

SDMAY18-31: HARDWARE SIMULATIONS

1st Order Low Pass Filter

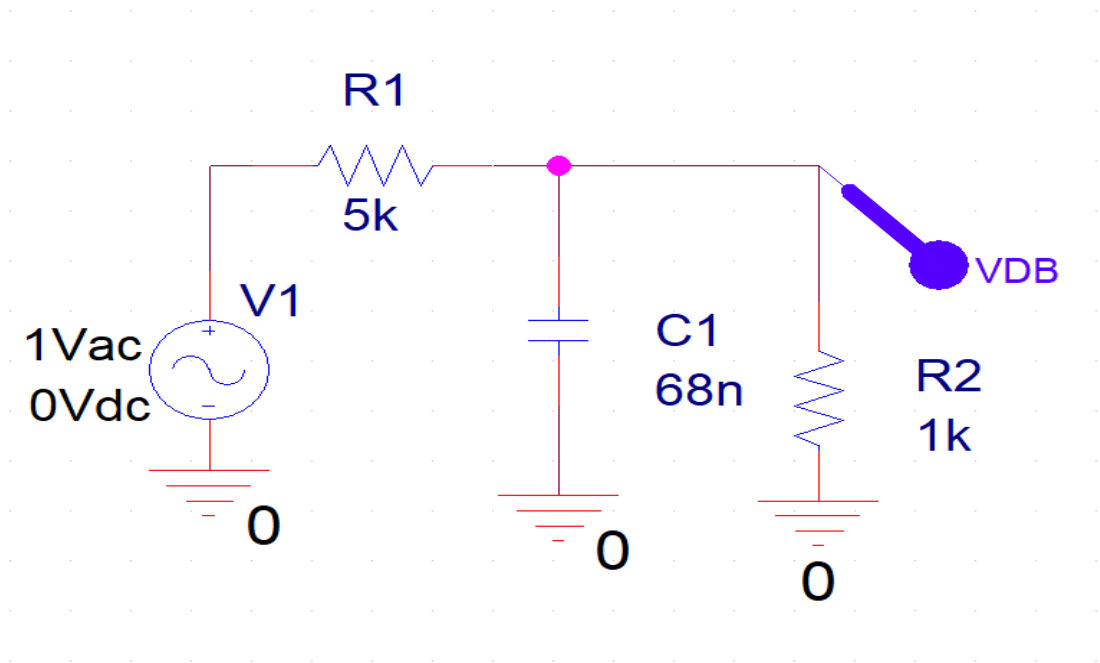


Figure 1: 1st Order Low Pass Filter Simulation Schematic

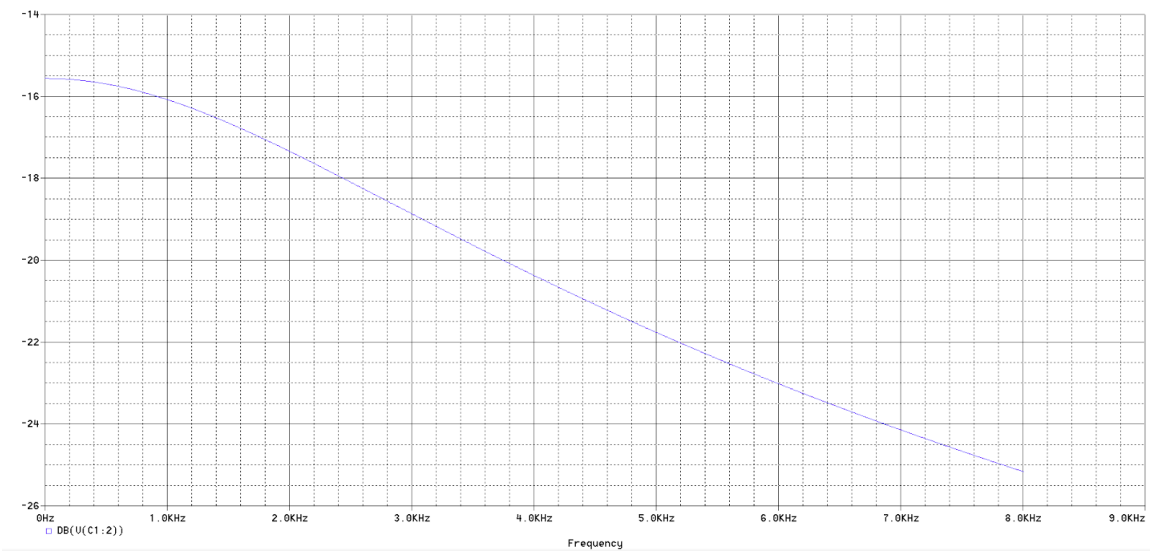


Figure 2: 1st Order Low Pass Filter Simulation Response

5th Order Low Pass Filter

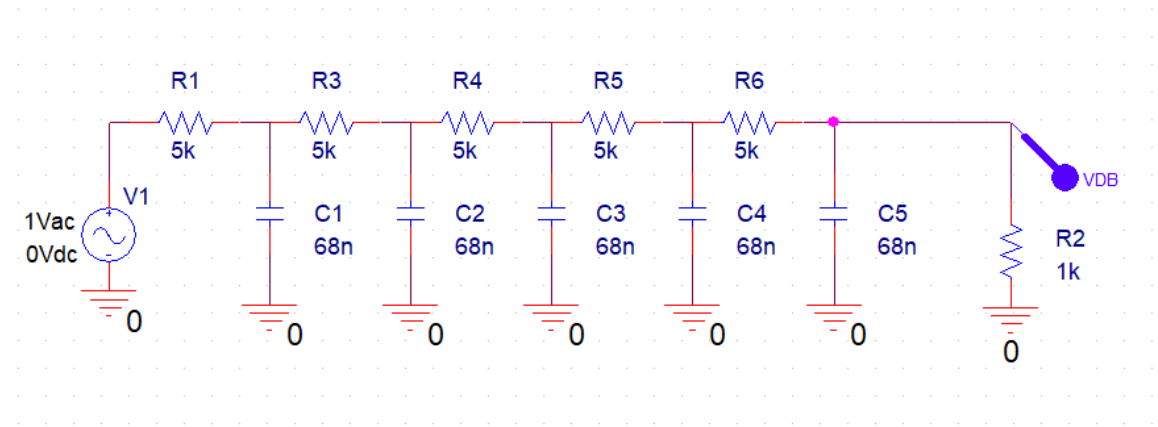


Figure 3: 5th Order Low Pass Filter Simulation Schematic

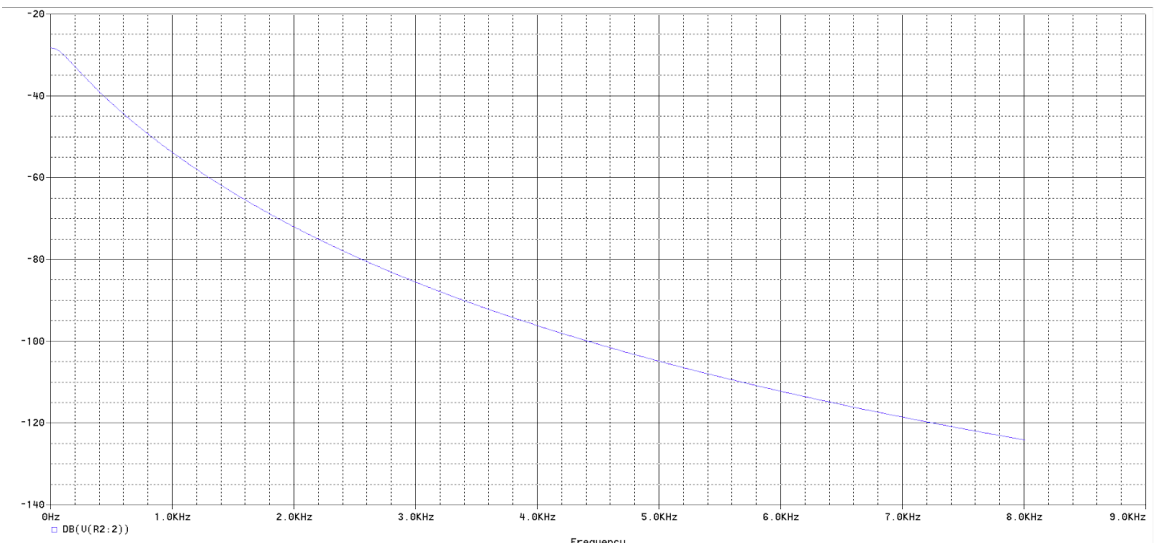


Figure 4: 5th Order Low Pass Filter Simulation Response

1st Order High Pass Filter

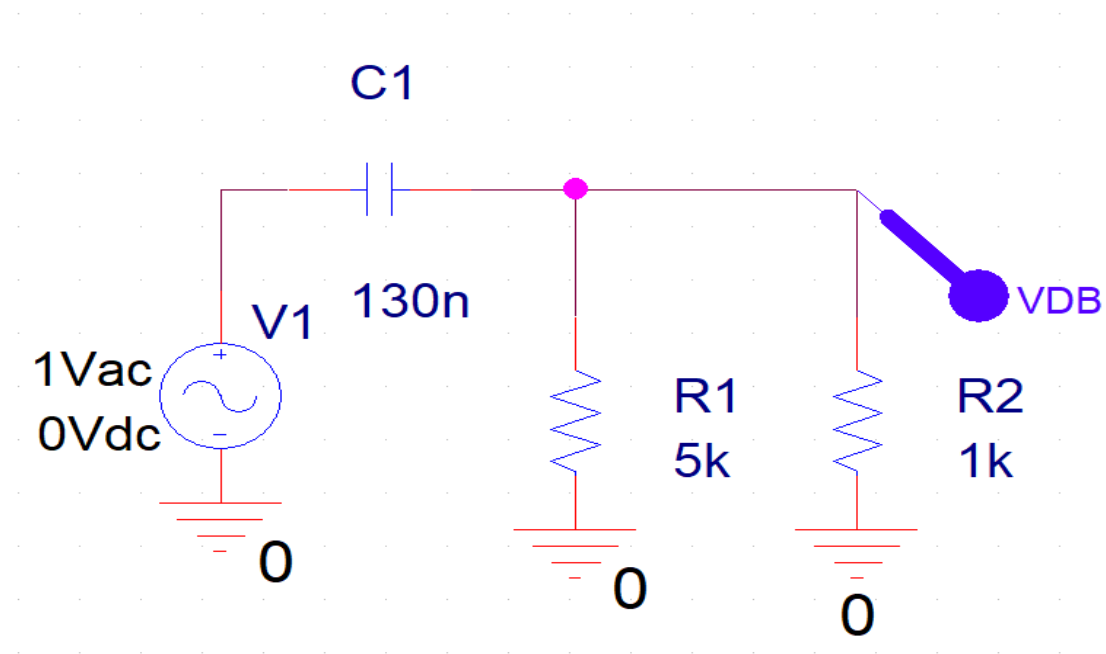


Figure 5: 1st Order High Pass Filter Simulation Schematic

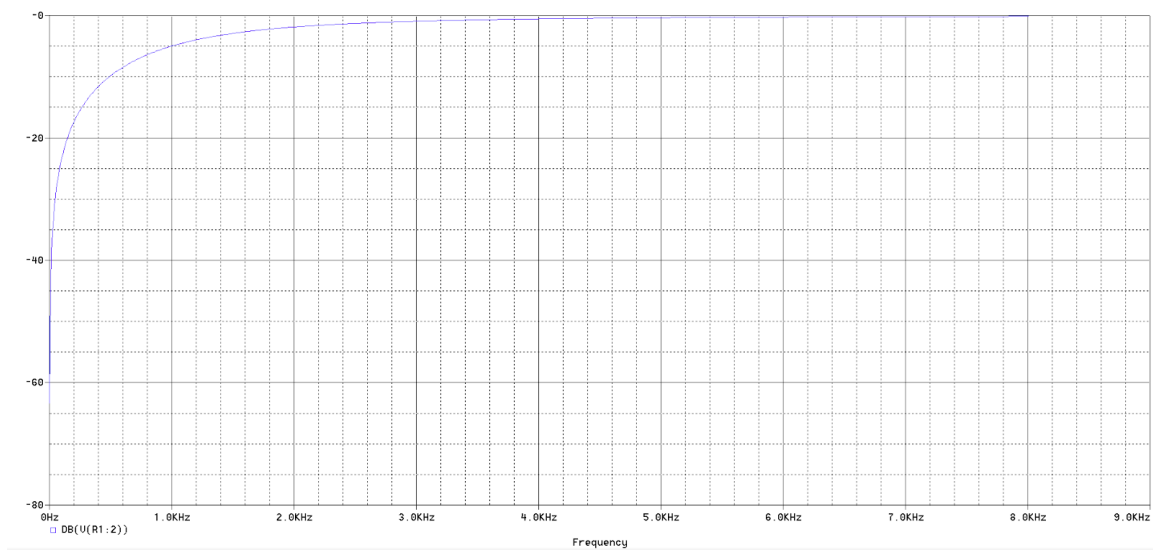


Figure 6: 1st Order High Pass Filter Simulation Response

5th Order High Pass Filter

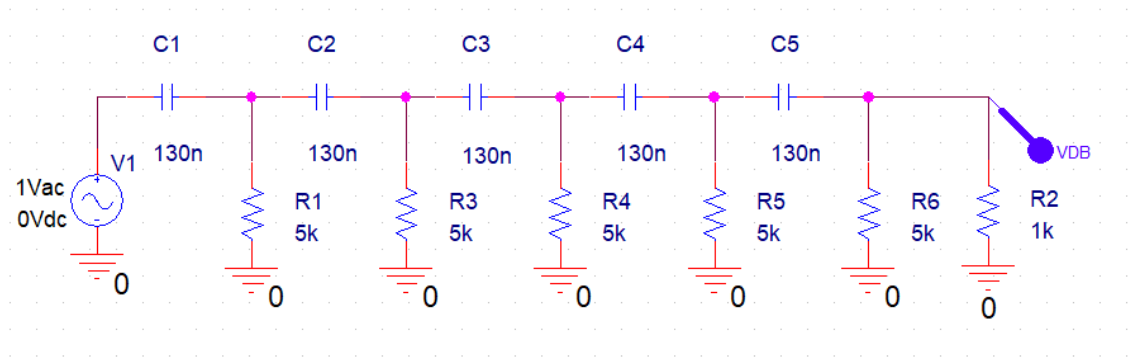


Figure 7: 5th Order High Pass Filter Simulation Schematic

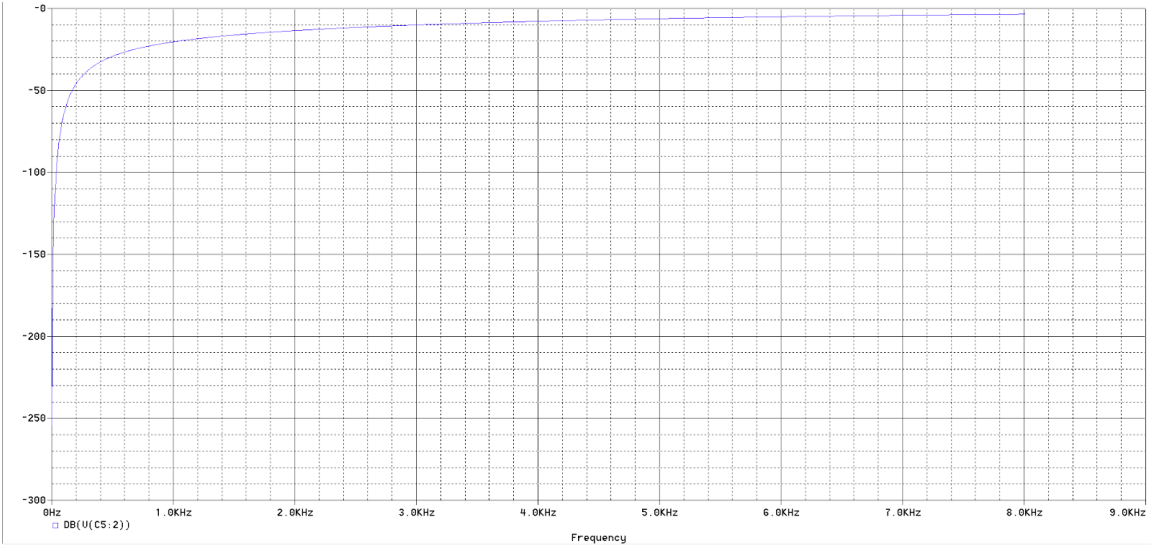


Figure 8: 5th Order High Pass Filter Simulation Response

2nd Order Band Pass Filter

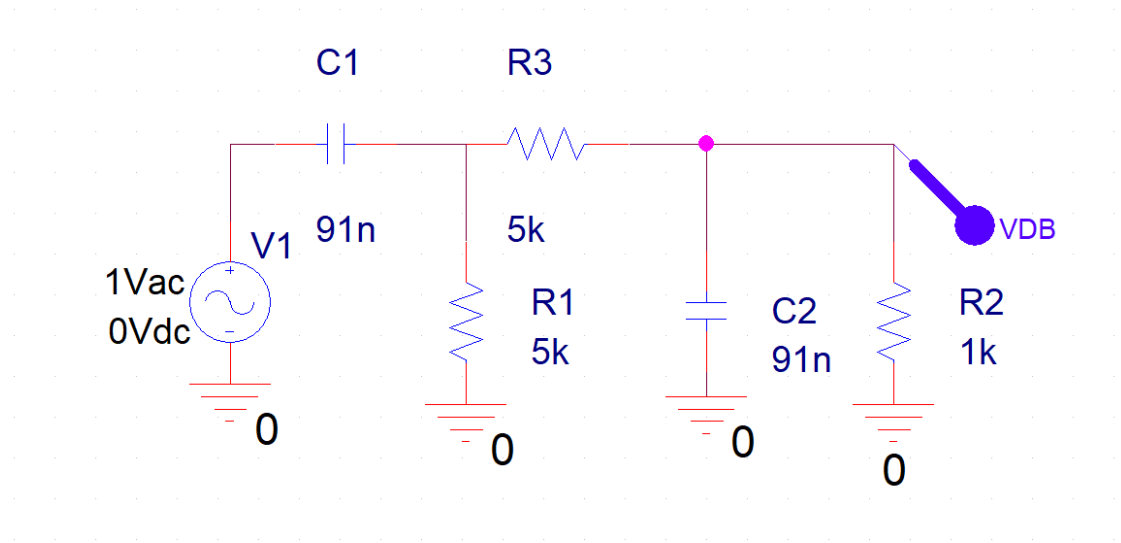


Figure 9: 2nd Order Band Pass Filter Simulation Schematic

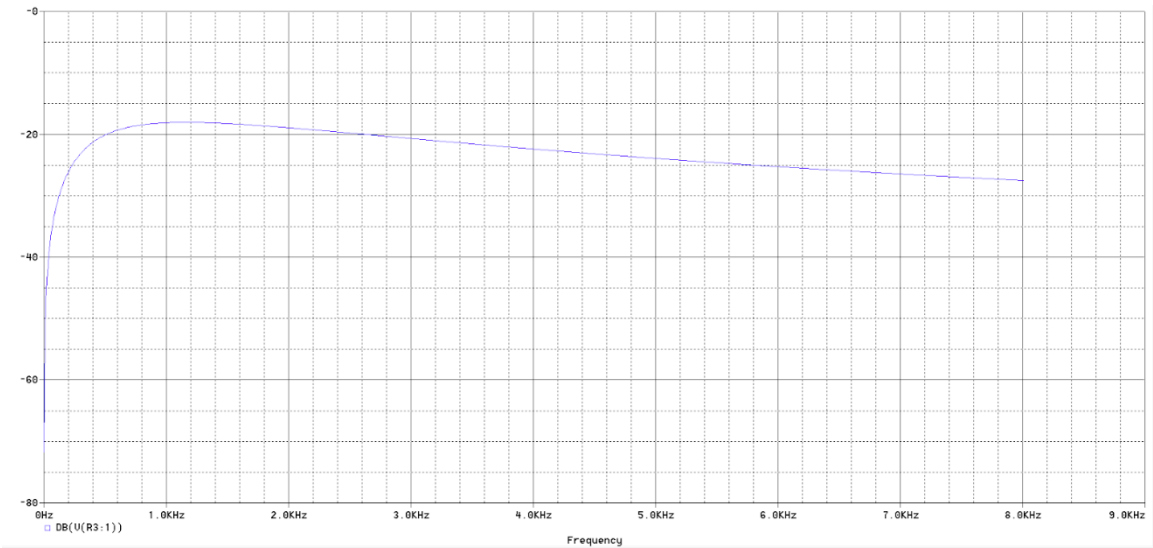


Figure 10: 2nd Order Band Pass Filter Simulation Response

6th Order Band Pass Filter

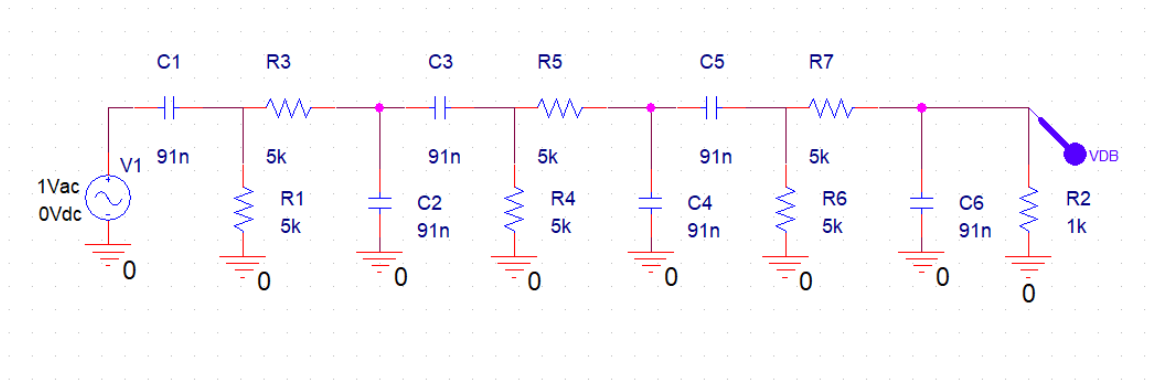


Figure 11: 6th Order Band Pass Filter Simulation Schematic

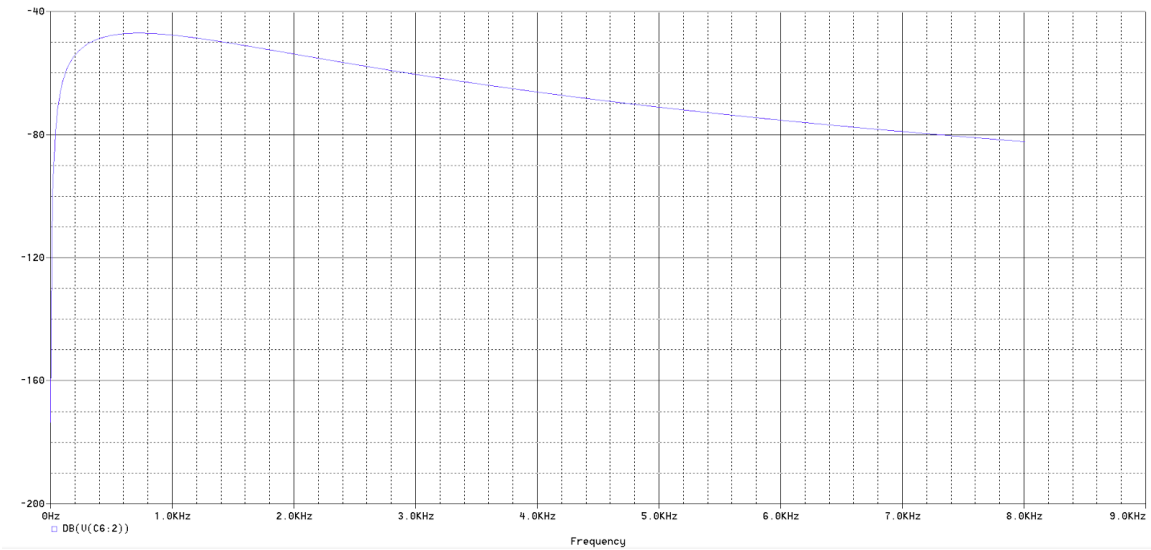


Figure 12: 6th Order Band Pass Filter Simulation Response

60 Hz Notch Filter

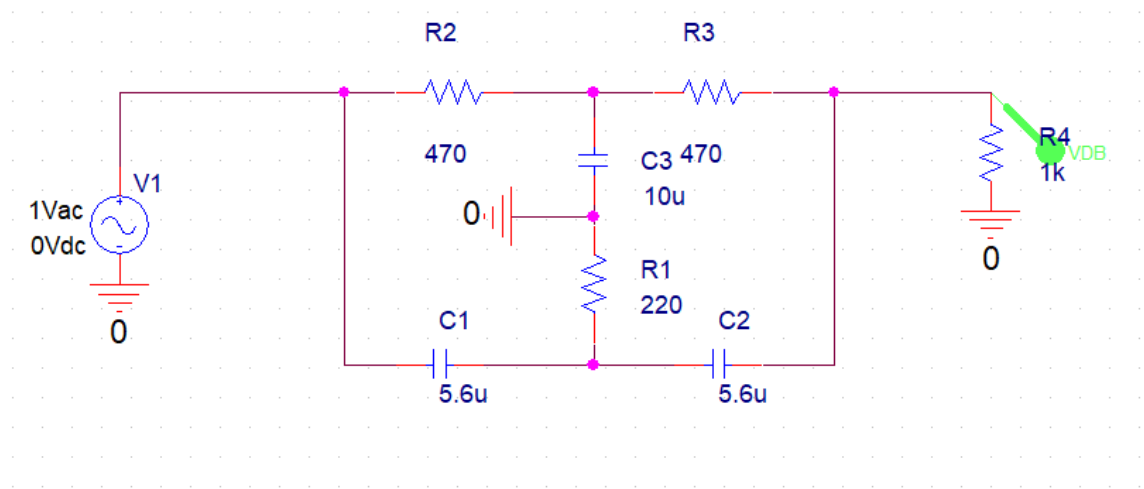


Figure 13: 60 Hz Notch Filter Simulation Schematic

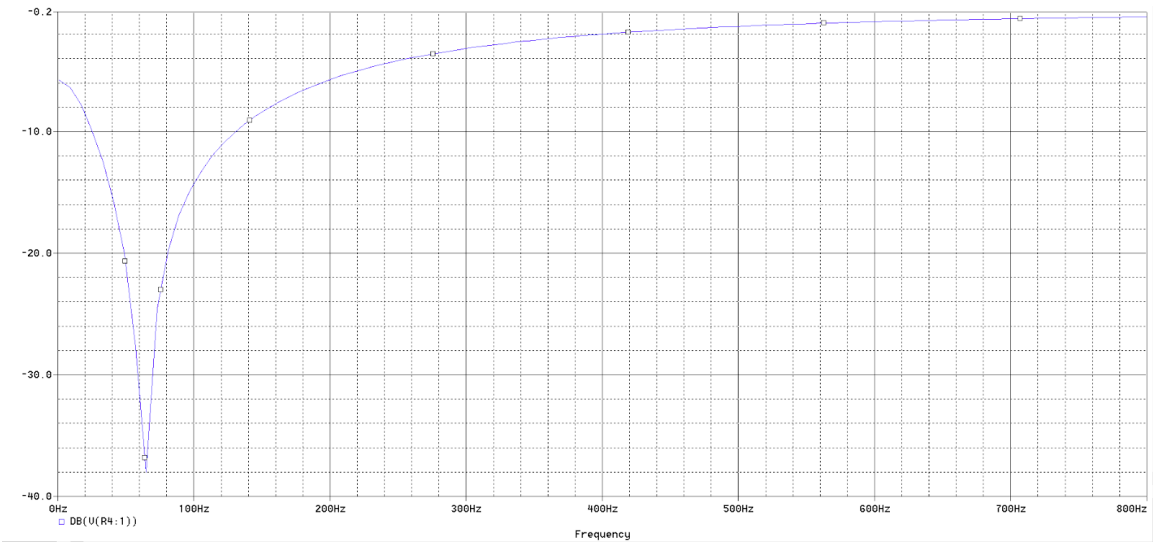


Figure 14: 60 Hz Notch Filter Simulation Response

Measured Tunable Filter Characteristics

1st Order Low Pass Filter

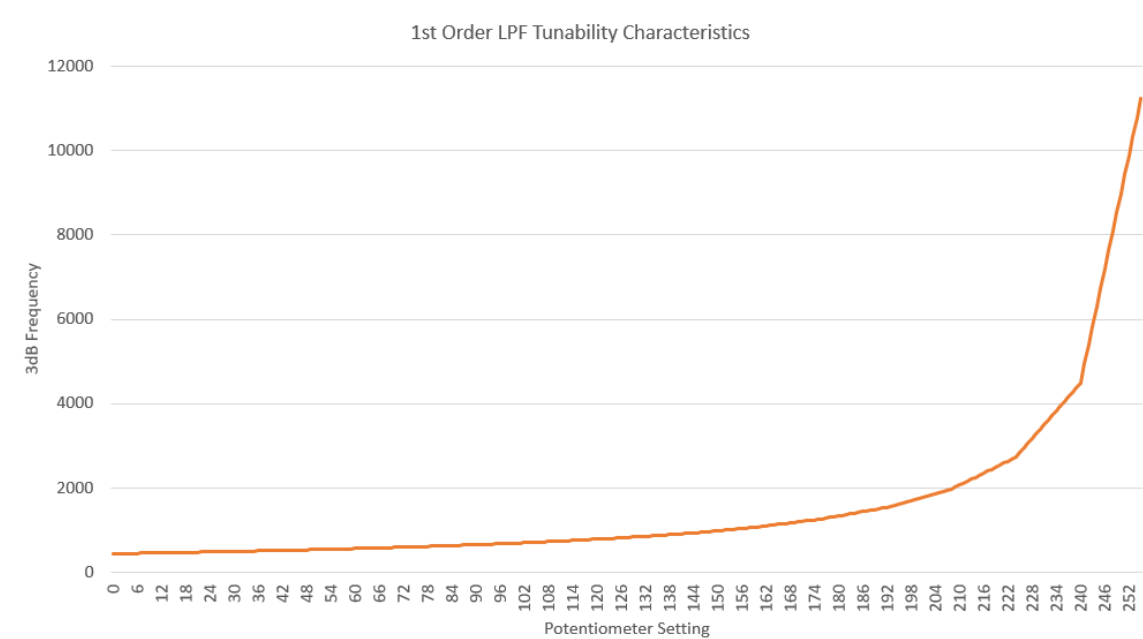


Figure 15: 1st Order Low Pass Filter Tunable Characteristics

5th Order Low Pass Filter

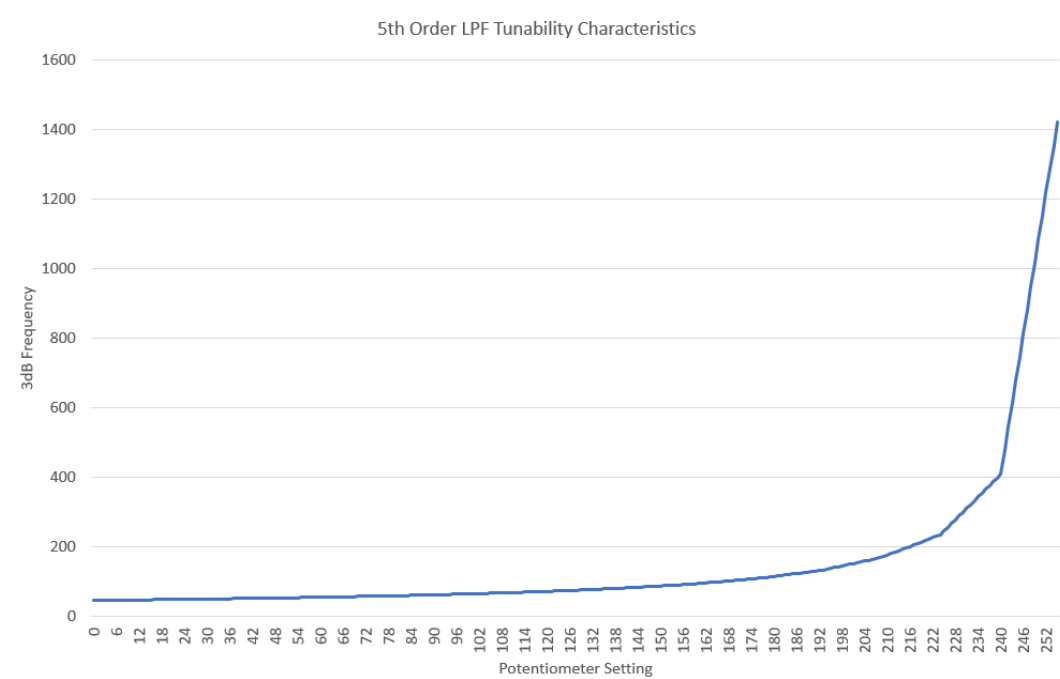


Figure 16: 5th Order Low Pass Filter Tunable Characteristics

1st Order High Pass Filter

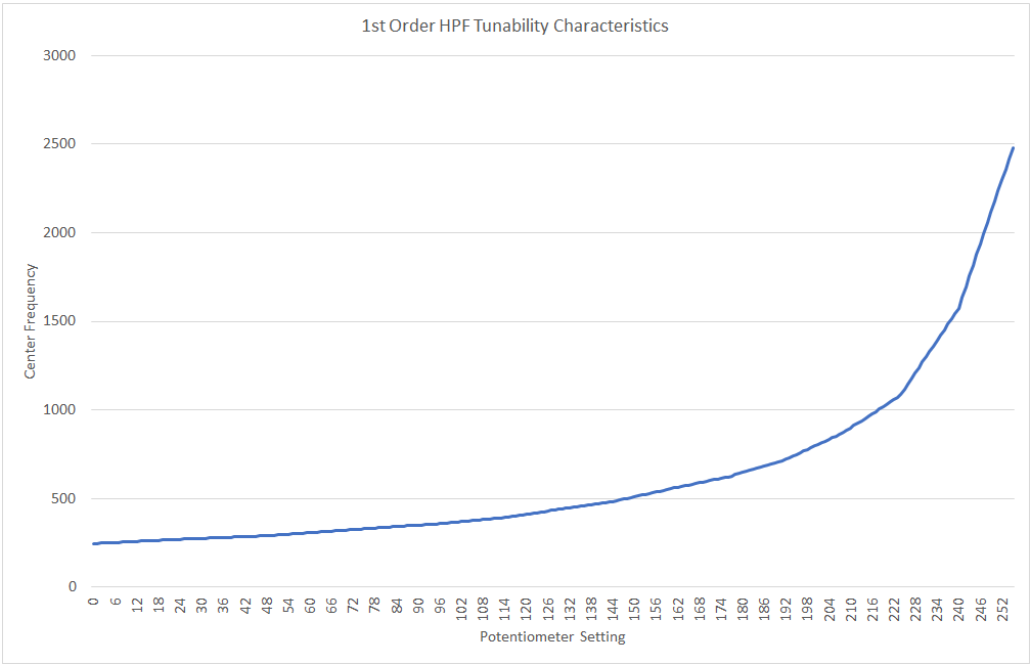


Figure 17: 1st Order High Pass Filter Tunable Characteristics

5th Order High Pass Filter

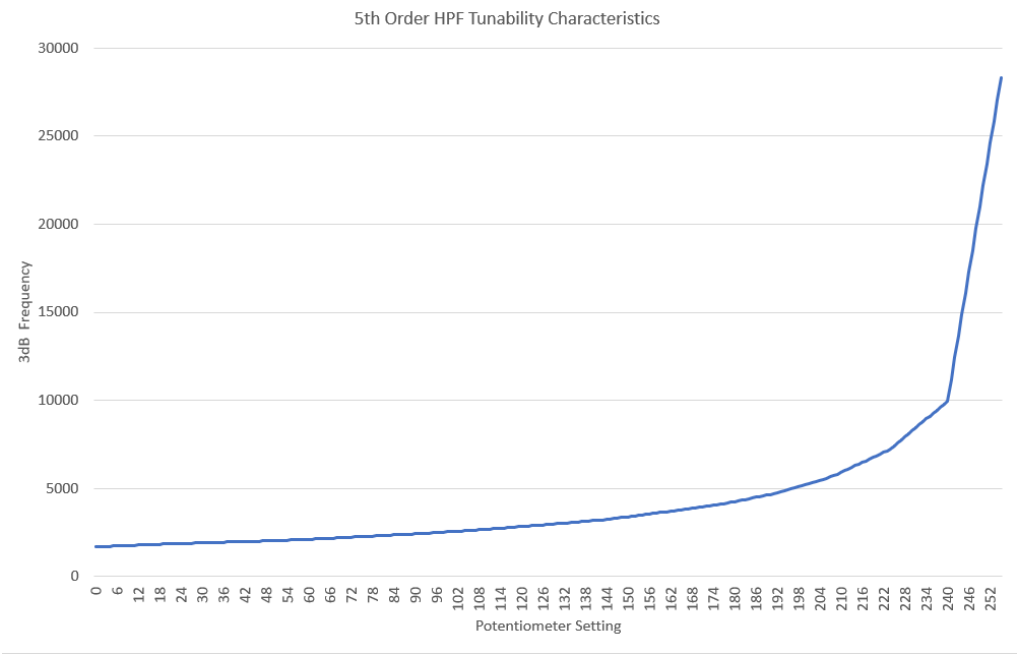


Figure 18: 5th Order High Pass Filter Tunable Characteristics

2nd Order Band Pass Filter

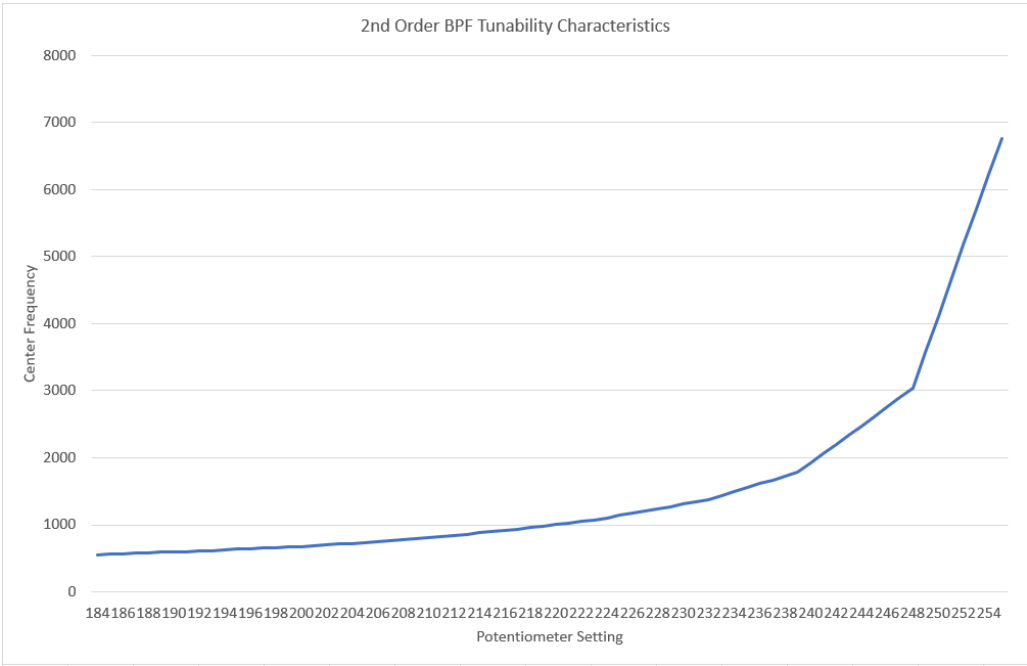


Figure 19: 2nd Order Band Pass Filter Tunable Characteristics

6th Order Band Pass Filter

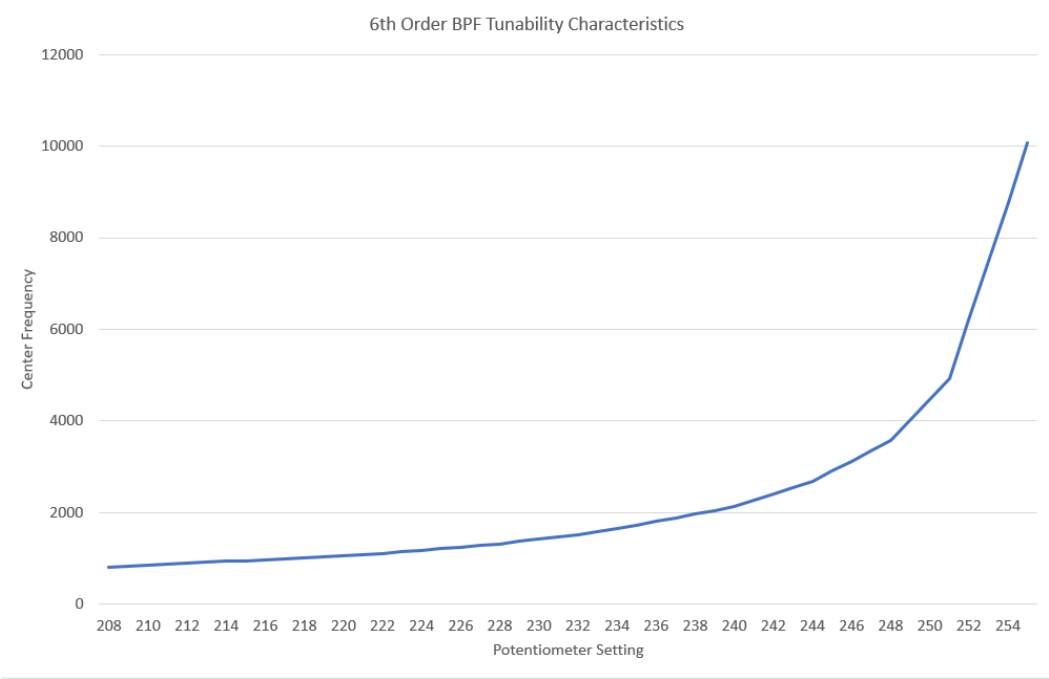


Figure 20: 6th Order Band Pass Filter Tunable Characteristics

This map designates which discrete components are in which of the filtering circuits

Key:

- LPF1
- LPF5
- HPF1
- HPF5
- BPF2
- BPF6
- 60Hz

