

# Icstation Dual USB 5V 1A 2.1A DIY Power Bank

## Mainboard 18650 Battery Charger PCB With LCD Display

### 1.Description:

Lithium battery charging module. It is a Step up Power Module.Input 3.5V-4.2V to 5V.It can provide a stable 5V output power.It is used for phone charge or mobile power, suitable for going out or traveling.

### 2.Features:

- 1>.LCD display.
- 2>.Blue indicator light, automatically extinguished in 15 seconds.
- 3>.LED three lighting modes.
- 4>.Disable output.
- 5>.Input/Output indicator.
- 6>.Micro USB Input.
- 7>.Two standard USB output.

### 3.Parameters :

- 1>.Input Battery Type:Lithium battery
- 2>.Input battery voltage:3.5V-4.2V
- 3>.Output:DC 5V/1A or 5V/2.1V
- 4>.Display: LCD
- 5>.Size:66\*18\*16mm
- 6>.Operating temperature: -20~85Celsius
- 7>.Storage temperature : -20~85Celsius

### 4.Key description:

- 1>.Press the button twice,LED on and enter Full bright mode.
- 2>.Press again for one time,LED brightness decreases, showing 25% brightness.
- 3>.Press again for one time,Flashing LED.
- 4>.Press the button twice,LED OFF.
- 5>.Module will stop work and stop output when keep press for long time(5second) during charging.

### 5.Instructions:

Step 1:Connect lithium battery:Positive connect to 'B+' ;Negative connect to 'B-' ;Note:there are two 'B-' on PCB,You can choose any one.

Step 2:Press button to do a test;

Step 3:Connect load from standard USB or charging for battery from Micro USB.

### 6.Using attention:

- 1>.The backlight will Keep on for 15 second then it will OFF automatically and enters power

saving mode.

2>.Please input voltage from micro USB if there is no output from standard USB after connect battery.It is used to activate the module.

3>.The battery can not be reversed, otherwise it will damage the module.

4>.LCD will display 'IN' if input current less than 1A;It will display 'IN 5V1A' if input current more than 1A;It will display 'IN 5V2.1A' if input current more than 2A;Motherboard automatically converts display charging current.

## 7.Application:

1>.Traveling

2>.Backup power

3>.Illumination

4>.Emergency Power Supply

## 8.Frequency asked questions:

1>.What kind of battery to choose?

Q:It is used for lithium battery.Battery can not be built-in protection board.The following battery is not suitable:Old battery;New and old hybrid batteries;Different capacity batteries;Different brands

2>.Why no output voltage?

Q:Please input voltage from micro USB if there is no output from standard USB after connect battery.

3>.What is the conversion efficiency?

Q:About 80% for new real battery.

4>.Why does the charger lose power or shut down automatically?

Q:Poor battery quality, high internal resistance.You can change new battery or use better cable or output high current.It can change another USB output to connect to load.The two USB output:left one maximum output 1A;right one maximum output 2.1A.

5>.Why doesn't the charge when charge up to 99%?

Q:If it is a new battery,please discharged for the first time and then shutdown the module.Then recharging.

If it is the old battery,please discharged again and recharged once.If it is still the same, it is because of the large internal resistance of the battery and the inconsistent capacity.

6>.Why the percentage display is inaccurate?

Q:Please discharged at first and then recharging.