, Flow for WDS Down/ Up Stream, Device Information like CPU /Memory Usage, WDS Status, Bandwidth Test, Wi-Fi Status, Device location.

Wizard

Gateway Mode, Super WDS Mode (Default Selection), Repeater Mode, AP Mode.

Note:- 10Km bridge additionally support WISP mode.

CPE Manage

Channel, Device List, Description, MAC Address, IP Address, Signal, Status, Uptime

Wi-Fi Setting

2G Wi-Fi/ 5G Wi-Fi depending on models for Wi-Fi Status ON/OFF, SSID, Hide your SSID, Bandwidth, Channel, Encryption Open/Encryption with WPA/WPA2-PSK.

WDS Settings with AP SSID scanning up to 4 , password with WPA/WPA2-PSK, Band Width setting with channel along with WI-FI Analyzer.

MAC ACL with Add, Delete, Apply with disable/Allow/ Prohibit option.

Advanced setting with Country Region, Channels, Max Client, WLAN Partition, Short GI ON/OFF, Multicast Fast ON/OFF,TX Power Max/Efficient/Enhanced/Standard/Minimum.

Network Config

LAN Settings with IP Mode Static IP/ Get IP from AC / GHCP (Default option)/ Get IP from Gateway.

DHCP Server ON/OFF button with Start Address, Max Number, DHCP Lease Time

By default 24(Hour), Assigned IP Number with apply button.

Device Manage

Configure, Reboot, Modify Password, Upgrade, Time, Log

Table 1. Software functions

SOFTWARE FUNCTION

| Wizard Function | In Gateway mode, all Ethernet are bridged together, and wireless clients will connect ISP access point or router connecting directly |

Flow in bps	For WDS downstream and WDS Upstream
Network	LAN Settings with DHCP server option

Management	Configure, Reboot, Modify Password, Upgrade firmware, Time setting with NTP and from PC, Log, Restore the factory default

Wi-Fi	Wi-Fi Status ON/OFF, Changing SSID Name , Hide your SSID , Bandwidth, Channel, Encryption Open/Encryption with WPA/WPA2-PSK.

Hardware

Solid performance with non-blocking architecture

• 16 MB Flash, 128 MB RAM

• 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 10/100/1000 Mbps Rj45 Ethernet Ports with combined POE IN with WAN/LAN

• Channel setting LED panel

• LED Indicators :Power, LAN, Wi-Fi, WAN with Channel display in CPE 1K+ model and has 5G, LAN, WAN,SYS in CPE 5K+ and 10K+ models

• Reset Button

• Function button to select channel parameters

• Selector button to Change the channel parameters

• 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	128 MB
Flash	16 MB

Interface	2* 10/100/1000M LAN/WAN with POE+ IN option Port
Hardware button	Reset Button , Function Button for select setting channel and S Button to change channel
Power	DC In 12V, 0.5 to 1 A and POE+ IN 24V, 0.5 to 1 A (IEEE 802.3at)
Antenna	Directional 18/15/11 dBi MIMO Panel antenna.
Working Temperature	0°C to +55°C
Working Humidity	5%~95%RH(Non-condensing)
Warranty	1 Year
Period	
	AIR-CPE1K+ --> PWR, LAN, Wi-Fi, WAN
	AIR-CPE5K+ -->SYS,WAN,LAN,5G
	AIR-CPE10K+ -->SYS,WAN,LAN,5G

Specifications

Technical Specifications

Supports 802.11ac, with Standalone models with either open or WPA/WPA2-PSK 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 18/15/11 dBi gain Internal Panel Antenna.

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 1*Function button 1*Select button 1*DC Power input Port
Memory	128RAM
Flash	16MB
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+5GHz

Throughput	Up to 900Mbps
Network Functions	802.1q Tag based VLAN, DHCP Server , Static, PPPOE
Wi-Fi Operational Modes	Super WDS, AP, Repeater, WISP Mode, Gateway Mode
Wireless Security	Open or Encryption WPA/WPA2PSK_TKIPAES option
Access control Features	MAC Access Control
Enclosure Type	Desktop/Wall/Ceiling mounted depending on models.
Wi-Fi Transmit Power	Up to 500mW
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

Features	AIR-CPE10K+	AIR-CPE5K+	AIR-CPE1K+
Flash /RAM	16MB/128MB	16MB/128MB	8MB/64MB
Standard	IEEE802.11ac/a	IEEE802.11ac/a	IEEE802.11b/g/n
Frequency	5.150~5.825GHz	5.150~5.825GHz	2.4GHz~2.484GHz
Wireless data rate	900Mbps	900Mbps	300Mbps
WAN	1*10/100/1000Mbps	1*10/100/1000Mbps	1*10/100Mbps
LAN	1*10/100/1000Mbps	1*10/100/1000Mbps	1*10/100Mbps
POE Power	24V Passive POE	24V Passive POE	Support 24V POE
Antenna	18dBi Panel Antenna	15dBi Panel Antenna	11dBi Panel Antenna
RF Power	500mW	500mW	100mW
Lightning Level	Common mode: 6KV; Differential mode 2KV	Common mode: 6KV; Differential mode 2KV	Common mode: 6KV; Differential mode 2KV
PTP Distance	10KM	5KM	1KM
Operation Mode	AP, Super WDS, Repeater, WISP, Gateway Mode	AP, Super WDS, Repeater, Gateway Mode	AP, Super WDS, Repeater, Gateway Mode
PoE IN	24V, 1A	24V, 1A	24V, 0.5A
DC IN	12V, 1A	12V, 1A	12V, 0.5A

Table 5 .COMMANDO AirONE Series AP 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. Green OFF:- LAN not connected
LAN	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 Green ON: 5G channel selected
5G	Green OFF:- 5G not enabled. Green ON: Device is Power ON
SYS	Green OFF:- Device is Power OFF

Included in the bundle/box
COMMANDO AirONE Series Wireless Bridge

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

COMMANDO AirONE Series Wireless Bridge.

• 1x Patch Cord
• 1x Wall Mount with Mounting Screws
• 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 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 repl |

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 ship

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 ship |

Online Portal Access	Warranty allows guest access to commandonetworks.com for all available technical queries.

Information

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

Table 7. COMMANDO AirONE series Wireless Bridge Ordering Information

Product Code	Information
AIR-CPE1K+	COMMANDO AirONE 1KM+, 300Mbps, 2.4GHz, 802.11n, MIMO, Wireless Bridge
AIR-CPE5K+	COMMANDO AirONE 5KM+, 900Mbps, 5GHz, 802.11ac, MIMO, Wireless Bridge
AIR-CPE10K+	COMMANDO AirONE 10KM+, 900Mbps, 5GHz, 802.11ac, MIMO, Wireless Bridge

Document History

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