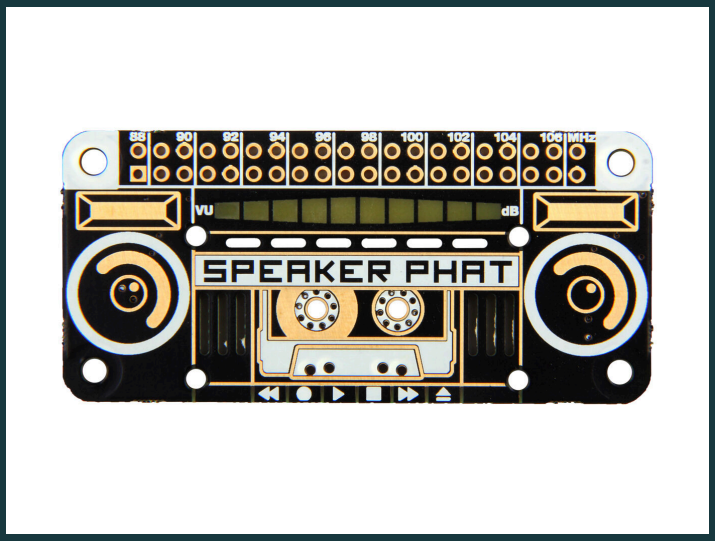
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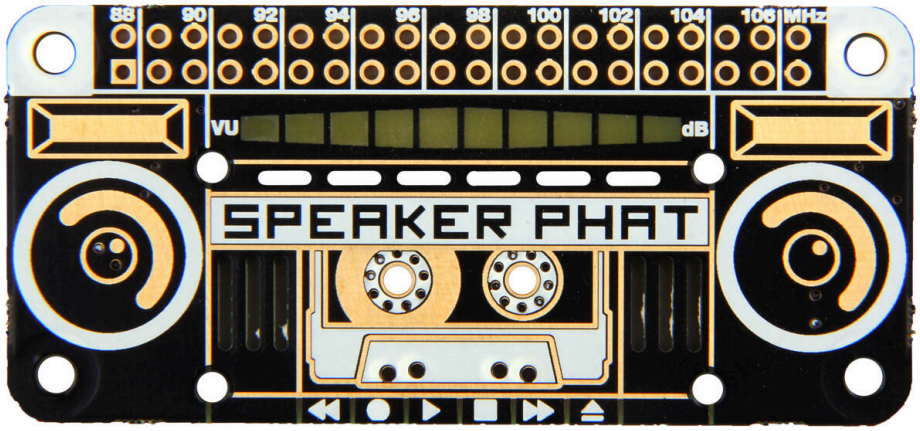
Pimoroni Speaker pHAT

Pimoroni Speaker pHAT turns your Raspberry Pi into a tiny 80s-style boombox with integrated speaker and LED visualizer.

SKU	UPDATED	PRICE
114991417	2025-09-01 10:19:35	$12.95(Excl. VAT)



Overview



The Pimoroni Speaker pHAT is a compact pHAT add-on for Raspberry Pi featuring an I2S DAC (MAX98357A), 3W mono amplifier, 8Ω 2W Mylar speaker, and a 10-LED bar graph. It provides an easy way to add audio output for projects, with a one-line software installer that configures ALSA and visualizes sound levels on the LEDs.

Key Features

Turn your Pi into a Lilliputian ghetto blaster with Speaker pHAT!

Speaker pHAT crams an I2S DAC and mono amplifier, a tiny 8Ω 2W speaker, and a 10 LED bar graph all onto one teeny little pHAT. It's the neatest way to add audio to you Pi project, and its beautiful artwork evokes an 80s boombox!

We can't claim audiophile sound quality, but it's perfect for fun little projects where you want to add sound output - speech, notification sounds, or light music, for example.

Why not combine it with a little USB microphone to make a tiny voice-activated assistant in the style of Amazon's Echo? Or set up a simple Flask API and send audio notifications to it from IFTTT with a simple HTTP request.

It comes as a kit, so you'll have to solder on the female 40 pin header, and screw and solder the speaker on. Check out our assembly guide for more details.

The MagPi said that Speaker pHAT was "a great way of adding audio to projects" and that "it looks cute too", giving it four stars.

Features

- I2S audio DAC with 3W mono amplifier (MAX98357A)
- Default output of 0.45W/26.5dB
- 8Ω 2W Mylar speaker
- Routed holes to channel sound
- 10 bright white bar graph LEDs
- SN3218 LED driver chip
- **Speaker pHAT pinout**
- Compatible with Raspberry Pi 3, 2, B+, A+, Zero, and Zero W
- Female header and speaker require soldering (includes a piece of bare wire to solder the speaker)

Software

We've put together a handy one-line installer that will get everything set up in a jiffy! Our installer configures ALSA to output sound through the DAC on Speaker pHAT, and installs a custom plugin to display sound level on the bar graph LEDs. Find details of how to run the one-line installer in the **Speaker pHAT GitHub repo**.

Our software does not support Raspbian Wheezy.

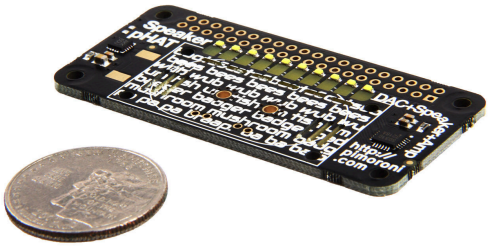
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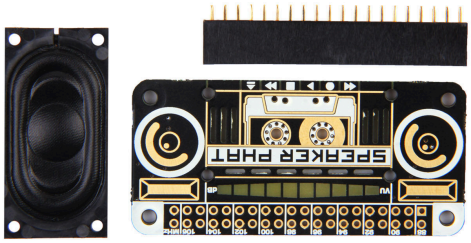
- The DAC sums the two audio channels to mono, rather than just outputting one channel or the other, meaning that you get both channels of audio out of the single speaker
- The dimensions of an assembled Speaker pHAT are (height does not include the female header): H 10mm x L 65mm x B 30mm. The speaker itself measures: H 6mm x L 40mm x 20mm.
- Speaker pHAT won't fit on top of a Pibow Coupé or Pibow Zero due to the height of the speaker, and you won't be able to use a heat sink for the same reason.
- **It's important that you use four of the included eight nuts as spacers to space the speaker slightly away from the PCB. Not doing this, and having the speaker cone touching the PCB, can result in sound degradation and even damage to the speaker.**

Product Gallery











Part List

Speaker pHAT	1
8Ω 2W Mylar speaker	1
2x20 pin female header	1
5cm 24AWG bare wire	1
M2x8 black nylon bolts	4
M2 black nylon nuts	8

Compliance & Logistics

HSCODE	8518900090
COO	UNITED KINGDOM

Resource Links

- https://www.seeedstudio.com/Pimoroni-Speaker-pHAT-p-3003.html

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