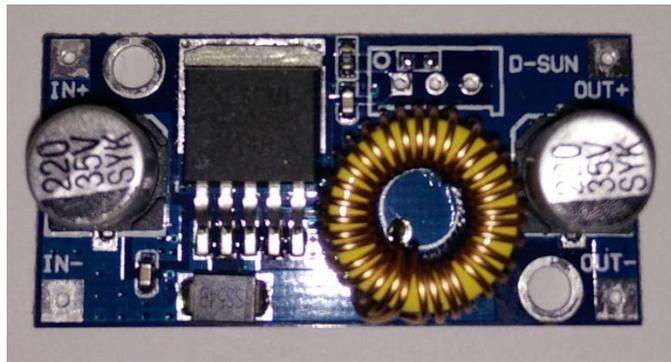# DC-DC Step Down Adjustable Power Supply Module

Features

- **Module Properties:** Non-isolated step-down module (BUCK)
- **Rectification:** Non-synchronous rectifier
- **Input Voltage:** DC 5V-30V
- **Output Voltage:** DC 0.8V-24V (Adjustable, Output < Input)
- **Output Current:** Rated current is 2.5A, (5A Max, If current is larger than 2.5A, enhancement of heat dissipation is required.)
- **Output Ripple:** 30 mV(maximum)
- **Load Regulation:** ±0.5%
- **Voltage Regulation:** ±2.5%
- **Operating Temperature:** -40°f ~ +85°f

Documentation

- Tutorial PDF

Quick Start with DC-DC Step Down

The DC-to-DC step down module is very useful for adjusting input VCC for modules operating in a system where the overall system VCC is greater than the VCC_{max} for the module. In this tutorial will use the DC-to-DC module to swing the input voltage to the ADC of a Teensy 2.0 micro-controller.

Tools:

- DC-DC Step Down Adjustable Power Supply Module
- Male header
- Female to female jumper wires
- Teensy 2.0 microcontroller
- USB to USB-mini
- DMM
- Flat-head screwdriver

Steps:

1. Solder male header pins to IN+, IN-, OUT+, OUT- on the module.

2. Using the jumper wires connect the Teensy to the DC-to-DC step down module. Be sure to connect the micro-USB to USB cable to your Teensy 2.0 and to your computer.
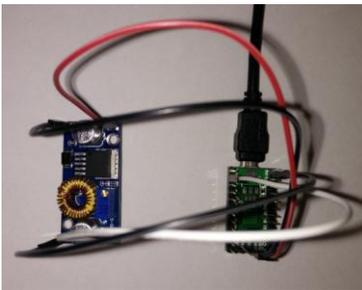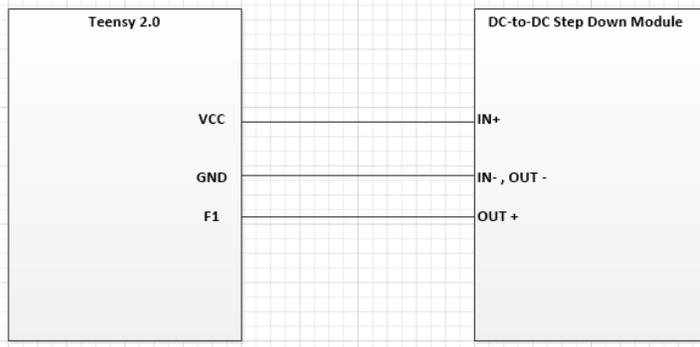

3. Load the example code DC_DC_Stepdown_Demo.hex on to the teensy using the Teensy bootloader. Click file and navigate to the .hex file and select it. Press the activate button on the Teensy 2.0 and click "load".

   The example code sets up the ADC on the Teensy and UART communication via the mirco-USB port on the Teensy. Then it outputs the voltage reading from the ADC over UART.

4. Open a USB serial communication terminal software (I recommend Termite). Configure the settings as follows: BAUD rate to 9600, Data Bits to 8, Stop bits to 1 and click "ok".
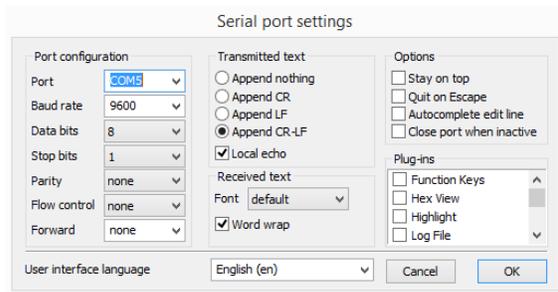
5. Watch the ADC voltage readings from the DC to DC step down module change as you turn the potentiometer.
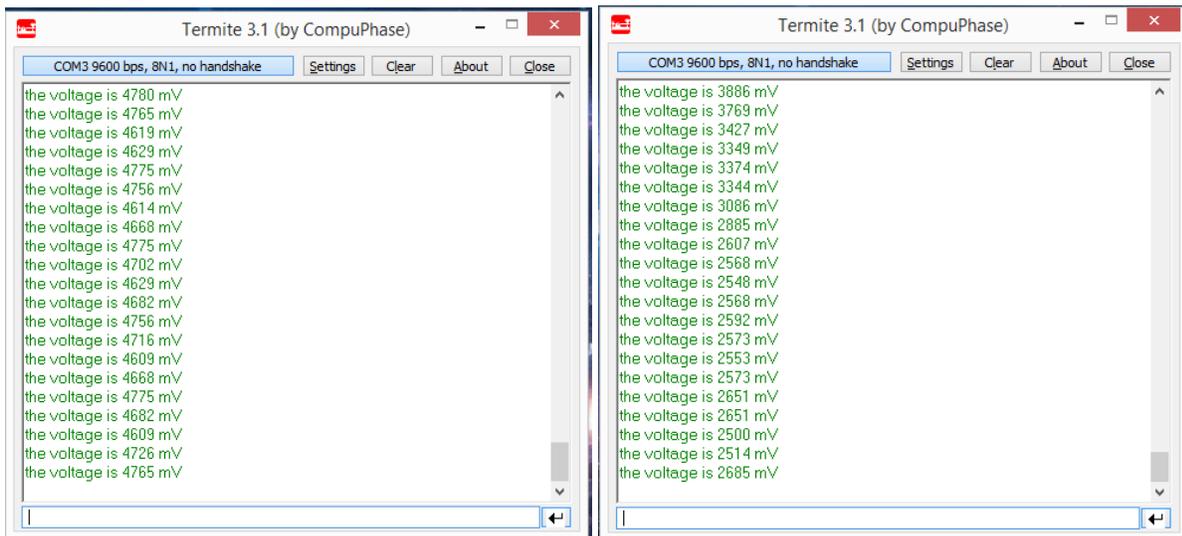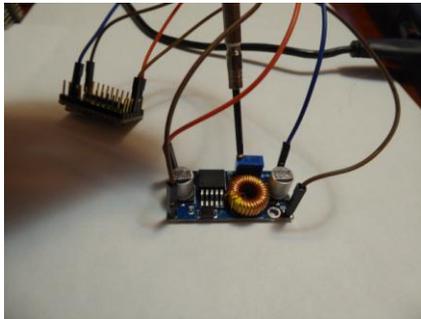
6. Congratulations you have now successfully stepped down the 5V input voltage.