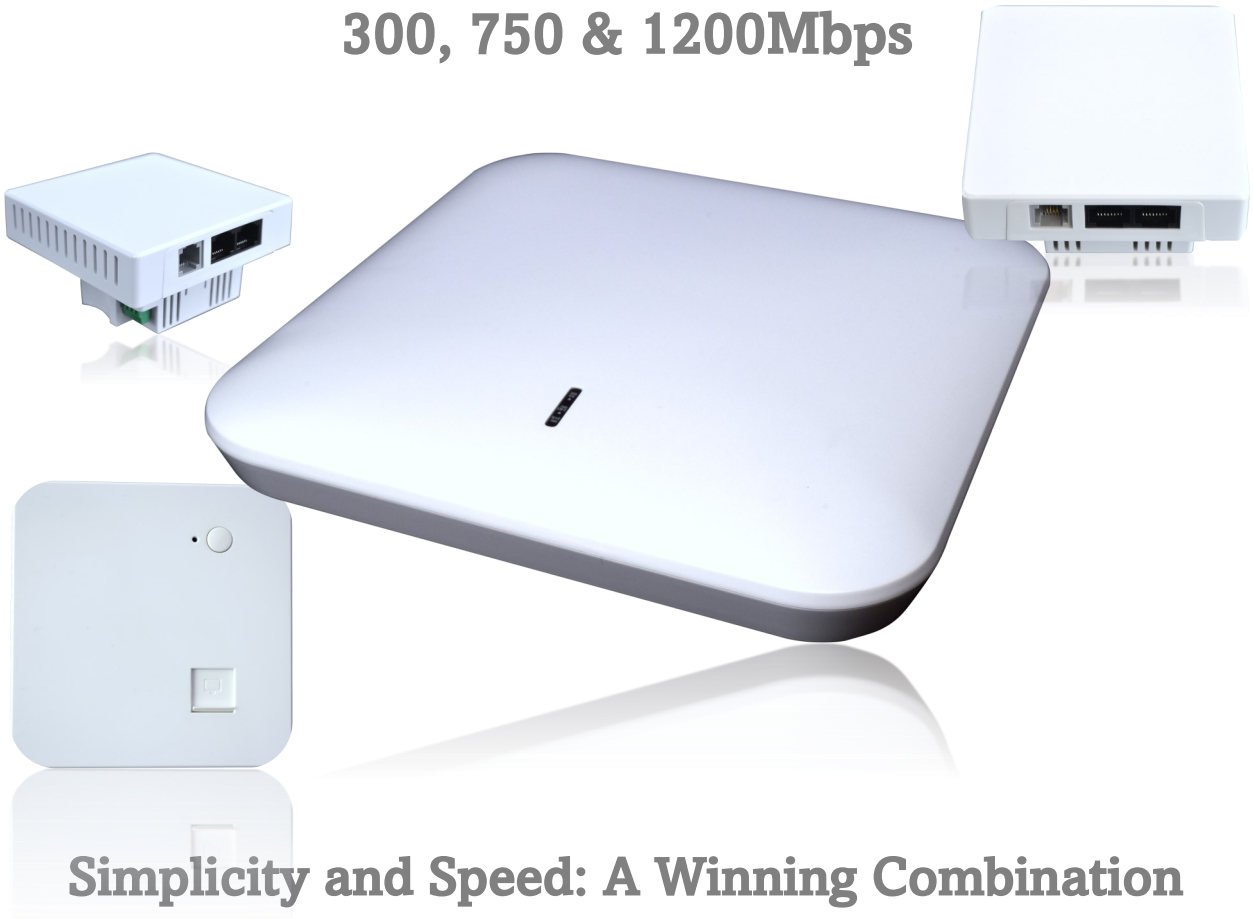
PROAPW300L (Stream 1)
PROAPW750L (Stream 2)
PROAPW1200-GIGABIT (Stream 4)
PROAPCEILING (Flood)

User Guide

In-Wall and Ceiling High Speed Access Points

300, 750 & 1200Mbps



Simplicity and Speed: A Winning Combination

Super-Fast, Ultra-Reliable Wi-Fi

Ver1.12.3_2

Contents

Thank you for choosing PROception Wi-Fi Access Points for your networking needs. Our state-of-the-art in-wall and ceiling access points provide exceptional performance, ease of Installation, and reliable connectivity. With PROception, you can create a seamless wireless network that meets the demands of your home or business.

Unparalleled Performance and Ease of Installation

PROception Wi-Fi Access Points are designed to deliver exceptional wireless performance, allowing you to enjoy reliable connectivity throughout your space. Whether it's a small office, a large home or a bustling enterprise environment, our access points are built to handle the demands of modern networking.

Seamless Integration

The PROception Wi-Fi Access Points offer a seamless integration into your existing network infrastructure. With our easy installation process, you can quickly set up and configure your access points, ensuring minimal disruption to your workflow. Say goodbye to complicated interfaces and time-consuming configurations; PROception access points make your network setup a breeze.

Fast and Reliable Connectivity

Experience lightning-fast wireless speeds and reliable connectivity with PROception WiFi Access Points. Our advanced technology ensures that you can enjoy smooth streaming, lag-free online gaming and uninterrupted productivity. Stay connected to what matters most without any compromises.

Expand Your Network with Proception PoE Switches

To compliment our exceptional access points, we also offer a range of Power over Ethernet (PoE) switches. Choose from our selection of 4, 8, 16 and 24 way PoE switches to expand your network and power your devices efficiently. PROception PoE switches are built with reliability and scalability in mind, allowing you to effortlessly connect and power multiple devices across your network.

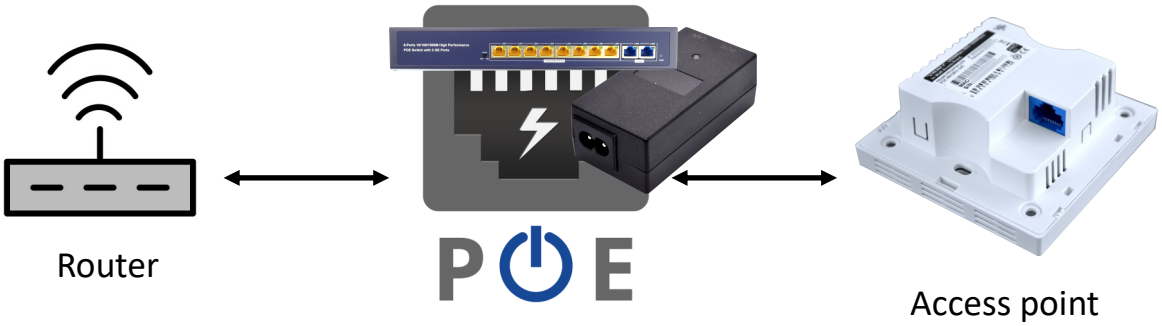
Contact Us

At PROception, we are committed to providing top-quality networking solutions and excellent customer support. If you have any questions, concerns or need assistance with your PROception Wi-Fi Access Points or PoE switches, please don't hesitate to contact our dedicated support team. We are here to help you make the most of your network.

Thank you once again for choosing PROception. We are confident that our products will exceed your expectations and provide you with a seamless and reliable networking experience.

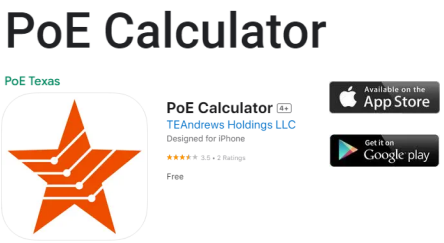
Proception Wi-Fi: Empowering Your Connectivity.

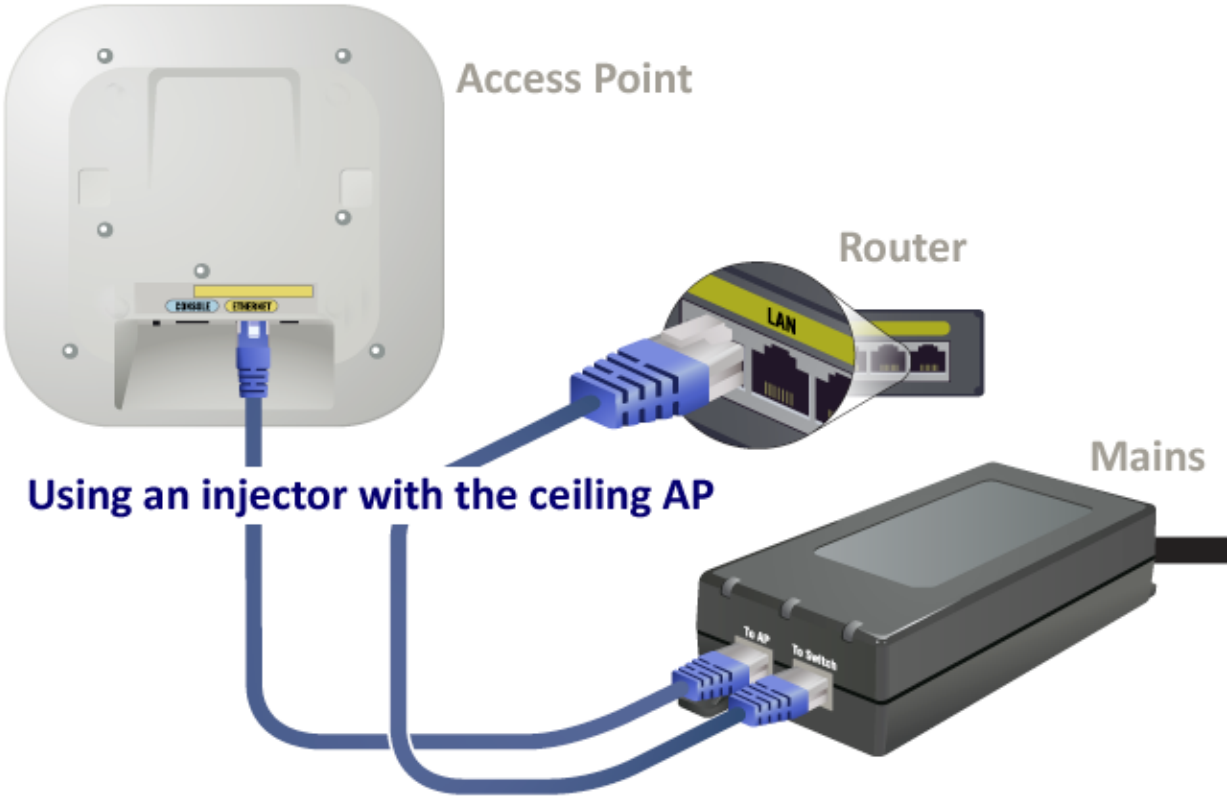
Simple PoE Connection to the Access Point



With good quality copper CAT cable you can expect distances of up to 100m between PoE injector and the access point clearly, keeping this distance to a minimum will ensure issues with power and speeds are kept to a minimum.

If in doubt, check out the PoE line loss calculator app or website at https://www.poetexas.com/poe-calculator

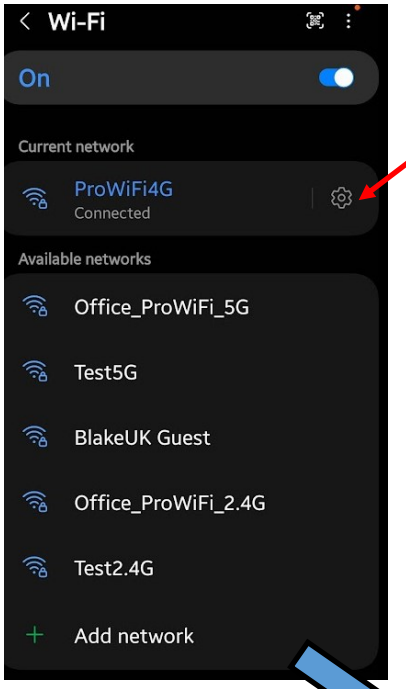




You will require a 48v PoE injector such as the PROAPPOE11-48V or a PoE switch such as the PROAPPOE14-48V

Simple Setup Using Your Tablet or Phone

1. Plug the access point into the PoE, the router into the socket label “LAN” and the access Point into the socket labelled “POE”.
2. Wait 2 minutes while the access point to start up.
3. Activate Wi-Fi on your laptop, mobile or tablet. **(SWITCH OFF MOBILE DATA ON YOUR PHONE!)**
4. Select the access point SSID “ProWiFi 2.4G”. The default password is **4wG7cZXd (FIG1)**
5. On Android simply click the cog on the Wi-Fi screen and scroll down and click Manage Router, this will take you to the setup screen. (FIG 2)
   On Apple open Safari browser and type in http://192.168.188.253 or use the QR at the bottom of this page.
   The default login password is **admin** and password **4wG7cZXd**
6. Select “Setup Wizard”.
7. Choose AP Mode.
8. Choose connection method “Get IP from Router**”.**
9. Give a name to the Wi-Fi (SSID) for 2.4 & 5GHz and choose a password.
10. Press the tick top right to apply your settings.



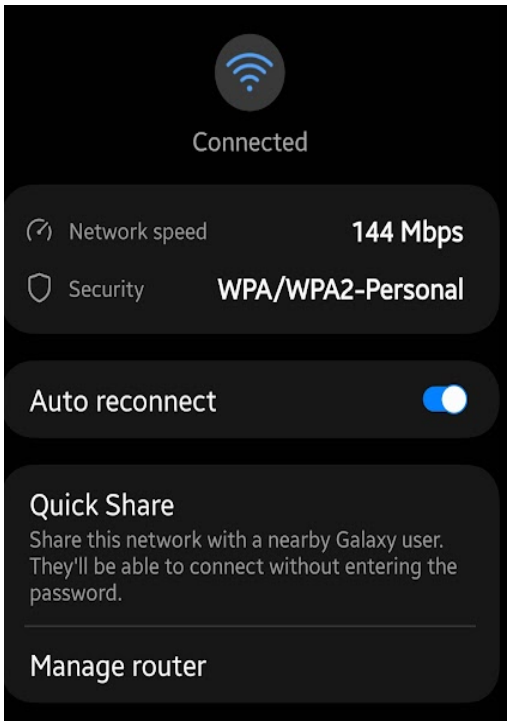
(FIG1)

Click ProWiFi2.4
Enter the password

android

Click
Manage router

Apple



(FIG2)

Apple and some Android devices, you can scan the QRCode to access the step up page.

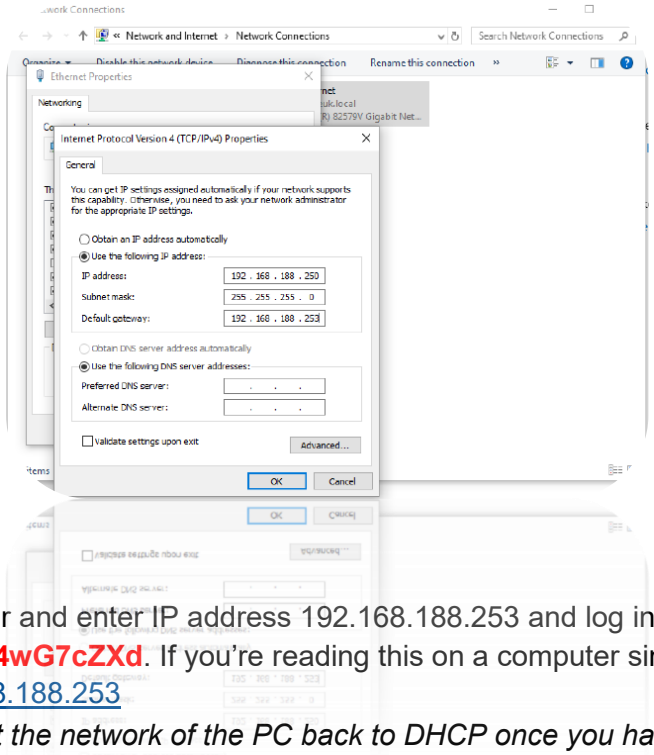
The access point will now reboot (please wait up to 2 minutes for this to be completed).
You will now need to reconnect to the Wi-Fi using your new SSID and password chosen in step 9.

Setup on Your PC Using Wi-Fi

1. By default, the AP is in gateway mode and you can connect to the device by joining its Wi-Fi network and simply using the default IP 192.168.188.253
2. Open browser, input IP address 192.168.188.253 and log into the WEB GUI using the default password of **4wG7cZXd**. If you're reading this on a computer click here http://192.168.188.253

Setup on Your PC Using A Network Lead

1. By default, the AP is in gateway mode.
2. Connect the PC to the AP LAN Port.
   Set a static IP on PC of 192.168.188.250 and set the gateway to 192.168.188.253.



3. Open browser and enter IP address 192.168.188.253 and log into the WEB GUI using the default password of **4wG7cZXd**. If you're reading this on a computer simply click here http://192.168.188.253

Remember to reset the network of the PC back to DHCP once you have completed setup or you may not be able to connect to other networks.

Access On Your PC Using The Local Network

Once the access point has been setup, one of the easiest ways to access the admin screen is by scanning the local network for the access point. The access point has a GUI that runs on port 80, making access and alterations very easy.
Install a network scanner (We suggest Advanced IP Scanner from https://www.advanced-ip-scanner.com) and run the software.
Locate the MAC address of the AP (You can find this on the rear of the AP and looks something like xxx:xxx:xxx:xxx)
Now using the software, scan the network and look for the MAC address, this will give you the IP that's been allocated to the access point by the router.
Type this number usually starting 192.168.***.*** into your internet browser and the web login screen will appear.
The default password is 4wG7cZXd. If the password has been changed and lost then you will require to reset the AP.

Setup AP Using Laptop and Wi-Fi

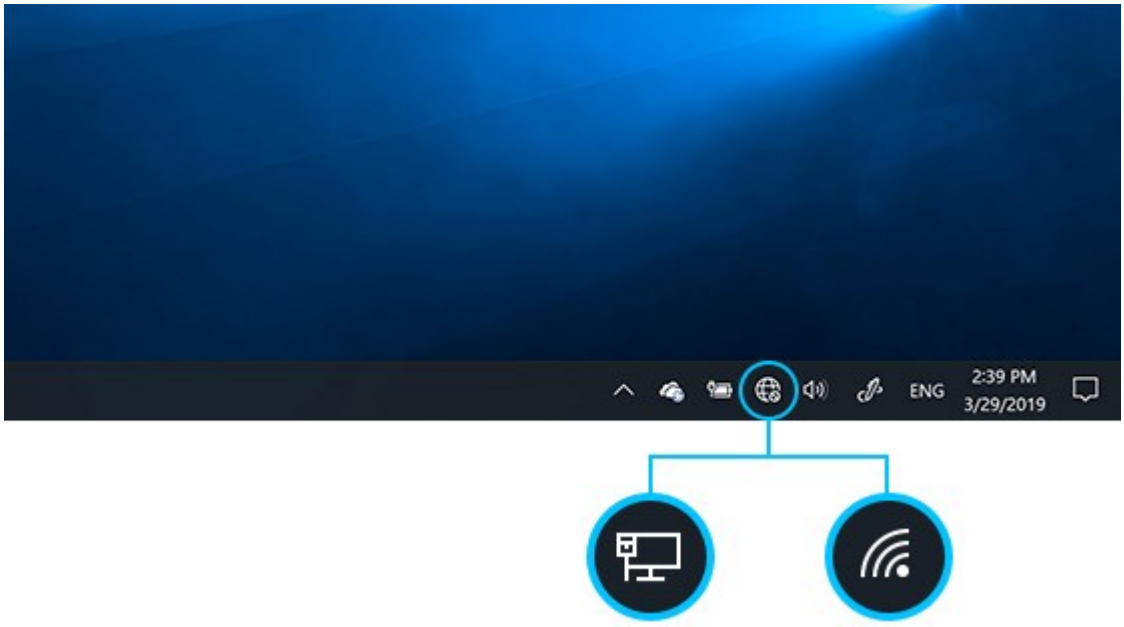
By default, the AP is in gateway mode meaning you can connect to the device by simply connecting to the access points existing Wi-Fi signal.

Select the network icon on the taskbar.

The icon that appears depends on your current connection state. If you don't see one of the network icons (or a similar one) shown in the following image, select the up arrow to see if it appears there.

If you're reading this on a Windows 10 laptop with Wi-Fi hold CTRL click here

ms-settings:network-wifi?activationSource=SMC-IA-4027030



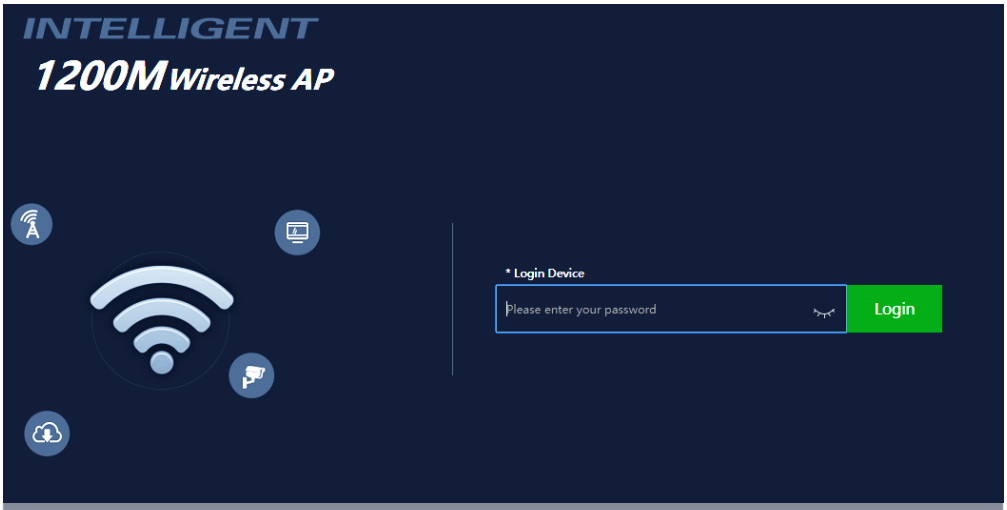
Choose the Wi-Fi network ProWiFi _2.4G

Type the default network password **4wG7cZXd**) then select **Connect**. Choose **Yes** or **No**, depending on the type of network you're connecting to and if you want your PC to be discoverable by other PCs and devices on the network.

Using the Chrome, Firefox or Edge browser type 192.168.188.253 into the URL bar at the top and press enter.

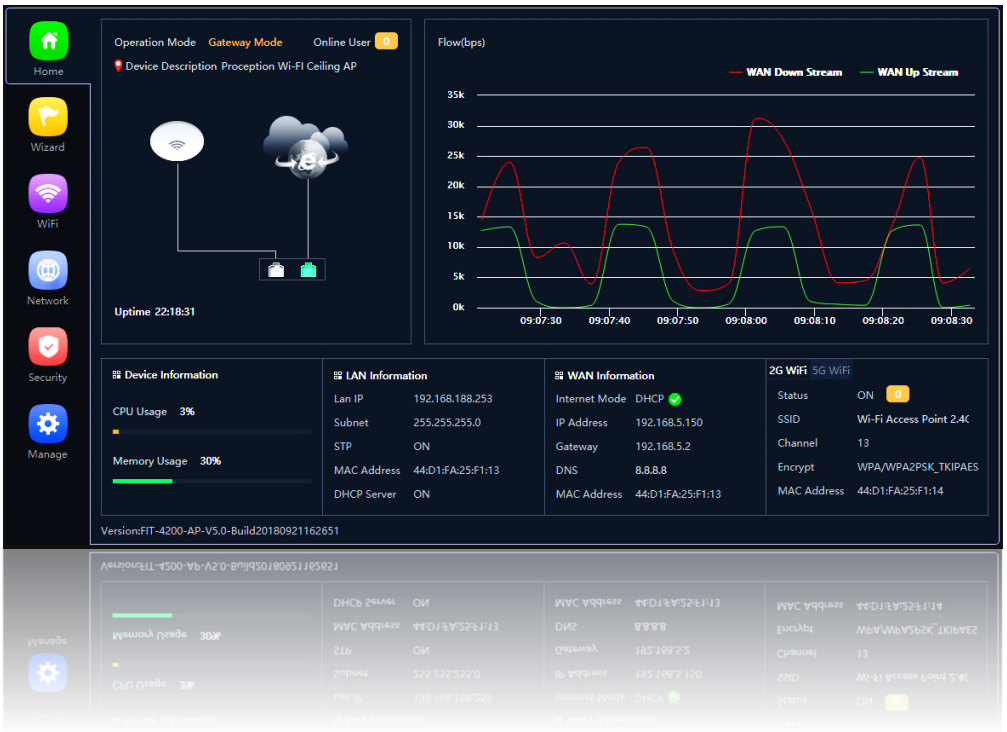
If you're reading this on a computer simply hold CTRL click here http://192.168.188.253

GUI The Setup Interface



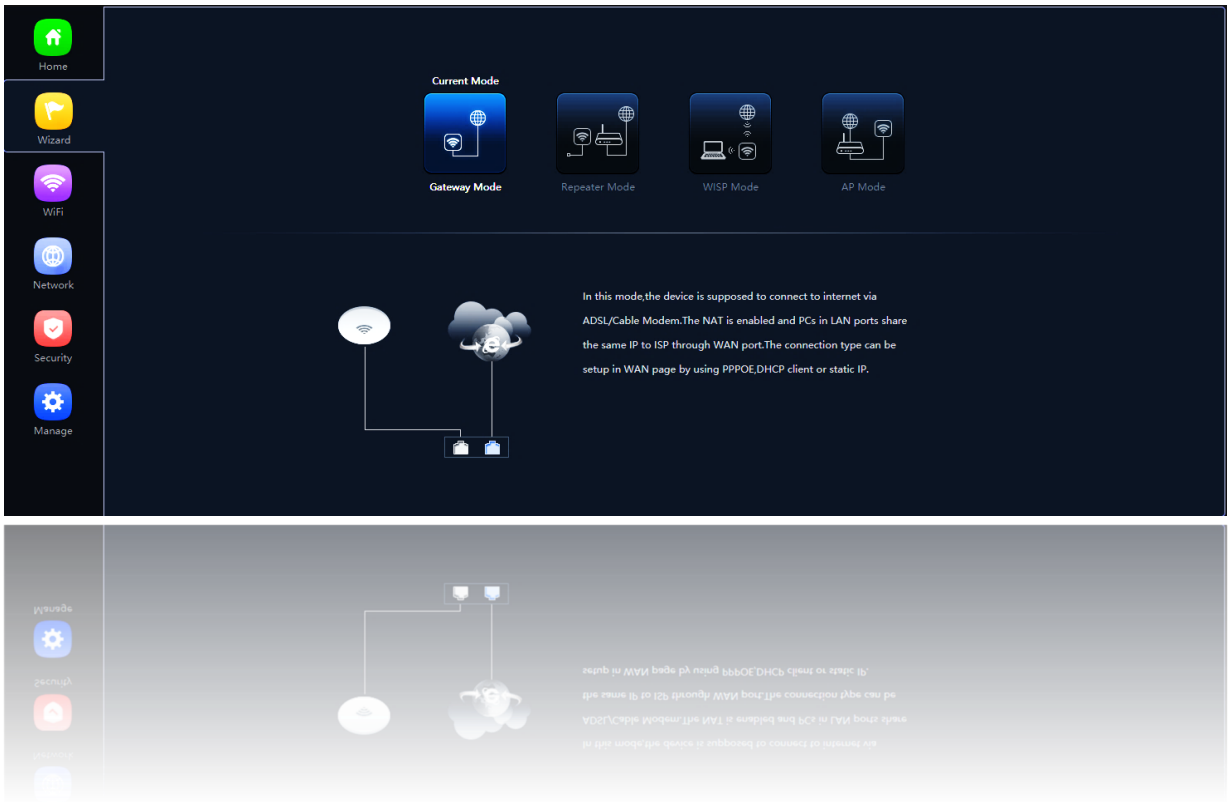
PC Web login interface (default password **4wG7cZXd**).

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



Flow:- Shows upstream and downstream of current connections.
On the left side is the navigation buttons to other setup areas, as detailed below.
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.

Mode selection



Setup Wizard

The mode the access point will work in. The default is Gateway however unless you have a specific requirement to use Gateway we always suggest moving the running mode to AP mode.

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 does not 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 do not 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, all appearing as the one single IP at the other side of the access point.

AP mode: - This is the usual running mode of the AP after setting up.
This allows the router to allocate IP address to devices that connect to the Wi-Fi AP.

Wi-Fi Name & Passwords

Setup the SSID (Name of the Wi-Fi), bandwidth, channel, encryption and password.
This area also has a built-in Wi-Fi analyser so you can look for the best channel to set the 2.4/5G signal ensuring that it does not clash with other channels.

See our separate help sheet on setting the right Wi-Fi channel.

Advanced Settings Found in Gateway Mode

Some of the below setting are only found in gateway mode.

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.

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

Advanced:- Country Region **MUST** be set to ETSI within the UK (For legal UK channel allocation).
2G and 5G mode sets the Wi-Fi 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: - Enabling WLAN Partition prevents associated wireless clients from communicating with each other for security.

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

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

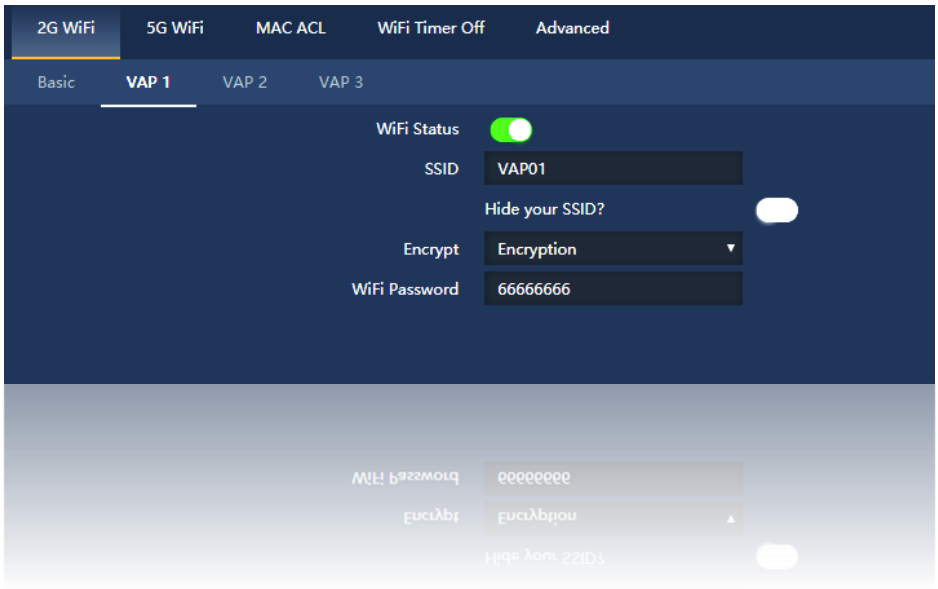
TX Power: - Be careful with this setting, it can reduce the channel overlap and degrade the Wi-Fi signal if using with more than one AP. Especially useful when roaming and set with coverage threshold.

Preferred 5G: - Preferred 5G is a feature in a Wi-Fi access point that prioritizes 5G network connections, providing faster speeds and lower latency than traditional 2.4GHz networks

DFS:- When support for DFS is enabled, it will be necessary for Wi-Fi access points to verify that any radar in proximity is not using DFS frequencies. This process is called *Channel Availability Check*, and it is executed during the boot process of the 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 Wi-Fi 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. Wi-Fi 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 Wi-Fi 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 Settings



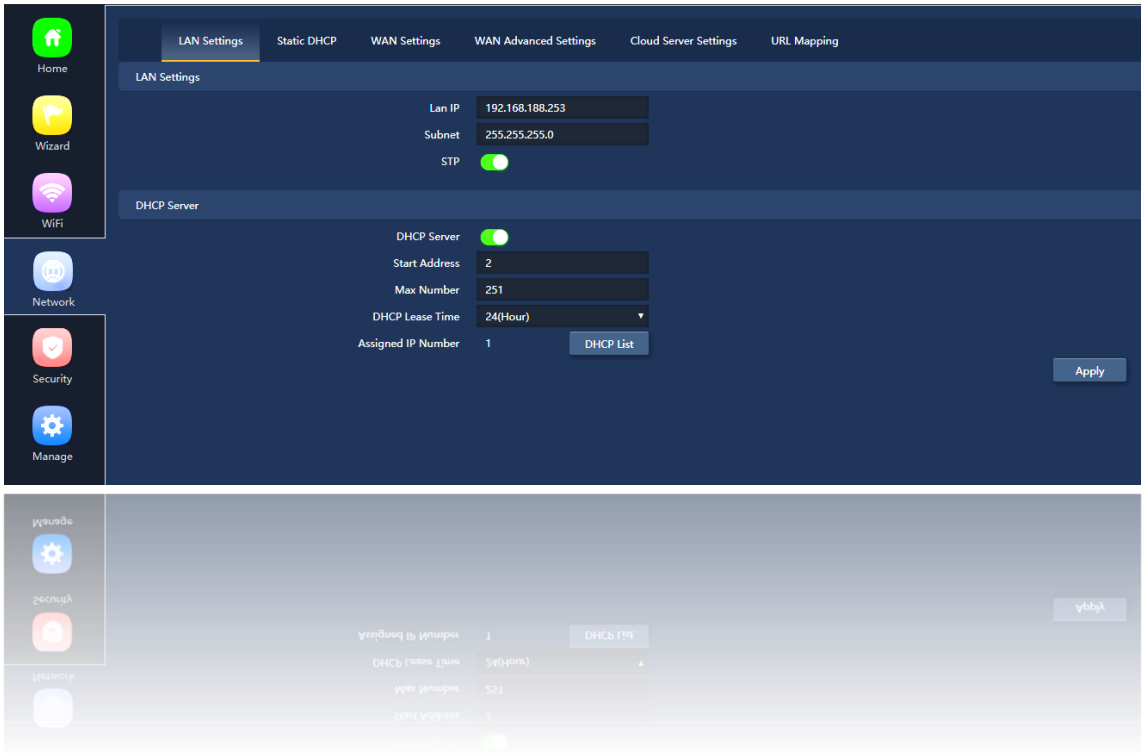
Lan IP: Sets the IP and subnet of the access point. Use with caution as this can cause IP conflicts

STP: The Spanning Tree Protocol (STP) is a network protocol that builds a loop-free logical topology for Ethernet networks. The basic function of STP is to prevent bridge loops and the broadcast radiation that results from them.

DHCP Server: This makes the AP allocate IP numbers to devices connected.
This range will be dictated by the LAN IP set.

Start address and max numbers state the range of the allocated IP addresses.
Start will be the first number allocated in the range, max will be the end number IP.

DCHP Lease time: This is the time elapsed before a device will potentially be re-allocated a new IP address.



Backup Configuration

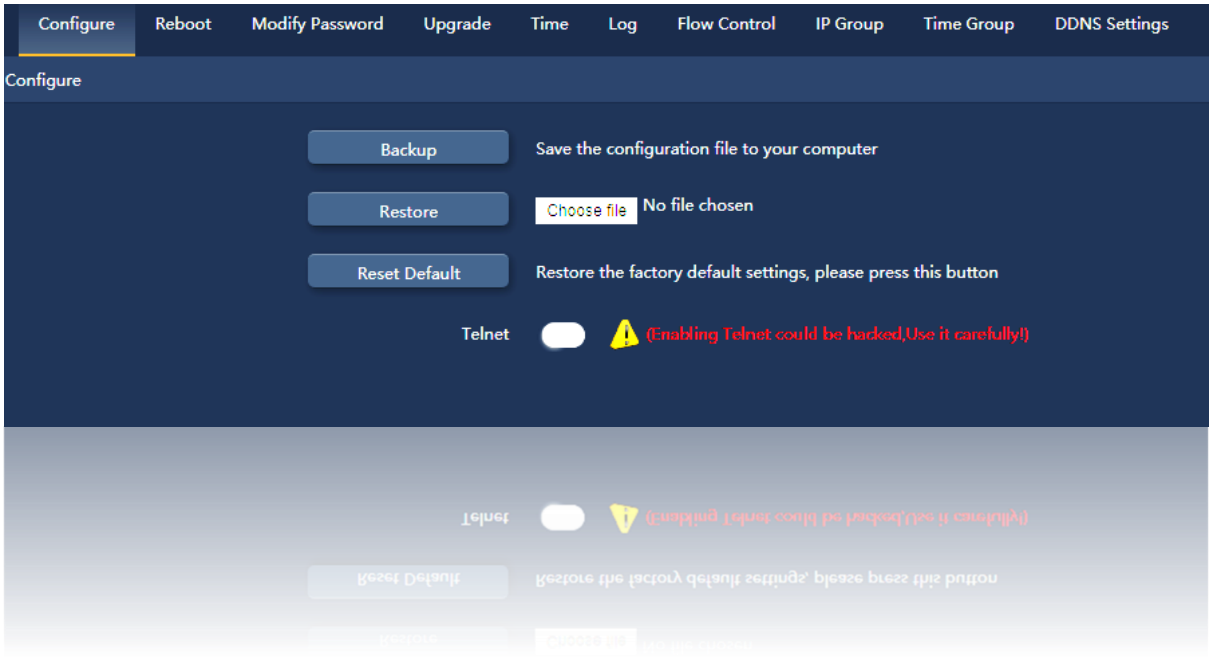
Configure:- Allows you to save the configuration file to your computer.

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).

Due to security risk we suggest this is turned off unless specifically needed.



PROAPW750L

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:	
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

PROAPW300L

Wireless	
Standards	IEEE 802.11n, IEEE 802.11g, IEEE 802.11b
Data Rate	11n:300Mbps 11g: 54Mbps 11b: 11Mbps
Frequency Range	2.4-2.4835GHz
Wireless Transmit Power	11n @MCS7:14±2DB, @MCS0:16±2DB. 11g @54M:15±2DB, @6M:17±2DB. 11b @11M:18±2DB, @1M:20±2DB.
Modulation Type	OFDM = BPSK,QPSK,16-QAM,64-QAM;DSSS = DBPSK,DQPSK,CCK
Receive Sensitivity	11n: -70dbm@MCS7, -88dbm@MCS0. 11g: -72dbm@54Mbps,-88dbm@6Mbps. 11b: -85dbm@11Mbps,-94dbm@1Mbps.
EVM	802.11n: ≤-28 DB 802.11g: ≤-25 DB 802.11b: ≤-10 DB
PPM	±20ppm
MAX Users	64
Operation Mode	Gateway, AP, Repeater
Wireless Security	64/128-bit WEP, WPA/WPA2, WPA /WPA2-Personal (TKIP/AES)
System Requirements	Windows 7/Vista/XP/2000,Mac OS®, Linux or Android OS
Hardware	
Chipset	Qualcomm Atheros QCA9531
Flash	16M
SDRAM	64M
Interfaces	2 x 10/100Mbps LAN/WAN Port
Button	Reset Button
Antenna	MIMO 3dBi Build-in omni-directional Antenna
Power Supply	802.3af PoE
Dimensions(W x D x H)	86*86*68mm
Others	
Operating Temperature	-20°C~55°C
Storage Temperature	-40°C~70°C
Relative Humidity	10% ~ 90%, Non-condensing
Storage Humidity	5%~95%, Non-condensing
Certifications	RoHS

EU Declaration of Conformity

Blake UK hereby declares that the radio equipment type PROAPW300L, PROAPW750L & PROAPCEILING are 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

Tips To Make It Even Easier

TIPS

- Access points can take up to 2minutes to reinitialize on reboot.
- Using the in-wall access point 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 & scan network for the MAC address on the back of the Access Point using the apps below.
- 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.
- Switching off mobile data on your phone prevents your device from mistakenly trying to send you to a WAN webpage and not the LAN page you are wanting.
  If while you are trying to access the setup admin you get the error “page not found”, switching off your mobile data will resolve the issue during the setup process.
- You will only be able to use the 192.168.188.253 IP address to access setup screen, while in the default Gateway mode. Once the AP has already been setup, and is no longer in gateway mode, you will need the LAN IP address that your router has allocated to the AP. Please see “Access On Your PC Using The Local Network” on page 6 on how to do this.

To reset your access point back to default settings, press the reset button for 15 seconds..

- On the 300 and 750 In-Wall this is found under the front cover which can be removed be inserting a blunt object into the catches on the rear side.
- On the ceiling this is on the rear, near the network socket.

Good apps to find network IP addresses are

Fing by Fing Ltd.

Network Analyzer.by Jiri Techet

Network Scanner by First Row

Good apps to find the best Wi-Fi channel are

Wi-Fi Analyzer by Farproc

Wi-Fi Analyzer by Webprovider

For Windows PC we suggest using:

For network scanning:

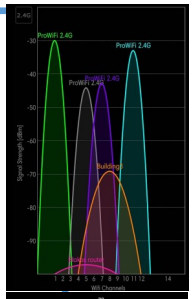
Advanced IP Scanner from https://www.advanced-ip-scanner.com

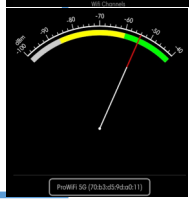
Or Angry IP Scanner from https://angryip.org

For Wi-Fi scanning:

(on laptop or PC with Wi-Fi option)

Wi-Fi Analyzer by Matt Hafner on the Widows store.





NOTE:- Due to the browser cache process 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**
On **Apple MAC: CMD + R**
Alternatively, using the Chrome browser in incognito mode can also reduce browser cache issues.
Please see https://www.refreshyourcache.com for more details on the cache process.

Also available separately is our tips sheet with even more tips and information .

Choosing the Right Ethernet Cable

For future-proofing your Ethernet cable needs, you have several options to consider. The older Cat 1 through Cat 5 categories are outdated and not recommended due to discontinuation and slow speeds.

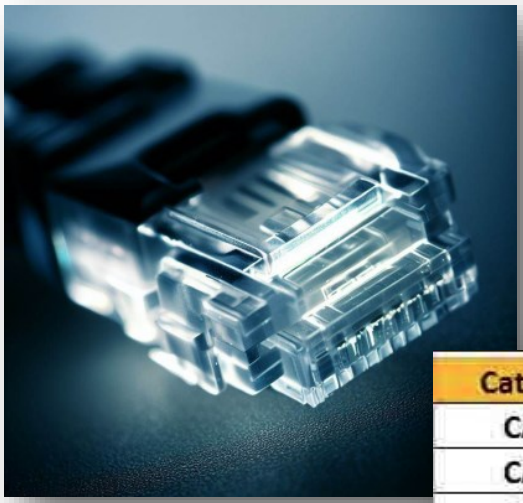
Cat 5e, which stands for "enhanced," is a widely used cable with slightly improved testing standards to reduce crosstalk. It supports faster speeds than Cat 5 at a lower cost.

Cat 6 offers higher bandwidth than Cat 5 and Cat 5e, with shielding to prevent interference. It supports speeds up to 10Gbps for up to 55 meters but is more expensive.

Cat 6a, the "augmented" version, provides twice the bandwidth and higher transmission speeds over longer distances. It's a thicker, less flexible cable but offers improved performance.

Cat 7 and Cat 7a are high-performing cables with impressive speeds and bandwidth, but they face compatibility and manufacturing challenges. Cat 7's proprietary connector and lack of widespread support make it rare. Cat 7a is expensive and suitable for niche applications.

Cat 8 is a top choice for future-proofing. It boasts a frequency of 2,000MHz and speeds of up to 40Gbps at 30 meters. It requires shielding and supports two connectors with a combined length limit. While more costly, it adheres to the latest IEEE standards and avoids the connector issues of Cat 7.



Category	Speed	Frequency
CAT 1	Carry only voice	1MHz
CAT 2	4Mbps	4MHz
CAT 3	10Mbps	16Mhz
CAT 4	16Mbps	20Mhz
CAT 5	100Mbps	100Mhz
CAT 5e	1000Mbps	100Mhz
CAT 6	1000Mbps	250MHz
CAT 7	10Gbps	600MHz
CAT 7a	10Gbps	1000Gbps
CAT 8	25Gbps	2000Mhz

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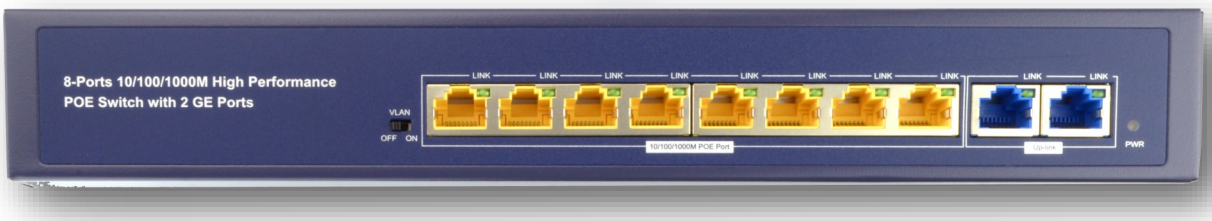

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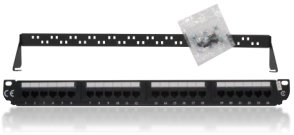

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