

# 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

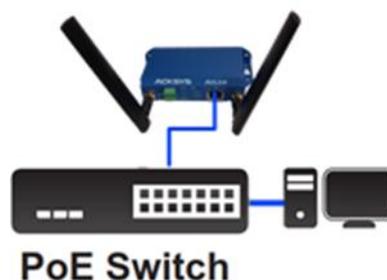
Download and install [WaveManager](http://www.acksys.com) from ACKSYS Web site (<http://www.acksys.com>)  
Download also the file [Air-PACK\\_US.zip](#) and unzip the file on your disk.

**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

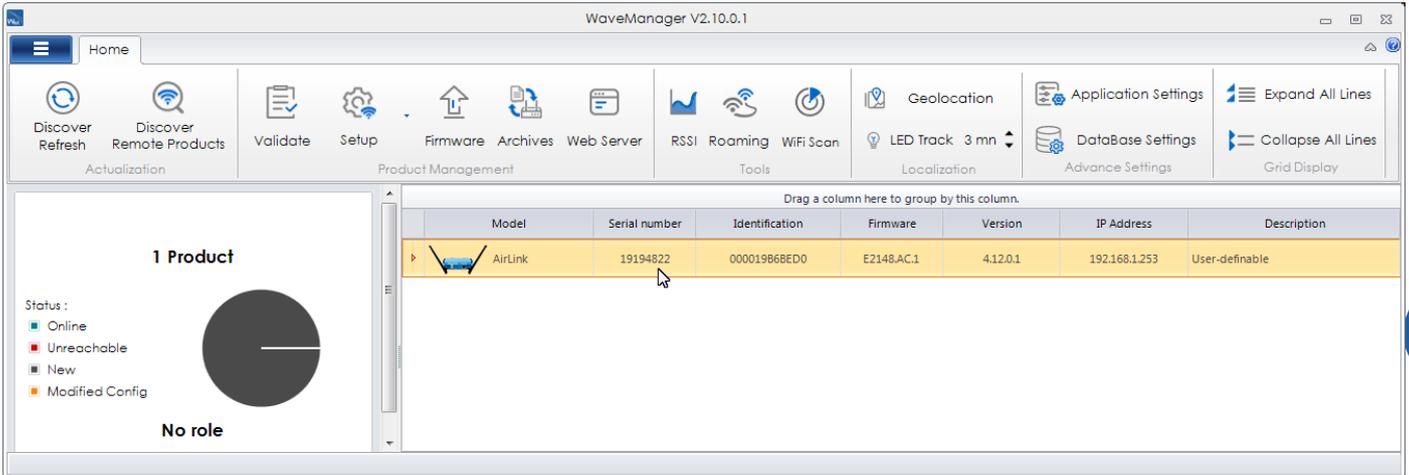
The default address of the device is **192.168.1.253**. Set the network interface of your PC to a compatible IP address, for example **192.168.1.10**

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



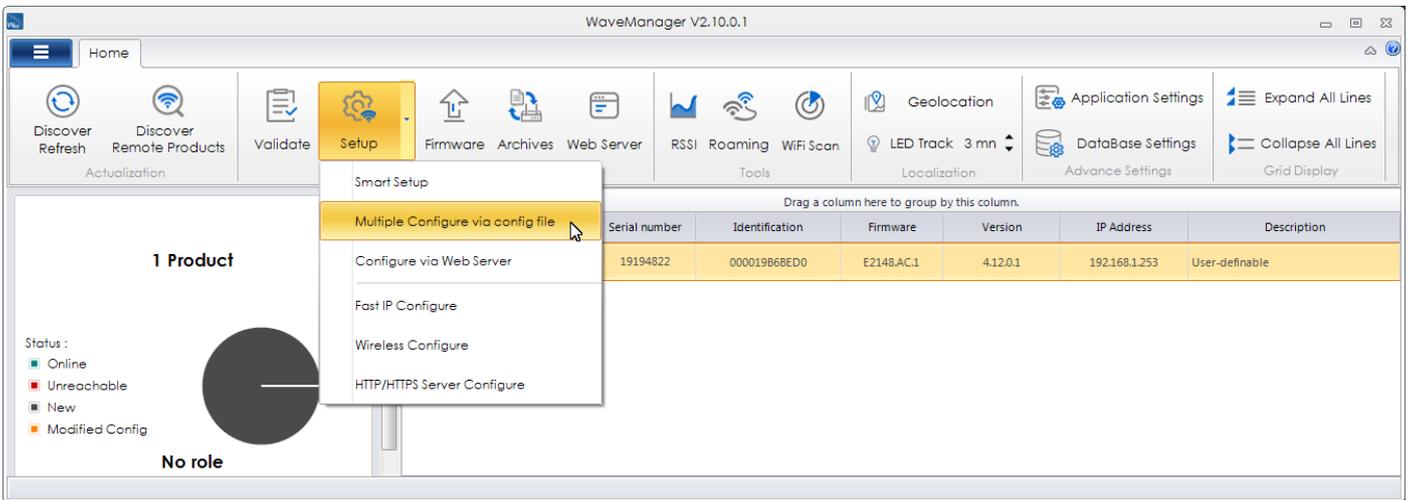
**Follow the steps below:**

a. Select your device in the main page of WaveManager

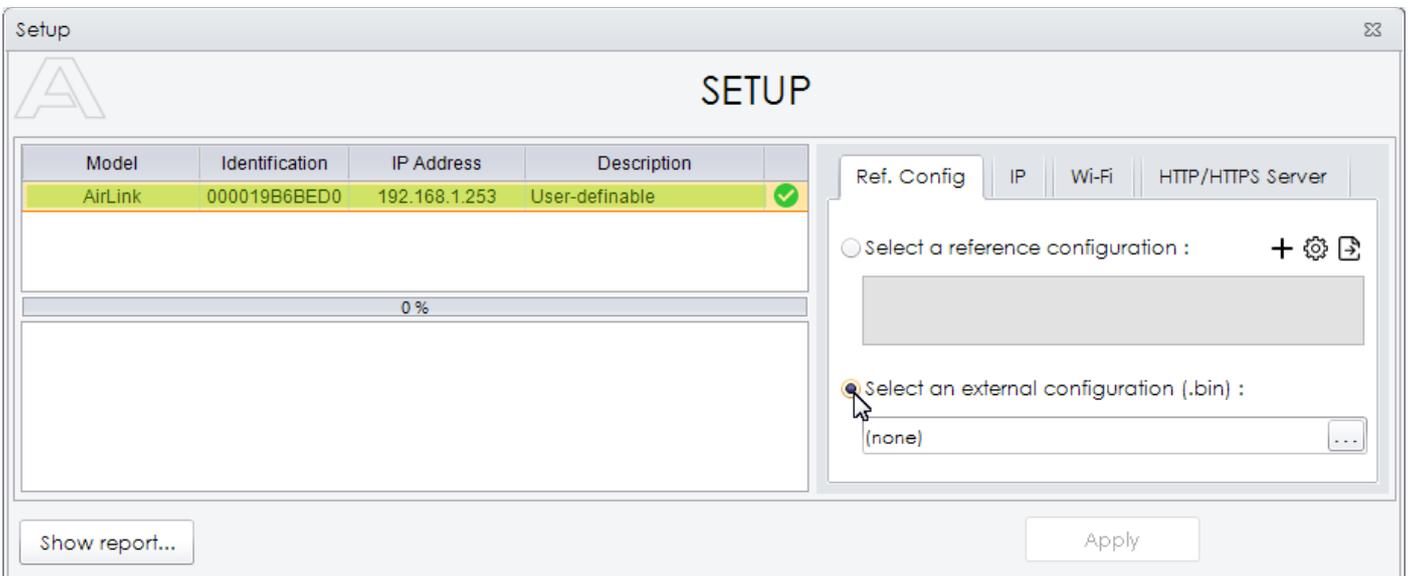


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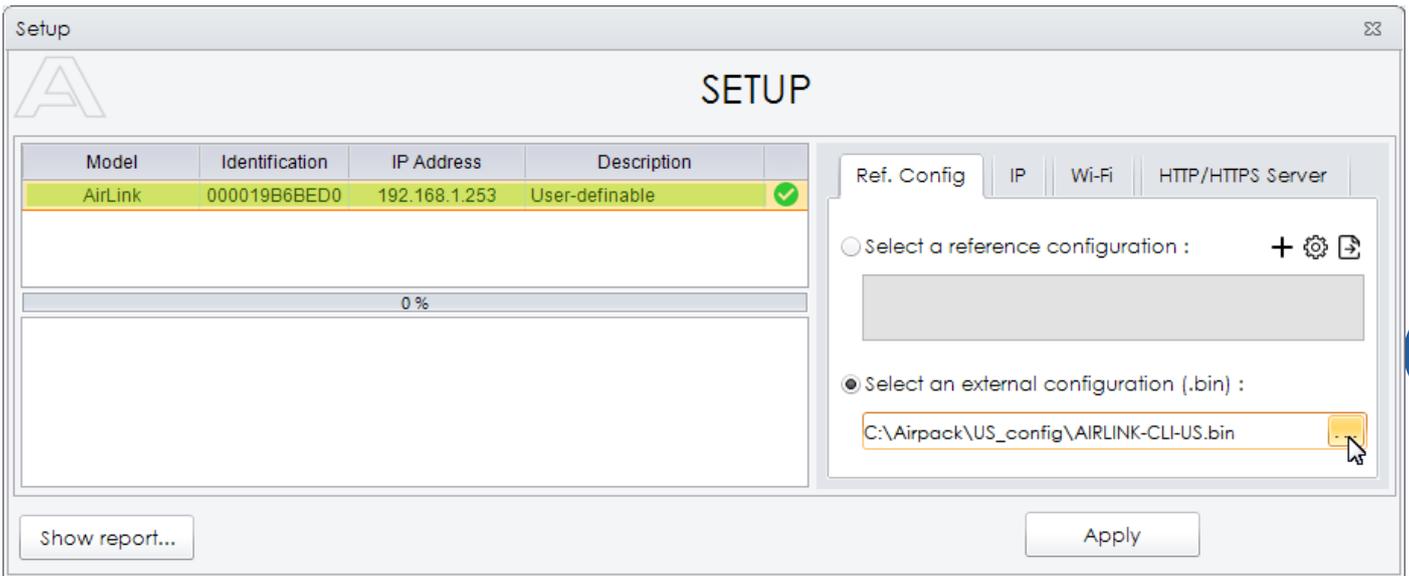
b. Click **Setup** then **Multiple Configure via config file**



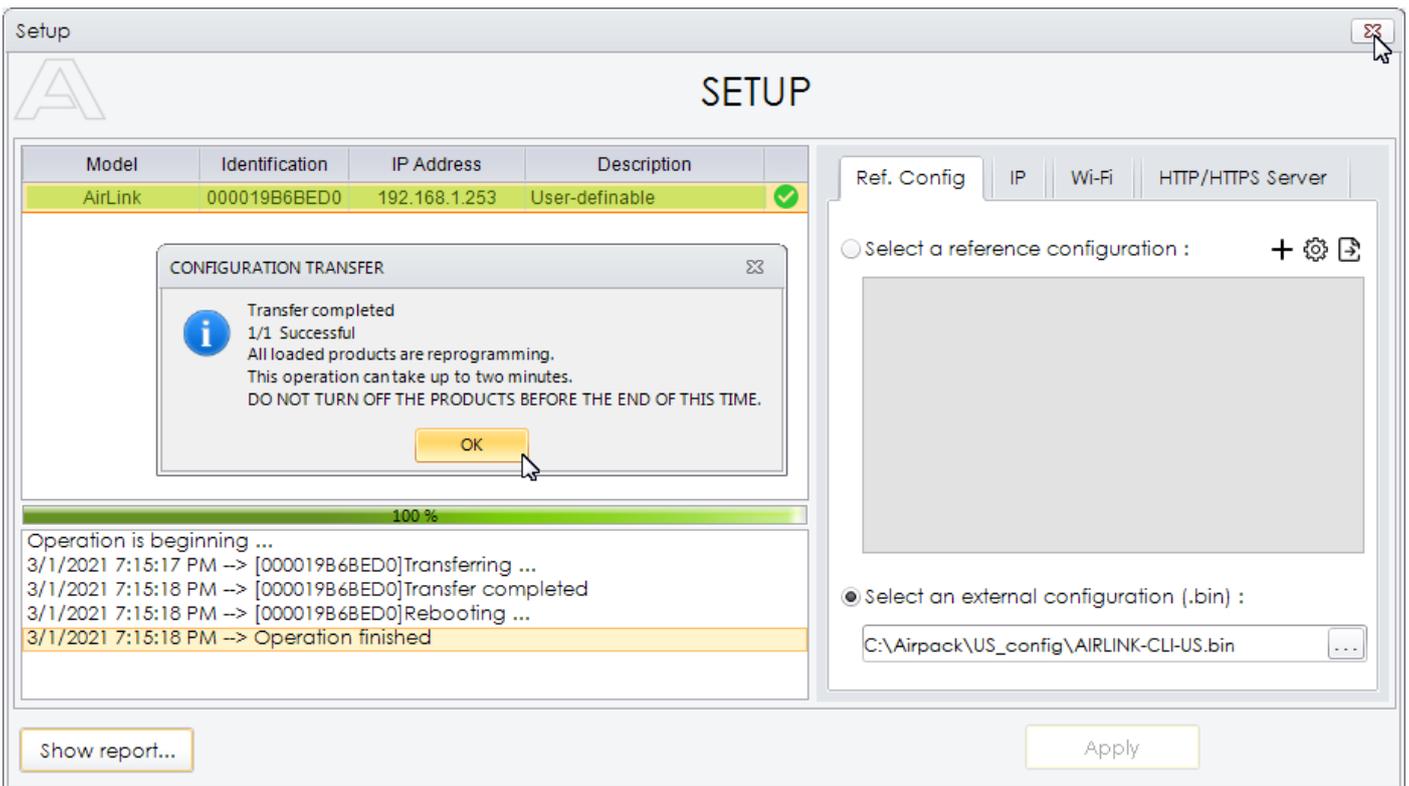
c. Click **Select an external configuration**



- 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**



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



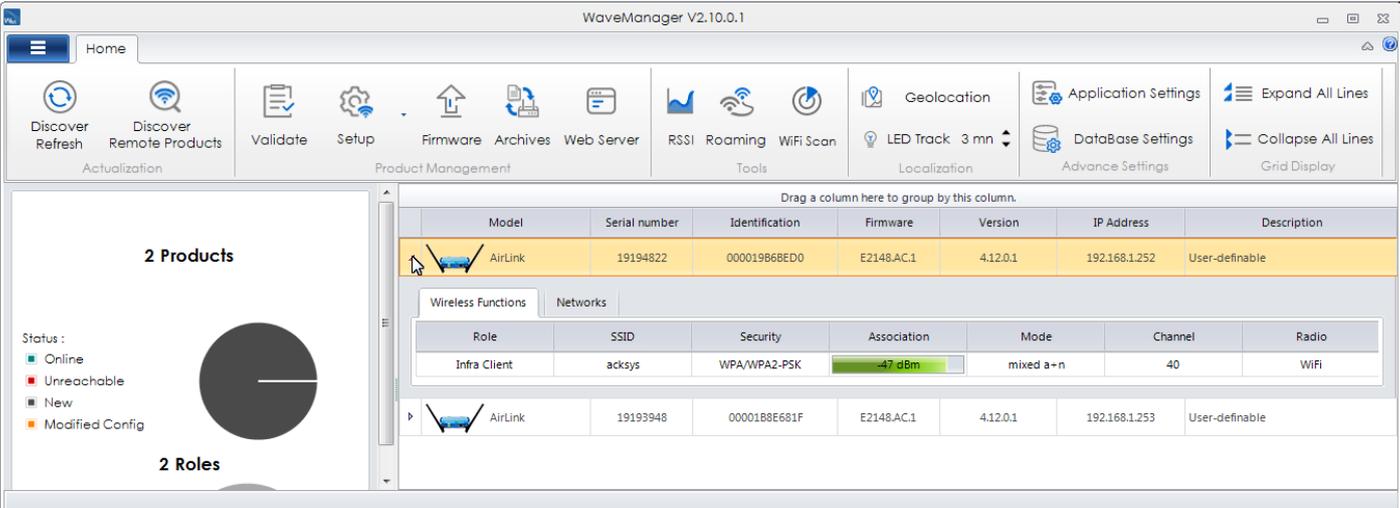
When the DIAG LED turns green again, the device reappears in WaveManager, and its IP address is now **192.168.1.252**

**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 are sections for '2 Products' and '2 Roles'. The main area displays a table of APs. The first AP is highlighted in yellow. Below it, the 'Wireless Functions' tab is active, showing a table with columns: Role, SSID, Security, Association, Mode, Channel, and Radio. The 'Association' column for the selected AP shows a signal level of -47 dBm.

Model	Serial number	Identification	Firmware	Version	IP Address	Description
AirLink	19194822	000019868ED0	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

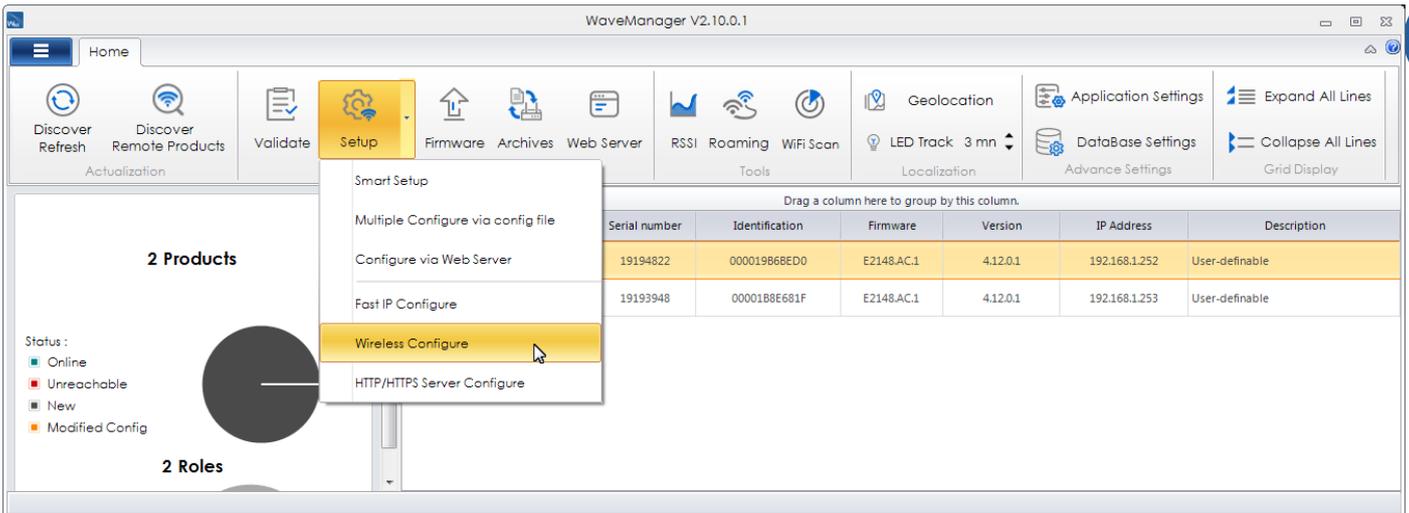
Role	SSID	Security	Association	Mode	Channel	Radio
Infra Client	acksys	WPA/WPA2-PSK	-47 dBm	mixed a+n	40	WiFi

## 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**.

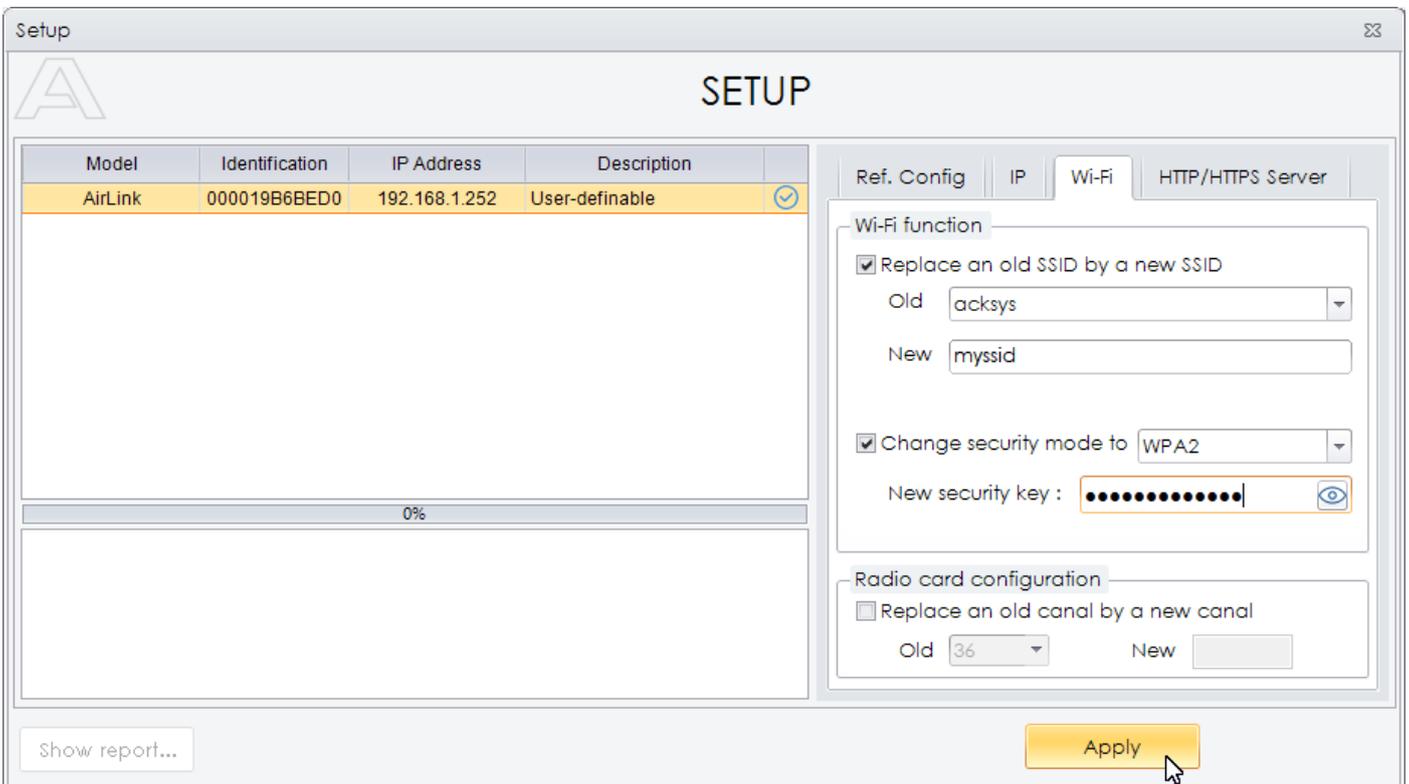
This operation is even necessary if you want to use several **Airpack** on the same site. In this case, we recommend to change the SSID and security on the two devices:

- 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**



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- 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](#)