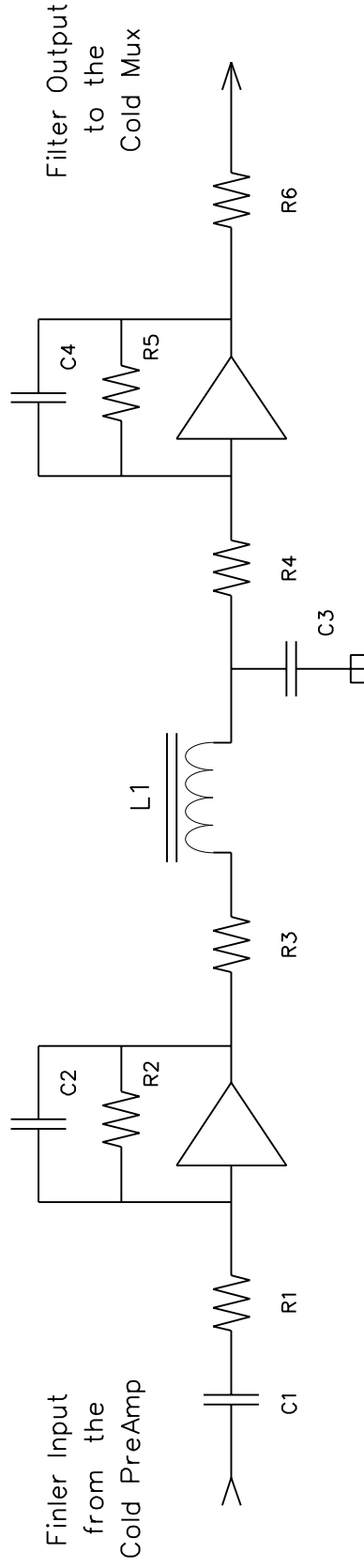


Cold 3-Pole Filter



The Drift Velocity is 1.5 mm/usec in a 500 V/cm field.
 For a 3 to 5 mm plane spacing the risetime will be 2 to 3.3 usec.
 For now pick a 2.1 usec peaking time or about 76 kHz.

- | | | | |
|--------------------|-------------------|-----------------------------------|--------------------------|
| R1C1 Tau 1.36 usec | R2C2 Tau 470 nsec | R3 = 470 Ohm | R5C4 Tau 470 nsec |
| R1 = 2k Ohm | R2 = 10k Ohm | L1 = 470 uH | R5 = 10k Ohm |
| C1 = 680 pFd | C2 = 47 pFd | C3 = 1.8 nFd | C4 = 47 pFd |
| | | R4 = 2k Ohm | |
| | R2/R1 = 5.0 | | R5/R4 = 5.0 |
| | | $1/\text{SQRT}(L1 C3) = 901k$ | |
| | | $R3/(2 \times L1) = 754k$ | |
| | | $W_o > v \rightarrow$ underdamped | |
| | | | R6 = 100 Ohm
or 0 Ohm |