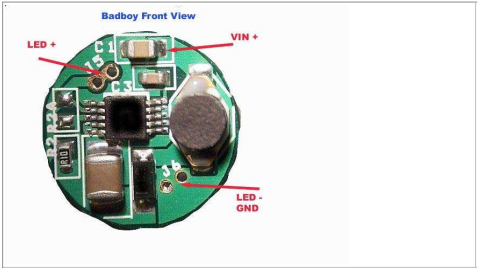
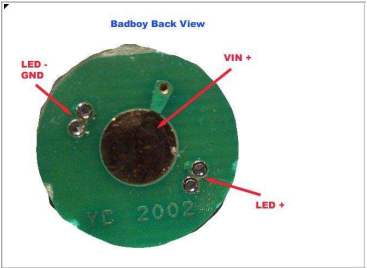

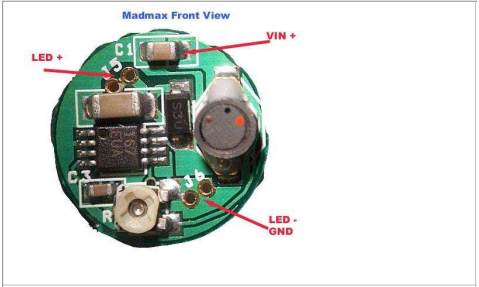
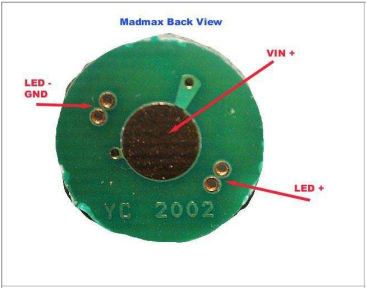
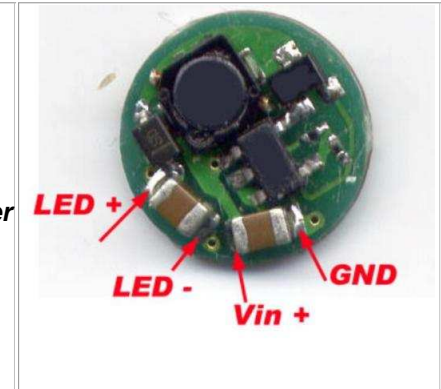
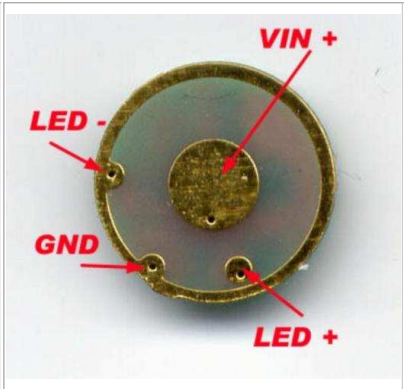


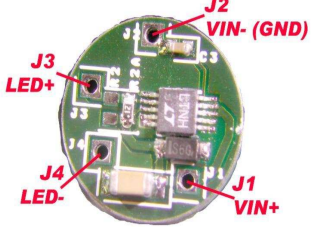
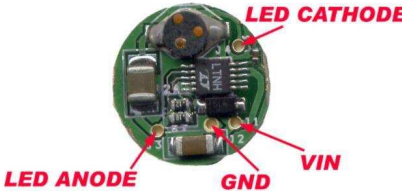
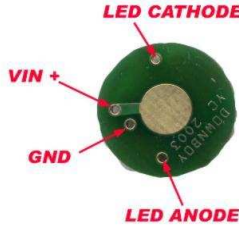

Below are images of the front and backside with wiring locations identified.

Step Up Converter Boards

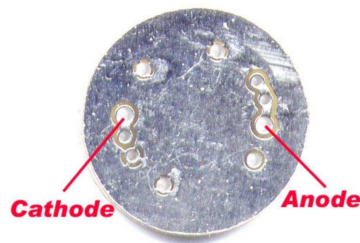
Badboy	 <p>Badboy Front View</p> <p>LED +</p> <p>VIN +</p> <p>LED - GND</p>	 <p>Badboy Back View</p> <p>LED - GND</p> <p>VIN +</p> <p>LED +</p>
Badboy Revision 4	 <p>LED +</p> <p>Vin</p> <p>LED -</p> <p>GND</p>	
Madmax	 <p>Madmax Front View</p> <p>LED +</p> <p>VIN +</p> <p>LED - GND</p>	 <p>Madmax Back View</p> <p>LED - GND</p> <p>VIN +</p> <p>LED +</p>

Micro Converter	 <p>LED +</p> <p>LED -</p> <p>Vin +</p> <p>GND</p>	 <p>VIN +</p> <p>LED -</p> <p>GND</p> <p>LED +</p>
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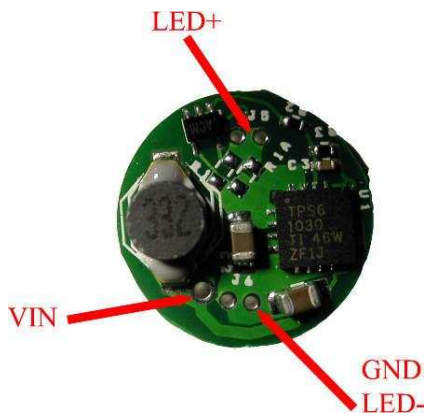
Step Down Converter Board

<p>Down Boy</p>	 <p>A circular green PCB with various components. Labels with red arrows point to: J2 VIN- (GND) at the top, J3 LED+ on the left, J4 LED- at the bottom left, and J1 VIN+ at the bottom right.</p>	
<p>Down Boy Revision 2</p>	 <p>A circular green PCB. Labels with red arrows point to: LED CATHODE at the top, LED ANODE at the bottom left, GND at the bottom center, and VIN at the bottom right.</p>	 <p>A circular green PCB. Labels with red arrows point to: LED CATHODE at the top, VIN + on the left, GND at the bottom left, and LED ANODE at the bottom right.</p>
<p>Down Boy Revision 3</p>	 <p>A circular green PCB. Labels with red arrows point to: GND at the top, LED- on the left, and LED+ on the right.</p>	

Emitter Board

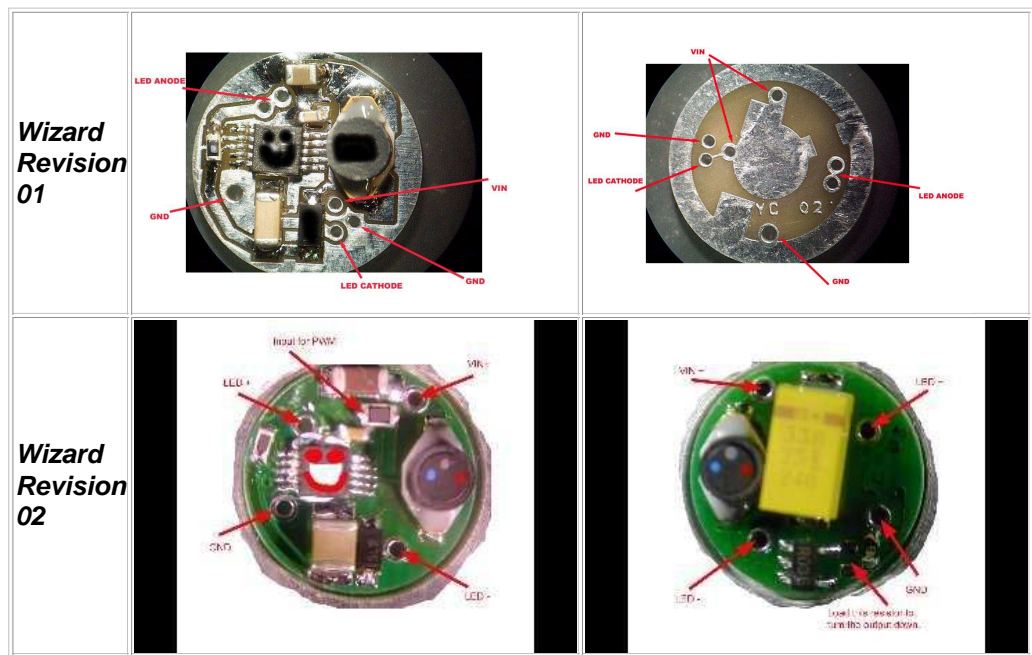


Nexgen



Wiz2

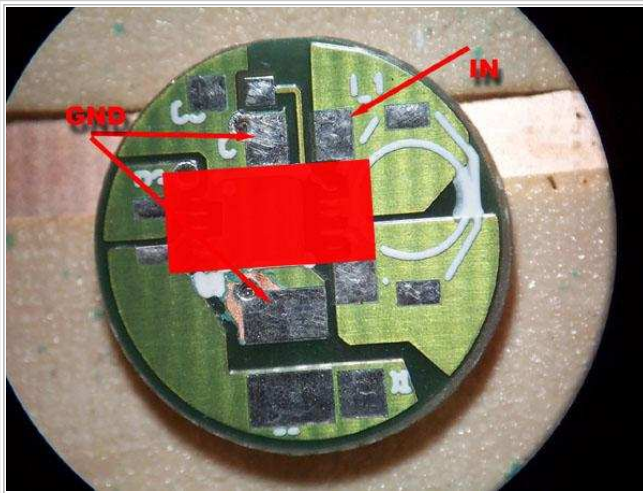
Step Up/Down Converter Boards



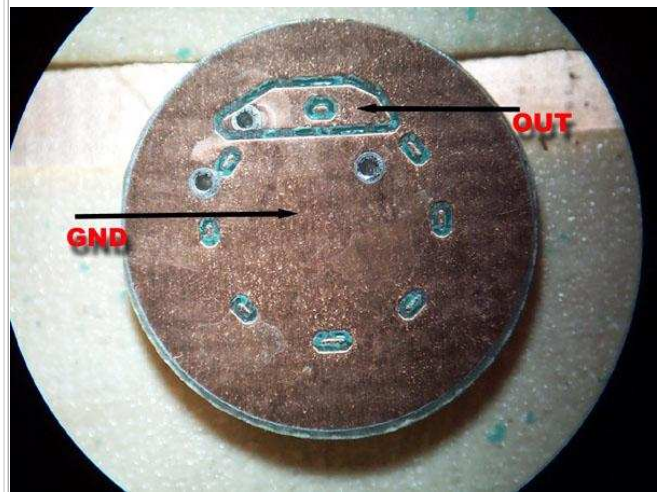
NOTE: Wizard Revision 2 boards do not have all the components loaded as in the above image.

BADBOY Board Images

These are some of the earliest protos and are not representative of current boards available.



Front side image viewed under the microscope at 20X magnification.



Back side image viewed under the microscope at 20X magnification.

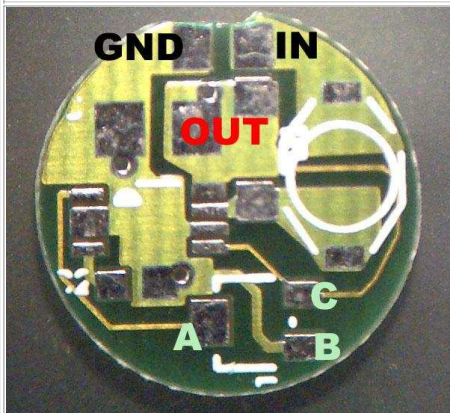
MadMax Board Images



Revision 5A Front view loaded PCB.

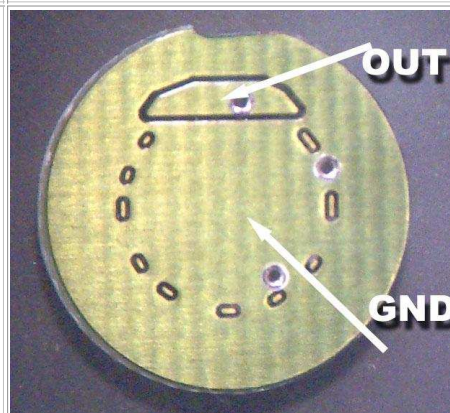


Revision 5A Backside with wires attached.



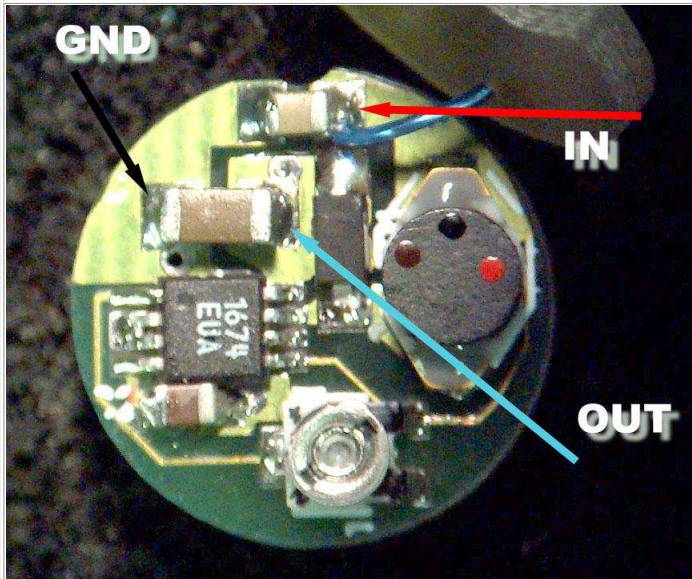
Revision 5b front side view

NOTE: Jumper pads A-B for full throttle (5V output). Jumper pads A-C

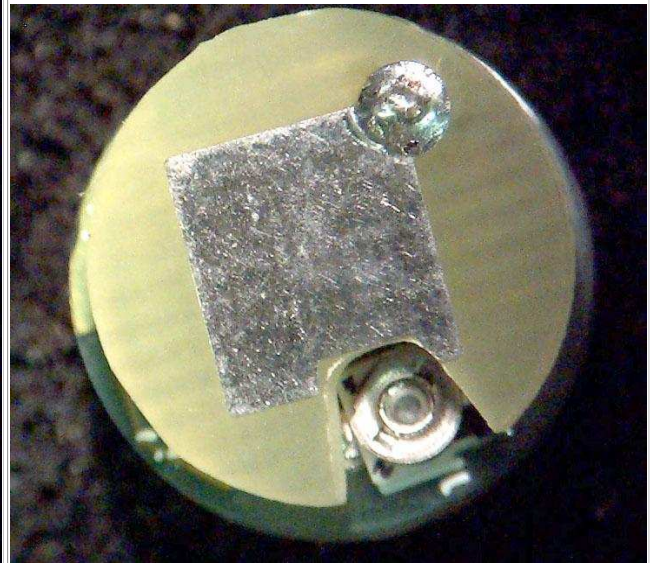


Revision 5b backside view

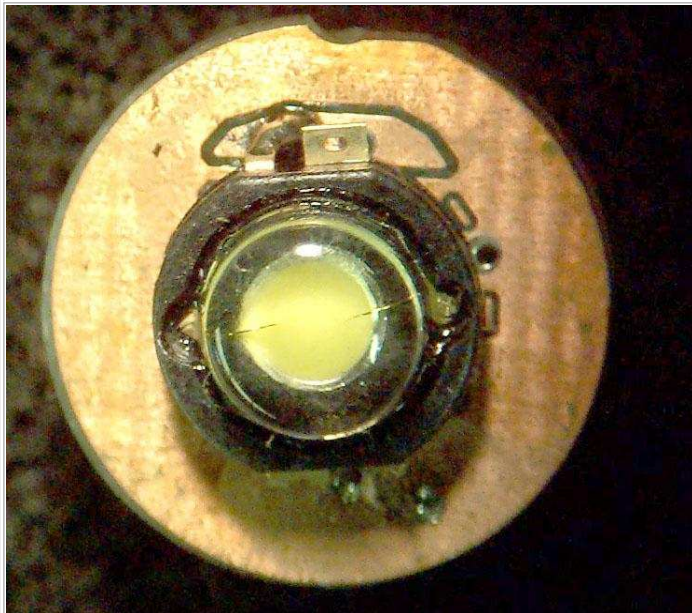
for Vout of 3.3V.



Revision 5b Assembly with anode board open.



Revision 5b Assembly with anode board closed.



Revision 5b backside with Luxeon emitter soldered to board and with [Arctic Alumina](#) heat sink compound.