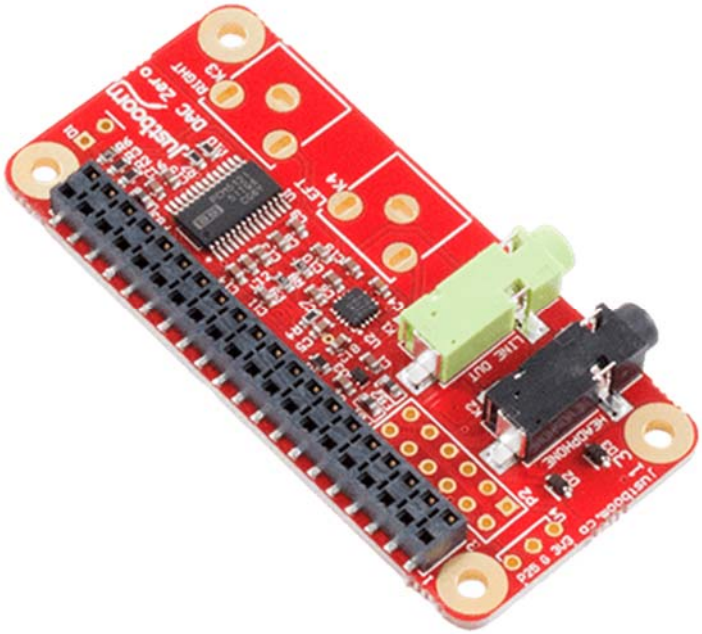
Pi Supply



JustBoom DAC Zero pHAT

SKU: JBM-004

The JustBoom DAC pHAT is a plug and play, high resolution, digital-to-analog converter for the Raspberry Pi Zero.

We've designed the JustBoom DAC pHAT to be simple to install and use. With no soldering required and all the mounting hardware already provided you can be up and running and enjoying flawless high quality audio playback within minutes. this product is suitable for absolute beginners and seasoned professionals alike.

Description

The JustBoom DAC Zero pHAT is a plug and play, high resolution, digital-to-analog converter for the Raspberry Pi and is by far the easiest and neatest way to add an audio output to your Raspberry Pi Zero. The JustBoom DAC Zero pHAT has been designed with a super-compact form factor matching that of the Raspberry Pi Zero but still features a considerable amount of functionality. It will work with any version of the Raspberry Pi, but with the larger versions we recommend its bigger sibling the JustBoom DAC HAT.

We've designed the JustBoom DAC Zero pHAT to be simple to install and use. With no soldering required and all the mounting hardware already provided for you this product is suitable for absolute beginners and seasoned professionals alike. Just connect your DAC Zero pHAT to a set of powered speakers, headphones or an audio amplifier and you can be up and running quickly, enjoying flawless high quality audio playback within minutes of setting up this Raspberry Pi pHAT. We also include an optional IR receiver to allow remote control operation of your Raspberry Pi.

Includes a 384kHz/32 bit DAC chip with hardware volume mixing as well as a 25mW headphone amplifier. Outputs are line level over 3.5mm jack cable and headphone amplified over 3.5mm jack cable (both stereo). There is an option for users to add line-level, stereo RCA jacks to the board as well as a playback LED should you need them. The pHAT uses the I2S interface for its audio input which reduces CPU load on the Pi Zero compared to USB solutions. It is also powered directly from the GPIO header so no extra cables or power supplies are required to connect to the Raspberry Pi.

Need help understanding how this product works? Follow our **product guide**.

Setup Guide

- Follow our full setup guide for assembling your **JustBoom DAC Zero and Case**.
- Configure the **JustBoom Player** software

Use cases

Pairing the Raspberry Pi Zero with a high quality audio card provides the perfect solution for a number of exciting projects and applications where the lack of on-board audio on the Raspberry Pi Zero simply won't cut it. Here are some possible use cases for the JustBoom DAC Zero pHAT and your Raspberry Pi computer:

- Add an audio output to your Raspberry Pi Zero in a neat and simple way
- Streaming (either from cloud or network storage) high-definition audio player
- Multi-room audio player
- Media centre / set-top box living room entertainment system
- Shop floor / elevator / background music audio player
- High quality audio player with local storage
- Desktop high definition audio player with amplified headphone output
- And many many more….

JustBoom Pi Zero DAC Features

- 32 bit high quality audio at 384kHz
- Includes both a DAC and headphone amplifier
- Line-level RCA and headphone amplified 3.5mm jack outputs
- Plug and play compatibility for ease of use
- Hardware and software volume control from your Raspberry Pi

- No soldering required
- Powered by the Raspberry Pi GPIO header
- Compatible with **Raspberry Pi Zero v1.3** and Wireless (and also compatible with the Raspberry Pi A+,B+, 2B and the new 3B, but we would recommend the JustBoom DAC HAT for this purpose)
- Mounting hardware included
- Optional IR receiver included in package
- Full driver support in **Raspbian / NOOBS**
- Compatible with the **JustBoom Player** / **OSMC** / **RuneAudio** / **Volumio** / **Moode** / **PiCorePlayer** / **PiMusicBox** / **OpenELEC** and others
- **JustBoom Player** pre-configured software available on SD cards from various vendors

Technical Information

- Burr-Brown / Texas Instruments PCM5121 DAC chip – 384kHz / 32 bit. Please note that due to Linux driver restrictions, max frequency is currently limited to 192kHz by standard on the Raspberry Pi however this can be increased with some manual driver updates
- Texas Instruments TPA6132A2 headphone amplifier – 25mW
- Fully integrated hardware volume mixing via "alsamixer" or any ALSA compatible application
- Single line of code in the Raspberry Pi config to activate the device tree driver configuration (or a simple menu based setup in some operating systems)
- Optional Vishay TSOP4838 IR receiver included in package (solder yourself if required). Also possible to use Vishay TSOP4938 or TSOP4138 or TSOP34338SS1F
- 106dB signal to noise ratio (SNR) and -92dB total harmonic distortion (THD +N at -1dB) for best-in-class audio
- Advanced ESD protection on both headphone and RCA outputs
- Ultra low noise voltage regulator for the best audio output (LDO 30uVrms)
- Optional solder-yourself RCA jacks for additional stereo line-level output – Switchcraft PJRAN1X1U02X (white) and Switchcraft PJRAN1X1U03X (red)
- Optional solder-yourself playback LED – Kingbright L-934GD (green) or Multicomp MCL034MD (red)

Additional information

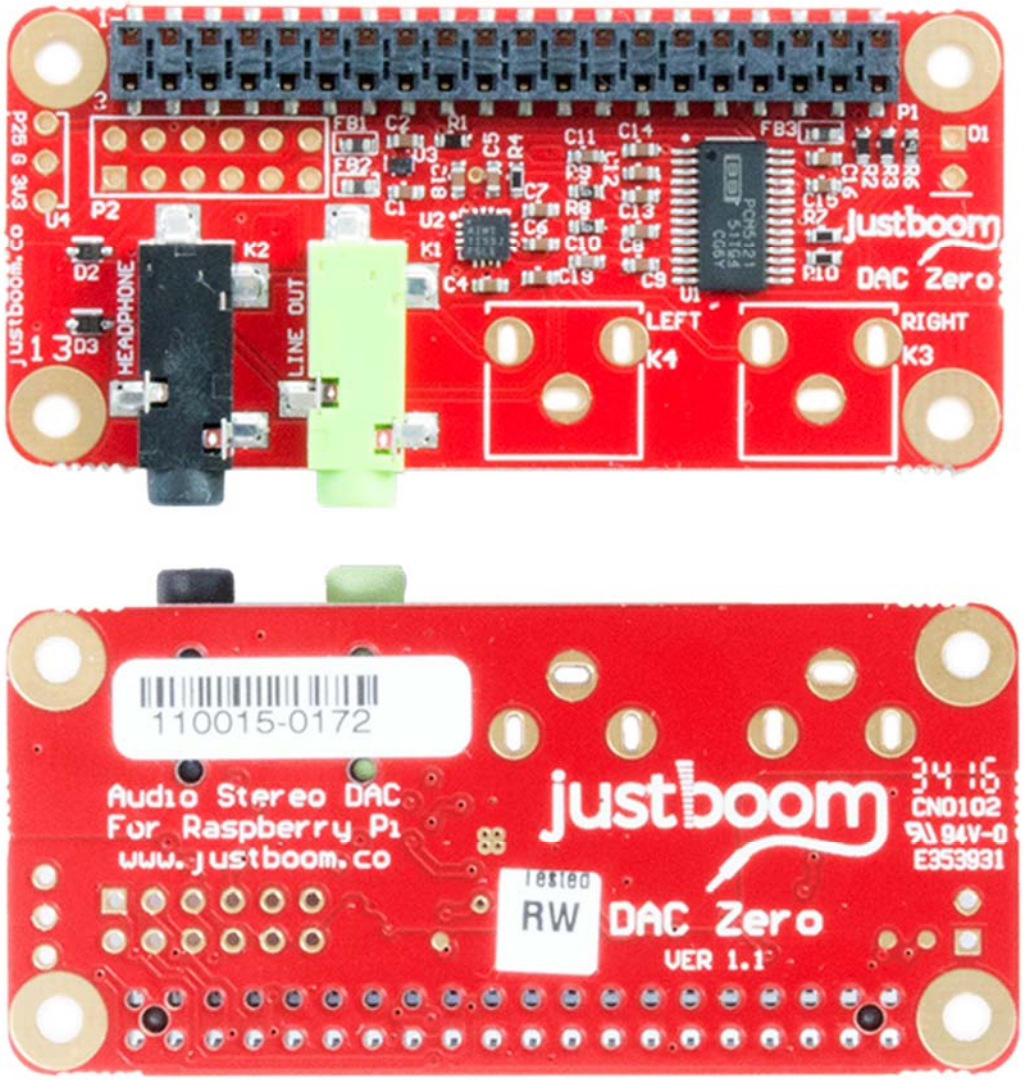
WEIGHT	0.055 kg
DIMENSIONS	13 x 7.5 x 2.5 cm

JustBoom DAC Zero Case

WEIGHT	0.049 kg
DIMENSIONS	6.9 x 3.8 x 3.5 cm
COLOUR	Red, Black

Official Raspberry Pi Power Supply - 2.5A International Power Supply Unit

WEIGHT	0.195 kg
DIMENSIONS	10.5 x 8.5 x 6 cm
COLOUR	White, Black



https://www.pi-supply.com/product/justboom-dac-zero-phat/ 1-22-18