**LOGIN:**

Username: admin

Password: analog

**SYNCHRONA STATUS:**

In the right top corner two statuses are available:

- connection status (connected/disconnected) tests if there is a connection with the board and if the current hardware configuration is valid (HMC7044 and AD9545 are required)

- devicetree status has three states:

- ‘No devicetree loaded’ appears when it could not found a synchrona overlay in the current configuration

- ‘The current devicetree is not loaded’ appears when an valid overlay was founded but it is not applied to the system

- ‘Devicetree loaded’ appears when the overlay in used is applied to the system

**GENERAL MENU:**

Table

Description automatically generated

The general menu provides some basic information about synchrona’s channels:

* state (enable/disable)
* mode (LVPECL/CMOS/LVDS): not modifiable
* output frequency: the output value in Hz
* coarse delay: a specific recomputed set of data in ps for the digital delay

In the general menu are exposed the following buttons:

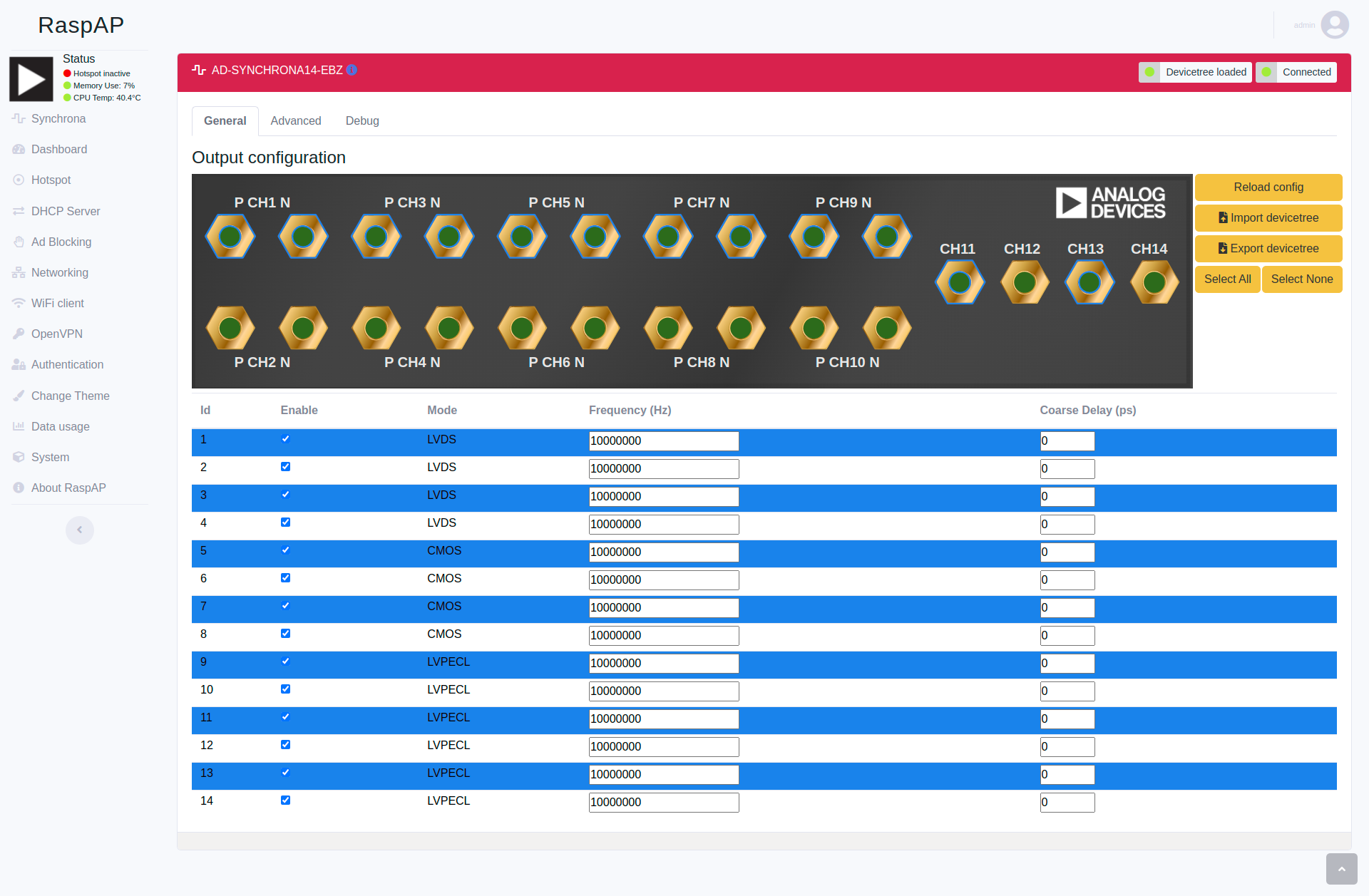
‘Rolad config’ : tests if the configuration is valid and load the afferent overlay

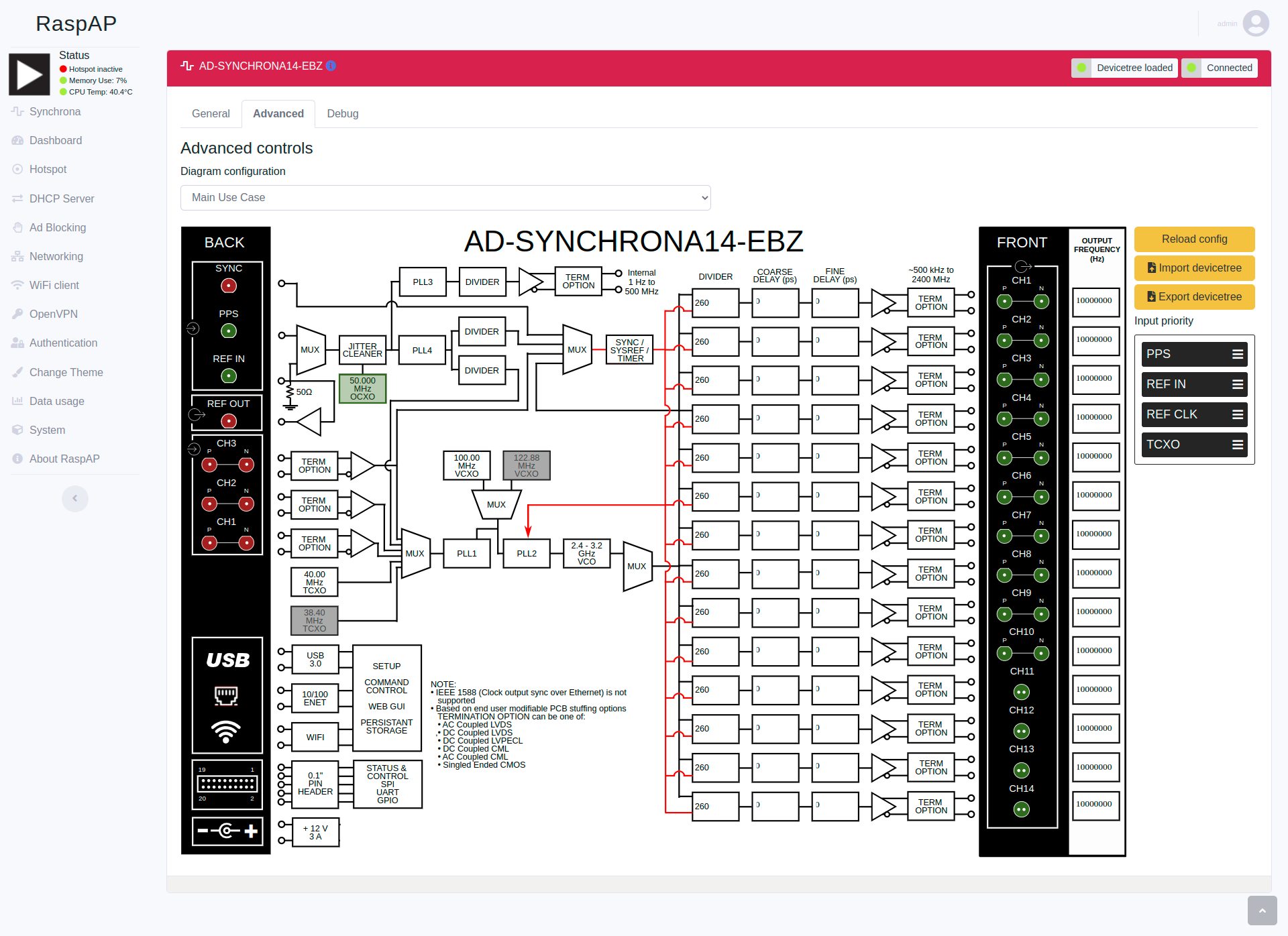
Import devicetree: applies a new overlay loaded from the computer

Export devicetree: downloads the devicetree in use

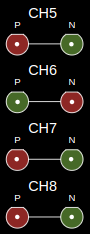
Select all/ Select none: All selected channels for general menu are changed simultaneously.

A specific set of channels can be selected by clicking on the golden outputs of each channel.



**ADVANCED MENU:**

The advanced menu provides all the functionality found in the general tab and some more:

- divider are displays but cannot be changed

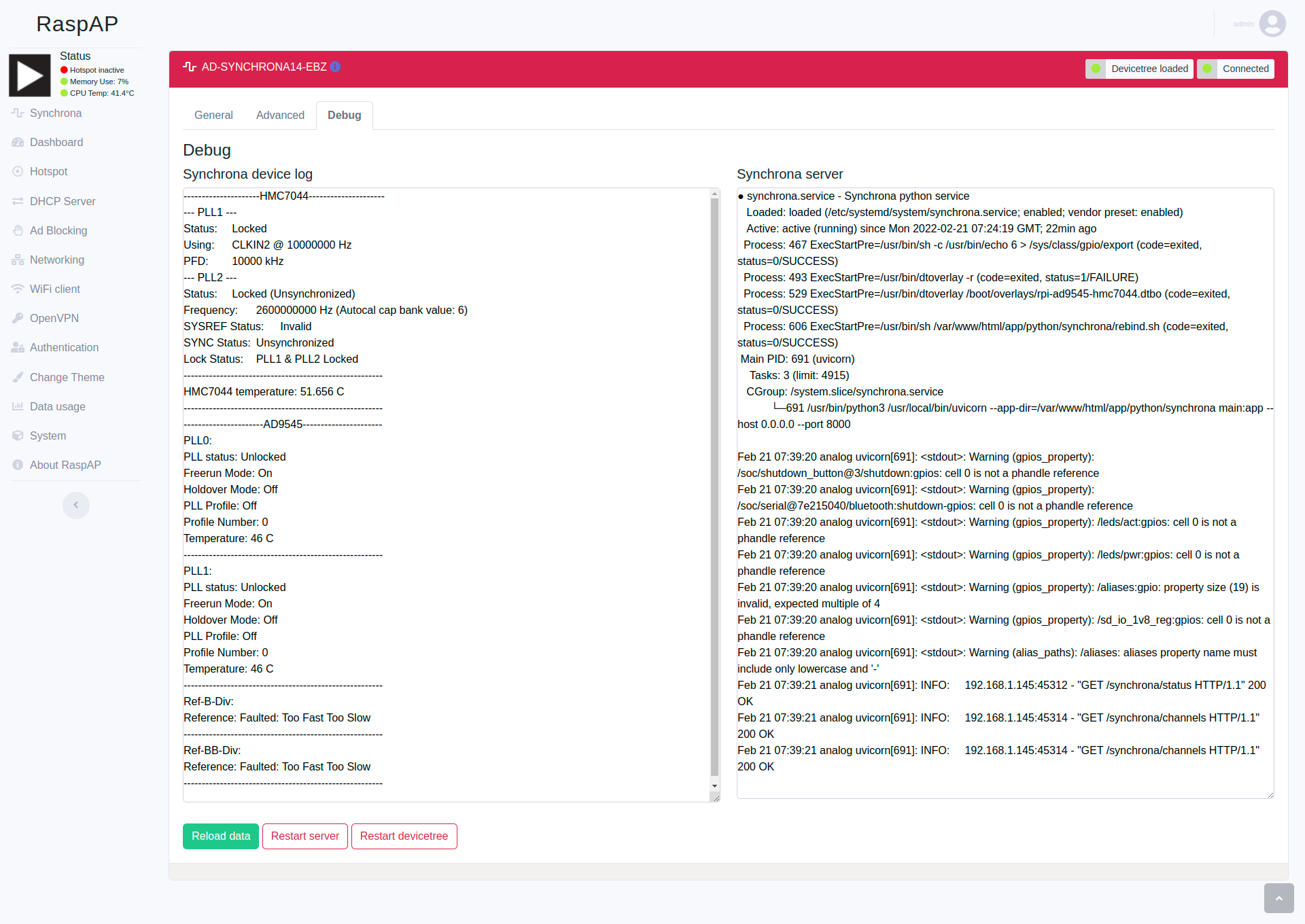
- VCXO and TCXO can be switch (not necessarily – the server will try to find a suitable configuration)

- input priority can be specified; available inputs: 1pps, ref in, ref clk (CH 2), TCXO; if no input is connected, synchrona will use the internal reference

- coarse delay, fine delay, output frequency (each in the afferent column)

For channel 5, 6, 7, 8 single outputs(P/N) can be enabled/disabled

**DEBUG MENU**



The debug menu contains useful information about:

- hardware status: HMC7044 status, HMC7044 temperature sensor, AD9545 PLL1, PLL2, Ref-B and Ref-BB

- server status (python service used for creating the overlays)

Available buttons:

Restart server – stops the server and restarts it

Restart devicetree – applies and load a standard devicetree

Reload data – reloads the page

For all the other menus check the raspAP official documentation: https://docs.raspap.com/