

MP1584EN 3A Step Down Voltage Regulator Buck Converter / Adjustable



Introduction

The Mini MP1584 DC-DC 3A Adjustable Buck module is an ultra-small adjustable output DC to DC step- down buck converter. It used an MP1584EN high frequency switching regulator and integrated high voltage power MOSFET. It is a suitable replacement for physically larger modules based on the LM2596. Wide input voltage from 4.5v to 28v and an adjustable voltage from 0.8v to 20v, input voltage must be >1.5v higher than the output voltage. Capable of driving a 3A load with excellent line and load regulation. Ideal for battery operated projects requiring an efficient regulated power supply.

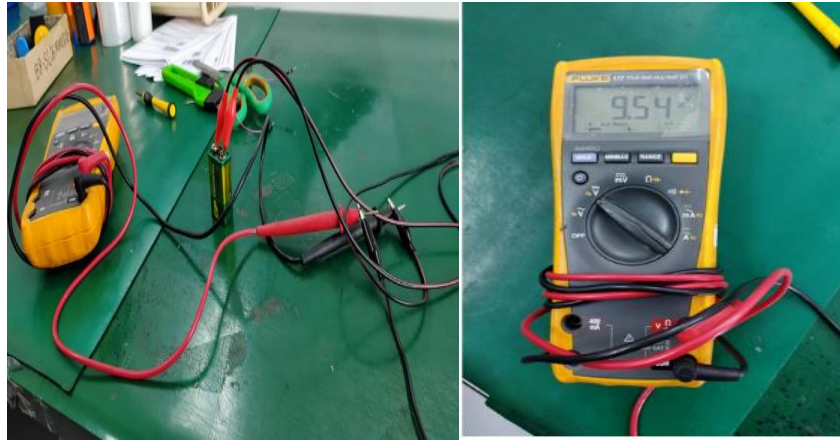
Specifications:

- Input Voltage: 4.5V – 28V
- Output Voltage: 0.8V – 20V (adjustable on-board potentiometer)
- Output Current: 1.8A (typical), 3.0A (max)
- Switching frequency: 1MHz
- Output ripple: <30mV
- Efficiency: 96%
- Ceramic Capacitor Stable
- Internal Soft-Start
- Internally Set Current Limit without a Current Sensing Resistor
- Size: 22*17*4mm

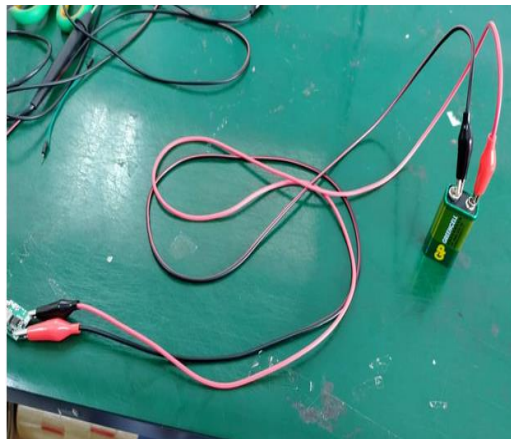
Objectives:

To control the step-down voltage of the input power.

Procedure:



- 1) The value of the battery was measured and the value was shown in the figure above.



- 2) The battery was connected to the input power of the buck converter using a crocodile clip.



- 3) The output of the buck converter was connected to the digital multi-meter using the crocodile clip.



- 4) The measurement value was shown in the digital multi-meter.