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.

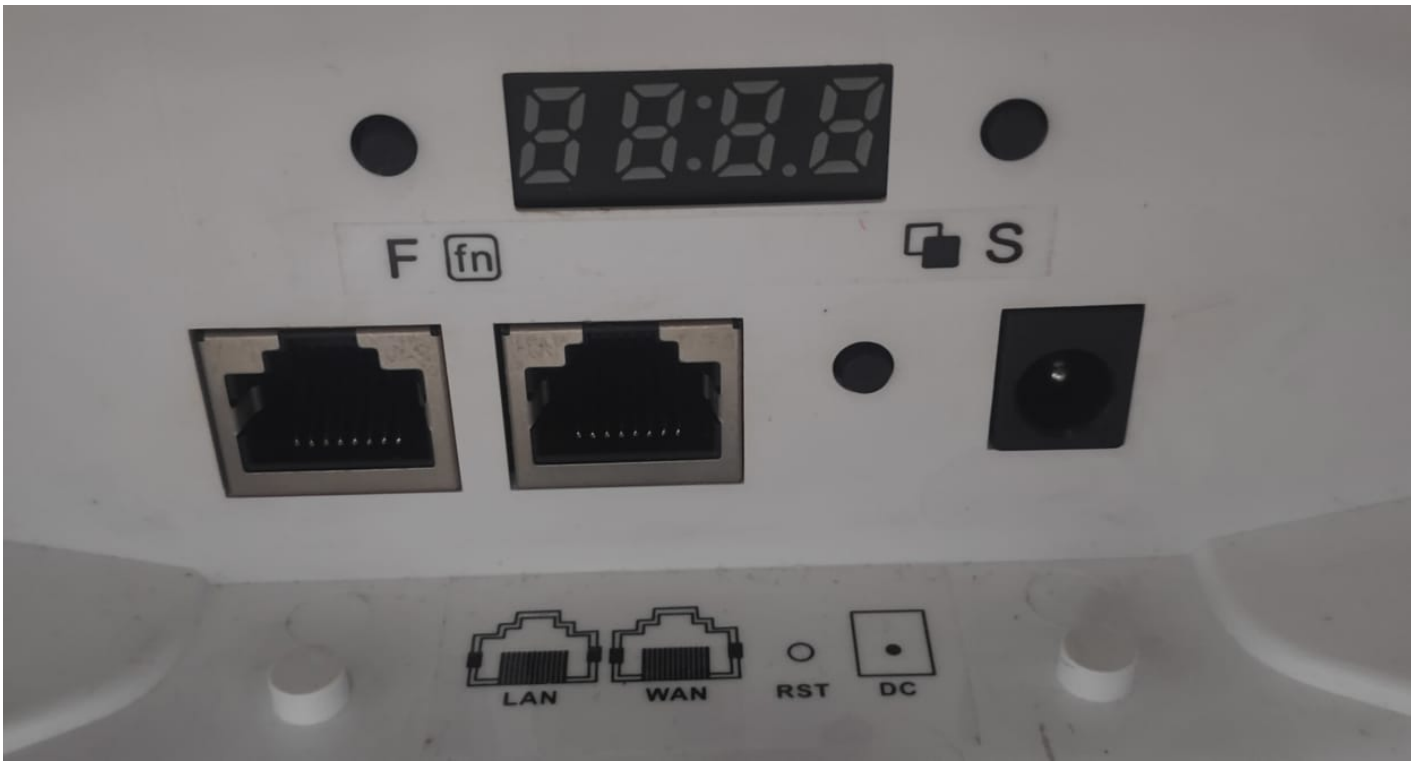

Fig 1. Physical port on AirONE AIR-CPE5K+

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	LED display, show operation mode, channel, signal strength. **F (Function) Button** for selecting mode of per operation either Master/Slave. **H:** CPE will work as Master. **C:** CPE will work as Slave. **S(Select) Button** for selection purpose.
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

• 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.

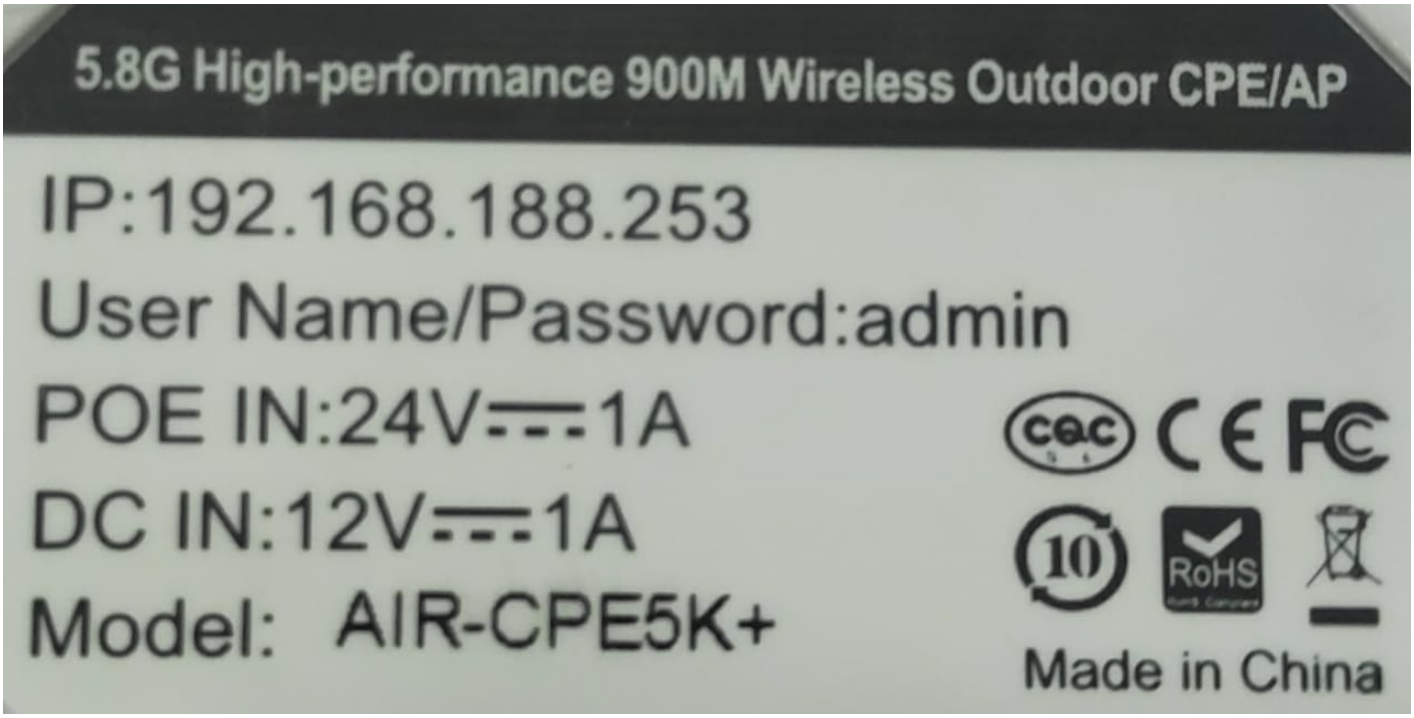

Fig 2. Access IP of AirONE AIR-CPE5K+

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.

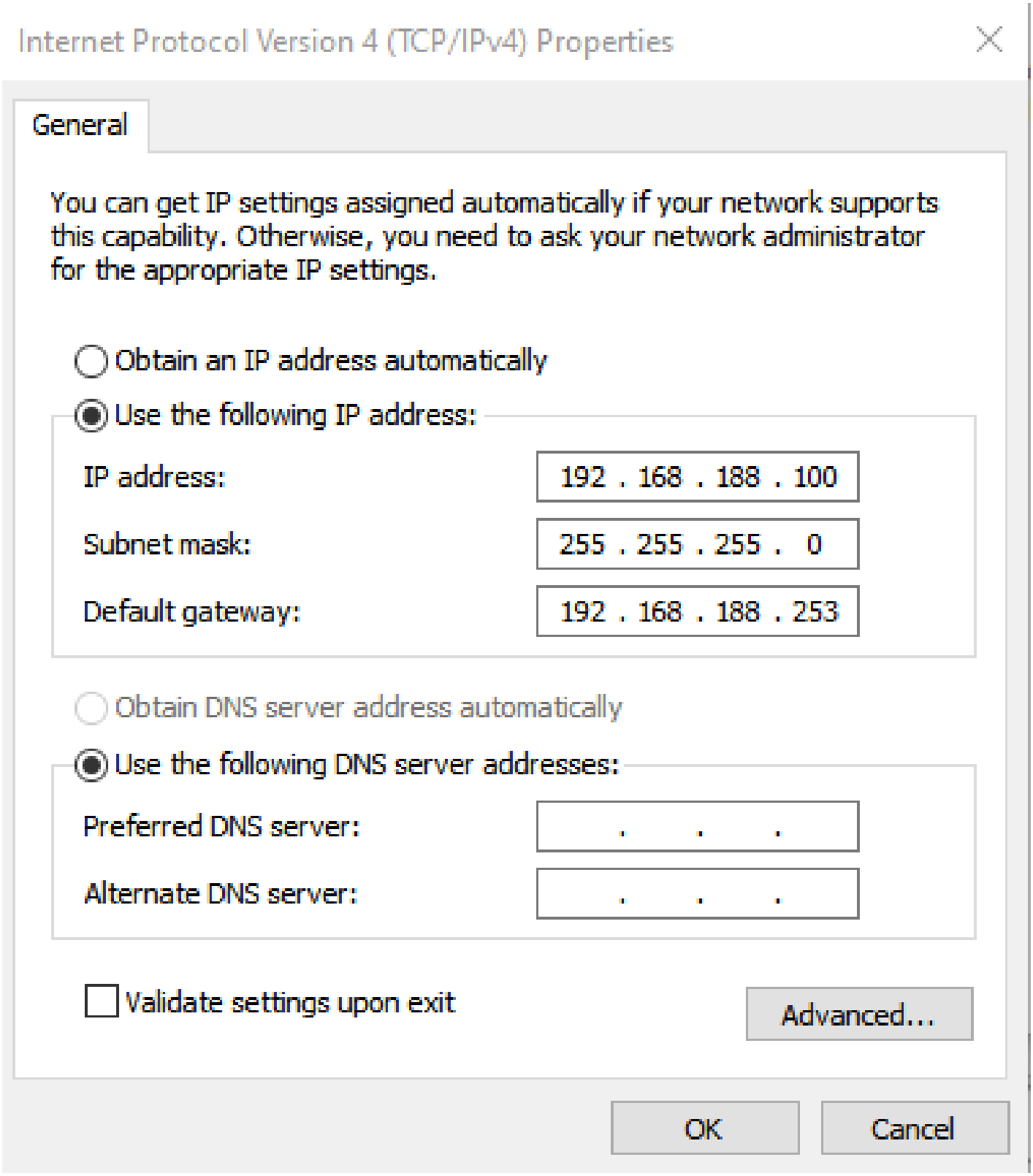

Fig 2. IP setting in PC connected to AirONE AIR-CPE5K+

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.

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.

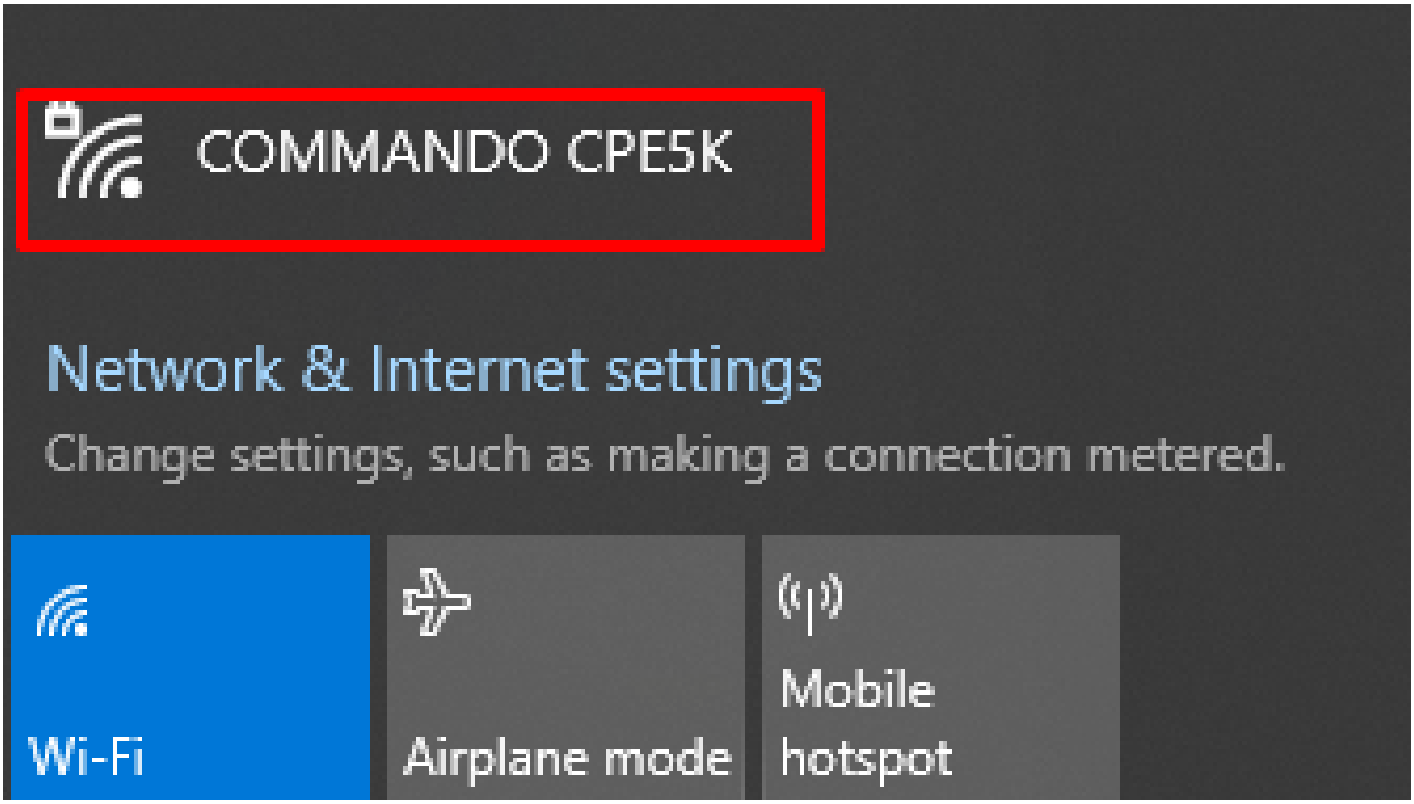

Fig 3. Connect to SSID of AirONE AIR-CPE5K+

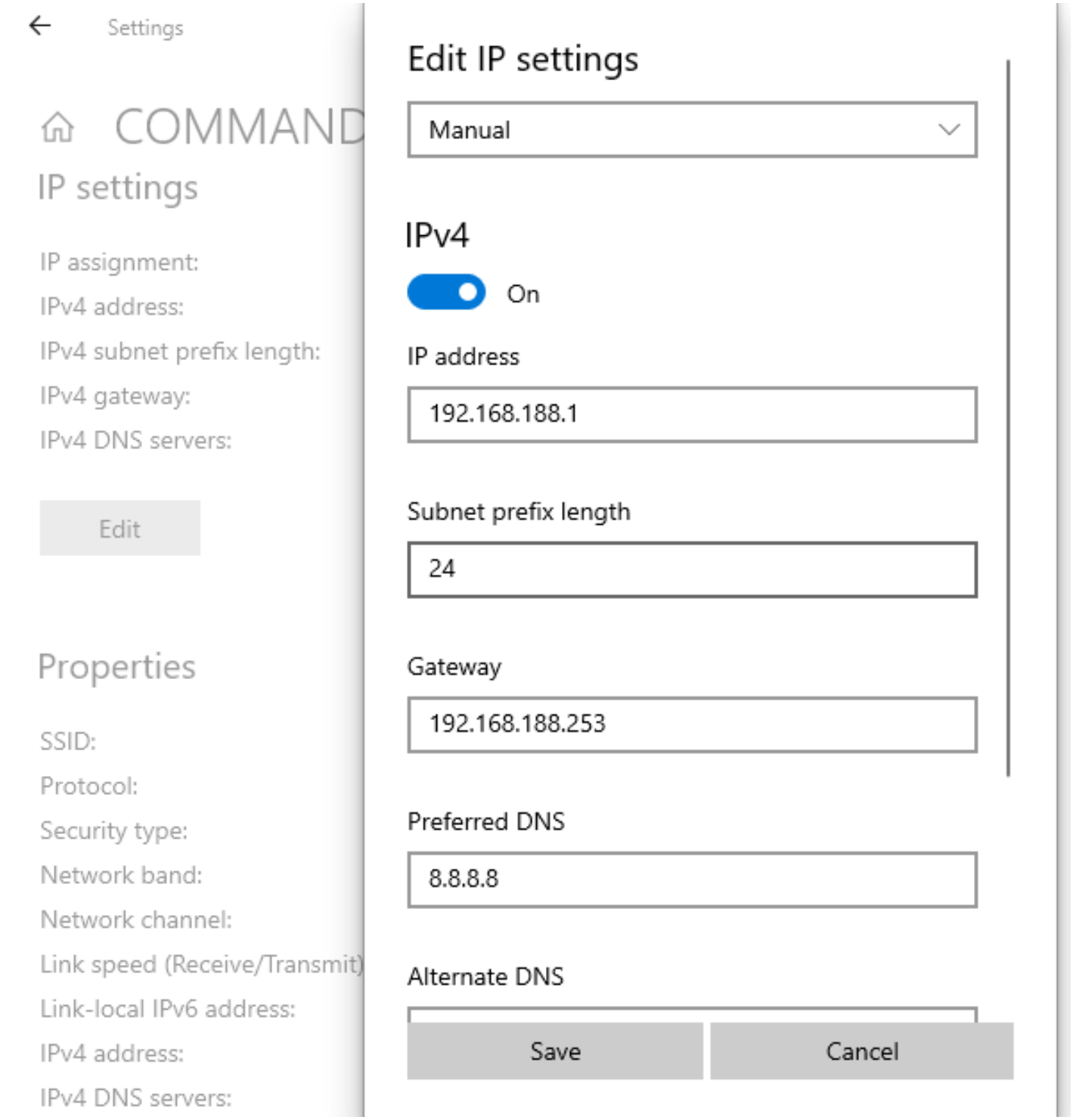

Fig 4. Edit IP setting from DHCP to Manual as shown for COMMANDO CPE5K

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.

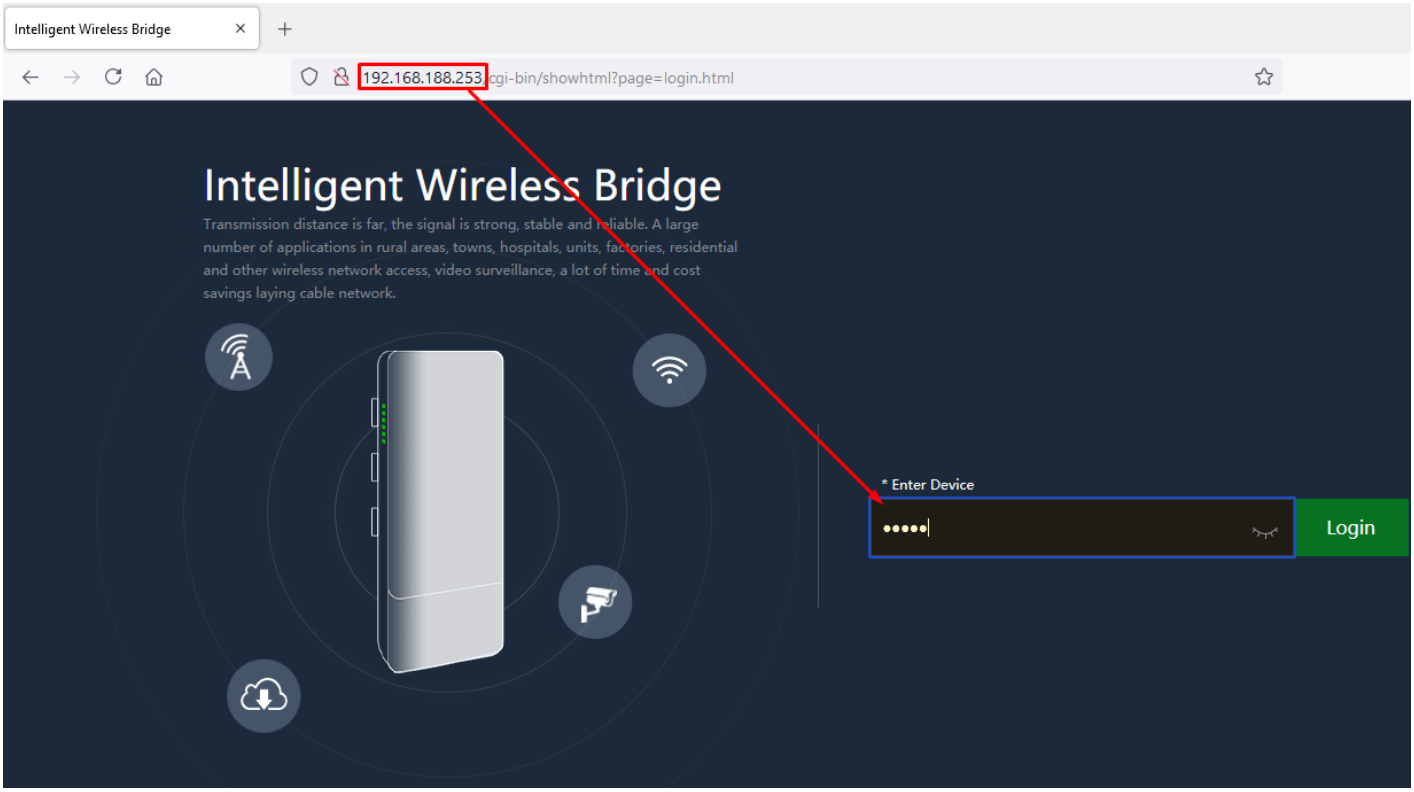

Fig 5. Login page for AirONE AIR-CPE5K+

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.

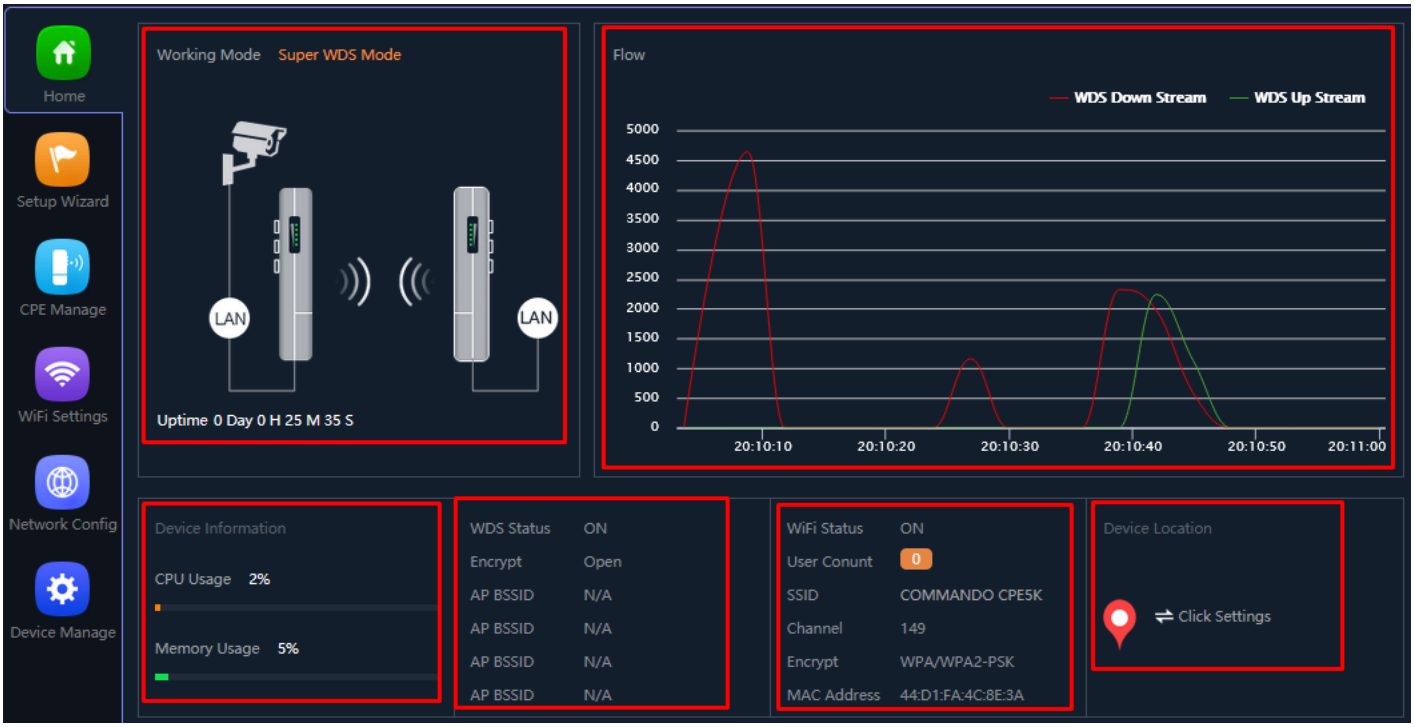

Fig 1.1 Home page Components of AirONE AIR-CPE5K+

1.1 Device Information

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

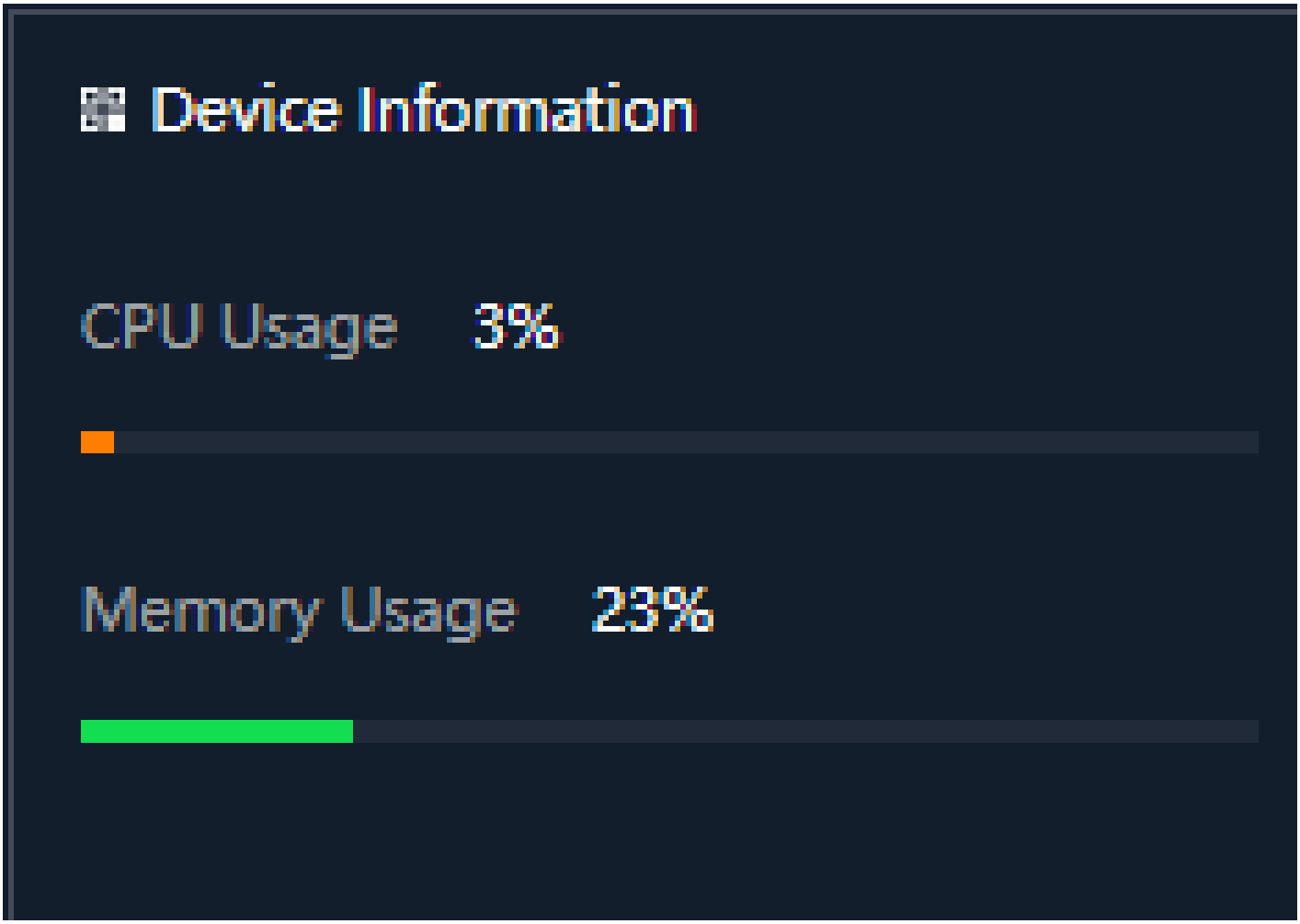

Fig 1.1.1 Home page Components of AirONE AIR-CPE5K+

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

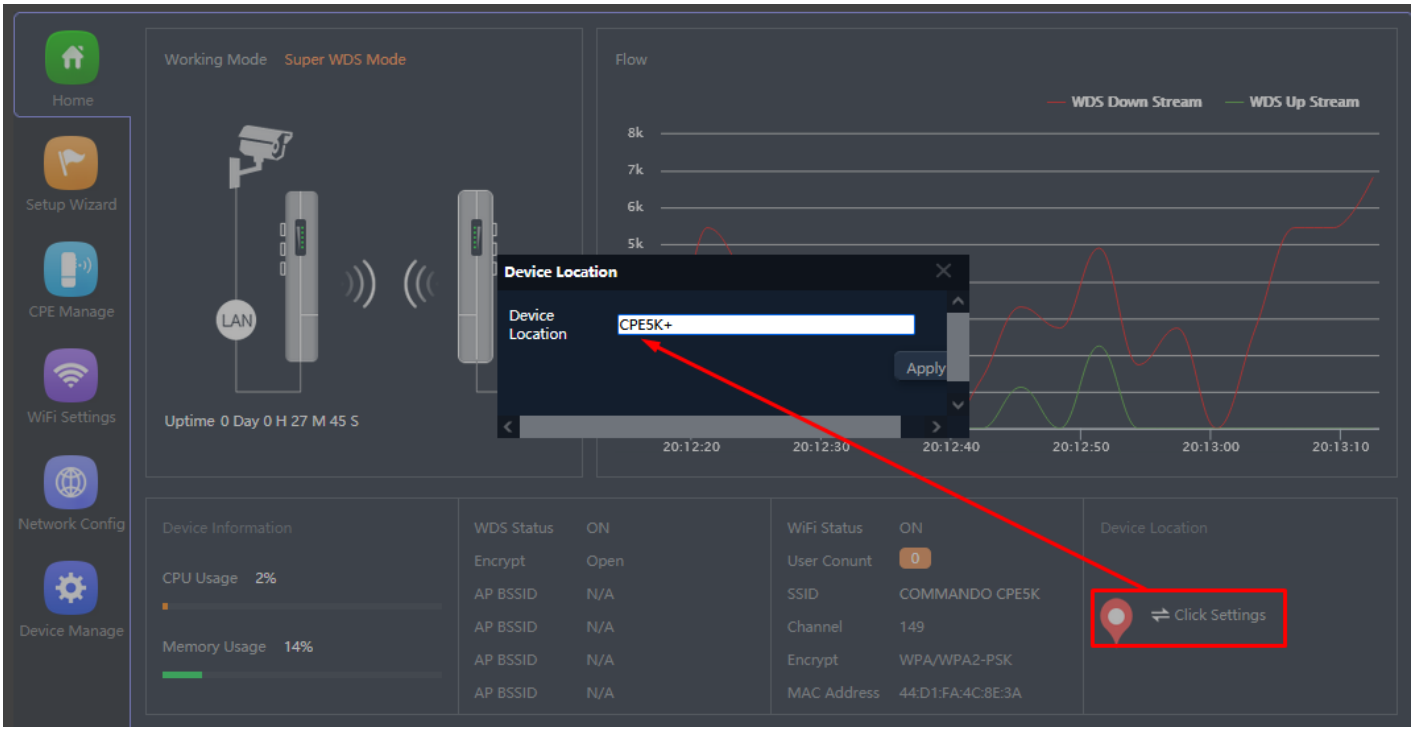

Fig 1.1.2 Changing Device Location of AirONE AIR-CPE5K+

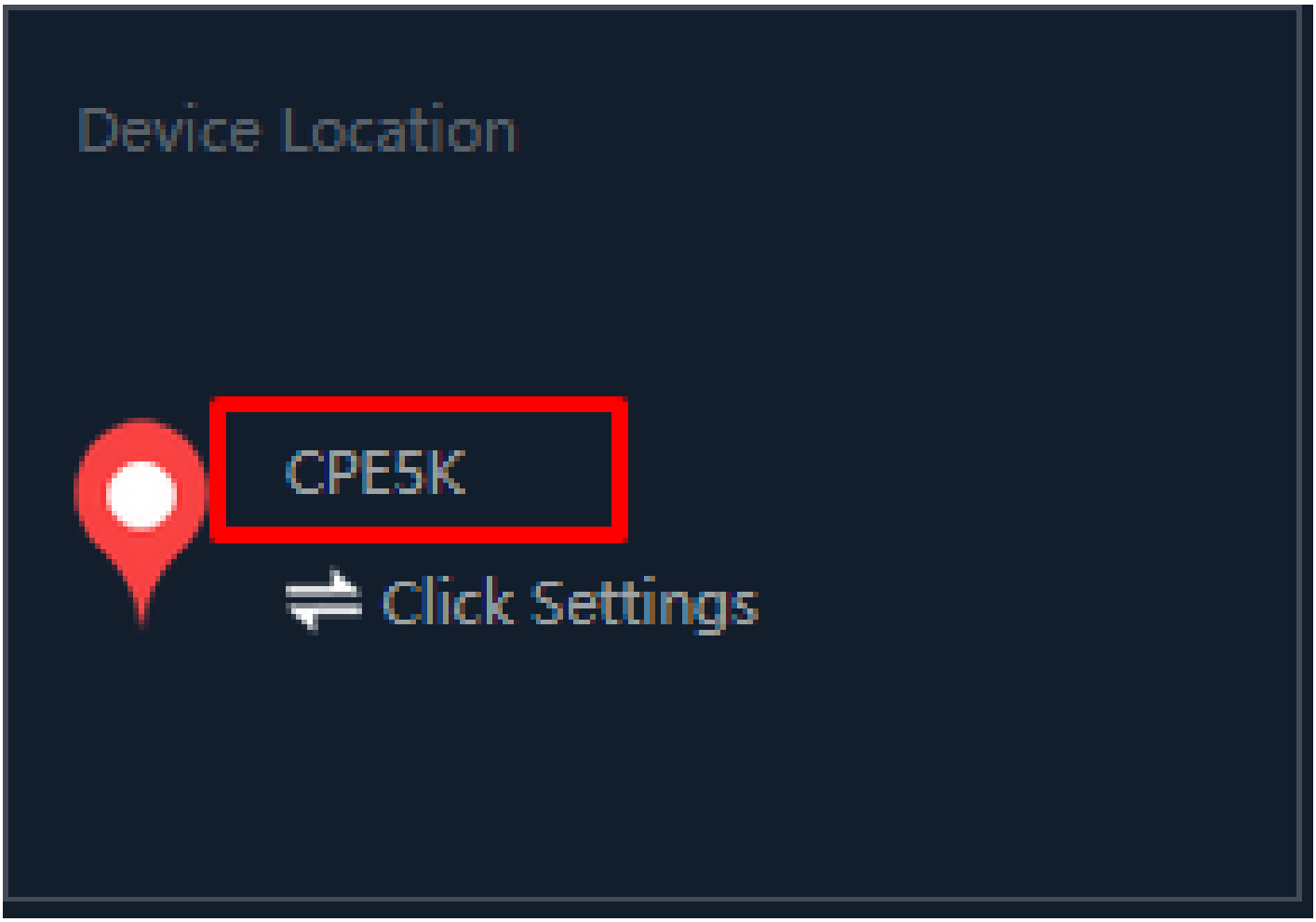

Fig 1.1.3 New Device Location of AirONE AIR-CPE5K+

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.

Fig 1.2.1 LAN information of AirONE AIR-CPE5K+

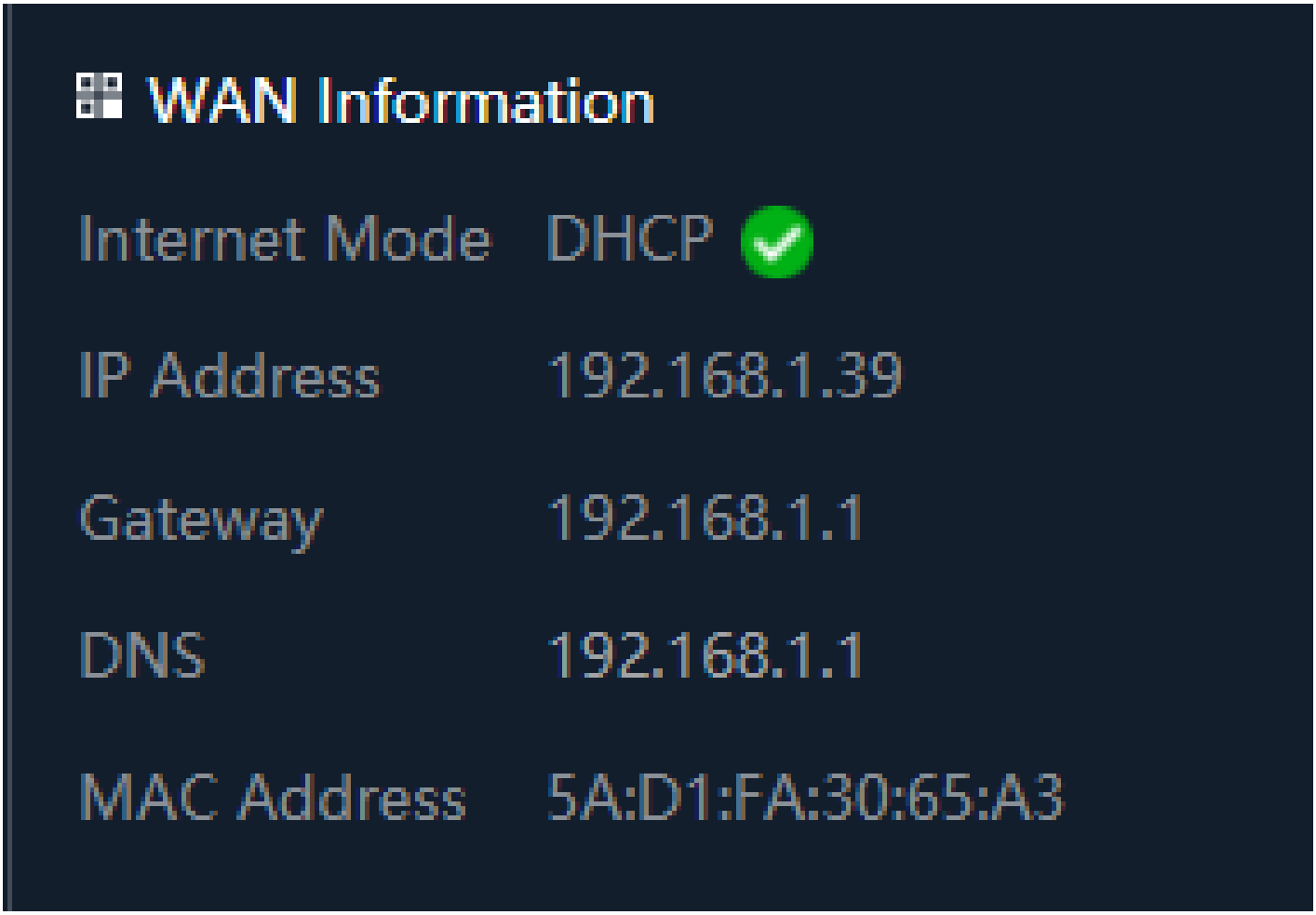

Fig 1.2.2 WAN information of AirONE AIR-CPE5K+

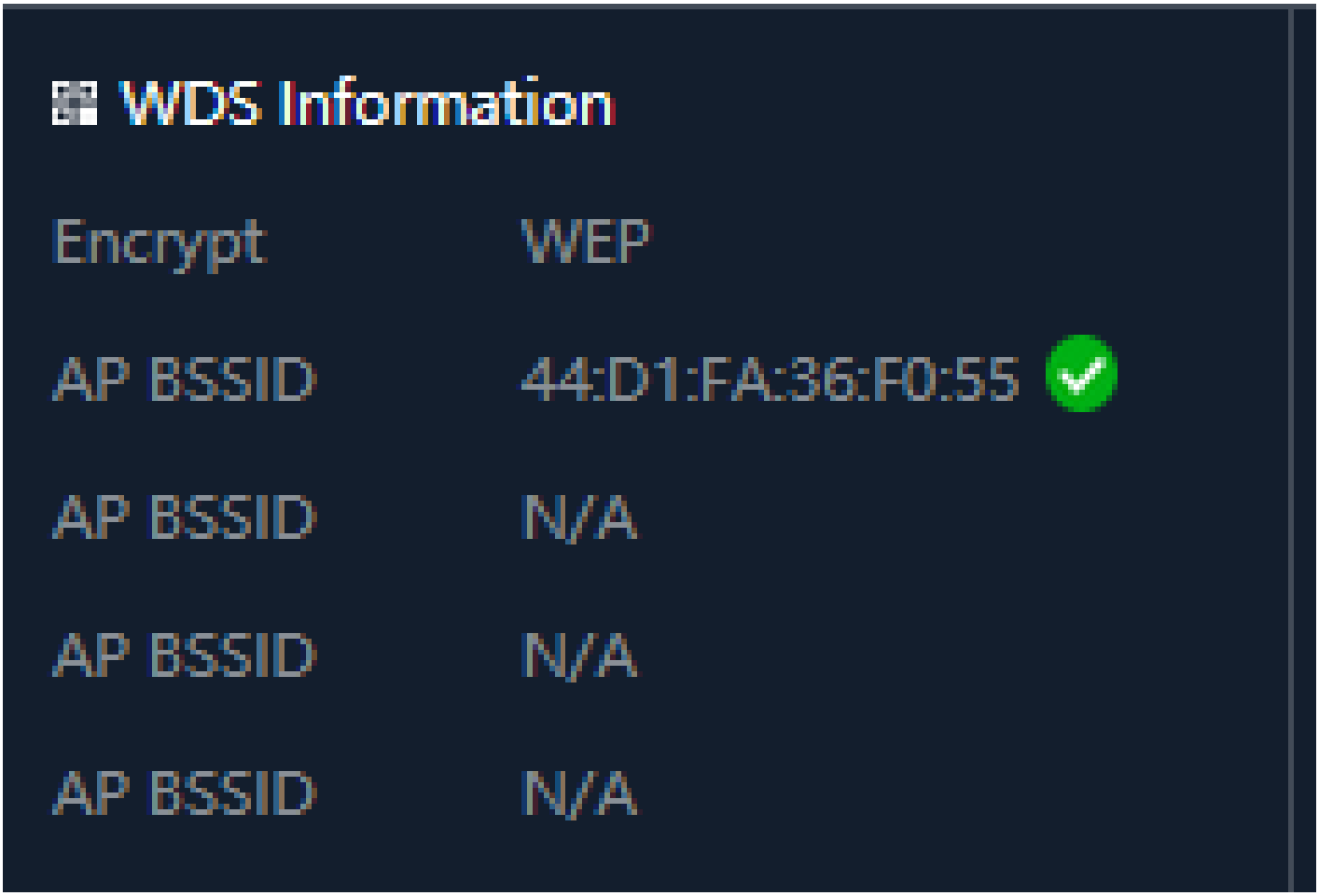

Fig 1.2.3 WDS information of AirONE AIR-CPE5K+

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.

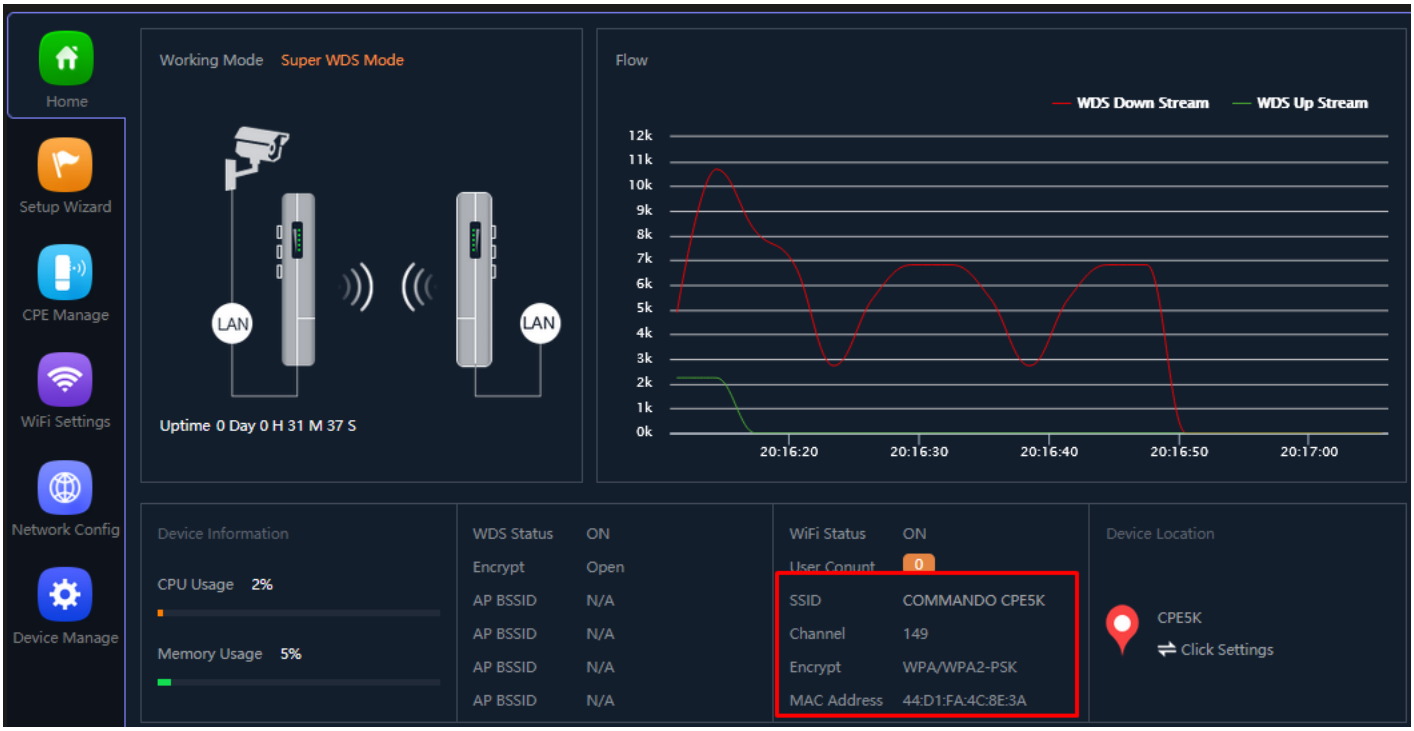

Fig 1.3.1 Wi-Fi Information of AirONE AIR-CPE5K+

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.

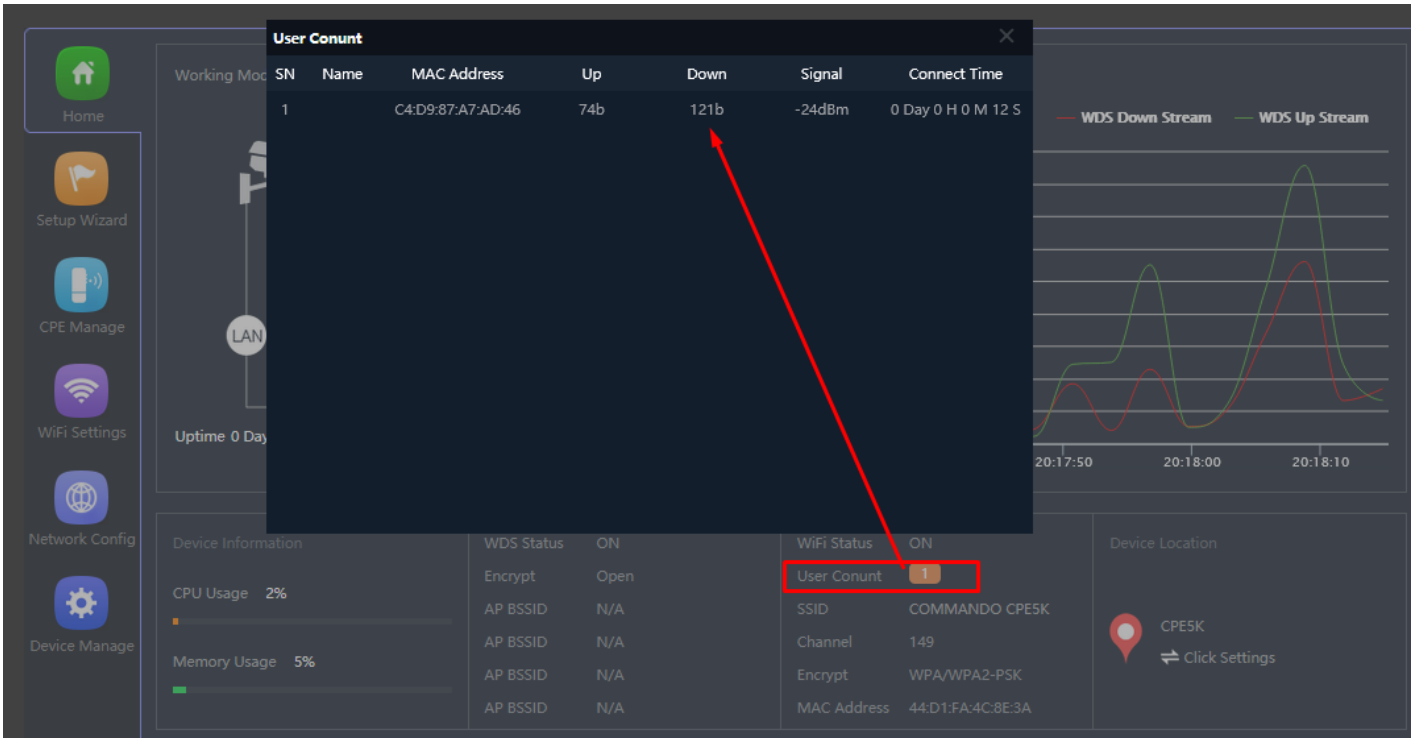

Fig 1.4.1 Clients list of AirONE AIR-CPE5K+

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.

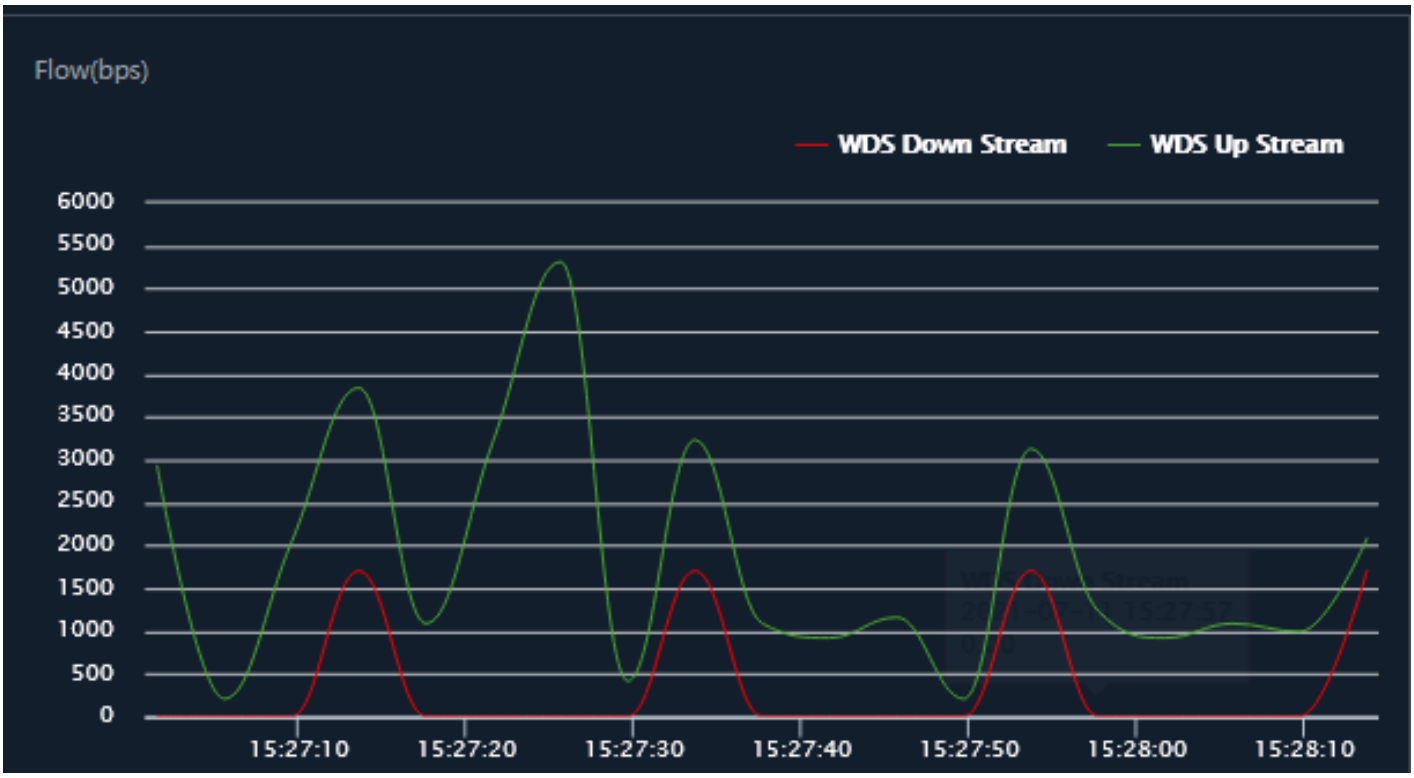

Fig 1.5.1 Flow (5G Wi-Fi) bps of AirONE AIR-CPE5K+

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.

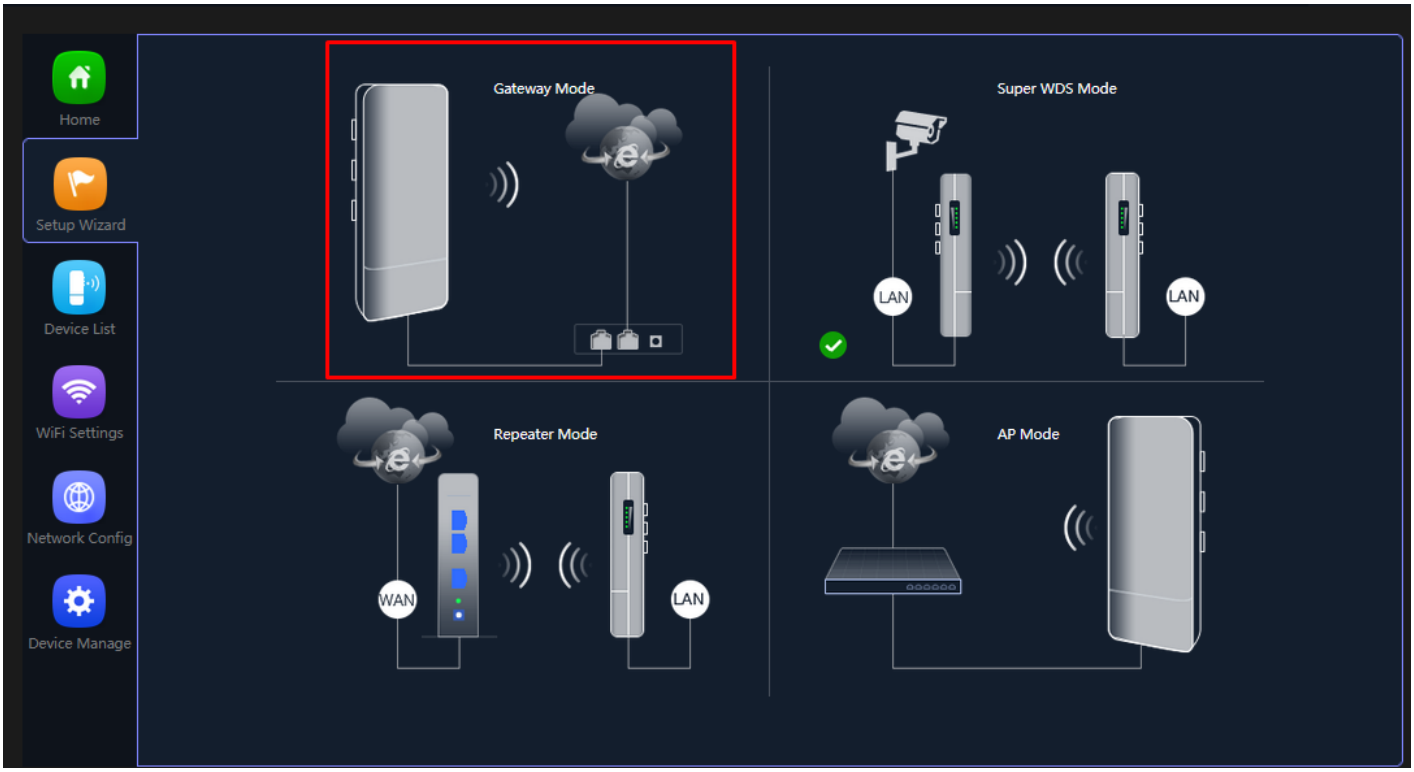

Fig 2.1.1 Gateway mode of AirONE AIR-CPE5K+

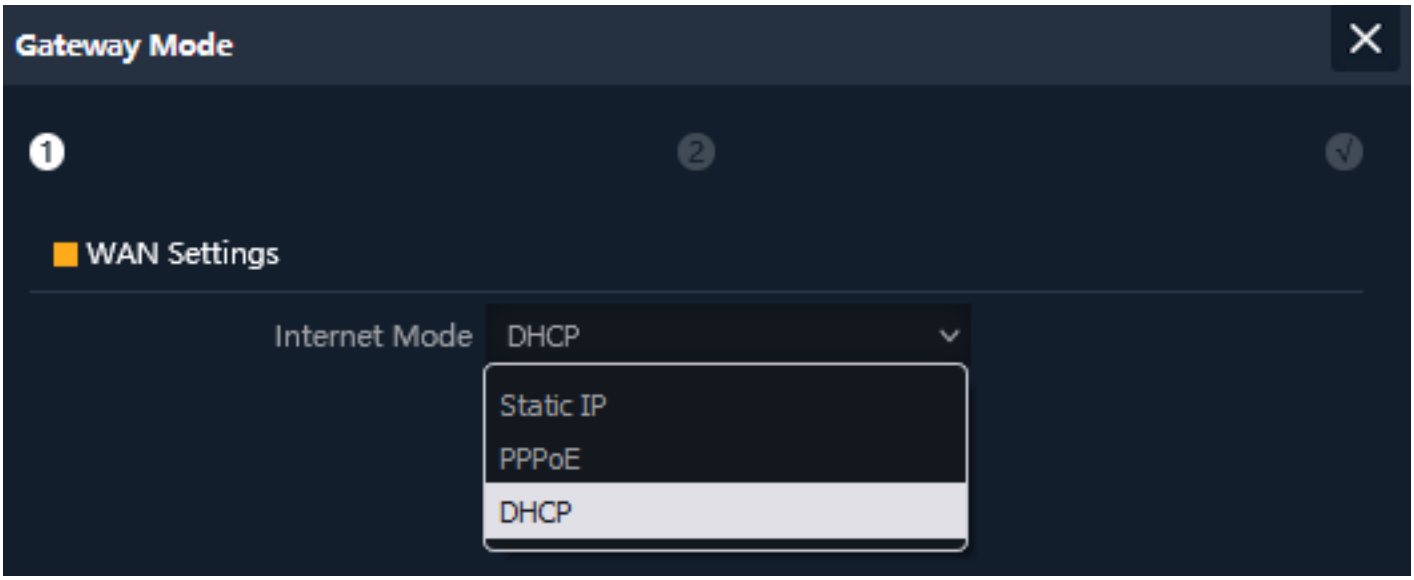

Fig 2.1.2 Gateway mode WAN Setting of AirONE AIR-CPE5K+

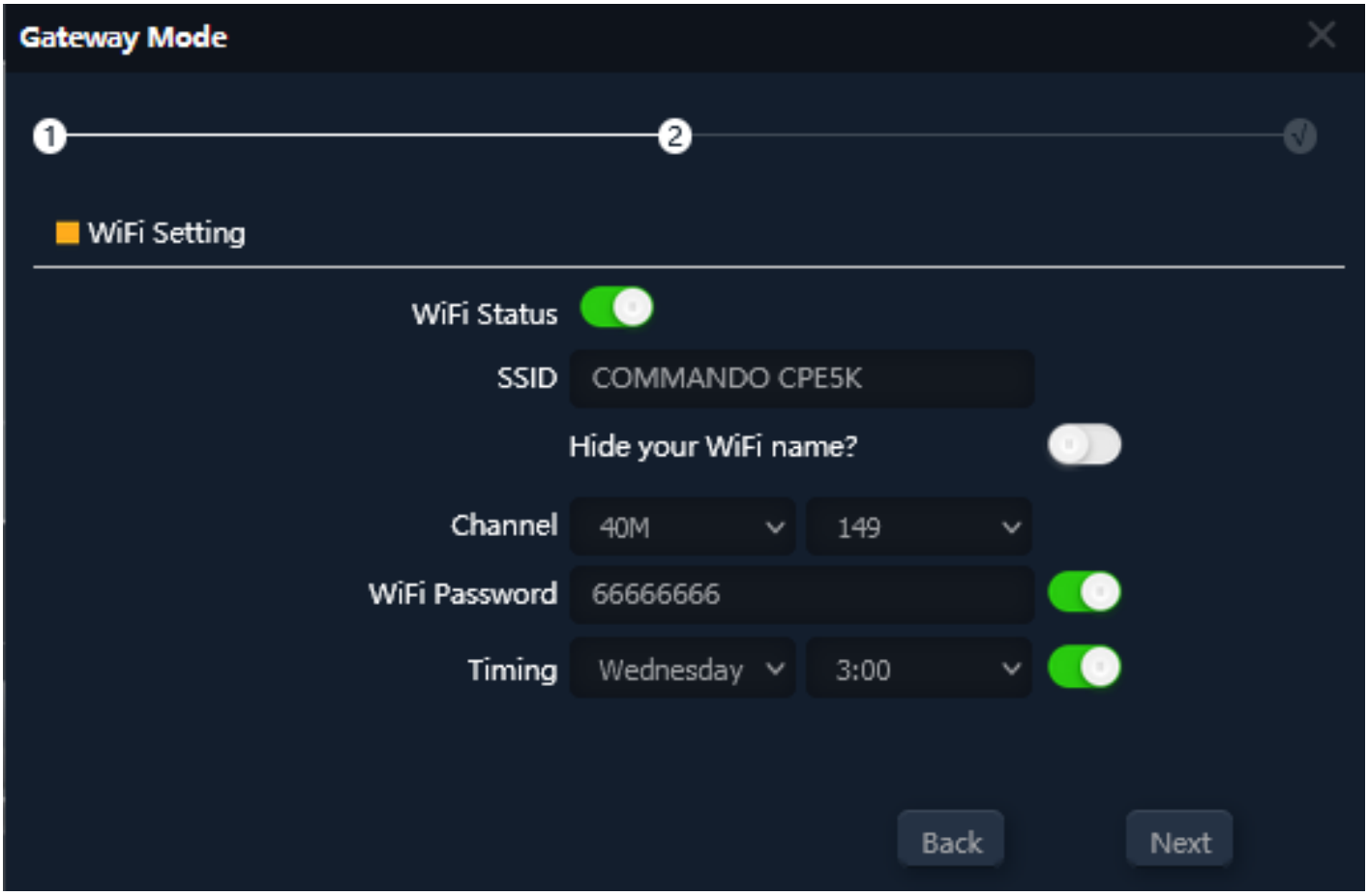

Fig 2.1.3 Gateway mode Wi-Fi Setting of AirONE AIR-CPE5K+

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.

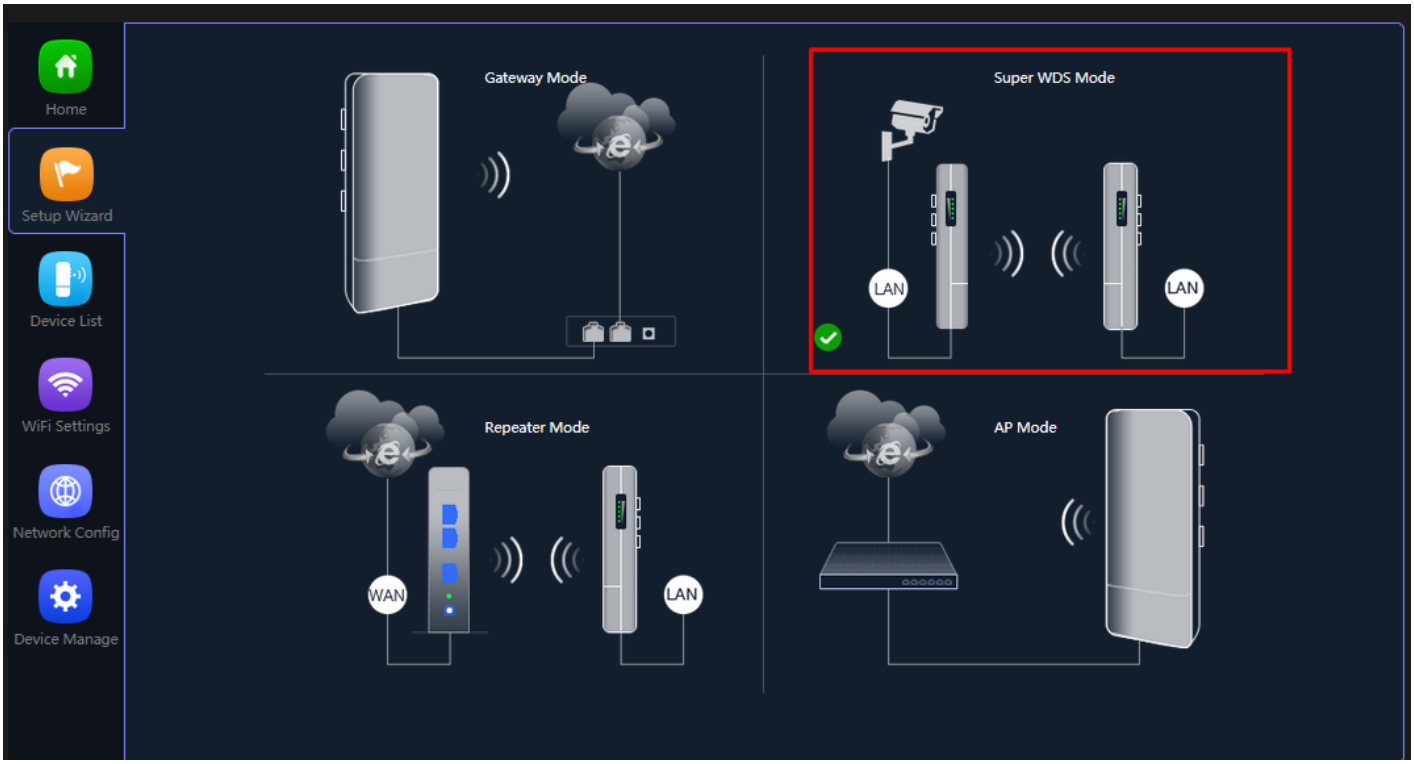

Fig 2.2.1 Super WDS mode of AirONE AIR-CPE5K+

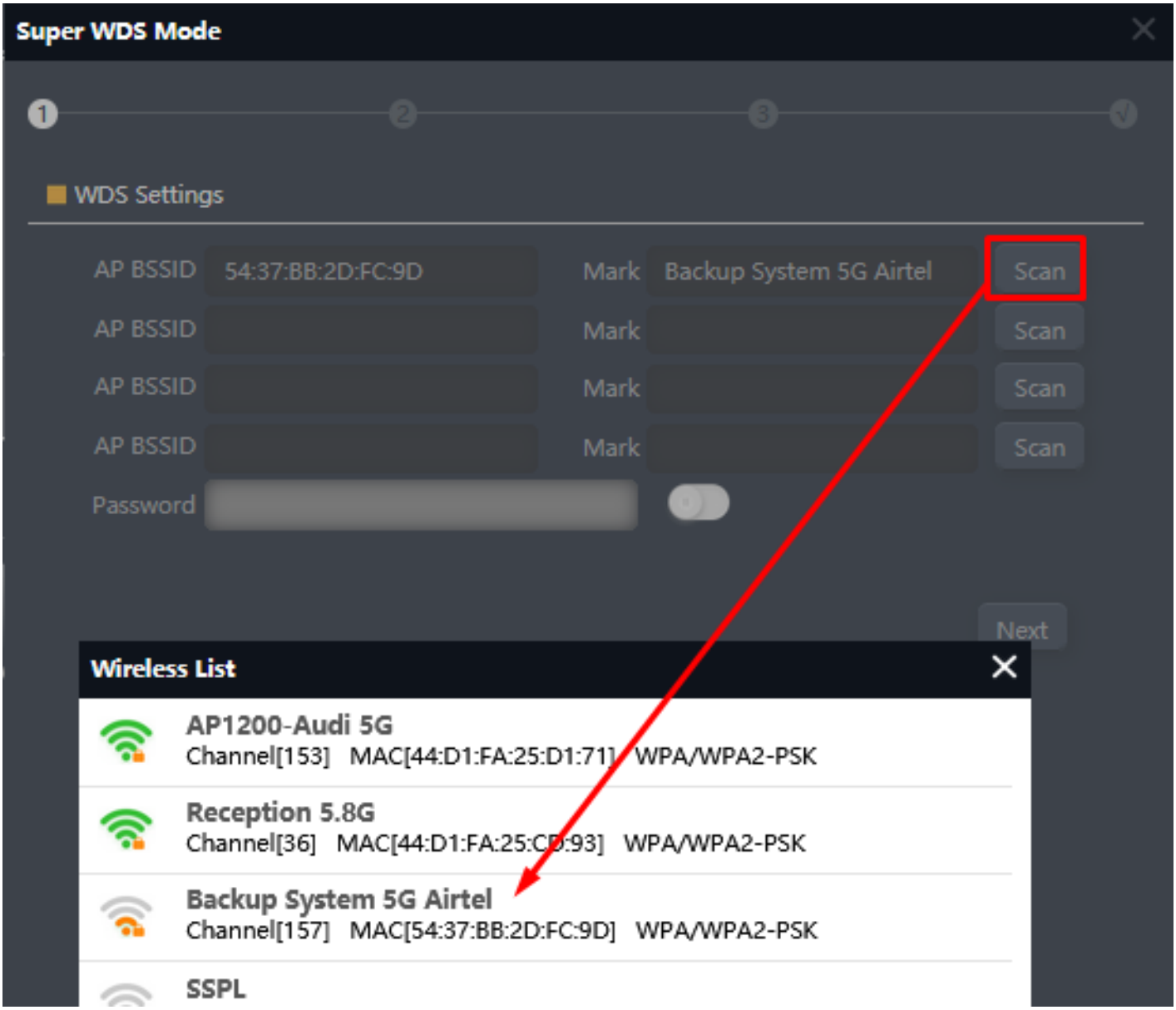

Fig 2.2.2 Scan (AP BSSID) Bridges/AP for connecting AirONE AIR-CPE5K+

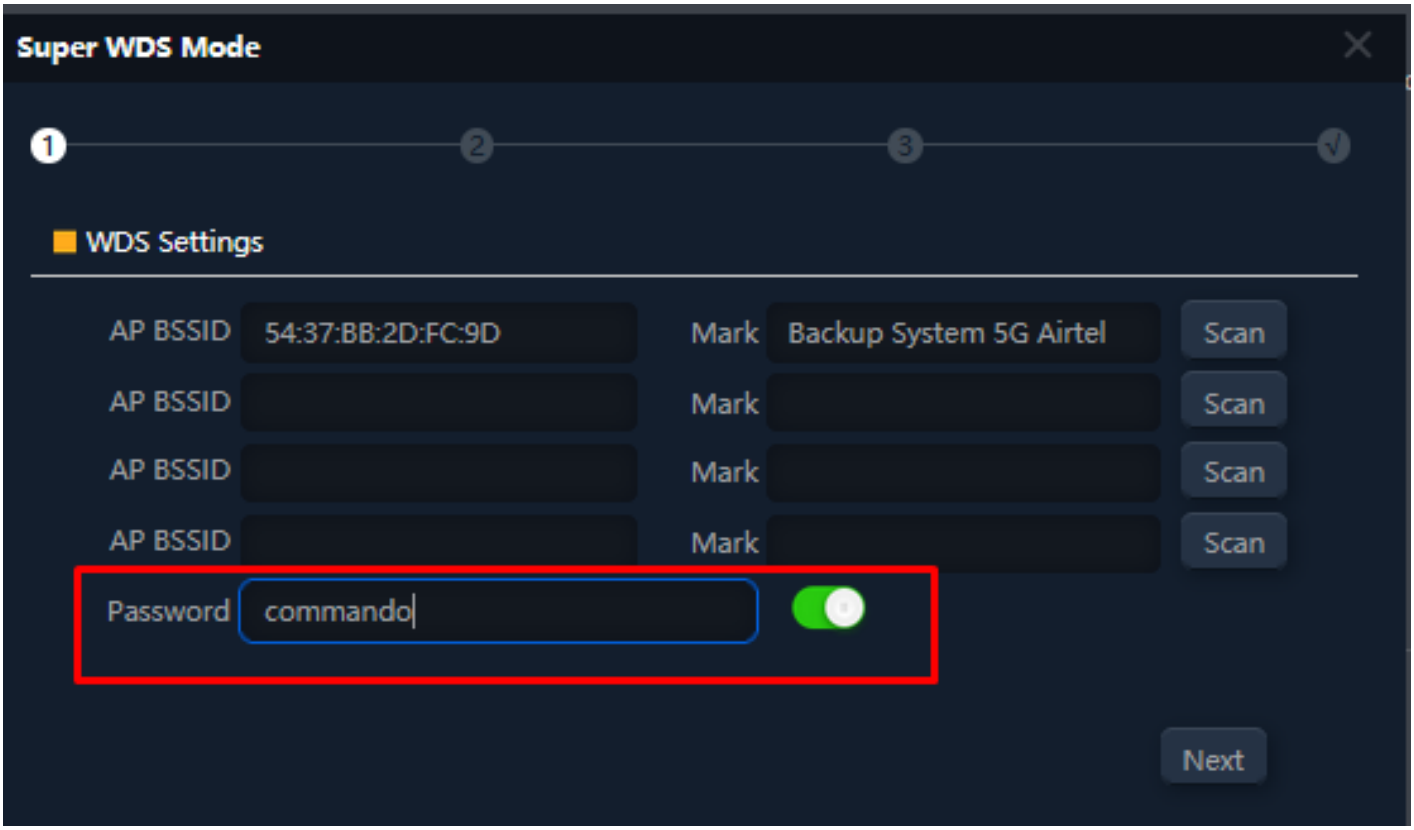

Fig 2.2.3 Super WDS mode scan Bridges/ SSID for AirONE AIR-CPE5K+

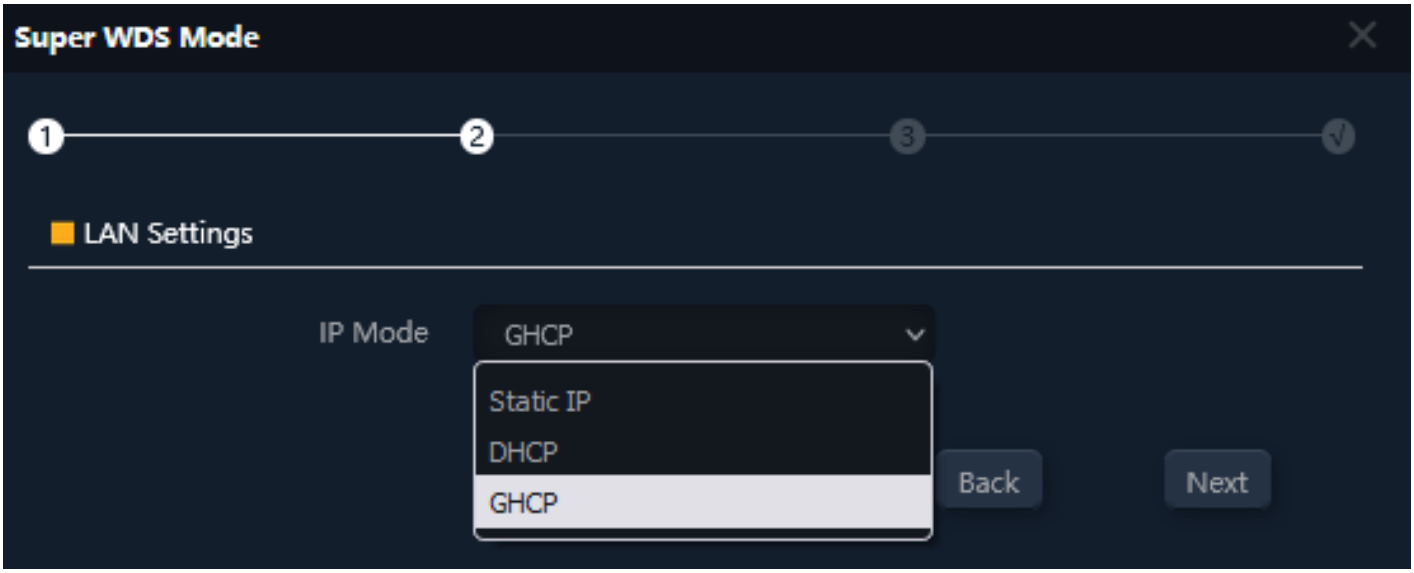

Fig 2.2.4 LAN Setting Super WDS mode of AirONE AIR-CPE5K+

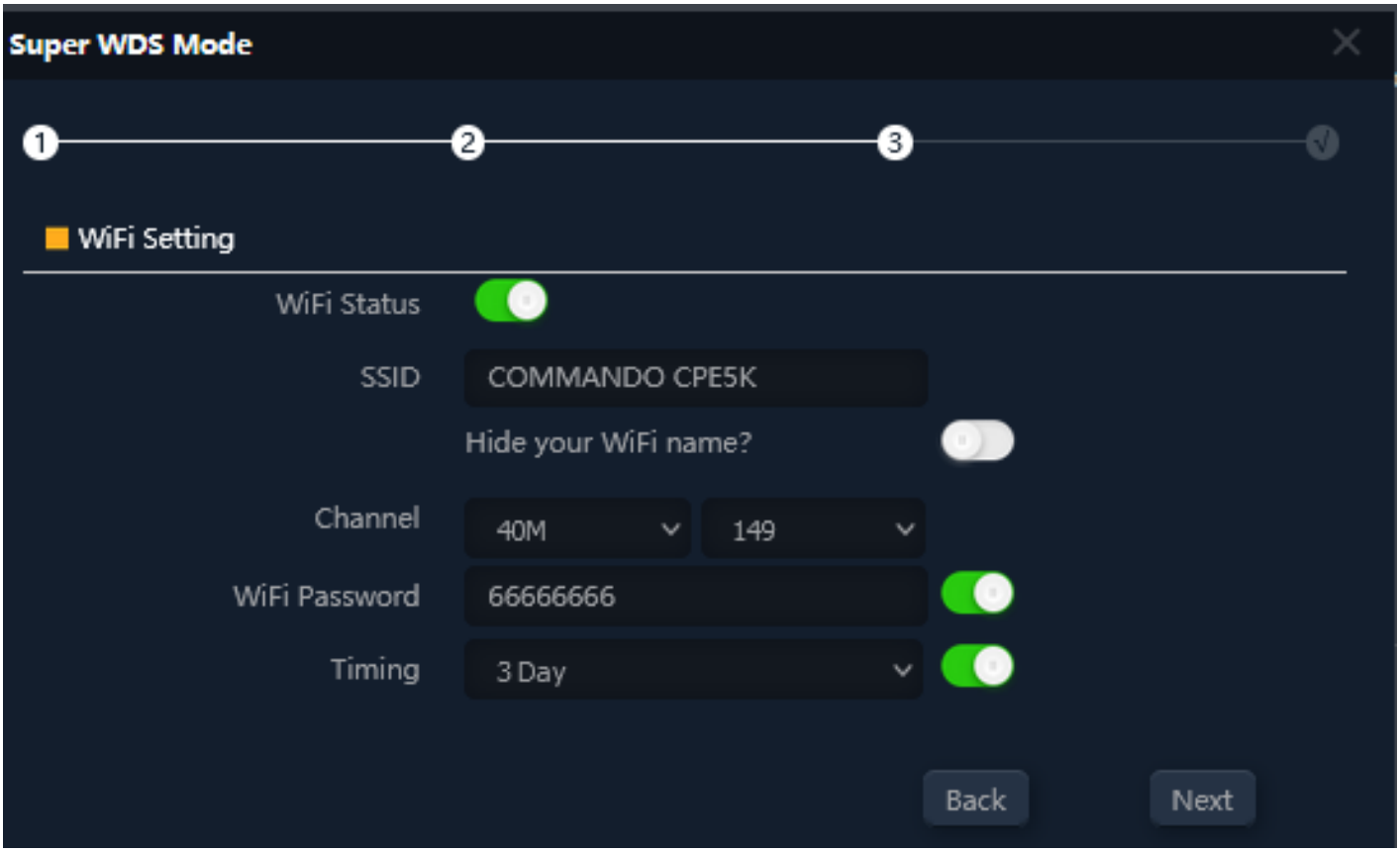

Fig 2.2.5 Wi-Fi Setting in Super WDS mode of AirONE AIR-CPE5K+

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.

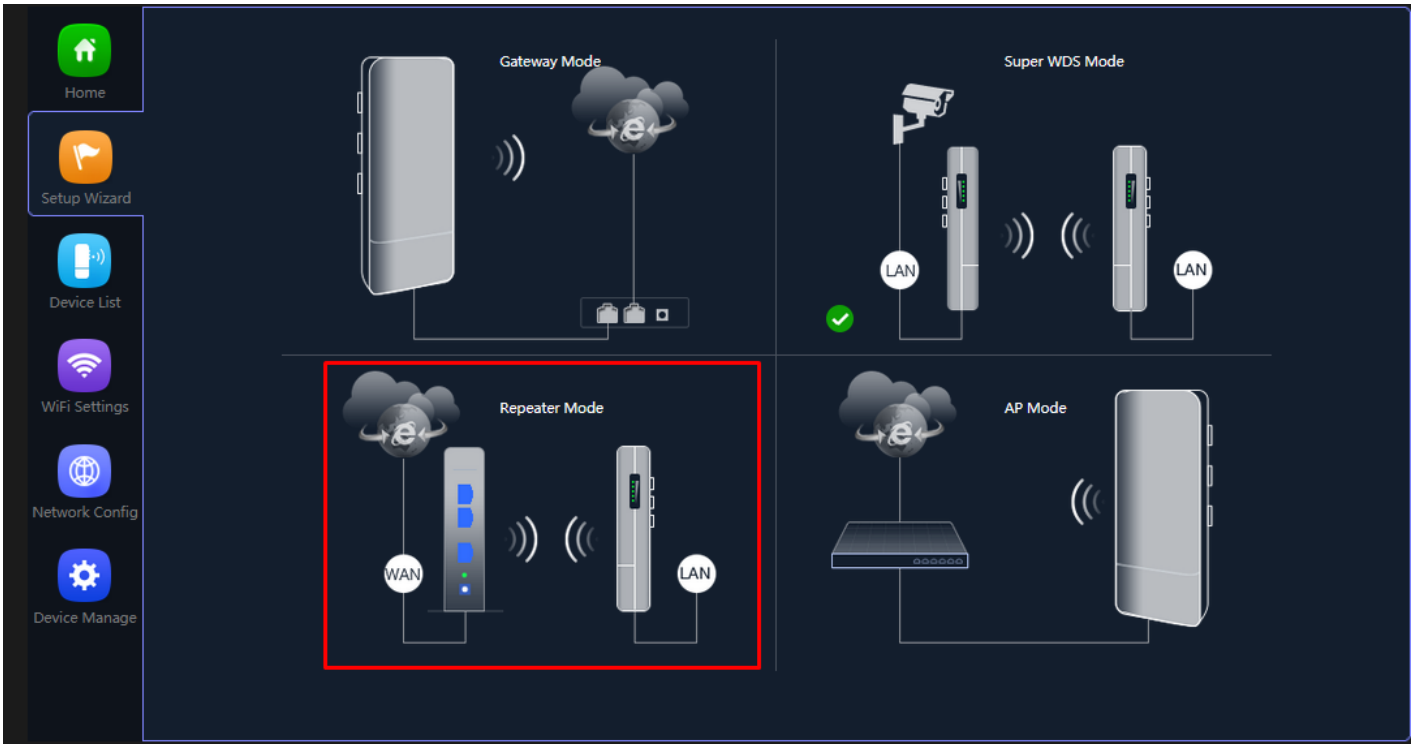

Fig 2.3.1 Repeater mode of AirONE AIR-CPE5K+

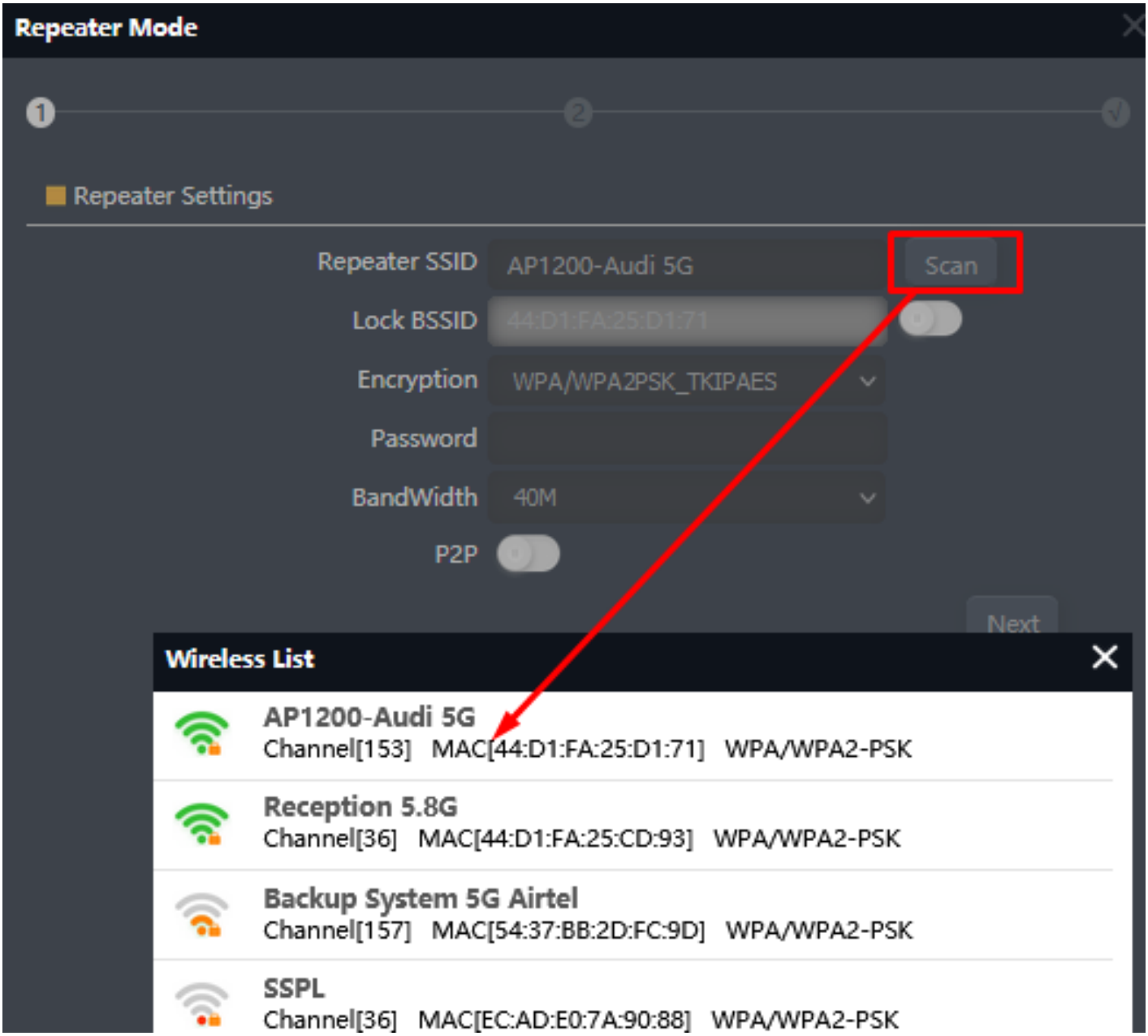

Fig 2.3.2 Selecting Repeater SSID of AirONE AIR-CPE5K+

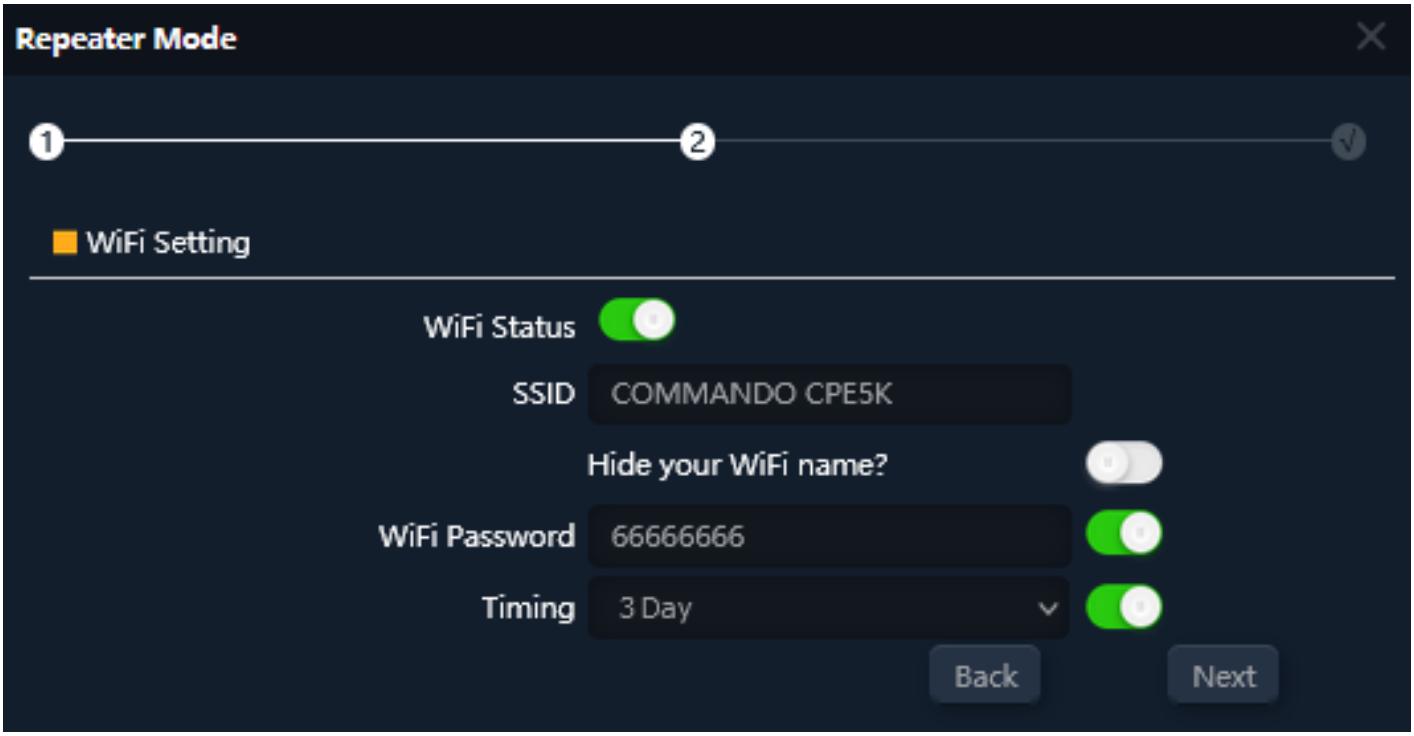

Fig 2.3.3 Setting 5G Wi-Fi setting of AirONE AIR-CPE5K+

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.

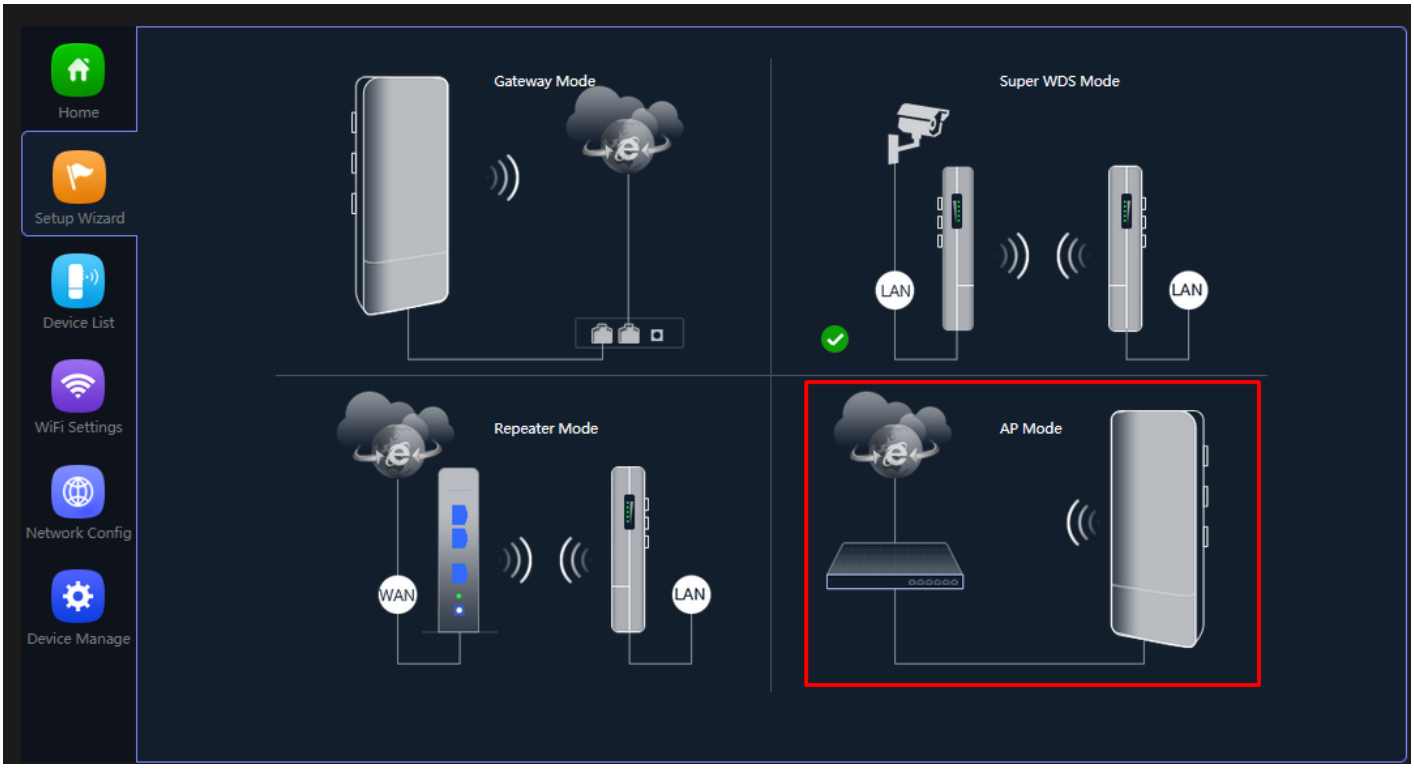

Fig 2.4.1 AP mode of AirONE AIR-CPE5K+

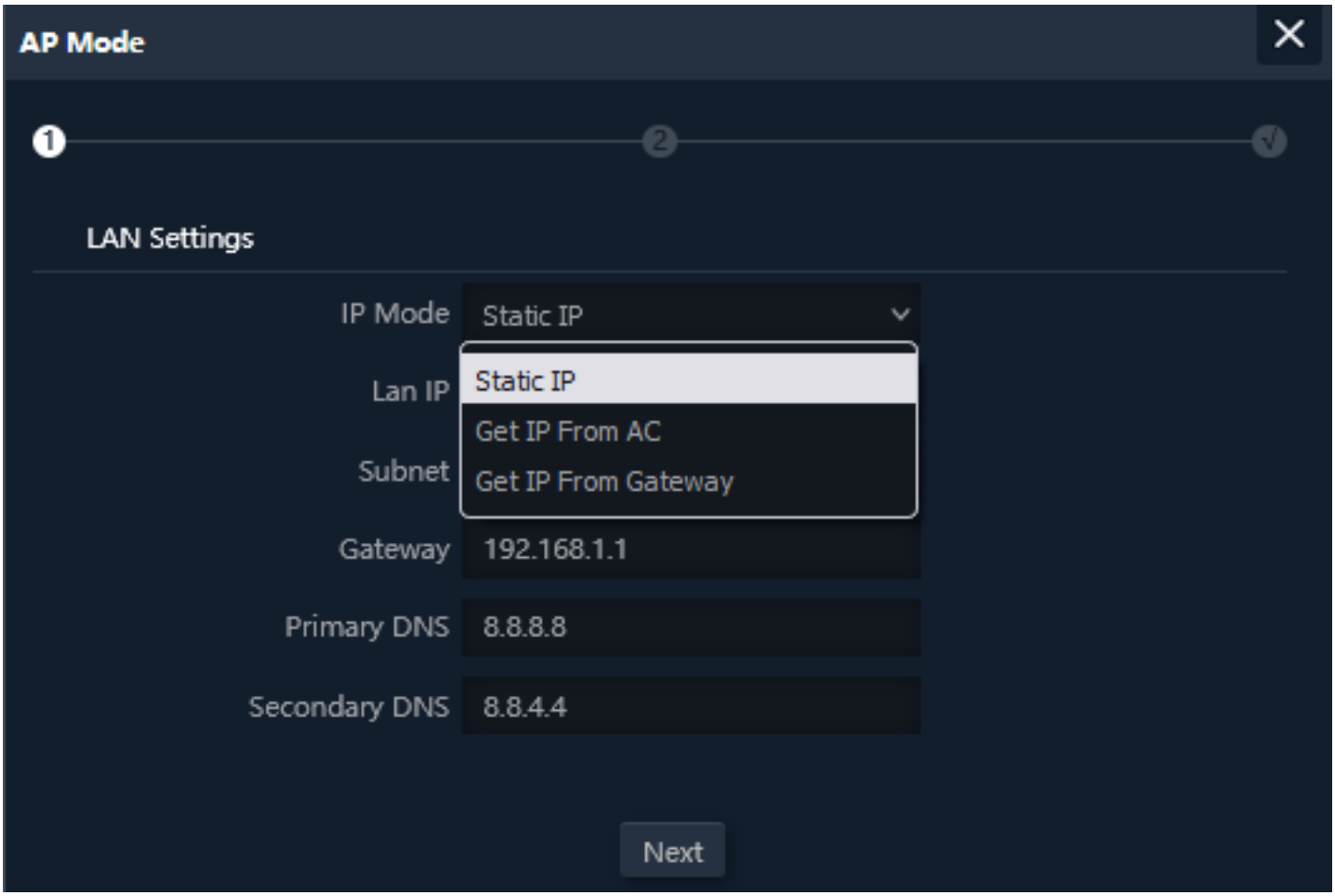

Fig 2.4.2 Setting IP mode for AP mode of AirONE AIR-CPE5K+

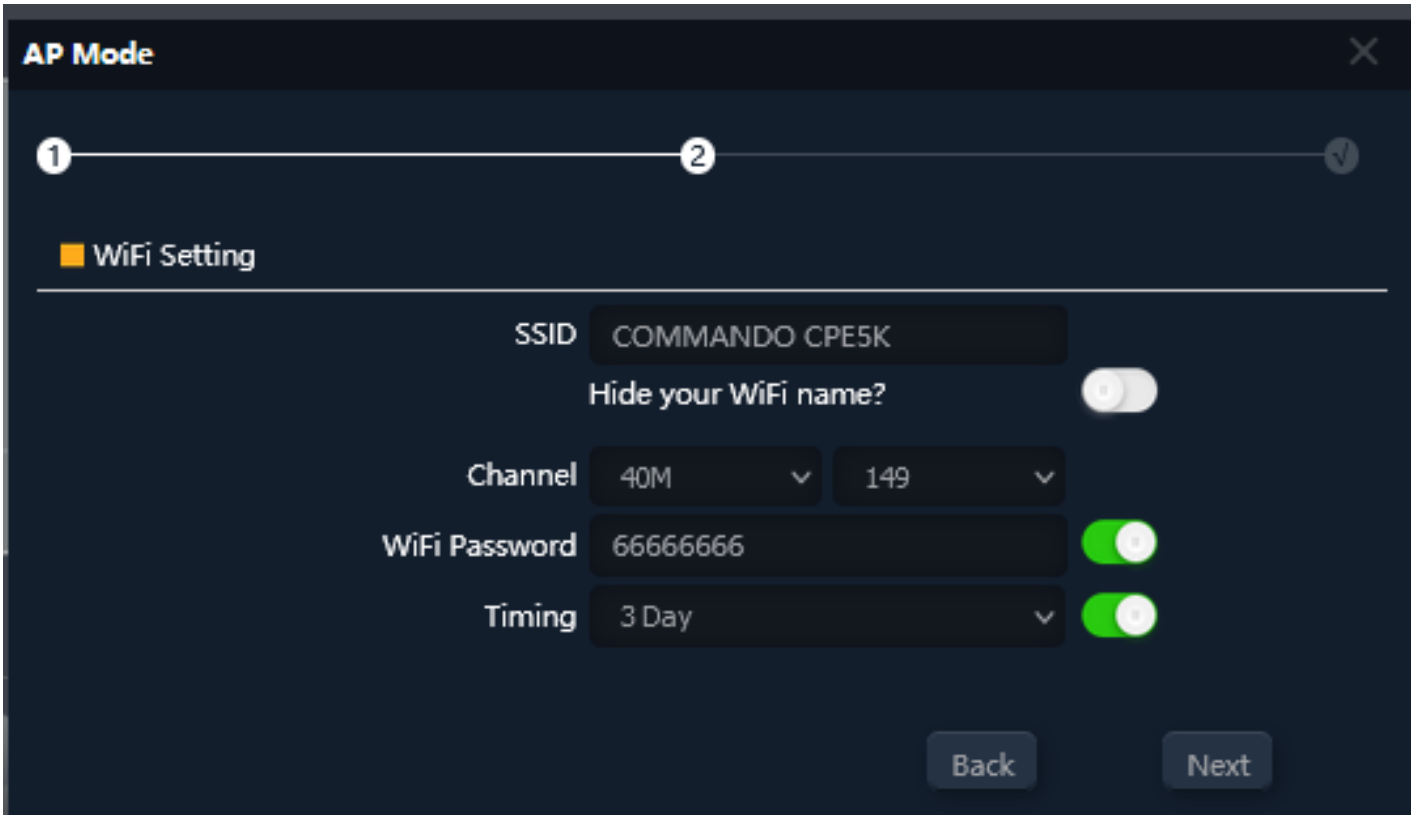

Fig 2.4.3 Setting 5G Wi-Fi for AP mode of AirONE AIR-CPE5K+

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.

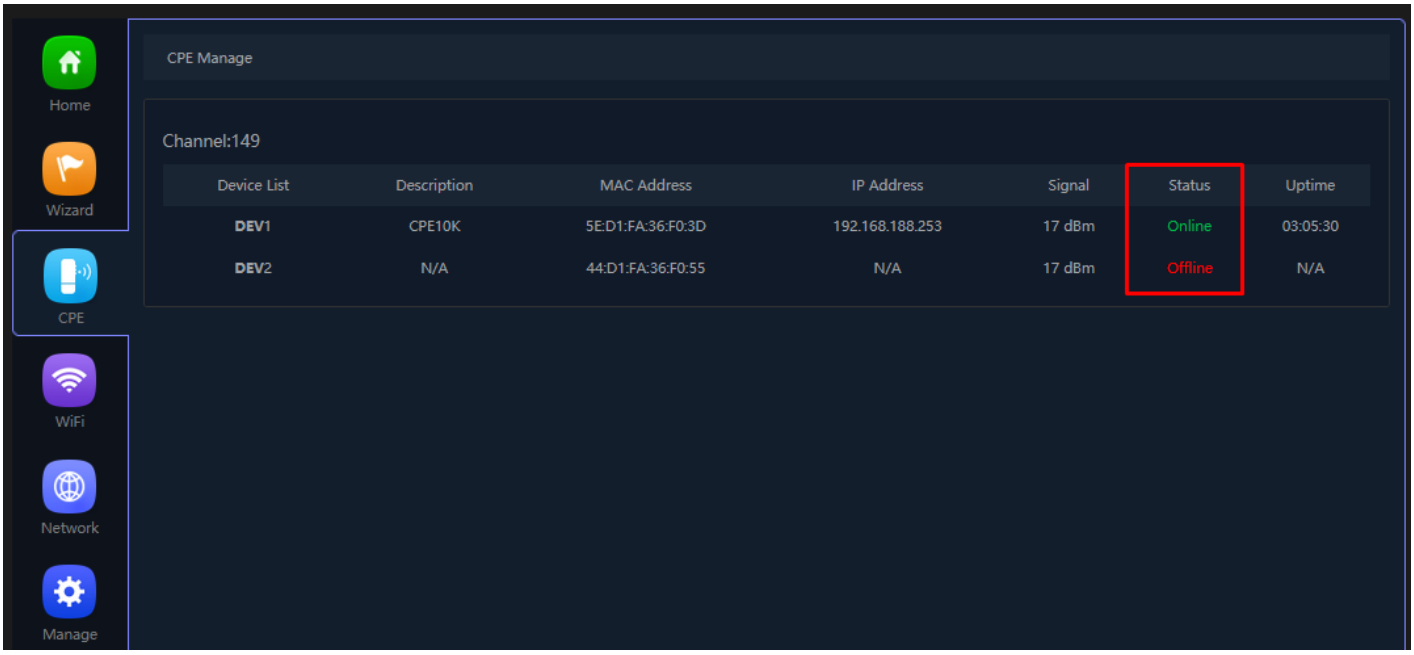

Fig 3.1.1 CPE Manage of AirONE AIR-CPE5K+

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”

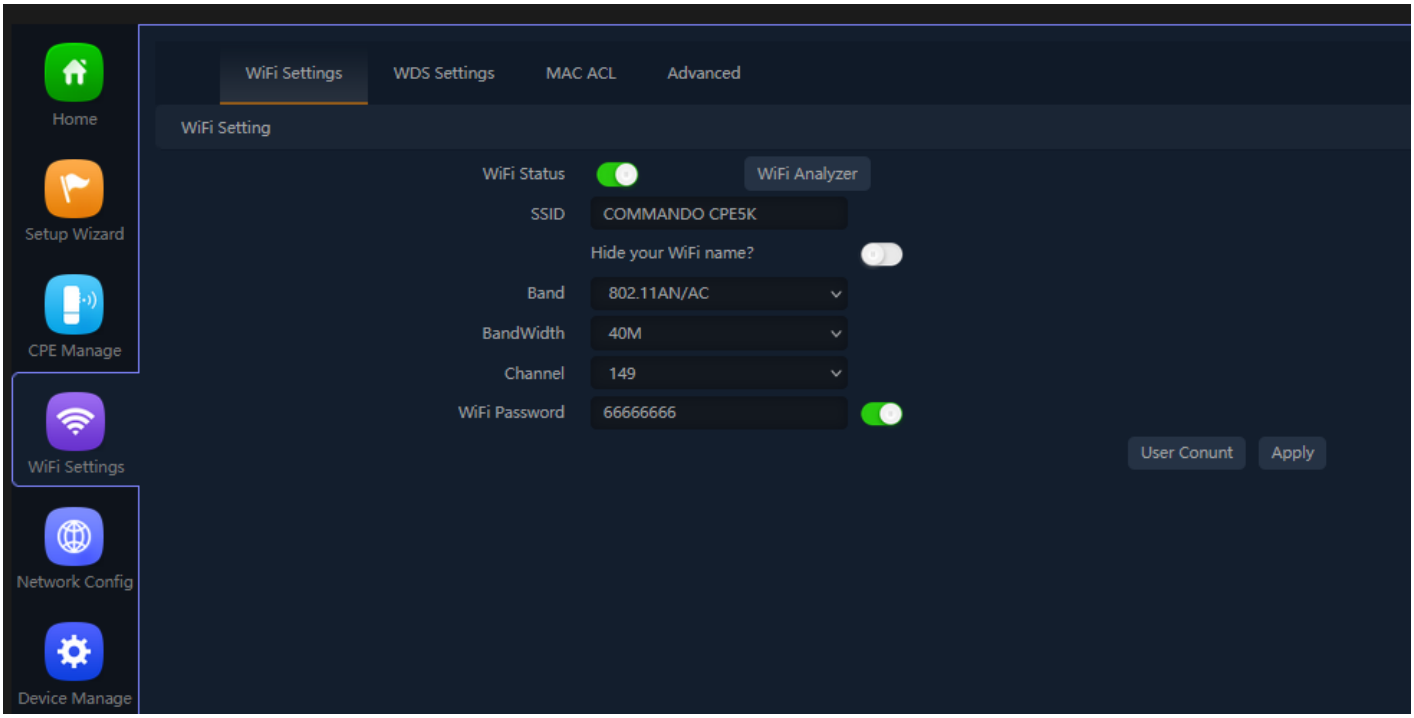

Fig 4.1.1 Wi-Fi setting of AirONE AIR-CPE5K+

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.

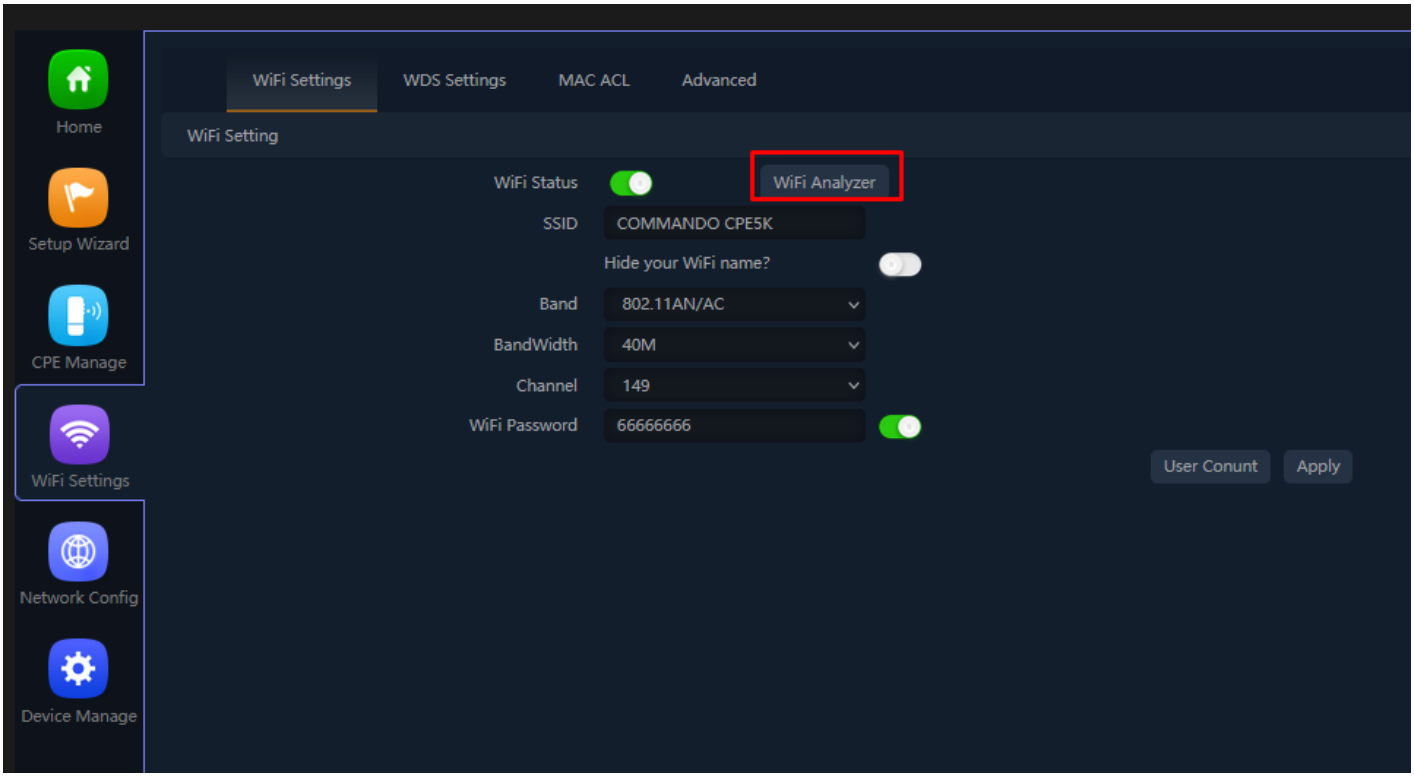

Fig 4.1.2 5G Wi-Fi Analyzer button of AirONE AIR-CPE5K+

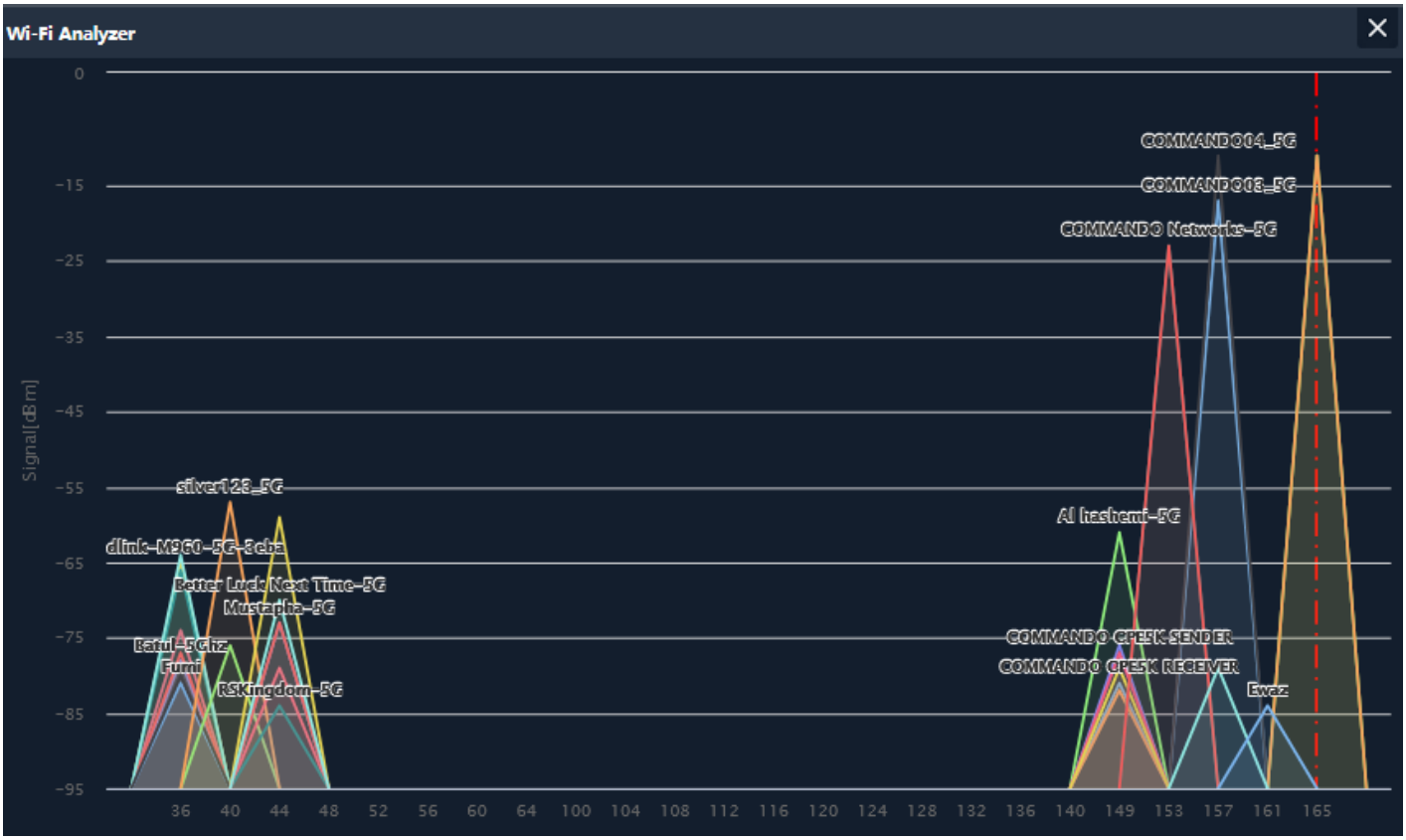

Fig 4.1.3 5G Wi-Fi Analyzer of AirONE AIR-CPE5K+

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.

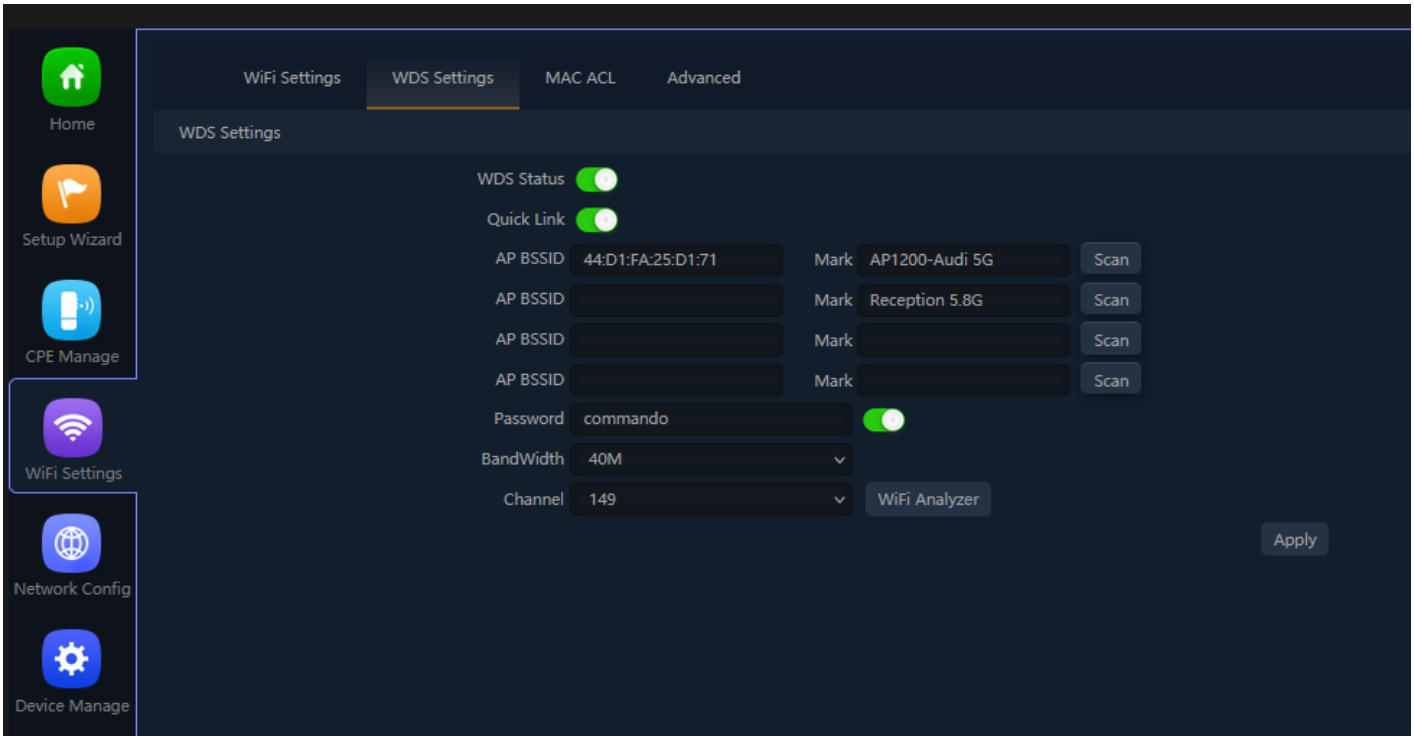

Fig 4.2.1 WDS Setting for AirONE AIR-CPE5K

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.

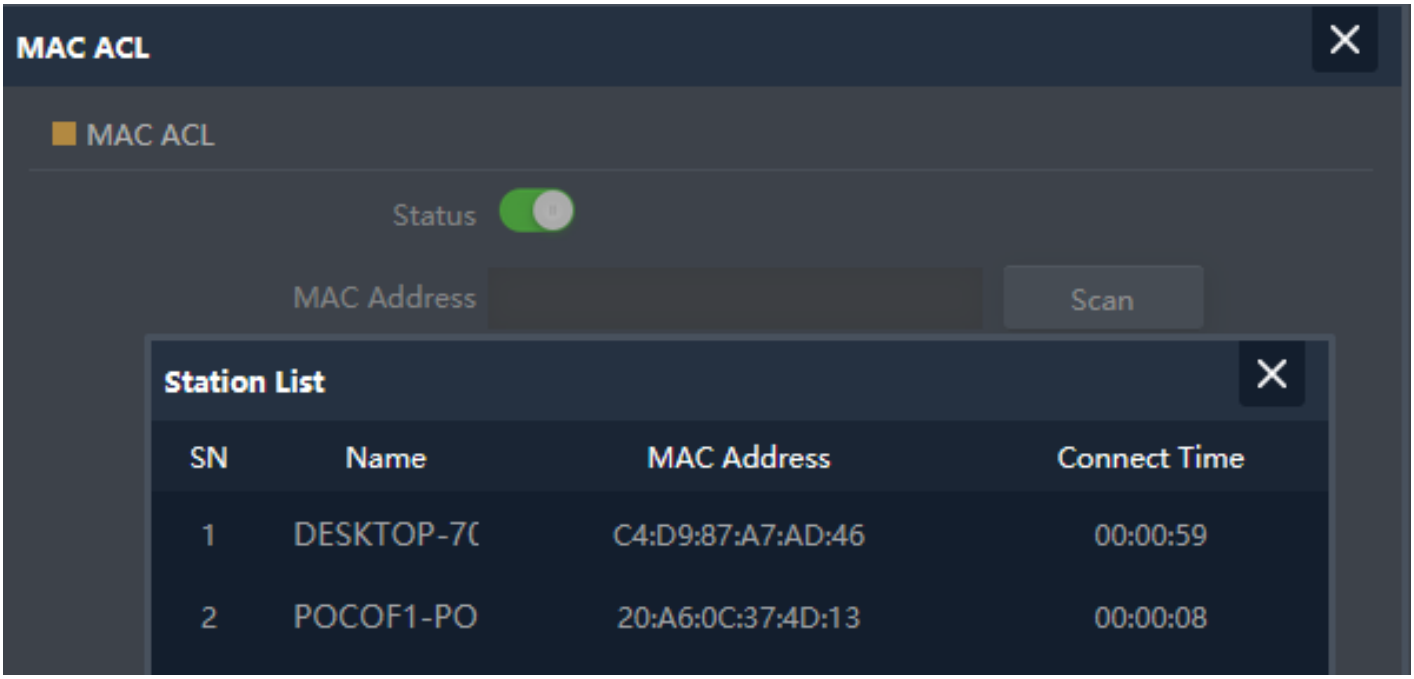

Fig 4.3.1 Add MAC ACL of AirONE AIR-CPE5K+

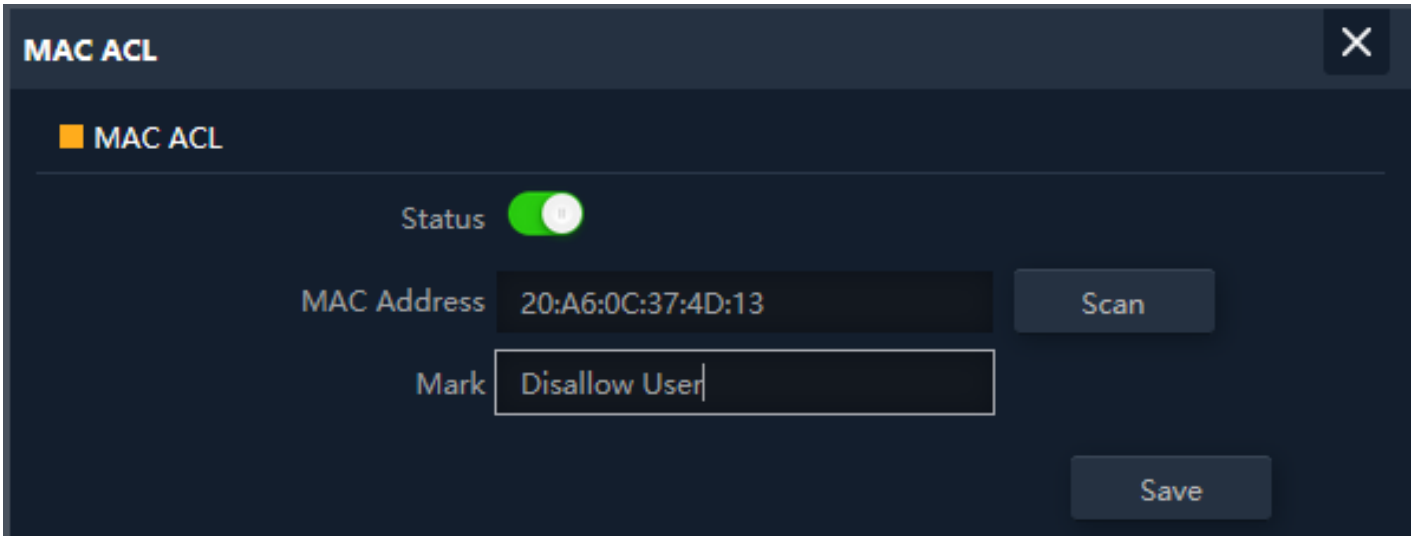

Fig 4.3.2 Select MAC address of AirONE AIR-CPE5K+

4.4 Advance Setting

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

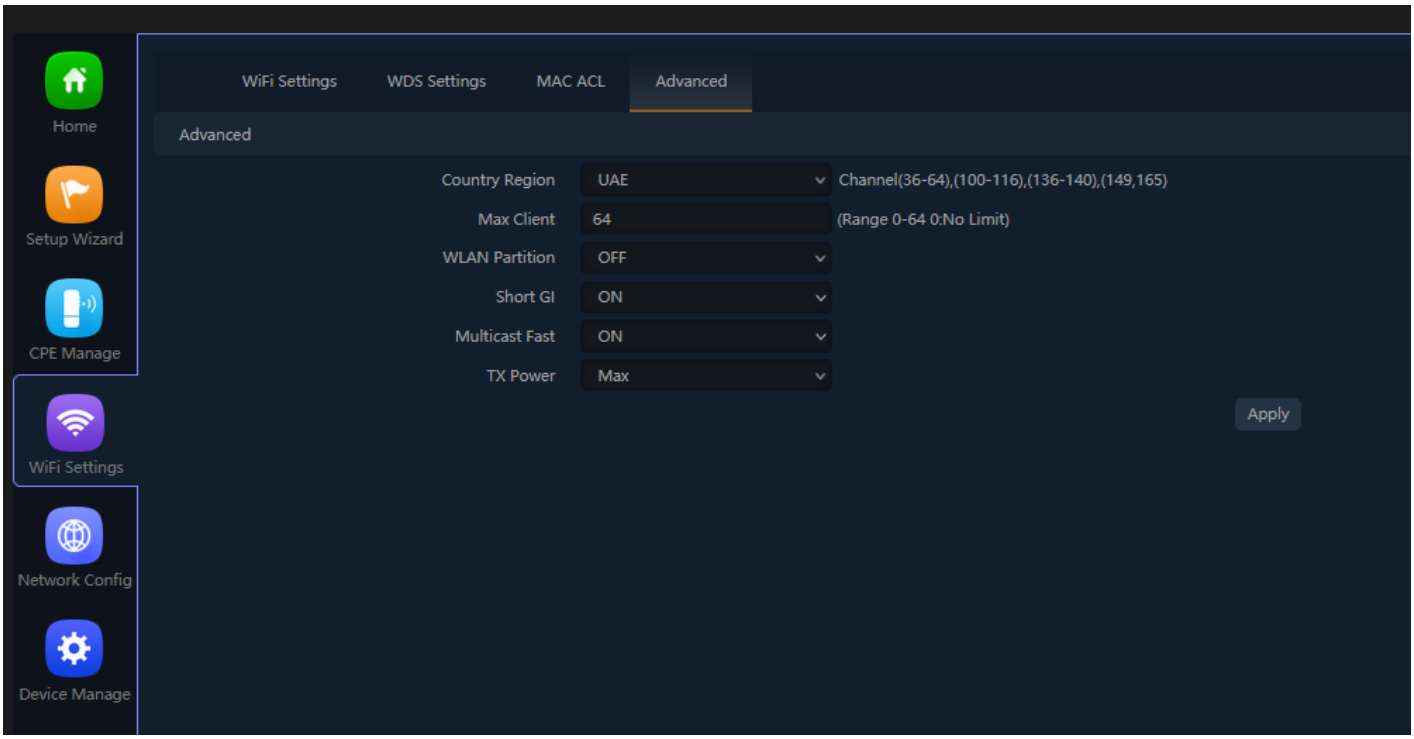

Fig 4.4.1 Default Advanced setting for AirONE AIR-CPE5K+

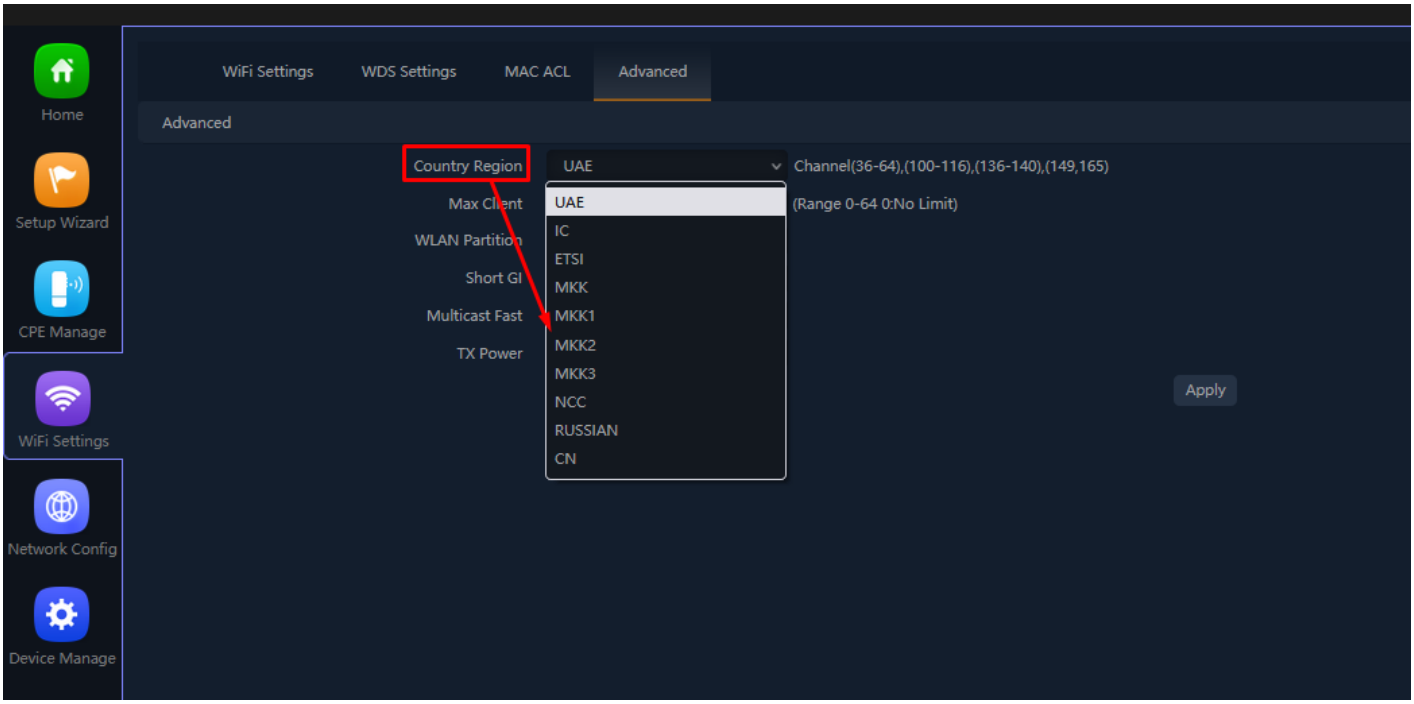

Fig 4.4.2 Selecting Country Region for AirONE AIR-CPE5K+

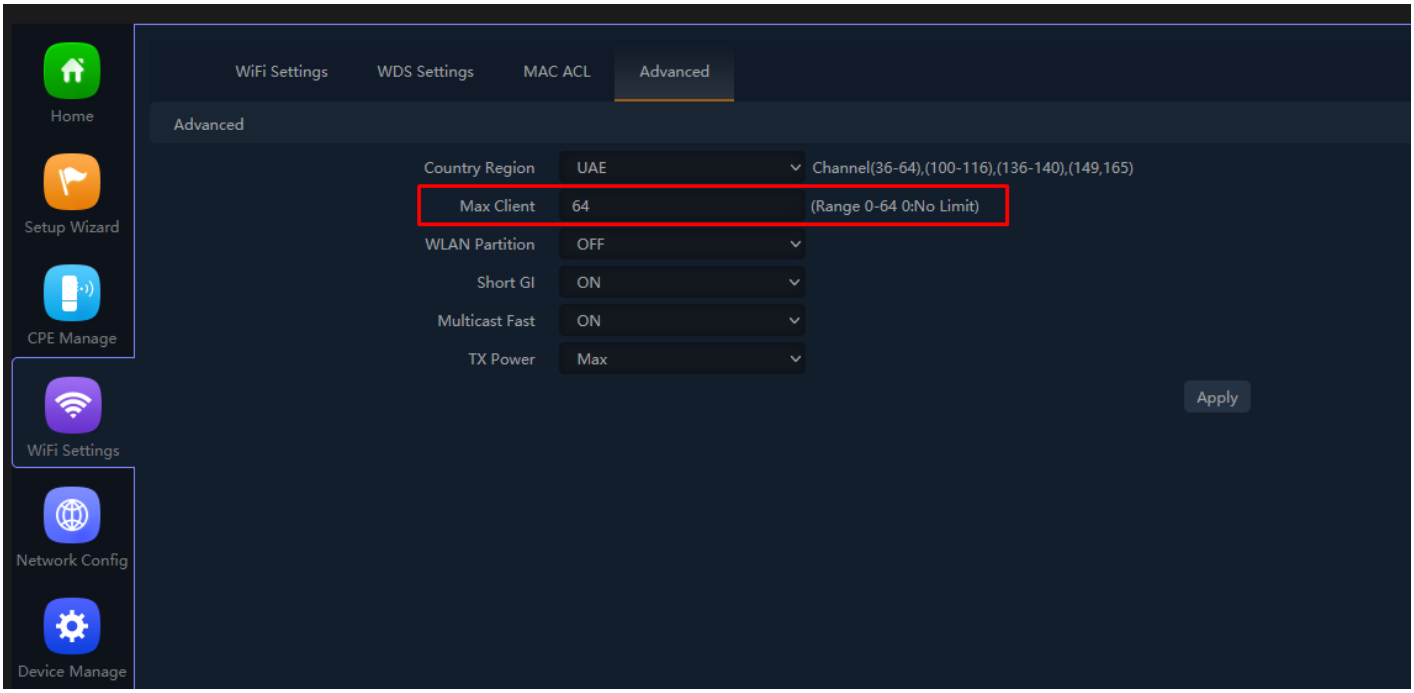

Fig 4.4.3 Setting Maximum wireless clients in 5G for AirONE AIR-CPE5K+

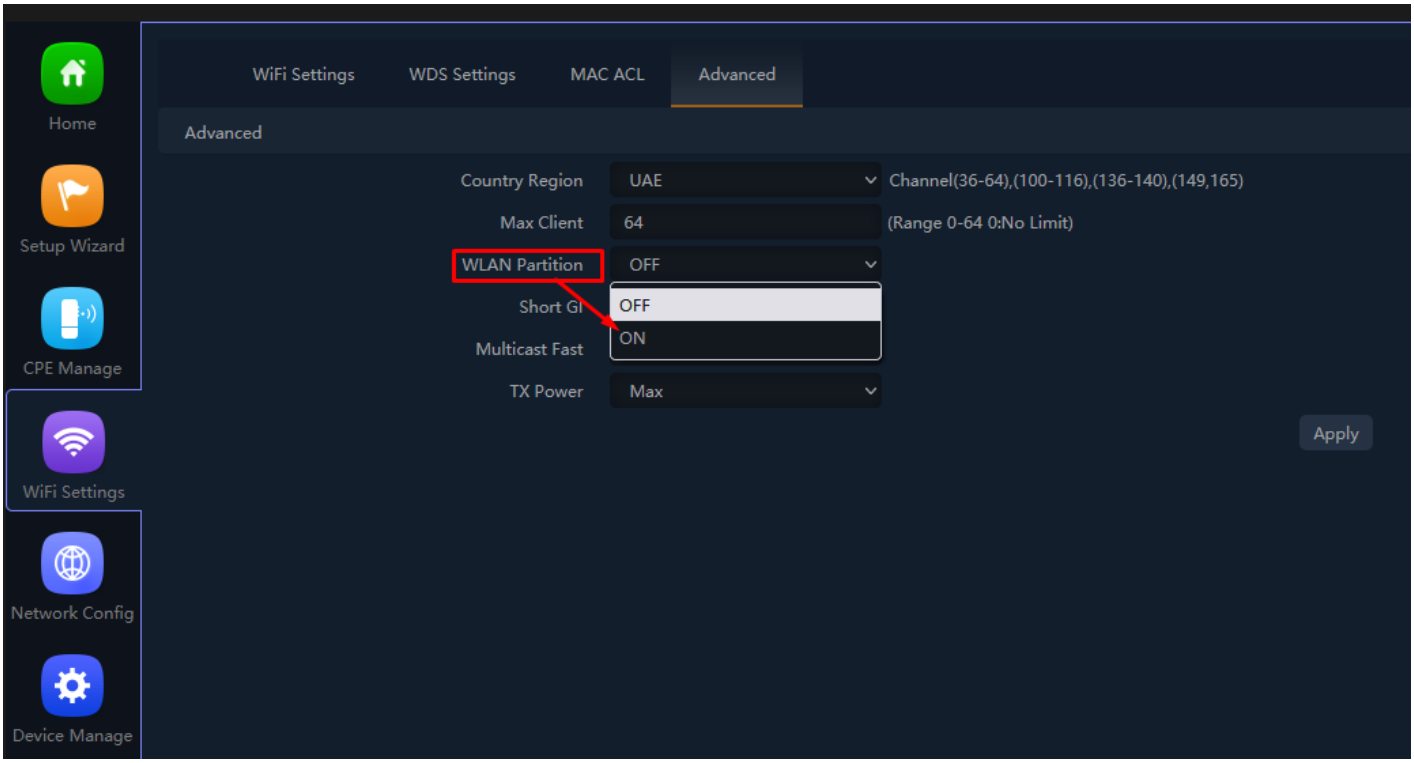

Fig 4.4.4 Selecting WLAN Partition for AirONE AIR-CPE5K+

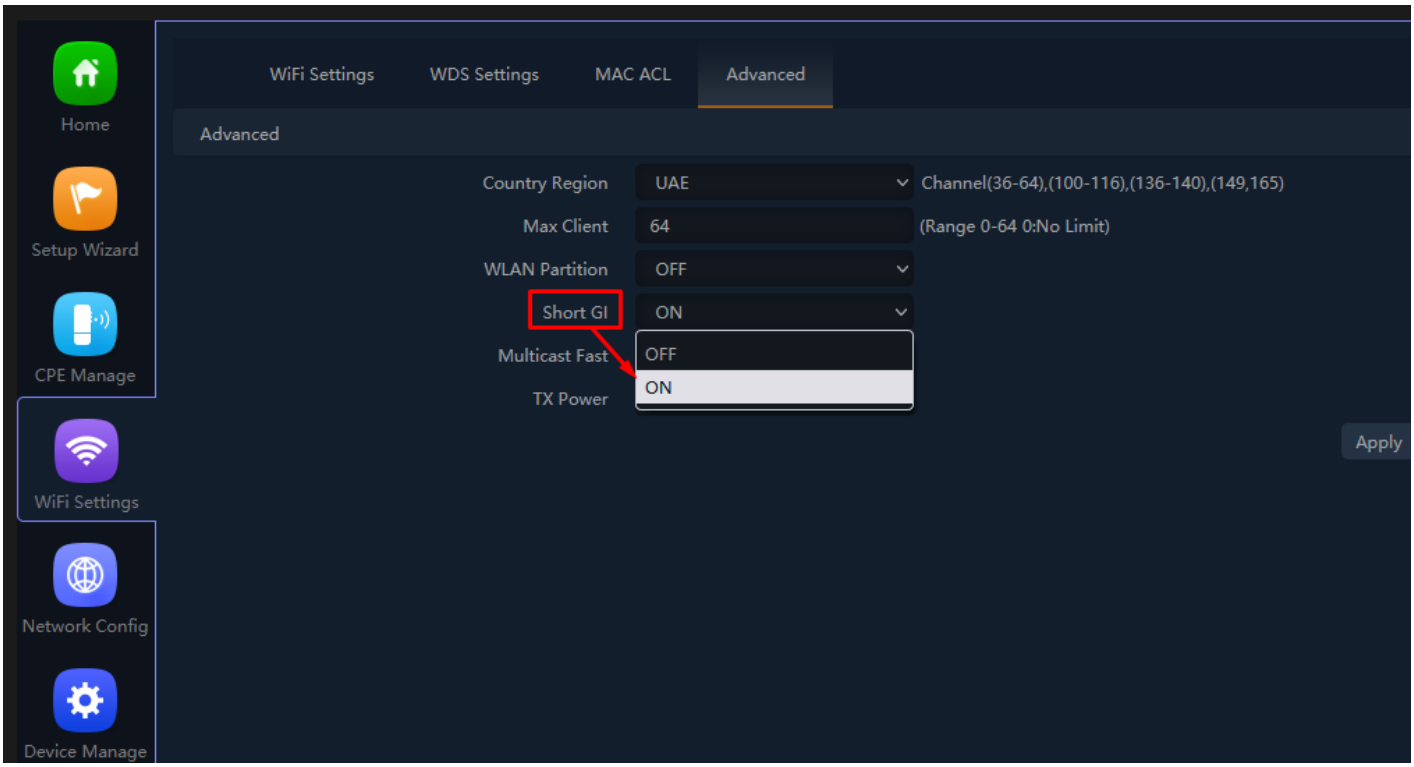

Fig 4.4.5 Selecting Short GI for AirONE AIR-CPE5K+

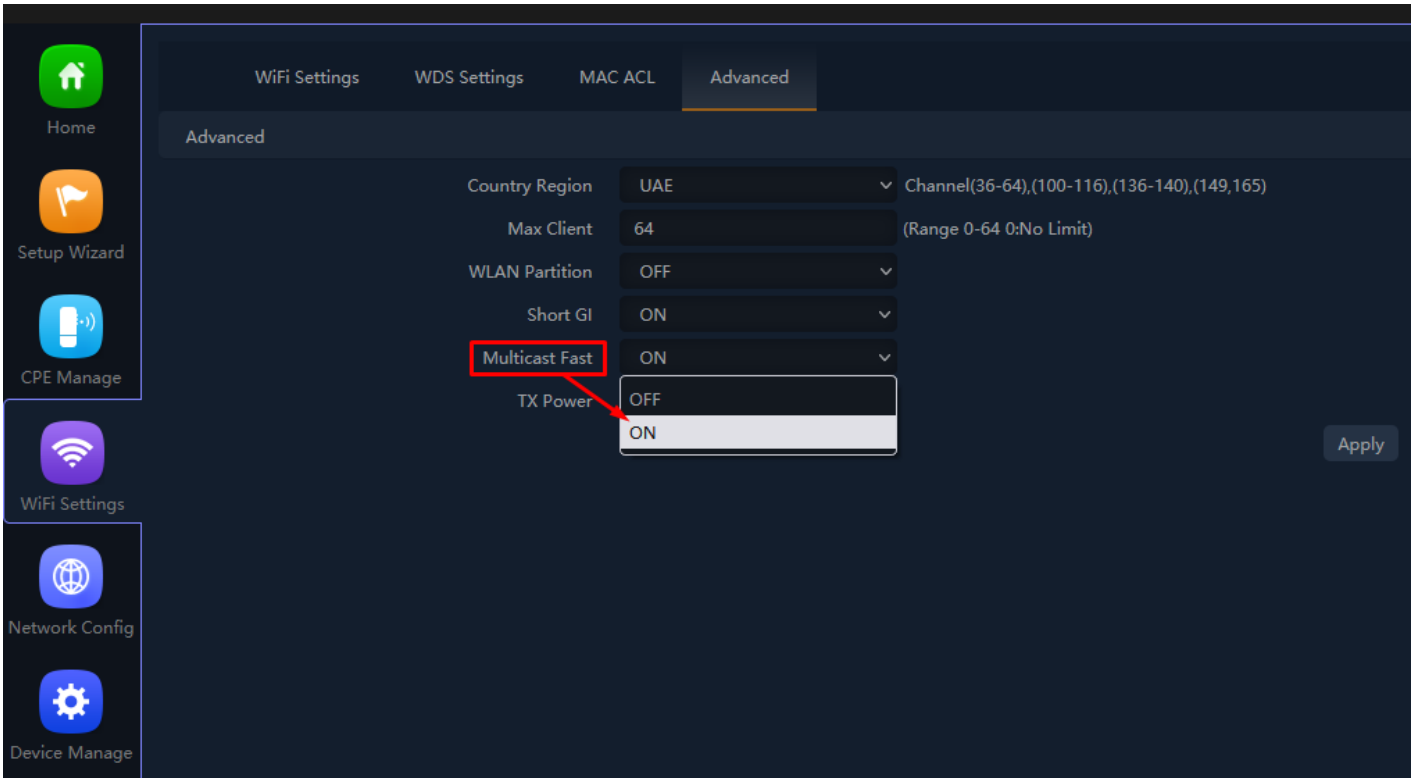

Fig 4.4.6 Setting Multicast Fast for AirONE AIR-CPE5K+

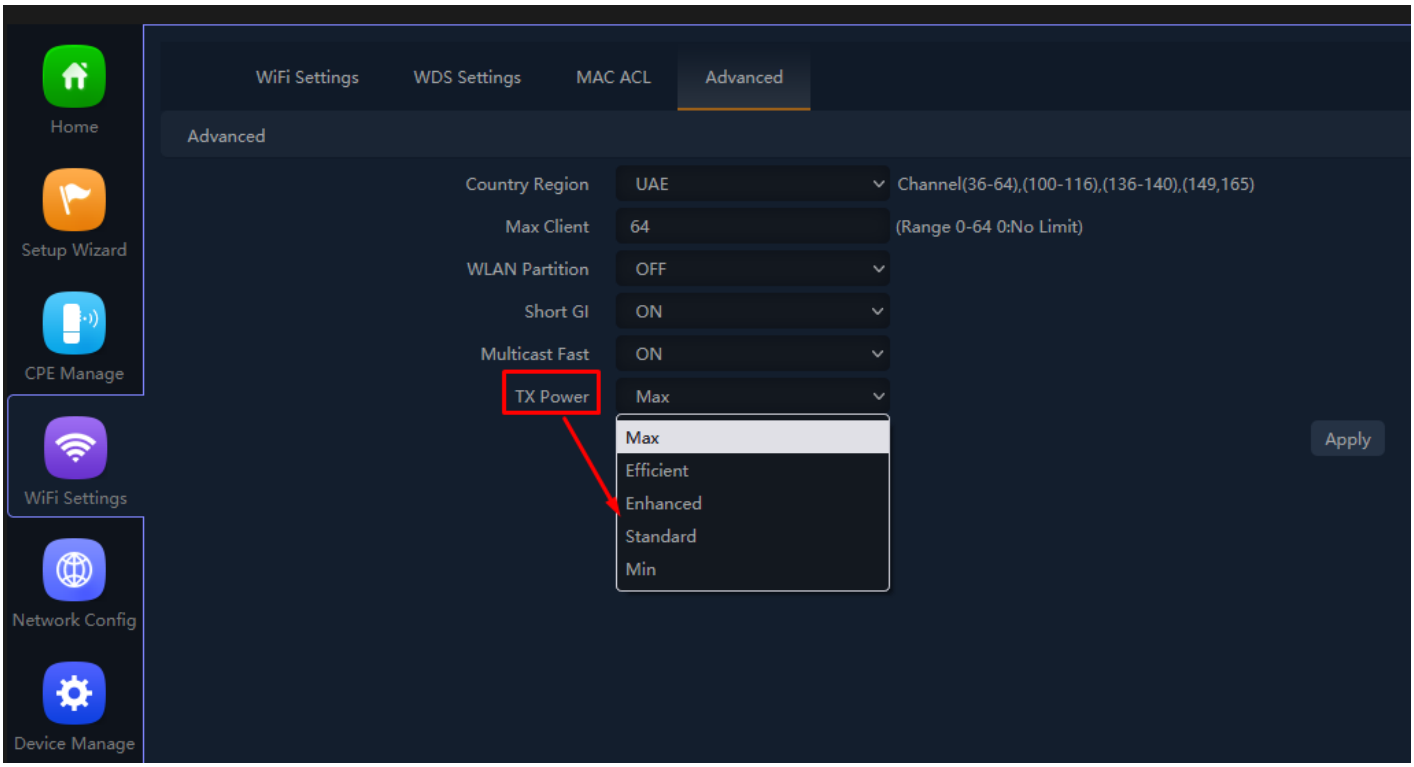

Fig 4.4.7 Setting Tx Power for AirONE AIR-CPE5K+

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.

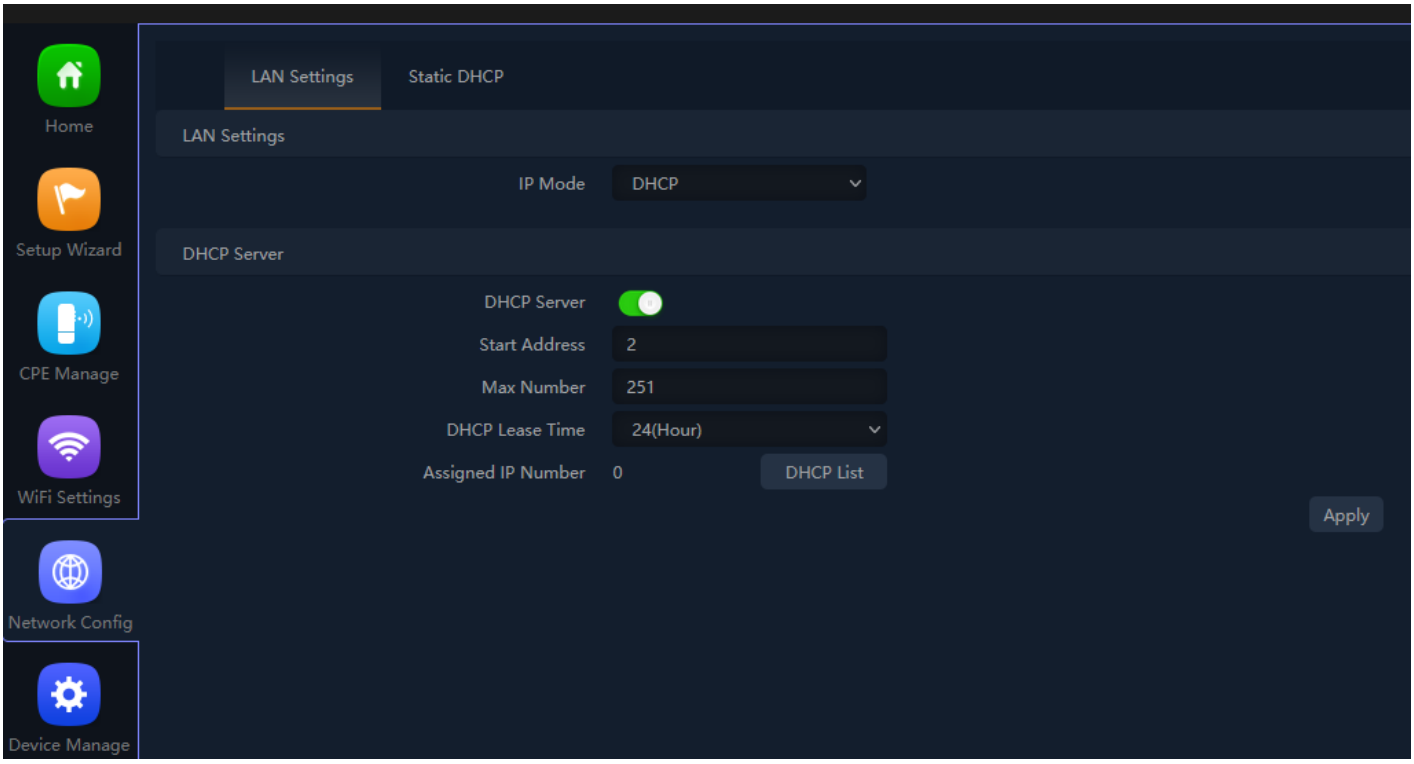

Fig 5.1.1 Setting LAN IP which used as access IP for AirONE AIR-CPE5K+

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.

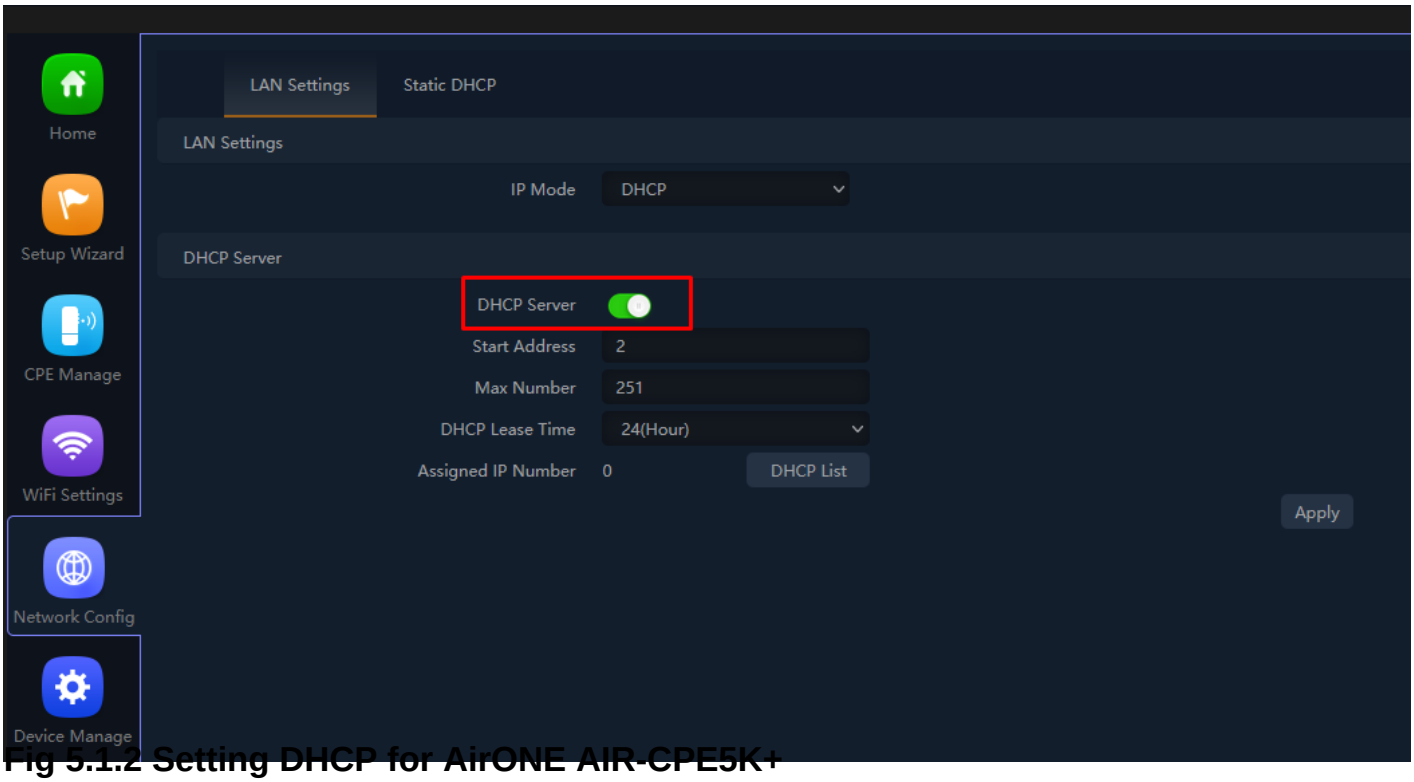

Fig 5.1.2 Setting DHCP for AirONE AIR-CPE5K+

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.

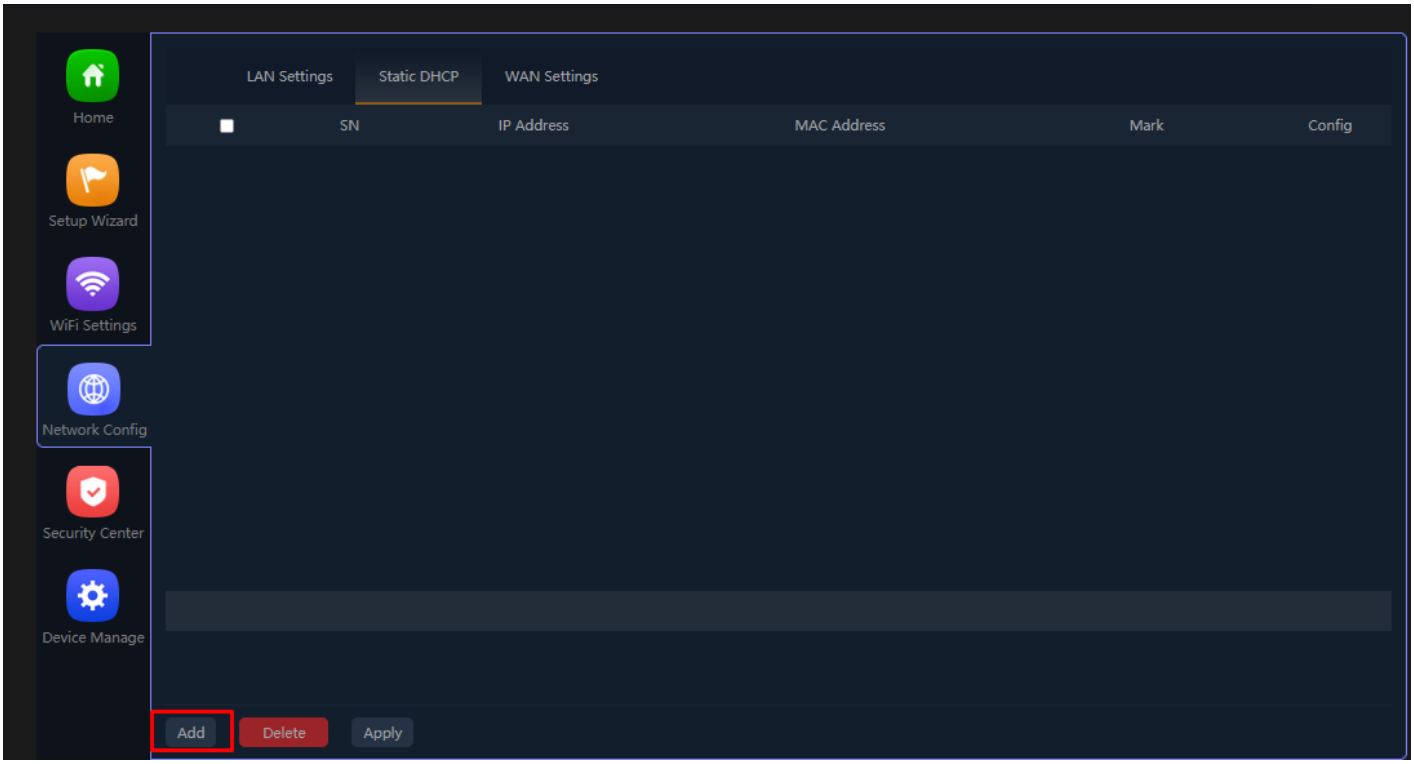

Fig 5.3.1 Default Static DHCP for AirONE AIR-CPE5K+

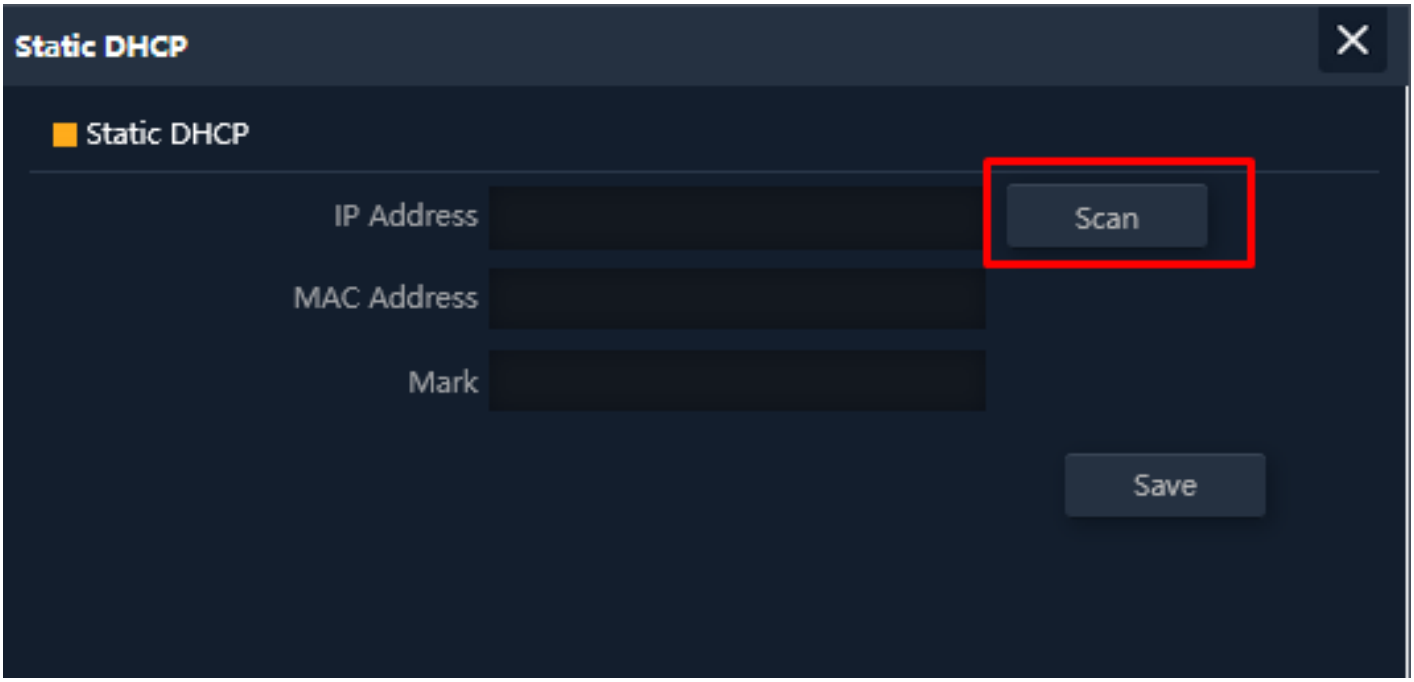

Fig 5.3.2 Static DHCP scan for AirONE AIR-CPE5K+

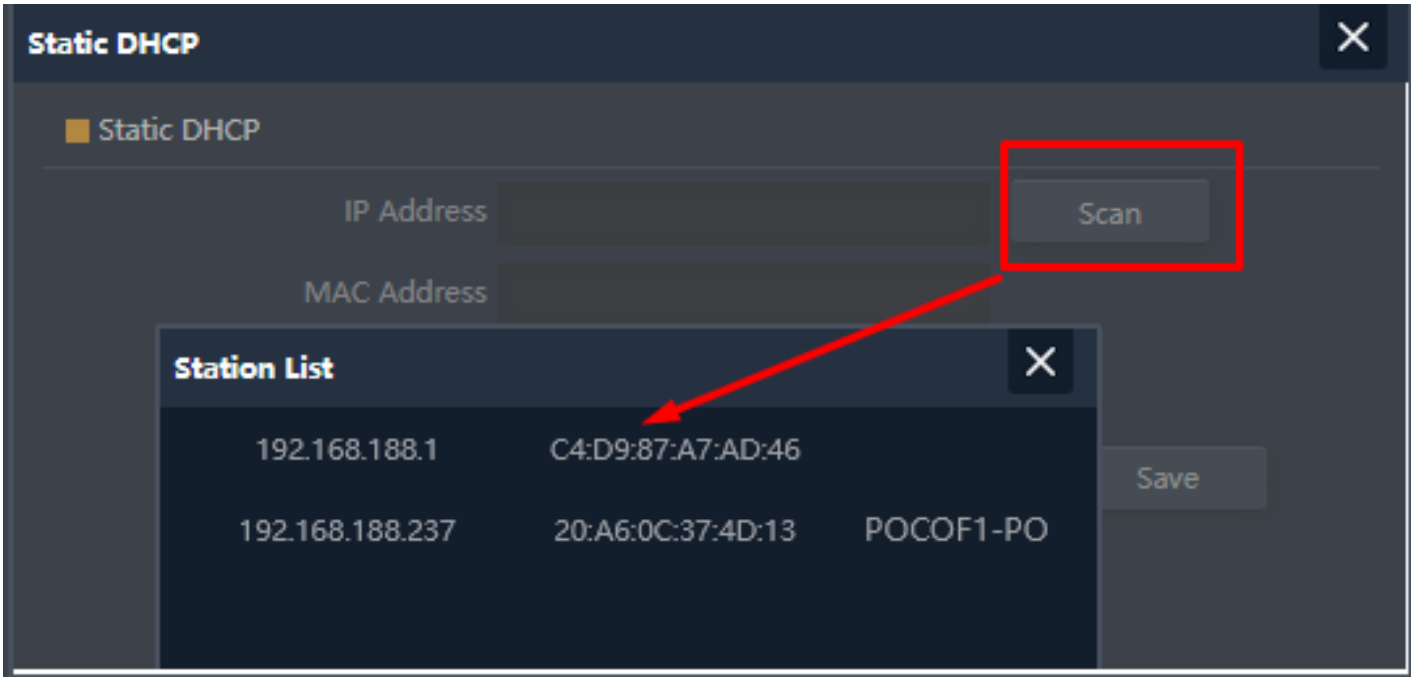

Fig 5.3.3 Station list for AirONE AIR-CPE5K+

5.4 WAN Settings

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

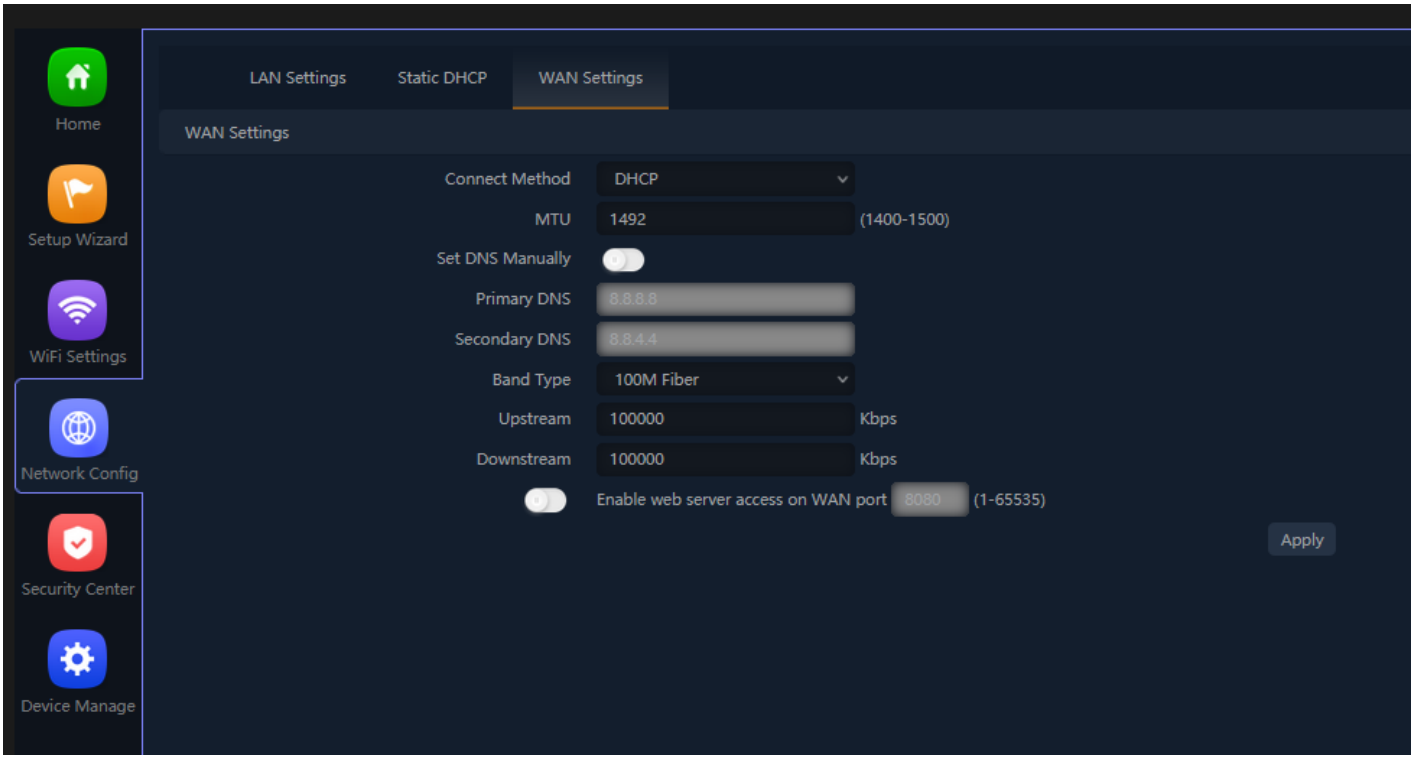

Fig 5.4.1 Default WAN Setting for AirONE AIR-CPE5K+

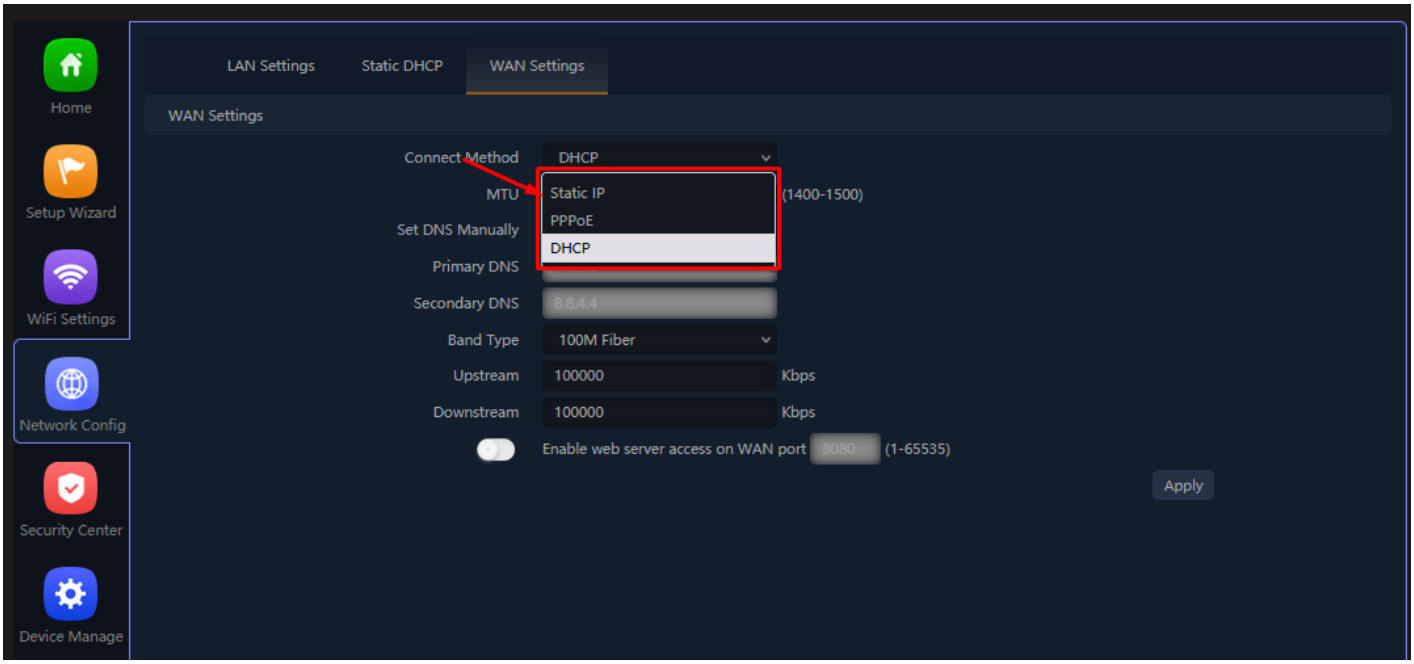

Fig 5.4.2 Changing Connect type manually for AirONE AIR-CPE5K+

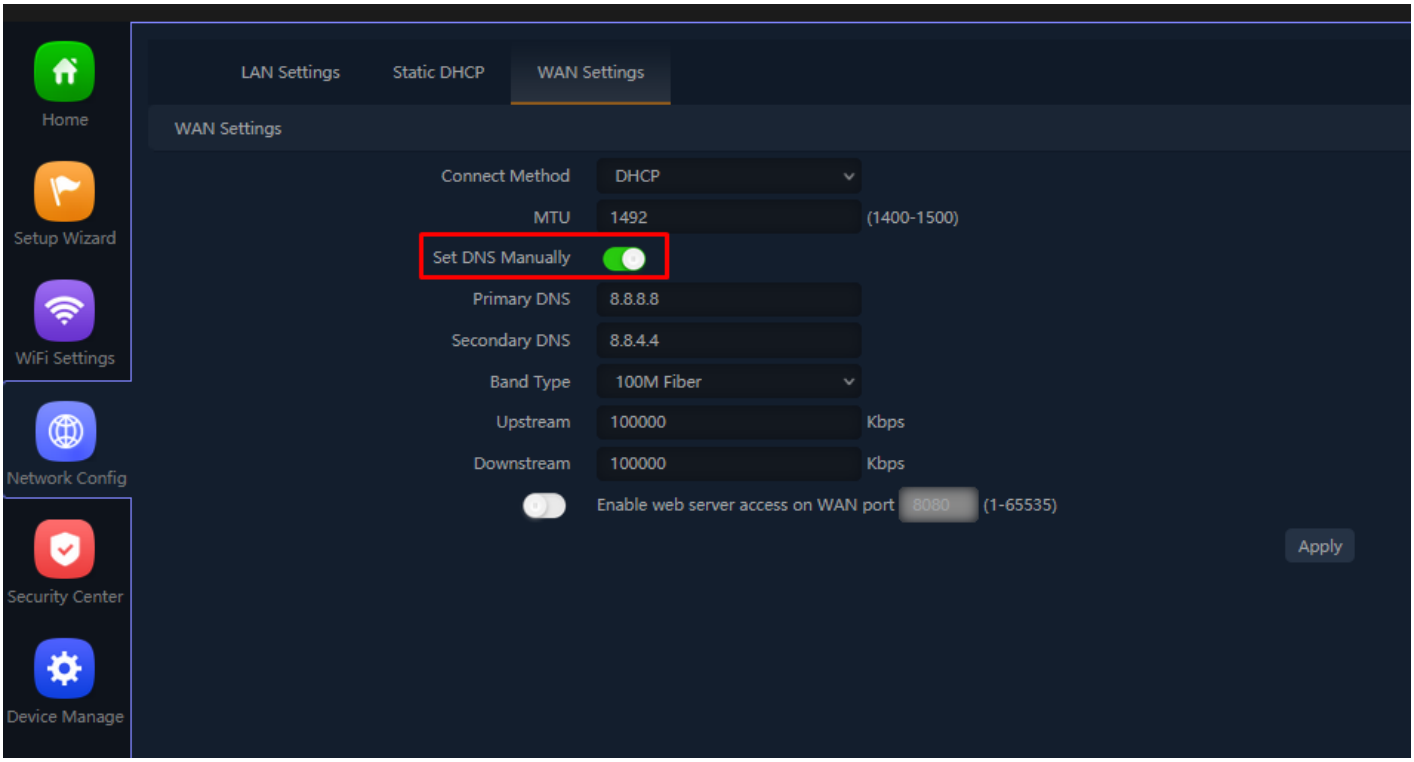

Fig 5.4.3 Set DNS manually for AirONE AIR-CPE5K+

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.

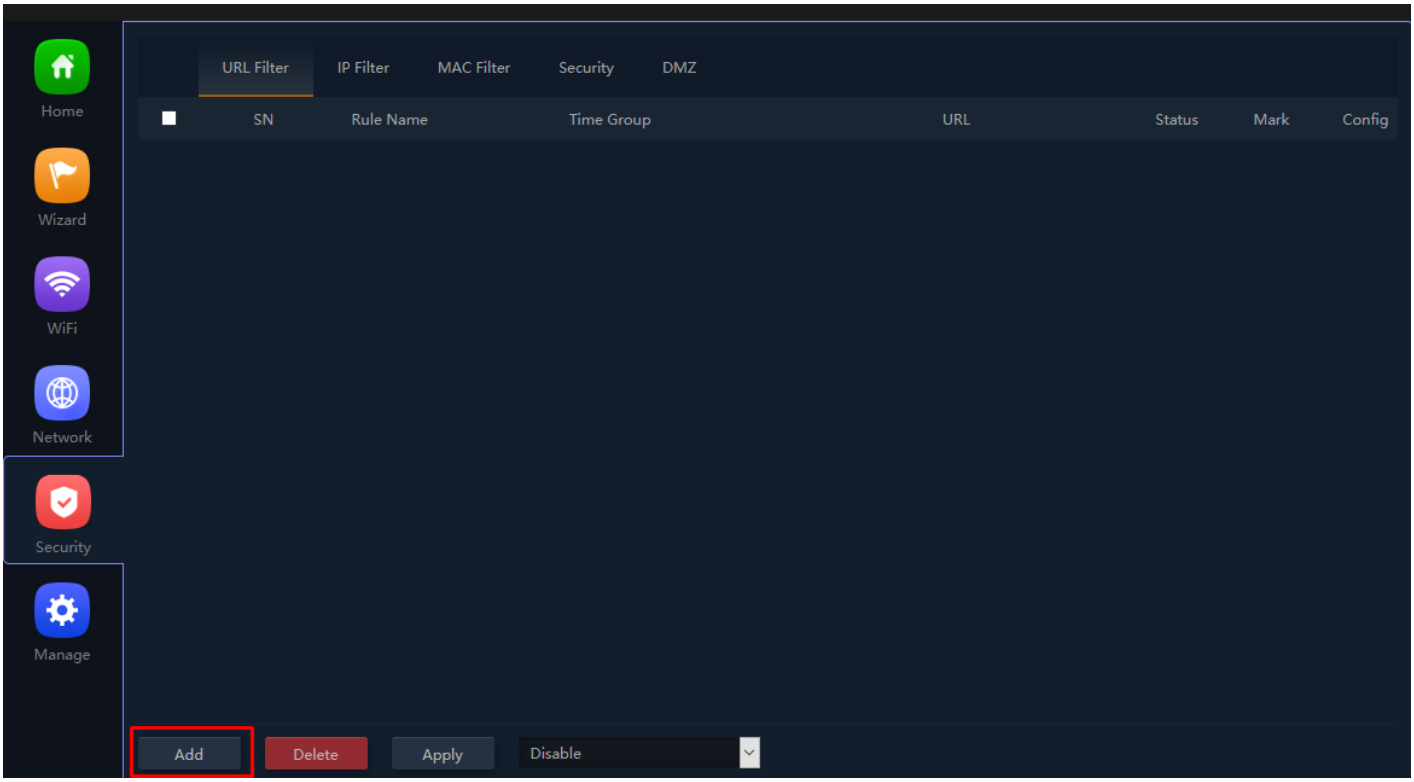

Fig 6.1.1 Default URL filter setting for AirONE AIR-CPE5K+

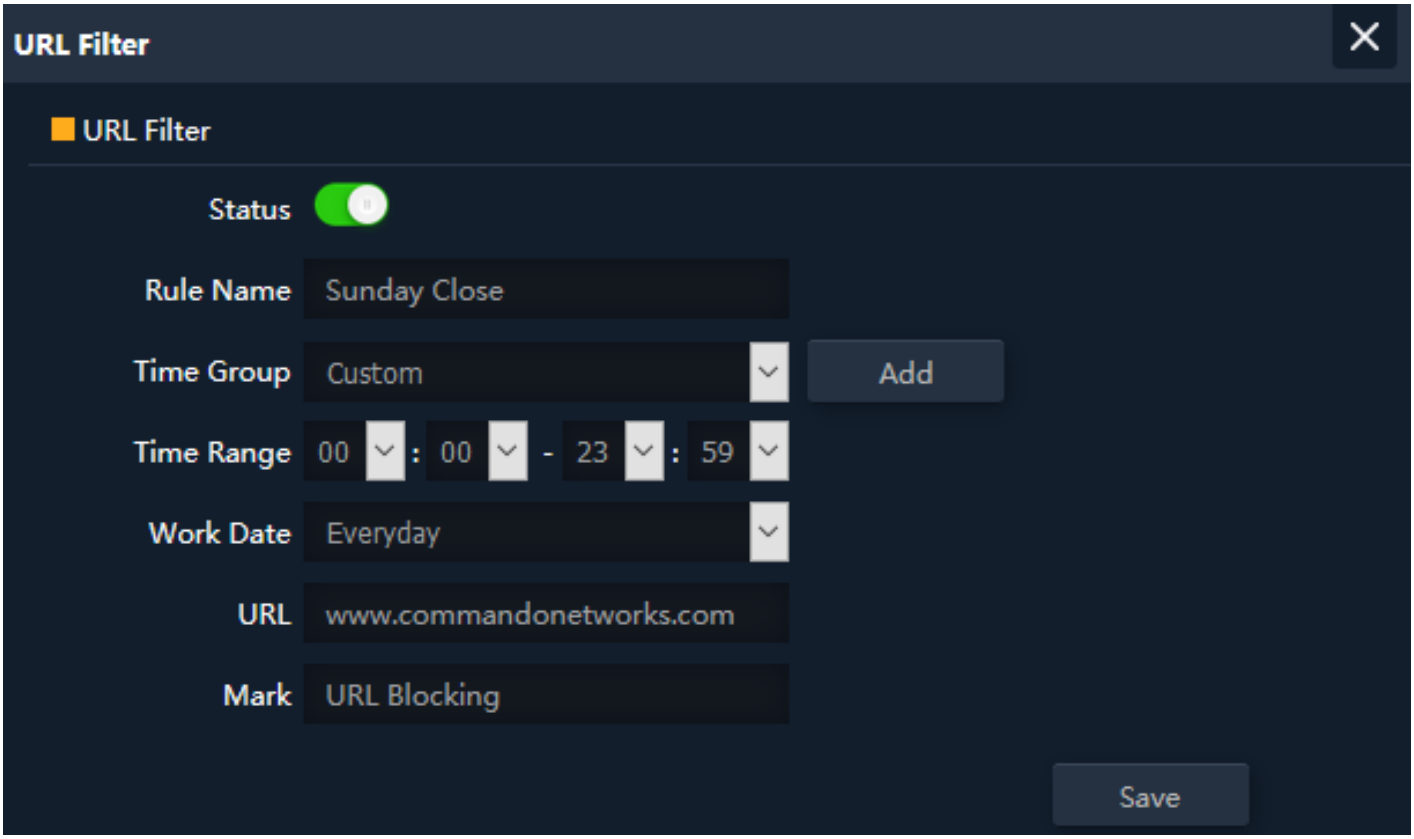

Fig 6.1.2 Setting URL filter for AirONE AIR-CPE5K+

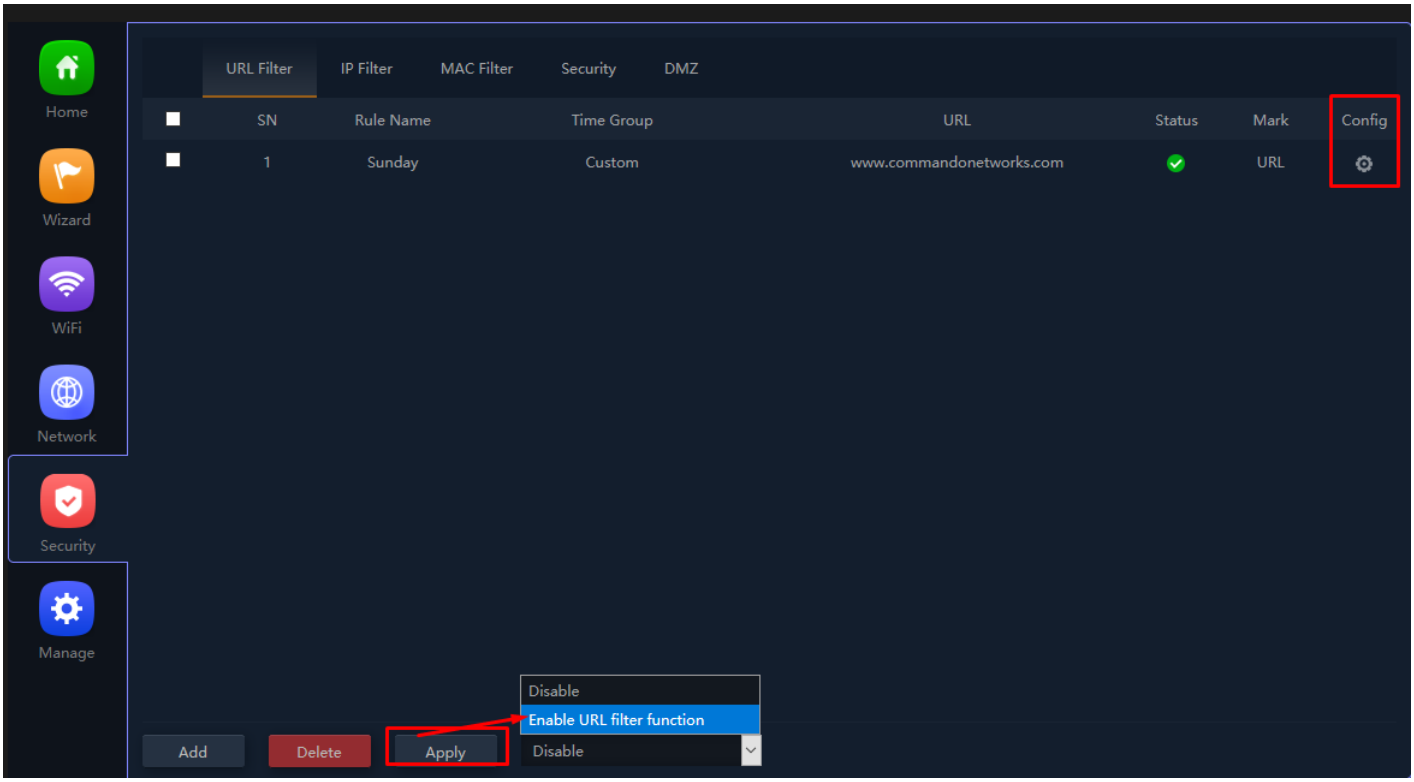

Fig 6.1.3 URL filter setting for AirONE AIR-CPE5K+

6.2 IP Filter Settings

IP Filter bars filter IP to access the Bridge SSID.

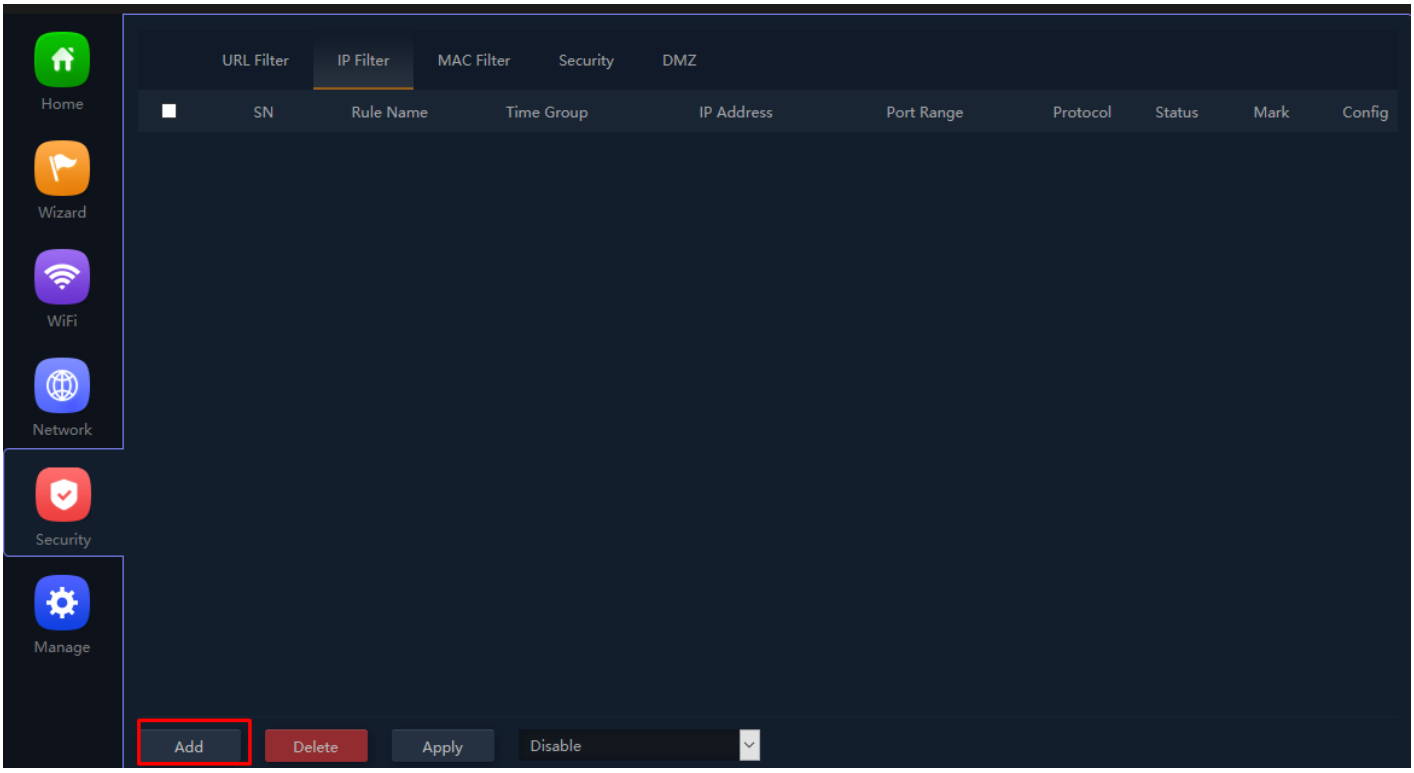

Fig 6.2.1 Default IP filter setting for AirONE AIR-CPE5K+

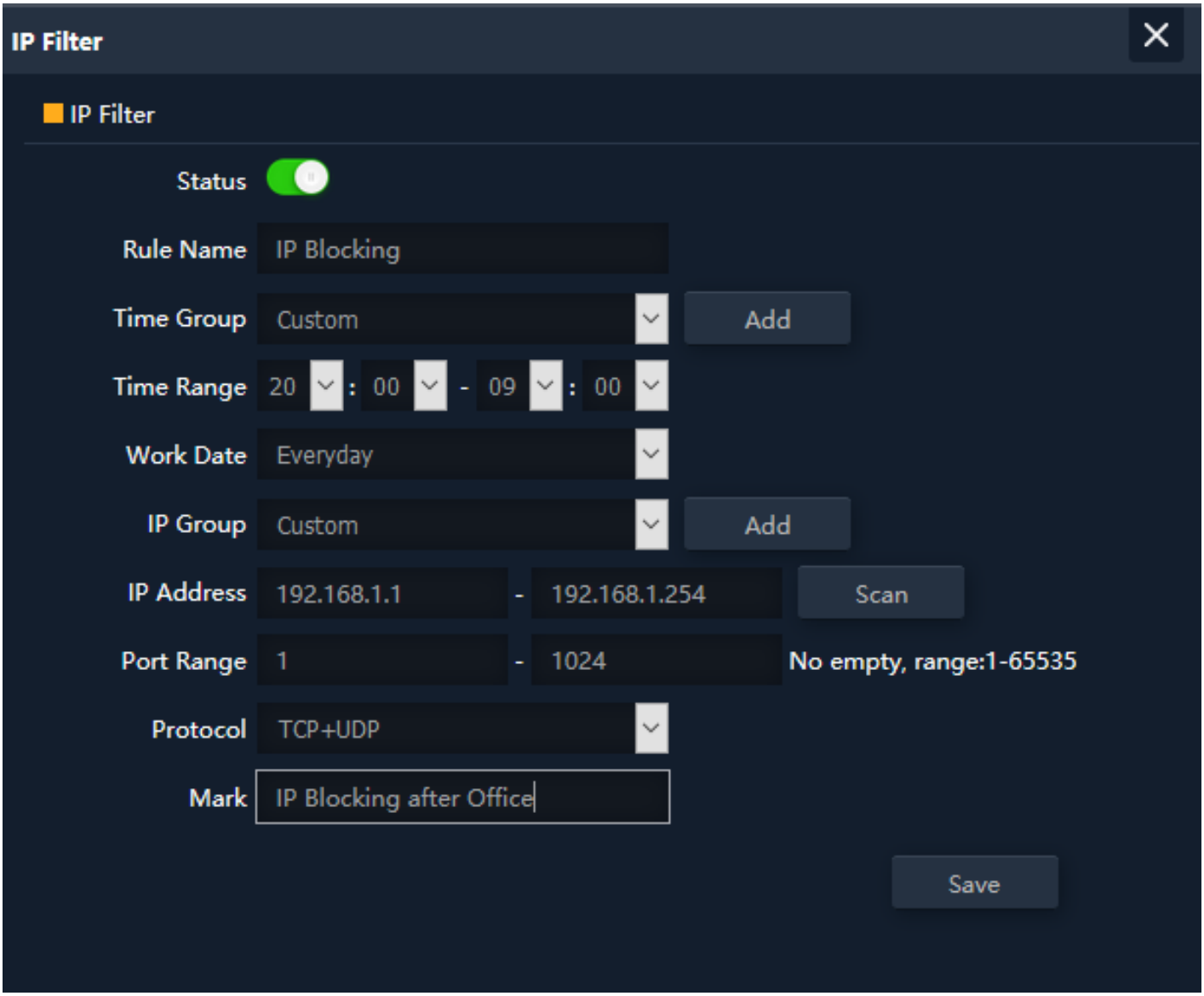

Fig 6.2.2 Setting IP filter for AirONE AIR-CPE5K+

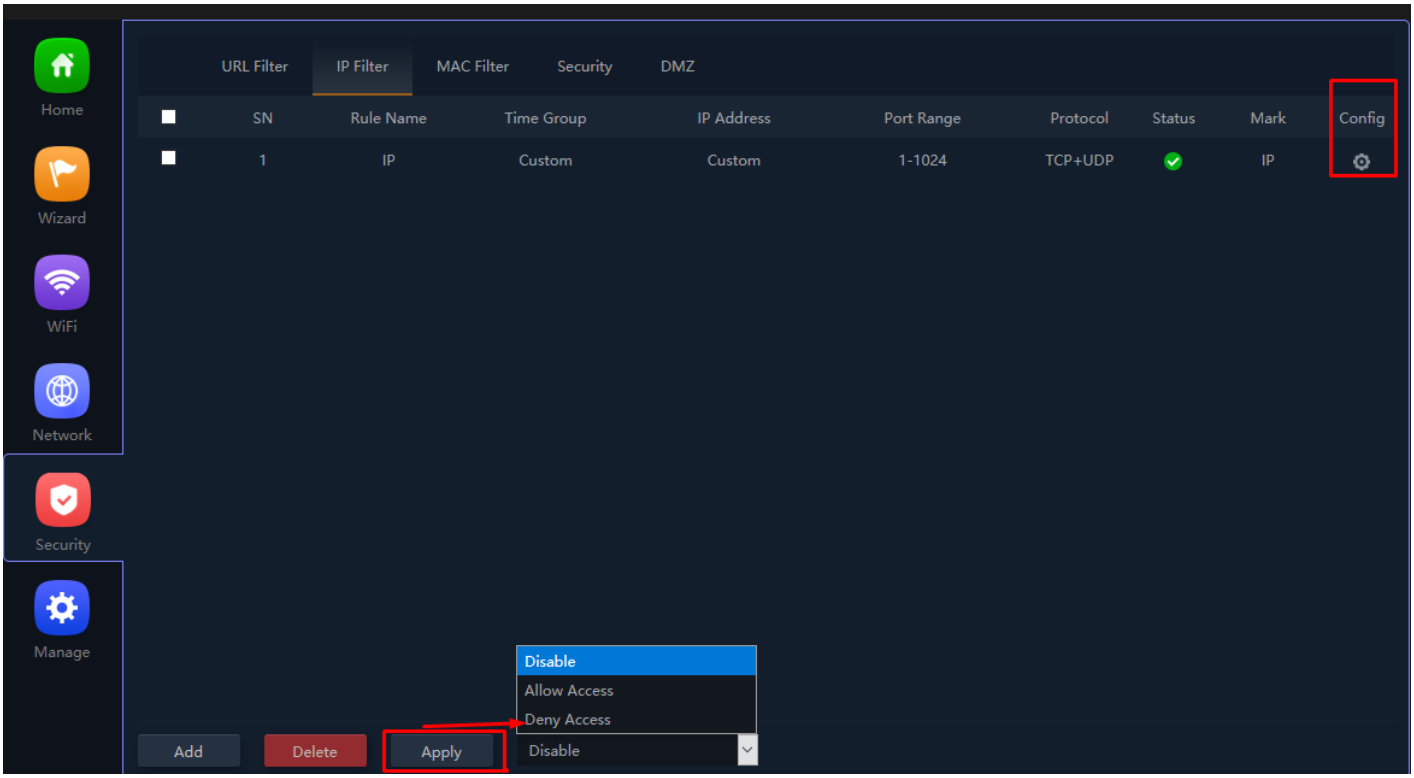

Fig 6.2.3 IP filter setting for AirONE AIR-CPE5K+

6.3 MAC Filter Settings

MAC Filter bars filter MAC to access the Bridge SSID.

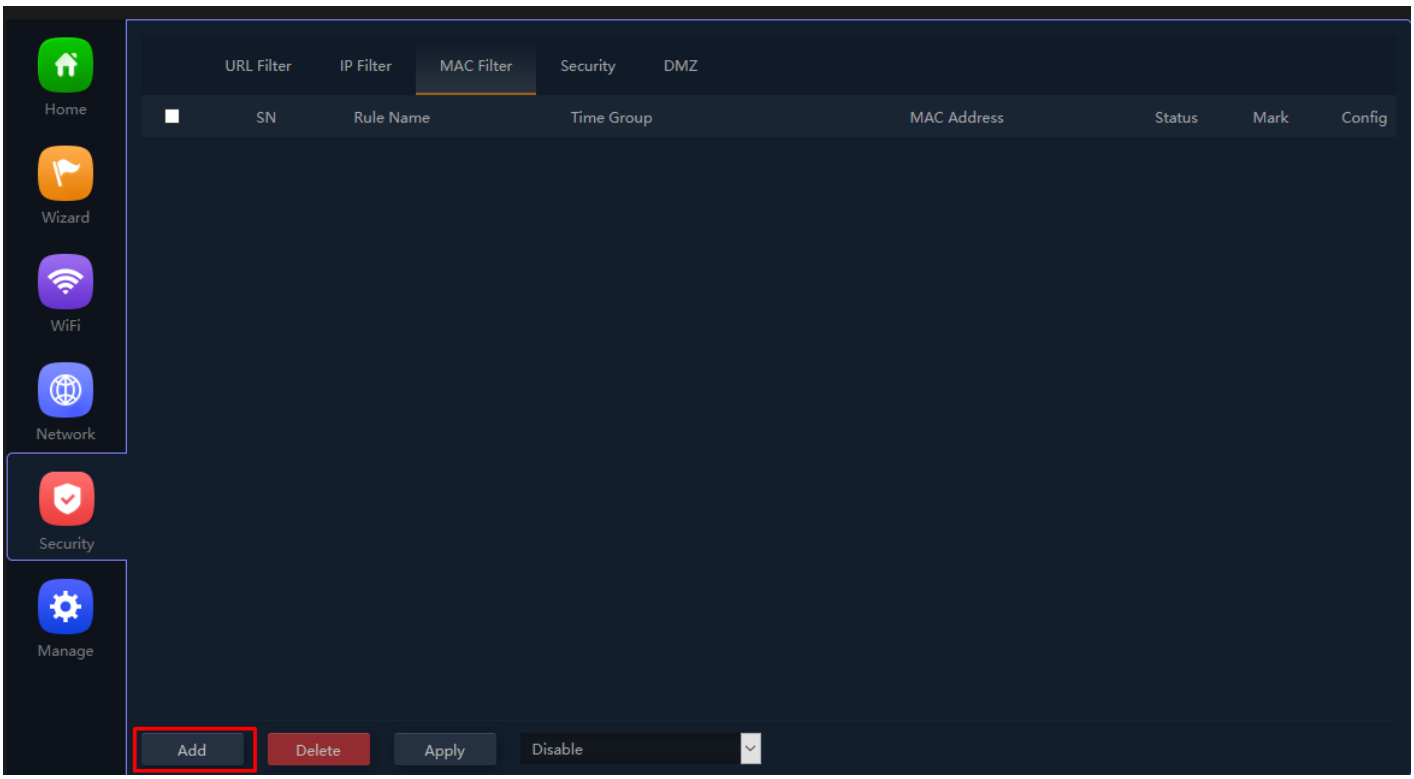

Fig 6.3.1 Default MAC filter setting for AirONE AIR-CPE5K+

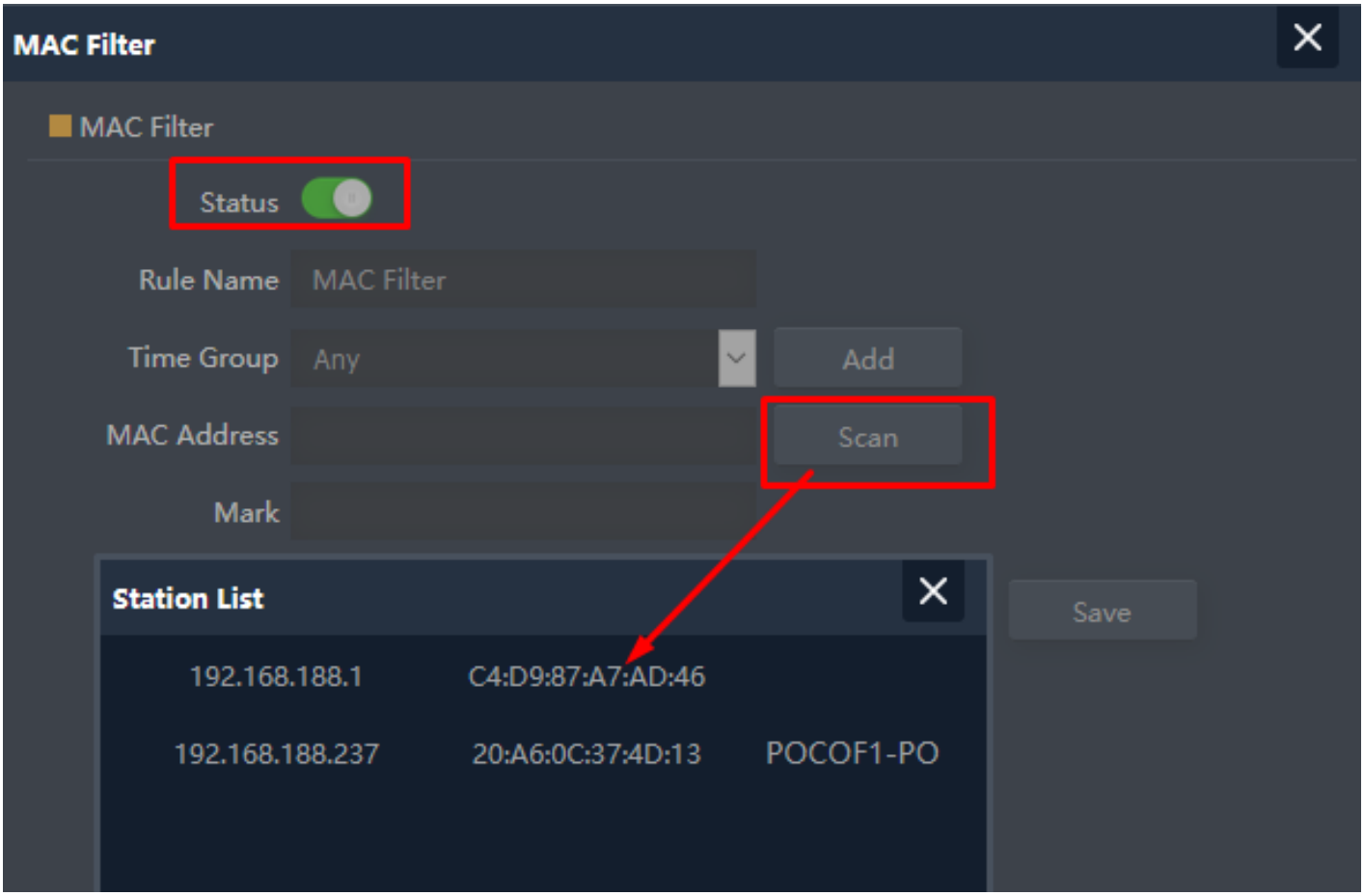

Fig 6.3.2 Setting MAC filter for AirONE AIR-CPE5K+

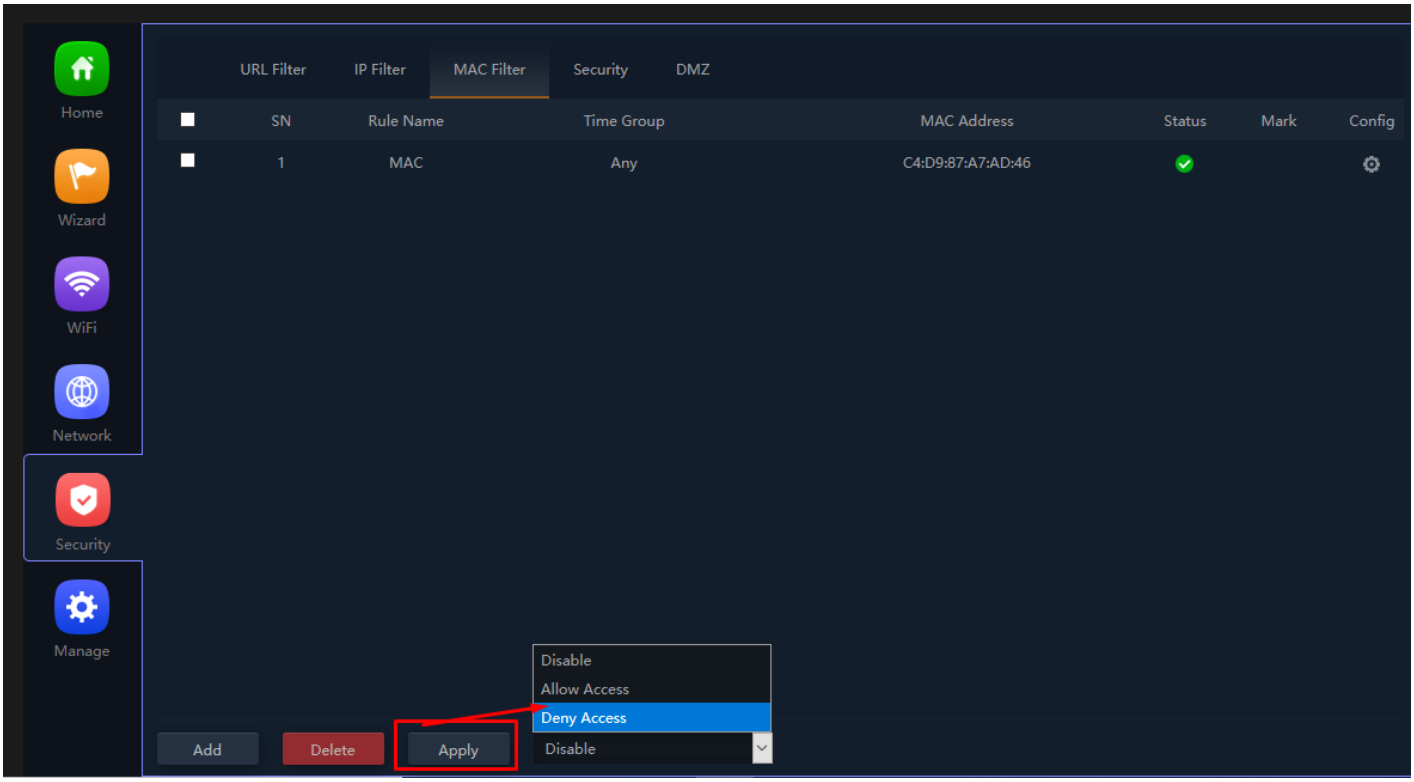

Fig 6.3.3 MAC filter setting for AirONE AIR-CPE5K+

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.

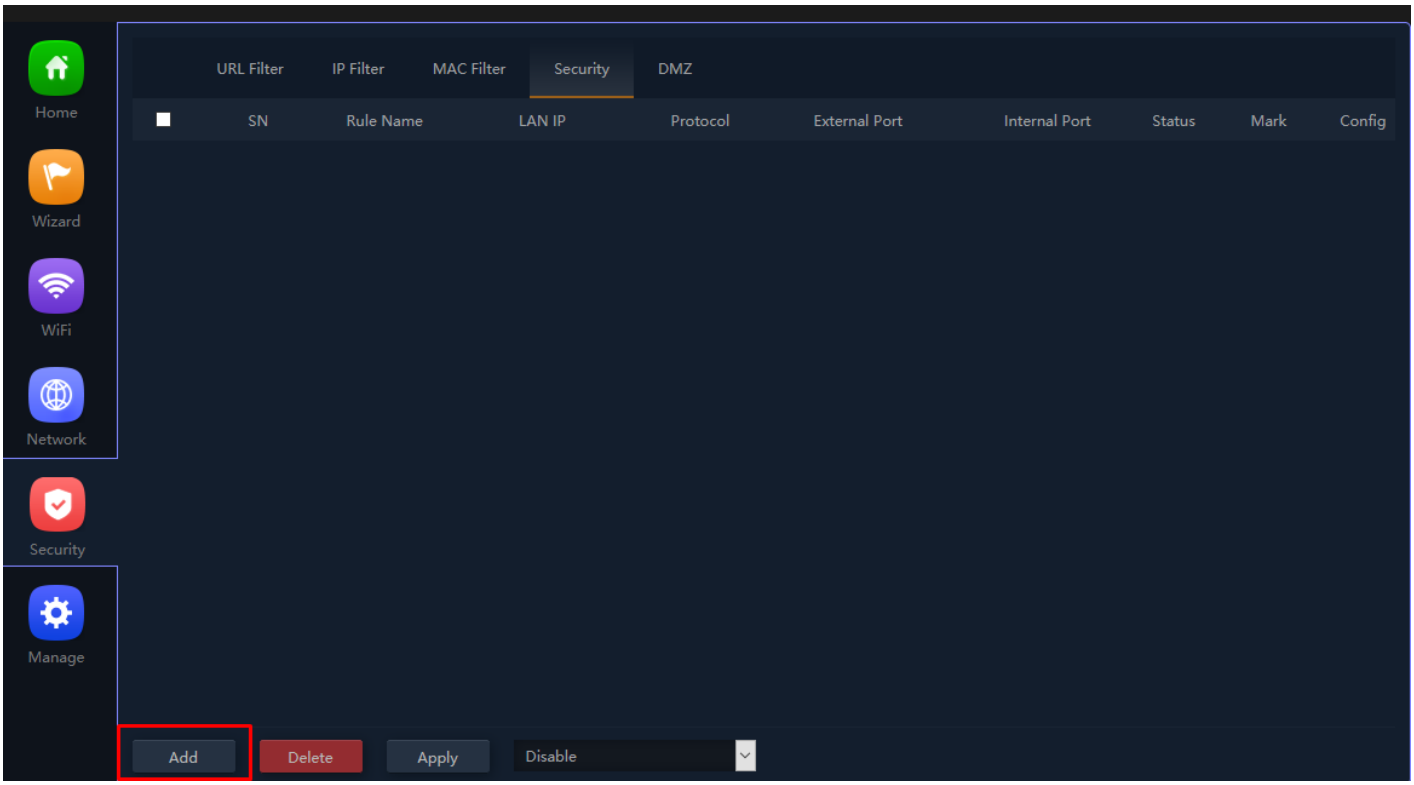

Fig 6.4.1 Default Security setting for AirONE AIR-CPE5K+

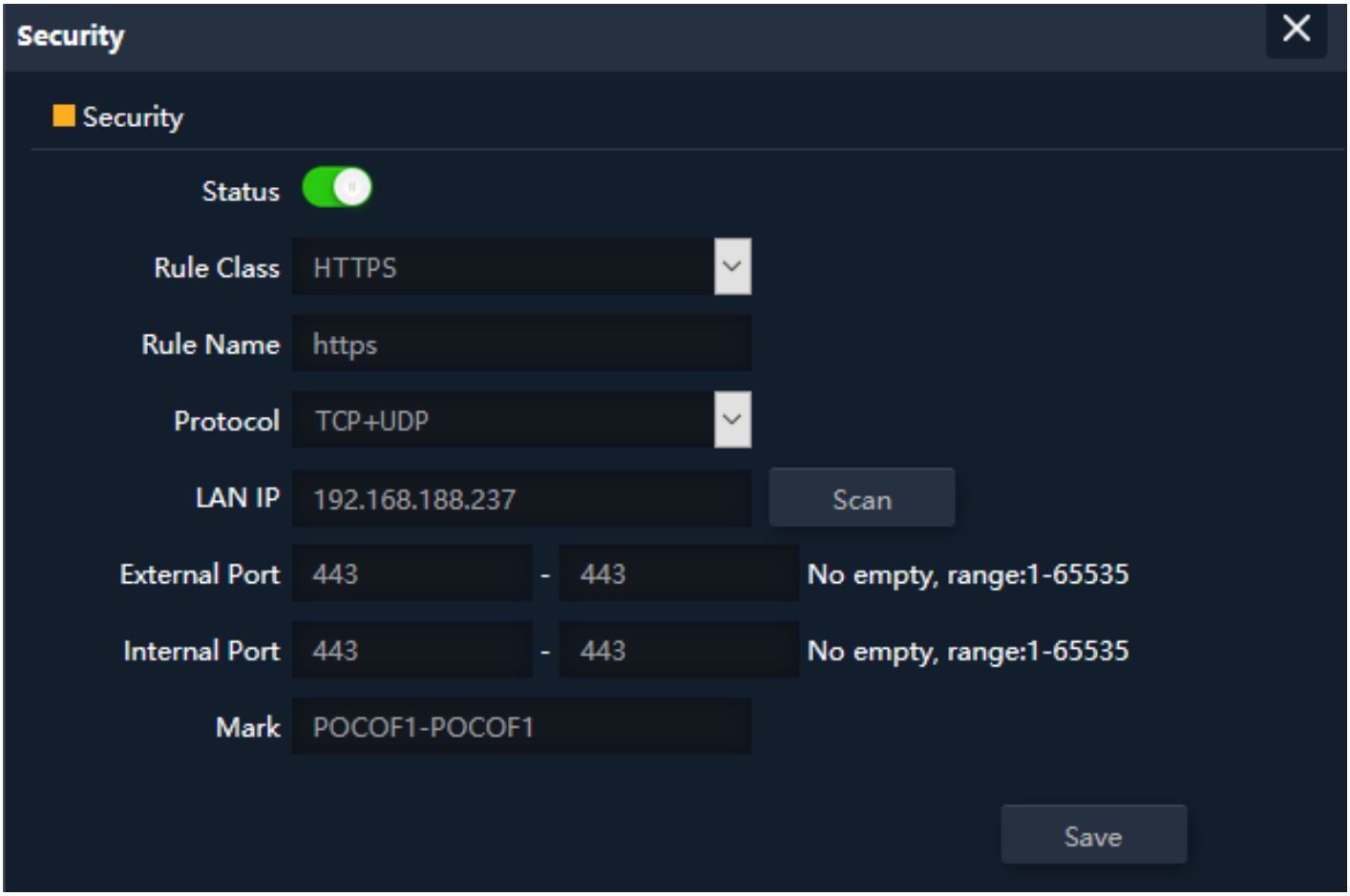

Fig 6.4.2 Security Rules setting for AirONE AIR-CPE5K+

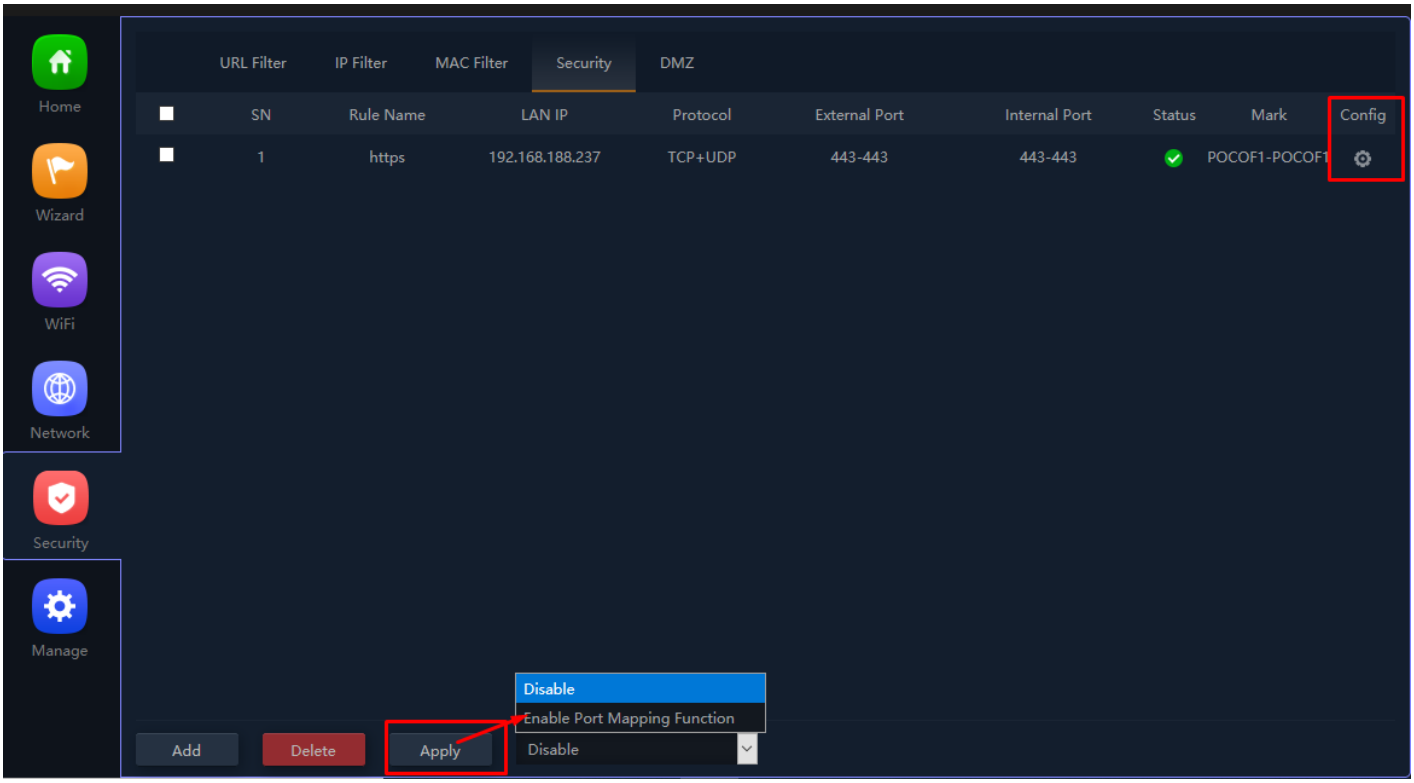

Fig 6.4.3 Security setting for AirONE AIR-CPE5K+

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.

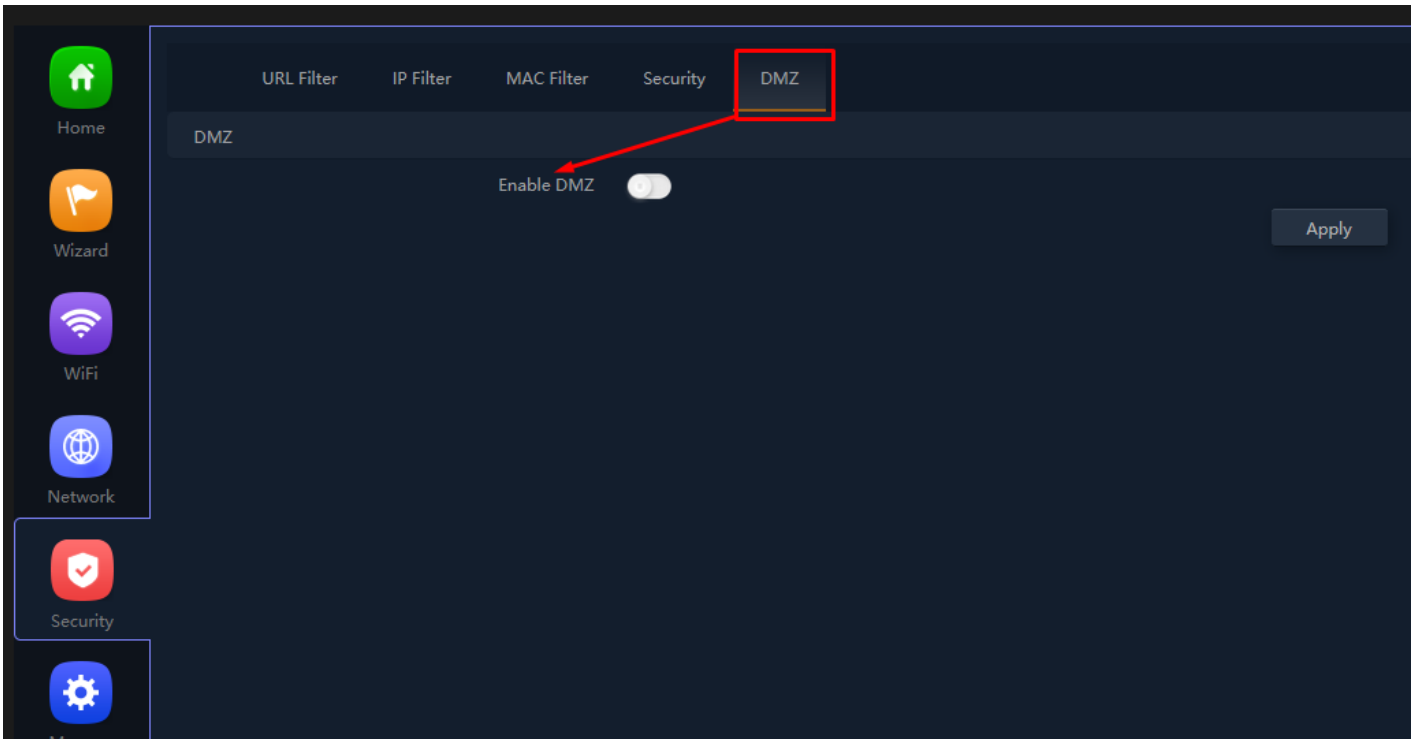

Fig 6.5.1 Default DMZ setting for AirONE AIR-CPE5K+

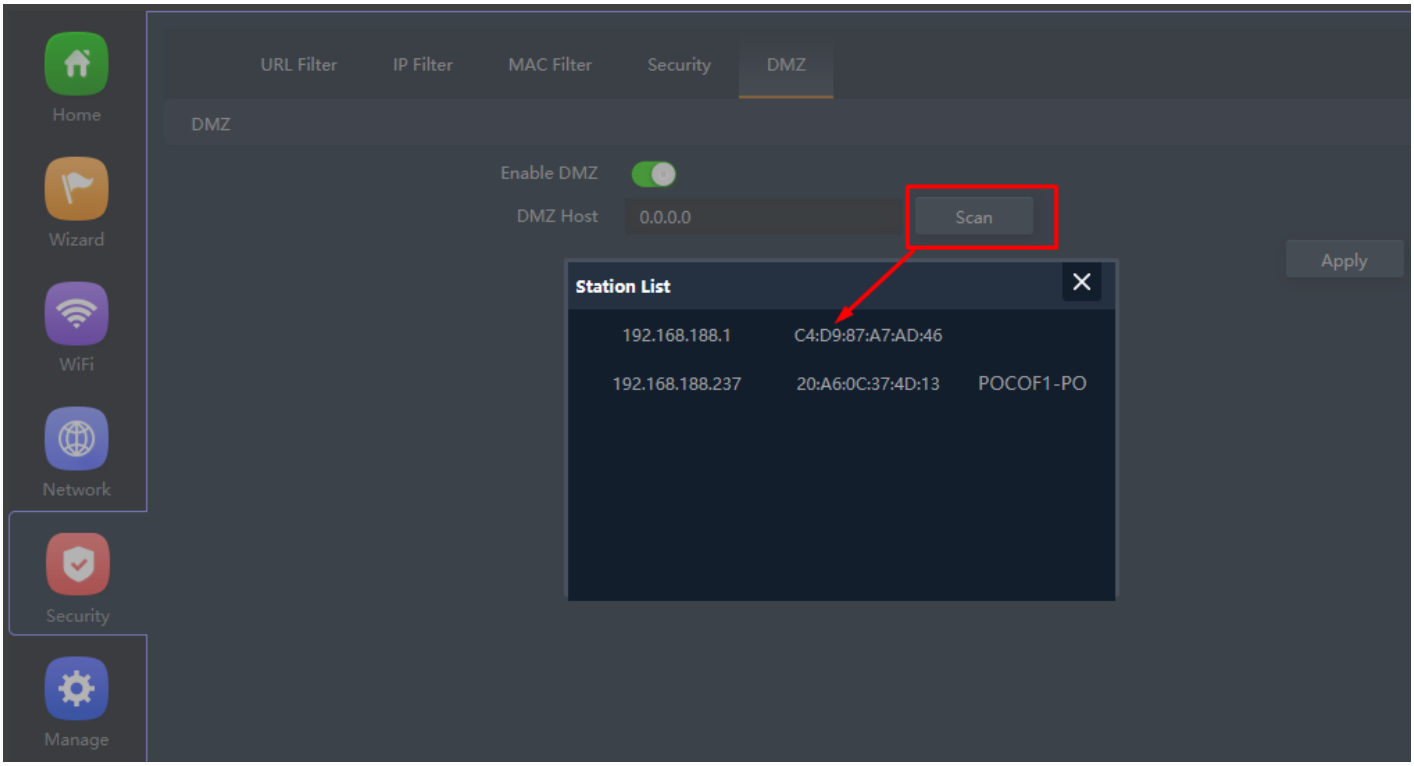

Fig 6.5.2 DMZ setting for AirONE AIR-CPE5K+

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.

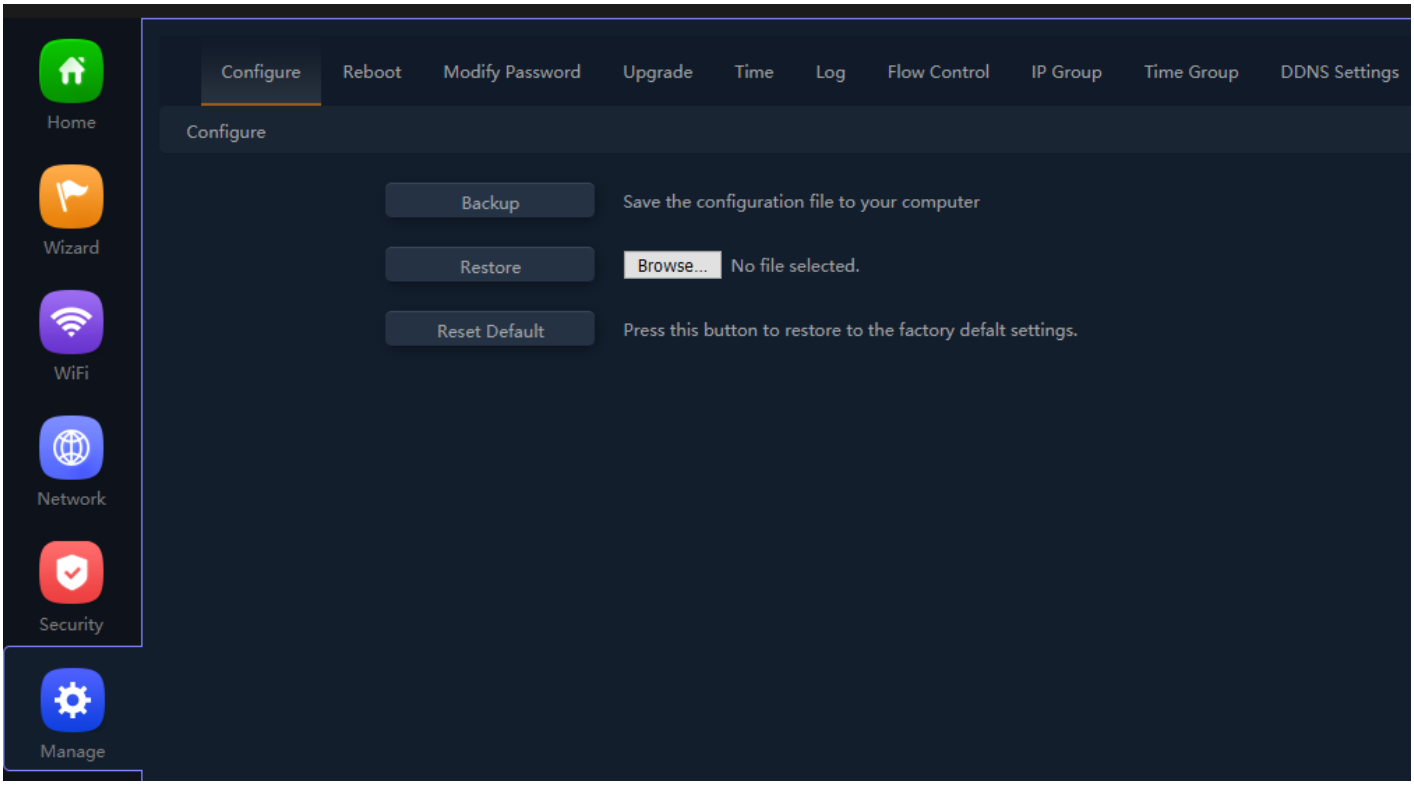

Fig 7.1.1 Default Configure setting for AirONE AIR-CPE5K+

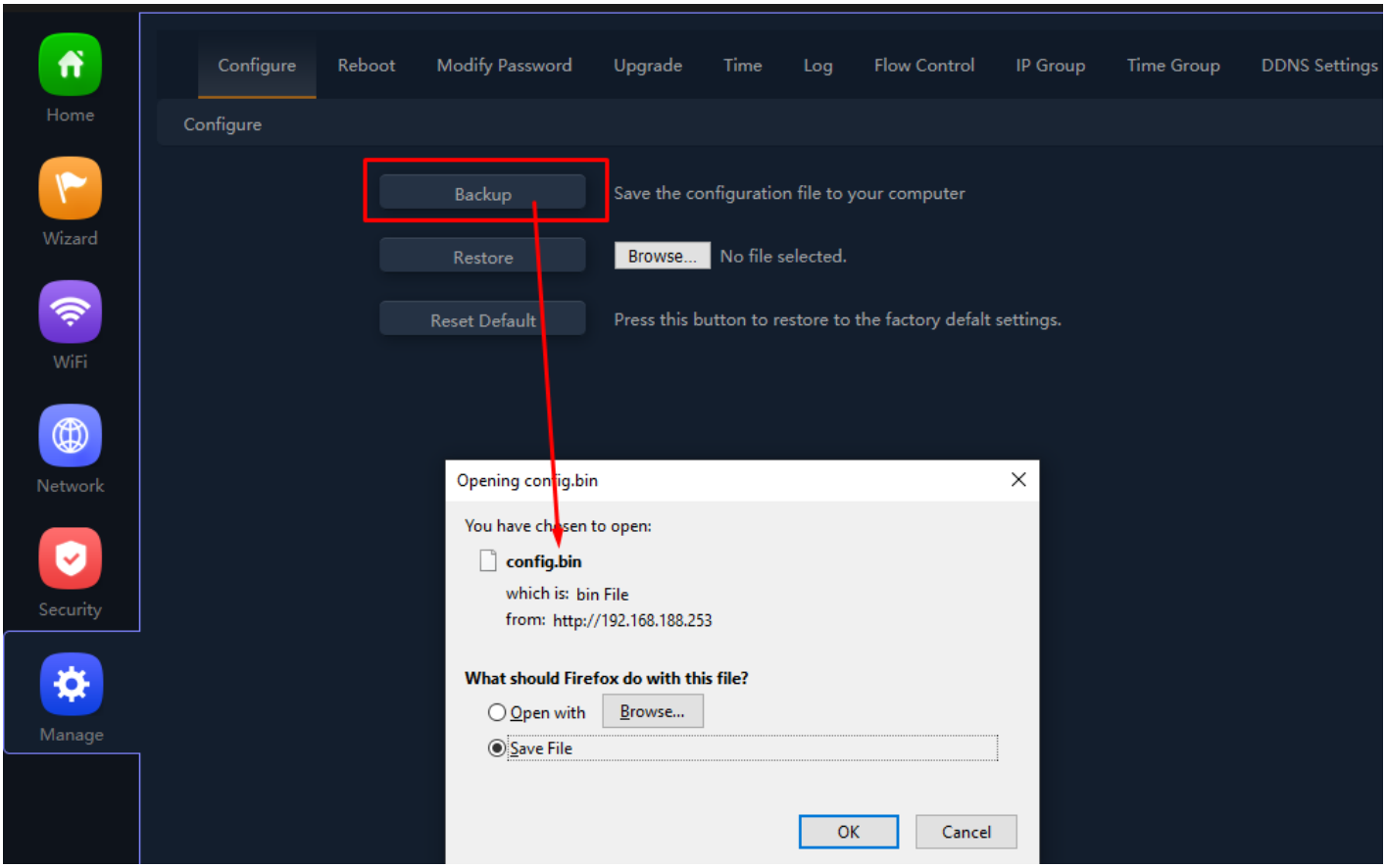

Fig 7.1.2 Taking backup of AirONE AIR-CPE5K+

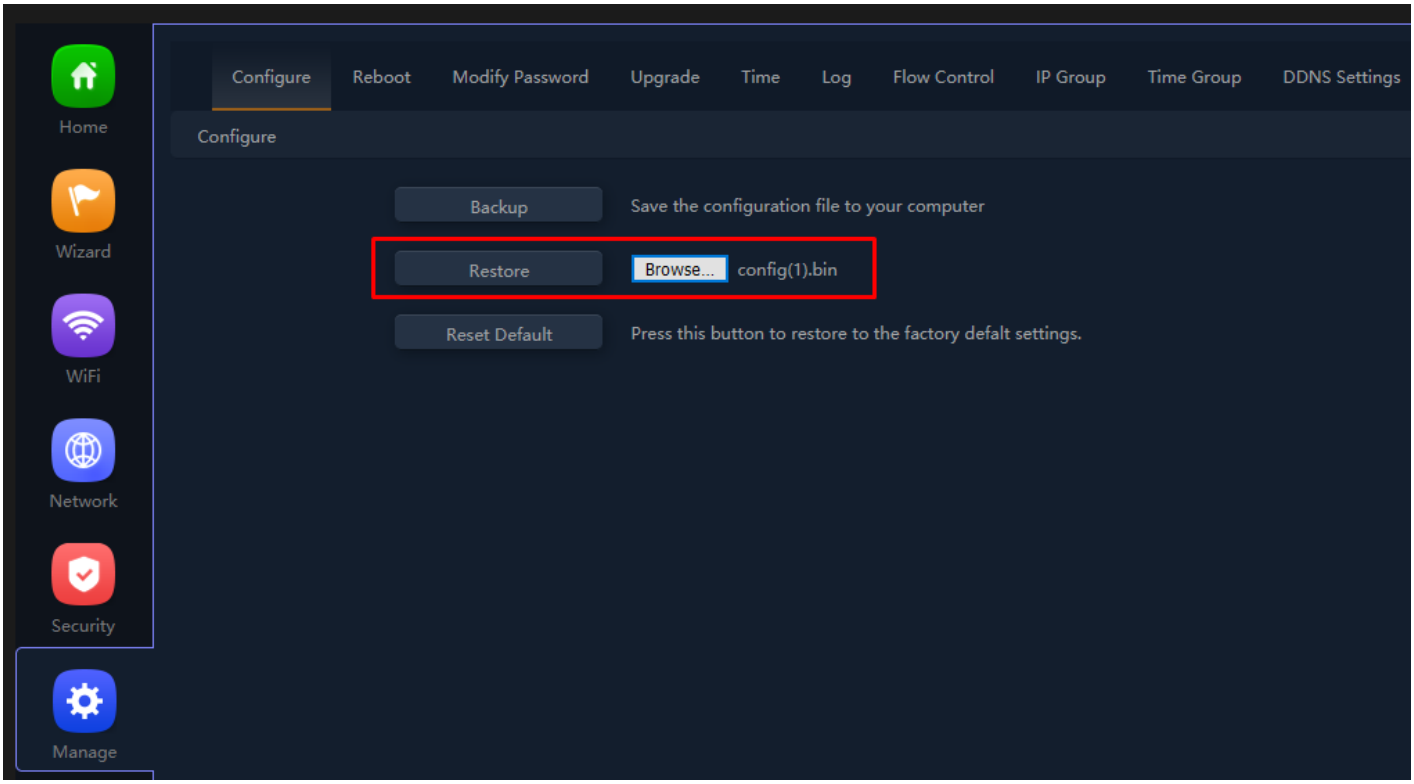

Fig 7.1.3 Restore to known Configure for AirONE AIR-CPE5K+

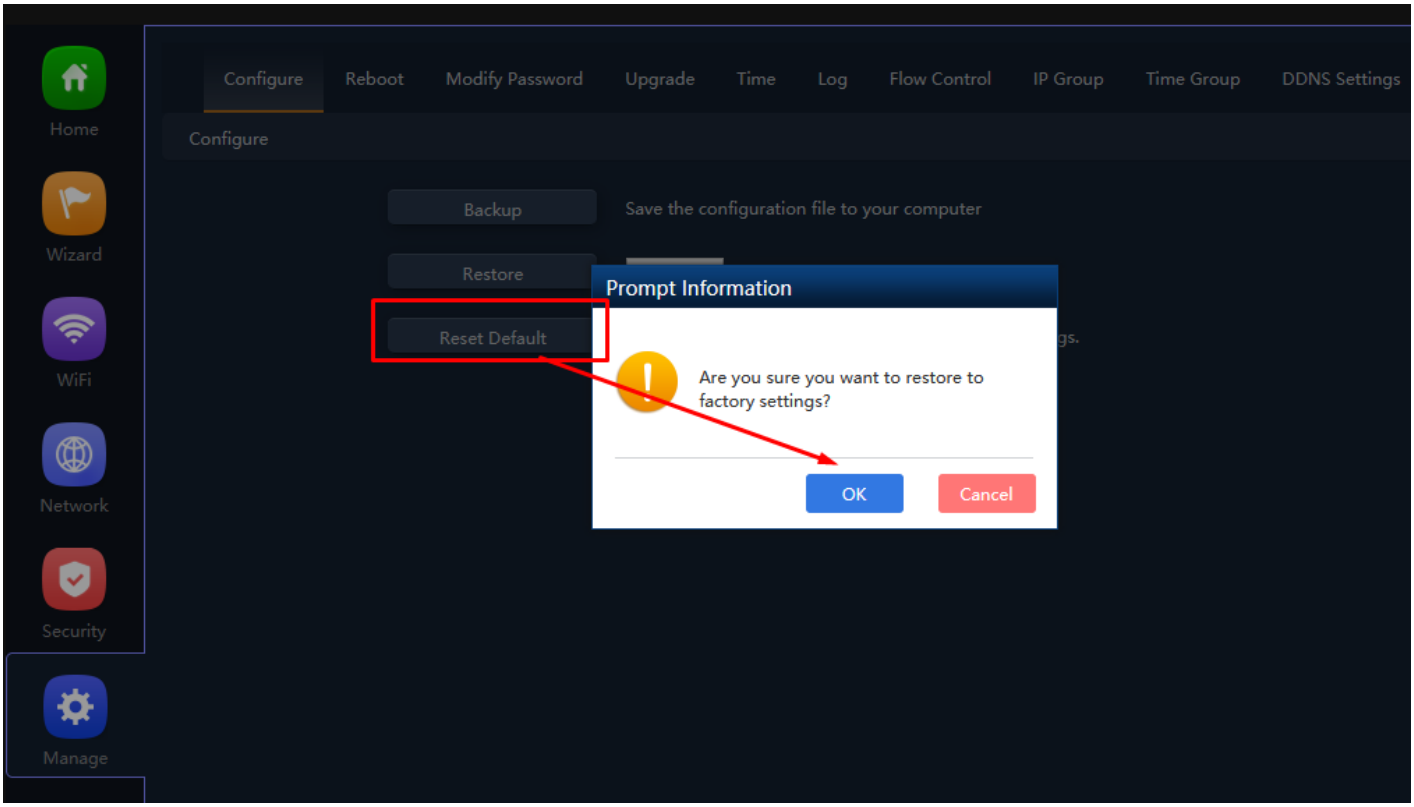

Fig 7.1.4 Reset to factory default for AirONE AIR-CPE5K

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.

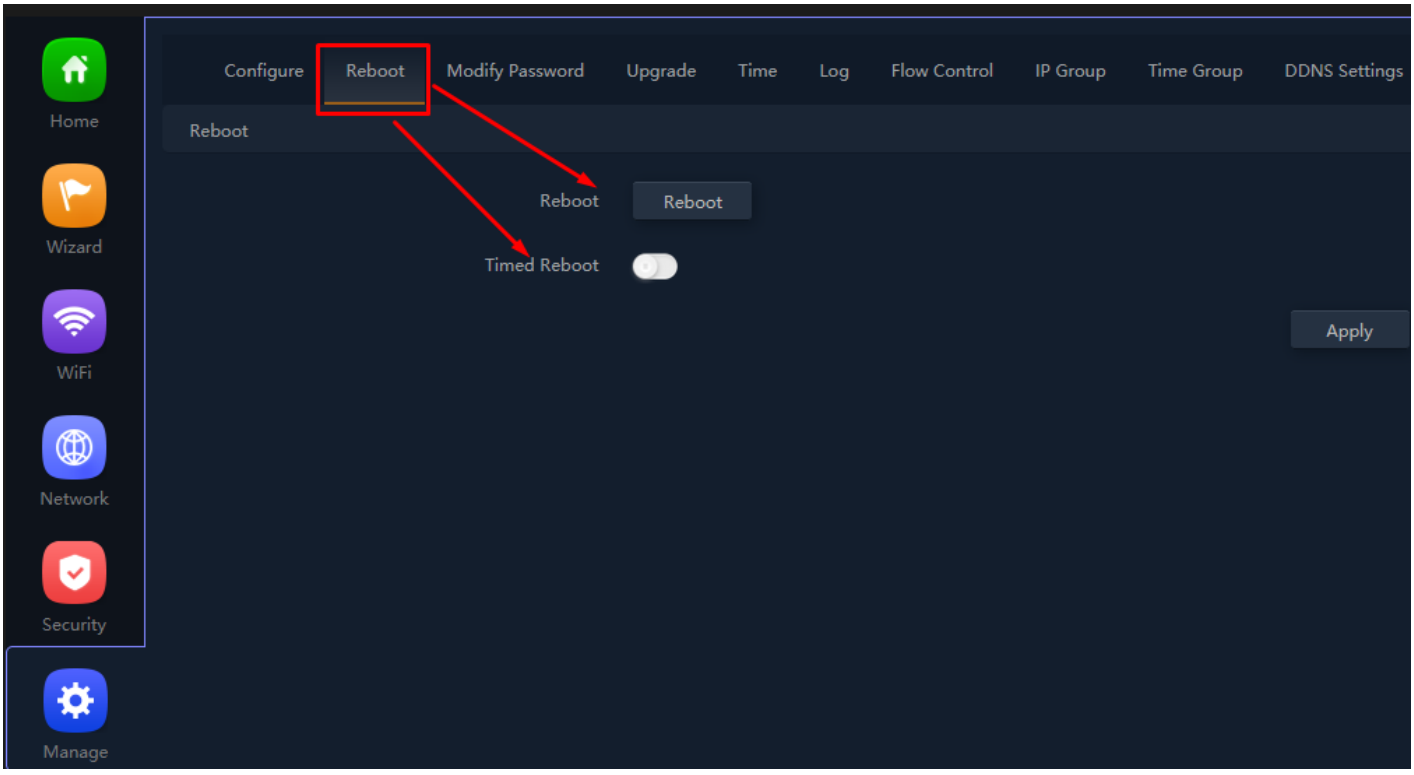

Fig 7.2.1 Default reboot setting for AirONE AIR-CPE5K+

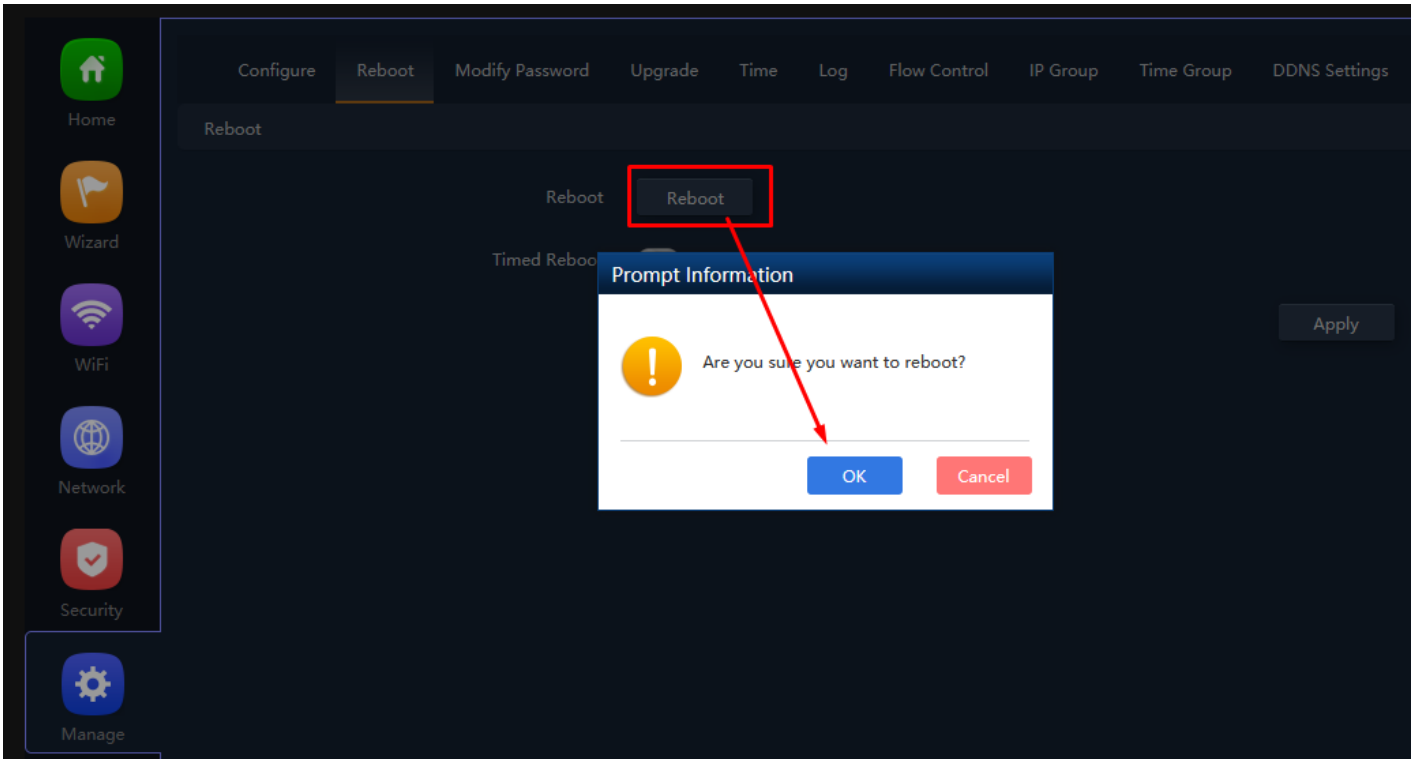

Fig 7.2.2 Instant Reboot setting for AirONE AIR-CPE5K+

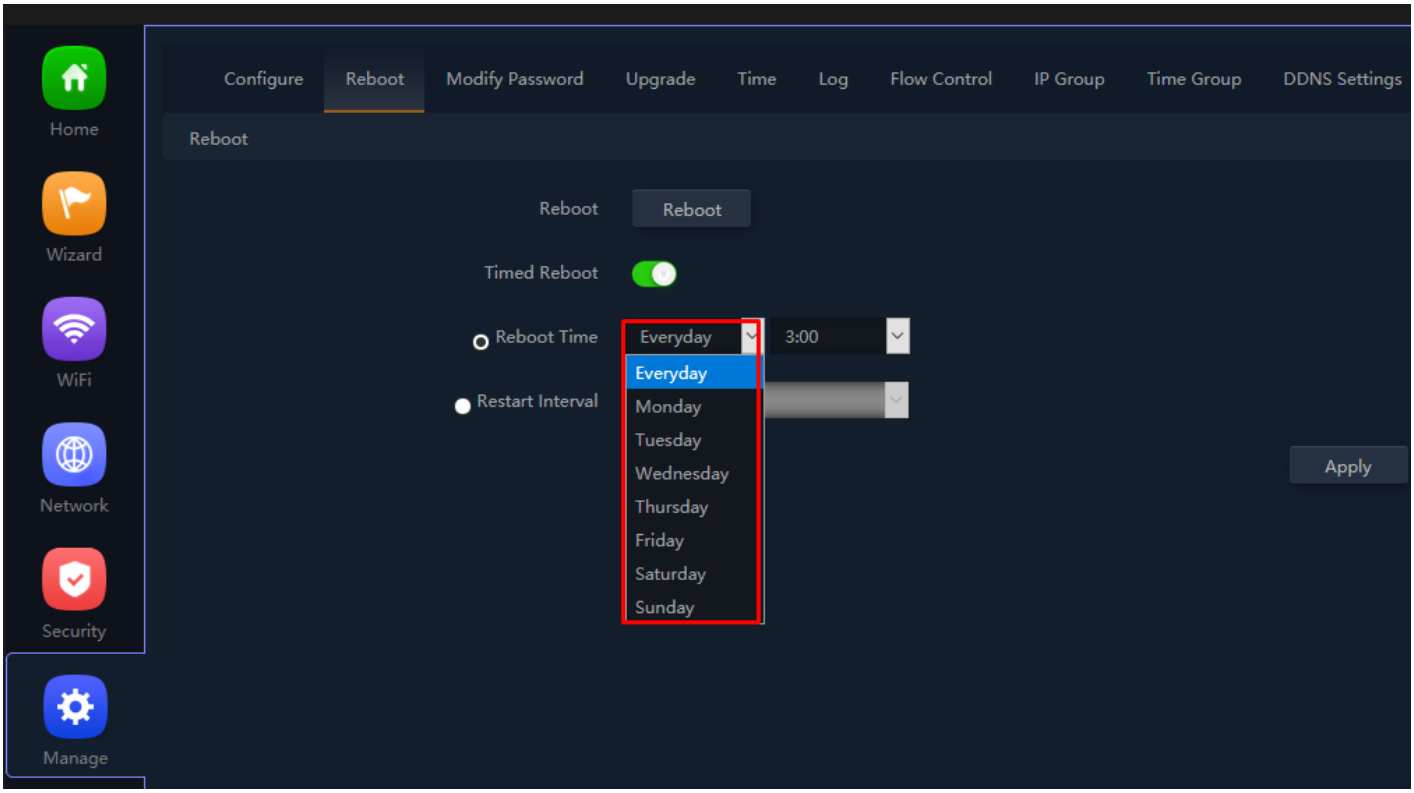

Fig 7.2.3 Enable timed reboot for AirONE AIR-CPE5K+

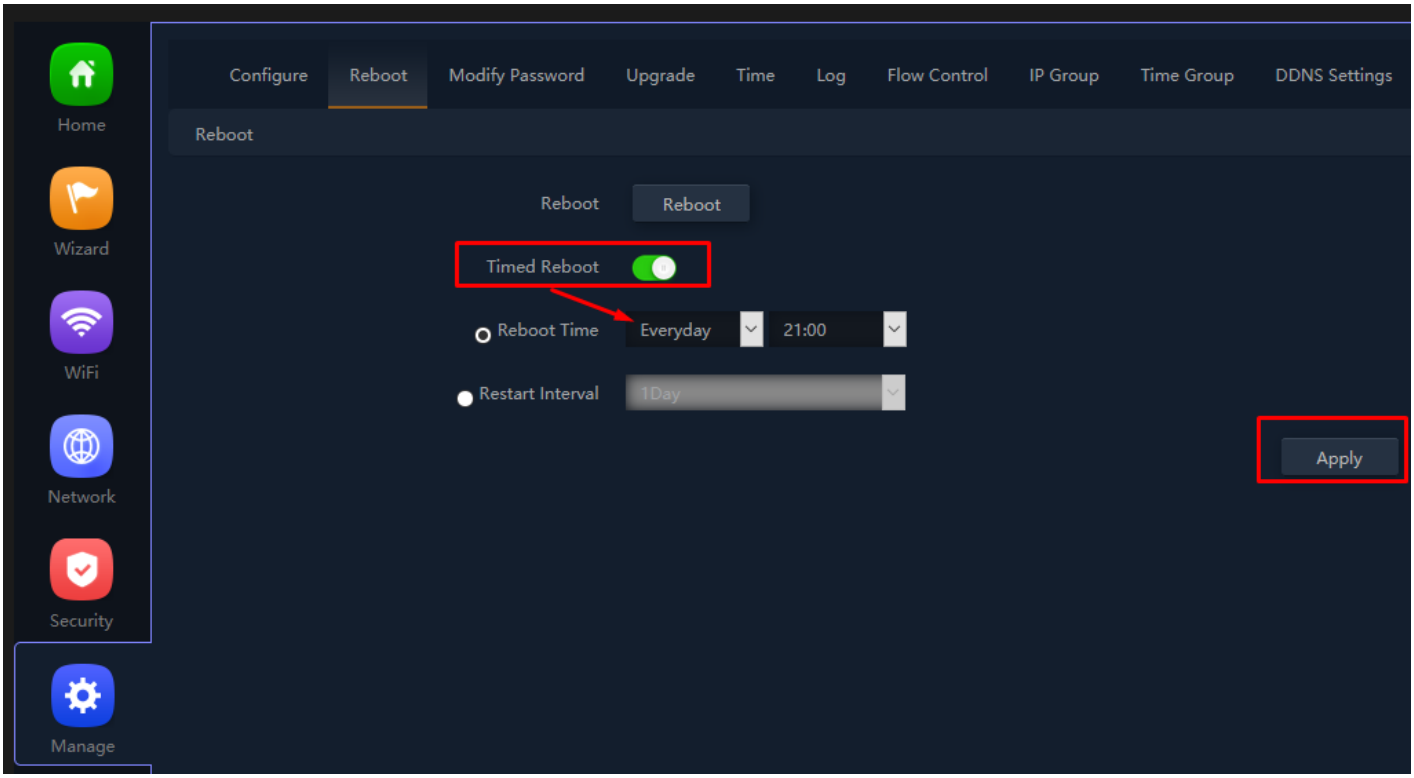

Fig 7.2.4 Enable daily reboot for AirONE AIR-CPE5K+

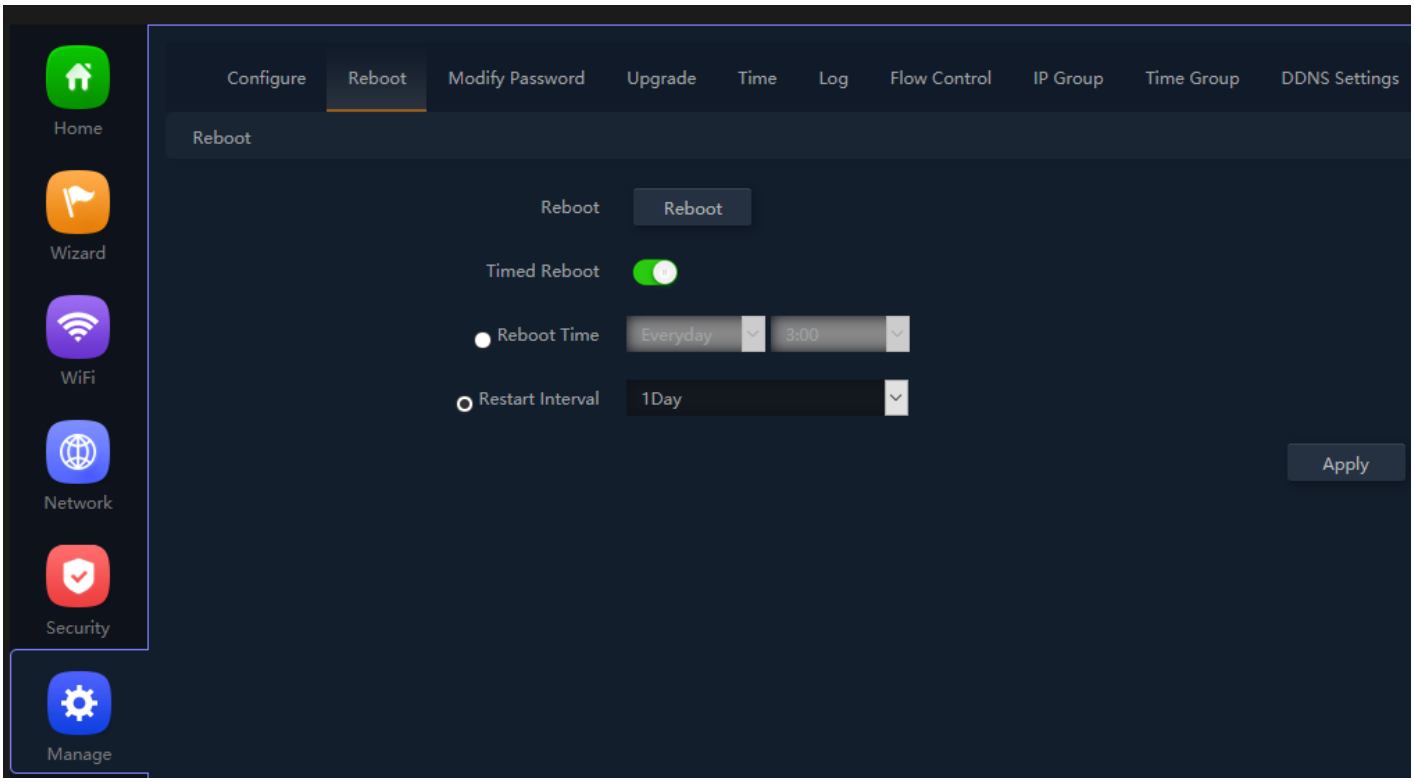

Fig 7.2.5 Enable Restart interval for AirONE AIR-CPE5K+

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.

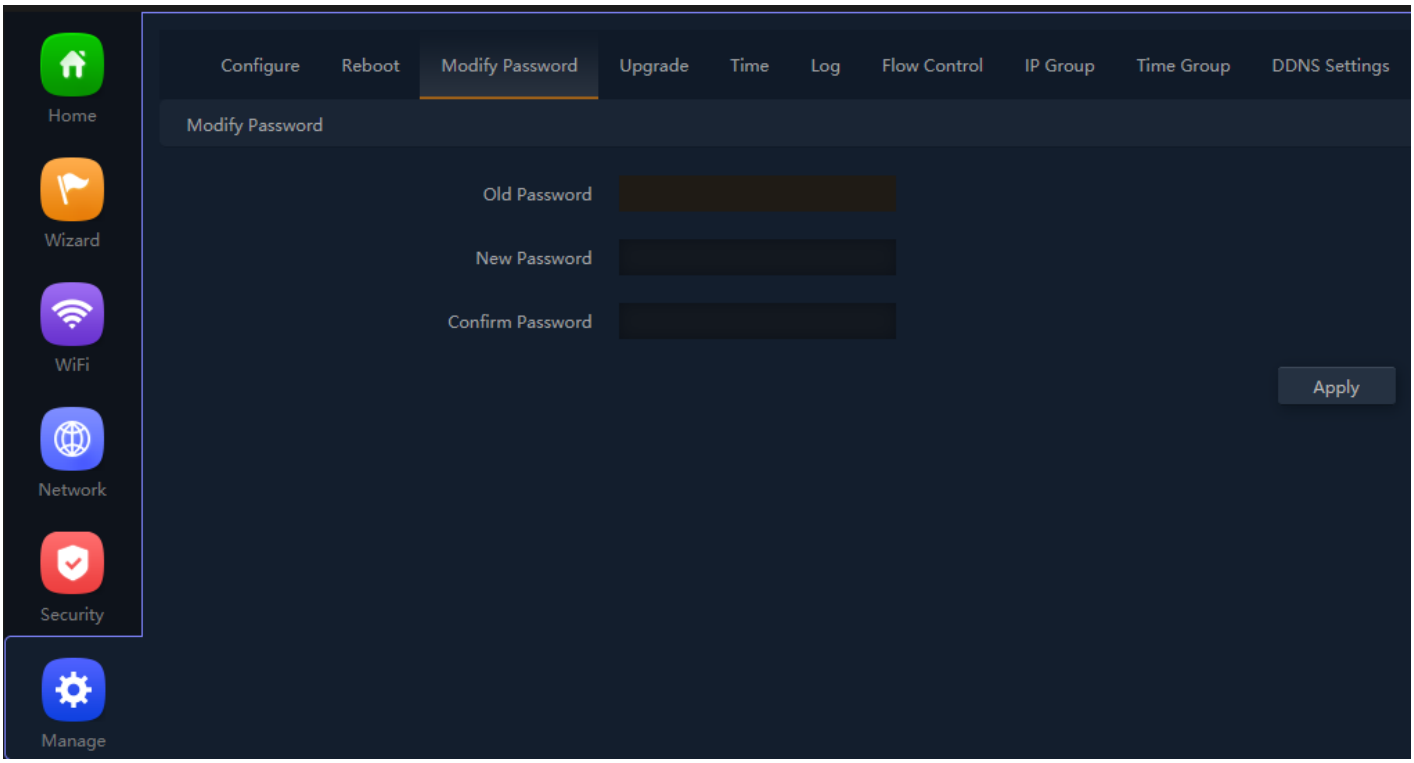

Fig 7.3.1 Modify password page for AirONE AIR-CPE5K+

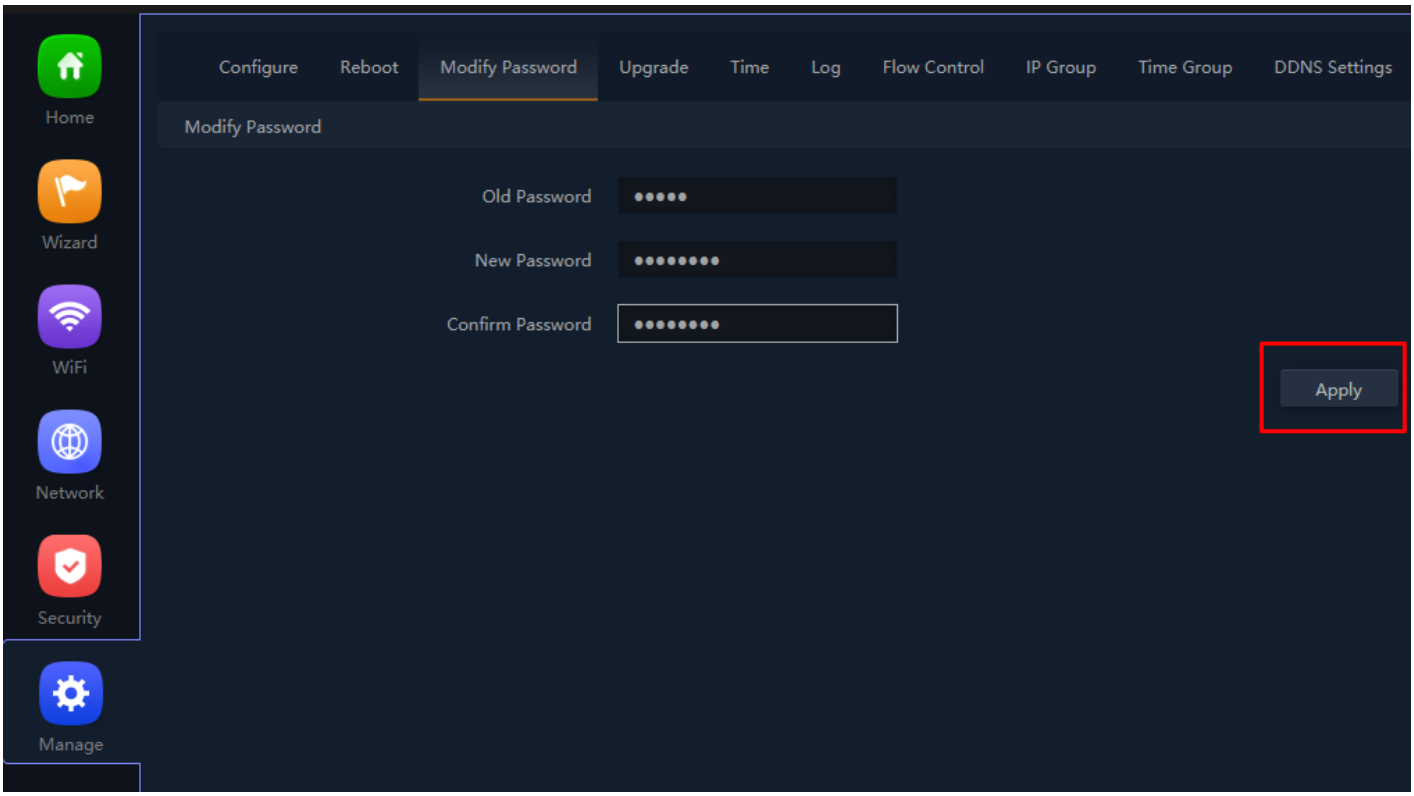

Fig 7.3.2 Setting New password for AirONE AIR-CPE5K+

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.

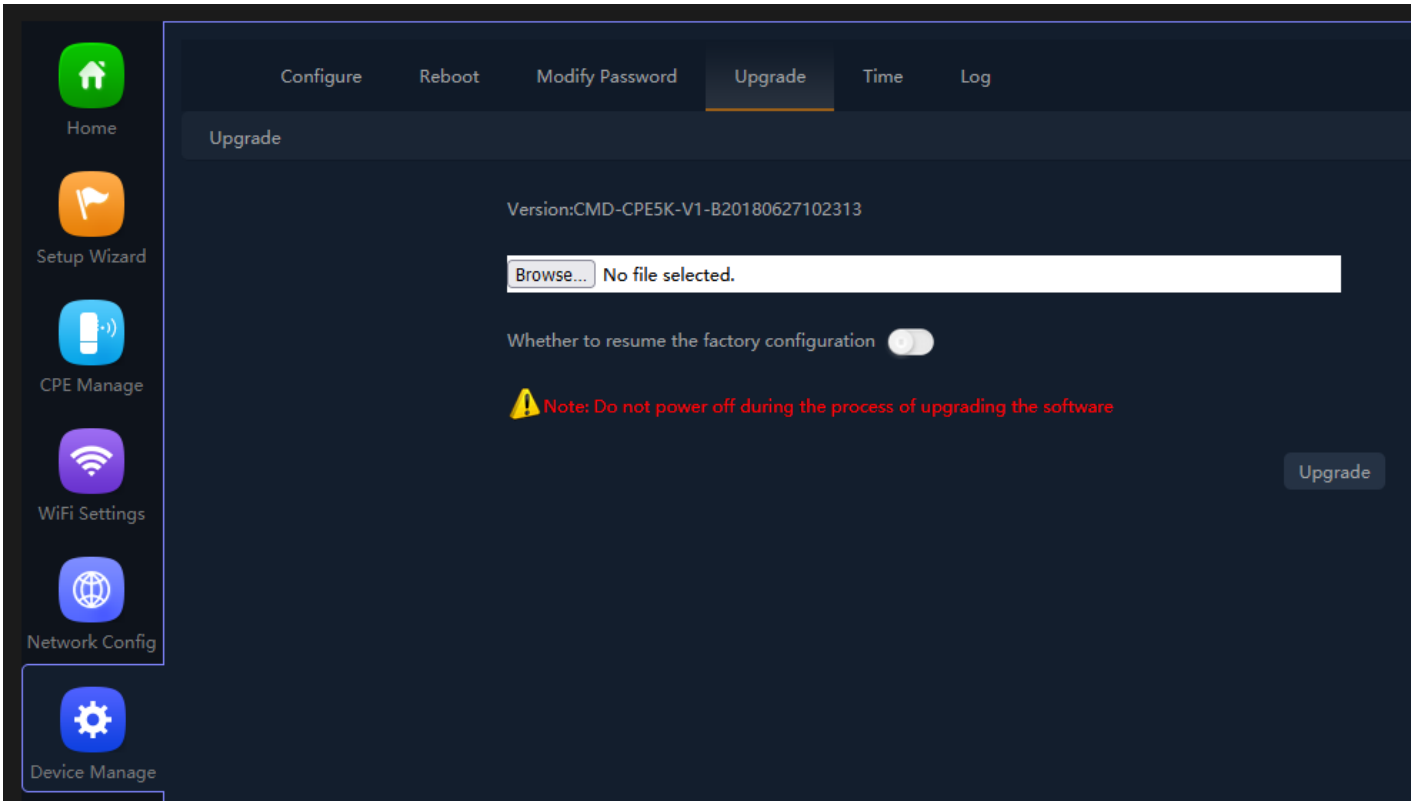

Fig 7.4.1 Default Upgrade page for AirONE AIR-CPE5K+

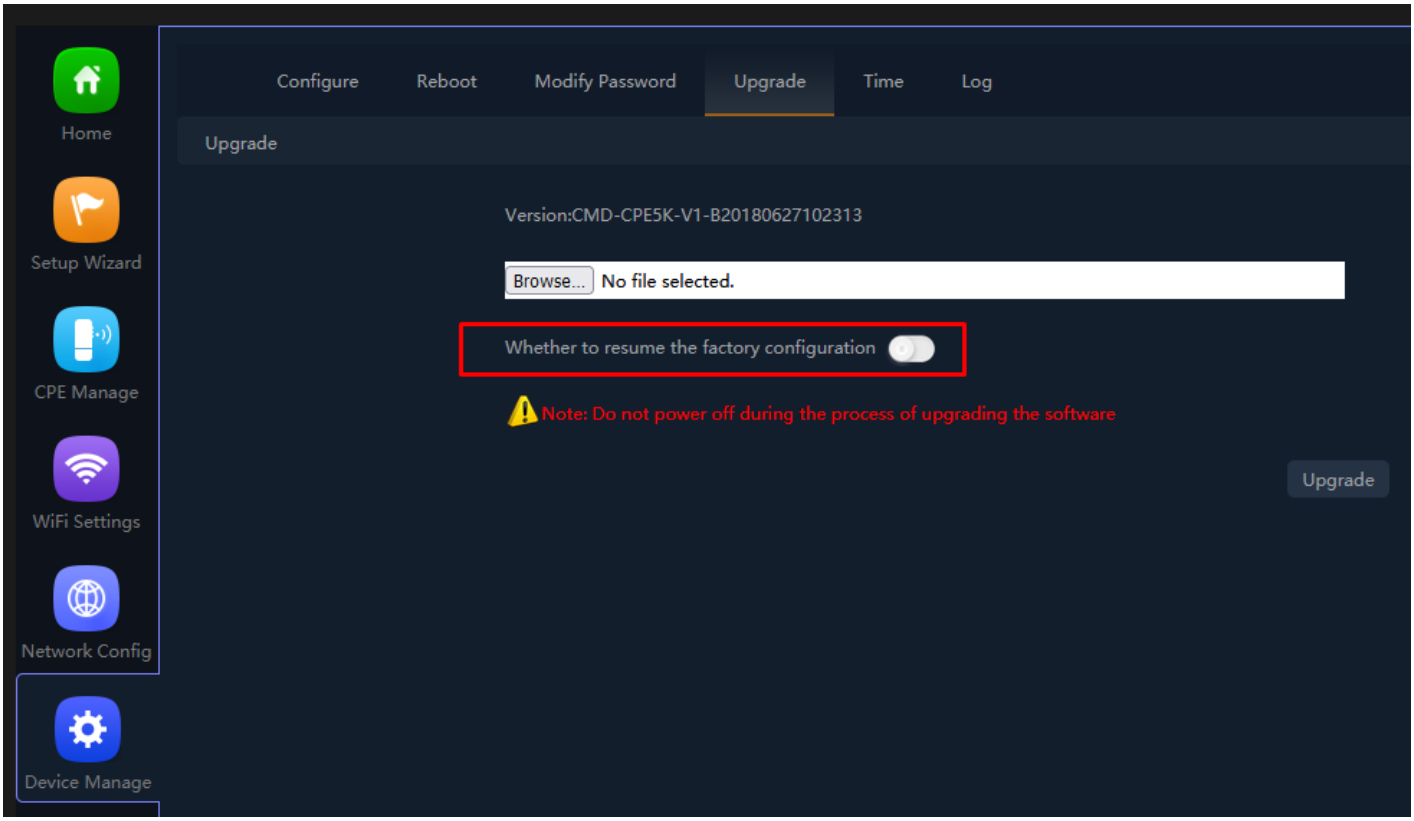

Fig 7.4.2 Upgrade with no previous configuration for AirONE AIR-CPE5K+

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.

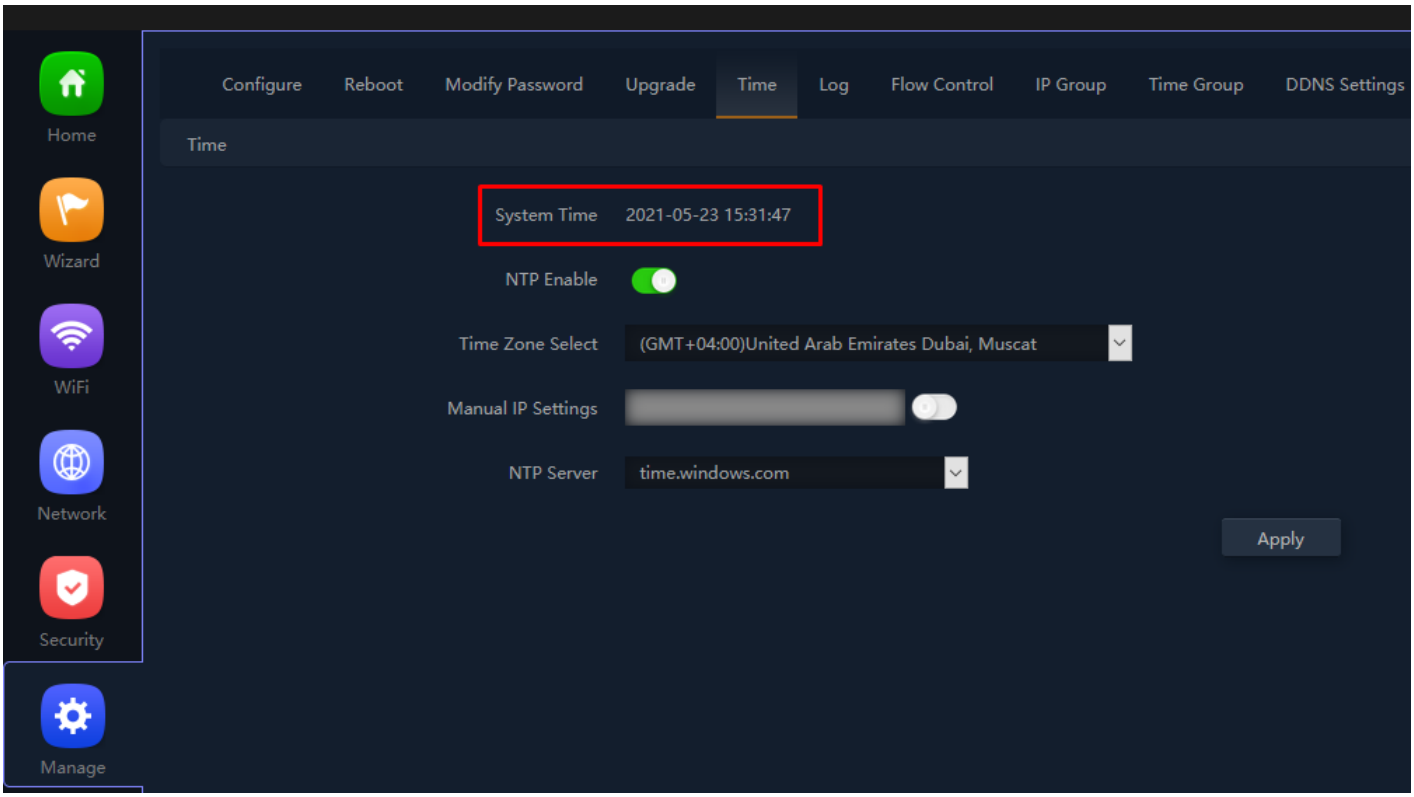

Fig 7.5.1 System Time for AirONE AIR-CPE5K+

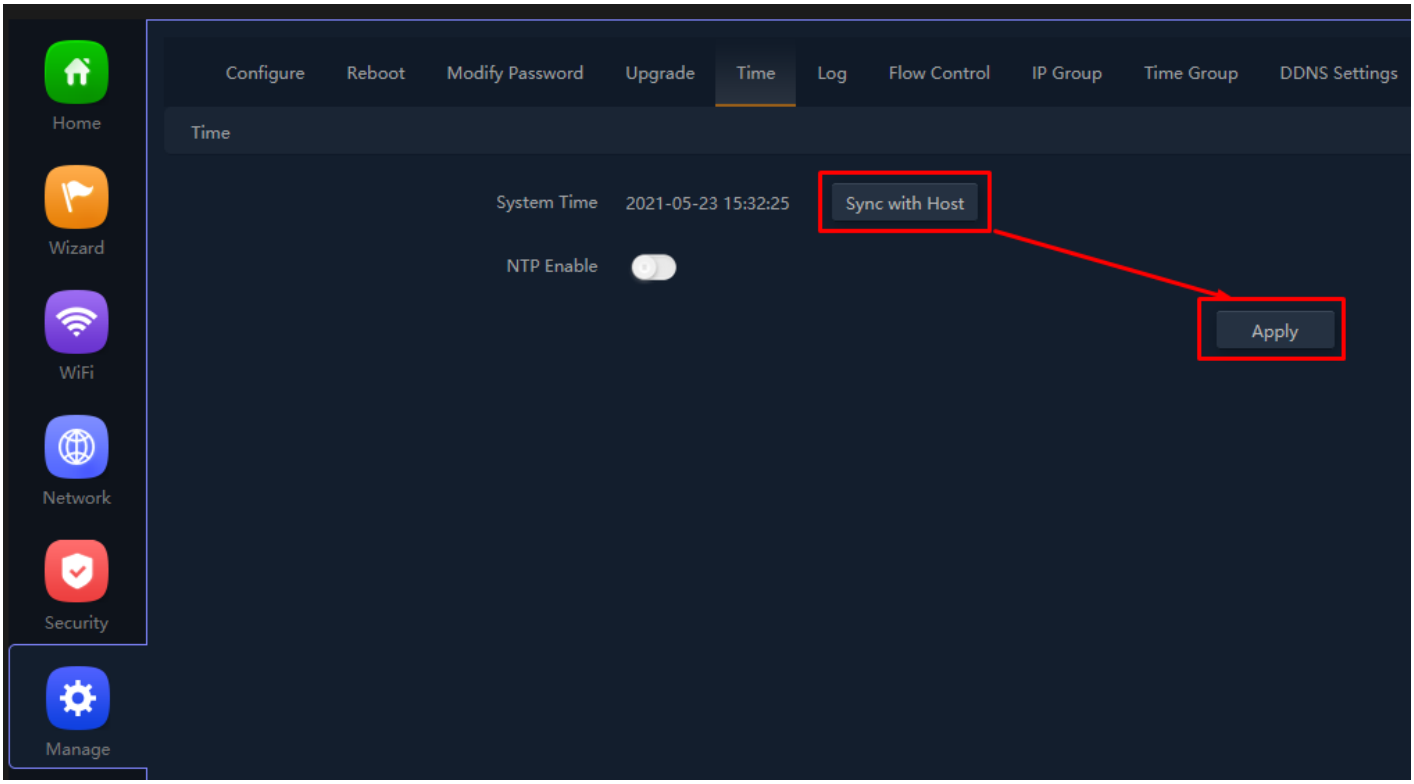

Fig 7.5.2 Disable NTP and Sync with host for AirONE AIR-CPE5K+

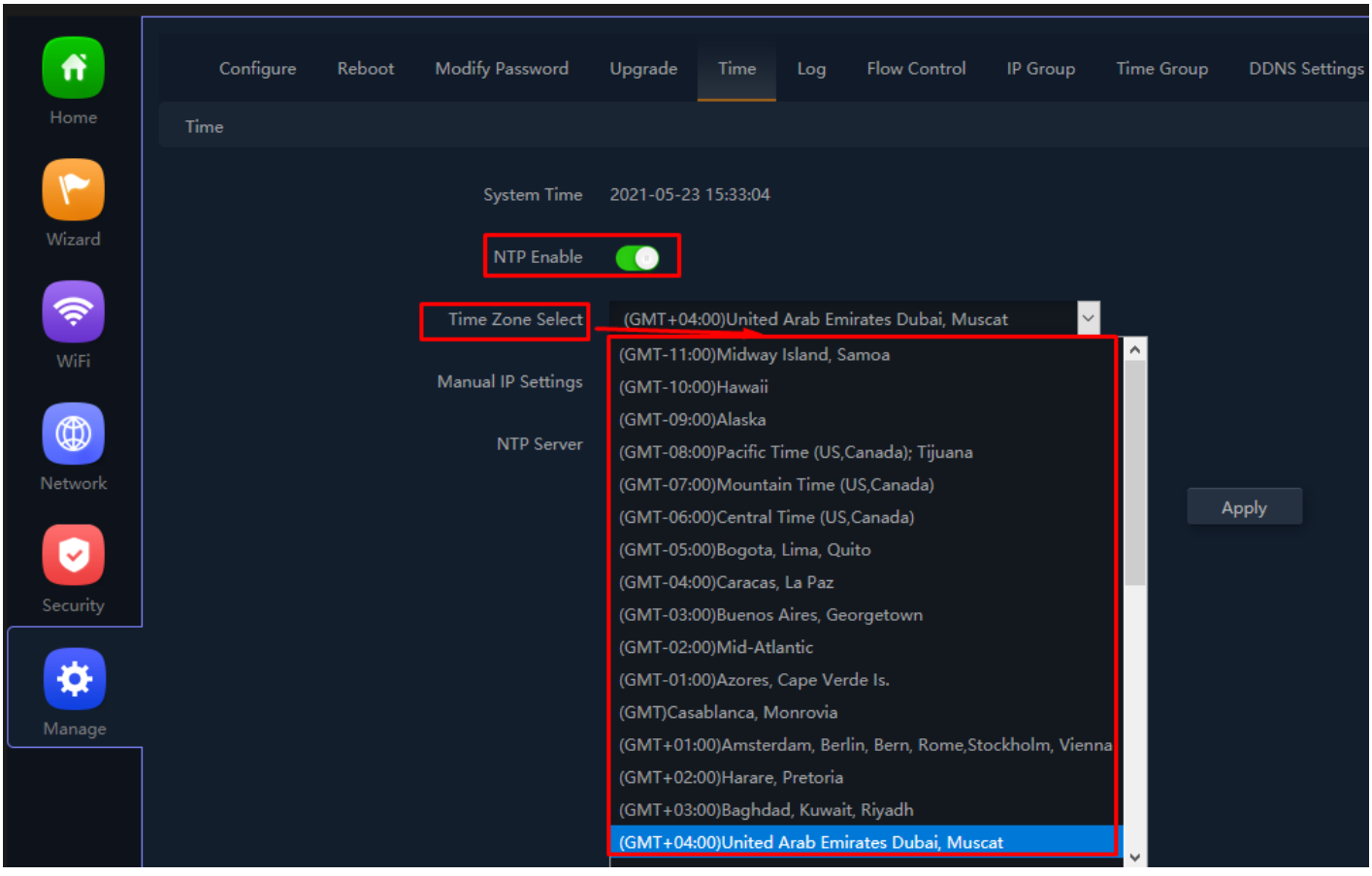

Fig 7.5.3 Enable NTP and select time zone for AirONE AIR-CPE5K+

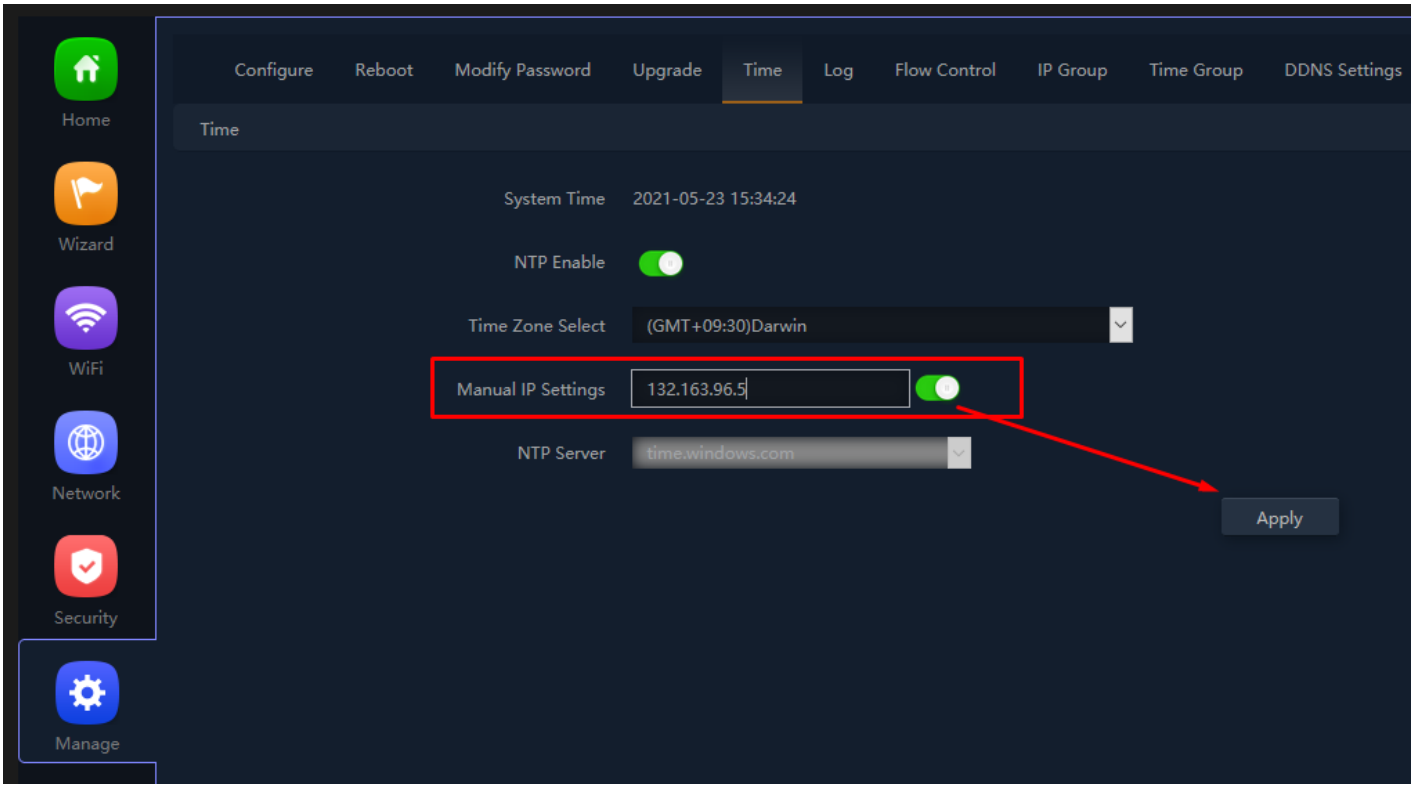

Fig 7.5.4 Enable NTP with Manual IP setting for AirONE AIR-CPE5K+

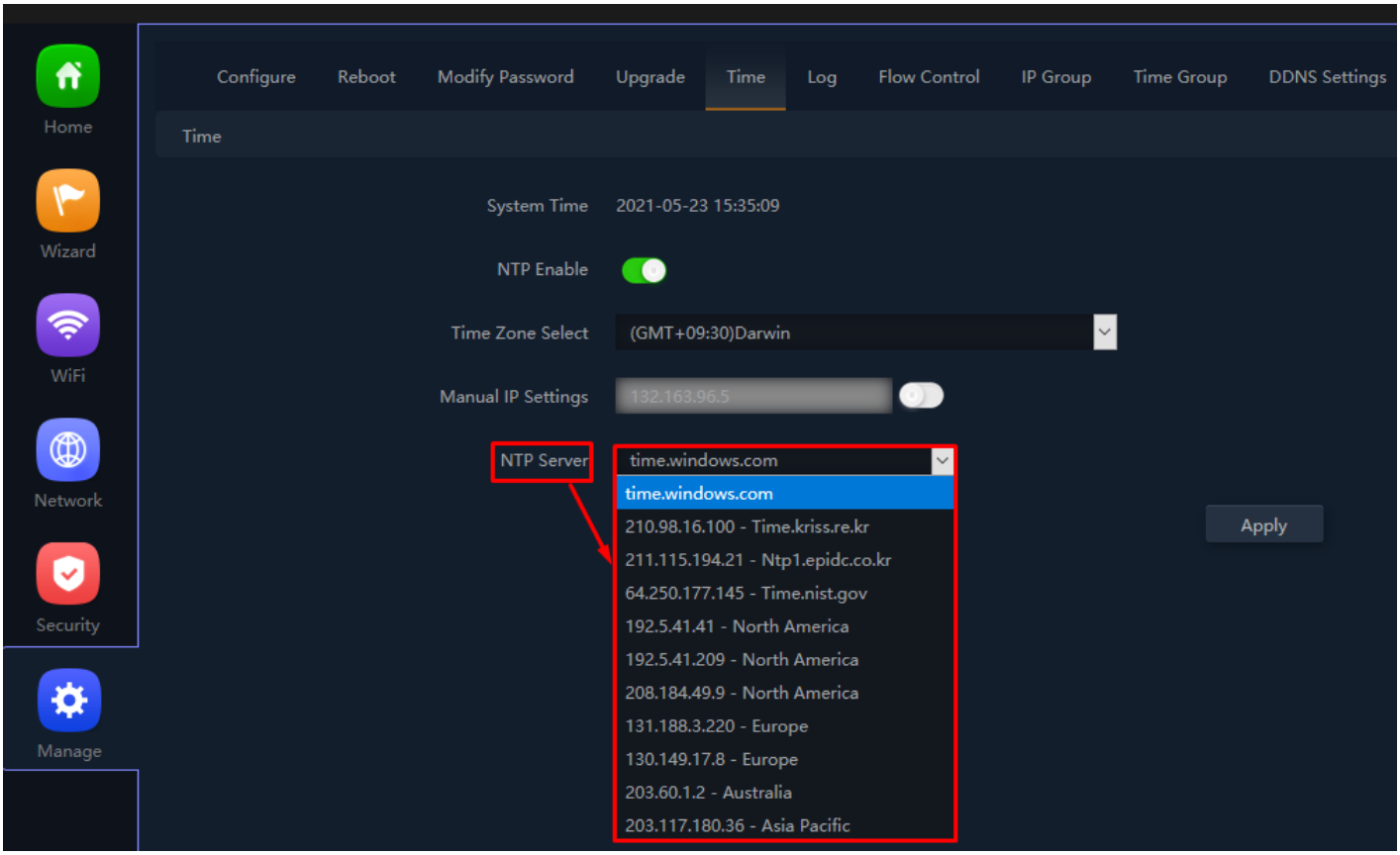

Fig 7.5.5 Selecting well know NTP server for AirONE AIR-CPE5K+

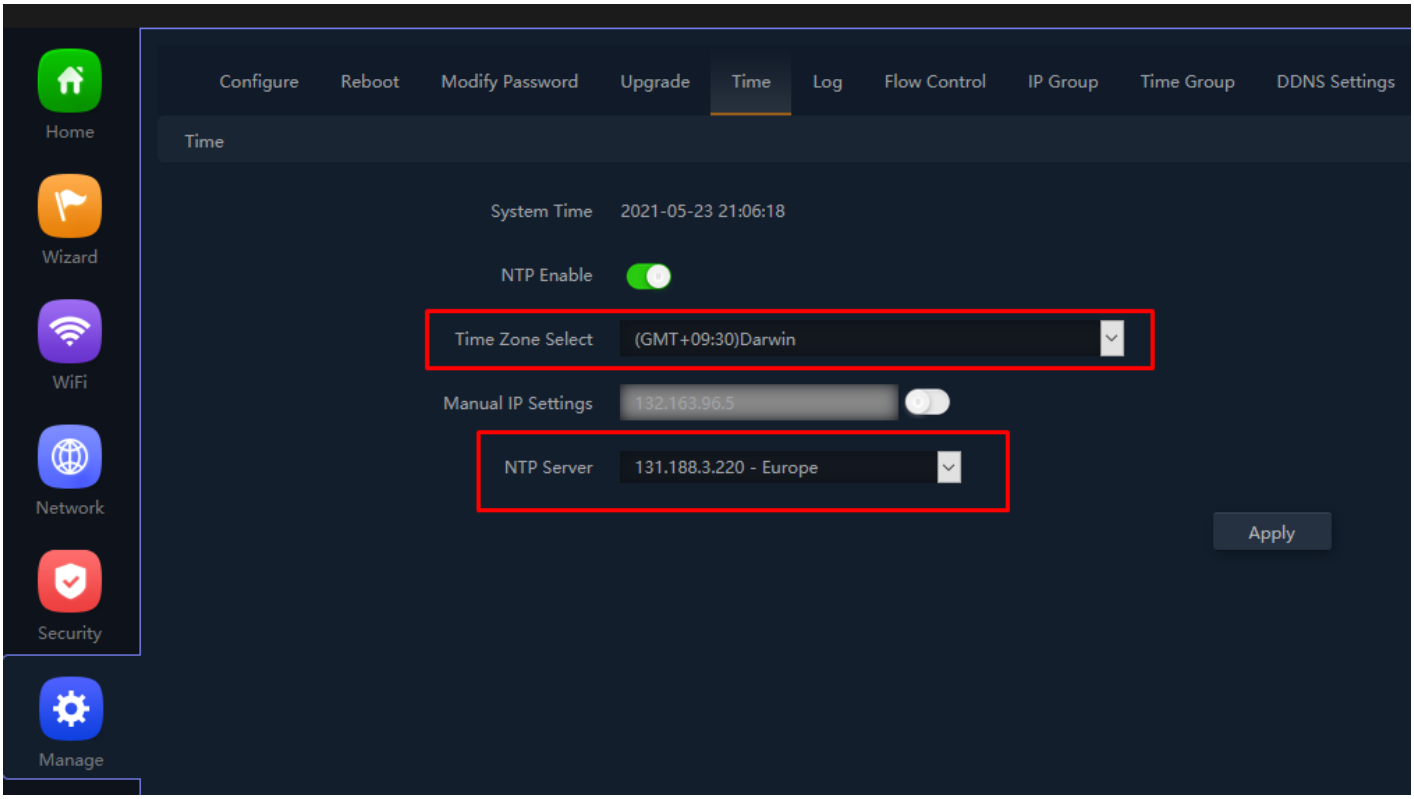

Fig 7.5.6 NTP server for AirONE AIR-CPE5K

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.

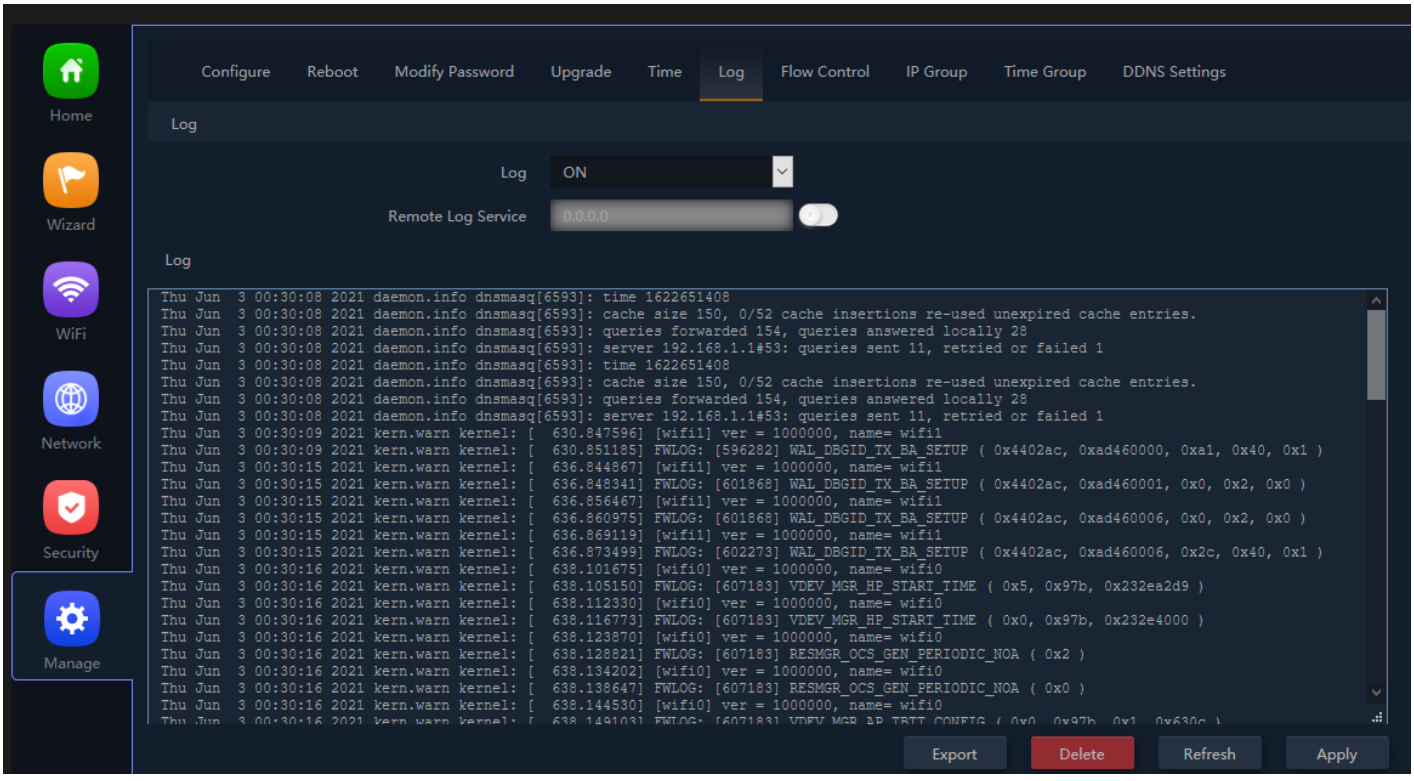

Fig 7.6.1 Default Log setting for AirONE AIR-CPE5K+

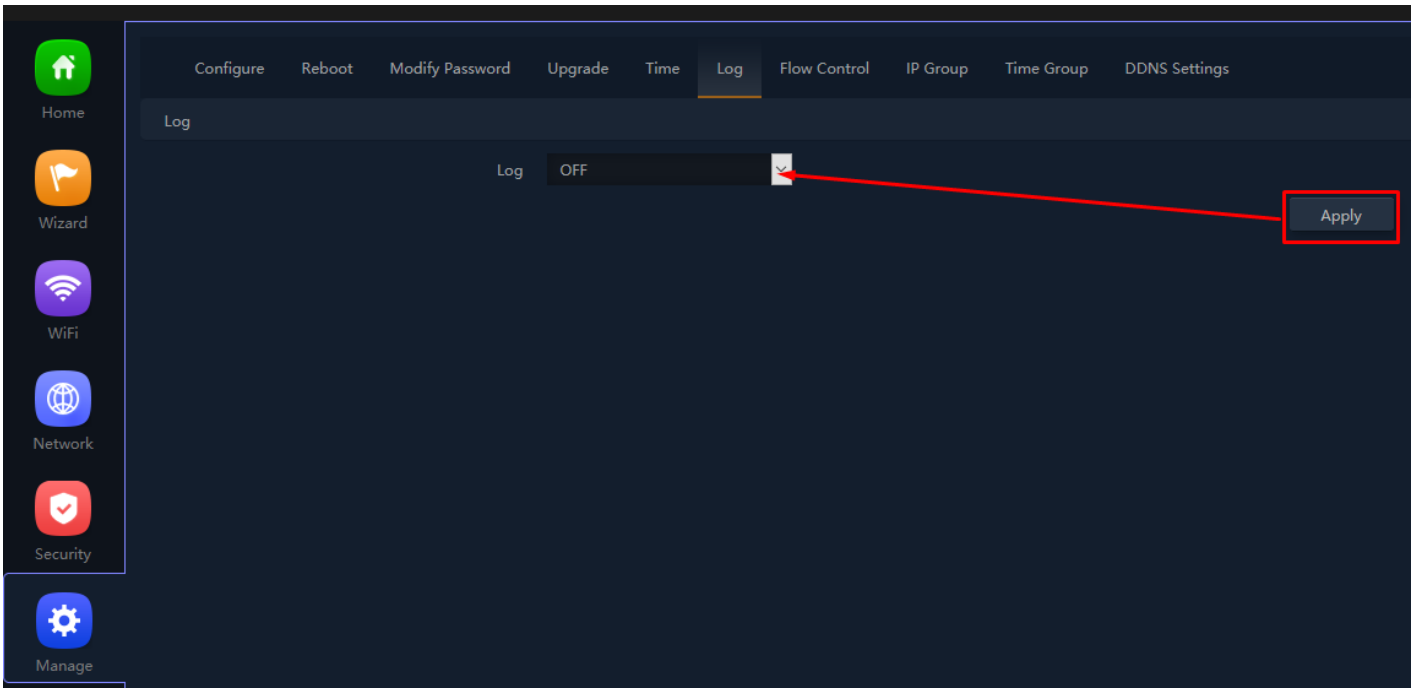

Fig 7.6.2 Turning OFF Log setting for AirONE AIR-CPE5K+

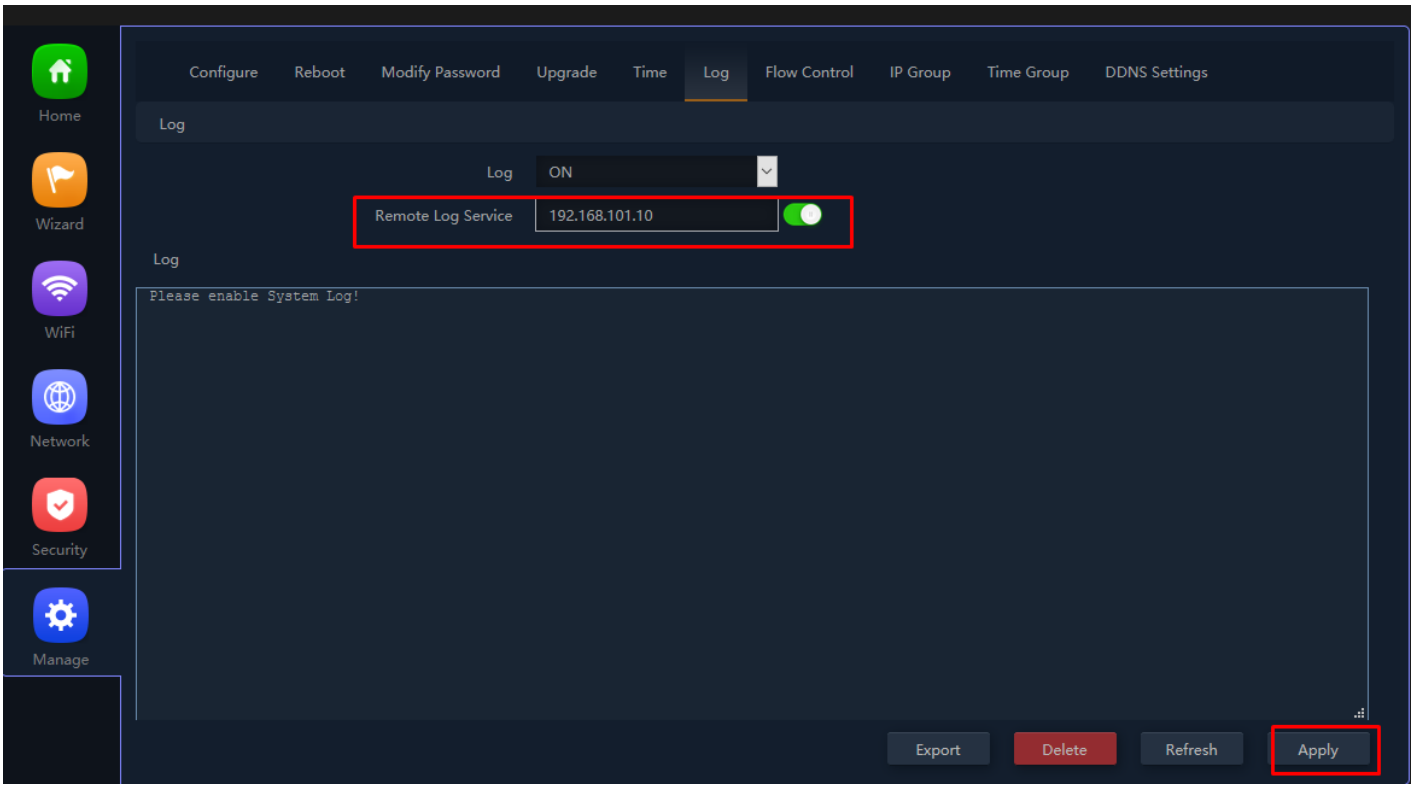

Fig 7.6.3 Remote Log service setting IP for AirONE AIR-CPE5K+

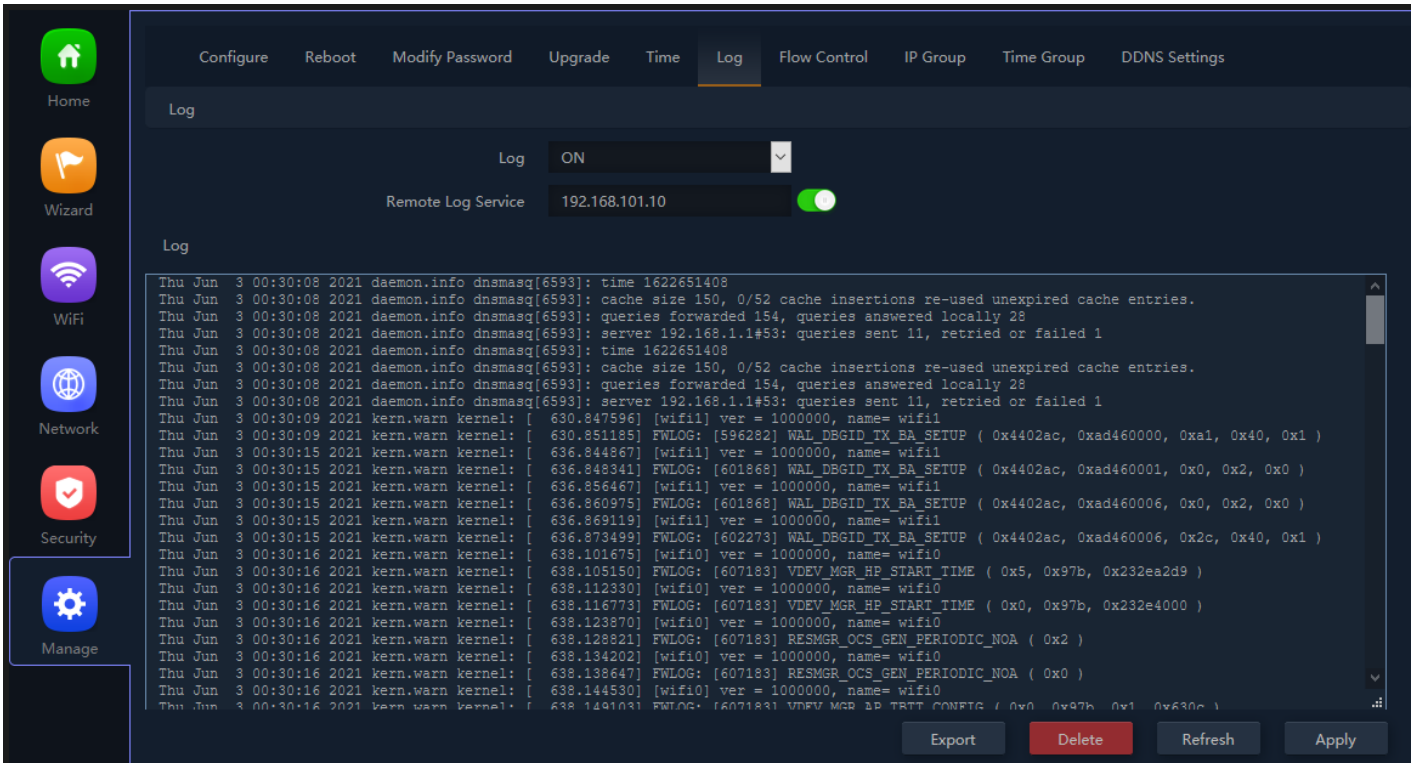

Fig 7.6.4 Enabling Remote Log server setting IP for AirONE AIR-CPE5K+

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.

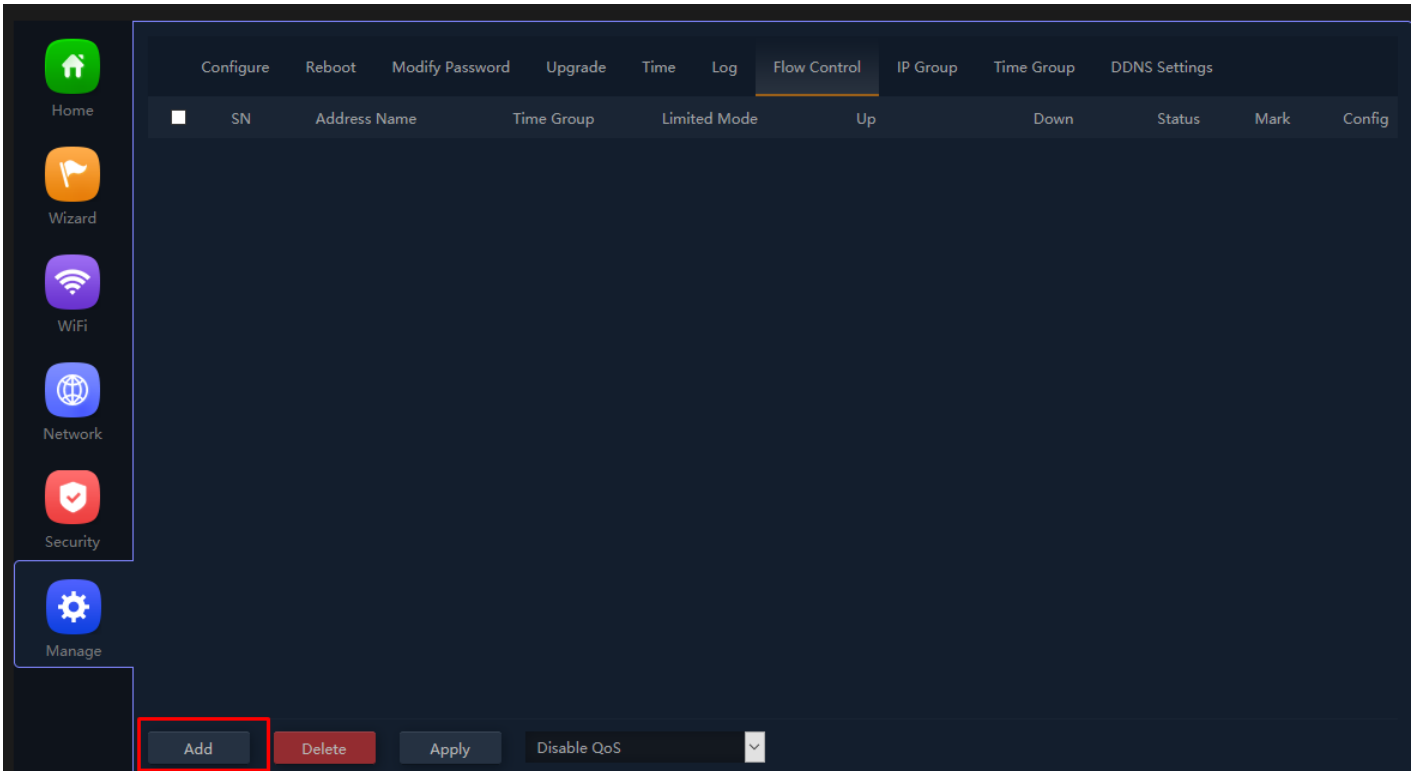

Fig 7.7.1 Default Flow control page for AirONE AIR-CPE5K+

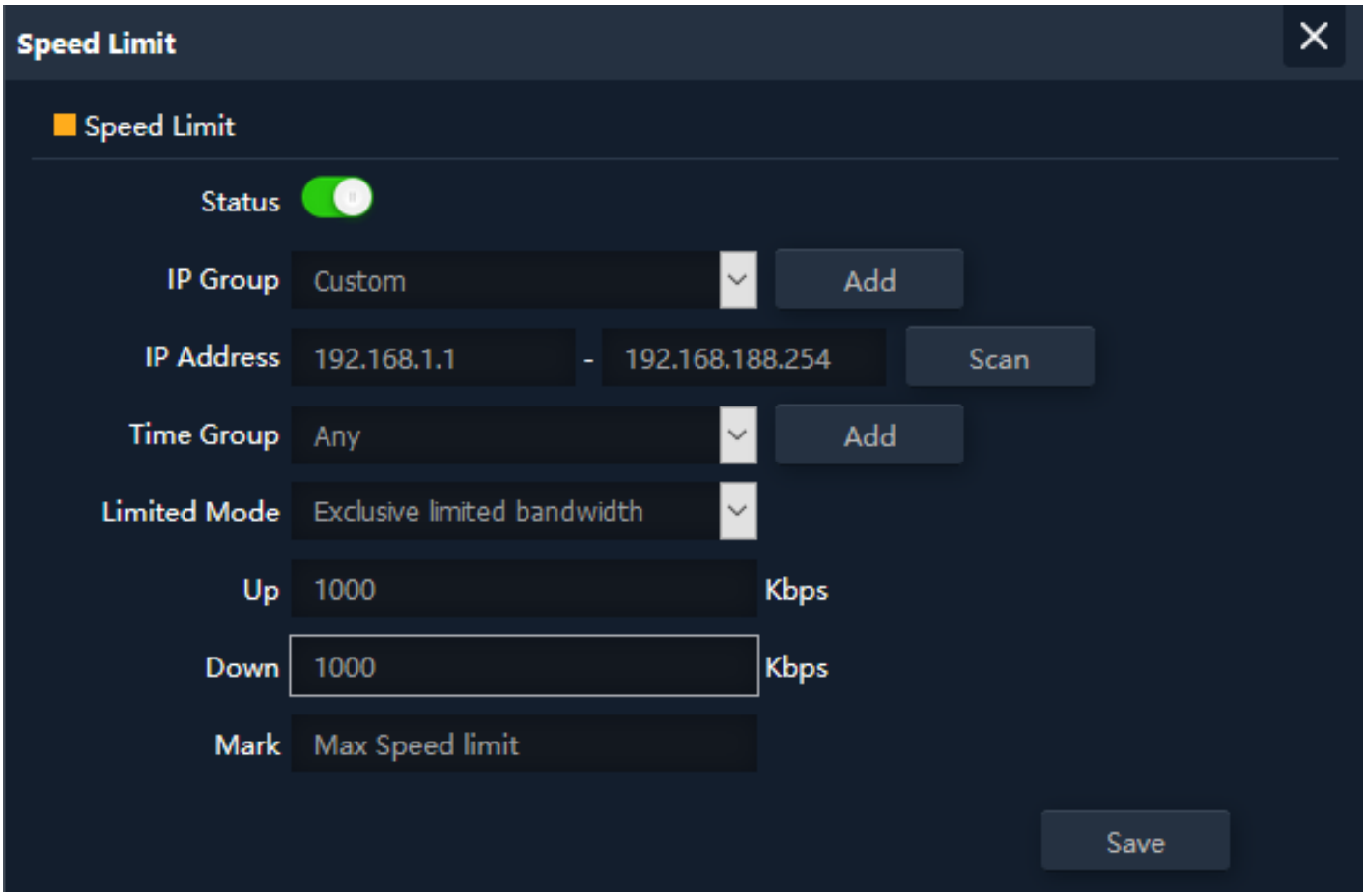

Fig 7.7.2 Enabling Speed limit for AirONE AIR-CPE5K+

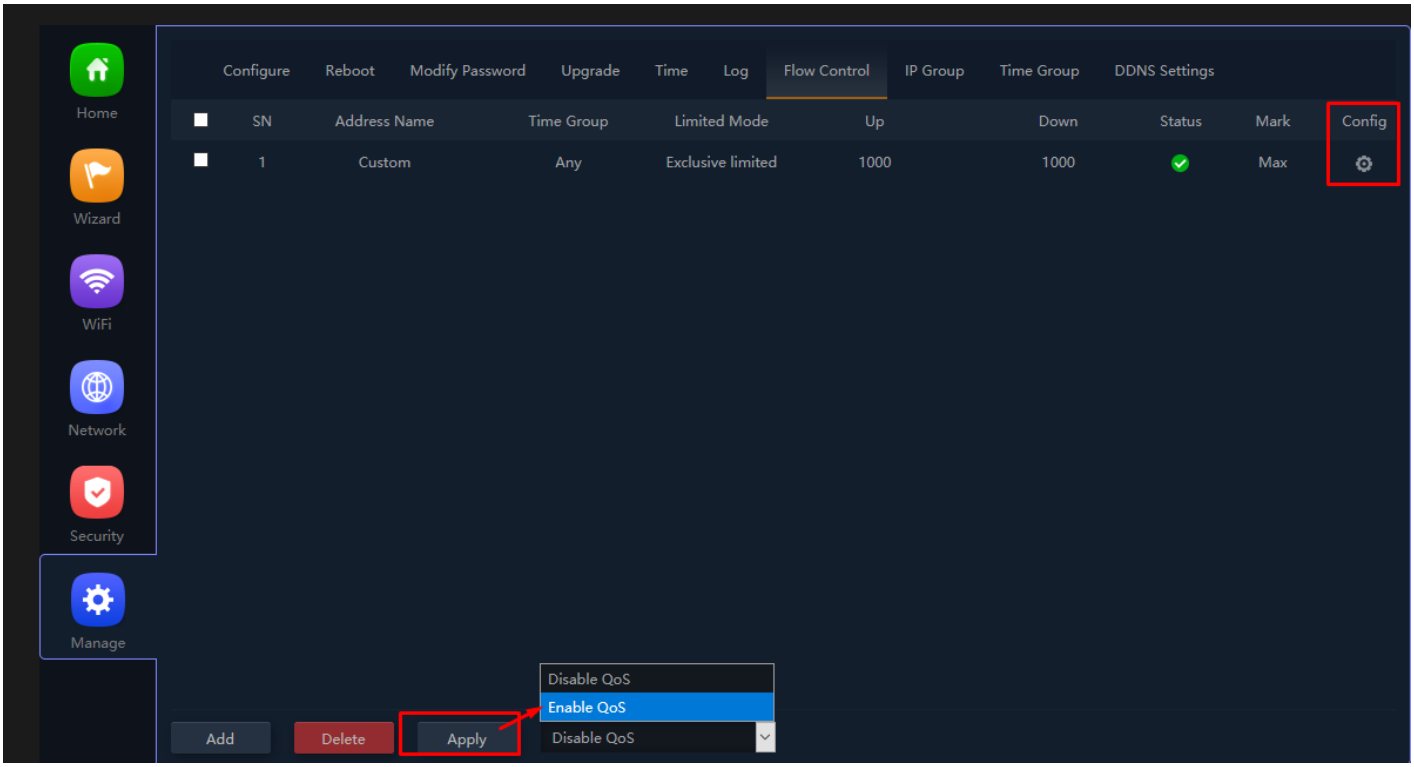

Fig 7.7.3 Flow control page for AirONE AIR-CPE5K+

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.

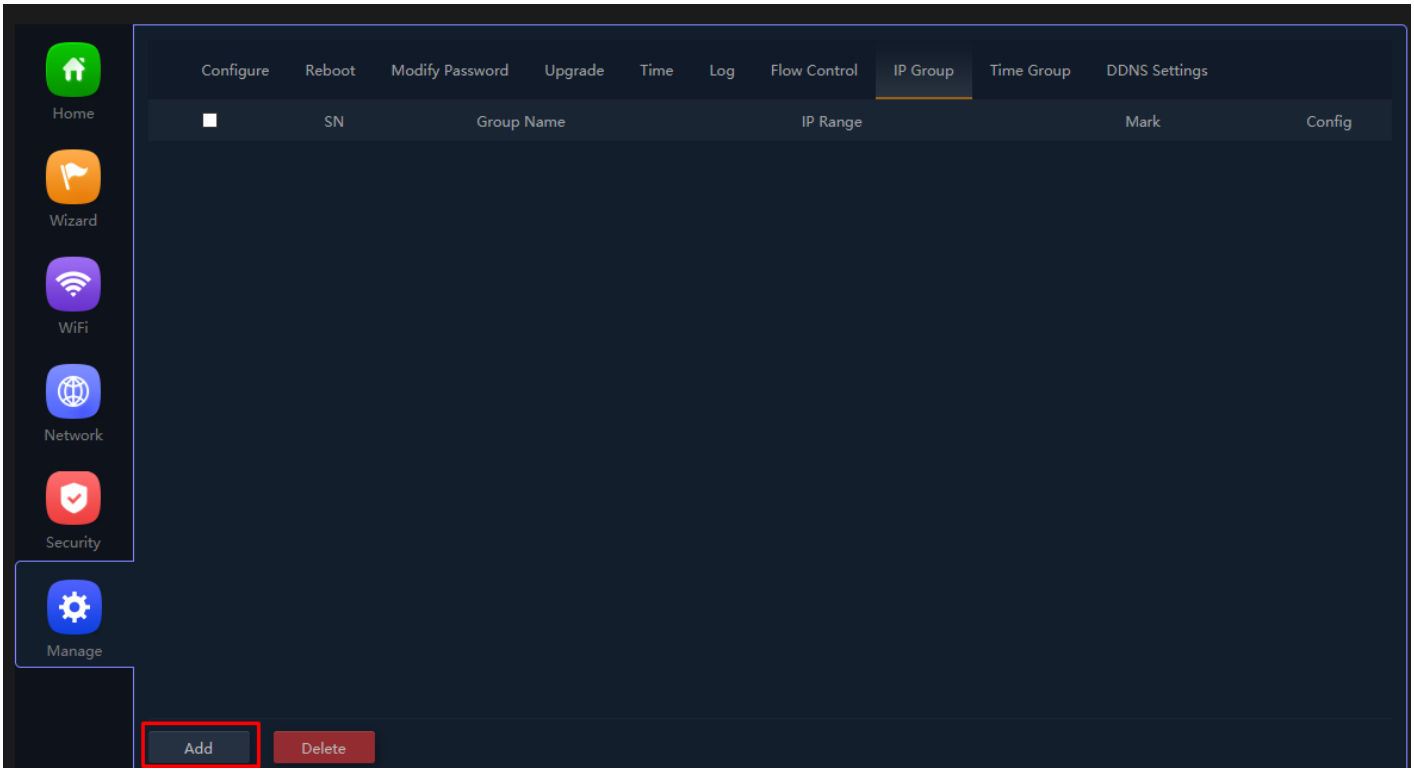

Fig 7.8.1 Default IP group page for AirONE AIR-CPE5K+

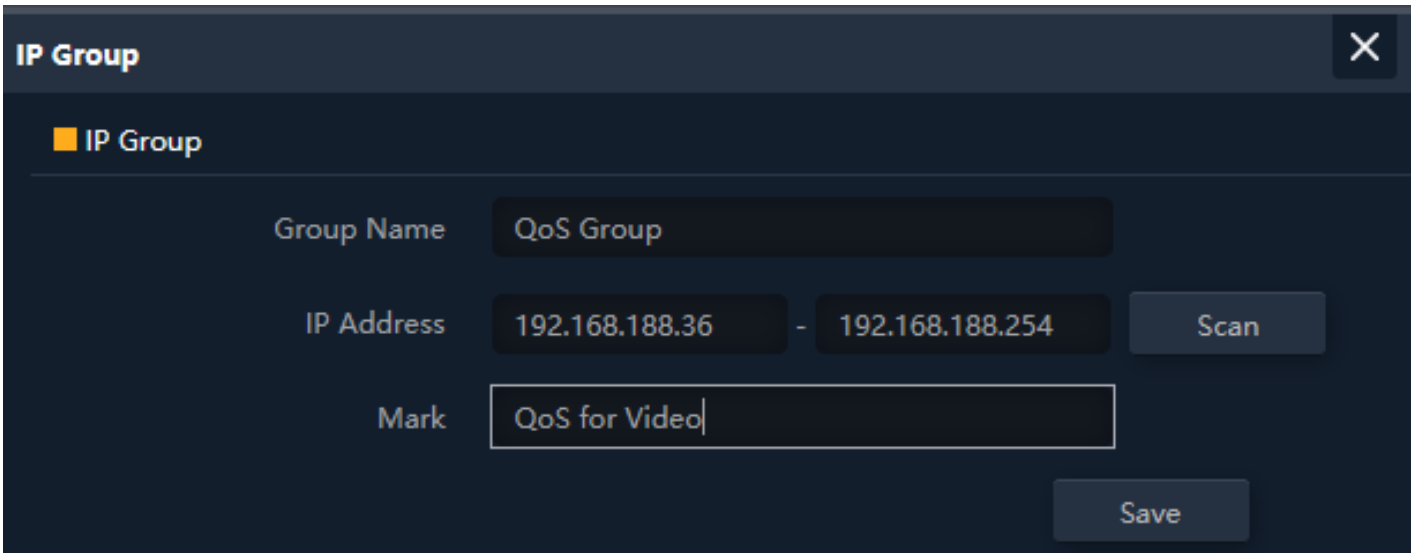

Fig 7.8.2 IP group name and associated IP address for AirONE AIR-CPE5K+

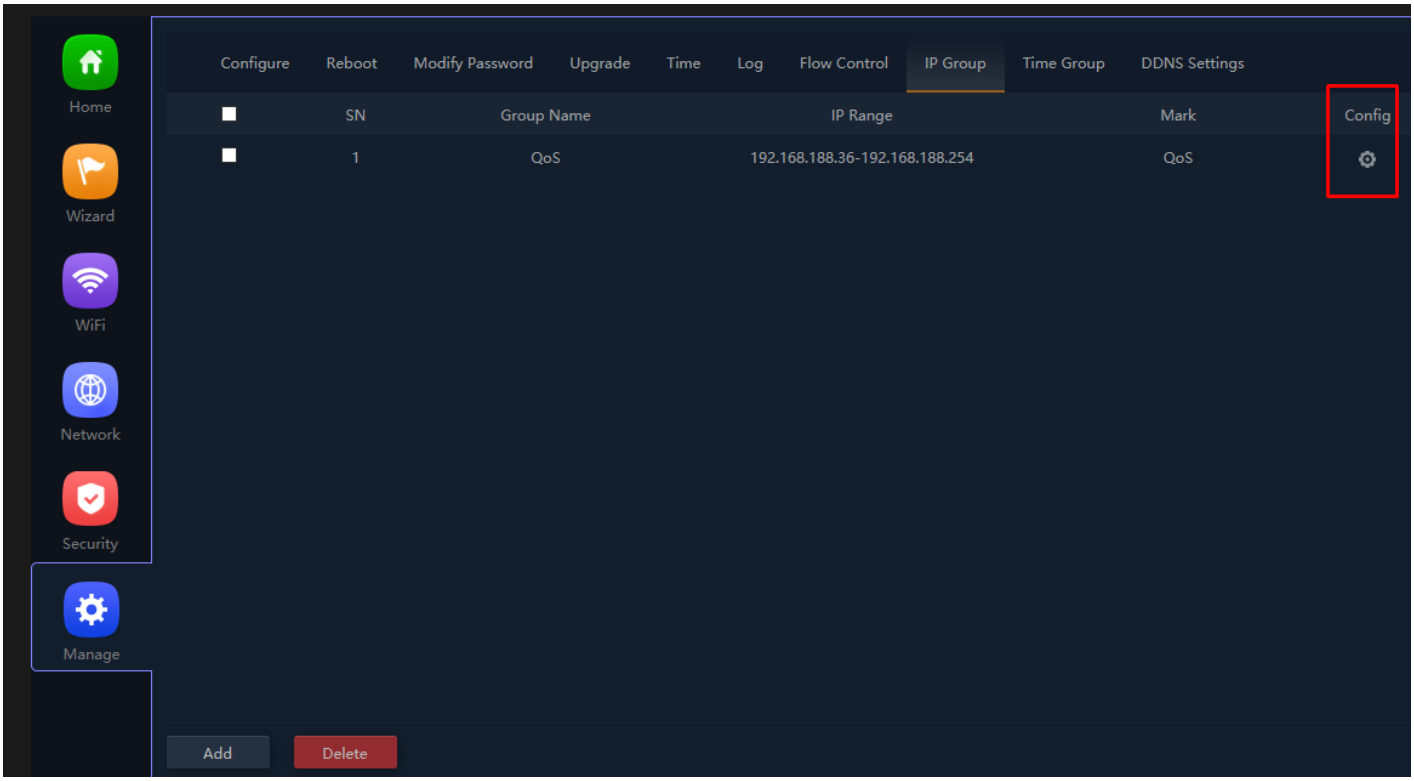

Fig 7.8.3 IP group page for AirONE AIR-CPE5K+

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.

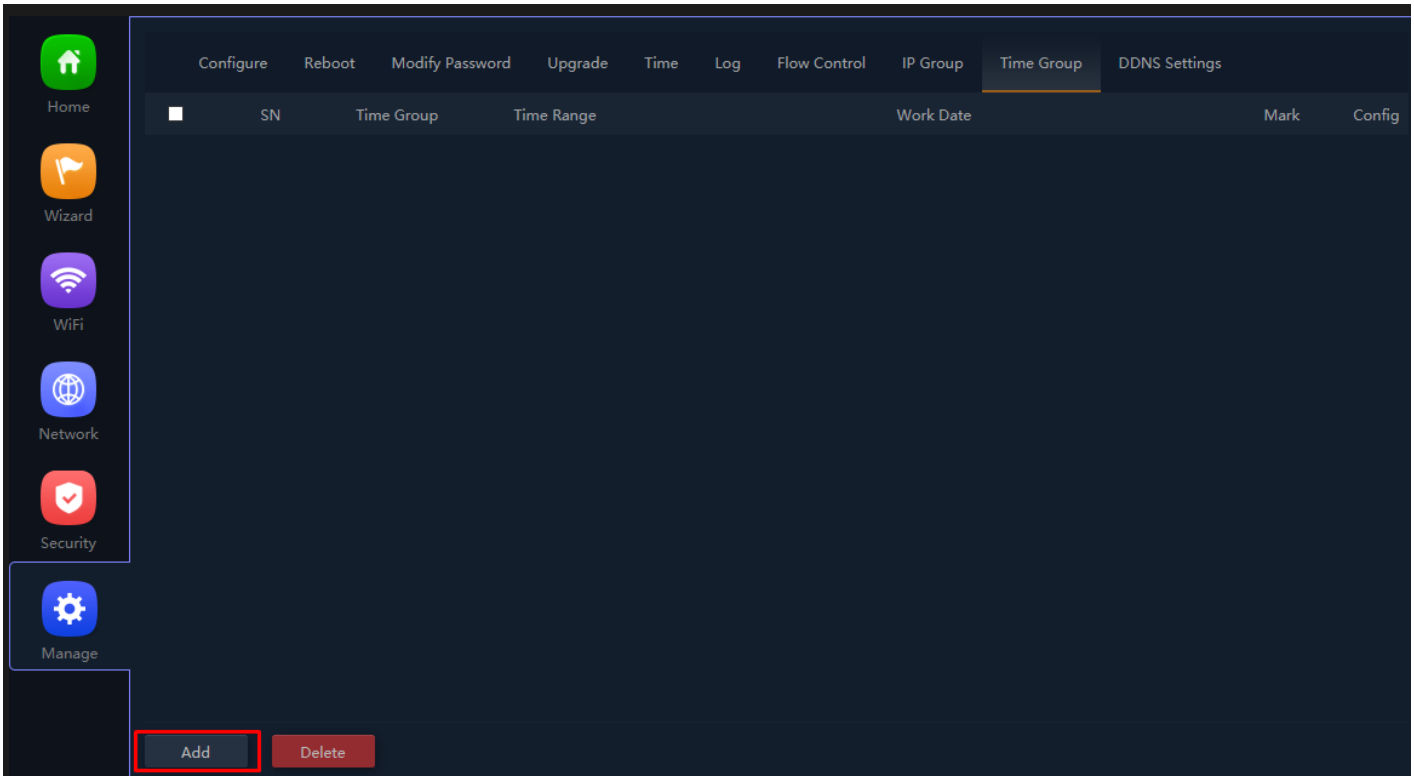

Fig 7.9.1 Default time group for AirONE AIR-CPE5K+

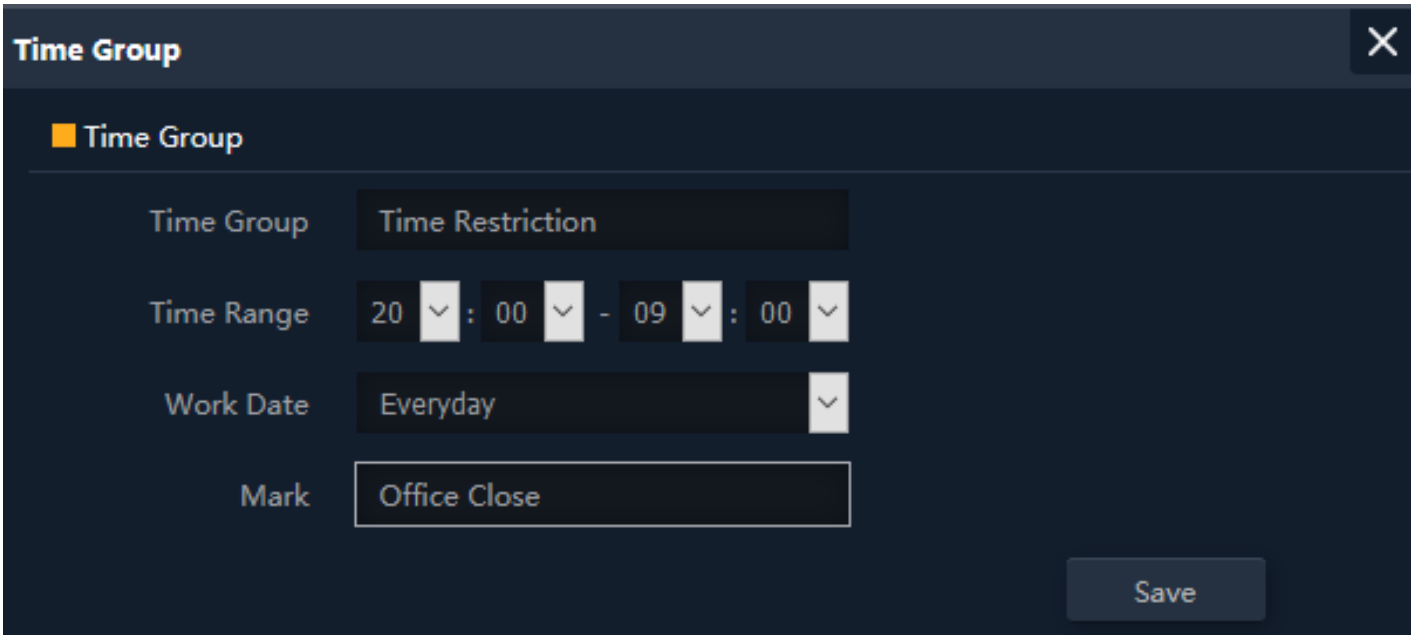

Fig 7.9.2 Setting Time group for AirONE AIR-CPE5K+

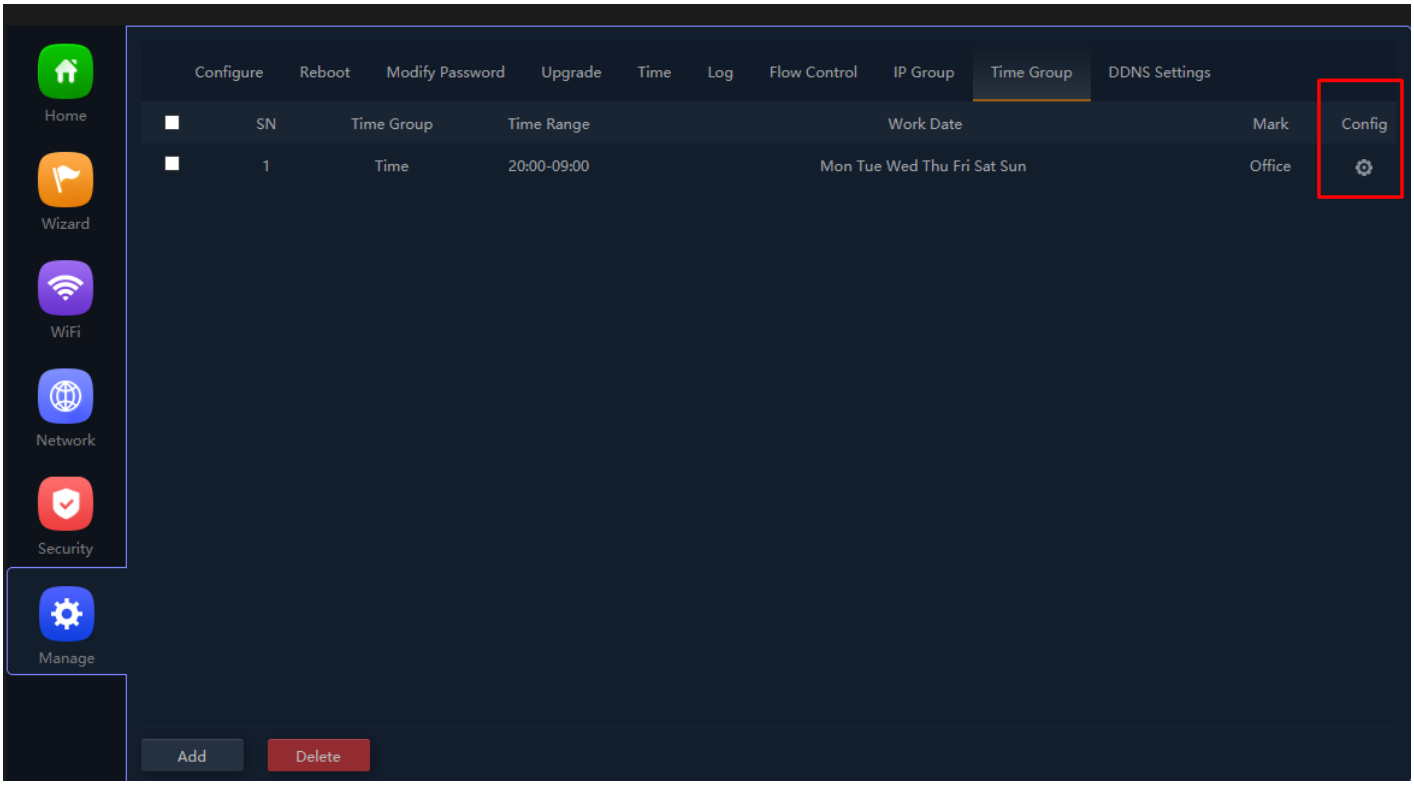

Fig 7.9.3 Time group for AirONE AIR-CPE5K+

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.

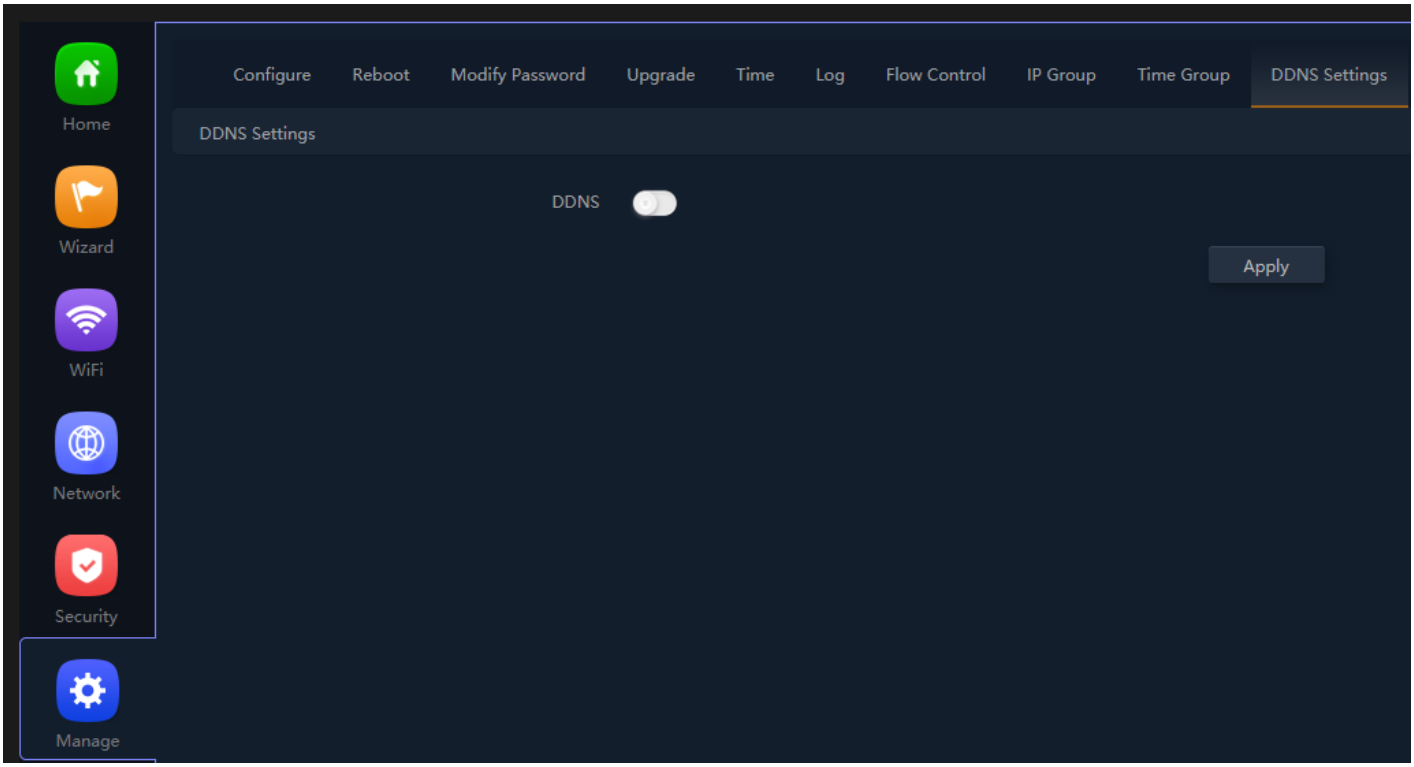

Fig 7.10.1 Default DDNS page for AirONE AIR-CPE5K+

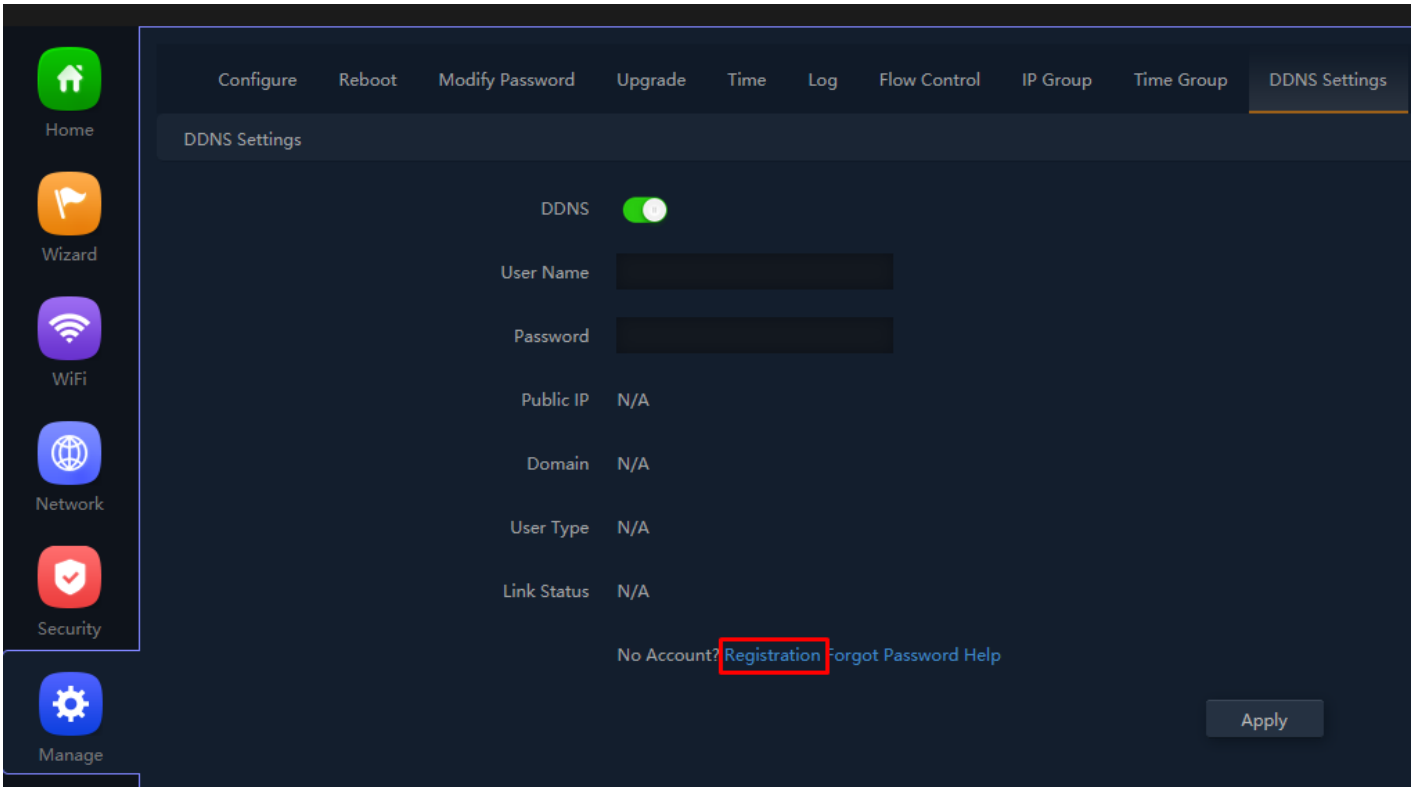

Fig 7.10.2 Enable DDNS page for AirONE AIR-CPE5K+