

# COMMANDO AirONE AIR-CPE5K+ Wireless Bridge Configuration Guide

## **OVERVIEW**

COMMANDO AirONE series AIR-CPE5K+ Bridge enables communication between wireless and wired computers/laptops and mobile devices in the networks over 5km distance without physical wiring. It has 4 in 1 mode of operation like AP, Super WDS (Default Mode), Repeater, Gateway Modes and operates at 900Mbps bridge with WPA/WPA2-PSK encryption and Inbuilt Wi-Fi channel analysis. It complies with IEEE802.11ac/an/a standard and comes with single band 5.8GHz with input power 500mW, Build in High Gain15dBi Panel Antenna, Separate WAN 1 x 10/100/1000Mbps port along with 24V PoE power option & LAN 1 x 10/100/1000Mbps port along. It comes with weather-proof IP65 casing. It has dual input power option either via WAN port, or DC adapter 12V, 1A.

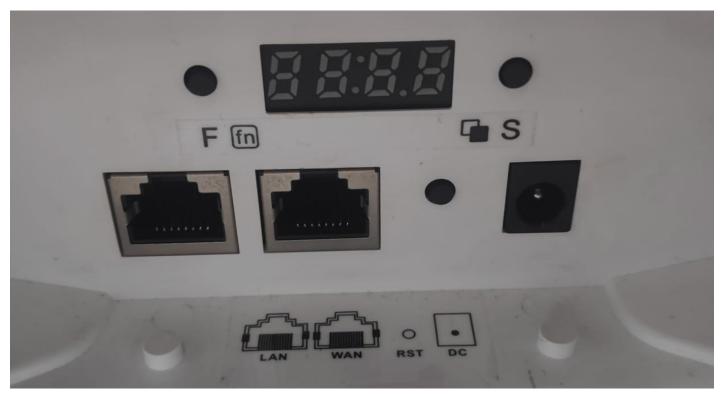


Fig 1. Physical port on AirONE AIR-CPE5K+

#### Table 1. Physical port on AirONE AIR-CPE5K+ Description.

Physical Port	Description
Reset	Reset Button, makes Bridge revert to default settings after pressing for 15sec.
WAN/PoE	WAN, Internet gateway port and connect with 24V PoE, 1A

Physical Port	Description
LAN	LAN Port to end users Switch or PC for accessing device via WEBGUI.
LED Display	<ul> <li>LED display, show operation mode, channel, signal strength.</li> <li>F (Function) Button for selecting mode of per operation either Master/Slave.</li> <li>H: CPE will work as Master.</li> <li>C: CPE will work as Slave.</li> <li>S(Select) Button for selection purpose.</li> </ul>
DC	DC input power 12V, 1 A.

# Table 2.COMMANDO AirONE AIR-CPE5K+ LED indication

LED Indicator	LED Status
Power	Green OFF: No power. Green ON: 24V POE/ DC power given.
WAN	Green OFF: WAN not connected Green ON: WAN connect with Gateway or 24V PoE devices and Green blinking shows activity on WAN port.
LAN	Green OFF: LAN not connected Green ON: LAN connect with Gateway or 24V PoE devices and Green blinking shows activity on LAN port.
5G	Green OFF: 5G not enabled. Green ON: 5G enabled.

LED Indicator	LED Status
SYS	Green ON: Device is Power ON Green OFF: Device is Power OFF

It is 4 in 1 mode, Outdoor bridge with Gateway Mode, Super WDS Mode (Default Mode), Repeater Mode & AP Mode with range up to 5Km with 500mW input Power. It is industrial grade Wall/Ceiling Outdoor bridge with speed up to 900Mbps. It 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 supports 24V 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.

You can access and manage AirONE AIR-CPE5K+ using the Web based GUI (Graphical User Interface), also called Web GUI interface.

# INTRODUCTION

COMMANDO AirONE AIR-CPE5K+ is 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 clients. It intelligently adjusts for compatibility and optimal performance by DFS and setting channel bandwidth 20/40/80MHz wireless band and also can check free channels available with inbuilt Wi-Fi analysis. Its compact size makes it ideal for Outdoor Terrace/wall/ceiling with limited space. Dynamic LED lights provide real-time work status display and basic fault diagnosis. Easy Plug-and-play installation with no configuration required. It operates quietly, making it ideal for use in virtually any room or office. Perfect for noise sensitive environments. It has Dual power options with DC input power or 24V PoE power input which protect from power failures and increases life of device. With Inbuilt security features protect your business by losing network sensitive information and data of wireless users/surveillance cameras connected to them.

It supports 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, CE, FC prohibiting the use of certain hazardous materials. Besides that most of the packaging material can be recycled and reused.

It has State of art quality product that can serve on real time high-speed Performance with dual input power, cost effective, highly reliable, conformance to international open standards, durable, serviceable, aesthetics, perceived quality, enhanced performance leads to value to money.

## Hardware Highlights

#### Solid performance with non-blocking architecture

• 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**

 $\cdot$  Up to 2 x 10/100/1000 Mbps Rj45 Ethernet Ports with combined PoE IN with WAN and LAN

Channel setting LED panel with select button

• LED Indicators: Channel display, 5G, LAN, WAN, SYS

- Reset Button
- Function button to select channel parameters
- Selector button to Change the channel parameters
- DC Input 12V, 1A

## Extra Long operational life

- Dual input Power Either DC 12V/1A or 24V PoE via WAN port.
- High Quality PCB Circuit Board and PCB Surface Treatment Using Gold Sinking Process.
- Support temperature range 0° C to 50° C
- Desktop and Wall mount design that enables to mounts Which enables horizontal and vertical wall mounting.

• Comes with one-year default warranty – optionally extendable up to 3 years.

## **Noise-free Operation**

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

## Software Highlights

• Multiple Operational Modes like Gateway Mode, Super WDS Mode, Repeater mode, AP mode. All COMMANDO AirONE series Bridge default mode is Super WDS mode.

- 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/an/a 5GHz Wireless bands.
- Dual input for power either 24V POE or DC power inputs.
- Support Open or encryption like WPA/WPA2-PSK.
- Supports IEEE 802.11ac/an/a 5GHz Wireless with inbuilt 15 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 5Km depending on surrounding conditions.

• Plug and Play design, by pressing button can set device this simplifies installation and auto 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.

## How to set bridge without taking device access?

We can set Master/ Slave CPE by pressing Function button on AIR-CPE5K+.

- Configure One AIR-CPE5K+ to "H" function this CPE will work as Master.
- Configure other AIR-CPE5K+ to "C" Function, this CPE will work as Slave.
- Press "F" to make H/ C linking, and press "S" to change to "H", it will save automatically in 5 second.

• For Point-to-Point Connection Press reset button on both master and slave CPE, will start bridging.

## Note:

H means Host/Master, XXX means channel, C means Client, XXX means Slave Channel. Both master and slave channel to be same.

## How to take access of COMMANDO AirONE AIR-CPE5K+ ?

Access information written on backside of device as given below.

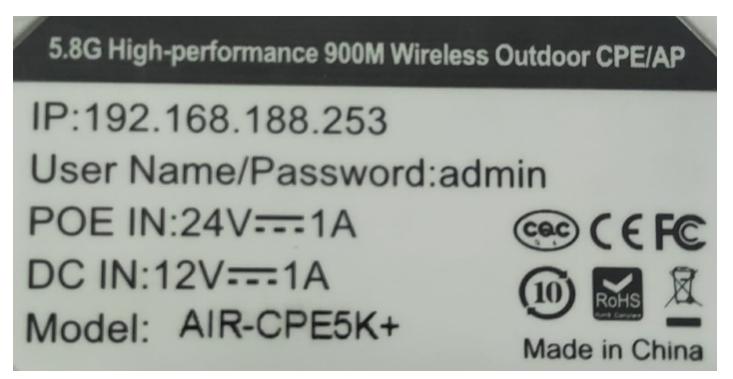


Fig 2. Access IP of AirONE AIR-CPE5K+

Note: New Firmware version supports access IP 192.168.2.1 with password commando

## 1. Wired access Via LAN port connected to PC.

**Step 1:** Power ON AirONE AIR-CPE5K+ with the help of Adaptor 12V, 1A or 24V PoE adaptor in WAN port.

**Step 2:** Connect LAN port of AirONE AIR-CPE5K+ to PC via RJ-45 cable.

Step 3: Open Network and sharing center.

**Step 4:** Go to Change adapter settings.

**Step 5:** Double click on Local Area Connection. Go to Properties.

**Step 6:** Double click on Internet Protocol Version 4 (TCP/IPv4) option and set any IP address from 192.168.188.1 to 252 with subnet mask 255.255.255.0 and Gateway of PC to be set as 192.168.188.253 to as shown below.

# Internet Protocol Version 4 (TCP/IPv4) Properties

General						
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.						
Obtain an IP address automatical	ly					
• Use the following IP address:						
IP address:	192 . 168 . 188 . 100					
Subnet mask:	255.255.255.0					
Default gateway:	192 . 168 . 188 . 253					
Obtain DNS server address automatically						
Use the following DNS server add	resses:					
Preferred DNS server:						
Alternate DNS server:						
Validate settings upon exit	Advanced					
	OK Cancel					

## Fig 2. IP setting in PC connected to AirONE AIR-CPE5K+

**Note:** For New firmware Version set any IP address from 192.168.2.2 to 254 and Gateway of PC to be set as 192.168.2.1.

## 2. Wireless access Via SSID connected to PC.

Х

Step 1: Power ON AirONE AIR-CPE5K+.

**Step 2:** Connect Default SSID named "COMMANDO CPE5K" with the help of default Wi-Fi Password "66666666" or "commando" – refer product label for password.

Step 3: Click on properties of SSID "COMMANDO CPE5K".

**Step 4:** Edit IP setting from DHCP to Manual and set any IP address from 192.168.188.1 to 252 with subnet mask 255.255.255.0 and Gateway of PC to be set as 192.168.188.253.

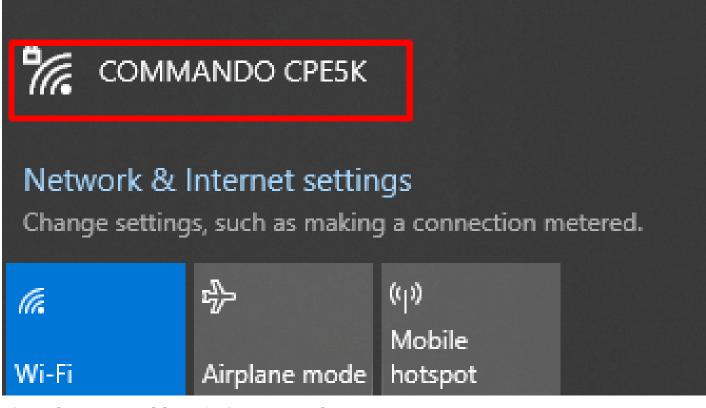


Fig 3. Connect to SSID of AirONE AIR-CPE5K+

<ul> <li>Settings</li> </ul>	Edit IP settings	
命 COMMAND	Manual	$\sim$
IP settings		
IP assignment:	IPv4	
IPv4 address: IPv4 subnet prefix length:	IP address	
IPv4 gateway: IPv4 DNS servers:	192.168.188.1	
Edit	Subnet prefix length 24	
Properties	Gateway	
SSID:	192.168.188.253	
Protocol:		I
Security type:	Preferred DNS	
Network band:	8.8.8.8	
Network channel:		
Link speed (Receive/Transmit)	Alternate DNS	
Link-local IPv6 address:		
IPv4 address:	Save	Cancel
IPv4 DNS servers:		

## Fig 4. Edit IP setting from DHCP to Manual as shown for COMMANDO CPE5K

#### Note:

All Default SSID and password can be changed as per user requirement. For New firmware Version access IP 192.168.2.1.

Open any web browser like Chrome/Firefox/Internet Explorer/Opera etc and enter default IP address **192.168.188.253** in address field.

#### **Caution:**

If you have already taken any Other COMMANDO wireless device access. Then before

taking access of this device, you are required to clean the browser history to avoid catch pages issue.

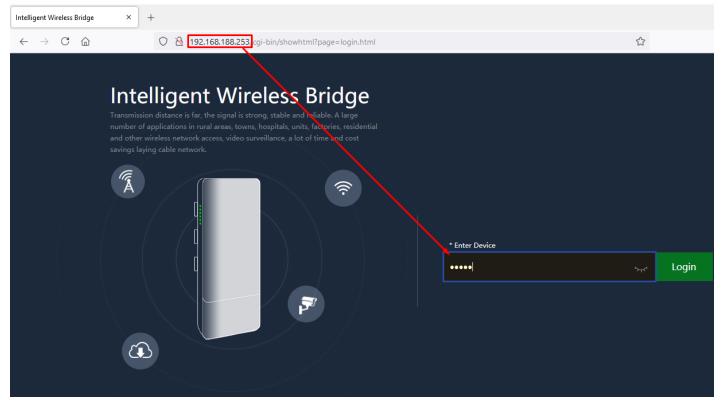


Fig 5. Login page for AirONE AIR-CPE5K+

Default Password: admin or commando

#### Note:

Password can be changed as per user choice. Default password is written on backside of device. According to firmware default password can either admin or commando.



Fig 6. Home page after login AirONE AIR-CPE5K+

# HOME

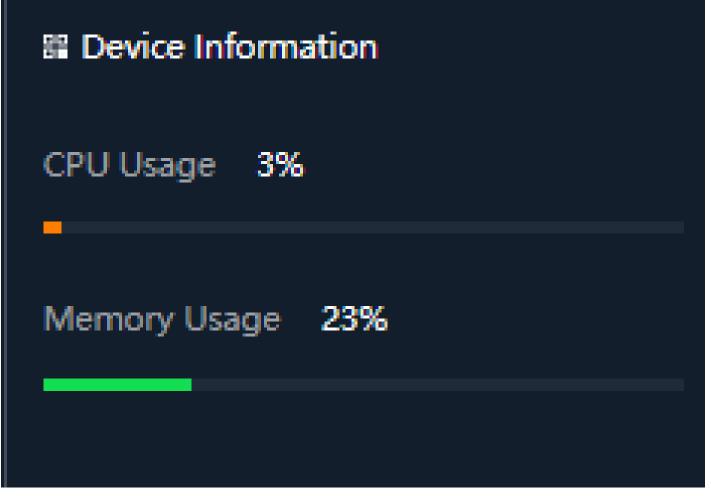
After login, home page will be showed. This page will show device Information like CPU Usage, Memory Usage, LAN/WDS/WAN Information like IP Mode Get IP From AC/Gateway/Static, Status with 5G Wi-Fi Clients Status with information like SSID, Channel, Bandwidth, Encrypt, MAC Address, with Uptime, Flow in bps for bridge Downstream and bridge Upstream. All information can help to troubleshoot network issue, if any very easily.



Fig 1.1 Home page Components of AirONE AIR-CPE5K+

## **1.1 Device Information**

In Device Information, Current CPU Usage percentage and Memory Usage percentage of the Bridge is shown.



## Fig 1.1.1 Home page Components of AirONE AIR-CPE5K+

In Device location you can add the bridge description by clicking on Click Settings

Home					— WDS Down Stream — WDS Up Stream
Setup Wizard CPE Manage WiFi Settings	((( Uptime 0 Day 0 H 27 M 45 S	Device Lo Device Location	8k         7k         6k         5k         5k         CPE5K+         20:12:20	20:12:80	Apply 20:12:40 20:12:50 20:13:00 20:13:10
Network Config	Device Information CPU Usage 2%				ON Device Location
Device Manage	Memory Usage 14%				COMMANDO CPE5K 149 WPA/WPA2-PSK 44:D1:FA:4C:8E:3A

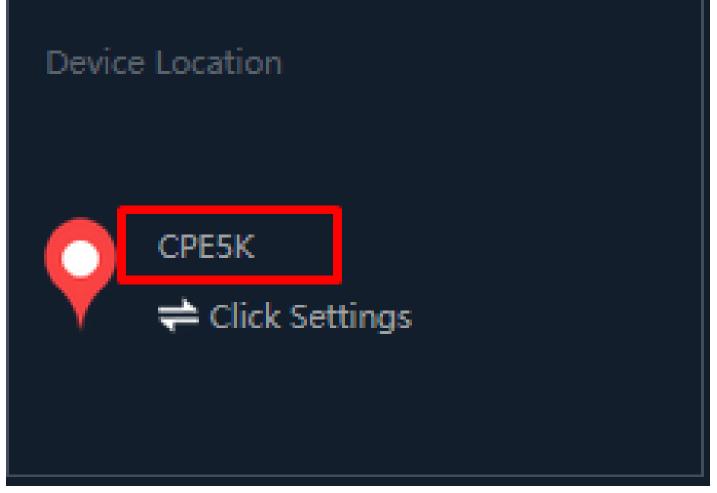


Fig 1.1.3 New Device Location of AirONE AIR-CPE5K+

## **1.2 LAN/WAN Information**

In LAN Information you can find the IP Mode, LAN IP, Subnet, Gateway and MAC Address. In WAN Information like WAN IP address, Gateway, DNS and MAC Address.

# LAN Information

IP Mode	Static IP
Lan IP	192.168.188.253
Subnet	255.255.255.0
Gateway	192.168.188.1
MAC Address	44:D1:FA:30:65:A1

Fig 1.2.1 LAN information of AirONE AIR-CPE5K+

WAN Information				
Internet Mode	DHCP 🥪			
IP Address	192.168.1.39			
Gateway	192.168.1.1			
DNS	192.168.1.1			
MAC Address	5A:D1:FA:30:65:A3			

Fig 1.2.2 WAN information of AirONE AIR-CPE5K+

# WDS Information

Encrypt	WEP
AP BSSID	44:D1:FA:36:F0:55 🤡
AP BSSID	N/A
AP BSSID	N/A
AP BSSID	N/A

# Fig 1.2.3 WDS information of AirONE AIR-CPE5K+

## 1.3 Wi-Fi Information

In Wi-Fi Information, Status along with number of clients connected to AP, SSID, Channel used, Encryption and MAC Address of Bridge is shown.

Home Setup Wizard	Working Mode Super WDS Mode		11k				m — WDS Up Stream
CPE Manage WiFi Settings	Uptime 0 Day 0 H 31 M 37 S		5k 4k 3k 2k 1k		20:16:30	<u> </u>	50 20:17:00
Network Config		WDS Status	ON	WiFi Status	ON		on
*	CPU Usage 2%	Encrypt AP BSSID	Open N/A	User Conunt SSID	0 COMMANDO C	PE5K	,
Device Manage	Memory Usage 5%	AP BSSID AP BSSID		Channel Encrypt	149 WPA/WPA2-PS		c ick Settings
		AP BSSID	N/A	MAC Address	44:D1:FA:4C:8E:	3A	

Fig 1.3.1 Wi-Fi Information of AirONE AIR-CPE5K+

## 1.4 Clients List

Clients list along with number of clients connected to AP, MAC address of clients connected, Signal strength of clients' connection along with connection time is shown. We can learn about users in network with all vital information.

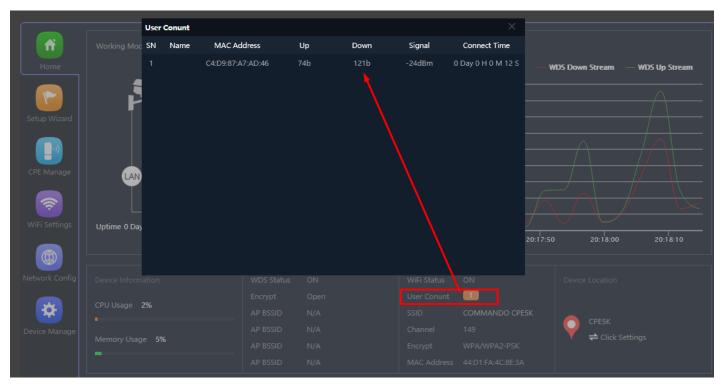


Fig 1.4.1 Clients list of AirONE AIR-CPE5K+

## 1.5 Bridge WDS UP/Down stream Flow (5G Wi-Fi) bps

In Flow (5G Wi-Fi) bps you can monitor the Upstream and Downstream bandwidth in bps.

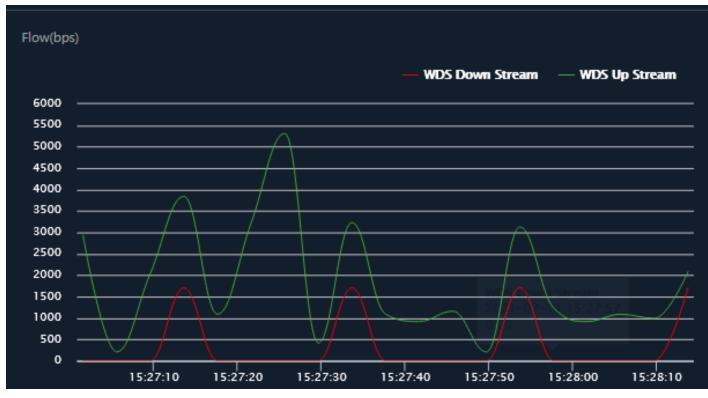


Fig 1.5.1 Flow (5G Wi-Fi) bps of AirONE AIR-CPE5K+

## SETUP WIZARD

After clicking setup Wizard page, you can set device in Gateway Mode, Repeater Mode, AP Mode & Super WDS Mode (Default Mode). It provides flexibility to configure wireless bridge based on network scenario which makes this Bridge future proof. You are required to select corresponding operation mode first before starting the configuration. Clicking Wizard will pop up following page to configure the operation mode along with photos with explanation for each operation mode.

#### Gateway Mode:

In Gateway mode, all Ethernet are 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 share the same IP to ISP through wireless LAN.

#### Super WDS Mode:

A Wireless Distribution System (WDS) is a system that enables the wireless interconnection of access points in an IEEE802.11ac/an/a network. It allows a wireless network to be expanded using multiple access points without the need for a wired backbone to link them, as is traditionally required. In Super WDS mode, device can act as Bridge as well as AP both simultaneously and can connect other bridges and AP's up to maximum 4 devices.

#### **Repeater Mode:**

In Repeater mode is used to extend the range of wireless coverage of existing Wi-Fi network. This mode is suitable when you are in a Wi-Fi dead-zone or a place with weak wireless signal, and you want to have a larger effective range of the wireless signal throughout your home or office.

#### AP Mode:

In AP mode, the device works as an access point to transform your existing wired network into a wireless network

#### 2.1 Gateway Mode

In Gateway mode, your internet provider's RJ-45 is connected to WAN port of AIR-CPE5K+. Internet provider WAN setting can have Static IP, PPPoE, or DHCP accordingly select option. Then configure the wireless parameters as per your choice of SSID,

Channel width, Encryption and Time reboot if required.



Fig 2.1.1 Gateway mode of AirONE AIR-CPE5K+

Gateway Mode		×
1	0	Ø
WAN Settings		
Internet Mode	DHCP V	
	Static IP	
	PPPoE	
	DHCP	

Fig 2.1.2 Gateway mode WAN Setting of AirONE AIR-CPE5K+

Gateway Mode				×
0	0			-0
WiFi Setting				
WiFi Status	<b>()</b>			
SSID	COMMANDO CR	PE5K		
1	Hide your WiFi na	me?		
Channel	40M ~	149 🗸		
WiFi Password	66666666			
Timing	Wednesday 🗸	3:00 🗸		
		Back	Next	

Fig 2.1.3 Gateway mode Wi-Fi Setting of AirONE AIR-CPE5K+

**Note:** The device will restart for the changes to take effect for mode changes to Gateway mode

## 2.2 Super WDS Mode

In Super WDS mode, Scan Repeater SSID whose password is known and configure WDS setting. Then configure the wireless parameters as per your choice of SSID, Channel width, Encryption and Time reboot if required.

Note: Just in case if you don't have any RJ 45 cable running to site then in Super WDS mode you have to just power on the device and wirelessly can connect to clients as well as any SSID (BSSID). No need of connecting physically LAN as well as WAN port. Maximum 4 Bridges/SSID can connect simultaneously.

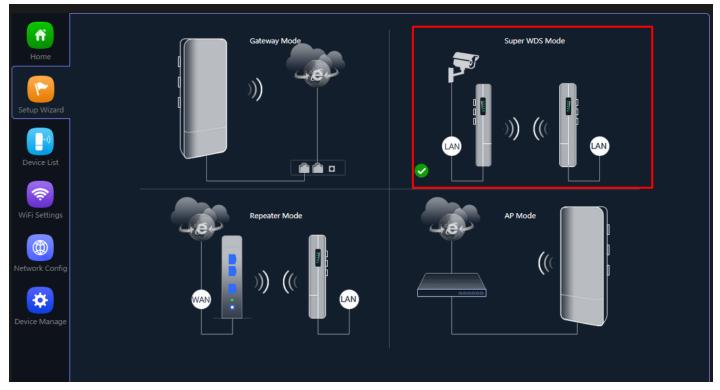


Fig 2.2.1 Super WDS mode of AirONE AIR-CPE5K+

Super	WDS Mo	de				$\times$
1						
•	NDS Settir	ngs				
	AP BSSID	54:37:BB:2D:FC:9D	Mark	Backup System 5G A	irtel Sca	n
	AP BSSID		Mark		Sca	n
	AP BSSID		Mark		Sca	n
	AP BSSID		Mark		Sca	n
	Password					
	Wireless	15-4			Next	
		AP1200-Audi 5G				
		Channel[153] MAC[44:D1:FA:25	5:D1:711 W	/PA/WPA2-PSK		
		Reception 5.8G Channel[36] MAC[44:D1:FA:25:	C19:93] WI	PA/WPA2-PSK		
	<b>a</b> I	Backup System 5G Airtel Channel[157] MAC[54:37:BB:2D	):FC:9D] W	/PA/WPA2-PSK		
	$\sim$	SSPL				

Fig 2.2.2 Scan (AP BSSID) Bridges/AP for connecting AirONE AIR-CPE5K+

Super WDS Mod	e				×
1					-0
WDS Setting	js				
AP BSSID	54:37:BB:2D:FC:9D	Mark	Backup System 5G Airtel	Scan	
AP BSSID		Mark		Scan	
AP BSSID		Mark		Scan	
AP BSSID		Mark		Scan	
Password	commando				
				Next	
				NEAL	

Fig 2.2.3 Super WDS mode scan Bridges/ SSID for AirONE AIR-CPE5K+

Super WDS Mode					
1		2	-8		
LAN Settings					
	IP Mode	GHCP	~		
		Static IP			
		DHCP		Pack	March
		GHCP		Back	Next

Fig 2.2.4 LAN Setting Super WDS mode of AirONE AIR-CPE5K+

Super WDS Mode			×
0	2		0
WiFi Setting			
WiFi Status			
SSID	COMMANDO CPE5K		
	Hide your WiFi name?	0	
Channel	40M ~ 149	~	
WiFi Password	66666666		
Timing	3 Day	v 🌔	
		Back N	lext

Fig 2.2.5 Wi-Fi Setting in Super WDS mode of AirONE AIR-CPE5K+

**Note:** It is recommended to keep timing off. The device will restart for the changes to take effect for mode changes to Super WDS mode. SSID, Channel, Channel width & password can be changed as per user requirement

## 2.3 Repeater Mode

In Repeater mode, Scan Repeater SSID whose password is known. Then configure the wireless parameters as per your choice of SSID, Channel width, Encryption and Time reboot if required.

#### Suggestion:

Just in case if you don't have any RJ 45 cable running to any room then In Repeater mode you have to just power on the device and wirelessly can connect to clients as well as available SSID (BSSID). No need of connecting physically LAN as well as WAN port.



Fig 2.3.1 Repeater mode of AirONE AIR-CPE5K+

Repeater Mode					>
0					
Repeater Settings					
	Repeater SSID	AP1200-Audi 5G		Scan	
	Lock BSSID				
	Encryption	WPA/WPA2PSK_T	KIPAES 🗸 🗸		
	Password				
	BandWidth	40M			
	P2P	• /			
				Next	
Wireless	List				×
	AP1200-Audi 5G Channel[153] MAC	44:D1:FA:25:D1:71	] WPA/WPA2-P	SK	
	Reception 5.8G Channel[36] MAC[4	4:D1:FA:25:CD:93]	WPA/WPA2-PS	к	
	Backup System 50 Channel[157] MAC		] WPA/WPA2-P	SK	
	SSPL Channel[36] MAC[E	C:AD:E0:7A:90:88]	WPA/WPA2-PS	к	

Fig 2.3.2 Selecting Repeater SSID of AirONE AIR-CPE5K+

Repeater Mode					$\times$
0	2				-0
WiFi Setting					
WiFi Status	<b>()</b>				
SSID	COMMANDO CPE5K				
1	Hide your WiFi name?		$\cdot$		
WiFi Password	66666666				
Timing	3 Day	~			
		Back		Next	

Fig 2.3.3 Setting 5G Wi-Fi setting of AirONE AIR-CPE5K+

**Note:** The device will restart for the changes to take effect for mode changes to Repeater mode.

This repeater SSID password is password of scan SSID with matching encryption.

## 2.4 AP Mode

In AP mode, Set LAN setting from static IP, AC or gateway. Then configure the wireless parameters as per your choice of SSID, Channel width, Encryption and Time reboot if required.

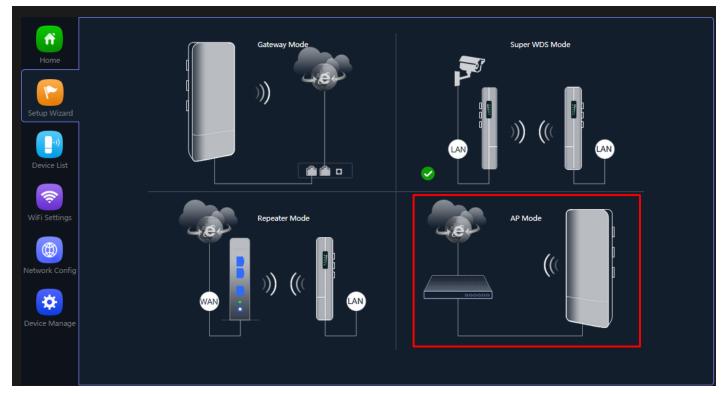


Fig 2.4.1 AP mode of AirONE AIR-CPE5K+

AP Mode		×
1	0	Ø
LAN Settings		
IP Mode	Static IP 🗸	
Lan IP	Static IP	
Subnet	Get IP From AC Get IP From Gateway	
Gateway	192.168.1.1	
Primary DNS	8.8.8.8	
Secondary DNS	8.8.4.4	
	Next	

Fig 2.4.2 Setting IP mode for AP mode of AirONE AIR-CPE5K+

AP Mode						×
0	-2					0
WiFi Setting						
SSID	COMMANE	ю ср	E5K			
1	Hide your Wi	Fi nar	ne?			
Channel	40M	~	149	~		
WiFi Password	66666666					
Timing	3 Day			×		
				Back	N	ext

Fig 2.4.3 Setting 5G Wi-Fi for AP mode of AirONE AIR-CPE5K+

## Note:

It is recommended to keep Wi-Fi Timer OFF. The device will restart for the changes to take effect for mode changes to AP mode.

# **CPE MANAGE**

CPE Manage will display working bridge channel along with Device List, Description, MAC Address, IP Address, Signal, Online/Offline Status & Uptime of connected bridge.

ń	CPE Manage						
Home	Channel:149						
	Device List	Description	MAC Address	IP Address	Signal	Status	Uptime
Wizard	DEV1	CPE10K	5E:D1:FA:36:F0:3D	192.168.188.253	17 dBm	Online	03:05:30
	DEV2	N/A	44:D1:FA:36:F0:55	N/A	17 dBm	Offline	N/A
CPE							
<b></b>							
Network							
*							
Manage							

Fig 3.1.1 CPE Manage of AirONE AIR-CPE5K+

## WI-FI SETTING

In Wi-Fi setting you can set the 5.8G, MAC ACL, Repeater, Wi-Fi Timer off and Advanced settings.

## 5G Wi-Fi Settings:

Can set SSID as per requirement.

## WDS/Repeater Settings:

WDS can be turn ON or OFF. Selecting AP BSSID and password and encryption setting.

## MAC ACL Settings:

Can allow and prohibit wireless clients based on MAC address.

#### Wi-Fi Timer Settings:

Wi-Fi Timer ON/ Off along with setting Time Frame.

#### **Advanced Settings:**

In Advanced setting can set Country Region, Maximum Clients, Channel, WLAN Partition, Short GI, Multicast Fast, TX Power.

#### Note:

All *italic config* options are only available in Gateway mode only.

## 4.1 Wi-Fi Setting

We can set Wi-Fi SSID, Band, Bandwidth, Channel.

Wi-Fi Status: On mean SSID is available for wireless clients.

Wi-Fi Status: Off mean SSID not available.

#### Note:

By default Basic Wi-Fi SSID "COMMANDO CPE5K"

fî Home	WiFi Settings WiFi Setting	WDS Settings MAC	ACL Advanced						
	wiri setung								
		WiFi Status	•	WiFi Analyzer					
Setup Wizard		SSID	COMMANDO CPES	К					
			Hide your WiFi name	2 🕥	)				
		Band	802.11AN/AC						
CPE Manage		BandWidth	40M						
		Channel	149						
<b>?</b>		WiFi Password	66666666		)				
WiFi Settings						Use	r Conunt	Apply	
Network Config									
Device Manage									

Fig 4.1.1 Wi-Fi setting of AirONE AIR-CPE5K+

Wi-Fi Analyzer is a handy tool which helps you to select a better channel and mainly to analyze the AP's signal strength and channel, to make user easier to choose the channel with less Wireless Interference.

ń	WiFi Settings WDS Settings M	IAC ACL Advanced		
Home	WiFi Setting			
	WiFi Statu	s 🌔	WiFi Analyzer	
Setup Wizard	SSIE	COMMANDO CPES	БК	
octup mizard		Hide your WiFi name	9? 🕕 🕕	
<b>•</b> •	Band	802.11AN/AC		
CPE Manage	BandWidtl	1 40M		
	Channe	149		
WiEi Settings	WiFi Password	66666666		
WiFi Settings				User Conunt Apply
Network Config				
*				
Device Manage				

Fig 4.1.2 5G Wi-Fi Analyzer button of AirONE AIR-CPE5K+

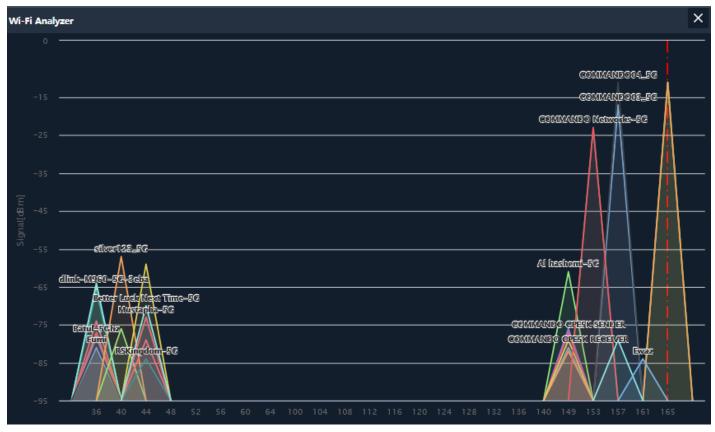


Fig 4.1.3 5G Wi-Fi Analyzer of AirONE AIR-CPE5K+

### **Important Note:**

You can change SSID name, Encryption and Wi-Fi password as per your choice to be used by wireless clients.

### 4.2 WDS/Repeater Settings

WDS/Repeater Settings like scan AP BSSID, Encryption, Channel, Password of scan SSID and bandwidth can be set.

ń	WiFi Settings	WDS Settings MA	AC ACL	Advanced				
	WDS Settings							
~		WDS Status Quick Link						
Setup Wizard			_	:FA:25:D1:71	March	AP1200-Audi 5G	Scan	
			44:DT	:FA:25:D1:71				
•))		AP BSSID			Mark	Reception 5.8G	Scan	
CPE Manage		AP BSSID			Mark		Scan	
		AP BSSID			Mark		Scan	
<b>?</b>		Password	comm	iando		<b>(</b> )		
WiFi Settings		BandWidth	40M					
- Will Octango		Channel	149			WiFi Analyzer		
								Apply
Network Config								
Device Manage								

### Fig 4.2.1 WDS Setting for AirONE AIR-CPE5K

#### 4.3 MAC ACL Settings

MAC ACL Allow or prohibits the wireless users access into this device based on MAC address. Filters using MAC address of wireless client. If you permit or allow few clients, then automatically all other non-allowed client cannot associate with AP. When a client is denied access through a MAC-based filter, the client cannot associate with the AP.

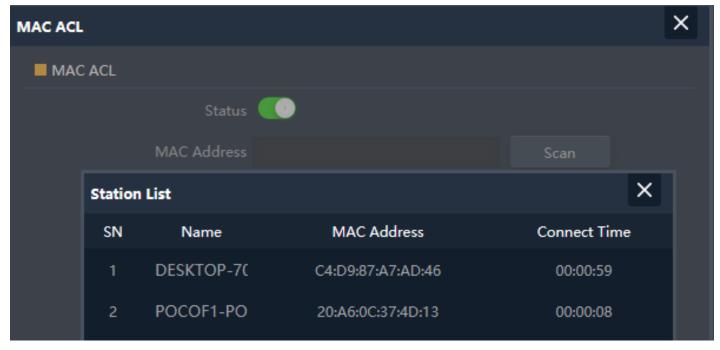


Fig 4.3.1 Add MAC ACL of AirONE AIR-CPE5K+

MAC ACL			×
MAC ACL			
Status			
MAC Address	20:A6:0C:37:4D:13	Scan	
Mark	Disallow User		
		<b>6</b>	
		Save	

Fig 4.3.2 Select MAC address of AirONE AIR-CPE5K+

## 4.4 Advance Setting

In Advanced setting can set Country Region, Maximum Clients, Channel, WLAN Partition, Short GI, Multicast Fast, TX Power.

ń	WiFi Settings	WDS Settings N	AC ACL	Advanced		
Home	Advanced					
		Country Regio	u UAE		Channel(36-64),(100-116),(136-140),(149,165	
Setup Wizard		Max Clien	t 64		(Range 0-64 0:No Limit)	
Setup Wizaru		WLAN Partition	n OFF			
		Short G	I ON			
CPE Manage		Multicast Fas	t ON			
		TX Powe	r Max			
<b>?</b>						Apply
WiFi Settings						
Network Config						
*						
Device Manage						

Fig 4.4.1 Default Advanced setting for AirONE AIR-CPE5K+

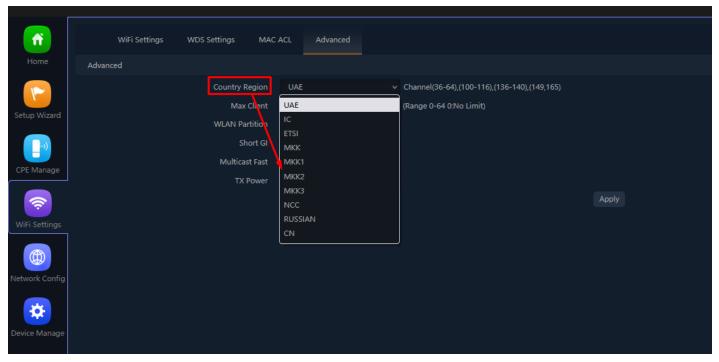


Fig 4.4.2 Selecting Country Region for AirONE AIR-CPE5K+

î	WiFi Settings	WDS Settings MAC	ACL Advanced		
Home	Advanced				
		Country Region	UAE	<ul> <li>Channel(36-64),(100-116),(136-140),(149,165)</li> </ul>	
		Max Client	64	(Range 0-64 0:No Limit)	
Setup Wizard		WLAN Partition	OFF	<b>∼</b>	
		Short GI	ON		
CPE Manage		Multicast Fast	ON		
		TX Power	Max		
					Apply
WiFi Settings					
Network Config					
*					
Device Manage					

Fig 4.4.3 Setting Maximum wireless clients in 5G for AirONE AIR-CPE5K+

f	WiFi Settings WDS Settings	MAC ACL	Advanced		
	Advanced				
	Country Regio	on UAE		Channel(36-64),(100-116),(136-140),(149,165)	
	Max Clie	nt 64		(Range 0-64 0:No Limit)	
Setup Wizard	WLAN Partitio	on OFF			
<b></b> (-))	Short	GI OFF			
CPE Manage	Multicast Fa	st ON			
	TX Pow	er Max			
<b>~</b>					Apply
WiFi Settings					
Network Config					
*					
Device Manage					

## Fig 4.4.4 Selecting WLAN Partition for AirONE AIR-CPE5K+

	WiFi Settings	WDS Settings	MAC ACL	Advanced		
Home	Advanced					
		Country Regio			<ul> <li>Channel(36-64),(100-116),(136-140),(149,165)</li> </ul>	
Setup Wizard		Max Clier	nt 64		(Range 0-64 0:No Limit)	
octup mizara		WLAN Partitio	n OFF			
		Short (	ii on	·		
		Multicast Fas	t OFF			
CPE Manage		TX Powe	ON			
		TAFOW			2	Apply
<b></b>						Арріу
WiFi Settings						
Network Config						
Device Manage						

Fig 4.4.5 Selecting Short GI for AirONE AIR-CPE5K+

Home	WiFi Settings Advanced	WDS Settings M	IAC ACL	Advanced		
Setup Wizard	Advanced	Country Region Max Client WLAN Partition Short GI Multicast Fast TX Power	64 OFF ON ON		Channel(36-64),(100-116),(136-140),(149,165) (Range 0-64 0:No Limit)	Apply
Device Manage						

Fig 4.4.6 Setting Multicast Fast for AirONE AIR-CPE5K+

ń	WiFi Settings	WDS Settings MA	C ACL Advanced		
Home	Advanced				
		Country Region	UAE	<ul> <li>Channel(36-64),(100-116),(136-140),(1</li> </ul>	49,165)
		Max Client	64	(Range 0-64 0:No Limit)	
Setup Wizard		WLAN Partition	OFF		
		Short Gl	ON		
CPE Manage		Multicast Fast	ON		
		TX Power	Max	<u> </u>	
Ś			Мах		Apply
WiFi Settings			Efficient Enhanced		
			Standard		
			Min		
Network Config					
Device Manage					

Fig 4.4.7 Setting Tx Power for AirONE AIR-CPE5K+

## **NETWORK CONFIG**

#### LAN Settings:

It can set Lan IP (Access IP), Subnet & DHCP Server, Start and maximum DHCP address, DHCP Lease Time and client list along with utilized IP count.

#### Static DHCP:

The DHCP Static IP Mapping feature enables assignment of static IP addresses with MAC address without taking IP addresses from DHCP pool with manual bindings.

#### WAN Settings:

You can set WAN Connect Method, MTU and DNS Manually along with Primary, Secondary DNS.

#### Note:

All italic config options are only available in Gateway mode only

#### 5.1 LAN Settings

IN LAN Setting you can set access IP for Bridge along with subnet. You can set DHCP server which acts as a network server that automatically provides and assigns IP addresses, default gateways and other network parameters to client devices. It relies on the standard protocol known as Dynamic Host Configuration Protocol or DHCP to respond to broadcast queries by clients.

ń	LAN Settings	Static DHCP		
	LAN Settings			
~		IP Mode	DHCP	
Setup Wizard	DHCP Server			
		DHCP Server		
		Start Address		
CPE Manage		Max Number	251	
<u></u>		DHCP Lease Time	24(Hour)	
		Assigned IP Number		DHCP List
WiFi Settings				
Network Config				
Device Manage				

Fig 5.1.1 Setting LAN IP which used as access IP for AirONE AIR-CPE5K+

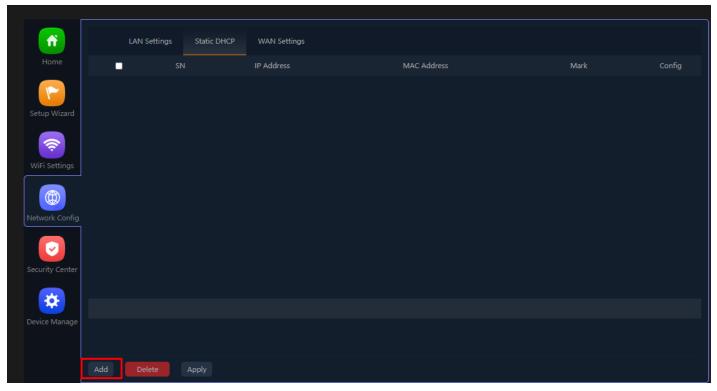
### **DHCP Server:**

A DHCP Server is a network server that automatically provides and assigns IP addresses to wireless client devices. It relies on the standard protocol known as Dynamic Host Configuration Protocol or DHCP to respond to broadcast queries by clients.

LAN Settings Static DHCP
Home LAN Settings
EAN Seamys
IP Mode DHCP V
Setup Wizard DHCP Server
DHCP Server
Start Address 2
CPE Manage Max Number 251
DHCP Lease Time 24(Hour) V
Assigned IP Number 0 DHCP List
WiFi Settings
Vetwork Config
Device Manage

### 5.2 Static DHCP Setting

A static IP address binding is ultimately set by an administrator and does not change. Although DHCP stands for dynamic host configuration protocol, you can still set up static IP addresses using DHCP. This allows the network server to always get the same IP even after it reboots, without dynamically assigning the IP. The DHCP Static IP Mapping feature enables assignment of static IP addresses with MAC address without taking IP addresses from DHCP pool with manual bindings. Compatible ARP binding list is statically assigned.



## Fig 5.3.1 Default Static DHCP for AirONE AIR-CPE5K+

Static DHCP		×
Static DHCP		
IP Address	Scan	
MAC Address		
Mark		
	Save	

Fig 5.3.2 Static DHCP scan for AirONE AIR-CPE5K+

Static DH	ICP				×
Stati	c DHCP				
	IP Address		s	can	
	MAC Address				
	Station List		×		
	192.168.188.1	C4:D9:87:A7:AD:46		Save	
	192.168.188.237	20:A6:0C:37:4D:13	POCOF1-PO		

Fig 5.3.3 Station list for AirONE AIR-CPE5K+

## 5.4 WAN Settings

You can set WAN Connect Method, MTU and DNS Manually along with Primary, Secondary DNS.

ń	LAN Settings Static DHCP WAN	Settings	
Home	WAN Settings		
	Connect Method	DHCP	
Setup Wizard	МТО	1492	(1400-1500)
	Set DNS Manually		
<b>?</b>	Primary DNS	8.8.8.8	
WiFi Settings	Secondary DNS	8.8.4.4	1
	Band Type	100M Fiber 🗸 🗸	
	Upstream	100000	Kbps
Network Config	Downstream	100000	Kbps
		Enable web server access on WAN	N port 8080 (1-65535)
			Apply
Security Center			
*			
Device Manage			

Fig 5.4.1 Default WAN Setting for AirONE AIR-CPE5K+

	LAN Settings Static DHCP WAN S	Settings		
Home	WAN Settings			
Setup Wizard	Connect Method MTU Set DNS Manually	DHCP v Static IP PPPoE	(1400-1500)	
WiFi Settings	Primary DNS Secondary DNS	DHCP 8.8.4.4		
wiFi Setungs	Band Type	100M Fiber 🗸 🗸		
	Upstream	100000	Kbps	
Network Config	Downstream	100000	Kbps	
		Enable web server access on WAN	N port 8080 (1-65535)	Apply
Security Center				
Device Manage				

Fig 5.4.2 Changing Connect type manually for AirONE AIR-CPE5K+

f	LAN Settings	Static DHCP WAN	Settings		
Home	WAN Settings				
		Connect Method	DHCP		
Catura Wirmed		MTU	1492	(1400-1500)	
Setup Wizard		Set DNS Manually			
<b>?</b>		Primary DNS	8.8.8.8		
WiFi Settings		Secondary DNS	8.8.4.4		
Wirr Settings		Band Type	100M Fiber		
		Upstream	100000	Kbps	
Network Config		Downstream	100000	Kbps	
			Enable web server access	on WAN port 8080 (1-65535)	
<b>I</b>					Apply
Security Center					
*					
Device Manage					

Fig 5.4.3 Set DNS manually for AirONE AIR-CPE5K+

## SECURITY CENTER

#### **URL Filter Settings:**

URL filtering is a type of web filtering and is used to restrict web content.

#### **IP Filter Settings:**

IP Filter bars filter IP to access the Bridge SSID.

#### MAC Filter Settings:

MAC Filter bars filter particular MAC to access the Bridge SSID.

#### Security Settings:

It can set Rule for particular TCP or UDP Protocol for selected wireless client IP with port mapping function.

#### DMZ Settings:

It can set DMZ Host IP to provide an internal network with an additional security layer by restricting access.

#### Note:

All *italic config* options are only available in Gateway mode only.

#### 6.1 URL Filter Settings

Organizations can create policies such as permanently allowing or blocking access to specific sites or groups of websites, such as social networking pages to either redirect, filter or blocked. URL filtering is a type of web filtering and is used to restrict web content in order to restrict what content their employees can access over company networks. URL blocking refers process of allowing or denying the access to a certain websites or certain URL addresses for the web users either temporarily or permanently. If a URL is blocked, then the user will not be able to view the URL address or its web content.

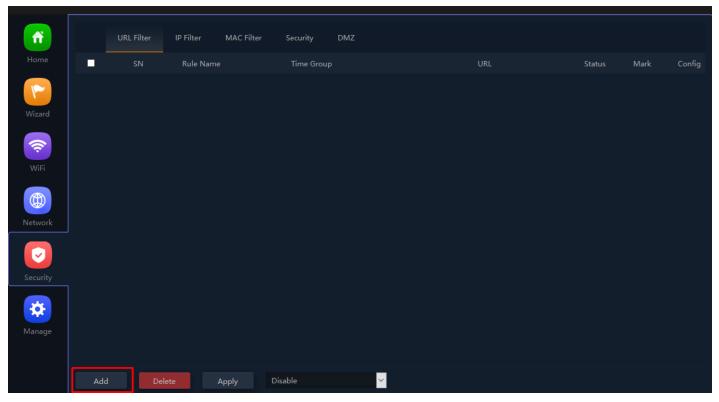


Fig 6.1.1 Default URL filter setting for AirONE AIR-CPE5K+

URL Filter				×
URL Filter				
Status	<b>(</b> )			
Rule Name	Sunday Close			
Time Group	Custom 🗸	Add		
Time Range	00 💙 : 00 🌱 - 23 🌱 : 59 🜱			
Work Date	Everyday 🗸			
URL	www.commandonetworks.com			
Mark	URL Blocking			
			Save	

Fig 6.1.2 Setting URL filter for AirONE AIR-CPE5K+

ń		URL Filter	IP Filter	MAC Filter	Security	DMZ						
Home			Rule Nam	e	Time Grou	р				Status	Mark	Config
	•		Sunday		Custom		w	ww.commandonetworks.	com	9	URL	0
Wizard () WiFi												
Network												
Security												
Manage												
					Disable							
					<mark>nable URL filter</mark> Disable							
	Ado	De	lete	Apply	Disable	~						

## Fig 6.1.3 URL filter setting for AirONE AIR-CPE5K+

## 6.2 IP Filter Settings

IP Filter bars filter IP to access the Bridge SSID.

ń		URL Filter	IP Filter	MAC Filter	Security	DMZ							
Home			Rule Nam		ime Group	IP A	Address	Port Ra	inge	Protocol	Status	Mark	Config
Wizard													
WiFi													
Network													
Security													
Manage													
	Add	De	lete	Apply	Disable		~						

Fig 6.2.1 Default IP filter setting for AirONE AIR-CPE5K+

IP Filter					×
IP Filter					
Status	<b>(</b> )				
Rule Name	IP Blocking				
Time Group	Custom	×	Add		
Time Range	20 💙 : 00 🌱 - 0	9 🗸 : 00 🗸			
Work Date	Everyday	~			
IP Group	Custom	×	Add		
IP Address	192.168.1.1	- 192.168.1.254	Se	tan	
Port Range	1	- 1024	No emp	oty, range:1-65535	5
Protocol	TCP+UDP	~			
Mark	IP Blocking after Off	fice			
				Save	

Fig 6.2.2 Setting IP filter for AirONE AIR-CPE5K+

<b>A</b>		URL Filter	IP Filter	MAC Filter	Security	DMZ							
Home			Rule Nam	e Tim	e Group	IP Ad	dress	Ро	ort Range	Protocol	Status	Mark	Config
Wizard	•			C	ustom	Cust	tom		1-1024	TCP+UDP	•		o
WiFi													
Network													
Security													
Manage				_									
					Disable Allow Access Deny Access								
	Add	De	lete	Apply	Disable		~						

# Fig 6.2.3 IP filter setting for AirONE AIR-CPE5K+

## 6.3 MAC Filter Settings

MAC Filter bars filter MAC to access the Bridge SSID.

fî		URL Filter	IP Filter	MAC Filter	Security	DMZ				
			Rule Nam	ne	Time Group		MAC Address	Status	Mark	Config
Wizard										
WiFi										
Network										
Security										
Manage										
	Add	Del	ete	Apply [	Disable	×				

Fig 6.3.1 Default MAC filter setting for AirONE AIR-CPE5K+

MAC F	ilter						×
<b>N</b>	IAC Filter						
	Status						
	Rule Name	MAC Filter					
	Time Group	Any		Ad	ld		
	MAC Address			Sca	an		
	Mark						
	Station List				×	Save	
	192.168.	.188.1	C4:D9:87:A7:AD:46				
	192.168.1	88.237	20:A6:0C:37:4D:13	POCOF	1-PO		

Fig 6.3.2 Setting MAC filter for AirONE AIR-CPE5K+

	URL Filter	IP Filter	MAC Filter	Security	DMZ				
Home		Rule Nan		- Time Group		MAC Address	Status	Mark	
Wizard		MAC		Any		C4:D9:87:A7:AD:46	•		
WiFi									
Network									
Security									
Manage			F						
Wanaye				Disable Allow Access Deny Access					
Ad	ld De	lete		Disable	~				

Fig 6.3.3 MAC filter setting for AirONE AIR-CPE5K+

6.4 Security Settings

A security setting monitors incoming and outgoing network traffic and permits, or blocks data packets based on a set of security rules. It can help protect your network by filtering traffic and blocking outsiders from gaining unauthorized access.

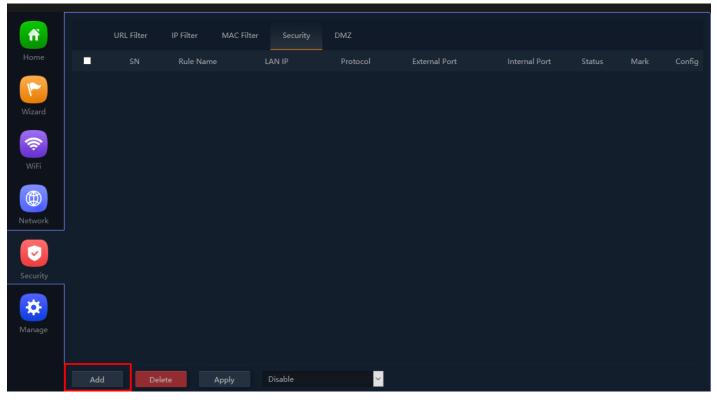


Fig 6.4.1 Default Security setting for AirONE AIR-CPE5K+

Security								×	J
Security									
Status	<b>(</b> )								
Rule Class	HTTPS			$\sim$					
Rule Name	https								
Protocol	TCP+UDP			$\sim$					
LAN IP	192.168.188.237				Scan				
External Port	443		443		No empty, r	ange:1-65535	5		
Internal Port	443		443		No empty, r	ange:1-65535	5		
Mark	POCOF1-POCOF	1							
						6			
						Save			

Fig 6.4.2 Security Rules setting for AirONE AIR-CPE5K+

f		URL Filter	IP Filter	MAC Filter	Security	DMZ					
Home			Rule Name	; L	AN IP	Protocol	External Port	Internal Port	Status	Mark	Config
Wizard WiFi	•		https	192.16	58.188.237	TCP+UDP	443-443	443-443	•	POCOF1-POCOF1	Ø
Network Security											
Manage	Add	Del	ete		Disable Inable Port Ma Disable	pping Function					

Fig 6.4.3 Security setting for AirONE AIR-CPE5K+

6.5 DMZ Settings

DMZ or demilitarized zone is a physical or logical subnetwork that contains portion of your network carved off and isolated from the rest of your network of an organization's external-facing services to an untrusted, usually larger, network such as the Internet.

The main benefit of a DMZ is to provide an internal network with an additional security layer by restricting access to sensitive data and servers. A DMZ enables website visitors to obtain certain services while providing a buffer between them and the organization's private network. The goal of a DMZ is to add an extra layer of security to an organization's local area network. A protected and monitored network node that faces outside the internal network can access what is exposed in the DMZ, while the rest of the organization's network is safe from attackers.

ń		URL Filter	IP Filter	MAC Filter	Security	DMZ			
	DMZ								
1				Enable DMZ					Apply
<b>(</b>									
Network									
Security									
*									

Fig 6.5.1 Default DMZ setting for AirONE AIR-CPE5K+

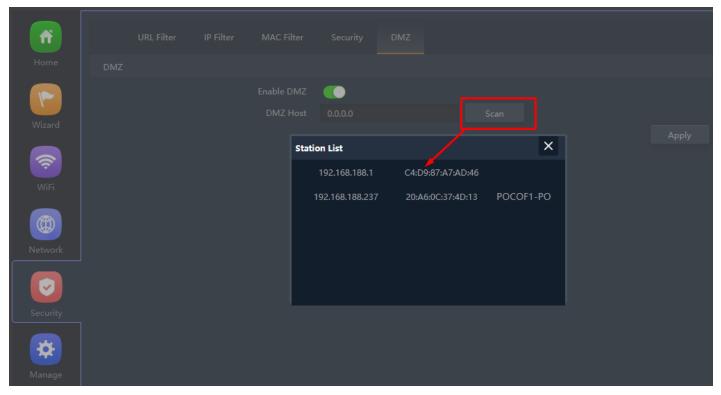


Fig 6.5.2 DMZ setting for AirONE AIR-CPE5K+

## **DEVICE MANAGE**

#### **Configure:**

Back up to save the configuration file to PC connected. Restore Bridge to known configuration. Reset the factory default settings.

#### Reboot:

It possible to schedule an automatic reboot of Bridge.

#### Modify Password:

You can create password as per your choice and even change the admin password for login to device.

### Upgrade:

This setting to upgrade the Bridge is to get more functions and better performance.

#### Time:

System Time is the time displayed while the Bridge is running. On this page you can configure the system time.

### Log:

The Logs can record Bridge information effectively. You can enable and disable log and also can set Log server.

#### Flow Control:

Enabling flow control can optimize the bandwidth and improve the network experience of important applications.

#### **IP Group:**

It can define IP group which tells Bridge what groups the users are defined.

#### Time Group:

It can create Time Group with time range and set frequency to operate time group.

#### **DDNS Settings:**

It provides a fixed domain name for DDNS client and maps its latest IP address to this domain name.

#### Note:

All *italic config* options are only available in Gateway mode only.

### 7.1 Configure Setting

The Backup and Restore configuration feature allow end users to backup all

configurations made in Bridges. In cases when you need to reset the Bridge to factory default settings, you will be able to restore your previous configuration using the backup configuration file. This will save you time by not going through the process of reconfigure the Bridge manually.

You can restore the Bridge to its factory default settings by the Reset button or by Reset Default option in this page. It must be noted that once the Bridge is reset, all the current configuration settings will be lost. If you want old configure files which is backup already then can use option upload backup. Use the page to restore the Bridge to the factory defaults or use the button to restore the Bridge to old configuration.

f	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
Home	Configure									
~			Backup	Save the co	onfiguratio	n file to y	our computer			
			Restore	Browse	No file s	elected.				
(î)			Reset Default	Press this b	utton to re	estore to	the factory defalt	settings.		
WiFi										
Network										
Security										
*										
Manage	1									

Fig 7.1.1 Default Configure setting for AirONE AIR-CPE5K+

Configure Reboot Modify Password Upgrade Time Log Flow Control IP Group Time Group DDNS Settings   Home Configure   Wizard   Wizard   Image     Opening configuint   Vou have chain to open:   Configuint   Vou have chain to open:   Configuint   Vou have chain to open:   Configuint   Vot ave chain to open:   Configuint   Vou have chain to open:   Configuint   Visard   Visard   Vot ave chain to open:   Configuint   Visard   Vou have chain to open:   Configuint   Vou have chain to open:   Configuint   Visard   Visard   Vou have chain to open:   Configuint   Vou have chain to open:   Configuint   Visard   Visard   Visard   Visard   Visard   Vou have chain to open:   Configuint   Visard   Visar											
Configure     Wizard     Wizard     Image     Backup   Save the configuration file to your computer     Backup   Backup   Save the configuration file to your computer     Backup   Backup   Save the configuration file to your computer     Restore   Browse   Press this button to restore to the factory defalt settings.     Voin law e chusen to open:   Image     What should Firefox do with this file?   Image     Depen with	f	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
Wizard   Wizard   Wizard   Image     Browse   No file selected.   Restore   Browse   No file selected.   Reset Default   Press this button to restore to the factory defalt settings.     Opening config.bin   Viei     Opening config.bin   Vou have chosen to open:   Config.bin   which is: bin File   from: http://192.168.188.253     What should Firefox do with this file?   Open with   Browse		Configure									
Restore Browse No file selected.     WiFi     WiFi     Opening config.bin     Vou have chosen to open:   Config.bin   Which is: bin File   from: http://192.168.188.253     What should Firefox do with this file?   Open with   Browse				Backup	Save the co	onfiguratio	n file to y	our computer			
WiFi   WiFi   Wetwork   Vou have chosen to open:   Config.bin   which is: bin File   from: http://192.168.188.253   What should Firefox do with this file?   Open with   Browse   Save File	Wizard			Restore	Browse	No file s	elected.				
Vou have chosen to open:   Corfig.bin   Vou have chosen to open:   Config.bin   which is: bin File   from: http://192.168.188.253     What should Firefox do with this file?   Open with   @ Save File				Reset Default	Press this b	outton to r	estore to	the factory defalt	settings.		
Network Opening config.bin   Vou have chusen to open:   config.bin   which is: bin File   from: http://192.168.188.253     What should Firefox do with this file?   Open with   Browse     Save File											
You have chosen to open:   Config.bin   which is: bin File   from: http://192.168.188.253   What should Firefox do with this file?   Open with   Browse   @ Save File				Opening config.bir	1				×		
What should Firefox do with this file?       Open with Browse       Save File	<b>V</b>			You have chasen t	to open:						
Manage     O Open with Browse       Bave File	Security			from: http://	/192.168.188.25	53					
				⊖ <u>O</u> pen with		is file?					
				<u>Signer And</u>			O	K Cancel			

Fig 7.1.2 Taking backup of AirONE AIR-CPE5K+

ń	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
	Configure									
<b>()</b>			Backup	Save the co	onfiguratio	n file to y	our computer			
Wizard			Restore	Browse	config(1	).bin				
<b></b>			Reset Default	Press this b	utton to re	estore to	the factory defalt	settings.		
WiFi										
Network										
<b>V</b>										
Security										
*										
Manage										

Fig 7.1.3 Restore to known Configure for AirONE AIR-CPE5K+

fi								DDNS Settings
۴								
Wizard		Restore	Prompt Info	rmation				
(î:		Reset Default					gs.	
			Ar	e you sure ctory settir	you war ngs?	nt to restore to		
					-		_	
					OK	Cance		
*								

Fig 7.1.4 Reset to factory default for AirONE AIR-CPE5K

## 7.2 Reboot Setting

It possible to schedule an automatic reboot of AP. The configuration will not be lost after rebooting. The Internet connection will be temporarily interrupted while rebooting.

										<u>i                                     </u>
ń	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
Home	Reboot									
Wizard			Reboot	Reboot						
			Timed Reboot							
										Apply
WiFi										
Network										
Security										
Manage										

Fig 7.2.1 Default reboot setting for AirONE AIR-CPE5K+

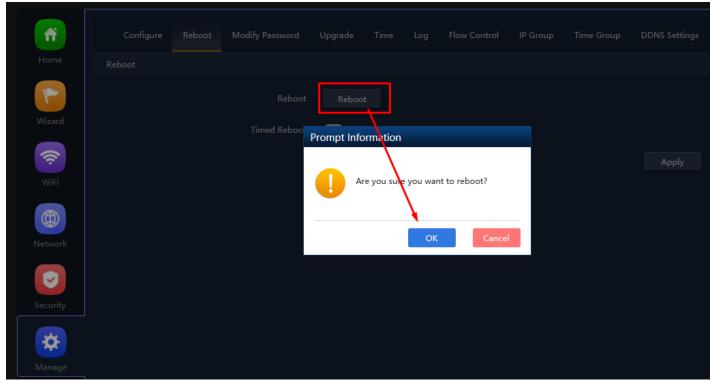


Fig 7.2.2 Instant Reboot setting for AirONE AIR-CPE5K+

										1
ń	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
Home	Reboot									
1			Reboot	Reboot						
Wizard			Timed Reboot							
(î:			O Reboot Time	Everyday	<b>→</b> 3	:00	~			
WiFi			Restart Interval	Everyday Monday		-	~			
				Tuesday Wednesda	, I					Apply
Network				Thursday	,					
				Friday Saturday						
Security				Sunday						
*										
Manage										

Fig 7.2.3 Enable timed reboot for AirONE AIR-CPE5K+

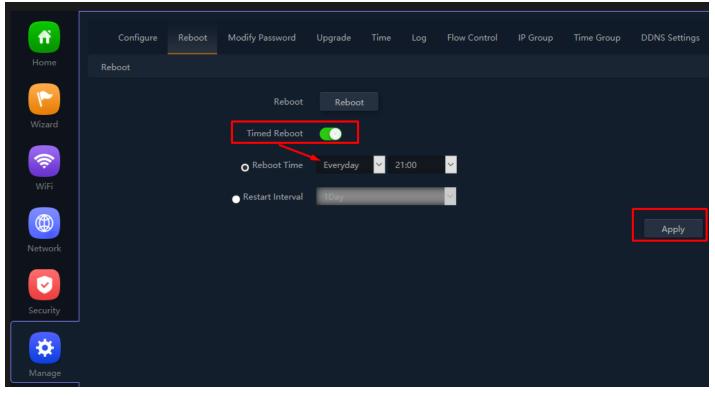


Fig 7.2.4 Enable daily reboot for AirONE AIR-CPE5K+

ń	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
	Reboot									
~			Reboot	Reboot						
			Timed Reboot							
(î)			<ul> <li>Reboot Time</li> </ul>	Everyday	✓ 3:	00	<b>~</b>			
WiFi			O Restart Interval	1Day			~			
										Apply
Network										
Security										
Manage										

### Fig 7.2.5 Enable Restart interval for AirONE AIR-CPE5K+

#### **Recommendation:**

It is strongly recommended to disable reboot to avoid network disruption and outage.

#### 7.3 Modify Password Setting

On this page, you create password as per your choice and even change the admin

password for login to device. You can modify the factory default password of the Bridge and create new user password to manage the device.

#### Note:

The factory default password is **admin or commando** depending on firmware version is mentioned in backside of device.

ñ	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
	Modify Passwor	ď								
7			Old Password							
			New Password							
(î:			Confirm Password							
										Apply
Network										
V										
Security										
*										
Manage										

Fig 7.3.1 Modify password page for AirONE AIR-CPE5K+

ñ		Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
	Mod	dify Password									
٣				Old Password	••••						
				New Password	•••••	•					
				Confirm Password	•••••	•					
WiFi											Apply
Network											
<b>V</b>											
*											
Manage	]										

## Fig 7.3.2 Setting New password for AirONE AIR-CPE5K+

COMMANDO 900M Wireless Bridge		
	* Login Device	Login

Fig 7.3.3 New password to be entered to login AirONE AIR-CPE5K+

#### **Recommendation:**

It is strongly recommended to change default password **admin** or **commando** which is used to access device.

### 7.4 Upgrade Setting

Version displays the current Configuration version of the AP. To upgrade the Bridge is to get more functions and better performance.

#### Note:

- 1. After upgrading, the Bridge will reboot automatically.
- 2. To avoid damage to device, please don't turn off the Bridge while upgrading.

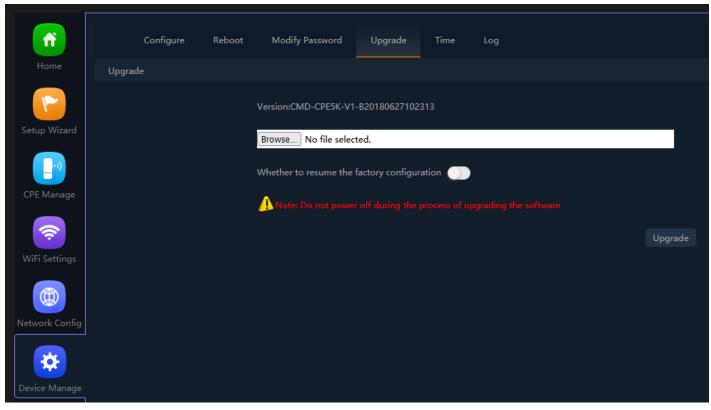


Fig 7.4.1 Default Upgrade page for AirONE AIR-CPE5K+

Home	Configure Upgrade	Reboot	Modify Password	Upgrade	Time	Log	
			Version:CMD-CPE5K-V1	-B20180627102	313		
Setup Wizard			Browse No file selec	ted.			
			Whether to resume the	factory configur	ration 🕥		
CPE Manage			^				
			🔔 Note: Do not powe				
							Upgrade
WiFi Settings							
Network Config							
Device Manage							

Fig 7.4.2 Upgrade with no previous configuration for AirONE AIR-CPE5K+

### Note:

It is advised to take backup of the configuration before upgrading.

### 7.5 Time Setting

System Time is the time displayed while the Bridge is running. On this page you can configure the system time and the settings here will be used for other time-based functions like Logs.

In time setting you can set System Time, Time Zone, Set Time Automatically and with help of NTP service. System Time displays the current date and time of the AP. Time Zone displays the current time zone of the AP. You can configure the time zone and NTP Server. The Bridge will get GMT automatically if it has connected to a NTP Server. Manual time can also be set by feeding date and time manually.

Synchronize with Host to set system time is best and recommended option. It uses administrator PC's clock for setting time.

f		Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
	ті	me									
~				System Time	2021-05-2	3 15:31:47					
				NTP Enable							
(î:				Time Zone Select	(GMT+04	4:00)United	Arab Em	irates Dubai, Mus	cat 🗸		
				Manual IP Settings		_	-				
				NTP Server	time.win	dows.com		<b>~</b>			
Network										4	Apply
<b>I</b>											TFY
Security											
*											
Manage	1										

Fig 7.5.1 System Time for AirONE AIR-CPE5K+

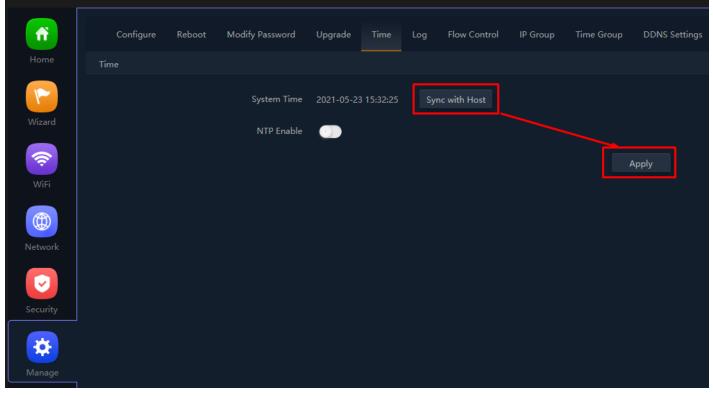


Fig 7.5.2 Disable NTP and Sync with host for AirONE AIR-CPE5K+

fř	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
Home	Time									
~			System Time	2021-05-2	3 15:33:04					
Wizard			NTP Enable							
<b>†</b>			Time Zone Select	(GMT+04	4:00)United	Arab Em	nirates Dubai, Muse	cat 🗸 🗸		
WiFi				(GMT-11:	:00)Midway	Island, S	amoa		^	
			Manual IP Settings	(GMT-10:	:00)Hawaii					
				(GMT-09:	:00)Alaska					
			NTP Server	(GMT-08:	:00)Pacific T	ime (US,	Canada); Tijuana			
Network				(GMT-07:	:00)Mounta	in Time (	(US,Canada)			
				(GMT-06:	:00)Central	Time (US	,Canada)			Apply
				(GMT-05:	:00)Bogota,	Lima, Qu	uito			
Security					:00)Caracas,					
Security					:00)Buenos		eorgetown			
					:00)Mid-Atl					
<b>.</b>					00)Azores,		rde Is.			
Manage					sablanca, M					
							rlin, Bern, Rome,Sto	ockholm, Vienr	na	
					:00)Harare,					
					:00)Baghda					
				(GMT+04	:00)United	Arab Em	irates Dubai, Musc	at	<b>_</b> _	

Fig 7.5.3 Enable NTP and select time zone for AirONE AIR-CPE5K+

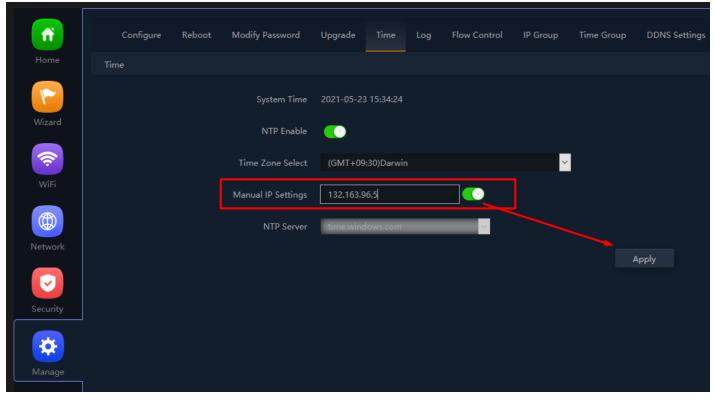


Fig 7.5.4 Enable NTP with Manual IP setting for AirONE AIR-CPE5K+

fî	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
Home	Time									
<b>()</b>			System Time	2021-05-23	3 15:35:09					
Wizard			NTP Enable							
(î)			Time Zone Select	(GMT+09	:30)Darwir			~		
WiFi			Manual IP Settings	132.163.9	6.5	-				
			NTP Server	time.wind			<u>~</u>			
Network				210.98.16.		e.kriss.re.l	¢r (			Apply
				211.115.1	94.21 - Ntp	o1.epidc.o	:o.kr			
				64.250.17	7.145 - Tim	ne.nist.go				
Security				192.5.41.4	1 - North /	America				
				192.5.41.2	09 - North	America				
- <b>X</b>				208.184.4	9.9 - North	America				
				131.188.3.	220 - Euro	ре				
Manage				130.149.13	7.8 - Europ	e				
				203.60.1.2	- Australia	3				
				203.117.1	80.36 - Asi	a Pacific				

Fig 7.5.5 Selecting well know NTP server for AirONE AIR-CPE5K+

fî		Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
	Tir	ne									
٣				System Time	2021-05-23	3 21:06:18					
				NTP Enable							
(				Time Zone Select	(GMT+09	:30)Darwin			~		
				Manual IP Settings	132.163.9	6.5	-				
				NTP Server	131.188.3	.220 - Euro	ope	<u>~</u>			
Network										A	pply
<b>I</b>											
Security											
*											
Manage	1										

Fig 7.5.6 NTP server for AirONE AIR-CPE5K

## 7.6 Log Setting

The Logs can record Bridge information effectively. The logs allow thorough tracking, alerting, and analysis when something does go wrong. It also determines the root cause of any issue.

	Configure	Reboot	Modify Password	Upgrade	Time	Loa	Flow Control	IP Group	Time Group	DDNS Settings	
	connigure	Rebool	Moully Password	opgrade	Time	LOG	Flow Control	ir Gloup	nine Group	DDN3 Settings	
	Log										
			Log	ON			~				
			209								
Wizard			Remote Log Service	0.0.0							
	.og										
	hu Jun 3 00:30	0:08 2021	daemon.info dnsmasq	[6593]: tim	e 16226514	108					<u>^</u>
			daemon.info dnsmasq				cache inserti	ions re-used	unexpired cac	he entries.	
			daemon.info dnsmasq								
			daemon.info dnsmasq								
			daemon.info dnsmasq								
			daemon.info dnsmasq				cache inserti	ions re-used	unexpired cac	he entries.	
			daemon.info dnsmasq								
			daemon.info dnsmasq								
T			kern.warn kernel: [								
			kern.warn kernel: [						0x4402ac. 0xa	d460000, 0xa1, 0x40,	0x1)
			kern.warn kernel: [				000000, name=				
			kern.warn kernel: [						0x4402ac. 0xa	d460001, 0x0, 0x2, 0	x0)
			kern.warn kernel: [				000000, name=				
			kern.warn kernel: [						0x4402ac. 0xa	d460006, 0x0, 0x2, 0	x0)
			kern.warn kernel: [				000000, name=				
			kern.warn kernel: [						0x4402ac. 0xa	d460006, 0x2c, 0x40,	0x1)
	hu Jun 3 00:30	0:16 2021	kern.warn kernel: [				000000, name=				
			kern.warn kernel: [						( 0x5, 0x97b,	0x232ea2d9 )	
			kern.warn kernel: [				000000, name=				
			kern.warn kernel: [						( 0x0, 0x97b,	0x232e4000 )	
			kern.warn kernel: [				000000, name=				
TI			kern.warn kernel: [				RESMGR OCS (		NOA ( 0x2 )		
			kern.warn kernel: [				000000, name=				
			kern.warn kernel: [				RESMGR OCS (		NOA ( 0x0 )		
			kern.warn kernel: [				000000, name=				¥.
								Export	Delete	Refresh	Apply

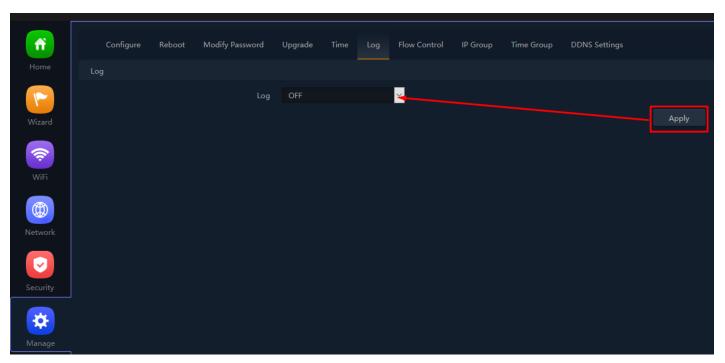


Fig 7.6.1 Default Log setting for AirONE AIR-CPE5K+

Fig 7.6.2 Turning OFF Log setting for AirONE AIR-CPE5K+

f	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings	
	Log										
~			Log	ON			~				
Wizard			Remote Log Service	192.168.1	101.10						
()	Log										
WiFi	Please enable	System Log!									
Network											
Network											
<b>I</b>											
Security											
*											
Manage											
								Export	Delete	Refresh	.: Apply

Fig 7.6.3 Remote Log service setting IP for AirONE AIR-CPE5K+

ń	Configure Reboot Modify Password Upgrade Time Log Flow Control IP Group Time Group DDNS Settings
Home	Log
٣	Log ON
Wizard	Remote Log Service 192.168.101.10
	Log
1	Thu Jun 3 00:30:08 2021 daemon.info dnsmasg[6593]: time 1622651408
	Thu Jun 3 00:30:08 2021 daemon.info dnsmasq[6593]: cache size 150, 0/52 cache insertions re-used unexpired cache entries.
WiFi	Thu Jun 3 00:30:08 2021 daemon.info dnsmasg[6593]: queries forwarded 154, queries answered locally 28
	Thu Jun 3 00:30:08 2021 daemon.info dnsmasq[6593]: server 192.168.1.1#53: queries sent 11, retried or failed 1
	Thu Jun 3 00:30:08 2021 daemon.info dnsmasq[6593]: time 1622651408 Thu Jun 3 00:30:08 2021 daemon.info dnsmasq[6593]: cache size 150, 0/52 cache insertions re-used unexpired cache entries.
	Thu Jun 3 00:30108 2021 daemon.info dnsmasq[6593]; deche size 150, 0/52 deche infervions re-used unexpired cache entries.
	Thu Jun 3 00:30108 2021 daemon.info dnsmasq[6593]: guerres Journel 14, guerres sent 11, retried or failed 1
	Thu Jun 3 00:30:09 2021 kern.warn kernel: [ 630.847596] [wifil] ver = 1000000, name= wifil
Network	Thu Jun 3 00:30:09 2021 kern.warn kernel: [ 630.851185] FWLOG: [596282] WAL DBGID TX BA SETUP ( 0x4402ac, 0xad460000, 0xa1, 0x40, 0x1 )
	Thu Jun 3 00:30:15 2021 kern.warn kernel: [ 636.844867] [wifi1] ver = 1000000, name= wifi1
	Thu Jun 3 00:30:15 2021 kern.warn kernel: [ 636.848341] FWLOG: [601868] WAL_DBGID_TX_BA_SETUP ( 0x4402ac, 0xad460001, 0x0, 0x2, 0x0 )
	Thu Jun 3 00:30:15 2021 kern.warn kernel: [ 636.856467] [wifi1] ver = 1000000, name= wifi1
	Thu Jun 3 00:30:15 2021 kern.warn kernel: [ 636.860975] FWLOG: [601868] WAL_DEGID_TX_BA_SETUP ( 0x4402ac, 0xad460006, 0x0, 0x2, 0x0 )
	Thu Jun 3 00:30:15 2021 kern.warn kernel: [ 636.869119] [wifi1] ver = 1000000, name= wifi1
Security	Thu Jun 3 00:30:15 2021 kern.warn kernel: [ 636.873499] FWLOG: [602273] WAL DBGID_TX_BA_SETUP ( 0x4402ac, 0xad460006, 0x2c, 0x40, 0x1 )
	Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.101675] [wifi0] ver = 1000000, name= wifi0 Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.105150] FWLOG: [607183] VDEV MGR HP START TIME ( 0x5, 0x97b, 0x232ea2d9 )
	Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.105150] FWLOG: [607183] VDEV_MGR_HP_START_IIME ( 0x5, 0x97b, 0x232ea2d9 ) Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.112330] [wifi0] ver = 1000000, name= wifi0
-Ö-	Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.116733] FWLOG: [607183] VDEV MGR HP START TIME ( 0x0, 0x97b, 0x232e4000 )
	Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.123870] [wifi0] ver = 100000, name wifi0
	Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.128821] FWLOG: [607183] RESMGR OCS GEN PERIODIC NOA ( 0x2 )
Manage	Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.134202] [wifi0] ver = 1000000, name= wifi0
	Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.138647] FWLOG: [607183] RESMGR OCS GEN FERIODIC NOA ( 0x0 )
	Thu Jun 3 00:30:16 2021 kern.warn kernel: [ 638.144530] [wifi0] ver = 1000000, name= wifi0
	Thu Jun 3 00-30-16 2021 bern warn bernel ( 638 149103) FWLOC+ (607183) UNEU MCR 25 TRTT CONFLE ( 040 04976 041 04830- )
	Export Delete Refresh Apply

Fig 7.6.4 Enabling Remote Log server setting IP for AirONE AIR-CPE5K+

### **Recommendation:**

It is strongly recommended to turn OFF logs to avoid excessive CPU cycles, Memory usage and hanging of Bridge in long term.

### 7.7 Flow Control

Enabling flow control can optimize the bandwidth requirement and improve the network experience for important applications, especially in the bandwidth hungry wireless client environment.

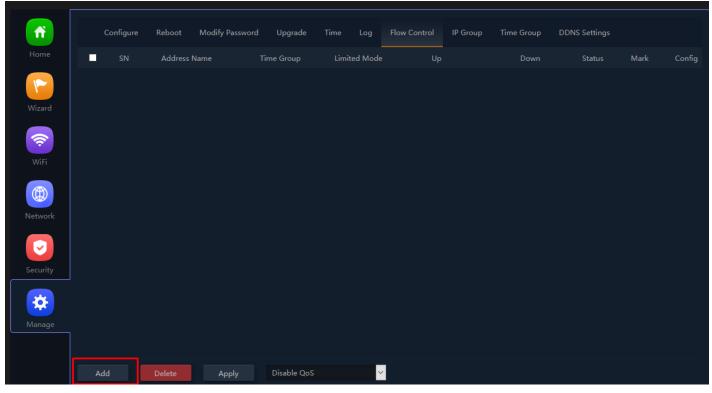


Fig 7.7.1 Default Flow control page for AirONE AIR-CPE5K+

Speed Limit					×
Speed Limit					
Status					
IP Group	Custom	~	Add		
IP Address	192.168.1.1	- 192.168.18	38.254	Scan	
Time Group	Any	~	Add		
Limited Mode	Exclusive limited band	lwidth 🗸			
Up	1000		Kbps		
Down	1000		Kbps		
Mark	Max Speed limit				
					Save

Fig 7.7.2 Enabling Speed limit for AirONE AIR-CPE5K+

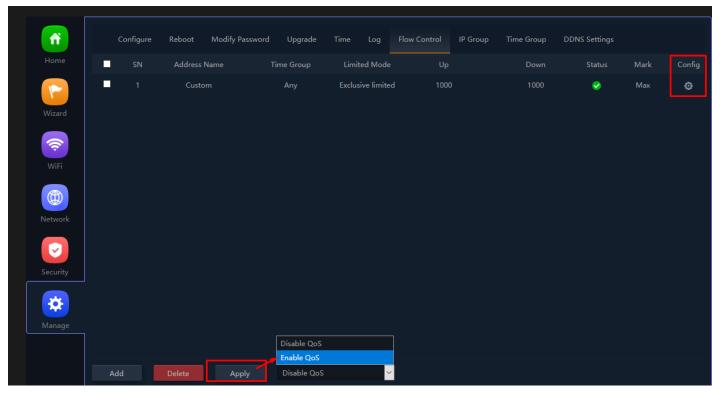


Fig 7.7.3 Flow control page for AirONE AIR-CPE5K+

#### 7.8 IP Group

A single IP address divides into two sections: Network ID and Host ID. The Network ID defines the logical group where devices belong. Similarly, we can define IP group which tells Bridge what IP group name and associated IP address are available for wireless users.

ñ	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings	
			Group	Name			IP Range			Mark	Config
Vizard											
WiFi											
etwork											
ecurity											
tanage											
	Add	Delete									



IP Group					×
IP Group					
	Group Name	QoS Group			
	IP Address	192.168.188.36	- 192.168.188.254	Scan	
	Mark	QoS for Video			
				Save	

Fig 7.8.2 IP group name and associated IP address for AirONE AIR-CPE5K+

ſî	Configure	Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings	
		SN	Group	Name			IP Range			Mark	Config
1	•		Qo			192.1	68.188.36-192.16	8.188.254		QoS	o
Wizard © WiFi											
Network											
Security											
Manage											
	Add	Delete									

Fig 7.8.3 IP group page for AirONE AIR-CPE5K+

## 7.9 Time Group

It can create Time Group with time range and set frequency of operation for particular activity to operate in specified time. It can give automated effect to the network.

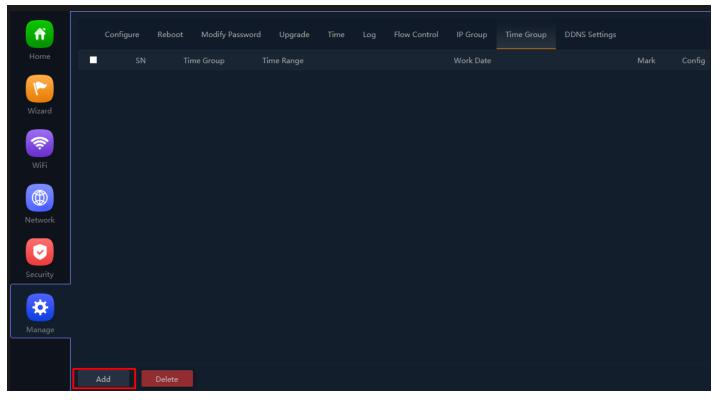


Fig 7.9.1 Default time group for AirONE AIR-CPE5K+

Time Group		×
Time Group		
Time Group	Time Restriction	
Time Range	20 💙 : 00 🌱 - 09 🌱 : 00 🜱	
Work Date	Everyday 🗸	
Mark	Office Close	
	Save	

Fig 7.9.2 Setting Time group for AirONE AIR-CPE5K+

Home Wizard		Time Group Time	Time Range 20:00-09:00	Mon Tu	Work Date e Wed Thu Fri	Sat Sun	Mark Office	Config
Wizard	1	Time	20:00-09:00	Mon Tu	e Wed Thu Fri	Sat Sun	Office	a
WiFi Network								Ŭ
Security Manage								

#### Fig 7.9.3 Time group for AirONE AIR-CPE5K+

#### 7.10 DDNS Settings

DDNS (Dynamic DNS) server provides a fixed domain name for DDNS client and maps its latest IP address to this domain name. Dynamic DNS (DDNS) is an Internet service that allows controller with varying public IP addresses to be located using Internet domain names. To use DDNS, you must setup an account with a DDNS provider and set up an account with a DDNS service, the host & domain name, username, password detail will be provided by the account provider. It allows address, which enables the Internet hosts to access the router or the hosts in LAN using the domain names. As many ISPs use DHCP to assign public IP addresses in WAN, the public IP address assigned to the client is unfixed. In this way, it's very difficult for other clients to get the latest IP address of this client for access.

DDNS (Dynamic DNS) server provides a fixed domain name for DDNS client and maps its latest IP address to this domain name. When DDNS server works, DDNS client informs the DDNS server of the latest IP address, the server will update the mappings between the domain name and IP address in DNS database. Therefore, the wireless users can use the same domain name to access the DDNS client even if the IP address of the DDNS client has changed. DDNS is usually used for the Internet users to access the private website and FTP server, both of which are established based on Web server.

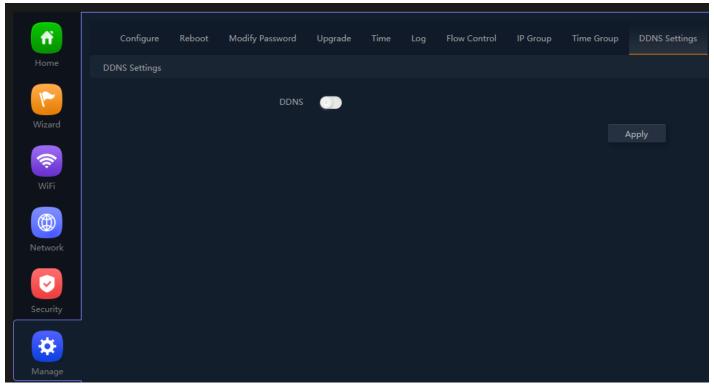


Fig 7.10.1 Default DDNS page for AirONE AIR-CPE5K+

ń	Configur	e Reboot	Modify Password	Upgrade	Time	Log	Flow Control	IP Group	Time Group	DDNS Settings
Home	DDNS Setting	js								
			DDNS							
Wizard			User Name							
<b>?</b>			Password							
WiFi			Public IP	N/A						
			Domain	N/A						
Network			User Type	N/A						
			Link Status	N/A						
Security				No Accoun	t? Registra	ition <sup>=</sup> org	ot Password Help			
*									A	Apply
Manage										

Fig 7.10.2 Enable DDNS page for AirONE AIR-CPE5K+