

EE419/519 Project Part 3

(Due December 17, 2024)

Mount and solder your components on the manufactured PCB. Solder red and black wires for input power supply connection. Screw the load resistor(s) into the output terminal.

Include the following in your PDF report:

1. A photo of the mounted and soldered PCB (top and bottom sides)
2. A photo of the input power supply showing the voltage and current.
3. A photo of the output voltage measurement using the multimeter.
4. An oscilloscope photo of the switch voltage for one or two cycles.
5. An oscilloscope output voltage photo showing the ripple amount.
6. An oscilloscope output voltage photo of the power turn-on transient (record using a slow oscilloscope horizontal scale using the single triggering option with the rising edge.)
7. A calculation of the efficiency from the output voltage and input power supply power.