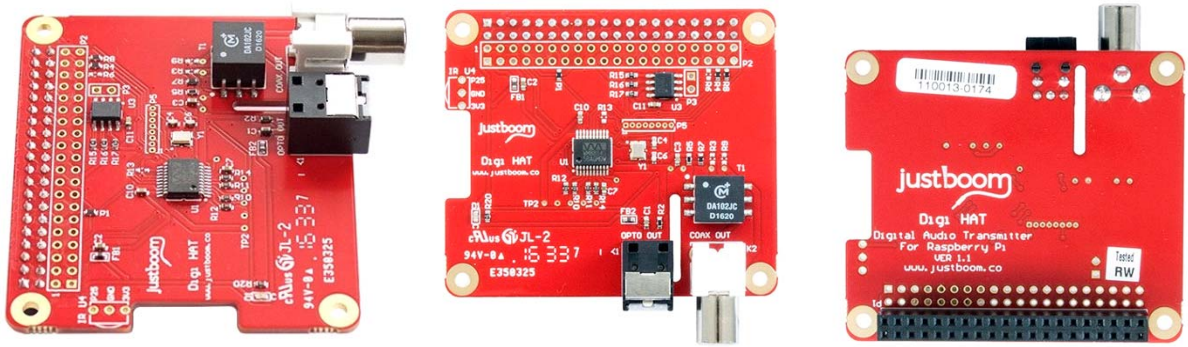
JustBoom Digi HAT for the Raspberry Pi

SKU 107990035



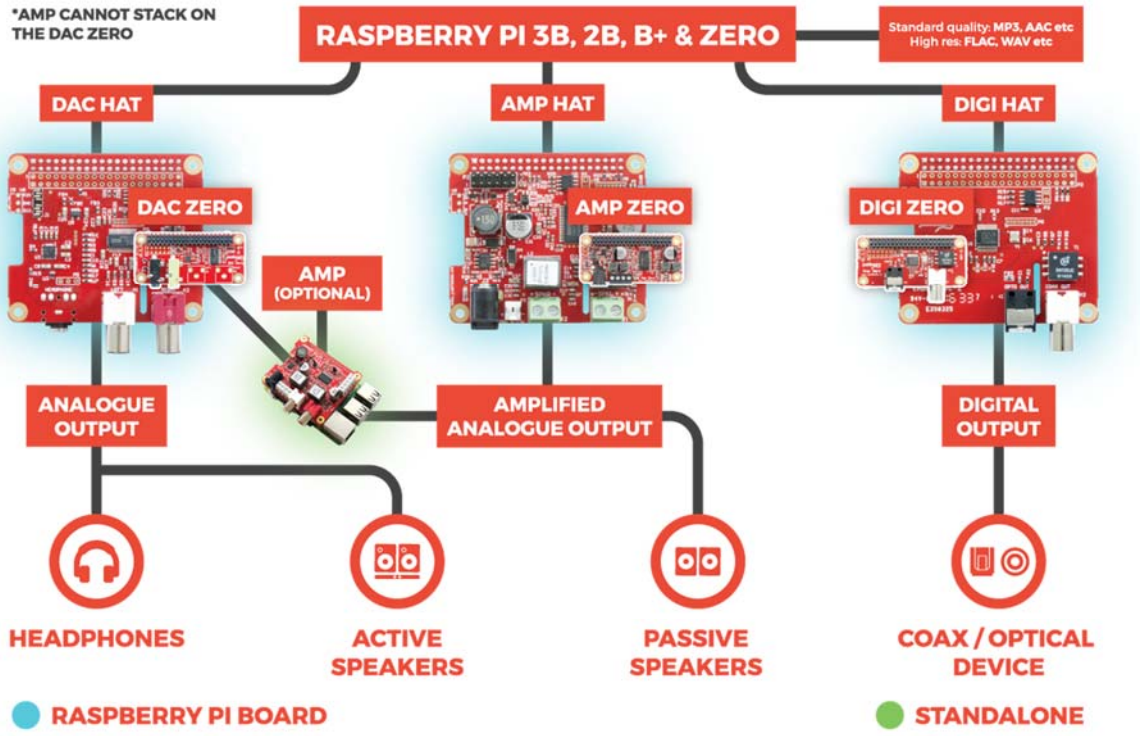
Description

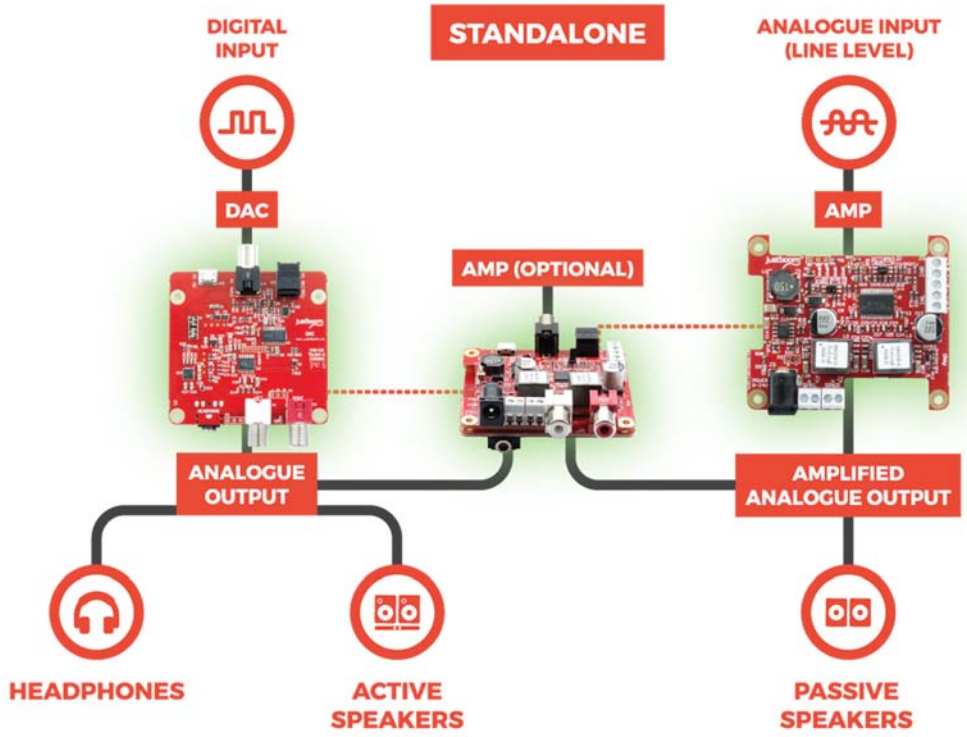
The JustBoom Digi HAT is a high-resolution digital audio output add-on board for the Raspberry Pi. Simply stack the plug-and-play add-on board (HAT) onto your Raspberry Pi A+, B+, 2B or the new 3B and it will be ready to use immediately. The JustBoom Digi HAT produces an unmodified, high quality, digital audio data stream for bit-perfect transmission to your HiFi system.

Just connect your Digi HAT to external DAC or amplifierplified speakers and you can be up and running quickly, enjoying flawless high-quality audio playback within minutes of setting up this Raspberry Pi HAT.

Includes a 192kHz/24 bit digital audio chip with low jitter, bit perfect digital output (S/PDIF) over optical or coaxial connectors for an uncompromised high-quality audio experience. The JustBoom Digi HAT includes an output transformer for full galvanic isolation between your Raspberry Pi and your DAC on the coaxial output.

The Raspberry Pi Digi HAT uses the I2S interface for its audio input which reduces CPU load on the Raspberry Pi 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. All of the Raspberry Pi GPIO pins are still accessible on the Digi HAT for easy customisation of your project – add additional sensors, buttons, LEDs, rotary encoders or anything your heart desires.


*AMP CANNOT STACK ON THE DAC ZERO
RASPBERRY PI 3B, 2B, B+ & ZERO
Standard quality: MP3, AAC etc
High res: FLAC, WAV etc
DAC HAT
AMP HAT
DIGI HAT
DAC ZERO
AMP ZERO
DIGI ZERO
AMP (OPTIONAL)
ANALOGUE OUTPUT
AMPLIFIED ANALOGUE OUTPUT
DIGITAL OUTPUT
HEADPHONES
ACTIVE SPEAKERS
PASSIVE SPEAKERS
COAX / OPTICAL DEVICE
RASPBERRY PI BOARD
STANDALONE


STANDALONE
DIGITAL INPUT
ANALOGUE INPUT (LINE LEVEL)
DAC
AMP
AMP (OPTIONAL)
ANALOGUE OUTPUT
AMPLIFIED ANALOGUE OUTPUT
HEADPHONES
ACTIVE SPEAKERS
PASSIVE SPEAKERS

Use cases

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

•Circumstances where you need to have your streaming audio player (Raspberry Pi in this case) located separately from your amplifier or DAC. This method is usually superior to analog since the original digital signal is maintained until the amplification step (theoretically leading to less degradation of the sound).

•Streaming (either from cloud or network storage) high-definition audio player

•Multi-room audio player

•Surround sound for media centre / set-top box applications

•And many many more….

Features

•Dedicated S/PDIF output interface chip supports up to 192kHz / 24bit resolution

•Digital audio output over either optical (TOSLINK) or coaxial (RCA electrical) connectors

•Low jitter, bit perfect digital output

•Output transformer for galvanic isolation

•Plug and play compatibility for ease of use

•Software volume control from your Raspberry Pi

•No soldering required

•Powered by the Raspberry Pi GPIO header

•Compatible with Raspberry Pi A+,B+, 2B and the new 3B

•Mounting hardware included

•All Raspberry Pi GPIO pins still accessible via 40pin unpopulated extension header

•Our Raspberry Pi Digi is fully HAT compliant

•Full driver support in Raspbian / NOOBS

•Compatible with OSMC / RuneAudio / Volumio / Moode / PiCorePlayer / PiMusicBox / OpenELEC and others

•Fully compatible with the recommended JustBoom Player software.

•Getting started guide for the software.

Technical Information

•WM8804GEDS S/PDIF Transceiver with 24bit/192khz and has an integrated low jitter PLL (50ps RMS)

•DA101JC high bandwidth digital output transformer for galvanic isolation on electrical (coaxial/RCA) output

•Integrated EEPROM for automatic Raspberry Pi devicetree driver configuration and fully HAT compatible

•Digital signal output over S/PDIF with either optical (TOSLINK) or coaxial (RCA) connectors

•We recommend that if you are using the coaxial/RCA output that you connect the cable shield to the ground on the DAC / amplifier you are using and make sure that the DAC / Amplifier is using a power supply with the ground pin connected. This will help to reduce noise.

•Bit perfect digital audio transmission

•Optional Vishay TSOP4838 IR receiver included in package (solder yourself if required)

•While the hardware is able to output DTS/Dolby Digital, the Raspberry Pi software is not currently able to support this. Let us know if you want to implement this and we will do our best to help

Setup Guide

We also have **AMP** and **DAC** Raspberry Pi HATs available to purchase.