

ADP1850 PCB design error

As can be seen in the following figure (Fig. 1), VCCO (Pin no. 4) and VDL (Pin no. 5) need to be shorted for normal operation of ADP1850. The VCCO pin provides 5V supply to the VDL pin which acts as the supply for low side switch gate drivers.

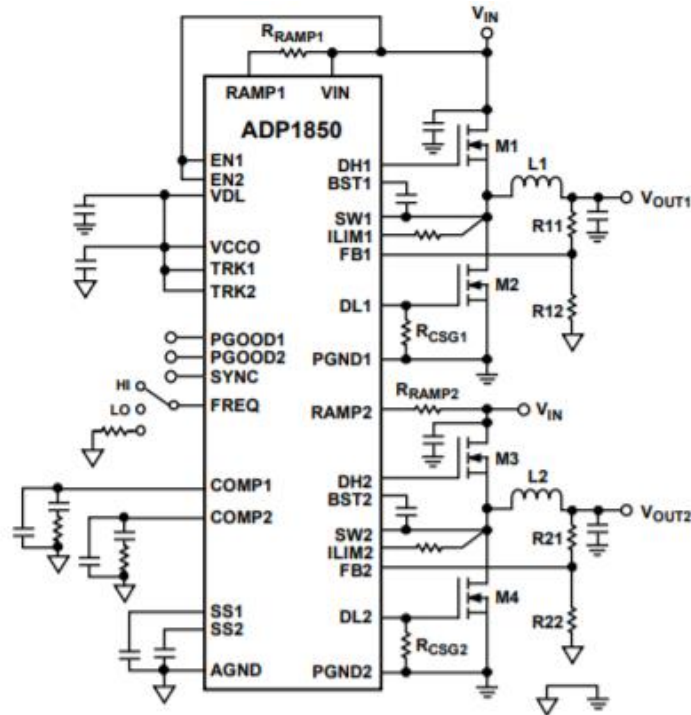


Figure 1: Typical Operation Circuit

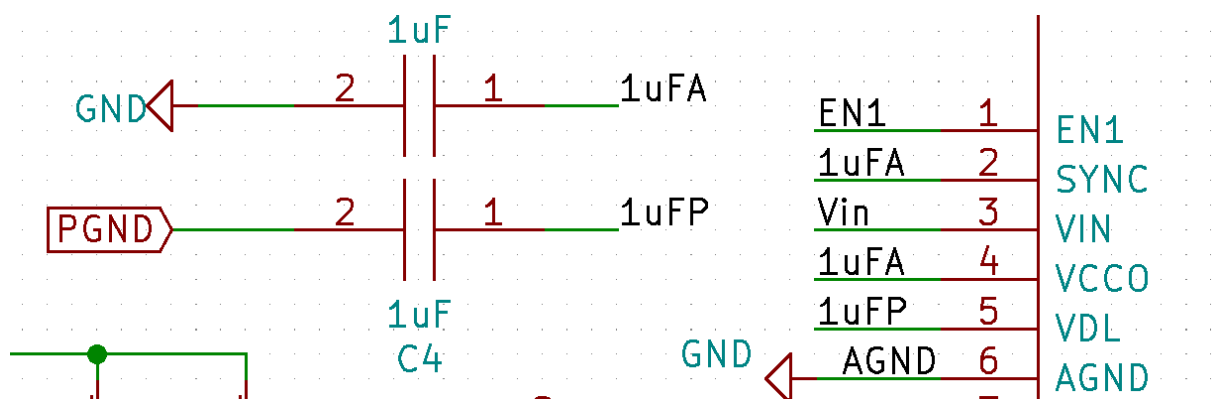


Figure 2: KiCAD PCB Schematic for ADP1850

In the PCB Schematic KiCAD files for ADP1850 the two pins were not shorted which has since been rectified. New Gerber files were generated and uploaded to TIFR's GitLab server.

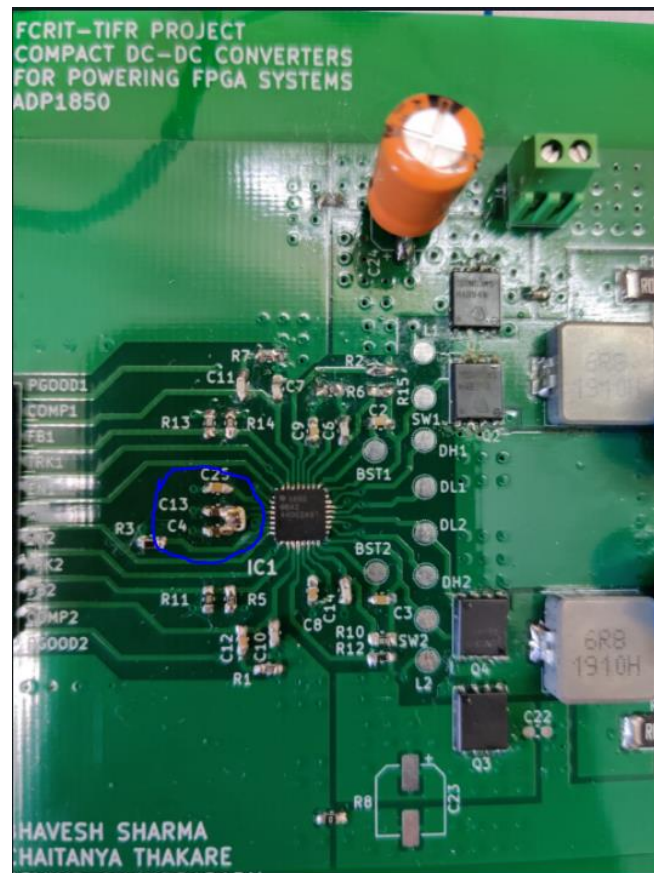


Figure 3: ADP1850 PCB after rectification of error

However, since the soldering of ADP1850's PCB was already done before the realization of the mistake, the two pins were shorted using solder wire at the positive terminals of Capacitor C4 and C13 (encircled in blue).