D-Link®

Version 1.00 | 12/11/2020

User Manual

20 km Long Range 802.11ac Wireless Bridge

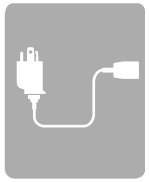
DAP-3712

Table of Contents

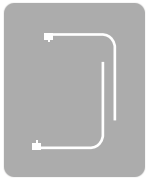
Package Contents

DAP-3712 20 km Long Range 802.11ac Wireless Bridge

Power Injector



Power cord



Mounting tie

Quick Start Guide

System Requirements

Web-based Configuration Requirements	**Computer with the following:** • Microsoft Windows®, Apple Mac OS, or a Linux-based operating system **Browser Requirements:** • Microsoft Edge, Firefox 60.0, Safari ,or Chrome 68.0.3440.106

Introduction

The DAP-3712 is a high-performance 802.11ac 2T2R outdoor-deployable wireless bridge that provides wireless connectivity to multiple network locations. The DAP-3712 has a built-in 23 dBi dish antenna that can deliver connectivity at a distance of up to 20 km.

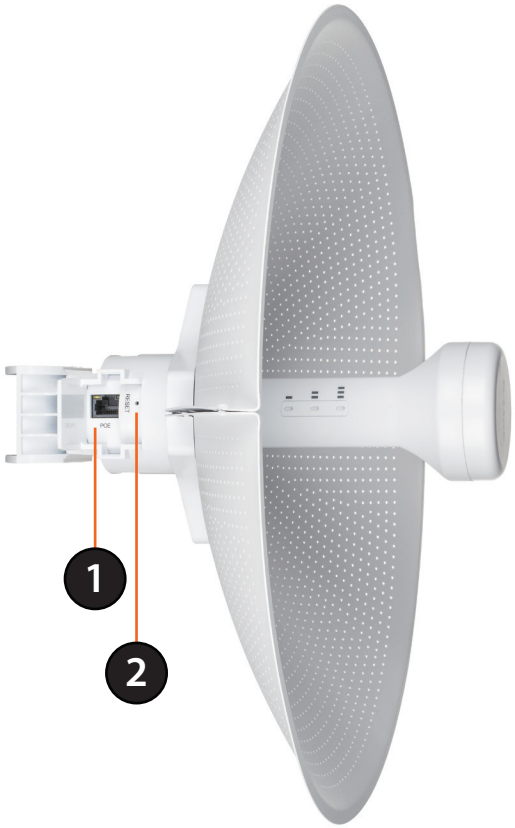
Note: Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.

Features

- High-performance 802.11ac 2×2 chip
- Max. transmission range: 20 km
- Max. transmission throughput: up to 867 Mbps
- Integrated TDMA, intelligent rate control, and Auto ACK timeout
- TDMA solves the hidden-node problem in 802.11 networks
- Supports 4 operation modes: Access Point, Client, WDS Access Point, WDS Client
- Supports point-to-point and point-to-multipoint connections
- Unique RF and antenna design enable long-range transmission
- Wireless multimedia optimization technology guarantees video/audio transmission QoS
- User-friendly web-based UI makes the installation and setup processes much easier
- Reliable PoE+ 802.3at standard power input
- Waterproof housing and protection from weather

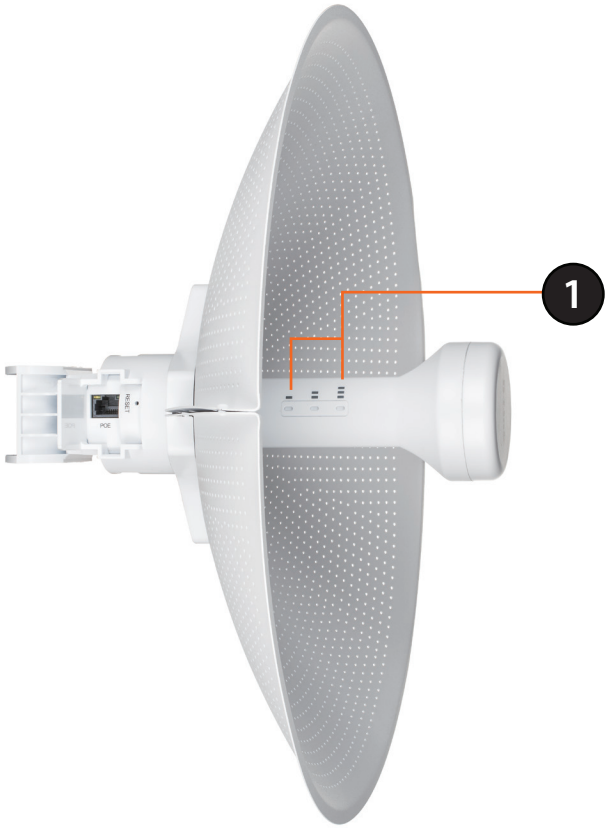
Hardware Overview

Connection



1	**PoE Port**	Uses a standard Ethernet cable to connect the device to a PoE power source such as a PoE switch or PoE injector.
2	**Reset Button**	Resets the device to its factory settings.

Hardware Overview
LED Indicators

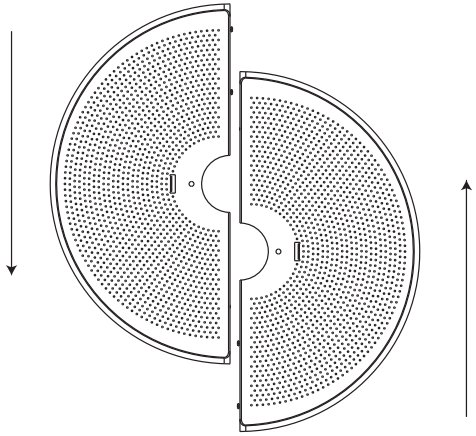


1	**Signal Strength**	Signal strength indicators. One light indicates a weak signal. Two lights indicate a medium signal. Three lights indicate a strong signal.

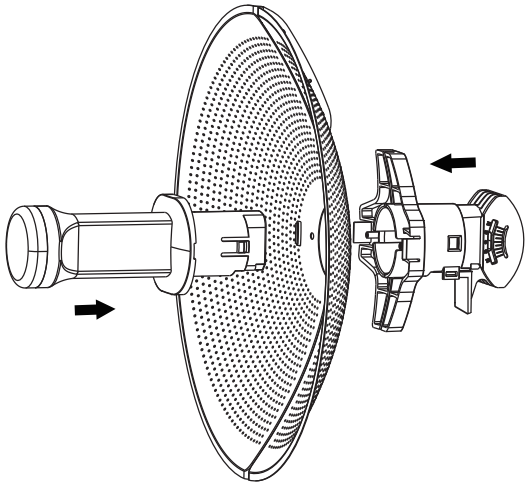
Installation

Assembling the Access Point

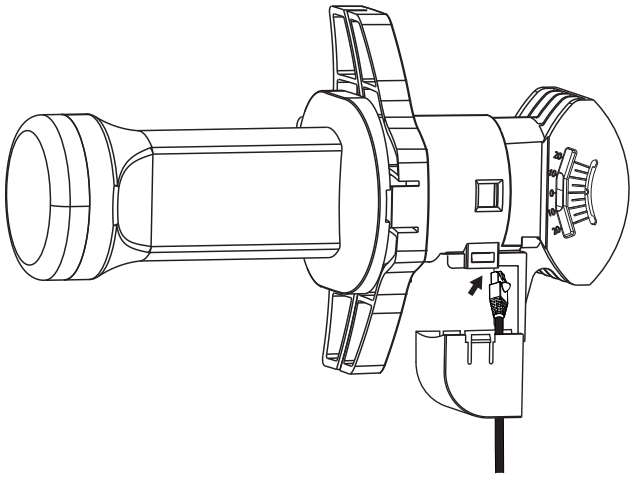
1. Assemble the dish of the DAP-3712 by sliding the two halves together until they lock in place.



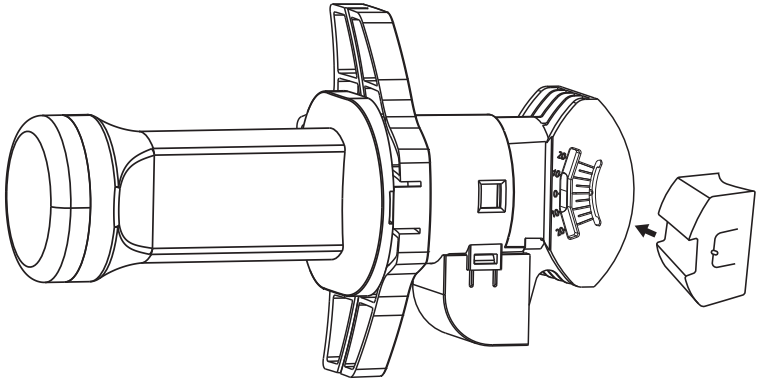
2. Connect the antenna and base through the hole in the center of the dish.



3. Thread a standard RJ-45 Ethernet cable through the cover for the PoE port on the underside of the DAP-3712. Insert the cable into the PoE port, then attach the cover to the device.

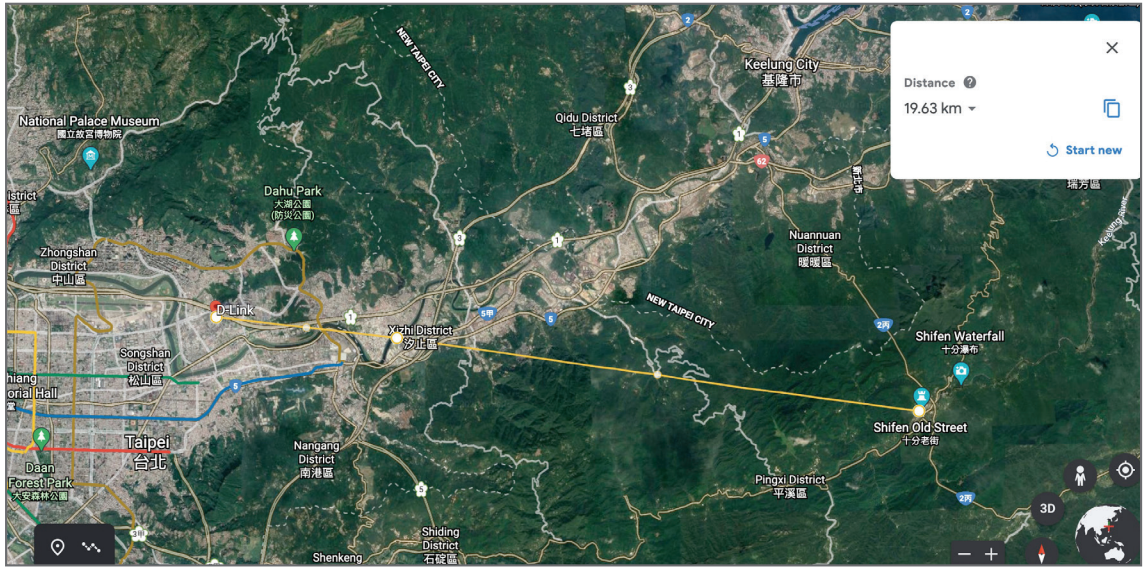


4. Connect the adjustment kit to the base of the DAP-3712 by pressing it in until it clicks and locks in place. Use the adjustment kit to position the antenna at the desired.



Preparation before Installation

Before installing the DAP-3712, check the distance between the two sides and ensure that they are within wireless signal range of each other. It may be helpful to use a Graphic Information System (GIS) program such as Google Earth to check for obstructions between the two sites. If there is an obstruction, it may help to install the DAP-3712 as high as possible to prevent the signal from being blocked.



Note: Ensure that both devices have the same model number and are running the same firmware version. The radiation pattern and wireless protocol of the DAP-3712 is designed for high-performance bridge connectivity. Using different models or models with mismatched firmware versions may cause problems, such as performance degradation or a reduction in coverage area.

Powering the Access Point

To power the DAP-3712, use a standard Ethernet cable to connect the PoE port on the DAP-3712 to a 48 V PoE injector.

Cable Requirements

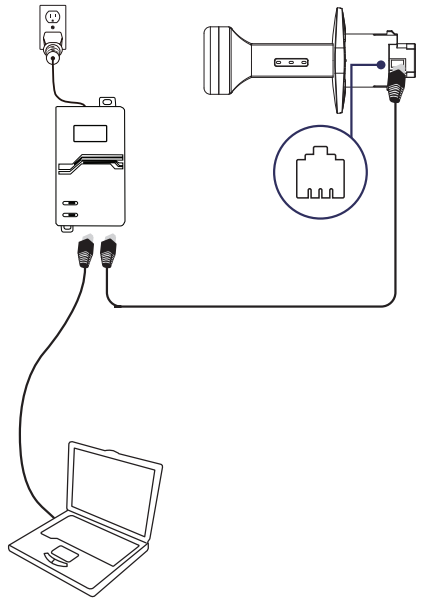
Use a CAT 5 cable with an even sheath. The Ethernet ports on the DAP-3712 access point cannot accept a CAT 5 cable that has an uneven sheath; the RJ-45 connector on the cable will not fit properly into the receptacle on the access point.

Configuring the First DAP-3712 in Access Point Mode

1. Use an Ethernet cable to connect the LAN port on the DAP-3712 to the PoE Out port on the PoE injector. Using another cable, attach the PoE injector to your switch or management computer.

2. Ensure the computer is configured with the static IP address **192.168.0.2** and a subnet mask of **255.255.255.0**.

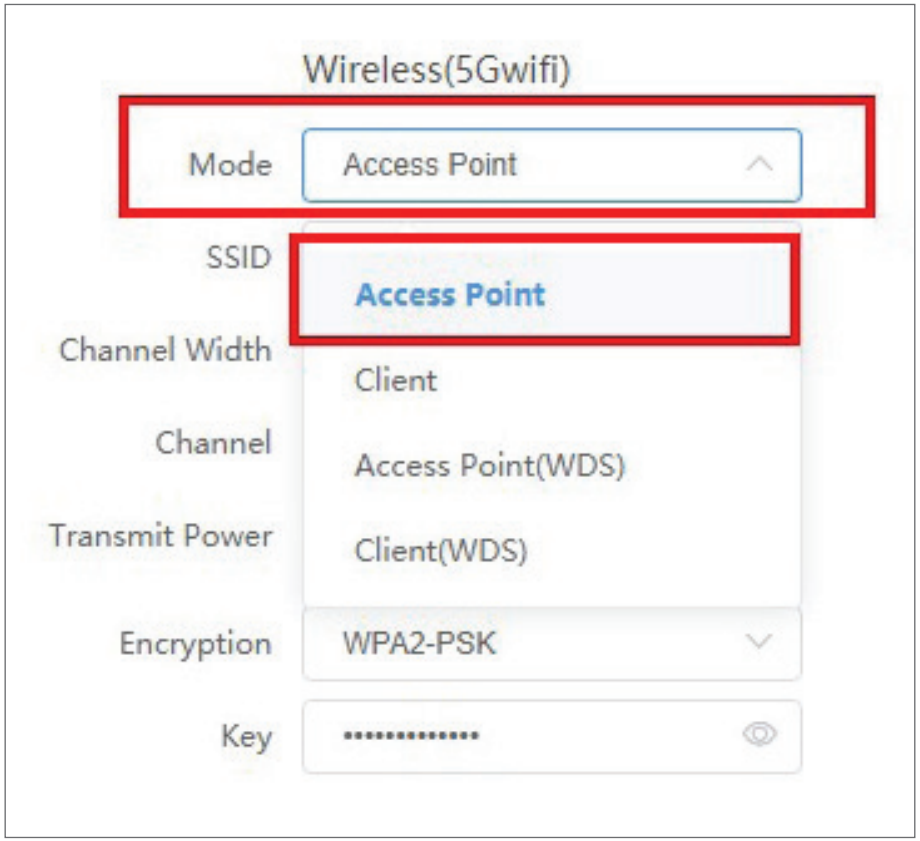
3. Launch a web browser. Enter **192.168.0.50** in the address field of your browser.



4. Log in to the administration user interface. The default login information is:

   Username: **admin**
   Password: **admin**

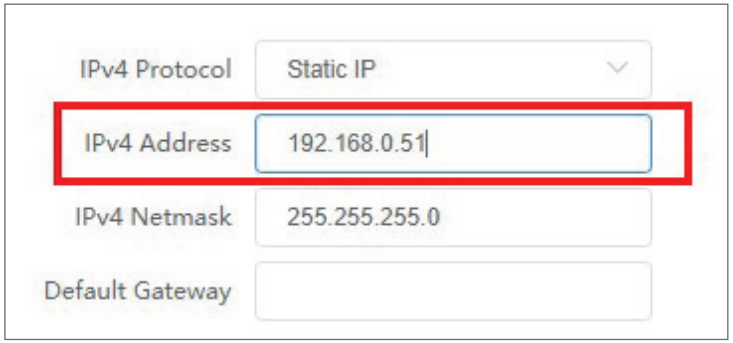
5. Follow the Setup Wizard's instructions to configure the device in Access Point Mode.



Configuring the Second DAP-3712 in Client Mode

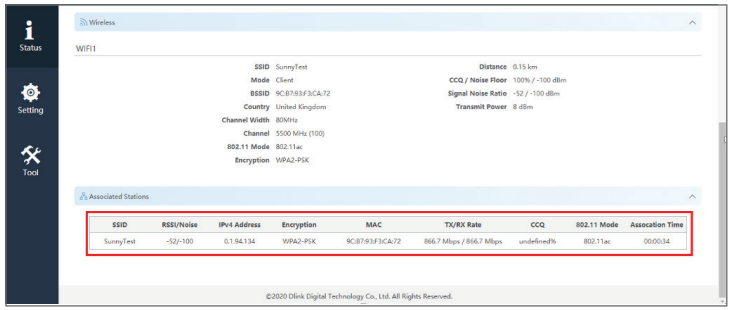
1. Follow steps 1-4 of the instructions above to power on the device. Launch the Setup Wizard to configure the device in Client Mode.

2. To avoid an IP address conflict, change the IPv4 address so that it is different from the first DAP-3712's IP address (for instance, by changing it to **192.168.0.51**, as in the following screenshot).



3. On step four of the Setup Wizard (Wireless), select **Client** from the drop-down list. Enter the same SSID and key that you entered when configuring the first device.

4. To confirm that wireless connectivity between the two devices is configured correctly, navigate to the **Status** page and check the information under **Associated Stations** (shown below).



Mounting the Device

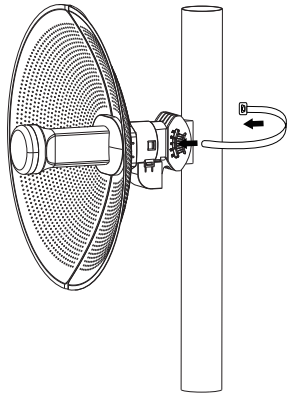
If you plan to install the DAP-3712 on a pole, orient the front of the device (the dish and antenna) toward the intended coverage area.

The antenna only transmits data in the direction it is pointed. Be sure to install the device at a height that ensures that the alignment between the devices is visible and there are no obstructions in the middle.

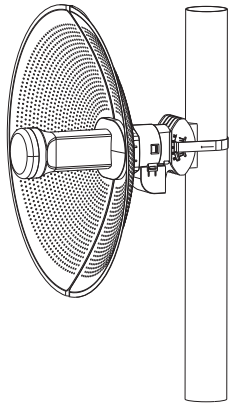
Note: The DAP-3712 is designed to receive PoE power from an 802.3at-compliant source. Connecting the DAP-3712 to a PoE device that is not approved by D-Link can damage the equipment.

Mounting on a Pole

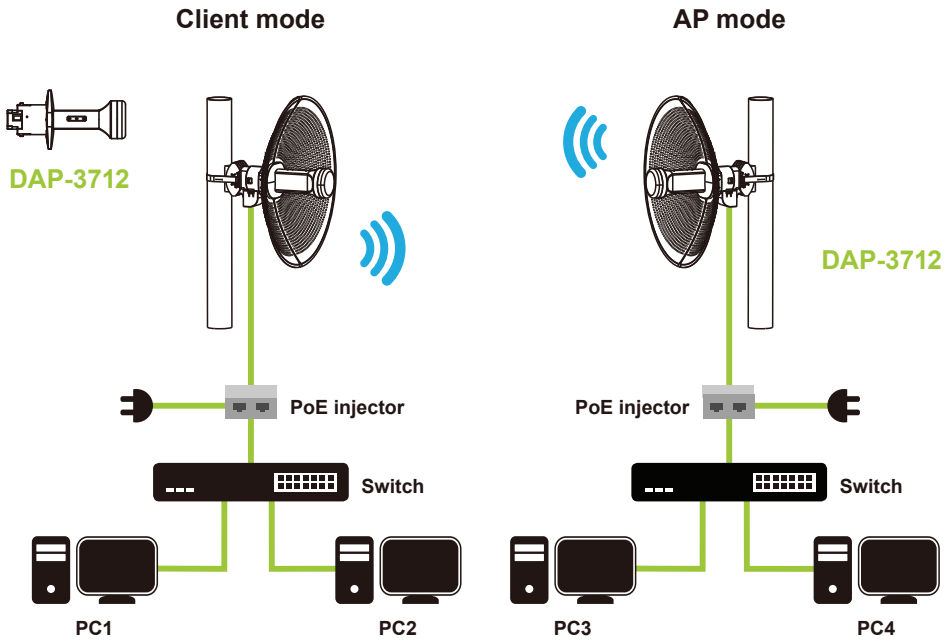
1. Hold the DAP-3712 against the pole in the desired position.



2. Thread the metal mounting tie through the hole on the base of the DAP-3712 and wrap it around the pole. Fasten the tie to secure the device against the pole.



Once completed, your network will resemble the following diagram.



Configuration

This section will show you how to configure your New D-Link DAP-3712 using the web-based configuration utility.

Factory Default Setting

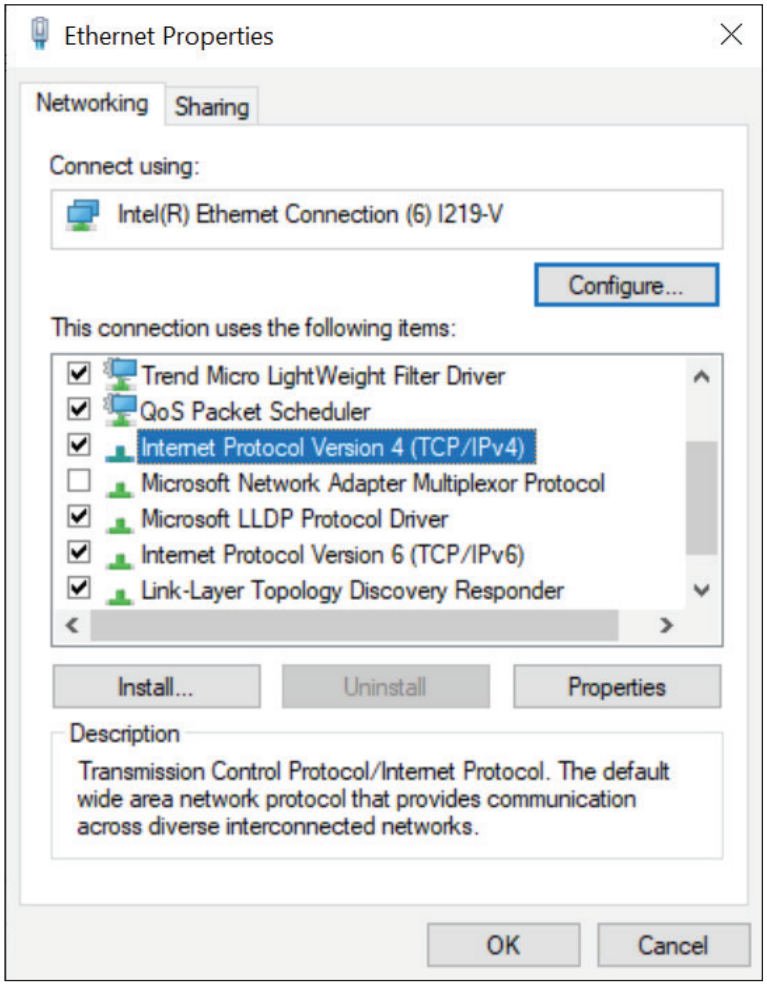
The following table shows the DAP-3712's default settings.

Features	Factory Default Setting
Username	admin
Password	admin
Operation Mode	Bridge
Wi-Fi Mode	Access Point
SSID	dlink
Encryption	WPA2-PSK
Key	1234567890abc
LAN	IP: 192.168.0.50 Subnet: 255.255.255.0 Gateway: 192.168.0.1
DHCP Server	disable
802.11 mode	802.11 ac
Channel	auto
Bandwidth	80 MHz
TDMA	disable

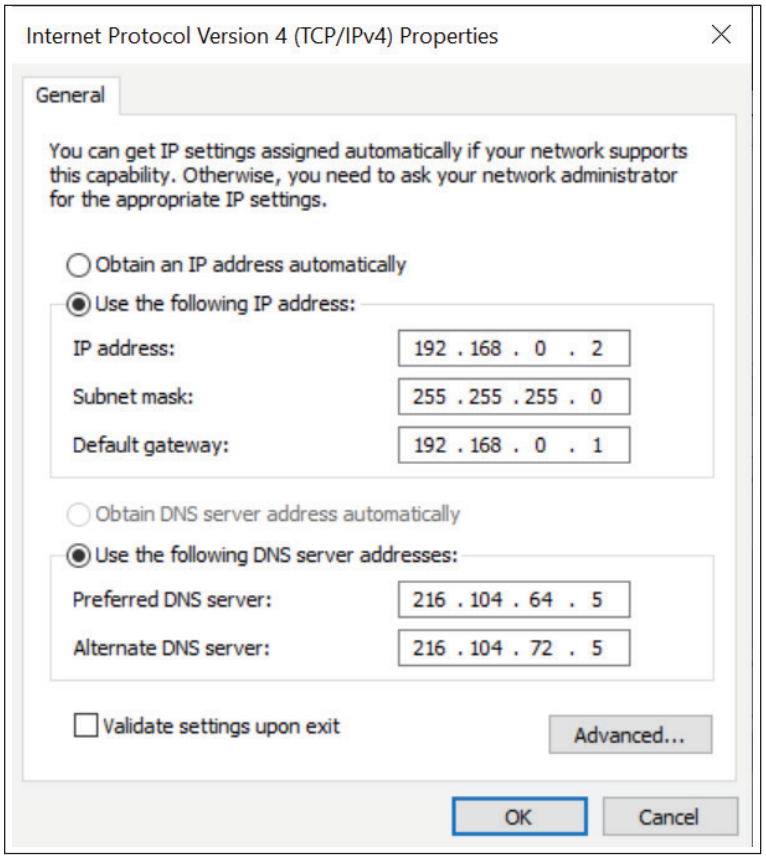
Web-based Configuration

To log in the DAP-3712 web interface, you will need to configure your computer's TCP/IP settings:

1. Right-click the **Local Area Connection** icon on your computer and click **Properties**, then click **Continue**. The **Local Area Connection Properties** dialog box will appear, as seen below.



2. Select **Internet Protocol (TCP/IP)** and click the **Properties** button, and the following dialog box will appear:

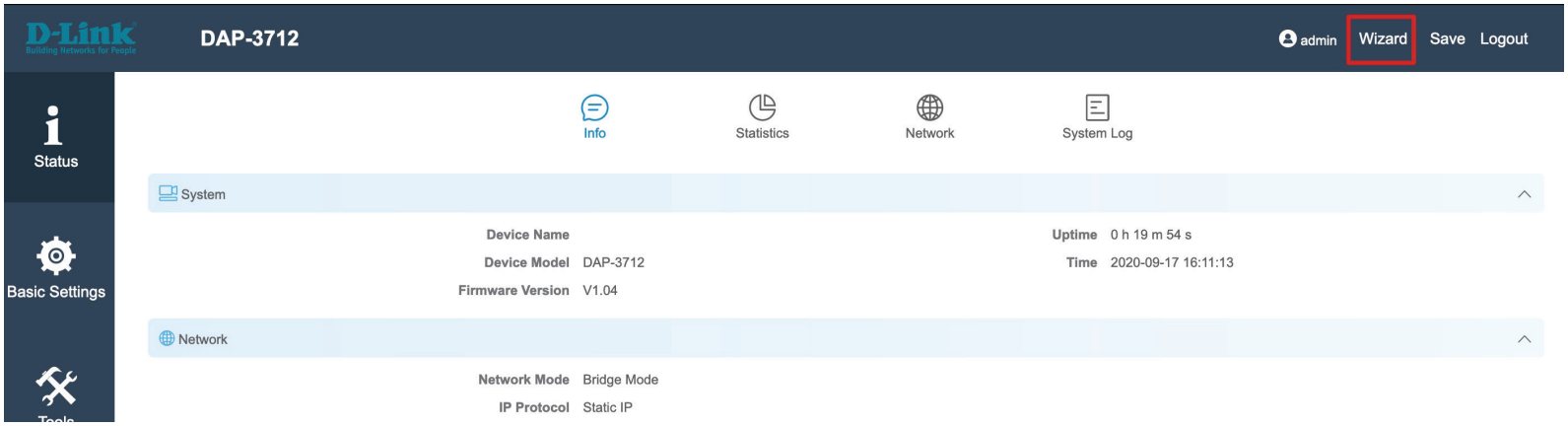


3. In the above figure, the **IP address** should be set to **192.168.0.***. Here, * can be any number between 1-255 (but not 50, since the DAP-3712's default IP address is **192.168.0.50**).

4. When you are done configuring the IP settings above, enter the default IP address (**192.168.0.50**) into the address bar of your web browser, and the following login interface will appear.

Wizard

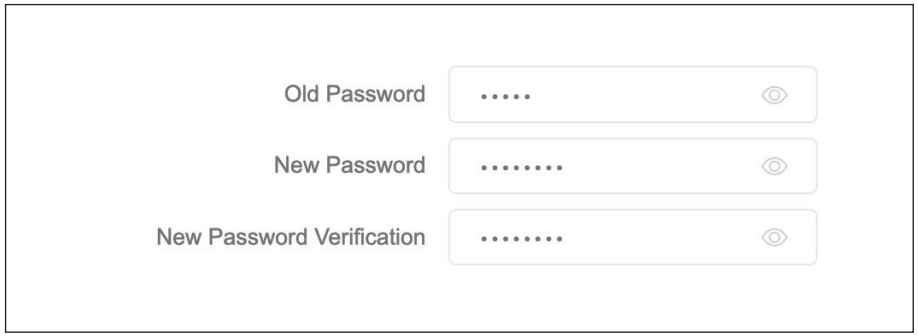
When you log into the DAP-3712 for the first time, the Wizard page will automatic pop-up. You can also click **Wizard** in the top right corner.



To configure the device, follow these steps:

1. Change password

If this is the first time you have logged into the DAP-3712, you will need to change the password. The default password is **admin**.

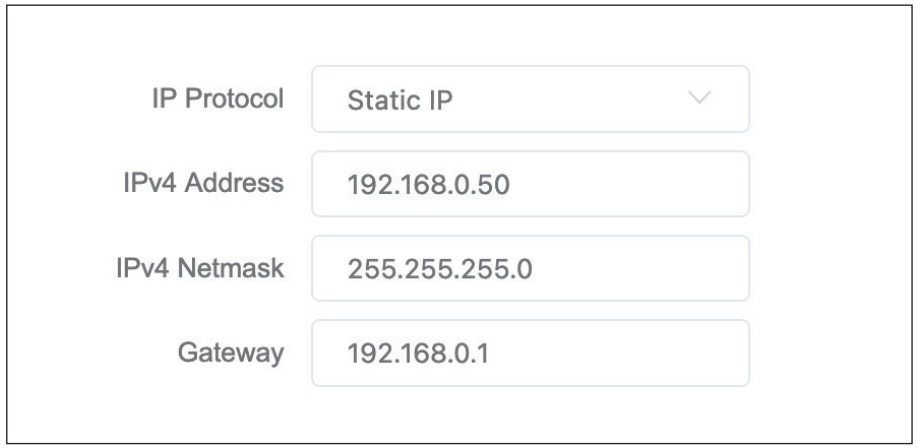


2. Country

On the next screen, select your country.

3. Network

You can change the IP address of the DAP-3712. The default IP is **192.168.0.50**. Click **Next** to advance to the next page.



4. Wireless

Wireless Mode: There are four wireless modes: **Access Point**, **Client**, **Access Point (WDS)**, and **Client (WDS)**. To use a point-to-point or point-to-multipoint connection, you need to configure the primary DAP-3712 in **Access Point** or **Access Point (WDS)** mode and the other DAP-3712s in **Client** mode or **Client (WDS)** mode.
If you want to preserves MAC address of clients frame , it is suggest to use Acess Point(WDS) and Client (WDS) for each size.

SSID: You can set the SSID which the device will broadcast when **Access Point** or **Access Point (WDS**) is selected. Alternately, set the SSID of the remote site when **Client** or **Client (WDS)** is selected. The default SSID is **dlink**.

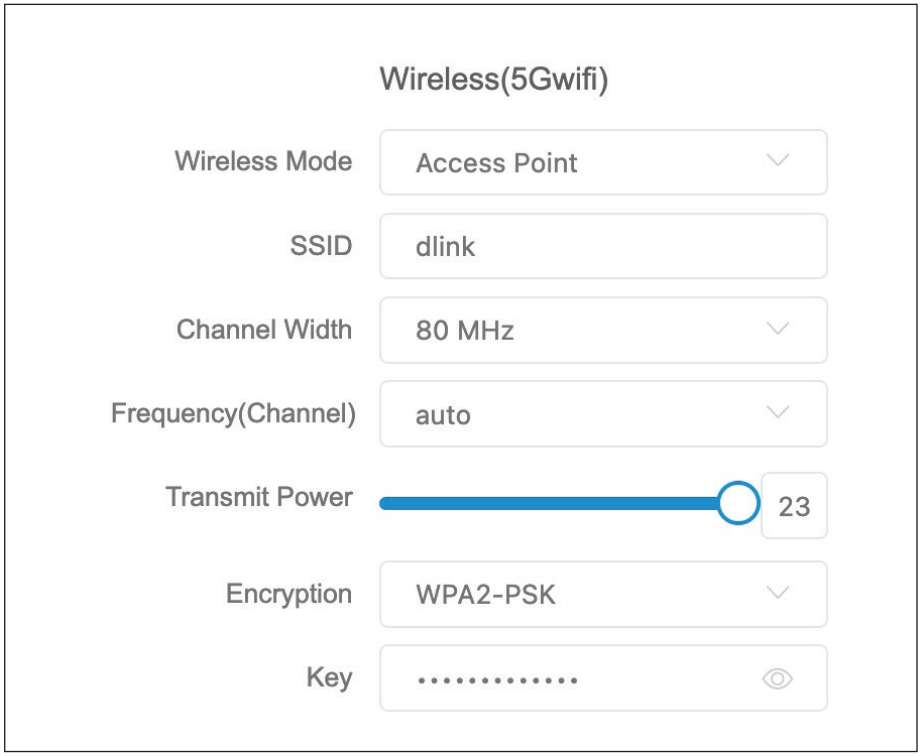
Channel Width: Use this to select the channel bandwidth of the DAP-3712. The default is 80 Mhz.

Frequency (Channel): Use this to select the Wi-Fi channel the AP will broadcast on. The available channels depend on the county you selected.

Transmit Power: Use this to set the DAP-3712's output power.

Encryption: You can select which Wi-Fi encryption the DAP-3712 should use: Open, WPA-PSK, WPA2-PSK, WPA/WPA2 Hybrid-PSK, or IEEE802.1X.

Key: To input the WiFI encryption key. The default key is 1234567890abc



Basic Settings

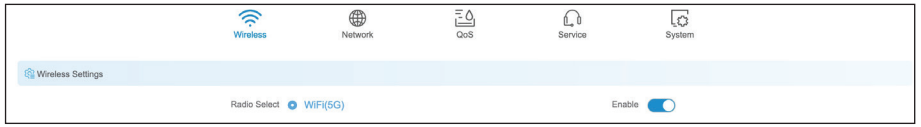
This section will introduce how to navigate the **Basic Settings** page. On this page, there are Five tabs: **Wireless**, **Network**, **QoS**, **Service**, and **System**.

After making changes, click **Save** to apply them.

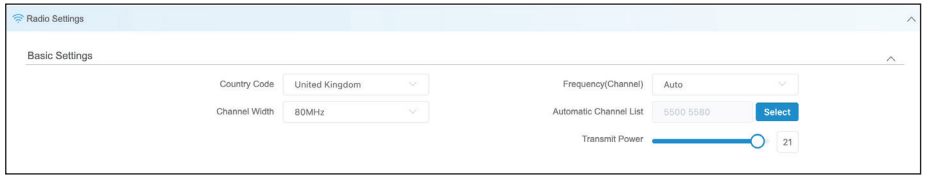
Wireless

In the **Wireless** tab, you can configure the DAP-3712's Wi-Fi and radio settings.

Wireless Settings: Toggle the button to enable or disable Wi-Fi.



Radio Setting: In this section, users can set up basic and advanced Wi-Fi and radio settings.



Basic Settings

Country Code: Use this to select the country where the DAP-3712 is installed.

Channel Width: Use this to change the AP's channel width. The default is 80 MHz.

Frequency: Use this to specify the Wi-Fi channel to use, or select Auto to determine this automatically.

Automatic Channel List: If you select Auto in Frequency, you can decide which channels to operate here. The available channels will depend on your country.

Transmit Power: The device's output power. When the output power is increased, the signal distance and signal strength will be improved.

Advanced Settings

802.11 Mode: You can select the 802.11 mode which the DAP-3712 should use. It is suggested to keep this setting at 802.11ac to provide an optimal transmission rate.

Max Tx Rate: This can be used to limit the maximum transmission rate of the device.

MIMO: The DAP-3712 supports 2T2R Multi-Input-Multi-Output. In high-interference environments, you can set this to 1T1R to reduce the noise.

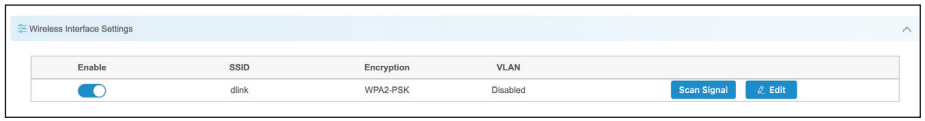
Auto ACK: Enabling this function will automatically detect the distance between the two DAP-3712 units and optimize the link quality. Enabling this is recommended. If you disable this function, you will need to manually enter the distance between the two units.

TDMA+: To use TDMA, you will need to enable TDMA mode in both DAP-3712 units. TDMA can prevent 802.11 hidden node issues. When setting up PTMP, enabling TDMA+ is recommended. The TDMA+ function can only work between two DAP-3712 units.

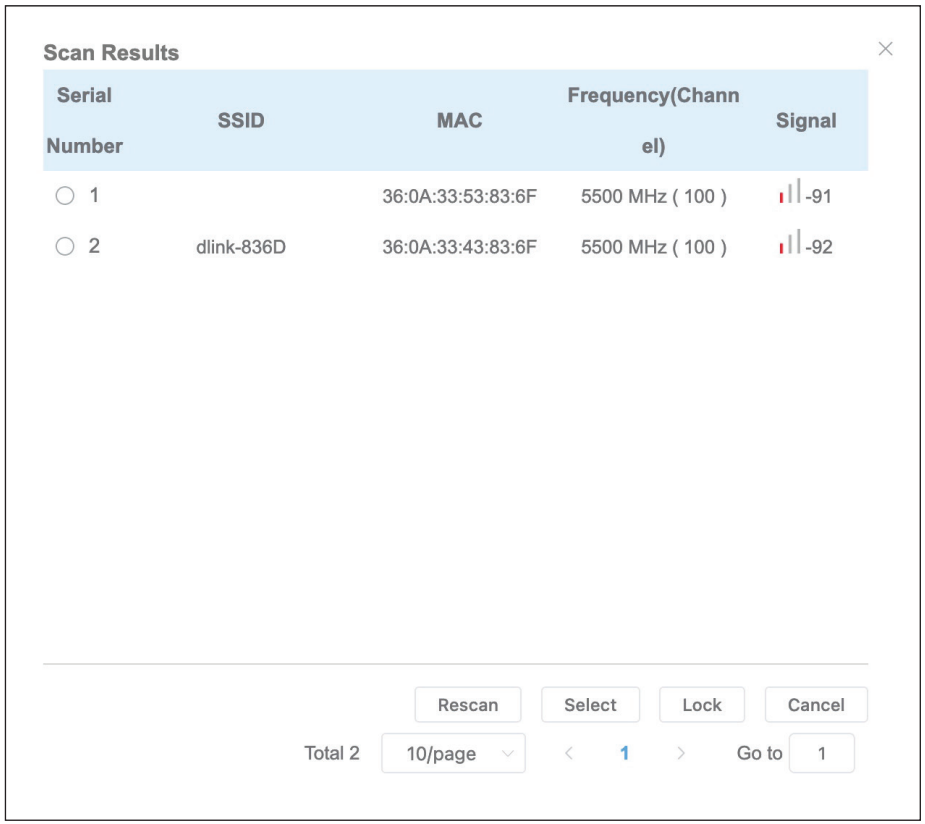
When TDMA+ is enabled, you can also decide whether you want to enable JTrans. JTrans can help prevent an internal wireless attack. The client and access point must be turned on at the same time when JTrans is enabled.

Wireless Interface Settings

In this section, you can change the settings for the DAP-3712's Wi-Fi operation mode, SSID, encryption, and site survey.



Scan Signal: When you click **Scan Signal**, the device will conduct a site survey to find the SSIDs that the DAP-3712 can detect. If you select an SSID, the DAP-3712 will switch to client mode and connect to the SSID you selected. Click the **Edit** button to set up encryption (if required).



Rescan: Click this to perform a site survey again.

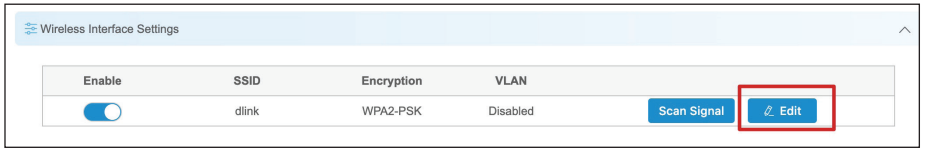
Select: Click this to select which SSID the DAP-3712 should connect to.

Lock: Use this to select which SSID and MAC address the DAP-3712 should connect to. If you enable this, the DAP-3712 will only connect to the AP you specify.

Cancel: Click this to cancel the scan.

Edit

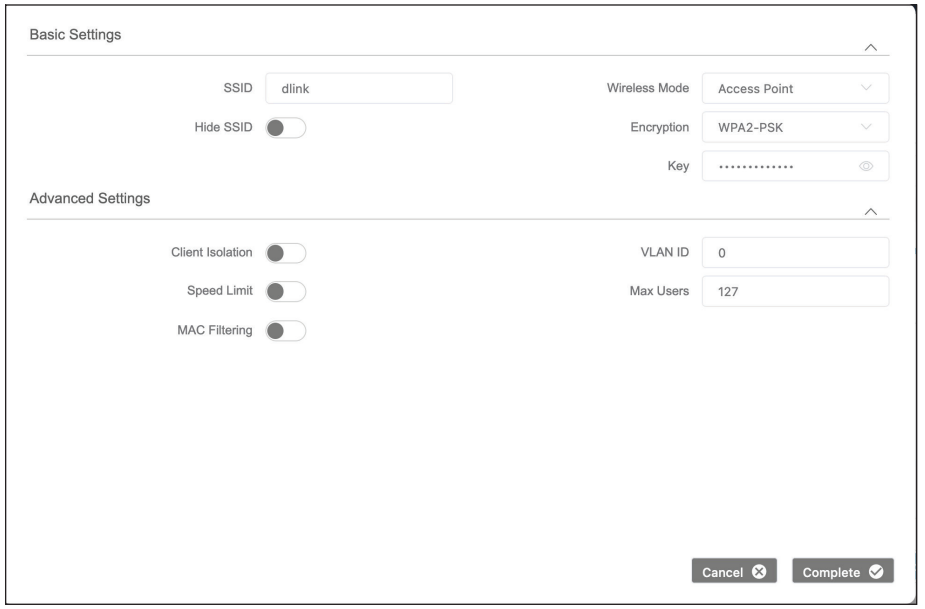
Click this to change the DAP-3712's operation mode, encryption and key. The following page will pop up:



SSID: To set the SSID which the DAP-3712 will broadcast when it operates in **Access Point** or **Access Point (WDS)** or **SSID** mode, or the SSID that the DAP-3712 will attempt to connect to when it operates in **Client** or **Client (WDS)** mode.

Hidden SSID: When the DAP-3712 is in **Access Point** or **Access Point (WDS)** mode, this function will be displayed. Use this to hide the broadcast name of the wireless network.

Wireless Mode : There are four wireless modes: Access Point, Client, Access Point (WDS), and Client (WDS). To use a point-to-point or point-tomultipoint connection, you need to configure the primary DAP-3712 in Access Point or Access Point (WDS) mode and the other DAP-3712s in Client mode or Client (WDS) mode. If you want to preserves MAC address of clients frame , it is suggest to use Acess Point(WDS) and Client (WDS) for each size.



Encryption: You can select which Wi-Fi encryption the DAP-3712 should use: **Open**, **WPA-PSK**, **WPA2-PSK**, **WPA/WPA2 Hybrid-PSK**, or **IEEE802.1X**.

Key: To input the WiFI encryption key. The default key is 1234567890abc

Client Isolation: When you enable this function, the clients which are connected to the DAP-3712 will not be able to communicate with each other.

Speed Limit: When you enable this function, you will be able to set up a maximum upload/download speed for each client.

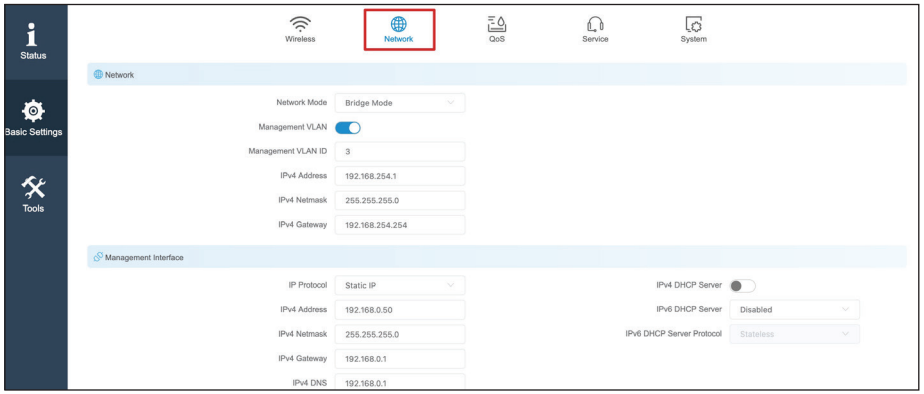
VLAN ID: Use this to set up the VLAN ID for the SSID.

Max. Users: Use this to set up the maximum number of clients that can connect to the DAP-3712.

MAC Filtering: Use this to set up a list of MAC addresses that you want to allow or disallow to connect to DAP-3712.

Network

In the **Network** tab, you can set up the DAP-3712's network mode and IP address.



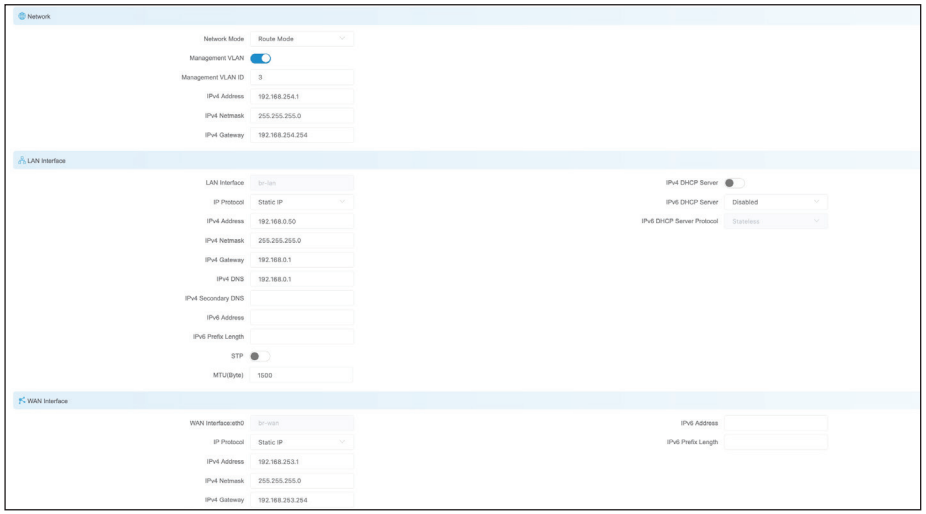
Network Mode: Select either Bridge Mode or Router Mode.

Bridge Mode: In this mode, the DAP-3712's LAN Port and Wi-Fi will bridge together.

Router Mode: In this mode, the DAP-3712 will act as a router.

Management VLAN: Use this to set up a management VLAN ID tag and IP address. When the VLAN is enabled, the DAP-3712 can only be accessed with this VLAN tag and IP address.

In **Bridge Mode**, users can configure the DAP-3712's LAN interface.



IP Protocol: Use this setting to select either Static IP or DHCP IP.

IPv4/IPv6 DHCP Server: Enabling this function in bridge mode is not recommended. When you enable this function, you need to make sure there are no DHCP servers in the DAP-3712's network.

In **Router Mode**, you need to configure the LAN and WAN interface of the DAP-3712.

LAN interface: You can set the IP addresses of the devices which can be accessed via Wi-Fi using this setting.

WAN Interface: In router mode, the physical LAN port becomes the WAN port. You need to enter the IP address or configure DHCP clients to get the IP address as well as PPPoE.

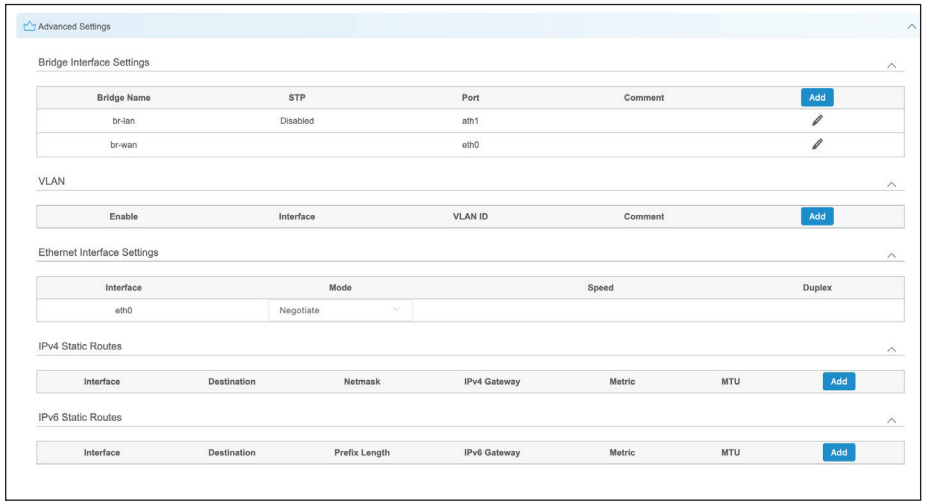
Advanced Settings: In this section, you can configure settings such as static routes. In general, users will not need to configure anything in this section.

Bridge Interface Setting: This displays and controls the DAP-3712's bridge policy.

VLAN: This displays the DAP-3712 VLAN ID tag.

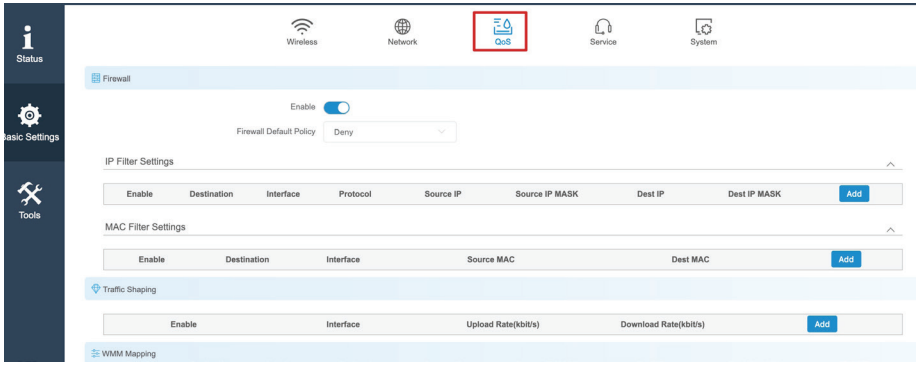
Ethernet Interface Setting: Use this to select the LAN port's speed negotiation mode.

IPv4/IPv6 Static Route: Use this to add the Static Route rule for the DAP-3712.



QoS

In the QoS tab, there are four sections on this page: **Firewall**, **Traffic Shaping**, **WMM**, and **QoS Priority**.



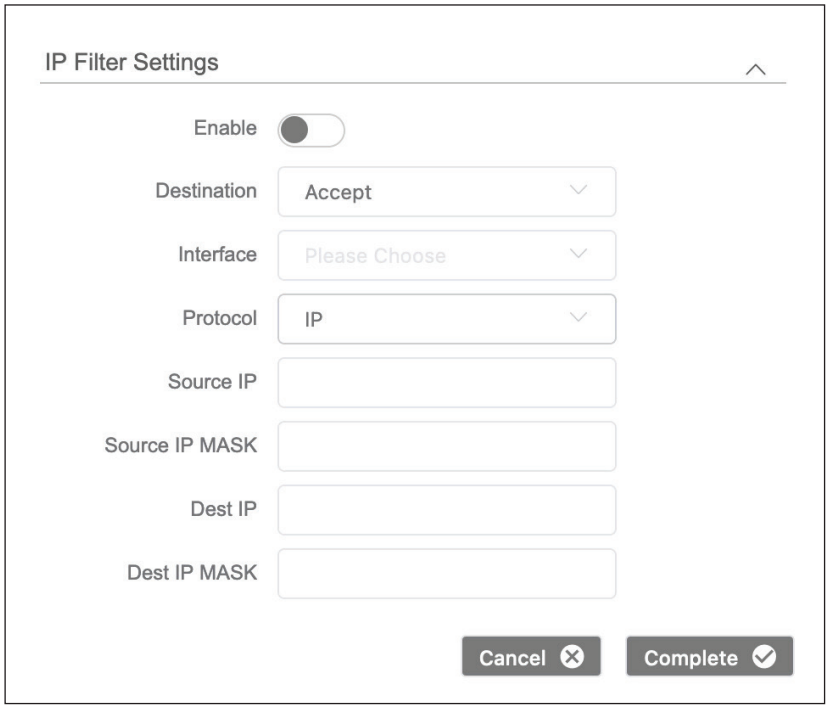
Firewall: When the firewall is enabled, the device will only allow certain devices to connect to it.

Firewall Default Policy

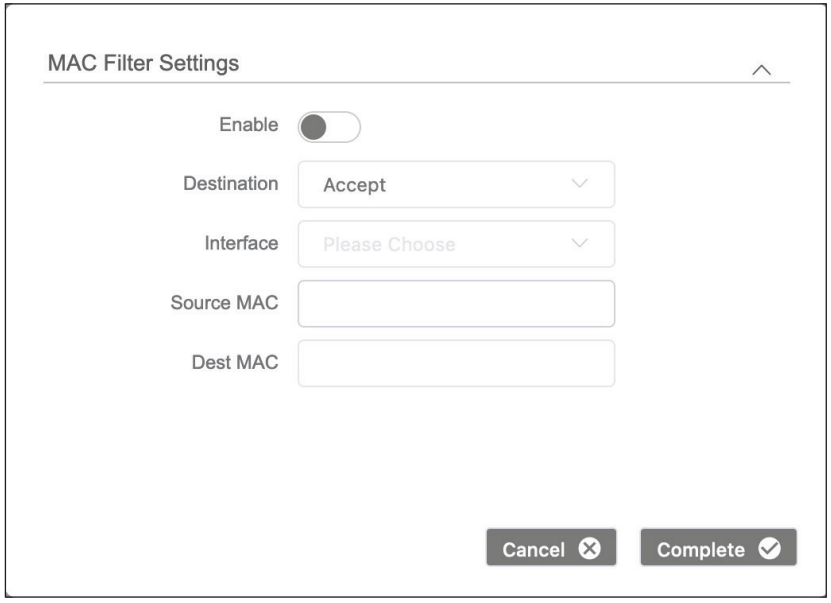
Accept: Only accept the devices listed in **IP Filter Settings** and **MAC Filter Settings**.

Deny: Deny the devices listed in **IP Filter Settings** and **MAC Filter Settings**.

IP Filter Settings: Click **Add** to add a new IP address to allow or deny.



MAC Filter Settings: Click **Add** to add a new MAC address to accept or deny.

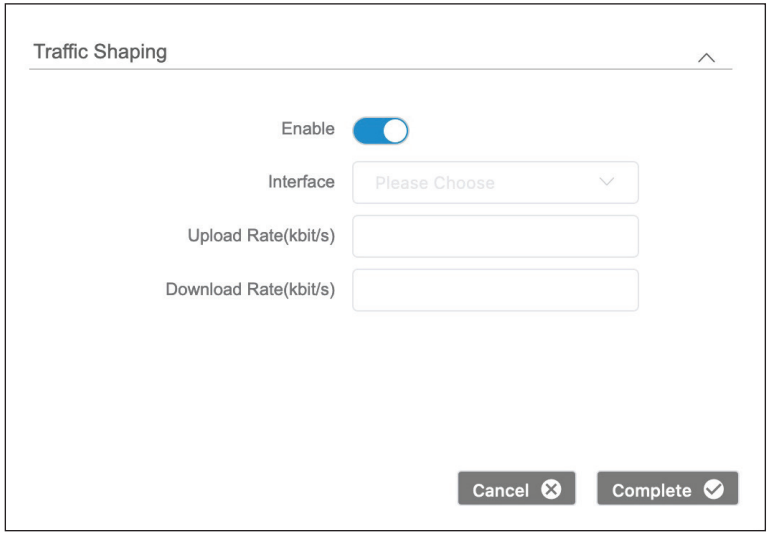


Traffic Shaping: Traffic shaping is used to control the upload/download traffic on each network port.

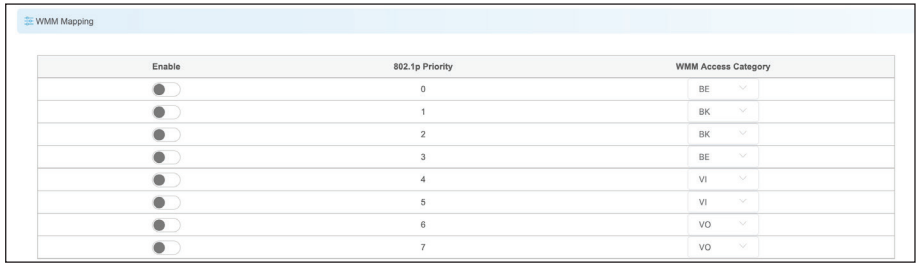
Interface: Select an interface: Ath0 (wireless) or Eth0 (LAN).

Upload Rate: Enter the maximum upload speed.

Download Rate: Enter the maximum download speed.



WMM Mapping: WMM (Wi-Fi Multimedia) allows wireless communication to define a priority limit on the basis of data type. Time-sensitive data (like video/audio data) can be assigned a higher priority than other data. For WMM to be enabled, the wireless client must support it as well.



QoS Priority: Use this setting to set the QoS settings on the LAN port.

Service

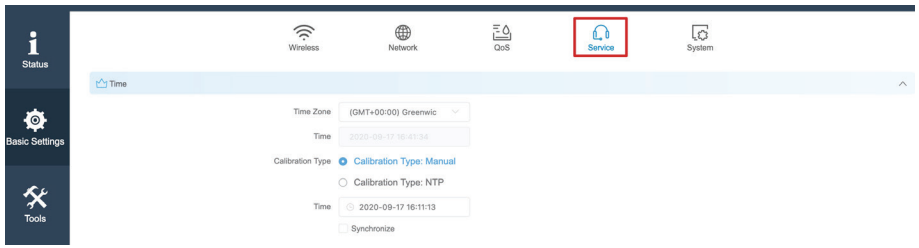
In the service tab, you can configure the following settings: **Time**, **Automatic Restart**, **External System Log Server**, **Ping Watchdog** and **LED Settings**.

Time: Here you can configure the DAP-3712's time settings.

Time Zone: Use this to select your time zone.

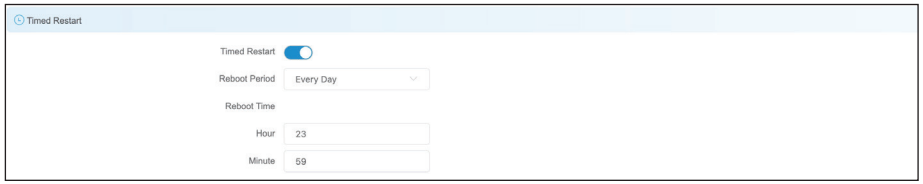
Calibration Type: If **Manual** is selected, you can change the time, or click **Synchronize** to sync the DAP-3712's time with user's PC.

If **NTP** is selected, the DAP-3712 will sync with a dedicated NTP server. Internet access is required if this setting is enabled.

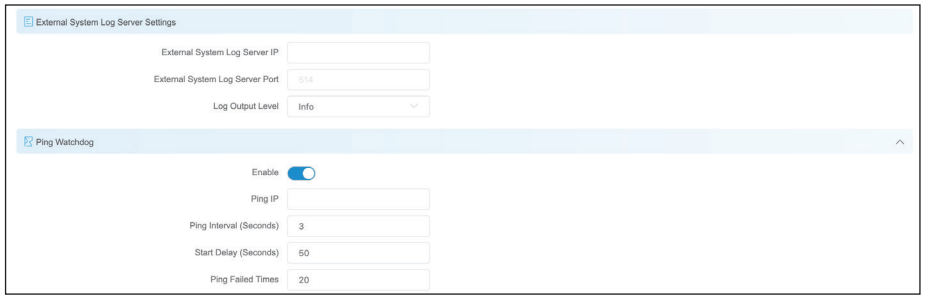


Time Restart: When this function is enabled, the DAP-3712 will automatically restart according to a schedule that you set.

Reboot Period: There are three items can be selected: **Every Day**, **Every Week**, and **Once**.



External System Log Server Settings: When this is enabled and a server IP is also set here, the log information will be saved to the Syslog server automatically.



Ping Watchdog: The Ping Watchdog sets the DAP-3712 to continuously ping a user-defined IP address (for example, the IP address of the AP that the client is connecting to). If it is unable to ping using the settings that you entered, the DAP-3712 will automatically reboot. It is highly recommended that you enable this feature when using Access Point / Access Point (WDS) Mode.

Ping IP: Specify the IP address of the target which will be monitored using ping.
If this feature is enabled in **Client/Client (WDS)** mode, the IP address should be the IP address of the AP that the client is connecting to.

Ping Interval: Specify the time interval (in seconds) that the Ping Watchdog should wait between ping requests.

Startup Delay: Specify the initial time delay (in seconds) before the first ping request should be sent by the Ping Watchdog.

Ping Failure: Specify the number of ping replies to wait for. If the designated number of ping replies is not received, the Ping Watchdog will reboot the device.

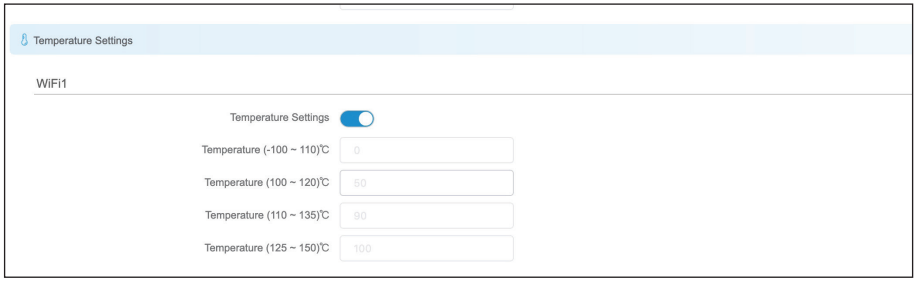
Note: If you want to modify the parameters of the Ping Watchdog, please disable it first and then apply the desired settings. When the web page shows that Ping Watchdog is disabled, users will be able to re-enable it with modified parameters.

LED Configuration: LED1, LED2, and LED3 light up to indicate the DAP-3712's signal strength. The default ranges are:

LED1: -95 dBm to -71 dBm
LED2: -71 dBm to -56 dBm
LED3: -56 dBm and above

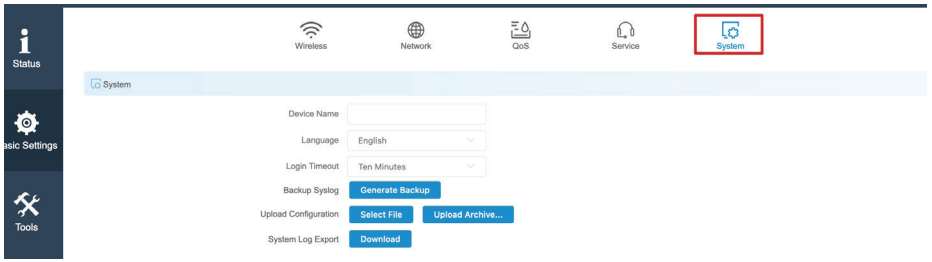
When the signal strength is within LED1's range, only LED1 will light up. When it is within LED2's range, both LED1 and LED2 will light up. When the signal strength is above -56 dBm, all three LEDs will light up.

Temperature Setting: To extend the working life of your equipment, you can enable the overheating protection function. To do this, enter the **Advanced Configuration Temperature Configuration** page. This page shows the performance degradation rate of the device at different temperatures. When the temperature is between -100°C and 110°C, the rate will not change. When the temperature is between 100°C and 120°C, the rate will drop by 50%. At a temperature between 110°C and 135°C, the rate will drop by 90%, and when the temperature is between 125°C and 150°C, the rate of decline will be 100%.



System

There are three subsections in the **System** section: **System**, **Firmware Management**, and **Account Management**.



Device Name: Enter the device name here.

Login Timeout: Enter the time (in minutes) before users should be automatically logged out of the web UI.

Backup Syslog: Click to back up the current system configuration settings and download them as a file.

Upload Configuration: Click **Browse** to choose the backup configuration file and then click Upload to apply the settings.

System Log Export: Click to download a backup of the current system log.

Restore Factory Settings: Click the **Reset** button to restore the device to the factory default settings.

Reboot: Click the button to reboot the DAP-3712.

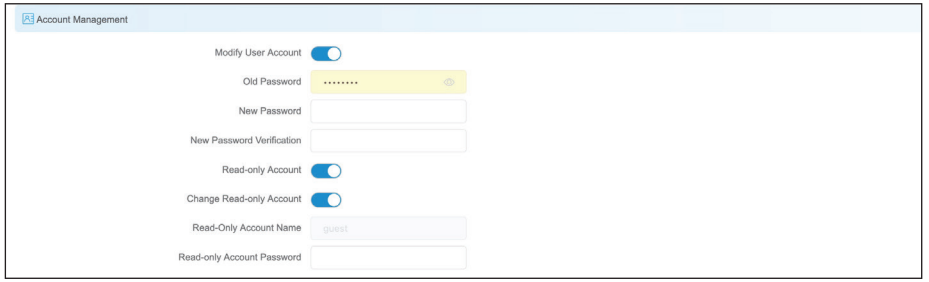
Firmware Update: Click the **Browse** button and choose a firmware file, then click the **Update** button to upgrade the firmware to the latest version.

Account Management: In this section you can change the admin password or set up a Read Only account.

Modify User Account: Use this to change the admin account's password

Read-Only Account: Use this to enable a Read Only guest account

Change Read-Only Account: Use this to change the guest account's password

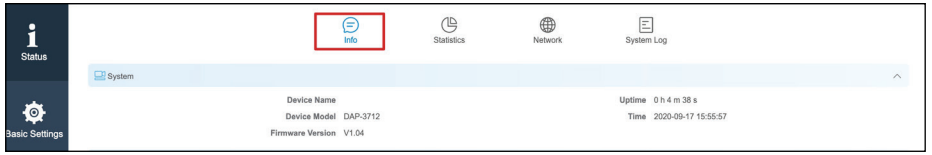


Status

There are four tabs in the Status section:

Info

In the **Info** tab, information about the device is displayed.



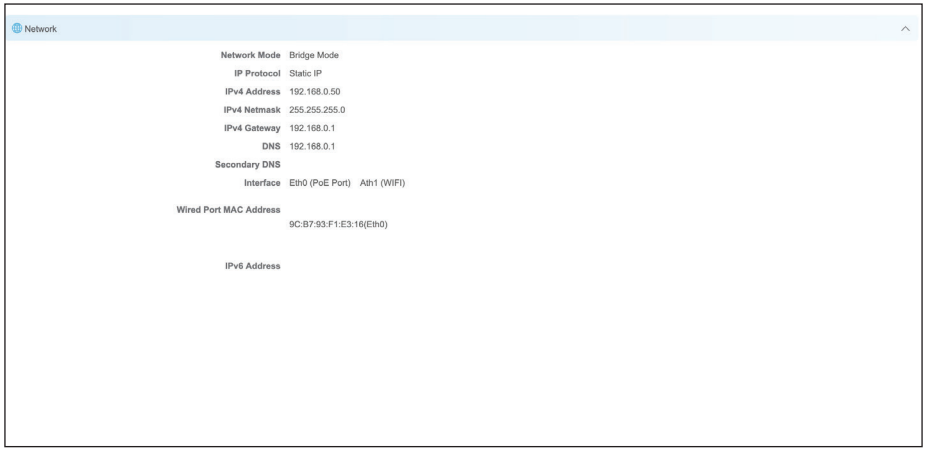
Device Name: Device Name: The name of the device

Device Model: Device Model: The model (DAP-3712)

Firmware Version: The software version number

Uptime: The length of time that the device has been powered on

Time: The current time



Network: This displays the DAP-3712's network status

Network Mode: This indicates whether the device is in Router Mode or Bridge Mode

IP Protocol: This indicates whether the device is configured with a Static IP or DHCP

Wired Port MAC Address: This displays the device's LAN MAC Address

SSID: SSID: Displays the device's SSID

Wireless Mode: This displays the device's mode: Access Point, Client, Access Point (WDS), or Client (WDS)

BSSID: This displays the device's Wi-Fi MAC address

Country Code: This displays the device's country code

Channel Width: This displays the device's current operating channel width (10/20/40/80 MHz)

Frequency (Channel): Displays the device's current operating channel

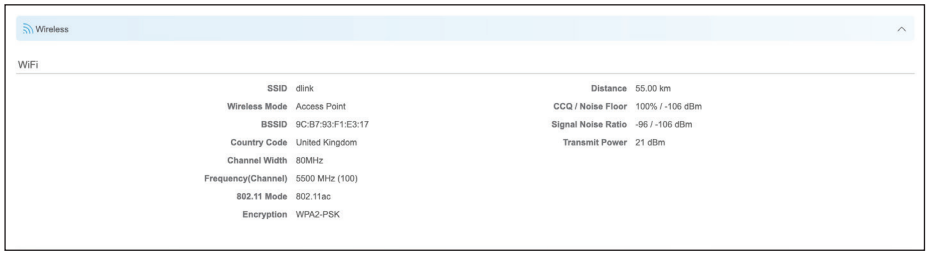
802.11 Mode: This displays the device's current 802.11 mode: 802.11ac or 802.11 a/n

Encryption: Displays the current Wi-Fi encryption

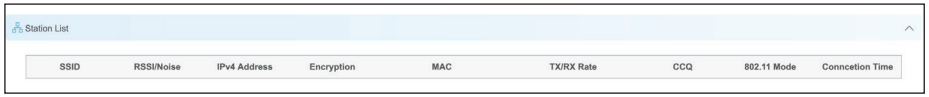
Distance: Shows distance between the two associated devices

Noise Floor: Displays the current noise floor value. In order to achieve the best results, a value of less than -95dBm is recommended

Transmit Power: Displays the DAP-3712's current Wi-Fi power output



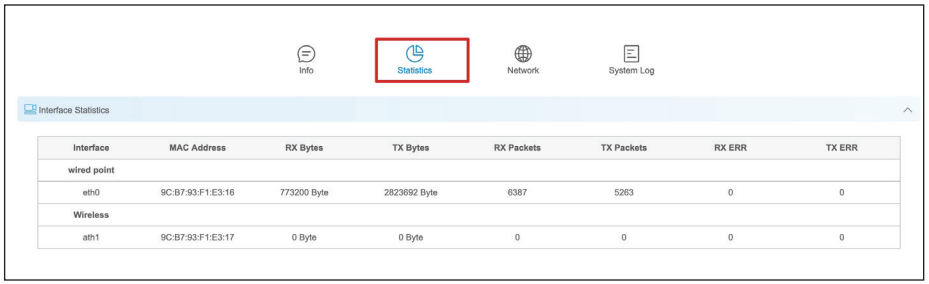
Station List Info: This will list all of the client devices which are connected to the DAP-3712.



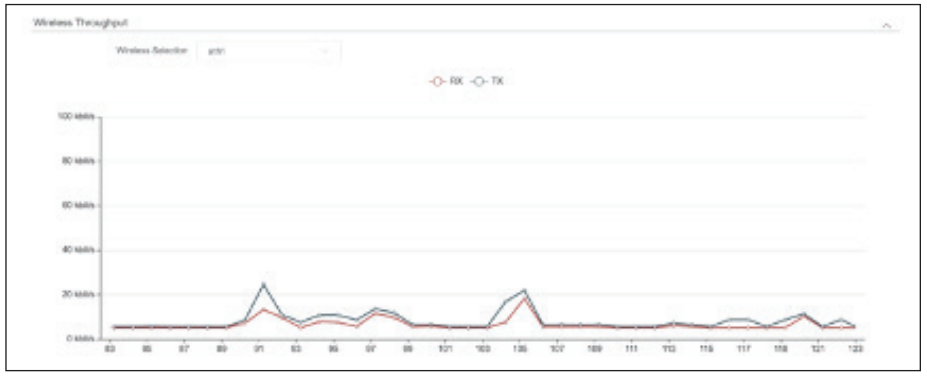
Statistics

There are two subsections: **Interface Statics** and **Throughput**.

Interface Statics: Displays the DAP-3712's traffic

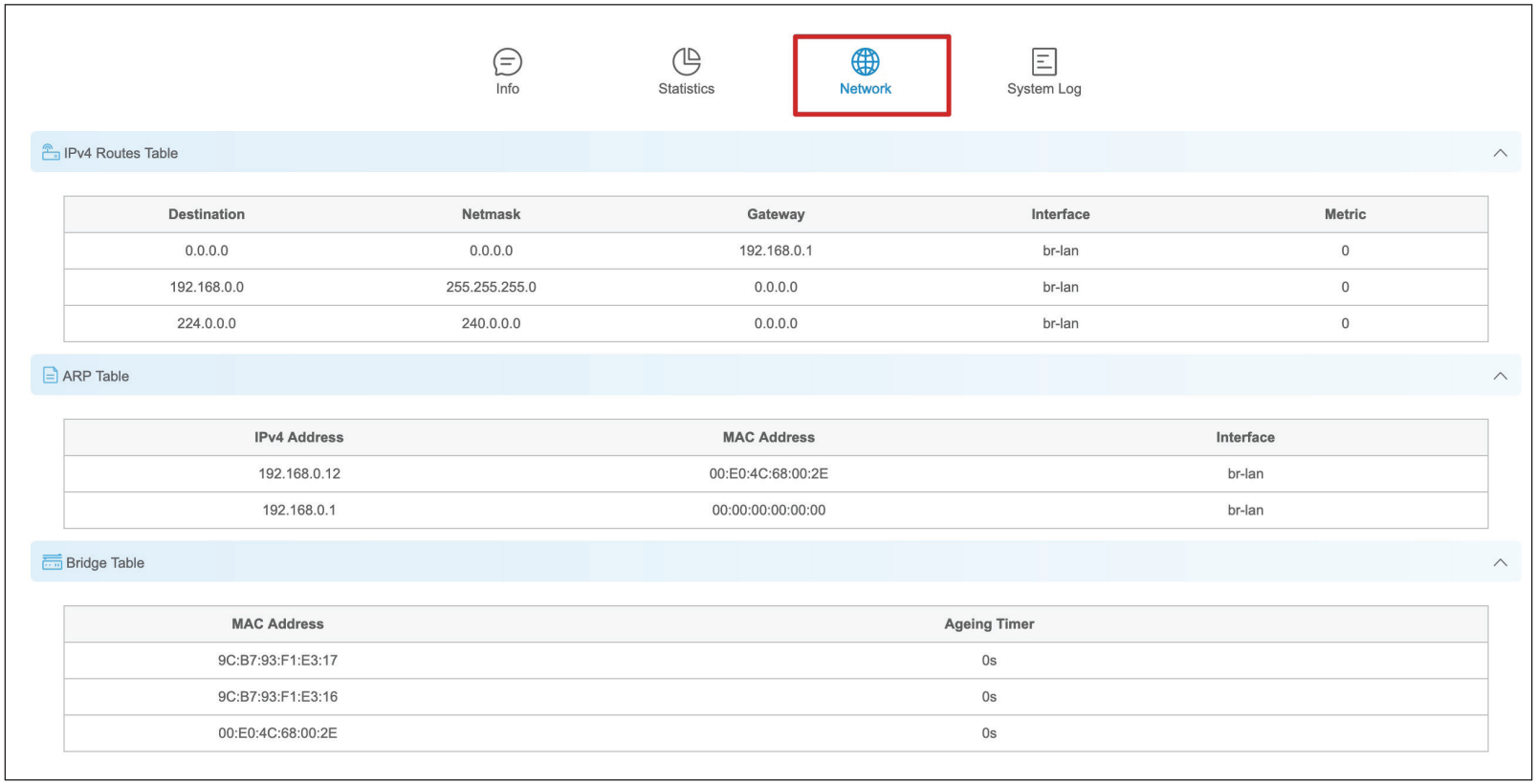


Throughput: Displays the current Ethernet and wireless traffic



Network

In this tab, you can see the current IPv4 route table, APR table and bridge table.



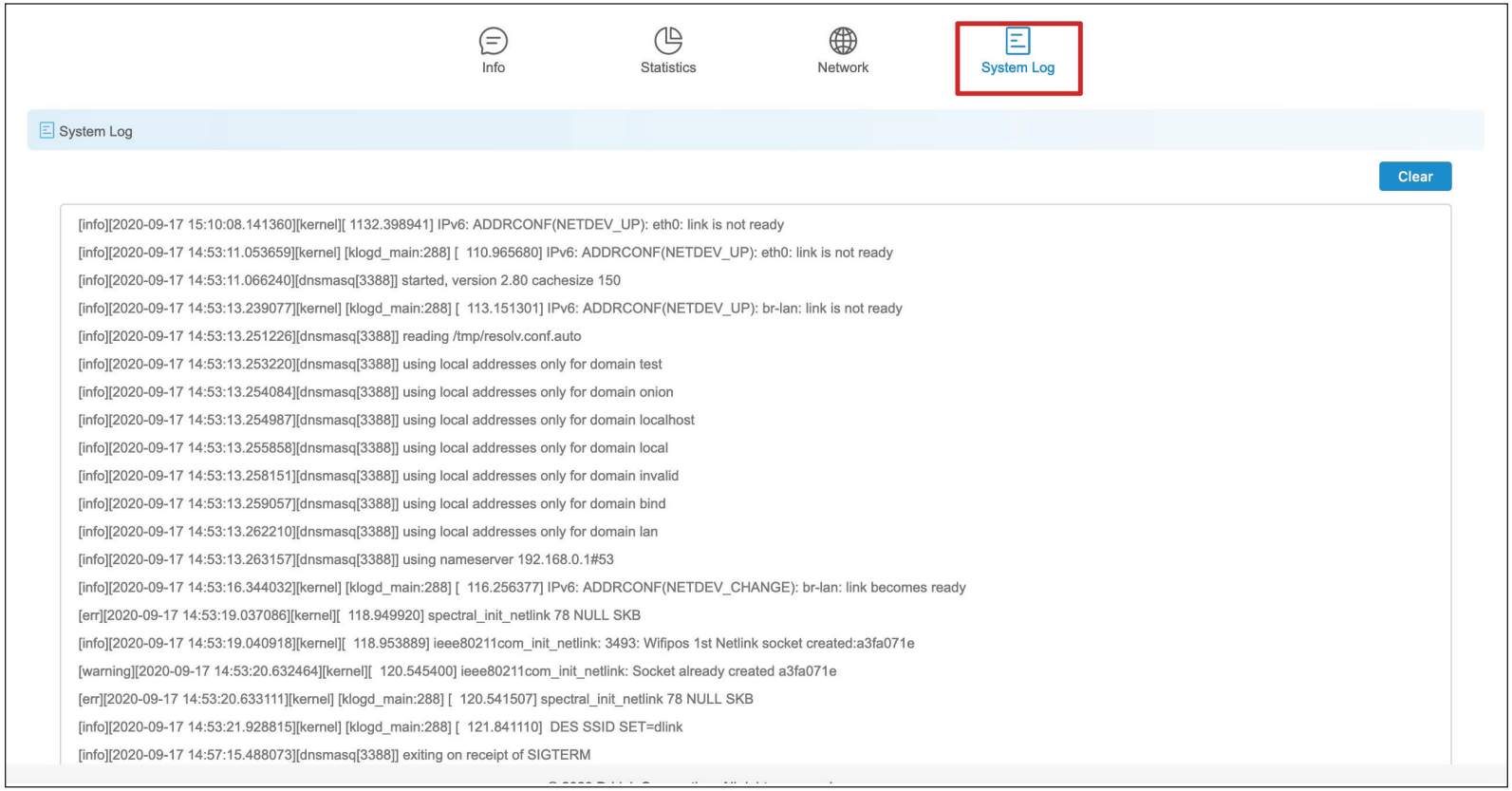
Destination	Netmask	Gateway	Interface	Metric
0.0.0.0	0.0.0.0	192.168.0.1	br-lan	0
192.168.0.0	255.255.255.0	0.0.0.0	br-lan	0
224.0.0.0	240.0.0.0	0.0.0.0	br-lan	0

IPv4 Address	MAC Address	Interface
192.168.0.12	00:E0:4C:68:00:2E	br-lan
192.168.0.1	00:00:00:00:00:00	br-lan

MAC Address	Ageing Timer
9C:B7:93:F1:E3:17	0s
9C:B7:93:F1:E3:16	0s
00:E0:4C:68:00:2E	0s

Syslog Info

This tab shows the current syslog. Click the Clear button to **clear** the log.



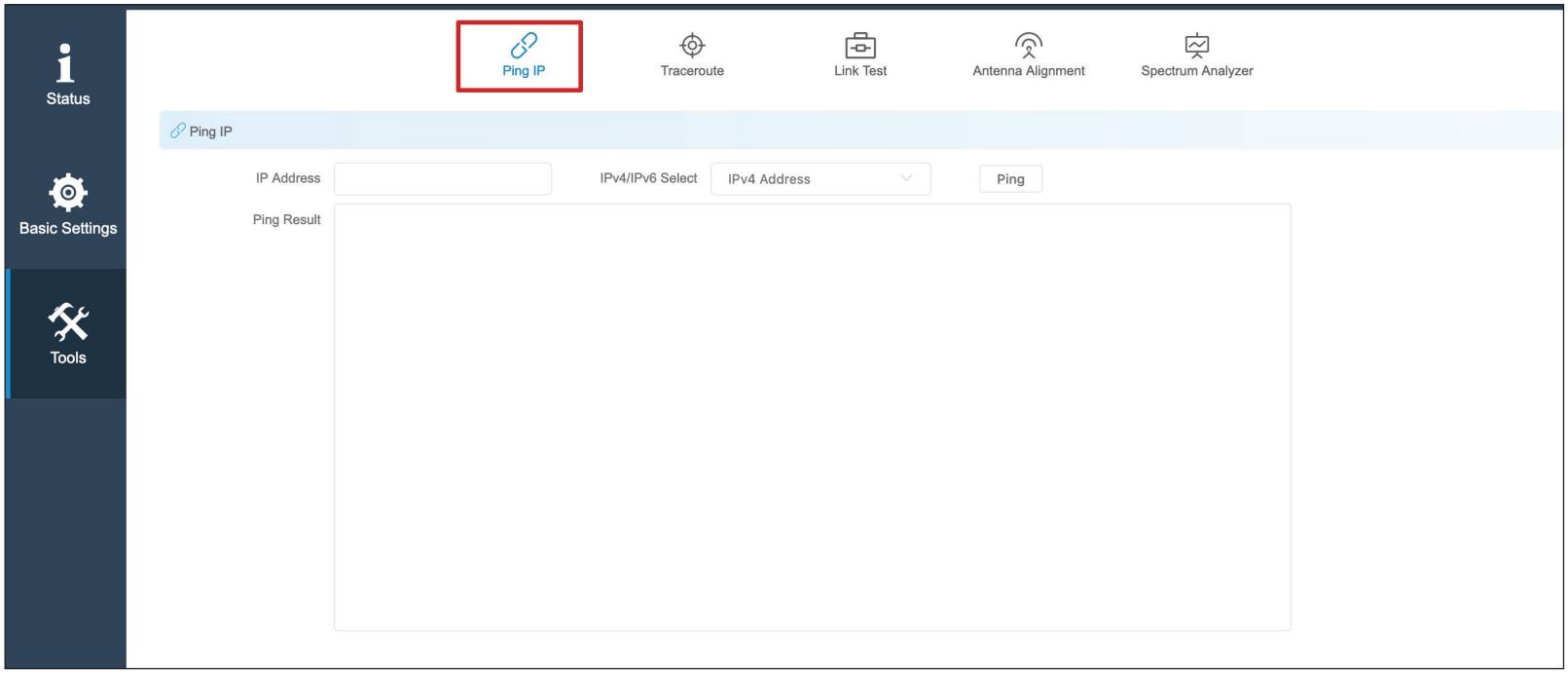
Tools

The DAP-3712 has many useful tools built in to help you manage the device and your network. These tools include Ping IP, Traceroute, Link Test, Antenna Alignment and Spectrum Analyzer.

Ping IP

You can type in an IP address and check the ping result.

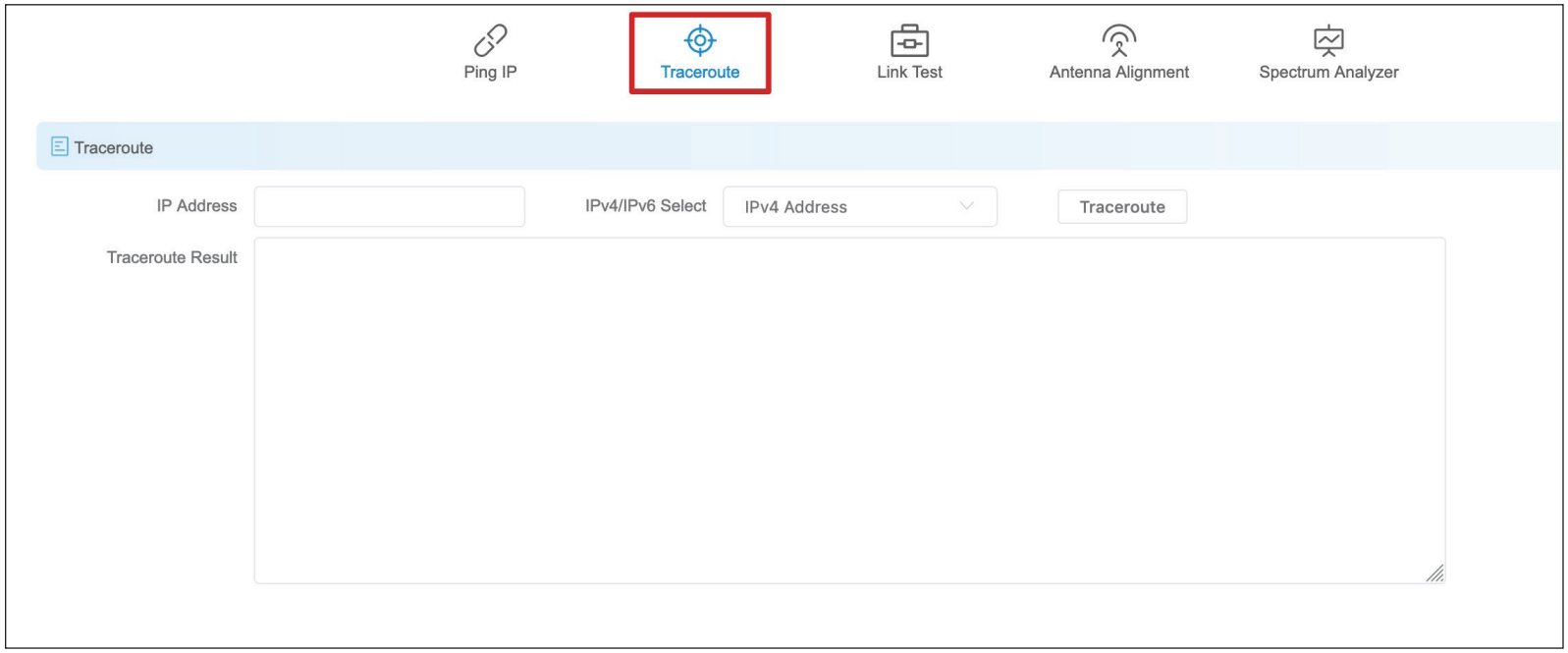
IP Address: Enter the IP address that you would like to ping.



Traceroute

This allows the user to traceroute an IP address.

IP Address: Enter the IP address to traceroute



Link Test

The DAP-3712 has a built-in Iperf function. Users can configure the DAP-3712 in **Iperf Server Mode**. Then the Iperf client can connect to the Iperf server to verify the speed between the two links. In client mode, you can assign an Iperf server IP address to check the speed between the two links.

Iperf Type: Select Client or Server

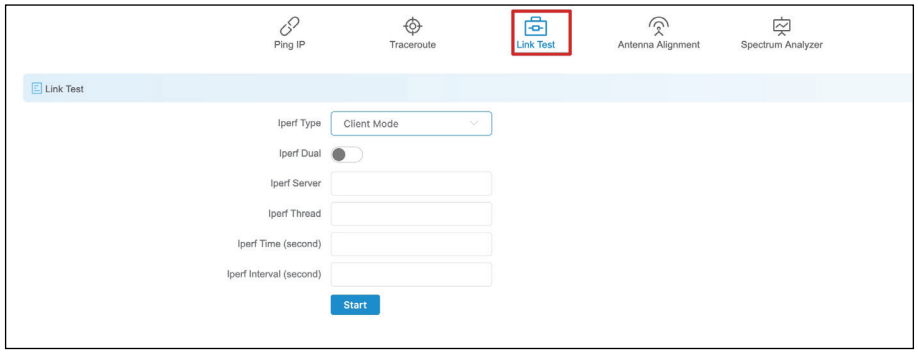
Iperf Dual: If you select Iperf Dual, the DAP-3712 will conduct a bi-directional speed test. Otherwise, it only test the speed of transmission from the Iperf client to the Iperf server.

Iperf Server: Enter the Iperf server's IP address.

Iperf Thread: Enter the number of threads during the test.

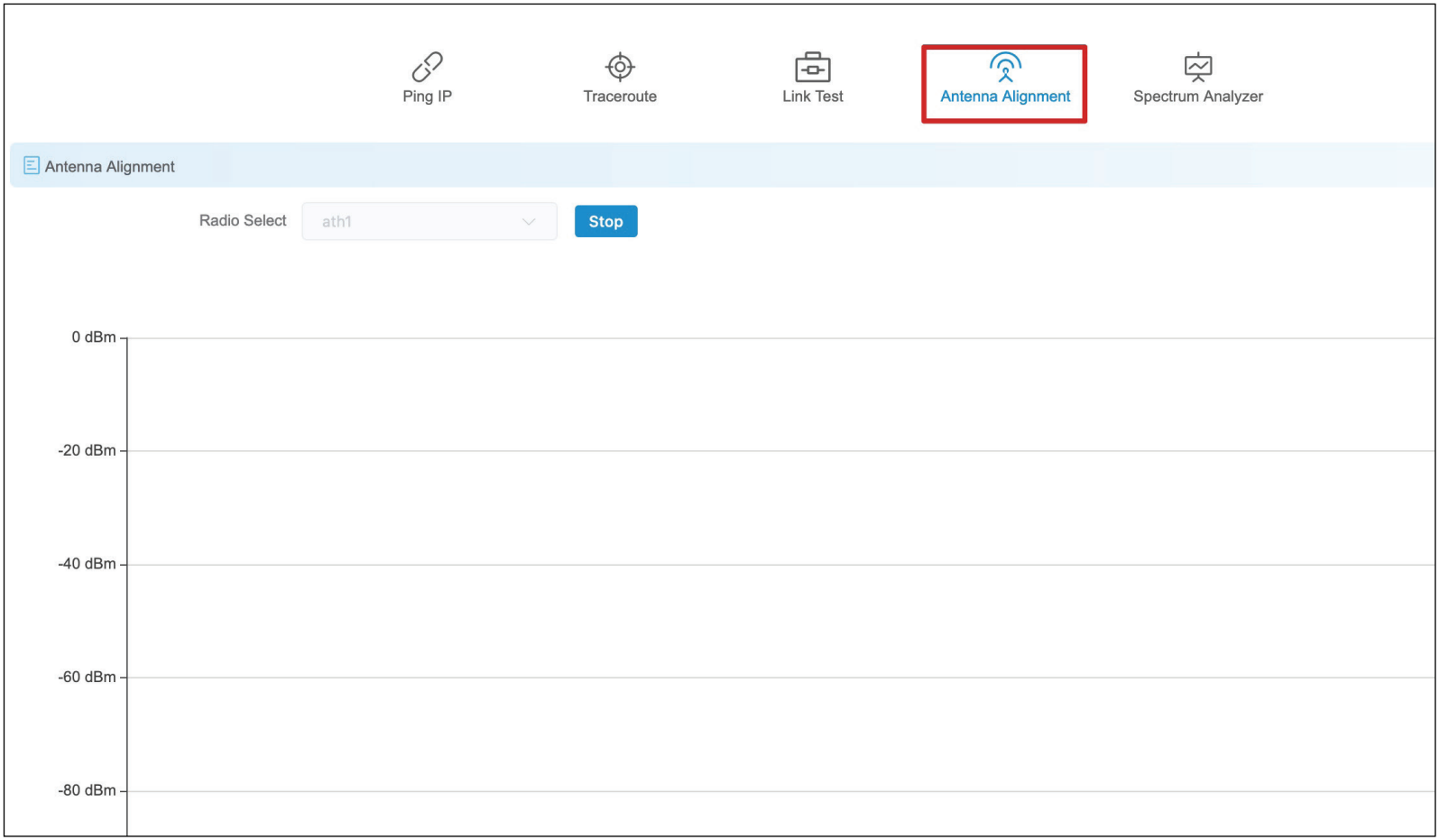
Iperf Time: Enter how long the speed test should last.

Iperf Interval: Enter the interval to wait between the tests.



Antenna Alignment

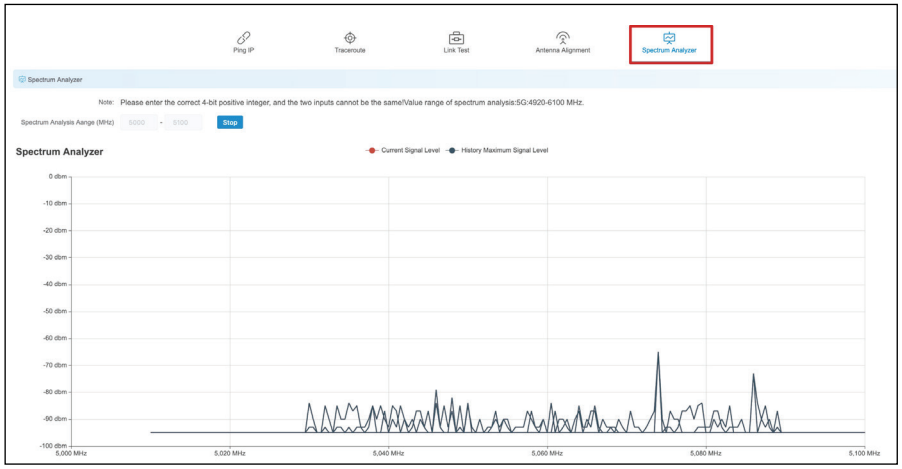
When you select this, the DAP-3712 will recalibrate its signal strength. You can check which angle has the best antenna alignment when you install the DAP-3712.



Spectrum Analyzer

You can use the Spectrum Analyzer to scan for the best channels. When performing the scan, the DAP-3712 Wi-Fi may disconnect.

Spectrum Analysis Range: Enter the frequency range to conduct spectrum analysis on. It will take a few seconds to finish the scan.



Technical Specifications

Standards
802.11a/n/ac

Device Interfaces
1 x 100/1000 Mbps Ethernet port, reset button

LEDs
Signal strength

Antenna Type
Dish

Antenna Gain
23 dBi

Beamwidth
H: 10°, V: 10°

Standards
802.11a/n/ac

Protection
8 kV ESD Protection

Enclosure
ABS, IP66 compliant

Operation Modes
AP, Station, WDS AP, WDS Station

Operating Frequency
5180~5320 MHz, 5745~5825 MHz

Max. Transmit Power[1]
27 dBm

Wireless Speed
Up to 867 Mbps

Bandwidth Support
20/40/80 MHz

Wireless Configuration
Auto channel support, transmit power selection,
SSID broadcast enabling/disabling

Security
802.11i 128-bit AES Personal / Enterprise

System Tools
Ping, traceroute, NTP, ping watchdog, syslog,
spectrum analyzer, throughput testing (Iperf)

Smart Wireless Technology
TDMA, Auto ACK, intelligent rate control,
co-channel interference avoidance

Advanced Features
Max. station limit

[1] Range will vary depending on country's maximum transmit power output regulation. Maximum wireless signal rate derived from IEEE Standard 802.11g and 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range.

LAN Type
Static, DHCP

VLAN Support
Yes

Firewall
IP / MAC filter

Monitors
Throughput, interfaces, routes table, bridge table, ARP table, AP information, syslog

Firmware Upgrade
Web-based upgrade

Power Input
PoE+ 48 V

Power Consumption
≤ 15 W

Operating Temperature
-40°C to 65°C

Storage Temperature
-40°C to 85°C

Operating Humidity
0% to 90%

Storage Humidity
0% to 90%

Weight
900 g (2.0 lbs)

Dimensions
372 x 372 x 241 mm (14.6 x 14.6 x 9.5 in)

Certifications
CE
FCC

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FCC Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and consider removing the no-collocation statement.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.