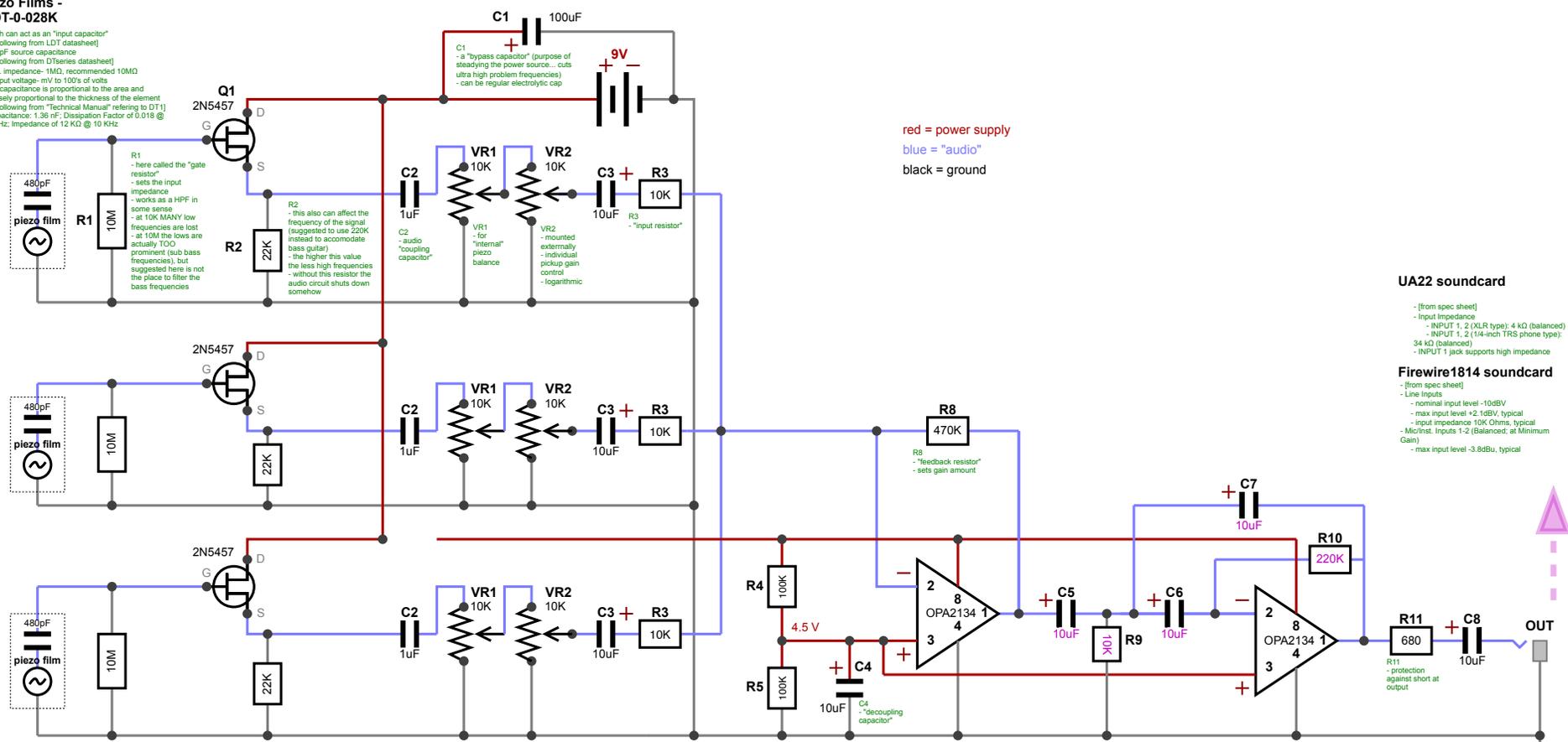


Combination Buffer, Gain, HPF Circuit - rvsn9

Piezo Films - LDT-0-028K

- each can act as an "input capacitor" [the following from LDT datasheet]
- 480pF source capacitance [the following from DTseries datasheet]
- Min. impedance- 1MΩ, recommended 10MΩ
- Output voltage- mV to 100's of volts
- the capacitance is proportional to the area and inversely proportional to the thickness of the element [the following from "Technical Manual" referring to DTY1]
- Capacitance: 1.36 nF; Dissipation Factor of 0.018 @ 10 KHz; Impedance of 12 KΩ @ 10 KHz



red = power supply
blue = "audio"
black = ground

CircuitA - Buffer Circuit

CircuitB - Mixer and Gain Circuit
(in "inverting mode", acting as virtual earth mixer)

2nd Order Multiple Feedback HPF
(inverting to cancel last inversion)

- ### UA22 soundcard
- [from spec sheet]
 - Input Impedance
 - INPUT 1, 2 (XLR type): 4 kΩ (balanced)
 - INPUT 1, 2 (1/4-inch TRS phone type): 34 kΩ (balanced)
 - INPUT 1 jack supports high impedance
- ### Firewire1814 soundcard
- [from spec sheet]
 - Line Inputs
 - nominal input level -10dBV
 - max input level +2.1dBV, typical
 - input impedance 10K Ohms, typical
 - Mic/Inst. Inputs 1-2 (Balanced): at Minimum Gain
 - max input level -3.8dBu, typical

