

APPLICATION NOTE

APNUS014 AIRPACK

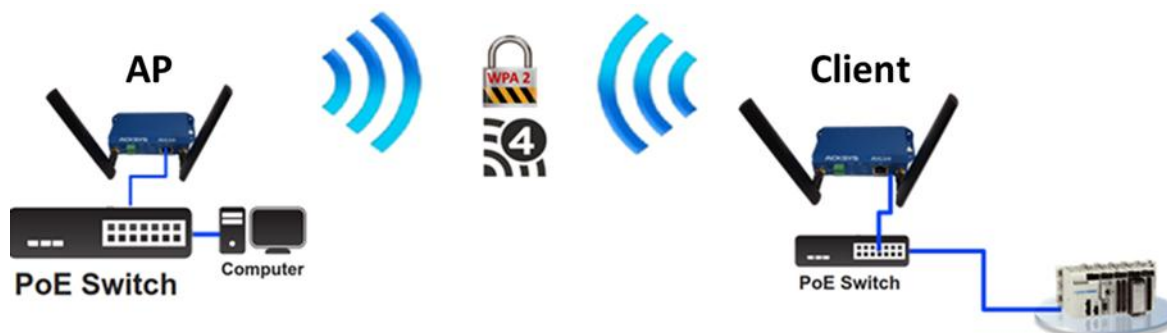
The easy bridging solution

Using a pair of AirLink or AirXroad

March 2021 – Rev A1

PRINCIPLE AND CONCEPT OF AIRPACK

The concept of AIRPACK is to provide a secure wireless solution, fast and easy to install, to create a wireless bridge between two Ethernet devices, or between two networks, simply by programming two **AirLink**, for indoor applications, or two **AirXroad**, for outdoor applications, using the configuration files provided



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The proposed configuration is as follows

- **802.11a+n** mode (5GHz band)
- Automatic channel selection among channels **36, 40, 44, 48** (HT20)
- SSID **acksys**
- Security **WPA2**
- AP on **192.168.1.253**, Client on **192.168.1.252**

BEFORE STARTING

System requirement

- A computer running Windows, with an Ethernet port
- An internet WEB browser
- Two **AirLink** or two **AirXroad** products

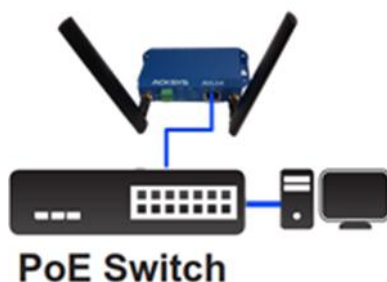
Download and install [WaveManager](http://www.acksys.com) from ACKSYS Web site (<http://www.acksys.com>)
Download also the file [Air-PACK_US.zip](#) and unzip the file on your disk.

WaveManager is the administration software that will allow you to upload in the products the two configuration files contained in the ZIP.

STEP1 CLIENT CONFIGURATION

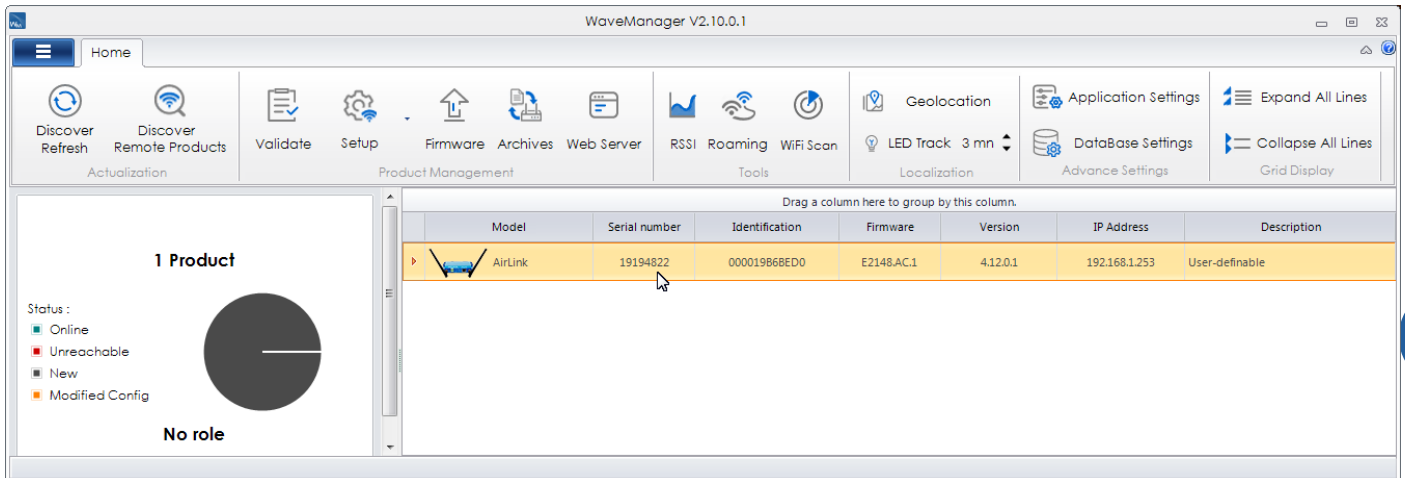
The default address of the device is **192.168.1.253**. Set the network interface of your PC to a compatible IP address, for example **192.168.1.10**

You can then connect one of the devices on your PC and run **WaveManager** 

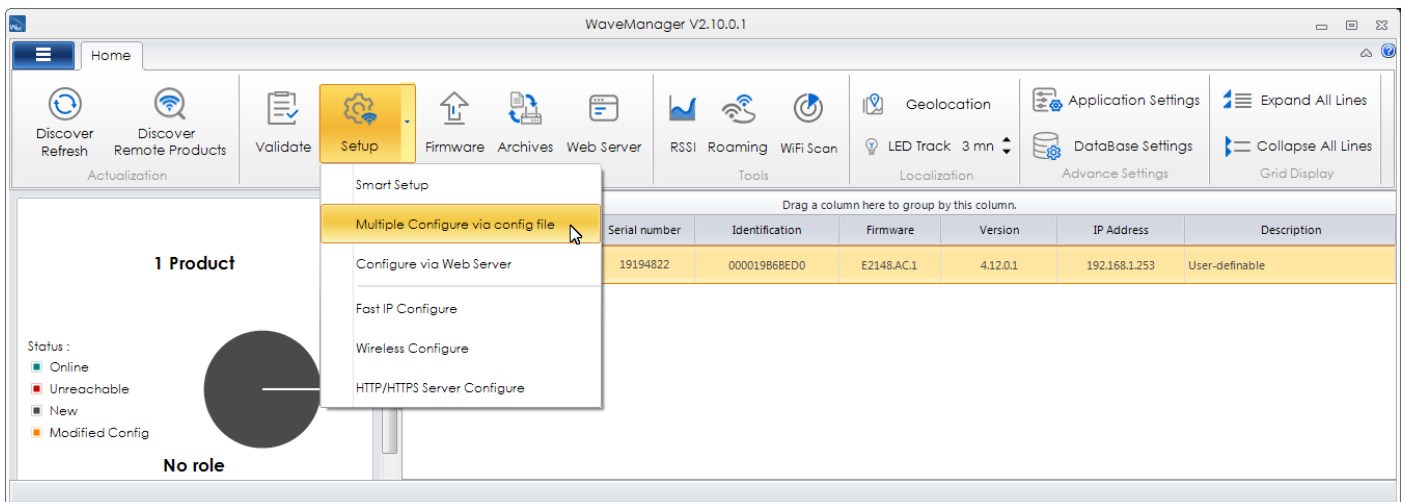


Follow the steps below:

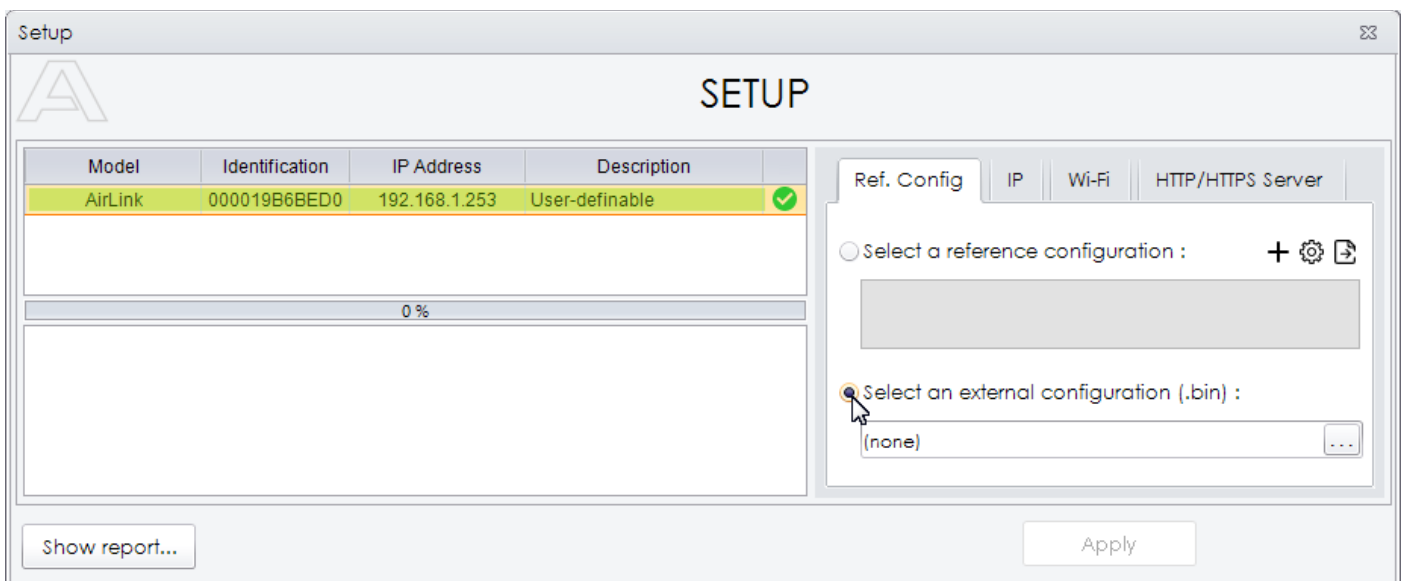
- a. Select your device in the main page of WaveManager



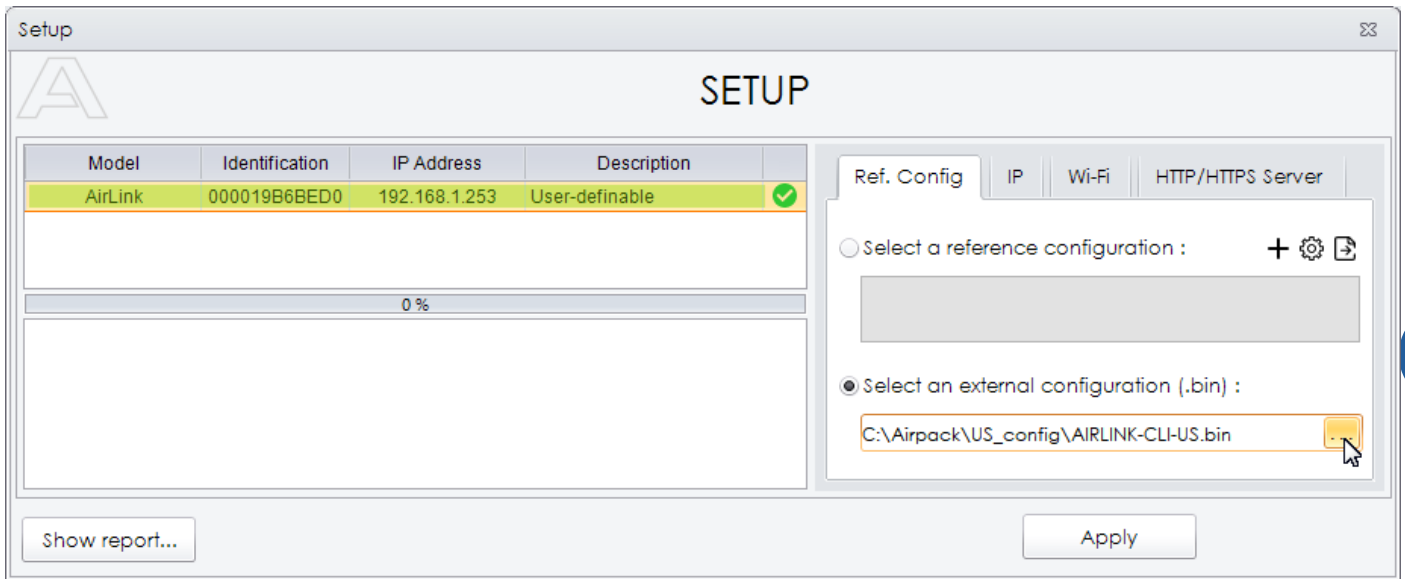
- b. Click **Setup** then **Multiple Configure via config file**



- c. Click **Select an external configuration**



- d. Find on your disk the configuration file **AIRLINK-CLI-US.bin** or **AIRXROAD-CLI-US.bin** according to the products you use, then click **Apply**



Model	Identification	IP Address	Description
AirLink	000019B6BED0	192.168.1.253	User-definable

0 %

Ref. Config IP Wi-Fi HTTP/HTTPS Server

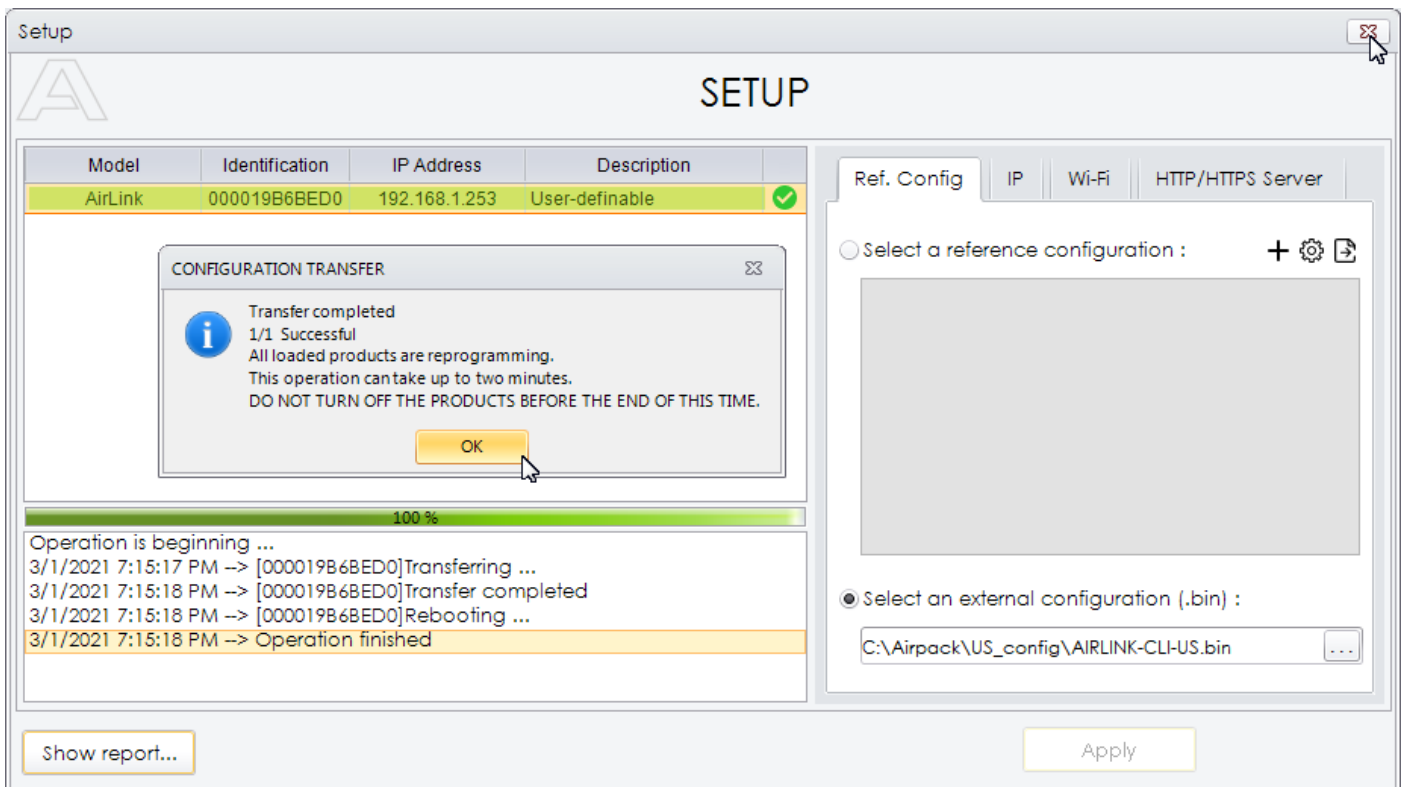
Select a reference configuration : + ⚙️ 📁

Select an external configuration (.bin) :

C:\Airpack\US_config\AIRLINK-CLI-US.bin

Show report... Apply

- e. A popup will signal the end of transfer. Reprogramming takes about two minutes, and the unit reboot



CONFIGURATION TRANSFER

Transfer completed
1/1 Successful
All loaded products are reprogramming.
This operation can take up to two minutes.
DO NOT TURN OFF THE PRODUCTS BEFORE THE END OF THIS TIME.

OK

100 %

Operation is beginning ...
3/1/2021 7:15:17 PM -> [000019B6BED0]Transferring ...
3/1/2021 7:15:18 PM -> [000019B6BED0]Transfer completed
3/1/2021 7:15:18 PM -> [000019B6BED0]Rebooting ...
3/1/2021 7:15:18 PM -> Operation finished

Ref. Config IP Wi-Fi HTTP/HTTPS Server

Select a reference configuration : + ⚙️ 📁

Select an external configuration (.bin) :

C:\Airpack\US_config\AIRLINK-CLI-US.bin

Show report... Apply



When the DIAG LED turns green again, the device reappears in WaveManager, and its IP address is now **192.168.1.252**

STEP 2 AP CONFIGURATION

Disconnect the Client device from the PC and connect the second device.

Repeat steps **a** to **e** from the previous section, using the configuration file for the Access Point corresponding to your product: **AIRLINK-AP-US.bin** or **AIRXROAD-AP-US.bin**



AP is configured and reboot. The IP address of the AP remains **192.168.1.253**

After the AP has restarted with its new configuration, the client must connect to the AP and then become visible again in the WaveManager window. By clicking on the arrow to the left of the line, you should see the signal level in column *Association*.

The screenshot shows the WaveManager V2.10.0.1 interface. On the left, there's a sidebar with '2 Products' and '2 Roles'. The main area displays a table of products and their associated roles.

Model	Serial number	Identification	Firmware	Version	IP Address	Description
AirLink	19194822	00001986BED0	E2148.AC.1	4.12.0.1	192.168.1.252	User-definable
AirLink	19193948	0000188E681F	E2148.AC.1	4.12.0.1	192.168.1.253	User-definable

Below the product table, there's a 'Wireless Functions' tab showing 'Networks'. It displays a table with columns: Role, SSID, Security, Association, Mode, Channel, and Radio.

Role	SSID	Security	Association	Mode	Channel	Radio
Infra Client	acksys	WPA/WPA2-PSK	-47 dBm	mixed a+n	40	WiFi

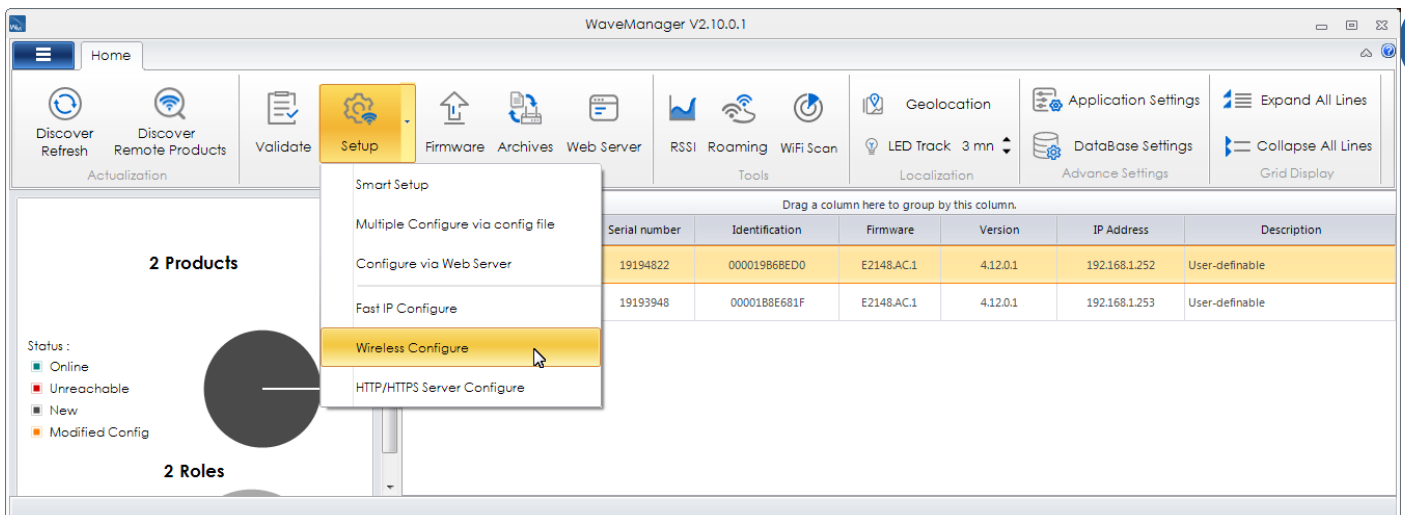
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OPTIONAL CONFIGURATION CHANGES

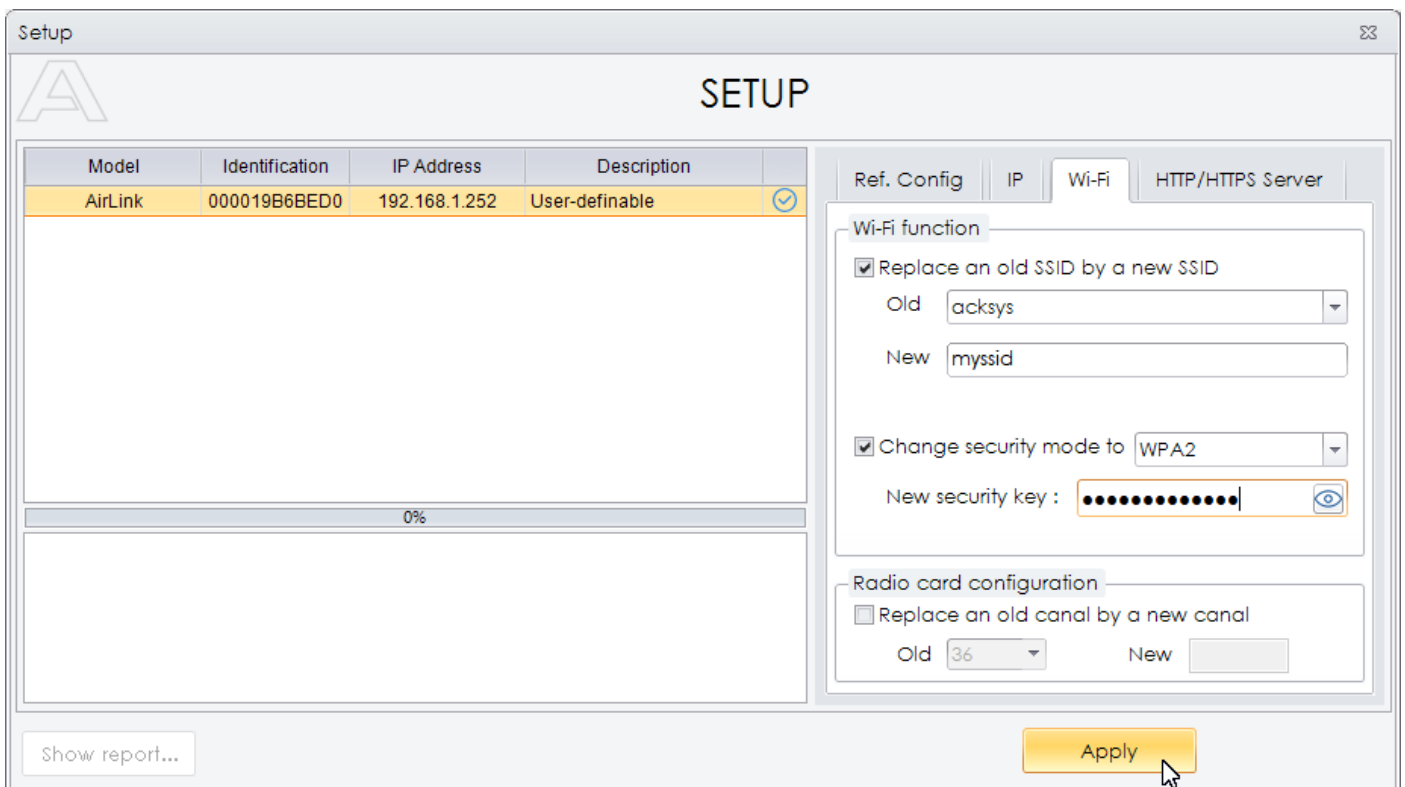
If you wish, you can change some configuration settings such as Wi-Fi channel, SSID or security mode, with the help of **WaveManager**.

This operation is even necessary if you want to use several **Airpack** on the same site. In this case, we recommend to change the SSID and security on the two devices:

- For convenience, apply the changes at first on the **remote unit (Client)**.
- Select the unit in the main window of WaveManager and click on **Setup**.
- Select **Wireless Configure**



- Change the parameters, SSID and security key, according to your requirements, then click Apply





Once the remote unit is configured don't forget to configure the other device (AP) in the same manner, and with the same parameters.



If you use your AIRPACK in a country other than the United States, you must change the country from the configuration web pages.

Please refer to the [*WaveOS User's Guide*](#)