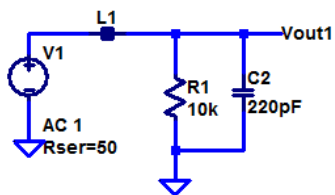


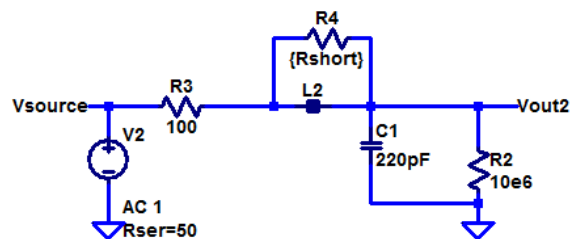
The Audibility Challenge



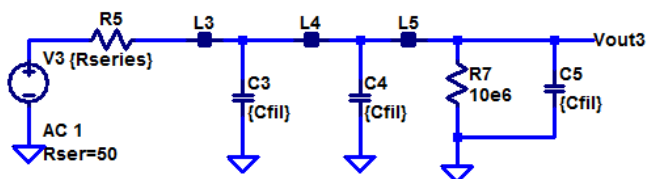
```
.ac dec 100 100 10e9
.step param Rshort 1 1e12 1e12
.step param Rseries 1 5.001k 1k
```

1. Will L1 in this filter affect the sound of the amplifier negatively?
2. On an AP or Sound Card Test, what will be the added distortion of L1 below 100 kHz?

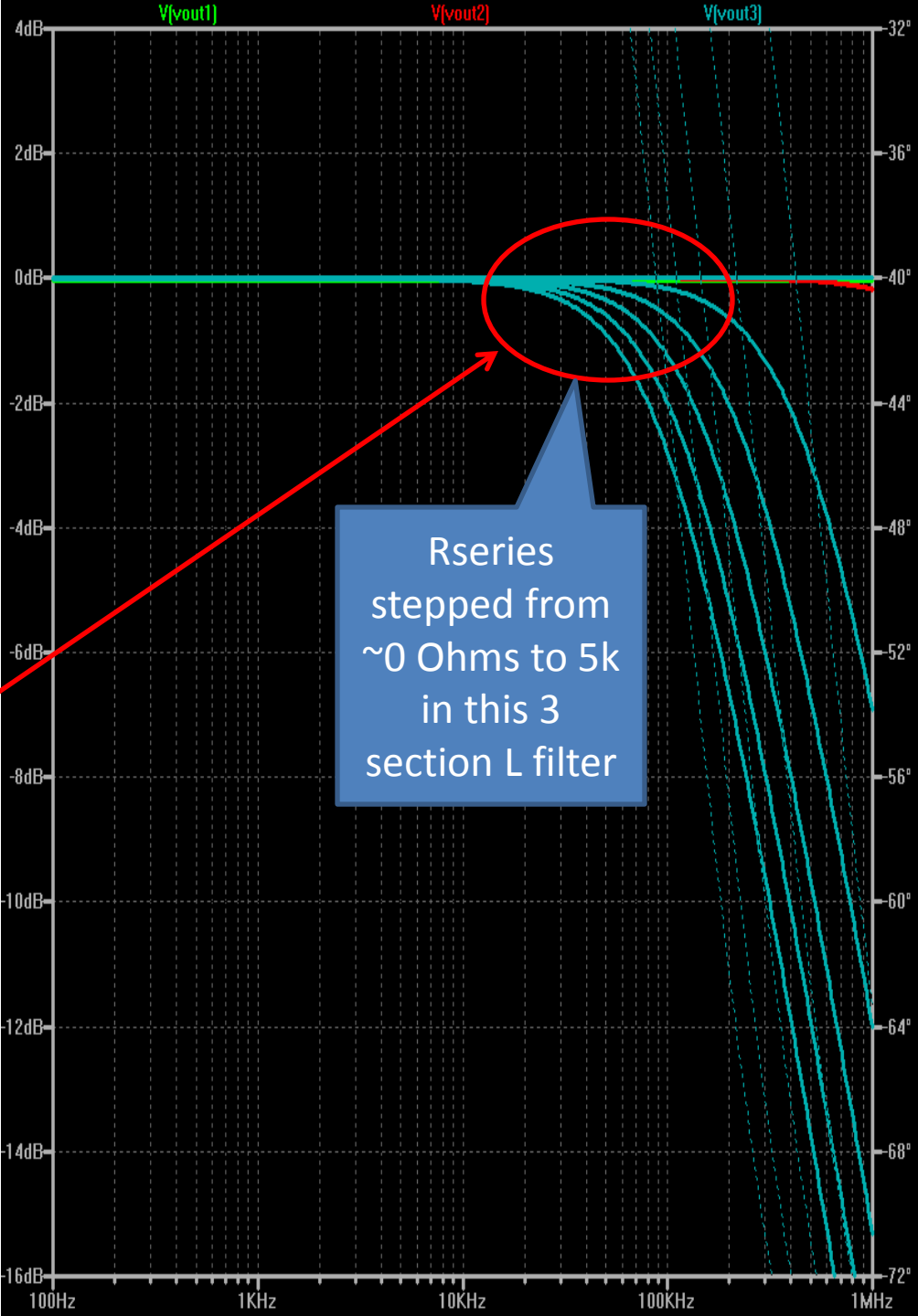
A Practical RFI Filter for Audio



```
.param Cfil 100pF
```



R7 simulates the R_{in} of an opamp. Assume the pot is 20 k, so max source R is 5k. For $C_{fil} = 100$ pF, the worst case freq response impact at 20 kHz is 0.1 dB



Rseries stepped from ~0 Ohms to 5k in this 3 section L filter