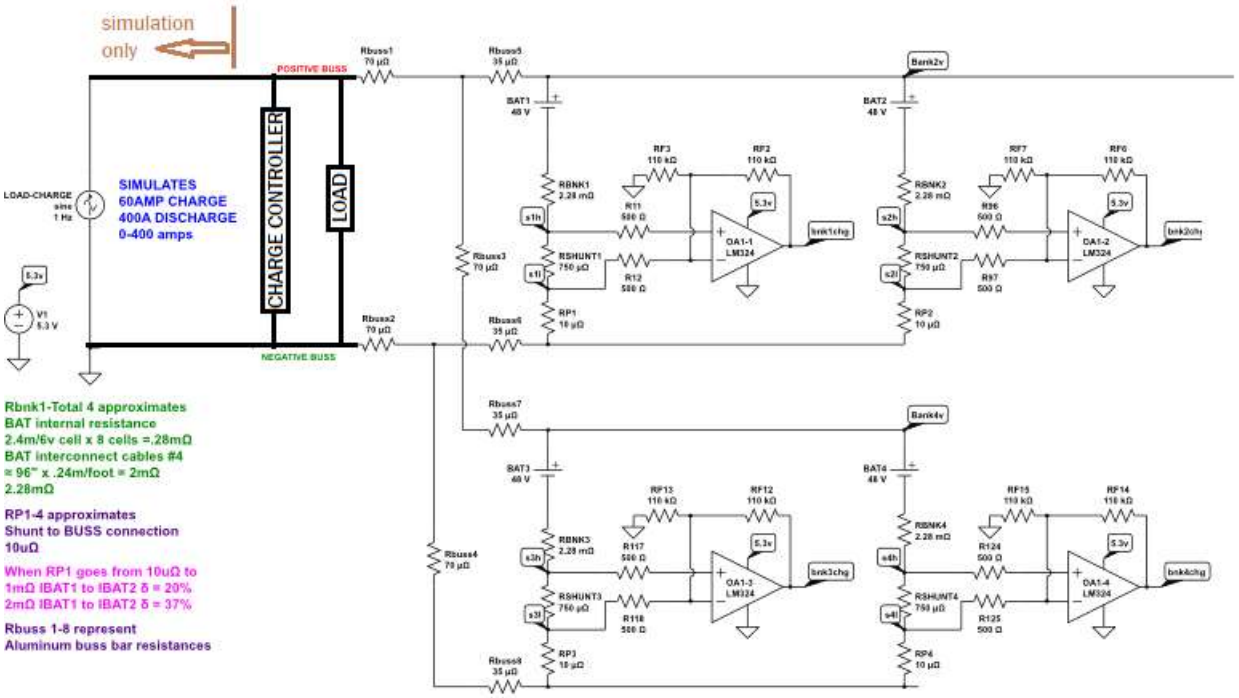
Dear TI,

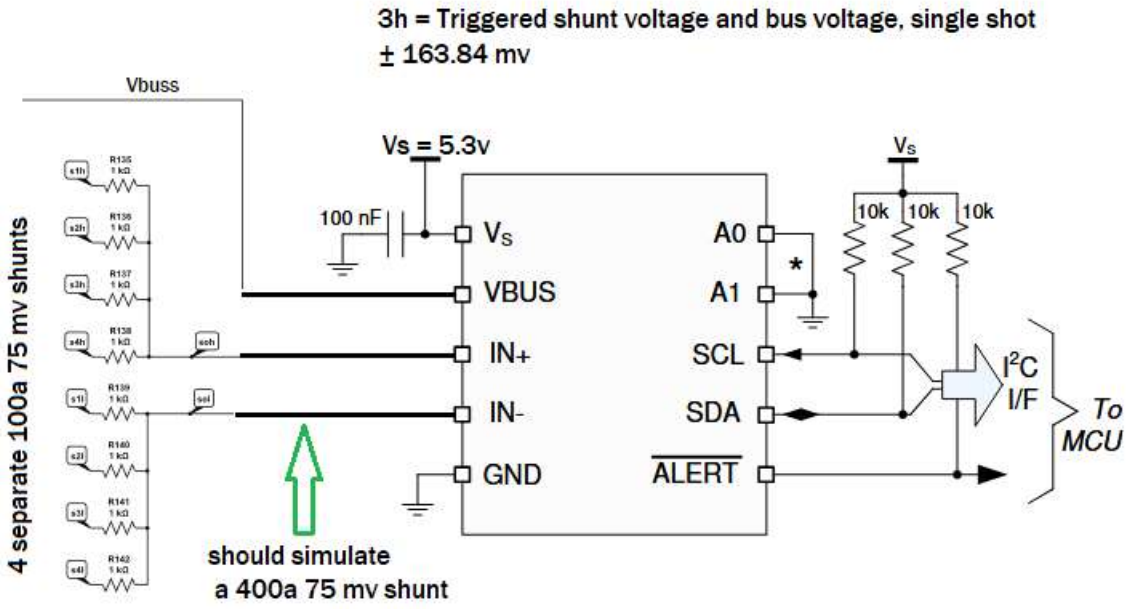
Below is a representation of my solar system. There are 4 separate battery banks. The OP amps are intended to generate an individual charge current value to be sent to a seperate analog peak charge current detector. The absolute accuracy of those measurements is not a priority as those values will only be used for comparison between battery banks.

I feel comfortable with what I have here and submit it as an overall view for my real questions below.



I need to somehow combine the individual shunt signals to obtain a total charge current for all banks and communicate that to and MCU. Again, absolute accuracy is not required because the result would be compared to the same result 15minutes ago. This would yield a indication of stabilized current.

1) Is this a valid configuration?



2) My simulations show that the resistor divider network acts like a 400a 75mv shunt. Are these calculations correct?

From data sheet

Rshunt = 75mv ÷ 400amps = 1875 uΩ

equation #3 current LSB = $400 \div 2^{19} = 76.3 \times 10^{-6}$

equation# 2 shuntcal = $(13107.2 \times 10^{6}) (76.3 \times 10^{-6}) (1875 \times 10^{-6} = 3000d = BB8h$

Thank you in advance for your response.

Barry Fields