

Experiment 5 : Multi-Pole Feedback Network OP-Amp Circuit

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1. Experiment Objectives

- 1.1. To analyze the theory of feedback network in the multi-pole OP-Amp circuit.
- 1.2. To discuss the issue of stability for the feedback amplifier.
- 1.3. To understand the physical meaning of sinusoidal vibration.

2. Experiment Setups

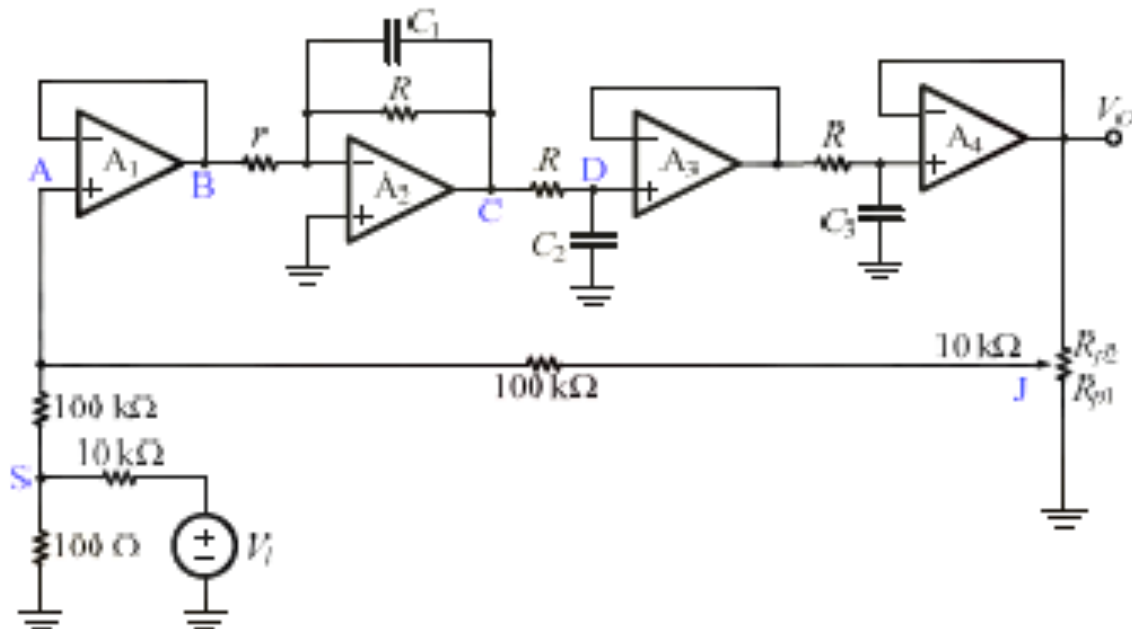


Fig. 7 Multi-pole feedback network OP-Amp circuit

- 2.1. Use $R = R_{p2} = 10\text{k}\Omega$, $r = 100\Omega$, $C1 = C2 = C3 = 0.1\mu\text{F}$.
- 2.2. Apply the input signal V_i to the circuit by using function generator to generate $v_i = v_{ac} \times \text{square}(2\pi f t)$, $2v_{ac} = 5\text{V}(\text{peak-peak})$, $f = 0 \sim 500\text{ Hz}$.
- 2.3. Adjust the frequency of the input signal, until the output signal became sinusoidal wave.

3. Labs Work

- 3.1. The frequency = 256(Hz) when the output signal became sinusoidal wave.

