ACDC Rev-C Modifications
Tobias Abelmann and Marek Michulka
January 2022

1 Introduction

In the process of testing the ACDC Rev-C data acquisition system, Marek Michulka, Evan Angelico, Paul Rubinov, Joe Pastika, Henry Frisch, and I discovered a number of necessary modifications. This paper serves to document these modifications, so that any unmodified Rev-C cards can be made to work properly.

2 Modifications

1. Replace R1 and R4 with resistors of at least 19.1kΩ (we used 20kΩ and 24kΩ resistors). When making this change, please note that R4 is mislabeled. According to the labels on the board, the resistor labeled C5 — which should be initially populated with a ~ 16kΩ resistor — should be replaced. In the event that this is done wrong, C5, which is labeled R4, should be populated with a 0.1μF capacitor.

2. Replace R29 and R30 with 20mΩ resistors (we used these).

3. Bypass C18 and C20 (remove them and place 0Ω resistors).

4. Add ~ 50Ω pull-down resistors from C104 and C105 to ground as shown here.

5. Remove R36 and add ~ 50Ω pull-down resistors from each pad of R36 to ground as shown here.