

MakerFocus New version Raspberry Pi Battery Pack, RPI UPS Pack Standard(Raspberry Pi Battery, USB Battery Pack Raspberry Pi,) New Raspberry Pi UPS Lithium Battery Expansion Board USB Power Supply Module w / Switch for Cellphone, RPi 3 Model B B+ & Pi 2B B+

[Packing List]

1 * New version Lithium Battery Expansion Board

1 * 3.7V 3800mAH Lithium Battery

1 * package to install screws

1 * 5pin 2.54mm head (for free)

Note:

If you use ups for Raspberry Pi3b/3B+, while charging and discharging, please ensure that the input power is not lower than 2.5A. Recommended Use:3V 2.5A power supply.

[Main characteristics]:

1. It will not affect the output of UPS power supply when external power failure.
2. Two power modes: Outdoor portable model and Indoor UPS power mode.
 - 1). As an outdoor portable power supply, the motherboard is powered by a lithium battery, and the capacity of maximum external power supply is 5.1V, 2.5A.
 - 2).As a domestic UPS power supply mode: MicroUSB plugs into a normal 5V, 2A power adapter, and the external output interface (USB-A interface) can produce a maximum current of 5.1A, 3A.
3. 4 + 2LED could check battery power status
4. Protect function, the external output port has a self-recovery fuse to prevent the raspberry pi from burning due to an external short circuit.
5. Two output modes, except for the regular output via the USB port. At strong currents, such as for high loads above 2.5A, the drop in voltage on the USB cable is a problem that can not be ignored. So we provide a 2.54mm head, which is soldered to the Raspberry Pi GPIO 5V interface for direct power supply, to minimize the damaged cable and pressure drop.

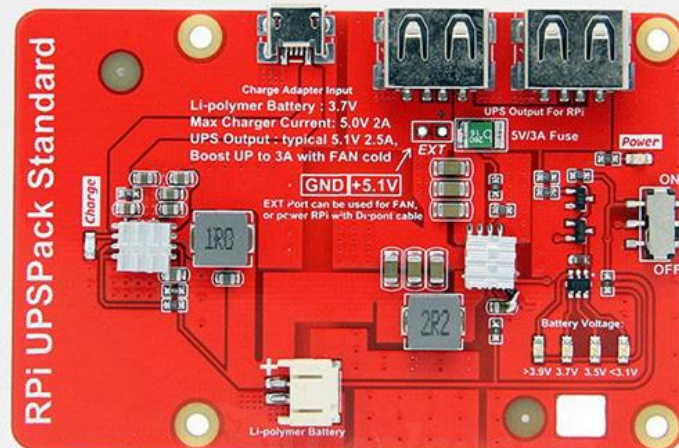
[Specifications]:

Size: 8.5 cm x 5.5 cm x 0.9 cm

Weight: 35g

Raspberry Pi Lithium Battery Module

Max.5.1V 3A Output, 4+2 LED Indicator,
Support charging while discharging



Features

1/ Support charge while discharge, it will not affect the output of UPS power supply when external power outage.

2/ Two power modes: Outdoor portable model and Indoor UPS power supply mode:

As an outdoor portable power supply, the motherboard is powered by a lithium battery, and the maximum external power supply capacity is 5.1V, 2.5A.

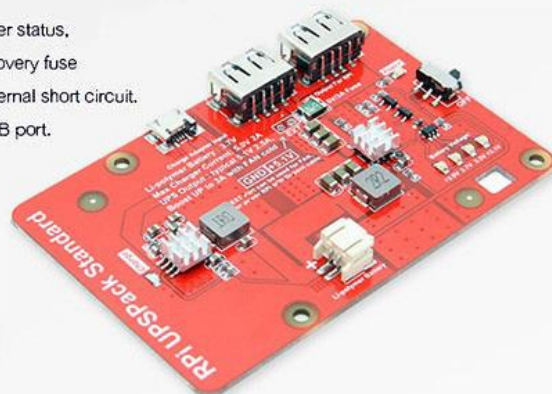
As an indoor UPS power supply mode: MicroUSB plugs into a normal 5V,2A power adapter, and the external output interface (USB-A interface) can output a maximum of 5.1A, 3A.

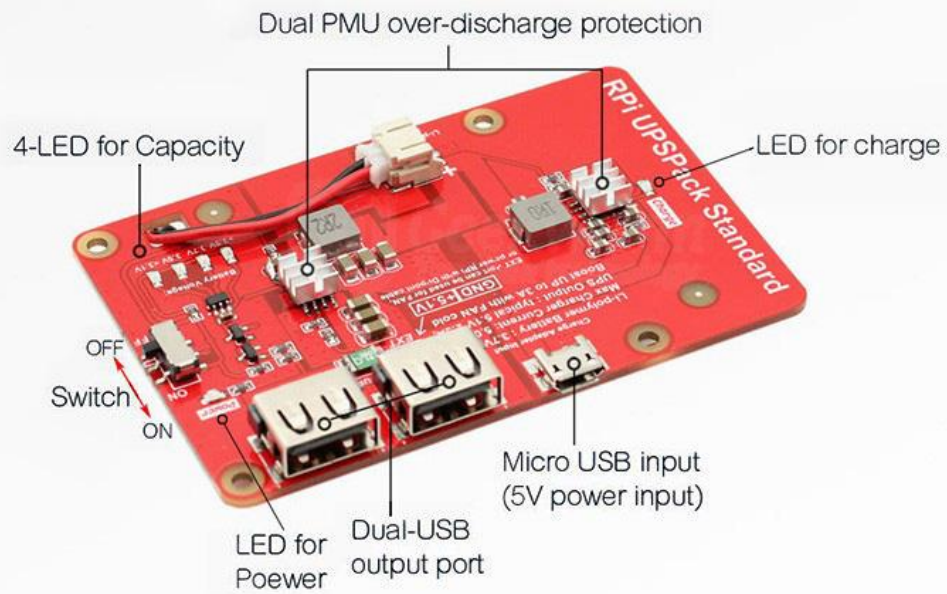
3/ 4+2LED to shows charger and discharger, battery power status.

4/ Protect function, The external output port has a self-recovery fuse to prevent the raspberry pi from being burnt due to an external short circuit.

5. Two output modes, except for the regular output via USB port.

At high currents, such as for high loads above 2.5A, the voltage drop across the USB cable is a problem that cannot be ignored. Therefore, we provide a 2.54mm header, which is welded at the Raspberry Pi GPIO 5V interface for direct power supply, to minimize the cable damaged and pressure drop.





OUTPUT DETAIL

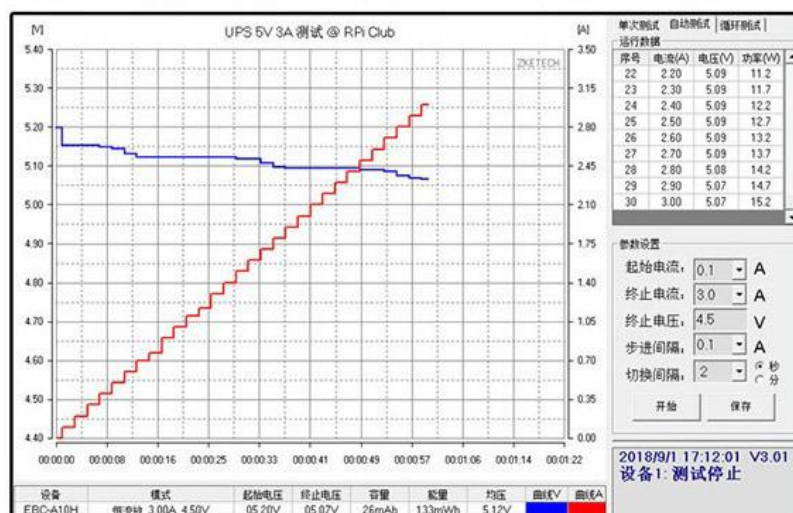
Since the Raspberry Pi is a constant power load, we use the industry's popular electronic load (EBC-A10H) to do current crush testing of UPS charging boards. When the UPS is charging and discharging, the external heavy load can output 5V 3A.



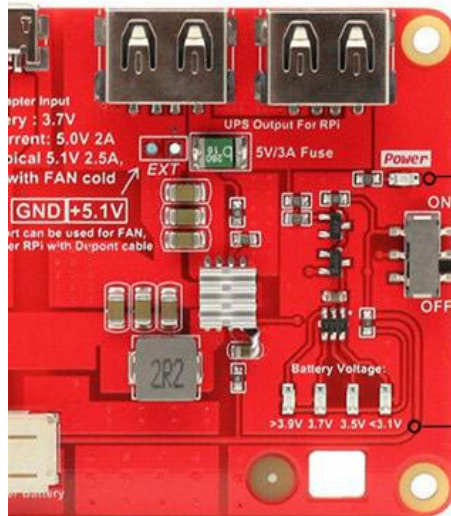
When the UPS is operating in a portable application (the entire system is powered by a lithium battery). The UPS can provide 5V 2.5A to 2.6A drive capability. Which shows that this UPS is enough to applied to the 3B+.



Phased press testing with an electronic load to verify product performance metrics:



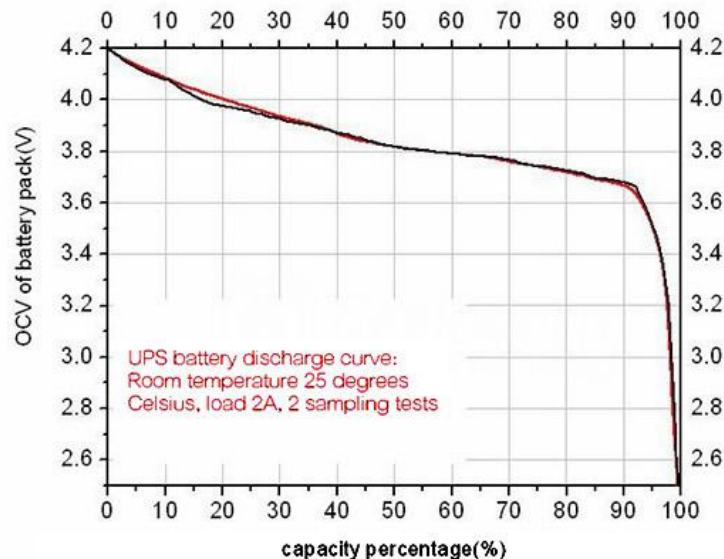
Due to the influence of the line resistance on the wire, when the output current increases, the voltage drop on the wire

**Power LED:**

When switch turn to "on", the LED is lighting, when turn to "OFF", the LED is OF

Battery voltage 4LED:

Used to indicate the current voltage battery and battery level.



4 LED: Capacity>80%, Voltage>3.9V

3 LED: 50%>Capacity>80%

2 LED: 20%>Capacity>50%

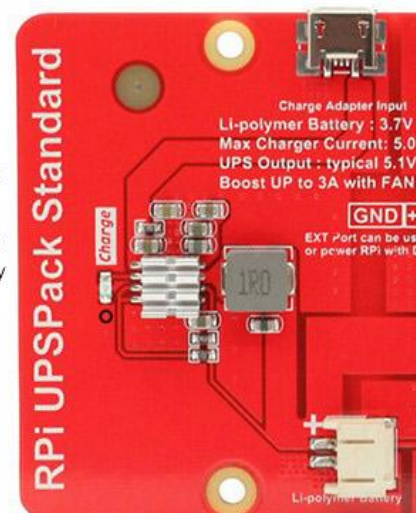
1 LED: Almost exhausted and it needs to be recharged in time.

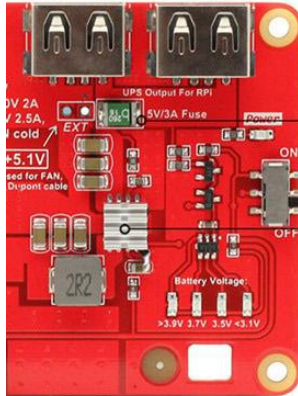
Charge charging indicator:

When the UPS is externally charged via the MicroUSB interface, the Charge light starts to work. The PMU will first determine the battery voltage. When the battery voltage is close to 4.2V \pm 0.2 (indicating that the battery is fully charged), the Charge light is always on. When the battery is not fully charged, or when the UPS is charging while charging, the Charge light will flash continuously. (Indicating that the lithium battery is charging.)

Remarks:

The battery power 4LED and Charge LDE can be used together to observe the battery voltage, and it can also be judged whether the battery is full when the charge light is always on.





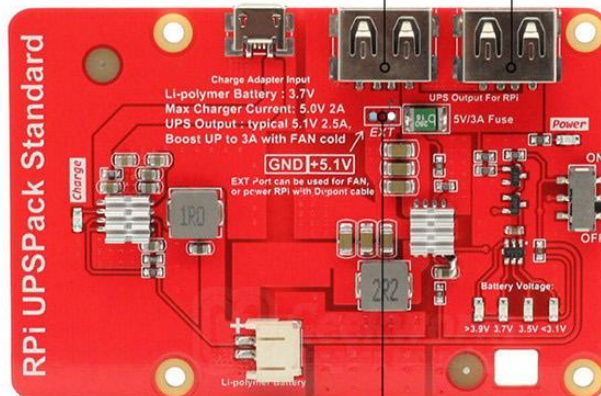
5V3A self-recovery fuse:

When 2 USB output ports, the total current reaches 3A, the self-recovery fuse will be blown. When the external recovery is no load, the 5V output will be automatically restored.

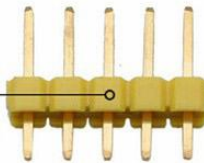
PMU over-discharge protection:

When the lithium battery voltage is lower than 2.8V, PMU believes that the battery has been over-discharged and automatically cuts off the 5V output. Thereby achieving the protection of the lithium battery.

2 regular USB output ports, which can power the Raspberry Pi via MicroUSB port.



In the high-power applications, cable damaged will cause lightning bolts on the raspberry pi. So we send a 2.54mm header as gift, you can weld it to the 2.54mm header interface, use the DuPont cable to directly power the Raspberry Pi GPIO, and maximize the internal resistance of the USB line to solve the cable damaged and voltage reduction problem.



Application

used with raspberry pi 3 b+

