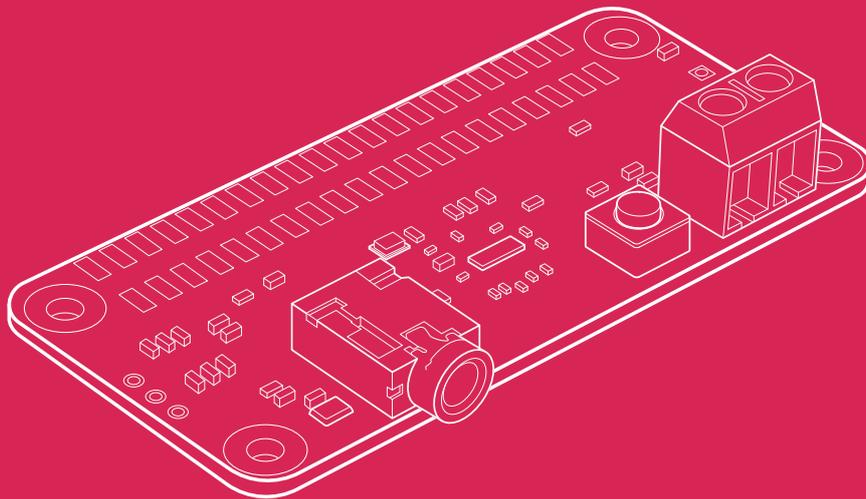


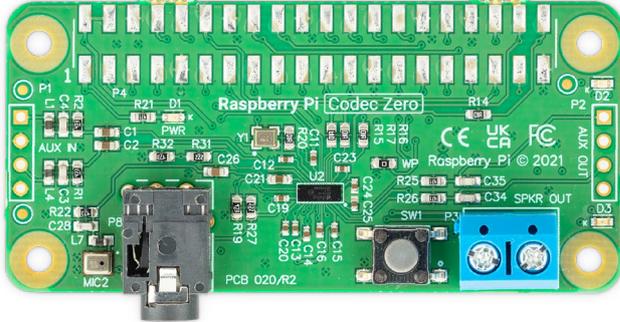


# Raspberry Pi Codec Zero

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## Overview



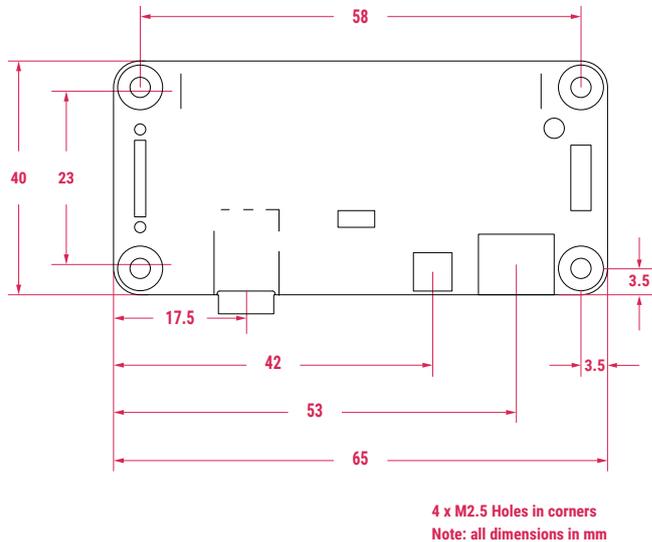
Raspberry Pi Codec Zero is an audio add-on board compatible with any Raspberry Pi computer that has a 40-pin GPIO header, and is designed around the convenient form factor of Raspberry Pi Zero. It delivers bi-directional digital audio signals (I2S) between Raspberry Pi and its own onboard Dialog Semiconductor DA7212 codec. Codec Zero allows you to use a variety of input and output devices, such as the built-in MEMS microphone and external mono electret microphones, as well as 1.2W 8Ω mono speakers. It does not require external power, and connects directly to Raspberry Pi's GPIO header with no need for soldering or cables.

With features such as programmable green and red LEDs, plus a tactile button for user input, Codec Zero makes a great starting point for audio projects such as a walkie-talkie, intelligent doorbell, smart speaker, or vintage radio hack.

## Specification

<b>Form factor:</b>	65 mm × 31 mm
<b>Performance:</b>	High definition 24-bit 96kHz Dialog Semiconductor DA7212 digital audio codec (DAC)
<b>Input power:</b>	Supplied by Raspberry Pi through the 40-pin GPIO header. No external power source required
<b>Features:</b>	Power LED Additional green (GPIO23) and red (GPIO24) LEDs for status Tactile button (GPIO27) for user input Built-in mono electret microphone (MEMS) HAT EEPROM write-enabled
<b>Supports:</b>	Additional external mono electret microphone via 3.5mm panel-mounted barrel socket 1.2W 8Ω mono speaker via panel-mounted screw terminals Stereo input and output channels, including external phono (RCA) sockets, via AUX IN and AUX OUT pins
<b>Operating temperature:</b>	0°C–50°C
<b>Production lifetime:</b>	Raspberry Pi understands the value to customers of long-term availability of product, and therefore aims to continue supply for as long as practically possible. We expect Raspberry Pi Codec Zero to remain in production until 2028
<b>Compliance:</b>	For a full list of local and regional product approvals, please visit <a href="http://pip.raspberrypi.com">pip.raspberrypi.com</a>

## Physical specification



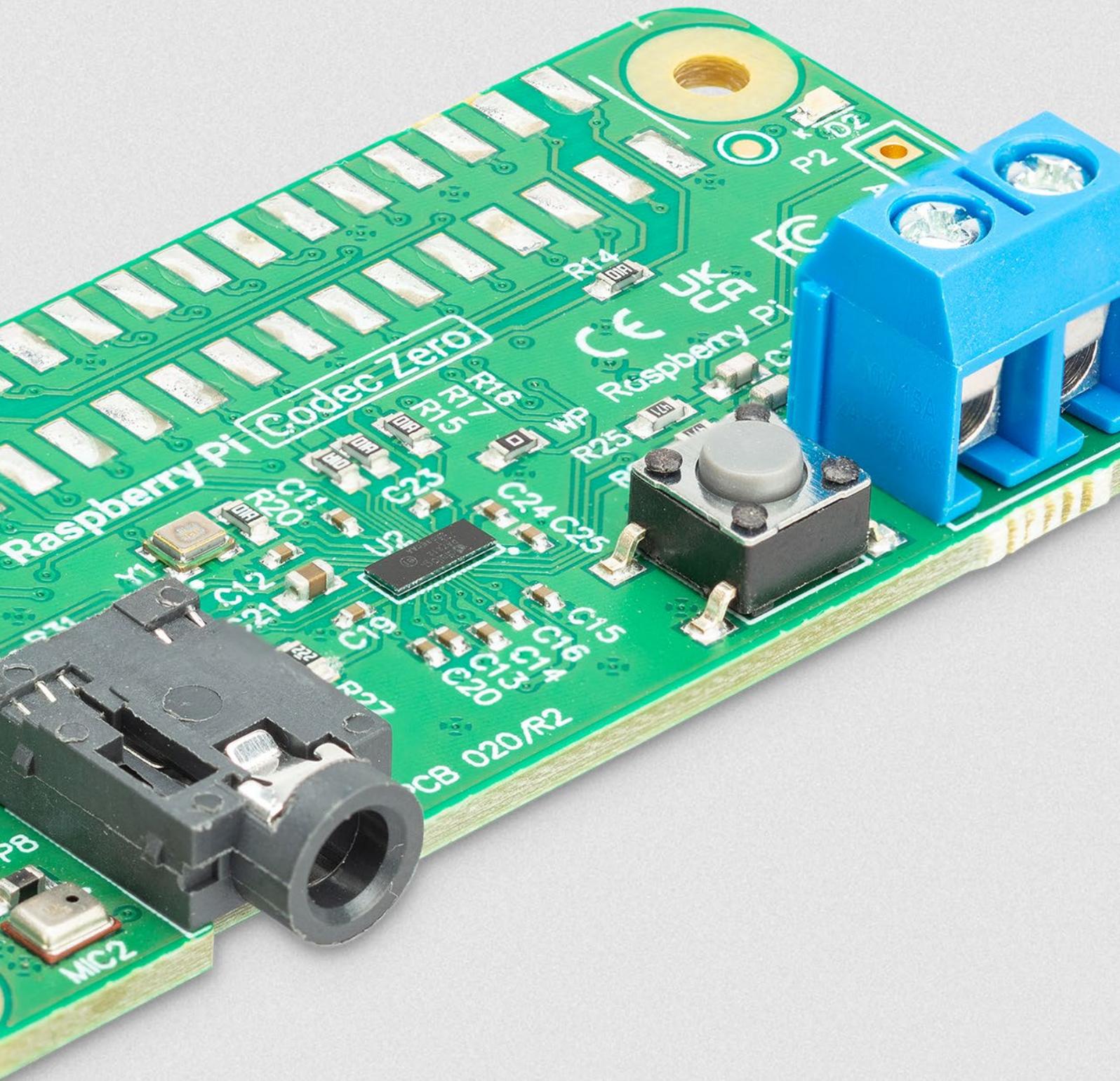
### WARNINGS

- This product should only be connected to a Raspberry Pi via the GPIO header.
- Any external power supply used with this product should comply with relevant regulations and standards applicable in the country of intended use.
- This product should be operated in a well-ventilated environment. If used inside a case, the case should not be covered.
- Whilst in use, this product should be placed on a stable, flat, non-conductive surface, and should not be contacted by conductive items.
- The connection of incompatible devices to the Raspberry Pi Codec Zero may affect compliance, result in damage to the unit, and invalidate the warranty.
- The connection of incompatible devices to the GPIO connection of a Raspberry Pi computer may affect compliance and result in damage to the unit and invalidate the warranty.
- All peripherals used with this product should comply with relevant standards for the country of use, and should be marked accordingly to ensure that safety and performance requirements are met.
- The cables and connectors of all peripherals used with this product must have adequate insulation so that relevant safety requirements are met.
- Operation of this device requires adult supervision.

### SAFETY INSTRUCTIONS

**To avoid malfunction or damage to this product, please observe the following:**

- Do not expose the product to water or moisture, or place it on a conductive surface while it is in operation.
- Do not expose the product to heat from any source; Raspberry Pi computers and the Raspberry Pi Codec Zero are designed for reliable operation at normal ambient temperatures.
- Take care whilst handling to avoid mechanical or electrical damage to the printed circuit board and connectors.
- In order to minimise the risk of electrostatic discharge damage, avoid handling the Raspberry Pi Codec Zero while it is powered. If it is necessary to do so, handle it only by the corners.





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