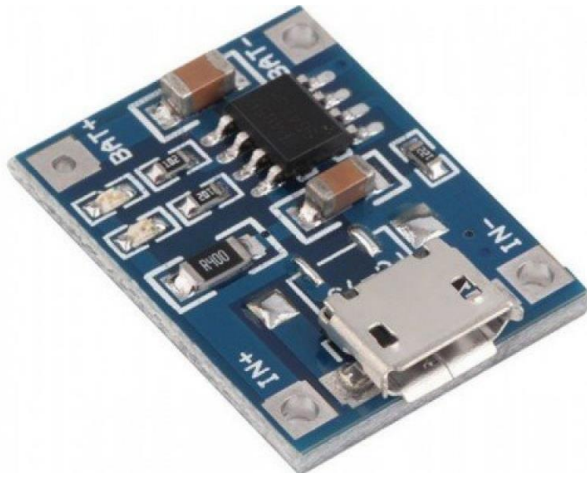# TP4056 Battery Charger Module

# Without Overcurrent Protection



## Description:

The TP4056 1A Li-Ion Lithium Battery Charging Module Micro B USB is a 3.7V lithium battery charger module has onboard Micro USB interface. With Micro-USB onboard connector, you can directly connect to computer USB port for battery charging. If USB is not available you can use an external source voltage at IN+/IN- pads, great for DIY projects. It is small size and lightweight.

TP4056 Other features include the current monitor, under-voltage lockout, automatic recharge, and two status pin to indicate charge termination and the presence of an input voltage.

## Note:

- This breakout board does not have overcurrent protection.

- Connect Ampere meter in series with 5V input end.

- The charging current is best to be 0.37 times of the battery capacity,

- Charging wire cant be too thin or too long while interfacing.

- Make sure the board has good contact with the battery.

- Chip at work about 60 degrees fever is normal.

- Input reverse connection has no effect on the chip. Rather the output (batteries) reverse connection will burn out the chip.
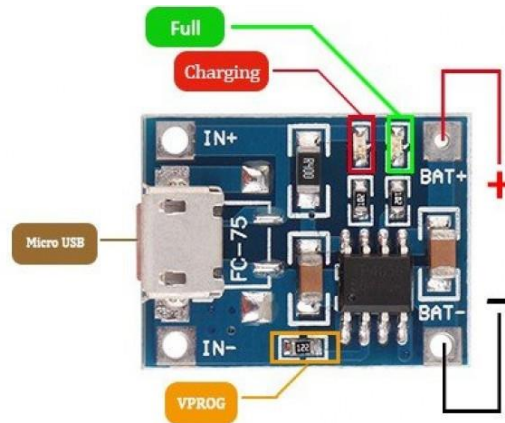


## Features:

Charging indicator: LED indicators for charging and full charging.

Charge Current: 1A (default), modify the onboard resistor to adjust the charging current according to the table below.

Use mature charging chip TP4056 for simple peripheral circuits, good protection performance, and high charging accuracy.

Fully machinery automated processing, all patch parts manufacturing.

Charging current can be adjusted by just changing the circuit boards fixed resistors. It can change the output to the 100mA-1000mA, very conveniently.

### Rprog Current Setting

| $R_{PROG}$ (k) | $I_{BAT}$ (mA) |
|---|---|
| 10 | 130 |
| 5 | 250 |
| 4 | 300 |
| 3 | 400 |
| 2 | 580 |
| 1.66 | 690 |
| 1.5 | 780 |
| 1.33 | 900 |
| 1.2 | 1000 |
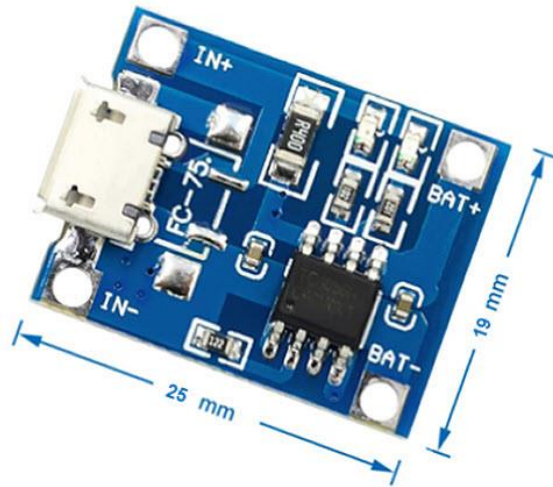
## Specifications:

| | |
|---|---|
| Charging accuracy (%) | 1.5 |
| Charging method | Linear |
| Full Charge Voltage (V) | 4.2 |
| Input Voltage (V) | 4.5-5.5 |
| Length (mm) | 25 |
| Operating Temperature (°C) | -10 to 85 |
| Rated Power (W) | 4.2 |
| Width (mm) | 19 |