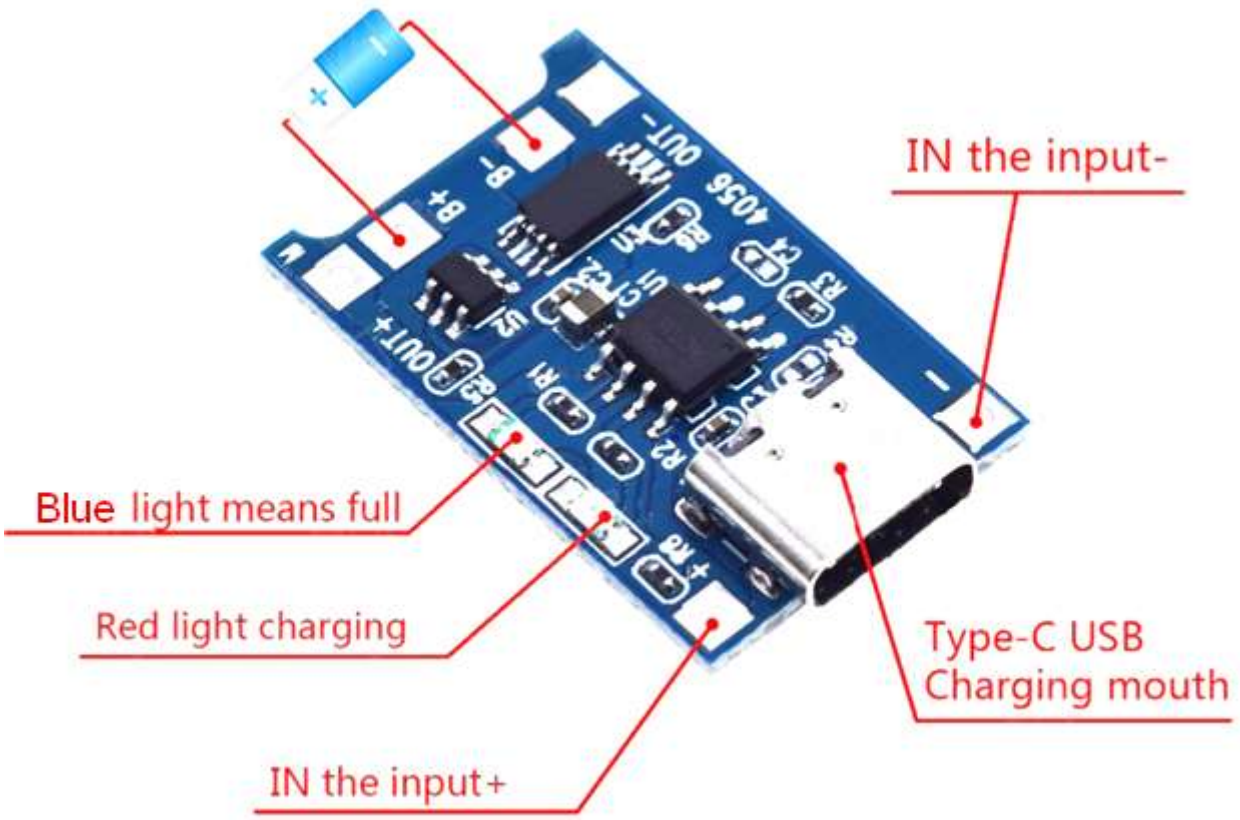
1S 4056 BMS and USB Type C Connector

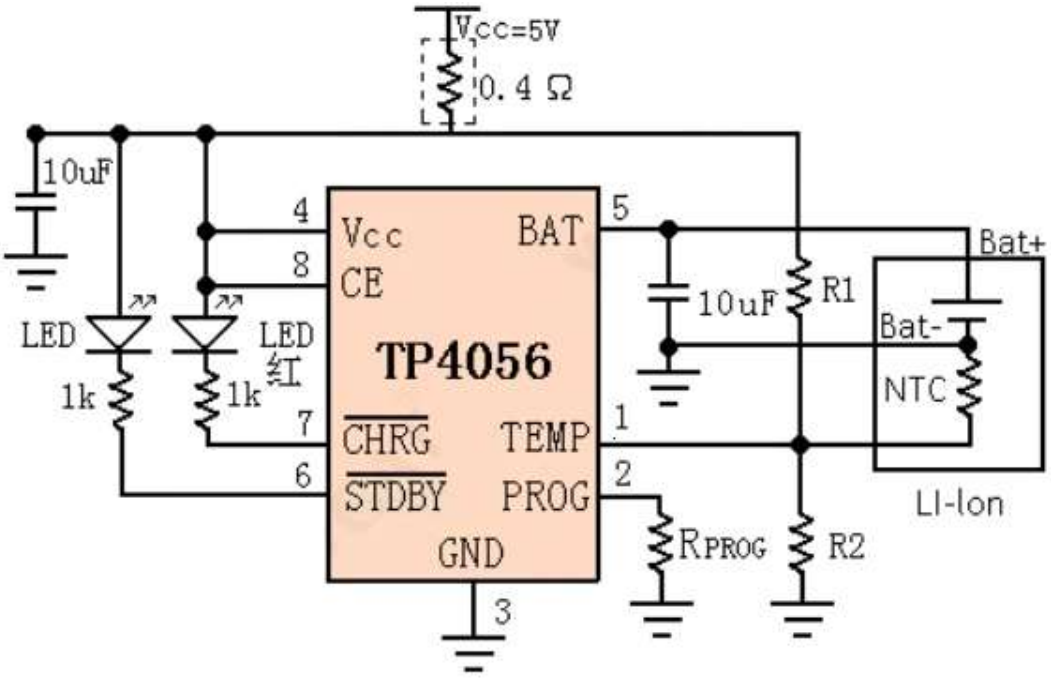
Overview

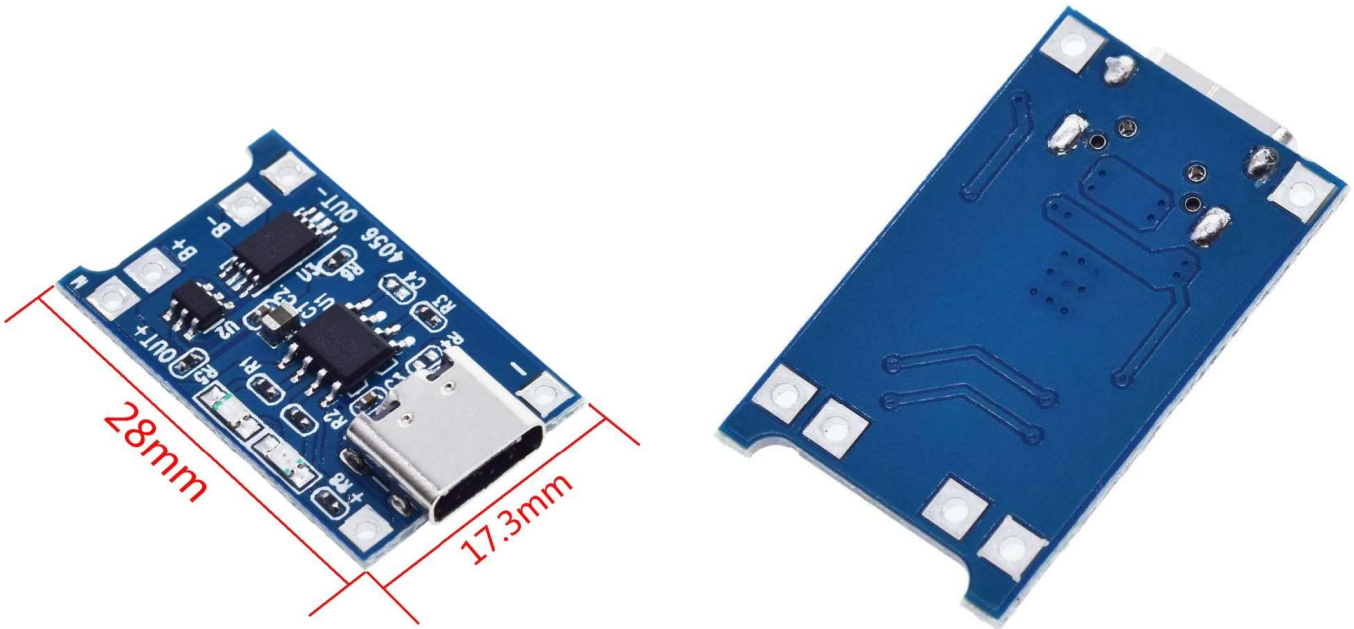
The Li-ion 1S BMS (Battery Management System) battery charger module is based on the TP4056 chip. The TP4056 sets the charge, battery over-charge, over-discharge and over-current protection, all in one small module. Input power is provided via the on-board USB Type C connector or 5V input soldering pads. Charging status is indicated via on-board LED's.

Specifications

- Chip: TP4056
- Input Voltage: 4.5 - 5.5V
- Charging Cut-off Voltage: 4.2V ±1%
- Maximum Charging Current: 1A
- Battery Over Discharge Protection Voltage: 2.5V
- Battery Over Current Protection Current: 3A
- Charge Mode: Linear charging
- Charge precision: 1.5%.
- Charging Status LED's: Red: charging, Blue: fully charged.
- Input interface: USB Type-C or 5V pads
- Work temperature: -10 to +85°C
- Inverse Polarity Protection: NO
- Board Size: 28 x 17.3mm (L x W)







Input power is via either the USB Type C connector or via the input pads. When input power is applied, the LED nearest the USB connector will illuminate BLUE. When a load or battery is connected, the RED LED will illuminate and the BLUE LED will extinguish.

The 18650 battery leads are connected to the B+ and B- pads. Connect the load to the OUT+ and OUT- pads. The RED LED illuminates to indicate the battery is being charged. The battery will charge with a current of up to 1A. As the charge voltage approaches the maximum (4.2V), the charging current drops, until it reduces to near zero current.

When the battery is fully charged, the BLUE LED will illuminate and the RED LED will extinguish.