

BMS Remote Current Sensor Instrumentation Amp + Filter

RM Software Feb 2020

Note: Lower spec MCP604 can be used, however output voltage swing is reduced, see data sheets.
and output resistor must be increased to 470R if driving long cable.

Data sheet: <http://ww1.microchip.com/downloads/en/DeviceDoc/20001685E.pdf>
<http://ww1.microchip.com/downloads/en/AppNotes/00682c.pdf>

Gain set for 50

$$V_{out} = (V1-V2)(1+R3/R4 + 2R1/Rg) + V_{ref}$$

$$= 75mV(2 + 20K/Rg) + 0$$

