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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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

SKU:DFR0449

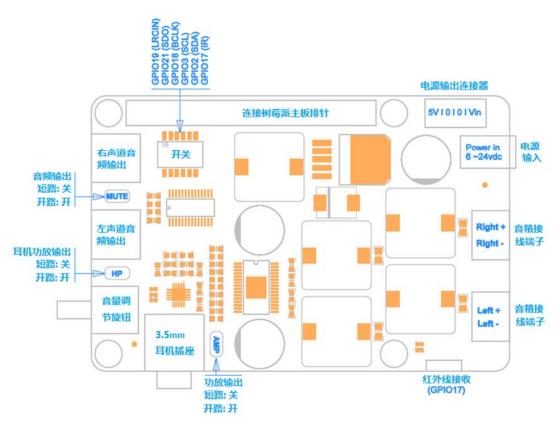


### **INTRODUCTION**

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