



Near Space Solar Power Conditioning Module

Multidisciplinary Senior Design

P12408: NSSPCM

Printed Circuit Board Errata

PCB Revision: NSSPCM-PCB-001 REV 1.0

The following errors were discovered with REV 1.0:

- Silk screen of U4
- Connection between output(-) and system ground
- Footprint of U6

Some changes were required to the PBCA to ensure proper operation of the circuitry. The silk screen of the component internal temperature sensor U4 was mirrored on NSSPCM-PCB-001 REV 1.0. The part was placed in the opposite orientation from the silk screen to ensure the proper electrical connections and operation of the circuit. The output of the 12 volt DC-DC converter is electrically isolated from the input. The sensing circuitry on the output line was referenced to the output(-). Therefore, a connection between output(-) and system ground was required so that the sensing circuitry had the same reference as the ADC of the microcontroller. In the layout of NSSPCM-PCB-001 REV 1.0 the footprint of U6 was incorrect. The issue was resolved for this build by placing the part upside down on the PCB and connecting it in a dead-bug style.