



# Expansion Shield x400 for Raspberry Pi B+/2B/3B

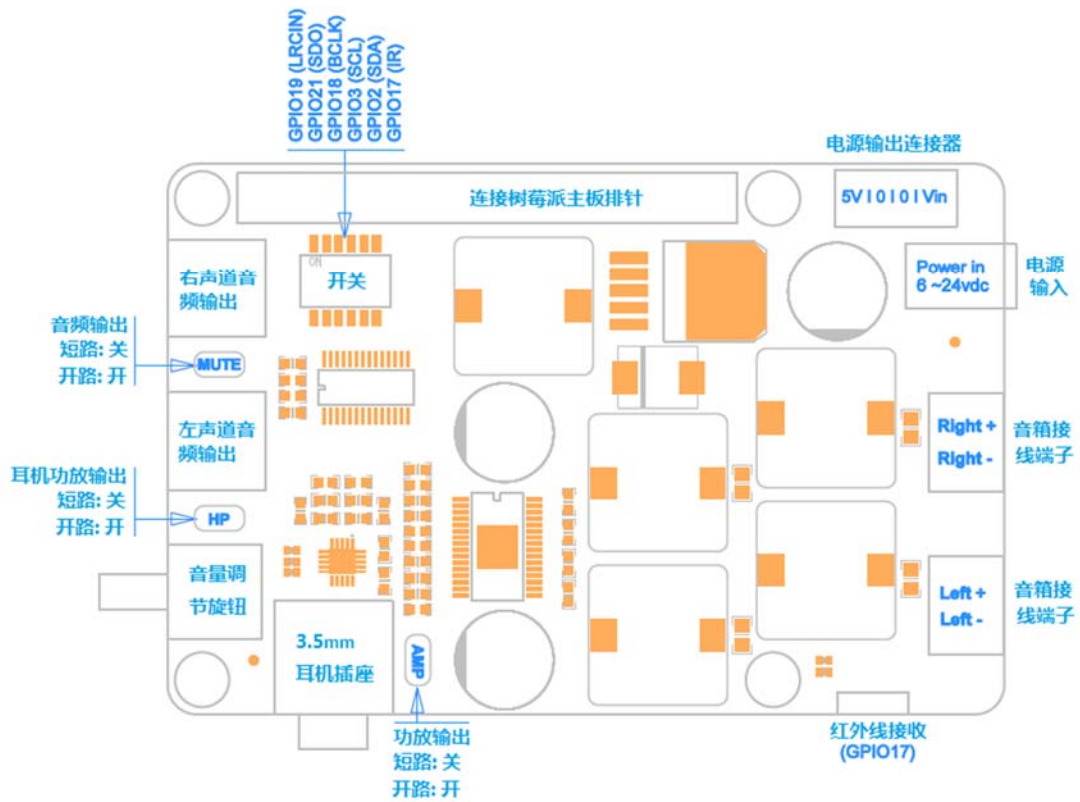
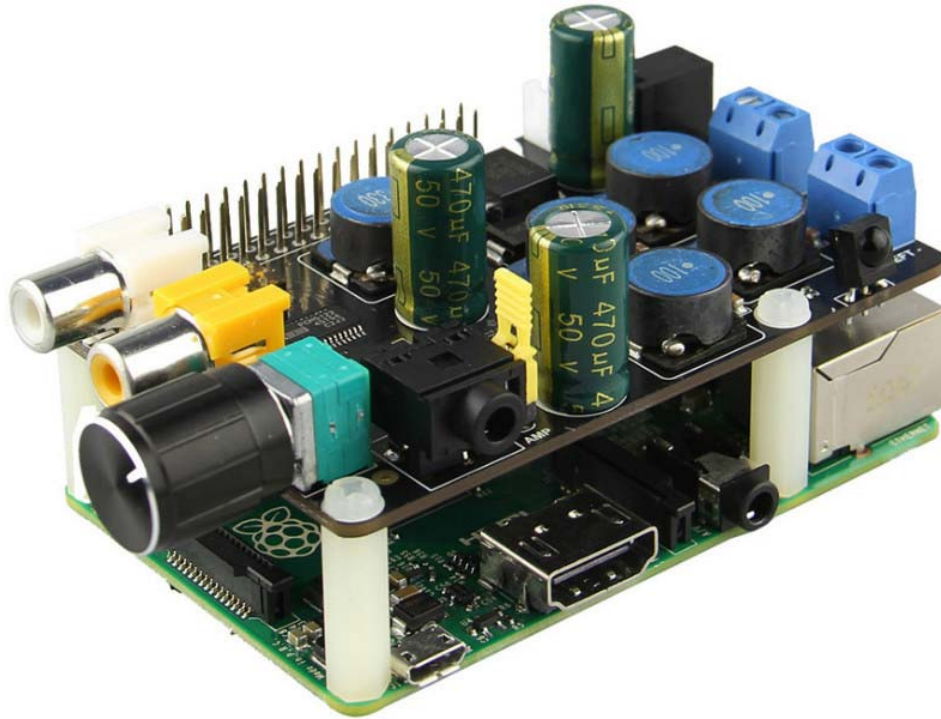
SKU:DFR0449



## INTRODUCTION

The X400 Expansion Shield is a highly cost-effective audio hat which fits on the GPIO of the Raspberry Pi Model B+, Raspberry Pi 2 Model B and Raspberry Pi 3 Model B. It uses i2S interface audio solution and supports 24-bit /192KHz high quality sound. It is compatible with other audio equipment via RCA lotus socket. It includes a built-in high fidelity headphone amplifier, where you can plug in a 3.5mm audio jack directly.

The shield has two digital amplifier output ports, up to 2 x30w speakers can be directly connected. Use this hat to make your Raspberry Pi in to a lossless audio player or a network radio. We recommend using an OS image such as Volumio, RuneAudio, PiMusicBox etc.



Note: Raspberry Pi is not included in the box.

## SPECIFICATION

- Input Voltage
  - 6V to 24V DC converted to 5V, 3A via step-down DC/DC converter to power the Raspberry Pi
- Audio
  - Full-HD audio
  - up to 24-bit/192kHz playback
  - Class leading audio; 112db SNR, and THD of 0.0019%
  - Audiophile TI Burr Brown 32-bit/384kHz DAC (TI PCM5122)
  - Uses the digital I2S audio signals to reduce CPU load over USB audio solutions
  - Integrated hardware volume control - Mute can be enabled / disabled via jumper
  - Built in High quality audio headphone amplifier (TI TPA6133A)
  - Earphone AMP can be enabled / disabled via jumper
  - Built in high quality Class-D stereo audio amplifier (TI TPA3118D2)
  - Up to 2 x 20W into 4 ohm
  - AMP can be enabled/disabled via jumper
  - Phono/RCA connectors
  - 3.5mm stereo audio jack
  - Speaker terminals
- Wireless
  - Built in IR sensor (38KHz)
- Misc
  - Power output socket
  - DIP switch to remove connection from RPi's pin header
  - Directly connected on top of the Raspberry Pi using the board GPIO header pins
  - No wiring or soldering is required
  - Pin mappings identical to 40-pin header of the R-Pi in order to support existing expansion boards
  - Suitable for Raspberry Pi Model B+, 2 Model B and 3 Model B
- Dimensions
  - 85 x 56mm (Same footprint as Raspberry Pi)

## SHIPPING LIST

- X400 Expansion Board x1
- Nylon Spacers (M3 x 20mm) x4
- Nylon Screws (M3 x 6mm) x8
- Jumper Wires x2