

JustBoom DAC - Product Description

The JustBoom DAC is a standalone high-resolution digital-to-analog converter offering up to 108kHz/24bit lossless audio playback for your projects. We've designed the JustBoom DAC to be simple to use - with no soldering required and all the mounting hardware already provided, this is a true plug and play device.

Connect your JustBoom DAC to a set of powered speakers, headphones or an audio amplifier and you can be up and running quickly, enjoying flawless, crystal-clear high quality audio playback within minutes of unboxing. If you need amplification or additional outputs for passive speakers, the JustBoom DAC is also compatible with the JustBoom Amp - just stack the Amp on top with the mounting hardware and board to board connector and you will be good to go.

This affordable, standalone DAC has among the best value for money available on the market and truly reduces the barriers to entry for versatile high quality audio playback. The digital (S/PDIF) inputs include both optical (TOSLINK) and coaxial/RCA connector options. The onboard DAC chip offers a 384kHz/32 bit output (although this is limited due to the input S/PDIF receiver to 108kHz/24bit). The JustBoom DAC additionally includes a 138mW headphone amplifier.

The board outputs line level audio over RCA and also offers a headphone amplified output over 3.5mm jack cable. The board is powered by a standard 5 volt microUSB power supply - this is a common power supply in tablets and smartphones so many of you will already have one available or can pick one up for a good price!

Use cases

A standalone audio DAC card provides the perfect solution for a number of exciting projects and applications where standard audio resolutions just won't cut it. Here are some possible use cases for the JustBoom DAC:

- Paired with the JustBoom Digi HAT / JustBoom Digi Zero as a receiver for your digital audio output
- Paired with the JustBoom Amp to offer all in one DAC and amplifier for a compact high-quality audio solution
- High quality headphone amplifier for your digital audio receiver
- Streaming (either from cloud or network storage) high-definition audio player
- Multi-room audio player
- Media centre / set-top box living room entertainment system
- And many many more....

Features

- Full high quality audio - up to 108kHz / 24bit (uses 384kHz/32bit DAC chip but this is limited due to the S/PDIF input)
- Includes S/PDIF input using either optical (TOSLINK) or electrical (RCA/coaxial) connections
- 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
- No soldering required
- Powered by the 5v microUSB power supply - you probably already have one!
- Compatible with the JustBoom Amp
- Mounting hardware included

Technical Information

- Burr-Brown / Texas Instruments PCM5102A DAC chip - 384kHz / 32 bit. Please note that due to restrictions of the S/PDIF receiver the max quality is limited to 108kHz / 24 bit
- Texas Instruments TPA6133A2 headphone amplifier - 138mW
- 112db SNR and -93db THD 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 10uVrms)
- 5v microUSB power input requires at least 100mA when using RCA connectors or at least 200mA when using headphone connector. We recommend at least a 500mA power supply
- Stacking with JustBoom Amp by way of board-to-board connector. All of the required mounting hardware in order to do this is included with the two products for ease