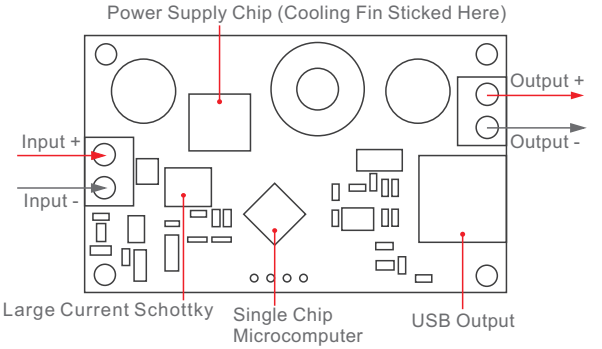
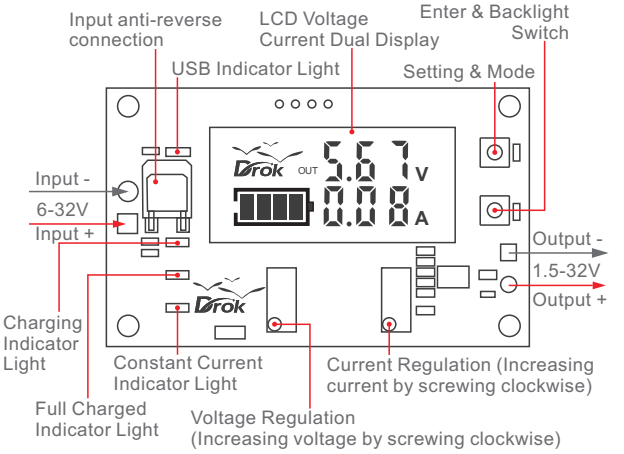
180078/180080

DROK Buck Converter

http://www.Droking.com

Module Description:





Parameter:

Input Voltage: 6~32V

Output Voltage: 1.5~32V

- Input voltage should be at least 1.5V higher than output voltage.

Output Current: 5A (max), adjustable, recommended to use within 4.5A.

- More than 3A or 35W, please enhance heat dissipation.

Output Power: 75W (max), recommended to use within 50W.

- Please reduce the power when voltage difference is large.

Accuracy: 0.01V, 0.01A

Display: three-digit LCD display

Operating Temperature: -20~+70℃

Operating Frequency: 180kHz

Conversion efficiency: up to 96%

Installation: 8x copper columns, 8x 3mm silk

Wiring: terminals or soldering terminals; VIN is input; VOUT is output.

Dimension: 65.6 x 40 x 25mm

Protection:

Short circuit protection: Yes (currently constant current value)
Over temperature protection: Yes (automatically turn off the output if over-temperature)

Input reverse polarity protection: Yes

Output anti-backflow: None, please add a diode if used for charging.

Constant current mode:

Constant current function is mainly used for low internal resistance battery charging current limiting or LED working current limiting.

The constant current mode doesn't mean that it can output exact 2A whenever the current is adjusted to 2A.

Precondition of constant current mode:

- actual output current of the load is larger than the set constant current value;
- output voltage is higher than 2V.

Current regulation can only be performed in the status of constant current.

Calibration Instructions:

If you find that the measuring values are not accurate, please do as follow:

Voltage Calibration:

- In the condition of power off, hold press the “SET” button and power on, enter the voltage calibration mode, the LCD screen starts to flash.
- Release the “SET” button, press “SET” button to increase voltage value and “ENT” button to reduce, till the display input voltage value is correct.
- It will automatically be saved after 2 seconds, then power off the module and finish calibrating.

e.g. If input voltage is 12.65V, adjust the voltage value to 12.65V.

Current Calibration:

Applicable for no-load with current displays or when the current is slightly large.

Current regulation can only be performed in the status of constant current.

- In the condition of power off, hold press the “ENT” button and power on, enter the current calibration mode, the LCD screen starts to flash.
- Release the “ENT” button, press “SET” button to increase current value and “ENT” button to reduce, till the display current value is correct.
- It will automatically be saved after 2 seconds, then power off the module and finish calibrating.

e.g. If displays 0.02A with no load, adjust the current value to 0.00A.

Display Description & Setting:

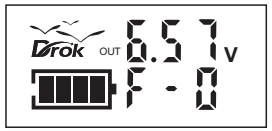
“SET” button can set 4 display modes:

- F-0 mode: Display output voltage
- F-1 mode: Display input voltage
- F-2 mode: Alternately display input and output voltage
- USB mode: Display USB output voltage and turn on or turn off USB output

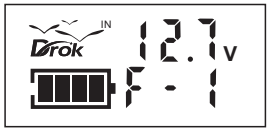
Instructions:

Press the “SET” button, the four display modes would be displayed cyclically, and the corresponding indicator would be on or off, press the “ENT” button to save and exit.

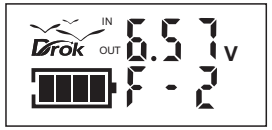
Singly press “ENT” button can turn on/off the LCD backlight.



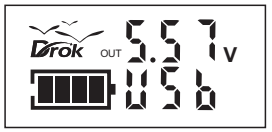
F-0 mode: Display output voltage



F-1 mode: Display input voltage



F-2 mode: Alternately display input and output voltage



USB mode: Display USB output voltage and turn on or turn off USB output

USB Output:

- When the USB indicator is off, it means that there is no USB output.
- When the USB indicator is on, the USB output is consistent with the module output voltage instead of 5V fixed, please adjust it to 5V before charging your USB device.
- If it is higher than 5.5V, the screen will flash. You need to adjust the voltage, or it will cause damage to your device.
- USB output is off by default to ensure that it will not cause damage to your device when you plug the USB by mistake.

Cautions:

- The input and output of the module cannot share the same ground.
  If input and output share the same ground, the current sample resistance on the module will be bypassed, and the module output current cannot be adjusted, hence the power supply chip on the module will be easily burned when connected with load.
- Output is set as around 20V before leaving factory, if your input is lower than that, please turn potentiometer anticlockwise for 10 laps or more until voltage changes.
- Since there is a current sampling resistor on the output, after the load is connected, there will be a voltage drop of 0~0.2V. This is a normal phenomenon.
- If exceed 3A or 35W, please enhance heat dissipation. It is recommended to add a fan at input.

Recommend product on Amazon:

DC Multimeter

Any questions please contact us through Amazon: