DATASHEET DAC2 PRO

OVERVIEW

The HiFiBerry DAC2 Pro is a high-resolution digital-to-analog and analog-to-digital converter for the Raspberry Pi (newer models with 40 pin GPIO connector). This is a special sound card for the Raspberry Pi, optimised for one specific use case: affordable high-quality audio playback.

FACTS

- Stereo output
- Integrated headphone amplifier
- can be equipped with an additional Digital Signal Processor (DSP) for flexible audio processing
- Dedicated 192kHz/24bit high-quality Burr-Brown DAC
- Hardware volume control for DAC. You can control the input and output parameters using "alsamixer" or any application that supports ALSA mixer controls.
- 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
- Two ultra-low-noise linear voltage regulators for optimal audio performance
- Low-jitter dual-domain clock for optimised clock decoupling from the Raspberry Pi
- 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
- Audio connector to connect analog audio amplifier
HARDWARE

1 Burr-Brown DAC
2 Low-jitter clock circuit
3 Headphone amplifier
# CONNECTORS AND JUMPERS

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Line output</td>
</tr>
<tr>
<td>2</td>
<td>Headphone output</td>
</tr>
<tr>
<td>3</td>
<td>Analog output (compatible with Aamp60)</td>
</tr>
<tr>
<td>4</td>
<td>DSP expansion header (compatible with DSP add-on board)</td>
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OUTPUT CONNECTOR J1

This connector can be used to connect to external components, e.g. an amplifier. The output is connected in parallel to the RCA jacks. Pin 1 is on the top left.

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<tbody>
<tr>
<td>+5V</td>
<td>1</td>
<td>2</td>
<td>R</td>
</tr>
<tr>
<td>GND</td>
<td>3</td>
<td>4</td>
<td>GND</td>
</tr>
<tr>
<td>+5V</td>
<td>5</td>
<td>6</td>
<td>L</td>
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SPECIFICATIONS

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<tr>
<td>Maximum output voltage</td>
<td>2.1Vrms</td>
</tr>
<tr>
<td>DAC signal-to-noise ratio</td>
<td>112db typical</td>
</tr>
<tr>
<td>DAC THD+N</td>
<td>-93db typical</td>
</tr>
<tr>
<td>Frequency response</td>
<td>10Hz-70kHz -3dB</td>
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<tr>
<td>Power consumption</td>
<td>&lt;0.3W</td>
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<tr>
<td>Sample rates</td>
<td>44.1-192kHz</td>
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CONFIGURATION

Overlay for config.txt:
dtovely=hifiberry-dacplus