

ProWiFi 1200Mbps Ceiling Access Point

Wave2.0 Dual Band Ceiling AP

Medium-Large Environment First Option



802.11ac Technology
Fast Internet Access



11ac 2*2 MIMO,
2.4&5.8 Dual Radio
360°Wi-Fi Coverage



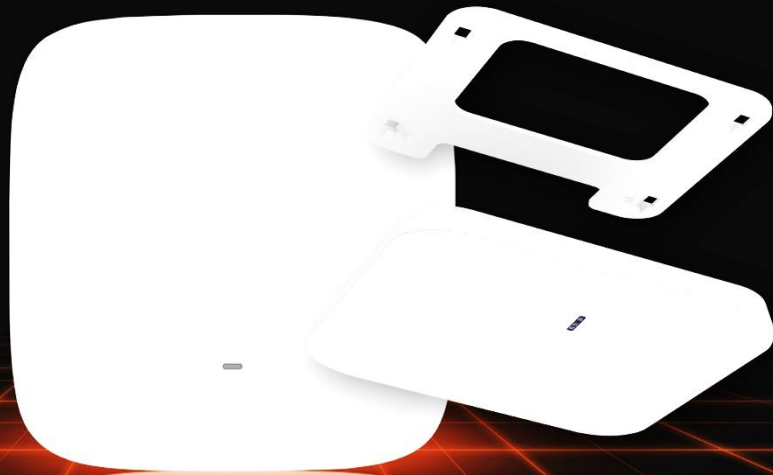
PoE Power
Fit for all kinds of
Decoration



FIT/ FAT AP
CAPWAP Protocol,
Centralized management



RF Power Adjustable
For Large-scale
deployment



Default Data:

- Management IP address: 192.168.188.253
 - Login Password: admin
 - Default Wi-Fi password **4wG7cZXd**
 - WAN: Ethernet Port, connect with router, LAN: Forward port onto local network.
 - DC Input: Is 48V
 - AP is FAT (Default) but can also operate in FIT mode
 - Reset: Press 10 seconds to revert to factory default data
- LED Indicator: to show the working status of 2.4G, 5G and Power
PoE Ports: Work with 48V equipment to supply Ethernet and 48V PoE Power
- These instructions presume you have already gone through the basic setup in our quick setup guide.**

If the Access Point is still in its default **Gateway** mode, then connection is easier via Wi-Fi. If you are using Apple products simply scan the QR codes below with your Tablet. The 1st QR code connects to the Wi-Fi and the 2nd QR code connects to the Login screen. This can sometimes work with Android depending on the QR code app and the Tablet.

Apple Quick Connect

1st Scan here to connect



2nd Scan here to setup



If you are in Gateway mode on the AP and connected to the Access point by Wi-Fi, then you can find the login screen by going to 192.168.188.253 on your Internet browser.

NOTE:-

Due to the Browser Cache process on PC please be aware that we advise to refresh any screen before working on settings.

Usually a "force refresh" is enough.

Chrome: Press the following key combination: Shift + Ctrl + F5

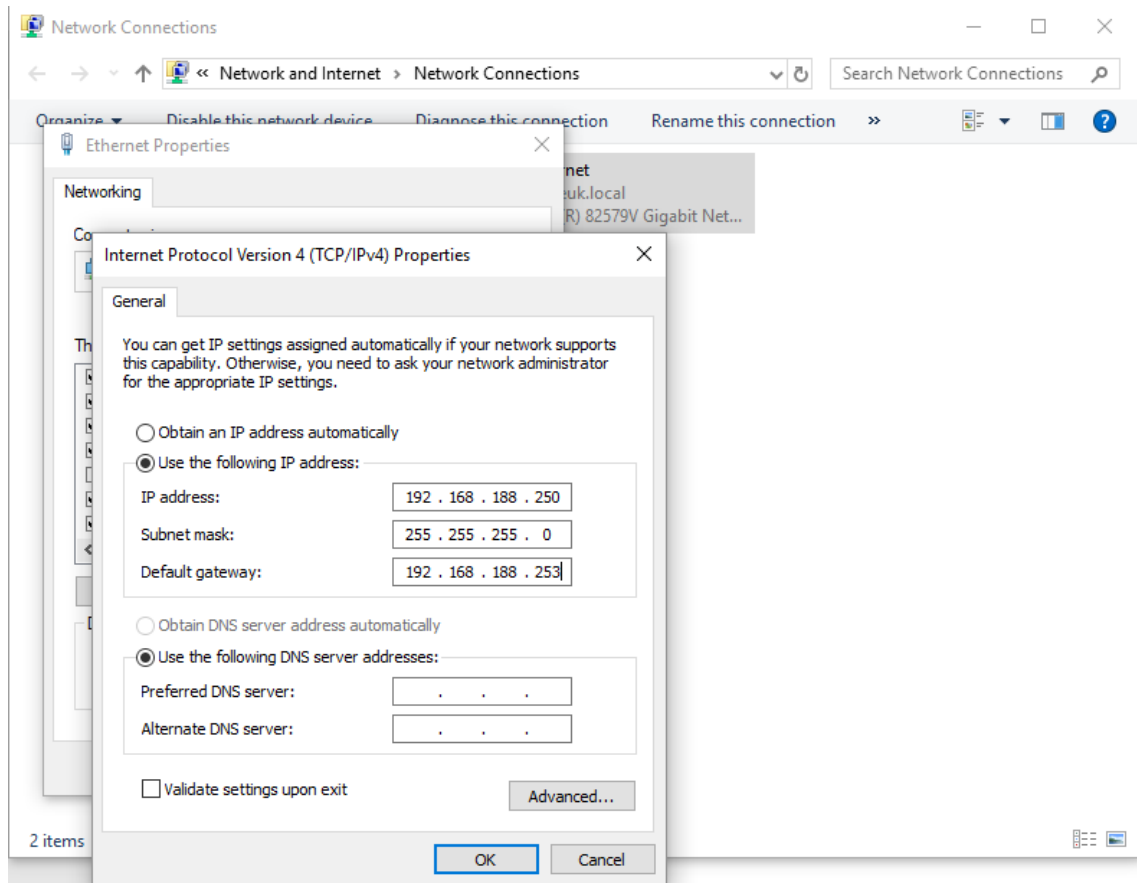
IE: Press the following key combination: Ctrl + F5

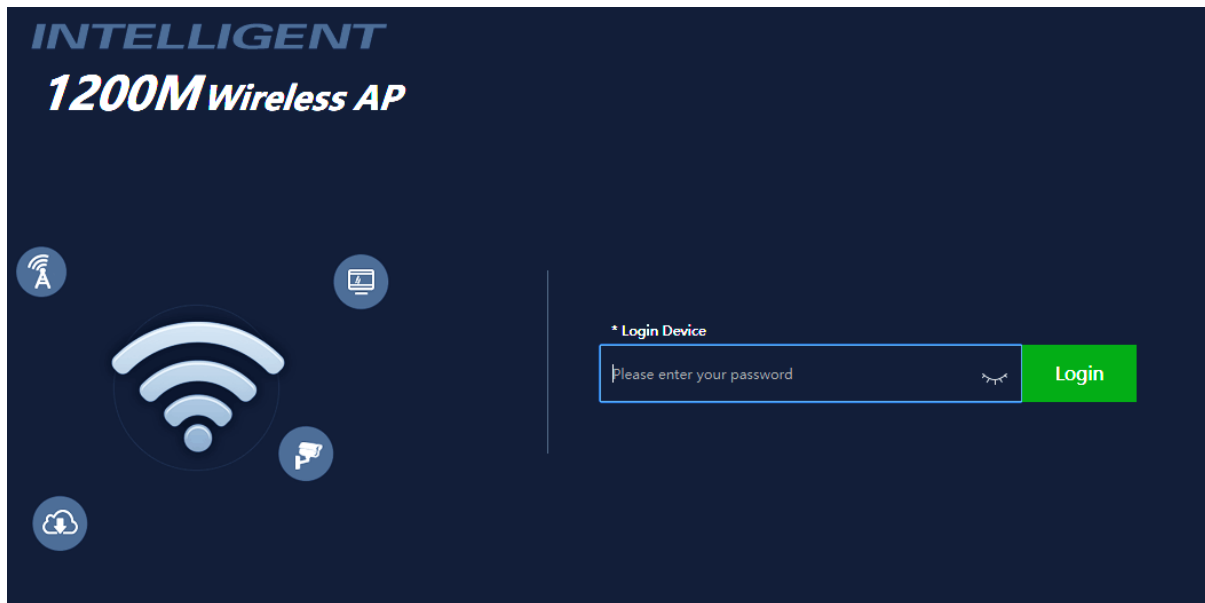
Safari On PC: Ctrl + F5 or on Apple MAC: CMD + R

Alternatively, use the Chrome browser in Incognito mode can also reduce browser Cache issues. Please see <https://www.refreshyourcache.com> for details on the Cache process.

Using Windows PC

1. Confirm the PoE port on the PSU is **48V**
2. By default, the AP is in Gateway mode you can connect to the device by joining its Wi-Fi network and using the default IP 192.168.188.253
3. If you have set the device in AP mode you will need to connect the devices LAN Port with PC, set static IP on PC to 192.168.188.250 and set the Gateway to the default IP address of 192.168.188.253. (as below) Open browser, input AP IP address 192.168.188.253 to log into the WEB GUI using the default password of admin.



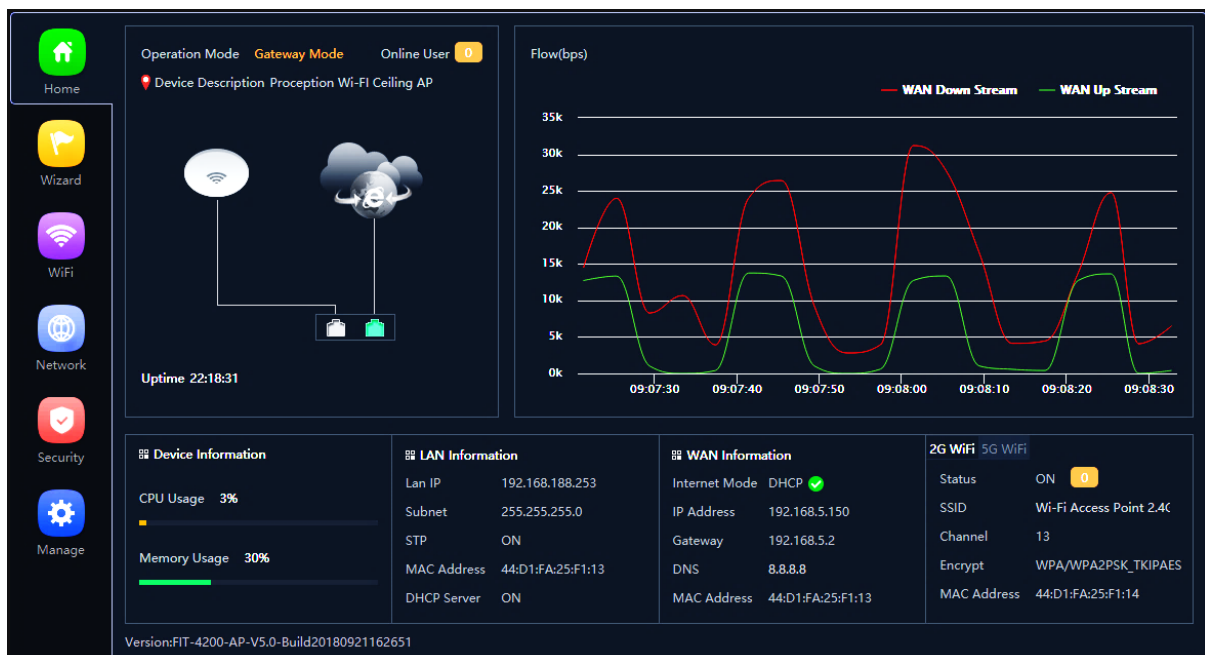


PC Web login interface (Default password **admin**)



WEB GUI Configuration

Once logged in the following home page will show as follows:



Current mode: - This shows the current operating mode (Gateway in this example)

Online users: - The number of users currently connected.

Device description:- Change this to best describe the AP or perhaps it's location)

Uptime:- The amount of time the access point as has been running since last reboot

CPU and memory usage:- A good indication of whether the AP is working too hard.

LAN & WAN information:- Shows current status of how the AP is connected to WAN or LAN

2G and 5G Wi-Fi:- showing channel allocated .

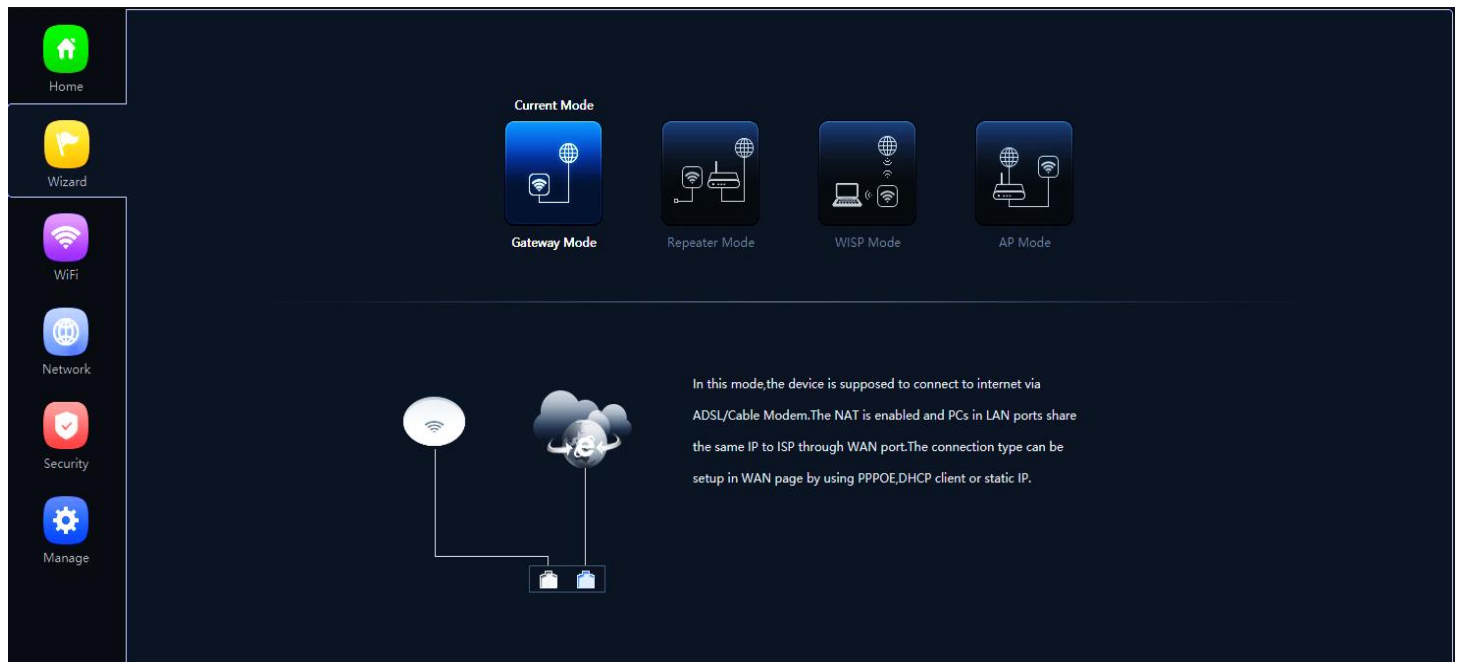
Flow:- Shows upstream and downstream of current connections.

On the left side is the navigation buttons to other setup areas, as detailed below.



Setup Wizard

The mode the access point will work in



Gateway mode: - The AP will allocate IP numbers to the connected devices. This mode is default as it permits you to connect and setup the AP very easily.

The AP could be left in this mode however, any connections to the AP (Wireless or not) will be allocated different IP addresses to the main network, potentially preventing communication between devices on the main network.

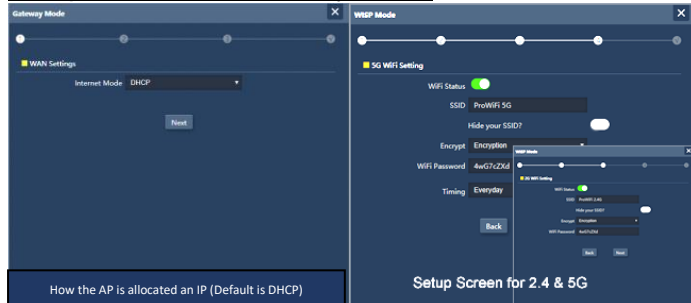
Repeater mode:- The AP will receive & retransmit the Wi-Fi signal from another device. It performs the same role as Access Point mode, but the key is that it talks over Wi-Fi instead. As such, this doesn't get around obstacles as well as an access point does. While an access point can be put in front of an obstacle, a repeater will need to be angled around it. However, the benefit of repeaters is that they don't need a cable to connect to the central hub.

WISP mode: - wirelessly connects to a WISP (Wireless Internet Service Provider) AP. In this mode, the AP also acts as a router for wired clients on your LAN and provides NAT (Network Address Translation) and a DHCP server to generate IP addresses for wired clients only. NAT and the DHCP server allow many computers to share the same wireless Internet connection.

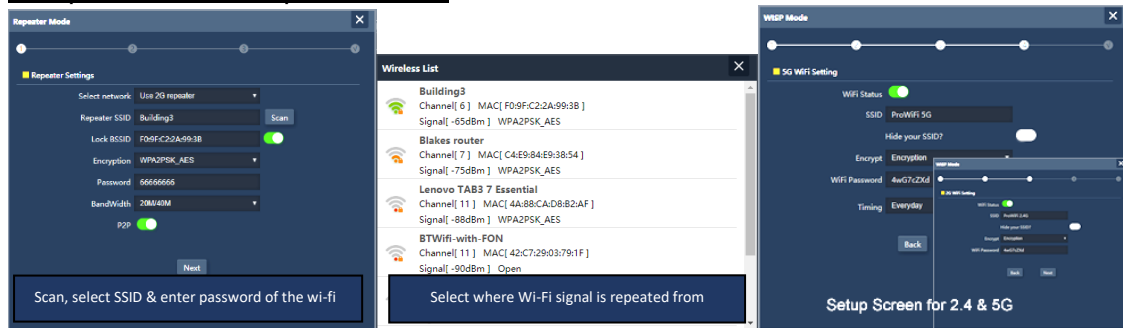
AP mode: - Using Access Point mode is ideal if you want to extend the WiFi range, but the

router you're using to extend it isn't too far away from the main central router. The cable will ensure you get the best possible speeds between the access point and the router, and you don't have to worry about anything interfering with a Wi-Fi signal.

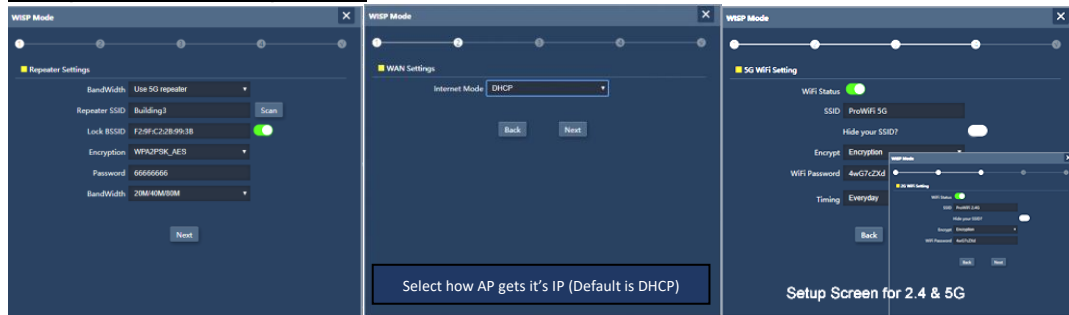
Setup screens in Gateway mode



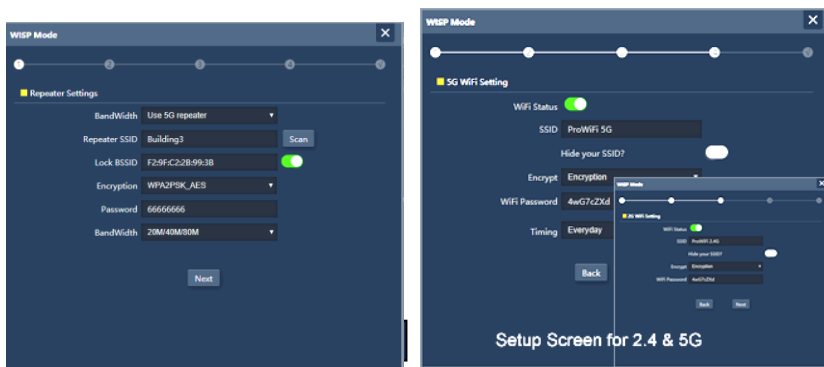
Setup screens for Repeater mode



Setup screen in Wisp Mode

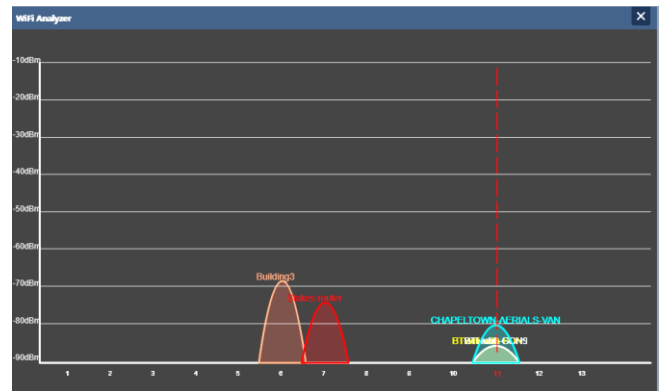
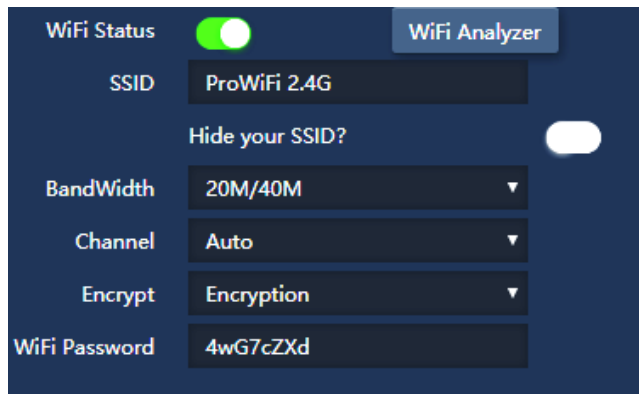
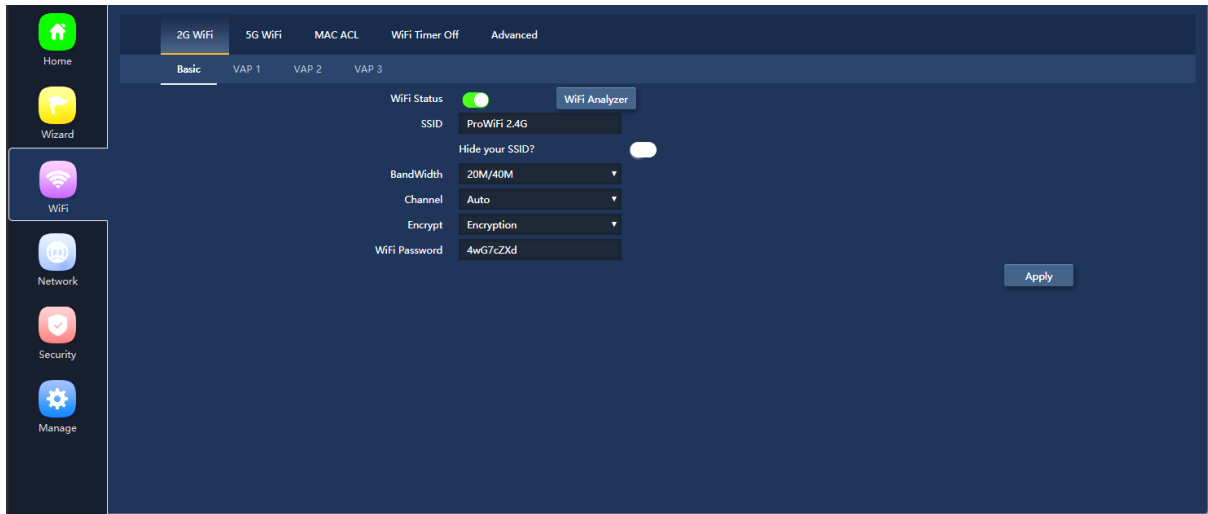


Setup screen in AP Mode





Wi-Fi Setup menu



2G and 5G WiFi:- Setup the SSID (Name of the WiFi), Bandwidth, channel, Encryption and password. This area also has a built-in WiFi analyser to look for the best channel to set the 2.4/5G signal so that it doesn't clash with other channels.

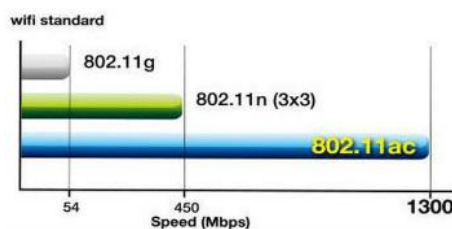
MAC ACL:- Access control lists (ACL) can control the traffic entering a network. When you configure ACL, you can selectively admit or reject inbound traffic, thereby controlling access to your network or to specific resources on your network.

WiFi Timer Off:- Set the time to start and stop WiFi access.

Advanced:-

Country Region	ETSI
2G Mode	11N/G
5G Mode	11AC
Multicast Fast	OFF
Maximum for per AP	64
WLAN Partition	OFF
Short GI	ON
Coverage Threshold	-90
TX Power	Max
Preferred 5G	OFF
DFS	ON

Country Region MUST be set to ETSI (For the UK channel allocation)



2G and 5G mode sets the WiFi standard of the AP

Multicast Fast: - Provides the ability to minimize packet loss in a network when there is a link or node failure by enhancing, but not changing, multicast routing protocols.

Maximum per AP: - Number of permitted on the AP. Prevents over loading and therefore slowing down of the AP

WLAN Partition: - For security. Enabling WLAN Partition prevents associated wireless clients from communicating with each other.

Short GI: - Short Guard Interval can increase the data rate by up to 10%.

Coverage threshold: - The signal level at the point where the AP drops the device.

TX power: - Careful setting of this can reduce the channel overlap and degrading of the WiFi signal if using with more than one AP. Especially useful when roaming and set with coverage threshold.

Preferred 5G: - The access point will first offer 5G to the device before falling back to 2.4G.

DFS:- When support for DFS is enabled, it will be necessary for WiFi access points to verify that any radar in proximity is not using DFS frequencies. This process is called *Channel Availability Check*, and it's executed during the boot process of the access point (AP) as well as during its normal operations.

If the AP detects that a radar is using a particular DFS channel, then it will exclude that channel from the list of available channels. This state will last for 30 minutes, after which the AP will check again if the channel can be used for WiFi transmissions.

The *Channel Availability Check* performed during the boot process can take anywhere between 1 and 10 minutes, depending on which country you're in. For this reason, DFS channels are not immediately available when an AP boots. WiFi networks that are servicing real-time and mission-critical applications may want to avoid such disconnections caused by DFS frequencies.

VAP 1-3: - In each of the 2G & 5G sections you can allocate up to three VAPs (Virtual Access points)

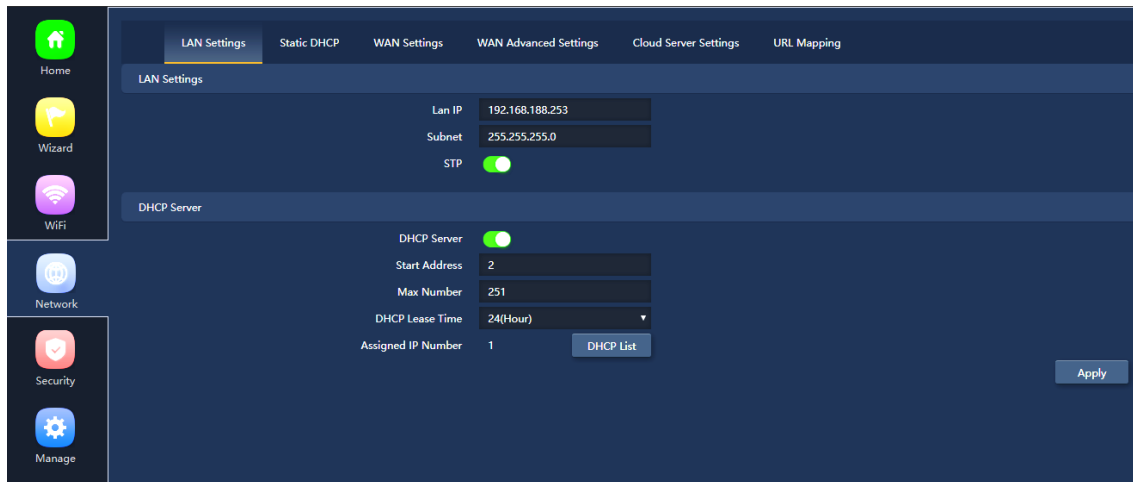
This is ideal for when you want to give guests or visitors access to WiFi but for security, don't want to give them your usual password.



You can setup with a temporary VAP SSID and password and simply remove when finished. The VAP user will not be able to scan or see other devices on your network.



Network setup menu



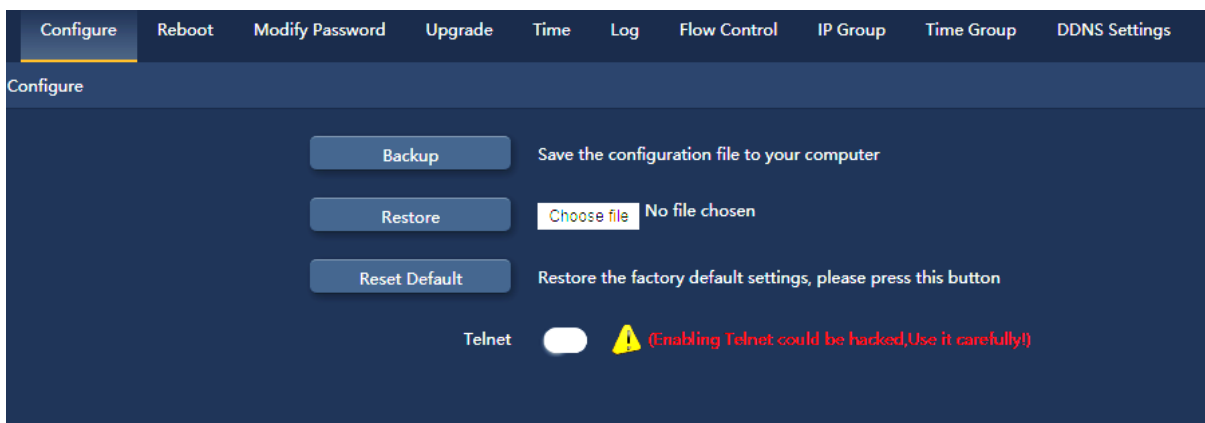
Lan Settings:-

Lan IP:- Sets the IP and Subnet of the Access point.

STP:- Spanning Tree Protocol (STP) is a network protocol designed to prevent layer 2 loops and it's standardized as IEEE 802.D protocol.



Manage setup menu



Configure:- Allows you to save the configuration file to your computer.

Restore:- Restore the back of the configuration file (also useful for installing many access points with the same configuration).

Reset Default:- Resets the access point back to the manufacturers default settings.

Telnet:- Allows access to the devices Telnet port (port 22)

As a security risk we suggest this is turned off unless specifically needed



Initially the AP is setup in Gateway mode. This is for easy connection to your device, for setup. In this mode the AP will allocate an IP, via it's built in DHCP server, to each device connected. This will mean that you will have a different IP range to your usual network, on the devices connected to the AP and communication between devices on each side of the AP is not possible. This may be an issue where you have a printer connected to the usual network and a device connected via the AP. If this is an issue then please select the AP mode within the Wizard. The AP then stops allocating IPs and leaves this job to the router, all devices will be on the same network.

If you wish to reconnect to the ceiling AP for additional setting up (while in AP mode) then please scan the network with an app (suggest Fing or Net Analyzer) and look for the access point on the network it will be called **BUKAP**.

This will give you the IP that's been given to the AP by the router. Type this number usually starting 192.168.***.*** into your internet browser and the web login screen will appear. Default password is admin, then please see page 5.

TIPS

Due to the Browser Cache process on PC please be aware that we advise to refresh any screen before working on settings.

Usually a "force refresh" is enough.

Chrome: Press the following key combination: Shift + Ctrl + F5

IE: Press the following key combination: Ctrl + F5

Safari On PC: Ctrl + F5 or on Apple MAC: CMD + R

Alternatively, use the Chrome browser in Incognito mode can also reduce browser Cache issues.

Please see <https://www.refreshyourcache.com> for further details on the Cache process.

Access point can take up to 2 minutes to reinitialize on reboot.

Using the In-Wall AP in "AP Mode" will require you to set your devices IP to static. Set 192.168.188.250 as the device IP and 192.168.188.253 as the gateway IP address.

Easiest install is using Gateway mode (as above)

App for finding spare Wi-Fi channels is Wi-Fi Analyzer (Apple or Android)

App for searching on networks for IP is FING (Apple or Android)

Reset back to default by holding front button for 15 seconds.

Check out Firefox Browser and the Cache add-ons.

Hardware:					
Chipset	Qualcomm QCA9563 + QCA9886 +QCA8334				
Standard	802.11ac/b/g/n, MIMO technology				
Memory	128MB DDR2 RAM				
Flash	16MB				
Interface	1 *10/100 /1000Mbps RJ45WAN Port				
	1 *10/100/ 1000Mbps RJ45LAN Port				
	1* Reset button, press 15 seconds to revert to default setting				
Antenna	Build in 5dBi MIMO Antenna				
Power consumption	48V PoE<30W				
Size	198mm X 28mm				
RF Data					
Frequency	2.4G:802.11b/g/n:2.4GHz – 2.484GHz,				
	5GHz:802.11a/n/ac:5.150GHz~5.850GHz				
Country code	FCC、 IC、 ETSI、 MKK、 MKK1、 MKK2、 MKK3、 NCC、 RUSSIAN、 CN				
Modulation	OFDM = BPSK, QPSK, 16-QAM, 64-QAM, 128-QAM, 256-QAM				
	DSSS = DBPSK, DQPSK, CCK				
Throughput	1200Mbps				
2.4G RF Power	802.11b	11M	28±2dBm	1M	29±2dBm
	802.11g	54M	27±2dBm	6M	29±2dBm
	802.11n HT20	MCS7	26±2dBm	MCS0	28±2dBm
	802.11n HT40	MCS7	25±2dBm	MCS0	27±2dBm
5G RF Power	802.11a	54M	23±2dBm	6M	25±2dBm
	802.11n HT20	MCS7	22±2dBm	MCS0	24±2dBm
	802.11n HT40	MCS7	21±2dBm	MCS0	24±2dBm
	802.11ac HT80	MCS9	20±2dBm	MCS0	23±2dBm
2.4G Receive Sensitivity	802.11b	11M	-85dBm	1M	-94dBm
	802.11g	54M	-72dBm	6M	-90dBm
	802.11n HT20	MCS7	-70dBm	MCS0	-88dBm
	802.11n HT40	MCS7	-68dBm	MCS0	-86dBm
5G Receive Sensitivity	802.11a	54M	-72dBm	6M	-90dBm
	802.11n HT20	MCS7	-70dBm	MCS0 .	-88dBm
	802.11n HT40	MCS7	-68dBm	MCS0 .	-86dBm
	802.11ac HT80	MCS9	-58dBm	MCS0 .	-85dBm
EVM	2.4G: 802.11b : ≤-10 dB; 802.11g: ≤-25 dB; 802.11n: ≤-28 dB 5G: 802.11a: ≤-25dB; 802.11n: ≤-28 dB; 802.11ac: ≤-32 dB				
Max Users	128+				
Firmware Features:					
Operation mode	Wireless AP, Gateway, WISP, WiFi Repeater				
WAN Type	Dynamic IP/Static IP/PPPoE/L2TP(Dual Access) /PPTP(Dual Access)				
Wireless Security	64/128-bit WEP, WPA / WPA2, WPA-PSK/ WPA2-PSK encryption				
SSID	Multiple SSID (4 SSID for 2.4G, 4 SSID for 5.8G)				



Firewall	DoS, SPI Firewall, IP Address Filter/MAC Address Filter/Domain Filter IP and MAC Address Binding
Protocols	IPv4
Others:	
System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7, Windows 8, MAC OS, NetWare, UNIX or Linux
Environment	Operating Temperature: -30~55 °C Storage Temperature: -40~70 °C Humidity: 5%~95% non-condensing
Management	Firmware GUI, Remote Management, WLAN Controller, Cloud Management System

EU Declaration of Conformity

Blake UK hereby declares that the radio equipment type PROAPCEILING is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.blake-uk.com/DoC

Website: www.proceptionwifi.co.uk

Email: support@proceptionwifi.co.uk

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