AUDIOPHONICS I-SABRE V3 DAC ES9023 TCXO RASPBERRY PI 2.0 / 3.0

1- INTRODUCTION AND OVERVIEW:

With the 3rd incarnation of the Audiophonics I-Sabre V3, some changes were made to facilitate the integration with the Raspberry Pi. This new version was designed and engineered to have all the outputs (except the HDMI) on the same side as the Raspberry Pi when they are attached to each other.

Now, equipped with an advanced power management (ATX type), allowing this time a cleaning use of the software solution. You can give the order to shudown without the danger of damaging the OS.

These functions are handled by a PIC microcontroller, allowing a clean management according to the need, either software or hardware.

Equipped with innovative functions this converter will be able to make a high definition audio reader from your Raspberry Pi 2.0 A+ or B+.

2 - FUNCTIONS:

- Advanced Power Management
- Low noise power supply (6-9VDC / 2A)
- Raspberry is powered by the GPIO (there is no need for and external power supply for the Pi)
- Analog to Digital conversion 24 Bit up to 192Khz frame rate
- 2Vrms analog output via dual High quality 24 gold plated RCA Jacks

3 - Specifications:

- High precision clock 0.5ppm TCXO ultra low jitter
- Form factor: accepts Raspberry Pi B+, A+ 2.0GPIO
- Raspberry is powered by the GPIO (there is no need for and external power supply for the Pi)
- DC Input: 5.5/1.2mm Jack - suitable power supply 6V 2A
- I2S Driver: Hifiberry (Volumio)

4 - POWER MANAGEMENT OPERATION DETAILS

Booting Process:

By pressing the power button, the DAC will also turn the Pi on. The LED will flash pending the complete BOOT, from the Pi (GPIO17). The signal arrives because there is a script that changes the state once the Pi starts.
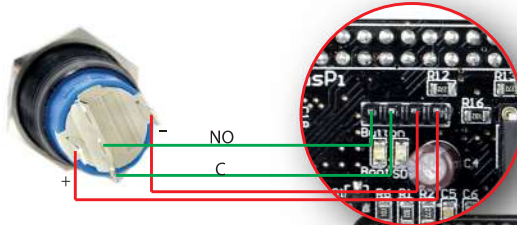
Shutdown from the Button:

- By pressing the button, the micro- controller detects the order to shutdown and sends a signal to the GPIO 22 to start the script and send the shutdown command. The button LED turns off, waiting for a new action to start again.

Shutdown from Volumio/RuneAudio:

- Click on «Power OFF» to start the software shutdown script that uses the GPIO 04. Once the Pi is off, the button LED turns also off, waiting for a new action to start again.

Reboot Process:

Click on «Reboot» to start the reboot script on the GPIO 04. After rebooting the Pi and with the «BOOT Ok» status, the LED from the button will stop blinking.