Datasheet DAC2 HD

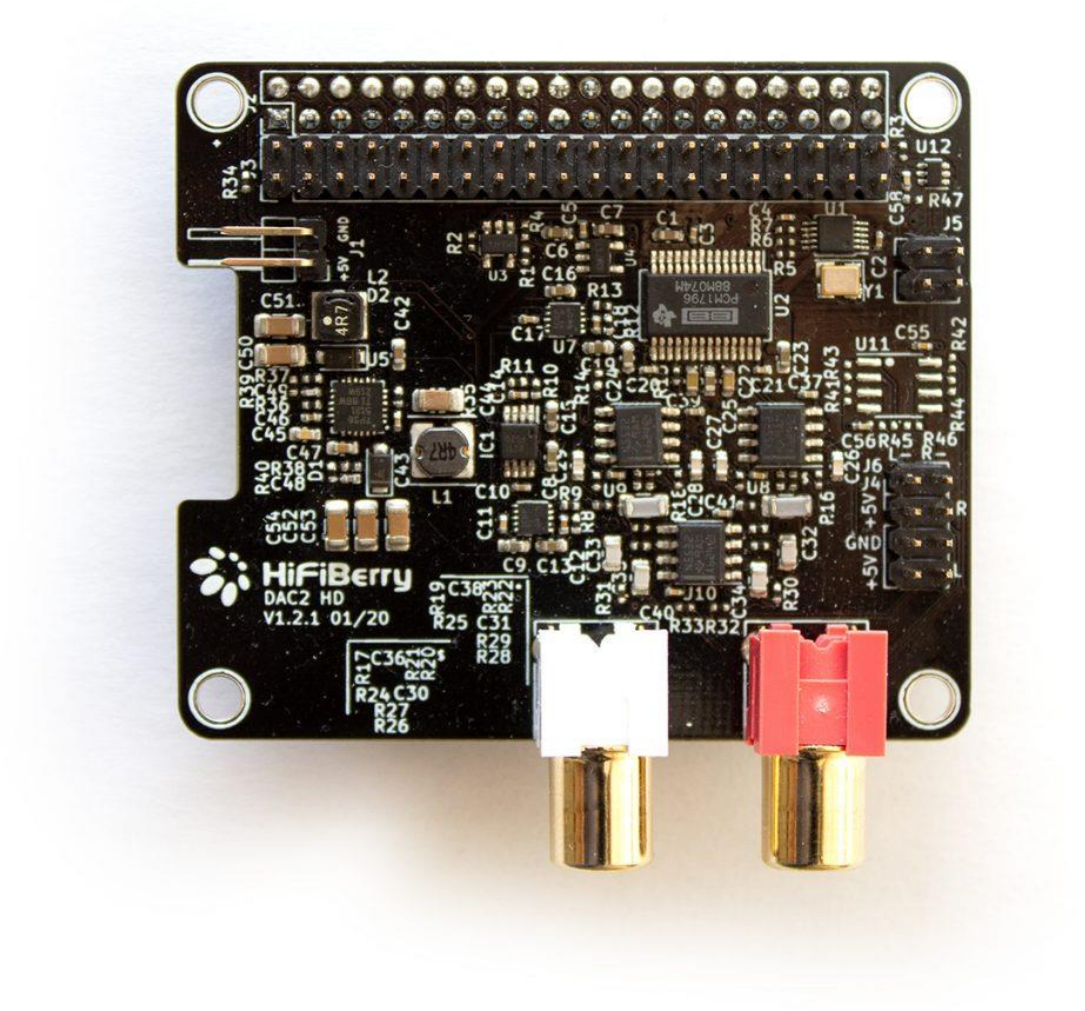
Overview

The HiFiBerry DAC2 HD is a high-end digital-to-analogue converter for the Raspberry Pi (newer models with 40 pin GPIO connector).

Facts

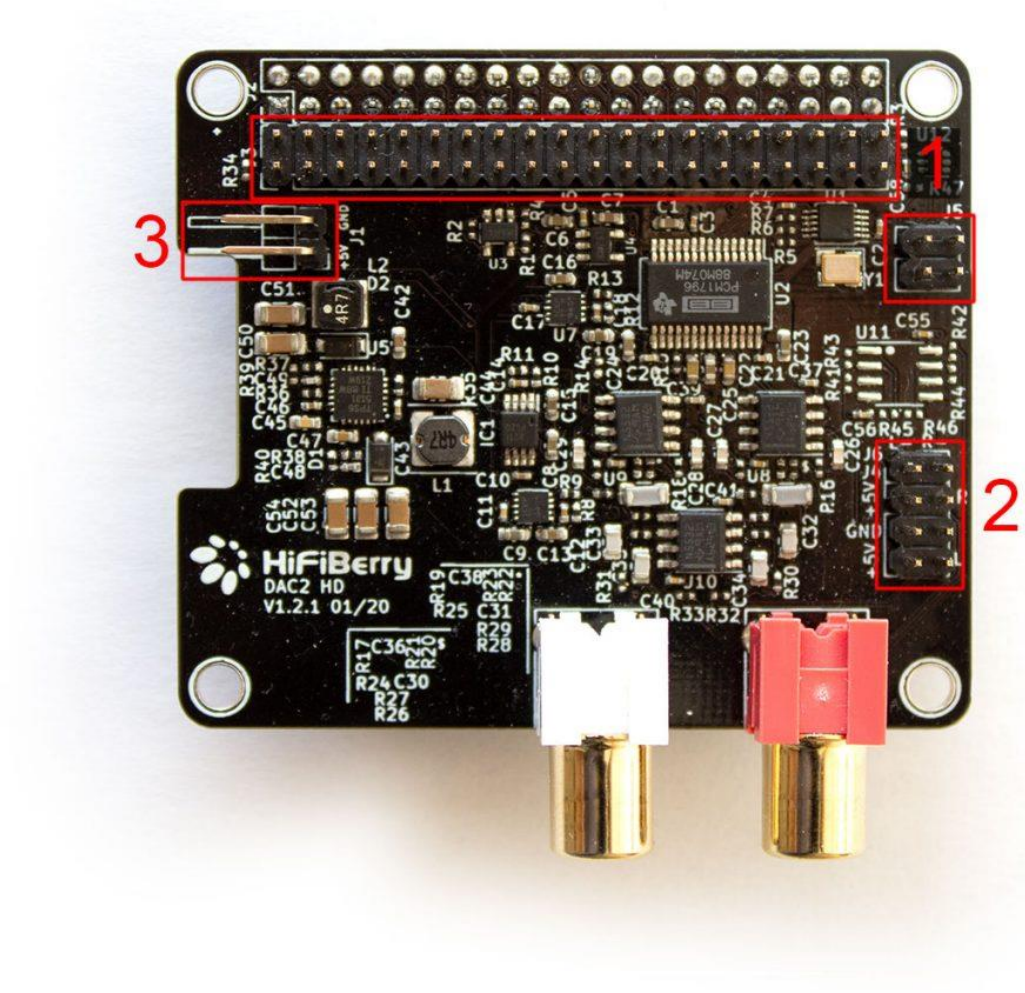
- Stereo output
- Dedicated 192kHz/24bit high-quality Burr-Brown DAC
- Custom current-to-voltage output stage with high-end filtering
- Four ultra-low-noise linear voltage regulators for optimal audio performance
- Low-jitter clock for optimised clock performance (independent from Raspberry Pi clock sources)
- Hardware volume control for DAC. You can control the output volume using “alsamixer” or any application that supports ALSA mixer controls.
- Supports HiFiBerry DSP add-on module
- Connects directly to the Raspberry Pi, no additional cables needed
- No soldering, comes as a pre-fabricated kit. You just plug it onto the Raspberry Pi, it is conform to the Raspberry Pi hardware-attached-on-top (HAT) specification.
- Compatible with all Raspberry Pi models with a 40-pin GPIO connector
- Directly powered from the Raspberry Pi, no additional power supply required
- HAT compliant, EEPROM for automatic configuration
- Gold plated RCA output connectors
- Comes with all components required to mount it. We include 4 M2.5x12mm spacers to fix the board onto the Raspberry Pi
- Requires at least Linux kernel 4.19.97

Hardware



Note that the actual board might look a bit different. Layout and components might change without further notice. We do not guarantee a specific PCB layout or specific components.

Connectors



1	DSP extension header
2	Analogue output, access to 5V
3	5V from Pi

Specifications

Maximum output voltage	2.1Vrms	
DAC signal-to-noise ratio	123db	typical
DAC THD+N	-108db	typical, 44.1kHz, -10dBFS
Frequency response	10Hz-40kHz	-3dB
Power consumption	<1W	
Sample rates	44.1-192kHz	
Bits/sample	16, 32	

Configuration

To support the DAC+ HD, a Raspberry Pi Linux kernel of at least version 4.19.97 is required. Have a look at the documentation how to update the Linux kernel if you're still using an older kernel version.

Overlay for config.txt:
dtoverlay=hifiberry-dacplushd

ALSA Mixer controls

Function	Control name
Volume control	DAC