

Filter frequency cutoff equation:
 $1/(2 \cdot \pi \cdot R \cdot C)$

Transimpedance Amplifier:
 Gain = 150, output peak approx. 1V
 Low-pass cutoff = 1Mhz

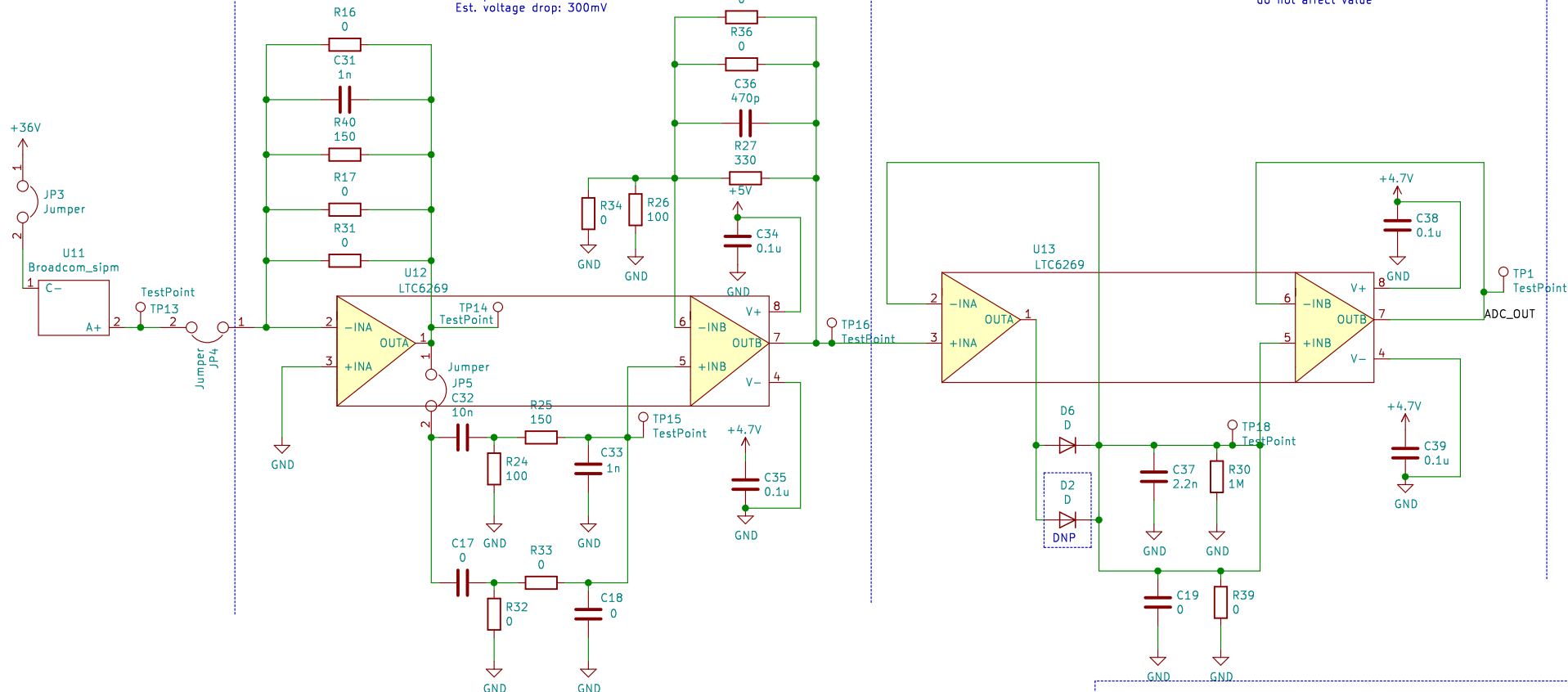
Band-pass filter
 High-pass cutoff: 200kHz
 Low pass cut-off: 1Mhz
 Est. voltage drop: 300mV

Transimpedance Amplifier:
 Gain = 3.3 output peak approx. 2.5V
 Low-pass cutoff = 1Mhz

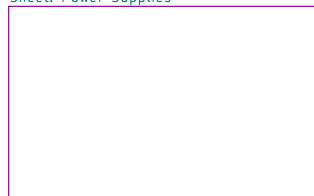
Op-amp removes diode drop
 for peak detector

2.2ms peak detector
 $T_{delay} = RC$

Voltage follower
 Ensures that measurements on ADC_OUT
 do not affect value



Sheet: Power Supplies



File: power_supplies.sch

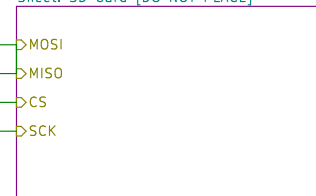
Sheet: Microcontroller [DO NOT PLACE]

ADC_OUT > DET_ADC
 INTERRUPT_OUT > DET_INTERRUPT

MOSI > MOSI
 MISO > MISO
 CS_2 > CS
 SCK > SCK

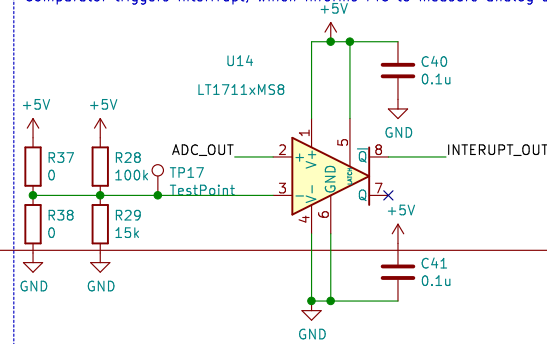
File: pic_and_can_controllers.sch

Sheet: SD Card [DO NOT PLACE]



File: SDcard.sch

Comparator triggers interrupt, which informs PIC to measure analog signal



ALL RESISTORS AND CAPS W/VALUE "0"
 ARE DO NOT PLACE

Sheet: /
 File: detector_circuit.sch

Title:

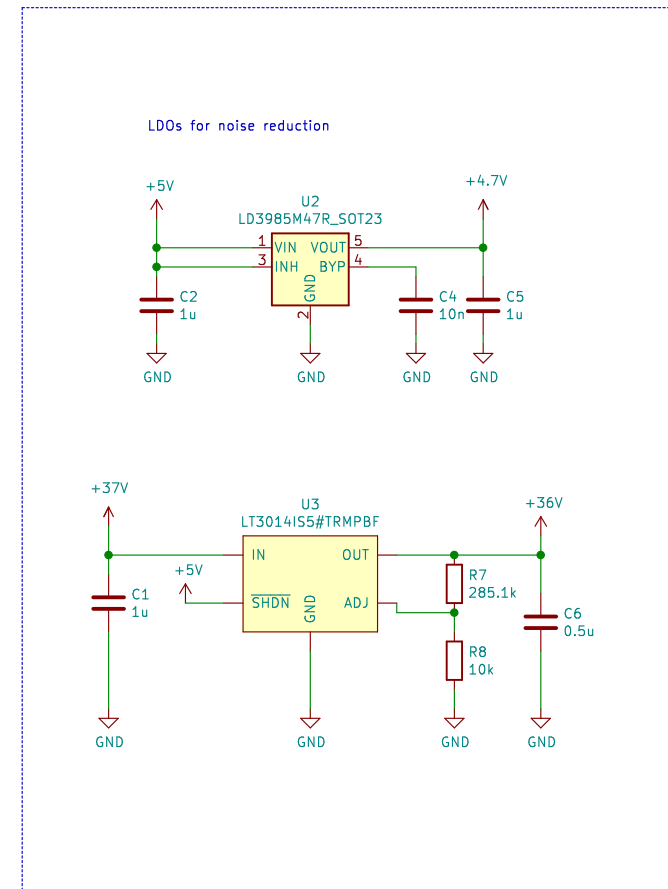
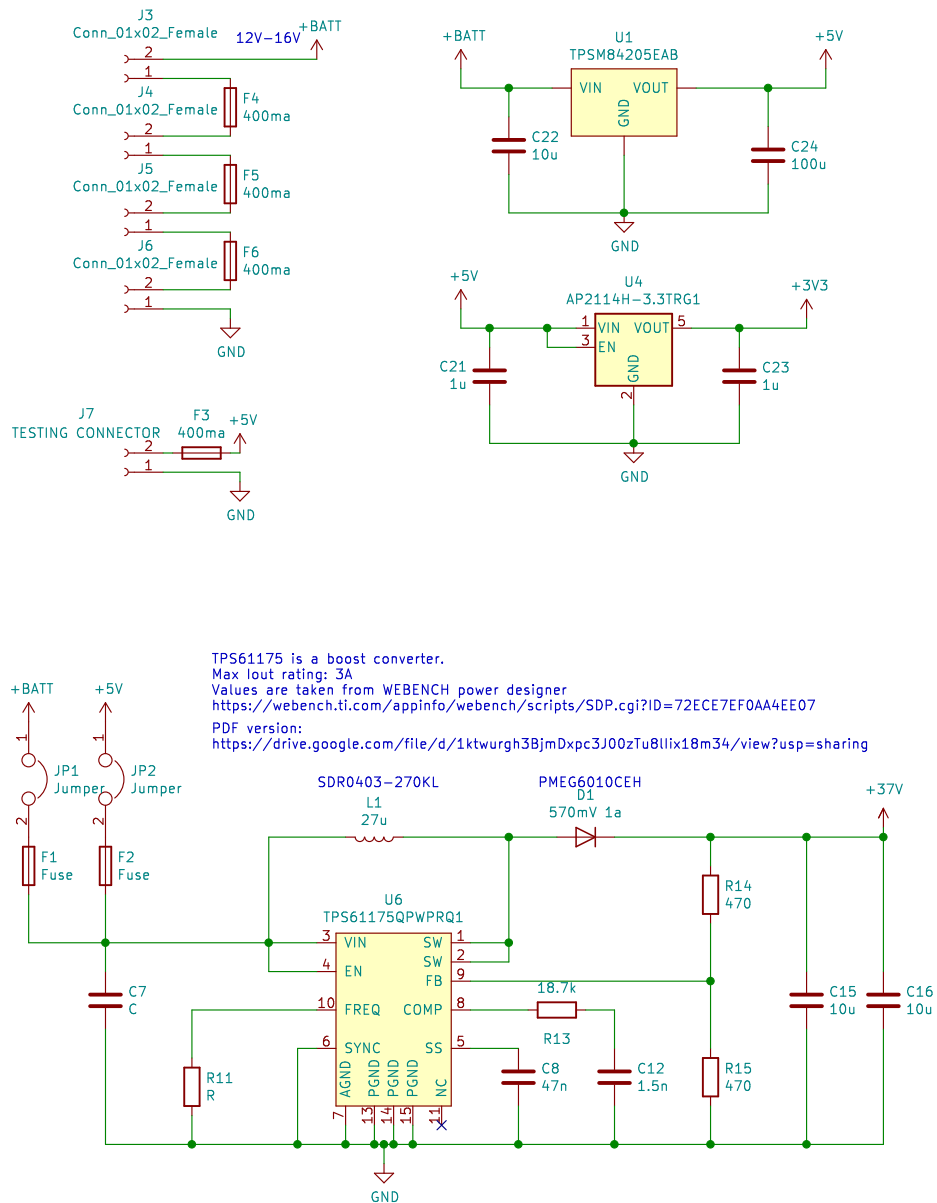
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Rev:

Id: 1/4

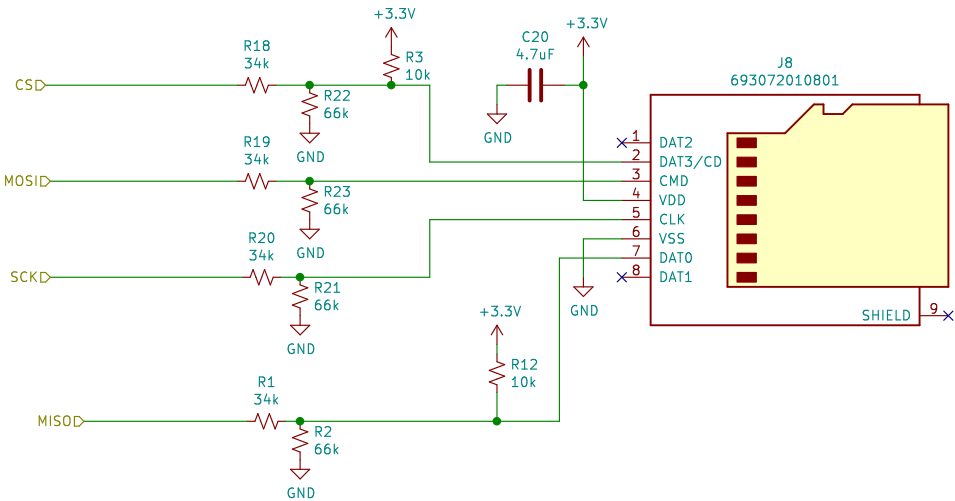


MOSI — MOSI

MISO — MISO

CS_2 — CS_2

SCK — SCK



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