

## INTRODUCTION

This is a 20W adjustable DC-DC buck converter module with digital display. It is based on LM2596 3A step-down voltage regulator and supports an input of 0~40V DC with an accuracy of  $\pm 0.05V$ .

On a regular buck converter there is no display and you have to measure the output manually with a multimeter, which can be slow and inefficient. This buck converter has a display with the output voltage readout integrated right in to the board. You can change the output by adjusting a screw potentiometer that is also integrated on to the board. Simple!

This module can be used in DC applications such as batteries, power transformers, DIY adjustable power supplies, 24V vehicle power supplies, industrial equipment, 12V to 3.3V, 12V to 5V, 24V to 5V, 24V to 12V, 36V to 24V and so on.

The on-board voltage meter supports self-calibration mode. You only need to calibrate it once and the value will be stored automatically. The method is as follows:

1. Hold the button for 3 seconds. Release the button to enter input voltage calibration mode ("IN" is ON) ; Hold the button for 3 seconds and release the button to enter output voltage calibration mode ("OUT" is ON); hold the button for 3 seconds, and release the button to exit calibration mode, all parameters will be save automatically.
2. In calibration mode, click the button to adjust the value.

## FEATURES

- Supports self-calibration function to provide high-precision voltage output. (Recommended input voltage is maintained at 4.5V or more)
- Touch the button to switch the measurement input or output voltage, and an indicator shows which voltage is being measured.
- The display can be disabled if necessary. Hold the button for 2 seconds, and release the button to turn off the display
- With wire terminals, no soldering is necessary
- The input voltage is 4.0 ~ 40V. (The input voltage must be 1.5V higher than the output voltage)
- Continuously adjustable output voltage range of 1.25V ~ 37V. (The input voltage must be 1.5V higher than the output voltage)
- The Maximum output current is 3A, it is recommended to use within 2.0A, higher currents will need a heatsink to dissipate heat.
- The output power is 20W. For more than 15W a heatsink is recommended.
- The unit offers high conversion efficiency, with an average of 88%
- The unit includes reverse polarity protection, overheating protection and short circuit protection

## SPECIFICATION

- Input Voltage: 4.0 ~ 40V

- Output Voltage: 1.25V ~ 37V
- Output Power: 20W
- Output Current: 3A
- Mounting Dimensions: 6.1 \* 3.1cm/ 2.4 \* 1.22 inches (L x W)
- Dimension: 6.6 \* 3.6 \* 1.2cm/2.59 \* 1.42 \* 0.47 inches
- Weight: 22g

## **SHIPPING LIST**

- 20W Adjustable DC-DC Buck Converter with Digital Display x1