

Lithium Battery Charging Board

Overview



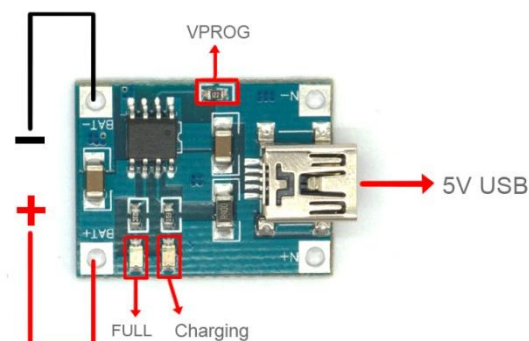
The module is used for charging of single lithium battery or multiple lithium batteries in parallel, and the charging port can take power from the USB port.

Specifications

Charging mode: linear charging 1%
 Charging current: 1A Adjustable
 Charge accuracy: 1.5%
 Input voltage: 4.5V-5.5V
 Full charging voltage: 4.2V
 Charging indicator: red for charging, green for full
 Input interface: mini USB
 Working temperature: -10 °C to +85 °C
 Reversible: no
 Weight: 10g
 External dimension: 25 * 19 * 10mm

Charging current regulating

The charging current can be regulated by adjusting resistance value of RPROG. The relationship between resistance value and current value is shown in the table below :





Current regulating	
R _{PROG} (k)	I _{BAT} (mA)
30	50
20	70
10	130
5	250
4	300
3	400
2	580
1.66	690
1.5	780
1.33	900
1.2	1000

Notes

- 1) The ammeter for testing current can only be connected in series with 5V input port of charging board.
- 2) It is better to adjust the charging current to 0.37 times of the battery capacity. For example, to charge a 1000mAh lithium battery, it is preferable to use 3K resistor for R_{PROG} and to adjust the charging current to 400mA.
- 3) If the input voltage is a little bit high, such as 5.2V or even 5.5V, it will cause the charging current to be less than 1000mA, which is normal. Due to high voltage, the chip will be heated and the charging current will be automatically decreased, thus the chip will not be burned. If the charging current is a little bit large, the chip will be heated during working, but 60 degrees is normal.
- 4) Reverse connection at input will have no effects on the chip, while reverse connection at output (battery terminal) will burn the chip.